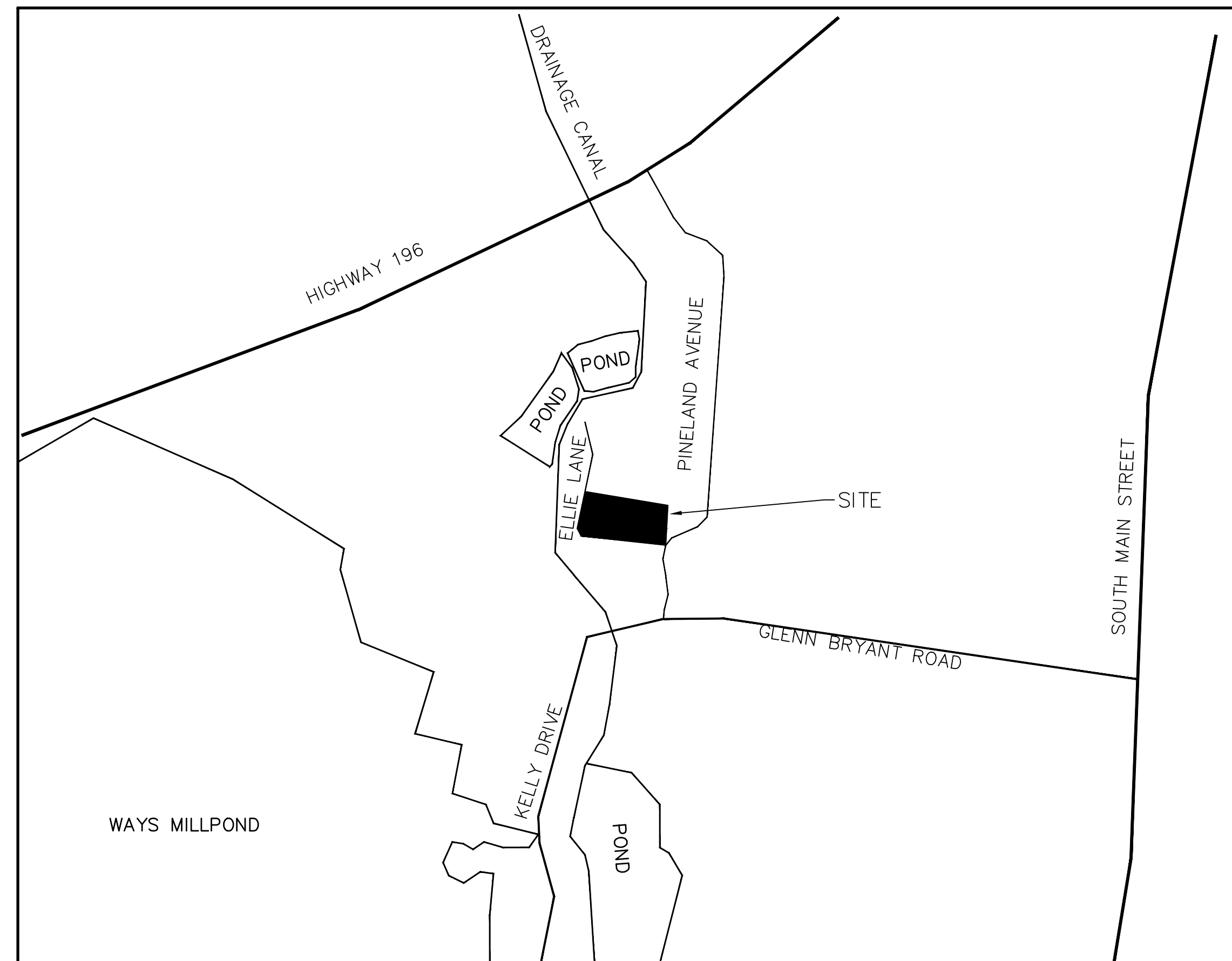


ARDSLEY PARK SOUTH DEVELOPMENT PLANS FOR K. C. BROTHERS

ENGINEER
GOOSE CREEK, LLC
1618 AIRPORT ROAD
HINESVILLE, GEORGIA 31313
(912) 231-5157

CONSTRUCTION PLANS SHEET INDEX

- | | |
|--------------------|-----------------------------|
| SHEET C1.1 | - TITLE SHEET |
| SHEET C1.2 | - GENERAL NOTES |
| SHEET C1.3 | - EXISTING CONDITIONS |
| SHEET C2.1 | - STAKING PLAN |
| SHEET C3.1 | - GRADING AND DRAINAGE PLAN |
| SHEET C4.1 | - UTILITY PLAN |
| SHEET C5.1 | - LANDSCAPE PLAN |
| SHEET C6.1 | - INITIAL ES&PC PLAN |
| SHEET C6.2 | - INTERMEDIATE ES&PC PLAN |
| SHEET C6.3 | - FINAL ES&PC PLAN |
| SHEET C7.1 THRU .2 | - ES&PC NOTES |
| SHEET C8.1 THRU .7 | - SITE DETAILS |



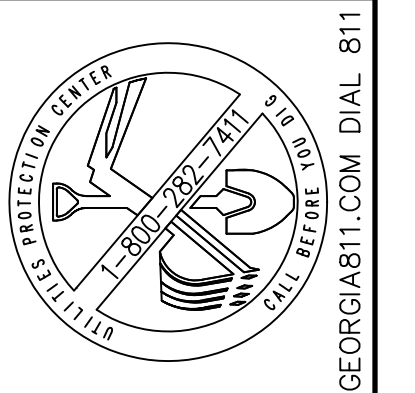
VICINITY MAP
N.T.S.

LOCATION: N31° 49' 01.44", W81° 37' 16.87"
TOTAL DISTURBED ACREAGE: 7.04 AC.
TOTAL SITE ACREAGE: 14.96 AC.

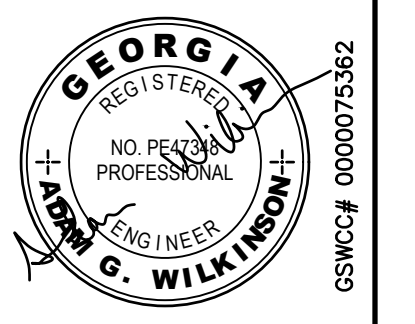
OWNER
K. C. BROTHERS CONSTRUCTION COMPANY, LLC.
213 EAST MEMORIAL DRIVE
HINESVILLE, GEORGIA 31313
912-572-1536
JAMESRIM54@HOTMAIL.COM

24-HOUR CONTACT
JAMES RIM
912-572-1536
JAMESRIM54@HOTMAIL.COM

DRAWING LEGEND		
DESCRIPTION	PROPOSED	EXISTING
RIGHT OF WAY	— R/W	--- R/W
EDGE OF PAVEMENT	—	---
DITCH CENTERLINE	→ → →	---
SANITARY SEWER	— 8"S	— 8"G
WATER LINE	— 10"W	— 10"W
FORCE MAIN	— FM	— FM
UNDERGROUND GAS LINE	— 8"G	— 8"G
CONTOURS	(81)	— 81
STORM DRAINAGE PIPE	—	—
ELEVATION	⊕FG: 78.15	X 81.90
SILT FENCE NON-SENSITIVE	(Sd1-Ns)	
SILT FENCE SENSITIVE	(Sd1-S)	
INLET PROTECTION	(Sd2-F)	
CHECK DAM- HAY BALE	(Cd-Hb)	
CHECK DAM - RIP RAP	(Cd-Rp)	
CONSTRUCTION EXIT	(Co)	
STORM OUTLET PROTECTION	(St)	
SILT FENCE	—	
MULCHING	[Ds1]	
TEMPORARY GRASSING	[Ds2]	
PERMANENT GRASSING	[Ds3]	
FIRE HYDRANT	⊕	⊕
SEWER MANHOLE	⊕	⊕
WATER VALVE	⊕	⊕
DRAINAGE FLOW	⇄	⇄
WATER METER	⊕	⊕
BENCHMARK	⊕	⊕
WELL	⊕	⊕
GUY POLE	⊕	⊕
IRON PIN	SET ○ I.P.S	FOUND ○ I.P.F
TELEPHONE PEDESTAL	⊕	⊕
POWER POLE	⊕	⊕



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Ardsley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 07FA 202 - HINESVILLE, GEORGIA

SHEET NAME:	TITLE SHEET
REVISIONS:	
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INITIAL DATE: 10/25/2022 DRAWN BY: AGW CHECKED BY: AGW PROJECT #: 2022-04	
SHEET NUMBER:	C.I.I

Paving Notes

1. All work shall comply with all applicable codes, regulations, and/or local standards imposed by local utility, city, county, and state. It is the contractor's responsibility that all the construction be in accordance with the City of Hinesville and GDOT standard details and specifications.
2. Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by AGC of American Inc., and the safety and health regulations for construction issued by the U.S. Department of Labor.
3. Contractor shall provide all necessary barricades, sufficient lights, signs and other traffic control methods as may be necessary for the protection and safety of the public and shall be provided and maintained throughout all construction adjacent to and within all roadways. Contractor shall submit traffic control plan to city for approval.
4. The contractor shall take necessary measures to separate work areas from pedestrian traffic and to insure safe pedestrian passage at all times.
5. All signs, pavement markings, and other traffic control devices shall conform to the Manual of Uniform Traffic Control Devices. A minimum clearance of two feet shall be maintained between the face of curb and any part of a traffic sign or light pole. Contractor shall coordinate installation of all signs, pavement markings, and other traffic control devices with other contractors on signs or light poles.
6. Contractor shall saw-cut to provide smooth transitions at tie-ins to existing edges of pavement and at cold joints of recently paved asphalt.
7. Joints or score marks are to be sharp and clean without showing edges of jointing tool.
8. Contractor shall saw-cut tie-ins at existing curbs as necessary to ensure smooth transitions, contractor shall saw-cut and transition to meet existing pavement as necessary and as directed by inspector to insure positive drainage. (Typical at all intersections)
9. Paving contractor shall install paper breakaway edges at cold joints or saw-cut as required to insure a straight, full-depth joint face immediately prior to installing abutting hot asphalt.
10. All dimensions are to back of curb unless indicated otherwise.
11. Contractor shall be responsible for cost of pavement replacement where utility lines are extended across existing asphalt.
12. Asphalt surface course shall be laid with the direction of traffic in all drive lanes within parking fields.
13. Base and asphalt thickness are minimum required. Refer to specifications for type of paving and base to be used.
14. All concrete shall be Class A 4000 P.S.I. unless noted otherwise. Do not pour any concrete before forms are inspected and approved by the Inspector.
15. All ramps constructed are not to exceed a slope of 1:12. All sidewalks shall not have a cross-slope greater than 1:50
16. Concrete dumpster pads to be flush with pavement unless indicated otherwise.
17. See Detail sheets for additional details on striping, signs, etc.

Inspection notes

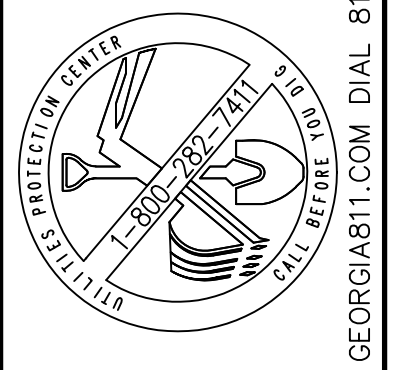
1. Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a notice of termination is submitted.
2. Measure and record rainfall within disturbed areas of the site that have not met final stabilization once every 24 hours except any non-working saturday, non-working sunday and non-working federal holiday. The data collected for the purpose of compliance with this permit shall be representative of the monitored activity. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.
3. Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 pm on any friday or on any non-working saturday, non-working sunday or any non-working federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with part iv.d.4.a.(4). These inspections must be conducted until a notice of termination is submitted.
4. Certified personnel (provided by the primary permittee) shall inspected at least once per month during the term of this permit (i.e., until a notice of termination has been submitted) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).
5. Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the erosion, sedimentation and pollution control plan, the plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.
6. A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the erosion, sedimentation and pollution control plan and actions taken in accordance with part iv.d.4.a.(5) of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a notice of termination is submitted to epd. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have been properly installed and/or maintained as described in the plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the erosion, sedimentation and pollution control plan. The report shall be signed in accordance with part v.g.2. Of this permit

Site Grading Notes

1. Dimensions on buildings are for grading purposes only and are not to be used to lay-out footings. Refer to Structural Drawings for foundation information.
2. Grading contractor shall notify and cooperate with all utility companies or firms having facilities on or adjacent to the site before disturbing, altering, removing, relocating, adjusting or connecting to said facilities. Contractor shall pay all costs in connection with the alteration or relocation of the facilities. Contractors shall raise or lower tops of existing manholes to remain as required to match finished grades.
3. Grading contractor shall cooperate and work with all other contractors performing work on this project to insure proper and timely completion of this project.
4. The grading contractor shall use whatever measures are required to prevent silt and construction debris from flowing onto adjacent properties. Contractor shall comply with all local erosion, conservation, and siltation ordinances. Contractors shall remove all temporary erosion control structures upon completion of permanent drainage facilities and not before the establishment of a stand of grass sufficient to prevent erosion.
5. For any work on the state or city right-of-way, the grading contractor shall:
 - A. Not store material, excess dirt, or equipment in the right-of-way. The pavement shall be kept free from any mud or excavation waste from trucks or other equipment. On completion of the work, all excess material shall be removed from the right-of-way.
 - B. Provide all necessary and adequate safety precautions such as signs, flags, light barricades, and flag-men as required by the local authorities and in accordance with solely responsible for and hold harmless the City, State, Architect, Engineer, and Owner from any claims for damage done to existing private property, public utilities, or to the traveling public.
 - C. Complete work to the satisfaction of the City Public Works Department and obtain a letter from the Department stating that the work is acceptable.
7. Grading contractor shall take all available precautions to control dust. Contractor shall control dust by sprinkling, or by other methods as directed by Engineer and/or Owner's representative, at no additional cost to Owner.
8. Site grading contractor shall terminate all storm drain pipes five feet maximum from building unless otherwise noted.
9. Storm sewer lead-ins to building shall not be installed until building plans are completed and locations established on the architectural plans. Lead-ins may change 15' horizontally and 3' vertically prior to installation at no additional cost to the owner. Contractor shall request and receive written approval from prime contractor prior to installation of lead-ins. Contractor shall coordinate locations, size, and invert elevations of storm sewers with approved building plumbing plans.
10. All excavating is unclassified and shall include all materials encountered.
11. Before any machine work is done, contractor shall stake out and mark the items established by the site plan, control points shall be preserved at all times during the course of the project. Lack of proper working points and grade stakes may require satisfaction owner must approved staked items prior to construction.
12. Temporary erosion control devices to be installed prior to beginning of grading. Contractor shall maintain all temporary erosion control devices and shall remove silt contractor at least once a week.
13. Contractor to coordinate all work with other utility installations not covered in these plans, (Electric, Telephone, Gas, Cable, Etc.) and allow for their operations and construction to be performed.
14. Cut and fill slopes are not to exceed 3:1 unless otherwise noted.
15. In no case shall any paved areas be less than a slope of 1.0%. All accessible sidewalks and aisle slopes not to exceed 2% cross-slope.
16. Contractor shall repair or replace in-kind any damage that occurs as result of his work.
17. All linear footage for all utility pipes are approximate, actual installed quantities may vary.
18. Grading contractor shall restore to grade and compaction all areas disturbed by building construction prior to base and paving operations commencing.
19. Grading contractor shall maintain all weather construction access roads as required by general contractor.

Site Utility Notes

1. The site utility plan is for sanitary sewer and water line construction only. Do not use for grading or storm sewer construction.
2. All pipe lengths are horizontal distances and are approximate.
3. All domestic water and sanitary sewer stubs to be terminated 5 feet outside of the building unless otherwise noted. The end of these service lines shall be tightly plugged or capped and marked until such time as connection is made inside building by plumbing contractor.
4. Site utility contractor shall provide all the materials and appurtenances necessary for the complete installation of the utilities. All pipe and fittings shall be inspected by the Water Department Inspector prior to being covered. The inspector must also be present during pressure testing and disinfection of laterals and his signature of approval is required.
5. All work shall comply with all applicable codes, regulations, and/or local standards imposed by local utility and City of Hinesville.
6. The site utility contractor shall make arrangements with the local utility authorities for connection to the existing mains and pay all applicable fees.
7. All water lines shall have a minimum cover of 36" above top of pipe.
8. Contractor shall adjust location of proposed water lines as required to avoid conflicts with storm sewer or other utilities at no extra cost.
9. Based on the current edition of the international plumbing code, cleanouts are required at a maximum spacing of 100 feet on utility lead-ins to building. Contractor to provide a cleanout within 5 feet of building and at all bends.
10. The site utility contractor shall cooperate and work with all other contractors on the site.
11. All materials shall be U.L. listed and approved by the local utility company unless directed otherwise by the Engineer.
12. The existing utility facilities and locations shown on the drawings are taken from readily available information. The actual locations of the utility facilities may vary somewhat from the locations shown or indicated on the drawings. The site utility contractor shall contact all agencies with utility facilities in the vicinity of the work and shall locate all underground facilities before beginning work. The contractor shall project all utility facilities and repair any damages resulting from their work, in conformance with the contract documents and specifications and relocate if required.
13. All sanitary sewer pipe shall be SDR-26 meeting ASTM D3034 with gasket type joints meeting ASTM F477.
14. Utility lead-ins to building shall not be installed until building plans are completed and locations established on the architectural plumbing plans. Lead-ins may change 15' horizontally and 3' vertically prior to installations at no additional cost to the owner. Utility contractor shall request and receive written approval from prime contractor prior to installation of lead-ins. Location, size and invert elevations of sanitary sewer shall be coordinated with the approved plumbing plans for the building.
15. Building plumbing contractor shall pay all cost for water meters, meter boxes, valves, etc. to provide a complete job per local authority requirements.
16. Thrust blocks shall be provided at all tees, elbows, and bends of sufficient size to comply with minimum standards of N.F.P.A. - Existing soil conditions.
17. Should latent soil conditions necessitate, contractor shall install special supports for piping and/or appurtenances including the removal of unsuitable material and backfilling with gravel or other material. Contractor shall perform any such work as directed by the civil engineer and/or soils engineer at no cost to owner.
18. Contractor to coordinate all work with other utility installations not covered in these plans (Electric, Telephone, Gas, Cable, etc.) and allow for their operations and construction to be prepared.
19. The site utility contractor shall coordinate and pay for all sanitary sewer connections. Sanitary sewer connection final tie-in to the existing manhole(s) shall not be made until completion of the proposed system and all manholes have been brought above ground to insure sediment does not enter system. Lines shall be properly cleaned, if needed.
20. Site utility contractor to coordinate with irrigation contractor to provide power in conduit to irrigation controller per manufacturers recommendations. Verify exact location of controller with owner prior to installation.



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GOOSE CREEK LLC

(912) 231-5157
Fax: (912) 368-5180

1618 Airport Road
Hinesville, Georgia 31313

Ardsley Park South
Development Plans for
K. C. Brothers

TAX PARCEL NUMBER: 047A.002 HINESVILLE, GEORGIA

SHEET NAME:
GENERAL NOTES

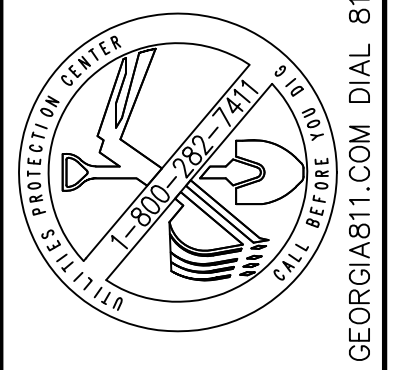
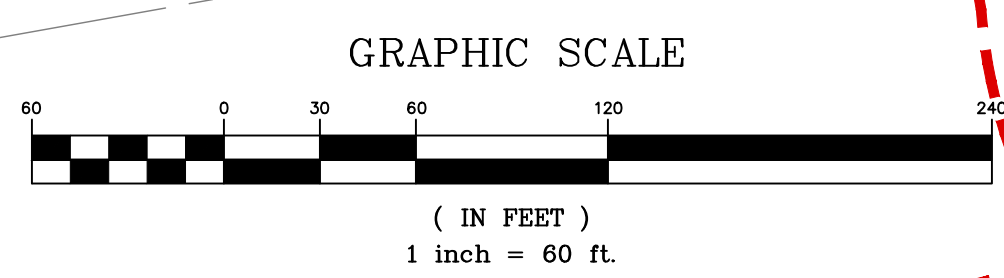
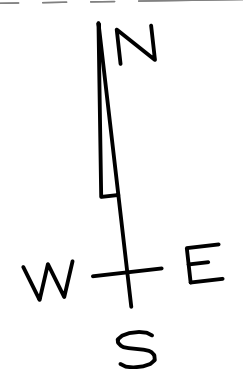
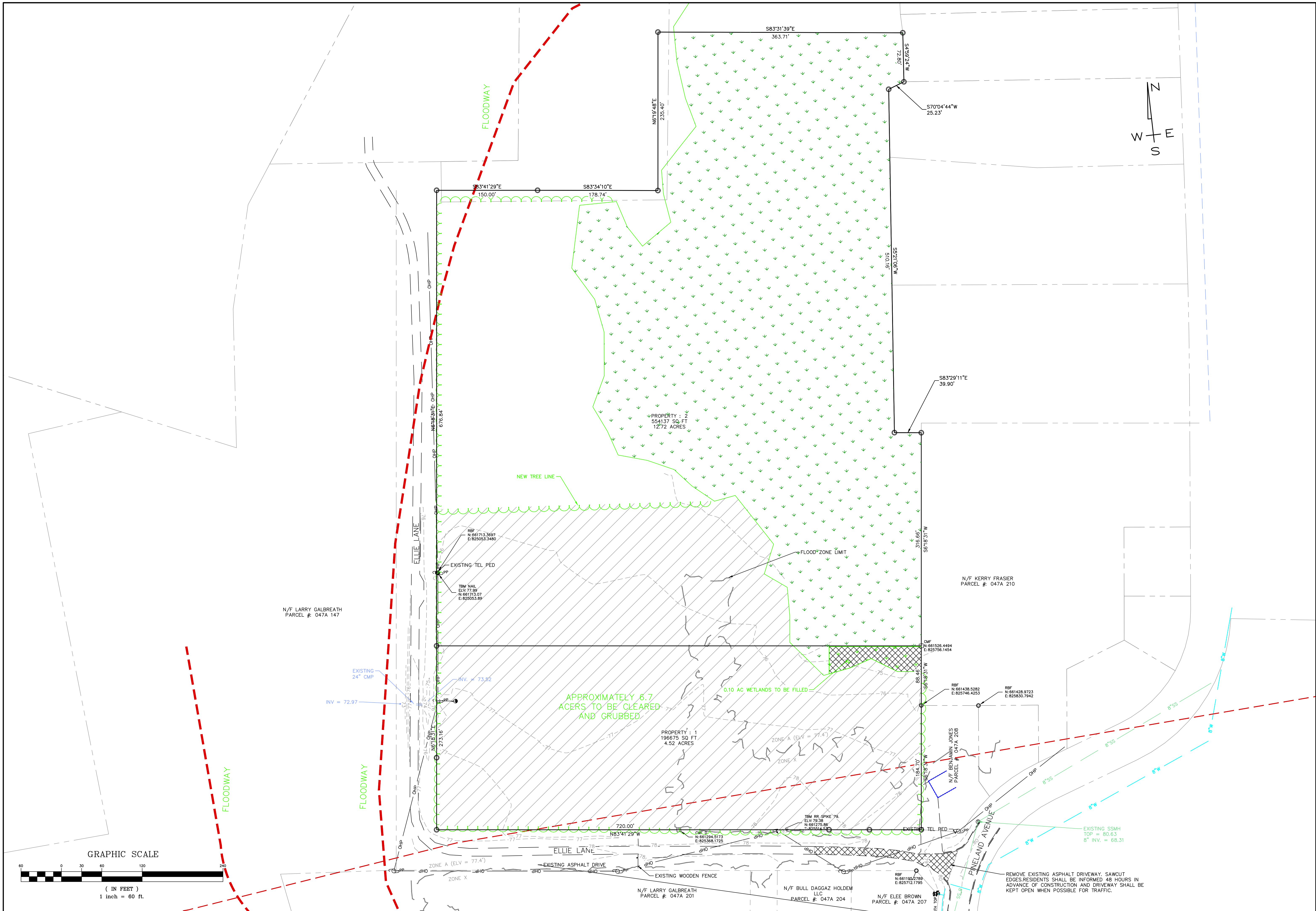
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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
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GSVCC# 000075362



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GOOSE CREEK LLC
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 368-5180

**Ardsley Park South
Development Plans for
K. C. Brothers**

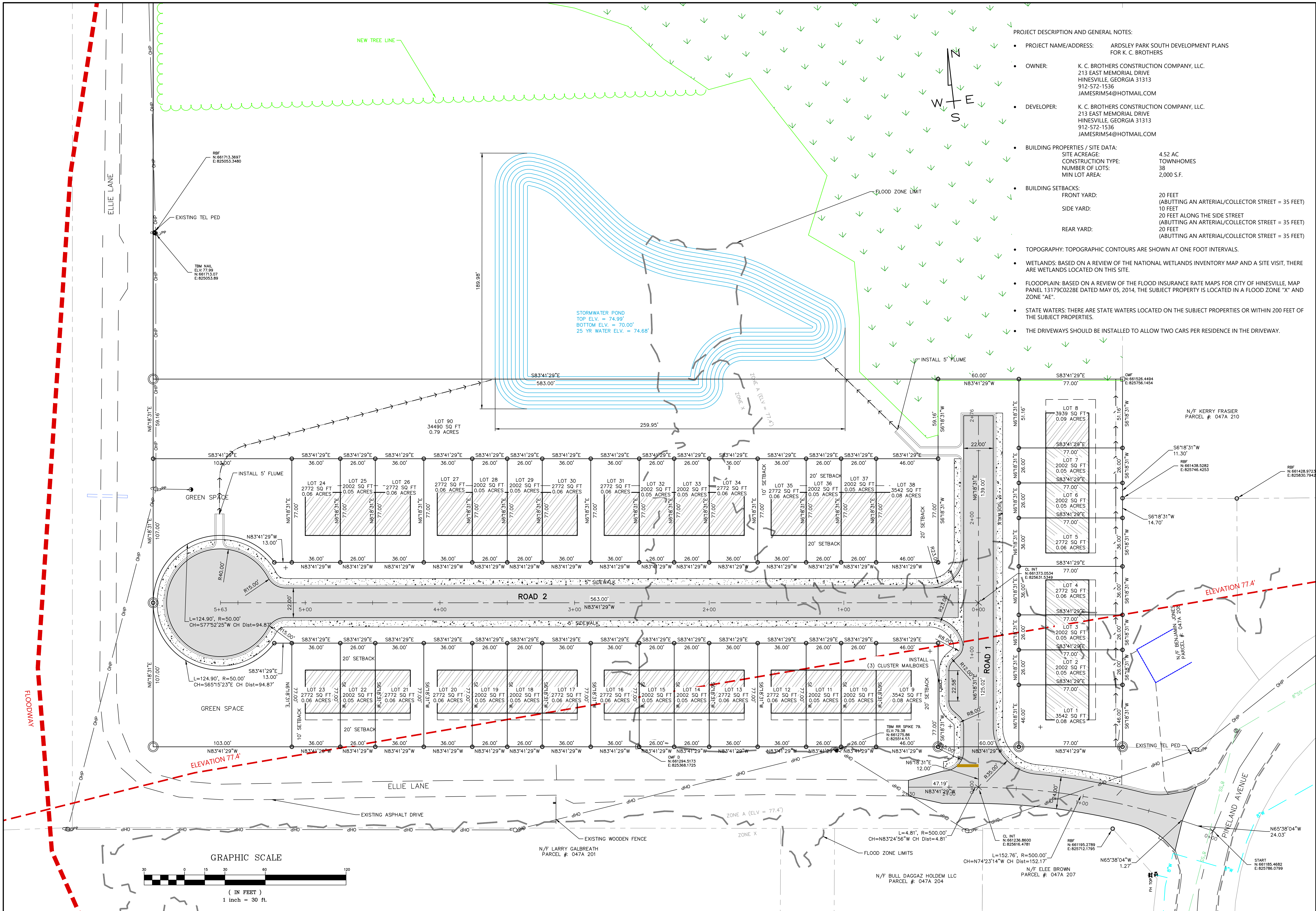
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EXISTING
CONDITIONS

REVISIONS:

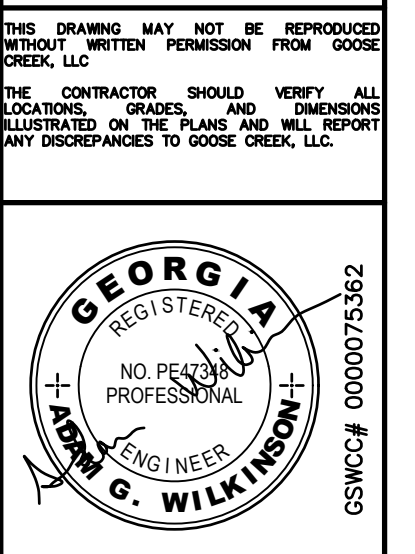
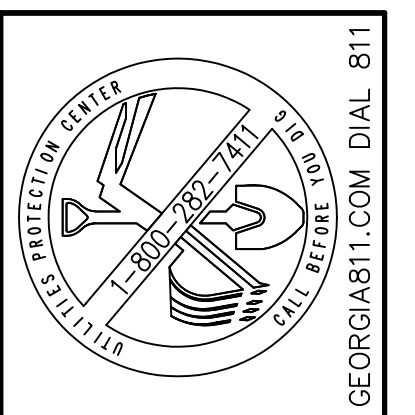
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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
C I.3



- PROJECT DESCRIPTION AND GENERAL NOTES:**
- PROJECT NAME/ADDRESS: ARDSLEY PARK SOUTH DEVELOPMENT PLANS FOR K. C. BROTHERS
 - OWNER: K. C. BROTHERS CONSTRUCTION COMPANY, LLC.
213 EAST MEMORIAL DRIVE
HINESVILLE, GEORGIA 31313
912-572-1536
JAMESRIM54@HOTMAIL.COM
 - DEVELOPER: K. C. BROTHERS CONSTRUCTION COMPANY, LLC.
213 EAST MEMORIAL DRIVE
HINESVILLE, GEORGIA 31313
912-572-1536
JAMESRIM54@HOTMAIL.COM
 - BUILDING PROPERTIES / SITE DATA:
SITE ACREAGE: 4.52 AC
CONSTRUCTION TYPE: TOWNHOMES
NUMBER OF LOTS: 38
MIN LOT AREA: 2,000 S.F.
 - BUILDING SETBACKS:
FRONT YARD: 20 FEET (ABUTTING AN ARTERIAL/COLLECTOR STREET = 35 FEET)
SIDE YARD: 10 FEET
20 FEET ALONG THE SIDE STREET (ABUTTING AN ARTERIAL/COLLECTOR STREET = 35 FEET)
REAR YARD: 20 FEET (ABUTTING AN ARTERIAL/COLLECTOR STREET = 35 FEET)
 - TOPOGRAPHY: TOPOGRAPHIC CONTOURS ARE SHOWN AT ONE FOOT INTERVALS.
 - WETLANDS: BASED ON A REVIEW OF THE NATIONAL WETLANDS INVENTORY MAP AND A SITE VISIT, THERE ARE WETLANDS LOCATED ON THIS SITE.
 - FLOODPLAIN: BASED ON A REVIEW OF THE FLOOD INSURANCE RATE MAPS FOR CITY OF HINESVILLE, MAP PANEL 13179C0228E DATED MAY 05, 2014, THE SUBJECT PROPERTY IS LOCATED IN A FLOOD ZONE "X" AND ZONE "AE".
 - STATE WATERS: THERE ARE STATE WATERS LOCATED ON THE SUBJECT PROPERTIES OR WITHIN 200 FEET OF THE SUBJECT PROPERTIES.
 - THE DRIVEWAYS SHOULD BE INSTALLED TO ALLOW TWO CARS PER RESIDENCE IN THE DRIVEWAY.



**Ardsley Park South
Development Plans for
K. C. Brothers**

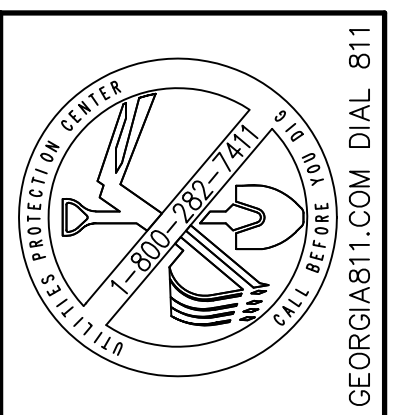
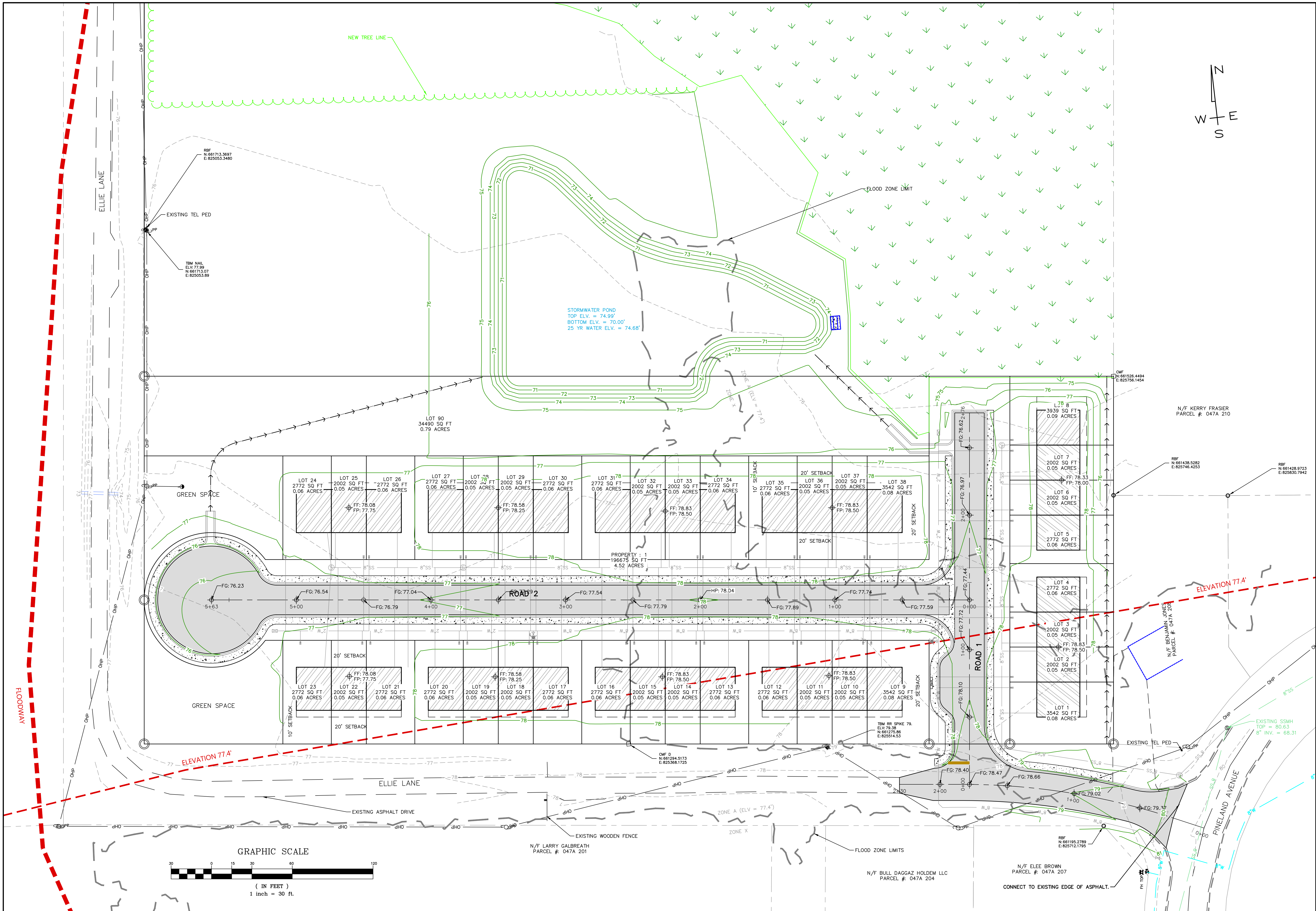
SHEET NAME:
STAKING PLAN

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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
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GOOSE CREEK LLC
 (912) 231-5157
 (912) 368-5180
 1618 Airport Road
 Hinesville, Georgia 31313

Ardsley Park South
Development Plans for
K. C. Brothers

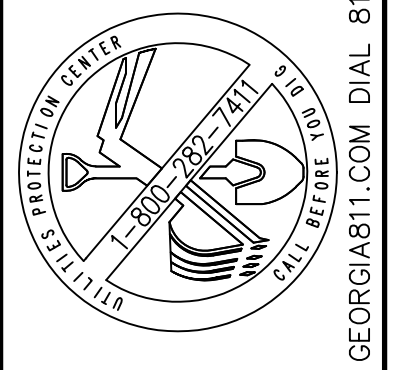
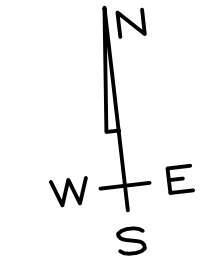
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 GRADING AND DRAINAGE PLAN

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INITIAL DATE: 10/25/2022
 DRAWN BY: AGW
 CHECKED BY: AGW
 PROJECT #: 2022-04

SHEET NUMBER:
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GOOSE CREEK LLC
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 368-5180
GVCC# 000075382

Ardsley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 047A 202 HINESVILLE, GEORGIA

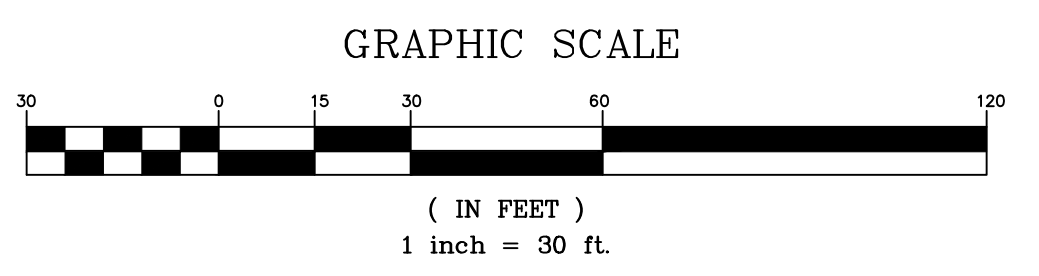
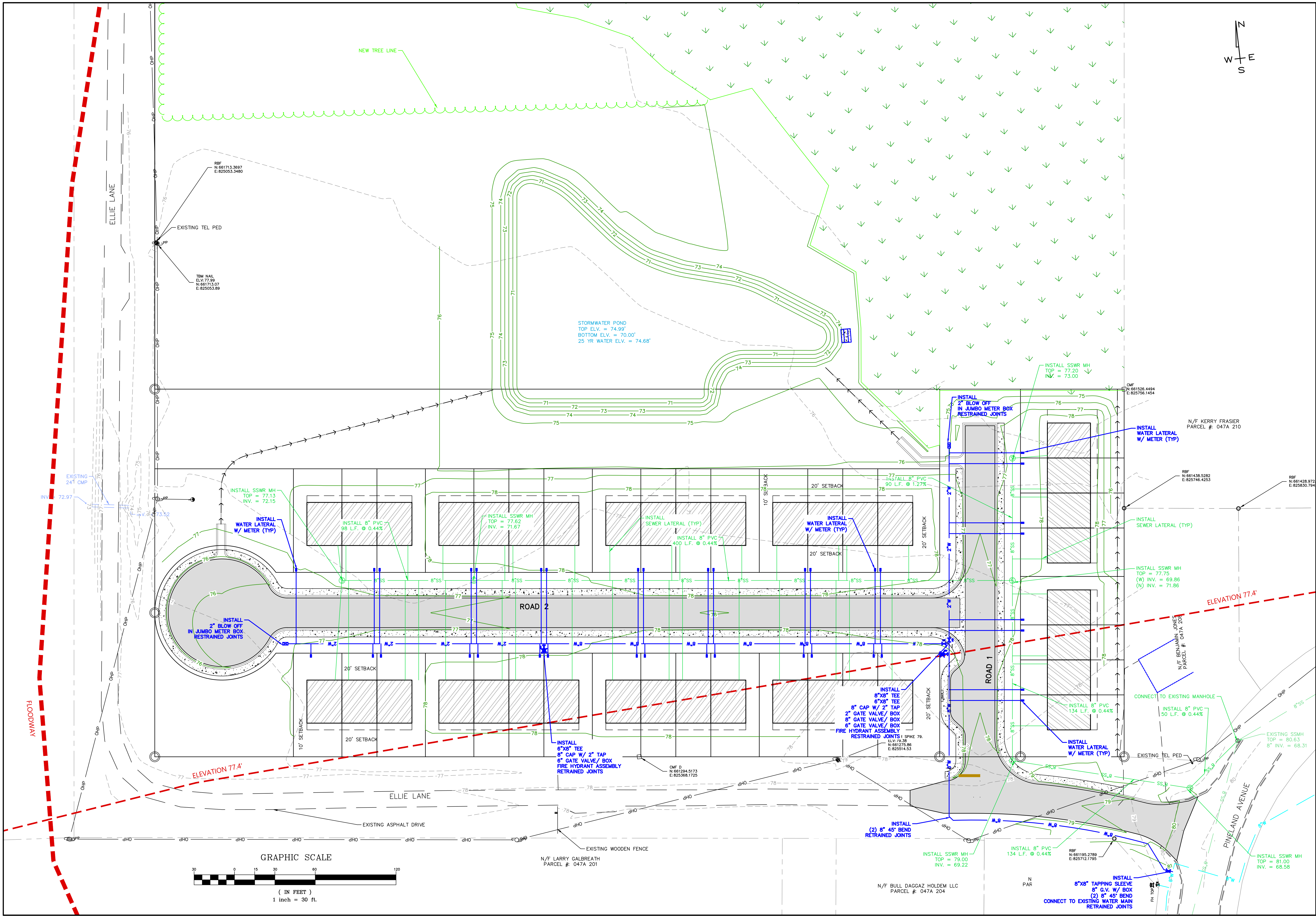
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UTILITY PLAN

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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
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N/F LARRY GALBREATH
PARCEL #: 047A 201

N/F BULL DAGGAZ HOLDEN LLC
PARCEL #: 047A 204

N/F KERRY FRASIER
PARCEL #: 047A 210

N/F BENJAMIN JONES
PARCEL #: 047A 203

EXISTING TEL PED

INSTALL SSWR MH
TOP = 81.00
INV. = 68.58

INSTALL 8" PVC
134 L.F. @ 0.44%

INSTALL 8" X 8" TAPPING SLEEVE
8" G.V. W/ BOX
(2) 8" 45' BEND
CONNECT TO EXISTING WATER MAIN
RESTRAINED JOINTS

INSTALL 8" X 8" TEE
8" CAP W/ 2" TAP
2" GATE VALVE/ BOX
8" GATE VALVE/ BOX
FIRE HYDRANT ASSEMBLY
RESTRAINED JOINTS SPIKE 79.
ELEV: 79.38
N: 661275.86
E: 825514.53

(2) 8" 45' BEND
RESTRAINED JOINTS

INSTALL SSWR MH
TOP = 79.00
INV. = 69.22

INSTALL 8" PVC
134 L.F. @ 0.44%

INSTALL WATER LATERAL
W/ METER (TYP)

INSTALL 8" PVC
50 L.F. @ 0.44%

CONNECT TO EXISTING MANHOLE

INSTALL 8" X 8" TEE
8" CAP W/ 2" TAP
2" GATE VALVE/ BOX
8" GATE VALVE/ BOX
FIRE HYDRANT ASSEMBLY
RESTRAINED JOINTS SPIKE 79.
ELEV: 79.38
N: 661275.86
E: 825514.53

EXISTING WOODEN FENCE

EXISTING ASPHALT DRIVE

ELLIE LANE

INSTALL 8" X 8" TEE
8" CAP W/ 2" TAP
2" GATE VALVE/ BOX
8" GATE VALVE/ BOX
FIRE HYDRANT ASSEMBLY
RESTRAINED JOINTS SPIKE 79.
ELEV: 79.38
N: 661275.86
E: 825514.53

INSTALL 8" X 8" TEE
8" CAP W/ 2" TAP
2" GATE VALVE/ BOX
8" GATE VALVE/ BOX
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ELEV: 79.38
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ELEV: 79.38
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FIRE HYDRANT ASSEMBLY
RESTRAINED JOINTS SPIKE 79.
ELEV: 79.38
N: 661275.86
E: 825514.53

ROAD 2

ROAD 1

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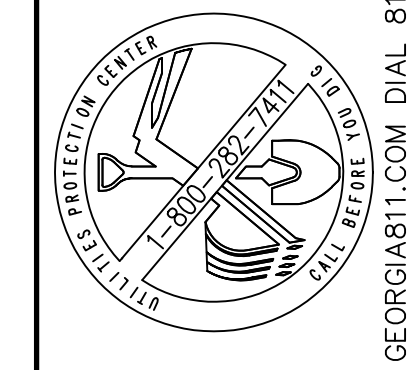
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 THE CONTRACTOR SHOULD VERIFY ALL LOCATIONS, GRADES, AND DIMENSIONS ILLUSTRATED ON THE PLANS AND WILL REPORT ANY DISCREPANCIES TO GOOSE CREEK, LLC.



GOOSE CREEK LLC
 (912) 231-5157
 Fax: (912) 368-5180
 1618 Airport Road
 Hinesville, Georgia 31313

Ardley Park South
 Development Plans for
K. C. Brothers

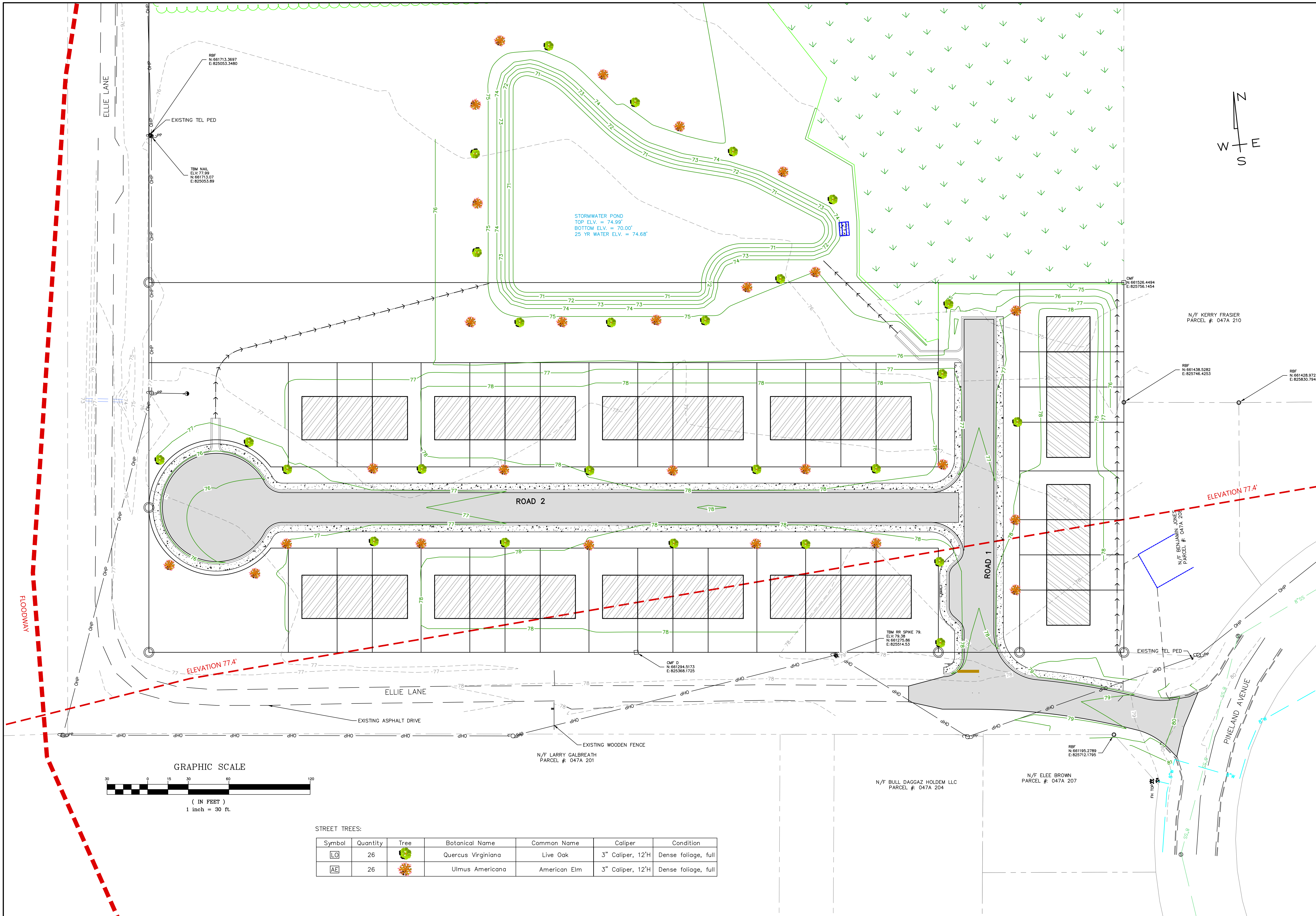
SHEET NAME:
LANDSCAPE PLAN

REVISIONS:

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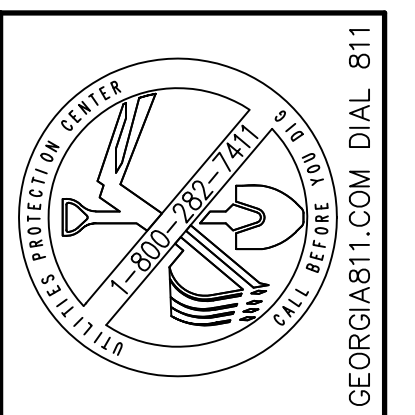
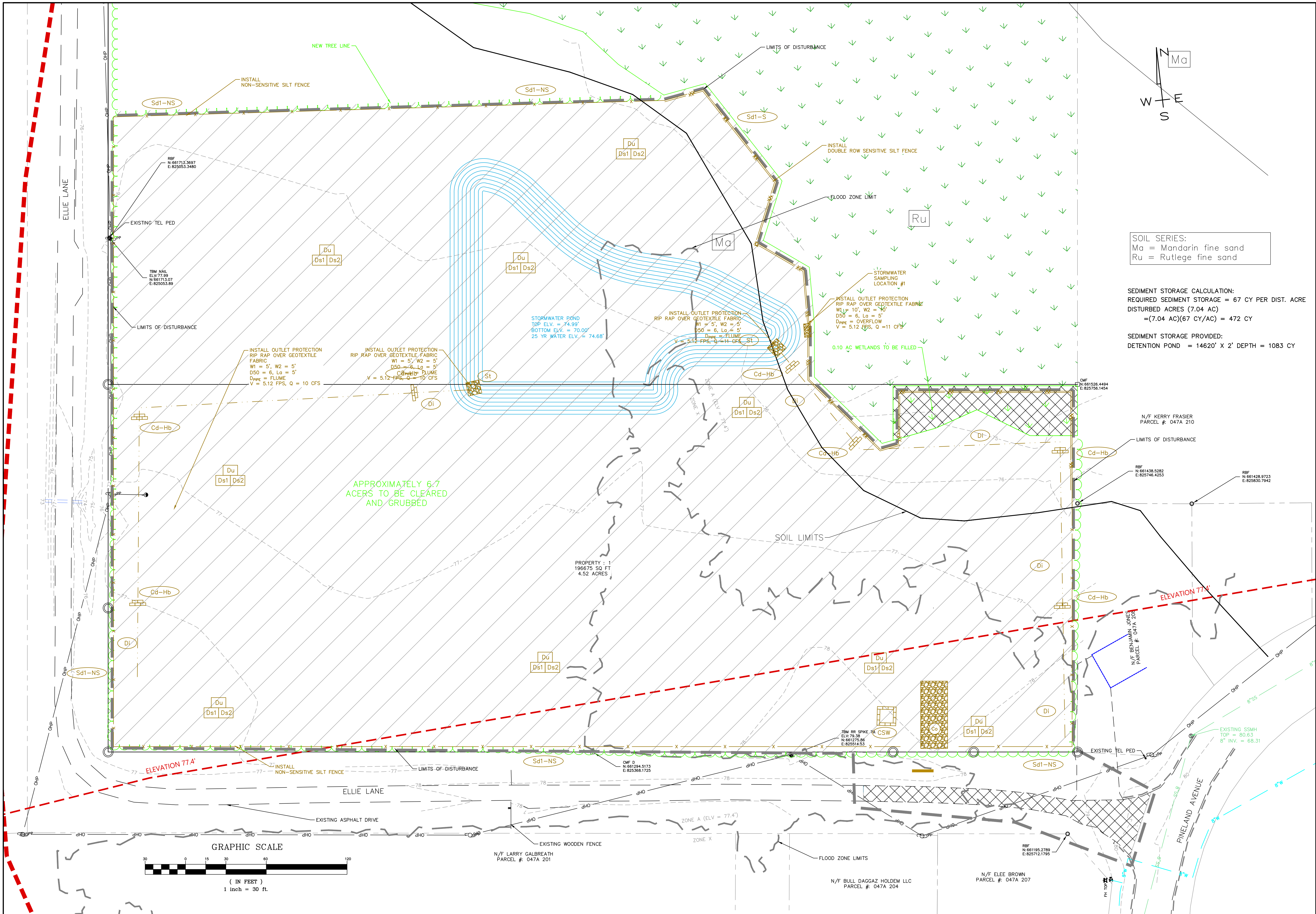
INITIAL DATE: 10/25/2022
 DRAWN BY: AGW
 CHECKED BY: AGW
 PROJECT #: 2022-04

SHEET NUMBER:
C 5.1

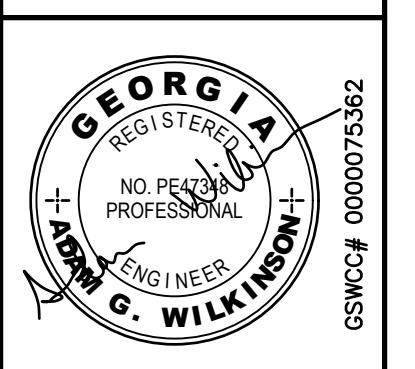


STREET TREES:

Symbol	Quantity	Tree	Botanical Name	Common Name	Caliper	Condition
	26		Quercus Virginiana	Live Oak	3" Caliper, 12'H	Dense foliage, full
	26		Ulmus Americana	American Elm	3" Caliper, 12'H	Dense foliage, full



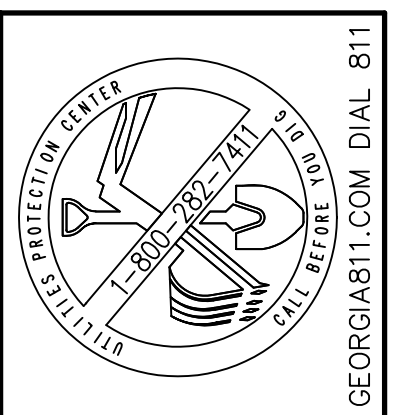
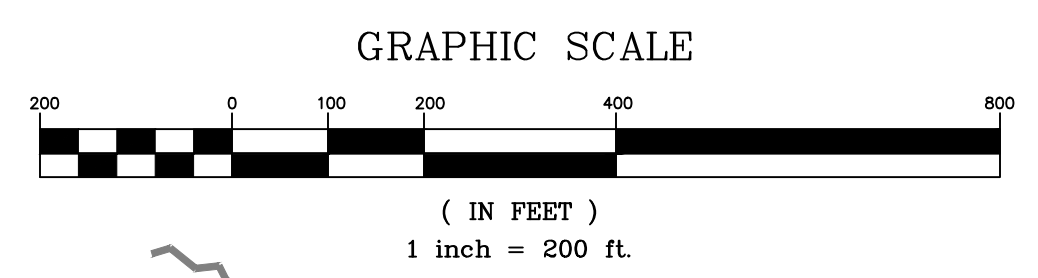
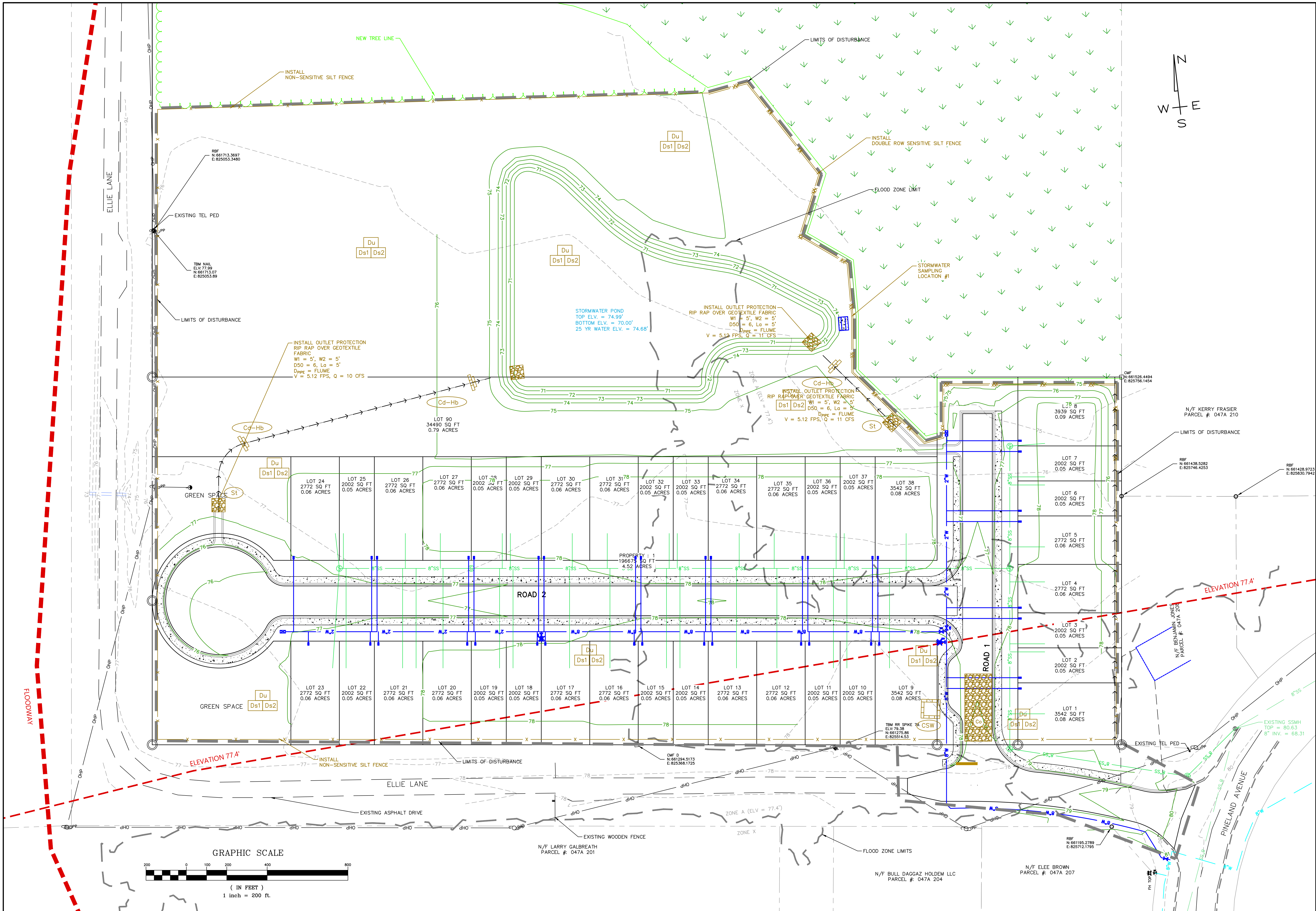
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GOOSE CREEK LLC
 (912) 231-5157
 Fax: (912) 368-5180
 1618 Airport Road
 Hinesville, Georgia 31313

Ardsley Park South
Development Plans for
K. C. Brothers
 TAX PARCEL NUMBER: 047A 202 HINESVILLE, GEORGIA

SHEET NAME:	INITIAL EROSION CONTROL
REVISIONS:	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
INITIAL DATE:	10/25/2022
DRAWN BY:	AGW
CHECKED BY:	AGW
PROJECT #:	2022-04
SHEET NUMBER:	C 6.1



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Ardsley Park South
Development Plans for
K. C. Brothers

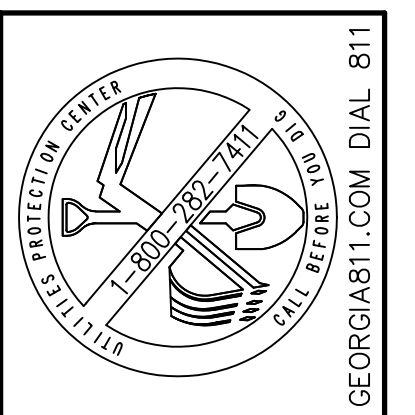
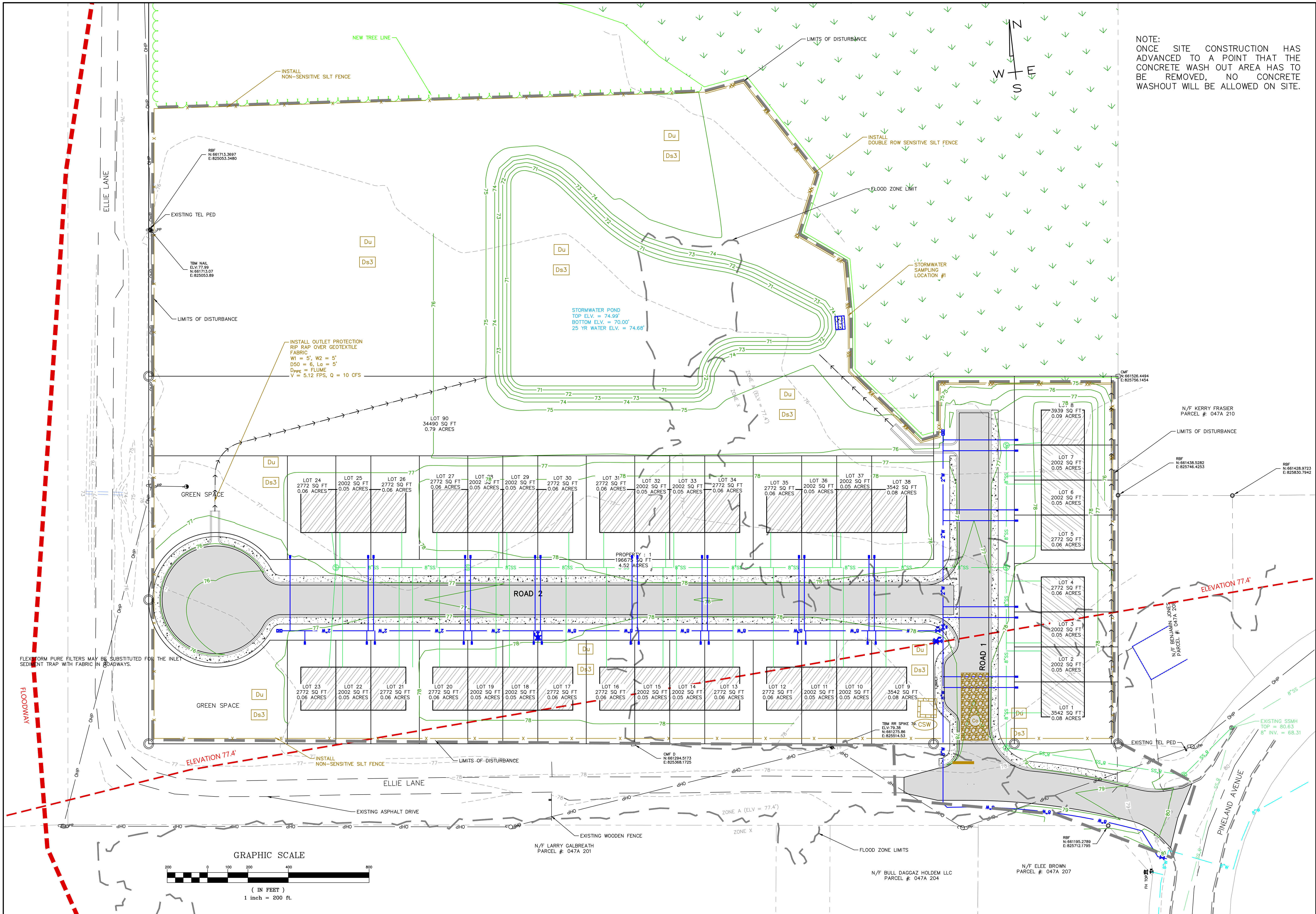
SHEET NAME:
INTERMEDIATE
EROSION CONTROL

REVISIONS:

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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
C 6.2



THIS DRAWING MAY NOT BE REPRODUCED WITHOUT WRITTEN PERMISSION FROM GOOSE CREEK, LLC

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GOOSE CREEK LLC
 1618 Airport Road
 Hinesville, Georgia 31313
 (912) 231-5157
 Fax: (912) 368-5180

Ardsley Park South
Development Plans for
K. C. Brothers

TAX PARCEL NUMBER: 047A 202 HINESVILLE, GEORGIA

SHEET NAME:
FINAL EROSION CONTROL

REVISIONS:

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INITIAL DATE: 10/25/2022
 DRAWN BY: AGW
 CHECKED BY: AGW
 PROJECT #: 2022-04

SHEET NUMBER:
C 6.3

PROJECT TITLE: ARDSLEY PARK SOUTH DEVELOPMENT PLANS
ADDRESS: ELLIE LANE HINESVILLE, GA 31313
OWNER/PRIMARY PERMITTEE: K C BROTHERS CONSTRUCTION CO., LLC
24 HOUR CONTACT: JAMES RIM
ENGINEER: GOOSE CREEK, LLC
GOVERNING AUTHORITY: CITY OF HINESVILLE
NAME & EMAIL OF PERSON FILLING OUT CHECKLIST: ADAM WILKINSON, AWILKINSON@GOOSECREEKENG.COM

21. REQUIREMENT: CLEARLY NOTE THE STATEMENT "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."
RESPONSE: ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING. SEE MULCHING AND VEGETATIVE PLAN REQUIREMENTS ON DETAIL SHEETS.

22. REQUIREMENT: INDICATION THAT THE APPLICABLE PORTION OF THE PRIMARY PERMITEES ES&PC PLAN IS TO BE PROVIDED TO EACH SECONDARY PERMITTEE PRIOR TO THE SECONDARY CONDUCTING ANY CONSTRUCTION ACTIVITY AND THAT EACH SECONDARY SHALL SIGN THE PLAN OR PORTION OF THE PLAN APPLICABLE TO THEIR SITE. LIST THE NAMES AND ADDRESSES OF ALL SECONDARY PERMITEES.
RESPONSE: SECONDARY PERMITEES
NOTE: THIS MASTER LIST TO BE COMPLETED AND SIGNED. KEPT IN THE "ON-SITE" CONSTRUCTION TRAILER. SECONDARY PERMITEES SIGN WHEN RECEIVING PLANS. ALL SECONDARY PERMITEES MUST SUBMIT SECONDARY NOI AT LEAST 14 DAYS PRIOR TO BEGINNING CONSTRUCTION ACTIVITY.

23. REQUIREMENT: ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMPs THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT.
RESPONSE: NO CONSTRUCTION ACTIVITY WILL DISCHARGE IN STORM WATER INTO AN IMPAIRED STREAM OR 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATER SHED AS ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT. THE SITE IS NOT LOCATED WITHIN ONE MILE OF AN IMPAIRED STREAM.

24. REQUIREMENT: IF A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS BEEN FINALIZED FOR THE IMPAIRED STREAM SEGMENT (IDENTIFIED IN ITEM 23 ABOVE) AT LEAST SIX MONTHS PRIOR TO SUBMITTAL OF NOI, THE ES&PC PLAN MUST ADDRESS ANY SITE-SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN.
RESPONSE: NO TMDL IMPLEMENTATION PLAN IS NEEDED FOR THIS SITE.

25. REQUIREMENT: BMPs FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
RESPONSE: A CONCRETE WASHOUT AREA HAS BEEN ILLUSTRATED ON THE EROSION CONTROL SHEETS FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED

26. REQUIREMENT: PROVIDE BMPs FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS.
RESPONSE: CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.

27. REQUIREMENT: DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES.
RESPONSE: PRODUCT SPECIFIC PRACTICES
PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

28. REQUIREMENT: DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.
RESPONSE: DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)
a. USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDE AREAS.
b. FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES.
c. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PREENNIAL VINES; A CROP OF PREENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED
d. USE CONVENTIONAL PLANTING METHODS WHEN POSSIBLE.
e. WHEN MIXED PLANTINGS ARE DONE DURING MARGINAL PLANTING PERIODS, COMPANION CROPS SHALL BE USED.
f. IRRIGATION SHOULD BE USED WHEN THE SOIL IS DRY OR WHEN SUMMER PLANTINGS ARE DONE.
g. LOW MAINTENANCE PLANTS, AS WELL AS NATIVES, SHOULD BE USED TO ENSURE LONG-LASTING EROSION CONTROL.
h. MOWING SHOULD NOT BE PERFORMED DURING QUAIL NESTING SEASON (MAY TO SEPTEMBER).
i. WILDFIRE PLANTINGS SHOULD BE INCLUDED IN CRITICAL AREA PLANTINGS.
j. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.
k. AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS ALLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED.
l. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE. LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE" AND LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIMESTONE".
m. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER.
n. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS: 1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED PREPARATION. 2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS. 3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED. 4. A FERTILIZER PELLETT SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.
o. MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.
p. NOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE THAT THE SEEDS ARE MATURE. MOW BETWEEN NOVEMBER AND MARCH. BERMUDAGRASS, BAHIA GRASS AND TALL FESCUE MAY BE MOWED AS DESIRED. MAINTAIN AT LEAST 6 INCHES OF TOP GROWTH UNDER ANY USE AND MANAGEMENT. MODERATE USE OF TOP GROWTH IS BENEFICIAL AFTER ESTABLISHMENT. EXCLUDE TRAFFIC UNTIL THE PLANTS ARE WELL ESTABLISHED. BECAUSE OF THE QUAIL NESTING SEASON, MOWING SHOULD NOT TAKE PLACE BETWEEN MAY AND SEPTEMBER.
q. APPLY ONE TON OF AGRICULTURAL LIME EVERY 4 TO 6 YEARS OR AS INDICATED BY SOIL TESTS. SOIL TESTS CAN BE CONDUCTED TO DETERMINE MORE ACCURATE REQUIREMENTS IF DESIRED.

EROSION, SEDIMENT, & POLLUTION CONTROL PLAN CHECKLIST

- 1. REQUIREMENT: THE APPLICABLE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CHECKLIST ESTABLISHED BY THE COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED.
RESPONSE: THE 2022 EROSION, SEDIMENT AND POLLUTION CONTROL PLAN CHECKLIST FOR COMMON DEVELOPMENT CONSTRUCTION PROJECTS WAS USED FOR THIS PROJECT.
- 2. REQUIREMENT: LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL.
RESPONSE: THE LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL IS FOUND ON THE UPPER RIGHT HAND SIDE OF ALL SHEETS.
- 3. REQUIREMENT: LIMIT OF DISTURBANCE SHALL BE NO GREATER THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE EPD DISTRICT OFFICE. IF EPD APPROVES THE REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME, THE PLAN MUST INCLUDE AT LEAST 4 OF THE BMPs LISTED IN APPENDIX 1 OF THIS CHECKLIST.
RESPONSE: THE LIMIT OF DISTURBANCE FOR THIS PROJECT IS LESS THAN 50 ACRES AT ANY ONE TIME.
- 4. REQUIREMENT: THE NAME AND PHONE NUMBER OF THE 24-HOUR LOCAL CONTACT RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS.
RESPONSE: THE NAME AND PHONE NUMBER OF THE 24-HOUR LOCAL CONTACT IS SHOWN IN THE ABOVE "PROJECT INFORMATION" SECTION.
- 5. REQUIREMENT: PROVIDE THE NAME, ADDRESS, EMAIL ADDRESS AND PHONE NUMBER OF THE PRIMARY PERMITTEE OR TERTIARY PERMITTEE.
RESPONSE: THE NAME, ADDRESS AND PHONE NUMBER OF THE PRIMARY PERMITTEE IS SHOWN IN THE ABOVE "PROJECT INFORMATION" SECTION.
- 6. REQUIREMENT: NOTE TOTAL AND DISTURBED ACREAGE OF THE PROJECT OR PHASE UNDER CONSTRUCTION.
RESPONSE: THE TOTAL ACREAGE OF THE SITE IS 14.96 ACRES AND THE DISTURBED ACREAGE IS 7.04 ACRES.
- 7. REQUIREMENT: PROVIDE THE GPS LOCATION OF THE CONSTRUCTION EXIT FOR THE SITE. GIVE THE LATITUDE AND LONGITUDE IN DECIMAL DEGREES.
RESPONSE: THE GPS LOCATIONS OF THE CONSTRUCTION EXIT IS N31.817107°, W81.624365°
- 8. REQUIREMENT: INITIAL DATE OF THE PLAN AND THE DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS.
RESPONSE: THE INITIAL DATE AND ANY REVISIONS ARE ON THE BOTTOM RIGHT SIDE OF ALL SHEETS
- 9. REQUIREMENT: DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY.
RESPONSE: THE PROPOSED PROJECT IS A NEW TOWNHOME DEVELOPMENT. THE PARCEL IS A CLEARED AND WOODED LOT, THE SITE WILL BE CLEARED AND GRADED.
- 10. REQUIREMENT: PROVIDE VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS. INCLUDE DESIGNATION OF SPECIFIC PHASE, IF NECESSARY.
RESPONSE: A VICINITY MAP IS SHOWN ON THE TITLE SHEET OF THESE PLANS.
- 11. REQUIREMENT: IDENTIFY THE PROJECT RECEIVING WATERS AND DESCRIBE ALL SENSITIVE ADJACENT AREAS INCLUDING STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, MARSHLANDS, ETC. WHICH MAY BE AFFECTED.
RESPONSE: THE RECEIVING WATERS ARE THE ONSITE WETLANDS THAT DRAIN TO TRIBUTARIES OF DOCTORS CREEK. THERE ARE DELINEATED WETLANDS ON THE SITE. THEY ARE LOCATED ON THE NORTHERN PORTION OF THE SITE.
- 12. REQUIREMENT: DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE SITE WAS VISITED PRIOR TO DEVELOPMENT OF THE ES&PC PLAN AS STATED ON PART IV PAGE 23 OF THE PERMIT.
RESPONSE: PLEASE SEE THE DESIGN PROFESSIONAL'S CERTIFICATION SECTION ON THIS SHEET.
- 13. REQUIREMENT: DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITEE'S ES&PC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMPs AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PART IV PAGE 22 OF THE PERMIT.
RESPONSE: PLEASE SEE THE DESIGN PROFESSIONAL'S CERTIFICATION SECTION THIS SHEET.
- 14. REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION." IN ACCORDANCE WITH PART IV A.5 PAGE 27 OF THE PERMIT.
RESPONSE: PLEASE SEE THE DESIGN PROFESSIONAL'S 7 DAY VISIT CERTIFICATION ON SECTION ON THIS SHEET.
- 15. REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS."
RESPONSE: NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS
- 16. REQUIREMENT: PROVIDE A DESCRIPTION OF ANY BUFFER ENCROACHMENTS AND INDICATE WHETHER A BUFFER VARIANCE IS REQUIRED.
RESPONSE: THE CONSTRUCTION OF THIS PROJECT SHOULD WILL ENCRACH ON A SMALL PORTION OF WETLANDS TO THE NORTH. THIS WILL BE APPROVED THROUGH THE CORPS OF ENGINEERS
- 17. REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
RESPONSE: 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.
- 18. REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT."
RESPONSE: WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- 19. REQUIREMENT: CLEARLY NOTE STATEMENT THAT "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."
RESPONSE: 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.
- 20. REQUIREMENT: CLEARLY NOTE STATEMENT THAT "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES, IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."
RESPONSE: EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES, IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

- STORM DRAIN OUTLET PROTECTION
a. USED TO REDUCE VELOCITY OF FLOW BEFORE ENTERING RECEIVING CHANNELS BELOW STORM DRAIN OUTLETS.
b. THIS STANDARD APPLIES TO ALL STORM DRAIN OUTLETS, ROAD CURBS, PAVED CHANNEL OUTLETS, ETC., DISCHARGING INTO NATURAL OR CONSTRUCTED CHANNELS. ANALYSIS AND/OR TREATMENT WILL EXTEND FROM THE END OF THE CONDUIT, CHANNEL OR STRUCTURE TO THE POINT OF ENTRY INTO AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM.
c. STRUCTURALLY LINED APRONS AT THE OUTLETS OF PIPES AND PAVED CHANNEL SECTIONS SHALL BE DESIGNED ACCORDING TO THE CRITERIA SPECIFIED IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL.
d. THE APRON SHALL BE CONSTRUCTED WITH NO SLOPE ALONG ITS LENGTH (0.0% GRADE). THE INVERT ELEVATION OF THE DOWNSTREAM END OF THE APRON SHALL BE EQUAL TO THE ELEVATION OF THE INVERT OF THE RECEIVING CHANNEL. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON.
e. IF THE PIPE DISCHARGES INTO A WELL-DEFINED CHANNEL, THE SIDE SLOPES OF THE CHANNEL SHALL NOT BE STEEPER THAN 2:1.
f. THE APRON SHALL BE LOCATED SO THAT THERE ARE NO BENDS IN THE HORIZONTAL ALIGNMENT.
g. GEOTEXTILES SHOULD BE USED AS A SEPARATOR BETWEEN THE GRADED STONE, THE SOIL BASE, AND THE ABUTMENTS. THE GEOTEXTILE WILL PREVENT THE MIGRATION OF SOIL PARTICLES FROM THE SUBGRADE INTO THE GRADED STONE. THE GEOTEXTILE SHALL BE SPECIFIED IN ACCORDANCE WITH AASHTO M288-96 SECTION 7.5, PERMANENT EROSION CONTROL RECOMMENDATIONS. THE GEOTEXTILE SHOULD BE PLACED IMMEDIATELY ADJACENT TO THE SUBGRADE WITHOUT ANY VOIDS.
h. CONSTRUCTION SPECIFICATIONS
h.1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
h.2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
h.3. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
h.4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
h.5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
h.6. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
h.7. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
h.8. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
h.9. STONE QUALITY - SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER RESISTANT. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5.
h.10. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OR A SYNTHETIC FILTER CLOTH. SEE APPENDIX C, P. C-1.
h.11. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLOGGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
i. VEGETATED WATERWAY OR STORMWATER CONVEYANCE
a. A NATURAL OR CONSTRUCTED CHANNEL THAT IS SHAPED OR GRADED TO REQUIRED DIMENSIONS AND ESTABLISHED IN SUITABLE VEGETATION FOR THE STABLE CONVEYANCE OF RUNOFF WITHOUT CAUSING DAMAGE EITHER BY EROSION OR BY FLOODING.
b. THIS STANDARD APPLIES TO ALL SITES WHERE ADDED CHANNEL CAPACITY AND/OR STABILIZATION IS REQUIRED TO CONTROL EROSION RESULTING FROM CONCENTRATED RUNOFF AND WHERE SUCH CONTROL CAN BE ACHIEVED BY THIS PRACTICE ALONE OR IN COMBINATION WITH OTHERS
c. THE MINIMUM CAPACITY SHALL BE THAT REQUIRED TO CONVEY THE PEAK RUNOFF EXPECTED FROM A 25-YEAR, 24-HOUR STORM OR THE STORM SPECIFIED IN THE GSWCC EROSION AND SEDIMENT CONTROL MANUAL.
d. CONSTRUCTION SPECIFICATIONS
d.1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
d.2. THE WATERWAY SHOULD BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN. IT WILL BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW. IF THE CHANNEL MUST HAVE EROSION PROTECTION OTHER THAN VEGETATION, THE LINING SHALL NOT COMPROMISE THE CAPACITY OF THE EMERGENCY SPILLWAY, I.E. THE CHANNEL SHALL BE OVER-EXCAVATED SO THAT THE LINING WILL BE FLUSH WITH THE SURFACE OF THE SPILLWAY.
d.3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED WATERWAY.
d.4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH WATERWAY FUNCTIONING.
d.5. STABILIZATION/ APPLICABLE VEGETATIVE STANDARDS SHALL BE FOLLOWED FOR TIME OF SEEDING, SPRIGGING OR SODDING, LIMING AND FERTILIZING, AND SITE AND SEEDBED PREPARATION. EROSION CONTROL BLANKETS OR MATTING OR SOD SHALL BE USED TO AID IN THE ESTABLISHMENT OF VEGETATION. INSTALLATION METHODS SHOULD FOLLOW MANUFACTURER RECOMMENDATIONS.
e. MULCHING SHALL BE A REQUIREMENT FOR ALL SEEDED OR SPRIGGED CHANNELS. TEMPORARY PROTECTION DURING ESTABLISHMENT SHOULD BE PROVIDED WHEN CONDITIONS PERMIT THROUGH TEMPORARY DIVERSIONS OR OTHER MEANS TO DISPOSE OF WATER.
- 29. REQUIREMENT: DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES.
RESPONSE: PRODUCT SPECIFIC PRACTICES
PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- POINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
• CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM 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 THE EROSION AND SEDIMENT CONTROL. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
• BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.
• PRIOR TO THE LAND DISTURBING CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.
OTHER PRACTICES
• THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO INSURE THAT LAND STRIPPED OF ITS NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.
• THE OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
• NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR DEBRIS BURN AND BURIAL HOLES SHALL BE LOCATED WITHIN 100 FEET OF DESIGNATED TREE PROTECTION AREAS.
• A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.
• PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE AND ALL STREAM BUFFERS SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
• PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.
• THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY.
a. THE CONSTRUCTION EXIT SHALL BE CONSTRUCTED TO BE AT LEAST 20 FEET FROM THE CONSTRUCTION AREA. THE CONSTRUCTION EXIT SHALL BE PLACED AS SHOWN ON THE PLAN. THE STONE SIZE SHOULD CONSIST OF COURSE AGGREGATE BETWEEN 1-1/2" & 3-1/2" IN DIAMETER AND OVERLAP ON A GEOTEXTILE UNDERLINER. THE GEOTEXTILE UNDERLINER SHALL MEET THE REQUIREMENTS OF AASHTO M288-96, SECTION 7.3 SEPARATION REQUIREMENTS.
b. IMMEDIATELY AFTER THE CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL PLAN.
c. TYPE "A" SILT FENCE SHALL BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA AS SHOWN ON THE PLAN. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6-20.2. THE SILT FENCE SHOULD BE KEPT MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTOR.
d. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM STRUCTURES AS SHOWN ON THE PLAN. SEE SEPARATE DETAILS FOR SPECIFICS ON TYPE OF INLET PROTECTION SPECIFIED.
e. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS SHOWN ON THE PLAN.
f. TREE PROTECTION FENCING SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY AND MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED. THE TREE PROTECTION FENCING SHOULD BE INSPECTED DAILY. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
• AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTOR.
• AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT PONDS AND DIVERSION DIKES AS SHOWN ON THE CLEARING PHASE PLAN TO CONTROL EROSION AND STORM WATER RUN OFF.
• THE DESIGN PROFESSIONAL, WHO PREPARED THE EROSION CONTROL PLANS WILL INSPECT THE INSTALLATION OF THE BMPs WITHIN SEVEN DAYS AFTER INITIAL CONSTRUCTION ACTIVITY BEGINS.
• THE CONTRACTOR CAN UTILIZE CLERGED TREES AS BARRIER BRUSH SEDIMENT CONTROL IN AREAS SHOWN ON PLAN WHERE INITIAL GRADING ACTIVITIES WILL NOT OCCUR.
• NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT WRITTEN PERMISSION BY THE OWNER AND/OR THE ENGINEER OR RECORD.

DESIGN PROFESSIONAL'S CERTIFICATION:

"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."

"I CERTIFY THAT THE PERMITEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED. PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER 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 100003."

"I CERTIFY UNDER THE PENALTY OF LAW THAT 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 EVALUATE THE INFORMATION SUBMITTED. BASED UPON 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."

Adam Wilkins 000705362
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

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

DATE OF INSPECTION: _____

I CERTIFY THE SITE WAS IN COMPLIANCE WITH ES&PC PLAN ON THE DATE OF INSPECTION.

GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

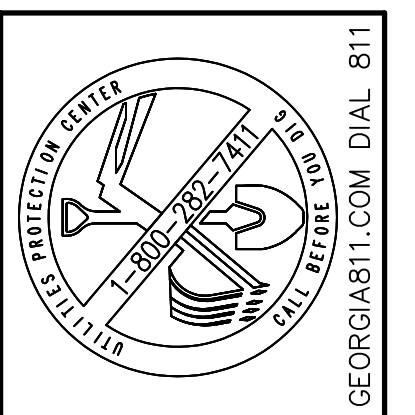
7. _____

8. _____

9. _____

10. _____

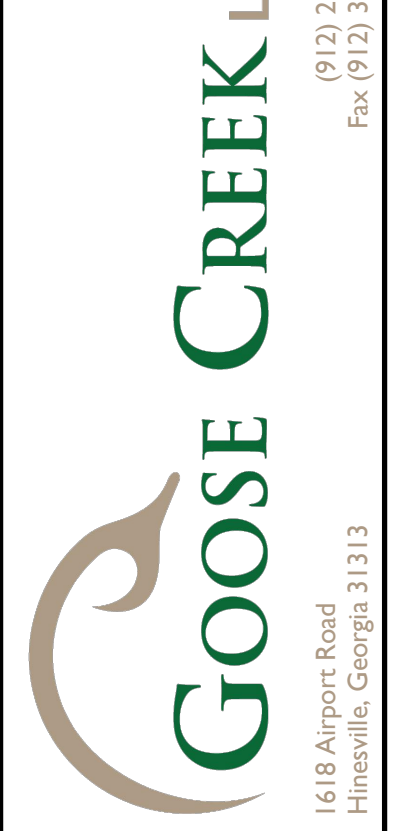
THESE DEFICIENCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL EROSION PROFESSIONAL CERTIFICATION IS OBTAINED.



THIS DRAWING MAY NOT BE REPRODUCED WITHOUT WRITTEN PERMISSION FROM GOOSE CREEK, LLC. THE CONTRACTOR SHOULD VERIFY ALL LOCATIONS, GRADES, AND DIMENSIONS ILLUSTRATED ON THE PLANS AND WILL REPORT ANY DISCREPANCIES TO GOOSE CREEK, LLC.



GOOSE CREEK, LLC
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
(912) 368-5180



Ardsley Park South Development Plans for K. C. Brothers

PROJECT # 2022-04

SHEET NAME: EROSION CONTROL NOTES

REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

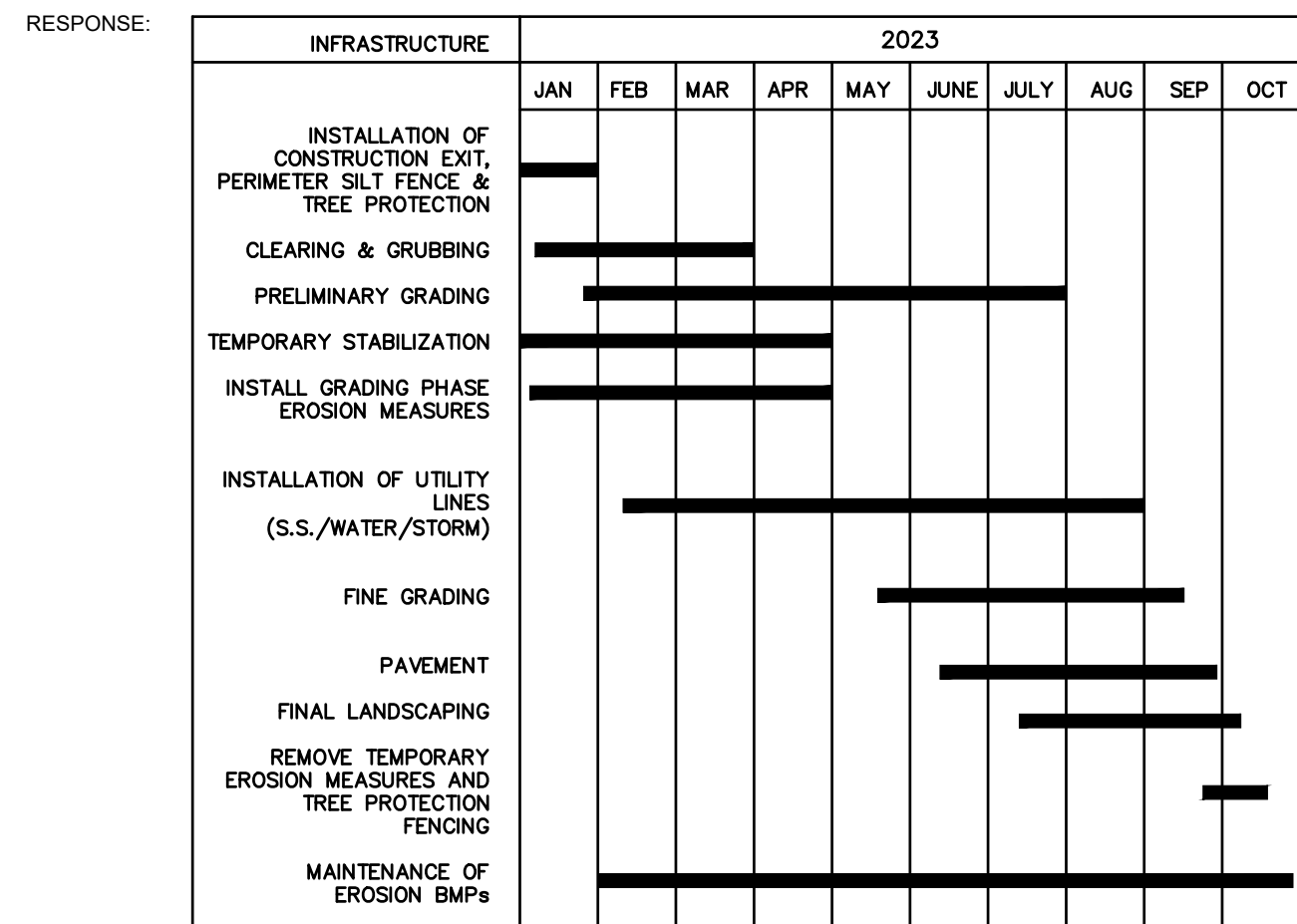
INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER: C 7.I

EROSION, SEDIMENT, & POLLUTION CONTROL PLAN CHECKLIST (CONTINUED)

- * THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
- * CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- * EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS DIRECTED BY THE ON-SITE INSPECTOR OR THE CIVIL ENGINEER.
- * FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- * THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

30. REQUIREMENT: DESCRIPTION AND CHART OR TIMELINE OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH DISTURB SOILS FOR THE MAJOR PORTIONS OF THE SITE (I.E., INITIAL PERIMETER AND SEDIMENT STORAGE BAYS, CLEARING AND GRUBBING ACTIVITIES, EXCAVATION ACTIVITIES, UTILITY ACTIVITIES, TEMPORARY AND FINAL STABILIZATION).



31. REQUIREMENT: PROVIDE COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE OR TERTIARY PERMITTEE

RESPONSE: PRIMARY PERMITTEE
 * 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; (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 NOTICE OF TERMINATION IS SUBMITTED.

* MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.

* CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER, UNLESS SUCH STORM ENDS AFTER 5:00 P.M. ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY, WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.(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, 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. THE PRIMARY PERMITTEE MUST AMEND THE PLAN IN ACCORDANCE WITH PART IV.D.4.B.(5), WHEN A SECONDARY PERMITTEE NOTIFIES THE PRIMARY PERMITTEE OF ANY PLAN DEFICIENCIES.

* 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.(5) OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ANY 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 AN INCIDENT, THE INSPECTION REPORT 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.2 OF THIS PERMIT.

32. REQUIREMENT: PROVIDE COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY AND REPORTING OF SAMPLING RESULTS.

RESPONSE: SAMPLING FREQUENCY
 * THE PRIMARY PERMITTEE WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN ONE (1) ACRE AND TERTIARY PERMITTEE WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN FIVE (5) ACRES, MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
 * HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
 * SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

- FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT ALLOWS FOR SAMPLING DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF HARD GRADING OPERATIONS IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION.
- IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;
- AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPs IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT THE DISTURBED AREA HAS BEEN MAINTAINED;
- WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PRIMARY PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.(6), OR THE TERTIARY PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND

e. EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING FREQUENCY AND REPORTING REQUIREMENTS OF THIS PERMIT, AND THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THAT SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.
 * NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING:

* THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART I.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT, UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THAT ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
 * ALL SAMPLING REPORTS RESULTS SHALL INCLUDE THE FOLLOWING INFORMATION:

- THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
- THE DATE(S) ANALYSES WERE PERFORMED;
- THE TIME(S) ANALYSES WERE INITIATED;
- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
- REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
- THE RESULTS OF EACH ANALYSIS, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
- RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU"; AND
- CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

* ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN REGISTERED CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE APPLICABLE PERMITTEES 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.

33. REQUIREMENT: PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. OF THE PERMIT.

RESPONSE: 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 PERMIT;
 d. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
 e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4. 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; AND
 g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(2) OF THIS PERMIT.
 * EACH SECONDARY 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 OR THE APPLICABLE PORTION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN FOR THEIR ACTIVITIES AT THE CONSTRUCTION SITE REQUIRED BY THIS PERMIT;
 c. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.B. OF THIS PERMIT; AND
 d. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT, STATE OF GEORGIA PACE #6 OF 86 DEPARTMENT OF NATURAL RESOURCES PERMIT NO. GAR10003

* EACH TERTIARY 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 PERMIT;
 d. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
 e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4. 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; AND
 g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(2) OF THIS PERMIT.

* COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUIRED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

34. REQUIREMENT: DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION.

RESPONSE: STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

a. STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION EXISTS. RESULTS IN THE TURBIDITY OVER THE MAXIMUM. THE NTU IS BASED UPON THE TOTAL DISTURBED ACREAGE OF 7.04 ACRES. THE TOTAL SURFACE WATER DRAINAGE AREA OF 0.1 SQUARE MILES AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

35. REQUIREMENT: APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE

SITE ACREAGE	APPENDIX B NEPHELOMETRIC TURBIDITY UNIT (NTU) TABLE							
	0 - 4.99	5 - 9.99	10 - 24.99	25 - 49.99	50 - 99.99	100 - 249.99	250 - 499.99	500+
1.00 - 10	75	150	200	400	750	750	750	750
10.01 - 25	50	100	100	200	300	500	750	750
25.01 - 50	50	50	100	100	200	300	750	750
50.01 - 100	50	50	100	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

36. REQUIREMENT: DELINEATE ALL SAMPLING LOCATIONS IF APPLICABLE, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED.

RESPONSE: ALL SAMPLING LOCATION ARE LABELED ON THE EROSION AND SEDIMENT CONTROL PLANS. FOR CONSTRUCTION ACTIVITY AT THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S).

37. REQUIREMENT: A DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE INCLUDING: (1) INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs, (2) INTERMEDIATE GRADING AND DRAINAGE BMPs, AND (3) FINAL BMPs FOR CONSTRUCTION SITES WHERE THERE WILL BE NO MASS GRADING AND THE INITIAL PERIMETER CONTROL BMPs, INTERMEDIATE GRADING AND DRAINAGE BMPs, AND FINAL BMPs ARE THE SAME. THE PLAN MAY COMBINE ALL OF THE BMPs INTO A SINGLE PHASE.

RESPONSE: SEE ITEM 29 FOR A DESCRIPTION OF ALL INITIAL AND INTERMEDIATE BMPs AND ITEM 28 FOR A DESCRIPTION OF ALL FINAL BMPs. PLEASE SEE THE EROSION CONTROL PLAN TO SEE WHERE THESE BMPs ARE TO BE IMPLEMENTED.

38. REQUIREMENT: PLAN ADDRESSES BMPs FOR ALL PHASES OF COMMON DEVELOPMENT INCLUDING INDIVIDUAL BUILDING LOTS AND OUTFALLS ETC. REGARDLESS OF WHO OWNS OR OPERATES THE INDIVIDUAL SITES. INCLUDE A TYPICAL AND ANY SITUATIONAL LOTS APPLICABLE.

RESPONSE: THIS PLAN ADDRESSED BMPs FOR ALL PHASES OF COMMON DEVELOPMENT INCLUDING INDIVIDUAL BUILDING LOTS AND OUTFALLS ETC. REGARDLESS OF WHO OWNS OR OPERATES THE INDIVIDUAL SITES. THIS INCLUDES ANY A TYPICAL AND ANY SITUATIONAL LOTS WHERE APPLICABLE.

39. REQUIREMENT: GRAPHIC SCALE AND NORTH ARROW.

RESPONSE: THE CORRECT GRAPHIC SCALE AND NORTH ARROW ARE SHOWN ON ALL SHEETS WHERE APPLICABLE.

40. REQUIREMENT: EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE FOLLOWING:

Map Scale	Ground Slope	Contour Interval, ft
1 inch = 100ft or larger scale	Flat 0 - 2% Sloping 2 - 8% Steeep 8% +	0.5 or 1 1 or 2 2.5 or 10

RESPONSE: CONTOURS ARE SHOWN IN 1' INTERVALS.

41. REQUIREMENT: USE OF ALTERNATIVE BMPs WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMPs AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT WWW.GASWC.ORG

RESPONSE: NO ALTERNATIVE BMP WILL BE USED ON THIS SITE.

42. REQUIREMENT: USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A-2 OF THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA 2016 EDITION.

RESPONSE: NO ALTERNATIVE BMP WILL BE USED ON THIS SITE.

43. REQUIREMENT: DELINEATION OF THE APPLICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS ADJACENT TO STATE WATERS AND ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY. CLEARLY NOTE AND DELINEATE ALL AREAS OF IMPACT.

RESPONSE: ALL STATE WATERS AND ADJACENT BUFFERS ARE SHOWN ON THE EROSION CONTROL PLAN.

44. REQUIREMENT: DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE.

RESPONSE: ALL WETLANDS ON SITE AND WITHIN 200' OF THE SITE ARE DELINEATED ON THE EROSION CONTROL PLAN.

45. REQUIREMENT: DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE.

RESPONSE: ALL DRAINAGE BASIN INFORMATION IS SHOWN IN THE HYDROLOGY STUDY PROVIDED WITH THESE PLANS

46. REQUIREMENT: PROVIDE HYDROLOGY STUDY AND MAPS OF DRAINAGE BASINS FOR BOTH THE PRE- AND POST-DEVELOPED CONDITIONS.

RESPONSE: A HYDROLOGY REPORT INCLUDING A DRAINAGE NARRATIVE, DRAINAGE CALCULATIONS AND DELINEATION OF PRE AND POST DEVELOPED CONDITIONS IS PROVIDED WITH THESE PLANS.

47. REQUIREMENT: AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED.

RESPONSE: THE PRE-DEVELOPMENT RUNOFF COEFFICIENT IS 79. THE POST-DEVELOPMENT RUNOFF COEFFICIENT IS 79.

48. REQUIREMENT: STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS.

RESPONSE: THE STORM-DRAIN PIPE AND WEIR VELOCITIES ARE SHOWN ON THE EROSION CONTROL PLAN AS WELL AS APPROPRIATE OUTLET PROTECTION FOR EACH.

49. REQUIREMENT: SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION.

RESPONSE: THE SOIL SERIES IS SHOWN ON THE INITIAL EROSION CONTROL PLAN.

50. REQUIREMENT: THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION.

RESPONSE: THE LIMITS OF DISTURBANCE ARE SHOWN ON EACH EROSION CONTROL SHEET.

51. REQUIREMENT: PROVIDE A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINING USING A TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBANCE ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED. A WRITTEN JUSTIFICATION EXPLAINING THE DECISION TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATION IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL MUST BE INCLUDED FOR STRUCTURAL BMPs AND ALL CALCULATIONS USED BY THE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT STORAGE WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPROVEMENTS, PERMITTEES ARE REQUIRED TO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE, UNLESS INFEASIBLE. IF OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE ARE NOT FEASIBLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN.

RESPONSE: THE TOTAL REQUIRED SEDIMENT STORAGE IS (7.04 DISTURBED ACRES)*(67CY/ACRE) = 472 CY. THE TOTAL PROVIDED SEDIMENT STORAGE IS 1082 CY.

52. REQUIREMENT: LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. USE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6, WITH LEGEND.

RESPONSE: THE BMPs SHOWN AND DESCRIBED IN THESE PLANS ARE CONSISTENT AND NO LESS STRINGENT THAN WHAT THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA CALLS FOR.

53. REQUIREMENT: PROVIDE DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES. SPECIFICATIONS MUST, AT A MINIMUM, MEET THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

RESPONSE: DETAILED DRAWINGS ARE PROVIDED ON THE SHEETS LABELED "DETAILS" IN THIS PLAN.

54. REQUIREMENT: PROVIDE VEGETATIVE PLAN, NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES. INCLUDE SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. VEGETATIVE PLAN SHALL BE SITE SPECIFIC FOR APPROPRIATE TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR THE APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.

RESPONSE: PLEASE SEE THE DETAILS SHEET FOR THE VEGETATIVE PLAN.

OTHER EROSION CONTROL NOTES

1. SHADED AREAS SHOWN ON GRADING PHASE EROSION CONTROL PLANS REPRESENT CRITICAL WORK ZONES. AT THE END OF EACH WORK DAY ALL SLOPES 2:1 OR STEEPER AND HIGHER THAN 5 FEET SHALL RECEIVE SURFACE ROUGHENING, POLYMERS, AND EROSION CONTROL MATTING. ADDITIONALLY, ALL FILL SLOPES SHALL RECEIVE A DIVERSION DIKE AND TEMPORARY DOWN DRAINS ALONG THE TOP OF THE SLOPE PREVENTING DRAINAGE SPILLING OVER THE EDGE AND DOWN THE FACE OF THE SLOPE. THE TEMPORARY DOWN DRAINS SHALL BE CONSTRUCTED WITH PERFORATED STAND PIPES AT THE TOP OF THE SLOPE AND RECONSTRUCTED EACH DAY AS THE SLOPE INCREASES IN HEIGHT.

2. THIS PLAN HAS BEEN PREPARED TO MEET THE REQUIREMENTS UNDER THE STATE OF GEORGIA, DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION (EPD), GENERAL PERMIT NO. GAR 10003-COMMON DEVELOPMENT FOR AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR INFRASTRUCTURE.

AUTHORIZED DISCHARGES:
 * ALL DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT WILL RESULT IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE ACRE. PART I.C.1.C

* ALL DISCHARGES COVERED BY THIS PERMIT SHALL BE COMPOSED ENTIRELY OF STORMWATER EXCEPT AS PROVIDED IN PART I.C.2 AND PART III.A.2 OF THE PERMIT. PART III.A.1

* AUTHORIZED MIXED STORMWATER DISCHARGES: PART I.C.2

a. THE INDUSTRIAL SOURCE OR ACTIVITY OTHER THAN CONSTRUCTION IS LOCATED ON THE SAME SITE AS THE CONSTRUCTION ACTIVITY AND IS AN INTEGRAL PART OF THE CONSTRUCTION ACTIVITY.

b. THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES ARE OCCURRING ARE IN COMPLIANCE WITH THE TERMS OF THIS PERMIT.

c. STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ARE OCCURRING ARE COVERED BY A DIFFERENT NPDES GENERAL PERMIT OR INDIVIDUAL PERMIT AUTHORIZING SUCH DISCHARGES AND THE DISCHARGES ARE IN COMPLIANCE WITH A DIFFERENT NPDES PERMIT.

* AUTHORIZED NON-STORMWATER DISCHARGES: PART III.A.2

- FIRE FIGHTING ACTIVITIES
- FIRE HYDRANT FLUSHING
- POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING
- IRRIGATION DRAINAGE
- AIR CONDITIONING CONDENSATE
- SPRINGS
- NONCONTAMINATED GROUND WATER
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR POLLUTANTS

- LIMITATIONS ON COVERAGE PART I.C.3:
 * THE FOLLOWING STORMWATER DISCHARGES FROM CONSTRUCTION SITES ARE NOT AUTHORIZED BY THIS PERMIT:
 i. STORMWATER DISCHARGES ASSOCIATED WITH AN INDUSTRIAL ACTIVITY THAT ORIGINATES FROM THE SITE AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.
 j. DISCHARGES THAT

DS1
DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION
APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS, PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL SURFACE.

- PURPOSE
1. TO REDUCE RUNOFF EROSION
2. TO CONSERVE MOISTURE
3. TO PREVENT SURFACE COMPACTION OR CRUSTING
4. TO CONTROL UNDESIRABLE VEGETATION
5. TO INCREASE BIOLOGICAL ACTIVITY IN THE SOIL.

REQUIREMENT FOR REGULATORY COMPLIANCE
MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGLE EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.

SPECIFICATIONS
MULCHING WITHOUT SEEDING
THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

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

MULCHING MATERIALS
SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:
1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND REUSED.

ANCHORING MULCH
WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.
1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL 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.
3. 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 MULCH ON THE SURFACE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS AND HYDRAULIC MULCH WITH TACKIFIERS SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TACKIFIERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. 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.
4. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

APPLICATION RATE FOR EACH TYPE OF SOIL ENCOUNTERED ON THE SITE.

MULCHING: MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCHING APPLIED TO SEEDING AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.
1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 LBS PER ACRE. DRY STRAW R DRY HAY SHALL BE APPLIED AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES GREATER THAN 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3" FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITIES MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDING AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCHING IS NOT REQUIRED.

MULCHING NOT TO SCALE [Ds1]

DS2
DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION
THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

- PUPROSE
TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWN STREAM RESOURCES
TO PROTECT THE SOIL SURFACE FROM EROSION
TO IMPROVE WILDLIFE HABITAT
TO IMPROVE AESTHETICS
TO IMPROVE TILTH, INFILTRATION AND AERATION AS WELL AS ORGANIC MATTER FOR PERMANENT PLANTINGS

REQUIREMENT FOR REGULATORY COMPLIANCE
MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION SHALL BE USED. IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING IS LACKING, MULCH CAN BE USED AS A SINGLE EROSION CONTROL DEVICE FOR UP TO SIX MONTHS BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.

CONDITIONS
TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMIC AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED.

SPECIFICATIONS
GRADING AND SHAPING
EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS SEEDING DIKES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDING VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION
WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.
WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

LIME AND FERTILIZER
AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED, ON REASONABLY FERTILE SOILS OR SOIL MATERIAL. FERTILIZER IS NOT REQUIRED FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

SEEDING
SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE 'RAKED' LIGHTLY TO COVER SEED WITH SOIL IF SEEDING BY HAND.

MULCHING
TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

IRRIGATION
DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

GRASSING TEMPORARY NOT TO SCALE [Ds2]

SEEDING RATES FOR TEMPORARY SEEDING.

Table with 5 columns: SPECIES, RATE PER 1,000 SQ.FT., RATE PER ACRE, PLANTING DATES, and a column for RYE with values like 3.9 LBS., 3 BU, 9/1 - 3/1.

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.
** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.

DU

DUST CONTROL ON DISTURBED AREAS

DEFINITION
CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

CONDITIONS
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHOD AND MATERIALS
A. TEMPORARY METHODS

MULCHES. SEE STANDARD DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB-TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATAK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2- DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

SPRAY-ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB-TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN FLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE FLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR FLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

B. PERMANENT METHODS

PERMANENT VEGETATION. SEE STANDARD DS3-DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSION SOIL MATERIAL. SEE STANDARD TP-TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR-CONSTRUCTION ROAD STABILIZATION.

DUST CONTROL NOT TO SCALE [Du]

DS3
DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

DEFINITION
THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

CONDITIONS
PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

SPECIFICATIONS
GRADING AND SHAPING
WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND THE VEGETATION. CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

SEEDBED PREPARATION
SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

- BROADCAST PLANTINGS
1. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRINGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
2. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
3. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE, WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

- INDIVIDUAL PLANTS
1. WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIGBLE PLANTING.
2. FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
3. WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

PLANTING
HYDRAULIC SEEDING
MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

NO-TILL SEEDING
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

GRASSING PERMANENT NOT TO SCALE [Ds3]

INDIVIDUAL PLANTS
SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDING AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

- 1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDING AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATMENT SHALL BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH
STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH
ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:
1. EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.

THE COMBINATION F ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS-1H OR CSS-1H EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES FROM ASPHALT DISCOLORATION.

- 2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL 'PACKER DISK' OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE 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 DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
3. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO TB-TACKIFIERS AND BINDERS.
4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE HALF BUSHEL PER ACRE.
5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

IRRIGATION
IRRIGATION SHALL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

TABLE 6-5.1 FERTILIZER REQUIREMENTS

Table with 6 columns: TYPE OF SPECIES, YEAR, ANALYSIS FOR EQUIVALENT N-P-K, RATE, and TOP DRESSING RATE. Rows include COOL SEASON GRASSES, COOL SEASON GRASSES AND LEGUMES, GROUND COVERS, PINE SEEDLINGS, SHRUB LESPEDEZA, TEMPORARY COVER CROPS, WARM SEASON GRASSES, and WARM SEASON GRASSES AND LEGUMES.

- 1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

FOR BEST RESULTS TAKE AT LEAST ONE SAMPLE OF SOIL TO THE COUNTY EXTENSION AGENT FOR ANALYSIS TO DETERMINE THE BEST FERTILIZER

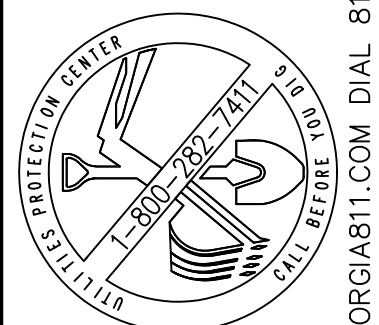
- 1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDING AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

Table with 4 columns: Month, Temporary Cover [Ds2], Rate per Acre (Seeded Alone, Added To Mix), Permanent Cover [Ds3], Rate per Acre (Seeded Alone, Added To Mix). Rows include January through December with various crop types and application rates.

FERTILIZER:

Table with 4 columns: YEAR, ANALYSIS N-P-K, RATE, and N TOP DRESSING RATE. Rows include FIRST, SECOND, and MAINTENANCE with corresponding rates.



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GOOSE CREEK LLC (912) 231-5157 Fax: (912) 368-5180



1618 Airport Road Hinesville, Georgia 31313

Ardsley Park South Development Plans for K. C. Brothers

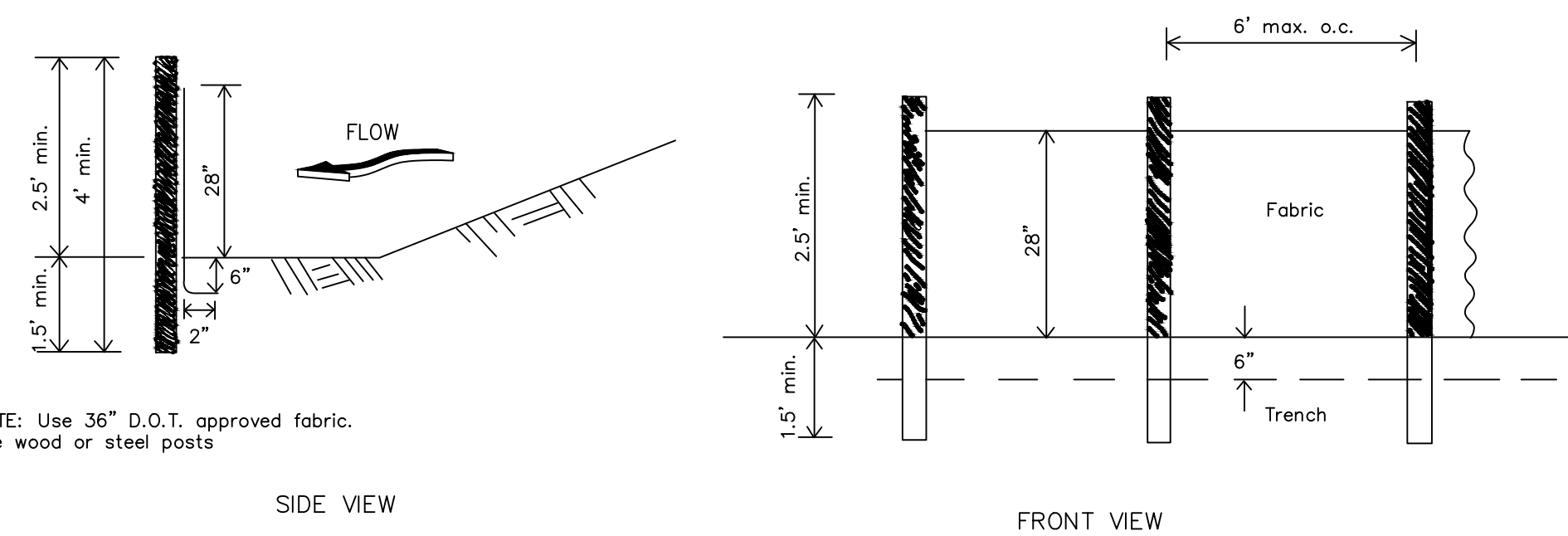
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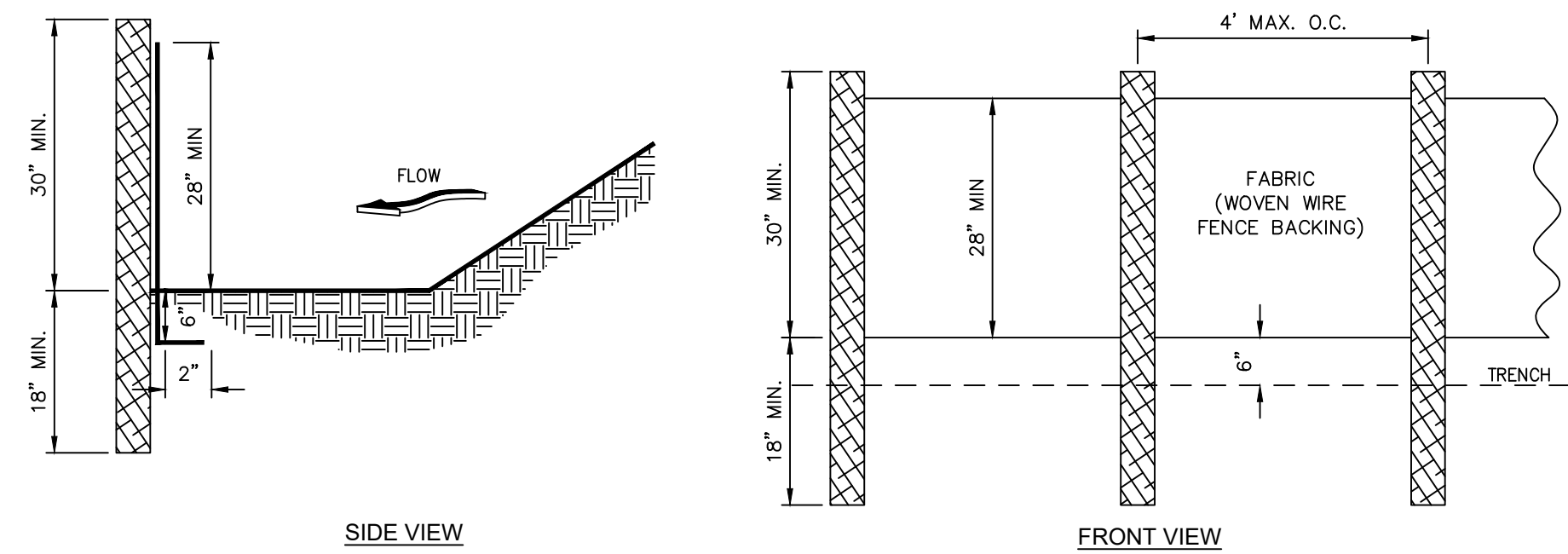
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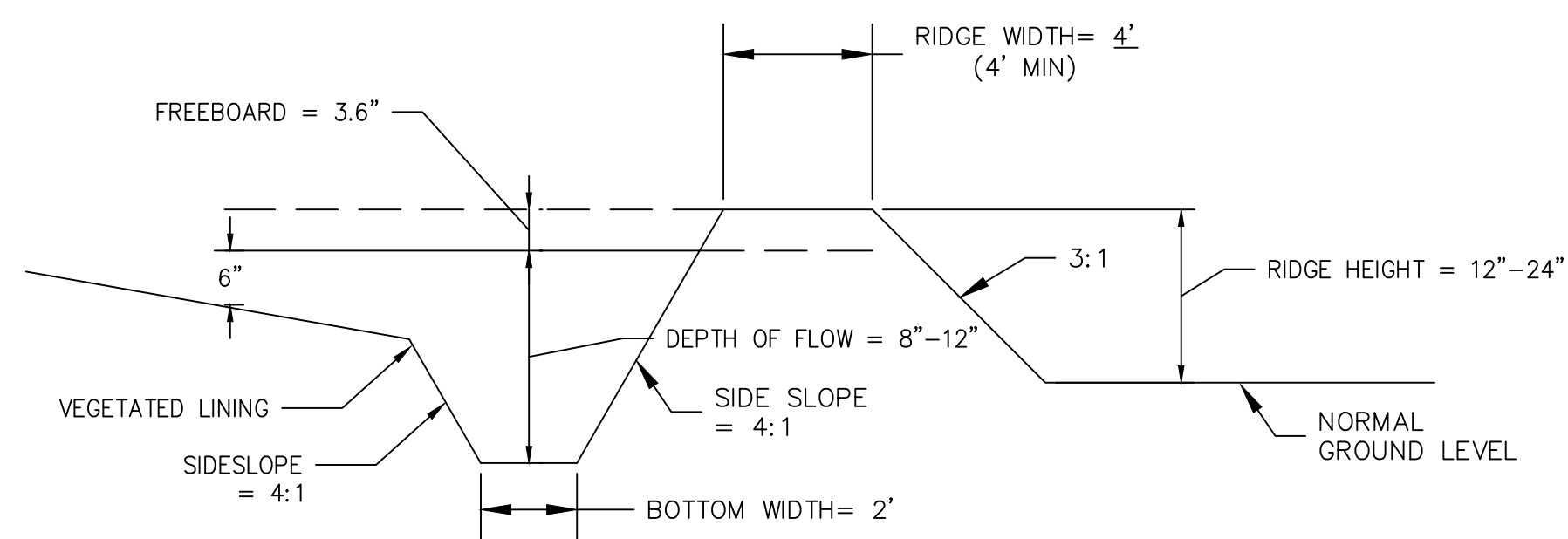
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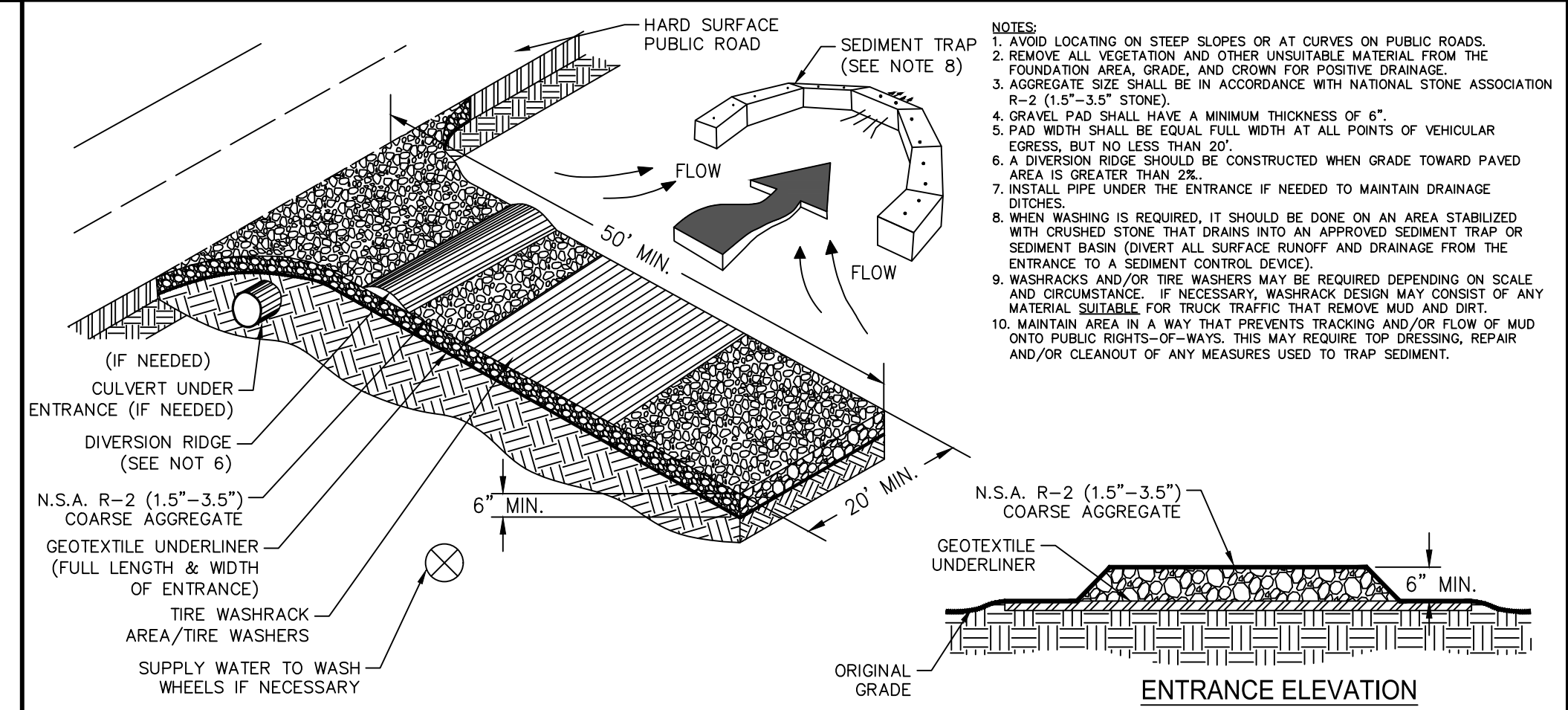
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Non-Sensitive – Type A (Sd1-NS)
NOT TO SCALE



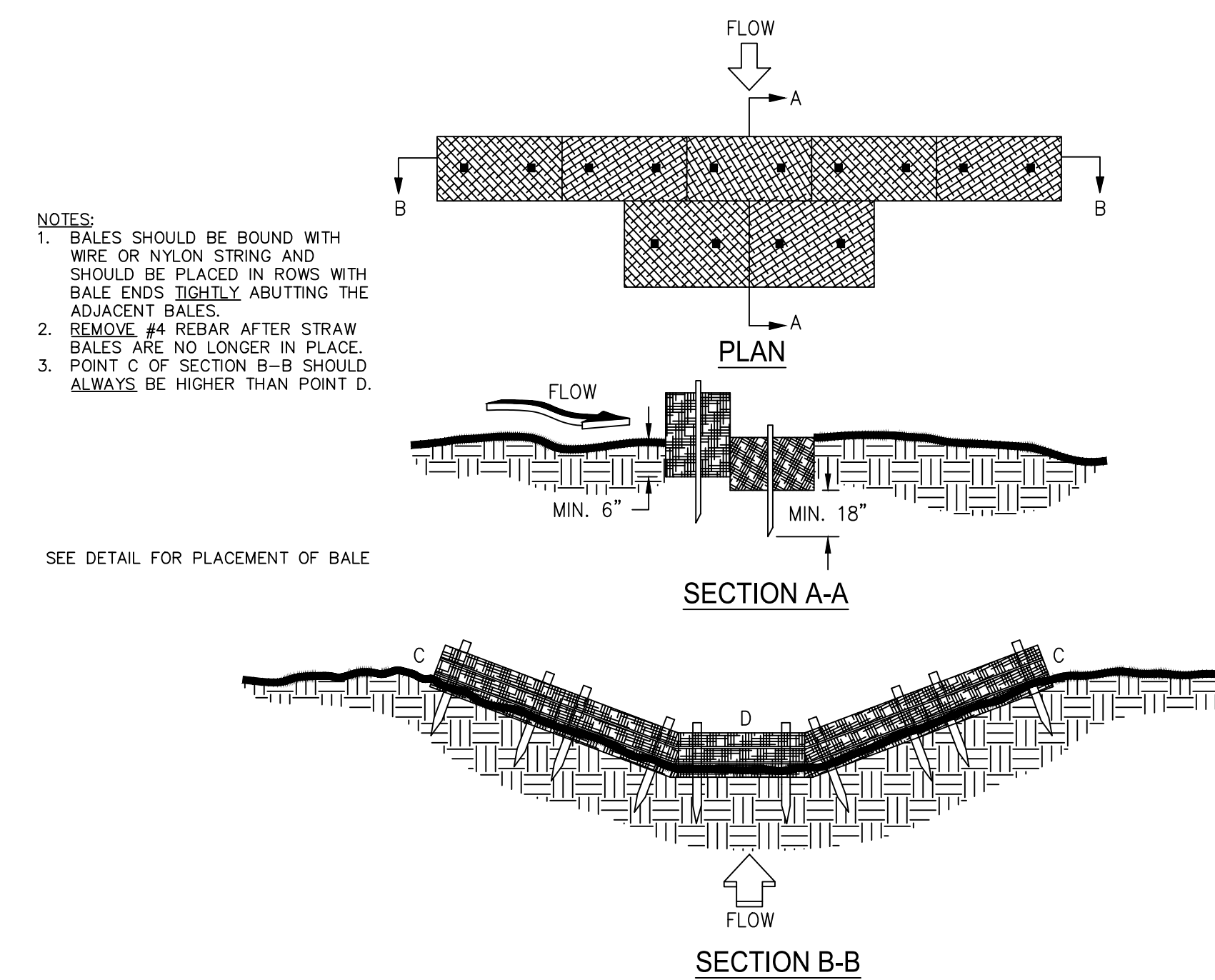
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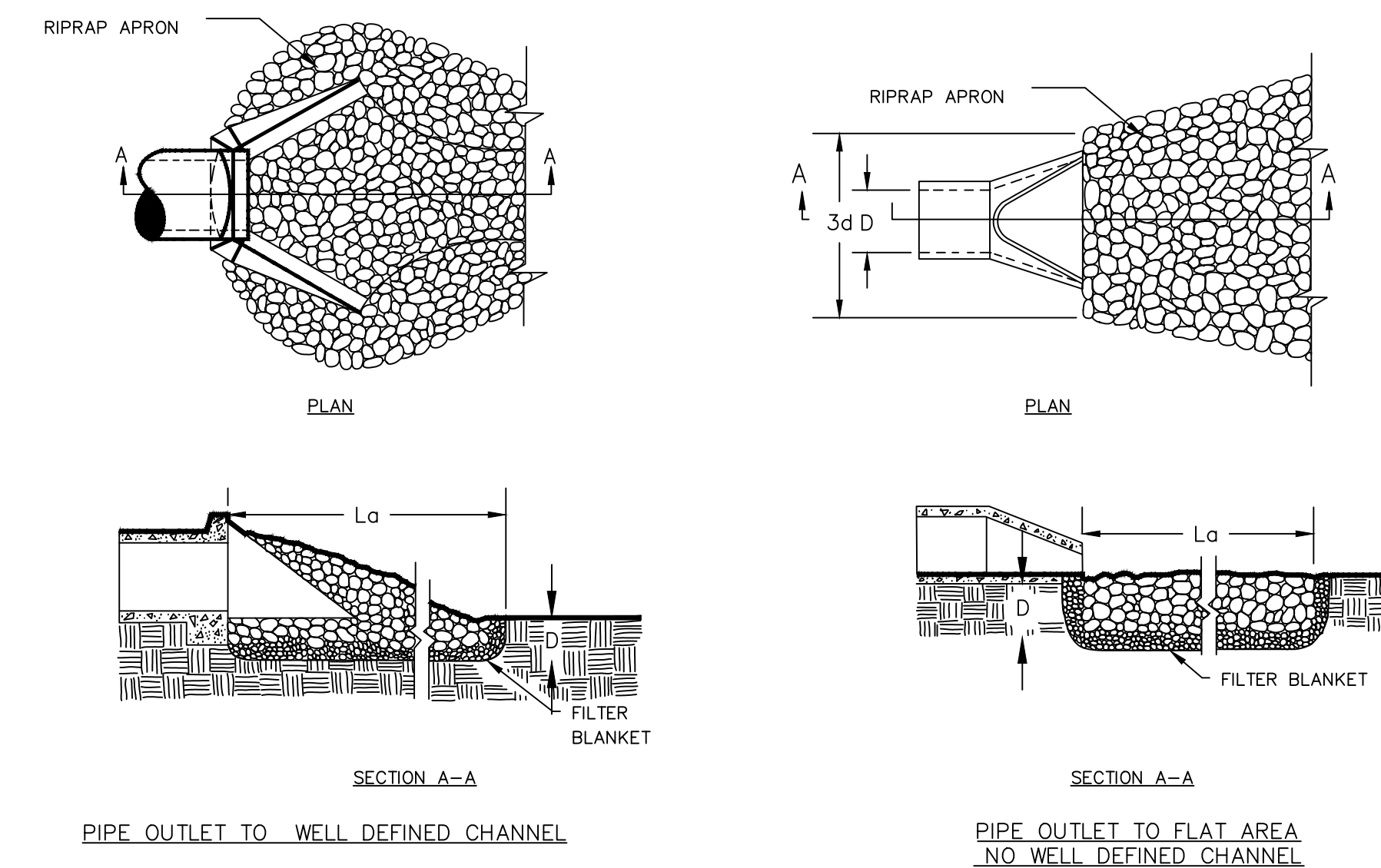
DIVERSION DITCH (Di)
NOT TO SCALE



TEMPORARY CONSTRUCTION EXIT (Co)
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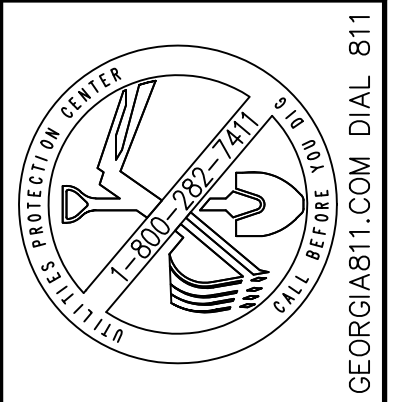


HAY BALE CHECK DAM (Cd-Hb)
NOT TO SCALE



- NOTES:
1. L_o IS THE LENGTH OF THE RIPRAP APRON.
 2. $D = 1.5$ TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6\".
 3. IN A WELL-DEFINED CHANNEL, EXTEND TO APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6\" ABOVE THE MAXIMUM TAIL WATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION

RIPRAP OUTLET PROTECTION (St)
NOT TO SCALE



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Ardley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 047A 202 HINESVILLE, GEORGIA

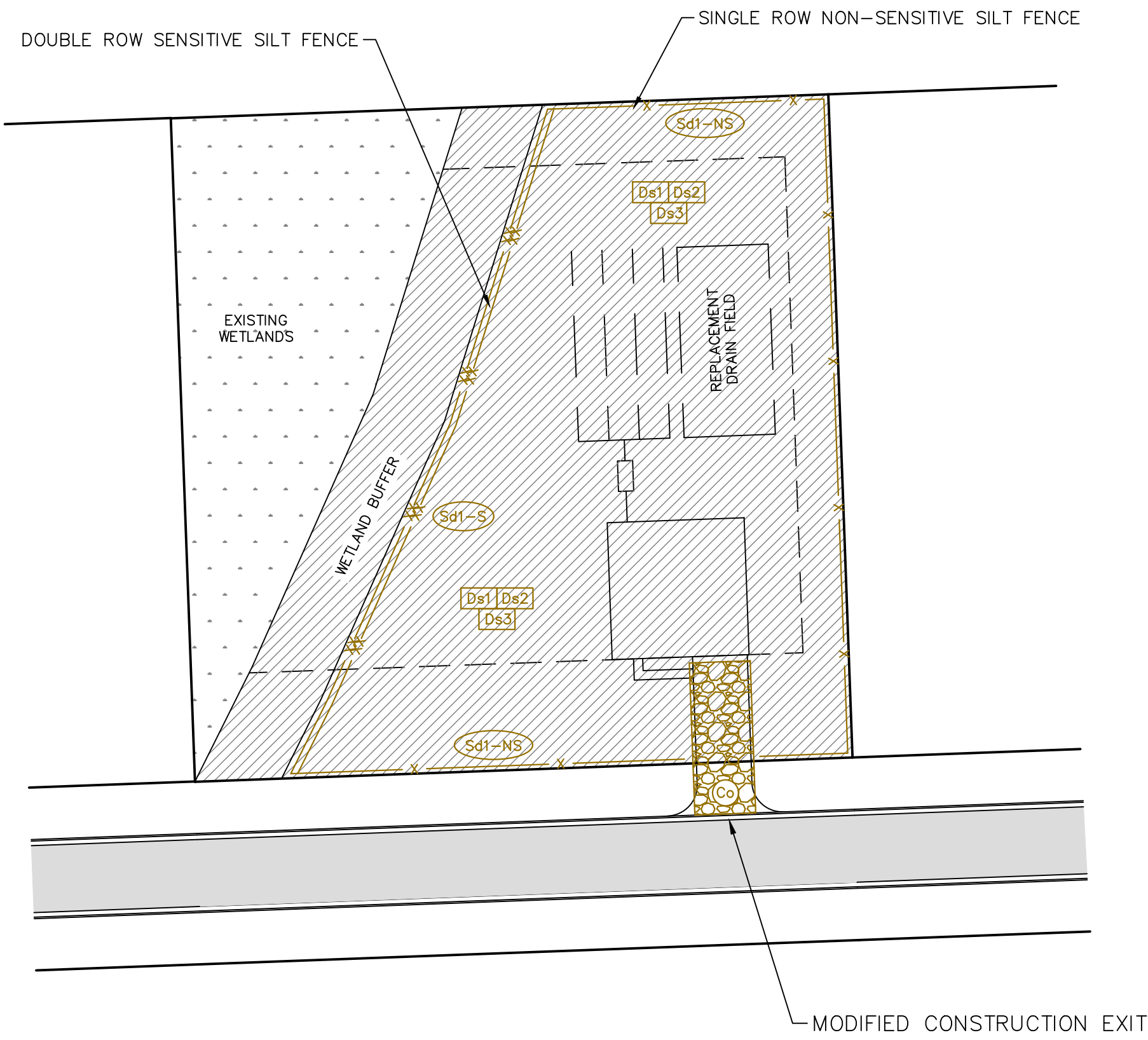
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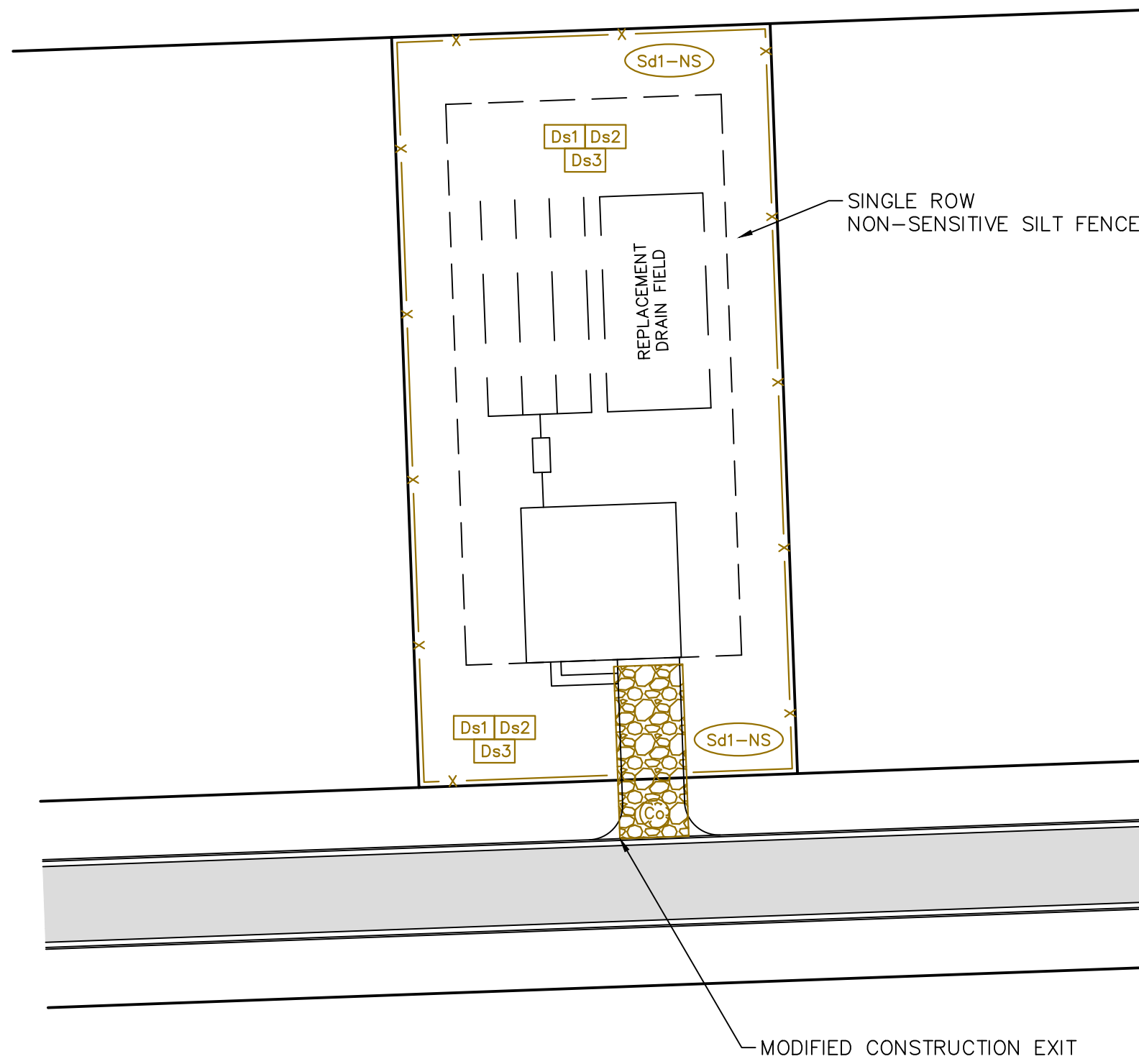
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INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
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TYPICAL EROSION CONTROL PLAN FOR INDIVIDUAL LOTS ADJACENT TO A WETLAND TO BE INSTALLED BY OWNER, BUILDER, OR DEVELOPER OF THE INDIVIDUAL LOT.
NOT TO SCALE



TYPICAL EROSION CONTROL PLAN FOR INDIVIDUAL LOTS TO BE INSTALLED BY OWNER, BUILDER, OR DEVELOPER OF THE INDIVIDUAL LOT.
NOT TO SCALE

CONCRETE WASHOUT AREA

PURPOSE – PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE, OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA TO PREVENT POLLUTANTS FROM ENTERING SURFACE WATERS OR GROUNDWATER.

CONDITIONS OF USE – CONCRETE WASHOUT AREA BEST MANAGEMENT PRACTICES ARE IMPLEMENTED ON CONSTRUCTION PROJECTS WHERE:

- CONCRETE IS USED AS A CONSTRUCTION MATERIAL.
- IT IS NOT POSSIBLE TO DISPOSE OF ALL CONCRETE WASTEWATER AND WASHOUT OFFSITE (READY MIX PLANT, ETC.).
- CONCRETE TRUCKS, PUMPS, OR OTHER CONCRETE COATED EQUIPMENT ARE WASHED ONSITE.

DESIGN AND INSTALLATION SPECIFICATIONS

- IMPLEMENTATION – THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTES:
- PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY.
 - DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
 - DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS.
 - CONCRETE WASHOUT AREAS MAY BE PREFABRICATED CONCRETE WASHOUT CONTAINERS, OR SELF-INSTALLED STRUCTURES (ABOVE-GRADE OR BELOW-GRADE).
 - PREFABRICATED CONTAINERS ARE MOST RESISTANT TO DAMAGE AND PROTECT AGAINST SPILLS AND LEAKS. COMPANIES MAY OFFER DELIVERY SERVICE AND PROVIDE REGULAR MAINTENANCE AND DISPOSAL OF SOLID AND LIQUID WASTE.
 - IF SELF-INSTALLED CONCRETE WASHOUT AREAS ARE USED, BELOW-GRADE STRUCTURES ARE PREFERRED OVER ABOVE-GRADE STRUCTURES BECAUSE THEY ARE LESS PRONE TO SPILLS AND LEAKS.
 - SELF-INSTALLED ABOVE-GRADE STRUCTURES SHOULD ONLY BE USED IF EXCAVATION IS NOT PRACTICAL.

EDUCATION – THE FOLLOWING EDUCATION PRACTICES ARE RECOMMENDED:

- DISCUSS THE CONCRETE MANAGEMENT TECHNIQUES DESCRIBED IN THIS BEST MANAGEMENT PRACTICE WITH THE READY-MIX CONCRETE SUPPLIER BEFORE ANY DELIVERIES ARE MADE.
- EDUCATE EMPLOYEES AND SUBCONTRACTORS ON THE CONCRETE WASTE MANAGEMENT TECHNIQUES DESCRIBED IN THIS SECTION.
- ARRANGE FOR CONTRACTOR'S SUPERINTENDENT OR LEVEL 1A CERTIFIED PERSONNEL TO OVERSEE AND ENFORCE CONCRETE WASTE MANAGEMENT PROCEDURES.
- A SIGN SHOULD BE INSTALLED ADJACENT TO EACH TEMPORARY CONCRETE WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

CONTRACTS – INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO CONCRETE SUPPLIER AND SUBCONTRACTOR AGREEMENTS.

LOCATION AND PLACEMENT – THE FOLLOWING GUIDELINES SHALL BE USED WHEN LOCATING AND PLACING THE CONCRETE WASH-OUT AREA:

- LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES, OR WATER BODIES, INCLUDING WETLANDS.
- ALLOW CONVENIENT ACCESS FOR CONCRETE TRUCKS, PREFERABLY NEAR THE AREA WHERE THE CONCRETE IS BEING POURED.
- IF TRUCKS NEED TO LEAVE A PAVED AREA TO ACCESS WASHOUT, PREVENT TRACK-OUT WITH A CONSTRUCTION EXIT.
- THE NUMBER OF FACILITIES YOU INSTALL SHOULD DEPEND ON THE EXPECTED DEMAND FOR STORAGE CAPACITY.
- ON LARGE SITES WITH EXTENSIVE CONCRETE WORK, WASHOUTS SHOULD BE PLACED IN MULTIPLE LOCATIONS FOR EASE OF USE BY CONCRETE TRUCK DRIVERS.

ONSITE TEMPORARY CONCRETE WASHOUT FACILITY, TRANSIT TRUCK WASHOUT PROCEDURES:

- TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FT. FROM SENSITIVE AREAS INCLUDING STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
- APPROXIMATELY 7 GALLONS OF WASH WATER ARE USED TO WASH ONE TRUCK CHUTE.
- APPROXIMATELY 50 GALLONS ARE USED TO WASH OUT THE HOPPER OF A CONCRETE PUMP TRUCK.
- WASHOUT OF CONCRETE TRUCKS SHALL BE PERFORMED IN DESIGNATED AREAS ONLY.
- CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.
- ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER APPLICABLE SOLID WASTE REGULATIONS. DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.

TEMPORARY ABOVE-GRADE CONCRETE WASHOUT FACILITY

- TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAILS WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
- PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

TEMPORARY BELOW-GRADE CONCRETE WASHOUT FACILITY

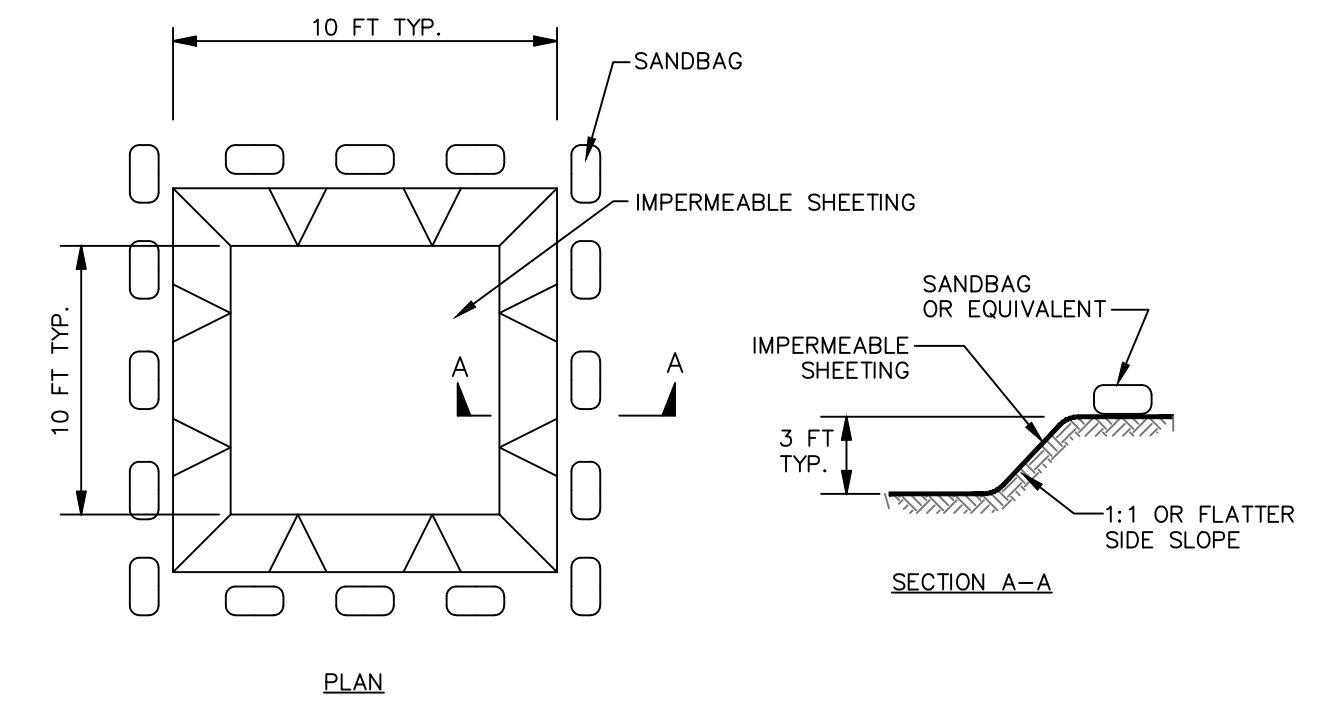
- TEMPORARY CONCRETE WASHOUT FACILITIES (TYPE BELOW GRADE) SHOULD BE CONSTRUCTED WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT. THE QUANTITY AND VOLUME SHOULD BE SUFFICIENT TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
- PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
- LINER SEAMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- SOIL BASE SHALL BE PREPARED FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE PLASTIC LINING MATERIAL.

INSPECTION AND MAINTENANCE

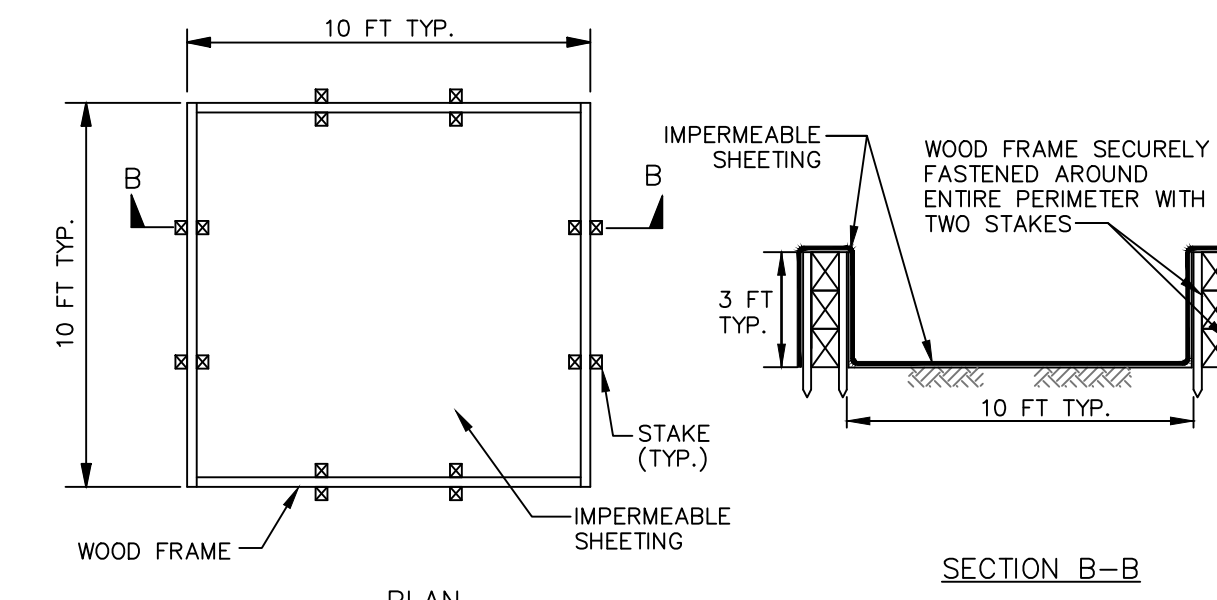
- INSPECT AND VERIFY THAT CONCRETE WASHOUT BMPS ARE IN PLACE PRIOR TO THE COMMENCEMENT OF CONCRETE WORK.
- DURING PERIODS OF CONCRETE WORK, INSPECT DAILY TO VERIFY CONTINUED PERFORMANCE.
- CHECK OVERALL CONDITION AND PERFORMANCE.
- CHECK REMAINING CAPACITY (% FULL).
- IF USING SELF-INSTALLED WASHOUT FACILITIES, VERIFY PLASTIC LINERS ARE INTACT AND SIDEWALLS ARE NOT DAMAGED.
- IF USING PREFABRICATED CONTAINERS, CHECK FOR LEAKS.
- WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.
- WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
- IF THE WASHOUT IS NEARING CAPACITY, VACUUM AND DISPOSE OF THE WASTE MATERIAL IN AN APPROVED MANNER.
- DO NOT DISCHARGE LIQUID OR SLURRY TO WATERWAYS, STORM DRAINS OR DIRECTLY ONTO GROUND.
- DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL.
- PLACE A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER OVER THE CONCRETE WASHOUT FACILITY PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.
- REMOVE AND DISPOSE OF HARDENED CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL CONDITION. CONCRETE MAY BE REUSED ONSITE OR HAULED AWAY FOR DISPOSAL OR RECYCLING.
- WHEN YOU REMOVE MATERIALS FROM THE SELF-INSTALLED CONCRETE WASHOUT, BUILD A NEW STRUCTURE, OR, IF THE PREVIOUS STRUCTURE IS STILL INTACT, INSPECT FOR SIGNS OF WEAKENING OR DAMAGE, AND MAKE ANY NECESSARY REPAIRS. RE-LINE THE STRUCTURE WITH NEW PLASTIC AFTER EACH CLEANING.

REMOVAL OF TEMPORARY CONCRETE WASHOUT FACILITIES

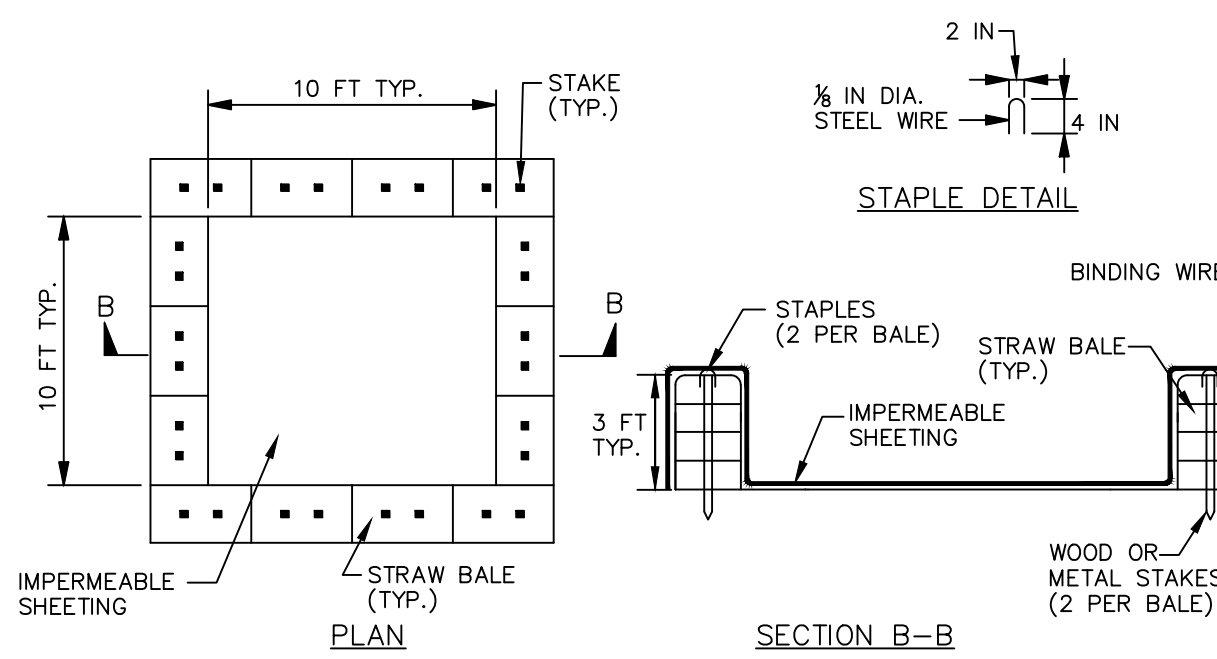
- WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
- HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.



EXCAVATED WASHOUT STRUCTURE



WASHOUT STRUCTURE WITH WOOD PLANKS

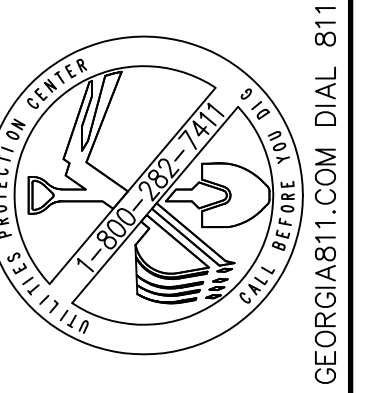


WASHOUT STRUCTURE WITH STRAW BALES

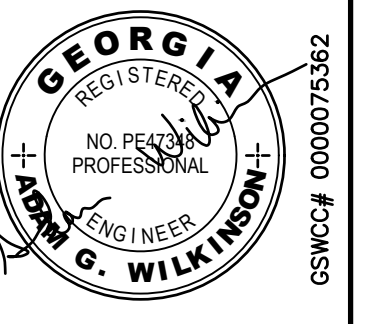
CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

NOTE: WASHOUT OF THE CONCRETE TRUCK DRUM AT THE CONSTRUCTION SITE IS PROHIBITED



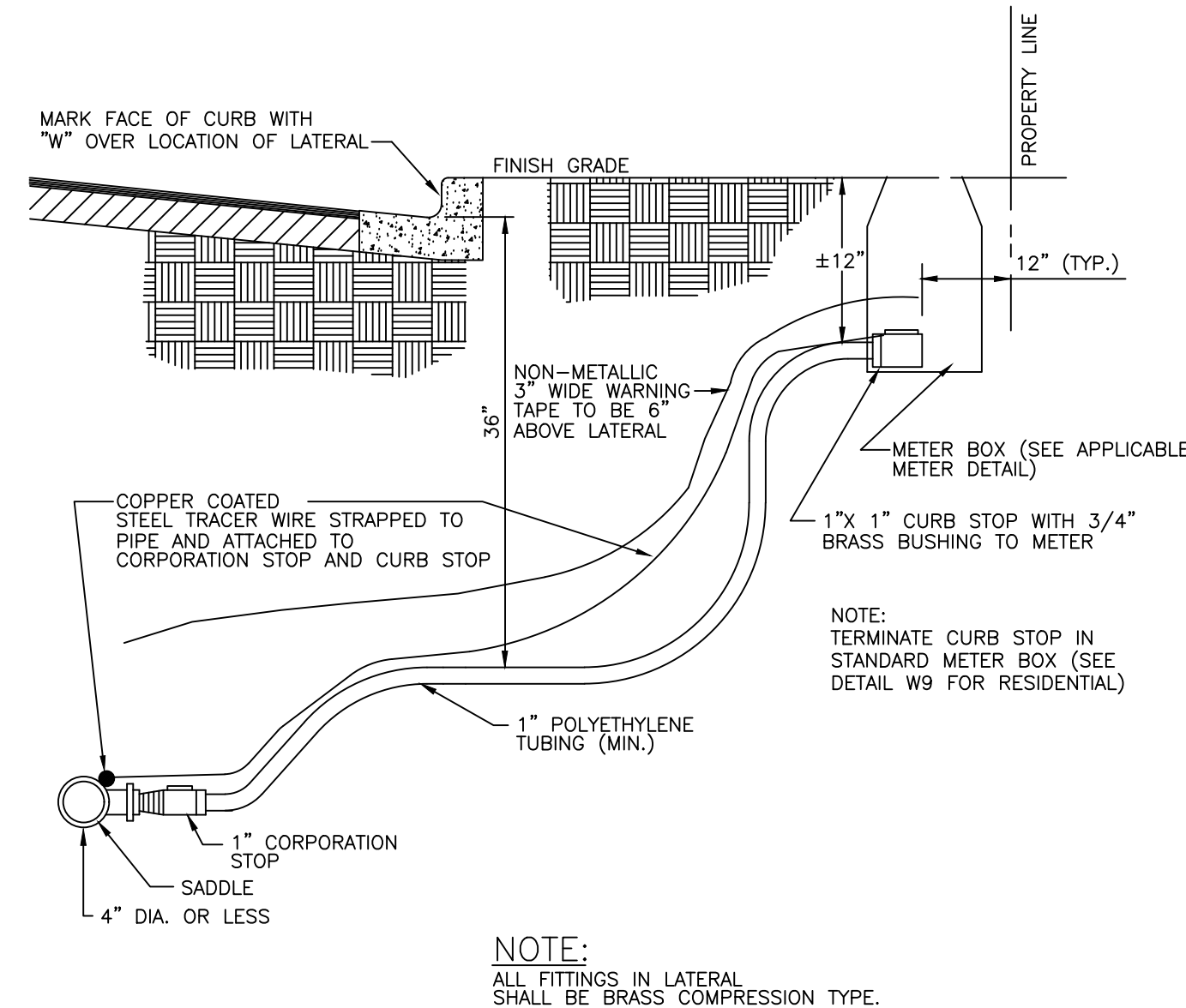
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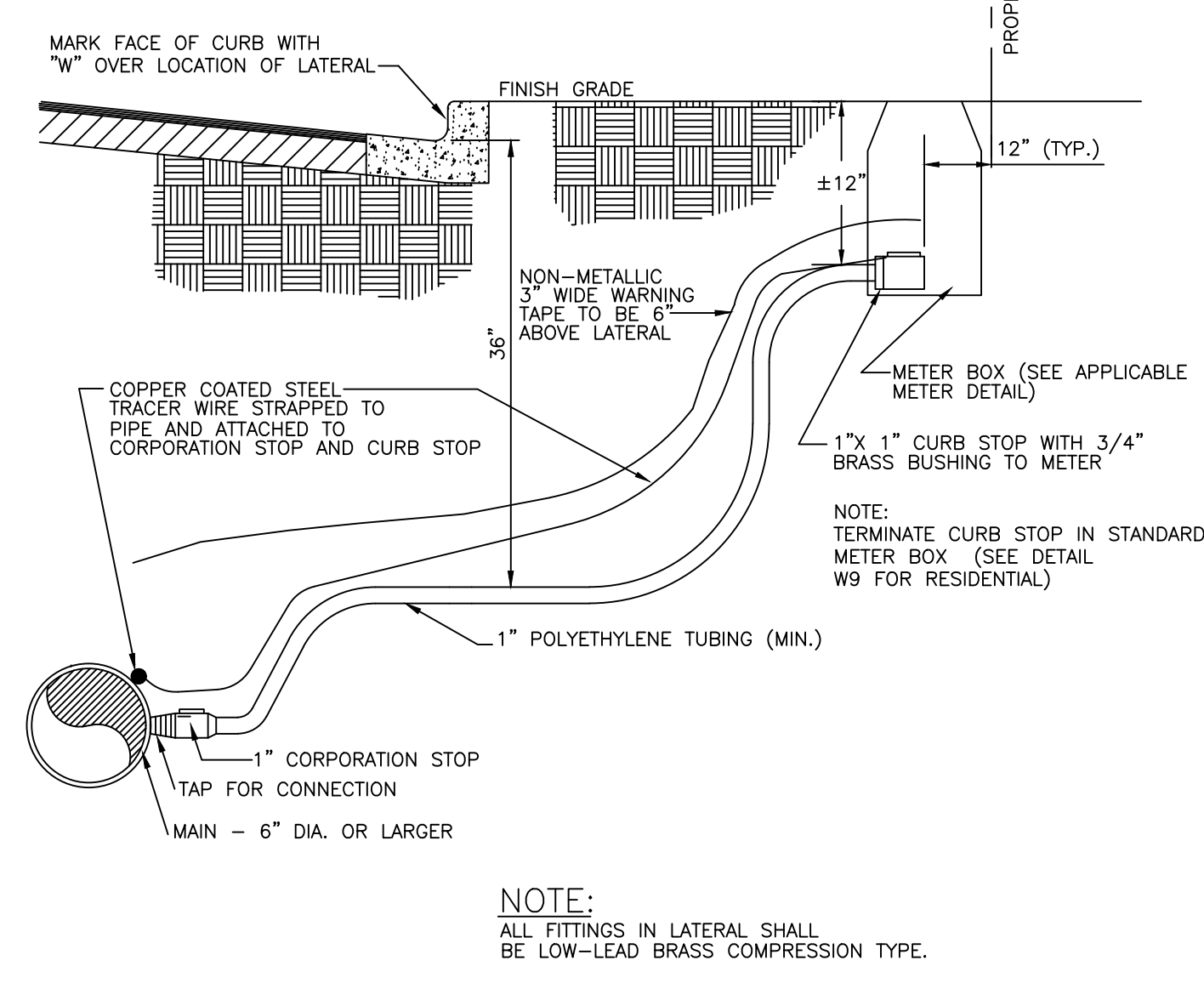
GOOSE CREEK LLC
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 368-5180
REGISTERED PROFESSIONAL ENGINEER
K. C. BROTHERS
GWSVCC # 000075362

Ardsley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 047A.02 HINESVILLE, GEORGIA

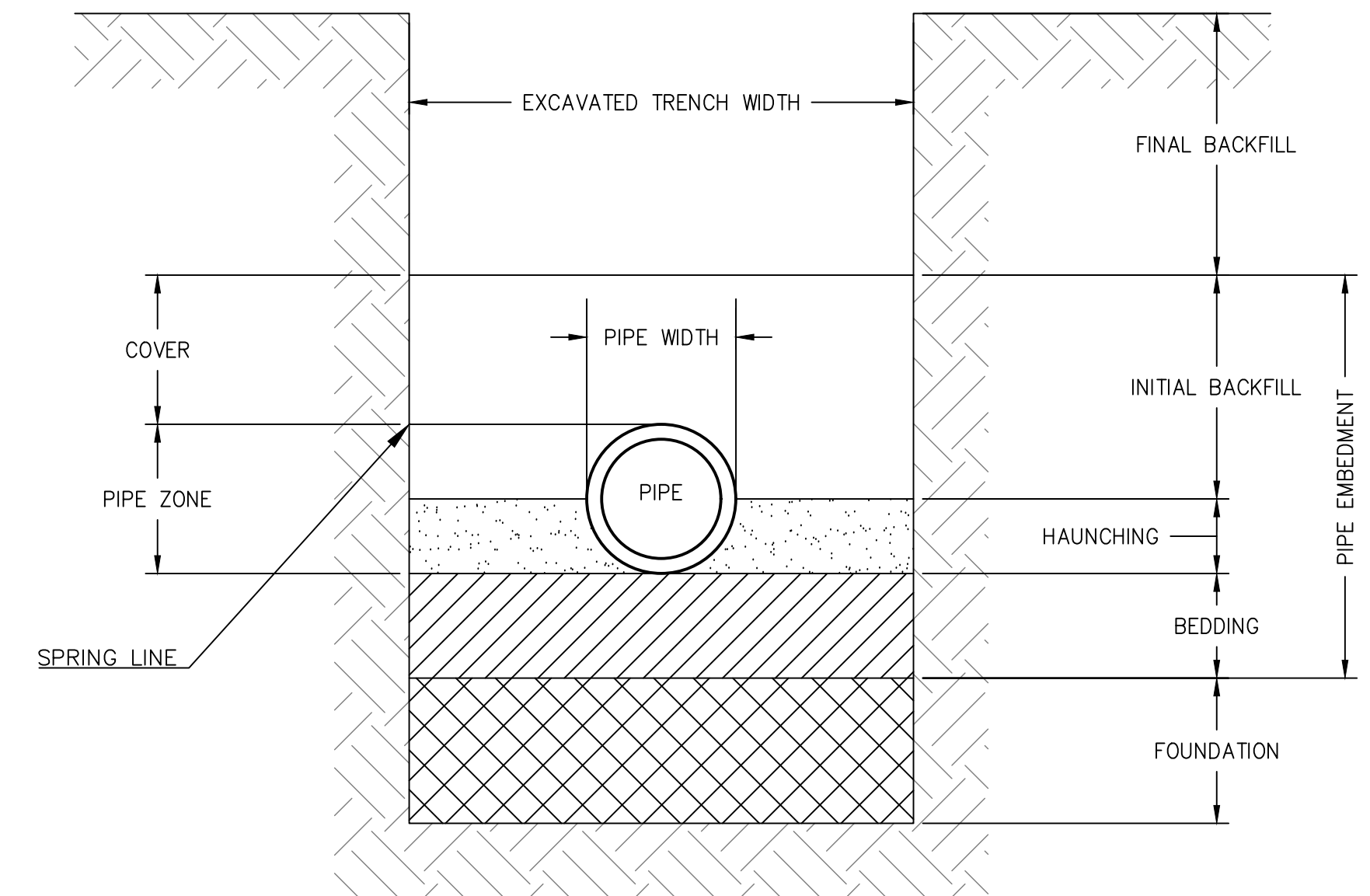
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WATER SERVICE LATERAL (4" OR LESS MAIN)
N.T.S.



WATER SERVICE LATERAL (6" OR LARGER MAIN)
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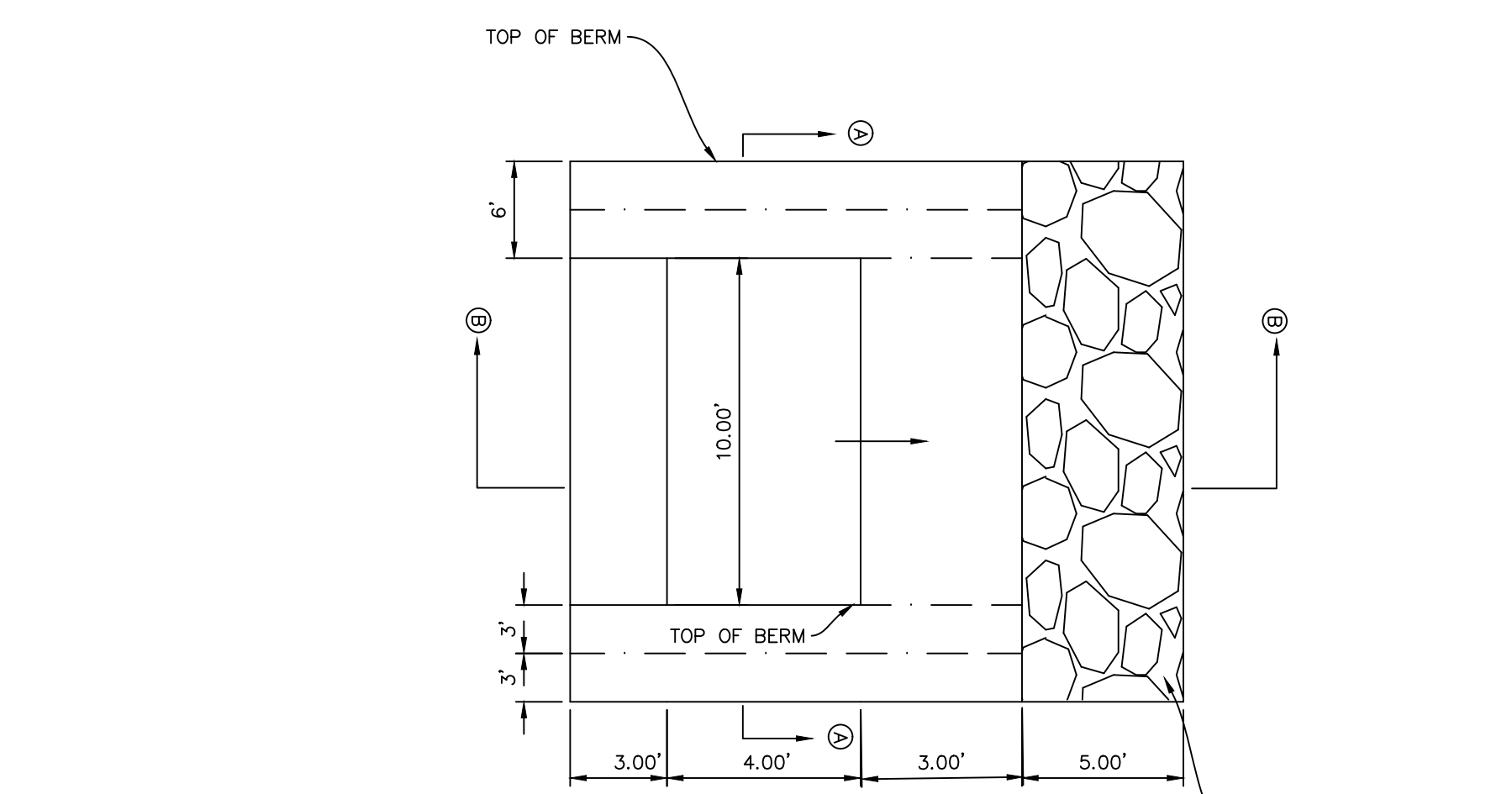


NOTE: PIPE BEDDING
A. THE CONTACT BETWEEN A PIPE AND THE FOUNDATION ON WHICH IT RESTS IS THE PIPE BEDDING.
B. CLASSES OF BEDDING: FOUR TYPICAL CLASSES OF BEDDING TO BE USED FOR PIPES IN TRENCHES ARE DESCRIBED AS FOLLOWS:
1. CLASS A - CONCRETE CRADLE OR CONCRETE ARCH BEDDING: THIS CLASS OF BEDDING MAY TAKE EITHER OF TWO FORMS.
a. CONCRETE CRADLE - THE PIPE SHALL BE BEDDED IN A MONOLITHIC CRADLE OF PLAIN OR REINFORCED CONCRETE HAVING A MINIMUM THICKNESS OF 1/4 THE INSIDE PIPE DIAMETER OF A MINIMUM OF 4 INCHES UNDER THE BARREL AND EXTENDING UP THE SIDES FOR A HEIGHT EQUAL TO 1/4 THE OUTSIDE DIAMETER. THE CRADLE SHALL HAVE WIDTH AT LEAST EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BARREL PLUS 8 INCHES. BACKFILL ABOVE THE CRADLE AND EXTENDING TO 12 INCHES ABOVE THE CROWN OF THE PIPE SHALL BE COMPACTED CAREFULLY.
b. CONCRETE ARCH - THE PIPE SHALL BE EMBEDDED IN A CAREFULLY COMPACTED GRANULAR MATERIAL HAVING A MINIMUM THICKNESS OF 1/4 THE OUTSIDE DIAMETER BETWEEN BARREL AND BOTTOM OF TRENCH EXCAVATION AND EXTENDING HALFWAY UP THE SIDES OF THE PIPE. THE TOP HALF OF THE PIPE SHALL BE COVERED WITH MONOLITHIC PLAIN OR REINFORCED CONCRETE ARCH HAVING A MINIMUM THICKNESS OF 1/4 THE INSIDE DIAMETER AT THE CROWN AND HAVING A MINIMUM WIDTH EQUAL TO THE OUTSIDE PIPE DIAMETER PLUS 8 INCHES.
2. CLASS B - FIRST CLASS BEDDING - CLASS B BEDDING MAY BE ACHIEVED BY EITHER OF TWO CONSTRUCTION METHODS.
a. SHAPED BOTTOM WITH TAMPED BACKFILL - THE BOTTOM OF THE TRENCH EXCAVATION SHALL BE SHAPED TO CONFORM TO A CYLINDRICAL SURFACE WITH A RADIUS AT LEAST 2 INCHES GREATER THAN THE RADIUS TO THE OUTSIDE OF THE PIPE AND WITH A WIDTH SUFFICIENT TO ALLOW 6/10 OF THE WIDTH OF THE PIPE BARREL TO BE BEDDED IN FINE GRANULAR FILL PLACED IN THE SHAPED EXCAVATION. CAREFULLY COMPACTED BACKFILL SHALL BE PLACED AT THE SIDES OF THE PIPE. SHAPED TRENCH BOTTOMS SHALL BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
b. COMPACTED GRANULAR BEDDING WITH TAMPED BACKFILL - THE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL PLACED ON A FLAT TRENCH BOTTOM. THE GRANULAR BEDDING SHALL HAVE A MINIMUM THICKNESS OF 1/4 THE OUTSIDE PIPE DIAMETER AND SHALL EXTEND HALFWAY UP THE PIPE BARREL AT THE SIDES. THE REMAINDER OF THE SIDE FILLS AND MINIMUM DEPTH OF 12 INCHES OVER THE TOP OF THE PIPE SHALL BE FILLED WITH CAREFULLY COMPACTED, SELECT MATERIAL.
3. CLASS C - ORDINARY BEDDING: CLASS C ORDINARY BEDDING MAY BE ACHIEVED BY EITHER OF TWO CONSTRUCTION METHODS:
a. SHAPED BOTTOM - THE PIPE SHALL BE BEDDED WITH "ORDINARY" CARE IN AN EARTH FOUNDATION FORMED IN THE TRENCH BOTTOM BY A SHAPED EXCAVATION WHICH WILL FIT THE PIPE BARREL WITH REASONABLE CLOSENESS FOR A WIDTH OF AT LEAST 50% OF THE OUTSIDE PIPE DIAMETER. THE SIDE FILLS AND AREA OVER THE PIPE TO A MINIMUM DEPTH OF 6 INCHES ABOVE THE TOP OF THE PIPE SHALL BE FILLED WITH LIGHTLY COMPACTED FILL. THE SHAPED BOTTOM BEDDING SHALL BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
b. COMPACTED GRANULAR BEDDING WITH A TAMPED BACKFILL - THE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL PLACED ON A FLAT TRENCH BOTTOM. THE GRANULAR BEDDING SHALL HAVE A MINIMUM THICKNESS OF 4 INCHES UNDER THE BARREL AND SHALL EXTEND 1/10 TO 1/8 OF THE OUTSIDE DIAMETER UP THE PIPE BARREL AT THE SIDES. THE REMAINDER OF THE SIDE FILLS AND TO A MINIMUM DEPTH OF 6 INCHES OVER THE TOP OF THE PIPE SHALL BE FILLED WITH LIGHTLY COMPACTED BACKFILL.
4. CLASS D - CLASS D BEDDING IS NOT PERMISSIBLE. FLAT BOTTOM TRENCH. IN THIS CLASS OF BEDDING THE BOTTOM IS LEFT FLAT, AND NO CARE IS TAKEN TO SECURE COMPACTION OF BACKFILL AT THE SIDES IMMEDIATELY OVER THE PIPE.
C. GRANULAR PIPE BEDDING MATERIAL SHALL BE WELL GRADED CRUSHED STONE OR CRUSHED GRAVEL MEETING THE REQUIREMENTS OF ASTM C33, GRADATION 67 (3/4 INCH TO NO. 4). A WELL-GRADED GRAVEL MEETING THESE SAME REQUIREMENTS CAN ALSO BE USED.
D. WHERE LEDGE ROCK, COMPACT ROCKY OR GRAVELLY SOIL, OR OTHER UNYIELDING FOUNDATION MATERIAL IS ENCOUNTERED, THE PIPES SHALL BE BEDDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOREGOING CLASSES OF BEDDING, BUT WITH THE FOLLOWING ADDITIONS: THE HARD UNYIELDING MATERIAL SHALL BE EXCAVATED TO THE ELEVATION OF THE BOTTOM OF THE CONCRETE CRADLE (CLASS A BEDDING) OR BELOW THE BOTTOM OF THE PIPE AND THE PIPE BELL (CLASS B OR C BEDDING), TO DEPTH OF AT LEAST 6 INCHES (15CM). THE WIDTH OF THE EXCAVATION SHALL BE AT LEAST 5/4 THE OUTSIDE DIAMETER OF THE PIPE AND IT SHALL BE REFILLED WITH GRANULAR MATERIAL AS IDENTIFIED ABOVE.

NOTE: BACKFILL
A. THE SOIL AT THE SIDES OF A PIPE AND ABOVE IT IS THE BACKFILL.
B. PRIOR TO BACKFILLING ANY EXCAVATION, ALL PIPING AND STRUCTURES, THE ENGINEER AND GOVERNING AUTHORITY'S INSPECTOR SHALL BE NOTIFIED FOR OBSERVATION.
C. AFTER PIPES HAVE BEEN TESTED AND APPROVED, BACKFILLING SHALL BE DONE WITH APPROVED MATERIAL FREE FROM LARGE CLODS OR STONES.
D. BACKFILL SHALL BE PLACED IN UNIFORM LAYERS, FOUR INCHES THICK, ON BOTH SIDES OF THE PIPE AND THOROUGHLY COMPACTED WITH PNEUMATIC OR HAND TAMPERS. THE BACKFILL SHALL BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF THE PIPE AND COMPACTED TO AN ELEVATION OF ONE FOOT ABOVE THE TOP OF THE PIPE, AFTER WHICH THE FILL SHALL BE PLACED IN EIGHT INCH LIFTS. NO ROCK WILL BE ALLOWED IN THE BACKFILL WITHIN A DISTANCE OF ONE FOOT FROM THE PIPE, AND ROCK LARGER THAN SIX INCHES IN THE GREATEST DIMENSION WILL NOT BE PERMITTED IN ANY PART OF THE TRENCH OR BACKFILL.

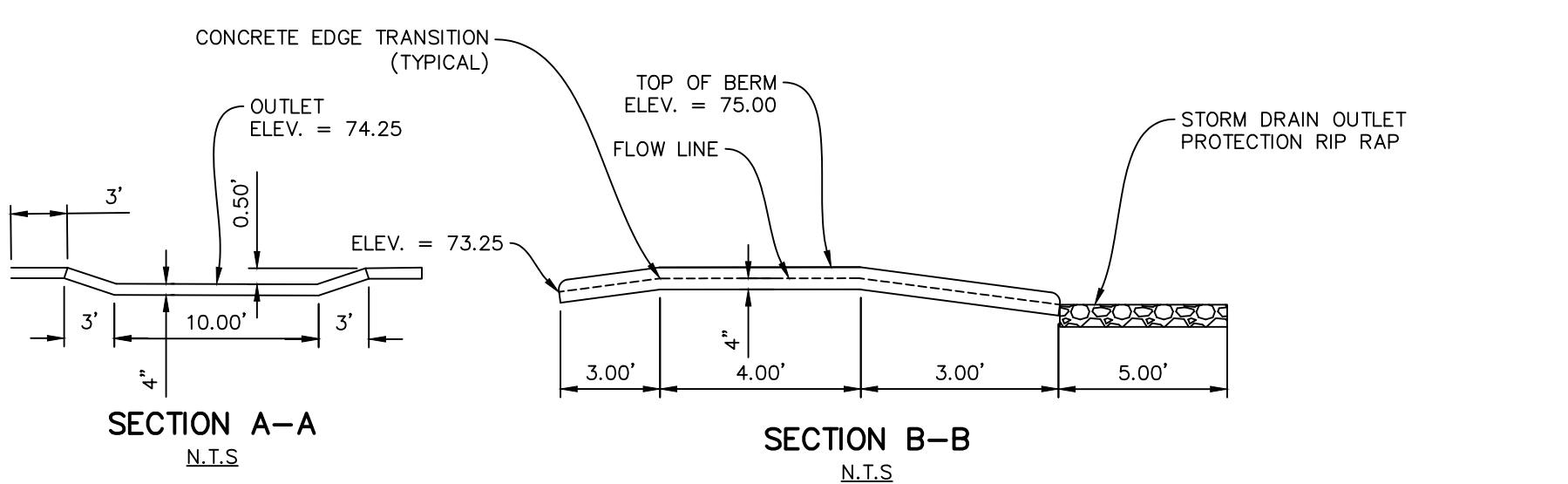
NOTE: WATER MAIN 36" BURY MINIMUM.

PIPE BEDDING
N.T.S.

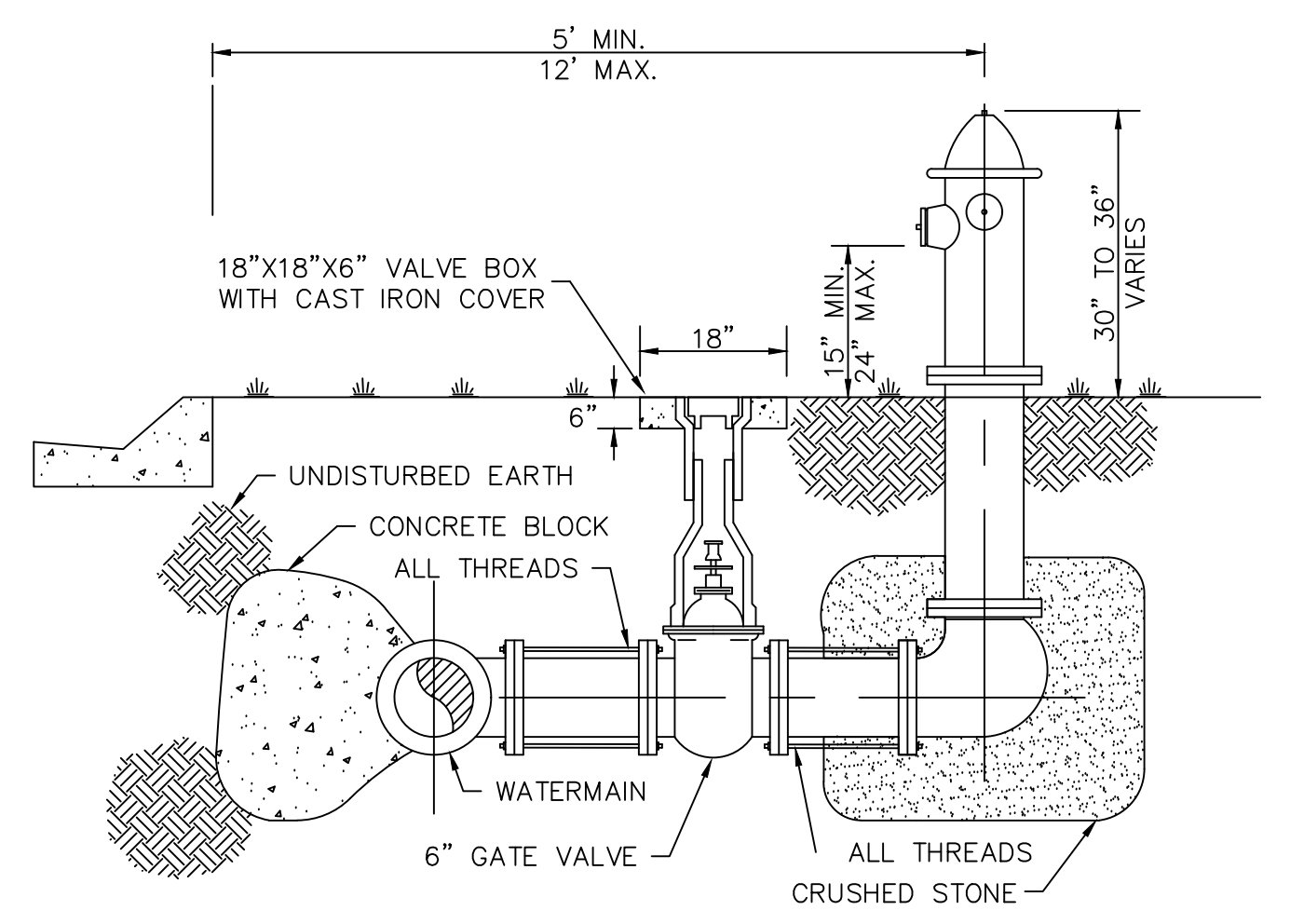


NOTES:
1. EMERGENCY OVERFLOW TO BE CONSTRUCTED OF 3,000 PSI FIBER MESH CONCRETE
2. CONSTRUCTION JOINTS TO BE INSTALLED BETWEEN TRANSITIONS
3. INSPECTION OF FORMING BOARDS TO BE PERFORMED PRIOR TO PLACING OF CONCRETE.

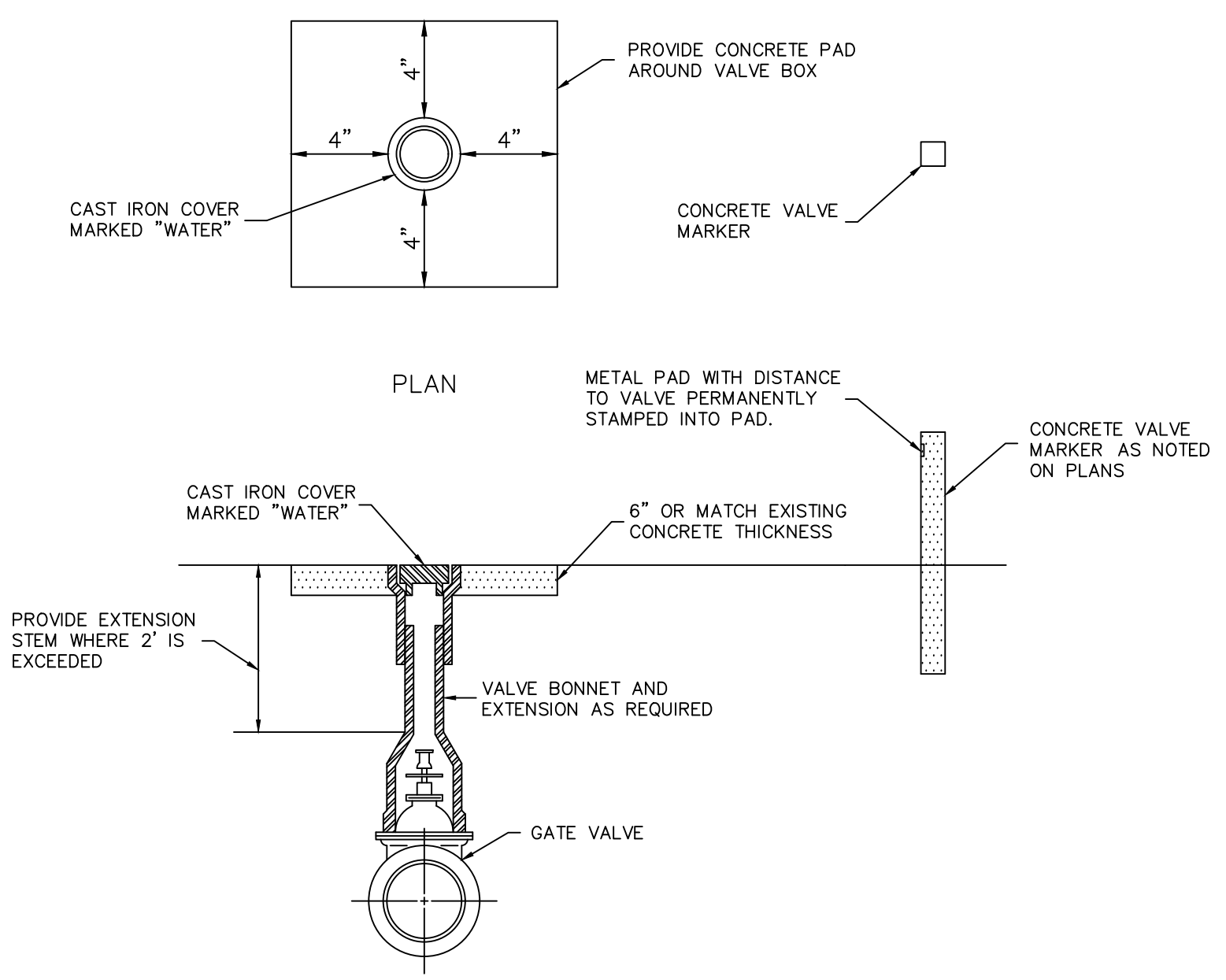
PLAN VIEW
N.T.S.



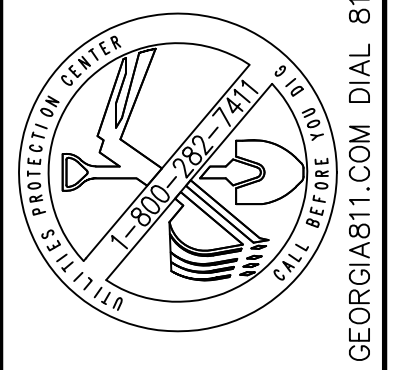
EMERGENCY OVERFLOW #1 AND #2
SCALE: N.T.S.



FIRE HYDRANT DETAIL
N.T.S.



VALVE BOX DETAIL
N.T.S.



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THE CONTRACTOR SHOULD VERIFY ALL EXISTING CONDITIONS AND CONDITIONS ILLUSTRATED ON THE PLANS AND WILL REPORT ANY DISCREPANCIES TO GOOSE CREEK, LLC.



GOOSE CREEK LLC
REGISTERED PROFESSIONAL ENGINEER
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 368-5180
GSCCC 000075382

Ardsley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 047A.02 HINESVILLE, GEORGIA

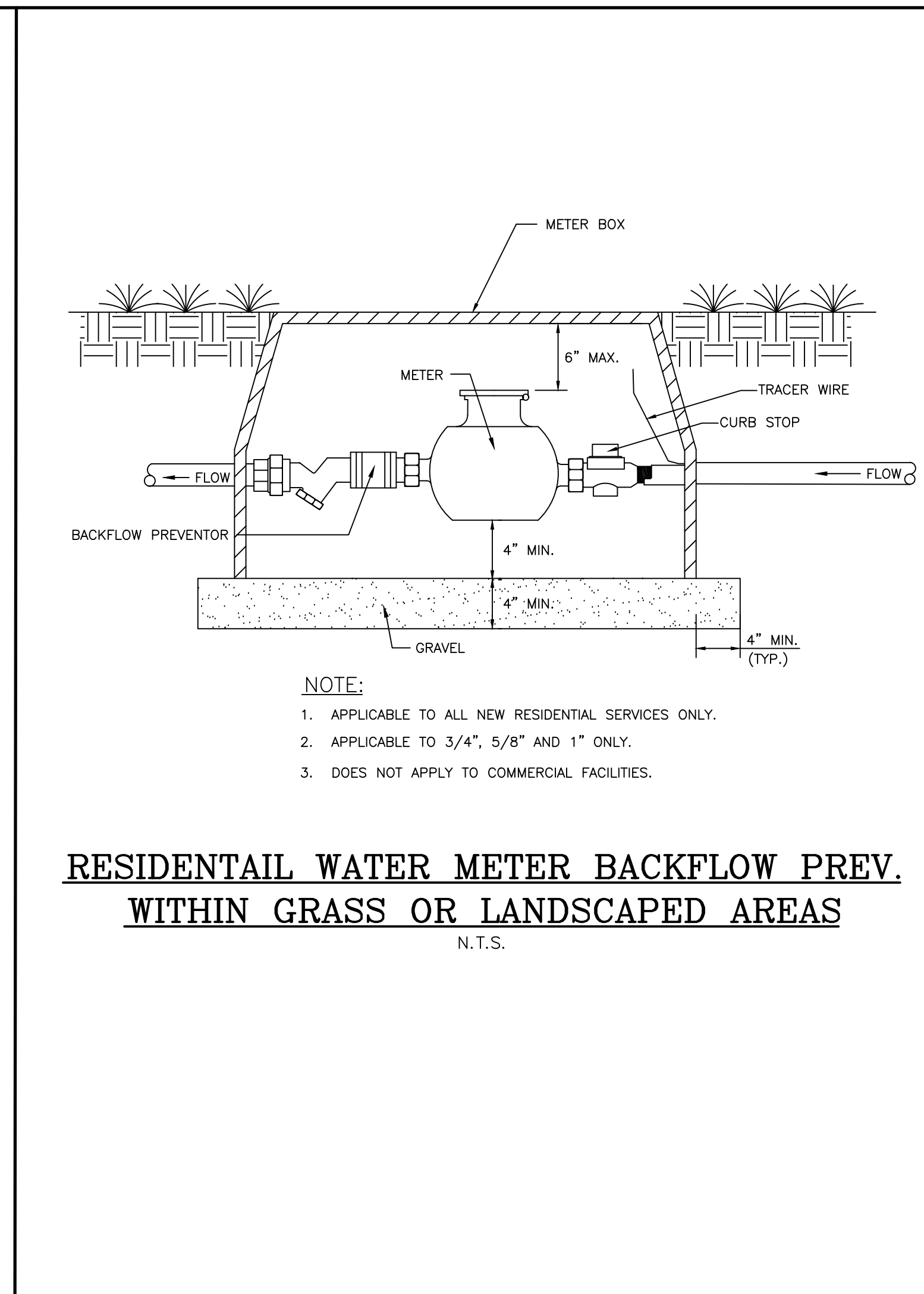
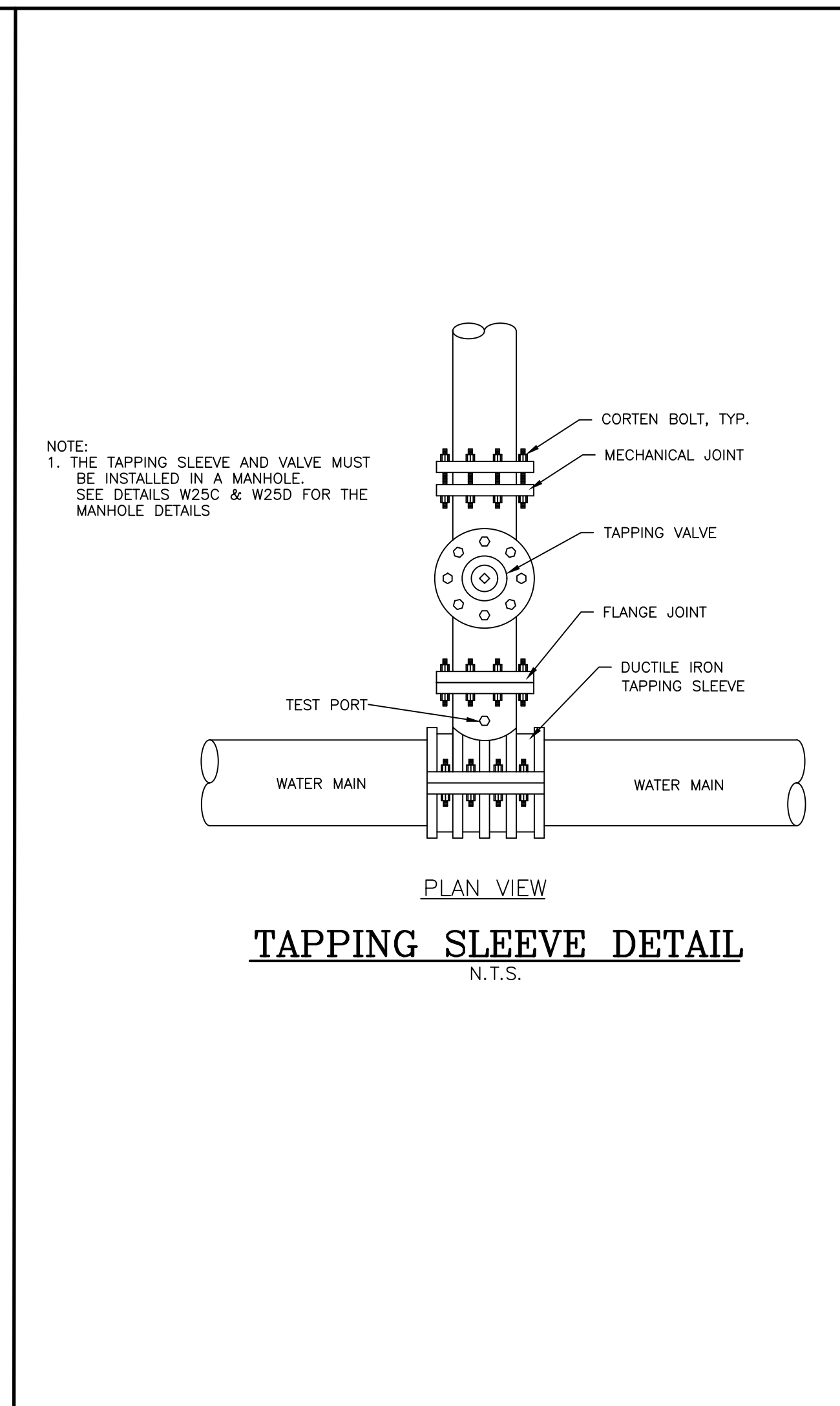
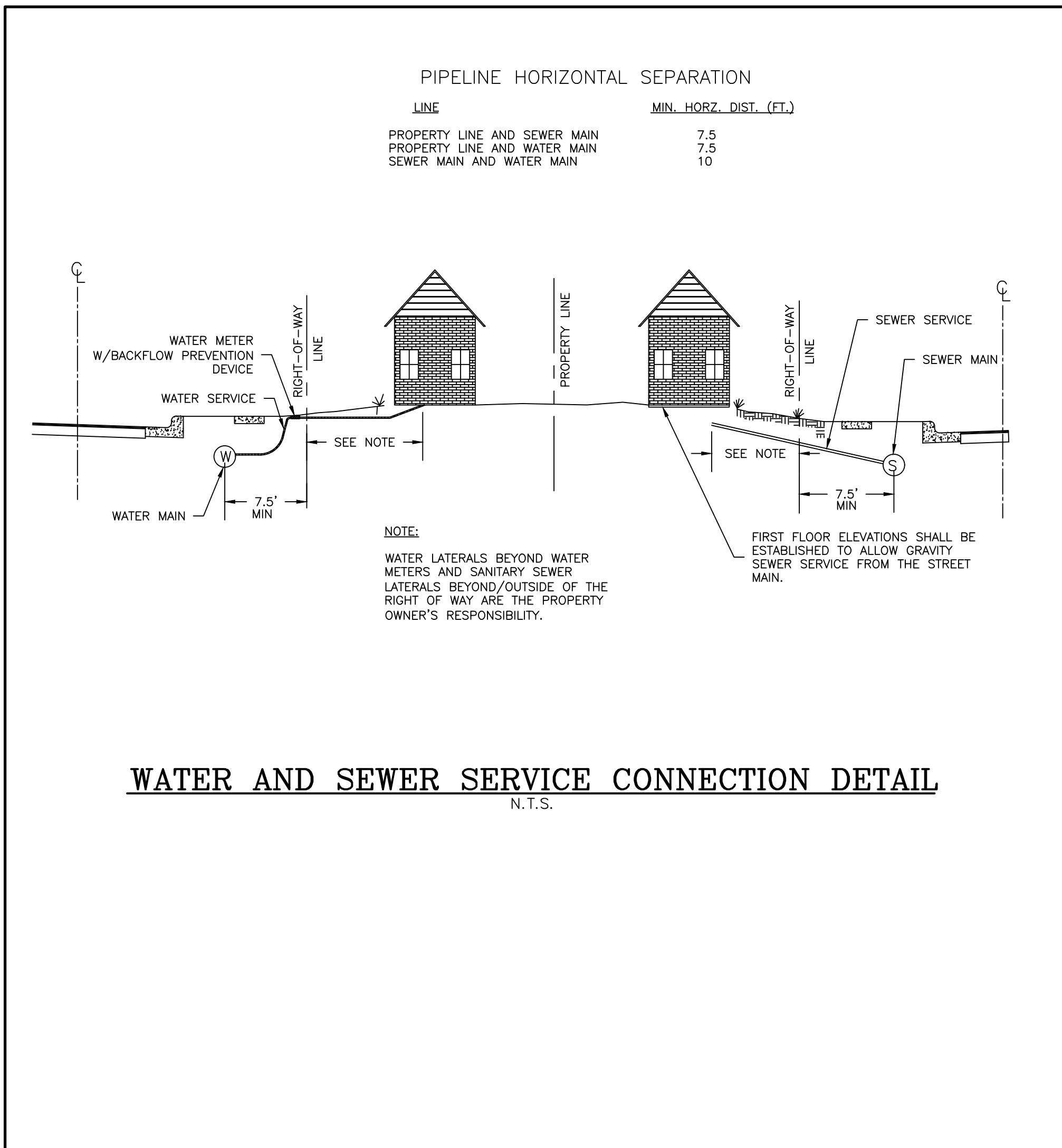
SHEET NAME:
SITE DETAILS

REVISIONS:

1.
2.
3.
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10.

INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
C 8.4



PVC LINE		POLYETHYLENE WRAPPED DUCTILE IRON LINE	
REDUCER	L	REDUCER	L
6X4	29	6X4	43
8X4	52	8X4	77
8X6	31	8X6	45
10X4	71	10X4	104
10X6	53	10X6	79
10X8	29	10X8	43
12X4	89	12X4	131
12X6	74	12X6	110
12X8	54	12X8	80
12X10	30	12X10	45
16X8	111	16X8	163
16X8	96	16X8	141
16X10	78	16X10	115
16X12	56	16X12	82
20X10	117	20X10	172
20X12	100	20X12	147
20X16	56	20X16	82
24X12	137	24X12	201
24X16	101	24X16	149
24X20	56	24X20	82

PVC DESIGN:
SOIL TYPE: SM
TRENCH TYPE: 3
COVER: 3' <12" DIA.
4' >12" DIA.
TEST PRESSURE: 150 PSI

PE WRAPPED DIP:
SOIL TYPE: SM
TRENCH TYPE: 3
COVER: 3'
TEST PRESSURE: 150 PSI

NOTES:
U = MINIMUM UNINTERRUPTED STRAIGHT RUN OF PIPE ON SMALL SIDE OF REDUCER.
L = MINIMUM RESTRAINED LENGTH.
* WHERE MINIMUM "L" IS NOT MET, PIPE ON LARGE SIDE OF REDUCER SHALL BE RESTRAINED FOR A MINIMUM OF "L" FEET.

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

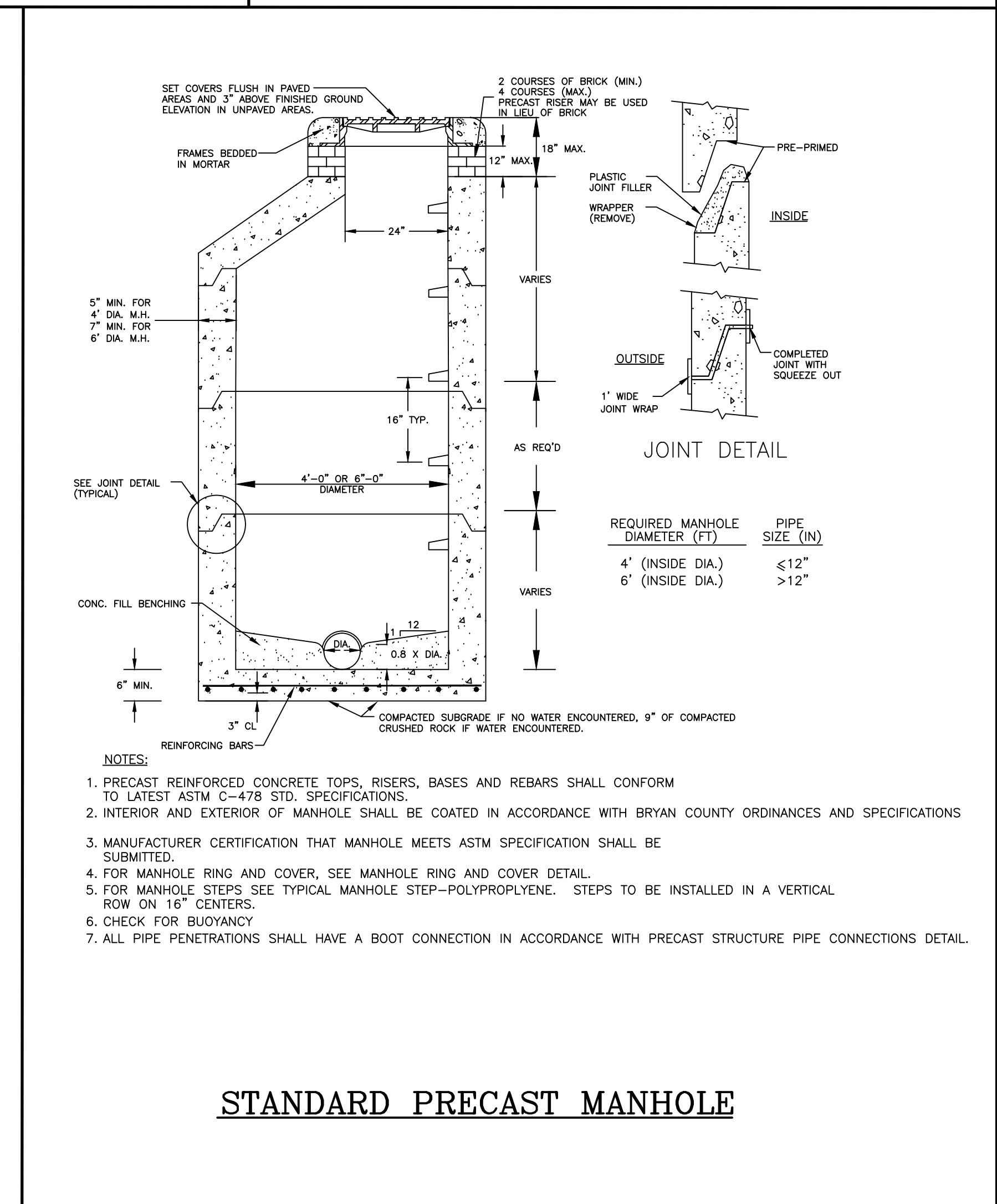
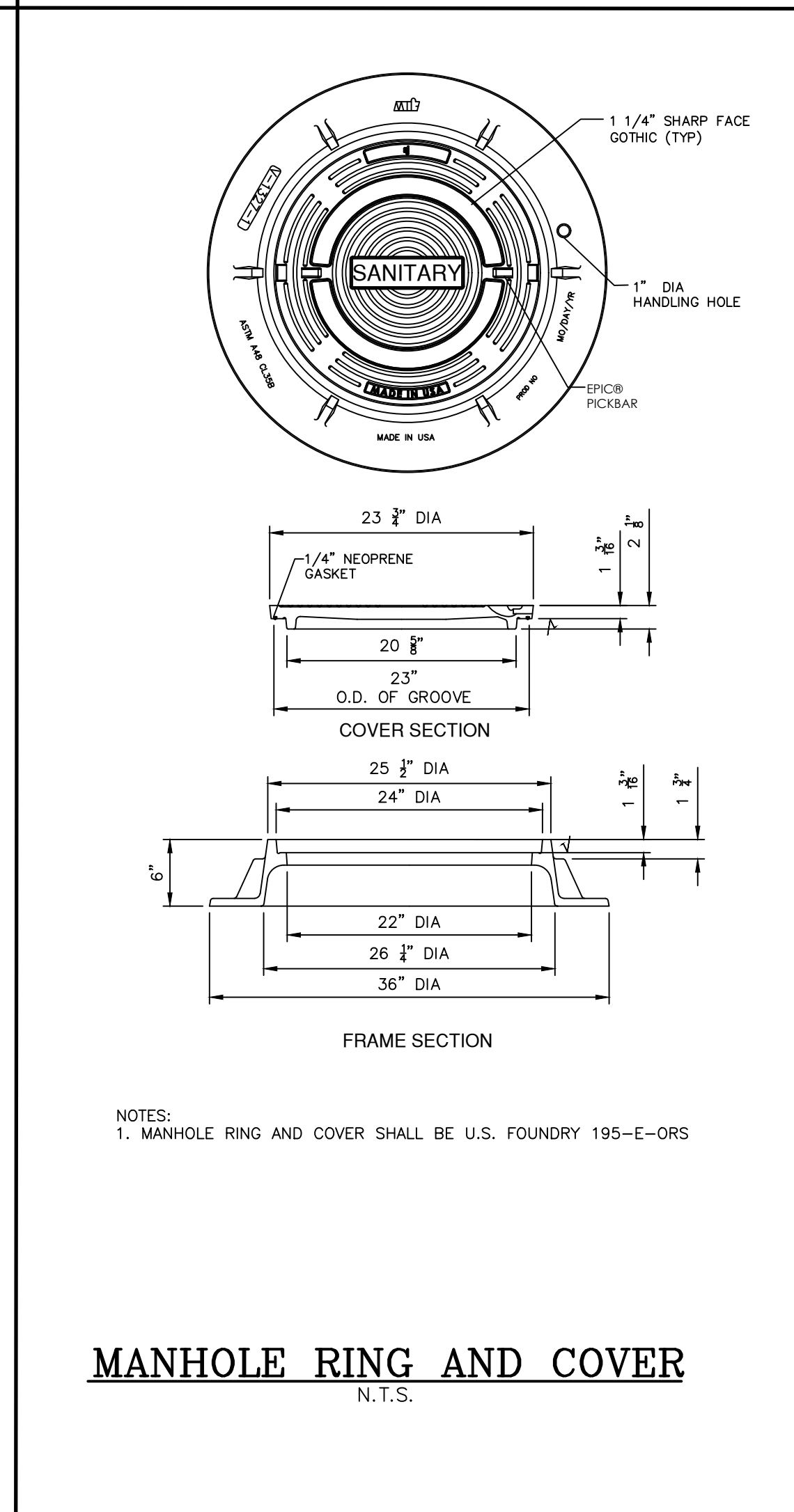
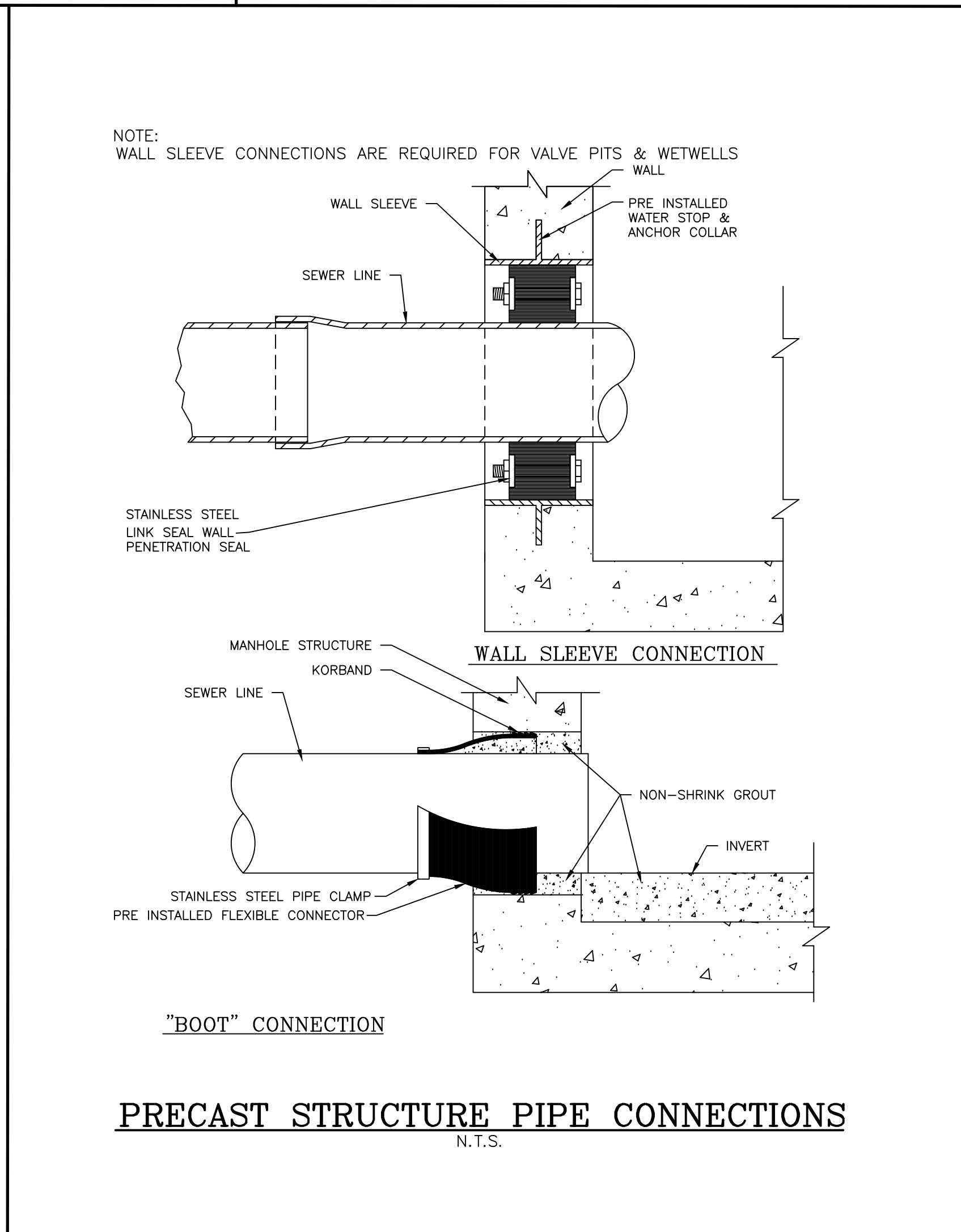
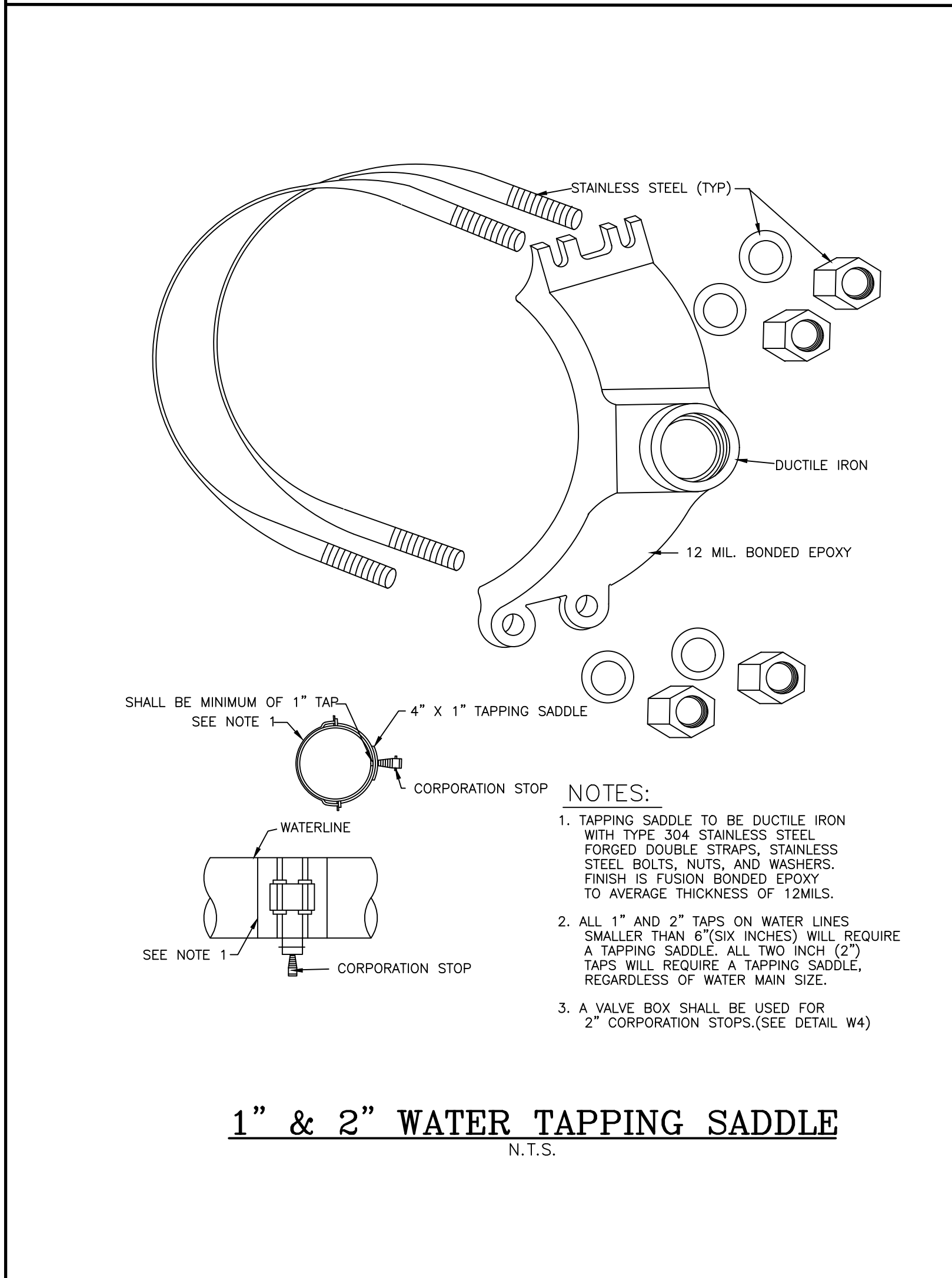
REDUCER RESTRAINT

N.T.S.

GEORGIA REGISTERED PROFESSIONAL ENGINEER
G. WILKINSON
NO. PE00000000
GWSVCC# 0000075362

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THE CONTRACTOR SHOULD VERIFY ALL LOCATIONS, GRADES, AND DIMENSIONS ILLUSTRATED ON THE PLANS AND WILL REPORT ANY DISCREPANCIES TO GOOSE CREEK, LLC.

GOOSE CREEK LLC
1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 368-5180



Ardsley Park South
Development Plans for
K. C. Brothers

TAX PARCEL NUMBER: 007A.002 HINESVILLE, GEORGIA

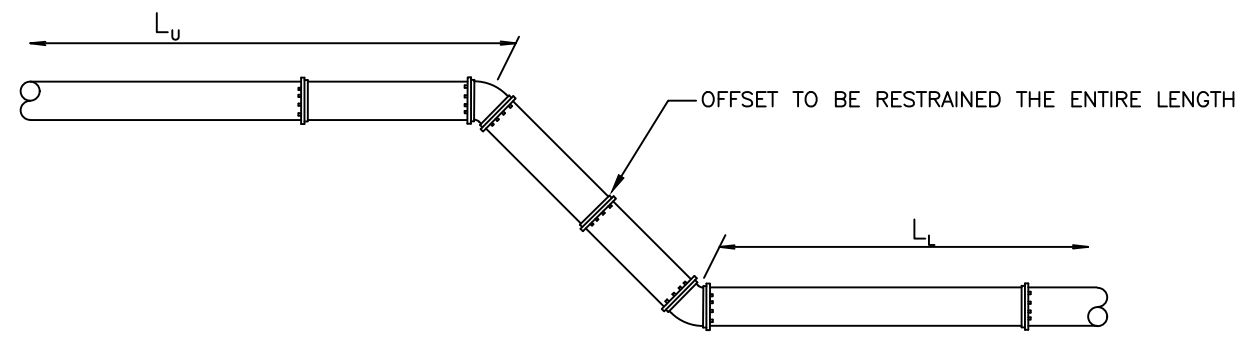
SHEET NAME:
SITE DETAILS

REVISIONS:

1.	
2.	
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6.	
7.	
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9.	
10.	

INITIAL DATE: 10/25/2022
DRAWN BY: AGW
CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
C 8.5



PIPE DIA.	BEND ANGLE					
	11 1/4"		22 1/2"		45°	
	L ₁	L ₂	L ₁	L ₂	L ₁	L ₂
4	4	1	8	1	17	3
6	6	1	11	2	23	3
8	8	1	15	2	30	4
10	9	2	18	3	36	5
12	11	2	21	3	43	6
16	10	2	21	4	42	8
20	13	3	25	5	51	9
24	15	3	29	5	60	11

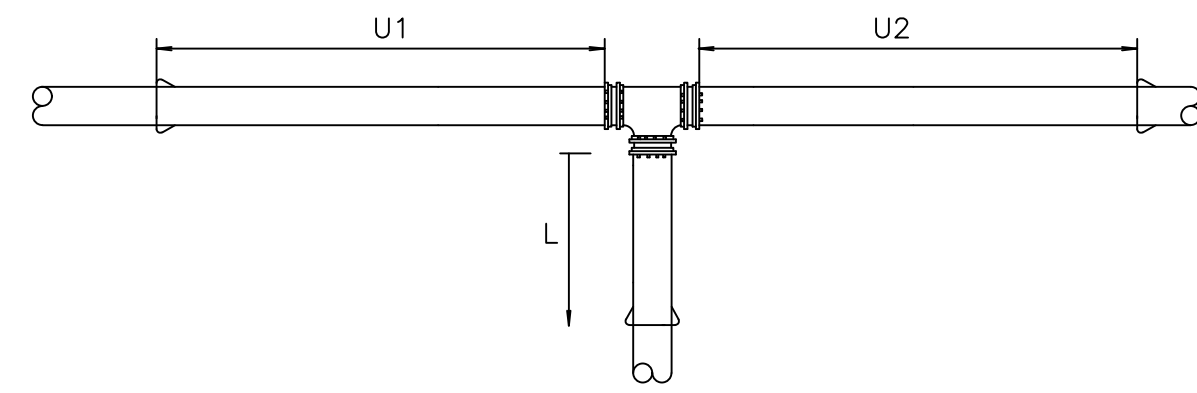
PVC DESIGN:
SOIL TYPE: SM
TRENCH TYPE: 5
COVER: 3' <12" DIA.
4' >12" DIA.
TEST PRESSURE: 150 PSI

PIPE DIA.	BEND ANGLE					
	11 1/4"		22 1/2"		45°	
	L ₁	L ₂	L ₁	L ₂	L ₁	L ₂
4	6	1	12	2	24	3
6	9	1	17	2	34	4
8	11	2	22	3	45	5
10	13	2	26	3	53	6
12	15	2	30	3	63	7
16	19	2	39	4	80	9
20	23	3	47	5	97	10
24	27	3	55	6	113	12

PE WRAPPED DIP:
SOIL TYPE: SM
TRENCH TYPE: 5
COVER: 3'
TEST PRESSURE: 150 PSI

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

FORCE MAIN VERTICAL BEND RESTRAINT
N.T.S.



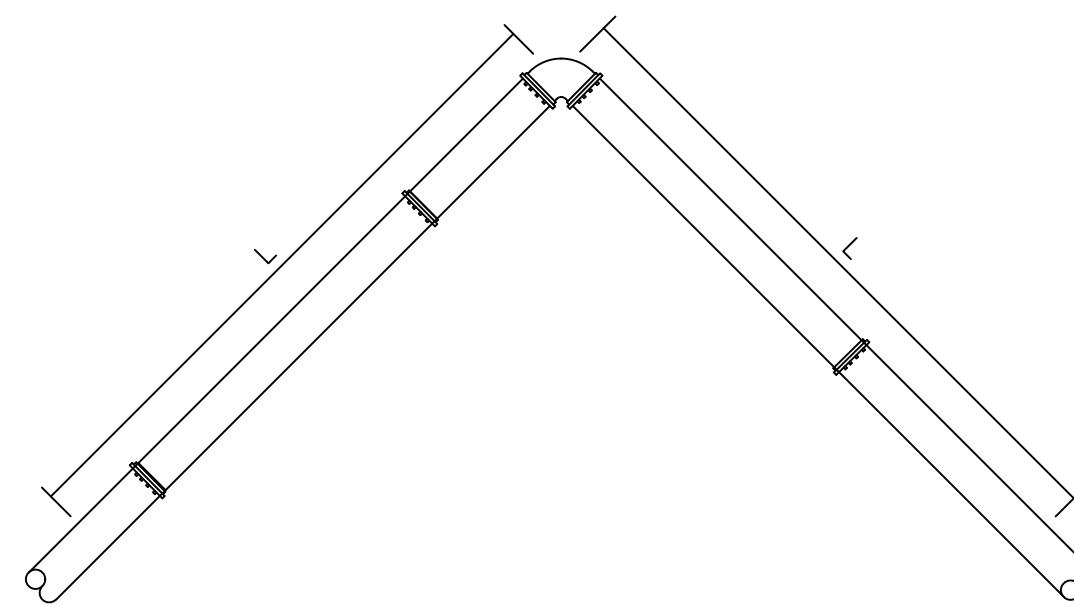
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. U_r = THE SMALLER OF U1 OR U2
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE U_r IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.
7. INFORMATION IN THE TABLES ABOVE IS BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

TEE	U _r	15'		20'	
		L ₁	L ₂	L ₁	L ₂
4X4	*	*	*	*	*
6X4	*	*	*	*	*
8X4	*	*	*	*	*
10X4	*	*	*	*	*
12X4	*	*	*	*	*
16X4	*	*	*	*	*
20X4	*	*	*	*	*
24X4	*	*	*	*	*

PVC DESIGN:
SOIL TYPE: SM
TRENCH TYPE: 5
COVER: 3' <12" DIA.
4' >12" DIA.
TEST PRESSURE: 150 PSI

* = RESTRAINT AT TEE ONLY

FORCE MAIN TEE RESTRAINT (PVC PIPE)
N.T.S.



PIPE DIA.	BEND ANGLE			
	11 1/4"	22 1/2"	45°	90°
4	2	3	6	13
6	2	4	8	18
8	3	5	10	24
10	3	6	12	28
12	4	7	14	33
16	4	7	14	33
20	4	8	17	39
24	5	9	19	45

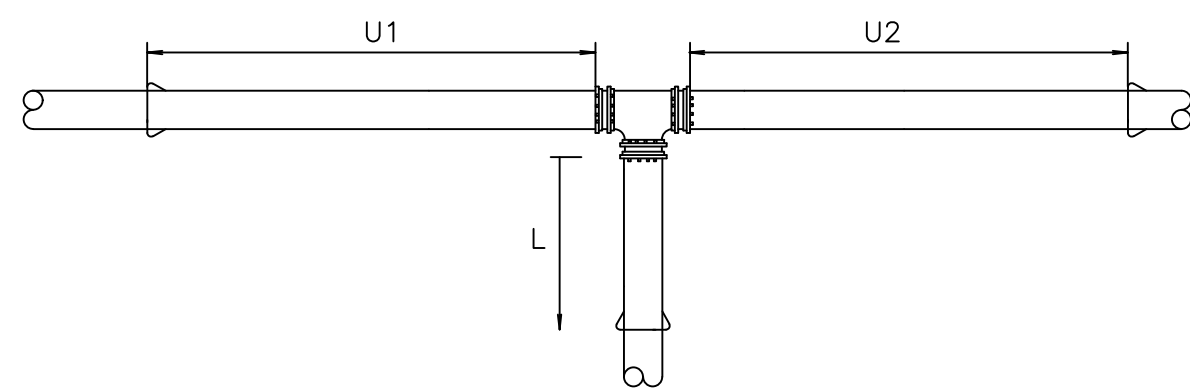
PVC DESIGN:
SOIL TYPE: SM
TRENCH TYPE: 5
COVER: 3' <12" DIA.
4' >12" DIA.
TEST PRESSURE=150 PSI

PE WRAPPED DIP:
SOIL TYPE: SM
TRENCH TYPE: 5
COVER: 3'
TEST PRESSURE=150 PSI

PIPE DIA.	BEND ANGLE			
	11 1/4"	22 1/2"	45°	90°
4	2	3	6	15
6	2	5	9	21
8	3	6	11	27
10	4	7	13	32
12	4	8	16	37
16	5	10	19	46
20	6	11	23	55
24	7	13	26	63

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. RESTRAINT DESIGN SHALL BE PROJECT SPECIFIC BASED ON THE GEOTECHNICAL REPORT.
4. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

FORCE MAIN HORIZONTAL BEND RESTRAINT
N.T.S.

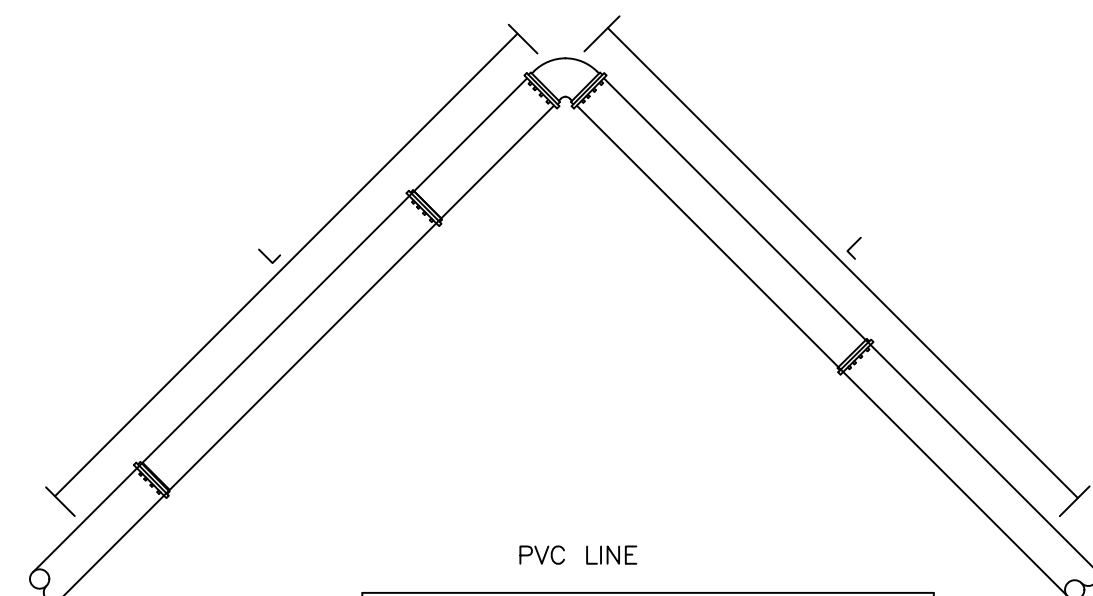


NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. U_r = THE SMALLER OF U1 OR U2
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE U_r IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.
7. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

TEE	U _r	BEND ANGLE			
		5'-10'	11'-20'	21'-35'	> 35'
4X4	43	28	4	*	
6X4	38	17	*	*	
8X4	34	6	*	*	
10X4	29	*	*	*	
12X4	24	*	*	*	
16X4	19	*	*	*	
20X4	14	*	*	*	
24X4	9	*	*	*	

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

TEE RESTRAINT (PVC PIPE)
N.T.S.

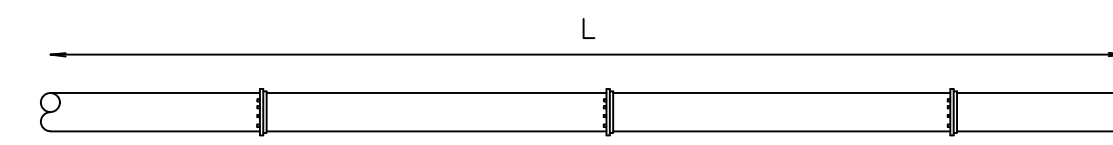


PIPE DIA.	BEND ANGLE		
	11 1/4"	22 1/2"	45°
4	2	4	8
6	3	5	11
8	4	7	14
10	4	8	16
12	5	9	19
16	5	9	19
20	6	11	23
24	8	16	26

PIPE DIA.	BEND ANGLE		
	11 1/4"	22 1/2"	45°
4	3	5	9
6	3	6	12
8	4	8	16
10	5	9	19
12	6	11	22
16	7	14	28
20	8	16	33
24	9	19	38

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

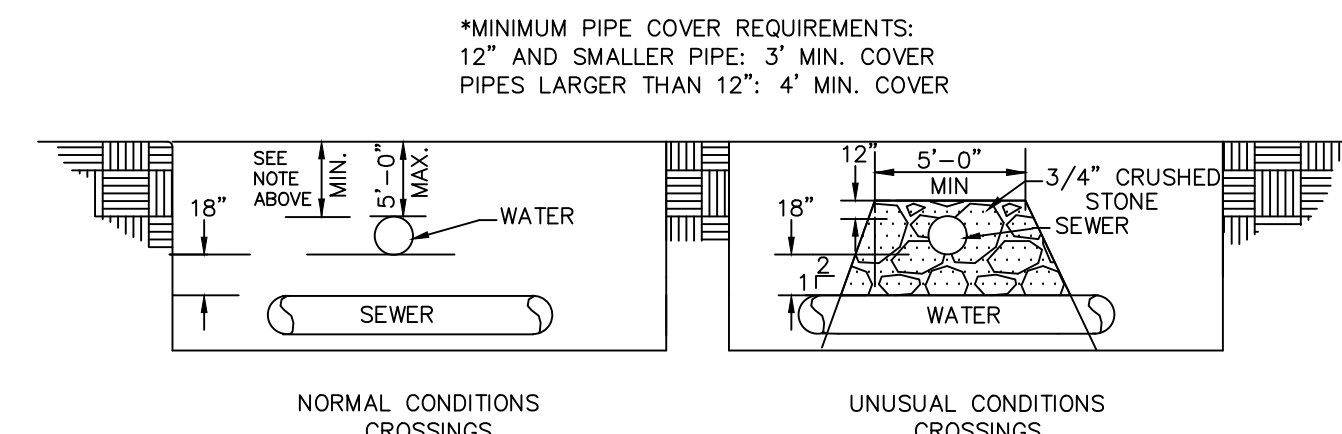
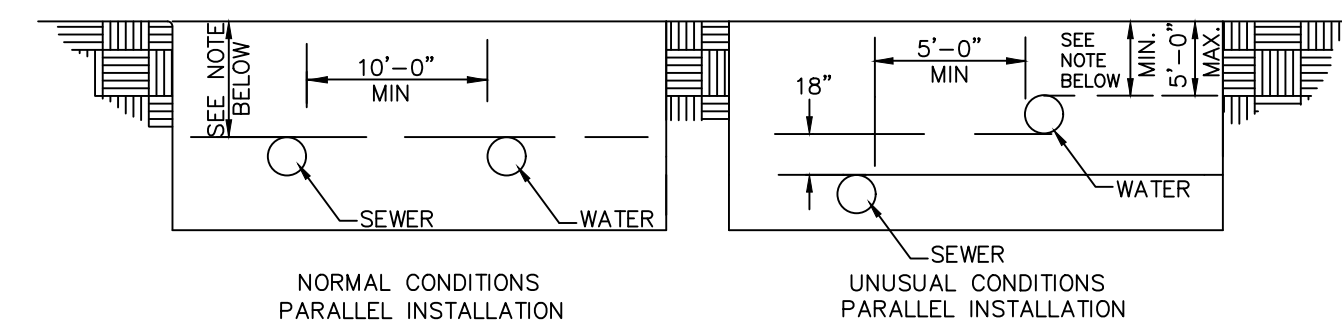
HORIZONTAL BEND RESTRAINT
N.T.S.



PIPE DIA.	BEND ANGLE	
	L ₁	L ₂
4	58	39
6	82	55
8	107	72
10	128	87
12	151	102
16	193	131
20	234	159
24	273	185

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. FOR LINE STUBS (SEE DETAIL W34), THE LENGTH OF RESTRAINT (L) SHALL BE FROM THE VALVE AND NOT THE CAP.
4. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

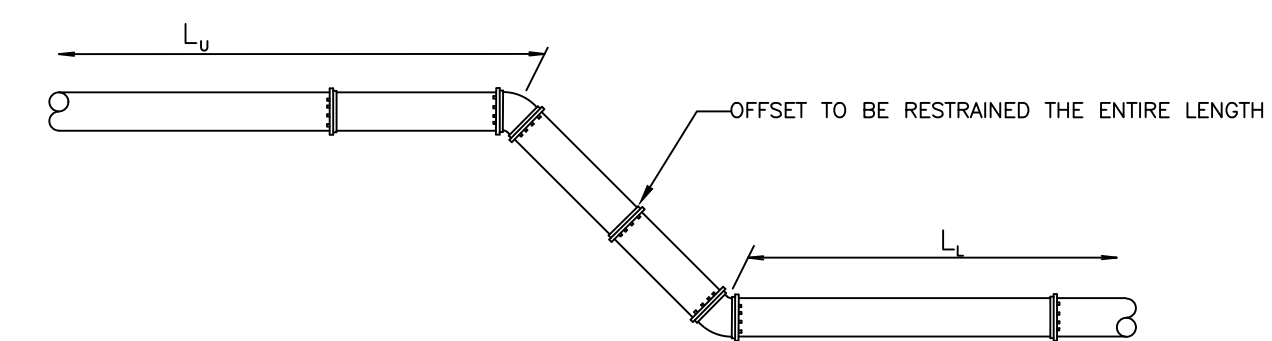
DEAD END RESTRAINT
N.T.S.



NOTES:
THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION MINIMUM STANDARDS FOR PUBLIC WATER SYSTEMS, WHICH ARE GENERALLY AS FOLLOWS:

- PARALLEL INSTALLATION:
 - NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER LINE SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
 - UNUSUAL CONDITIONS: WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, AND WHEN APPROVED BY THE ENGINEER, THE INSIDE EDGE OF A WATER MAIN MAY BE LAID A MINIMUM OF 5 FEET FROM THE INSIDE EDGE OF SEWER PROVIDED THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER (SEE DETAIL), AND THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELVE.
- CROSSINGS:
 - NORMAL CONDITIONS: WHENEVER POSSIBLE, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
 - UNUSUAL CONDITIONS: IF A WATER MAIN MUST CROSS UNDER A SEWER, THE TOP OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES LOWER THAN THE BOTTOM OF THE SEWER, THE WATER MAIN PIPE SHALL BE CENTERED AT THE CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, AND ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF THE SEWER AT THE CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL INCLUDE BACKFILLING THE ENTIRE UTILITY CROSSING AREA WITH 3/4" CRUSHED STONE AS SHOWN IN THE DETAIL.

MINIMUM WATER AND SEWER PIPE SEPARATION REQUIREMENTS
N.T.S.

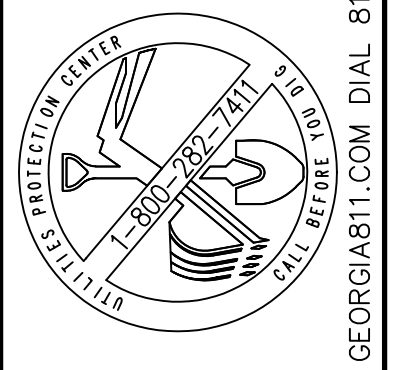


PIPE DIA.	BEND ANGLE					
	11 1/4"		22 1/2"		45°	
	L ₁	L ₂	L ₁	L ₂	L ₁	L ₂
4	4	1	8	2	17	3
6	6	1	11	2	23	4
8	8	2	15	3	30	6
10	9	2	18	4	36	7
12	11	2	21	4	43	8
16	10	3	21	5	42	10
20	13	3	25	6	51	12
24	15	4	29	7	60	15

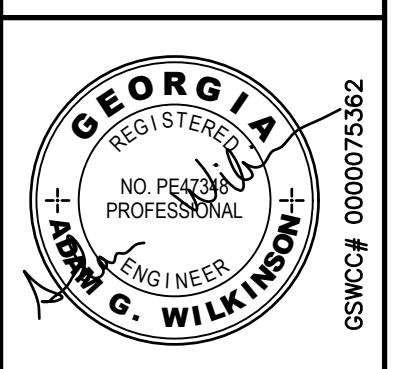
PIPE DIA.	BEND ANGLE					
	11 1/4"		22 1/2"		45°	
	L ₁	L ₂	L ₁	L ₂	L ₁	L ₂
4	6	1	12	2	24	4
6	9	2	17	3	34	5
8	11	2	22	3	45	7
10	13	2	26	4	53	8
12	15	3	30	5	63	9
16	19	3	39	6	80	12
20	23	4	47	7	97	15
24	27	4	55	8	113	17

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

VERTICAL BEND RESTRAINT
N.T.S.



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NO PERSONAL PROFESSIONAL SEAL



1618 Airport Road
Hinesville, Georgia 31313
(912) 231-5157
Fax: (912) 366-5180

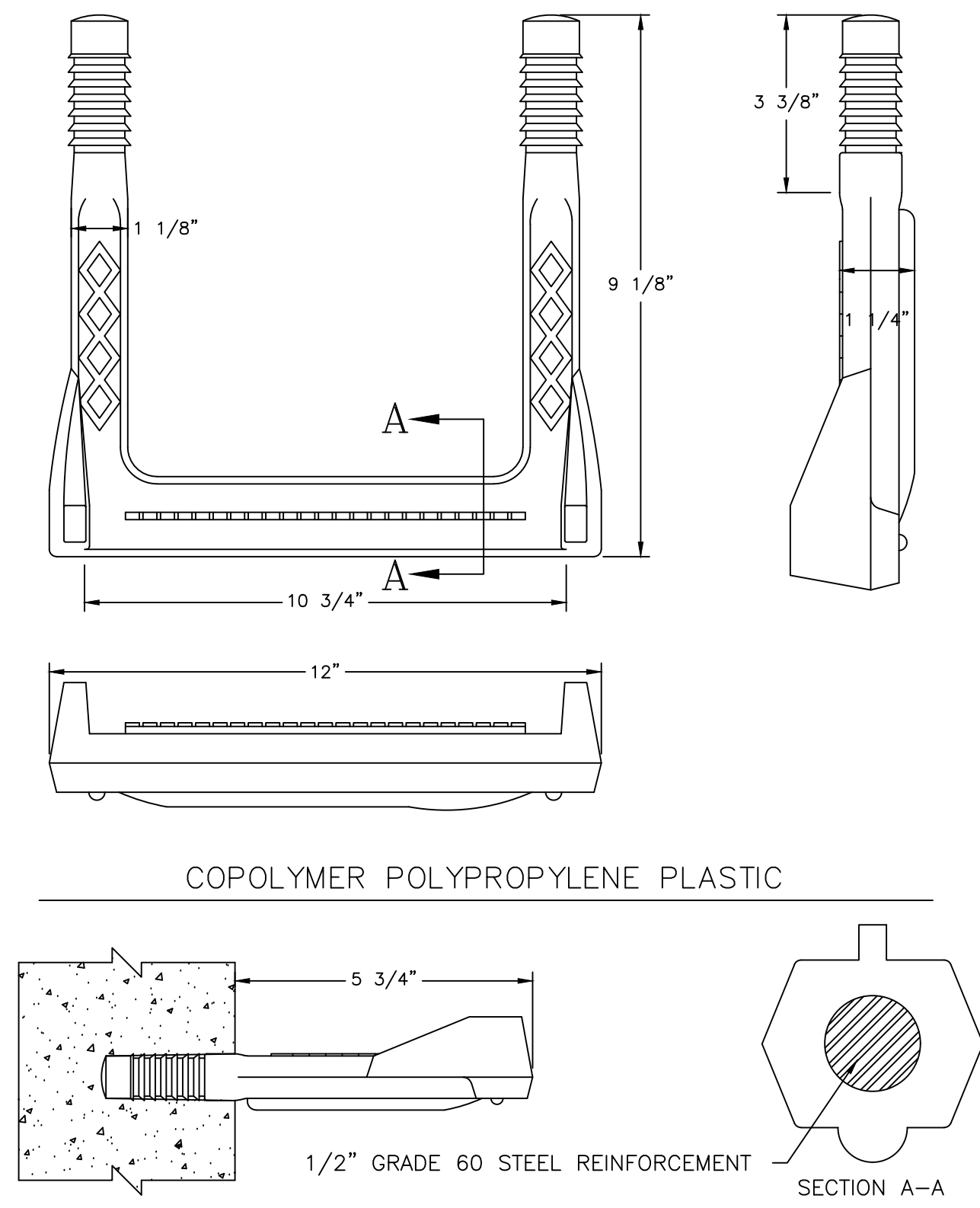
Ardley Park South
Development Plans for
K. C. Brothens
TAX PARCEL NUMBER: 0474.002 HINESVILLE, GEORGIA

SHEET NAME:
SITE DETAILS

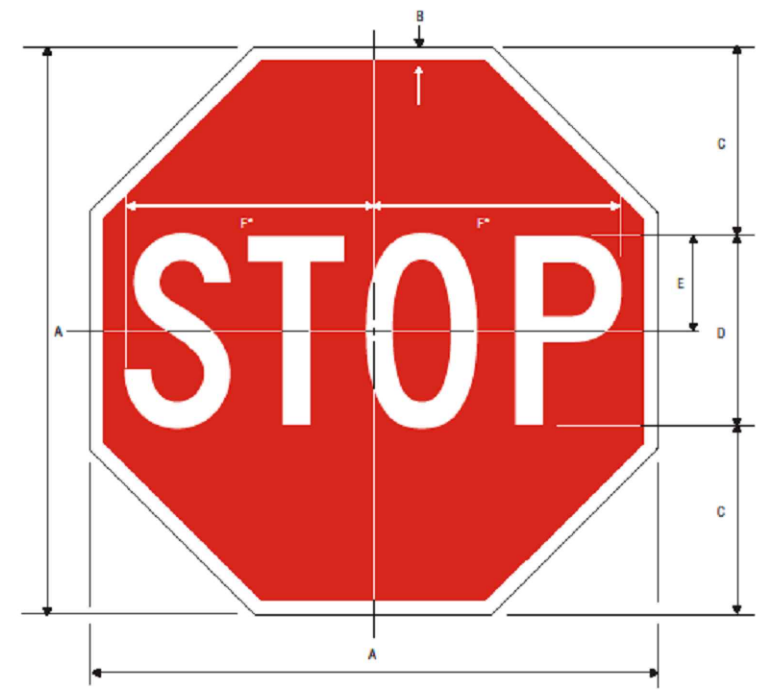
REVISIONS:
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INITIAL DATE: 10/25/2022
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CHECKED BY: AGW
PROJECT #: 2022-04

SHEET NUMBER:
C 8.6



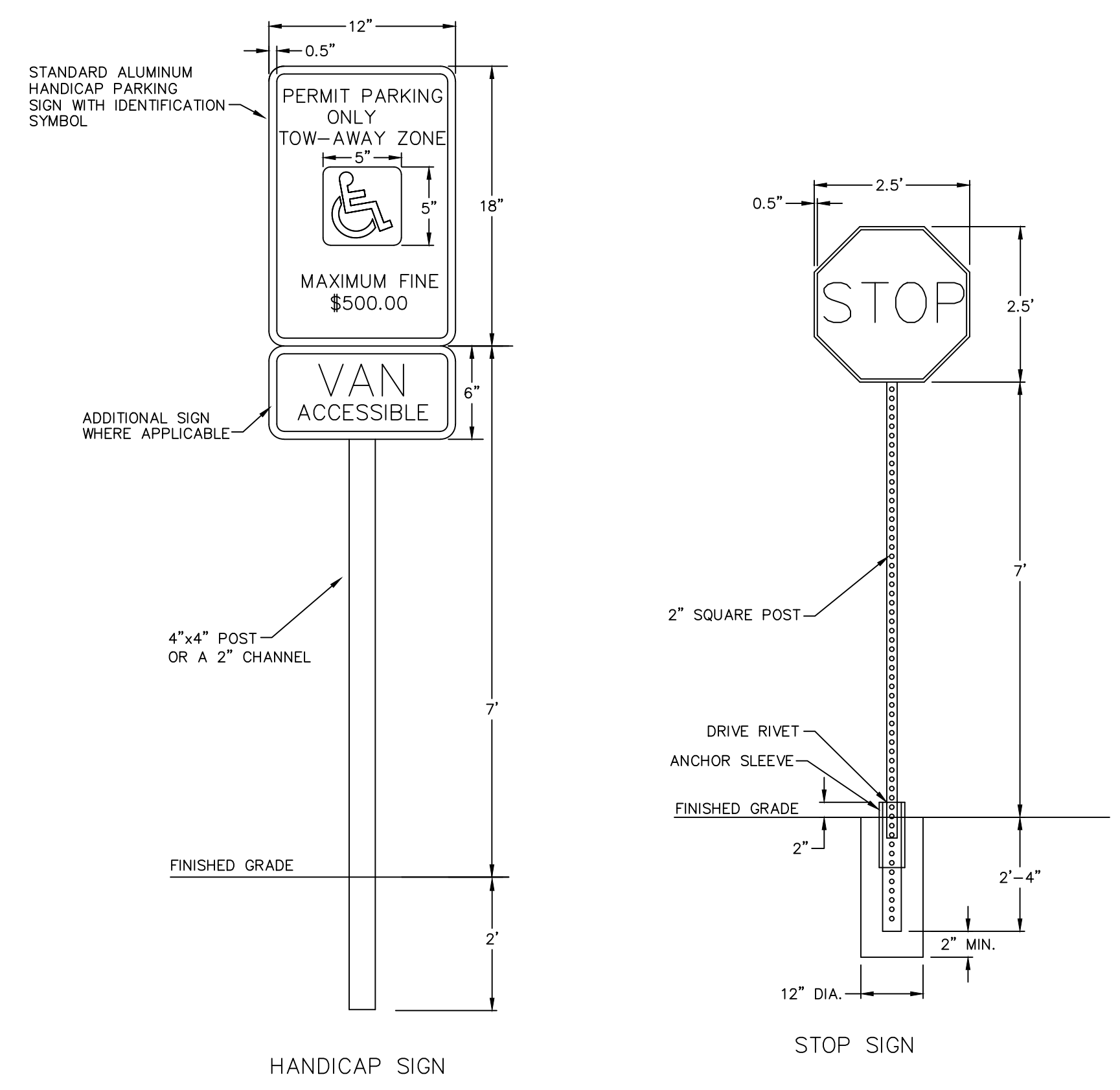
27 MANHOLE STEP DETAIL
C-06 SCALE: N.T.S.



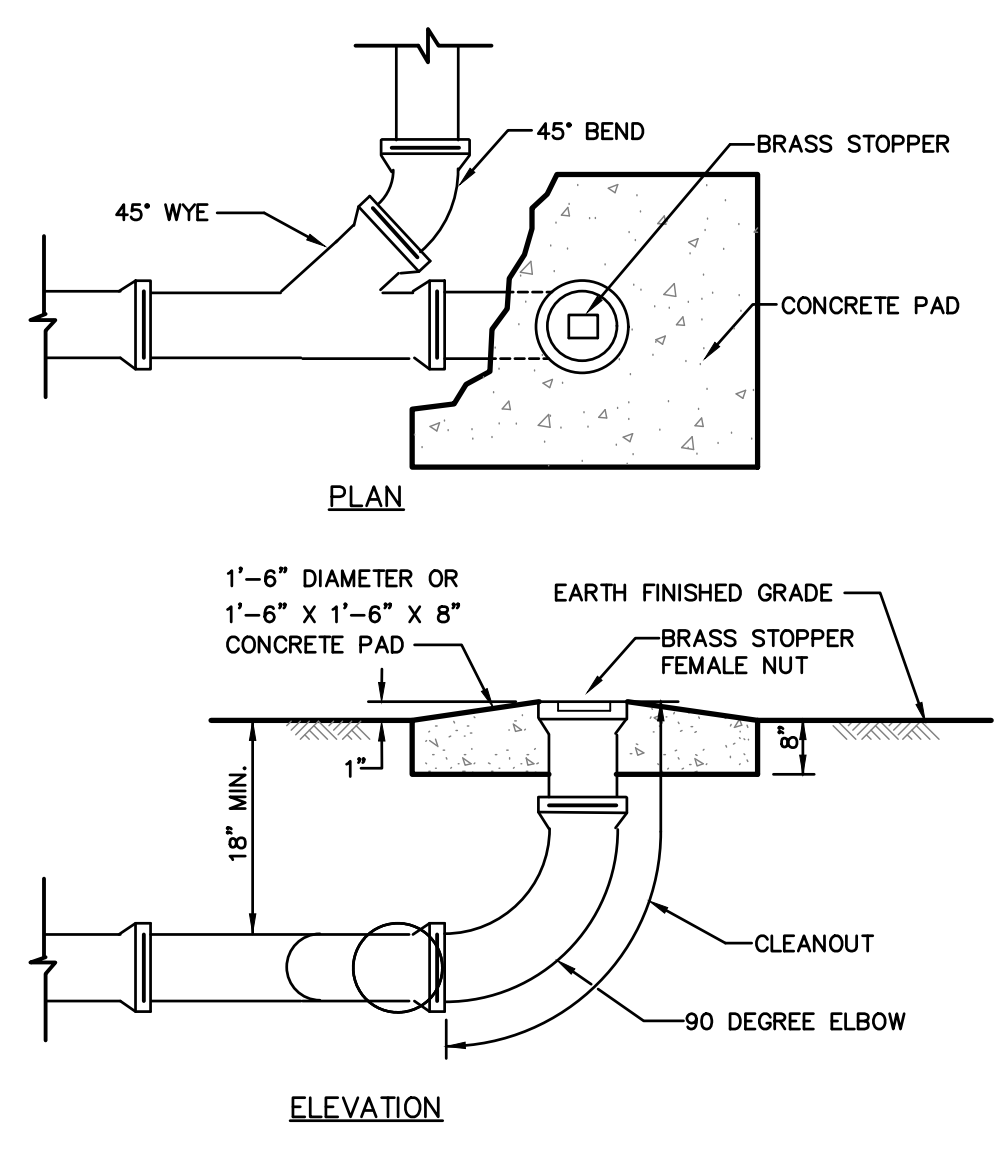
"STOP" SIGN (R1-1)
N.T.S.

A	B	C	D	E	F
18	30	4	4	3	7/8
24	40	5	5	4	1 1/8
30	50	6	6	5	1 3/8
36	60	7	7	6	1 5/8
48	72	8	8	8	2

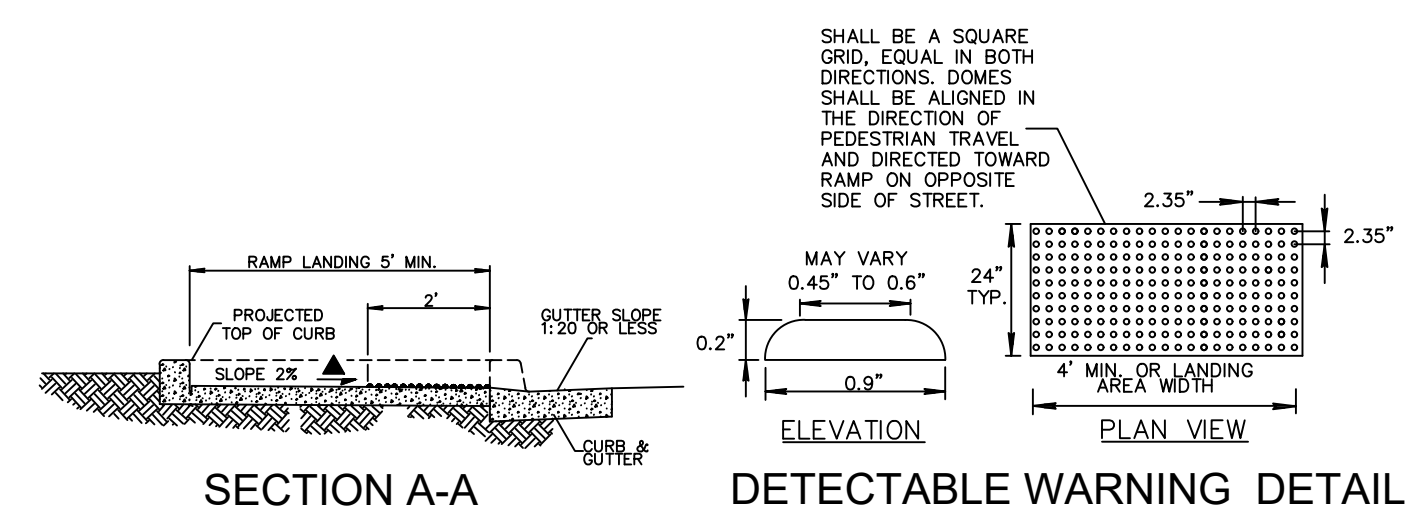
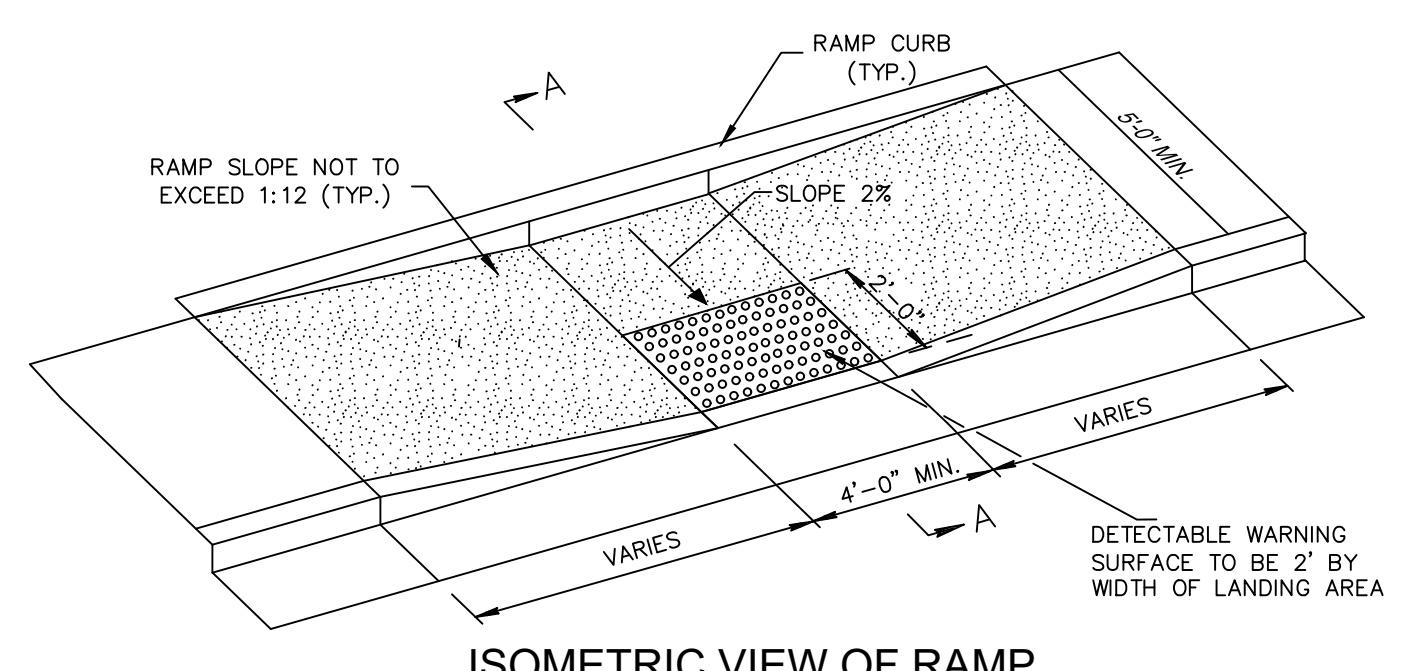
30 SIGN DETAILS
C-04 SCALE: N.T.S.



13 SIGN DETAIL
C-04 SCALE: N.T.S.

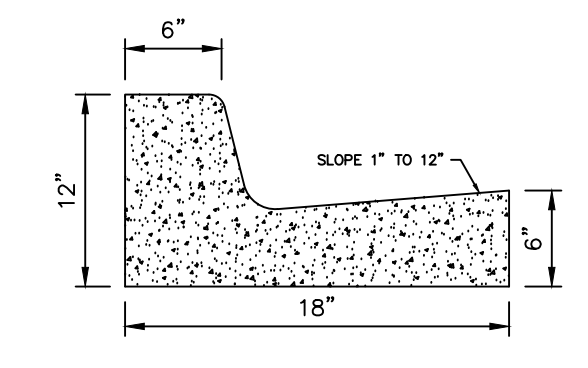


28 SEWER SERVICE CLEAN-OUT DETAIL
C-07 SCALE: N.T.S.

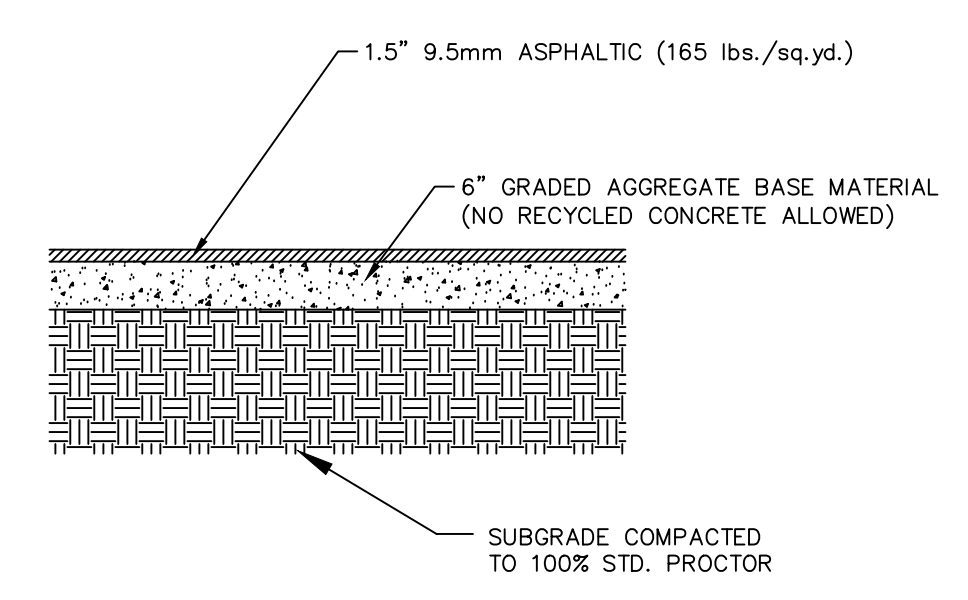


- NOTES:
- HANDICAP RAMP CONSTRUCTION SHALL CONFORM TO ALL FEDERAL, STATE AND CITY OF HINESVILLE CODES AND SPECIFICATIONS.
 - SURFACES SHALL MEET THE GUIDELINES OF THE ADA STANDARDS FOR ACCESSIBILITY, APPENDIX A, PART 36.
 - THE SLOPE OF THE GUTTER MUST NOT EXCEED 1:20 ADJACENT TO THE RAMP.
 - DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJACENT SURFACES. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF CONCRETE, THE WARNING AREA SHALL BE RED BRICK IN COLOR. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF RED BRICK, THE WARNING AREA SHALL BE GRAY IN COLOR. THE COLOR USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.

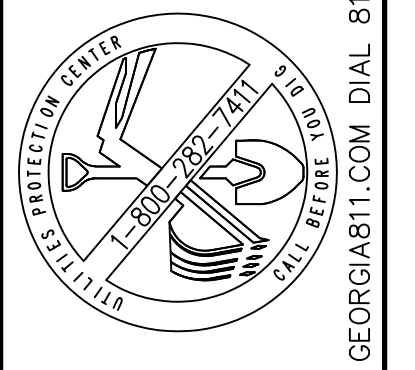
12 HANDICAP RAMP DETAIL
C-04 SCALE: N.T.S.



14 STANDARD TYPE CURB & GUTTER DETAIL
C-04 SCALE: N.T.S.



15 ASPHALT PAVEMENT DETAIL
C-04 SCALE: N.T.S.



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Ardley Park South
Development Plans for
K. C. Brothers
TAX PARCEL NUMBER: 047A 202 HINESVILLE, GEORGIA

SHEET NAME:
SITE
DETAILS

REVISIONS:

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