CITY OF PORT WENTWORTH

CITY COUNCIL

DECEMBER 16, 2021

Council Meeting Room	Regular Meeting	6:30 PM

7224 GA HIGHWAY 21
PORT WENTWORTH, GA 31407

1. CALL MEETING TO ORDER

2. PRAYER AND PLEDGE OF ALLEGIANCE

3. ROLL CALL - CLERK OF COUNCIL

4. APPROVAL OF AGENDA

5. RECOGNITION OF SPECIAL GUESTS

6. ELECTIONS & APPOINTMENTS

A. Appointment of Laura M. Singleton. Esq. as Judge Pro Tem for the City of Port Wentworth

7. ADOPTION OF MINUTES

A. City Council - Regular Meeting - Nov 18, 2021 6:30 PM

B. Executive Session - November 18, 2021

8. COMMUNICATIONS & PETITIONS

A. City Manager Updates

9. COMMITTEE REPORTS

A. Committee Reports

10. CONSENT AGENDA

A. Bonnybridge Secondary Outfall Improvements Pay Request No. 3

B. Bonnybridge Secondary Outfall Improvements Pay Request No. 4

C. Bonnybridge Secondary Outfall Improvements Pay Request No. 5

11. UNFINISHED BUSINESS

12. NEW BUSINESS

A. Purchase Acquisition of Grange Road Right of Way by Georgia Ports Authority

B. Name Dedication of Road Behind Gas Station on Highway 21 and Grange Road

C. Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific)

- Public Hearing

- Action

D. Subdivision Application Lakeside Ph 23 Preliminary Plat

- Public Hearing
- Action

E. Subdivision Application Lakeside Ph 29A Preliminary Plat

- Public Hearing
- Action

F. Site Plan Review Application Chesterfield (General)

- Public Hearing
- Action

G. Site Plan Review Application Parkside at Port Wentworth (Specific)

- Public Hearing
- Action

H. Request for Proposal (RFP) - 501(c)6 Organization for the City of Port Wentworth

I. Professional Services Agreement with ClearWater Solutions, LLC

J. Employment Agreement between the City of Port Wentworth, Chatham County, Georgia and Chief of Police

13. RESOLUTIONS/ORDINANCES/PROCLAMATIONS

14. EXECUTIVE SESSION

A. Personnel Matter

15. PUBLIC COMMENTS - REGISTERED SPEAKERS

16. ADJOURNMENT

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Police Department
Category: Appointment
Prepared By: Matt Libby
Department Head: Matt Libby

AGENDA ITEM (ID # 2579)

DOC ID: 2579

Appointment of Laura M. Singleton. Esq. as Judge Pro Tem for the City of Port Wentworth.

Issue/Item: Appointment of Laura M. Singleton. Esq. as Judge Pro Tem for the City of Port Wentworth.

Background: Judge pro tem Billy Tomlinson resigned his position with the city due to his obligations as State Court Judge for Bryan County. The city must have a new Judge pro-tem.

Facts and Findings: Judge Coolidge and Judge Tomlinson have both recommended Ms. Singleton to be appointed to replace Judge Tomlinson's position with the city. Ms. Singleton has been practicing law for over 20 years and has worked as an Assistant District Attorney for the Chatham County District Attorney's office, Georgia Legal Services and Gulfstream Aerospace. Ms. Singleton has also served as a Solicitor for the City of Port Wentworth.

Ms. Singleton would be a great asset to the City of Port Wentworth Municipal Court.

Alternatives: N/A

Funding: N/A

Recommendation: To approve Laura M. Singleton. Esq. a Judge Pro Tem for the City of Port Wentworth.

ATTACHMENTS:

- Laura M. Singleton, Esq. Resume (PDF)

Laura M. Singleton, Esq.

142 Lion's Gate Road
Savannah, Georgia 31419
Email: SingletonLaura101@gmail.com
912/441-7584

EXPERIENCE

Georgia Legal Services Program **7/2020 - Present**
Staff Attorney

- Focus on stabilizing the legal relationship between kinship caregivers and the children whom they are caring for by representing clients in actions for custody, temporary guardianship and adoption
- Serve as a resource for the community by conducting legal education workshops that cover all aspects of custody, guardianship, adoptions, and public benefits
- Coordinate with partner agencies and courts to combat human trafficking in Savannah and the surrounding areas

Gulfstream Aerospace Corporation, Savannah, Georgia **10/2017 – 4/2020**
Contract Manager

- Consulted with internal customers to negotiate and prepare contracts with external customers
- In consultation with the Legal Department, prepared contract templates for use for major programs and the ordinary course of business
- Served as a resource for management, internal customers, external customers, and suppliers dealing with different subject matter which often resulted in a written agreement or contract
- Initiated contract negotiations and prepared documents necessary to fulfill contract requirements
- Coordinated with internal and external customers on a daily basis to complete contract preparation and execution
- Provided subject matter expertise and interacted with both internal and external customers as well as their agents on a daily basis
- Responded in a timely manner to requests to contractual issues from external and internal customers
- Was responsible for negotiating, drafting, and executing contracts for a multi-million dollar aircraft maintenance program
- Negotiated STC agreements, engineering services agreements, data licensing agreements, and customer service agreements

Laura M. Singleton, P.C., Savannah, Georgia **12/2014 – 10/2017**
Owner, Attorney

- Was a solo practitioner focusing on the areas of criminal law, education law, and family law
- Represented clients in misdemeanor cases, including clients charged with Truancy in State Court
- Represented clients in Superior Court on family law matters
- Was an alternate solicitor for the City of Port Wentworth, Georgia

Office of the District Attorney, Eastern Judicial Circuit, Savannah, GA **1/2008 – 5/2011**
Assistant District Attorney

- Maintained an active misdemeanor caseload 700 to 1000 cases per year, while litigating criminal matters, negotiating plea agreements and recommending sentences for defendants
- Was responsible for cases from early charging stage to final disposition to include probation hearings
- Researched and drafted memoranda of law in response to defense motions and argued the same
- Was responsible for cases pertaining to traffic matters and minor drug possession with a focus primarily on DUI cases
- Was responsible for appearances in 3 courts of differing jurisdictions and authority

Attachment: Laura M. Singleton, Esq. Resume (2579 : Appointment of Laura M. Singleton. Esq. as Judge Pro Tem for the City of Port

Georgia Legal Services Program, Inc., Savannah, Georgia **7/2002 – 1/2008**
Staff Attorney

- Represented indigent clients in all aspects of family law, including but not limited to: divorce, custody, and legitimation cases that qualified under a Department of Justice grant to combat family violence
- Petitioned the court for temporary protective orders in cases of family violence and represented clients in social security claims and claims for unemployment benefits
- Led legal seminars for attorneys, law enforcement and legal advocates in the areas of family law and family violence
- Worked closely with local service agencies such as the local family violence shelter and local military advocates to provide immediate legal assistance to survivors of family violence by coordinating efforts
- Attended Savannah-Chatham County Family Violence Council meetings with other advocates in the local area to coordinate efforts and fill gaps to combat family violence

Lester B. Johnson, III, P.C., Savannah, Georgia **3/2000 – 7/2002**
Associate Attorney

- Prepared Memoranda of Law in the areas of civil, criminal, contract, and education law
- Performed legal research
- Drafted and prepared complaints, answers, default judgments, motions, briefs, summary judgments, discovery, etc.
- Drafted documents related to corporate formation, including Articles of Incorporation and By-Laws
- Represented the local Board of Education at student disciplinary hearings
- Assisted supervising attorney in trial preparation, including depositions, and obtaining judgments
- Represented clients in claims for social security benefits

EDUCATION

The Thomas M. Cooley School of Law, Lansing, Michigan
Juris Doctor, January 2000

Loyola College in Maryland, Baltimore, Maryland
B.A., Political Science, 1995

BAR MEMBERSHIPS

The State Bar of Georgia
The State Bar of Michigan (Inactive)

OTHER ACTIVITIES

The Links, Incorporated
Member, November 2017 – Present

Neighborhood Improvement Association
Chair, 2019-April 2021
Vice-Chair of the Board, 2016-2018

Chatham Savannah Authority for the Homeless
Vice-Chair of the Board, 2006-2008
Board Member, 2003-2005

Attachment: Laura M. Singleton, Esq. Resume (2579 : Appointment of Laura M. Singleton. Esq. as Judge Pro Tem for the City of Port

Georgia Legal Services Program, Inc., Savannah, Georgia **7/2002 – 1/2008**
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- Represented indigent clients in all aspects of family law, including but not limited to: divorce, custody, and legitimation cases that qualified under a Department of Justice grant to combat family violence
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CITY OF PORT WENTWORTH

CITY COUNCIL

NOVEMBER 18, 2021

Council Meeting Room | **Regular Meeting** | **6:30 PM**

7224 GA HIGHWAY 21
PORT WENTWORTH, GA 31407

1. CALL MEETING TO ORDER

Mayor Gary Norton called the meeting to order.

2. PRAYER AND PLEDGE OF ALLEGIANCE

Reverend Paul Mongin, Pastor of First Baptist Church of Port Wentworth, led in Prayer and Mayor Norton led in the Pledge of Allegiance.

3. ROLL CALL - CLERK OF COUNCIL

Attendee Name	Title	Status	Arrived
Gary Norton	Mayor	Present	
Linda Smith	Mayor Pro Tem	Present	
Gabrielle Nelson	Council Member	Present	
Mark Stephens	Council Member	Present	
Lynwood Griner	Council Member	Present	
Glenn Jones	Council Member	Present	
Thomas Barbee	Council Member	Present	
James L. Coursey	City Attorney	Present	
Edwin L. Booth	City Manager	Present	
Shanta Scarboro	Clerk of Council	Present	
Tomi Rikkinen	City Accoutant	Present	
Brian Harvey	Director of Development Services	Present	
Lance Moore	Chief of Fire Operations	Present	
Yolanda Irizarry	Director of Human Resources	Present	
Tiffany Lancaster	Director of Leisure Services	Present	
Matt Libby	Chief of Police	Present	

4. APPROVAL OF AGENDA

Council Member Thomas Barbee suggested to Council before the motion to approve the agenda was made to vote upon items 12.C., 12.D. and 12.E. as a single agenda item due to the subdivision applications being for the same property just three (3) different phases.

As a result, Council Member Glenn Jones made a motion to approve the agenda with the suggestion of Council Member Thomas Barbee. Seconded by Council Member Thomas Barbee. Vote was unanimous.

5. RECOGNITION OF SPECIAL GUESTS

There were none to report.

6. ELECTIONS & APPOINTMENTS

A. Appointment of Gabrielle Nelson to the District 1 City Council Seat

Council Member Mark Stephens made a motion to appoint Gabrielle Nelson as District 1 Council Member. Seconded by Council Member Thomas Barbee. Vote was unanimous.

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

Gabrielle Nelson was sworn in by City Attorney, James L. Coursey, Jr.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Mark Stephens, Council Member
SECONDER:	Thomas Barbee, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

7. ADOPTION OF MINUTES

A. City Council - Regular Meeting - Oct 28, 2021 6:30 PM

Council Member Lynwood Griner made a motion to accept the minutes. Seconded by Council Member Gabrielle Nelson. Vote was unanimous.

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Lynwood Griner, Council Member
SECONDER:	Gabrielle Nelson, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

8. COMMUNICATIONS & PETITIONS

A. City Manager Updates

City Manager Edwin Booth was present to update Mayor and Council on the following matters:

1. A supplemental grant that will provide a $1,000 pay supplement for all eligible sworn law enforcement officials and first responders and a $300 supplement for all active volunteer firefighters in Georgia who served during the month of August of 2021 will be issued to qualified Port Wentworth Police Offices and Firefighters.

2. The completion of the Impact Fee Study by Duncan Associates. There is one change that needs to be made to the study which is to reduce the $2,126.00 listed for single family homes to $500.00. Duncan Associates put in this amount because they did not realize that the City received SPLOST funding. The reduction in cost does align with state law.

3. An enforcement letter was received from the Georgia Environmental Protection Division (EPD) stating the City owed $20,000.000 for water/sewer violations. However, the fine has been reduced to $2,500.00 as it was requested to allow the City to hold back some of the monies owed to EPD to resolve the violations.

4. The new contact name and phone number for Waste Pro, which is David Kelly.

5. The water issue that occurred on Saturday, November 13, 2021 at Well 1 will be fixed. Mr. Booth assured Council that because the leak did not cause a loss in water pressure below 20,000 lbs. that a boil water advisory was not necessary and that Well 2 will serve as a backup for Well 1 while it is being repaired.

Questions and Answers

Q. Council Member Thomas Barbee asked if a resolution has been decided in the matter of Kellie Powell's situation?

A. City Manager, Edwin Booth, stated that Mrs. Powell's situation has been referred to the City Attorney to coordinate repair efforts through the insurance company.

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

Q. Council Member Thomas Barbee also asked if the money held back on the $20,000.00 fine from EPD will be enough to fix the problem and if the repairs have already started?

A. City Manager, Edwin Booth, replied "yes by state law we have to fix the problem" and that the repairs have already started. But that the City does have five (5) years to rectify the problem.

9. COMMITTEE REPORTS

A. Committee Reports

Council Member Lynwood Griner made a motion to approve the committee reports. Seconded by Council Member Glenn Jones. Vote was unanimous.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Lynwood Griner, Council Member
SECONDER:	Glenn Jones, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

10. CONSENT AGENDA

A. Red Robin Court Roadway Improvements Pay Request No. 1

Council Member Mark Stephens made a motion to approve the consent agenda. Seconded by Council Member Gabrielle Nelson. Vote was unanimous.

Questions and Answers

Q. Council Member Mark Stephens asked if the parts for the Red Robin Court repairs come in?

A. City Manager Edwin Booth stated no.

A. Mayor Gary Norton replied that he spoke with City Engineer Trent Long who said the 29th of November would be the start date to get things moving.

Councilman Stephens then suggested that the City put in a couple of seal plates for the time being.

Q. Mayor Norton asked City Manager Booth, who ordered the wrong parts?

A. Mr. Booth responded that the contractor made the error and that when the City issues a contract they are responsible for everything.

B. Subdivision of Lot 5, Coldbrook Station Phase Two

Council Member Mark Stephens made a motion to approve the consent agenda. Seconded by Council Member Gabrielle Nelson. Vote was unanimous.

11. UNFINISHED BUSINESS

There were none to report.

12. NEW BUSINESS

A. Alcoholic Beverage License Application 5712 Hwy 21 Beer/Wine/Sunday Sales

Sean Register was present to share more information about agenda item 12.A. and to answer any questions or concerns of Mayor and Council.

Question and Answer

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

Q. Council Member Thomas Barbee asked what partners have committed to the project?

A. Sean Register stated that the project will include a Wendy's and that they will also have an Executive Chef on board. The restaurant will be open for both truckers and the residents of Port Wentworth.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Lynwood Griner, Council Member
SECONDER:	Thomas Barbee, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

B. Site Plan Review Application (Specific) 7-0976-02-027 Noble Vines Ph 1

Rusty Windsor was present to share more information about agenda item 12.B. and to answer any questions or concerns of Mayor and Council.

Council Member Glenn Jones made a motion to approve. Seconded by Council Member Mark Stephens.

Question and Answer
Q. Georgia Benton, 135 Saussy Road, do you have any drawings of the site plan? Mrs. Benton went on to stress her disappointment for the lack of involvement of community residents and those who will be affected by the project.

A. Mr. Windsor said that he did have a copy of the drawings and displayed that information for Council. Mr. Windsor also stated that there will be no access onto Berrien Road and that all access will be on Highway 30.

Q. Council Member Gabrielle Nelson stated that as a previous member of the Planning Zoning Commission that she did voice her concerns about the lack of contact being made with the residents and was hoping that something would have been done about it before the project was presented to Council.

A. Mr. Windsor stated that he was not aware that the comments made during the Planning Commission meeting were related to contacting the residents, but geared more toward addressing stormwater issues brought up by LaRay Benton and I have not spoken with him.

Q. Mayor Norton asked what is the closet house to the project?

A. Mr. Windsor stated that the closet home to the project is 500 ft. away.

Comments
Omar Senati-Martinez, Construction Inspector, came forward to explain to Mayor and Council the process for notifying adjacent property owners within 200 feet of a potential project.

Vote Results
Gary Norton - Yes/Aye
Linda Smith - Yes/Aye
Gabrielle Nelson - No/Nay
Mark Stephens - No/Nay
Lynwood Griner - Yes/Aye
Glenn Jones - Yes/Aye
Thomas Barbee - No/Nay

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

RESULT:	**APPROVED [3 TO 3]**
MOVER:	Glenn Jones, Council Member
SECONDER:	Mark Stephens, Council Member
AYES:	Smith, Griner, Jones
NAYS:	Nelson, Stephens, Barbee

C. Subdivision Application Lakeside Ph 20 Preliminary Plat

Scott Decain was present to share more information about agenda item 12.C., D. and E. and to answer any questions or concerns of Mayor and Council.

Council Member Mark Stephens made a motion to approve the Subdivision Application Lakeside Phase 20, Phase 21, and Phase 22 Preliminary Plats. Seconded by Council Member Thomas Barbee. Vote was unanimous.

Question and Answer
Q. Georgia Benton, 135 Saussy Road, asked where the community is being built and inquired about water drainage, as well as other matters related to the build.

A. Mr. Decain took his time and addressed all of Mrs. Benton's concerns.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Mark Stephens, Council Member
SECONDER:	Thomas Barbee, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

D. Subdivision Application Lakeside Ph 21 Preliminary Plat

Scott Decain was present to share more information about agenda item 12.C., D. and E. and to answer any questions or concerns of Mayor and Council.

Council Member Mark Stephens made a motion to approve the Subdivision Application Lakeside Phase 20, Phase 21, and Phase 22 Preliminary Plats. Seconded by Council Member Thomas Barbee. Vote was unanimous.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Mark Stephens, Council Member
SECONDER:	Thomas Barbee, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

E. Subdivision Application Lakeside Ph 22 Preliminary Plat

Scott Decain was present to share more information about agenda item 12.C., D. and E. and to answer any questions or concerns of Mayor and Council.

Council Member Mark Stephens made a motion to approve the Subdivision Application Lakeside Phase 20, Phase 21, and Phase 22 Preliminary Plats. Seconded by Council Member Thomas Barbee. Vote was unanimous.

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Mark Stephens, Council Member
SECONDER:	Thomas Barbee, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

F. New Fire Engine

Chief Lance Moore, Port Wentworth Fire Department, was present to share more information about agenda item 12.F. and to answer any questions or concerns of Mayor and Council.

Council Member Mark Stephens made a motion to approve the purchasing of a new fire engine in the amount of $425,000.00. Seconded by Council Member Mark Stephens. Vote was unanimous.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Mark Stephens, Council Member
SECONDER:	Lynwood Griner, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

G. Employment Agreement between the City of Port Wentworth, Chatham County, Georgia and Chief of Police

Council Member Glenn Jones made a motion to move the discussion and vote of item 12.G. to after item 13.C. Seconded by Council Member Lynwood Griner.

Vote Results
Linda Smith - Yes/Aye
Gabrielle Nelson - Yes/Aye
Mark Stephens - No/Nay
Lynwood Griner - Yes/Aye
Glenn Jones - Yes/Aye
Thomas Barbee - No/Nay

Council Member Lynwood Griner made a motion to adjourn into executive session. Seconded by Mayor Pro Tem Linda Smith.

Vote Results
Linda Smith - Yes/Aye
Gabrielle Nelson - Yes/Aye
Mark Stephens - No/Nay
Lynwood Griner - Yes/Aye
Glenn Jones - Yes/Aye
Thomas Barbee - No/Nay

Council Member Thomas Barbee made a motion to adjourn executive session. Seconded by Mark Stephens. Vote was unanimous.

Council Member Thomas Barbee made a motion to reconvene the regular city council meeting. Seconded by Council Member Mark Stephens. Vote was unanimous.

Upon reconvening the regular city council meeting, Council Member Thomas Barbee made a motion to deny the agreement and allow the current contract to run its course. Seconded by Council Member Mark Stephens. Vote was unanimous.

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

RESULT:	**DEFEATED [UNANIMOUS]**
MOVER:	Thomas Barbee, Council Member
SECONDER:	Mark Stephens, Council Member
AYES:	Smith, Nelson, Stephens, Griner, Jones, Barbee

13. RESOLUTIONS/ORDINANCES/PROCLAMATIONS

A. Zoning Map Amendment 7-0978-02-004, 7-0978-02-007 906 Meinhard Rd 1st Reading

Linda Sims, Coleman Company, Inc., was present to share more information about agenda item 13.A. and to answer any questions or concerns of Mayor and Council.

B. Zoning Map Amendment 7-0906-01-029 Exley Hwy 21 2nd Reading

C. Zoning Map Amendment 7-0906-02-002, 008 Old Hwy 21 Orr 2nd Reading

14. EXECUTIVE SESSION

Council Member Glenn Jones made a motion to move the discussion and vote of item 12.G. to after item 13.C. Seconded by Council Member Lynwood Griner.

Vote Results
Linda Smith - Yes/Aye
Gabrielle Nelson - Yes/Aye
Mark Stephens - No/Nay
Lynwood Griner - Yes/Aye
Glenn Jones - Yes/Aye
Thomas Barbee - No/Nay

Council Member Lynwood Griner made a motion to adjourn into executive session. Seconded by Mayor Pro Tem Linda Smith.

Vote Results
Linda Smith - Yes/Aye
Gabrielle Nelson - Yes/Aye
Mark Stephens - No/Nay
Lynwood Griner - Yes/Aye
Glenn Jones - Yes/Aye
Thomas Barbee - No/Nay

Council Member Thomas Barbee made a motion to adjourn executive session. Seconded by Mark Stephens. Vote was unanimous.

Council Member Thomas Barbee made a motion to reconvene the regular city council meeting. Seconded by Council Member Mark Stephens. Vote was unanimous.

Upon reconvening the regular city council meeting, Council Member Thomas Barbee made a motion to deny the agreement and allow the current contract to run its course. Seconded by Council Member Mark Stephens. Vote was unanimous.

A. Personnel Matter

B. Litigation

15. PUBLIC COMMENTS - REGISTERED SPEAKERS

Kellie Powell, 18 Blackberry Road, addressed Mayor and Council regarding the car damage done to her car due to the pot hole on Red Robin Court.

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

Georgia Benton, 135 Saussy Road, expressed her discontentment for the rules that are set by Port Wentworth Council and the fact that they are not being followed, the lack of communication that is taking place with the residents in her community and the idea of making the Planning Commission look stupid.

Janet Hester, 440 Meinhard Road, invited Council to a community meeting that she has planned for Saturday, November 20, 2021 1:00 p.m. at the farm regarding the Hendley Road project.

John D. Mixon, 635 Meinhard Road, shared with Council the issues he is having with his neighbor across the street wanting to move his mailbox from in front of their property.

Sylvia Herbal, 639 Meinhard Road, was also present to present a plea to Mayor and Council for assistance with the new resident wanting to move residential mailboxes.

16. ADJOURNMENT

There being no further business, Council Member Mark Stephens made a motion to adjourn. Seconded by Council Member Thomas Barbee. Vote was unanimous.

_____

Mayor Gary Norton

The foregoing minutes are true and correct and approved by me on this _____ day of _____, 2021.

ATTEST:

_____

Shanta M. Scarboro, Clerk of Council

Minutes Acceptance: Minutes of Nov 18, 2021 6:30 PM (Adoption of Minutes)

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: City Administrator
Category: Report
Prepared By: Shanta Scarboro
Department Head: Edwin L. Booth

AGENDA ITEM (ID # 2584)

DOC ID: 2584

City Manager Updates

Issue/Item: City Manager Updates.

Background: City Manager Edwin Booth will provide Mayor and Council updates regarding the business affairs of the City.

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: All
Category: Report
Prepared By: Shanta Scarboro
Department Head: Brian Harvey

AGENDA ITEM (ID # 2571)

DOC ID: 2571

Committee Reports

ATTACHMENTS:

- Development Services Monthly Report - November 2021 (DOCX)
- Fire Department Monthly Report - November 2021 (PDF)
- Fire Department Monthly Training Report - November 2021 (PDF)
- Leisure Services Department Monthly Report - December 2021 (PDF)
- Police Department Monthly Report - December 2021 (PDF)

DEVELOPMENT SERVICES MONTHLY REPORT / NOVEMBER 2021

INSPECTIONS / P&Z

Building Permits Issued: 27
Building Estimated Cost: $6,894,403
Permit Fees Paid: $154,140.74
Inspections Completed: 427
Plan Reviews Completed: 27

Attachment: Development Services Monthly Report - November 2021 (2571 : Committee Reports)

To: Mayor Norton and City Council

From: Chief Lance Moore

Date: December 8, 2021

Ref: Committee Report

Sir,

The following is a summary of the incident responses and activity for the Fire Department between the dates of November 1, 2021 and November 30, 2021.

0 building fires

2 vehicle fires

81 emergency medical calls

24 motor vehicle collisions

0 carbon monoxide investigation

10 public service

8 dispatched and cancelled in route.

22 fire alarms

0 open area fires

2 hazardous materials related.

0 elevator rescues

3 power line related

0 extrication from industrial equipment

Total: 152

November 16- 17, 2021- 16,685 linear feet of Fire house was tested by FireCatt. 210' feet failed to comply with NFPA 1962; 2018 standards. A failure rate of only 1.25 percent. We are very pleased with the results of this annual test.

Attachment: Fire Department Monthly Report - November 2021 (2571 : Committee Reports)

Port Wentworth Fire Department

317 Cantyre Street
Port Wentworth, Georgia 31407

Lance Moore
Fire Chief

Telephone: (912) 210-7707
Office: (912) 401-0475

Attachment: Fire Department Monthly Training Report - November 2021 (2571 : Committee Reports)

Monthly Fire Training Report

Nov. 1st, 2021 – Nov. 30th, 2021

Chief Moore,

This month, the Training division was able to train and acquire **402 hours** of focused training for our department. the Training division focused on the following:

- **152 hours**: Dedicated instruction, to the Port Wentworth Fire's recruit class 21-01 has continued to show success. Training has focused on becoming a NPQ Firefighter 1. Recruits are conditioned every morning with a mile run and time spent in the gym working on core muscle groups. The rest of the day is devoted to teaching PowerPoint presentations. All recruits receive quizzes and tests on all information. We also demonstrate firefighter skills and have them performed them for NPQ testing.
- **244 hours**: Of on duty instruction were given by the instructor officers. Detailed training evolutions and assignments were given to be handled by these officers. Each training evolution is documented and placed in the training registry.

Recruit Class 21-01: 152 hours

- **11 hours:** Cardio and Conditioning
- **50 hours**: spent inside the classroom learning IFSTA Essential 6 textbook and PowerPoints. Each day was devoted to presentations based around NPQ Firefighter 1 information. Demonstrations to learn skills needed to become a Firefighter and application of learned skills to assist with testing.
- **91 hours**: spent in preparation for NPQ testing for the Nov 12th test date. Students were tested multiple times on the same skills to master the testing event.

On Shift Training: 244 hours

- **62 hours:** Dedicated on shift training focused on fundamentals and officer training to highlight needs within the department that are recognized by the shift commanders. All training is recorded and documented for state certifications compliance. All training is directed by the Training Division and presented by the Instructor Officers on each shift.
- **31 hours:** Physical fitness training is performed at the city gym and within the stations using firefighter related tools and gear to simulate the most accurate approach to real life scenarios.

Port Wentworth Fire Department

317 Cantyre Street
Port Wentworth, Georgia 31407

Lance Moore
Fire Chief

Telephone: (912) 210-7707
Office: (912) 401-0475

- **31 hours:** Driver's training, and area study were performed to assist our up-and-coming drivers with needed experience and help our newest employees get familiar with the surrounding area and target hazard areas.
- **114 hours:** Target Solutions, our online Training platform was performed by all members to limit group training in the wake of the growing COVID cases.
- **6 Hours:** EMS recertification hours were provided to all departmental member through Target Solutions.

Lt. Ronald Hendry
Training Officer

Attachment: Fire Department Monthly Training Report - November 2021 (2571 : Committee Reports)

December 2021 LEISURE SERVCIES DEPARTMENT REPORT

Leisure Service Programs and Events for December and January

- Micro Basketball Started November 8th and will end December 9th. Monday and Thursday's. We have four teams and 6 volunteer coaches.
- Youth Basketball practices started for 12U – 8U every night and games will start January 3rd. We have three 8U teams, two 10U teams and 1 12U team. 10 volunteer coaches.
- Visit with Santa and an Outdoor Family Movie Night "Rudolph the Red Nose Reindeer" Friday Dec 3rd Behind City Hall.
- Tumbling classes are December 1,8, 15, 22 and 29 for our new Pre-Team Program.
- Girls Scouts in community House December.
- Adult Volleyball on Friday's in December and January.
- All street lights are up on poles and Christmas decorations are up around the City.

Ed Young Senior Center

- December 6-10 Senior Driving Safety Week
- December 9th Special Guest Nancy Davis with Georgia Center for the Deaf and Hearing Impaired.
- December 21 1:00PM Visit from the "Jolly Man in Red" and then Christmas Caroling Party 2PM
- Closed on Friday December 24th and Monday December 27th.
- December 31 1:00PM New Year's Party and 2:00PM Mirror Ball Drop.

Ed Young Senior Center Lunch Averages for November 2021:

Nov. 1-5 Meals ordered (20) Meals served (20) Clients attended (20)
Nov. 8-12 Meals ordered (23) Meals served (23) Clients attended (23)
Nov. 15-19 Meals ordered (30) Meals served (30) Clients attended (30)
Nov. 22-24 Meals ordered (23) Meals served (23) Clients attended (23)
Nov. 29-30 Meals ordered (28) Meals served (28) Clients attended (28)

Administrative and Operations

- Continue to interview applications for Full time MNT position.
- Create Basketball game schedule and pass out uniforms.
- Starting the process of creating a competitive gymnastics competition program.
- Continue to create, update and import all upcoming programs into Tyler Parks and Rec online system
- Continue to manage team in maintaining cleanliness of all Leisure Services Departments facilities.
- Reconcile Monthly October P-card Statement and turn in to accounts payable by December 8th.
- Continue to complete refunds, transfers of daily payments of programs and rentals monthly.
- Create ongoing Leisure Services employee bi-weekly work schedule.
- Keep Leisure Services Facebook page and City web page up to date on social media.
- Continue monitoring daily deposits and credit card import/export for all sports and rentals through our payment portal and Tyler Parks and Rec program.
- Continue to manage the cash and receivables from our Tyler Parks and Rec system. Daily deposits.

Attachment: Leisure Services Department Monthly Report - December 2021 (2571 : Committee Reports)

Mobley Park

- Put up Beware of Alligator signs.
- Installing broken playground step, cap on pole and red seat on playground.
- Take down Portable fence.
- Put up new playground replacement pieces.

- Have Shed moved from Community house to Mobley park and old shed moved from Mobley Park

Armadale Walking Path

- Continue to cut grass, weed-eat and edge walking path.
- Consistently change out doggie station.

Festival Site/Soccer Fields and Tommy Thomas Pavilion

- Take down soccer goals.

Houlihan Boat Landing

- Cut and weed eat boat ramp area and retention ponds.
- Update Kiosk at boat landing. Roll up water hoses bi weekly and clean up trash in parking lot bi weekly.

Houston Church

- Decorate for Christmas Cut and weed-eat Houston Church weekly.
- Clean, dust and mop church monthly.

Warren Drive Playground / Park

- Cut and weed-eat Houston Church weekly.

Della Steel Park

- Disinfect playground area, picnic tables and pavilion area.
- Cleanout doggie station.
- Add port o lets.

P.B. Edwards Jr. Gym

- Re-stripe handy-cap parking spaces in December/January on gym side.

Community House

- Gather quotes for new sinks in bathroom.
- Gather quotes for new flooring.
- Gather quotes for paving outside for parking.

Fountain

- Decorations for Christmas
- Trim bushes, cut grass, pull weeds at fountain every other week.
- Adding flag Pole with lights.

Annex Building

Attachment: Leisure Services Department Monthly Report - December 2021 (2571 : Committee Reports)

Attachment: Leisure Services Department Monthly Report - December 2021 (2571 : Committee Reports)

To: Mayor Norton
From: Chief Libby MC
Date: December 9, 2021
Ref: Committee report

Sir,

Below is summary of the all the department's activity for the period of **November 12, 2021, through December 8, 2021.** The summary will provide Council the total number of calls for service police units responded to as well as citations issued.

Police:

Since **November 12, 2021,** the police department has issued **1378 citations**. Officers conducted **1391** traffic stops. The department has made **86** arrests. **19** DUI cases were made along with **18** cases for possession of controlled substance and drug objects. The department was **2611** issued case report numbers for service calls. The department conducted **679** residential and business checks. The department conducted **104** suspicious persons / vehicles stop. The department has responded to **88 accidents**. The department responded to **59** EMS calls. The department has taking **568** incident reports. The department has also conducted **53** combined walking patrols of both schools the Renasant Bank and other businesses.

Officers have attended **347** hours of training this month.

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

POLICE CALLS DISPATCHED
BY DAY OF THE MONTH
BY AGENCY

CHATHAM 911 COMMUNICATIONS SERVICES

STARTING DATE: 11/01/2021
ENDING DATE: 11/30/2021

	BL	CC	GC	PL	PW	SP	TB	TOTAL
11/01/2021	26	290	51	101	77	758	5	1,308
11/02/2021	31	235	68	93	97	840	7	1,371
11/03/2021	17	253	61	63	123	945	4	1,466
11/04/2021	9	297	46	65	117	926	11	1,471
11/05/2021	16	268	53	57	66	810	3	1,273
11/06/2021	4	199	39	58	92	773	2	1,167
11/07/2021	47	202	78	51	95	763	4	1,240
11/08/2021	9	269	63	61	147	817	7	1,373
11/09/2021	12	439	62	102	115	984	10	1,724
11/10/2021	16	278	54	115	138	997	13	1,611
11/11/2021	16	178	54	80	85	971	8	1,392
11/12/2021	7	238	53	79	81	1,007	5	1,470
11/13/2021	11	219	56	95	96	866	13	1,356
11/14/2021	11	180	32	69	74	701	6	1,073
11/15/2021	16	200	60	69	116	817	9	1,287
11/16/2021	16	226	58	104	108	1,021	5	1,538
11/17/2021	27	301	66	58	145	1,067	11	1,675
11/18/2021	9	320	50	49	96	1,009	8	1,541
11/19/2021	10	216	54	73	100	955	7	1,415
11/20/2021	20	244	48	91	65	862	7	1,337
11/21/2021	6	218	45	57	94	634	2	1,056
11/22/2021	8	350	75	66	138	774	5	1,416
11/23/2021	20	337	67	68	139	898	6	1,535
11/24/2021	31	272	52	54	99	917	5	1,430
11/25/2021	21	221	46	99	89	708	3	1,187
11/26/2021	31	360	64	63	96	799	9	1,422
11/27/2021	33	422	70	61	128	793	5	1,512
11/28/2021	25	350	41	94	95	735	7	1,347
11/29/2021	22	266	68	114	72	1,085	8	1,635
11/30/2021	14	251	57	74	105	997	8	1,506
TOTAL	541	8,099	1,691	2,283	3,088	26,229	203	42,134

**NOTE: Excludes calls where Animal Services was primary responder*

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

CRASH LOCATION REPORT

For Crashes occurring between 11/12/2021 and 12/8/2021

REPORT GENERATED ON: 12/9/2021 9:24:53 AM

Port Wentworth PD

ACCIDENT#	ROAD OF OCCURRENCE/LOCATION	AT INTERSECTION WITH	ACCIDENT DATE	TIME
211122123			11/22/2021	21:36
211123074			11/23/2021	15:05
211201046			12/1/2021	09:15
211204067			12/4/2021	14:11
211123047	1500 CROSSGATE RD PORT		11/23/2021	11:15
211116050	405 EXPANSION BLVD		11/16/2021	11:35
211123043	6000 SR-21N PORT WENTWORTH GA		11/23/2021	10:53
211201069	7001 GA 21 PILOT TRAVEL CENTER		12/1/2021	14:46
211203003	7110 STATE ROUTE 21		12/3/2021	00:03
211120025	BENTON BLVD	MEINHARD RD	11/20/2021	09:45
211206073	CROSSGATE	SR-21	12/6/2021	19:01
211202072	CROSSGATE RD	SR 25	12/2/2021	16:57
211203051	CROSSGATE RD	SR-21	12/3/2021	15:50
211129040	GA 30		11/29/2021	14:53
211120028	GA SR 21	BOURNE AVE	11/20/2021	11:00
211203063	GA SR 21	I-95	12/3/2021	15:00
211119039	GEORGIA STATE ROAD 21		11/19/2021	14:00
211129049	GEORGIA STATE ROAD 21	INTERSTATE 95	11/29/2021	18:17
211115040	GEORGIA STATE ROAD 21	OLD RICHMOND ROAD	11/15/2021	09:30
211112061	HENDLEY RD	MONTEITH RD	11/12/2021	18:29
211123038	HENDLEY ROAD	SR 21	11/23/2021	08:00
211129048	HIGHWAY 30		11/29/2021	16:58
211123020	I 95 SB	HWY 21	11/23/2021	05:54
211128029	I-95		11/28/2021	06:57
211202089	I-95		12/2/2021	18:30
211120040	I-95 NB		11/20/2021	15:48
211118069	I-95 NB	SR 21	11/18/2021	18:10
211118039	I-95 NORTHBOUND OFF RAMP	S.R. 21	11/18/2021	08:09
211201038	I95	EXIT 109	12/1/2021	08:00
211118066	INTERSTATE 95		11/18/2021	16:38
211113046	LAKESIDE BLVD	MULBERRY AVE	11/13/2021	00:10
211203024	PILOT TRAVEL CENTER		12/3/2021	09:40
211114023	RICE MILL RD		11/14/2021	07:35
211129011	RICE MILL RD	SR 21	11/29/2021	06:29
211117034	S.R. 21		11/17/2021	07:55
211129015	SCOTT ST	SR 21	11/29/2021	07:55
211202026	SCOTT ST	SR 21 SB	12/2/2021	07:43
211117068	SR - 21	MARKET BLVD	11/17/2021	16:00
211123073	SR - 21 NB		11/23/2021	15:00
211126039	SR 21		11/26/2021	12:44
211201033	SR 21		12/1/2021	06:47
211115020	SR 21		11/15/2021	02:45
211123025	SR 21		11/23/2021	07:25

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CRASH LOCATION REPORT

For Crashes occurring between 11/12/2021 and 12/8/2021

REPORT GENERATED ON: 12/9/2021 9:24:53 AM

Port Wentworth PD

ACCIDENT#	ROAD OF OCCURRENCE/LOCATION	AT INTERSECTION WITH	ACCIDENT DATE	TIME
211207022	SR 21	BONNYBRIDGE ROAD	12/7/2021	06:37
211206070	SR 21	COLDBROOK STATION CIRCLE	12/6/2021	17:50
211201030	SR 21	HENDLEY ROAD	12/1/2021	06:09
211127102	SR 21	INTERSTATE 95	11/27/2021	20:00
211206052	SR 21	O'LEARY RD	12/6/2021	11:13
211123082	SR 21	TRAVELERS WAY	11/23/2021	16:50
211202088	SR 21	TRAVELERS WAY	12/2/2021	18:35
211122031	SR 21 NB	I 95 NB RAMP	11/22/2021	07:45
211128028	SR 30		11/28/2021	06:30
211122049	SR-21		11/22/2021	10:10
211202084	SR-21		12/2/2021	17:48
211118032	SR-21		11/18/2021	06:38
211122117	SR-21		11/22/2021	19:50
211123088	SR-21	COLD BROOK STATION CIRCLE	11/23/2021	20:55
211201097	SR-21	INTERSTATE 95	12/1/2021	21:40
211117029	SR-21	SCOTT ST	11/17/2021	06:45
211201100	SR-21	SR-30	12/1/2021	22:15
211202066	SR-21	TRAVELERS WAY	12/2/2021	15:14
211117033	SR-21 S	I-95 S	11/17/2021	08:08
211206068	SR21		12/6/2021	17:18
211115043	STATE ROUTE 21		11/15/2021	10:10
211116032	STATE ROUTE 21		11/16/2021	07:08
211118035	STATE ROUTE 21		11/18/2021	07:20
211124072	STATE ROUTE 21		11/24/2021	16:45
211201083	STATE ROUTE 21	INTERSTATE 95	12/1/2021	18:32
211201098	STATE ROUTE 21	STATE ROUTE 307	12/1/2021	22:12
211129001	STATE ROUTE 25	BIRKENHEAD RD	11/29/2021	00:01

TOTAL CRASHES ON REPORT 70

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

PORT WENTWORTH PD CRASH ANALYSIS REPORT	2021

Total Number of Crashes:	**70**
Accidents with Injuries:	**4**
Accidents with Fatalities:	**0**

FREQUENCY

Monday:	**17**
Tuesday:	**12**
Wednesday:	**14**
Thursday:	**11**
Friday:	**7**
Saturday:	**6**
Sunday:	**3**

00:01 - 08:00 Hours:	**23**
08:01 - 16:00 Hours:	**25**
16:01 - 24:00 Hours:	**22**

00:01 - 06:00 Hours:	**5**
06:01 - 12:00 Hours:	**31**
12:01 - 18:00 Hours:	**20**
18:01 - 24:00 Hours:	**14**

Top Contributing Factors (top 4 listed)

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

PORT WENTWORTH PD CRASH ANALYSIS REPORT 2021

Most Frequent Crash Locations and Quantity:

Traffic Conditions Complaint / Request Locations:

Speed Buggy Locations:

Traffic Citation Analysis Period: 11/12/2021 to 12/8/2021

Total Citations Issued: 1378

Top Citations Issued (top 4 listed)

40-6-181 - SPEEDING IN EXCESS OF MAXIMUM LIMITS (305)
40-6-180 - TOO FAST FOR CONDITIONS (90)
40-2-8 - EXPIRED REGISTRATION (72)
40-6-50B - DRIVING IN THE EMERGENCY LANE/SHOULDER (60)

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

Citation Violations reported between 11/12/2021 and 12/8/2021

Violation:	Code:	Total:
IMPROPERLY PARKING TRUCKS IN STREET	13-2	1
TRUCK ON A CITY STREET	13-5	9
DISORDERLY HOUSE CITY ORDINANCE	15-2	1
OBSTRUCTION OF LAW ENFORCEMENT OFFICERS- FELONY	16-10-24(B)	2
OBSTRUCTION/HINDER LAW ENFORCEMENT OFFICER-MISD	16-10-24A	3
GIVING FALSE NAME, ADDRESS, OR BIRTHDATE TO LAW ENFORCEMENT OFFICER	16-10-25	2
POSSESSION OF FIREARM OR KNIFE DURING COMMISSION OF OR ATTEMPT TO COMMIT A CRIME	16-11-106	2
TERRORISTIC THREATS AND ACTS	16-11-37	1
POSESSION OF MARIJUANA	16-13-2(B)	2
POSSESSION MARIJUANA- LESS THAN 1 OZ.	16-13-2(B)	5
POSSESSION SCHEDULE II DRUG	16-13-26	1
POSSESSION OF CONTROLLED SUBSTANCE	16-13-30	4
POSSESSION W INTENT TO DISTRIBUTE CONTROLL SUBSTANCE	16-13-30B	1
POSSESSION AND USE OF DRUG RELATED OBJECTS	16-13-32.2	12
BATTERY	16-5-23.1	2
CRIMINAL TRESPASS	16-7-21	1
CRIMINAL DAMAGE TO PROPERTY - 2ND DEGREE	16-7-23	1
INTERFERENCE WITH GOVERNMENT PROPERTY	16-7-24	1
THEFT BY TAKING MISDEMEANOR	16-8-2.1	1
THEFT BY RECEIVING STOLEN PROPERTY - FELONY	16-8-7	1
THEFT BY BRINGING STOLEN PROPERTY INTO STATE- FELONY	16-8-9	1
UNDERAGE POSSESSION OF ALCOHOL	3-3-23(A)(2)	1
POSSESSION ALCOHOL UNDER 21-DRIVER OF VEHICLE	3-3-23(A)(2)(C)	1
DOG REGISTRATION	4-17	1
DOG TAG REQUIRED	4-18	1
DOG SHOTS REQUIREMENT	4-19	1
DOG AT LARGE	4-20	1
TAG/ REGISTRATION REQUIREMENTS	40-2-20	10
TAG/ REGISTRATION REQUIREMENTS	40-2-38	1
OBSCURING TAG FRAME OR TINTED TAG COVERS PROHIBITED	40-2-41	3
ACQUIRING LICENSE PLATE FOR PURPOSE OF CONCEALING IDENTIFICATION OF MOTOR VEHICLE	40-2-5	2
TAGS: ALTERATION OR IMPROPERLY TRANSFERRED	40-2-6	2
USE OF LICENSE PLATE WITH INTENT TO CONCEAL	40-2-7	1
EXPIRED REGISTRATION	40-2-8	72
FAILURE TO AFFIX DECAL TO PLATE	40-2-8	2
NO TAG	40-2-8	2
DRIVING WHILE LICENSE SUSPENDED OR REVOKED-MISDEMEANOR	40-5-121	40
PERMITTING UNLICENSED DRIVER TO DRIVE	40-5-122	1
POSSESSION/USE OF FRAUDULENT LICENSE	40-5-125	1
SUSPENDED COMMERCIAL LICENSE	40-5-146(B)1	1
DRIVING WITHOUT A VALID LICENSE- MISDEMEANOR	40-5-20	57

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Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

EXPIRED DRIVER'S LICENSE 0-1 MONTH	40-5-20(A)	2
EXPIRED DRIVER'S LICENSE 2-5 MONTHS	40-5-20(B)	1
FAILURE TO OBTAIN GEORGIA LICENSE IN 30 DAYS	40-5-20(C)	1
EXPIRED DRIVER'S LICENSE6 MONTHS OR MORE	40-5-20C	2
VIOLATION OF CLASS D RESTRICTIONS	40-5-24(B)(1)(A)	1
LICENSE TO BE EXHIBITED ON DEMAND	40-5-29B	17
IMPROPER NAME/ADDRESS ON LICENSE	40-5-33	6
NO INSURANCE	40-6-10	48
IMPROPER LEFT OR RIGHT TURN	40-6-120	7
IMPROPER U-TURN	40-6-121	39
FAILURE TO SIGNAL WHEN TURNING OR CHANGING LANES	40-6-123	4
IMPROPERLY STOPPED IN ROADWAY	40-6-123C	4
FAILURE TO USE TURN SIGNAL	40-6-124	1
SUSPENDED REGISTRATION	40-6-15	51
APPROACHING AUTHORIZED EMERGENCY VEHICLE	40-6-16(B)	28
IMPROPER TAG	40-6-166	2
TOO FAST FOR CONDITIONS	40-6-180	90
SPEEDING IN CONSTRUCTION ZONE	40-6-181	1
SPEEDING IN EXCESS OF MAXIMUM LIMITS	40-6-181	305
IMPEDING THE FLOW OF TRAFFIC	40-6-184	4
SLOW POKE LAW (LEFT LANE DRIVING PROHIBITED)	40-6-184 (C)	3
SPEED LIMITS ON A BRIDGE	40-6-185	1
SPEEDING IN EXCESS OF MAXIMUM LIMITS	40-6-185	2
RACING ON HIGHWAYS OR STREETS	40-6-186	1
FAILURE TO OBEY TRAFFIC CONTROL DEVICE	40-6-2	1
FAILURE TO OBEY TRAFFIC CONTROL DEVICE	40-6-20	40
STOPPING, STANDING, OR PARKING OUTSIDE OF BUSINESS OR RESIDENTIAL DISTRICTS	40-6-202	7
IMPROPER STOPPING	40-6-203	39
OBSTRUCTING AN INTERSECTION	40-6-205	1
IMPROPER BACKING	40-6-240	3
FAILURE TO EXERCISE DUE CARE	40-6-241(B)	6
UNLAWFUL USE OF WIRELESS DEVICE	40-6-241(C)	44
OPEN CONTAINER OF ALCOHOL IN MOTOR VEHICLE	40-6-253	13
HIT AND RUN; DUTY OF DRIVER TO STOP AT OR RETURN TO SCENE OF ACCIDENT	40-6-270	1
FAILURE TO REPORT ACCIDENT WITH INJURY/DEATH/DAMAGE	40-6-273	1
MOTORCYCLE PASSING IN SAME LANE AS VEHIC	40-6-312B	1
PROHIBITING MOPEDS ON PUBLIC ROADS AND HIGHWAY	40-6-353	1
RECKLESS DRIVING	40-6-390	7
DUI - REFUSAL	40-6-391	1
DUI/ALCOHOL/LESS SAFE	40-6-391A1	8
DUI/DRUGS/LESS SAFE	40-6-391A2	5
DUI/ALCOHOL/.08 OR MORE/21 YOA OR OLDER	40-6-391A5	3
DUI/ALCOHOL/UNDER 21 YOA/.02G +	40-6-391K1	1
DUI-CHILD ENDANGERMENT-2ND OFFENSE	40-6-391L	1
FLEEING/ATTEMPTING TO ELUDE POLICE OFFICER FELONY	40-6-395B5A	4

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DRIVING ON WRONG SIDE OF ROADWAY	40-6-40	2
IMPROPER PASSING	40-6-42	2
IMPROPER PASSING ON RIGHT	40-6-43B	31
PASSING WITHIN 200 FT OF ONCOMING TRAFFIC	40-6-44	1
PASSING WITHING 100 FT OF INTERSECTION/RR CROSSING	40-6-45	1
PASSING IN A NO PASSING ZONE	40-6-46	5
DRIVING WRONG WAY ON ONE WAY	40-6-47	2
FAILURE TO MAINTAIN LANE/IMPROPER LANE CHANGE	40-6-48	28
FOLLOWING TOO CLOSELY	40-6-49	16
DRIVING IN DIVIDED HIGHWAY, CONTROLLED ACCESS ROADWAYS, AND EMERGENCY LANES	40-6-50	4
DRIVING IN THE EMERGENCY LANE/SHOULDER	40-6-50B	60
LEFT LANE VIOLATION	40-6-52	10
THIRD LANE VIOLATION	40-6-52	2
TRUCKS OVER 6 WHEEL MUST STAY TO RIGHT	40-6-52	1
FAILURE TO YIELD WHILE TURNING LEFT	40-6-71	1
FAILURE TO STOP AT STOP SIGN	40-6-72	8
FAILURE TO YIELD AT PROPER SIGN	40-6-72C	1
FAILURE TO YIELD WHEN ENTERING ROADWAY	40-6-73	3
FAILURE TO YIELD FOR AUTHORIZED EMERGENCY VEHICLE	40-6-74	2
DRIVING THROUGH A SAFETY ZONE	40-6-98	2
FAILURE TO USE HEADLIGHTS AFTER DARK/WHEN RAINING	40-8-20	2
HEADLIGHT REQUIREMENTS	40-8-22	13
TAIL LIGHTS REQUIRED	40-8-23	12
NO BRAKE LIGHTS OR WORKING TURN SIGNALS	40-8-25	13
STANDARDS FOR BRAKE LIGHTS/SIGNAL DEVICES	40-8-26	6
NO AMBER LIGHTS	40-8-27	1
FAILURE TO DIM HEADLIGHTS	40-8-31	2
DRIVING UNSAFE/IMPROPERLY EQUIPPED VEHICLE	40-8-7	5
WINDSHIELD/WINDOW/WIPER REQUIREMENTS	40-8-73	1
WINDOW GLAZING VIOLATION/TINTED WINDOWS	40-8-73.1	10
TIRE REQUIREMENT	40-8-74	1
SAFETY RESTRAINT / MINOR UNDER 8	40-8-76	4
SEATBELT- CHILD	40-8-76	2
SAFETY RESTRAINT--OVER 18 YEARS	40-8-761	43
SPEEDOMETER-IMPROPERLY WORKING	40-8-8	1
OPERATING VEHICLE WITH UNAUTHORIZED BLUE LIGHTS	40-8-90	11
UNLAWFUL USE OF BLUE LIGHTS ON VEHICLE	40-8-90	2
OPERATING VEHICLE DURING SUSPENSION OF LICENSE	40-9-8	1
"USING TELEPHONE COMMUNICATIONS FOR OBSCENE, THREATENING, OR HARASSING PURPOSES"	46-5-21	2
Total Events:		1378

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

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Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

Incident Types reported between 11/12/2021 and 12/8/2021

Events:	Total:
ABANDONED VEHICLE TOWED	1
ACQUIRING LICENSE PLATE FOR PURPOSE OF CONCEALING IDENTIFICATION OF MOTOR VEHICLE	2
AFFRAY	1
AGENCY ASSIST	1
AMPHETAMINE- POSSESSION OF	4
APPROACHING AUTHORIZED EMERGENCY VEHICLE	1
BATTERY	1
BATTERY (FV)- 1ST OFFENSE	1
BLUE LIGHT RESTRICTIONS ON VEHICLES	2
BURGLARY	1
BURGLARY - 2ND DEGREE (FELONY)	1
CHILD MOLESTATION-FELONY	1
CIVIL MATTER	2
CRIMINAL ATTEMPT TO COMMIT A FELONY	1
CRIMINAL DAMAGE TO PROPERTY - 1ST DEGREE	1
CRIMINAL DAMAGE TO PROPERTY - 2ND DEGREE	2
CRIMINAL TRESPASS	2
CURFEW VIOLATION	1
DAMAGE TO CITY, PUBLIC PROPERTY	1
DAMAGE TO PROPERTY	9
DEPOSIT ACCOUNT FRAUD (BAD CHECKS) - OUT-OF-STATE BANK	1
DISORDERLY CONDUCT	4
DOG AT LARGE	2
DOG REGISTRATION	1
DOG SHOTS REQUIREMENT	1
DOG TAG REQUIRED	1
DOMESTIC DISPUTE	15
DRIVING IN THE EMERGENCY LANE/SHOULDER	3
DRIVING ON WRONG SIDE OF ROADWAY	1
DRIVING WHILE LICENSE SUSPENDED OR REVOKED- FELONY	1
DRIVING WHILE LICENSE SUSPENDED OR REVOKED- MISDEMEANOR	38
DRIVING WITHOUT A VALID LICENSE- MISDEMEANOR	55
DUI - DRIVING UNDER THE INFLUENCE OF ALCOHOL - CONCENTRATION IS 0.08G OR MORE WITHIN 3 HRS OR MORE	1

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DUI - LESS SAFE- ALCOHOL	2
DUI - LESS SAFE- DRUGS	1
DUI - REFUSAL	1
DUI-CHILD ENDANGERMENT-2ND OFFENSE	1
DUI/ALCOHOL/.08 OR MORE/21 YOA OR OLDER	2
DUI/ALCOHOL/LESS SAFE	7
DUI/ALCOHOL/UNDER 21 YOA/.02G +	1
DUI/DRUGS/LESS SAFE	3
ENTERING AUTOMOBILE OR OTHER MOTOR VEHICLE WITH INTENT TO COMMIT THEFT OR FELONY	7
EXPIRED REGISTRATION	12
FAILURE TO MAINTAIN LANE/IMPROPER LANE CHANGE	7
FAILURE TO OBEY TRAFFIC CONTROL DEVICE	2
FAILURE TO YIELD FOR AUTHORIZED EMERGENCY VEHICLE	1
FINANCIAL TRANSACTION CARD FRAUD	2
FIRE-VEHICLE	1
FLEEING OR ATTEMPTING TO ELUDE A POLICE OFFICER	2
FLEEING OR ATTEMPTING TO ELUDE A POLICE OFFICER FOR A FELONY OFFENSE	6
FLEEING/ATTEMPTING TO ELUDE POLICE OFFICER FELONY	2
FOLLOWING TOO CLOSELY	3
FRAUDULENT DRIVERS LICENSE OR IDENTIFICATION CARD; FALSE STATEMENTS IN APPLICATIONS- FELONY	1
FURNISHING, PURCHASING, AND POSSESSION OF ALCOHOLIC BEVERAGES BY PERSONS BELOW LEGAL AGE	1
GIVING FALSE NAME, ADDRESS, OR BIRTHDATE TO LAW ENFORCEMENT OFFICER	2
HEADLIGHT REQUIREMENTS	3
HIT AND RUN; DUTY OF DRIVER TO STOP AT OR RETURN TO SCENE OF ACCIDENT	1
IDENTITY THEFT	1
IMPEDING THE FLOW OF TRAFFIC	1
IMPROPER NAME/ADDRESS ON LICENSE	2
IMPROPER PASSING	1
IMPROPER PASSING ON RIGHT	2
IMPROPER STOPPING	2
IMPROPER TAG	2
IMPROPER U-TURN	4
IMPROPERLY STOPPED IN ROADWAY	1
INJURING, TEARING DOWN OR DESTRUCTION OF MAILBOXES; INJURING, DEFACING OR DESTRUCTION OF MAIL	1
INTERFERENCE WITH GOVERNMENT PROPERTY - FELONY	1
LEFT LANE VIOLATION	3
LICENSE TO BE EXAMINED ON DEMAND	1
LICENSE TO BE EXHIBITED ON DEMAND	2
LOST/MISLAID PROPERTY	4
MEDICAL CALL	4
MENTAL HEALTH TRANSPORT	1
MISCELLANEOUS REPORT	28
MISSING PERSON	2
NO BRAKE LIGHTS OR WORKING TURN SIGNALS	1
NO INSURANCE	11
OBSTRUCTION OF LAW ENFORCEMENT OFFICERS - MISDEMEANOR	2
OBSTRUCTION OF LAW ENFORCEMENT OFFICERS- FELONY	2
OBSTRUCTION/HINDER LAW ENFORCEMENT OFFICER-MISD	1
OPEN CONTAINER OF ALCOHOL IN MOTOR VEHICLE	8
OPERATING VEHICLE DURING SUSPENSION OF LICENSE	1
POSESSION OF MARIJUANA	7
POSSESSION AND USE OF DRUG RELATED OBJECTS	8
POSSESSION MARIJUANA MORE THAN 1 OZ (FELONY)	1
POSSESSION OF CONTROLLED SUBSTANCE	1
POSSESSION OF DRUG RELATED OBJECTS	1
POSSESSION OF FIREARM OR KNIFE DURING COMMISSION OF OR ATTEMPT TO COMMIT A CRIME	2
PROHIBITING MOPEDS ON PUBLIC ROADS AND HIGHWAY	1
RECKLESS DRIVING	3
RECOVERED STOLEN MOTOR VEHICLE	1
RECOVERED STOLEN PROPERTY	1

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REFUSE TO SIGN TRAFFIC CITATION AS REQUIRED	1
RUNAWAY JUVENILE	3
SAFETY RESTRAINT / MINOR UNDER 8	1
SAFETY RESTRAINT--OVER 18 YEARS	3
SEXUAL BATTERY AGAINST CHILD UNDER 16- FELONY	1
SIMPLE ASSAULT	1
SIMPLE BATTERY - FAMILY VIOLENCE	1
SPEEDING IN EXCESS OF MAXIMUM LIMITS	13
SUICIDE THREAT/ATTEMPT	2
SUSPENDED COMMERCIAL LICENSE	1
SUSPENDED REGISTRATION	9
TAG/ REGISTRATION REQUIREMENTS	4
TAGS: ALTERATION OR IMPROPERLY TRANSFERRED	1
TERRORISTIC THREATS AND ACTS	2
THEFT BY BRINGING STOLEN PROPERTY INTO STATE- FELONY	1
THEFT BY RECEIVING STOLEN PROPERTY - FELONY	1
THEFT BY SHOPLIFTING	2
THEFT BY TAKING - FELONY	2
THEFT BY TAKING - FIREARM	1
THEFT BY TAKING - MISDEMEANOR	4
THEFT BY TAKING- MOTOR VEHICLE	2
THEFT OF LOST/MISLAID PROPERTY - MISDEMEANOR	1
TRANSMISSION OF PHOTOS/VIDEOS DEPICTING NUDITY/SEXUAL CONDUCT	1
UNGOVERNABLE CHILD	1
UNLAWFUL USE OF WIRELESS DEVICE 1ST OFFENSE	1
USE OF LICENSE PLATE WITH INTENT TO CONCEAL	1
WANTED PERSON	2
WELFARE CHECK	3
Total Events:	412

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

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Port Wentworth Police Department

323 Cantyre Street
Port Wentworth, Georgia 31407

Matthew W. Libby
Chief of Police

Telephone: (912) 964-4360
Fax: (912) 966-7405

Monthly Training Report
November 12, 2021- December 8th, 2021

Chief Libby,

During this period, the training unit completed or coordinated **35 training classes**, trained **142 students** on various topics, and provided a total **347 hours** of training. We also have **1 Officer** in the FTO phase of training..

Training Classes Completed

a. **15November2021**
   i. Firearm Requalification (**2 Hours**)
      1. 1 Students

b. **17November2021**
   i. Virtra Simulator (**8 Hours**)
      1. 4 Students

c. **18November2021**
   i. Patrol Rifle Qualification (**1 Hours**)
      1. 4 Students

d. **18November2021**
   i. Shotgun Qualification (**1 Hour**)
      1. 8 Students

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

Port Wentworth Police Department

323 Cantyre Street
Port Wentworth, Georgia 31407

Matthew W. Libby
Chief of Police

Telephone: (912) 964-4360
Fax: (912) 966-7405

e. 18November2021

- **i.** Back-up Qualification (**1 Hour**)
  1. 10 Students

f. 18November2021

- i. Firearms Requalification (**1 Hour**)
  1. 10 Students

g. 22November2021

- **i.** Shotgun Qualification (**1 Hour**)
  1. 2 Students

h. 22November2021

- **i.** Back-up Qualification (**1 Hour**)
  1. 1 Students

i. 22November2021

- i. Firearms Requalification (**1 Hour**)
  1. 2 Students

j. 22November2021

- i. SWAT Training (**5 Hours**)
  1. 7 Students

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

Port Wentworth Police Department

323 Cantyre Street
Port Wentworth, Georgia 31407

Matthew W. Libby
Chief of Police

Telephone: (912) 964-4360
Fax: (912) 966-7405

k. 23November2021

- **i.** Firearms Training (**2 Hours**)
  1. 2 Students

l. 24November2021

- **i.** Firearms Training (**2 Hour**)
  1. 2 Students

m. 27November2021

- i. Firearms Training (**2 Hours**)
  1. 1 Students

n. 30November2021

- i. Firearms Requalification (**1 Hour**)
  1. 1 Students

o. 3December2021

- i. Swat Training (**5 Hours**)
  1. 7 Students

p. 12November2021-8December2021

- **i.** ONLINE CLASSES **(23 Total Hours)**
  1. 14 Classes - 73 Students

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

Port Wentworth Police Department

323 Cantyre Street
Port Wentworth, Georgia 31407

Matthew W. Libby
Chief of Police

Telephone: (912) 964-4360
Fax: (912) 966-7405

q. 12November2021-8December2021

i. OFF-SITE TRAINING CLASSES **(290 Hours)**

1. 6 Classes – 7 Students

Respectfully,

Sergeant Justin Hardy
Training Unit

Attachment: Police Department Monthly Report - December 2021 (2571 : Committee Reports)

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Purchase
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2572)

DOC ID: 2572

Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 in the amount of $67,630.03 to Griffin Contracting Inc.

Issue/Item: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 in the amount of $67,630.03 to Griffin Contracting Inc.

Background: This capital stormwater project was identified and prepared by Thomas & Hutton as a result of the City-wide drainage assessment. This project will serve to improve the drainage conditions along Bonnybridge Road and adjacent parcels. Thomas & Hutton prepared plans and a bid packet for the project. The Contract was awarded to Griffin Contracting, Inc., in the amount of $784,022.50.

Facts and Findings: The contractor has completed a portion of the work in accordance with the contract. Thomas & Hutton has reviewed the applications, quantities, and values of work submitted by the contractor, and recommends payment in the amount of $67,630.03.

Funding: Budgeted Capital Project

Recommendation: Approval based upon the recommendation of Thomas & Hutton.

ATTACHMENTS:

- Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (PDF)

THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405 | 912.234.5300
WWW.THOMASANDHUTTON.COM

August 23, 2021

Mr. Omar Senati-Martinez, CFM
Construction Inspector
City of Pt. Wentworth
7306 Highway 21, Suite 301
Port Wentworth, GA 31407

Re: Bonny Bridge Road
Secondary Outfall Improvements
Pt. Wentworth, GA
Pay Request #3
J-25412.0002.813

Dear Omar:

Thomas & Hutton is currently monitoring construction and has reviewed the enclosed Pay Application #3. We recommend a payment of $67,630.03 to Griffin Contracting, Inc. based on the terms outlined in Article 14.02.B of the General Conditions of the Contract.

If you have any questions or concerns, please do not hesitate to call me at 912-667-9793.

Sincerely,

THOMAS & HUTTON

Keith R. Strong

KRS/dmb
Enclosures

cc: Ms. Danielle Newman, Griffin
Ms. Jen Roach, T&H

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (2572 : Bonnybridge Secondary Outfall

PAYMENT APPLICATION

Application Number: 3
For Period Ending: 8/13/2021

To: City of Port Wentworth
305 South Coastal Highway
Port Wentworth GA 31407

From: Griffin Contracting, INC
122 Pipemakers Circle
Suite 207
Pooler GA 31322

Project: Bonnybridge Drainage Improvements
Bonnybridge Rd
811 Bonnybridge Road
Garden City GA 31406

Project Number: 21016
Owner Project Number: J-25412.0002

Contract Summary	
Original Contract Amount:	784,022.50
Changes Amount:	0.00
Total Contract Amount:	784,022.50
Completed To Date:	579,032.00
Retainage To Date:	57,903.22
Completed Less Retainage:	521,128.78
Less Previous Application:	453,498.75
Current Payment Due:	67,630.03
Current Payment Due Plus Tax:	67,630.03
Balance To Finish:	204,990.50

Contractor's Certification

I hereby certify that the work for which this application is being submitted has been performed or is scheduled to be performed on or before the period ending date. I further certify that this work is in accordance with contract documents.

Signature

8-13-2021
Date

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (2572 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 3
Invoice Number: 21016-003

Period From: 6/1/2021
Period Through: 8/13/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
01 - Mobilization	22,506.0000	LS	1.0000	0.0000	1.0000	0.00	22,506.00
02 - Clearing & Grubbing	13,226.0000	AC	1.0000	0.2500	1.0000	3,306.50	13,226.00
03 - Grading	27.1000	SY	2,560.0000	0.0000	0.0000	0.00	0.00
04 - Earthen Maintenance Rd	8.0000	SY	2,280.0000	0.0000	0.0000	0.00	0.00
05 - 48" Tide Gate	13,018.0000	EA	2.0000	1.0000	1.0000	13,018.00	13,018.00
06 - TP 3 Rip Rap 12"	111.5000	SY	70.0000	0.0000	0.0000	0.00	0.00
07 - Storm Drain Pipe 48" CL V	169.4000	LF	2,636.0000	0.0000	2,600.0000	0.00	440,440.00
08 - Storm Drain Pipe 24" CL III	61.8000	LF	54.0000	0.0000	0.0000	0.00	0.00
09 - Storm Drain Pipe 18" CL III	400.0000	LF	5.0000	0.0000	0.0000	0.00	0.00
10 - Flared End Section 24"	859.0000	EA	2.0000	0.0000	0.0000	0.00	0.00
11 - Flared End Section 18"	752.0000	EA	1.0000	0.0000	0.0000	0.00	0.00
12 - Storm Drain Junction Box	18,292.0000	EA	4.0000	2.0000	3.0000	36,584.00	54,876.00
13 - DBL Headwall 48"	22,236.0000	EA	2.0000	1.0000	1.0000	22,236.00	22,236.00
14 - Removal of Extg Pipe	16.7000	LF	40.0000	0.0000	0.0000	0.00	0.00
15 - Clean Extg Pipe	2,082.0000	LS	1.0000	0.0000	0.0000	0.00	0.00
16 - Flow Control Water Management	16,553.0000	LS	1.0000	0.0000	0.0000	0.00	0.00
17 - Utilities Coordination	1,158.0000	LS	1.0000	0.0000	0.0000	0.00	0.00
18 - Traffic Control	2,288.0000	LS	1.0000	0.0000	0.5000	0.00	1,144.00
19 - Construction Exit	2,838.0000	EA	1.0000	0.0000	1.0000	0.00	2,838.00
20 - Silt Fence TP C / S DBL Row	7.2000	LF	1,215.0000	0.0000	1,215.0000	0.00	8,748.00

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (2572 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 3
Invoice Number: 21016-003

Period From: 6/1/2021
Period Through: 8/13/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
21 - SIte Fence TP A / NS	2.3000	LF	2,775.0000	0.0000	0.0000	0.00	0.00
22 - Temporary Grassing	0.4600	SY	7,780.0000	0.0000	0.0000	0.00	0.00
23 - Permanent Grassing	0.7200	SY	7,780.0000	0.0000	0.0000	0.00	0.00
24 - Dust Control	480.0000	LS	1.0000	0.0000	0.0000	0.00	0.00
25 - Floating Sediment Barrier	1,338.0000	EA	1.0000	0.0000	0.0000	0.00	0.00
26 - NPDES	3,132.0000	LS	1.0000	0.0000	0.0000	0.00	0.00
27 - Borrow Material	0.0000	CY	0.0000	0.0000	0.0000	0.00	0.00
28 - Remove Unsuitable Material	0.0000	CY	0.0000	0.0000	0.0000	0.00	0.00
					Project Totals:	75,144.50	579,032.00

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (2572 :

CONTRACTOR'S AFFIDAVIT AND LIEN WAIVER

PERSONALLY APPEARED before me, the undersigned attesting authority in and for the State of Georgia and Chatham County, the undersigned deponent, who being first duly sworn, on oath deposes and says as follows:

1. That the undersigned is the contractor ("Contractor") who contracted with the City of Port Wentworth (the "City") for the following work: Bonnybridge Road Outfall Improvements

performed upon or with regard to the following property: Bonnybridge Road Port Wentworth, GA

2. A contract for such work was executed on 03/11/2021 and may subsequently have been amended by one or more change orders (collectively referred to herein as the "Contract").

3. The undersigned warrants that the work described by such Contract has been fully completed according to the terms of the Contract between Contractor and City, and in accordance with all change orders thereto, and that all bills incurred for labor, material and/or services furnished or performed in connection with such work have been fully paid, without exception, including the bills of all mechanics, materialmen, suppliers or laborers used by me or by my subcontractors.

4. The undersigned acknowledges receipt of all monies which Contractor and all of Contractor's mechanics, materialmen, suppliers, laborers, and other subcontractors are due under the terms of said Contract. This Affidavit is made under the provisions of Official Code of Georgia annotated Section 44-14-361.2 and is made for the purpose of inducing said City to pay the balance of their contract price to Contractor.

5. Contractor expressly and unconditionally waives any lien rights which Contractor has or may have against or with regard to City or City's aforesaid Property.

CONTRACTOR:

WITNESS

Printed Name: Brian G Batemore

Address: 122 Pipemaker Circle Ste 201
Pooler, Ga 31322

Sworn to and subscribed before me this 1st day of April, 2019 2021

Notary Public

My Commission Expires: 11/2/2022

KIMBERLY B. DUCKEY
NOTARY PUBLIC
GEORGIA
EXPIRES 11/02/2022
EFFINGHAM COUNTY

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 3 DEC 2021 (2572 : Bonnybridge Secondary Outfall

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Purchase
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2573)

DOC ID: 2573

Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 in the amount of $195,129.44 to Griffin Contracting Inc.

Issue/Item: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 in the amount of $195,129.44 to Griffin Contracting Inc.

Background: This capital stormwater project was identified and prepared by Thomas & Hutton as a result of the City-wide drainage assessment. This project will serve to improve the drainage conditions along Bonnybridge Road and adjacent parcels. Thomas & Hutton prepared plans and a bid packet for the project. The Contract was awarded to Griffin Contracting, Inc., in the amount of $795,842.50.

Facts and Findings: The contractor has completed a portion of the work in accordance with the contract. Thomas & Hutton has reviewed the applications, quantities, and values of work submitted by the contractor, and recommends payment in the amount of $195,129.44.

Funding: Budgeted Capital Project

Recommendation: Approval based upon the recommendation of Thomas & Hutton.

ATTACHMENTS:

- Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (PDF)

THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405 | 912.234.5300
WWW.THOMASANDHUTTON.COM

December 2, 2021

Mr. Omar Senati-Martinez, CFM
Construction Inspector
City of Pt. Wentworth
7306 Highway 21, Suite 301
Port Wentworth, GA 31407

Re: Bonny Bridge Road
Secondary Outfall Improvements
Pt. Wentworth, GA
Pay Request #4
J-25412.0002.813

Dear Omar:

Thomas & Hutton is currently monitoring construction and has reviewed the enclosed Pay Application #4. We recommend a payment of $195,129.44 to Griffin Contracting, Inc. based on the terms outlined in Article 14.02.B of the General Conditions of the Contract.

If you have any questions or concerns, please do not hesitate to call me at 912-667-9793.

Sincerely,

THOMAS & HUTTON

Keith R. Strong

KRS/wr
Enclosures

cc: Ms. Danielle Newman, Griffin
Ms. Jen Roach, T&H

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 : Bonnybridge Secondary Outfall

PAYMENT APPLICATION

Application Number: 4
For Period Ending: 10/31/2021

To: City of Port Wentworth
305 South Coastal Highway
Port Wentworth GA 31407

From: Griffin Contracting, INC
122 Pipemakers Circle
Suite 207
Pooler GA 31322

Project: Bonnybridge Drainage Improvements
Bonnybridge Rd
811 Bonnybridge Road
Garden City GA 31406

Project Number: 21016
Owner Project Number: J-25412.0002

Contract Summary	
Original Contract Amount:	784,022.50
Changes Amount:	11,820.00
Total Contract Amount:	795,842.50
Completed To Date:	795,842.50
Retainage To Date:	79,584.28
Completed Less Retainage:	716,258.22
Less Previous Application:	521,128.78
Current Payment Due:	195,129.44
Current Payment Due Plus Tax:	195,129.44
Balance To Finish:	0.00

Contractor's Certification

I hereby certify that the work for which this application is being submitted has been performed or is scheduled to be performed on or before the period ending date. I further certify that this work is in accordance with contract documents.

Signature

11/29/2021
Date

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 4
Invoice Number: 21016-004

Period From: 8/14/2021
Period Through: 10/31/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
01 - Mobilization	22,506.0000	LS	1.0000	0.0000	1.0000	0.00	22,506.00
02 - Clearing & Grubbing	13,226.0000	AC	1.0000	0.0000	1.0000	0.00	13,226.00
03 - Grading	27.1000	SY	2,560.0000	2,560.0000	2,560.0000	69,376.00	69,376.00
04 - Earthen Maintenance Rd	8.0000	SY	2,280.0000	2,280.0000	2,280.0000	18,240.00	18,240.00
05 - 48" Tide Gate	13,018.0000	EA	2.0000	1.0000	2.0000	13,018.00	26,036.00
06 - TP 3 Rip Rap 12"	111.5000	SY	70.0000	70.0000	70.0000	7,805.00	7,805.00
07 - Storm Drain Pipe 48" CL V	169.4000	LF	2,636.0000	36.0001	2,636.0001	6,098.40	446,538.40
08 - Storm Drain Pipe 24" CL III	61.8000	LF	54.0000	54.0000	54.0000	3,337.20	3,337.20
09 - Storm Drain Pipe 18" CL III	400.0000	LF	5.0000	5.0000	5.0000	2,000.00	2,000.00
10 - Flared End Section 24"	859.0000	EA	2.0000	2.0000	2.0000	1,718.00	1,718.00
11 - Flared End Section 18"	752.0000	EA	1.0000	1.0000	1.0000	752.00	752.00
12 - Storm Drain Junction Box	18,292.0000	EA	4.0000	1.0000	4.0000	18,292.00	73,168.00
13 - DBL Headwall 48"	22,236.0000	EA	2.0000	1.0000	2.0000	22,236.00	44,472.00
14 - Removal of Extg Pipe	16.7000	LF	40.0000	40.0000	40.0000	668.00	668.00
15 - Clean Extg Pipe	2,082.0000	LS	1.0000	1.0000	1.0000	2,082.00	2,082.00
16 - Flow Control Water Management	16,553.0000	LS	1.0000	1.0000	1.0000	16,553.00	16,553.00
17 - Utilities Coordination	1,158.0000	LS	1.0000	1.0000	1.0000	1,158.00	1,158.00
18 - Traffic Control	2,288.0000	LS	1.0000	0.5000	1.0000	1,144.00	2,288.00
19 - Construction Exit	2,838.0000	EA	1.0000	0.0000	1.0000	0.00	2,838.00
20 - Silt Fence TP C / S DBL Row	7.2000	LF	1,215.0000	0.0000	1,215.0000	0.00	8,748.00

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 4
Invoice Number: 21016-004

Period From: 8/14/2021
Period Through: 10/31/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
21 - SIlte Fence TP A / NS	2.3000	LF	2,775.0000	2,775.0000	2,775.0000	6,382.50	6,382.50
22 - Temporary Grassing	0.4600	SY	7,780.0000	7,780.0000	7,780.0000	3,578.80	3,578.80
23 - Permanent Grassing	0.7200	SY	7,780.0000	7,780.0000	7,780.0000	5,601.60	5,601.60
24 - Dust Control	480.0000	LS	1.0000	1.0000	1.0000	480.00	480.00
25 - Floating Sediment Barrier	1,338.0000	EA	1.0000	1.0000	1.0000	1,338.00	1,338.00
26 - NPDES	3,132.0000	LS	1.0000	1.0000	1.0000	3,132.00	3,132.00
27 - CO #2 Borrow Material	23.6400	CY	500.0000	500.0000	500.0000	11,820.00	11,820.00
28 - Remove Unsuitable Material	0.0000	CY	0.0000	0.0000	0.0000	0.00	0.00
					Project Totals:	216,810.50	795,842.50

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 :

CONTRACTOR'S AFFIDAVIT AND LIEN WAIVER

PERSONALLY APPEARED before me, the undersigned attesting authority in and for the State of Georgia and Chatham County, the undersigned deponent, who being first duly sworn, on oath deposes and says as follows:

1. That the undersigned is the contractor ("Contractor") who contracted with the City of Port Wentworth (the "City") for the following work: Bonnybridge Road Outfall Improvements

performed upon or with regard to the following property: Bonnybridge Road Port Wentworth, GA

2. A contract for such work was executed on 03/11/2021 and may subsequently have been amended by one or more change orders (collectively referred to herein as the "Contract").

3. The undersigned warrants that the work described by such Contract has been fully completed according to the terms of the Contract between Contractor and City, and in accordance with all change orders thereto, and that all bills incurred for labor, material and/or services furnished or performed in connection with such work have been fully paid, without exception, including the bills of all mechanics, materialmen, suppliers or laborers used by me or by my subcontractors.

4. The undersigned acknowledges receipt of all monies which Contractor and all of Contractor's mechanics, materialmen, suppliers, laborers, and other subcontractors are due under the terms of said Contract. This Affidavit is made under the provisions of Official Code of Georgia annotated Section 44-14-361.2 and is made for the purpose of inducing said City to pay the balance of their contract price to Contractor.

5. Contractor expressly and unconditionally waives any lien rights which Contractor has or may have against or with regard to City or City's aforesaid Property.

CONTRACTOR:

BGB

WITNESS

Sworn to and subscribed before me this 27 day of April, 2019 2021

Notary Public

My Commission Expires: 11/2/2022

KIMBERLY LUCAS NOTARY PUBLIC EFFINGHAM COUNTY GEORGIA EXPIRES 11/02/2022

Printed Name: Brent G Batemore

Address: 122 Plantation Circle Ste 2017

Port Wentworth Ga 31322

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 : Bonnybridge Secondary Outfall

BONNYBRIDGE ROAD SECONDARY OUTFALL IMPROVEMENTS
PORT WENTWORTH, GEORGIA

CHANGE ORDER NO. 2
J-25412.0002

PROJECT: City of Port Wentworth – Bonnybridge Road Secondary Outfall Improvements

PROJECT NO.: 25412.0002 DATE: November 30, 2021

OWNER: City of Port Wentworth

CONTRACTOR: Griffin Contracting, Inc.

The Contractor is hereby requested to comply with the following changes from the contract plans and specifications:

Item #	Description of Changes – Quantities, Unit Prices, Units, Etc.	Decrease In Contract Price	Increase In Contract Prices
1	Borrow Material		11,820.00
	Total DECREASE	-0-	
	Total INCREASE		11,820.00
	Difference Col. (1) and (2)	$11,820.00	
	Net DECREASE/INCREASE Contract Price	$11,820.00 INCREASE	

The sum of $11,820.00 is hereby added to the total contract price of $784,022.50 and the total contract price to date is $795,842.50.

The time provided for completion in the contract is increased by a total of 14 calendar days, including any rain days. Substantial completion of the project occurred on October 30, 2021, pursuant to Change Order 1. Final completion date is extended to December 13, 2021. By signing below, the Contractor agrees to complete work, both substantial and final, and in its entirety, within this time frame.

This document shall become an amendment to contract, and all provisions of the contract will apply hereto.

ACCEPTED BY: _____ DATE: 12/2/21
Contractor

RECOMMENDED BY: _____ DATE: 11/30/21
Thomas & Hutton

REVIEWED BY: _____ DATE: 11/30/21
Thomas & Hutton

APPROVED BY: _____ DATE: _____
Owner

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 : Bonnybridge Secondary Outfall

BONNYBRIDGE ROAD SECONDARY OUTFALL IMPROVEMENTS
PORT WENTWORTH, GEORGIA

CHANGE ORDER NO. 2
J-25412.0002

PROJECT: City of Port Wentworth – Bonnybridge Road Secondary Outfall Improvements

PROJECT NO.: 25412.0002 DATE: November 30, 2021

OWNER: City of Port Wentworth

CONTRACTOR: Griffin Contracting, Inc.

The Contractor is hereby requested to comply with the following changes from the contract plans and specifications:

Item #	Description of Changes – Quantities, Unit Prices, Units, Etc.	Decrease In Contract Price	Increase In Contract Prices
1	Borrow Material		11,820.00
	Total DECREASE	-0-	
	Total INCREASE		11,820.00
	Difference Col. (1) and (2)	$11,820.00	
	Net DECREASE/INCREASE Contract Price	$11,820.00 INCREASE	

The sum of $11,820.00 is hereby added to the total contract price of $784,022.50 and the total contract price to date is $795,842.50.

The time provided for completion in the contract is increased by a total of 14 calendar days, including any rain days. Substantial completion of the project occurred on October 30, 2021, pursuant to Change Order 1. Final completion date is extended to December 13, 2021. By signing below, the Contractor agrees to complete work, both substantial and final, and in its entirety, within this time frame.

This document shall become an amendment to contract, and all provisions of the contract will apply hereto.

ACCEPTED BY: _____ DATE: _____
Contractor

RECOMMENDED BY: _____ DATE: 11/30/21
Thomas & Hutton

REVIEWED BY: _____ DATE: 11/30/21
Thomas & Hutton

APPROVED BY: _____ DATE: 11/30/21
Owner

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 4 DEC 2021 (2573 : Bonnybridge Secondary Outfall Improvements Pay

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Purchase
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2580)

DOC ID: 2580

Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 in the amount of $79,584.28 to Griffin Contracting Inc.

Issue/Item: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 in the amount of $79,584.28 to Griffin Contracting Inc.

Background: This capital stormwater project was identified and prepared by Thomas & Hutton as a result of the City-wide drainage assessment. This project will serve to improve the drainage conditions along Bonnybridge Road and adjacent parcels. Thomas & Hutton prepared plans and a bid packet for the project. The Contract was awarded to Griffin Contracting, Inc., in the amount of $795,842.50.

Facts and Findings: The contractor has completed a portion of the work in accordance with the contract. Thomas & Hutton has reviewed the applications, quantities, and values of work submitted by the contractor, and recommends payment in the amount of $79,584.28. This is the Final Pay Request for this project.

Funding: Budgeted Capital Project

Recommendation: Approval based upon the recommendation of Thomas & Hutton.

ATTACHMENTS:

- Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (PDF)

THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405 | 912.234.5300
WWW.THOMASANDHUTTON.COM

December 7, 2021

Mr. Omar Senati-Martinez, CFM
Construction Inspector
City of Pt. Wentworth
7306 Highway 21, Suite 301
Port Wentworth, GA 31407

Re: Bonny Bridge Road
Secondary Outfall Improvements
Pt. Wentworth, GA
Pay Request #5
J-25412.0002.813

Dear Omar:

Thomas & Hutton is currently monitoring construction and has reviewed the enclosed Pay Application #5. We recommend a final payment of $79,584.28 to Griffin Contracting, Inc. based on the terms outlined in Article 14.07 of the General Conditions of the Contract.

If you have any questions or concerns, please do not hesitate to call me at 912-667-9793.

Sincerely,

THOMAS & HUTTON

Keith R. Strong

KRS/wr
Enclosures

cc: Ms. Danielle Newman, Griffin
Ms. Jen Roach, T&H

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (2580 : Bonnybridge Secondary Outfall

PAYMENT APPLICATION

Application Number: 5
For Period Ending: 11/30/2021

To: City of Port Wentworth
305 South Coastal Highway
Port Wentworth GA 31407

From: Griffin Contracting, INC
122 Pipemakers Circle
Suite 207
Pooler GA 31322

Project: Bonnybridge Drainage Improvements
Bonnybridge Rd
811 Bonnybridge Road
Garden City GA 31406

Project Number: 21016

Owner Project Number: J-25412.0002

Contract Summary	
Original Contract Amount:	784,022.50
Changes Amount:	**11,820.00**
Total Contract Amount:	795,842.50
Completed To Date:	795,842.50
Retainage To Date:	0.00
Completed Less Retainage:	795,842.50
Less Previous Application:	716,258.22
Current Payment Due:	79,584.28
Current Payment Due Plus Tax:	79,584.28
Balance To Finish:	0.00

Contractor's Certification

I hereby certify that the work for which this application is being submitted has been performed or is scheduled to be performed on or before the period ending date. I further certify that this work is in accordance with contract documents.

Signature

12/06/2021
Date

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (2580 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 5
Invoice Number: 21016-005RET

Period From: 11/1/2021
Period Through: 11/30/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
01 - Mobilization	22,506.0000	LS	1.0000	0.0000	1.0000	0.00	22,506.00
02 - Clearing & Grubbing	13,226.0000	AC	1.0000	0.0000	1.0000	0.00	13,226.00
03 - Grading	27.1000	SY	2,560.0000	0.0000	2,560.0000	0.00	69,376.00
04 - Earthen Maintenance Rd	8.0000	SY	2,280.0000	0.0000	2,280.0000	0.00	18,240.00
05 - 48" Tide Gate	13,018.0000	EA	2.0000	0.0000	2.0000	0.00	26,036.00
06 - TP 3 Rip Rap 12"	111.5000	SY	70.0000	0.0000	70.0000	0.00	7,805.00
07 - Storm Drain Pipe 48" CL V	169.4000	LF	2,636.0000	0.0000	2,636.0001	0.00	446,538.40
08 - Storm Drain Pipe 24" CL III	61.8000	LF	54.0000	0.0000	54.0000	0.00	3,337.20
09 - Storm Drain Pipe 18" CL III	400.0000	LF	5.0000	0.0000	5.0000	0.00	2,000.00
10 - Flared End Section 24"	859.0000	EA	2.0000	0.0000	2.0000	0.00	1,718.00
11 - Flared End Section 18"	752.0000	EA	1.0000	0.0000	1.0000	0.00	752.00
12 - Storm Drain Junction Box	18,292.0000	EA	4.0000	0.0000	4.0000	0.00	73,168.00
13 - DBL Headwall 48"	22,236.0000	EA	2.0000	0.0000	2.0000	0.00	44,472.00
14 - Removal of Extg Pipe	16.7000	LF	40.0000	0.0000	40.0000	0.00	668.00
15 - Clean Extg Pipe	2,082.0000	LS	1.0000	0.0000	1.0000	0.00	2,082.00
16 - Flow Control Water Management	16,553.0000	LS	1.0000	0.0000	1.0000	0.00	16,553.00
17 - Utilities Coordination	1,158.0000	LS	1.0000	0.0000	1.0000	0.00	1,158.00
18 - Traffic Control	2,288.0000	LS	1.0000	0.0000	1.0000	0.00	2,288.00
19 - Construction Exit	2,838.0000	EA	1.0000	0.0000	1.0000	0.00	2,838.00
20 - Silt Fence TP C / S DBL Row	7.2000	LF	1,215.0000	0.0000	1,215.0000	0.00	8,748.00

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (2580 :

PAYMENT APPLICATION DETAILS

Customer: City of Port Wentworth
Project: Bonnybridge Drainage Improvements

Application Number: 5
Invoice Number: 21016-005RET

Period From: 11/1/2021
Period Through: 11/30/2021

Item Number - Description	Unit Price	Unit of Measure	Contract Quantity	QUANTITY		AMOUNT	
				This Period	Project To Date	This Period	Project To Date
21 - SIlte Fence TP A / NS	2.3000	LF	2,775.0000	0.0000	2,775.0000	0.00	6,382.50
22 - Temporary Grassing	0.4600	SY	7,780.0000	0.0000	7,780.0000	0.00	3,578.80
23 - Permanent Grassing	0.7200	SY	7,780.0000	0.0000	7,780.0000	0.00	5,601.60
24 - Dust Control	480.0000	LS	1.0000	0.0000	1.0000	0.00	480.00
25 - Floating Sediment Barrier	1,338.0000	EA	1.0000	0.0000	1.0000	0.00	1,338.00
26 - NPDES	3,132.0000	LS	1.0000	0.0000	1.0000	0.00	3,132.00
27 - Borrow Material	23.6400	CY	500.0000	0.0000	500.0000	0.00	11,820.00
28 - Remove Unsuitable Material	0.0000	CY	0.0000	0.0000	0.0000	0.00	0.00
					Project Totals:	0.00	795,842.50

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (2580 :

Attachment: Bonnybridge Road Secondary Outfall Improvements Pay Request No. 5 DEC 2021 (2580 : Bonnybridge Secondary Outfall

CONTRACTOR'S AFFIDAVIT AND LIEN WAIVER

PERSONALLY APPEARED before me, the undersigned attesting authority in and for the State of Georgia and Chatham County, the undersigned deponent, who being first duly sworn, on oath deposes and says as follows:

1. That the undersigned is the contractor ("Contractor") who contracted with the City of Port Wentworth (the "City") for the following work:

Bonnybridge Road Infill Improvements

performed upon or with regard to the following property: Bonnybridge Road Port Wentworth, GA

2. A contract for such work was executed on 03/11/2021 and may subsequently have been amended by one or more change orders (collectively referred to herein as the "Contract").

3. The undersigned warrants that the work described by such Contract has been fully completed according to the terms of the Contract between Contractor and City, and in accordance with all change orders thereto, and that all bills incurred for labor, material and/or services furnished or performed in connection with such work have been fully paid, without exception, including the bills of all mechanics, materialmen, suppliers or laborers used by me or by my subcontractors.

4. The undersigned acknowledges receipt of all monies which Contractor and all of Contractor's mechanics, materialmen, suppliers, laborers, and other subcontractors are due under the terms of said Contract. This Affidavit is made under the provisions of Official Code of Georgia annotated Section 44-14-361.2 and is made for the purpose of inducing said City to pay the balance of their contract price to Contractor.

5. Contractor expressly and unconditionally waives any lien rights which Contractor has or may have against or with regard to City or City's aforesaid Property.

CONTRACTOR

BGBJ

WITNESS

Sworn to and subscribed before me this 4th day of April, 2019 2021

Notary Public

My Commission Expires: 11/2/2022

KIMBERLY LUCAS NOTARY PUBLIC GEORGIA EXPIRES 11/02/2022 EFFINGHAM COUNTY

Printed Name: Brian G Bazemore

Address: 122 Riverview Circle

Port Wentworth, GA 31322

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: City Council
Category: Purchase
Prepared By: Shanta Scarboro
Department Head: Shanta Scarboro

AGENDA ITEM (ID # 2586)

DOC ID: 2586

Purchase Acquisition of Grange Road Right of Way by Georgia Ports Authority

Issue/Item: Purchase Acquisition of Grange Road Right of Way by Georgia Ports Authority.

Background: During the City Council Workshop held on Wednesday, December 8, 2021 representatives of the Georgia Ports Authority were present to discuss the purchasing of a portion of the Grange Road Right of Way.

Recommendation: Approval.

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: City Council
Category: Recognition
Prepared By: Shanta Scarboro
Department Head: Shanta Scarboro

AGENDA ITEM (ID # 2585)

DOC ID: 2585

Name Dedication of Road Behind Gas Station on Highway 21 and Grange Road

Issue/Item: Name Dedication of Road Behind Gas Station on Highway 21 and Grange Road.

Background: Name dedication of new road behind new gas station on Highway 21 and Grange Road. Mr. Charles Russell will be present to speak briefly about suggested name of "Aberdeen Drive" and its significance to the former residents of Grange Road

Recommendation: Approval.

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Planning/Zoning Item
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2575)

DOC ID: 2575

Site Plan Review Application submitted by D.R. Horton on behalf of Bald Eagle Partners, LLC for PIN #'s 7-0906-04-041, 7-0906-04-042, 7-0906-04-052, 7-0906-04-054, and 7-0906-04-063 (Lakeside Blvd) for a Specific Development Site Plan to allow a Residential Subdivision (Lakeside Phases 20, 21, 22, 23, & 29A) in a MPO (Master Plan Overlay) Zoning District.

Issue/Item: Site Plan Review Application submitted by D.R. Horton on behalf of Bald Eagle Partners, LLC for PIN #'s 7-0906-04-041, 7-0906-04-042, 7-0906-04-052, 7-0906-04-054, and 7-0906-04-063 (Lakeside Blvd) for a Specific Development Site Plan to allow a Residential Subdivision (Lakeside Phases 20, 21, 22, 23, & 29A) in a MPO (Master Plan Overlay) Zoning District.

Background: The subject property is currently undeveloped land in the Lakeside at Rice Hope subdivision. The preliminary plat applications for phases 20, 21 and 22 were approved at the November 18, 2021 City Council meeting. The preliminary plat application for phases 23 and 29A are pending approval at the December 16, 2021 City Council meeting.

Facts and Findings: The owner intends to develop a five new phases of the Lakeside at Rice Hope subdivision. The phases will be accessed off of Cold Creek Pass, Flat Rock Trace and Lakeside Drive and include a estimated 262 new single family home lots. The site plan also includes all associated water and sewer utilities and stormwater drainage. This application is currently under technical review by City Engineers, Thomas & Hutton

Funding: N/A

Recommendation: The Planning Commission will hear this application on Monday, December 13, 2021 at 6:30 P.M.

ATTACHMENTS:

- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Application (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - APO List (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - APO Exhibit (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS exhibit (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - ERU Calculations (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Landfill Letter (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Pre-Development Exhibit (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Pipe Chart 09-01-2021 (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - POST BASIN Exhibit (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Sewer Calcs 08-01-2021 (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Wastewater Collection System Checklist (PDF)

- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water and Wastewater Availability (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water Distribution System Checklist (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water Calcs 08-01-2021 (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Timeline (DOCX)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (PDF)
- LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (PDF)

210419

RICE HOPE
LAKESIDE
20-23 & 29-A

12.C.a

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

RECEIVED
OCT 1 1 2021

Site Plan Review Application

Site Plan Application is required for all new construction in a "P" or "MPO" zone as defined in the Zoning Ordinance of the City of Port Wentworth.

Site Plan Type (*Check One*): ☐ General / Concept ☒ Specific Development

Site Plan Address: Lakeside Blvd., Port Wentworth, GA 31407

PIN #(s): 70906 04041, 70906 04042, 70906 04052, 70906 04054, 70906 04063

Zoning: M-P-O Estimated Cost of Construction: $ 26,000,000

Type of Construction: Residential

Applicant's Name: D.R. Horton Attn: Mr. Jared O'Sako

Mailing Address: 30 Silver Lake Road, Bluffton, SC 29909

Phone #: (843) 473-5200 Email: jrosako@drhorton.com

Owner's Name (If Different form Applicant): Bald Eagle Partners Attn: Mr. Scott DeCain

Mailing Address: 4800 Hampden Lane, Suite 200, Bethesda, MD 20814

Phone #: (571) 426-4310 Email: sdecain@baldeaglepartners.com

I hereby acknowledge that the above information is true and correct.

Applicant's Signature — Date: 10/1/2021

Owner's Signature (If Different form Applicant) — Date: 10/1/2021

Please see page 2 for required submittal checklist

Updated 4/28/2020

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Application (2575 : Site Plan Review Application

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

Site Plan Review Application Submittal Checklist

Documentation below is required for a complete submittal.

- ☒ Signed and Completed Application
- ☒ 3 Full size sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ 15 half size (11" X 17") sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ 2 copies of hydrology reports (if applicable)
- ☒ Names, mailing address, and PIN number of all property owners within 250 feet of all property lines
- ☒ 1 8 ½" X 11" of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ PDF of entire submittal (either flash drive or CD)
- ☐ Other Engineering details or reports may be required once submittal has been received
- ☒ Site plan review fee check
  - ○ No Land Disturbance- $206.00 Site Plan Fee + $50.00 Admin Fee = Total $256.00
  - ☒ With Land Disturbance - $836.00 Site Plan Fee + $50.00 Admin Fee = Total $886.00

Additional Fee Statement: If engineer review cost to the City exceeds the site plan review fee that is paid at the time of initial application submittal, you may be required to pay additional review cost.

I have read and agree to the above additional fee statement

Applicant's Signature

10/1/2021
Date

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Application (2575 : Site Plan Review Application

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00331028 10/20/2021 1:57 PM
OPER: ME TERM: 011
REF#: CK 1191800

TRAN: 112.0000 BLDG PERMIT
210419 886.00CR
BEP RICE HOPE LLC
LAKESIDE BLVD
DEV-SPR 886.00CR

TENDERED: 886.00 CHECK
APPLIED: 886.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

Attachment: LAKESIDE AT RICE

RICE HOPE LAKESIDE
PHASES 20-23 &29-A
ADJACENT PROPERTY OWNERS LIST

Owner Name	Mailing Address	PIN #	#
Denise Stone-Raguckas	303 Lakeside Blvd, Port Wentworth GA, 31407	70906A01001	1
Cortice Jackson	305 Lakeside Blvd, Port Wentworth GA, 31407	70906A01002	2
Freddy & Lena Meeks	307 Lakeside Dr, Port Wentworth GA, 31407	70906A01003	3
Derrick Barnes	309 Lakeside Dr, Port Wentworth GA, 31407	70906A01004	4
Kino & Shawndreia Deas	311 Lakeside Dr, Port Wentworth GA, 31407	70906A01005	5
Eugene & Ponda Showalter	313 Lakeside Blvd, Port Wentworth GA, 31407	70906A01006	6
AMH Development, LLC	315 Lakeside Blvd, Port Wentworth GA, 31407	70906A01007	7
Gary & Patricia Conway	403 Lakeside Blvd, Port Wentworth GA, 31407	70906A02001	8
Erin Lewis	405 Lakeside Blvd, Port Wentworth GA, 31407	70906A02002	9
Billie & Rod Cassidy	407 Lakeside Blvd, Port Wentworth GA, 31407	70906A02003	10
Herman & Sheree Rogers	409 Lakeside Blvd, Port Wentworth GA, 31407	70906A02004	11
Tiffany Brown-Corbin	503 Lakeside Blvd, Port Wentworth GA, 31407	70906A03001	12
George Bridgewell	505 Lakeside Blvd, Port Wentworth GA, 31407	70906A03002	13
Village Park Homes, LLC	507 Lakeside Blvd, Port Wentworth GA, 31407	70906A03003	14
James Millard	509 Lakeside Blvd, Port Wentworth GA, 31407	70906A03004	15
John Duncan	511 Lakeside Blvd, Port Wentworth GA, 31407	70906A03005	16
Martin Savarese	2 Lakeside Dr, Port Wentworth GA, 31407	70906A05047	17
Guardian DFH III LLC	4 Lakeside Dr, Port Wentworth GA, 31407	70906A05046	18
Cythnia Camp	6 Lakeside Dr, Port Wentworth GA, 31407	70906A05045	19
Cristina & Christopher Pace	8 Lakeside Dr, Port Wentworth GA, 31407	70906A05044	20
AMH Development, LLC	10 Lakeside Dr, Port Wentworth GA, 31407	70906A05043	21
William Benson	12 Lakeside Dr, Port Wentworth GA, 31407	70906A05042	22
Donald Hodges	14 Lakeside Dr, Port Wentworth GA, 31407	70906A05041	23
Phillip Sermprungsuk & Slinda Kalasz	16 Lakeside Dr, Port Wentworth GA, 31407	70906A05040	24
David & Sylvia Dix	18 Lakeside Dr, Port Wentworth GA, 31407	70906A05039	25
Village Park Homes, LLC	20 Lakeside Dr, Port Wentworth GA, 31407	70906A05038	26
Michael Bowling	22 Lakeside Dr, Port Wentworth GA, 31407	70906A05037	27
Village Park Homes, LLC	24 Lakeside Dr, Port Wentworth GA, 31407	70906A05036	28
Ralph Duxbury	26 Lakeside Dr, Port Wentworth GA, 31407	70906A05035	29
Richard & Jonnie Gilardi	102 Lakeside Dr, Port Wentworth GA, 31407	70906A11001	30
Daniel O'Connor	104 Lakeside Dr, Port Wentworth GA, 31407	70906A11002	31
Michael Johnson	106 Lakeside Dr, Port Wentworth GA, 31407	70906A11003	32
Jennifer Morgart	108 Lakeside Dr, Port Wentworth GA, 31407	70906A11004	33

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - APO List (2575 : Site Plan Review Application Lakeside

RICE HOPE LAKESIDE
PHASES 20-23 &29-A
ADJACENT PROPERTY OWNERS LIST

Sean & Melanie Munton	4 Moonlight Trl, Port Wentworth GA, 31407	70906A11005	34
Rice Hope Plantation Community	Night Heron Way, Port Wentworth GA, 31407	70906A11014	35
Joseph Kearns	5 Night Heron Way, Port Wentworth GA, 31407	70906A11013	36
Marcus & Felecia Austin	7 Night Heron Way, Port Wentworth GA, 31407	70906A11012	37
Dustin & Sharon Brown	8 Moonlight Trl, Port Wentworth GA, 31407	70906A11007	38
Philip Hall	6 Moonlight Trl, Port Wentworth GA, 31407	70906A11006	39
Jennifer Whittaker	4 Night Heron Way, Port Wentworth GA, 31407	70906A05034	40
Boyce Slayman SR	233 Clearwater Cir, Port Wentworth GA, 31407	70906A05021	41
John & Esmeralda Adams	231 Clearwater Cir, Port Wentworth GA, 31407	70906A05020	42
Phillip & Amy Emili	229 Clearwater Cir, Port Wentworth GA, 31407	70906A05019	43
Arthur Sanders	227 Clearwater Cir, Port Wentworth GA, 31407	70906A05018	44
Johnny & Marcia Shinsato	225 Clearwater Cir, Port Wentworth GA, 31407	70906A05017	45
Tori Burnette	223 Clearwater Cir, Port Wentworth GA, 31407	70906A05016	46
Rajah Jenkins	221 Clearwater Cir, Port Wentworth GA, 31407	70906A05015	47
Christopher Rodriguez	219 Clearwater Cir, Port Wentworth GA, 31407	70906A05014	48
Kyle & Lizbeth Balk	217 Clearwater Cir, Port Wentworth GA, 31407	70906A05013	49
Jason & Jessica Schneider	215 Clearwater Cir, Port Wentworth GA, 31407	70906A05012	50
John & Katheryn Bohannon	213 Clearwater Cir, Port Wentworth GA, 31407	70906A05011	51
Anna & Enriquez Velazquez	211 Clearwater Cir, Port Wentworth GA, 31407	70906A05010	52
Alan Kennedy	510 Lakeside Blvd, Port Wentworth GA, 31407	70906A05005	53
BEP RH TRACT 2 LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04041	54
BEP RICE HOPE LLC	300 Lakeside Blvd, Port Wentworth GA, 31407	70906 04077	55
BEP RH TRACT 2 LLC	Mulberry Ave, Port Wentworth GA, 31407	70906 04063	56
BEP RH TRACT 2 LLC	0 Rice Hope Rd, Port Wentworth GA, 31407	70906 04091	57
John Hill	Rice Hope Rd, Port Wentworth GA, 31407	70906 04012	58
BEP RICE HOPE LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04042	59
City of Port Wentworth	Moonlight Trl, Port Wentworth GA, 31407	70906 04081	60
Beacon New Homes, LLC	5 Moonlight Trl, Port Wentworth GA, 31407	70906A09054	61
Beacon New Homes, LLC	7 Moonlight Trl, Port Wentworth GA, 31407	70906A09053	62
Beacon New Homes, LLC	9 Moonlight Trl, Port Wentworth GA, 31407	70906A09052	63

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - APO List (2575 : Site Plan Review Application Lakeside

Owner Name	Mailing Address	PIN #	#
Denise Stone-Ragsdale	303 Lakeside Blvd, Port Wentworth GA, 31407	7090GA01001	1
Cortice Jackson	305 Lakeside Blvd, Port Wentworth GA, 31407	7090GA01002	2
Freddy & Lena Meeks	307 Lakeside Dr, Port Wentworth GA, 31407	7090GA01003	3
Derrick Barnes	309 Lakeside Dr, Port Wentworth GA, 31407	7090GA01004	4
Kino & Shawndreia Deas	311 Lakeside Dr, Port Wentworth GA, 31407	7090GA01005	5
Eugene & Ponda Showalter	313 Lakeside Blvd, Port Wentworth GA, 31407	7090GA01006	6
AMH Development, LLC	315 Lakeside Blvd, Port Wentworth GA, 31407	7090GA01007	7
Gary & Patricia Conway	403 Lakeside Blvd, Port Wentworth GA, 31407	7090GA02001	8
Erin Lewis	405 Lakeside Blvd, Port Wentworth GA, 31407	7090GA02002	9
Billie & Rod Cassidy	407 Lakeside Blvd, Port Wentworth GA, 31407	7090GA02003	10
Herman & Sheree Rogers	409 Lakeside Blvd, Port Wentworth GA, 31407	7090GA02004	11
Tiffany Brown-Corbin	503 Lakeside Blvd, Port Wentworth GA, 31407	7090GA03001	12
George Bridgewell	505 Lakeside Blvd, Port Wentworth GA, 31407	7090GA03002	13
Village Park Homes, LLC	507 Lakeside Blvd, Port Wentworth GA, 31407	7090GA03003	14
James Millard	509 Lakeside Blvd, Port Wentworth GA, 31407	7090GA03004	15
John Duncan	511 Lakeside Blvd, Port Wentworth GA, 31407	7090GA03005	16
Martin Savarese	2 Lakeside Dr, Port Wentworth GA, 31407	7090GA05047	17
Guardian DFH III LLC	4 Lakeside Dr, Port Wentworth GA, 31407	7090GA05046	18
Cythnia Camp	6 Lakeside Dr, Port Wentworth GA, 31407	7090GA05045	19
Cristina & Christopher Pace	8 Lakeside Dr, Port Wentworth GA, 31407	7090GA05044	20
AMH Development, LLC	10 Lakeside Dr, Port Wentworth GA, 31407	7090GA05043	21
William Benson	12 Lakeside Dr, Port Wentworth GA, 31407	7090GA05042	22
Donald Hodges	14 Lakeside Dr, Port Wentworth GA, 31407	7090GA05041	23
Phillip Semgrungsuk & Slinda Kalasz	16 Lakeside Dr, Port Wentworth GA, 31407	7090GA05040	24
David & Sylvia Dix	18 Lakeside Dr, Port Wentworth GA, 31407	7090GA05039	25
Village Park Homes, LLC	20 Lakeside Dr, Port Wentworth GA, 31407	7090GA05038	26
Michael Bowling	22 Lakeside Dr, Port Wentworth GA, 31407	7090GA05037	27
Village Park Homes, LLC	24 Lakeside Dr, Port Wentworth GA, 31407	7090GA05036	28
Ralph Duxbury	26 Lakeside Dr, Port Wentworth GA, 31407	7090GA05035	29
Richard & Jonnie Gillardi	102 Lakeside Dr, Port Wentworth GA, 31407	7090GA11001	30
Daniel O'Connor	104 Lakeside Dr, Port Wentworth GA, 31407	7090GA11002	31
Michael Johnson	106 Lakeside Dr, Port Wentworth GA, 31407	7090GA11003	32
Jennifer Morgart	108 Lakeside Dr, Port Wentworth GA, 31407	7090GA11004	33
Sean & Melanie Munton	4 Moonlight Trl, Port Wentworth GA, 31407	7090EA11005	34
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Joseph Kearns	5 Night Heron Way, Port Wentworth GA, 31407	7090EA11013	36
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Phillip Hall	6 Moonlight Trl, Port Wentworth GA, 31407	7090EA11006	39
Jennifer Whittaker	4 Night Heron Way, Port Wentworth GA, 31407	7090EA05034	40
Boyce Slayman SR	233 Clearwater Cir, Port Wentworth GA, 31407	7090GA05021	41
John & Esmeralda Adams	231 Clearwater Cir, Port Wentworth GA, 31407	7090GA05020	42
Phillip & Amy Emill	229 Clearwater Cir, Port Wentworth GA, 31407	7090GA05019	43
Arthur Sanders	227 Clearwater Cir, Port Wentworth GA, 31407	7090GA05018	44
Johnny & Marcia Shinsato	225 Clearwater Cir, Port Wentworth GA, 31407	7090GA05017	45
Tori Burnette	223 Clearwater Cir, Port Wentworth GA, 31407	7090GA05016	46
Rajah Jenkins	221 Clearwater Cir, Port Wentworth GA, 31407	7090GA05015	47
Christopher Rodriguez	219 Clearwater Cir, Port Wentworth GA, 31407	7090GA05014	48
Kyle & Lizbeth Balk	217 Clearwater Cir, Port Wentworth GA, 31407	7090GA05013	49
Jason & Jessica Schneider	215 Clearwater Cir, Port Wentworth GA, 31407	7090GA05012	50
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BEP RH TRACT 2 LLC	Mulberry Ave, Port Wentworth GA, 31407	7090S 04063	56
BEP RH TRACT 2 LLC	0 Rice Hope Rd, Port Wentworth GA, 31407	7090S 04091	57
John Hill	Rice Hope Rd, Port Wentworth GA, 31407	7090S 04013	58
BEP RICE HOPE LLC	Lakeside Blvd, Port Wentworth GA, 31407	7090S 04042	59
City of Port Wentworth	Moonlight Trl, Port Wentworth GA, 31407	7090S 04081	60
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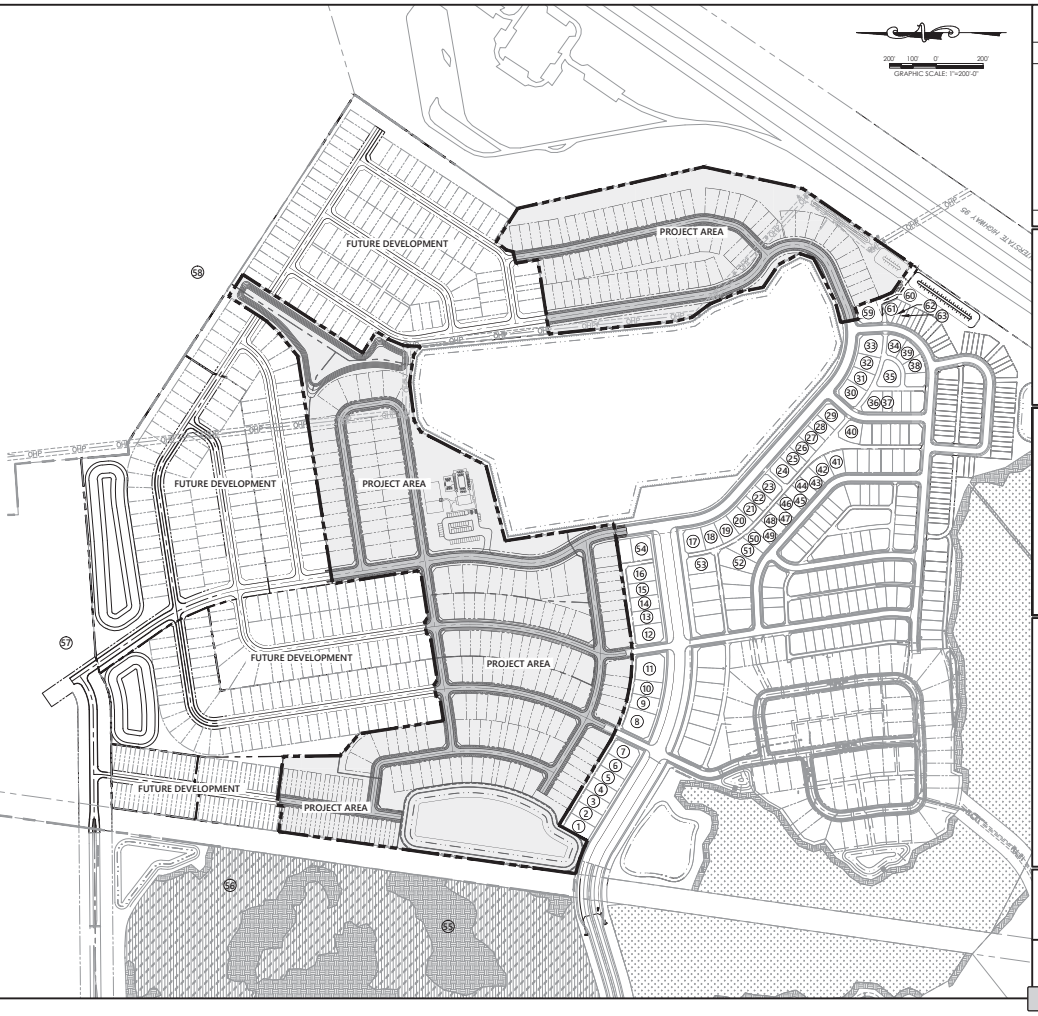
Beacon New Homes, LLC	7 Moonlight Trl, Port Wentworth GA, 31407	7090GA09053	62
Beacon New Homes, LLC	9 Moonlight Trl, Port Wentworth GA, 31407	7090GA09052	63



PITTMAN ENGINEERING
2591 Hwy 17S Suite 303
Kingsland, GA 31548
(912) 729-5473
www.PittmanEngineering@Co.com

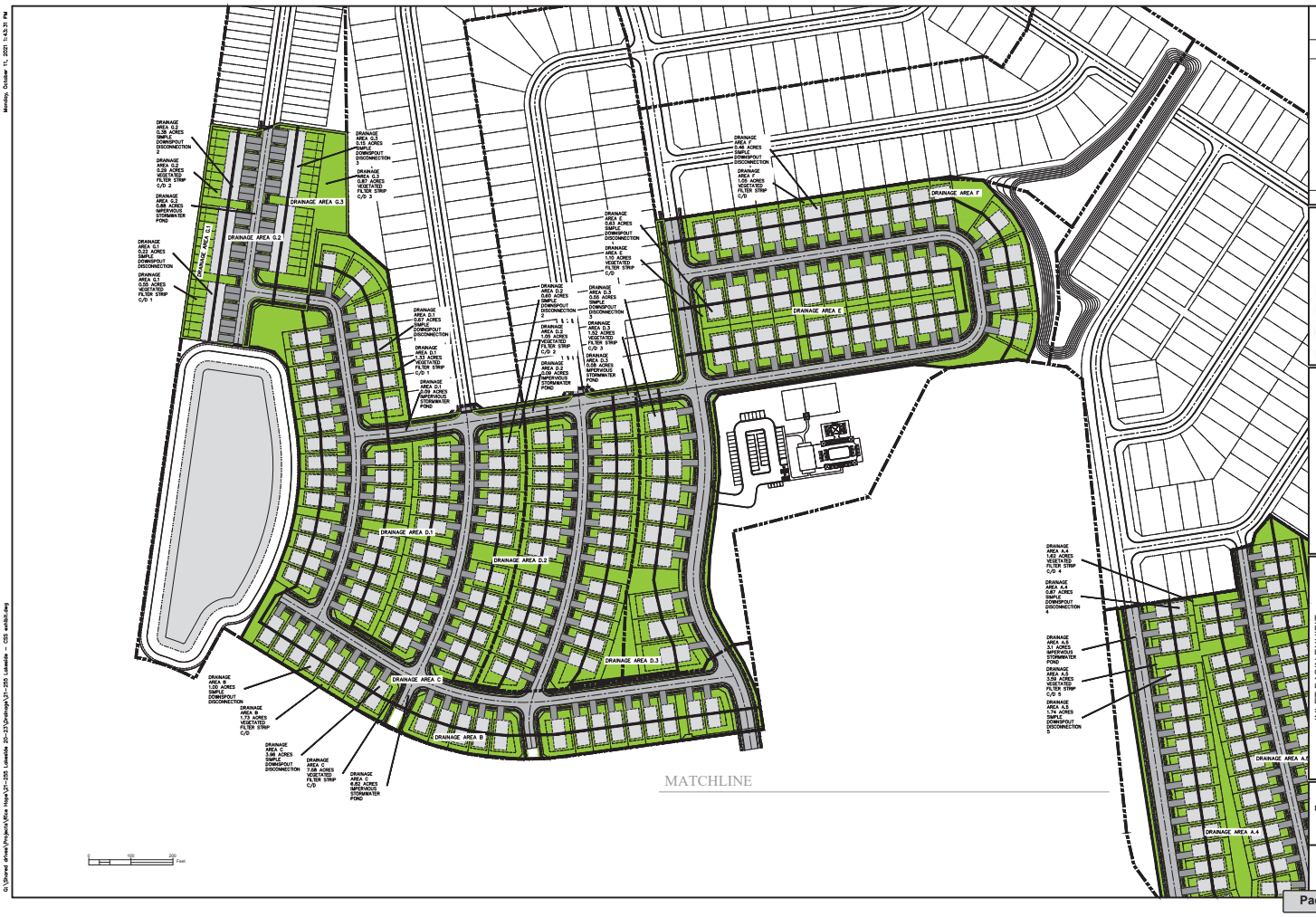
ADJACENT PROPERTY OWNERS
LAKESIDE PHASES 20-23 & 29A
CITY OF PORT WENTWORTH, GEORGIA
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	JMGL
Designed By:	JJB
Checked By:	RAP
Scale:	1"=200'
Date:	8/2/2021

SHEET 1

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - APO Exhibit (2575 : Site Plan Review Application

Friday, October 1, 2021 10:46:23 AM
Q:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Documents\Port Wentworth\Submittal 1 - Site Plans\21-255 Adjacent Property Owners.dwg



Pittman Engineering Co., LLC
2591 Dallas Hwy | Ste. 301
Rahsoma Hills, GA 3324
(678) 444-6179

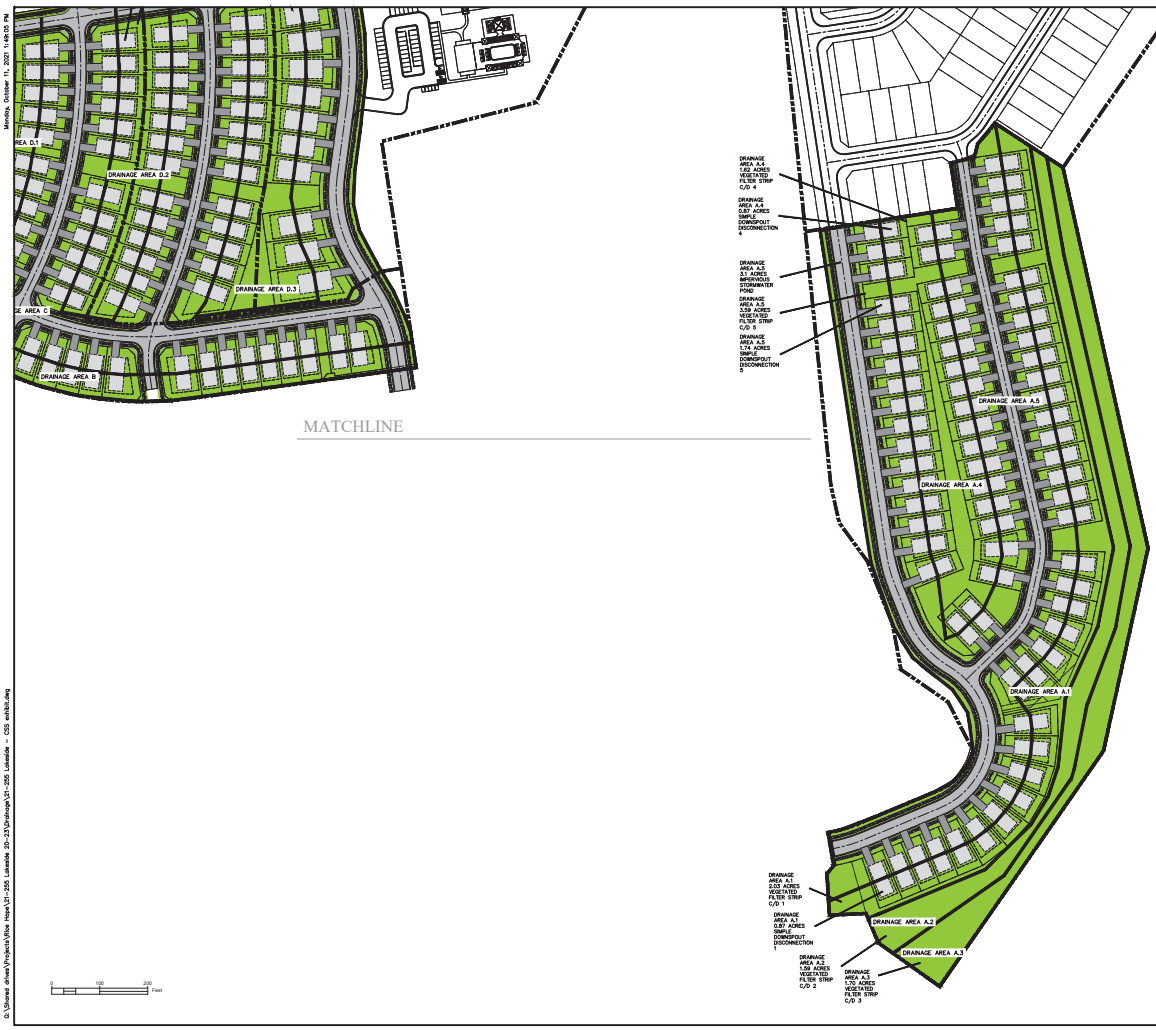
INLET BASIN EXHIBIT

RICE HOPE
LAKESIDE 20-23

Project No. 21-
Drawn By: LAR
Designed By: AJB
Checked By: RAE
Scale: 1" = 200'
Date: 09/

SHEET
1

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS exhibit (2575 : Site Plan Review Application



INLET BASIN EXHIBIT

RICE HOPE
LAKESIDE 20-23

Pittman Engineering Co., LLC
2591 Hwy 17S Suite 103
Richmond Hill, GA 31324
912-445-5978

Project No. 21-
Drawn By: LIB
Designed By: LIB
Checked By: RAP
Scale: 1"=
Date: 09/

SHEET
2

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS exhibit (2575 : Site Plan Review Application

Coastal Stormwater Supplement Site Planning & Design Worksheet

Revised July 2014

Site Data

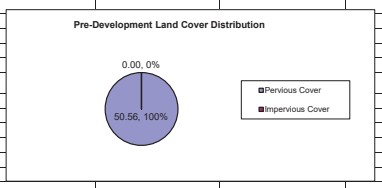
Site Name: RICE HOPE LAKESIDE 20-23 JOB NUMBER 21-255

	data input cells
	calculation cells
	constant values

Step 1: Enter Site Information

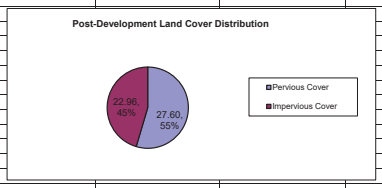
Pre-Development Land Cover (acres)

Land Cover Type	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	50.56	50.56
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	50.56

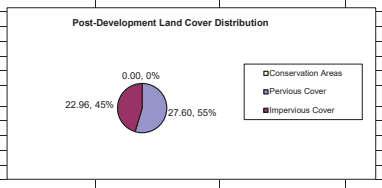


Post-Development Land Cover (acres)

Land Cover Type	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	27.60	27.60
Impervious Cover	0.00	0.00	0.00	22.96	22.96
				Total	50.56



Runoff Reduction Rainfall Event (inches)	1.2
Post-Development Site Imperviousness (%)	45%
Post-Development Site Runoff Coefficient, Rv	0.46
Target Runoff Reduction Volume, RRv (acre-feet)	2.32
Target Runoff Reduction Volume, RRv (cubic feet)	101,024

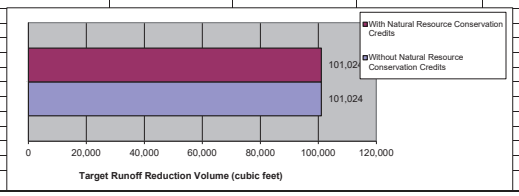


Step 2: Apply Better Site Planning Techniques

Natural Resource Conservation Credits	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Total
Primary Conservation Areas (acres)	0.0	0.0	0.0	0.0	0.0
Secondary Conservation Areas (acres)	0.0	0.0	0.0	0.0	0.0
Total (acres)					0.00

Target Runoff Reduction Volume with Natural Resource Conservation Credits, RRv

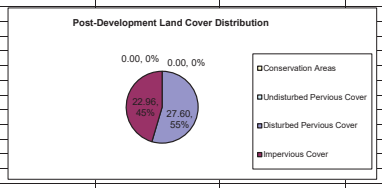
Target Runoff Reduction Volume, RRv (acre-feet)	2.32
Target Runoff Reduction Volume, RRv (cubic feet)	101,024

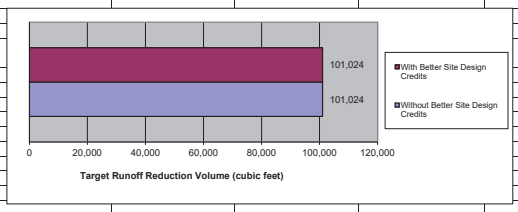


Step 3: Apply Better Site Design Techniques

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Reduced Clearing and Grading Credits					
	HSG A soils	**HSG B Soils**	**HSG C Soils**	**HSG D Soils**	**Total**
Undisturbed Pervious Cover (Acres)	0.0	0.0	0.0	0.0	0.00
Revised Post-Development Land Cover (acres)					
Land Cover Type	**HSG A soils**	**HSG B Soils**	**HSG C Soils**	**HSG D Soils**	**Totals**
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	27.60	27.60
Impervious Cover	0.00	0.00	0.00	22.96	22.96
				Total	50.56
Restoration of Disturbed Pervious Surfaces					
Soil Restoration (Acres)	0.0				
Site Reforestation/Vegetation (Acres)	0.0				
Soil Restoration w/ Site Reforestation/Revegetation (Acres)	0.0				
Target Runoff Reduction Volume After Application of Better Site Design Credits, RRv					
Target Runoff Reduction Volume, RRv (acre-feet)	2.32				
Target Runoff Reduction Volume, RRv (cubic feet)	101,024				
Note: Remainder of Better Site Design Techniques are considered to be "self-crediting."					





Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Coastal Stormwater Supplement Site Planning & Design Worksheet

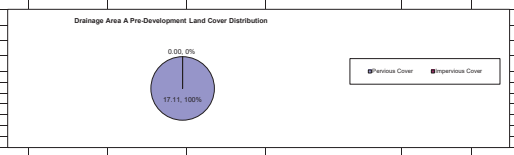
Revised July 2014

Drainage Area A

Drainage Area Information

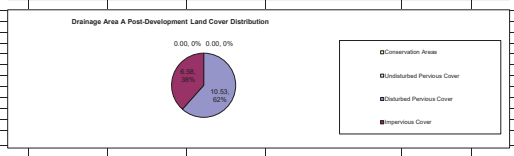
Drainage Area A Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	17.11	17.11
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	17.11



Drainage Area A Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	10.53	10.53
Impervious Cover	0.00	0.00	0.00	6.58	6.58
				Total	17.11



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	0.87	0.87	3600.2	30% of volume received by the practice	0.0	3600.2	0.0	3600.2	N/A	N/A	1080.1	2520.2	1080.1	2520.2	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	2.03	0.00	442.1	30% of volume received by the practice	2520.2	2962.3	2520.2	2962.3	N/A	N/A	888.7	2073.6	888.7	2073.6	Stormwater Pond, Wetland, or Wet Swale 1
Vegetated Filter Strip, C/D Soils 2	1.59	0.00	346.3	30% of volume received by the practice	0.0	346.3	0.0	346.3	N/A	N/A	103.9	242.4	103.9	242.4	Stormwater Pond, Wetland, or Wet Swale 1
Vegetated Filter Strip, C/D Soils 3	1.70	0.00	370.3	30% of volume received by the practice	0.0	370.3	0.0	370.3	N/A	N/A	111.1	259.2	111.1	259.2	Stormwater Pond, Wetland, or Wet Swale 2
Simple Downspout Disconnection, C/D Soils 2	0.87	0.87	3600.2	30% of volume received by the practice	0.0	3600.2	0.0	3600.2	N/A	N/A	1080.1	2520.2	1080.1	2520.2	Vegetated Filter Strip, C/D Soils 4
Vegetated Filter Strip, C/D Soils 4	1.62	0.00	352.8	30% of volume received by the practice	2520.2	2873.0	2520.2	2873.0	N/A	N/A	861.9	2011.1	861.9	2011.1	Stormwater Pond, Wetland, or Wet Swale 1
Simple Downspout Disconnection, C/D Soils 3	1.74	1.74	7200.5	30% of volume received by the practice	0.0	7200.5	0.0	7200.5	N/A	N/A	2160.1	5040.3	2160.1	5040.3	Vegetated Filter Strip, C/D Soils 5
Vegetated Filter Strip, C/D Soils 5	3.59	0.00	781.9	30% of volume received by the practice	5040.3	5822.2	5040.3	5822.2	N/A	N/A	1746.7	4075.6	1746.7	4075.6	Stormwater Pond, Wetland, or Wet Swale 1
None			0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	3.10	3.10	12828.4	None	8402.7	21231.1	8402.7	21231.1	Volume in Wet Pool and Extended Detention	25000.0	0.0	21231.1	21231.1	0.0	No Downstream Practice
Stormwater Pond, Wetland, or Wet Swale 2	0.00	0.00	0.0	None	259.2	259.2	259.2	259.2	Volume in Wet Pool and Extended Detention	5000.0	0.0	259.2	259.2	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Coastal Stormwater Supplement Site Planning & Design Worksheet

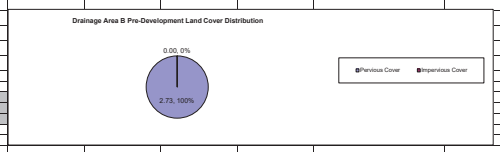
Revised July 2014

Drainage Area B

Drainage Area Information

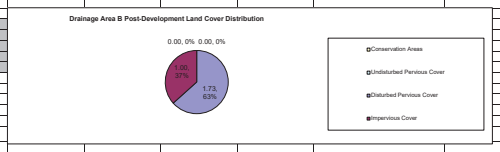
Drainage Area B Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	2.73	2.73
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	2.73



Drainage Area B Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	1.73	1.73
Impervious Cover	0.00	0.00	0.00	1.00	1.00
				Total	2.73



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	1.00	1.00	4138.2	30% of volume received by the practice	0.0	4138.2	0.0	4138.2	N/A	N/A	1241.5	2896.7	1241.5	2896.7	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	1.73	0.00	376.8	30% of volume received by the practice	2896.7	3273.5	2896.7	3273.5	N/A	N/A	982.1	2291.5	982.1	2291.5	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	0.00	0.00	0.0	None	2291.5	2291.5	2291.5	2291.5	Volume in Wet Pool and Extended Detention	20000.0	0.0	2291.5	2291.5	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**2.73**	**1.00**									**2223.5**		**4515.0**		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Coastal Stormwater Supplement Site Planning & Design Worksheet

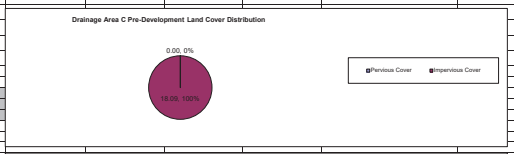
Revised July 2014

Drainage Area C

Drainage Area Information

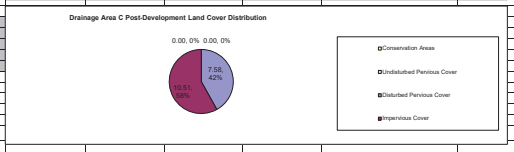
Drainage Area C Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	0.00	0.00
Impervious Cover	0.00	0.00	0.00	18.09	18.09
				Total	18.09



Drainage Area C Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	7.58	7.58
Impervious Cover	0.00	0.00	0.00	10.51	10.51
				Total	18.09



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

"Receiving" Low Impact Development Practices

Simple Downspout Disconnection, C/D Soils 1	3.69	3.69	15270.0	30% of volume received by the practice	0.0	15270.0	0.0	15270.0	N/A	N/A	4581.0	10689.0	4581.0	10689.0	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	7.58	0.00	1650.9	30% of volume received by the practice	10689.0	12339.9	10689.0	12339.9	N/A	N/A	3702.0	8637.9	3702.0	8637.9	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

Treatment Only Practices

Stormwater Pond, Wetland, or Wet Swale 1	6.82	6.82	28222.5	None	8637.9	36860.5	8637.9	36860.5	Volume in Wet Pool and Extended Detention	40000.0	0.0	36860.5	36860.5	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**18.09**	**10.51**									**8283.0**		**45143.4**		

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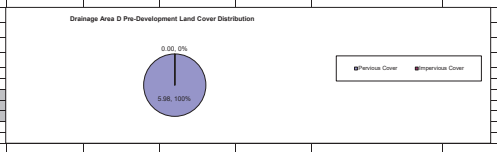
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area D

Drainage Area Information

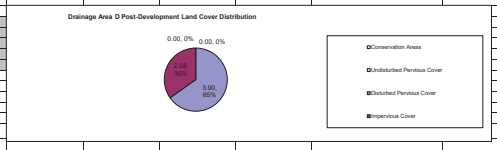
Drainage Area D Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	5.98	5.98
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	5.98



Drainage Area D Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	3.90	3.90
Impervious Cover	0.00	0.00	0.00	2.08	2.08
				Total	5.98



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	0.67	0.67	2772.6	30% of volume received by the practice	0.0	2772.6	0.0	2772.6	N/A	N/A	831.8	1940.8	831.8	1940.8	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	1.33	0.00	289.7	30% of volume received by the practice	1940.8	2230.5	1940.8	2230.5	N/A	N/A	669.1	1561.3	669.1	1561.3	Stormwater Pond, Wetland, or Wet Swale 1
Simple Downspout Disconnection, C/D Soils 2	0.60	0.60	2482.9	30% of volume received by the practice	0.0	2482.9	0.0	2482.9	N/A	N/A	744.9	1738.0	744.9	1738.0	Vegetated Filter Strip, C/D Soils 2
Vegetated Filter Strip, C/D Soils 2	1.05	0.00	228.7	30% of volume received by the practice	1738.0	1966.7	1738.0	1966.7	N/A	N/A	590.0	1376.7	590.0	1376.7	Stormwater Pond, Wetland, or Wet Swale 1
Simple Downspout Disconnection, C/D Soils 3	0.55	0.55	2276.0	30% of volume received by the practice	0.0	2276.0	0.0	2276.0	N/A	N/A	682.8	1593.2	682.8	1593.2	Vegetated Filter Strip, C/D Soils 3
Vegetated Filter Strip, C/D Soils 3	1.52	0.00	331.1	30% of volume received by the practice	1593.2	1924.3	1593.2	1924.3	N/A	N/A	577.3	1347.0	577.3	1347.0	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	0.26	0.26	1075.9	None	4285.0	5361.0	4285.0	5361.0	Volume in Wet Pool and Extended Detention	10000.0	0.0	5361.0	5361.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**5.98**	**2.08**									**4095.9**		**9456.9**		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

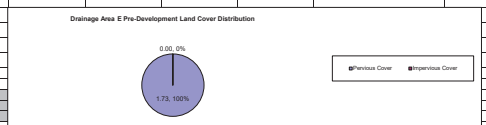
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area E

Drainage Area Information

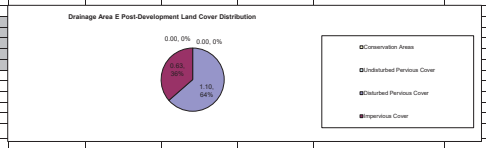
Drainage Area E Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	1.73	1.73
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	1.73



Drainage Area E Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	1.10	1.10
Impervious Cover	0.00	0.00	0.00	0.63	0.63
				Total	1.73



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	0.63	0.63	2607.1	30% of volume received by the practice	0.0	2607.1	0.0	2607.1	N/A	N/A	782.1	1824.9	782.1	1824.9	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	1.10	0.00	239.6	30% of volume received by the practice	1824.9	2064.5	1824.9	2064.5	N/A	N/A	619.4	1445.2	619.4	1445.2	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	0.00	0.00	0.0	None	1445.2	1445.2	1445.2	1445.2	Volume in Wet Pool and Extended Detention	10000.0	0.0	1445.2	1445.2	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**1.73**	**0.63**									**1401.5**		**2846.6**		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Coastal Stormwater Supplement Site Planning & Design Worksheet

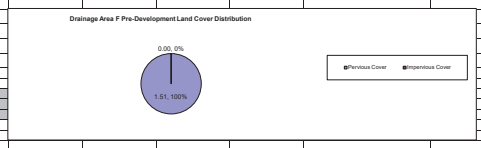
Revised July 2014

Drainage Area F

Drainage Area Information

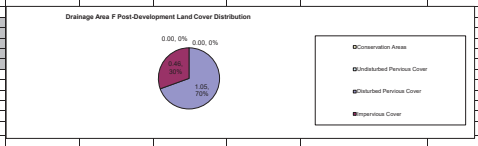
Drainage Area F Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	1.51	1.51
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	1.51



Drainage Area F Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	1.05	1.05
Impervious Cover	0.00	0.00	0.00	0.46	0.46
				Total	1.51



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	0.46	0.46	1903.6	30% of volume received by the practice	0.0	1903.6	0.0	1903.6	N/A	N/A	571.1	1332.5	571.1	1332.5	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	1.05	0.00	228.7	30% of volume received by the practice	1332.5	1561.2	1332.5	1561.2	N/A	N/A	468.4	1092.8	468.4	1092.8	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	0.00	0.00	0.0	None	1092.8	1092.8	1092.8	1092.8	Volume in Wet Pool and Extended Detention	10000.0	0.0	1092.8	1092.8	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A		0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**1.51**	**0.46**									**1039.4**		**2132.3**		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

Coastal Stormwater Supplement Site Planning & Design Worksheet

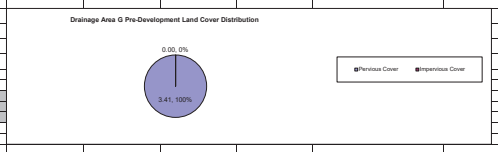
Revised July 2014

Drainage Area G

Drainage Area Information

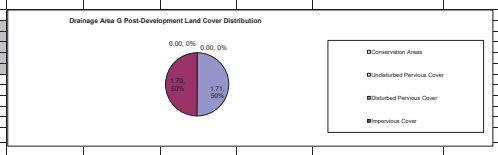
Drainage Area G Pre-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	3.41	3.41
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	3.41



Drainage Area G Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	1.71	1.71
Impervious Cover	0.00	0.00	0.00	1.70	1.70
				Total	3.41



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Simple Downspout Disconnection, C/D Soils 1	0.22	0.22	910.4	30% of volume received by the practice	0.0	910.4	0.0	910.4	N/A	N/A	273.1	637.3	273.1	637.3	Vegetated Filter Strip, C/D Soils 1
Vegetated Filter Strip, C/D Soils 1	0.55	0.00	119.8	30% of volume received by the practice	637.3	757.1	637.3	757.1	N/A	N/A	227.1	530.0	227.1	530.0	Stormwater Pond, Wetland, or Wet Swale 2
Simple Downspout Disconnection, C/D Soils 2	0.38	0.38	1572.5	30% of volume received by the practice	0.0	1572.5	0.0	1572.5	N/A	N/A	471.8	1100.8	471.8	1100.8	Vegetated Filter Strip, C/D Soils 2
Vegetated Filter Strip, C/D Soils 2	0.29	0.00	63.2	30% of volume received by the practice	1100.8	1163.9	1100.8	1163.9	N/A	N/A	349.2	814.7	349.2	814.7	Stormwater Pond, Wetland, or Wet Swale 2
Simple Downspout Disconnection, C/D Soils 3	0.15	0.15	620.7	30% of volume received by the practice	0.0	620.7	0.0	620.7	N/A	N/A	186.2	434.5	186.2	434.5	Vegetated Filter Strip, C/D Soils 3
Vegetated Filter Strip, C/D Soils 3	0.87	0.00	189.5	30% of volume received by the practice	434.5	624.0	434.5	624.0	N/A	N/A	187.2	436.8	187.2	436.8	Stormwater Pond, Wetland, or Wet Swale 2
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 2	0.95	0.95	3931.3	None	1781.5	5712.8	1781.5	5712.8	Volume in Wet Pool and Extended Detention	10000.0	0.0	5712.8	5712.8	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**3.41**	**1.70**									**1694.6**		**7407.4**		

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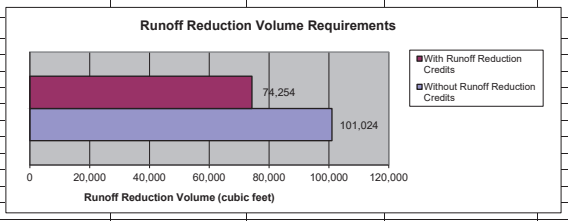
Coastal Stormwater Supplement Site Planning & Design Worksheet

Revised July 2014

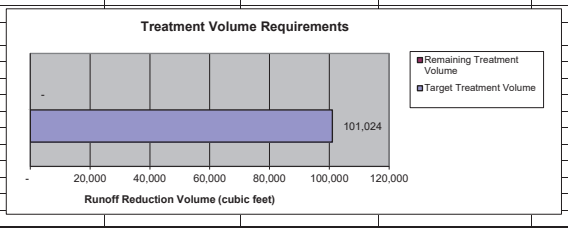
Stormwater Runoff Reduction Summary

Target Runoff Reduction and Treatment Volume, RRv (cubic feet)	101,024
Total Adjustment to Runoff Reduction Volume, RRv (cubic feet)	26,770
Percentage of Target Runoff Reduction Volume Achieved	26%
Runoff Reduction Volume Achieved (in)	0.32
Runoff Reduction Volume Remaining (cubic feet)	74,254



Note: If any of the target runoff reduction volume cannot be reduced on the development site, due to site characteristics or constraints, it should be intercepted and treated in one or more stormwater management practices that: (1) provide for at least an 80 percent reduction in TSS loads; and (2) reduce nitrogen and bacteria loads to the maximum extent practical.

Treatment Volume Achieved (cubic feet)	101,024
Treatment Volume Remaining (cubic feet)	-



Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - CSS Worksheet 09-10-21 (2575 : Site Plan Review

3.5.4 Exhibit 2 Equivalent Residential Unit (ERU) Calculations

The following is designed to compute the total number of equivalent residential units (ERU's), as well as, total water and sewer fees.

PROJECT _____ **DATE** 10/10/2021

LOCATION 0 Lakeside Blvd Port Wentworth, Georgia 31407

RESIDENTIAL USE: EQUIVALENT RESIDENTIAL UNITS (ERU)			
Total Number of Single Family Homes	262 @ 300 gpd	=	78,600 GP
Total Number of One Bedroom Apartments	_____ @ 150 gpd	=	_____ GP
Total Number of Two Bedroom Apartments	_____ @ 200 gpd	=	_____ GP
Total Number of Three Bedroom Apartments	_____ @ 300 gpd	=	_____ GP
(4 or more units per parcel)	TOTAL GPD 78,600		
	Divide by 300 gpd (1 ERU)		
	= TOTAL ERU's 262		

COMMERCIAL USE: GALLONS PER DAY (GPD)			
Offices	30 gallons/200 sq. ft.	=	_____ GPD
Department Store/Retail	5 gallons/100 sq. ft.	=	_____ GPD
Restaurant, Less Than 24 hr Operation	25 gallons/seat	=	_____ GPD
Restaurant, 24 hr Operation	50 gallons/seat	=	_____ GPD
Hotel/Motel	100 gallons per room	=	_____ GPD
Schools/Day, Restrooms, gym &	25 gallons/person	=	_____ GPD
Self Service Laundry	200 gallons/machine	=	_____ GPD
Commercial Laundry	1000 gallons/machine	=	_____ GPD
Physician's Office	100 gallons/exam room	=	_____ GPD
Dental Office	150 gallons/chair	=	_____ GPD
Clinic	150 gallons/exam room	=	_____ GPD
Nursing Home	100 gallons/resident	=	_____ GPD
Barber Shop/Beauty Parlor	100 gallons/chair	=	_____ GPD
Banks	30 gallons/200 sq.ft.	=	_____ GPD
Grocery Store	5 gallons/100 sq.ft.	=	_____ GPD
Warehouse	10 gallons/1000 sq.ft.	=	_____ GPD
Other			
	TOTAL GPD _____		
	= TOTAL ERU's _____		

Calculated by: Jason Bryant - Pittman Engineering Date: 10/1/2021

For determination of sewer tap fees reference Port Wentworth Code of Ordinance Article III Section 21-63

For determination of water tap fees reference Port Wentworth Code of Ordinance Article I Section 21-11

For determination of fire protection tap fees reference Port Wentworth Code of Ordinance Article I Section 21-11

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - ERU Calculations (2575 : Site Plan Review Application

Pittman Engineering Co., LLC
Post Office Box 822
Richmond Hill, Georgia 31324
912-445-0578

September 15, 2021

Mr. Brian Harvey
City of Port Wentworth
7306 Hwy 21, Ste 301
Port Wentworth, GA 31407

Re: **Rice Hope – Lakeside Phases 20-23 & 29A**
Landfill Letter
Port Wentworth, Georgia

Dear Brian:

On behalf of our client, BEP Rice Hope, LLC, who is also the Owner of the subject property, we hereby state that to the best of our knowledge, information and belief, the subject property has never been used as a landfill, and there are not any visible existing dangerous environmental situations. Our knowledge, information and belief are based on observing the readily available online photo history of the site for signs of previous landfill activities.

Sincerely,

PITTMAN ENGINEERING CO. LLC

Jason J. Bryant, P.E.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Landfill Letter (2575 : Site Plan Review Application

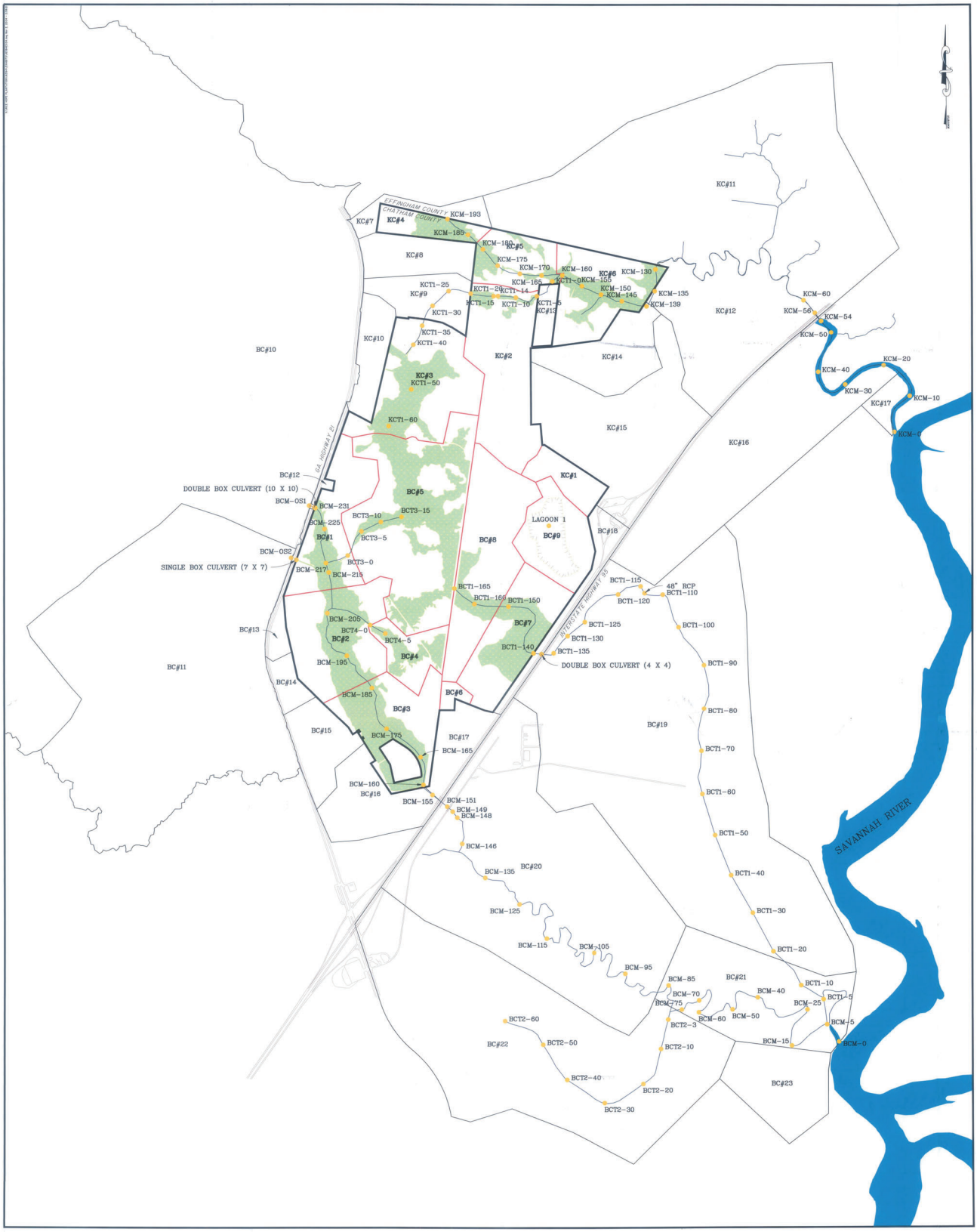


EXHIBIT 4

PRE-DEVELOPMENT SUB-BASIN DELINEATION AND NODE LOCATION MAP

RICE HOPE PLANTATION

PORT WENTWORTH, GEORGIA

LEGEND

- RICE HOPE PLANTATION PROPERTY BOUNDARY
- SURVEYED WETLANDS
- HYDROGRAPHY
- ON-SITE DRAINAGE BASIN
- OFF-SITE DRAINAGE BASIN
- FLOW NETWORK
- NODE NETWORK

PREPARED FOR:
SIVICA COMMUNITIES INC.
ROSWELL, GEORGIA

PREPARED BY:
THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA

FEBRUARY 26, 2004
J-16394

GRAPHIC SCALE
(IN FEET)
1 inch = 800 ft.

Attachment: LAKES DE AT RICE HOPE PH 3A 33_2A SPECIFIC SITE PLAN DE C 2021 - Pre-Development Exhibit (2874 : Site Plan Review Application Lakeside at Rice Hope Phases 3D 2 & 2A (Specific))

RICE HOPE LAKESIDE PHASES 20-23 & 29A
PITTMAN ENGINEERING CO
PIPE SIZING
9/1/2021

PIPE SIZING

STARTING STRUCTURE ID	RECEIVING STRUCTURE ID	DRAINAGE AREA (ACRES)	TOTAL DRAINAGE AREA (ACRES)	MANNING'S COEFF	TIME OF CONC (MIN)	RUNOFF COEFF c	25-YR 24HR RAINFALL INTENSITY (IN/HR)	CUMULATIVE DISCHARGE (CFS)	SLOPE (FT/FT)	MANNINGS CALC. (IN)	SELECTED MANNINGS SIZE (IN)	MANNINGS VELOCITY (FT/SEC)	PIPE LENGTH (FT)	PIPE TRAVEL TIME (MIN)	FRAME ELEV (FT)	FRICTION LOSSES (FT)	TOTAL	MINOR LOSSES (FT)	*DOWN STREAM ELEV (FT)	INLET PONDING ELEV (FT)	FREEBOARD (FRAME-INLET PONDING-0.3 FT) (FT)
G 112	G 142	0.20	0.20	0.013	15	0.50	6.0	0.60	0.003	8	15	2	85	0.71	18.00	0.0074	0.5	0.00	15.38	15.39	2.31
G 142	G 110	0.23	0.43	0.013	16	0.50	6.0	1.29	0.003	11	15	1	98	1.24	18.00	0.0395	0.5	0.01	15.33	15.38	2.32
G 113	G 138	0.28	0.28	0.013	15	0.50	6.0	0.84	0.003	9	15	2	85	0.71	18.00	0.0145	0.5	0.00	15.57	15.59	2.11
G 138	G 139	0.26	0.54	0.013	16	0.50	5.9	1.61	0.003	12	15	2	84	0.86	18.00	0.0525	0.5	0.01	15.51	15.57	2.13
G 139	G 110	0.29	0.83	0.013	17	0.50	5.8	2.45	0.003	14	15	2	98	0.66	18.00	0.1422	0.5	0.03	15.33	15.51	2.19
G 110	C 211	0.32	1.58	0.013	17	0.50	5.8	4.67	0.003	17	18	4	133	0.56	17.50	0.2654	0.5	0.05	15.01	15.33	1.87
C 211	C 210	1.16	2.74	0.013	18	0.50	5.7	7.97	0.003	21	24	5	25	0.08	17.44	0.0314	0.5	0.05	14.93	15.01	2.13
C 210	G 111	1.16	3.90	0.013	18	0.50	5.7	11.28	0.003	24	24	7	123	0.29	17.44	0.3095	0.5	0.10	14.52	14.93	2.21
G 114	G 146	0.26	0.26	0.013	15	0.50	6.0	0.78	0.003	9	15	2	68	0.57	18.00	0.0100	0.5	0.00	14.57	14.58	3.12
G 146	G 111	0.20	0.46	0.013	16	0.50	6.0	1.38	0.003	11	15	1	72	0.85	18.00	0.0332	0.5	0.01	14.52	14.57	3.13
G 115	G 143	0.35	0.35	0.013	15	0.50	6.0	1.05	0.003	10	15	2	85	0.71	18.00	0.0227	0.5	0.01	14.80	14.83	2.87
G 143	G 144	0.26	0.61	0.013	16	0.50	5.9	1.82	0.003	12	15	2	83	0.75	18.00	0.0664	0.5	0.02	14.72	14.80	2.90
G 144	G 111	0.26	0.87	0.013	17	0.50	5.8	2.57	0.003	14	15	3	100	0.64	18.00	0.1601	0.5	0.03	14.52	14.72	2.98
G 111	C 209	0.23	5.46	0.013	18	0.50	5.7	15.88	0.003	27	30	8	130	0.27	18.00	0.1975	0.5	0.08	14.24	14.52	3.18
C 209	C 208	1.07	6.53	0.013	19	0.50	5.6	18.88	0.003	29	30	10	33	0.06	18.17	0.0708	0.5	0.11	14.06	14.24	3.63
C 208	LAGOON	0.39	6.92	0.013	19	0.50	5.6	19.97	0.003	29	30	10	121	0.20	18.17	0.2906	0.5	0.13	13.64	14.06	3.81
G 109	G 145	0.35	0.35	0.013	15	0.50	6.0	1.05	0.003	10	15	1	86	1.34	18.00	0.0230	0.5	0.01	14.37	14.40	3.30
G 145	G 108	0.38	0.73	0.013	16	0.50	5.9	2.17	0.003	13	15	2	82	0.62	18.00	0.0936	0.5	0.02	14.26	14.37	3.33
~~G 107~~	~~G 108~~	~~0.32~~	~~1.05~~	~~0.013~~	~~17~~	~~0.50~~	~~5.8~~	~~3.10~~	~~0.003~~	~~15~~	~~15~~	~~3~~	~~82~~	~~0.43~~	~~18.00~~	~~0.1907~~	~~0.5~~	~~0.05~~	~~14.02~~	~~14.26~~	~~3.44~~
G 108	G107	0.31	1.36	0.013	18	0.50	5.7	3.98	0.003	16	18	3	82	0.40	17.00	0.1192	0.5	0.04	13.86	14.02	2.68
G 107	C 206	0.90	2.26	0.013	18	0.50	5.7	6.55	0.003	19	24	4	123	0.49	18.03	0.1043	0.5	0.03	13.72	13.86	3.87
C 206	C 207	0.32	2.58	0.013	19	0.50	5.6	7.44	0.003	20	24	5	33	0.12	18.03	0.0362	0.5	0.04	13.64	13.72	4.01
C 207	LAGOON	0.32	2.90	0.013	19	0.50	5.6	8.34	0.003	21	24	5	98	0.31	18.03	0.1348	0.5	0.05	13.64	13.83	3.90
G 165	G 153	0.31	0.31	0.013	15	0.50	6.0	0.93	0.003	10	15	1	134	2.36	18.00	0.0281	0.5	0.00	14.82	14.86	2.84
G 153	G 154	0.44	0.75	0.013	17	0.50	5.8	2.21	0.003	13	15	2	120	0.89	18.00	0.1414	0.5	0.03	14.66	14.82	2.88
G 154	G 164	0.50	1.25	0.013	18	0.50	5.7	3.63	0.003	16	18	3	120	0.65	18.00	0.1450	0.5	0.03	14.48	14.66	3.04
G 164	DMH 1	0.50	1.75	0.013	19	0.50	5.6	5.03	0.003	18	18	4	132	0.52	17.00	0.3062	0.5	0.06	14.11	14.48	2.22
DMH 1	C 201	0.00	1.75	0.013	20	0.50	5.5	5.03	0.003	18	18	4	94	0.37	18.03	0.2181	0.5	0.06	13.83	14.11	3.62
C 201	C 200	0.49	2.24	0.013	20	0.50	5.5	6.38	0.003	19	24	4	33	0.14	18.03	0.0266	0.5	0.03	13.77	13.83	3.90
C 200	LAGOON	0.18	2.42	0.013	20	0.50	5.5	6.87	0.003	20	24	4	99	0.38	18.03	0.0925	0.5	0.04	13.64	13.77	3.96
G 167	G 140	0.28	0.28	0.013	15	0.50	6.0	0.84	0.003	9	15	2	84	0.70	18.90	0.0144	0.5	0.00	15.60	15.61	2.99
G 140	G 141	0.28	0.56	0.013	16	0.50	5.9	1.67	0.003	12	15	2	84	0.83	18.43	0.0565	0.5	0.01	15.53	15.60	2.53
G 141	G 166	0.28	0.84	0.013	17	0.50	5.8	2.48	0.003	14	15	3	107	0.71	17.98	0.1591	0.5	0.03	15.34	15.53	2.15
C 204	C 205	0.92	0.92	0.013	15	0.50	6.0	2.76	0.003	14	15	2	25	0.21	17.23	0.0461	0.5	0.04	15.47	15.55	1.38
C 205	G 166	1.12	2.04	0.013	15	0.50	6.0	6.12	0.003	19	24	4	141	0.60	17.23	0.1045	0.5	0.03	15.34	15.47	1.46
G 166	G 106	0.50	3.38	0.013	17	0.50	5.8	10.05	0.003	23	24	6	167	0.44	17.56	0.3335	0.5	0.08	14.92	15.34	1.92
G 106	G 105	0.50	3.88	0.013	18	0.50	5.8	11.50	0.003	24	24	7	162	0.37	15.89	0.4236	0.5	0.10	14.39	14.92	0.67
G 104	G 105	0.40	0.40	0.013	15	0.50	5.8	1.16	0.003	10	15	1	146	2.06	16.83	0.0476	0.5	0.01	14.39	14.45	2.08

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Pipe Chart 09-01-2021 (2575 : Site Plan Review

RICE HOPE LAKESIDE PHASES 20-23 & 29A
PITTMAN ENGINEERING CO
PIPE SIZING
9/1/2021

PIPE SIZING

STARTING STRUCTURE ID	RECEIVING STRUCTURE ID	DRAINAGE AREA (ACRES)	TOTAL DRAINAGE AREA (ACRES)	MANNING'S COEFF	TIME OF CONC (MIN)	RUNOFF COEFF c	25-YR 24HR RAINFALL INTENSITY (IN/HR)	CUMULATIVE DISCHARGE (CFS)	SLOPE (FT/FT)	MANNINGS CALC. (IN)	SELECTED MANNINGS SIZE (IN)	MANNINGS VELOCITY (FT/SEC)	PIPE LENGTH (FT)	PIPE TRAVEL TIME (MIN)	FRAME ELEV (FT)	FRICTION LOSSES (FT)	TOTAL	MINOR LOSSES (FT)	*DOWN STREAM ELEV (FT)	INLET PONDING ELEV (FT)	FREEBOARD (FRAME-INLET PONDING-0.3 FT) (FT)
G 105	C 203	0.70	4.98	0.013	18	0.50	6.0	14.76	0.003	26	30	2	153	1.28	18.74	0.2007	0.5	0.07	14.12	14.39	4.05
C 203	C 202	0.73	5.71	0.013	20	0.50	6.0	16.95	0.003	27	30	9	33	0.06	18.57	0.0571	0.5	0.09	13.97	14.12	4.15
C 202	LAGOON	0.21	5.92	0.013	20	0.50	6.0	17.58	0.003	28	30	9	126	0.23	18.57	0.2344	0.5	0.10	13.64	13.97	4.30
G 156	G 157	0.48	0.48	0.013	15	0.50	6.0	1.44	0.003	11	15	2	90	0.75	16.78	0.0452	0.5	0.01	15.07	15.13	1.35
G 157	G 137	0.48	0.96	0.013	16	0.50	5.9	2.86	0.003	14	15	3	95	0.54	16.51	0.1877	0.5	0.04	14.84	15.07	1.14
C 248	C 249	0.99	0.99	0.013	15	0.50	6.0	2.97	0.003	15	15	2	25	0.21	16.04	0.0534	0.5	0.05	14.93	15.03	0.71
C 249	G 137	0.70	1.69	0.013	15	0.50	6.0	5.07	0.003	18	24	3	133	0.69	16.04	0.0676	0.5	0.02	14.84	14.93	0.81
G 137	G 155	0.65	3.30	0.013	16	0.50	5.9	9.84	0.003	22	24	6	125	0.33	16.21	0.2396	0.5	0.08	14.53	14.84	1.07
G 155	G 136	0.20	3.50	0.013	17	0.50	5.8	10.42	0.003	23	24	7	135	0.34	16.86	0.2901	0.5	0.09	14.15	14.53	2.03
C 251	C 250	0.86	0.86	0.013	15	0.50	6.0	2.58	0.003	14	15	3	25	0.16	15.95	0.0403	0.5	0.03	14.33	14.40	1.25
C 250	G 136	0.61	1.47	0.013	15	0.50	6.0	4.41	0.003	17	18	4	70	0.31	15.95	0.1248	0.5	0.05	14.15	14.33	1.32
G 136	G 158	0.10	5.07	0.013	17	0.50	5.8	15.12	0.003	26	30	8	100	0.22	16.66	0.1377	0.5	0.07	13.94	14.15	2.21
G 158	LAGOON	0.10	5.17	0.013	18	0.50	5.8	15.41	0.003	27	30	8	157	0.33	17.34	0.2246	0.5	0.08	13.64	13.94	3.10
C 220	C 221	0.25	0.25	0.013	15	0.50	6.0	0.75	0.003	9	15	1	25	0.55	18.00	0.0034	0.5	0.00	13.79	13.80	3.90
C 221	G 150	0.23	0.48	0.013	16	0.50	5.8	1.42	0.003	11	15	1	76	0.88	18.00	0.0370	0.5	0.01	13.74	13.79	3.91
G 150	G 123	0.19	0.67	0.013	17	0.50	5.7	1.96	0.003	13	18	2	69	0.69	18.00	0.0243	0.5	0.01	13.71	13.74	3.96
G 123	G 126	0.21	0.88	0.013	17	0.50	5.6	2.55	0.003	14	18	2	90	0.69	17.00	0.0535	0.5	0.02	13.64	13.71	2.99
C 216	C 217	0.71	0.71	0.013	15	0.50	6.0	2.13	0.003	13	15	2	27	0.21	18.44	0.0297	0.5	0.02	14.87	14.92	3.22
C 217	G 149	0.33	1.04	0.013	15	0.50	6.0	3.12	0.003	15	15	3	104	0.55	18.36	0.2452	0.5	0.05	14.57	14.87	3.19
G 149	G 124	0.26	1.30	0.013	16	0.50	5.9	3.89	0.004	15	15	4	83	0.35	16.00	0.3037	0.5	0.08	14.19	14.57	1.13
G 124	G 126	0.21	1.51	0.013	16	0.50	5.9	4.51	0.005	15	15	5	91	0.33	16.00	0.4476	0.5	0.10	13.64	14.19	1.51
C 223	C 222	0.31	0.31	0.013	15	0.50	6.0	0.93	0.003	10	30	0	25	0.88	18.70	0.0001	0.5	0.00	13.66	13.67	4.73
C 222	G 122	0.34	0.65	0.013	16	0.50	5.9	1.93	0.003	12	30	1	118	2.00	18.70	0.0027	0.5	0.00	13.66	13.66	4.74
G 122	G 151	0.32	0.97	0.013	18	0.50	5.8	2.86	0.003	14	30	1	103	1.18	16.01	0.0051	0.5	0.00	13.65	13.66	2.05
G 151	G 121	0.26	1.23	0.013	19	0.50	5.8	3.62	0.003	16	30	2	115	1.04	16.00	0.0090	0.5	0.00	13.64	13.65	2.05
C 214	C 215	0.57	0.57	0.013	15	0.50	6.0	1.71	0.003	12	15	2	25	0.24	17.80	0.0177	0.5	0.02	14.65	14.69	2.81
C 215	G 119	0.33	0.90	0.013	15	0.50	6.0	2.70	0.003	14	15	3	56	0.34	17.80	0.0989	0.5	0.04	14.52	14.65	2.85
G 119	G 148	0.10	1.00	0.013	16	0.50	5.9	3.00	0.003	15	15	3	93	0.51	16.00	0.2021	0.5	0.05	14.27	14.52	1.18
G 148	G 120	0.28	1.28	0.013	16	0.50	5.9	3.82	0.004	15	15	4	93	0.40	16.00	0.3289	0.5	0.08	13.86	14.27	1.43
G 120	G 121	0.26	1.54	0.013	17	0.50	5.8	4.58	0.003	17	18	4	90	0.39	16.00	0.1727	0.5	0.05	13.64	13.86	1.84
C 212	C 213	1.63	1.63	0.013	15	0.50	6.0	4.89	0.003	17	18	4	25	0.10	18.43	0.0548	0.5	0.06	14.27	14.38	3.75
C 213	G 147	0.26	1.89	0.013	15	0.50	6.0	5.67	0.003	18	18	5	69	0.24	18.43	0.2033	0.5	0.08	13.99	14.27	3.86
G 147	G 116	0.56	2.45	0.013	16	0.50	5.9	7.32	0.003	20	24	5	91	0.33	16.00	0.0965	0.5	0.04	13.85	13.99	1.71
G 116	G 125	0.38	2.83	0.013	16	0.50	5.9	8.44	0.004	21	24	5	107	0.33	16.00	0.1509	0.5	0.06	13.64	13.85	1.85
C 225	C 224	0.30	0.30	0.013	15	0.50	6.0	0.90	0.003	9	15	1	25	0.45	18.43	0.0049	0.5	0.00	15.00	15.00	3.13

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Pipe Chart 09-01-2021 (2575 : Site Plan Review

RICE HOPE LAKESIDE PHASES 20-23 & 29A
PITTMAN ENGINEERING CO
PIPE SIZING
9/1/2021

PIPE SIZING

STARTING STRUCTURE ID	RECEIVING STRUCTURE ID	DRAINAGE AREA (ACRES)	TOTAL DRAINAGE AREA (ACRES)	MANNING'S COEFF	TIME OF CONC (MIN)	RUNOFF COEFF c	25-YR 24HR RAINFALL INTENSITY (IN/HR)	CUMULATIVE DISCHARGE (CFS)	SLOPE (FT/FT)	MANNINGS CALC. (IN)	SELECTED MANNINGS SIZE (IN)	MANNINGS VELOCITY (FT/SEC)	PIPE LENGTH (FT)	PIPE TRAVEL TIME (MIN)	FRAME ELEV (FT)	FRICTION LOSSES (FT)	TOTAL	MINOR LOSSES (FT)	*DOWN STREAM ELEV (FT)	INLET PONDING ELEV (FT)	FREEBOARD (FRAME-INLET PONDING-0.3 FT) (FT)
C 224	G 118	0.58	0.88	0.013	16	0.50	5.9	2.61	0.003	14	15	3	132	0.83	18.43	0.2180	0.5	0.04	14.74	15.00	3.13
G 118	G 117	0.28	1.16	0.013	16	0.50	5.8	3.42	0.003	15	15	3	91	0.43	16.00	0.2583	0.5	0.06	14.42	14.74	0.96
G 117	G 152	0.24	1.40	0.013	17	0.50	5.8	4.12	0.004	15	15	4	113	0.45	16.00	0.4644	0.5	0.09	13.87	14.42	1.28
G 152	G 125	0.26	1.66	0.013	17	0.50	5.7	4.86	0.004	17	18	4	80	0.32	16.00	0.1732	0.5	0.06	13.64	13.87	1.83
C 240	C 241	0.50	0.50	0.013	15	0.50	6.0	1.50	0.003	11	15	2	34	0.28	19.89	0.0185	0.5	0.01	14.76	14.79	4.80
C 241	G 160	0.40	0.90	0.013	15	0.50	6.0	2.70	0.003	14	15	3	138	0.84	19.91	0.2437	0.5	0.04	14.48	14.76	4.85
G 160	G 127	0.36	1.26	0.013	16	0.50	5.9	3.76	0.003	16	18	3	114	0.60	18.00	0.1479	0.5	0.04	14.30	14.48	3.22
C 232	C 233	0.86	0.86	0.013	15	0.50	6.0	2.58	0.003	14	15	2	25	0.21	18.69	0.0403	0.5	0.03	14.55	14.62	3.77
C 233	G 127	0.57	1.43	0.013	15	0.50	6.0	4.29	0.003	17	18	4	122	0.56	18.69	0.2058	0.5	0.05	14.30	14.55	3.84
C 235	C 234	0.67	3.36	0.013	15	0.50	6.0	2.01	0.003	13	15	2	25	0.20	19.25	0.0245	0.5	0.02	14.52	14.56	4.39
C 234	G 127	0.67	4.03	0.013	15	0.50	6.0	4.02	0.003	16	18	3	122	0.60	19.25	0.1807	0.5	0.04	14.30	14.52	4.43
G 127	G 159	0.36	7.08	0.013	17	0.50	5.8	13.12	0.003	25	30	2	114	0.95	18.00	0.1181	0.5	0.06	14.12	14.30	3.40
G 159	G 133	0.36	7.44	0.013	18	0.50	5.7	14.14	0.003	26	30	7	156	0.36	18.00	0.1879	0.5	0.06	13.87	14.12	3.58
G 133	G 132	0.36	7.80	0.013	18	0.50	5.7	15.17	0.003	26	30	8	114	0.25	18.00	0.1579	0.5	0.07	13.64	13.87	3.83
G 162	G 163	0.50	0.50	0.013	15	0.50	6.0	1.50	0.004	11	15	2	196	2.14	19.41	0.1068	0.5	0.01	14.03	14.14	4.97
G 163	LAGOON	0.50	1.00	0.013	17	0.50	5.8	2.95	0.004	14	15	3	162	0.90	19.38	0.3415	0.5	0.04	13.64	14.03	5.05
C 242	C 243	0.30	0.62	0.013	15	0.50	6.0	0.90	0.003	9	15	1	34	0.62	18.43	0.0067	0.5	0.00	15.78	15.79	2.34
C 243	G 128	0.58	0.40	0.013	16	0.50	5.9	2.61	0.003	14	15	3	138	0.86	18.43	0.2279	0.5	0.04	15.52	15.78	2.35
G 128	G 134	0.28	0.42	0.013	17	0.50	5.8	3.42	0.003	15	15	3	156	0.75	16.00	0.4427	0.5	0.06	15.01	15.52	0.18
G 134	G 161	0.24	0.51	0.013	17	0.50	5.8	4.12	0.004	15	15	4	208	0.83	16.00	0.8548	0.5	0.09	14.07	15.01	0.69
G 161	G 131	0.26	0.60	0.013	18	0.50	5.7	4.86	0.004	17	18	4	172	0.69	16.00	0.3724	0.5	0.06	13.64	14.07	1.63

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Pipe Chart 09-01-2021 (2575 : Site Plan Review

Know what's below. Call before you dig. 811

SHEET POST	Project No: 21-255 Drawn By: AF Designed By: AF Checked By: JLB Scale: 1"=500' Date: 10/11/21	POST DRAINAGE BASINS RICE HOPE LAKESIDE PHASES 20-23 & 29A *Prepared For* DR HORTON, INC	PITTMAN ENGINEERING 2591 Hwy 17S Suite 303 Richmond Hill, GA 31324 912-445-0578 www.PittmanEngineeringCo.com		REV. / REVISIONS / BY / DATE RICE HOPE

Rice Hope Lakeside Phases 20-23 & 29A
WASTEWATER EXTENSION CALCULATIONS
September 1, 2021
DR Horton, Inc.
Pittman Engineering Co., LLC

The proposed 8-Inch diameter sewer mains will extend from an existing manhole within the Rice Hope Parkside development.

The maximum expected domestic flow through the 8 diameter mains is approximately 167 gpm, based on a peaking factor of 3.5.

- (229 residences x 300 gpd per residence x 3.5 peak) / 1440 min/day = 167 gpm

The capacity of an 8-Inch diameter main at minimum slope is approximately 313 gpm. Therefore, the 8 mains have adequate capacity to serve this project.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Sewer Calcs 08-01-2021 (2575 : Site Plan Review

3.5.3 Exhibit 1 - Wastewater Collection System Check List

Typical Wastewater System Plan shall include:	Check Off
1) Layout and legend	✓
2) Exhibit 2 completed (load data)	✓
3) For effluents with process water, comply with the City's Pretreatment Ordinance.	N/A
4) Show sewer easement (if applicable)	N/A
5) Manholes numbered and placed at 350' (max.) spacing	✓
6) Manholes placed at line directional changes	✓
7) Manhole frame and invert elevations shown	✓
8) Invert elevations shown for all pipe inside manholes	✓
9) Minimum gradient of 0.4% used for 8" pipes	✓
10) Maximum height of 2' between invert of pipes and invert of discharge manholes	✓
11) Minimum angle of 90 degrees for influent lines	✓
12) All sanitary sewers profiled	✓
13) Oil/grease traps and details provided for service station and food service preparers	N/A
14) Grading, paving, drainage, erosion control plans attached	✓
15) Attach certification that water and/or sewer lines are not in, nor do they serve, structures built upon solid waste landfills	
16) For pump station design:	
a. Attach design calculations with pump curves	N/A
b. City of Port Wentworth pump station design standards used to prepare drawings, details and specifications	N/A
17) City of Port Wentworth sewer specifications and details used	✓
18) Proposed water/sewer agreement attached	N/A
19) Georgia Registered Professional Engineer stamp and signature	✓

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Wastewater Collection System Checklist (2575 : Site

Appendix A Water/Wastewater Availability

WATER/WASTEWATER AVAILABILITY REQUEST FORM

Date: 10/10/2021

A. Owner/Developer _____ Phone# (301) 915-0460

Address 4800 Hampden Lane, Suite 200 Bethesda, Maryland 20814

Contact Person Scott Decain Phone # (843) 473-5200

Address 2591 U.S, GA-17 SUITE 303, Richmond Hill, GA 31324

Engineer Pittman Engineering Co. Phone # (912) 445-0578

Development Name Rice Hope - Lakeside Phases 20-23 & 29A

B. Development Location 0 Lakeside Blvd, Port Wentworth, Georgia 31407

Township, Map & Parcel # (Attach Plat) 70906 04041, 70906 04042, 70906 04054, 70906 04063

C. Type of Development (Circle appropriate choice)

Residential Multi-Family Commercial Industrial Institutional

Number of lots/single family units 262 Building Square Footage _____

Number of multi/family units N/A

Type of Business(es) N/A

Rezoning Required: Yes **No** **Subdivision Required:** **Yes** No

D. Maximum number of employees in 24 hour period _____

If restaurant, seating capacity N/A

If car wash, number of bays N/A

If Laundromat, number of washers N/A If church, number of seats N/A

E. **SITE PLANS AND WATER/WASTEWATER USE CALCULATIONS ARE NEEDED FOR FEE QUOTES**

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water and Wastewater Availability (2575 : Site Plan

3.4.3 Exhibit 1 - Water Distribution System Check List

Typical Water System Plan shall include:	Check Off
1) Layout and legend	✓
2) Water System analysis and design (include calculations)	✓
3) Show waterline easement (if applicable)	N/A
4) Pipe separated distances called out at utility crossings	✓
5) Isolation Valves	✓
6) Valves 8" and larger placed in manholes	N/A
7) Meters sized and located on plans	N/A
8) All service connections shown	✓
9) Existing and proposed fire hydrants shown	✓
10) Fire Flow Demand (Exhibit 2)	
▪ Calculate water need based upon ISO Guidelines	N/A
▪ Show maintenance responsibility for fire line and appurtenances in owner/client agreement (Exhibit 3)	N/A
▪ Show Backflow Detector Check Assembly	
▪ If no fire system is proposed, please indicate on the plans	N/A
11) Irrigation System	
▪ Calculate water need based upon system design	N/A
▪ Show size and location of backflow preventor and water meter	N/A
▪ If no irrigation system is proposed, please indicate on the plans	N/A
12) Attach certification that water lines are not in, nor do they serve, structures built upon solid waste landfills	✓
13) City of Port Wentworth specifications and details used	✓
14) Proposed water/sewer agreement attached	N/A
15) Georgia Registered Professional Engineer stamp & signature	✓

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water Distribution System Checklist (2575 : Site Plan

Rice Hope Lakeside Phases 20-23 & 29A
WATER DISTRIBUTION CALCULATIONS
September 1, 2021
DR Horton, Inc.
Pittman Engineering Co., LLC

The proposed 2,900 linear feet of 8, 10 and 12-Inch diameter water mains will extend from existing 10 and 12-Inch diameter water mains. The tie-ins will occur at Lakeside Blvd. The proposed mains will create a loop with the existing system.

The City of Port Wentworth requirement for fire flow at the most distant point within the project is 1,000 gpm.

The maximum peak instantaneous (peak) demand for residential communities with 229 connections expected through the proposed water mains is 220 gpm. (Refer page 38 from the "Minimum Standards For Public Water Systems")

Number of Connections	Gallons Per Minute
200	205
229	***220***
250	230

The total flow demand for the project = 1,000 gpm + 220 gpm = 1,220 gpm

The total head loss using the Hazen-Williams formula with C=120 is:

Head Loss = 0.2083 x (100/C)^1.852 x Q^1.852 / D^4.8655

Head Loss = friction head loss in feet of water per 100 feet of pipe,
C = coefficient for roughness of the interior pipe surface
Q = flow rate in gallons per minute
D = inside diameter of pipe in inches

For a 10-Inch diameter water main,
If C=120, Q=1,220 gpm and D=1-Inches, then Head Loss = 1.05 ft/100 ft

Determine the head loss in the 8-Inch diameter water main,
Head Loss = 1.05 ft/100 ft x 2,900= ft = 30.5 ft
Converting ft to psi = 30.5 ft x 1 psi/2.31 ft = 13.2 psi pressure drop

Minimum residual starting pressure at tie-in location must be sufficient to account for the 13.2 psi drop, while providing 20 psi minimum at the farthest hydrant from the tie-in location.

Minimal residual starting pressure at tie-in,
= 20 psi minimum + 13.2 psi pressure drop = 33.2 psi

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Water Calcs 08-01-2021 (2575 : Site Plan Review

Monday, October 11, 2021 10:06:32 AM

CONSTRUCTION PLANS

FOR

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

PREPARED FOR:

DR HORTON, INC.

JULY 16, 2021

JOB NUMBER: 21-255

I CERTIFY THAT I HAVE BEEN IN RESPONSIBLE CHARGE OF THE DESIGN OF THIS PROJECT IN ACCORDANCE WITH THE RULES OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS. I FURTHER CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED IN ACCORDANCE WITH CURRENT STANDARD ENGINEERING PRACTICES AND ACCURATELY REFLECT THE DESIGN DEVELOPMENT REPORT (DDR) PREVIOUSLY REVIEWED AND CONCURRED IN BY EPD. I FURTHER CERTIFY THAT THE SYSTEM AS DESIGNED CAN REASONABLY BE EXPECTED TO CONSISTENTLY MEET ALL CURRENTLY APPLICABLE PERMIT LIMITS, CONDITIONS, AND REGULATORY REQUIREMENTS, PROVIDED THE FACILITY IS CONSTRUCTED AS DESIGNED AND PROPERLY OPERATED AND MAINTAINED.

THE DEVELOPMENT OF THE INCLUDED CONSTRUCTION PLANS CAN BE EXPECTED TO NOT INCREASE THE RATE OF RUNOFF PER COUNTY REQUIREMENTS, PROVIDED THE FACILITY IS CONSTRUCTED AS DESIGNED AND PROPERLY OPERATED AND MAINTAINED.

PROJECT DATA

DEVELOPER: DR HORTON, INC.
30 SILVER LAKE ROAD
BLUFFTON, SC 29909
(301) 915-0460

24 HOUR CONTACT: JARED OSAKO

TELEPHONE: (843) 473-5200

JURISDICTION: PORT WENTWORTH, GEORGIA

ZONING: PUD

PROPERTY OWNER OF RECORD: BEP RICE HOPE, LLC

FEMA FLOOD ZONE: X

FEMA FLOOD PANEL: MAP NUMBER 13051C0030G
MAP DATED 8/16/18

APPROXIMATE LOCATION OF SITE: PORT WENTWORTH, GEORGIA 31407

LATITUDE: N032.225100000000
LONGITUDE: W081.184600000000

VERTICAL DATUM: NAVD 88

PREPARED BY:

PITTMAN ENGINEERING

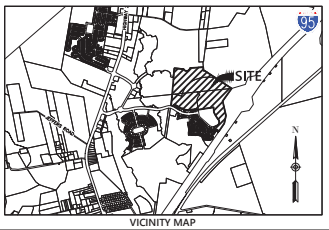
GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER JOSEPH PITTMAN

2591 HWY 17 SUITE 303
RICHMOND HILL, GA 31324
912-445-0578
WWW.PITTMANENGINEERINGCO.COM

811 Know what's below. Call before you dig.

REVISION LISTING

REV. NO.	REVISION	BY	DATE



VICINITY MAP

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C2.10	SEWER PROFILES
C2.12	WATER AND SEWER DETAILS
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C3.1	PAVING AND GRADING PLAN
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C3.6	DRAINAGE PLAN
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C3.14	STORM DRAINAGE PROFILES
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C3.19	PAVING, GRADING & DRAINAGE DETAILS
C3.20	PAVING, GRADING & DRAINAGE DETAILS
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EC5.3	EROSION CONTROL DETAILS

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Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (3570 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

Monday, October 11, 2021 10:07:00 AM

GENERAL NOTES:

OWNER/DEVELOPER:
DR HORTON, INC.
30 SILVER LAKE ROAD
BLUFFTON, SC 29909
843–473–5200
jrosako@drhorton.com

ENGINEER:
PITTMAN ENGINEERING CO., LLC
2591 HWY 17S SUITE 303
RICHMOND HILL, GA 31324
912–445–0578
www.PittmanEngineeringCo.com

SITE DATA:

ZONE:	PUD
TOTAL PROJECT ACREAGE:	65 AC.
DISTURBED AREA:	60 AC.
FLOOD MAP:	13051C0030G
FLOOD ZONE:	X

SURVEY INFORMATION:

THE TOPOGRAPHIC INFORMATION:
ALL ELEVATIONS BASED ON NAVD88

CONSTRUCTION NOTES & LEGEND

General Notes:
1. All elevations are based on NAVD88
2. Existing utility locations shown are generally schematic in nature and may not accurately reflect the size and location of each particular utility. Contractor shall field verify location of all existing utilities prior to beginning construction. All existing utilities may not be shown on these drawings. It is the contractor's responsibility to coordinate his operation with all utilities which may be in conflict with his work. The contractor must maintain and protect all utilities, or relocate utilities as needed.
3. Contractor is responsible for coordination with utility companies and adjustment of existing sanitary sewer cleanouts, manholes, water meters, storm inlets, manholes, and any other appurtenances to final grade as required.
4. Contractor is responsible for worksite safety. Occurrences at worksite shall be the complete responsibility of the contractor.
5. The contractor shall not begin construction until the proper permits have been issued.
6. The contractor shall be responsible for locating all existing utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
7. The contractor shall completely clear and grub all areas within the limits of disturbance unless indicated otherwise.
8. All construction shall conform to the City of Port Wentworth Ordinances.
9. Contractor shall coordinate construction activities with local utility companies and adjacent property owners. Contractor shall be responsible for protection and any necessary repairs to existing utility lines.
10. Three days notice to city and local utility companies is required prior to each different construction activity.
11. Control of stormwater and groundwater throughout the construction period shall be the responsibility of the contractor. Existing drainage is not to be impeded during construction. All penalties, claims and fees imposed on owner as a result of damage caused by actions of the contractor, his employees or subcontractors shall be borne in full by the contractor. Storm drainage conveyance shall not be impeded and dewatering may be required for the contractor. These are considered "Means and Methods," and any and all cost associated with this activity shall be included in the respective pay category.
12. Contractor shall be responsible for repairs of damage to any existing infrastructure including but not limited to roads, sidewalk, curb & gutter, landscaping, structures, and all existing conditions.
13. All signs, mail boxes, shrubbery, fences, landscaping or existing structures interfering with construction shall be removed and replaced by the contractor at the contractor's expense.
14. Contractor shall be solely responsible for all construction means, methods, techniques, and procedures and shall at all times take all reasonable safety precautions for the safety of its employees on the project and shall comply with all applicable provisions of federal, state, and municipal safety laws and building construction codes.
15. Contractor shall comply to the fullest extent with the latest standards or OSHA directives or any other agency having jurisdiction for excavation and trenching procedures. The contractor shall provide support systems, sloping, benching and other means of protection. This shall include, but not be limited to, access and egress from all excavation and trenching. Contractor is responsible for his job site to be in complete compliance with all regulatory requirements.
16. All construction debris shall be removed from the site and disposed of in an approved waste disposal area. The contractor shall be responsible for disposal of all construction debris.
17. Contractor must provide proper traffic control devices for construction in accordance with "Manual of Uniform Traffic Control Devices" (latest edition).
18. Only new Reinforced Concrete Pipe Class III, shall be used in city road rights–of–ways or for drainage systems or if any storm runoff from adjoining properties drain through the proposed project.
19. Pipes up to thirty–six inches in diameter shall have flared end sections.
20. Pipes of dissimilar size shall be vertical aligned with their energy grade line or shall have crowns of the pipe converge at a manhole or other structure.
21. All pipe joints, in addition to the required rubber gaskets, shall be covered with approved geo–textile material of sufficient width to be secured to the pipe and completely encircle the joint with 50% overlap.
22. All pipe that crosses a road shall be imbedded in suitable material compacted to minimum 100% standard proctor. Suitable materials are GW, GP, GM, GC, SP, or SW soils as classified under the Unified System.
23. All stormwater inlets structures shall be of the standard design and shall have inverts built in bottoms.
24. Swales shall have a 5:1 side slopes or flatter.
25. All PVC pipe shall be stored out of the sunlight or appropriately covered with a UV resistant cover. All PVC pipe shall be properly supported so "sagging" of the pipe doesn't occur during storage. Any PVC pipe showing UV degradation or sagging shall be removed and replaced at the contractor's expense.

G:\Shared drives\Projects\Rice Hope\21–255 Lakeside 20–23\Construction Plans\21–255 Lakeside 20–23 – General Notes.dwg

Staking Notes:
1. All dimensions are to the edge of pavement unless shown otherwise on the plans.
2. Layout for manholes, inlets, etc., is not shown on this plan.
3. The contractor shall verify existing benchmarks shown on the plans to establish vertical control on the site. The contractor shall be responsible for protecting these from unauthorized removal or replacement of benchmarks. When a permanent benchmark is located such that it must be removed to complete the project, the contractor shall establish such temporary benchmarks as he may require prior to removing the permanent benchmark. The contractor shall provide the location, identification and elevation of any temporary benchmark established to the owner and engineer.

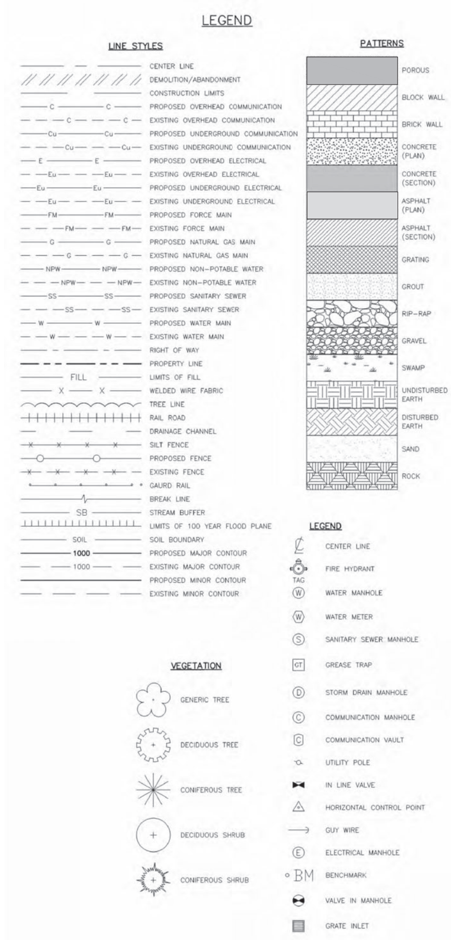
Paving, Grading and Drainage Notes:
1. The contractor shall be responsible for locating all existing underground utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
2. Contours shown on these plans are for general guidance and informational purposes. The contractor shall grade the site in accordance with spot elevations shown. In cases of conflict between spot elevations and contours the spot elevations will govern.
3. Load bearing and structural fills shall be approved suitable material as defined in the project specs, geotechnical report, Georgia Department of Transportation specifications and International Builder's Code. The most stringent requirement shall be adhered to. Waste material may be used for flushing of shoulder or construction of pedestrian or landscaped areas if they can be stabilized and will support plant growth and meet the required degree of compaction.
4. Contractor shall be responsible for ensuring proper drainage of any areas which are field adjusted during construction.
5. See details for requirements for control, construction and expansion joints in concrete sidewalks and curb and gutter.
6. Standard curb and gutter will be used where the drawings indicate that the gutter is to carry water. Pitched curb and gutter will be used where the drawings indicate the water will drain away from the gutter. Transitions between the two conditions shall be made as smoothly as possible.
7. Invert elevations shown on the plans are to the invert of the lowest pipe.
8. All storm drainage pipe shall be Class III Reinforced Concrete Pipe.

Signage and Striping Notes:
1. All traffic control measures shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices." The manual identification and dimensions are shown on staking sheets for each required sign. The orientation of each sign from an approaching driver's point of view is also shown. Sign and support post material and installation shall conform to the pertinent sections of the current edition of the Georgia Department of Transportation specifications (latest edition).
2. Street name markers are required at all intersections.

Water and Sewer Notes:
1. The contractor shall be responsible for locating all existing underground utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
2. All water and sewer connections to existing active systems are to be coordinated with City of Savannah Engineering and Public Works Departments a minimum of 72 hours prior to construction activities. Any damage to existing County utilities shall be repaired immediately at the Contractor's expense.
3. All construction shall be in accordance with the City of Port Wentworth Ordinances.
4. All water main pipe shall be AWWA C–900 Pressure Rated Pipe, Pressure Class 150, with dimension ratio 18 or lower and blue. If Ductile Iron water mains are necessary, they shall be Pressure Class 350, with cement interior lining in accordance with the latest revision of ANSI A–21.4 (AWWA C–104) and asphaltic exterior coating. The water service laterals shall be Polyethylene PE 3408 SDR 9 conforming to all requirements of AWWA C–901 and ASTM D–2737 latest revisions.
5. All sanitary sewer pipe shall be PVC and geeen, ASTM D–3034, SDR–26.
6. Minimum slope of 4–inch sewer laterals shall be 1.0%.
7. All PVC Water Main shall be blue and all PVC Sewer shall be green.
8. Sewer pipe deflection shall not exceed 5.0%. Deflection shall be verified using a spherical or cylindrical mandrel with a diameter no less than 95% of the inside pipe diameter.
9. All manhole and inlet castings shall be American made. Manufacturer's specification sheets shall be submitted for review and approval.
10. Manhole frame heights outside of paved areas shall be a minimum of 0.2 feet above finished grade.
11. Pipe, fittings, valves, and other accessories shall, unless otherwise directed, be unloaded at the point of delivery and stored where they will be protected and will not be hazardous to traffic. They shall at all times be handled with care to avoid damage. The interior of all pipes, fittings and other accessories shall be kept free from dirt and foreign matter at all times.
12. All water main and water lateral thrust restraint shall be handled by use of joint restraint/mechanical joints equivalent to Ebaa Iron Megalug or push–on joint type restrained joints equivalent to "Lok–Ring", "TR Flex", or "Super Lock". Concrete thrust block shall not be allowed.
13. All water mains shall have a minimum cover of 3 feet and a maximum cover of 5 feet measured from finished grade. Where the water main crosses other utility lines, the water main shall be installed 18" (pipe to pipe) below the other utility lines (if required) to avoid conflicts and maintain cover.
14. Maintain a minimum horizontal separation of 10 feet between water, sewer, and drainage lines unless otherwise shown.
15. When pipe laying is not in progress, a mechanical joint plug or cap will be used to form a water tight seal at both ends of the line being installed.
16. The following procedure shall be followed during flushing of the lines prior to connection to the water system:
    a. Flush the water mains using a full size flush having a minimum velocity of 2.5 feet per second.
    b. Continue flushing for a minimum time period of thirty minutes or until water line is purged of foreign matter and water runs clear.

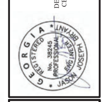
9. All water used for construction, if obtained from an unmetered line, must be metered through an approved fire hydrant meter with a backflow prevention device obtained from the municipality's water department.
10. Water distribution pipe shall have a #12 Gauge Solid Copper Tracing Wire installed along its length, including laterals up to the meter or backflow preventer.
11. All connections of the #12 Gauge Solid Copper Tracing Wire shall be made with 3m brand splice kits.
12. Mylar detectable warning tape shall be installed in sanitary sewer trenches or as required by city.
13. Gate Valves & Valve Boxes: Gate Valves shall be cast iron or ductile iron body, bronze mounted, double disc, or resilient wedge design, with non–rising stems conforming to AWWA C–500, C–509, or C–515. Valves shall have a working pressure of 200 psi, and be tested at 400 psi.
14. Hydrants shall be Mueller or approved equal with traffic yellow enamel finish and be equipped with a 4–1/2" outlet facing the street side with two 2–1/2" outlets on either side. Hydrants shall be restrained with mechanical joint fittings and rodded. Hydrant legs shall be ductile iron pressure class 350 pipe. Tracer wire shall be extended along hydrant legs, to hydrant isolation valves and up outside of valve box, and shall also extend up hydrant base terminating above grade.

Special Notes:
1. All earthworks for roadways shall be in accordance with Georgia Department of Transportation requirements.
2. The engineer shall make periodic site visits to observe construction of the project infrastructure and furnish an engineer's letter of completion with qualifiers at project close–out.
3. All sidewalks shall have no more than 2% cross slope, including driveway crossings.
4. All earthworks for lot areas and building pads shall be in conformance with the geotechnical report prepared for owner by others. The contractor shall request this report from the owner if it has not been furnished in the bid documents. Any recommendations contested by the contractor shall be submitted to the owner prior to commencing. Failing to notify the owner and resolving any conflicts, the contractor will be considered to have proceeded at their own risk and expense.
5. Contractor shall furnish as–built data for the water, sewer and storm lines which are to be stamped by a registered land surveyor registered in the state of Georgia. The survey shall be delivered in AutoCAD format and be in compliance with the city requirements.
6. The roads and drainage in this project are public and shall be owned and maintained by City of Port Wentworth.



REV.	REVISIONS	BY	DATE

JASON BRYANT
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897



PITTMAN ENGINEERING
2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578
www.PittmanEngineeringCo.com

GENERAL NOTES

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared For
DR HORTON, INC.

Project No.	21–255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	----
Date:	5/25/21

SHEET
C0.1

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

SHEET LAYOUT PLAN

RICE HOPE

LAKESIDE PHASES 20-23 & 29A

Prepared For:

PITTMAN ENGINEERING

2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578

GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER

Project No: 21-255
Drawn By: MCS
Designed By: JJB
Checked By: RMP
Scale: 1" = 200'
Date: 10/11/2021

SHEET C1.1

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH G.M. ISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 14P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A–2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED IN PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A–1 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34–S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A–2 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34–S PAGE 90B

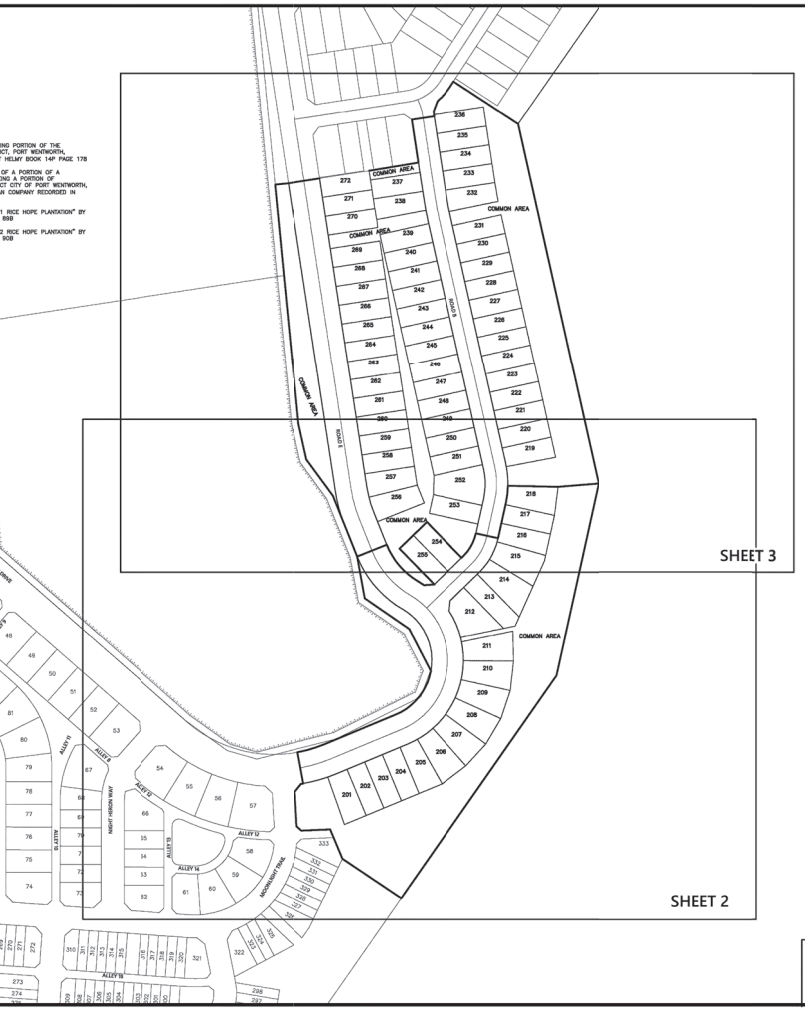
NOTES:

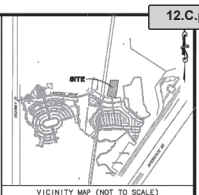
1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 GVAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS ± CLOSURE RATIO OF 1 FOOT IN 39,081 FEET OR 00'01SN, AN ANGULAR ERROR OF 33" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 44,222 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP RH TRACT 2 L.L.C (DEED BOOK 794 PAGE 549).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL C0035G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 138.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180–6–.09(C) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43–15–2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 72 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS.
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TILE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M–P–D
17. BUILDING SETBACKS BASED ON ZONING TEXT. RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

FRONT	20'
SIDE	5
REAR	15'

18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN–SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST IN THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.





VICINITY MAP (NOT TO SCALE)

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LEGEND:

○	CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, GSF 317)
⊡	CMS CONCRETE MONUMENT SET
●	CIRF CAPPED IRON REBAR FOUND
⊛	CIPF CAPPED IRON PIPE FOUND
415	LOT NUMBER
#15	ADDRESS
XX BSL	BUILDING SET BACK LINE

AREA CHART

COMMON AREA	5.08 ACRES
RIGHT OF WAY	8.16 ACRES
LOTS	3.81 ACRES
TOTAL	17.95 ACRES

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15–6–67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL SIGNATURES OR STATEMENTS LISTED HEREON. APPROVAL OF THIS PLAT BY SUCH APPROVING JURISDICTIONS SHALL BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15–6–67.

GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR FOR REVIEW ONLY NOT FOR CONSTRUCTION THOMAS G. GAMMON

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 20 LOTS 201 THRU 272

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

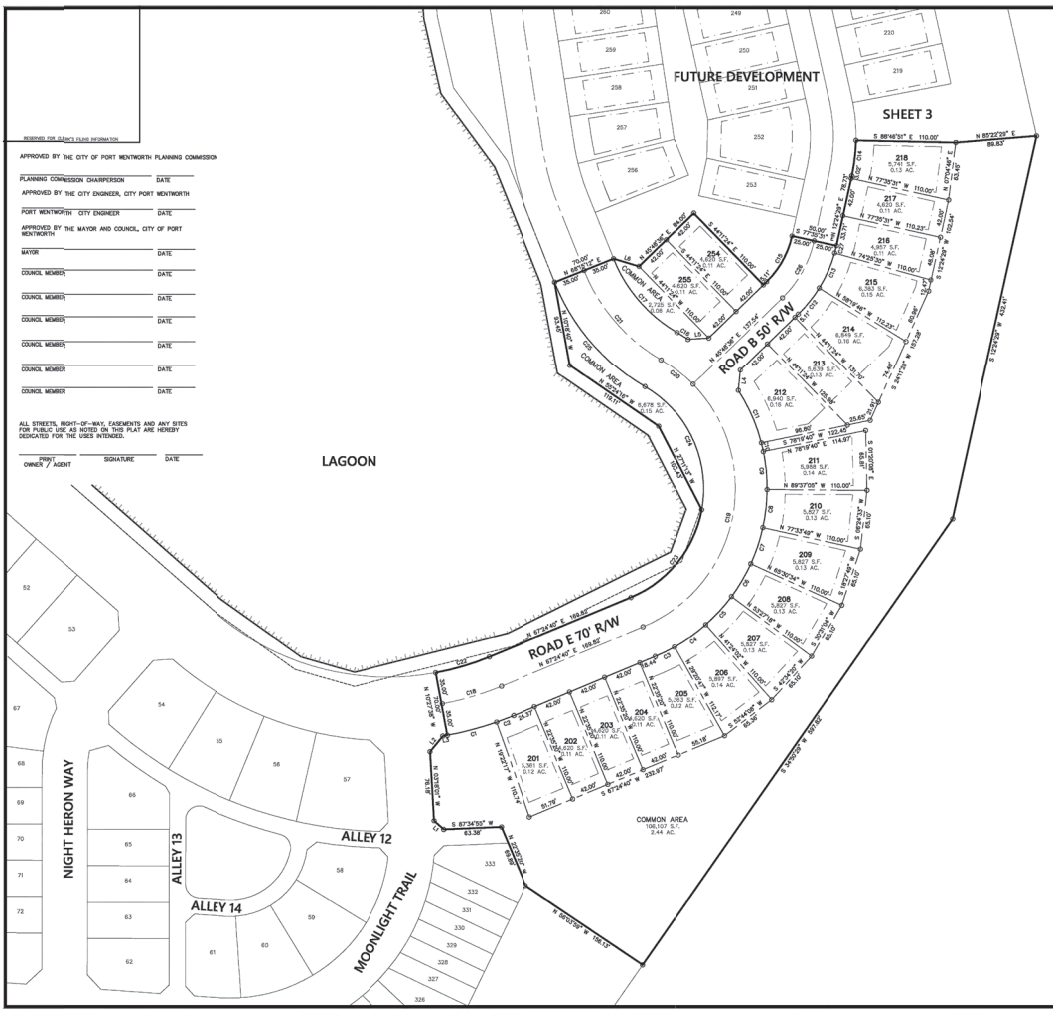
SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

100 0 50 100 200

SCALE	1" = 100'	DRAWING DATE	09/09/2021
FILE	21436A	DRAWN BY	DR
DRAWING	21436A–20	CREW CHIEF	PH
SHEET	1		

PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



LINE	BEARING	DISTANCE
L1	S 47°56'08" E	14.33'
L2	S 29°05'42" W	22.15'
L3	S 79°56'09" W	4.87'
L4	N 05°25'29" E	22.87'
L5	S 89°05'42" W	22.87'
L6	S 73°13'39" E	29.34'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	360.00'	55.18'	55.93'	N 75°09'08" E	8°47'34"
C2	360.00'	20.17'	20.32'	N 69°01'13" E	3°12'00"
C3	200.00'	43.99'	43.91'	N 64°01'07" E	12°36'07"
C4	200.00'	42.99'	42.00'	N 51°17'39" E	12°18'58"
C5	200.00'	42.99'	42.00'	N 38°24'20" E	12°18'58"
C6	200.00'	43.99'	43.91'	N 25°31'14" E	12°36'07"
C7	200.00'	42.99'	42.00'	N 12°47'49" E	12°18'58"
C8	200.00'	42.99'	42.00'	N 00°28'41" E	12°18'58"
C9	200.00'	42.99'	42.00'	N 00°58'43" W	12°18'58"
C10	200.00'	10.40'	10.00'	N 11°08'18" W	2°58'56"
C11	200.00'	63.14'	63.17'	N 23°17'29" W	18°05'23"
C12	150.00'	37.22'	36.92'	N 28°44'23" E	14°08'51"
C13	150.00'	42.4'	42.00'	N 23°37'23" E	16°05'44"
C14	200.00'	39.35'	39.99'	N 09°46'48" E	11°17'20"
C15	100.00'	58.10'	57.48'	N 29°06'13" E	33°24'07"
C16	200.00'	14.10'	14.10'	N 57°41'21" W	4°02'39"
C17	165.00'	109.32'	107.34'	S 40°43'41" E	37°57'48"
C18	328.00'	67.40'	67.28'	N 73°23'48" E	11°46'14"
C19	165.00'	321.99'	272.84'	N 11°36'38" E	111°46'05"
C20	165.00'	44.59'	44.86'	N 81°56'09" W	15°29'10"
C21	200.00'	133.52'	130.10'	N 40°43'41" W	37°57'48"
C22	280.00'	61.3'	61.3'	N 73°29'31" E	12°32'41"
C23	130.00'	124.08'	124.08'	N 39°54'27" E	57°07'27"
C24	130.00'	159.08'	148.34'	N 24°36'10" W	70°06'46"
C25	230.00'	129.77'	128.02'	S 20°43'41" E	21°37'48"
C26	125.00'	73.01'	71.94'	N 29°06'32" E	33°28'07"
C27	150.00'	6.31'	6.29'	N 13°59'50" E	2°24'51"

LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
- ⊡ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ⊛ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

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RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL SIGNATURES AND DATES CONTAINED ON THIS PLAT OR ON DOCUMENTS WHERE SUCH APPROVALS OF JURISDICTIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED LAND SURVEYOR THOMAS G. GAMMON

FOR REVIEW

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 20 LOTS 201 THRU 272

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DR
DRAWING	21436-20	CREW CHIEF	PM
SHEET			

PRELIMINARY
FOR REVIEW ONLY

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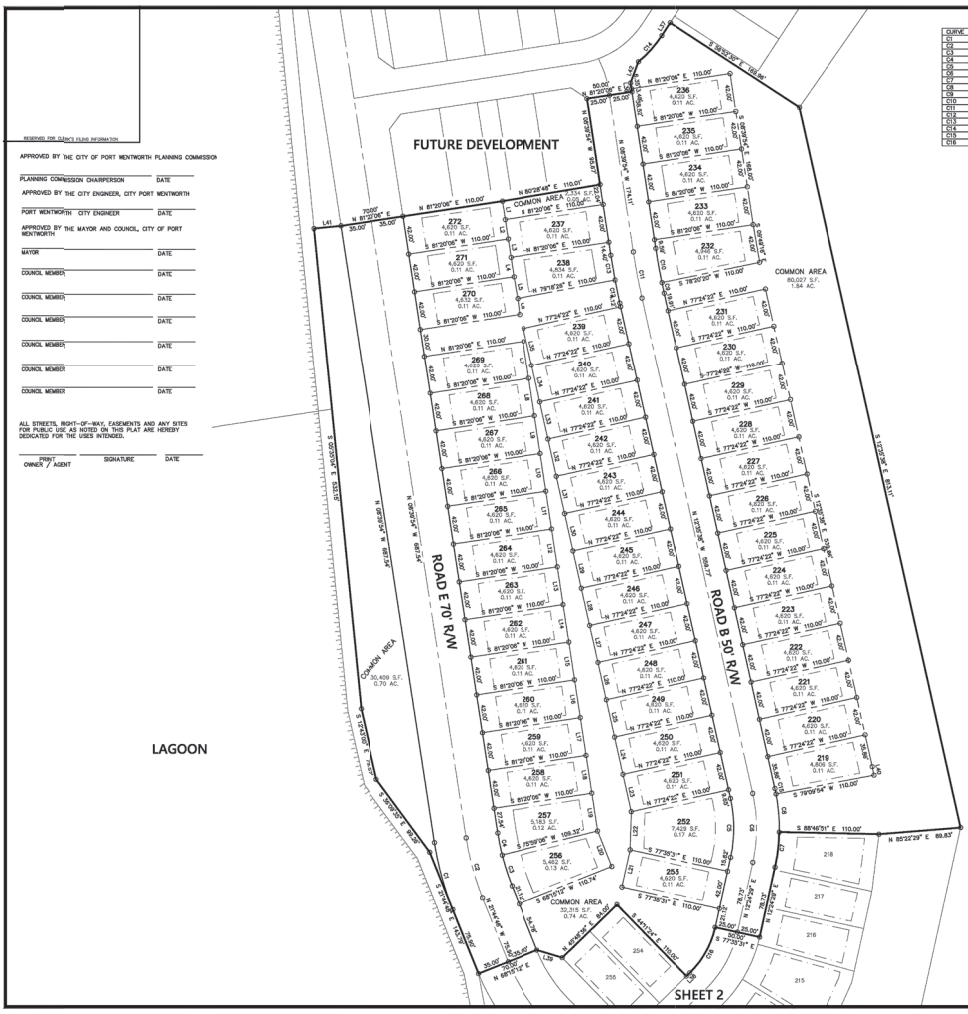

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	33.00'	76.40'	59.98'	S 15°12'40" E	132°41'04"
C2	301.00'	68.50'	68.35'	S 13°12'40" E	13°02'54"
C3	301.00'	35.79'	35.77'	S 13°42'01" E	6°48'53"
C4	265.00'	24.75'	24.74'	S 11°22'23" E	5°21'00"
C5	15.00'	63.46'	54.94'	N 00°05'54" W	242°30'03"
C6	173.00'	76.39'	75.78'	N 00°05'01" W	25°18'03"
C7	302.00'	39.06'	39.03'	N 06°48'59" E	11°11'30"
C8	202.00'	42.08'	42.00'	N 04°48'16" W	12°03'16"
C9	73.00'	11.89'	11.88'	S 13°07'37" E	2°58'39"
C10	733.00'	38.17'	38.17'	S 10°09'-7" E	2°59'46"
C11	785.00'	51.77'	50.76'	S 10°37'-4" E	3°46'44"
C12	760.00'	29.89'	29.89'	S 11°26'39" E	1°54'04"
C13	760.00'	27.61'	27.60'	S 09°40'-4" E	2°01'42"
C14	125.00'	38.73'	38.50'	N 41°59'-4" E	17°44'48"
C15	302.00'	6.14'	6.14'	N 11°43'29" W	1°09'59"
C16	152.00'	58.30'	57.48'	N 29°06'12" E	33°24'07"

LINE	BEARING	DISTANCE
L1	S 08°39'54" E	21.40'
L2	S 08°39'54" E	21.40'
L3	S 08°39'54" E	21.40'
L4	S 08°39'54" E	21.40'
L5	S 08°39'54" E	42.00'
L6	S 08°39'54" E	42.00'
L7	S 08°39'54" E	42.00'
L8	S 08°39'54" E	42.00'
L9	S 08°39'54" E	42.00'
L10	S 08°39'54" E	42.00'
L11	S 08°39'54" E	42.00'
L12	S 08°39'54" E	42.00'
L13	S 08°39'54" E	42.00'
L14	S 08°39'54" E	42.00'
L15	S 08°39'54" E	42.00'
L16	S 08°39'54" E	42.00'
L17	S 08°39'54" E	42.00'
L18	S 08°39'54" E	42.00'
L19	S 08°39'54" E	42.00'
L20	S 21°44'48" E	42.00'
L21	S 12°24'29" W	42.00'
L22	S 01°40'13" W	42.00'
L23	S 12°20'38" E	42.00'
L24	S 12°20'38" E	42.00'
L25	S 12°20'38" E	50.00'
L26	S 12°20'38" E	42.00'
L27	S 12°20'38" E	42.00'
L28	S 12°20'38" E	42.00'
L29	S 12°20'38" E	42.00'
L30	S 12°20'38" E	42.00'
L31	S 12°20'38" E	42.00'
L32	S 12°20'38" E	42.00'
L33	S 12°20'38" E	42.00'
L34	S 12°20'38" E	42.00'
L35	S 12°20'38" E	42.00'
L36	N 09°26'14" W	9.83'
L37	N 33°07'30" E	9.91'
L38	N 49°48'36" E	5.11'
L39	S 73°13'39" E	28.34'
L40	S 11°43'52" E	6.52'
L41	N 84°22'17" E	28.56'
L42	N 29°41'52" E	24.88'

LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
- □ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ⊗ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

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RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY SIGNATURES AND DATES CONTAINED HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFINED WITH REFERENCE TO SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFINED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED LAND SURVEYOR THOMAS G. GAMMON

FOR REVIEW

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 20 LOTS 201 THRU 272

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DR
DRAWING	21436-20	CREW CHIEF	PM
SHEET			

PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RESERVED FOR RECORDING INFORMATION

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

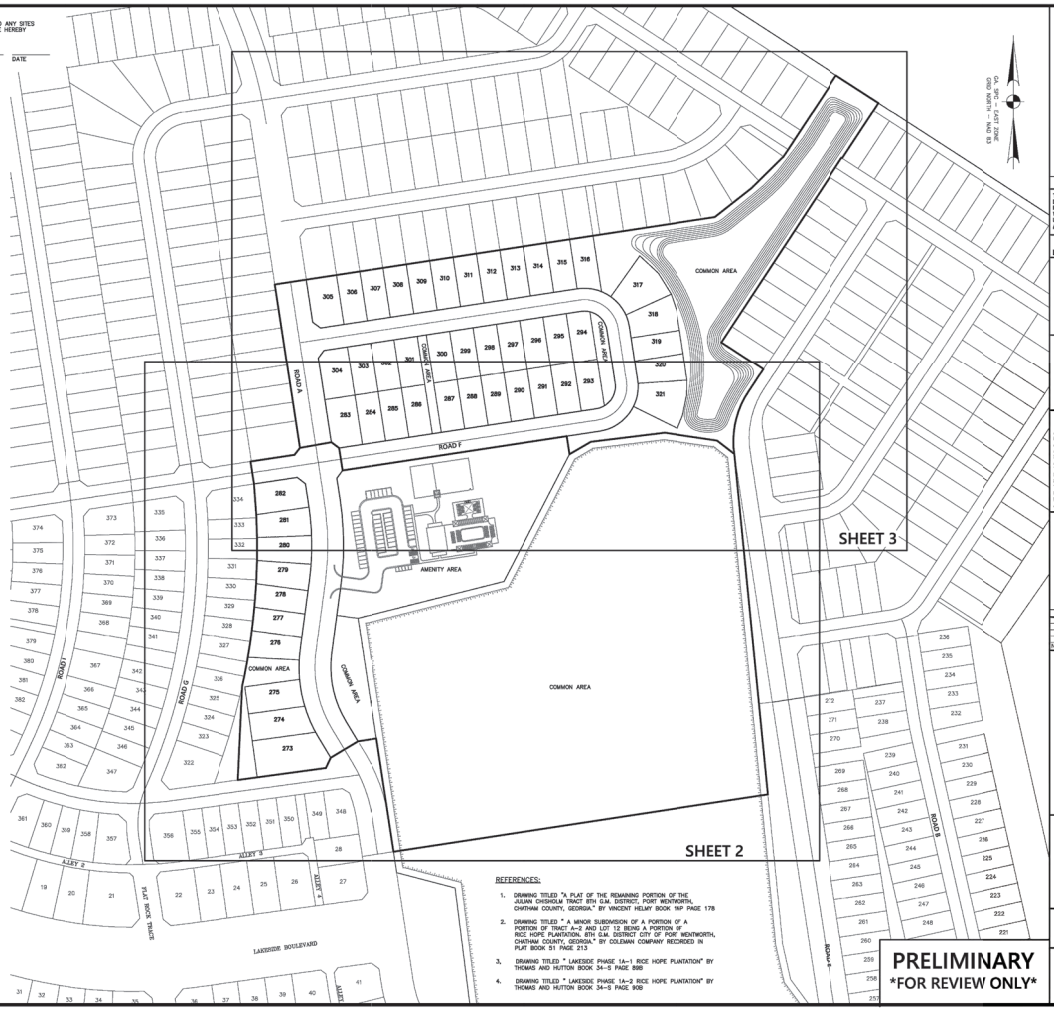
NOTES:

1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 GNAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 39,861 FEET OR BETTER, AN ANGULAR ERROR OF 33" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 44,222 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP RH TRACT 2 LLC (DEED BOOK 784 PAGE 549).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL C0035G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 138.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(C) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 49 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS.
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TITLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-D
17. BUILDING SETBACKS BASED ON ZONING TEXT. RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

FRONT	20'
SIDE	5
REAR	15'

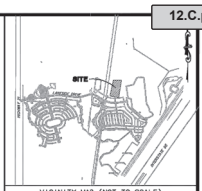
18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST IN THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.



REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH G.M. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 19P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED IN PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 898
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 908

PRELIMINARY
FOR REVIEW ONLY



VICINITY MAP (NOT TO SCALE)

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LEGEND:

○	CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
⊡	CMS CONCRETE MONUMENT SET
●	CIRF CAPPED IRON REBAR FOUND
⊛	CIPF CAPPED IRON PIPE FOUND
415	LOT NUMBER
#15	ADDRESS
XX BSL	BUILDING SET BACK LINE

AREA CHART

AMENITY AREA	3.16 ACRES
COMMON AREA	17.61 ACRES
RIGHT OF WAY	3.88 ACRES
LOTS	7.10 ACRES
TOTAL	31.75 ACRES

SURVEYORS RECORDING CERTIFICATION

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GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR FOR REVIEW ONLY NOT FOR CONSTRUCTION THOMAS G. SIMMON

THOMAS G. SIMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 21 LOTS 273 THRU 321

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

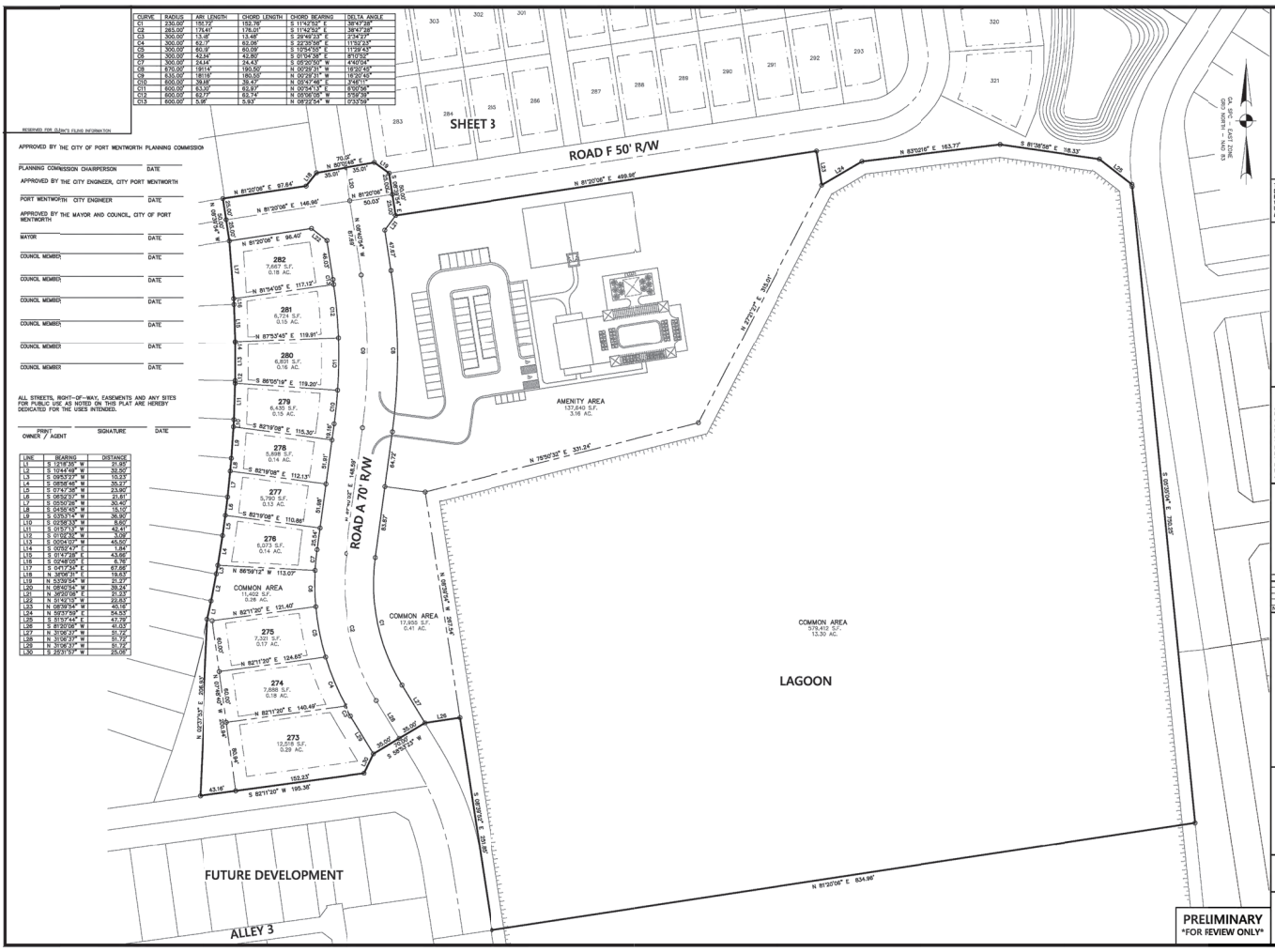
PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

100 0 50 100 200

SCALE	1" = 100'	DRAWING DATE	09/09/2021
FILE	21-436-A	DRAWN BY	DR
DRAWING	21-436-A-21	CREW CHIEF	PH
SHEET	1 OF 1		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	230.00'	192.79'	187.26'	S 11°43'53" E	38°33'38"
C2	283.00'	174.45'	171.70'	S 11°42'52" E	35°18'28"
C3	300.00'	13.46'	13.46'	S 29°39'29" E	2°34'13"
C4	300.00'	62.17'	62.06'	S 23°50'58" E	11°52'29"
C5	300.00'	60.91'	60.80'	S 12°04'15" E	11°38'43"
C6	300.00'	62.54'	62.42'	S 00°24'39" E	11°56'52"
C7	300.00'	54.14'	54.13'	S 05°50'59" W	4°08'04"
C8	670.00'	191.14'	190.50'	N 00°29'31" W	16°20'48"
C9	630.00'	181.19'	180.53'	N 00°31'31" W	16°28'45"
C10	600.00'	39.88'	39.47'	N 03°47'46" E	3°48'11"
C11	600.00'	63.30'	63.03'	N 10°54'13" E	6°02'58"
C12	600.00'	62.77'	62.74'	N 05°06'05" W	5°59'39"
C13	600.00'	5.96'	5.93'	N 08°22'54" W	0°33'59"

LINE	BEARING	DISTANCE
L1	S 12°47'35" W	21.35'
L2	S 12°47'48" W	32.60'
L3	S 09°53'27" W	10.23'
L4	S 08°58'46" W	10.27'
L5	S 07°47'38" W	23.90'
L6	S 09°07'37" W	20.81'
L7	S 08°50'26" W	33.40'
L8	S 03°55'45" W	33.10'
L9	S 03°51'14" W	38.30'
L10	S 03°56'38" W	8.60'
L11	S 01°57'13" W	42.41'
L12	S 01°02'34" W	3.09'
L13	S 00°04'07" W	45.50'
L14	S 00°57'47" E	1.84'
L15	S 01°47'28" E	43.66'
L16	S 02°48'05" E	8.78'
L17	S 04°17'34" E	67.66'
L18	N 34°06'31" E	19.53'
L19	N 53°39'54" W	21.27'
L20	N 08°40'54" W	39.24'
L21	N 39°20'08" E	21.23'
L22	N 01°42'15" W	22.63'
L23	N 08°39'54" W	40.18'
L24	N 59°37'59" E	54.53'
L25	S 31°57'48" E	47.79'
L26	S 81°20'06" E	41.03'
L27	N 31°06'37" W	51.72'
L28	N 31°06'37" W	51.72'
L29	N 31°06'37" W	51.72'
L30	S 29°31'59" W	25.08'

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

RESERVED FOR CLERK'S FILING INFORMATION

LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
- □ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ⊗ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

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SURVEYORS RECORDING CERTIFICATION

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GEORGIA REGISTERED LAND SURVEYOR THOMAS G. GAMMON 3005 — FOR REVIEW — 10/19/2021

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 21 LOTS 273 THRU 321

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

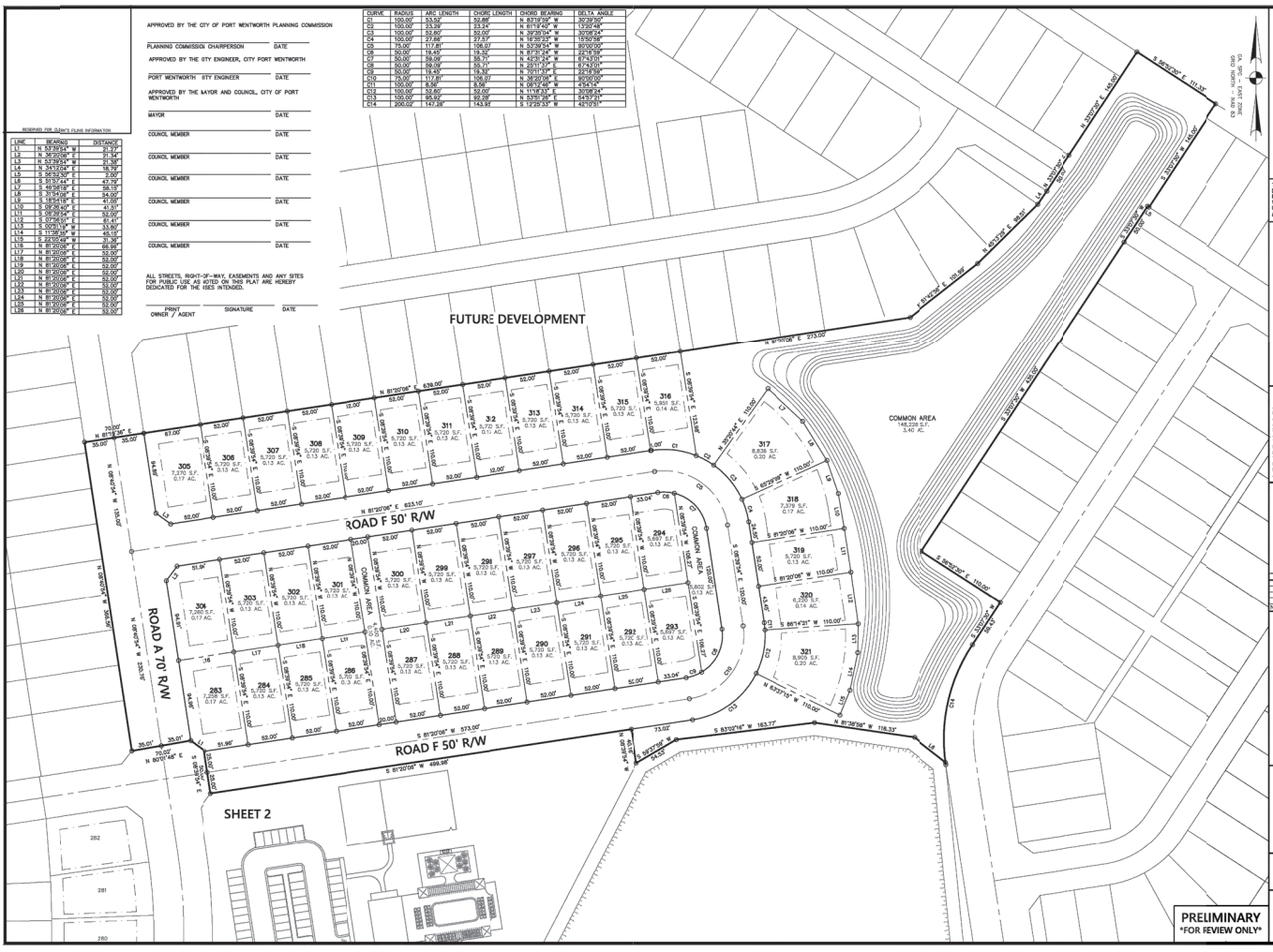
50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DW
DRAWING	21436-21	CREW CHIEF	PM

SHEET 1

PRELIMINARY *FOR REVIEW ONLY*

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON DATE

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER DATE

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR DATE

COUNCIL MEMBER DATE

COUNCIL MEMBER DATE

COUNCIL MEMBER DATE

COUNCIL MEMBER DATE

COUNCIL MEMBER DATE

COUNCIL MEMBER DATE

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT SIGNATURE DATE

RESERVED FOR CLERK'S FILING INFORMATION

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	53.52'	52.89'	N 83°19'09" W	30°39'50"
C2	100.00'	23.29'	23.24'	N 61°18'45" W	13°20'48"
C3	100.00'	52.60'	52.00'	N 39°35'04" W	30°08'24"
C4	100.00'	27.68'	27.57'	N 16°35'23" W	15°50'58"
C5	75.00'	117.81'	106.07'	N 53°39'54" W	90°00'00"
C6	50.00'	19.45'	19.32'	N 8°31'24" W	22°16'39"
C7	50.00'	59.09'	55.71'	N 42°31'24" W	67°43'01"
C8	50.00'	59.09'	55.71'	N 25°11'37" E	67°43'01"
C9	50.00'	19.45'	19.32'	N 79°11'31" E	22°16'39"
C10	75.00'	117.81'	106.07'	N 36°20'06" E	90°00'00"
C11	100.00'	8.56'	8.56'	N 06°12'46" W	4°54'14"
C12	100.00'	52.60'	52.00'	N 11°18'33" E	30°08'24"
C13	100.00'	85.92'	92.28'	N 53°50'28" E	54°57'21"
C14	200.02'	147.28'	143.91'	S 12°25'33" W	42°10'51"

LINE	BEARING	DISTANCE
L1	N 53°39'54" W	21.91'
L2	N 36°20'06" E	21.34'
L3	N 53°39'54" W	21.98'
L4	N 36°20'06" E	18.79'
L5	S 53°39'54" E	2.00'
L6	S 36°20'06" W	42.79'
L7	S 45°39'54" E	56.15'
L8	S 81°30'06" E	54.00'
L9	S 18°41'18" E	41.00'
L10	S 08°29'06" E	41.00'
L11	S 08°29'06" E	50.00'
L12	S 07°53'11" W	51.00'
L13	S 00°01'31" W	53.60'
L14	S 11°58'31" W	53.60'
L15	S 22°53'49" W	53.38'
L16	N 81°30'06" E	66.99'
L17	N 81°30'06" E	52.00'
L18	N 81°30'06" E	52.00'
L19	N 81°30'06" E	52.00'
L20	N 81°30'06" E	52.00'
L21	N 81°30'06" E	52.00'
L22	N 81°30'06" E	52.00'
L23	N 81°30'06" E	52.00'
L24	N 81°30'06" E	52.00'
L25	N 81°30'06" E	52.00'
L26	N 81°30'06" E	52.00'

LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
- ⊡ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ⊛ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

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SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, STATEMENTS, OR SIGNATURES SHOWN HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR THOMAS G. GAMMON

FOR REVIEW

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 21 LOTS 201 THRU 321

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DW
DRAWING	21436-21	CREW CHIEF	PM
SHEET			

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE _____

RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

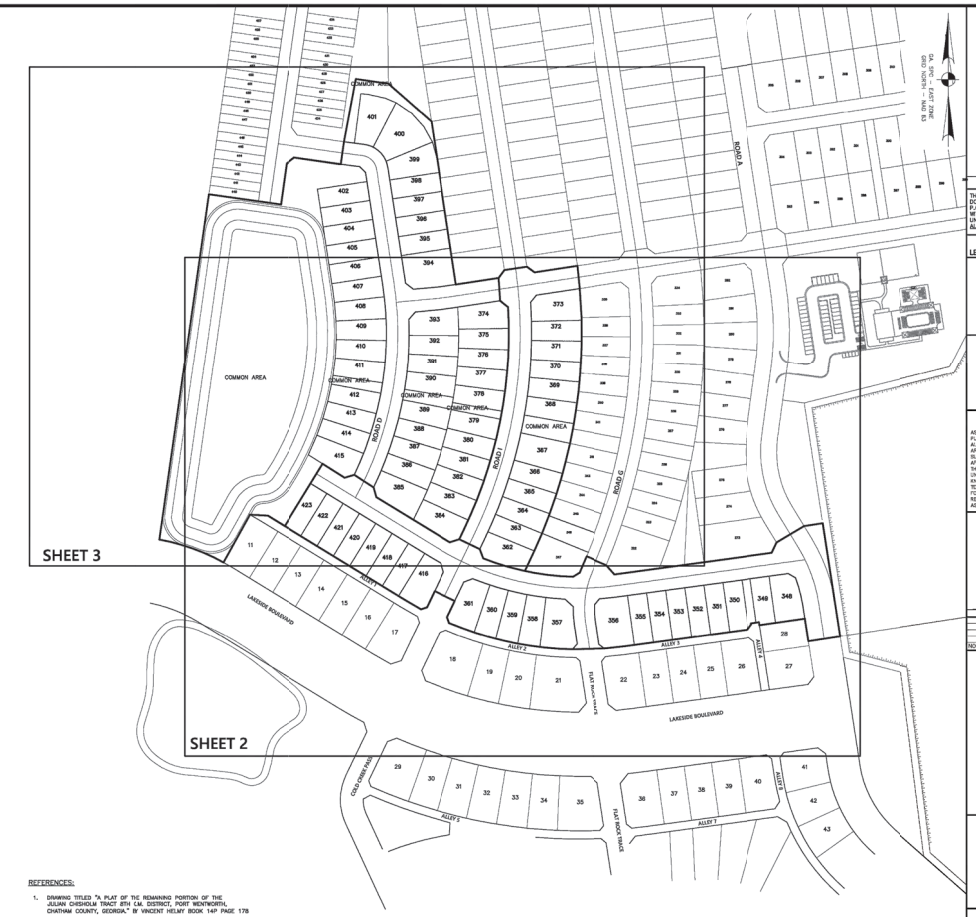
NOTES:

1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 (HAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 39,881 FEET OR BETTER, AN ANGULAR ERROR OF 33" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 44,222 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP RH TRACT 2 L.L.C (DEED BOOK 794 PAGE 549).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL C0035G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 138.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(C) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 76 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS.
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TYLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-D
17. BUILDING SETBACKS BASED ON ZONING TEXT. RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

FRONT	20'
SIDE	5
REAR	15'

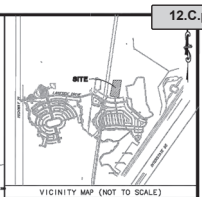
18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST IN THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.



REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH CM. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HILMY BOOK 14P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH GM. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED IN PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 90B

PRELIMINARY
FOR REVIEW ONLY



VICINITY MAP (NOT TO SCALE)

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LEGEND:

○	CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, EIF 317)
□	CMS CONCRETE MONUMENT SET
●	CIRF CAPPED IRON REBAR FOUND
⊛	CIPF CAPPED IRON PIPE FOUND
415	LOT NUMBER
#15	ADDRESS
XX BSL	BUILDING SET BACK LINE

AREA CHART

COMMON AREA	6.80 ACRES
RIGHT OF WAY	4.77 ACRES
LOTS	11.05 ACRES
TOTAL	22.62 ACRES

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, STATEMENTS, OR SIGNATURES SHOWN HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR — FOR REVIEW ONLY — THOMAS G. SIMMON

THOMAS G. SIMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 22 LOTS 348 THRU 423

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

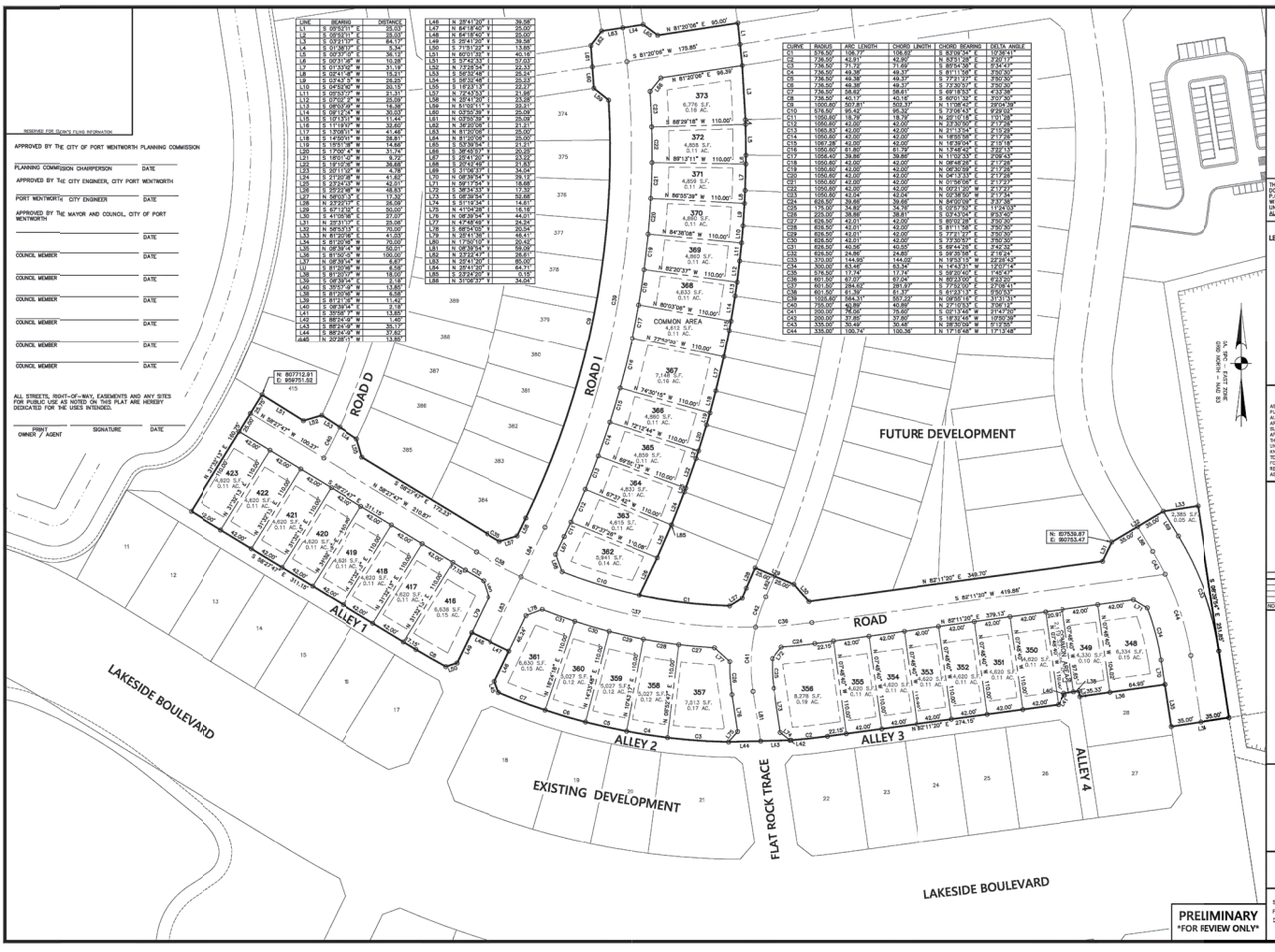
PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF347

100 0 50 100 200

SCALE	1" = 100'	DRAWING DATE	09/09/2021
FILE	2143EA	DRAWN BY	DR
DRAWING	2143EA-22	CREW CHIEF	PH
SHEET			

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



LINE	BEARING	DISTANCE
L1	S 09°53'11" E	28.03'
L2	S 09°53'11" E	28.03'
L3	S 03°31'19" E	64.17'
L4	S 03°31'39" E	5.34'
L5	S 00°37'07" E	36.13'
L6	S 09°31'38" W	10.28'
L7	S 01°33'06" W	31.19'
L8	S 02°41'38" W	15.21'
L9	S 03°43'35" W	28.25'
L10	S 04°52'30" W	20.15'
L11	S 09°53'07" W	21.31'
L12	S 09°53'07" W	25.09'
L13	S 08°03'08" W	16.38'
L14	S 09°17'45" W	30.03'
L15	S 10°13'51" W	11.44'
L16	S 11°19'01" W	32.60'
L17	S 12°08'51" W	41.48'
L18	S 14°50'51" W	28.81'
L19	S 19°51'38" W	14.66'
L20	S 17°00' 4" W	31.74'
L21	S 18°01'45" W	9.72'
L22	S 19°10'26" W	35.68'
L23	S 20°11'02" W	4.78'
L24	S 21°03'28" W	41.82'
L25	S 23°24'13" W	42.01'
L26	S 25°27'36" W	48.53'
L27	N 58°03'13" E	17.30'
L28	N 23°23'01" W	36.09'
L29	S 67°12'28" E	50.00'
L30	S 14°50'18" W	27.07'
L31	N 22°31'7" E	25.08'
L32	N 58°53'13" E	70.00'
L33	N 81°20'06" E	41.03'
L34	S 81°20'06" W	70.00'
L35	N 08°39'14" W	50.01'
L36	S 81°50'45" W	100.00'
L37	N 08°39'14" W	6.67'
L38	N 81°20'06" E	6.58'
L39	S 81°20'07" W	18.00'
L40	N 08°39'14" W	3.18'
L41	S 39°56' 7" W	13.65'
L42	S 88°24'9" W	1.40'
L43	S 88°24'9" W	39.17'
L44	S 88°24'9" W	37.82'
L45	N 20°28'11" W	13.86'
L46	N 39°41'20" E	39.58'
L47	N 64°18'40" E	25.00'
L48	N 64°18'40" E	25.00'
L49	S 25°41'20" E	39.58'
L50	S 71°51'23" E	13.65'
L51	N 82°01'33" E	40.16'
L52	N 57°40'53" E	57.03'
L53	N 73°25'54" E	22.33'
L54	S 68°52'48" E	25.31'
L55	S 68°52'48" E	25.33'
L56	S 18°23'13" W	22.77'
L57	N 72°43'53" E	21.86'
L58	S 68°41'20" E	23.09'
L59	N 51°02'11" E	22.31'
L60	N 53°50'39" E	25.09'
L61	N 03°50'39" E	25.09'
L62	N 36°20'06" E	21.21'
L63	N 81°20'06" E	25.00'
L64	N 81°20'06" E	25.00'
L65	S 53°39'54" E	21.21'
L66	S 08°45'07" E	20.20'
L67	S 36°41'20" E	23.29'
L68	S 20°43'48" E	21.83'
L69	S 31°06'37" E	34.04'
L70	N 08°39'54" W	29.13'
L71	N 59°17'54" E	18.68'
L72	S 36°34'33" E	17.33'
L73	S 08°39'54" E	52.68'
L74	S 81°19'34" E	14.61'
L75	N 41°04'28" E	15.16'
L76	N 08°39'54" W	44.01'
L77	N 47°48'49" W	24.24'
L78	S 89°54'05" W	20.04'
L79	N 36°41'36" E	48.41'
L80	N 17°00'10" W	20.62'
L81	N 08°39'54" W	59.09'
L82	N 37°23'47" W	26.61'
L83	N 35°41'20" E	85.00'
L84	N 29°41'20" E	64.11'
L85	S 37°24'20" E	0.15'
L86	N 31°06'37" W	34.04'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	578.50'	108.77'	108.62'	S 83°09'24" E	10°46'41"
C2	736.50'	43.61'	42.60'	N 83°51'28" E	3°23'17"
C3	736.50'	71.72'	71.69'	S 89°54'36" E	5°34'47"
C4	736.50'	49.38'	49.37'	S 81°11'58" E	3°50'30"
C5	736.50'	49.38'	49.37'	S 77°21'27" E	3°50'30"
C6	736.50'	49.38'	49.37'	S 73°30'57" E	3°50'30"
C7	736.50'	58.62'	58.61'	S 69°18'53" E	4°33'38"
C8	736.50'	40.17'	40.16'	S 80°01'32" E	3°07'30"
C9	1000.60'	507.81'	502.37'	N 11°08'40" E	29°04'39"
C10	578.50'	95.42'	95.30'	S 23°08'43" E	9°27'03"
C11	1050.60'	18.79'	18.79'	N 20°10'18" E	1°01'28"
C12	1050.60'	42.00'	42.00'	N 23°30'50" E	2°17'26"
C13	1050.83'	42.00'	42.00'	N 21°13'24" E	2°17'28"
C14	1050.60'	42.00'	42.00'	N 18°55'58" E	2°17'26"
C15	1067.28'	42.00'	42.00'	N 16°38'04" E	2°15'18"
C16	1050.60'	61.80'	61.79'	N 13°48'42" E	3°22'13"
C17	1056.40'	39.86'	39.86'	N 11°02'33" E	2°09'43"
C18	1050.60'	42.00'	42.00'	N 08°48'28" E	2°17'26"
C19	1050.60'	42.00'	42.00'	N 06°30'58" E	2°17'26"
C20	1050.60'	42.00'	42.00'	N 04°13'33" E	2°17'26"
C21	1050.60'	42.00'	42.00'	N 01°56'06" E	2°17'27"
C22	1050.60'	42.00'	42.00'	N 00°21'20" W	2°17'27"
C23	1050.60'	43.04'	43.04'	N 02°38'50" W	2°21'34"
C24	626.50'	39.66'	39.66'	N 84°03'08" E	3°37'28"
C25	175.00'	34.82'	34.76'	S 02°57'06" E	11°24'03"
C26	225.00'	38.84'	38.81'	S 03°43'04" E	9°53'26"
C27	626.50'	42.01'	42.00'	S 85°03'28" E	3°50'30"
C28	626.50'	42.01'	42.00'	S 81°11'58" E	3°50'30"
C29	626.50'	42.01'	42.00'	S 77°21'27" E	3°50'30"
C30	626.50'	42.01'	42.00'	S 73°30'57" E	3°50'30"
C31	626.50'	40.36'	40.55'	S 69°44'28" E	3°42'32"
C32	626.50'	24.86'	24.85'	S 68°39'38" E	2°16'24"
C33	370.00'	144.95'	144.02'	N 19°33'15" W	22°26'43"
C34	300.00'	53.56'	53.49'	N 14°43'31" W	10°13'49"
C35	574.50'	17.74'	17.74'	S 28°20'40" E	1°46'47"
C36	601.50'	67.74'	67.70'	N 89°22'09" E	6°27'01"
C37	601.50'	284.62'	281.97'	S 77°53'50" E	27°06'41"
C38	601.50'	67.74'	67.70'	S 76°13'10" E	6°27'01"
C39	1028.60'	524.31'	518.69'	N 09°50'15" E	29°12'34"
C40	725.50'	40.83'	40.82'	S 27°17'04" E	3°13'12"
C41	200.00'	76.09'	75.65'	S 27°17'04" E	21°47'58"
C42	535.00'	37.86'	37.85'	S 18°33'46" W	3°59'39"
C43	535.00'	30.49'	30.49'	N 28°30'09" W	3°16'04"
C44	535.00'	100.74'	100.58'	N 17°16'48" W	17°13'48"

LOT	SQ. FT.	ACRES
348	6,334 S.F.	0.15 AC.
349	4,330 S.F.	0.10 AC.
350	4,620 S.F.	0.11 AC.
351	4,620 S.F.	0.11 AC.
352	4,620 S.F.	0.11 AC.
353	4,620 S.F.	0.11 AC.
354	4,620 S.F.	0.11 AC.
355	4,620 S.F.	0.11 AC.
356	8,378 S.F.	0.19 AC.
357	7,513 S.F.	0.17 AC.
358	5,027 S.F.	0.12 AC.
359	5,027 S.F.	0.12 AC.
360	5,027 S.F.	0.12 AC.
361	6,630 S.F.	0.15 AC.
362	6,093 S.F.	0.14 AC.
363	4,615 S.F.	0.11 AC.
364	4,620 S.F.	0.11 AC.
365	4,609 S.F.	0.11 AC.
366	4,660 S.F.	0.11 AC.
367	7,148 S.F.	0.16 AC.
368	4,633 S.F.	0.11 AC.
369	4,662 S.F.	0.11 AC.
370	4,650 S.F.	0.11 AC.
371	4,659 S.F.	0.11 AC.
372	4,858 S.F.	0.11 AC.
373	6,776 S.F.	0.16 AC.
415	7,385 S.F.	0.17 AC.
416	6,539 S.F.	0.15 AC.
417	4,620 S.F.	0.11 AC.
418	4,620 S.F.	0.11 AC.
419	4,620 S.F.	0.11 AC.
420	4,620 S.F.	0.11 AC.
421	4,620 S.F.	0.11 AC.
422	4,620 S.F.	0.11 AC.
423	4,620 S.F.	0.11 AC.

RESERVED FOR RECORDING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE _____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE _____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

_____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

COUNCIL MEMBER _____ DATE _____

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT _____ SIGNATURE _____ DATE _____
OWNER / AGENT

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LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSY PC, GSF 317)
- □ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ✱ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY SIGNATURES AND DATES CONTAINED HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFINED WITH REFERENCE TO SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFINED WITH APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR THOMAS G. GAMMON 3005

FOR REVIEW

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 22 LOTS 348 THRU 423

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0502
CERTIFICATE OF AUTHORIZATION: LSF317

50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DR
DRAWING	21436-22	CREW CHIEF	PM
SHEET			

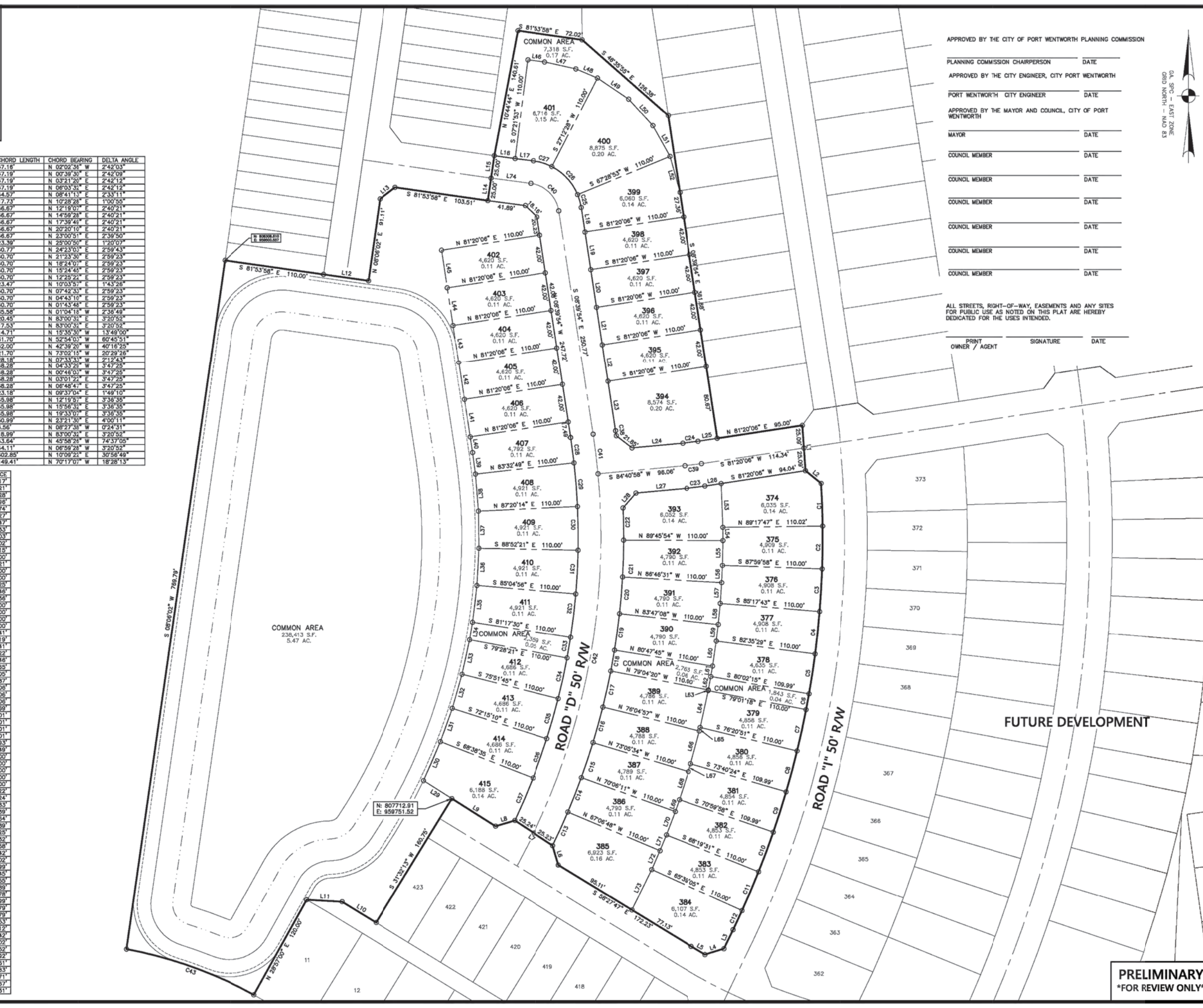
PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RESERVED FOR CLERK'S FILING INFORMATION

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1000.60'	47.17'	47.16'	N 02°02'36" W	2°42'03"
C2	1000.60'	47.20'	47.19'	N 00°39'30" E	2°42'09"
C3	1000.27'	47.20'	47.19'	N 03°21'20" E	2°42'12"
C4	1000.27'	47.20'	47.19'	N 06°03'32" E	2°42'12"
C5	1000.27'	44.57'	44.57'	N 08°41'13" E	2°33'11"
C6	1000.55'	17.73'	17.73'	N 10°28'28" E	1°00'55"
C7	1000.55'	46.67'	46.67'	N 12°19'07" E	2°40'21"
C8	1000.55'	46.67'	46.67'	N 14°59'28" E	2°40'21"
C9	1000.55'	46.67'	46.67'	N 17°39'49" E	2°40'21"
C10	1000.55'	46.67'	46.67'	N 20°20'10" E	2°40'21"
C11	1003.78'	46.67'	46.67'	N 23°00'51" E	2°39'50"
C12	1003.78'	23.39'	23.39'	N 25°00'50" E	1°20'07"
C13	780.00'	40.78'	40.77'	N 24°23'03" E	2°59'43"
C14	780.00'	40.70'	40.70'	N 21°23'30" E	2°59'23"
C15	780.00'	40.70'	40.70'	N 18°24'07" E	2°59'23"
C16	780.00'	40.70'	40.70'	N 15°24'45" E	2°59'23"
C17	780.00'	40.70'	40.70'	N 12°25'22" E	2°59'23"
C18	780.00'	23.47'	23.47'	N 10°03'57" E	1°43'26"
C19	780.00'	40.70'	40.70'	N 07°42'33" E	2°59'23"
C20	780.00'	40.70'	40.70'	N 04°43'10" E	2°59'23"
C21	780.00'	40.70'	40.70'	N 01°43'48" E	2°59'23"
C22	780.00'	35.58'	35.58'	N 01°04'18" W	2°36'49"
C23	350.00'	20.45'	20.45'	N 83°00'32" E	3°20'52"
C24	300.00'	17.53'	17.53'	N 83°00'32" E	3°20'52"
C25	61.16'	14.75'	14.71'	N 15°35'30" W	13°49'00"
C26	61.00'	64.69'	61.70'	N 52°54'03" W	60°45'51"
C26	61.00'	42.88'	42.00'	N 42°39'20" W	40°16'25"
C27	61.00'	21.82'	21.70'	N 73°02'15" W	20°29'26"
C28	730.00'	28.18'	28.18'	N 07°33'33" W	2°12'43"
C29	730.00'	48.29'	48.28'	N 04°33'29" W	3°47'25"
C30	730.00'	48.29'	48.28'	N 00°46'03" W	3°47'25"
C31	730.00'	48.29'	48.28'	N 03°01'22" E	3°47'25"
C32	730.00'	48.29'	48.28'	N 06°48'47" E	3°47'25"
C33	730.00'	23.18'	23.18'	N 09°37'04" E	1°49'10"
C34	730.00'	45.99'	45.98'	N 12°19'57" E	3°36'35"
C35	730.00'	45.99'	45.98'	N 15°56'32" E	3°36'35"
C36	730.00'	45.99'	45.98'	N 19°33'07" E	3°36'35"
C37	730.00'	51.00'	50.99'	N 23°21'30" E	4°00'11"
C38	780.00'	5.56'	5.56'	N 08°27'38" W	0°24'31"
C39	325.00'	18.99'	18.99'	N 83°00'32" E	3°20'52"
C40	36.00'	46.88'	43.64'	N 45°58'26" W	74°37'05"
C41	755.00'	44.11'	44.11'	N 06°59'28" W	3°20'52"
C42	755.00'	407.79'	402.85'	N 10°09'22" E	30°56'49"
C43	465.50'	150.06'	149.41'	N 70°17'07" W	18°28'13"

LINE	BEARING	DISTANCE
L1	S 03°55'39" E	50.17'
L2	S 51°02'11" E	22.21'
L3	S 25°41'20" W	23.28'
L4	S 72°43'53" W	21.96'
L5	N 59°20'40" W	17.74'
L6	N 16°23'13" W	22.27'
L7	N 56°32'48" W	50.47'
L8	S 73°26'54" W	22.33'
L9	N 57°42'33" W	57.03'
L10	N 58°27'51" W	44.02'
L11	N 86°49'08" W	39.15'
L12	S 81°53'58" E	50.00'
L13	N 53°06'02" E	21.21'
L14	N 08°06'02" E	25.00'
L15	N 08°06'02" E	25.00'
L16	S 82°16'02" E	23.25'
L17	S 82°57'33" E	20.46'
L18	S 08°39'54" E	27.36'
L19	S 08°39'54" E	42.00'
L20	S 08°39'54" E	42.00'
L21	S 08°39'54" E	42.00'
L22	S 08°39'54" E	42.00'
L23	S 08°39'54" E	55.41'
L24	N 84°40'58" E	56.19'
L25	N 81°20'06" E	21.41'
L26	S 81°20'06" W	18.22'
L27	S 84°40'58" W	56.46'
L28	S 40°52'36" W	21.65'
L29	N 57°42'33" W	37.05'
L30	N 23°31'23" E	46.87'
L31	N 19°33'07" E	39.06'
L32	N 15°56'32" E	39.06'
L33	N 12°19'57" E	39.06'
L34	N 09°37'04" E	19.69'
L35	N 06°48'47" E	41.01'
L36	N 03°01'22" E	41.01'
L37	N 00°46'03" W	41.01'
L38	N 04°33'29" W	41.01'
L39	N 07°33'32" W	23.93'
L40	N 08°39'54" W	17.49'
L41	N 08°39'54" W	42.00'
L42	N 08°39'54" W	42.00'
L43	N 08°39'54" W	42.00'
L44	N 08°39'54" W	42.00'
L45	N 08°39'54" W	42.00'
L46	S 82°57'33" E	19.22'
L47	S 77°22'10" E	35.24'
L48	S 67°07'27" E	25.83'
L49	S 55°50'27" E	41.39'
L50	S 42°14'01" E	39.64'
L51	S 29°02'53" E	38.89'
L52	S 15°35'30" E	41.25'
L53	S 02°15'33" E	48.32'
L54	S 00°14'03" E	14.58'
L55	S 01°07'04" W	27.42'
L56	S 02°36'45" W	19.02'
L57	S 03°57'53" W	22.99'
L58	S 05°27'34" W	23.45'
L59	S 06°48'42" W	18.55'
L60	S 08°18'23" W	27.89'
L61	S 09°35'00" W	11.78'
L62	S 10°26'43" W	14.99'
LI	S 10°57'11" W	0.79'
L63	S 10°57'11" W	0.79'
L64	S 12°18'56" W	41.53'
L65	S 13°47'06" W	4.12'
L66	S 15°07'19" W	37.42'
L67	S 16°37'01" W	9.02'
L68	S 17°57'14" W	32.52'
L69	S 19°26'55" W	13.92'
L70	S 20°47'09" W	27.61'
L71	S 22°16'50" W	18.83'
L72	S 23°37'03" W	22.71'
L73	S 25°56'52" W	49.67'
L74	S 82°35'28" E	44.31'



APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON ____ DATE ____

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER ____ DATE ____

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR ____ DATE ____

COUNCIL MEMBER ____ DATE ____

COUNCIL MEMBER ____ DATE ____

COUNCIL MEMBER ____ DATE ____

COUNCIL MEMBER ____ DATE ____

COUNCIL MEMBER ____ DATE ____

COUNCIL MEMBER ____ DATE ____

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT ____ SIGNATURE ____ DATE ____

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LEGEND:

- ○ CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, LSF 317)
- ⊡ CMS CONCRETE MONUMENT SET
- ● CIRF CAPPED IRON REBAR FOUND
- ◉ CIPF CAPPED IRON PIPE FOUND
- 415 LOT NUMBER
- #15 ADDRESS
- XX BSL BUILDING SET BACK LINE

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (d) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, SIGNATURES, STAMPS, OR STATEMENTS HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED PROFESSIONAL SURVEYOR THOMAS G. GAMMON — FOR REVIEW

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 22 LOTS 348 THRU 423

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0562
CERTIFICATE OF AUTHORIZATION: LSF317

50 0 25 50 100

SCALE	1" = 50'	DRAWING DATE	09/10/2021
FILE	21436A	DRAWN BY	DW
DRAWING	21436-22	CREW CHIEF	PM

SHEET

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RESERVED FOR RECORDING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH'S CITY ENGINEER _____ DATE

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE

REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH G.M. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 14P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED II PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION' BY THOMAS AND HUTTON BOOK 34-S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION' BY THOMAS AND HUTTON BOOK 34-S PAGE 90B

NOTES:

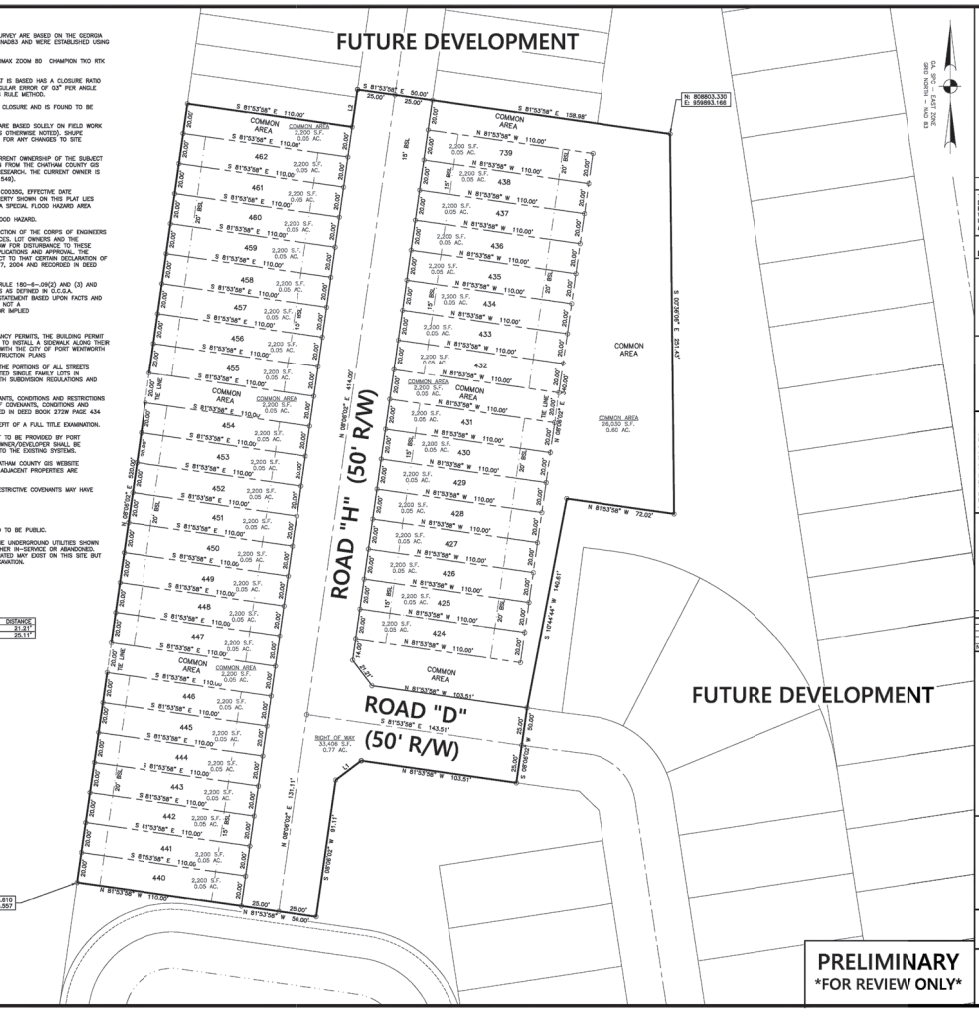
1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: DEOMAX ZOOM 80 CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 41,332 FEET OR BETTER, AN ANGULAR ERROR OF 02" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 54,832 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP RH TRACT 2 L.L.C (DEED BOOK 794 PAGE 548).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL C0035G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

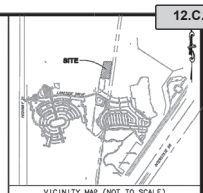
   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 136.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(5) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 40 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TITLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-O
17. BUILDING SETBACKS BASED ON ZONING TEXT RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

FRONT	20'
SIDE	0'
REAR	15'

18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.

LINE	BEARING	DISTANCE
L1	N 52°06'02" E	21.21'
L2	S 08°06'58" W	25.11'





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LEGEND:

○	CIRS	1/2" CAPPED IRON REBAR SET (SSC PLS CE 317)
□	CMS	CONCRETE MONUMENT SET
●	CIRF	CAPPED IRON REBAR FOUND
⊛	CIPF	CAPPED IRON PIPE FOUND
415	LOT NUMBER	
#15	ADDRESS	

AREA CHART

COMMON AREA	0.60 ACRES
RIGHT OF WAY	0.77 ACRES
LOTS	1.92 ACRES
TOTAL	3.49 ACRES

SURVEYORS RECORDING CERTIFICATION

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GEORGIA REGISTERED PROFESSIONAL LAND SURVEYOR THOMAS G. GAMMON

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 23 LOTS 424 THRU 462

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0503
CERTIFICATE OF AUTHORIZATION: LSF917

30 0 15 30 60

SCALE	1" = 30'	DRAWING DATE	09/09/2021
FILE	2143MA	DRAWN BY	DR
DRAWING	2143MA-1	CREW CHIEF	PM
SHEET			

PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE

NOTES:

1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 39,881 FEET OR BETTER, AN ANGULAR ERROR OF 03" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 44,222 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP RH TRACT 2 L.L.C (DEED BOOK 794 PAGE 540).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL C0035G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 138.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(5) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 26 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/15/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TITLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-O
17. BUILDING SETBACKS BASED ON ZONING TEXT RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIRMENTS.

FRONT	20'
SIDE	5
REAR	15'

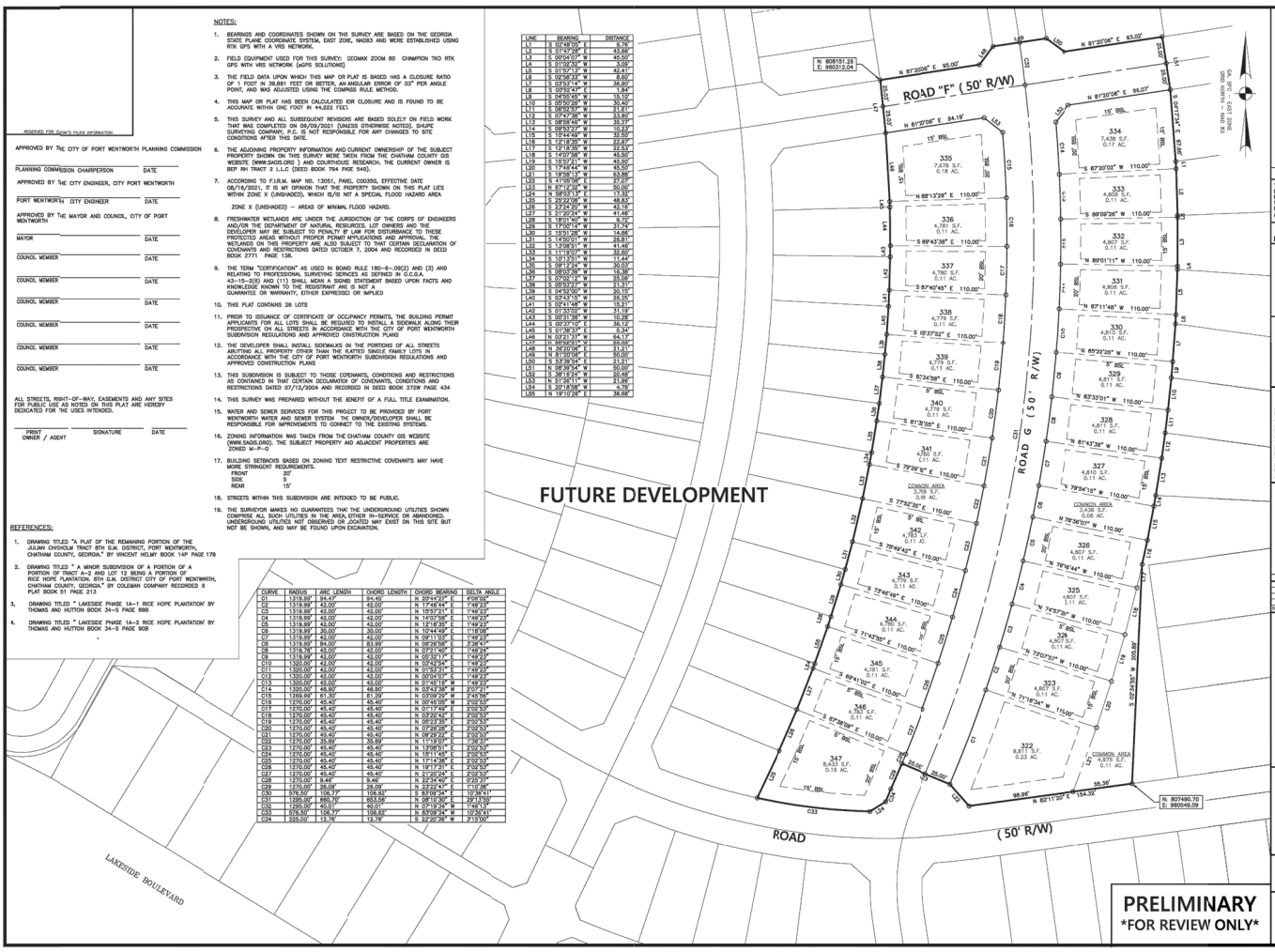
18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.

REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH G.M. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 14P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED 8 PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION' BY THOMAS AND HUTTON BOOK 34-S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION' BY THOMAS AND HUTTON BOOK 34-S PAGE 90B

LINE	BEARING	DISTANCE
L1	S 87°48'05" E	8.79'
L2	S 01°47'28" E	43.68'
L3	S 00°04'07" W	45.00'
L4	S 01°00'35" W	3.09'
L5	S 01°51'13" W	42.41'
L6	S 02°58'35" W	8.60'
L7	S 53°57'14" W	36.80'
L8	S 00°55'47" E	1.84'
L9	S 04°50'45" W	15.19'
L10	S 00°50'26" W	30.40'
L11	S 00°47'09" W	21.81'
L12	S 01°03'20" W	33.99'
L13	S 09°59'48" W	30.21'
L14	S 09°53'17" W	10.37'
L15	S 10°44'49" W	33.52'
L16	S 17°48'55" W	33.97'
L17	S 12°19'35" W	22.53'
L18	S 14°07'58" W	45.50'
L19	S 15°07'21" W	45.50'
L20	S 17°24'44" W	45.50'
L21	S 19°58'13" W	63.88'
L22	S 41°05'08" W	27.07'
L23	N 87°13'05" W	50.00'
L24	N 59°03'13" W	13.93'
L25	S 25°23'08" W	48.83'
L26	S 23°24'20" W	42.18'
L27	S 21°20'24" W	41.46'
L28	S 18°01'40" W	9.72'
L29	S 17°09'14" W	31.74'
L30	S 15°57'28" W	14.06'
L31	S 14°59'01" W	28.81'
L32	S 13°08'51" W	41.46'
L33	S 11°19'07" W	32.60'
L34	S 10°13'51" W	11.44'
L35	S 09°12'24" W	30.03'
L36	S 08°03'39" W	16.36'
L37	S 07°09'19" W	25.09'
L38	S 06°05'27" W	21.31'
L39	S 04°52'00" W	20.13'
L40	S 03°43'15" W	28.25'
L41	S 02°41'48" W	15.31'
L42	S 01°33'02" W	31.19'
L43	S 00°31'36" W	10.28'
L44	S 00°33'19" E	36.12'
L45	S 01°38'37" E	8.34'
L46	N 03°21'31" W	64.17'
L47	N 89°58'51" W	59.66'
L48	N 30°20'06" E	21.21'
L49	N 81°20'06" E	50.00'
L50	S 53°39'54" E	21.21'
L51	N 08°39'54" W	50.00'
L52	S 36°19'24" W	20.48'
L53	N 51°38'11" W	21.86'
L54	S 29°18'58" W	4.79'
L55	N 19°19'28" E	36.68'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1319.99'	84.47'	84.45'	N 20°43'29" E	4°06'09"
C2	1319.99'	42.00'	42.00'	N 17°48'44" E	1°49'23"
C3	1319.99'	42.00'	42.00'	N 15°57'21" E	1°49'23"
C4	1319.99'	42.00'	42.00'	N 14°07'58" E	1°49'23"
C5	1319.99'	42.00'	42.00'	N 12°18'35" E	1°49'23"
C6	1319.99'	30.00'	30.00'	N 10°44'49" E	1°18'08"
C7	1319.99'	42.00'	42.00'	N 08°11'03" E	1°49'23"
C8	1319.99'	84.00'	83.99'	N 06°28'58" E	3°38'47"
C9	1319.78'	42.00'	42.00'	N 03°21'40" E	1°49'24"
C9	1319.99'	42.00'	42.00'	N 05°30'17" E	1°49'23"
C10	1320.00'	42.00'	42.00'	N 07°42'04" E	1°49'23"
C11	1320.00'	42.00'	42.00'	N 01°53'31" E	1°49'23"
C12	1320.00'	42.00'	42.00'	N 00°04'07" E	1°49'23"
C13	1320.00'	42.00'	42.00'	N 01°45'16" W	1°49'23"
C14	1320.00'	46.80'	46.80'	N 03°42'38" W	2°01'31"
C15	1269.99'	61.30'	61.29'	N 03°09'29" W	2°45'56"
C16	1270.00'	45.40'	45.40'	N 00°45'05" W	2°02'53"
C17	1270.00'	45.40'	45.40'	N 01°17'48" E	2°02'53"
C18	1270.00'	45.40'	45.40'	N 03°20'42" E	2°02'53"
C19	1270.00'	45.40'	45.40'	N 05°23'35" E	2°02'53"
C20	1270.00'	45.40'	45.40'	N 07°26'29" E	2°02'53"
C21	1270.00'	45.40'	45.40'	N 09°29'22" E	2°02'53"
C22	1270.00'	30.89'	30.89'	N 11°10'07" E	1°23'29"
C23	1270.00'	45.40'	45.40'	N 13°06'51" E	2°02'53"
C24	1270.00'	9.46'	9.46'	N 13°51'40" E	0°25'39"
C25	1270.00'	45.40'	45.40'	N 17°14'38" E	2°02'53"
C26	1270.00'	45.40'	45.40'	N 19°17'31" E	2°02'53"
C27	1270.00'	45.40'	45.40'	N 21°20'24" E	2°02'53"
C28	1270.00'	9.46'	9.46'	N 22°34'40" E	0°25'39"
C29	1270.00'	26.09'	26.09'	N 23°22'47" E	1°10'36"
C30	976.50'	106.77'	106.82'	S 83°08'34" E	10°36'41"
C31	1295.00'	660.70'	653.58'	N 08°16'30" E	29°13'50"
C32	1295.00'	40.01'	40.01'	N 24°19'14" W	1°46'15"
C33	976.50'	106.77'	106.82'	N 83°08'34" W	10°36'41"
C34	998.00'	18.78'	18.78'	S 32°20'26" W	1°04'00"



VICINITY MAP (NOT TO SCALE)

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LEGEND:

○	CIRS 1/2" CAPPED IRON REBAR SET (SSC PC, EIF 317)
⊡	CMS CONCRETE MONUMENT SET
●	CIRF CAPPED IRON REBAR FOUND
✱	CIPF CAPPED IRON PIPE FOUND
415	LOT NUMBER
#15	ADDRESS
XX BSL	BUILDING SET BACK LINE

AREA CHART

COMMON AREA	0.28 ACRES
RIGHT OF WAY	1.07 ACRES
LOTS	3.18 ACRES
TOTAL	4.53 ACRES

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (e) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY SIGNATURES, DATES, AND ADDRESSES OF SUCH APPROVING AUTHORITIES OR BY SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED LAND SURVEYOR THOMAS G. SIMMON

THOMAS G. SIMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 29A LOTS 322 THRU 347

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

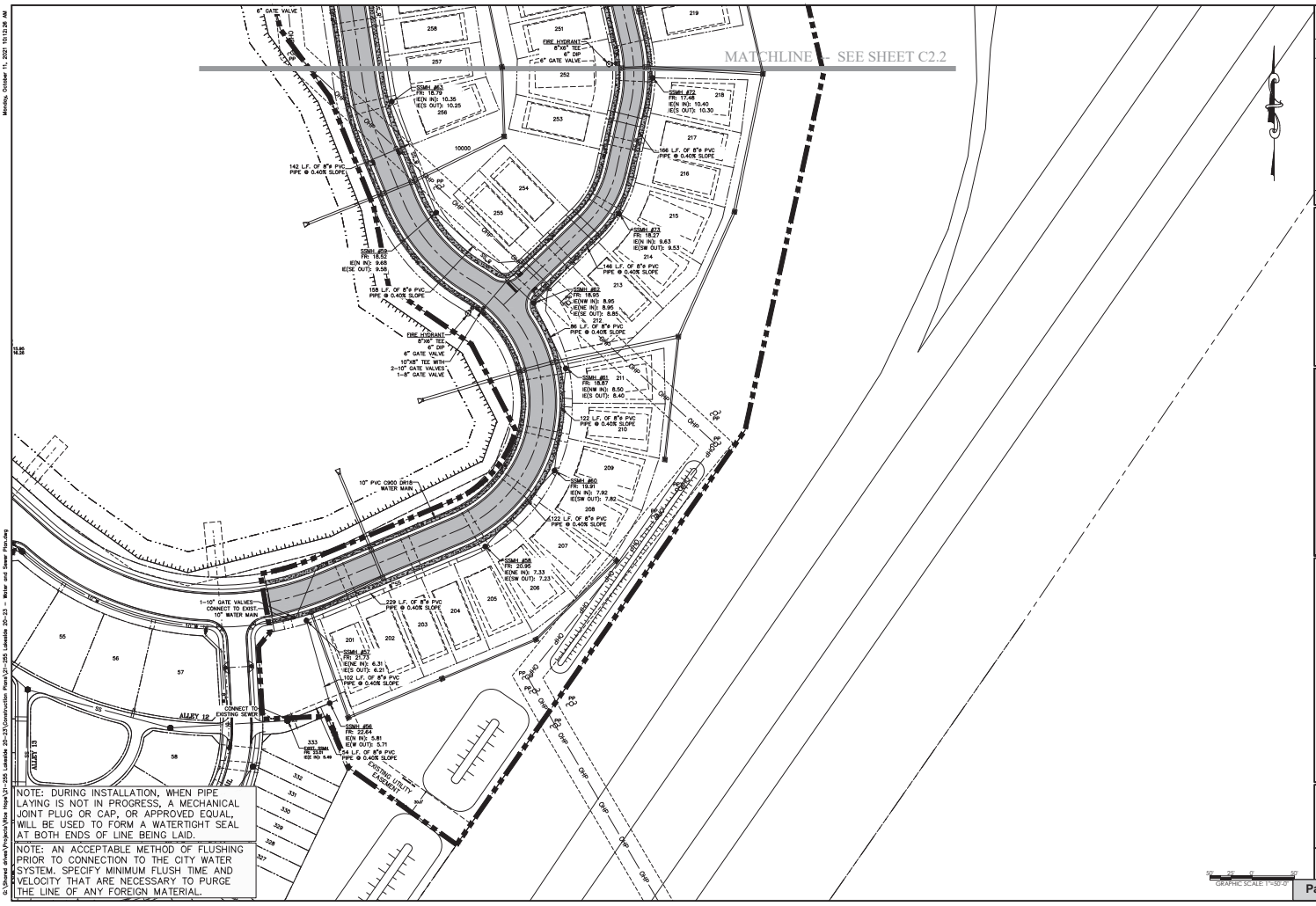
SHUPE SURVEYING COMPANY, P.C.
130 CANAL STREET, SUITE 501
POOLER, GA 31322
912-265-0503
CERTIFICATE OF AUTHORIZATION: LSF317

PRELIMINARY
FOR REVIEW ONLY

40 0 20 40 80

SCALE	1" = 40'	DRAWING DATE	09/09/2021
FILE	2143A	DRAWN BY	DK
DRAWING	2143A-2	CREW CHIEF	PH
SHEET	1 OF 1		

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



12.C.p

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

WATER AND SEWER PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C2.1

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

NOTE: DURING INSTALLATION, WHEN PIPE LAYING IS NOT IN PROGRESS, A MECHANICAL JOINT PLUG OR CAP, OR APPROVED EQUAL, WILL BE USED TO FORM A WATERTIGHT SEAL AT BOTH ENDS OF LINE BEING LAID.

NOTE: AN ACCEPTABLE METHOD OF FLUSHING PRIOR TO CONNECTION TO THE CITY WATER SYSTEM. SPECIFY MINIMUM FLUSH TIME AND VELOCITY THAT ARE NECESSARY TO PURGE THE LINE OF ANY FOREIGN MATERIAL.

GRAPHIC SCALE: 1"=50'-0"

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

WATER AND SEWER PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C2.2

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:02:35 AM
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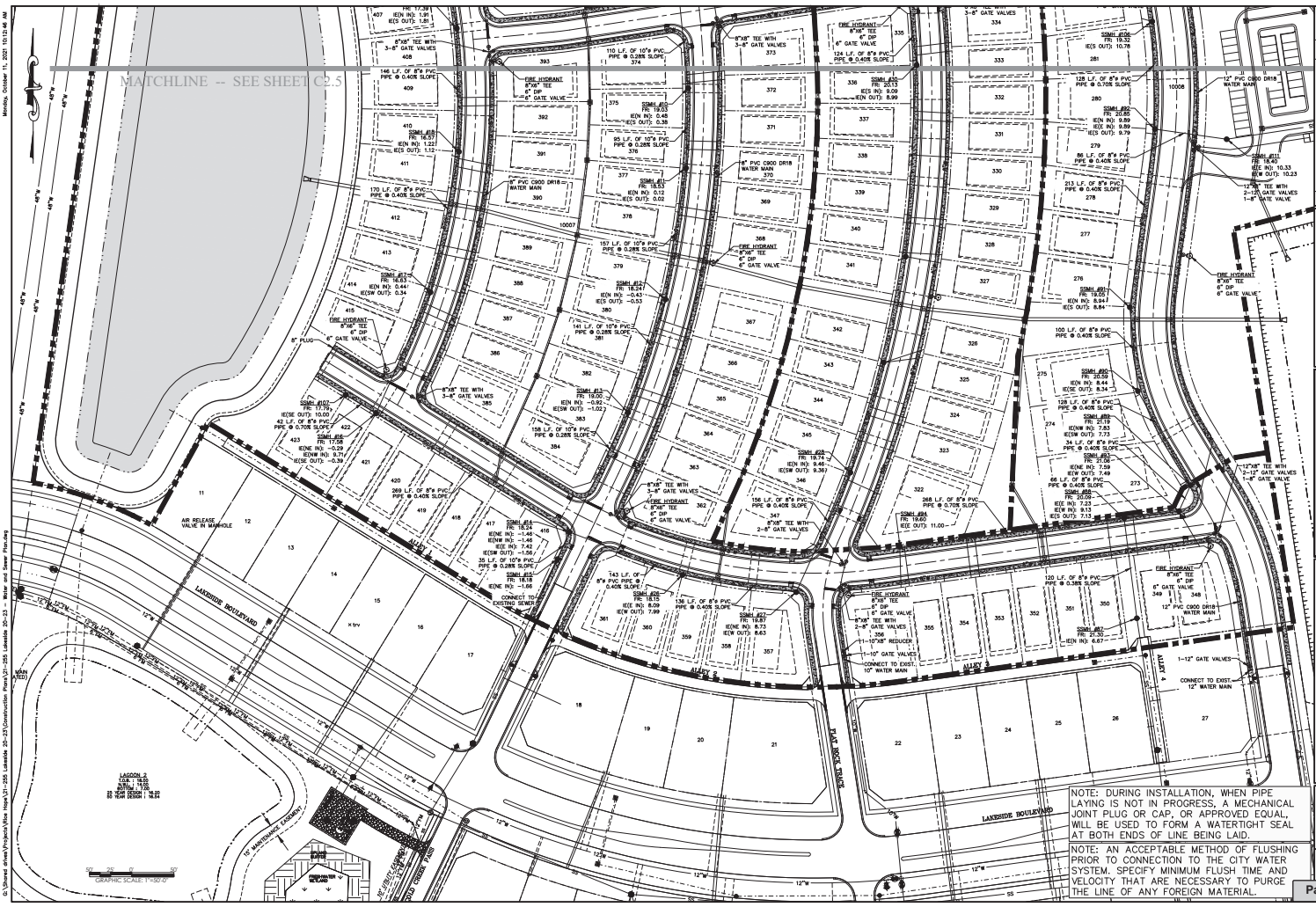

12.C.p

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

WATER AND SEWER PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C2.3

Packet Pg. 110

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

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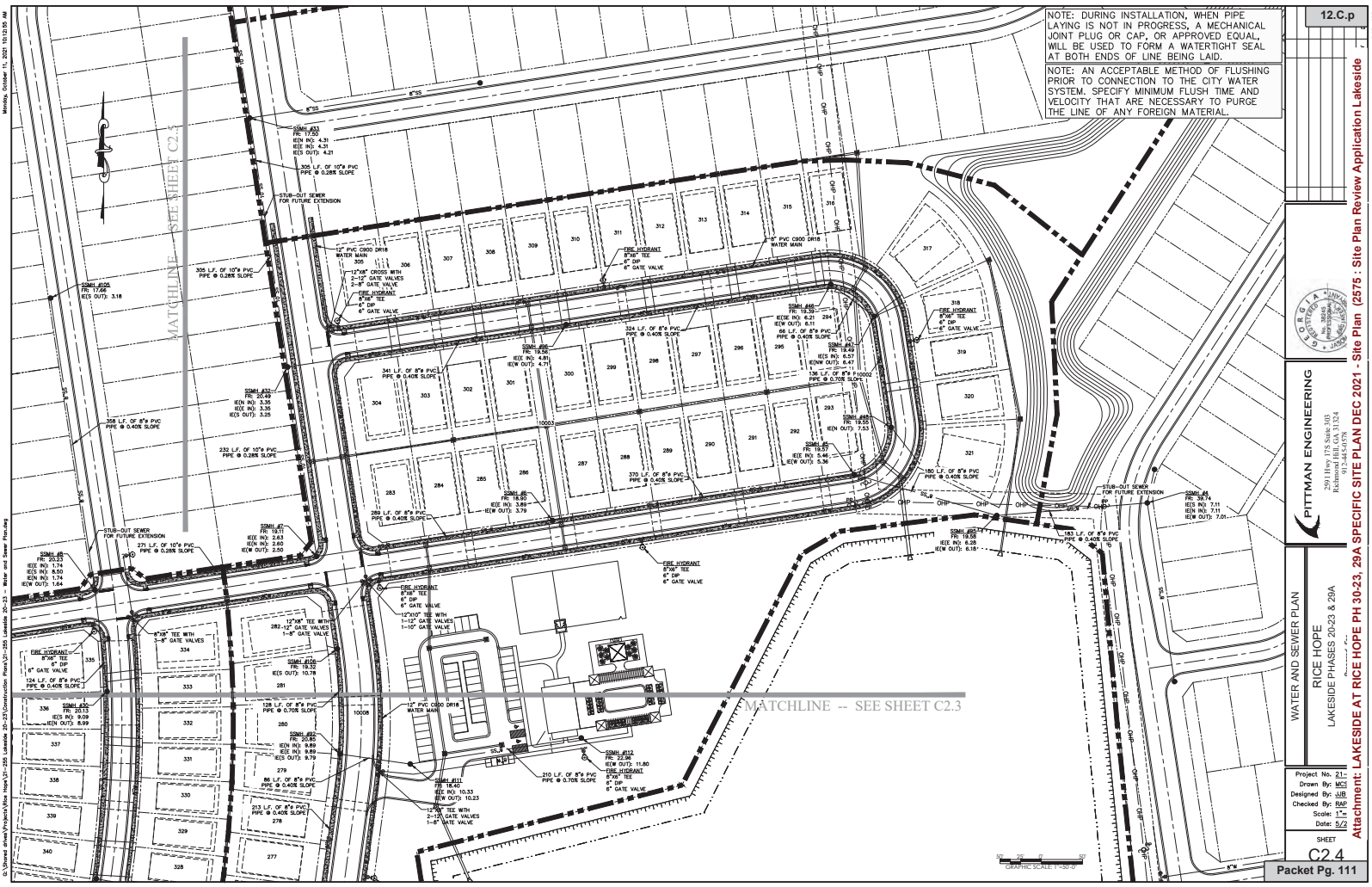
NOTE: DURING INSTALLATION, WHEN PIPE LAYING IS NOT IN PROGRESS, A MECHANICAL JOINT PLUG OR CAP, OR APPROVED EQUAL, WILL BE USED TO FORM A WATERTIGHT SEAL AT BOTH ENDS OF LINE BEING LAID.
NOTE: AN ACCEPTABLE METHOD OF FLUSHING PRIOR TO CONNECTION TO THE CITY WATER SYSTEM. SPECIFY MINIMUM FLUSH TIME AND VELOCITY THAT ARE NECESSARY TO PURGE THE LINE OF ANY FOREIGN MATERIAL.
MATCHLINE -- SEE SHEET C2.3
MATCHLINE -- SEE SHEET C2.3
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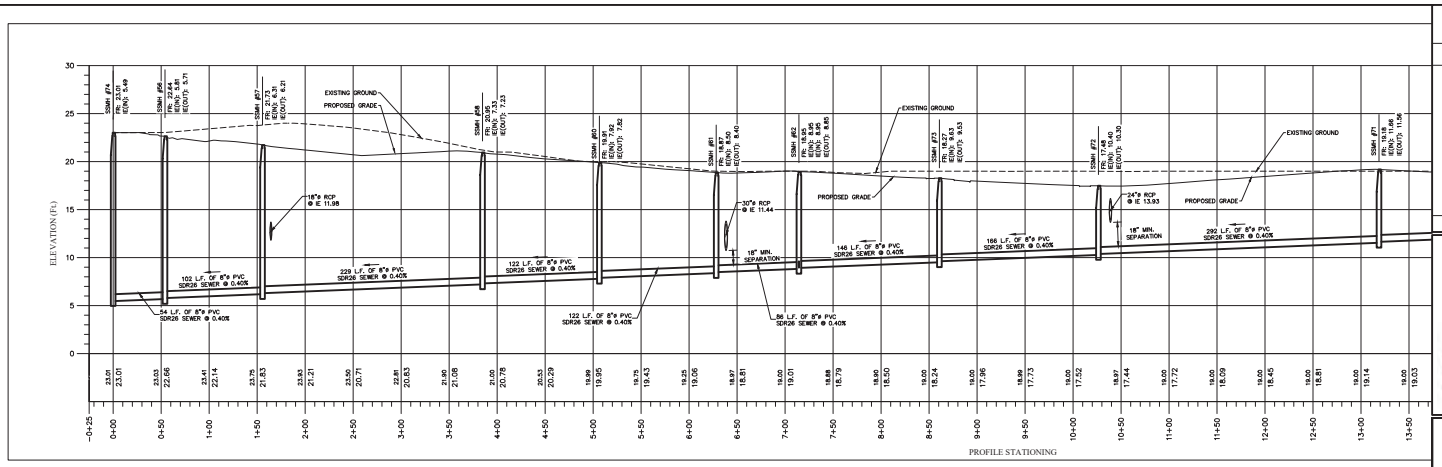
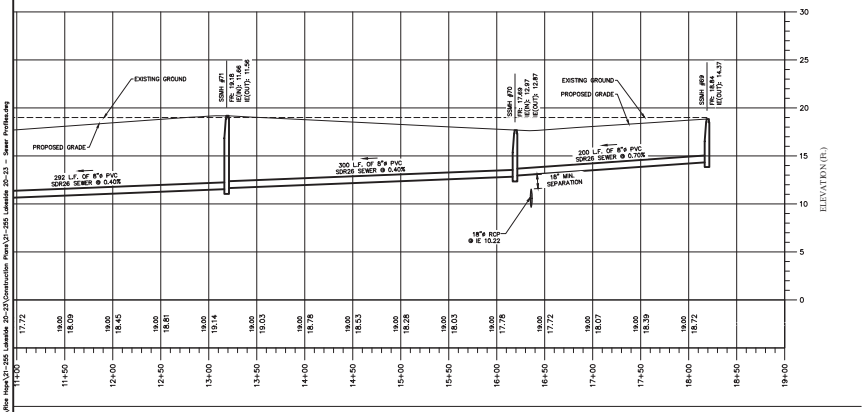
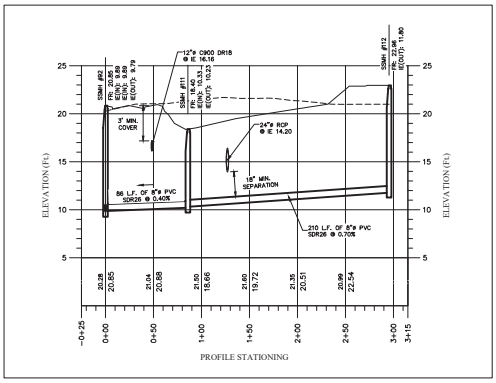
SSMH #333
SSMH #334
SSMH #335
SSMH #336
SSMH #337
SSMH #338
SSMH #339
SSMH #340
10003
10008
GRAPHIC SCALE 1"=50'-0"
12.C.p
PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578
WATER AND SEWER PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21
SHEET
C2.4
Packet Pg. 111
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside
RICE HOPE

NOTE: DURING INSTALLATION, WHEN PIPE LAYING IS NOT IN PROGRESS, A MECHANICAL JOINT PLUG OR CAP, OR APPROVED EQUAL, WILL BE USED TO FORM A WATERTIGHT SEAL AT BOTH ENDS OF LINE BEING LAID.
NOTE: AN ACCEPTABLE METHOD OF FLUSHING PRIOR TO CONNECTION TO THE CITY WATER SYSTEM. SPECIFY MINIMUM FLUSH TIME AND VELOCITY THAT ARE NECESSARY TO PURGE THE LINE OF ANY FOREIGN MATERIAL.
MATCHLINE -- SEE SHEET C2.4
MATCHLINE -- SEE SHEET C2.3
GRAPHIC SCALE 1"=50'
PITTMAN ENGINEERING
259 I Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5478
WATER AND SEWER PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21
SHEET
C2.5
12.C.p
Packet Pg. 112
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside







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2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

SEWER PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1"=5'
Date: 5/5/21

SHEET
C2.6

Packet Pg. 113

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:15:02 AM
G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - Sewer Profiles.dwg

12.C.p

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Richmond Hill, GA 31324
912-445-6978

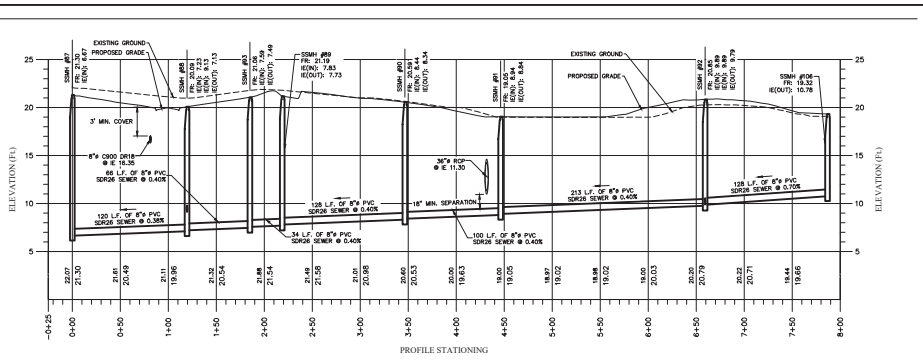
SEWER PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

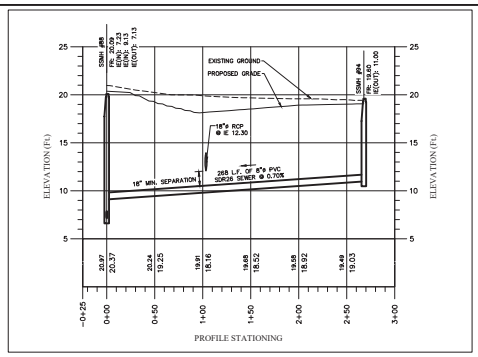
Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1"
Date: 12/2021

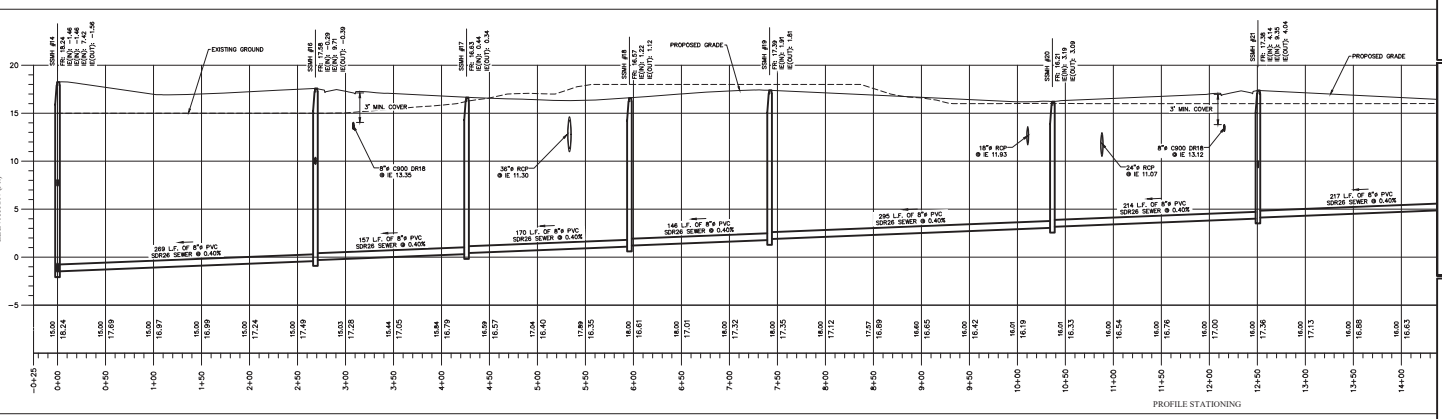
SHEET
C2.7

Packet Pg. 114

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside







12.C.p

PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

SEWER PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = N/S
Date: 5/21

SHEET
C2.8

Packet Pg. 115

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:15:23 AM

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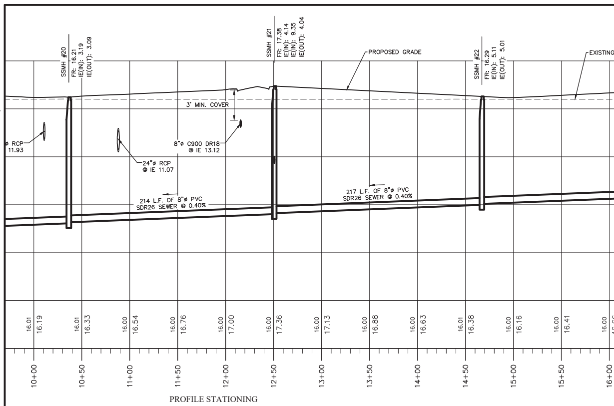

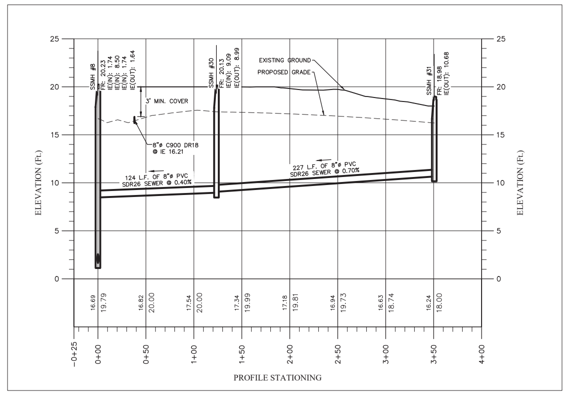

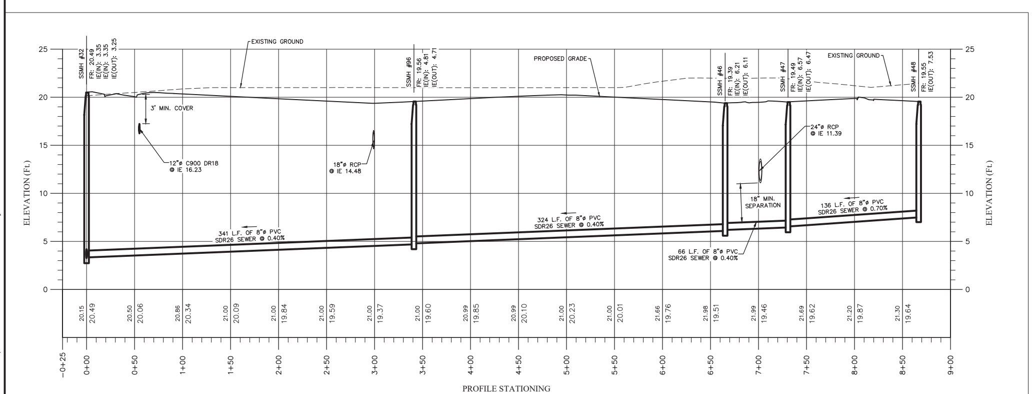

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2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0878

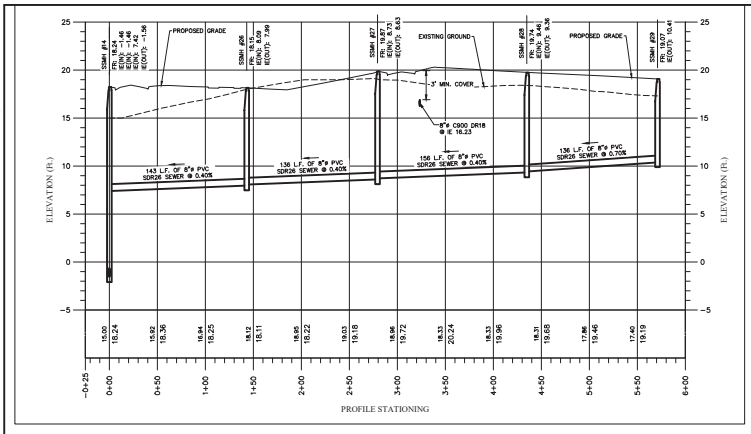
SEWER PROFILES

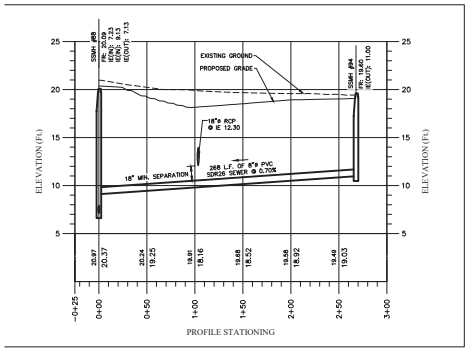
RICE HOPE

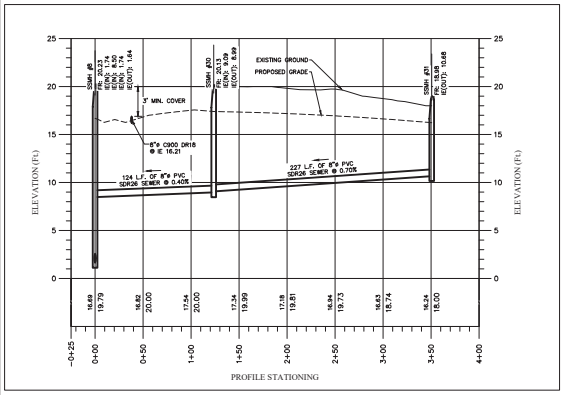
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1"=
Date: 5/2

SHEET
C2.9







12.C.p

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2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

SEWER PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 5'
Date: 5/5/21

SHEET
C2.10

Packet Pg. 117

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:15:41 AM

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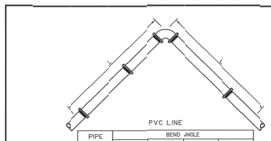


PVC LINE

PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	3	6	12	29
6	4	8	17	41
8	5	11	22	53
10	6	13	26	64
12	7	15	31	75

DUCTILE IRON LINE

PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	2	4	8	20
6	3	6	12	28
8	4	7	15	36
10	4	9	18	43
12	5	10	21	51
16	6	13	27	65
20	8	16	33	79
24	9	18	38	92

MINIMUM RESTRAINED LENGTH (L)

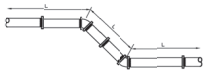
NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

STANDARD HORIZONTAL BEND RESTRAINT

City of Port Wentworth
TECHNICAL DETAILS
W-27

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



PVC LINE

PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	5	10	22	52
6	7	15	30	74
8	9	19	40	96
10	11	23	48	115
12	13	27	56	136

DUCTILE IRON LINE

PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	3	6	12	28
6	4	8	17	40
8	4	10	22	52
10	5	12	26	62
12	6	15	30	73
16	7	19	39	94
20	11	23	47	114
24	13	26	55	132

MINIMUM RESTRAINEE LENGTH (L)

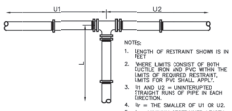
NOTES:

1. LENGTH OF RESTRAINT SHOWN S IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

STANDARD VERTICAL BEND RESTRAINT

City of Port Wentworth
TECHNICAL DETAILS
W-28

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. 'U' = THE SMALLER OF U1 OR U2.
5. L = MINIMUM RESTRAINED LEVGTH ALONG THE BRANCH.
6. WHERE U1 IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.

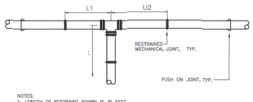
D-W	8"-90°	7"-90°	6"-90°	> 90°
1x4	43	29	4	*
1x4	39	27	*	*
1x6	64	49	23	*
1x4	54	6	*	*
1x6	60	42	10	*
1x8	87	72	48	0
0x4	23	*	*	*
0x6	58	32	*	*
0x8	84	66	33	*
0x10	106	91	67	31
0x6	84	*	*	*
0x8	94	70	*	*
0x8	88	60	23	*
0x10	104	89	67	13
0x12	124	93	87	21

MINIMUM RESTRAINED LENGTH (L)
* RESTRAIN AT TEE ONLY

STANDARD TEE RESTRAINT (PVC LINE)

City of Port Wentworth
TECHNICAL DETAILS
W-29

PREPARED BY STEVENSON & PALMER ENGINEERING, INC
SCALE: N.T.S
DATED: FEBRUARY 2007



NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS TYP PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF RESTRAINED JOINT PIPE IN EACH DIRECTION.
4. U= = THE SMALLER OF U1 OR U2 (E.G., U1, IN THE ABOVE DIAGRAM)
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE U= IS LESS THAN 1', RESTRAIN TEE AS A 90° HORIZONTAL BEND.

DUCTILE IRON LINE

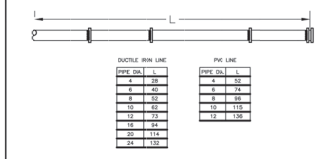
Pip	4"-90°	6"-90°	8"-90°	10"-90°	12"-90°	16"-90°
0X4	23	13	*	*	*	*
0X6	58	32	*	*	*	*
0X8	84	66	33	*	*	*
0X10	106	91	67	31	*	*
0X12	124	93	87	21	*	*
0X16	157	118	107	87	55	*
0X20	185	141	125	107	87	55
1X4	43	29	4	*	*	*
1X6	64	49	23	*	*	*
1X8	87	72	48	0	*	*
1X10	106	91	67	31	*	*
1X12	124	93	87	21	*	*
1X16	157	118	107	87	55	*
1X20	185	141	125	107	87	55
2X4	39	27	*	*	*	*
2X6	60	42	10	*	*	*
2X8	94	70	*	*	*	*
2X10	104	89	67	13	*	*
2X12	124	93	87	21	*	*
2X16	157	118	107	87	55	*
2X20	185	141	125	107	87	55

MINIMUM RESTRAINED LENGTH (L)
*RESTRAIN AT TEE ONLY.

STANDARD TEE RESTRAINT (DUCTILE IRON PIPE)

City of Port Wentworth
TECHNICAL DETAILS
W-30

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



DUCTILE IRON LINE

PIPE DIA.	L
4	28
6	40
8	52
10	62
12	73
16	94
20	114
24	132

PVC LINE

PIPE DIA.	L
4	52
6	74
8	96
10	115
12	136

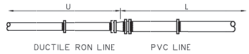
NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LIMITS CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. FOR LINE STUBS (SEE DETAIL W89), THE LENGTH OF RESTRAINT (L) SHALL BE FROM THE VALVE AND NOT THE CAP.

STANDARD DEAD END RESTRAINT

City of Port Wentworth
TECHNICAL DETAILS
W-31

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



DUCTILE RON LINE

REDUCER	U	L
6x4	30	21
8x4	72	38
8x6	29	22
10x4	113	57
10x6	65	38
10x8	25	21
12x4	156	64
12x6	106	53
12x8	59	39
12X10	25	21
16x6	214	78
16x8	161	68
16x10	91	56
16x12	34	40
20x10	174	84
20x12	113	71
20x16	51	40
24x12	207	87
24x16	113	72
24x20	48	39

PVC LINE

REDUCER	U	L
6x-	56	38
8x-	134	69
8x4	53	40
10x4	227	94
10x6	117	71
10x8	49	39
12x4	343	118
12x6	196	99
12x8	109	72
12x 0	48	40

U = MINIMUM UNINTERRUPTED STRAIGHT RUN OF PIPE ON SMALL SIDE OF REDUCER.

L = MINIMUM RESTRAINED LENGTH.

* WHERE MINIMUM "U" IS NOT MET, PIPE ON LARGE SIDE OF REDUCER SHALL BE RESTRAINED FOR A MINIMUM OF "L" FEET.

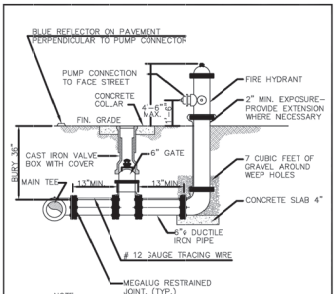
NOTES:

1. LENGTH OF RESTRAINT SHOWN S IN FEET.
2. WHERE LIMITS CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

STANDARD REDUCER RESTRAINT

City of Port Wentworth
TECHNICAL DETAILS
W-32

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



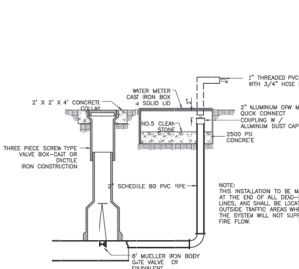
NOTE:

1. ALL JOINTS FROM MAIN TO HYDRANT SHALL BE RESTRAINED.
2. PROTECT BOLTS AND THREACS FROM CONCRETE

STANDARD FIRE HYDRANT

City of Port Wentworth
TECHNICAL DETAILS
W-9

PREPARED BY STEVENSON & PALMER ENGINEERING, INC
SCALE: N.T.S
DATED: FEBRUARY 2007



FLUSH VALVE & RISER BLOW-OFF DETAIL

NOT TO SCALE

NO.	REVISIONS	BY	DATE

JASON BRYANT
GEORGIA REGISTERED PROFESSIONAL ENGINEER
CERTIFICATION #27897

PITTMAN ENGINEERING
2591 Hwy 175 Suite 303
Richmond Hill, GA 31324
(912) 445-4444
www.PittmanEngineering@co.com

WATER AND SEWER DETAILS

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	------
Date:	5/25/21

SHEET
C2.12

Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2019 : Site Plan Review Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))

Monday, October 11, 2021 10:16:15 AM
G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - Water & Sewer Details.dwg

Monday, October 11, 2021 10:16:23 AM
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NOTES:
1. MANHOLE FRAME AND COVER SHALL BE NEENAH FOUNDRY CO. CATALOG NO. R-1668, TYPE C, LABELED "WATER".
2. THE BOTTOM OF THE MANHOLE FRAME SHALL BE 1" MORE THAN 6" ABOVE THE TOP OF THE MANHOLE STRUCTURE.
3. PRECAST CONCENTRIC CONE RISERS MAY BE USED WHERE REQUIRED FOR DEPTH.
4. THE MANHOLE FRAME AND COVER MUST BE CENTERED OVER THE VALVE.

PLAN

MANHOLE FRAME & COVER
CONCRETE COLLAR
8" BRICK
6" O.C. EACH WAY
12" MIN
6" MIN.
GATE VALVE - INSTALL AS SHOWN ON ASSEMBLY
TRACING WIRE
PRECAST CONCRETE
24" MIN

VALVE MANHOLE FOR 8" & GREATER GATE VALVE

City of Port Wentworth
TECHNICAL DETAILS
W-14

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

CONCRETE COLLAR (2'x2'x4")
CAST IRON COVER (MARKED WATER)
TRACING WIRE
FINISH GRADE
THREE PIECE SCREW TYPE CAST IRON VALVE BOX
WIRES
SURROUND VALVE IN 3/4" CRUSHED STONE (6" ON ALL SIDES)
VALVE
1"
2" HARDBODY GATE VALVE RESILIENT SET & EPOXY COATING (FLOW 2640 OR EQUAL)

NOTE:
1. THIS JETAIL APPLIES TO VALVES.
2. IN UNPAVED AREAS SET TOP OF CONC. COLLAR 1" ABOVE FINISHED GRADE. IN PAVED AREAS SET TOP OF BOX FLUSH W/ PAVEMENT. NO CONC. COLLAR REQUIRED.
3. VALVE BOX SHALL NOT REST ON THE VALVE

2" WATER VALVE

City of Port Wentworth
TECHNICAL DETAILS
W-18

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

TAMPED SELECTED BACK FILL MATERIAL 8" TO 12" LAYERS
TRENCH SIDE SLOPES MUST CONFORM TO CURRENT OSHA REGULATIONS
36" MIN.
1/2"OD
6.67" MIN
SELECTED BACK FILL IN 8" - 12" LIFTS.
BEDDING: USE #57 STONE
O.D. + 2"

NOTES:
1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH AS SHOWN.
2. MATCH EXISTING PAVEMENT TYPE AND THICKNESS.
3. ALL WORK WITHIN GDOT R/W SHALL COMPLY WITH GDOT PERMIT REQUIREMENTS ON APPLICABLE ENCROACHMENT PERMIT.

PIPE BEDDING

City of Port Wentworth
TECHNICAL DETAILS
S-8

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

MARK FACE OF CURB WITH "W" OVER LOCATION OF LATERAL
FINISH GRADE
PROPERTY LINE
12" (TYP.)
4 1/2"
NON-METALLIC PIPE, MIN. WARNING TAPE TO BE ABOVE LATERAL
#12 GAUGE INSULATED SINGLE STRAND COPPER WIRE SPLICED TO PIPE AND ATTACHED TO CORPORATION STOP AND CURB STOP
METER BOX (SEE APPLICABLE METER DETAIL)
1"x 1" CURB STOP WITH 3/4" BRASS BUSHING TO METER
1" POLYETHYLENE TUBING (MIN.)
1" CORPORATION STOP
TAP FOR CONNECTION
MAIN

NOTE:
ALL FITTINGS IN LATERAL SHALL BE COMPRESSION TYPE.

WATER SERVICE LATERAL

City of Port Wentworth
TECHNICAL DETAILS
W-1

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

SET COVERS FLUSH IN PAVED AREAS AND 2" ABOVE GRD. ABOVE 40" ELEVATIONS IN UNPAVED AREAS
2 COURSES OF BRICK (MIN.) 3 COURSES SHALL PRECAST SHAFT MAY BE USED AT ELEVATIONS IN EXCESS OF 40"
TRIMMED BENCHING W/ MORTAR
CONTROL
18" MAX.
12" MIN.
PLASTIC JOINT FILLER
WRAPPED (WRAPAID)
INSIDE
OUTSIDE
COMPLETED BENCHING INSIDE OUT
1" WIDE JOINT MIX
5" MIN. FOR 24" DIA. MH
6" DIA. M.H.
12" I.D.
VALVES
45 DEG
4'-0" OR 6'-0" DIAMETER
SEE JOINT DETAIL (TYPICAL)
12" I.D.
VALVES
20MC. FILL BENCHING
6" MIN.
8" MIN.
3'-0"
REINFORCING SHOWN
COMPACTED SUBGRADE 8" NO WATER ENCOUNTERED, 6" 0" COMPACTED CRUSHED ROCK 9" WATER ENCOUNTERED

JOINT DETAIL

REQUIRED MANHOLE DIAMETER (FT)	PIPE SIZE (IN)
4' (INSIDE DIA.)	≤12"
6' (INSIDE DIA.)	>12"

NOTES:
1. PRECAST REINFORCED CONCRETE TOPS, RISERS, BASES AND REBARS SHALL CONFORM TO LATEST ASTM C-478 STD. SPECIFICATIONS.
2. INTERIOR OF MANHOLE SHALL BE COATED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STD. SPECIFICATIONS. THE EXTERIOR OF MANHOLE SHALL BE COATED WITH CONSEAL CS-55 DAMP-PROOF COATING OR EQUAL.
3. MANUFACTURER CERTIFICATION THAT MANHOLE MEETS ASTM SPECIFICATION SHALL BE SUBMITTED TO CITY OF PORT WENTWORTH.
4. SEE DETAIL SHEET FOR MANHOLE COVER & FRAME.
5. BUOYANCY MAY NEED TO BE CHECKED IF NECESSARY
6. ALL PIPE PENETRATIONS SHALL HAVE A BOOT CONNECTION. SEE DETAIL S-6.

PRECAST CONCRETE MANHOLE

City of Port Wentworth
TECHNICAL DETAILS
S-1

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

MANHOLE WALL
6" MIN.
PUSH-ON JOINT TEE
NOTES:
1. PIPE AND FITTINGS WITHIN CONCRETE INCASEMENT SHALL BE WRAPPED WITH 6 MIL POLYETHYLENE PRIOR TO THE CONCRETE PLACEMENT.
2. ALL PIPE AND FITTINGS SHALL BE SDR 26 PVC
3. THE CONNECTIONS TO THE EXISTING MANHOLE SHALL OCCUR BY CORE-DRILLING. THE CONNECTIONS SHALL INCLUDE A WATERTIGHT BOOT (SEE DETAIL SHEET S-6).
INFLUENT SEWER
MASS CONCRETE TO BE POURED AFTER PIPING IS IN PLACE (2'OHOP'SI) OR PRECAST DROP COLLARS
6" MIN. ALL SIDES
ELEVATION TO MATCH CROWN OF EFFL. SEWER
BENCHING AS REQUIRED
90 BEND (PUSH-ON JOIN'S)

DROP MANHOLE CONNECTION

City of Port Wentworth
TECHNICAL DETAILS
S-7

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

FINISH GRADE
18" – 1" GREEN PVC SLEEVE
36" – 1/2" REBAR
CAP – (REFER TC NOTES)
45° ELL
"X" SLOPE
45 MAX.
PROFILE VIEW
SEWER MAIN
STONE BEDDING
SERVICE LATERAL (SEE NOTES)
Property Line
PLUG (Typ.)
PLAN VIEW

NOTES:
1. SERVICE CLEAN-OUT SHALL BE INSTALLED 12" BELOW FINISHED GRADE AND CAPPED IN A MANNER SUITABLE FOR PAVED OR UNPAVED AREAS. ADDITIONAL CLEAN-OUTS SHALL BE AS REQUIRED TO INSTALL SERVICE WYE AND FINAL CLEAN OUT ASSY PERSTAALS.
2. SERVICE LATERALS SHALL BE 6" FOR COMMERCIAL AND 4" FOR RESIDENTIAL SERVICES.
3. CLEAN OUT SHALL BE INSTALLED BY PLUMBER AT EACH SERVICE CONNECTION AND SHALL CONSIST OF A CAST IRON PLUG SURROUNDED BY A CONCRETE COLLAR. COLLAR SHALL BE 18" DIAMETER MINIMUM CASTING. CLEAN OUT PLUG SHALL NOT PROTRUDE ABOVE COLLAR.
4. CLEAN OUTS IN PAVED AREAS SHALL CONSIST OF A CAST IRON FRAME AND COVER SET TO FINAL GRADE WITH PVC PLUG INSIDE
5. SERVICE PIPING SHALL BE GASKETED SDR 26 CLASS OR BETTER PVC PIPE. WHERE PIPE IS TO BE USED, CLEANER SHALL BE PURPLE AND BLUE GRIP.

CAST IRON CLEAN OUT (SEE NOTES)
CONCRETE COLAR

FUTURE CLEAN OUT INSTALLATION – PROFILE VIEW
FUTURE CLEAN OUT – PLAN VIEW

SINGLE SERVICE SEWER LATERAL

NOT TO SCALE

TOP COVER
SYSTEM NAME TO BE CAST ON COVER.
BOTTOM COVER
NEENAH R-1668 OR EQUIVALENT. SNOW VENTED
23 1/4"
22 1/4"
4"
NOTE:
CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS IN THEIR FINISHED PARTS. CASTINGS SHALL BE CLEANED BY SHOTBLASTING OR BY SOME OTHER APPROVED METHOD.
MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHOULD CONFORM TO THE FOLLOWING: GRAY IRON-ASTM A48, CLASS 30B, MALLEABLE IRON-ASTM A47, GRADE 32510, DUCTILE IRON-ASTM A536, CLASS 80-55-06.
ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER. CASTINGS SHALL BE FREE FROM ROCKING OR ROCKING. COVERS SHALL HAVE MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING UNDER TRAFFIC.
DEVIATIONS SHALL NOT EXCEED TOLERANCES PERMITTED BY ASTM STANDARDS

MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

REVISIONS	BY	DATE
REV.1		

JASON BRYANT
GEORGIA REGISTERED
PROFESSIONAL ENGINEER
CERTIFICATION #27897

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(912) 445-4105
www.PittmanEngineering@Co.com

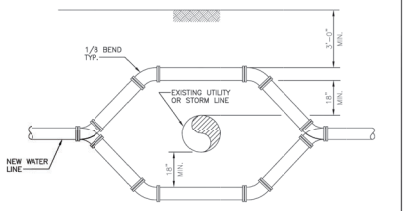
WATER AND SEWER DETAILS
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No. 21-255
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: ~~~~
Date: 5/25/21

SHEET
C2.13

Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2019 - Site Plan Review Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))

Monday, October 11, 2021 10:16:28 AM
G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - Water & Sewer Details.dwg



NOTES:

1. WATER LINE SHALL BE INSTALLED ABOVE SANITARY OR STORM LINE IF POSSIBLE.
2. STRAIGHT RUN OF WATER LINE DIRECTLY ABOVE OR BELOW EXISTING UTILITY LINE MUST BE 10' MINIMUM WITH NO JOINT.
3. IF WATER LINE IS INSTALLED BELOW SANITARY LINE WATER LINE SHALL BE DUCTILE IRON PIPE.
4. JOINTS SHALL BE RESTRAINED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STANDARD DETAILS.

STANDARD UTILITY CROSSING

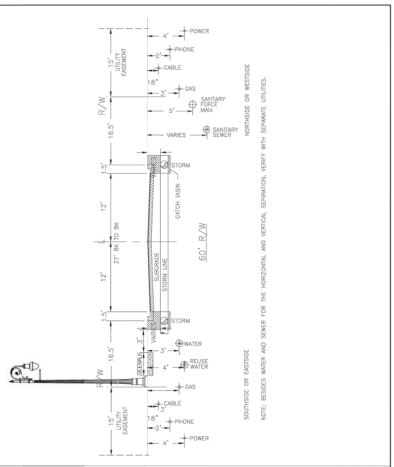
City of Port Wentworth

TECHNICAL DETAILS

W-6

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATED: FEBRUARY 2007



TYP. SECTION UNDERGROUND UTILITY INSTALLATION

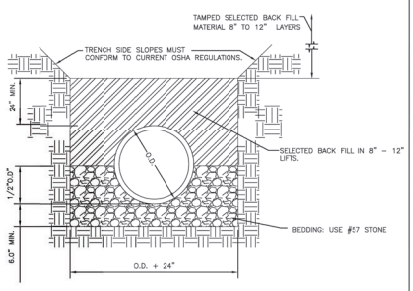
City of Port Wentworth

TECHNICAL DETAILS

U-1

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATED: FEBRUARY 2007



PIPE BEDDING

City of Port Wentworth

TECHNICAL DETAILS

W-8

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATED: FEBRUARY 2007

REV.	REVISIONS	BY	DATE

JASON BRYANT
GEORGIA PE 33135
DESIGN PROFESSIONAL
CERTIFICATION #7397

PITTMAN ENGINEERING
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WATER AND SEWER DETAILS
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No. 21-255
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: ----
Date: 5/25/21

SHEET
C2.14

12.C.p
Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))
Packet Pg. 120

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259 Hwy 175 Suite 103
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912-445-5978

PAVING AND GRADING PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No.	21-
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	1" = 50'
Date:	5/5/21

SHEET
C3.1

Packet Pg. 121

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:18:16 AM

G:\Shared drives\Projects\Rice Hope\21-055 Lakeside 20-23 Parkway and Grading Plans\21-055 Lakeside 20-23 - Parkway and Grading Plans.dwg

NOTE: SIDEWALKS, ADA PARKING, AND ACCESIBLE ROUTES ARE IN CONFORMANCE WITHE THE LATEST EDITION OF FEDERAL STANDARDS.

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PAVING AND GRADING PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.2

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:16:29 AM
G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - Paving and Grading Plan.dwg

NOTE: SIDEWALKS, ADA PARKING, AND ACCESIBLE ROUTES ARE IN CONFORMANCE WITHE THE LATEST EDITION OF FEDERAL STANDARDS.

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912-445-6578

PAVING AND GRADING PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

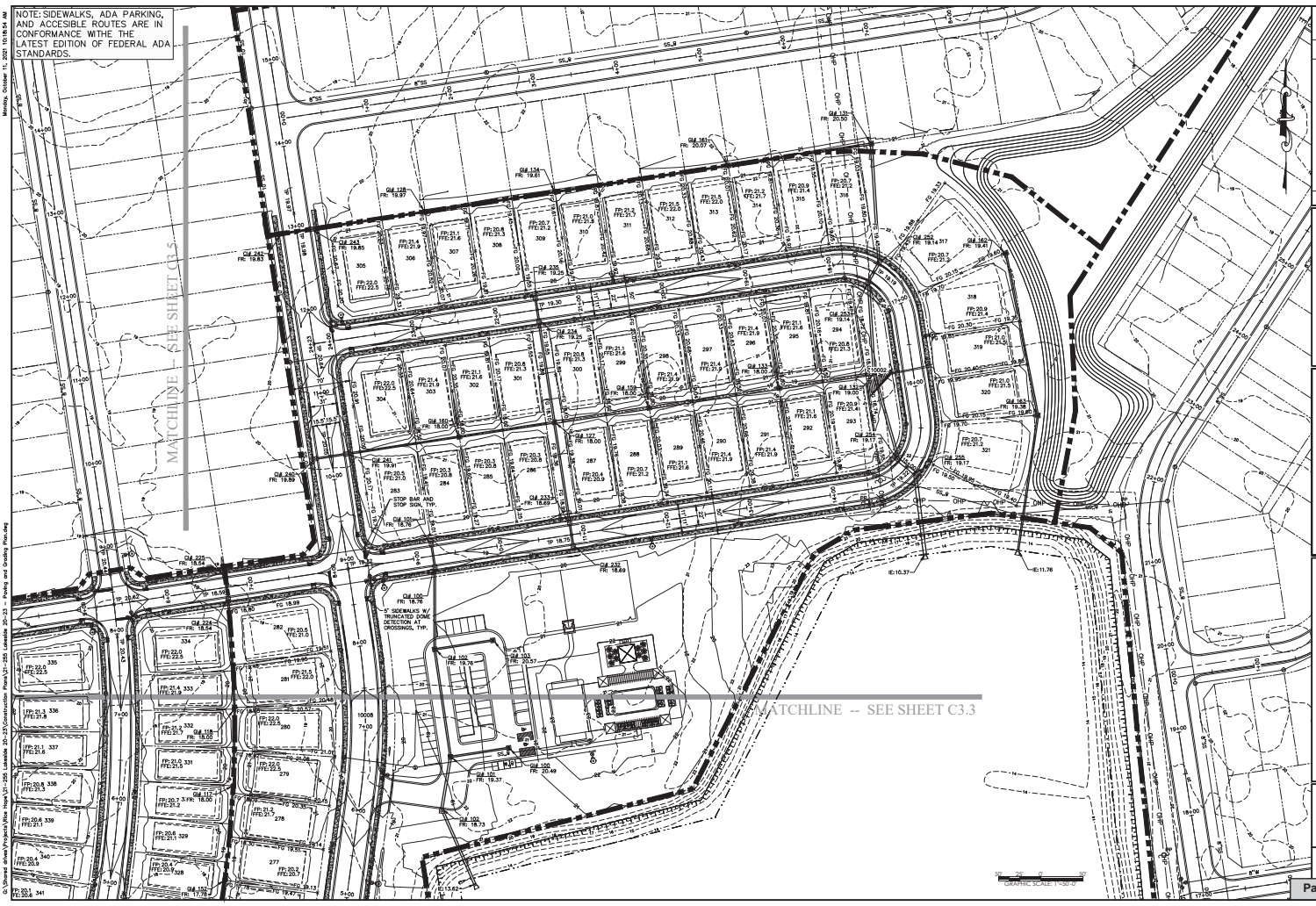
Project No.	21-
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	1" =
Date:	5/ /21

SHEET
C3.3

Packet Pg. 123

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE_HOPE



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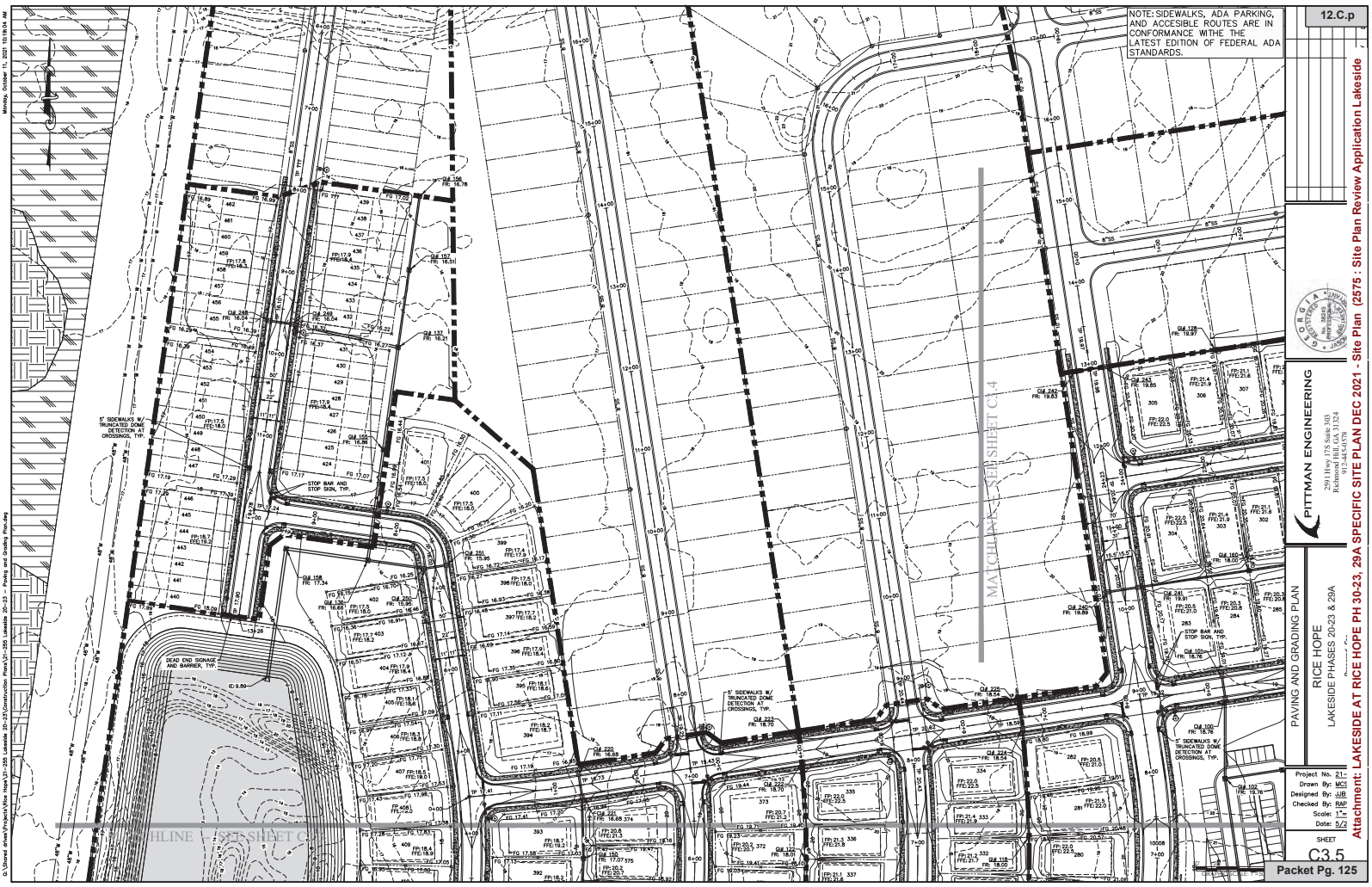
PAVING AND GRADING PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.4

Packet Pg. 124

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



12.C.p

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Richmond Hill, GA 31324
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PAVING AND GRADING PLAN

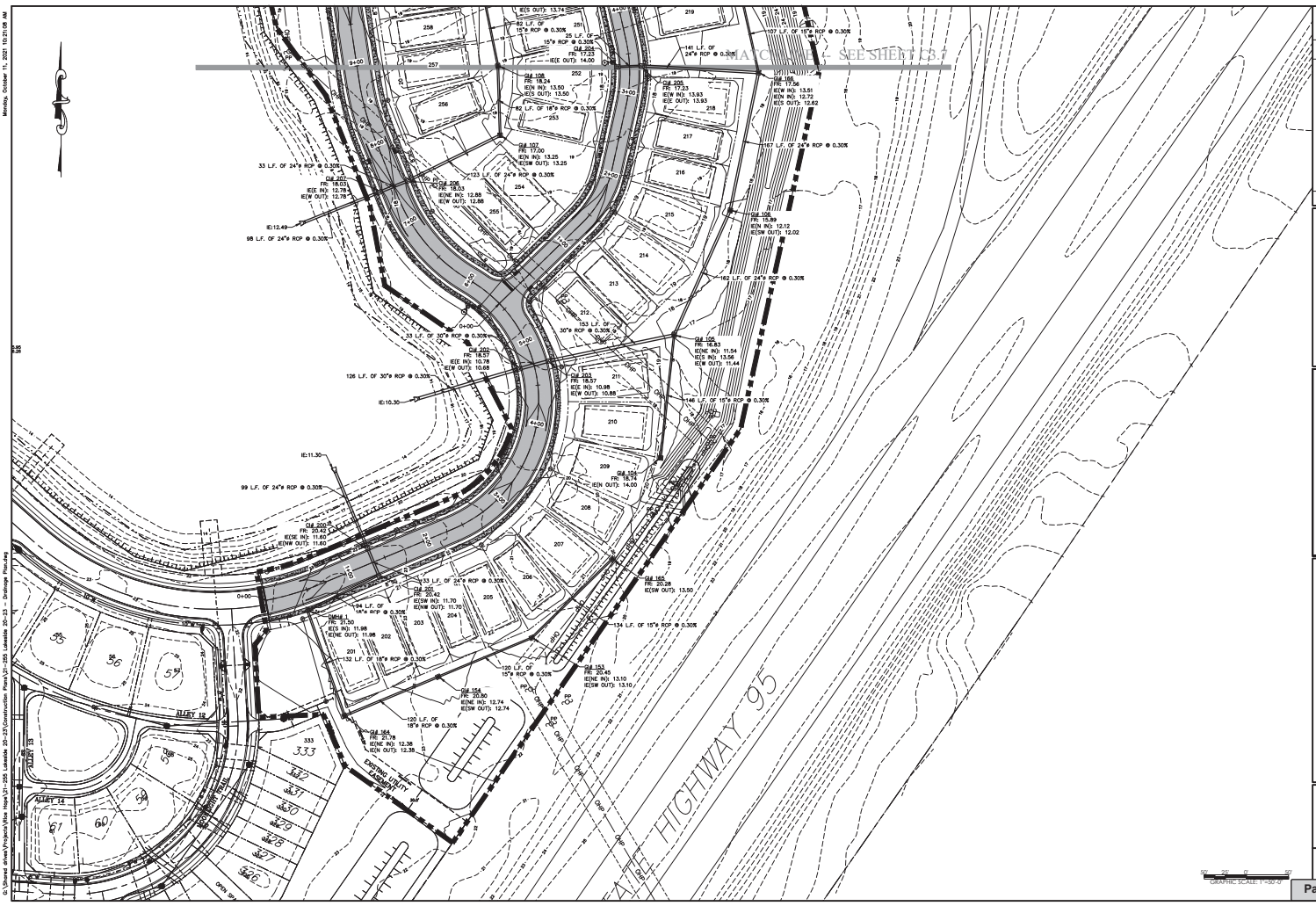
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.5

Packet Pg. 125

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



12.C.p

RICE HOPE

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DRAINAGE PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.6

Packet Pg. 126

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

12.C.p

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DRAINAGE PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/15

SHEET
C3.7

Packet Pg. 127

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:21:18 AM

G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - Drainage Plan.dwg

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DRAINAGE PLAN

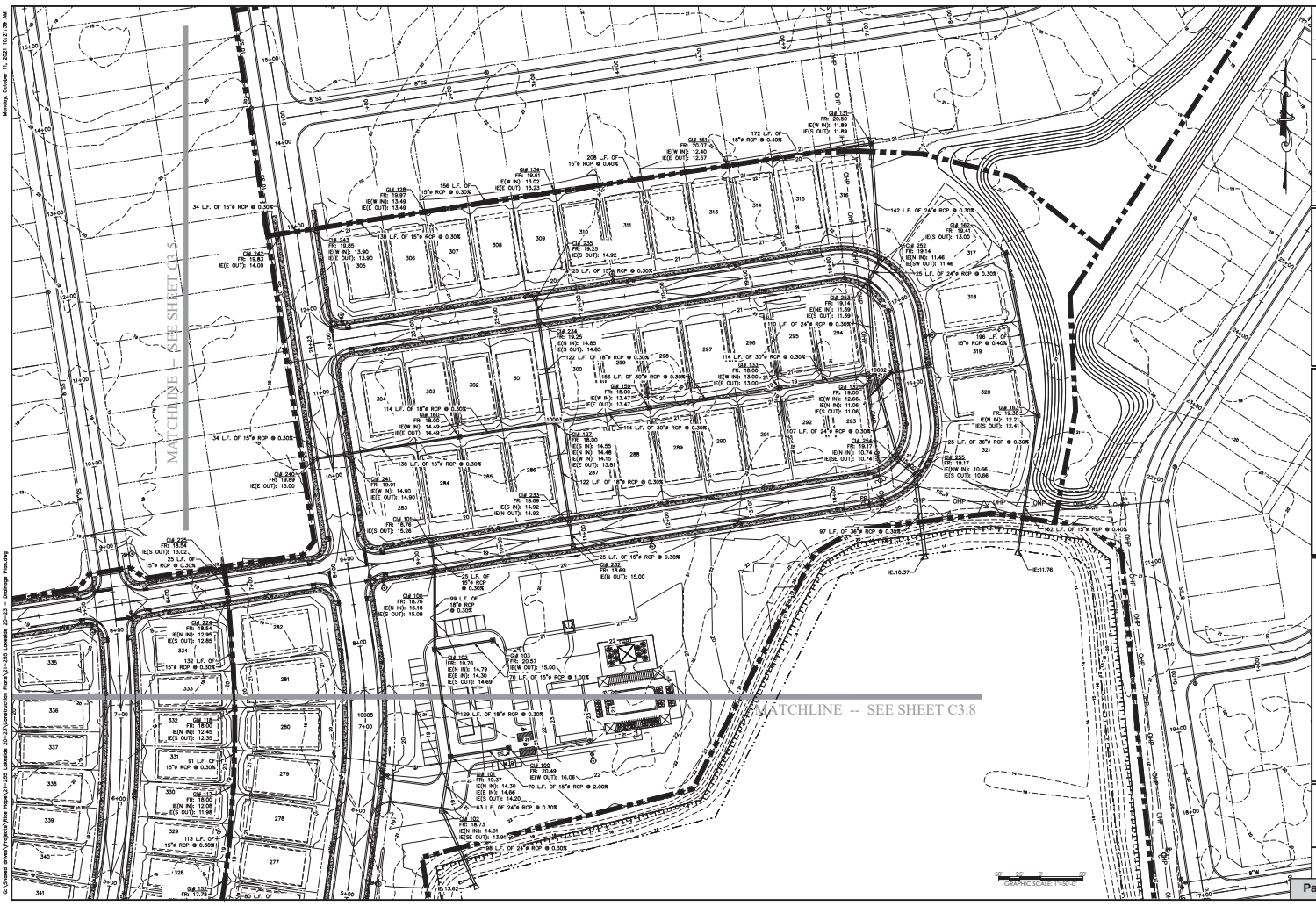
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.8

Packet Pg. 128

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



12.C.p

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259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

DRAINAGE PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.9

Packet Pg. 129

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

12.C.p

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Richmond Hill, GA 31324
913-44-51678

DRAINAGE PLAN

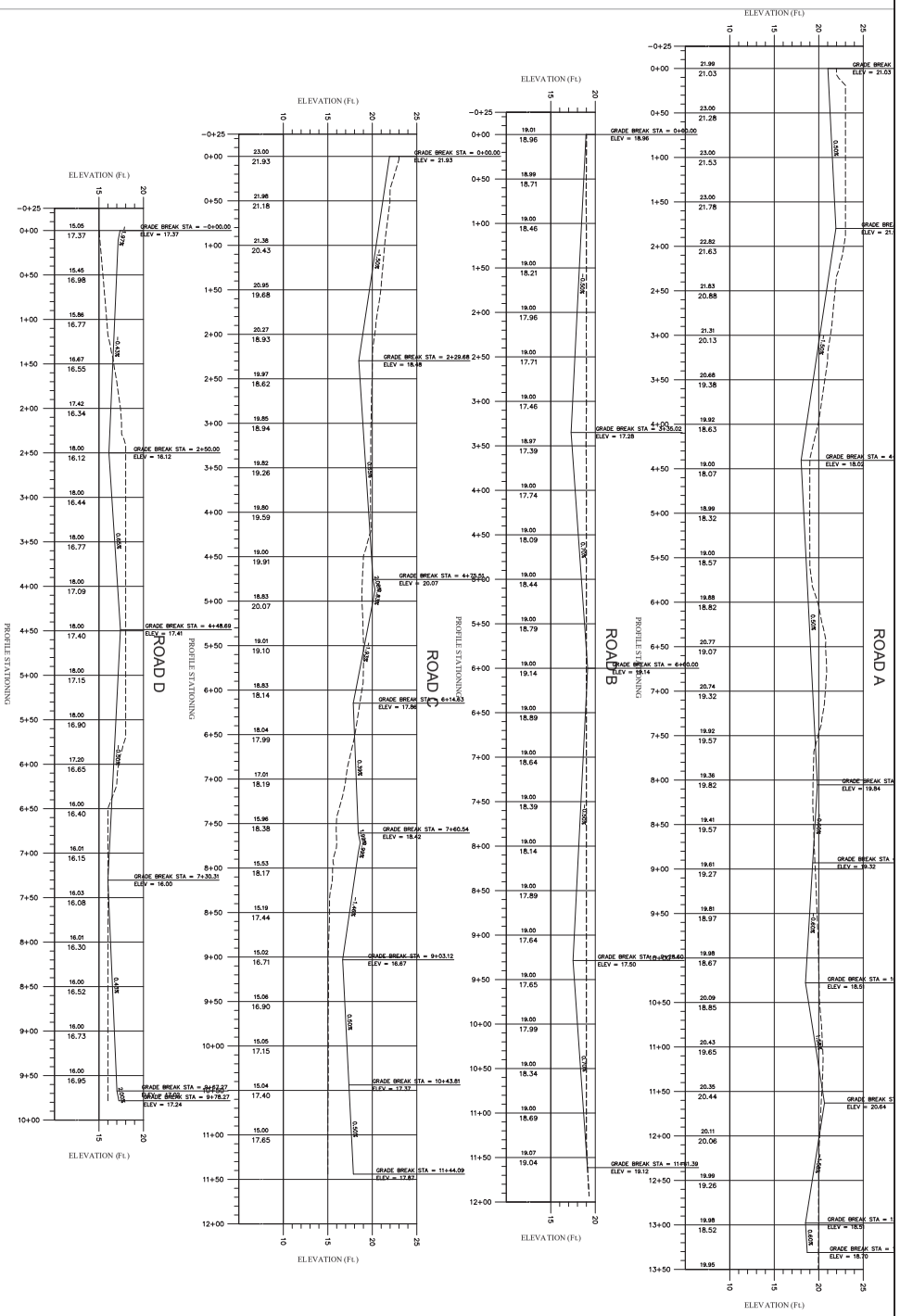
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
C3.10

Packet Pg. 130

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



ROAD PROFILES

RICE HOPE

LAKESIDE PHASES 20-23 & 29A

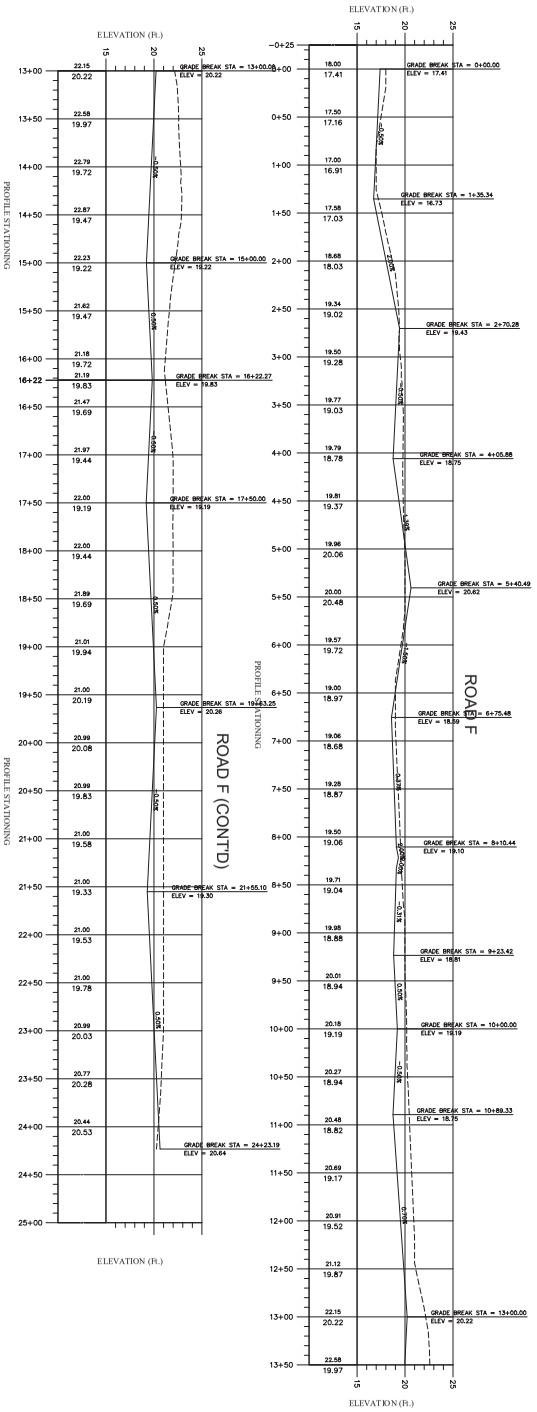
PITTMAN ENGINEERING

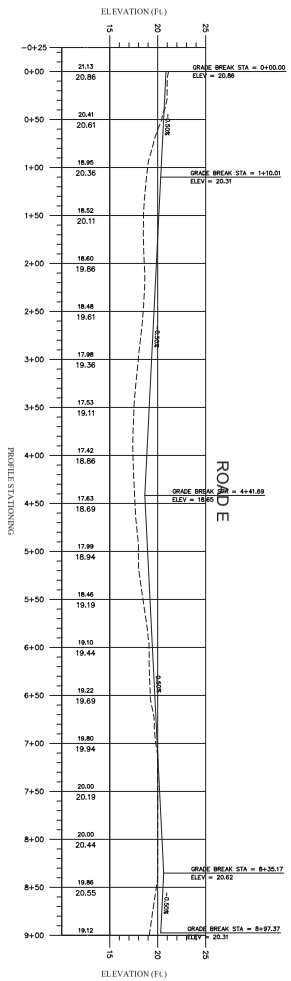
2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578

GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER

Project No: 21-
Drawn By: MCS
Designed By: JJB
Checked By: RMP
Scale: 1" =
Date: 10/2

SHEET
C3.11





ROAD PROFILES

RICE HOPE

LAKESIDE PHASES 20-23 & 29A

PITTMAN ENGINEERING

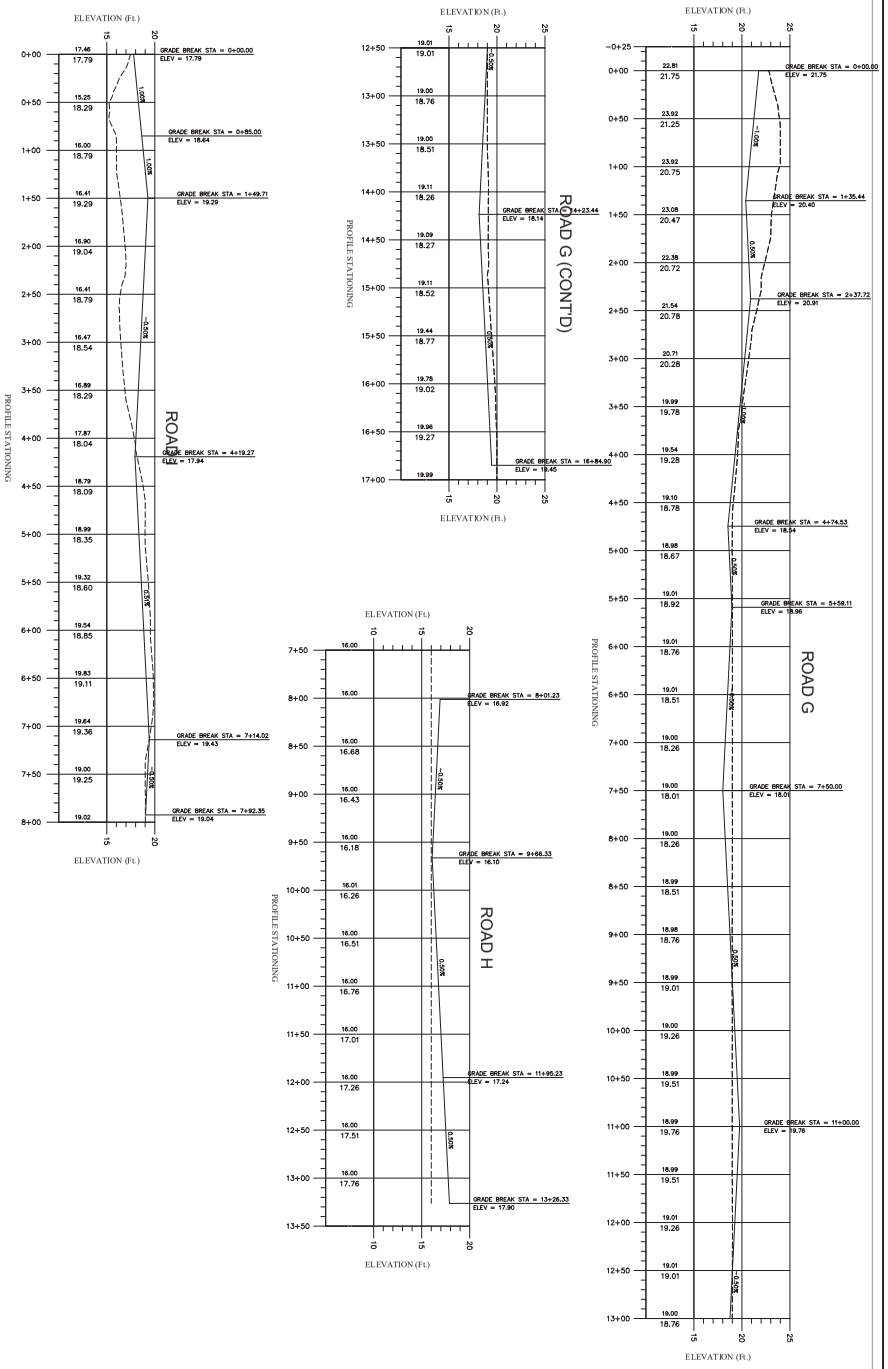
2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578

GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER

Project No: 21-255
Drawn By: MCS
Designed By: JJB
Checked By: RMP
Scale: 1" = 10'
Date: 10/2021

SHEET C3.12

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



ROAD PROFILES

RICE HOPE

LAKESIDE PHASES 20-23 & 29A

PITTMAN ENGINEERING

2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578

GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER

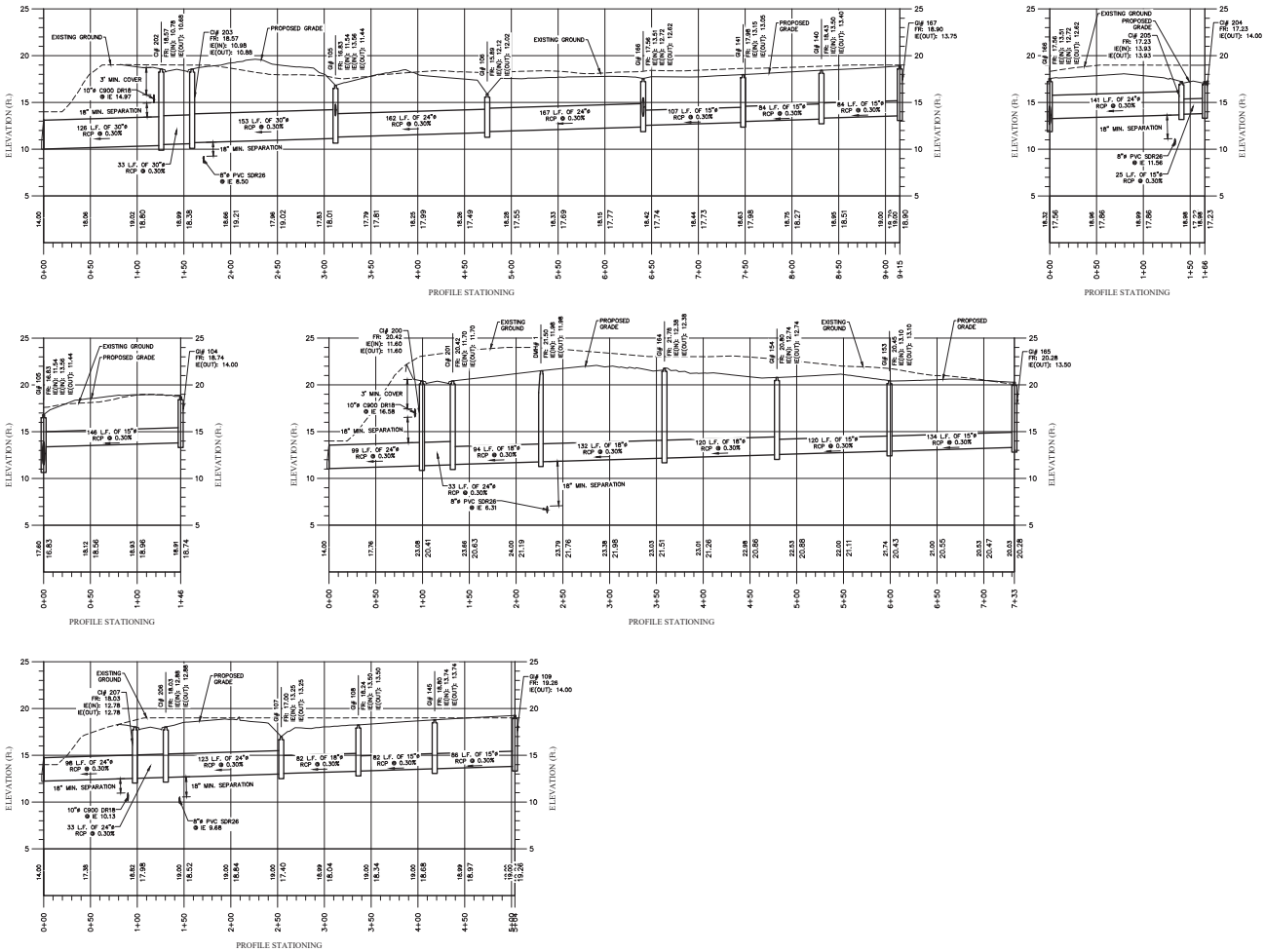
Project No: 21-
Drawn By: MCS
Designed By: JJB
Checked By: RMP
Scale: 1" = 50'
Date: 10/2

SHEET C3.13

Packet Pg. 133

12.c.p

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside



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STORM DRAINAGE PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 5'
Date: 5/15

SHEET
C3.14

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

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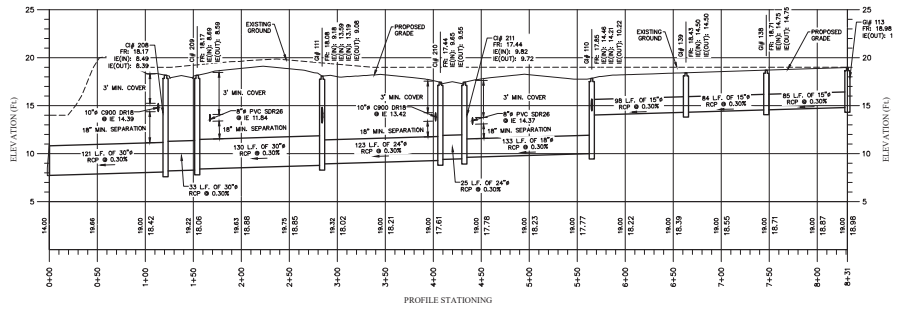

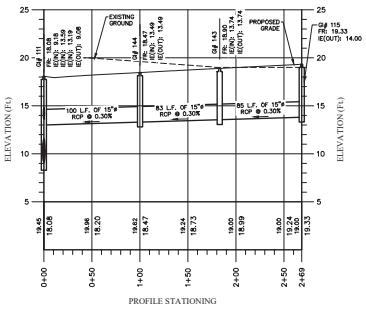

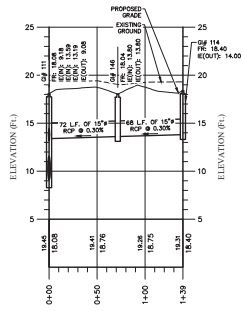

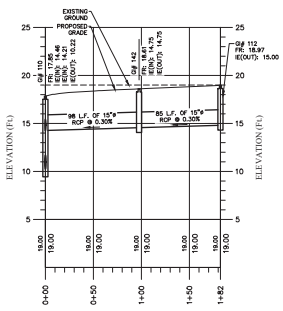

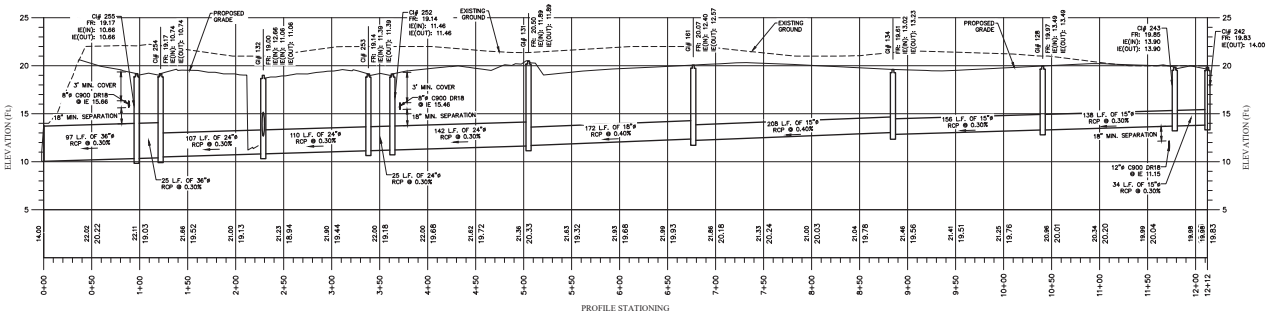

PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5478

STORM DRAINAGE PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1"=
Date: 5/

SHEET
C3.15

12.C.p

RICE_HOPE

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Packet Pg. 135

Monday, October 11, 2021 10:55:29 AM

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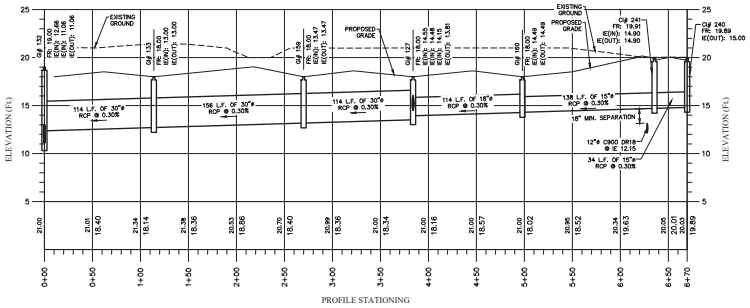

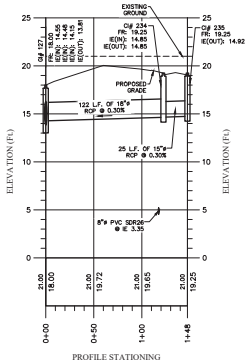

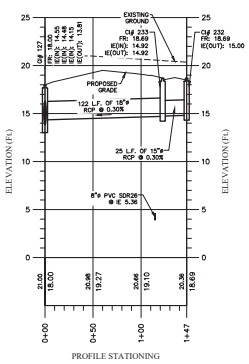

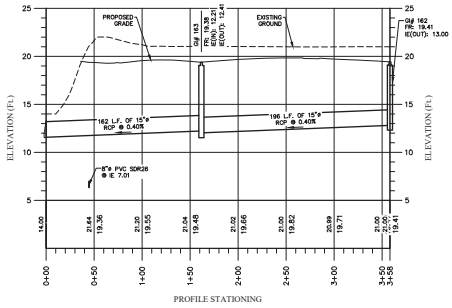

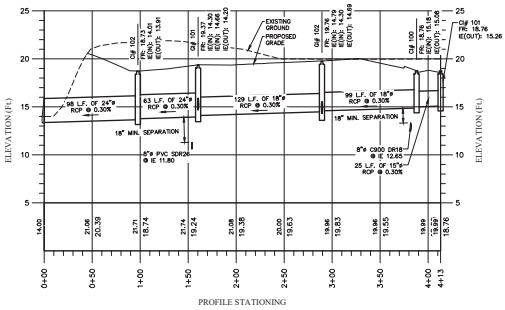

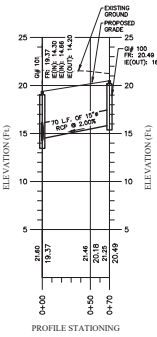

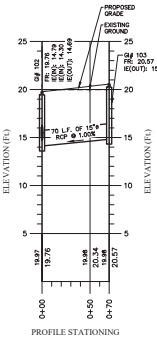

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12.C.p

RICE HOPE

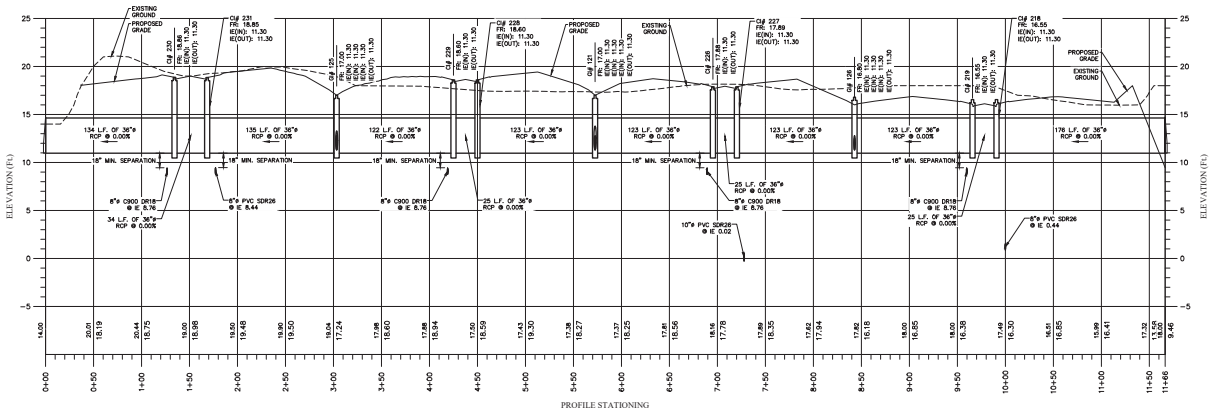
PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

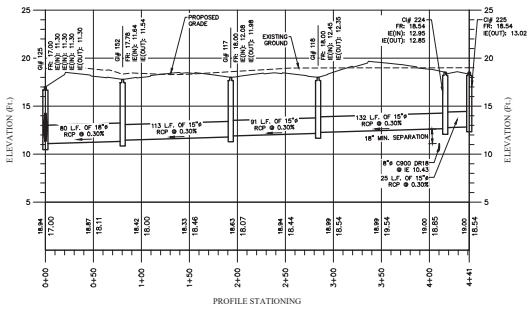
STORM DRAINAGE PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

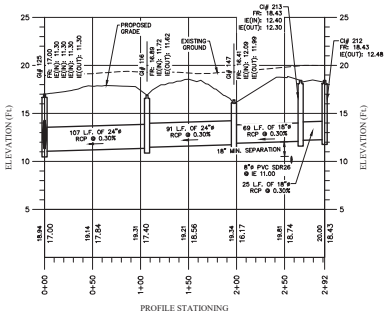
Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 5'
Date: 5/5

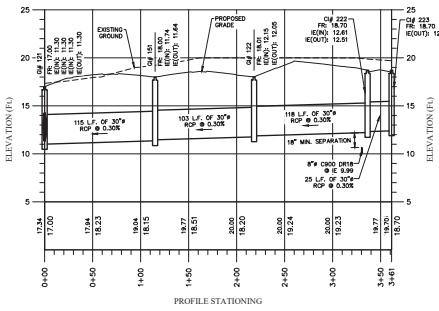
SHEET
C3.16

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside









PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5478

STORM DRAINAGE PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 5'
Date: 5/15/2021

SHEET
C3.17

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:56:20 AM
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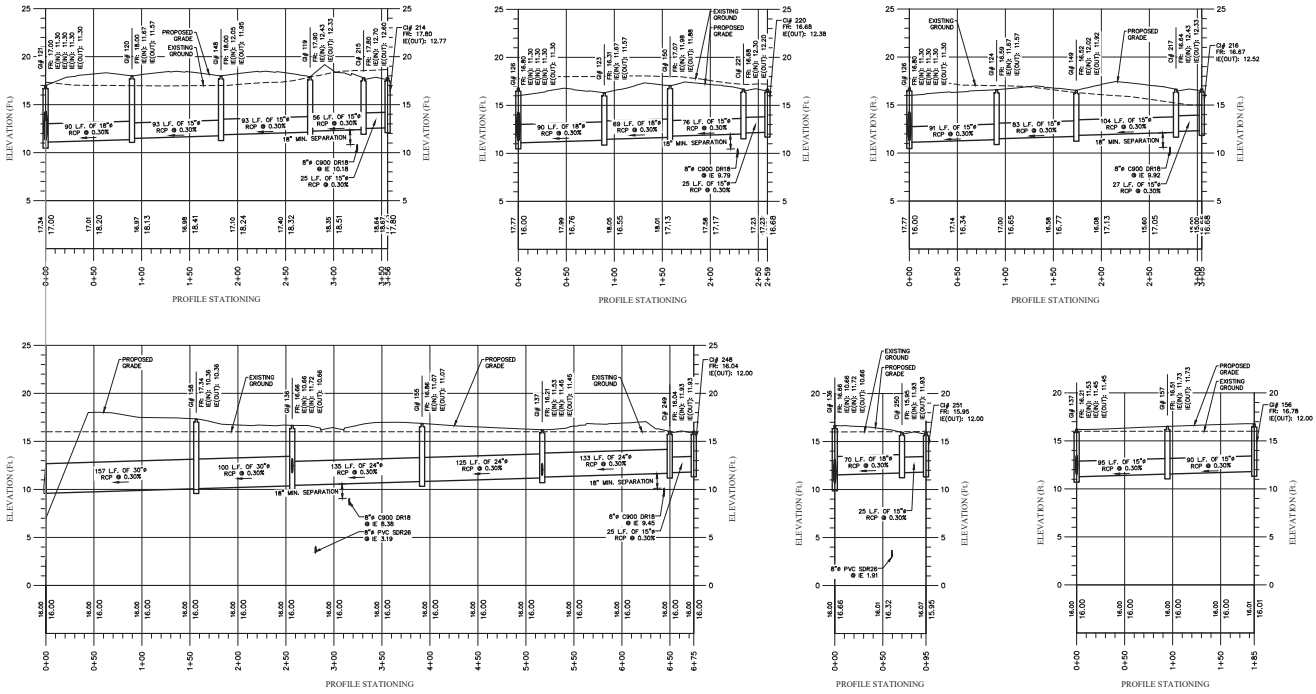

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PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5978

STORM DRAINAGE PROFILES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: 1" = 5'
Date: 5/5/21

SHEET
C3.18

Packet Pg. 138

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:56:49 AM

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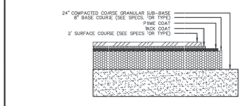
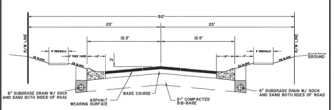
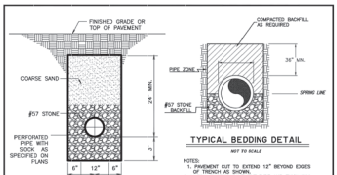


PAVEMENT SECTION
TYPICAL FOR NEIGHBORHOOD STREETS
NOT TO SCALE



TYPICAL SECTION
ROLL-OVER CURB
(TYPICAL FOR NEIGHBORHOOD STREETS)
NOT TO SCALE

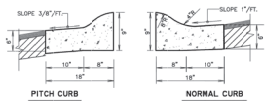


SUBGRADE DRAIN DETAIL
NOT TO SCALE

NOTES:
1. 4" PIPE SHALL BE ADS 6" DIA. PERFORATED TUBING OR APPROVED EQUIVALENT.
2. COARSE SAND BACKFILL SHALL BE USED.
3. MINIMUM GRADIENT FOR ALL SUBGRADE DRAIN SHALL BE 0.15%.

TYPICAL BEDDING DETAIL
NOT TO SCALE

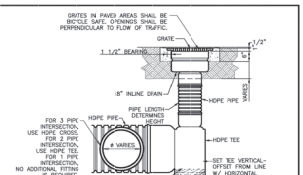
NOTES:
1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH AS SHOWN.
2. MATCH EXISTING PAVEMENT TYPE AND THICKNESS.
3. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT.



PITCH CURB
NORMAL CURB

NOTES:
1. ALL CONCRETE SHALL BE 3,000 PSI.
2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').
3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50').
4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.
5. PROVIDE LIGHT BROOM FINISH.
6. REFER TO CITY O' PORT WENTWORTH DETAIL SD-10

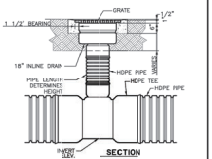
18" ROLL-OVER CURB & GUTTER
NOT TO SCALE



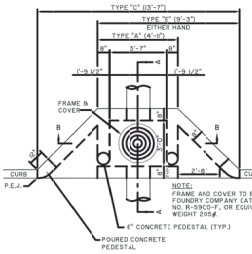
SPECIAL YARD INLET COVER

NOTE:
SAME AS IN END SPECIAL MANHOLE

SPECIAL YARD INLET
END OF LINE SCENARIO
NOT TO SCALE



SPECIAL YARD INLET
NOT TO SCALE

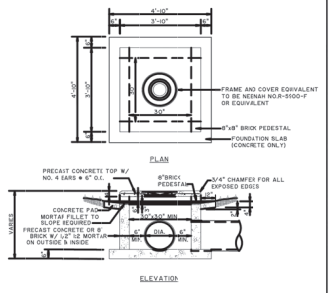


NOTE:
FRAME AND COVER TO BE NEENAH FOUNDRY COMPANY CATALOG NO. R-59CO-F, OR EQUIVALENT WEIGHT 265#.

PLAN OF CURB INLET

City of Port Wentworth
TECHNICAL DETAILS
SD-1

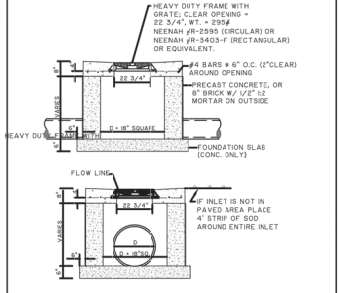
PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



ROOF INLET DETAIL

City of Port Wentworth
TECHNICAL DETAILS
SD-6

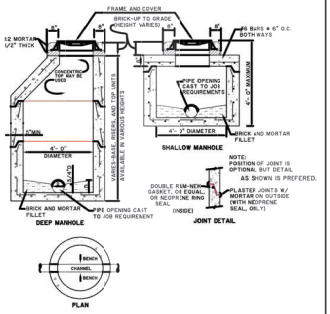
PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



GRATE INLET

City of Port Wentworth
TECHNICAL DETAILS
SD-8

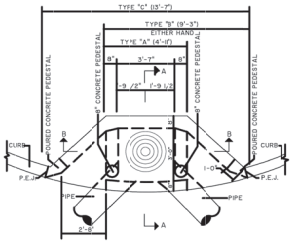
PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



PRECAST STORM MANHOLE

City of Port Wentworth
TECHNICAL DETAILS
SD-12

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



NOTE:
FRAME AND COVER TO BE NEENAH FOUNDRY COMPANY CATALOG NO. R-59CO-F OR EQUIVALENT WEIGHT 265#

PLAN OF CURB INLET ON RADIUS

City of Port Wentworth
TECHNICAL DETAILS
SD-2

PREPARED BY STEVENSON & PALMER ENGINEERING, INC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

REVISIONS	BY	DATE
REV.1		

JASON BRYANT
GEORGIA REGISTERED
DESIGN PROFESSIONAL
CERTIFICATION #73897
EXPIRES 12/31/2021

PITTMAN ENGINEERING
2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-4444
www.PittmanEngineeringCo.com

PAVING, GRADING & DRAINAGE DETAILS

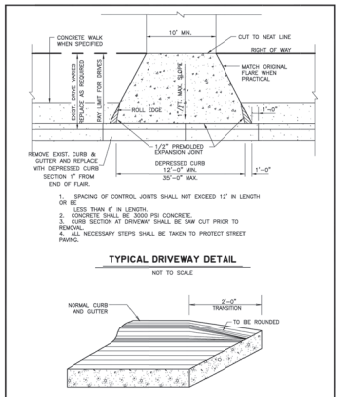
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	------
Date:	5/25/21

SHEET
C3.19

Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2571 : Site Plan Review/Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))

G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - PSD Details.dwg

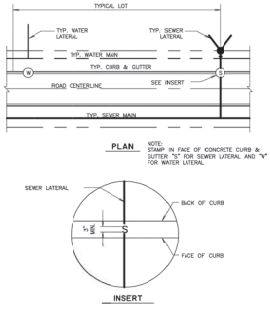


TYPICAL DRIVEWAY DETAIL

NOT TO SCALE

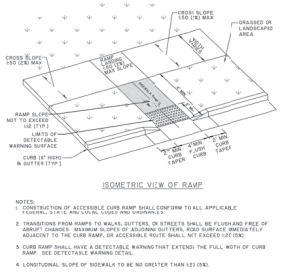
FEATHERING OF CURB AND GUTTER DETAIL

NOT TO SCALE



CURB MARKING DETAIL
WATER AND SEWER LATERAL LOCATIONS

NOT TO SCALE

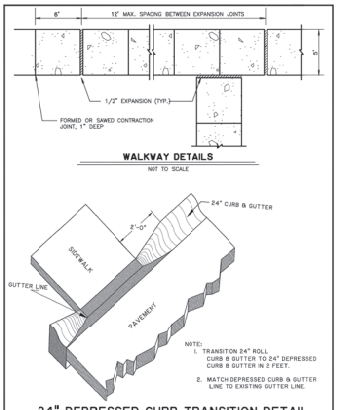


ISOMETRIC VIEW OF RAMP

NOTES:
1. CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
2. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%)
3. CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL.
4. LONGITUDINAL SLOPE OF SIDEWALK TO BE NO GREATER THAN 1:20 (5%).

CURB RAMP 'TYPE 3"
W/ SIDEWALK OFFSET FROM CURB

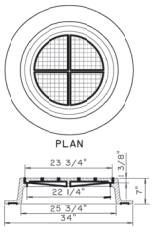
NOT TO SCALE



NOTE:
1. TRANSITON 24" ROLL CURB & GUTTER TO 24" DEPRESSED CURB & GUTTER IN 2 FEET.
2. MATCH DEPRESSED CURB & GUTTER LINE TO EXISTING GUTTER LINE.

24" DEPRESSED CURB TRANSITION DETAIL

NOT TO SCALE

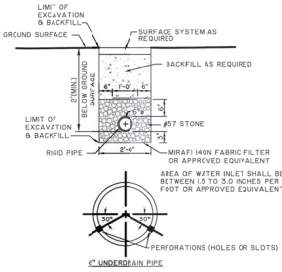


NOTE:
MANHOLE RIM & COVER SIMILAR TO NEENAH FOUNDRY CO. R-1412-A. TOTAL WEIGHT 310#. TYPE "C" LID TO HAVE MACHINED BEARING SURFACES. LID TO BE LETTERED "STORM".

STORM MANHOLE RING & COVER

City of Port Wentworth
TECHNICAL DETAILS
SD-14

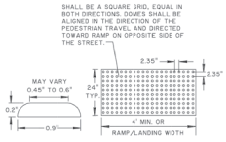
PREPARED BY STEVENSON & PALMER ENGINEERING, INC. | SCALE: N.T.S. | DATED: FEBRUARY 2007



6" UNDERDRAIN PIPE

City of Port Wentworth
TECHNICAL DETAILS
SD-10

PREPARED BY STEVENSON & PALMER ENGINEERING, INC. | SCALE: N.T.S. | DATED: FEBRUARY 2007

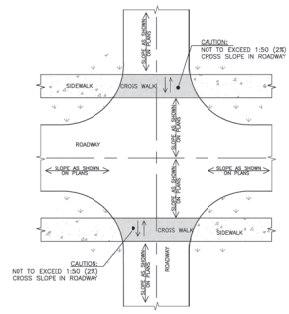


NOTE:
1. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF CONCRETE, THE WARNING AREA SHALL BE RED BRICK IN COLOR. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF RED BRICK, THE WARNING AREA SHALL BE GRAY IN COLOR. THE COLOR USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
2. BRICK PAVERS SHALL BE SET IN A WET MORTAR BED ON 4" MIN. THICK CONCRETE FOUNDATION.

DETECTABLE WARNING DETAIL

NOT TO SCALE

NOTE:
ALL SIDEWALKS TO MEET ADA STANDARDS



ROAD GRADING AT PEDESTRIAN CROSSING ON ACCESSIBLE ROUTE

NOT TO SCALE

NO.	REVISIONS	BY	DATE

JASON BRYANT
GEORGIA REGISTERED
DESIGN PROFESSIONAL
CERTIFICATION #7397

PITTMAN ENGINEERING
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PAVING, GRADING & DRAINAGE DETAILS

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	-----
Date:	5/25/21

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C3.20

Monday, October 11, 2021 10:57:38 AM
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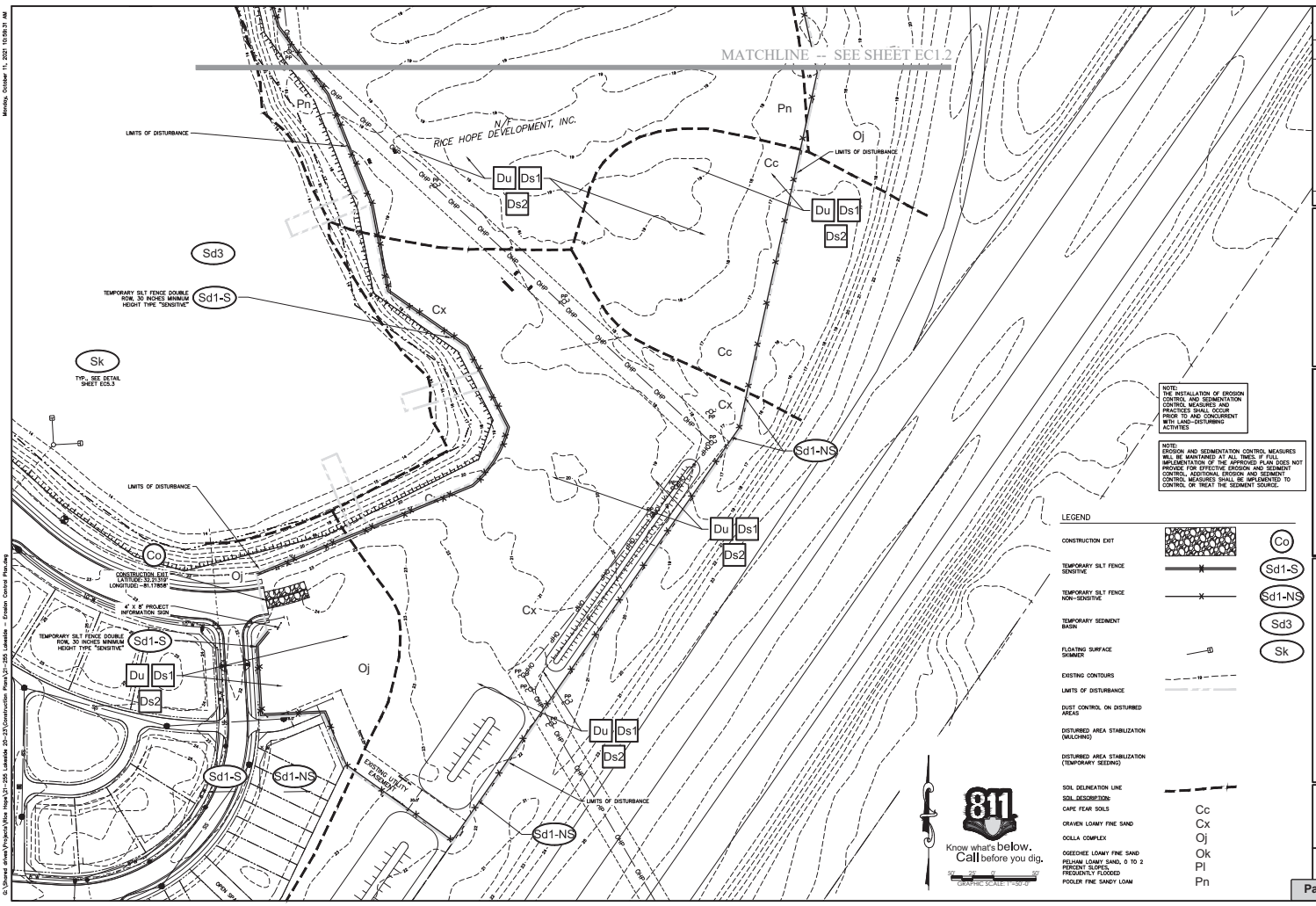
Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2019: Site Plan Review\Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))



12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION
CERTIFICATION #3307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INITIAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
EC1.1

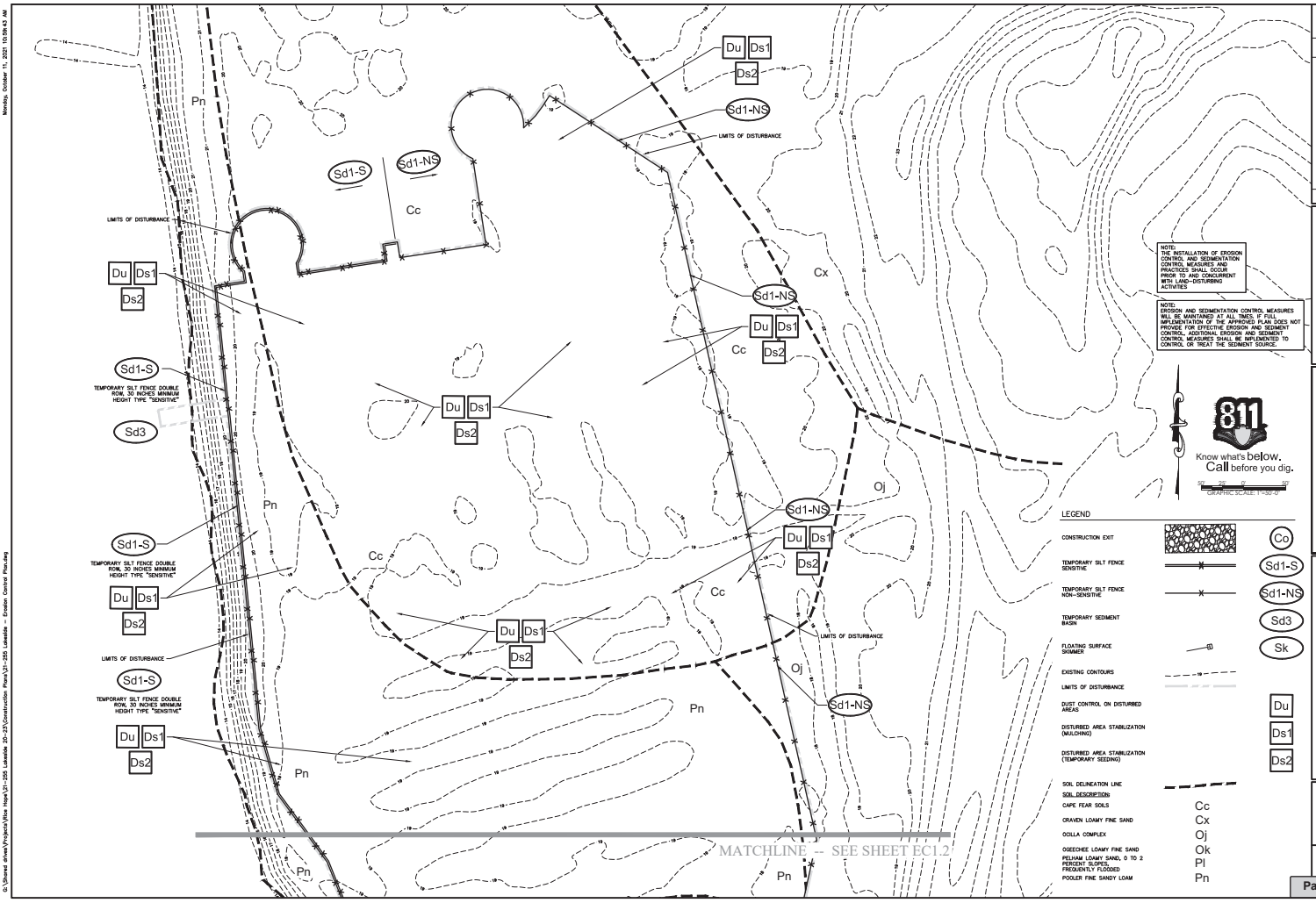
Packet Pg. 141

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:09:37 AM

G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside - Erosion Control Plan.dwg



12.C.p

JASON J. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION
CERTIFICATION #3307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INITIAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JJB
Checked By: RAP
Scale: 1" = 30'
Date: 5/2021

SHEET
EC1.2

Packet Pg. 142

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:09:42 AM

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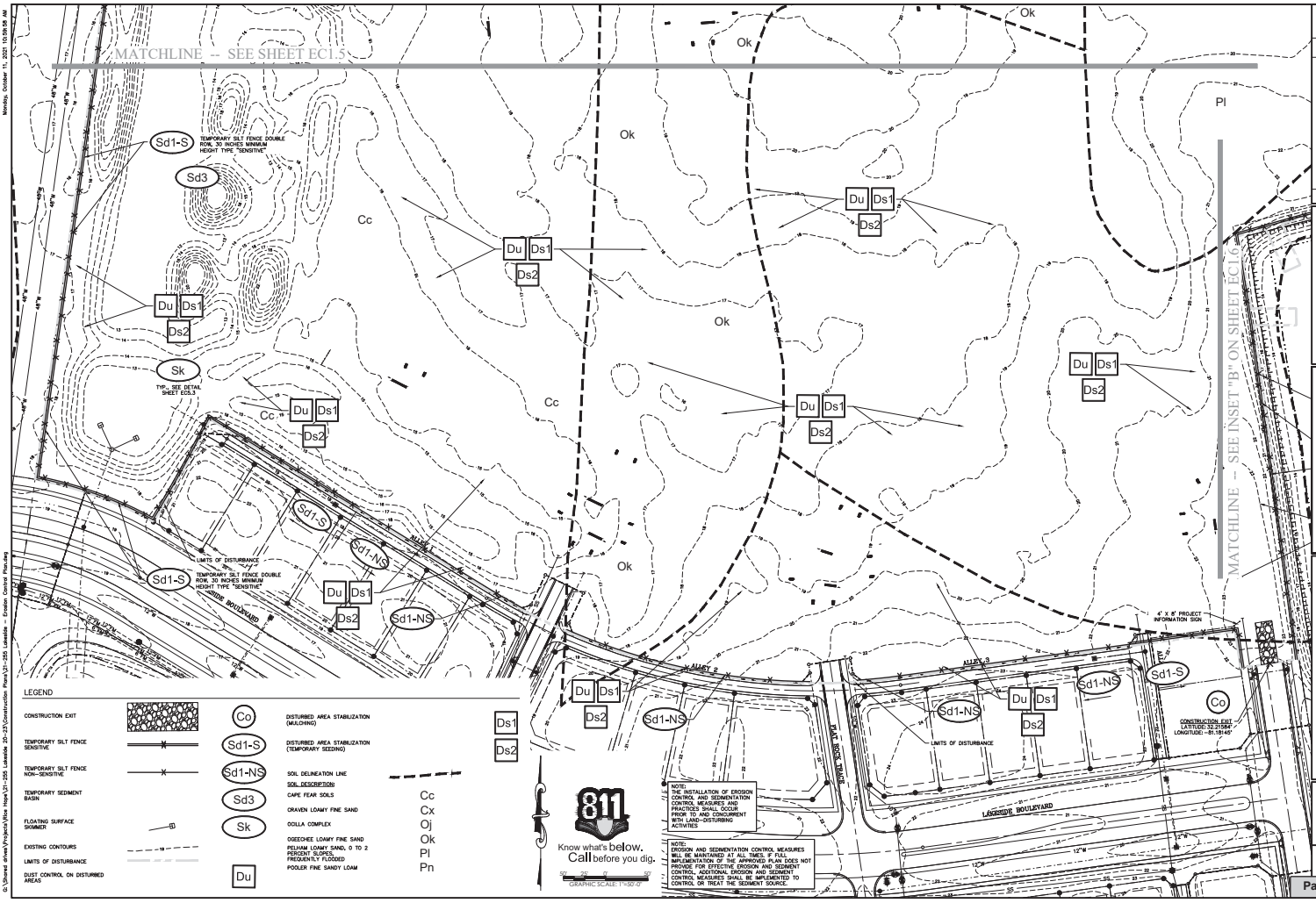

LEGEND

CONSTRUCTION EXIT	Co	DISTURBED AREA STABILIZATION (MULCHING)	Ds1
TEMPORARY SILT FENCE SENSITIVE	Sd1-S	DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)	Ds2
TEMPORARY SILT FENCE NON-SENSITIVE	Sd1-NS	SOIL DELINEATION LINE	
TEMPORARY SEDIMENT BASIN	Sd3	SOIL DESCRIPTION	
FLOATING SURFACE SKIMMER	Sk	CAPE FEAR SOILS	Cc
EXISTING CONTOURS		CRAVEN LOAMY FINE SAND	Cx
LIMITS OF DISTURBANCE		OCILLA COMPLEX	Oj
DUST CONTROL ON DISTURBED AREAS	Du	OSEECHEE LOAMY FINE SAND	Ok
		PELHAM LOAMY SAND, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED	Pl
		POOLER FINE SANDY LOAM	Pn

811 Know what's below. Call before you dig.

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNATION NUMBER
CERTIFICATION #7397

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-6578

INITIAL EROSION CONTROL PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
EC1.3

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:09:58 AM
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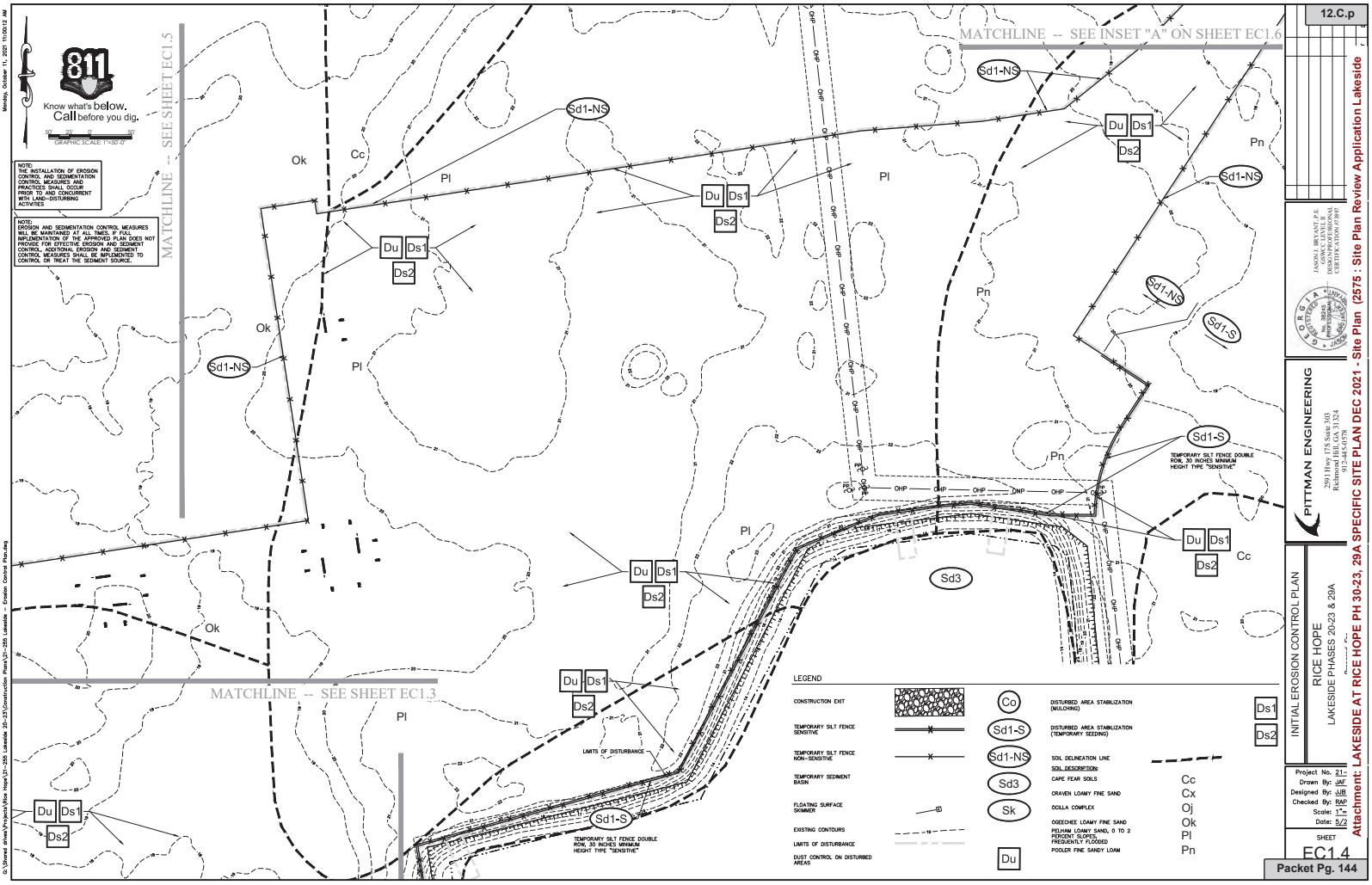

12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #7897

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5178

INITIAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
EC1.4

Packet Pg. 144

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 10:00:12 AM

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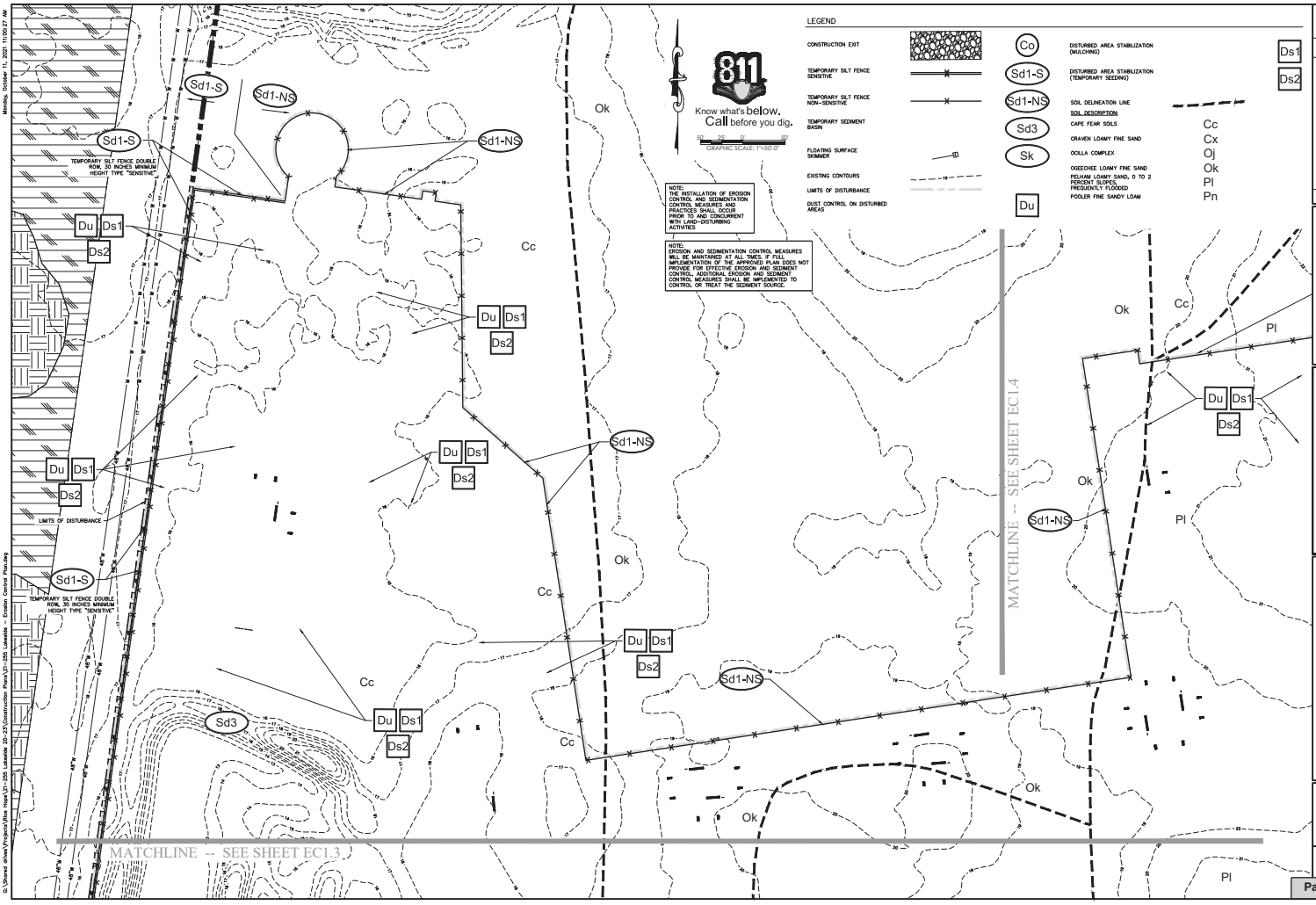


12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #3307
GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 38245

PITTMAN ENGINEERING
259 Hwy 17S Suite 103
Richmond Hill, GA 31324
912-445-5578

INITIAL EROSION CONTROL PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/21

SHEET
EC1.5

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

NOTE:
THE INSTALLATION OF EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO AND CONCURRENT WITH LAND-DISTURBING ACTIVITIES

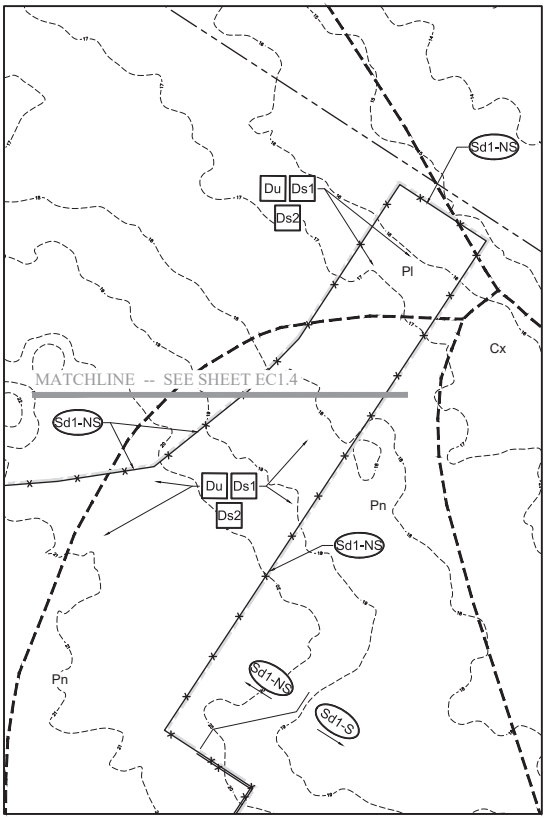
NOTE:
EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

LEGEND

CONSTRUCTION EXIT	Co
TEMPORARY SILT FENCE SENSITIVE	Sd1-S
TEMPORARY SILT FENCE NON-SENSITIVE	Sd1-NS
TEMPORARY SEDIMENT BASIN	Sd3
FLOATING SURFACE SKIMMER	Sk
EXISTING CONTOURS	
LIMITS OF DISTURBANCE	
DUST CONTROL ON DISTURBED AREAS	Du
DISTURBED AREA STABILIZATION (MULCHING)	Ds1
DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)	Ds2
SOIL DELINEATION LINE	

SOIL DESCRIPTION:

CAPE FEAR SOILS	Cc
CRAVEN LOAMY FINE SAND	Cx
OCILLA COMPLEX	Oj
OGEECHEE LOAMY FINE SAND	Ok
PELHAM LOAMY SAND, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED	Pl
POOLER FINE SANDY LOAM	Pn



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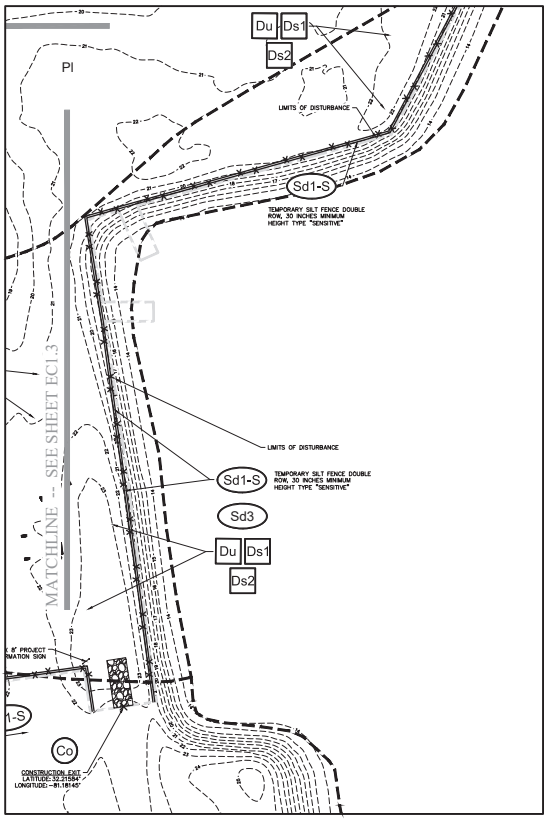


INSET "B"
SCALE: 1" = 50'

Know what's below.
Call before you dig.

GRAPHIC SCALE: 1" = 50'

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION
CERTIFICATION #3307

PITTMAN ENGINEERING
259 I Hwy 17S Suite 103
Richmond Hill, GA 31324
912-445-5578

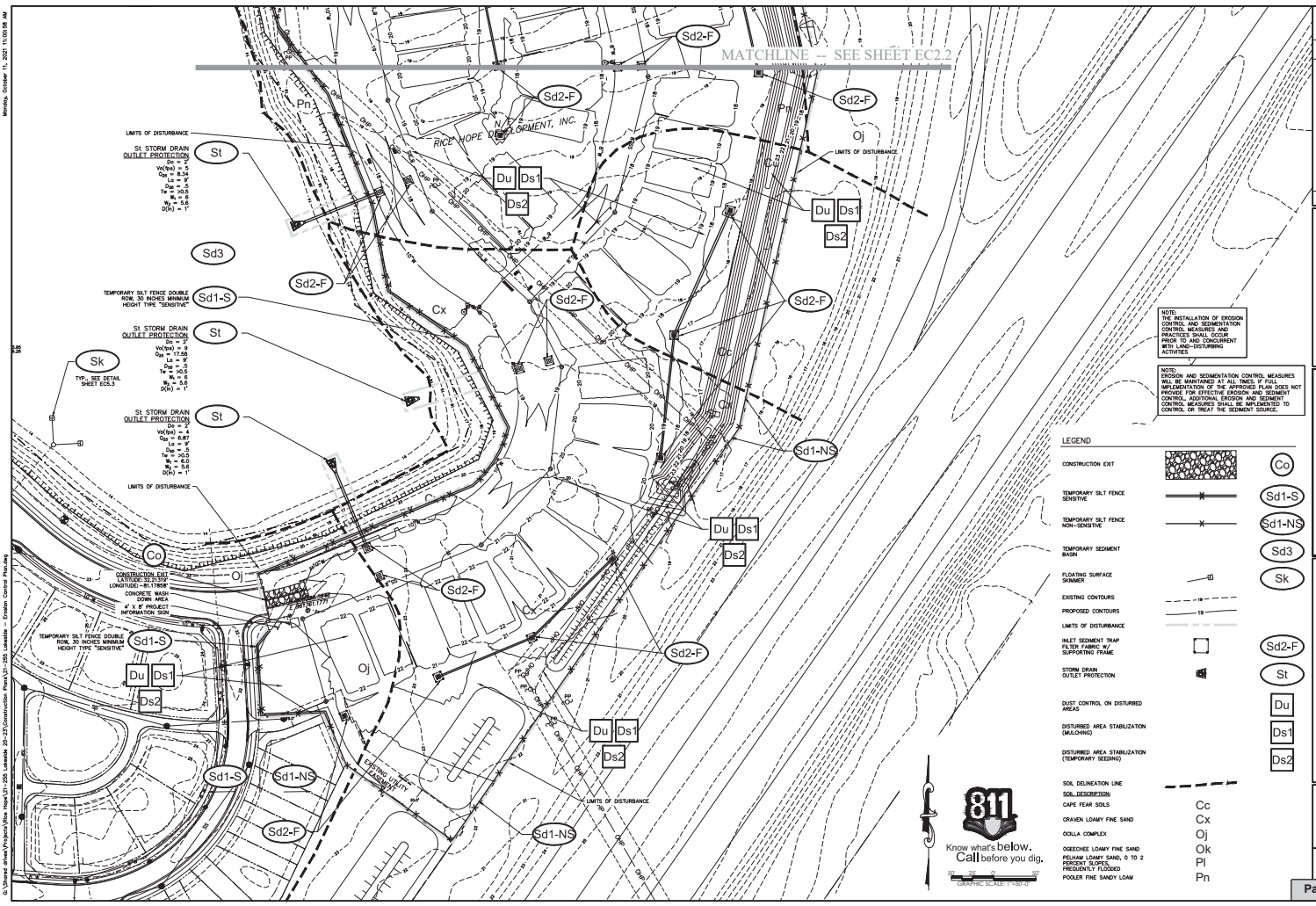
INITIAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAR
Designed By: JIB
Checked By: RAR
Scale: 1" = 50'
Date: 5/

SHEET
EC1.6

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:00:42 AM
G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside - Erosion Control Plan.dwg



12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #
CERTIFICATION #

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INTERMEDIATE EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

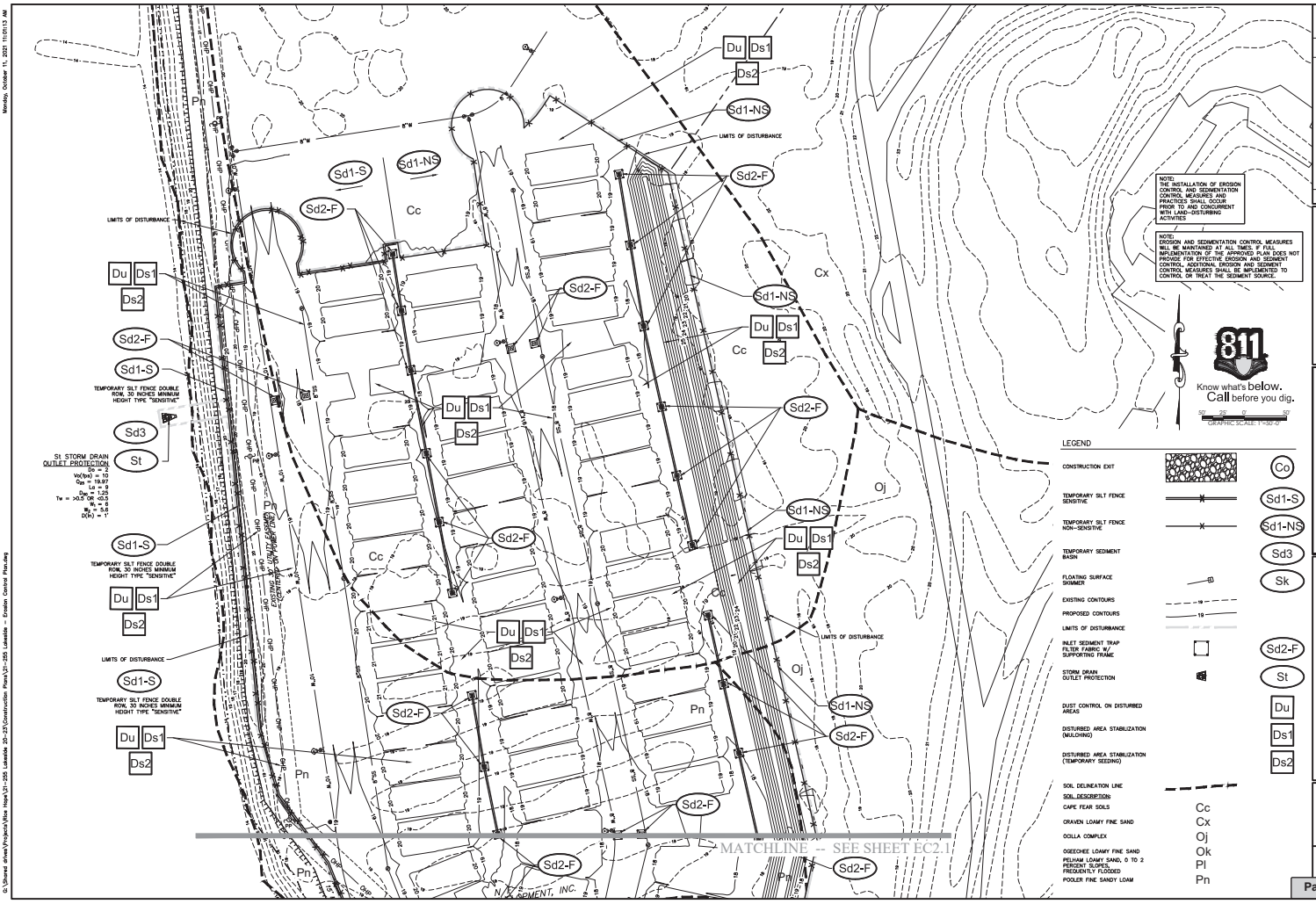
Project No. 21-
Drawn By: JAF
Designed By: JJB
Checked By: RAP
Scale: 1" =
Date: 5/

SHEET
EC2.1

Packet Pg. 147

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:00:59 AM



12.C.p

JASON I. BRYANT, P.E. GSWCC LEVEL II DESIGNER CERTIFICATION #3307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INTERMEDIATE EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" =
Date: 5/2

SHEET
EC2.2

Packet Pg. 148

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE_HOPE

Monday, October 11, 2021 10:01:12 AM

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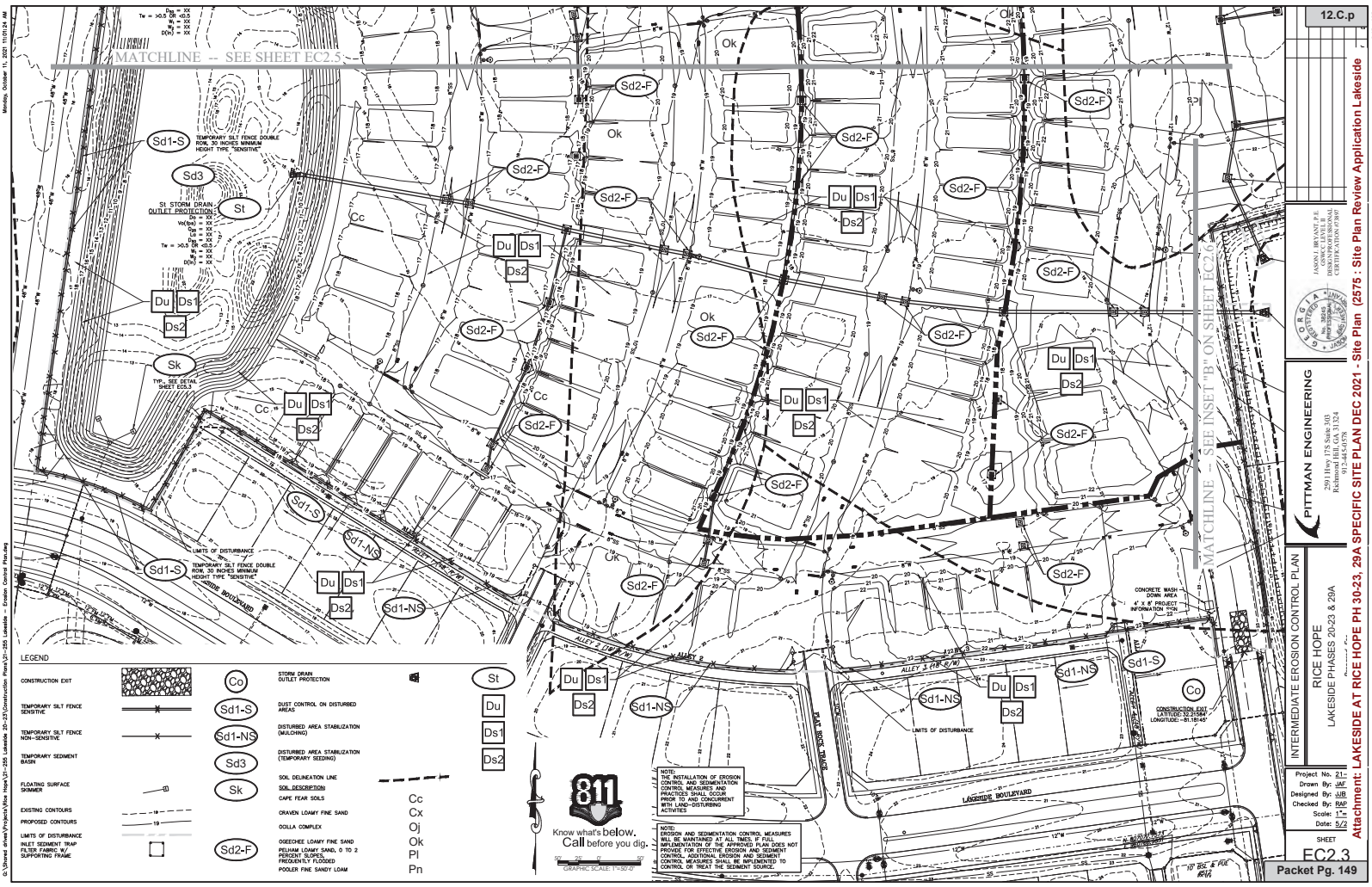

12.C.p

JASON I. BRYANT, P.E. GSWCC LEVEL II DESIGNER #0000033760 CERTIFICATION #3307

PITTMAN ENGINEERING
259 I Hwy 17S Suite 103
Richmond Hill, GA 31324
912-445-6578

INTERMEDIATE EROSION CONTROL PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5

SHEET
EC2.3

Packet Pg. 149

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:01:14 AM
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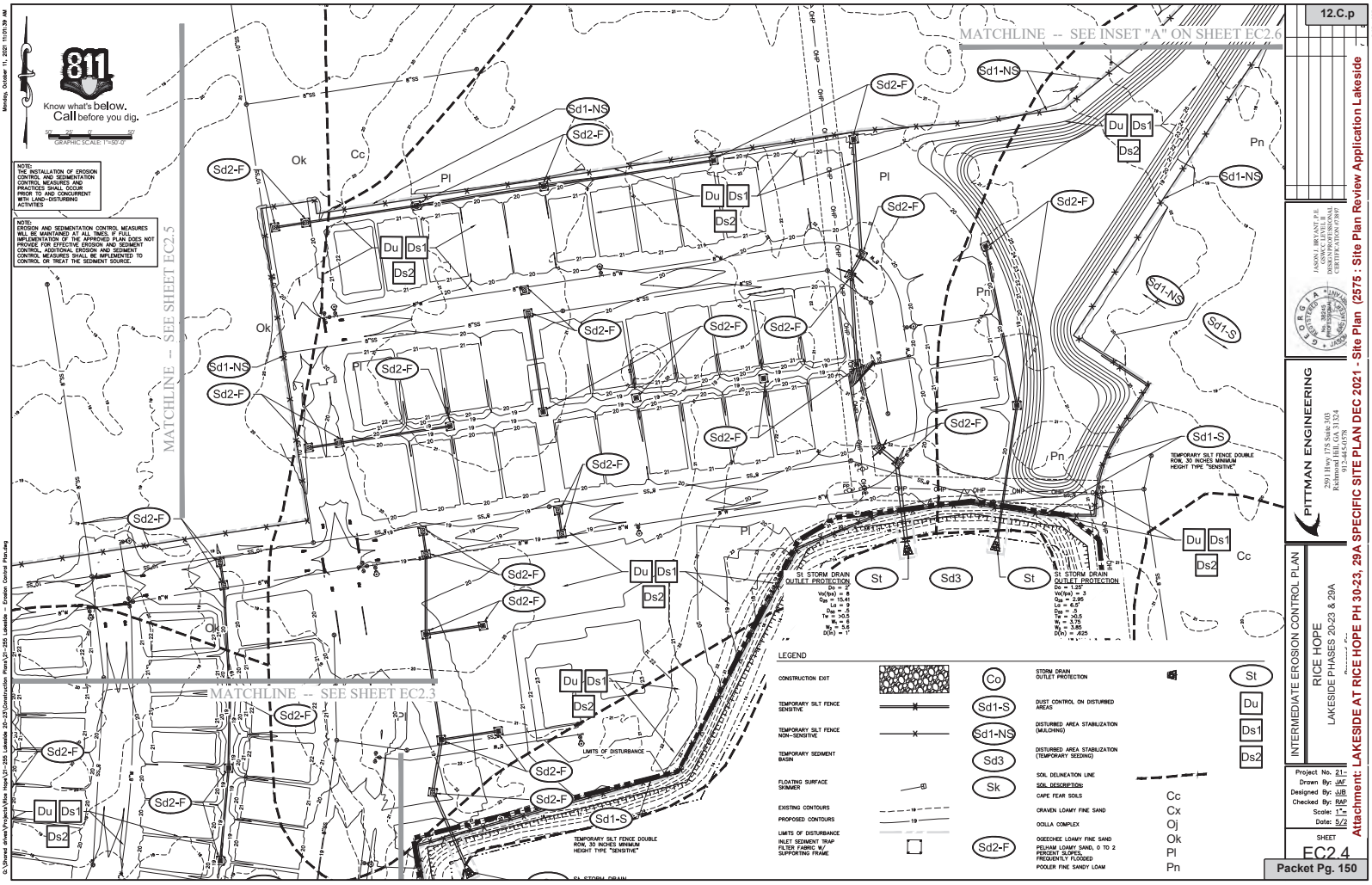

12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #3307
GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 38245

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INTERMEDIATE EROSION CONTROL PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5

SHEET
EC2.4

Packet Pg. 150

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 10:01:39 AM
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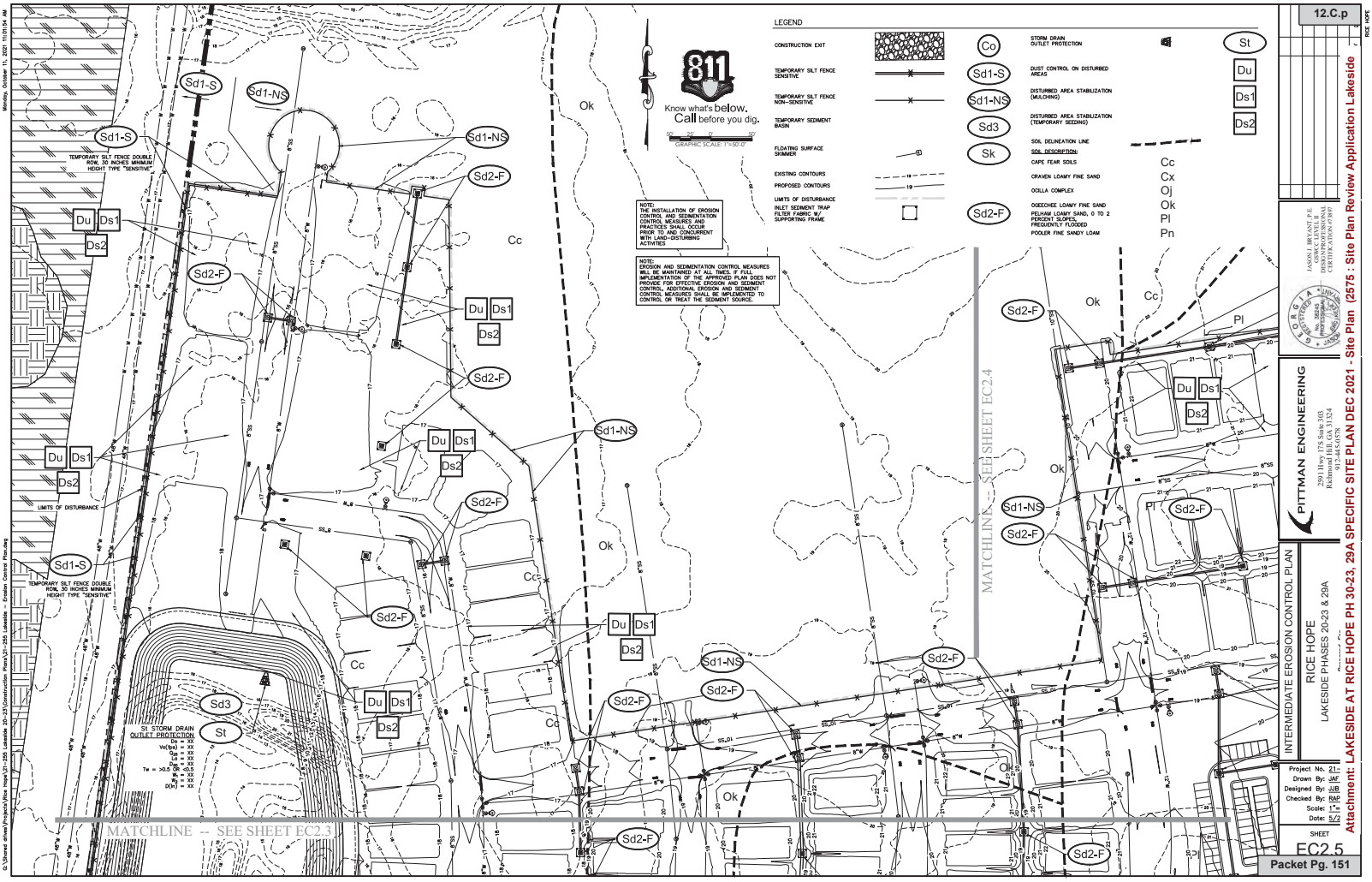


12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #3307
REGISTERED PROFESSIONAL ENGINEER
No. 38245
STATE OF GEORGIA

PITTMAN ENGINEERING
259 I Hwy 17S Suite 103
Richmond Hill, GA 31324
912-445-5578

INTERMEDIATE EROSION CONTROL PLAN

RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/15/2021

SHEET
EC2.5

Packet Pg. 151

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE_HOPE

NOTE:
THE INSTALLATION OF EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO AND CONCURRENT WITH LAND-DISTURBING ACTIVITIES

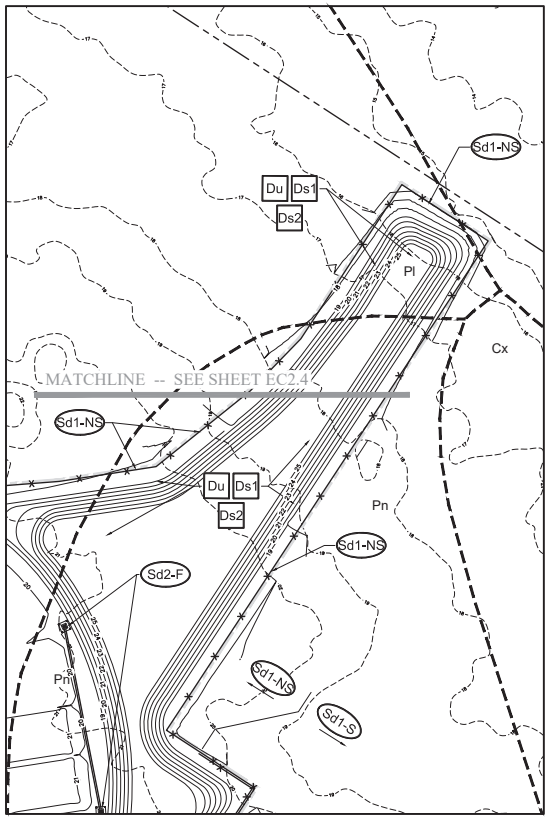
NOTE:
EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

LEGEND

CONSTRUCTION EXIT		Co
TEMPORARY SILT FENCE SENSITIVE		Sd1-S
TEMPORARY SILT FENCE NON-SENSITIVE		Sd1-NS
TEMPORARY SEDIMENT BASIN		Sd3
FLOATING SURFACE SKIMMER		Sk
EXISTING CONTOURS	19	
PROPOSED CONTOURS	19	
LIMITS OF DISTURBANCE		
INLET SEDIMENT TRAP FILTER FABRIC W/ SUPPORTING FRAME		Sd2-F
STORM DRAIN OUTLET PROTECTION		St
DUST CONTROL ON DISTURBED AREAS		Du
DISTURBED AREA STABILIZATION (MULCHING)		Ds1
DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)		Ds2
SOIL DELINEATION LINE		

SOIL DESCRIPTION:

CAPE FEAR SOILS	Cc
CRAVEN LOAMY FINE SAND	Cx
OCILLA COMPLEX	Oj
OGEECHEE LOAMY FINE SAND	Ok
PELHAM LOAMY SAND, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED	Pl
PODLER FINE SANDY LOAM	Pn



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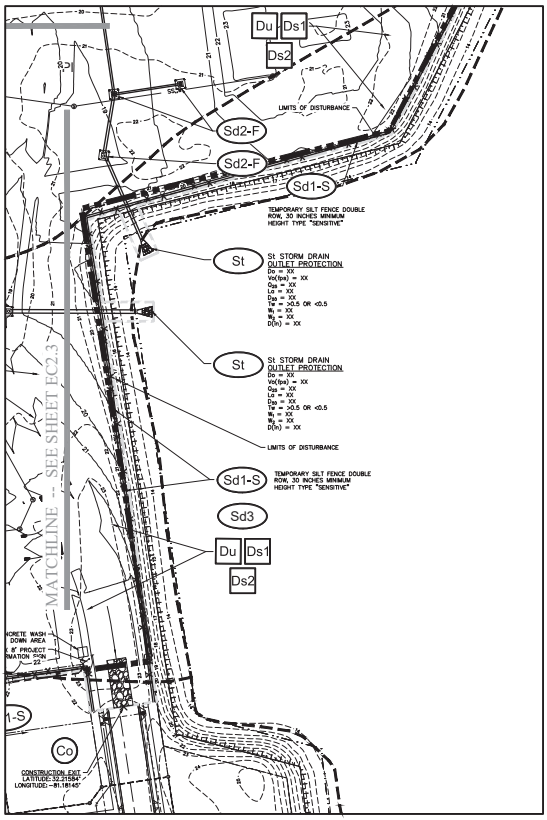
SCALE: 1" = 50'



INSET "B"
SCALE: 1" = 50'

Know what's below.
Call before you dig.

GRAPHIC SCALE: 1"=50'-0"

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION
CERTIFICATION #15307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

INTERMEDIATE EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No.	21-
Drawn By:	JAF
Designed By:	JIB
Checked By:	RAP
Scale:	1" =
Date:	5/2

SHEET
EC2.6

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:02:20 AM
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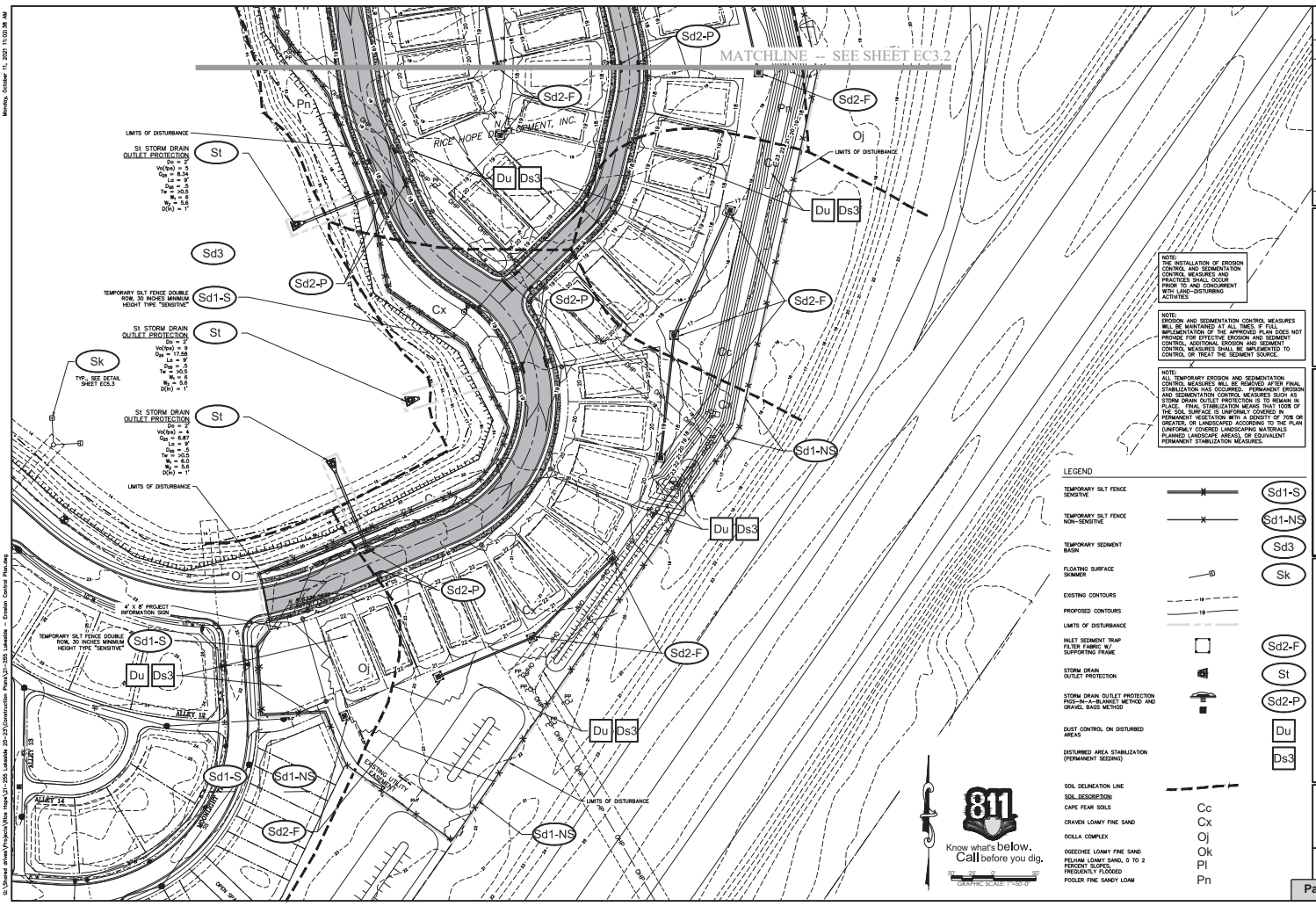

12.C.p

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #3897

PITTMAN ENGINEERING
2591 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

FINAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" =
Date: 5/

SHEET
EC3.1

Packet Pg. 153

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE_HOPE

Monday, October 11, 2021 11:02:39 AM

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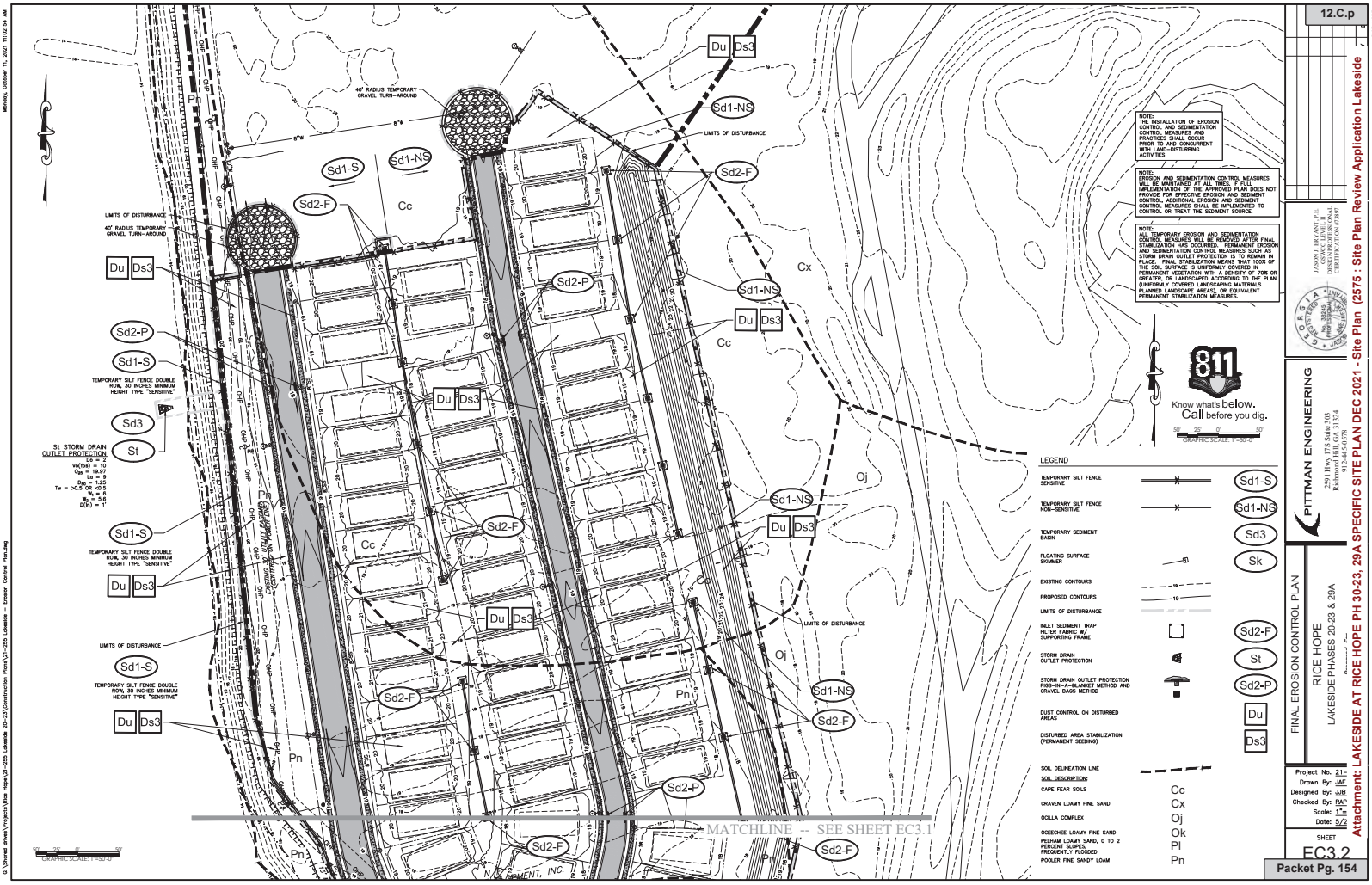

12.C.p

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

FINAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JJB
Checked By: RAP
Scale: 1" = 50'
Date: 5/21

SHEET
EC3.2

Packet Pg. 154

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

RICE HOPE

Monday, October 11, 2021 11:02:54 AM

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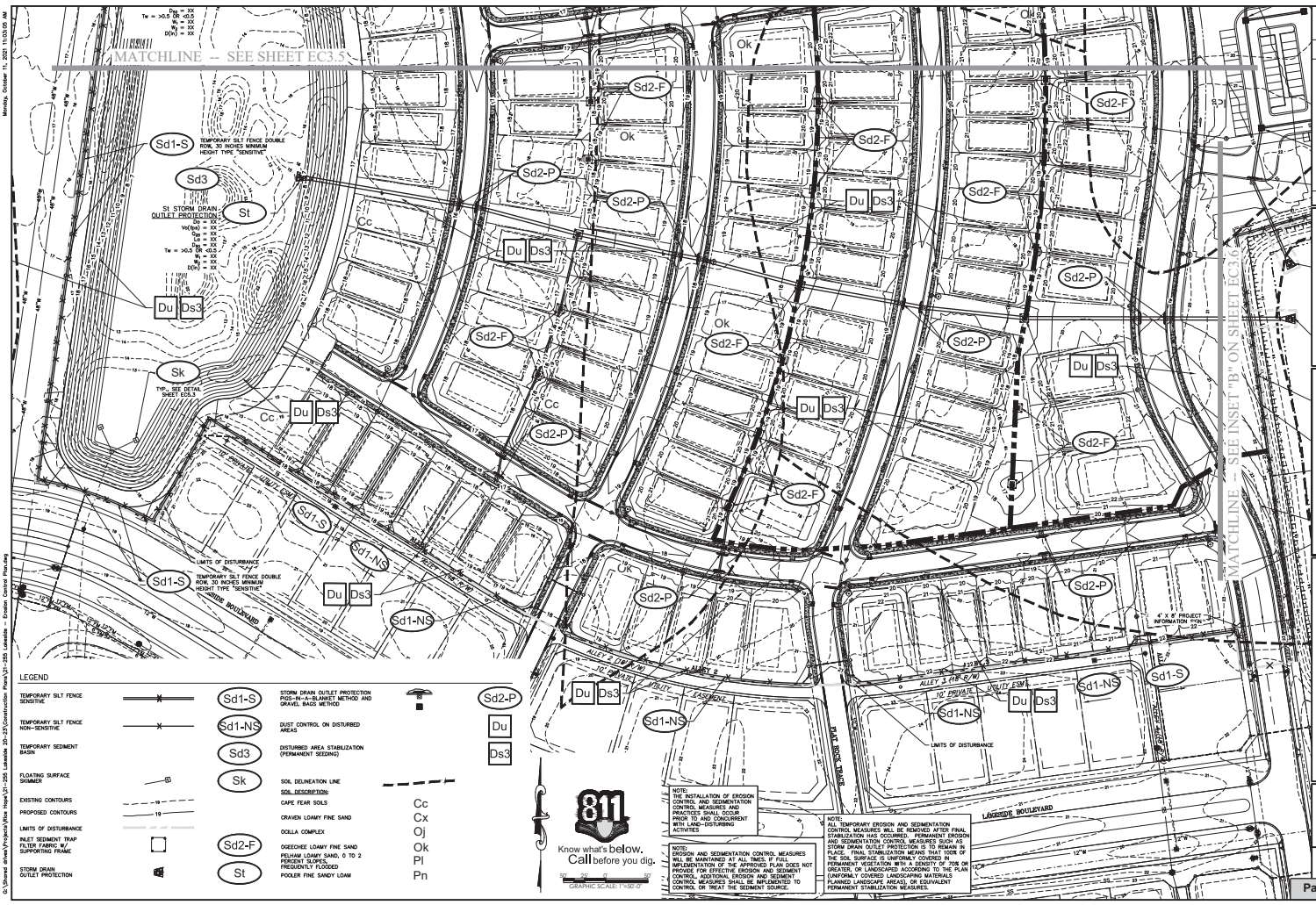

LEGEND

TEMPORARY SILT FENCE SENSITIVE		STORM DRAIN OUTLET PROTECTION RIGS–IN–A–BLANKET METHOD AND GRAVEL BAGS METHOD	
TEMPORARY SILT FENCE NON–SENSITIVE		DUST CONTROL ON DISTURBED AREAS	
TEMPORARY SEDIMENT BASIN		DISTURBED AREA STABILIZATION (PERMANENT SEEDING)	
FLOATING SURFACE SKIMMER		SOIL DELINEATION LINE	
EXISTING CONTOURS		SOIL DESCRIPTION	
PROPOSED CONTOURS		CAPE FEAR SOILS	Cc
LIMITS OF DISTURBANCE		CRAVEN LOAMY FINE SAND	Cx
INLET SEDIMENT TRAP FILTER FABRIC W/ SUPPORTING FRAME		OCILLA COMPLEX	Oj
STORM DRAIN OUTLET PROTECTION		OGEECHEE LOAMY FINE SAND	Ok
		PELHAM LOAMY SAND, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED	Pl
		POOLER FINE SANDY LOAM	Pn

NOTE:
THE INSTALLATION OF EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO AND CONCURRENT WITH LAND–DISTURBING ACTIVITIES

NOTE:
EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

NOTE:
ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE REMOVED AFTER FINAL STABILIZATION HAS OCCURRED. PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES TO REMAIN IN PLACE AFTER CONSTRUCTION IS COMPLETED SHALL BE IN PLACE. FINAL STABILIZATION MEANS THAT 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED LANDSCAPING MATERIALS PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES.

811 Know what's below. Call before you dig.

PITTMAN ENGINEERING
259 Hwy 155 Suite 103
Richmond Hill, GA 31324
912-445-5078

FINAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JJB
Checked By: RAP
Scale: 1"=
Date: 5/

SHEET
EC3.3

Packet Pg. 155

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:03:05 AM
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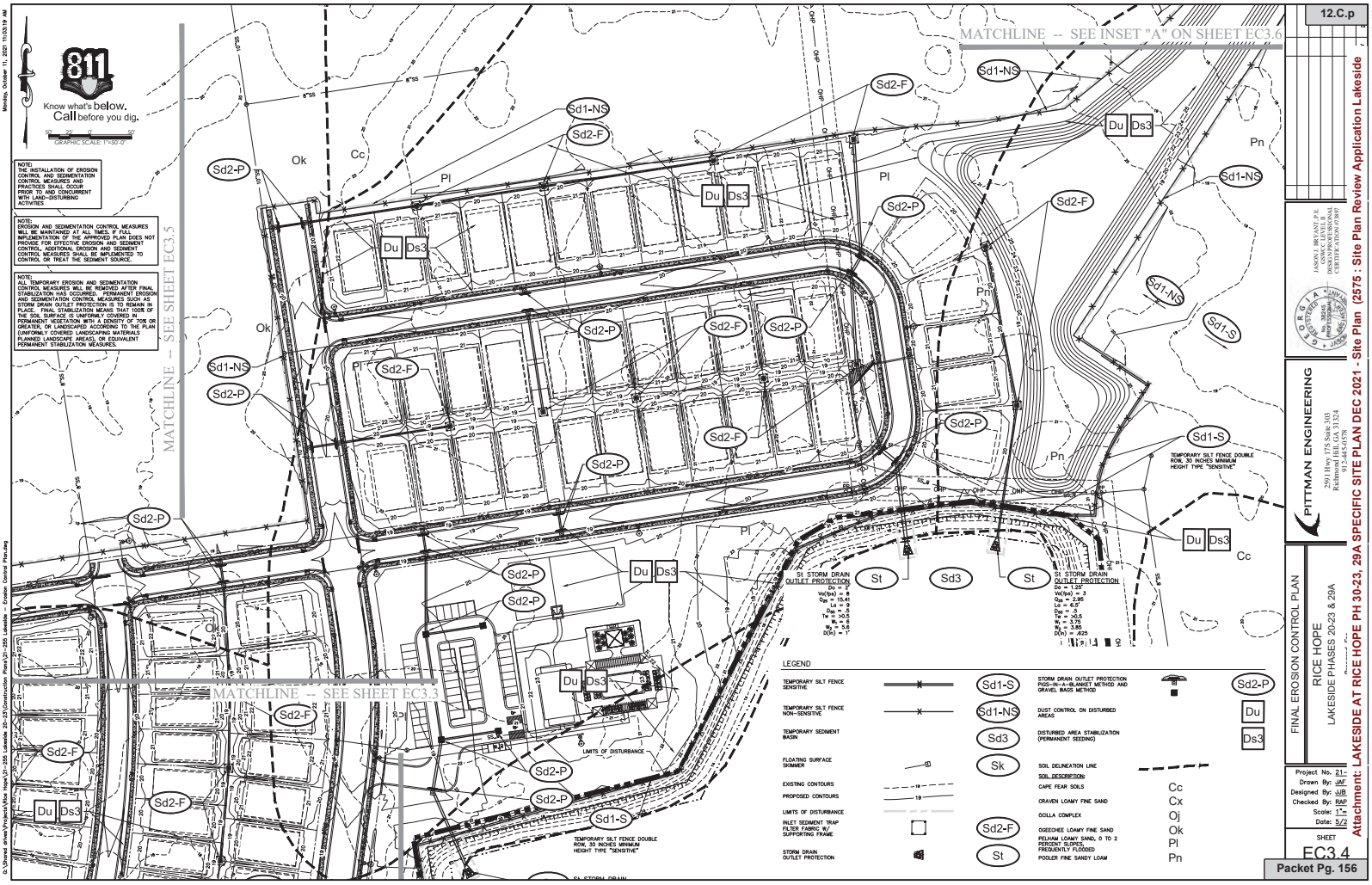

12.C.p

JASON I. BRYANT, P.E. GSWCC LEVEL II DESIGNER CERTIFICATION #20307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

FINAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAF
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
EC3.4

Packet Pg. 156

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:03:19 AM

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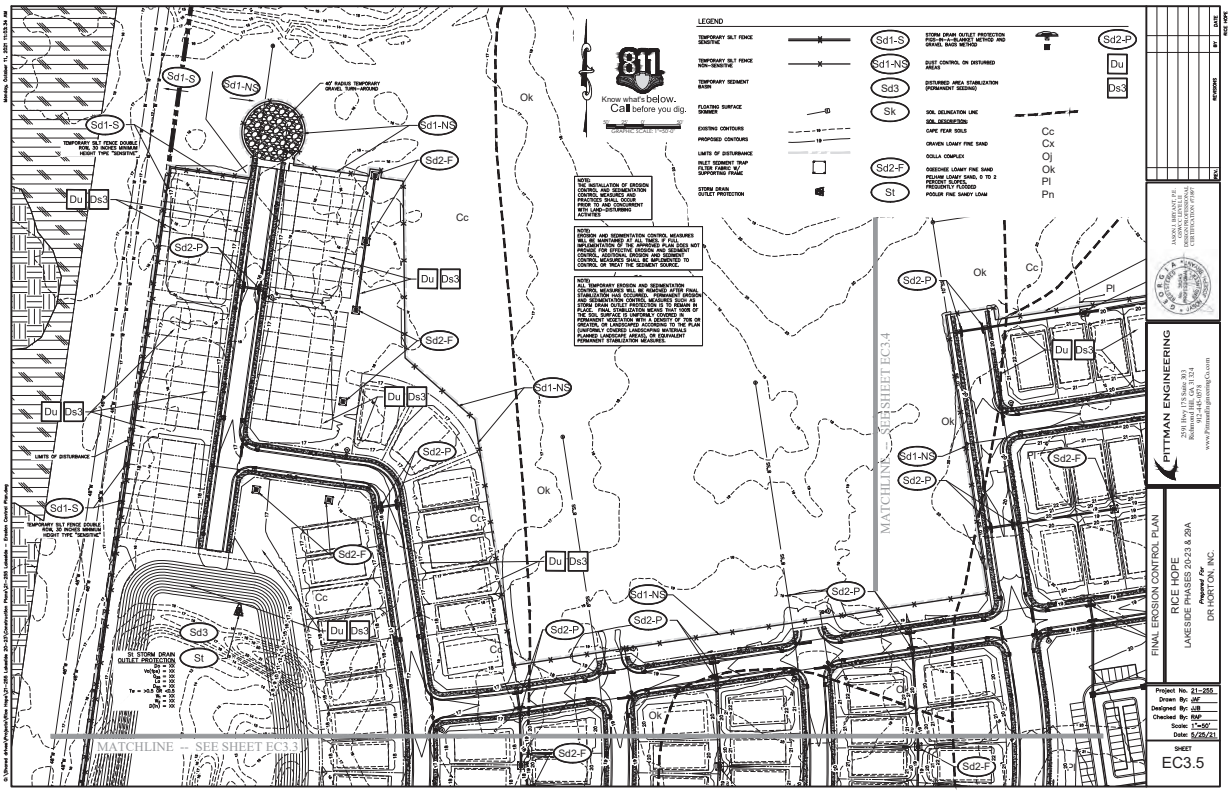
NOTE:
THE INSTALLATION OF EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO AND CONCURRENT WITH LAND-DISTURBING ACTIVITIES

NOTE:
EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

NOTE:
ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE REMOVED AFTER FINAL STABILIZATION HAS OCCURRED. PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES SUCH AS STORM DRAIN OUTLET PROTECTION IS TO REMAIN IN PLACE. FINAL STABILIZATION MEANS THAT 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED LANDSCAPING MATERIALS PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES.



NOTE:
THE INSTALLATION OF EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO AND CONCURRENT WITH LAND-DISTURBING ACTIVITIES

NOTE:
EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

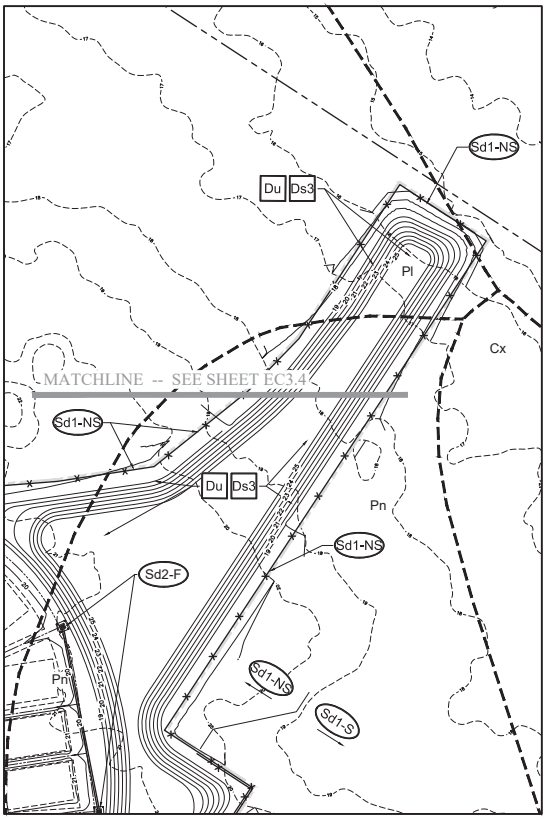
NOTE:
ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE REMOVED AFTER FINAL STABILIZATION HAS OCCURRED. PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES SUCH AS STORM DRAIN OUTLET PROTECTION IS TO REMAIN IN PLACE. FINAL STABILIZATION MEANS THAT 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED LANDSCAPING MATERIALS PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES.

LEGEND

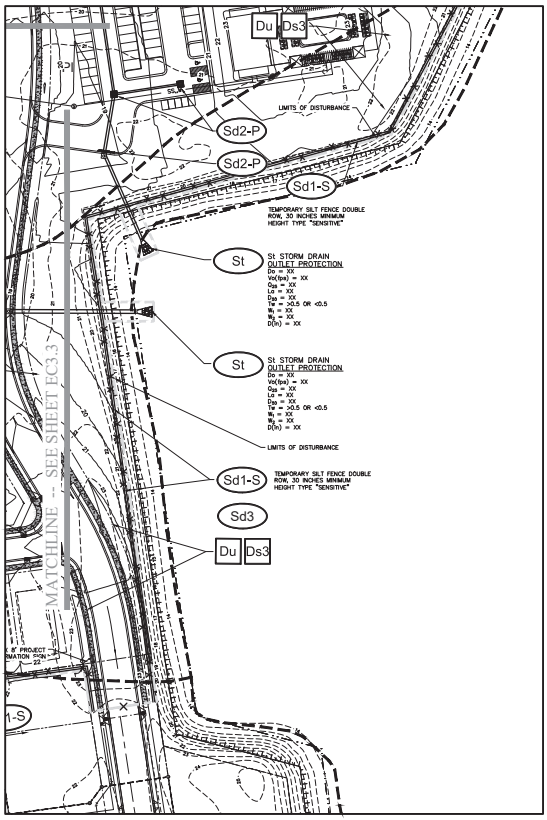
TEMPORARY SILT FENCE SENSITIVE	Sd1-S
TEMPORARY SILT FENCE NON-SENSITIVE	Sd1-NS
TEMPORARY SEDIMENT BASIN	Sd3
FLOATING SURFACE SKIMMER	Sk
EXISTING CONTOURS	
PROPOSED CONTOURS	
LIMITS OF DISTURBANCE	
INLET SEDIMENT TRAP FILTER FABRIC W/ SUPPORTING FRAME	Sd2-F
STORM DRAIN OUTLET PROTECTION	St
STORM DRAIN OUTLET PROTECTION PIGS-N-A-BLANKET METHOD AND GRAVEL BAGS METHOD	Sd2-P
DUST CONTROL ON DISTURBED AREAS	Du
DISTURBED AREA STABILIZATION (PERMANENT SEEDING)	Ds3
SOIL DELINEATION LINE	

SOIL DESCRIPTION:

CAPE FEAR SOILS	Cc
CRAVEN LOAMY FINE SAND	Cx
OCILLA COMPLEX	Oj
OGEECHEE LOAMY FINE SAND	Ok
PELHAM LOAMY SAND, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED	Pl
PODLER FINE SANDY LOAM	Pn



INSET "A"
SCALE: 1" = 50'



INSET "B"
SCALE: 1" = 50'

Know what's below. Call before you dig.

GRAPHIC SCALE: 1" = 50'

JASON I. BRYANT, P.E.
GSWCC LEVEL II
DESIGNER CERTIFICATION #3307

PITTMAN ENGINEERING
259 Hwy 175 Suite 103
Richmond Hill, GA 31324
912-445-5578

FINAL EROSION CONTROL PLAN
RICE HOPE
LAKESIDE PHASES 20-23 & 29A

Project No. 21-
Drawn By: JAR
Designed By: JIB
Checked By: RAP
Scale: 1" = 50'
Date: 5/5/21

SHEET
EC3.6

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside

Monday, October 11, 2021 11:04:00 AM
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Monday, October 11, 2021 11:04:29 AM

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

SWCD: COASTAL

Project Name: LAKESIDE BLOCKS 20-23 Address: PORT WENTWORTH, GEORGIA 31407

City/County: PORT WENTWORTH / CHATHAM COUNTY Date on Plans: 7/16/2021

Provide name and email of the person filling out the checklist: Jason Bryant, jason@pittmanengineeringco.com

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.1–EC4.3	YES	1. The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land–disturbing activity was permitted.
EC1.1–EC5.3	YES	2. Level II certification number issued by the Commission, signature and seal of the certified design professional.
N/A	NO	3. Limit of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist.*
EC4.1	YES	4. The name and phone number of the 24–hour local contact responsible for erosion, sedimentation and pollution controls. JARED O'SAKO – DR HORTON, INC. 30 SILVER LAKE ROAD BLUFFTON, SC 29909 843–473–5200 EMAIL: JROSAKO@DRHORTON.COM
EC4.1	YES	5. Provide the name, address, email and phone number of the primary permittee. JARED O'SAKO – DR HORTON, INC. 30 SILVER LAKE ROAD BLUFFTON, SC 29909 843–473–5200 EMAIL: JROSAKO@DRHORTON.COM
EC4.1	YES	6. Note total and disturbed acreage of the project or phase under construction. TOTAL ACREAGE: 65 AC DISTURBED ACREAGE: 64.8 AC
EC1.1–EC2.31	YES	7. Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
COVER–EC5.3	YES	8. Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
EC4.1	YES	9. Description of the nature of construction activity. PROJECT INCLUDES CONSTRUCTING DRAINAGE, ROADWAYS AND GRADING TO SERVE THE PROPOSED COMMERCIAL DEVELOPMENT. THE EXISTING SITE IS A DEVELOPED SINGLE–FAMILY LOT.
COVER	YES	10. Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
EC4.1	YES	11. Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected. RECEIVING WATERS = SAVANNAH RIVER
EC4.1	YES	12. Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 19 of the permit. "I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION." JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL – CERTIFICATION #73897
EC4.1	YES	13. Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 19 of the permit.* "I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND–DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100001." JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL – CERTIFICATION #73897
EC4.1	YES	14. Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit.* THE PRIMARY PERMITTEE MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE PLAN (EXCEPT WHEN THE PRIMARY PERMITTEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL), TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPS HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PRIMARY PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL (UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED).

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.1	YES	14. Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit.* DESIGN PROFESSIONAL'S 7-DAY VISIT CERTIFICATION: DATE OF INSPECTION: ____________ I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION. JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL – CERTIFICATION #73897 INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN: THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.
EC4.1	YES	15. Clearly note the statement that "Non–exempt activities shall not be conducted within the 25 or 50–foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25–feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits." "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS."
N/A	NO	16. Provide a description of any buffer encroachments and indicate whether a buffer variance is required. NO BUFFERS REQUIRED.
EC4.1	YES	17. Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional."* "AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL."
EC4.1	YES	18. Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."* WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. Waste Materials All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of once per week or more often if necessary and trash will be hauled as required by local regulations. No construction waste will be buried onsite. All personnel will be instructed on proper procedures for waste disposal. A notice stating these practices will be posted at the jobsite and the Contractor will be responsible for seeing that these procedures are followed.
EC4.1	YES	19. Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities." "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."
EC4.1	YES	20. Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source." "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."
EC4.1	YES	21. Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding." "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."
N/A	NO	22. Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
N/A	NO	23. If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site–specific conditions or requirements included in the TMDL Implementation Plan.*

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC2.1–EC3.1 EC5.1	YES	24. BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.* CONCRETE WASHDOWN FOR TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND REAR OF THE VEHICLES PLACED NEXT TO CONSTRUCTION EXIT. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
EC4.1	YES	25. Provide BMPs for the remediation of all petroleum spills and leaks. Spill Cleanup and Control Practices • Local, State and manufacturer's recommended methods for spill cleanup will be clearly posted and procedures will be made available to site personnel. • Material and equipment necessary for spill cleanup will be kept in the material storage areas. Typical materials and equipment includes, but is not limited to, brooms, dustpans, mops, gloves, goggles, cat litter, sand, sawdust and properly labeled plastic and metal waste container. • Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent future spills. • All spills will be cleaned up immediately upon discovery. All spills will be reported as required by local, State, and Federal Regulations. • FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER). THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1–800–424–8802. • FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1–800–424–8802. • FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED. The contractor shall notify the licensed professional who prepared this plan if more than 1320 gallons of petroleum is stored onsite (this includes capacities of equipment) or if any one piece of equipment has a capacity greater than 660 gallons. The contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licensed professional.
EC1.1–EC3.1 EC4.1–EC4.3 EC5.1–EC5.3	YES	26. Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.*

THE FOLLOWING PERMANENT MEASURES HAVE BEEN ESTABLISHED:

1. DRY DETENTION POND
2. RIP–RAP APRONS
3. DISTURBED AREA STABILIZATION WITH PERMANENT GRASSING

CONTROLS:

EROSION AND SEDIMENT CONTROLS:

- ALL PERIMETER SILT FENCES AND CONSTRUCTION EXITS SHALL BE IN PLACE PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- EXISTING VEGETATION SHALL BE LEFT IN PLACE UNTIL SUCH TIME THAT LAND DISTURBING ACTIVITIES ARE TO TAKE PLACE UPON THAT PORTION OF THE SITE. WHEN CONSTRUCTION ACTIVITIES HAVE CEASED IN AN AREA, THAT AREA SHALL BE STABILIZED WITHIN 14 DAYS. IF THE AREA IS NOT TO FINAL GRADE, THE AREA SHALL BE MULCHED. IF THE AREA IS TO FINAL GRADE AND WILL EVENTUALLY CONTAIN SITE IMPROVEMENTS SUCH AS STRUCTURES OR SIDEWALKS, IT SHALL BE TEMPORARY SEEDED. AREAS BROUGHT TO FINAL GRADE THAT WILL REMAIN PERVIOUS ARE TO BE PERMANENTLY SEEDED. ALLOWABLE EXCEPTIONS FROM THE NPDES GENERAL PERMIT NO. GAR 100001, ARE NOTED BELOW.
- "WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14th DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES DUE TO SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE."
- "WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (e.g. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14th DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED."
- PLEASE REFER TO ATTACHED SHEETS FOR THE LAND DISTURBANCE CONSTRUCTION SCHEDULE (SHEET EC4.1) AND TEMPORARY AND PERMANENT GRASSING SCHEDULE (SHEET EC5.1). THE STORMWATER WILL BE DISCHARGED FROM THE BASIN TO THE EXISTING STORMWATER SYSTEM AND THROUGH THE DOWNSTREAM DITCH SYSTEM AND EVENTUALLY TO THE SAVANNAH RIVER.

NON–STORMWATER DISCHARGE:

- ALL NON–STORMWATER DISCHARGES WILL BE ROUTED THROUGH ON–SITE BMP'S AND THE STORMWATER MANAGEMENT SYSTEM WHERE POSSIBLE. THESE DISCHARGES INCLUDE FLUSHING OF WATER AND FIRE LINES, IRRIGATION WATER, GROUND WATER, DEWATERING OF PITS OR DEPRESSIONS WITHIN THE CONSTRUCTION SITE AND RINSE–OFF WATER OF NON–MATERIALS.

OTHER CONTROLS:

- NO WASTE WILL BE DISPOSED INTO STORMWATER INLETS OR WATERS OF THE STATE.

WASTE MATERIALS:
ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE A WEEK OR MORE OFTEN IF NEEDED AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ON–SITE. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURE FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTES
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT (WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED) WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS's) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THE ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIAL OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORM WATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORM WATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES (IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS) ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORM WATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

SANITARY WASTES:
A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY 10 WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS. ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTION TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED SUCH AS GRAVEL BAGS OR SPECIALTY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASES, TO PREVENT WASTE FROM CONTRIBUTING TO STORM WATER DISCHARGE. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED IN THE EROSION CONTROL GRADING PLAN, BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. SANITARY SEWER WILL BE PROVIDED BY BRYAN COUNTY AT THE COMPLETION OF THIS PROJECT.

OFF–SITE VEHICLE TRACKING:
A STABILIZED CONSTRUCTION EXIT HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENT. SEE SHEETS EC1.1–EC3.1 FOR CONSTRUCTION EXIT LOCATIONS AND SHEET EC5.1 FOR DETAILS. THE PAVED STREET ADJACENT TO THE SITE EXIT WILL BE INSPECTED DAILY FOR TRACKING OF DIRT, MUD, OR ROCK. DUMP TRUCKS HAULING MATERIAL TO OR FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

REV.	REVISIONS	BY	DATE

JASON BRYANT
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

GEORGIA REGISTERED No. 38245 PROFESSIONAL ENGINEER JASON JOSEPH BRYANT

PITTMAN ENGINEERING
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(912)445-0578
www.PittmanEngineeringCo.com

EROSION CONTROL NOTES

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared For
DR HORTON, INC.

Project No. 21–255
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: N/A
Date: 5/25/21

SHEET
EC4.1

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Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN

INVENTORY FOR POLLUTION PREVENTION PLAN:
THE FOLLOWING MATERIALS ARE EXPECTED ON-SITE DURING CONSTRUCTION: CONCRETE PRODUCTS, ASPHALT, PETROLEUM BASED FUEL AND LUBRICANTS FOR EQUIPMENT, TAR, METAL BUILDING MATERIALS, LUMBER, SHEET ROCK, FLOOR COVERINGS, ELECTRICAL WIRE AND FIXTURES, PAINT/STAINS/FINISHING TREATMENTS, PAINT, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CLEANING SOLVENTS, PESTICIDES, FERTILIZERS, HERBICIDES, CRUSHED STONE, AND METAL PIPES.

SPILL PREVENTION:
PRACTICES SUCH AS GOOD HOUSEKEEPING, PROPER HANDLING OF HAZARDOUS PRODUCTS AND PROPER SPILL CONTROL PRACTICES WILL BE FOLLOWED TO REDUCE THE RISKS OF SPILLS AND SPILLS FROM DISCHARGING INTO STORMWATER RUNOFF.

GOOD HOUSEKEEPING:
1. QUANTITIES OF PRODUCTS STORED ON-SITE WILL BE LIMITED TO THE AMOUNT NEEDED FOR THE JOB.
2. PRODUCTS AND MATERIALS WILL BE STORED IN A NEAT, ORDERLY MANNER IN APPROPRIATE CONTAINERS PROTECTED FROM RAINFALL, WHERE POSSIBLE.
3. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH MANUFACTURER LABELS VISIBLE.
4. PRODUCTS MIXING, DISPOSAL AND DISPOSAL OF PRODUCT CONTAINERS WILL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
5. THE CONTRACTOR WILL INSPECT SUCH MATERIALS TO ENSURE PROPER USE, STORAGE, AND DISPOSAL.

MAINTENANCE & INSPECTION OF EROSION & SEDIMENT CONTROLS:

MAINTENANCE:

THE FOLLOWING BEST MANAGEMENT PRACTICE MAINTENANCE CRITERIA ARE TAKEN FROM THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA," LATEST EDITION.

CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OR MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANING OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

RETROFIT STRUCTURES SHALL BE KEPT CLEAR OF TRASH AND DEBRIS. THIS WILL REQUIRE CONTINUOUS MONITORING AND MAINTENANCE, WHICH INCLUDES SEDIMENT REMOVAL WHEN ONE-THIRD OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST.

SEDIMENT SHALL BE REMOVED FROM SILT FENCES ONCE IT HAS ACCUMULATED ONE-THIRD THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS).

SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION.

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN.

WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, SMOOTHED AND COMPACTED.

APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

REPAIR ALL DAMAGES CAUSED TO TEMPORARY SEDIMENT BASINS BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE TOP OF THE RISER. SEDIMENT SHALL NOT ENTER ADJACENT STREAMS OR DRAINAGE WAYS DURING SEDIMENT REMOVAL OR DISPOSAL. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM OR FLOODPLAIN.

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

ROUGHENED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO OBTAIN OPTIMUM SEED GERMINATION AND SEEDING GROWTH.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCES. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO 6 MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH (DEPENDING ON THE MATERIALS USED), ANCHORED, AND HAVE A CONTINUOUS 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN 8 MONTHS. IF THE AREA WILL REMAIN UNDISTURBED FOR GREATER THAN 6 MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

PERMANENT VEGETATION SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN 6 MONTHS. THIS PRACTICE OF SODDING SHALL BE APPLIED IMMEDIATELY TO ALL AREAS AT FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND THAT FOR THE UNPAVED AREAS AND AREAS NOT COVERED IN PERMANENT STRUCTURES AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIPRAP, GABIONS, PERMANENT MULCHES OR GEOTEXTILES) HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF PLANTED TREES, SHRUBS, PERENNIAL VINES, A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON, A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION UNTIL THIS STANDARD IS SATISFIED AND PERMANENT CONTROL MEASURES AND FACILITIES ARE OPERATIONAL. INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED.

EC4.2	YES	27. DESCRIPTION OF PRACTICES TO PROVIDE COVER FOR BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE.*

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

EC4.2	YES	28. Description of the practices that will be used to reduce the pollutants in storm water discharges.*

Product Specific Practices

Petroleum Based Products – Containers for products such as fuel, lubricants and tars will be inspected daily for leaks and spills. This includes on-site vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas will be located away from state water, natural drains and storm water drainage inlets. In addition, temporary fueling tanks shall have a secondary containment liner to prevent/minimize site contamination. Discharge of oils, fuels and lubricants is prohibited. Proper disposal methods will include collection in a suitable container and disposal as required by local and State regulations.

Paints/Finishes/Solvents – All products will be stored in tightly sealed original containers when not in use. Excess product will not be discharged to the storm water collection system. Excess product, materials used with these products and product containers will be disposed of according to manufacturer's specifications and recommendations.

Concrete Truck Washing – NO concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water onsite.

Fertilizer/Herbicides – These products will be applied at rates that do not exceed the manufacturer's specifications or above the guidelines set forth in the crop establishment or in the GSWCC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials will be under roof in sealed containers.

Building Materials – No building or construction materials will be buried or disposed of onsite. All such materials will be disposed of using proper waste disposal procedures.

EC4.2	YES	29. Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).

CONSIDERATIONS FOR CONSTRUCTION SCHEDULING

A SPECIFIED WORK SCHEDULE IS NEEDED TO COORDINATE THE TIMING OF LAND DISTURBING ACTIVITIES WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES.

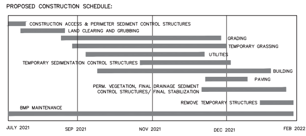
THE PURPOSE OF THE SCHEDULE IS TO REDUCE ON-SITE EROSION AND OFF-SITE SEDIMENTATION BY PERFORMING LAND DISTURBING ACTIVITIES AND INSTALLING EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH A PLANNED SCHEDULE.

IN PLANNING CONSTRUCTION WORK, IT MAY BE HELPFUL TO OUTLINE ALL LAND DISTURBING ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED PROJECT. THEN LIST ALL PRACTICES NEEDED TO CONTROL EROSION AND SEDIMENTATION ON THE SITE. THESE TWO LISTS CAN THEN BE COMBINED IN LOGICAL ORDER TO PROVIDE A PRACTICAL AND EFFECTIVE CONSTRUCTION SEQUENCE SCHEDULE THAT BECOMES PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN.

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1. OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION.	
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	
4. CONSTRUCTION ACCESS – CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS.	FIRST LAND DISTURBING ACTIVITY –– STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE.
5. SEDIMENT TRAPS AND BARRIERS – BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION.	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING.
6. RUNOFF CONTROL – DIVERSIONS, PERIMETER DIKES, WATER BARS, AND OUTLET PROTECTION.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
7. RUNOFF CONVEYANCE SYSTEM– STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF– CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
8. LAND CLEARING AND GRADING–SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF–CONTROL MEASURES ARE INSTALLED. CLEAR BORROW AND DISPOSAL AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.
9. SURFACE STABILIZATION–TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
10. UTILITIES, PAVING, BUILDING	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
11. LANDSCAPING AND FINAL STABILIZATION – TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP.	LAST CONSTRUCTION PHASE––STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.

PROPOSED CONSTRUCTION SCHEDULE:



EC4.2	YES	30. Provide complete requirements of inspections and record keeping by the primary permittee.*

INSPECTIONS

A. PERMITTEE REQUIREMENTS.

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT:
   (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND
   (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST):
   (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE;
   (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND
   (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.A.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
4. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN

AN "EROSION & SEDIMENTATION INSPECTION AND MAINTENANCE REPORT" SHEET IS ATTACHED. SHOULD THE INSPECTION REVEAL ANY DEFICIENCIES, A COPY SHALL BE SENT TO:

JARED O'SAKO – DR HORTON, INC.
30 SILVER LAKE ROAD
BLUFFTON, SC 29909
843-473-5200
EMAIL: JROSAKO@DRHORTON.COM

ATTN.:
PITTMAN ENGINEERING CO., LLC
2591 HWY 17 SUITE 303
RICHMOND HILL, GA 31324
912-445-0578
JASON@PITTMANENGINEERINGCO.COM

EC4.2	YES	31. Provide complete requirements of sampling frequency and reporting of sampling results.*

STORM WATER SAMPLING:

SAMPLING FREQUENCY:

1. THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
2. HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORMWATER DISCHARGE.
3. SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:
   (A). FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;
   (B). IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;
   (C). AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;
   (D). WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND
   (E). EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

* NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING:

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
   B. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
   C. THE DATE(S) ANALYSES WERE PERFORMED;
   D. THE TIME(S) ANALYSES WERE INITIATED;
   E. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
   F. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
   G. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
   H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
   I. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.
3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

GOVERNING AGENCY:
COASTAL DISTRICT – BRUNSWICK OFFICE
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
400 COMMERCE CENTER DRIVE
BRUNSWICK, GA 31523-8251
(912) 264-7284

JARED O'SAKO – DR HORTON, INC.
30 SILVER LAKE ROAD
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843-473-5200
EMAIL: JROSAKO@DRHORTON.COM

ATTN.:
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RICHMOND HILL, GA 31324
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JASON@PITTMANENGINEERINGCO.COM

EC4.2	YES	32. Provide complete details for retention of records as per Part IV.F. of the permit.*

RETENTION OF RECORDS:

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE (OR THE RECORDS SHALL BE READILY AVAILABLE AT THE DESIGNATED ALTERNATE LOCATION) FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI.
   a. A COPY OF NOTICES OF INTENT SUBMITTED TO EPD.
   b. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT.
   c. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5 OF THIS PERMIT.
   d. A COPY OF ALL MONITORING INFORMATION, RESULTS AND REPORTS REQUIRED BY THIS PERMIT.
   e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.(a) OF THIS PERMIT.
   f. A COPY OF VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2 OF THIS PERMIT.
   g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(a).(1)(c) OF THIS PERMIT.
2. COPIES OF ALL NOTICES OF INTENT, NOTICE OF TERMINATION, REPORTS, PLANS, MONITORING INFORMATION (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION), EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST 3 YEARS FROM THE DATE THAT THE NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS (OR AT A DESIGNATED ALTERNATIVE LOCATION) ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST BY THE EPD AT ANY TIME UPON WRITTEN REQUEST TO THE PERMITTEE.

REV.	REVISIONS	BY	DATE

JASON BRYANT
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 38245 JASON JOSEPH BRYANT

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EROSION CONTROL NOTES

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared For
BEP RICE HOPE, LLC

Project No.	21-255
Drawn By:	MCS
Designed By:	MCS
Checked By:	RAP
Scale:	N/A
Date:	5/25/21

SHEET
EC4.2

Monday, October 11, 2021 11:04:30 AM

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Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

Monday, October 11, 2021 11:04:35 AM
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EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.3	YES	33. DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION.*

a. SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:

(1). A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE STAND ALONE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORMWATER IS DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORMWATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;
(2). A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT, HANDLE AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION;
(3). WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND
(4). ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL.

b. SAMPLE TYPE. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
(1). SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
(2). SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
(3). LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
(4). MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
(5). SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

c. SAMPLING POINTS.
(1). FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORMWATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:
(A). THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORMWATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY
(B). THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
(C). IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORMWATER OUTFALL CHANNEL(S).
(D). CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORMWATER CHANNEL.
(E). THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
(F). THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
(G). PERMITTEES DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION).
(H). ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORMWATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

Plan Page #	Included Y/N	
EC4.3	YES	34. Appendix B rationale for NTU values at all outfall sampling points where applicable.* FOR A SITE ACREAGE SIZE OF 65 AC. AND WATERS SUPPORTING WARM WATER FISHERIES DRAINAGE AREA LESS THAN 5 SQUARE MILES, THE NTU VALUE TO USE IN PART III.D.4. IS 75 NTU.

APPENDIX B
Nephelometric Turbidity Unit (NTU) Table
Warm Water (Supporting Warm Water Fisheries)

Surface Water Drainage Area (Square Miles)

SITE SIZE (ACRES)	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	(50)	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC1.1, EC2.1 EC3.1	YES	35. Delineate all sampling locations if applicable, perennial and intermittent streams and other water bodies into which storm water is discharged. *
EC1.1-EC3.1	YES	36. A description of appropriate controls and measures that will be implemented at the construction site including: (1) Initial Sediment Storage Requirements and Perimeter Control BMPs, (2) Intermediate Grading and Drainage BMPs, and (3) Final BMPs. For construction sites where there will be no mass grading and the Initial Perimeter Control BMPs, Intermediate Grading and Drainage BMPs, and Final BMPs are the same, the plan may combine all of the BMPs into a single phase.* A temporary sediment trap will accommodate the 149 cy of Initial sediment storage. Silt fence will provide perimeter control. Intermediate grading and drainage BMPs include construction exit, temporary sediment trap, concrete wash down, storm outlet protection, dust control, mulching, temporary seeding and silt fence. Final phase BMPs include construction exit, concrete wash down, storm outlet protection, dust control and permanent vegetation stabilization. Each phase of the plan includes the appropriate controls and measures, including the initial sediment storage requirements, intermediate grading and drainage BMPs and Final BMPs. Refer to Sheets EC1.1, EC2.1 and EC3.1.
EC1.1-EC3.1	YES	37. Graphic scale and North arrow.
EC1.1-EC3.1	YES	38. Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2% Rolling 2 - 8% Steep 8% +	0.5 or 1 1 or 2 2,5 or 10

Plan Page #	Included Y/N	
N/A	NO	39. Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
N/A	NO	40. Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.*
EC1.1-EC3.1 EC4.3	NO	41. Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact. THERE ARE NOT ANY STATE WATERS LOCATED ON OR WITHIN 200' OF THIS PROJECT SITE. BUFFERS ARE NOT REQUIRED SINCE THERE IS NOT ANY WRESTED VEGETATION.
N/A	NO	42. Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site. THERE ARE NOT ANY ON-SITE WETLANDS OR STATE WATERS LOCATED ON OR WITHIN 200' OF THIS PROJECT SITE.
EC4.3	NO	43. Delineation and acreage of contributing drainage basins on the project site. SEE SEPARATE HYDROLOGY REPORT.
EC4.3	NO	44. Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.* SEE SEPARATE HYDROLOGY REPORT.
EC4.3	YES	45. An estimate of the Runoff Coefficient or Peak Discharge Flow of the site prior to and after construction activities are completed. RUNOFF CURVE NUMBER (SCS METHOD USED): PRE-DEVELOPMENT: CN=82 POST-DEVELOPMENT: CN=88
EC1.1-EC3.1	YES	46. Storm-Drain Pipe and Weir Velocities with appropriate Outlet Protection to accommodate discharges without erosion. Identify/Delineate all Storm Water Discharge Points.
EC1.1-EC3.1 EC4.3	YES	47. Soil series for the project site and their delineation.

SOILS LEGEND:

SYMBOL	NAME	RATING
Pn	POOLER FINE SNADY LOAM	B/D
Cc	CAPE FEAR	B/D

Plan Page #	Included Y/N	
EC1.1-EC3.1	YES	48. The Limits of Disturbance for each phase of construction.
EC1.1-EC3.1 EC4.3, EC5.3	YES	49. Provide a minimum of 67 Cubic Yards of sediment storage per acre drained using a Temporary Sediment Basin, Retrofitted Detention Pond, and/or Excavated Inlet Sediment Traps for each common drainage location. Sediment Storage Volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a Sediment Basin is not attainable must be included in the plan for each common drainage location in which a Sediment Basin is not provided. A written justification as to why 67 Cubic Yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the Design Professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize Outlet Structures that withdraw water from the surface, unless infeasible. If Outlet Structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.

67 CY SEDIMENT STORAGE PER DISTURBED ACRE REQUIREMENT

- TOTAL PROJECT ACREAGE = 60 AC.
- TOTAL DISTURBED ACREAGE = 65 AC.
- TOTAL REQUIRED SEDIMENT STORAGE: 65 AC. X 67 c.y./Ac. = 824 c.y.

- THIS PROJECT WILL UTILIZE 1 PROPOSED SEDIMENT TRAP AND SILT FENCE FOR THE SEDIMENT STORAGE REQUIREMENT. THE PROPOSED LAND DISTURBING ACTIVITIES FOR THIS PROJECT ARE TO REGRADE TO PROVIDE POSITIVE DRAINAGE TO SPECIFIC AND LIMITED AREAS OF THE SITE.
- SEE SHEET EC5.3 FOR SEDIMENT TRAP CALCULATIONS.

Plan Page #	Included Y/N	
EC1.1-EC3.1 EC5.1-EC5.3	YES	50. Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
EC5.1-EC5.3	YES	51. Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.3, EC5.1, EC5.2	YES	52. Provide Vegetative Plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative Plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

LIME RATES AND ANALYSIS

* AGRICULTURAL LIME SHALL BE APPLIED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.

MULCHING (MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS). MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

* DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE. DRY HAY SHALL BE APPLIED AT THE RATE OF 2-1/2 TONS PER ACRE.
* WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED BELOW) AFTER HYDRAULIC SEEDING.
* ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 4:1 OR STEEPER.
* SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE.
* PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
* WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLACK SOD, MULCH IS NOT REQUIRED.

FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500lbs./ac. 1000lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/2/ - 30
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500lbs./ac. 1000lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ - -
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300lbs./ac. 3/ 1300lbs./ac. 3/ 1100 lbs./ac.	- - -
4. PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	-
5. SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700lbs./ac. 700lbs./ac. 4/	- -
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500lbs./ac.	30 lbs./ac. 5/
7. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500lbs./ac. 800lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
8. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500lbs./ac. 1000lbs./ac. 400 lbs./ac.	50 lbs./ac. 6/

1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

*IF USING THIS CHECKLIST FOR A PROJECT THAT IS LESS THAN 1 ACRE AND NOT PART OF A COMMON DEVELOPMENT BUT WITHIN 200 FT OF A PERENNIAL STREAM THE * CHECKLIST ITEMS WOULD BE N/A.

Effective January 1, 2021

REV.	REVISIONS	BY	DATE

JASON BRYANT
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

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EROSION CONTROL NOTES
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared For
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	N/A
Date:	5/25/21

SHEET
EC4.3

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

Plan Page #	Included Y/N	
		APPENDIX 1 THE ES&PC PLAN MUST INCLUDE AT LEAST FOUR (4) OF THE FOLLOWING BMPS FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO A IMPAIRED STREAM SEGMENT AND FOR SITES WHICH EPD HAS APPROVED IN WRITING A REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME. The four items chosen must be appropriate for the site conditions.
N/A	YES/NO	a. During construction activities, double the width of the 25 foot undisturbed vegetated buffer along all State waters requiring a buffer and the 50 foot undisturbed vegetated buffer along all State waters classified as "trout streams" requiring a buffer. During construction activities, EPD will not grant variances to any such buffers that are increased in width.
EC4.1–EC4.4	YES	b. Increase all temporary sediment basins and retrofitted storm water management basins to provide sediment storage of at least 3600 cubic feet (134 cubic yards) per acre drained.
N/A	NO	c. Use baffles in all temporary sediment basins and retrofitted storm water management basins to at least double the conventional flow path length to the outlet structure.
EC4.1–EC4.4	YES	d. A large sign (minimum 4 feet x 8 feet) must be posted on site by the actual start date of construction. The sign must be visible from a public roadway. The sign must identify the following: (1) construction site, (2) the permittee(s), (3) the contact person(s) and telephone number(s), and (4) the permittee–hosted website where the Plan can be viewed must be provided on the submitted NOI. The sign must remain on site and the Plan must be available on the provided website until a NOT has been submitted. A COPY OF THE PLANS CAN BE VIEWED AND DOWNLOADED FROM THE FOLLOWING URL: https://bit.ly/3mDFdQ
N/A	NO	e. Use flocculants or coagulants and/or mulch to stabilize areas left disturbed for more than seven (7) calendar days in accordance with Section III. D.1. of the NPDES Permit.
EC4.1–EC4.4	YES	f. Conduct turbidity sampling after every rain event of 0.5 inch or greater within any 24 hour period, recognizing the exceptions specified in Section IV.D.6.a. of the NPDES Permits.
N/A	NO	g. Comply with the applicable end–of–pipe turbidity effluent limit, without the "BMP defense" as provided for in O.C.G.A. 12–7–6 (a)(1).
N/A	NO	h. Reduce the total planned site disturbance to less than 50% impervious surfaces (excluding any State–mandated buffer areas from such calculations). All calculations must be included on the Plan.
N/A	NO	i. Limit the amount of disturbed area at any one time to no greater than 25 acres or 50% of the total planned site, whichever is less. All calculations must be included on the Plan.
N/A	NO	j. Use Dirt II techniques available on the EPD website to model and manage construction storm water runoff (including sheet flow). All calculations must be included on the Plan. (https://epd.georgia.gov/erosion–and–sedimentation)
N/A	NO	k. Add appropriate organic soil amendments (e.g., compost) and conduct pre– and post–construction soil sampling to a depth of six (6) inches to document improved levels of soil carbon after final stabilization of the construction site.
N/A	NO	l. Use mulch filter berms, in addition to a silt fence, on the site perimeter wherever construction storm water (including sheet flow) may be discharged. Mulch filter berms cannot be placed in waterways or areas of concentrated flow.
N/A	NO	m. Use appropriate erosion control slope stabilization instead of concrete in all construction storm water ditches and storm drainages designed for a 25 year, 24 hour rainfall event.
N/A	NO	n. Use flocculants or coagulants under a passive dosing method (e.g., flocculant blocks) within construction storm water ditches and storm drainages that feed into temporary sediment basins and retrofitted management basins.
N/A	NO	o. Install sod for a minimum 20 foot width (in lieu of seeding) after final grade has been achieved, along the site perimeter wherever storm water (including sheet flow) may be discharged.
EC4.1–EC4.4	YES	p. Conduct soil tests to identify and to implement site–specific fertilizer needs.
N/A	NO	q. Certified personnel for primary permittees shall conduct inspections at least twice every seven (7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or greater in accordance with Section IV.D.4.a.(3)(a) –(c); secondary permittees, Section IV.D.4.b.(3)(a) –(c); and tertiary permittees Section IV.D.4.c.(3)(a) –(c) *
N/A	NO	r. Apply the appropriate compost blankets (minimum depth 1.5 inches) to protect soil surfaces until vegetation is established during the final stabilization phase of the construction activity.
N/A	NO	s. Use alternative BMPs whose performance has been documented to be superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). (If using this item please refer to the Alternative BMP guidance document found at www.gaswcc.georgia.gov)
N/A	NO	t. Limit the total planned site disturbance to less than 15% impervious surfaces (excluding any state mandated buffer areas from such calculations). All calculations must be included in the Plan.
N/A	NO	u. Conduct inspections during the intermediate grading and drainage BMP phase and during the final BMP phase of the project by the design professional who prepared the Plan in accordance with Section IV.D.4.a.(3)(c) and (d). The Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan to conduct inspections during the intermediate grading and drainage BMP phase and during the final BMP phase.
N/A	NO	v. Install Post Construction BMPs (e.g., runoff reduction BMPs) which remove 80% TSS as outlined in the Georgia Stormwater Management Manual known as the Blue Book or an equivalent or more stringent design manual.

* This requirement is different for infrastructure projects:
Certified personnel for primary permittees shall conduct inspections at least once every seven (7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or greater in accordance with Section IV.D.4.a.(3)(c) –(c) of the permit.

REV.	REVISIONS	BY	DATE

JASON BRYANT
GWCC LEVEL II
DESIGNER-IN-RESPONSIBLE CHARGE
CERTIFICATION #7397

GEORGIA LICENSED PROFESSIONAL ENGINEER No. 38906 JASON BRYANT REGISTERED

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EROSION CONTROL NOTES

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No. 21–255
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: N/A
Date: 5/25/21

SHEET
EC4.4

Attachment: LAKESIDE AT RICE HOPE\PH 20-23, 29A SPEC/PC SITE PLAN DEC 2021 - Site Plan (3571 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

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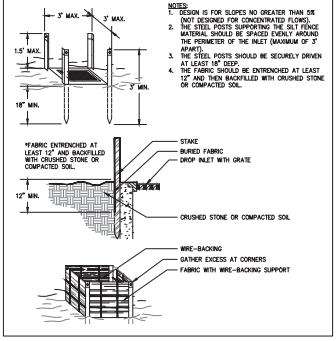
FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

Sd2-F

STEEL FRAME AND SILT FENCE INSTALLATION

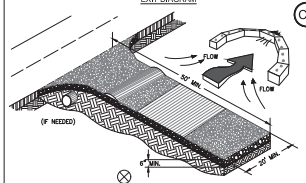


NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

CRUSHED STONE CONSTRUCTION EXIT

Co

EXIT DIAGRAM

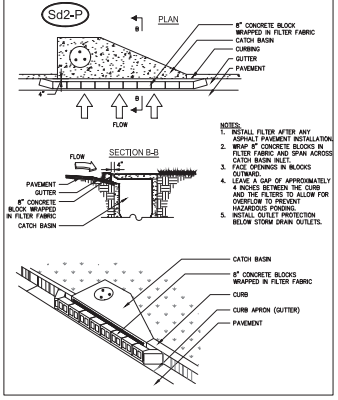


ENTRANCE ELEVATION

NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

CURB INLET FILTER "PIGS IN BLANKET"

Sd2-P

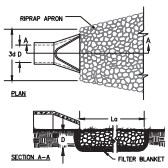


NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.

RIPRAP OUTLET PROTECTION

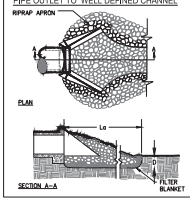
St

PIPE OUTLET TO FLAT AREA – NO WELL DEFINED CHANNEL



NOTES:
1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSHAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

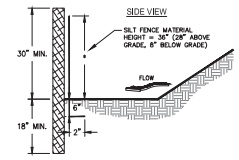
PIPE OUTLET TO WELL DEFINED CHANNEL



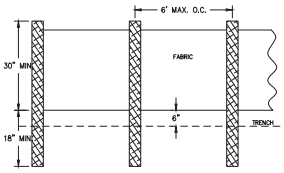
SILT FENCE - TYPE NON-SENSITIVE

Sd1-NS

SIDE VIEW



FRONT VIEW

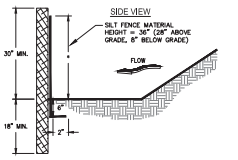


NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

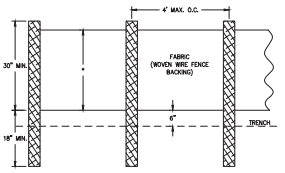
SILT FENCE - TYPE SENSITIVE

Sd1-NS

SIDE VIEW



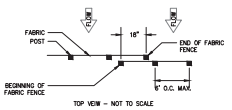
FRONT VIEW



NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

FASTENERS FOR SILT FENCES

OVERLAP AT FABRIC ENDS



TOP VIEW – NOT TO SCALE

FRONT VIEWS – NOT TO SCALE

NOTES:
1. THE FABRIC AND WIRE SHOULD BE SECURELY FASTENED TO POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

NO.	REVISIONS	BY	DATE

JASON BRYANT
GEORGIA REGISTERED
DESIGN PROFESSIONAL
CERTIFICATION #7397

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EROSION CONTROL DETAILS

RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	----
Date:	5/25/21

SHEET
EC5.1

Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 - Site Plan (2571 : Site Plan Review/Application/Lakeside at Rice Hope Phase 20-23 & 29A (Specific))

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GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		Co (LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION		Cr	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		Dn1 (LABEL)	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		Dn2 (LABEL)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		Gr (LABEL)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL		Re (LABEL)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING		Rt (LABEL)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER		(INDICATE TYPE)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN		Sd3 (LABEL)	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER		Sk (LABEL)	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM		Spb (LABEL)	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING		Sr (LABEL)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN		Tc	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING		Tp (SHOW STRIPPING AND STORAGE AREAS)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION		(DENOTE TREE CENTERS)	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		Bf (LABEL)	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)		Cs	Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS		Fl-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended – 2013)

DISTURBED AREA STABILIZATION (WITH MULCH ONLY) — Ds1

DEFINITION
Applying plant residues or other suitable materials not produced on the site to the soil surface.

PURPOSE
To reduce runoff and erosion; conserve moisture, prevent surface compaction or crusting; to control undersirable vegetation; to modify soil temperature; to increase biological activity in the soil.

SPECIFICATIONS
A. For temporary protection of critical areas without seeding.

This standard applies to graded or cleared areas which may be subjected to erosion for 6 months or less, where seedings may not have a suitable growing season to produce an erosion retardant cover, but which can be stabilized with a mulch cover.

Site Preparation
1. Grade, as needed and feasible, to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. As needed and feasible, loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
1. Dry straw of hay - spread at a rate of 2 1/2 tons per acre.
2. Wood waste, chips, sawdust or bark-spread 2 to 3 inches deep (about 6 to 0 tons per acre).
3. Erosion control matting or netting, such as excelsior, jute, textile and plastic matting and netting - applied in accordance with manufactureres recommendations.
4. Cutback asphalt, slow curing - applied at 1200 gallons per acre (or 1/4 gallon per sq. yd.)
5. Polyethylene film - secured over banks or stockpiled soil material for temporary protection.

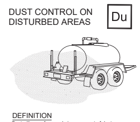
Applying and Anchoring Mulch
1. Apply straw or hay mulch uniformly by hand or mechanically. Anchor as appropriate and feasible. It may be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk". The disk may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position.
Straw hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion must be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of water per ton of mulch.
2. Spread wood waste uniformly on slopes that are 3:1 and flatter. No anchoring is needed.
3. Commercial matting and netting. Follow manufacturer's specification included with the material.
4. Apply asphalt so area has uniform appearance. (Note: Use in areas of pedestrian traffic could cause problems of "tracking in" or damage to shoes, clothing, etc.)
B. To conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas on lawns.
Mulching Materials
Use one of the material given below and apply at thickness indicated.

Material	Depth
1. Grain straw or grass hay	6" to 10"
2. Pine Needles	4" to 6"
3. Wood waste (sawdust, bark, chips)	4" to 8"
4. Shredded residues (crop, leaves, etc.)	4" to 8"

5. Completely cover area with black polyethylene film and hold in place by placing soil on the outer edge.

When using organic mulches, apply 20-30 pounds of nitrogen in addition to the normal amount needed for plant growth to offset the tie up of N by decomposition of mulch.

DUST CONTROL ON DISTURBED AREAS — Du



DEFINITION
Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE
- To prevent surface and air movement of dust from exposed soil surfaces.
- To reduce the presence of airborne substances that may be harmful or to human health, welfare, or safety, or to animals or plant life.

CONDITIONS
This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS
A. TEMPORARY METHODS

Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification Tac - Tackifiers Resins should be used according to manufacturer's recommendations.

Vegetative Cover. See specifications Ds2 - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification Tac - Tackifiers.

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

B. PERMANENT METHODS

Permanent Vegetation. See specification Ds3 -Disturbed Areas Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

Topsoilling. This entails covering the surface with less erosive soil material. See specification Tp - Topsoiling.

Stone. Cover surface with crushed stone or coarse gravel. See specification Cr - Construction Road Stabilization.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CORPS 1/

Species	Broadcast Rates 2/-PLS3/ Per Acre	Per 1000 sq. ft.	Resource Planting Dates by Resource Area: Area	Planting Dates (Solid lines indicate optimum dates dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
MILLET, PEARL (Pennesetum glaucum) alone	50 lbs.	1.1 lb.	M-L P C		88,000 Seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
RYEGRASS, ANNUAL (Lolium Temulentum) alone	40 lbs.	0.9 lb.	M-L P C		227,000 seed pound. Dense cover. Very competitive and is not to be used in mixtures.

1. Temporary cover crops are very competitive and will crowd perennials if seeded to heavily.
2. Reduce seeding rates by 50% when drilled.
3. PLS is an abbreviation for Pure Live Seed.
4. M-L represents the Mountain: Blue Ridge: and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents Southern Coastal Plain: Sand Hills: Black Lands: and Atlantic Coast Flatwoods MLRAs

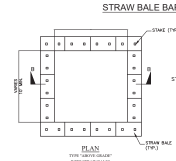
Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

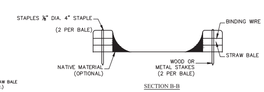
Species	Broadcast Rates 2/-PLS3/ Per Acre	Per 1000 sq. ft.	Resource Planting Dates by Resource Area: Area	Planting Dates (Solid lines indicate optimum dates dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
BERMUDA, COMMON (Cynodon dactylon) Hulled seed alone / with other perennials	10 lbs. / 6 lbs.	0.2 lb. / 0.1 lb.	P C		1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
BERMUDA, COMMON (Cynodon dactylon) Unhulled seed with temporary cover / with other perennials	10 lbs. / 6 lbs.	0.2 lb. / 0.1 lb.	P C		Plant with winter annuals. / Plant with Tall fescue.
BERMUDA SPRIGS (Cynodon dactylon) Coastal, Common, Midland, or Tift 44 / Coastal, Common, or Tift 44 / Tift 78	40 cu. ft. or sod pulgs 3'x 3'	0.9 cu. ft.	M-L / P C / C		A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 srigs. / Same as above / Southern costal Plain only.
CENTIPEDE (Eremochloa ophiuroides)	Block sod only		P C		Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in concentrated flow areas. Irrigation is needed until fully established. Do not plant near pastures. Winterhardy as far north as Athens and Atlanta.
LOVEGRASS, WEEPING (Eragrostis curvula) alone / in mixtures	4 lbs. / 2 lbs.	0.1 lb. / 0.05 lb.	M-L P C		1,500,000 Seed per pound. May last for several years. Mix with Sericea lespedeza.

1. Reduce seeding rates by 50% when drilled.
2. PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of these specification..
3. M-L represents the Mountain: Blue Ridge: and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA; C represents Southern Coastal Plain: Sand Hills: Black Lands: and Atlantic Coast

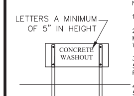
STRAW BALE BARRIER CONCRETE WASHOUT



PLAN
TYPE "ABOVE GRADE" WITH STRAW BALES



SECTION B-B



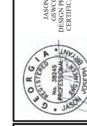
CONCRETE WASHOUT SIGN DETAIL

NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. INSTALL CONCRETE WASHOUT SIGN (24"X24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
6. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

CONCRETE WASHOUT
STRAW BALES OR ABOVE GROUND
NOT TO SCALE

REV.	REVISIONS	BY	DATE

JASON BRYANT
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897



PITTMAN ENGINEERING
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912-445-0578
www.PittmanEngineeringCo.com

EROSION CONTROL DETAILS
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared For
DR HORTON, INC.

Project No. 21-255
Drawn By: MCS
Designed By: JJB
Checked By: RAP
Scale: ----
Date: 5/25/21

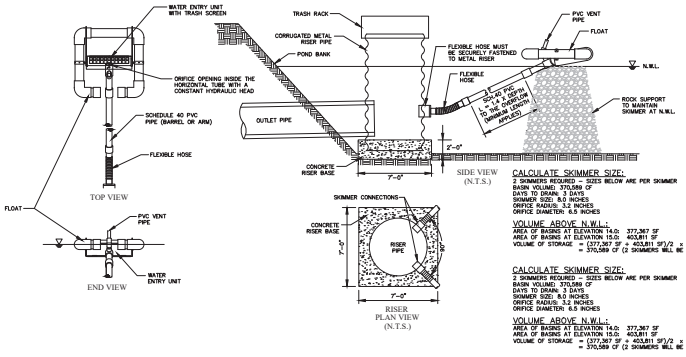
SHEET
EC5.2

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Site Plan (2575 : Site Plan Review Application Lakeside at Rice Hope Phases 20-23 & 29A (Specific))

Monday, October 11, 2021 11:05:15 AM

GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE SIDE OF THE OUTLET PIPE.
4. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
5. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.



CALCULATE SKIMMER SIZE:
2 SKIMMERS REQUIRED - SIZES BELOW ARE PER SKIMMER
BASIN VOLUME: 370,589 CF
DAYS TO DRAIN: 3 DAYS
SKIMMER SIZE: 8.0 INCHES
ORIFICE RADIUS: 3.2 INCHES
ORIFICE DIAMETER: 6.5 INCHES

VOLUME ABOVE N.W.L.:
AREA OF BASINS AT ELEVATION 14.0: 377,367 SF
AREA OF BASINS AT ELEVATION 15.0: 403,811 SF
VOLUME OF STORAGE = (377,367 SF + 403,811 SF)/2 x (1.0' FT)
= 370,589 CF (2 SKIMMERS WILL BE REQUIRED)

CALCULATE SKIMMER SIZE:
2 SKIMMERS REQUIRED - SIZES BELOW ARE PER SKIMMER
BASIN VOLUME: 370,589 CF
DAYS TO DRAIN: 3 DAYS
SKIMMER SIZE: 8.0 INCHES
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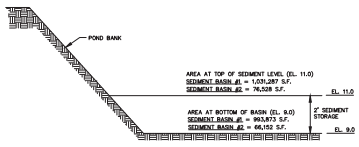
= 370,589 CF (2 SKIMMERS WILL BE REQUIRED)

Sk FAIRCLOTH SKIMMER DISCHARGE SYSTEM
SCALE: N.T.S.



- TOTAL PROJECT ACREAGE = 65
- TOTAL DISTURBED ACREAGE = 64.8
- TOTAL REQUIRED SEDIMENT STORAGE: 64.8 X 134 c.y./Ac. = 8,683.2 c.y. (134 CY/AC. WILL BE PROVIDED TO MEET REQUIREMENT FOR 50+ AC DISTURBANCE)
- THIS PROJECT WILL UTILIZE EXISTING DETENTION PONDS FOR THE SEDIMENT STORAGE REQUIREMENT. THE PROPOSED LAND DISTURBING ACTIVITIES FOR THIS PROJECT ARE TO GRADE TO PROVIDE POSITIVE DRAINAGE TO SPECIFIC AREAS OF THIS TRACT OF LAND.

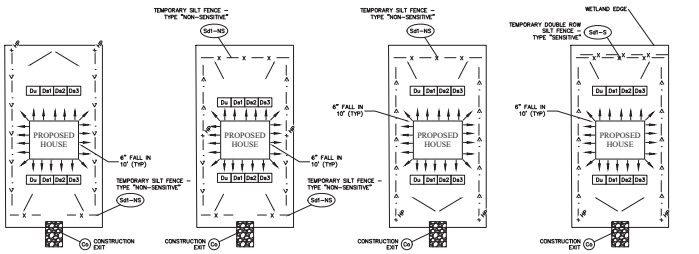
SEDIMENT BASIN #1 (LARGER DETENTION POND)
AREA AT BOTTOM OF BASIN (EL. 9.0) = 993,873.4 S.F.
AREA AT TOP OF SEDIMENT LEVEL (EL. 11.0) = 1,031,287.4 S.F.
AVERAGE AREA: (993,873 + 1,031,287 S.F.)/2 = 1,012,580 S.F.
VOLUME OF SEDIMENT STORAGE: 1,012,580 S.F. X 2 FT. = 2,025,160 C.F./27 = 75,005 C.Y.
SEDIMENT BASIN #1 STORAGE = 75,005 C.Y.

SEDIMENT BASIN #2 (DETENTION TO THE EAST)
AREA AT BOTTOM OF BASIN (EL. 9.0) = 66,152.5 S.F.
AREA AT TOP OF SEDIMENT LEVEL (EL. 11.0) = 76,528.7 S.F.
AVERAGE AREA: (66,152 + 76,528 S.F.)/2 = 71,340 S.F.
VOLUME OF SEDIMENT STORAGE: 71,340 S.F. X 2 FT. = 142,680 C.F./27 = 5,284 C.Y.
SEDIMENT BASIN #2 STORAGE = 5,284 C.Y.

SEDIMENT BASIN #1 STORAGE = 75,005 C.Y.
SEDIMENT BASIN #2 STORAGE = 5,284 C.Y.
TOTAL SEDIMENT BASIN STORAGE = 80,289 C.Y.

80,289 C.Y. EXCEEDS THE REQUIRED 8,683 CY OF SEDIMENT STORAGE

Sd3 TEMPORARY SEDIMENT BASIN
SCALE: N.T.S.



SITUATIONAL LOT EROSION CONTROL DETAILS
SCALE: N.T.S.

NO.	REVISIONS	BY	DATE
REV.1			

JASON BRYANT
GEORGIA LICENSED
DESIGN PROFESSIONAL
CERTIFICATION #7397

PITTMAN ENGINEERING
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www.PittmanEngineeringCo.com

EROSION CONTROL DETAILS
RICE HOPE
LAKESIDE PHASES 20-23 & 29A
Prepared for
DR HORTON, INC.

Project No.	21-255
Drawn By:	MCS
Designed By:	JJB
Checked By:	RAP
Scale:	----
Date:	5/25/21

SHEET
EC5.3

Attachment: LAKESIDE AT RICE HOPE PH 20-23, 29A SPECIFIC SITE PLAN (DEC 2021 : Site Plan (3570 : Site Plan Review/Application Lakeside at Rice Hope Phase 20-23 & 29A (Specific))

G:\Shared drives\Projects\Rice Hope\21-255 Lakeside 20-23\Construction Plans\21-255 Lakeside 20-23 - EDC Details.dwg

Project Timeline

Lakeside Phase 20, 21, 22, 23 & 29A – Specific Site Plan

Project Number 210419

Applicant: Ray Pittman (Pittman Engineering)

Review: Thomas & Hutton

- 10/11/2021—application received- complete
- 10/19/2021 – Sent site plan package to Thomas & Hutton for review
- 11/17/2021 – Sent email to Jennifer Roach with Thomas & Hutton for review update.
- 11/17/2021 – received email from Jennifer Roach stating they would have a review letter by the end of the week.
- 11/22/2021 – received 1st review letter from Thomas & Hutton. Letter also sent to Ray Pittman.
- 11/26/2021 – Public hearing notice ad posted in the Savannah Morning News
- 11/27/2021 – Public hearing notice letters mailed

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Timeline (2575 : Site Plan Review Application Lakeside

ESTD 1946
75H
THOMAS & HUTTON

50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405 | 912.234.5300
THOMASANDHUTTON.COM

November 22, 2021

Mr. Brian Harvey
Director of Development Services
City of Port Wentworth
305 South Coastal Highway
Port Wentworth, GA 31407

Re: Lakeside at Rice Hope Ph 20-23, 29A
Port Wentworth, Georgia
Site Plan Review
J–25412.0024

Dear Brian:

We have received the site plan for the referenced project submittal. The following information was included in the submittal package:

- Pre-Development Sub-Basin Delineation and Node Map
- Adjacent Property Owners Exhibit
- Site Plan Review Application
- Inlet Basin Exhibit
- CSS Worksheet
- Drainage Report
- Exhibit 2 Equivalent Residential Unit (ERU) Calculations
- Landfill Statement
- Pipe Sizing
- Post Drainage Basins Exhibit
- Wastewater Extension Calculations
- Construction Plans
- Wastewater Collection System Check List
- Appendix A Water/Wastewater Availability
- Water Distribution Calculations
- Water Distribution System Check List

This site plan review was completed based on our interpretation of the latest City of Port Wentworth zoning ordinance and development regulations. Thomas & Hutton's review was performed in an effort to assess if the application package for the proposed improvements is in general conformance with City of Port Wentworth regulations. Our review shall not be interpreted as a detailed technical analysis of the design or for verification of technical sufficiency for elements of design. Under no circumstances shall our review and comments related to the site plans relieve the Applicant's Design Professional of their professional obligations and professional standards of care. As such, the design submitted by the Applicant's Design Professional shall be the sole responsibility of the Applicant's Design Professional. Thomas & Hutton shall not accept any responsibility for any liability due to design and construction, in whole or in part, for any aspect of the design and construction of design documents.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

We have reviewed the submittal package and offer the comments noted below for consideration.

General Comments

1. The site is zoned as Master Plan Overlay (MPO).

2. The site lies within an Effective FEMA Zone X, area of minimal flood hazard, as documented on FEMA FIRM Panel 13051C0035G, effective August 16, 2018.

3. Please provide EPD land disturbance approval.

4. Please provide EPD water/wastewater permits, if applicable.

5. Please provide any other pertinent permit approvals.

6. According to Section 4.1.1 in the Master Plan Overlay requirements of Section 5.2, Appendix B of the Port Wentworth Code of Ordinances, property within Phase II of the district must be surveyed for wetlands prior to land disturbing activities and a permit must be obtained from the USACE for the entire parcel before subdivision. Please provide a wetland delineation and permit. All jurisdictional wetlands must also have a minimum of a 25' buffer.

Stormwater Comments

In accordance with the City of Port Wentworth Drainage and Flood Control Ordinance (PWSMO) Section 7–79, this project proposes site development that will involve the creation of 5,000 square feet or more of impervious cover that otherwise did not exist on the site previously. As such, all stormwater provisions apply to this site.

1. Provide the following items to complete the Stormwater Management Design Plan per Section 7-80(d) of the Port Wentworth Code of Ordinances and Section 3.7.9 and 3.7.12 of the Port Wentworth Comprehensive Development Manual:

   a. Certification by Plan Preparer
   b. Certification by Owner

2. Provide a stormwater management inspection and maintenance agreement and plan as prescribed in Section 7–80(e) of the Port Wentworth Code of Ordinances.

3. Acknowledge that a performance bond will be required prior to construction, as listed in Section 7–80(h) of Article III of the Drainage and Flood Control Ordinances within the Port Wentworth Code of Ordinances.

4. Provide the Rice Hope Plantation Drainage Study as referenced in the Drainage Report.

5. Please provide calculations to demonstrate that the 10-year, 24-hour pre-development peak discharge rate is maintained post-development pursuant to Section 3.7.9(1.) of the Port Wentworth CDM.

6. Please provide the peak water levels for the 10-year, 24-hour storm pursuant to Section 3.7.10(3) of the Port Wentworth CDM.

7. Provide a node-link map of the post-development ICPR model. Include an overall map with the proposed outfall locations.

8. There appears to be 2 separate outfalls. Please compare pre- and post- peak flow discharge rates based on outfall/flooding source.

9. It appears that several of the ICPR model inputs for pipes, channels, and weirs are not included in site development plans. Please provide an exhibit with all the existing and proposed stormwater conveyance elements drawn and labeled that are required for this phase of construction.

10. Provide evidence that the proposed design is providing 24 hours of extended detention for the runoff volume generated by the 1-year, 24-hour storm event pursuant to Section 7-829(c) of the Port Wentworth Code of Ordinances.

11. Per Section 3.7.10 of the CDM, provide a statement of no adverse upstream or downstream impacts to the existing stormwater system.

12. It appears that the pipe run from the "LAGOON" structure ID to "G 131" structure ID is missing in the secondary drainage calculations for pipe sizing.

13. Provide a detail for vegetated filter strips with an effective level spreader pursuant to Section 7.8.6 of the Georgia CSS. Please also callout the vegetated filter strips on the site development plans to ensure contractor constructs the LID BMP.

14. Provide a detail for the simple downspout disconnections per Section 7.8.8 of the Georgia CSS. Please also callout the simple downspout disconnections on the site development plans to ensure contractor constructs the LID BMP.

15. Calculations demonstrate only 26% of the runoff reduction volume is achieved. Provide clarification on the proposed methods of reducing the remaining 74% of runoff reduction volume per Section 4.4.1 of the Georgia CSS.

Water, Fire System, and Sanitary Sewer Design Comments

1. Show the number of single and double services on the site development plans and the lateral diameters pursuant to Section 3.1 of the Port Wentworth CDM.

2. It appears that several 8"x6" tees are proposed connected to a 10" water main or a 12". Please revise or clarify.

3. Ensure that the minimum right-of-way requirements are in satisfied using the minimum right-of-way equation provided in Section 2.4.1 of the Port Wentworth CDM. The right of way dimensions labeled on the plat do not appear to match the delineated right-of-way widths from the provided scale on the sheets.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

4. It is unclear how the proposed water line and sewer line is ending or connecting to existing utilities on the north side of plan sheets C2.5, C2.4, and C2.2. Please label all connections to existing utilities and label all proposed structures on the plans including plugs and bends.

5. Provide air/vacuum release valves on the 12" water mains, if applicable, pursuant to Section 3.4.1of the Port Wentworth CDM.

6. Ensure all water valves 8" or larger are placed in a manhole per the Water Distribution System Check List. Please provide labels on the plans indicating these valves will be in a manhole.

7. It appears that no water meters are proposed. Please provide the location and size of proposed meters on the plans per the Water Distribution Check List or explain how the development will be metered.

8. Please label existing fire hydrants or clarify the symbol for existing fire hydrants on the plans per the Water Distribution System Check List.

9. Please call out the pipe separation distances of all utility crossings on the profiles per the Water Distribution Check List. There is currently only the minimum separation distance labeled.

10. If construction of water and sewer facilities is to be dedicated to the City of Port Wentworth for operation and maintenance, provide a water and sewer agreement between the developer and the City.

11. Ensure the water and sewer laterals are 5' from the proposed lot lines and that the water line and sanitary sewer lines are at least 7.5' from the right-of-way line per Port Wentworth detail U-2.

12. Ensure all water lines have a minimum of 3' of cover pursuant to Port Wentworth detail U-1.

13. Include details W-2, S-4, S-2, W-34, W-35, W-10, U-3, U-2, SD-11, SD-8, SD-5, SD-3, SD-4, S-9, and SD-5, unless not applicable.

14. Ensure that manholes are placed a maximum of 350' apart per the Wastewater Collection System Check List. It appears that some manholes are placed further apart than this based on the provided profiles.

15. Ensure there is a maximum height of 2' between the invert of pipes and the invert of discharge manholes per the Wastewater Collection System Check List.

16. Ensure that fire hydrants are no more than 500' apart pursuant to Section 3.4.1 of the Port Wentworth CDM.

Plan Sheets Comments

1. Provide one benchmark on each of the plan sheets pursuant to Section 3.1 of the Port Wentworth CDM.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

2. Provide right-of-way widths of all existing roadways pursuant to Section 3.1 of the Port Wentworth CDM.

3. Include surveyed right-of-way monuments and markers on the plans pursuant to Section 3.1 of the Port Wentworth CDM.

4. Ensure all right-of-way, minor streets, tree yards, and sidewalk widths meet the minimum requirements as outlined in the Master Plan Overlay requirements in Section 5.2, Appendix B of the Port Wentworth Code of Ordinances, and specify the dimension of these widths on the site plans. The scale indicated on the plans does not appear to coincide with the dimensions on the plans. Please clarify. Please also note that the scale may be no greater than 1"=10' and no less than 1"=50' pursuant to Section 3.1 of the Port Wentworth CDM.

5. Provide a tree survey and ensure tree protection requirements are met as outlined in Section 4.2 in the Master Plan Overlay requirements of Section 5.2, Appendix B of the Port Wentworth Code of Ordinances,

6. Note that all street names within a subdivision shall be approved by the Manger and Council, pursuant to Section 15.3-2.1(k) in Appendix B of the Port Wentworth Code of Ordinances.

7. Pursuant to Section 15.3-2.1 in Appendix B of the Port Wentworth Code of Ordinances, dimension the centerline radius of all curvilinear streets to ensure the minimum radius of 75' is satisfied.

8. Provide permanent dead-end streets with a turnaround roadway diameter of at least 80' and a right-of-way diameter of at least 100' pursuant to Section 15.3-2.1 in Appendix B of the Port Wentworth Code of Ordinances.

9. Ensure street name markers are installed at all street intersections per City specifications pursuant to Section 15.3-2.1 in Appendix B of the Port Wentworth Code of Ordinances.

10. Ensure all the design and Construction Specifications for Streets are satisfied in Section 15.3-2.2 1 in Appendix B of the Port Wentworth Code of Ordinances. It appears that several of these criteria, including minimum right-of-way and pavement width, are not satisfied.

11. Please note that monuments shall be set at each street corner and at all points of curvature in each street, and all interior lot corners of subdivisions with concrete monuments, iron pins, or iron pipes pursuant to Section 15.3-6 of Appendix B in the Port Wentworth Code of Ordinances.

12. Please provide at least two benchmarks at opposite corners of the property being subdivided pursuant to Section 15.3-8 of Appendix B in the Port Wentworth Code of Ordinances.

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

13. It appears that there is an existing overhead power line where lots, swales, roads and other utilities are proposed. Please clarify if this power line is to remain and provide an encroachment permit for disturbance and proposed development within the easement.

Site Lighting Comments

1. Please provide a Site Lighting Plan for the development. Additional comments may arise upon submission of the requested calculations and materials.

Paving, Signage, and Parking Comments

1. Applicant shall ensure construction of sidewalks, ADA parking, and accessible routes are in conformance with federal ADA standards, latest edition.

2. Any proposed signage will require a separate permit as outlined in Section 19.1–3 of Port Wentworth Code of Ordinances.

3. A building permit will be required as outlined in Section 7.3, Appendix B of Port Wentworth Code of Ordinances.

Thank you for your attention to this project. If there are any questions or comments, please feel free to call us at (912) 234–5300.

Sincerely,

THOMAS & HUTTON

Darby Burk

Darby Burk

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - 1st Comment Letter T&H 11.22.21 (2575 : Site Plan

DRAINAGE REPORT

RICE HOPE

LAKESIDE PHASES 20-23 & 29A

PREPARED FOR:

DR HORTON, INC

CITY OF PORT WENTWORTH,

CHATHAM COUNTY, GEORGIA

PITTMAN ENGINEERING

SEPTEMBER 1, 2021

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

DRAINAGE REPORT

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TIMES OF CONCENTRATION

DESIGN STORMS PRE-DEVELOPMENT RUNOFF RATES

SECTION 3: POST-DEVELOPMENT

SCS CURVE NUMBERS

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ICPR NODE MAP

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PIPE CALCULATION SPREADSHEET

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Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

SECTION 1:

PROJECT INFORMATION

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

SECTION 1: PROJECT INFORMATION

PROJECT DESCRIPTION

Rice Hope Lakeside Phases 20-23 & 29A proposes the construction of 262 single-family lots. The project site is in the City of Port Wentworth, Chatham County. The site is located within the Rice Hope master planned community, and outfalls to an existing master planned drainage and lagoon system. The site is partially wooded. Most of the site drains into an existing lagoon system. The remaining site drains north into an existing master planned drainage ditch system.

Runoff from the lots and roads will be collected by a series of grassed swales, gutters, and drainage inlets. The proposed drainage will outfall into the existing Rice Hope drainage system.

METHODOLOGY FOR STORM WATER ATTENUATION

The storm water management system includes a proposed stormwater facility and grassed swales. The storm water system was analyzed for the 2, 5, 25, 50 and 100-year frequencies, 24-hour, antecedent condition II storm events.

DESIGN TAIL WATER

The tail water elevation was set to the wetland elevation of 8 feet, NAVD 88 datum.

DESIGN STORM SUMMARIES

The pre- and post-development conditions were modeled using the ICPR program. Based on the results, the post-development peak runoff rates do not exceed the pre-development runoff rates.

DESIGN STORM SUMMARY (PRE- VERSUS POST-DEVELOPMENT)

The design storms pre- versus post-development analysis compared node BCT1-160 from the July 19, 2004 Rice Hope Plantation Drainage Study with node OUT-LAG2 from the post-development ICPR node maximum report. The rounded peak runoff rates:

Design Storm	Pre-development Peak Runoff (cfs)	Post-development Peak Runoff (cfs)
2-yr	59 cfs	33 cfs
5-yr	95 cfs	60 cfs
25-yr	125 cfs	100 cfs
50-yr	134 cfs	132 cfs
100-yr	171 cfs	161 cfs

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

SECTION 2:

PRE-DEVELOPMENT

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

SECTION 2: PRE-DEVELOPMENT CONDITIONS

SCS CURVE NUMBERS

The pre-development curve numbers were based on the hydrologic soil groups for the site and existing conditions, per the July 19, 2004 Rice Hope Plantation Drainage Study.

TIMES OF CONCENTRATION

The times of concentration were calculated per the July 19, 2004 Rice Hope Plantation Drainage Study.

DESIGN STORMS PRE-DEVELOPMENT RUN-OFF RATES

The design storms pre-development run-off rates are based on the max inflow at node BCT1-140 and KCT1-5 from the July 19, 2004 Rice Hope Plantation Drainage Study.

Design Storm	Pre-development Peak Runoff (cfs)
2-yr	59 cfs
10-yr	95 cfs
25-yr	125 cfs
50-yr	134 cfs
100-yr	171 cfs

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SECTION 3:

POST-DEVELOPMENT

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SECTION 3: POST-DEVELOPMENT CONDITIONS

SCS CURVE NUMBERS

The post-development curve number is based on the hydrologic soil group for the site - Type D and the proposed site conditions.

POST-BASIN	CURVE NUMBER (CN)
B-EX LAG	93
B2	92
B-L1	93
DITCH SOUTH	84
DITCH NORTH	84
BASIN BC OFF	76

TIMES OF CONCENTRATION

The times of concentration were calculated using the TR-55 method, based on the travel times for overland and shall concentrated flows. The overland flow lengths were limited to fifty (50) feet and the remaining flow lengths consisted of shallow concentrated flow.

POST- BASIN	TIME OF CONCENTRATION (MINUTES)
B-EX LAG	21
B2	24
B-L1	20
DITCH SOUTH	55
DITCH NORTH	36
BASIN BC OFF	146

DESIGN STORMS POST-DEVELOPMENT RUN-OFF RATES

The design storms post-development run-off rates were analyzed for node EX LAG and Small Lagoon. The post-development run-off rates (rounded) were calculated using the Interconnected Pond Routing program version 3 (ICPR).

Design Storm	**Post-development Peak Runoff (cfs)**
2-yr	33 cfs
5-yr	60 cfs
25-yr	100 cfs
50-yr	132 cfs
100-yr	161 cfs

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SECTION 4:

ICPR INPUT AND RESULTS

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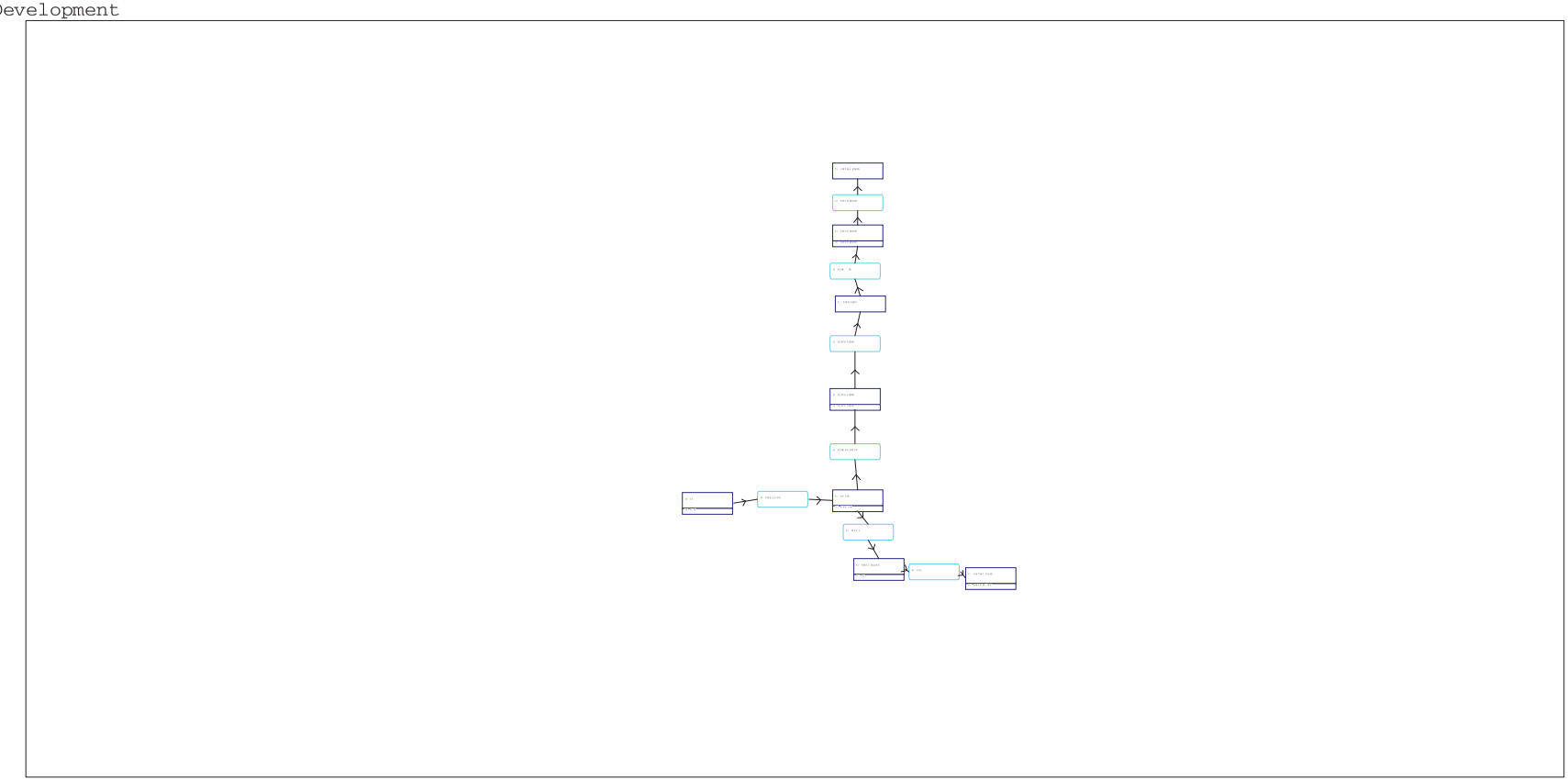
Rice Hope Lakeside Phases 20-23 & 29A
Node Map - Post Development

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



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```
================================================================================
==== Basins ====================================================================
================================================================================

         Name: B-EX LAG                Node: EX LAG                 Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323                    Peaking Factor: 323.0
        Rainfall File: Scsiii               Storm Duration(hrs): 0.00
  Rainfall Amount(in): 0.000                  Time of Conc(min): 21.00
             Area(ac): 113.390                   Time Shift(hrs): 0.00
         Curve Number: 93.00                Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


--------------------------------------------------------------------------------
         Name: B-L1                    Node: L1                     Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323                    Peaking Factor: 323.0
        Rainfall File: Scsiii               Storm Duration(hrs): 0.00
  Rainfall Amount(in): 0.000                  Time of Conc(min): 20.00
             Area(ac): 32.880                    Time Shift(hrs): 0.00
         Curve Number: 93.00                Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


--------------------------------------------------------------------------------
         Name: B2                      Node: Small Lagoon           Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323                    Peaking Factor: 323.0
        Rainfall File: Scsiii               Storm Duration(hrs): 0.00
  Rainfall Amount(in): 0.000                  Time of Conc(min): 24.00
             Area(ac): 8.010                     Time Shift(hrs): 0.00
         Curve Number: 92.00                Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


--------------------------------------------------------------------------------
         Name: BASIN BC OFF            Node: Outfall South          Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323                    Peaking Factor: 323.0
        Rainfall File: Scsiii               Storm Duration(hrs): 0.00
  Rainfall Amount(in): 0.000                  Time of Conc(min): 146.00
             Area(ac): 138.870                   Time Shift(hrs): 0.00
         Curve Number: 76.00                Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00
```


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```
--------------------------------------------------------------------------------------------
         Name: DITCH NORTH              Node: DITCH NORTH            Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 36.00
              Area(ac): 49.250                    Time Shift(hrs): 0.00
          Curve Number: 84.00                Max Allowable Q(cfs): 999999.000
               DCIA(%): 0.00



--------------------------------------------------------------------------------------------
         Name: DITCH SOUTH              Node: DITCH SOUTH            Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                  Time of Conc(min): 55.00
              Area(ac): 97.550                    Time Shift(hrs): 0.00
          Curve Number: 84.00                Max Allowable Q(cfs): 999999.000
               DCIA(%): 0.00



============================================================================================
==== Nodes =================================================================================
============================================================================================

      Name: DITCH NORTH         Base Flow(cfs): 0.000          Init Stage(ft): 8.000
     Group: BASE                                              Warn Stage(ft): 8.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00           0.001
        9999.00           0.001

--------------------------------------------------------------------------------------------
      Name: DITCH SOUTH         Base Flow(cfs): 0.000          Init Stage(ft): 8.000
     Group: BASE                                              Warn Stage(ft): 8.000
      Type: Time/Stage

.001

      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00           0.001
        9999.00           0.001
```


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---

Name: EX LAG Base Flow(cfs): 0.000 Init Stage(ft): 12.000
Group: BASE Warn Stage(ft): 18.000
Type: Stage/Area

Stage(ft)	Area(ac)
12.000	25.2000
18.000	27.3000

Name: L1 Base Flow(cfs): 0.000 Init Stage(ft): 12.000
Group: BASE Warn Stage(ft): 18.000
Type: Stage/Area

Stage(ft)	Area(ac)
12.000	3.1400
18.000	4.1000

Name: OUTFALL NORTH Base Flow(cfs): 0.000 Init Stage(ft): 11.000
Group: BASE Warn Stage(ft): 15.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	11.000
999.00	11.000

Name: Outfall South Base Flow(cfs): 0.000 Init Stage(ft): 11.000
Group: BASE Warn Stage(ft): 18.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	11.000
120.00	11.000

Name: PIPE XING Base Flow(cfs): 0.000 Init Stage(ft): 8.000
Group: BASE Warn Stage(ft): 18.000
Type: Time/Stage

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Time(hrs)	Stage(ft)
0.00	0.001
999.00	0.001

Name: Small Lagoon Base Flow(cfs): 0.000 Init Stage(ft): 12.000
Group: BASE Warn Stage(ft): 18.000
Type: Stage/Area

Stage(ft)	Area(ac)
12.000	0.6700
14.000	1.0000

Pipes

Name: PIPE - CR From Node: PIPE XING Length(ft): 82.00
Group: BASE To Node: DITCH NORTH Count: 1
Friction Equation: Automatic

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Solution Algorithm:	Most Restrictive
Span(in):	60.00	60.00	Flow:	Both
Rise(in):	60.00	60.00	Entrance Loss Coef:	0.00
Invert(ft):	8.000	8.000	Exit Loss Coef:	1.00
Manning's N:	0.013000	0.013000	Bend Loss Coef:	0.00
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Name: Pipe 1 From Node: EX LAG Length(ft): 1085.00
Group: BASE To Node: Small Lagoon Count: 2
Friction Equation: Automatic

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Solution Algorithm:	Most Restrictive
Span(in):	48.00	48.00	Flow:	Both
Rise(in):	48.00	48.00	Entrance Loss Coef:	0.00
			Exit Loss Coef:	1.00

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Invert(ft):	9.000	9.000	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Name: PIPE EX-DITCH From Node: EX LAG Length(ft): 1675.00
Group: BASE To Node: DITCH SOUTH Count: 1
Friction Equation: Automatic

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Solution Algorithm:	Most Restrictive
Span(in):	42.00	42.00	Flow:	Both
Rise(in):	42.00	42.00	Entrance Loss Coef:	0.00
Invert(ft):	8.000	8.000	Exit Loss Coef:	1.00
Manning's N:	0.013000	0.013000	Bend Loss Coef:	0.00
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Name: PIPE L2-EX From Node: L1 Length(ft): 1170.00
Group: BASE To Node: EX LAG Count: 1
Friction Equation: Automatic

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Solution Algorithm:	Most Restrictive
Span(in):	36.00	36.00	Flow:	Both
Rise(in):	36.00	36.00	Entrance Loss Coef:	0.00
Invert(ft):	8.000	8.000	Exit Loss Coef:	1.00
Manning's N:	0.013000	0.013000	Bend Loss Coef:	0.00
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:

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Circular Concrete: Groove end projecting

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

==========
==== Channels ==========
==========

Name:	DITCH NORTH	From Node: DITCH NORTH	Length(ft): 1937.00
Group:	BASE	To Node: OUTFALL NORTH	Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Trapezoidal	Trapezoidal	Friction Equation:	Automatic
Invert(ft):	8.000	4.000	Solution Algorithm:	Automatic
TClpInitZ(ft):	9999.000	9999.000	Flow:	Both
Manning's N:	0.032000	0.032000	Contraction Coef:	0.100
Top Clip(ft):	0.000	0.000	Expansion Coef:	0.300
Bot Clip(ft):	0.000	0.000	Entrance Loss Coef:	0.000
Main XSec:			Exit Loss Coef:	0.000
AuxElev1(ft):			Outlet Ctrl Spec:	Use dc or tw
Aux XSec1:			Inlet Ctrl Spec:	Use dc
AuxElev2(ft):			Stabilizer Option:	None
Aux XSec2:				
Top Width(ft):				
Depth(ft):				
Bot Width(ft):	6.000	6.000		
LtSdSlp(h/v):	3.00	3.00		
RtSdSlp(h/v):	3.00	3.00		

Name:	DITCH SOUTH	From Node: DITCH SOUTH	Length(ft): 3090.00
Group:	BASE	To Node: PIPE XING	Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Trapezoidal	Trapezoidal	Friction Equation:	Automatic
Invert(ft):	11.000	8.000	Solution Algorithm:	Automatic
TClpInitZ(ft):	9999.000	9999.000	Flow:	Both
Manning's N:	0.032000	0.032000	Contraction Coef:	0.100
Top Clip(ft):	0.000	0.000	Expansion Coef:	0.300
Bot Clip(ft):	0.000	0.000	Entrance Loss Coef:	0.000
Main XSec:			Exit Loss Coef:	0.000
AuxElev1(ft):			Outlet Ctrl Spec:	Use dc or tw
Aux XSec1:			Inlet Ctrl Spec:	Use dc
AuxElev2(ft):			Stabilizer Option:	None
Aux XSec2:				
Top Width(ft):				
Depth(ft):				
Bot Width(ft):	6.000	6.000		
LtSdSlp(h/v):	3.00	3.00		

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RtSdSlp(h/v): 3.00 3.00

==========
==== Weirs ==========
==========

Name: CS1 From Node: Small Lagoon
Group: BASE To Node: Outfall South
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Trapezoidal

Bottom Width(ft): 40.00
Left Side Slope(h/v): 3.00
Right Side Slope(h/v): 3.00
Invert(ft): 13.000
Control Elevation(ft): 13.000
Struct Opening Dim(ft): 9999.00
TABLE
Bottom Clip(ft): 0.000
Top Clip(ft): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==========
==== Hydrology Simulations ==========
==========

Name: 002-YR
Filename: D:\ICPR\002-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 4.34

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 005-YR
Filename: D:\ICPR\005-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 5.49

Time(hrs)	Print Inc(min)

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30.000 5.00

Name: 010-YR
Filename: D:\ICPR\010-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 6.52

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 025-YR
Filename: D:\ICPR\025-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 8.11

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 050-YR
Filename: D:\ICPR\050-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 9.45

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 100-YR
Filename: D:\ICPR\100-YR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 10.90

Time(hrs)	Print Inc(min)
30.000	5.00

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```
================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: 002-YR              Hydrology Sim: 002-YR
     Filename: D:\ICPR\002-YR.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

       Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages: 002-YR                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.000

Group           Run
--------------- -----
BASE            Yes


--------------------------------------------------------------------------------------------------------
         Name: 005-YR              Hydrology Sim: 005-YR
     Filename: D:\ICPR\005-YR.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

       Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages: 005-YR                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.000

Group           Run
--------------- -----
BASE            Yes


--------------------------------------------------------------------------------------------------------
         Name: 010-YR              Hydrology Sim: 010-YR
     Filename: D:\ICPR\005-YR.I32
```


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```
      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages: 010-YR                   Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------
         Name: 025-YR              Hydrology Sim: 025-YR
     Filename: D:\ICPR\025-YR.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages: 025-YR                   Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------
         Name: 050-YR              Hydrology Sim: 050-YR
     Filename: D:\ICPR\050-YR.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```


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Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 050-YR Boundary Flows:

Time(hrs)	Print Inc(min)
72.000	15.000

Group	Run
BASE	Yes

Name: 100-YR Hydrology Sim: 100-YR
Filename: D:\ICPR\100-YR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 100-YR Boundary Flows:

Time(hrs)	Print Inc(min)
72.000	15.000

Group	Run
BASE	Yes

==========
==== Boundary Conditions ====
==========

Name: 025-YR Node: OUTFALL NORTH Type: Stage

Time(hrs)	Stage(ft)
0.000	11.000
13.000	12.880
24.000	11.000
120.000	11.000

Name: 002-YR Node: OUTFALL NORTH Type: Stage

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Time(hrs)	Stage(ft)
0.000	11.000
13.000	12.150
24.000	11.000
120.000	11.000

Name: 005-YR Node: OUTFALL NORTH Type: Stage

Time(hrs)	Stage(ft)
0.000	11.000
13.000	12.420
24.000	11.000
120.000	11.000

Name: 010-YR Node: OUTFALL NORTH Type: Stage

Time(hrs)	Stage(ft)
0.000	11.000
13.000	12.640
24.000	11.000
120.000	11.000

Name: 050-YR Node: OUTFALL NORTH Type: Stage

Time(hrs)	Stage(ft)
0.000	11.000
13.000	13.030
24.000	11.000
120.000	11.000

Name: 100-YR Node: OUTFALL NORTH Type: Stage

Time(hrs)	Stage(ft)
0.000	11.000
13.000	13.200
24.000	11.000
120.000	11.000

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```
            Basin Name: B-EX LAG
            Group Name: BASE
            Simulation: 002-YR
             Node Name: EX LAG
            Basin Type: SCS Unit Hydrograph

      Unit Hydrograph: Uh323
        Peaking Fator: 323.0
  Spec Time Inc (min): 2.80
  Comp Time Inc (min): 2.80
       Rainfall File: Scsiii
 Rainfall Amount (in): 4.340
 Storm Duration (hrs): 24.00
               Status: Onsite
  Time of Conc (min): 21.00
    Time Shift (hrs): 0.00
           Area (ac): 113.390
 Vol of Unit Hyd (in): 1.001
        Curve Number: 93.000
            DCIA (%): 0.000

      Time Max (hrs): 12.32
      Flow Max (cfs): 234.15
  Runoff Volume (in): 3.552
 Runoff Volume (ft3): 1462210


--------------------------------------------------------------------------------

            Basin Name: B-L1
            Group Name: BASE
            Simulation: 002-YR
             Node Name: L1
            Basin Type: SCS Unit Hydrograph

      Unit Hydrograph: Uh323
        Peaking Fator: 323.0
  Spec Time Inc (min): 2.67
  Comp Time Inc (min): 2.67
       Rainfall File: Scsiii
 Rainfall Amount (in): 4.340
 Storm Duration (hrs): 24.00
               Status: Onsite
  Time of Conc (min): 20.00
    Time Shift (hrs): 0.00
           Area (ac): 32.880
 Vol of Unit Hyd (in): 1.000
        Curve Number: 93.000
            DCIA (%): 0.000

      Time Max (hrs): 12.31
      Flow Max (cfs): 69.19
  Runoff Volume (in): 3.553
 Runoff Volume (ft3): 424057
```


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```
            Basin Name: B2
            Group Name: BASE
            Simulation: 002-YR
             Node Name: Small Lagoon
            Basin Type: SCS Unit Hydrograph

      Unit Hydrograph: Uh323
        Peaking Fator: 323.0
  Spec Time Inc (min): 3.20
  Comp Time Inc (min): 3.20
        Rainfall File: Scsiii
Rainfall Amount (in): 4.340
Storm Duration (hrs): 24.00
              Status: Onsite
  Time of Conc (min): 24.00
    Time Shift (hrs): 0.00
           Area (ac): 8.010
Vol of Unit Hyd (in): 1.000
         Curve Number: 92.000
             DCIA (%): 0.000

       Time Max (hrs): 12.37
       Flow Max (cfs): 15.19
  Runoff Volume (in): 3.448
 Runoff Volume (ft3): 100259
```

```
            Basin Name: BASIN BC OFF
            Group Name: BASE
            Simulation: 002-YR
             Node Name: Outfall South
            Basin Type: SCS Unit Hydrograph

      Unit Hydrograph: Uh323
        Peaking Fator: 323.0
  Spec Time Inc (min): 19.47
  Comp Time Inc (min): 5.00
        Rainfall File: Scsiii
Rainfall Amount (in): 4.340
Storm Duration (hrs): 24.00
              Status: Onsite
  Time of Conc (min): 146.00
    Time Shift (hrs): 0.00
           Area (ac): 138.870
Vol of Unit Hyd (in): 1.000
         Curve Number: 76.000
             DCIA (%): 0.000
```


Packet Pg. 196
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
         Time Max (hrs): 13.92
        Flow Max (cfs): 48.22
     Runoff Volume (in): 2.002
    Runoff Volume (ft3): 1009365


--------------------------------------------------------------------------------

            Basin Name: DITCH NORTH
            Group Name: BASE
            Simulation: 002-YR
             Node Name: DITCH NORTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
   Spec Time Inc (min): 4.80
   Comp Time Inc (min): 4.80
        Rainfall File: Scsiii
  Rainfall Amount (in): 4.340
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 36.00
      Time Shift (hrs): 0.00
            Area (ac): 49.250
  Vol of Unit Hyd (in): 1.000
          Curve Number: 84.000
              DCIA (%): 0.000

        Time Max (hrs): 12.48
       Flow Max (cfs): 61.27
    Runoff Volume (in): 2.674
   Runoff Volume (ft3): 478078


--------------------------------------------------------------------------------

            Basin Name: DITCH SOUTH
            Group Name: BASE
            Simulation: 002-YR
             Node Name: DITCH SOUTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
   Spec Time Inc (min): 7.33
   Comp Time Inc (min): 5.00
        Rainfall File: Scsiii
  Rainfall Amount (in): 4.340
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 55.00
      Time Shift (hrs): 0.00
            Area (ac): 97.550
```


Packet Pg. 197
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
   Vol of Unit Hyd (in): 1.000
           Curve Number: 84.000
               DCIA (%): 0.000

         Time Max (hrs): 12.67
        Flow Max (cfs): 93.01
     Runoff Volume (in): 2.673
    Runoff Volume (ft3): 946618


--------------------------------------------------------------------------------

              Basin Name: B-EX LAG
              Group Name: BASE
              Simulation: 005-YR
               Node Name: EX LAG
              Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 2.80
    Comp Time Inc (min): 2.80
          Rainfall File: Scsiii
   Rainfall Amount (in): 5.490
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 21.00
       Time Shift (hrs): 0.00
              Area (ac): 113.390
   Vol of Unit Hyd (in): 1.001
           Curve Number: 93.000
               DCIA (%): 0.000

         Time Max (hrs): 12.32
        Flow Max (cfs): 303.95
     Runoff Volume (in): 4.681
    Runoff Volume (ft3): 1926794


--------------------------------------------------------------------------------

              Basin Name: B-L1
              Group Name: BASE
              Simulation: 005-YR
               Node Name: L1
              Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 2.67
    Comp Time Inc (min): 2.67
          Rainfall File: Scsiii
   Rainfall Amount (in): 5.490
   Storm Duration (hrs): 24.00
```


Packet Pg. 198
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
                Status: Onsite
  Time of Conc (min): 20.00
    Time Shift (hrs): 0.00
            Area (ac): 32.880
Vol of Unit Hyd (in): 1.000
       Curve Number: 93.000
            DCIA (%): 0.000

      Time Max (hrs): 12.31
      Flow Max (cfs): 89.80
 Runoff Volume (in): 4.682
Runoff Volume (ft3): 558789


--------------------------------------------------------------------------------

           Basin Name: B2
           Group Name: BASE
           Simulation: 005-YR
            Node Name: Small Lagoon
           Basin Type: SCS Unit Hydrograph

     Unit Hydrograph: Uh323
       Peaking Fator: 323.0
Spec Time Inc (min): 3.20
Comp Time Inc (min): 3.20
      Rainfall File: Scsiii
Rainfall Amount (in): 5.490
Storm Duration (hrs): 24.00
                Status: Onsite
  Time of Conc (min): 24.00
    Time Shift (hrs): 0.00
            Area (ac): 8.010
Vol of Unit Hyd (in): 1.000
       Curve Number: 92.000
            DCIA (%): 0.000

      Time Max (hrs): 12.32
      Flow Max (cfs): 19.86
 Runoff Volume (in): 4.571
Runoff Volume (ft3): 132899


--------------------------------------------------------------------------------

           Basin Name: BASIN BC OFF
           Group Name: BASE
           Simulation: 005-YR
            Node Name: Outfall South
           Basin Type: SCS Unit Hydrograph

     Unit Hydrograph: Uh323
       Peaking Fator: 323.0
Spec Time Inc (min): 19.47
```


Packet Pg. 199
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
    Comp Time Inc (min): 5.00
          Rainfall File: Scsiii
   Rainfall Amount (in): 5.490
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 146.00
       Time Shift (hrs): 0.00
              Area (ac): 138.870
   Vol of Unit Hyd (in): 1.000
           Curve Number: 76.000
               DCIA (%): 0.000

         Time Max (hrs): 13.83
         Flow Max (cfs): 72.32
    Runoff Volume (in): 2.944
   Runoff Volume (ft3): 1483916


--------------------------------------------------------------------------------

              Basin Name: DITCH NORTH
              Group Name: BASE
              Simulation: 005-YR
               Node Name: DITCH NORTH
              Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 4.80
    Comp Time Inc (min): 4.80
          Rainfall File: Scsiii
   Rainfall Amount (in): 5.490
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 36.00
       Time Shift (hrs): 0.00
              Area (ac): 49.250
   Vol of Unit Hyd (in): 1.000
           Curve Number: 84.000
               DCIA (%): 0.000

         Time Max (hrs): 12.48
         Flow Max (cfs): 84.91
    Runoff Volume (in): 3.723
   Runoff Volume (ft3): 665616


--------------------------------------------------------------------------------

              Basin Name: DITCH SOUTH
              Group Name: BASE
              Simulation: 005-YR
               Node Name: DITCH SOUTH
              Basin Type: SCS Unit Hydrograph
```


Packet Pg. 200
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 7.33
    Comp Time Inc (min): 5.00
          Rainfall File: Scsiii
   Rainfall Amount (in): 5.490
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 55.00
       Time Shift (hrs): 0.00
              Area (ac): 97.550
   Vol of Unit Hyd (in): 1.000
           Curve Number: 84.000
               DCIA (%): 0.000

         Time Max (hrs): 12.67
         Flow Max (cfs): 129.46
    Runoff Volume (in): 3.722
   Runoff Volume (ft3): 1317950


--------------------------------------------------------------------------------

             Basin Name: B-EX LAG
             Group Name: BASE
             Simulation: 010-YR
              Node Name: EX LAG
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 2.80
    Comp Time Inc (min): 2.80
          Rainfall File: Scsiii
   Rainfall Amount (in): 6.520
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 21.00
       Time Shift (hrs): 0.00
              Area (ac): 113.390
   Vol of Unit Hyd (in): 1.001
           Curve Number: 93.000
               DCIA (%): 0.000

         Time Max (hrs): 12.32
         Flow Max (cfs): 366.03
    Runoff Volume (in): 5.698
   Runoff Volume (ft3): 2345344


--------------------------------------------------------------------------------

             Basin Name: B-L1
```


Packet Pg. 201
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
            Group Name: BASE
            Simulation: 010-YR
             Node Name: L1
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 2.67
  Comp Time Inc (min): 2.67
        Rainfall File: Scsiii
Rainfall Amount (in): 6.520
Storm Duration (hrs): 24.00
              Status: Onsite
  Time of Conc (min): 20.00
    Time Shift (hrs): 0.00
           Area (ac): 32.880
Vol of Unit Hyd (in): 1.000
        Curve Number: 93.000
            DCIA (%): 0.000

      Time Max (hrs): 12.31
      Flow Max (cfs): 108.13
  Runoff Volume (in): 5.699
 Runoff Volume (ft3): 680171
```

```
            Basin Name: B2
            Group Name: BASE
            Simulation: 010-YR
             Node Name: Small Lagoon
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 3.20
  Comp Time Inc (min): 3.20
        Rainfall File: Scsiii
Rainfall Amount (in): 6.520
Storm Duration (hrs): 24.00
              Status: Onsite
  Time of Conc (min): 24.00
    Time Shift (hrs): 0.00
           Area (ac): 8.010
Vol of Unit Hyd (in): 1.000
        Curve Number: 92.000
            DCIA (%): 0.000

      Time Max (hrs): 12.32
      Flow Max (cfs): 24.02
  Runoff Volume (in): 5.584
 Runoff Volume (ft3): 162353
```


Packet Pg. 202
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

---

```
            Basin Name: BASIN BC OFF
            Group Name: BASE
            Simulation: 010-YR
             Node Name: Outfall South
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 19.47
  Comp Time Inc (min): 5.00
        Rainfall File: Scsiii
 Rainfall Amount (in): 6.520
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 146.00
     Time Shift (hrs): 0.00
           Area (ac): 138.870
 Vol of Unit Hyd (in): 1.000
        Curve Number: 76.000
            DCIA (%): 0.000

      Time Max (hrs): 13.83
      Flow Max (cfs): 95.00
  Runoff Volume (in): 3.832
 Runoff Volume (ft3): 1931612
```

```
            Basin Name: DITCH NORTH
            Group Name: BASE
            Simulation: 010-YR
             Node Name: DITCH NORTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 4.80
  Comp Time Inc (min): 4.80
        Rainfall File: Scsiii
 Rainfall Amount (in): 6.520
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 36.00
     Time Shift (hrs): 0.00
           Area (ac): 49.250
 Vol of Unit Hyd (in): 1.000
        Curve Number: 84.000
            DCIA (%): 0.000

      Time Max (hrs): 12.48
```


Packet Pg. 203
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
         Flow Max (cfs): 106.26
     Runoff Volume (in): 4.687
    Runoff Volume (ft3): 837988


--------------------------------------------------------------------------------

             Basin Name: DITCH SOUTH
             Group Name: BASE
             Simulation: 010-YR
              Node Name: DITCH SOUTH
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
   Spec Time Inc (min): 7.33
   Comp Time Inc (min): 5.00
         Rainfall File: Scsiii
  Rainfall Amount (in): 6.520
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 55.00
      Time Shift (hrs): 0.00
             Area (ac): 97.550
  Vol of Unit Hyd (in): 1.000
          Curve Number: 84.000
              DCIA (%): 0.000

         Time Max (hrs): 12.67
         Flow Max (cfs): 162.45
     Runoff Volume (in): 4.686
    Runoff Volume (ft3): 1659256


--------------------------------------------------------------------------------

             Basin Name: B-EX LAG
             Group Name: BASE
             Simulation: 025-YR
              Node Name: EX LAG
             Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
   Spec Time Inc (min): 2.80
   Comp Time Inc (min): 2.80
         Rainfall File: Scsiii
  Rainfall Amount (in): 8.110
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 21.00
      Time Shift (hrs): 0.00
             Area (ac): 113.390
  Vol of Unit Hyd (in): 1.001
```


Packet Pg. 204
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
           Curve Number: 93.000
               DCIA (%): 0.000

         Time Max (hrs): 12.32
         Flow Max (cfs): 461.26
     Runoff Volume (in): 7.274
    Runoff Volume (ft3): 2994025


--------------------------------------------------------------------------------

             Basin Name: B-L1
             Group Name: BASE
             Simulation: 025-YR
              Node Name: L1
             Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
   Spec Time Inc (min): 2.67
   Comp Time Inc (min): 2.67
         Rainfall File: Scsiii
  Rainfall Amount (in): 8.110
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 20.00
      Time Shift (hrs): 0.00
             Area (ac): 32.880
  Vol of Unit Hyd (in): 1.000
          Curve Number: 93.000
              DCIA (%): 0.000

         Time Max (hrs): 12.31
         Flow Max (cfs): 136.24
     Runoff Volume (in): 7.275
    Runoff Volume (ft3): 868292


--------------------------------------------------------------------------------

             Basin Name: B2
             Group Name: BASE
             Simulation: 025-YR
              Node Name: Small Lagoon
             Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
   Spec Time Inc (min): 3.20
   Comp Time Inc (min): 3.20
         Rainfall File: Scsiii
  Rainfall Amount (in): 8.110
  Storm Duration (hrs): 24.00
                Status: Onsite
```


Packet Pg. 205
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
     Time of Conc (min): 24.00
       Time Shift (hrs): 0.00
               Area (ac): 8.010
   Vol of Unit Hyd (in): 1.000
           Curve Number: 92.000
                DCIA (%): 0.000

         Time Max (hrs): 12.32
        Flow Max (cfs): 30.39
     Runoff Volume (in): 7.155
    Runoff Volume (ft3): 208054


--------------------------------------------------------------------------------

              Basin Name: BASIN BC OFF
              Group Name: BASE
              Simulation: 025-YR
               Node Name: Outfall South
              Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 19.47
    Comp Time Inc (min): 5.00
          Rainfall File: Scsiii
   Rainfall Amount (in): 8.110
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 146.00
       Time Shift (hrs): 0.00
               Area (ac): 138.870
   Vol of Unit Hyd (in): 1.000
           Curve Number: 76.000
                DCIA (%): 0.000

         Time Max (hrs): 13.83
        Flow Max (cfs): 131.13
     Runoff Volume (in): 5.257
    Runoff Volume (ft3): 2649858


--------------------------------------------------------------------------------

              Basin Name: DITCH NORTH
              Group Name: BASE
              Simulation: 025-YR
               Node Name: DITCH NORTH
              Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 4.80
    Comp Time Inc (min): 4.80
```


Packet Pg. 206
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
         Rainfall File: Scsiii
   Rainfall Amount (in): 8.110
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 36.00
       Time Shift (hrs): 0.00
              Area (ac): 49.250
   Vol of Unit Hyd (in): 1.000
          Curve Number: 84.000
              DCIA (%): 0.000

        Time Max (hrs): 12.48
        Flow Max (cfs): 139.25
     Runoff Volume (in): 6.204
    Runoff Volume (ft3): 1109052


--------------------------------------------------------------------------------

            Basin Name: DITCH SOUTH
            Group Name: BASE
            Simulation: 025-YR
             Node Name: DITCH SOUTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
    Spec Time Inc (min): 7.33
    Comp Time Inc (min): 5.00
         Rainfall File: Scsiii
   Rainfall Amount (in): 8.110
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 55.00
       Time Shift (hrs): 0.00
              Area (ac): 97.550
   Vol of Unit Hyd (in): 1.000
          Curve Number: 84.000
              DCIA (%): 0.000

        Time Max (hrs): 12.67
        Flow Max (cfs): 213.51
     Runoff Volume (in): 6.201
    Runoff Volume (ft3): 2195973


--------------------------------------------------------------------------------

            Basin Name: B-EX LAG
            Group Name: BASE
            Simulation: 050-YR
             Node Name: EX LAG
            Basin Type: SCS Unit Hydrograph
```


Packet Pg. 207
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 2.80
    Comp Time Inc (min): 2.80
          Rainfall File: Scsiii
   Rainfall Amount (in): 9.450
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 21.00
       Time Shift (hrs): 0.00
              Area (ac): 113.390
   Vol of Unit Hyd (in): 1.001
           Curve Number: 93.000
               DCIA (%): 0.000

         Time Max (hrs): 12.32
         Flow Max (cfs): 541.10
     Runoff Volume (in): 8.606
    Runoff Volume (ft3): 3542182


--------------------------------------------------------------------------------

              Basin Name: B-L1
              Group Name: BASE
              Simulation: 050-YR
               Node Name: L1
              Basin Type: SCS Unit Hydrograph

        Unit Hydrograph: Uh323
          Peaking Fator: 323.0
    Spec Time Inc (min): 2.67
    Comp Time Inc (min): 2.67
          Rainfall File: Scsiii
   Rainfall Amount (in): 9.450
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 20.00
       Time Shift (hrs): 0.00
              Area (ac): 32.880
   Vol of Unit Hyd (in): 1.000
           Curve Number: 93.000
               DCIA (%): 0.000

         Time Max (hrs): 12.31
         Flow Max (cfs): 159.82
     Runoff Volume (in): 8.607
    Runoff Volume (ft3): 1027260


--------------------------------------------------------------------------------

              Basin Name: B2
              Group Name: BASE
```


Packet Pg. 208
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
            Simulation: 050-YR
             Node Name: Small Lagoon
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 3.20
  Comp Time Inc (min): 3.20
        Rainfall File: Scsiii
 Rainfall Amount (in): 9.450
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 24.00
     Time Shift (hrs): 0.00
            Area (ac): 8.010
 Vol of Unit Hyd (in): 1.000
        Curve Number: 92.000
            DCIA (%): 0.000

      Time Max (hrs): 12.32
      Flow Max (cfs): 35.73
   Runoff Volume (in): 8.485
  Runoff Volume (ft3): 246703


--------------------------------------------------------------------------------

            Basin Name: BASIN BC OFF
            Group Name: BASE
            Simulation: 050-YR
             Node Name: Outfall South
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 19.47
  Comp Time Inc (min): 5.00
        Rainfall File: Scsiii
 Rainfall Amount (in): 9.450
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 146.00
     Time Shift (hrs): 0.00
            Area (ac): 138.870
 Vol of Unit Hyd (in): 1.000
        Curve Number: 76.000
            DCIA (%): 0.000

      Time Max (hrs): 13.75
      Flow Max (cfs): 162.34
   Runoff Volume (in): 6.491
  Runoff Volume (ft3): 3272295
```


Packet Pg. 209
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

---

```
            Basin Name: DITCH NORTH
            Group Name: BASE
            Simulation: 050-YR
             Node Name: DITCH NORTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 4.80
  Comp Time Inc (min): 4.80
        Rainfall File: Scsiii
 Rainfall Amount (in): 9.450
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 36.00
     Time Shift (hrs): 0.00
            Area (ac): 49.250
 Vol of Unit Hyd (in): 1.000
        Curve Number: 84.000
            DCIA (%): 0.000

      Time Max (hrs): 12.48
      Flow Max (cfs): 166.97
   Runoff Volume (in): 7.498
  Runoff Volume (ft3): 1340491
```

```
            Basin Name: DITCH SOUTH
            Group Name: BASE
            Simulation: 050-YR
             Node Name: DITCH SOUTH
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
  Spec Time Inc (min): 7.33
  Comp Time Inc (min): 5.00
        Rainfall File: Scsiii
 Rainfall Amount (in): 9.450
 Storm Duration (hrs): 24.00
               Status: Onsite
   Time of Conc (min): 55.00
     Time Shift (hrs): 0.00
            Area (ac): 97.550
 Vol of Unit Hyd (in): 1.000
        Curve Number: 84.000
            DCIA (%): 0.000

      Time Max (hrs): 12.67
      Flow Max (cfs): 256.49
```


Packet Pg. 210
12.C.s
Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

```
     Runoff Volume (in): 7.496
    Runoff Volume (ft3): 2654233


--------------------------------------------------------------------------------

             Basin Name: B-EX LAG
             Group Name: BASE
             Simulation: 100-YR
              Node Name: EX LAG
             Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 2.80
    Comp Time Inc (min): 2.80
           Rainfall File: Scsiii
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 21.00
       Time Shift (hrs): 0.00
              Area (ac): 113.390
   Vol of Unit Hyd (in): 1.001
          Curve Number: 93.000
              DCIA (%): 0.000

        Time Max (hrs): 12.32
        Flow Max (cfs): 627.21
     Runoff Volume (in): 10.049
    Runoff Volume (ft3): 4136273


--------------------------------------------------------------------------------

             Basin Name: B-L1
             Group Name: BASE
             Simulation: 100-YR
              Node Name: L1
             Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 2.67
    Comp Time Inc (min): 2.67
           Rainfall File: Scsiii
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 20.00
       Time Shift (hrs): 0.00
              Area (ac): 32.880
   Vol of Unit Hyd (in): 1.000
          Curve Number: 93.000
```


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```
               DCIA (%): 0.000

         Time Max (hrs): 12.31
         Flow Max (cfs): 185.25
     Runoff Volume (in): 10.050
    Runoff Volume (ft3): 1199550


--------------------------------------------------------------------------------

             Basin Name: B2
             Group Name: BASE
             Simulation: 100-YR
              Node Name: Small Lagoon
             Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
    Spec Time Inc (min): 3.20
    Comp Time Inc (min): 3.20
          Rainfall File: Scsiii
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 24.00
       Time Shift (hrs): 0.00
               Area (ac): 8.010
   Vol of Unit Hyd (in): 1.000
           Curve Number: 92.000
               DCIA (%): 0.000

         Time Max (hrs): 12.32
         Flow Max (cfs): 41.48
     Runoff Volume (in): 9.926
    Runoff Volume (ft3): 288610


--------------------------------------------------------------------------------

             Basin Name: BASIN BC OFF
             Group Name: BASE
             Simulation: 100-YR
              Node Name: Outfall South
             Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh323
         Peaking Fator: 323.0
    Spec Time Inc (min): 19.47
    Comp Time Inc (min): 5.00
          Rainfall File: Scsiii
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 146.00
```


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```
       Time Shift (hrs): 0.00
              Area (ac): 138.870
   Vol of Unit Hyd (in): 1.000
           Curve Number: 76.000
               DCIA (%): 0.000

         Time Max (hrs): 13.75
        Flow Max (cfs): 196.45
     Runoff Volume (in): 7.851
    Runoff Volume (ft3): 3957714


--------------------------------------------------------------------------------

             Basin Name: DITCH NORTH
             Group Name: BASE
             Simulation: 100-YR
              Node Name: DITCH NORTH
             Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 4.80
    Comp Time Inc (min): 4.80
          Rainfall File: Scsiii
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 36.00
       Time Shift (hrs): 0.00
              Area (ac): 49.250
   Vol of Unit Hyd (in): 1.000
           Curve Number: 84.000
               DCIA (%): 0.000

         Time Max (hrs): 12.48
        Flow Max (cfs): 196.85
     Runoff Volume (in): 8.910
    Runoff Volume (ft3): 1592928


--------------------------------------------------------------------------------

             Basin Name: DITCH SOUTH
             Group Name: BASE
             Simulation: 100-YR
              Node Name: DITCH SOUTH
             Basin Type: SCS Unit Hydrograph

         Unit Hydrograph: Uh323
           Peaking Fator: 323.0
    Spec Time Inc (min): 7.33
    Comp Time Inc (min): 5.00
          Rainfall File: Scsiii
```


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```
   Rainfall Amount (in): 10.900
   Storm Duration (hrs): 24.00
                 Status: Onsite
     Time of Conc (min): 55.00
       Time Shift (hrs): 0.00
              Area (ac): 97.550
   Vol of Unit Hyd (in): 1.000
           Curve Number: 84.000
                DCIA (%): 0.000

         Time Max (hrs): 12.67
         Flow Max (cfs): 302.84
    Runoff Volume (in): 8.907
   Runoff Volume (ft3): 3154069
```


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Rice Hope Lakeside Phases 20-23 & 29A
BASIN MAX REPORT - Post Development

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
002-YR	B-EX LAG	BASE	12.32	234.15	3.552	1462210
005-YR	B-EX LAG	BASE	12.32	303.95	4.681	1926794
010-YR	B-EX LAG	BASE	12.32	366.03	5.698	2345344
025-YR	B-EX LAG	BASE	12.32	461.26	7.274	2994025
050-YR	B-EX LAG	BASE	12.32	541.10	8.606	3542182
100-YR	B-EX LAG	BASE	12.32	627.21	10.049	4136273
002-YR	B-L1	BASE	12.31	69.19	3.553	424057
005-YR	B-L1	BASE	12.31	89.80	4.682	558789
010-YR	B-L1	BASE	12.31	108.13	5.699	680171
025-YR	B-L1	BASE	12.31	136.24	7.275	868292
050-YR	B-L1	BASE	12.31	159.82	8.607	1027260
100-YR	B-L1	BASE	12.31	185.25	10.050	1199550
002-YR	B2	BASE	12.37	15.19	3.448	100259
005-YR	B2	BASE	12.32	19.86	4.571	132899
010-YR	B2	BASE	12.32	24.02	5.584	162353
025-YR	B2	BASE	12.32	30.39	7.155	208054
050-YR	B2	BASE	12.32	35.73	8.485	246703
100-YR	B2	BASE	12.32	41.48	9.926	288610

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
DITCH NORTH	BASE	002-YR	0.00	0.00	8.00	-7.9990	24877	12.50	60.58	0.00	-163.15
DITCH NORTH	BASE	005-YR	0.00	0.00	8.00	-7.9990	24877	12.42	105.10	0.00	-163.15
DITCH NORTH	BASE	025-YR	0.00	0.00	8.00	-7.9990	24877	12.42	138.03	0.00	-163.15
DITCH NORTH	BASE	050-YR	0.00	0.00	8.00	-7.9990	24877	12.42	165.71	0.00	-163.15
DITCH NORTH	BASE	100-YR	0.00	0.00	8.00	-7.9990	24877	12.42	195.57	0.00	-163.15
DITCH SOUTH	BASE	002-YR	0.00	0.00	8.00	-7.9990	2669	12.67	118.57	0.00	0.00
DITCH SOUTH	BASE	005-YR	0.00	0.00	8.00	-7.9990	2669	12.67	190.26	0.00	0.00
DITCH SOUTH	BASE	025-YR	0.00	0.00	8.00	-7.9990	2669	12.67	243.05	0.00	0.00
DITCH SOUTH	BASE	050-YR	0.00	0.00	8.00	-7.9990	2669	12.67	287.42	0.00	0.00
DITCH SOUTH	BASE	100-YR	0.00	0.00	8.00	-7.9990	2669	12.67	335.29	0.00	0.00
EX LAG	BASE	002-YR	15.54	12.75	18.00	-0.0050	1112229	12.33	244.16	10.73	26.45
EX LAG	BASE	005-YR	15.10	13.28	18.00	0.0050	1118396	12.33	378.57	15.20	44.09
EX LAG	BASE	025-YR	14.45	13.60	18.00	0.0050	1123182	12.33	475.26	14.58	64.69
EX LAG	BASE	050-YR	14.20	13.87	18.00	0.0050	1127435	12.33	556.09	14.33	80.02
EX LAG	BASE	100-YR	14.10	14.19	18.00	0.0050	1132196	12.33	643.20	14.23	94.89
L1	BASE	002-YR	13.43	13.20	18.00	-0.0287	145229	12.33	68.65	13.00	13.72
L1	BASE	005-YR	13.55	14.10	18.00	-0.0287	151515	12.33	107.23	13.10	17.75
L1	BASE	025-YR	13.63	14.78	18.00	-0.0287	156209	12.33	135.11	13.29	20.45
L1	BASE	050-YR	13.68	15.34	18.00	-0.0287	160167	12.33	158.47	13.40	22.58
L1	BASE	100-YR	13.75	15.96	18.00	-0.0286	164449	12.33	183.67	13.50	24.66
OUTFALL NORTH	BASE	002-YR	13.00	12.15	15.00	-0.0017	45415	0.00	-163.15	0.00	0.00
OUTFALL NORTH	BASE	005-YR	13.00	12.64	15.00	-0.0025	48031	0.00	-163.15	0.00	0.00
OUTFALL NORTH	BASE	025-YR	13.00	12.88	15.00	-0.0028	49313	0.00	-163.15	0.00	0.00
OUTFALL NORTH	BASE	050-YR	13.00	13.03	15.00	-0.0031	50114	0.00	-163.15	0.00	0.00
OUTFALL NORTH	BASE	100-YR	13.00	13.20	15.00	-0.0033	51022	0.00	-163.15	0.00	0.00
Outfall South	BASE	002-YR	0.00	11.00	18.00	0.0000	0	13.91	48.21	0.00	0.00
Outfall South	BASE	005-YR	0.00	11.00	18.00	0.0000	0	13.91	108.87	0.00	0.00
Outfall South	BASE	025-YR	0.00	11.00	18.00	0.0000	0	13.83	167.49	0.00	0.00
Outfall South	BASE	050-YR	0.00	11.00	18.00	0.0000	0	13.75	214.19	0.00	0.00
Outfall South	BASE	100-YR	0.00	11.00	18.00	0.0000	0	13.75	262.92	0.00	0.00
PIPE XING	BASE	002-YR	0.00	0.00	18.00	-7.9990	474	0.00	0.00	0.00	0.00
PIPE XING	BASE	005-YR	0.00	0.00	18.00	-7.9990	474	0.00	0.00	0.00	0.00
PIPE XING	BASE	025-YR	0.00	0.00	18.00	-7.9990	474	0.00	0.00	0.00	0.00
PIPE XING	BASE	050-YR	0.00	0.00	18.00	-7.9990	474	0.00	0.00	0.00	0.00
PIPE XING	BASE	100-YR	0.00	0.00	18.00	-7.9990	474	0.00	0.00	0.00	0.00
Small Lagoon	BASE	002-YR	15.54	12.76	18.00	0.0050	36700	12.33	7.24	0.00	0.00
Small Lagoon	BASE	005-YR	15.05	13.25	18.00	0.0048	38388	14.90	16.27	15.05	16.26
Small Lagoon	BASE	025-YR	14.06	13.43	18.00	0.0047	39649	13.95	36.48	14.06	36.45
Small Lagoon	BASE	050-YR	13.62	13.54	18.00	0.0048	40448	13.54	52.02	13.62	51.95
Small Lagoon	BASE	100-YR	13.43	13.63	18.00	0.0049	41148	13.37	67.16	13.43	67.09

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SECTION 5:

EXHIBITS

Attachment: LAKESIDE AT RICE HOPE PH 30-23, 29A SPECIFIC SITE PLAN DEC 2021 - Drainage Report 9.1.21 (2575 : Site Plan Review

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Planning/Zoning Item
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2577)

DOC ID: 2577

Subdivision Application submitted by Jason Bryant, P.E., Pittman Engineering, Co., on behalf of Bald Eagle Partners for PIN #'s 7-0906-04-052 and 7-0906-04-063 (Lakeside Blvd) located in a M-P-O (Master Plan Overlay) Zoning District for a Preliminary Plat of a Major Subdivision (Lakeside at Rice Hope Phase 23) for the purpose of Single-Family Homes

Issue/Item: Subdivision Application submitted by Jason Bryant, P.E., Pittman Engineering, Co., on behalf of Bald Eagle Partners for PIN #'s 7-0906-04-052 and 7-0906-04-063 (Lakeside Blvd) located in a M-P-O (Master Plan Overlay) Zoning District for a Preliminary Plat of a Major Subdivision (Lakeside at Rice Hope Phase 23) for the purpose of Single-Family Homes

Background: This is the Preliminary Plat submittal for Lakeside Phase 23 of the Rice Hope Subdivision. Lakeside Phase 23 includes thirty-nine (39) single family lots on approximately 3.49 Acres.

Facts and Findings: The application appears to be complete. The Subdivision will be connected to City water and sewer utilities and will include new roads.

Funding: N/A

Recommendation: The Planning Commission will hear this application on Monday, December 13, 2021 at 6:30 PM.

ATTACHMENTS:

- LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (PDF)
- LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Preliminary Plat (PDF)
- LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Timeline (DOCX)

210412

SUBDIVISION APPLICATION FORM FOR THE CITY OF PORT WENTWORTH

RECEIVED
OCT 01 2021
BY: NDC

Application Form Required

This application form is to accompany **all** subdivisions submitted for Port Wentworth Planning Commission review and is to be filled out in its **entirety**. Plats/subdivisions not accompanied by this application will not be accepted for processing. All subdivisions with their completed applications must be received by the City of Port Wentworth at least 20 business days prior to the Planning Commission meeting at which they are to be considered. Revisions to a subdivision under review by the Port Wentworth Planning Commission must be received 10 business days prior to the Port Wentworth Planning Commission at which each subdivision is scheduled to be heard.

Subdivision Name: Rice Hope Lakeside Phase 23

Location: Lakeside Blvd., Port Wentworth, GA 31407

Number of Lots: 39

Number of Acres: 3.49

PIN #: 70906 04052, 70906 04063

Current Zoning: M-P-O

Type of Subdivision: (Check applicable blanks from each column)

A.
- ____ Sketch Plan
- ____ Master Plan
- X Preliminary Plat
- ____ Final Plat
- ____ Revision to a Recorded Plat

B.
- X Major Subdivision (4 or more lots or a new road)
- ____ Minor Subdivision (3 or less lots & no new road)

Purpose of Subdivision:

- X Single-Family
- ____ Multi-Family
- ____ Retail
- ____ Other Business
- ____ Industrial
- ____ Institutional
- ____ Other
- ____ Sign

Variances: (List all variances being requested)

None

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23

Georgia DOT Review

In all applications in which property being subdivided lies along a State Highway or access is needed from a State Highway, all applicants are required to submit a plat to the Georgia Department of Transportation for review. The subdivision application will not be considered by the Port Wentworth Planning Commission until the Georgia Department of Transportation has commented on the subdivision. The comments must accompany the application.

Previous Submittal

Has this tract of land being proposed for subdividing been submitted to the Port Wentworth Planning Commission under a different subdivision name?

Yes _____ No ___X___

If yes, what name? _____

Date Submitted: _____ PWPC File No: _____

Number of Required Prints

All submittals, regardless of type, shall include fifteen (15) prints. **Final Plats must include a copy of the plat scanned to a CD along with the fifteen (15) printed copies. Stamp must be in contrasting ink.**

Statements as to Covenants/Deed Restrictions: (Check One)

_____ A copy of all existing deed restrictions or subdivision covenants applicable to this property are attached.

___X___ There are no added restrictions or subdivision covenants on this property.

Contact Person (s): (Type or Print Legibly)

Engineer/Surveyor: Pittman Engineering Attn: Mr. Jason Bryant, P.E.

Address: 2591 U.S. Hwy 17 Suite 303 Zip Code: 31324

Phone #: (912) 445-0578 Fax #: n/a

Owner: Bald Eagle Partners Attn: Mr. Scott DeCain

Address: 4800 Hampden Lane, Suite 200, Bethesda, MD Zip Code: 20814

Phone #: (571) 426-4310 Fax #: n/a

Date of Submittal: 8/01/2021

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23

Please list all property owners that are adjacent to the parcel to be subdivided including those across the public right-of-way:

See attached.

Certifications

1. I hereby certify that this proposed subdivision/plan does not violate any covenants or deed restrictions currently in effect for the property being subdivided.

2. I hereby certify that all taxes applicable to this property have been paid and that there are no delinquent taxes outstanding.

3. I hereby certify that I am the owner of the property being proposed for subdivision.

4. I hereby certify that all the information pertained in this application is true and correct.

Signature of Owner Scott DeCain

Comments: Place any pertinent comments you wish to make in the following space:

Submit this form along with the proposed subdivision and any accompanying information to:

CITY OF PORT WENTWORTH
7224 GA HIGHWAY 21
PORT WENTWORTH, GEORGIA 31407

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00329081 10/08/2021 10:54 AM
OPER: ME TERM: 011
REF#: CK 1191801

TRAN: 112.0000 BLDG PERMIT
210409 4,016.00CR
BEP RICE HOPE LLC
7-0906-04-042
I-SUBDIV 4,016.00CR
210410 2,866.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 2,866.00CR
210411 4,216.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 4,216.00CR
210412 2,416.00CR
BEP RICE HOPE LLC
7-0906-04-052, 063
I-SUBDIV 2,416.00CR
210413 52.00CR
BEP RICE HOPE LLC
7-0906-04-054,063
I-SUBDIV 52.00CR

TENDERED: 13,566.00 CHECK
APPLIED: 13,566.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00329080 10/08/2021 10:53 AM
OPER: ME TERM: 011
REF#: CK 2208

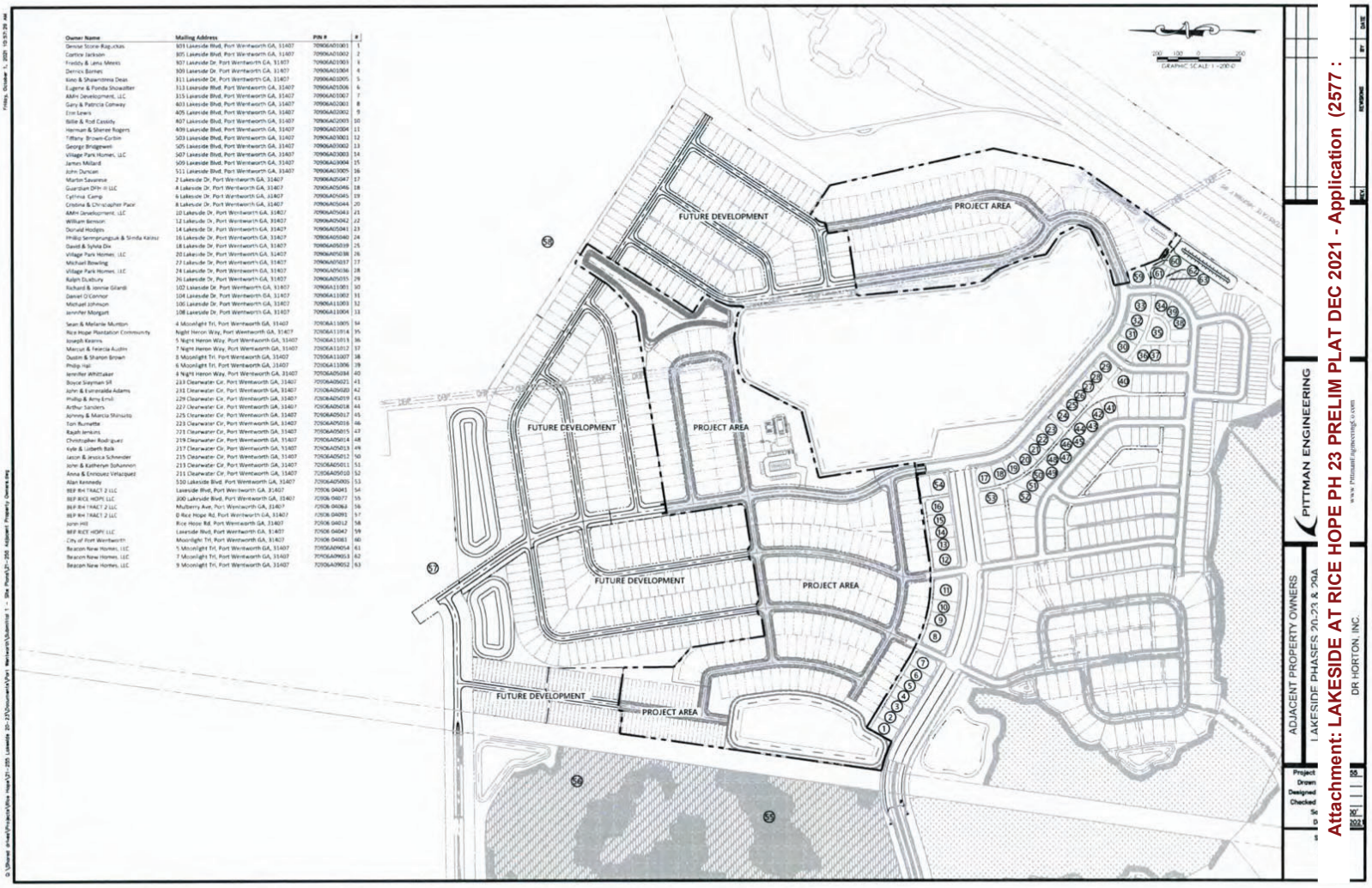
TRAN: 112.0000 BLDG PERMIT
210409 50.00CR
BEP RICE HOPE LLC
7-0906-04-042
I-SUBDIV 50.00CR
210410 50.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 50.00CR
210411 50.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 50.00CR
210413 50.00CR
BEP RICE HOPE LLC
7-0906-04-054,063
I-SUBDIV 50.00CR

TENDERED: 200.00 CHECK
APPLIED: 200.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23



Owner Name	Mailing Address	PIN #	#
Denise Stone-Rajuckas	803 Lakeside Blvd, Port Wentworth GA, 31407	709060A01001	1
Cortice Jackson	805 Lakeside Blvd, Port Wentworth GA, 31407	709060A01002	2
Freddy & Lena Meeks	807 Lakeside Dr, Port Wentworth GA, 31407	709060A01003	3
Derrick Barnes	809 Lakeside Dr, Port Wentworth GA, 31407	709060A01004	4
Kino & Shawntrina Deas	811 Lakeside Dr, Port Wentworth GA, 31407	709060A01005	5
Eugene & Fonda Showalter	313 Lakeside Blvd, Port Wentworth GA, 31407	709060A01006	6
AMH Development, LLC	315 Lakeside Blvd, Port Wentworth GA, 31407	709060A01007	7
Gary & Patricia Conway	403 Lakeside Blvd, Port Wentworth GA, 31407	709060A02003	8
Erin Lewis	405 Lakeside Blvd, Port Wentworth GA, 31407	709060A02002	9
Billie & Rod Cassidy	407 Lakeside Blvd, Port Wentworth GA, 31407	709060A02003	10
Herman & Sharee Rogers	409 Lakeside Blvd, Port Wentworth GA, 31407	709060A02004	11
Tiffany Brown-Corbin	503 Lakeside Blvd, Port Wentworth GA, 31407	709060A03001	12
George Bridgewell	505 Lakeside Blvd, Port Wentworth GA, 31407	709060A03002	13
Village Park Homes, LLC	507 Lakeside Blvd, Port Wentworth GA, 31407	709060A03003	14
James Millard	509 Lakeside Blvd, Port Wentworth GA, 31407	709060A03004	15
John Duncan	511 Lakeside Blvd, Port Wentworth GA, 31407	709060A03005	16
Martin Savanna	2 Lakeside Dr, Port Wentworth GA, 31407	709060A05047	17
Guardian DFH-II LLC	4 Lakeside Dr, Port Wentworth GA, 31407	709060A05046	18
Cynthia Camp	6 Lakeside Dr, Port Wentworth GA, 31407	709060A05045	19
Cristina & Christopher Pace	8 Lakeside Dr, Port Wentworth GA, 31407	709060A05044	20
AMH Development, LLC	10 Lakeside Dr, Port Wentworth GA, 31407	709060A05043	21
William Benson	12 Lakeside Dr, Port Wentworth GA, 31407	709060A05042	22
Donald Hodges	14 Lakeside Dr, Port Wentworth GA, 31407	709060A05041	23
Phillip Semngungguk & Simda Kaissu	16 Lakeside Dr, Port Wentworth GA, 31407	709060A05040	24
David & Sylvia Dix	18 Lakeside Dr, Port Wentworth GA, 31407	709060A05039	25
Village Park Homes, LLC	20 Lakeside Dr, Port Wentworth GA, 31407	709060A05038	26
Michael Bowling	22 Lakeside Dr, Port Wentworth GA, 31407	709060A05037	27
Village Park Homes, LLC	24 Lakeside Dr, Port Wentworth GA, 31407	709060A05036	28
Ralph Duxbury	26 Lakeside Dr, Port Wentworth GA, 31407	709060A05035	29
Richard & Jennie Gilardi	102 Lakeside Dr, Port Wentworth GA, 31407	709061A11001	30
Daniel O'Connor	104 Lakeside Dr, Port Wentworth GA, 31407	709061A11002	31
Michael Johnson	106 Lakeside Dr, Port Wentworth GA, 31407	709061A11003	32
Jennifer Morgan	108 Lakeside Dr, Port Wentworth GA, 31407	709061A11004	33
Sean & Melanie Mumon	4 Moonlight Tri, Port Wentworth GA, 31407	709061A11005	34
Rice Hope Plantation Community	Night Heron Way, Port Wentworth GA, 31407	709061A11014	35
Joseph Kearns	5 Night Heron Way, Port Wentworth GA, 31407	709061A11013	36
Marcus & Felecia Austin	7 Night Heron Way, Port Wentworth GA, 31407	709061A11012	37
Dustin & Sharon Brown	8 Moonlight Tri, Port Wentworth GA, 31407	709061A11007	38
Philip Hall	6 Moonlight Tri, Port Wentworth GA, 31407	709061A11006	39
Jennifer Whittaker	4 Night Heron Way, Port Wentworth GA, 31407	709060A05044	40
Bryce Stayman SR	233 Clearwater Cir, Port Wentworth GA, 31407	709060A05021	41
John & Esmeralda Adams	231 Clearwater Cir, Port Wentworth GA, 31407	709060A05020	42
Phillip & Amy Emil	229 Clearwater Cir, Port Wentworth GA, 31407	709060A05019	43
Arthur Sanders	227 Clearwater Cir, Port Wentworth GA, 31407	709060A05018	44
Johnny & Marcia Shinsato	225 Clearwater Cir, Port Wentworth GA, 31407	709060A05017	45
Tori Burnette	223 Clearwater Cir, Port Wentworth GA, 31407	709060A05016	46
Kaylin Jenkins	221 Clearwater Cir, Port Wentworth GA, 31407	709060A05015	47
Christopher Rodriguez	219 Clearwater Cir, Port Wentworth GA, 31407	709060A05014	48
Kyle & Lisbeth Bak	217 Clearwater Cir, Port Wentworth GA, 31407	709060A05013	49
Jason & Jessica Schneider	215 Clearwater Cir, Port Wentworth GA, 31407	709060A05012	50
John & Katheryn Johnnon	213 Clearwater Cir, Port Wentworth GA, 31407	709060A05011	51
Anna & Enriquez Velazquez	211 Clearwater Cir, Port Wentworth GA, 31407	709060A05010	52
Alan Kennedy	530 Lakeside Blvd, Port Wentworth GA, 31407	709060A05003	53
BEP RH TRACT 2 LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04041	54
BEP RICE HOPE LLC	300 Lakeside Blvd, Port Wentworth GA, 31407	70906 04077	55
BEP RH TRACT 2 LLC	Mulberry Ave, Port Wentworth GA, 31407	70906 04062	56
BEP RH TRACT 2 LLC	0 Rice Hope Rd, Port Wentworth GA, 31407	70906 04093	57
John Hill	Rice Hope Rd, Port Wentworth GA, 31407	70906 04012	58
BEP RICE HOPE LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04047	59
City of Port Wentworth	Moonlight Tri, Port Wentworth GA, 31407	70906 04081	60
Beacon New Homes, LLC	5 Moonlight Tri, Port Wentworth GA, 31407	709060A09054	61
Beacon New Homes, LLC	7 Moonlight Tri, Port Wentworth GA, 31407	709060A09053	62
Beacon New Homes, LLC	9 Moonlight Tri, Port Wentworth GA, 31407	709060A09052	63

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 :

RICE HOPE LAKESIDE
PHASES 20-23 &29-A
ADJACENT PROPERTY OWNERS LIST

Owner Name	Mailing Address	PIN #	#
Denise Stone-Raguckas	303 Lakeside Blvd, Port Wentworth GA, 31407	70906A01001	1
Cortice Jackson	305 Lakeside Blvd, Port Wentworth GA, 31407	70906A01002	2
Freddy & Lena Meeks	307 Lakeside Dr, Port Wentworth GA, 31407	70906A01003	3
Derrick Barnes	309 Lakeside Dr, Port Wentworth GA, 31407	70906A01004	4
Kino & Shawndreia Deas	311 Lakeside Dr, Port Wentworth GA, 31407	70906A01005	5
Eugene & Ponda Showalter	313 Lakeside Blvd, Port Wentworth GA, 31407	70906A01006	6
AMH Development, LLC	315 Lakeside Blvd, Port Wentworth GA, 31407	70906A01007	7
Gary & Patricia Conway	403 Lakeside Blvd, Port Wentworth GA, 31407	70906A02001	8
Erin Lewis	405 Lakeside Blvd, Port Wentworth GA, 31407	70906A02002	9
Billie & Rod Cassidy	407 Lakeside Blvd, Port Wentworth GA, 31407	70906A02003	10
Herman & Sheree Rogers	409 Lakeside Blvd, Port Wentworth GA, 31407	70906A02004	11
Tiffany Brown-Corbin	503 Lakeside Blvd, Port Wentworth GA, 31407	70906A03001	12
George Bridgewell	505 Lakeside Blvd, Port Wentworth GA, 31407	70906A03002	13
Village Park Homes, LLC	507 Lakeside Blvd, Port Wentworth GA, 31407	70906A03003	14
James Millard	509 Lakeside Blvd, Port Wentworth GA, 31407	70906A03004	15
John Duncan	511 Lakeside Blvd, Port Wentworth GA, 31407	70906A03005	16
Martin Savarese	2 Lakeside Dr, Port Wentworth GA, 31407	70906A05047	17
Guardian DFH III LLC	4 Lakeside Dr, Port Wentworth GA, 31407	70906A05046	18
Cythnia Camp	6 Lakeside Dr, Port Wentworth GA, 31407	70906A05045	19
Cristina & Christopher Pace	8 Lakeside Dr, Port Wentworth GA, 31407	70906A05044	20
AMH Development, LLC	10 Lakeside Dr, Port Wentworth GA, 31407	70906A05043	21
William Benson	12 Lakeside Dr, Port Wentworth GA, 31407	70906A05042	22
Donald Hodges	14 Lakeside Dr, Port Wentworth GA, 31407	70906A05041	23
Phillip Sermprungsuk & Slinda Kalasz	16 Lakeside Dr, Port Wentworth GA, 31407	70906A05040	24
David & Sylvia Dix	18 Lakeside Dr, Port Wentworth GA, 31407	70906A05039	25
Village Park Homes, LLC	20 Lakeside Dr, Port Wentworth GA, 31407	70906A05038	26
Michael Bowling	22 Lakeside Dr, Port Wentworth GA, 31407	70906A05037	27
Village Park Homes, LLC	24 Lakeside Dr, Port Wentworth GA, 31407	70906A05036	28
Ralph Duxbury	26 Lakeside Dr, Port Wentworth GA, 31407	70906A05035	29
Richard & Jonnie Gilardi	102 Lakeside Dr, Port Wentworth GA, 31407	70906A11001	30
Daniel O'Connor	104 Lakeside Dr, Port Wentworth GA, 31407	70906A11002	31
Michael Johnson	106 Lakeside Dr, Port Wentworth GA, 31407	70906A11003	32
Jennifer Morgart	108 Lakeside Dr, Port Wentworth GA, 31407	70906A11004	33

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23

RICE HOPE LAKESIDE
PHASES 20-23 &29-A
ADJACENT PROPERTY OWNERS LIST

Sean & Melanie Munton	4 Moonlight Trl, Port Wentworth GA, 31407	70906A11005	34
Rice Hope Plantation Community	Night Heron Way, Port Wentworth GA, 31407	70906A11014	35
Joseph Kearns	5 Night Heron Way, Port Wentworth GA, 31407	70906A11013	36
Marcus & Felecia Austin	7 Night Heron Way, Port Wentworth GA, 31407	70906A11012	37
Dustin & Sharon Brown	8 Moonlight Trl, Port Wentworth GA, 31407	70906A11007	38
Philip Hall	6 Moonlight Trl, Port Wentworth GA, 31407	70906A11006	39
Jennifer Whittaker	4 Night Heron Way, Port Wentworth GA, 31407	70906A05034	40
Boyce Slayman SR	233 Clearwater Cir, Port Wentworth GA, 31407	70906A05021	41
John & Esmeralda Adams	231 Clearwater Cir, Port Wentworth GA, 31407	70906A05020	42
Phillip & Amy Emili	229 Clearwater Cir, Port Wentworth GA, 31407	70906A05019	43
Arthur Sanders	227 Clearwater Cir, Port Wentworth GA, 31407	70906A05018	44
Johnny & Marcia Shinsato	225 Clearwater Cir, Port Wentworth GA, 31407	70906A05017	45
Tori Burnette	223 Clearwater Cir, Port Wentworth GA, 31407	70906A05016	46
Rajah Jenkins	221 Clearwater Cir, Port Wentworth GA, 31407	70906A05015	47
Christopher Rodriguez	219 Clearwater Cir, Port Wentworth GA, 31407	70906A05014	48
Kyle & Lizbeth Balk	217 Clearwater Cir, Port Wentworth GA, 31407	70906A05013	49
Jason & Jessica Schneider	215 Clearwater Cir, Port Wentworth GA, 31407	70906A05012	50
John & Katheryn Bohannon	213 Clearwater Cir, Port Wentworth GA, 31407	70906A05011	51
Anna & Enriquez Velazquez	211 Clearwater Cir, Port Wentworth GA, 31407	70906A05010	52
Alan Kennedy	510 Lakeside Blvd, Port Wentworth GA, 31407	70906A05005	53
BEP RH TRACT 2 LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04041	54
BEP RICE HOPE LLC	300 Lakeside Blvd, Port Wentworth GA, 31407	70906 04077	55
BEP RH TRACT 2 LLC	Mulberry Ave, Port Wentworth GA, 31407	70906 04063	56
BEP RH TRACT 2 LLC	0 Rice Hope Rd, Port Wentworth GA, 31407	70906 04091	57
John Hill	Rice Hope Rd, Port Wentworth GA, 31407	70906 04012	58
BEP RICE HOPE LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04042	59
City of Port Wentworth	Moonlight Trl, Port Wentworth GA, 31407	70906 04081	60
Beacon New Homes, LLC	5 Moonlight Trl, Port Wentworth GA, 31407	70906A09054	61
Beacon New Homes, LLC	7 Moonlight Trl, Port Wentworth GA, 31407	70906A09053	62
Beacon New Homes, LLC	9 Moonlight Trl, Port Wentworth GA, 31407	70906A09052	63

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Application (2577 : Subdivision Application Lakeside Ph 23

RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE

NOTES:

1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 41,332 FEET OR BETTER, AN ANGULAR ERROR OF 07" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 54,832 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP PH TRACT 2 LLC (DEED BOOK 794 PAGE 549).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL 0020G, EFFECTIVE DATE 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 138.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 40 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TITLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-D
17. BUILDING SETBACKS BASED ON ZONING TEXT. RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

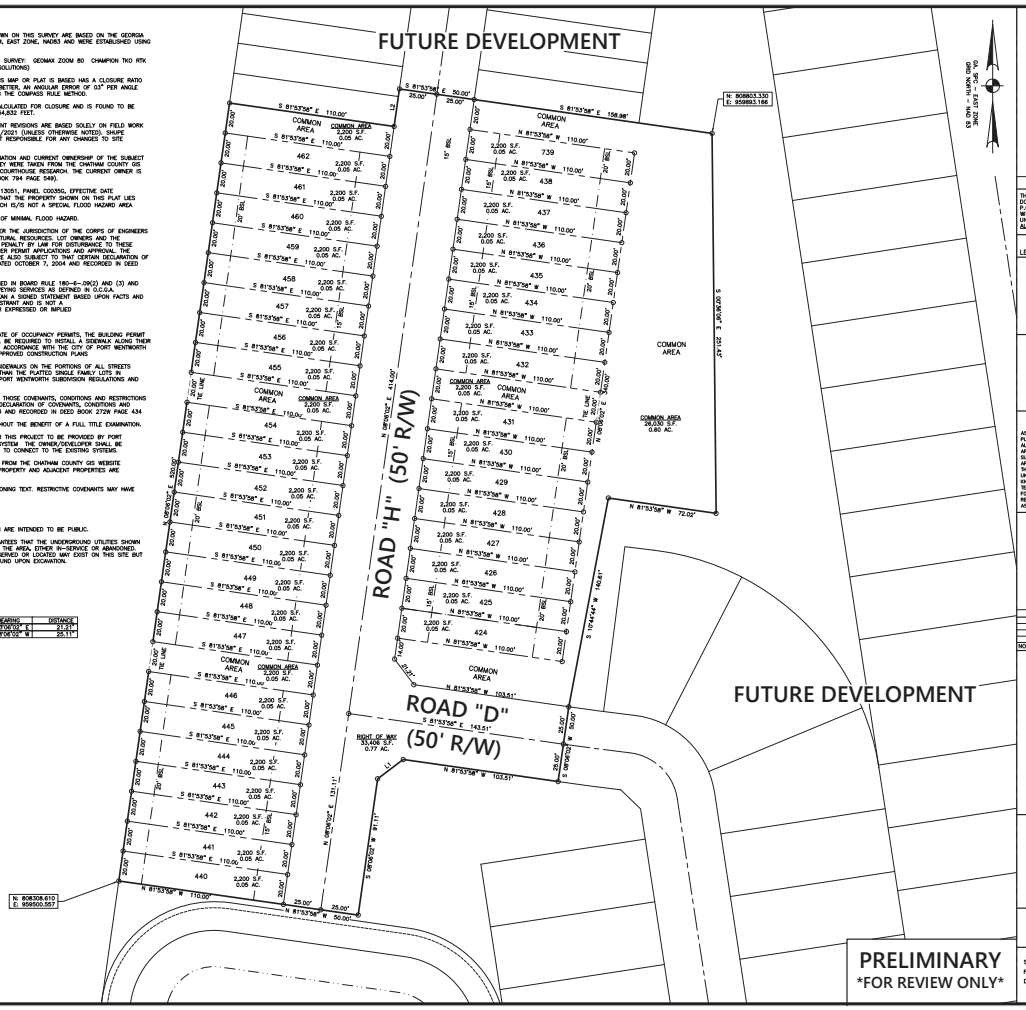
FRONT	20'
SIDE	0'
REAR	15'

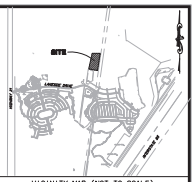
18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.

REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 6TH G.M. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 14P PAGE 178
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED IN PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 90B

LINE	BEARING	DISTANCE
L1	N 67°06'00" E	21.21'
L2	S 08°06'00" W	25.11'





VICINITY MAP (NOT TO SCALE)

THIS DOCUMENT AND ALL REPRODUCIBLE COPIES OF THIS DOCUMENT ARE THE PROPERTY OF SHUPE SURVEYING COMPANY, P.C. REPRODUCTION OF THIS DOCUMENT IS NOT PERMITTED WITHOUT WRITTEN CONSENT OF SHUPE SURVEYING COMPANY, P.C. UNLESS THIS DOCUMENT BECOMES A MATTER OF PUBLIC RECORD. ALTERATIONS TO THIS DOCUMENT ARE NOT PERMITTED.

LEGEND:

O	CIRS	1/2" CAPPED IRON REBAR SET (SSC PLS CSF 317)
D	CMS	CONCRETE MONUMENT SET
●	CIRF	CAPPED IRON REBAR FOUND
●	CIPF	CAPPED IRON PIPE FOUND
415		LOT NUMBER
#15		ADDRESS

AREA CHART

COMMON AREA	0.80 ACRES
RIGHT OF WAY	0.77 ACRES
LOTS	1.92 ACRES
TOTAL	3.49 ACRES

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (d) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATIONS, STAMPS, OR STATEMENTS HEREON. SUCH APPROVAL DOES NOT GUARANTEE THAT THE DESCRIPTION HEREON BY APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED LAND SURVEYOR THOMAS G. GAMMON

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 23 LOTS 424 THRU 462

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
100 CANAL STREET, SUITE 501
PINOLER, GA 31322
912-605-0060
CERTIFICATE OF AUTHORIZATION: LSF247

30 0 15 30 60

SCALE	1" = 30'	DRAWING DATE	09/09/2021
FILE	2143A	DRAWN BY	DM
DRAWING	2143A-1	CREW CHIEF	PM

SHEET 1 OF 1

PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DSC 2021 - Preliminary Plat (2877 : Subdivision Application Lakeside Ph 23 Preliminary Plat)

Project Timeline

7-0906-04-052, 063 – Lakeside Phase 23 – Preliminary Plat

Project Number 210412

Applicant: Ray Pittman (Pittman Engineering)

Review: Development Services – Omar Senati

- 10/1/2021—application received- complete
- 11/2/2021 – Omar sent email to Ray Pittman with review comments
- 11/26/2021 – Public hearing notice published in the Savannah Morning News
- 11/27/2021 – Public hearing notice letters mailed.

Attachment: LAKESIDE AT RICE HOPE PH 23 PRELIM PLAT DEC 2021 - Timeline (2577 : Subdivision Application Lakeside Ph 23 Preliminary

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Planning/Zoning Item
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2576)

DOC ID: 2576

Subdivision Application submitted by Jason Bryant, P.E., Pittman Engineering, Co., on behalf of Bald Eagle Partners for PIN #'s 7-0906-04-054 and 7-0906-04-063 (Lakeside Blvd) located in a M-P-O (Master Plan Overlay) Zoning District for a Preliminary Plat of a Major Subdivision (Lakeside at Rice Hope Phase 29A) for the purpose of Single-Family Homes

Issue/Item: Subdivision Application submitted by Jason Bryant, P.E., Pittman Engineering, Co., on behalf of Bald Eagle Partners for PIN #'s 7-0906-04-054 and 7-0906-04-063 (Lakeside Blvd) located in a M-P-O (Master Plan Overlay) Zoning District for a Preliminary Plat of a Major Subdivision (Lakeside at Rice Hope Phase 29A) for the purpose of Single-Family Homes

Background: This is the Preliminary Plat submittal for Lakeside Phase 29A of the Rice Hope Subdivision. Lakeside Phase 29A includes twenty-six (26) single family lots on approximately 4.53 Acres.

Facts and Findings: The application appears to be complete. The Subdivision will be connected to City water and sewer utilities and will include new roads.

Funding: N/A

Recommendation: The Planning Commission will hear this application on Monday, December 13, 2021 at 6:30 PM.

ATTACHMENTS:

- LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (PDF)
- LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Preliminary Plat (PDF)
- LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Timeline (DOCX)

210413

RECEIVED
OCT 01 2021
BY:

SUBDIVISION APPLICATION FORM
FOR THE
CITY OF PORT WENTWORTH

Application Form Required

This application form is to accompany **all** subdivisions submitted for Port Wentworth Planning Commission review and is to be filled out in its **entirety**. Plats/subdivisions not accompanied by this application will not be accepted for processing. All subdivisions with their completed applications must be received by the City of Port Wentworth at least 20 business days prior to the Planning Commission meeting at which they are to be considered. Revisions to a subdivision under review by the Port Wentworth Planning Commission must be received 10 business days prior to the Port Wentworth Planning Commission at which each subdivision is scheduled to be heard.

Subdivision Name: Rice Hope Lakeside Phase 29A

Location: Lakeside Blvd., Port Wentworth, GA 31407

Number of Lots: 26 Number of Acres: 4.53

PIN #: 70906 04054, 70906 04063 Current Zoning: M-P-O

Type of Subdivision: (Check applicable blanks from each column)

A.
- ____ Sketch Plan
- ____ Master Plan
- X Preliminary Plat
- ____ Final Plat
- ____ Revision to a Recorded Plat

B.
- X Major Subdivision (4 or more lots or a new road)
- ____ Minor Subdivision (3 or less lots & no new road)

Purpose of Subdivision:

- X Single-Family
- ____ Multi-Family
- ____ Retail
- ____ Other Business
- ____ Industrial
- ____ Institutional
- ____ Other
- ____ Sign

Variances: (List all variances being requested)

None

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (2576 : Subdivision Application Lakeside Ph 29A

Georgia DOT Review

In all applications in which property being subdivided lies along a State Highway or access is needed from a State Highway, all applicants are required to submit a plat to the Georgia Department of Transportation for review. The subdivision application will not be considered by the Port Wentworth Planning Commission until the Georgia Department of Transportation has commented on the subdivision. The comments must accompany the application.

Previous Submittal

Has this tract of land being proposed for subdividing been submitted to the Port Wentworth Planning Commission under a different subdivision name?

Yes _____ No ___X___

If yes, what name? _____

Date Submitted: _____ PWPC File No: _____

Number of Required Prints

All submittals, regardless of type, shall include fifteen (15) prints. **Final Plats must include a copy of the plat scanned to a CD along with the fifteen (15) printed copies. Stamp must be in contrasting ink.**

Statements as to Covenants/Deed Restrictions: (Check One)

_____ A copy of all existing deed restrictions or subdivision covenants applicable to this property are attached.

___X___ There are no added restrictions or subdivision covenants on this property.

Contact Person (s): (Type or Print Legibly)

Engineer/Surveyor: Pittman Engineering Attn: Mr. Jason Bryant, P.E.

Address: 2591 U.S. Hwy 17 Suite 303 Zip Code: 31324

Phone #: (912) 445-0578 Fax #: n/a

Owner: Bald Eagle Partners Attn: Mr. Scott DeCain

Address: 4800 Hampden Lane, Suite 200, Bethesda, MD Zip Code: 20814

Phone #: (571) 426-4310 Fax #: n/a

Date of Submittal: 8/01/2021

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (2576 : Subdivision Application Lakeside Ph 29A

Please list all property owners that are adjacent to the parcel to be subdivided including those across the public right-of-way:

See attached.

Certifications

1. I hereby certify that this proposed subdivision/plan does not violate any covenants or deed restrictions currently in effect for the property being subdivided.

2. I hereby certify that all taxes applicable to this property have been paid and that there are no delinquent taxes outstanding.

3. I hereby certify that I am the owner of the property being proposed for subdivision.

4. I hereby certify that all the information pertained in this application is true and correct.

Signature of Owner Scott DeCain

Comments: Place any pertinent comments you wish to make in the following space:

Submit this form along with the proposed subdivision and any accompanying information to:

CITY OF PORT WENTWORTH
7224 GA HIGHWAY 21
PORT WENTWORTH, GEORGIA 31407

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (2576 : Subdivision Application Lakeside Ph 29A

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00329081 10/08/2021 10:54 AM
OPER: ME TERM: 011
REF#: CK 1191801

TRAN: 112.0000 BLDG PERMIT
210409 4,016.00CR
BEP RICE HOPE LLC
7-0906-04-042
I-SUBDIV 4,016.00CR
210410 2,866.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 2,866.00CR
210411 4,216.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 4,216.00CR
210412 2,416.00CR
BEP RICE HOPE LLC
7-0906-04-052, 063
I-SUBDIV 2,416.00CR
210413 52.00CR
BEP RICE HOPE LLC
7-0906-04-054,063
I-SUBDIV 52.00CR

TENDERED: 13,566.00 CHECK
APPLIED: 13,566.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00329080 10/08/2021 10:53 AM
OPER: ME TERM: 011
REF#: CK 2208

TRAN: 112.0000 BLDG PERMIT
210409 50.00CR
BEP RICE HOPE LLC
7-0906-04-042
I-SUBDIV 50.00CR
210410 50.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 50.00CR
210411 50.00CR
BEP RICE HOPE LLC
7-0906-04-041,54,63
I-SUBDIV 50.00CR
210413 50.00CR
BEP RICE HOPE LLC
7-0906-04-054,063
I-SUBDIV 50.00CR

TENDERED: 200.00 CHECK
APPLIED: 200.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00331031 10/20/2021 1:58 PM
OPER: ME TERM: 011
REF#: CK 2215

TRAN: 112.0000 BLDG PERMIT
210413 1,664.00CR
BEP RICE HOPE LLC
7-0906-04-054,063
I-SUBDIV 1,664.00CR

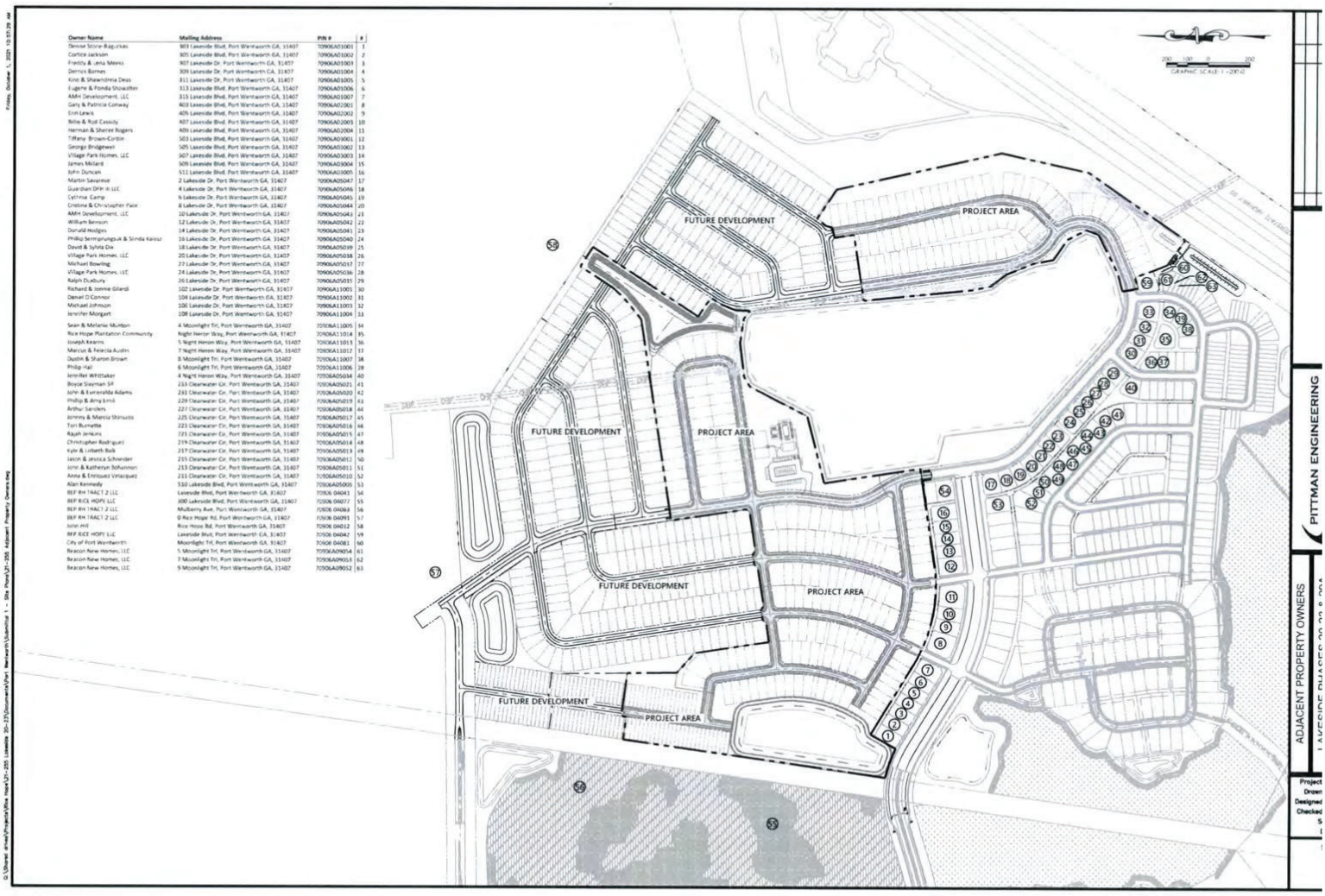
TENDERED: 1,664.00 CHECK
APPLIED: 1,664.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (2576 : Subdivision Application Lakeside Ph 29A

Owner Name	Mailing Address	PIN #	#
Denise Stone-Raguckas	303 Lakeside Blvd, Port Wentworth GA, 31407	70906A01001	1
Cortize Jackson	305 Lakeside Blvd, Port Wentworth GA, 31407	70906A01002	2
Freddy & Jena Meeks	307 Lakeside Dr, Port Wentworth GA, 31407	70906A01003	3
Derrick Barnes	309 Lakeside Dr, Port Wentworth GA, 31407	70906A01004	4
Kino & Shawondrea Deas	311 Lakeside Dr, Port Wentworth GA, 31407	70906A01005	5
Eugene & Fonda Showalter	313 Lakeside Blvd, Port Wentworth GA, 31407	70906A01006	6
AMH Development, LLC	315 Lakeside Blvd, Port Wentworth GA, 31407	70906A01007	7
Gary & Patricia Conway	403 Lakeside Blvd, Port Wentworth GA, 31407	70906A01001	8
Erin Lewis	405 Lakeside Blvd, Port Wentworth GA, 31407	70906A02002	9
Billie & Rod Cassidy	407 Lakeside Blvd, Port Wentworth GA, 31407	70906A02003	10
Herman & Sheree Rogers	409 Lakeside Blvd, Port Wentworth GA, 31407	70906A02004	11
Tiffany Brown-Corbin	503 Lakeside Blvd, Port Wentworth GA, 31407	70906A03001	12
George Bridgewel	505 Lakeside Blvd, Port Wentworth GA, 31407	70906A03002	13
Village Park Homes, LLC	507 Lakeside Blvd, Port Wentworth GA, 31407	70906A03003	14
James Mellard	509 Lakeside Blvd, Port Wentworth GA, 31407	70906A03004	15
John Duncan	511 Lakeside Blvd, Port Wentworth GA, 31407	70906A03005	16
Martin Savarese	2 Lakeside Dr, Port Wentworth GA, 31407	70906A05047	17
Guardian DFH II LLC	4 Lakeside Dr, Port Wentworth GA, 31407	70906A05046	18
Cythnia Camp	6 Lakeside Dr, Port Wentworth GA, 31407	70906A05045	19
Cristina & Christopher Pace	8 Lakeside Dr, Port Wentworth GA, 31407	70906A05044	20
AMH Development, LLC	10 Lakeside Dr, Port Wentworth GA, 31407	70906A05043	21
William Benson	12 Lakeside Dr, Port Wentworth GA, 31407	70906A05042	22
Donald Hodges	14 Lakeside Dr, Port Wentworth GA, 31407	70906A05041	23
Phillip Semprungpuk & Sinda Kaissy	16 Lakeside Dr, Port Wentworth GA, 31407	70906A05040	24
David & Sylvia Dix	18 Lakeside Dr, Port Wentworth GA, 31407	70906A05039	25
Village Park Homes, LLC	20 Lakeside Dr, Port Wentworth GA, 31407	70906A05038	26
Michael Bowling	23 Lakeside Dr, Port Wentworth GA, 31407	70906A05037	27
Village Park Homes, LLC	24 Lakeside Dr, Port Wentworth GA, 31407	70906A05036	28
Ralph Duxbury	26 Lakeside Dr, Port Wentworth GA, 31407	70906A05035	29
Richard & Jonnie Gilardi	102 Lakeside Dr, Port Wentworth GA, 31407	70906A11001	30
Daniel O'Connor	104 Lakeside Dr, Port Wentworth GA, 31407	70906A11002	31
Michael Johnson	106 Lakeside Dr, Port Wentworth GA, 31407	70906A11003	32
Jennifer Morgart	108 Lakeside Dr, Port Wentworth GA, 31407	70906A11004	33
Sean & Melanie Munton	4 Moonlight Trl, Port Wentworth GA, 31407	70906A11005	34
Rice Hope Plantation Community	Night Heron Way, Port Wentworth GA, 31407	70906A11014	35
Joseph Kearns	5 Night Heron Way, Port Wentworth GA, 31407	70906A11013	36
Marcus & Felecia Austin	7 Night Heron Way, Port Wentworth GA, 31407	70906A11012	37
Dustin & Sharon Brown	8 Moonlight Trl, Port Wentworth GA, 31407	70906A11007	38
Philip Hall	6 Moonlight Trl, Port Wentworth GA, 31407	70906A11006	39
Jennifer Whittaker	4 Night Heron Way, Port Wentworth GA, 31407	70906A05034	40
Bozie Sisyman SR	233 Clearwater Cir, Port Wentworth GA, 31407	70906A05021	41
John & Esmeralda Adams	231 Clearwater Cir, Port Wentworth GA, 31407	70906A05020	42
Phillip & Amy Emil	229 Clearwater Cir, Port Wentworth GA, 31407	70906A05019	43
Arthur Sanders	227 Clearwater Cir, Port Wentworth GA, 31407	70906A05018	44
Johnny & Marcia Shirouto	225 Clearwater Cir, Port Wentworth GA, 31407	70906A05017	45
Tori Burnette	223 Clearwater Cir, Port Wentworth GA, 31407	70906A05016	46
Raqib Jenkins	221 Clearwater Cir, Port Wentworth GA, 31407	70906A05015	47
Christopher Rodriguez	219 Clearwater Cir, Port Wentworth GA, 31407	70906A05014	48
Kyle & Lisbeth Balk	217 Clearwater Cir, Port Wentworth GA, 31407	70906A05013	49
Jason & Jessica Schneider	215 Clearwater Cir, Port Wentworth GA, 31407	70906A05012	50
John & Katheryn Johannori	213 Clearwater Cir, Port Wentworth GA, 31407	70906A05011	51
Anna & Enriquez Velazquez	211 Clearwater Cir, Port Wentworth GA, 31407	70906A05010	52
Alan Kennedy	510 Lakeside Blvd, Port Wentworth GA, 31407	70906A05005	53
BEP RH TRACT 2 LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04043	54
BEP RICE HOPE LLC	100 Lakeside Blvd, Port Wentworth GA, 31407	70906 04077	55
BEP RH TRACT 2 LLC	Mulberry Ave, Port Wentworth GA, 31407	70906 04063	56
BEP RH TRACT 2 LLC	0 Rice Hope Rd, Port Wentworth GA, 31407	70906 04093	57
John Hill	Rice Hope Rd, Port Wentworth GA, 31407	70906 04012	58
BEP RICE HOPE LLC	Lakeside Blvd, Port Wentworth GA, 31407	70906 04042	59
City of Port Wentworth	Moonlight Trl, Port Wentworth GA, 31407	70906 04081	60
Beacon New Homes, LLC	5 Moonlight Trl, Port Wentworth GA, 31407	70906A09054	61
Beacon New Homes, LLC	7 Moonlight Trl, Port Wentworth GA, 31407	70906A09053	62
Beacon New Homes, LLC	9 Moonlight Trl, Port Wentworth GA, 31407	70906A09052	63



Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Application (2576 :

RICE HOPE LAKESIDE
PHASES 20-23 &29-A
ADJACENT PROPERTY OWNERS LIST

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RESERVED FOR CLERK'S FILING INFORMATION

APPROVED BY THE CITY OF PORT WENTWORTH PLANNING COMMISSION

PLANNING COMMISSION CHAIRPERSON _____ DATE

APPROVED BY THE CITY ENGINEER, CITY PORT WENTWORTH

PORT WENTWORTH CITY ENGINEER _____ DATE

APPROVED BY THE MAYOR AND COUNCIL, CITY OF PORT WENTWORTH

MAYOR _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

COUNCIL MEMBER _____ DATE

ALL STREETS, RIGHT-OF-WAY, EASEMENTS AND ANY SITES FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE USES INTENDED.

PRINT OWNER / AGENT _____ SIGNATURE _____ DATE

NOTES:

1. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON THE GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 AND WERE ESTABLISHED USING RTK GPS WITH A VRS NETWORK.
2. FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 80 CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
3. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 30,881 FEET OR BETTER, AN ANGULAR ERROR OF 03" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 44,222 FEET.
5. THIS SURVEY AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 09/09/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
6. THE ADJOINING PROPERTY INFORMATION AND CURRENT OWNERSHIP OF THE SUBJECT PROPERTY SHOWN ON THIS SURVEY WERE TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG) AND COURTHOUSE RESEARCH. THE CURRENT OWNER IS BEP PH TRACT 2 L.L.C (DEED BOOK 794 PAGE 549).
7. ACCORDING TO F.I.R.M. MAP NO. 13051, PANEL, DATED: EFFECTIVE DATE: 08/16/2021, IT IS MY OPINION THAT THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN ZONE X (UNSHADED), WHICH IS/IS NOT A SPECIAL FLOOD HAZARD AREA

   ZONE X (UNSHADED) – AREAS OF MINIMAL FLOOD HAZARD.
8. FRESHWATER WETLANDS ARE UNDER THE JURISDICTION OF THE CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. THE WETLANDS ON THIS PROPERTY ARE ALSO SUBJECT TO THAT CERTAIN DECLARATION OF COVENANTS AND RESTRICTIONS DATED OCTOBER 7, 2004 AND RECORDED IN DEED BOOK 2771 PAGE 136.
9. THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED
10. THIS PLAT CONTAINS 26 LOTS
11. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY PERMITS, THE BUILDING PERMIT APPLICANTS FOR ALL LOTS SHALL BE REQUIRED TO INSTALL A SIDEWALK ALONG THEIR PROSPECTIVE ON ALL STREETS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
12. THE DEVELOPER SHALL INSTALL SIDEWALKS ON THE PORTIONS OF ALL STREETS ABUTTING ALL PROPERTY OTHER THAN THE PLATTED SINGLE FAMILY LOTS IN ACCORDANCE WITH THE CITY OF PORT WENTWORTH SUBDIVISION REGULATIONS AND APPROVED CONSTRUCTION PLANS
13. THIS SUBDIVISION IS SUBJECT TO THOSE COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS DATED 07/12/2004 AND RECORDED IN DEED BOOK 2729 PAGE 434
14. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A FULL TITLE EXAMINATION.
15. WATER AND SEWER SERVICES FOR THIS PROJECT TO BE PROVIDED BY PORT WENTWORTH WATER AND SEWER SYSTEM. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR IMPROVEMENTS TO CONNECT TO THE EXISTING SYSTEMS.
16. ZONING INFORMATION WAS TAKEN FROM THE CHATHAM COUNTY GIS WEBSITE (WWW.SAGIS.ORG). THE SUBJECT PROPERTY AND ADJACENT PROPERTIES ARE ZONED M-P-O
17. BUILDING SETBACKS BASED ON ZONING TEXT. RESTRICTIVE COVENANTS MAY HAVE MORE STRINGENT REQUIREMENTS.

FRONT	20'
SIDE	5
REAR	15'

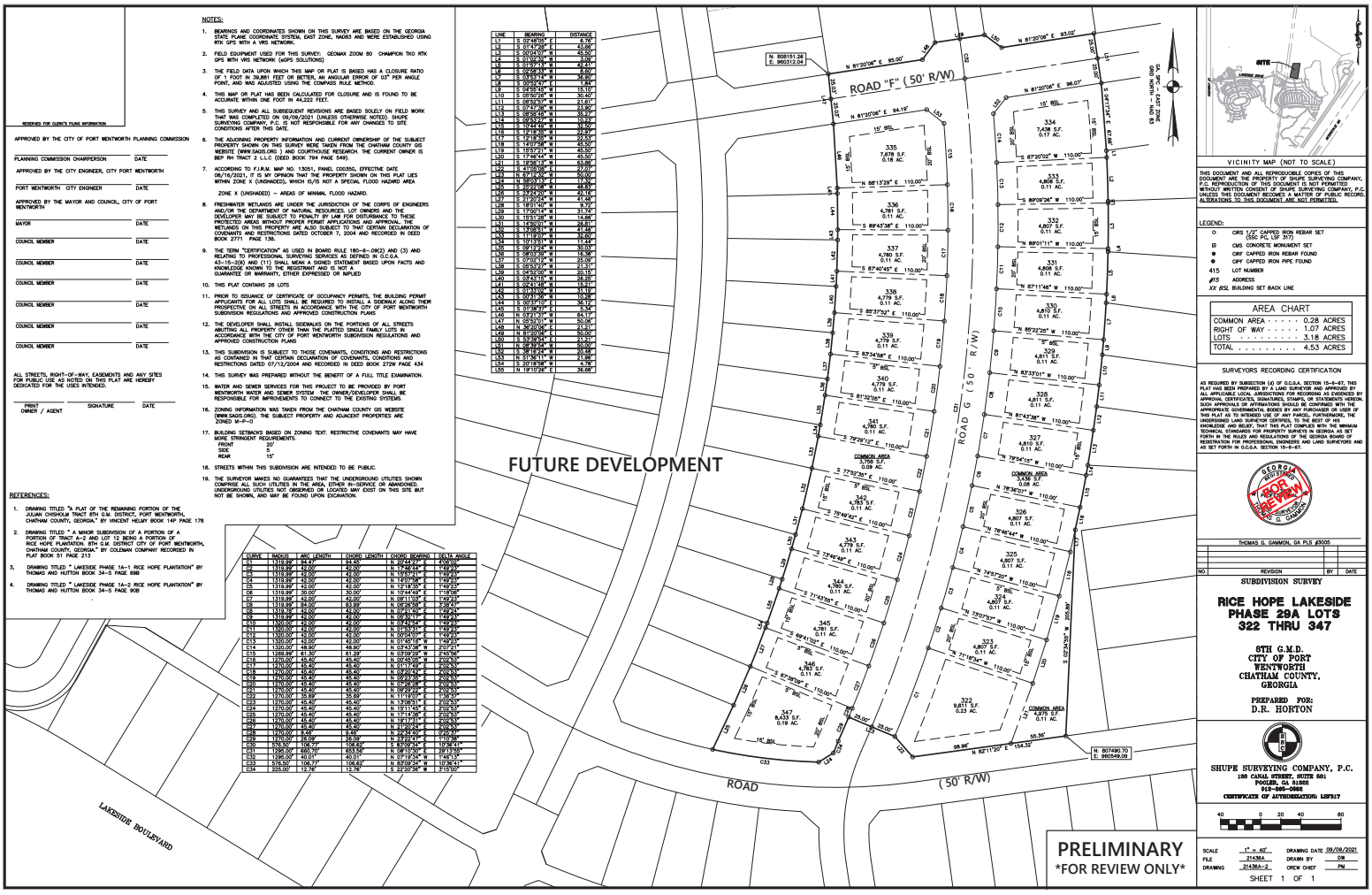
18. STREETS WITHIN THIS SUBDIVISION ARE INTENDED TO BE PUBLIC.
19. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION.

REFERENCES:

1. DRAWING TITLED "A PLAT OF THE REMAINING PORTION OF THE JULIAN CHISHOLM TRACT 8TH G.M. DISTRICT, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY VINCENT HELMY BOOK 14P PAGE 176
2. DRAWING TITLED " A MINOR SUBDIVISION OF A PORTION OF A PORTION OF TRACT A-2 AND LOT 12 BEING A PORTION OF RICE HOPE PLANTATION, 8TH G.M. DISTRICT CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA." BY COLEMAN COMPANY RECORDED IN PLAT BOOK 51 PAGE 213
3. DRAWING TITLED " LAKESIDE PHASE 1A-1 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 89B
4. DRAWING TITLED " LAKESIDE PHASE 1A-2 RICE HOPE PLANTATION" BY THOMAS AND HUTTON BOOK 34-S PAGE 90B

LINE	BEARING	DISTANCE
L1	S 02°49'05" E	6.78'
L2	S 01°47'28" E	43.66'
L3	S 00°04'07" W	45.00'
L4	S 01°09'56" W	3.09'
L5	S 01°05'19" W	42.41'
L6	S 00°28'54" W	8.60'
L7	S 03°03'19" W	30.00'
L8	S 00°03'42" E	1.84'
L9	S 04°05'49" W	15.10'
L10	S 00°50'26" W	30.40'
L11	S 00°39'29" W	21.61'
L12	S 01°47'28" E	23.00'
L13	S 00°04'07" W	35.00'
L14	S 00°04'07" W	10.00'
L15	S 00°04'07" W	10.00'
L16	S 00°04'07" W	35.00'
L17	S 12°18'35" E	22.61'
L18	S 04°05'49" W	45.00'
L19	S 15°57'21" W	45.50'
L20	S 17°44'44" W	45.50'
L21	S 19°56'13" W	63.88'
L22	S 41°05'08" W	57.07'
L23	N 87°13'05" W	50.00'
L24	N 58°03'13" W	13.90'
L25	S 19°23'08" W	48.83'
L26	S 19°23'08" W	42.18'
L27	S 21°20'24" W	41.48'
L28	S 19°07'40" W	8.72'
L29	S 17°00'14" W	31.74'
L30	S 12°57'28" W	14.08'
L31	S 14°50'01" W	28.81'
L32	S 13°08'51" W	41.48'
L33	S 11°19'09" W	32.60'
L34	S 10°13'51" W	13.48'
L35	S 09°19'24" W	30.03'
L36	S 08°40'39" W	18.39'
L37	S 07°09'12" W	25.09'
L38	S 05°53'27" W	21.31'
L39	S 04°53'05" W	20.15'
L40	S 03°43'15" W	18.25'
L41	S 02°41'48" W	18.51'
L42	S 01°43'05" W	17.10'
L43	S 00°51'48" W	10.48'
L44	S 00°03'10" E	38.13'
L45	S 01°38'37" E	5.34'
L46	N 03°21'37" W	64.17'
L47	N 05°53'01" W	50.08'
L48	N 36°20'08" E	21.21'
L49	N 81°20'08" E	50.00'
L50	S 53°39'52" E	21.21'
L51	N 08°39'52" W	50.00'
L52	S 36°19'24" W	20.48'
L53	N 51°36'11" W	21.96'
L54	S 20°18'58" W	4.78'
L55	N 19°19'26" E	36.68'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1319.99'	84.67'	84.65'	N 20°49'57" E	3°40'59"
C2	1319.99'	42.00'	42.00'	N 17°48'44" E	1°49'33"
C3	1319.99'	42.00'	42.00'	N 15°57'31" E	1°49'33"
C4	1319.99'	42.00'	42.00'	N 14°07'58" E	1°49'33"
C5	1319.99'	42.00'	42.00'	N 12°18'25" E	1°49'33"
C6	1319.99'	30.00'	30.00'	N 10°44'49" E	1°18'08"
C7	1319.99'	42.00'	42.00'	N 08°11'55" E	1°49'33"
C8	1319.99'	84.00'	83.99'	N 06°26'56" E	3°38'47"
C9	1319.99'	42.00'	42.00'	N 03°41'09" E	1°49'34"
C10	1319.99'	42.00'	42.00'	N 01°51'17" E	1°49'33"
C11	1320.00'	42.00'	42.00'	N 00°01'44" E	1°49'33"
C12	1320.00'	42.00'	42.00'	N 01°51'51" E	1°49'33"
C13	1320.00'	42.00'	42.00'	N 03°41'59" E	1°49'33"
C14	1320.00'	48.00'	48.00'	N 01°45'16" W	1°49'31"
C15	1269.99'	61.30'	61.29'	N 03°09'29" W	2°45'56"
C16	1270.00'	45.40'	45.40'	N 00°45'05" W	2°03'35"
C17	1270.00'	45.40'	45.40'	N 01°11'40" E	2°03'35"
C18	1270.00'	45.40'	45.40'	N 03°27'15" E	2°03'35"
C19	1270.00'	45.40'	45.40'	N 05°42'50" E	2°03'35"
C20	1270.00'	45.40'	45.40'	N 07°58'26" E	2°03'35"
C21	1270.00'	45.40'	45.40'	N 09°29'24" E	2°03'35"
C22	1270.00'	35.69'	35.69'	N 11°19'07" E	1°36'29"
C23	1270.00'	45.40'	45.40'	N 13°36'51" E	2°03'35"
C24	1270.00'	45.40'	45.40'	N 15°11'42" E	2°03'35"
C25	1270.00'	45.40'	45.40'	N 17°14'38" E	2°03'35"
C26	1270.00'	45.40'	45.40'	N 19°30'22" E	2°03'35"
C27	1270.00'	45.40'	45.40'	N 21°45'57" E	2°03'35"
C28	1270.00'	45.40'	45.40'	N 23°49'19" E	2°03'35"
C29	1270.00'	106.77'	106.74'	S 83°09'34" E	12°36'41"
C30	1270.00'	655.10'	647.63'	S 58°10'50" E	29°32'59"
C31	1295.00'	40.01'	40.01'	N 09°19'34" W	1°46'17"
C32	1295.00'	106.77'	106.69'	S 83°09'34" E	12°36'41"
C33	265.00'	13.78'	13.78'	S 22°22'34" W	3°10'00"



VICINITY MAP (NOT TO SCALE)

THIS DOCUMENT AND ALL REPRODUCIBLE COPIES OF THIS DOCUMENT ARE THE PROPERTY OF SHUPE SURVEYING COMPANY, P.C. REPRODUCTION OF THIS DOCUMENT IS NOT PERMITTED WITHOUT WRITTEN CONSENT OF SHUPE SURVEYING COMPANY, P.C. UNLESS THIS DOCUMENT BECOMES A MATTER OF PUBLIC RECORD. ALTERATIONS TO THIS DOCUMENT ARE NOT PERMITTED.

LEGEND:

○	CIRS 1/2" CAPPED IRON REBAR SET (SSC PLS, LSF 317)
⊡	CMS CONCRETE MONUMENT SET
●	CIRF CAPPED IRON REBAR FOUND
●	CIPF CAPPED IRON PIPE FOUND
415	LOT NUMBER
#15	ADDRESS
XX BSL	BUILDING SET BACK LINE

AREA CHART

COMMON AREA	0.28 ACRES
RIGHT OF WAY	1.07 ACRES
LOTS	3.18 ACRES
TOTAL	4.53 ACRES

SURVEYORS RECORDING CERTIFICATION

AS REQUIRED BY SUBSECTION (d) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, STATEMENTS, OR OTHER INSTRUMENTS NOTED HEREON. IN ADDITION, THE SURVEYOR MAKES NO GUARANTEE THAT THE DESCRIBED APPURTENANT GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15-6-67.

GEORGIA REGISTERED LAND SURVEYOR THOMAS G. GAMMON

THOMAS G. GAMMON, GA PLS #3005

NO.	REVISION	BY	DATE

SUBDIVISION SURVEY

RICE HOPE LAKESIDE PHASE 29A LOTS 322 THRU 347

8TH G.M.D.
CITY OF PORT WENTWORTH
CHATHAM COUNTY, GEORGIA

PREPARED FOR:
D.R. HORTON

SHUPE SURVEYING COMPANY, P.C.
100 CANAL STREET, SUITE 501
POOLER, GA 31322
912-495-0960
CERTIFICATE OF AUTHORIZATION: LSF317

40 0 20 40 80

SCALE	1" = 40'	DRAWING DATE	09/09/2021
FILE	2143A-2	DRAWN BY	DM
DRAWING	2143A-2	CREW CHIEF	PM

SHEET 1 OF 1

PRELIMINARY
FOR REVIEW ONLY

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DSC 2021 - Preliminary Plat (2874 : Subdivision Application Lakeside Ph. 29A Preliminary Plat)

Project Timeline

Rice Hope Lakeside Phase 29A – Preliminary Plat

Applicant: Pittman Engineering

Review: Development Services, Omar Senati

Project #210413

- 10/1/2021—application received- Complete
- 11/2/2021 – Omar sent email to Ray Pittman with his review comments
- 11/26/2021 – Public hearing notice published in the Savannah Morning News
- 11/27/2021 – Public hearing notice letters mailed.

Attachment: LAKESIDE AT RICE HOPE PH 29A PRELIM PLAT DEC 2021 - Timeline (2576 : Subdivision Application Lakeside Ph 29A Preliminary

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Planning/Zoning Item
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2574)

DOC ID: 2574

Site Plan Review Application submitted by Felipe Toledo, P.E., Thomas & Hutton, on behalf of Chance Raehn, Chesterfield, LLC., for PIN # 7-0906-01-039 (Augusta Road) for a General Development Site Plan to allow a Warehouse in a P-I-1 (Planned Industrial) Zoning District

Issue/Item: Site Plan Review Application submitted by Felipe Toledo, P.E., Thomas & Hutton, on behalf of Chance Raehn, Chesterfield, LLC., for PIN # 7-0906-01-039 (Augusta Road) for a General Development Site Plan to allow a Warehouse in a P-I-1 (Planned Industrial) Zoning District

Background: The subject property is currently vacant woodland. There are no buildings or structures on the subject property. This parcel was approved to be rezoned to P-I-1 during the November 19, 2020 regularly scheduled City Council meeting.

Facts and Findings: The subject parcel is located in the Georgia International Trade Center and will be accessed using Trade Center Parkway. The general site plan consist of a 733,200 square foot warehouse building, associated parking and stormwater detention and drainage. The site plan also includes a berm between the site and the Rice Creek Subdivision residential properties that will be approximately 100 foot wide and 15 foot tall.

Funding: N/A

Recommendation: The Planning Commission will hear this application on Monday, December 13, 2021 at 6:30 P.M.

ATTACHMENTS:

- 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Application (PDF)
- 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Site Plan (PDF)
- 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Timeline (DOCX)

210436

RECEIVED
OCT 22 2021
BY:

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

Site Plan Review Application

Site Plan Application is required for all new construction in a "P" or "MPO" zone as defined in the Zoning Ordinance of the City of Port Wentworth.

Site Plan Type (*Check One*): ☒ General / Concept ☐ Specific Development

Site Plan Address: Augusta RD, Port Wentworth, GA 31407

PIN #(s): 7-0906-01-039

Zoning: Industrial P-I-1 Estimated Cost of Construction: $ 35,000,000

Type of Construction: Warehouse

Applicant's Name: Felipe Toledo, P.E - Thomas & Hutton

Mailing Address: 50 Park of Commerce Way Savannah, GA 31405

Phone #: 912-721-4090 Email: toledo.f@tandh.com

Owner's Name (If Different form Applicant): Chance Raehn - Chesterfield, LLC

Mailing Address: 100 Bull Street Savannah, GA 31401
Suite 200

Phone #: 912-721-8662 Email: craehn@chesterfieldllc.com

I hereby acknowledge that the above information is true and correct.

Applicant's Signature — Date: 10/11/2021

Chance Raehn — Owner's Signature (If Different form Applicant) — Date: October 13, 2021

Please see page 2 for required submittal checklist

Updated 4/28/2020

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Application (2574 : Site Plan Review Application Chesterfield (General))

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

Site Plan Review Application Submittal Checklist

Documentation below is required for a complete submittal.

- ☒ Signed and Completed Application
- ☐ 3 Full size sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ 15 half size (11" X 17") sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☐ 2 copies of hydrology reports (if applicable)
- ☒ Names, mailing address, and PIN number of all property owners within 250 feet of all property lines
- ☐ 1 8 ½" X 11" of site plan civil drawings or concept plan (depending on type of site plan)
- ☐ PDF of entire submittal (either flash drive or CD)
- ☐ Other Engineering details or reports may be required once submittal has been received
- ☒ Site plan review fee check
  - ○ No Land Disturbance- $206.00 Site Plan Fee + $50.00 Admin Fee = Total $256.00
  - ○ With Land Disturbance - $836.00 Site Plan Fee + $50.00 Admin Fee = Total $886.00

Additional Fee Statement: If engineer review cost to the City exceeds the site plan review fee that is paid at the time of initial application submittal, you may be required to pay additional review cost.

I have read and agree to the above additional fee statement

Applicant's Signature

10/11/2021
Date

Updated 4/28/2020

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Application (2574 : Site Plan Review Application Chesterfield (General))

Adjacent Property Owner

Name	Address	City	State	Zip
Sam Varnedoe	PO Box 2379	Tybee Island	GA	31328
GW Investments LLC	660 E 39th St	Savannah	GA	31401
Thomas Exley	PO Box 416	Springfield	GA	31329
Rice Creek Investors No 2 LLC	2702 Whatley Ave	Savannah	GA	31404
125 Rivermarsh Drive LLC	525 Suncrest Blvd	Savannah	GA	31410
Shirley Ann Mills	25 Hasty Point Rd	Port Wentworth	GA	31407
Katrena Anderson	23 Hasty Point Rd	Port Wentworth	GA	31407
Joshua Isabella	21 Hasty Point Rd	Port Wentworth	GA	31407
Okeefe & Ashley Polite	19 Hasty Point Rd	Port Wentworth	GA	31407
Margo King	17 Hasty Point Rd	Port Wentworth	GA	31407
Juan Nunez	15 Hasty Point Rd	Port Wentworth	GA	31407
Homeowners Association of Rice Creek	2180 West SR 434 STE 5000	Longwood	FL	32779
Somiki Reddick	13 Hasty Point Rd	Port Wentworth	GA	31407
Russell & Latresisa Lassiter	11 Hasty Point Rd	Port Wentworth	GA	31407
Amber Lamb	9 Hasty Point Rd	Port Wentworth	GA	31407
Bonnie & Gerald Travers-Barney	7 Hasty Point Rd	Port Wentworth	GA	31407
Brett & Hannah Ross	5 Hasty Point Rd	Port Wentworth	GA	31407
Michael & Kendra King	3 Hasty Point Rd	Port Wentworth	GA	31407
Kobie Goldwire	1 Hasty Point Rd	Port Wentworth	GA	31407
Lewis Hazen	2 Hasty Point Rd	Port Wentworth	GA	31407
Greg Morentin	4 Hasty Point Rd	Port Wentworth	GA	31407
Patricia Johnson	6 Hasty Point Rd	Port Wentworth	GA	31407
Deyvonndra Pitts	8 Hasty Point Rd	Port Wentworth	GA	31407
Erik Hodge	10 Hasty Point Rd	Port Wentworth	GA	31407
Jonathan Thompson	12 Hasty Point Rd	Port Wentworth	GA	31407
Patrick & Donna Kelly	14 Hasty Point Rd	Port Wentworth	GA	31407
Dlynda & Eugene Governor	16 Hasty Point Rd	Port Wentworth	GA	31407
Andria Ware	18 Hasty Point Rd	Port Wentworth	GA	31407
Michael & Kent Howard	20 Hasty Point Rd	Port Wentworth	GA	31407
Nadia Luke	22 Hasty Point Rd	Port Wentworth	GA	31407
Cheryl Warnock	24 Hasty Point Rd	Port Wentworth	GA	31407
Sean & Lakea Bacon	26 Hasty Point Rd	Port Wentworth	GA	31407
Eric Huss	28 Hasty Point Rd	Port Wentworth	GA	31407
Kenneth Richardson	30 Hasty Point Rd	Port Wentworth	GA	31407
Michael Overstreet	32 Hasty Point Rd	Port Wentworth	GA	31407
Lakeya Duncan	34 Hasty Point Rd	Port Wentworth	GA	31407
Cesar & Denisse Novoa	36 Hasty Point Rd	Port Wentworth	GA	31407
Courtney Brantley	38 Hasty Point Rd	Port Wentworth	GA	31407
Joe & Kierra Coneo	40 Hasty Point Rd	Port Wentworth	GA	31407
Anthony Graves	42 Hasty Point Rd	Port Wentworth	GA	31407
Brenda Sutton	44 Hasty Point Rd	Port Wentworth	GA	31407
Julius Hall	46 Hasty Point Rd	Port Wentworth	GA	31407
Alvernis & Stephanie Pompey	48 Hasty Point Rd	Port Wentworth	GA	31407
Rebecca Tuten	50 Hasty Point Rd	Port Wentworth	GA	31407
Fisher Isle Investments LLC	120 Commerce Ct	Pooler	GA	31322
Eden Lake Investments LLC	120 Commerce Ct	Pooler	GA	31322
Latisha Simmons	38 Miller Pond Rd	Port Wentworth	GA	31407
Katina Mcintyre	40 Miller Pond Rd	Port Wentworth	GA	31407
Jacquelyn Roberts	39 Miller Pond RD	Port Wentworth	GA	31407
Carlos Montoyalopez	41 Miller Pond Rd	Port Wentworth	GA	31407
Calvin & Kimedra Harrison	31 Miller Pond Rd	Port Wentworth	GA	31407
Santos Garcia-Degro	29 Hasty Point Rd	Port Wentworth	GA	31407
Garnett Ridge Investments LLC	120 Commerce Ct	Pooler	GA	31322
Felipe Toledo, P.E.	50 Park of Commerce Way	Savannah	GA	31405
Chesterfield LLC	100 Bull St, Ste 200	Savannah	GA	31401

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Application (2574 : Site Plan Review Application Chesterfield (General))

CITY OF PORT WENTWORTH

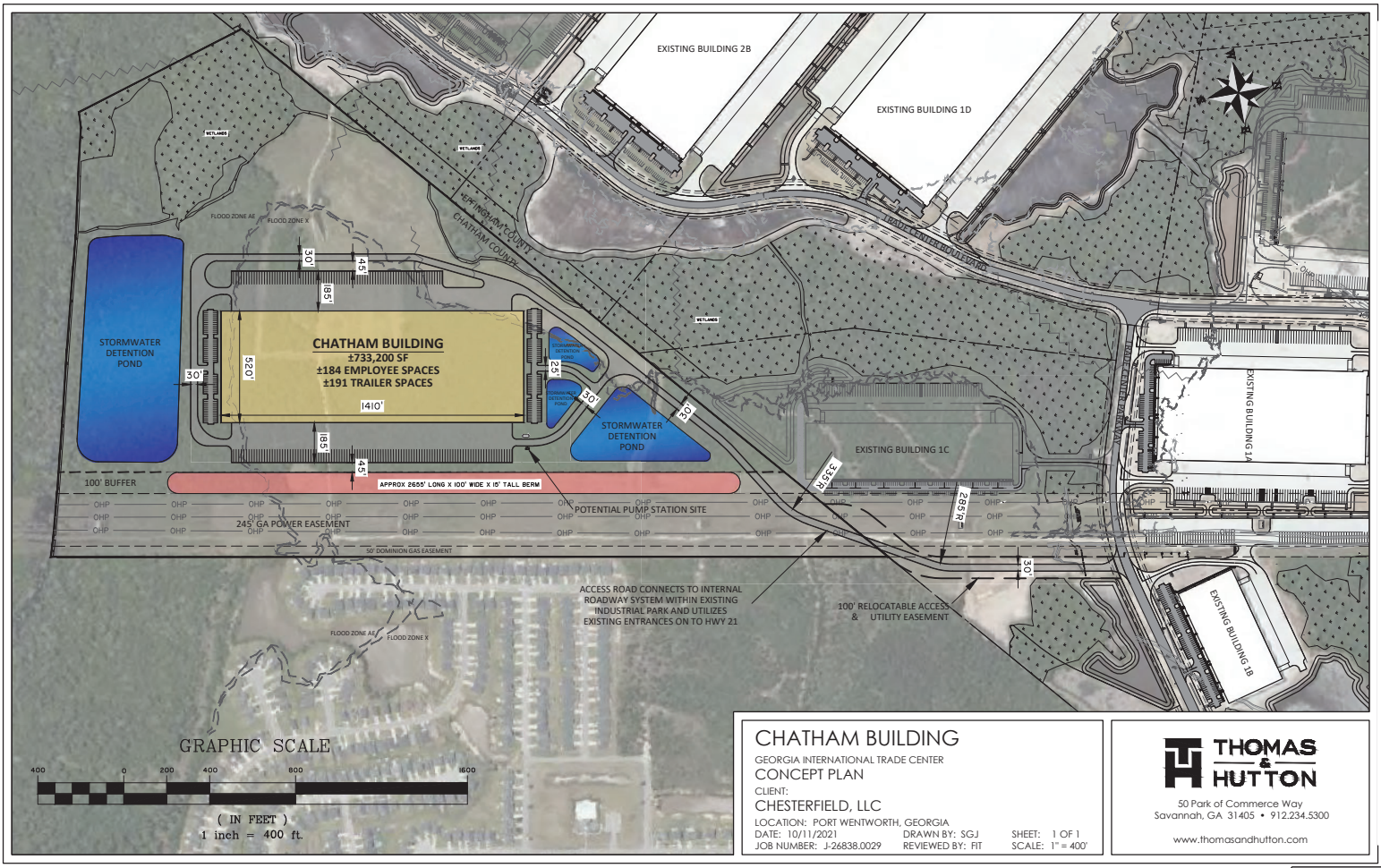
(912) 964-4379

REC#: 00331832 11/02/2021 8:58 AM
OPER: ME TERM: 011
REF#: CK 1671

TRAN: 112.0000	BLDG PERMIT	
210436		256.00CR
	CHESTERFIELD, LLC	
	7-0906-01-039	
DEV-SPR		256.00CR
TENDERED:	256.00	CHECK
APPLIED:	256.00-	
CHANGE:	0.00	

WWW.CITYOFPORTWENTWORTH.COM

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Application (2574 : Site Plan Review Application Chesterfield (General))



CHATHAM BUILDING

GEORGIA INTERNATIONAL TRADE CENTER

CONCEPT PLAN

CLIENT:

CHESTERFIELD, LLC

LOCATION: PORT WENTWORTH, GEORGIA

DATE: 10/11/2021 DRAWN BY: SGJ SHEET: 1 OF 1

JOB NUMBER: J-26838.0029 REVIEWED BY: FIT SCALE: 1" = 400'

THOMAS & HUTTON

50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300

www.thomasandhutton.com

Z:\26838\26838.0029\ENGINEERING\DRAWINGS\EXHIBITS\04 EXHIBITS\04\26838.0018 - PERLIMINARY GENERAL SITE PLAN EXHIBIT.DWG - Oct 11, 2021 - 5:59 PM

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Site Plan (2574 : Site Plan Review Application Chesterfield (General))

Project Timeline

7-0906-01-039 - Chesterfield – General Site Plan

Project Number 210436

Applicant: Felipe Toledo (Thomas & Hutton)

Review Engineer: N/A

- 10/22/2021—application received- incomplete – missing PDF
- 11/2/2021 – sent email to Tre Wilkins (T&H) that I need a PDF
- 11/2/2021 – Received PDF
- 11/26/2021 – Public Hearing Notice posted in the Savannah Morning News
- 11/27/2021 – Public Hearing Notice letters mailed.

Attachment: 7-0906-01-039 CHESTERFIELD G-SITE PLAN DEC 2021 - Timeline (2574 : Site Plan Review Application Chesterfield (General))

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Development Services
Category: Planning/Zoning Item
Prepared By: Melanie Ellis
Department Head: Brian Harvey

AGENDA ITEM (ID # 2578)

DOC ID: 2578

Site Plan Review Application submitted by Parkside Equities, LLC., on behalf of R&R Property Ventures, LLC., for PIN #'s 7-0976C-01-002, 7-0976C-01-004, 7-0976C-08-001, and 7-0976D-08-002 (Highway 30) for a Specific Development Site Plan to allow a Multi-family Development (Parkside at Port Wentworth) in a P-R-M (Planned Residential Multifamily) Zoning District

Issue/Item: Site Plan Review Application submitted by Parkside Equities, LLC., on behalf of R&R Property Ventures, LLC., for PIN #'s 7-0976C-01-002, 7-0976C-01-004, 7-0976C-08-001, and 7-0976D-08-002 (Highway 30) for a Specific Development Site Plan to allow a Multi-family Development (Parkside at Port Wentworth) in a P-R-M (Planned Residential Multifamily) Zoning District

Background: The subject property is currently vacant woodland. There are no buildings or structures on the subject property. A Zoning Map Amendment application for this property was approved during the March 25, 2021 City Council meeting and the application included the general development plan for this project.

Facts and Findings: This specific site development plan consist of 235 dwelling units, a mail building, trash compactor, pool area with amenity building, associated parking, utilities, drainage and infrastructure improvements. This application is currently under review by City Engineer's TR Long Engineering.

Funding: N/A

Recommendation: The Planning Commission will hear this application on Monday, December 13, 2021 at 6:30 P.M.

ATTACHMENTS:

- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.4.3 and 3.4.5 (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.5.3 and 3.5.4 (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Parkside Vicinity Map (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Wetland JD-Nov 24 2020 (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - RECORDED PLAT (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - 1st Comment Letter TR LONG 12.8.2 (PDF)
- PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Timeline (DOCX)

2/04/21

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

RECEIVED BY: OCT 18 2021

Site Plan Review Application

Site Plan Application is required for all new construction in a "P" or "MPO" zone as defined in the Zoning Ordinance of the City of Port Wentworth.

Site Plan Type (*Check One*): ☐ General / Concept ☑ Specific Development

Site Plan Address: Highway 30, Port Wentworth, GA 31407

PIN #(s): 7-0976C-01-004 / 7-0976D-08-002 / 7-0976C-08-001 / 7-0976C-01-002

Zoning: P-R-M Estimated Cost of Construction: $ 44 million

Type of Construction: Multifamily Residential

Applicant's Name: Parkside Equities, LLC

Mailing Address: 9040 Roswell Rd, Suite 120
Atlanta, GA 30350

Phone #: 404-574-5914 Email: mmeshad@easlancapital.com

Owner's Name (If Different form Applicant): R&R Property Ventures, LLC

Mailing Address: 1401 N. University Drive, Suite 401
Coral Springs, FL 33071

Phone #: 305-849-8383 Email: rayfieldreeves@gmail.com

I hereby acknowledge that the above information is true and correct.

Applicant's Signature — Date: 9/16/2021

Owner's Signature (If Different form Applicant) R&R Property Ventures, LLC — Date: 10/6/2021

Please see page 2 for required submittal checklist

Updated 4/28/2020

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (2578 : Site Plan Review Application Parkside at

City of Port Wentworth
▪7224 Highway 21 ▪ Port Wentworth ▪ Georgia ▪ 31407 ▪ 912-999-2084

Site Plan Review Application Submittal Checklist

Documentation below is required for a complete submittal.

- ☒ Signed and Completed Application
- ☒ 3 Full size sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ 15 half size (11" X 17") sets of site plan civil drawings or concept plan (depending on type of site plan)
- ☒ 2 copies of hydrology reports (if applicable)
- ☒ Names, mailing address, and PIN number of all property owners within 250 feet of all property lines
- ☒ 1 8 ½" X 11" of site plan civil drawings or concept plan (depending on type of site plan)
- ☐ PDF of entire submittal (either flash drive or CD)
- ☐ Other Engineering details or reports may be required once submittal has been received
- ☒ Site plan review fee check
  - o No Land Disturbance- $206.00 Site Plan Fee + $50.00 Admin Fee = Total $256.00
  - o With Land Disturbance - $836.00 Site Plan Fee + $50.00 Admin Fee = Total $886.00

Additional Fee Statement: If engineer review cost to the City exceeds the site plan review fee that is paid at the time of initial application submittal, you may be required to pay additional review cost.

I have read and agree to the above additional fee statement

Applicant's Signature

9/16/2021
Date

Updated 4/28/2020

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (2578 : Site Plan Review Application Parkside at

Parkside at Port Wentworth
PORT WENWORTH, GEORGIA
Project Narrative
J – 28972.0001
September 16, 2021

Parkside Equities, LLC (Applicant) proposes the development of approximately 20.4 acres of a multifamily complex. The project includes a total of 235 dwelling units, a mail building, trash compactor, pool area with amenity building, stormwater ponds, drainage pipes and structures, water, gravity sewer, and a small pumpstation as proposed as part of this project. The project will have one full access and one restricted access for emergency vehicles only and both accesses will connect to Hwy 30. The project site is located west of Hwy 21 along Hwy 30 in Port Wentworth Georgia.

The site is located on parcel 7-0976C-01-004 within the City of Port Wentworth municipal limits.

The proposed site is bounded to the north by undeveloped land, to the east by undeveloped land with a wetland, to the west by undeveloped land, and to the south by Hwy 30 and a mix of residential and undeveloped land.

Existing conditions consist primarily of dense woods with gentle swales running through the site. None of the swales on the Parkside are considered State Waters by the City of Port Wentworth. The existing elevations on the property generally range from 19 to 28 (NAVD88). The existing soils are classified as primarily hydrologic soil groups B/D and C/D.

The majority of the stormwater runoff from the project will be routed and attenuated through the proposed stormwater detention basins prior to release into the existing wetlands that are adjacent to the site. The drainage infrastructure for the project will be designed to the 24-year, 24-hour storm event.

Sedimentation and Erosion Control measures will be installed prior to and concurrent with construction. Sedimentation and Erosion Control devices will conform to the latest Georgia Storm Water Management and Sedimentation Control Handbook and are shown using standard symbols on the erosion and sedimentation control plans. Permanent grassing will be established to provide final stabilization for the area.

Power service shall be provided by Georgia Power Company and telecommunications service shall be provided by AT&T. The applicant has submitted site development plans to each of these agencies and approval documentation shall be provided upon receipt. Fire protection will be provided by the City of Port Wentworth. Water and sewer service will be available to the site upon completion of Parkside at Port Wentworth. Water and sewer service will be provided by the City of Port Wentworth.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (2578 : Site Plan Review Application Parkside at

Port Wentworth – Parkside Equities

Properties within 250' of 7-0976C-01-004

1. PIN #: 7-0976-02-014A

   Property Address: Saussy Road, Port Wentworth, GA 31407

   Owner(s) Name: Jackson, Matthew Jerome

   Mailing Address: 3 Winoca Drive, Garden City, GA 31408-2009

2. PIN #: 7-0976-02-007

   Property Address: Punkin Bridge Road, Port Wentworth, GA 31407

   Owner(s) Name: Steele, Willie

   Mailing Address: PO Box 23092, Savannah, GA 31403-3092

3. PIN #: 7-0976-02-038

   Property Address: Saussy Road, Port Wentworth, GA 31407

   Owner(s) Name: Varnedoe, Sam L.

   Mailing Address: PO Box 2379, Tybee Island, GA 31328-2379

4. PIN #: 7-0976-02-027

   Property Address: Berrien Road, Port Wentworth, GA 31407

   Owner(s) Name: Simz Investing Company LLC

   Mailing Address: 554 Suncrest Blvd, Savannah, GA 31410-2215

5. PIN #: 7-0978-05-011

   Property Address: 315 Highway 30, Port Wentworth, GA 31407

   Owner(s) Name: Stop N Stor III LLC

   Mailing Address: 9100 White Bluff Road, Unit 502, Savannah, GA 31406-4672

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (2578 : Site Plan Review Application Parkside

6. PIN #: 7-0976C-01-003

   Property Address: Highway 30, Port Wentworth, GA 31407

   Owner(s) Name: Works Inez Keller

   Mailing Address: 390 N Orange Ave, Unit 1285, Orlando, FL 32801-1674

7. PIN #: 7-0976D-09-002

   Property Address: 7th Street, Port Wentworth, GA 31407

   Owner(s) Name: Philips, Wesley and Dean, Mary

   Mailing Address: 121 Varnedoe Ct, Savannah, GA 31406-5068

8. PIN #: 7-0976D-10-002

   Property Address: Highway 30, Port Wentworth, GA 31407

   Owner(s) Name: HC Williams Road Investments, LLC

   Mailing Address: PO Box 845, Eastman, GA 31023-0845

9. PIN #: 7-0976C-01-001

   Property Address: Highway 30, Port Wentworth, GA 31407

   Owner(s) Name: Works Inez Keller

   Mailing Address: 390 N Orange Ave, Unit 1285, Orlando, FL 32801-1674

10. PIN #: 7-0976D-06-001

    Property Address: 5th Street, Port Wentworth, GA 31407

    Owner(s) Name: Gaulden, Charmel and Gaulden, Chacana

    Mailing Address: 5855 Walnut Creek Road, Unit E335, River Ridge, LA 70123-5658

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Application (2578 : Site Plan Review Application Parkside at

CITY OF PORT WENTWORTH
(912) 964-4379

REC#: 00331035 10/20/2021 2:01 PM
OPER: ME TERM: 011
REF#: CK 111185

TRAN: 112.0000 BLDG PERMIT
210421 886.00CR
R&R PROPERTY VENTURES, LLC
HIGHWAY 30
DEV-SPR 886.00CR

TENDERED: 886.00 CHECK
APPLIED: 886.00-

CHANGE: 0.00

WWW.CITYOFPORTWENTWORTH.COM

Attachment: PARKSIDE AT PORT

3.4.3 Exhibit 1 - Water Distribution System Check List

Typical Water System Plan shall include:	Check Off
1) Layout and legend	✓
2) Water System analysis and design (include calculations)	✓
3) Show waterline easement (if applicable)	✓
4) Pipe separated distances called out at utility crossings	✓
5) Isolation Valves	✓
6) Valves 8" and larger placed in manholes	✓
7) Meters sized and located on plans	✓
8) All service connections shown	✓
9) Existing and proposed fire hydrants shown	✓
10) Fire Flow Demand (Exhibit 2)	
▪ Calculate water need based upon ISO Guidelines	✓
▪ Show maintenance responsibility for fire line and appurtenances in owner/client agreement (Exhibit 3)	To be provided upon receipt
▪ Show Backflow Detector Check Assembly	✓
▪ If no fire system is proposed, please indicate on the plans	✓
11) Irrigation System	
▪ Calculate water need based upon system design	✓
▪ Show size and location of backflow preventor and water meter	✓
▪ If no irrigation system is proposed, please indicate on the plans	✓
12) Attach certification that water lines are not in, nor do they serve, structures built upon solid waste landfills	To be provided upon receipt
13) City of Port Wentworth specifications and details used	✓
14) Proposed water/sewer agreement attached	To be provided upon receipt
15) Georgia Registered Professional Engineer stamp & signature	✓

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.4.3 and 3.4.5 (2578 : Site Plan Review Application

3.4.5 Exhibit 3 Available Fire Flow (Aff):

The Available Fire Flow (AFF) must be calculated based on hydrant flow testing and supplemental hydraulic analyses. The AFF will represent the fire flow that is available from the public water system at the existing or proposed hydrant nearest to the proposed facility at a residual pressure of 20 psi.

The following formula, which was developed by the ISO, can be used to adjust data from a hydrant flow test to determine the available fire flow at that location at 20 psi:

$$Q_{20} = Q_t * ((P_s - P_{20})^{0.54})/(P_s - P_t)^{0.54}$$

Q_{20} = Available fire flow at a residual pressure of 20 psi (gpm)
Q_t = Hydrant flow during test (gpm)
P_s = Static pressure measured before hydrant flow test (psi)
P_{20} = 20 psi (desired residual pressure)
P_t = Residual pressure measured during hydrant flow test (psi)

Note: City of Port Wentworth will provide one hydrant flow test at a location selected by the design consultant for no charge, which can be used as the basis for this calculation.

Hydrant Flow Rate During Test (Q_t): 1400 **gpm**

Static Pressure Before Flow Test (P_s): 50 **psi**

Residual Pressure During Flow Test (P_t): 45 **psi**

Calculated Available Fire Flow (AFF): 3684 **gpm**

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.4.3 and 3.4.5 (2578 : Site Plan Review Application

3.5.3 Exhibit 1 - Wastewater Collection System Check List

Typical Wastewater System Plan shall include:	Check Off
1) Layout and legend	✓
2) Exhibit 2 completed (load data)	✓
3) For effluents with process water, comply with the City's Pretreatment Ordinance.	N/A
4) Show sewer easement (if applicable)	N/A
5) Manholes numbered and placed at 350' (max.) spacing	✓
6) Manholes placed at line directional changes	✓
7) Manhole frame and invert elevations shown	✓
8) Invert elevations shown for all pipe inside manholes	✓
9) Minimum gradient of 0.4% used for 8" pipes	✓
10) Maximum height of 2' between invert of pipes and invert of discharge manholes	✓
11) Minimum angle of 90 degrees for influent lines	✓
12) All sanitary sewers profiled	✓
13) Oil/grease traps and details provided for service station and food service preparers	N/A
14) Grading, paving, drainage, erosion control plans attached	✓
15) Attach certification that water and/or sewer lines are not in, nor do they serve, structures built upon solid waste landfills	To be provided upon receipt
16) For pump station design:	
a. Attach design calculations with pump curves	✓
b. City of Port Wentworth pump station design standards used to prepare drawings, details and specifications	✓
17) City of Port Wentworth sewer specifications and details used	✓
18) Proposed water/sewer agreement attached	To be provided upon receipt
19) Georgia Registered Professional Engineer stamp and signature	✓

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.5.3 and 3.5.4 (2578 : Site Plan Review Application

3.5.4 Exhibit 2 Equivalent Residential Unit (ERU) Calculations

The following is designed to compute the total number of equivalent residential units (ERU's), as well as, total water and sewer fees.

PROJECT PARKSIDE AT PORT WENTWORTH **DATE** OCTOBER 8, 2021

LOCATION HWY - 30, PORT WENTWORTH, GA

RESIDENTIAL USE: EQUIVALENT RESIDENTIAL UNITS (ERU)			
Total Number of Single Family Homes	____ @ 300 gpd	=	____ GP
Total Number of One Bedroom Apartments	80 @ 150 gpd	=	12,000 GP
Total Number of Two Bedroom Apartments	131 @ 200 gpd	=	26,200 GP
Total Number of Three Bedroom Apartments	24 @ 300 gpd	=	7,200 GP
(4 or more units per parcel)	TOTAL GPD 45,400		
	Divide by 300 gpd (1 ERU)		
	= TOTAL ERU's 151.3		
COMMERCIAL USE: GALLONS PER DAY (GPD)			
Offices	30 gallons/200 sq. ft.	=	____ GPD
Department Store/Retail	5 gallons/100 sq. ft.	=	____ GPD
Restaurant, Less Than 24 hr Operation	25 gallons/seat	=	____ GPD
Restaurant, 24 hr Operation	50 gallons/seat	=	____ GPD
Hotel/Motel	100 gallons per room	=	____ GPD
Schools/Day, Restrooms, gym &	25 gallons/person	=	____ GPD
Self Service Laundry	200 gallons/machine	=	____ GPD
Commercial Laundry	1000 gallons/machine	=	____ GPD
Physician's Office	100 gallons/exam room	=	____ GPD
Dental Office	150 gallons/chair	=	____ GPD
Clinic	150 gallons/exam room	=	____ GPD
Nursing Home	100 gallons/resident	=	____ GPD
Barber Shop/Beauty Parlor	100 gallons/chair	=	____ GPD
Banks	30 gallons/200 sq.ft.	=	____ GPD
Grocery Store	5 gallons/100 sq.ft.	=	____ GPD
Warehouse	10 gallons/1000 sq.ft.	=	____ GPD
Other AMENITY AREA WITH POOL: 100 MEMBERS	38 GALLONS/MEMBER	=	3,800 GPD
	TOTAL GPD 49,200		
	= TOTAL ERU's 164		

Calculated by: NIKHIL DUGGIRALA Date: OCTOBER 6, 2021

For determination of sewer tap fees reference Port Wentworth Code of Ordinance Article III Section 21-63

For determination of water tap fees reference Port Wentworth Code of Ordinance Article I Section 21-11

For determination of fire protection tap fees reference Port Wentworth Code of Ordinance Article I Section 21-11

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Exhibits 3.5.3 and 3.5.4 (2578 : Site Plan Review Application

This map was created using geothinQ | www.geothinQ.com | Mapping Smart Land Decisions

THOMAS & HUTTON

Parkside at Port Wentworth

Vicinity Map
10/04/2021

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Parkside Vicinity Map

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31404-3604

November 24, 2020

Regulatory Division
SAS-2020-00677

Mr. Rayfield Reeves
R&R Property Ventures, LLC.
1401 North University Drive
Suite 401
Coral Springs, Florida 33071

Dear Mr. Reeves:

I refer to a letter dated September 15, 2020, submitted on your behalf by Mr. Tristan Turner of Sligh Environmental Consultants, Inc., requesting a delineation review of aquatic resources for your 20.4 acre site which includes 1.368 acres of non-tidal wetland located Northwest of Interstate 95 and West of Augusta Road on Georgia Highway 30, in the city of Port Wentworth, Chatham County, Georgia (Latitude 32.1964, Longitude -81.2117). This project has been assigned number SAS-2020-00677 and it is important that you refer to this number in all communication concerning this matter.

The enclosed exhibit entitled, "19.41 Acre Recombination of the Keller Subdivision", prepared for: Rayfield Reeves, sheets 1 of 1, dated August 18, 2020, identifies the delineation limits of all aquatic resources within the review area. The wetlands were delineated in accordance with criteria contained in the 1987 "Corps of Engineers Wetland Delineation Manual," as amended by the most recent regional supplements to the manual. This delineation will remain valid for a period of 5-years unless new information warrants revision prior to that date.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

If you intend to sell property that is part of a project that requires Department of the Army Authorization, it may be subject to the Interstate Land Sales Full Disclosure Act.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Wetland JD-Nov 24 2020 (2578 : Site Plan Review Application

The Property Report required by Housing and Urban Development Regulation must state whether, or not a permit for the development has been applied for, issued or denied by the U.S. Army Corps of Engineers (Part 320.3(h) of Title 33 of the Code of Federal Regulations).

This communication does not convey any property rights, either in real estate or material, or any exclusive privileges. It does not authorize any injury to property, invasion of rights, or any infringement of federal, state or local laws, or regulations. It does not obviate your requirement to obtain state or local assent required by law for the development of this property. If the information you have submitted, and on which the U.S. Army Corps of Engineers has based its determination is later found to be in error, this decision may be revoked.

Thank you in advance for completing our on-line Customer Survey Form located at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. We value your comments and appreciate your taking the time to complete a survey each time you have interaction with our office.

If you have any questions, please contact me at (912) 652-5022.

Sincerely,

ATKINS.PATRICK.ALLEN.1380903225

Digitally signed by ATKINS.PATRICK.ALLEN.1380903225
Date: 2020.11.24 06:20:20 -05'00'

P. Allen Atkins
Regulatory Specialist, Coastal Branch

Copies Furnished: Mr. Tristan Turner of Sligh Environmental Consultants, Inc.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Wetland JD-Nov 24 2020 (2578 : Site Plan Review Application

PLAT NORTH
SEE REF. # 1

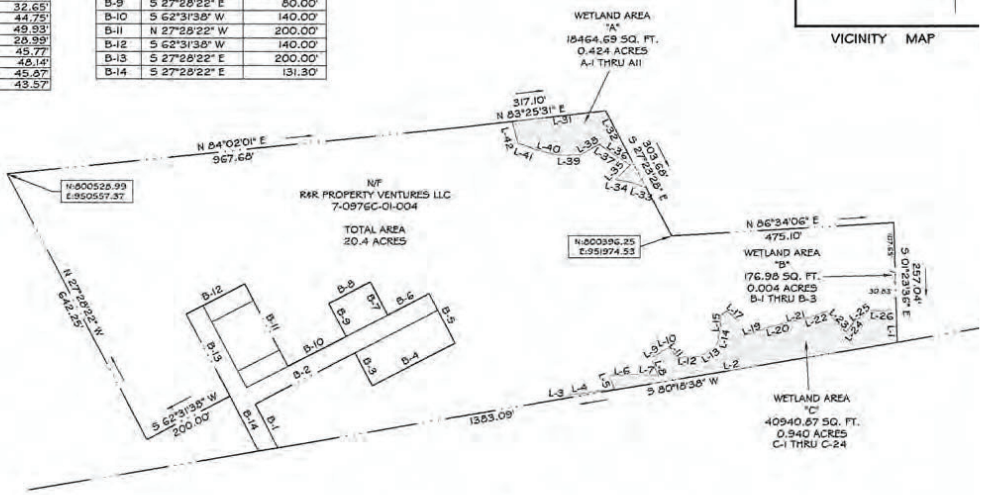
LINE TABLE		
LINE	BEARING	DISTANCE
L-1	S 01°23'36" E	31.82'
L-2	S 80°18'38" W	715.38'
L-3	N 29°46'46" E	7.81'
L-4	N 82°31'15" E	98.70'
L-5	N 21°55'58" W	30.53'
L-6	N 86°27'43" E	57.43'
L-7	S 87°02'22" E	48.34'
L-8	N 23°56'38" W	40.94'
L-9	N 56°56'37" E	36.16'
L-10	N 70°25'30" E	9.17'
L-11	S 41°05'12" E	25.94'
L-12	N 86°57'52" E	47.46'
L-13	N 57°11'48" E	43.05'
L-14	N 12°01'57" E	35.37'
L-15	N 03°26'38" E	31.85'
L-16	N 54°29'59" E	15.92'
L-17	S 46°19'14" E	32.34'
L-18	S 23°14'45" E	35.01'
L-19	N 69°05'54" E	48.05'
L-20	N 76°27'23" E	46.16'
L-21	N 76°59'00" E	41.03'
L-22	N 70°40'23" E	46.94'

LINE TABLE		
LINE	BEARING	DISTANCE
L-23	S 42°57'28" E	61.57'
L-24	N 37°51'46" E	28.52'
L-25	N 54°13'47" E	42.20'
L-26	S 86°42'33" E	34.65'
L-27	N 40°05'36" E	32.23'
L-28	S 01°23'36" E	26.74'
L-29	N 24°33'41" W	33.64'
L-30	S 73°50'09" E	13.88'
L-31	N 83°25'31" E	200.55'
L-32	S 27°23'28" E	187.03'
L-33	N 69°45'35" W	34.87'
L-34	N 80°41'17" W	32.65'
L-35	N 43°12'05" E	44.75'
L-36	N 57°45'44" W	49.93'
L-37	N 53°39'10" W	28.99'
L-38	S 60°16'55" W	45.77'
L-39	S 89°54'01" W	48.14'
L-40	N 77°08'54" W	45.67'
L-41	N 69°05'02" W	43.57'

BOUNDARY LINE TABLE		
LINE	BEARING	DISTANCE
B-1	N 27°28'22" W	104.13'
B-2	N 62°31'38" E	240.00'
B-3	S 27°28'22" E	80.00'
B-4	N 62°31'38" E	200.00'
B-5	N 27°28'22" W	120.00'
B-6	S 62°31'38" W	100.00'
B-7	N 27°28'22" W	80.00'
B-8	S 62°31'38" W	100.00'
B-9	S 27°28'22" E	80.00'
B-10	S 62°31'38" W	140.00'
B-11	N 27°28'22" W	200.00'
B-12	S 62°31'38" W	140.00'
B-13	S 27°28'22" E	200.00'
B-14	S 27°28'22" E	131.30'

TOTAL AREA = 888624.00 SQ. FT. / 20.40 ACRES
UPLAND AREA = 829041.46 SQ. FT. / 17.327 ACRES
WETLAND AREA "A" = 18464.69 SQ. FT. / 0.424 ACRES
WETLAND AREA "B" = 176.98 SQ. FT. / 0.004 ACRES
WETLAND AREA "C" = 40940.87 SQ. FT. / 0.940 ACRES

VICINITY MAP



GENERAL NOTES:
1. NO GUARANTEE, EITHER STATED OR IMPLIED IS MADE THAT THIS PROPERTY IS NOT SUBJECT TO EASEMENTS, CLAIMS, PRESCRIPTIONS, RESTRICTIONS, SUBSURFACE CONDITIONS, OR ANY OTHER MATTERS OF TITLE THAT ARE NOT VISIBLE, NOT DISCLOSED, NOT DISCOVERED DURING THIS SURVEY OR BY TITLE EXAMINATION. THIS SURVEY WAS CONDUCTED, PREPARED AND ISSUED WITHOUT BENIFIT OF ANY TITLE EXAMINATION.
2. THIS WETLAND PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTIES OR ENTITIES NAMED HEREON AND ANY CERTIFICATION DOES NOT EXTEND TO ANY OTHERS WITHOUT RE-CERTIFICATION BY THE UNDERSIGNED.
3. THIS SURVEY IS NOT VALID WITHOUT ORIGINAL SIGNATURE. DECLARATION IS MADE ON THE DATE INDICATED AND TO THE PERSON OR ENTITY SHOWN. SURVEY IS NOT TRANSFERABLE TO ADDITIONAL PERSONS, ENTITIES, INSTITUTIONS OR SUBSEQUENT OWNERS
4. PORTIONS OF THE METES AND BOUNDS SHOWN HAVE BEEN TAKEN FROM PLATS AND/OR DEEDS OF RECORD AND HAVE NOT BEEN VERIFIED BY FIELD SURVEY.
5. HORIZONTAL DATUM = GEORGIA STATE PLANE (EAST ZONE NAD83)
10. ANY VERTICAL INFORMATION SHOWN/INDICATED ON THIS PLAT IS NOT INTENDED FOR CONSTRUCTION PURPOSES.
6. THE TERM "CERTIFICATION" AS USED IN RULE "180-6-.09(2) AND (3)" AND RELATING TO PROFFESSIONAL ENGINEERING OR LAND SURVEYING SERVICES, AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11), SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOW TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER STATED OR IMPLIED.
7. SURVEYOR'S CERTIFICATION EXTENDS ONLY TO THE WETLAND ASPECTS OF THIS SURVEY.
8. WETLAND SURVEY AS SHOWN DOES NOT CONSTITUTE A BOUNDARY SURVEY AND IS NOT TO BE USED AS A BOUNDARY SURVEY AND/OR RECORDED OR USED TO CONVEY PROPERTY.
9. WETLAND DELINEATION BY JEFFREY F. WILLIAMS / PROJECT BIOLOGIST / SUGH ENVIRONMENTAL CONSULTANTS, INC. / 31 PARK OF COMMERCE WAY / SUITE 200 B / SAVANNAH / GEORGIA, 31405

REFERENCES:
1. PRB 45P-57

0 200 400 600
SCALE: 1" = 200'

MITR
GPS/GIS/SURVEY
374 EASTRIDGE DRIVE,
SAVANNAH, GEORGIA
PHONE: 912-354-4145
FAX: 912-354-6560
EMAIL:
MITR374@COMCAST.NET

GEORGIA REGISTERED No. 2001 PROFESSIONAL LAND SURVEYOR GEORGE M. FERREIRA

WETLAND SURVEY

19.41 ACRE RECOMBINATION OF THE KELLER SUBDIVISION, KNOWN AS O HIGHWAY 30, PORT WENTWORTH, CHATHAM COUNTY, GEORGIA
CHATHAM COUNTY PIN# 7-0976C-01-004

PREPARED
FOR
RAYFIELD REEVES
R4R PROPERTY VENTURES LLC

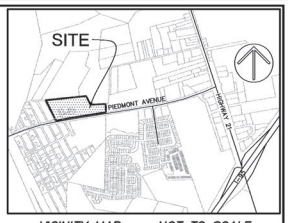
PLAT: 08/05/202
FIELD: 07/24/202
REVISION DATE:
REVISED TOTAL ACRES 8/18/2020
SHEET 1 OF 1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Wetland JD-Nov 24

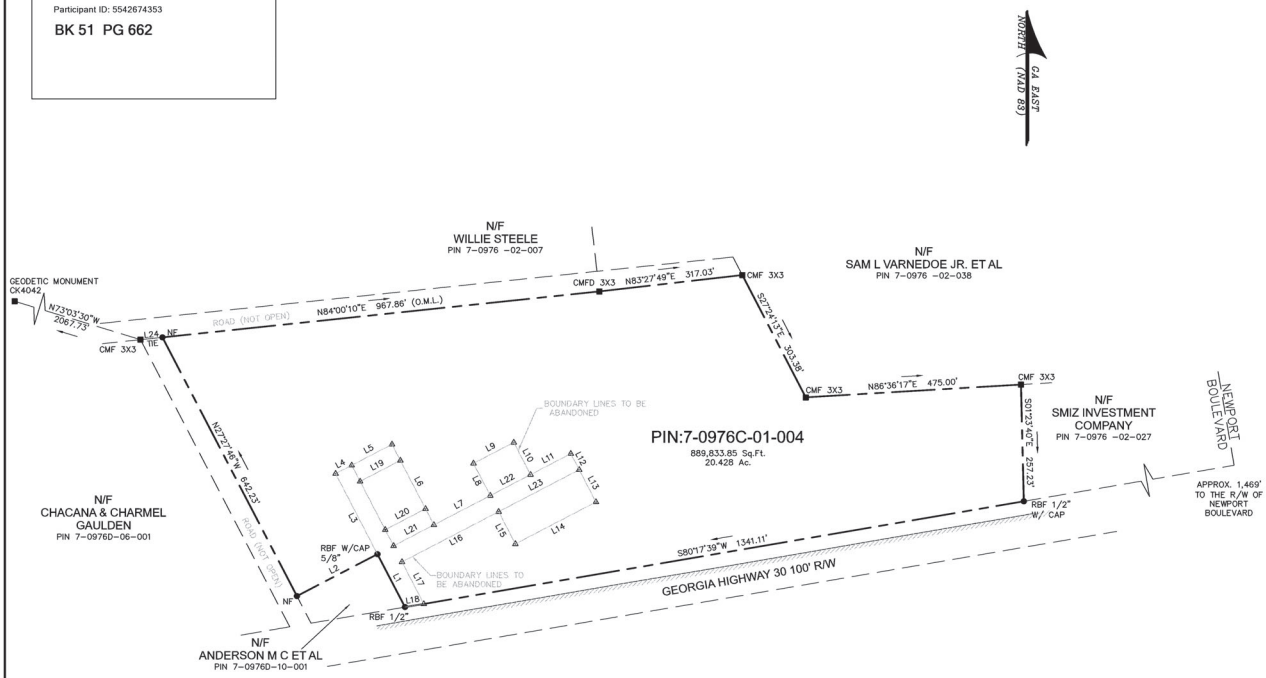
Type: PLAT
Recorded: 12/18/2018 10:59:00 AM
Fee Amt: $8.00 Page 1 of 1
Chatham, Ga. Clerk Superior Court
Tammie Mosley Clerk Superior Court

Participant ID: 5542674353

BK 51 PG 662



VICINITY MAP NOT TO SCALE



LINE TABLE		
LABEL	BEARING	DISTANCE
L1	N27°29'22"W	131.27'
L2	S62°31'10"W	200.05'
L3	N27°28'12"W	199.85'
L4	N62°31'38"E	40.00'
L5	N62°31'38"E	100.00'
L6	N27°28'22"W	200.00'
L7	N62°31'38"E	140.00'
L8	N27°28'22"W	80.00'
L9	N62°32'38"E	100.00'
L10	S27°28'22"E	80.00'
L11	N62°30'38"E	100.00'
L12	S27°28'22"E	40.00'
L13	S27°28'22"E	80.00'
L14	S62°31'38"W	200.00'
L15	N27°28'22"W	80.00'
L16	S62°31'38"W	240.00'
L17	S27°27'00"E	104.00'
L18	S80°29'51"W	42.00'
L19	N62°31'38"E	100.00'
L20	N62°31'38"E	100.00'
L21	N62°31'38"E	100.00'
L22	N62°31'38"E	100.00'
L23	N62°31'38"E	200.00'
L25	S84°04'58"W	48.66'

50 25 0 50 100
GRAPHIC SCALE

Rayfield Reeves
OWNER SIGNATURE

LEGEND

▲	CALC POINT – CORNER NOT SET
CMF ■	CONC. MONUMENT FOUND
CMFD ■	CONC. MONUMENT FOUND DISTURBED
NF ●	NAIL FOUND
RBF ●	REBAR FOUND
O.M.L.	OLD MARKED LINE
//////	EDGE OF PAVEMENT

NOTES

1. THIS PARCEL APPEARS TO LIE IN FLOOD ZONE X, FIRM PANEL 0030–5 COMMUNITY 13051C.
2. HORIZONTAL DATUM IS GA EAST STATE PLANE GRID (NAD 83)

REFERENCES

1.	DEED BOOK: 173Z	PAGE: 57
2.	DEED BOOK: 347H	PAGE: 307
3.	DEED BOOK: 383E	PAGE: 871
4.	DEED BOOK: 698	PAGE: 376
5.	DEED BOOK: 851	PAGE: 657
6.	PLAT BOOK: 28S	PAGE: 21
7.	PLAT BOOK: L	PAGE: 63
8.	PLAT BOOK: T	PAGE: 122

PREPARED FOR:
RAYFIELD REEVES

A RECOMBINATION PLAT OF:

20.428 ACRES LOCATED OFF
HIGHWAY 30 & TAX PARCELS
7-0976C-01-004
7-0976D-08-002
7-0976C-01-002
7-0976C-08-001

TAX PARCEL No.7-0976C-01-004

8TH G.M.D.
CHATHAM COUNTY, PORT WENTWORTH, GEORGIA

FIELD WORK:	ZKS
FIELD CHECK:	WHG
DRAWN BY:	BNN
DATE:	12–18–2018
SCALE:	1"=50'
PROJECT No.:	BFT–18271
FILE:	BFT–18271 RECOM1.DWG

ATLAS SURVEYING, INC.
49 BROWN'S COVE ROAD, SUITE #5
RIDGELAND, SC 29936
PHONE: (843) 645–9277
WEBSITE: WWW.ATLASSURVEYING.COM

TOTAL AREA: 889,883.85 SQ. FT. (20.428 ACRES)
EOC FIELD:1/26,766
ANG. EOC: 06"/ANGLE POINT
ADJ. METHOD: COMPASS RULE
EOC PLAT:1/226,038
EQUIP. USED:TOPCON TOTAL STATION GTS9003

GEORGIA ATLAS SURVEYING,INC. No. LSF001090 CERTIFICATE OF AUTHORIZATION

GEORGIA ATLAS SURVEYING BFT,LLC. No. LSF001282 CERTIFICATE OF AUTHORIZATION

AS REQUIRED BY SUBSECTION (d) OF O.C.G.A. SECTION 15–6–67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, SIGNATURES, STAMPS, OR STATEMENTS HEREON. SUCH APPROVALS OR AFFIRMATIONS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15–6–67.

WILLIAM H. GRAY, JR.
GA.P.L.S. No. LS003235

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - RECORDED PLAT (2575 : Site Plan Review Application Parkside at Port Wentworth (Specific))

SITE DEVELOPMENT PLANS

OF

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

9040 ROSWELL ROAD, SUITE 120

ATLANTA, GEORGIA 30350

TM# 7-0976C-01-004

OCTOBER 8, 2021

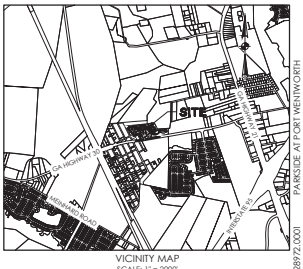
J-28972.0001

PREPARED BY:

THOMAS & HUTTON

PERMIT SET - FOR REVIEW PURPOSES ONLY

Sheet List Table	
Sheet Number	Sheet Title
CO	COVER SHEET
G1.1	GENERAL NOTES AND LEGEND
AR1.1	ACCESSIBLE ROUTE PLAN
AR1.2	ACCESSIBLE ROUTE PLAN
G2.1	EXISTING CONDITIONS AND DEMOLITION PLAN
G2.2	EXISTING CONDITIONS AND DEMOLITION PLAN
G2.3	EXISTING CONDITIONS AND DEMOLITION PLAN
G2.4	EXISTING CONDITIONS AND DEMOLITION PLAN
C1.1	STRIPING,SIGNAGE AND LAYOUT PLAN
C1.2	STRIPING,SIGNAGE AND LAYOUT PLAN
C1.3	STRIPING,SIGNAGE AND LAYOUT PLAN
C1.4	STRIPING, SIGNAGE AND LAYOUT PLAN
C2.1	WATER AND SEWER PLAN
C2.2	WATER AND SEWER PLAN
C2.3	WATER AND SEWER PLAN
C2.4	WATER AND SEWER PLAN
C2.5	SEWER PROFILES
C2.6	SEWER PROFILES
C2.7	WATER AND SEWER DETAILS
C2.8	WATER AND SEWER DETAILS
C2.9	WATER AND SEWER DETAILS
C2.10	WATER AND SEWER DETAILS
C3.1	DRAINAGE PLAN
C3.2	DRAINAGE PLAN
C3.3	DRAINAGE PLAN
C3.4	DRAINAGE PLAN
C4.1	PAVING AND GRADING PLAN
C4.2	PAVING AND GRADING PLAN
C4.3	PAVING AND GRADING PLAN
C4.4	PAVING AND GRADING PLAN
C4.5	DRAINAGE PROFILES
C4.6	DRAINAGE PROFILES
C4.7	ROAD PROFILES
C4.8	ROAD PROFILES
C5.1	PAVING, GRADING AND DRAINAGE DETAILS
C5.2	PAVING, GRADING AND DRAINAGE DETAILS
C5.3	PAVING, GRADING AND DRAINAGE DETAILS
C5.4	PAVING, GRADING AND DRAINAGE DETAILS
C5.5	PAVING, GRADING AND DRAINAGE DETAILS
C5.6	PAVING, GRADING AND DRAINAGE DETAILS
C5.7	PAVING, GRADING AND DRAINAGE DETAILS
C5.8	PAVING, GRADING AND DRAINAGE DETAILS
C5.9	PAVING, GRADING AND DRAINAGE DETAILS
C5.10	PAVING, GRADING AND DRAINAGE DETAILS
C5.11	PAVING, GRADING AND DRAINAGE DETAILS
C5.12	PAVING, GRADING AND DRAINAGE DETAILS
EC1.1	EROSION CONTROL NOTES
EC1.2	EROSION CONTROL NOTES
EC1.3	EROSION CONTROL NOTES
EC2.1	ES & PC-PLAN-INITIAL PHASE
EC2.2	ES & PC-PLAN-INITIAL PHASE
EC2.3	ES & PC-PLAN-INITIAL PHASE
EC2.4	ES & PC-PLAN-INITIAL PHASE
EC3.1	ES & PC-PLAN-CONSTRUCTION PHASE
EC3.2	ES & PC-PLAN-CONSTRUCTION PHASE
EC3.3	ES & PC-PLAN-CONSTRUCTION PHASE
EC3.4	ES & PC-PLAN-CONSTRUCTION PHASE
EC4.1	ES & PC-PLAN-STABILIZATION PHASE
EC4.2	ES & PC-PLAN-STABILIZATION PHASE
EC4.3	ES & PC-PLAN-STABILIZATION PHASE
EC4.4	ES & PC-PLAN-STABILIZATION PHASE
EC5.1	EROSION CONTROL DETAILS
EC5.2	EROSION CONTROL DETAILS
EC5.3	EROSION CONTROL DETAILS
EC5.4	EROSION CONTROL DETAILS



VICINITY MAP
SCALE: 1" = 2000'

PARKSIDE AT PORT WENTWORTH
J-28972.0001
10.08.2021

SITE DATA TABLE	
ZONING	P-R-M
PROPOSED SITE USE	MULTIFAMILY
SITE AREA	20.5 AC
DISTURBED AREA	22.0 AC
ALLOWED DENSITY	369 UNITS (18 UNITS/ACRE)
PROPOSED DENSITY	235 UNITS
MAXIMUM IMPERVIOUS COVER	60%
PROPOSED IMPERVIOUS COVER	47% (9.8 AC)
MAXIMUM BUILDING HEIGHT ALLOWED	50 FEET
PROPOSED BUILDING HEIGHT	---
REQUIRED PARKING SPACES	398 SPACES
PROPOSED PARKING SPACES	449 SPACES
IMPERVIOUS SURFACES (TOTAL)	9.8 AC
POND	3.0 AC
BUILDINGS	3.1 AC
STREETS	3.2 AC
SIDEWALKS	0.5 AC
PERVIOUS SURFACE	10.7 AC

NOTE: AREAS LISTED ABOVE ARE APPROXIMATE AND WILL NOT BE FINALIZED UNTIL A PLAT IS RECORDED.

REVISION HISTORY			
REV. NO.	REVISION	BY	DATE

SUBMITTAL HISTORY	
SUBMITTED TO	DATE

811 Know what's below. Call before you dig.

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405
p.912.234.5300
www.thomasandhutton.com

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)

WATER LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN	10"W	10"W
SINGLE SERVICE LATERAL		
DOUBLE SERVICE LATERAL		
VALVE AND BOX		
FIRE HYDRANT W/VALVE & BOX		
POST HYDRANT		
REDUCER		
BACKFLOW PREVENTOR		
CROSS		
TEE		
90° BEND - HORIZONTAL		
45° BEND - HORIZONTAL		
22-½° BEND - HORIZONTAL		
11-¼° BEND - HORIZONTAL		
BEND - VERTICAL		
CAP		

SEWER LEGEND

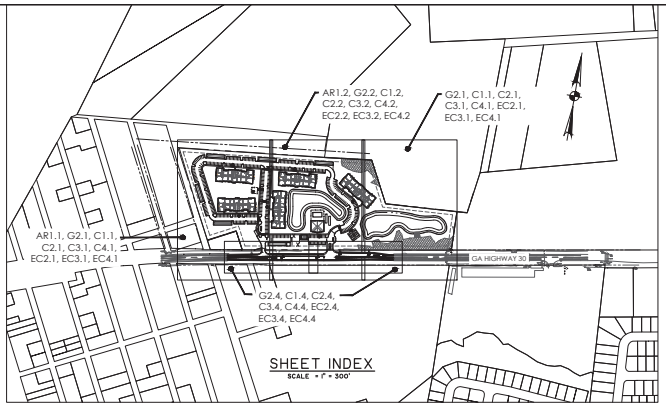
DESCRIPTION	EXISTING	PROPOSED
GRAVITY PIPE	SS	
SINGLE SERVICE LATERAL		
DOUBLE SERVICE LATERAL		
MANHOLE		
CLEANOUT		
FORCEMAIN	10"FM 10"FM	10"FM 10"FM
VALVE AND BOX		
FLUSH HYDRANT		
REDUCER		
BACKFLOW PREVENTOR		
CROSS		
TEE		
90° BEND - HORIZONTAL		
45° BEND - HORIZONTAL		
22-½° BEND - HORIZONTAL		
11-¼° BEND - HORIZONTAL		
BEND - VERTICAL		
PLUG \ CAP		

ABBREVIATIONS

HDPE	HIGH DENSITY POLYETHYLENE	JB	JUNCTION BOX	SDMH	STORM DRAINAGE MANHOLE
BOT	BOTTOM	LF	LINEAR FEET	SF	SQUARE FEET
CI	CURB INLET	MAX	MAXIMUM	SS	SANITARY SEWER
CPP	CORRUGATED PLASTIC PIPE	MIN	MINIMUM	TC	TOP OF CURB
DIP	DUCTILE IRON PIPE	MH	MANHOLE	TG	TOP OF GUTTER
EL	ELEVATION	OC	ON CENTER	TP	TOP OF PAVEMENT
FG	FINISH GRADE	PC	POINT OF CURVE	TW	TOP OF WALK
FH	FIRE HYDRANT	PH	POST HYDRANT	TYP	TYPICAL
FM	FORCE MAIN (SANITARY SEWER)	PT	POINT OF TANGENT	W	WATER
FP	FINISH PAD	PVC	POLYVINYL CHLORIDE	W/	WITH
FR	FRAME	RCP	REINFORCED CONCRETE PIPE	WV	WATER VALVE
GI	GRATE INLET	RJP	RESTRAINED JOINT PIPE	YI	YARD INLET
GV	GATE VALVE	R/W	RIGHT-OF-WAY	SGD	SUB GRADE DRAIN
INV	INVERT ELEVATION	SD	STORM DRAINAGE		

OTHER UTILITIES LEGEND

DESCRIPTION	EXISTING
NATURAL GAS	UGG UGG
TELEPHONE	OHT OHT
UNDERGROUND TELEPHONE	UTL UTL
ELECTRICITY	OHP OHP
UNDERGROUND ELECTRICITY	UGP UGP



GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE TIE-IN OF NEW WATER AND SEWER FACILITIES WITH THE CITY OF PORT WENTWORTH WATER AND SEWER DEPARTMENT.
2. THE CITY OF PORT WENTWORTH WILL NOT BE RESPONSIBLE FOR ANY WATER SERVICE LINES ON THE BUILDING SIDE OF THE METER.
3. THE CONNECTION TO THE SEWER MAIN SHALL BE MADE IN THE PRESENCE OF A CITY REPRESENTATIVE AND THE CITY MUST APPROVE THE CONNECTION PRIOR TO IT BEING COVERED UP.
4. IN ALL WATER LINE PROJECTS, CARE SHALL BE TAKEN TO KEEP THE INTERIOR OF THE WATER PIPE CLEAN PRIOR TO CONNECTION TO THE CITY SYSTEM.
5. CONTRACTOR SHALL MAINTAIN MINIMUM COVER OVER THE WATER MAIN PIPE BARREL OF 3'-0" UNLESS OTHERWISE INDICATED. TOP OF PIPE ELEVATIONS ARE SHOWN FOR CASES WHERE FUTURE STORM SEWERS ARE TO BE INSTALLED. IN NO CASE SHALL THE WATER MAIN BE INSTALLED AT A LOWER ELEVATION THAN THAN SHOWN.
6. PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES SHALL, UNLESS OTHERWISE DIRECTED, BE UNLOADED AT THE POINT OF DELIVERY, AND STORED WHERE THEY WILL BE PROTECTED AND WILL NOT BE HAZARDOUS TO TRAFFIC. THEY SHALL AT ALL TIMES BE HANDLED WITH CARE TO AVOID DAMAGE. THE INTERIOR OF ALL PIPE, FITTINGS AND OTHER ACCESSORIES SHALL BE KEPT FROM DIRT AND FOREIGN MATTER AT ALL TIMES.
7. ANY DEFECTIVE, DAMAGED OR UNSOUND PIPE SHALL BE REJECTED. ALL FOREIGN MATTER OR DIRT SHALL BE REMOVED FROM THE INSIDE OF THE PIPE BEFORE IT IS LOWERED INTO ITS POSITION IN THE TRENCH AND SHALL BE KEPT CLEAN BY ACCEPTABLE MEANS DURING AND AFTER LAYING. CARE SHALL BE TAKEN TO PREVENT DIRT OR OTHER MATERIAL FROM ENTERING THE JOINT SPACE. AT TIMES WHEN PIPE LAYING IS NOT IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY ACCEPTABLE MEANS AND NO TRENCH WATER SHALL BE PERMITTED TO ENTER THE PIPE.
8. CLEAN THE INTERIORS OF ALL PIPE BY BRUSHING, SWABBING OR WASHING OUT OF ALL DIRT BEFORE LAYING.
9. FLUSH AND DISINFECT THE NEW WATER LINES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS
10. ALL WATER USED FOR CONSTRUCTION SHALL BE METERED THROUGH AN ACCEPTABLE BACKFLOW PREVENTION DEVICE AND FIRE HYDRANT METER OBTAINED FROM THE CITY OF PORT WENTWORTH, CONVEYANCE AND DISTRIBUTION DEPARTMENT.
11. ALL CONSTRUCTION MATERIALS, TECHNICAL SPECIFICATIONS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH , CITY OF PORT WENTWORTH.
12. ALL ROAD SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH MUTCD SPECIFICATIONS.
13. SELECT FILL SHALL BE USED IN ALL ROADS TO BE DEDICATED TO THE CITY.
14. ROAD FILL SHALL BE COMPACTED TO 100% STANDARD PROCTOR (ASTM D 698) OR WHAT IS RECOMMENDED BY THE GEOTECHNICAL REPORT.
15. TRAFFIC SIGNS INSTALLED INSIDE THE PUBLIC R/W MUST HAVE HIGH INTENSITY OR DIAMOND GRADE SHEETING.
16. STREET NAME SIGNS SHALL BE PROVIDED BY THE DEVELOPER.
17. MAINTAIN A 10' HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWERS AND ALL WATER MAINS. IF 10' SEPARATION CANNOT BE OBTAINED, MAINTAIN 5' HORIZONTAL AND 10" VERTICAL SEPARATION BETWEEN WATER AND SEWER MAINS. WATER AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT PLANS AND TECHNICAL SPECIFICATIONS.
18. A #12 GAUGE SOLID COPPER TRACING WIRE SHALL BE INSTALLED ON ALL WATER MAINS, WATER LATERALS, FIRE HYDRANTS, POST HYDRANTS, AND/OR BLOW OFFS AND ALONG ALL SANITARY SEWER LINES, LATERALS, AND FORCE MAINS.
19. DISCHARGE OF HIGHLY CHLORINATED WATER INTO SURROUNDING AREAS OR STORM DRAINAGE SYSTEM IS PROHIBITED. DISPOSAL OF HIGHLY CHLORINATED WATER SHALL COMPLY WITH THE REQUIREMENTS OF GEORGIA E.P.D. AND AWWA STANDARD C651, LATEST REVISION. IF REQUIRED BY THE ENGINEER, A REDUCING AGENT SHALL BE USED TO NEUTRALIZE THE CHLORINE.
20. WATER LATERALS SHALL BE LAID AS SHOWN ON THE PROJECT PLANS.
21. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
22. ALL STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
23. SHOULD PIPE, FITTINGS, AND OTHER MATERIALS BE NEEDED IN ADDITION TO THAT SHOWN ON THE DRAWINGS BECAUSE PIPELINE WAS NOT INSTALLED TO THE ALIGNMENT AND PROFILE SHOWN, THEN THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THOSE NECESSARY MATERIALS AND PROVIDING THE EQUIPMENT AND LABOR TO INSTALL THEM TO MEET THE DESIGN INTENT OF THE WATERMAIN AT NO ADDITIONAL COST TO THE OWNER.
24. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL COORDINATE ALL WORK WITH THE OWNER AND UTILITY COMPANIES.
25. THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS, HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THOMAS & HUTTON.
26. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER 48 HOURS IN ADVANCE OF ALL REQUIRED TESTS AND OBSERVATIONS.
27. SURVEYING AND BOUNDARY INFORMATION BY THOMAS AND HUTTON.
28. ALL ELEVATIONS SHOWN ARE BASED ON NAVD88.THE HORIZONTAL DATUM IS GEORGIA NAD83, EAST ZONE.
29. TOPOGRAPHIC SURVEY BY THOMAS AND HUTTON.
30. THE PROJECT SITE IS IN FLOOD ZONE X ACCORDING TO FEMA FIRM PANELS 13051C0330G (EFFECTIVE 08/16/2018).
31. CONTRACTOR IS TO VERIFY ACCURACY OF ANY TEMPORARY BENCHMARKS SHOWN PRIOR TO UTILIZING THEM FOR CONSTRUCTION.
32. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES OTHER THAN THOSE SHOWN ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE STEPS TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR, ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.
33. AN ACCEPTABLE WATER SUPPLY FOR FIRE PROTECTION EITHER TEMPORARY OR PERMANENT SHALL BE MADE AVAILABLE PRIOR TO COMBUSTIBLE MATERIALS ARRIVING ON THE SITE.
34. IF WORK IS SUSPENDED OR DELAYED FOR 14 DAYS, THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE DISTURBED AREA AT NO ADDITIONAL COST TO THE OWNER.
35. THE CONTRACTOR SHALL INSTALL ANY BARRICADES PRIOR TO BEGINNING CONSTRUCTION
36. ANY DAMAGE TO EXISTING PAVEMENT MUST BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE STREET SUPERINTENDENT AND THE PROJECT ENGINEER.
37. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL AND PREVENTION STRUCTURES SHOWN ON THE PLANS. BOTH MUST BE APPROVED BY THE CITY OF PORT WENTWORTH PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES.
38. A COMPLETE SET OF PERMITTED DRAWINGS AND SPECIFICATIONS MUST BE MAINTAINED ON SITE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK. THESE DRAWINGS SHALL BE MADE AVAILABLE UPON REQUEST.
39. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS NECESSARY FROM OTHER RESPONSIBLE AGENCIES.
40. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO THE GRADING AND REMOVAL OPERATION. CONTRACTOR SHALL REFER TO THE REPORT OF SUBSURFACE EXPLORATION GEOTECHNICAL EVALUATION, DATED JUNE 8, 2021, PREPARED BY TERRACON CONSULTANTS, INC. FOR GUIDANCE THROUGHOUT CONSTRUCTION. CONTACT ENGINEER TO OBTAIN A COPY OF THIS EVALUATION PRIOR TO PROVIDING A BID OR BEGINNING OF WORK.
41. CONTRACTOR WILL BE REQUIRED TO ADJUST MANHOLE FRAMES TO MATCH FINAL GRADE AT NO ADDITIONAL COST.
42. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE DISTURBANCE OF THE LAND AND SHALL REMAIN FUNCTIONAL UNTIL THE CONTRIBUTING DISTURBED AREAS ARE STABILIZED. SILT BARRIERS WILL BE INSTALLED AS NECESSARY TO PREVENT EXCESSIVE SEDIMENTATION OF DOWNSTREAM AREAS.
43. CONTRACTOR SHALL GRADE AREAS TO DRAIN FOR POSITIVE FLOW PRIOR TO FINAL ACCEPTANCE.
44. ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" CURRENT EDITION.
45. ALL DRAINAGE WILL BE MADE FUNCTIONAL DAILY AS WORK PROGRESSES.
46. EACH EXISTING ROAD WILL BE CLEANED UP AND RESTORED DAILY.
47. NEW PAVEMENT TO BE FLUSH WITH EDGE OF EXISTING PAVEMENT.
48. ALL STORM DRAIN PIPE INVERTS IN AND OUT ARE THE SAME AS THE BOX INVERT UNLESS OTHERWISE NOTED ON THE PLAN SHEETS AND/OR PROFILES.
49. ANY BARRICADES, LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL DEVICES REQUIRED BY THE STREET SUPERINTENDENT FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION ON CITY OF PORT WENTWORTH ROADS.
50. ROOF DRAINAGE, WATER AND SEWER LATERALS ARE PROPOSED ADJACENT TO THE BUILDING FOOTPRINT. CONTRACTOR SHALL NOT POUR CONCRETE SIDEWALK OR OTHER SURFACE ABOVE THESE UTILITIES UNTIL PROPER CONNECTIONS TO THE BUILDING HAVE BEEN MADE. CONNECTIONS TO DRAINAGE, WATER, SEWER OR OTHER UTILITIES SHALL BE COORDINATED WITH BUILDING CONTRACTOR PRIOR TO FINAL GRADING AND STAKE/LOCATION.
47. STAIRS, TRASH COMPACTOR, EXTERIOR BUILDING WALLS, AND ALL OTHER COMPONETS WITHIN 5 FEET OF BUILDING FOOTPRINT SHALL BE DESIGNED AND INSTALLED BY OTHERS. COORDINATE WITH ARCHITECTURAL PLANS AND BUILDING CONTRACTOR PRIOR TO INSTALLATION OF VEHICULAR CONCRETE AND DRAINAGE PROPOSED THERE IN.
48. THE SEWER SERVICE LINE WILL BE REQUIRED TO PASS A PRESSURE TEST PRIOR TO CONNECTION TO BUILDING OR TO THE EXISTING LATERAL.
49. CITY OF PORT WENTWORTH ORDINANCES, STANDARDS, SPECIFICATIONS, AND DETAILS SHALL PREVAIL IN THE EVENT OF CONFLICT WITH ENGINEER'S SPECIFICATIONS.
50. STREET SIGNS SHALL HAVE HIGH INTENSITY OR DIAMOND GRADE SHEETING.
51. WATER LATERALS FROM THE PROPOSED PUMPHOUSE SHALL BE COORDINATED WITH MEP PLANS AND MEET CITY OF PORT WENTWORTH WATER SYSTEM SPECIFICATIONS.
52. ALL ROADS ARE PRIVATELY OWNED AND MAINTAINED.
53. DRAINAGE HAS BEEN ANALYZED AND DESIGNED FOR THE 1, 10, 25, 50, AND 100 YEAR 24-HOUR STORM EVENTS.

DRAINAGE LEGEND

DESCRIPTION	EXISTING	PROPOSED
PIPE		
DITCH		
CURB INLET		
GRATE INLET		
JUNCTION BOX		
OUTLET STRUCTURE		

GENERAL INFORMATION

COUNTY CHATHAM
TOWN PORT WENTWORTH
ZONING P-R-M

OWNER:
PARKSIDE EQUITIES, LLC
9040 ROSWELL ROAD, SUITE 120
ATLANTA, GEORGIA 30350
MR. LENNY MELTZ

ENGINEER:
THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405
(912) 234-5300

PREPARED FOR:
PARKSIDE EQUITIES, LLC
9040 ROSWELL ROAD, SUITE 120
ATLANTA, GEORGIA 30350

WATER AND SEWER:
CITY OF PORT WENTWORTH
CONTACT: BRIAN HARVEY
305 SOUTH COASTAL HWY,
PORT WENTWORTH, GA 31407
(912) 210-2643

ELECTRIC:
GEORGIA POWER
3100 KILOWATT DRIVE
SAVANNAH, GA 31402
(912) 944-3572

TELEPHONE:
HOTWIRE COMMUNICATIONS
CONTACT: CRAIG CHASON
4600 HIGHLANDS PARKWAY
SMYRNA, GA 30082
(770) 401-9200

NATURAL GAS:
ATLANTA GAS LIGHT
CONTACT: JOSEPH WHITE
1668 CHATHAM PARKWAY
SAVANNAH, GA 31405
(912) 239-6508

CABLE TV:
COMCAST
145 PARK OF COMMERCE DRIVE
SAVANNAH, GA 31405
(912) 523-5100

SURVEYOR:
THOMAS AND HUTTON
50 PARK OF COMMERCE
PO BOX 2727,
SAVANNAH, GA 31405

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

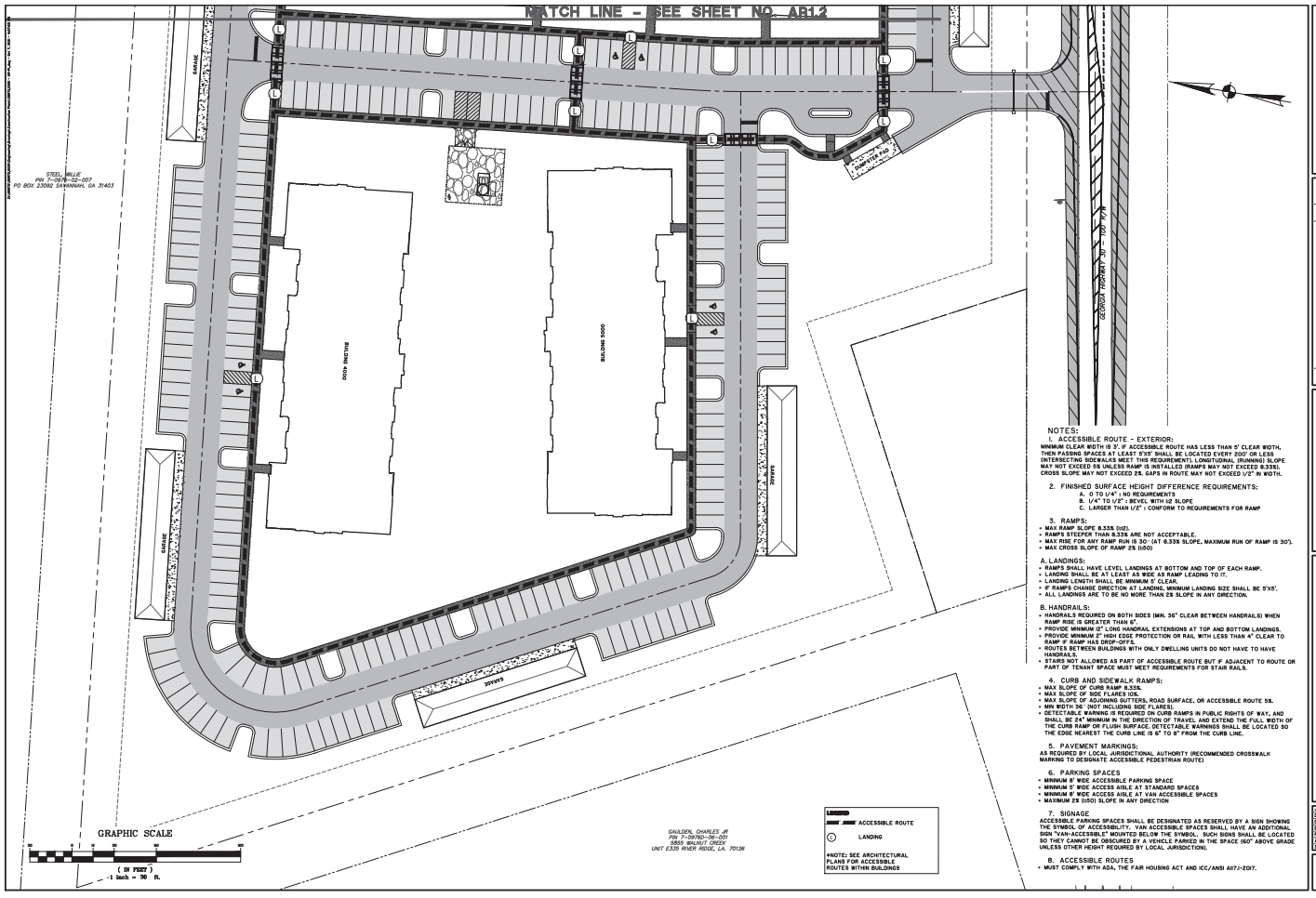
PARKSIDE AT PORT WENTWORTH

GENERAL NOTES AND LEGEND

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN (DEC 2021 - 2879 : Site Plan 10.3.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)

JOB NO:	J-29972.0001
DATE:	10/08/2021
DRAWN:	CDC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	MBL
SCALE:	AS SHOWN

G1.1



NOTES:

1. ACCESSIBLE ROUTE - EXTERIOR:
MINIMUM CLEAR WIDTH IS 3'. IF ACCESSIBLE ROUTE HAS LESS THAN 5' CLEAR WIDTH, THEN PASSING SPACES AT LEAST 5'X5' SHALL BE LOCATED EVERY 200' OR LESS (INTERSECTING SIDEWALKS MEET THIS REQUIREMENT). LONGITUDINAL (RUNNING) SLOPE MAY NOT EXCEED 5% UNLESS RAMP IS INSTALLED (RAMPS MAY NOT EXCEED 8.33%). CROSS SLOPE MAY NOT EXCEED 2%. GAPS IN ROUTE MAY NOT EXCEED 1/2" IN WIDTH.

2. FINISHED SURFACE HEIGHT DIFFERENCE REQUIREMENTS:
A. 0 TO 1/4" : NO REQUIREMENTS
B. 1/4" TO 1/2" : BEVEL WITH ≥2 SLOPE
C. LARGER THAN 1/2" : CONFORM TO REQUIREMENTS FOR RAMP

3. RAMPS:
- MAX RAMP SLOPE 8.33% (≤12).
- RAMPS STEEPER THAN 8.33% ARE NOT ACCEPTABLE.
- MAX RISE FOR ANY RAMP RUN IS 30" (AT 8.33% SLOPE; MAXIMUM RUN OF RAMP IS 30').
- MAX CROSS SLOPE OF RAMP 2% (≤50)

A. LANDINGS:
- RAMPS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP.
- LANDING SHALL BE AT LEAST AS WIDE AS RAMP LEADING TO IT.
- LANDING LENGTH SHALL BE MINIMUM 5' CLEAR.
- IF RAMPS CHANGE DIRECTION AT LANDING, MINIMUM LANDING SIZE SHALL BE 5'X5'.
- ALL LANDINGS ARE TO BE NO MORE THAN 2% SLOPE IN ANY DIRECTION.

B. HANDRAILS:
- HANDRAILS REQUIRED ON BOTH SIDES (MIN. 36" CLEAR BETWEEN HANDRAILS) WHEN RAMP RISE IS GREATER THAN 6".
- PROVIDE MINIMUM 12" LONG HANDRAIL EXTENSIONS AT TOP AND BOTTOM LANDINGS.
- PROVIDE MINIMUM 2" HIGH EDGE PROTECTION OR RAIL WITH LESS THAN 4" CLEAR TO RAMP IF RAMP HAS DROP-OFFS.
- ROUTES BETWEEN BUILDINGS WITH ONLY DWELLING UNITS DO NOT HAVE TO HAVE HANDRAILS.
- STAIRS NOT ALLOWED AS PART OF ACCESSIBLE ROUTE BUT IF ADJACENT TO ROUTE OR PART OF TENANT SPACE MUST MEET REQUIREMENTS FOR STAIR RAILS.

4. CURB AND SIDEWALK RAMPS:
- MAX SLOPE OF CURB RAMP 8.33%.
- MAX SLOPE OF SIDE FLARES 10%.
- MAX SLOPE OF ADJOINING GUTTERS, ROAD SURFACE, OR ACCESSIBLE ROUTE 5%.
- MIN WIDTH 36" (NOT INCLUDING SIDE FLARES).
- DETECTABLE WARNING IS REQUIRED ON CURB RAMPS IN PUBLIC RIGHTS OF WAY, AND SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB LINE IS 6" TO 8" FROM THE CURB LINE.

5. PAVEMENT MARKINGS:
AS REQUIRED BY LOCAL JURISDICTIONAL AUTHORITY (RECOMMENDED CROSSWALK MARKING TO DESIGNATE ACCESSIBLE PEDESTRIAN ROUTE)

6. PARKING SPACES
- MINIMUM 9' WIDE ACCESSIBLE PARKING SPACE
- MINIMUM 5' WIDE ACCESS AISLE AT STANDARD SPACES
- MINIMUM 8' WIDE ACCESS AISLE AT VAN ACCESSIBLE SPACES
- MAXIMUM 2% (1/50) SLOPE IN ANY DIRECTION

7. SIGNAGE
ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED AS RESERVED BY A SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. VAN ACCESSIBLE SPACES SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL. SUCH SIGNS SHALL BE LOCATED SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE (60" ABOVE GRADE UNLESS OTHER HEIGHT REQUIRED BY LOCAL JURISDICTION).

8. ACCESSIBLE ROUTES
- MUST COMPLY WITH ADA, THE FAIR HOUSING ACT AND ICC/ANSI A117.1-2017.

GEORGIA REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

NO.	REVISIONS	BY	DATE

THOMAS HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

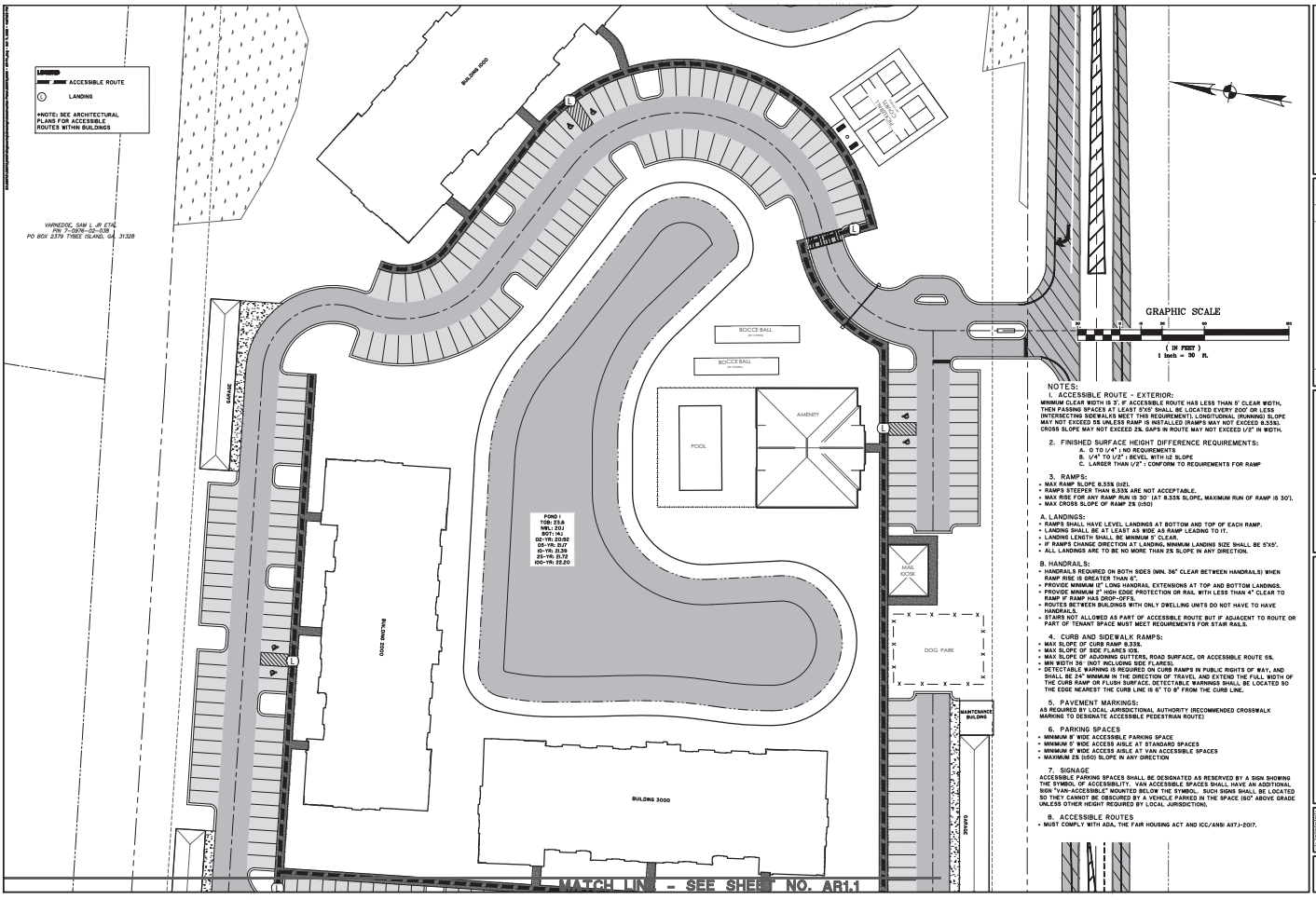
PARKSIDE AT PORT WENTWORTH

ACCESSIBLE ROUTE PLAN

JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPW
APPROVED:	MIL
SCALE:	1" = 30'

AR1.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

NOTES:

1. ACCESSIBLE ROUTE - EXTERIOR:
MINIMUM CLEAR WIDTH IS 3'. IF ACCESSIBLE ROUTE HAS LESS THAN 5' CLEAR WIDTH, THEN PASSING SPACES AT LEAST 5'X5' SHALL BE LOCATED EVERY 200' OR LESS INTERSECTING SIDEWALKS MEET THIS REQUIREMENT). LONGITUDINAL (RUNNING) SLOPE MAY NOT EXCEED 5% UNLESS RAMP IS INSTALLED (RAMPS MAY NOT EXCEED 8.33%). CROSS SLOPE MAY NOT EXCEED 2%. GAPS IN ROUTE MAY NOT EXCEED 1/2" IN WIDTH.

2. FINISHED SURFACE HEIGHT DIFFERENCE REQUIREMENTS:
A. 0 TO 1/4" : NO REQUIREMENTS
B. 1/4" TO 1/2" : BEVEL WITH 1:2 SLOPE
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- RAMPS STEEPER THAN 8.33% ARE NOT ACCEPTABLE.
- MAX RISE FOR ANY RAMP RUN IS 30" (AT 8.33% SLOPE, MAXIMUM RUN OF RAMP IS 30').
- MAX CROSS SLOPE OF RAMP 2% (1:50)

A. LANDINGS:
- RAMPS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP.
- LANDING SHALL BE AT LEAST AS WIDE AS RAMP LEADING TO IT.
- LANDING LENGTH SHALL BE MINIMUM 5' CLEAR.
- IF RAMPS CHANGE DIRECTION AT LANDING, MINIMUM LANDING SIZE SHALL BE 5'X5'.
- ALL LANDINGS ARE TO BE NO MORE THAN 2% SLOPE IN ANY DIRECTION.

B. HANDRAILS:
- HANDRAILS REQUIRED ON BOTH SIDES (MIN. 36" CLEAR BETWEEN HANDRAILS) WHEN RAMP RISE IS GREATER THAN 6".
- PROVIDE MINIMUM 12" LONG HANDRAIL EXTENSIONS AT TOP AND BOTTOM LANDINGS.
- PROVIDE MINIMUM 2" HIGH EDGE PROTECTION OR RAIL WITH LESS THAN 4" CLEAR TO RAMP IF RAMP HAS DROP-OFFS.
- ROUTES BETWEEN BUILDINGS WITH ONLY DWELLING UNITS DO NOT HAVE TO HAVE HANDRAILS.
- STAIRS NOT ALLOWED AS PART OF ACCESSIBLE ROUTE BUT IF ADJACENT TO ROUTE OR PART OF TENANT SPACE MUST MEET REQUIREMENTS FOR STAIR RAILS.

4. CURB AND SIDEWALK RAMPS:
- MAX SLOPE OF CURB RAMP 8.33%.
- MAX SLOPE OF SIDE FLARES 10%.
- MAX SLOPE OF ADJOINING GUTTERS, ROAD SURFACE, OR ACCESSIBLE ROUTE 5%.
- MIN WIDTH 36" (NOT INCLUDING SIDE FLARES).
- DETECTABLE WARNING IS REQUIRED ON CURB RAMPS IN PUBLIC RIGHTS OF WAY, AND SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB LINE IS 6" TO 8" FROM THE CURB LINE.

5. PAVEMENT MARKINGS:
AS REQUIRED BY LOCAL JURISDICTIONAL AUTHORITY (RECOMMENDED CROSSWALK MARKING TO DESIGNATE ACCESSIBLE PEDESTRIAN ROUTE)

6. PARKING SPACES
- MINIMUM 8' WIDE ACCESSIBLE PARKING SPACE
- MINIMUM 5' WIDE ACCESS AISLE AT STANDARD SPACES
- MINIMUM 8' WIDE ACCESS AISLE AT VAN ACCESSIBLE SPACES
- MAXIMUM 2% (1:50) SLOPE IN ANY DIRECTION

7. SIGNAGE
ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED AS RESERVED BY A SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. VAN ACCESSIBLE SPACES SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL. SUCH SIGNS SHALL BE LOCATED SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE (60" ABOVE GRADE UNLESS OTHER HEIGHT REQUIRED BY LOCAL JURISDICTION).

8. ACCESSIBLE ROUTES
- MUST COMPLY WITH ADA, THE FAIR HOUSING ACT AND ICC/ANSI A117.1-2017.

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
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www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

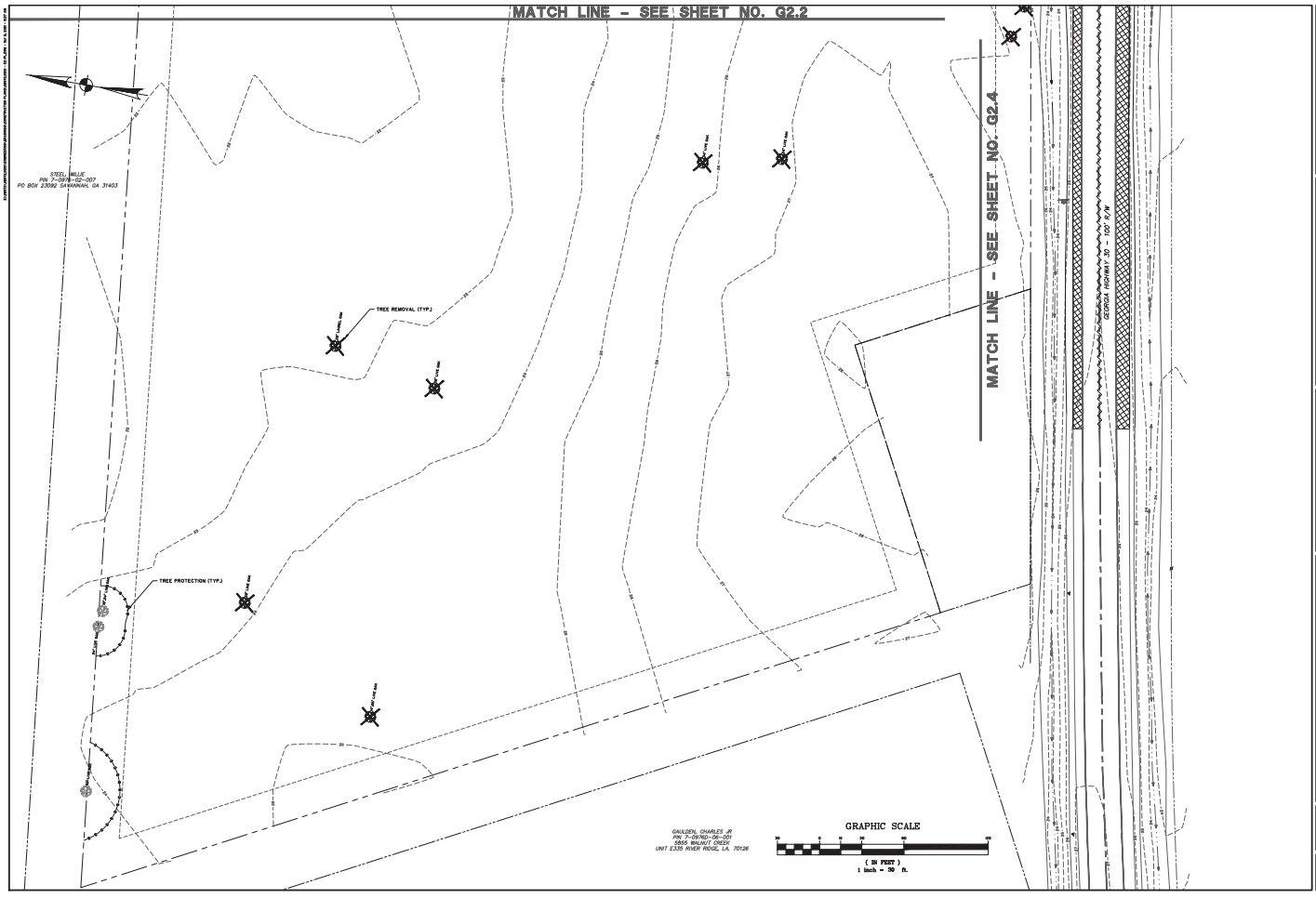
PARKSIDE AT PORT WENTWORTH

ACCESSIBLE ROUTE PLAN

JOB NO.	J-20072.000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPW
APPROVED:	MIL
SCALE:	1" = 30'

AR1.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EXISTING CONDITIONS AND DEMOLITION PLAN

JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

G2.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

MATCH LINE - SEE SHEET NO. G2.3

VARNEDOE, SAM L JR ETAL
PIN 7-0976-02-038
PO BOX 2379 TYBEE ISLAND, GA 31328

TREE REMOVAL (TYP.)

MATCH LINE - SEE SHEET NO. G2.4

TREE PROTECTION (TYP.)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

MATCH LINE - SEE SHEET NO. G2.1

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

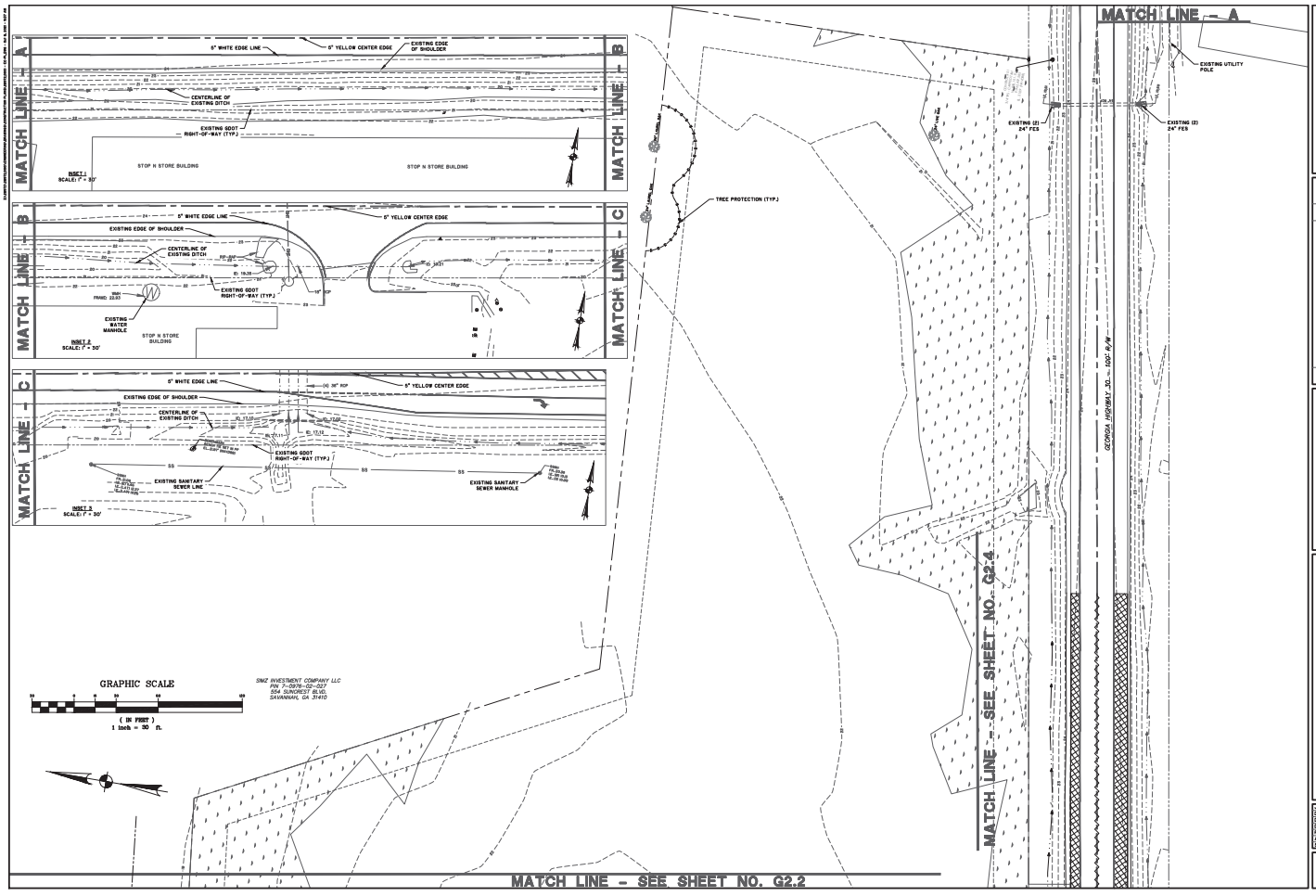
PARKSIDE AT PORT WENTWORTH

EXISTING CONDITIONS AND DEMOLITION PLAN

JOB NO.	P-0972.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

G2.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EXISTING CONDITIONS AND DEMOLITION PLAN

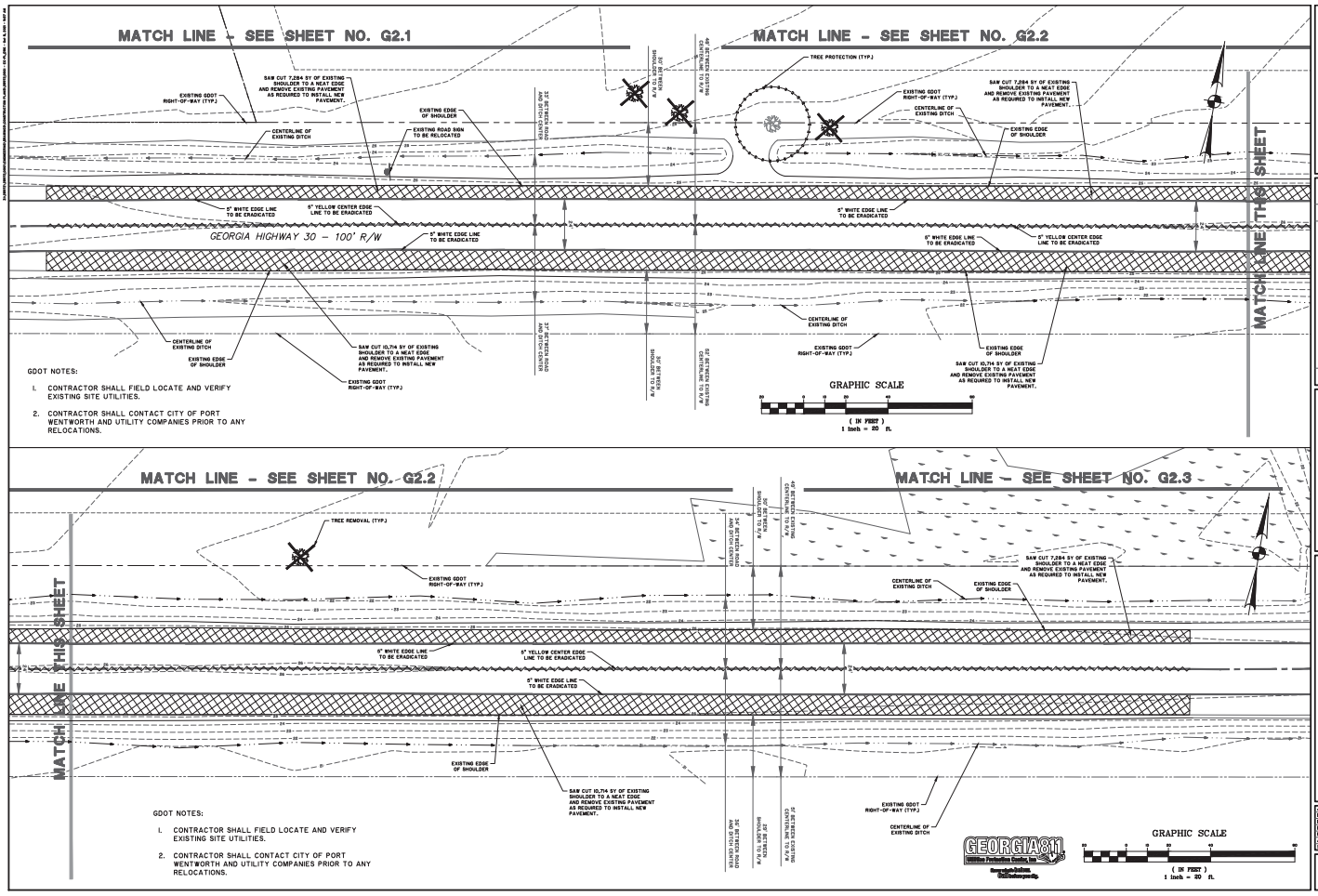
NO.	REVISIONS	BY	DATE

THOMAS HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

JOB NO.	C-20072.000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

G2.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



GDOT NOTES:

1. CONTRACTOR SHALL FIELD LOCATE AND VERIFY EXISTING SITE UTILITIES.
2. CONTRACTOR SHALL CONTACT CITY OF PORT WENTWORTH AND UTILITY COMPANIES PRIOR TO ANY RELOCATIONS.

GDOT NOTES:

1. CONTRACTOR SHALL FIELD LOCATE AND VERIFY EXISTING SITE UTILITIES.
2. CONTRACTOR SHALL CONTACT CITY OF PORT WENTWORTH AND UTILITY COMPANIES PRIOR TO ANY RELOCATIONS.

GEORGIA811 Utilities Protection Center, Inc.

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

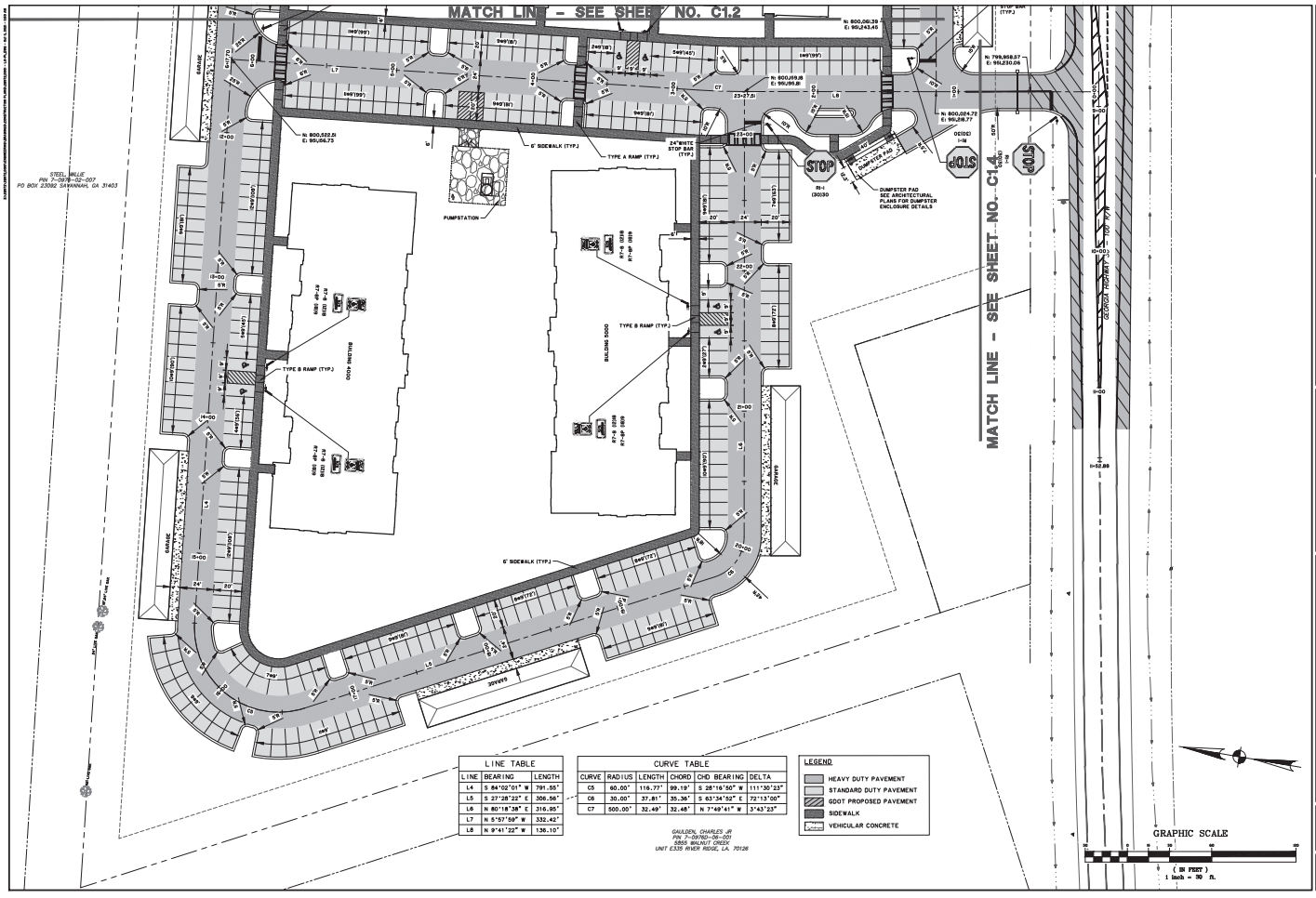
PARKSIDE AT PORT WENTWORTH

EXISTING CONDITIONS AND DEMOLITION PLAN

JOB NO:	J-20972.000
DATE:	10/08/2020
DRAWN:	CDC
DESIGNED:	JTG
REVIEWED:	JRW
APPROVED:	MB
SCALE:	AS NOTED

G2.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)



LINE TABLE		
LINE	BEARING	LENGTH
L4	S 84°02'01" W	791.55'
L5	S 27°28'22" E	308.56'
L6	N 80°18'38" E	310.95'
L7	N 5°57'59" W	332.42'
L8	N 9°41'22" W	136.19'

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	CHD BEARING	DELTA
C5	60.00'	116.77'	99.19'	S 28°16'50" W	111°30'23"
C6	30.00'	37.81'	35.36'	S 63°34'50" E	72°13'00"
C7	500.00'	32.49'	32.48'	N 7°49'41" W	3°43'23"

LEGEND
- HEAVY DUTY PAVEMENT
- STANDARD DUTY PAVEMENT
- GDOT PROPOSED PAVEMENT
- SIDEWALK
- VEHICULAR CONCRETE

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

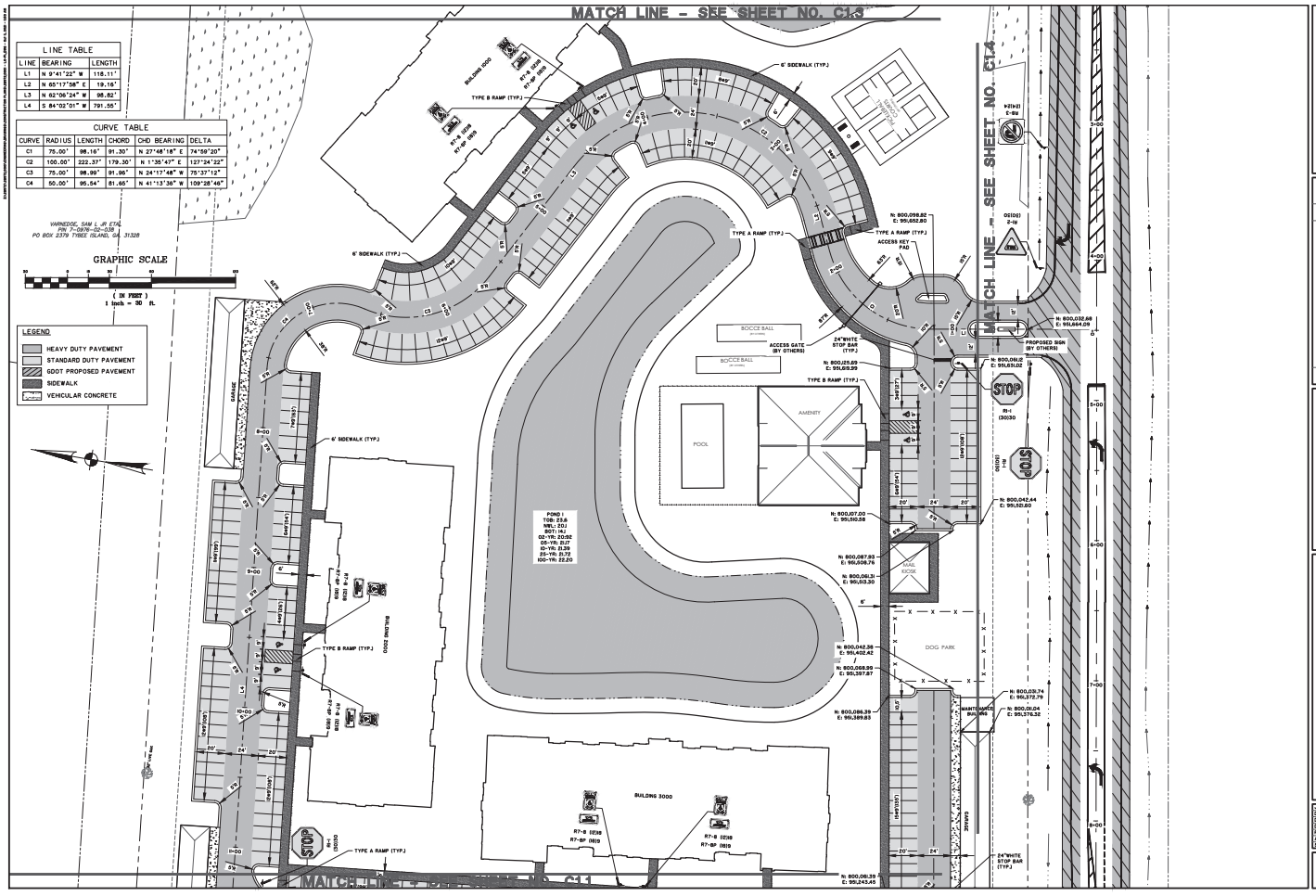
PARKSIDE AT PORT WENTWORTH

STRIPING, SIGNAGE AND LAYOUT PLAN

JOB NO.	P-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C1.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 307 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

STRIPING, SIGNAGE AND LAYOUT PLAN

JOB NO.	C-20972.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPR
APPROVED:	MIL
SCALE:	1" = 30'

C1.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

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NO.	REVISIONS	BY	DATE

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PORT WENTWORTH, GEORGIA

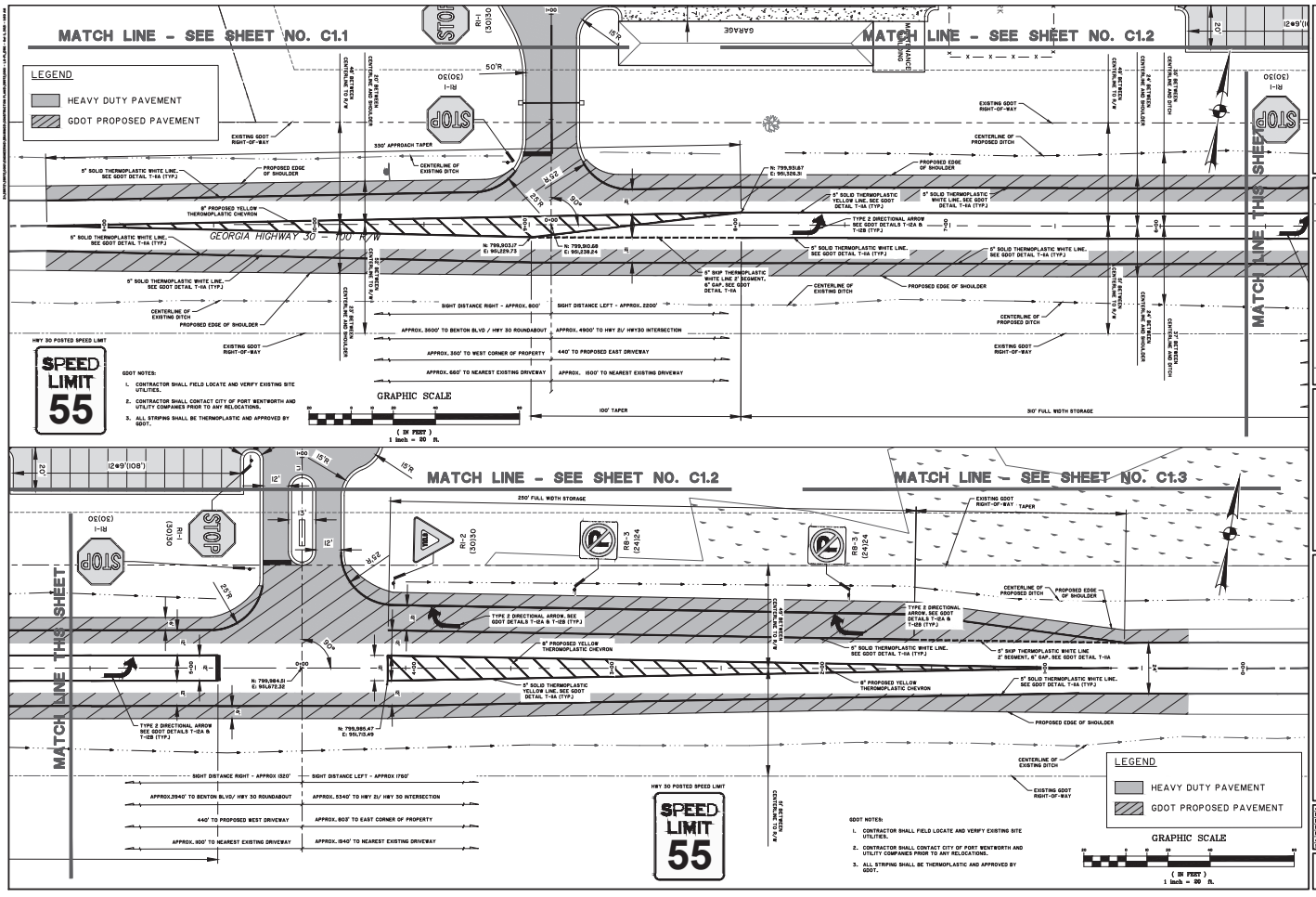
PARKSIDE AT PORT WENTWORTH

STRIPING, SIGNAGE AND LAYOUT PLAN

JOB NO.	0-20072.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C1.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

STRIPING, SIGNAGE AND LAYOUT PLAN

THOMAS & HUTTON

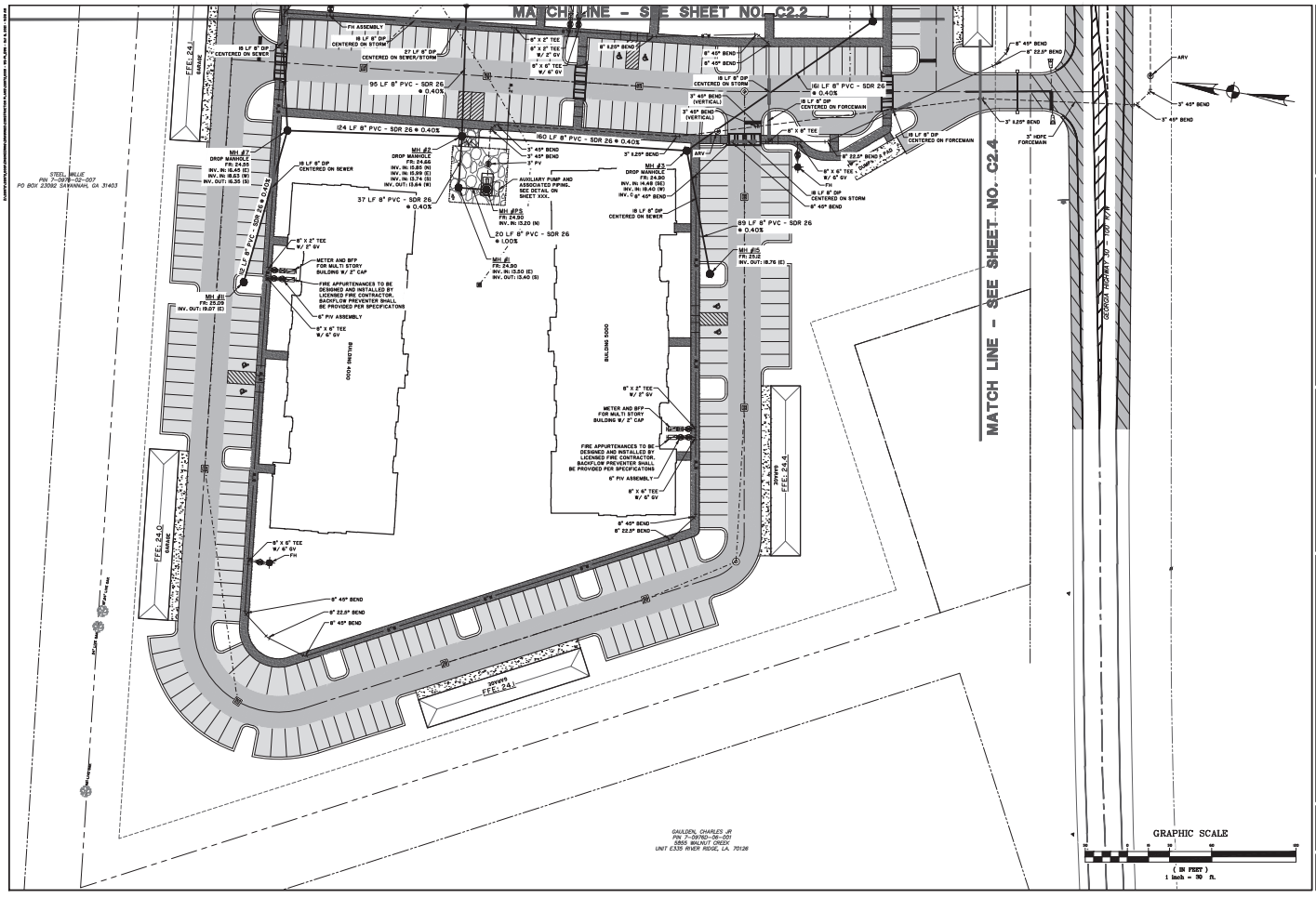
NO.	REVISIONS	BY	DATE

JOB NO: J-39972.0000
DATE: 10/08/2020
DRAWN: CDC
DESIGNED: JTG
REVIEWED: JWW
APPROVED: MBL
SCALE: AS NOTED

C1.4

12.G.g

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific))



PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

WATER AND SEWER PLAN

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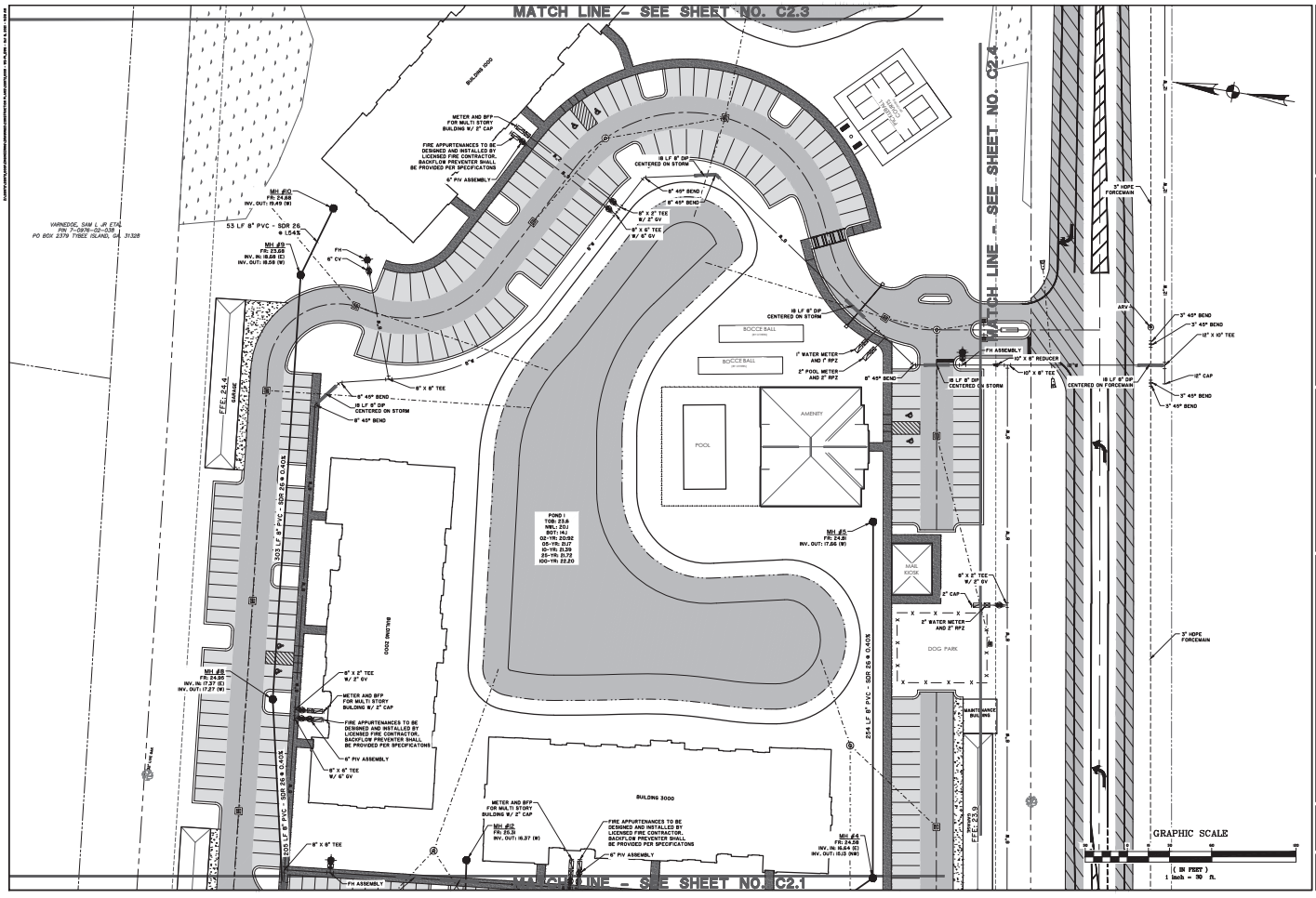
NO.	REVISIONS	BY	DATE

JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C2.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



GEORGIA
811 ONE CALL
GEORGIA811.COM
GEORGIA 811 IS NOT RESPONSIBLE FOR MARKING PRIVATE UTILITIES

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

WATER AND SEWER PLAN

JOB NO.	21972.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C2.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

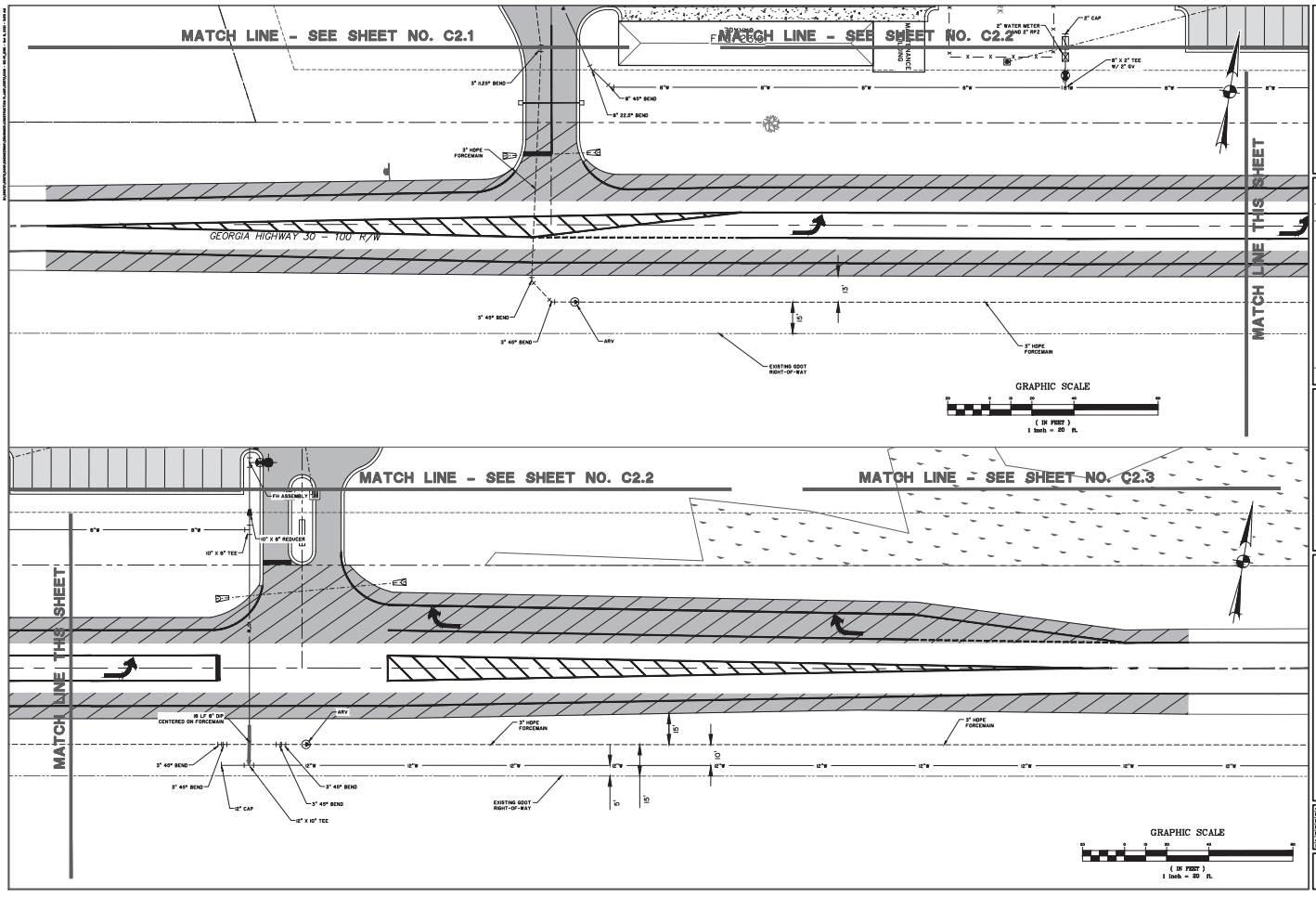
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER PLAN

JOB NO:	C-28972.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C2.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



NO.	REVISIONS	BY	DATE

THOMAS & HUTTON

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

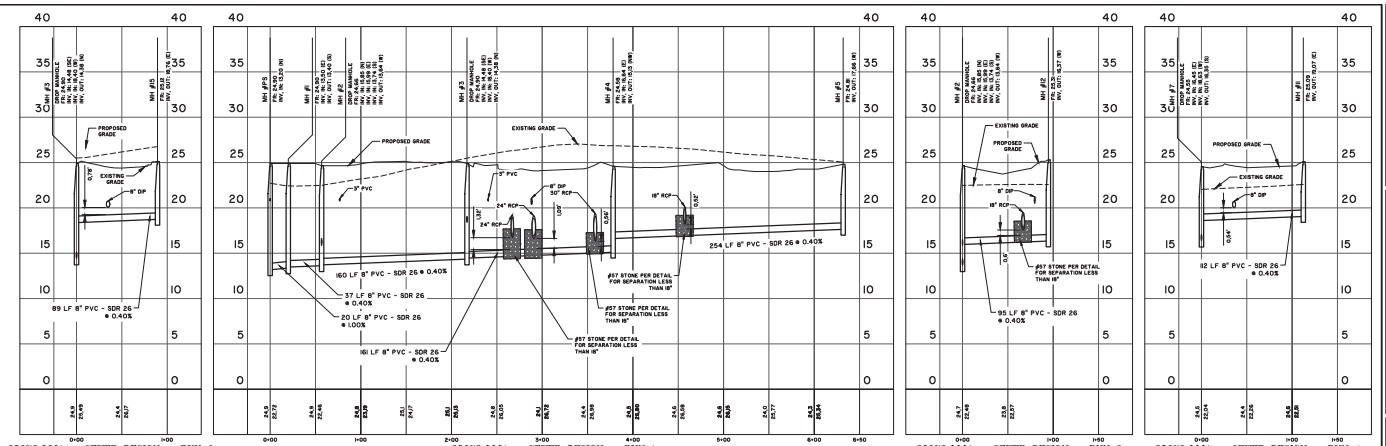
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER PLAN

JOB NO:	J-20972.0000
DATE:	10/08/2020
DRAWN:	CDC
DESIGNED:	JTD
REVIEWED:	JWW
APPROVED:	NBL
SCALE:	AS NOTED

C2.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific))

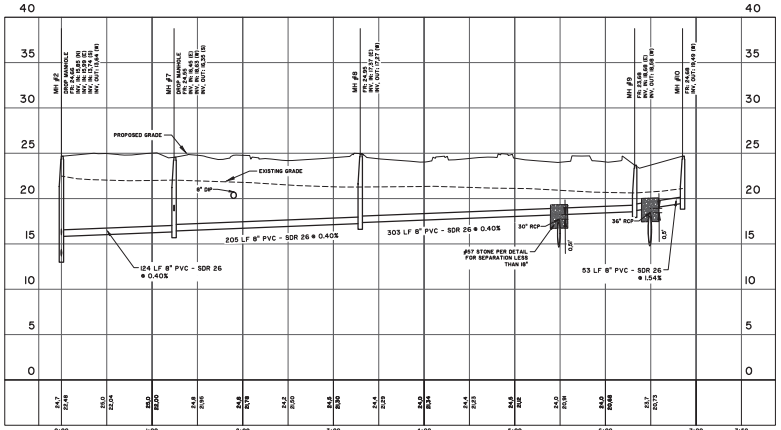


28972.0001 – SEWER DESIGN – RUN 6
STATIONS: 0+25 – 1+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

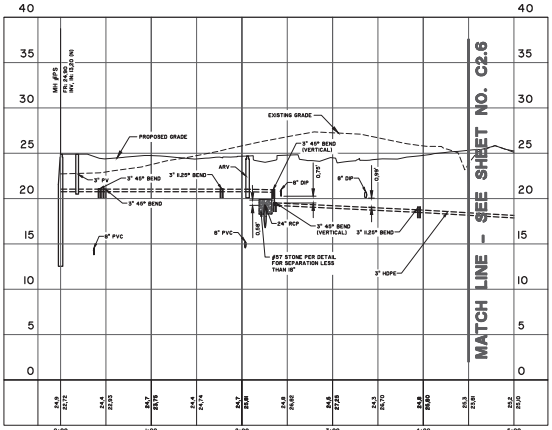
28972.0001 – SEWER DESIGN – RUN 1
STATIONS: 0+25 – 6+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

28972.0001 – SEWER DESIGN – RUN 2
STATIONS: 0+25 – 1+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

28972.0001 – SEWER DESIGN – RUN 4
STATIONS: 0+25 – 1+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – SEWER DESIGN – RUN 3
STATIONS: 0+25 – 7+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – FORCEMAIN DESIGN – RUN 5
STATIONS: 0+25 – 5+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

12.G.g

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

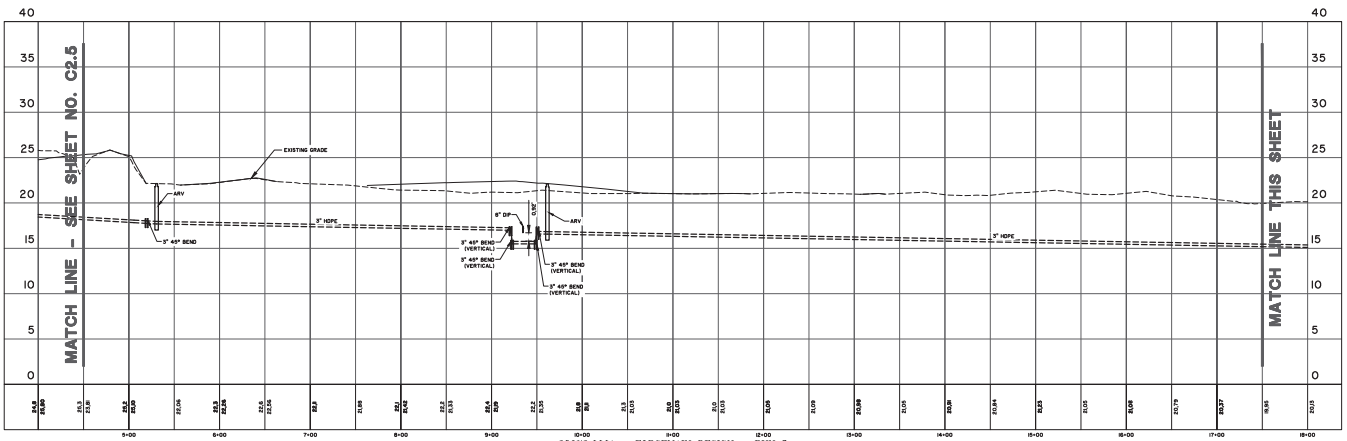
PARKSIDE AT PORT WENTWORTH

SEWER PROFILES

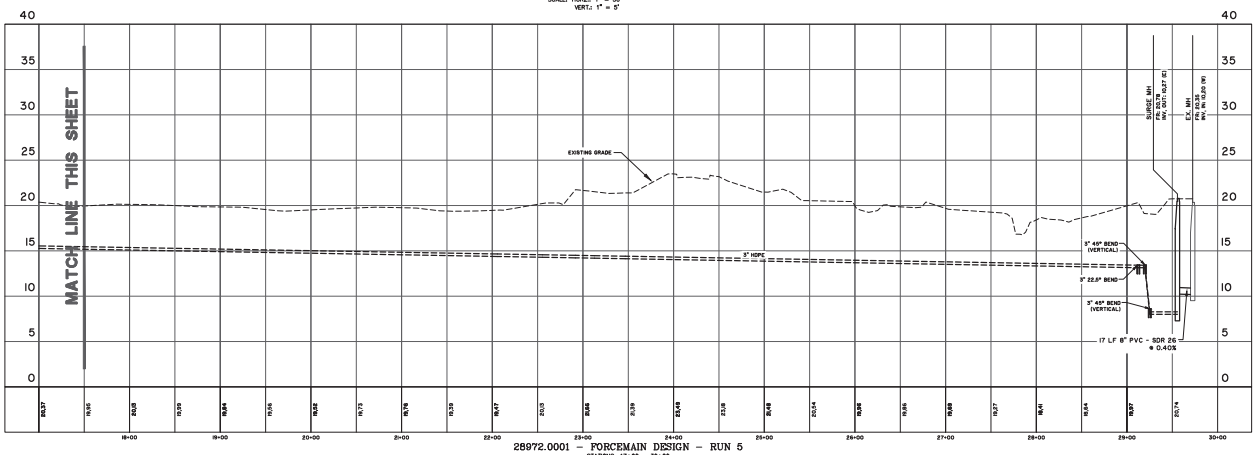
JOB NO.:	28972.0000
DATE:	10/08/2021
DRAWN:	CBC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MR
SCALE:	1" = 50'

C2.5

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



28972.0001 – FORCEMAIN DESIGN – RUN 5
STATIONS: 4+00 – 18+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – FORCEMAIN DESIGN – RUN 5
STATIONS: 17+00 – 30+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

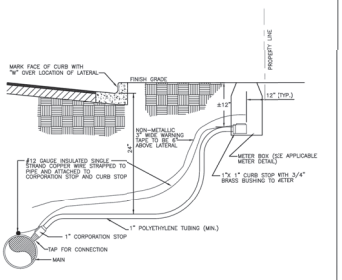
PARKSIDE AT PORT WENTWORTH

SEWER PROFILES

JOB NO.	28972.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTS
REVIEWED:	JPR
APPROVED:	MR
SCALE:	1" = 50'

C2.6

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



NOTE:
ALL FITTINGS IN LATERAL SHALL BE COMPRESSION TYPE.

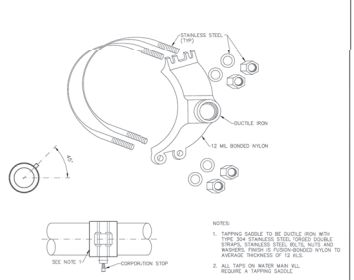
WATER SERVICE LATERAL

City of Port Wentworth
TECHNICAL DETAILS

W-1

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



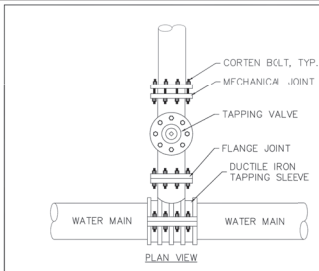
1" AND 2" TAPPING SADDLE

City of Port Wentworth
TECHNICAL DETAILS

W-2

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



NOTE:
1. THE TAPPING SLEEVE AND VALVE MUST BE INSTALLED IN A MANHOLE. SEE DETAIL W-14 FOR THE MANHOLE DETAIL.

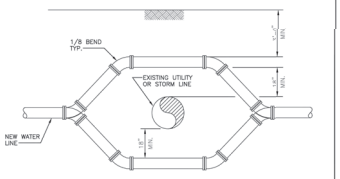
STANDARD TAPPING SLEEVE

City of Port Wentworth
TECHNICAL DETAILS

W-5

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



NOTES:
1. WATER LINE SHALL BE INSTALLED ABOVE SANITARY OR STORM LINE IF POSSIBLE.
2. STRAIGHT RUN OF WATER LINE DIRECTLY ABOVE OR BELOW EXISTING UTILITY LINE MUST BE 10' MINIMUM WITH NO JOINT.
3. IF WATER LINE IS INSTALLED BELOW SANITARY LINE WATER LINE SHALL BE DUCTILE IRON PIPE.
4. JOIN'S SHALL BE RESTRAINED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STANDARD DETAILS.

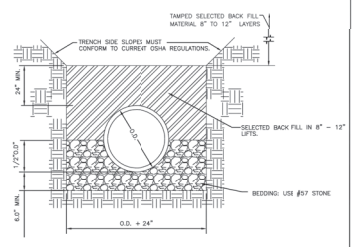
STANDARD UTILITY CROSSING

City of Port Wentworth
TECHNICAL DETAILS

W-6

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



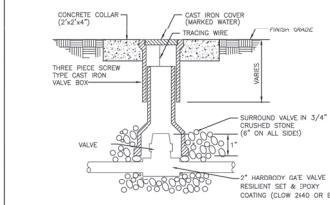
PIPE BEDDING

City of Port Wentworth
TECHNICAL DETAILS

W-8

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



NOTE:
1. THIS DETAIL APPLIES TO VALVES.
2. IN UNPAVED AREAS, SET TOP OF CONC. COLLAR 1" ABOVE FINISHED GRADE. IN PAVED AREAS SET TOP OF BOX FLUSH W/ PAVEMENT. NO CONC. COLLAR REQUIRED.
3. VALVE BOX SHALL NOT REST ON THE VALVE

2" WATER VALVE

City of Port Wentworth
TECHNICAL DETAILS

W-18

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

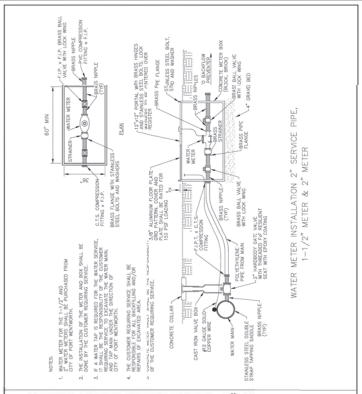
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER DETAILS

JOB NO.	21897.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

C2.7

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



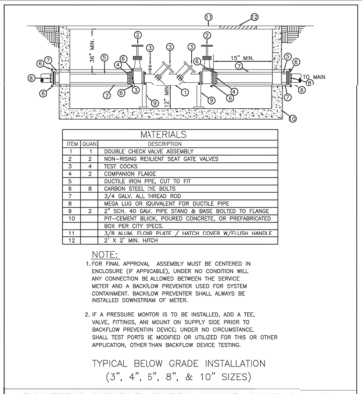
WATER METER INSTALLATION 2" SERVICE PIPE

City of Port Wentworth
TECHNICAL DETAILS

W–19

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



MATERIALS

ITEM	QUAN	DESCRIPTION
1	1	DOUBLE CHECK VALVE ASSEMBLY
2	2	NON-RISING RESILIENT SEAT GATE VALVES
3	4	TEST COCKS
4	2	COMPANION FLANGE
5		DUCTILE IRON PIPE, CUT TO FIT
6	8	CARBON STEEL TYE BOLTS
7		3/4 GALV. ALL THREAD ROD
8		MEGA LUG OR EQUIVALENT FOR DUCTILE PIPE
9	2	2" SCH. 40 GALV. PIPE STAND & BASE BOLTED TO FLANGE
10		PIT–CEMENT BLOCK, POURED CONCRETE, OR PREFABRICATED BOX PER CITY SPECS.
11		3/8 ALUM. FLOOR PLATE / HATCH COVER W/FLUSH HANDLE
12		2' X 2' MIN. HATCH

NOTE:
1. FOR FINAL APPROVAL ASSEMBLY MUST BE CENTERED IN ENCLOSURE (IF APPICABLE), UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND A BACKFLOW PREVENTER USED FOR SYSTEM CONTAINMENT. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED DOWNSTREAM OF METER.

2. IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEE, VALVE, FITTINGS, AND MOUNT ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTION DEVICE; UNDER NO CIRCUMSTANCE, SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR THIS OR OTHER APPLICATION, OTHER THAN BACKFLOW DEVICE TESTING.

TYPICAL BELOW GRADE INSTALLATION
(3", 4", 5", 8", & 10" SIZES)

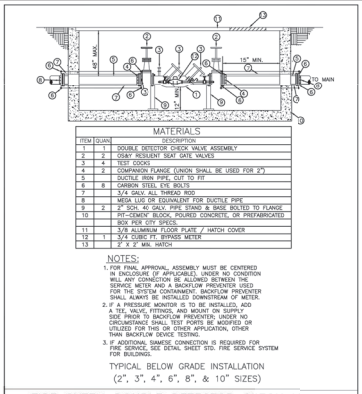
DOMESTIC DOUBLE CHECK VALVE ASSEMBLY (B)

City of Port Wentworth
TECHNICAL DETAILS

W–21

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



MATERIALS

ITEM	QUAN	DESCRIPTION
1	1	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
2	2	OSAY RESILIENT SEAT GATE VALVES
3	4	TEST COCKS
4	2	COMPANION FLANGE (UNION SHALL BE USED FOR 2")
5		DUCTILE IRON PIPE, CUT TO FIT
6	8	CARBON STEEL EYE BOLTS
7		3/4 GALV. ALL THREAD ROD
8		MEGA LUG OR EQUIVALENT FOR DUCTILE PIPE
9	2	2" SCH. 40 GALV. PIPE STAND & BASE BOLTED TO FLANGE
10		PIT–CEMENT BLOCK, POURED CONCRETE, OR PREFABRICATED BOX PER CITY SPECS.
11		3/8 ALUMINUM FLOOR PLATE / HATCH COVER
12	1	3/4 CUBIC FT. BYPASS METER
13		2' X 2' MIN. HATCH

NOTES:
1. FOR FINAL APPROVAL, ASSEMBLY MUST BE CENTERED IN ENCLOSURE (IF APPLICABLE), UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND A BACKFLOW PREVENTER USED FOR SYSTEM CONTAINMENT. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED DOWNSTREAM OF METER.
2. IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEE, VALVE, FITTINGS, AND MOUNT ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTER; UNDER NO CIRCUMSTANCE SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR THIS OR OTHER APPLICATION, OTHER THAN BACKFLOW DEVICE TESTING.
3. IF ADDITIONAL SIAMESE CONNECTION IS REQUIRED FOR FIRE SERVICE, SEE DETAIL SHEET STD. FIRE SERVICE SYSTEM FOR BUILDINGS.

TYPICAL BELOW GRADE INSTALLATION
(2", 3", 4", 6", 8", & 10" SIZES)

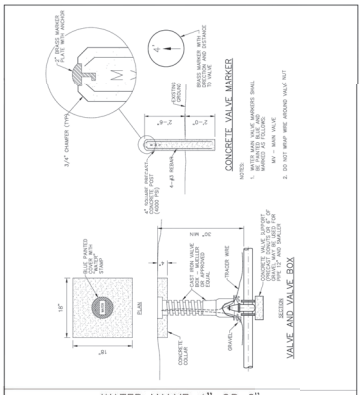
FIRE SYTEM DOUBLE DETECTOR CHECK VALVE

City of Port Wentworth
TECHNICAL DETAILS

W–22

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



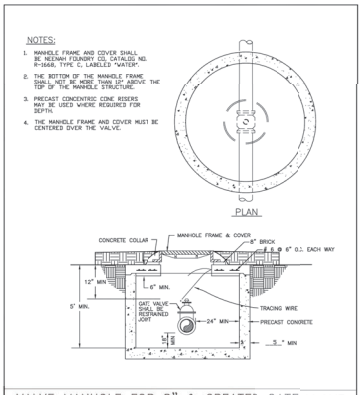
WATER VALVE 4" OR 6"

City of Port Wentworth
TECHNICAL DETAILS

W–36

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



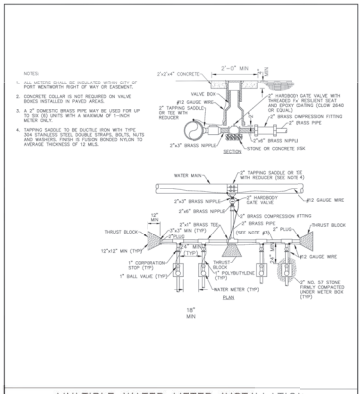
VALVE MANHOLE FOR 8" & GREATER GATE VALVE

City of Port Wentworth
TECHNICAL DETAILS

W–14

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007



MULTIPLE WATER METER INSTALLATION

City of Port Wentworth
TECHNICAL DETAILS

W–16

PREPARED BY SAUSSY ENGINEERING, LLC.

SCALE: N.T.S.
DATE: FEBRUARY 2007

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

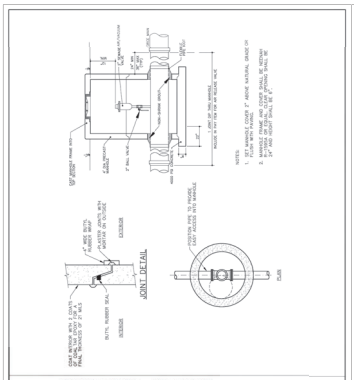
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER DETAILS

JOB NO.	P-2007.2.000
DATE:	05/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

C2.8

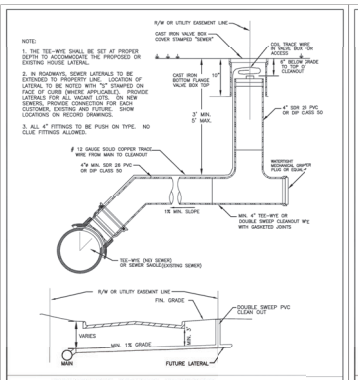
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



COMBINATION AIR VALVE & MANHOLE

City of Port Wentworth
TECHNICAL DETAILS
S-9

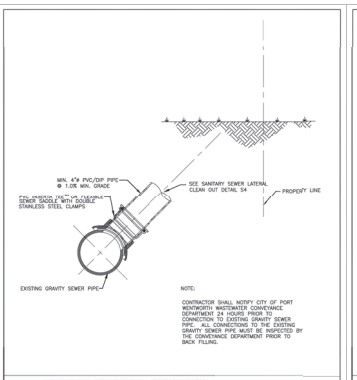
PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007



SANITARY SEWER SERVICE CONNECTION

City of Port Wentworth
TECHNICAL DETAILS
S-4

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007

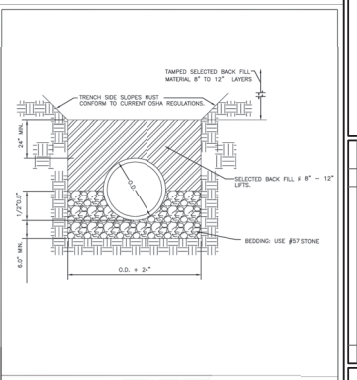


NOTE:
CONTRACTOR SHALL NOTIFY CITY OF PORT WENTWORTH WASTEWATER CONVEYANCE DEPARTMENT 24 HOURS PRIOR TO CONNECTING TO EXISTING SEWER PIPE. ALL CONNECTIONS TO THE EXISTING GRAVITY SEWER PIPE MUST BE INSPECTED BY THE CONVEYANCE DEPARTMENT PRIOR TO BACK FILLING.

SEWER SERVICE CONNECT TO EXT. PIPE

City of Port Wentworth
TECHNICAL DETAILS
S-5

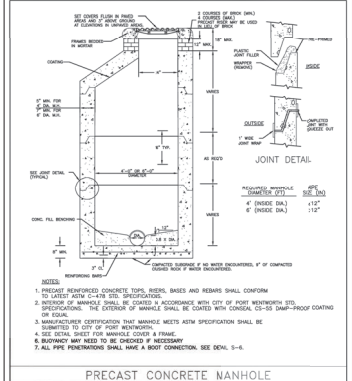
PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007



PIPE BEDDING

City of Port Wentworth
TECHNICAL DETAILS
S-8

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007

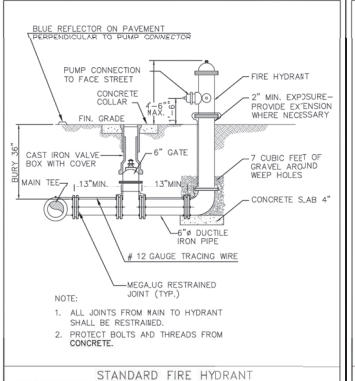


NOTES:
1. PRECAST REINFORCED CONCRETE TOPS, RISERS, BASES AND REBARS SHALL CONFORM TO LATEST ASTM C-478 STD. SPECIFICATIONS.
2. INTERIOR OF MANHOLE SHALL BE COATED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STD. SPECIFICATIONS. THE EXTERIOR OF MANHOLE SHALL BE COATED WITH CONSEAL CS-55 DAMP-PROOF COATING OR EQUAL.
3. MANUFACTURER CERTIFICATION THAT MANHOLE MEETS ASTM SPECIFICATION SHALL BE SUBMITTED TO CITY OF PORT WENTWORTH.
4. SEE DETAIL SHEET FOR MANHOLE COVER & FRAME.
6. BUOYANCY MAY NEED TO BE CHECKED IF NECESSARY
7. ALL PIPE PENETRATIONS SHALL HAVE A BOOT CONNECTION. SEE DETAIL S-6.

PRECAST CONCRETE MANHOLE

City of Port Wentworth
TECHNICAL DETAILS
S-1

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007

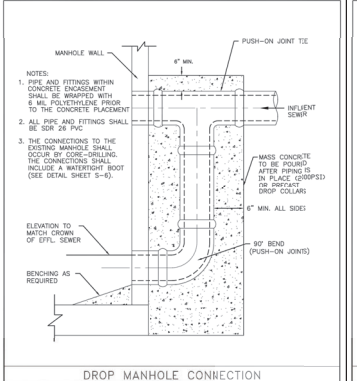


NOTE:
1. ALL JOINTS FROM MAIN TO HYDRANT SHALL BE RESTRAINED.
2. PROTECT BOLTS AND THREADS FROM CONCRETE.

STANDARD FIRE HYDRANT

City of Port Wentworth
TECHNICAL DETAILS
W-9

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007

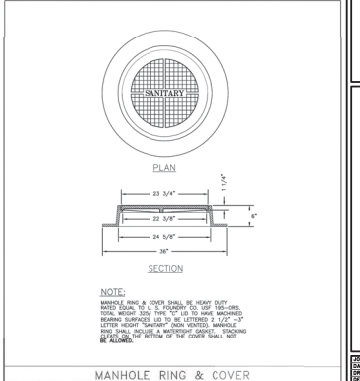


NOTES:
1. PIPE AND FITTINGS WITHIN CONCRETE ENCASEMENT SHALL BE WRAPPED WITH 6 MIL POLYETHYLENE PRIOR TO THE CONCRETE PLACEMENT
2. ALL PIPE AND FITTINGS SHALL BE SDR 26 PVC
3. THE CONNECTIONS TO THE EXISTING MANHOLE SHALL OCCUR BY CORE–DRILLING. THE CONNECTIONS SHALL INCLUDE A WATERTIGHT BOOT (SEE DETAIL SHEET S–6).

DROP MANHOLE CONNECTION

City of Port Wentworth
TECHNICAL DETAILS
S-7

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007



NOTE:
MANHOLE RING & COVER SHALL BE HEAVY DUTY TRAFFIC BEARING TYPE WITH MINIMUM WEIGHT OF 320-ORS, TOTAL WEIGHT 320# THRE "E" LID TO HAVE MACHINED BEARING SURFACES LID TO BE LETTERED 2 1/2" –3" LETTER HEIGHT "SANITARY" (NON VENTED). MANHOLE RING SHALL INCLUDE A WATERTIGHT GASKET. STACKING OF MORE THAN TWO RISERS OF THE COVER SHALL NOT BE ALLOWED.

MANHOLE RING & COVER

City of Port Wentworth
TECHNICAL DETAILS
S-2

PREPARED BY SAUSSY ENGINEERING, LLC. SCALE: N.T.S. DATED: FEBRUARY 2007

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

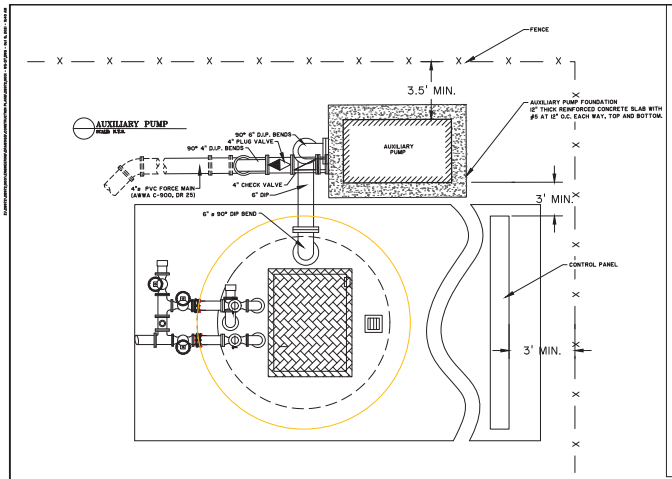
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER DETAILS

JOB NO.	21977.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1"=1'

C2.9

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.8.21 (2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



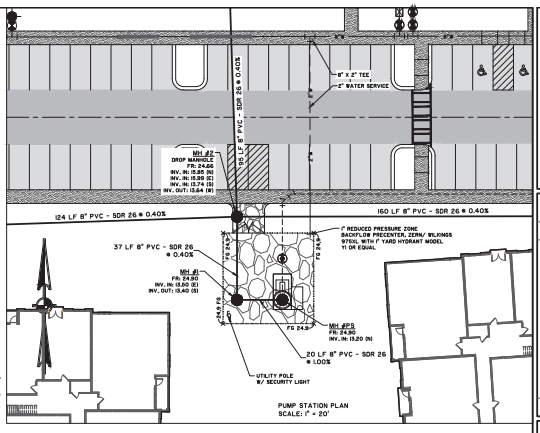
WET WELL DESIGN SCHEDULE

DESCRIPTION	ELEV.
(A) FIN. GRADE ELEV.	24.90
(B) INFLUENT ELEV.	13.31
(C) ALARM ELEV.	7.06
(D) START LAG PUMP	6.06
(E) START LEAD PUMP	5.06
(F) STOP PUMPS	3.06
(G) LOW WATER ALARM	2.06
(H) BOTTOM ELEV.	0.06
(J) WET WELL DIA.	6'
(I) DISCHARGE PIPE	3"

PUMP DESIGN SCHEDULE

DESCRIPTION	PUMP
NO. OF PUMPS T-O-H	2 78.40
MIN. PUMP CAP.(GPM)	110
RPM	3440
PHASE	3
VOLTAGE	230
MIN. HP	5.0

NOTE:
PUMPS SHALL BE EQUIVALENT TO FLYGT NP3102 SH -3 ADAPTIVE 259 60 Hz, IMPELLER SHALL BE (3) MM. PUMPS SHALL BE PROVIDED WITH THE 5 HP. NO OTHER PUMPS SHALL BE USED UNLESS ACCEPTED BY ENGINEER AND CITY OF PORT WENTWORTH. A SPARE PUMP MUST BE PROVIDED TO PORT WENTWORTH.



PUMP STATION PLAN
SCALE: 1" = 20'

NOTES:
1. THE PRECAST MANUFACTURER IS TO PREPARE AND SUBMIT TO THE ENGINEER DESIGN DETAILS AND CALCULATIONS FOR THE STRUCTURE BASED ON THE DESIGN CRITERIA AND SITE CONDITIONS SPECIFIED. THE DESIGN SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA. IN THE DESIGN OF PRECAST CONCRETE, THE DESIGN SHALL INCLUDE PROVISIONS FOR HANDLING STRESSES AND CONSTRUCTION LOADS. REFERRING ONLY TO OR REPRODUCED COPIES OF ASTM C478 "STANDARD SPECIFICATION FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS" WILL NOT BE ACCEPTED AS A SUBSTITUTE FOR DESIGN.

2. PRIOR TO FABRICATION AND INSTALLATION, THE CONTRACTOR/PRE-CAST MANUFACTURER SHALL PROVIDE TO THE ENGINEER FOR REVIEW HIS PROPOSED CONSTRUCTION METHOD INCLUDING BASE SLAB INSTALLATION.

3. ALL EXPOSED METAL SHALL BE PAINTED WITH 2 COATS OF EXTERIOR ENAMEL PAINT

4. WET WELL AND VALVE VAULT SHALL HAVE FIBERGLASS LINER, AS MANUFACTURED BY ASSOC. FIBERGLASS ENTERPRISES, OR HOPE LINER AS INSTALLED BY THE PRECAST MANUFACTURER.

5. BASE AND FIRST RISER UNIT TO BE CAST MONOLITHIC.

6. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.

7. VALVE VAULT SHALL HAVE SEALED FLOOR W/ DRAIN TO WETWELL

8. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.

9. WET WELL AND VALVE VAULTS COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE AND LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE ENGINEER.

10. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE.

11. PUMPS SHALL BE MANUFACTURED BY FLYGT, UNLESS OTHERWISE APPROVED BY CITY OF PORT WENTWORTH.

12. OPERATING CONDITIONS SHALL BE REVIEWED AND APPROVED BY CITY OF PORT WENTWORTH.

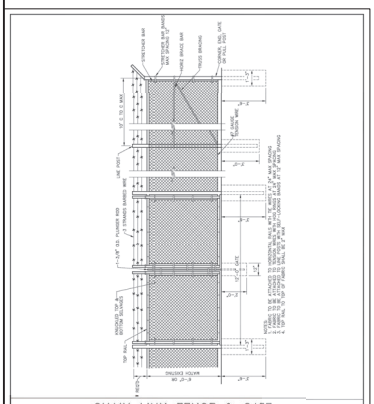
13. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE STAINLESS STEEL.

14. ALL DIMENSIONS SHALL BE APPROVED BY PUMP MANUFACTURER AND CITY OF PORT WENTWORTH.

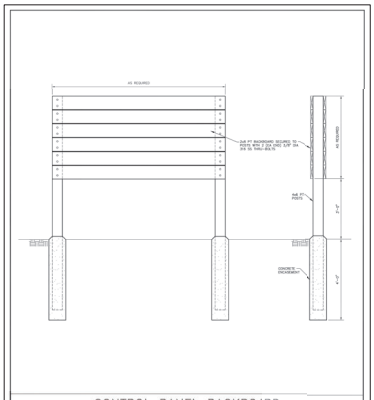
15. SHOP DRAWINGS FOR ELECTRICAL CONTROL WIRING AND PANEL LAYOUT SHALL BE PROVIDED BY THE EQUIPMENT SUPPLIER TO THE ENGINEER AND THE CITY FOR REVIEW AND APPROVAL.

16. SHOP DRAWINGS FOR FENCING AND GATES WALL SHALL BE PROVIDED BY THE EQUIPMENT SUPPLIER TO THE CITY FOR REVIEW AND APPROVAL.

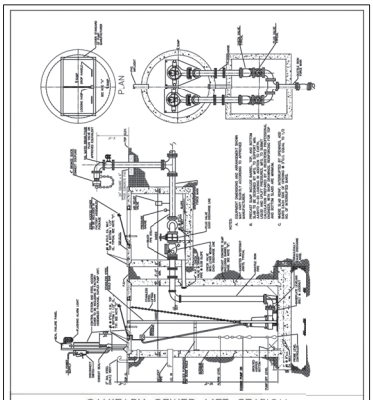
17. SHOP DRAWINGS FOR MANUAL TRANSFER SWITCH, GENERATOR PLUG, AND AUTODIALER SHALL BE PROVIDED BY THE EQUIPMENT SUPPLIER TO THE CITY FOR REVIEW AND APPROVAL.



CHAIN LINK FENCE & GATE
City of Port Wentworth
TECHNICAL DETAILS
S-13
PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATE: FEBRUARY 2007



CONTROL PANEL BACKBOARD
City of Port Wentworth
TECHNICAL DETAILS
S-11
PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATE: FEBRUARY 2007



SANITARY SEWER LIFT STATION
City of Port Wentworth
TECHNICAL DETAILS
S-10
PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATE: FEBRUARY 2007

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

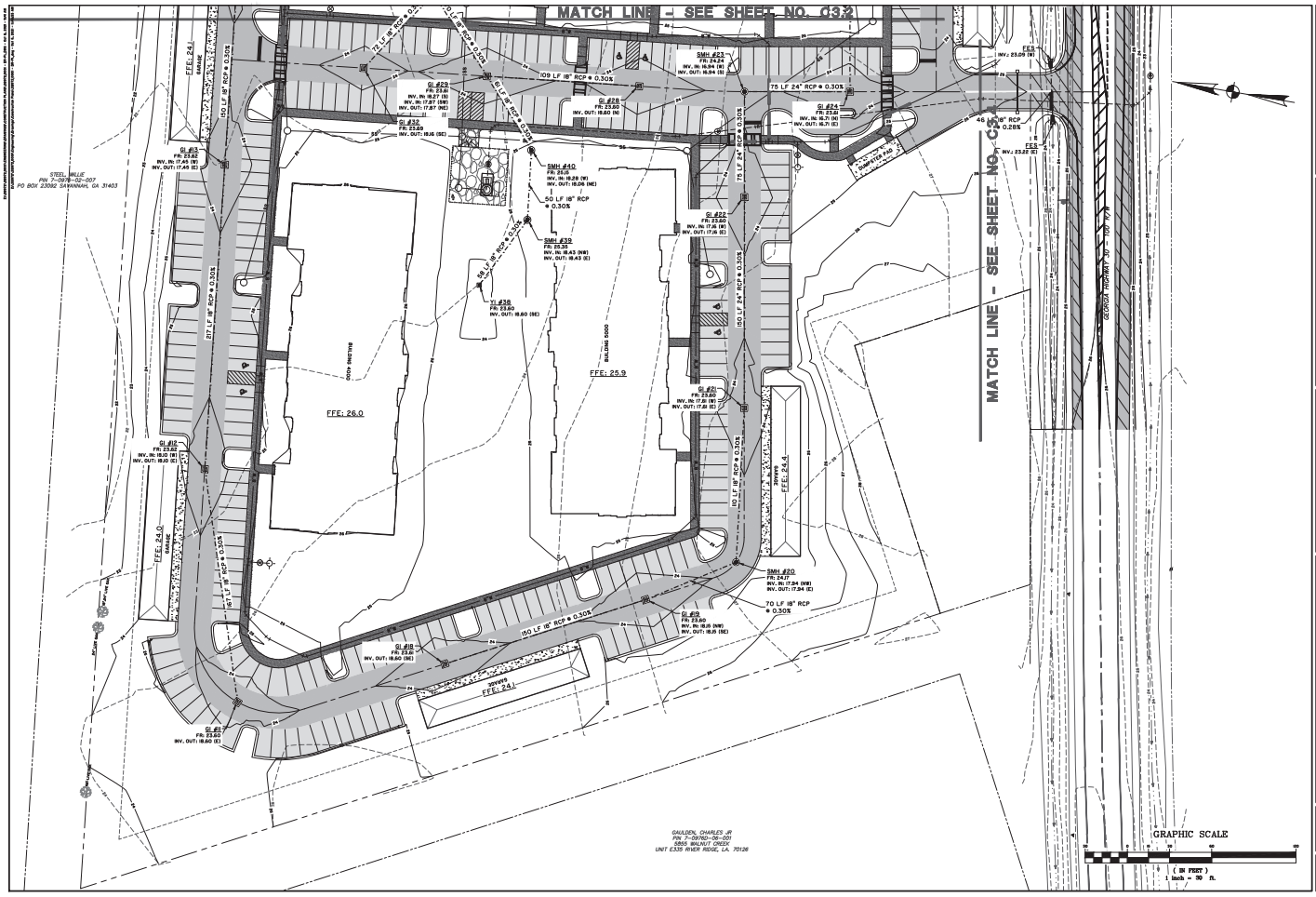
PARKSIDE AT PORT WENTWORTH

WATER AND SEWER DETAILS

JOB NO.	0-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS-NOTED

C2.10

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



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NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

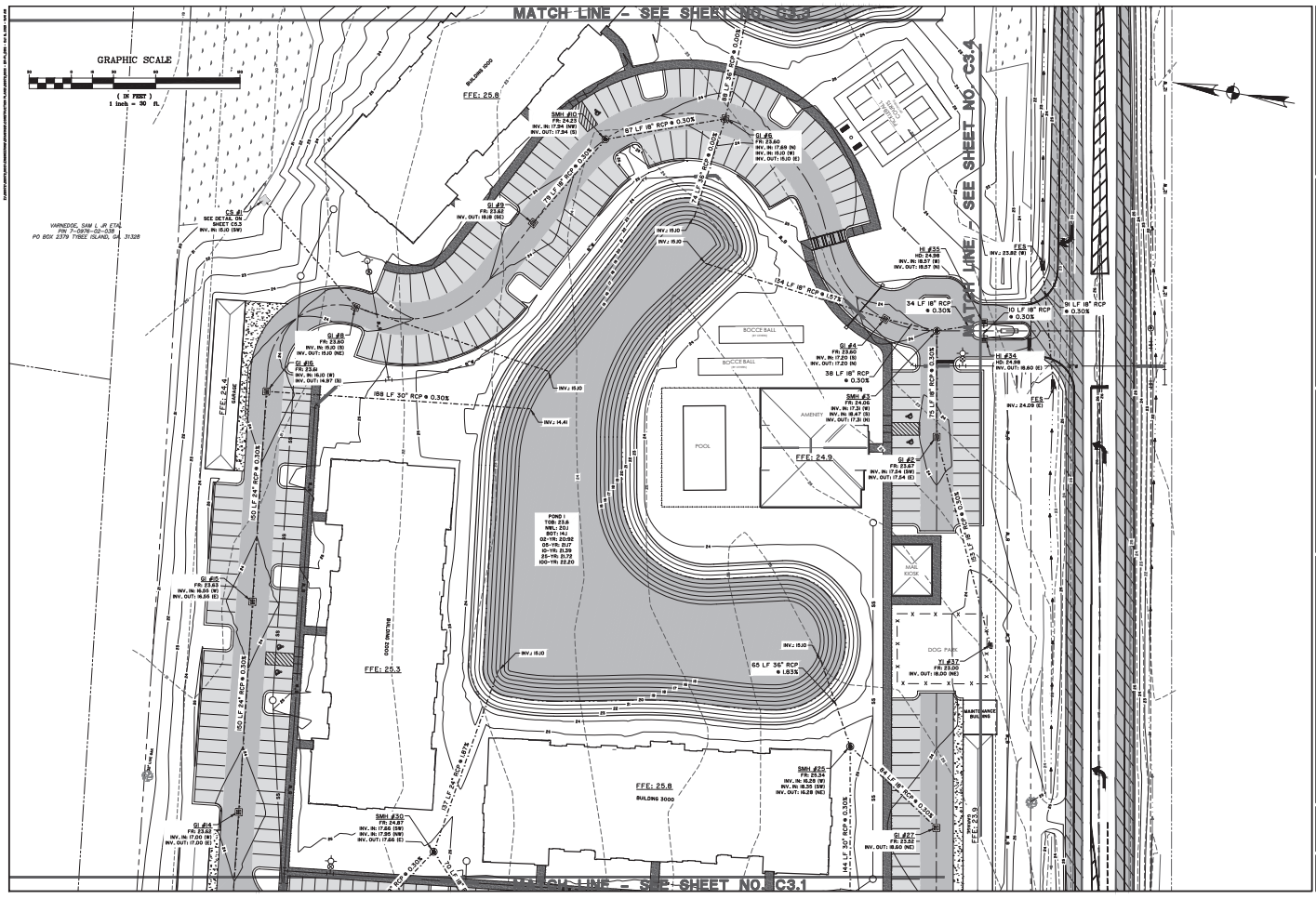
PARKSIDE AT PORT WENTWORTH

DRAINAGE PLAN

JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C3.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



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NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

DRAINAGE PLAN

JOB NO.	0-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C3.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

SMZ INVESTMENT COMPANY LLC
PIN 7-0076-02-027
554 SUNCREST BLVD.
SAVANNAH, GA 31410

POND 2
TOB: 23.8
BBL: 20.0
NWL: 19.0
02-YR: 20.92
05-YR: 21.7
10-YR: 21.93
25-YR: 21.72
100-YR: 22.26

FFE: 25.8

INV.: 15.0

MATCH LINE - SEE SHEET NO. C3.4

MATCH LINE - SEE SHEET NO. C3.2

GEORGIA HIGHWAY 30 - 100' R/W

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

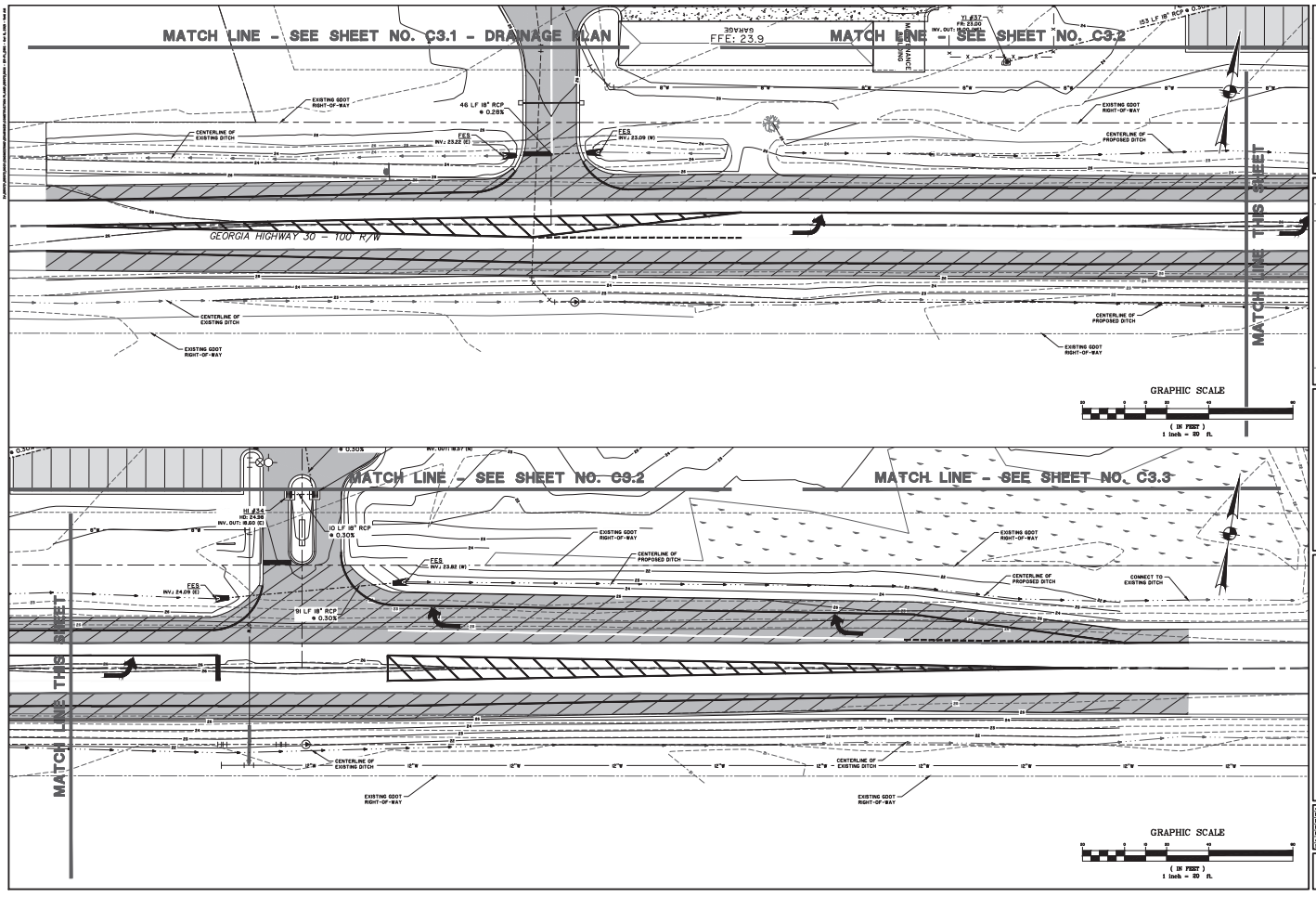
PARKSIDE AT PORT WENTWORTH

DRAINAGE PLAN

JOB NO.	C-20072.0000
DATE:	10/08/2021
DRAWN:	DSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C3.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



THOMAS & HUTTON

NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

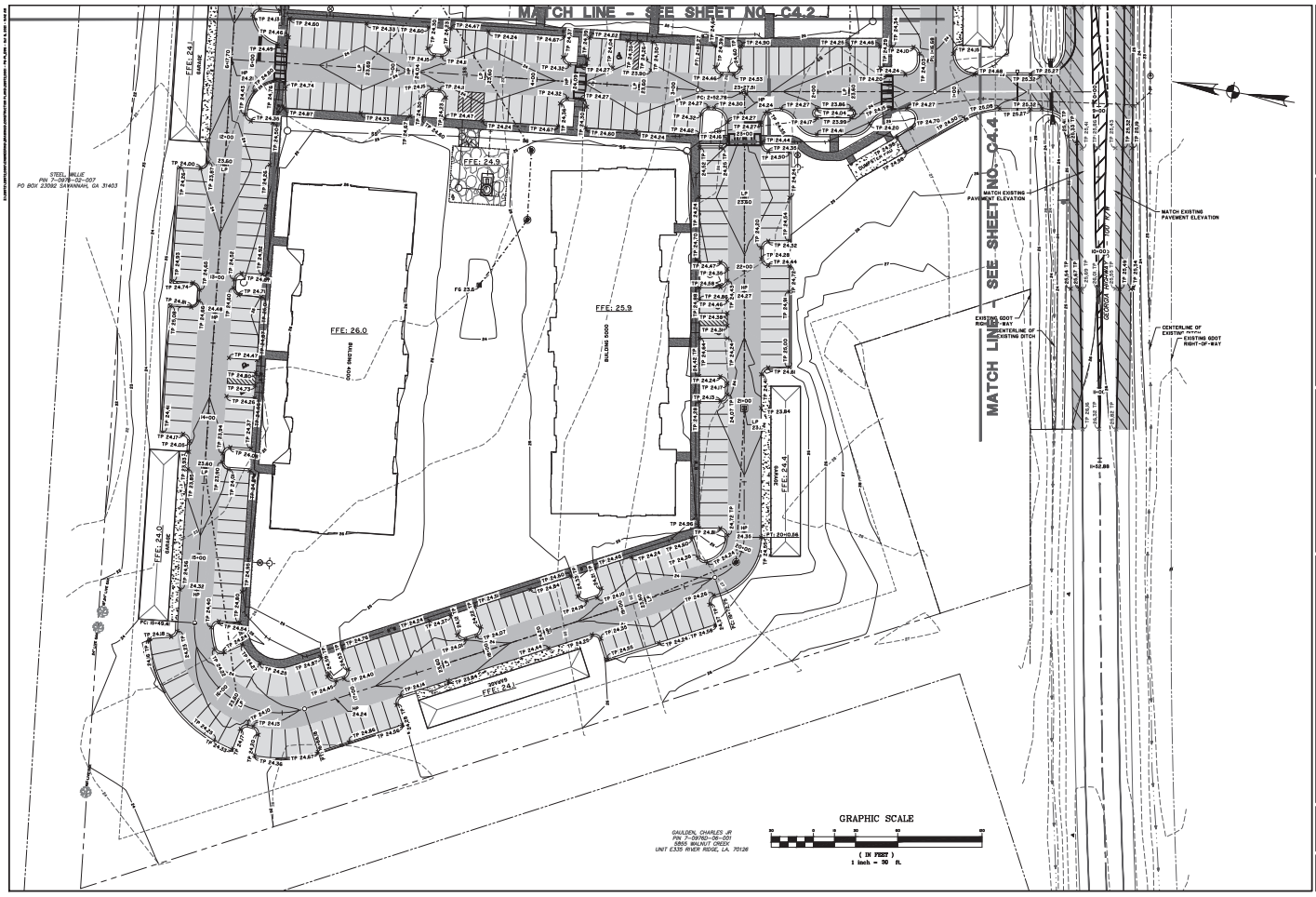
PARKSIDE AT PORT WENTWORTH

DRAINAGE PLAN

JOB NO:	J-20972.0000
DATE:	10/08/2020
DRAWN:	CBC
DESIGNED:	JTD
REVIEWED:	JWW
APPROVED:	MBL
SCALE:	AS NOTED

C3.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)



GEORGIA
Georgia Department of Natural Resources
Environmental Protection Division
Public Drinking Water Program

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

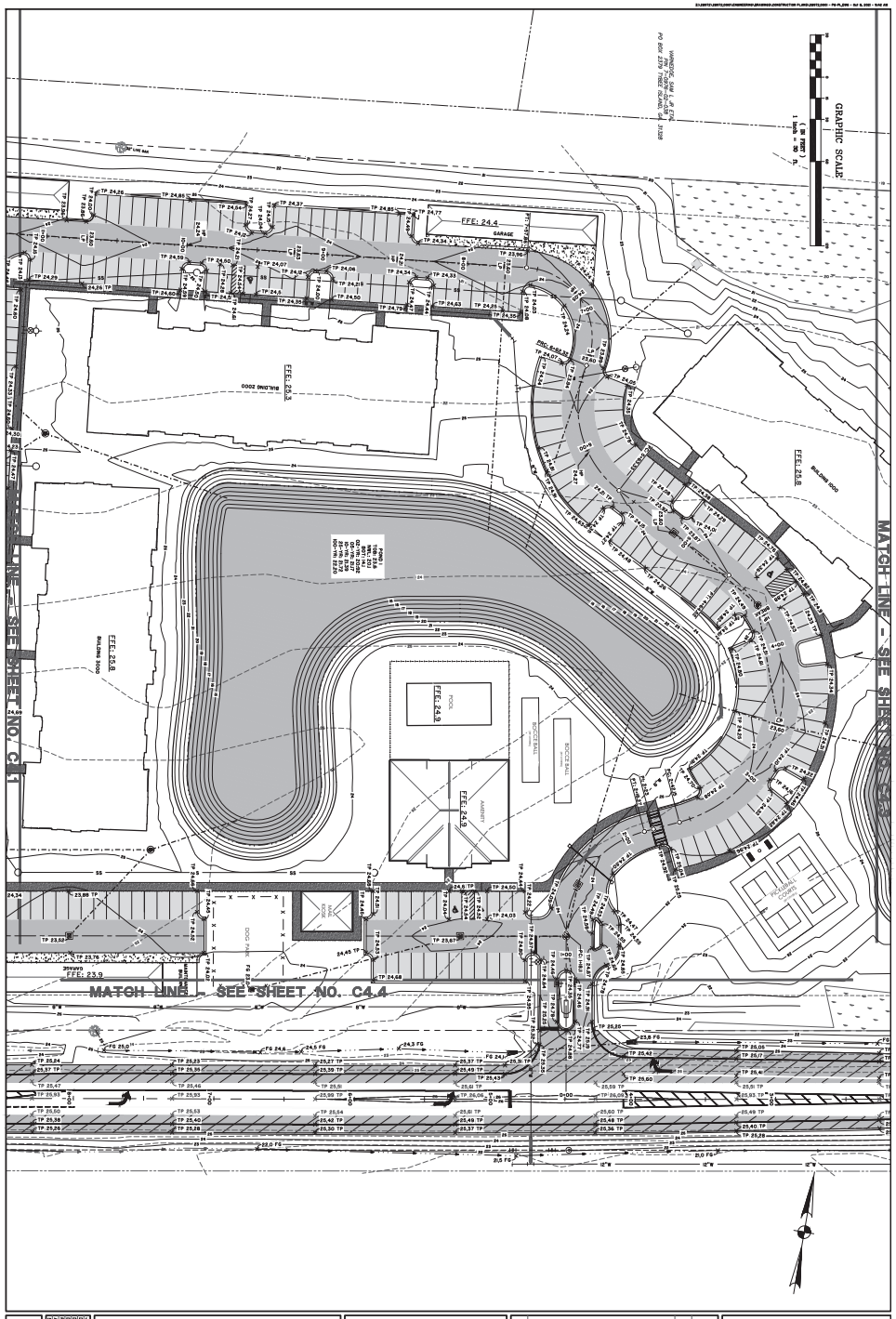
PARKSIDE AT PORT WENTWORTH

PAVING AND GRADING PLAN

JOB NO.	C-20072.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

C4.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



C4.2

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA
PARKSIDE AT PORT WENTWORTH
PAVING AND GRADING PLAN

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NO.	REVISIONS	BY	DATE

GEORGIA
REGISTERED PROFESSIONAL
NATHAN S. LOVE

THOMAS & HUTTON
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NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

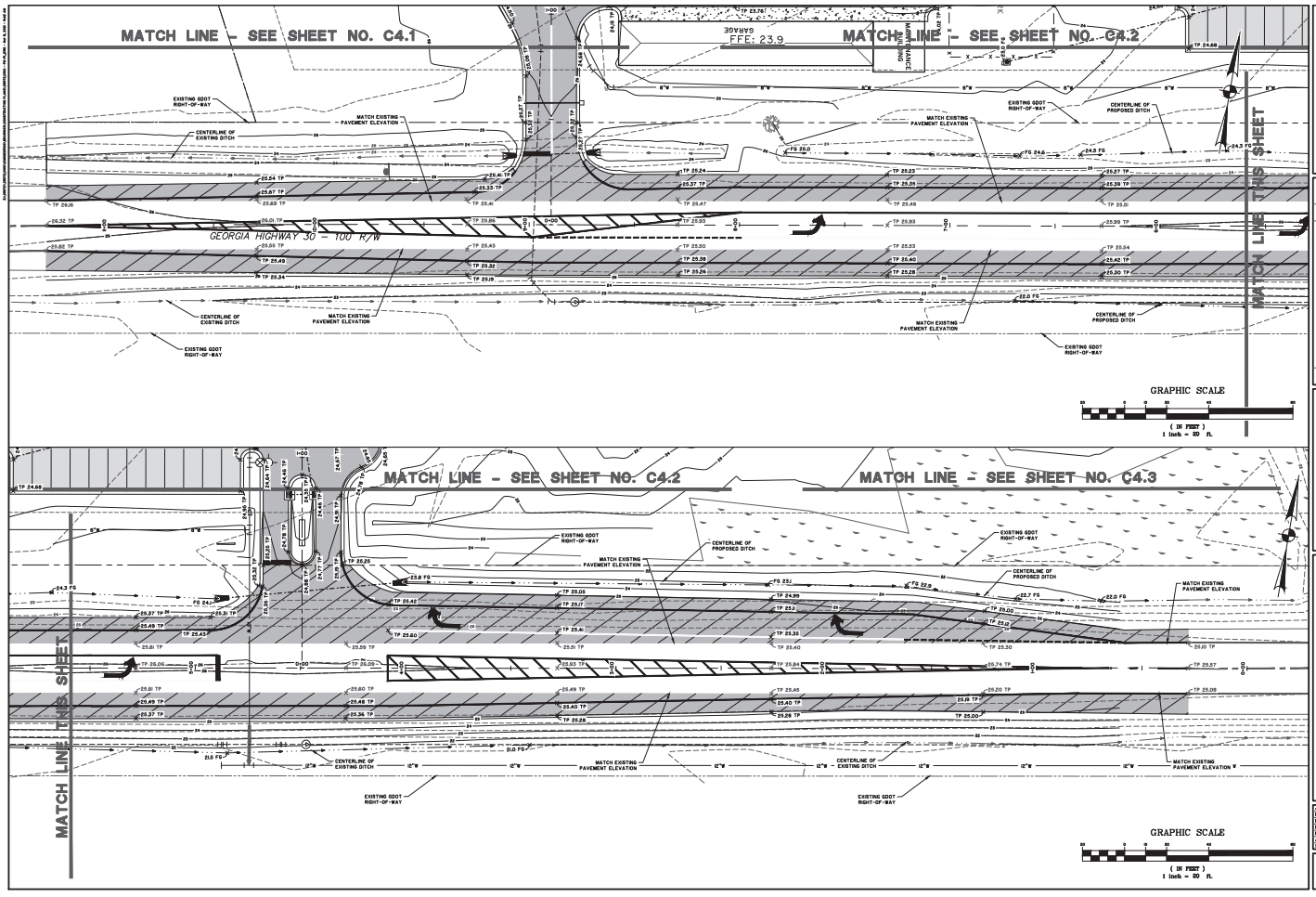
PARKSIDE AT PORT WENTWORTH

PAVING AND GRADING PLAN

JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C4.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



THOMAS & HUTTON

NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

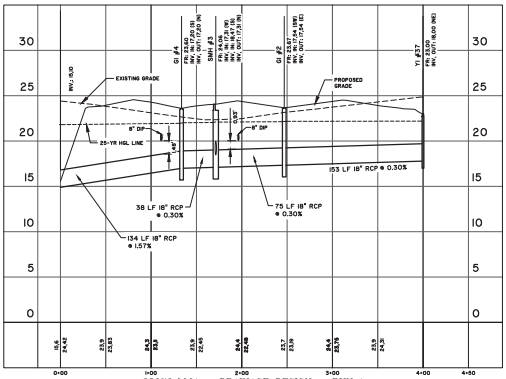
PARKSIDE AT PORT WENTWORTH

PAVING AND GRADING PLAN

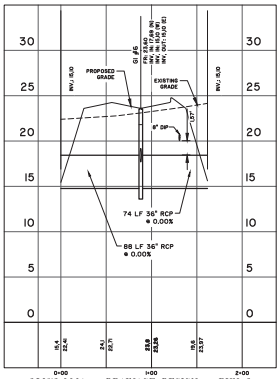
JOB NO:	J-39972.0000
DATE:	10/08/2020
DRAWN:	CDC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	MBL
SCALE:	AS NOTED

C4.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)



28972.0001 – DRAINAGE DESIGN – RUN 1
STATIONS: -0+25 – 4+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 2
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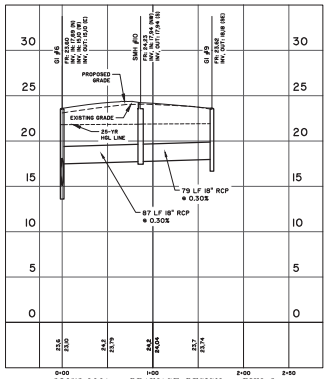
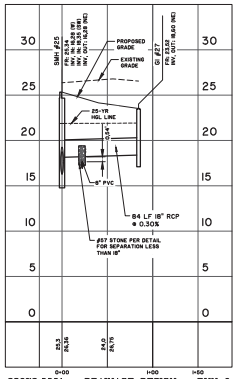
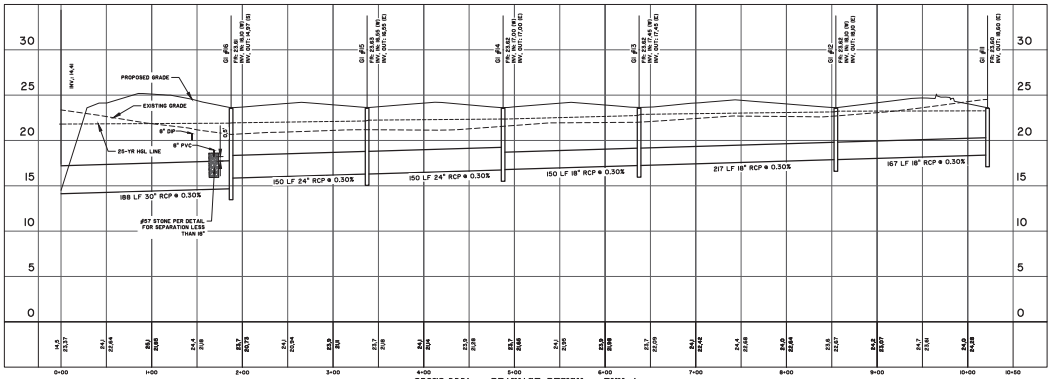
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 3
STATIONS: -0+25 – 2+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 6
STATIONS: -0+25 – 1+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 4
STATIONS: -0+25 – 10+30
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

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NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

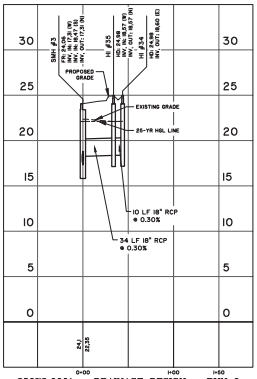
PARKSIDE AT PORT WENTWORTH

DRAINAGE PROFILES

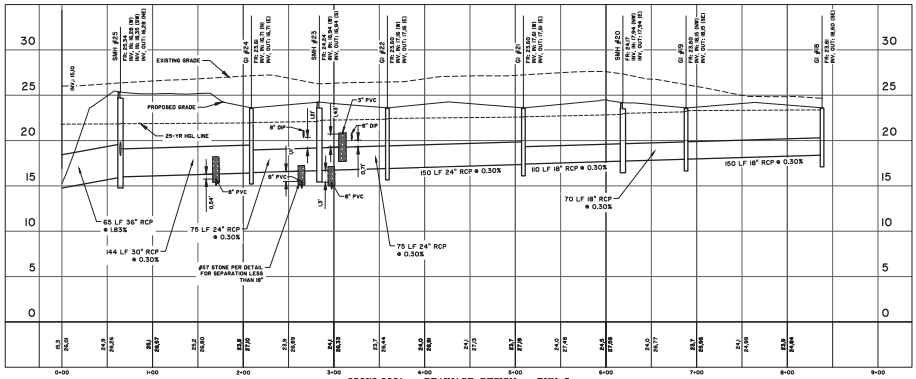
JOB NO.	0-28972.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C4.5

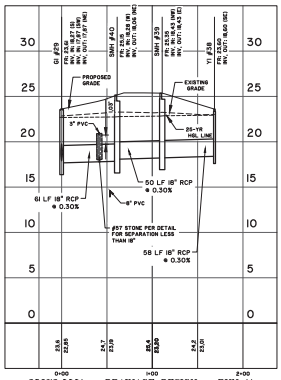
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



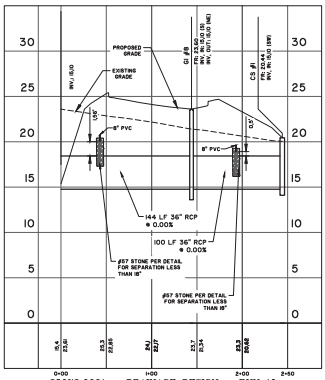
28972.0001 – DRAINAGE DESIGN – RUN 9
STATIONS: -0+50 – 1+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



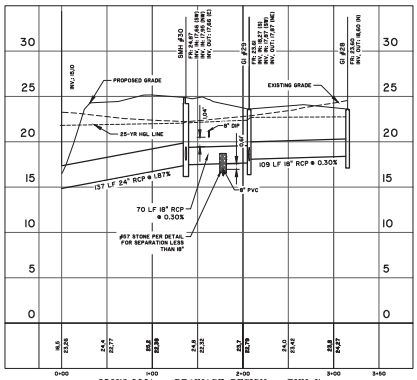
28972.0001 – DRAINAGE DESIGN – RUN 5
STATIONS: -0+25 – 9+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



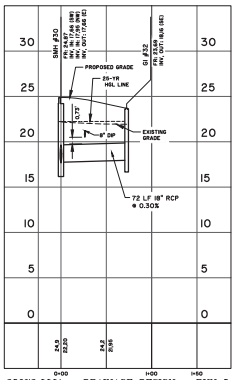
28972.0001 – DRAINAGE DESIGN – RUN 11
STATIONS: -0+25 – 2+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 10
STATIONS: -0+25 – 2+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 7
STATIONS: -0+25 – 3+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



28972.0001 – DRAINAGE DESIGN – RUN 8
STATIONS: -0+25 – 1+50
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

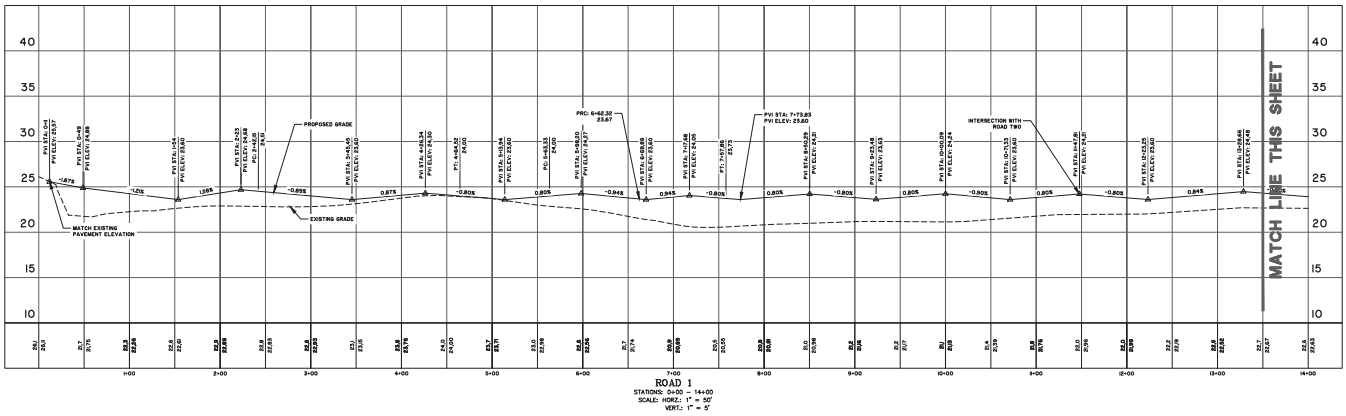
PARKSIDE AT PORT WENTWORTH

DRAINAGE PROFILES

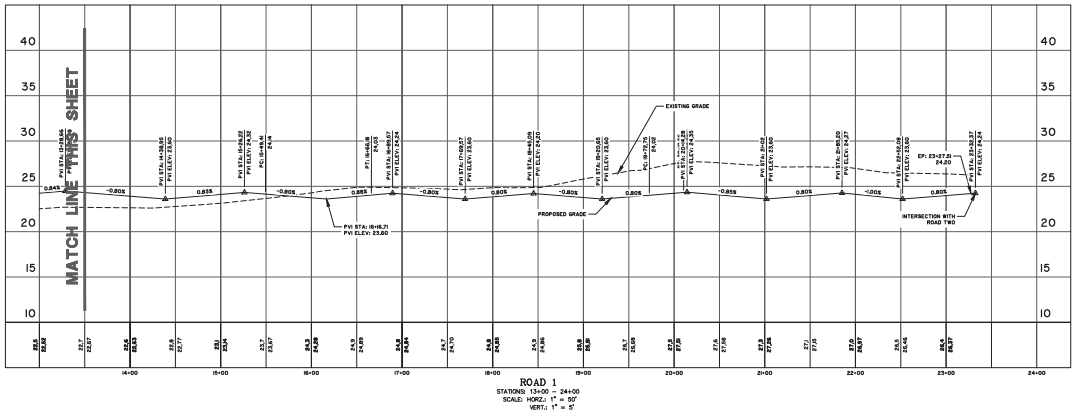
JOB NO.	0-28972.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

C4.6

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



ROAD 1
STATIONS: 0+00 – 14+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



ROAD 1
STATIONS: 13+00 – 24+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'

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NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

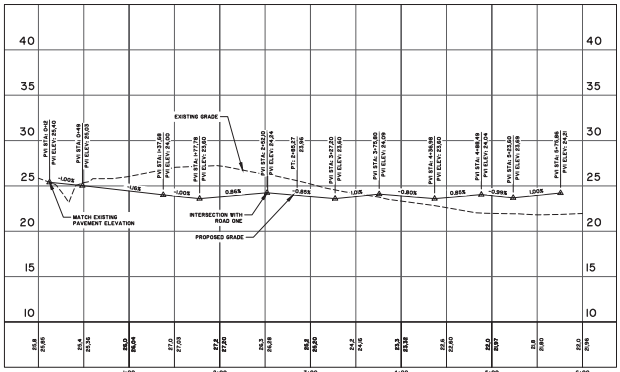
PARKSIDE AT PORT WENTWORTH

ROAD PROFILES

JOB NO.	C-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPR
APPROVED:	MIL
SCALE:	1" = 50'

C4.7

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan (10.8.21 : 2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



ROAD 2
STATIONS: 0+00 - 6+00
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'

GEORGIA
REGISTERED PROFESSIONAL ENGINEER
JOHN T. HUTTON
No. PE034245

NO.	REVISIONS	BY	DATE

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Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

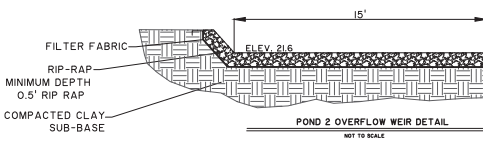
PARKSIDE AT PORT WENTWORTH

ROAD PROFILES

JOB NO.	C-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

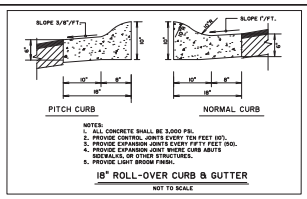
C4.8

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



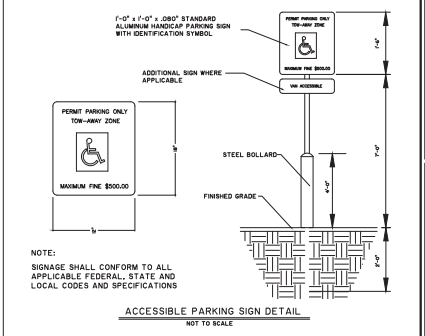
POND 2 OVERFLOW WEIR DETAIL

NOT TO SCALE



18" ROLL-OVER CURB & GUTTER

NOT TO SCALE

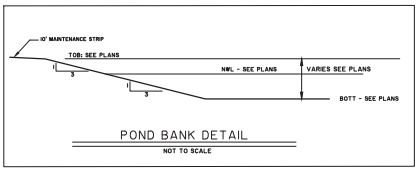


NOTE:

SIGNAGE SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS

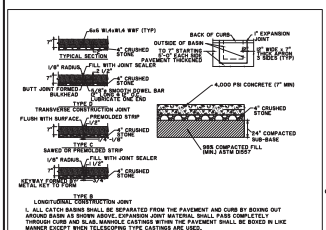
ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE



POND BANK DETAIL

NOT TO SCALE



LONGITUDINAL CONSTRUCTION JOINT

1. ALL CATCH BASINS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BOXING OUT AROUND BASIN AS SHOWN ABOVE. EXPANSION JOINT MATERIAL SHALL PASS COMPLETELY THROUGH CURB AND SLAB. MANHOLE CASTINGS WITHIN THE PAVEMENT SHALL BE BOXED IN LIKE MANNER EXCEPT WHEN TELESCOPING TYPE CASTINGS ARE USED.

2. WHEN A JOINT FALLS WITHIN 5' OF OR CONTACTS BASINS, MANHOLES, OR OTHER STRUCTURES, SHORTEN ONE OR MORE PANELS EITHER SIDE OF OPENING TO PERMIT JOINT TO FALL ON ROUND STRUCTURES AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES.

3. ALL TRANSVERSE JOINTS MUST EXTEND THROUGH CURBS AND MUST BE CONTINUOUS ACROSS PAVEMENT, EXCEPT TIED TRANSVERSE CONSTRUCTION JOINTS. EXPANSION JOINTS WILL NOT BE REQUIRED EXCEPT AT STRUCTURES OR AS SHOWN ON THE PLANS.

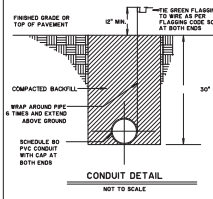
4. ALL SOFT AND YIELDING MATERIAL AND OTHER PORTIONS OF THE SUBGRADE WHICH WILL NOT COMPACT READILY WHEN ROLLED OR TAMPED SHALL BE REMOVED AS DIRECTED AND REPLACED WITH SUITABLE MATERIAL PLACED AND COMPACTED. THE SUBGRADE SHALL BE THOROUGHLY COMPACTED WITH SUITABLE EQUIPMENT SO AS TO HAVE UNIFORM DENSITY AT MOISTURE CONTENTS OF NOT LESS THAN STANDARD OPTIMUM (AASHTO T99). ALL SEWER TRENCHES AND STRUCTURE EXCAVATIONS SHALL BE BACKFILLED TO NATURAL OR FINISHED GRADE AS SOON AS CONDITIONS PERMIT. ALL BACKFILL SHALL BE COMPACTED WITH MECHANICAL TAMPERS IN LAYERS OF NOT OVER 8" LOOSE MATERIAL. IN ORDER TO PREVENT DIFFERENTIAL HEAVE, THE BACKFILL MATERIAL SHALL BE THE SAME MATERIAL AS THE SUBGRADE ADJACENT TO THE TRENCH.

5. THE MINIMUM CEMENT CONTENT SHALL NOT BE LESS THAN 6.0 SACKS (94 lb. PER SACK) PER CU. YD. OF CONCRETE. THE MAXIMUM SIZE AGGREGATE SHALL NOT EXCEED 1/4 OF THE SLAB THICKNESS. THE MAXIMUM SLUMP SHALL NOT EXCEED 5". ALL CONCRETE SHALL BE AIR ENTRAINED IN ACCORDANCE WITH THE FOLLOWING TABLE:

MAX. SIZE OF COARSE AGGREGATE, IN. SIEVE	AIR CONTENT PER CENT BY VOLUME
1" 3/4" 3/8" 1/2	6 6 7-7 1/2

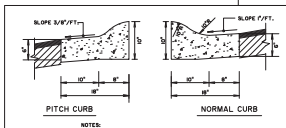
CONCRETE PAVEMENT DETAILS

NOT TO SCALE



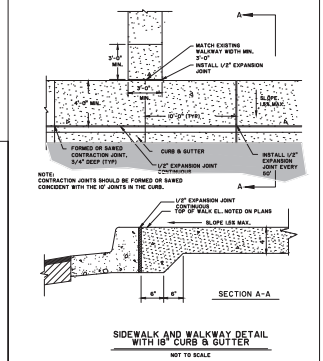
CONDUIT DETAIL

NOT TO SCALE



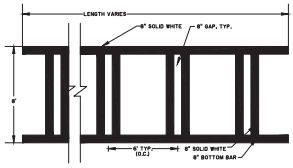
18" ROLL-OVER CURB & GUTTER

NOT TO SCALE



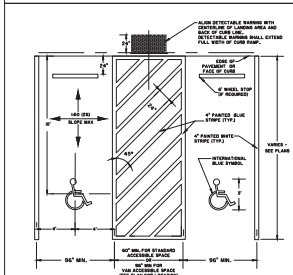
SIDEWALK AND WALKWAY DETAIL WITH 18" CURB & GUTTER

NOT TO SCALE



CROSSWALK DETAIL

NOT TO SCALE



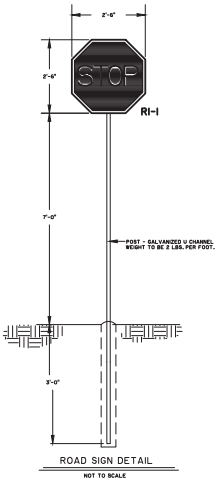
NOTES:

1. STRIPING AND CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS.
2. 2% MAXIMUM SLOPE IN ALL DIRECTIONS WITHIN ACCESSIBLE PARKING SPACE AND ACCESS AISLE.
3. ONE IN EVERY 8 ACCESSIBLE SPACES SHALL BE SERVED BY AN 8' WIDE ACCESS AISLE AND SHALL BE DESIGNATED "VAN ACCESSIBLE".

ACCESSIBLE PARKING SPACE STRIPING DETAIL

NOT TO SCALE

R1-2
(30)30



ROAD SIGN DETAIL

NOT TO SCALE

NO.	REVISIONS	BY	DATE

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50 Park of Commerce Way
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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

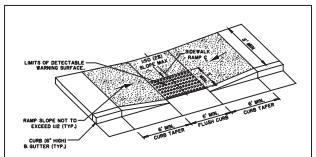
PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

JOB NO.	21897.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS-V

C5.1

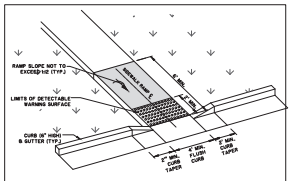
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



ISOMETRIC VIEW OF RAMP

NOTES:
1. CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
2. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%)
3. CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL.

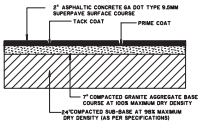
CURB RAMP "TYPE B"
NOT TO SCALE



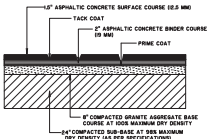
ISOMETRIC VIEW OF RAMP

NOTES:
1. CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
2. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%)
3. CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL.
4. LONGITUDINAL SLOPE OF SIDEWALK TO BE NO GREATER THAN 1:20 (5%).

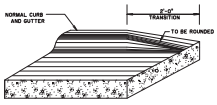
CURB RAMP "TYPE A"
W/ PERPENDICULAR SIDEWALK
NOT TO SCALE



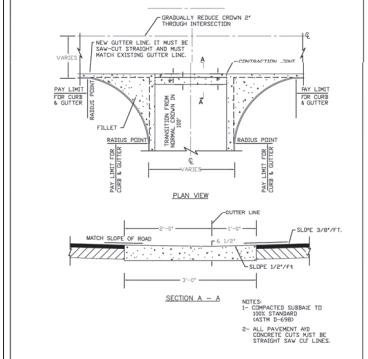
LIGHT DUTY PAVEMENT SECTION
NOT TO SCALE



HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE



FEATHERING OF CURB AND GUTTER DETAIL
NOT TO SCALE

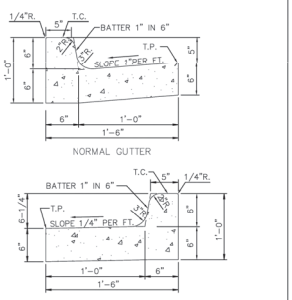


NOTES:
1- COMPACTED SUBBASE TO 100% STANDARD (ASTM D-698)
2- ALL PAVEMENT AND CONCRETE CUTS MUST BE STRAIGHT SAW CUT LINES.

CONCRETE SWALE WITH FILLETS

City of Port Wentworth
TECHNICAL DETAILS
P-7

PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

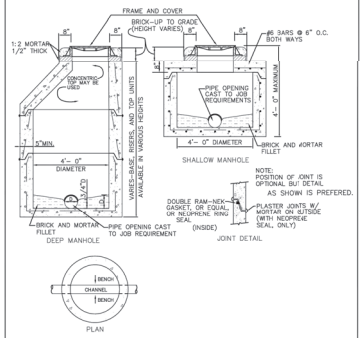


NOTE: COMPACT SUBGRADE TO 98% (ASTM D698-00a#)

18" CURB & GUTTER

City of Port Wentworth
TECHNICAL DETAILS
P-3

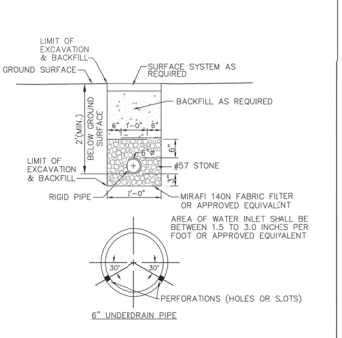
PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



PRECAST STORM MANHOLE

City of Port Wentworth
TECHNICAL DETAILS
SD-12

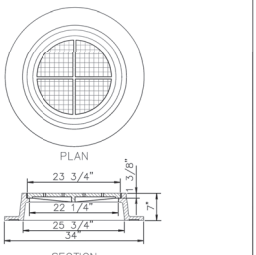
PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



6" UNDERDRAIN PIPE

City of Port Wentworth
TECHNICAL DETAILS
SD-10

PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATED: FEBRUARY 2007



NOTE:
MANHOLE RIM & COVER SIMILAR TO NEENAH FOUNDRY CO. R-1412-A4. TOTAL WEIGHT 310#. TYPE "C" LID TO HAVE MACHINED BEARING SURFACES. LID TO BE LETTERED "STORM".

STORM MANHOLE RING & COVER

City of Port Wentworth
TECHNICAL DETAILS
SD-14

PREPARED BY SAUSSY ENGINEERING, LLC.
SCALE: N.T.S.
DATED: FEBRUARY 2007

12.G.g

REVISIONS

NO.	BY	DATE

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Savannah, GA 31405 • 912.234.5300
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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

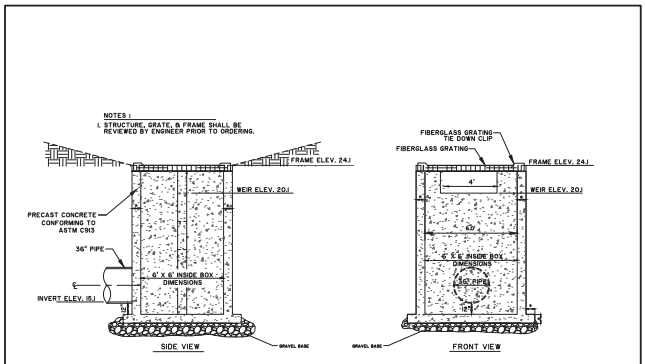
PAVING, GRADING AND DRAINAGE DETAILS

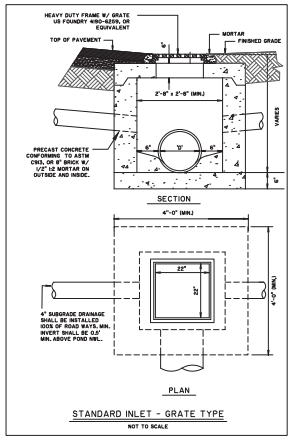
JOB NO:	J-20072.000
DATE:	05/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1"=1'

C5.2

Packet Pg. 296

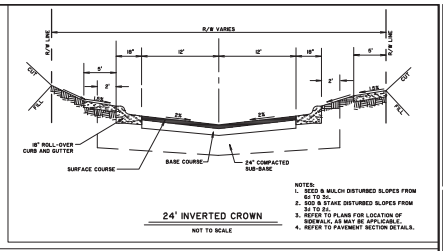
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))





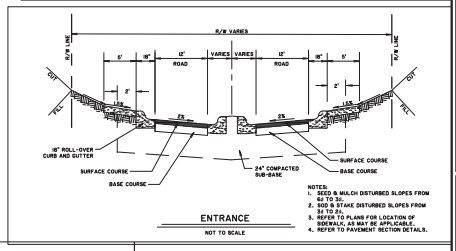
STANDARD INLET - GRATE TYPE

NOT TO SCALE



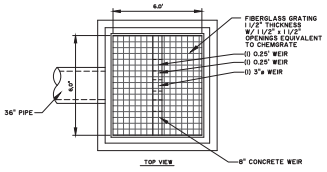
24' INVERTED CROWN

NOT TO SCALE



ENTRANCE

NOT TO SCALE

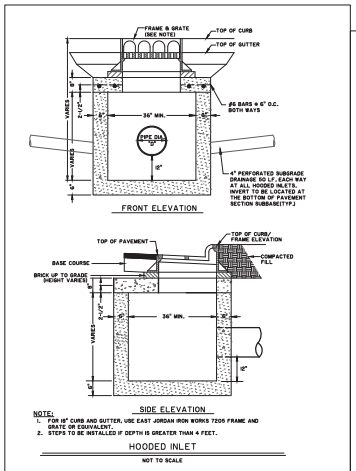


CONTROL STRUCTURE #1

NOT TO SCALE

*NOTES:

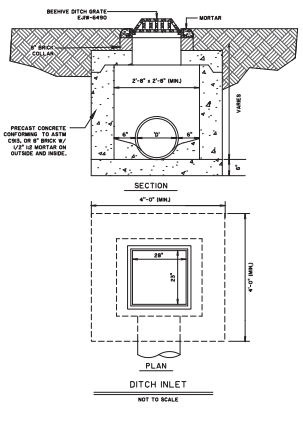
1. PRE CAST MANUFACTURER IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE PRE CAST ELEMENTS AND THEIR CONNECTIONS. DESIGN SHALL BE PERFORMED BY A STRUCTURAL ENGINEER REGISTERED IN SOUTH CAROLINA. SHOP DRAWINGS AND CALCULATIONS SEALED BY THE ENGINEER SHALL BE SUBMITTED INCLUDING REINFORCING LAYOUT AND CORNER BAR REINFORCING. REVIEW OF CALCULATIONS AND SHOP DRAWINGS SHALL BE FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND SHALL NOT RELIEVE CONTRACTOR AND ITS ENGINEER OF THE FULL RESPONSIBILITY FOR DESIGN OF PRE CAST AND CONNECTIONS. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED. PRE CAST MANUFACTURER IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE CONCRETE STRUCTURE TO INCLUDE BUOYANCY, HANDLING STRESSES, ETC. DESIGN CONDITION IS TO BE WITH THE BOX STRUCTURE IN PLACE AND EMPTY. SOIL LOAD AT STRUCTURE BOTTOM TO BE 60 PCF.



NOTE:
1. FOR 18" CURB AND GUTTER, USE EAST JORDAN IRON WORKS 7205 FRAME AND GRATE OR EQUIVALENT.
2. STEPS TO BE INSTALLED IF DEPTH IS GREATER THAN 4 FEET.

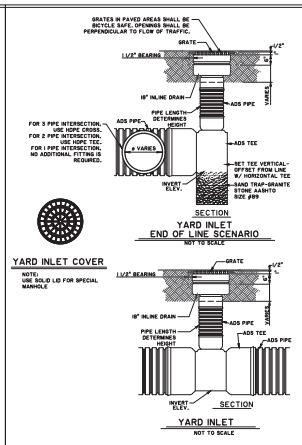
HOODED INLET

NOT TO SCALE



DITCH INLET

NOT TO SCALE



PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

NO.	REVISIONS	BY	DATE

JOB NO.	J-20072.000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

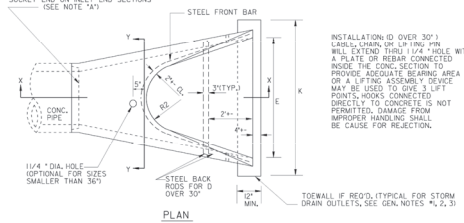
C5.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

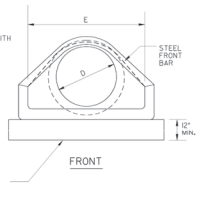
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CONCRETE FLARED END SECTION

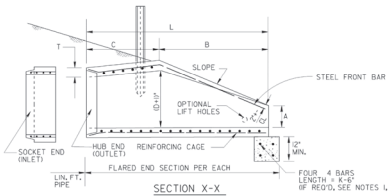
END SECTION TO PIPE JOINT SHOWN AS TYPICAL: HUB END ON OUTLET END SECTIONS; SOCKET END ON INLET END SECTIONS (SEE NOTE "A")



INSTALLATION: (D OVER 30") LASELS, CHAIN, OR LIFTING PIN WILL EXTEND THRU 1 1/4 " HOLE WITH A PLATE OR REBAR CONNECTED INSIDE THE CONC. SECTION TO PROVIDE ADEQUATE BEARING AREA OR A LIFTING ASSEMBLY DEVICE MAY BE USED TO GIVE 3 LIFT POINTS. HOOKS CONNECTED DIRECTLY TO CONCRETE IS NOT PERMITTED. DAMAGE FROM IMPROPER HANDLING SHALL BE CAUSE FOR REJECTION.



NOTE: DO NOT CUT CONCRETE PIPE. USE FULL LENGTH SECTIONS ONLY. WARP SLOPE TO CONFORM WITH PIPE LENGTH AND END SECTION.



REINFORCING CAGE:

(1.) WIRE FABRIC HAVING EQUAL STEEL AREA AS INNER CAGE FOR CLASS R/PPE, AASHTO M-170.
(2.) ALTERNATE: * 3 BARS SPACED 12"+LONGITUDINALLY WITH * 2 BARS TRANVERSELY AT 6' O.C. MAX. SPACING, SPOT WELDED OR TIED TO FORM CAGE. (BACK RODS MAY BE OMITTED.)

NOTE "A":
CONTRACTOR WILL INFORM PRODUCER IF CONCRETE FLARED END SECTION IS FOR INLET OR FOR OUTLET END. SOCKET (TONGUE OR SPIGOT) END IS REQUIRED FOR INLETS. HUB (GROOVE OR BELL) END IS REQUIRED FOR OUTLETS. SOCKET TO SOCKET OR HUB TO HUB JOINT WILL NOT BE ACCEPTED UNLESS A REINFORCED CONCRETE COLLAR IS BUILT AROUND THE JOINT WITH NO PAYMENT BEING MADE FOR THE COLLAR.
FLARED END SECTIONS SHALL BE JOINTED TO PIPE WITH ALL SPACE IN THE JOINT FILLED WITH EITHER BITUMINOUS PLASTIC CEMENT OR PREFORMED PLASTIC GASKET (SEC. 848).

WALL THICKNESS (T) IS SHOWN AS NOMINAL AND MAY BE INCREASED AT PRODUCER'S OPTION FOR DESIRED JOINT DESIGN OR TO ALLOW A FLAT OUTSIDE BOTTOM ON THE FLARE, WITH INSIDE DIMENSIONS OF FLARE RETAINED AS SHOWN.

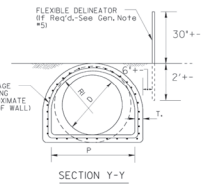
T = PIPE WALL THICKNESS (.08333D + 2"+- TYPICAL)

DIMENSIONS AND REINFORCING FOR CONCRETE FLARED END SECTIONS (+- 1" TOLERANCE)

PIPE DIA	FRONT BAR	BACK RODS	SLOPE +-	A	B	C *	L *	E	P	R1	R2	K= C + 2'	OUTLET TOEWALL (IF REQ'D) CU.YDS. CONC.
12"	1-#3 x 5' 4"	NOT REQ'D.	2.2:1	4"	2'0"	4'1"	6'1"	2'0"	1'8"	10"	5"	4'-0"	.148
15"	1-#3 x 6' 0"	NOT REQ'D.	2.2:1	6"	2'3"	3'10"	6'1"	2'6"	2'0"	1'0"	1"	4'-6"	.167
18"	1-#3 x 7' 2"	NOT REQ'D.	2.2:1	9"	2'3"	3'10"	6'1"	3'0"	2'5"	1'4"	1'0"	5'-0"	.185
24"	1-#3 x 9' 10"	NOT REQ'D.	2.4:1	10"	3'0"	3' 6"	6'2"	4'0"	2'9"	1'5"	1'2"	6'-0"	.222
30"	1-#4 x 11' 8"	NOT REQ'D.	2.4:1	12"	4'6"	1'8"	6'2"	5'0"	3'1"	1'6"	1'3"	7'-0"	.259
36"	1-#4 x 13' 10"	2-#4 x 6'3"	2.4:1	15"	5'3"	2'1"	8'2"	6'0"	4'0"	2'0"	1'8"	8'-0"	.296
42"	1-#4 x 13' 10"	2 #4 x 7'4"	3.4:1	21"	5'3"	2'9"	8'2"	6'0"	4'0"	2'4"	1'10"	8'-6"	.316

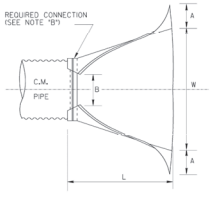
NOTE: SPECIFIED REINFORCING IS MINIMAL AND MAY BE INCREASED AT PRODUCERS OPTION TO AID CASTING & HANDLING. ALTERNATE REINFORCEMENT PERMITTED IF APPROVED.

* NOTE: "C" AND "L" DIMENSION MAY BE MEASURED TO EITHER END OF JOINT CONNECTION AT PIPE.



METAL FLARED END SECTION

(USE ONLY WITH COR. METAL PIPE)

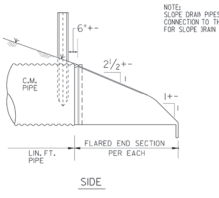


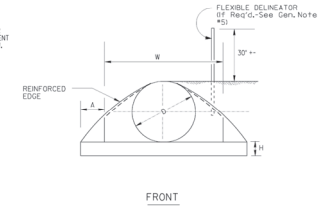
NOTE: GALVANIZED STEEL FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED STEEL PIPE AND ALUMINUM FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED ALUMINUM PIPE UNLESS OTHERWISE APPROVED BY D.O.T. OFFICE OF MATERIALS AND TESTS.

FLARED END SECTION DIMENSIONS

PIPE SIZE "D"	THICKNESS GALV. STEEL	THICKNESS ALUM.	A A+- 0.40 +- 1"	B B=0.5 D +- 1"	H H=0.25D +- 1" MIN.6"	L L=1.67D +- 1'/2"	W W=2.00 +- 2"
12"	.064"	.060"	5"	6"	6"	1'8"	2'0"
15"	.064"	.060"	6"	7"	6"	2'3"	2'6"
18"	.064"	.060"	7"	9"	6"	2'6"	3'0"
24"	.064"	.060"	9"	1'0"	6"	3'4"	4'0"
30"	.079"	.105"	1'0"	1'3"	7"	4'2"	5'0"
36"	.079"	.105"	1'2"	1'6"	9"	5'0"	6'0"
42"	.109"	.164"	1'5"	1'9"	10"	5'10"	7'0"

NOTE: WHERE METAL FLARED END SECTIONS ARE USED WITH MULTIPLE PIPE LINES, THE STANDARD SPACING BETWEEN PIPES IS:D OR 3 FT.) MAY HAVE TO BE INCREASED IS=1.75 D TYPICAL), TO PREVENT OVER-LAP OF END SECTION WINGTIPS. SEE ALSO STD. 10300.





NOTE "B":
THE CONNECTION BETWEEN METAL FLARED END SECTION AND C.M. PIPE WILL BE ONE OF THE FOLLOWING:

(a) A STRAP BAND OR THREADED ROD PROVIDED BY THE MANUFACTURER WILL LOCK END SECTION ONTO PIPE, A CORRUGATION AT THE PIPE AND WILL BE NON-SPIRALED (PERPENDICULAR TO CL OF PIPE.)

(b) A DIMPLE BAND COLLAR WILL BE SHOP BOLTED TO END SECTION. PIPE WILL BE INSERTED INTO BAND COLLAR TO MEET THE END SECTION.

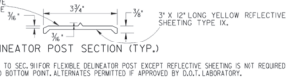
(c) A STUB PIPE WILL BE RIVITED TO THE END SECTION AND THE MAIN PIPE CONNECTED TO THE STUB WITH A NORMAL CONNECTING BAND.

(d) OTHER TYPE CONNECTION IF RECOMMENDED BY MANUFACTURER AND APPROVED BY THE D.O.T.

SPECIAL NOTE:
FLARED END SECTIONS ARE NORMALLY LIMITED TO USE OUTSIDE THE CLEAR ZONE OR BEHIND BARRIER AND WHERE HYDRAULICS PERMIT. SEE OTHER STANDARDS OR DETAILS FOR TAPERED HEADWALLS, SAFETY SLOPE END SECTIONS OR OTHER PIPE END STRUCTURES.

GENERAL NOTES :

1. TOEWALLS ARE REQ'D. FOR OUTLETS OF CONC. STORM DRAINS, EXCEPT WHERE DITCH PAVING OR OTHER EROSION PROTECTION IS PROVIDED OR WHERE THE OUTLET VELOCITY IS LESS THAN 8 FT./SEC. TOEWALLS ARE NOT REQUIRED FOR SIDE DRAINS, SLOPE DRAINS OR INLETS OF STORM DRAINS. THIS CRITERIA MAY BE VARIED WHERE SPECIFIED BY THE DESIGNER OR THE ENGINEER.
2. TOEWALLS WILL BE PAID FOR AS CU. YDS. OF CLASS "A" OR "B" CONCRETE. CONTRACTOR MAY ELECT TO CONSTRUCT TOE WALL WITH SAND CEMENT BAG RIPRAP OR STONE RIPRAP TO SAME MINIMUM DIMENSIONS WITH NO ADDITIONAL PAYMENT.
3. PRECAST TOEWALLS SHALL BE CL. "A" CONCRETE; CAST-IN-PLACE TOEWALLS MAY BE CL "A" OR "B" CONCRETE AND MAY BE TRENCH FORMED. WHERE PLANS ITEMIZE ONE CLASS OF CONCRETE AND CONTRACTOR ELECTS TO USE OTHER CLASS, NO ADDITIONAL PAYMENT IS MADE. NO PAYMENT IS MADE FOR STEEL IN TOEWALL.
4. CENTERLINE OF FLARED END SECTION WILL ALIGN WITH CENTERLINE OF PIPE. IF PIPE IS SKEWED, THE EMBANKMENT SLOPE WILL BE WARPED TO CONFORM WITH END SECTION.
5. FLEXIBLE DELINEATORS SHALL BE REQUIRED AT CROSS DRAIN FLARED END SECTIONS, BOTH INLET AND OUTLET. PAYMENT FOR FLARED END SECTION WILL INCLUDE DELINEATORS, SEE DETAIL AND NOTES BELOW. DELINEATORS NOT REQ'D. FOR SIDE DRAIN, SLOPE DRAIN, OR LONG PIPE.



NOTE:
DELINEATOR POST SHALL CONFORM TO SEC. 911 FOR FLEXIBLE DELINEATOR POST EXCEPT REFLECTIVE SHEETING IS NOT REQUIRED AND LENGTH IS 4'-6" FROM TOP TO BOTTOM POINT. ALTERNATES PERMITTED IF APPROVED BY D.O.T. LABORATORY.

SPECIAL NOTE :
PIPE SIZES (D) ARE "NOMINAL-MINIMUM" INSIDE DIAMETERS IN ACCORDANCE WITH GEORGIA STANDARD FOR PIPE CULVERTS. "D" DIMENSION FOR FLARED END SECTION SHALL EQUAL THE "D" DIMENSION FOR CONNECTING PIPE CULVERT.

DATE	BY	REVISIONS
6-9-06	DJO	REFLECTIVE SHEETING REVISION

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
FLARED END SECTIONS
FOR PIPES

NO SCALE — REV. & REDR. SEPT., 1999

DES. ____ SUBMITTED: STATE ROAD & AIRPORT DESIGN ENGINEER
REV. ____
RETR. ____ APPROVED: CHIEF ENGINEER
CHK. ____

NUMBER 1120

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

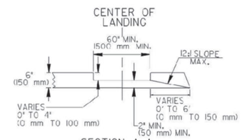
JOB NO.	P-19972.0000
DATE:	10/08/2021
DRAWN:	DBC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MR
SCALE:	P.C.Y

C5.4

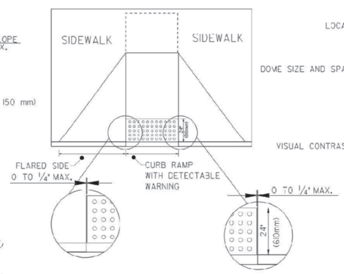
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan (10.3.21 : 2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

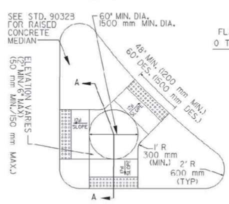
Z:\28972\28972.0001\ENGINEERING\DRAWINGS\CONSTRUCTION PLANS\28972.0001-PGD-DT.DWG - Oct 8, 2021 - 9:43 AM

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		218	352

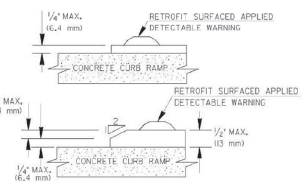


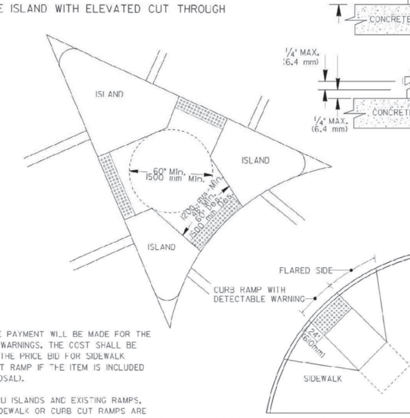
SECTION A-A





CONCRETE ISLAND WITH ELEVATED CUT THROUGH





DETAIL FOR DETECTABLE WARNING AT CUT-THRU CONCRETE ISLAND

NO SEPARATE PAYMENT WILL BE MADE FOR THE DETECTABLE WARNINGS. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK (OR CURB CUT RAMP IF THE ITEM IS INCLUDED IN THE PROPOSAL).

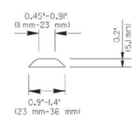
FOR CUT-THRU ISLANDS AND EXISTING RAMPS, WHERE NO SIDEWALK OR CURB CUT RAMPS ARE IN THE PROPOSAL. THE COST OF THE DETECTABLE WARINGS SHALL BE INCLUDED IN THE OVERALL BID PRICE SUBMITTED.

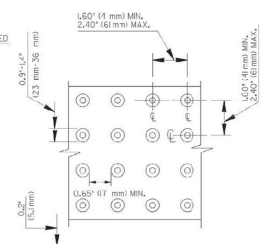
SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES (610 mm) IN THE DIRECTION OF PEDESTRAIN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

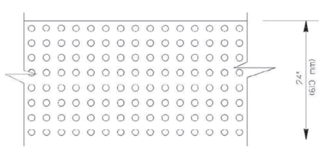
LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150 mm to 180mm) FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUSH AS A REFLECTIVE POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.

DOME SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9 INCH TO 1.4 INCH (23mm-36mm) AT THE BOTTOM, A DIAMETER OF 0.45 INCH TO 0.91 INCH (11mm-23mm) AT THE TOP. THE TOP DIAMETER SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMENTER, A HEIGHT OF 0.2 INCH (5.1mm) AND A CENTER-TO-CENTER SPACING OF 2.40 INCHES (61mm) DESIRABLE 1.60 INCHES (41mm) MINIMUM MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT. DOMES SHALL HAVE A SQUARE ARRANGEMENT. DOMES SHALL BE ALGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

VISUAL CONTRAST: DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE VISUAL CONTRACT SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.







MATERIALS:

NEW CONSTRUCTION

THE DETECTABLE WARNINGS SHALL BE MADE OF MATERIALS SPECIFIED ON QPL 87.

RETROFIT OF EXISTING RAMPS

SURFACED APPLIED MATERIALS WILL ONLY BE APPROVED TO BE USED ON EXISTING WHEELCHAIR RAMPS.

INSTALLATION:

BRICK PAVERS SHALL BE SET IN A WET MORTAR BED. THE BED SHALL BE PLACED ON CONCRETE. THE CONCRETE SHALL BE A MINIMUM OF 4" THICK.

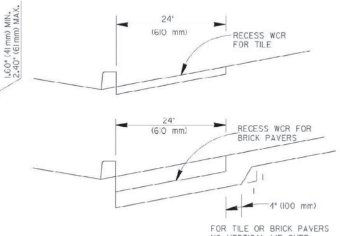
CERAMIC TILE SHALL BE EPOXIED IN PLACE OR SET IN A WET MORTAR BED. MANUFACTURER RECOMMEND ADHESIVE OR FASTENER SHALL BE USED IN THE INSTALLATION.

ALL OTHER MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURES DETAILS OR INSTRUCTION.

GENERAL NOTES:

RETROFIT SURFACED APPLIED MATERIALS ONLY:

1. CHANGES IN LEVEL OF 1/4" (6.4 mm) HIGH MAXIMUM SHALL BE PERMITTED VERTICALLY ON SURFACED APPLIED MATERIALS.
2. CHANGES IN LEVEL BETWEEN 1/4" (6.4 mm) HIGH MINIMUM AND 1/2" (13mm) HIGH MAXIMUM SHALL BE BELEVELED WITH A SLOPE NOT STEEPER THAN 2:1.



FOR TILE OR BRICK PAVERS NO VERTICAL LIP OVER 1/8" (3 mm) IS ALLOWED

	REVISION	DATE
GLO	ADDED RETROFIT DETAIL	6-18-09
	AND ADDED ALT. RAMP	
	DETAIL AND GEN. NOTES	
GLO	ADDED TOLERANCE TO DTL.	10-2-06
GLO	REVISED TRUNCATED DOMES	5-10-05
	AND NOTES.	
	REVISED	1-14-02
	REVISED	7-29-02
BY	REVISION	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DETAIL

DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS

NO SCALE — MARCH 12, 2002

NUMBER A4

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 036274 NATHAN B. LONG

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

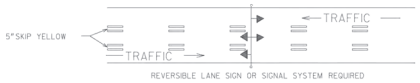
PAVING, GRADING AND DRAINGE DETAILS

JOB NO:	J-28972.0001
DATE:	10/08/2021
DRAWN:	CGC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	NBL
SCALE:	1" = 1'

C5.5

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2578 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



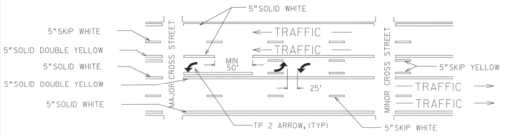
REVERSIBLE LANE SIGN OR SIGNAL SYSTEM REQUIRED

TWO-WAY TRAFFIC WITH A REVERSIBLE CENTER LANE

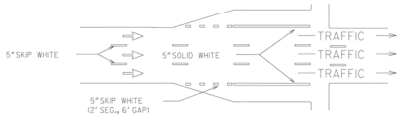
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE PERMITTED TO PASS

TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE NOT PERMITTED TO PASS

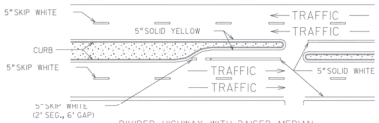
TWO-LANE, TWO-WAY TRAFFIC WITH PASSING PERMITTED



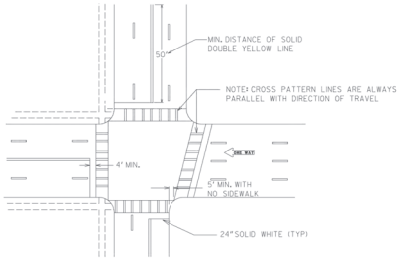
MULTI-LANE, TWO-WAY TRAFFIC WITH SINGLE LANE, TWO-WAY LEFT TURN CHANNELIZATION



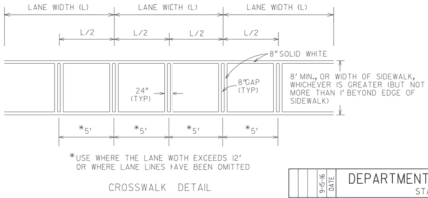
ONE-WAY TRAFFIC WITH ADDED TURN LANES



DIVIDED HIGHWAY WITH RAISED MEDIAN



TYPICAL LOCATION OF CROSSWALKS AND STOP BARS



*USE WHERE THE LANE WIDTH EXCEEDS 12' OR WHERE LANE LINES HAVE BEEN OMITTED

CROSSWALK DETAIL

GENERAL NOTES:

1. SPACING BETWEEEN DOUBLE LINES SHALL BE EQUAL TO THE LINE WIDTH.
2. EDGE LINES SHALL BE PLACED A MINIMUM OF 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.
3. CONTRAST MARKINGS FOR SKIP STRIPING SHALL BE AS SHOWN IN DETAIL T-IIB.

BY	DATE	ADDED GENERAL NOTE 3 REVISION
CDR	9-5-6	

DESIGNED
DRAWN
TRACED
CHECKED

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

PAVEMENT MARKING PLACEMENT
NON-LIMITED ACCESS ROADWAY

NO SCALE — JANUARY 2000

NUMBER T-IIA

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

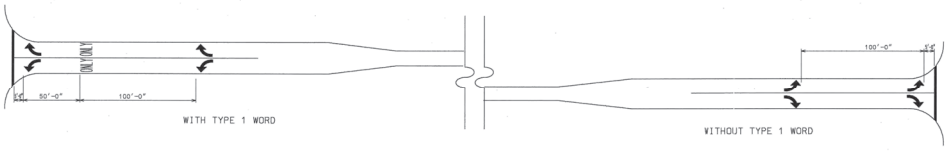
JOB NO.	J-20072.000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS SHOWN

C5.6

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan (10.8.21 : 2979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

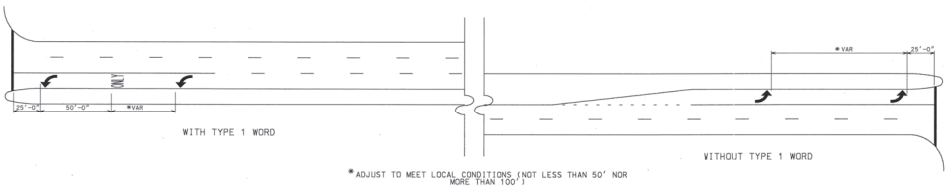
EXIT RAMPS



WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

SHORT TURN LANES

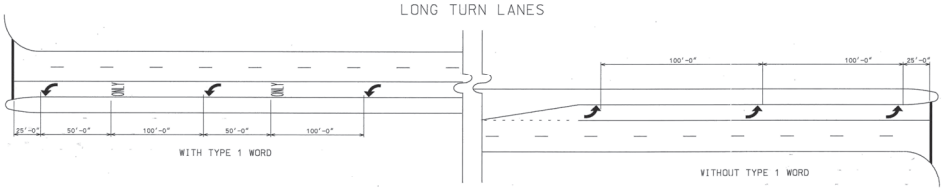


WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

*ADJUST TO MEET LOCAL CONDITIONS (NOT LESS THAN 50' NOR MORE THAN 100')

LONG TURN LANES



WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

GENERAL NOTES:

1. SPACING OF TYPE 2 ARROW IS REPRESENTATIVE OF SPACING FOR TYPE 1, TYPE 3, TYPE 4, & TYPE 5 ARROWS.
2. ALL TURNING LANES SHALL HAVE A MINIMUM OF 2 ARROWS.
3. GROUND MOUNTED OR OVERHEAD SIGNING SHALL BE SUPPLEMENTED BY TYPE 1 WORD.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF PAVEMENT MARKING ARROW LOCATION

NO SCALE JANUARY 2000

T-12A

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

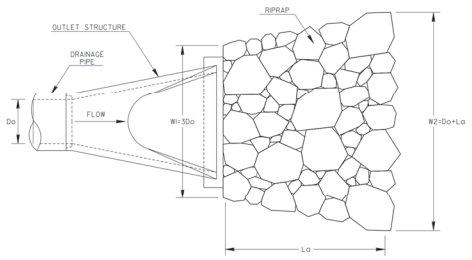
JOB NO.	0-20072.0000
DATE:	02/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS SHOWN

C5.7

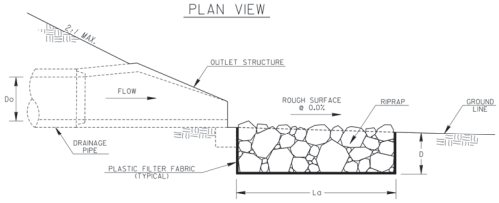
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET TO FLAT AREA

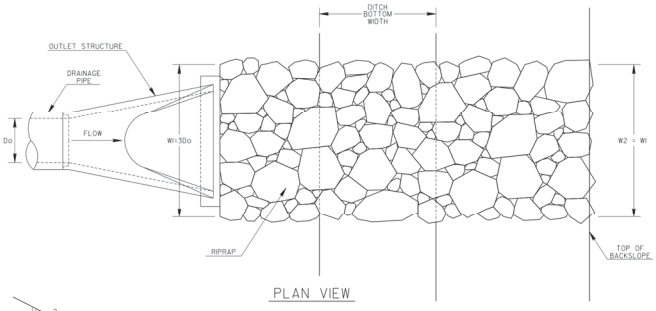


PLAN VIEW

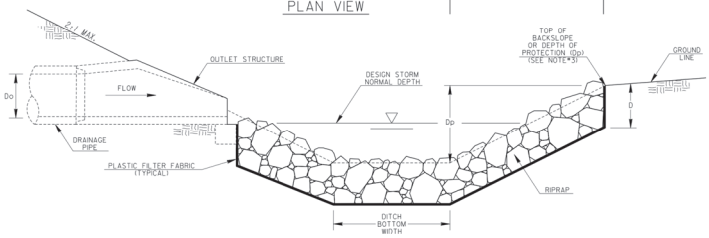


PROFILE VIEW

OUTLET PERPENDICULAR TO WELL-DEFINED CHANNEL



PLAN VIEW



PROFILE VIEW

GENERAL NOTES:

1. RIPRAP OUTLET PROTECTION SHOULD BE USED TO REDUCE A DRAINAGE STRUCTURE'S DISCHARGE VELOCITY. RIPRAP OUTLET PROTECTION IS SHOWN FOR GEORGIA STANDARD 1120, BUT IS INSTALLED SIMILARLY FOR OTHER DRAINAGE OUTLET STRUCTURES.

2. RIPRAP OUTLET PROTECTION SHALL BE DESIGNED IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". THE DESIGNER SHALL PROVIDE THE FOLLOWING IN THE PLANS: PIPE DIAMETER (Do), FLOW RATE OF DESIGN STORM (Q), VELOCITY (V), TAILWATER CONDITION (Tw), APRON LENGTH (La), APRON WIDTH AT DRAINAGE STRUCTURE (W1), APRON WIDTH DOWNSTREAM (W2), AVERAGE STONE DIAMETER (d50), INSTALLATION DEPTH (D), AND TYPE OF RIPRAP WITH QUANTITY.

   THE MINIMUM DESIGN FOR RIPRAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM EVENT, BUT LARGER STORMS ARE RECOMMENDED.

3. THE APRON WIDTHS SHALL BE THE SAME WHEN THE DRAINAGE STRUCTURE DISCHARGES PERPENDICULAR INTO A WELL-DEFINED CHANNEL. THE LENGTH SHALL EXTEND ACROSS THE CHANNEL AND UP TO THE TOP OF THE CHANNEL BACKSLOPE OR 1-FOOT ABOVE THE NORMAL DEPTH OF THE CHANNEL'S DESIGN STORM (WHICHEVER IS LESS). THE DESIGNER SHALL PROVIDE THE DEPTH OF PROTECTION (Dp) IF THE APRON DOES NOT EXTEND TO THE TOP OF THE BACKSLOPE.

4. IF THE OUTLET HYDRAULICS REQUIRE A d50<=0.70 FEET, TYPE-3 RIPRAP MAY BE USED.
   IF THE OUTLET HYDRAULICS REQUIRE A d50<=1.20 FEET, TYPE-I RIPRAP SHOULD BE USED.
   IF THE OUTLET HYDRAULICS REQUIRE A d50>1.20 FEET, THE DESIGNER SHALL DESIGN AND PROVIDE A SPECIAL DETAIL FOR APPROPRIATE OUTLET PROTECTION.

5. PLASTIC FILTER FABRIC IS REQUIRED UNDERNEATH RIPRAP APRON.

6. PAYMENT FOR RIPRAP SHALL BE MEASURED IN SQUARE YARDS FOR SPECIFIED INSTALLATION DEPTH. PAYMENT FOR PLASTIC FILTER FABRIC SHALL BE MEASURED IN SQUARE YARDS CONSISTENT WITH RIPRAP QUANTITY AND PAID FOR SEPARATELY.

Do = PIPE DIAMETER
Q = DESIGN STORM FLOW RATE
V = DESIGN STORM VELOCITY
Tw = TAILWATER CONDITION/DESIGN STORM NORMAL DEPTH
La = APRON LENGTH
W1 = APRON WIDTH UPSTREAM
W2 = APRON WIDTH DOWNSTREAM
d50 = AVERAGE STONE DIAMETER
D = INSTALLATION DEPTH
Dp = DEPTH OF PROTECTION

RIPRAP TYPE	REQUIRED d50 (FT)	MIN. DEPTH "D" (IN)
1	≤1.20	30
3	≤0.67	18

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

RIPRAP OUTLET PROTECTION
(SHEET 1 OF 2)

NO SCALE 4-22-2016

DESIGNED DLE
DRAWN DLE
TRACED ____
CHECKED ____

NUMBER D-55A

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

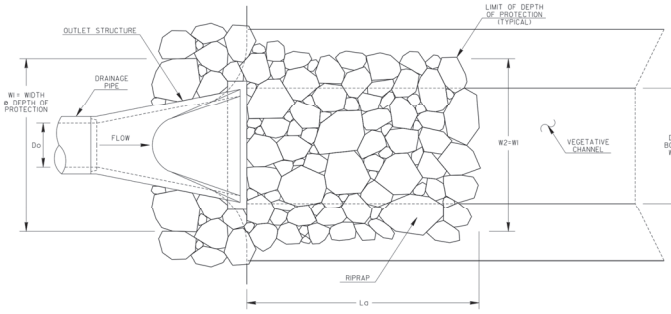
JOB NO.	P-2007.2000
DATE:	10/08/2021
DRAWN:	DSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS SHOWN

C5.8

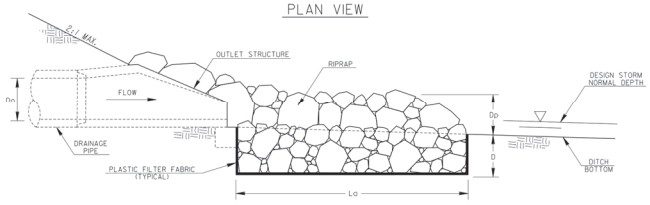
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET PARALLEL TO WELL-DEFINED CHANNEL

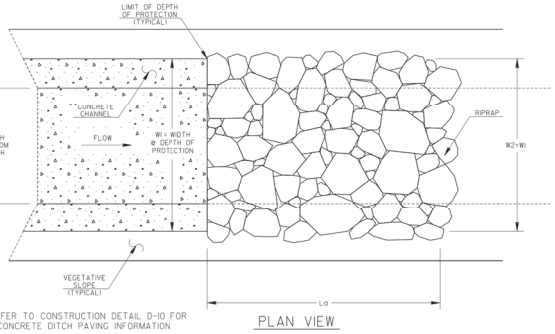


PLAN VIEW



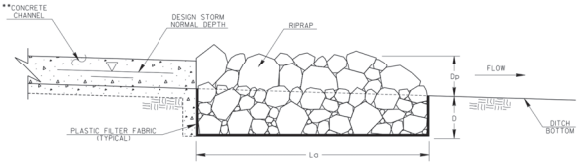
PROFILE VIEW

CONCRETE CHANNEL TO RIPRAP TRANSITION



**REFER TO CONSTRUCTION DETAIL D-10 FOR CONCRETE DITCH PAVING INFORMATION

PLAN VIEW



PROFILE VIEW

GENERAL NOTES:

1. RIPRAP OUTLET PROTECTION SHOULD BE USED TO REDUCE A DRAINAGE STRUCTURE'S DISCHARGE VELOCITY. RIPRAP OUTLET PROTECTION IS SHOWN FOR GEORGIA STANDARD 620, BUT IS INSTALLED SIMILARLY FOR OTHER DRAINAGE OUTLET STRUCTURES. RIPRAP OUTLET PROTECTION IS SHOWN FOR A CONCRETE DITCH, BUT IS INSTALLED SIMILARLY TO TRANSITION FROM OTHER CHANNEL LININGS.

2. RIPRAP OUTLET PROTECTION SHALL BE DESIGNED IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". THE DESIGNER SHALL PROVIDE THE FOLLOWING IN THE PLANS: PIPE DIAMETER (Do), FLOW RATE OF DESIGN STORM (Q), VELOCITY (V), TAILWATER CONDITION (Tw), APRON LENGTH (La), APRON WIDTH AT DRAINAGE STRUCTURE (W1), APRON WIDTH DOWNSTREAM (W2), AVERAGE STONE DIAMETER (d50), INSTALLATION DEPTH (D), AND TYPE OF RIPRAP WITH QUANTITY.

   THE MINIMUM DESIGN FOR RIPRAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM EVENT, BUT LARGER STORMS ARE RECOMMENDED.

3. THE APRON WIDTHS SHALL BE THE SAME WHEN THE DRAINAGE STRUCTURE DISCHARGES PARALLEL INTO A WELL-DEFINED CHANNEL. THE APRON WIDTHS IN THIS CASE SHALL REPRESENT THE WIDTH AT THE DEPTH OF PROTECTION. THE RIPRAP SHALL BE INSTALLED TO THE TOP OF CHANNEL OR 1-FOOT ABOVE THE NORMAL DEPTH OF THE CHANNEL'S DESIGN STORM (WHICHEVER IS LESS). THE DESIGNER SHALL PROVIDE THE DEPTH OF PROTECTION (Dp) IF THE RIPRAP SHOULD NOT BE INSTALLED TO THE TOP OF THE CHANNEL. RIPRAP SHOULD ALSO BE INSTALLED TO ARMOR CHANNEL CORNER AT THE OUTLET STRUCTURE.

4. IF THE OUTLET HYDRAULICS REQUIRE A d50<=0.70 FEET, TYPE-3 RIPRAP MAY BE USED.
   IF THE OUTLET HYDRAULICS REQUIRE A d50<=1.20 FEET, TYPE-1 RIPRAP SHOULD BE USED.
   IF THE OUTLET HYDRAULICS REQUIRE A d50>1.20 FEET, THE DESIGNER SHALL DESIGN AND PROVIDE A SPECIAL DETAIL FOR APPROPRIATE OUTLET PROTECTION.

5. PLASTIC FILTER FABRIC IS REQUIRED UNDERNEATH RIPRAP APRON.

6. PAYMENT FOR RIPRAP SHALL BE MEASURED IN SQUARE YARDS FOR SPECIFIED INSTALLATION DEPTH. PAYMENT FOR PLASTIC FILTER FABRIC SHALL BE MEASURED IN SQUARE YARDS CONSISTENT WITH RIPRAP QUANTITY AND PAID FOR SEPARATELY.

Do = PIPE DIAMETER
Q = DESIGN STORM FLOW RATE
V = DESIGN STORM VELOCITY
Tw = TAILWATER CONDITION/DESIGN STORM NORMAL DEPTH
La = APRON LENGTH
W1 = APRON WIDTH UPSTREAM AT DEPTH OF PROTECTION
W2 = APRON WIDTH DOWNSTREAM AT DEPTH OF PROTECTION
d50 = AVERAGE STONE DIAMETER
D = INSTALLATION DEPTH
Dp = DEPTH OF PROTECTION

RIPRAP TYPE	REQUIRED d50 (FT)	MIN. DEPTH "D" (IN)
1	≤1.20	36
3	≤0.67	18

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

RIPRAP OUTLET PROTECTION
(SHEET 2 OF 2)

NO SCALE | 4-22-2016

DESIGNED DLE
DRAWN DLE
TRACED
CHECKED

NUMBER D-55B

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

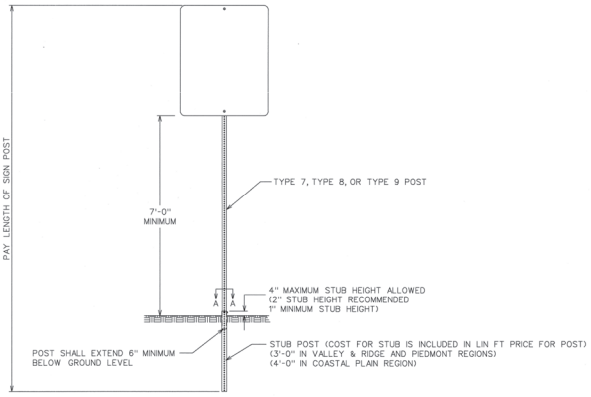
PAVING, GRADING AND DRAINAGE DETAILS

JOB NO.	P-20172.0000
DATE:	10/06/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

C5.9

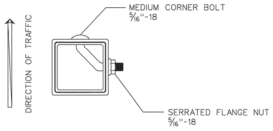
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



FRONT VIEW

POST	STUB SIZE
TYPE 7	2¼" x 2¼"
TYPE 8	2¾" x 2¾"
TYPE 9	2½" x 2½"



SECTION A-A

SIGN POST SELECTION CHART

70 MPH Wind Load Chart - 15% Gust Factor

	SLIP BASE NOT REQUIRED				GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED					
	TYPE 7 2"14 ga.		TYPE 9 2¼"14 ga.	TYPE 8 2¼/2"12 ga.	TYPE 8 2¼/2"12 ga.		TYPE 8 w/TYPE 9 Insert> 2¼/2"12 ga. W/2¼/4"14 ga.			
Sign Centroid	1 Post	2 Post	1 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post	
	SQUARE FOOTAGE				SQUARE FOOTAGE		SQUARE FOOTAGE			
6'	13.50	27.00	9.25	30.00	60.00	90.00	48.25	98.50	147.75	
7'	11.60	23.20	16.50	25.75	51.50	77.25	42.25	84.50	126.75	
8'	10.15	20.30	4.45	22.55	45.10	67.65	37.00	74.00	111.00	
9'	9.00	18.00	2.85	20.00	40.00	60.00	32.85	65.70	98.55	
10'	8.10	16.20	1.55	18.00	36.00	54.00	29.55	59.10	88.65	
11'	7.40	14.80	10.50	16.40	32.80	49.20	26.90	53.80	80.70	
12'	6.80	13.60	9.60	15.00	30.00	45.00	24.65	49.30	73.95	
13'	6.25	12.50	8.90	13.85	27.70	41.55	22.75	45.50	68.25	
14'	5.80	11.60	8.25	12.90	25.80	38.70	21.15	42.30	63.45	
15'	5.00	10.00	6.45	10.10	20.20	30.30	16.55	33.10	49.65	
16'	4.70	9.40	6.05	9.45	18.90	28.35	15.50	31.00	46.50	
17'	4.40	8.80	5.70	8.90	17.80	26.70	14.60	29.20	43.80	
18'	4.15	8.30	5.40	8.40	16.80	25.20	13.80	27.60	41.40	
19'	3.95	7.90	5.10	7.95	15.90	23.85	13.05	26.10	39.15	
20'	3.75	7.50	4.85	7.55	15.10	22.65	12.40	24.80	37.20	

SIGN CENTROID IS DISTANCE FROM GROUND LEVEL TO BOTTOM OF SIGN *PLUS* HALF THE HEIGHT OF SIGN.
EXAMPLE: 24"X 48" SIGN THAT IS 7 FEET FROM GROUND TO BOTTOM OF SIGN. ADD HALF OF 48" (24" OR 2 FT) *PLUS* 7 FT. = 9' CENTROID.

SIGN PLATE SHALL NOT EXCEED 48" IN WIDTH ON A SINGLE POST.

- TYPE 9 INSERT SHALL BE A CONTINOUS POST INSERTED INTO THE TYPE 8 POST WHERE REQUIRED. THE INSERT POST SHALL EXTEND FROM THE BOTTOM OF THE SLIP BASE UPPER ASSEMBLY TO 4" BELOW THE BOTTOM OF THE SIGN. THE INSERT POST SHALL NOT EXTEND ABOVE THE BOTTOM OF THE SIGN. PAYMENT FOR THE INSERT POST SHALL BE PER LINEAR FOOT OF TYPE 9 POST.

GROUND MOUNTED BREAKAWAY SIGN SUPPORT WILL BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR THIS WORK SHALL INCLUDE THE UPPER AND LOWER ASSEMBLY, STUB POST, CLASS "A" CONCRETE, ALL HARDWARE NECESSARY TO COMPLETE THE INSTALLATION, AND BE INCLUDED IN THE BID PRICE SUBMITTED FOR ITEM 636-3010.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

TYPE 7, 8, AND 9
SQUARE TUBE POST
INSTALLATION DETAIL

NO SCALE JULY 2002

T-3A

P0307.9

12.G.g

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

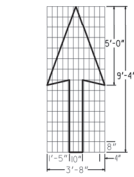
PAVING, GRADING AND DRAINAGE DETAILS

JOB NO.	P-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

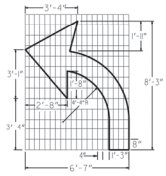
C5.10

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

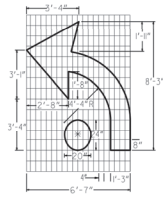
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



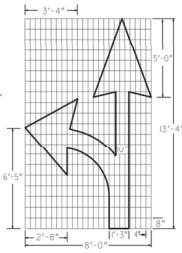
PAVEMENT MARKING, ARROW, TYPE 1
WHITE



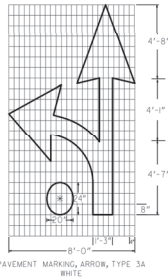
PAVEMENT MARKING, ARROW, TYPE 2
WHITE



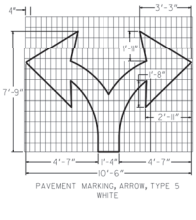
PAVEMENT MARKING, ARROW, TYPE 2A
WHITE



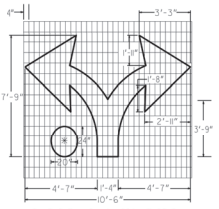
PAVEMENT MARKING, ARROW, TYPE 3
WHITE



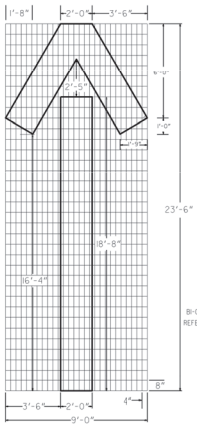
PAVEMENT MARKING, ARROW, TYPE 3A
WHITE



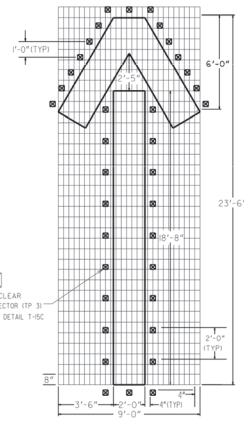
PAVEMENT MARKING, ARROW, TYPE 5
WHITE



PAVEMENT MARKING, ARROW, TYPE 5A
WHITE

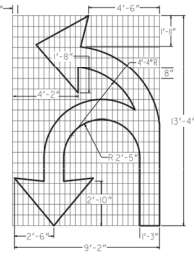


PAVEMENT MARKING, ARROW, TYPE 4
WHITE

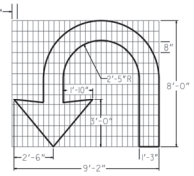


PAVEMENT MARKING, ARROW, WRONG WAY
WHITE

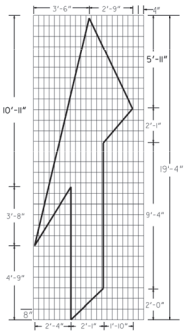
RED
CLEAR
BI-COLOR REFLECTOR (TP 3)
REFER TO GDOT DETAIL T-15C



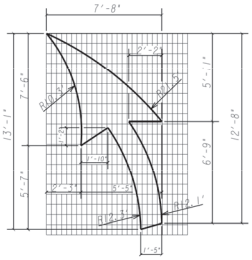
PAVEMENT MARKING, ARROW, TYPE 6
WHITE



PAVEMENT MARKING, ARROW, TYPE 7
WHITE



PAVEMENT MARKING, ARROW, TYPE 8
WHITE



PAVEMENT MARKING, ARROW, TYPE 9
WHITE (MINI ROUNDABOUTS)

NOTES:
1. PAVEMENT MARKING ARROWS WITH A DOT (2A, 3A, 5A) SHALL BE USED ALONG MULTI-LANE ROUNDABOUT APPROACHES ALONG THE INSIDE LANE ONLY

NO.	DATE	REVISION	BY
1	11-04-00	ADDED TYPE 2A, 3A, 5A, 9	KVP
2	12-05-00	ADDED TYPE 2A, 3A, 5A, 9	KVP
3	04-11-00	ADDED TYPE 2A, 3A, 5A, 9	KVP

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS
PAVEMENT MARKINGS - ARROWS

NO SCALE — APRIL 2000

DESIGNED
DRAWN
TRACED
CHECKED

NUMBER
T-12B

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

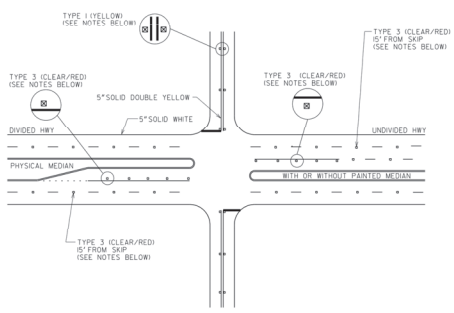
JOB NO:	0-2007.2000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1"=1'

C5.11

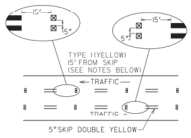
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

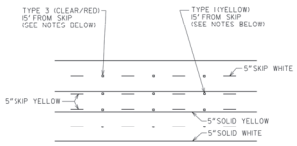
DIVIDED / UNDIVIDED HIGHWAY



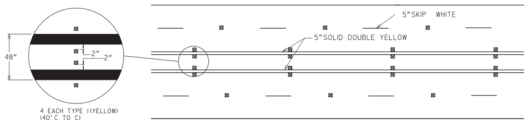
REVERSIBLE LANE



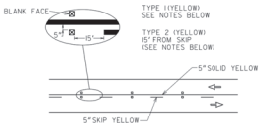
TWO WAY LEFT TURN LANE



4'-0" STRIPED FLUSH MEDIAN



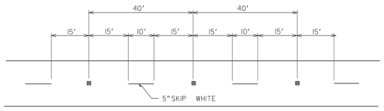
NO PASSING ZONE



GENERAL NOTES:

1. RAISED PAVEMENT MARKERS SHALL BE SPACED EVERY 40 FT UNLESS OTHERWISE SPECIFIED.
2. ON SOLID WHITE TURN BAY LINES, SPACING SHALL BE 20 FT.
3. RAISED PAVEMENT MARKERS SHALL BE OFFSET 5 INCHES FROM SOLID LANE LINES.
4. CLEAR FACE OF TYPE 3 RAISED PAVEMENT MARKERS SHALL BE ORIENTED TOWARD ONCOMING TRAFFIC.

TYPICAL RPM/STRIPE SPACING



DATE	REVISIONS	BY

NO.	DATE	REVISIONS	BY

DESIGNED	
DRAWN	
TRACED	
CHECKED	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

RAISED PAVEMENT MARKER LOCATION
NON-LIMITED ACCESS ROADWAY

NO SCALE — REV. AND REDRAWN, JUNE 2015

NUMBER T-15A

DATE	REVISION
11-5-2015	REV. RPM SPACING TO 40'

THOMAS & HUTTON
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Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

PAVING, GRADING AND DRAINAGE DETAILS

JOB NO.	J-20072.000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS SHOWN

C5.12

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Z:\28972\28972.0001\ENGINEERING\DRAWINGS\CONSTRUCTION PLANS\28972.0001 - EC-NT.DWG - Oct 8, 2021 - 9:44 AM

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST - STAND ALONE CONSTRUCTION PROJECTS

SWCD: COASTAL
PROJECT NAME: PARKSIDE AT PORT WENTWORTH
CITY/COUNTY: CITY OF PORT WENTWORTH / CHATHAM COUNTY

ADDRESS: GA-30, PORT WENTWORTH, GA 31407
DATE ON PLANS: 10/08/2021
REVISED DATE:
NAME/EMAIL OF PERSON FILLING OUT CHECKLIST: NATHAN LONG / LONG.N@TANDH.COM

ATTACHED	YES

1. THE APPLICABLE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CHECKLIST ESTABLISHED BY THE COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED. (THE COMPLETED CHECKLIST MUST BE SUBMITTED WITH THE ES&PC PLAN OR THE PLAN WILL NOT BE REVIEWED.) (PERMIT IV.D.1 PG 26)

   PLEASE FIND THE CURRENT STAND ALONE EROSION, SEDIMENTATION AND POLLUTION CONTROL CHECKLIST ATTACHED WITH THIS PLAN.

ALL	YES

2. LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL. (SIGNATURE, SEAL AND LEVEL II NUMBER MUST BE ON EACH SHEET PERTAINING TO ES&PC PLAN OR THE PLAN WILL NOT BE REVIEWED)

   PLEASE FIND ON EACH SHEET OF THIS PLAN THE GSWCC LEVEL II CERTIFICATION NUMBER, SIGNATURE AND SEAL FOR MR. NATHAN B. LONG, P.E.

EC1.1 / EC2.1-4.2	YES

3. LIMIT OF DISTURBANCE SHALL BE NO GREATER THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE EPD DISTRICT OFFICE. IF EPD APPROVES THE REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME, THE PLAN MUST INCLUDE AT LEAST 4 OF THE BMPs LISTED IN APPENDIX 1 OF THIS CHECK LIST. (A COPY OF THE WRITTEN APPROVAL BY EPD MUST BE ATTACHED TO THE PLAN FOR THE PLAN TO BE REVIEWED. (PERMIT IV.D3 PG 27)

   AREA OF DISTURBANCE DOES NOT EXCEED 50 ACRES.

EC1.1	YES

4. THE NAME AND PHONE NUMBER OF 24-HOUR LOCAL CONTACT RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS. (PERMIT II.B.1.c PG 12)

   THOMAS AND HUTTON
   50 PARK OF COMMERCE WAY
   SAVANNAH, GEORGIA 31405
   PHONE (912) 234-5300
   CONTACT; MR. NATHAN LONG

EC1.1	YES

5. PROVIDE NAME, ADDRESS, EMAIL ADDRESS AND PHONE NUMBER OF PRIMARY PERMITTEE. (PERMIT II.B.1 b PG 12)

   PARKSIDE EQUITIES, LLC
   9040 ROSWELL ROAD, SUITE 120
   ATLANTA, GA 30350
   MR. MATT MESHAD
   (404) 574-5914; MMESHAD@EASLANCAPITAL.COM

EC1.1	YES

6. NOTE TOTAL AND DISTURBED ACREAGE OF THE PROJECT OR PHASE UNDER CONSTRUCTION. (PERMIT IV.D.2 c PG 27)

   TOTAL PARCEL ACREAGE IS APPROXIMATELY 20.5 ACRES.
   TOTAL DISTURBED ACREAGE FOR THE PROJECT IS 22.0 ACRES.

EC1.1	YES

7. PROVIDE THE GPS LOCATION OF THE CONSTRUCTION EXIT FOR THE SITE. GIVE THE LATITUDE AND LONGITUDE IN DECIMAL DEGREES. PERMIT II.B.1 a PG 12

   CONSTRUCTION EXIT IS LOCATED AT:
   LAT: N32.19601 ; LONG: W81.21138

ALL	YES

8. INITIAL DATE OF THE PLAN AND THE DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS.

   PLEASE FIND THE INITIAL DATE OF THE PLAN AND ALL REVISIONS ON THE COVER SHEET AS WELL AS EACH SHEET OF THE PLAN.

EC1.1	YES

9. DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY. (PERMIT IV.D.2 a PG 27)

   THE SITE WAS PREVIOUSLY VACANT. CONSTRUCTION ACTIVITY AT THE SITE WILL INVOLVE GRADING, UTILITY INSTALLATION, PAVING AND CONSTRUCTION OF A MULTIFAMILY COMMUNITY WITH AN AMENITY AREA.

COVER	YES

10. PROVIDE VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS. INCLUDE DESIGNATION OF SPECIFIC PHASE, IF NECESSARY. (PERMIT IV.D.2 e PG 27)

    VICINITY MAP SHOWN ON THE COVER SHEET OF THE PLANS

EC1.1,EC1.3	YES

11. IDENTIFY THE PROJECT RECEIVING WATERS AND DESCRIBE ALL SENSITIVE ADJACENT AREAS INCLUDING STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, MARSHLANDS, ETC. WHICH MAY BE AFFECTED. (PERMIT IV.D.2.f PG 27)

    THE PROJECT DISCHARGES TO EXISTING CULVERT PIPES UNDERNEATH HIGHWAY 30. THE EVENTUAL RECEIVING WATER IS THE SAVANNAH RIVER.

EC1.1	YES

12. DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE SITE WAS VISITED PRIOR TO DEVELOPMENT OF THE ES&PC PLAN AS STATED ON PART IV PAGE 19 OF THE PERMIT.

    I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR AUTHORIZED AGENT UNDER MY SUPERVISION.

    NATHAN B. LONG, PE
    GSWCC LEVEL II DESIGN PROFESSIONAL
    CERTIFICATION #0000024602
    EXPIRATION DATE: 11/29/21

EC1.1	YES

13. DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ES&PC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMP'S AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PART IV PAGE 19 OF THE PERMIT.

    I CERTIFY THAT THE PERMITEE'S EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001.

    NATHAN B. LONG, PE
    GSWCC LEVEL II DESIGN PROFESSIONAL
    CERTIFICATION #0000024602
    EXPIRATION DATE: 11/29/21

EC1.1	YES

14. CLEARLY NOTE THE STATEMENT THAT "THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION, IN ACCORDANCE WITH PART IV.A.5 PAGE 25 OF THE PERMIT.

    THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION.

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION.

DATE OF INSPECTION: ______________

I CERTIFY THE SITE WAS ___________ WITH THE ES&PC PLAN ON THE DATE OF INSPECTION.

______________________ ______________
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN

____
____
____
____

THESE DEFICIENCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

EC1.1	YES

15. CLEARLY NOTE THE STATEMENT THAT "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS." (PART IV.(i)-(iv) PG 19-24 OF THE PERMIT).

    NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

EC1.1	YES

16. PROVIDE A DESCRIPTION OF ANY BUFFER ENCROACHMENTS AND INDICATE WHETHER A BUFFER VARIANCE IS REQUIRED.

    NO BUFFER ENCROACHMENTS. NO VARIANCE REQUIRED.

EC1.1	YES

17. CLEARLY NOTE THE STATEMENT THAT "AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.", (PART IV.C PG 26 OF PERMIT).

    AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

EC1.1	YES

18. CLEARLY NOTE THE STATEMENT THAT "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. (PERMIT IV.D.3.c(1) PG 30).

    WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

EC1.1	YES

19. CLEARLY NOTE THE STATEMENT THAT "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."

    THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EC1.1	YES

20. CLEARLY NOTE THE STATEMENT THAT "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."

    EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

EC1.1	YES

21. CLEARLY NOTE THE STATEMENT "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING." (PERMIT IV.D.3.a.(1) PG 28).

    ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

EC1.1	YES

22. ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III.C. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMP'S THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT. (PART III.C.2.A - V. PG 19-21)

    THE SITE IS LOCATED MORE THAN 1 LINEAR MILE UPSTREAM OF THE NEAREST IMPAIRED STREAM SEGMENT.

EC1.1	YES

23. IF A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS BEEN FINALIZED FOR THE IMPAIRED STREAM SEGMENT (IDENTIFIED IN ITEM 22 ABOVE) AT LEAST SIX MONTHS PRIOR TO SUBMITTAL OF NOI, THE ES&PC PLAN MUST ADDRESS ANY SITE-SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN. (PERMIT III.C.1 PG 15)

    THE SITE IS LOCATED MORE THAN 1 LINEAR MILE UPSTREAM OF THE NEAREST IMPAIRED STREAM SEGMENT.

PLAN	YES

24. BMP'S FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED. (PERMIT IV.D.3.c(6) PG 31).

    THERE SHALL BE A CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REARS OF THE VEHICLES.

EC1.1	YES

25. PROVIDE BMP'S FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS, (PERMIT IV.D.3.c.(5) PG 31).

    PETROLEUM BASED PRODUCTS- CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE FOR SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS. HAVE EQUIPMENT TO CONTAIN AND CLEAN UP PETROLEUM SPILLS IN FUEL STORAGE AREAS OR ON MAINTENANCE AND FUELING VEHICLES. STORE IN COVERED AREAS PROTECTED WITH DIKES. REGULARLY INSPECT FOR CRACKS OR LEAKAGE IN CONTAINERS/TANKS.

    SPILL CLEANUP AND CONTROL PRACTICES
    - LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
    - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PROPERLY LABELED PLASTIC AND MEAL WASTE CONTAINERS.
    - SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
    - FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
    - FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS
    - FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
    - FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

    THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

EC1.1	YES

26. DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. (PERMIT IV.D.3.b PG 29).

    THE PERMANENT EROSION CONTROL PRACTICE AT THE OUTFALL POND'S CONTROL STRUCTURE DISCHARGE IS RIP-RAP (INSTALLED ON PREVIOUS PROJECT). THE PONDS THEMSELVES ALSO SERVE AS A PERMANENT MEASURE TO REDUCE POLLUTANTS IN STORMWATER. ONE PROPOSED POND OF THIS PROJECT INCLUDES A WIDE DISCHARGE POINT OR WEIR (EARTHEN WEIR). PERMANENT GRASSING AND LANDSCAPING WILL BE INSTALLED TO PROTECT EARTHEN AREAS FROM EROSION ONCE CONSTRUCTION IS COMPLETE.

EC1.1	YES

27. DESCRIPTION OF PRACTICES TO PROVIDE COVER FOR BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE, (PERMIT IV.D.3.c.(2) PG 30).

    THE PLAN MUST CONTAIN A DESCRIPTION OF MEASURES, SUCH AS PLASTIC SHEETING OR TEMPORARY ROOFS, TO COVER BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS IN ORDER TO MINIMIZE EXPOSURE TO PRECIPITATION AND TO STORMWATER.

EC1.1	YES

28. DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES. (PERMIT IV PG 24)

    POLLUTANT PREVENTION

    THE FOLLOWING MATERIALS ARE EXPECTED ONSITE DURING CONSTRUCTION: PETROLEUM BASED FUELS AND LUBRICANTS FOR EQUIPMENT, ADDITIVES FOR SOIL STABILIZATION, PESTICIDES, FERTILIZERS, HERBICIDES, CRUSHED STONE, CONCRETE PRODUCTS, ASPHALT, TAR, LUMBER, PAINTS/STAINS/FINISHING TREATMENTS, PAINT SOLVENTS, CLEANING SOLVENTS, PLASTICS AND METAL PIPES.

    PRACTICES SUCH AS GOOD HOUSEKEEPING, PROPER HANDLING OF HAZARDOUS PRODUCTS AND PROPER SPILL CONTROL PRACTICES WILL BE FOLLOWED TO REDUCE THE RISK OF SPILLS FROM DISCHARGING INTO STORM WATER RUNOFF.

    GOOD HOUSEKEEPING
    - QUANTITIES ONSITE WILL BE LIMITED TO THE AMOUNT NEEDED FOR THE JOB.
    - PRODUCTS AND MATERIALS WILL BE STORED IN A NEAT, ORDERLY MANNER IN APPROPRIATE CONTAINERS PROTECTED FROM RAINFALL, WHERE POSSIBLE.
    - PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH MANUFACTURER'S LABELS LEGIBLE AND VISIBLE.
    - PRODUCT MIXING, DISPOSAL, AND DISPOSAL OF PRODUCT CONTAINERS WILL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
    - THE CONTRACTOR WILL INSPECT SUCH MATERIALS TO ENSURE PROPER USE, STORAGE AND DISPOSAL.

    PRODUCT SPECIFIC PRACTICES

    FERTILIZER/HERBICIDES/PESTICIDES/DETERGENTS- THESE WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS. DO NOT DISCHARGE WASH WATER INTO STORM WATER SYSTEM. INSTALL CURBS OR DIKES AROUND STORAGE AREA TO PROTECT AGAINST SPILLS. LIMIT USE OF DETERGENTS ON-SITE.

    PAINTS/FINISHES/SOLVENTS- ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

    CONCRETE TRUCK WASHING- CONCRETE WASHOUT SHALL OCCUR ONLY IN THE WASH PAD VICINITY DELINEATED IN THE PLANS.

    BUILDING MATERIALS- NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

GEORGIA REGISTERED PROFESSIONAL ENGINEER NATHAN B. LONG No. 031274

NATHAN B. LONG
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #
0000024602

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA
PARKSIDE AT PORT WENTWORTH
EROSION CONTROL NOTES

JOB NO:	J-28972.0001
DATE:	10/08/2021
DRAWN:	CGC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	NBL
SCALE:	NTS

EC1.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2578 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Z:\28972\28972.0001\ENGINEERING\DRAWINGS\CONSTRUCTION PLANS\28972.0001 - EC-NT.DWG - Oct 8, 2021 - 9:44 AM

EROSION,SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST - STAND ALONE CONSTRUCTION PROJECTS

SWCD: COASTAL
PROJECT NAME: PARKSIDE A PORT WENTWORTH
CITY/COUNTY: CITY OF PORT WENTWORTH / CHATHAM COUNTY

ADDRESS: GA-30, PORT WENTWORTH, GA 31407
DATE ON PLANS: 09/10/2021
REVISED DATE:
NAME/EMAIL OF PERSON FILLING OUT CHECKLIST: NATHAN LONG / LONG.N@TANDH.COM

EC1.2 | YES | 29. DESCRIPTION AND CHART OR TIMELINE OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH DISTURB SOILS FOR THE MAJOR PORTIONS OF THE SITE (I.E., INITIAL PERIMETER AND SEDIMENT STORAGE BMP'S, CLEARING AND GRUBBING ACTIVITIES, EXCAVATION ACTIVITIES, UTILITY ACTIVITIES, TEMPORARY AND FINAL STABILIZATION). (PERMIT IV.D.2b PG 27)

A SPECIFIED WORK SCHEDULE IS NEEDED TO COORDINATE THE TIMING OF LAND DISTURBING ACTIVITIES WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES.

THE PURPOSE OF THE SCHEDULE IS TO REDUCE ON-SITE EROSION AND OFF-SITE SEDIMENTATION BY PERFORMING LAND DISTURBING ACTIVITIES AND INSTALLING EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH A PLANNED SCHEDULE.

IN PLANNING CONSTRUCTION WORK, IT MAY BE HELPFUL TO OUTLINE ALL LAND DISTURBING ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED PROJECT. THEN LIST ALL PRACTICES NEEDED TO CONTROL EROSION AND SEDIMENTATION ON THE SITE. THESE TWO LISTS CAN THEN BE COMBINED IN LOGICAL ORDER TO PROVIDE A PRACTICAL AND EFFECTIVE CONSTRUCTION SEQUENCE SCHEDULE THAT BECOMES PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN.

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1. OBTAIN ALL PLAN APPROVALS, OTHER APPLICABLE PERMITS AND ADD PERIMETER BMPS	
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION.	
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	
4. CONSTRUCTION ACCESS - CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS.	FIRST LAND DISTURBING ACTIVITY - STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE.
5. SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION.	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING.
6. RUNOFF CONTROL - DIVERSIONS, PERIMETER DIKES, WATER BARS, AND OUTLET PROTECTION.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
7. RUNOFF CONVEYANCE SYSTEM- STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF-CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
8. LAND CLEARING AND GRADING - SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS,SURFACE ROUGHENING.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF - CONTROL MEASURES ARE INSTALLED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.
9. SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
10. BUILDING CONSTRUCTION- BUILDINGS UTILITIES, PAVING.	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
11. LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP.	LAST CONSTRUCTION PHASE--STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.

CONSTRUCTION SCHEDULE

ACTIVITY	MONTH 1	3	5	7	9	11
PERIMETER BMPS	■					
SITE CLEARING	■	■				
TEMPORARY SEDIMENT CONTROL BMPS	■					
SITE GRADING		■	■			
TEMPORARY GRASSING		■	■	■		
UTILITY INSTALLATION		■	■	■		
ROAD CONSTRUCTION			■	■	■	
SITE PAVING				■	■	
BUILDING CONSTRUCTION			■	■	■	■
PERMANENT GRASSING					■	■
FINAL STABILIZATION/ BMP REMOVAL						■
BMP MAINTENANCE	■	■	■	■	■	■

EC1.2 | YES | 30. PROVIDE COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITEE. (PERMIT IV.D.4.a PG 31-33).

INSPECTIONS AND RECORD KEEPING

A. PRIMARY PERMITTEE:

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (a) ALL AREAS OF THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT. (b) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONAL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (a) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE. (b) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. AND (c) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.a.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
4. CERTIFIED PERSONNEL (PROVIDED BY PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.e. UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.a.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2 OF THIS PERMIT.

AN "EROSION & SEDIMENTATION INSPECTION AND MAINTENANCE REPORT" SHEET IS ATTACHED. SHOULD THE INSPECTION REVEAL ANY DEFICIENCIES, A COPY SHALL BE SENT TO:

MR. NATHAN B. LONG, P.E.
THOMAS AND HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405
(912) 234-5300

EC1.2 | YES | 31. PROVIDE COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY AND REPORTING OF SAMPLING RESULTS. (PART IV.D.6.d PG 35-37 & PART IV.E PG 37)

SAMPLING REQUIREMENTS. THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS PARAGRAPH SHALL NOT APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

a. SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:

(1) A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE STAND ALONE CONSTRUCTION; (a) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORM WATER IS DISCHARGED AND (b) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION FOR THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

(2) A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT, HANDLE AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION;

(3)WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX b. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND

(4) ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL.

b. SAMPLE TYPE. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
2. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
3. LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
4. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
5. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THE PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E. OF THE PERMIT.

c. SAMPLING POINTS: THERE WILL BE 1 STORM WATER SAMPLING LOCATION. THE SAMPLING LOCATION WILL BE THE DOWNSTREAM POINTS, PER NPDES PERMIT GAR 100001, FOR CONSTRUCTION ACTIVITIES, THE PRIMARY PERMITTEE MUST COMPLETE ALL SAMPLING.

1. FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S) OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALL(S) USING THE FOLLOWING MINIMUM GUIDELINES:

A. THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

B. THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

C. IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNELS(S).

D. CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.

E. THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.

F. THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

G. PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION).

A. ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

d. SAMPLING FREQUENCY

1. THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
2. HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
3. SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

A. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;

B. IN ADDITION TO (A.) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THE PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATIONS, WHICHEVER COMES FIRST;

C. AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;

D. WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.a.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND

E. EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS.

GEORGIA REGISTERED PROFESSIONAL ENGINEER NATHAN B. LONG No. 031274

NATHAN B. LONG
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #
0000024602

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA
PARKSIDE AT PORT WENTWORTH
EROSION CONTROL NOTES

JOB NO:	J-28972.0001
DATE:	10/08/2021
DRAWN:	CGC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	NBL
SCALE:	NTS

EC1.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2578 : Site Plan Review Application Parkside at Port Wentworth (Specific))

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SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORT SHALL INCLUDE THE FOLLOWING INFORMATION:

a. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;

b. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;

c. THE DATE(S) ANALYSES WERE PERFORMED;

d. THE TIME(S) ANALYSES WERE INITIATED;

e. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;

f. REFERENCES AND WRITTEN PROCEDURES , WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;

g. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;

h. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND

i. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

EPD OFFICE:
COASTAL DISTRICT - BRUNSWICK OFFICE
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
400 COMMERCE CENTER DRIVE
BRUNSWICK, GA 31523-8687
(912) 264-7284

| EC1.3 | YES | 32. PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. PG 38 OF THE PERMIT.

RETENTION OF RECORDS

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI.

- COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD.
- A COPY OF THE ES&PC PLAN REQUIRED IN PERMIT No. GAR 100001.
- THE DESIGN PROFESSIONALS REPORT OF THE THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5 IN PERMIT No. GAR 100001.
- A COPY OF ALL SAMPLING INFORMATION , RESULTS, AND REPORTS REQUIRED BY IN PERMIT No. GAR 100001.
- A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.a OF PERMIT No. GAR 100001.
- A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2 IN PERMIT No. GAR 100001.
- DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.a.(2). IN PERMIT No. GAR 100001.

2. COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI OF THE GAR100001. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

| EC1.3 | YES | 33. DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION. (PERMIT IV.D.6.a.(3) PG 33-35)

STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT EPA 833-8-92-001.

| EC1.3 | YES | 34. APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE. (PERMIT IV.D.6.a.(3) PG 33)

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATIONS. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 75, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT No. GAR 100001. THE NTU IS BASED UPON THE SITE ACREAGE OF 1.25 ACRES FOR THE PROJECT SITE, THE SURFACE WATER DRAINAGE AREA OF LESS THAN 4.99 SQUARE MILES AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES. APPENDIX B WAS USED TO DETERMINE THE NTU ALLOWABLE AND DOWNSTREAM SAMPLING WILL BE PERFORMED FOR THIS PROJECT.

Appendix B
Nephelometric Turbidty Unit (NTU) Table
Warm Water (Suppoting Warm Water Fisheries)
Surface Water Drainage Area, square miles

	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

| EC1.3 | YES | 35. DELINEATE ALL SAMPLING LOCATIONS, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED. (PERMIT IV.D.6.a.(3) PG 33)

PLEASE SEE PLAN SHEETS FOR DELINEATION OF SAMPLING LOCATIONS, PERENNIAL, INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED.

| PLAN | YES | 36. A DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE INCLUDING (1) INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S, (2) INTERMEDIATE GRADING AND DRAINAGE BMP'S, AND (3) FINAL BMP'S. FOR CONSTRUCTION SITES WHERE THERE WILL BE NO MASS GRADING AND THE INITIAL PERIMETER CONTROL BMP'S, INTERMEDIATE GRADING AND DRAINAGE BMP'S, AND FINAL BMP'S ARE THE SAME, THE PLAN MAY COMBINE ALL OF THE BMP'S INTO A SINGLE PHASE. (PERMIT IV.D.3 PG 27)

INITIAL PHASE - THE INITIAL PHASE OF THE ES&PC PLAN WILL INCLUDE THE INSTALLATION OF THE CONSTRUCTION EXIT AND SILT FENCE. TYPE NS SILT FENCE WILL BE USED. DITCHES, AS NEEDED, WILL BE CONSTRUCTED AND MAINTAINED DURING SITE CLEARING. DUST CONTROL AND MULCHING WILL BE IMPLEMENTED AS NECESSARY.

INTERMEDIATE PHASE - THE INTERMEDIATE GRADING AND DRAINAGE BMP'S WILL INCLUDE THE MAINTENANCE OF ALL SILT FENCE. SEDIMENT INLET TRAPS WILL BE INSTALLED AND MAINTAINED AS INDICATED ON THE PLANS. DUST CONTROL, MULCHING, AND TEMPORARY SEEDING WILL BE IMPLEMENTED AS NECESSARY.

FINAL PHASE - THE FINAL GRADING AND DRAINAGE BMP'S WILL INCLUDE THE MAINTENANCE OF ALL SILT FENCE. SEDIMENT INLET TRAPS WILL BE INSTALLED AND MAINTAINED AS INDICATED ON THE PLANS. PERMANENT SEEDING WILL BE IMPLEMENTED FOR SITE STABILIZATION. ONCE THE SITE IS STABILIZED, ALL TEMPORARY BMPS ARE TO BE REMOVED.

| PLAN | YES | 37. GRAPHIC SCALE AND NORTH ARROW.

GRAPHIC SCALE AND NORTH ARROW ARE LOCATED ON EACH PLAN SHEET.

| PLAN | YES | 38. EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE FOLLOWING:

EXISTING AND PROPOSED CONTOUR LINES DRAWN AT AN INTERVAL OF 1' ARE SHOWN ON EACH PLAN SHEET.

| | N/A | 39. USE OF ALTERNATIVE BMP'S WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMP'S AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT www.gaswcc.org. (PERMIT IV.D.3.a(4) PG 29)

NOT APPLICABLE FOR THIS PROJECT.

| | N/A | 40. USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A-2 OF THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA 2016 EDITION.

NOT APPLICABLE FOR THIS PROJECT.

| | N/A | 41. DELINEATION OF THE APPLICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS ADJACENT TO STATE WATERS AND ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY. CLEARLY NOTE AND DELINEATE ALL AREAS OF IMPACT. (PERMIT IV.D.2.e PG 27)

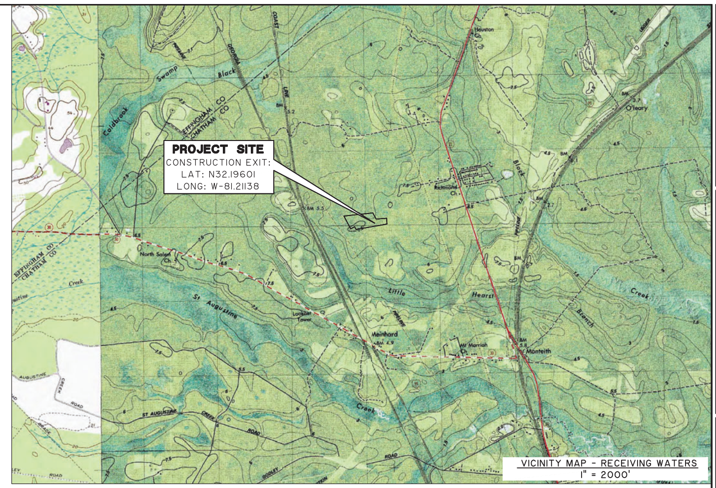
NOT APPLICABLE FOR THIS PROJECT.

| PLAN | YES | 42. DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE.

NOT APPLICABLE FOR THIS PROJECT. THERE ARE NO WETLANDS AND STATE WATERS ON THE PROJECT SITE.

| PLANS | YES | 43. DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE. (PERMIT IV.D.2.e PG 27)

ALL CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE ARE CLEARLY DELINEATED ON THE PLAN SHEETS



VICINITY MAP - RECEIVING WATERS
1" = 2000'

| REPORT | YES | 44. PROVIDE HYDROLOGY STUDY AND MAPS OF DRAINAGE BASINS FOR BOTH PRE- AND POST-DEVELOPMENT CONDITIONS.

PLEASE SEE ATTACHED REPORT WITH DETAILS FOR PRE AND POST DEVELOPMENT HYDROLOGY.

| EC1.3 | YES | 45. AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED. (PERMIT IV.D.2.d PG 27)

RUNOFF COEFFICIENT: PRE-CONSTRUCTION CN = 80
POST-CONSTRUCTION CN = 89

| PLAN | YES | 46. STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS.

OUTLET PROTECTION IS PROVIDED IN THE FORM OF RIP-RAP AT ALL POINTS OF CONCENTRATED DISCHARGE.

| EC1.3 PLAN | YES | 47. SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION.

SOILS ARE DELINEATED ON THE EROSION CONTROL SHEETS. THE SOILS FOR THE SITE ARE: CAPE FEAR SOIL (C/D), CRAVEM LOAMY FINE (C), OCILLA COMPLEX (B/D), OGEECHEE LOAMY FINE SAND (B/D), AND POOLER FINE SANDY LOAM (C/D)

| PLAN | YES | 48. THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION.

PLEASE SEE THE PLAN FOR THE DELINEATION OF THE LIMITS OF DISTURBANCE. THEY ARE THE SAME FOR ALL PHASES OF CONSTRUCTION.

| EC1.3 | YES | 49. PROVIDE A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED USING A TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBANCE ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED. A WRITTEN JUSTIFICATION EXPLAINING THE DECISION TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATION IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL MUST BE INCLUDED FOR STRUCTURAL BMPs AND ALL CALCULATIONS USED BY THE STORAGE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPOUNDMENTS, PERMITEES ARE REQUIRED TO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE, UNLESS INFEASIBLE. IF OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE ARE NOT FEASIBLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN. (PERMIT IV.D.3.a.(3) PG 28)

SEDIMENT STORAGE - THE PERMIT REQUIRES A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED.

THE SEDIMENT STORAGE REQUIREMENT WILL BE ACHIEVED BY UTILIZING PROPOSED EXCAVATED INLET SEDIMENT TRAPS AND PERIMETER SILT FENCE TO TREAT THE TIE DOWN SLOPES.

SEDIMENT STORAGE REQUIRED

ACREAGE DRAINED = 22.0

REQUIRED SEDIMENT STORAGE = 22.0 AC X 67 CY/AC = 1,474 CY

RETROFITTED DETENTION POND STORAGE:

POND 1

((25,420.36 SF + 45,533.4 SF)/2) * 6 LF = 212,861.3 CF

212,861.3 CF * (0.037 CF/CY) = 7,875.9 CY

POND 2

((36,127.6 SF + 58,682.7 SF)/2) * 6 LF = 284,430.9 CF

284,430.9 CF * (0.037 CF/CY) = 10,523.9 CY

PERIMETER SILT FENCE

LF OF SILT FENCE FOR STORAGE = 6,700 LF @ 7.5 CF OF STORAGE/LF

(6,700 LF X 7.5 CF/LF) * (CY/ 27 CF) = 1,861.1 CY

TOTAL SEDIMENT STORAGE PROVIDED BY PROPOSED BMPS = 20,260.9 CY

TOTAL STORAGE PROVIDED EXCEEDS STORAGE REQUIRED (1,474 CY)

| PLAN | YES | 50. LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. USE UNIFORM CODING SYMBOLS FROM THE MANUAL,CHAPTER 6, WITH LEGEND.

PLEASE SEE THE PLAN SHEETS FOR THE LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA USING THE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6 WITH ACCOMPANYING LEGEND.

| PLAN | YES | 51. PROVIDE DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES. SPECIFICATIONS MUST, AT A MINIMUM, MEET THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

PLEASE SEE THE DETAIL SHEET FOR DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES WITH SPECIFICATIONS MEETING THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

| | YES | 52. PROVIDE VEGETATIVE PLAN, NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES, INCLUDE SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. VEGETATIVE PLAN SHALL BE SITE SPECIFIC FOR APPROPRIATE TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.

PLEASE SEE THE PLAN AND DETAIL SHEETS FOR THE VEGETATIVE PLAN NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. THIS PLAN IS SPECIFIC TO THE SITE AND APPROPRIATE FOR TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR THE APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.

GEORGIA REGISTERED PROFESSIONAL ENGINEER NATHAN B. LONG No. 031274

NATHAN B. LONG
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #
0000024602

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

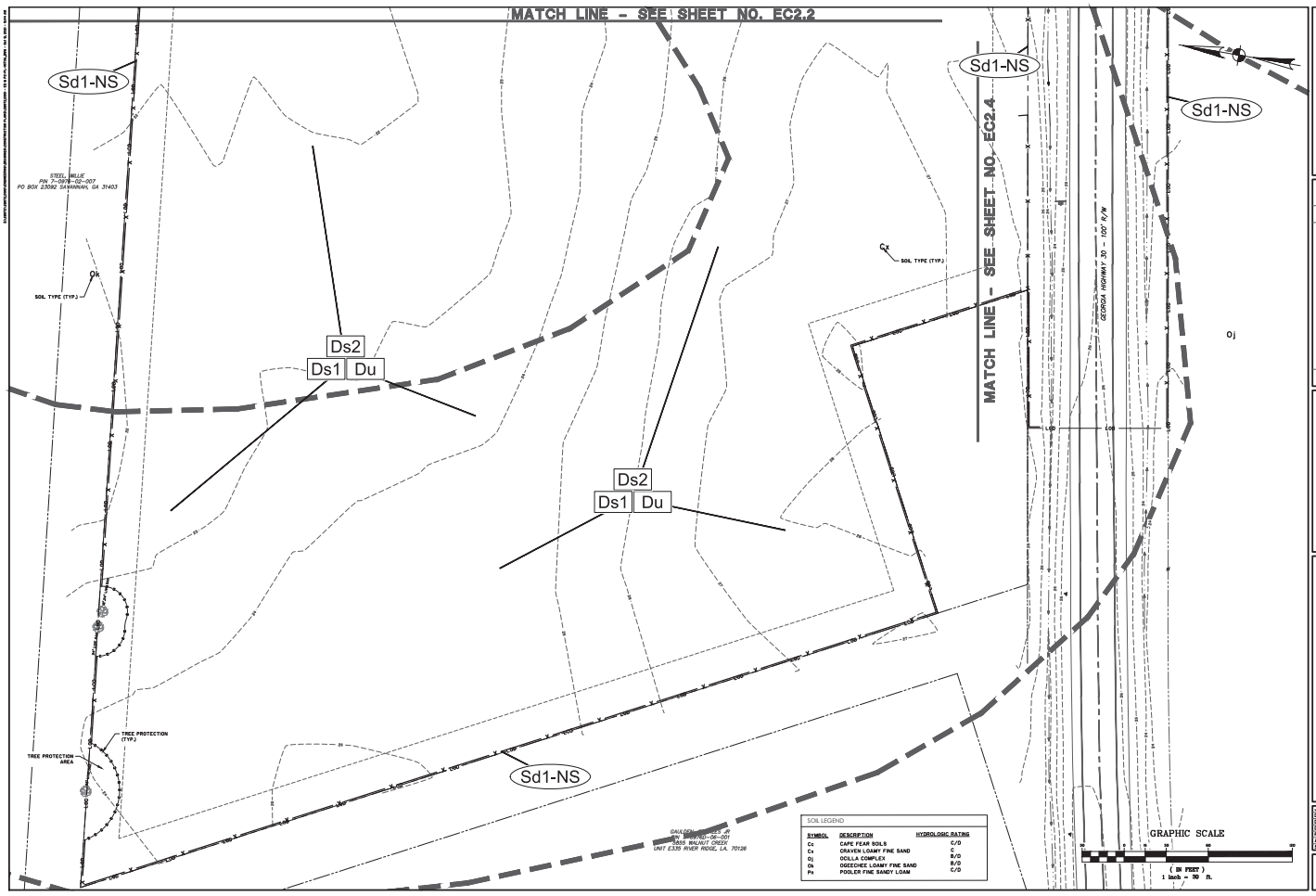
PARKSIDE AT PORT WENTWORTH

EROSION CONTROL NOTES

JOB NO:	J-28972.0001
DATE:	10/08/2021
DRAWN:	CGC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	NBL
SCALE:	NTS

EC1.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (2578 : Site Plan Review Application Parkside at Port Wentworth (Specific))



GEORGIA REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER E. CRAWFORD
No. 035183
PROFESSIONAL ENGINEER
CERTIFICATE OF AUTHORIZATION NO. PEF000462

NO.	REVISIONS	BY	DATE

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PORT WENTWORTH, GEORGIA

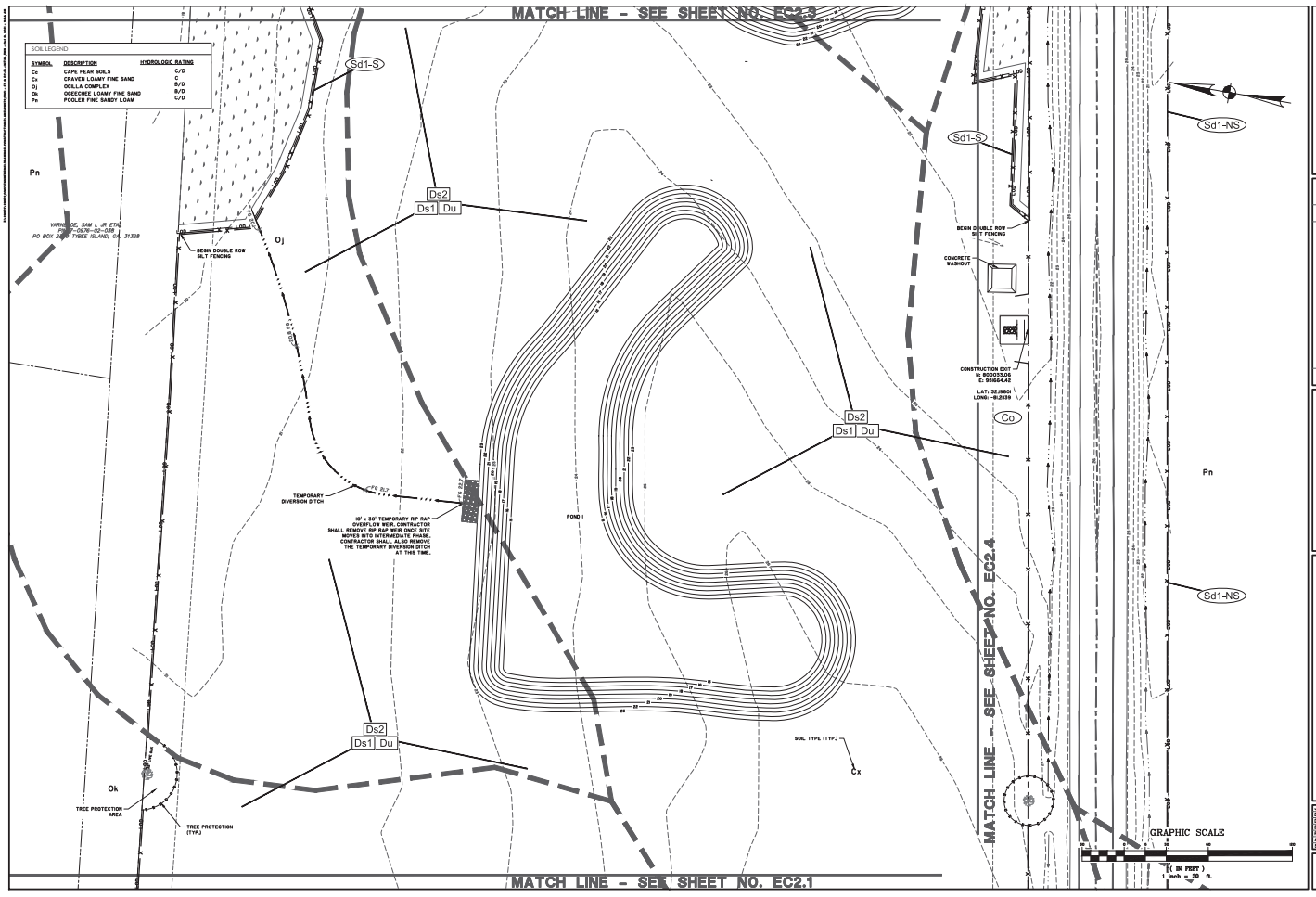
PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-INITIAL PHASE

JOB NO.	C-20972.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MS
SCALE:	1" = 30'

EC2.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



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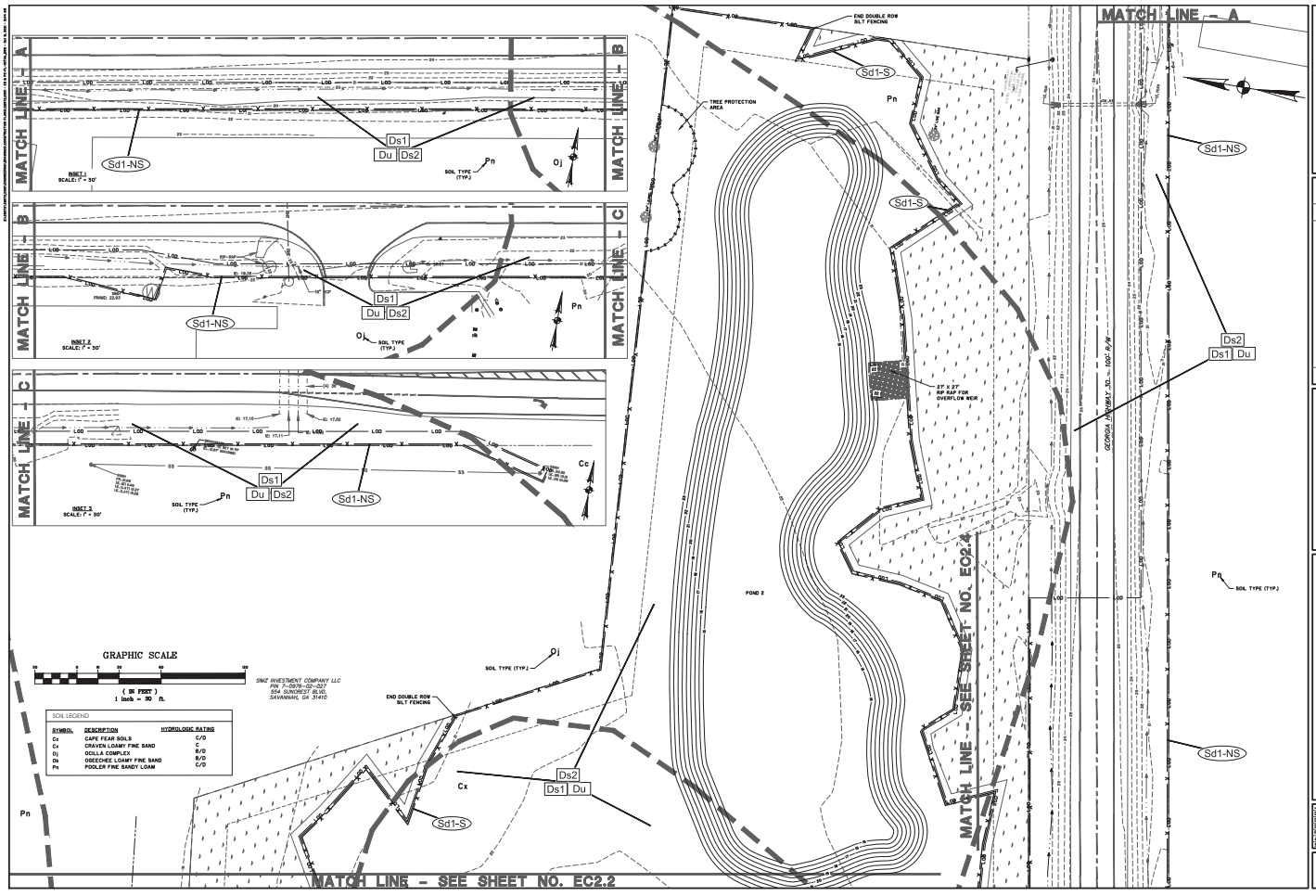
ES & PC-PLAN-INITIAL PHASE

JOB NO.	C-20072.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MR
SCALE:	1" = 50'

EC2.2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



12.G.g

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PARKSIDE AT PORT WENTWORTH

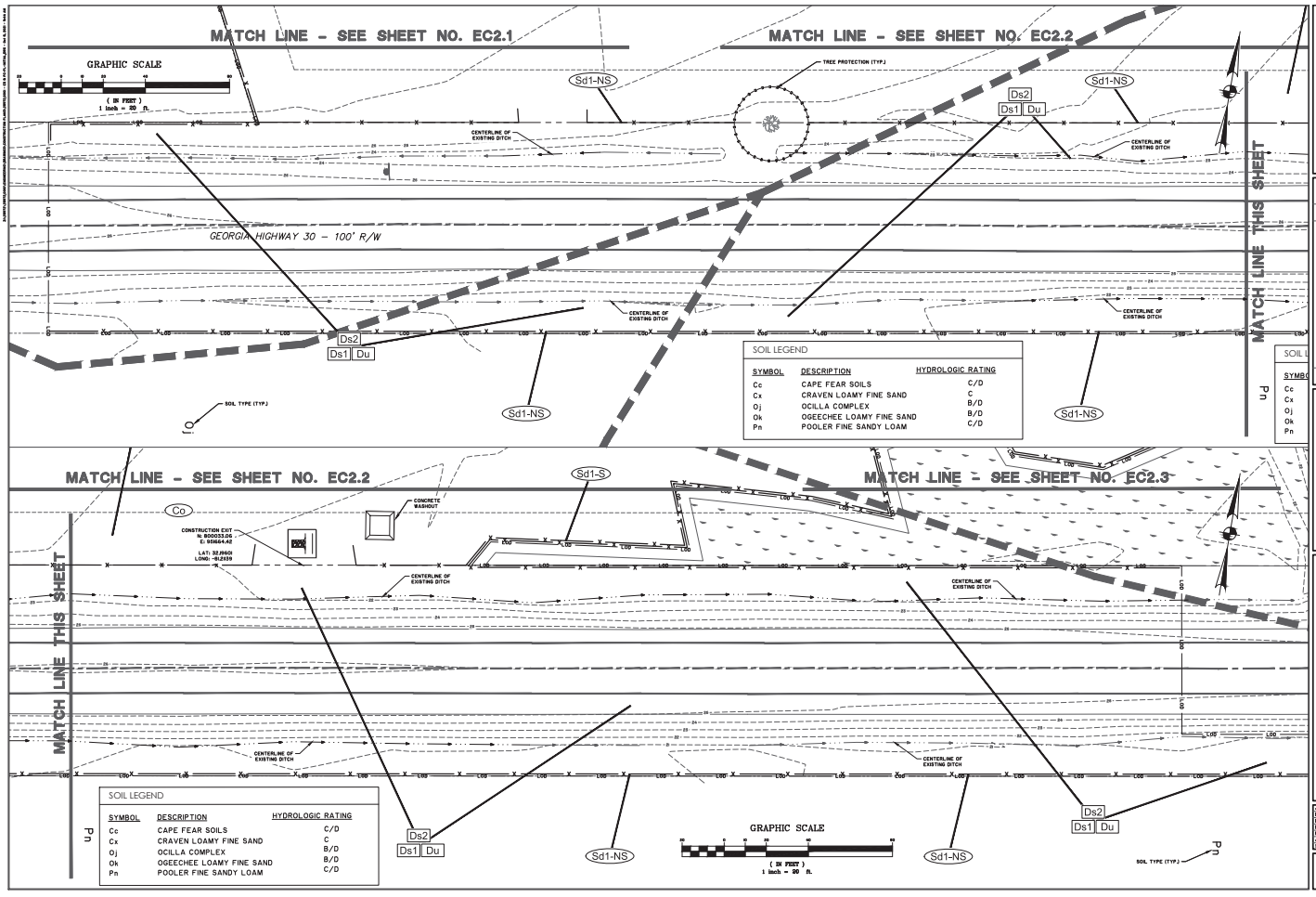
ES & PC-PLAN-INITIAL PHASE

JOB NO: C-20072.0000
DATE: 10/08/2021
DRAWN: CSC
DESIGNED: JTD
REVIEWED: JPM
APPROVED: MK
SCALE: 1" = 30'

EC2.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 – Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Packet Pg. 312



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PORT WENTWORTH, GEORGIA

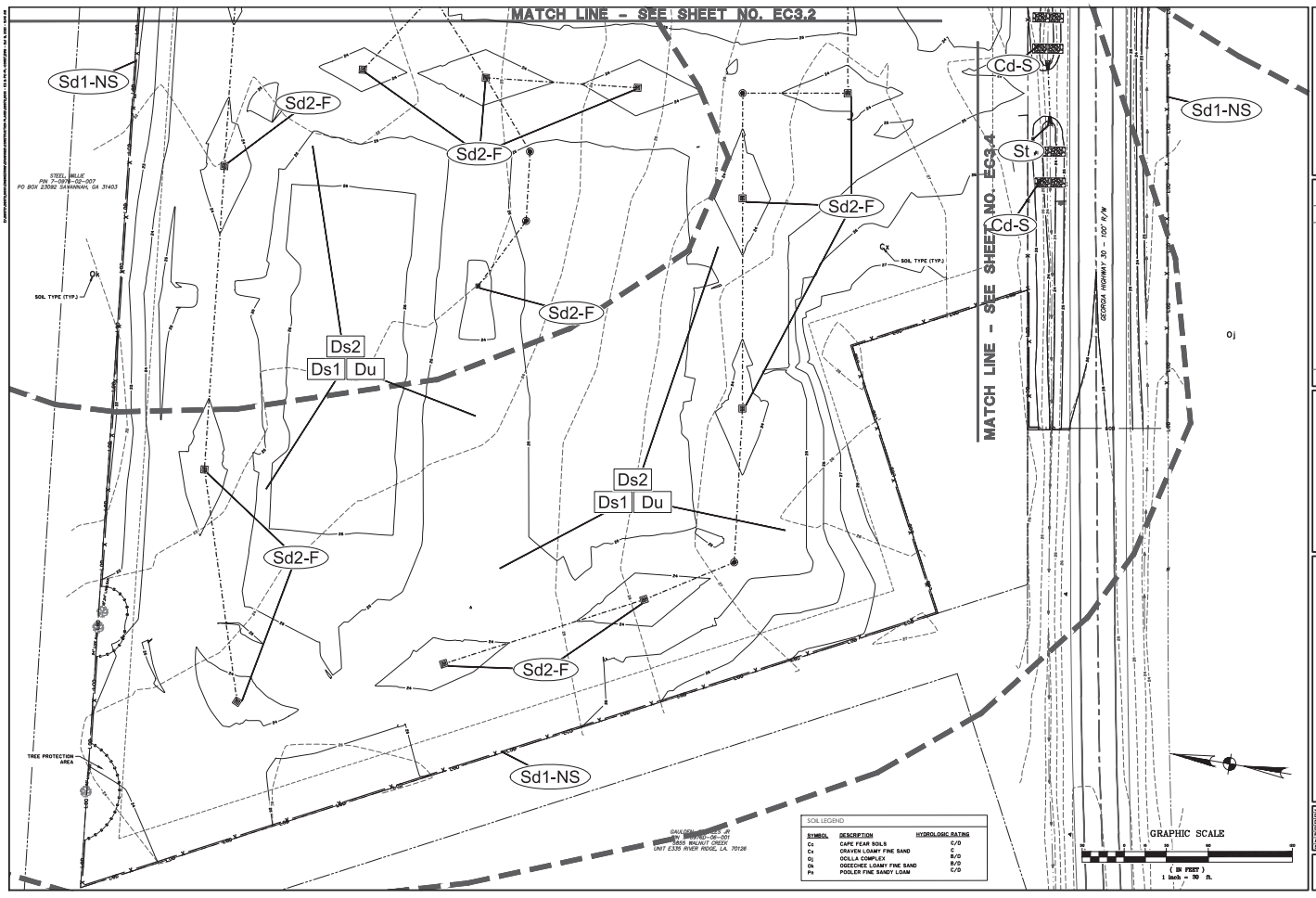
PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-INITIAL PHASE

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.3.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific))

JOB NO:	J-20972.0000
DATE:	10/08/2020
DRAWN:	CBC
DESIGNED:	JTD
REVIEWED:	JWH
APPROVED:	MB
SCALE:	AS NOTED

EC2.4



PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

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JOB NO.	C-28972.000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 50'

EC3.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

GEORGIA
REGISTERED
PROFESSIONAL
ENGINEER
STEPHEN A. DEMO
GEORGIA
PE 030674
REGISTERED
PROFESSIONAL
ENGINEER

NO.	REVISIONS	BY	DATE

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ES & PC-PLAN-CONSTRUCTION PHASE

JOB NO.	C-28972.0000
DATE:	10/08/2021
DRAWN:	CSC
DESIGNED:	JTD
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APPROVED:	MR
SCALE:	1" = 50'

EC3.2

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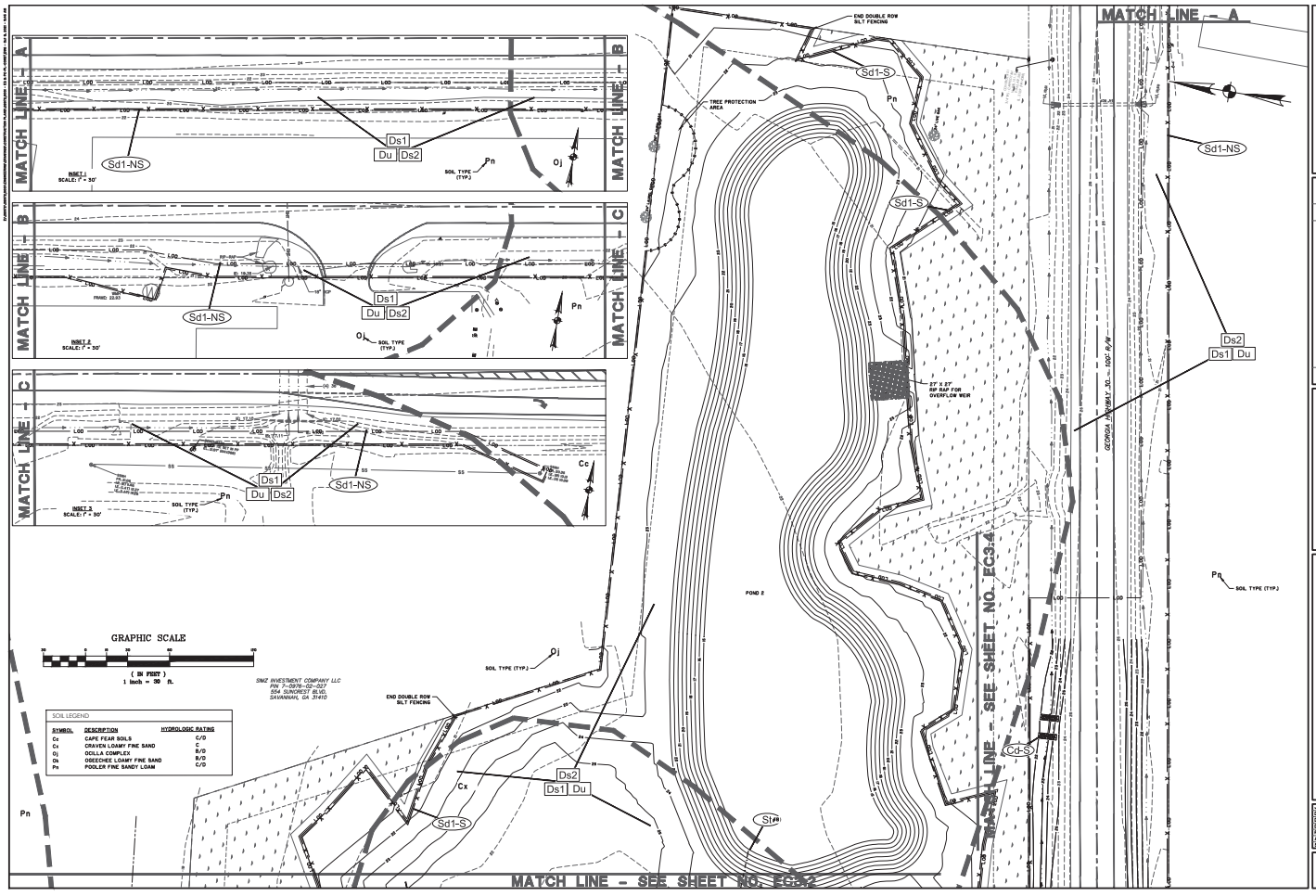

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PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-CONSTRUCTION PHASE

JOB NO.	P-20072.0000
DATE:	10/08/2021
DRAWN:	CSC
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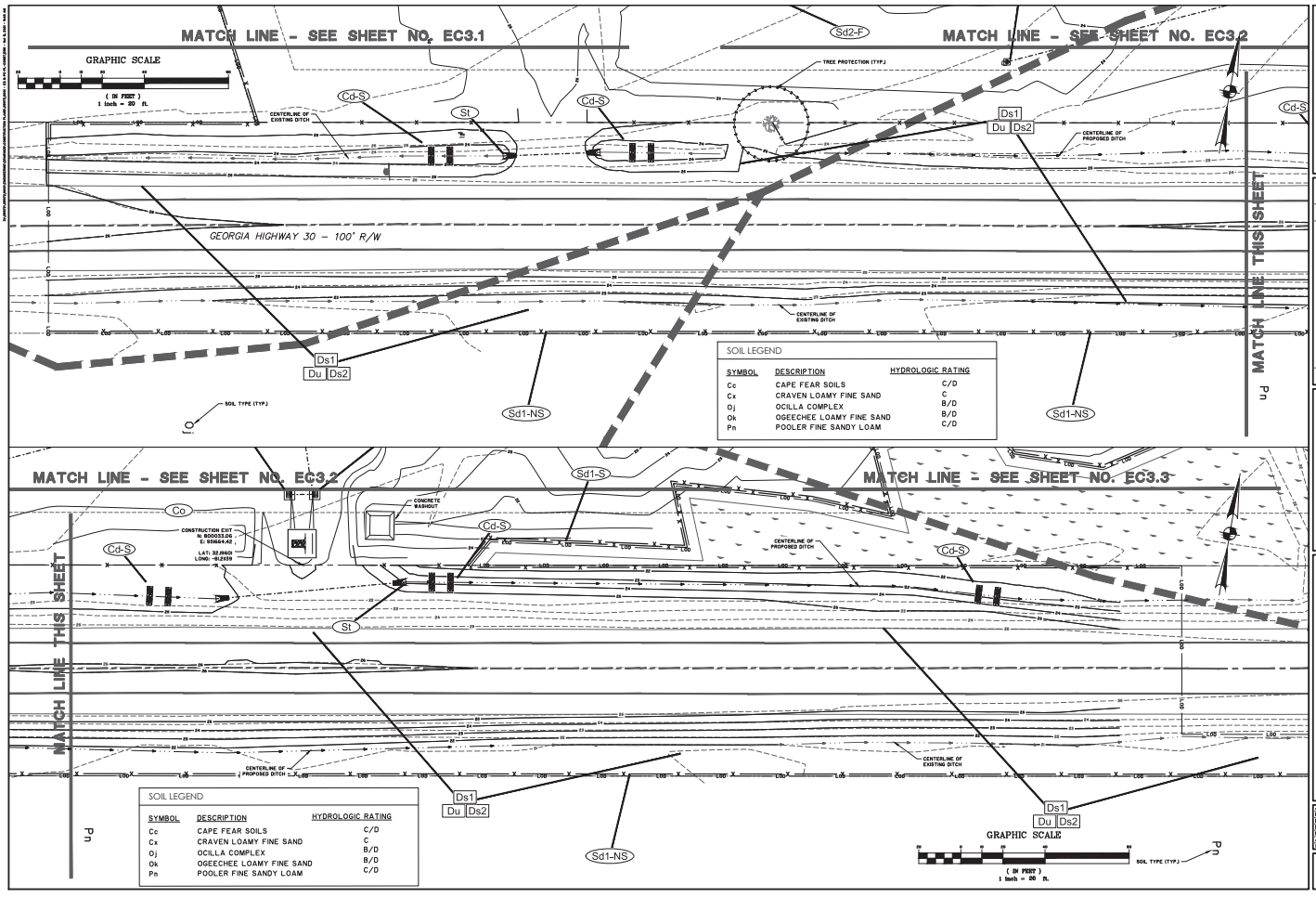
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1" = 30'

EC3.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))



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PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-CONSTRUCTION PHASE

JOB NO:	J-20972.0000
DATE:	10/08/2020
DRAWN:	CBC
DESIGNED:	JTD
REVIEWED:	JWW
APPROVED:	MBL
SCALE:	AS NOTED

EC3.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 – Site Plan 10.8.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific)

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PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-STABILIZATION PHASE

JOB NO.	C-39972.0000
DATE:	10/08/2021
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REVIEWED:	JPM
APPROVED:	MK
SCALE:	1" = 30'

EC4.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

GEORGIA
Certificate of Authorization
THOMAS & HUTTON ENGINEERING CO.
PO BOX 1949 SAVANNAH, GA 31402
912.234.5300 FAX 912.234.7487
GEORGIA@THOMASANDHUTTON.COM
COA NO. PEC000062

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-STABILIZATION PHASE

JOB NO.	C-39972.0000
DATE:	10/08/2021
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DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MR
SCALE:	1" = 30'

EC4.2

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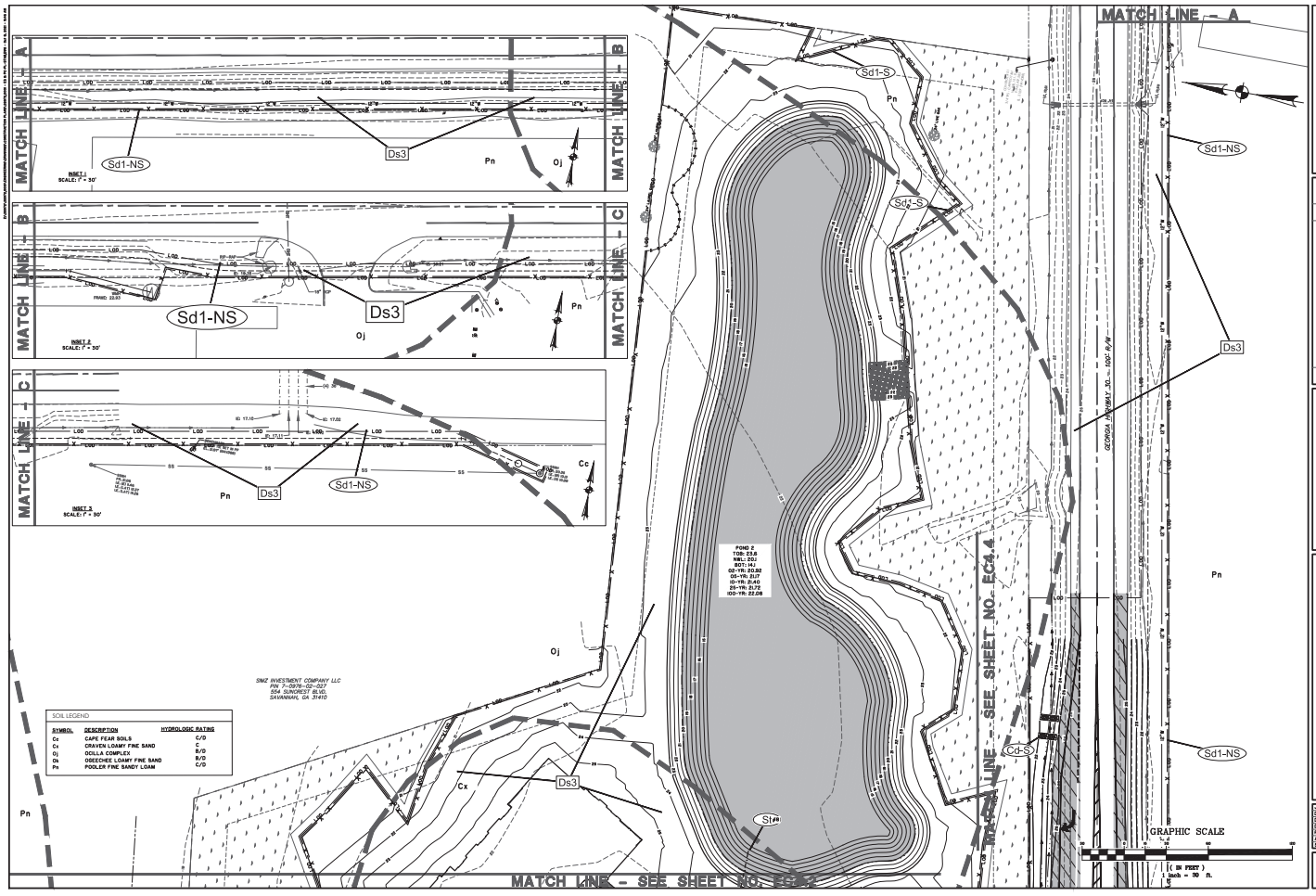

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-STABILIZATION PHASE

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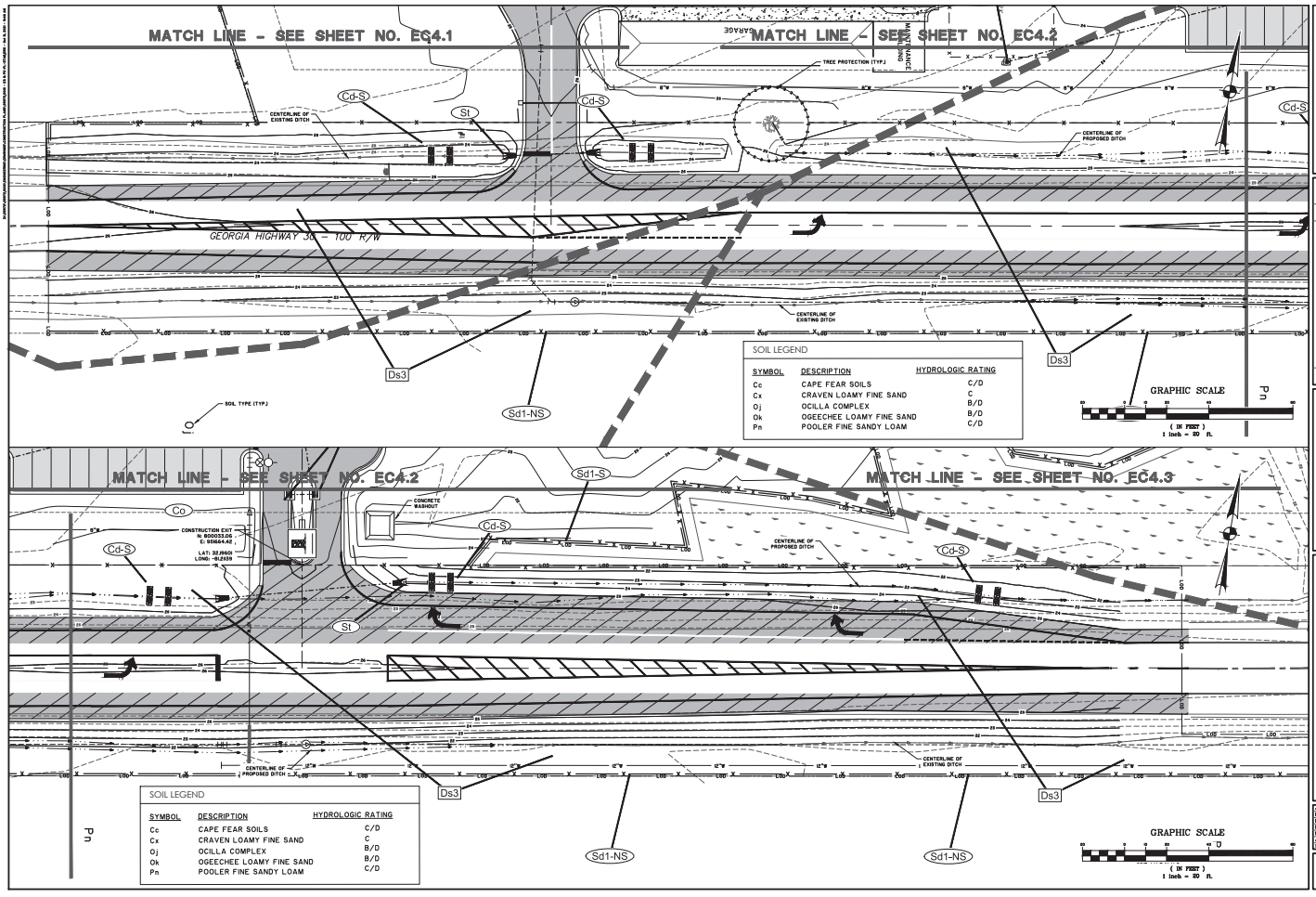
JOB NO. P-2072.2000
DATE: 10/08/2021
DRAWN: CSC
DESIGNED: JTD
REVIEWED: JPM
APPROVED: MK
SCALE: 1" = 30'

EC4.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Packet Pg. 320



GEORGIA
PROFESSIONAL ENGINEER
KEITHEN A. KOSS
CERTIFICATE NO.
PSEUDO NUMBER
GREENVILLE, SC

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

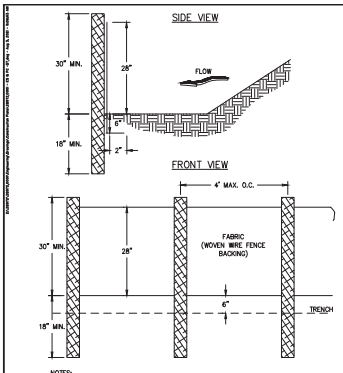
PARKSIDE AT PORT WENTWORTH

ES & PC-PLAN-STABILIZATION PHASE

JOB NO:	J-39972.000
DATE:	10/08/2020
DRAWN:	CBC
DESIGNED:	JTD
REVIEWED:	JRW
APPROVED:	KBL
SCALE:	AS NOTED

EC4.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Site Plan 10.4.21 (2879 : Site Plan Review Application Parkside at Port Wentworth (Specific))



NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT 28" IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

SILT FENCE - TYPE SENSITIVE

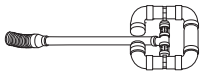
NOT TO SCALE

Sdl-S

TEMPORARY SEDIMENT POND

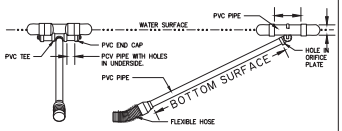
NOTE:
SKIMMER CONFIGURATION SHOWN IS TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER DETAIL FOR REVIEW.

SKIMMER PERSPECTIVE



SKIMMER FRONTAL SECTION VIEW

SKIMMER SIDE SECTION VIEW



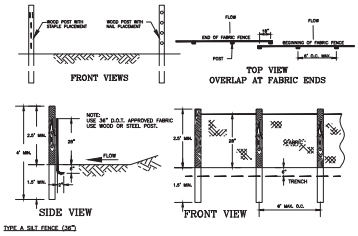
SKIMMER DESIGN CRITERIA

1. POND, TRAP OR BASIN SIZE, LENGTH (TOP AND BOTTOM) WIDTH (TOP AND BOTTOM) AND DEPTH = 2,140,980 CF
2. TIME TO DRAIN (HRS) = 72
3. SKIMMER DIMENSIONS: ORIFICE DIA.: 6.0 IN
   HEAD SIZE: 6.0 IN
4. MANUFACTURER'S NAME: FAIRCLOTH SKIMMER

SKIMMER

NOT TO SCALE

Sk



TYPE A SILT FENCE (24")

USE:
1) ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO 6 MONTHS.
2) WHERE THE SLOPE GRADIENT IS STEEPER THAN 3:1.

POST SIZE				FASTENERS FOR WOOD POST (WIRE STAPLES)			
MIN. LENGTH	TYPE OF POST	SIZE OF POST		GAUGE 17 MIN.	CROWN 3/4" WIDE	LEGS 1 1/2" LONG	STAPLES/POST 3 MIN.
4'	WOOD	1" DIA. OR 2" SQ.		FASTENERS FOR WOOD POST (NAILS)			
4'	STEEL	1 x 1 LB./FT. MIN.		GAUGE 16 MIN.	LENGTH 1"	BUTTON HEADS 1/4"	NAIL/POST 4 MIN.

NOTE: FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORD, AND POCKETS.

FENCE

TENSILE STRENGTH (LBS. MIN.) (1) (ASTM D 4632)	ELONGATION (MAX.) (ASTM D 4632)	AOS (APPARENT OPENING SIZE) (MAX. EQUIV. SIZE) (ASTM D 4751)	FLOW RATE (GAL/MIN/SQ. FT.) (ASTM D 4491)	ULTRAVIOLET STABILITY (%) (ASTM D 4355 AFTER 500 HOURS WEATHERING IN ACCORDANCE WITH ASTM D 4355)	BURSTING STRENGTH (PSI) (MIN.) (ASTM D 3786, DIAPHRAGM BURSTING STRENGTH TESTER)	WIRE FABRIC WIDTH (INCHES)
WARP—120 FILL—100	40	#30	25	80	175	36

(1) MIN. ROLL AVERAGE OF FIVE SPECIMENS.
(2) PERCENT OF REQUIRED INITIAL MIN. TENSILE STRENGTH.

NOTE:
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

SILT FENCE - TYPE NON-SENSITIVE

NOT TO SCALE

Sdl-NS

Dust Control on Disturbed Areas

Du

DEFINITION
Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE
- To prevent surface and air movement of dust from exposed soil surfaces.
- To reduce the presence of airborne substances that may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

CONDITIONS
This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. Temporary Methods

Mulches. See standard Dst1 - **Disturbed Area Stabilization (With Mulching Only)**. Synthetic mulches may consist of a layer of asphalt to bind mulch material. Refer to specification **Tac - Tackifiers.** Rates should be used according to manufacturer's recommendations.

Vegetative Cover. See specification **Ds2 - Disturbed Area Stabilization (With Temporary Seeding)**

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification **Tac - Tackifiers.**

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

B. Permanent Methods

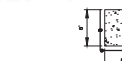
Permanent Vegetation. See specification **Ds3 -Disturbed Area Stabilization (With Permanent Vegetation)**. Existing trees and large shrubs may afford valuable protection if left in place.

Topsoiling. This entails covering the surface with less erosive soil material. See specification **Tp - Topsoiling.**

Stone. Cover surface with crushed stone or coarse gravel. See specification **Cr-Construction Road Stabilization.**

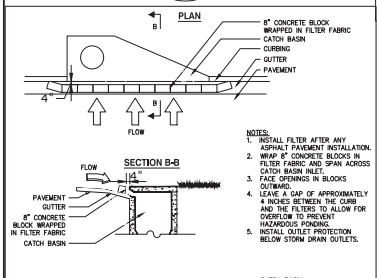
GSMDC 2016 Bonus

6-55

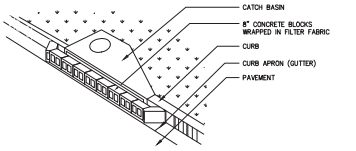


CONCRETE WASHOUT DETAIL

NOT TO SCALE



NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.



CURB INLET FILTER "PIGS IN BLANKET"
CURB INLET PROTECTION

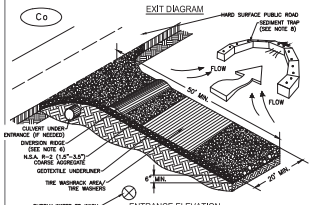
NOT TO SCALE

Sd2-P

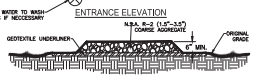
CRUSHED STONE CONSTRUCTION EXIT

Co

EXIT DIAGRAM



ENTRANCE ELEVATION

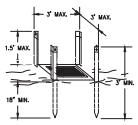


NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

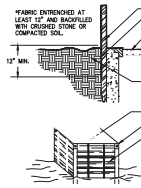
FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

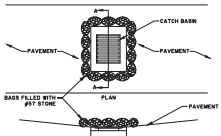
Sd2-F

STEEL FRAME AND SILT FENCE INSTALLATION



NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.





NOTE: INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION

INLET SEDIMENT TRAP
GRAVEL BAGS

NOT TO SCALE

Sd2-G

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EROSION CONTROL DETAILS

JOB NO.	J-20072.000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTD
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	AS NOTED

EC5.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Disturbed Area Stabilization (With Mulching Only) Ds1

DEFINITION
Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

PURPOSE
- To reduce runoff and erosion
- To conserve moisture
- To prevent surface compaction or crusting
- To control undesirable vegetation
- To modify soil temperature
- To increase biological activity in the soil

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months.

If any area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to **Ds2 -Dis-**

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turbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding).

SPECIFICATIONS
Mulching Without Seeding
This standard applies to graded or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation
1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
Select one of the following materials and apply at the depth indicated:
1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.
1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.

Disturbed Area Stabilization (With Temporary Seeding) Ds2

DEFINITION
The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

PURPOSE
- To reduce runoff and sediment damage of down stream resources
- To protect the soil surface from erosion
- To improve wildlife habitat
- To improve aesthetics
- To improve tilth, infiltration and aeration as well as organic matter for permanent plantings

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. If an area is expected to be undisturbed for longer than six months, permanent perennial vegetation shall be used. If optimum planting conditions for temporary grassing is lacking, mulch can be used as a singular erosion control device for up to six months but it shall be applied at the appropriate depth, anchored, and have a continuous 90% cover or greater of the soil surface. Refer to specification **Ds1-Disturbed Area Stabilization (With Temporary Seeding).**

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6-29

CONDITIONS
Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information.

SPECIFICATIONS
Grading and Shaping
Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation
When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer
Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amendments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate.

Seeding
Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See Table 6-4.1

Mulching
Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to **Ds1 - Disturbed Area Stabilization (With Mulching Only).**

Irrigation
During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

Table 1. Mulching Application Requirements

Material	Rate	Depth
Straw or hay	-	2" to 4"
Wood waste, chips, sawdust, bark	-	2" to 3"
Polyethylene film	Secure with soil, anchors, weights	-
Geotextiles, jute matting, netting, etc.	See manufacturer's recommentations	-

6-30

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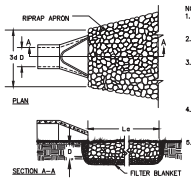
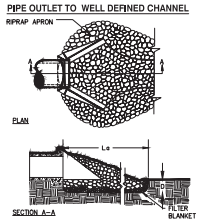
PIPE OUTLET TO FLAT AREA – NO WELL DEFINED CHANNEL



NOTES:
1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSHAN 6".
3. IN A WELL–DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.
5. La = 10'
   Wi = 4'
   W2 = 12'
   d50 = 3.6"
   dMAX = 5.4"
   D = 8.1"

PIPE OUTLET TO WELL DEFINED CHANNEL

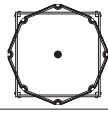


TREE PROTECTION

CHAIN LINK FENCE DETAIL

FOR ADDED PROTECTION

–PROVIDE 4" DEEP ORGANIC MULCH OVER ANY UNPROTECTED ROOT ZONE.
–PROVIDE TEMPORARY IRRIGATION WHERE PRACTICAL AND FEASIBLE.



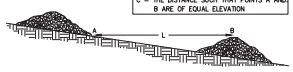
BARRIER CONSTRUCTED TO PROTECT TREE TRUNK, CROWN, AND ROOT SYSTEM FROM INJURY. BARRIERS SHALL BE LOCATED AT THE LIMITS OF THE TREE'S CRITICAL ROOT ZONE (A RADIUS OF ONE AND A HALF FEET PER INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT). BARRIER SHALL BE KEPT IN GOOD CONDITION FOR THE DURATION OF THE PROJECT AND IS TO REMAIN IN PLACE UNTIL THE NOTICE OF TERMINATION.

TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

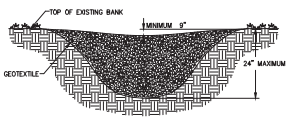
1. CFS IN THE CHANNEL/DITCH THAT THE CHECK DAM IS BEING USED IN= LESS THAN 2 CFS
2. ABOVE 2.0 CFS: NO
3. IF YES, LIST BMP BEING USED IN CONJUNCTION WITH CHECK DAM: N/A

SPACING BETWEEN CHECK DAMS

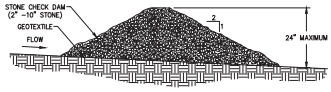
A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
C = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION



CROSS SECTION



PROFILE VIEW

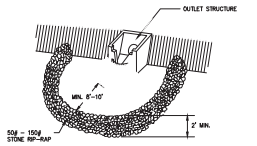


NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288–96, SECTION 7.3, TABLE 3).

STONE CHECK DAM
NOT TO SCALE
CD-S

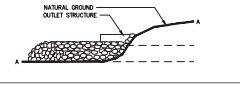
STONE FILTER RING Fr

PERSPECTIVE VIEW



PLAN VIEW (NOT TO SCALE)

CROSS SECTION (NOT TO SCALE)



RIPRAP OUTLET PROTECTION

NOT TO SCALE
St

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
DISTURBED AREA STABILIZATION (MULCHING ONLY)	Ds1
DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)	Ds2
DISTURBED AREA STABILIZATION (PERMANENT VEGETATION)	Ds3
DUST CONTROL	Du
CHECK DAM (STONE)	Cd-S
CONSTRUCTION EXIT	Co
SILT FENCE – TYPE NS	Sd1-NS
INLET SEDIMENT TRAP (FILTER FABRIC WITH FRAME)	Sd2-F
INLET SEDIMENT TRAP (CURB INLET)	Sd2-G
STORM DRAIN OUTLET PROTECTION	St
FLOATING SURFACE SKIMMER	Sk
NPDES MONITORING LOCATION	
CONCRETE WASHOUT	

12.G.g

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Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

NO.	REVISIONS	BY	DATE

PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EROSION CONTROL DETAILS

JOB NO.	2-19072.0000
DATE:	10/08/2021
DRAWN:	CEC
DESIGNED:	JTS
REVIEWED:	JPM
APPROVED:	MIL
SCALE:	1"=1'

EC5.2

Packet Pg. 323

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

OUTLET PROTECTION DESIGN CRITERIA #1 (St)

OUTLET OPENING :	18"
FLOW RATE (CFS):	3.00
VELOCITY (FPS):	1.20
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.30'
d_{max} RIPRAP SIZE:	0.45'
MIN. RIPRAP THICKNESS(D):	0.68'
La:	10'
Wup:	4.5'
Wdown :	11.5'

OUTLET PROTECTION DESIGN CRITERIA #2 (St)

OUTLET OPENING :	36"
FLOW RATE (CFS):	12.14
VELOCITY (FPS):	2.48
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.60'
d_{max} RIPRAP SIZE:	0.90'
MIN. RIPRAP THICKNESS(D):	1.35'
La:	19'
Wup:	9'
Wdown :	22'

OUTLET PROTECTION DESIGN CRITERIA #3 (St)

OUTLET OPENING :	24"
FLOW RATE (CFS):	5.75
VELOCITY (FPS):	2.03
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.40'
d_{max} RIPRAP SIZE:	0.60'
MIN. RIPRAP THICKNESS(D):	0.90'
La:	11.5'
Wup:	6'
Wdown :	13.5'

OUTLET PROTECTION DESIGN CRITERIA #4 (St)

OUTLET OPENING :	30"
FLOW RATE (CFS):	9.46
VELOCITY (FPS):	4.30
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.45'
d_{max} RIPRAP SIZE:	0.68'
MIN. RIPRAP THICKNESS(D):	1.01'
La:	13'
Wup:	7.5'
Wdown :	15.5'

OUTLET PROTECTION DESIGN CRITERIA #5 (St)

OUTLET OPENING :	36"
FLOW RATE (CFS):	1.46
VELOCITY (FPS):	2.51
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.60'
d_{max} RIPRAP SIZE:	0.90'
MIN. RIPRAP THICKNESS(D):	1.35'
La:	19'
Wup:	9'
Wdown :	22'

OUTLET PROTECTION DESIGN CRITERIA #6 (St)

OUTLET OPENING :	18"
FLOW RATE (CFS):	3.71
VELOCITY (FPS):	5.75
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.30'
d_{max} RIPRAP SIZE:	0.45'
MIN. RIPRAP THICKNESS(D):	0.68'
La:	9'
Wup:	4.5'
Wdown :	10.5'

OUTLET PROTECTION DESIGN CRITERIA #7 (St)

OUTLET OPENING :	36"
FLOW RATE (CFS):	1.72
VELOCITY (FPS):	1.52
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.60'
d_{max} RIPRAP SIZE:	0.90'
MIN. RIPRAP THICKNESS(D):	1.35'
La:	19'
Wup:	9'
Wdown :	22'

OUTLET PROTECTION DESIGN CRITERIA #8 (St)

OUTLET OPENING :	36"
FLOW RATE (CFS):	1.72
VELOCITY (FPS):	1.52
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.60'
d_{max} RIPRAP SIZE:	0.90'
MIN. RIPRAP THICKNESS(D):	1.35'
La:	19'
Wup:	9'
Wdown :	22'

OUTLET PROTECTION DESIGN CRITERIA #9 (St)

OUTLET OPENING :	18"
FLOW RATE (CFS):	1.46
VELOCITY (FPS):	2.05
TAILWATER CONDITION:	MIN
(MIN. or MAX.)	
d_{50} RIPRAP SIZE:	0.30'
d_{max} RIPRAP SIZE:	0.45'
MIN. RIPRAP THICKNESS(D):	0.68'
La:	10'
Wup:	4.5'
Wdown :	11.5'

GEORGIA
PATRICIA A. LOTH
CERTIFICATE NO. PE034107
PROFESSIONAL ENGINEER
CERTIFICATE OF AUTHORIZATION NO. CA000002

NO.	REVISIONS	BY	DATE

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EROSION CONTROL DETAILS

JOB NO.	C-19972.000
DATE:	10/08/2021
DRAWN	CEC
DESIGNED	JTD
REVIEWED	JPM
APPROVED	NBL
SCALE:	NTS

EC5.3

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DEC 2021 - Site Plan 10.8.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

Ds3

Table 6-6.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Pure Live Seed (PLS) Rate Per Acre	Per 1000 sq ft			
BAHIA, PENSACOLA *Paspalum notatum*					
alone or with temporary cover	60 lbs	1.4 lbs	P		196,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into bermuda pastures and swns. Mix with Sericea lespedeza or weeping lovegrass.
with other perennials	30 lbs	0.7 lb	C		
BAHIA, WILMINGTON *Paspalum notatum*					
alone or with temporary cover	60 lbs	1.4 lb	M-L		Same as above.
with other perennials	30 lbs	0.7 lb	P		
BERMUDA, COMMON *Cynodon dactylon*					
Unhulled seed			P		
alone	10 lbs	0.2 lb	C		1,757,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
with other perennials	6 lbs	0.7 lb			
BERMUDA, COMMON *Cynodon dactylon*					
Unhulled seed			P		Plant with winter annuals.
with temporary cover	10 lbs	0.2 lb	C		Plant with Tall Fescue
with other perennials	6 lbs	0.1 lb			

Table 6-5.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Pure Live Seed (PLS) Rate Per Acre	Per 1000 sq ft			
BERMUDA SPRIGS *Cynodon dactylon*					
Coastal, Common, Midland, or Tift 44	40 cu ft or sod plugs 3' x3'	0.9 cu ft	M-L		A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 sprigs.
			P		
Coastal, Common, of Tift 44			C		Same as above.
Tift 75					Southern Coastal Plain only.
CENTIPEDE *Eremochloa ophiuroides*					
	Block sod only		P		
			C		Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in compacted floor areas. Irrigation is needed until fully established. Do not plant near pastures. Winterkandy as far as north Athens and Atlanta
CROWNVETCH *Coronilla varia*					
with winter annuals or cool season grasses	15 lbs	0.3 lb	M-L P		100,000 seed per pound. Dense growth. Drought tolerant and flee resistent. Attractive rose, pink and white blossoms spring to late fall. Mix with 30 pounds of Tall fescue or 15 pounds of rye. Inoculate seed with M inoculant. Use from North Atlanta and Northward.

Table 6-6.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Pure Live Seed (PLS) Rate Per Acre	Per 1000 sq ft			
FESCUE, TALL *Festuca arundinacea*					
alone	50 lbs	1.1 lb	M-L		227,000 seed per pound. Use alone only on better sites. Mix with perennial lespedeza or Crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
with other perennials	30 lbs	0.7 lb	P		
KUDZU *Pueraria thunbergiana*					
Plants or crowns	3' - 7' apart		ALL		Rapid and vigorous growth. Excellent in gully erosion control. Will climb. Good livestock forage.
LESPEDEZA SERICEA *Lespedeza cuneata*					
scarified	60 lbs	1.4 lb	M-L P C		350,000 seed per pound. Widely adapted. Low maintenance. Mix with Weeping lovegrass, Common bermuda, bahia, or tall fescue. Takes 2 to 3 years to become fully established. Excellent on roadbanks. Inoculate seed with EL inoculant.
unscarified	75 lbs	1.7 lb	M-L P C		
					Mix with Tall fescue or winter annuals.
			M-L P C		Cut when seed mixture is mature, but before, it shatters. Add Tall fescue or winter annuals.
seed- bearing hay	3 tons	1338 lbs			

Table 6-5.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Pure Live Seed (PLS) Rate Per Acre	Per 1000 sq ft			
LESPEDEZA *Anaeo virgata* *Lespedeza virgata DC* or *Appalow* *Lespedeza cuneata* (Dumont) G. Don					
scarified	60 lbs	1.4 lb	M-L P C		350,000 seed per pound. Knight of growth is 18 to 24 inches. Advantageous to urban areas. Spread by-type growth. New growth has bronze coloration. Mix with weeping lovegrass, common bermuda, bahia, tall fescue or winter annuals. Do not mix with Sericea lespedeza. Slow to develop solid stands. Inoculate seed with EL inoculant.
unscarified	75 lbs	1.7 lb	M-L P C		
LESPEDEZA, SHRUB *Lespedeza bicolor* *Lespedeza thunbergii*					
plants	3' x3'		M-L P C		Provide wildlife food and cover.
LOVEGRASS, WEEPING *Eragrostis curvula*					
alone	4 lbs	0.1 lb	M-L P C		1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks.
with other perennials	2 lbs	0.05 lb			

Table 6-6.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Pure Live Seed (PLS) Rate Per Acre	Per 1000 sq ft			
MAIDENCANE *Panicum hemitomon*					
sprigs	2' x 3' spacing	ALL			For very wet sites. May clog channels. Dig sprigs from local sources. Use along river banks and shorelines.
PANICGRASS, ATLANTIC COASTAL *Panicum amarum var amarulum*					
alone	20 lbs	0.5 lb	P C		Grows well on coastal sand dunes, borrow areas, and gravel pits. Provides water cover for wildlife. Mix with Sericea lespedeza except in sand dunes.
REED CANARY GRASS *Phalaris arundinacea*					
alone	50 lbs	1.1 lb	M-L P		Grows similar to Tall fescue
with other perennials	30 lbs	0.7 lb			
SUNFLOWER, AZTEC MAXIMILLIAN *Helianthus maximiliani*					
	10 lbs	0.2 lb	M-L P C		227,000 seed per pound. Mix with Weeping lovegrass or other low-growing grasses or legumes.

1 Reduce seedling rates by 50% when drilled
2 PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of these specifications.
3 M-L represents to Mountain; Blue Ridge, and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents the Southe Coastal Plain;Sand Hills;Black Lands;and Atlantic Coast Flatwoods MLRAs. See Figure 6-4.1

SOIL LEGEND		
SYMBOL	DESCRIPTION	HYDROLOGIC RATING
Pn	POOLER FINE SANDY LOAM	C/D
Ok	OGEECHEE LOAMY FINE SAND	B/D
Waf	WAHEE SANDY LOAM	C/D

Ds2

Table 6-4.1 - Temporary Cover or Companion Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR TEMPORARY COVER OR COMPANION CROPS [1]

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Rate Per Acre	Pure Live Seed (PLS) Per 1000 sq ft			
BARLEY *Hordeum vulgare*					
alone	3 bu. (144 lbs)	3.3 lbs	M-L		14,000 seed per pound. Winter hardy. Use on productive soils.
in mixture	1/2 bu. (24lbs)	0.6 lb	P		
			C		
LESPEDEZA, ANNUAL *Lespedeza striata*					
alone	40 lbs	0.9 lb	M-L		200,000 seed per pound. May volunteer for several years. Use inoculant EL.
in mixture	10 lbs	0.2 lb	P		
			C		
LOVEGRASS, WEEPING *Eragrostis curvula*					
alone	4 lbs	0.1 lb	M-L		1,500,000 seed per pound. May last for several years. Mix with *Sericea lespedeza*.
in mixture	2 lbs	0.05 lb	P		
			C		
MILLET, BROWNTOP *Panicum fasciculatum*					
alone	40 lbs	0.9 lb	M-L		737,000 seed per pound. Quick dense cover. Will provide excessive competion in mixtures if seeded at high rate.
in mixture	10 lbs	0.2 lb	P		
			C		

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Rate Per Acre	Pure Live Seed (PLS) Per 1000 sq ft			
MILLET, PEARL *Pennisetum glaucum*					
alone	50 lbs	1.1 lbs	M-L		99,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
			P		
			C		
OATS *Avena sativa*					
alone	4 bu. (128 lbs)	2.9 lbs	M-L		13,000 seed per pound. Use on productive soils. Not as a winter hardy as rye or barley.
in mixture	1 bu. (32 lbs)	0.7 lb	P		
			C		
RYE *Secale cereale*					
alone	3 bu. (168 lbs)	3.9 lbs	M-L		18,000 seed per pound. Quick cover. Drought tolerant and winter hardy.
in mixture	1/2 bu. (28 lbs)	0.6 lb	P		
			C		
RYEGRASS, ANNUAL *Lolium temulentum*					
alone	40 lbs	0.9 lb	M-L		227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.
			P		
			C		
SUDANGRASS *Sorghum sudanese*					
alone	60 lbs	1.4 lbs	M-L		95,000 seed per pound. Good on droughty sites. Not recommended for mixtures.
			P		
			C		

Species	Broadcast Rates		Resource Area[2]	Planting Dates by Resource Area (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates) J F M A M J J A S O N D	Remarks
	Rate Per Acre	Pure Live Seed (PLS) Per 1000 sq ft			
TRITICALE *X-Triticosecale*					
alone	3 bu. (144 lbs)	3.3 lbs	C		Use on lower part of Southern Coastal Plain and in Atlantic Coastal Flatwoods only.
in mixture	1/2 bu. (24 lbs)	0.6 lb			
WHEAT *Triticum aestivum*					
alone	3 bu. (180 lbs)	4.1 lbs	M-L		15,000 seed per pound. Winter hardy.
in mixture	1/2 bu. (30 lbs)	0.7 lb	P		
			C		

[1]Temporary cover crops are very competitive and will crowd out perennials if seeded too heavily
[2]Reduce seedling rates by 50% when drilled.
*M-L represents the Mountain; Blue Ridge; and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents Southern Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs
(see Figure 6-4.1, p. 6-43)

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PARKSIDE EQUITIES, LLC
PORT WENTWORTH, GEORGIA

PARKSIDE AT PORT WENTWORTH

EROSION CONTROL DETAILS

NO.	REVISIONS	BY	DATE

JOB NO. c-20072.0000
DATE: 02/08/2021
DRAWN: CSC
DESIGNED: JTD
REVIEWED: JPM
APPROVED: MIL
SCALE: 1"=1'

EC5.4

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S -SITE PLAN DSC 2021 - Site Plan 10.9.21 (3979 : Site Plan Review Application Parkside at Port Wentworth (Specific))

THOMAS & HUTTON

PUMP STATION XXX DESIGN CONSIDERATION

PARKSIDE AT PORT WENTWORTI

PORT WENTWORTH, GEORGI

Prepared fo

PARKSIDE EQUITIES, LLC

J – 28972.00C

September 30, 202

thomasandhutton.com

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (2578 : Site Plan Review Application

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THOMAS & HUTTON

SECTION 1 – PARKSIDE PUMP STATION DESIGI

PARKSIDE AT PORT WENTWORTI

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Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (2578 : Site Plan Review Application

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Parkside at Port Wentworth
Port Wentworth, GA
Thomas & Hutton
Pump Station Design

Job: 28972.0001
Date: 9/30/2021
Revised:
By: VND

PUMP STATION PROJECT NARRATIVE

The Parkside at Port Wentworth project includes installation of a new lift station, gravity sewer and force main. The development proposes 235 multifamily units, an amenity area with pool, and dog park. Wastewater generated by the site will be initially collected and transported by the way of proposed pump station. The proposed pump station will pump the wastewater via force main to a proposed surge manhole to be connected to an existing manhole south of the property, along HWY 30.

PARKSIDE CONTRIBUTORY FLOW

PROJECT DESIGN CONDITIONS (SEWER)					
Description	**GPD[1]**		**# of units**	**Average Day Flow**	
One (1) Bedroom Unit	150	per unit	80	**12,000**	gpd
Two (2) Bedroom Unit	200	per unit	131	**26,200**	gpd
Three (3) Bedrooms Unit	300	per unit	24	**7,200**	gpd
Amenity Area with Swimming Pool	38	per member	100	**3,800**	gpd
Maintenance Building	300	per building	1	**300**	gpd
			Total =	**49,500**	gpd

[1] The contributory flow calculations are based on Port Wentworth's Comprehensive Design Manual: 3.5.4 Exhibit 2 Equivalent Residential Unit (ERU) Calculations

AVERAGE DAY FLOW

24 hours per day of flow = 1440 min/day
49,500 gpd / 1440 min/day = **34** gpm

PEAK FACTOR

Average daily flows will vary continuously throughout each day with peak flows occurring at some point. The peak factor is applied to the average day flow to obtain the peak day flow.

Use Peak Factor of **2.50**

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Parkside at Port Wentworth
Port Wentworth, GA
Thomas & Hutton
Pump Station Design

Job: 28972.0001
Date: 9/30/2021
Revised:
By: VND

PEAK DAY FLOW

34 gpm x	**2.5**	=	**85.94** gpm , say	=	**90**	gpm

DESIGN FLOW

Therefore,

THE DESIGN FLOW = 90 gpm

CHECK CAPACITY OF NEW GRAVITY SEWER LINE ON-SITE

Use Mannings Equation to Calculate Maximum Allowable Flow

Q_m=(1.49/n)x A x R^.67 x S^.5

where: Q_m = Maximum Flowrate (cts)
n = Mannings Roughness Coefficient
A = Cross Sectional Area (sf)
R = Hydraulic Radius (ft)
S = Slope (ft/ft)

Calculate Cross Sectional Area of Pipe
Dia (in) = **8**
A (sf) = PI x d^2 / 4
A (sf) = 0.35 **0.35**

Calculate Hydraulic Radius
R(ft) = Area / Wetted Perimeter (Pw)
where Pw = inside circumference of pipe (assuming full flow condition)
Pw = 2.09435
R(ft) = **0.17**

Select Variables
n= **0.014** Roughness Coefficient
S (ft/ft) = **0.004** Slope

Q_m (cts) = 0.71
Q_m (gpm) = 317
Qr (gpm) = 90 (Qr is peak flow)
Qr (gpd) = 129,600
Maximum number of units on 8-inch gravity is 600 REUs, which equals 450,000 gpd peak flow(assuming a peak factor of 2.5)

Qr of 123,840 gpd is less than 450,000 gpd. Therefore, the gravity line is adequate in size for the entire proposed project.

WETWELL DESIGN

The wetwell will be designed based on a peak flow of 90 gpm. A 6-ft diameter wetwell will be used. The required storage volume of the wetwell is computed from the following equation:

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (2578 : Site Plan Review Application

Parkside at Port Wentworth
Port Wentworth, GA
Thomas & Hutton
Pump Station Design

Job: 28972.0001
Date: 9/30/2021
Revised:
By: VND

$$V = \frac{t * Q}{4}$$

Where:

V = Volume of wetwell (gallons)
Q = Pumping rate (gpm) = **90** gpm
t = Time for one pump cycle (minutes) = **10** minutes

6 cycles/hour

Storage Volume:
Solve equation for V:

= **225.0** gallons

REQUIRED STORAGE DEPTH:

Calculate Cross-Sectional Area of Wetwell:

$$A = \frac{\pi * (D_{inside}{}^2)}{4}$$

Where:

D_{inside} = Inside diameter of wetwell = **6** feet
A = Cross-sectional area of wetwell = **28.27** ft^2

Calculate Required Depth:

Using equation for volume:

$$V = A * d$$

Where:

V = Volume of wetwell (gallons) = **225.0** gal
A = Cross-sectional area of wetwell (ft^2) = **28.27** ft^2
d = Depth of the wetwell (feet)

Solve equation for depth:

$$d = \frac{V}{A} = \frac{V(gal) * \left(\frac{1 ft^3}{7.48 gal}\right)}{A(ft^2)} = \textbf{1.06 ft}$$

Therefore,

THE STORAGE DEPTH	=	**1.06 ft**	**Use:**	**1.5 ft**
PUMP HEIGHT	=	**27.37 in**		**2.5 ft**

Based on the calculated design pumping rate of 90 gpm the required storage height is 2.5 feet for a 6' diameter wet-well.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (2578 : Site Plan Review Application

Parkside at Port Wentworth
Port Wentworth, GA
Thomas & Hutton
Pump Station Design

Job: 28972.0001
Date: 9/30/2021
Revised:
By: VND

WETWELL ELEVATIONS

Top Elevation	24.90
Influent Elevation	13.20
High Water Alarm	12.20
Start Lag Pump	11.20
Start Lead Pump	10.20
L.W.L. - Stop Pumps	8.70
L.W.L. Alarm	7.70
Bottom Elevation	6.20

FORCE MAIN DESIGN ~using C = 120

The discharge pipe will be constructed of HDPE ASTM F-714, PE3408, DR11 pipe.
The force main will be constructed of HDPE ASTM F-714, PE3408, DR11 pipe.

A Hazen-Williams coefficient of C= 120 will be used to calculate friction head.
The force main velocity will be designed for a range of 2 to 5 ft/sec.

DISCHARGE PIPING*

FM Size (in.)	Flow (gpm)	Velocity (fps)	Friction Head (ft/100')
3	90	3.57	2.09
6	90	0.98	0.09
8	90	0.57	0.02

FORCE MAIN**

FM Size (in.)	Flow (gpm)	Velocity (fps)	Friction Head (ft/100')
3	90	3.57	2.09
6	90	0.91	0.08
8	90	0.53	0.02

** Velocity and Friction Head for Discharge Piping based on nominal I.D. for ASTM F-714, DR11 HDPE Pipe.*
*** Velocity and Friction Head for Force Main based on nominal I.D. for ASTM F-714, DR11 HDPE Pipe.*

Select a 3 -inch Discharge Pipe to satisfy the velocity requirements. Based on material specifications selected, the actual inside diameter for this force main shall be 3.211 -inch.

EQUIVALENT LENGTH OF 3-INCH DISCHARGE PIPE

Description	Quantity	Unit Equiv. Length of Straight Pipe	Equivalent Length of Force Main
3" Ø FM Straight Pipe	26 l.f.	1.00 l.f.	26.00 l.f.
3" - 90° Bend	2 ea.	8.10 l.f.	16.20 l.f.
3" - 45° Bend	0 ea.	4.28 l.f.	0.00 l.f.
3" - 22 1/2° Bend	0 ea.	2.14 l.f.	0.00 l.f.
3" - 11 1/4° Bend	0 ea.	1.07 l.f.	0.00 l.f.
3" Plug Valve	2 ea.	24.08 l.f.	48.17 l.f.
3" Check Valve	1 ea.	26.76 l.f.	26.76 l.f.
3" Tee & Cross	1 ea.	17.00 l.f.	17.00 l.f.
Total Equivalent Length of Discharge Pipe			134.12 l.f.

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Port Wentworth, GA
Thomas & Hutton
Pump Station Design

Job: 28972.0001
Date: 9/30/2021
Revised:
By: VND

EQUIVALENT LENGTH OF 3-INCH HDPE FORCE MAIN

Select a 3 -inch force main to satisfy the velocity requirements. Based on the material specifications selected, the actual inside diameter for this force main shall be 3.211 -inch.

Description	Quantity	Unit Equiv. Length of Straight Pipe	Equivalent Length of Force Main
3" Ø FM Straight Pipe	2939 l.f.	1.00 l.f.	2,939.00 l.f.
3" - 90° Bend	0 ea.	8.10 l.f.	0.00 l.f.
3" - 45° Bend	12 ea.	4.28 l.f.	51.38 l.f.
3" - 22 1/2° Bend	3 ea.	2.14 l.f.	6.42 l.f.
3" - 11 1/4° Bend	2 ea.	1.07 l.f.	2.14 l.f.
3" Plug Valve	0 ea.	24.08 l.f.	0.00 l.f.
3" Gate Valve	0 ea.	2.30 l.f.	0.00 l.f.
3" Check Valve	0 ea.	26.76 l.f.	0.00 l.f.
Air Release Valve	3 ea.	1.70 l.f.	5.10 l.f.
		Total Equivalent Length of Force Main	3,004.04 l.f.

Static Head

Static Head	=	Force Main Discharge Elevation (high point on FM) – L.W.L.	
Elevation of Highest Point of F.M.	=	21.5	ft
L.W.L.	=	8.70	ft
Total Static Head	=	12.80	ft

Friction Head through Discharge Piping

Friction Head	=	(equivalent length of discharge pipe)*(head loss per 100 ft)/100	
Total Equiv. Length of Discharge Pipe	=	134.12	ft
Pumping Rate	=	90	gpm
C-factor	=	120	
Friction loss	=	2.09	ft/(100 ft)
Total Head Loss through Discharge Piping	=	2.80	ft

Friction Head through Proposed 3-inch HDPE Force Main

Friction Head	=	(equivalent length of force main)*(head loss per 100 ft)/100	
Total Equiv. Length of Force Main	=	3,004.04	ft
Pumping Rate	=	90	gpm
C-factor	=	120	
Friction loss	=	2.09	ft/(100 ft)
Total Head Loss through 3-inch HDPE Force Main	=	62.80	ft

Total Dynamic Head (TDH) For Parkside Pump Station Only = Static Head + Friction Head through Discharge Piping + Friction Head through Forc

= 78.40

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SYSTEM HEAD CURVE ~using C = **120**

The system curve below is utilized to help in initial pump slection. The system head curve is plotted on the attached manufacturer's pump curve.

System Head Curve @ **90** GPM, **78.40** TDH

Q	Static Head	Friction Head in Discharge Piping	Friction Head in 3" HDPE Force Main	TDH
(gpm)	(ft.)	(ft.)	(ft.)	(ft.)
70	12.80	1.76	39.45	54.01
75	12.80	2.00	44.82	59.62
80	12.80	2.25	50.50	65.56
85	12.80	2.52	56.49	71.82
90	**12.80**	**2.80**	**62.80**	**78.40**
95	12.80	3.10	69.40	85.30
100	12.80	3.41	76.31	92.52
105	12.80	3.73	83.52	100.05
110	12.80	4.06	91.02	107.89
115	12.80	4.41	98.83	116.04
120	12.80	4.77	106.92	124.50
125	12.80	5.15	115.31	133.26
130	12.80	5.54	123.99	142.32

Preliminary pump selection indicates that an **NP 3102 SH ~3 Adaptive 256 (impeller diameter 135 mm)** pump is capable of delivering the desired flow rate and total dynamic head. The selected pump shall operate at **92.7 gpm at 81.9 ft TDH**. The system head curve is plotted on the manufacturer's pump curve. Please see Section 2 for further results and discussion.

WETWELL FLOTATION CHECK

Wetwell flotation calculations are performed to insure that, during high water condition, the wetwell will not float. During high water table conditions, two counter-acting forces are present. The downward force (F_D) as the result of the weight of the wetwell plus the overburden weight and the Buoyant force (F_B) as the result of the high water table. To insure that the wetwell will not float during high water table conditions, the ratio (F_D/F_B) must be greater than 1.5.

Downward Force

F_D = Weight of Wetwell Walls + Weight of Bottom Slab + Overburden Weight

Wetwell Wall Weight

$$V_{walls} = \left[\left(\frac{\pi (D_O)^2}{4}\right) - \left(\frac{\pi (D_I)^2}{4}\right)\right] * H_W$$

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D_I = Inside diameter = **6** ft
D_O = Outside diameter = **8** ft
H_W = Height of wetwell walls = **18.70** ft
V_{Walls} = Volume of wetwell walls = **411.22** ft^3

$$F_{D\,(Walls\,)} = (\rho_{concrete}\,)(V_{Walls}\,)$$

V_{walls} = Volume of wetwell walls = **411.22** ft^3
$\rho_{concrete}$ = Density of concrete = **150** lb/ft^3
$F_{D(walls)}$ = Downward force of wetwell wall = **61,683.35** lb

Bottom Slab Weight

$$V_{slab} = \frac{\pi}{4}(D_S{}^2)(T_S)$$

D_S = Bottom slab diameter = **10** ft
T_S = Bottom slab thickness = **1** ft
V_{slab} = Volume of slab = **78.54** ft^3

$$F_{D(slab)} = (\rho_{concrete})(V_{slab})$$

V_{slab} = Volume of slab = **78.54** ft^3
$\rho_{concrete}$ = Density of concrete = **150** lb/ft^3
$F_{D(slab)}$ = Downward force of slab = **11,780.63** lb

Overburden Weight

$$V_{overburden} = \frac{\pi}{4}(D_S{}^2 - D_O{}^2)(H_W)$$

D_S = Bottom slab diameter = **10** ft
D_O = Outside diameter = **8** ft
H_W = Height of wetwell walls = **18.7** ft
$V_{overburden}$ = Volume of the overburden soil = **528.71** ft^3

$$F_{D(overburden)} = (\rho_{soil})(V_{overburden})$$

ρ_{soil} = Density of soil = **100** lb/ft^3
$V_{overburden}$ = Volume of the overburden soil = **528.71** ft^3
$F_{D(overburden)}$ = Downward force of overburden soil = **52,871.45** lb

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Thomas & Hutton
Pump Station Design

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Date: 9/30/2021
Revised:
By: VND

Total Downward Force (F_D)

$$F_D = F_{D(walls)} + F_{D(slab)} + F_{D(overburden)} = \textbf{126,335} \text{ lb}$$

Buoyant Force (F_B)

Total Volume:

$$V_D = V_{wetwell} + V_{bottomslab}$$

$V_{wetwell}$ = Volume of wetwell

$$V_{wetwell} = \frac{\pi}{4}\left(D_O^{\,2}\right)\left(H_W\right) = \textbf{939.94} \text{ ft}^3$$

$V_{bottom\ slab}$ = Volume of bottom slab = **78.54** ft^3

V_D = Total displaced volume = **1,018.47** ft^3

Buoyant Force:

$$F_B = \left(V_D\right)\left(\rho_{water}\right)$$

V_D = Total displaced volume = **1,018.47** ft^3

ρ_{water} = Density of water = **62.4** lb/ft^3

F_B = Buoyancy Force = 63,552.80 lb

Factor of Safety (FOS)

$$FOS = \frac{F_D}{F_B} = \textbf{1.99}$$

Since the FOS is greater than 1.0 the wet well will not float under height groundwater conditions.

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SECTION 2 – SELECTED PUMP STATIOI PERFORMANCE CURVE AND PUMP DIMENSION

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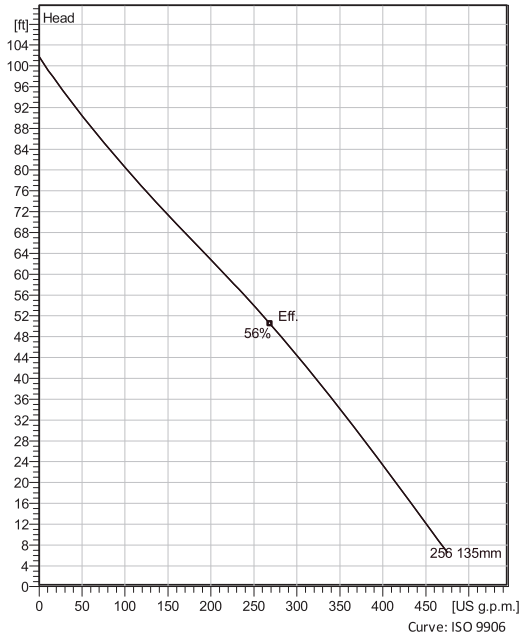
NP 3102 SH 3~ Adaptive 256

Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Modular based design with high adaptation grade.

FLYGT a xylem brand

Technical specification

Curves according to: Water ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Curve: ISO 9906

Configuration

Motor number
N3102.160 18-10-2AL-W 6.5hp

Installation type
P - Semi permanent, Wet

Impeller diameter
135 mm

Discharge diameter
1/8 inch

Pump information

Impeller diameter
135 mm

Discharge diameter
1/8 inch

Inlet diameter
80 mm

Maximum operating speed
3440 rpm

Number of blades
2

Max. fluid temperature
40 °C

Materials

Impeller
Grey cast iron

Stator housing material
Grey cast iron

Project		**Created by**	
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NP 3102 SH 3~ Adaptive 256

Technical specification

Motor - General

Motor number N3102.160 18-10-2AL-W 6.5hp	**Phases** 3~	**Rated speed** 3440 rpm	**Rated power** 6.5 hp
ATEX approved No	**Number of poles** 2	**Rated current** 16 A	**Stator variant** 12
Frequency 60 Hz	**Rated voltage** 230 V	**Insulation class** H	**Type of Duty** S1
Version code 160			

Motor - Technical

Power factor - 1/1 Load 0.94	**Motor efficiency - 1/1 Load** 78.9 %	**Total moment of inertia** 0.349 lb ft²	**Starts per hour max.** 30
Power factor - 3/4 Load 0.94	**Motor efficiency - 3/4 Load** 80.5 %	**Starting current, direct starting** 112 A	
Power factor - 1/2 Load 0.91	**Motor efficiency - 1/2 Load** 79.6 %	**Starting current, star-delta** 37.3 A	

Project		**Created by**			
Block	0	**Created on**	9/29/2021	**Last update**	9/29/2021

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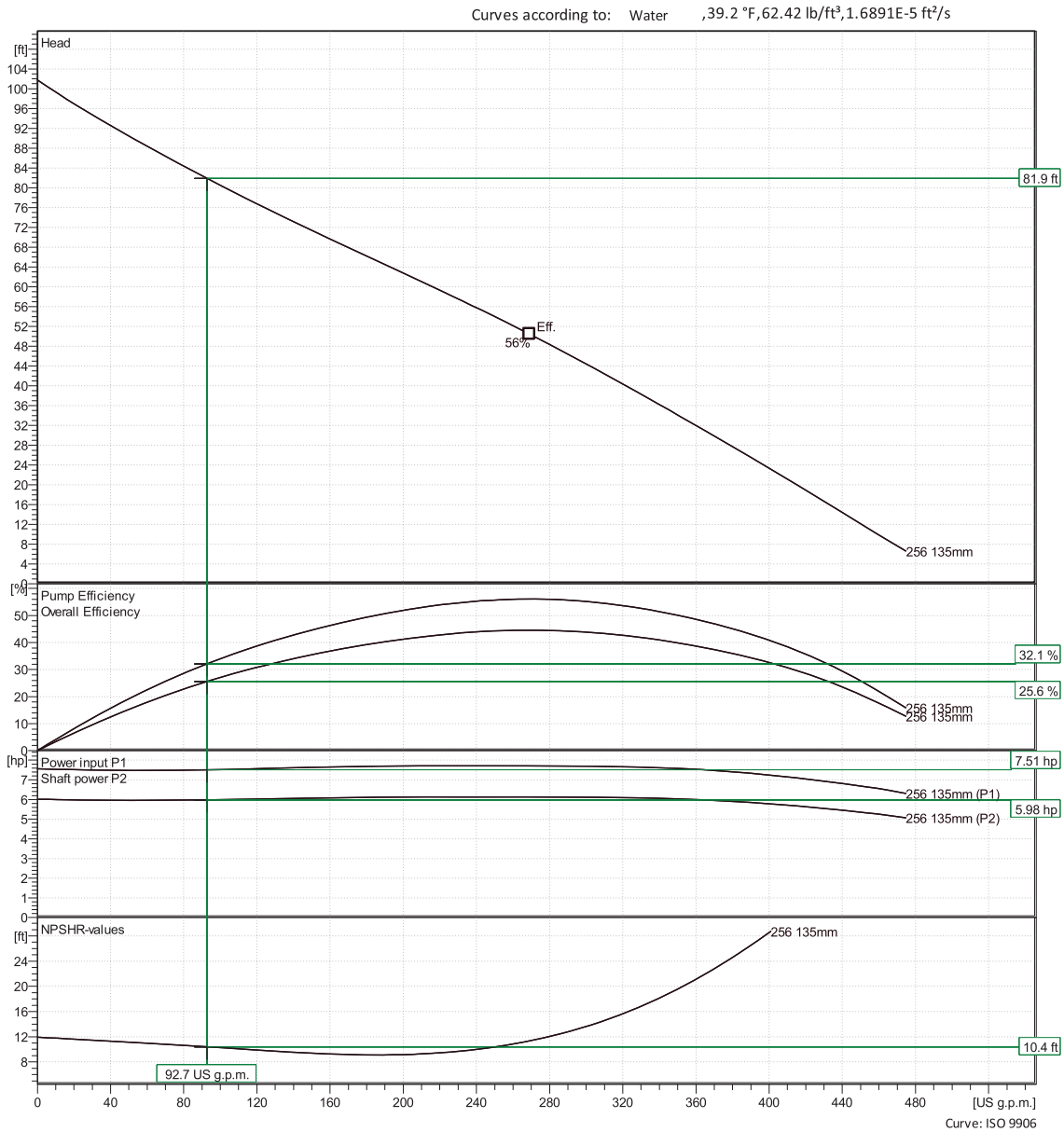
NP 3102 SH 3~ Adaptive 256

Performance curve

Duty point

Flow	Head
92.7 US g.p.m.	81.9 ft



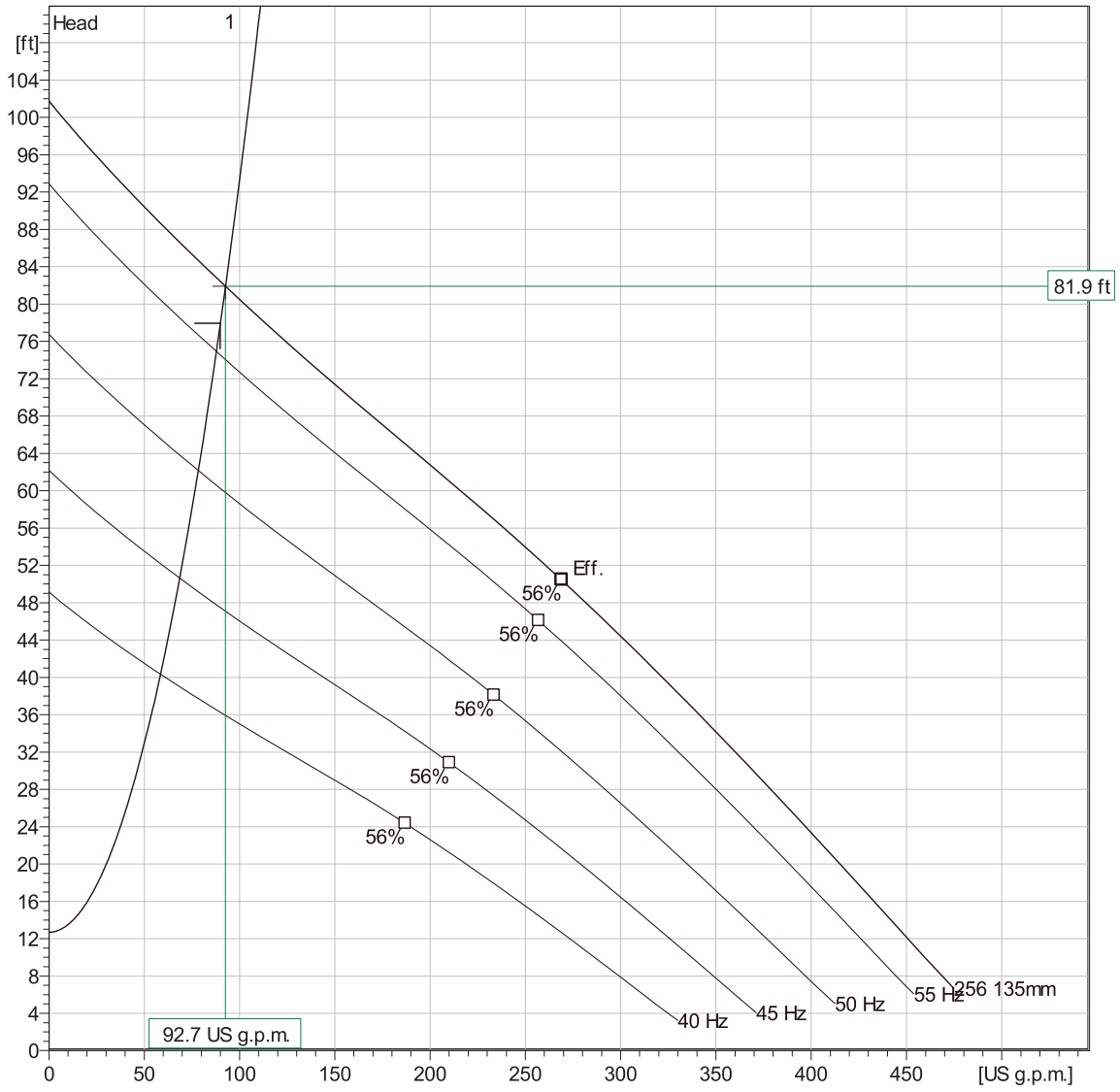
Project		**Created by**			
Block	0	**Created on**	9/29/2021	**Last update**	9/29/2021

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (2578 : Site Plan Review Application Parkside at

NP 3102 SH 3~ Adaptive 256

Duty Analysis

Curves according to: Water ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	92.7 US g.p.m	81.9 ft	5.98 hp	92.7 US g.p.m	81.9 ft	5.98 hp	32.1 %	1010 kWh/US M	10.4 ft

Project		Created by			
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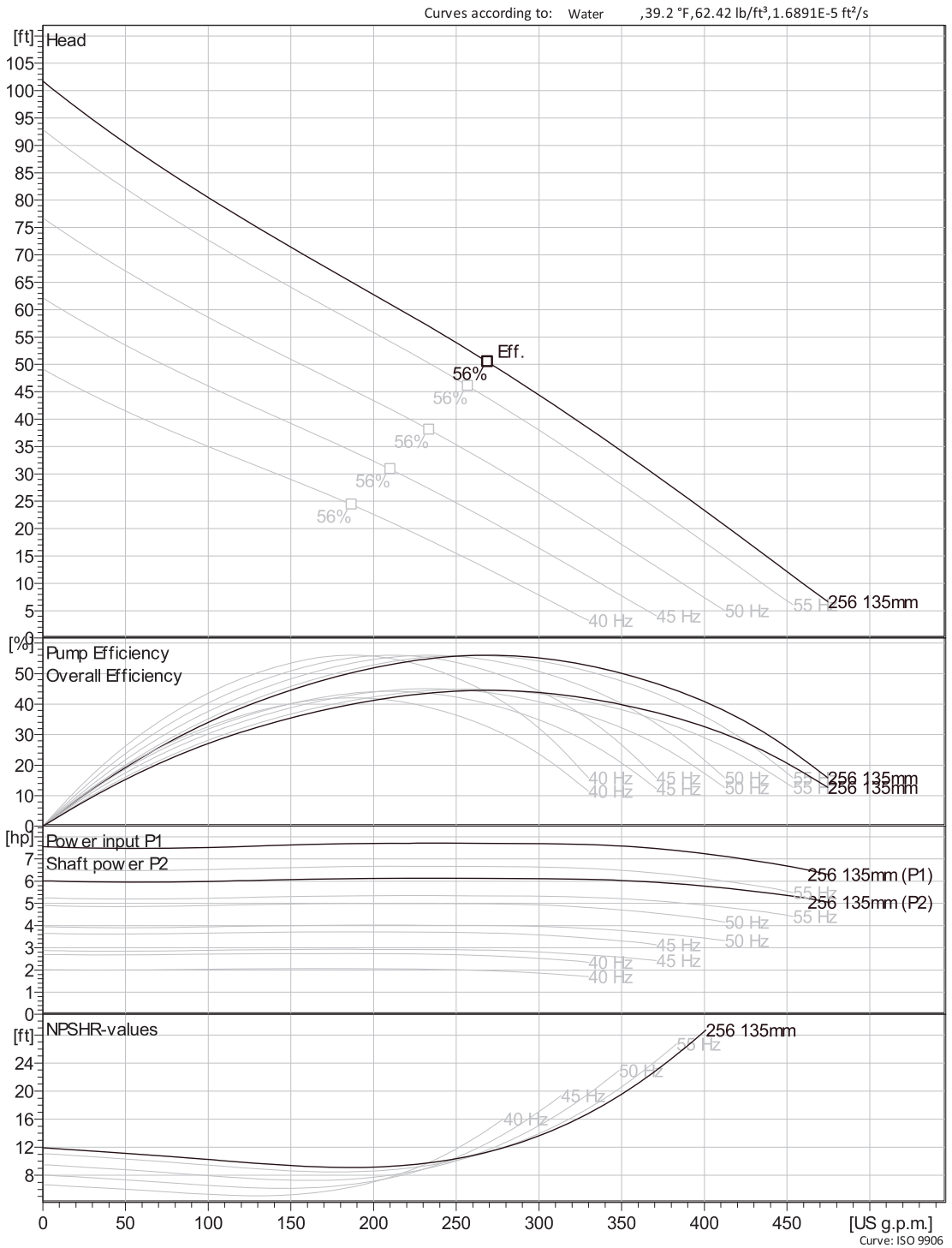
VFD Curve



Project		**Created by**			
Block	0	**Created on**	9/29/2021	**Last update**	9/29/2021

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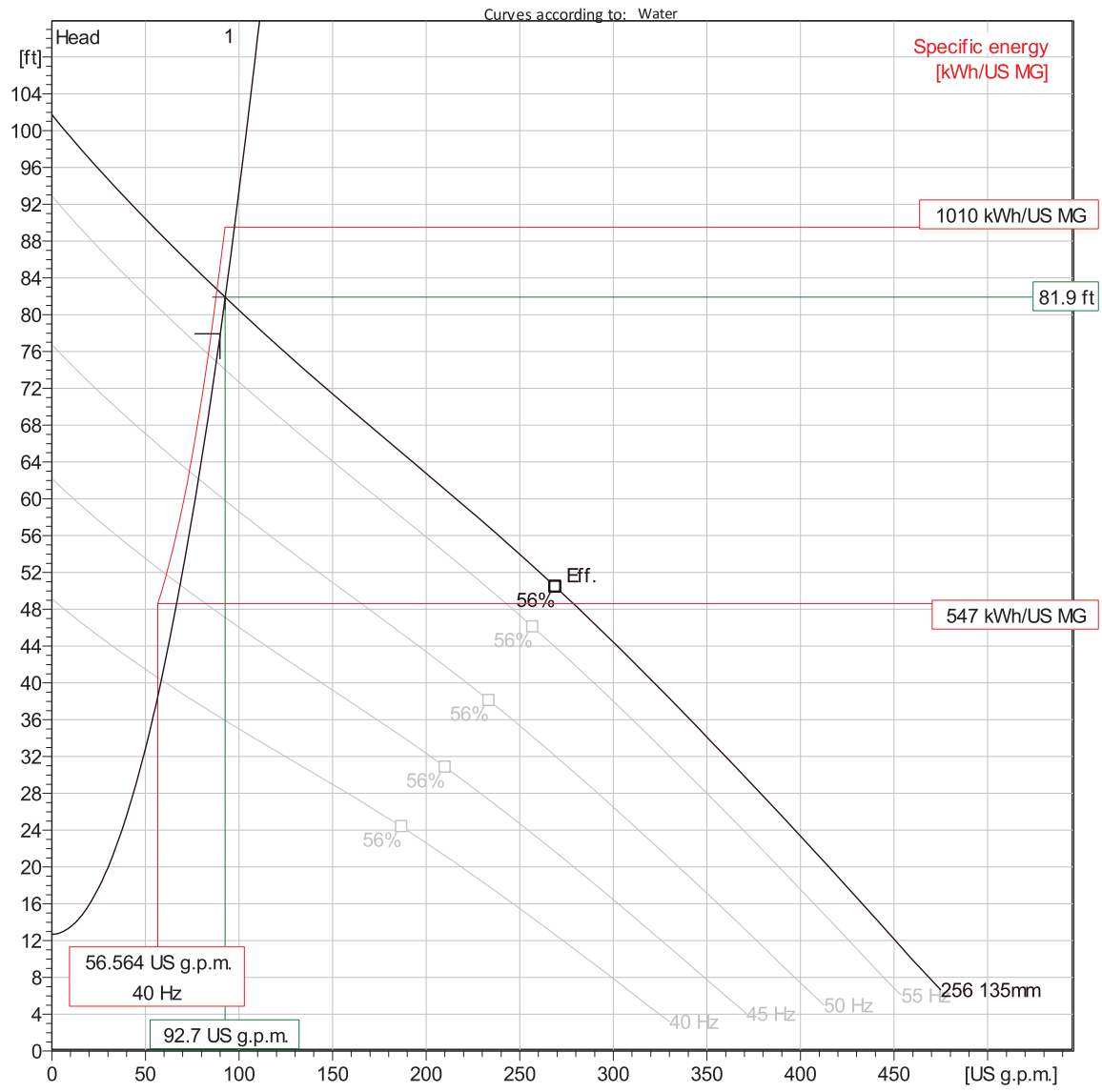
VFD Analysis



Operating characteristics

Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	60 Hz	92.7 US g.p.m	81.9 ft	5.98 hp	92.7 US g.p.m	81.9 ft	5.98 hp	32.1 %	1010 kWh/US M	10.4 ft
1	55 Hz	85.3 US g.p.m	71.4 ft	4.84 hp	85.3 US g.p.m	71.4 ft	4.84 hp	31.8 %	879 kWh/US M	9.31 ft
1	50 Hz	76 US g.p.m.	59.2 ft	3.64 hp	76 US g.p.m.	59.2 ft	3.64 hp	31.3 %	740 kWh/US M	8.02 ft
1	45 Hz	66.5 US g.p.m	48.3 ft	2.65 hp	66.5 US g.p.m	48.3 ft	2.65 hp	30.6 %	630 kWh/US M	6.81 ft
1	40 Hz	56.6 US g.p.m	38.5 ft	1.86 hp	56.6 US g.p.m	38.5 ft	1.86 hp	29.6 %	547 kWh/US M	5.67 ft

Project		**Created by**			
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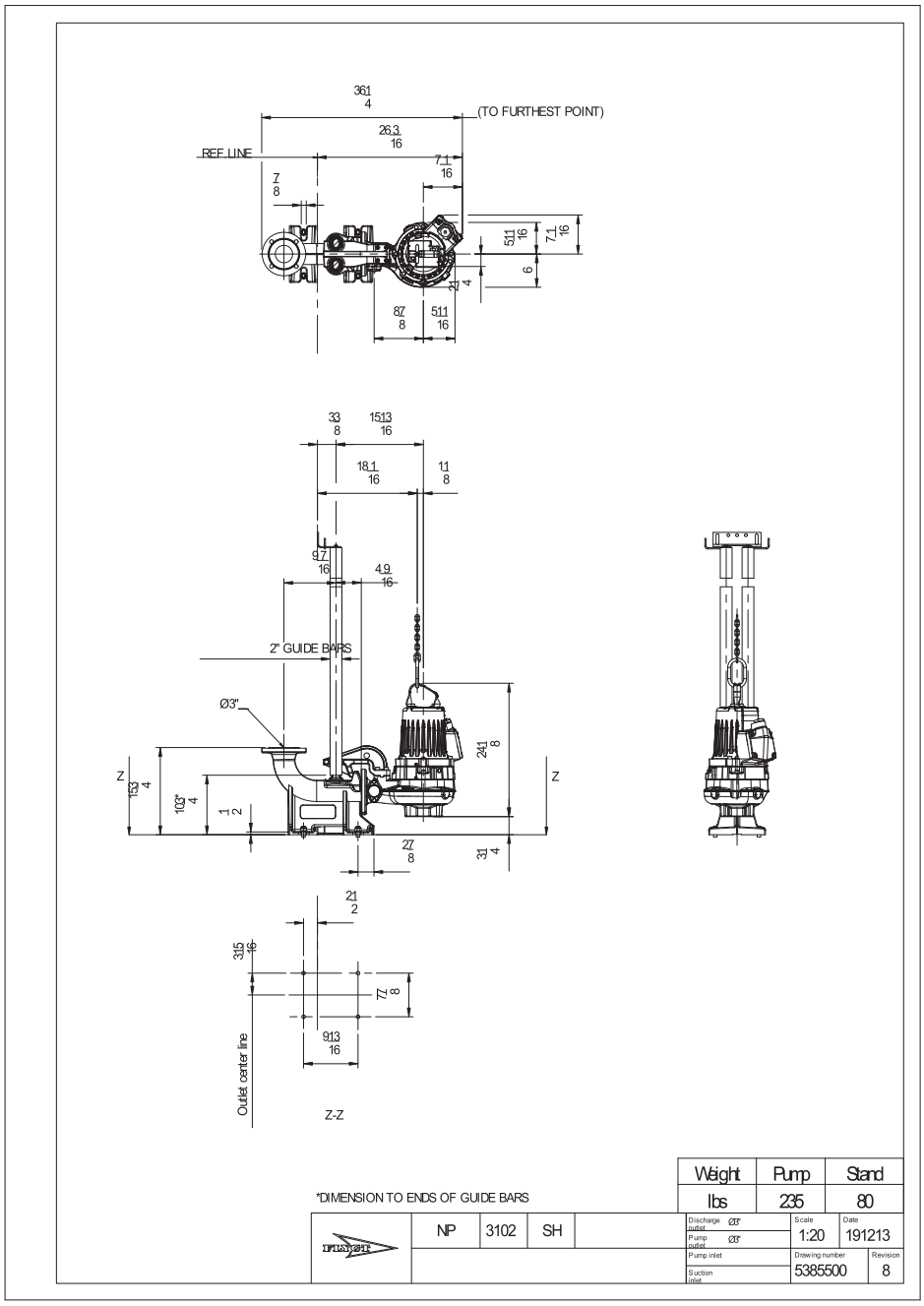
Dimensional drawing



Project		**Created by**	
Block	0	**Created on**	9/29/2021 **Last update** 9/29/2021

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SECTION 3 – PUMP STATION SERVICE AREA EXHIBI

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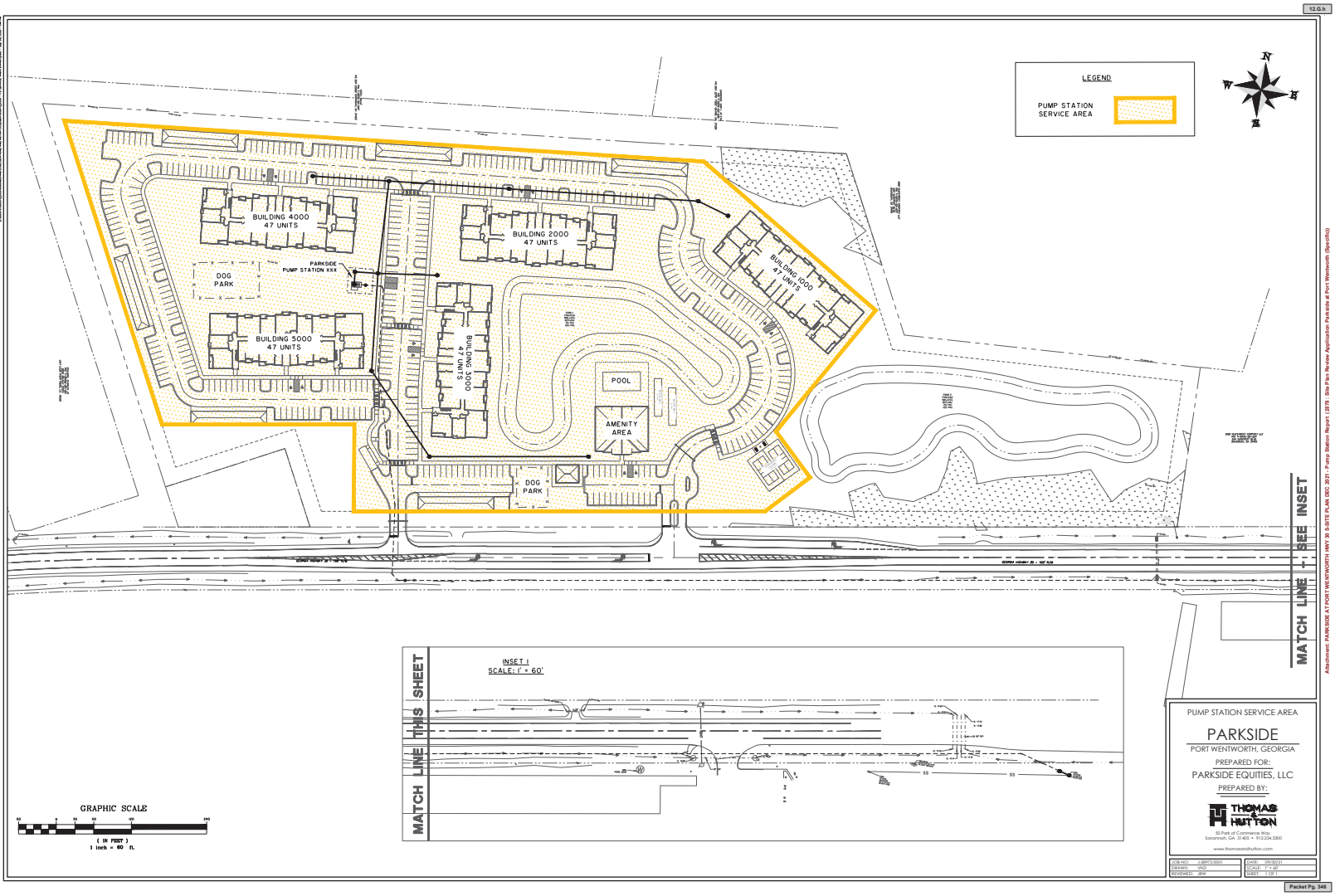

PUMP STATION SERVICE AREA

PARKSIDE

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

THOMAS & HUTTON
30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

JOB NO:	J-38972.0001
DRAWN:	MGD
REVIEWED:	JBW
DATE:	09/30/21
SCALE:	1" = 60'
SHEET	1 OF 1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Pump Station Report (3578 : Site Plan Review Application Parkside at Port Wentworth (Specific))

STORMWATER MANAGEMENT REPORT FOR:

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, GEORGIA

PREPARED FOR:
PARKSIDE EQUITIES, LLC

J – 28972.0001

OCTOBER 2021

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

Prepared by:

THOMAS & HUTTON

www.thomasandhutton.com

STORMWATER MANAGEMENT REPORT
Parkside at Port Wentworth

Project:	Parkside at Port Wentworth
T&H Job Number:	J–28972.0001
Location:	Port Wentworth, Georgia
Date Prepared:	October 2021

Owner:	Parkside Equities, LLC
Address:	9040 Roswell Rd, Suite 120
	Atlanta, GA 30350
Phone:	(404) 574 - 5914

Engineer:	Thomas & Hutton
Address:	50 Park of Commerce Way
	Savannah, Georgia 31405
Phone:	(912) 234 - 5300

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

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Section 9 – Pre–Development Conditions ..... Page 7

Section 10 – Tail water Conditions ..... Page 7

Section 11 – Coastal Stormwater Supplement (CSS) ..... Page 7

Section 12 – Post-Development Conditions ..... Page 8

Section 13 – Conclusions ..... Page 8

APPENDICES

Location Map ..... Map

Flood Zone Map ..... Map

Pre–Development SSA Model Diagram, Input, & Results ..... Appendix A

Post–Development SSA Model Diagram, Input, & Results ..... Appendix B

CN and Tc Calculations ..... Appendix C

CSS Exhibit and Calculations ..... Appendix D

Extended Detention ..... Appendix E

Pipe Sizing Calculations ..... Appendix F

The following can be found in pockets at the end of this report:

Pre-Development Basins Exhibit ..... 24" x 36" Exhibit

Post-Development Basins Exhibit ..... 24" x 36" Exhibit

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

SECTION 1 – SUMMARY OF RESULTS
Parkside at Port Wentworth

TABLE 1
Summary of Results – Peak Runoff (Site Only)

Condition	Peak Runoff (cfs)					
	2–yr	***5–yr***	***10–yr***	***25–yr***	***50–yr***	***100-yr***
Pre–development (Pre-Out-01)	24.68	35.53	45.62	74.25	61.09	87.66
Post–development (Post-Out-01)	19.11	26.31	32.83	41.80	50.52	61.06

TABLE 2
Summary of Results – Peak Pond Stages

Basin/Pond	**NWL (ft)**	**TOB (ft)**	**Peak Pond Stage (ft)**					
			2–yr	***5-yr***	***10–yr***	***25–yr***	***50–yr***	***100-yr***
Pond-01	20.1	23.6	20.92	21.17	21.39	21.72	21.94	22.20
Pond-02	20.1	23.6	20.92	21.17	21.40	21.72	21.92	22.08

In Table 1, the pre-development flows shown for each storm event are the sums of the flows from outfalls Out-01, Out-02, and Out-03, as depicted in the Pre-Development Basin Exhibit. Similarly, the post-development flows also shown in Table 1 are the sums of the flows from outfall Out-01, Out-02, and Out-03 as depicted in the Post-Development Basin Exhibit.

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SECTION 2 – PROJECT NARRATIVE

Parkside at Port Wentworth is a a multi-family development within the city limits of Port Wentworth. The site is bounded to the north by undeveloped land, to the east by undeveloped land with a wetland, to the west by undeveloped land, and to the south by HWY 30 and a mix of residential and undeveloped land. The development will consist of 235 dwelling units, amenity area with pool, stormwater ponds, drainage pipes, water, gravity sewers, and a pump station.

No wetland impacts are proposed as part of this project. Water, sewer and storm infrastructure necessary to serve the project will be included and integrated in to the existing infrastructure in this development.

Existing conditions consist primarily of dense woods and gentle swales running through the site. Elevations on the tract range from approximately 19.0 to 28.0 feet (NAVD88). The existing soil types consist of hydrologic soil types B/D and C/D. The existing drainage system is predominantly the silviculture ditches that exist within the site. These ditches help discharge through the culvert pipes running under GA Hwy 30. The project area lies in Zone X, Area of Minimal Flood Hazard, as shown on FEMA FIRM map 13051C0030G, dated August 16, 2018. Permanent seeding will provide a groundcover to stabilize the area after completion.

This stormwater management report uses Storm and Sanitary Analysis (SSA) computer program developed by AutoCAD to analyze post-development flows for Parkside at Port Wentworth and adjacent properties. The post-development section of this report compares the post-development conditions of the proposed areas with the pre-development conditions. Proposed stormwater ponds and proposed drainage infrastructure will be constructed as part of the project to serve as permanent stormwater BMP which will provide the required storm water attenuation.

SECTION 3 – PURPOSE

- To define the limits of the drainage basin or basins that contain this project.
- To define the tailwater conditions for the project.
- To document that major drainage infrastructure such as road crossings, drainage connectors, ponds, and outfalls are adequate for all existing, proposed, and future development within the drainage basin, and/or that infrastructure construction can be phased to accommodate future development.
- To document compliance with regulatory requirements of the State of Georgia and the City of Port Wentworth summarized as follows:

  Georgia EPD

  - Sediment shall be prevented from leaving the site during construction.

  City of Port Wentworth

  - Post-Development peak runoff rates shall be detained for 2, 10, 25, and 50 year storms.
  - Peak stages in ponds shall be below the minimum Finished Floor Elevations.
  - Study entire drainage basin at a buildout condition, including areas upstream and downstream of the current project.
  - Drainage culverts shall be sized to accommodate runoff from the 25-year storm.

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SECTION 4 – PROPOSED DRAINAGE SYSTEM

The components of the proposed system are roads, swales, pipes/culverts, ponds/lakes/lagoons and outfalls. Roads, and in some cases rear yard swales, provide positive drainage from lots. A combination system of pipes, weirs and lagoons provides conveyance of stormwater runoff throughout the project and the wetlands. Proposed stormwater ponds (Pond 1 and Pond 2) will interconnect with each other to detain excessive runoff. A spillway is proposed to provide the necessary detention of runoff and this spillway will discharge through an adjacent wetland leading to existing culverts under GA Hwy 30.

SECTION 5 – STORMWATER QUANTITY METHODOLOGY

The existing and proposed conditions will be analyzed using the Storm and Sanitary Analysis (SSA) computer program developed by AutoCAD. Please see appendices A and B for model input and results for the pre-development and post-development models, respectively. SSA is used to model rainfall and stormwater runoff and to perform hydraulic routing through the storm drainage system. The SSA program is a FEMA approved model that has the ability to analyze complex interconnected drainage systems dynamically over extended time periods.

The hydrologic input data consists of information for each drainage basin, or subwatershed, within the project. Input variables include runoff curve number, rainfall distribution pattern, hydrograph peaking factor, area of each drainage basin, and time of concentration (see below section "Hydrology" for specifics on the values of these variables that were used in this model). The SSA program generates runoff hydrographs for each subwatershed based on the user–specified variables. Hydrographs are generated by SSA using the SCS Unit Hydrograph Method.

The model hydraulic input data consists of a system of nodes and links. Nodes represent locations where flows enter or exit the system, pipe or channel characteristics change, or where stage/storage/time relationships are provided. Links represent traditional types of hydraulic conveyance such as pipes, channels, drop structures, weirs, etc. The sizes, inverts, lengths, and Manning n values for all pipes connecting the lagoons are input into the model. In addition to pipe information, all lagoon and detention area stage–storage information and the respective outfall structure information is input into the model. The node and link conditions are analyzed within the model for a given storm, and flow conditions are determined.

The basic equation used by SSA to route flows through the system is:

$\Delta s = (Q_{in} - Q_{out})\ \Delta t$

Where:

Δs	=	Change in storage for time step
Q_{in}	=	Flow into a node at time "t"
Q_{out}	=	Flow out of a node at time "t"
Δt	=	Length of time step; user defined range from 1.0 sec to 0.1 sec.

Hydrographs for each drainage area are merged within the SSA program, and the hydrologic results are then combined with the hydraulic information to model the hydraulic interactions of the entire drainage system. The results include detention area discharge rates and stage/storage information during the design storm.

For the design of the storm drainage system, a warning stage elevation is set for each detention area and structure to assure no stormwater ponding. In addition, the ultimate discharge rate from the system cannot exceed the pre–developed runoff rate. Knowing these two factors, the drainage system is designed by trial and error.

SECTION 6 – HYDROLOGY

- SCS Unit Hydrograph Method is used.
- Amount of rainfall for each storm frequency is determined based on NOAA Atlas 14 Point Precipitation Frequency Estimates at the project site in Port Wentworth, GA. The following design storms are used in the model simulations:

TABLE 3
Rainfall Amounts

Storm Event	Duration	Rainfall (inches)
2–year	24–hour Design Storm	4.47
5-year	24–hour Design Storm	5.68
10–year	24–hour Design Storm	6.78
25–year	24–hour Design Storm	8.45
50–year	24–hour Design Storm	9.86
100–year	24–hour Design Storm	11.4

- SCS Type III Statistical Rainfall Distribution is used. This distribution pattern is determined by the Soil Conservation Service comparing regional rain–gage data.
- A 323 Hydrograph Peaking Factor is used instead of the Typical SCS 484 Peaking Factor. The 323 Factor is based on statistical analysis of actual rainfall and runoff data from the Southeastern United States, and is typical for coastal areas.

SECTION 7 – PRE–DEVELOPMENT RUNOFF CALCULATIONS

Pre–development peak flow rates for each design storm are calculated by the SSA program. The pre–development drainage basins are shown in an attached exhibit at the end of this report.

7.1 Curve Numbers

Curve numbers are generated according to procedures set forth in SCS TR–55. The composite curve numbers for each drainage basin are calculated using soils information from the SCS Soil Survey of Bryan and Chatham Counties, Georgia. Pre–Development Curve Numbers were weighted based on the type and amount of soil within each basin.

7.2 Time of Concentration

Times of concentration were calculated according to procedures set forth in SCS Hydrology Technical Note No. N4 [as referenced in TR–55]. The travel times (T_t) for overland flow, shallow concentrated flow, and channel flow are added together for the drainage basin to get the time of concentration T_c.

- Overland Flow
  The equation for overland flow travel time is as follows:

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$T_t = \frac{0.007\,(nL)^{0.8}}{P_2^{0.5}\,S^{0.4}}$ Where: n = Manning's friction factor
L = slope length (ft)
S = Slope (ft/ft)
P_2 = 2-yr, 24–hour precipitation (inches)

The travel time as calculated in the above equation is in hours (multiply by 60 minutes per hour to convert to minutes).

- Shallow Concentrated Flow
  The equation for shallow concentrated flow travel time is as follows:

  $T_t = \frac{L}{60v}$ (min) Where: L = length (ft)
  v = velocity (ft/sec)

- Channel and Pipe Flow
  The equation for channel flow travel time is as follows:

  $T_t = \frac{L}{60v}$ (min) Where: L = length of channel (ft)
  v = velocity (ft/sec)

  The velocity is determined using Manning's equation:
  $v = (1.49/n)r^{2/3}S^{1/2}$ Where: r = hydraulic radius (ft) = A_x/P
  A_x = cross–sectional area (sf)
  P = wetted perimeter (ft)
  S = slope (ft/ft)

  Travel times for each sub–basin were then added together to determine the time of concentration for each pre–developed drainage area.

TABLE 5
Pre–Development Conditions Summary

Basin Name	Area (ac)	CN	Tc (min)
PRE-DA1	12.66	79.0	51.23
PRE-DA2	1.13	81.34	25.2
PRE-DA3	3.76	81.6	31.9
PRE-DA4	4.59	79.0	33.8

SECTION 8 – POST–DEVELOPMENT RUNOFF CALCULATIONS

The components of the proposed system are roads, swales, pipes/culverts, ponds/lakes/lagoons and an outfall. Roads, and in some cases rear yard swales, provide positive drainage from lots. A combination system of pipes, weirs and lagoons provides conveyance of stormwater runoff throughout the project and the wetlands. Proposed stormwater ponds (Pond 1 and Pond 2) will interconnect with each other other to detain excessive runoff. A spillway is proposed to provide the necessary detention of runoff and this spillway will discharge to a wetland, leading to existing culverts under GA Hwy 30.

8.1 Curve Numbers

Curve numbers are generated according to procedures set forth in SCS TR–55. The composite curve numbers for each drainage basin are calculated using soils information from the SCS Soil Survey of Bryan and Chatham Counties, Georgia.

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Post–Development Curve Numbers were weighted based on the type and amount of soil within the basin and shown in the appendix.

8.2 Time of Concentration

Times of concentration for post–development are determinded according to the longest anticipated travel path within each basin. The travel times (T_t) for overland flow, shallow concentrated flow, and pipe flow are added together for each drainage basin to calculate the time of concentration T_c.

- Overland Flow

  The equation for overland flow travel time is as follows:

  $$T_t = \frac{0.007\,(nL)^{0.8}}{P_2^{0.5} S^{0.4}}$$

  Where: n = Manning's friction factor
  L = slope length (ft)
  S = Slope (ft/ft)
  P_2 = 24–hour precipitation (inches)
  For 2–year storm event

  The travel time as calculated in the above equation is in hours. Multiply the result by 60 minutes per hour to convert to minutes.

- Shallow Concentrated Flow

  The equation for shallow concentrated flow travel time is as follows:

  $$T_t = \frac{L}{60v} \text{ (min)}$$

  Where: L = length (ft)
  v = velocity (ft/sec)

  The velocity is determined using the TR–55 method.

- Pipe and Channel Flow

  The equation for channel flow travel time is as follows:

  $$T_t = \frac{L}{60v} \text{ (min.)}$$

  Where: L = length of channel (ft)
  v = velocity (ft/sec)

  Times of concentration for post–development are determined according to the longest anticipated travel path within each basin. Travel times are assumed to be as follows:

Description	Velocity
Pipe Flow	2 ft/sec

Travel times for each sub–basin were then added together to calculated time of concentration for each pre–developed drainage area.

TABLE 6
Post–Development Conditions Summary

Basin Name	Area (ac)	CN	Tc (min)
POST-DA-1	12.07	89.6	29.5
POST-DA-2	4.39	89.3	14.8
POST-DA-3	2.94	89.7	10.5

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POST-DA-4	0.57	86.3	11.9
POST-DA-5	2.2	85.5	30.6

The minimum time of concentration used for basins is six (6) minutes. Times of concentration are generated according to procedures set forth in SCS Technical Release 55.

The specific hydrology theory is described in the Soils Conservation Services National Handbook, Section 4, "Hydrology."

SECTION 9 – PRE-DEVELOPMENT CONDITIONS

Pre–development drainage basins are shown in an attached exhibit at the end of this report. Please see Summary of Results (Pre–Development vs. Post–Development Conditions) at the beginning of report in Table 1. The project area lies in Zone X, Area of Minimal Flood Hazard, as shown on FEMA FIRM map 13051C00350, dated August 16, 2018.

SECTION 10 – TAILWATER CONDITIONS

The tailwaters for our project were established in both the pre-development and post-development models for the 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year storms. In both stormwater models, all the runoff discharging to the wetlands downstream of the site was accounted for. This amount of stormwater runoff will allow for a normal depth condition to be assumed at the outfall. As a result, the tailwater conditions are automatically calculated within the stormwater models.

The tail water condition is the maximum stage in the receiving water which can be:

- Mean annual high tide for tidal areas
- Mean annual seasonal high water elevation
- Peak stage in receiving water (pond level, ditch water elevation, etc.)

SECTION 11 – COASTAL STORMWATER SUPPLEMENT (CSS)

The stormwater runoff volume generated by the first 1.2" of rainfall is called the runoff reduction storm event (RRv), in Section 4.4.1 of the latest edition of the CSS to the GSMM. The RRv shall be captured on-site. A stormwater management system is presumed to comply with these criteria if:

1. It includes green infrastructure practices that provide for the interception, evapotranspiration, infiltration or capture and reuse of stormwater runoff, that have been selected, designed, constructed and maintained in accordance with the information presented in the latest edition of the CSS to the GSMM and the LDM; and,

2. It is designed to provide the amount of stormwater runoff reduction specified in the latest edition of the CSS to the GSMM.

A combination of high groundwater, poor draining soils, and the nature of the curb-and-gutter parking design does not allow significant opportunity to effectively implement green infrastructure practices. In addition, some work is proposed within the right-of-way of GA Hwy 30, which has limited space. Section 4.4.2 of the latest edition of the CSS states that any runoff from the 1.2-inch

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rainfall event that cannot be reduced due to site constraints should be intercepted and treated by stormwater management practices to provide an 80% reduction in total suspended solids (TSS) and a reduction in the load of total nitrogen (TN) and bacteria loads to the maximum extent practical. By detaining the 1-year, 24-hour design storm event, which represents a rainfall event of 3.80 inches over 24 hours, to the pre-development peak runoff rate, it is presumed that the first 1.2 inches of runoff will also be detained for treatment (please see Appendix E for extended detention for the 1-yr storm). Based on section 4.25.3 of Volume 2 of the GSMM (2016 Edition), wet detention ponds are assumed to provide an 80% reduction in the TSS load, a 30% reduction in TN load, and a 70% reduction in fecal coliform load. Please see Appendix D for CSS Calculations and exhibit.

SECTION 12 – POST–DEVELOPMENT CONDITIONS

Post–development drainage basins are shown in an attached exhibit at the end of this report. See Appendices for post–development ICPR model input and results. See Summary of Results (Pre–Development vs. Post–Development Conditions) at the beginning of report in Table 1. The hydraulic grade line (peak stage elevation) for the ponds or lakes in the drainage system are shown in Table 2 at the beginning of the report.

SECTION 13 – CONCLUSIONS

The post-developed runoff is detained on site and is released at less than pre-developed rates. The stormwater system satisfies design requirements for Georgia EPD and The City of Port Wentworth. No adverse upstream or downstream impacts should occur to the existing stormwater system due to the proposed development.

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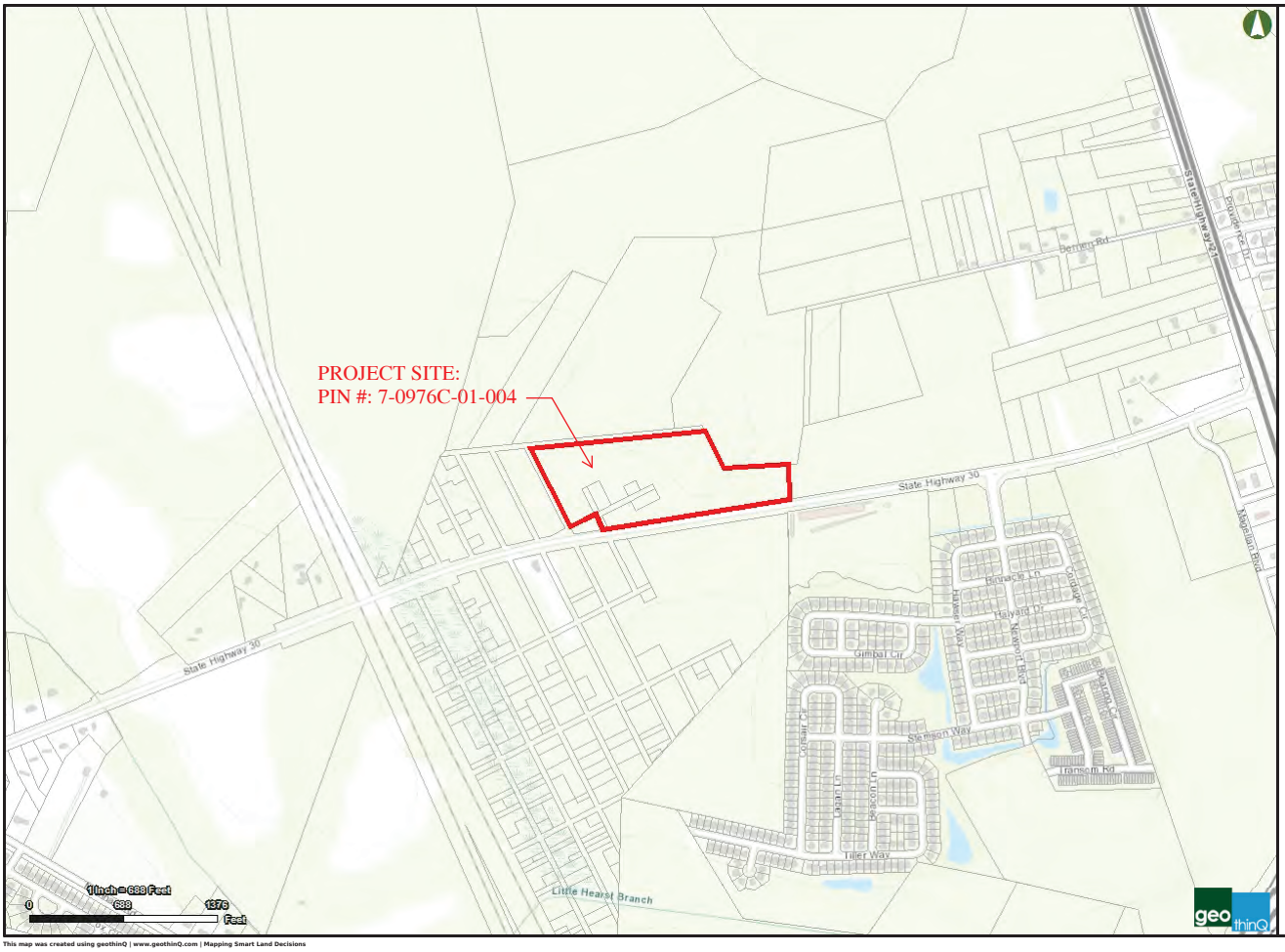

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PARKSIDE AT PORT WENTWORTH

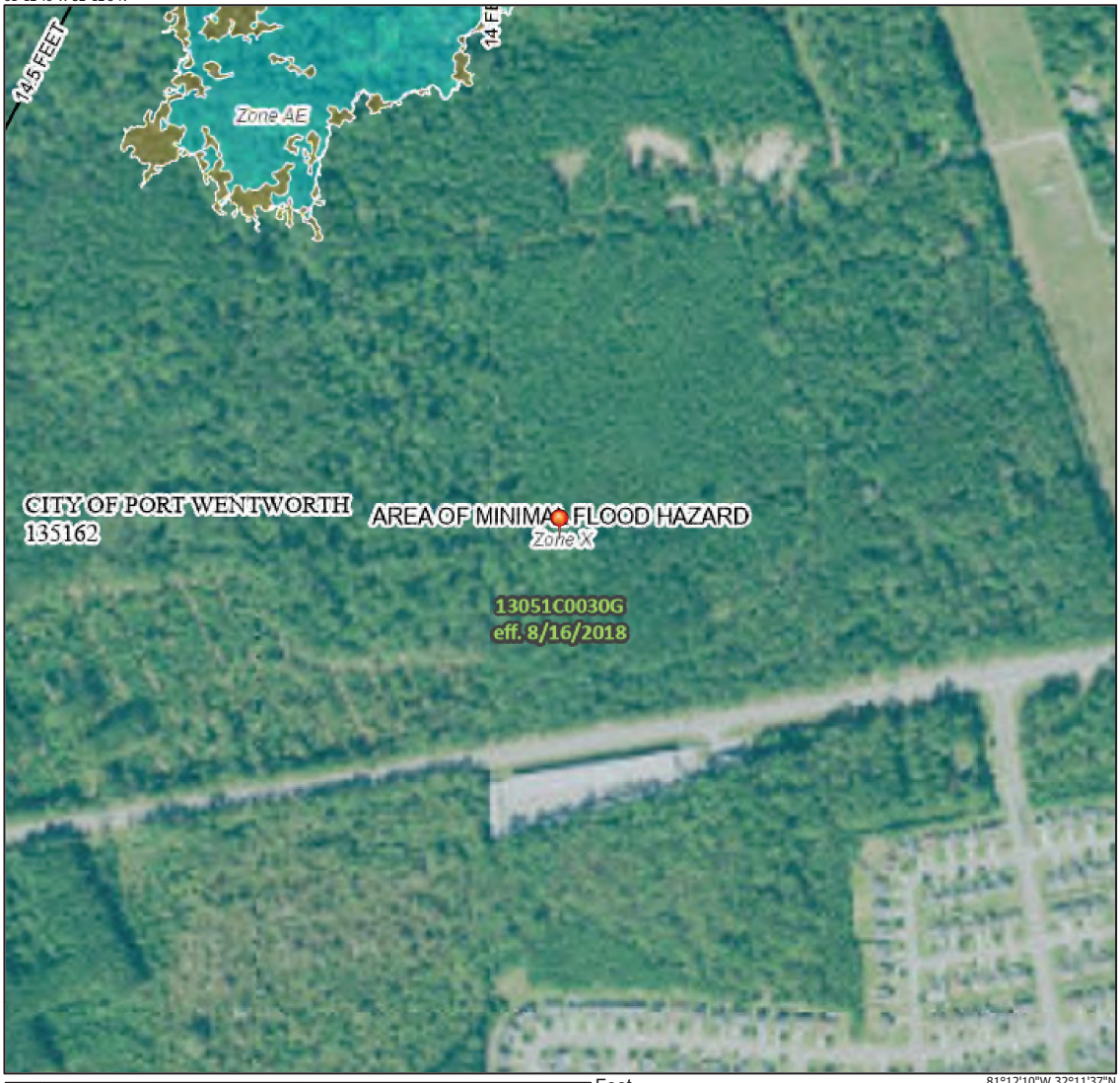
VICINITY MAP

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

National Flood Hazard Layer FIRMette

FEMA

81°12'48"W 32°12'8"N



81°12'10"W 32°11'37"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BF *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH,*
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazar of 1% annual chance flood with a depth less than one foot or with d areas of less than one square mil
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk du Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard *Zo*
  - Effective LOMRs
  - Area of Undetermined Flood Haza
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 Cross Sections with 1% Annual Ch
  - 17.5 Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

The pin displayed on the map is an appro point selected by the user and does not r an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This ma was exported on 7/23/2021 at 2:16 PM and does not reflect changes or amendments subsequent to this date an time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following r elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized area regulatory purposes.

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STORMWATER MANAGEMENT REPOR

PARKSIDE AT PORT WENTWORTI

APPENDIX A

PRE–DEVELOPMEN
SSA MODEL DIAGRAM, INPUT, & RESULT

J – 28972.000

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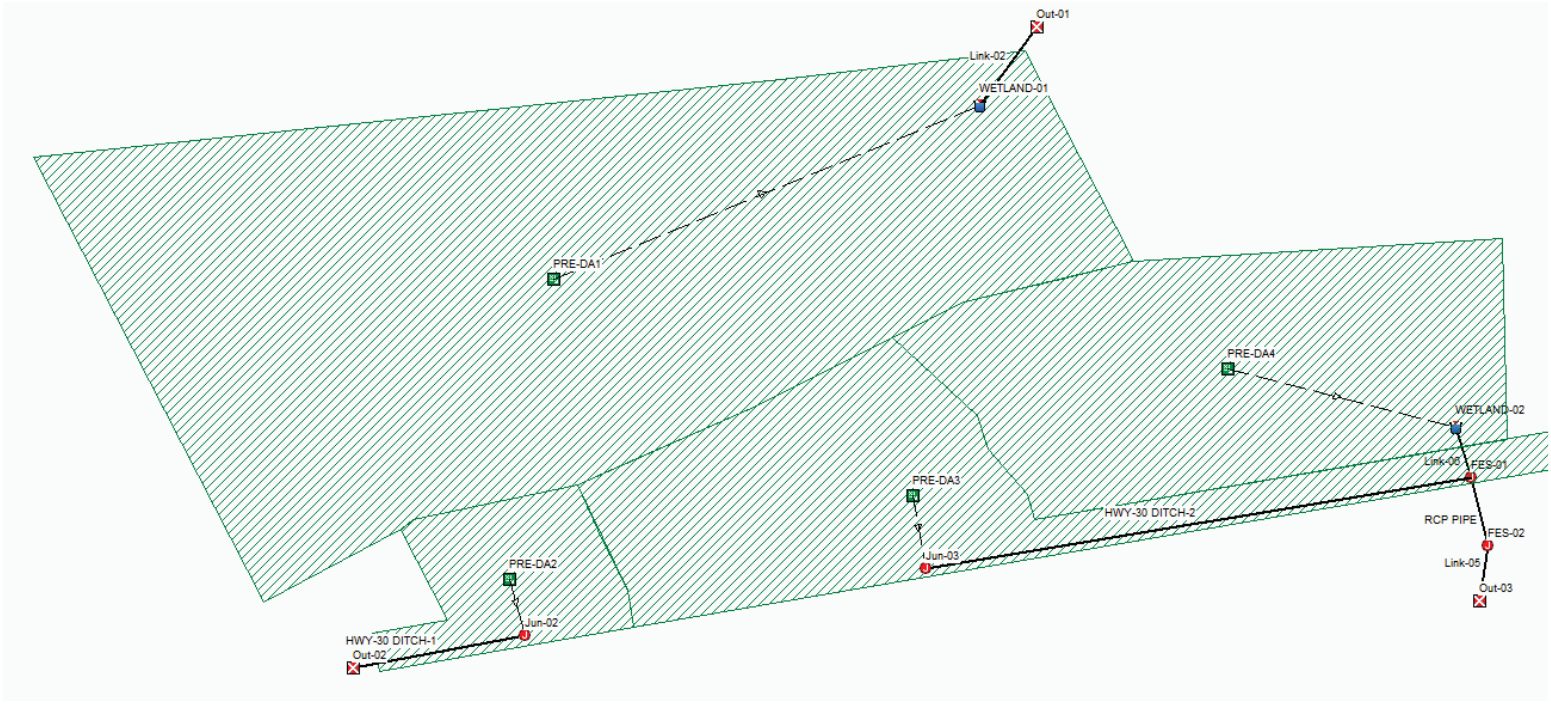
Pre-Development Model



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Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-002	Intensity	inches	Georgia	Chatham	2	4.47	SCS Type III 24-hr

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Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	4.47	2.35	29.76	12.21	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	4.47	2.55	2.88	1.76	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	4.47	2.57	9.67	5.24	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	4.47	2.35	10.79	5.66	0 00:33:47

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Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	10.79	20.59	0.00	9.02	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	10.76	19.93	0.00	9.57	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	1.76	23.86	0.00	1.14	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	5.24	22.59	0.00	2.11	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					12.18	19.03					
6	Out-02	Outfall	22.90					1.74	23.55					
7	Out-03	Outfall	19.40					10.76	19.83					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	12.19	19.33				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	5.63	21.13				0.00	0.00

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Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	10.76	17.54	0.61	5.42	0.71	0.35	0.00	Calculated
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	1.74	12.11	0.14	0.89	0.66	0.44	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	5.18	100.69	0.05	1.47	0.93	0.31	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	12.18	1794.80	0.01	3.68	0.33	0.03	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	10.76	1036.23	0.01	2.50	0.43	0.04	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	5.62	3863.33	0.00	1.01	0.56	0.06	0.00	

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Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

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Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	1.74	0 12:26	12.11	0.14	0.89	4.08	0.66	0.44	0.00		
2	HWY-30 DITCH-2	5.18	0 12:32	100.69	0.05	1.47	7.80	0.93	0.31	0.00		
3	Link-02	12.18	0 12:45	1794.80	0.01	3.68	0.05	0.33	0.03	0.00		
4	Link-05	10.76	0 12:35	1036.23	0.01	2.50	0.07	0.43	0.04	0.00		
5	Link-06	5.62	0 12:33	3863.33	0.00	1.01	0.17	0.56	0.06	0.00		

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Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

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Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	10.76	0 12:35	17.54	0.61	5.42	0.17	0.71	0.35	0.00		Calculated

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Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	12.19
Peak Lateral Inflow (cfs)	12.19
Peak Outflow (cfs)	12.18
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.33
Max HGL Depth Attained (ft)	0.33
Average HGL Elevation Attained (ft)	19.06
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:45
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	5.63
Peak Lateral Inflow (cfs)	5.63
Peak Outflow (cfs)	5.62
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.13
Max HGL Depth Attained (ft)	0.13
Average HGL Elevation Attained (ft)	21.02
Average HGL Depth Attained (ft)	0.02
Time of Max HGL Occurrence (days hh:mm)	0 12:33
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-005	Intensity	inches	Georgia	Chatham	5	5.68	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	5.68	3.40	42.98	17.70	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	5.68	3.63	4.10	2.50	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	5.68	3.65	13.73	7.43	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	5.68	3.40	15.58	8.19	0 00:33:47

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	15.47	20.80	0.00	8.81	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	15.41	20.04	0.00	9.46	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	2.49	23.97	0.00	1.03	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	7.42	22.73	0.00	1.97	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					17.64	19.12					
6	Out-02	Outfall	22.90					2.48	23.66					
7	Out-03	Outfall	19.40					15.41	19.94					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	17.65	19.42				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	8.17	21.16				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	15.41	17.54	0.88	5.94	0.86	0.43	0.00	Calculated
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	2.48	12.11	0.20	0.97	0.77	0.51	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	7.34	100.69	0.07	1.55	1.11	0.37	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	17.64	1794.80	0.01	4.25	0.42	0.04	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	15.41	1036.23	0.01	2.87	0.54	0.05	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	8.13	3863.33	0.00	1.21	0.67	0.07	0.00	

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	2.48	0 12:26	12.11	0.20	0.97	3.75	0.77	0.51	0.00		
2	HWY-30 DITCH-2	7.34	0 12:32	100.69	0.07	1.55	7.40	1.11	0.37	0.00		
3	Link-02	17.64	0 12:45	1794.80	0.01	4.25	0.04	0.42	0.04	0.00		
4	Link-05	15.41	0 12:35	1036.23	0.01	2.87	0.06	0.54	0.05	0.00		
5	Link-06	8.13	0 12:32	3863.33	0.00	1.21	0.14	0.67	0.07	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	15.41	0 12:34	17.54	0.88	5.94	0.15	0.86	0.43	0.00		Calculated

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	17.65
Peak Lateral Inflow (cfs)	17.65
Peak Outflow (cfs)	17.64
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.42
Max HGL Depth Attained (ft)	0.42
Average HGL Elevation Attained (ft)	19.07
Average HGL Depth Attained (ft)	0.07
Time of Max HGL Occurrence (days hh:mm)	0 12:45
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	8.17
Peak Lateral Inflow (cfs)	8.17
Peak Outflow (cfs)	8.13
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.16
Max HGL Depth Attained (ft)	0.16
Average HGL Elevation Attained (ft)	21.03
Average HGL Depth Attained (ft)	0.03
Time of Max HGL Occurrence (days hh:mm)	0 12:32
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-010	Intensity	inches	Georgia	Chatham	10	6.78	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	6.78	4.38	55.49	22.84	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	6.78	4.64	5.24	3.18	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	6.78	4.66	17.54	9.44	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	6.78	4.38	20.12	10.54	0 00:33:47

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	19.81	20.97	0.00	8.64	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	19.72	20.13	0.00	9.37	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	3.17	24.06	0.00	0.94	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	9.43	22.84	0.00	1.86	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					22.75	19.19					
6	Out-02	Outfall	22.90					3.15	23.75					
7	Out-03	Outfall	19.40					19.72	20.03					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	22.78	19.49				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	10.53	21.19				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	19.72	17.54	1.12	6.31	1.00	0.50	0.00	> CAPACITY
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	3.15	12.11	0.26	1.04	0.85	0.57	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	9.35	100.69	0.09	1.59	1.25	0.42	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	22.75	1794.80	0.01	4.68	0.49	0.05	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	19.72	1036.23	0.02	3.14	0.63	0.06	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	10.47	3863.33	0.00	1.35	0.78	0.08	0.00	

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	3.15	0 12:25	12.11	0.26	1.04	3.50	0.85	0.57	0.00		
2	HWY-30 DITCH-2	9.35	0 12:31	100.69	0.09	1.59	7.21	1.25	0.42	0.00		
3	Link-02	22.75	0 12:43	1794.80	0.01	4.68	0.04	0.49	0.05	0.00		
4	Link-05	19.72	0 12:34	1036.23	0.02	3.14	0.05	0.63	0.06	0.00		
5	Link-06	10.47	0 12:32	3863.33	0.00	1.35	0.12	0.78	0.08	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	19.72	0 12:34	17.54	1.12	6.31	0.15	1.00	0.50	0.00		> CAPACITY

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	22.78
Peak Lateral Inflow (cfs)	22.78
Peak Outflow (cfs)	22.75
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.49
Max HGL Depth Attained (ft)	0.49
Average HGL Elevation Attained (ft)	19.09
Average HGL Depth Attained (ft)	0.09
Time of Max HGL Occurrence (days hh:mm)	0 12:43
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	10.53
Peak Lateral Inflow (cfs)	10.53
Peak Outflow (cfs)	10.47
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.19
Max HGL Depth Attained (ft)	0.19
Average HGL Elevation Attained (ft)	21.03
Average HGL Depth Attained (ft)	0.03
Time of Max HGL Occurrence (days hh:mm)	0 12:32
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-025	Intensity	inches	Georgia	Chatham	25	8.45	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	8.45	5.93	75.05	30.72	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	8.45	6.21	7.02	4.21	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	8.45	6.24	23.45	12.50	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	8.45	5.93	27.21	14.17	0 00:33:47

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	26.45	21.24	0.00	8.37	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	26.29	20.25	0.00	9.25	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	4.21	24.17	0.00	0.83	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	12.49	22.99	0.00	1.71	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					30.61	19.29					
6	Out-02	Outfall	22.90					4.19	23.86					
7	Out-03	Outfall	19.40					26.29	20.15					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	30.69	19.59				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	14.15	21.23				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	26.29	17.54	1.50	6.75	1.19	0.59	0.00	> CAPACITY
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	4.19	12.11	0.35	1.11	0.97	0.64	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	12.39	100.69	0.12	1.64	1.45	0.48	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	30.61	1794.80	0.02	5.23	0.59	0.06	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	26.29	1036.23	0.03	3.50	0.75	0.08	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	14.06	3863.33	0.00	1.53	0.93	0.09	0.00	

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	4.19	0 12:25	12.11	0.35	1.11	3.27	0.97	0.64	0.00		
2	HWY-30 DITCH-2	12.39	0 12:31	100.69	0.12	1.64	6.99	1.45	0.48	0.00		
3	Link-02	30.61	0 12:42	1794.80	0.02	5.23	0.03	0.59	0.06	0.00		
4	Link-05	26.29	0 12:34	1036.23	0.03	3.50	0.05	0.75	0.08	0.00		
5	Link-06	14.06	0 12:32	3863.33	0.00	1.53	0.11	0.93	0.09	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	26.29	0 12:34	17.54	1.50	6.75	0.14	1.19	0.59	0.00		> CAPACITY

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	30.69
Peak Lateral Inflow (cfs)	30.69
Peak Outflow (cfs)	30.61
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.59
Max HGL Depth Attained (ft)	0.59
Average HGL Elevation Attained (ft)	19.11
Average HGL Depth Attained (ft)	0.11
Time of Max HGL Occurrence (days hh:mm)	0 12:42
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	14.15
Peak Lateral Inflow (cfs)	14.15
Peak Outflow (cfs)	14.06
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.23
Max HGL Depth Attained (ft)	0.23
Average HGL Elevation Attained (ft)	21.04
Average HGL Depth Attained (ft)	0.04
Time of Max HGL Occurrence (days hh:mm)	0 12:32
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-050	Intensity	inches	Georgia	Chatham	50	9.86	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	9.86	7.26	91.91	37.45	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	9.86	7.56	8.54	5.09	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	9.86	7.59	28.53	15.11	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	9.86	7.26	33.32	17.24	0 00:33:47

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	45.37	21.52	0.00	8.09	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	32.38	20.36	0.00	9.14	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	5.08	24.25	0.00	0.75	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	15.08	23.09	0.00	1.61	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					37.29	19.36					
6	Out-02	Outfall	22.90					5.06	23.94					
7	Out-03	Outfall	19.40					32.37	20.26					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	37.38	19.66				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	34.64	21.37				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	32.38	17.54	1.85	7.06	1.33	0.69	0.00	> CAPACITY
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	5.06	12.11	0.42	1.17	1.05	0.70	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	14.98	100.69	0.15	1.76	1.61	0.55	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	37.29	1794.80	0.02	5.63	0.66	0.07	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	32.37	1036.23	0.03	3.77	0.84	0.09	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	31.09	3863.33	0.01	3.00	1.07	0.11	0.00	

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	5.06	0 12:25	12.11	0.42	1.17	3.11	1.05	0.70	0.00		
2	HWY-30 DITCH-2	14.98	0 12:31	100.69	0.15	1.76	6.52	1.61	0.55	0.00		
3	Link-02	37.29	0 12:42	1794.80	0.02	5.63	0.03	0.66	0.07	0.00		
4	Link-05	32.37	0 12:37	1036.23	0.03	3.77	0.04	0.84	0.09	0.00		
5	Link-06	31.09	0 12:38	3863.33	0.01	3.00	0.06	1.07	0.11	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	32.38	0 12:37	17.54	1.85	7.06	0.13	1.33	0.69	0.00		> CAPACITY

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	37.38
Peak Lateral Inflow (cfs)	37.38
Peak Outflow (cfs)	37.29
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.66
Max HGL Depth Attained (ft)	0.66
Average HGL Elevation Attained (ft)	19.12
Average HGL Depth Attained (ft)	0.12
Time of Max HGL Occurrence (days hh:mm)	0 12:42
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	34.64
Peak Lateral Inflow (cfs)	17.24
Peak Outflow (cfs)	31.09
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.37
Max HGL Depth Attained (ft)	0.37
Average HGL Elevation Attained (ft)	21.04
Average HGL Depth Attained (ft)	0.04
Time of Max HGL Occurrence (days hh:mm)	0 12:38
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - PRE Model.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Sep 14, 2021	00:00:00
End Analysis On	Sep 15, 2021	00:00:00
Start Reporting On	Sep 14, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	4
Nodes	9
Junctions	4
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	2
Links	6
Channels	5
Pipes	1
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-100	Intensity	inches	Georgia	Chatham	100	11.40	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	PRE-DA1	12.66	323.00	79.00	11.40	8.73	110.55	44.74	0 00:51:13
2	PRE-DA2	1.13	323.00	81.35	11.40	9.05	10.22	6.04	0 00:25:10
3	PRE-DA3	3.76	323.00	81.58	11.40	9.08	34.13	17.93	0 00:31:53
4	PRE-DA4	4.59	323.00	79.00	11.40	8.73	40.08	20.59	0 00:33:47

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	71.85	21.93	0.00	7.68	0 00:00	0.00	0.00
2	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	37.09	20.44	0.00	9.06	0 00:00	0.00	0.00
3	Jun-02	Junction	23.20	25.00	23.20	999.00	1.00	6.02	24.33	0.00	0.67	0 00:00	0.00	0.00
4	Jun-03	Junction	21.70	24.46	21.70	999.00	1.00	17.88	23.19	0.00	1.51	0 00:00	0.00	0.00
5	Out-01	Outfall	18.70					44.59	19.44					
6	Out-02	Outfall	22.90					6.00	24.02					
7	Out-03	Outfall	19.40					37.07	20.34					
8	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	44.74	19.74				0.00	0.00
9	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	59.40	22.53				0.18	11.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	RCP PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	37.09	17.54	2.12	7.51	1.46	0.73	0.00	> CAPACITY
2	HWY-30 DITCH-1	Channel	Jun-02	Out-02	218.10	23.20	22.90	0.1400	18.000	0.0320	6.00	12.11	0.50	1.22	1.13	0.75	0.00	
3	HWY-30 DITCH-2	Channel	Jun-03	FES-01	688.20	21.70	19.61	0.3000	36.000	0.0320	17.77	100.69	0.18	1.85	1.83	0.63	0.00	
4	Link-02	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	120.000	0.0320	44.59	1794.80	0.02	6.01	0.74	0.07	0.00	
5	Link-05	Channel	FES-02	Out-03	10.00	19.50	19.40	1.0000	120.000	0.0320	37.07	1036.23	0.04	3.96	0.92	0.09	0.00	
6	Link-06	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0320	54.36	3863.33	0.01	4.42	1.51	0.19	0.00	

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY-30 DITCH-1	218.10	23.20	0.00	22.90	0.00	0.30	0.1400	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY-30 DITCH-2	688.20	21.70	0.00	19.61	0.00	2.09	0.3000	Trapezoidal	3.000	19.000	0.0320	0.5000	0.5000	0.0000	0.00	No
3	Link-02	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-05	10.00	19.50	0.00	19.40	0.00	0.10	1.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
5	Link-06	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY-30 DITCH-1	6.00	0 12:25	12.11	0.50	1.22	2.98	1.13	0.75	0.00		
2	HWY-30 DITCH-2	17.77	0 12:30	100.69	0.18	1.85	6.20	1.83	0.63	0.00		
3	Link-02	44.59	0 12:42	1794.80	0.02	6.01	0.03	0.74	0.07	0.00		
4	Link-05	37.07	0 12:37	1036.23	0.04	3.96	0.04	0.92	0.09	0.00		
5	Link-06	54.36	0 12:35	3863.33	0.01	4.42	0.04	1.51	0.19	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	RCP PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	RCP PIPE	37.09	0 12:37	17.54	2.12	7.51	0.12	1.46	0.73	0.00		> CAPACITY

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	44.74
Peak Lateral Inflow (cfs)	44.74
Peak Outflow (cfs)	44.59
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.74
Max HGL Depth Attained (ft)	0.74
Average HGL Elevation Attained (ft)	19.14
Average HGL Depth Attained (ft)	0.14
Time of Max HGL Occurrence (days hh:mm)	0 12:42
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	59.40
Peak Lateral Inflow (cfs)	20.58
Peak Outflow (cfs)	54.36
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	22.53
Max HGL Depth Attained (ft)	1.53
Average HGL Elevation Attained (ft)	21.05
Average HGL Depth Attained (ft)	0.05
Time of Max HGL Occurrence (days hh:mm)	0 12:37
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0.18
Total Time Flooded (min)	11
Total Retention Time (sec)	0.00

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PARKSIDE AT PORT WENTWORTI

APPENDIX E

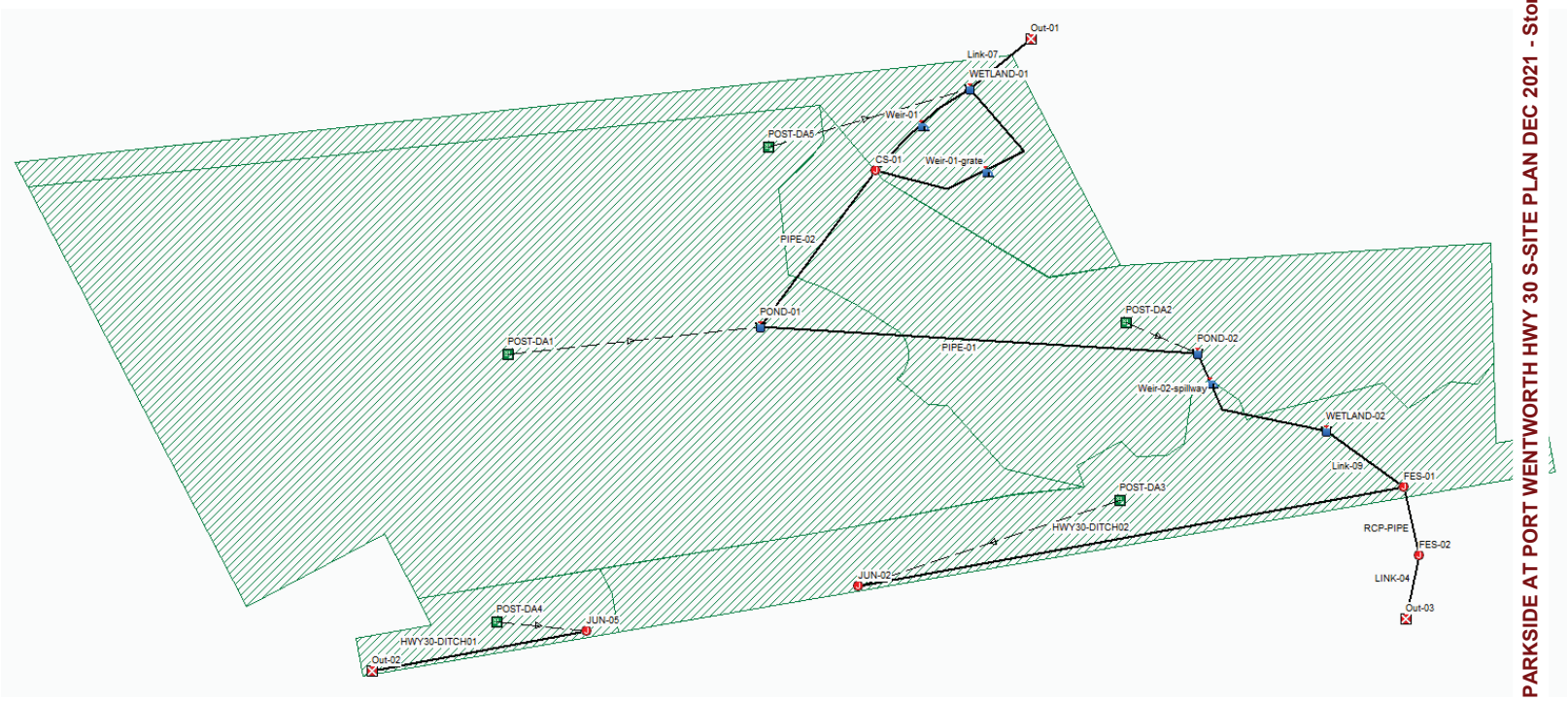
POST-DEVELOPMEN
SSA MODEL DIAGRAM, INPUT, AND RESULT

J – 28972.000

THOMAS & HUTTON

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

Post-Development Model



Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-002	Intensity	inches	Georgia	Chatham	2	4.47	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	4.47	3.32	40.11	22.21	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	4.47	3.30	14.49	10.87	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	4.47	3.34	9.82	8.28	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	4.47	3.01	1.71	1.41	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	4.47	2.93	6.44	3.55	0 00:30:34

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	8.76	20.86	0.00	1002.24	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	7.60	20.68	0.00	8.93	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	7.00	19.60	0.00	9.90	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	8.16	24.54	0.00	2.06	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	1.41	24.21	0.00	0.99	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					10.75	18.72					
7	Out-02	Outfall	22.90					1.36	23.41					
8	Out-03	Outfall	19.00					7.00	19.10					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	22.06	20.92				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	15.33	20.92				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	10.64	19.02				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	0.00	21.00				0.00	0.00

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Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	6.22	1.72	3.61	0.88	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	8.76	1.46	6.02	1.24	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	7.00	17.54	0.40	4.55	0.58	0.29	0.00	Calculated
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	1.36	16.46	0.08	1.05	0.51	0.34	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	7.60	116.67	0.07	1.75	1.00	0.33	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	7.00	7327.23	0.00	6.99	0.10	0.01	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	10.75	49887.52	0.00	50.00	0.02	0.00	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	0.00	1236266.33	0.00	0.00	0.53	0.05	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				8.76							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				0.00							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

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Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	1.36	0 12:16	16.46	0.08	1.05	5.00	0.51	0.34	0.00		
2	HWY30-DITCH02	7.60	0 12:17	116.67	0.07	1.75	10.61	1.00	0.33	0.00		
3	LINK-04	7.00	0 12:22	7327.23	0.00	6.99	0.00	0.10	0.01	0.00		
4	Link-07	10.75	0 12:43	49887.52	0.00	50.00	0.00	0.02	0.00	0.00		
5	Link-09	0.00	0 00:00	1236266.33	0.00	0.00		0.53	0.05	0.00		

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Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	6.22	0 12:31	1.72	3.61	0.88	2.84	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	8.76	0 13:12	1.46	6.02	1.24	2.82	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	7.00	0 12:22	17.54	0.40	4.55	0.20	0.58	0.29	0.00		Calculated

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	22.06
Peak Lateral Inflow (cfs)	22.06
Peak Outflow (cfs)	12.95
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	20.92
Max HGL Depth Attained (ft)	6.82
Average HGL Elevation Attained (ft)	20.34
Average HGL Depth Attained (ft)	6.24
Time of Max HGL Occurrence (days hh:mm)	0 13:12
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	15.33
Peak Lateral Inflow (cfs)	10.79
Peak Outflow (cfs)	3.14
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	20.92
Max HGL Depth Attained (ft)	6.82
Average HGL Elevation Attained (ft)	20.34
Average HGL Depth Attained (ft)	6.24
Time of Max HGL Occurrence (days hh:mm)	0 13:14
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	10.64
Peak Lateral Inflow (cfs)	3.55
Peak Outflow (cfs)	10.75
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.02
Max HGL Depth Attained (ft)	0.02
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 17:45
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	0.00
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	0.00
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.00
Max HGL Depth Attained (ft)	0
Average HGL Elevation Attained (ft)	21.00
Average HGL Depth Attained (ft)	0
Time of Max HGL Occurrence (days hh:mm)	0 00:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-005	Intensity	inches	Georgia	Chatham	5	5.68	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	5.68	4.49	54.16	29.60	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	5.68	4.46	19.59	14.50	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	5.68	4.51	13.24	11.00	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	5.68	4.14	2.36	1.92	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	5.68	4.05	8.91	4.88	0 00:30:34

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	12.34	21.05	0.00	1002.05	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	10.18	20.86	0.00	8.75	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	9.25	19.62	0.00	9.88	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	10.83	24.68	0.00	1.92	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	1.91	24.29	0.00	0.91	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					15.20	18.72					
7	Out-02	Outfall	22.90					1.86	23.49					
8	Out-03	Outfall	19.00					9.25	19.12					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	29.46	21.17				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	19.86	21.17				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	15.12	19.03				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	0.00	21.00				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	7.67	1.72	4.45	1.08	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	12.34	1.46	8.48	1.75	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	9.25	17.54	0.53	4.88	0.68	0.34	0.00	Calculated
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	1.86	16.46	0.11	1.14	0.59	0.39	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	10.18	116.67	0.09	1.89	1.15	0.38	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	9.25	7327.23	0.00	7.80	0.12	0.01	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	15.20	49887.52	0.00	50.00	0.02	0.01	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	0.00	1236266.33	0.00	0.00	0.62	0.06	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				12.34							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				0.00							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	1.86	0 12:16	16.46	0.11	1.14	4.60	0.59	0.39	0.00		
2	HWY30-DITCH02	10.18	0 12:16	116.67	0.09	1.89	9.82	1.15	0.38	0.00		
3	LINK-04	9.25	0 12:22	7327.23	0.00	7.80	0.00	0.12	0.01	0.00		
4	Link-07	15.20	0 12:49	49887.52	0.00	50.00	0.00	0.02	0.01	0.00		
5	Link-09	0.00	0 00:00	1236266.33	0.00	0.00		0.62	0.06	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	7.67	0 12:32	1.72	4.45	1.08	2.31	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	12.34	0 13:09	1.46	8.48	1.75	2.00	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	9.25	0 12:22	17.54	0.53	4.88	0.19	0.68	0.34	0.00		Calculated

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	29.46
Peak Lateral Inflow (cfs)	29.46
Peak Outflow (cfs)	17.66
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.17
Max HGL Depth Attained (ft)	7.07
Average HGL Elevation Attained (ft)	20.40
Average HGL Depth Attained (ft)	6.3
Time of Max HGL Occurrence (days hh:mm)	0 13:08
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	19.86
Peak Lateral Inflow (cfs)	14.42
Peak Outflow (cfs)	4.47
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.17
Max HGL Depth Attained (ft)	7.07
Average HGL Elevation Attained (ft)	20.40
Average HGL Depth Attained (ft)	6.3
Time of Max HGL Occurrence (days hh:mm)	0 13:12
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	15.12
Peak Lateral Inflow (cfs)	4.86
Peak Outflow (cfs)	15.20
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 21:27
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	0.00
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	0.00
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.00
Max HGL Depth Attained (ft)	0
Average HGL Elevation Attained (ft)	21.00
Average HGL Depth Attained (ft)	0
Time of Max HGL Occurrence (days hh:mm)	0 00:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-010	Intensity	inches	Georgia	Chatham	10	6.78	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	6.78	5.56	67.07	36.30	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	6.78	5.53	24.29	17.79	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	6.78	5.58	16.40	13.46	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	6.78	5.19	2.96	2.38	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	6.78	5.10	11.21	6.09	0 00:30:34

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Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	15.51	21.21	0.00	1001.89	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	12.53	21.00	0.00	8.61	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	11.36	19.63	0.00	9.87	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	13.25	24.78	0.00	1.82	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	2.38	24.35	0.00	0.85	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					19.16	18.72					
7	Out-02	Outfall	22.90					2.31	23.55					
8	Out-03	Outfall	19.00					11.36	19.13					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	36.15	21.39				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	23.83	21.40				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	19.14	19.03				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	0.00	21.00				0.00	0.00

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Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	8.88	1.72	5.16	1.26	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	15.51	1.46	10.65	2.19	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	11.36	17.54	0.65	5.17	0.76	0.38	0.00	Calculated
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	2.31	16.46	0.14	1.21	0.65	0.43	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	12.53	116.67	0.11	1.98	1.27	0.42	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	11.36	7327.23	0.00	8.46	0.13	0.01	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	19.16	49887.52	0.00	50.00	0.02	0.01	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	0.00	1236266.33	0.00	0.00	0.69	0.07	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				15.51							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				0.00							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

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Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	2.31	0 12:16	16.46	0.14	1.21	4.34	0.65	0.43	0.00		
2	HWY30-DITCH02	12.53	0 12:16	116.67	0.11	1.98	9.38	1.27	0.42	0.00		
3	LINK-04	11.36	0 12:22	7327.23	0.00	8.46	0.00	0.13	0.01	0.00		
4	Link-07	19.16	0 12:43	49887.52	0.00	50.00	0.00	0.02	0.01	0.00		
5	Link-09	0.00	0 00:00	1236266.33	0.00	0.00		0.69	0.07	0.00		

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Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	8.88	0 12:32	1.72	5.16	1.26	1.98	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	15.51	0 13:07	1.46	10.65	2.19	1.60	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	11.36	0 12:22	17.54	0.65	5.17	0.18	0.76	0.38	0.00		Calculated

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Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	36.15
Peak Lateral Inflow (cfs)	36.15
Peak Outflow (cfs)	21.87
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.39
Max HGL Depth Attained (ft)	7.29
Average HGL Elevation Attained (ft)	20.46
Average HGL Depth Attained (ft)	6.36
Time of Max HGL Occurrence (days hh:mm)	0 13:07
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	23.83
Peak Lateral Inflow (cfs)	17.70
Peak Outflow (cfs)	5.66
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.40
Max HGL Depth Attained (ft)	7.3
Average HGL Elevation Attained (ft)	20.46
Average HGL Depth Attained (ft)	6.36
Time of Max HGL Occurrence (days hh:mm)	0 13:11
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	19.14
Peak Lateral Inflow (cfs)	6.07
Peak Outflow (cfs)	19.16
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 19:48
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	0.00
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	0.00
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.00
Max HGL Depth Attained (ft)	0
Average HGL Elevation Attained (ft)	21.00
Average HGL Depth Attained (ft)	0
Time of Max HGL Occurrence (days hh:mm)	0 00:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-025	Intensity	inches	Georgia	Chatham	25	8.45	SCS Type III 24-hr

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Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	8.45	7.20	86.86	46.39	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	8.45	7.17	31.47	22.74	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	8.45	7.22	21.22	17.18	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	8.45	6.81	3.88	3.08	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	8.45	6.71	14.75	7.92	0 00:30:34

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Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	19.89	21.41	0.00	1001.69	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	42.80	21.16	0.00	8.45	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	13.71	19.65	0.00	9.85	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	16.87	24.91	0.00	1.69	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	3.07	24.43	0.00	0.77	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					25.09	18.73					
7	Out-02	Outfall	22.90					3.00	23.63					
8	Out-03	Outfall	19.00					13.71	19.15					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	46.23	21.72				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	29.76	21.72				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	25.07	19.03				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	6.95	21.16				0.00	0.00

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Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	10.72	1.72	6.22	1.52	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	19.89	1.46	13.66	2.81	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	13.71	17.54	0.78	5.40	0.85	0.42	0.00	Calculated
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	3.00	16.46	0.18	1.29	0.73	0.49	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	16.06	116.67	0.14	2.08	1.41	0.47	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	13.71	7327.23	0.00	9.11	0.15	0.02	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	25.09	49887.52	0.00	50.00	0.03	0.01	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	33.37	1236266.33	0.00	4.40	0.85	0.09	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				19.89							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				2.07							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

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Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	3.00	0 12:16	16.46	0.18	1.29	4.07	0.73	0.49	0.00		
2	HWY30-DITCH02	16.06	0 12:16	116.67	0.14	2.08	8.93	1.41	0.47	0.00		
3	LINK-04	13.71	0 12:23	7327.23	0.00	9.11	0.00	0.15	0.02	0.00		
4	Link-07	25.09	0 12:42	49887.52	0.00	50.00	0.00	0.03	0.01	0.00		
5	Link-09	33.37	0 12:32	1236266.33	0.00	4.40	0.04	0.85	0.09	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	10.72	0 12:33	1.72	6.22	1.52	1.64	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	19.89	0 13:06	1.46	13.66	2.81	1.25	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	13.71	0 12:23	17.54	0.78	5.40	0.17	0.85	0.42	0.00		Calculated

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	46.23
Peak Lateral Inflow (cfs)	46.23
Peak Outflow (cfs)	28.11
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.72
Max HGL Depth Attained (ft)	7.62
Average HGL Elevation Attained (ft)	20.54
Average HGL Depth Attained (ft)	6.44
Time of Max HGL Occurrence (days hh:mm)	0 13:06
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	29.76
Peak Lateral Inflow (cfs)	22.61
Peak Outflow (cfs)	7.15
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.72
Max HGL Depth Attained (ft)	7.62
Average HGL Elevation Attained (ft)	20.54
Average HGL Depth Attained (ft)	6.44
Time of Max HGL Occurrence (days hh:mm)	0 13:04
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	25.07
Peak Lateral Inflow (cfs)	7.87
Peak Outflow (cfs)	25.09
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:43
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	6.95
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	33.37
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.16
Max HGL Depth Attained (ft)	0.16
Average HGL Elevation Attained (ft)	21.00
Average HGL Depth Attained (ft)	0
Time of Max HGL Occurrence (days hh:mm)	0 12:23
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-050	Intensity	inches	Georgia	Chatham	50	9.86	SCS Type III 24-hr

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	9.86	8.59	103.65	54.89	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	9.86	8.56	37.58	26.89	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	9.86	8.61	25.31	20.29	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	9.86	8.19	4.67	3.67	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	9.86	8.08	17.77	9.45	0 00:30:34

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	22.87	21.53	0.00	1001.57	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	59.06	21.39	0.00	8.22	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	17.06	19.67	0.00	9.83	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	19.94	25.01	0.00	1.59	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	3.66	24.49	0.00	0.71	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					29.88	18.73					
7	Out-02	Outfall	22.90					3.58	23.69					
8	Out-03	Outfall	19.00					17.06	19.17					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	54.70	21.94				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	34.63	21.92				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	29.83	19.03				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	20.84	21.26				0.00	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	12.24	1.72	7.10	1.73	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	22.87	1.46	15.71	3.24	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	17.06	17.54	0.97	5.66	0.91	0.49	0.00	Calculated
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	3.58	16.46	0.22	1.34	0.79	0.53	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	19.04	116.67	0.16	2.15	1.51	0.50	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	17.06	7327.23	0.00	9.93	0.16	0.02	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	29.88	49887.52	0.00	50.00	0.03	0.01	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	47.94	1236266.33	0.00	5.19	0.96	0.10	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				22.87							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				9.21							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	3.58	0 12:16	16.46	0.22	1.34	3.92	0.79	0.53	0.00		
2	HWY30-DITCH02	19.04	0 12:16	116.67	0.16	2.15	8.64	1.51	0.50	0.00		
3	LINK-04	17.06	0 12:32	7327.23	0.00	9.93	0.00	0.16	0.02	0.00		
4	Link-07	29.88	0 12:40	49887.52	0.00	50.00	0.00	0.03	0.01	0.00		
5	Link-09	47.94	0 12:32	1236266.33	0.00	5.19	0.03	0.96	0.10	0.00		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	12.24	0 12:34	1.72	7.10	1.73	1.45	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	22.87	0 12:54	1.46	15.71	3.24	1.08	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	17.06	0 12:32	17.54	0.97	5.66	0.16	0.91	0.49	0.00		Calculated

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	54.70
Peak Lateral Inflow (cfs)	54.70
Peak Outflow (cfs)	33.69
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.94
Max HGL Depth Attained (ft)	7.84
Average HGL Elevation Attained (ft)	20.59
Average HGL Depth Attained (ft)	6.49
Time of Max HGL Occurrence (days hh:mm)	0 12:54
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	34.63
Peak Lateral Inflow (cfs)	26.78
Peak Outflow (cfs)	9.47
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.92
Max HGL Depth Attained (ft)	7.82
Average HGL Elevation Attained (ft)	20.59
Average HGL Depth Attained (ft)	6.49
Time of Max HGL Occurrence (days hh:mm)	0 13:02
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	29.83
Peak Lateral Inflow (cfs)	9.40
Peak Outflow (cfs)	29.88
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:41
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	20.84
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	47.94
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.26
Max HGL Depth Attained (ft)	0.26
Average HGL Elevation Attained (ft)	21.00
Average HGL Depth Attained (ft)	0
Time of Max HGL Occurrence (days hh:mm)	0 12:25
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Project Description

File Name ..... 28972.0001 - POST Model 2.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	May 25, 2021	00:00:00
End Analysis On	May 26, 2021	00:00:00
Start Reporting On	May 25, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	5
Nodes	12
Junctions	5
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	11
Channels	5
Pipes	3
Pumps	0
Orifices	0
Weirs	3
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	TS-100	Intensity	inches	Georgia	Chatham	100	11.40	SCS Type III 24-hr

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Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	POST-DA1	12.07	323.00	89.56	11.40	10.11	122.04	64.10	0 00:29:29
2	POST-DA2	4.39	323.00	89.34	11.40	10.08	44.26	31.40	0 00:14:46
3	POST-DA3	2.94	323.00	89.73	11.40	10.13	29.79	23.67	0 00:10:32
4	POST-DA4	0.57	323.00	86.33	11.40	9.70	5.53	4.31	0 00:11:55
5	POST-DA5	2.20	323.00	85.48	11.40	9.59	21.09	11.13	0 00:30:34

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Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	CS-01	Junction	14.10	24.10	20.10	999.00	1.00	26.07	21.66	0.00	1001.44	0 00:00	0.00	0.00
2	FES-01	Junction	19.61	24.50	19.61	999.00	1.00	75.50	21.94	0.00	7.67	0 00:00	0.00	0.00
3	FES-02	Junction	19.50	24.50	19.50	999.00	1.00	22.08	19.70	0.00	9.80	0 00:00	0.00	0.00
4	JUN-02	Junction	23.60	25.00	23.60	999.00	1.00	23.23	25.11	0.00	1.49	0 00:00	0.00	0.00
5	JUN-05	Junction	23.70	25.00	23.70	999.00	1.00	4.29	24.55	0.00	0.65	0 00:00	0.00	0.00
6	Out-01	Outfall	18.70					34.77	18.73					
7	Out-02	Outfall	22.90					4.20	23.74					
8	Out-03	Outfall	19.00					22.09	19.20					
9	POND-01	Storage Node	14.10	23.60	20.10		1.00	63.90	22.20				0.00	0.00
10	POND-02	Storage Node	14.10	23.60	20.10		1.00	39.98	22.08				0.00	0.00
11	WETLAND-01	Storage Node	19.00	20.00	19.00		1.00	34.74	19.03				0.00	0.00
12	WETLAND-02	Storage Node	21.00	21.50	21.00		1.00	67.50	21.47				0.00	0.00

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Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	PIPE-01	Pipe	POND-01	POND-02	150.00	15.10	15.10	0.0000	36.000	0.0130	15.62	1.72	9.07	2.21	3.00	1.00	1440.00	SURCHARGED
2	PIPE-02	Pipe	POND-01	CS-01	210.00	15.10	15.10	0.0000	36.000	0.0130	26.07	1.46	17.91	3.69	3.00	1.00	1440.00	SURCHARGED
3	RCP-PIPE	Pipe	FES-01	FES-02	55.00	19.61	19.50	0.2000	24.000	0.0150	22.08	17.54	1.26	6.23	1.10	0.55	0.00	> CAPACITY
4	HWY30-DITCH01	Channel	JUN-05	Out-02	314.80	23.70	22.90	0.2500	18.000	0.0320	4.20	16.46	0.26	1.40	0.84	0.57	0.00	
5	HWY30-DITCH02	Channel	JUN-02	FES-01	1114.00	23.60	19.61	0.3600	36.000	0.0320	22.25	116.67	0.19	2.27	1.64	0.56	0.00	
6	LINK-04	Channel	FES-02	Out-03	1.00	19.50	19.00	50.0000	120.000	0.0320	22.09	7327.23	0.00	10.98	0.20	0.02	0.00	
7	Link-07	Channel	WETLAND-01	Out-01	10.00	19.00	18.70	3.0000	48.000	0.0001	34.77	49887.52	0.00	50.00	0.03	0.01	0.00	
8	Link-09	Channel	WETLAND-02	FES-01	10.00	21.00	19.61	13.9000	120.000	0.0001	69.99	1236266.33	0.00	6.03	1.27	0.13	0.00	
9	Weir-01	Weir	CS-01	WETLAND-01		14.10	19.00				26.07							
10	Weir-01-grate	Weir	CS-01	WETLAND-01		14.10	19.00				0.00							
11	Weir-02-spillway	Weir	POND-02	WETLAND-02		14.10	21.00				17.23							

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	HWY30-DITCH01	314.80	23.70	0.00	22.90	0.00	0.80	0.2500	Trapezoidal	1.500	10.000	0.0320	0.5000	0.5000	0.0000	0.00	No
2	HWY30-DITCH02	1114.00	23.60	0.00	19.61	0.00	3.99	0.3600	Trapezoidal	3.000	19.500	0.0320	0.5000	0.5000	0.0000	0.00	No
3	LINK-04	1.00	19.50	0.00	19.00	0.00	0.50	50.0000	Rectangular	10.000	10.000	0.0320	0.0000	0.0000	0.0000	0.00	No
4	Link-07	10.00	19.00	0.00	18.70	0.00	0.30	3.0000	Rectangular	4.000	4.000	0.0001	0.0000	0.0000	0.0000	0.00	No
5	Link-09	10.00	21.00	0.00	19.61	0.00	1.39	13.9000	Rectangular	10.000	10.000	0.0001	0.0000	0.0000	0.0000	0.00	No

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Channel Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	HWY30-DITCH01	4.20	0 12:15	16.46	0.26	1.40	3.75	0.84	0.57	0.00		
2	HWY30-DITCH02	22.25	0 12:16	116.67	0.19	2.27	8.18	1.64	0.56	0.00		
3	LINK-04	22.09	0 13:05	7327.23	0.00	10.98	0.00	0.20	0.02	0.00		
4	Link-07	34.77	0 12:40	49887.52	0.00	50.00	0.00	0.03	0.01	0.00		
5	Link-09	69.99	0 13:07	1236266.33	0.00	6.03	0.03	1.27	0.13	0.00		

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Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	PIPE-01	150.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	PIPE-02	210.00	15.10	1.00	15.10	1.00	0.00	0.0000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	RCP-PIPE	55.00	19.61	0.00	19.50	0.00	0.11	0.2000	CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00	No	2

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Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	PIPE-01	15.62	0 12:42	1.72	9.07	2.21	1.13	3.00	1.00	1440.00		SURCHARGED
2	PIPE-02	26.07	0 12:50	1.46	17.91	3.69	0.95	3.00	1.00	1440.00		SURCHARGED
3	RCP-PIPE	22.08	0 13:05	17.54	1.26	6.23	0.15	1.10	0.55	0.00		> CAPACITY

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Storage Nodes

Storage Node : POND-01

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	63.90
Peak Lateral Inflow (cfs)	63.90
Peak Outflow (cfs)	41.30
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	22.20
Max HGL Depth Attained (ft)	8.1
Average HGL Elevation Attained (ft)	20.64
Average HGL Depth Attained (ft)	6.54
Time of Max HGL Occurrence (days hh:mm)	0 12:50
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Storage Node : POND-02

Input Data

Invert Elevation (ft)	14.10
Max (Rim) Elevation (ft)	23.60
Max (Rim) Offset (ft)	9.50
Initial Water Elevation (ft)	20.10
Initial Water Depth (ft)	6.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-02-spillway	Trapezoidal	No	21.60	7.50	15.00	999.00	3.33

Output Summary Results

Peak Inflow (cfs)	39.98
Peak Lateral Inflow (cfs)	31.26
Peak Outflow (cfs)	17.23
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	22.08
Max HGL Depth Attained (ft)	7.98
Average HGL Elevation Attained (ft)	20.64
Average HGL Depth Attained (ft)	6.54
Time of Max HGL Occurrence (days hh:mm)	0 12:59
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : WETLAND-01

Input Data

Invert Elevation (ft)	19.00
Max (Rim) Elevation (ft)	20.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	19.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	34.74
Peak Lateral Inflow (cfs)	11.05
Peak Outflow (cfs)	34.77
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	19.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	19.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:40
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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Storage Node : WETLAND-02

Input Data

Invert Elevation (ft)	21.00
Max (Rim) Elevation (ft)	21.50
Max (Rim) Offset (ft)	0.50
Initial Water Elevation (ft)	21.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	1.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	67.50
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	69.99
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	21.47
Max HGL Depth Attained (ft)	0.47
Average HGL Elevation Attained (ft)	21.02
Average HGL Depth Attained (ft)	0.02
Time of Max HGL Occurrence (days hh:mm)	0 13:07
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

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STORMWATER MANAGEMENT REPOR

PARKSIDE AT PORT WENTWORTI

APPENDIX C

CN AND TC CALCULATION

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THOMAS & HUTTON

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PRE-DEVELOPMENT MODEL
CN AND TC CALCULATIONS

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

Subbasin Hydrology

Subbasin : PRE-DA1

Input Data

Area (ac)	12.66
Peak Rate Factor	323.00
Weighted Curve Number	79.00
Rain Gage ID	Rain Gage-01

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Woods, Fair	12.66	D	79.00
Composite Area & Weighted CN	12.66		79.00

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

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Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	1114	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Woodland	Unpaved	Unpaved
Velocity (ft/sec) :	0.61	0.00	0.00
Computed Flow Time (min) :	30.44	0.00	0.00

Total TOC (min) 51.23

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Subbasin : PRE-DA2

Input Data

Area (ac) 1.13
Peak Rate Factor 323.00
Weighted Curve Number 81.35
Rain Gage ID ..... Rain Gage-01

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Woods, Fair	0.99	D	79.00
Paved parking & roofs	0.14	D	98.00
Composite Area & Weighted CN	1.13		81.35

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	120	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Woodland	Unpaved	Unpaved
Velocity (ft/sec) :	0.61	0.00	0.00
Computed Flow Time (min) :	3.28	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.03	0.00	0.00
Flow Length (ft) :	208	0.00	0.00
Channel Slope (%) :	1	0.00	0.00
Cross Section Area (ft²) :	1	0.00	0.00
Wetted Perimeter (ft) :	2	0.00	0.00
Velocity (ft/sec) :	3.13	0.00	0.00
Computed Flow Time (min) :	1.11	0.00	0.00

Total TOC (min) 25.18

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Subbasin : PRE-DA3

Input Data

Area (ac) 3.76
Peak Rate Factor 323.00
Weighted Curve Number 81.58
Rain Gage ID ..... Rain Gage-01

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Woods, Fair	3.25	D	79.00
Paved roads with curbs & sewers	0.51	D	98.00
Composite Area & Weighted CN	3.76		81.58

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	272	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Woodland	Unpaved	Unpaved
Velocity (ft/sec) :	0.61	0.00	0.00
Computed Flow Time (min) :	7.43	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.03	0.00	0.00
Flow Length (ft) :	688	0.00	0.00
Channel Slope (%) :	1	0.00	0.00
Cross Section Area (ft²) :	1	0.00	0.00
Wetted Perimeter (ft) :	2	0.00	0.00
Velocity (ft/sec) :	3.13	0.00	0.00
Computed Flow Time (min) :	3.66	0.00	0.00

Total TOC (min) 31.89

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Subbasin : PRE-DA4

Input Data

Area (ac) 4.59
Peak Rate Factor 323.00
Weighted Curve Number 79.00
Rain Gage ID ..... Rain Gage-01

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Woods, Fair	4.59	D	79.00
Composite Area & Weighted CN	4.59		79.00

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	435	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Woodland	Unpaved	Unpaved
Velocity (ft/sec) :	0.61	0.00	0.00
Computed Flow Time (min) :	11.89	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.03	0.00	0.00
Flow Length (ft) :	256	0.00	0.00
Channel Slope (%) :	1.5	0.00	0.00
Cross Section Area (ft^2) :	1	0.00	0.00
Wetted Perimeter (ft) :	2	0.00	0.00
Velocity (ft/sec) :	3.83	0.00	0.00
Computed Flow Time (min) :	1.11	0.00	0.00

Total TOC (min) 33.79

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POST-DEVELOPMENT MODEL
CN AND TC CALCULATIONS

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

Subbasin Hydrology

Subbasin : POST-DA1

Input Data

Area (ac)	12.07
Peak Rate Factor	323.00
Weighted Curve Number	89.56
Rain Gage ID	Rain Gage-001

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	6.71	D	98.00
50 - 75% grass cover, Fair	5.36	C	79.00
Composite Area & Weighted CN	12.07		89.56

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	29.18	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.49	0.00	0.00
Computed Flow Time (min) :	0.20	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.013	0.00	0.00
Flow Length (ft) :	1019	0.00	0.00
Channel Slope (%) :	.3	0.00	0.00
Cross Section Area (ft²) :	.28	0.00	0.00
Wetted Perimeter (ft) :	1.56	0.00	0.00
Velocity (ft/sec) :	2.00	0.00	0.00
Computed Flow Time (min) :	8.50	0.00	0.00

Total TOC (min) 29.49

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin : POST-DA2

Input Data

Area (ac) 4.39
Peak Rate Factor 323.00
Weighted Curve Number 89.34
Rain Gage ID ..... Rain Gage-001

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	2.39	D	98.00
50 - 75% grass cover, Fair	2.00	C	79.00
Composite Area & Weighted CN	4.39		89.34

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	48.5	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.07	0.00	0.00
Computed Flow Time (min) :	11.65	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	13.6	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.49	0.00	0.00
Computed Flow Time (min) :	0.09	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.013	0.00	0.00
Flow Length (ft) :	363.43	0.00	0.00
Channel Slope (%) :	.3	0.00	0.00
Cross Section Area (ft²) :	.28	0.00	0.00
Wetted Perimeter (ft) :	1.56	0.00	0.00
Velocity (ft/sec) :	2.00	0.00	0.00
Computed Flow Time (min) :	3.03	0.00	0.00

Total TOC (min) 14.78

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin : POST-DA3

Input Data

Area (ac) 2.94
Peak Rate Factor 323.00
Weighted Curve Number 89.73
Rain Gage ID ..... Rain Gage-001

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.72	D	98.00
Paved parking & roofs	0.94	D	98.00
50 - 75% grass cover, Fair	1.28	C	79.00
Composite Area & Weighted CN	2.94		89.73

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	42.8	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.07	0.00	0.00
Computed Flow Time (min) :	10.54	0.00	0.00

Total TOC (min) 10.54

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin : POST-DA4

Input Data

Area (ac) 0.57
Peak Rate Factor 323.00
Weighted Curve Number 86.33
Rain Gage ID ..... Rain Gage-001

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.22	D	98.00
50 - 75% grass cover, Fair	0.35	C	79.00
Composite Area & Weighted CN	0.57		86.33

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	42.1	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.07	0.00	0.00
Computed Flow Time (min) :	10.41	0.00	0.00

Channel Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.03	0.00	0.00
Flow Length (ft) :	285	0.00	0.00
Channel Slope (%) :	1	0.00	0.00
Cross Section Area (ft²) :	1	0.00	0.00
Wetted Perimeter (ft) :	2	0.00	0.00
Velocity (ft/sec) :	3.13	0.00	0.00
Computed Flow Time (min) :	1.52	0.00	0.00

Total TOC (min) 11.92

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application Parkside at

Subbasin : POST-DA5

Input Data

Area (ac) 2.20
Peak Rate Factor 323.00
Weighted Curve Number 85.48
Rain Gage ID ..... Rain Gage-001

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.75	C	98.00
50 - 75% grass cover, Fair	1.45	C	79.00
Composite Area & Weighted CN	2.20		85.48

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.41	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.5	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.47	0.00	0.00
Velocity (ft/sec) :	0.08	0.00	0.00
Computed Flow Time (min) :	20.79	0.00	0.00

Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft) :	1163	0.00	0.00
Slope (%) :	1.5	0.00	0.00
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	1.98	0.00	0.00
Computed Flow Time (min) :	9.79	0.00	0.00

Total TOC (min) 30.58

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STORMWATER MANAGEMENT REPOR

PARKSIDE AT PORT WENTWORTI

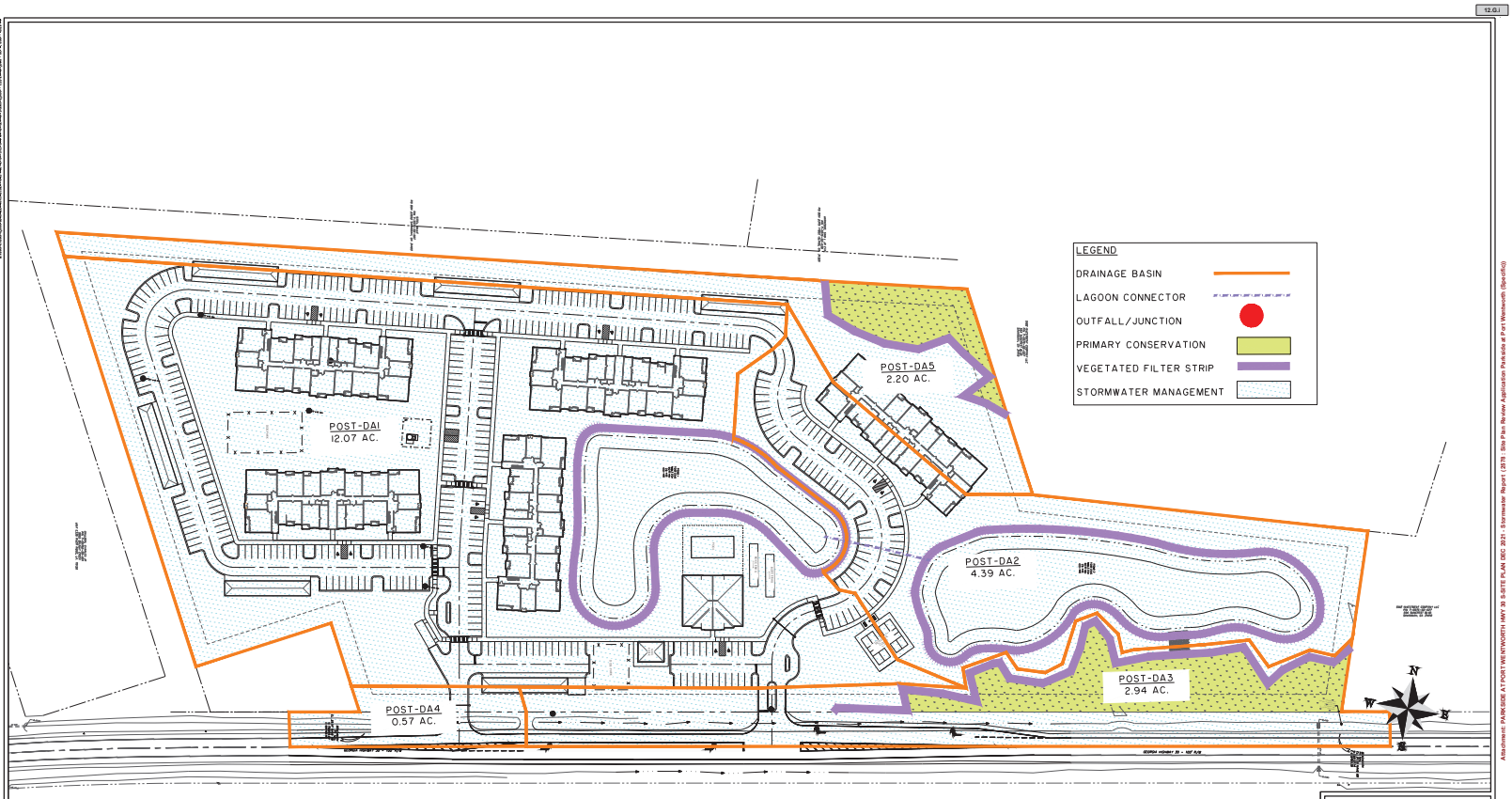
APPENDIX D

CSS EXHIBIT AND CALCULATION

J – 28972.000

THOMAS & HUTTON

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application



CSS EXHIBIT

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

THOMAS & HUTTON

30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300

www.thomasandhutton.com

JOB NO:	J-38972.0001
DRAWN:	MGD
REVIEWED:	JBW
DATE:	09/21/21
SCALE:	1" = 40'
SHEET:	1 OF 1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 SITE PLAN (DEC 2021 - Stormwater Report (3570) Site Plan Review Application Parkside at Port Wentworth (Specific))

Coastal Stormwater Supplement Site Planning & Design Worksheet

Revised July 2014

Site Data

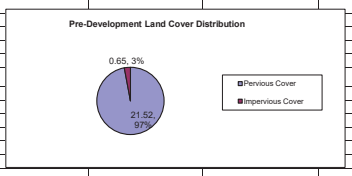
Site Name:

	data input cells
	calculation cells
	constant values

Step 1: Enter Site Information

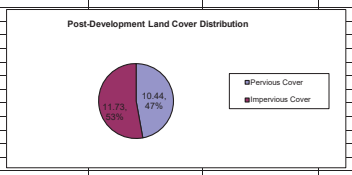
Pre-Development Land Cover (acres)

Land Cover Type	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	21.52	21.52
Impervious Cover	0.00	0.00	0.00	0.65	0.65
				Total	22.17

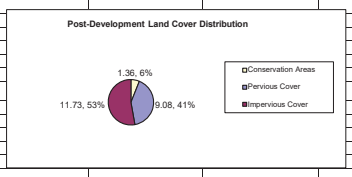


Post-Development Land Cover (acres)

Land Cover Type	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	10.44	10.44
Impervious Cover	0.00	0.00	0.00	11.73	11.73
				Total	22.17



Runoff Reduction Rainfall Event (inches)	1.2
Post-Development Site Imperviousness (%)	53%
Post-Development Site Runoff Coefficient, Rv	0.53
Target Runoff Reduction Volume, RRv (acre-feet)	1.17
Target Runoff Reduction Volume, RRv (cubic feet)	50,815



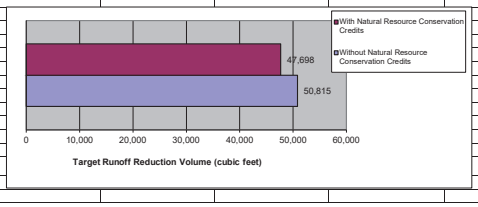
Step 2: Apply Better Site Planning Techniques

Natural Resource Conservation Credits

	HSG A Soils	HSG B Soils	HSG C Soils	HSG D Soils	Total
Primary Conservation Areas (acres)	0.0	0.0	0.0	1.4	1.4
Secondary Conservation Areas (acres)	0.0	0.0	0.0	0.0	0.0
Total (acres)					1.36

Target Runoff Reduction Volume with Natural Resource Conservation Credits, RRv

Target Runoff Reduction Volume, RRv (acre-feet)	1.09
Target Runoff Reduction Volume, RRv (cubic feet)	47,698



Step 3: Apply Better Site Design Techniques

Reduced Clearing and Grading Credits

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Step 3: Apply Better Site Design Techniques

Reduced Clearing and Grading Credits

	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Total
Undisturbed Pervious Cover (Acres)	0.0	0.0	0.0	0.0	0.00

Revised Post-Development Land Cover (acres)

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	1.36	1.36
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cover	0.00	0.00	0.00	9.08	9.08
Impervious Cover	0.00	0.00	0.00	11.73	11.73
				Total	22.17

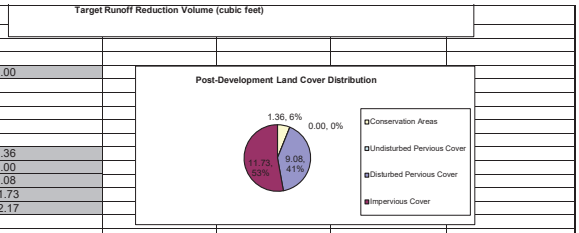
Restoration of Disturbed Pervious Surfaces

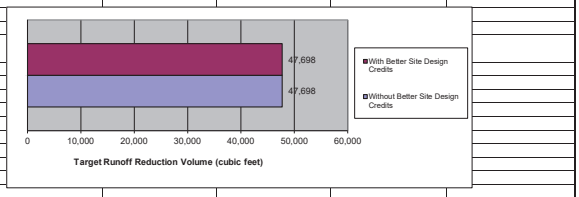
Soil Restoration (Acres)	0.0
Site Reforestation/Vegetation (Acres)	0.0
Soil Restoration w/ Site Reforestation/Revegetation (Acres)	0.0

Target Runoff Reduction Volume After Application of Better Site Design Credits, RRv

Target Runoff Reduction Volume, RRv (acre-feet)	1.09
Target Runoff Reduction Volume, RRv (cubic feet)	47,698

Note: Remainder of Better Site Design Techniques are considered to be "self-crediting."

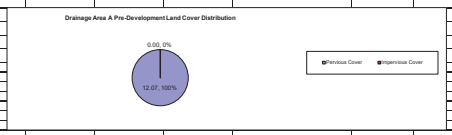




Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

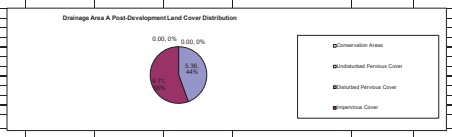
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area A
Drainage Area Information POST-DA1



Drainage Area A Pre-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	12.07	12.07
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	12.07



Drainage Area A Post-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cove	0.00	0.00	0.00	5.36	5.36
Impervious Cover	0.00	0.00	0.00	6.71	6.71
				Total	12.07

Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Vegetated Filter Strip, C/D Soils 1	12.07	6.71	28934.7	30% of volume received by the practice	0.0	28934.7	0.0	28934.7	N/A	N/A	8680.4	20254.3	8680.4	20254.3	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
Stormwater Pond, Wetland, or Wet Swale 1	0.00	0.00	0.0	None	20254.3	20254.3	20254.3	20254.3	Volume in Wet Pool and Extended Detention	397233.0	0.0	20254.3	20254.3	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**12.07**	**6.71**									**8680.4**		**28934.7**		

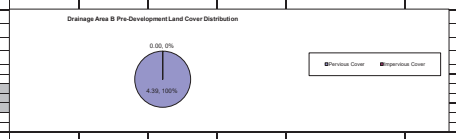
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area B
Drainage Area Information ~~POST-DA2~~

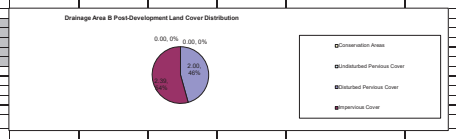
Drainage Area B Pre-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	4.39	4.39
Impervious Cover	0.00	0.00	0.00	0.00	0.00
				Total	4.39



Drainage Area B Post-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.00	0.00
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cove	0.00	0.00	0.00	2.00	2.00
Impervious Cover	0.00	0.00	0.00	2.39	2.39
				Total	4.39



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

"Receiving" Low Impact Development Practices

Vegetated Filter Strip, C/D Soils 1	4.39	2.39	10325.9	30% of volume received by the practice	0.0	10325.9	0.0	10325.9	N/A	N/A	3097.8	7228.1	3097.8	7228.1	Stormwater Pond, Wetland, or Wet Swale 1
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

Treatment Only Practices

Stormwater Pond, Wetland, or Wet Swale 1	0.00	0.00	0.0	None	7228.1	7228.1	7228.1	7228.1	Volume in Wet Pool and Extended Detention	517308.2	0.0	7228.1	7228.1	0.0	Stormwater Pond, Wetland, or Wet Swale 2
Stormwater Pond, Wetland, or Wet Swale 2	0.00	0.00	0.0	None	7228.1	7228.1	0.0	0.0	Volume in Wet Pool and Extended Detention	397233.0	0.0	7228.1	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**4.39**	**2.39**									**3097.8**		**10325.9**		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

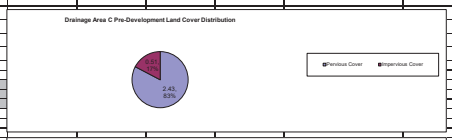
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area C
Drainage Area Information

~~POST-DA3~~

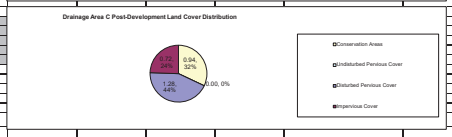
Drainage Area C Pre-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	2.43	2.43
Impervious Cover	0.00	0.00	0.00	0.51	0.51
				Total	2.94



Drainage Area C Post-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.94	0.94
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cove	0.00	0.00	0.00	1.28	1.28
Impervious Cover	0.00	0.00	0.00	0.72	0.72
				Total	2.94



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Vegetated Filter Strip, C/D Soils 1	2.94	0.72	3463.0	30% of volume received by the practice	0.0	3463.0	0.0	3463.0	N/A	N/A	1038.9	2424.1	1038.9	2424.1	Grass Channel, C/D Soils 1
Grass Channel, C/D Soils 1	0.00	0.00	0.0	12.5% of volume received by the practice	2424.1	2424.1	2424.1	2424.1	N/A	N/A	303.0	2121.1	303.0	2121.1	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A		0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**2.94**	**0.72**									**1341.9**		**1341.9**		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

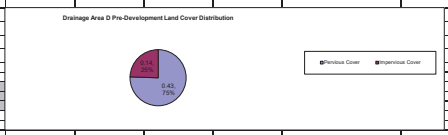
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area D
Drainage Area Information

~~POST-DA4~~

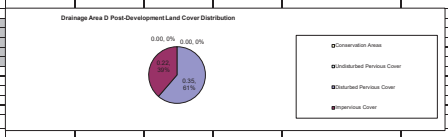
Drainage Area D Pre-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	0.43	0.43
Impervious Cover	0.00	0.00	0.00	0.14	0.14
				Total	0.57



Drainage Area D Post-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00		0.00
Undisturbed Pervious Cover	0.00	0.00	0.00		0.00
Disturbed Pervious Cove	0.00	0.00	0.00	0.35	0.35
Impervious Cover	0.00	0.00	0.00	0.22	0.22
				Total	0.57



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
"Receiving" Low Impact Development Practices															
Vegetated Filter Strip, C/D Soils 1	0.57	0.22	986.6	30% of volume received by the practice	0.0	986.6	0.0	986.6	N/A	N/A	296.0	690.6	296.0	690.6	Grass Channel, C/D Soils 1
Grass Channel, C/D Soils 1	0.00	0.00	0.0	12.5% of volume received by the practice	690.6	690.6	690.6	690.6	N/A	N/A	86.3	604.3	86.3	604.3	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Treatment Only Practices															
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A		0.0	0.0	0.0	0.0	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**0.57**	**0.22**									**382.3**		**382.3**		

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

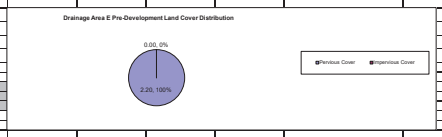
Coastal Stormwater Supplement Site Planning & Design Worksheet
Revised July 2014

Drainage Area E
Drainage Area Information

~~POST-DA5~~

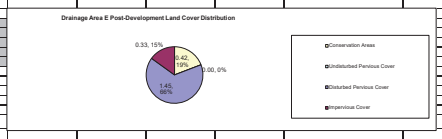
Drainage Area E Pre-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Pervious Cover	0.00	0.00	0.00	2.20	2.20
Impervious Cover	0.00	0.00	0.00		0.00
				Total	2.20



Drainage Area E Post-Development Land Cover (acres

Land Cover Type	HSG A soils	HSG B Soils	HSG C Soils	HSG D Soils	Totals
Conservation Areas	0.00	0.00	0.00	0.42	0.42
Undisturbed Pervious Cover	0.00	0.00	0.00	0.00	0.00
Disturbed Pervious Cove	0.00	0.00	0.00	1.45	1.45
Impervious Cover	0.00	0.00	0.00	0.33	0.33
				Total	2.20



Low Impact Development Practices

Alternatives to Impervious Surfaces

Low Impact Development Practice	Size of Contributing Drainage Area (acres)	Impervious Cover in Contributing Drainage Area (acres)	Direct Runoff Reduction Volume Received by Practice (cubic feet)	Description of Runoff Reduction Credit	Runoff Reduction Volume Received from Upstream Practices	Total Runoff Reduction Volume Received by Practice (cubic feet)	Treatment Volume Received from Upstream Practices (cubic feet)	Total Treatment Volume Received by Practice (cubic feet)	Method for Calculating Storage	Storage Volume Provided by Practice (cubic feet)	Adjustment to Runoff Reduction Volume (cubic feet)	Remaining Runoff Reduction Volume (cubic feet)	Adjustment to Treatment Volume (cubic feet)	Remaining Treatment Volume (cubic feet)	Downstream Practice to be Employed
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

"Receiving" Low Impact Development Practices

Grass Channel, C/D Soils 1	2.20	0.33	1772.9	12.5% of volume received by the practice	0.0	1772.9	0.0	1772.9	N/A	N/A	221.6	1551.3	221.6	1551.3	No Downstream Practice
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	

Treatment Only Practices

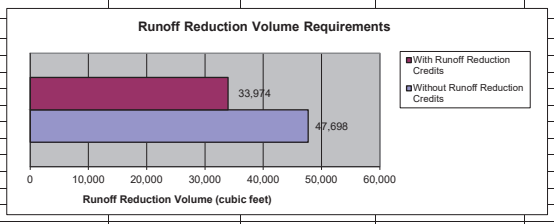
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	0.0	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
None	0.00	0.00	0.0	N/A	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0.0	
Totals	**2.20**	**0.33**									**221.6**		**221.6**		

Coastal Stormwater Supplement Site Planning & Design Worksheet

Revised July 2014

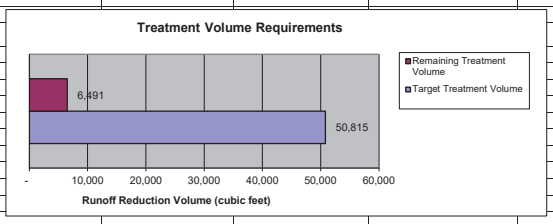
Stormwater Runoff Reduction Summary

Target Runoff Reduction and Treatment Volume, RRv (cubic feet)	50,815
Total Adjustment to Runoff Reduction Volume, RRv (cubic feet)	16,841
Percentage of Target Runoff Reduction Volume Achieved	33%
Runoff Reduction Volume Achieved (in)	0.40
Runoff Reduction Volume Remaining (cubic feet)	33,974



Note: If any of the target runoff reduction volume cannot be reduced on the development site, due to site characteristics or constraints, it should be intercepted and treated in one or more stormwater management practices that: (1) provide for at least an 80 percent reduction in TSS loads; and (2) reduce nitrogen and bacteria loads to the maximum extent practical.

Treatment Volume Achieved (cubic feet)	44,324
Treatment Volume Remaining (cubic feet)	6,491



Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report

STORMWATER MANAGEMENT REPOR

PARKSIDE AT PORT WENTWORTI

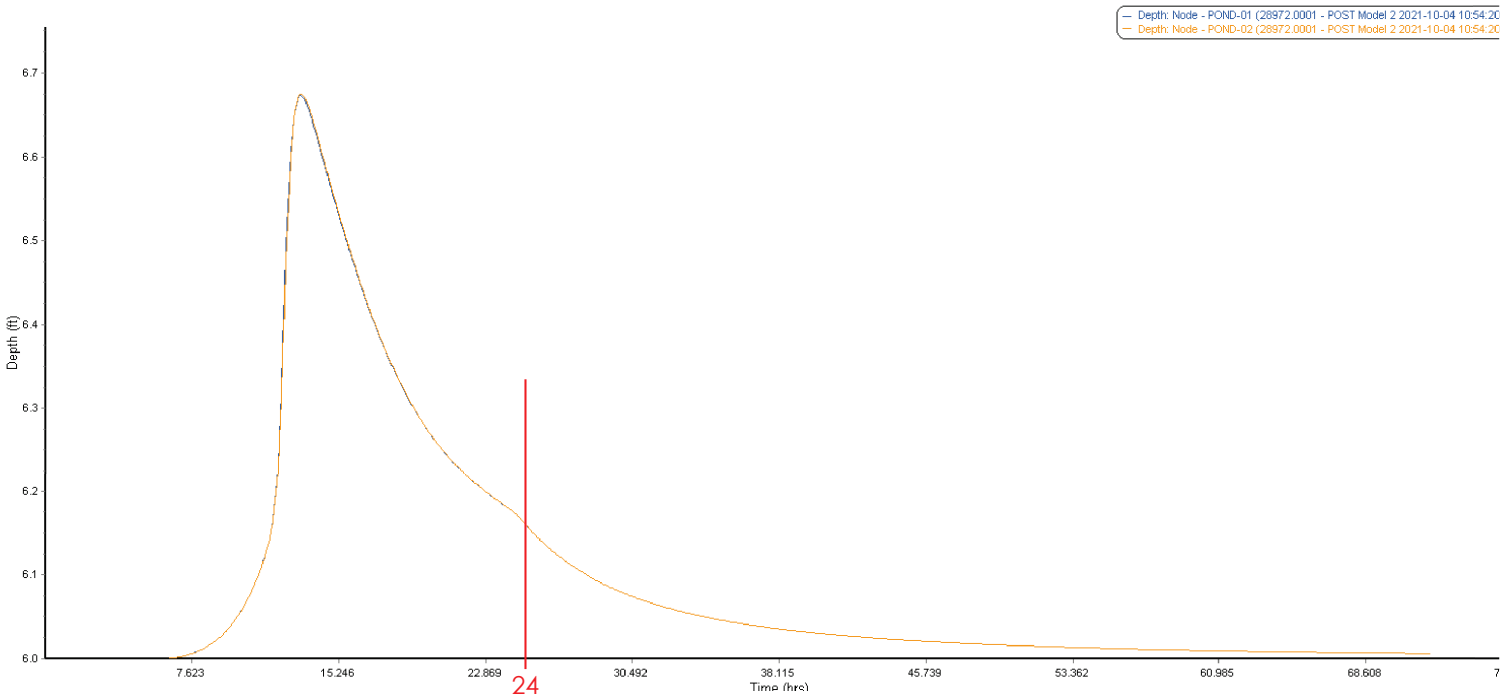
APPENDIX I

EXTENDED DETENTIO

J – 28972.000

THOMAS & HUTTON

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application


Depth: Node - POND-01 (28972.0001 - POST Model 2 2021-10-04 10:54:20
Depth: Node - POND-02 (28972.0001 - POST Model 2 2021-10-04 10:54:20
Depth (ft)
6.7
6.6
6.5
6.4
6.3
6.2
6.1
6.0
7.623
15.246
22.869
30.492
38.115
45.739
53.362
60.985
68.608
24
Time (hrs)

STORMWATER MANAGEMENT REPOR

PARKSIDE AT PORT WENTWORTH

APPENDIX I

PIPE SIZING CALCULATION

J – 28972.000

THOMAS & HUTTON

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

PARKSIDE AT PORT WENTWORTH **JOB# 28972.0001**
CULVERT PIPE SIZING CALCULATIONS **DATE: 10/4/2021**
PREPARED BY: THOMAS & HUTTON **DESIGNED BY: VND**

PIPE SIZING METHODOLOGY

The following calculations determine the total design flow for each proposed culvert pipe proposed along GA Hwy 30. The flowrate was determined using the rational method. The flow is a function of the rainfall intensity (inches/hr), runoff coefficient, and drainage basin area. The design flow in cubic feet per second can then be used to calculate the pipe size needed to accommodate the flow using Manning's equation. There are a total of two culvert pipes. The culvert pipe located toward the western side of the site along Hwy 30 will be referred to as the *Western Culvert*. The culvert pipe located toward the eastern side of the site along Hwy 30 will be referred to as the *Eastern Culvert*. Please note that that 25-yr rainfall intensity is used in the calculations below.

Please see "Pipe Sizing Exhibit" of Appendix F for delineation of areas draining to the culvert pipes.

FLOWRATE CALCULATIONS

Q = CiA

Western Culvert - Corresponding Flow Rate Calculation

C = Runoff Coefficient	=	0.51
i = rainfall intensity in inch/hour	=	8.45
A = Drainage basin area in acres	=	0.18
Q = Flowrate in cubic feet/second	=	0.78

Eastern Culvert - Corresponding Flow Rate Calculation

C = Runoff Coefficient	=	0.48
i = rainfall intensity in inch/hour	=	8.45
A = Drainage basin area in acres	=	0.66
Q = Flowrate in cubic feet/second	=	2.68

MANNING'S EQUATION

$Q/A = (1.49/n) \times R_h^{2/3} \times S^{1/2}$

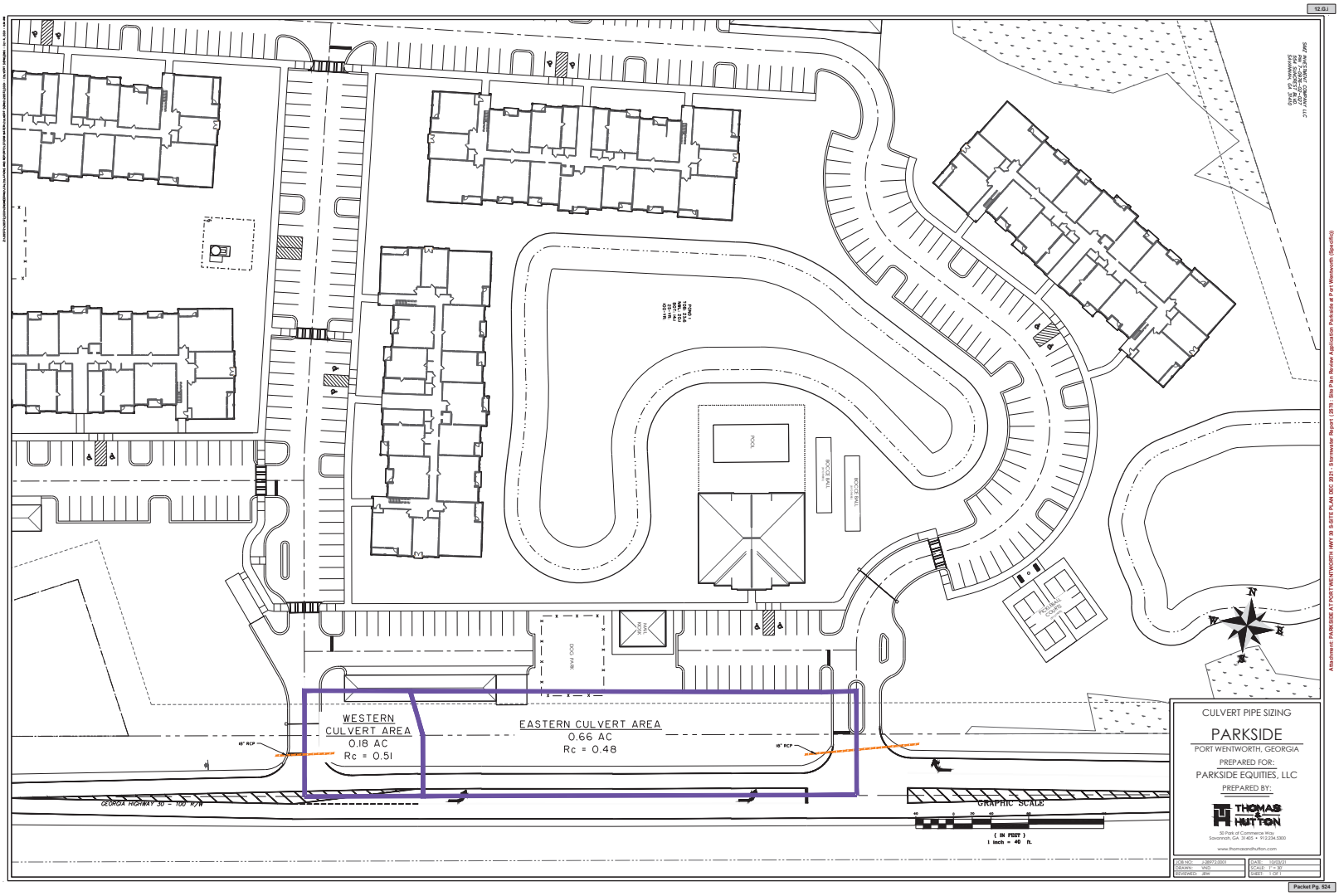
Q = Flowrate in cubic feet per second
A = Area of pipe in square feet
n = Manning's roughness coefficient based on pipe material
R_h = Hydraulic radius
S = Pipe slope (ft/ft)

FLOWRATE AND MANNING'S CALCULATIONS

BASIN	Basin Q (cfs)	Manning's n	Pipe Diameter (in.)	Pipe Area (ft^2)	# 18 in. Pipes	# 24 in. Pipes	# 30 in. Pipes
Western Culvert	0.78	0.013	8.5	0.4	0.2	0.1	0.1
Eastern Culvert	2.68	0.013	13.5	1.0	0.6	0.3	0.2

Conclusion: A 18 in. pipe will suffice for each culvert.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application



CULVERT PIPE SIZING

PARKSIDE

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

THOMAS & HUTTON
30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

JOB NO:	J-38972.0001
DRAWN:	MGD
REVIEWED:	JBW
DATE:	10/20/21
SCALE:	1" = 30'
SHEET	1 OF 1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 SITE PLAN (DEC 2021 : Stormwater Report (3578 : Site Plan Review Application Parkside at Port Wentworth (Specific))

HEC-22

Energy Grade Line Computations

Struct. ID	*Q* (cfs)	*EGLo* (ft)	*HGLo* (ft)	Total Pipe Loss (ft)	*EGLi* (ft)	*HGLi* (ft)	*Ea* (ft)	*EGLa* (ft)	Surface Elev. (ft)
5		21.81	21.81						16.90
4	3.7	21.88	21.81	0.14	22.02	21.95	4.8	22.04	23.60
3	2.7	22.06	22.02	0.02	22.08	22.05	4.8	22.11	24.06
2	2.6	22.12	22.09	0.04	22.17	22.13	4.6	22.18	23.67
37	1.3	22.18	22.17	0.02	22.21	22.20	4.2	22.21	23.00
35	0.2	22.11	22.11		22.11	22.11	3.5	22.11	24.98
34	0.1	22.11	22.11		22.11	22.11	3.5	22.11	24.98
53		21.81	21.81						19.49
10	2.3	21.84	21.81	0.04	21.88	21.85	4.0	21.89	24.23
9	2.3	21.90	21.88	0.04	21.94	21.92	3.8	21.95	23.62
17		21.81	21.81						18.62
16	9.5	21.87	21.81	0.10	21.97	21.91	6.4	22.01	23.61
15	8.3	22.05	21.95	0.20	22.26	22.15	5.7	22.28	23.63
14	6.5	22.31	22.24	0.12	22.43	22.36	5.5	22.45	23.62
13	5.3	22.50	22.36	0.39	22.89	22.75	5.5	22.92	23.62
12	3.7	22.95	22.88	0.27	23.22	23.15	5.1	23.24	23.62
11	1.6	23.24	23.23	0.04	23.28	23.27	4.7	23.28	23.60
26		21.81	21.81						16.90
25	12.1	21.86	21.81	0.02	21.88	21.83	5.6	21.89	25.34
24	10.2	21.92	21.85	0.09	22.01	21.94	5.4	22.06	23.61
23	8.5	22.11	21.99	0.11	22.21	22.10	5.4	22.31	24.24
22	8.6	22.36	22.24	0.11	22.46	22.35	5.3	22.49	23.60
21	7.2	22.52	22.44	0.15	22.68	22.59	5.1	22.70	23.60
20	5.0	22.75	22.62	0.25	22.99	22.87	5.1	23.08	24.17
19	5.0	23.13	23.00	0.16	23.29	23.16	5.2	23.32	23.60
18	2.5	23.33	23.30	0.08	23.41	23.38	4.8	23.42	23.61
27	2.3	21.90	21.88	0.04	21.94	21.92	3.4	21.96	23.52
31		21.81	21.81						16.90
30	8.8	21.93	21.81	0.24	22.17	22.05	4.6	22.24	24.76
29	7.0	22.33	22.09	0.28	22.61	22.37	4.8	22.71	23.61
28	2.4	22.72	22.69	0.05	22.77	22.74	4.2	22.78	23.60
40	3.2	22.73	22.67	0.06	22.78	22.73	4.8	22.81	25.15
39	3.2	22.83	22.78	0.05	22.88	22.82	4.5	22.90	25.35
38	3.3	22.92	22.87	0.06	22.98	22.93	4.4	22.99	23.60
32	1.9	22.24	22.23	0.02	22.27	22.25	3.7	22.27	23.69

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

HEC-22

Storm Drain Computations

Structure ID		Length (ft)	Drainage Area (ac)	Runoff Coeff "C"	Tc (min)	Rain "I" (in/hr)	Runoff "Q" (cfs)	Known Q (cfs)	Total Q (cfs)	Pipe Dia. (in)	Velocity Design (ft/s)	Invert Elevation		Slope
From	To											U/S	D/S	
4	5	116	0.31	0.60	15	6.58	3.7		3.7	18	6.7	17.20	15.10	1.82%
3	4	38			11	7.20	2.7		2.7	18	3.2	17.31	17.20	0.30%
2	3	76	0.26	0.65	11	7.26	2.6		2.6	18	3.2	17.54	17.31	0.30%
37	2	153	0.36	0.50	10	7.42	1.3		1.3	18	2.7	18.00	17.54	0.30%
35	3	34	0.02	0.60	6	8.08	0.2		0.2	18	1.6	18.57	18.44	0.40%
34	35	10	0.02	0.60	6	8.10	0.1		0.1	18	1.2	18.60	18.57	0.30%
10	53	87			10	7.35	2.3		2.3	18	3.1	17.94	17.69	0.30%
9	10	79	0.52	0.60	10	7.42	2.3		2.3	18	3.1	18.18	17.94	0.30%
16	17	185	0.32	0.60	14	6.76	9.5		9.5	30	4.4	15.66	15.10	0.30%
15	16	150	0.45	0.60	13	6.86	8.3		8.3	24	4.2	16.55	16.10	0.30%
14	15	150	0.28	0.65	13	6.97	6.5		6.5	24	4.0	17.00	16.55	0.30%
13	14	150	0.37	0.65	12	7.08	5.3		5.3	18	3.7	17.45	17.00	0.30%
12	13	217	0.49	0.60	11	7.26	3.7		3.7	18	3.5	18.10	17.45	0.30%
11	12	167	0.43	0.50	10	7.42	1.6		1.6	18	2.8	18.60	18.10	0.30%
25	26	65			17	6.41	12.1		12.1	36	8.9	16.28	15.10	1.83%
24	25	144	0.53	0.50	16	6.46	10.2		10.2	30	4.5	16.71	16.28	0.30%
23	24	75			16	6.49	8.5		8.5	24	4.3	16.94	16.71	0.30%
22	23	75	0.35	0.60	16	6.52	8.6		8.6	24	4.3	17.16	16.94	0.30%
21	22	150	0.68	0.55	15	6.58	7.2		7.2	24	4.1	17.61	17.16	0.30%
20	21	110			13	6.90	5.0		5.0	18	3.7	17.94	17.61	0.30%
19	20	70	0.75	0.50	13	6.95	5.0		5.0	18	3.7	18.15	17.94	0.30%
18	19	150	0.69	0.50	12	7.09	2.5		2.5	18	3.1	18.60	18.15	0.30%
27	25	84	0.56	0.55	10	7.42	2.3		2.3	18	3.1	18.60	18.35	0.30%
30	31	160			13	6.90	8.8		8.8	24	8.0	17.68	15.10	1.61%
29	30	64	0.43	0.55	13	6.95	7.0		7.0	18	3.9	17.87	17.68	0.30%
28	29	109	0.46	0.65	8	7.76	2.4		2.4	18	3.1	18.60	18.27	0.30%
40	29	61			13	7.00	3.2		3.2	18	3.4	18.06	17.87	0.30%
39	40	50			12	7.04	3.2		3.2	18	3.4	18.43	18.28	0.30%
38	39	58	0.92	0.50	12	7.09	3.3		3.3	18	3.4	18.60	18.43	0.30%
32	30	71	0.48	0.55	12	7.09	1.9		1.9	18	2.9	18.60	18.39	0.30%

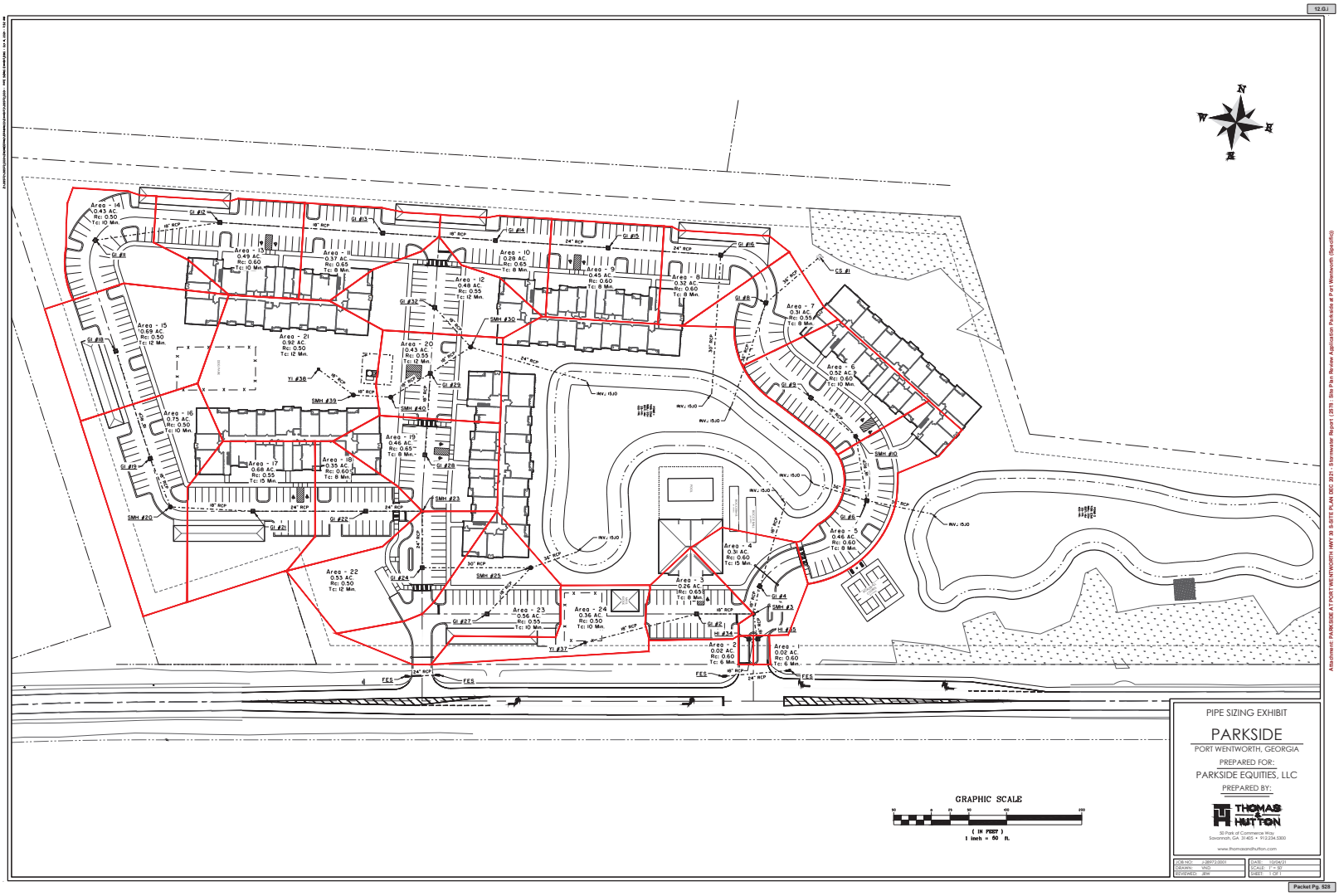
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report (2578 : Site Plan Review Application

HEC-22

Inlet Capacity Results

Structure	Q=CIA/Kc (cfs)	Known Q (cfs)	Longitudinal Slope SL (ft/ft)	Cross Slope *Sx* (ft/ft)	Cross Slope *Sw* (ft/ft)	Prev. Bypass Flow (cfs)	Total Gutter Flow (cfs)	Depth *d* (ft)	Gutter Width (ft)	Spread *T* (ft)	Inlet Type	Grate Length (in)	Grate Width (in)	Curb Opening Length (in)	Curb Opening Height (in)	Intercept Flow Q*i* (cfs)	Bypass Flow Q*b* (cfs)	Bypass Structure	Remark
37	1.3		-1.00	0.02			1.3	0.2		10.4	Grate inlet	24.0	24.0			1.3			
2	1.3		-1.00	0.02			1.3	0.2		8.9	Grate inlet	23.8	23.8			1.3			
4	1.2		-1.00	0.02			1.2	0.2		8.5	Grate inlet	23.8	23.8			1.2			
34	0.1		-1.00	0.02			0.1	0.0		2.0	Combination	20.0	10.9	20.0	4.2	0.1			
35	0.1		-1.00	0.02			0.1	0.0		2.2	Combination	20.0	10.9	20.0	4.2	0.1			
9	2.3		-1.00	0.02			2.3	0.3		12.9	Grate inlet	23.8	23.8			2.3			
11	1.6		-1.00	0.02			1.6	0.2		10.0	Grate inlet	23.8	23.8			1.6			
12	2.2		-1.00	0.02			2.2	0.3		12.4	Grate inlet	23.8	23.8			2.2			
13	1.9		-1.00	0.02			1.9	0.2		11.2	Grate inlet	23.8	23.8			1.9			
14	1.4		-1.00	0.02			1.4	0.2		9.3	Grate inlet	23.8	23.8			1.4			
15	2.1		-1.00	0.02			2.1	0.2		12.0	Grate inlet	23.8	23.8			2.1			
16	1.5		-1.00	0.02			1.5	0.2		9.6	Grate inlet	23.8	23.8			1.5			
18	2.5		-1.00	0.02			2.5	0.3		13.4	Grate inlet	23.8	23.8			2.5			
19	2.8		-1.00	0.02			2.8	0.3		14.5	Grate inlet	23.8	23.8			2.8			
21	2.5		-1.00	0.02			2.5	0.3		13.5	Grate inlet	23.8	23.8			2.5			
22	1.7		-1.00	0.02			1.7	0.2		10.2	Grate inlet	23.8	23.8			1.7			
24	1.9		-1.00	0.02			1.9	0.2		11.2	Grate inlet	23.8	23.8			1.9			
27	2.3		-1.00	0.02			2.3	0.3		12.8	Grate inlet	23.8	23.8			2.3			
38	3.3		-1.00	0.02			3.3	0.5		24.8	Grate inlet	24.0	24.0			3.3			
28	2.4		-1.00	0.02			2.4	0.3		13.0	Grate inlet	23.8	23.8			2.4			
29	1.7		-1.00	0.02			1.7	0.2		10.3	Grate inlet	23.8	23.8			1.7			
32	1.9		-1.00	0.02			1.9	0.2		11.2	Grate inlet	23.8	23.8			1.9			

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Stormwater Report



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 inch = 50 ft.

PIPE SIZING EXHIBIT

PARKSIDE

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

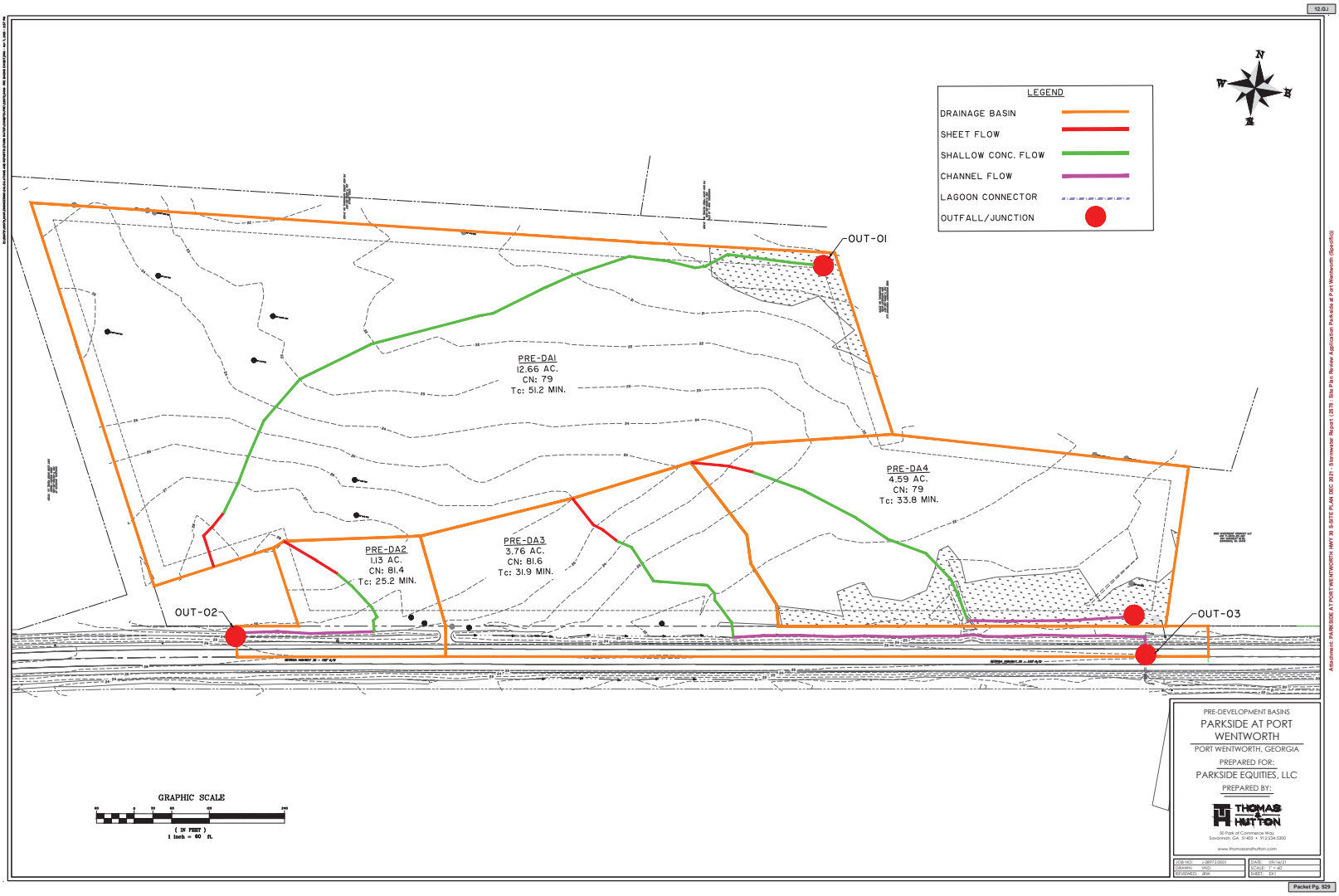
THOMAS & HUTTON

30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300

www.thomasandhutton.com

JOB NO:	J-38972.0001	DATE:	10/04/21
DRAWN:	WGS	SCALE:	1" = 50'
REVIEWED:	JBW	SHEET:	1 OF 1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 SITE PLAN (DEC 2021 : Stormwater Report (2570 : Site Plan Review Application Parkside at Port Wentworth (Specific))



PRE-DEVELOPMENT BASINS

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

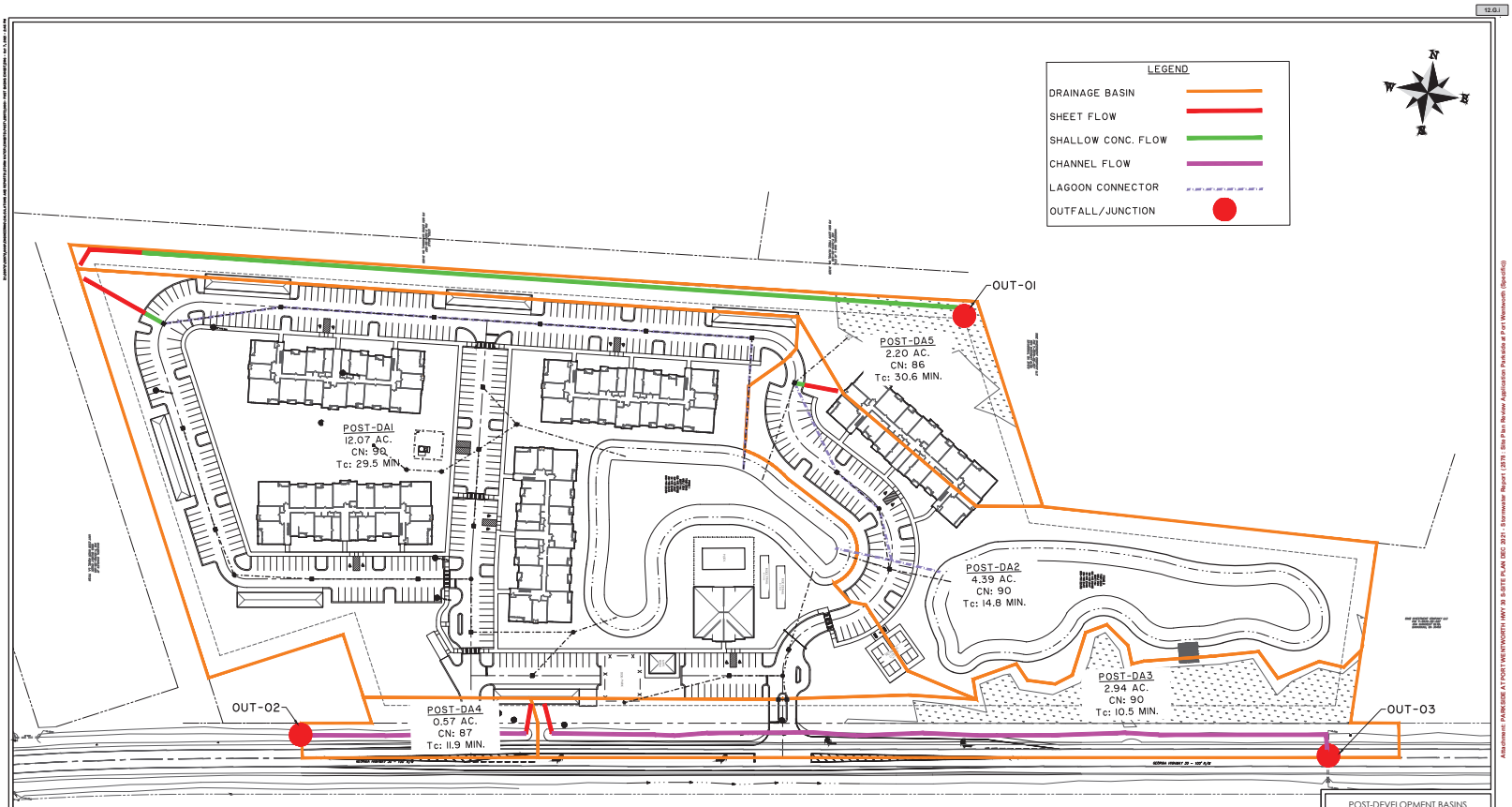
THOMAS & HUTTON

30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300

www.thomasandhutton.com

JOB NO:	J-38972.0001	DATE:	09/16/21
DRAWN:	MGD	SCALE:	1" = 60'
REVIEWED:	JRW	SHEET:	EX1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 SITE PLAN (DEC 2021 : Stormwater Report (2575) : Site Plan Review Application Parkside at Port Wentworth (Specific))



GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

POST-DEVELOPMENT BASINS

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, GEORGIA

PREPARED FOR:

PARKSIDE EQUITIES, LLC

PREPARED BY:

THOMAS & HUTTON
30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

JOB NO:	J-38972.0001
DRAWN:	MGD
REVIEWED:	JBW
DATE:	09/16/21
SCALE:	1" = 60'
SHEET:	EX1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 SITE PLAN (DEC 2021 - Stormwater Report (2570 : Site Plan Review Application Parkside at Port Wentworth (Specific))

THOMAS & HUTTON

WATER DESIGN CONSIDERATION

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, G

Prepared fo

PARKSIDE EQUITIES, LL(

J – 28972.000

SEPTEMBER 17, 202

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

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Section 4.0 WATERCAD RESULTS

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THOMAS & HUTTON

SECTION 1 – WATER DESIGN CONSIDERATION

PARKSIDE AT PORT WENTWORTH

PORT WENTWORTH, G

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J – 28972.000

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Parkside at Port Wentworth J-28972.0001
Parkside Equities, LLC 9/17/2021
Thomas & Hutton
Water Design Considerations JTD

PROJECT NARRATIVE

Parkside Equities, LLC (Applicant) proposes the development of approximately 20.4 acres of a multifamily complex. The project includes a total of 235 dwelling units, a mail building, trash compactor, pool area with amenity building, stormwater ponds, drainage pipes and structures, water, gravity sewer, and a small pumpstation as proposed as part of this project.

PROJECT CALCULATIONS

Problem:
Determine the average daily demand.
Determine the peak day demand.
Determine the peak hour demand.
Determine Peak Instantaneous flow.

Given:
Average daily use = Based on Port Wentworth Comprehensive Development Manual/ Ordinance and/or Georgia EPD

DESIGN LOADING (W)

Usage Description	Units		Usage (Per Unit) GPD	GPM
Dwelling Units	235		350	57.12
Club House (per member)	50		50	1.74
Maintence Building	1		350	0.24
Dog Park (average attendance, per person)	2		100	0.14
		TOTAL:		59.24

WATER DEMANDS TABLE

Demand Node	Demand Node (Only PDD+Fire Flow Scenario)	Exhibit Identifier	Building Type	Total Building Units				Total Dwelling Units	No. of Members	Total GPD (W)	Total GPM (Water)
J-5	J-5	A	Club House	1				50	50	2500	1.74
J-7	J-7	B	Dwelling Units	1				47		16450	11.42
J-9	J-9	C	Dwelling Units	1				47		16450	11.42
J-16	J-16	D	Dwelling Units	1				47		16450	11.42
J-13	J-13	E	Dwelling Units	1				47		16450	11.42
J-11	J-11	F	Dwelling Units	1				47		16450	11.42
J-35	J-35	H	Dog Park	1				1	50	100	0.07
			Total Units	=				**286**			
			WATER AVERAGE DAILY FLOW (GPD)						=	**84,850**	**GPD**

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Parkside at Port Wentworth J-28972.0001
Parkside Equities, LLC 9/17/2021
Thomas & Hutton
Water Design Considerations JTD

AVERAGE DAY FLOW

24		Hours	=	1440 min/day
84,850	1440	min/day	=	58.92 **GPM**

PEAKING FACTORS

Average daily flows will vary continuously throughout each day with peak flows occuring at some point. The peaking factors, which is applied to

The "Ratio of Peak Hourly flow to Design Average Flow" from Recommended Standards for Wastewater Facilities (10 State Standard) was utilitized to calculate peaking factors.

This consideration for the new, proposed water system for the development will include a review of alternatives in which the system must satisfy

PEAK DAY FLOW

Use Peak Factor of **2.5**

59	x	**2.5**	=	**147.31 GPM**

PEAK HOUR

Use Peak Factor of **3.5**

59	x	**3.5**	=	**206.23 GPM**

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

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SECTION 2 – FIRE HYDRANT FLOW TEST RESULT

PARKSIDE AT PORT WENTWORTI

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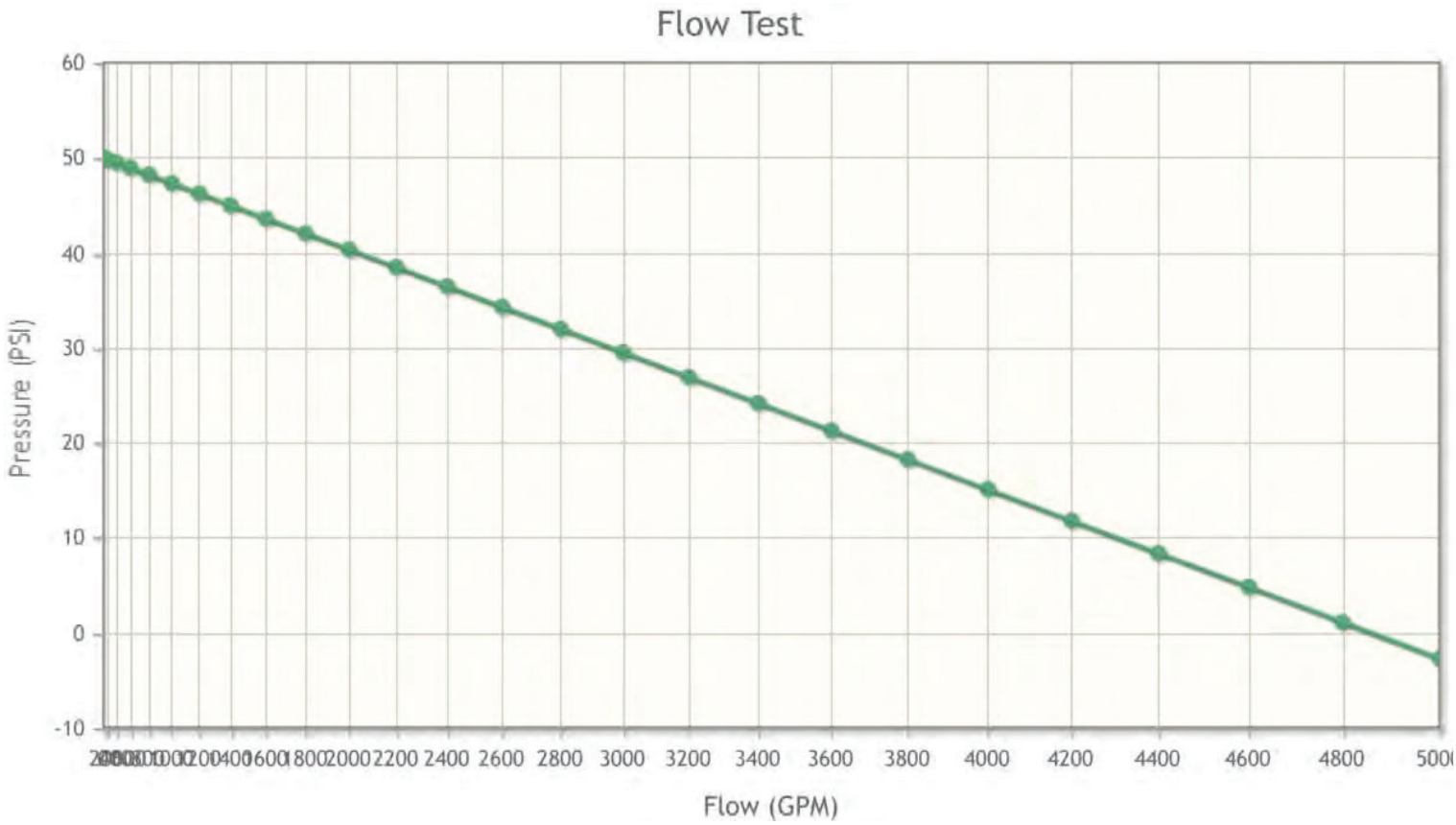
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

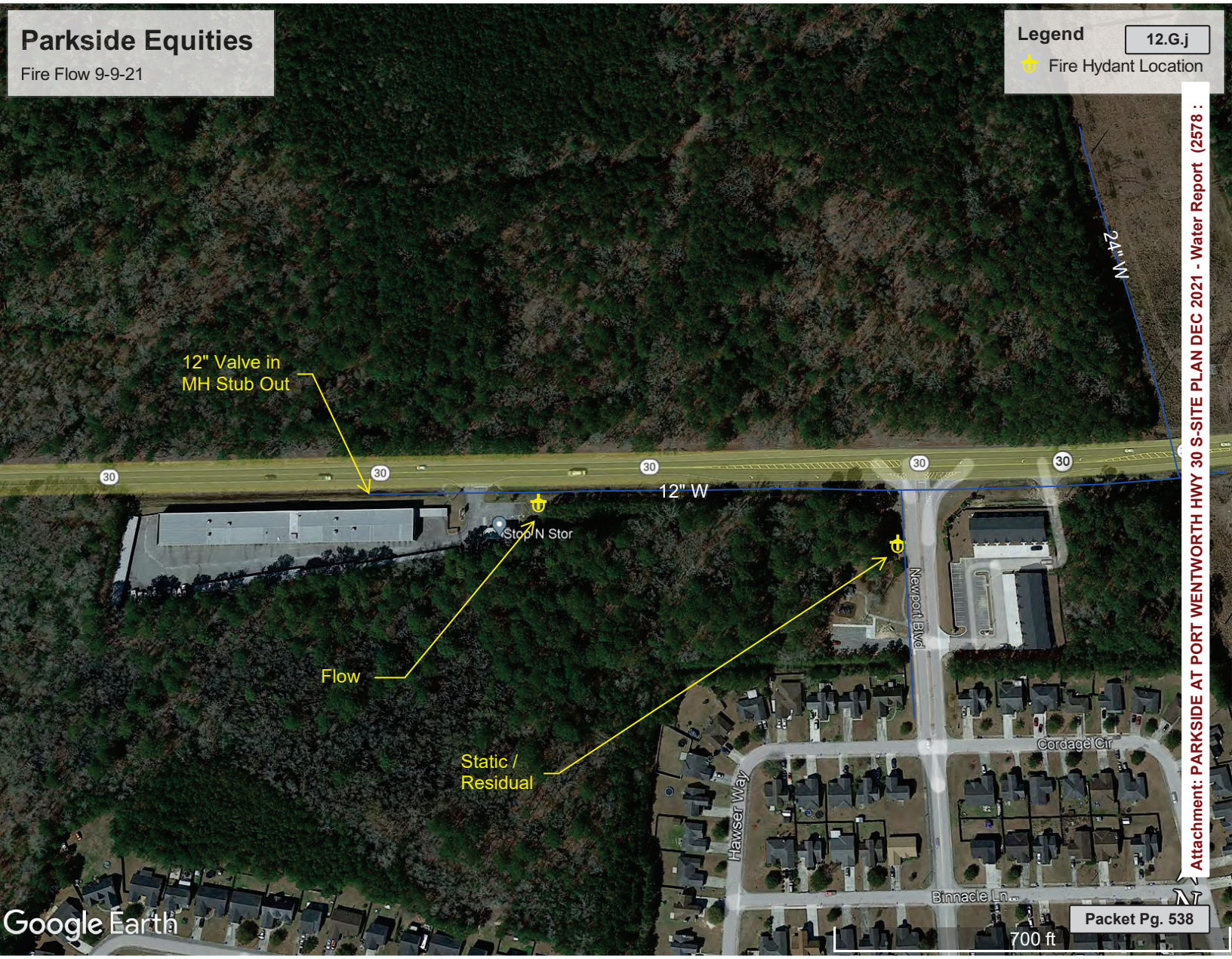
WATER FLOW TEST SUMMARY SHEET

Hydrant No.	Outlet I.D. inches	Pitot Press. psi	Flow gpm	Residual psi
1	2.5	17.5	700 / 700	45
2				
3				
Total Flow			1,400	45

Date: 9-9-21	Time: 3:22 PM	Project No.: 28972.0001	
Location: Pt. Wentworth Hwy 30 Stop & Store			
Notes: See attached drawing for hydrant location			
Empirical Flow @ 20 psi 3,684 gpm		Empirical Flow @ 0 psi 4,854 gpm	
Static Pressure: 50 psi		Estimated water usage: 2,100 gals	



Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 :


Parkside Equities
Fire Flow 9-9-21
Legend
12.G.j
Fire Hydant Location
24" W
12" Valve in
MH Stub Out
12" W
Stop N Stor
Flow
Static /
Residual
Newport Blvd
Cordage Cir
Hawser Way
Binnacle Ln
Google Earth
700 ft
Packet Pg. 538
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 :

Parkside Port Wentworth Hydrant Flow Test
Measured Hydrant near Stop-n-Stor on Hwy 30, Port Wentworth

Port Wentworth, Georgia

Date of Flow Test: 9/9/2021
Time of Flow Test: 3:22 PM

Hydrant Flow	1400	gpm
Static Pressure	50	psi
Residual Pressure	45	psi

Find Flows at Various Design Pressures (Pd)
Q = Q(hyd) x (Static Pressure - Pd/Static Pressure - Residual Pressure)^0.54

Pd (psi)	Pd (ft)	Qd	Notes
0	0	4854	
20	46	1400	Max Operating
25	58	3339	
30	69	2960	
40	92	2036	
45	104	1400	Residual Pressure
46	106	1241	
47	109	1063	
48	111	854	
50	116	0	Shut off pressure (Static Pressure)

Notes:

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

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SECTION 3 – WATERCAD NODE EXHIBI

PARKSIDE AT PORT WENTWORTI

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J – 28972.000

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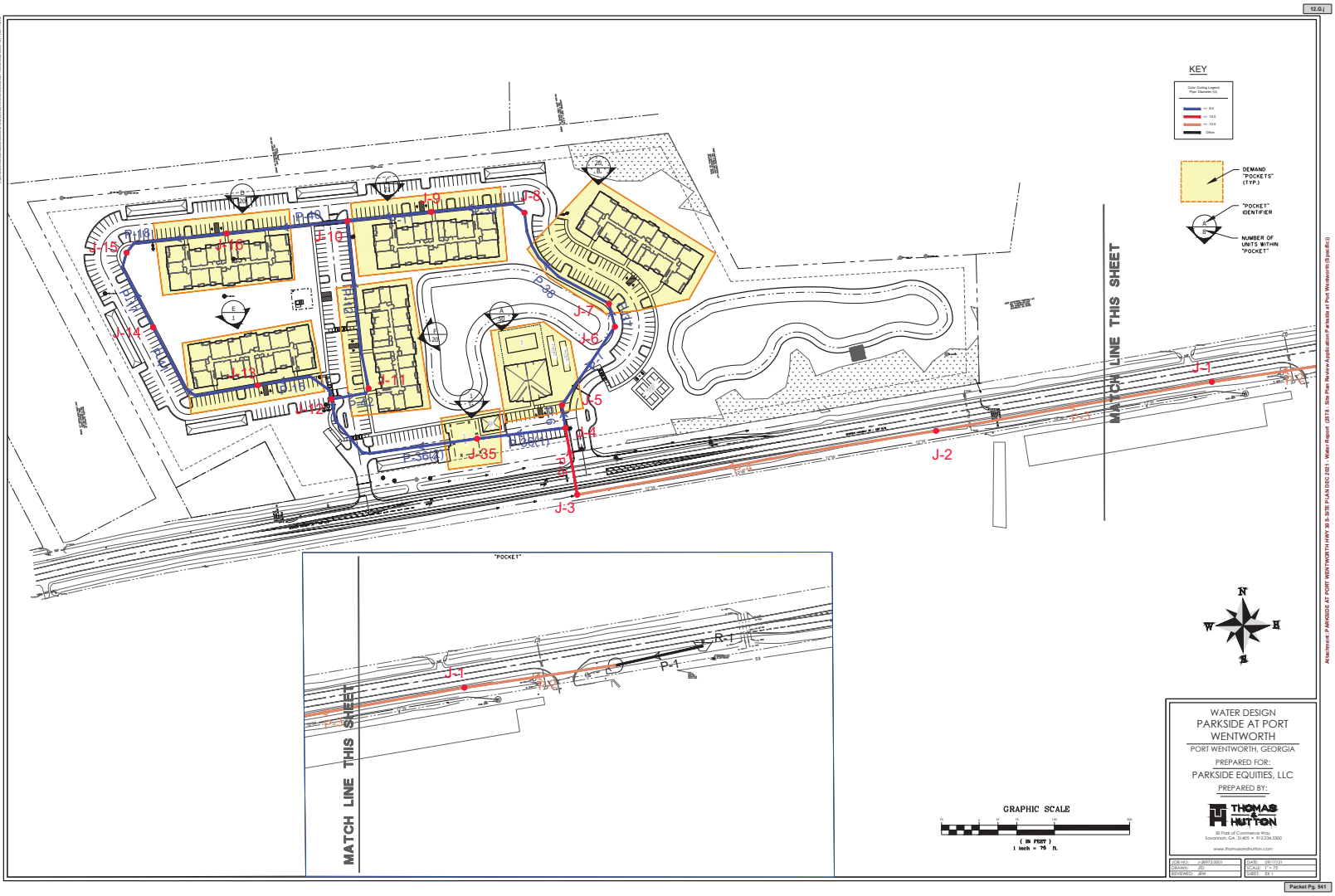
Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside



WATER DESIGN
PARKSIDE AT PORT WENTWORTH
PORT WENTWORTH, GEORGIA

PREPARED FOR:
PARKSIDE EQUITIES, LLC

PREPARED BY:
THOMAS & HUTTON
30 Port of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

JOB NO:	J-39972.0001
DRAWN:	JSD
REVIEWED:	JBW
DATE:	09/17/21
SCALE:	1" = 70'
SHEET:	EX.1

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (3974 : Site Plan Review Application-Parkside at Port Wentworth (Specific))

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SECTION 4 – WATERCAD RESULT

PARKSIDE AT PORT WENTWORTI

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J – 28972.000

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Peak Day -
Junction Table

FlexTable: Junction Table

Label	Elevation (ft)	Hydraulic Grade (ft)	Is Active?	Demand (gpm)	Pressure (psi)
J-1	22.50	139.12	True	0	50
J-2	22.50	139.08	True	0	50
J-3	22.50	139.03	True	0	50
J-13	22.50	138.93	True	29	50
J-15	22.50	138.93	True	0	50
J-16	22.50	138.93	True	29	50
J-5	22.50	139.00	True	4	50
J-4	22.50	139.01	True	0	50
J-7	22.50	138.96	True	29	50
J-10	22.50	138.94	True	0	50
J-11	22.50	138.94	True	29	50
J-8	22.50	138.95	True	0	50
J-9	22.50	138.94	True	29	50
J-6	22.50	138.97	True	0	50
J-12	22.50	138.94	True	0	50
J-14	22.50	138.93	True	0	50
J-35	22.50	138.98	True	0	50

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Peak Day - Pipe Table

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
178	R-1	PMP-1	48.0	130.0	147	0.03
305	PMP-1	J-1	12.0	130.0	147	0.42
558	J-1	J-2	12.0	130.0	147	0.42
727	J-2	J-3	12.0	130.0	147	0.42
210	J-15	J-16	8.0	130.0	6	0.04
46	J-5	J-4	8.0	130.0	-79	0.50
135	J-4	J-3	10.0	130.0	-147	0.60
337	J-10	J-11	8.0	130.0	-5	0.03
168	J-10	J-9	8.0	130.0	-17	0.11
189	J-5	J-6	8.0	130.0	74	0.47
172	J-12	J-13	8.0	130.0	35	0.22
165	J-15	J-14	8.0	130.0	-6	0.04
48	J-6	J-7	8.0	130.0	74	0.47
264	J-7	J-8	8.0	130.0	46	0.29
193	J-8	J-9	8.0	130.0	46	0.29
242	J-10	J-16	8.0	130.0	23	0.14
289	J-14	J-13	8.0	130.0	-6	0.04
81	J-12	J-11	8.0	130.0	34	0.22
178	J-4	J-35	8.0	130.0	69	0.44
358	J-35	J-12	8.0	130.0	69	0.44

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Peak Day -
Pump Table

FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Pump Status	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	22.00	PARKSIDE HYDRANT	On	23.50	139.12	147	115.62

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 :

Peak Hour - Junction Table with Fire Flow

FlexTable: Junction Table

Label	Elevation (ft)	Hydraulic Grade (ft)	Is Active?	Demand (gpm)	Pressure (psi)
J-1	22.50	89.87	True	0	29
J-2	22.50	87.87	True	0	28
J-3	22.50	85.26	True	0	27
J-13	22.50	78.64	True	40	24
J-15	22.50	76.61	True	1,001	23
J-16	22.50	77.81	True	40	24
J-5	22.50	83.80	True	6	27
J-4	22.50	84.08	True	0	27
J-7	22.50	82.43	True	40	26
J-10	22.50	79.39	True	0	25
J-11	22.50	79.49	True	40	25
J-8	22.50	81.09	True	0	25
J-9	22.50	80.11	True	40	25
J-6	22.50	82.70	True	0	26
J-12	22.50	79.54	True	0	25
J-14	22.50	77.35	True	0	24
J-35	22.50	82.57	True	0	26

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Peak Hour - Pipe Table with Fire Flow

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
178	R-1	PMP-1	48.0	130.0	1,207	0.21
305	PMP-1	J-1	12.0	130.0	1,207	3.42
558	J-1	J-2	12.0	130.0	1,207	3.42
727	J-2	J-3	12.0	130.0	1,207	3.42
210	J-15	J-16	8.0	130.0	-533	3.40
46	J-5	J-4	8.0	130.0	-546	3.49
135	J-4	J-3	10.0	130.0	-1,207	4.93
337	J-10	J-11	8.0	130.0	-113	0.72
168	J-10	J-9	8.0	130.0	-460	2.94
189	J-5	J-6	8.0	130.0	540	3.45
172	J-12	J-13	8.0	130.0	508	3.24
165	J-15	J-14	8.0	130.0	-468	2.99
48	J-6	J-7	8.0	130.0	540	3.45
264	J-7	J-8	8.0	130.0	500	3.19
193	J-8	J-9	8.0	130.0	500	3.19
242	J-10	J-16	8.0	130.0	573	3.66
289	J-14	J-13	8.0	130.0	-468	2.99
81	J-12	J-11	8.0	130.0	153	0.98
178	J-4	J-35	8.0	130.0	661	4.22
358	J-35	J-12	8.0	130.0	661	4.22

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 : Site Plan Review Application Parkside

Peak Hour -
Pump Table
with Fire Flow

FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Pump Status	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	22.00	PARKSIDE HYDRANT	On	23.50	89.88	1,207	66.38

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Water Report (2578 :

114 North Commerce Street
Hinesville, Georgia 31313
Office: (912) 368-5664
Fax: (912) 368-7206

TR LONG ENGINEERING, P.C.

308 Commercial Drive
Savannah, Georgia 31406
Office: (912) 335-1046
Fax: (912) 355-1642

November 4, 2021

Mr. Brian Harvey
City of Port Wentworth
7224 Georgia Highway 21
Port Wentworth, Georgia 31407

Re: Site Development Plans of
Parkside at Port Wentworth
Port Wentworth, Georgia

Dear Mr. Harvey,

T. R. Long Engineering, P.C. has reviewed the specific development plans entitled "Site Development Plans of Parkside at Port Wentworth" prepared by Thomas & Hutton dated October 8, 2021. We offer the following comments regarding this assessment:

1. T. R. Long Engineering, P.C. recommends that the water and sewer systems inside the property of this development be privately maintained. The watermains in State Route 30 should be public up to the master meter.
2. Please add additional dimensions for the site including parking, pull-offs, stormwater ponds tennis courts and other amenities. The plans do show some information for these items, but it is insufficient to layout these facilities without the CAD file. While we realize the CAD file will be shared with most people involved in the construction process, the paper plans will be the governing document.
3. Please include layout information for the location of each unit.
4. Include a master meter for the water system near the main entrance off State Route 30 prior to the interior loop.
5. Please show the re-use water system mains.
6. Use a minimum 4" force main. Update the design calculations as well.
7. Please add stationing along the water and force main route along State Route 30 for clarity.
8. Please show sewer service laterals.
9. Please add fire hydrants along State Route 30.
10. Add a 12" gate valve near the end of the water main along State Route 30.
11. Add an 8" gate valve on the branch of the 10"x8" tee near the entrance.
12. Add 2 gate valves near the tee on the west side of building 2000.
13. Add 2 gate valves near the tee on the west side of building 5000.
14. Please provide fire flow demand calculations.
15. The force main profiles appear to show the existing grade for both entries on the profile band. Please adjust one of the elevation entries to show the finished invert of the force main.
16. Please show grades for the proposed force main.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - 1st Comment Letter TR LONG 12.8.2 (2578 : Site Plan Review

17. Consider adding an air release valve between the valve near station 9+50 and the surge manhole.
18. Provide a detail for the surge manhole.
19. The capacity of the downstream pump station is under review. Information regarding the capacity of the downstream system will be provided separately.
20. The liner for the wet well shall include the underside of the top so that all exposed concrete is covered.
21. Please indicate the hatch size for the pump station top and valve vault top. Include statement that pumps and railing system will operate as designed without twisting or turning the pump to remove from the pump station.
22. Provide electrical design for the pump station.
23. Overflow structure for Pond 2 should be constructed of concrete.
24. The side view of the control structure #1 on sheet C5.3 shows one weir elevation. There are several hidden lines that appear to indicate that the weirs are at different elevations. Please verify the invert elevation of each weir.
25. Please show pipe information between CS#1 and Pond 1.
26. The drainage pipes under both entrances off State Route 30 do not appear to accommodate the road widths, a 6 feet wide shoulder and a 6:1 side slope to the invert of the pipe. Please extend each of these pipes.
27. The driveway pipe for the second driveway appears to be graded backwards. Please revise.
28. There does not appear to be enough cover over the driveway pipe for the main entrance. Please revise as necessary.
29. There does not appear to be enough cover over the driveway pipe for the second driveway. Please revise as necessary.
30. Revise the grades along State Route 30 to maintain at least a shoulder that is six feet wide.
31. Maintain a 2% slope away from State Route 30. There are several areas where this grade does not appear to be maintained.
32. The fillet radius for each driveway appear not to meet the Department of Transportation standard. Please revise so that all dimensions meet the Department of Transportation standard.
33. Provide grades for the dumpster pad.
34. Please provide grades for the mail house.
35. Provide access for maintenance vehicles to the pond 2 overflow. This access can be grassed.
36. Please provide a copy of the approval from GDOT upon receipt.
37. Please provide a traffic study for this development for review.

Should you have any questions, comments, or need any additional information, please contact us.

Sincerely,

Trent R. Long, P.E.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - 1st Comment Letter TR LONG 12.8.2 (2578 : Site Plan Review

Project Timeline

Parkside at Port Wentworth, Highway 30 – S-Site Plan

Applicant: Parkside Equities, LLC

Applicant Engineer: Rusty Windsor, Thomas & Hutton

Review Engineer: Trent Long, TR Long

Project #210421

- 10/18/2021—application received- Incomplete: missing PDF
- 10/20/2021 – sent email to Rusty Windsor for missing information
- 10/20/2021 – Received missing information
- 10/21/2021 – Sent site plan package to TR Long to start review
- 11/17/2021 – Sent email to TR Long for update on review
- 11/26/2021 – Public hearing notice ad posted in the Savannah Morning News
- 11/27/2021 – Public hearing notice letter mailed
- 12/2/2021 – Sent email to TR Long for update on review
- 12/9/2021 – received 1st review comment letter from TR Long. Letter forwarded to Rusty Windsor with Thomas & Hutton.

Attachment: PARKSIDE AT PORT WENTWORTH HWY 30 S-SITE PLAN DEC 2021 - Timeline (2578 : Site Plan Review Application Parkside at

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: City Council
Category: Appointment
Prepared By: Shanta Scarboro
Department Head: Shanta Scarboro

AGENDA ITEM (ID # 2583)

DOC ID: 2583

Request for Proposal (RFP) - 501(c)6 Organization for the City of Port Wentworth

Issue/Item: Request for Proposal (RFP) - 501(c)6 Organization for the City of Port Wentworth.

Background: The City of Port Wentworth, Georgia is authorized by the State of Georgia to levy and collect an excise tax upon hotels and motels in the City. The City may spend a percentage of the excise taxes for the purpose of promoting tourism, trade shows and for promoting, attracting, stimulating, and developing conventions and tourism in the City, etc.

As a result, a Request for Proposal (RFP) for any organization defined under Official Code of Georgia, Section 48-13-50.2 as being eligible to receive such designated tax funds and use them for the purposes intended by law was posted on June 3, 2021 with a deadline for submissions being set for July 6, 2021 by 5:00 p.m.

Those organizations that submitted a proposal were given the opportunity to elaborate on how their organization would use the funds for the benefit of the City and the Citizens of Port Wentworth during a Special Called Meeting that was held on Thursday, August 5, 2021 at 6:30 p.m.

Council decided during the August 5th meeting that they would hold all questions and concerns for each organization to the next regular meeting set for the 4th Thursday of August.

During the Regular City Council Meeting held on Thursday, August 26, 2021 Council did ask several questions of each organization that submitted a RFP. After all discussions were done, Mayor Pro Tem Linda Smith made a motion to approve the Port Wentworth Tourism Bureau as the recipient of the Hotel Motel Excise Tax Funds. Seconded by Council Member Lynwood Griner.

Vote results
Mayor Pro Tem Linda Smith - Yes/Aye
Council Member Mark Stephens - No/Nay
Council Member Lynwood Griner - Yes/Aye
Council Member Glenn Jones - Yes/AYe
Council Member Thomas Barbee - No/Nay

City Attorney Coursey stated for the record that Council's vote awarded the contract to the recipient of the 501(c)6 contract but that he will draft an agreement that will lay out the specifics to include the length of the contract.

Mayor and Council were presented with a draft contract for the Tourism Bureau during a City Council Workshop held on Wednesday, December 8, 2021.

Recommendation: Council is asked to finalize the scope of services and terms of the contract.

ATTACHMENTS:

- Tourism Bureau, Inc. Agreement (PDF)

EXCLUSIVE AGREEMENT
BETWEEN CITY OF PORT WENTWORTH, GEORGIA
AND PORT WENTWORTH TOURISM BUREAU, INC.
FOR DESTINATION MARKETING SERVICES

This Exclusive Agreement (the "Agreement") is made and entered into as of November 18, 2021, by and between the CITY of Port Wentworth, a Georgia Municipal Corporation ("CITY") and Port Wentworth Tourism Bureau, Inc. ("PWTB"), a 50l(c)(6) non-profit corporation created under the laws of the State of Georgia. CITY and PWTB are sometimes referred to in this Agreement individually as a "Party" or jointly as "Parties".

WHEREAS, O.C.G.A. § 48-13-51(b)(5)(A) provides that a certain percentage of the proceeds of the excise tax on hotels-motels are to be allocated toward promoting tourism, conventions, and trade shows by the destination marketing organization designated by the CITY; and

WHEREAS, the CITY has adopted a lodging excise tax at the rate of 6% pursuant to the provisions of O.C.G.A. § 48-3-51(a) (3.2); and

WHEREAS, the CITY desires to enter this Agreement with PWTB to provide the foregoing destination marketing services for CITY; and

WHEREAS PWTB is willing to provide the forgoing destination marketing services for the CITY and market, solicit, advertise, promote, sponsor and participate in meetings, trade shows, athletic or other exhibitions and competitions, film activities, outreach beyond the CITY boundaries, and all other activities which will attract tourists and businesses to the CITY; and

WHEREAS, the CITY shall support PWTB from the aforementioned hotel-motel taxes levied throughout the CITY and PWTB may be supported in part by private sector contributions.

NOW, THEREFORE, in consideration of the mutual promises, covenants, and agreements herein contained, the sufficiency of which is hereby agreed to by the Parties, the Parties hereto agree as follows:

I. Destination Sales and Marketing/Tourism Promotion Activities.

A. PWTB shall provide services that market the CITY in a way that promotes hotel stays, restaurant visits, shopping, and business visits, etc.. This goal will be accomplished through a combination of event planning, literature, radio, print ads, billboards, social media, responsive website design, business/hotel outreach and other methods. The expectation of the CITY is that PWTB will work with the businesses within the CITY but will also promote tourism and trade shows beyond the CITY and into other markets throughout the region.

B. PWTB shall promote the CITY (a) as a destination for local, State, and national meetings and events and (b) as a destination for tourism. PWTB shall (a) develop, arrange for printing, and distribute literature and media (including electronic and

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Internet-based media) necessary to promote the CITY to daytime and overnight tourists and visitors, conventions, and trade shows, and (b) identify activities and programs designed to promote the CITY for daytime and overnight tourists. PWTB shall coordinate its activities, as appropriate, with affiliated organizations and other tourism promotion entities. All of these activities shall be provided for in PWTB's Business Plan. PWTB will operate as a DEDESTINATION MARKETING ORGANIZATION ("DMO") in accordance with Georgia Law.

II. Annual Business and Marketing Plan.

A. PWTB shall submit an annual Business and Marketing Plan (the "Business Plan") to CITY by March 1 of each year, beginning March 1 2022. The Business Plan shall contain a detailed proposed budget and identification of activities with a statement of goals and standards for all activities contemplated pursuant to this Agreement. CITY shall review and approve the Business Plan by April 1 of each year. Failure to comply with this requirement shall be a breach of this Agreement, and shall, upon written notice, warrant cancellation of the Agreement for material breach of the Agreement's terms and conditions. The CITY may provide to PWTB in any given year a list of priorities for utilization of funds provided under the Hotel Motel/Transient Lodging Tax, and such priorities shall receive strong consideration when PWTB prepares its Business Plan. The Business Plan may not be modified without the Consent of the Mayor and Council. However, PWTB shall be responsible for its day-to-day operations, staffing, decisions and implementation of the Business Plan.

B. The Business Plan should contain a detailed budget predicated upon revenue estimates approved by CITY. Any and all job descriptions, qualifications requirements, salary ranges, bonus program, and hiring practices shall be included in the annual Business Plan. PWTB shall request in writing if it wishes to make any change to the Business Plan. The Mayor and Council shall have 30 days to respond to a written request whether to approve, deny, or ask for additional information. If no response is made to PWTB within 30 days, this will constitute an explicit approval and PWTB can move forward with the changes only as they were outlined in the written request.

C. The Business Plan shall provide for the following activities:

1. Stand up for America Day Festival:

   This festival takes place on a Saturday in the spring of each year. This event should be promoted, in part, through the marketing efforts of the PWTB. All allowable costs associated with this event are the responsibility of the CITY. All volunteers and staff and vendors will be selected by the CITY. The event promotions must be of a reasonable commercial quality and promote the best of what the CITY has to offer. PWTB should attend organizational meetings for the event and is expected to collaborate with the CITY.

2. Part time use of the Houston Church as a Museum and Welcome Center for Visitors, as agreed between the parties.

3. Other CITY Events as proposed and organized by the CITY.

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4. The Business Plan should address the following deliverables:

   a. Brand:
   Development and implementation of a Tourism Brand designed to generate interest in visiting, recreating, shopping, dining, and lodging in the CITY. The final design of the brand will incorporate to the extent possible every avenue related to the promotion as a destination for stopping and overnight stays.

   b. Responsive Website:
   This website will be developed and maintained by a webmaster and not a predefined template-based company. The domain name shall be registered as an independent website serving only the CITY. No banners shall be allowed to run across the website. Unless otherwise approved by the City Manager, only businesses within the CITY shall be allowed to advertise on the CITY website. All rights for this website must be transferable to the CITY upon termination of this Agreement. All fees associated with the website shall be paid by PWTB for the term of the contract.

   c. Social Media Campaign:
   The Social Media Campaign shall include the most current interactive sites to include such sites as Facebook, Twitter, and Instagram. The decision about what Social Media outlets to participate in shall be initiated by PWTB in collaboration with the CITY. The social media groups shall be used to extol the virtues of the CITY as a tourist, convention, cultural, recreational, activity center destination.

   d. Billboards:
   The number of billboards shall be dictated by the budgeted amount of hotel motel transient lodging tax funding.

   e. Advertisement:
   PWTB should work to advertise the CITY in a variety of highly visible applications. Each initiative for advertising should be reported in its quarterly report. Advertisements should include some presence at the airport and may include, magazines, internet ads. PWTB should consider how to measure and report customer response to and awareness of advertising.

   f. Initiative Timelines.
   90 Day Deliverables.
   -New event proposals, if any.
   -Draft sample initiative proposals.
   -Create a marketing plan for brand to include but not limited to responsive tourist website, brochures, posters, billboards, etc.
   -Contact the Savannah/Chatham County Chamber of Commerce, Georgia Chamber of Commerce, local Convention and Visitors Bureaus, and Airport to establish contacts and start the discussion for how we can market throughout the CITY in a relevant and effective

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manner.

Ongoing.

-Maintain and update Tourism website and develop and produce Tourism brand materials as needed.
-Maintain awareness of tourism trends and implement when feasible.
-Continually seek out operational efficiencies while implementing above initiatives.
-Think creatively and comprehensively on marketing efforts to include videos, internet, social media, billboards, print, airport hotels, airlines, other tourist centers, access television, local businesses, regional organizations and Chambers of Commerce, etc.

D. The ultimate goal of the activities initiatives and marketing of a DMO is to increase the overnight stays in the CITY hotels by visitors, guests, families of students, performance attendees, travelers, airport overflow, event participants, travelers, etc. Such an increase in overnight stays may also lead to the development of new quality hotels offering rooms situated in the CITY.

E. In consideration of the services provided hereunder, CITY hereby designates PWTB as the CITY's DESTINATION MARKETING ORGANIZATION (DMO) for purposes of O.C.G.A. § 48-13-5l(b)(5)(A). The CITY shall appropriate to PWTB 33 1/3 % of the proceeds from the 6% Hotel Motel Transient Lodging Tax collected during each fiscal year covered by this Agreement. Payments of all portions of the tax to be appropriated to PWTB shall be made on a monthly basis, based upon tax receipts received by the CITY of the Hotel Motel Transient Occupancy Tax collected during the preceding month. The appropriation provided for by this Section shall be segregated by PWTB and shall be designated as the "Promotion and Event Fund." Use of the Promotion and Event Fund shall be restricted to only those uses identified in this Agreement.

F. ln the event that any of the portion of the promotion and event fund that has already been transferred to PWTB and remains in existence at the end of any fiscal year, such unspent balance shall be carried over to PWTB's operational promotion and event fund for the subsequent year should this Agreement be renewed or the term of a new Agreement with PWTB begins by January 1, 2025, and shall not decrease the appropriation for the subsequent year.

G. Upon termination of this Agreement, whether at the then end of the Term or by early termination, and without renewal or a subsequent agreement taking effect by January 1, 2025, any funds remaining in the PWTB's operational promotion and event fund and which are attributable to hotel/motel transient lodging tax proceeds shall be promptly paid over to the CITY.

H. All hotel/motel transient lodging tax funds paid to PWTB shall be paid into PWTB’s operating promotional and event fund and shall be segregated from other revenues via appropriate accounting entries. Should this agreement terminate, all hotel/motel transient lodging tax funds remaining in PWTB’s operating account will be transferred to the CITY which will use the money as closely as possible for its original intent. Revenue generated by event rentals, donations, sponsorships, ticket sales, festivals, or

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any other events and initiatives created and managed by PWTB shall remain the property of PWTB.

I. The CITY shall provide unrestricted access to the Houston Church for use as a museum and visitors center. CITY shall be responsible for maintenance and payment of utilities for the Houston Church.

III. Ownership of Assets.

A. Ownership of buildings and real estate will not be affected by this Agreement. Ownership7 of consumable assets (i.e. office supplies, technical and office equipment, furniture and fixtures) shall vest in PWTB which shall have discretion as to the purchase, use and sale thereof. Ownership of all intellectual property rights pertaining to this Agreement shall remain or be placed in the name of the CITY.

B. Ownership of publications, brochures, and other inventories of similar materials shall remain with the CITY. However, production of said materials shall remain the responsibility of PWTB. Upon termination of this Agreement, any remaining possession or ownership of office equipment, furniture and fixtures purchased with Hotel/Motel Tax Proceeds, copies of computer records and copies of financial records pertaining to the Hotel/Motel Tax Proceeds shall be transferred by PWTB to the CITY.

C. All things created by PWTB for the CITY or with the hotel/motel tax dollars paid to PWTB shall remain with the CITY should this agreement ever be terminated. This includes all assets and materials not otherwise excluded herein as property to be retained by PWTB. It is understood by the parties that any asset that was designed or built by PWTB for the purposes of this agreement is ultimately the property of the CITY and the CITY retains all rights for such assets. Access and governance of all web-based assets including domain names, passwords, websites, social media, and the like, shall be transferred to the CITY upon termination of this agreement.

IV. Records and Accounting

PWTB shall maintain records and accounts that will allow CITY to assure a proper accounting for all public funds paid for the performance of this Agreement. Any written request by CITY for records related to the use of public funds by PWTB shall be responded to within a reasonable time, but not later than five (5) business days from the date of actual receipt by PWTB of any CITY request. PWTB shall make such records available for review by CITY and other authorized entities requiring such records. In addition, a monthly report shall be prepared by PWTB and shall be transmitted to the City Manager which shall show, at a minimum, a balance sheet as of the last day of the month, a statement of revenues, expenses and changes in fund balance consolidated for the month. Such records wi11 include detailed accounting of funds spent for specific projects or events, the types of projects or events, and how such projects or events conform as permissible expenditures under O.C.G.A. § 48-13-5l(b)(5)(A) and other applicable Georgia law(s). Additionally, PWTB will submit an file an end of fiscal year report with the CITY containing all necessary information for the CITY's Hotel Motel Tax report to the Georgia Department of Community Affairs. Such report shall be audited by an independent certified public accountant. These financial records and reports will be maintained by PWTB for at least

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three (3) years, or such longer period, as may be required by law or regulation after the expiration of this Agreement.

V. Quality of Service.

A. Quality of Materials and Operations. All of PWTB's literature, materials, brochures, or related items shall be of reasonable commercial quality and shall not contain any indecent, obscene or defamatory material. No materials protected by copyright or other intellectual property rights shall be produced, displayed or distributed without first acquiring the legal rights to do so.

B. Quality of Equipment. All permanent or temporary facilities, supplies, equipment, fixtures or similar services, materials or equipment purchased or used by PWTB in furtherance of this Agreement shall be of reasonable commercial quality for its intended use, and adequate for the function intended to be served.

C. Equal Opportunity. PWTB agrees that it will not discriminate against any employee or applicant for employment on the basis of race, color, gender, sexual orientation, religion, ancestry or national origin and shall take such affirmative action including but not limited to hiring, promotion or demotion, recruitment, layoff or termination, salary and selection for training, as is necessary to ensure that all employees and applicants are treated equally. PWTB and its agents shall not, in the performance of this Agreement, discriminate against any customer, potential customer, patron or other person on the basis of race, color, gender. sexual orientation, religion, ancestry, national origin or disability and shall provide services, facilities and other privilege to all such persons equally.

D. Insurance.

PWTB shall procure and maintain liability insurance naming the CITY as an additional insured in the amount of no less than one million dollars ($1,000,000) for all events solely sponsored by PWTB and involving the use of Hotel Motel Tax Transient Lodging Tax Proceeds; provided that where events are sponsored by the CITY and insurance coverage is provided by the CITY' s insurer or inter-local agreement provider for that event, PWTB shall be under no duty to purchase additional liability insurance for such event.

E. Indemnification and Limitation of Liability.

Any contractual obligation entered into or assumed solely by PWTB shall be the sole responsibility of PWTB and PWTB covenants and agrees to indemnify and hold the CITY harmless from any and all claims or causes of action arising out of such contractual obligations. PWTB shall provide for itself a general liability policy covering risks of PWTB's general operations and shall indemnify the CITY and hold the CITY harmless from any and all claims or causes of action arising out of PWTB's general operations. Further, except to the extent that liabilities arise from CITY or its employees, agents, or contractors' negligence or misconduct, PWTB agrees to indemnify, defend and protect CITY and its officers, directors, agents and employees from and against and hold CITY and its officers, directors, agents and employees

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harmless and free from any and all liability, loss, cost, expense or obligation, including without limitation reasonable attorneys' fees, court costs and other expenses, including without limitation, those of appeal, on account of or arising out of, injury to or death of any person or persons or damage to or loss of use of property, from whatever cause, occurring during the Term related in any way to this Agreement. Finally, PWTB employees, agents, contractors, subcontractors, or volunteers are not to be considered employees or contractors of the CITY for purposes of coverage by Workers Compensation insurance.

F. Designated Representatives and Notices.

Representatives. Each Party hereby designates the following as its representative (and its "Designated Representative" for notice purposes) for the administration of this Agreement:

PWTB: Avril Roy-Smith
16 Roseberry Cir.
Port Wentworth, GA 31407
Phone: 818-926-9468.

CITY: City Manager
7224 GA Highway 21
Port Wentworth, Georgia 31407
Phone: 912.964.4379
Fax: 912.966.7429

G. Notices. Notices pertaining to this Agreement shall be in writing and shall be transmitted either by personal delivery or by overnight delivery carrier and shall be deemed to be delivered upon actual receipt. The addresses set forth above shall be the addresses used for notice purposes unless written notice of a change of address is given.

H. Term and Termination.

1. This Agreement shall comply with O.C.G.A. § 36-60-13. Accordingly, the initial term of this Agreement shall commence on the date this Agreement is signed, November 18, 2021, and shall terminate absolutely and without further obligation on the part the CITY on the last calendar day of 2025 and at the end of each succeeding calendar year for which it may be renewed as provided herein. The initial term and any renewal terms are referred to herein as the "Term."

2. The CITY or PWTB may give a notice of material breach of this Agreement to the other party of any failure by the CITY or PWTB to observe, comply with or perform its material obligations under this Agreement. The party seeking to terminate this Agreement shall specify, in writing and in detail, the factual basis for any alleged material breach by the other party. Upon receipt of a notice of material breach, the party against whom a termination is sought shall have Sixty (60) days from the receipt of notice of material

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breach to cure such alleged material breach(s) within Sixty (60) days. If the party claimed to not be performing does not cure the claimed material breach(s), a notice of termination may be made setting a formal termination of agreement date not earlier than Thirty (30) days from the date of a notice of termination.

3. The parties agree that in the event the CITY terminates this Agreement for any non-material breach of the terms of the Agreement, PWTB's damages will be difficult to calculate. To avoid the cost and effort to attempt to calculate such damages, the parties agree that the CITY shall pay PWTB Fifty Percent 50% of the gross amount of hotel/motel transient lodging tax proceeds which were or should have been paid to PWTB or another DMO for the full year prior to PWTB's termination. Such payment shall be the exclusive remedy for termination of this Agreement for non-material breach(s) and shall satisfy all liability for such termination of this Agreement by the CITY.

4. This Agreement shall not be automatically renewed, but will be subject to evaluation by the CITY prior to the expiration date. Should the CITY choose to renew this Agreement, it will provide written notice of such renewal, and provide such notice no later than Ninety days (90) prior to the expiration of the Term. If such notice is not provided by that date, this Agreement shall not be renewed pursuant to the terms herein.

5. Each of PWTB's contracts with vendors or suppliers shall include language acknowledging the forgoing and the CITY's right to terminate this Agreement. Such contracts shall provide for (a) similar termination rights by PWTB and (b) the unilateral assignment of such contracts by PWTB to the CITY or any successor entity designated by the CITY.

V. Organization.

All activities of PWTB which utilize funds from the Hotel Motel/Transient Lodging Tax shall be subject to all provisions of Georgia law with respect to open meetings and open records. The parties acknowledge that PWTB is a separate and independent legal entity organized and established under the Laws of the State of Georgia and is not an office, arm or agency of the CITY. PWTB shall not represent that it has the power or authority to contract to bind or obligate the CITY to any third party. The parties acknowledge that any contracts entered into between PWTB and any third party shall not be an obligation of the CITY. No employee of PWTB shall accrue leave, retirement, insurance, or any other benefit afforded to employees of the CITY through the CITY.

VI. Miscellaneous.

a. Assignment. This Agreement may not be assigned by or transferred by PWTB, in whole or in part, without the prior written consent of the CITY.

b. Headings. The headings in this Agreement are for convenience and reference only, and shall not affect the interpretation of this Agreement.

c. No Joint Venture. PWTB shall perform its duties herein as an independent contractor.

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Notwithstanding anything contained herein to the contrary, nothing contained herein shall be considered to create the relationship of employer and employee, partnership, joint: venture or other association between the Parties, except as principal and independent contractor agent.

d. Waiver. No waiver by either Party of any one or more defaults by the other Party in the performance of any provisions of this Agreement shall operate or be construed as a waiver of any other default or defaults, whether of a like or different character.

e. Severability. If any provision of this Agreement or the application thereof to any person or circumstances shall to any extent be held in any proceeding to be invalid or unenforceable, the remainder of this Agreement shall be valid and enforceable to the fullest extent permitted by law, but only if, and to the extent, such enforcement would not materially and adversely alter the Parties' essential objectives as expressed herein.

f. Governing Law, Forum and Venue. This Agreement shall be subject to and construed in accordance with the laws of the State of Georgia with the courts of that State having jurisdiction to resolve all disputes which may arise under or which relate to this Agreement. Any and all claims or actions missing out of or relating to this Agreement shall be filed in and beard by any court of competent jurisdiction to hear such suits located in Chatham County, Georgia, and each Party hereby consents to the jurisdiction of such courts and irrevocably waives any objections thereto, including, without limitation, objections on the basis of improper venue or forum non convenience.

g. Counterparts and Facsimile Execution. This Agreement may be executed in any number of counterparts, each of which, when so executed and delivered, shall be deemed an original, and all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart of this Agreement by facsimile shall be equally as effective as delivery of a manually executed counterpart. Any Party hereto delivering an executed counterpart of this Agreement by facsimile shall also deliver a manually executed counterpart, but the failure to do so shall not affect the validity, enforceability or binding effect of the counterpart executed and delivered by facsimile.

h. Additional Documents. The Parties agree to execute and to deliver to each other any and all other additional documents and to take any additional steps reasonably necessary to complete, to document and to carry out the business transaction contemplated by this Agreement.

i. Negotiated Transaction. The drafting and negotiation of this Agreement has been participated in by all of the Parties. For all purposes, this Agreement shall be deemed to have been drafted jointly by each of the Parties.

j. Representation regarding Authority to Sign Agreement. Each of the representatives of the Parties signing this Agreement warrants and represents to the other that he, she or it has the actual authority to sign this Agreement on behalf of the Party for whom he or she is purporting to represent.

k. Entire Agreement. This Agreement and its exhibits contain the entire agreement

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between the Parties and it supersedes any prior written or oral agreements between the Parties concerning the subject matter of this Agreement. There are no representations, agreements, or understandings between the Parties relating to the subject matter of this Agreement which are not fully expressed within this Agreement and its exhibits.

l. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the respective heirs, successors, assigns, affiliates and personal representatives of the Parties.

m. Modification. This Agreement shall not be modified, amended, or changed except in a writing signed by each of the Parties affected by such modification, amendment or change.

n. Further Assurances. All of the Parties to this Agreement agree to perform any and all further acts as are reasonably necessary to carry out the provisions of this Agreement. Further, CITY agrees that it will not directly or indirectly through others to interfere with the operations of PWTB or the performance of its obligations and duties under this Agreement.

(SIGNATURES LOCATED ON THE FOLLOWING PAGE)

Attachment: Tourism Bureau, Inc. Agreement (2583 : Request for Proposal (RFP) - 501(c)6 Organization for the City of Port Wentworth)

lN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed by their duly authorized representatives, effective as of the date first set forth above.

CITY OF PORT WENTWORTH

By: _____
Mayor Gary Norton

By: _____
Edmund Booth
City Manager

Attest: _____
Clerk of Council

PORT WENTWORTH TOURISM BUREAU

By: _____
Avril Roy-Smith

Attest: _____

Attachment: Tourism Bureau, Inc. Agreement (2583 : Request for Proposal (RFP) - 501(c)6 Organization for the City of Port Wentworth)

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: City Council
Category: Agreement
Prepared By: Shanta Scarboro
Department Head: Shanta Scarboro

AGENDA ITEM (ID # 2582)

DOC ID: 2582

Professional Services Agreement with ClearWater Solutions, LLC

Issue/Item:
Professional Services Agreement with ClearWater Solutions, LLC to manage, operate and maintain the City's Water, Wastewater, Public Services and Sewer Lift Stations.

Facts / Findings:
The City of Port Wentworth (City) and ClearWater Solutions, LLC (ClearWater) entered into an agreement on July 1, 2018 whereby ClearWater will manage, operate and maintain the City's Water, Wastewater, Public Services, and Sewer Lift Stations and the City will compensate ClearWater for such services. The City shall terminate its labor for self-operation, maintenance, and management responsibilities of the System to be effective on the Contract Commencement Date as defined in the Contract, and ClearWater shall commence operation, maintenance, and management responsibilities effective on the Contract Commencement Date set forth in the Professional Service Agreement.

Recommendation:
Council is asked to review the contract and make a determination as to whether or not they would like to:
A. Extend the month-to-month contract
B. Terminate the month-to-month contract and issue a 1 to 3 year contract
C. Terminate the contract altogether

ATTACHMENTS:

- CWS Contract December 8 Draft (PDF)
- CWS Contract December 10 Draft (PDF)

PRIVATIZATION CONTRACT
FOR WATER, WASTEWATER, AND OTHER PUBLIC WORKS SERVICES
FOR THE CITY OF PORT WENTWORTH

THIS AGREEMENT is made on this_____ day of December 2021, the CITY of Port Wentworth, Georgia (hereinafter "CITY"), whose address for any formal notice is _____, Port Wentworth, Georgia 30407 and Clearwater Solutions LLC, (hereinafter "CWS") with offices at 2178 Moores Mill Road, Auburn, Alabama 36830.

'WHEREAS, O.C.G.A. § provides that *"Any public entity may enter into a wastewater facility privatization contract"* and *"may make such other agreements and perform such other acts consistent with law. as are determined by the public entity to be essary or convenient to effectuate the wastewater facility privatization contract;* and

WHEREAS, this Agreement for Wastewater Services (the "Agreement") constitutes a Wastewater Facility Privatization Contract under Georgia law, and the CITY has duly approved the Agreement as provided in O.C.G.A. §; and

WHEREAS, the CITY declares that the foregoing Water and Wastewater Facility Privatization Contract is in the public interest. CWS declares and warrants that it has the experience in water, sewer, or wastewater reuse utility operations and the ability to provide the services provided herein; and

WHEREAS, the Agreement provides for CWS to operate, maintain, repair, manage, administer the CITY's Facilities; and

WHEREAS, the Agreement provides for CWS to perform certain specified duties and responsibilities for the CITY's Public Services Department.

In Accordance with these declarations, the CITY and CWS agree as follows:

1. GENERAL

1.1 All definitions of words or phrases used in this Agreement are contained in Appendix A.

1.2 All grounds, facilities, equipment, and vehicles now owned by CITY or acquired by CITY shall remain property of CITY.

1.3 This Agreement shall be governed by and interpreted in accordance with laws of the State of Georgia. Venue for any disputes with respect to this Agreement shall be in the courts in and for Chatham County, Georgia.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

1.4 This Agreement shall be binding upon the successors and assigns of each of the parties, but neither party will assign this Agreement without the prior written consent of the other party; provided, however, that such consent shall not be unreasonably withheld.

1.5 All notices shall be in writing and transmitted by certified mail to the address noted above, in care of the respective party's Authorized Representative. Additionally, notices may be delivered to CWS' authorized representative on site at the Project. All notices shall be deemed effective (i) when delivered personally or (ii) when actually received by the party for which the notice is intended, if the notice is given by electronic mail or in any other manner.

1.6 This Agreement, including all Appendices constitutes the entire Agreement of the parties. This Agreement may be modified only by written agreement signed by both parties. Whenever used, the term "CITY" shall mean the CITY of Port Wentworth, acting, by and through its CITY Manager. Whenever used the term "CWS" shall mean ClearWater Solutions LLC acting by and through its officers, agents, directors, and employees. The parties agree that each party had equal input into the drafting of this Agreement such that no provision of the Agreement shall be construed strictly against one party as to drafting thereof.

1.7 If any term, provision, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

1.8 It is understood that the relationship of CWS to CITY is that of independent contractor. The services to be provided under this Agreement are of a professional nature and shall be performed in accordance with good and accepted industry practices for contract operators similarly situated.

1.9 Nothing in this Agreement shall be construed to create in any third party or in favor of any third party any right(s), license(s), power(s) or privilege(s).

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

2. CWS' OBLIGATIONS

General Obligations - CWS agrees to:

1. Provide services to CITY, pursuant to the terms of this Agreement.
2. Manage, operate, maintain and assume all responsibilities, obligations, and commitments associated with this Contract.
3. Operate and manage the CITY Water Well System, Wastewater Treatment Plant, Lift Stations and Public Services Departments and all associated duties on a 24-hour per day, 7 day per week basis, or· as required by the Georgia Environmental Protection Division (GEPD) permit and any other State or federal agencies or the CITY.
4. Provide ongoing training and education for appropriate personnel in all necessary areas of modem water and wastewater process control, operations, maintenance, safety, public services, development services, and supervisory skills, with CWS paying for such training and education.
5. Assist City with development of their annual Capital Improvements Program by recommending necessary water, sewer and public works infrastructure projects in association with the budgeting process prior to June 1.
6. Unless capital recommendations are required to meet regulatory criteria, CWS shall not be relieved of the responsibility to perform if the recommendations made to the CITY by CWS for system improvements are not implemented.
7. Maintain an employee safety program and an 'OSHA compliance program in compliance with applicable laws, rules and regulations and make recommendations to CITY regarding the need, if any, for CITY to rehabilitate, expand or modify the Project to comply with governmental safety regulations applicable to CWS' operations hereunder and federal regulations promulgated pursuant to the Americans with Disabilities Act ("ADA"). Nothing herein shall be construed to place upon CWS a duty to find and report violations of either safety laws or the ADA at the facilities other than reporting the violations to the CITY.
8. In an emergency affecting the safety of persons or property, CWS may act without written amendment or change order, at CWS' discretion, to attempt to prevent actual or threatened damage, injury or loss.
9. Prepare operating reports, test results, accountings and all other reports as required by federal and/or State law or regulations (including, but not limited to, those which are required by the Georgia Environmental Protection Department (EPD) and shall submit them to CITY for signature and transmittal to appropriate authorities as so requested. At the time of submission to the CITY, CWS will also provide a certification that the reports, test resultsor other reporting documents were created in the ordinary course of CWS' business and that they are true and accurate.
10. Provide all labor for laboratory testing and sampling presently required by system performance portions of the Water Supply permit, the Clean Water Act, the Safe Drinking Water Act, and/or any federal, State or Local rules and regulations, statutes or ordinances, permit or license requirements or judicial and regulatory orders and decrees.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

11. Will begin work pursuant to this Contract on **January 1, 2022, (the "Contract Commencement Date").**
12. If, during the course of this Agreement, any violation of federal, State or Local ordinance is discovered by CWS to have been made, CWS shall immediately notify the CITY Manager of the purported violation.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

2. SCOPE OF SERVICES FOR WATER AND WASTEWATER SYSTEMS - CWS

CWS shall perform the following services:

- Perform all operation and maintenance of CITY water distribution system, fire hydrants, watertanks, wells and CITY of Savannah metering connections.
- Repair leaks on water services and mains. Repairs that exceed the capabilities and capacity ofassigned crews can be contracted as a Maintenance and Repair expenditure.
- Perform location of water main and service (lateral) lines to the meter.
- Assist the CITY for meter reading services. Includes reconciling mis-reads and non-automatedmeter readings.
- As requested by the CITY during billing cycles, conduct re-reads on water meters, shut-off/tum- on requests, new meters, lock outs and disconnects.
- Perform compliance sampling and reporting of all permitted CITY water treatment, storage anddistribution facilities
- Perform all operation & maintenance of CITY wastewater collection, pumping and treatment facilities
- Repair sewer mains and manholes. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.
- Perform location of sewer main lines (CITY does not take responsibility for lateral lines).
- Perform compliance sampling and reporting of all CITY sewer collection, transportation, andtreatment facilities.
- Participate and assist in planning any water and wastewater capital improvement program.

2.1 Within the design capacity and capability of the Facilities, manage, operate, and maintain the Project so that effluent discharged from the Wastewater Treatment Plant and reclaimed water produced by the Wastewater Treatment Plant meet the requirements of Georgia DNR. CWS may alter the process and/or facilities to meet the objectives of this Agreement; provided, however, that no alteration shall be without CITY's written approval.

2.2 Manage, operate, inspect, and maintain, in compliance with accepted industry standards and in compliance with all applicable Local, State and federal laws, rules, regulations, statutes, permits, standards, and ordinances, the wastewater pumping stations and related equipment. Facility grounds shall be properly maintained, with grounds regularly mowed, and overall appearance continually kept in good condition.

2.3 Within 180 days of the end of the first three (3) years of the Term, and within 180 days before the expiration of any renewal term, CWS shall provide the CITY with an evaluation of the performance, efficiency and maintenance of the WWTP. CWS will prepare the report at no cost to the CITY and the CITY shall maintain the right to have the report reviewed by a third party at the CITY's sole expense.

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2.4 Provide and document all Maintenance for the Project. The CITY shall have the right to inspect these records during normal business hours. Maintenance program will include documentation of critical spare parts inventory.

2.5 Provide and document all Repairs costs for the Project.

2.6 Provide CITY with an accounting of the Annual Limit Accounts for Repairs and any Additional Services and/or Capital Projects on a monthly basis. CWS will provide CITY with a detailed invoice of Repairs, Additional Services and Capital Projects, including all costs over the corresponding allowances. The amounts invoiced for Chemicals, Laboratory Services and Sludge Disposal shall not include any labor costs for CWS' staff assigned to the Project nor any mark-up. Amounts invoiced for Repairs and Additional Services and/or Capital Projects will be subject to mark up.

2.7 Rebate CITY the remaining balance of the Repairs annual cost allowances, to the extent actual annual costs for such items are less than the Annual Limit Account in any year of this Agreement. The CITY will pay or reimburse CWS for any costs incurred by CWS in excess of the Annual Limit Accounts, with CITY's prior written authorization.

2.8 Pay all Cost(s) incurred in normal Project operations, including the Maintenance and Repair of all Project equipment and facilities. The first Five Thousand Dollars ($5,000.00) of all Maintenance and/or Repairs will be paid by CWS from the Repairs annual cost allowance. CWS shall submit a Maintenance and/or Repairs recommendation request to CITY for any item in excess of Five Thousand Dollars ($5,000.00) in writing and shall proceed only upon the written approval of the City Manager. In any emergency affecting the safety of persons or property, CWS may act without written amendment or change order, at CWS' discretion, to prevent damage, injury or loss. Approval may be in verbal form should the request be deemed an emergency repair/replacement necessary to comply with the Wastewater Facility Permit or to control conditions that would have an adverse impact to the general public's health, safety and welfare followed by a written approval of the City Manager.

2.9 Provide a list of capital needs along with cost estimates for the Wastewater Treatment Facility and Lift Stations, and Water Treatment Facilities each year prior to June 1.

2.10 Staff the Project with employees who have met the licensing and certification requirements of the State of Georgia, as applicable. CWS shall provide ongoing training and education for appropriate personnel in all necessary areas of modem wastewater process control, operations, maintenance, safety, management, and supervisory skills. Furthermore, CWS covenants and agrees that it and its employees shall be bound by the Standards of Conduct of the State of Georgia Statutes, as it relates to work performed under this Agreement and agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. CWS shall comply with all federal, State, and Local laws, regulations and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race color, religion, sex, or natural origin in the performance of

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work under this Agreement. CWS shall ensure that all personnel, support personnel, and other agents are fully qualified and capable of performing their assigned tasks and shall provide the necessary training for its personnel assigned to the project in the areas of operations, maintenance, safety, laboratory, energy management and other similar areas. CWS shall notify and obtain approval from the CITY of any change or substitution to CWS' key personnel before said changes can become effective.

2.11 Prepare all Domestic Wastewater Facility Permit reports related to services provided in and under this Agreement, and submit these to the City Manager for certification and transmittal to appropriate agencies.

2.12 Provide for the disposal of screenings, grit, sludge and scum to the existing approved disposal sites or other sites as may be acquired and approved through applicable regulatory agencies.

2.13 Perform and/or provide all laboratory testing and sampling required by the Domestic Wastewater Facility Permit related to services provided in and under this Agreement. CWS shall provide all monitoring for the CITY Water Well(s).

2.14 Provide a physical inventory of CITY vehicles and equipment that are being used at the Project and a general statement as to the condition of each vehicle and piece of equipment within forty-five (45) days after the beginning of each contract year.

2.15 Provide twenty-four (24) hour per day access to Project for CITY personnel. Visits may be made at any time by any of ClTY's employees, consultants or contractors so designated by CITY. Keys or transmitters for Project shall be provided to the CITY by CWS. All visitors to the Project shall comply with CWS' operating and safety procedures.

2.16 Perform Repairs that are incidental to the Scope of Services or as directed by CITY. Repairs costs will include the sum of all necessary components to complete the specific Repair activity in full (i.e. labor, chemicals, materials, supplies, utilities, equipment, subcontractors, specialty subcontractors, other outside services, etc.), such that the specific Repair activity is not separated into pieces for the purpose of determining the overall cost.

2.17 Perform Additional Services and/or implement Capital Projects that are incidental to the Scope of Services as directed by CITY. Such Additional Services and Capital Projects will be negotiated and agreed to in writing.

2.18 Operate the facilities in a manner such that odor and noise shall be controlled within the design capacity and parameters of the facilities.

2.19 Maintain all Project warranties, guaranties and licenses that have been granted to CITY on new equipment purchased by CITY for use as part of the Project and assist CITY in enforcing equipment warranties and guarantees. CWS shall provide CITY with full documentation that preventative maintenance is being performed on CITY owned equipment in accordance with manufacturers' recommendations at intervals and in sufficient detail as may be determined by CITY. This maintenance program shall include documentation of corrective and preventative maintenance and a spare parts inventory.

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2.20 Staff the project 7 days a week, in accordance with the Domestic Wastewater Facility Permit, along with night and weekend work as necessary. CWS personnel shall be available on call twenty-four (24) hours per day, seven (7) days per week to respond to emergencies (i.e. alarms, complaints, equipment failures, etc.). Except as provided above, emergency labor provided for call outs not related to the facilities will be documented by CWS and a detailed invoice will be submitted to the City Manager for reimbursement at a rate of actual cost per hour.

2.21 Provide a full time, on-site Project Manager. The assigned Project Manager shall be mutually agreed to by CITY and CWS. The Project Manager shall initially be Robert Drewry.

2.22 If requested by the CITY Representative and agreed to by CWS, CWS shall purchase Consumables and Fixtures (defined below) as agent of the CITY in connection with the operation, management, maintenance and improvement of the CITY's Facilities as provided below:

a. Fixtures and Consumables. For the purposes of this Section, the term "Fixtures" shall include equipment, machinery, spare parts and other improvements which are integrated in or become fixtures of the Facilities. The term "Consumables" shall include chemicals and other items that are used in connection with the operation of the Facilities.

b. Authority, CWS is authorized by the CITY to act as its agent for purposes of purchasing Fixtures and Consumables for the sole ownership, use and benefit of the CITY in the operation, management; maintenance and improvement of the Facilities. CWS is authorized and directed to purchase, as agent for the CITY, such Fixtures and Consumables as may be necessary or helpful in the operation of the Facilities. The existence of the above agency relationship shall be disclosed to vendors, suppliers and other providers of such Fixtures and Consumables to the extent required effectuating the purposes of this agency. CWS and the CITY shall work together to take any actions required to accomplish the objectives of this paragraph.

c. Direction. Supervision. Control. The CITY shall have the right and authority to approve proposed purchases of Fixtures and/or Consumables in the name of the CITY, and CWS shall periodically report to the CITY, as may be reasonably requested or required under the Agreement, regarding the Fixtures and Consumables purchased under the above authority. Fixtures and Consumables shall only be purchased and used for the sole ownership, use and benefit of the CITY in the operation, management, maintenance and improvement of the Facilities.

d. Title. Notwithstanding anything to the contrary contained herein, all right title and interest in and to the purchased Fixtures and Consumables shall be held by and pass directly to the CITY.

e. Reimbursement. The CITY shall reimburse CWS for all costs and expenses incurred by CWS in connection with the purchase of Fixtures and Consumables as agent for the CITY in accordance with the terms of this Agreement.

f. Taxes. Notwithstanding anything to the contrary contained herein the Parties

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intend that all purchases of Fixtures and Consumables that CWS makes as agent for the CITY under the Agreement shall be exempt from Georgia Sales and Use Tax to the greatest extent allowed by law. CWS is authorized and directed to use the CITY's Sales and Use Tax Exemption Certificate(s) in connection with the purchases of Fixtures and Consumables for the CITY, and CWS may present such Sales and Use Tax Exemption Certificate(s) to vendors, suppliers and other providers of such Fixtures and Consumables in connection with such purchases. In the event that sales or use taxes are due and payable on the purchase of any Fixtures or Consumables at the time of purchase or subsequently determined to be due at a later date, the CITY agrees to immediately reimburse CWS for such sales and use taxes if paid by CWS pursuant to this Agreement.

2.23 The intent of the CITY is to have CWS operate, maintain, repair, manage, administer the CITY's Facilities to the full extent allowed by law. The initial scope of services covers the Facilities described in Appendix B. The CITY shall have the right to amend Appendix B at its discretion to add to the list of Facilities covered by the Agreement and the services provided by CWS and in such event, the parties will negotiate an appropriate change to the Base Fee by mutual agreement.

2.24 CWS' Authorized Representative shall be Robert Drewry.

2.25 CWS shall consider, if requested by the CITY, to assist the CITY with theproviding of equipment and services, if acceptable to CWS.

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SCOPE OF SERVICES - PUBLIC WORKS DEPARTMENT

*** ALL RIGHT OF WAYS & EASEMENTS MUST BE CITY OWNED AND ACCOUNTED FOR AT CHATHAM COUNTY ANNEX OR COURTHOUSE.

Public Services shall include the performance of general and routine maintenance of CITY streets and storm drain infrastructure as follows:

- Repair CITY storm drain piping, inlets and catch basins. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.
- Replace street signs and posts with standard metal reflective signs and metal posts in (Does not include State Route system) in accordance with the Manual for Uniform Traffic and Control Devices (MUTCD).
- Install new street signs and posts when requested by the CITY in accordance with the MUTCD.
- Maintain by dredging ditches within CITY rights-of-way.
- Pressure jetting of driveway culverts, storm inlets and short spans of storm pipe. to remove sediment accumulation.
- Cut grass of road shoulders and in ditches within CITY rights-of-way (Does not include State Route system unless included within this scope). Herbicide application in ditches acceptable except adjacent to residential homes.
- Patch potholes in CITY streets.
- The removal of dead animal carcasses on CITY streets.
- Repair concrete & asphalt pavement due to water or sewer repairs. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.
- The trimming of trees and brush that are up to 13-feet in height and 4-inches in caliper forroadway safety and sight distance requirements.
- Participate and assist in planning the CITY's 5-year Capital Improvement Program for publicworks vehicles and equipment, roads and storm water.

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3. CITY'S DUTIES AND OBLIGATIONS

CITY shall:

3.1 Fund, subject to CITY approving the Capital Expenditure Budget to include funding of the item for fiscal year, all Capital Expenditures or grant approval for CWS to make reimbursable Capital Expenditures at cost with markup as provided herein, such costs to be reimbursed to CWS within sixty (60) days. Any loss, damage, or injury resulting from CITY's failure to provide capital improvements when reasonably requested by CWS, shall be the sole responsibility of CITY if, pursuant to industry standards, the requested capital improvement was necessary.

3.2 Provide approval for CWS to perform Repairs, provide Additional Services, fund Capital Expenditures and/or implement Capital Projects. Any loss, damage, or injury resulting from CITY's failure to provide capital improvements when reasonably requested by CWS, shall be the sole responsibility of CITY if, pursuant to industry standards, the requested capital improvement was necessary.

3.3 Maintain all existing Project warranties, guarantees, easements, and licenses that have been granted to CITY.

3.4 Provide CWS within a reasonable time after request any piece of CITY's heavy equipment that is available so that CWS may discharge its obligations under this Agreement in the most cost- effective manner. Availability of equipment will be subject to the CITY's reasonable discretion. Provision of such equipment shall be made without cost to CWS, with the exception of costs to repair damage done at the fault of CWS.

3.5 Provide all licenses for CITY vehicles used in connection with the Project.

3.6 Provide for CWS' use all CITY vehicles and equipment currently in use at the Project.

3.7 Pay all electric costs associated with the operation of the Wastewater Treatment Plant.

3.8 CITY's authorized representative and point of contact shall be the City Manager.

3.9 Advise CWS of any and all scheduled and unscheduled maintenance and repair of City water and sewer system under the operation and maintenance of CWS.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

4. **COMPENSATION**

4.1 Beginning on January 1, 2022 to December 31, 2024, CITY shall pay CWS as compensation for services under this Agreement a Base Fee of $ 148,719.76 per month.

(THE FOLLOWING TEXT CAME FROM THE 2018 CONTRACT)

1. CWS's compensation under this Agreement for year one (I) of this contract shall consist of an Annual Fee of $1,784,637.17 annually or $148,719.76 monthly. The annual fee covers all items listed in Article II.
2. CWS and the City will negotiate an increase/decrease to the annual fee three (3) months before the anniversary date of each year. If at any time the CWS and the City should not agree on an increase/decrease to the annual fee, then the basis for increase/decrease shall be the current CPI/ECI, All Urban Users, and Southern District. Appendix D.
3. The Maintenance and Repair Limit included in the Annual Fee is Three Hundred Thousand Dollars, ($300,000.00).
4. If actual Maintenance and Repair expenditures are less than the Maintenance and Repair Limit of Three Hundred Thousand Dollars ($300,000.00) for any Agreement year, CWS will rebate the entire difference to the City. If actual Maintenance and Repair expenditures exceed the Maintenance and Repair Limit, the City will pay the excess to CWS. CWS will notify the City when actual Maintenance and Repair expenditures equal eighty percent (80%) of Maintenance and Repair Limit.
5. Included in the annual fee is One Hundred Fifty-Five Thousand Dollars ($155,000) for electrical expenses at the wastewat.er treatment facility. If actual Electrical expenditures for the facility are less than One Hundred and Fifty-Five Thousand Dollars ($155,000.00) for any Agreement year, CWS will rebate 500/o of savings to the City.
6. The parties agree to negotiate the Maintenance and Repair Limit and Electrical Fee each year at least three (3) months prior to the anniversary of this Agreement's commencement date.

Article V - PAYMENT OF COMPENSATION

City shall be obligated to make the following payments:

1. One-twelfth (1/12) of the Annual Fee for the current year shall be due and payable by the 15th of the month that services are provided,
2. All other compensation to CWS is due upon receipt of CWS's invoice and payable within thirty (30) days.
3. City shall pay interest at an annual rate equal to the prime rate, said rate of interest not to exceed any limitation provided by law, on payments not paid and received within thirty (30) calendar days of the due date, such interest being calculated from the due date of the payment. In the event the charges hereunder might exceed any limitation provided by law, such charges shall be reduced to the highest rate or amount within such limitation.

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6. **INDEMNITY. LIABILITY AND INSURANCE**

6.1 CWS shall indemnify CITY and hold it harmless from any claims, damages, fines, fees, expenses, costs or demands by third parties arising from:

a. CWS' operation, control and maintenance of the Project not in conformance with the terms and conditions of this Agreement; and

b. Any default of CWS under this Agreement;

c. The negligence of CWS and its agents, contractors or employees or any of them in connection with the operation, control and maintenance of the Project, etc.; and

d. Any damage to the property of CITY, not otherwise covered by insurance as provided herein, or others or injury to any person on or about the Project caused by CWS, its agents, contractors or employees; and

e. Any legal or administrative proceeding related to the entering into this Agreement or the retaining of CWS for actions taken pursuant to this Agreement or in violation or contradiction of State statutes; and

f. Any legal or administrative proceedings occasioned by CWS in which CITY is made a party without CITY's fault; and

g. All reasonable costs, reasonable attorney's fees and reasonable expenses incurred by CITY in connection with the items indemnified against. CWS shall defend any legal action or proceedings resulting from a claim or demand indemnification against, at its expense, on receipt of proper notice from CITY to do so. Additionally, CWS shall have the exclusive right to select legal counsel to defend the CITY against those claims or demands for which CWS has a legal obligation to indemnify the CITY.

6.2 Subject to the limitations set forth herein, CITY hereby agrees to indemnify CWS for claims brought against CWS for actions related to the operation, maintenance and management of the Project, but only to the extent that the claims are found to result from the negligence of the CITY, its governing body, or its employees. This indemnification shall not be construed to be an indemnification for the acts or omissions of any third parties, independent contractors, or third-party agents of the CITY. Nothing contained in this Agreement shall be construed as a waiver of the CITY'S sovereign immunity. This indemnification shall be limited to only such traditional liabilities for which the CITY could be liable under applicable law.

6.3 Neither party nor their affiliated companies, nor the officers, agents and employees or contractors of any of the foregoing, shall be liable to the other in any action or claim for loss of profits, loss of opportunity, loss of product or loss of use unless such action or claim is the result of gross negligence or willful conduct of the party sought to be held liable. Any protection against liability for losses or damages afforded any individual or entity by these terms or by law shall apply whether

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the action in which recovery of damages is sought is based on contract, tort (including sole, concurrent or other negligence and strict liability of any protected individual or entity), statute or otherwise. To the extent permitted by law, any statutory remedies which are inconsistent with these terms are waived.

6.4 CWS shall indemnify the CITY for those fines or civil penalties imposed by a regulatory agency for violations that are the result of CWS' negligence or willful misconduct, including violations of the effluent or reclaimed water quality requirements contained in the Project's Domestic Wastewater Facility Permit. CWS will assist CITY to contest any such fines in administrative proceedings and/or in court prior to any payment by CITY.

6.5 CITY shall be liable for those fines or civil penalties imposed by any regulatory agencies on CITY and/or CWS that are not a result of CWS' negligence or willfulmisconduct and are directly related to the ownership of the Project.

6.6 Each party shall obtain and maintain insurance coverage in the amounts described herein. Each party shall include the other party as an additional insured on all insurance policies covering the Project (excluding workers compensation) and shall provide the other party with satisfactory proof of insurance.

6.7 To the fullest extent permitted by law and notwithstanding any other provision of this Agreement, CWS' liability for performance or non-performance of any obligation arising under the Agreement (whether arising under breach of contract, tort, strict liability, or any other theory of law or equity) including, but not limited to its indemnity obligations specified in this Agreement, shall be limited to, the greater of,: (i) general money damages in an amount equal to the amount of any proceeds of insurance received by the CITY or to which CWS is entitled pursuant to any general liability insurance or automobile liability policy required to be maintained by CWS hereunder (without regard to the amount of any deductible which may be applicable under any such general liability or automobile liability policy) with respect to such loss; or (ii) to the extent proceeds of insurance are not recovered or such general liability or automobile insurance is not applicable, a cumulative aggregate over the full initial term lease as is of this agreement of an amount not to exceed $1,000,000.00; provided, however, in the event payments are made to the CITY pursuant to this Agreement in an amount meeting or exceeding $1,000,000.00 during the full term of this Agreement, the CITY shall be entitled to terminate this Agreement after allowing CWS thirty (30) days to determine whether to increase the amount of the obligation to the CWS pursuant to this Section in which event the CITY shall not have the right to terminate.

7. TERM. TERMINATION AND DEFAULT

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

7.1 The initial term of this Agreement shall be Three (3) years, commencing on January 1, 2022, and ending on December 31, 2024. This Agreement may be extended with CITY approval for additional 2-year periods. Any prior Agreement(s) between the parties shall be terminated immediately upon this Agreement becoming effective.

7.2 A party may terminate this Agreement only for a material breach of the Agreement by the other party; only after giving written notice of breach; and, except in case of a breach by CITY for non-payment of CWS' invoices, in which case termination may be immediate by CWS, only after allowing the other party thirty (30) days to cure or commence taking reasonable steps to cure the breach.

7.3 Upon notice of termination by CITY, CWS shall assist CITY in assuming operation of the Project for a period not to exceed six (6) months from the effective date of termination. If additional cost is incurred by CWS at request of CITY, CITY shall pay CWSsuch cost in accordance with this Agreement.

7.4 This Agreement shall terminate at such time as CITY may sell, convey or transfer its wastewater treatment plant or system, or a substantial part thereof, to another governmental agency to provide services. CITY shall give CWS as much advance notice as possible prior to any such sale, transfer or conveyance.

8. LABOR DISPUTES AND FORCE MAJEURE

8.1 In the event activities by CITY's employee groups or unions cause a disruption in CWS' ability to perform the Project, CITY, with CWS' assistance, or CWS at its own option, may seek appropriate injunctive court orders. During any such disruption, CWS shall operate the facilities on a best-efforts basis until any such disruptions shall cease.

8.2 If any litigation is necessary to enforce the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, which are directly attributed to such litigation, in addition to any other relief to which it may be entitled.

8.3 Neither party shall be liable for its failure to perform its obligations under this Agreement if performance is made impractical, abnormally difficult, or abnormally costly, as a result of any unforeseen occurrences beyond its reasonable control. The party invoking this Force Majeure clause shall notify the other party immediately by verbal communication and in writing by certified mail of the nature and extent of the contingency within ten (10) working days after its occurrence.

Both parties indicate their approval of this Agreement by their signatures below and each party warrants that all corporate or governmental action necessary to bind the parties to the terms of this Agreement has been taken.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

ClearWater Solutions, LLC

By: _____

Name: _____

Date: _____

City of Port Wentworth

By: _____

Name: _____

Date: _____

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

APPENDIX A
DEFINITIONS

A.1 "Additional Services" means services incidental to items included in the annual list of capital needs, services requested by the CITY that are not included in the CWS Scope of Services as routine services, and/or additional routine services in amounts that exceed those contemplated in the Scope of Services. Such Additional Services may include CWS subcontracting work to specialty subcontractors.

A.2 "Adequate Nutrients" means plant influent nitrogen, phosphorous and iron contents proportional to BODs in the approximate ratio of five (5) parts nitrogen, one (1) part phosphorous, and one-half (0.5) part iron for each one hundred (100) parts ofBOD_5•

A.3 "Biologically Toxic Substances" means any substance or combination of substances contained in the plant influent in sufficiently high concentrations so as to interfere with the biological processes necessary for the removal of the organic and chemical constituents of the wastewater required to meet the discharge requirements of CITY's Domestic Wastewater Facility Permit. Biologically toxic substances include but are not limited to heavy metals, phenols, cyanides, pesticides and herbicides.

A.4 "Capital Expenditures" means any expenditures for (1) the purchase of new equipment or facility items that cost more than Five Thousand Dollars ($5,000.00); or (2) major repairs that significantly extend equipment or facility service life and cost more than Five Thousand Dollars ($5,000.00); or (3) expenditures that are planned, non-routine, and budgeted by CITY.

A.5. "Capital Improvement Program" means the Program that is developed by CWS and reviewed annually to implement Capital Projects that will improve the operation of the CITY's Facilities, expand the capacity of the CTTY's Facilities, and/or are required by Changes in Law or Uncontrollable Circumstances. The CITY may elect to request that CWSprovide and/or perform the items included in the Capital Improvement Program, including Capital Projects, use their own forces, or procure them through other means as provided in this Agreement.

A.6 "Capital Project" means a capital addition, improvement or upgrade to the System to be performed by CWS which is of a long-term character or effect, such as land, buildings and Equipment, requested by the CITY and agree to by CWS. A Capital Project shall not include maintenance of Equipment or the Facilities unless otherwise noted herein.

A.7 "Cost" means the total of all costs determined on an accrual basis in accordance with generally accepted accounting principles, including but not limited to direct labor, labor overhead, chemicals, materials, supplies, utilities, equipment, Maintenance, Repair and outside services.

A.8 "Domestic Wastewater Facility Permit" means the current State of Georgia Domestic Wastewater Facility Permit Number _____ which expires _____ and any subsequent renewals.

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A.9 "Laboratory Services" means the use of a sub-contractor to provide testing of samples.

A.10 "Maintenance" means those routine and/or repetitive activities required or recommended by the equipment or facility manufacturer or CWS to maximize the service life of the equipment, sewer, vehicles and facilities.

A.11 “Project" means all equipment, vehicles, grounds and facilities described in Appendix B and, where appropriate, the management, operations and maintenance of each.

A.12 "Repairs" means those non-routine/non-repetitive activities required for operational continuity, safety and performance generally resulting from failure or to avert a failure of the equipment, sewer, vehicle or facility or some component thereof.

A.13 "Sludge Disposal" means the removal of sludge from the Wastewater Facility by use of a sub-contractor in compliance with the Domestic Wastewater Facility Permit.

A.14 "Unforeseen Occurrence" means any event or condition which has an effect on the rights or obligations of the parties under this Agreement, or upon the Project, which is beyond the reasonable control of the party relying thereon and constitutes a justification fora delay in or non-performance of action required by this Agreement; including but not limited to (i) an act of God, landslide, lighting, earthquake, tornado, fire, explosion, flood, failure to possess sufficient property rights, acts of public enemy, war, blockade, sabotage, insultection, riot or civil disturbance, (ii) preliminary or final order of any local, province, administrative agency or government body of competent jurisdiction, (iii) any change in law, regulation, rule, requirement, interpretation or statute adopted, promulgated, issued or otherwise specifically modified or changed by any local, province or governmental body,
(iv) labor disputed, strikes work stoppages, but excluding labor disputes, strikes work slowdowns or work stoppages by employees of CWS; and (v) loss or inability to obtain service from a utility necessary to furnish power for the operation and maintenance of the Project.

A.15 "Wastewater Pumping Station, means the facility to pump sewage from a wet well through a force main to a gravity system or to the Wastewater Treatment Facility. This includes, but not limited to all pumps, electrical components, access hatches, piping from the wet well through the stations valve pit including plug valves and check valves, fencing, landscaping and grounds.

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APPENDIX B

LOCATION OF PROJECT AND LIFT STATIONS

B.1 CWS agrees to operate, maintain, repair, manage, administer and to provide planning, design, construction, improvement, financing in connection with the following CITY Facilities:

a. All equipment, ground and facilities now existing within the current property boundaries of wastewater pumping stations described as follows:

B.2 CWS and CITY agree that CITY shall have the right to amend Section BJ above, as may be necessary or the CITY may determine to do from time to time, and in such event, the parties will negotiate an appropriate change to the Base Fee by mutual agreement. Any such amendments shall be in writing, signed by both parties, and properly incorporated into this Agreement.

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APPENDIX D

INSURANCE COVERAGE

CWS shall maintain:

1. Statutory workers' compensation for all of CWS' employees at the Project asrequired by the State of Georgia in amom1ts not less than One Million Dollars($1,000,000.00) in liability for each accident, One Million Dollars ($1,000,000.00) for each employee per disease, and with not less than OneMillion Dollars ($1,000,000.00) policy limit.

2. Commercial general liability insurance in an amount not less than Three Million Dollars ($3,000,000.00) combined single limits for bodily injuryand/or property damage.

3. Commercial Automobile liability insurance in an amount not less than Two Million Dollars ($2,000,000.00) combined single limits for bodily injury and/or property damage.

CITY shall maintain:

1. Property damage insurance for all property including vehicles and equipment owned by CITY and operated by CWS under this Agreement. Any property, including vehicles, not properly or fully insured being the financial responsibility of CITY.

Each party's insurer shall provide at least ten (10) days' notice of the cancellation of any policy, including without limitation, workers compensation insurance, it is required to maintain under this Agreement.

Attachment: CWS Contract December 8 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

December 10 Draft
FOR DISCUSSION PURPOSES

PRIVATIZATION CONTRACT FOR WATER, WASTEWATER AND OTHER PUBLICS WORKS SERVICES FOR THE CITY OF PORT WENTWORTH

THIS AGREEMENT is made on this _____ day of December 2021, the CITY of Port Wentworth, Georgia (hereinafter "CITY"), whose address for any formal notice is 7724 Ga highway 21, Port Wentworth, GA 31407 and ClearWater Solutions LLC, (hereinafter "CWS") with offices at 2178 Moores Mill Road, Auburn, Alabama 36830.

WHEREAS, O.C.G.A. § provides that "Any public entity may enter into a wastewater facility privatization contract" and "may make such other agreements and perform such other acts consistent with law, as are determined by the public entity to be necessary or convenient to effectuate the wastewater facility privatization contract; and

WHEREAS, this Agreement for Wastewater Services (the "Agreement") constitutes a Wastewater Facility Privatization Contract under Georgia law, and the CITY has duly approved the Agreement as provided in O.C.G.A. § _____ ; and

WHEREAS, the CITY declares that the foregoing Water and Wastewater Facility Privatization Contract is in the public interest. CWS declares and warrants that it has the experience in water, sewer, or wastewater reuse utility operations and the ability to provide the services provided herein; and

WHEREAS, the Agreement provides for CWS to operate, maintain, repair, manage, administer the CITY's Facilities; and

WHEREAS, the Agreement provides for CWS to perform certain specified duties and responsibilities for the CITY's Public Services Department.

In Accordance with these declarations, the CITY and CWS agree as follows:

1. GENERAL OBLIGATIONS OF THE PARTIES

1.1 Definitions of words or phrases used in this Agreement are contained in Appendix A.

1.2 All grounds, facilities, equipment, and vehicles now owned by CITY or acquired by CITY shall remain property of CITY.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

1.3 This Agreement shall be governed by and interpreted in accordance with laws of the State of Georgia. Venue for any disputes with respect to this Agreement shall be in the courts in and for Chatham County, Georgia.

1.4 This Agreement shall be binding upon the successors and assigns of each of the parties, but neither party will assign this Agreement without the prior written consent of the other party; provided, however, that such consent shall not be unreasonably withheld.

1.5 All notices shall be in writing and transmitted by certified mail to the address noted above, in care of the respective party's Authorized Representative. Additionally, notices may be delivered to CWS' authorized representative on site at the Project. All notices shall be deemed effective (i) when delivered personally or (ii) when actually received by the party for which the notice is intended, if the notice is given by electronic mail or in any other manner.

1.6 This Agreement, including all Appendices constitutes the entire Agreement of the parties. This Agreement may be modified only by written agreement signed by both parties. Whenever used, the term "CITY" shall mean the CITY of Port Wentworth, acting, by and through its CITY Manager. Whenever used the term "CWS" shall mean ClearWater Solutions LLC acting by and through its officers, agents, directors, and employees. The parties agree that each party had equal input into the drafting of this Agreement such that no provision of the Agreement shall be construed strictly against one party as to drafting thereof.

1.7 If any term, provision, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

1.8 It is understood that the relationship of CWS to CITY is that of independent contractor. The services to be provided under this Agreement are of a professional nature and shall be performed in accordance with good and accepted industry practices for contract operators similarly situated.

1.9 Nothing in this Agreement shall be construed to create in any third party or in favor of any third party any right(s), license(s), power(s) or privilege(s).

2. CWS' GENERAL OBLIGATIONS

As general obligations, CWS agrees to:

2.1 Provide services to CITY, pursuant to the terms of this Agreement.

2.2 Manage, operate, maintain and assume all responsibilities, obligations, and commitments associated with this Agreement.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

2.3 Operate and manage the CITY Water well system, Wastewater Treatment Plant, Lift Stations and perform certain specified duties for the Public Services Department and all associated duties on a 24-hour per day, 7 day per week basis, or as required by the Georgia Environmental Protection Division (GEPD) permit and any other State or federal agencies or the CITY.

2.4 Provide ongoing training and education for appropriate personnel in all necessary areas of modern water and wastewater process control, operations, maintenance, safety, public services, development services, and supervisory skills, with CWS paying for such training and education.

2.5 Unless capital recommendations are required to meet regulatory criteria, CWS shall not be relieved of the responsibility to perform if the recommendations made to the CITY by CWS for system improvements are not implemented.

2.6 Maintain an employee safety program and an OSHA compliance program in compliance with applicable laws, rules and regulations and make recommendations to CITY regarding the need, if any, for CITY to rehabilitate, expand or modify the Project to comply with governmental safety regulations applicable to CWS' operations hereunder and federal regulations promulgated pursuant to the Americans with Disabilities Act ("ADA"). Nothing herein shall be construed to place upon CWS a duty to find and report violations of either safety laws or the ADA at the facilities other than reporting the violations to the CITY.

2.7 In an emergency affecting the safety of persons or property, CWS may act without written amendment or change order, at CWS' discretion, to attempt to prevent actual or threatened damage, injury or loss.

2.8 Prepare operating reports, test results, accountings and all other reports as required by federal and/or State law or regulations (including, but not limited to, those which are required by the Georgia Environmental Protection Department (EPD) and shall submit them to CITY for signature and transmittal to appropriate authorities as so requested. At the time of submission to the CITY, CWS will also provide a certification that the reports, test results or other reporting documents were created in the ordinary course of CWS' business and that they are true and accurate.

2.9 Provide all labor for laboratory testing and sampling presently required by system performance portions of the Water Supply permit, the Clean Water Act, the Safe Drinking Water Act, and/or any federal, State or Local rules and regulations, statutes or ordinances, permit or license requirements or judicial and regulatory orders and decrees.

2.10 ~~Current CITY employees who become employed by CWS shall be allowed to carry over and retain their current accrued Vacation and Sick, Personal Time Off (PTO), leave time that they have accrued as if still employed by the CITY.~~

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2.11 ~~Recognize all current employees time as employed by CITY, and hired by CWS, when accruing future leave with CWS~~.

2.12 Will begin work pursuant to this Contract on January 1, 2022, (the "Contract Commencement Date").

2.13 If, during the course of this Agreement, any violation of federal, State or Local ordinance is discovered by CWS to have been made, CWS shall immediately notify the CITY Manager of the purported violation.

3. CWS' SPECIFIC SCOPE OF WORK FOR WATER AND WASTEWATER SERVICES

CWS shall perform the following services with respect to water and wastewater services:

3.1 Perform all operation and maintenance of CITY water distribution system, fire hydrants, water tanks, wells and CITY of Savannah metering connections.

3.2 Repair leaks on water services and mains. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.

3.3 Perform location of water main and service (lateral) lines to the meter.

3.4 Assist the CITY for meter reading services. Includes reconciling miss-reads and non-automated meter readings.

3.4~~5~~ As requested by the CITY during billing cycles, conduct re-reads on water meters, shut-off/turn-on requests, new meters, lock outs and disconnects.

3.5~~6~~ Perform compliance sampling and reporting of all permitted CITY water treatment, storage and distribution facilities

3.6~~7~~ Perform all operation & maintenance of CITY wastewater collection, pumping and treatment facilities.

3.7~~8~~ Repair sewer mains and manholes. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.

3.8~~9~~ Perform location of sewer main lines (CITY does not take responsibility for lateral lines).

3.9~~10~~ Perform compliance sampling and reporting of all CITY sewer collection, transportation, and treatment facilities.

3.10~~1~~ Participate and assist in planning any water and wastewater capital improvement program.

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3.11~~2~~ Within the design capacity and capability of the Facilities, manage, operate, and maintain the Project so that effluent discharged from the Wastewater Treatment Plant and reclaimed water produced by the Wastewater Treatment Plant meet the requirements of Georgia DNR. CWS may alter the process and/or facilities to achieve the objectives of this Agreement; provided, however, that no alteration shall be without CITY's written approval.

3.12~~3~~ Manage, operate, inspect, and maintain, in compliance with accepted industry standards and in compliance with all applicable Local, State and federal laws, rules, regulations, statutes, permits, standards, and ordinances, the wastewater pumping stations and related equipment. Facility grounds shall be properly maintained, with grounds regularly mowed, and overall appearance continually kept in good condition.

3.13~~4~~ Within 90 days of the end of the first year of the Term, and for each year thereafter, CWS shall provide the CITY with an evaluation of the performance, efficiency and maintenance of the Agreement. CWS will prepare the report at no cost to the CITY and the CITY shall maintain the right to have the report reviewed by a third party at the CITY's sole expense.

3.14~~5~~ Provide and document all Maintenance for the Project. The CITY shall have the right to inspect these records during normal business hours. Maintenance program will include documentation of critical spare parts inventory.

3.15~~6~~ Provide and document all Repairs, Chemical, Laboratory Services, and Sludge Disposal costs for the Project.

3.16~~7~~ Provide CITY with an accounting of the Annual Limit Accounts for Repairs, Chemicals, Laboratory Services, Sludge Disposal, and any Additional Services and/or Capital Projects on a monthly basis. CWS will provide CITY with a detailed invoice of Repairs, Chemicals, Laboratory Services, Sludge Disposal, Additional Services and Capital Projects, including all costs over the corresponding allowances. The amounts invoiced for Chemicals, Laboratory Services and Sludge Disposal shall not include any labor costs for CWS' staff assigned to the Project nor any mark-up. Amounts invoiced for Repairs and Additional Services and/or Capital Projects will be subject to mark up.

3.17~~8~~ Rebate CITY the remaining balance, of the Repairs, Chemicals, Laboratory Services and Sludge Disposal annual cost allowances, to the extent actual annual costs for such items are less than the Annual Limit Account in any year of this Agreement. The CITY will pay or reimburse CWS for any costs incurred by CWS in excess of the Annual Limit Accounts, with CITY's prior written authorization.

3.18~~9~~ Pay all Cost(s) incurred in normal Project operations, including the Maintenance and Repair of all Project equipment and facilities. The first Five Thousand Dollars ($5,000.00) of all Maintenance and/or Repairs will be paid by CWS from the Repairs annual cost allowance. CWS shall submit a Maintenance and/or Repairs recommendation request to CITY for any item in

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excess of Five Thousand Dollars ($5,000.00) in writing and shall proceed only upon the written approval of the City Manager. In any emergency affecting the safety of persons or property, CWS may act without written amendment or change order, at CWS' discretion, to prevent damage, injury or loss. Approval may be in verbal form should the request be deemed an emergency repair/replacement necessary to comply with the Wastewater Facility Permit or to control conditions that would have an adverse impact to the general public's health, safety and welfare followed by a written approval of the City Manager.

3.~~19~~20Provide a list of capital needs along with cost estimates for the Wastewater Treatment Facility and Lift stations each year prior to June 1.

3.2~~0~~1 Staff the Project with employees who have met the licensing and certification requirements of the State of Georgia, as applicable. CWS shall provide ongoing training and education for appropriate personnel in all necessary areas of modem wastewater process control, operations, maintenance, safety, management, and supervisory skills. Furthermore, CWS covenants and agrees that it and its employees shall be bound by the Standards of Conduct of the State of Georgia Statutes, as it relates to work performed under this Agreement and agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. CWS shall comply with all federal, State, and Local laws, regulations and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race color, religion, sex, or natural origin in the performance of work under this Agreement. CWS shall ensure that all personnel, support personnel, and other agents are fully qualified and capable of performing their assigned tasks and shall provide the necessary training for its personnel assigned to the project in the areas of operations, maintenance, safety, laboratory, energy management and other similar areas. CWS shall notify and obtain approval from the CITY of any change or substitution to CWS' key personnel before said changes can become effective.

3.2~~1~~2 Prepare all Domestic Wastewater Facility Permit reports related to services provided in and under this Agreement, and submit these to the City Manager for certification and transmittal to appropriate agencies.

3.22~~3~~ Provide for the disposal of screenings, grit, sludge and scum to the existing approved disposal sites or other sites as may be acquired and approved through applicable regulatory agencies.

3.23~~4~~ Perform and/or provide all laboratory testing and sampling required by the Domestic Wastewater Facility Permit related to services provided in and under this Agreement. CWS shall provide all monitoring for the CITY Water Well(s).

3.24~~5~~ Provide a physical inventory of CITY vehicles and equipment that are being used at the Project and a general statement as to the condition of each vehicle and piece of equipment within forty-five (45) days after the beginning of each contract year.

3.25~~6~~ Provide twenty-four (24) hour per day access to the Project for CITY personnel. Visits

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may be made at any time by any of CITY's employees, consultants or contractors so designated by CITY. Keys or transmitters for Project shall be provided to the CITY by CWS. All visitors to the Project shall comply with CWS' operating and safety procedures.

~~3.26 Perform Repairs that are incidental to the Scope of Services or as directed by CITY. Repairs costs will include the sum of all necessary components to complete the specific Repair activity in full (i.e. labor, chemicals, materials, supplies, utilities, equipment, subcontractors, specialty subcontractors, other outside services, etc.), such that the specific Repair activity is not separated into pieces for the purpose of determining the overall cost.~~

3.27 Perform Additional Services and/or implement Capital Projects that are incidental to the Scope of Services as directed by CITY. Such Additional Services and Capital Projects will be negotiated and agreed to in writing.

3.28 Operate the facilities in a manner such that odor and noise shall be controlled within the design capacity and parameters of the facilities.

3.30 Maintain all Project warranties, guaranties and licenses that have been granted to CITY on new equipment purchased by CITY for use as part of the Project and assist CITY in enforcing equipment warranties and guarantees. CWS shall provide CITY with full documentation that preventative maintenance is being performed on CITY owned equipment in accordance with manufacturers' recommendations at intervals and in sufficient detail as may be determined by CITY. This maintenance program shall include documentation of corrective and preventative maintenance and a spare parts inventory.

3.31 Staff the project 7 days a week, in accordance with the Domestic Wastewater Facility Permit, along with night and weekend work as necessary. CWS personnel shall be available on call twenty-four (24) hours per day, seven (7) days per week to respond to emergencies (i.e. alarms, complaints, equipment failures, etc.). Except as provided above, emergency labor provided for call outs not related to the facilities will be documented by CWS and a detailed invoice will be submitted to the City Manager for reimbursement at a rate of actual cost per hour.

3.32 Provide a full time, on-site Project Manager. The assigned Project Manager shall be mutually agreed to by CITY and CWS. The Project Manager shall initially be Robert Drewry.

3.33 If requested by the CITY Representative and agreed to by CWS, CWS shall purchase Consumables and Fixtures (defined below) as agent of the CITY in connection with the operation, management, maintenance and improvement of the CITY's Facilities as provided below:

A. Fixtures and Consumables. For the purposes of this Section, the term "Fixtures" shall include equipment, machinery, spare parts and other improvements which are integrated in or become fixtures of the Facilities. The term "Consumables" shall include chemicals and other items that are used in connection with the operation of the Facilities.

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B. Authority. CWS is authorized by the CITY to act as its agent for purposes of purchasing Fixtures and Consumables for the sole ownership, use and benefit of the CITY in the operation, management; maintenance and improvement of the Facilities. CWS is authorized and directed to purchase, as agent for the CITY, such Fixtures and Consumables as may be necessary or helpful in the operation of the Facilities. The existence of the above agency relationship shall be disclosed to vendors, suppliers and other providers of such Fixtures and Consumables to the extent required effectuating the purposes of this agency. CWS and the CITY shall work together to take any actions required to accomplish the objectives of this paragraph.

C. Direction, Supervision, Control. The CITY shall have the right and authority to approve proposed purchases of Fixtures and/or Consumables in the name of the CITY and CWS shall periodically report to the CITY, as may be reasonably requested or required under the Agreement, regarding the Fixtures and Consumables purchased under the above authority. Fixtures and Consumables shall only be purchased and used for the sole ownership, use and benefit of the CITY in the operation, management, maintenance and improvement of the Facilities.

D. Title. Notwithstanding anything to the contrary contained herein, all right title and interest in and to the purchased Fixtures and Consumables shall be held by and pass directly to the CITY.

E. Reimbursement. The CITY shall reimburse CWS for all costs and expenses incurred by CWS in connection with the purchase of Fixtures and Consumables as agent for the CITY in accordance with the terms of this Agreement,

F. Taxes. Notwithstanding anything to the contrary contained herein the Parties intend that all purchases of Fixtures and Consumables that CWS makes as agent for the CITY under the Agreement shall be exempt from Georgia Sales and Use Tax to the greatest extent allowed by law. CWS is authorized and directed to use the CITY's Sales and Use Tax Exemption Certificate(s) in connection with the purchases of Fixtures and Consumables for the CITY, and CWS may present such Sales and Use Tax Exemption Certificate(s) to vendors, suppliers and other providers of such Fixtures and Consumables in connection with such purchases. In the event that sales or use taxes are due and payable on the purchase of any Fixtures or Consumables at the time of purchase or subsequently determined to be due at a later date, the CITY agrees to immediately reimburse CWS for such sales and use taxes if paid by CWS pursuant to this Agreement.

3.34 The intent of the CITY is to have CWS operate, maintain, repair, manage, administer the CITY's Facilities to the full extent allowed by law. The initial scope of services covers the Facilities described in Appendix B. The CITY shall have the right to amend Appendix B at its

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discretion to add to the list of Facilities covered by the Agreement and the services provided by CWS and in such event, the parties will negotiate an appropriate change to the Base Fee by mutual agreement.

3.35 CWS' Authorized Representative shall be Robert Drewry.

3.36 CWS shall consider, if requested by the CITY, to assist the CITY with the providing of equipment and services, if acceptable to CWS.

3.37 Coordination with Chatham County during mosquito season for mosquito control as needed.

3.38 Assist in Emergency Operations for road closures/detours during excessive winds/rain events, tornadoes, flooding, sink holes, downed trees, etc.

4. CWS SCOPE OF SERVICES - PUBLIC WORKS DEPARTMENT

4.1 Public Services shall include the performance of general and routine maintenance of CITY streets and storm drain infrastructure as follows:

4.2 Repair CITY storm drain piping, inlets and catch basins. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as a Maintenance and Repair expenditure.

4.3 Replace street signs and posts with standard metal reflective signs and metal posts in (Does not include State Route system) in accordance with the Manual for Uniform Traffic and Control Devices (MUTCD).

4.4 Install new street signs and posts when requested by the CITY in accordance with the MUTCD.

4.5 Maintain by dredging ditches within CITY rights-of-way.

4.6 Pressure jetting of driveway culverts, storm inlets and short spans of storm pipe to remove sediment accumulation.

4.7 Cut grass of road shoulders and in ditches within CITY rights-of-way (Does not include State Route system unless included within this scope). Herbicide application in ditches acceptable except adjacent to residential homes.

4.8 Patch potholes in CITY streets and repair or replace hazardous sidewalks.

4.9 The removal of dead animal carcasses on CITY streets.

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4.10 Repair concrete & asphalt pavement due to water or sewer repairs. Repairs that exceed the capabilities and capacity of assigned crews can be contracted as Maintenance and Repair expenditure.

4.11 The trimming of trees and brush that are up to 13-feet in height and 4-inches in caliper for roadway safety and sight distance requirements.

4.12 Participate and assist in planning the CITY's 5-year Capital Improvement Program for public works vehicles and equipment, roads and storm water.

5. CITY'S DUTIES AND OBLIGATIONS

The CITY shall:

5.1 Fund, subject to CITY approving the Capital Expenditure Budget to include funding of the item for fiscal year, all Capital Expenditures or grant approval for CWS to make reimbursable Capital Expenditures at cost with markup as provided herein, such costs to be reimbursed to CWS within sixty (60) days. Any loss, damage, or injury resulting from CITY's failure to provide capital improvements when reasonably requested by CWS, shall be the sole responsibility of CITY if, pursuant to industry standards, the requested capital improvement was necessary.

5.2 Provide approval for CWS to perform Repairs, provide Additional Services, fund Capital Expenditures and/or implement Capital Projects. Any loss, damage, or injury resulting from CITY's failure to provide capital improvements when reasonably requested by CWS, shall be the sole responsibility of CITY if, pursuant to industry standards, the requested capital improvement was necessary.

5.3 Maintain all existing Project warranties, guarantees, easements, and licenses that have been granted to CITY.

5.4 Provide CWS within a reasonable time after request any piece of CITY's heavy equipment that is available so that CWS may discharge its obligations under this Agreement in the most cost effective manner. Availability of equipment will be subject to the CITY's reasonable discretion. Provision of such equipment shall be made without cost to CWS, with the exception of costs to repair damage done at the fault of CWS.

5.5 Provide all licenses for CITY vehicles used in connection with the Project.

5.6 Provide for CWS' use all CITY vehicles and equipment currently in use at the Project.

5.7 Pay all electric costs associated with the operation of the Project, except for provisions outlined in Sections 6.6 and 6.7 at the Wastewater Treatment Facility.

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5.8 CITY's authorized representative and point of contact shall be the City Manager.

6. COMPENSATION

6.1 Beginning on January 1, 2022 to December 31, 2024, CITY shall pay CWS as compensation for services under this Agreement a Base Fee of $ 148,719.76 per month.

6.2 CWS's compensation under this Agreement for year one (I) of this contract shall consist of an Annual Fee of $1,784,637.17 annually or $148,719.76 monthly. The annual fee covers all items listed herein.

6.3 CWS and the City will negotiate an increase/decrease to the annual fee three (3) months before the anniversary date of each year. If at any time the CWS and the City should not agree on an increase/decrease to the annual fee, then the basis for increase/decrease shall be the current CPI/ECI, All Urban Users, and Southern District. Appendix D.

6.4 The Maintenance and Repair Limit included in the Annual Fee is Three Hundred Thousand Dollars, ($300,000.00).

6.5 If actual Maintenance and Repair expenditures are less than the Maintenance and Repair Limit of Three Hundred Thousand Dollars ($300,000.00) for any Agreement year, CWS will rebate the entire difference to the City. If actual Maintenance and Repair expenditures exceed the Maintenance and Repair Limit, the City will pay the excess to CWS. CWS will notify the City when actual Maintenance and Repair expenditures equal eighty percent (80%) of Maintenance and Repair Limit.

6.6. Included in the annual fee is One Hundred Fifty-Five Thousand Dollars ($155,000) for electrical expenses at the wastewat.er treatment facility. If actual Electrical expenditures for the facility are less than One Hundred and Fifty-Five Thousand Dollars ($155,000.00) for any Agreement year, CWS will rebate 50% of savings to the City.

6.7 The parties agree to negotiate the Maintenance and Repair Limit and Electrical Fee each year at least three (3) months prior to the anniversary of this Agreement's commencement date.

6.8 City shall be obligated to make the following payments: One-twelfth (1/12) of the Annual Fee for the current year shall be due and payable by the 15th of the month that services are provided,

6.9 All other compensation to CWS is due upon receipt of CWS's invoice and payable within thirty (30) days. City shall pay interest at an annual rate equal to the prime rate, said rate of interest not to exceed any limitation provided by law, on payments not paid and received within thirty (30) calendar days of the due date, such interest being calculated from the due date of the payment. In the event the charges hereunder might exceed any limitation provided by law, such

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charges shall be reduced to the highest rate or amount within such limitation.

7. INDEMNITY. LIABILITY AND INSURANCE

7.1 CWS shall indemnify CITY and hold it harmless from any claims, damages, fines, fees, expenses, costs or demands by third parties arising from:

A. CWS' operation, control and maintenance of the Project not in conformance with the terms and conditions of this Agreement;

B. Any default of CWS under this Agreement;

C. The negligence of CWS and its agents, contractors or employees or any of them in connection with the operation, control and maintenance of the Project, etc.;

D. Any damage to the property of CITY, not otherwise covered by insurance as provided herein, or others or injury to any person on or about the Project caused by CWS, its agents, contractors or employees;

E. Any legal or administrative proceeding related to the entering into this Agreement or the retaining of CWS for actions taken pursuant to this Agreement or in violation or contradiction of State statutes;

F. Any legal or administrative proceedings occasioned by CWS in which CITY is made a party without CITY's fault; and

G. All reasonable costs, reasonable attorney's fees and reasonable expenses incurred by CITY in connection with the items indemnified against. CWS shall defend any legal action or proceedings resulting from a claim or demand indemnification against, at its expense, on receipt of proper notice from CITY to do so. Additionally, CWS shall have the exclusive right to select legal counsel to defend the CITY against those claims or demands for which CWS has a legal obligation to indemnify the CITY.

7.2 Subject to the limitations set forth herein, CITY hereby agrees to indemnify CWS for claims brought against CWS for actions related to the operation, maintenance and management of the Project, but only to the extent that the claims are found to result from the negligence of the CITY, its governing body, or its employees. This indemnification shall not be construed to be an indemnification for the acts or omissions of any third parties, independent contractors, or third party agents of the CITY. Nothing contained in this Agreement shall be construed as a waiver of the CITY'S sovereign immunity. This indemnification shall be limited to only such traditional liabilities for which the CITY could be liable under applicable law.

7.3 Neither party nor their affiliated companies, nor the officers, agents and employees or contractors of any of the foregoing, shall be liable to the other in any action or claim for loss of

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profits, loss of opportunity, loss of product or loss of use unless such action or claim is the result of gross negligence or willful conduct of the party sought to be held liable. Any protection against liability for losses or damages afforded any individual or entity by these terms or by law shall apply whether the action in which recovery of damages is sought is based on contract, tort (including sole, concurrent or other negligence and strict liability of any protected individual or entity), statute or otherwise. To the extent permitted by law, any statutory remedies which are inconsistent with these terms are waived.

7.4 CWS shall indemnify the CITY for those fines or civil penalties imposed by a regulatory agency for violations that are the result of CWS' negligence or willful misconduct, including violations of the effluent or reclaimed water quality requirements contained in the Project's Domestic Wastewater Facility Permit. CWS will assist CITY to contest any such fines in administrative proceedings and/or in court prior to any payment by CITY.

7.5 CITY shall be liable for those fines or civil penalties imposed by any regulatory agencies on CITY and/or CWS that are not a result of CWS' negligence or willful misconduct and are directly related to the ownership of the Project.

7.6 Each party shall obtain and maintain insurance coverage in the amounts described herein. Each party shall include the other party as an additional insured on all insurance policies covering the Project (excluding workers compensation) and shall provide the other party with satisfactory proof of insurance.

7.7 To the fullest extent permitted by law and notwithstanding any other provision of this Agreement, CWS' liability for performance or non-performance of any obligation arising under the Agreement (whether arising under breach of contract, tort, strict liability, or any other theory of law or equity) including, but not limited to its indemnity obligations specified in this Agreement, shall be limited to, the greater of,: (i) general money damages in an amount equal to the amount of any proceeds of insurance received by the CITY or to which CWS is entitled pursuant to any general liability insurance or automobile liability policy required to be maintained by CWS hereunder (without regard to the amount of any deductible which may be applicable under any such general liability or automobile liability policy) with respect to such loss; or (ii) to the extent proceeds of insurance are not recovered or such general liability or automobile insurance is not applicable, a cumulative aggregate over the full initial term lease as is of this agreement of an amount not to exceed $1,000,000.00; provided, however, in the event payments are made to the CITY pursuant to this Agreement in an amount meeting or exceeding $1,000,000.00 during the full term of this Agreement, the CITY shall be entitled to terminate this Agreement after allowing CWS thirty (30) days to determine whether to increase the amount of the obligation to the CWS pursuant to this Section in which event the CITY shall not have the right to terminate.

8. TERM, TERMINATION AND DEFAULT

8.1 The initial term of this Agreement shall be Three (3) years, commencing on January 1,

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2022, and ending on December 31, 2024. This Agreement may be extended with CITY approval for additional 2-year periods. Any prior Agreement(s) between the parties shall be terminated immediately upon this Agreement becoming effective.

8.2 A party may terminate this Agreement only for a material breach of the Agreement by the other party; only after giving written notice of breach; and, except in case of a breach by CITY for non-payment of CWS' invoices, in which case termination may be immediate by CWS, only after allowing the other party thirty (30) days to cure or commence taking reasonable steps to cure the breach.

8.3 Upon notice of termination by CITY, CWS will assist CITY in assuming operation of the Project for a period not to exceed six (6) months from the effective date of termination. If additional cost is incurred by CWS at request of CITY, CITY shall pay CWS such cost in accordance with this Agreement.

8.4 This Agreement shall terminate at such time as CITY may sell, convey or transfer its wastewater treatment plant or system, or a substantial part thereof, to another governmental agency to provide services. CITY shall give CWS as much advance notice as possible prior to any such sale, transfer or conveyance.

9. LABOR DISPUTES AND FORCE MAJEURE

9.1 In the event activities by CITY's employee groups or unions cause a disruption in CWS' ability to perform the Project, CITY, with CWS' assistance, or CWS at its own option, may seek appropriate injunctive court orders. During any such disruption, CWS shall operate the facilities on a best efforts basis until any such disruptions shall cease.

9.2 If any litigation is necessary to enforce the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, which are directly attributed to such litigation, in addition to any other relief to which it may be entitled.

9.3 Neither party shall be liable for its failure to perform its obligations under this Agreement if performance is made impractical, abnormally difficult, or abnormally costly, as a result of any unforeseen occurrences beyond its reasonable control. The party invoking this Force Majeure clause shall notify the other party immediately by verbal communication and in writing by certified mail of the nature and extent of the contingency within ten (10) working days after its occurrence.

Both parties indicate their approval of this Agreement by their signatures below and each party warrants that all corporate or governmental action necessary to bind the parties to the terms of this Agreement has been taken.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

CLEARWATER SOLUTIONS LLC

Date:

By :_____
Name:

CITY OF PORT WENTWORTH

By:_____

Date:

ATTEST:_____

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

APPENDIX A
DEFINITIONS

A.1 "Additional Services" means services incidental to items included in the annual list of capital needs, services requested by the CITY that are not included in the CWS Scope of Services as routine services, and/or additional routine services in amounts that exceed those contemplated in the Scope of Services. Such Additional Services may include CWS subcontracting work to specialty subcontractors.

A.2 "Adequate Nutrients" means plant influent nitrogen, phosphorous and iron contents proportional to BODs in the approximate ratio of five (5) parts nitrogen, one (1) part phosphorous, and one-half (0.5) part iron for each one hundred (100) parts of BOD5•

A.3 "Biologically Toxic Substances" means any substance or combination of substances contained in the plant influent in sufficiently high concentrations so as to interfere with the biological processes necessary for the removal of the organic and chemical constituents of the wastewater required to meet the discharge requirements of CITY's Domestic Wastewater Facility Permit. Biologically toxic substances include but are not limited to heavy metals, phenols, cyanides, pesticides and herbicides.

A.4 Capital Expenditures" means any expenditures for (1) the purchase of new equipment or facility items that cost more than Five Thousand Dollars ($5,000.00); or (2) major repairs that significantly extend equipment or facility service life and cost more than Five Thousand Dollars ($5,000.00); or (3) expenditures that are planned, non-routine, and budgeted by CITY.

A.5. "Capital Improvement Program" means the Program that is developed by CWS and reviewed annually to implement Capital Projects that will improve the operation of the CITY's Facilities, expand the capacity of the CITY's Facilities, and/or are required by Changes in Law or Uncontrollable Circumstances. The CITY may elect to request that CWS provide and/or perform the items included in the Capital Improvement Program, including Capital Projects, use their own forces, or procure them through other means as provided in this Agreement.

A.6 "Capital Project" means a capital addition, improvement or upgrade to the System to be performed by CWS which is of a long-term character or effect, such as land, buildings and Equipment, requested by the CITY and agree to by CWS. A Capital Project shall not include maintenance of Equipment or the Facilities unless otherwise noted herein.

A.7 "Cost" means the total of all costs determined on an accrual basis in accordance with generally accepted accounting principles, including but not limited to direct labor, labor overhead, chemicals, materials, supplies, utilities, equipment, Maintenance, Repair and outside services.

A.8 "Domestic Wastewater Facility Permit" means the current State of Georgia Domestic Wastewater Facility Permit number _____which expires _____ and any subsequent renewals.

A.9 "Laboratory Services" means the use of a sub-contractor to provide testing of samples.

A.10 "Maintenance" means those routine and/or repetitive activities required or recommended by the equipment or facility manufacturer or CWS to maximize the service life of the equipment, sewer, vehicles and facilities.

A.11 Project" means all equipment, vehicles, grounds and facilities described in Appendix B and, where appropriate, the management, operations and maintenance of each.

A.I2 "Repairs" means those non-routine/non-repetitive activities required for operational continuity, safety and performance generally resulting from failure or to avert a failure of the equipment, sewer, vehicle or facility or some component thereof.

A.I3 "Sludge Disposal" means the removal of sludge from the Wastewater Facility by use of a sub-contractor in compliance with the Domestic Wastewater Facility Permit.

A.14 "Unforeseen Occurrence" means any event or condition which has an effect on the rights or obligations of the parties under this Agreement, or upon the Project, which is beyond the reasonable control of the party relying thereon and constitutes a justification for a delay in or non-performance of action required by this Agreement; including but not limited to (i) an act of God, landslide, lighting, earthquake, tornado, fire, explosion, flood, failure to possess sufficient property rights, acts of public enemy, war, blockade, sabotage, insu1Tection, riot or civil disturbance, (ii) preliminary or final order of any local, province, administrative agency or government body of competent jurisdiction, (iii) any change in law, regulation, rule, requirement, interpretation or statute adopted, promulgated, issued or otherwise specifically modified or changed by any local, province or governmental body, (iv) labor disputed, strikes work stoppages, but excluding labor disputes, strikes work slowdowns or work stoppages by employees of CWS; and (v) loss or inability to obtain service from a utility necessary to furnish power for the operation and maintenance of the Project.

A.I5 "Wastewater Pumping Station,, means the facility to pump sewage from a wet well through a force main to a gravity system or to the Wastewater Treatment Facility. This includes, but not limited to all pumps, electrical components, access hatches, piping from the wet well through the stations valve pit including plug valves and check valves, fencing, landscaping and grounds.

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APPENDIX B

B.1 LOCATION OF PROJECT AND LIFT STATIONS

CWS agrees to ~~operate, maintain, repair, manage, administer and to provide planning, design, construction, improvement, financing in connection with the following CITY Facilities:~~ ~~All~~ all equipment, ground and facilities now existing within the current property boundaries ~~of wastewater pumping stations~~ described as follows:

Wastewater	#		Water System
Wastewater Treatment Facility	---		Well #1 (Appleby Road)
Amazon lift station	N/A		Well #2 (Appleby Road) *not in service*
Amberly lift station	17		Well #3 (Highway 21) *not in service*
Armadale lift station	1		North Water Tower
Cherry St. lift station	14		South Water Tower
Cold Creek Pass lift station	13		
Coldstream lift station	2		
Crossgate (Dynacraft) lift station	N/A		
Gooseneck lift station	15		
Jimmy DeLoach lift station	6		
Horne Place lift station	5		
Lakeshore lift station	11		
Lakeside lift station	12		
Newport lift station	10		
Pine Forest lift station	8		
Rideshare lift station	4		
Saussy Rd lift station	N/A		
Waffle House lift station	3		

CWS and CITY agree that CITY shall have the right to amend Section B.l above, as may be necessary or the CITY may determine to do from time to time, and in such event, the parties will negotiate an appropriate change to the Base Fee by mutual agreement. Any such amendments shall be in writing, signed by both parties, and properly incorporated into this Agreement.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

APPENDIX C
INSURANCE COVERAGE

CWS shall maintain:

C.1. Statutory workers' compensation for all of CWS' employees at the Project as required by the State of Georgia in amounts not less than One Million Dollars ($1,000,000.00) in liability for each accident, One Million Dollars ($1,000,000.00) for each employee per disease, and with not less than One Million Dollars ($1,000,000.00) policy limit.

Commercial general liability insurance in an amount not less than Three Million Dollars ($3,000,000.00) combined single limits for bodily injury and/or property damage.

Commercial Automobile liability insurance in an amount not less than Two Million Dollars ($2,000,000.00) combined single limits for bodily injury and/or property damage.

C.2 CITY shall maintain:

Property damage insurance for all property including vehicles and equipment owned by CITY and operated by CWS under this Agreement. Any property, including vehicles, not properly or fully insured being the financial responsibility of CITY.

C.3 Each party1s insurer shall provide at least ten (10) days' notice of the cancellation of any policy, including without limitation, workers compensation insurance, it is required to maintain under this Agreement.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

APPENDIX D
Base Fee Adjustment Formula

ABF = BF x AF

Where:

BF = Base Fee specified in Article IV.1

ABF = Adjusted Base Fee

AF = Adjustment Factor as determined by the formula:

AF = [((ECI) .50 + ((CPI).50)]

In the event that the base fee is calculated using the base fee formula above then annual increase shall not exceed five percent (5%) nor be less than two percent (2%).

ECI = The twelve month percent change (from the third quarter of the prior year to the second quarter in the current year) in the Employment Cost Index for Total Compensation for All Civilian Workers, and All Workers, Not Seasonally Adjusted as published by U. S. Department of Labor, Bureau of Labor Statistics in the Detailed Report Series ID: CIU1010000000000A (B,C).

CPI = The twelve month percent change (from the third quarter of the prior year to the second quarter in the current year) in the Consumer Price Index for the U.S. City Average, All Items, Not Seasonally Adjusted as published by U.S. Department of Labor, Bureau of Labor Statistics in the CPI Detailed Report Series Id: CUUR0000SA0.

Attachment: CWS Contract December 10 Draft (2582 : Professional Services Agreement with ClearWater Solutions, LLC)

City Council
7224 GA Highway 21
Port Wentworth, GA 31407

SCHEDULED

Meeting: 12/16/21 06:30 PM
Department: Police Department
Category: Agreement
Prepared By: Shanta Scarboro
Department Head: Matt Libby

AGENDA ITEM (ID # 2581)

DOC ID: 2581

Employment Agreement between the City of Port Wentworth, Chatham County, Georgia and Chief of Police Matthew W. Libby

Issue/Item:
Employment Agreement between the City of Port Wentworth, Chatham County, Georgia and Chief of Police Matthew W. Libby.

Background:
This agreement shall be effective commencing on December 13, 2021.

Facts and Findings:
The Contractor shall perform competently in a professional and businesslike manner all duties as described in the agreement. The Contractor shall also comply with all applicable federal and state laws that pertain to his duties as Chief of Police. The Contractor shall serve as a non-classified at-will employee and shall be exempt from the wage and overtime requirements of the Fair Labor Standards Act and shall engage in those hours necessary to fulfill the obligations of his position of employment.

Funding:
City of Port Wentworth Police Department

Recommendation:
Approval

ATTACHMENTS:

- Matt Libby Contract December 2021 (PDF)

CITY OF PORT WENTWORTH
Port Wentworth, Georgia

EMPLOYMENT AGREEMENT
(Chief of Police)

This **AGREEMENT** made and entered into this _____ day of _____, 2021, between **THE CITY OF PORT WENTWORTH, CHATHAM COUNTY, GEORGIA,** a Municipal Corporation of the State of Georgia (herein referred to as "The City of Port Wentworth or City") and **MATTHEW W. LIBBY** of the State of Georgia, County of Chatham (hereto referred to as "Employee").

WHEREAS, both the City and the Employee are desirous of entering into an Agreement whereby the Employee is retained as an employee of the City of Port Wentworth; and

NOW, THEREFORE, for and in consideration of the mutual promises contained in the Agreement, the parties agree as follows:

1. **TERM.** This agreement shall be effective commencing on December 13, 2021. Except as hereinafter set forth, the Agreement may be terminated by either party by giving thirty (30) days prior written notice to the other party at the notice address provided herein by and for each party or at another address chosen subsequent to execution of this agreement and provided in writing to the party giving notice. The initial term of the Agreement between the City and Employee shall begin on the effective date of this Agreement, and continue until December 1, 2022. The Agreement will automatically renew for a term of twelve (12) months unless action is taken by City to terminate the Agreement. There may be no more than four (4) renewals of this Agreement. Action sufficient to terminate this Agreement shall be affirmative vote on behalf of City at any duly noticed meeting of the Port Wentworth City Council.

   If the City of Port Wentworth terminates this contract within the first two (2) years, Employee shall receive as compensation twelve (12) months' salary at a rate equal to Employee's salary rate on the effective date of termination, and Employee shall receive COBRA health insurance benefits for twelve (12) months, such COBRA coverage shall include Employee's spouse and dependents. If The City of Port Wentworth terminates this contract any time after the first two (2) years, Employee shall receive as compensation six (6) months' salary at a rate equal to Employee's salary rate on the effective date of termination, and Employee shall receive COBRA health insurance benefits for twelve (12) months, such COBRA coverage shall include Employee's spouse and dependents. The value of said benefits would be within current cost of benefits as outlined in the City Human Resource manual at the time of termination of this contract.

   If the Employee is convicted of any criminal act(s) or any act of Moral Turpitude this contract is null and void and the City of Port Wentworth is not held to the aforementioned obligations.

Attachment: Matt Libby Contract December 2021 (2581 : Employment Agreement between the City of Port Wentworth, Chatham County,

If the Employee decides to terminate this contract prior to its maturity the Employee agrees to continue until such a time as a replacement Chief of Police is employed by The City of Port Wentworth and also to agree to continue handling all aspects previously handled by same.

2. **SERVICES.** The duties to be performed by the Employee are as follows:

ESSENTIAL DUTIES AND RESPONSIBILITIES

Carries out managerial responsibility in accordance with policies, procedures and applicable laws including: interviewing, hiring and training staff; planning, assigning and directing work; establishing deadlines; appraising performance; rewarding and disciplining employees; addressing complaints and resolving problems; and ensuring the proper allocation of staff and resources. Manages department staff members which are responsible for performing public safety functions including, but not limited to: enforcing various laws; investigating crimes against people and property; developing and presenting crime prevention and safety programs; and other related functions and programs.

Plans, coordinates, assigns, and monitors performance and coaches, counsels, mentors, trains, and advises employees in department for the dual goals of meeting department goals and employee career development.

Serves as a liaison and/or member of various committees/teams and collaborates, persuades, presents reports to and negotiates with others outside own work area to coordinate efforts and maintain cooperative and efficient relations.

Manages the preparation of the department budget, including analyzing needs and resources and monitoring budget activity.

Plans long-range goals, objectives, organizational structure, and overall direction for the department.

Plans and implements short-term or annual goals, objectives, and strategies for the department, projects, or programs to ensure efficient organization and completion of work

Develops and implements methods of collaboration with outside agencies and other City departments.

Interprets, develops, communicates, updates and monitors ordinances, policies, procedures, and standards for the department; recommends improvement when necessary; and writes/revises same.

Conducts criminal risk and civil liability assessments.

Follows up on inquiries from various agencies, groups, media, etc., regarding department programs and services; makes presentations to groups, and participates in radio, newspaper, and television interviews.

Attachment: Matt Libby Contract December 2021 (2581 : Employment Agreement between the City of Port Wentworth, Chatham County,

Maintains and upgrades professional knowledge, skills, and development by attending seminars and training programs and reading trade and professional journals and publications.

Prepares complex, routine, and non-routine reports as requested; receives, sorts, analyzes and summarizes material for the preparation of reports; prepares work reports; and relays and interprets administrative decisions, policies, and instructions.

Interacts with a variety of high-level individuals, both internally and within the community, county, state and nation to provide information, disseminate departmental information, promote community awareness of department functions, make presentations and assist in resolving administrative issues.

Performs other related duties as assigned.

3. **TIME, MANNER, AND METHOD OF PERFORMANCE.** All of Employee's duties as described herein shall be performed competently in a professional and businesslike manner.

   Employee shall comply with all applicable federal and state laws that pertain to his duties as Chief of Police.

   Employee shall serve as a non-classified employee and be exempt from the wage and overtime requirements of the Fair Labor Standards Act and shall engage in those hours necessary to fulfill the obligations of his position of employment.

4. **COMPENSATION.** The City of Port Wentworth shall pay to the Employee the SUM of $110,323.20 per year of the contract with a minimum of 2.5% (two- and one-half percent), maximum 5 (five percent) raise for each subsequent year. The City of Port Wentworth will provide normal and customary benefits as outlined in the City of Port Wentworth Human Resources Policy. The City of Port Wentworth will furnish to the Employee a vehicle to in accordance with current City polices. The City of Port Wentworth will pay all dues and conference fees for the ***Georgia Association of Chiefs of Police*** and the ***International Association of Chiefs of Police*** and any other associations which may be a benefit to the City of Port Wentworth Police Department and The City of Port Wentworth, as deemed so by the Employee and The City of Port Wentworth.

5. **EMPLOYEE RELATIONSHIP**. This Agreement is supplemental to the City of Port Wentworth's Human Resources Policies and all rights and obligations conferred by said policies remain in effect. This Agreement does not relieve either party from adhering to the City of Port Wentworth's human resources policies.

6. **ENTIRE AGREEMENT.** This Agreement and the release contemporaneously entered into between the parties contains the entire understanding of the parties and supersedes all previous verbal and written agreements; and no other agreement, statement, or promise relating to the subject matter of this Agreement that is not contained herein shall be valid and binding.

Attachment: Matt Libby Contract December 2021 (2581 : Employment Agreement between the City of Port Wentworth, Chatham County,

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first above written.

EMPLOYEE:

Matthew W. Libby
Employee

Social Security Number

Address

City, State, Zip

Telephone Number

Signed this _____ day of _____, 2021.

Matthew W. Libby

Gary Norton, Mayor
City of Port Wentworth

Attachment: Matt Libby Contract December 2021 (2581 : Employment Agreement between the City of Port Wentworth, Chatham County,