

Nancy Harris, Mayor Jamin Harkness, Post 1 Marline Thomas, Post 2 Lamar Doss, Post 3 Manfred Graeder, Post 4 Greg Whitlock, Post 5

AGENDA MAYOR AND COUNCIL CITY OF DULUTH, GA 3167 Main Street Duluth, GA 30096

APRIL 10, 2023

CITY HALL COUNCIL CHAMBERS

6:00 pm

The leaders and staff of the City of Duluth are dedicated to ensuring that Duluth is: an Attractive Destination, a Quality Community, a World Class Government, and promotes a Sustainable Economic Environment.

5:30 P.M. – AGENDA REVIEW

Main St. Conference Room

6:00 P.M. - CALL TO ORDER

Mayor Harris or Mayor Pro tem Thomas

INVOCATION OR MOMENT OF SILENCE

PLEDGE OF ALLEGIANCE

I. ANNOUNCEMENTS

- AGENDA CHANGES (IF NECESSARY)
- 2. UPCOMING EVENTS www.duluthga.net/events

Duluth Farmers & Artisan Market, Sunday April 23, 2-5pm. Town Green.

GWB Presents "Little Beer" festival, Saturday April 15, 1-5pm. Town Green

STEAM Thursday April 27 from 5-7pm. Town Green

Duluth Spring Arts Festival, April 29 from 10am-5pm, April 30 from 11am-5pm.

PLEASE NOTE: This and other City meetings may be audio and/or videotaped for broadcast, transcription and/or archival purposes. As set forth in the Americans with Disabilities act (ADA) of 1990, the City of Duluth government does not discriminate on the basis of disability in the admission or access to or treatment of employment in its programs or activities, and complies with the requirements contained in section 35.107 of the Department of Justice regulations. All agenda packets may be converted to WCAG 2.0 compatibility format by emailing agenda@duluthga.net. In addition, any requests for reasonable accommodations required by individuals to fully participate in any open meeting, program, or activity of the City of Duluth government should be made seven days prior to the event. Direct inquiries to the ADA Coordinator in the City Clerk office, located at 3167 Main Street, Duluth, GA. 30096, or by telephone at 770.476.3434.

II. MATTERS FROM CITIZENS

Maximum of five (5) minutes per person. Sign-up sheet available.

III. CONSENT AGENDA

- 1. APPROVAL OF MARCH 13/27[™] MINUTES
- 2. ORDINANCE TO APPOINT PARKS BOARD MEMBER

Approval of this item approves ordinance O2023-14 appointing Judy Putnam to the Parks and Recreation Board to fill the term vacated by Jim Hall, expiring March 31, 2025.

IV. PUBLIC HEARINGS

1. RESOLUTION/TEXT AMENDMENT – CASE TA2023-001

The purpose of this resolution is to make a minor amendment to the River Green Employment Character Area of the Comprehensive Plan as it pertains to institutional and public uses within the district.

2. ORDINANCE OF SPECIAL USE - CASE SU2023-001

The purpose of this Special Use request (SU2023-001) is to allow for the operation of a public charter/language school in the M-1 (Light Industrial) zoning district.

V. NEW BUSINESS

1. SELECTION OF PROPOSER – SOLID WASTE SERVICES

During the March 27th work session of the Mayor and Council, staff presented the three proposals received in response to the Solid Waste Request For Proposal (RFP). Following presentation, staff was directed to place this item on the April 10th agenda for consideration of a contract with the overall most responsive proposer, Republic Services, and to further authorize the Mayor and or City Manager to execute contract once reviewed and approved by the City Attorney.

2. APPROVAL - ARPA SANITARY SEWER PLAN

The American Rescue Plan Act (ARPA) allotted money to the City of Duluth, which the City is using for the installation of sanitary sewer in the Hill Community and in the Pinecrest Community. Both projects are in partnership with Gwinnett County Department of Water Resources.

As part of the process, Council is being asked to approve the construction plans so that staff can continue forward with acquiring easements, which will later allow the County to move forward with construction.

Staff will address questions and request approval of the plans as presented.

VI. MATTERS FROM COUNCIL

VII. MATTERS FROM CITY MANAGER

VIII. EXECUTIVE SESSION

It may be necessary to hold an executive session on Real Estate, Pending/Potential Litigation, or Personnel, which is properly excluded from the Georgia Open and Public Meeting Law (O.C.G.A. 50-14).

IX. ADJOURNMENT

The next scheduled meetings of the Mayor and Council are budget work sessions for April 17 and April 18 at 5:30 p.m. in the Community Room of City Hall.



DRAFT MINUTES OF THE MAYOR AND COUNCIL CITY OF DULUTH, GA MARCH 13, 2023

PRESENT: Mayor Harris, Council members: Doss, Graeder, and Whitlock, City

Manager, Department Directors, City Attorney

ABSENT: Council members Harkness and Thomas

A work session was held prior to the regular scheduled meeting to allow the elected officials to discuss this evening's agenda items. No other items were discussed, and no action was taken.

Mayor Harris called the meeting to order at 5:37 p.m.

I. EXECUTIVE SESSION

It was necessary to adjourn into an Executive Session for the purpose to discuss Real Estate, Pending/Potential Litigation, or Personnel, which is properly excluded from the Georgia Open and Public Meeting Law (O.C.G.A. 50-14).

A motion was made by Councilmember Whitlock, seconded by Councilmember Graeder, to adjourn into executive session at 5:37 p.m.

Voting for: Council members Doss, Graeder, and Whitlock Motion carried.

After the discussion, a motion was made by Councilmember Whitlock, seconded by Councilmember Graeder, to return to regular session at 6:00 p.m.

Voting for: Council members Doss, Graeder, and Whitlock Motion carried.

MOMENT OF SILENCE

PLEDGE OF ALLEGIANCE

{A}

I. ANNOUNCEMENTS

- 1. AGENDA CHANGES (none)
- 2. UPCOMING EVENTS www.duluthga.net/events

Duluth Farmers & Artisan Market, March 12, March 26, and April 9 from 2-5pm Shop local vendors at the Duluth Farmers Market in Downtown Duluth!

Duluth Rotary Car Show, Saturday, April 8 from 10am-2pm This event is sure to keep your wheels spinning as Exotic Cars, Antique Classics, Foreign Sports, Hot Rods, Muscles and more take over City Hall. This event is free to attend and is hosted by the Rotary Club of Duluth.

Annual Easter Egg Hunt, March 25 at Bunten Road Park. Rain date April 1.

II. MATTERS FROM CITIZENS

Mr. Glen Boylan of 3465 Duluth Highway came forward requesting an update on the Marlow Duluth Project.

Planning Director Forrest Huffman explained that the developer is still acquiring property and staff has had pre-application meetings with them.

III. CONSENT AGENDA

- 1. APPROVAL OF FEBRUARY 13TH/27TH MINUTES
- 2. ORDINANCE TO APPOINT ALCOHOL BOARD

Approval of this item approves ordinance O2023-05 appointing Robert Edwards to the Alcohol Review Board to fill the unexpired term of Michael Ashley, term ending March 31, 2026.

3. ORDINANCE TO APPOINT MUNICIPAL JUDGES {B}

The Duluth City Charter provides for the appointment of the municipal court judges, by ordinance. State law OCGA 36-32-2 mandates that appointed municipal court judges be appointed for a term of not less than one year. Accordingly, approval of this item approves ordinance O2023-06 reappointing municipal court judges Charles L. Barrett, III, Margaret Gettle Washburn, Claude Mason, and Chung Hun Lee.

4. ORDINANCE TO APPOINT PLANNING COMMISSION

{C}

Approval of this item approves ordinance O2023-07 reappointing Shenee Holloway to the Planning Commission for another four- year term, ending March 31, 2027.

5. ORDINANCE TO APPOINT PUBLIC ART COMMISSION

 $\{D\}$

Approval of this item approves ordinance O2023-08 appointing members of the Duluth Public Art Commission as follows: Ken Sebastian to fill the seat vacated by Marty Dorfman, expiring 3/31/26 and Heather Blanchard to fill the unexpired term of Kristina Jackson, term ending 3/31/24.

6. ORDINANCE TO APPOINT URBAN REDEVELOPMENT

{E}

Approval of this item approves ordinance O2023-09 reappointing Mayor Harris to the Urban Redevelopment Agency, term ending March 31, 2027.

7. ORDINANCE TO APPOINT ZONING BOARD OF APPEALS

{F}

Approval of this item approves ordinance O2023-10 reappointing Verdi Avila and William Latta to the Zoning Board of Appeals for four-year terms, ending March 31, 2027.

8. ORDINANCE TO AMEND THE DULUTH CODE – CHAPTER 3

{G}

As presented at the February 27 work session, approval of this item approves ordinance O2023-11 amending Chapter 3 of the Duluth Code for various "housekeeping" alcohol amendments.

9. AUTHORIZATION FOR PLANNING FEE SCHEDULE

 $\{H\}$

The Planning Department finds it necessary from time to time to review the City's Permit Fee Schedule to provide a fair and competitive rate to permit construction within the City limits. Approval of this item approves ordinance O2023-12 setting permit fees as presented.

10. APPROVAL OF INTERGOVERNMENTAL AGREEMENT- 2023 ELECTION {I}

Approval of this item authorizes Mayor Harris to execute the Intergovernmental Agreement (IGA) with Gwinnett County for the use of their voting equipment for the 2023 General Municipal Election.

{M}

11. ORDINANCE TO AMEND THE BUDGET - \$359,164 - WORKERS' COMP {J}

Over the past 12 months, the City's Workers Compensation Fund has experienced some large claims expenditures as a result of a significant claim involving a police officer. The City's excess workers compensation policy with Midwest Employers Casualty requires the City to pay the first \$650,000 in expenditures for this claim before any reimbursement will occur. As of the last reimbursement request, the City has paid claim expenditures of \$1,627,306.29 and has received reimbursement of \$977,306.29. In the most recent reimbursement, the City received \$359,164.56. Staff is requesting approval of a budget amendment to add revenue and expenditures of \$359,164 to the Workers Compensation Fund to support current and anticipated claims through year end. Approval of this item approves ordinance BA-FY23-22 to add \$359,164 to Workers Compensation - Insurance Claims Reimbursements line item and \$359,164 to Workers Compensation - Risk Management - Claims Police Uniform line item.

12. ORDINANCE TO AMEND THE BUDGET – POLICE VEHICLES {K}

The Police Department recently sold a vehicle at auction and after commission and fees they received \$14,700. To continue maintaining a vehicle fleet that is low maintenance and dependable, the Police Department has requested the \$14,700 be added to the Police - Consolidated Vehicle Maintenance Division - Vehicles line item. Approval of this item approves ordinance BA-FY23-23 as presented.

13. DESIGNATION OF OPEN RECORDS OFFICERS – AMENDED {L}

Approval of this item amends approves resolution R2023-06 amending R2023-04, previously approved on January 9, 2023, by adding John Gracia as the new Administrative Asst./Records Officer.

A motion was made by Councilmember Whitlock, seconded by Councilmember Graeder, to approve the Consent Agenda as presented.

Voted For: Council members Doss, Graeder, and Whitlock Motion carried.

IV. NEW BUSINESS

1. 2040 COMPREHENSIVE PLAN UPDATE KICK-OFF

Planning Director Forrest Huffman presented. City of Duluth Planning and Development staff will begin a major update to our 2040 Comprehensive Plan, FORWARDuluth. Mr. Huffman explained for the audience what the components of a Comp Plan are, and outlined a tentative schedule of events and meetings pertaining to this five-year update.

The Department of Community Affairs (DCA) requires that elements of a plan include:

- Vision & Goals
- Needs & Opportunities
- · Community Work Program
- Broadband
- CIE
- Land Use
- Economic Development
- Transportation
- Housing

Not all elements of the plan require updating every five years, but the ones that do are:

- Needs & Opportunities
- Community Work Program
- Report of Accomplishments
- Broadband
- Land Use

Mr. Huffman noted that Staff areas of interest are:

- Core Neighborhood Area
- River green Employment District
- Housing
- Natural Resources
- Short-term Work Program & Report of Accomplishments

The two main components of the Comp Plan are "Character areas" and "Future Land Use" maps; each have different sets of goals. He encouraged the public to attend the meetings for more information and to provide feedback prior to anticipated final approval in February 2024.

Councilmember Graeder requested that a link to the 2040 Comprehensive Plan be sent to the members of the LEAD class and encouraged everyone to provide feedback.

V. MATTERS FROM COUNCIL

Councilmember Graeder expressed appreciation for the first Farmers Market of 2023 and commended the events staff.

Mayor Harris noted that Board appointments were made under the consent agenda and thanked those in the audience for their service.

VI. MATTERS FROM CITY MANAGER

City Manager James Riker reported that brick repairs are continuing on Town Green. Staff is aware of the sod condition and that repair is scheduled as well.

VII. ADJOURNMENT

A motion was made by Councilmember Graeder, seconded by Councilmember Whitlock, to adjourn at 6:36 pm.

Voting for: Council members Doss, Graeder, and Whitlock Motion carried.

The next scheduled meeting of the Mayor and Council is a work session for March 27, 2023 at 5:30 p.m.

ORDINANCE PARKS AND RECREATION ADVISORY BOARD

WHEREAS, Pursuant to sections 2-87 of the Duluth Code of Ordinances establish that the Parks and Recreation Advisory Board shall be comprised of eight (8) members and one (1) alternate. Eight members must be residents of the city for at least one (1) year. One (1) member may own or operate a business located within city limits for at least one (1) year prior to nomination.

WHEREAS, Sec. 2-49 Term Limits for Board and Commissions (established 2012). Service on each board, authority, commission, or committee of the City of Duluth shall be limited to three consecutive full four-year terms. In no event shall a member serve over fourteen (consecutive) years.

NOW THEREFORE, the Mayor and Council of the City of Duluth hereby ordains that the following individuals be appointed as a member of the Parks and Recreation Board and be authorized to serve in their positions for four-year terms unless a majority vote of Council removes such member(s).

Appoint:

Judy Putnam (Alt 1)	Expires 03/31/2025	Term begin date: 2023
(filling unexpired term of Jim Hall)		
Current Members :		
David Jones	Expires 03/31/2025	Term begin date: 2010
Mary Odum	Expires 03/31/2025	Term begin date: 2017
Annette McIntosh	Expires 03/31/2025	Term begin date: 2017
Curt Lindner	Expires 03/31/2026	Term begin date: 2018
Ryan Marcinik	Expires 03/31/2026	Term begin date: 2018
Sharon Parris	Expires 03/31/2026	Term begin date: 2015
Mark Carter	Expires 03/31/2026	Term begin date: 2013
Alexis Server	Expires 03/31/2026	Term begin date: 2017

IT IS SO ORDAINED this 10th day of April 2023.

	Mayor Nancy Harris
Those councilmembers voting in favor:	Charles Jamin Harkness, Post
	Marline Thomas, Post 2
	Kenneth Lamar Doss, Post 3
	Manfred Graeder, Post 4
	Greg Whitlock, Post 5

Those cou	incilmembers voting in opposition:	
ATTEST:		
_	Teresa S. Lynn, Asst. City Manager, City Cler	·k



NOTES OF THE WORK SESSION MAYOR AND COUNCIL CITY OF DULUTH, GA MARCH 27, 2023

PRESENT: Mayor Harris, Council members Harkness, Thomas, Doss, Graeder, and Whitlock, City Manager, Department Directors, City Attorney

Mayor Harris called the work session meeting to order at 5:30 p.m.

I. PUBLIC COMMENTS

No comments brought forward.

II. PRESENTATIONS/DISCUSSIONS/UPDATES

1. PARKS & RECREATION BOARD APPOINTMENT

Parks Director Kathy Marelle came forward and requested the Mayor and Council consider the appointment of Judy Putnam to fill the vacancy on the Parks & Recreation Advisory Board. Judy Putnam, a Duluth resident, submitted an application for the Parks and Recreation Advisory Board. Judy is a retired Communications Director and lives in the Carriage Gate Subdivision. She is an avid pickleball player and prior to the pickleball explosion, played ALTA tennis. She has attended a Parks and Recreation Advisory Board meeting and is very interested in contributing to the success of the Parks and Recreation Department. Ms. Putnam would be filling the unexpired term of Jim Hall until March 2025 and serve in the alternate position. Annette McIntosh would move from alternate to full member on the Parks Board.

Staff was authorized to place this item on the April 10, 2023 consent agenda for approval.

2. BUNTEN PICKLEBALL COURT – SPLOST PROJECT

{A}

Parks Director Kathy Marelle presented. Due to the underutilized youth baseball field and the abundant inventory of county ball fields, in relation to the ever-growing popular demand of Pickleball, the Parks Department proposes the construction of 13 Pickleball Courts at Bunten Park.

Pickleball is a multi-generational and multi-cultural league activity. ALTA Pickleball leagues will provide year-round play for the proposed courts as well as provide public court play and instructional programming. Currently, the department has generated \$14,000 in revenue from the 8 existing tennis/pickleball courts and the two indoor gym courts. The proposed 13 court complex cost is estimated at \$1,633,546.00, for construction in 2024 the estimated cost is \$1,682,552.38.

Council supports the project, but the Parks SPLOST funding has been designated to Rogers Bridge Phase II and the Bunten walking trail. This project would likely be two years out at minimum.

Staff will look at budget reserves to determine which projects can be expedited.

{B}

City Manager James Riker came forward to report that staff received three proposals relating to the Solid Waste Request For Proposal (RFP). He summarized the proposals and discussed the evaluation metrics, comparing the total cost for both residential and commercial service.

The RFP General Contents, still identifies "Exclusive Franchise" agreement for commercial and residential waste/recycling; Switches to 95 gallon carts for garbage and recycling vs "Duluth Bags" and bins; Requested bulk and yard waste service will be scheduled and billed directly from the provider; The city will pay provider directly on a monthly basis for residential services and City facilities will be serviced as normal: Residential pickup will be allowed five days; the cart system would be implemented by May 1, 2024 and true up on residential customers would be done of the following monthly billing.

Mr. Riker pointed out the process for the RFP evaluation results using the formula of 20% proposer's financial viability and stability, 40% cost of service, 10% experience of the proposer in the market and 30% quality of references provided by the proposer.

Republic Services scored the highest when averaging out the rankings of the City Manager, Assistant City Managers and Public Works Director. Republic Services scored 371, Waste Pro scored 365 and Red Oak Sanitation 315. The significant difference between the 3 bidders was the costs to the City's commercial/industrial businesses. Republic Service scored slightly higher on residential but lower on commercial / industrial rates.

Service would begin May 1, 2024. The City intends to cover the cost of residential service with property tax, as there was a budget surplus last year. Council to place selection of the winning proposal on the April 10th meeting agenda.

Staff to place the award of contract on the April 10, 2023 Council agenda for approval.

4. EMERGENCY OPERATIONS PLAN UPDATE

Last year staff and representatives from Gwinnett County Office of Emergency Management updated the City's Emergency Operations Plan. City Manager James Riker gave a brief presentation on the plan.

He went over the City's Mission and Scope, presented a Hazard Analysis that identifies the man-made and natural hazards to which the City of Duluth is most vulnerable. The Gwinnett County Hazard Mitigation Planning Committee identified the hazards that are most likely to impact Gwinnett County and the City. Planning for known threats and hazards ensures that, when addressing emergency functions, planners identify common tasks and those responsible for accomplishing the tasks.

Mr. Riker pointed out the section that provides an overview of the key functions and procedures that departments will accomplish. It also identifies responsibilities assigned to each department/organization that has a mission assignment to include the following.

Elected officials will be briefed on impending events and any anticipated potential impacts. This briefing will normally be conducted by the City Manager. Following a briefing by the City Manager, governing officials may be involved in the following activities:

Establish initial overarching priorities.

Communicate priorities with the City Manager

Play a role in coordinating city approved messaging to the public.

The Police Department has the overall responsibility for coordinating emergency response actions and will establish incident command. Gwinnett Fire and Emergency Services will normally be included in a unified command. The Police Department has overall authority, especially in situations of imminent threat. If time allows, decisions will be a joint effort between the Police Department, City Manager, and event organizers, if required. If there is a hazardous materials event, Gwinnett Fire and Emergency Services will also be involved.

Staff will host a roundtable discussion with Gwinnett Fire and Emergency Services to discuss response scenarios. IT staff is developing a formal plan that includes policies and procedures for a disaster recovery plan. This is part of a cyber security maturity program. Staff will also conduct some limited tabletop exercises.

III. MATTERS FROM COUNCIL

- L&R Burger opening in August.
- Vote for Duluth in the Final four Urbanize Atlanta's Suburban Smackdown
- City Engineer to investigate whether GDOT would approve changing the flashing lights at the Hwy 120 crosswalk to a "Hawk" red light
- Easter Egg Hunt at Bunten Park 2,500 kids
- Farmers Market Sunday March 26 did well.

IV. ADJOURNMENT

SPECIAL CALLED MEETING DRAFT MINUTES MAYOR AND COUNCIL CITY OF DULUTH, GA MARCH 27, 2023

Mayor Harris called the meeting to order at 7:20 p.m.

I. EXECUTIVE SESSION

It was necessary to hold an executive session on Real Estate, Pending/Potential Litigation, Personnel.

A motion was made by Councilmember Doss, seconded by Councilmember Thomas to adjourn to executive session at 7:20 p.m.

Voting for: Council members Harkness, Thomas, Doss, Graeder, and Whitlock Motion carried.

After the discussion, a motion was made by Councilmember Whitlock, seconded by Councilmember Graeder, to return to regular session at 7:50 p.m.

Voting for: Council members Harkness, Thomas, Doss, Graeder, and Whitlock Motion carried.

II. ADJOURNMENT

A motion was made by Councilmember Whitlock, seconded by Councilmember Graeder, to adjourn at 7:50 pm.

Voting for: Council members Harkness, Thomas, Doss, Graeder, and Whitlock Motion carried.

The next scheduled meeting of the Mayor and Council is April 10, 2023 at 6:00pm

RESOLUTION CITY OF DULUTH FORWARDuluth – 2040 COMPREHENSIVE PLAN

A RESOLUTION AMENDING FORWARDuluth (2040 COMPREHENSIVE PLAN) AND ALL CORRESPONDING DOCUMENTS (AS SHOWN ON THE ATTACHED EXHIBIT "A") AS REQUIRD BY THE STATE OF GEORGIA LOCAL PLANNING REQUIREMENTS CHAPTER 110-12-1-.02.

WHEREAS, The Georgia Department of Community Affairs has established Minimum Standards and Procedures for Local Comprehensive Planning; and

WHEREAS, the purpose of the Minimum Standards and Procedures is to provide a framework for the development, management and implementation of local comprehensive plans at the local, regional and state government level; and

WHEREAS, they reflect an important state interest: healthy and economically vibrant cities and counties are vital to the state's economic prosperity; and

WHEREAS, regular updates to the plan are necessary to ensure it meets the needs to the community; and

WHEREAS, the City of Duluth, Georgia, has prepared an update to FORWARDuluth; and

WHEREAS, on March 20, 2023, the City of Duluth Planning Commission held a public hearing duly noticed and voted to recommend approval of the updated plan as set forth in the minutes of said meeting; and

WHEREAS, the Duluth City Council held a public meeting on April 10, 2023, duly noticed as prescribed by law and published in the Gwinnett Daily Post regarding the update as set forth in the minutes of said meeting.

NOW THEREFORE, be it Resolved by the City Council of the City of Duluth, Georgia to adopt the amended FORWARDuluth (2040 Comprehensive Plan) and all corresponding documents as shown on the attached Exhibit "A".

{Signatures on the Following Page}

IT IS SO ORDAINED this $\underline{10th}$ day of \underline{April} , $\underline{2023}$.

	Mayor Nancy Harris
Those councilmembers voting in favor:	Charles Jamin Harkness, Post 1
	Marline Thomas, Post 2
	Kenneth Lamar Doss, Post 3
	Manfred Graeder, Post 4
	Greg Whitlock, Post 5
Those councilmembers voting in opposition:	
ATTEST:	
Teresa S. Lynn, City Clerk	

CITY OF DULUTH CITY COUNCIL Staff Report **April 10, 2023**

CASE NUMBER:	TA2023-001
REQUEST:	Text Amendment to the Character Area section of the FORWARDuluth 2040 Comprehensive Plan.
APPLICANT:	City of Duluth

Staff Recommendation	Approve
Planning Commission Recommendation	Approve

I. Background:

The City of Duluth finds that it is necessary to update the language within the River Green Employment District of the Character Area section of the FORWARDuluth 2040 Comprehensive Plan. The purpose of the amendment is to remove language within the River Green Employment District that conflicts with the existing uses in River Green Industrial Park. Additionally, the use of prohibitive language for this character area does not allow staff the opportunity to guide development within this area in a manner where impacts to neighboring properties can be minimized. The amendment of this section, in conjunction with the major Comprehensive Plan update scheduled for February of 2024 will help to better evaluate the needs and opportunities of this character area.

II. Description of the Request:

1. Below is a summary of the recommended amendments to Visions & Aspirations: Character Area.

Visions & Aspirations

Character Areas:

River Green Employment District. River Green will continue to be an economic engine for the city, serving as a major regional distribution and office hub.

River Green is the City's major employment district. The business park is filled with large office warehouse buildings. With the recent construction of a 155,000 square foot office warehouse located near the entrance to Scott Hudgens Park, the business park is essentially built out. It is not anticipated that there will be much new development or redevelopment within the business park.

The area with the most redevelopment opportunity is along Abbotts Bridge Road between Peachtree Industrial Boulevard (PIB) and the Chattahoochee River. This area currently contains some small warehouses, a used car dealership and some other relatively small buildings. Potential future redevelopment is constrained by environmental regulations. There is a stream and floodplain that parallels Abbotts Bridge Road and a large tract of protected land owned by the Federal government adjacent to the Abbotts Bridge Recreation Area. Due to these restrictions, not all of the undeveloped land in this area is developable. The high intensity industrial uses located on Abbotts Bridge Rd at the city limits are undesirable in terms of environmental protection and community aesthetics. Redevelopment of these properties into one larger property with a single user would be beneficial to the city. A third entrance to the River Green business park from S.R 120 could however be constructed within this area and would relieve congestion at the PIB entrances during rush hour. Another potential solution to improve the congestion in the area may be to continue River Green Parkway across PIB to Howell Mead Drive and signalize the intersection on PIB.

During the previous economic downturn, institutional and public assembly uses were located in this district. *These uses are not compatible with the character of this district*

and should be prohibited. As units turnover, staff will promote office and light industrial uses.

III. Public Notice

CITY OF DULUTH NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Duluth Mayor and Council to consider a request to amend the City of Duluth FORWAR-Duluth 2040 Comprehensive Plan to edit the language within the Character Area section.

The public is invited to attend the hearing before the Mayor and Council on the proposed text amendment. The meeting date, place and time regarding this matter are as follows:

WHEN: April 10, 2023 -6:00 p.m. WHERE: Council Chambers City Hall 3167 Main Street Duluth, GA 30096

PERSONS INTERESTED IN THIS MATTER are invited to review the potential amendment to the FORWARDuluth 2040

Comprehensive Plan, which is on file with the Planning and Development Department of the City of Duluth and to attend the public meeting at the date, time and place provided in this notice. For more information, contact Amy Bingham, Planning and Development, at (770) 476-1790.

In compliance with the Americans with Disabilities Act of 1990, the City of Duluth is committed to providing reasonable accommodations for a person with a disability. Please contact Teresa Lynn at (770) 476-3434 if special program accommodations are necessary and/or if program information is needed in an alternative format. Special requests must be made in a reasonable amount of time in order that accommodations can be arranged. 934 97975 3/19, 2023

ORDINANCE OF REZONING 02023-15 CITY OF DULUTH

AN ORDINANCE GRANTING SPECIAL USE APPROVAL TO OPERATE A PUBLIC CHARTER/LANGUAGE SCHOOL IN THE M-1 (LIGHT INDUSTRIAL DISTRICT) ZONING DISTRICT LOCATED ON A ± 4.379 ACRE PROPERTY IN LAND LOT 325 OF THE 6TH DISTRICT, GWINNETT COUNTY CONSISTING OF TAX PARCEL R6325 047 ADDRESSED AS 4450 RIVERGREEN PARKWAY, DULUTH, GEORGIA 30096. THE PROPERTY, GENERALLY KNOWN AS "4450 RIVERGREEN PARKWAY", IS LEGALLY DESCRIBED ON THE ATTACHED EXHIBIT "B". THE ORDINANCE PROVIDES FOR FINDINGS, ESTABLISHES CONDITIONS OF APPROVAL AS SHOWN ON ATTACHED EXHIBIT "C", PROVIDES FOR SEVERABILITY, REPEALS CONFLICTING ORDINANCES, ESTABLISHES AN EFFECTIVE DATE, AND IS FOR ALL OTHER LAWFUL PURPOSES.

WHEREAS, the applicant, Yi Hwang Academy Inc., has filed a complete application (SU2023-001) with the City of Duluth seeking Special Use approval to operate a public charter/language school in the M-1 (Light Industrial) zoning district; and

WHEREAS, per Article 11 of the Duluth Unified Development Code, a Special Use must be approved by the Governing Body; and

WHEREAS, the City of Duluth Planning Commission held a public hearing at the meeting of March 20th 2023, duly noticed as prescribed by law and published in the Gwinnett Daily Post, regarding the application. At the March 20th, 2023 meeting, the Planning Commission recommended approval with conditions as is set forth in the minutes of said meeting; and

WHEREAS, the City Council held a public hearing at the meeting of April 10th, 2023, duly noticed as prescribed by law and published in the Gwinnett Daily Post, regarding said application, as shall be set forth in the minutes of said meeting.

NOW THEREFORE, the City Council of the City of Duluth hereby ordains that the City of Duluth Unified Development Code is hereby amended as follows:

SECTION 1. FINDINGS.

Pursuant to Article 11 of the Duluth Unified Development Code, the City Council finds that it is appropriate to grant special use approval to the property, for the following reasons:

- A. The special use is suitable given the use and development of adjacent and nearby properties. The proposed location is a \pm -50,000 sf office building.
- B. The proposed special use is not anticipated to adversely affect the existing use or usability of adjoining or nearby properties.
- C. The proposed special use is not anticipated to cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

D. The Future Land-Use and Development section and supporting Character Area Map of FORWARDuluth (also known as the Comprehensive Plan, 2040) identifies the Character Area of this property as the Rivergreen Employment District. Special Use approval to operate a Public Charter/Language School in the M-1 (Light Industrial) zoning district is consistent with the spirit and intent of the Comprehensive Plan.

SECTION 2. LEGAL DESCRIPTION.

The property that is subject to this ordinance consists of ±4.379 acres and is legally described on Exhibit "B", attached hereto. Said Exhibit is incorporated by reference as if fully set forth herein.

SECTION 3. SEVERABILITY.

Should any section or provision of this Ordinance or any Ordinance pertaining to the companion applications as identified above be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

SECTION 4. EFFECTIVE DATE.

The effective date of this Ordinance shall be upon approval by the City Council of the City of Duluth, Georgia.

SECTION 5. REPEALER.

All conflicting ordinances and conditions are hereby repealed and replaced with the conditions of approval set forth in this Ordinance 02023-15.

ATTACHMENTS:

Exhibit "A": Maps

Exhibit "B": Legal Description

Exhibit "C": Conditions of Approval

Exhibit "D": Site Plan

Exhibit "E": Applicant's Responses to the Standards Governing Special Use Consideration

Exhibit "F": Public Notice

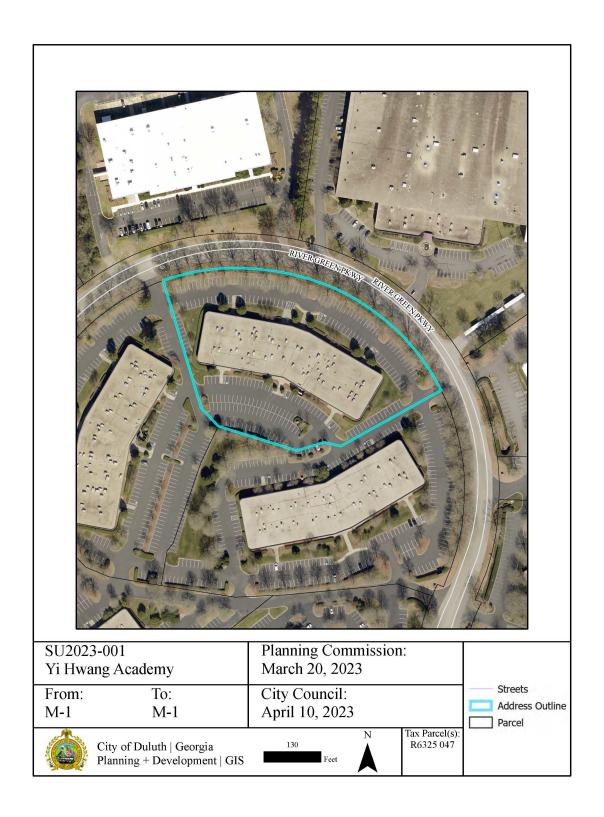
{Signatures on the following page}

IT IS SO ORDAINED this 10th day of April, 2023.

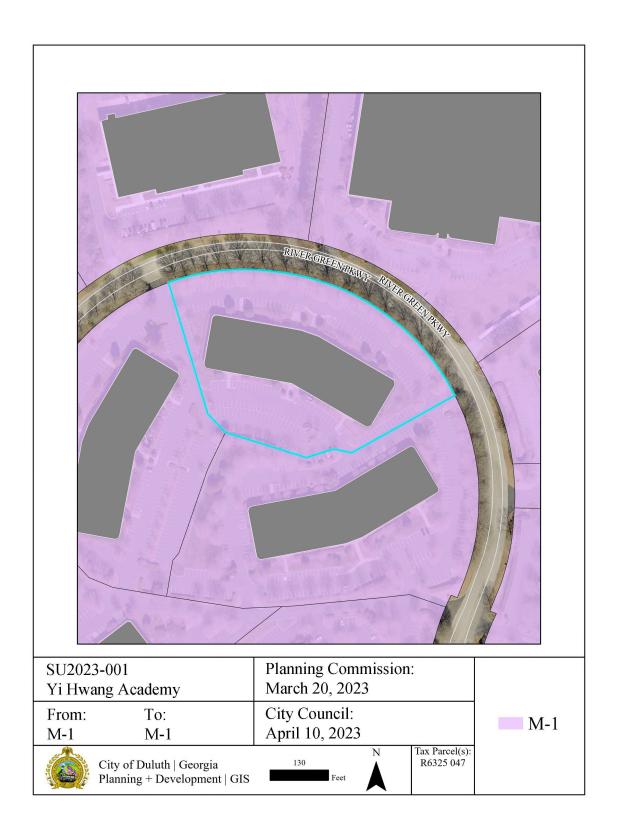
	Mayor Nancy Harris
Those councilmembers voting in favor:	
	Charles Jamin Harkness, Post 1
	Marline Thomas, Post 2
	Kenneth Lamar Doss, Post 3
	Manfred Graeder, Post 4
	Greg Whitlock, Post 5
Those councilmembers voting in opposition:	
ATTEST: Teresa S. Lynn. City Clerk	

Exhibit "A" Maps

Location Map



Zoning Map



Character Areas Map

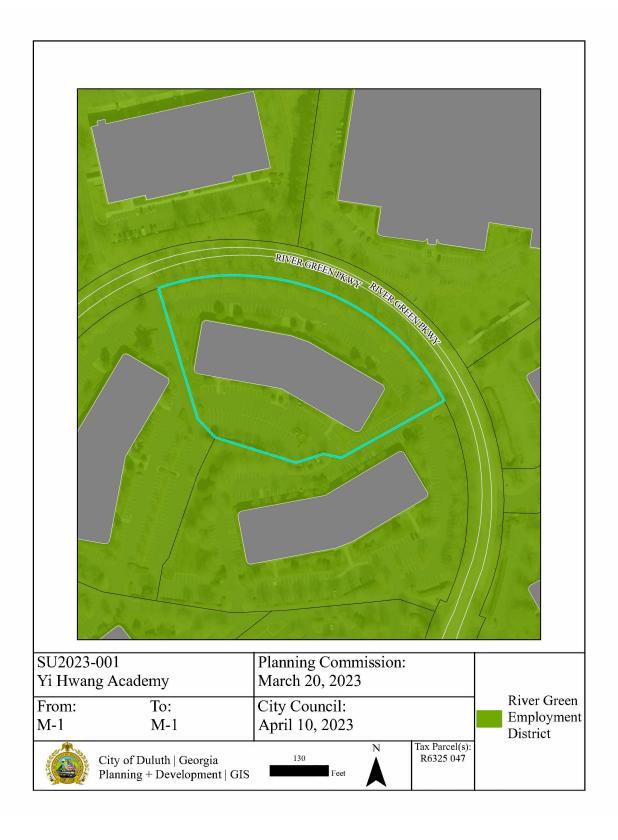


Exhibit "B" Legal Description

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 325 OF THE 6TH DISTRICT, GWINNETT COUNTY, GEORGIA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY (BEING AN 80 FOOT RIGHT-OF-WAY AT THIS POINT) AND THE WESTERLY RIGHT-OF-WAY LINE OF CORPORATE WAY (BEING A 60 FOOT RIGHT-OF-WAY) THENCE RUNNING ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY THE FOLLOWING CALLS: SAID INTERSECTION POINT BEING THE POINT OF CURVATURE OF A CURVE TO THE LEFT HAVING A RADIUS OF 1060.00 FEET, A CHORD BEARING OF NORTH 81 DEGREES 57 MINUTES 45 SECONDS WEST A CHORD DISTANCE OF 28.00 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 28.00 FEET TO A POINT: THENCE SOUTH 07 DEGREES 16 MINUTES 51 SECONDS WEST A DISTANCE OF 15.00 FEET TO A POINT (SAID RIGHT-OF-WAY BEING 110 FEET IN WIDTH AT THIS POINT); BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 605.00 FEET, A CHORD BEARING OF NORTH 27 DEGREES 05 MINUTES 11 SECONDS WEST A CHORD DISTANCE OF 998.79 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 1174.88 FEET TO A POINT; THENCE SOUTH 61 DEGREES 27 MINUTES 17 SECONDS EAST A DISTANCE OF 15.00 FEET TO A POINT (SAID RIGHT-OF-WAY BEING 80 FEET IN WIDTH AT THIS POINT); THENCE CONTINUING ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 510.00 FEET, A CHORD BEARING OF NORTH 01 DEGREE 52 MINUTES 57 SECONDS EAST A CHORD DISTANCE OF 457.74 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 474,69 FEET TO AN PK NAIL FOUND AT THE TRUE POINT OF BEGINNING; THENCE FROM THE TRUE POINT OF BEGINNING AS THUS ESTABLISHED. DEPARTING SAID RIGHT-OF-WAY LINE AND RUNNING ALONG THE PROPERTY LINE OF LOT "K", CHATTAHOOCHEE CORNERS THE FOLLOWING CALLS: SOUTH 60 DEGREES 51 MINUTES 48 SECONDS WEST A DISTANCE OF 263.18 FEET TO A PK NAIL FOUND: THENCE NORTH 77 DEGREES 17 MINUTES 33 SECONDS WEST A DISTANCE OF 40.15 FEET TO AN IRON PIN SET; THENCE SOUTH 72 DEGREES 38 MINUTES 09 SECONDS WEST A DISTANCE OF 64.84 FEET TO A PK NAIL FOUND; THENCE NORTH 72 DEGREES 40 MINUTES 58 SECONDS WEST A DISTANCE OF 189.25 FEET TO AN IRON PIN FOUND; THENCE DEPARTING SAID PROPERTY LINE AND RUNNING THROUGH THE LANDS NOW OR FORMERLY BELONGING TO SOUTHEAST DEVELOPMENT GROUP, INC. THE FOLLOWING CALLS: NORTH 43 DEGREES 18 MINUTES 49 SECONDS WEST A DISTANCE OF 56.95 FEET TO A PK NAIL FOUND; THENCE NORTH 16 DEGREES 38 MINUTES 22 SECONDS WEST A DISTANCE OF 326,40 FEET TO A PK NAIL FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY (BEING AN 80 FOOT RIGHT-OF-WAY WIDTH AT THIS PONT); THENCE DEPARTING SAID PROPERTY LINE AND RUNNING ALONG SAID RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY THE FOLLOWING CALLS: SAID PK NAIL FOUND BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 495.00 FEET, A CHORD BEARING OF NORTH 87 DEGREES 06 MINUTES 26 SECONDS EAST, A CHORD DISTANCE OF 284.03 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 288.08 FEET TO AN IRON PIN FOUND: THENCE SOUTH 76 DEGREES 13 MINUTES 10 SECONDS EAST A DISTANCE OF 19.47 FEET TO AN IRON PIN FOUND; SAID POINT BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 510.00 FEET, A CHORD BEARING OF SOUTH 50 DEGREES 30

MINUTES 05 SECONDS EAST, A CHORD DISTANCE OF 442.64 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 457.87 FEET TO A PK NAIL FOUND; SAID PK NAIL FOUND BEING THE TRUE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINS 4.379 ACRES, BEING 190,751 SQUARE FEET (INCLUDING ALL EASEMENTS).

TOGETHER WITH those easement rights arising under that certain Declaration of Easements and Covenants by Southeast Venture, an Illinois limited partnership, known now as Southeast Venture Limited Partnership, an Illinois limited partnership, dated October 7, 1994, filed for record October 12, 1994, recorded in Deed Book 10766, Page 19, Records of Gwinnett County, Georgia; as rerecorded November 10, 1994 at 8:00 a.m., recorded in Deed Book 10840, Page 161, aforesaid Records.

ALSO TOGETHER WITH those easement rights arising under that certain Amended and Restated Declaration of Protective Covenants for River Green Business Park by River Green Business Park Property Owners Association, Inc., dated March 22, 2006, filed for record March 27, 2006 at 8:12 a.m., recorded in Deed Book 46309, Page 2, aforesaid Records.

ALSO TOGETHER WITH those easement rights arising under that certain Easement by and between National Build to Suit Chattahoochee No. 5, L.L.C., an Illinois limited liability company, and National Build to Suit Chattahoochee No. 6, L.L.C., an Illinois limited liability company, dated as of December 23, 1997, filed for record December 31, 1997 at 10:20 a.m., recorded in Deed Book 15249, Page 75, aforesaid Records.

Exhibit "C"

Conditions of Approval

- 1. The Special Use Permit (SU2023-001) is approved for Yi Hwang Academy and its use of a school. Approval of the Special Use Permit shall terminate on June 1st 2034. If the ownership of the school changes, in part or in whole, the Special Use Permit is considered terminated. If the use changes, is discontinued or abandoned for a period of ninety (90) days, the Special Use Permit is considered terminated. If the school building expands beyond its existing footprint, the Special Use Permit is considered terminated.
- 2. Any renovations to the interior and/or exterior of the building require review and approval by the City of Duluth prior to occupancy.
- 3. The property shall be maintained in a state of good repair at all times, free from any violations of the Property Maintenance Code; Unified Development Code; License and Business Regulations; Nuisance Codes, and any other codes adopted by the City of Duluth. Failure to maintain the property at or above the minimum standards adopted in the City of Duluth codes and ordinance shall be cause for revocation of the Special Use.
- 4. The privilege of a Special Use is subject to all conditions that have been attached to it. The City Council may revoke any Special Use approval after it has been proven that the conditions have been violated. Revocation of the Special Use shall cause the use to become an illegal nonconformity, the continuation of which is strictly prohibited.

The Planning and Development Department shall have the right to periodically examine the operation of the Special Use to determine compliance with the requirements and any conditions. If the Planning and Development Director determines that the requirements and conditions are being violated, a written notice shall be issued to the owner of the property outlining the nature of the violation and giving the owner of the property a maximum of ten (10) days to come into compliance. If after ten (10) days the violations continue to exist, the Director shall forward a report to the City Council through the Planning Commission who may recommend that action be taken to remove the Special Use from the property. Notwithstanding, repeat violations within a period of sixty (60) days of the same nature shall not be required to give additional notice or time to correct prior to initiating revocation procedures outlined herein.

If violations are not corrected within the stated time frame, the City will notify the property owner and publish a public hearing notice for a public hearing to consider revocation of the Special Use, pursuant to 0.C.G.A. § 36-66-4.

The Director of Planning and Development shall notify the Planning Commission of the violation of conditions of the Special Use at the next regular Planning Commission meeting, and revocation of the Special Use Permit shall be considered at that time. The Planning Commission shall review the city staff report(s), take testimony from the property owner, and public testimony, and make a recommendation on the Special Use revocation to be forwarded to City Council. Following the Planning Commission recommendation, the City Council shall review the city staff report(s), take testimony from the property owner, and public testimony, and make a decision on the Special Use revocation. The City Council may approve a resolution to revoke the Special Use and include authorization for the Director of Planning

- and Development to order the Special Use to cease. In the case of a terminated or revoked Special Use, the operations shall cease immediately.
- 5. Annual student enrollment must be submitted to the Director of Planning and Development at the beginning of each academic year.
- 6. Outdoor amplified sound shall be prohibited.
- 7. Any refuse collection area(s) and/or dumpsters shall be enclosed per Section 306.07 of the City of Duluth Unified Development Code.
- 8. The applicant shall submit a drop-off/pick-up circulation plan. Drop-off/pick-up lines shall not result in queuing or vehicular stacking in the right-of-way, on public streets or on any adjacent property. An updated circulation plan showing vehicular stacking contained wholly on site and out of River Green Pkwy shall be submitted to the City of Duluth Planning Director prior to building occupancy.
- 9. The school shall not create overflow parking that results in parents, visitors, or staff parking in the right-of-way, on public streets or on any adjacent property without a shared parking agreement with the adjacent property owner and/or landlord.

Exhibit "D"

Site Plan

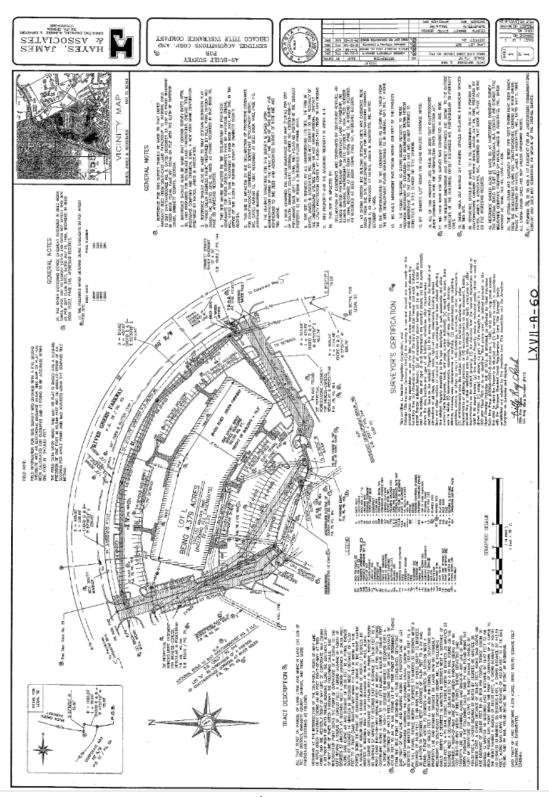


Exhibit "E"

Applicant's Response to the Standards Governing Special Use Consideration

I. INTRODUCTION AND PROPOSED USE

This Application for Special Use Permit is submitted for a 4.379-acre parcel of land located in the City of Duluth, Georgia, identified as Parcel R6325 047 (hereinafter the "Property"). The purpose of the Special Use Permit is to allow for the operation of a Public Charter School for the property located at 4450 River Green Parkway, Duluth. Georgia. The Property is currently zoned M-1 (Light Industrial District).

The Applicant, Yi Hwang Academy, Inc., is known as the Yi Hwang Academy of Language Excellence ("YHALE"). YHALE was approved as a public charter school by the State Charter Schools Commission of Georgia in July 2018. The process that charter schools must comply with to receive facility site approval from the Georgia Department of Education is rigorous. YHALE is a dual language Immersion public charter elementary school with a 50/50 Model so that 50% of each school day is taught in English and the other 50% is taught in Korean or Mandarin. The school serves students in kindergarten through fifth grade and specifically focuses on young learners. The mission of YHALE is to produce students who are fluent in both English and their target language of either Korean or Mandarin Chinese, and thrive socially, emotionally and intellectually. The YHALE curriculum is an Integrated Curriculum Model known as ICM which was originally developed for gifted student classrooms. ICM was chosen for YHALE because ICM works very well with differentiated instruction which is a type of instruction most often used in dual language immersion classrooms. The Applicant is specifically seeking a Special Use Permit in order to operate a public charter school for grades kindergarten through 5th grade, with school hours Monday -Friday from 8:30 am to 3:30 pm.

This document is submitted as the Letter of Intent, a description of the proposal, and response to the standards identified in the "Zoning Ordinance of the City of Duluth, Georgia" (the "Ordinance"), including other materials required by the Ordinance.

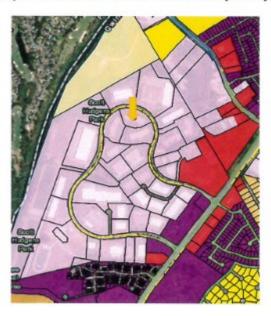
II. CITY OF DULTH ZONING ORDINANCE AND COMPREHENISVE PLAN

The property is zoned M-1 (Light Industrial District), under the current Zoning Ordinance of the City of Duluth, Georgia. According to Section 205.16 of the Unified Development Code ("UDC"), the M-1 District was "established to provide for light industrial uses such as assembling, wholesaling, warehousing and commercial services in areas that are located on or have ready access to a major thoroughfare, but whose proximity to residential or commercial districts makes it desirable to limit industrial operations and processes to those that are not objectionable by reason of the emission of noise, vibration, smoke, dust, gas, fumes, odors, or radiation and that do not create fire or explosion hazards or other objectionable conditions." However, the Applicant is operating a <u>public</u> school as identified in the state public school system. YHALE is not a private, religious, or for-profit educational institution.²

¹ Letter from Vice President of New School Development, Georgia Charter Schools Association, dated November 4, 2022, attached hereto as Exhibit "A."

² Letter from General Counsel, State Charter Schools Commission of Georgia, dated May 20, 2022, attached hereto as Exhibit "B."

The Property is located in the River Green Employment District Character Area. Pursuant to the City of Duluth Comprehensive Plan, FORWARDuluth, this district is identified as "an economic engine for the city, serving as a major regional distribution and office hub." However, there are two other schools located along the southern boundary of the industrial park, as well as religious organizations operating under conditional use permits, whose permits do not expire unless or until the property is sold. While those existing uses may not be compatible with FORWARDuluth, they are existing uses that have been in operation for many years. The Property is further identified below from the City GIS system:



The City of Duluth UDC also provides that private schools (kindergarten, elementary, secondary, junior college and universities), as well as language schools, are allowed in the district if approved as a special use. The UDC does not clearly identify where a <u>public</u> school is allowed as a use by right.

Pursuant to O.C.G.A. §20-2-2068.2, (i) no municipality, county, or other local political subdivision of this state may require the nonprofit corporation that holds the charter for a charter school that has passed the Department of Education facility inspection and holds a valid certificate of occupancy to obtain any other licensure to operate the school, including, but not limited to, a business license, professional license, or occupational tax certificate; provided, however, that any for profit vendor of the charter school shall be subject to any applicable local requirements relating to doing business in this state.³ Charter schools shall only be subject to the zoning, planning, and

³ YHALE is currently operating as a public charter school at 4550 River Green Parkway. <u>See</u>, Certificate of Occupancy, issued July 26, 2021, by Gwinnett County Fire Marshal, attached hereto as Exhibit "C."

building permitting requirements that apply to traditional public schools when constructing or renovating a facility; provided, however, that the location of a charter school site shall be in conformity with existing county or city comprehensive land use plans, if applicable, or existing land use patterns in the area, which requirement shall not be waived by the State Board of Education.

III. YHALE – PROPOSED TRAFFIC CIRCULATION

The academic hours for YHALE are 8:30 a.m. to 3:30 p.m. These specific hours do not coincide with either of the other two schools in the River Green Industrial Park. The other schools begin at either 8:00 a.m. or 8:10 a.m. and end between 2:30 p.m. and 3:10 p.m. The Notre Dame Academy High School also dismisses at 3:30 p.m. but there has been no conflict with this because they have a small high school enrollment and the YHALE pick up route runs primarily on the north side of the horseshoe. As for the traffic flow, the Applicant has proposed the vehicles enter the Industrial Park at the north access point off Peachtree Industrial Blvd and travel along the horseshoe to the fourth shared drive isle on the left. At that point, the vehicles will travel along the front of the building to drop-off students and exit the property at the third shared access point along the horseshoe. The anticipated traffic flow is designed to prevent any school traffic from interfering with existing businesses or truck access routes.

In addition to the proposed traffic flow, the afternoon traffic for pick up is mitigated by YHALE's enrichment and afterschool programs. For example, the chess club meets and practices on Fridays from 3:30 p.m. to 4:30 p.m. Approximately 25% to 30% of the student body participates in the chess club. In addition, approximately 7% to 10% of the student body are enrolled in the aftercare program and those students are picked up anytime between 4:30 p.m. and 6:00 p.m. At their current location, YHALE has coordinated with the property owner/landlord and surrounding businesses to have the least impact on existing businesses. The Applicant anticipates the same coordination effort at the proposed location. The Applicant further submits that the transition to the new location was at the request of the property owner/landlord as the site is located further away from the other existing schools. In terms of on-site parking required for the operation of the school, YHALE currently employs 42 staff/employees. They will park behind the building and enter and exit from the back doors of the building. During the normal course of business, the school anticipates no more than 15 additional parking spaces to be utilized for the occasional guest(s), parents, or volunteers.

IV. SITE IMPACT ANALYSIS

The Applicant finds that the following standards are relevant in balancing the interest in promoting the public health, safety, morality, or general welfare against the right to the unrestricted use of property and shall govern the exercise of the zoning power. The Applicant submits its written analysis which shows that the Special Use Permit satisfies the responses to evaluation criteria as follows:

 Whether the special use permit will permit a use that is suitable in view of the use and development of adjacent and nearby property.

⁴ Proposed traffic circulation plan attached hereto as Exhibit "D."

Response: The proposed use a public charter school is consistent with the existing uses that are adjacent and nearby in the River Green development. The River Green development is well balanced with high end office uses, a number of educational uses, including the expansion of the Notre Dame Academy, as well as the Life Church International in the same River Green Industrial Park. There is also a daycare and a large recreational complex in close proximity to the Property.

 Whether the special use permit will adversely affect the existing use or usability of adjacent or nearby property.

Response: No. There will not be any adverse effect created by the use of a public charter school at the Property. The use is consistent with the existing uses on the adjacent and nearby properties. The Property and the River Green development are well suited for the proposed use without creating any adverse impacts. Moreover, the current hours of operation will compliment other uses of adjacent and nearby properties.

3. Whether the Property to be affected by a proposed special use has a reasonable economic use as currently zoned?

Response: The Applicant submits that due to the size, location, layout, and natural features of the Subject Property, it does not have reasonable economic use as currently zoned. By way of further response, the Applicant submits that allowing the use as a public charter school would be a compatible use with surrounding properties.

 Whether the special use permit will result in a use that will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

Response: No. The Property is located in the River Green Employment District Character Area. The entire development is well served with a landscape parkway and the connectivity between the office, institutional, educational, recreational and residential uses. The proposed use of a public charter school is entirely consistent with other uses. The proposed use will not cause excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

 Whether the special use permit is consistent with the Land Use Policy Plan, Comprehensive Plan, transportation plans, or other plans adopted for guiding development within the City of Duluth.

Response: Yes. The Subject Property is located in the River Green Employment District Character Area which promotes a variety of residential, community, religious, educational and recreational uses throughout the entire development. To be clear, there are existing schools located within the River Green District, which the City has granted indefinite permits to so long as they occupy the premises. As such, the City's zoning patterns and FORWARDuluth support the Applicant's request for a special use permit.

 Whether there are other existing or changing conditions affecting the use and development of property that give supporting grounds for either approval or disapproval of the special use permit.

Response: The Applicant submits that it was awarded a charter petition in July 2018 by the State Charter Schools Commission of Georgia, which was later affirmed by the State Board of Education. The Applicant operates as a public school under the State of Georgia public school system. The Applicant refers the City to O.C.G.A. § 20-2-2090 for funding guidelines. The Applicant respectfully seeks approval to operate the public charter school at the Property to provide educational opportunities to the residents of the City of Duluth.

V. JUSTIFICATION FOR SPECIAL USE PERMIT

The Applicant respectfully submits that the "Zoning Ordinance of the City of Duluth, Georgia" (the "Ordinance"), as amended from time to time, to the extent that it classifies the Property in any zoning district that would preclude the use of a public charter school with a special use permit, or any other permit or application, allowed by Ordinance is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Ordinance deprives the Applicant and Property owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and that requested herein, would deprive the Applicant and Property owner of any reasonable use and development of the Property. Further, any attempt by the Mayor and Council of the City of Duluth to impose greater restrictions upon the manner in which the Property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current zoning classification and any other zoning of the Property save for what has been requested as established in the Ordinance constitute an arbitrary and unreasonable use of the zoning and police powers because they bear no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Applicant and Property owner. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute and arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality, or general welfare of the public and would substantially harm the Applicant and Property owner. Further, the existing inconsistent zoning classification constitutes, and all zoning and plan classifications intervening between the existing inconsistent zoning classification and that required to develop this Project would constitute, a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section II, Paragraph I of the

Constitution of the State of Georgia and the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that failure to approve the requested Special Use Permit would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Applicant and Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that the Mayor and Council of the City of Duluth cannot lawfully impose more restrictive standards upon the use or development of the Property than presently exist, as to do so not only would constitute a taking o the Property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably with the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power. See Guhl v. Holcomb Bridge Road Corp., 238 Ga. 322 (1977).

VI. CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that this Application for a Special Use Permit be approved. The Applicant welcomes the opportunity to meet with the City of Duluth Planning Department staff to answer any questions or to address any concerns relating to this Letter of Intent or supporting materials.

Respectfully submitted this 25th day of January, 2023.

ANDERSEN, TATE & CARR, P.C.

Melody A. Glouton

Melody A. Glouton, Esq.

Enclosures MAG/dwb



November 4, 2022

Liza A. Park Governing Board Chairperson Yi Hwang Academy for Language Excellence

Dear Chairperson Park:

You requested a brief description of the process that charter schools must follow to receive facility site approval from the Georgia Department of Education. As you know, the Georgia Charter Schools Association proudly serves as Georgia's premier non-profit support and membership organization for Georgia's charter schools. For more than twenty (20) years, GCSA has collaborated with charter petitioners, operators, and authorizers to increase high-quality charter school options and help create an environment that supports charter schools and their students. GCSA's extensive knowledge of the regulatory and operational requirements for charter schools allows us to provide unparalleled technical assistance navigating complex matters of compliance. The description of the GaDOE facility approval process below summarizes the requirements for educational facilities for charter schools in Georgia.

As a preliminary matter, state charter schools are authorized by the State Charter Schools Commission of Georgia ("SCSC") pursuant to O.C.G.A. § 20-2-2060, et seq., the Charter Schools Act of 1998 ("Charter Schools Act") and O.C.G.A. § 20-2-2084. A "state charter school" is defined by law as a school "whose creation is authorized as a special school pursuant to Article VIII, Section V, Paragraph VII of the Constitution. A state charter school shall be a public school." See O.C.G.A. § 20-2-2081. Moreover, under Georgia law, state charter schools are treated as "local education agencies." See O.C.G.A. § 20-2-2090.

Georgia law provides charter schools broad flexibility from provisions from many education-related statutes as outlined in O.C.G.A. § 20-2-2065. However, requirements that govern "the protection of the physical health and safety of school students, employees, and visitors" are expressly excluded from charter school flexibility. O.C.G.A. § 20-2-2065(b)[5]. The State Board of Education and GaDOE have broad authority to regulate the requirements and approval process for all educational facilities in the state. See O.C.G.A. § 20-2-260. Furthermore, both State Board of Education Rule and individual charter school contracts expressly incorporate the GaDOE educational facility approval process for charter schools. See SBOE Rule 160-4-9-.06.

Accordingly, every Georgia charter school must adhere to the GaDOE facility approval process. While this process can vary depending on the identified facility, all prospective educational facilities must provide GaDOE plans and specifications for the facility, a risk-hazard assessment, an environmental assessment, as well as any other documentation needed to verify the school meets the safety requirements. The Facilities Services Unit will review the site and building data to determine if the proposed facility can serve as a public school and will provide specific feedback regarding required actions or mitigation measures that may be required prior to the facility's use as a public-school facility. Following the review and confirmation of all relevant plans, specifications, utility, leases, and the receipt of a Certificate of Occupancy, GaDOE will assign the charter school a Site Code indicating the permissible use as an educational facility.



The GaDOE Facility Approval Process is explained in more detail in <a href="https://doi.org/10.1007/j.com/https://doi.org/10.1

Sincerely,

Gregg Stevens

Vice President of New School Development

Georgia Charter Schools Association



State Charter Schools Commission of Georgia

Lauren Holcomb, Executive Director

May 20, 2022

Forrest Huffman Planning Manager City of Duluth 3167 Main Street Duluth, Georgia 30096

Re: Yi Hwang Academy of Language Excellence (YHALE)

Dear Mr. Huffman,

I write to clarify and confirm that Yi Hwang Academy of Language Excellence (YHALE) is a public school in the public school system of Georgia.

The State Charter Schools Commission of Georgia (SCSC), which operates under the authority of the State Board of Education, has the power to authorize state charter schools through the approval of charter petitions. See O.C.G.A. §§ 20-20-2080-2083. State charter schools complement the educational opportunities offered by local boards of education by enhancing public educational opportunities. See O.C.G.A. § 20-2-2080.

The SCSC approved a charter perition for YHALE July 25, 2018. The SCSC decision was affirmed by the State Board of Education, resulting in the authorization of YHALE as a state charter school.

As defined in the Georgia Constitution, state charter schools are public schools that operate within the state's public school system. Like local school districts, each state charter school functions and is treated as a single local education agency. See O.C.G.A § 20-2-2090. State charter schools are funded through state appropriations. They are not private, sectarian, religious, or for-profit schools or educational institutions. See Georgia Constitution, Article VIII, Section V, Paragraph VII; see also O.C.G.A. § 20-2-2081(5) ("a state charter school shall be a public school").

If I can further clarify this matter, please feel welcome to contact me directly using the email address below.

Sincerely,

Cerrone Lockett General Counsel

State Charter Schools Commission of Georgia

EXHIBIT B

GWINNETT COUNTY

CERTIFICATE OF OCCUPANCY

PERMIT NUMBER: COMBLD2021-01308



H. GA	
DULUT	
00 & 220	
I PKWY 1	
R GREEN	
4650 RIVE	36096
CODRESS	
BUILDING	

DULUTH CITY

30006 SP CODE:

6325 053

PARCEL NUMBER:

BUILDING NUMBER:

BUILDING/TENANT AREA:

SUITE NUMBER: 100 & 220

Tenent Change TYPE OF WORK:

YI HWANG ACADEMY BUILDING/TENANT KNOWN AS:

OFFICE OF THE FIRE MARSHAL

Department of Fire and Emergency Services

NFPA OCCUPANCY CLASSIFICATION: Education - Public

ADDITIONAL COMMENTS:

OCCUPANT LOAD: 695

This certifies that the premises described herein conforms aubstractisty to the approved plane and appellications and to the requirements of the applicable lowe, note and occupancy specified. This Certificate of Occupancy shall be made null and void if change of use, occupancy, or physical alterations, additions, renovations, or a fine or destructive event of serious consequence, or other hazardis) identified. This document shall be available for inspection at the building at all reasonable times.

The Fire Marshal is authorized to, in writing, suspend or revoke this Certificate of Occupancy under the provisions of the Gwinnett County Code of Ordinances, Chapter 42, when it is determined that the promises described havin or portion thereof is in violation of any applicable law, rules and regulations, codes, standards, and ordinances or any provision thereof.

This inspection or permitting of any building, structure or plan under the requirements of the codes shall not be construed in any court as a warranty of the physical condition nor any employee thereof shall be liable in court for damages for any defect or hazardous or lingual condition or inadequacy in such building or plan, nor for any failures of any component of such building, which may occur subsequent to such inspection or permitting.

SSUED BY: JARODRIGUEZ

DATE ISSUED: 7/26/2021

SIGNATURE: JURODRIGUEZ

TITLE: Inspector

480 thantone Shadis Road, Lawrenceville, Ga 35045 Office: (672) 518-4980, Fax: (678) 518-4901, inspection Request: (678) 518-5277 www.gevinnetfilmmarshal.com



POST IN A CONSPICUOUS PLACE AT THE MAIN ENTRANCE TO THE PREMISES

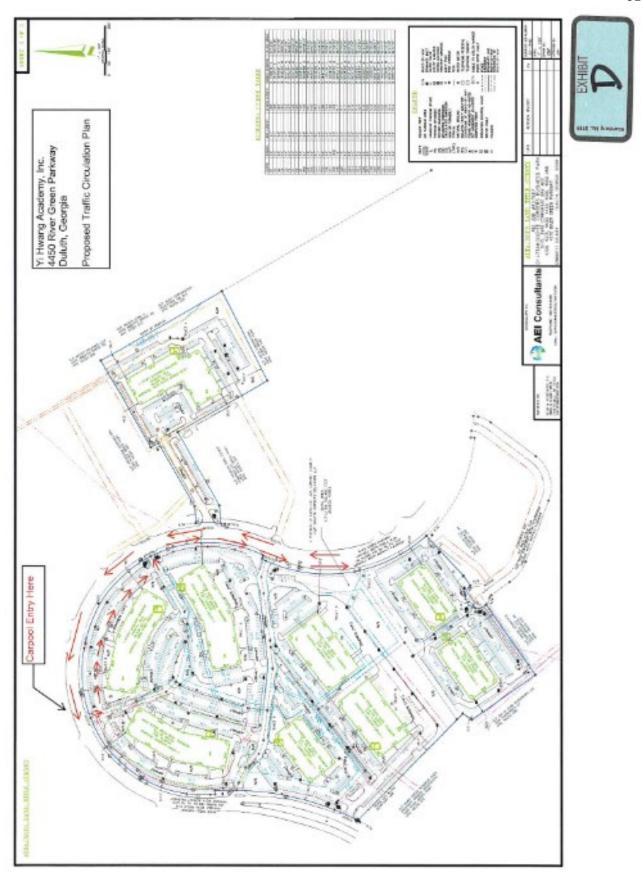


Exhibit "F" Public Notice

ZONING

CITY OF DULUTH NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a public hearing will be held before Mayor and Council to consider a special use request from Yi Hwang Academy, on approximately 4.379 acres of property in Land Lot 325, 6th District, Gwinnett County, located at 4450 River Green Parkway, consisting of tax parcels 6325 047, case number SU2023-001. The special use request is to operate a Charter School in the M-1 zoning district.

The public is invited to attend this hearing before the Mayor and Council on the proposed special use. The meeting date, place and time regarding this matter are as follows:

WHEN: April 10, 2023 -6:00 p.m. WHERE: City Hall Council Chambers 3167 Main Street Duluth, GA 30096

PERSONS INTERESTED IN THIS MATTER are invited to review the proposed special use, which is on file with the Department of Planning & Development of the City of Duluth and to attend the public hearing at the date, time and place provided in this notice, to express their opinion on this matter. Written comments may also be received in lieu of testimony during the public hearing. Written comments may be sent to the following address:

City of Duluth ATTN: Amy Bingham 3167 Main Street Duluth, GA 30096 OR Email: abingham@duluthga.net

For more information, contact Amy Bingham, Planning & Eamp; Development, at (770) 476-1790.

In compliance with the Americans with Disabilities Act of 1990, the City of Duluth is committed to providing reasonable

accommodations for a person with a disability. Please contact Teresa Lynn at (770) 476-3434 if special program





CITY OF DULUTH CITY COUNCIL

Staff Report April 10th, 2023

CASE NUMBER:	SU2023-001
LOCATION:	4450 River Green Parkway
PARCELS:	R6325 047
CURRENT ZONING:	M-1 (Light Industrial District)
PROPOSED ZONING:	M-1 (Light Industrial District) with Special Use
ACREAGE:	+/- 4.379 ac
REQUEST:	Approval of Special Use to allow for the operation of a public charter/language school.
OWNER/APPLICANT:	Yi Hwang Academy, Inc. (d/b/a Yi Hwang Academy of Language Excellence) 4450 River Green Parkway, Suite 100 Duluth, GA 30096 On behalf of FWR Partners Owner LLC 768 N Bethlehem Pike Ste 2023 Lower Gwynedd, PA 19002-2659

STAFF RECOMMENDATION:	APPROVAL WITH CONDITIONS
PLANNING COMMISSION RECOMMENDATION:	APPROVAL WITH CONDITIONS

I. PURPOSE AND DESCRIPTION OF THE REQUEST

The purpose of this Special Use request (SU2023-001) is to allow for the operation of a dual language immersion public charter elementary school in the M-1 (Light Industrial District).

Maps detailing the location, zoning district and character area of the subject property are attached hereto as Exhibit "A". The legal description of the subject property is attached hereto as Exhibit "B".

The proposed development also contemplates the addition of a school playground at this location.

II. EXISTING CONDITIONS

The subject property totals +/- 4.379 acres and is located within the +/- 290 acres River Green Industrial Park that has construction services, engineering services, manufacturing and production facilities, laboratory testing facilities, infrastructure solutions, offices, and institutional uses. The site is centrally located within the River Green Industrial Park and has two shared access points on either side of the building. These access points serve as the entrance for all businesses located at 4400, 4450, and 4500 River Green Pkwy. The subject property contains one 50,150-sf office building that is divided into four suites: 100, 100A, 200, and 300. Suite 300 and 100A are occupied with office tenants while the remaining suites are vacant.

III. REVIEW OF THE REQUEST

1. Literal Interpretation of the Unified Development Code (UDC)

- A. Table 2-C of the UDC allows schools of this type by way of special use.
- B. Section 1105 of the UDC establishes the Special Use Considerations.

The Special Use is designed to apply under any one of the following circumstances:

- 1. A Special Use listed under the zoning district is desired for development and a more intensive zoning district containing that use, as a use by right would not be appropriate for the property; or
- 2. A Special Use listed under the zoning district is desired for development and no zoning district contains that use as a use by right; or
- 3. A unique use not addressed in any zoning district is desired for development and is not likely to be duplicated within the City of Duluth; or
- 4. The density of development may be affected by the height of a building; or
- 5. The neighboring properties may be affected by the height of any structure; or
- 6. The Special Use would be consistent with the needs of the neighborhood or the community as a whole, be compatible with the neighborhood and would not be in conflict with the overall objective of the Comprehensive Plan.

In order to accommodate these particular uses, Special Use approval allows the City Council to approve such a use on a particular parcel without changing the general zoning district. Such approval shall be subject to the requirements set forth below and any additional conditions deemed necessary to ensure the compatibility of the Special Use with the surrounding properties. All Special Use applications shall be for firm development proposals only. The Special Use shall not be used for securing early zoning for conceptual proposals that may not be undertaken for some time. A Special Use application shall be considered only if the application is made by the owner of the property or by his/her authorized agent. The minimum requirements for a Special Use approval are:

- 1. Any uses allowed under Special Use approval shall also conform to the requirements of this Development Code for all uses as found in the zoning district.
- 2. The application and review process for a Special Use shall be the same as for the zoning district under which the Special Use is found. In addition to the information and/or site plans which are required to be submitted for the proposed development, additional information deemed necessary by the Director in order to evaluate a proposed use and its relationship to the surrounding area shall be submitted. In the review process, particular emphasis shall be given to the evaluation of the characteristics of the proposed use in relationship to its immediate neighborhood and the compatibility of the proposed use with its neighborhood.
- 3. In the approval process for a Special Use approval application, the City Council shall consider the policies and objectives of the Comprehensive Plan, particularly in relationship to the proposed site and surrounding area and shall consider the potential adverse impacts on the surrounding area, especially in regards but not limited to traffic, storm drainage, land values and compatibility of land use activities.
- 4. If an application is approved and a Special Use approval is granted, all conditions that may have been attached to the approval are binding to the property. All subsequent development and use of the property shall be in accordance with the approved plan and conditions.
- 5. Changes to a Special Use or development of a site for the Special Use, shall be treated as an amendment to the Special Use Permit and shall be subject to the same application and review process as a new application.
- 6. An application for Special Use approval in a residential district and which use is proposed to operate in a dwelling or as an accessory use to a dwelling is subject to the following additional requirements:
 - a. The Special Use shall operate within the dwelling on the property or, if approved by the City Council, in an accessory structure.
 - b. The exterior character of the dwelling shall be preserved in its residential state and there shall be no outside evidence of the operation of a Special Use to the neighborhood, except for any accessory structure approved by the City Council.

- 7. The owner of the property approved for a Special Use may voluntarily request termination of the Special Use by notifying the Director in writing. The Director shall notify the City Council through the Planning Commission of the voluntary termination. The approval of a Special Use for a specific use which may be operated by a lessee under a private agreement with a lessor in any non-residential district shall not obligate the City Council to be responsible for or be required to resolve any disputes which may arise out of the voluntary termination of the Special Use by the property owner.
- 8. The Planning & Development Department shall have the right to periodically examine the operation of the specific use to determine compliance with the requirements and any conditions. If the Planning & Development Director determines that the requirements and conditions are being violated, a written notice shall be issued to the owner of the property outlining the nature of the violation and giving the owner of the property a maximum of ten days to come into compliance. If after ten days the violations continue to exist, the Director shall forward a report to the City Council through the Planning Commission who may recommend that action be taken to remove the Special Use from the property.
- 9. Upon approval by the City Council, a Special Use shall be identified on the official zoning maps.
- 10. Upon approval by the City Council of a Special Use, the owner of the property shall be issued a notice from the Director that states the specific use permitted, the requirements of this Section and any conditions attached to the approval.
- 11. The Planning & Development Department shall not issue a Certificate of Occupancy for the specific use unless all requirements and conditions of the Special Use approval have been fulfilled by the owner of the property.

2. Standards Governing the Exercise of Zoning Power

Section 1104.02 of the UDC establishes the standards governing the exercise of zoning power. The following standards are relevant in balancing the interest and promoting the public health, safety, morality, and general welfare against the right to the unrestricted use of property:

A. How the proposed Special Use will permit a use that is suitable in view of the use and development of adjacent and nearby property.

River Green Industrial Park accounts for more than 75% of the industrial zoned land within the city limits of Duluth. Of the 290 acres within River Green Industrial Park, industrial uses occupy 258 acres. The remaining 32 acres contains institutional uses which operate under special use or conditional use approval. The inclusion of these institutional uses within the industrial office park are a direct result of the economic downturn and were not contemplated as part of the design of the development.

Within River Green Industrial Park, there is a true mixture of light industrial uses with office spaces. Immediately adjacent to the subject property are light manufacturing and office uses. To the north and across River Green Pkwy, the

uses are industrial and manufacturing that require use of tractor trailers for day to day operation.

B. How the proposed Special Use will adversely affect the existing use or usability of adjacent or nearby property.

The M-1 district allocates land that is suitable for light industrial uses such as assembling, wholesaling, warehousing and commercial services in areas that are located on or have ready access to a major thoroughfare. River Green Industrial Park was designed with the purpose of the meeting the intent of the M-1 zoning district. The industrial park is a horseshoe design that contains the industrial uses within the River Green Parkway while funneling traffic onto Peachtree Industrial Blvd. This design allows for industry to develop and grow within the industrial park boundaries limiting the potential for conflict with the adjacent residential and commercial retail uses.

Currently, Yi Hwang Academy of Language Excellence (YHALE) is operating out of 4550 River Green Pkwy, south of the proposed location, and without Special Use approval. This centralized location does not allow for buffering between the conflicting uses which is necessary as several of the adjacent businesses require the storage and movement of heavy equipment and tractor trailer use.

The proposed relocation of the school to 4450 River Green Pkwy is at the midpoint of the horseshoe bend where the uses are predominantly office uses. This section of River Green Industrial Park has multitenant office buildings without truck loading bays limiting interactions between office tenants and tractor trailers to River Green Pkwy. The buildings front River Green Pkwy and have shared parking facilities along the road frontage and rears of the buildings. Sidewalks are largely absent throughout the development with paved access to the entrances of the suites but no sidewalk extensions connecting building suites.

C. Whether the property to be affected by a proposed Special Use has a reasonable economic use as currently zoned.

The building was constructed as part of Phase II of River Green Industrial Park and has been designed for office uses. Several tenant spaces within the building are vacant. This section of River Green Industrial Park has recently been purchased by a new ownership group that is reenergizing the area with exterior upgrades, improved landscaping, and outdoor seating. It is probable that these efforts could lead to an increase in tenancy within the building and surrounding areas.

D. Whether the proposed Special Use will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

The subject property is accessed by two shared egresses; one located between 4400 and 4450 River Green Pkwy and the second between 4450 and 4500 River Green Pkwy. A traffic circulation plan was included with the special use

request, Exhibit "E". The plan shows a one-way directional traffic pattern. Vehicles will enter the site by turning left off River Green Pkwy and into the site's west entrance, located between 4450 and 4500 River Green Pkwy. From there, the vehicles will drive along the front of the building for pick up and drop off, and exit out of the east entrance, between 4400 and 4450 River Green Pkwy, for a right turn only exit. This circulation plan indicates that the carpool line will be located on River Green Pkwy waiting for the left turn into the parking area. This could be problematic as the businesses due north across River Green Pkwy heavily utilize tractor trailers in their day to day operations.

The YHALE site has a shared parking facility with the surrounding businesses. These businesses are predominantly office and light manufacturing uses that have minimal customer traffic. It is unclear how parking is impacted on the site as school parking is calculated by the number of classrooms and enrollment numbers.

There are two other schools located along the southern boundary of the industrial park, outside of the horseshoe bend, and are wholly contained on one parcel that does not share parking facilities. These locations limit conflicts between the school and the adjacent uses within the industrial park by containing carpool lines onsite and off of River Green Pkwy.

E. Whether the proposed Special Use is in conformity with the policy and interest of the Comprehensive Plan; Land Use Plan; transportation plans and other plans adopted for guiding development within the City of Duluth.

The institutional uses that exist within the River Green Employment District character area were permitted during the previous economic downturn. Since that time, the City of Duluth adopted the 2040 Comprehensive Plan, FORWARDuluth. FORWARDuluth states that as these tenants turn over, the vacant spaces should be replaced with industrial and employment uses.

F. Whether there are other existing or changing conditions affecting the use and give grounds for either approval or disapproval of the Special Use.

YHALE is a dual language immersion public charter school that received approvals from the State Charter School Commission of Georgia in July 2018. Staff became aware of the school use at 4550 River Green Pkwy on September 15, 2021 and has worked with YHALE towards compliance. It is staff's understanding that the school is requesting to relocate to 4450 River Green Pkwy and vacate operations at 4550 River Green Pkwy.

The mission of YHALE is to produce students who are fluent in both English and their target language of either Korean or Mandarin Chinese, and thrive socially, emotionally and intellectually. The instructional day runs from 8:30 AM to 3:30 PM Monday through Friday. Morning carpool beings at 8:00 AM and ends at 8:25 AM. Afternoon carpool runs from 3:30 PM to 4:30 PM. Before school care starts at 7:15 AM and after school care ends at 6:00 PM. During the summer months, YHALE offers a summer camp program that furthers language and culture development with target language study, Singapore math, English, technology, field trips, STEAM, and physical education courses.

The school offers multiple afterschool programs that further enrich the student experience at YHALE. These programs include art, chorus, chess, taekwondo, drama, STEAM, dance, Korean instruments, coding, and Korean and Chinese language courses. Additionally, there is a before and after school care program to provide a safe and caring environment filled with educational and recreational activities so students can grow academically, socially, and become well rounded individuals.

The Applicant has provided written responses to the above Special Use standards as part of the application. Those documents are attached hereto as Exhibit "E".

3. Literal Interpretation of FORWARDuluth, Plan 2040 (Comprehensive Plan)

The subject property is located in the River Green Employment District. FORWARDuluth envisions this character area to be an employment district comprised of large office and warehouse buildings. The institutional uses that exist within the River Green Employment District character area were permitted during the previous economic downturn. The Future Land Use Map (FLUM) classifies the subject property as commercial, retail, and office.

IV. PLANNING STAFF REVIEW

The intent of a Special Use designation for a dual language public charter elementary school is to ensure that the use, intensity, and number of such facilities be consist with the surrounding land-uses and future land uses of the area. The primary focus of staff's review is to ensure the intensity of said use remains consistent with the surrounding area and does not overburden the existing road network or parking on site.

During the review process Staff contacted the applicant for further clarification of the use and intensities on the site. Several of these items pertain to redesign of the site and total enrollment numbers. The outstanding items do not alter the spirt and intent of the request and can be addressed prior to the issuance of the Certificate of Occupancy.

YHALE offers a unique alternative to traditional primary school education. The proposed relocation of the school is more compatible with the surrounding businesses and existing uses within River Green Industrial Park. The subject property would require renovations to the interior and exterior in order to accommodate the school use. These plans would need to be reviewed by both Gwinnett County and City of Duluth prior to construction and occupying the site.

V. RECOMMENDATION

Planning staff recommends **Approval with Conditions** of case SU2023-001. At the special called meeting on March 20th, 2023, Planning Commission voted 3-0 to recommend **Approval with Conditions** of case SU2023-001.

ATTACHMENTS:

Exhibit "A": Maps

Exhibit "B": Legal Description

Exhibit "C": Site Plan

Exhibit "D": Conditions of Approval

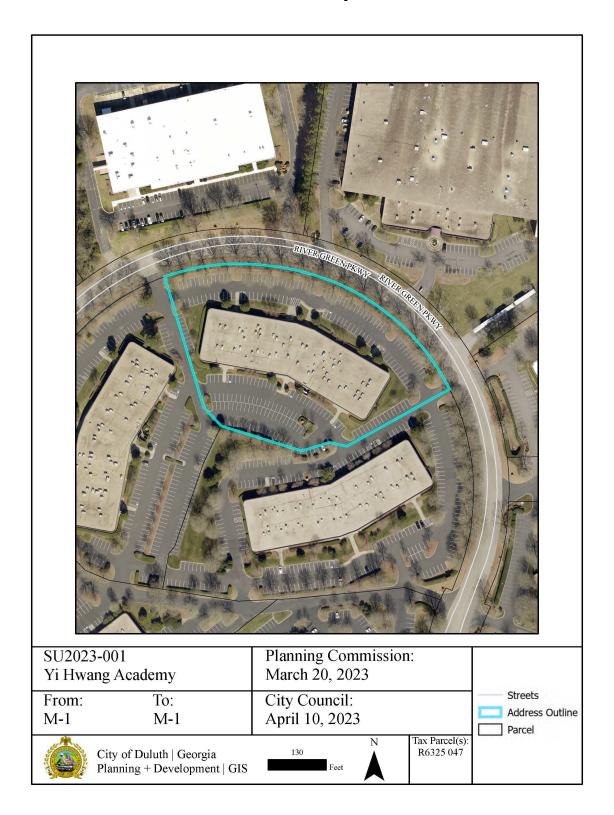
Exhibit "E" Applicant's Responses to the Standards Governing Special Use Consideration

and Justification for Special Use
Exhibit "F": Public Notice

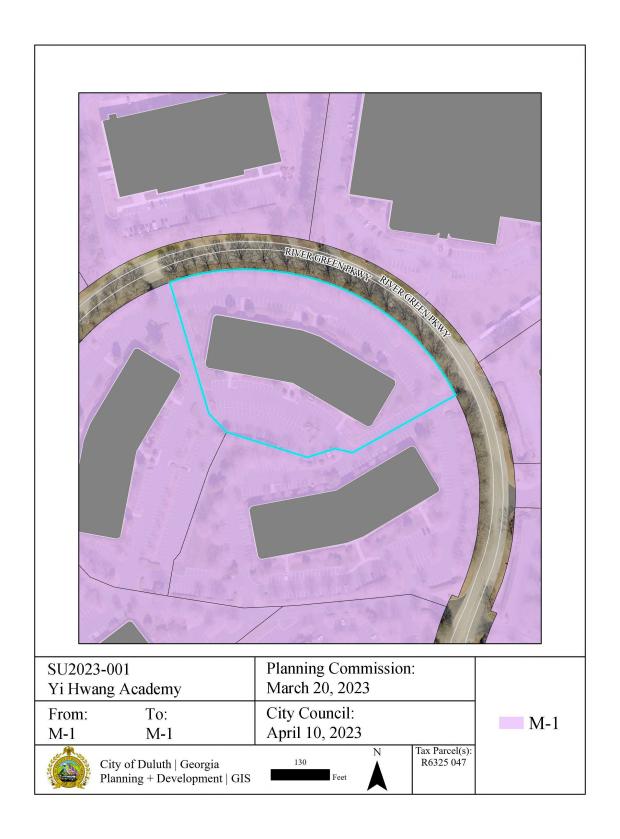
Exhibit "G": Addendum to Staff Review

Exhibit "A" Maps

Location Map



Zoning Map



Character Areas Map

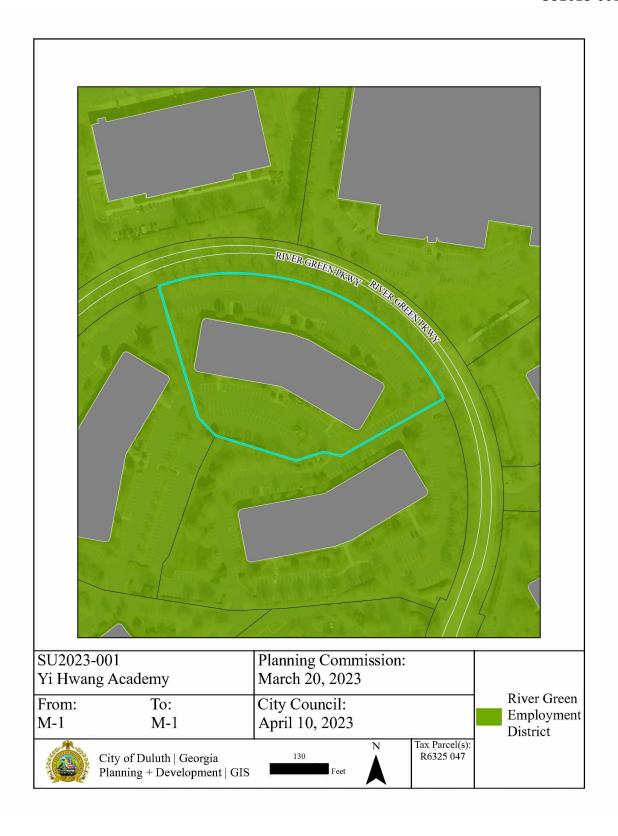


Exhibit "B" Legal Description

ALL THAT TRACT OR PARCEL OF LÄND LYÍNG AND BEING IN LAND LOT 325 OF THE 6TH DISTRICT, GWINNETT COUNTY, GEORGIA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARK WAY (BEING AN 80 FOOT RIGHT-OF-WAY AT THIS POINT) AND THE WESTERLY RIGHT-OF-WAY LINE OF CORPORATE WAY (BEING A 60 FOOT RIGHT-OF-WAY) THENCE RUNNING ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY THE FOLLOWING CALLS: SAID INTERSECTION POINT BEING THE POINT OF CURVATURE OF A CURVE TO THE LEFT HAVING A RADIUS OF 1060.00 FEET, A CHORD BEARING OF NORTH 81 DEGREES 57 MINUTES 45 SECONDS WEST A CHORD DISTANCE OF 28.00 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 28.00 FEET TO A POINT: THENCE SOUTH 07 DEGREES 16 MINUTES 51 SECONDS WEST A DISTANCE OF 15.00 FEET TO A POINT (SAID RIGHT-OF-WAY BEING 110 FEET IN WIDTH AT THIS POINT); BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 605.00 FEET, A CHORD BEARING OF NORTH 27 DEGREES 05 MINUTES 11 SECONDS WEST A CHORD DISTANCE OF 998.79 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 1174.88 FEET TO A POINT; THENCE SOUTH 61 DEGREES 27 MINUTES 17 SECONDS EAST A DISTANCE OF 15.00 FEET TO A POINT (SAID RIGHT-OF-WAY BEING 80 FEET IN WIDTH AT THIS POINT); THENCE CONTINUING ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 510.00 FEET, A CHORD BEARING OF NORTH 01 DEGREE 52 MINUTES 57 SECONDS EAST A CHORD DISTANCE OF 457.74 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 474.69 FEET TO AN PK NAIL FOUND AT THE TRUE POINT OF BEGINNING; THENCE FROM THE TRUE POINT OF BEGINNING AS THUS ESTABLISHED. DEPARTING SAID RIGHT-OF-WAY LINE AND RUNNING ALONG THE PROPERTY LINE OF LOT "K", CHATTAHOOCHEE CORNERS THE FOLLOWING CALLS: SOUTH 60 DEGREES 51 MINUTES 48 SECONDS WEST A DISTANCE OF 263.18 FEET TO A PK NAIL FOUND: THENCE NORTH 77 DEGREES 17 MINUTES 33 SECONDS WEST A DISTANCE OF 40.15 FEET TO AN IRON PIN SET; THENCE SOUTH 72 DEGREES 38 MINUTES 09 SECONDS WEST A DISTANCE OF 64.84 FEET TO A PK NAIL FOUND; THENCE NORTH 72 DEGREES 40 MINUTES 58 SECONDS WEST A DISTANCE OF 189.25 FEET TO AN IRON PIN FOUND; THENCE DEPARTING SAID PROPERTY LINE AND RUNNING THROUGH THE LANDS NOW OR FORMERLY BELONGING TO SOUTHEAST DEVELOPMENT GROUP, INC. THE FOLLOWING CALLS: NORTH 43 DEGREES 18 MINUTES 49 SECONDS WEST A DISTANCE OF 56.95 FEET TO A PK NAIL FOUND; THENCE NORTH 16 DEGREES 38 MINUTES 22 SECONDS WEST A DISTANCE OF 326,40 FEET TO A PK NAIL FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY (BEING AN 80 FOOT RIGHT-OF-WAY WIDTH AT THIS PONT); THENCE DEPARTING SAID PROPERTY LINE AND RUNNING ALONG SAID RIGHT-OF-WAY LINE OF RIVER GREEN PARKWAY THE FOLLOWING CALLS: SAID PK NAIL FOUND BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 495.00 FEET, A CHORD BEARING OF NORTH 87 DEGREES 06 MINUTES 26 SECONDS EAST, A CHORD DISTANCE OF 284.03 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 288.08 FEET TO AN IRON PIN FOUND; THENCE SOUTH 76 DEGREES 13 MINUTES 10 SECONDS EAST A DISTANCE OF 19.47 FEET TO AN IRON PIN FOUND; SAID POINT BEING THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF 510.00 FEET, A CHORD BEARING OF SOUTH 50 DEGREES 30

MINUTES 05 SECONDS EAST, A CHORD DISTANCE OF 442.64 FEET, ALONG SAID CURVE AN ARC DISTANCE OF 457.87 FEET TO A PK NAIL FOUND; SAID PK NAIL FOUND BEING THE TRUE POINT OF BEGINNING.

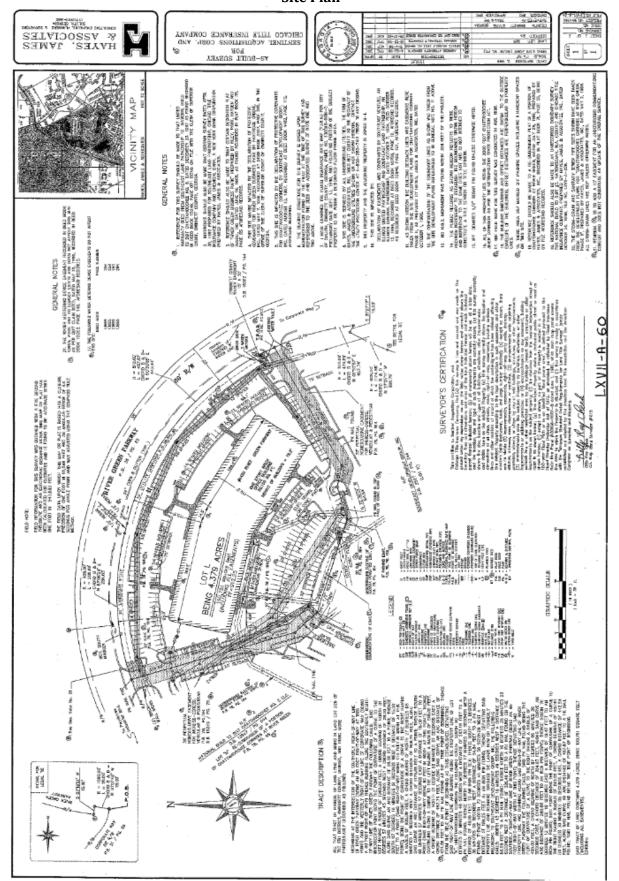
SAID TRACT OF LAND CONTAINS 4.379 ACRES, BEING 190,751 SQUARE FEET (INCLUDING ALL EASEMENTS).

TOGETHER WITH those easement rights arising under that certain Declaration of Easements and Covenants by Southeast Venture, an Illinois limited partnership, known now as Southeast Venture Limited Partnership, an Illinois limited partnership, dated October 7, 1994, filed for record October 12, 1994, recorded in Deed Book 10766, Page 19, Records of Gwinnett County, Georgia; as rerecorded November 10, 1994 at 8:00 a.m., recorded in Deed Book 10840, Page 161, aforesaid Records.

ALSO TOGETHER WITH those easement rights arising under that certain Amended and Restated Declaration of Protective Covenants for River Green Business Park by River Green Business Park Property Owners Association, Inc., dated March 22, 2006, filed for record March 27, 2006 at 8:12 a.m., recorded in Deed Book 46309, Page 2, aforesaid Records.

ALSO TOGETHER WITH those easement rights arising under that certain Easement by and between National Build to Suit Chattahoochee No. 5, L.L.C., an Illinois limited liability company, and National Build to Suit Chattahoochee No. 6, L.L.C., an Illinois limited liability company, dated as of December 23, 1997, filed for record December 31, 1997 at 10:20 a.m., recorded in Deed Book 15249, Page 75, aforesaid Records.

Exhibit "C" Site Plan



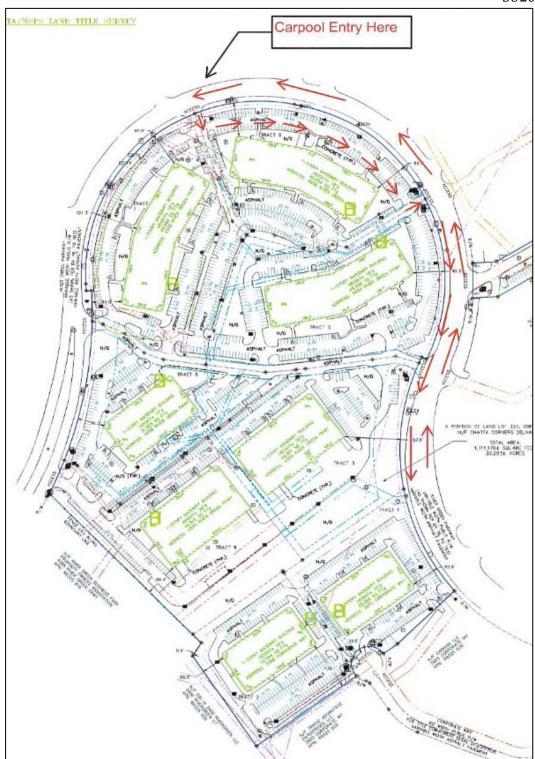


Exhibit "D" Conditions of Approval

- 1. The Special Use Permit (SU2023-001) is approved for Yi Hwang Academy and its use of a school. Approval of the Special Use Permit shall terminate on June 1st 2034. If the ownership of the school changes, in part or in whole, the Special Use Permit is considered terminated. If the use changes, is discontinued or abandoned for a period of ninety (90) days, the Special Use Permit is considered terminated. If the school building expands beyond its existing footprint, the Special Use Permit is considered terminated.
- 2. Any renovations to the interior and/or exterior of the building require review and approval by the City of Duluth prior to occupancy.
- 3. The property shall be maintained in a state of good repair at all times, free from any violations of the Property Maintenance Code; Unified Development Code; License and Business Regulations; Nuisance Codes, and any other codes adopted by the City of Duluth. Failure to maintain the property at or above the minimum standards adopted in the City of Duluth codes and ordinance shall be cause for revocation of the Special Use.
- 4. The privilege of a Special Use is subject to all conditions that have been attached to it. The City Council may revoke any Special Use approval after it has been proven that the conditions have been violated. Revocation of the Special Use shall cause the use to become an illegal nonconformity, the continuation of which is strictly prohibited.

The Planning and Development Department shall have the right to periodically examine the operation of the Special Use to determine compliance with the requirements and any conditions. If the Planning and Development Director determines that the requirements and conditions are being violated, a written notice shall be issued to the owner of the property outlining the nature of the violation and giving the owner of the property a maximum of ten (10) days to come into compliance. If after ten (10) days the violations continue to exist, the Director shall forward a report to the City Council through the Planning Commission who may recommend that action be taken to remove the Special Use from the property. Notwithstanding, repeat violations within a period of sixty (60) days of the same nature shall not be required to give additional notice or time to correct prior to initiating revocation procedures outlined herein.

If violations are not corrected within the stated time frame, the City will notify the property owner and publish a public hearing notice for a public hearing to consider revocation of the Special Use, pursuant to O.C.G.A. § 36-66-4.

The Director of Planning and Development shall notify the Planning Commission of the violation of conditions of the Special Use at the next regular Planning Commission meeting, and revocation of the Special Use Permit shall be considered at that time. The Planning Commission shall review the city staff report(s), take testimony from the property owner, and public testimony, and make a recommendation on the Special Use revocation to be forwarded to City Council. Following the Planning Commission recommendation, the City Council shall review the city staff report(s), take testimony from the property owner, and public testimony, and make a decision on the Special Use revocation. The City Council may approve a resolution to revoke the Special Use and include authorization for the Director of Planning and Development to order the Special

Use to cease. In the case of a terminated or revoked Special Use, the operations shall cease immediately.

- 5. Annual student enrollment must be submitted to the Director of Planning and Development at the beginning of each academic year.
- 6. Outdoor amplified sound shall be prohibited.
- 7. Any refuse collection area(s) and/or dumpsters shall be enclosed per Section 306.07 of the City of Duluth Unified Development Code.
- 8. The applicant shall submit a drop-off/pick-up circulation plan. Drop-off/pick-up lines shall not result in queuing or vehicular stacking in the right-of-way, on public streets or on any adjacent property. An updated circulation plan showing vehicular stacking contained wholly on site and out of River Green Pkwy shall be submitted to the City of Duluth Planning Director prior to building occupancy.
- 9. The school shall not create overflow parking that results in parents, visitors, or staff parking in the right-of-way, on public streets or on any adjacent property without a shared parking agreement with the adjacent property owner and/or landlord.

Exhibit "E" Applicant's Response to the Standards Governing Special Use Consideration and Justification for Special Use

I. INTRODUCTION AND PROPOSED USE

This Application for Special Use Permit is submitted for a 4.379-acre parcel of land located in the City of Duluth, Georgia, identified as Parcel R6325 047 (hereinafter the "Property"). The purpose of the Special Use Permit is to allow for the operation of a Public Charter School for the property located at 4450 River Green Parkway, Duluth. Georgia. The Property is currently zoned M-1 (Light Industrial District).

The Applicant, Yi Hwang Academy, Inc., is known as the Yi Hwang Academy of Language Excellence ("YHALE"). YHALE was approved as a public charter school by the State Charter Schools Commission of Georgia in July 2018. The process that charter schools must comply with to receive facility site approval from the Georgia Department of Education is rigorous. YHALE is a dual language Immersion public charter elementary school with a 50/50 Model so that 50% of each school day is taught in English and the other 50% is taught in Korean or Mandarin. The school serves students in kindergarten through fifth grade and specifically focuses on young learners. The mission of YHALE is to produce students who are fluent in both English and their target language of either Korean or Mandarin Chinese, and thrive socially, emotionally and intellectually. The YHALE curriculum is an Integrated Curriculum Model known as ICM which was originally developed for gifted student classrooms. ICM was chosen for YHALE because ICM works very well with differentiated instruction which is a type of instruction most often used in dual language immersion classrooms. The Applicant is specifically seeking a Special Use Permit in order to operate a public charter school for grades kindergarten through 5th grade, with school hours Monday -Friday from 8:30 am to 3:30 pm.

This document is submitted as the Letter of Intent, a description of the proposal, and response to the standards identified in the "Zoning Ordinance of the City of Duluth, Georgia" (the "Ordinance"), including other materials required by the Ordinance.

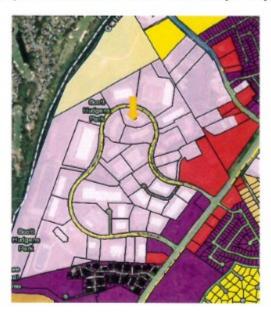
II. CITY OF DULTH ZONING ORDINANCE AND COMPREHENISVE PLAN

The property is zoned M-1 (Light Industrial District), under the current Zoning Ordinance of the City of Duluth, Georgia. According to Section 205.16 of the Unified Development Code ("UDC"), the M-1 District was "established to provide for light industrial uses such as assembling, wholesaling, warehousing and commercial services in areas that are located on or have ready access to a major thoroughfare, but whose proximity to residential or commercial districts makes it desirable to limit industrial operations and processes to those that are not objectionable by reason of the emission of noise, vibration, smoke, dust, gas, fumes, odors, or radiation and that do not create fire or explosion hazards or other objectionable conditions." However, the Applicant is operating a *public* school as identified in the state public school system. YHALE is not a private, religious, or for-profit educational institution.²

¹ Letter from Vice President of New School Development, Georgia Charter Schools Association, dated November 4, 2022, attached hereto as Exhibit "A."

² Letter from General Counsel, State Charter Schools Commission of Georgia, dated May 20, 2022, attached hereto as Exhibit "B."

The Property is located in the River Green Employment District Character Area. Pursuant to the City of Duluth Comprehensive Plan, FORWARDuluth, this district is identified as "an economic engine for the city, serving as a major regional distribution and office hub." However, there are two other schools located along the southern boundary of the industrial park, as well as religious organizations operating under conditional use permits, whose permits do not expire unless or until the property is sold. While those existing uses may not be compatible with FORWARDuluth, they are existing uses that have been in operation for many years. The Property is further identified below from the City GIS system:



The City of Duluth UDC also provides that private schools (kindergarten, elementary, secondary, junior college and universities), as well as language schools, are allowed in the district if approved as a special use. The UDC does not clearly identify where a <u>public</u> school is allowed as a use by right.

Pursuant to O.C.G.A. §20-2-2068.2, (i) no municipality, county, or other local political subdivision of this state may require the nonprofit corporation that holds the charter for a charter school that has passed the Department of Education facility inspection and holds a valid certificate of occupancy to obtain any other licensure to operate the school, including, but not limited to, a business license, professional license, or occupational tax certificate; provided, however, that any for profit vendor of the charter school shall be subject to any applicable local requirements relating to doing business in this state.³ Charter schools shall only be subject to the zoning, planning, and

³ YHALE is currently operating as a public charter school at 4550 River Green Parkway. <u>See</u>, Certificate of Occupancy, issued July 26, 2021, by Gwinnett County Fire Marshal, attached hereto as Exhibit "C."

building permitting requirements that apply to traditional public schools when constructing or renovating a facility; provided, however, that the location of a charter school site shall be in conformity with existing county or city comprehensive land use plans, if applicable, or existing land use patterns in the area, which requirement shall not be waived by the State Board of Education.

III. YHALE - PROPOSED TRAFFIC CIRCULATION

The academic hours for YHALE are 8:30 a.m. to 3:30 p.m. These specific hours do not coincide with either of the other two schools in the River Green Industrial Park. The other schools begin at either 8:00 a.m. or 8:10 a.m. and end between 2:30 p.m. and 3:10 p.m. The Notre Dame Academy High School also dismisses at 3:30 p.m. but there has been no conflict with this because they have a small high school enrollment and the YHALE pick up route runs primarily on the north side of the horseshoe. As for the traffic flow, the Applicant has proposed the vehicles enter the Industrial Park at the north access point off Peachtree Industrial Blvd and travel along the horseshoe to the fourth shared drive isle on the left. At that point, the vehicles will travel along the front of the building to drop-off students and exit the property at the third shared access point along the horseshoe. The anticipated traffic flow is designed to prevent any school traffic from interfering with existing businesses or truck access routes.

In addition to the proposed traffic flow, the afternoon traffic for pick up is mitigated by YHALE's enrichment and afterschool programs. For example, the chess club meets and practices on Fridays from 3:30 p.m. to 4:30 p.m. Approximately 25% to 30% of the student body participates in the chess club. In addition, approximately 7% to 10% of the student body are enrolled in the aftercare program and those students are picked up anytime between 4:30 p.m. and 6:00 p.m. At their current location, YHALE has coordinated with the property owner/landlord and surrounding businesses to have the least impact on existing businesses. The Applicant anticipates the same coordination effort at the proposed location. The Applicant further submits that the transition to the new location was at the request of the property owner/landlord as the site is located further away from the other existing schools. In terms of on-site parking required for the operation of the school, YHALE currently employs 42 staff/employees. They will park behind the building and enter and exit from the back doors of the building. During the normal course of business, the school anticipates no more than 15 additional parking spaces to be utilized for the occasional guest(s), parents, or volunteers.

IV. SITE IMPACT ANALYSIS

The Applicant finds that the following standards are relevant in balancing the interest in promoting the public health, safety, morality, or general welfare against the right to the unrestricted use of property and shall govern the exercise of the zoning power. The Applicant submits its written analysis which shows that the Special Use Permit satisfies the responses to evaluation criteria as follows:

 Whether the special use permit will permit a use that is suitable in view of the use and development of adjacent and nearby property.

⁴ Proposed traffic circulation plan attached hereto as Exhibit "D."

Response: The proposed use a public charter school is consistent with the existing uses that are adjacent and nearby in the River Green development. The River Green development is well balanced with high end office uses, a number of educational uses, including the expansion of the Notre Dame Academy, as well as the Life Church International in the same River Green Industrial Park. There is also a daycare and a large recreational complex in close proximity to the Property.

Whether the special use permit will adversely affect the existing use or usability of adjacent or nearby property.

<u>Response:</u> No. There will not be any adverse effect created by the use of a public charter school at the Property. The use is consistent with the existing uses on the adjacent and nearby properties. The Property and the River Green development are well suited for the proposed use without creating any adverse impacts. Moreover, the current hours of operation will compliment other uses of adjacent and nearby properties.

3. Whether the Property to be affected by a proposed special use has a reasonable economic use as currently zoned?

Response: The Applicant submits that due to the size, location, layout, and natural features of the Subject Property, it does not have reasonable economic use as currently zoned. By way of further response, the Applicant submits that allowing the use as a public charter school would be a compatible use with surrounding properties.

 Whether the special use permit will result in a use that will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

Response: No. The Property is located in the River Green Employment District Character Area. The entire development is well served with a landscape parkway and the connectivity between the office, institutional, educational, recreational and residential uses. The proposed use of a public charter school is entirely consistent with other uses. The proposed use will not cause excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

 Whether the special use permit is consistent with the Land Use Policy Plan, Comprehensive Plan, transportation plans, or other plans adopted for guiding development within the City of Duluth.

Response: Yes. The Subject Property is located in the River Green Employment District Character Area which promotes a variety of residential, community, religious, educational and recreational uses throughout the entire development. To be clear, there are existing schools located within the River Green District, which the City has granted indefinite permits to so long as they occupy the premises. As such, the City's zoning patterns and FORWARDuluth support the Applicant's request for a special use permit.

Whether there are other existing or changing conditions affecting the use and development of
property that give supporting grounds for either approval or disapproval of the special use
permit.

Response: The Applicant submits that it was awarded a charter petition in July 2018 by the State Charter Schools Commission of Georgia, which was later affirmed by the State Board of Education. The Applicant operates as a public school under the State of Georgia public school system. The Applicant refers the City to O.C.G.A. § 20-2-2090 for funding guidelines. The Applicant respectfully seeks approval to operate the public charter school at the Property to provide educational opportunities to the residents of the City of Duluth.

V. JUSTIFICATION FOR SPECIAL USE PERMIT

The Applicant respectfully submits that the "Zoning Ordinance of the City of Duluth, Georgia" (the "Ordinance"), as amended from time to time, to the extent that it classifies the Property in any zoning district that would preclude the use of a public charter school with a special use permit, or any other permit or application, allowed by Ordinance is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Ordinance deprives the Applicant and Property owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and that requested herein, would deprive the Applicant and Property owner of any reasonable use and development of the Property. Further, any attempt by the Mayor and Council of the City of Duluth to impose greater restrictions upon the manner in which the Property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current zoning classification and any other zoning of the Property save for what has been requested as established in the Ordinance constitute an arbitrary and unreasonable use of the zoning and police powers because they bear no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Applicant and Property owner. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute and arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality, or general welfare of the public and would substantially harm the Applicant and Property owner. Further, the existing inconsistent zoning classification constitutes, and all zoning and plan classifications intervening between the existing inconsistent zoning classification and that required to develop this Project would constitute, a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section II, Paragraph I of the

Constitution of the State of Georgia and the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that failure to approve the requested Special Use Permit would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Applicant and Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that the Mayor and Council of the City of Duluth cannot lawfully impose more restrictive standards upon the use or development of the Property than presently exist, as to do so not only would constitute a taking o the Property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably with the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power. See Guhl v. Holcomb Bridge Road Corp., 238 Ga. 322 (1977).

VI. CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that this Application for a Special Use Permit be approved. The Applicant welcomes the opportunity to meet with the City of Duluth Planning Department staff to answer any questions or to address any concerns relating to this Letter of Intent or supporting materials.

Respectfully submitted this 25th day of January, 2023.

ANDERSEN, TATE & CARR, P.C.

Melody A. Glouton

Melody A. Glouton, Esq.

Enclosures MAG/dwb



November 4, 2022

Liza A. Park Governing Board Chairperson Yi Hwang Academy for Language Excellence

Dear Chairperson Park:

You requested a brief description of the process that charter schools must follow to receive facility site approval from the Georgia Department of Education. As you know, the Georgia Charter Schools Association proudly serves as Georgia's premier non-profit support and membership organization for Georgia's charter schools. For more than twenty (20) years, GCSA has collaborated with charter petitioners, operators, and authorizers to increase high-quality charter school options and help create an environment that supports charter schools and their students. GCSA's extensive knowledge of the regulatory and operational requirements for charter schools allows us to provide unparalleled technical assistance navigating complex matters of compliance. The description of the GaDOE facility approval process below summarizes the requirements for educational facilities for charter schools in Georgia.

As a preliminary matter, state charter schools are authorized by the State Charter Schools Commission of Georgia ("SCSC") pursuant to O.C.G.A. § 20-2-2060, et seq., the Charter Schools Act of 1998 ("Charter Schools Act") and O.C.G.A. § 20-2-2084. A "state charter school" is defined by law as a school "whose creation is authorized as a special school pursuant to Article VIII, Section V, Paragraph VII of the Constitution. A state charter school shall be a public school." See O.C.G.A. § 20-2-2081. Moreover, under Georgia law, state charter schools are treated as "local education agencies." See O.C.G.A. § 20-2-2090.

Georgia law provides charter schools broad flexibility from provisions from many education-related statutes as outlined in O.C.G.A. § 20-2-2065. However, requirements that govern "the protection of the physical health and safety of school students, employees, and visitors" are expressly excluded from charter school flexibility. O.C.G.A. § 20-2-2065(b)[5]. The State Board of Education and GaDOE have broad authority to regulate the requirements and approval process for all educational facilities in the state. See O.C.G.A. § 20-2-260. Furthermore, both State Board of Education Rule and individual charter school contracts expressly incorporate the GaDOE educational facility approval process for charter schools. See SBOE Rule 160-4-9-.06.

Accordingly, every Georgia charter school must adhere to the GaDOE facility approval process. While this process can vary depending on the identified facility, all prospective educational facilities must provide GaDOE plans and specifications for the facility, a risk-hazard assessment, an environmental assessment, as well as any other documentation needed to verify the school meets the safety requirements. The Facilities Services Unit will review the site and building data to determine if the proposed facility can serve as a public school and will provide specific feedback regarding required actions or mitigation measures that may be required prior to the facility's use as a public-school facility. Following the review and confirmation of all relevant plans, specifications, utility, leases, and the receipt of a Certificate of Occupancy, GaDOE will assign the charter school a Site Code indicating the permissible use as an educational facility.



The GaDOE Facility Approval Process is explained in more detail in this guidance from the Georgia Department of Education, and those requirements as they apply to charter schools are explained in this guidance as well. as well as this guidance from the State Charter Schools Commission. If you have any questions or require additional information or assistance navigating the facility approval process, please never hesitate to contact GCSA.

Sincerely,

Gregg Stevens

Vice President of New School Development

Georgia Charter Schools Association



State Charter Schools Commission of Georgia

Lauren Holcomb, Executive Director

May 20, 2022

Forrest Huffman Planning Manager City of Duluth 3167 Main Street Duluth, Georgia 30096

Re: Yi Hwang Academy of Language Excellence (YHALE)

Dear Mr. Huffman,

I write to clarify and confirm that Yi Hwang Academy of Language Excellence (YHALE) is a public school in the public school system of Georgia.

The State Charter Schools Commission of Georgia (SCSC), which operates under the authority of the State Board of Education, has the power to authorize state charter schools through the approval of charter petitions. See O.C.G.A. §§ 20-20-2080-2083. State charter schools complement the educational opportunities offered by local boards of education by enhancing public educational opportunities. See O.C.G.A. § 20-2-2080.

The SCSC approved a charter petition for YHALE July 25, 2018. The SCSC decision was affirmed by the State Board of Education, resulting in the authorization of YHALE as a state charter school.

As defined in the Georgia Constitution, state charter schools are public schools that operate within the state's public school system. Like local school districts, each state charter school functions and is treated as a single local education agency. See O.C.G.A § 20-2-2090. State charter schools are funded through state appropriations. They are not private, secturian, religious, or for-profit schools or educational institutions. See Georgia Constitution, Article VIII, Section V, Paragraph VII; see also O.C.G.A. § 20-2-2081(5) ("a state charter school shall be a public school").

If I can further clarify this matter, please feel welcome to contact me directly using the email address below.

Sincerely,

Cerrone Lockett General Counsel

State Charter Schools Commission of Georgia

EXHIBIT B



GWINNETT COUNTY

CERTIFICATE OF OCCUPANCY

PERMIT NUMBER: COMBLD2021-01308



4650 RIVER GREEN PKWY 100 & 220, DULUTH, GA BUILDING ADDRESS:

PULUTH 30006 ZP CODE:

Š

6325 053

PARCEL NUMBER:

BUILDING NUMBER:

20072 BUILDINGITENANT AREA:

SUITE NUMBER: 100 & 220

Tenant Change

TYPE OF WORK:

YI HWANG ACADEMY BUILDING/TENANT KNOWN AS:

OFFICE OF THE FIRE MARSHAL

Department of Fire and Emergency Services

NFPA OCCUPANCY CLASSIFICATION: Education - Public

OCCUPANT LOAD:

ADDITIONAL COMMENTS:

This certifies that the primises described have nonforms substantially to the approved plans and appellications and to the requirements of the applicable laws, rules and requirements for the uses and occupancy specified. This Certificats of Occupancy shall be made null and void if change of use, occupancy, or physical alterations, additions, renewations, or destructive event of serious consequence, or other hazardis) identified. This document shall be available for impection at the building at all reasonable times.

The Fire Marshal is authorized to, in writing, suspend or revoke this Certificate of Occupancy under the provisions of the Gwinnett County Code of Ordinances, Chapter 42, when it is determined that the promises described herein or portion thereof is in violation of any applicable tax, rules and regulations, codes, standards, and ordinances or any provision thereof.

This inspection or permitting of any building, structure or plan under the requirements of the codes shall not be construed in any court as a warranty of the physical condition nor any employee thereof shall be liable in court for damages for any defect or hazardous or lingal condition or inadequacy in such building or plan, nor for any failures of any component of such building, which may occur subsequent to such inspection or permitting.

SELECTIVE JAROORIGUEZ

7/26/2021 DATE ISSUED:

SIGNATURE: JURODRIGUEZ

TITLE: Inspector

EXHIBIT

POST IN A CONSPICUOUS PLACE AT THE MAIN ENTRANCE TO THE PREMISES 466 huntene Sheain Road, Lawrenceville, Ga 30045 Office: (678) 518-9360, Fac. (678) 518-4901, inspection Request: (678) 518-6277 www.gprinnetfiremershal.com

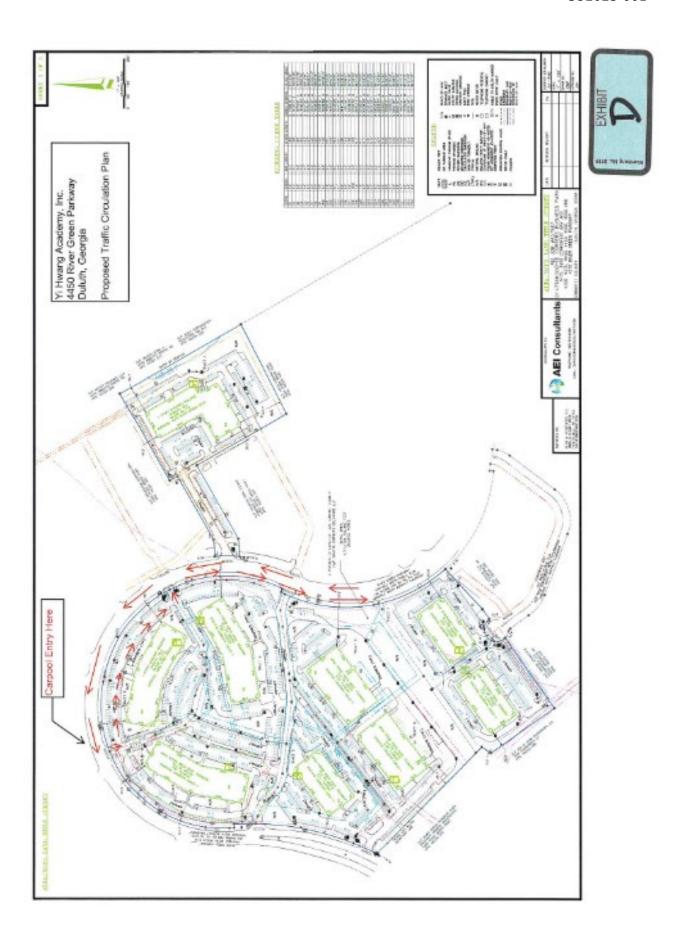


Exhibit "F" Public Notice

ZONING

CITY OF DULUTH NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a public hearing will be held before Mayor and Council to consider a special use request from Yi Hwang Academy, on approximately 4.379 acres of property in Land Lot 325, 6th District, Gwinnett County, located at 4450 River Green Parkway, consisting of tax parcels 6325 047, case number SU2023-001. The special use request is to operate a Charter School in the M-1 zoning district.

The public is invited to attend this hearing before the Mayor and Council on the proposed special use. The meeting date, place and time regarding this matter are as follows:

WHEN: April 10, 2023 -6:00 p.m. WHERE: City Hall Council Chambers 3167 Main Street Duluth, GA 30096

PERSONS INTERESTED IN THIS MATTER are invited to review the proposed special use, which is on file with the Department of Planning & Development of the City of Duluth and to attend the public hearing at the date, time and place provided in this notice, to express their opinion on this matter. Written comments may also be received in lieu of testimony during the public hearing. Written comments may be sent to the following address:

City of Duluth ATTN: Amy Bingham 3167 Main Street Duluth, GA 30096 OR Email: abingham@duluthga.net

For more information, contact Amy Bingham, Planning & Bamp; Development, at (770) 476-1790.

In compliance with the Americans with Disabilities Act of 1990, the City of Duluth is committed to providing reasonable

accommodations for a person with a disability. Please contact Teresa Lynn at (770) 476-3434 if special program





Exhibit "G" Addendum to Staff Review

On March 8^{th} , 2023 Planning Staff requested the following information from the applicant. However, the requested information was not received until March 17^{th} , 2023, after a first draft of the staff report was sent to the applicant for review. As such, staff has provided the following as an addendum to its review of this application.

Additional Information Requested by Staff:

- 1. Current enrollment numbers: 303.
- 2. List of after school activities and total student body percentage that are projected to participate in these programs. For example, the Letter of Intent includes Chess Club with 20% 30% student body participation and 7% 10% of the student body utilize the aftercare program so at most 40% of the student body is participating in the two programs provided
- 3. What is the square footage of Suite 100?
- 4. How many classrooms are proposed?
- 5. Are there any interior or exterior renovations proposed to make the building more suitable to the school use (i.e. play grounds, classrooms, cafeteria, kitchen, etc.)?
- 6. The letter of intent indicates that there will be coordinated efforts with the adjacent business owners to mitigate any impacts of the proposed use. Could you provide more information as to what those efforts are or have been at the 4550 River Green Pkwy location?

Applicant's Response to Staff Request:

- 1. Current enrollment numbers: 303. However, they will be at 400 students for the 2023-2024 school year when offering a full K-5 enrollment. Once they expand into middle school and into the rest of the building, they will be at approximately 900 students in the entirety of the 4450 building.
- 2. Our Enrichment Programs offer different classes everyday. List of our enrichment offerings: Coding, Drama, STEAM, Chinese Martial Arts. Taekwondo, Korean Language, Chinese Language, Ballet/HipHop, Art, Chinese Dance, Korean Instruments, and Chess.

	Monday	Tuesday	Wednesday	Thursday	Friday
Enrichment	12%	14%	8%	10%	31%
Aftercare	8%	8%	8%	8%	8%

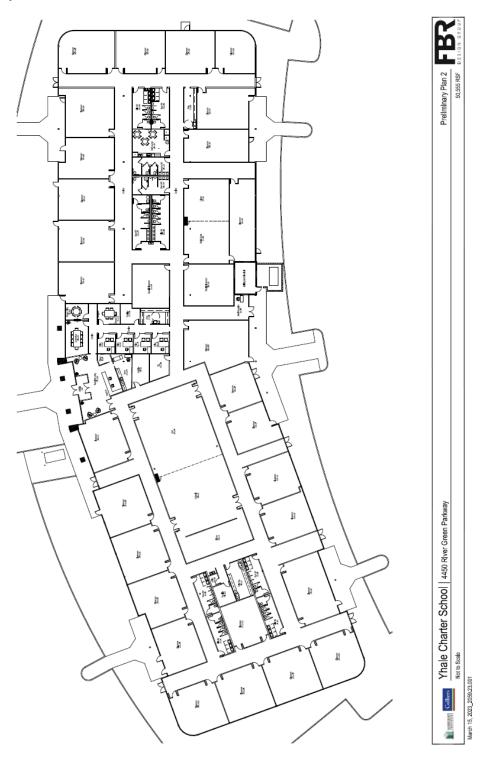
- 3. Suite 100 is approximately 20,223 SF. Building 4450 is approximately 50,000 SF. The special use permit request is for the entire 4450 building.
- 4. The proposed current design shows 30 classrooms.
- 5. Yes. Please see attached documents showing 1) the exterior playground, 2) carpool traffic flow and 3) the interior renovations. (The attachments received have been provided below).
- 6. We changed our carpool drop off and pick up route to accommodate our neighbors' requests. We routinely remind parents in mass emails about our car pool rules and route. We position staff at specific places on the property during carpool to help enforce the rules and route. We communicate regularly with the property management staff. We respond to questions and requests from property management staff. We currently build business relationships with neighboring businesses by using their products or services when we can.

Staff's Review of Additional Information:

The applicant's projected percent increase enrollment of 200% raises concerns for staff as it pertains to the intensity of the proposed use. Rivergreen Parkway is a four lane local route with no sidewalks, deceleration lanes, or turn lanes. To reduce the impact the proposed use will have on industrial activity within the park, it is crucial that traffic circulation during school pick-up and drop-off periods does not result in any stacking or queuing of vehicles off of the subject property. Doing so would create serious conflicts between the proposed use and its neighboring uses.

Additionally, queuing or stacking of vehicles in an active drive lane may pose a serious life safety issue, and any vehicles queued in an active drive lane may be subject to citation. Staff would recommend the following as a condition of approval "The applicant shall submit a drop-off/pick-up circulation plan. Drop-off/pick-up lines shall not result in queuing or vehicular stacking in the right-of-way, on public streets or on any adjacent property. An updated circulation plan showing vehicular stacking contained wholly on site and out of River Green Pkwy shall be submitted to the City of Duluth Planning Director prior to building occupancy."

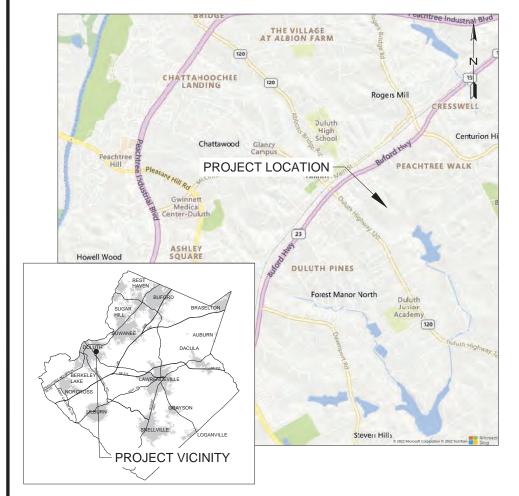
Referenced Attachments



CONSTRUCTION PLANS FOR:

DULUTH HILL AREA SEWER SYSTEM

GCDWR PROJ. NUMBER:F-1387-39



OCTOBER 2022



Commercial Development Permit Data							Relate	i Cases				
Please Provide the following data on your plan in the listed format: General					Type Case # Approval Date							
Development Type	SANITARY	/ SEWER						Tr		-		
Zoning	R100, HCR	, OI, RM				Non Buffer Trees Preserved Nor NA				Non Buffer Trees Replaced NA		
Total Area (Acres)						Type NA			Width Width			
Limits of Disturbed Area (Acres)	6.66					Type NA Width Buffer Trees Planted NA						
		Parking	Spaces			Sanitary Service→	•	Sewer X		Septic		
Existing: NA		New: NA	-	Total: NA		ZONING:		R100 F	ICR C)I RM		
Pavement Sur Asphalt/Concr		Required Pa Spaces→	rking l	Minimum	Maximum	COMMISS						
Provided Par	king Spaces				'	FEMA FIR	M	PANEL	13350	0055G DAT		

FEMA FIRM PANEL 1335C0055G DATED MARCH 4, 2013 TOTAL PROJECT AREA: 6.66 AC

Exiting Floor Area (Sq ft): Area (Sq ft) Area (sq ft) TOTAL DISTURBED AREA: 6.66 AC Area (Sq ft) Existing Bldg (No) New Bldg (No) Stories (No

3068 WASHINGTON STREET

DULUTH, GA, 30096

PROJECT LOCATION:

PROJECT LOCATION MAP

OWNER:

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

684 Winder Hwy Lawrenceville, GA 30045

BOARD OF COMMISSIONERS

KIRKLAND CARDEN JASPER WATKINS III MARLENE FOSQUE GLENN STEPHENS

NICOLE LOVE HENDRICKSON

CHAIRWOMAN **DISTRICT 2 COMMISSIONER DISTRICT 3 COMMISSIONER** DISTRICT 4 COMMISSIONER COUNTY ADMINISTRATOR

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES - WATER & SEWERAGE **AUTHORITY**

BRYAN KERLIN CURT THOMPSON LCIAN WILLIAM B. MARTIN

CHAIRWOMAN'S APPOINTMENT DISTRICT 1 APPOINTMENT DISTRICT 2 APPOINTMENT **DISTRICT 3 APPOINTMENT** WAYNE ALLICK JR. **DISTRICT 4 APPOINTMENT**

CONSULTING ENGINEER:

ENGINEERING STRATEGIES, INC. **ESI**

3855 Shallowford Road, Suite 525 Marietta, GA 30062 Phone: (770) 429-0001

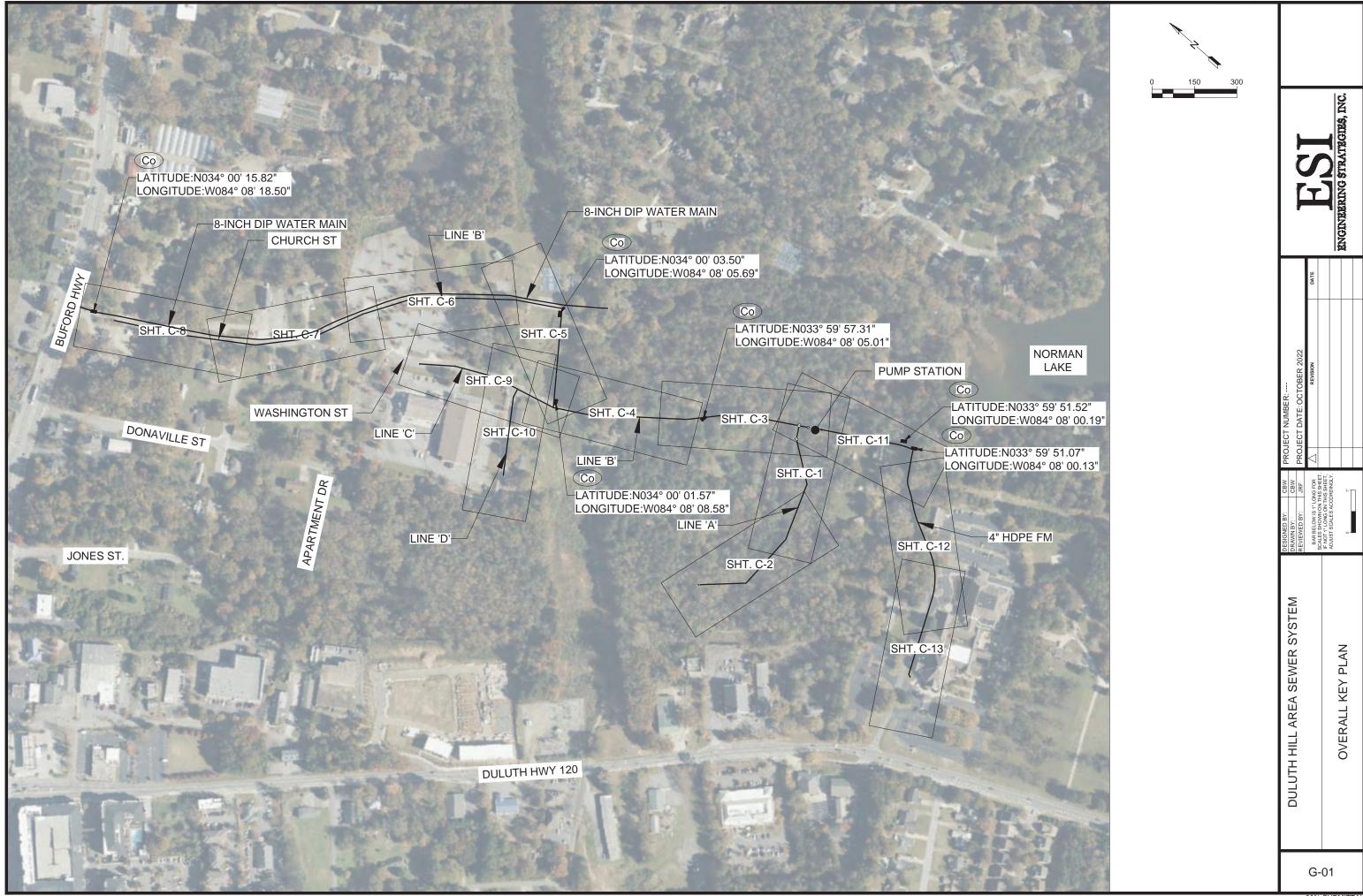


Utilities Protection Center, Inc.

Utilities Protection



90% SUBMITTAL



NOTIFICATION REQUIREMENTS/CONTACTS

THE 24-HOUR EMERGENCY CONTACT IS GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

OFFICE HOURS AFTER HOURS #678-376-7000

OWNER: GWINNETT COUNTY

DEPARTMENT OF WATER RESOURCES
684 WINDER HIGHWAY
LAWRENCEVILLE, GA 30045
CONTACT:

GREG JACKSON, P.E. #678-376-6917

PHONE:

ENGINEER: ENGINEERING STRATEGIES, INC. 3855 SHALLOWFORD RD, SUITE 525 MARIETTA, GA. 30062 CONTACT:

NOTICY GCDWR INSPECTIONS OF THE FOLLOWING AT THE INDICATED TIME INTERVAL. INSPECTION POINT OF CONTACT WILL BE PROVIDED AT PRE-CONSTRUCTION MEETING

 24 HOURS BEFORE THE BEGINNING OF EACH PHASE OF CONSTRUCTION.
 24 HOURS BEFORE EACH BLAST ROUND.
 NOTE THAT BLASTING REQUIRES APPROVAL OF A BLASTING PLAN 30 WORKING DAYS PRIOR AND ENGINEER APPROVAL OF A DETAILED BLAST ROUND DESIGN PLAN 24 HOURS PRIOR. ALSO REQUIRES 7 DAYS ADVANCE NOTICE TO ADJACENT PROPERTY OWNERS FOLLOWED BY

ALSO REQUIRES 7 DAYS ADVANCE NOTICE TO ADJACENT PROPERTY OWNERS FOLLOWED BY ANOTHER NOTICE 24 HOURS IN ADVANCE.

72 HOURS IN ADVANCE, A REQUEST MUST BE PLACED TO THE INSPECTOR FOR APPROVAL TO REMOVE OR DISTURB SIGNS, MAILBOXES, FENCING, LANDSCAPING, ETC. APPROVAL OF REQUEST IS REQUIRED BEFORE PERFORMING RELATED WORK.

7 DAYS IN ADVANCE, COORDINATE PLANNED SHUT OFF OF SERVICES AND/OR WET CUT-INS WITH

THE INSPECTOR. REQUIRES A FOLLOW UP NOTIFICATION TO INSPECTOR AND AFFECTED CUSTOMERS A MINIMUM OF 24 HOURS PRIOR TO LOSS OF SERVICE. GCDWR INSPECTOR MUST BE RESENT AT WET CUT-INS AND ANY OTHER ACTIVITY THAT REQUIRES THE SERVICES TO BE SHU

THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND CONTACT THE GEORGIA UTILITY PROTECTION CENTER FOR FIELD MARKING OF UTILITIES 72 HOURS PRIOR TO BEGINNING

UTILITY PROTECTION CENTER

GWINNETT COUNTY DOT IS NOT ON THE ONE-CALL SYSTEM. PLEASE CALL (770) 822-7474 WHEN LOCATING UTILITIES FOR CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES 24 HOURS PRIOR TO CONSTRUCTION IN AREAS WHERE THE UTILITIES ARE SHOWN OR SUSPECTED TO BE. THE LIST.

INFORMATION AVAILABLE, BUT IS NOT GUARANTEED TO BE COMPLETE.

#770-325-5000 IN AREAS WHERE THE UTILITIES ARE SHOWN OR SUSPECTED TO BE. THE LIST IS BASED ON BEST

ATLANTA GAS LIGHT COMPANY AT&T BROAD BAND #770-559-2000 #770-806-7060 CHARTER COMMUNICATIONS COMCAST #404-379-6712 GEORGIA POWER COMPANY #1-888-660-5890 WALTON FMC #770-266-2527 JACKSON EMC

GWINNETT COUNTY DEPARTMENT OF TRANSPORTATION (GCDOT) APPROVAL IS REQUIRED PRIOR TO ANY OPEN CUTS OR LANE CLOSURES.

- BRITTON LOCKHART #678-639-8825 LEWIS COOKSEY (GCDOT)

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHENEVER ANY STREET IS TO BE PARTIALLY BLOCKED.

#770-513-5000 GWINNETT COUNTY POLICE DEPARTMENT GWINNETT COUNTY FIRE DEPARTMENT #678-518-4800 GWINNETT COUNTY BOARD OF EDUCATION #770-338-4800 CITY OF DULUTH POLICE DEPARTMENT

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING GOVERNMENT AGENCIES AND UTILITIES AT LEAST 48 HOURS BEFORE ENCROACHING ON THEIR RIGHT-OF-WAY GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT)

CONTRACTOR IS TO NOTIFY AFFECTED CUSTOMERS 24 HOURS IN ADVANCE OF BLOCKING ACCESS TO PROPERTY OF TRAFFIC ROADWAYS. FULL ACCESS TO PROPERTY MUST BE RESTORED BY THE END OF THE WORK DAY.

CONSTRUCTION SEQUENCING AND CONNECTION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF CONSTRUCTION SEQUENCING AND PHASING
- THE FOLLOWING SEQUENCE OF CONSTRUCTION CONTAINS REQUIREMENTS FOR CRITICAL COMPONENTS OF THE PROPOSED WORK, WHICH ARE TO BE COMPLETED TO ALLOW THE CONSTRUCTION ACTIVITIES FOR THE PROPOSED SEWER SYSTEM INSTALLATION. THE CONTRACTOR SHALL MAKE REVISIONS BASED ON CONDITIONS ENCOUNTERED DURING CONSTRUCTION SO AS TO COMPLETE THE PROJECT IN A TIME EFFICIENT MANNER
- SEQUENCE OF CONSTRUCTION:
 - THE PROPOSED WATER MAIN ALONG CHURCH STREET SHALL BE INSTALLED, TESTED, DISINFECTED, AND PLACED IN SERVICE PRIOR TO THE SEWER INSTALLATION WORK ON CHURCH STREET.

GENERAL NOTES

- ALL CONSTRUCTION TO COMPLY WITH GWINNETT COUNTY STANDARDS
- ALL CONSTRUCTION SHALL COMPLY WITH THE CONTRACT PLANS, CONTRACT SPECIFICATIONS. PERMIT REQUIREMENTS, AND ALL APPLICABLE STATE, FEDERAL, AND LOCAL CODES. NO ADDITIONAL PAYMENT WILL BE GIVEN FOR ANY COST INCURRED TO COMPLY WITH REQUIREMENTS
- 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 DIREC SUPERVISION.

JOHN R. FLECK, P.E. Roh R. Flesh

- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY
- THE CONTRACTOR SHALL IMMEDIATELY INFORM THE OWNER OF ANY DISCREPANCIES OR ERRORS DISCOVERED IN THE CONTRACT DOCUMENTS. ANY DEVIATION FROM THE PLANS WITHOUT PRIOR CONSENT OF OWNER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.
- ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE EXCEPT THE FOLLOWING THAT WILL BE OBTAINED BY GCD
- A PRECONSTRUCTION MEETING MUST BE HELD WITH MEMBERS OF GCDWR, GCDOT, CITY OF DULUTH, AND THE CONTRACTOR PRIOR TO COMMENCING WORK
- ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO PUBLIC RIGHT-OF-WAYS AND ACQUIRED EASEMENTS. WORK IS TO BE PERFORMED IN CONFORMITY WITH ALL APPLICABLE PERMITS, AGREEMENTS, AND EASEMENT STIPULATIONS. CONTRACTOR SHALL NOT ENTER OR OCCUPY ANY EASEMENT WITHOUT FIRST CONFIRMING WITH GCDWR THAT SUCH EASEMENT IS FULLY EXECUTED. CONTRACTOR SHALL NOT ENTER OR OCCUPY ANY LAND OUTSIDE OF THE EASEMENTS AND RIGHT-OF-WAY. SHOULD THE CONTRACTOR DESIRE OR REQUIRE ADDITIONAL SPACE, THE CONTRACTOR MUST ARRANGE FOR SUCH A SPACE WITH THE EASEMENT OWNER AT
- LAND DISTURBANCE SHALL BE LIMITED TO THOSE AREAS INDICATED ON THE PLANS FOR ACCESS. STAGING, AND UTILITY CONSTRUCTION
- L BUFFERS AND TREE SAVE AREAS ARE TO BE CLEARLY IDENTIFIED WITH TREE PROTECTIVE NOTING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO INSTALLATION FOR EXAMPLE AND DISTURBING ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE INSPECTED REGULARLY USING THE EROSION AND SEDIMENT CONTROL CHECKLIST. ADDITIONAL EROSION AND SEDIMENT CONTROL CHECKLIST. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY THE OWNER
- 12. DRAINAGE SYSTEMS SHALL BE MAINTAINED, KEPT FREE OF DEBRIS, AND IN OPERATING CONDITION AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR RE-GRADED AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DAMIAGED OR REMOVED OR RE-GRADED AS REQUIRED BY THE EMBINEER. EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS IN THE PLANS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE, NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
- 13. MONUMENTS OR LANDMARKS SHALL NOT BE DISTURBED OR REMOVED BY THE CONTRACTOR WITHOUT WRITTEN CONSENT OF THE OWNER, ANY MONUMENT OR LANDMARK REMOVED OR DAMAGED SHALL BE REPLACED BY THE OWNER AT THE EXPENSE OF THE CONTRACTOR
- CONSTRUCTION. SHOULD IT BE REQUIRED TO REMOVE OR DISTURB SUCH ITEMS, THE CONTRACTOR SHALL SEEK APPROVAL FROM THE OWNER FIRST AND IF APPROVED, THE REMOVAL OR DISTURBANCE OF SUCH ITEMS WILL BE DONE AT NO ADDITIONAL COST TO OWNER. SHOULD THE OWNER DEEM ANY ITEMS AS DAMAGED, THE CONTRACTOR SHALL REPLACE THE ITEM IN LIKE AND KIND AT NO ADDITIONAL EXPENSE TO GWINNETT COUNTY. TRANSPLANTED AND/OR REPLACED ITEMS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR AFTER WORK IS COMPLETED. TRAFFIC CONTROL SIGNS AND MAIL BOXES SHALL BE REPLACED THE DAY OF THEIR
- 15 NO TRENCH SHALL BE OPENED MORE THAN 150 FEET AHEAD OF PIPE LAYING AND NO MORE THAN 500 FEET OF TRENCH MAY BE OPEN AT ONE TIME. CLEANUP AND GRASSING SHALL FOLLOW A
 MAXIMUM OF 500 FEET BEHIND PIPE INSTALLATION. AT THE END OF EACH WORKDAY, NO TRENCH
 IS TO BE LEFT OPENED WITHOUT THE APPROVAL OF THE GCDWR INSPECTOR. ALL ACCESS AND OPERABILITY SHALL BE FULLY RESTORED AND SITE MUST BE CLEANED TO THE SATISFACTION OF
- CONTRACTOR SHALL FURNISH SLIITABLE BORROW MATERIAL FOR THE PROJECT THAT SHALL BE CONTRACTOR SHALL FORNISH SUITABLE BURNOW MATERIAL FUR THE PROJECT HAT SHALL BE APPROVED BY THE INSPECTOR AND/OR GEOTECHNICAL ENGINEERING FIRM REPRESENTATIVE PRIOR TO USE. ALL SPOIL MATERIALS, REFUSE, AND DEBRIS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND LEGALLY DISPOSED OF AT AN APPROPRIATE OFFSITE LOCATION. BURNING OF REFUSE, DEBRIS, OR SPOIL MATERIAL AT THE PROJECT SITE IS NOT ALLOWED.
- FILL AREAS UNDER PAVED AREAS SHALL BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR AND FILL AREAS ON THE SHOULDER SHALL BE COMPACTED TO MINIMINUM 95% STANDARD PROCTOR AND FILL AREAS ON THE SHOULDER SHALL BE COMPACTED TO A MINIMINUM 95% STANDARD PROCTOR, UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS OR DIRECTED BY THE OWNER. A REPORT FROM AN APPROVED GEOTECHNICAL ENGINEER MAY BE REQUIRED BY THE CONSTRUCTION INSPECTOR FOR ALL FILL AREAS WITHIN THE RIGHT-OF-WAY.
- 18. OWNER'S MATERIAL TESTING FIRM TO PERFORM TESTING OF CONTRACTOR'S WORK WHERE OWNER'S MALENAIA LESTING FIRM TO PERFORM LESTING OF CONTRACTOR IS TO ALLOW FULL ACCESS DIRECTED BY THE INSPECTOR/FIELD REPRESENTATIVE. CONTRACTOR IS TO ALLOW FULL ACCESS AS NEEDED BY THE MATERIALS TESTING FIRM. ANY FAILED TEST SHALL REQUIRE THE CONTRACTOR TO REDO THE WORK UNTIL THE TEST IS PASSED. ADDITIONAL TESTING DUE TO A FAILED TEST SHALL BE PERFORMED BY CONTRACTOR'S OWN MATERIALS TESTING FIRM AND AT THE EXPENSE OF THE CONTRACTOR.
- ALL PROJECT SITE AREAS DISTURBED BY CONTRACTOR OPERATIONS SHALL BE STABILIZED WITH ALL PROJECT STIE AREAS DISTURBED BY CONTRACTOR OPERATIONS SHALL BE STABILIZED WITH PERMANENT GRASSING UNLESS OTHERWISE NOTED. PERMANENT GRASSING SHALL BE SOOD UNLESS OTHERWISE SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. PERMANENT GRASS SPECIES SHALL MATCH EXISTING SPECIES UNLESS REQUESTED BY THE PROPERTY OWNER. ANY AREAS OUTSIDE THE PROJECT SITE AREA THAT ARE DISTURBED SHALL BE RESTORED WITH SOO AT THE EXPENSE OF THE CONTRACTOR.
- 20 THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRAVEL PAVED OR CONCRETE ENTRANCES THE CONTRACTOR SPALE RESIDER ALL DISTORED LE DRAVEL, PAVED, OR CONCRETE ENTRANCES, DERIVEMANS, AND APRONS TO PRECONSTRUCTION CONDITIONS AND IN ACCORDANCE WITH APPLICABLE GDOT AND GCDOT STANDARDS AND REQUIREMENTS. DRIVEWAYS TO BE REPLACED TO FEET BACK FROM THE CURB OR TO THE CLOSEST EXPANSION JOINT, UNLESS OTHERWISE DEPORTED BY THE CHARGE. DIRECTED BY THE OWNER.
- A PAVING PLAN MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER BEFORE EXECUTING ASPHALTIC CONCRETE CONSTRUCTION. MILLING IS REQUIRED PRIOR TO ASPHALT RESUREACING AND IS TO BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. SURFACE OVERLAY
- VEHICULAR AND PEDESTRIAN TRAFFIC ACCESS TO PUBLIC ROADWAYS, DRIVEWAYS, FIRE HYDRANTS, VALVES, ETC. SHALL BE MAINTAINED AT ALL TIMES FOR RESIDENTS, PROPERTY OWNERS, PEDESTRIANS, THE TRAVELING PUBLIC, TRASH PICKUP, MAIL AND PARCEL DELIVERY SERVICES, SCHOOL BUSES, AND EMERGENCY VEHICLES.

- 23. STREET INTERSECTIONS MAY NOT BE BLOCKED EXCEPT FOR 1/2 THE ROADWAY AT ANY GIVEN TIME. IF IT BECOMES NECESSARY TO CLOSE A PORTION OF THE ROAD WAT AT ANY SIVEN PROVIDE A TRAFFIC ROUTING (DETOUR) PLAN AND SHALL HAVE IT APPROVED BY THE GCDOT AND THE CITY OF DULUTH PRIOR TO CLOSING THE ROAD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGMEN, SIGNAGE, BARRICADES, LIGHTS, AND OTHER TRAFFIC CONTROL DEVICES NECESSARY TO CONTROL THE TRAFFIC AND PROTECT THE PUBLIC. ALL TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & IGHWAYS", GCDOT STANDARDS, AND GDOT STANDARDS, TRAFFIC CONTROL TO BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- 25. CONTRACTOR SHALL PROVIDE PARKING WITHIN THE CONSTRUCTION LIMITS DETAILED AND SHALL PARK VEHICLES AND EQUIPMENT SO THAT THERE IS NO DISRUPTION TO TRAFFIC OR ANY OBSTRUCTION TO EXISTING SIGHT DISTANCE CONDITIONS. NO PARKING ON PRIVATE PROPERTY
- THE SIZE, TYPE, MATERIALS, AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION. SUBSURFACE UTILITY DATA SHOWN IS APPROXIMATE ONLY AND NO GUARANTEE IS MADE THAT ALL UTILITIES AND OTHER FEATURES ARE REPRESENTED ON THE PLANS ARE CORRECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND SIZE OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- HE CONTRACTOR ENCOUNTERS SUBSURFACE CONDITIONS DIFFERENT FROM THOSE SHOWI ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND ENGINEER. NO EXISTING UTILITY SHALL BE DISTURBED WITHOUT PROPER AUTHORITY AND THEN ONLY IN SUCH A MANNER AS PRESCRIBED AND APPROVED BY THE OWNER OF THE EXISTING UTILITY
- 28. SHOULD IT BECOME NECESSARY TO DISTURB AN EXISTING UTILITY, THE CONTRACTOR IS TO SHOULD IT BECOME NECESSARY TO DISTURB AN EARSTING OTHERTY, THE CONTRACTOR IS TO NOTIFY THE OWNER AND THE OWNER OF THE UTILITY. WHEN NECESSARY, CONTRACTOR IS TO CEASE WORK UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE WITH THE UTILITY OWNER TO PROPERLY CARE FOR AND RELOCATE THE UTILITY. NO CLAIMS FOR DAMAGES SHALL BE ALLOWED THE CONTRACTOR ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EITHER THE CONTRACTOR OR UTILITY OWNER WILL PERFORM THE REPAIR AT THE DISCRETION OF THE UTILITY OWNER. NO CLAIMS FOR DAMAGES SHALL BE ALLOWED THE CONTRACTOR ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY
- 30 THE CONTRACTOR SHALL PROVIDE ALL PIPE FITTINGS AND APPLIRTENANCES REQUIRED FOR THE THE CONTRACTOR SHALL PROVIDE ALL PIPE IT INIGGS AND APPORT ENANCES REQUIRED FOR THE COMPLETE INSTALLATION OF THE PROPOSED PIPELINE, WHETHER OR NOT SUCH ITEMS ARE SHOWN OR CALLED OUT ON THE PLANS. THE CONTRACTOR IS ADVISED THAT FIELD ADJUSTMENTS MAY BE REQUIRED BASED ON ACTUAL SUBSURFACE CONDITIONS AND LOCATIONS. OF EXISTING BURIED UTILITIES ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOT RECEIVE ANY ADDITIONAL PAYMENT OR TIME EXTENSION FOR ITEMS NOT BEING SHOWN IN PLANS OR FOR FIELD ADJUSTMENTS MADE DUE TO ACTUAL SUBSURFACE CONDITIONS AND LITILITY LOCATION
- PIPELINE ROUTE STATIONING IS BASED ON PROPOSED PIPE CENTERLINE. PAYMENT FOR PIPELINE WILL BE BASED ON ACTUAL LENGTH OF PIPELINE INSTALLED, NOT THE LENGTH INDICATED IN THE
- A MINIMUM OF 10 FEET HORIZONTAL AND 1.5 FOOT VERTICAL SEPARATION SHALL BE MAINTAINED. BETWEEN WATER MAINS AND SEWER MAINS. WHEN CROSSING PIPES, PIPE JOINTS ARE TO BE PLACED AS FAR AWAY FROM EACH OTHER AS POSSIBLE WHENEVER PRACTICAL, WATER MAINS
- AT COMPLETION OF CONSTRUCTION, ALL VALVE BOXES, METERS, AND APPURTENANCES SHALL BE SET FOR PROPER FINISH GRADE. PRECAST STRUCTURES, MANHOLE FRAMES AND COVERS ARE TO BE SET FLUSH WITH FINISHED GRADE UNLESS OTHERWISE INDICATED IN THE PLANS OR
- ANY MATERIAL SALVAGED ON SITE BEARING THE NAME "GWINNETT" SHALL BE RETURNED TO GCDWR BEFORE FINAL PAYMENT WILL BE MADE.

- SEWER NOTES
- ALL SEWER CONSTRUCTION SHALL COMPLY WITH THE GCDWR'S LATEST VERSION OF GRAVITY SEWER STANDARDS. ACTUAL FIELD CONDITIONS COULD DICTATE MORE STRINGENT REQUIREMENTS IF DEEMED NECESSARY BY THE GCDWR INSPECTOR.
- SEWER SERVICE TO ALL USERS OF THE EXISTING SEWERS SHALL BE MAINTAINED THROUGHOUT SERVICE SERVICE IT OF LLD SERVICE OF THE EAST STRILL BE WINNINVALUED IT INCOMPOUNT. THE PROJECT WHENEVER POSSIBLE. WHEN IT IS NECESSARY TO TAKE ANY PART OF ANY SEWER OUT OF SERVICE, IT REQUIRES OWNER APPROVAL AND COORDINATION. INSTANCES WHERE SERVICES WILL BE OUT FOR AN EXTENDED PERIOD OF TIME. BYPASS PUMPING WILL BE REQUIRED AND WILL BE IMPLEMENTED AT NO ADDITIONAL COST TO OWNER.
- THE BYPASS PUMPING SYSTEM SHALL BE SIZED FOR 100 PERCENT OF PEAK FLOWS AND SHALL BE ROUTED AROUND THE OUT-OF-SERVICE SECTION. SEWAGE SHALL BE ENCLOSED IN PIPES AND/OR TANKS AT ALL TIMES AND WILL NOT BE ALLOWED TO BE OPEN TO THE ENVIRONMENT. BYPASS TANNS AT ALL TIMES AND WILL NOT BE ALLOWED TO BE OPEN TO THE ENVIRONMENT. BYPASS PUMPING MUST BE MONITORED IN PERSON BY THE CONTRACTOR AT ALL TIMES, EVEN PAST NORMAL WORK HOURS (24 HOURS PER DAY, SEVEN (7) DAYS PER WEEK). THE BYPASS PUMPING SYSTEM SHALL BE CAPABLE OF PUMPING 4,000 GPM.
- NO BYPASS PUMPING WILL BE ALLOWED UNTIL A WRITTEN PLAN HAS BEEN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- CUT-IN MANHOLES REQUIRED UNLESS 'DOGHOUSE MANHOLE' SPECIFICALLY APPROVED BY OWNER PRIOR TO CONSTRUCTION
- MANHOLE FRAME AND COVERS LOCATED OUTSIDE OF THE PAVEMENT SHALL BE BOLT-DOWN,
- NO TREES OR PERMANENT STRUCTURES ARE ALLOWED TO REMAIN IN SEWER EASEMENTS IN ACCORDANCE WITH GWINNETT COUNTY POLICY

PROJECT SPECIFIC NOTES:

- PROPERTY LINES AND BACKGROUND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS ARE BASED ON A FIELD SURVEY PREPARED BY PATTERSON & DEWAR ENGINEERS, INC., WITH REFERENCE
- THE SOURCE OF TOPOGRAPHY FOR THIS PROJECT WAS TAKEN FROM THE GROUND RUN SURVEY PROVIDED BY PATTERSON & DEWAR ENGINEERS, INC. DATED APRIL 15, 2022.
- THERE IS NO STORM WATER MANAGEMENT BEING PROVIDED FOR THIS PROJECT
- THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET [] DOES / [X] DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS 'AND, 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION ("SECTION 404") PERMIT HAS BEEN OBTAINED
- THERE ARE 0.04 ACRE OF WETLANDS DISTURBANCE ON THIS PROJECT. ALL DISTURBED WETLANDS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS. THE TOP FOOT OF TOP SOIL IN THE WETLANDS AREAS SHALL BE STOCKPILED SEPARATELY FROM OTHER EXCAVATED MATERIAL AND REPLACED BACK IN THE TOP OF THE TRENCH WHEN PIPE INSTALLATION IS COMPLETE. WETLANDS AREAS SHALL THEN BE STRAWED AND DRESSED, THEN SEEDED WITH A US ARMY CORP OF ENGINEERS APPROVED WETLANDS SEED MIX.
- NO CLEARING IS ALLOWED WITHIN THE 25° STATE STREAM BUFFER WITHOUT ACQUISITION OF A BUFFER VARIANCE PERMIT FROM THE GEORGIA EPD.
- THE 25-FOOT NATURAL. UNDISTURBED STREAM BUFFER, UNDER ARTICLE V, SECTION 15, OF THE SOIL AND EROSION AND SEDIMENT CONTROL ORDINANCE SHALL REMAIN IN FORCE
- A 50 FOOT UNDISTURBED BUFFER AND 75 FOOT IMPERVIOUS SETBACK SHALL BE MAINTAINED.
- EXISTING MANHOLES TO BE ABANDONED SHALL BE REMOVED TO FOUR (4) FEET BELOW GRADE, HAVE THE PIPE OPENINGS SEALED WITH GROUT, HAVE THE BOTTOM FRACTURED TO PROMOTE DRAINAGE, BE FILLED WITH #57 STONE, AND BURIED IN PLACE
- 10. EXISTING PIPING TO BE ABANDONED IN PLACE SHALL HAVE THE ENDS SEALED WITH GROUT.

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G-02

DULUTH

GCDWR

GENERAL		ŧ	FLOW LINE	PS	PUMP STATION	
ABBREVIATIONS		FLG.	FLANGED	PSF	POUNDS PER SQUARE FOOT	
°C	DEGREES CENTIGRADE					
°F	DEGREES FAHRENHEIT	FLRD	FLARED	PSI	POUNDS PER SQUARE INCH	
_	_	FM	FORCE MAIN	PT	PRESSURE TREATED	
		FRP	FIBER GLASS REINFORCED PIPE OR FIBER REINFORCED PLASTIC	PTD	PAINTED	
AFF	ABOVE FINISHED FLOOR	FT	FOOT	PVC	POLYVINYL CHOLORIDE	
		FTG	FOOTING	_	_	
AL, ALU, ALUM	ALUMINUM			R	RADIUS	
		_	_	RCP	REINFORCED CONCRETE PIPE	
ALT	ALTERNATE	GAL	GALLON	RD	ROOF DRAIN	
AN	ANODIZED	GALV	GALVANIZED	RED	REDUCER	
AR	AUGER REFUSAL	GND	GROUND	REF	REFERENCE	
ASPH	ASPHALT	GPM	GALLONS PER MINUTE			
		GV	GATE VALVE	REINF	REINFORCED	
AV	AIR VALVE	_	_	REQD	REQUIRED	
-	_	НВ	HOSE BIBB	RJ	RESTRAINED JOINT	
BF	BLIND FLANGE			RO	ROUGH OPENING	
BFP	BACK FLOW PREVENTER	HDWL	HEADWALL	ROW	RIGHT-OF-WAY	
BFV	BUTTERFLY VALVE	НМ	HOLLOW METAL	RPM	REVOLUTIONS PER MINUTE	
BLDG	BUILDING	HORIZ	HORIZONTAL	RT	RIGHT	
BOT	воттом	HP	HORSEPOWER OR HIGH POINT	RTU	REMOTE TERMINAL UNIT	
			HEATING, VENTILATING AND AIR	_	_	
BT	BORING TERMINATED	HVAC	CONDITIONING	_ s	SOUTH	
BTU	BRITISH THERMAL UNIT	HWL	HIGH WATER LEVEL			
BV	BALL VALVE	_	_	S.S	SANITARY SEWER	
5,	SALE VALVE	ID	INSIDE DIAMETER	SBR	SEQUENCING BATCH REACTOR	
_	_	INF	INFLUENT	SCH	SCHEDULE	
C.I.P. OR CIP	CAST IRON PIPE			SHT	SHEET	
CFM	CUBIC FEET PER MINUTE	INV.	INVERT	SIM	SIMILAR	
		_	_	SL OR STL	STEEL	
CHKV	CHECK VALVE	JT	JOINT	SPECS	SPECIFICATIONS	
CJ	CONTROL JOINT	_	_	SQ	SQUARE	
€.	CENTER LINE	K	KIP		STAINLESS STEEL OR SANITARY	
CL	CLASS	KW	KILOWATT	SS	SEWER SEWER	
OL.	CEAGO	_	_	STD	STANDARD	
CLJ	CONTROL JOINT	L	LOUVER	SWGUM	SWEETGUM TREE	
CLR	CLEAR	L.L.	LAND LOT	_	_	
CMP	CORRUGATED METAL PIPE					
CMU	CONCRETE MASONARY UNIT	LB	POUND	Т	TOP	STANDARD LINE TYPES
		LF	LINEAR FEET	T&B	TOP AND BOTTOM	
CO	CLEAN OUT	LG	LONG	T/STRUCTURE	TOP OF STRUCTURE	EXISTING PROPOSED
CON	CONCENTRIC	LP	LOW POINT	TB	TIE BEAM	000000
CON	CONCENTRIC	LP LR	LOW POINT LONG RADIUS	TB TEMP	TIE BEAM TEMPORARY	——————————————————————————————————————
CON CONC.	CONCENTRIC CONCRETE	LR	LONG RADIUS	TEMP		000
CONC.	CONCRETE	LR LT	LONG RADIUS LEFT	TEMP THK	TEMPORARY THICK	000
CONC.	CONCRETE CONNECTION	LR LT LWL	LONG RADIUS LEFT LOW WATER LEVEL	TEMP THK TOW	TEMPORARY THICK TOP OF WALL	MINOR CONTOUR FORCE MAIN FM
CONC.	CONCRETE	LR LT LWL	LONG RADIUS LEFT LOW WATER LEVEL —	TEMP THK	TEMPORARY THICK	MINOR CONTOUR
CONC.	CONCRETE CONNECTION	LR LT LWL — M	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR	TEMP THK TOW TYP.	TEMPORARY THICK TOP OF WALL TYPICAL	MINOR CONTOUR FORCE MAIN FM
CONC. CONN CONST JT CONT	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS	LR LT LWL — M MATL OR MAT'L	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL	TEMP THK TOW TYP. — UN	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED	
CONC. CONN CONST JT CONT	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL	LR LT LWL — M	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR	TEMP THK TOW TYP.	TEMPORARY THICK TOP OF WALL TYPICAL	
CONC. CONN CONST JT CONT	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS	LR LT LWL — M MATL OR MAT'L	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL	TEMP THK TOW TYP. — UN	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED	
CONC. CONN CONST JT CONT	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL	LR LT LWL — M MATL OR MAT'L MAX	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM	TEMP THK TOW TYP. — UN UNO	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED	
CONC. CONN CONST JT CONT CP CPP	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING	LR LT LWL — M MATL OR MAT'L MAX MCC	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER	TEMP THK TOW TYP. UN UNO UV	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET	
CONC. CONN CONST JT CONT CP CPP	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL	TEMP THK TOW TYP. — UN UNO UV —	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET	MINOR CONTOUR FORCE MAIN SEWER WATER WATER YENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING
CONC. CONN CONST JT CONT CP CPP CPLG CU	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE —	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE	TEMP THK TOW TYP. — UN UNO UV — VB	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE	MINOR CONTOUR FORCE MAIN SEWER WATER WATER WATER TERLINE/LANDSCAPING RIGHT-OF-WAY
CONC. CONN CONST JT CONT CP CPP	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM	TEMP THK TOW TYP. — UN UNO UV — VB VCP	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL	
CONC. CONN CONST JT CONT CP CPP CPLG CU	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE —	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS	TEMP THK TOW TYP. — UN UNO UV — VB VCP VERT	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC	MINOR CONTOUR FORCE MAIN SEWER WATER WATER WATER TERLINE/LANDSCAPING RIGHT-OF-WAY
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT	TEMP THK TOW TYP. — UN UNO UV — VB VCP	TEMPORARY THICK TOP OF WALL TYPICAL — UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET — VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF	
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DOUBLE DIAMETER	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF	MINOR CONTOUR FORCE MAIN FORCE MAIN SEWER WATER WATER Y FENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RW PROPERTY LINE NATURAL GAS
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W	TEMPORARY THICK TOP OF WALL TYPICAL — UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET — VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF — WEST	MINOR CONTOUR FORCE MAIN SEWER WATER WATER VALUE FENCE X SILT FENCE - TYPE S SF TREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH	FIM FINE SEWER SEWER WATER WATER WATER TREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE NATURAL GAS OVERHEAD POWER
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W	TEMPORARY THICK TOP OF WALL TYPICAL — UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET — VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF — WEST	MINOR CONTOUR FORCE MAIN SEWER SEWER WATER WAT
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH	FIM FINE SEWER SEWER WATER WATER WATER TREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE NATURAL GAS OVERHEAD POWER
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT MEGA-LUG MASONARY OPENING MEAN SEA LEVEL	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH	MINOR CONTOUR FORCE MAIN SEWER WATER FENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP UNDERGROUND POWER TELEPHONE
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MCCHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD	MINOR CONTOUR FORCE MAIN SEWER WATER WATER FENCE X SILT FENCE TREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN	MINOR CONTOUR FORCE MAIN SEWER SEWER WATER WATER YENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RIW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER UNDERGROUND POWER TELEPHONE TY
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG —	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING —	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC	LONG RADIUS LEFT LOW WATER LEVEL — MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL — NORTH NORMALLY CLOSED	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT	MINOR CONTOUR FORCE MAIN SEWER WATER FENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP UNDERGROUND POWER TELEPHONE
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DOUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING — EAST ECCENTRIC	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH NORMALLY CLOSED NOW OR FORMERLY	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM WT WWF	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC	MINOR CONTOUR FORCE MAIN SEWER SEWER WATER WATER YENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RIW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER UNDERGROUND POWER TELEPHONE TY
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING CAST ECCENTRIC EACH FACE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT MECHANICAL JOINT MECHANICAL LOINT MECHANICAL LOINT MECHANICAL LOINT MECHANICAL JOINT METAL NORTH NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM WT WWF YH	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC YARD HYDRANT	MINOR CONTOUR FORCE MAIN SEWER SEWER WATER WATER YENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RIW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER UNDERGROUND POWER TELEPHONE TY
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF EFF	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING PAST ECCENTRIC EACH FACE EFFLUENT	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F NF NO	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE NORMALLY OPEN	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM WT WWF YH	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC	MINOR CONTOUR FORCE MAIN FORCE MAIN SEWER WATER WATER Y FENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY R/W PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP TELEPHONE TY TY LIMITS OF CONSTRUCTION
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING CAST ECCENTRIC EACH FACE	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT MECHANICAL JOINT MECHANICAL LOINT MECHANICAL LOINT MECHANICAL LOINT MECHANICAL JOINT METAL NORTH NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE	TEMP THK TOW TYP. - UN UNO UV - VB VCP VERT VIC VTR - W W/ W/O WD WM WT WWF - YH	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC YARD HYDRANT RD SYMBOLS	MINOR CONTOUR FORCE MAIN SEWER WATER WATER YENCE XSILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY RIW PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER UNDERGROUND POWER TELEPHONE TY LIMITS OF CONSTRUCTION STANDARD
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF EFF	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING PAST ECCENTRIC EACH FACE EFFLUENT	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F NF NO	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE NORMALLY OPEN	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM WT WWF YH	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC YARD HYDRANT	MINOR CONTOUR FORCE MAIN FORCE MAIN SEWER WATER WATER Y FENCE X SILT FENCE - TYPE S TREELINE/LANDSCAPING RIGHT-OF-WAY R/W PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP TELEPHONE TY TY LIMITS OF CONSTRUCTION
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF EFF EJ	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING RAST ECCENTRIC EACH FACE EFFLUENT EXPANSION JOINT	LR LT LWL — M MATL OR MAT'L MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F NF NO	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE NORMALLY OPEN	TEMP THK TOW TYP. - UN UNO UV - VB VCP VERT VIC VTR - W W/ W	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC YARD HYDRANT RD SYMBOLS	MINOR CONTOUR FORCE MAIN SEWER WATER FENCE X SILT FENCE X SILT FENCE TREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP UNDERGROUND POWER USP TELEPHONE TV TV LIMITS OF CONSTRUCTION STANDARD HATCH PATTERNS
CONC. CONN CONST JT CONT CP CPP CPLG CU — D.I.P. OR DIP DBL DIA DIM DMH DN DO DWG — E ECC EF EFF EJ EL. OR ELEV	CONCRETE CONNECTION CONSTRUCTION JOINT CONTINUOUS CONTROL PANEL CORRUGATED PLASTIC PIPE COUPLING COPPER PIPE — DUCTILE IRON PIPE DUBLE DIAMETER DIMENSION DROP MANHOLE DOWN DITTO DRAWING — EAST ECCENTRIC EACH FACE EFFLUENT EXPANSION JOINT ELEVATION	LR LT LWL — M MATL OR MATL MAX MCC MECH MFR MH MIN MISC MJ MJB MLUG MO MSL MTL — N NC N/F NF NO N.T.S. —	LONG RADIUS LEFT LOW WATER LEVEL MOTOR MATERIAL MAXIMUM MOTOR CONTROL CENTER MECHANICAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT BEND MEGA-LUG MASONARY OPENING MEAN SEA LEVEL METAL NORTH NORMALLY CLOSED NOW OR FORMERLY NEAR FACE NORMALLY OPEN NOT TO SCALE NOT TO SCALE	TEMP THK TOW TYP. UN UNO UV VB VCP VERT VIC VTR W W/ W/O WD WM WT WWF YH STANDAF	TEMPORARY THICK TOP OF WALL TYPICAL UNLESS NOTED UNLESS OTHERWISE NOTED ULTRA-VIOLET VALVE BOX VITRIFIED CLAY PIPE VERTICAL VICTAULIC VENT THROUGH ROOF WEST WITH WITHOUT WOOD WATER MAIN WATER TIGHT WELDED WIRE FABRIC YARD HYDRANT RD SYMBOLS	MINOR CONTOUR FORCE MAIN SEWER WATER FENCE X SILT FENCE - TYPE S FREELINE/LANDSCAPING RIGHT-OF-WAY PROPERTY LINE NATURAL GAS OVERHEAD POWER UNDERGROUND POWER USP UNDERGROUND POWER TELEPHONE TV TV LIMITS OF CONSTRUCTION STANDARD HATCH PATTERNS
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TV

TELEPHONE POLE

LIGHT POLE

TV BOX

TELEPHONE BOX

GENERAL NOTES:

- CONTRACTOR IS TO MAKE EVERY EFFORT TO PRESERVE PROPERTY CORNERS, BENCH MARKS, ORIGINAL AND DESIGN SURVEY MONUMENTS, WHICH EXIST ON THE PROJECT AT THE TIME OF CONTRACT AWARD. THE CONTRACTOR SHALL FURNISH PERSONNEL FULLY QUALIFIED AND CAPABLE OF STAKING CORNERS OF STRUCTURES AND CENTERLINES OF PIPELINES SHOWN ON THE PLANS. ANY PROPERTY CORNERS OR R/W MONUMENTS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES SHOWN ON THESE DRAWINGS WERE TAKEN FROM BEST AVAILABLE INFORMATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE HORIZONTAL OR VERTICAL ACCURACY OF SAID UTILITIES OR THE POSSIBILITY THAT UNDERGROUND UTILITIES OTHER THAN THE ONES SHOWN MAY EXISTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETER THE LOCATION AND SIZE OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR MUST CONTACT THE UTILITIES PROTECTION CENTER AT 811 AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION ON THE PROJECT.
- GWINNETT COUNTY DOT IS NOT ON THE ONE-CALL SYSTEM. CALL (770) 822-7474 WHEN LOCATING UTILITIES FOR CONSTRUCTION. ANY COST FOR REPAIRS REQUIRED TO THE GWINNETT COUNTY DOT TRAFFIC SIGNAL SYSTEM DUE TO THE DAMAGES BY THE CONTRACTOR WILL BE BILLED TO THE CONTRACTOR AND SHALL BE PAID BEFORE FINAL PAYMENT IS RELEASED BY THE
- TRAFFIC CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. IN LOCATIONS WHERE THE ROAD IS NOT SPECIFIED TO BE CLOSED, AT LEAST ONE LANE OF TRAFFIC SHALL REMAIN OPEN IN ORDER TO ALLOW TRAFFIC TO MOVE THROUGH THE CONSTRUCTION SITE. ALL FLAG-MEN, WARNING SIGNS, BARRICADES, AND LIGHTS NECESSARY TO CONTROL THE TRAFFIC AND PROTECT THE PUBLIC SHALL BE FURNISHED BY THE CONTROL TO WITHOUT COST TO THE OWNER. TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AND SCHOOL BUS SERVICE AT ALL TIMES DURING CONSTRUCTION.
- ANY DEVIATIONS FROM THE PLANS MUST BE APPROVED IN WRITING PRIOR TO WORK BEGINNING.
- CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES ON THE PLANS.
- IN CASE OF AN EMERGENCY, CONTACT GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES CENTRAL FACILITY AT (678) 376-6700 OR (678) 376-7000 FOR AFTER HOURS.
- ALL WORK WITHIN GWINNETT COUNTY, CITY OF DULUTH, AND/OR GEORGIA D.O.T. RIGHT-OF-WAY SHALL BE IN STRICT ACCORDANCE WITH THE UTILITY ACCOMMODATION POLICY AND STANDARDS (AS AMENDED). BACKFILL OF TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE COMPACTED AS SPECIFIED. THE OWNER SHALL UTILIZE ONE OF ITS ANNUAL MATERIAL TESTING FIRMS TO PERFORM COMPACTION TESTING. THE CONTRACTOR SHALL COORDINATE WITH THE MATERIAL TESTING FIRM AND PROVIDE ACCESS AS REQUIRED.
- 11. CONTRACTOR TO CONTACT BRITTON LOCKHART AT (678) 639-8825 AND THE CITY OF DULUTH ENGINEER AT (678) 957-7284 PRIOR TO ANY LANE CLOSURES OR OPEN CUTS.
- ALL TRAFFIC CONTROL SIGNS THAT ARE REMOVED OR DAMAGED DURING CONSTRUCTION MUST BE REINSTALLED OR REPLACED. ALL SIGNS MUST BE REINSTALLED TO THE STANDARDS IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 13. ALL DRIVEWAYS SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING. ALL PAVED ROADS SHALL BE REPAIRED TO MEET GCDOT OR GDOT STANDARDS. AS APPLICABLE.
- 14. IF BLASTING IS REQUIRED FOR TRENCH ROCK, THE CONTRACTOR SHALL FOLLOW ALL REQUIRMEENTS AS STATED IN THE TECHNICAL SPECIFICATIONS.
- 15. ALL DRAINAGE STRUCTURES SHALL BE KEPT FREE OF DEBRIS AND IN OPERATING CONDITION AT ALL TIMES.
- 16. DRAINAGE SYSTEMS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR WILL NOT BE COMPENSATED FOR DRAINAGE STRUCTURES DAMAGED OR REMOVED AND REPLACED UNLESS SPECIFICALLY SHOWN TO BE PAID.
- 17. ALL STORM WATER MANAGEMENT UTILITIES TO BE INSPECTED BY DEPARTMENT OF WATER RESOURCES, OR CITY OF DULUTH ENGINEER.
- ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO PUBLIC RIGHT-OF-WAYS AND GWINNETT COUNTY EASEMENTS AND PROPERTY. IF ADDITIONAL CONSTRUCTION ACCESS IS REQUIRED BY THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR SUCH ACCESS AT CONTRACTOR'S EXPENSE WITHOUT ANY GWINNETT COUNTY OR GCDWR LIABILITY.
- 19. CONTRACTOR SHALL COMPLY WITH SPECIAL STIPULATIONS IN EASEMENT AGREEMENTS.

GENERAL PIPING NOTES:

- GRAVITY SEWER PIPE SHALL BE DUCTILE IRON PIPE (DIP) CONFORMING TO ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51 AS SHOWN ON THE DRAWINGS. UNLESS NOTED OTHERWISE, ALL DIP SHALL BE PRESSURE CLASS 250 WITH A CERAMIC EPOXY LINING.
- GRAVITY SEWER BEDDING SHALL BE CLASS "B" UNLESS CLASS "C" IS SPECIFICALLY AUTHORIZED BY THE ENGINEER OR OWNER AS CONDITIONS PERMIT. ANY OVER-EXCAVATION BEYOND THE LIMITS SHOWN ON THE BEDDING DETAILS SHALL BE REPLACED WITH THE APPLICABLE REQUIRED BEDDING MATERIAL AT THE CONTRACTOR'S EXPENSE. BEDDING WILL NOT BE MEASURED
- FLOWABLE FILL (LOW STRENGTH GROUT) MATERIAL MAY BE USED TO BACKFILL TRENCHES WHERE THE PROPOSED PIPELINE CROSSES A ROADWAY. THE FLOWABLE FILL MATERIAL SHALL MEET GDOT SPECIFICATIONS. OTHERWISE, BACKFILL OF TRENCHES WITHIN ROADWAY SHALL BE COMPACTED TO 95% STANDARD PROCTOR. THE TOP EIGHTEEN (18) INCHES SHALL BE COMPACTED TO 100% STANDARD PROCTOR.
- DUCTILE IRON PIPE SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT WHENEVER IT IS WITHIN 50 FEET OF A STEEL GAS MAIN OR PETROLEUM PIPELINE, OR HIGH VOLTAGE TRANSMISSION LINES

PROJECT DATA:

9.	PROJECT NAME:	DULUTH HILL AREA SEWER SYSTEM
10.	PROJECT LOCATION:	DISTRICT 7, LAND LOT 161, PARCEL 002
11.	PROJECT ADDRESS:	3068 WASHINGTON STREET, DULUTH, GA 30096
12.	PRESENT AND PROPOSED USE:	GRAVITY SEWER THROUGH RESIDENTIAL NEIGHBORHOO
13.	OWNER/DEVELOPER:	GWINNETT COUNTY DEPARTMENT OF WATER RESOURCE
		684 WINDER HWY.
		LAWRENCEVILLE, GA. 30045
		(678) 376-6917 (GREG JACKSON, P.E.)
		gregory.jackson@gwinnettcounty.com
14.	ENGINEER:	ENGINEERING STRATEGIES, INC.
		3855 SHALLOWFORD RD., SUITE 525
		MARIETTA, GA. 30062
		(770)-429-0001 - JOHN FLECK, P.E.
		jfleck@esi-ga.com
15.	SURVEYOR:	PATTERSON & DEWAR ENGINEERS

16. ZONING: GCDP&D NOTES:

- CONTRACTOR SHALL CALL DEVELOPMENT INSPECTIONS AND GCDWR TO SCHEDULE A PRE-CONSTRUCTION MEETING PRIOR TO START OF ANY CONSTRUCTION.
- NOTIFY GWIINNETT COUNTY INSPECTOR 24 HOURS BEFORE BEGINNING OF EVERY PHASE OF CONSTRUCTION. CONTACT NUMBER TO BE PROVIDED AT PRE-CONSTRUCTION MEETING.
- NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED.

R100, HCR, OI, RM

- ALL CONSTRUCTION TO COMPLY WITH GWINNETT COUNTY STANDARDS.
- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLANDS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND DISTURBANCE.
- INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
- ALL EXCESS MATERIALS SHALL BE HAULED OFF BY THE CONTRACTOR SO AS TO RESTORE THE SITE TO THE ORIGINAL CONDITION; SPREADING EXCESS MATERIALS IN A FLOODPLAIN OR ELSEWHERE ON SITE IS NOT PERMITTED.

ABBREVIATIONS SYSTEM \propto SEWEI AND END

G-03

AREA

DULUTH HILL

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NOTES

GENERAL

GEORGIA UNIFORM CODING SYSTEM FOR SOIL FROSION AND SEDIMENT CONTROL PRACTICES

		STRUCT	URAL PR	FOR SOIL EROSION AND S GEORGIA SOIL AND WATE RACTICES			SSION	URAL PR	ACTICES
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM		f	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concernrated flow.	Sr	TEMPORARY STREAM CROSSING		(a)	A temporary bridge or culvent-type structure protecting a stream or water from damage by crossing construction equipment.
Ch	CHANNEL STABILIZATION	90	T	Improving, constructing or stabilizing an open channel, existing stream, or disch.	St	STORMDRAIN OUTLET PROTECTION		() () () () () () () () () () () () () (A paved or short section of riprap, channel at the outlet of a storm drain sy preventing entosion from the concentrated runoff.
<u></u>	CONSTRUCTION EXIT		(LABS	A crushed stone pad located at the construction site cert to provide a place for semoving mud from tiese thereby protecting public streets. L)	Su	SURFACE ROUGHENING	197	⊢⊚ ⊣	A rough soil surface with horizontal depressions on a contour or slopes le roughened condition after grading.
Cr	CONSTRUCTION ROAD STABILIZATION	No. of the last of	يببرق	A travelsing constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.	Tc	TURBIDITY CURTAIN	M	€ ©	A floating or staked barrier installed within the water (it may also be referre a floating boom, all barrier, or silt curtain).
Dc	STREAM DIVERSION CHANNEL	=======================================	*	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Тр	TOPSOILING		(SHOW STRIPPING AND	The practice of stipping off the more fertile soil, storing it, then spreading it the disturbed area after completion of construction activities.
Di	DIVERSION		THE REAL PROPERTY.	An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.	Tr	TREE PROTECTION	0	STORAGE AREAS)	To protect desirable trees from injury during construction activity.
Dn1)	TEMPORARY DOWNDRAIN STRUCTURE		On LABE	A flexible conduit of heavy-ship fabric or other meanrial designed to safely conduct surface runoff down a slope. This is temporary and inexpersive.	Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL		CENTERS	Paved or vegetative water outlets for diversions, terraces, berms, dikes or structures.
Dn2	PERMANENT DOWNDRAIN STRUCTURE	The state of the s	(LABE	A paved chuse, pipe, sectional conduit or similar material designed to safely conduct surface nunoff down a slope. L)	_				
(Fr	FILTER RING	3		A temporary stone benfer constructed at storm drain inlets and pond outlets.			VEOET	TIVE DD	ACTICES
Ga	GABION		1	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Gr	GRADE STABILIZATION STRUCTURE		© JABE	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form guilles.	Bf	BUFFER ZONE	4600)	Strip of undaturbed original vegetation, enhanced or restored existing veget or the rectablishment of vegetation surrounding an area of disturbance or bordering streams.
		200		A structure to convert concentrated flow of water into less existing sheat flow				/ (LABE	L)

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE	4600		Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reseast-lishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	year week	Cs	Planting vegetation on dunes that are denuded, artificially constructed, or ne-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Essablishing temporary protection for disruthed areas where seedlings may no 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)	1	Ds3	Essablishing a permanent vegetative cover such as trees, shrubs, vinea, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A parmanent vegetative cover using sods on highly erodable or critically erodal lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
FI-Co	FLOCCULANTS AND COAGULANTS		FI-Co	Substance formulated to assist in the solida/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 ension problems.
Ss	SLOPE STABILIZATION	Ŋ	Ss	A protective covering used to prevent eracion and establish temporary or permanent wegetation on steep dispire, affores fines, or charmels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material bind together.

(Lv)

Rd)

Re)

Rt)

Sd1)

Sd2

Sd3

Sd4

Sk)

Spb

LEVEL SPREADER

ROCK FILTER DAM

RETAINING WALL

RETRO FITTING

SEDIMENT BARRIER

INLET SEDIMENT TRAP

TEMPORARY SEDIMENT BASIN

SURFACE SKIMMER

The same of

Rt

(Sk)

<u>CERTIFICATION</u> I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE I CERTIFY ONDER PENALTY OF LAW THAT I THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALULATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM TO SET IN THAT IT PENNIT IT SEE SENGISION, SEDIMENTATION AND POLICIA THAT OF AN TRANSPERS OF A THE PROPERTY AND COMPREHENSIVE 3 15 HW
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 STATE 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 100002.

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

INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STEAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED. I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 100002. THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER

John R. Flesh

HN R. FLECK, P.E. LEVEL II CERTIFIED DESIGN PROFESSIONAL #0000000103

CONSTRUCTIO	N SCI	HEDI	JLE									
ACTIVITY						MOI	NTH					
ACTIVITY		2	3	4	5	6	7	8	9	10	11	12
INSTALLATION OF EROSION CONTROL												
MAINTENANCE OF EROSION CONTROL	Will.	uuuu			uuu	11111111	uuu	4111111	11111111	11111111		Г
PUMP STATION CONSTRUCTION	6000		777777	11111111								Г
INSTALLATION OF FORCE MAIN					777		7.7.7.7.7.7.7					
INSTALLATION OF GRAVITY SEWER									40000			
CLEAN-UP										9000		
CONSTRUCTION ACTIVITIES ARE EXPECT	FD T	O BE	GIN	N	2	022.						

- STORM WATER AND EROSION CONTROL NOTES
 1. FLOODPLAIN SHOWN IS FROM FIRM PANEL 1335C0055G DATED MARCH 4, 2013. NO PORTIONS OF THIS PROJECT LIE WITHIN THE 100-YEAR FLOODPLAIN
- THIS PROJECT IS WITHIN 200' OF STATE WATERS.

OF PIPES IN DRAINAGE EASEMENTS BEYOND THE CITY RIGHT-OF-WAY.

- TOTAL WETLAND AREA ON SITE: 0.04 AC
- DISTURBED WETLAND AREA: 0.04 AC
- SOURCE OF TOPOGRAPHY IS BASED ON FIELD RUN SURVEY OBTAINED FROM PATTERSON AND DEWAR DATED JULY 28, 2021. ALL DATA IS IN GEORGIA WEST STATE PLAN ZONE, NAVD 88.
- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OR THE CITY OF DULUTH OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND AREA DISTURBANCE.
- CITY OF DULUTH ASSUMES NO RESPONSIBILITY FOR OVERFLOW OR EROSION OF NATURAL OR ARTIFICIAL DRAINS BEYOND THE EXTENT OF THE STREET RIGHT-OF-WAY, OR FOR THE EXTENSION OF CULVERTS BEYOND THE POINT SHOWN ON THE APPROVED AND RECORDED PLAN. THE CITY OF DULUTH DOES NOT ASSUME THE RESPONSIBILITY FOR THE MAINTENANCE
- EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES MAY BE
- PERMANENT GRASSING AND/OR LANDSCAPING SHALL BE INSTALLED WITHIN TWO WEEKS AFTER THE COMPLETION OF ANY LAND DISTURBING ACTIVITY, OR IF ACTIVITY IS DISCONTINUED FOR A PERIOD OF TWO WEEKS OR LONGER.
- A TEMPORARY COVER OF HEAVY MULCH OR MULCH WITH TEMPORARY SEEDING SHALL BE PLACED ON ALL AREAS WHERE ERMANENT COVER CAN NOT BE ESTABLISHED IMMEDIATELY DUE TO SEASONAL LIMITATION
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL DEVICES IN GOOD WORKING CONDITION AND CLEANING OUT THE DEVICES BEFORE THEY ARE HALF-FULL OF SEDIMENT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- CONTRACTOR SHALL BUILD, MAINTAIN, AND USE A CONSTRUCTION EXIT AT ALL SITE ENTRY/EXIT LOCATIONS ADJACENT TO
- 13. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE USED ARE DETAILED ON THE EROSION CONTROL PLAN OR EROSION CONTROL DETAILS.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET THE MINIMUM REQUIREMENTS OF THE SPECIFICATIONS AND ALL LOCAL, STATE, AND FEDERAL LAWS AS APPLICABLE TO THIS PROJECT. ALL DEVICES SHALL BE PROPERLY INSTALLED AND BE OF SUITABLE MATERIALS. ANY DEVICES JUDGED TO BE INADEQUATE IN MATERIAL AND/OR CONSTRUCTION WILL IMMEDIATELY BE REPLACED WITH NEW OR ADDITIONAL DEVICES TO ENSURE PROPER CONTROL.
- 15 TEMPORARY SILT CONTROL FENCE, TYPE 'S' OR 'NS' SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TEMPORARY SILT CONTROL FENCE, TYPE S OR INS SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTION THROUGHOUT THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL INSPECT FENCE DAILY AND AFTER EVERY RAIN. ACCUMULATED SILT SHALL BE REMOVED AS SOON AS PRACTICAL, BUT NO LATER THAN WHEN FENCE IS HALF FULL. CONTRACTOR SHALL REMOVE THE SILT FENCE WHEN PERMANENT GRASSING HAS BEEN ESTABLISHED.
- 16. ALL EROSION CONTROL DEVICES, THAT ARE NOT DIRECTLY SPECIFIED AS TO INSTALLATION AND MATERIALS, SHALL MEET THE REQUIREMENTS OF THE GA. DEPT. OF TRANSPORTATION, SPECIFICATIONS FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION, AND LATEST SUPPLEMENT IN EFFECT AT THE TIME OF BID OPENING OR THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
- 17. CONSTRUCTION EXITS (Co) SHALL BE REQUIRED AT ALL OTHER LOCATIONS USED FOR INGRESS/EGRESS FROM THE CONSTRUCTION AREA. CONSTRUCTION MATERIAL STORAGE AREAS WILL REQUIRE THE INSTALLATION OF A CONSTRUCTION EXIT TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE AREA. SILT FENCE SHALL ALSO BE INSTALLED TO PREVENT SEDIMENT FROM LEAVING THE MATERIAL STORAGE AREA. AFTER DEMOBILIZATION, THE MATERIA STORAGE AREA SHALL BE SEEDED AND MULCHED, OR SODDED TO MATCH THE PRE-CONSTRUCTION CONDITIONS, AND THE SILT FENCE SHALL REMAIN UNTIL THE AREA IS PERMANENTLY STABILIZED.
- 18. MAXIMUM SLOPE FOR CUT OR FILL IS 2H:1V EXCEPT EARTHEN DAM EMBANKMENTS SHALL BE 3H:1V.
- 19. THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLANDS INVENTIORY MAPS HAVE BEEN CONSULTED; AND 2) THE APPROPRIATE PLAN SHEET DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND ISTURBANCE PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION PERMIT HAS BEEN OBTAINED.
- 20. A REVISION TO THE ESC PLAN IS REQUIRED WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, THAT WILL HAVE A SIGNIFICANT IMPACT ON BMPS WITH A HYDRAULIC COMPONENT, OR IF THE PLAN PROVES TO BE INSUFFICIENT IN ELIMINATING POLLUTANT DISCHARGE.
- STREAM BUFFER EASEMENTS ARE TO REMAIN IN A NATURAL AND UNDISTURBED CONDITION
- 22. STRUCTURES ARE NOT ALLOWED IN DRAINAGE EASEMENTS WITHOUT PRIOR WRITTEN APPROVAL FROM CITY.

CITY OF DULUTH EROSION CONTROL NOTES

- 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.
- 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
- 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.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL 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
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404

GENERAL EROSION CONTROL NOTES

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

684 WINDER HW LAWRENCEVILLE, GA. 30045 GREG JACKSON - (678) 376-6917

THE 24-HOUR EMERGENCY CONTACT IS GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES (GCDWR):

- OFFICE HOURS #678-376-6700 - AFTER HOURS #678-376-7000

- TOTAL PROJECT AREA: 6.66 ± ACRES
- TOTAL DISTURBED AREA: 6.66 ± ACRES
- THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
- SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES. INDICATING THE 1/3 FULL VOLUME.
- A 50-FOOT UNDISTURBED BUFFER AND A 75-FOOT IMPERVIOUS SETBACK IS TO BE MAINTAINED ADJACENT TO ALL STREAMS. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 35 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
- THE RECEIVING WATER FOR THIS PROJECT IS AN UNNAMED TRIBUTARY OF THE CHATTAHOOCHEE RIVER.
- THERE WILL BE A SLIGHT CHANGE IN FLOW REGIME TO THE CONSTRUCTION SITE DUE TO THE NATURE OF LITH ITY CONSTRUCTION ACTIVITIES. THE ESTIMATE OF THE PRE-CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.37. THE ESTIMATE OF THE POST CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.40.
- THE PRIMARY, SECONDARY OR TERTIARY PERMITTEES ARE REQUIRED TO AMEND THEIR PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, THAT WILL HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT, OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING POLLUTANT DISCHARGE
- 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), FOR 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, LATEST EDITION.

TREE PRESERVATION/PROTECTION PLANTING NOTES

- ALL LIMITS OF CONSTRUCTION AS INDICATED ON THE DRAWINGS SHALL BE CLEARLY IDENTIFIED BY ORANGE SAFETY FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE EXCEPT THOSE OPERATIONS NEEDED TO INSTALL EROSION CONTROL FACILITIES. ENGINEER SHALL INSPECT SAFETY FENCING PRIOR TO LAND DISTURBANCE.
- THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON THE SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY GWINNETT COUNTY ENGINEER OR INSPECTOR.
- ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO CLEARING AND TRENCHING.
- ORANGE SAFETY FENCING SHALL BE INSTALLED ALONG THE OUTER EDGE OF AND COMPLETELY SURROUNDING THE CRITICAL ROOT ZONES OF ALL SPECIMEN TREES OR STANDS OF TREES, OR OTHERWISE DESIGNATED TREE PROTECTION ZONES PRIOR TO ANY LAND DISTURBANCE. SPECIMEN TREES AND TREE PROTECTION ZONES SHALL BE FLAGGED BY GWINNETT COUNTY PRIOR TO NOTICE TO PROCEED.
- ALL TREE PROTECTION ZONES SHALL BE DESIGNATED WITH "TREE SAVE AREA" SIGNS.
- WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE (1) INCH IN DIAMETER AND LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
- PRUNING OF TREE LIMBS TO PROVIDE CLEARANCE FOR EQUIPMENT AND MATERIALS SHALL BE DONE ACCORDING TO STANDARD ARBORICULTURAL PRACTICES.
- ALL BUFFERS AND TREE SAVE AREAS ARE TO BE CLEARLY IDENTIFIED WITH PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- CONSTRUCTION FOUIPMENT AND MATERIALS SHALL BE STORED IN THE DESIGNATED STAGING/LAY-DOWN AREAS CONSTRUCTION MATERIALS, CONSTRUCTION WASTE, TRASH, LANDSCAPING MATERIALS, FETS SHALL BE COVERED (E.G. PLASTIC SHEETING OR TEMPORARY ROOF) AND ELEVATED ON WOOD BLOCKING TO MINIMIZE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND STORMWATER TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE

EROSION CONTROL PROJECT NARRATIVE

THE PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF A PUMP STATION, 4" FORCE MAIN, AND 8" SANITARY SEWER THROUGH PRIVATE RESIDENTIAL PROPERTIES. THE EROSION CONTROL PROJECT TIMELINE: INSTALL INITIAL BMPs, CLEARING & GRUBBING ACTIVITIES, TEMPORARY VEGETATION, REDETATION, REDETATION CONTROL PRACTICES, ALL DISTURBED AREAS WILL BE STABILIZED WITH FITHER TEMPORARY OR PERMANENT MEASURES WITH 48 HOURS OR PRIOR TO ANY EXPECTED RAINFALL EVENT.

FIVE (5) TYPES OF EROSION CONTROL MEASURES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT SILT FENCE (Sd1) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED OFF OF

- MULCHING, TEMPORARY AND PERMANENT GRASSING (Ds1, Ds2 & Ds3) SHALL BE USED TO RE-ESTABLISH VEGETATION ON THE DISTURBED AREAS AS CONSTRUCTION PROCEEDS.
- CONSTRUCTION EXITS WILL BE INSTALLED TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE WHERE EQUIPMENT
- CURB INLET PROTECTION (\$d2-P) SHALL BE UTILIZED TO PREVENT THE WASHING OF SEDIMENT INTO EXISTING STORM WATER STRUCTURES.
- 5. HAY BALE CHECK DAMS (Cd-Hb) WILL BE UTILIZED TO PREVENT THE WASHING OF SEDIMENT THROUGH EXISTING DRAINAGE

THE USE OF A SEDIMENT STORAGE BASIN FOR THIS SITE IS NOT PRACTICAL DUE TO THE NATURE OF THE RUNOFF FROM THE SITE PRIMARILY BEING VIA OVERLAND FLOW INSTEAD OF A CONCENTRATED STREAM WHICH CAN BE INTERCEPTED AND DIVERTED TO A SEDIMENT BASIN. THEREFORE, A ROW OF TYPE SENSITIVE SILT FENCE (Sd1-S) IS BEING PLACED ALONG THE DOWN GRADE EDGE OF THE PROJECT TO CAPTURE SEDIMENT. TYPICAL STORAGE IN SILT FENCE ACCEPTED BY MOST JURISDICTIONS IS 0.2 CY/LINEAR FOOT OF SILT FENCE. THE PROJECT INCLUDES APPROXIMATELY 10077 LINEAR FEET OF SILT FENCE WHICH WILL PROVIDE STORAGE OF 0.2 X 10077 LF= 2015 CY. THIS IS ADEQUATE STORAGE FOR THE 67 CY X 6.66 ACRES OF DISTURBED AREA

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF A STRONG STAND OF GRASS BEFORE BEING RELEASED FROM HIS CONTRACTUAL OBLIGATIONS. HE WILL BE HELD RESPONSIBLE FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE OF THE PROJECT TO REPAIR ANY WASHOUT AREAS, ETC.

PRODUCT SPECIFIC PRACTICES

PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED PETROLEOM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INSCLUEDS ON SITE VEHICLES AND MACHINERY DAILY TOR LEAKS AND SPILLS. THIS INSCLUEDS ON STATE WATERS, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, ITEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENTMINIMIZE SITE CONTAINMATION. 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 OF

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 EROSIC AND SEDIMENT CONTROL IN GEORGIA, ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS

CONTRACTOR SHALL MAKE ACCOMODATIONS TO SATISFY THE FOLLOWING

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 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 METRIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE). [Permit IV.D.3.c(2) pg 311

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CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103

(2) - USE EITHER COMMON SERALA, OR INTERSTATE SERICEA LESPEDEZA.

THE ABOVE SEEDING CHART LISTS ALL POTENTIAL OPTIONS. CONTRACTOR IS TO SUBMIT THE SCHEDULE AND PROPOSED SEED MIXTURE FOR THIS PROJECT FOR ENGINEER'S APPROVAL PRIOR

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE 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 AN AREA WILL REMAIN UNDISTURBED FOR GREATER
THAN SIX MONTHS, PERMANENT VEGETATION TECHNIQUES SHALL BE EMPLOYED

- SITE PREPARATION

 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH
- INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSION BERMS, TERRACES, AND SEDIMENT BARRIERS.
- LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

APPLYING MULCH WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

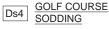
- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
- CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF TRACKING IN, OR DAMAGE TO SHOES, CLOTHING, ETC
- APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

STRAW OR HAY MUI CH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL PACKER DISK. DISKS 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 OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.

- STRAW OR HAY SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY RE ANCHORED WITH FMULSIFIED ASHPALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE LISE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLASTIC MESH OR NETTING WITH A MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO
- MANIFACTURER'S SPECIFICATIONS.
 NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF
- THE WOOD WASTE CHIPS.
 POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY



DISTURBED AREA WITHIN THE GOLF COURSE LIMITS OF PLAY SHALL BE PERMANENTLY GRASSED WITH #419 BERMUDA SOD.CONTRACTOR SHALL COORDINATE WATERING AND MAINTENANCE OF SODDING WITH GOLF COURSE UNTIL THE SOD HAS BEEN ESTABLISHED





THE PURPOSE OF TEMPORARY SEEDING IS TO REDUCE RUNOFF, EROSION, AND SEDIMENTATION, IMPROVE WILDLIFE HABITAT, IMPROVE AESTHETICS, AND IMPROVE TILTH AND ORGANIC MATTER

- INSTALL ALL E&SC MEASURES PRIOR TO APPLYING TEMPORARY VEGETATION.
- GRADING OR SHAPING ARE NOT REQUIRED IF SLOPES CAN BE PLANTED WITH A HYDROSEEDER OR BY HAND-SEEDING.
- SEEDBED PREPARATION IS NOT REQUIRED IF SOIL IS LOOSE AND NOT SEALED BY RAIN.
- WHEN THE SOIL IS SEALED OR CRUSTED, IT SHOULD BE PITTED, TRENCHED OR SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.
- AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE FERTILIZE LOW FERTILITY SOILS PRIOR TO OR DURING PLANTING AT A RATE OF 500-700 POUNDS PER ACRE OF 10-10-10 FERTILIZER OR EQUIVALENT (12-16 POUNDS PER 1000 SQUARE
- IT IS IMPERATIVE THAT CONTRACTOR CHECK THE TAG ON THE BAG OF SEED TO VERIFY THE
- TYPE AND GERMINATION OF THE SEED TO BE PLANTED.

 APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A
- DRILL SHALL BE PLANTED 1/2" TO 1/2" DEEP. APPLY IN ACCORDANCE WITH ABOVE TABLE
- TEMPORARY COVER SHALL APPLIED TO ALL DISTURBED AREAS LEFT IDLE FOR 14 DAYS. IF AN AREA IS LEFT IDLE FOR 6 MONTHS, PERMANENT COVER SHALL BE APPLIED.

RE-SEED AREAS WHERE AN ADEQUATE STAND OF TEMPORARY VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.

Ds3 - DISTURBED AREA STABILIZATION WITH PERMANENT SEEDING

IF THE DISTURBED AREA TO BE GRASSED HAD EXISTING GRASS PRIOR TO DISTURBANCE, THEN PERMANENT SEEDING SHALL MATCH THE EXISTING GRASS. IF THE DISTURBED AREA TO BE GRASSED DID NOT HAVE EXISTING GRASS PRIOR TO DISTURBANCE OR CONTAINED WEEDS AND OTHER UNDESIRABLE VEGETATION, THEN THE PERMANENT SEEDING SHALL BE PER THE ABOVE

THE PURPOSE OF PERMANENT SEEDING IS TO REDUCE RUNOFF AND EROSION, IMPROVE WILDLIFE HABITAT, IMPROVE AESTHETICS, IMPROVE TILTH AND ORGANIC MATTER, REDUCE DOWNSTREAM COMPLAINTS, REDUCE LIKELIHOOD OF LEGAL ACTION, REDUCE LIKELIHOOD OF WORK STOPPAGE DUE TO LEGAL ACTION, AND INCREASE GOOD NEIGHBOR BENEFITS.

- INSTALLATION

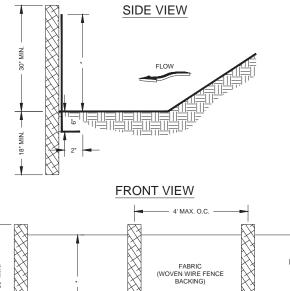
 1. USE CONVENTIONAL PLANTING METHODS IF POSSIBLE.
- APPLY IN ACCORDANCE WITH ABOVE TABLE.
 CHECK THE TAG ON THE BAG OF SEED TO VERIFY THE TYPE AND GERMINATION OF THE SEED
- TO BE PLANTED AND THE DATE OF THE TEST.

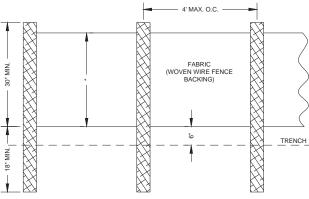
- SCARIFY, PIT OR TRENCH SEALED OR CRUSTED SOIL.
 FERTILIZE BASED ON SOIL TESTS OR AS SHOWN IN ABOVE TABLE.
 APPLY AGRICULTURAL LIME AS PRESCRIBED BY SOIL TESTS OR AT A RATE OF 1 to 2 TONS PER
- APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A DRILL SHALL BE PLANTED 1/4" TO 1/5" DEEP.
- STRAW OR HAY MULCH SHALL BE APPLIED AT A RATE OF 2 TO 2.5 TONS PER ACRE
- RRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL, BUT NOT TO THE EXTENT TO CAUSE

Ds2 Ds3

- RE-SEED AREA WHERE AN ADEQUATE STAND OF VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.
- APPLY FERTILIZER PER ABOVE TABLE.
 MOW BERMUDA AND BAHIA AS DESIRED. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO
 ENSURE SEEDS ARE MATURE.
- 4 MAINTAIN 6" OR MORE OF TOP GROWTH

TEMPORARY & PERMANENT GRASSING





NOTES:

1. USE STEEL POSTS AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION

2. THE HEIGHT OF THE SILT FENCED PURCHASED SHALL BE 36 INCHES

SILT FENCE - TYPE SENSITIVE Sd1-S

 PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. PREVENT THE MOVEMENT OF AIRBORNE SUBSTANCES THAT MAY BE HARMFUL OF INJUROUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT

- MULCHES SEE 'Ds1-Disturbed Area Stabilization (Mulching)', REFER TO SPECIFICATION Tac - Tackifiers' FOR THE USE OF SYNTHETIC RESIN TO BIND MULCH MATERIAL.

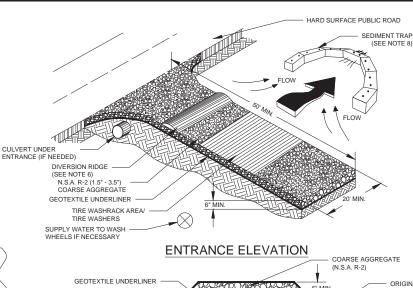
 VEGETATIVE COVER - SEE 'Ds2 - Disturbed Area Stabilization (Temporary Seeding)'

 SPRAY-ON ADHESIVES - FOR USE ON MINERAL SOILS, NOT MUCK SOILS. REFER TO
- TILLAGE DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. BEGIN PLOWING ON THE WINWARD SIDE OF THE SITE. USE OF CHISEL-TYPE PLOWS, SPRING TOOTHED HARROWS, OR SIMILAR PLOWS TO AHIEVE DESIRED EFFECT. THIS IS AN EMERGENCY MEASURE TO BE USED BEFORE WIND EROSION STARTS
- IRRIGATION SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED
- BARRIERS LISE SOLID BOARD FENCE SNOW FENCE BURLAP FENCE CRATE WALLS, BALES OF HAY, OR SIMILAR MATERIAL TO CONTROL THE AIR CURRENTS
 AND SOIL BLOWING. PLACE BARRIERS AT RIGHT ABGLES AT INTERVALS OF 15x THEIR HEIGHT TO CONTROL WIND EROSION.
- CALCIUM CHLORIDE APPLY AT A RATE TO KEEP THE SOIL MOIST.

PERMANENT MEATHODS:

- PERMANENT VEGETATION SEE 'Ds3-Disturbed Area Stabilization (Permanent Seeding).
 EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF
- TOPSOILING SEE SPECIFICATION FOR 'To-Topsoiling'
- STONE COVER SURFACE WITH CRUSHED STONE OPR COURSE GRAVEL. SEE SPECIFICATION FOR 'Cr-Construction Road Stabilization'





- 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).
- AGGREGATE SIZE STAILL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION N°2 (1.5°-3.5° STONE).
 GRAVEL PAD SHALL HAVE A MINIMUM HICKNESS OF 6°.
 PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20°.
 A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%...
 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 INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RONOP AND DRAININGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).

 WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF

 NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL <u>SUITABLE</u> FOR TRUCK TRAFFIC THAT REMOVE
- 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

CRUSHED STONE CONSTRUCTION EXIT Co

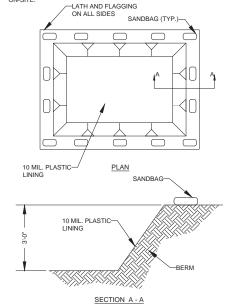
NOTES:

THE CONTRACTOR SHALL PROVIDE A DESIGNATED AREA FOR CONCRETE

NOTE: WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF THE VEHICLES. THIS AREA MUST HAVE A CONCRETE WASHOUT FACILITY AND SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL SHOWN

- THE CONCRETE WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF 50
- FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES. WASHOUT DISCHARGE FROM THE CLEANING OF CONCRETE TRUCKS, TOOLS, A ND OTHER EQUIPMENT SHALL NOT BE DISCHARGED INTO STORM
- DRAINS, OPEN DITCHES, STREETS, OR STREAMS.

 EXCESS CONCRETE SHALL NOT BE DISPOSED OF ON-SITE. ALL EXCESS CONCRETE SHALL BE TRANSPORTED OFF-SITE AND DISPOSED OF PROPERLY.
- 5. IT IS PROHIBITED TO WASHOUT THE MIXING DRUM OF CONCRETE TRUCKS LATH AND FLAGGING



CONCRETE WASH DOWN

CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103

ESC-02

BAR B CALES

SYSTEM

SEWER

DULUTH HILL AREA

DETAILS

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NOTES

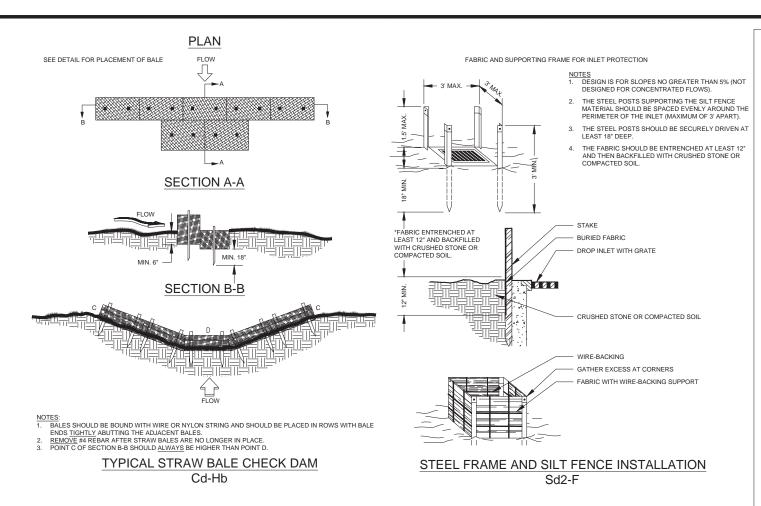
CONTROL

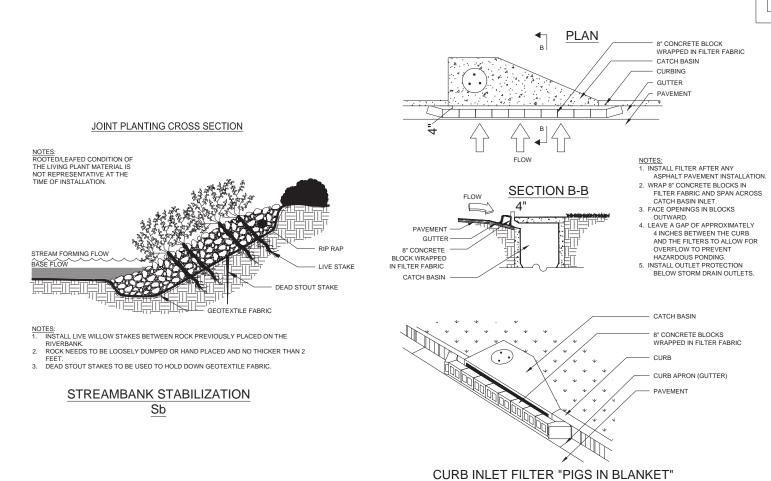
SEDIMENT

AND

EROSION

ENGIN





Sd2-P

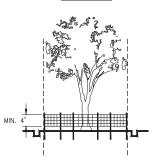
TREE PROTECTION

"SNOW" FENCE

PLAN



CROSS-SECTION



- NOTES:

 1. USE TRENCHER (I.E. DITCH WHICH) TO CUT A 4"-5" W X 18" D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.

 2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF
- DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER-REBAR IS NOT TO BE USED FOR STAKES).
- MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT REMOVE FENCING PRIOR TO LANDSCAPING OPERATIONS.
 DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED ADEA.

5. FENCE SHALL BE ORANGE VINYL "SNOW FENCE" 4' HIGH MINIMUM.

CATEGORY 2 (GREATER THAN OR EQUAL TO 5 FT/SEC* BUT LESS THAN 10 FT/SEC*)

TURF REINFORCEMENT MATTING

TURF REINFORCEMENT MATTING (TRM) SHALL BE USED, IF A VEGETATED LINING IS USED IN CHANNELS WITH VELOCITIES GREATER THAN OR EQUAL TO 5 FEET/ SEC BUT USED IN CHANNELS WITH VELOCITIES GREATER THAN OR EQUAL TO 3 FEET / SEC BY LESS THAN 10 FT/SEC. TRAIL SPERMANENT GEOSYNTHETIC EROSION CONTROL MATTING THAT IS USED IN CHANNELS TO STABILIZE THE SOIL WHILE PERMANENT VEGETATION IS ROOTING, AND TO PROVIDE ADDITIONAL LONG-TERM PROTECTION. VELOCITIES IN CHANNELS WHEN FLOWING AT THE BANKFULL DISCHARGE OR THE 25-YEAR FREQUENCY DISCHARGE, WHICHEVER IS THE GREATER, SHALL BE USED IN DETERMINING THE APPROPRIATE TRM FOR STABILIZATION OF THE CHANNELS.

ROCK RIPRAP SHALL BE DESIGNED TO RESIST DIS)PLACEMENT WHEN THE CHANNEL IS FLOWING AT THE BANKFULL DISCHARGE OR 25-YEAR FREQUENCY DIS)CHARGE, WHICHEVER IS THE GREATER. ROCK RIPRAP LINING SHOULD BE USED WHEN CHANNE VELOCITIES ARE GREATER THAN OR EQUAL TO 5 FT/SEC BUT LESS THAN 10 FT/SEC.

DUMPED AND MACHINE PLACED RIPRAP SHOULD NOT BE INSTALLED ON SLOPES STEEPER THAN 1-1/2 HORIZONTAL TO 1 VERTICAL ROCK SHALL BE DENSE, RESISTANT TO THE ACTION OF AIR AND WATER, AND SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. ROCK SHALL BE INSTALLED ACCORDING TO STANDARDS SPECIFIED IN RIPRAP, APPENDIX C.

A FILTER BLANKET LAYER CONSISTING OF AN APPROPRIJATELY DESIGNED GRADED FILTER SAND AND/OR GRAVEL OR GEOTEXTILE MATERIAL SHALL BE PLACED BETWEEN THE RIPRAP AND BASE MATERIAL. THE GRADATION OF THE FILTER BLANKET MATERIAL SHALL BE DESIGNED TO CREATE A GRADED FILTER BETWEEN THE BASE MATERIAL AND THE RIPRAP. A GEOTEXTILE CAN BE USED AS A SUBSTITU}TION FOR A LAYER OF SAND IN A GRADED FILTER OR AS THE FILTER BLANKET, CRITERIA FOR SELECTING AN APPROPRIATE GEOTEXTILE AND GUIDANCE FOR RECOMMENDED DROP HEIGHTS AND STONE WEIGHTS ARE FOUND IN AASH-TO M288-96 SECTION 7.5, PERMANENT EROSION CONTROL SPECIFICATIONS.

TYPICAL RIP RAP CHANNEL STABILIZATION Ch-2

BAR BI CALES

DULUTH HILL AREA SEWER SYSTEM

DETAILS

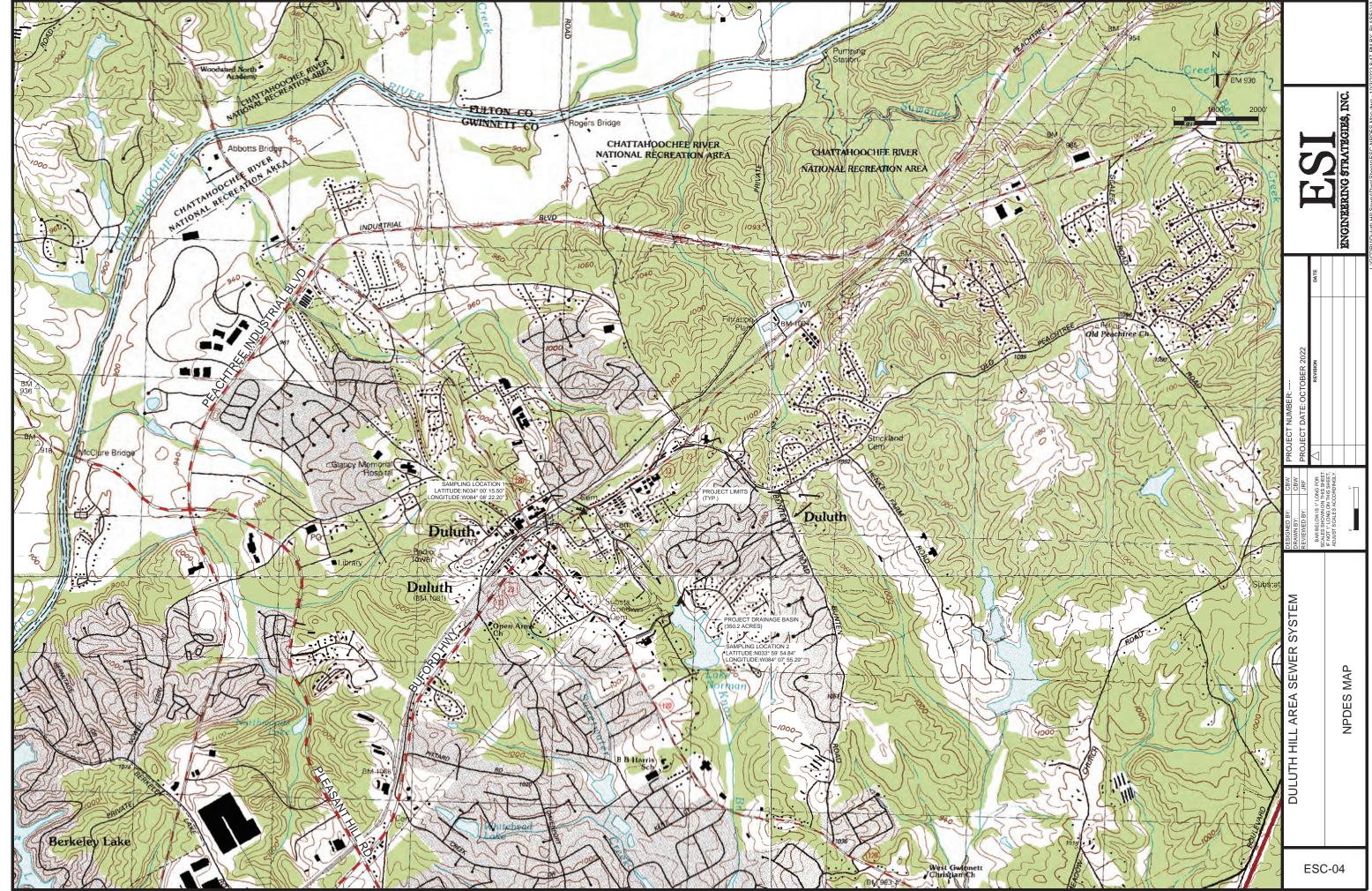
NOTES & [

CONTROL

EROSION AND SEDIMENT

KNGIN

CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103



INTRODUCTION
THIS EROSION SEDIMENTATION AND POLLUTION CONTROL PLAN (ESPCP) IS FOR THE PROJECT KNOWN AS THE DULUTH PINECREST AREA
THE SECRET PROJECT KNOWN AS THE DULUTH PINECREST AREA
THE SECRET PROJECT CONSISTS OF THE INSTALL ATION OF APPROXIMATELY 45 THIS ERGUIND SEDIMENTATION AND PULLUTION COUNTED PLAN (ESP-P) IS POR THE PROJECT KNOWN AS THE DULLUTI HISCENSTANCE.

SEWER SYSTEM, LOCATED IN GWINNETT COUNTY, GEORGIA. THE PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF APPROXIMATELY 4502 LI
OF 8° DUCTILE IRON SANITARY SEWER, 1165 LF OF 4" HOPE FORCE MAIN, AND 1907 LF OF 8" DUCTILE IRON WATER MAIN. THE TOTAL PROJECT AREA
OF THE SITE IS 6.66± ACRES. THE TOTAL DISTURBED AREA IS 6.66± ACRES.

THE INTENT OF THIS ESPCP IS TO COMPLY WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NUMBER

GAR 100002 (PERMIT) BY PROVIDING BEST MANAGEMENT PRACTICES (BMPS) TO MINIMIZE AND MANAGE STORM WATER DISCHARGE FROM THE CONSTRUCTION SITE.

THE PERMIT AUTHORIZES STORM WATER DISCHARGES TO WATERS OF THE STATE FROM INFRASTRUCTURE CONSTRUCTION ACTIVITIES

THE PERMIT AUTHORIZES FLORM WALER DISCHARGES TO WATERS OF THE STATE FROM HER PASTRUCTURE CONSTRUCTION ACTIVITIES SUBJECT TO LIMITATIONS, MONITORING REQUIREMENTS AND OTHER CONDITIONS SET FORTH IN THE PERMIT. REQUIREMENTS OF THIS ESPCE ARE INCORPORATED BY REFERENCE INTO THE CONSTRUCTION CONTRACT DOCUMENTS FOR THE DULUTH HILL AREA SEWER (THE PROJECT).

IMPLEMENTATION

IMPLEMENTATION

THE CONTRACTOR FOR CONSTRUCTION OF THE PROJECT IS CONTRACTUALLY OBLIGATED TO CARRY OUT ALL RESPONSIBILITIES OF THE PERMIT OPERATOR AS DEFINED IN THE PERMIT. THE BMPS AND CONTROL ELEMENTS WILL BE IMPLEMENTED TO COMPLY WITH THOSE RECOMMENDED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION FOUND IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION (MANUAL). THE CONTRACTOR WILL INSTALL, INSPECT, MAINTAIN, AND ADVIALMENT THE BMPS AND CONTROL ELEMENTS IN ACCORDANCE WITH THIS DOCUMENT, THE CONTRACT DOCUMENTS AND THE CONSTRUCTION PLANS.

GEORGIA LAW STIPULATES THAT ANY INCREASE IN TURBIDITY ABOVE THE STIPULATED AMOUNTS IN THE PERMIT IS A VIOLATION OF THE PERMIT UNLESS THE BMPS HAVE BEEN PROPERLY INSTALLED AND MAINTAINED. VIOLATIONS OF THE PERMIT DESCRIBED IN THE GEORGIA WATER QUALITY CONTROL ACT INCLUDE SIGNIFICANT FINES AND/OR IMPRISONMENT.

SITE DESCRIPTION
THIS PROJECT IS LOCATED IN GWINNETT COUNTY IN THE CITY OF DULUTH. THIS PROJECT IS LOCATED ON THE NORTHERN SIDE OF LAKE
THIS PROJECT IS LOCATED ON THE NORTHERN SIDE OF LAKE
THE DESCRIPTION OF THE NORTHERN SIDE OF THE NORTHER RESIDENTIAL YARDS, RIGHT-OF-WAY, COMMERCIAL PARKING LOTS, AND WOODED UNDEVELOPED LAND WITH NO EXISTING CLEARED SEWER EASEMENT THROUGH IT

EASEMENT I THROUGH II.

REVIEW OF THE COUNTY FLOODPLAIN MAPS AND NATIONAL WETLANDS INVENTORY MAP FOR THE PROJECT AREA INDICATE THIS PROJECT IS
LOCATED WITHIN PORTIONS OF THE 100-YR FLOOD PLAIN. NO WETLANDS AREAS WILL BE IMPACTED BY THE PROJECT. THE PROJECT WILL COMPLY
WITH GEORGIA EROSION AND SEDIMENTATION CONTROL ACT OF 1975.

 $\underline{ ext{CONTROLS}}$ THIS ESPCP CONTAINS THE FOLLOWING BMPS AND CONTROL ELEMENTS:

- EROSION AND SEDIMENT CONTROL BMPS
- CONTROLS FOR OTHER CONSTRUCTION-RELATED POLLUTANTS

TO COMPLY WITH THE PERMIT, BMPS AND CONTROL ELEMENTS DESCRIBED BELOW WILL BE IMPLEMENTED FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT.

EROSION AND SEDIMENT CONTROL BMPS

EROSION AND SEDIMENT CONTROL BMPS WILL BE USED TO REDUCE EROSION AT LAND-DISTURBING ACTIVITIES AND TO LIMIT THE DEPOSITION OF SEDIMENT ONTO ADJACENT LANDS AND/OR WATERSHEDS.

THE CONTRACTOR WILL IMPLEMENT THE EROSION AND SEDIMENT CONTROL BMPS LISTED BELOW AND THE BMPS SPECIFIED IN THE CONTRACT

DOCUMENTS AND CONSTRUCTION PLANS. THE SPECIFIED EROSION AND SEDIMENT CONTROL BMPS ARE DESCRIBED IN THE MANUAL. EXAMPLES OF EROSION AND SEDIMENT CONTROL BMPS THAT WILL BE USED FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO:

- TEMPORARY SEEDING
- PERMANENT SEEDING MULCHING
- HAY BALE CHECKDAMS
- SILT FENCE
- CURB INLET PROTECTION

THE STANDARD CONFIGURATION AND DEFINITIONS OF ADDITIONAL BMPS CAN BE FOUND ON SHEET 13 ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL INCLUDE:

- CERTIFIED PERSONNEL SHALL CONDUCT INSPECTIONS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 25 HOURS OF THE END
- CERTIFIED PERSONNEL SHALL CONDUCT INSPECTIONS AT LEAST ONCE EVERT SEVEN (7) CALENDIAN DATS AND WITHIN 25 HOURS OF THE STORM THAT IS 0.5 INCHES RAINFALL OR GREATER IN ACCORDANCE WITH PART IV.D.4.a.(2). (a) (c) OF THE PERMIT. USING STAGED CONSTRUCTION TO MINIMIZE THE EXPOSURE TO NATURAL EROSION ELEMENTS; STABILIZING DISTURBED SOILS WITH GRASS SEEDING AND HAY MULCH DAILY AS CONSTRUCTION OF THE PIPELINE PROGRESSES.

CONTROLS FOR OTHER CONSTRUCTION-RELATED POLLUTANTS

THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING CONTROLS FOR POTENTIAL CONSTRUCTION-RELATED POLLUTANTS:

- ADEQUATE WASTE CONTAINERS WILL BE PROVIDED AT APPROPRIATE LOCATIONS ON THE PROJECT SITE AWAY FROM STREETS, GUTTERS, WATER COURSES AND STORM DRAINS, AND WILL HAVE PROPER DISPOSAL. WORKERS WILL BE REQUIRED TO UTILIZE WASTE CONTAINERS. LIQUID WASTE COLLECTION AREAS SHALL BE LOCATED WITHIN SECONDARY CONTAINMENT STRUCTURES TO MINIMIZE THE RISK OF
- ALL SANITARY SEWER OR SEPTIC SYSTEM WASTE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH THE STATE AND/OR LOCAL REGULATIONS.
- CONSTRUCTION MATERIALS STORED AT THE SITE WILL BE MONITORED AND KEPT IN A LOCATION WHERE CONTACT WITH STORM WATER, WELLS,
- AND ANY OTHER BODY OF WATER CAN BE PREVENTED.

 STORAGE CONTAINERS FOR OIL, FUEL AND OTHER HAZARDOUS SUBSTANCES WILL BE LOCATED IN DESIGNATED AREAS PROTECTED WITH IMPERVIOUS CONTAINMENT BERMS.
- THE CONTRACTOR WILL NOTIFY GEORGIA EPD (404-656-4863) AND THE NATIONAL RESPONSE CENTER (NRC) (800-424-8802) UPON AWARENESS OF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE OR OIL IN AN AMOUNT EQUAL TO OR GREATER THAN A REPORTING QUANTITY ESTABLISHED
- ANY SPILL WILL BE CLEANED UP IMMEDIATELY.
 WHEN WASHING VEHICLES BEFORE THEY LEAVE THE SITE, ANY HAZARDOUS SUBSTANCES THAT HAVE BEEN IN CONTACT WITH THE

- CONSTRUCTION VEHICLES WILL NOT BE WASHED INTO ANY STREAMS, LAKES, WELLS, ETC.
 THERE IS NO CONCRETE WORK ANTICIPATED FOR THIS PROJECT. HOWEVER, IF CONCRETE WORK IS INVOLVED, THE CONTRACTOR SHALL
 FOLLOW THE REQUIREMENTS FOR CONCRETE EQUIPMENT WASHDOWN AS SHADOWN IN THE CONCRETE WASHDOWN DETAIL ON SHEET ESC-4.
 WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

AMMENDMENTS/REVISIONS TO THE ES & PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSI

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, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. 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
- .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 - 8 0 0 - 4 2 6 - 2 6 7 5.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1 800 426 2675. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS THE CONTRACTOR STALL NOTITE THE LICENSEE PROFESSIONAL WITH PREPARED HIS PLANT IN MORE THAN 1520 GALLONS OF PROVIDED HAD 1620 GALLONS. 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 COUNTERMEASURERS PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

- . 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.
- MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY NON-WORKING SUNDAY AND NON-WORKING FEDERAL INCLUDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. 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 APPROPRIATI

FOR THE REGION

- CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14)
 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 NONWORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NONWORKING SA LINDAY, NON-WORKING SUNDAY OR ANY NON-WORKING DAY, WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRSTS: (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 AHLL 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.
- 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 IS SUBMITTED TO EPD) 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, POLILUTANTS 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).

 BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED N 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.
- A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION. THE DATE(S) OF EACH A REPORT OF EACH INSPECTION THAT INCLODES 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.4.4.(5). OF THE PERMIT SHALT 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 STAIL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PARKINGS THAT HAVE NOT BEEN PROPERT; INSTALLED AND OR WAININED AS DESCRIBED IN THE PLAN, WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE REPORT ON, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

MAINTENANCE

THE CONTRACTOR WILL IMPLEMENT ROUTINE MAINTENANCE PROCEDURES. SUCH AS REMOVING SILT AT SILT BARRIERS WHEN THE ACCUMULATION REACHES FIFTY PERCENT OF CAPACITY, TO ENSURE THAT THE BMPS WILL FUNCTION AS INTENDED THROUGHOUT THE DURATION OF THE PROJECT. WITHIN 48 HOURS FOLLOWING EACH INSPECTION, ANY REQUIRET MAINTENANCE OF EACH EROSION AND SEDIMENT CONTROL DEVICE WILL BE PERFORMED THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL FINAL STABILIZATION IS

SAMPLING REQUIREMENTS

THE PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THE

RECEIVING WATER SAMPLES AND STORM WATER DISCHARGE SAMPLES WILL BE COLLECTED BY GRAB SAMPLES AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES SPECIFIED BY THE PERMIT. THE FREQUENCY OF SAMPLING WILL BE AS DESCRIBED IN THE FOLLOWING SECTION. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED BELOW WILL BE REPORTED TO THE EPD.

- SAMPLE CONTAINERS WILL BE LABELED BEFORE COLLECTING SAMPLES.
- SAMPLES WILL BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
- CLEAN GLASS OR PLASTIC JARS WITH LARGE MOUTHS WILL BE USED TO COLLECT SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO
- MANUAL AUTOMATIC OR RINSING STAGE SAMPLING MAY BE LITHLIZED. SAMPLES REQUIRED BY THE PERMIT SHOULD BE ANALYZED IMMEDIATELY MANDAL, AUTOMATIC OR RINSING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THE PERMIT SHOULD BE ANALTZED 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. DILUTION OF SAMPLES IN NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
- SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALL BEYOND THE MINIMUM FREQUENCY STATED IN THE PERMIT MUST BE

THE CONTRACTOR WILL SAMPLE NAMED CREEKS AND TRIBUTARIES AND UNNAMED TRIBUTARIES AT THE LOCATIONS LISTED BELOW. THE PLAN SHEETS WITHIN THESE CONSTRUCTION PLANS SHOW THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES O WHICH STORM WATER IS DISCHARGED, AND THE SAMPLING LOCATIONS FOR EACH REPRESENTATIVE STORM WATER OUTFALL

SAMPLE LOCATION 1 - CATCH BASIN AT INTERSECTION OF BUFORD HWY AND DONAVILLE ST (NORTH OF PROJECT) LATITUDE: N34° 00' 15.50" LONGITUDE: E-84° 08' 22.20"

SAMPLE LOCATION 2 - TRIBUTARY TO LAKE NORMAN (SOUTHEAST OF PROJECT) LATITUDE: N33° 59' 54.84" LONGITUDE: E-84° 07' 55.29"

IT SHOULD BE NOTED THAT SOME OF THE ABOVE SAMPLING LOCATIONS MAY BE ACTIVE AT ALL TIMES DURING CONSTRUCTION OF THE PIPELINE. A SAMPLING LOCATION WILL BE ACTIVE FROM THE TIME CONSTRUCTION ACTIVITY STARTS IN THE WATERSHED THAT FEEDS THE SAMPLING LOCATION UNTIL FINAL STABILIZATION IS ACHIEVED IN THAT WATERSHED. THE TIMING OF THE CONSTRUCTION ACTIVITY WITHIN A WATERSHED DEPENDS ON CONSTRUCTION STAGING, HOWEVER, CONSTRUCTION STAGING HAS NOT YET BEEN DETERMINED. THE CONTRACTOR MAY STAGE THE CONSTRUCTION STAGING, HOWEVER, CONSTRUCTION STAGING HAS NOT YET BEEN DETERMINED. THE CONTRACTOR MAY STAGE THE CONSTRUCTION SO THAT 1) CONSTRUCTION BEGINS AT ONE END OF THE PROJECT AND PROGRESSES SYSTEMATICALLY TO THE OTHER END; 2) CONSTRUCTION BEGINS AT BOTH ENDS OF THE PROJECT AND PROGRESSES TO A COMMON MEETING POINT; OR 3) MULTIPLE CREWS BEGIN CONSTRUCTION AT DIFFERENT SECTIONS OF THE PROJECT AND EVENTUALLY LINK UP WITH EACH OTHER.

MANUAL SAMPLING

- SAMPLING WILL BEGIN AT THE DESIGNATED REPRESENTATIVE RECEIVING WATER(S) AT THE DOWNSTREAM LOCATION. THIS SAMPLE WILL BE TAKEN AT THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PROJECT. FOR LARGE STREAMS WHERE VARIATIONS IN COLOR ARE VISIBLE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATERS MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE DOWNSTREAM VALUE.
- UPSTREAM SAMPLES WILL BE TAKEN AFTER DOWNSTREAM SAMPLES HAVE BEEN ACQUIRED. THE UPSTREAM SAMPLE WILL BE TAKEN AT THE DPSTREAM SAMPLES WILL BE TAKEN AT TER DOWNSTREAM SAMPLES HAVE BEEN ACQUIRED. THE OPSTREAM SAMPLE WILL BE TAKEN AT THE DISCHARGE FARTHEST UPSTREAM AT THE SITE BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PROJECT. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE UPSTREAM VALUE.
- THE SAMPLES WILL BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).
- CARE WILL BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
- THE SAMPLING CONTAINER WILL BE HELD SO THAT THE OPENING FACES UPSTREAM. THE SAMPLES WILL BE KEPT FREE OF FLOATING DEBRIS.
- ONCE THE SAMPLE JAR OR BOTTLE IS FULL AND CAPPED. IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY, BUT NO LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.

SAMPLING FREQUENCY

THE CONTRACTOR MUST SAMPLE IN ACCORDANCE WITH THIS ES&PCP AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW

- . FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* (MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM, EXCLUDING ALL NONWORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION:
- b. IN ADDITION TO ITEM A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* THAT OCCURS FITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST;
- AT THE TIME OF SAMPLING PERFORMED PURSUANT TO ITEMS ALAND BLABOVE. IF BMPS ARE FOUND TO BE PROPERLY DESIGNED, INSTALLED AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO 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. 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 CONTRACTOR 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 MONITORING AT ANY TIME OF THE DAY OR WEEK

MEASUREMENT OF RAINFALL DATA WILL BE RECORDED DAILY (ONCE DURING EACH 24-HOUR PERIOD) AT THE DOWNSTREAM MONITORING POINT FOR EACH ACTIVE CONSTRUCTION STAGE IN WHICH STREAM MONITORING IS UTILIZED AND NEAR THE CENTER OF EACH ACTIVE CONSTRUCTION STAGE IN WHICH OUTFALL MONITORING IS UTILIZED. THE CONTRACTOR WILL ESTABLISH A RAIN GAUGE ON EACH ACTIVE CONSTRUCTION STAGE FOR THIS PURPOSE. FURTHERMORE, THE CONTRACTOR WILL COLLECT AND RECORD THE RAINFALL DATA ON THE DAILY RAINFALL MONITORING DATA FORM

THE CONTRACTOR WILL EMPLOY QUALIFIED PERSONNEL WHO SHALL GATHER SAMPLES OF STORM WATER AS OUTLINED IN THE PERMIT PART IV, D.5 AND AS FURTHER DEFINED IN THIS ESPCP. THE CONTRACTOR WILL HAVE THE TURBIDITY OF EACH SAMPLE TESTED BY A QUALIFIED TESTING LABORATORY

ALL TURBIDITY TESTS WILL BE CONDUCTED IN ACCORDANCE WITH 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.

THE CONTRACTOR SHALL SAMPLE THE RECEIVING STREAM BOTH UPSTREAM OF THE PROJECT AREA AND DOWNSTREAM OF THE PROJECT AREA. THE TOTAL INCREASE IN TURBIDITY FROM SAMPLE LOCATIONS UPSTREAM AND DOWNSTREAM OF THE CONSTRUCTION SITE SHALL NOT

- THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART 11.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 STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENT STATE UNIT MUST BE REPORTED 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 UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
- 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:
- 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
- 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. 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. AN ELECTRONIC SUBMITTAL IS PROVIDED BY PEPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

THE CONTRACTOR MUST RETAIN COPIES OF ALL MONITORING RESULTS AND SHALL PROVIDE THE OWNER WITH COPIES OF ALL MONITORING

RETENTION OF RECORDS

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 NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:

- a. A COPY OF ALL 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
- 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 ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMI
- g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.a.(1)(c) OF THIS PERMIT

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINALS TRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, 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 EITHEI PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THO TIS SUBMITTED IN ACCORDANCE WITH PART VIO 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 OF THE EPD A ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

REPORT SUBMITTAL

ALL WRITTEN CORRESPONDENCE REQUIRED BY THE PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICI TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THE PERMIT.

COPIES OF THE DATA SENT TO GEORGIA EPD, INCLUDING THE RETURN RECEIPTS, WILL BE PROVIDED TO THE OWNER AND THE ENGINEER ON

PERMITTEE CONTACT INFORMATION

GWINNETY COUNTY DEPARTMENT OF WATER RESOURCES 684 WINDER HIGHWAY LAWRENCEVILLE, GA 30045

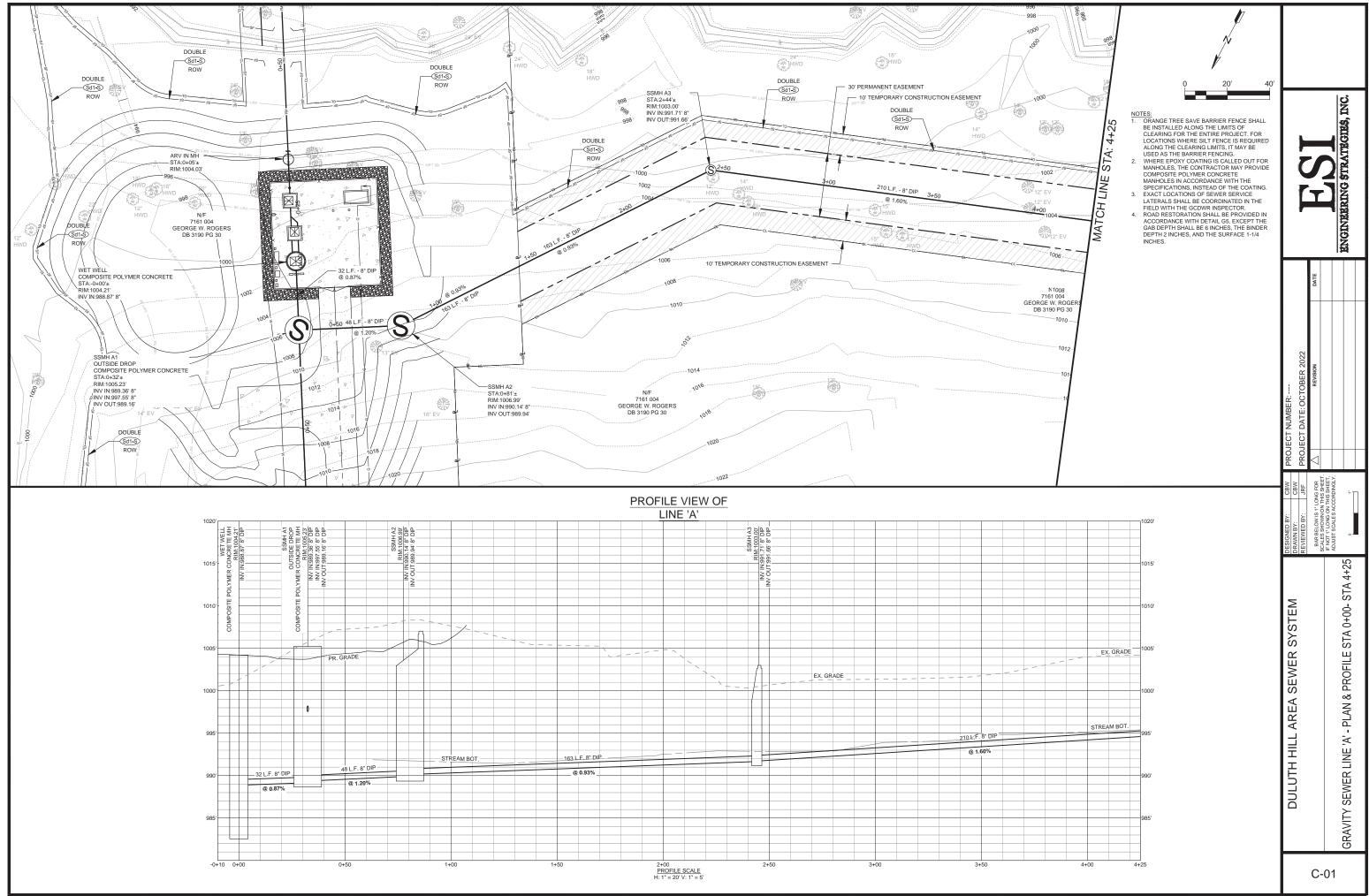
ENGIN BAR B CALES F NOT \mathbb{Z} က E N S **DULUTH HILL AREA** NPDES

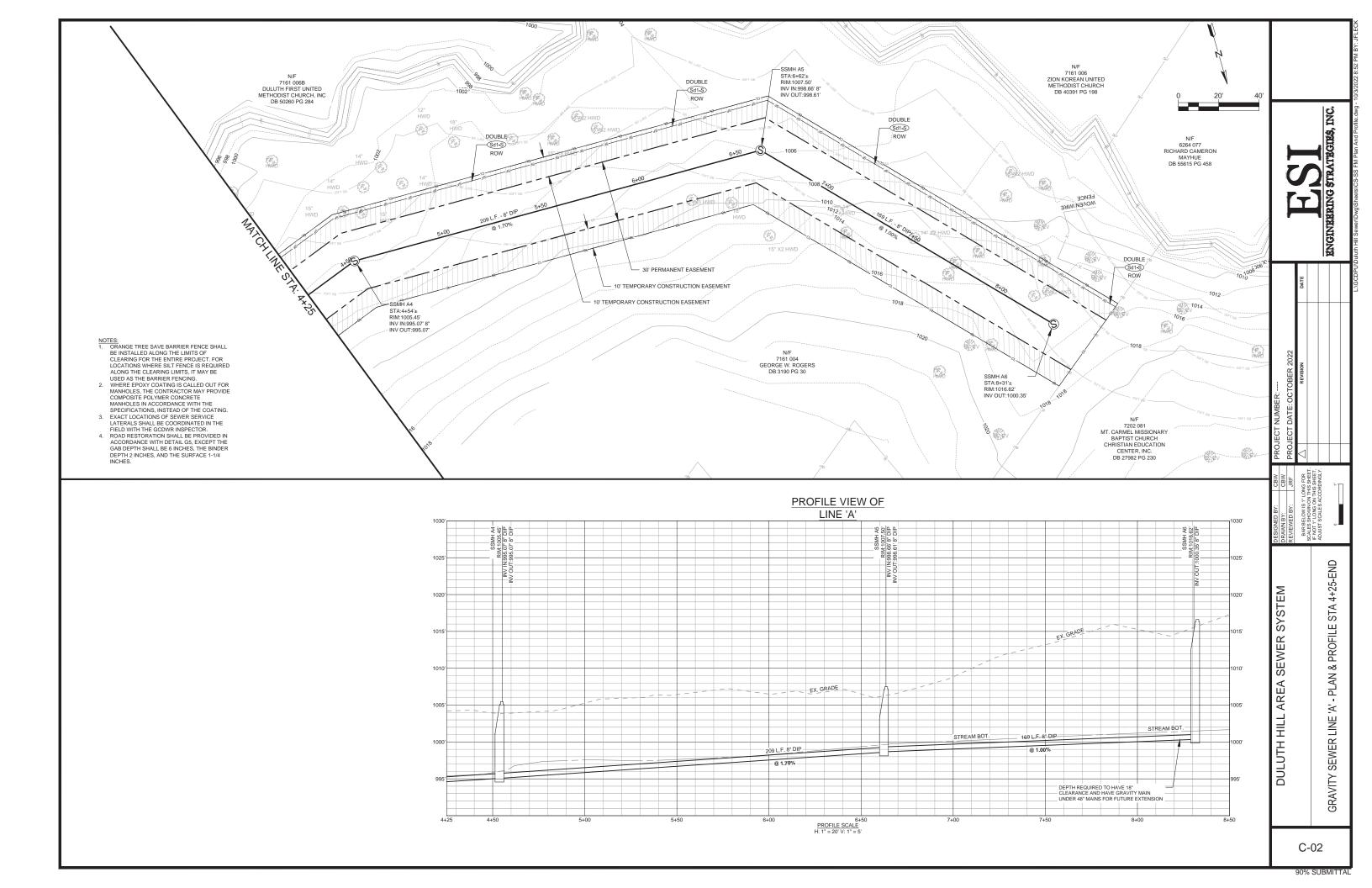
RATEGIES, INC.

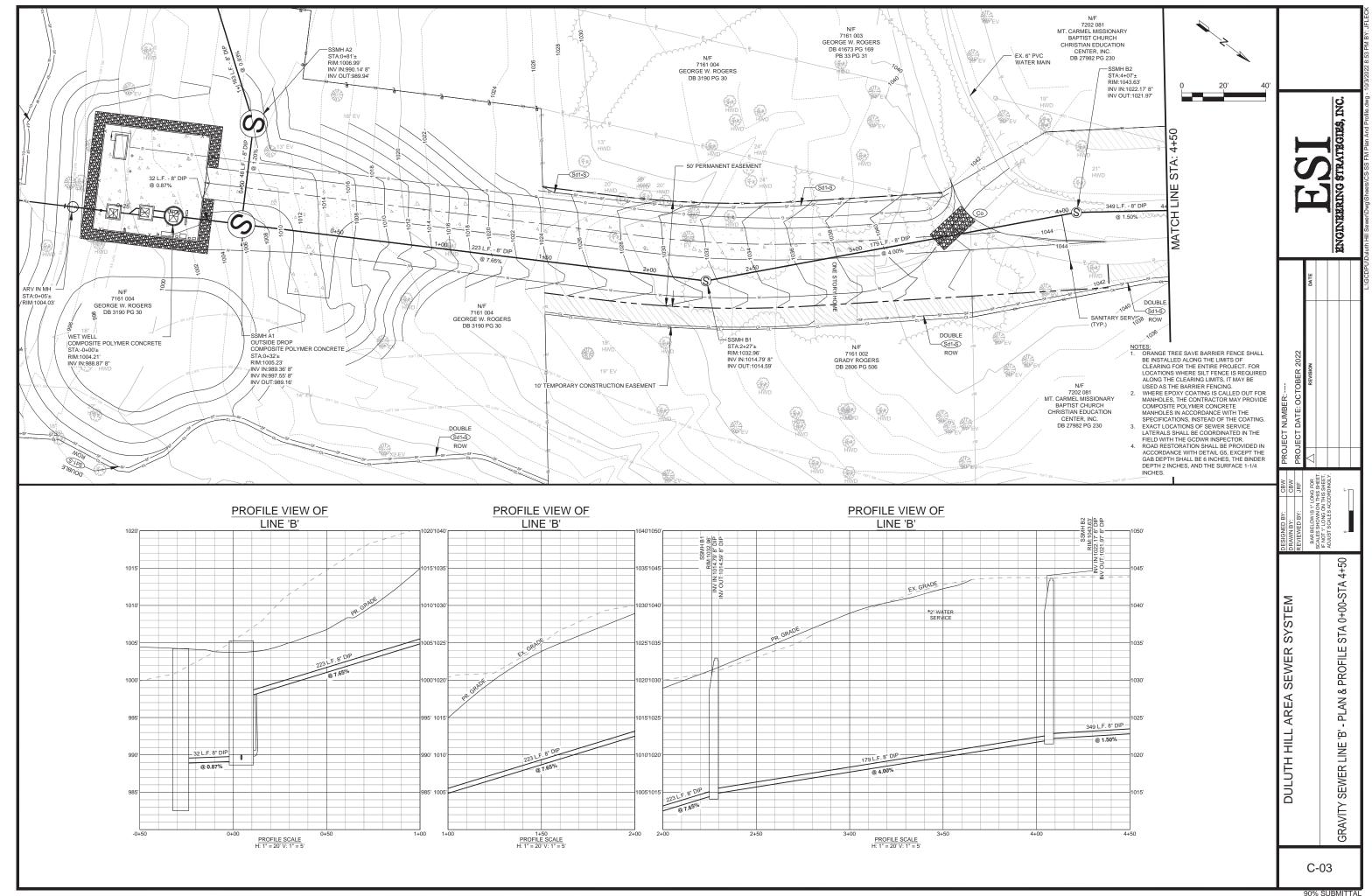
		I & POLLUTION CONTROL PLAN CHECKLIST CONSTRUCTION PROJECTS	ESC-01 Y	27 Description of practices to provide cover for building materials and building products on site. *
	SWCD: GWINNETT		ESC-01 Y	28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
Project Name:	DULUTH HILL AREA SEWER	Address:_ 3068 WASHINGTON ST	ESC-01 Y	29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of
City/County: Name & email of perso	DULUTH/GWINNETT	Date on Plans: <u>OCTOBER</u> 2022 BRAD LASELVA BLASELVA@ESI-GA.COM		the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
Plan Included		DWN ON ES&PC PLAN	ESC-05 Y	30 Provide complete requirements of Inspections and record keeping by the primary permittee. *
Page # Y/N ESC-06 Y		and Pollution Control Plan Checklist established by the Commission as of January 1	ESC-05 Y	31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
1.30-00	of the year in which the land-disturbing		ESC-05 Y	32 Provide complete details for Retention of Records as per Part IV.F. of the permit *
	(The completed Checklist must be sub-	milled with the ES&PC Plan or the Plan will not be reviewed)	ESC-05 Y	33 Description of analytical methods to be used to collect and analyze the samples from each location. *
ESC-01 Y		the Commission, signature and seal of the certified design professional. nust be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)	ESC-05 Y	34 Appendix Brationale for NTU values at all outfall sampling points where applicable. *
ESC-01 Y		4-hour contact responsible for erosion, sedimentation and pollution controls.	ESC-04 Y	35 Define ate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is
ESC-05 Y		ress, and phone number of primary permittee.		discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable. *
ESC-01 Y	5 Note total and disturbed acreages of th	e project or phase under construction.	ESC-01 Y	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
G-01 Y	6 Provide the GPS locations of the begin	ning and end of the Infrastructure project. Give the Latitude and Longitude in		BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs,
	decimal degrees.			infermediate grading and drainage BMPs, and final BMPs are the same, the Ptan may combine all of the BMPs into a singli phase. *
ALL Y		any revisions made to the Plan including the entity who requested the revisions.	ALL Y	pnase. 37 Graphic scale and North arrow.
ESC-05 Y	8 Descriptions of the nature of construction		ESC-04 Y	38 Existing and proposed conbur lines with contour lines drawn at an interval in accordance with the following:
G-01 Y Y ESC-01 Y		ation to surrounding areas. Include designation of specific phase, if necessary. d describe all sensitive adjacent areas including streams, lakes, residential areas,		Existing Contours USGS 1*: 2000' Topographical Sheets
ESC-01	wetands, marshlands, etc. which may			Proposed Contours 1*: 400' Centerline Profile
ESC-01 Y	11 Design professional's certification states	ment and signature that the site was visited prior to development of the ES&PC	ESC-01 Y	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 GAEPD or the Georgia Soil and Water Conservation
	Plan as stated on Part IV page 21 of t			Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
ESC-01 Y		ment and signature that the permittee's ES&PC Plan provides for an appropriate and sampling to meet permit requirements as stated on Part IV page 20 of the permit. *	ESC-01 Y	40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for
ESC-01 Y		nent and signature that the permittee's ES&PC Plan provides for representative		Erosion & Sediment Control in Georgia 2016 Edition. *
	• .	page 37 of the permit as applicable. *	CS SHEETS Y	41 Delineation of the applicable 25-bot or 50-bot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
ESC-01 Y		sign professional who prepared the ES&PC Plan is to inspect the installation of the	NA	42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
	initial sediment storage requirements, p in accordance with Part IV.A.5 page 2	erimeter control BMPs, and sediment basins within 7 days after installation.*	ESC-04 Y	43 Delineation and acreage of contributing drainage basins on the project site.
ESC-01 Y		xempt activities shall not be conducted within the 25 or 50-foot undisturbed stream	ESC-04 Y	44 Delineate on-site drainage and off-site watersheds using USGS 1*:2000' topographical sheets.
150 01	•	vrested vegetation or within 25-feet of the coastal marshland buffer as measured	ESC-01 Y	45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are
		ne without first acquiring the necessary variances and permits."		completed.
ESC-01 Y		roachments and indicate whether a buffer variance is required.	NA	46 Storm-drain pipe and weir velodites with appropriate outlet protection to accommodate discharges without erosion. Identity/Defineate all storm water discharge points.
ESC-01 Y	17 Clearly note the statement that "Amend hydraulic component must be certified I	ments/revisions to the ES&PC Plan which have a significant effect on BMPs with a by the design professional.* *	CS SHEETS Y	47 Soil series for the project site and their defineation.
ESC-05 Y		materials shall not be discharged to waters of the State, except as authorized by a	CS SHEETS Y	48 The limits of disturbance for each phase of construction.
	Section 404 permit." *		ESC-01 Y	49 Provide a minimum of 67 cubic yards of sadiment storage per acre drained using a temporary sediment basin,
ESC-01 Y	19 Clearly note statement that "The escap sediment control measures and practic	e of sediment from the site shall be prevented by the installation of erosion and		retrofilled detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage
ESC-01 Y		es prior to land disturbing activities. Introl measures will be maintained at all times. If full implementation of the approved		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
1	·	sion control, additional erosion and sediment control measures shall be implemented		must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written
	to control or treat the sediment source.			justfication 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
ESC-01 Y	21 Clearly note the statement "Any disturb or temporary seeding."	ed area left exposed for a period greater than 14 days shall be stabilized with mulch		when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to
ESC-01 Y		ges storm water into an Impaired Stream Segment, or within 1 linear mile upstream		utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from
	of and within the same watershed as, a	any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the	CS SHEETS Y	he surface are not leasible, a written justification explaining this decision must be included in the Plan. 50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and
	permit Include the completed Append to the Impaired Stream Segment. *	ix 1 listing all the BMPs that will be used for those areas of the site which discharge	C3 SHEETS IT	Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
NA NA		iment has been finalized for the Impaired Stream Segment (identified in item 22	ESC SHEETS Y	51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in
	·	mittal of NOI, the ES&PC Plan must address any site-specific conditions or		the Manual for Erosion and Sediment Control in Georgia.
	requirements included in the TMDL Im		CS SHEETS Y	52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, time and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding.
ESC-01 Y	24 BMPs for concrete washdown of tools, at the construction site is prohibited. *	concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum		seeding, er liucer, lime and mulching raiss. Vegelenve plan shall be site specific for appropriate lime of year that seeding will take place and for the appropriate geographic region of Georgia.
ESC-01 Y	at the construction site is prohibited. " 25 Provide BMPs for the remediation of all	petroleum soills and leaks		* If using this checklist for a project that is less than 1 acre and not part of a common development
ESC-01 Y		s installed during the construction process to control pollutants in storm water that		but within 200 ft of a perennial stream, the * checklist items would be N/A.
	will occur after construction operations	- · · · · · · · · · · · · · · · · · · ·		Effective January 1, 2022

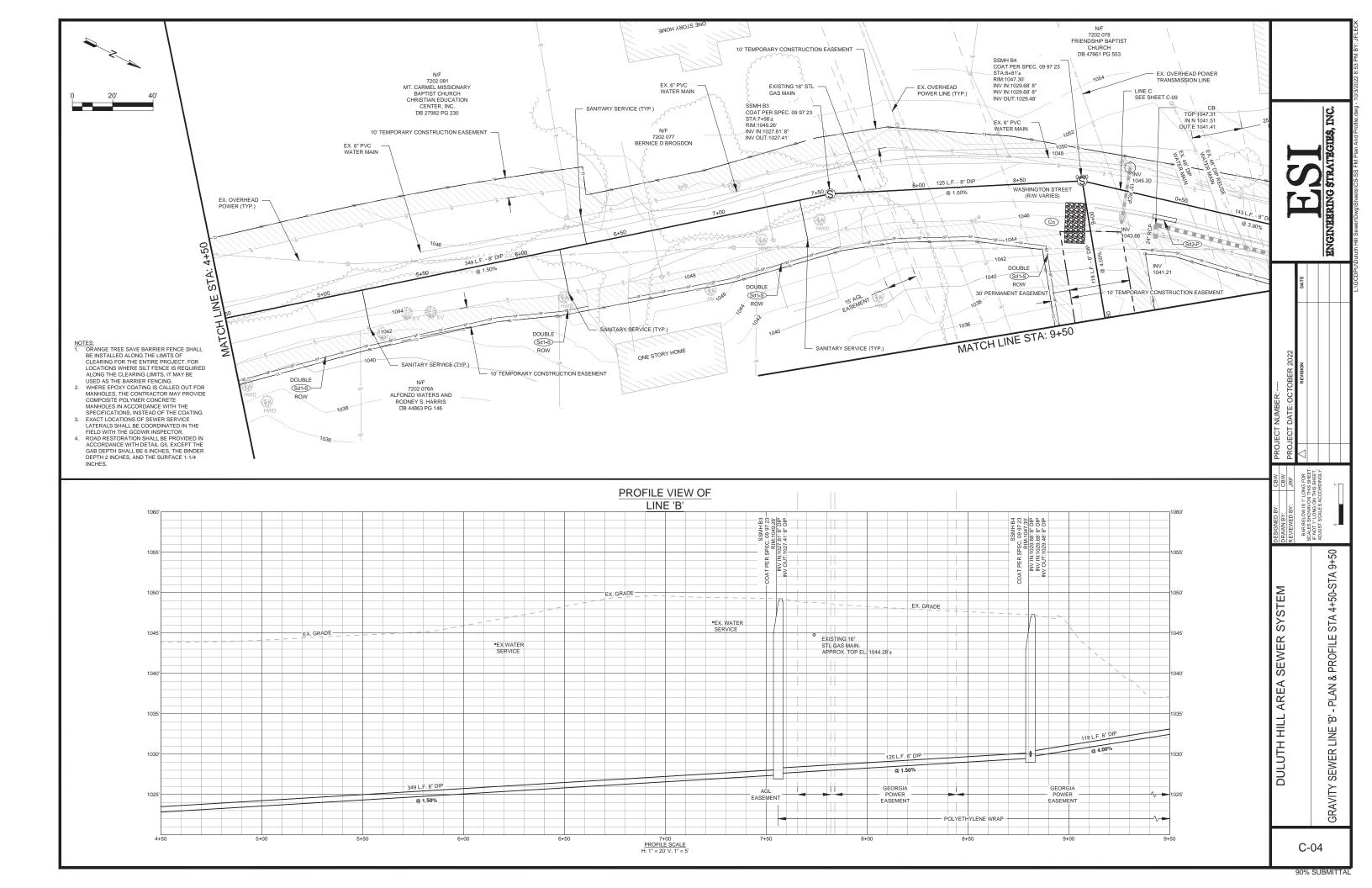
DULUTH HILL AREA SEWER SYSTEM NPDES CHECKLIST

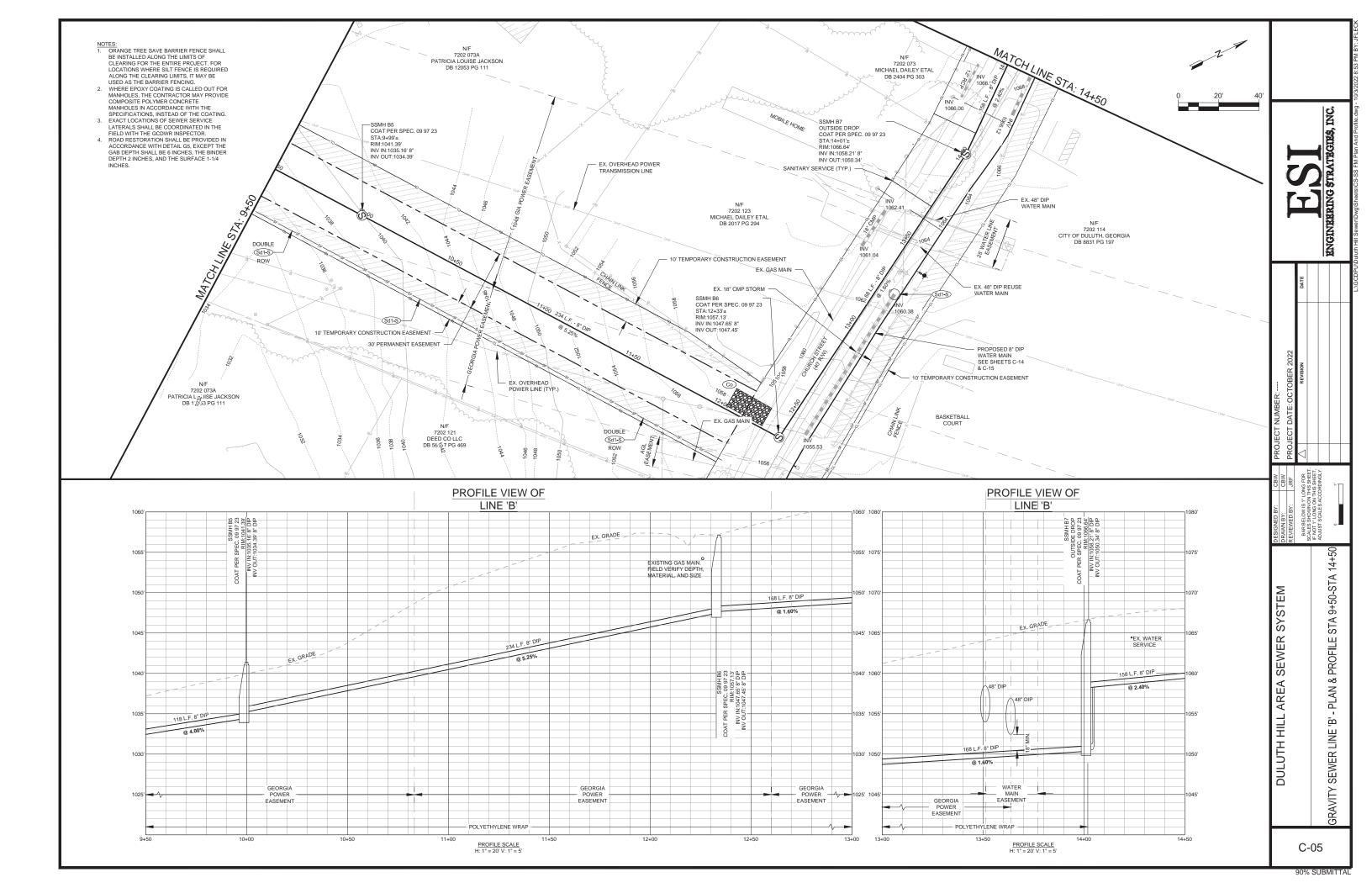
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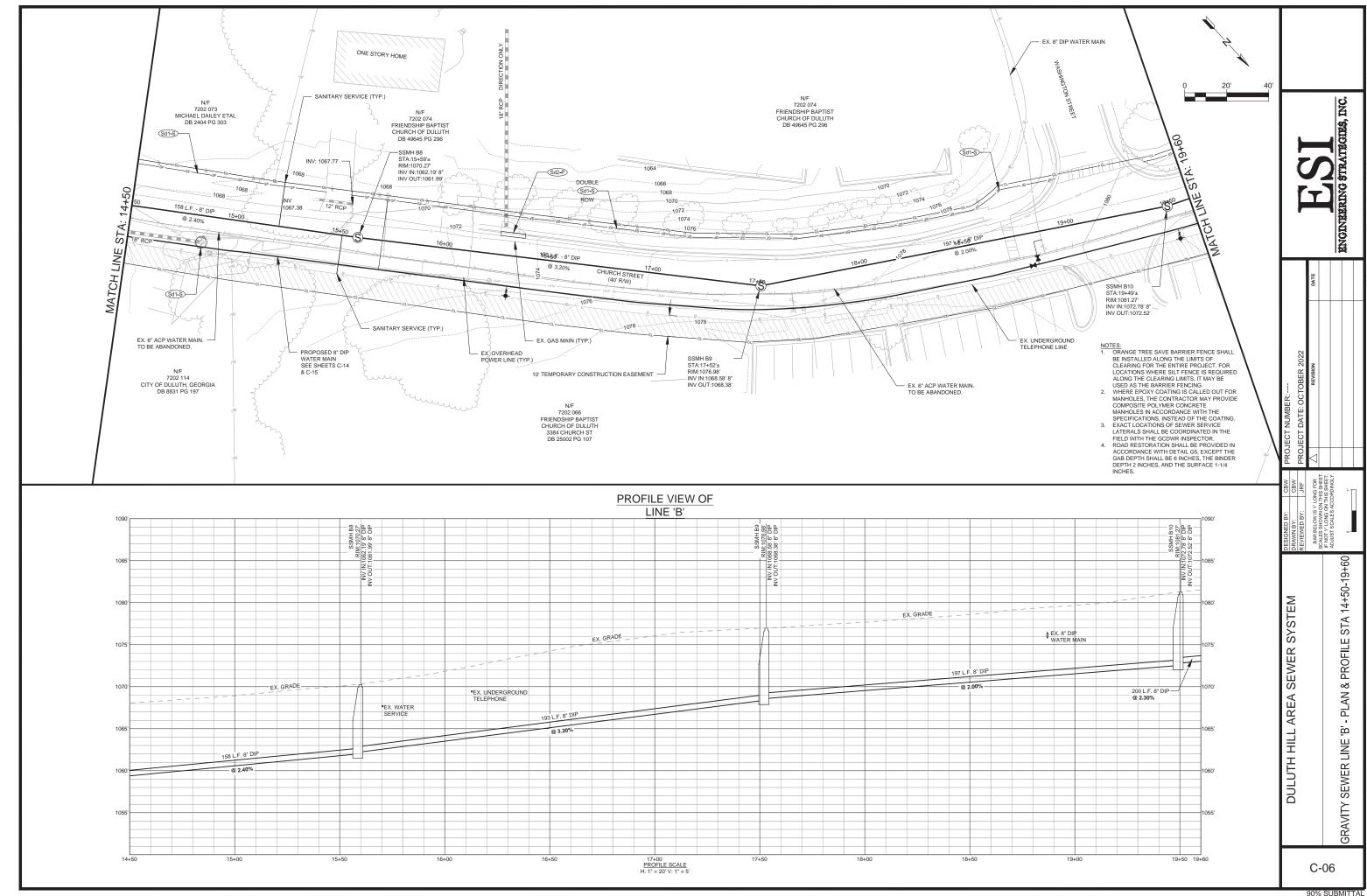


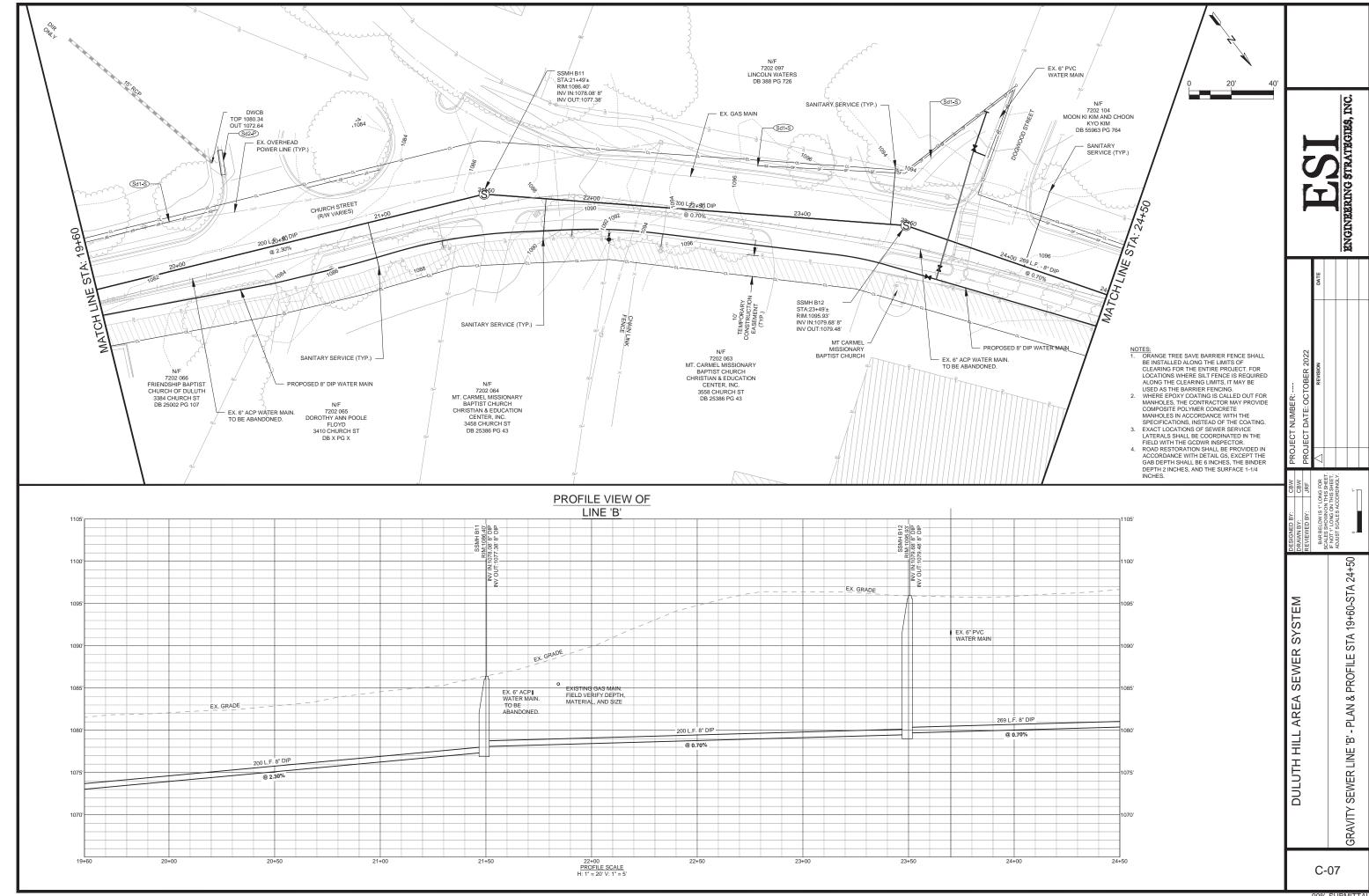


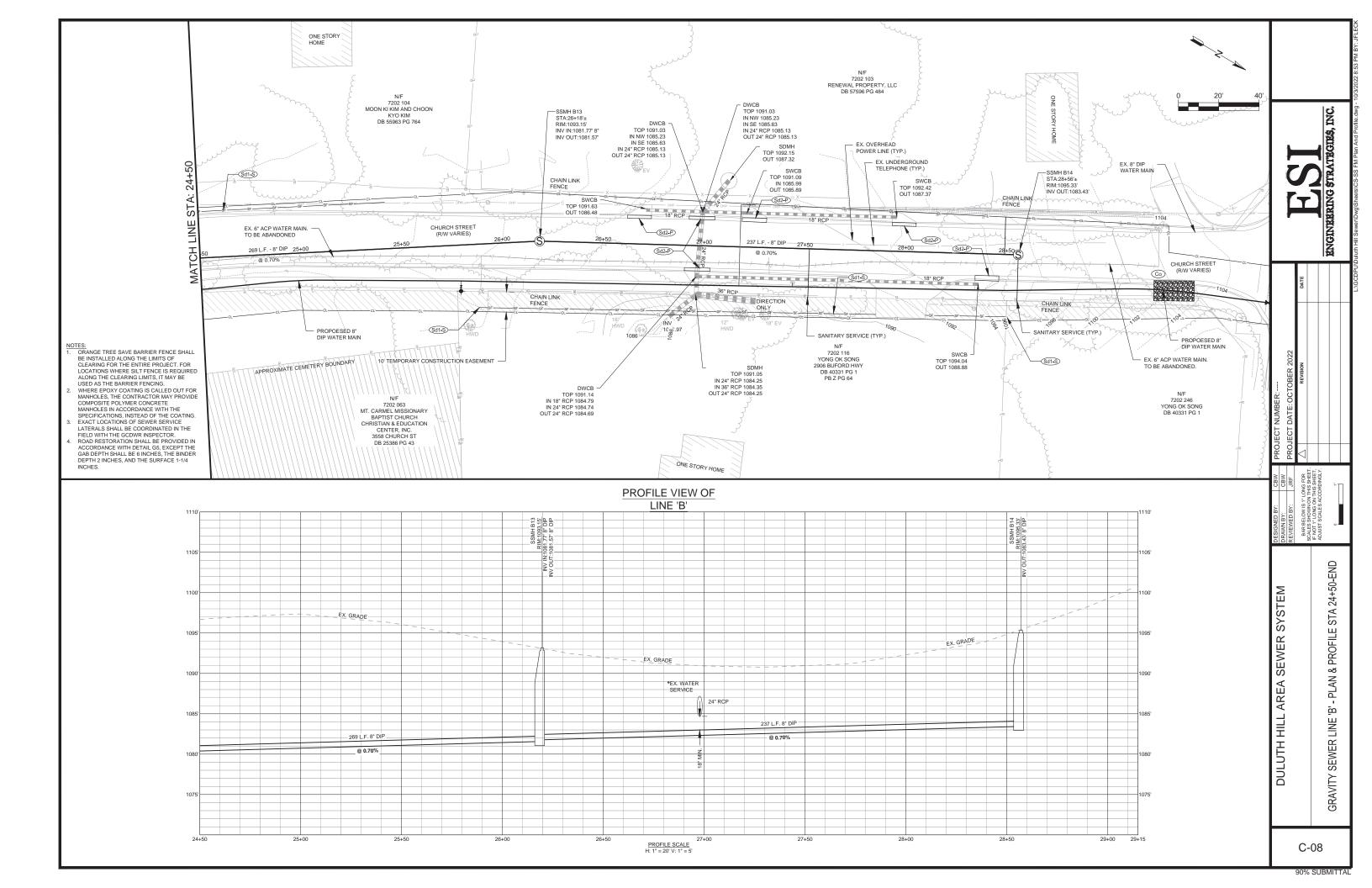


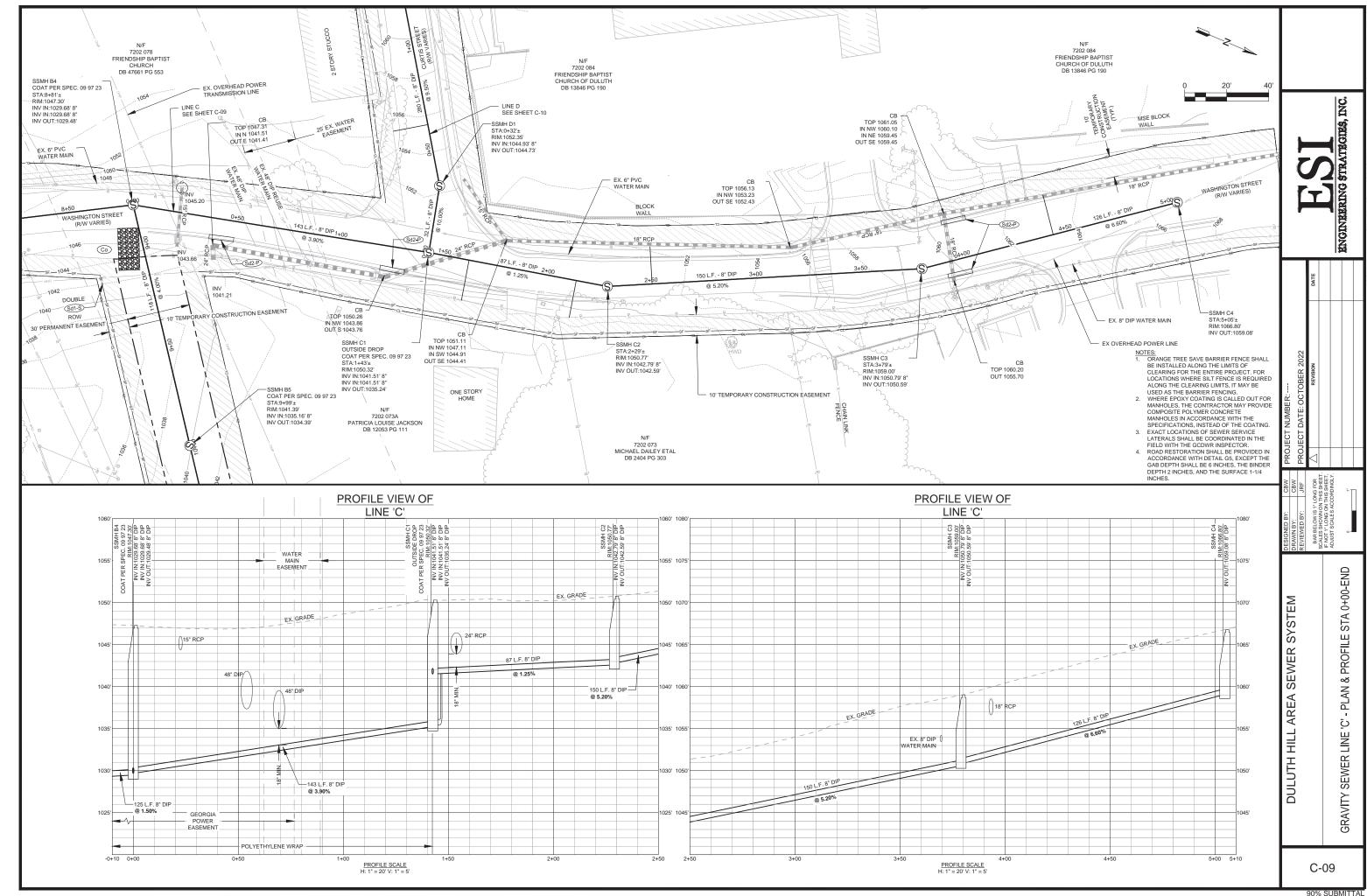


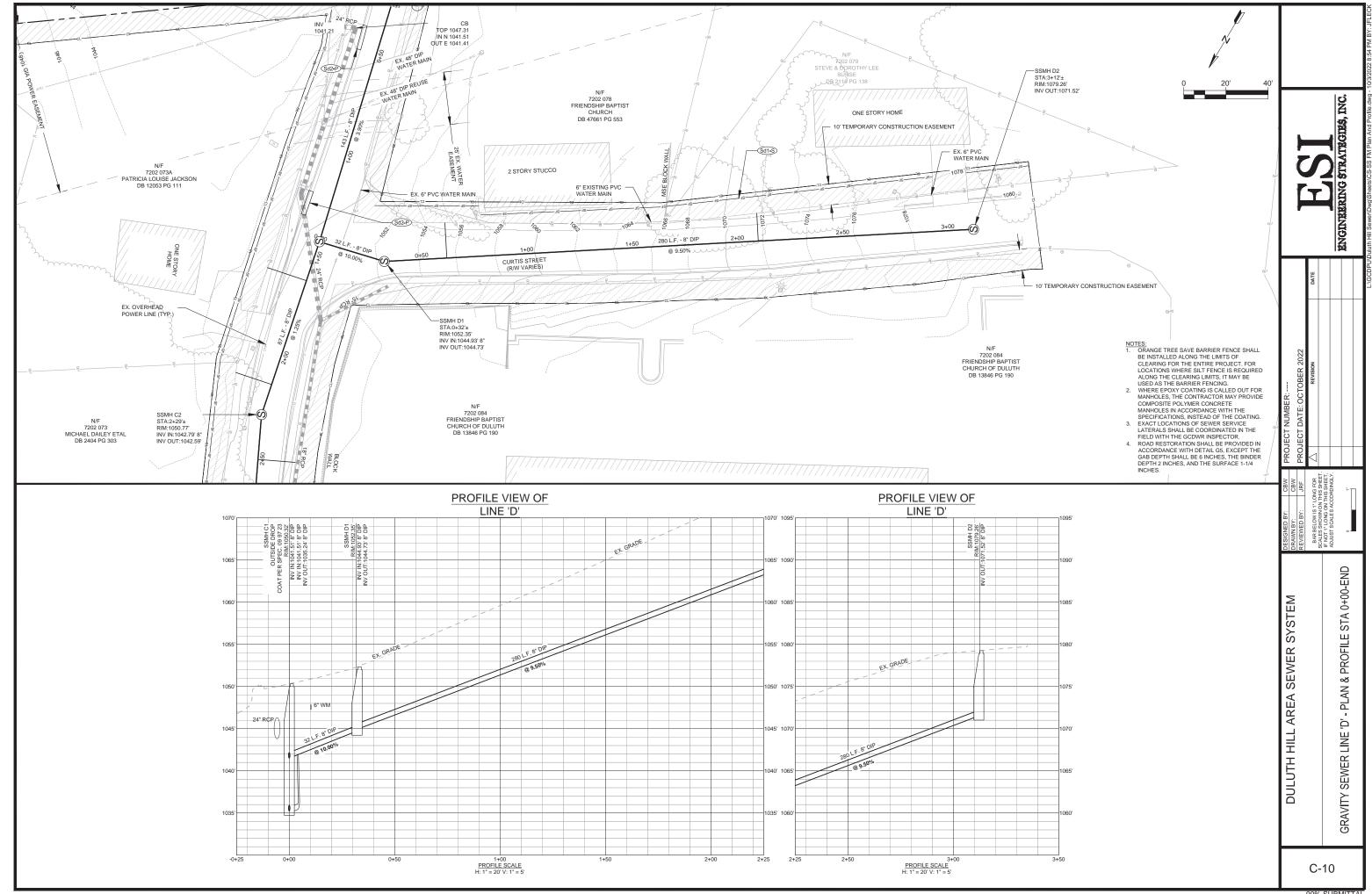


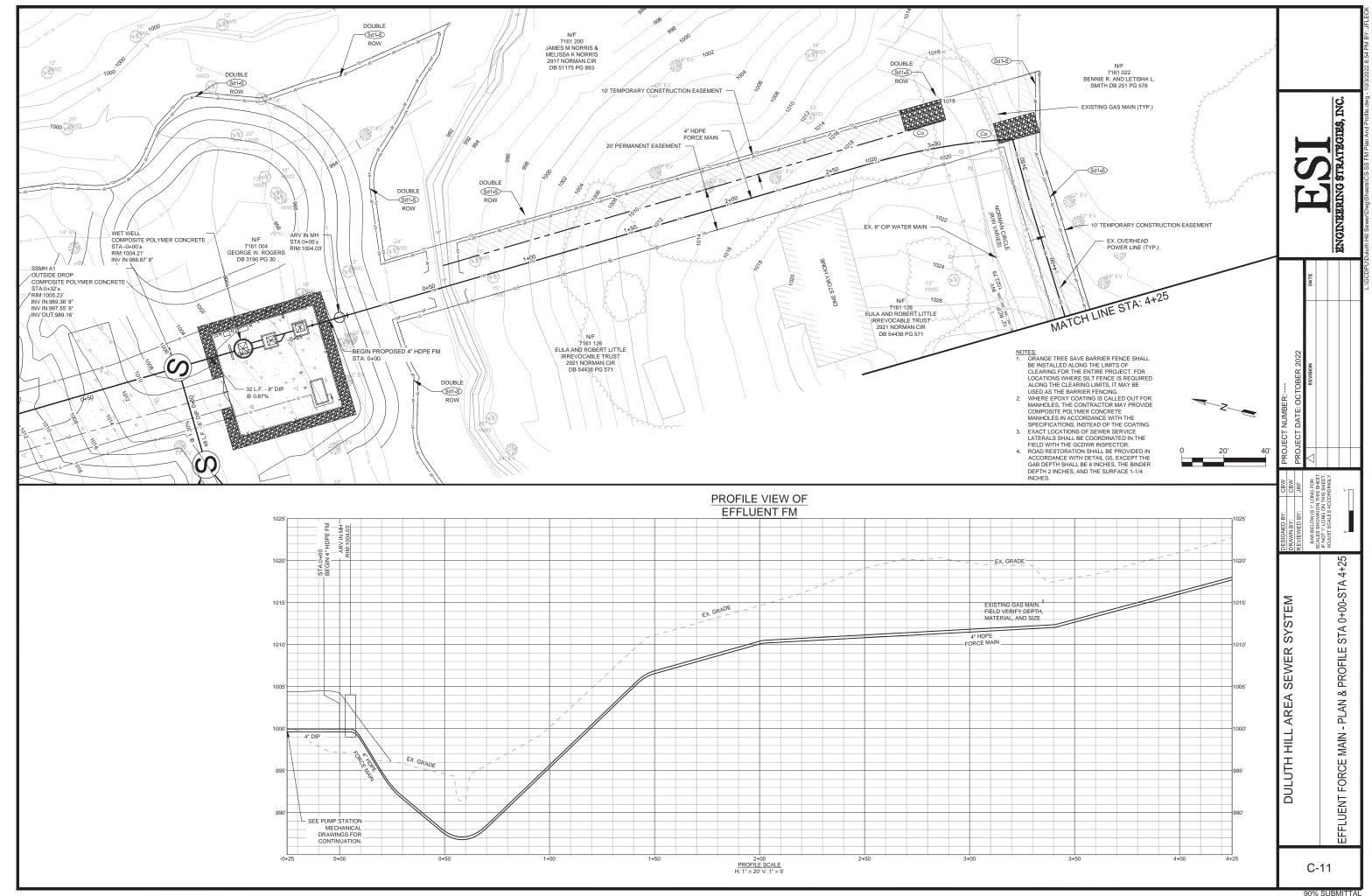


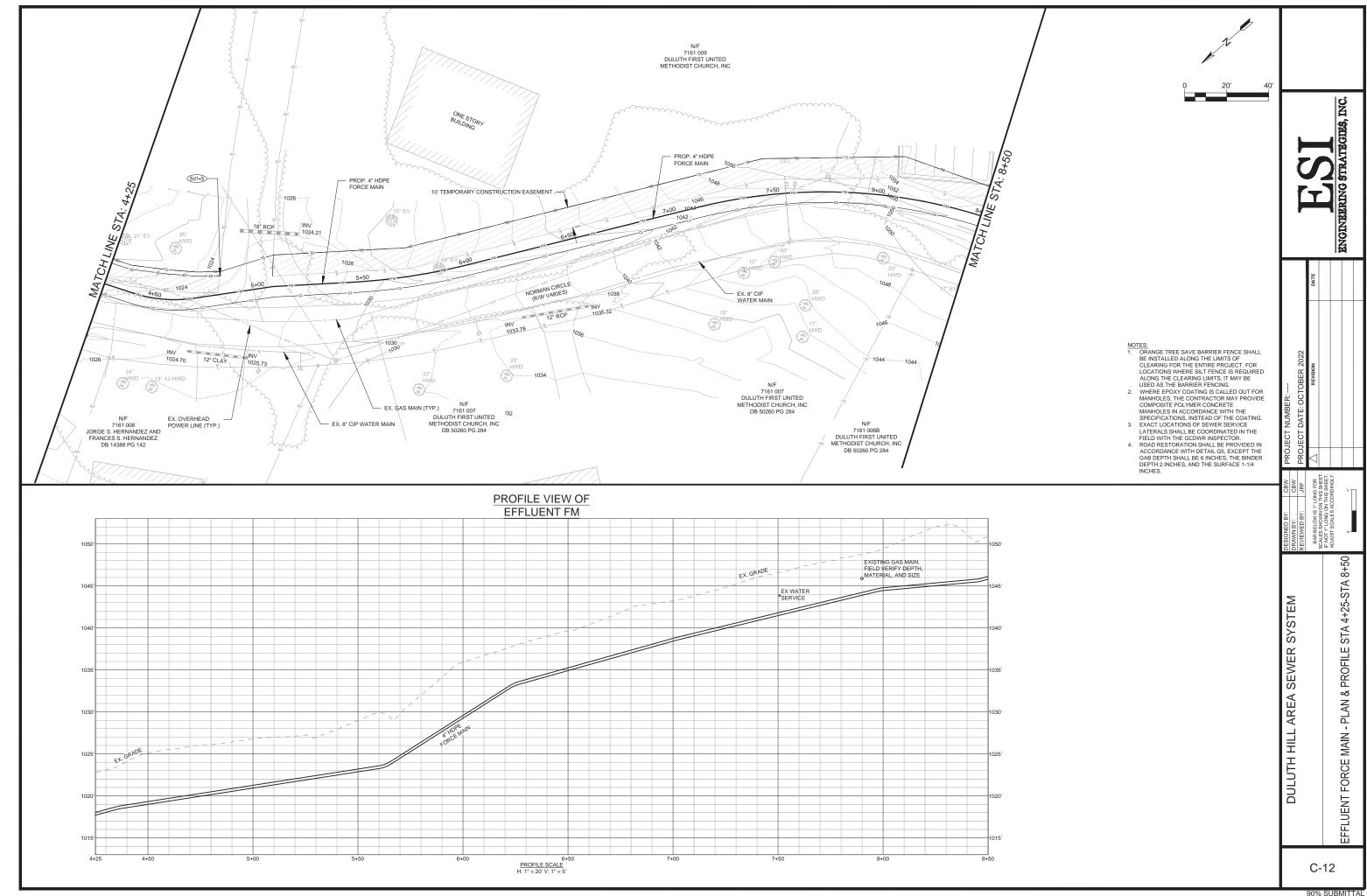


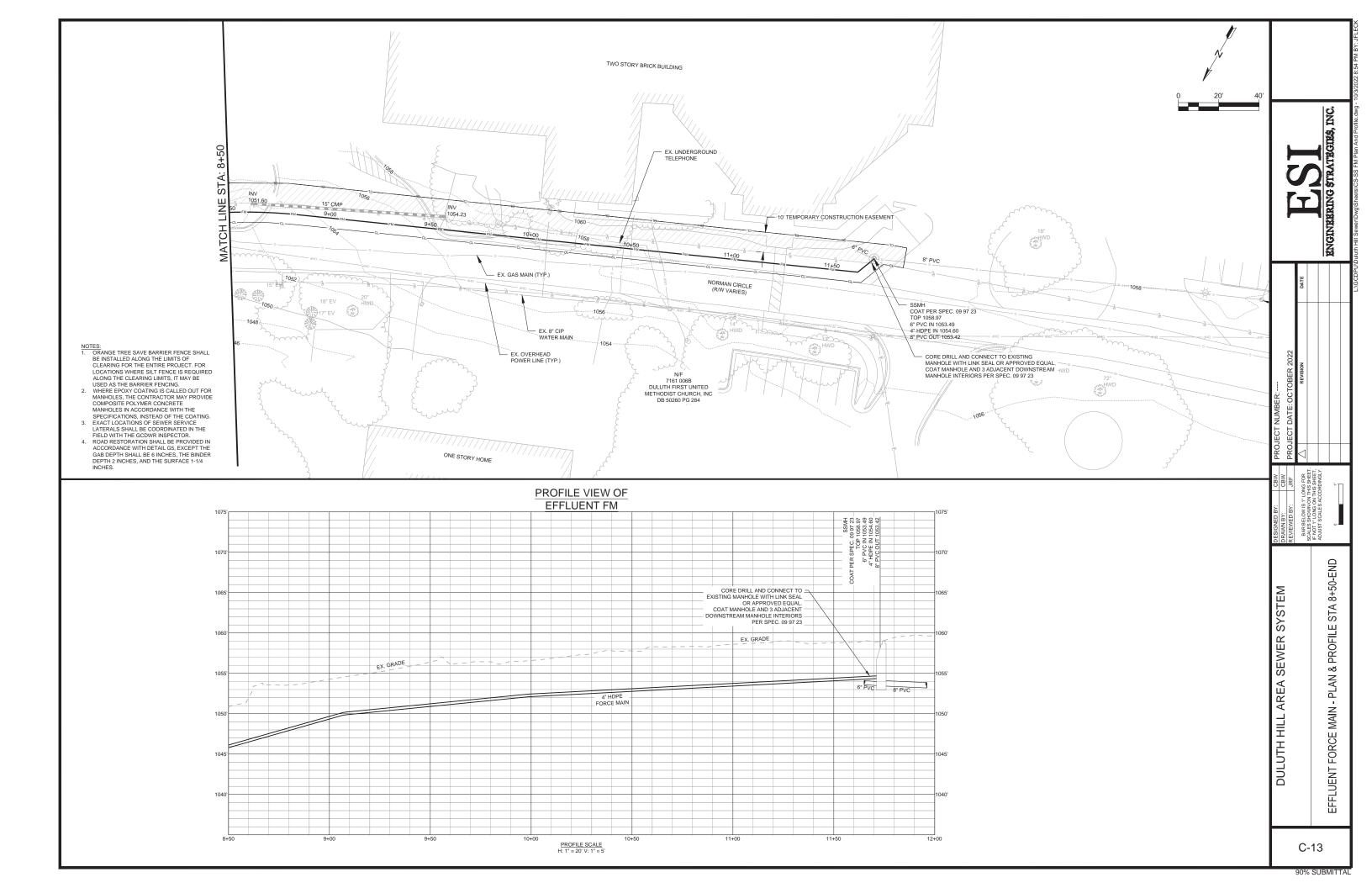


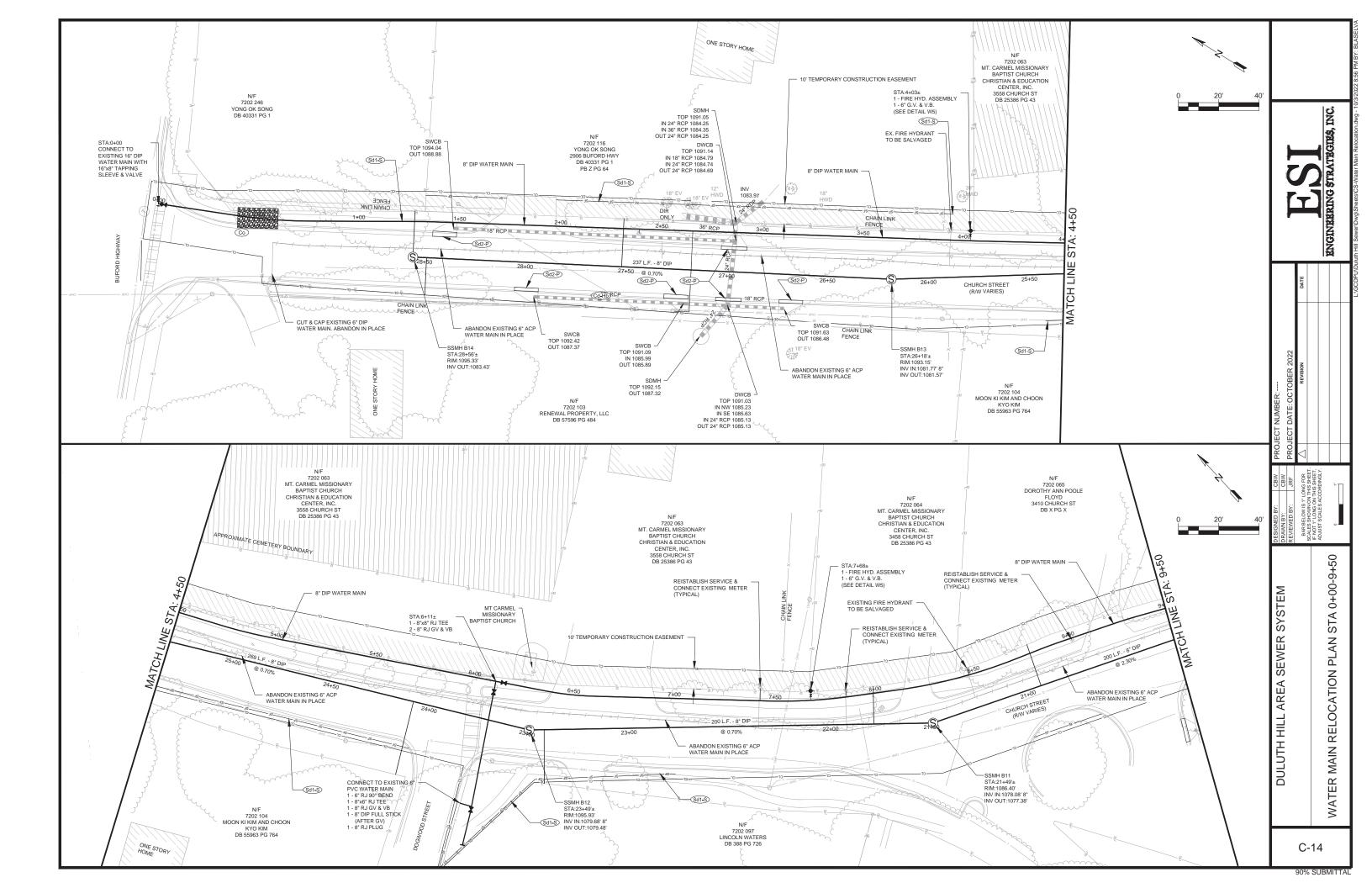


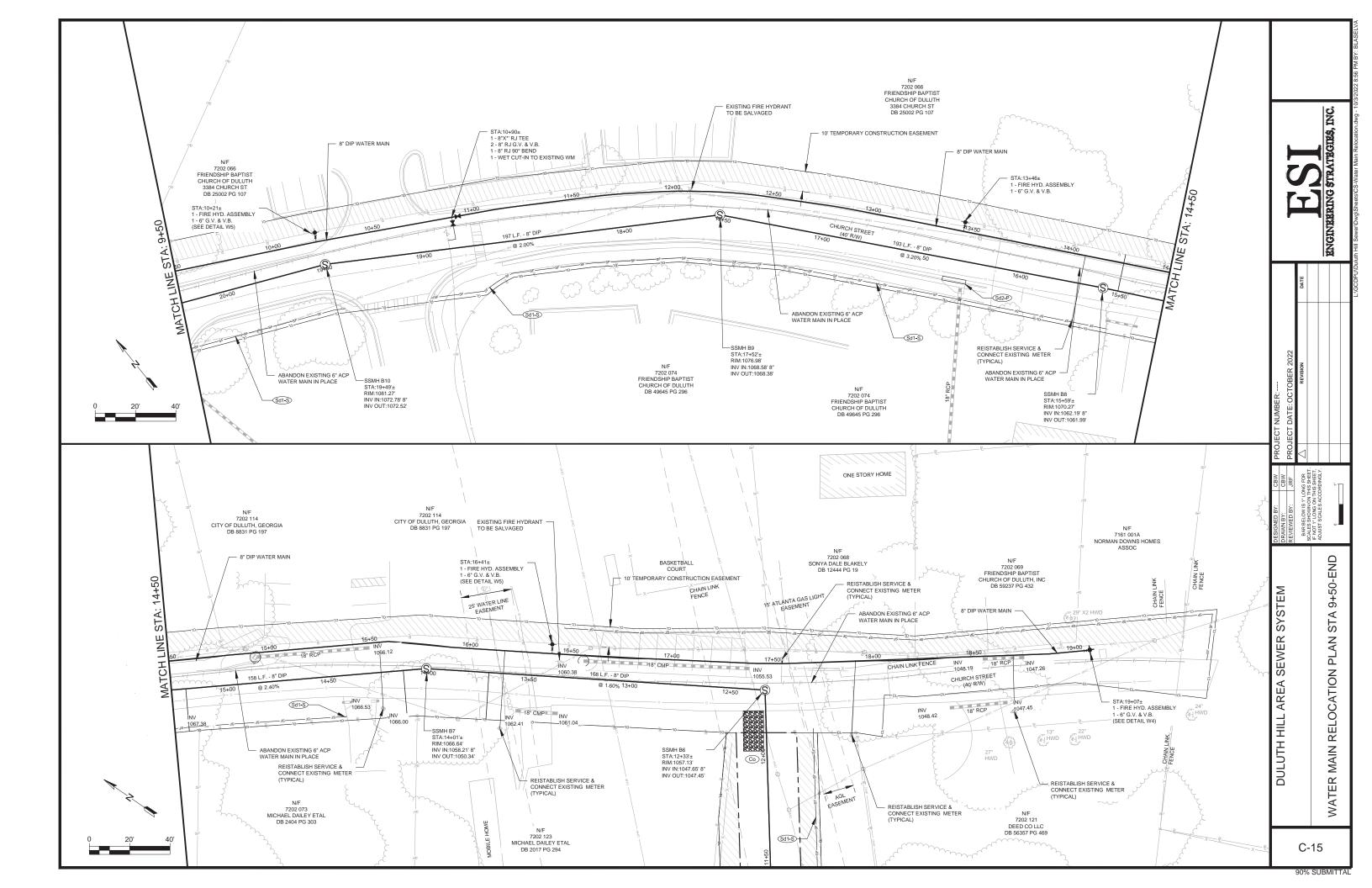


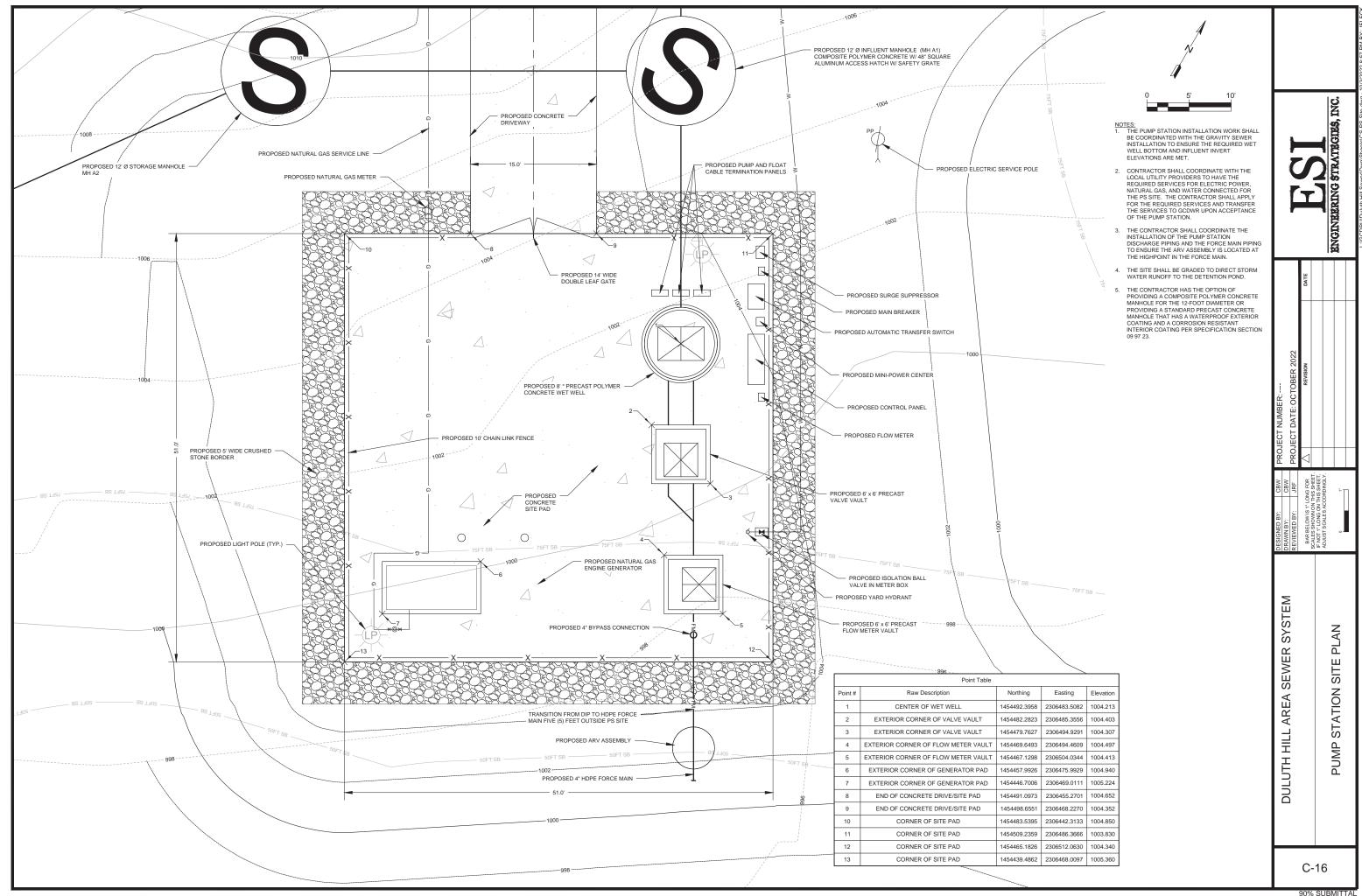


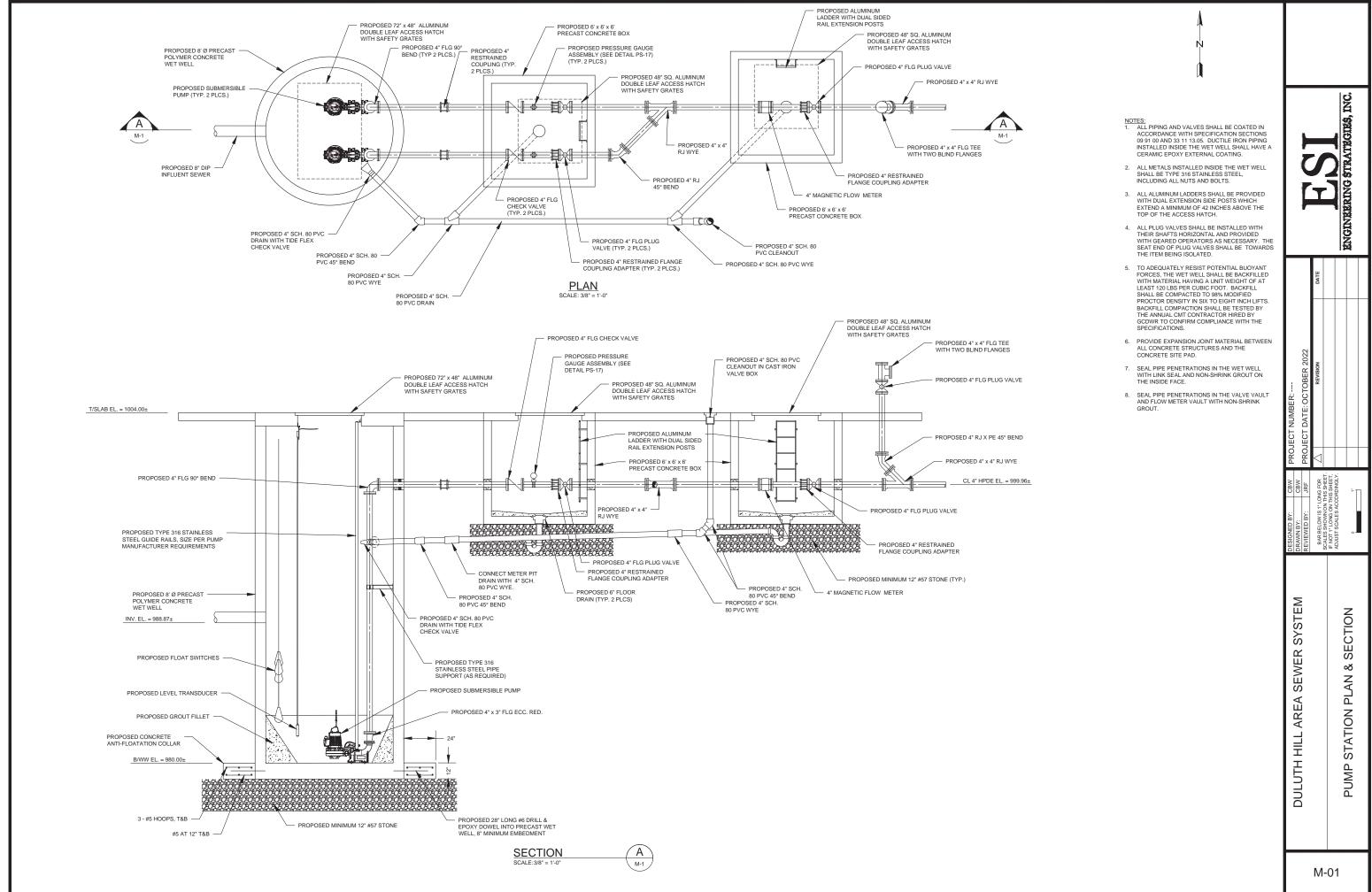


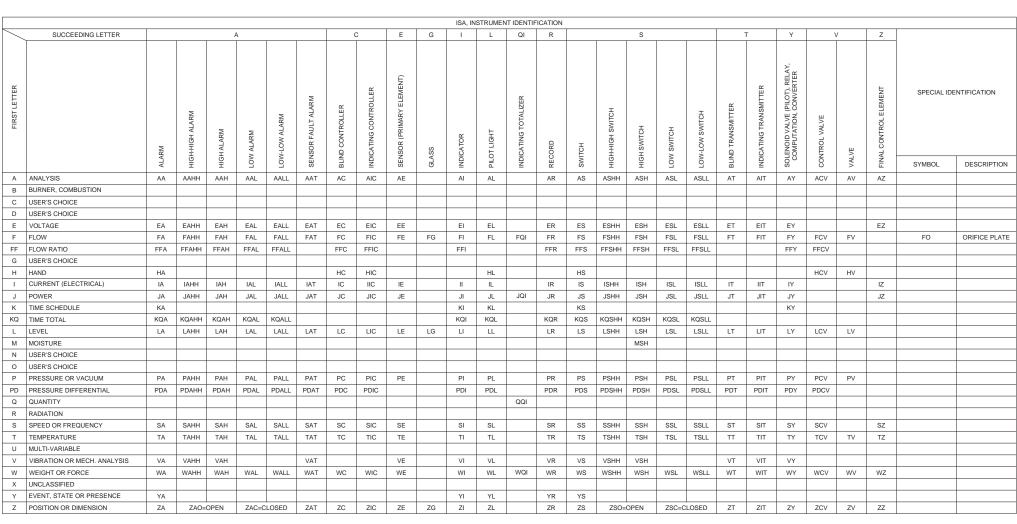


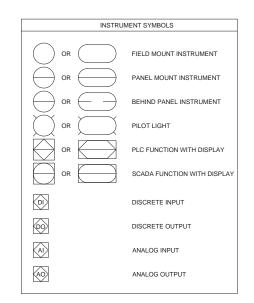


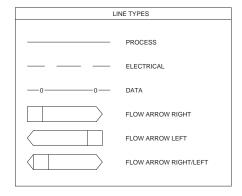


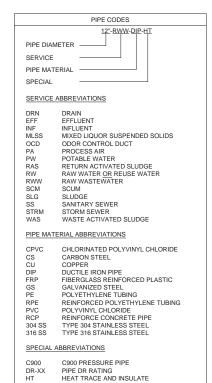




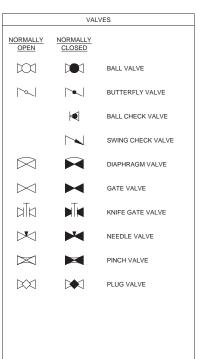


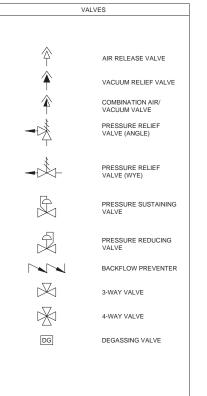






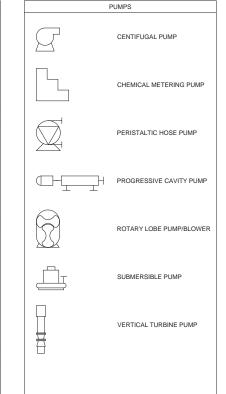
P401 PROTECTO 401 LINED SCH-XX PIPE SCHEDULE (5, 10, 40, 80, ETC.)





LEVEL FLOAT SUBMERSIBLE PRESSURE TRANSDUCER
CODMIENCIBLE I RECOOKE INANOBOCER
ULTRASONIC LEVEL TRANSDUCER
FLOW ELEMENTS
TFM MAGNETIC FLOW METER
VENTURI FLOW METER
VARIABLE AREA FLOW METER (ROTAMETER)
ACTUATORS
E ELECTRIC ACTUATOR H HYDRAULIC ACTUATOR
P PNEUMATIC ACTUATOR
S SOLENOID ACTUATOR
MOTORS
M ELECTRIC MOTOR

LEVEL ELEMENTO

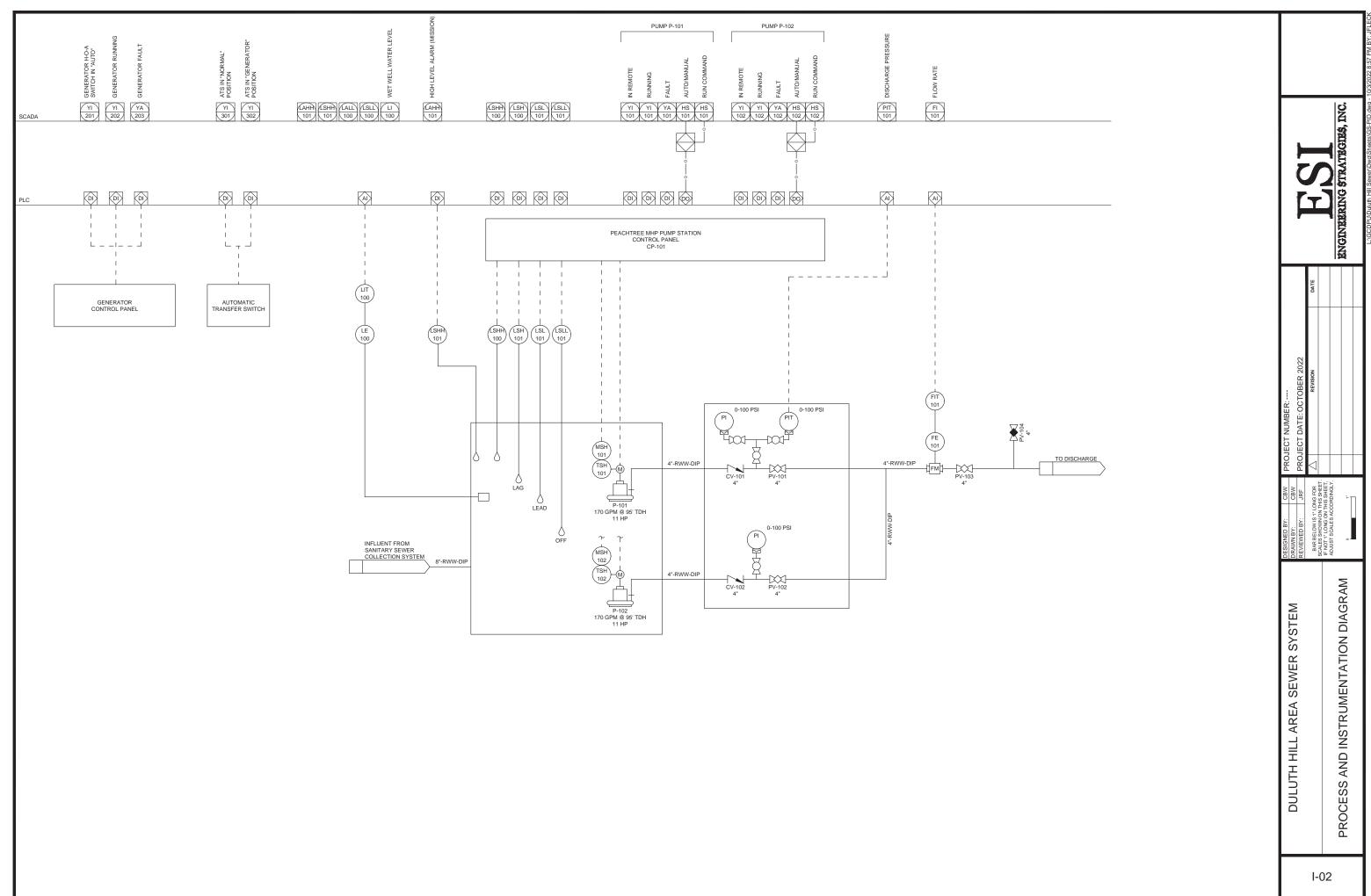


	MISCELLANEOUS
\boxtimes	DIAPHRAGM SEAL
I	DIAPHRAGM ISOLATION RING
M	FLEXIBLE COUPLING/ EXPANSION JOINT
Ф	QUICK CONNECT COUPLING
1 1	UNION
	STRAINER
	REDUCER
\bigcirc	PULSATION DAMPENER
	VENT
	DRAIN
	GATE
	WEIR
	CALIBRATION COLUMN

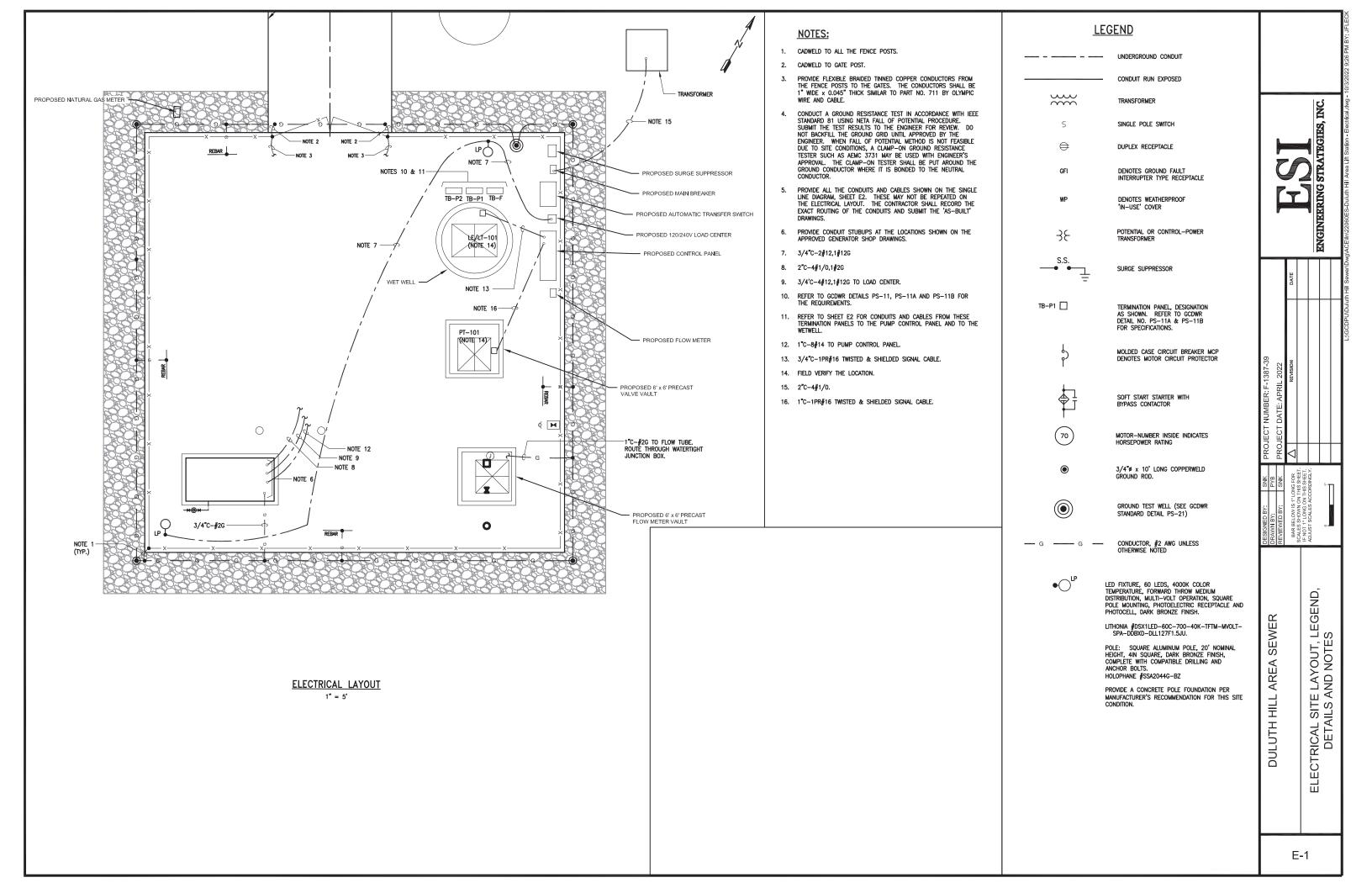
	-П	•	
	:	c	
	ORDINGLY.	ADJUST SCALES ACCORDINGLY.	
	IIS SHEET.	IF NOT 1" LONG ON THIS SHEET	
	HIS SHEET.	SCALES SHOWN ON THIS SHEET.	
REV	ONG FOR	BAR BELOW IS 1" LONG FOR	
PROJECT DATE: OCTOBE	JRF	REVIEWED BY:	
	CBW	DRAWN BY:	
PROJECT NUMBER:	CBW	DESIGNED BY:	

DULUTH HILL AREA SEWER SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM
NOTES AND LEGEND

I-01

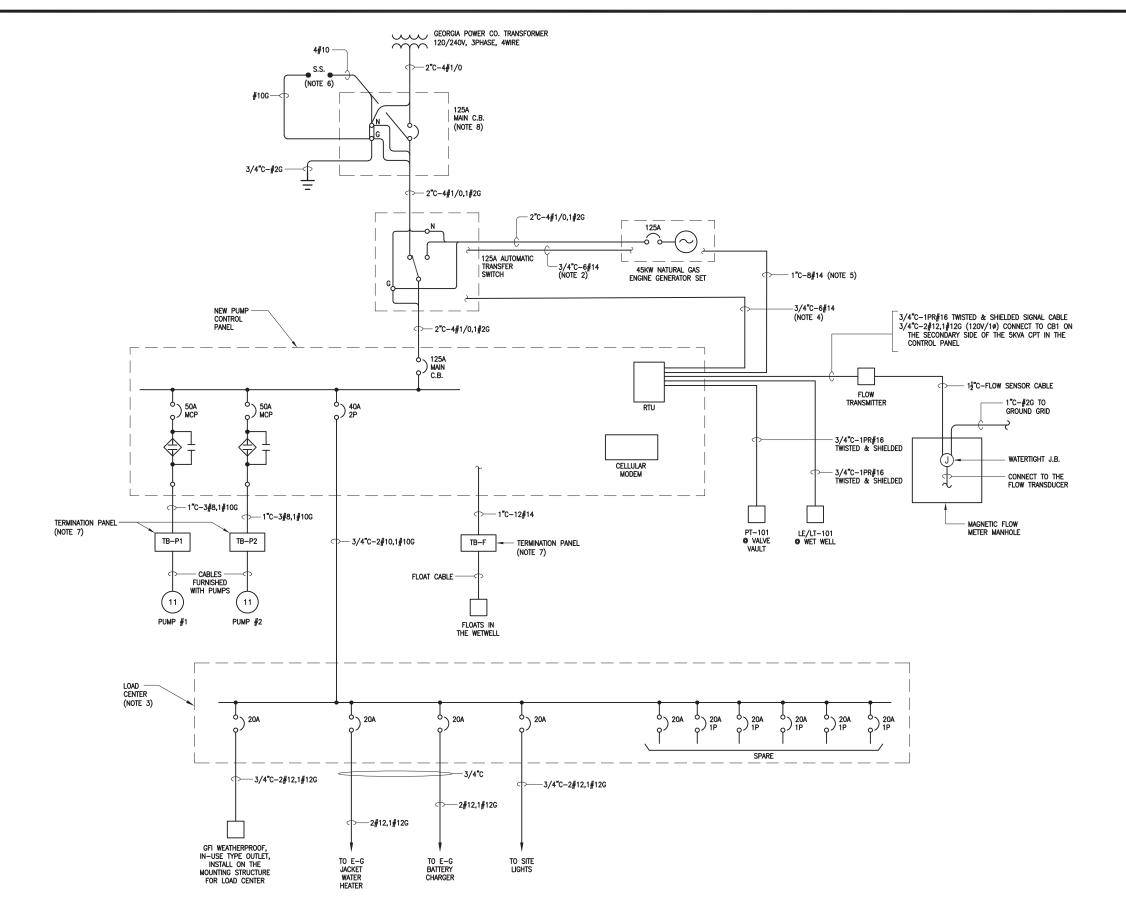


90% SUBMITTAL



NOTES:

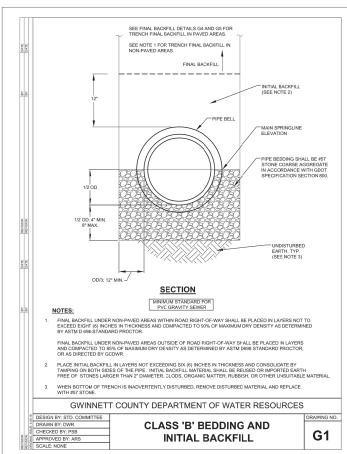
- PROVIDE ALL CONDUITS/CABLES SHOWN ON THE SINGLE LINE DIAGRAM.
 THESE MAY NOT BE REPEATED ON THE ELECTRICAL LAYOUT. PROVIDE
 EDCO HSP-121 SURGE SUPPRESSORS AT BOTH ENDS OF ALL 120V
 CONTROL CABLES. PROVIDE EDCO PC-642 SURGE SUPPRESSORS AT
 BOTH ENDS OF ALL SIGNAL CABLES.
- 2. CONTROL WIRES FOR GENERATOR START/STOP COMMAND. LABEL LINUSED WIRES AS 'SPARF'
- LOAD CENTER SHALL BE IN NEMA-4X STAINLESS STEEL ENCLOSURE, U.L. LISTED, 100A COPPER BUS, AND THE INDICATED BRANCH CIRCUIT BREAKERS
- 4. CONTROL WIRES FOR MONITORING ATS POSITION.
- CONTROL WIRES FOR "GENERATOR RUN", "GENERATOR FAIL", "H-O-A SWITCH IN AUTO POSITION", ALARM.
- 6. PROVIDE SURGE SUPPRESSOR, SQUARE-D CAT #SSP-03-EMA-SDF.
- PROVIDE TERMINATION PANELS IN ACCORDANCE WITH GCDWR DETAILS PS-11, PS-11A AND PS-11B.
- B. THE MAIN CIRCUIT BREAKER SHALL BE IN NEMA-4X STAINLESS STEEL ENCLOSURE WITH EXTERNAL PADLOCKABLE HANDLE. THE CIRCUIT BREAKER SHALL HAVE SHORT CIRCUIT RATING OF 25KA R.M.S. SYMMETRICAL. THE TRIP UNIT SHALL BE ELECTRONIC TYPE WITH 'LSIG' FUNCTION AND AMMETER, SQUARE-D CATALOG #HDL-3P-125-U44X.

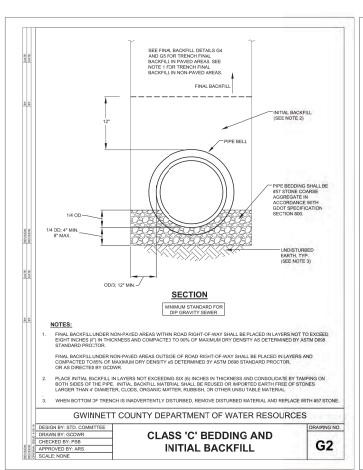


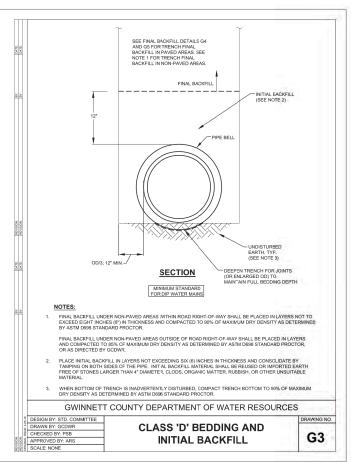
ELECTRICAL SINGLE LINE DIAGRAM

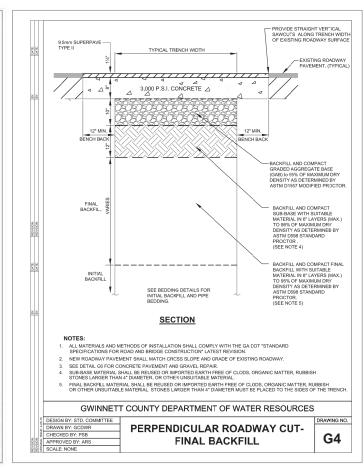
SEWE

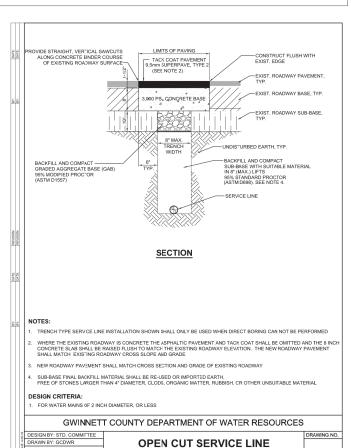
DULUTH HILL AREA





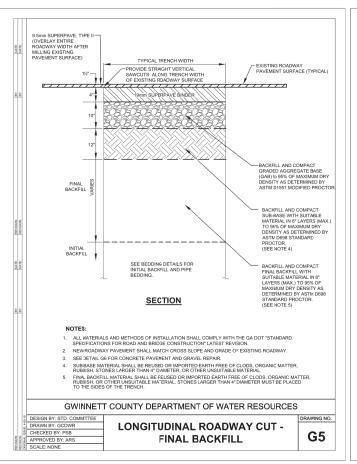


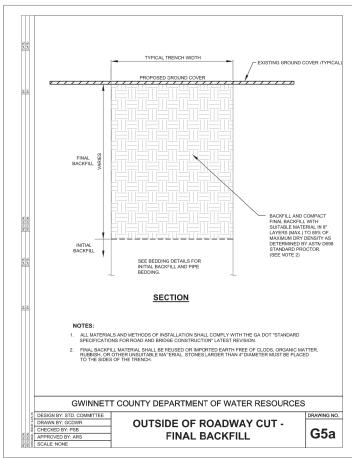


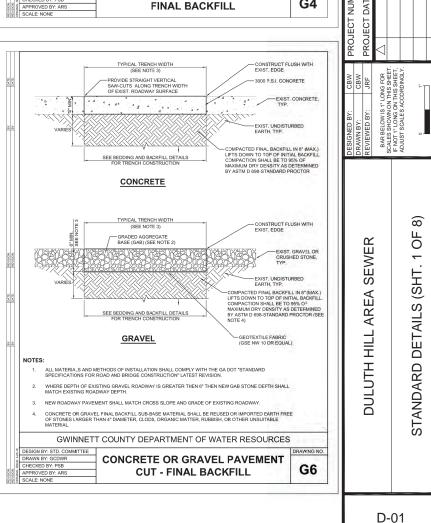


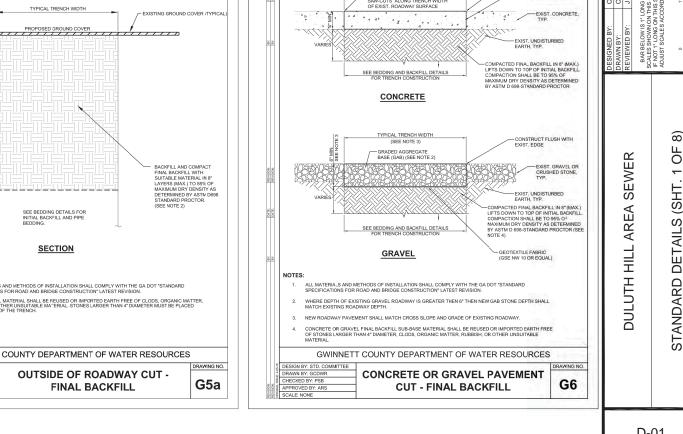
INSTALLATION

G4a

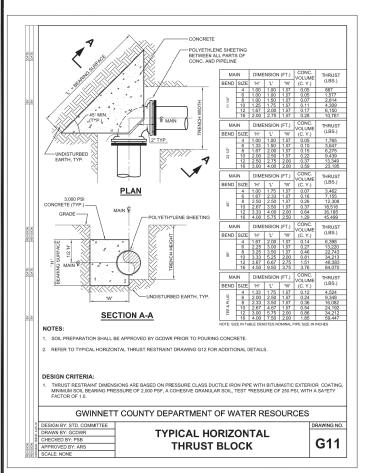


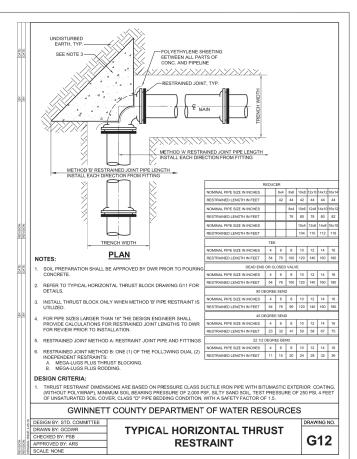


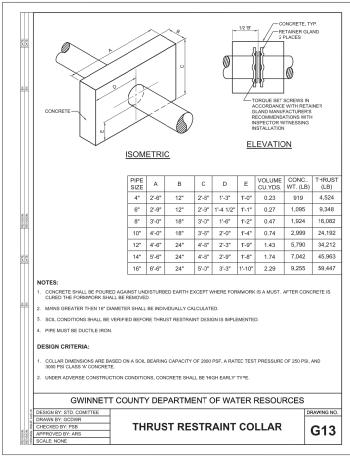


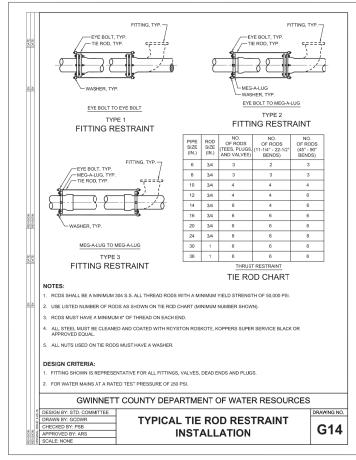


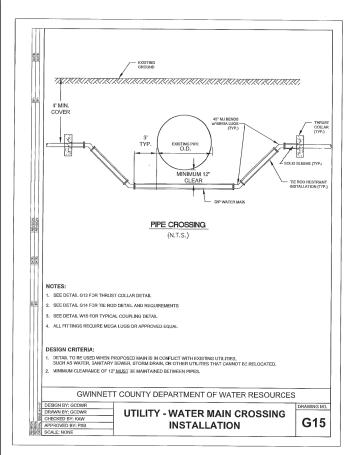
RNGUN

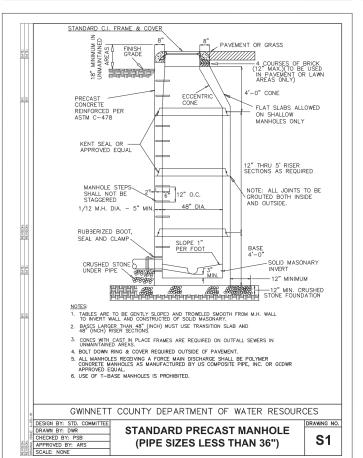


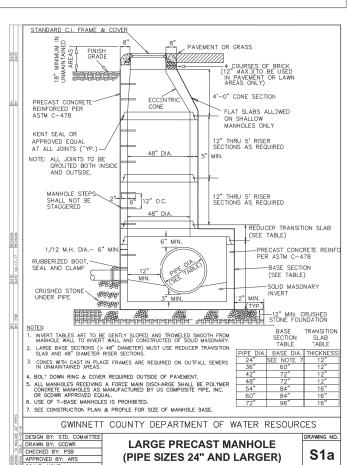


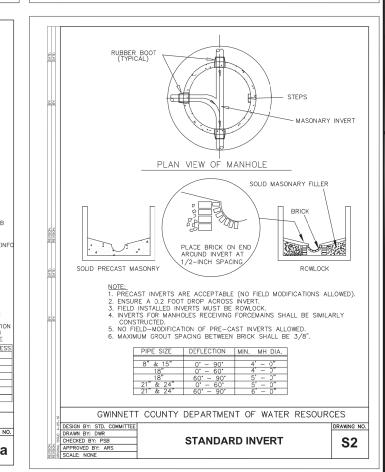












D-02

BARB SCALES IF NOT

SEWER

 AR

DULUTH HILL

8

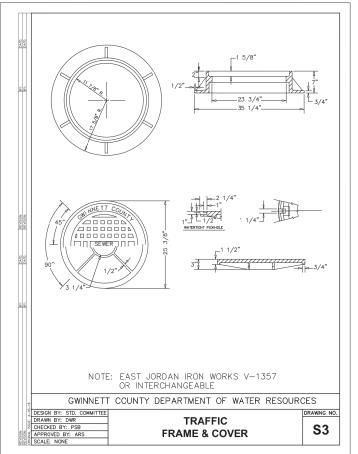
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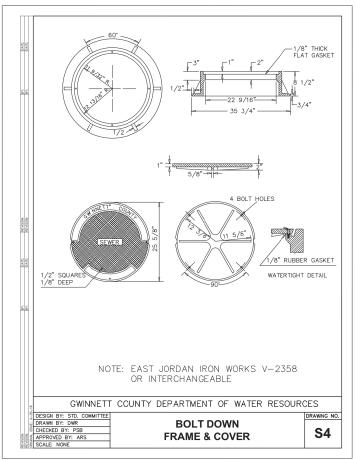
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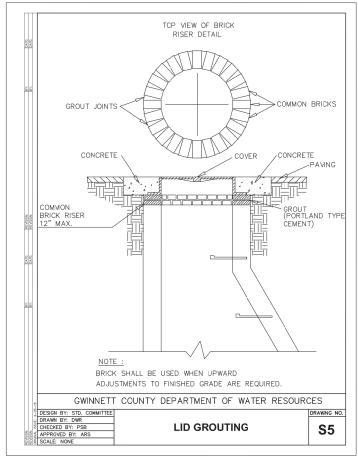
DETAILS

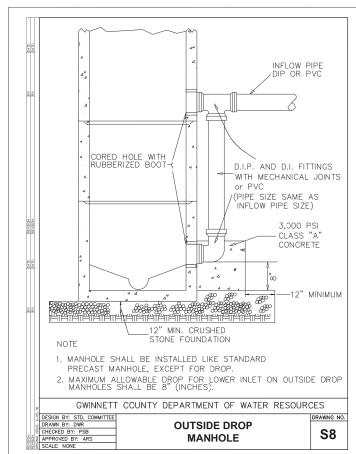
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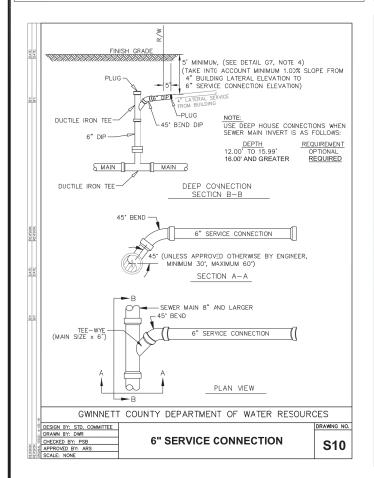
KNGINK

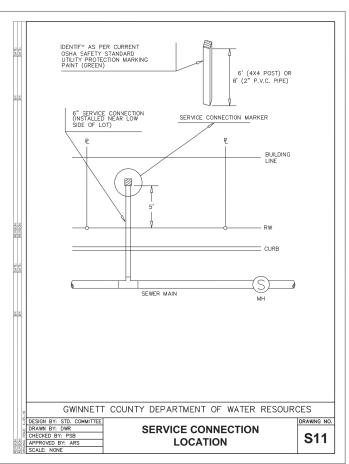


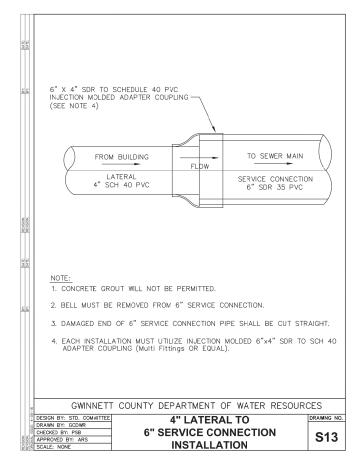


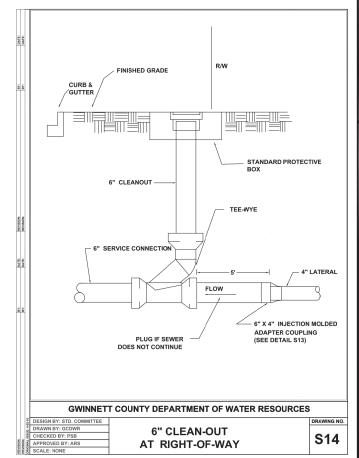


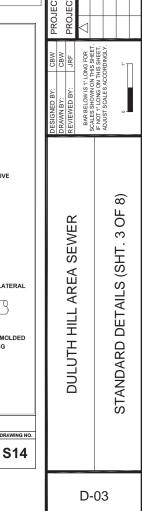




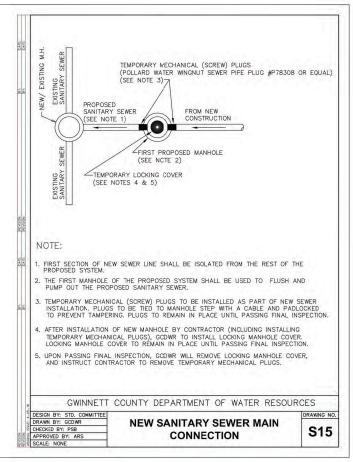


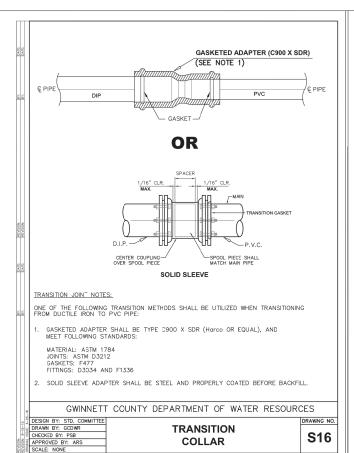


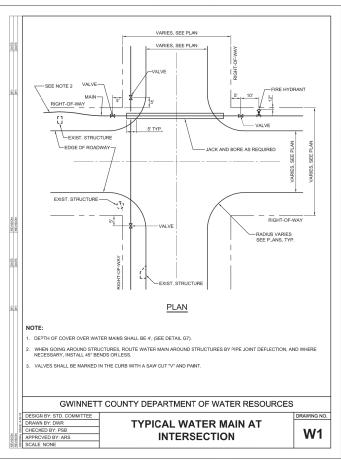


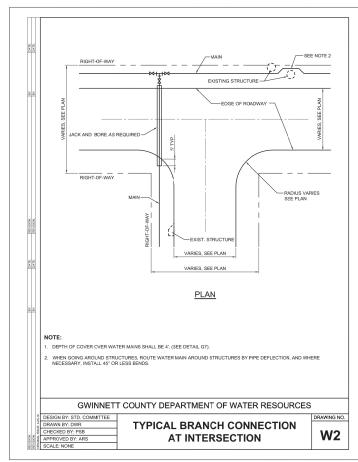


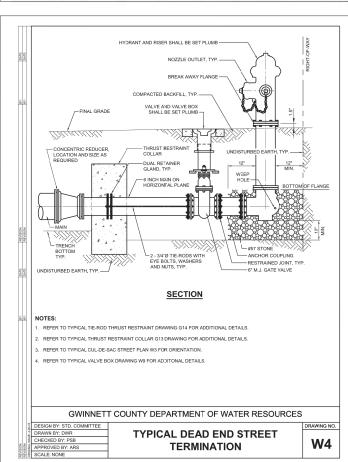
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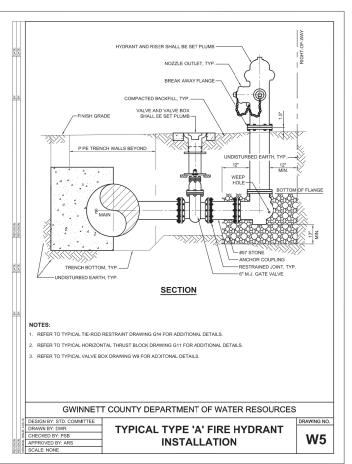


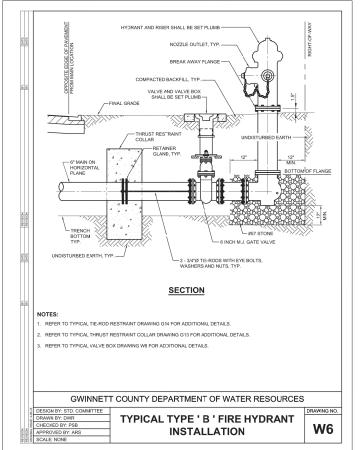


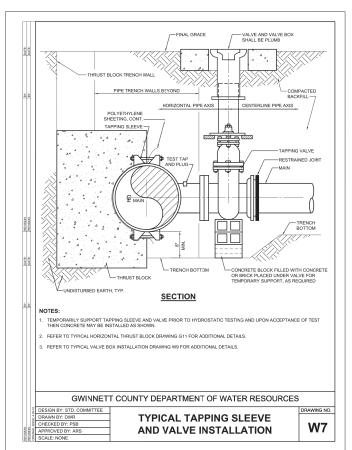


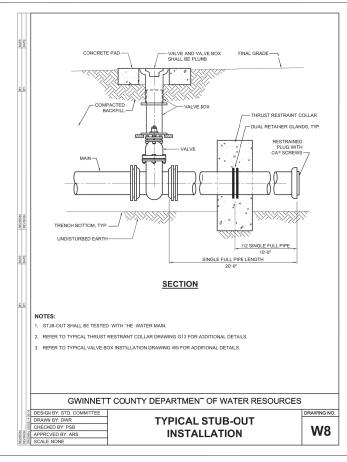


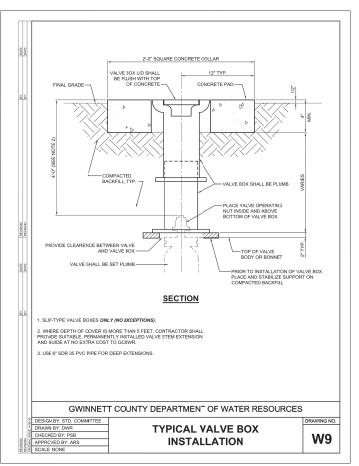


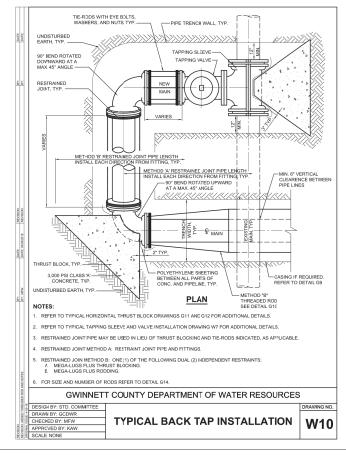


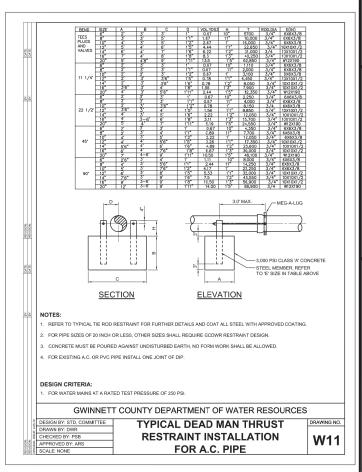


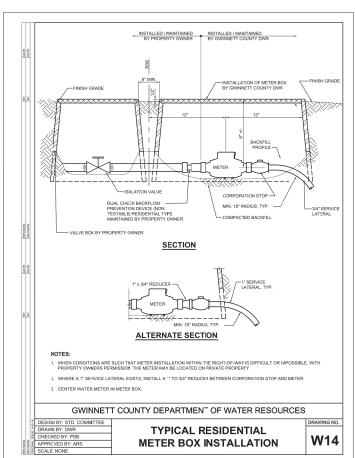


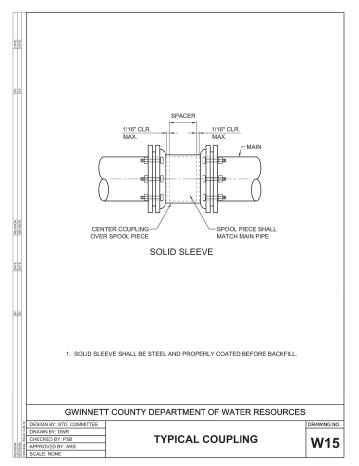


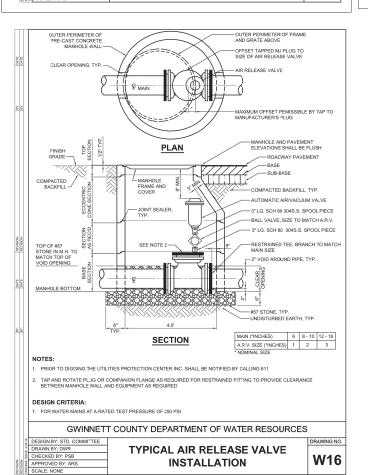


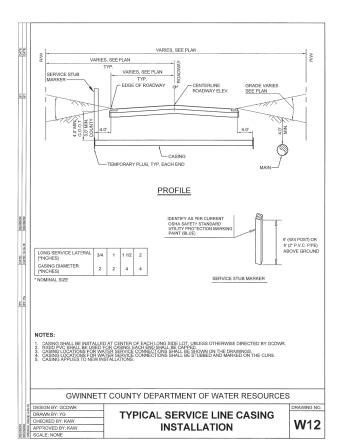












D-05

BAR B SCALES IF NOT

AREA SEWER

DULUTH HILL

8

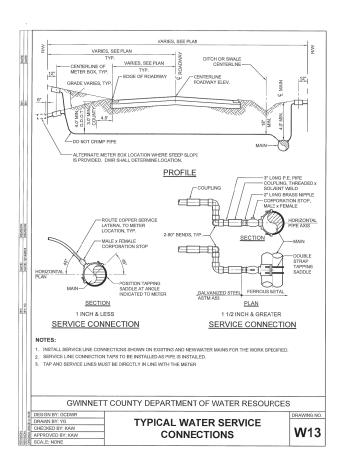
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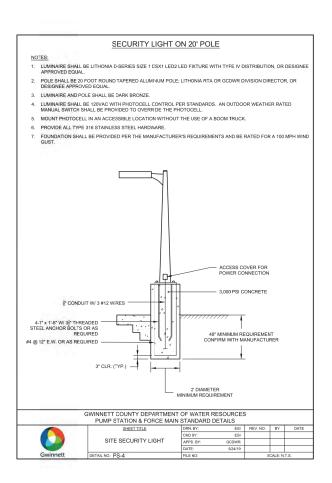
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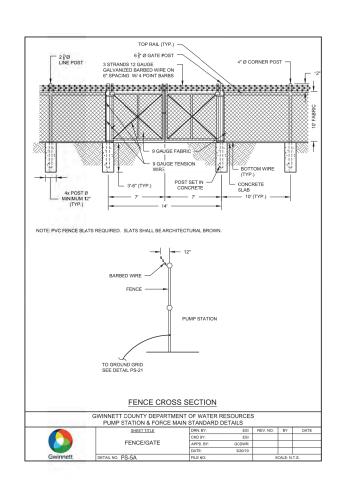
DETAILS (

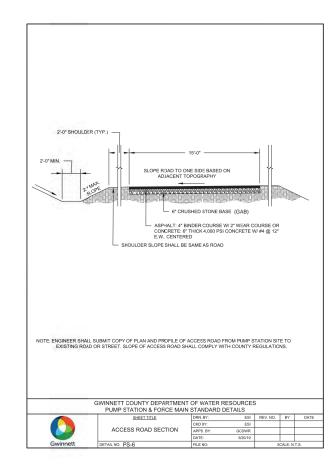
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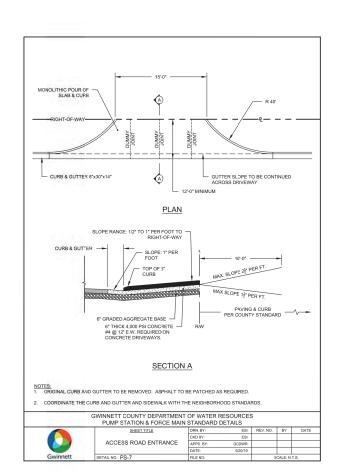
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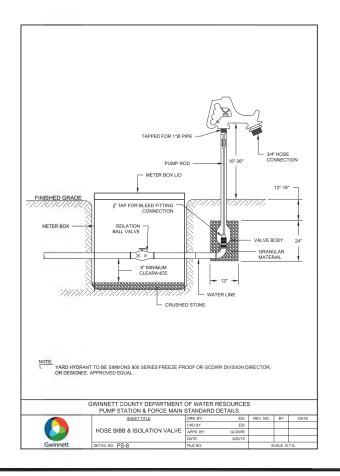


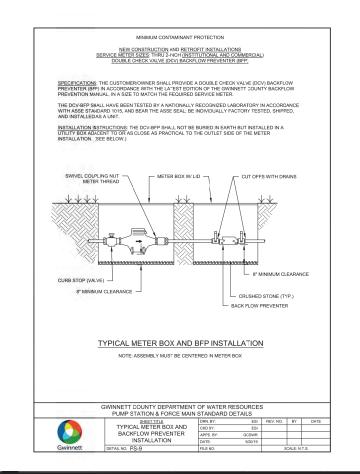


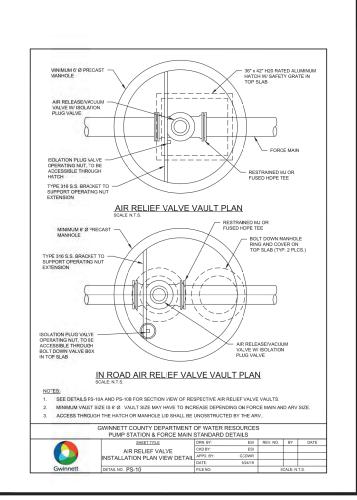


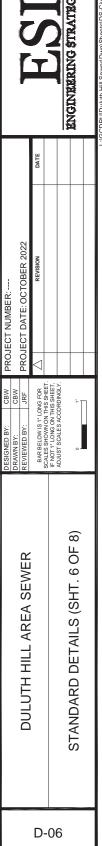


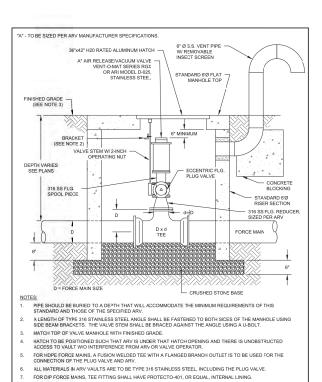








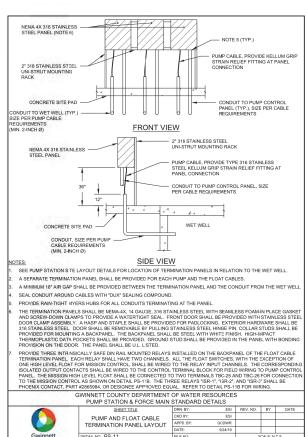


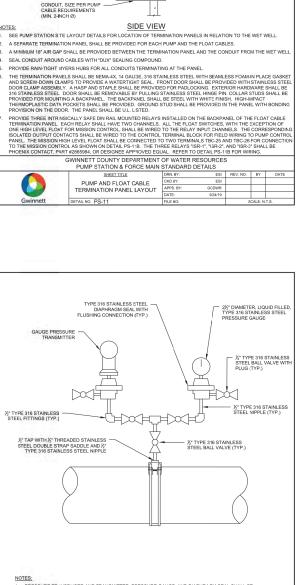


FOR ARVS SIZED 2" AND SMALLER WITH THREADED CONNECTIONS, THE SPOOL PIECE SHALL BE ELIMINATED AND A \$8 BLIND FLANGE PROVIDED TAPPED FOR A 2" SS VIPPLE FOR CONNECTION OF THE ARV.

PUMP STATION & FORCE MAIN STANDARD DETAILS

THE PLUG VALVE SHALL BE INSTALLED SUCH THAT THE SEAT END IS TOWARDS THE ARV





/INNETT COUNTY DEPARTMENT OF WATER RESOURC PUMP STATION & FORCE MAIN STANDARD DETAILS

PRESSURE TRANSDUCER

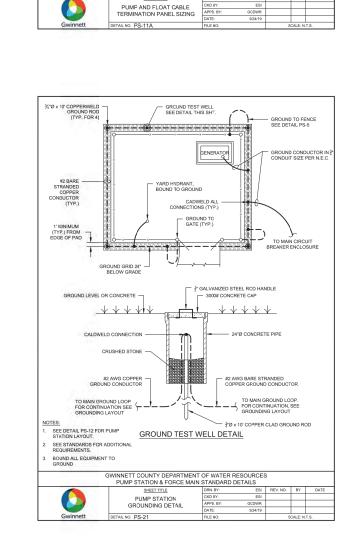


TABLE 1: TERMINATION PANEL FOR 480V MOTORS (REF. NOTES 1 - 5)

TABLE 2: TERMINATION PANEL FOR 208/230V MOTORS (REF. NOTES 1 - 5)

ENOUGH TERMINAL BLOCKS FOR TERMINATION OF MOTOR CABLES SHALL BE PROVIDED ON THE BACKDAMEL OF THE TERMINAL PARKEL THE TERMINAL BLOCK FOR BACKD MOTOR CABLES SHALL LAVE THREE POLES FOR MOTOR PHASE CONDUCTORS AND ONE POLE FOR THE GROUND CONCLUCTOR. END BARRIERS SHALL BE PROVIDED FOR THE TERMIN BLOCK. THE INDULATORS SHALL BE GLASS FILLED POLYCARBONATE, RATED FOR 800. SEE THROUGH SAFETY COVE SHALL BE PROVIDED ON THE TERMINAL BLOCKS. STANDARD ALUMINUM BOX TYPE WIRE CONNECTORS SHALL BE PROVIDED. THE POWER TERMINAL BLOCKS SHALL BE ULL SITED BINALT TO GOOLD FOOD SERIES.

CONTROL TERMINAL BLOCKS FOR TERMINATION OF THE MOTOR CONTROL CONDUCTORS AND FLOAT SWITCH CONDUCTORS SHALL BE GOOV, 358 WITH END BARRIERS AND MOUNTED ON 35 MM DIN RAIL. THE TERMINAL BLOCKS SHAL BE UL LISTED SMIMALT OA LIEL BROALEY 1482.

PANDUIT WIRING TROJGHS WITH COVERS SHALL BE MOUNTED ON THE BACKPANEL FOR NEAT INSTALLATION OF THE FIELD WIRING.

THE TERMINATION PANEL SIZE SHALL BE INCREASED TO MEET THE NATIONAL ELECTRICAL CODE REQUIREMENTS IF NECESSITATED DUE TO PROJECT SPECIFIC DESIGN.

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

PUMP STATION & FORCE MAIN STANDARD DETAILS

TERMINAL PANELS FCR FLOAT CABLES SHALL HAVE A MINIMUM SIZE OF $24^{\circ}\text{W} \times 12^{\circ}\text{H} \times 8^{\circ}\text{D}$ AND BE PRI 600V TERMINAL BLOCKS.

TERMINALS FOR

CONTROL WIRES

12 - 35A, 600V

12 - 35A, 600V

12 - 35A, 600V

12 - 35A 600V

12 - 35A, 600V

MINIMUM PANEL SIZE

24"W x 24"H x 10"D

24"W x 24"H x 10"D

24"W x 24"H x 10"D

30"W x 24"H x 10"D

30"W x 24"H x 10"D

24"W x 24"H x 10"D

24"W x 24"H x 10"D

24"W x 24"H x 10"D

30"W x 24"H x 10"D

30"W x 24"H x 10"D

30"W x 24"H x 10"D

MIN POWER TERMINAL

BLOCK RATING

100A

150A

200A

604

100A

150A

200A

250A

300A

PUMP HP

<= 30

31 to 50

51 to 75

76 to 100

101 to 150

151 to 200

<= 15

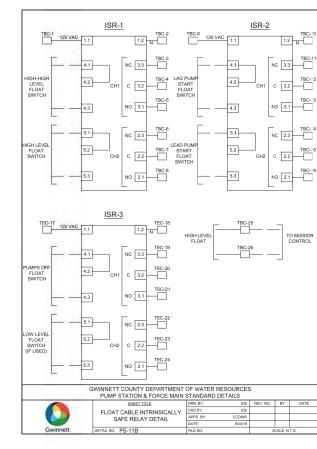
16 TO 25

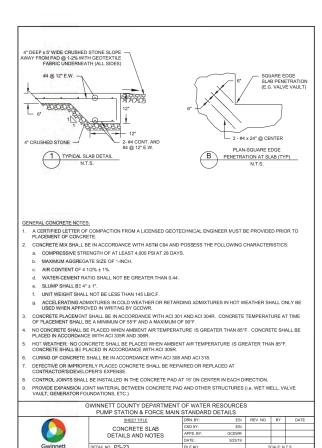
26 TO 40

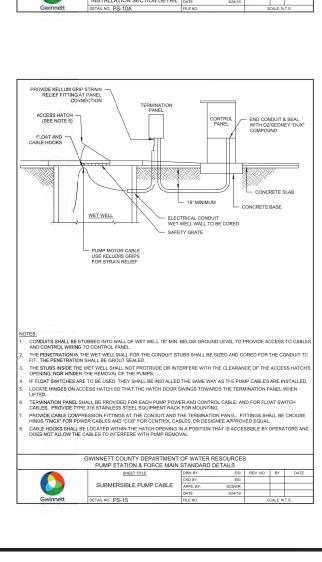
41 TO 50

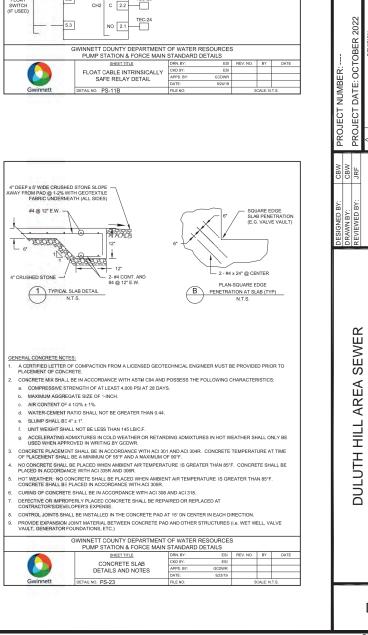
51 TO 60

61 TO 75









BARBI SCALES

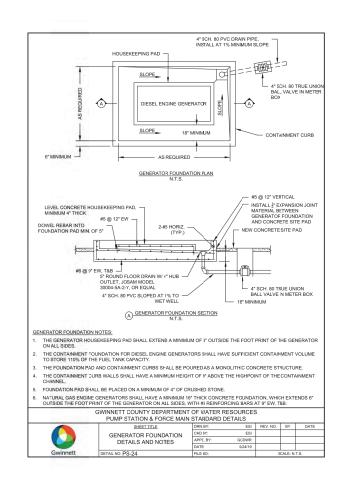
8 PF

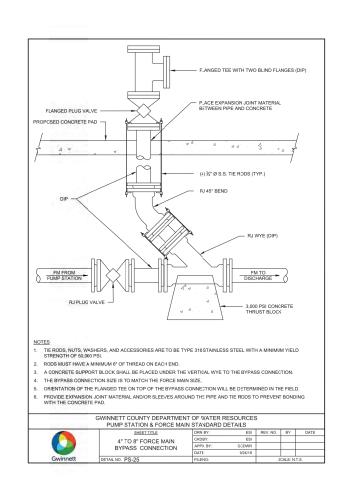
7 (SHT.

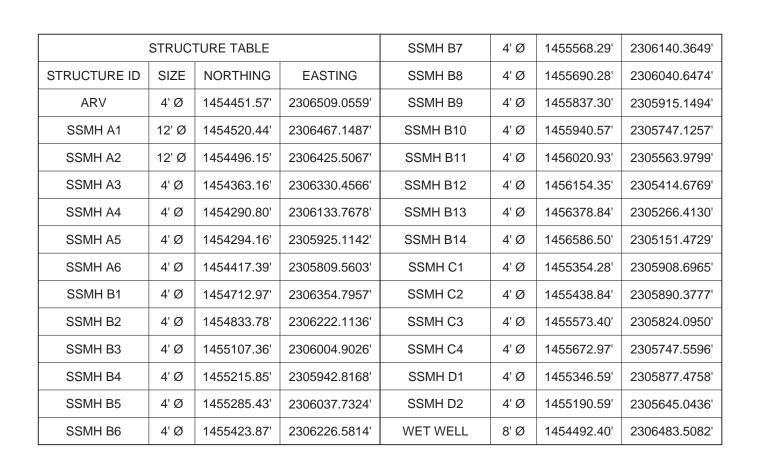
DETAILS

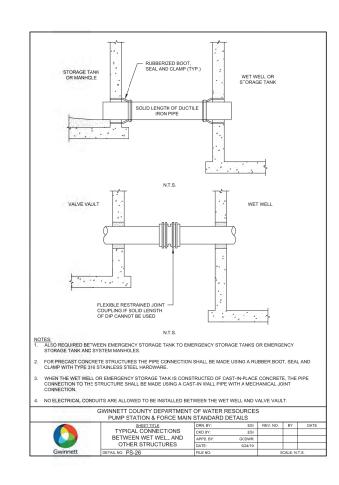
STANDARD

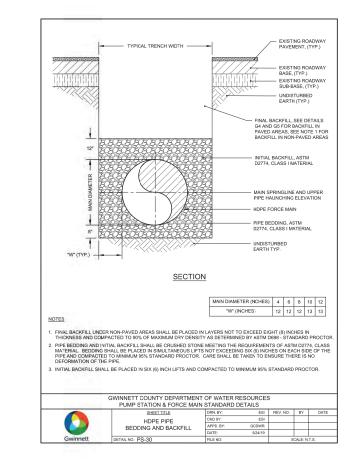
ENGINE

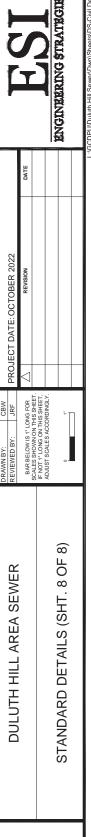










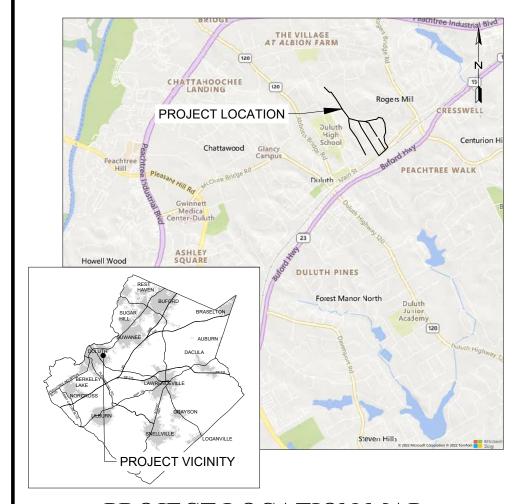


D-08

CONSTRUCTION PLANS FOR:

DULUTH PINECREST AREA SEWER SYSTEM

GCDWR PROJ. NUMBER:F-1387-38



OCTOBER 2022



			Kelatet	Cases							
Please Prov	ide the fol	lowing da	ata on your p	lan in the li	Type Case #						
		G	ieneral			Approval Date					
Development Type	SANITARY	SEWER						Tre	ees		
Zoning	R75, R100, HCR	PUD,				Non Buffer Trees F NA	reserv	ed	Non Buffer 1	rees Replace	ed
Project Data								Bu	ffer		
Total Area (Acres)	12.78	2.78					Type 25' STATE STREAM BUFFER Width				
Limits of Disturbed	of 12.78 bed 12.78					Type 50' COUNTY STREAM BUFFER Width Type 75' IMPERVIOUS SETBACK Width					
Area (Acres) Parking Spaces						Buffer Trees Plante	ed				
Existing: NA New: NA Total: NA				Sanitary Service	→	Sewer X		Septic			
Pavement Sur Asphalt/Concr	ete	Required Spaces→		Minimum	Maximum		1.1	CD D75	D100		
Provided Parking Spaces					ZONING: COMMISS		CR,R75 DISTRI		מטץ		

Total Floor

Area (sq ft)

FEMA FIRM PANEL 13135C0041H AND 1335C0055G DATED MARCH 4, 2013

Total Floor TOTAL PROJECT AREA: 12.78 AC Area (sq ft) TOTAL DISTURBED AREA: 12.78 AC

PROJECT LOCATION: 3588 NESBITT CROSSING CIR DULUTH, GA, 30096

Exiting Floor Area (Sq ft):

Area (Sq ft)

Area (Sq ft)

Existing Bldg (No) New Bldg (No)

Area (Sq ft)

Area (Sq ft)

Area (Sq ft)

Stories (No

Area (sq ft)

Area (sq ft)

Area (sq ft)

Commercial Development Permit Data

PROJECT LOCATION MAP

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

OWNER:

684 Winder Hwy Lawrenceville, GA 30045

BOARD OF COMMISSIONERS

NICOLE LOVE HENDRICKSON

KIRKLAND CARDEN

BEN KU

JASPER WATKINS III

MARLENE FOSQUE

GLENN STEPHENS

COUNTY ADMINISTRATOR

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES - WATER & SEWERAGE AUTHORITY

BRYAN KERLIN CHAIRWOMAN'S APPOINTMENT
CURT THOMPSON DISTRICT 1 APPOINTMENT
J. C. LAN DISTRICT 2 APPOINTMENT
WILLIAM B. MARTIN DISTRICT 3 APPOINTMENT

DISTRICT 4 APPOINTMENT

WAYNE ALLICK JR.

CONSULTING ENGINEER:

ENGINEERING STRATEGIES, INC. *ESI*

3855 Shallowford Road, Suite 525 Marietta, GA 30062 Phone: (770) 429-0001



1-800-282-7411 c. 1/5 The Law /



90% SUBMITTAL

NOTIFICATION REQUIREMENTS/CONTACTS

THE 24-HOUR EMERGENCY CONTACT IS GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

- OFFICE HOURS #678-376-6700 AFTER HOURS #678-376-7000

OWNER: GWINNETT COUNTY

DEPARTMENT OF WATER RESOURCES
684 WINDER HIGHWAY
LAWRENCEVILLE, GA 30045
CONTACT:

GREG JACKSON, P.E. PHONE: #678-376-6917

ENGINEER: ENGINEERING STRATEGIES, INC.

ASSS SHALLOWFORD RD, SUITE 525 MARIETTA, GA. 30062 CONTACT:

NOTICY GCDWR INSPECTIONS OF THE FOLLOWING AT THE INDICATED TIME INTERVAL INSPECTION POINT OF CONTACT WILL BE PROVIDED AT PRE-CONSTRUCTION MEETING.

 24 HOURS BEFORE THE BEGINNING OF EACH PHASE OF CONSTRUCTION.
 24 HOURS BEFORE EACH BLAST ROUND.
 NOTE THAT BLASTING REQUIRES APPROVAL OF A BLASTING PLAN 30 WORKING DAYS PRIOR AND ENGINEER APPROVAL OF A DETAILED BLAST ROUND DESIGN PLAN 24 HOURS PRIOR ALSO REQUIRES 7 DAYS ADVANCE NOTICE TO ADJACENT PROPERTY OWNERS FOLLOWED BY

ALSO REQUIRES 7 DAYS ADVANCE NOTICE TO ADJACENT PROPERTY OWNERS FOLLOWED BY ANOTHER NOTICE 24 HOURS IN ADVANCE, 72 HOURS IN ADVANCE, A REQUEST MUST BE PLACED TO THE INSPECTOR FOR APPROVAL TO REMOVE OR DISTURB SIGNS, MAILBOXES, FENCING, LANDSCAPING, ETC. APPROVAL OF REQUEST MOREOUND DEFENDED REPORT AND APPLICATE MOREOUNDED.

IS REQUIRED BEFORE PERFORMING RELATED WORK.
7 DAYS IN ADVANCE, COORDINATE PLANNED SHUT OFF OF SERVICES AND/OR WET CUT-INS WITH THE INSPECTOR. REQUIRES A FOLLOW UP NOTIFICATION TO INSPECTOR AND AFFECTED CUSTOMERS & MINIMUM OF 24 HOURS PRIOR TO LOSS OF SERVICE. GCDWR INSPECTOR MUST BE RESENT AT WET CUT-INS AND ANY OTHER ACTIVITY THAT REQUIRES THE SERVICES TO BE SHUT

THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND CONTACT THE GEORGIA UTILITY PROTECTION CENTER FOR FIELD MARKING OF UTILITIES 72 HOURS PRIOR TO BEGINNING CONSTRUCTION

UTILITY PROTECTION CENTER

GWINNETT COUNTY DOT IS NOT ON THE ONE-CALL SYSTEM. PLEASE CALL (770) 822-7474 WHEN LOCATING UTILITIES FOR CONSTRUCTION.ANY COST FOR REPAIRS REQUIRED TO THE GWINNETT COUNTY DOT TRAFFIC SIGNAL SYSTEM DUE TO THE DAMAGES BY THE CONTRACTOR WILL BE BILLED TO THE CONTRACTOR AND SHALL BE PAID BEFORE FINAL PAYMENT IS RELEASED BY THE

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES 24 HOURS PRIOR TO CONSTRUCTION IN AREAS WHERE THE UTILITIES ARE SHOWN OR SUSPECTED TO BE. THE LIST IS BASED ON BEST INFORMATION AVAILABLE, BUT IS NOT GUARANTEED TO BE COMPLETE.

ATLANTA GAS LIGHT COMPANY AT&T BROAD BAND #770-559-2000 CHARTER COMMUNICATIONS #770-806-7060 COMCAST #404-379-6712 GEORGIA POWER COMPANY JACKSON EMC #1-800-462-3691

GWINNETT COUNTY DEPARTMENT OF TRANSPORTATION (GCDOT) AND THE CITY OF DULUTH PUBLIC WORKS, STREET DEPARTMENT APPROVAL IS REQUIRED PRIOR TO ANY OPEN CUTS OR LANE

- BRITTON LOCKHART (GDOT) - LEWIS COOKSEY (GCDOT) - DULUTH CITY ENGINEER #678-957-7284

THE CONTRACTOR SHALL NOTICY THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO

CONSTRUCTION WHENEVER ANY STREET IS TO BE PARTIALLY BLOCKED.
- GWINNETT COUNTY POLICE DEPARTMENT #770-513-5000 GWINNETT COUNTY FIRE DEPARTMENT #678-518-4800 GWINNETT COUNTY BOARD OF EDUCATION #770-338-4800 CITY OF DULUTH POLICE DEPARTMENT #770-476-4151 CITY OF DULUTH ENGINEER #678-957-7284

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING GOVERNMENT AGENCIES AND UTILITIES AT LEAST 48 HOURS BEFORE ENCROACHING ON THEIR RIGHT-OF-WAY.

- GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT)

CONTRACTOR IS TO NOTIFY AFFECTED CUSTOMERS 24 HOURS IN ADVANCE OF BLOCKING ACCESS TO PROPERTY OR TRAFFIC ROADWAYS. FULL ACCESS TO PROPERTY MUST BE RESTORED BY THE

CONSTRUCTION SEQUENCING AND CONNECTION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF CONSTRUCTION SEQUENCING AND
- THE FOLLOWING SEQUENCE OF CONSTRUCTION CONTAINS REQUIREMENTS FOR CRITICAL COMPONENTS OF THE PROPOSED WORK, WHICH ARE TO BE COMPLETED TO ALLOW THE CONSTRUCTION ACTIVITIES FOR THE CITY OF PEACHTREE CORNERS WOLF CREEK PUMP STATION REHABILITATION AND THE ADDITION OF THE EMERGENCY STORAGE TANK STARTING IN EARLY 2022. THE CONTRACTOR SHALL MAKE REVISIONS BASED ON CONDITIONS ENCOUNTERED DURING CONSTRUCTION SO AS TO COMPLETE THE PROJECT IN A TIME EFFICIENT MANNER.
- SEQUENCE OF CONSTRUCTION:
 - CONTRACTOR IS TO CONDUCT A DETAILED VIDEO DOCUMENTATION OF EXISTING ITEMS ON OR NEAR
 - CONTRACTOR IS TO CONDUCT A DEFINITED VIDEO DECOMENTATION OF EXISTING THEMS ON OR NEAR THE EXISTING AND PROPOSED EASEMENT PRIOR TO BEGINNING CONSTRUCTION.

 CLEAR TREES AND INSTALL ORANGE BARRIER FENCE THROUGH THE PROPOSED EASEMENT, ALONG THE PROPOSED ALIGNMENT TO PREVENT ACCESS TO THE WORK AREA BY THE PUBLIC. FOLLOWING COMPLETION OF THE INTERCEPTOR SEWER THROUGH THE TIE IN TO THE EXISTING
 - SEWER, CONTRACTOR MAY BEGIN WORK ON BRANCH SEWERS AND PUMP STATION DECOMMISSIONING.
 - DECOMMISSIONING TO SHALL COORDINATE WITH GCDWR TO PERFORM THE DECOMMISSIONING OF NESBITT CROSSING PUMP STATION, FOLLOWING THE ACCEPTANCE OF THE PROPOSED SEWER BY GCDWR. PROPOSED WATER MAINS ON NORTH AND SOUTH STREET SHALL BE INSTALLED AND PLACED INTO SERVICE PRIOR TO BEGINNING SEWER WORK ON NORTH AND SOUTH STREET.

GENERAL NOTES

- 1. ALL CONSTRUCTION TO COMPLY WITH GWINNETT COUNTY STANDARDS
- ALL CONSTRUCTION SHALL COMPLY WITH THE CONTRACT PLANS, CONTRACT SPECIFICATIONS. PERMIT REQUIREMENTS, AND ALL APPLICABLE STATE, FEDERAL, AND LOCAL CODES, NO ADDITIONAL PAYMENT WILL BE GIVEN FOR ANY COST INCURRED TO COMPLY WITH REQUIREMENTS
- 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 DIRECT SUPERVISION.

JOHN R. FLECK, P.E. Joh A. Flesh

- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF
- THE CONTRACTOR SHALL IMMEDIATELY INFORM THE OWNER OF ANY DISCREPANCIES OR ERRORS DISCOVERED IN THE CONTRACT DOCUMENTS. ANY DEVIATION FROM THE PLANS WITHOUT PRIOR CONSENT OF OWNER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.
- ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE EXCEPT THE FOLLOWING THAT WILL BE OBTAINED BY GC

 - 25' STATE STREAM BUFFER VARIANCE
- A PRECONSTRUCTION MEETING MUST BE HELD WITH MEMBERS OF GCDWR, GCDOT, AND THE CONTRACTOR PRIOR TO COMMENCING WORL
- ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO PUBLIC RIGHT-OF-WAYS AND ACQUIRED EASEMENTS. WORK IS TO BE PERFORMED IN CONFORMITY WITH ALL APPLICABLE PERMITS, AGREEMENTS, AND EASEMENT STIPULATIONS. CONTRACTOR SHALL NOT ENTER OR OCCUPY ANY EASEMENT WITHOUT FIRST CONFIRMING WITH GCDWR THAT SUCH EASEMENT IS FULLY EXECUTED. CONTRACTOR SHALL NOT ENTER OR OCCUPY ANY LAND OUTSIDE OF THE EASEMENTS. AND RIGHT-OF-WAY, SHOULD THE CONTRACTOR DESIRE OR REQUIRE ADDITIONAL SPACE, THE CONTRACTOR MUST ARRANGE FOR SUCH A SPACE WITH THE EASEMENT OWNER AT
- LAND DISTURBANCE SHALL BE LIMITED TO THOSE AREAS INDICATED ON THE PLANS FOR ACCESS,
- ALL BUFFERS AND TREE SAVE AREAS ARE TO BE CLEARLY IDENTIFIED WITH TREE PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- INSTALLATION OF FROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO AND CONCURRENT WITH LAND DISTURBING ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE INSPECTED REGULARLY USING MEASURES SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE INSPECTED REGISTER.
 THE EROSION AND SEDIMENT CONTROL CHECKLIST. ADDITIONAL EROSION AND SET
 CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY THE OWNER.
- 12. DRAINAGE SYSTEMS SHALL BE MAINTAINED. KEPT FREE OF DEBRIS. AND IN OPERATING CONDITION AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT. THIS MAY INCLUDE, BUT NOT BE LIMITED TO REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN 10, REPLACEMENT OR RECONSTRUCTION OF EARST ING DRAINAGE STRUCTORES THAT HAVE BEET DAMAGED OR REMOVED OR RE-GRADED AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS IN THE PLANS AND HAVING SPECIFIC PAY ITEM IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO BENEFICIAL TRAINED FOR THE PROPERTY. TO COMPLY WITH THIS REQUIREMENT.
- 13. MONUMENTS OR LANDMARKS SHALL NOT BE DISTURBED OR REMOVED BY THE CONTRACTOR WITHOUT WRITTEN CONSENT OF THE OWNER, ANY MONUMENT OR LANDMARK REMOVED OR
- ALL SIGNS, MAILBOXES, FENCING, LANDSCAPING, ETC. SHALL BE PROTECTED DURING CONSTRUCTION. SHOULD IT BE REQUIRED TO REMOVE OR DISTURB SUCH ITEMS, THE CONTRACTOR SHALL SEEK APPROVAL FROM THE OWNER FIRST AND IF APPROVED. THE REMOVAL OR DISTURBANCE OF SUCH ITEMS WILL BE DONE AT NO ADDITIONAL COST TO OWNER. SHOULD THE OWNER DEEM ANY ITEMS AS DAMAGED, THE CONTRACTOR SHALL REPLACE THE ITEM IN LIKE AND KIND AT NO ADDITIONAL EXPENSE TO GWINNERT COUNTY. TRANSPLANTED AND/OR REPLACED ITEMS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR AFTER WORK IS COMPLETED. TRAFFIC CONTROL SIGNS AND MAIL BOXES SHALL BE REPLACED THE DAY OF THEIR
- NO TRENCH SHALL BE OPENED MORE THAN 150 FEET AHEAD OF PIPE LAYING AND NO MORE THAN NO TRENCH SHALL BE OFFINED WINDE THAN 13 OFFET AND OFFITE THING AND UNIT OF THE OFFITE AND OFFITE THING AND UNIT OF THE OFFITE AND OFFITE AND OFFITE AND OFFIT OFF OPERABILITY SHALL BE FULLY RESTORED AND SITE MUST BE CLEANED TO THE SATISFACTION OF
- CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FOR THE PROJECT THAT SHALL BE APPROVED BY THE INSPECTOR AND/OR GEOTECHNICAL ENGINEERING FIRM REPRESENTATIVE PRIOR TO USE. ALL SPOIL MATERIALS, REFUSE, AND DERRIS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND LEGALLY DISPOSED OF AT AN APPROPRIATE OFFSITE LOCATION. BURNING OF REFUSE, DEBRIS, OR SPOIL MATERIAL AT THE PROJECT SITE IS NOT ALLOWED.
- FILL AREAS LINDER PAVED AREAS SHALL BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR FILL AREAS UNDER FAVED AREAS SHALL BE COMPACTED TO MINIMIMUM 99% STANDARD PROCTOR, UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS OR DIRECTED BY THE OWNER. A REPORT FROM AN APPROVED GEOTECHNICAL ENGINEER MAY BE REQUIRED BY THE CONSTRUCTION INSPECTOR FOR ALL FILL AREAS WITHIN THE RIGHT-OF-WAY.
- 18. OWNER'S MATERIAL TESTING FIRM TO PERFORM TESTING OF CONTRACTOR'S WORK WHERE DIRECTED BY THE INSPECTORIFIELD REPRESENTATIVE. CONTRACTOR IS TO ALLOW FULL ACCESS AS NEEDED BY THE MATERIALS TESTING FIRM. ANY FAILED TEST SHALL REQUIRE THE CONTRACTOR TO REDO THE WORK UNTIL THE TEST IS PASSED. ADDITIONAL TESTING DUE TO A FAILED TEST SHALL BE PERFORMED BY CONTRACTOR'S OWN MATERIALS TESTING FIRM AND AT THE EXPENSE OF THE CONTRACTOR.
- ALL PROJECT SITE AREAS DISTURBED BY CONTRACTOR OPERATIONS SHALL BE STABILIZED WITH PERMANENT GRASSING UNLESS OTHERWISE NOTED. PERMANENT GRASSING SHALL BE SOD UNLESS OTHERWISE SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. SOD SHALL MATCH THE EXISTING ADJACENT GRASS ON THE PROPERTY. ANY AREAS OUTSIDE THE PROJECT SITE AREA THAT ARE DISTURBED SHALL BE RESTORED AT WITH SOD THE EXPENSE OF THE CONTRACTOR.
- 20. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRAVEL PAVED, OR CONCRETE ENTRANCES DRIVEWAYS AND APRONS TO PRECONSTRUCTION CONDITIONS AND IN ACCORDANCE WITH APPLICABLE GOOT AND GCDOT STANDARDS AND REQUIREMENTS. DRIVEWAYS TO BE REPLACED 10 FEET BACK FROM THE CURB OR TO THE CLOSEST EXPANSION JOINT, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- 21. A PAVING PLAN MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER BEFORE EXECUTING ASPHALTIC CONCRETE CONSTRUCTION. MILLING IS REQUIRED PRIOR TO ASPHALT RESURFACING AND IS TO BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. SURFACE OVERLAY
- VEHICULAR AND PEDESTRIAN TRAFFIC ACCESS TO PUBLIC ROADWAYS, DRIVEWAYS, FIRE HYDRANTS, VALVES, ETC. SHALL BE MAINTAINED AT ALL TIMES FOR RESIDENTS, PROPERTY OWNERS, PEDESTRIANS, THE TRAVELING PUBLIC, TRASH PICKUP, MAIL AND PARCEL DELIVERY SERVICES, SCHOOL BUSES, AND EMERGENCY VEHICLES.
- 23. STREET INTERSECTIONS MAY NOT BE BLOCKED EXCEPT FOR ½ THE ROADWAY AT ANY GIVEN

TIME. IF IT BECOMES NECESSARY TO CLOSE A PORTION OF THE ROAD. THE CONTRACTOR SHALL DE A TRAFFIC ROUTING (DETOUR) PLAN AND SHALL HAVE IT APPROVED BY THE GCDOT AND CITY OF DULUTH PRIOR TO CLOSING THE ROAD.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGMEN, SIGNAGE THE CONTRACTOR STALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGMEN, SIGNAGE, BARRICADES, LIGHTS, AND OTHER TRAFFIC CONTROL DEVICES NECESSARY TO CONTROL THE TRAFFIC AND PROTECT THE PUBLIC. ALL TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS", GCDOT STANDARDS, AND GDOT STANDARDS. TRAFFIC CONTROL TO BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- PARK VEHICLES AND EQUIPMENT SO THAT THERE IS NO DISRUPTION TO TRAFFIC AND NO SIGHT DISTANCE OBSTRUCTIONS. NO PARKING ON PRIVATE PROPERTY WILL BE PERMITTED.
- THE SIZE TYPE MATERIALS, AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE SIZE, 197E, MATERIALS, AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION, SUBSURFACE UTILITY DATA SHOWN IS APPROXIMATE ONLY AND NO GUARANTEE IS MADE THAT ALL UTILITIES AND OTHER FEATURES ARE REPRESENTED ON THE PLANS ARE CORRECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND SIZE OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- IF THE CONTRACTOR ENCOUNTERS SUBSURFACE CONDITIONS DIFFERENT FROM THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND ENGINEER. NO EXISTING UTILITY SHALL BE DISTURBED WITHOUT PROPER AUTHORITY AND THEN ONLY IN SUCH A MANNER AS DESCRIBED AND EDGENOUS DAY THE AUGUST OF THE FRANCISH OF THE PRESCRIBED AND APPROVED BY THE OWNER OF THE EXISTING UTILITY
- 28. SHOULD IT BECOME NECESSARY TO DISTURB AN EXISTING UTILITY. THE CONTRACTOR IS TO NOTIFY THE OWNER AND THE OWNER OF THE UTILITY. WHEN NECESSARY, CONTRACTOR IS TO CEASE WORK UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE WITH THE UTILITY OWNER TO PROPERLY CARE FOR AND RELOCATE THE UTILITY. NO CLAIMS FOR DAMAGES SHALL BE ALLOWED THE CONTRACTOR ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY
- 29. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EITHER THE CONTRACTOR OR UTILITY OWNER WILL PERFORM THE REPAIR AT THE DISCRETION OF THE UTILITY OWNER, NO CLAIMS FOR DAMAGES SHALL BE ALLOWED THE CONTRACTOR ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY
- THE CONTRACTOR SHALL PROVIDE ALL PIPE FITTINGS AND APPURTENANCES REQUIRED FOR THE COMPLETE INSTALLATION OF THE PROPOSED PIPELINE, WHETHER OR NOT SUCH ITEMS ARE SHOWN OR CALLED OUT ON THE PLANS. THE CONTRACTOR IS ADVISED THAT FIELD SHOWN OR CALLED OUT ON THE PLANS. THE CONTRACTION IS AUVISED THAT FIELD ADJUSTMENTS MAY BE REQUIRED BASED ON ACTUAL SUBSURFACE CONDITIONS AND LOCATIONS OF EXISTING BURIED UTILITIES ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOT RECEIVE ANY ADDITIONAL PAYMENT OR TIME EXTENSION FOR ITEMS NOT BEING SHOWN IN PLANS OR FOR FIELD ADJUSTMENTS MADE DUE TO ACTUAL SUBSURFACE CONDITIONS AND UTILITY LOCATION.
- ... EXECUTED STATIONING IS BASED ON PROPOSED PIPE CENTERLINE. PAYMENT FOR PIPELIN WILL BE BASED ON ACTUAL LENGTH OF PIPELINE INSTALLED, NOT THE LENGTH INDICATED IN THI PLANS. 31 PIPELINE ROLLTE STATIONING IS BASED ON PROPOSED PIPE CENTERLINE. PAYMENT FOR PIPELINE
- 32. A MINIMUM OF 10 FEET HORIZONTAL AND 1.5 FOOT VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER MAINS AND SEWER MAINS. WHEN CROSSING PIPES, PIPE JOINTS ARE TO BE PLACED AS FAR AWAY FROM EACH OTHER AS POSSIBLE WHENEVER PRACTICAL, WATER MAINS SHALL CROSS ABOVE SEWER MAINS.
- AT COMPLETION OF CONSTRUCTION, ALL VALVE BOXES, METERS, AND APPURTENANCES SHALL BE SET FOR PROPER FINISH GRADE. PRECAST STRUCTURES, MANHOLE FRAMES AND COVERS ARE TO BE SET FLUSH WITH FINISHED GRADE UNLESS OTHERWISE INDICATED IN THE PLANS OR

Sheet List Table

ANY MATERIAL SALVAGED ON SITE BEARING THE NAME "GWINNETT" SHALL BE RETURNED TO

	Sileet List Table					
Sheet Number	Sheet Title	Sheet Number				
G-00	COVER	G-00				
G-01	GENERAL NOTES AND SHEET INDEX	G-01				
G-02	GENERAL NOTES LEGEND AND ABBREVATIONS	G-02				
G-03	KEY PLAN	G-03				
C-01	OUTFALL SEWER LINE A STA 0+00 - 8+50	C-01				
C-02	OUTFALL SEWER LINE A STA 8+50 - 16+50	C-02				
C-03	OUTFALL SEWER LINE A STA 16+50 - 25+00	C-03				
C-04	OUTFALL SEWER LINE A STA 25+00 - 33+50	C-04				
C-05	OUTFALL SEWER LINE A STA 33+50 - 42+00	C-05				
C-06	OUTFALL SEWER LINE A STA 42+00 - 49+50	C-06				
C-07	OUTFALL SEWER LINE A STA 49+50 - END	C-07				
C-08	NORTH STREET LINE B STA 0+00 - END	C-08				
C-09	NESBITT CROSSING PS LINE C STA 0+00 - END	C-09				
C-10	OAK STREET LINE D STA 0+00 - 8+00	C-10				
C-11	OAK STREET LINE D STA 8+00 - 16+00	C-11				
C-12	OAK STREET LINE D STA 16+00 - END	C-12				
C-13	SOUTH STREET LINE E STA 0+00 - 7+75	C-13				
C-14	SOUTH STREET LINE E STA 7+75 - END	C-14				
C-15	NORTH STREET LINE F STA 0+00 - END	C-15				
C-16	RAILROAD CROSSING LINE G STA 0+00 - END	C-16				
C-17	PINE STREET LINE H STA 0+00 - END	C-17				
C-18	SOUTH STREET WATER MAIN STA 0+00 - 15+75	C-18				
C-19	SOUTH STREET WATER MAIN STA 15+75 - END	C-19				
C-20	NORTH STREET WM 0+00 - END	C-20				
D-01	STANDARD DETAILS (1 OF 5)	D-01				
D-02	STANDARD DETAILS (2 OF 5)	D-02				
D-03	STANDARD DETAILS (3 OF 5)	D-03				
D-04	STANDARD DETAILS (4 OF 5)	D-04				
D-05	STANDARD DETAILS (5 OF 5)	D-05				
ESC-01	EROSION CONTROL NOTES AND DETAILS (1 OF 3)	ESC-01				
ESC-02	EROSION CONTROL NOTES AND DETAILS (2 OF 3)	ESC-02				
ESC-03	EROSION CONTROL NOTES AND DETAILS (3 OF 3)	ESC-03				
ESC-04	NPDES MAP	ESC-04				
ESC-05	NPDES NOTES	ESC-05				
ESC-06	NPDES CHECKLIST	ESC-06				

SEWER NOTES

- ALL SEWER CONSTRUCTION SHALL COMPLY WITH THE GCDWR'S LATEST VERSION OF GRAVITY SEWER STANDARDS. ACTUAL FIELD CONDITIONS COULD DICTATE MORE STRINGENT REQUIREMENTS IF DEEMED NECESSARY BY THE GCDWR INSPECTOR.
- SEWER SERVICE TO ALL USERS OF THE EXISTING SEWERS SHALL BE MAINTAINED THROUGHOUT THE PROJECT WHENEVER POSSIBLE. WHEN IT IS NECESSARY TO TAKE ANY PART OF ANY SEWER THE PROJECT WITHENEVER POSSIBLE. WHEN IT IS NECESSARY TO TAKE ANY PART OF ANY SEWER OUT OF SERVICE, IT REQUIRES OWNER APPROVAL AND COORDINATION. INSTANCES WHERE SERVICES WILL BE OUT FOR AN EXTENDED PERIOD OF TIME, BYPASS PUMPING WILL BE REQUIRED AND WILL BE IMPLEMENTED AT NO ADDITIONAL COST TO OWNER.
- THE BYPASS PUMPING SYSTEM SHALL BE SIZED FOR 100 PERCENT OF PEAK FLOWS AND SHALL BE ROUTED AROUND THE OUT-OF-SERVICE SECTION. SEWAGE SHALL BE ENCLOSED IN PIPES AND/OR TANKS AT ALL TIMES AND WILL NOT BE ALLOWED TO BE OPEN TO THE ENVIRONMENT. BYPASS TANNS AT ALL TIMES AND WILL NOT BE ALLOWED TO BE OPEN TO THE ENVIRONMENT. BYPASS PUMPING MUST BE MONITORED IN PERSON BY THE CONTRACTOR AT ALL TIMES, EVEN PAST NORMAL WORK HOURS (24 HOURS PER DAY, SEVEN (7) DAYS PER WEEK). THE BYPASS PUMPING SYSTEM SHALL BE CAPABLE OF PUMPING 500 GPM.
- NO BYPASS PUMPING WILL BE ALLOWED UNTIL A WRITTEN PLAN HAS BEEN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER
- CUT-IN MANHOLES REQUIRED UNLESS 'DOGHOUSE MANHOLE' SPECIFICALLY APPROVED BY OWNER PRIOR TO CONSTRUCTION
- MANHOLE FRAME AND COVERS LOCATED OUTSIDE OF THE PAVEMENT SHALL BE BOLT-DOWN, WATERTIGHT COVERS.
- NO TREES OR PERMANENT STRUCTURES ARE ALLOWED TO REMAIN IN SEWER EASEMENTS IN ACCORDANCE WITH GWINNETT COUNTY POLICY

PROJECT SPECIFIC NOTES:

- PROPERTY LINES AND BACKGROUND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS ARE BASED ON A FIELD SURVEY PREPARED BY CHA, INC. , WITH REFERENCE DATUM NAVD 1988.
- THE SOURCE OF TOPOGRAPHY FOR THIS PROJECT WAS TAKEN FROM THE GROUND RUN SURVEY PROVIDED BY CHA. INC. DATED JULY 21, 2022
- THERE IS NO STORM WATER MANAGEMENT BEING PROVIDED FOR THIS PROJECT
- NO HYDROLOGY STUDY WAS CONDUCTED AS PART OF THIS PROJECT
- THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE REEN CONSULTED: AND 2) THE APPROPRIATE PLAN INATIONAL WE LEAVIN INVENTIORY MAPS HAVE BEEN CURSULE LEY, MIND, 2) THE APPROPRIATE PLAN
 SHEET [X] DOES [] DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS
 JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS' AND, 3) IF WETLANDS ARE INDICATED, THE
 LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED
 WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION ("SECTION 404") PERMIT HAS BEEN OBTAINED
- THERE ARE 0 ACRES OF WETLANDS DISTURBANCE ON THIS PROJECT. ALL DISTURBED WETLANDS THERE ARE U ACRES OF WEILDANDS DISTORDANCE ON THIS PROJECT. ALL DISTORDED WEILDANDS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS. THE TOP FOOT OF TOP SOIL IN THE WETLANDS AREAS SHALL BE STOCKPILED SEPARATELY FROM OTHER EXCAVATED MATERIAL AND REPLACED BACK IN THE TOP OF THE TRENCH WHEN PIPE INSTALLATION IS COMPLETE. WETLANDS AREAS SHALL THEN BE STRAWED AND DRESSED, THEN SEEDED WITH A US ARMY CORP OF ENGINEERS APPROVED WETLANDS SEED MIX.
- NO CLEARING IS ALLOWED WITHIN THE 25' STATE STREAM BUFFER WITHOUT ACQUISITION OF A BUFFER VARIANCE PERMIT FROM THE GEORGIA EPD.
- THE 25-FOOT NATURAL, UNDISTURBED STREAM BUFFER, UNDER ARTICLE V. SECTION 15, OF THE SOIL AND EROSION AND SEDIMENT CONTROL ORDINANCE SHALL REMAIN IN FORCE
- A 25' STATE STREAM BUFFER VARIANCE SHALL BE IN PLACE FOR LOCATIONS INDICATED WITHIN THE PLANS. CONTRACTOR SHALL RESTORE ALL TEMPORARY EASEMENT TO THE PRECONSTRUCTION CONDITIONS, AND GRASS PERMANENT EASEMENT AS INDICATED ON THE PLANS. THE 25-FOOT NATURAL, UNDISTURBED STREAM BUFFER, UNDER ARTICLE V, SECTION 15, OF THE SOIL AND EROSION AND SEDIMENT CONTROL ORDINANCE SHALL REMAIN IN FORCE FOR THE REMAINDER OF THE PROJECT
- 10. A 50 FOOT UNDISTURBED BUFFER AND 75 FOOT IMPERVIOUS SETBACK SHALL BE MAINTAINED
- EXISTING PIPING TO BE ABANDONED IN PLACE SHALL HAVE THE ENDS SEALED WITH GROUT

ENGIN BAR B CALES F NOT SEWEI $\frac{1}{2}$ SHEET AREA AND Ξ PINECREST

G-01

DULUTH

NOTES

ENERAL

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GENERAL		£	FLOW LINE	PS	PUMP STATION		GENERAL NOTES:
ABBREVIATIONS °C	DEGREES CENTIGRADE	FLG.	FLANGED	PSF	POUNDS PER SQUARE FOOT		1. CONTRACTOR IS TO MAKE EVERY EFFORT TO PRESERVE PROPERTY CORNERS, BENCH MARKS, ORIGINAL AND DESIGN SURVEY MONUMENTS, WHICH EXIST ON
C		FLRD	FLARED	PSI	POUNDS PER SQUARE INCH		AWARD. THE CONTRACTOR SHALL FURNISH PERSONNEL FULLY QUALIFIED AND CAPABLE OF STAKING CORNERS OF STRUCTURES AND CENTERLINES OF PIPEL PROPERTY CORNERS OR RW MONUMENTS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR
F	DEGREES FAHRENHEIT	FM	FORCE MAIN	PT	PRESSURE TREATED		2. EXISTING UTILITIES SHOWN ON THESE DRAWINGS WERE TAKEN FROM BEST AVAILABLE INFORMATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE
_	_	FRP	FIBER GLASS REINFORCED PIPE	PTD	PAINTED		SAID UTILITIES OR THE POSSIBILITY THAT UNDERGROUND UTILITIES OTHER THAN THE ONES SHOWN MAY EXISTS. IT IS THE RESPONSIBILITY OF THE CONTRACT SIZE OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR MUST CONTACT THE UTILITIES PROTECTION CENTER AT 811 AT LEAST 72 HOURS P
AFF	ABOVE FINISHED FLOOR	FT	OR FIBER REINFORCED PLASTIC FOOT	PVC	POLYVINYL CHOLORIDE		PROJECT.
		FTG	FOOTING	_	_		3. TRAFFIC CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, IN LOCATIONS WHERE THE ROAD IS NOT SPECIFIED TO BE CLOSED, AT LEAST
AL, ALU, ALUM	ALUMINUM	_	_	R	RADIUS		OPEN IN ORDER TO ALLOW TRAFFIC TO MOVE THROUGH THE CONSTRUCTION SITE. ALL FLAG-MEN, WARNING SIGNS, BARRICADES, AND LIGHTS NECESSARY TO THE PUBLIC SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT COST TO THE OWNER. TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH "THE N
ALT	ALTERNATE	GAL	GALLON	RCP	REINFORCED CONCRETE PIPE		DEVICES FOR STREETS AND HIGHWAYS".
AN	ANODIZED	GALV	GALVANIZED	RD	ROOF DRAIN		4. THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AND SCHOOL BUS SERVICE AT ALL TIMES DURING CONSTRUCTION.
AP	AUGER REFUSAL	GND	GROUND	RED	REDUCER		 ANY DEVIATIONS FROM THE PLANS MUST BE APPROVED IN WRITING PRIOR TO WORK BEGINNING. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES ON THE PLANS.
ASPH	ASPHALT	GPM	GALLONS PER MINUTE	REF	REFERENCE		 CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ON DISCOVERY OF DISCREPANCIES ON THE PLANS. IN CASE OF AN EMERGENCY, CONTACT GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES CENTRAL FACILITY AT (678) 376-6700 OR (678) 376-7000 FOR AI
AV/	AIR VALVE	GV	GATE VALVE	REINF REQD	REINFORCED REQUIRED		8. ALL WORK WITHIN GWINNETT COUNTY AND/OR GEORGIA D.O.T. RIGHT-OF-WAY SHALL BE IN STRICT ACCORDANCE WITH THE UTILITY ACCOMMODATION POLICY.
AV		_	_	RJ	RESTRAINED JOINT		BACKFILL OF TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE COMPACTED AS SPECIFIED. THE OWNER SHALL UTILIZE ONE OF ITS ANNUAL MATERIAL TESTING TESTING. THE CONTRACTOR SHALL COORDINATE WITH THE MATERIAL TESTING FIRM AND PROVIDE ACCESS AS REQUIRED.
	— BLIND FLANGE	HB	HOSE BIBB	RO	ROUGH OPENING		9. CONTRACTOR TO CONTACT BRITTON LOCKHART AT (678) 639-8825 AND CITY OF DULUTH ENGINEER AT (678)-957-7284 PRIOR TO ANY LANE CLOSURES OR OPEN (
BF BED	BACK FLOW PREVENTER	HDWL	HEADWALL	ROW	RIGHT-OF-WAY		10. ALL TRAFFIC CONTROL SIGNS THAT ARE REMOVED OR DAMAGED DURING CONSTRUCTION MUST BE REINSTALLED OR REPLACED. ALL SIGNS MUST BE REINSTAL
BFV	BUTTERFLY VALVE	НМ	HOLLOW METAL	RPM	REVOLUTIONS PER MINUTE		ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
BLDG	BUILDING	HORIZ	HORIZONTAL	RT	RIGHT		11. ALL DRIVEWAYS SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING. ALL PAVED ROADS SHALL BE REPAIRED TO MEET GCDOT OR GDC
BOT	BOTTOM	HP	HORSEPOWER OR HIGH POINT	RTU	REMOTE TERMINAL UNIT		12. IF BLASTING IS REQUIRED FOR TRENCH ROCK, THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS AS STATED IN THE TECHNICAL SPECIFICATIONS.
BT.	BORING TERMINATED	HVAC	HEATING, VENTILATING AND AIR	_	_		 ALL DRAINAGE STRUCTURES SHALL BE KEPT FREE OF DEBRIS AND IN OPERATING CONDITION AT ALL TIMES.
BTU	BRITISH THERMAL UNIT		CONDITIONING	S	SOUTH		14. DRAINAGE SYSTEMS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR WILL NOT BE COMPENSATED FOR REMOVED AND REPLACED UNLESS SPECIFICALLY SHOWN TO BE PAID.
		HWL	HIGH WATER LEVEL	S.S	SANITARY SEWER		15. ALL STORM WATER MANAGEMENT UTILITIES TO BE INSPECTED BY DEPARTMENT OF WATER RESOURCES.
BV	BALL VALVE	_	_	SBR	SEQUENCING BATCH REACTOR		16. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO PUBLIC RIGHT-OF-WAYS AND GWINNETT COUNTY EASEMENTS AND PROPERTY. IF ADDITIONAL CONSTRUI
_	_	ID	INSIDE DIAMETER	SCH	SCHEDULE		CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR SUCH ACCESS AT CONTRACTOR'S EXPENSE WITHOUT ANY GWINNETT COUNTY OR GCDWR LIABILITY.
C.I.P. OR CIP	CAST IRON PIPE	INF	INFLUENT	SHT	SHEET		17. CONTRACTOR SHALL COMPLY WITH SPECIAL STIPULATIONS IN EASEMENT AGREEMENTS.
CFM	CUBIC FEET PER MINUTE	INV.	INVERT	SIM	SIMILAR		GENERAL PIPING NOTES:
CHKV	CHECK VALVE	_		SL OR STL	STEEL		 GRAVITY SEWER PIPE SHALL BE DUCTILE IRON PIPE (DIP) CONFORMING TO ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51 AS SHOWN ON THE DRAWINGS SHALL BE PRESSURE CLASS 250 WITH A CERAMIC EPOXY LINING.
		JT	JOINT	SPECS	SPECIFICATIONS		2. GRAVITY SEWER BEDDING SHALL BE CLASS "B" UNLESS CLASS "C" IS SPECIFICALLY AUTHORIZED BY THE ENGINEER OR OWNER AS CONDITIONS PERMIT. ANY C
CJ	CONTROL JOINT	_ _	— KIP	SQ	SQUARE		SHOWN ON THE BEDDING DETAILS SHALL BE REPLACED WITH THE APPLICABLE REQUIRED BEDDING MATERIAL AT THE CONTRACTOR'S EXPENSE. BEDDING WIL PAYMENT.
ę.	CENTER LINE	KW	KILOWATT	SS	STAINLESS STEEL OR SANITARY SEWER		3. FLOWABLE FILL (LOW STRENGTH GROUT) MATERIAL MAY BE USED TO BACKFILL TRENCHES WHERE THE PROPOSED PIPELINE CROSSES A ROADWAY. THE FLOW
CL	CLASS	_	—	STD	STANDARD		SPECIFICATIONS. OTHERWISE, BACKFILL OF TRENCHES WITHIN ROADWAY SHALL BE COMPACTED TO 98% STANDARD PROCTOR. THE TOP EIGHTEEN (18) INCH. STANDARD PROCTOR.
CLJ	CONTROL JOINT	1	LOUVER	SWGUM	SWEETGUM TREE		4. DUCTILE IRON PIPE SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT WHENEVER IT IS WITHIN 50 FEET OF A STEEL GAS MAIN OR PETROLEUM PIPELINE.
CLR	CLEAR	L.L.	LAND LOT	_	_		4. Southernorth a consideration of the state
CMP	CORRUGATED METAL PIPE	LB	POUND	Т	TOP		PROJECT DATA:
CMU	CONCRETE MASONARY UNIT	LF	LINEAR FEET	T&B	TOP AND BOTTOM	STANDARD LINE TYPES	PROJECT NAME: DULUTH PINECREST INTERCEPTOR
со	CLEAN OUT	LG	LONG	T/STRUCTURE	TOP OF STRUCTURE	EXISTING PROPOSED	2. PROJECT LOCATION: DISTRICT 7, LAND LOT 202, PARCEL 263
CON	CONCENTRIC	LP	LOW POINT	TB	TIE BEAM	000 MAJOR CONTOUR 000	3. PROJECT ADDRESS: 3588 NESBITT CROSSING, DULUTH, GA 30096
CON	CONCENTRIC	LR	LONG RADIUS	TEMP	TEMPORARY	MINOR CONTOUR	4. PRESENT AND PROPOSED USE: GRAVITY SEWER THROUGH RESIDENTIAL, COMMERCIAL, AND MIXED USE DEVELOPMENT
CONC.	CONCRETE	LT	LEFT	THK	THICK		5. OWNER/DEVELOPER: GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES
CONN	CONNECTION	LWL	LOW WATER LEVEL	TOW	TOP OF WALL	FORCE MAIN ——FM ——————————————————————————————————	684 WINDER HWY.
CONST JT	CONSTRUCTION JOINT	_	_	TYP.	TYPICAL	SEWER	LAWRENCEVILLE, GA. 30045
CONT	CONTINUOUS	М	MOTOR	_	_	_ss	(678) 376-6917 (GREGORY JACKSON)
		MATL OR MAT'L	MATERIAL	UN	UNLESS NOTED	ww	gregory.jackson@gwinnettcounty.com
CP	CONTROL PANEL	MAX	MAXIMUM	UNO	UNLESS OTHERWISE NOTED	FENCE	6. ENGINEER: ENGINEERING STRATEGIES, INC.
CPP	CORRUGATED PLASTIC PIPE	MCC	MOTOR CONTROL CENTER	UV	ULTRA-VIOLET	SILT FENCE - TYPE S	3855 SHALLOWFORD RD., SUITE 525
CPLG	COUPLING	MECH	MECHANICAL	_	_	—sr——sr——	MARIETTA, GA. 30062
CU	COPPER PIPE	MFR	MANUFACTURER	VB	VALVE BOX	TREELINE/LANDSCAPING	(770)-429-0001 - JOHN FLECK, P.E.
_	_	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE	RIGHT-OF-WAY	,
D.I.P. OR DIP	DUCTILE IRON PIPE	MIN	MINIMUM	VERT	VERTICAL	RWRW	7. SURVEYOR: CHA Inc.
DBL	DOUBLE	MISC	MISCELLANEOUS	VIC	VICTAULIC	PROPERTY LINE	8. ZONING: R75, R100, PUD, HCR
DIA	DIAMETER	MJ	MECHANICAL JOINT	VTR	VENT THROUGH ROOF	NATURAL GAS	GCDP&D NOTES:
DIM	DIMENSION	MJB	MECHANICAL JOINT BEND	_	_	G G	·
DMH	DROP MANHOLE	MLUG	MEGA-LUG	W	WEST	OVERHEAD POWER	1. CONTRACTOR SHALL CALL DEVELOPMENT INSPECTIONS AND GCDWR TO SCHEDULE A PRE-CONSTRUCTION MEETING PRIOR TO START OF ANY CONSTRUCTION
DN	DOWN	MO	MASONARY OPENING	W/	WITH	UNDERGROUND POWER	2. NOTIFY GWINNETT COUNTY INSPECTOR 24 HOURS BEFORE BEGINNING OF EVERY PHASE OF CONSTRUCTION. CONTACT NUMBER TO BE PROVIDED AT PRE-COL
DO	DITTO	MSL	MEAN SEA LEVEL	W/O	WITHOUT	UGP UGP	 NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED. ALL CONSTRUCTION TO COMPLY WITH GWINNETT COUNTY STANDARDS.
DWG	DRAWING	MTL	METAL	WD	WOOD		 ALL CONSTRUCTION TO COMPLY WITH GWINNETT COUNTY STANDARDS. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLANDS. IT IS THE RE-
_	_	_		WM	WATER MAIN	TV	TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND DISTURBANCE.
F	EAST	N 	NORTH	WT	WATER TIGHT		6. INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
ECC	ECCENTRIC	NC	NORMALLY CLOSED	WWF	WELDED WIRE FABRIC	LIMITS OF CONSTRUCTION	 ALL EXCESS MATERIALS SHALL BE HAULED OFF BY THE CONTRACTOR SO AS TO RESTORE THE SITE TO THE ORIGINAL CONDITION; SPREADING EXCESS MATERI SITE IS NOT PERMITTED.
55		N/F NF	NOW OR FORMERLY	— YH	YARD HYDRANT		SHE IS NOT PERMITTED.
EF	EACH FACE	NO NO	NEAR FACE NORMALLY OPEN	***			
EFF	EFFLUENT CONT.	N.T.S.		STANDA	RD SYMBOLS	STANDARD	
EJ OR ELEV	EXPANSION JOINT	N. I.O.	NOT TO SCALE	FIRE	- 	HATCH PATTERNS	
EL. OR ELEV	ELECTRICAL	OC OC	ON CENTER	HYDRANT	T'	FG . ·	
ELEC EOP	ELECTRICAL EDGE OF PAVEMENT	OD	OUTSIDE DIAMETER	METER	W	CONCRETE 4.4	
EQUIP	EQUIPMENT	OF	OVERFLOW	VALVE	™	ASPHALT	
EW	EQUIPMENT EACH WAY	OPNG	OPENING	MAILBOX	MB	, io. i ne i	
EX. OR EXIST.	EXISTING	_	_	·		EARTH	
EX. OR EXIST.	EXPANSION	P.E.	POLYETHYLENE	POWER POL & GUY WIRE	□	DEMO V/////	
FXT	EXTERIOR	P.E.P.	POLYETHYLENE PIPE	PROPERTY		[////,	
	_	PE PE	PLAIN END	CORNER	0		
- FD	— FLOOR DRAIN	PLCS	PLACES	TELEPHONE	тРф		
	. 2001. 2101111			POLE	Ψ		
FDN	FOUNDATION	PLF	POUNDS PER LINEAR FOOT				

FE

FF

FH

FIN

FAR FACE

FINISHED

FLOOR

FIRE HYDRANT

FIRE EXTINGUISHER FINISHED FLOOR

PM

POPL.

PREFAB

PROJ

PROP.

PRV

PRESSURE REDUCING VALVE

PRESSED METAL

POPLAR TREE

PROJECTION

PROPOSED

PREFABRICATED

墩

T

TV

LIGHT POLE

TV BOX

TELEPHONE BOX

T ON THE PROJECT AT THE TIME OF CONTRACT PIPELINES SHOWN ON THE PLANS. ANY CTOR'S EXPENSE.

THE HORIZONTAL OR VERTICAL ACCURACY OF TRACTOR TO DETERMINE THE LOCATION AND JRS PRIOR TO BEGINNING EXCAVATION ON THE

- EAST ONE LANE OF TRAFFIC SHALL REMAIN RY TO CONTROL THE TRAFFIC AND PROTECT THE MANUAL ON UNIFORM TRAFFIC CONTROL
- R AFTER HOURS.
- LICY AND STANDARDS (AS AMENDED). STING FIRMS TO PERFORM COMPACTION
- STALLED TO THE STANDARDS IN THE MANUAL
- GDOT STANDARDS, AS APPLICABLE.
- FOR DRAINAGE STRUCTURES DAMAGED OR
- TRUCTION ACCESS IS REQUIRED BY THE
- INGS. UNLESS NOTED OTHERWISE, ALL DIP
- NY OVER-EXCAVATION BEYOND THE LIMITS G WILL NOT BE MEASURED SEPARATELY FOR
- FLOWABLE FILL MATERIAL SHALL MEET GDOT INCHES SHALL BE COMPACTED TO 100%

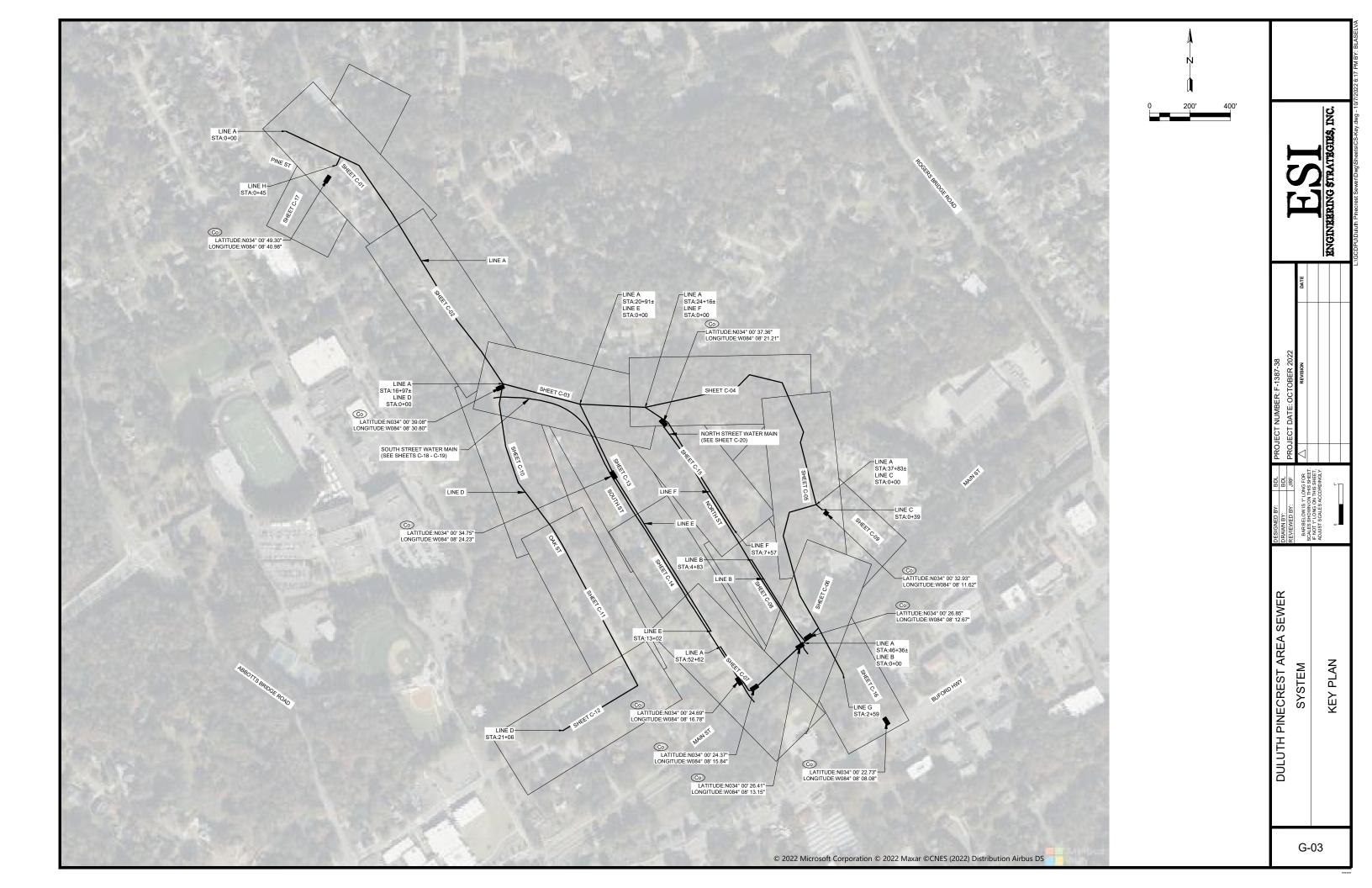
- E-CONSTRUCTION MEETING.
- RESPONSIBILITY OF THE PROPERTY OWNER
- TERIALS IN A FLOODPLAIN OR ELSEWHERE ON

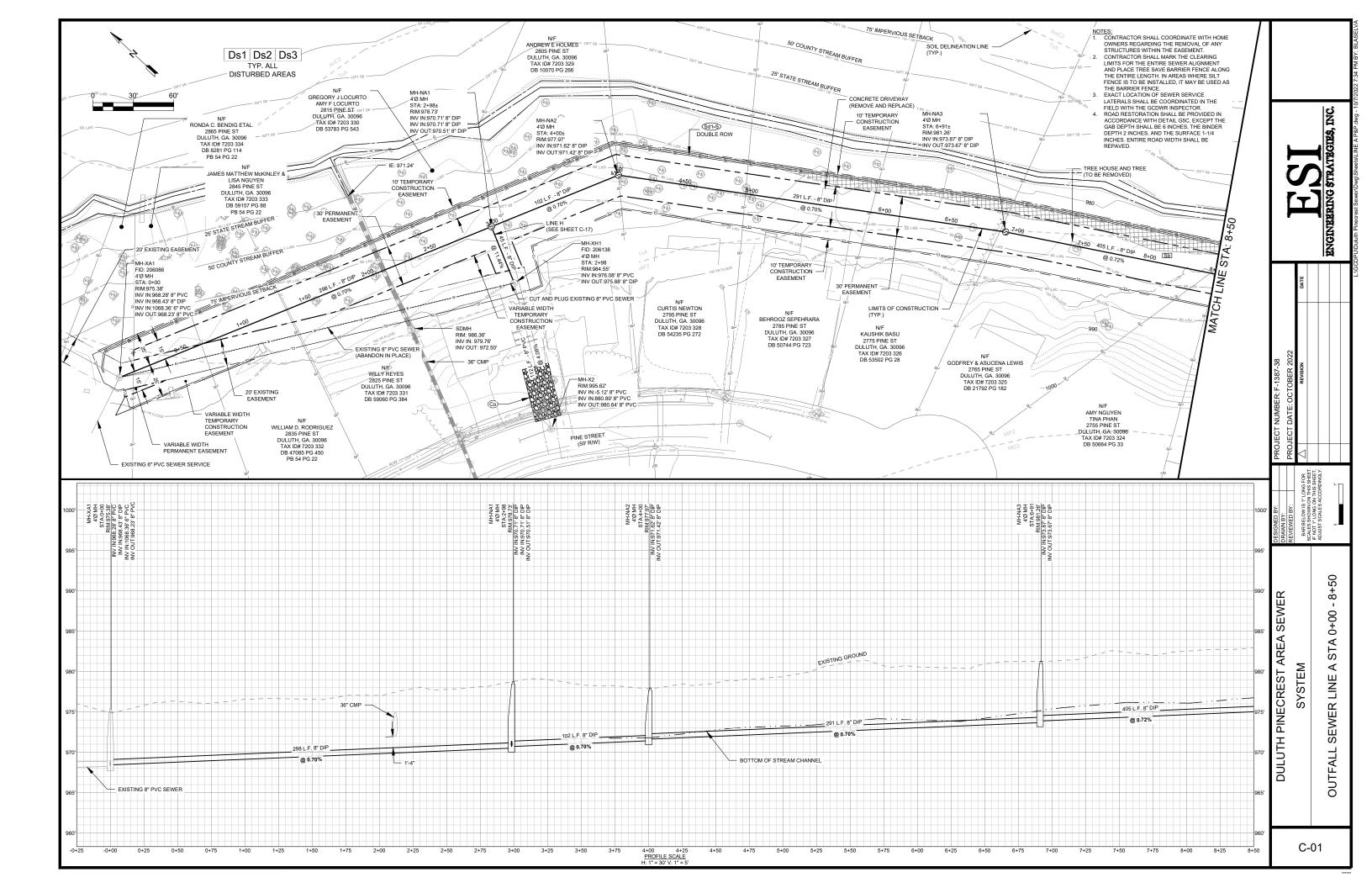
ENGINEERING STRATEGIES, INC.

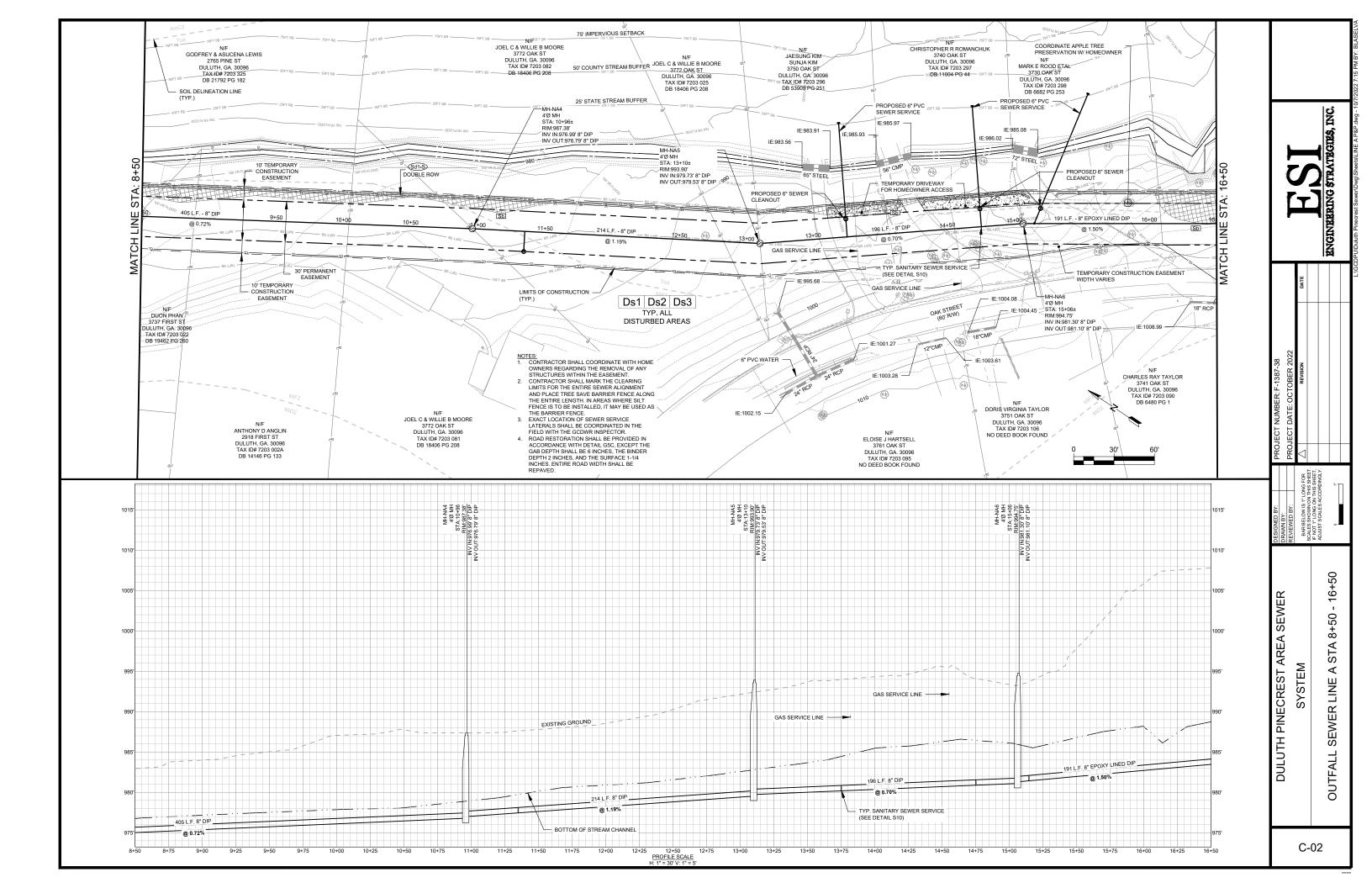
GENERAL NOTES LEGEND AND ABBREVATIONS SEWER

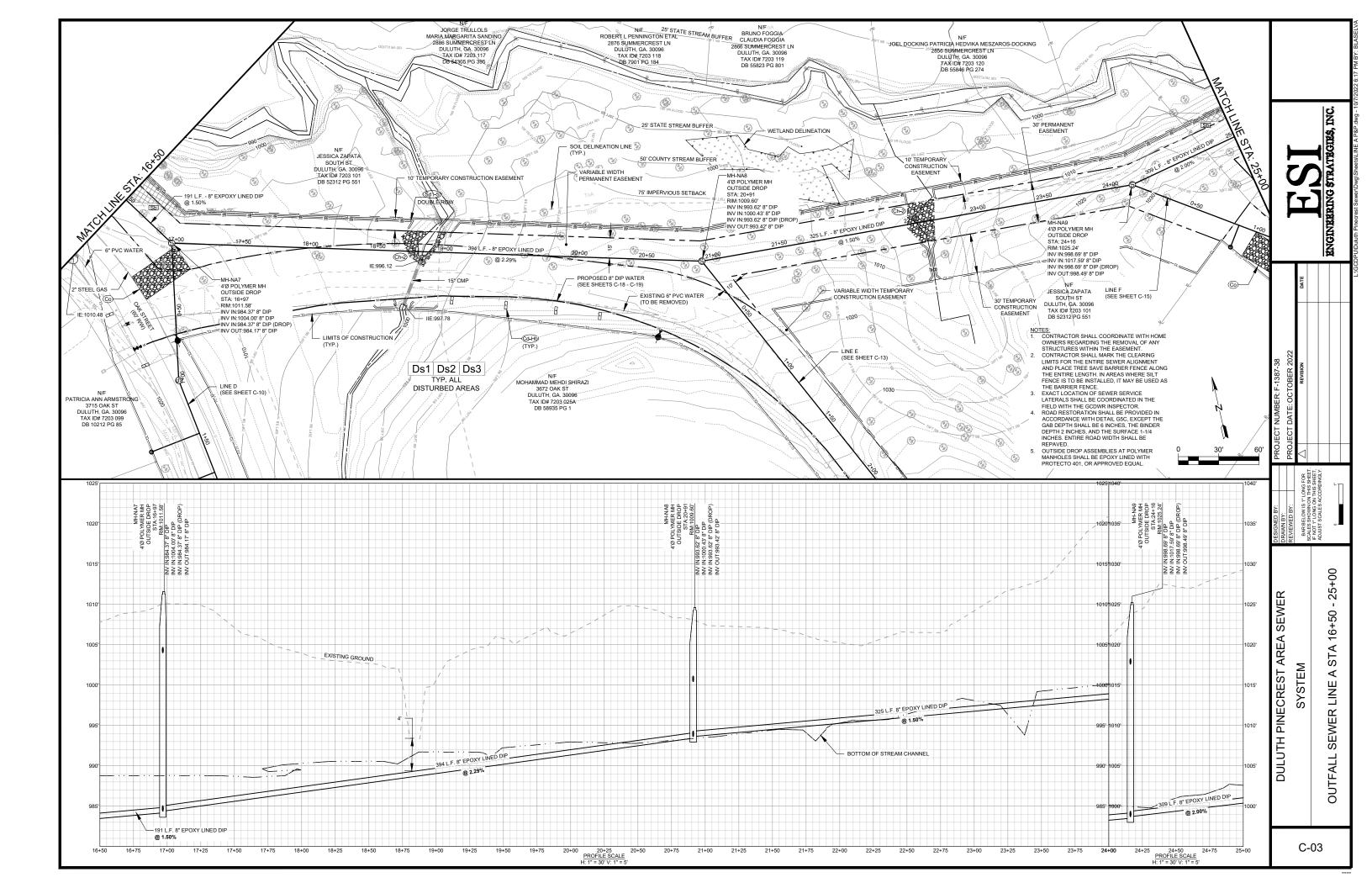
DULUTH PINECREST AREA SYSTEM

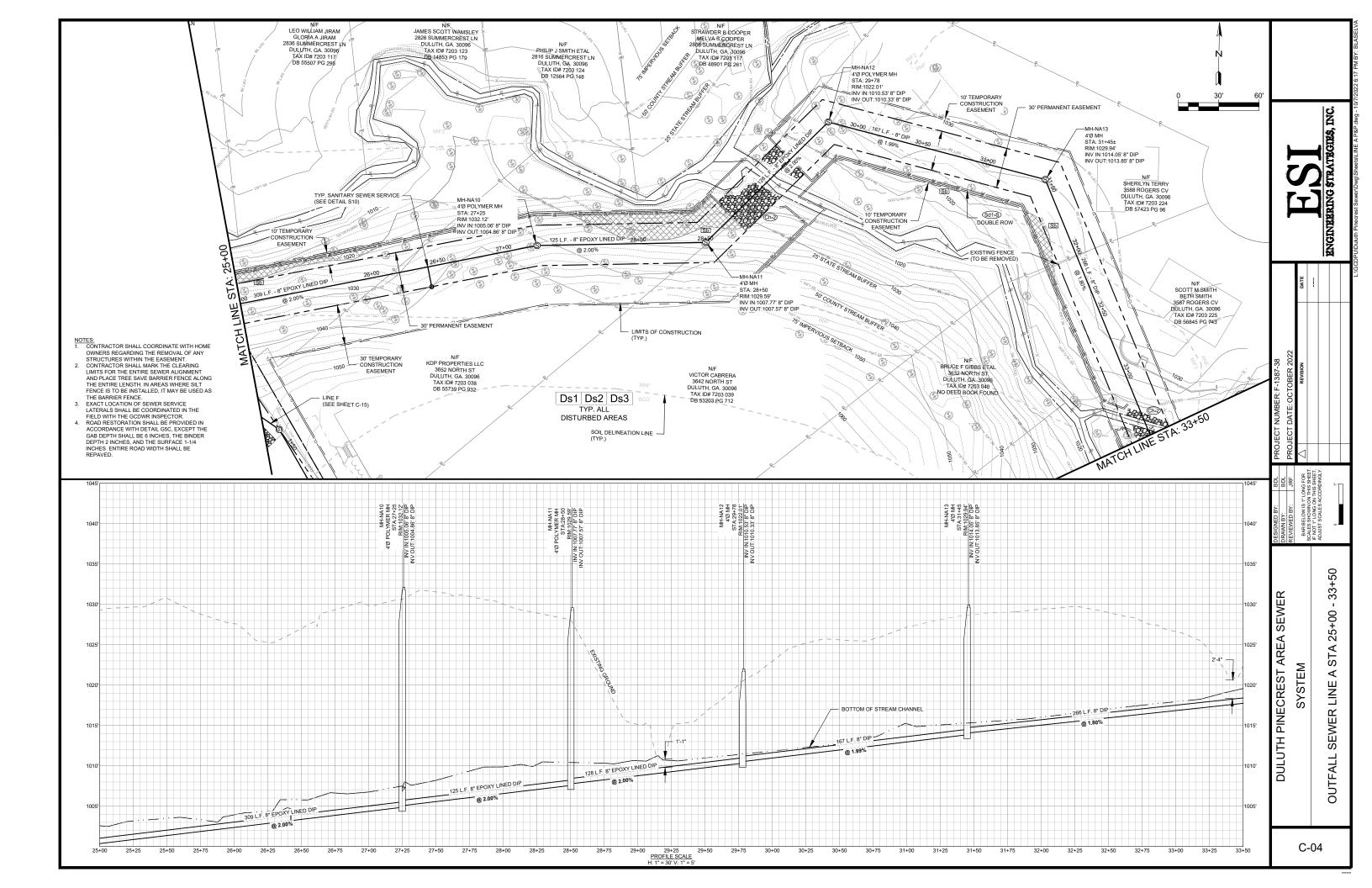
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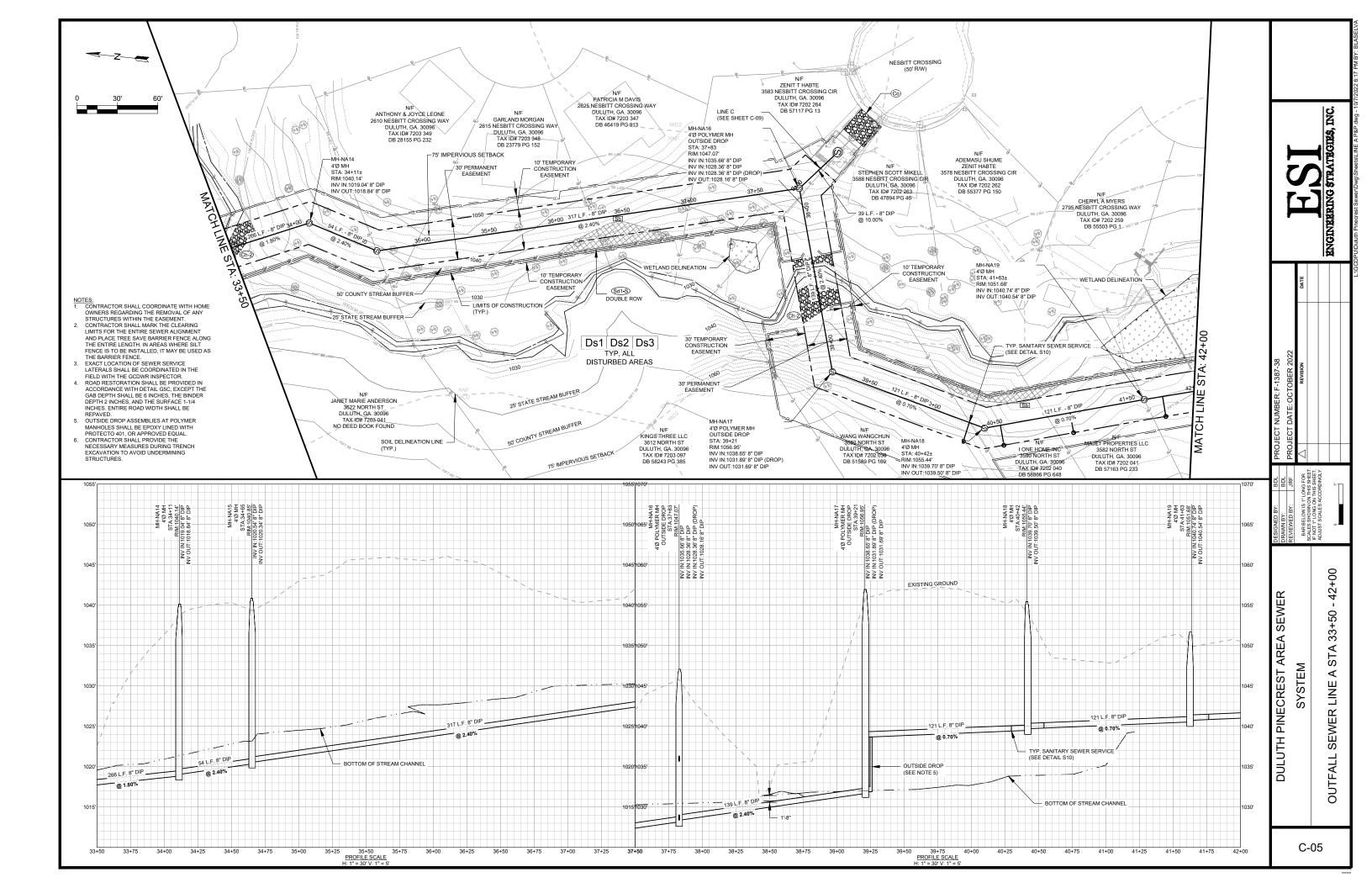


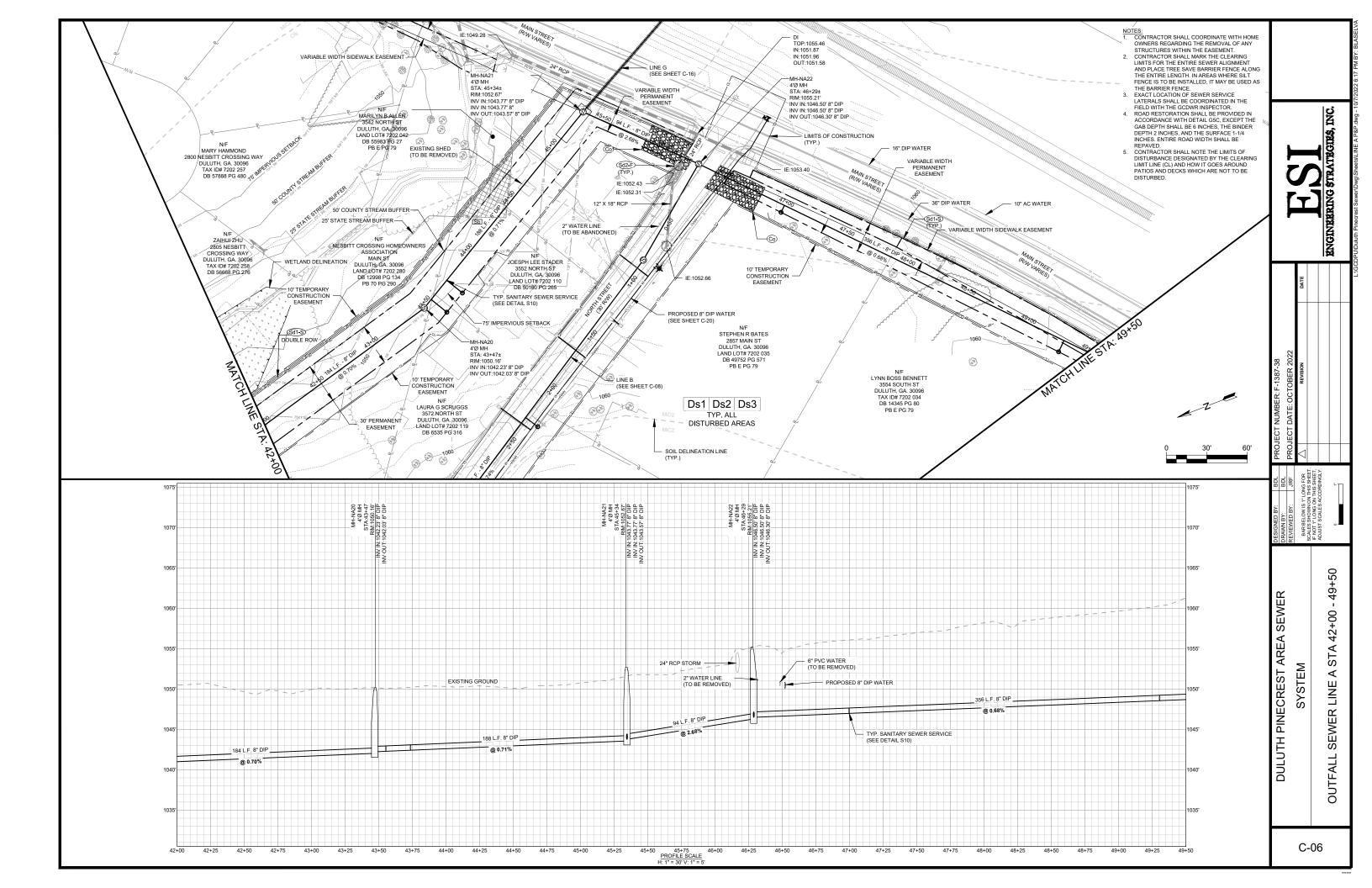


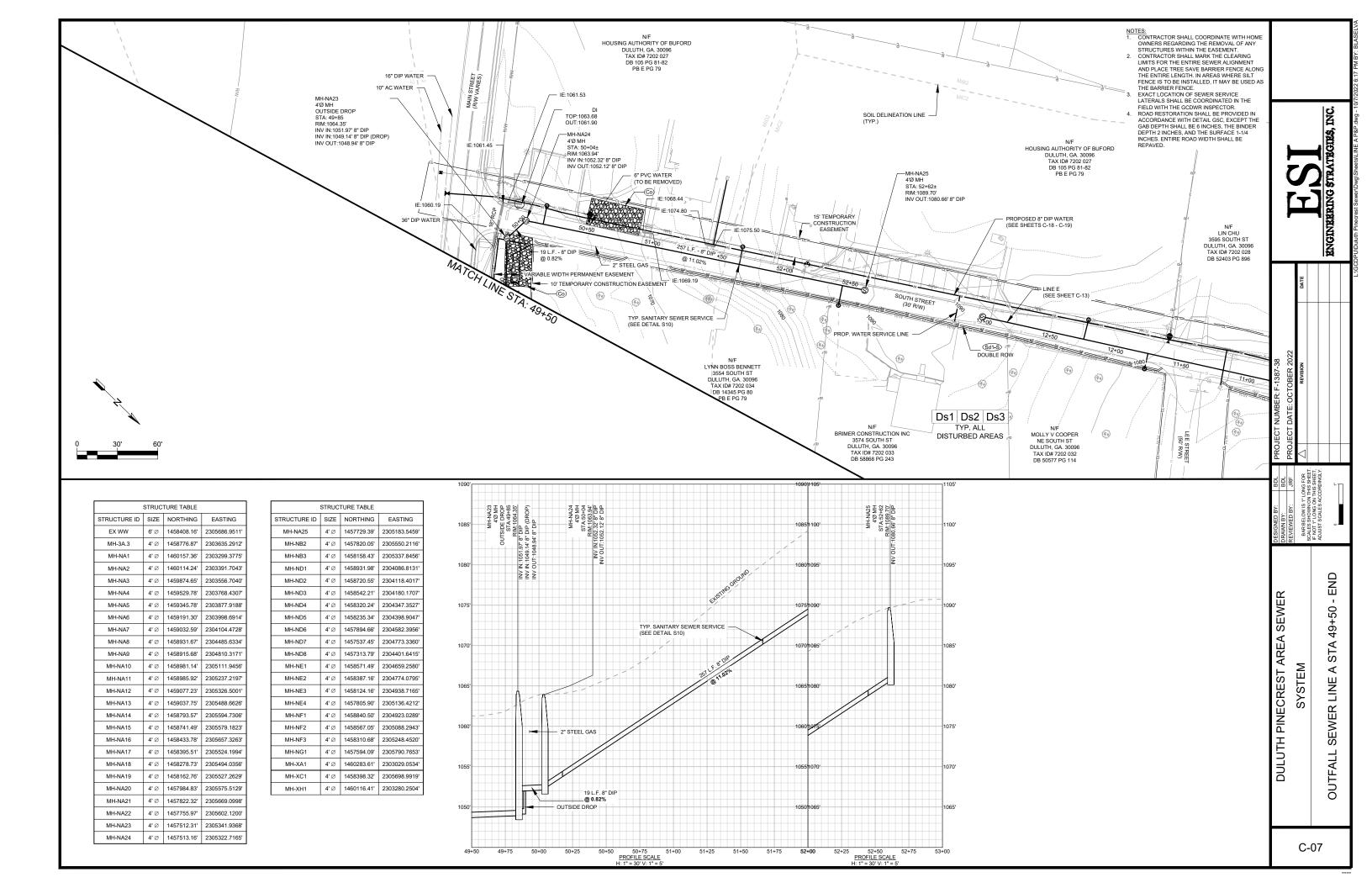


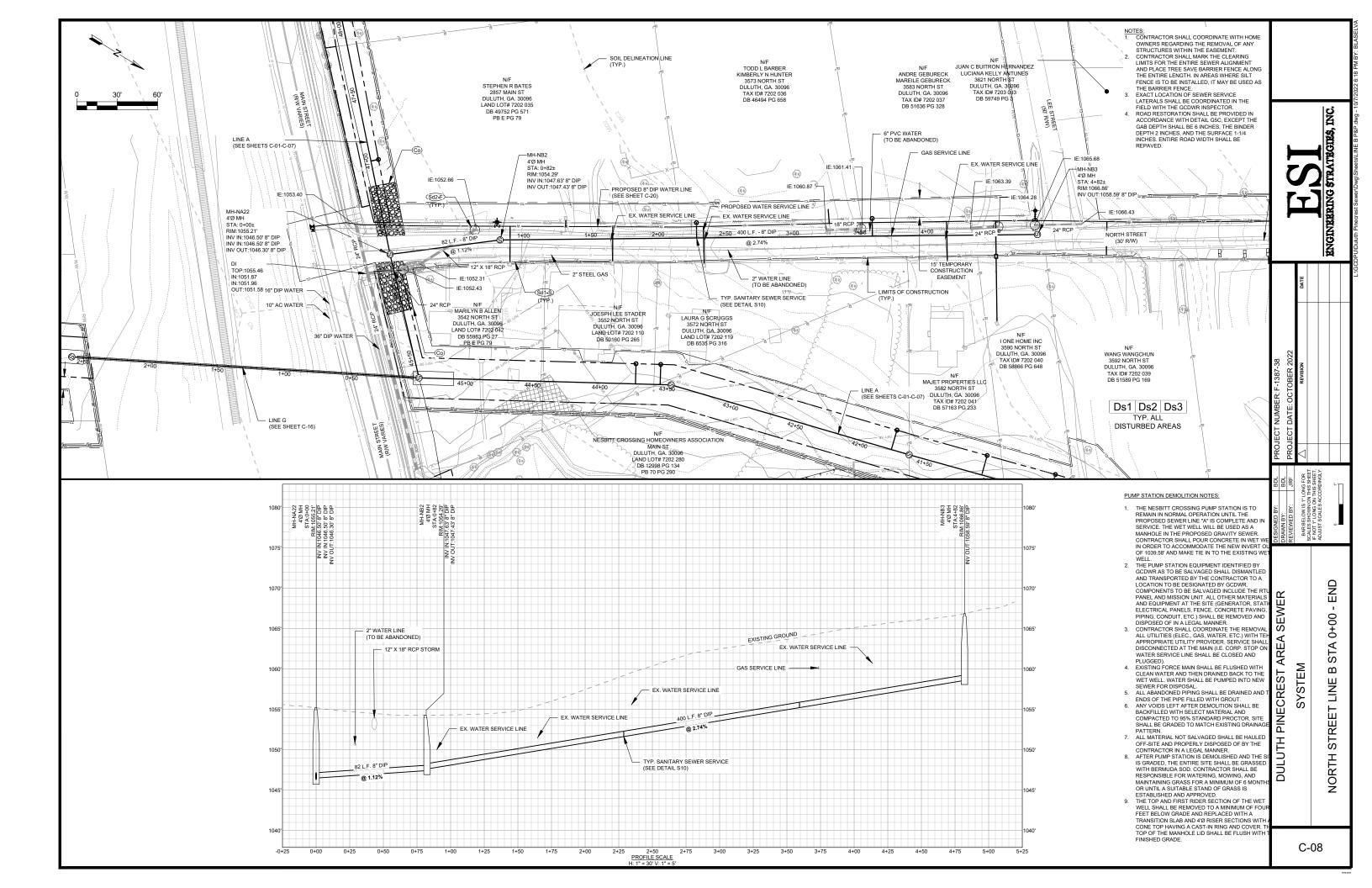


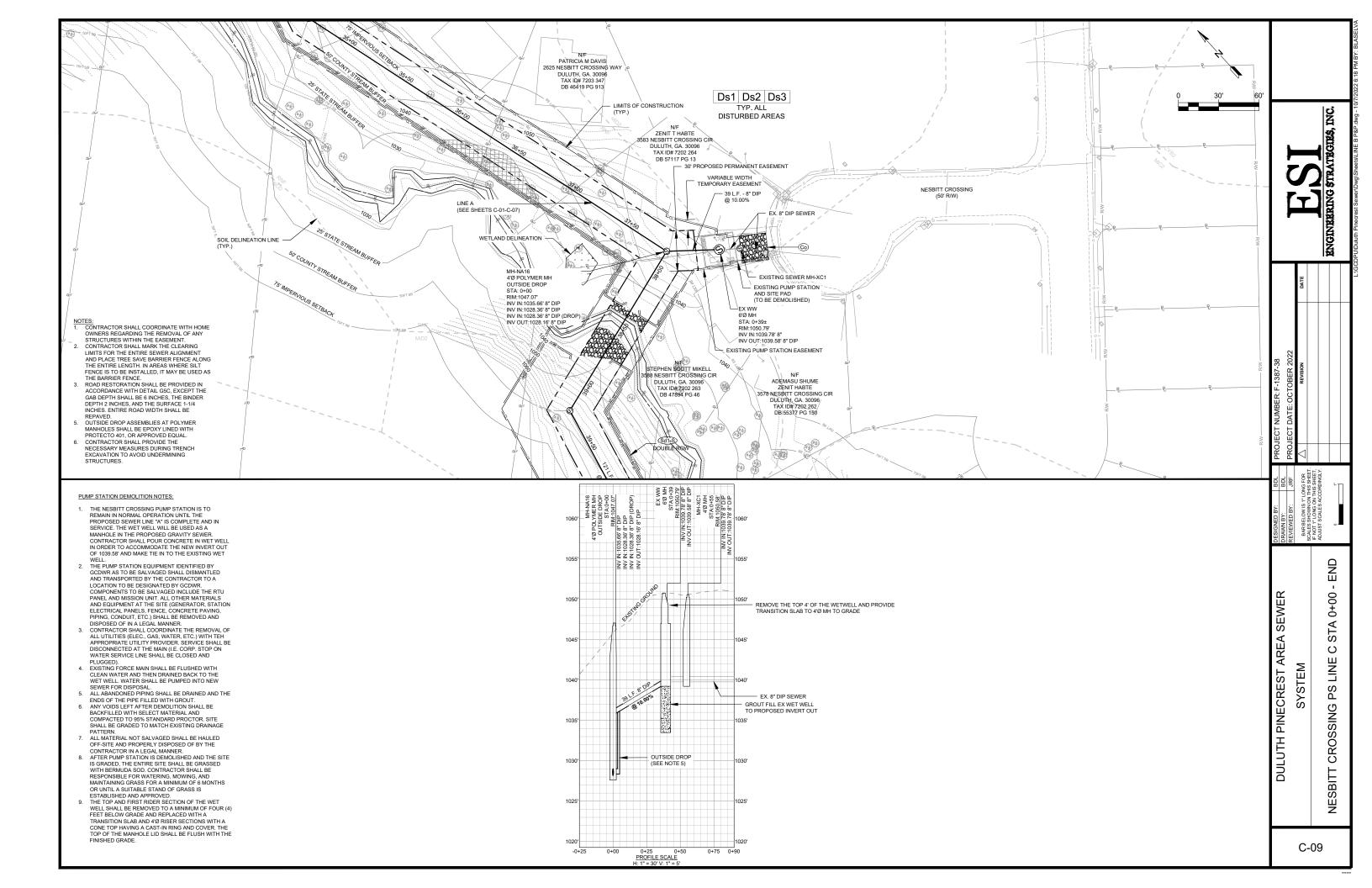


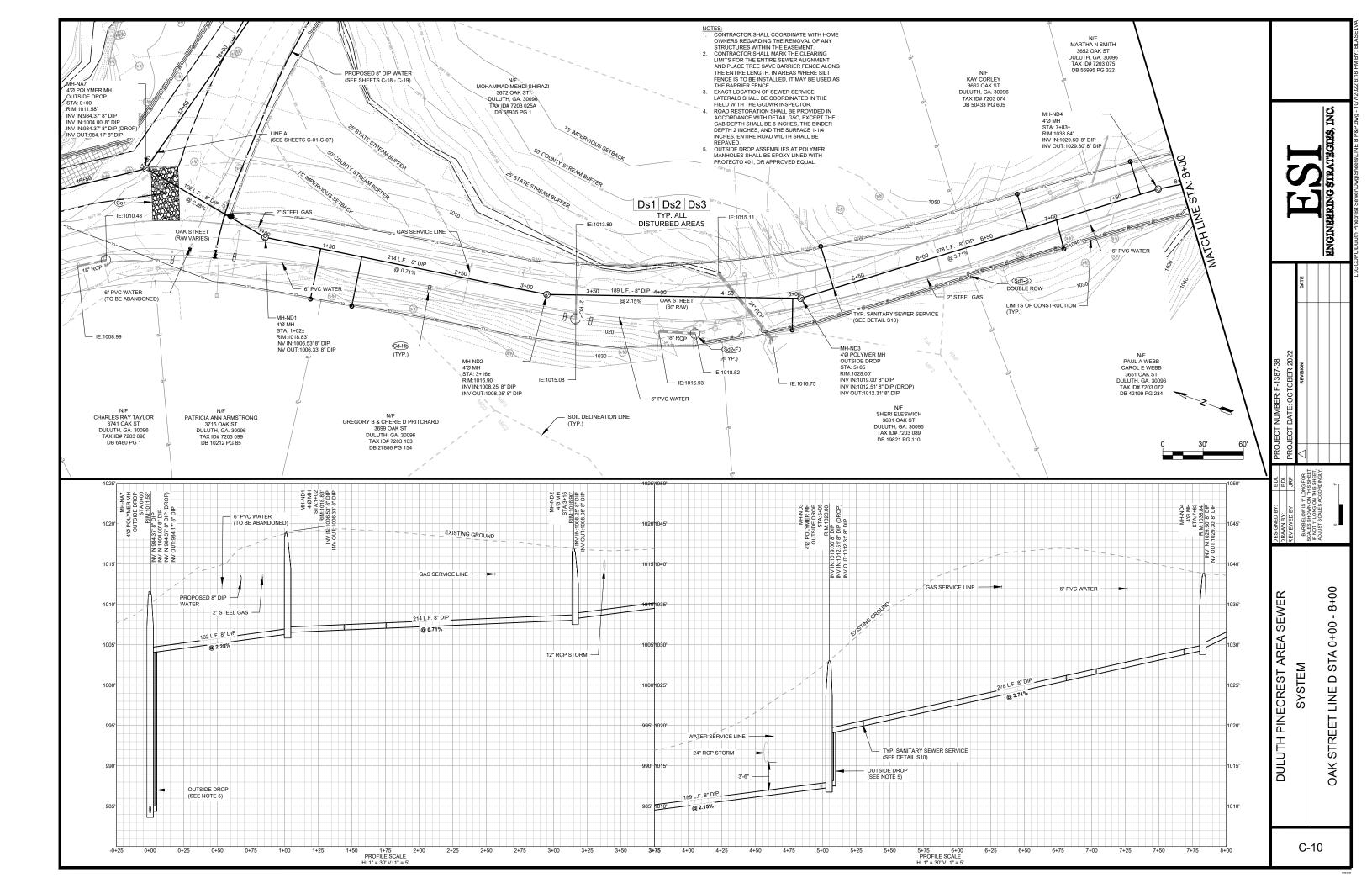


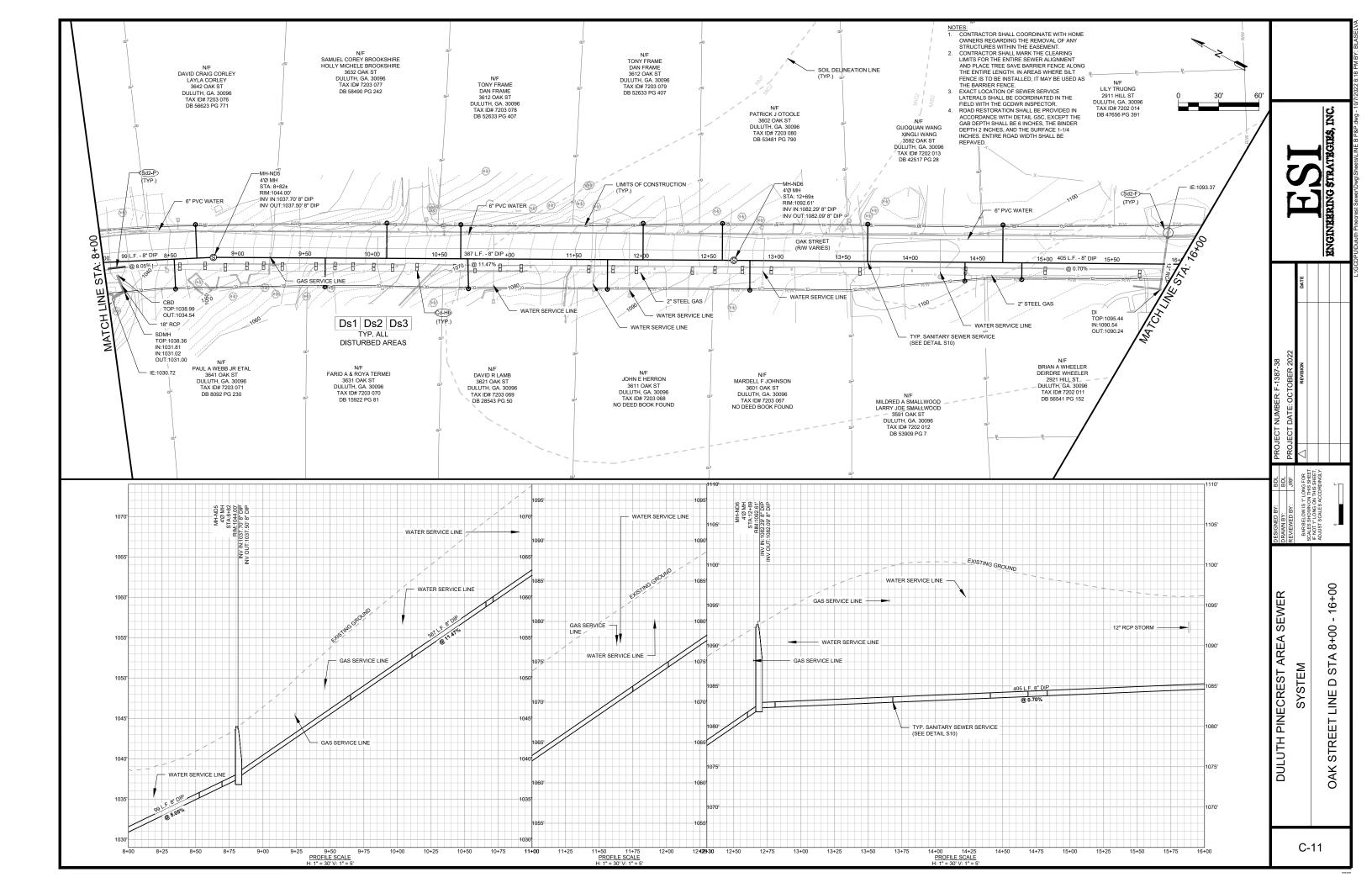


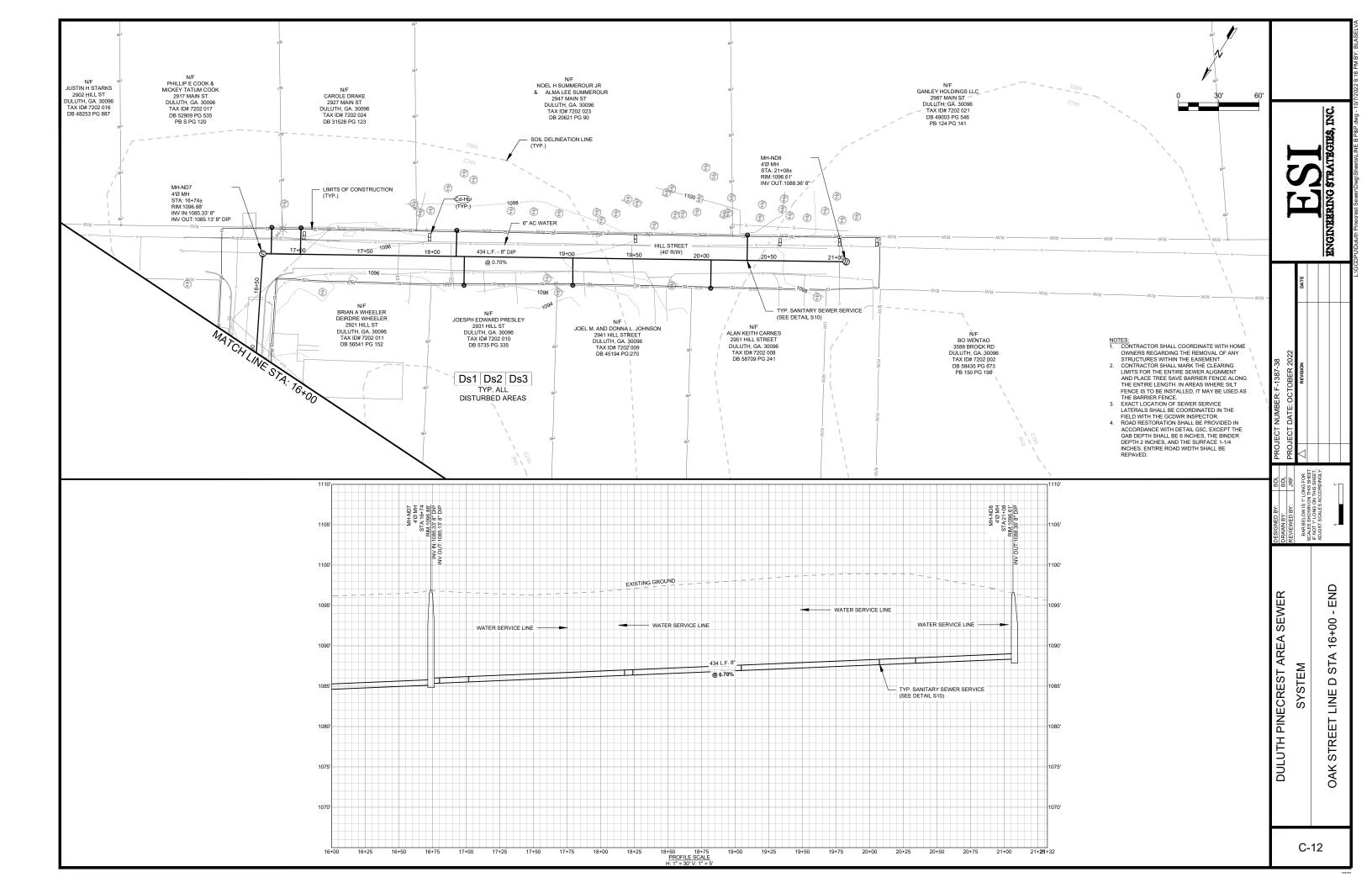


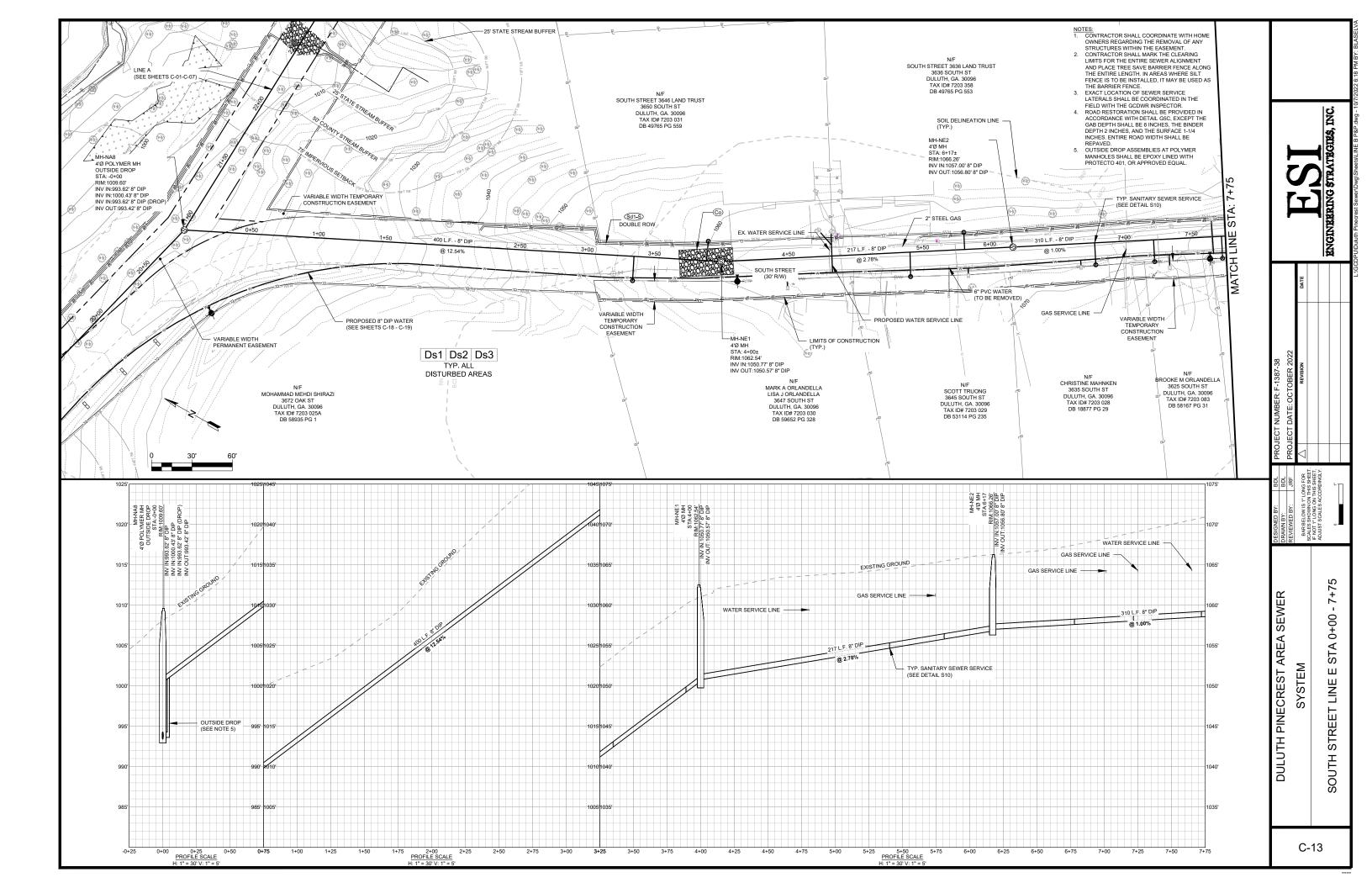


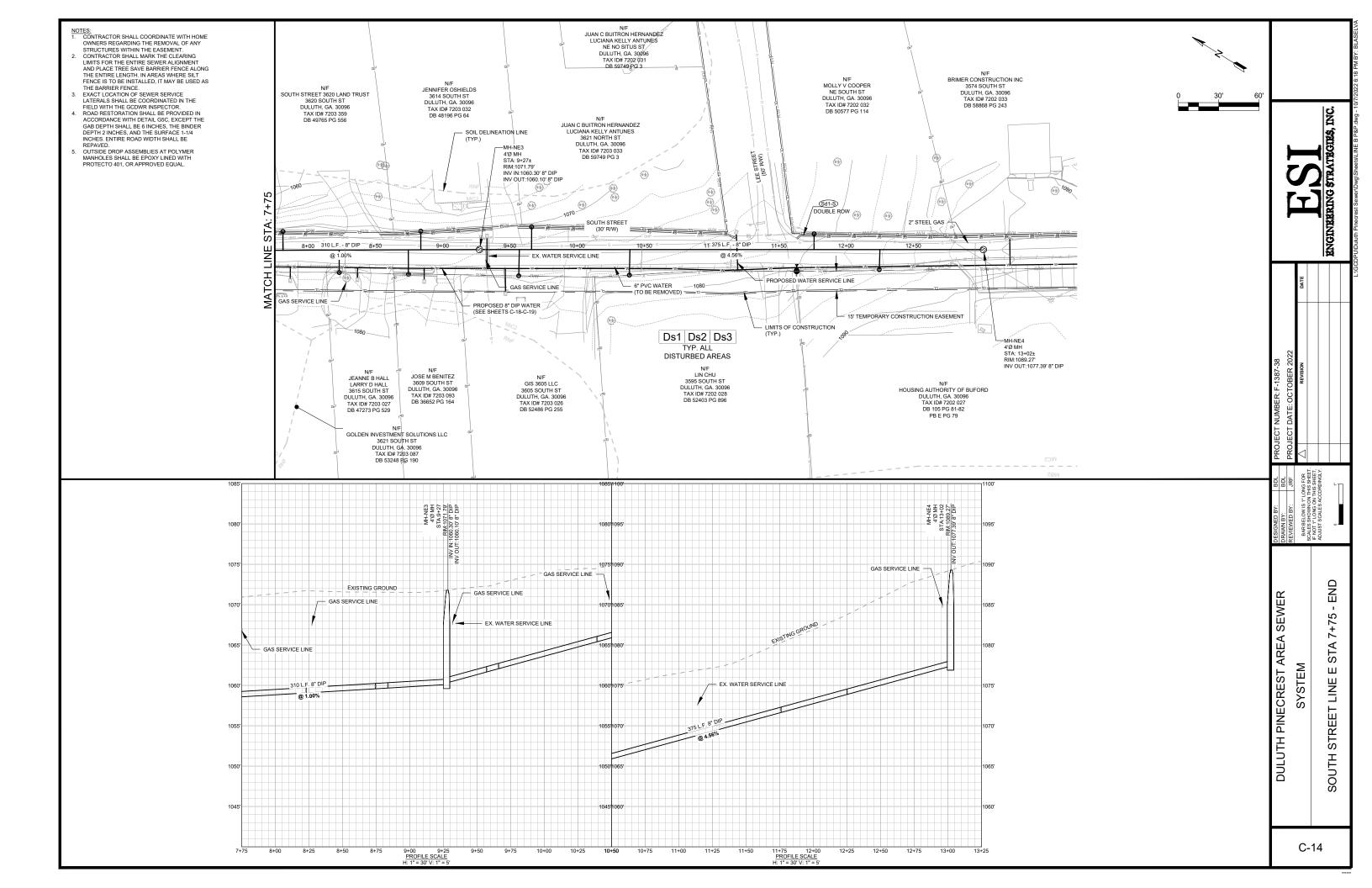


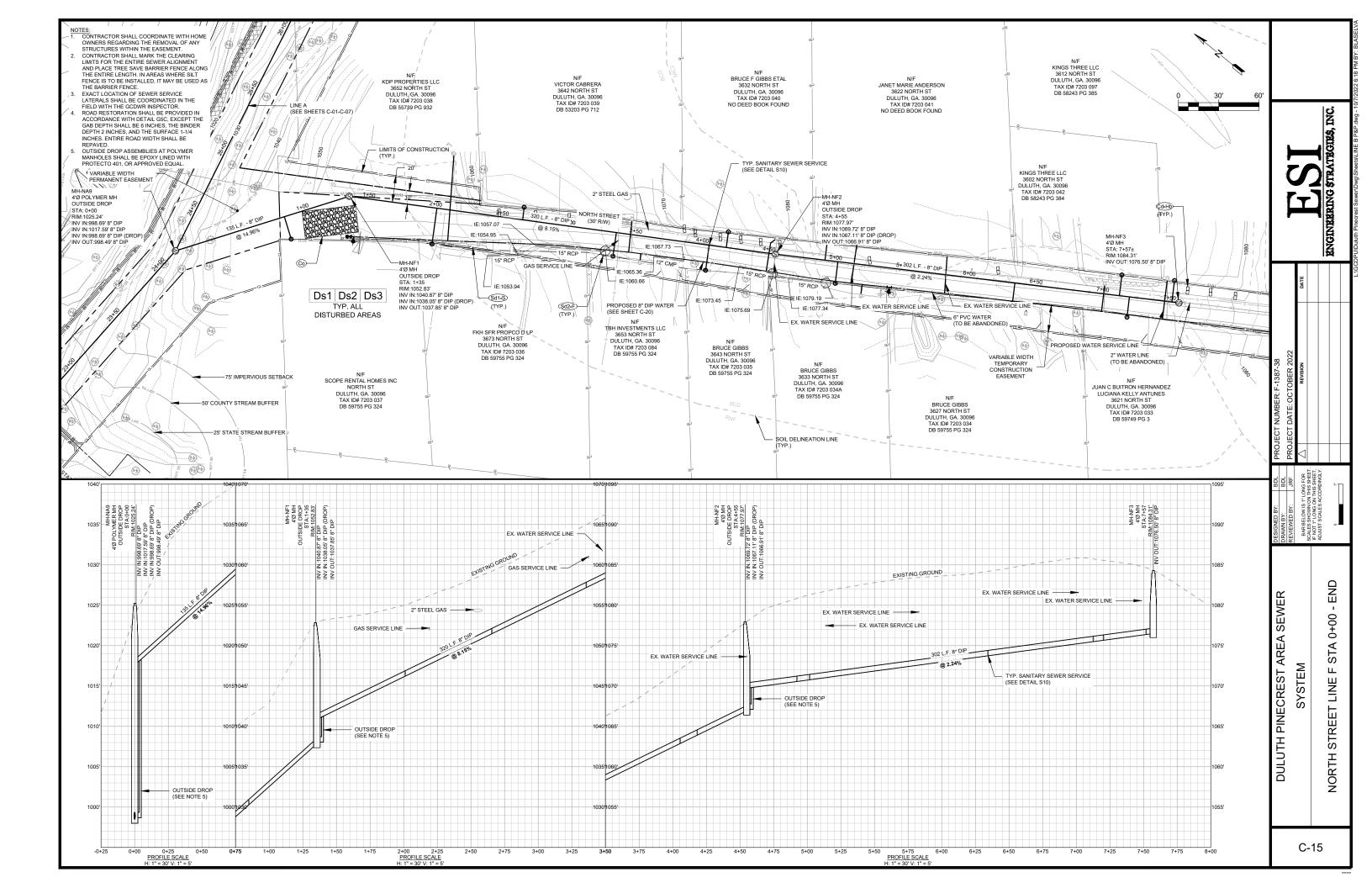


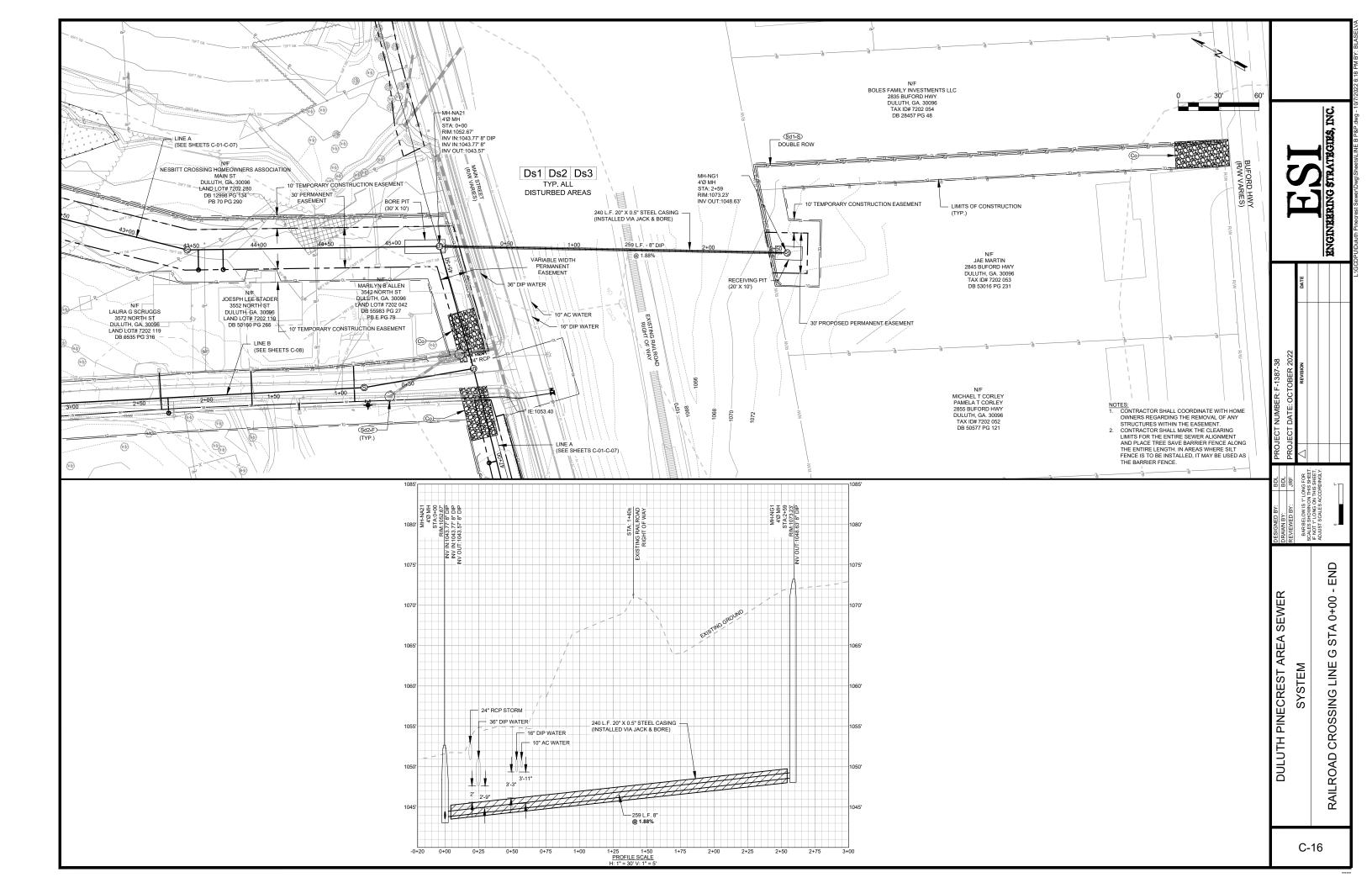


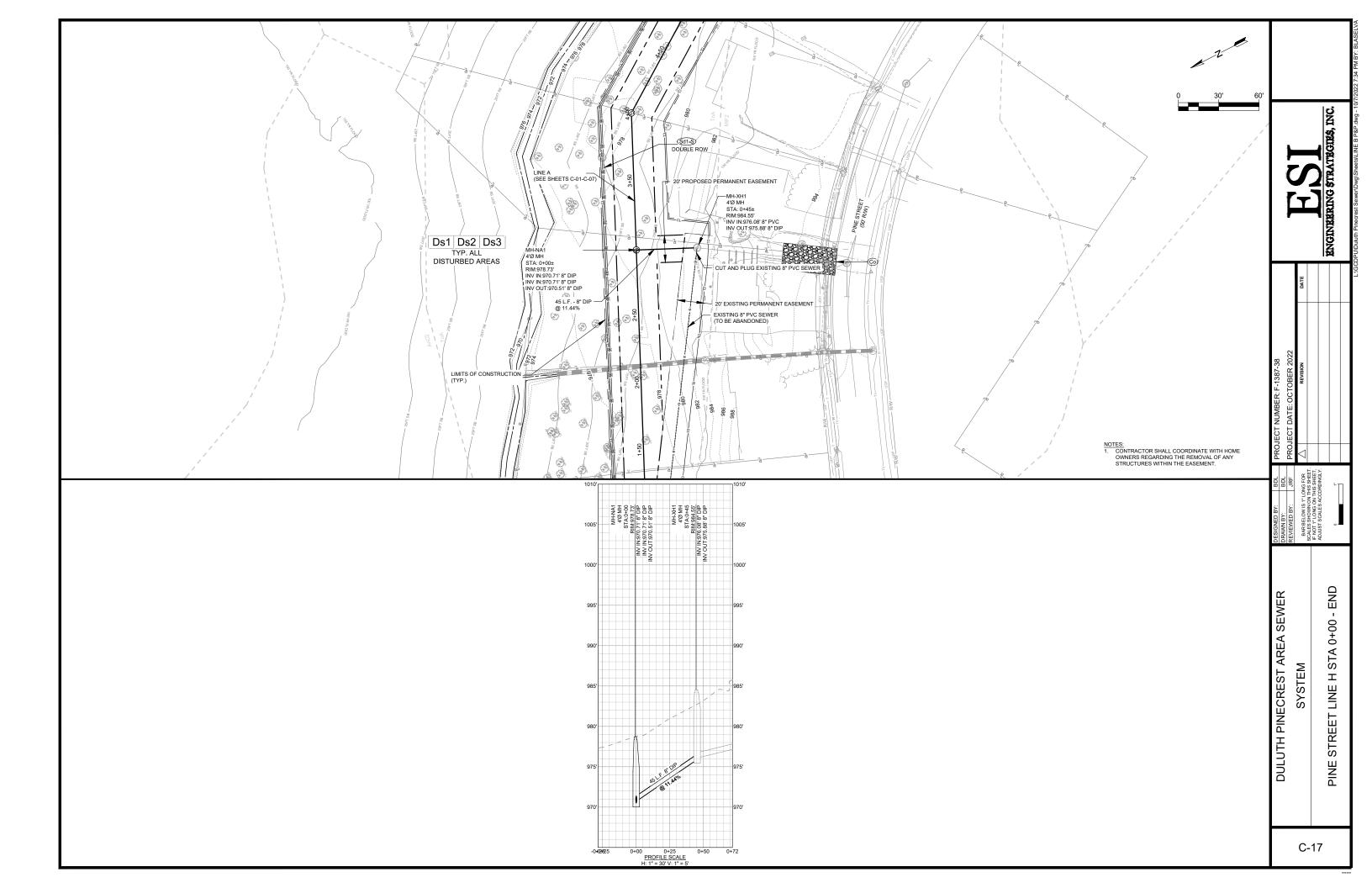


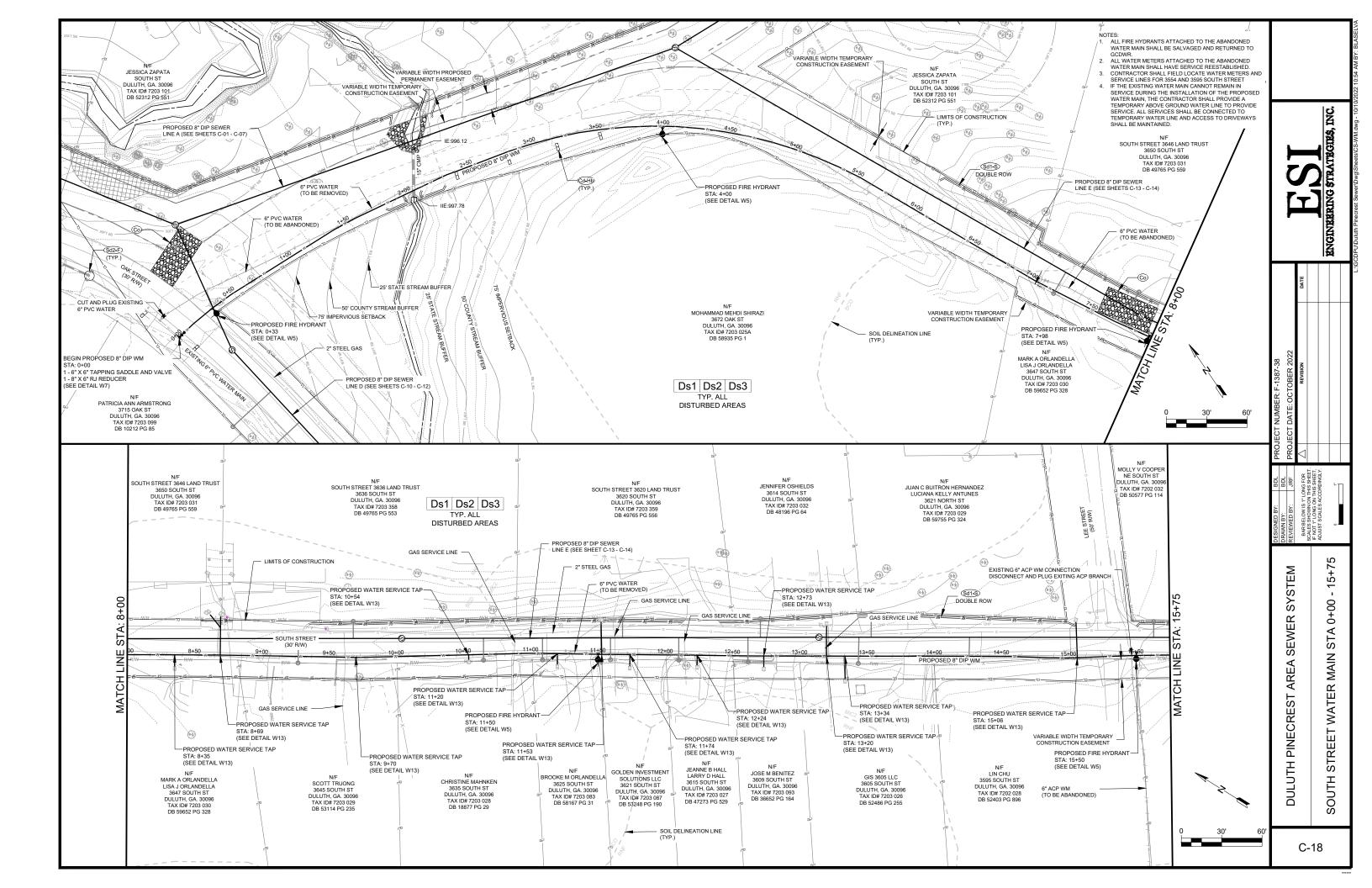


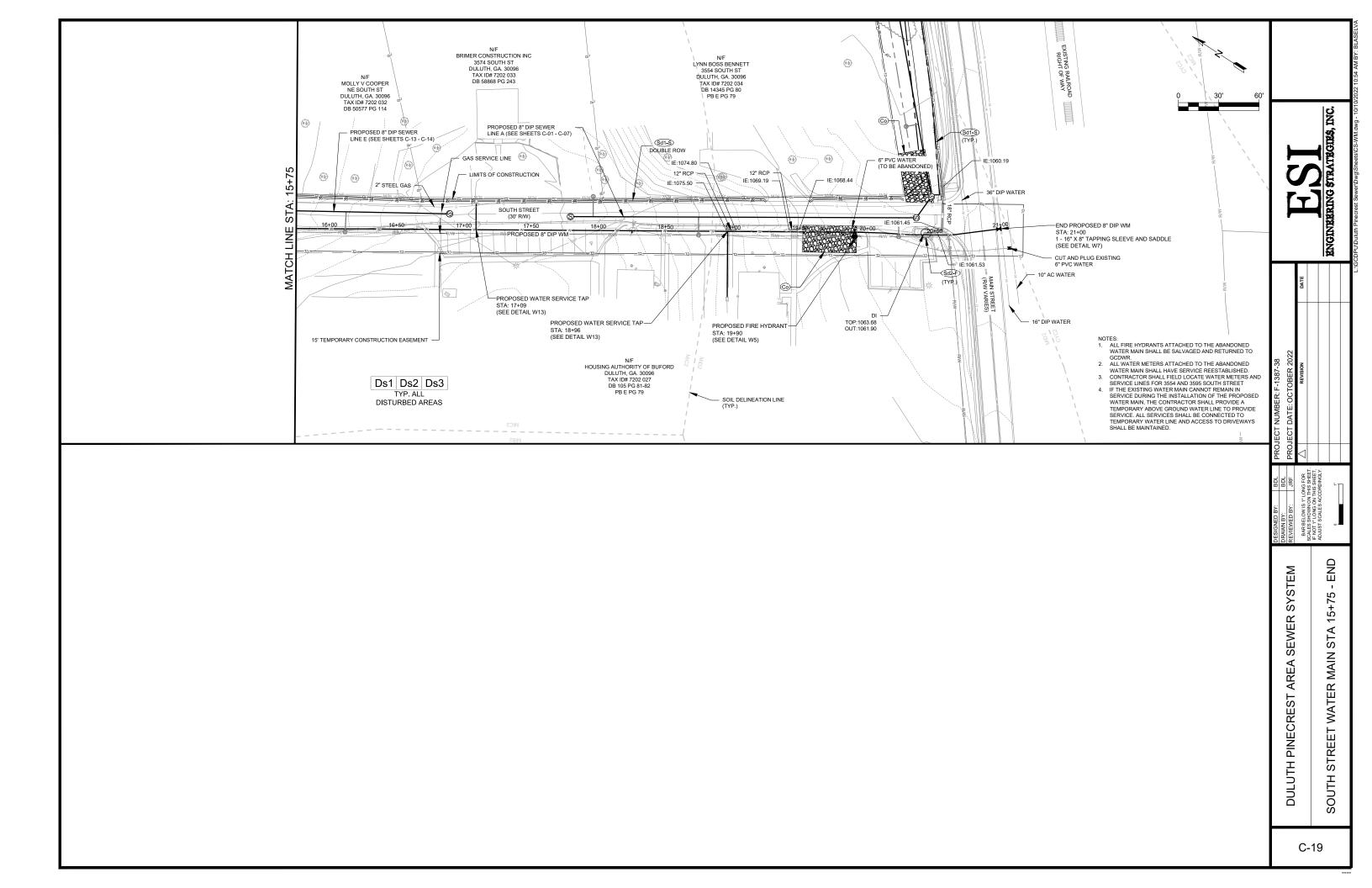


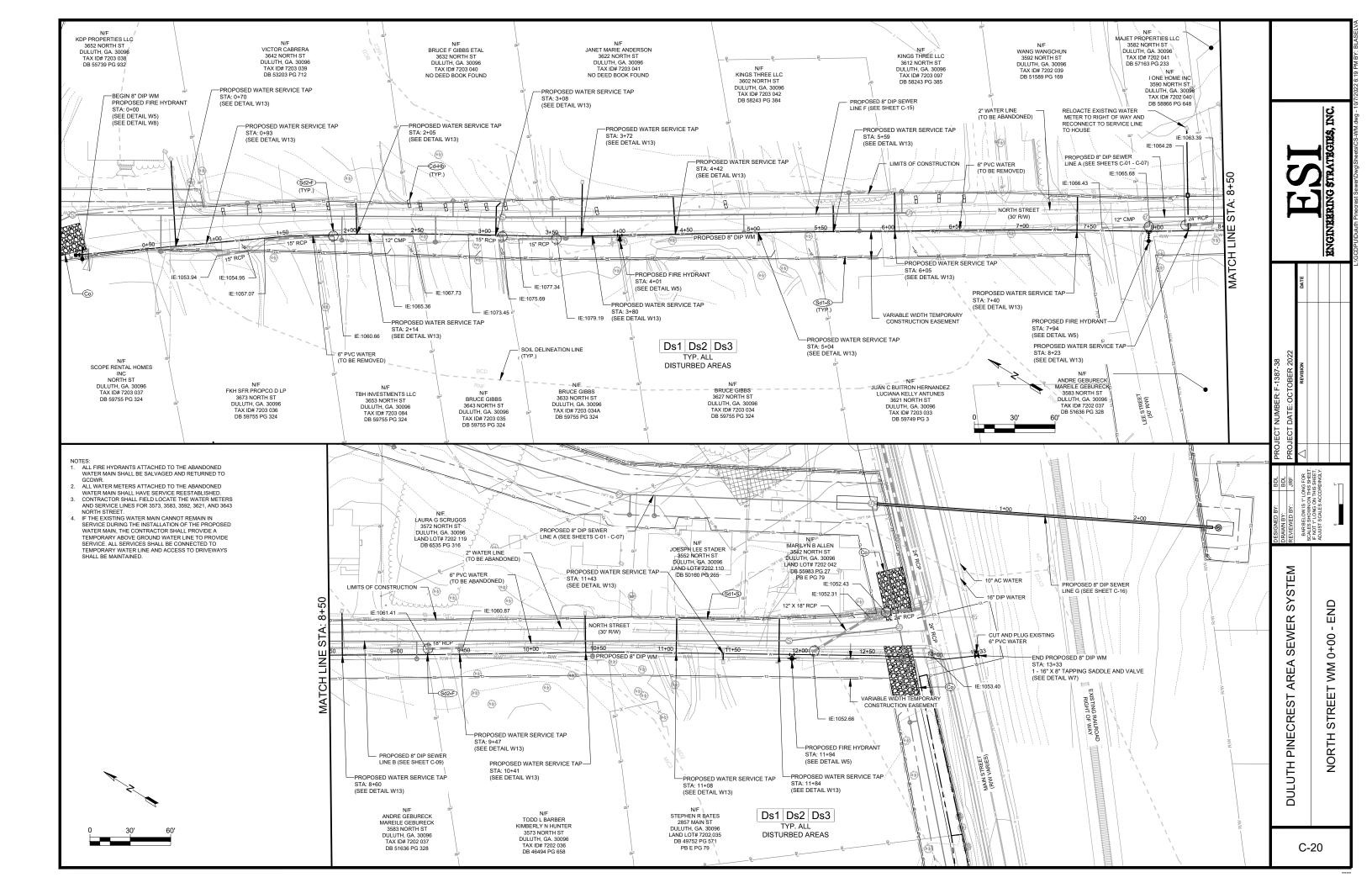


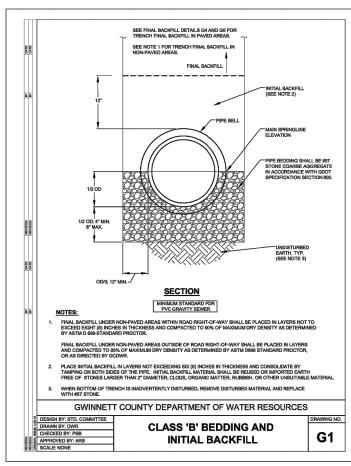


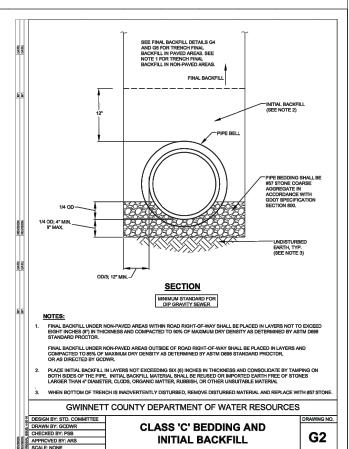


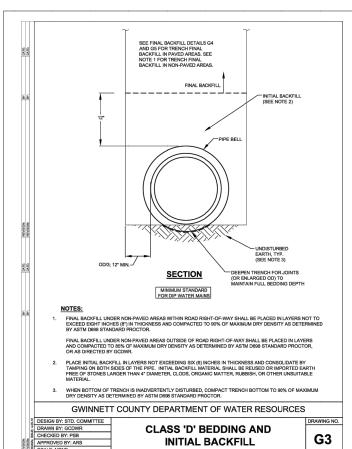


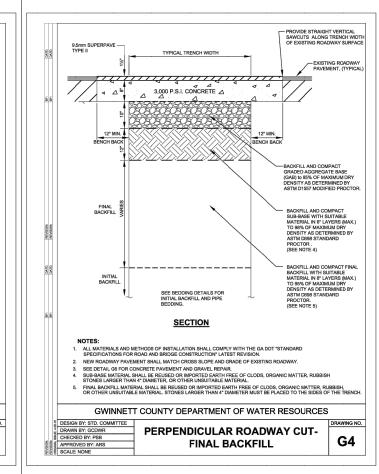












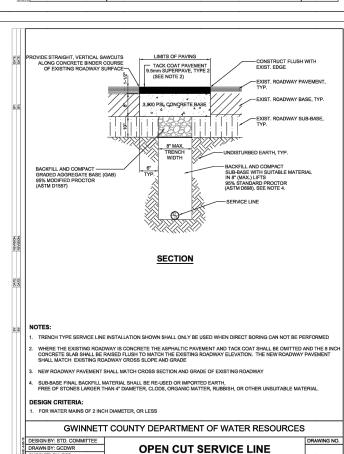
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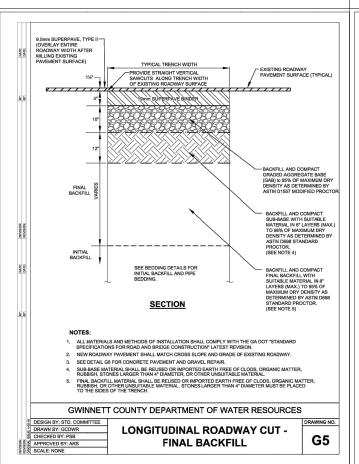
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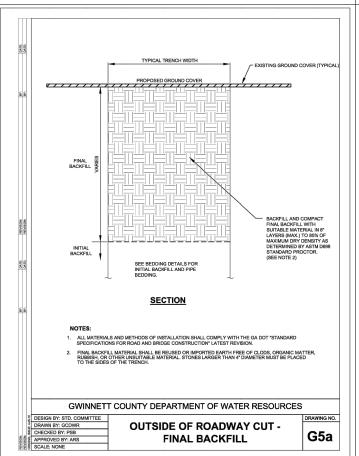
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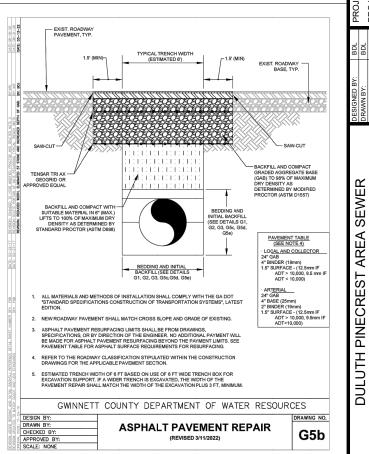


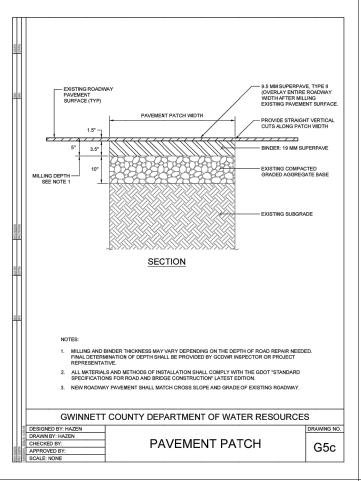
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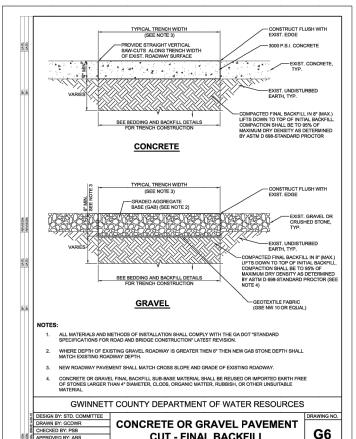
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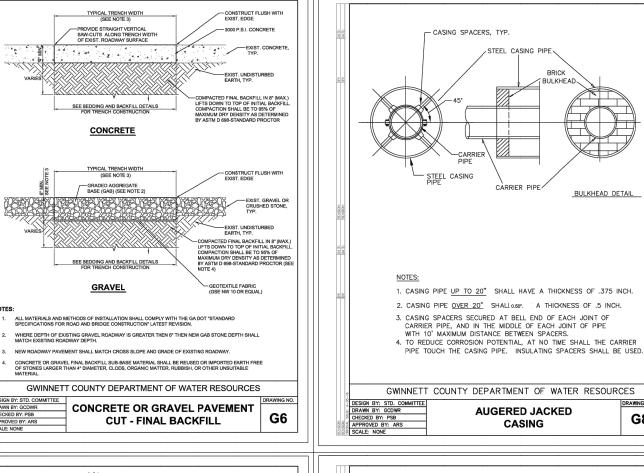


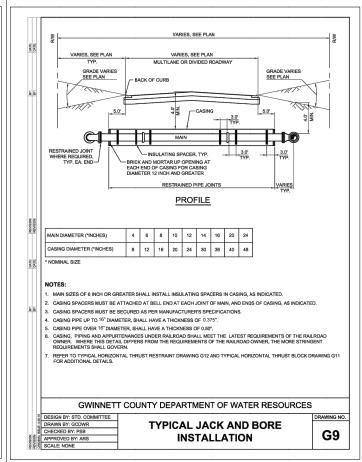


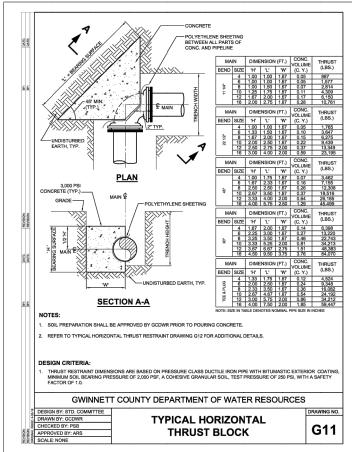


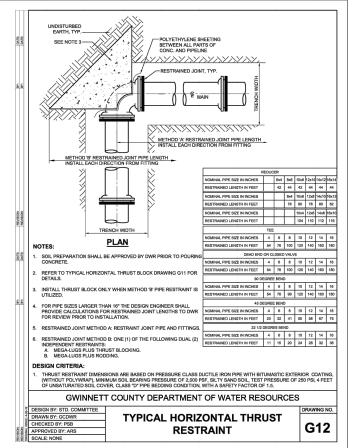


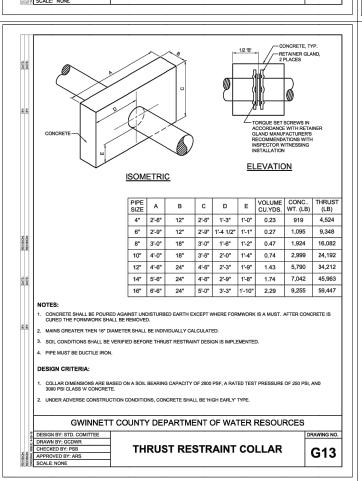




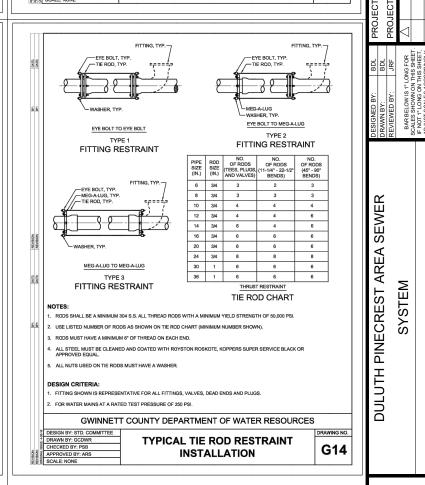








G8



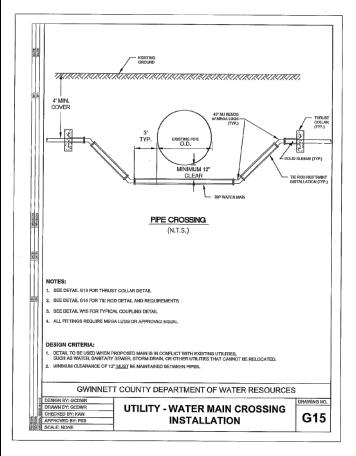
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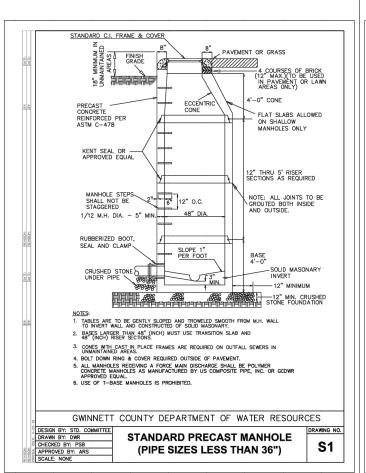
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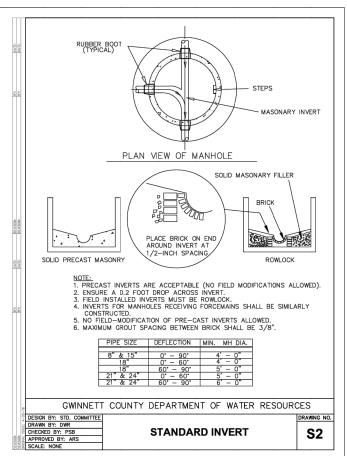
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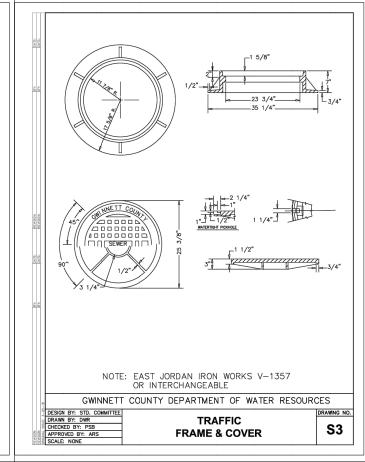
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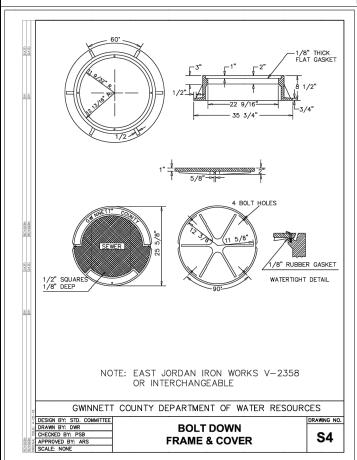
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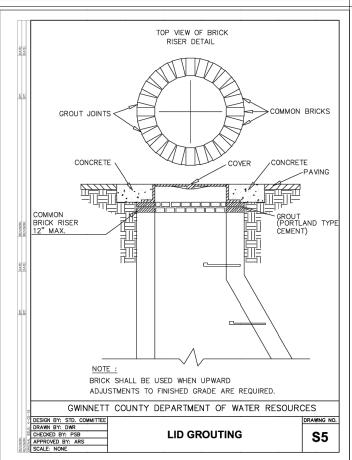


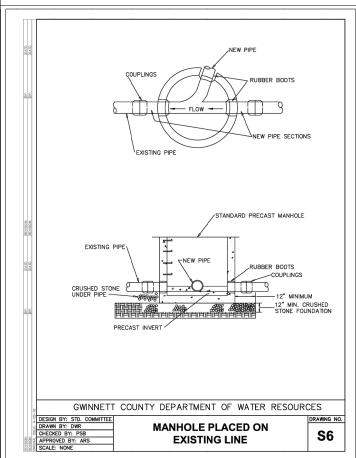


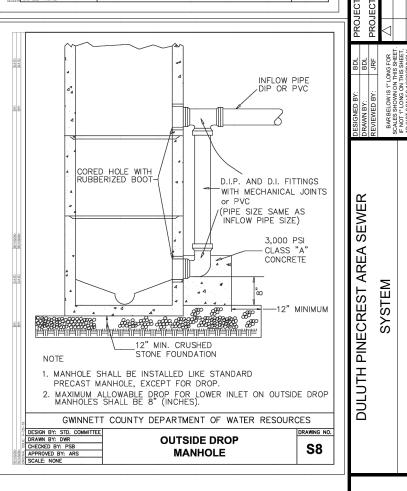












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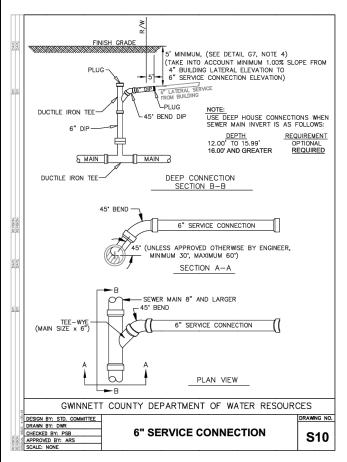
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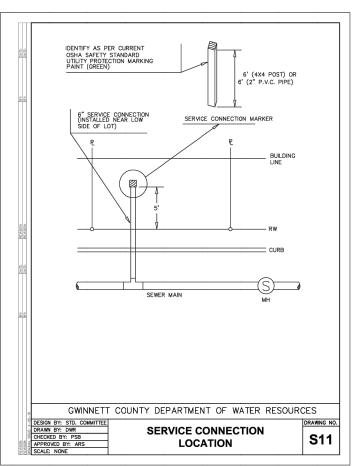
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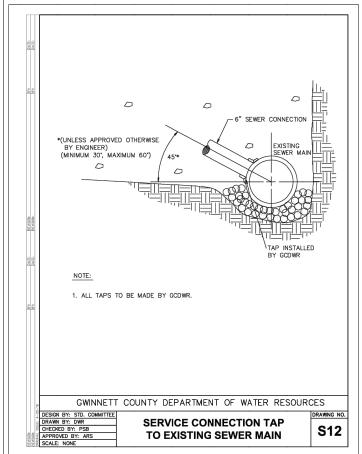
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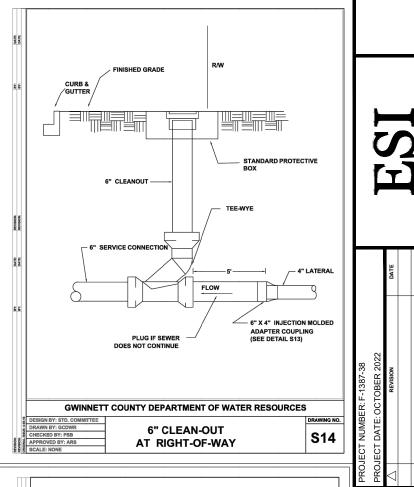
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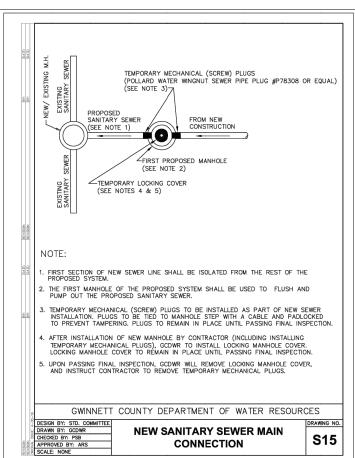
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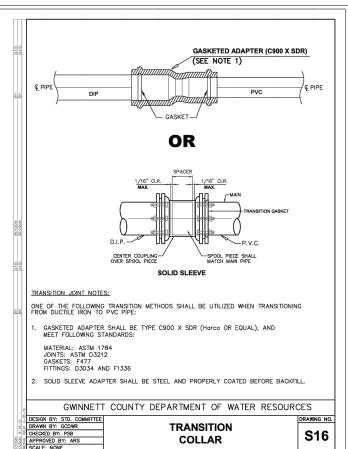


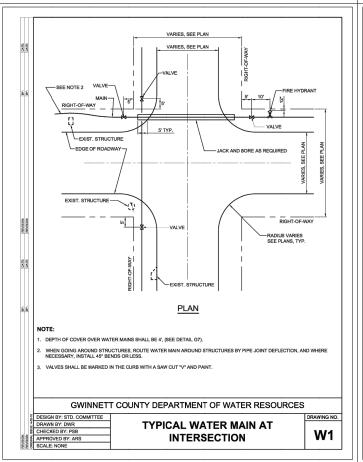


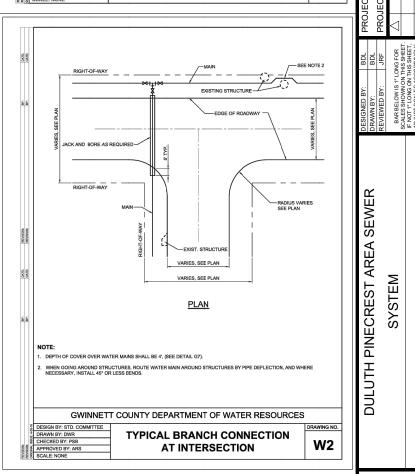










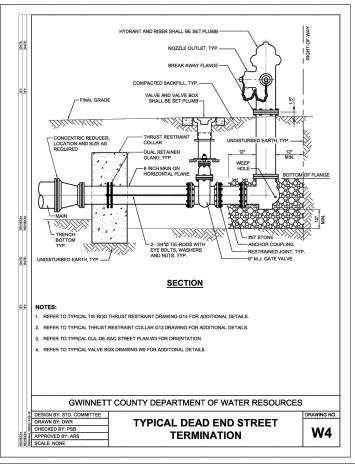


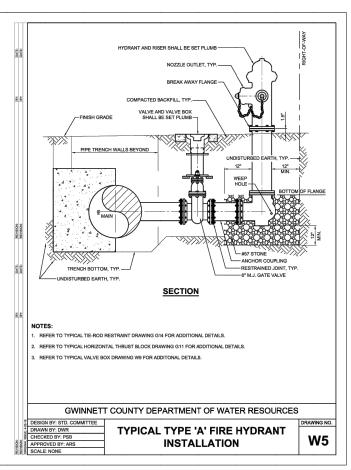
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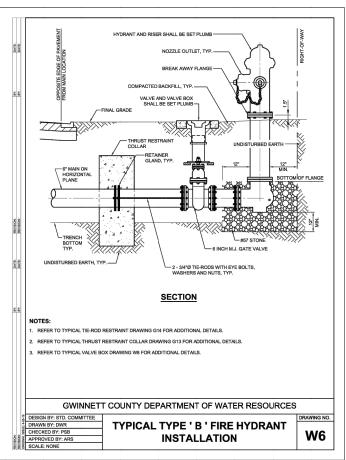
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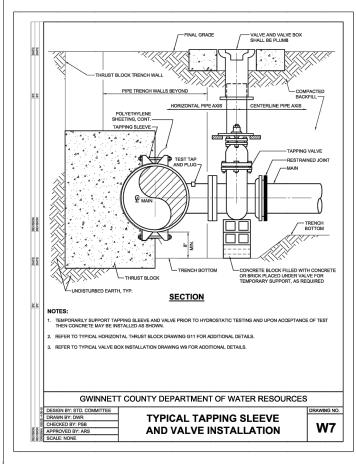
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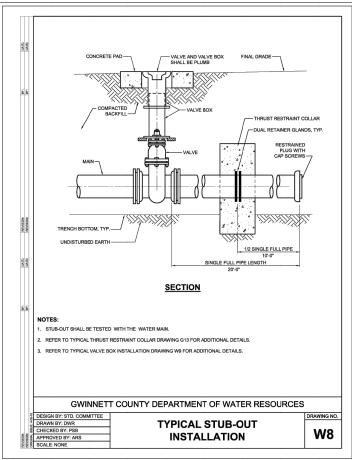
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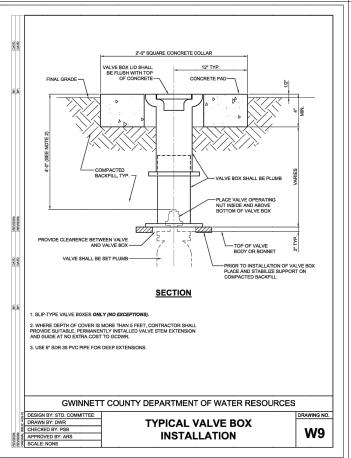


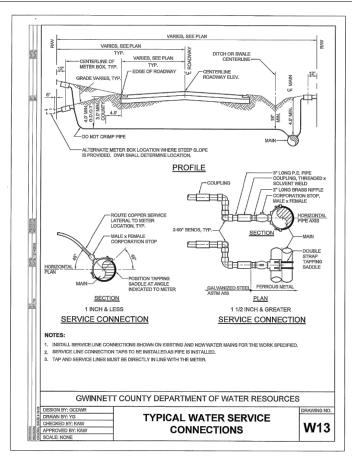


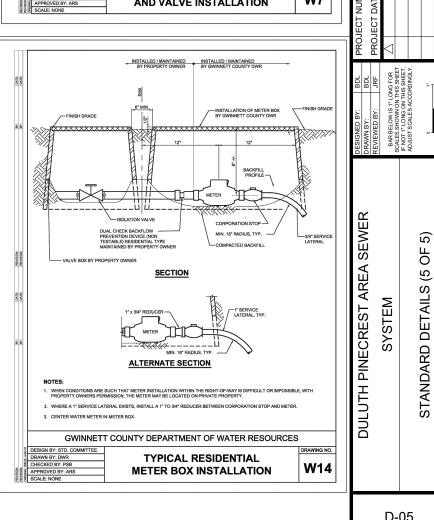


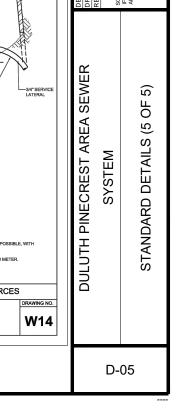












GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

		STRUCT	URAL PR	GEORGIA SOIL AND WATER RACTICES	R CONSERVAT	TON COMMIS		URAL PF	RACTICES
ODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM	77,50	1	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concertrated flow.	Sr	TEMPORARY STREAM CROSSING		(ABI	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
Ch	CHANNEL STABILIZATION	19	*	Irreproving, constructing or stabilizing an open channel, existing stream, or disch.	St	STORMDRAIN OUTLET PROTECTION		© 2222	A paved or short section of ripray channel at the cutlet of a storm drain system preventing excellent from the concentrated runoff.
<u>©</u>	CONSTRUCTION EXIT		(LABS	A crushed stone pad located at the construction site cell to provide a place for semoving mud from tiesa thereby protecting public streets.	Su	SURFACE ROUGHENING		⊢⊚ ⊣	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
(Cr)	CONSTRUCTION ROAD STABILIZATION		ض ^{نهن}	A travelessy constructed as part of a construction plan inclusing access roads, subdivision roads, parking áreas and other on-site vehicle transportation routes.	Tc	TURBIDITY CURTAIN		6 00	A flooring or staked barrier installed within the water (it may also be referred to as a floating boom, all barrier, or all curtain).
Dc	STREAM DIVERSION CHANNEL	=======================================	*	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Тр	TOPSOILING		STRIPPING AND	The practice of stipping off the more fertile sell, storing it, then spreading it over the disturbed area after completion of construction activities.
(Di	DIVERSION		THE REAL PROPERTY.	An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.	Tr	TREE PROTECTION	0	STORAGE AREAS) (DENOTE TREE	To protect desirable trees from injury during construction activity.
Dn1)	TEMPORARY DOWNDRAIN STRUCTURE		(LABE	A facilité conduit of heery-duty fabric or other materiel designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.	Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL		CENTERS)	Plaved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.
Dn2	PERMANENT DOWNDRAIN STRUCTURE	T.	O LABE	A paved chule, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.					
(J	FILTER RING	O		A temporary stone benier constructed at storm drain inlets and pond outlets.					
$\overline{}$		- 57/	0-	Rock filter baskets which are hand-placed into position forming soil stabilizing	I		VEGETA	NIVE PR	ACTICES
Ga)	GABION		1	structures.	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
$\overline{}$		A	(a)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form guilles.	I —		~		Strip of undisturbed original vegetation, enhanced or restored existing vegetation
Gr)	GRADE STABILIZATION STRUCTURE		<i>F</i>		Bf	BUFFER ZONE	4000		or the reactablishment of vegetation surrounding an area of disturbance or bordering streams.

Ds2 DISTURBED AREA STABILIZATION (WIT TEMP SEEDING)

Cs

Ds1

Ds2

Ds3

Ds4

Du

FI-Co

Sb

Ss

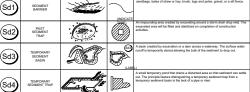
Tac

AT

STABILIZATION (SODDING)

Sb

Ss



Rt

(Sk)



SURFACE SKIMMER

(Lv)

(Rd)

(Re)

Sk)

LEVEL SPREADER

ROCK FILTER DAM

RETAINING WALL

RETRO FITTING

The same of

CERTIFICATION
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE I CERTIFY ONDER PENALTY OF LAW THAT I THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SOPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALULATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM TO SET IN THAT IT IF PENHIT LES ENGOSION, SEDIMENTATION AND POLICIA HIS OF THE ANALOGMENT HAND COMPREHENSIVE 3 15 IMO
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 STATE 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 100002.

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

INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STEAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED. I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 100002, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE NCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER

Role A. Flech JOHN R. FLECK, P.E. LEVEL II CERTIFIED DESIGN PROFESSIONAL #0000000103

CONSTRUCTION SCHEDULE

			_						
ACTIVITY				N	IONT	Ή			
ACTIVITY	1	2	3	4	5	6	7	8	9
INSTALLATION OF EROSION CONTROL									
MAINTENANCE OF EROSION CONTROL		7777777				,,,,,,,,,	,,,,,,,,,,		
INSTALLATION OF GRAVITY SEWER			1111111	11111111	uuuu				
INSTALLATION OF WATER MAIN									
CLEAN-UP									
CONSTRUCTION ACTIVITIES ARE EXPECT	ED T	O BE	GIN	IN	, 2	022.			

- STORM WATER AND EROSION CONTROL NOTES
 1. FI OODPLAIN SHOWN IS FROM FIRM PANEL 13135C0041H AND 1335C0055G DATED MARCH 4, 2013. PORTIONS OF THIS PROJECT LIE WITHIN THE 100-YEAR FLOODPLAIN
- THIS PROJECT IS WITHIN 200' OF STATE WATERS
- TOTAL WETLAND AREA ON SITE: 0.00 AC
- DISTURBED WETLAND AREA: 0.00 AC
- SOURCE OF TOPOGRAPHY IS BASED ON FIELD RUN SURVEY OBTAINED FROM CHA DATED JULY 21, 2021. ALL DATA IS IN GEORGIA WEST STATE PLAN ZONE, NAVD 88.
- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY GWINNETT COUNTY OR THE CITY OF DULUTH OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND AREA DISTURBANCE.
- CITY OF DULUTH ASSUMES NO RESPONSIBILITY FOR OVERFLOW OR EROSION OF NATURAL OR ARTIFICIAL DRAINS BEYOND THE EXTENT OF THE STREET RIGHT-OF-WAY, OR FOR THE EXTENSION OF CULVERTS BEYOND THE POINT SHOWN ON THE APPROVED AND RECORDED PLAN. THE CITY OF DULUTH DOES NOT ASSUME THE RESPONSIBILITY FOR THE MAINTENANCE OF PIPES IN DRAINAGE EASEMENTS BEYOND THE COUNTY RIGHT-OF-WAY.
- EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES MAY BE
- PERMANENT GRASSING AND/OR LANDSCAPING SHALL BE INSTALLED WITHIN TWO WEEKS AFTER THE COMPLETION OF ANY LAND DISTURBING ACTIVITY, OR IF ACTIVITY IS DISCONTINUED FOR A PERIOD OF TWO WEEKS OR LONGER.
- A TEMPORARY COVER OF HEAVY MULCH OR MULCH WITH TEMPORARY SEEDING SHALL BE PLACED ON ALL AREAS WHERE ERMANENT COVER CAN NOT BE ESTABLISHED IMMEDIATELY DUE TO SEASONAL LIMITATION
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL DEVICES IN GOOD WORKING CONDITION AND CLEANING OUT THE DEVICES BEFORE THEY ARE HALF-FULL OF SEDIMENT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- CONTRACTOR SHALL BUILD, MAINTAIN, AND USE A CONSTRUCTION EXIT AT ALL SITE ENTRY/EXIT LOCATIONS ADJACENT TO
- 13. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE USED ARE DETAILED ON THE EROSION CONTROL PLAN OR EROSION
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET THE MINIMUM REQUIREMENTS OF THE SPECIFICATIONS AND ALL LOCAL, STATE, AND FEDERAL LAWS AS APPLICABLE TO THIS PROJECT. ALL DEVICES SHALL BE PROPERLY INSTALLED AND BE OF SUITABLE MATERIALS. ANY DEVICES JUDGED TO BE INADEQUATE IN MATERIAL AND/OR CONSTRUCTION WILL IMMEDIATELY BE REPLACED WITH NEW OR ADDITIONAL DEVICES TO ENSURE PROPER CONTROL
- 15 TEMPORARY SILT CONTROL FENCE TYPE 'S' OR 'NS' SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TEMPORARY SILT CONTROL FRICE, TIPE S OR NO SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACT OR SHALL INSPECT FENCE DAILY AND AFTER EVERY RAIN. ACCUMULATED SILT SHALL BE REMOVED AS SOON AS PRACTICAL, BUT NO LATER THAN WHEN FENCE IS HALF FULL. CONTRACTOR SHALL REMOVE THE SILT FENCE WHEN PERMANENT GRASSING HAS BEEN ESTABLISHED.
- ALL EROSION CONTROL DEVICES, THAT ARE NOT DIRECTLY SPECIFIED AS TO INSTALLATION AND MATERIALS, SHALL MEET THE REQUIREMENTS OF THE GA. DEPT. OF TRANSPORTATION, SPECIFICATIONS FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION, AND LATEST SUPPLEMENT IN EFFECT AT THE TIME OF BID OPENING OR THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION
- CONSTRUCTION EXITS (Co) SHALL BE REQUIRED AT ALL OTHER LOCATIONS USED FOR INGRESS/EGRESS FROM THE CONSTRUCTION AREA. CONSTRUCTION MATERIAL STORAGE AREAS WILL REQUIRE THE INSTALLATION OF A CONSTRUCTION EXIT TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE AREA. SILT FENCE SHALL ALSO BE INSTALLED TO PREVENT SEDIMENT FROM LEAVING THE MATERIAL STORAGE AREA. AFTER DEMOBILIZATION, THE MATERIA STORAGE AREA SHALL BE SEEDED AND MULCHED, AND THE SILT FENCE SHALL REMAIN UNTIL THE AREA IS PERMANENTLY
- 18. MAXIMUM SLOPE FOR CUT OR FILL IS 2H:1V EXCEPT EARTHEN DAM EMBANKMENTS SHALL BE 3H:1V.
- 19. THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLANDS INVENTIORY MAPS HAVE BEEN CONSULTED; AND 2) THE APPROPRIATE PLAN SHEET DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND ISTURBANCE PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION PERMIT HAS BEEN OBTAINED.
- 20. A REVISION TO THE ESC PLAN IS REQUIRED WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, THAT WILL HAVE A SIGNIFICANT IMPACT ON BMPs WITH A HYDRAULIC COMPONENT, OR IF THE PLAN PROVES TO BE INSUFFICIENT IN ELIMINATING POLLUTANT DISCHARGE.
- STREAM BUFFER EASEMENTS ARE TO REMAIN IN A NATURAL AND UNDISTURBED CONDITION
- 22. STRUCTURES ARE NOT ALLOWED IN DRAINAGE EASEMENTS WITHOUT PRIOR WRITTEN APPROVAL FROM CITY.

CITY OF DULUTH EROSION CONTROL NOTES

- 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.
- 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
- 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.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL 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
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404

GENERAL EROSION CONTROL NOTES

GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES

LAWRENCEVILLE, GA. 30045 GREG JACKSON - (678) 376-6917

THE 24-HOUR EMERGENCY CONTACT IS GWINNETT COUNTY DEPARTMENT OF WATER RESOURCES (GCDWR): - OFFICE HOURS #678-376-6700 - AFTER HOURS #678-376-7000

- TOTAL PROJECT AREA: 12.78 ± ACRES
- TOTAL DISTURBED AREA: 12.78 ± ACRES
- THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
- SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES. INDICATING THE 1/3 FULL VOLUME.
- A 50-FOOT UNDISTURBED BUFFER AND A 75-FOOT IMPERVIOUS SETBACK IS TO BE MAINTAINED ADJACENT TO ALL STREAMS. 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
- THE RECEIVING WATER FOR THIS PROJECT IS ROGERS CREEK, A TRIBUTARY OF THE CHATTAHOOCHEE RIVER.
- THERE WILL BE A SLIGHT CHANGE IN FLOW REGIME TO THE CONSTRUCTION SITE DUE TO THE NATURE OF LITH ITY CONSTRUCTION ACTIVITIES. THE ESTIMATE OF THE PRE-CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.37. THE ESTIMATE OF THE POST CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.40.
- THE PRIMARY, SECONDARY OR TERTIARY PERMITTEES ARE REQUIRED TO AMEND THEIR PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, THAT WILL HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT, OR IF THE PLAN PROVES TO BE INFFFECTIVE IN FLIMINATING POLITURANT DISCHARGE
- 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 SOII AND WATER CONSERVATION COMMISSION). FOR 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, LATEST EDITION

TREE PRESERVATION/PROTECTION PLANTING NOTES

ALL LIMITS OF CONSTRUCTION AS INDICATED ON THE DRAWINGS SHALL BE CLEARLY IDENTIFIED BY ORANGE SAFETY FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE EXCEPT THOSE OPERATIONS NEEDED TO INSTALL EROSION CONTROL FACILITIES. ENGINEER SHALL INSPECT SAFETY FENCING PRIOR TO LAND DISTURBANCE.

- THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON THE SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY GWINNETT COUNTY ENGINEER OR INSPECTO
- ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO CLEARING AND TRENCHING.
- ORANGE SAFETY FENCING SHALL BE INSTALLED ALONG THE OUTER EDGE OF AND COMPLETELY SURROUNDING THE CRITICAL ROOT ZONES OF ALL SPECIMEN TREES OR STANDS OF TREES OR OTHERWISE DESIGNATED TREE PROTECTION ZONES PRIOR TO ANY LAND DISTURBANCE. SPECIMEN TREES AND TREE PROTECTION ZONES SHALL BE FLAGGED BY
- 5. ALL TREE PROTECTION ZONES SHALL BE DESIGNATED WITH "TREE SAVE AREA" SIGNS.
- WHEN DIGGING NEAR TREES. THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE (1) INCH IN DIAMETER AND LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
- PRUNING OF TREE LIMBS TO PROVIDE CLEARANCE FOR EQUIPMENT AND MATERIALS SHALL BE DONE ACCORDING TO STANDARD ARBORICULTURAL PRACTICES.
- ALL BUFFERS AND TREE SAVE AREAS ARE TO BE CLEARLY IDENTIFIED WITH PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED IN THE DESIGNATED STAGING/LAY-DOWN AREAS. CONSTRUCTION MATERIALS, CONSTRUCTION WASTE, TRASH, LANDSCAPING MATERIALS, FERTILIZERS, ETC SHALL BE COVERED (E.G. PLASTIC SHEETING OR TEMPORARY ROOF) AND ELEVATED ON WOOD BLOCKING TO MINIMIZE EXPOSURE O THESE PRODUCTS TO PRECIPITATION AND STORMWATER TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE

EROSION CONTROL PROJECT NARRATIVE

THE PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF A 8" SANITARY SEWER THROUGH PRIVATE RESIDENTIAL. HIGHWA COMMERCIAL, AND RAILROAD RW PROPERTIES. THE EROSION CONTROL PROJECT TIMELINE: INSTALL INITIAL BMPs, CLEARING & GRUBBING ACTIVITIES. TEMPORARY VEGETATION MEASURES, PERMANENT VEGETATION, REMOVAL OF TEMPORARY EROSION CONTROL PRACTICES. ALL DISTURBED AREAS WILL BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT MEASURES WITHII 48 HOURS OR PRIOR TO ANY EXPECTED RAINFALL EVENT.

EIGHT (8) TYPES OF EROSION CONTROL MEASURES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT.

- SILT FENCE (Sd1) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED OFF OF THE SITE.
- 2. STEEL FRAME AND SILT FENCE (Sd2-F) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED THROUGH STORM WATER STRUCTURES.
- CURB INLET PROTECTION (9d2-P) SHALL BE INSTALLED AT CURB INLETS TO PREVENT SEDIMENT FROM BEING WASHED THROUGH STORM WATER STRUCTURES
- MULCHING, TEMPORARY AND PERMANENT GRASSING (Ds1, Ds2 & Ds3) SHALL BE USED TO RE-ESTABLISH VEGETATION ON THE DISTURBED AREAS AS CONSTRUCTION PROCEEDS.
- CONSTRUCTION EXITS (Co) WILL BE INSTALLED TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE WHERE EQUIPMEN
- HAY BALE CHECK DAMS (Cd-Hb) WILL BE UTILIZED TO PREVENT THE WASHING OF SEDIMENT THROUGH EXISTING DRAINAGE CHANNELS
- STREAMBANK STABILIZATION (Sb) SHALL BE INSTALLED TO RESTORE THE 25' STATE STREAM BUFFER IN AREAS OF ENCROACHMENT GRANTED BY THE VARIANCE
- RIP RAP CHANNEL STABILIZATION (Ch-2) SHALL BE UTILIZED TO PREVENT EROSION OF CHANNELS AND TO PREVENT SEDIMENT FROM WASHING INTO EXISTING STREAMS AND DRAINAGE DITCHES.

THE USE OF A SEDIMENT STORAGE BASIN FOR THIS SITE IS NOT PRACTICAL DUE TO THE NATURE OF THE RUNOFF FROM THE SIT PRIMARILY BEING VIA OVERLAND FLOW INSTEAD OF A CONCENTRATED STREAM WHICH CAN BE INTERCEPTED AND DIVERTED TO A SEDIMENT BASIN. THEREFORE, A ROW OF TYPE SENSITIVE SILT FENCE (Sd1-S) IS BEING PLACED ALONG THE DOWN GRADE EDGE OF THE PROJECT TO CAPTURE SEDIMENT. TYPICAL STORAGE IN SILT FENCE ACCEPTED BY MOST JURISDICTIONS IS 0.2 CY/LINEAR FOOT OF SILT FENCE. THE PROJECT TO INCLUDES APPROXIMATELY 6197 LINEAR FEET OF SILT FENCE WHICH WILL PROVIDE STORAGE OF 0.2 X 8650 LF= 1730 CY. THIS IS ADEQUATE STORAGE FOR THE 67 CY X 12.78 ACRES OF DISTURBED AREA

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF A STRONG STAND OF GRASS BEFORE BEING RELEASEI FROM HIS CONTRACTUAL OBLIGATIONS. HE WILL BE HELD RESPONSIBLE FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE OF THE PROJECT TO REPAIR ANY WASHOUT AREAS, ETC.

PRODUCT SPECIFIC PRACTICES

PREVIOUS FIRSTITUS.

PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLES AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS, 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 I PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED

PAINTS/FINISHES/SQLVENTS - 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 USE WITH THESE PRODUCTS, AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATION AND RECOMMENDATIONS

CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OF 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 EROSI AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

CONTRACTOR SHALL MAKE ACCOMODATIONS TO SATISFY THE FOLLOWING:

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 POLITAINS, 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), [Permit

ENGEN BARE CALES F NOT 3 ОЕ $\overline{\mathcal{L}}$ S DETAIL! AREA AND **PINECREST** NOTES

CONTROL

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ESC-01

DULUTH

CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103

<u>VEGETATIVE COVERS</u>										
				RATES/1,000 SC). FT.			RATES/1,000 SC	. FT.	
	MONTH	TEMPORARY SEED	RATE/ACRE	FERTILIZER	LIME STONE	PERMANENT SEED	RATE/ACRE	FERTILIZER	LIME	MAINTENANCE
)	JANUARY	RYEGRASS	40 - 50 LB.	12 LB (10-10-10)	45 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2)	8 - 10 LB. 30 - 40 LB. (1)	12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10)
!)	FEBRUARY	RYEGRASS	40 - 50 LB.	12 LB (10-10-10)	45 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 - 10 LB. 30 - 40 LB. 30 - 50 LB.	12 LB (10-10-10) 35 LB (6-12-12) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
)	MARCH	RYE ANNUAL LESPEDEZA WEEPING LOVEGRASS	2 - 3 BU. 20 - 25 LB. 4 - 6 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB. 45 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 - 10 LB. 30 - 40 LB. 30 - 50 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
l)	APRIL	RYE BROWN TOP MILLET ANNUAL LESPEDEZA SUDAN ANNUAL	2 - 3 BU. 30 - 40 LB. 20 - 25 LB. 35 LB.	12 LB (10-10-10) 12 LB (10-10-10) 35 LB (6-12-12) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 - 6 LB. 5 - 6 LB. 40 - 60 LB.	12 LB (10-10-10) 12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
5)	MAY	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 - 6 LB. 35 LB. 30 - 40 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB. 45 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 - 6 LB. 5 - 6 LB. 40 - 60 LB.	12 LB (10-10-10) 12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
3)	JUNE	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 - 6 LB. 35 LB. 30 - 40 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 - 6 LB. 5 - 6 LB. 40 - 60 LB.	12 LB (10-10-10) 12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
7)	JULY	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 - 6 LB. 35 LB. 30 - 40 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB.	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 - 6 LB. 35 LB. 30 - 40 LB.	12 LB (10-10-10) 35 LB (6-12-12) 12 LB (10-10-10)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
3)	AUGUST	RYEGRASS WEEPING LOVEGRASS	40 - 50 LB. 4 - 6 LB.	12 LB (10-10-10) 12 LB (10-10-10)	45 LB.	HULLED BERMUDA BAHIA	5 - 6 LB. 40 - 60 LB.	12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10)
9)	SEPTEMBER	RYEGRASS TALL FESCUE	40 - 50 LB. 30 - 50 LB.	12 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB.	TALL FESCUE	30 - 50 LB.	35 LB (6-12-12)	45 LB.	10 LB (10-10-10)
10)	OCTOBER	WHEAT	2 - 3 BU.	12 LB (10-10-10)	45 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 - 10 LB. 30 - 40 LB. 30 - 50 LB.	12 LB (10-10-10) 35 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
11)	NOVEMBER	WHEAT	2 - 3 BU.	12 LB (10-10-10)	45 LB.	UNHULLED BERMUDA FESCUE SERICEA LESPEDEZA	8 - 10 LB. 30 - 50 LB. 30 - 40 LB.	12 LB (10-10-10) 35 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)
12)	DECEMBER	RYE RYEGRASS WHEAT	2 - 3 BU. 40 - 50 LB. 2 - 3 BU.	12 LB (10-10-10) 12 LB (10-10-10) 12 LB (10-10-10)	45 LB. 45 LB. 45 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8 - 10 LB. 30 - 40 LB. 30 - 50 LB.	12 LB (10-10-10) 35 LB (10-10-10) 35 LB (6-12-12)	45 LB. 45 LB. 45 LB.	10 LB (10-10-10) 10 LB (10-10-10) 10 LB (10-10-10)

(2) - USE EITHER COMMON SERALA, OR INTERSTATE SERICEA LESPEDEZA.

THE ABOVE SEEDING CHART LISTS ALL POTENTIAL OPTIONS. CONTRACTOR IS TO SUBMIT THE SCHEDULE AND PROPOSED SEED MIXTURE FOR THIS PROJECT FOR ENGINEER'S APPROVAL PRIOR

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR CONTROL DEVICE FOR UP TO SIX MONTHS. BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE 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 AN AREA WILL REMAIN UNDISTURBED FOR GREATER
THAN SIX MONTHS, PERMANENT VEGETATION TECHNIQUES SHALL BE EMPLOYED

- SITE PREPARATION

 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING
- INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSION BERMS, TERRACES, AND SEDIMENT BARRIERS.
 LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

APPLYING MULCH
WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENIAL VEGETATION: 20-30
- POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
- CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF TRACKING IN, OR DAMAGE TO SHOES, CLOTHING, ETC.
- APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

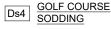
ANCHORING MULCH

1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL PACKER DISK. DISKS 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 OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.

- STRAW OR HAY SPREAD WITH SPECIAL BLOWER-TYPE FOUIPMENT MAY RE ANCHORED WITH FMULSIFIED ASHPALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE LISE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLASTIC MESH OR NETTING WITH A MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO
- MANIFACTURER'S SPECIFICATIONS.
 NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF
- THE WOOD WAS IE CHIPS.
 POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.



DISTURBED AREA WITHIN THE GOLF COURSE LIMITS OF PLAY SHALL BE PERMANENTLY GRASSED WITH #419 BERMUDA SOD.CONTRACTOR SHALL COORDINATE WATERING AND MAINTENANCE OF SODDING WITH GOLF COURSE UNTIL THE SOD HAS BEEN ESTABLISHED





THE PURPOSE OF TEMPORARY SEEDING IS TO REDUCE RUNOFF, EROSION, AND SEDIMENTATION, IMPROVE WILDLIFE HABITAT, IMPROVE AESTHETICS, AND IMPROVE TILTH AND ORGANIC MATTER

- INSTALL ALL E&SC MEASURES PRIOR TO APPLYING TEMPORARY VEGETATION
- GRADING OR SHAPING ARE NOT REQUIRED IF SLOPES CAN BE PLANTED WITH A HYDROSEEDER OR BY HAND-SEEDING.
- SEEDBED PREPARATION IS NOT REQUIRED IF SOIL IS LOOSE AND NOT SEALED BY RAIN.
- WHEN THE SOIL IS SEALED OR CRUSTED, IT SHOULD BE PITTED, TRENCHED OR SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

 AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. FERTILIZE LOW FERTILITY SOILS PRIOR TO OR DURING PLANTING AT A RATE OF 500-700 POUNDS PER ACRE OF 10-10-10 FERTILIZER OR EQUIVALENT (12-16 POUNDS PER 1000 SQUARE
- FEET).
 IT IS IMPERATIVE THAT CONTRACTOR CHECK THE TAG ON THE BAG OF SEED TO VERIFY THE
- TYPE AND GERMINATION OF THE SEED TO BE PLANTED.

 APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A
- DRILL SHALL BE PLANTED 1/2" TO 1/2" DEEP. APPLY IN ACCORDANCE WITH ABOVE TABLE.
- TEMPORARY COVER SHALL APPLIED TO ALL DISTURBED AREAS LEFT IDLE FOR 14 DAYS. IF AN AREA IS LEFT IDLE FOR 6 MONTHS, PERMANENT COVER SHALL BE APPLIED.

RE-SEED AREAS WHERE AN ADEQUATE STAND OF TEMPORARY VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.

Ds3 - DISTURBED AREA STABILIZATION WITH PERMANENT SEEDING

IF THE DISTURBED AREA TO BE GRASSED HAD EXISTING GRASS PRIOR TO DISTURBANCE, THEN PERMANENT SEEDING SHALL MATCH THE EXISTING GRASS. IF THE DISTURBED AREA TO BE GRASSED DID NOT HAVE EXISTING GRASS PRIOR TO DISTURBANCE OR CONTAINED WEEDS AND OTHER UNDESIRABLE VEGETATION, THEN THE PERMANENT SEEDING SHALL BE PER THE ABOVE

THE PURPOSE OF PERMANENT SEEDING IS TO REDUCE RUNOFF AND EROSION, IMPROVE WILDLIFE HABITAT, IMPROVE AESTHETICS, IMPROVE TILTH AND ORGANIC MATTER, REDUCE DOWNSTREAM COMPLAINTS, REDUCE LIKELIHOOD OF LEGAL ACTION, REDUCE LIKELIHOOD OF WORK STOPPAGE DUE TO LEGAL ACTION, AND INCREASE GOOD NEIGHBOR BENEFITS

- INSTALLATION

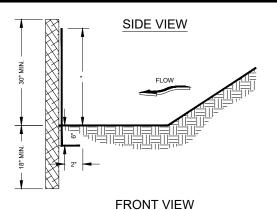
 1. USE CONVENTIONAL PLANTING METHODS IF POSSIBLE.
- APPLY IN ACCORDANCE WITH ABOVE TABLE.
 CHECK THE TAG ON THE BAG OF SEED TO VERIFY THE TYPE AND GERMINATION OF THE SEED
- TO BE PLANTED AND THE DATE OF THE TEST. SCARIFY, PIT OR TRENCH SEALED OR CRUSTED SOIL.
 FERTILIZE BASED ON SOIL TESTS OR AS SHOWN IN ABOVE TABLE.
 APPLY AGRICULTURAL LIME AS PRESCRIBED BY SOIL TESTS OR AT A RATE OF 1 to 2 TONS PER

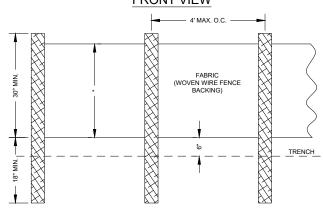
- APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A
- DRILL SHALL BE PLANTED 1/2" TO 1/2" DEEP STRAW OR HAY MULCH SHALL BE APPLIED AT A RATE OF 2 TO 2.5 TONS PER ACRE
- RRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL, BUT NOT TO THE EXTENT TO CAUSE

Ds2 Ds3

- RE-SEED AREA WHERE AN ADEQUATE STAND OF VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.
- APPLY FERTILIZER PER ABOVE TABLE.
 MOW BERMUDA AND BAHIA AS DESIRED. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO
 ENSURE SEEDS ARE MATURE.
- 4 MAINTAIN 6" OR MORE OF TOP GROWTH

TEMPORARY & PERMANENT GRASSING





NOTES:

1. USE STEEL POSTS AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION

2. THE HEIGHT OF THE SILT FENCED PURCHASED SHALL BE 36 INCHES

SILT FENCE - TYPE SENSITIVE Sd1-S

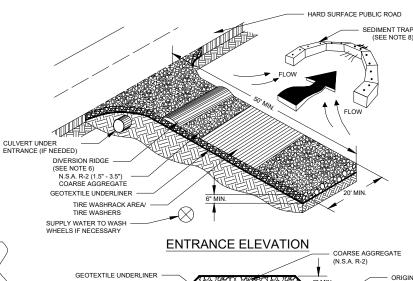
- PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. PREVENT THE MOVEMENT OF AIRBORNE SUBSTANCES THAT MAY BE HARMFUL OF INJUROUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT

- MULCHES SEE 'Ds1-Disturbed Area Stabilization (Mulching)'. REFER TO SPECIFICATION
- Tac Tackifiers' FOR THE USE OF SYNTHETIC RESIN TO BIND MULCH MATERIAL.
 VEGETATIVE COVER SEE 'Ds2 Disturbed Area Stabilization (Temporary Seeding)'
 SPRAY-ON ADHESIVES FOR USE ON MINERAL SOILS, NOT MUCK SOILS. REFER TO
- TILLAGE DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. BEGIN PLOWING ON THE WINWARD SIDE OF THE SITE. USE OF CHISEL-TYPE PLOWS, SPRING TOOTHED HARROWS, OR SIMILAR PLOWS TO AHIEVE DESIRED EFFECT. THIS IS AN EMERGENCY MEASURE TO BE USED BEFORE WIND EROSION STARTS
- IRRIGATION SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED
- BARRIERS LISE SOLID BOARD FENCE, SNOW FENCE, BURLAP FENCE, CRATE WALLS, BALES OF HAY, OR SIMILAR MATERIAL TO CONTROL THE AIR CURRENTS AND SOIL BLOWING. PLACE BARRIERS AT RIGHT ABGLES AT INTERVALS OF 15x THEIR HEIGHT TO CONTROL WIND EROSION.
- CALCIUM CHLORIDE APPLY AT A RATE TO KEEP THE SOIL MOIST.

PERMANENT MEATHODS:

- PERMANENT VEGETATION SEE 'Ds3-Disturbed Area Stabilization (Permanent Seeding).
 EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF
- TOPSOILING SEE SPECIFICATION FOR 'To-Topsoiling'
- TONE COVER SURFACE WITH CRUSHED STONE OPR COURSE GRAVEL. SEE SPECIFICATION FOR 'Cr-Construction Road Stabilization'





- 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).

- AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
 GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
 PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
 A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
 INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
 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 INTO AN APPROVED SEDIMENT TRAP OF SEDIMENT BASIN (DIVERT ALL SOIN ACE TOWN IT AND DISTRIBUTED THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).

 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. II NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL <u>SUITABLE</u> FOR TRUCK TRAFFIC THAT
- 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

CRUSHED STONE CONSTRUCTION EXIT

Co

NOTES:

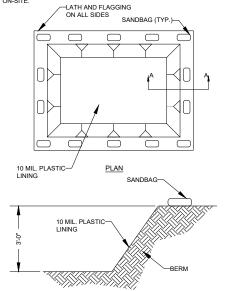
1. THE CONTRACTOR SHALL PROVIDE A DESIGNATED AREA FOR CONCRETE

1. THE CONTRACTOR SHALL PROVIDE A DESIGNATED AREA FOR CONCRETE AND THE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF THE VEHICLES. THIS AREA MUST HAVE A CONCRETE WASHOUT FACILITY AND SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL SHOWN

- BELLOW.

 2. THE CONCRETE WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES.

 3. WASHOUT DISCHARGE FROM THE CLEANING OF CONCRETE TRUCKS,
- TOOLS, A ND OTHER EQUIPMENT SHALL NOT BE DISCHARGED INTO STORM
- DRAINS, OPEN DITCHES, STREETS, OR STREAMS,
 EXCESS CONCRETE SHALL NOT BE DISPOSED OF ON-SITE. ALL EXCESS
 CONCRETE SHALL BE TRANSPORTED OFF-SITE AND DISPOSED OF PROPERLY.
- 5. IT IS PROHIBITED TO WASHOUT THE MIXING DRUM OF CONCRETE TRUCKS



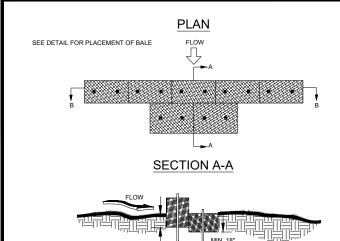
CERTIFIED EROSION CONTROL DESIGN

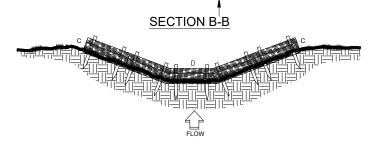
PROFESSIONAL NUMBER 0000000103

SECTION A - A CONCRETE WASH DOWN

ENGE BARBI CALES 3 Ю 7 DETAILS SEWEF PINECREST AREA AND NOTES CONTROL DULUTH ROSION Ш

ESC-02





OTES:

BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE
ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
REMOVE #A REBBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
POINT C OF SECTION B-B SHOULD <u>ALWAYS</u> BE HIGHER THAN POINT D.

TYPICAL STRAW BALE CHECK DAM Cd-Hb

CATEGORY 2 (GREATER THAN OR EQUAL TO 5 FT/SEC* BUT LESS THAN 10 FT/SEC*)

TURF REINFORCEMENT MATTING

TURE REINFORCEMENT MATTING (TRM) SHALL BE USED, IF A VEGETATED LINING IS USED IN CHANNELS WITH VELOCITIES GREATER THAN OR EQUAL TO 5 FEET/ SEC BUT USED IN CHANNELS WITH VELOCITIES GREALER THAN OR EQUAL TO 5 FEET/SEC BUT LESS THAN 10 FT/SEC. TRM IS PERMANENT GEOSYNTHETIC EROSION CONTROL MATTING THAT IS USED IN CHANNELS TO STABILIZE THE SOIL WHILE PERMANENT VEGETATION IS ROOTING, AND TO PROVIDE ADDITIONAL LONG-TERM PROTECTION. VELOCITIES IN CHANNELS WHEN FLOWING AT THE BANKFULL DISCHARGE OR THE 25-YEAR FREQUENCY DISCHARGE, WHICHEVER IS THE GREATER, SHALL BE USED IN DETERMINING THE APPROPRIATE TRM FOR STABILIZATION OF THE CHANNELS.

ROCK RIPRAP SHALL BE DESIGNED TO RESIST DIS}PLACEMENT WHEN THE CHANNEL IS FLOWING AT THE BANKFULL DISCHARGE OR 25-YEAR FREQUENCY DIS)CHARGE, WHICHEVER IS THE GREATER. ROCK RIPRAP LINING SHOULD BE USED WHEN CHANNEL VELOCITIES ARE GREATER THAN OR EQUAL TO 5 FT/SEC BUT LESS THAN 10 FT/SEC.

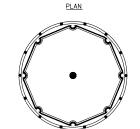
DUMPED AND MACHINE PLACED RIPRAP SHOULD NOT BE INSTALLED ON SLOPES STEEPER THAN 1-1/2 HORIZONTAL TO 1 VERTICAL ROCK SHALL BE DENSE, RESISTANT TO THE ACTION OF AIR AND WATER, AND SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. ROCK SHALL BE INSTALLED ACCORDING TO STANDARDS SPECIFIED IN RIPRAP, APPENDIX C.

A FILTER BLANKET LAYER CONSISTING OF AN APPROPRIJATELY DESIGNED GRADED FILTER SAND AND/OR GRAVEL OR GEOTEXTILE MATERIAL SHALL BE PLACED BETWEEN THE RIPRAP AND BASE MATERIAL. THE GRADATION OF THE FILTER BLANKET MATERIAL SHALL BE DESIGNED TO CREATE A GRADED FILTER BETWEEN THE BASE MATERIAL AND THE RIPRAP. A GEOTEXTILE CAN BE USED AS A SUBSTITU}TION FOR A LAYER OF SAND IN A GRADED FILTER OR AS THE FILTER BLANKET. CRITERIA FOR SELECTING AN APPROPRIATE GEOTEXTILE AND GUIDANCE FOR RECOMMENDED DROP HEIGHTS AND STONE WEIGHTS ARE FOUND IN AASH-TO M288-96 SECTION 7.5, PERMANENT EROSION CONTROL SPECIFICATIONS.

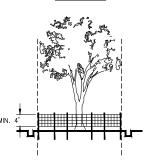
TYPICAL RIP RAP CHANNEL STABILIZATION

TREE PROTECTION

"SNOW" FENCE



CROSS-SECTION



- NOTES:

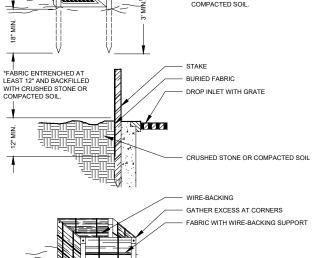
 1. USE TRENCHER (I.E. DITCH WHICH) TO CUT A 4"-5" W X 18" D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.

 2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER-REBAR IS NOT TO BE USED FOR STAKES).
- MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT REMOVE FENCING PRIOR TO LANDSCAPING OPERATIONS.
 DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED APPEA.
- 5. FENCE SHALL BE ORANGE VINYL "SNOW FENCE" 4' HIGH MINIMUM.

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

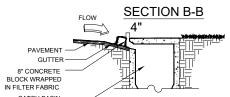
- NOTES

 1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS
- 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
- THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR



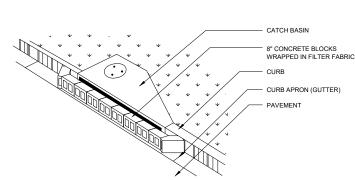
STEEL FRAME AND SILT FENCE INSTALLATION

PLAN 8" CONCRETE BLOCK CATCH BASIN CURBING - GUTTER - PAVEMENT NOTES: 1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.



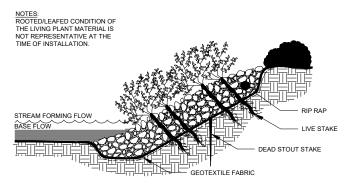
- WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
- 3. FACE OPENINGS IN BLOCKS
- OUTWARD.

 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



CURB INLET FILTER "PIGS IN BLANKET" Sd2-P

JOINT PLANTING CROSS SECTION



- INSTALL LIVE WILLOW STAKES BETWEEN ROCK PREVIOUSLY PLACED ON THE
- RIVERBANK.

 2. ROCK NEEDS TO BE LOOSELY DUMPED OR HAND PLACED AND NO THICKER THAN 2
- 3. DEAD STOUT STAKES TO BE USED TO HOLD DOWN GEOTEXTILE FABRIC.

STREAMBANK STABILIZATION

Sb

Map Unit Symbol	Map Unit Name
AmC2	Appling sandy loam, 6 to 10 percent slopes, moderately eroded
AnC2	Appling sandy clay loam, 6 to 10 percent slopes, eroded
BCD	Bethlehem and Cecil soils, 6 to 15 percent slopes
CfC2	Cecil clay loam, 6 to 10 percent slopes, eroded
Cfs	Chewacla silt loam, 0 to 2 percent slopes, frequently flooded
CYB2	Cecil sandy loam, 2 to 6 percent slopes, moderately eroded
CYC2	Cecil sandy loam, 6 to 10 percent slopes, moderately eroded
MhB2	Madison gravelly sandy loam, 2 to 6 percent slopes, eroded
MhC2	Madison gravelly sandy loam, 6 to 10 percent slopes, eroded

MiB2	Madison sandy clay loam, 2 to 6 percent slopes, eroded
MiC2	Madison sandy clay loam, 6 to 10 percent slopes, moderately eroded
MiD2	Madison sandy clay loam, 10 to 15 percent slopes, moderately eroded
MiF2	Madison sandy clay loam, 15 to 45 percent slopes, eroded
PgC2	Pacolet sandy clay loam, 6 to 10 percent slopes, moderately eroded
RNF	Rion and Bethlehem soils, 15 to 45 percent slopes, stony
ToA	Toccoa fine sandy loam, 0 to 4 percent slopes, frequently flooded
Ub	Urban land-Udorthents complex
WkB	Worsham sandy loam, 2 to 6 percent slopes

CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103

EROSION ESC-03

BARBE CALES F NOT 1

DULUTH PINECREST AREA SEWER

3

OF

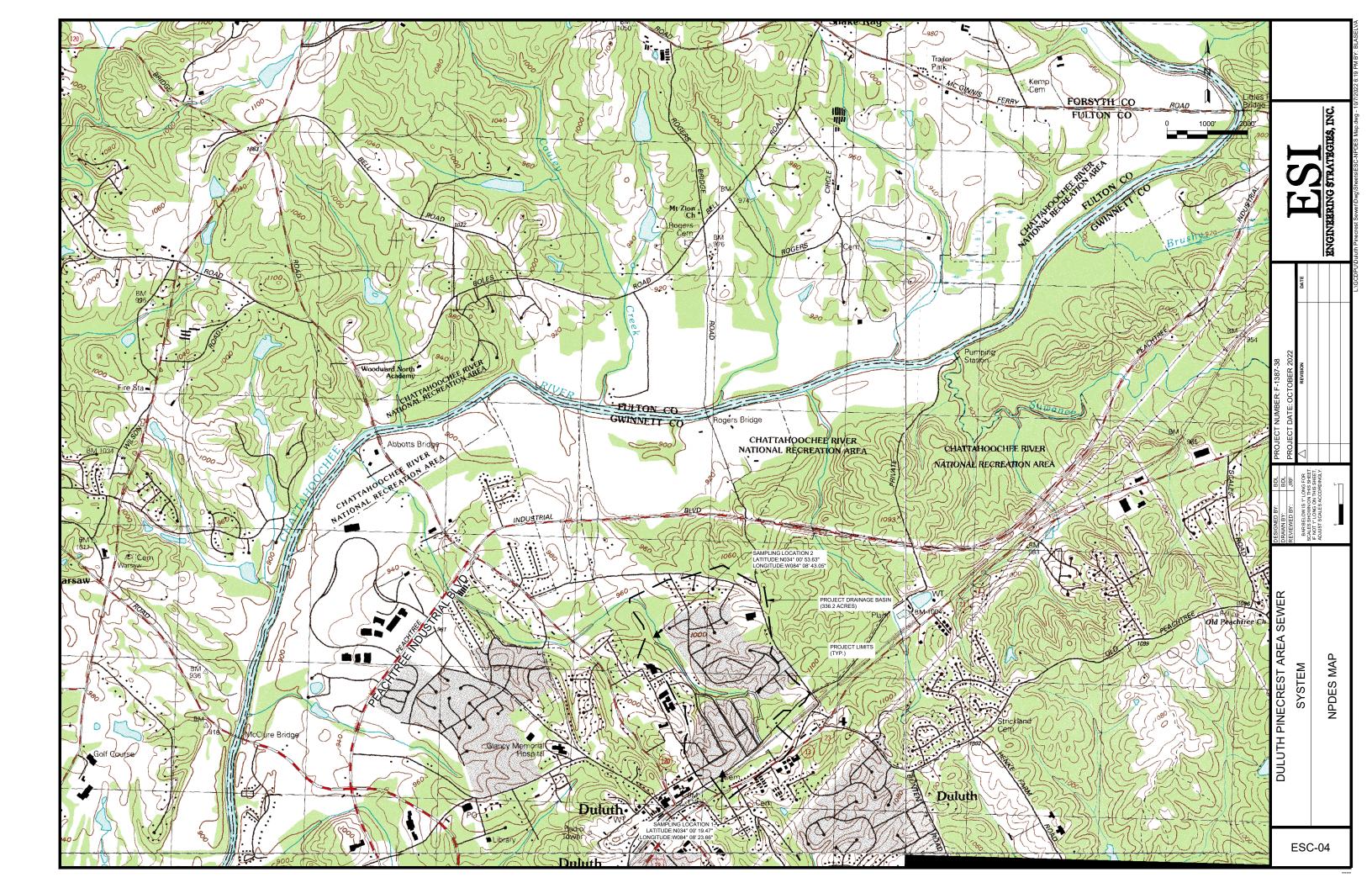
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DETAILS

AND

NOTES

CONTROL



INTRODUCTION
THIS EROSION SEDIMENTATION AND POLLUTION CONTROL PLAN (ESPCP) IS FOR THE PROJECT KNOWN AS THE DULUTH PINECREST AREA
THE SECRECATION OF APPROXIMATELY 10 SEWER SYSTEM, LOCATED IN GWINNETT COUNTY, GEORGIA. THE PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF APPROXIMATELY 10253 LF OF 8" DUCTILE IRON SANITARY SEWER, AND 3433 LF OF 8" DUCTILE IRON WATER MAIN. THE TOTAL PROJECT AREA OF THE SITE IS 12.78± ACRES. THE TOTAL DISTURBED AREA IS 12.78± ACRES. THE INTENT OF THIS ESPCP IS TO COMPLY WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NUMBER

GAR 100002 (PERMIT) BY PROVIDING BEST MANAGEMENT PRACTICES (BMPS) TO MINIMIZE AND MANAGE STORM WATER DISCHARGE FROM THE CONSTRUCTION SITÉ.

THE PERMIT AUTHORIZES STORM WATER DISCHARGES TO WATERS OF THE STATE FROM INFRASTRUCTURE CONSTRUCTION ACTIVITIES

SUBJECT TO LIMITATIONS, MONITORING REQUIREMENTS AND OTHER STATE FROM INFRASTRUCTURE CONSTRUCTION ACTIVITIES SUBJECT TO LIMITATIONS, MONITORING REQUIREMENTS AND OTHER CONDITIONS SET FORTH IN THE PERMIT. REQUIREMENTS OF THIS ESPCE ARE INCORPORATED BY REFERENCE INTO THE CONSTRUCTION CONTRACT DOCUMENTS FOR THE DULUTH PINECREST AREA SEWER (THE PROJECT).

IMPLEMENTATION IMPLEMENTATION

THE CONTRACTOR FOR CONSTRUCTION OF THE PROJECT IS CONTRACTUALLY OBLIGATED TO CARRY OUT ALL RESPONSIBILITIES OF THE PERMIT OPERATOR AS DEFINED IN THE PERMIT. THE BMPS AND CONTROL ELEMENTS WILL BE IMPLEMENTED TO COMPLY WITH THOSE RECOMMENDED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION FOUND IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION (MANUAL). THE CONTRACTOR WILL INSTALL, INSPECT, MAINTAIN, AND ADVALMENT THE BMPS AND CONTROL ELEMENTS IN ACCORDANCE WITH THIS DOCUMENT, THE CONTRACT DOCUMENTS AND THE CONSTRUCTION PLANS.

GEORGIA LAW STIPULATES THAT ANY INCREASE IN TURBIDITY ABOVE THE STIPULATED AMOUNTS IN THE PERMIT IS A VIOLATION OF THE PERMIT UNLESS THE BMPS HAVE BEEN PROPERLY INSTALLED AND MAINTAINED, VIOLATIONS OF THE PERMIT DESCRIBED IN THE GEORGIA WATER QUALITY CONTROL ACT INCLUDE SIGNIFICANT FINES AND/OR IMPRISONMENT.

SITE DESCRIPTION
THIS PROJECT IS LOCATED IN GWINNETT COUNTY IN THE CITY OF DULUTH. THIS PROJECT RUNS PRIMARILY ALONG THE SOUTH SIDE OF THE
THE OPOLICAT RECINS SOUTH OF THE CREEK IN THE PRIVATELY OWNED PROPERTIES ALONG PINE STREET. THE AREA IS RESIDENTIAL BACKYARDS AND WOODED UNDEVELOPED LAND WITH NO EXISTING CLEARED SEWER

REVIEW OF THE COUNTY FLOODPLAIN MAPS AND NATIONAL WETLANDS INVENTORY MAP FOR THE PROJECT AREA INDICATE THIS PROJECT IS LOCATED WITHIN PORTIONS OF THE 100-YR FLOOD PLAIN. NO WETLANDS AREAS WILL BE IMPACTED BY THE PROJECT. THE PROJECT WILL COMPLY WITH GEORGIA EROSION AND SEDIMENTATION CONTROL ACT OF 1975.

 $\underline{ ext{CONTROLS}}$ THIS ESPCP CONTAINS THE FOLLOWING BMPS AND CONTROL ELEMENTS:

- EROSION AND SEDIMENT CONTROL BMPS
- CONTROLS FOR OTHER CONSTRUCTION-RELATED POLLUTANTS

TO COMPLY WITH THE PERMIT, BMPS AND CONTROL ELEMENTS DESCRIBED BELOW WILL BE IMPLEMENTED FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT

EROSION AND SEDIMENT CONTROL BMPS

EROSION AND SEDIMENT CONTROL BMPS WILL BE USED TO REDUCE EROSION AT LAND-DISTURBING ACTIVITIES AND TO LIMIT THE DEPOSITION OF SEDIMENT ONTO ADJACENT LANDS AND/OR WATERSHEDS.

THE CONTRACTOR WILL IMPLEMENT THE EROSION AND SEDIMENT CONTROL BMPS LISTED BELOW AND THE BMPS SPECIFIED IN THE CONTRACT DOCUMENTS AND CONSTRUCTION PLANS. THE SPECIFIED EROSION AND SEDIMENT CONTROL BMPS ARE DESCRIBED IN THE MANUAL. EXAMPLES OF EROSION AND SEDIMENT CONTROL BMPS THAT WILL BE USED FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO:

- TEMPORARY SEEDING PERMANENT SEEDING MULCHING
- HAY BALE CHECKDAMS
- SILT FENCE STEEL ERAME AND SILT FENCE

- STEEL FRAME AND SILT FENCE CURB INLET PROTECTION STREAMBANK STABILIZATION CONSTRUCTION EXITS RIP-RAP CHANNEL STABILIZATION

THE STANDARD CONFIGURATION AND DEFINITIONS OF ADDITIONAL BMPS CAN BE FOUND ON SHEET 13 ADDITIONAL EROSION AND SEDIMENT

- CERTIFIED PERSONNEL SHALL CONDUCT INSPECTIONS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 25 HOURS OF THE END OF THE STORM THAT IS 0.5 INCHES RAINFALL OR GREATER IN ACCORDANCE WITH PART IV.D.4.a.(2). (a) (c) OF THE PERMIT. USING STAGED CONSTRUCTION TO MINIMIZE THE EXPOSURE TO NATURAL EROSION ELEMENTS;
- USING STABILIZING DISTURBED SOILS WITH GRASS SEEDING AND HAY MULCH DAILY AS CONSTRUCTION OF THE PIPELINE PROGRESSES.

CONTROLS FOR OTHER CONSTRUCTION-RELATED POLLUTANTS
THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING CONTROLS FOR POTENTIAL CONSTRUCTION-RELATED POLLUTANTS:

- ADEQUATE WASTE CONTAINERS WILL BE PROVIDED AT APPROPRIATE LOCATIONS ON THE PROJECT SITE AWAY FROM STREETS, GUTTERS WATER COURSES AND STORM DRAINS, AND WILL HAVE PROPER DISPOSAL. WORKERS WILL BE REQUIRED TO UTILIZE WASTE CONTAINERS. LIQUID WASTE COLLECTION AREAS SHALL BE LOCATED WITHIN SECONDARY CONTAINMENT STRUCTURES TO MINIMIZE THE RISK OF CONTAMINATED DISCHARGES.
- ALL SANITARY SEWER OR SEPTIC SYSTEM WASTE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH THE STATE AND/OR LOCAL
- REGULATIONS.

 CONSTRUCTION MATERIALS STORED AT THE SITE WILL BE MONITORED AND KEPT IN A LOCATION WHERE CONTACT WITH STORM WATER, WELLS,
- AND ANY OTHER BODY OF WATER CAN BE PREVENTED.
 STORAGE CONTAINERS FOR OIL, FUEL AND OTHER HAZARDOUS SUBSTANCES WILL BE LOCATED IN DESIGNATED AREAS PROTECTED WITH IMPERVIOUS CONTAINMENT BERMS.
- THE CONTRACTOR WILL NOTIFY GEORGIA EPD (404-656-4863) AND THE NATIONAL RESPONSE CENTER (NRC) (800-424-8802) UPON AWARENESS OF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE OR OIL IN AN AMOUNT EQUAL TO OR GREATER THAN A REPORTING QUANTITY ESTABLISHED UNDER THE GEORGIA OIL OR HAZARDOUS MATERIAL SPILL OR RELEASE ACT (O.C.G.A. 12-14-2, ET SEQ.), 40 CFR 117 AND 40 CFR 302, AS SOON AS THE CONTRACTOR HAS KNOWLEDGE OF THE DISCHARGE
- DISCHARGE OF CONSTRUCTION MATERIALS INTO ANY BODY OF WATER WILL BE PREVENTED.
- ANY SPILL WILL BE CLEANED UP IMMEDIATELY.
- ANY SPILL BE CLEANED OF INIMEDIALELY.
 WHEN WASHING VEHICLES REFORE THEY LEAVE THE SITE ANY HAZARDOUS SURSTANCES THAT HAVE BEEN IN CONTACT WITH THE
- WHEN WASHING VEHICLES BELD RETIRE LEAVE THE STE, ANY HAZARDUOS SUBSTANCES THAT HAVE BEEN IN CONTROL WITH THE CONSTRUCTION VEHICLES WILL NOT BE WASHED INTO ANY STREAMS, LAKES, WELLS, ETC.
 THERE IS NO CONCRETE WORK ANTICIPATED FOR THIS PROJECT. HOWEVER, IF CONCRETE WORK IS INVOLVED, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR CONCRETE EQUIPMENT WASHDOWN AS THE CONCRETE WASHDOWN DETAIL ON SHEET ESC.4. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

AMMENDMENTS/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.

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, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. 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
- .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 - 8 0 0 - 4 2 6 - 2 6 7 5
- FOR SPILLS OF AN UNKNOWN AMOUNT. THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1 800 426 2675.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, 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 COUNTERMEASURERS PLAN PREPARED BY THAT LICENSED

- 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.
- MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY. NON-WORKING SUNDAY AND NON-WORKING FEDERAL

- HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. 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 APPROPRIATI
- CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14) 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 NONWORKING 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); (3) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE: (8) 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 UNDERGORE 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.
- 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 IS SUBMITTED TO EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPOPILATE 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).
- 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.
- 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 SHALT BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR 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 INSTOLIC NOT SHALL CONTAIN A STATEMENT 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.

THE CONTRACTOR WILL IMPLEMENT ROLLTINE MAINTENANCE PROCEDURES. SLICH AS REMOVING SILT AT SILT BARRIERS WHEN THE THE CONTRACTOR WILL IMPLEMENT ROUTINE MAINTENANCE PROJECTORS, SUCH AS REMOVING SILT AT SILT BARRIERS WHEN THE ACCUMULATION REACHES FIFTY PERCENT OF CAPACITY, TO ENSURE THAT THE BMPS WILL FUNCTION AS INTENDED THROUGHOUT THE DURATION OF THE PROJECT. WITHIN 48 HOURS FOLLOWING EACH INSPECTION, ANY REQUIRED MAINTENANCE MUST BE COMPLETED. MAINTENANCE OF EACH EROSION AND SEDIMENT CONTROL DEVICE WILL BE PERFORMED THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL FINAL STABILIZATION IS ACHIEVED.

THE PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THE

RECEIVING WATER SAMPLES AND STORM WATER DISCHARGE SAMPLES WILL BE COLLECTED BY GRAB SAMPLES AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES SPECIFIED BY THE PERMIT. THE FREQUENCY OF SAMPLING WILL BE AS DESCRIBED IN THE FOLLOWING SECTION. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED BELOW WILL BE REPORTED TO THE EPD.

- 1. SAMPLE CONTAINERS WILL BE LABELED BEFORE COLLECTING SAMPLES.
- SAMPLES WILL BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
- CLEAN GLASS OR PLASTIC JARS WITH LARGE MOUTHS WILL BE USED TO COLLECT SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION
- MANUAL, AUTOMATIC OR RINSING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THE 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. 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 OUTFALL BEYOND THE MINIMUM FREQUENCY STATED IN THE PERMIT MUST BE REPORTED TO EPD.

SAMPLING POINTS

THE CONTRACTOR WILL SAMPLE NAMED CREEKS AND TRIBUTARIES AND UNNAMED TRIBUTARIES AT THE LOCATIONS LISTED BELOW. THE PLAN SHEETS WITHIN THESE CONSTRUCTION PLANS SHOW THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED, AND THE SAMPLING LOCATIONS FOR EACH REPRESENTATIVE STORM WATER OUTFALL.

SAMPLE LOCATION 1 - ROGER CREEK (NORTH OF PROJECT) LATITUDE: N34° 00' 53.63" LONGITUDE: E-84° 08' 43.05"

SAMPLE LOCATION 2 - 15" RCP STORM CULVERT OUTLET (WEST OF PROJECT TERMINATION ON MAIN STREET)

LATITUDE: N34° 00' 19.47" LONGITUDE: E-84° 08' 23.66"

IT SHOULD BE NOTED THAT SOME OF THE ABOVE SAMPLING LOCATIONS MAY BE ACTIVE AT ALL TIMES DURING CONSTRUCTION OF THE IT SHOULD BE NOTED THAT SOME OF THE ABOVE SAMPLING LOCATIONS MAY BE ACTIVE AT ALL TIMES DURING CONSTRUCTION OF THE PIPELINE. A SAMPLING LOCATION WILL BE ACTIVE FROM THE TIME CONSTRUCTION ACTIVITY WATERSHED THAT FEEDS THAT FEEDS THAT FEEDS THAT FEEDS THAT FEEDS THAT WATERSHED THE TIMING OF THE CONSTRUCTION ACTIVITY WITHIN A WATERSHED DEPENDS ON CONSTRUCTION STAGING. HOWEVER, CONSTRUCTION STAGING HAS NOT YET BEEN DETERMINED. THE CONTRACTOR MAY STAGE THE CONSTRUCTION SO THAT 1) CONSTRUCTION BEGINS AT ONE END OF THE PROJECT AND PROGRESSES SYSTEMMATICALLY TO THE OTHER END; 2) CONSTRUCTION BEGINS AT BOTH ENDS OF THE PROJECT AND PROGRESSES TO A COMMON MEETING POINT; OR 3) MULTIPLE CREWS BEGIN CONSTRUCTION AT DIFFERENT SECTIONS OF THE PROJECT AND EVENTUALLY LINK UP WITH EACH OTHER.

- SAMPLING WILL BEGIN AT THE DESIGNATED REPRESENTATIVE RECEIVING WATER(S) AT THE DOWNSTREAM LOCATION. THIS SAMPLE WILL BE SAMPLING WILL DESIGNAT THE DESIGNATED EXPENSES INTO THE DESIGNATION THIS SAMPLES WILL DESIGNATED WITH THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATE WITH THE PROJECT. FOR LARGE STREAMS WHERE VARIATIONS IN COLOR ARE VISIBLE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE DOWNSTREAM VALUE
- UPSTREAM SAMPLES WILL BE TAKEN AFTER DOWNSTREAM SAMPLES HAVE BEEN ACQUIRED. THE UPSTREAM SAMPLE WILL BE TAKEN AT THE DISCHARGE FARTHEST UPSTREAM AT THE SITE BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PROJECT, WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE UPSTREAM VALUE. THE SAMPLES WILL BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL
- CARE WILL BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
- THE SAMPLING CONTAINER WILL BE HELD SO THAT THE OPENING FACES UPSTREAM. THE SAMPLES WILL BE KEPT FREE OF FLOATING DEBRIS.
- ONCE THE SAMPLE JAR OR BOTTLE IS FULL AND CAPPED, IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY, BUT NO LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS

SAMPLING FREQUENCY

THE CONTRACTOR MUST SAMPLE IN ACCORDANCE WITH THIS ES&PCP AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW

- a. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* (MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM, EXCLUDING ALL NONWORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION;
- b. IN ADDITION TO ITEM A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT IN ADDITION TO HEM A) ABOVE, FOR EACH AREA OF THE STIEL HAT DISCRARGES TO RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS' THAT OCCURS EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST;
- AT THE TIME OF SAMPLING PERFORMED PURSUANT TO ITEMS A) AND B) ABOVE, IF BMPS ARE FOUND TO BE PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO 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. 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 CONTRACTOR 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 MONITORING AT ANY TIME OF THE DAY OR WEEK.

RAINFALL DATA

MEASUREMENT OF RAINFALL DATA WILL BE RECORDED DAILY (ONCE DURING EACH 24-HOUR PERIOD) AT THE DOWNSTREAM MONITORING POINT FOR EACH ACTIVE CONSTRUCTION STAGE IN WHICH STREAM MONITORING IS UTILIZED AND NEAR THE CENTER OF EACH ACTIVE CONSTRUCTION STAGE IN WHICH OUTFALL MONITORING IS LITHUZED. THE CONTRACTOR WILL ESTABLISH A RAIN GALIGE ON FACH ACTIV CONSTRUCTION STAGE FOR THIS PURPOSE. FURTHERMORE, THE CONTRACTOR WILL COLLECT AND RECORD THE RAINFALL DATA ON THE DAILY

TESTING

THE CONTRACTOR WILL EMPLOY QUALIFIED PERSONNEL WHO SHALL GATHER SAMPLES OF STORM WATER AS OUTLINED IN THE PERMIT PART IV. D.5 AND AS FURTHER DEFINED IN THIS ESPCP. THE CONTRACTOR WILL HAVE THE TURBIDITY OF EACH SAMPLE TESTED BY A QUALIFIED TESTING LABORATORY

ALL TURBIDITY TESTS WILL BE CONDUCTED IN ACCORDANCE WITH 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.

THE CONTRACTOR SHALL SAMPLE THE RECEIVING STREAM BOTH UPSTREAM OF THE PROJECT AREA AND DOWNSTREAM OF THE PROJECT AREA. THE TOTAL INCREASE IN TURBIDITY FROM SAMPLE LOCATIONS UPSTREAM AND DOWNSTREAM OF THE CONSTRUCTION SITE SHALL NOT

- THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART 11.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 STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED 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 UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
- 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;
- 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;
- 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.
- ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE ALL WITHEN CORRESPONDENCE REQUIRED BY HIS PERMIT SHALL BE SUBMITTED BY RETURN RECUEIT CERTIFIED MAIL (OR SIMILAR SERVICE).

 TO THE APPROPRIATE DISTRICT OFFICE OF THE EPP ACCORDING TO THE SCHEDULE IN APPROPRIATE DISTRICT OF THE PROOF OF SUBMITTAL STRUCTURE. THE RETURN 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 TITME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

THE CONTRACTOR MUST RETAIN COPIES OF ALL MONITORING RESULTS AND SHALL PROVIDE THE OWNER WITH COPIES OF ALL MONITORING

RETENTION OF RECORDS

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 NOT IS SUBMITTED IN

- a. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
- b. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
- . THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS 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 ALL 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.

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, AROSION, 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 NOT 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 OF THE EPD A

REPORT SUBMITTAL

ALL WRITTEN CORRESPONDENCE REQUIRED BY THE PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICI TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THE PERMIT.

COPIES OF THE DATA SENT TO GEORGIA EPD, INCLUDING THE RETURN RECEIPTS, WILL BE PROVIDED TO THE OWNER AND THE ENGINEER ON MONTHLY BASIS

PERMITTEE CONTACT INFORMATION

GWINNETY COUNTY DEPARTMENT OF WATER RESOURCES 684 WINDER HIGHWAY LAWRENCEVILLE, GA 30045 (678) 376-6917 GREG JACKSON

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ESC-05

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST	ESC-01 Y 27 Description of practices b provide cover for building materials and building products on site. *
INFRASTRUCTURE CONSTRUCTION PROJECTS	
SWCD: GMNNETT COUNTY	
Project Name: DULUTH PINECREST AREA SEWER Address: 3588 NESBITT CROSSING	ESC-01 Y 29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of
City/County: <u>DULUTH/GWINNETT</u> Date on Plans: <u>OCTOBER</u> 2022	the sile (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility
Name & email of person filling out checklist: BRAD LASELVA BLASELVA@ESI-GA.COM	activities, temporary and final stabilization).
Plan Included TO BE SHOWN ON ES&PC PLAN	ESC-05 Y 30 Provide complete requirements of Inspections and record keeping by the primary permittee. *
Page # Y/N	ESC-05 Y 31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
ESC-06 Y 1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1	ESC-05 Y 32 Provide complete details for Retention of Records as per Part IV.F. of the permit.*
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)	ESC-05 Y 33 Description of analytical methods to be used to collect and analyze the samples from each location. *
ESC-01 2 Level II certification number issued by the Commission, signature and seal of the certified design professional.	ESC-05 Y 34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *
(Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)	ESC-04 Y 35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is
ESC-01 Y 3 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.	discharged also provide a summary chart of the justication and analysis for the representative sampling as applicable. *
ESC-05 Y 4 Provide the name, address, email address, and phone number of primary permittee.	ESC-01 Y 36 A description of appropriate controls and measures that will be implemented at the construction site including; (1) initial
ESC-01 Y 5 Note total and disturbed acreages of the project or phase under construction.	sediment sbrage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final
	seument sorage requirements and perment count others, (2) memerate graung and unanage owns, and (3) man BMPs, For construction sites where here will be no mass grading and he in permiser control BMPs,
G-03 Y 6 Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude in decimal decimal decires.	intermediate grading and drainage BMRs, and final BMRs are he same, he Plan may combine all of the BMRs into a single
	phase. *
ALL Y Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.	
ESC-05 Y 8 Descriptions of the nature of construction activity and existing site conditions.	ALL Y 37 Graphic scale and North arrow.
G-03 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.	ESC-04 Y 38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:
ESC-01 Y 10 Identify the project receiving waters and describe all sensitive adjacent areas including streams, takes, residential areas,	Existing Contours USGS 1*. 2000' Topographical Sheets
wetands, marshlands, etc. which may be affected.	Proposed Conburs 1*: 400' Centerline Profile
	ESC-01 Y 39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs
ESC-01 Y 11 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC	as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation
Plan as stated on Part IV page 21 of the permit	Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
ESC-01 Y 12 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate	ESC-01 Y 40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for
and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 20 of the permit.*	Erosion & Sediment Control in Georgia 2016 Edition. *
ESC-01 13 Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative	CS SHEETS Y 41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers
sampling as stated on Part IV.D.6.c.(3) page 37 of the permit as applicable. *	required by the Local Issuing Authority. Clearly note and delineate all areas of impact
ESC-01 Y 14 Clearly note the statement hat "The design professional who prepared the ES&PC Plan is to inspect the installation of the	
inital sediment storage requirements, perimeter control BMPs, and sediment basins within 7 days after installation."	NA 42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
in accordance with Part IV.A.5 page 26 of the permit. *	ESC-04 Y 43 Delineation and αα eage of contributing drainage basins on the project site.
ESC-01 Y 15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream	ESC-04 Y 44 Delineate on-site drainage and off-site watersheds using USGS 1* :2000' bpographical sheets.
buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured	ESC-01 Y 45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are
from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."	completed.
ESC-01 Y 16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.	NA 46 Sbrm-drain pipe and weir velocites with appropriate outlet protection to accommodate discharges without erosion.
ESC-01 Y 17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a	Identify/Delineate all storm water discharge points.
hydraulic component must be certified by the design professional.* *	CS SHEETS Y 47 Soil series for the project site and their delineation.
ESC-05 Y 18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a	CS SHEETS Y 48 The limits of disturbance for each phase of construction.
Section 404 permit* *	ESC-01 Y 49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin,
ESC-01 19 Clearly note statement hat *The escape of sediment from the site shall be prevented by the installation of erosion and	retrofited detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage
sediment control measures and practices prior to land disturbing activities."	volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been
ESC-01 Y 20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved	achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable
Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented	must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written
to control or treat the sediment source."	justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be
ESC-01 Y 21 Clearly note the statement Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch	included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage
or temporary seeding.*	when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to
ESC-01 Y 22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream	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.
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	CS SHEETS Y 50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and
to the Impaired Stream Segment *	Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
NA 23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22	ESC SHEETS Y 51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set for h in
above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or	the Manual for Erosion and Sediment Control in Georgia.
requirements included in the TMDL Implementation Plan. *	CS SHEETS Y 52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and
ESC-01 Y 24 BMPs for concrete washdown of lools, concrete mixer chules, hoppers and the rear of the vehicles. Washout of the drum	seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding
at the construction site is prohibited. *	will take place and for the appropriate geographic region of Georgia.
ESC-01 Y 25 Provide BMPs for the remediation of all pet oleum spills and leaks.	* 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.
ESC-01 26 Description of the measures that will be installed during the construction process to control pollutants in storm water that	Effective January 1, 2022
will occur after construction operations have been completed. *	

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				DATE					
	PROJECT NUMBER: F-1387-38		PROJECT DATE: OCTOBER 2022	REVISION					
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CERTIFIED EROSION CONTROL DESIGN PROFESSIONAL NUMBER 0000000103

ESC-06