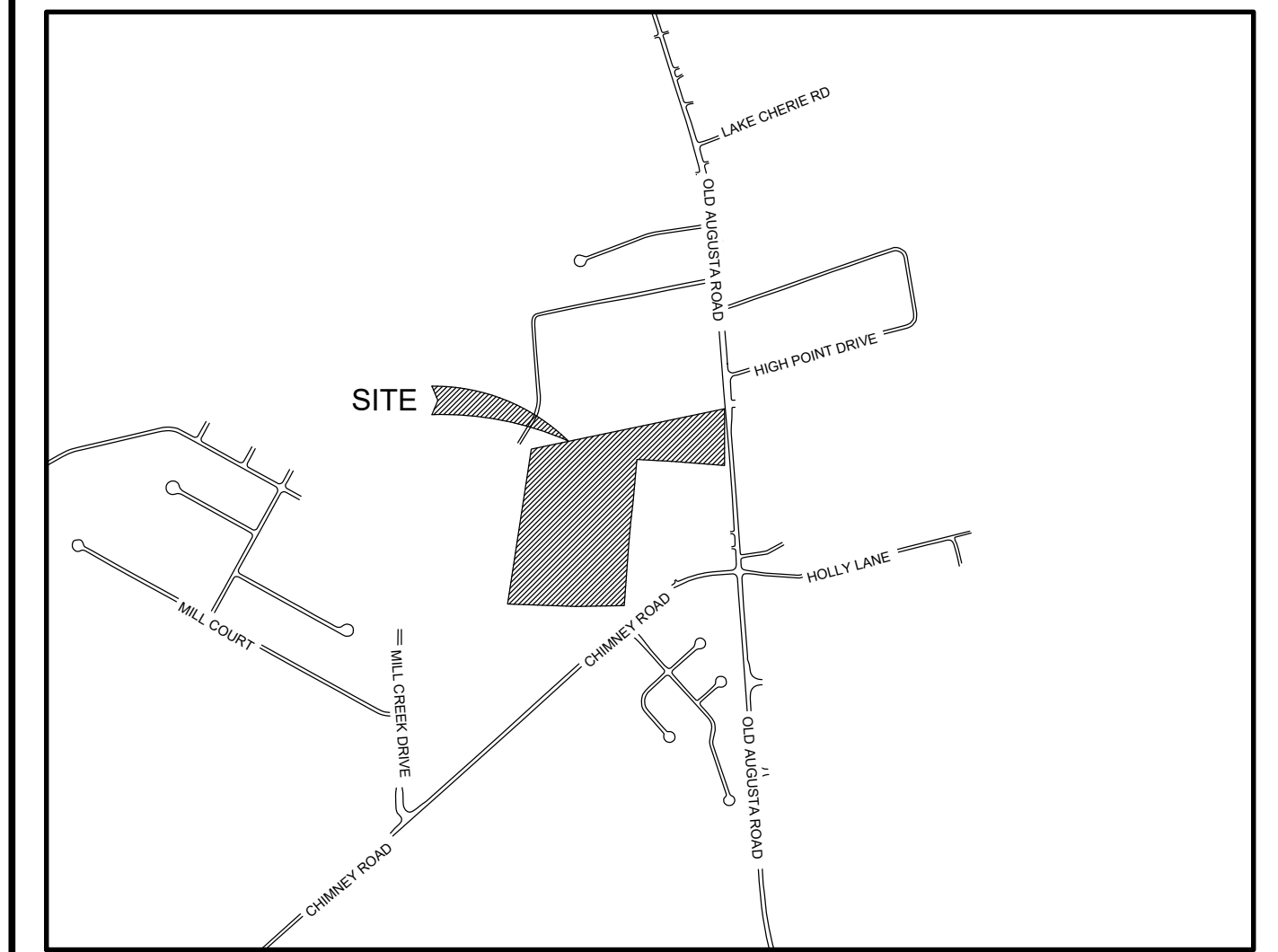


CONSTRUCTION PLANS FOR BAKER HILL EFFINGHAM COUNTY, GEORGIA



VICINITY MAP

I certify that I have been in responsible charge of the design of this project in accordance with the rules of the Georgia State Board of Registration for Professional Engineers and Land Surveyors. I further certify, to the best of my knowledge and belief, that these plans and specifications were prepared in accordance with current standard engineering practices and accurately reflect the Design Development Report (DDR) previously reviewed and concurred in by EPD. I further certify that the system as designed can reasonably be expected to consistently meet all currently applicable permit limits, conditions, and regulatory requirements, provided the facility is constructed as designed and properly operated and maintained.

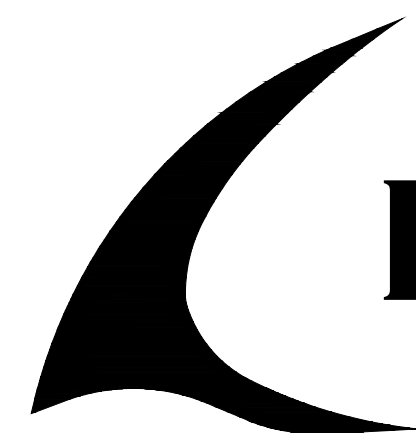
The development of the included construction plans can be expected to not increase the rate of runoff per county requirements, provided the facility is constructed as designed and properly operated and maintained.

PREPARED FOR:
3 BYRDS DEVELOPMENT LLC

AUGUST 3, 2023

JOB NUMBER: 2023-6

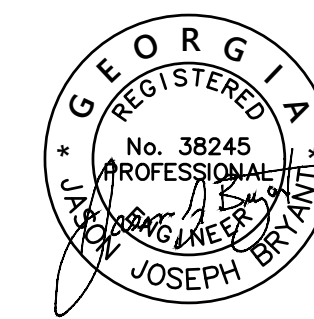
PREPARED BY:



PITTMAN ENGINEERING

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

PROJECT DATA	
DEVELOPER:	3 BYRDS DEVELOPMENT LLC 122 CANAL STREET, SUITE 108 POOLER, GA 31322 --- (912)328-6500
24 HOUR CONTACT:	BRITTANY BENTLEY TELEPHONE: (912)667-7039
JURISDICTION:	EFFINGHAM COUNTY, GEORGIA
TAX MAP #:	04760078
ZONING:	R4
PROPERTY OWNER OF RECORD:	3 BYRDS DEVELOPMENT LLC
FEMA FLOOD ZONE:	X
FEMA FLOOD PANEL:	MAP NUMBER 13103C0289E, MAP DATED 3/16/2015
APPROXIMATE LOCATION OF SITE:	0 OLD AUGUSTA RD
LATITUDE:	N032.2777
LONGITUDE:	W081.1890
VERTICAL DATUM:	NAVD 88



JASON J. BRYANT, P.E.
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

REVISION LISTING			
REV. NO.	REVISION	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

Sheet List Table

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CO.3	EXISTING CONDITIONS PLAN
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C2.0	WATER AND SEWER PLAN
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C3.7	PAVING, GRADING, AND DRAINAGE DETAILS
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EC3.1	INITIAL EROSION CONTROL PLAN
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EC4.1	EROSION CONTROL NOTES
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CR2.2	COUNTY ROAD IMPROVEMENT DETAILS
CR2.3	COUNTY ROAD IMPROVEMENT DETAILS
CR2.4	COUNTY ROAD IMPROVEMENT DETAILS
CR2.5	COUNTY ROAD IMPROVEMENT DETAILS
CR2.6	COUNTY ROAD IMPROVEMENT DETAILS
CR2.7	COUNTY ROAD IMPROVEMENT DETAILS
CR2.8	COUNTY ROAD IMPROVEMENT DETAILS
CR2.9	COUNTY ROAD IMPROVEMENT DETAILS



Know what's below.
Call before you dig.

GENERAL NOTES:

OWNER/DEVELOPER:
3 BYRDS DEVELOPMENT LLC
ATTN: BRITTANY BENTLEY
100 BLUE MOON CROSSING, SUITE 117
POOLER, GA 31322
(912)328-6500
B.BENTLEY@MATTBYRDHOMES.COM

ENGINEER:
PITTMAN ENGINEERING CO., LLC
2591 HWY 17 SUITE 303
RICHMOND HILL, GA 31324
912-445-0578
WWW.PITTMANENGINEERINGCO.COM

SITE DATA:
ZONE: R4
TOTAL PROJECT ACREAGE: 26.112 AC
DISTURBED AREA: 23.5
PIN NUMBER: 04760078

FLOOD MAP: 13103C0289E, MAP EFFECTIVE DATE 3/16/2015
FLOOD ZONE: ZONE X

FLOOD ZONE NOTE:
AS INDICATED ON THE SURVEY BY GLISSON LAND SURVEYING (FILE# 23141)
THIS PROPERTY IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD

SURVEY INFORMATION:

THE BOUNDARY INFORMATION:
REFERENCE INFORMATION TAKEN FROM SURVEY BY GLISSON LAND SURVEYING

THE TOPOGRAPHIC INFORMATION:
ALL ELEVATIONS BASED ON NAVD88

CONSTRUCTION NOTES & LEGEND

General Notes:

- All elevations are based on NAVD88
- Survey by GLISSON LAND SURVEYING
- Existing utility locations shown are generally schematic in nature and may not accurately reflect the size and location of each particular utility. Contractor shall field verify location of all existing utilities prior to beginning construction. All existing utilities may not be shown on these drawings. It is the contractor's responsibility to coordinate his operation with all utilities which may be in conflict with his work. The contractor must maintain and protect all utilities, or relocate utilities as needed.
- Contractor is responsible for coordination with utility companies and adjustment of existing sanitary sewer cleanouts, manholes, water meters, storm inlets, manholes, and any other appurtenances to final grade as required.
- Contractor is responsible for worksite safety. Occurrences at worksite shall be the complete responsibility of the contractor.
- The contractor shall not begin construction until the proper permits have been issued.
- The contractor shall be responsible for locating all existing utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
- The contractor shall completely clear and grub all areas within the limits of disturbance unless indicated otherwise.
- All construction shall conform to the "Standard Specification and Details" for Effingham Co., Georgia (latest revision) and the Georgia Department of Transportation "Specifications and Details" (latest editions). The more stringent requirement shall govern.
- Contractor shall coordinate construction activities with local utility companies and adjacent property owners. Contractor shall be responsible for protection and any necessary repairs to existing utility lines.
- Three days notice to county and local utility companies is required prior to each different construction activity.
- Control of stormwater and groundwater throughout the construction period shall be the responsibility of the contractor. Existing drainage is not to be impeded during construction. All penalties, claims and fees imposed on owner as a result of damage caused by actions of the contractor, his employees or subcontractors shall be borne in full by the contractor. Storm drainage conveyance shall not be impeded and dewatering may be required for the contractor. These are considered "Means and Methods," and any and all cost associated with this activity shall be included in the respective pay category.
- Contractor shall be responsible for repairs of damage to any existing infrastructure including but not limited to roads, sidewalk, curb & gutter, landscaping, structures, and all existing conditions.
- All signs, mail boxes, shrubbery, fences, landscaping or existing structures interfering with construction shall be removed and replaced by the contractor at the contractor's expense.
- Contractor shall be solely responsible for all construction means, methods, techniques, and procedures and shall at all times take all reasonable safety precautions for the safety of its employees on the project and shall comply with all applicable provisions of federal, state, and municipal safety laws and building construction codes.
- Contractor shall comply to the fullest extent with the latest standards or OSHA directives or any other agency having jurisdiction for excavation and trenching procedures. The contractor shall provide support systems, sloping, benching and other means of protection. This shall include, but not be limited to, access and egress from all excavation and trenching. Contractor is responsible for his job site to be in complete compliance with all regulatory requirements.
- All construction debris shall be removed from the site and disposed of in an approved waste disposal area. The contractor shall be responsible for disposal of all construction debris.
- Contractor must provide proper traffic control devices for construction in accordance with "Manual of Uniform Traffic Control Devices" (latest edition).
- All site and infrastructure improvements shall be constructed in accordance with the current Effingham Co. Engineering Design Standards and shall be coordinated with the Effingham Co. Department of Inspections.
- Only new Reinforced Concrete Pipe Class III, no seconds, shall be used in city road rights-of-ways or for drainage systems or if any storm runoff from adjoining properties drain through the proposed project.
- Pipes up to thirty-six inches in diameter shall have flared end sections.
- Pipes of dissimilar size shall be vertical aligned with their energy grade line or shall have crowns of the pipe converge at a manhole or other structure.
- All pipe joints, in addition to the required rubber gaskets, shall be covered with approved geo-textile material of sufficient width to be secured to the pipe and completely encircle the joint with 50% overlap.
- Pipe material other than concrete must be approved, in writing, by the County Engineer prior to use.
- All pipe that crosses a road shall be imbedded in suitable material compacted to minimum 100% standard proctor. Suitable materials are GW, GP, GM, GC, SP, or SW soils as classified under the Unified System. Effingham Co. Inspections department shall be notified 48 hours in advance of any road crossing.
- All stormwater inlets structures shall be of the standard design and shall have inverts built in bottoms.
- Swales shall have a 5:1 side slopes or flatter. Any swale with steeper side slopes must be approved by the County Engineer.
- All PVC pipe shall be stored out of the sunlight or appropriately covered with a UV resistant cover. All PVC pipe shall be properly supported so "sagging" of the pipe doesn't occur during storage. Any PVC pipe showing UV degradation or sagging shall be removed and replaced at the contractor's expense.

Staking Notes:

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

Paving, Grading and Drainage Notes:

- The contractor shall be responsible for locating all existing underground utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
- Contours shown on these plans are for general guidance and informational purposes. The contractor shall grade the site in accordance with spot elevations shown. In cases of conflict between spot elevations and contours the spot elevations will govern.
- Load bearing and structural fills shall be approved suitable material as defined in the project specs, geotechnical report, Georgia Department of Transportation specifications and International Builder's Code. The most stringent requirement shall be adhered to. Waste material may be used for flushing of shoulder or construction of pedestrian or landscaped areas if they can be stabilized and will support plant growth and meet the required degree of compaction.
- Contractor shall be responsible for ensuring proper drainage of any areas which are field adjusted during construction.
- See details for requirements for control, construction and expansion joints in concrete sidewalks and curb and gutter.
- Standard curb and gutter will be used where the drawings indicate that the gutter is to carry water. Pitched curb and gutter will be used where the drawings indicate the water will drain away from the gutter. Pitches between the two conditions shall be made as smoothly as possible.
- Invert elevations shown on the plans are to the invert of the lowest pipe.
- All storm drainage pipe shall be Class III Reinforced Concrete Pipe or HDPE (ADS N-12 or equivalent with soil-tight joints) as indicated on the plans. All pipe joints are to be wrapped twice completely around each joint with a non-woven textile fabric.

Signage and Striping Notes:

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

Water and Sewer Notes:

- The contractor shall be responsible for locating all existing underground utilities prior to beginning construction activities and for avoiding all conflicts with the same. Any damage to existing utilities shall be repaired at the contractor's expense.
- All water and sewer connections to existing active systems are to be coordinated with Coastal Water & Sewage, LLC a minimum of 72 hours prior to construction activities. Any damage to existing City or County utilities shall be repaired immediately at the Contractor's expense.
- All construction shall be in accordance with the Water and Sewer Specifications and Details for Water and Sewer System Improvements, and shall meet Coastal Water & Sewage, LLC and Effingham Co. requirements as applicable. All water main pipe larger than 4-inches in diameter shall be AWWA C-900 Pressure Rated Pipe, Pressure Class 150, with dimension ratio 18 or lower and blue unless specified within the approved specifications. If Ductile Iron water mains are necessary, they shall be Pressure Class 350, with cement interior lining in accordance with the latest revision of ANSI A-21.4 (AWWA C-104) and asphaltic exterior coating. Pipes less than 4 inches in diameter shall be polyethylene pipe, HDPE 3408 SDR 9.
- The water service laterals shall be Polyethylene PE 3408 SDR 9 conforming to all requirements of AWWA C-901 and ASTM D-2737 latest revisions. In case of conflict, approved requirements shall supersede all other requirements, except when specifically identified.
- All sanitary sewer pipe shall be PVC and green, ASTM D-3034, SDR-26 or Ductile Iron Pipe Class 50 where shown unless specified within approved specifications. Effingham Co. requirements supersede all pipe material specifications in case of conflict, except when specifically identified.
- Minimum slope of 4-inch sewer laterals shall be 1.0%.
- All PVC Water Main shall be blue and all PVC Sewer shall be green.
- Sewer pipe deflection shall not exceed 5.0%. Deflection shall be verified using a spherical or cylindrical mandrel with a diameter no less than 95% of the inside pipe diameter.
- All manhole and inlet castings shall be American made. Manufacturer's specification sheets shall be submitted for review and approval.
- Manhole frame heights outside of paved areas shall be a minimum of 0.2 feet above finished grade.
- Pipe, fittings, valves, and other accessories shall, unless otherwise directed, be unloaded at the point of delivery and stored where they will be protected and will not be hazardous to traffic. They shall at all times be handled with care to avoid damage. The interior of all pipes, fittings and other accessories shall be kept free from dirt and foreign matter at all times.
- All water main thrust restraint shall be handled by use of joint restraint/mechanical joints equivalent to Ebag Iron Megalug or push-on joint type restrained joints equivalent to "Lok-Ring", "TR Flex", or "Super Lock". Concrete thrust block shall not be allowed.
- All water mains shall have a minimum cover of 3 feet and a maximum cover of 5 feet measured from finished grade. Where the water main crosses other utility lines, the water main shall be installed 18" (pipe to pipe) below the other utility lines (if required) to avoid conflicts and maintain cover.
- Maintain a minimum horizontal separation of 10 feet between water, sewer, and drainage lines unless otherwise shown.
- When pipe laying is not in progress, a mechanical joint plug or cap will be used to form a water tight seal at both ends of the line being installed.
- The following procedure shall be followed during flushing of the lines prior to connection to the water system:
 - Flush the water mains using a full size flush having a minimum velocity of 2.5 feet per second.
 - Continue flushing for a minimum time period of thirty minutes or until water line is purged of foreign matter and water runs clear.
- All water used for construction, if obtained from an unmetered line, must be metered through an approved fire hydrant meter with a backflow prevention device obtained from the municipality's water department.
- Water distribution pipe shall have a #12 Gauge Solid Copper Tracing Wire installed along its length, including laterals up to the meter or backflow preventer.
- All connections of the #12 Gauge Solid Copper Tracing Wire shall be made with 3m brand splice kits.
- Mylar detectable warning tape shall be installed in sanitary sewer trenches or as required by city.
- Gate Valves & Valve Boxes: Provide specification notes for Gate Valves and Valve Boxes. Gate Valves shall be cast iron or ductile iron body, bronze mounted, double disc, or resilient wedge design, with non-rising stems conforming to AWWA C-500, C-509, or C-515. Valves shall have a working pressure of 200 psi, and be tested at 400 psi.
- Hydrants shall be Mueller or approved equal with traffic yellow enamel finish and be equipped with a 4-1/2" outlet facing the street side with two 2-1/2" outlets on either side. Hydrants shall be restrained with mechanical joint fittings and rodded. Hydrant legs shall be ductile iron pressure class 350 pipe. Tracer wire shall be extended along hydrant legs, to hydrant isolation valves and up outside of valve box, and shall also extend up hydrant base terminating above grade.

Special Notes:

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

LEGEND

LINE STYLES

	CENTER LINE
	DEMOLITION/ABANDONMENT
	CONSTRUCTION LIMITS
	PROPOSED OVERHEAD COMMUNICATION
	EXISTING OVERHEAD COMMUNICATION
	PROPOSED UNDERGROUND COMMUNICATION
	EXISTING UNDERGROUND COMMUNICATION
	PROPOSED OVERHEAD ELECTRICAL
	EXISTING OVERHEAD ELECTRICAL
	PROPOSED UNDERGROUND ELECTRICAL
	EXISTING UNDERGROUND ELECTRICAL
	PROPOSED FORCE MAIN
	EXISTING FORCE MAIN
	PROPOSED NATURAL GAS MAIN
	EXISTING NATURAL GAS MAIN
	PROPOSED NON-POTABLE WATER
	EXISTING NON-POTABLE WATER
	PROPOSED SANITARY SEWER
	EXISTING SANITARY SEWER
	PROPOSED WATER MAIN
	EXISTING WATER MAIN
	RIGHT OF WAY
	PROPERTY LINE
	LIMITS OF FILL
	WELDED WIRE FABRIC
	TREE LINE
	RAIL ROAD
	DRAINAGE CHANNEL
	SILT FENCE
	PROPOSED FENCE
	EXISTING FENCE
	GAURD RAIL
	BREAK LINE
	STREAM BUFFER
	LIMITS OF 100 YEAR FLOOD PLANE
	SOIL BOUNDARY
	PROPOSED MAJOR CONTOUR
	EXISTING MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MINOR CONTOUR

VEGETATION

	GENERIC TREE
	DECIDUOUS TREE
	CONIFEROUS TREE
	DECIDUOUS SHRUB
	CONIFEROUS SHRUB

PATTERNS

	POROUS
	BLOCK WALL
	BRICK WALL
	CONCRETE (PLAN)
	CONCRETE (SECTION)
	ASPHALT (PLAN)
	ASPHALT (SECTION)
	GRATING
	GROUT
	RIP-RAP
	GRAVEL
	SWAMP
	UNDISTURBED EARTH
	DISTURBED EARTH
	SAND
	ROCK

LEGEND

	CENTER LINE
	FIRE HYDRANT
	WATER MANHOLE
	WATER METER
	SANITARY SEWER MANHOLE
	GREASE TRAP
	STORM DRAIN MANHOLE
	COMMUNICATION MANHOLE
	COMMUNICATION VAULT
	UTILITY POLE
	IN LINE VALVE
	HORIZONTAL CONTROL POINT
	GUY WIRE
	ELECTRICAL MANHOLE
	BENCHMARK
	VALVE IN MANHOLE
	GRATE INLET

REV	DATE	REVISIONS
5	11/12/24	REVISED WATER CONNECTION TO EFF. CNTY.
4	JAF 7/23/24	REVISED PER EPD COMMENTS
3	JAF 4/16/24	REVISED PER EFFINGHAM CO. COMMENTS
2	JAF 11/29/23	REVISED PER CONSOLIDATED UTILITIES COMMENTS
1	JAF 10/31/23	REVISED PER CONSOLIDATED UTILITIES COMMENTS

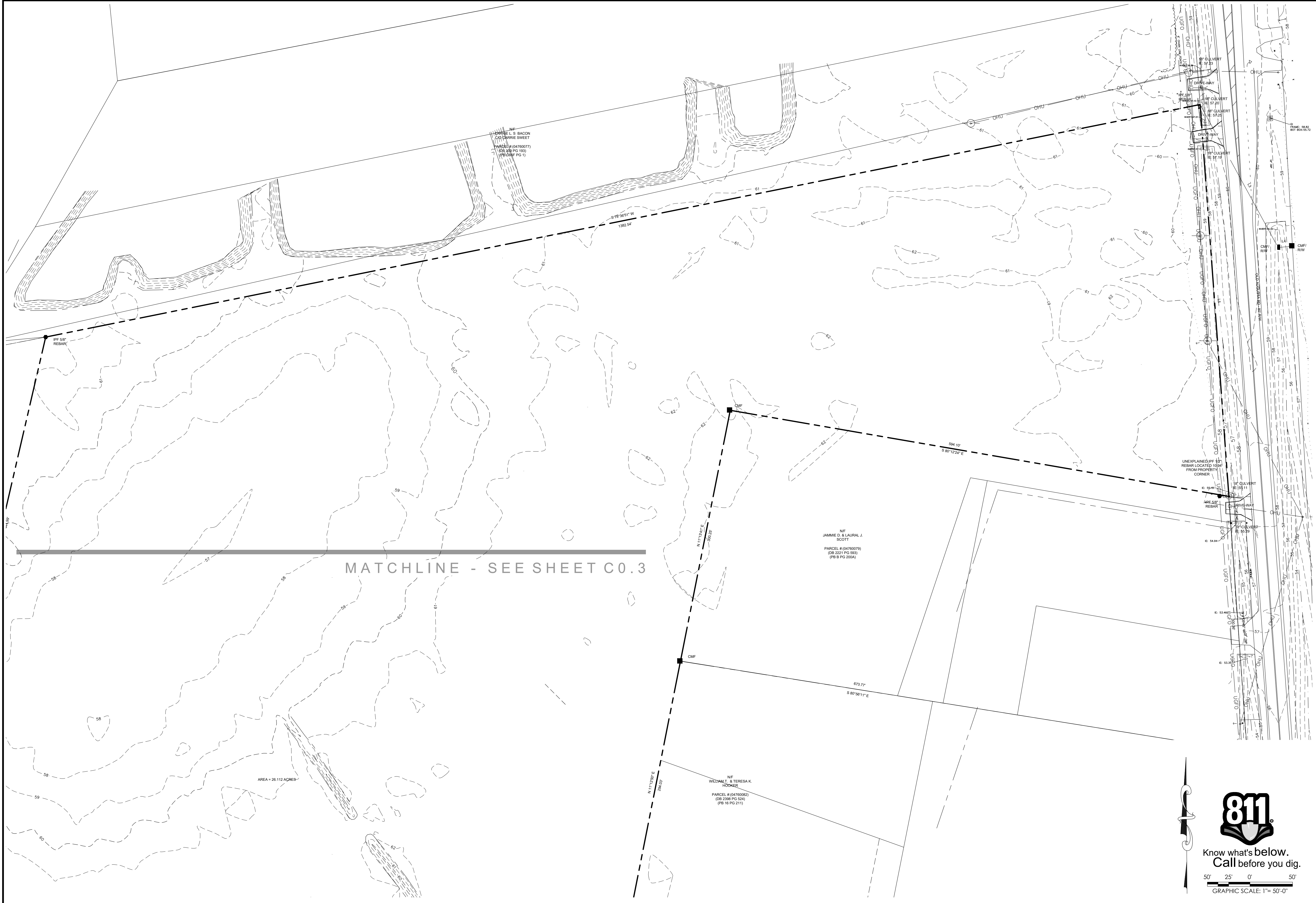
JASON L. BRYANT, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL CERTIFICATION #73897

Pittman Engineering Co., LLC
2591 Hwy 17S Suite 303
Richmond Hill, GA 31324
912-445-0578
www.PittmanEngineeringCo.com

GENERAL NOTES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: ---
Date: 8/3/23

SHEET
C0.1

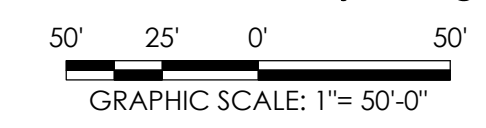


AREA = 26.112 ACRES

MATCHLINE - SEE SHEET C0.3



Know what's below.
Call before you dig.



REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON L. BRYANT, P.E.
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

Pittman Engineering Co., LLC
 2591 Hwy. 175 Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

EXISTING CONDITIONS PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
C0.2



Line Table		
Line #	Length	Direction
L1	80.00	S79° 00' 00.00"W
L2	28.03	S11° 00' 00.00"E

Curve Table					
Curve #	Radius	Length	Chord Direction	Chord Length	Delta
C1	275.00	34.68	S82° 36' 44.85"W	34.65	007.2249
C2	250.00	102.54	S0° 45' 00.00"W	101.82	023.5000
C3	200.00	82.03	S0° 45' 00.00"W	81.46	023.5000

REV	DATE	BY	REVISIONS
5	11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.
4	7/23/24	JAF	REVISED PER EPD COMMENTS
3	4/16/24	JAF	REVISED PER EFFINGHAM CO. COMMENTS
2	11/29/23	JAF	REVISED PER CONSOLIDATED UTILITIES COMMENTS
1	10/31/23	JAF	REVISED PER CONSOLIDATED UTILITIES COMMENTS

JASON L. BRYANT, P.E.
 N. 18246
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

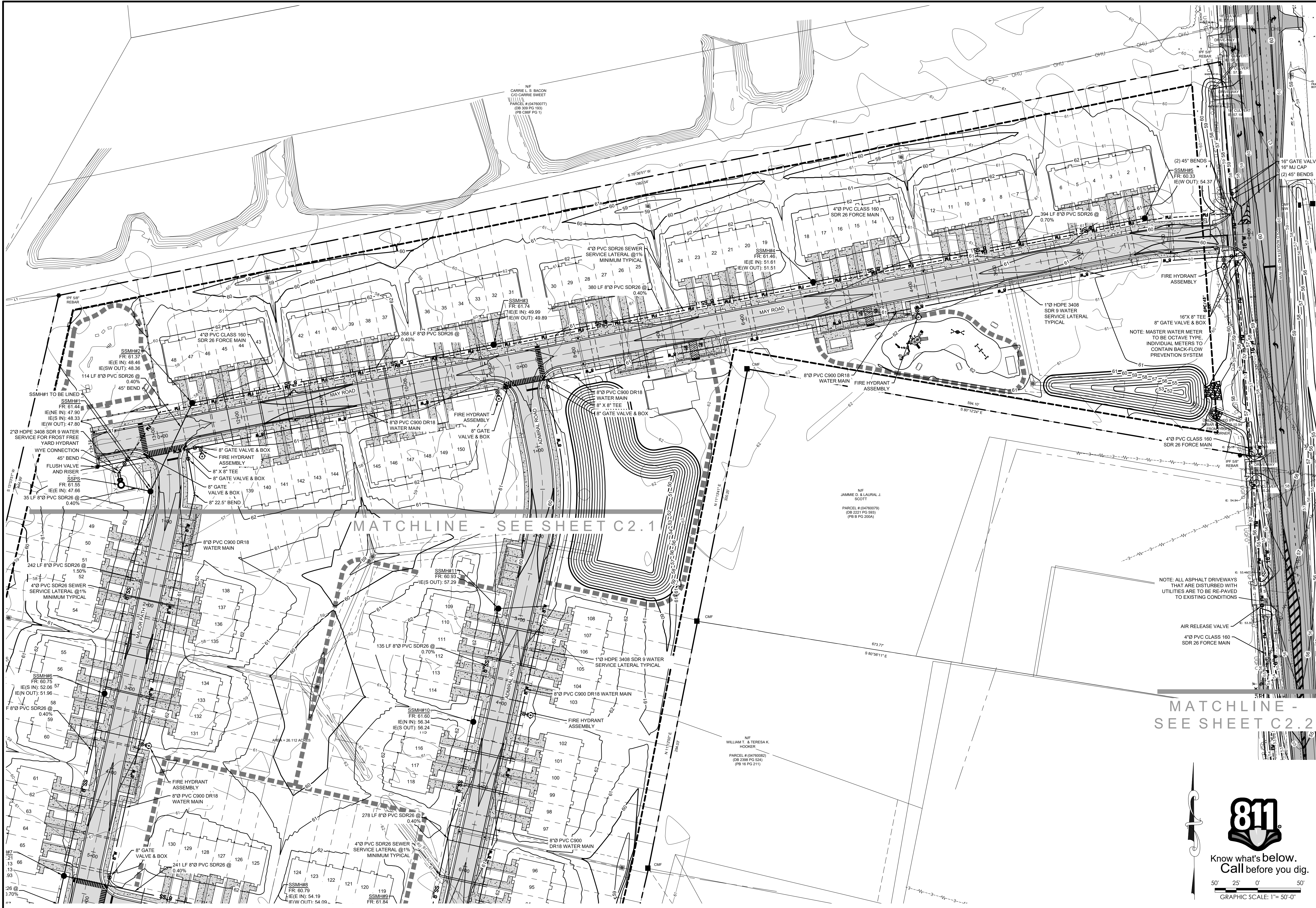
Pittman Engineering Co., LLC
 2591 Hwy 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

STAKING AND LAYOUT PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
C1.1

811
 Know what's below.
 Call before you dig.
 GRAPHIC SCALE: 1" = 50'-0"



MATCHLINE - SEE SHEET C2.1

MATCHLINE - SEE SHEET C2.2



GRAPHIC SCALE: 1" = 50'-0"

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	MJK	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON L. BRYANT, P.E.
 (SINCE LEVEL 1)
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

Pittman Engineering Co., LLC
 2591 Hwy 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

WATER AND SEWER PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
C2.0

Monday, November 15, 2023 3:24:58 PM

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REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	JAF 7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF 4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 10/31/23

JASON L. BRYANT, P.E.
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

Pittman Engineering Co., LLC
 2591 Hwy 175 Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

WATER AND SEWER PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

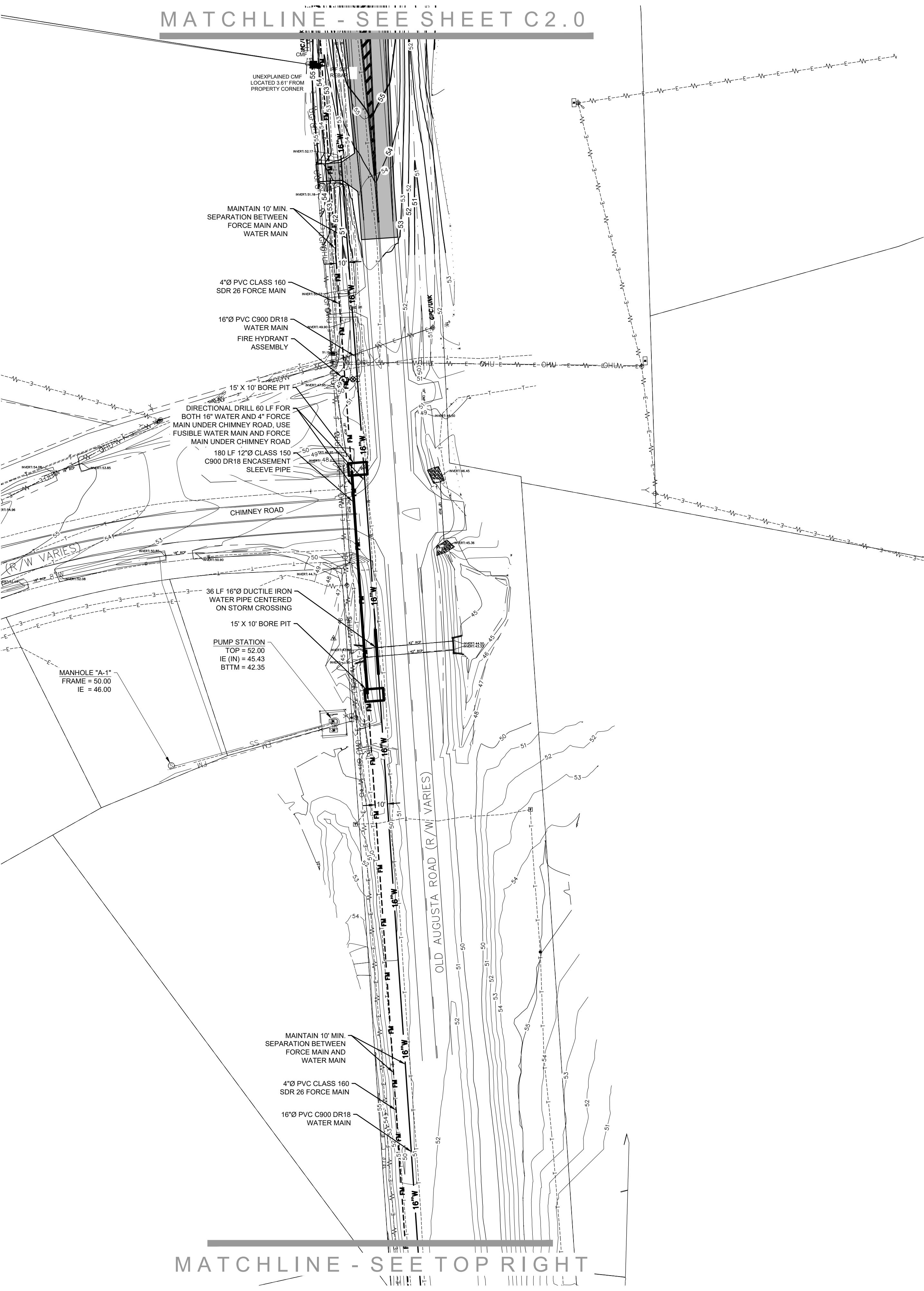
Project No. 2023-6
 Drawn By: JAF
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C2.1

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

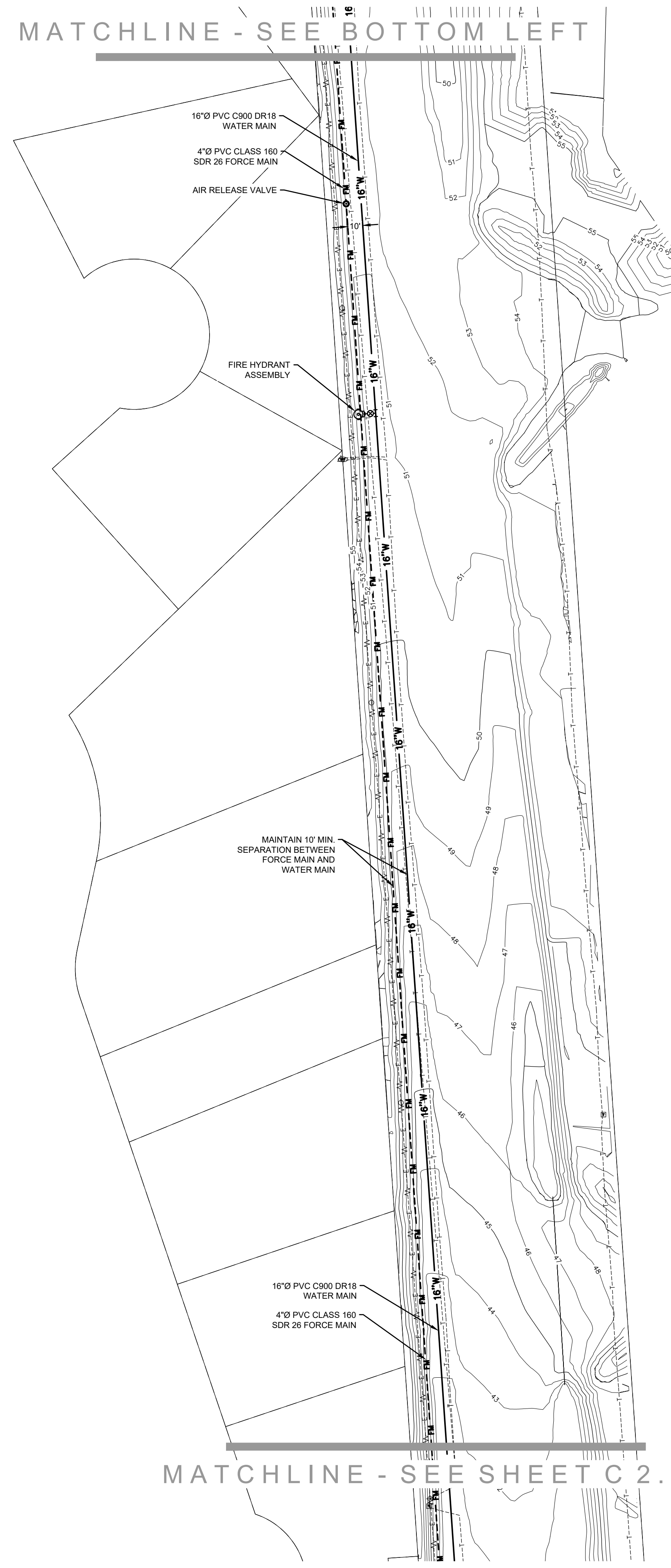
50' 25' 0' 50'
 GRAPHIC SCALE: 1" = 50'-0"

MATCHLINE - SEE SHEET C2.0



MATCHLINE - SEE TOP RIGHT

MATCHLINE - SEE BOTTOM LEFT



MATCHLINE - SEE SHEET C 2.3



Know what's below.
Call before you dig.

50' 25' 0' 50'
GRAPHIC SCALE: 1" = 50'-0"

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	MJK	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
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2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

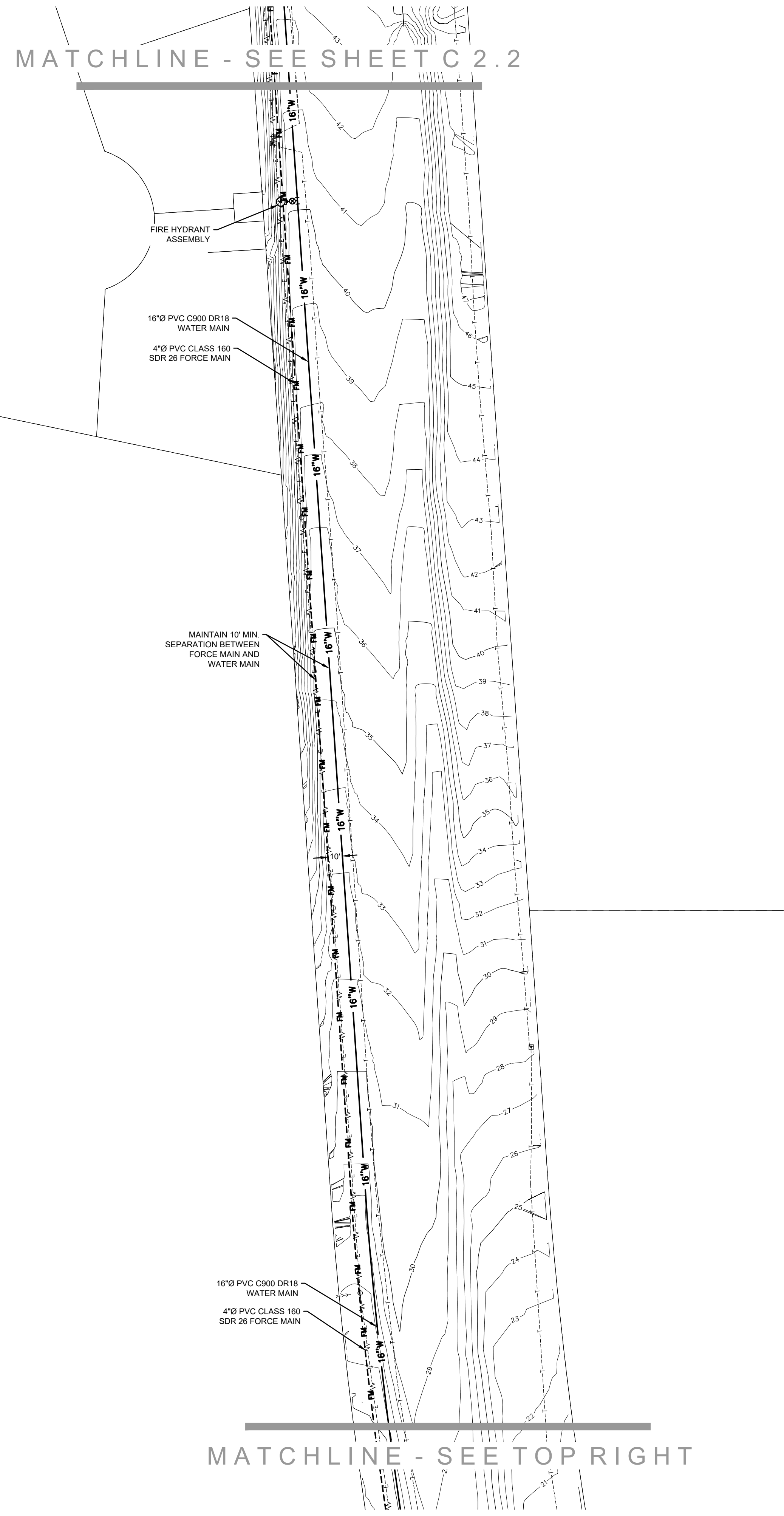
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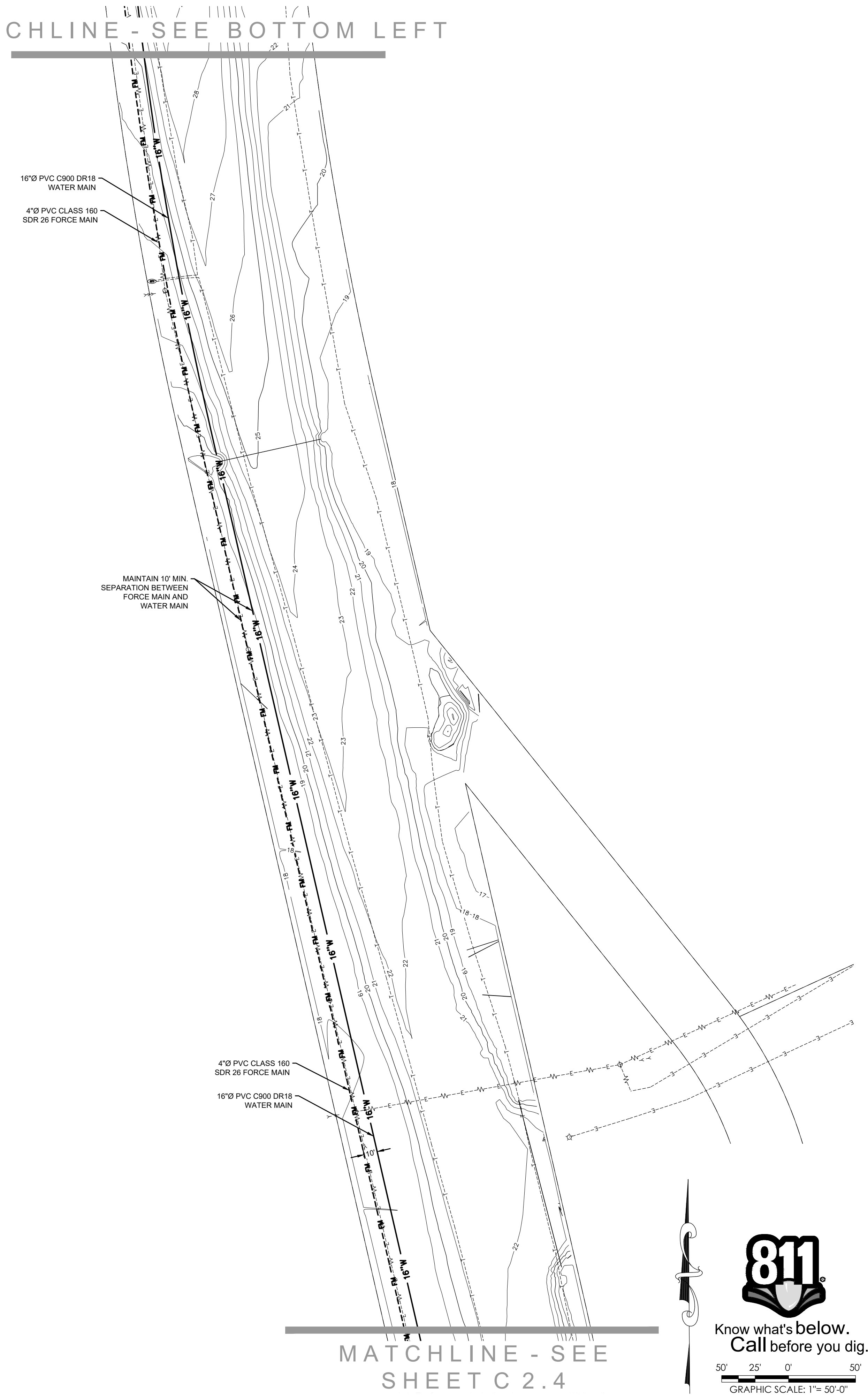
WATER AND SEWER PLAN
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Project No.	2023-6
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SHEET
C2.2



MATCHLINE - SEE BOTTOM LEFT



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1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

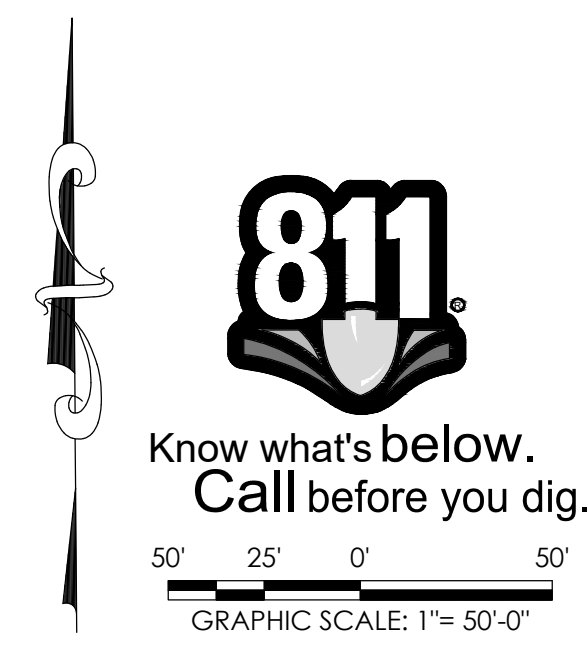
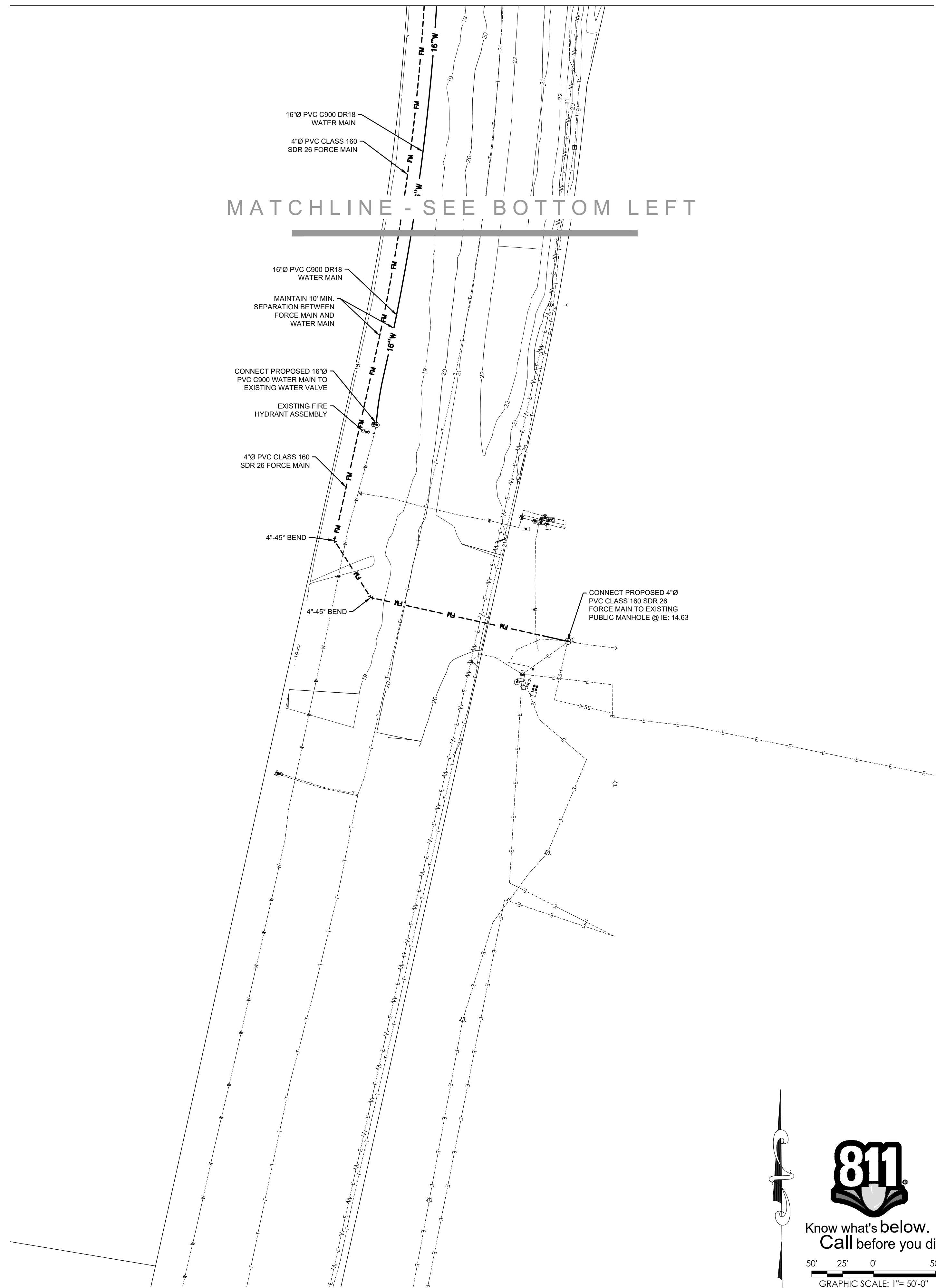
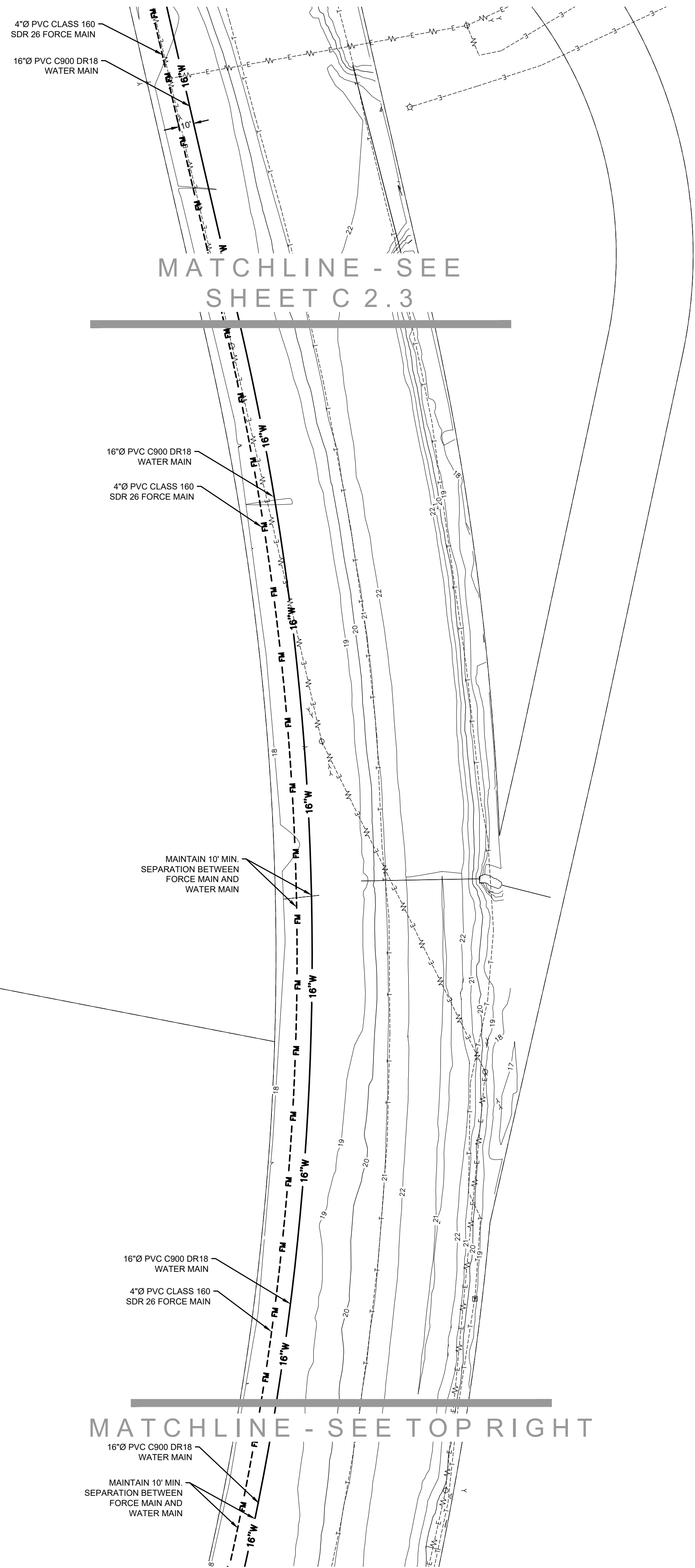
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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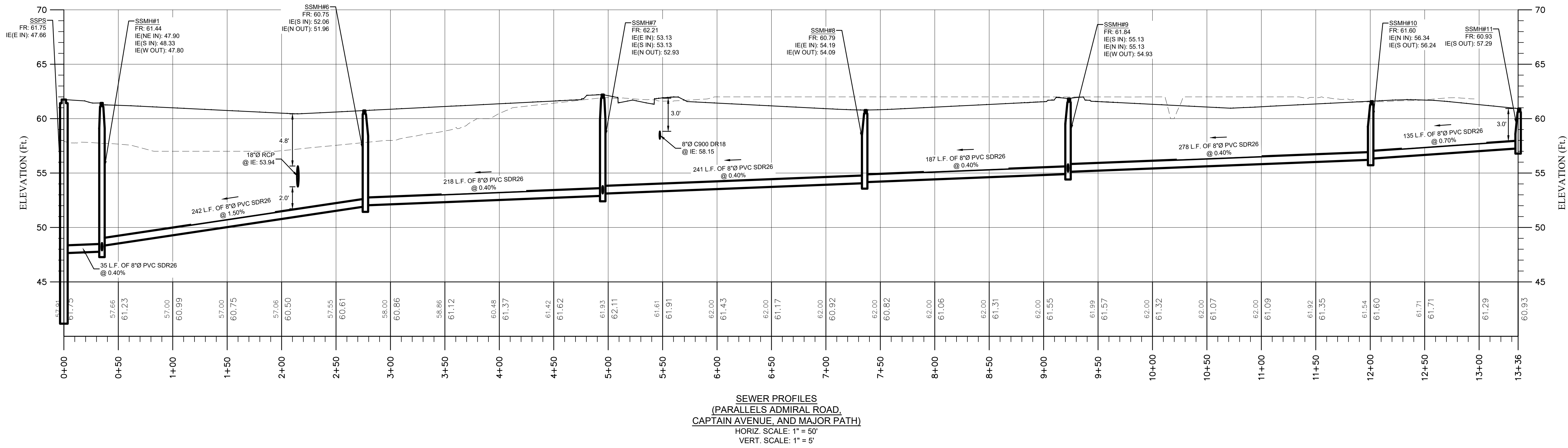
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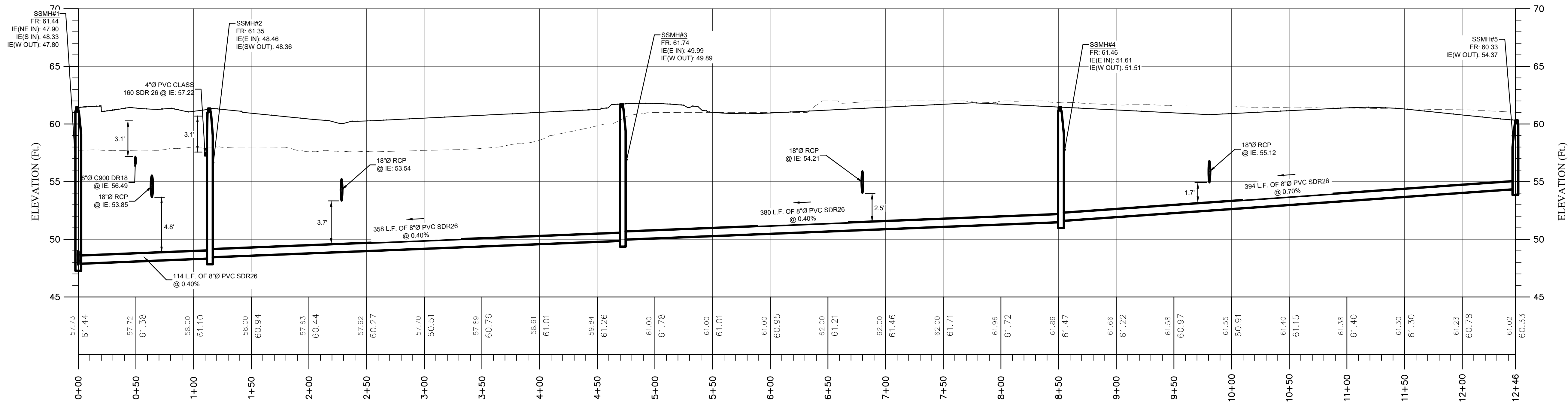
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SHEET
C2.4



**SEWER PROFILES
(PARALLELS ADMIRAL ROAD,
CAPTAIN AVENUE, AND MAJOR PATH)**
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



**SEWER PROFILES
(PARALLELS MAY ROAD)**
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

NOTE:
CROSSINGS:
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3. WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECTED TO HYDROSTATIC TEST, AS PRESCRIBED IN THESE NOTES. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:
A. ENCASEMENT OF THE WATER MAIN OR SEWER IN A CARRIER PIPE CONSTRUCTED OF WATER MAIN MATERIALS & EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.
B. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

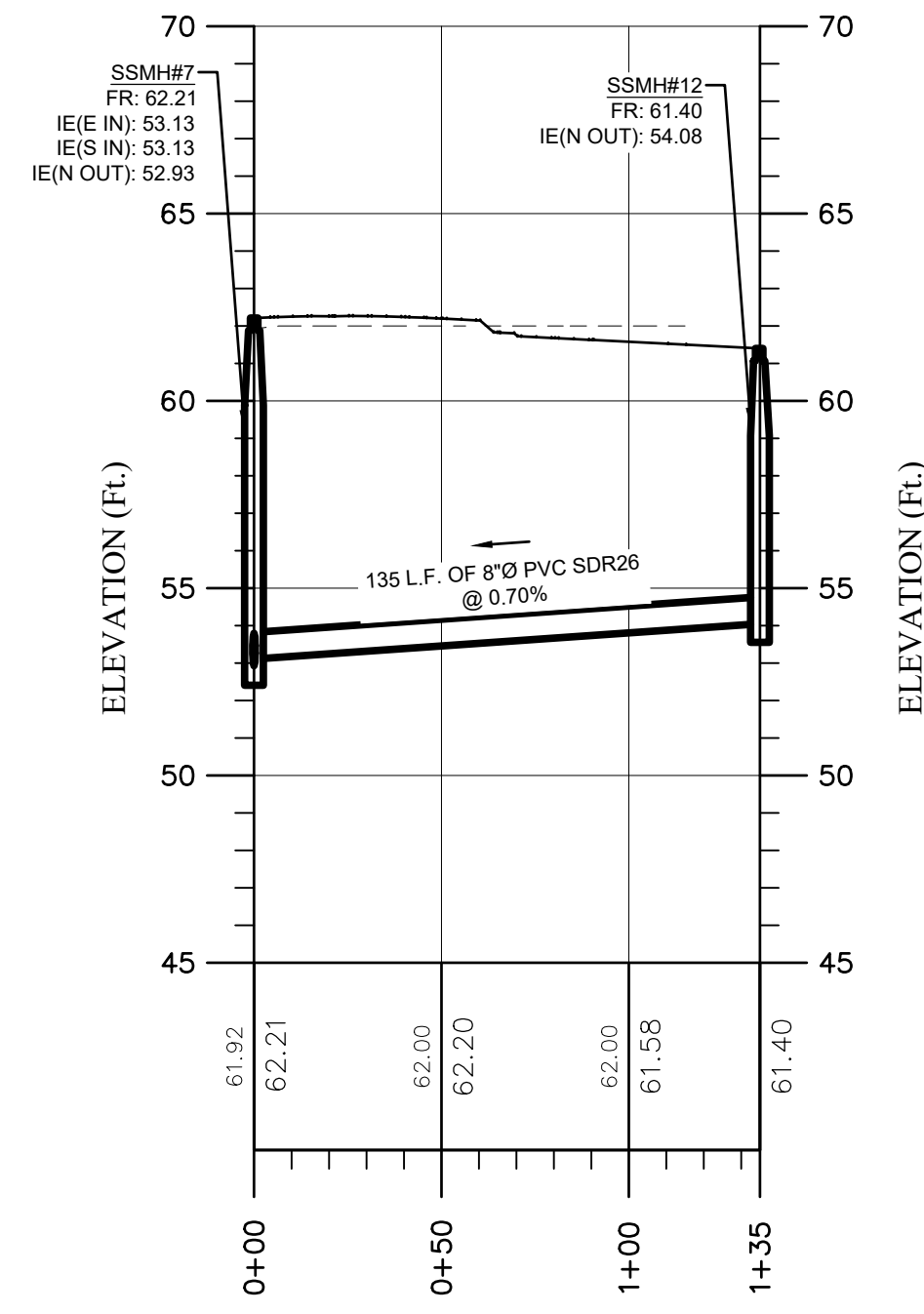
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JASON L. BRYANT, P.E.
REGISTERED PROFESSIONAL
DESIGN PROFESSIONAL
CERTIFICATION #73897

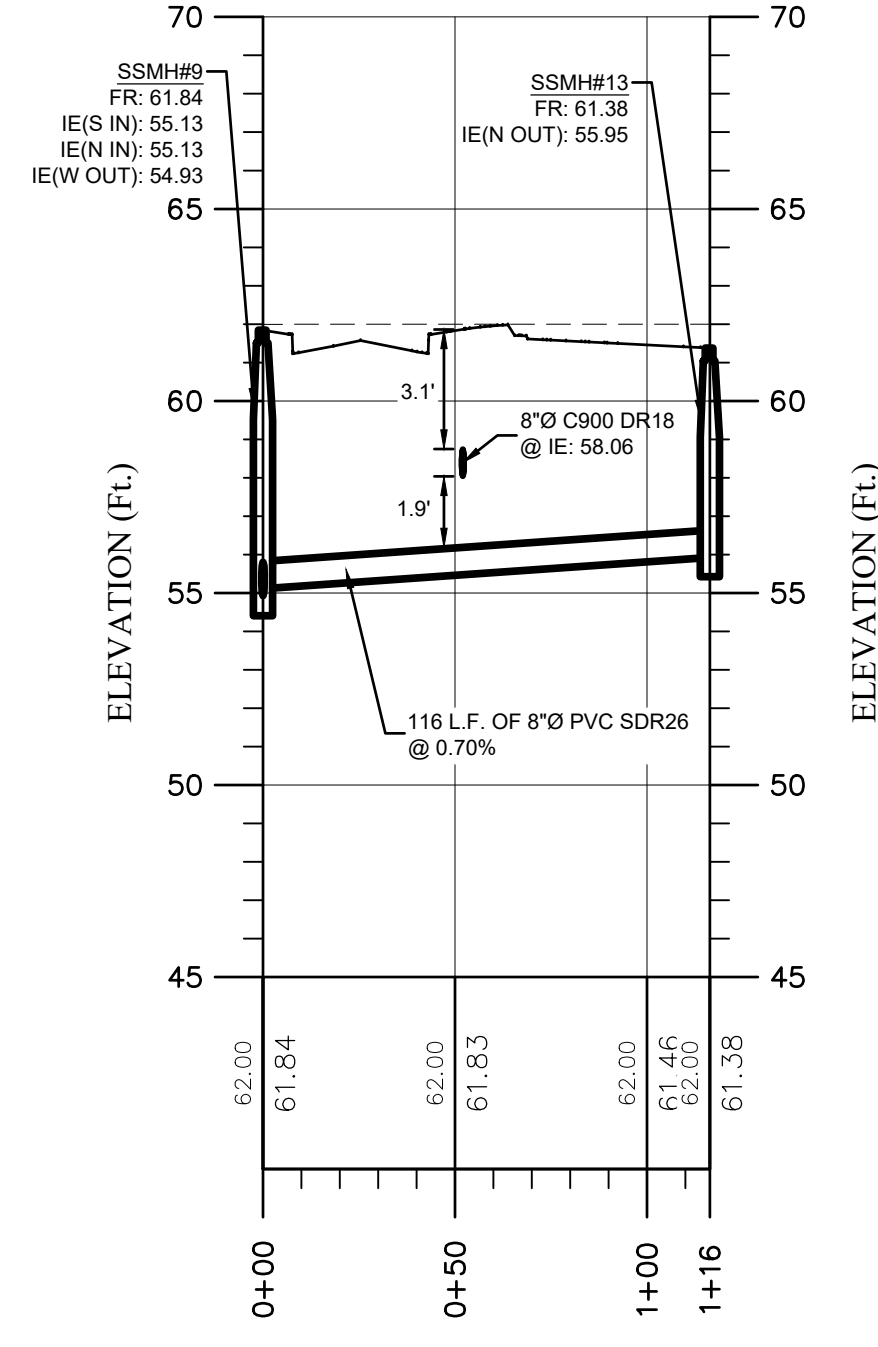
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SEWER PROFILES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
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 Designed By: JUB
 Checked By: JUB
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SEWER PROFILES
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



SEWER PROFILES
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

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3. WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECTED TO HYDROSTATIC TEST, AS PRESCRIBED IN THESE NOTES. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:
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B. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

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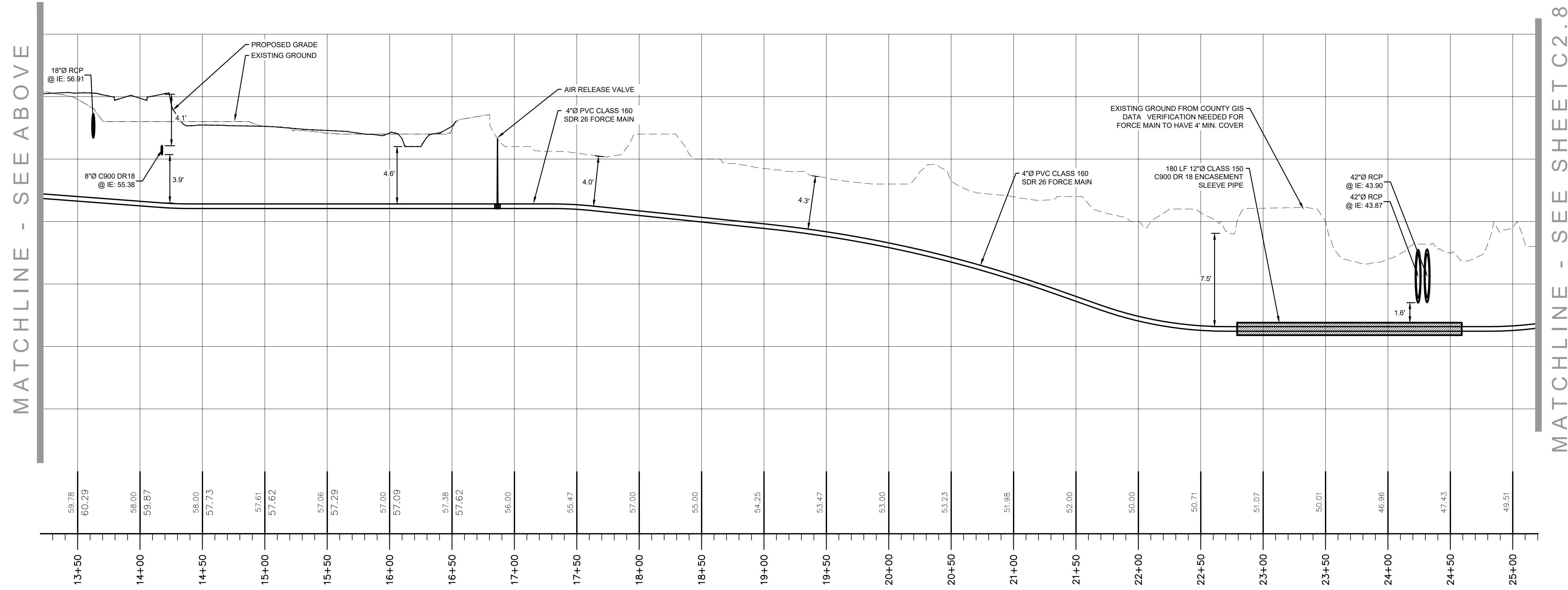
JASON J. BRYANT, P.E.
GSWCC LEVEL II
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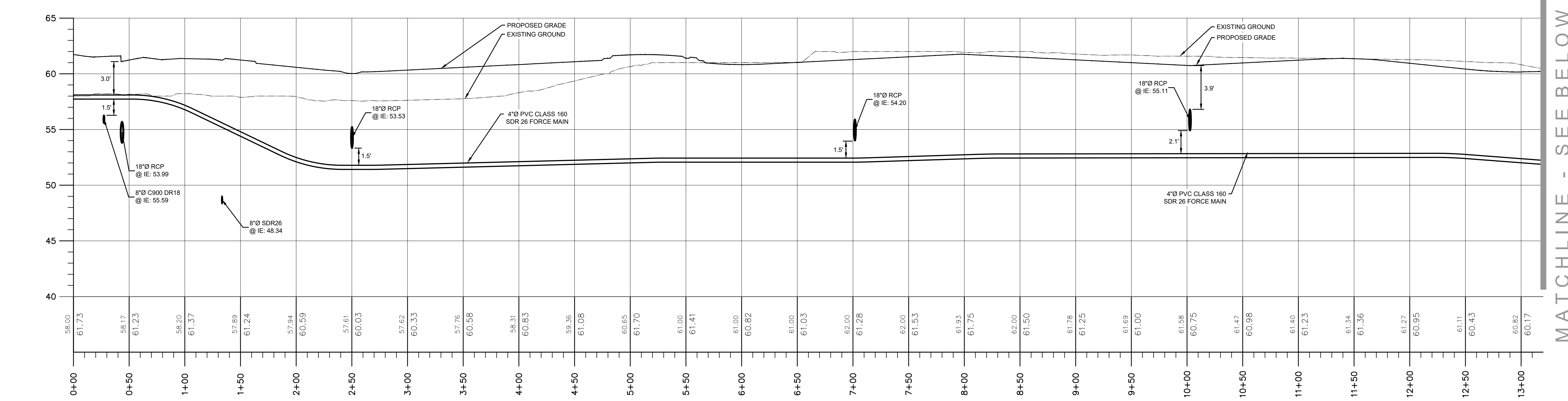
SEWER PROFILES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
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SHEET
C2.6



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 3. WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECTED TO HYDROSTATIC TEST, AS PRESCRIBED IN THESE NOTES. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:
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 B. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.



MATCHLINE - SEE BELOW

MATCHLINE - SEE ABOVE

MATCHLINE - SEE SHEET C2.8

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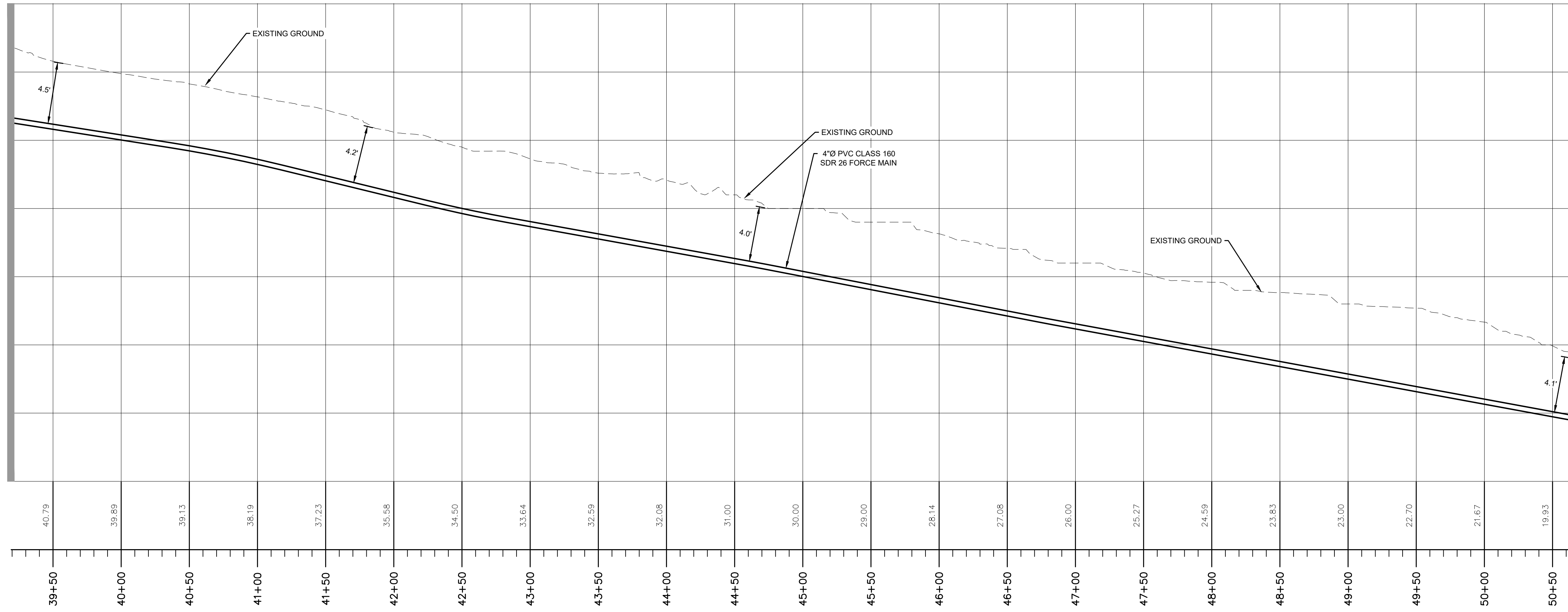
Pittman Engineering Co., LLC
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FORCE MAIN PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
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C2.7

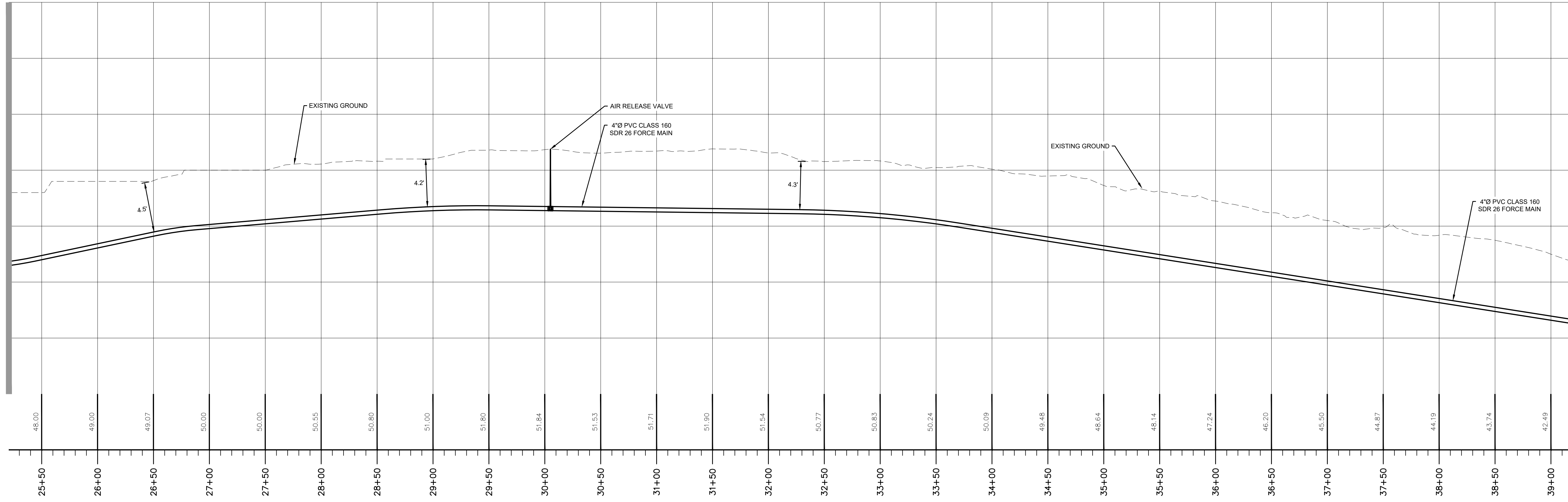
MATCHLINE - SEE ABOVE



FORCE MAIN PROFILES
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

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B. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

MATCHLINE - SEE SHEET C2.7



FORCE MAIN PROFILES
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

MATCHLINE - SEE BELOW

MATCHLINE - SEE ABOVE

MATCHLINE - SEE SHEET C2.9

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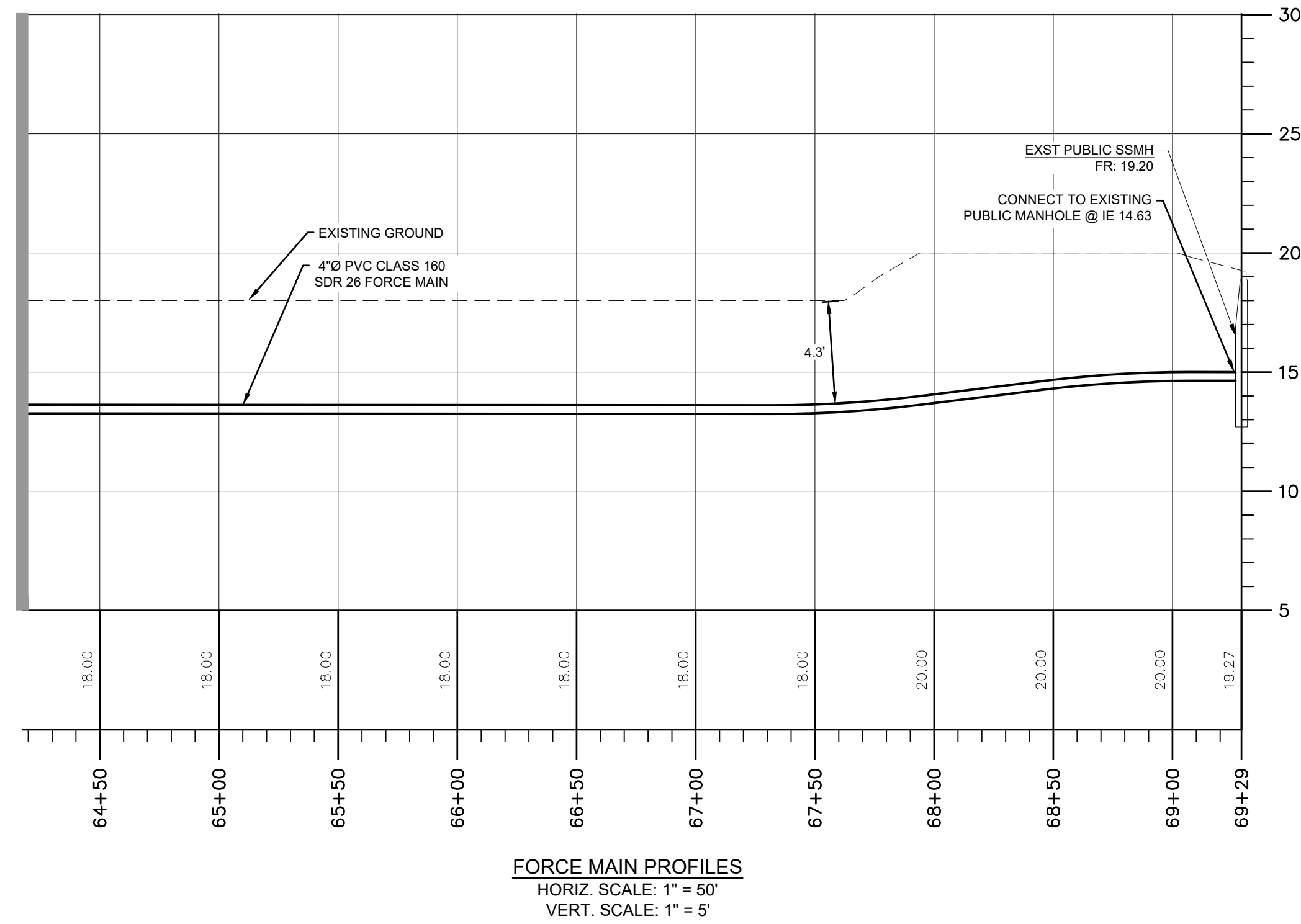
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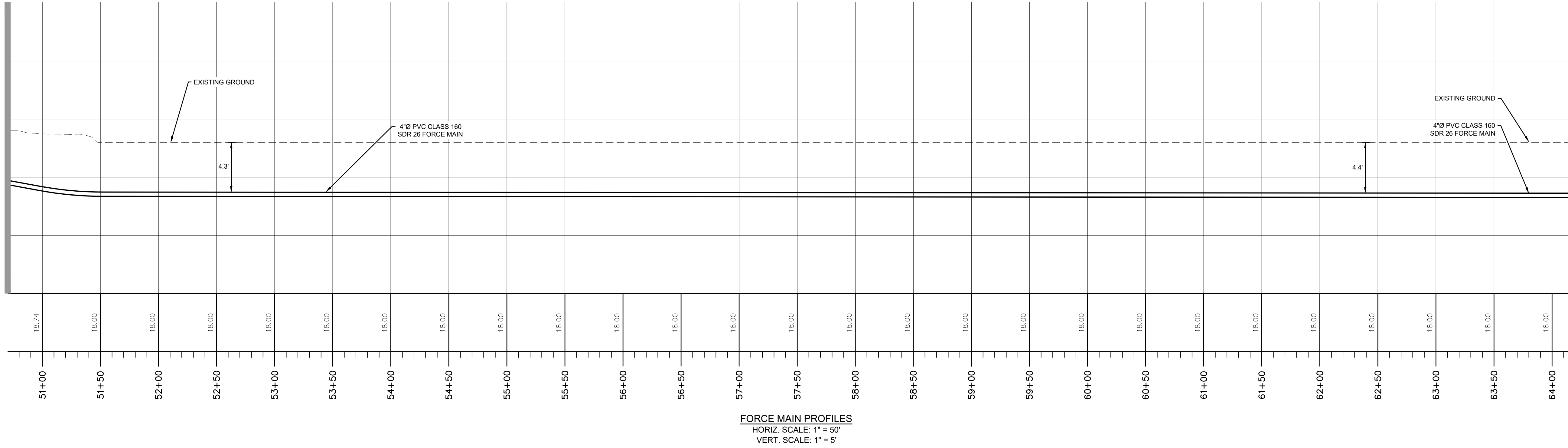
SHEET
C2.8

MATCHLINE -
SEE ABOVE



FORCE MAIN PROFILES
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

MATCHLINE - SEE
SHEET C2.8



FORCE MAIN PROFILES
HORIZ. SCALE: 1" = 50'
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NOTE:

CROSSINGS:

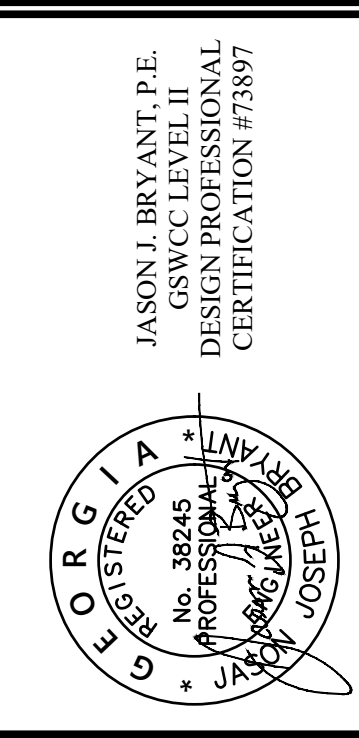
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- WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECTED TO HYDROSTATIC TEST, AS PRESCRIBED IN THESE NOTES. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:
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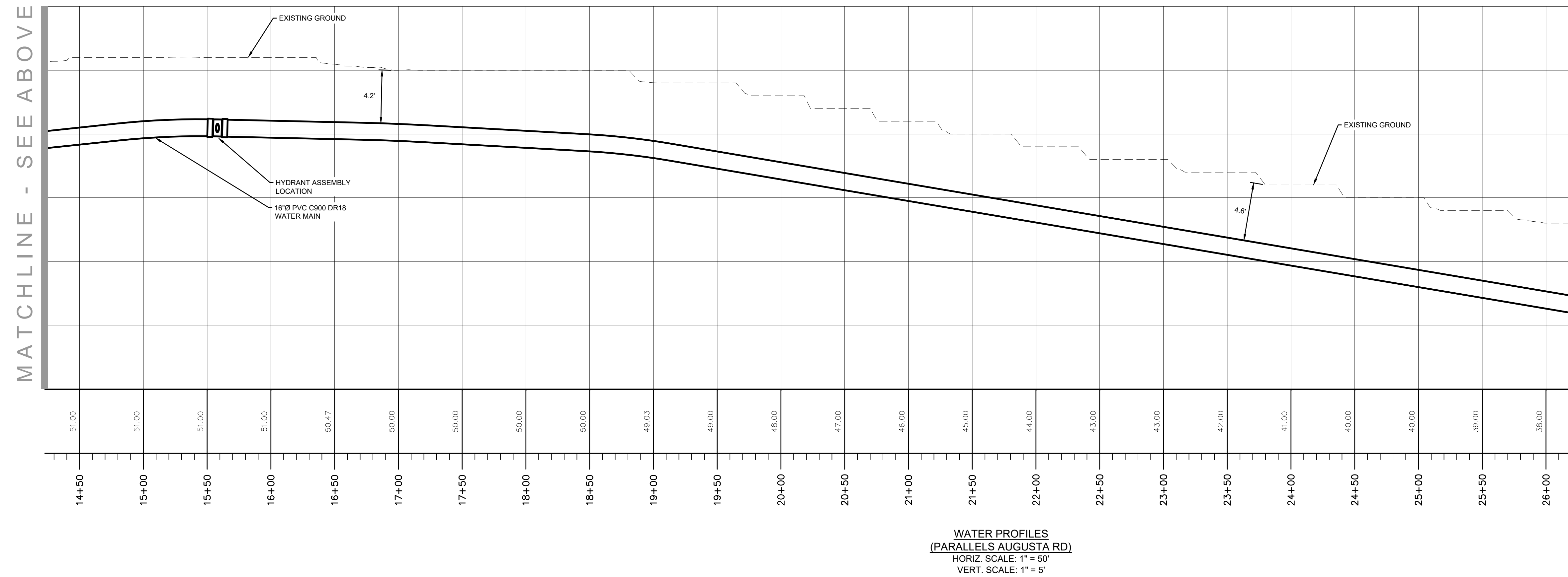
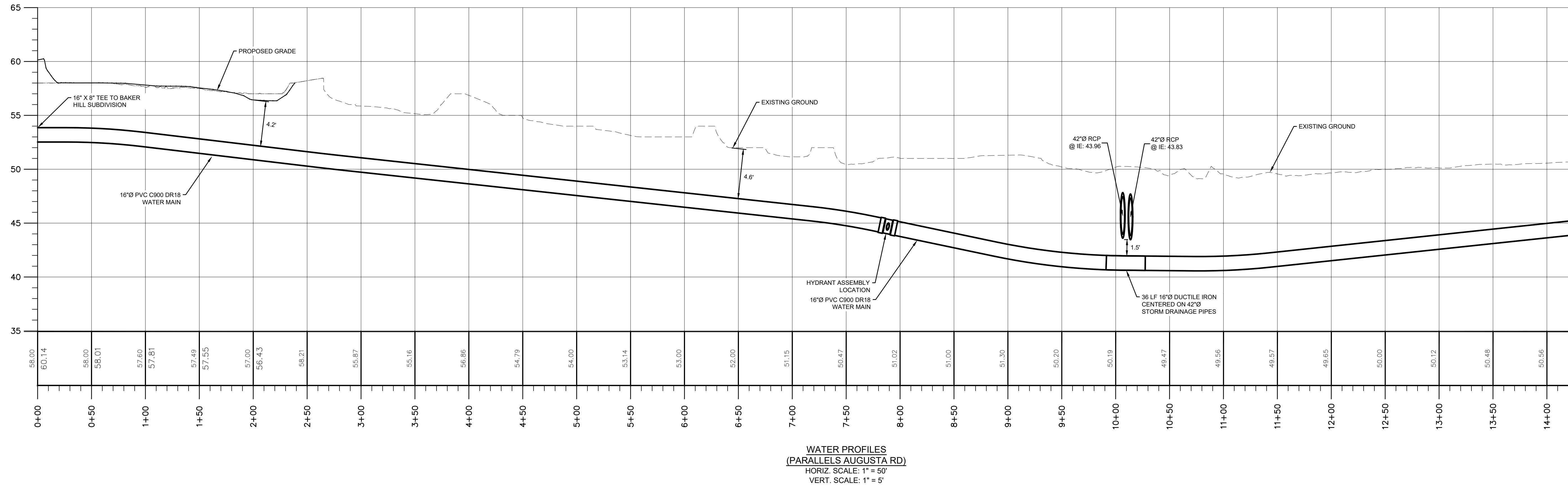
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B. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

MATCHLINE - SEE BELOW

MATCHLINE - SEE ABOVE

MATCHLINE - SEE SHEET C2.11

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
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1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON J. BRYANT, P.E.
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

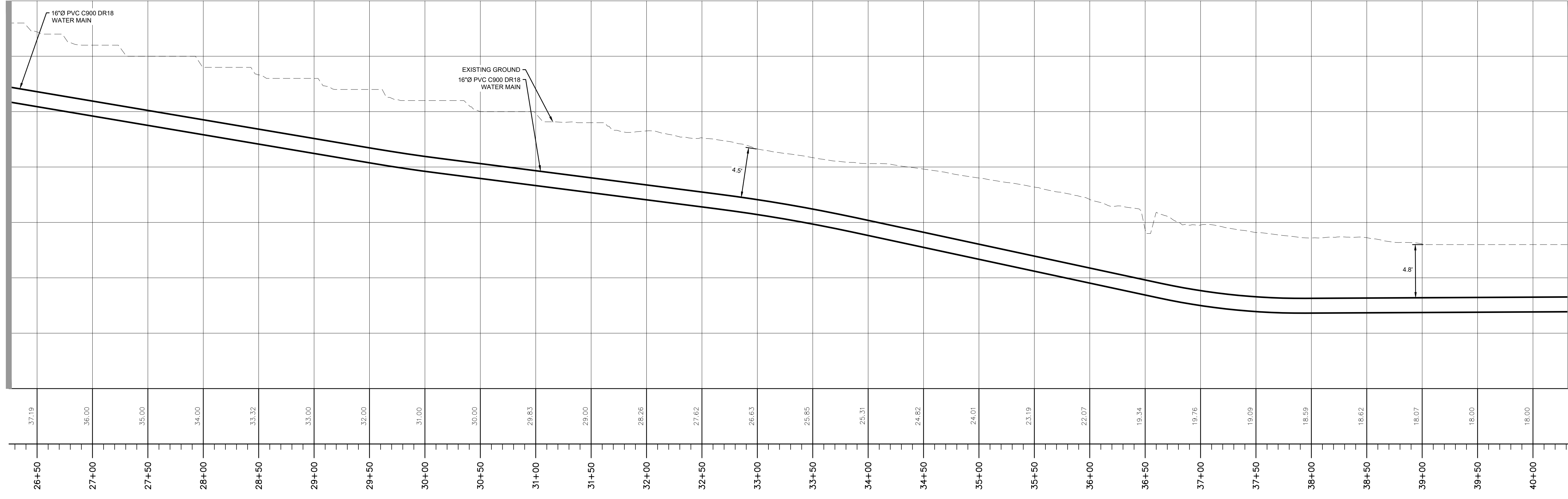
Pittman Engineering Co., LLC
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912-445-0578
www.PittmanEngineeringCo.com

WATER MAIN PROFILES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: ---
Date: 8/3/23

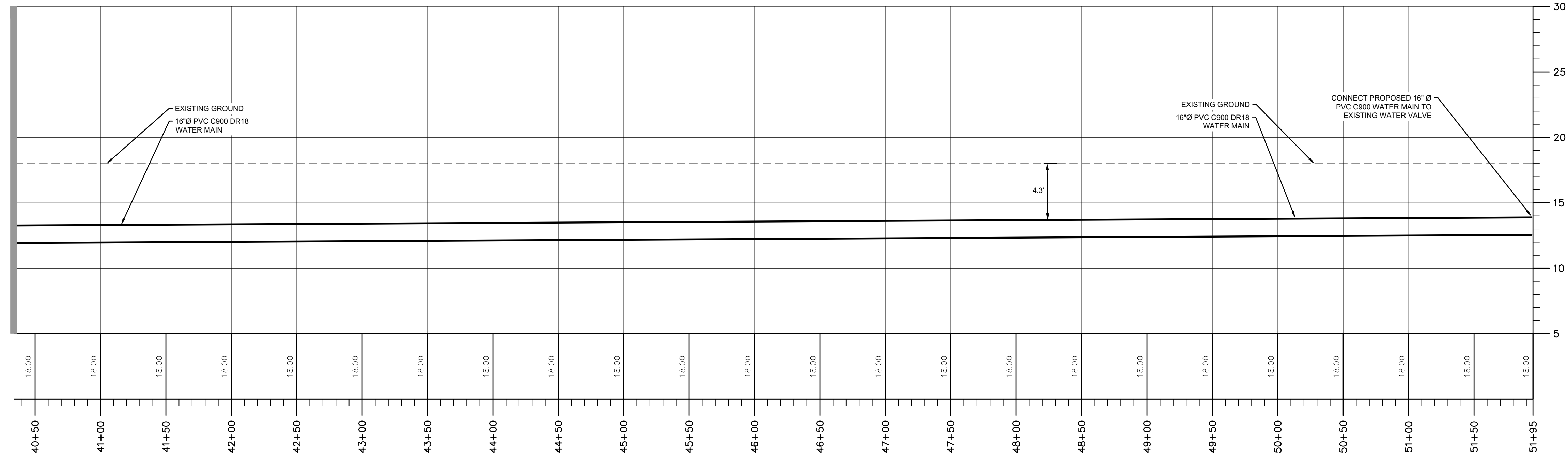
SHEET
C2.10

MATCHLINE - SEE SHEET C2.10



WATER PROFILES
(PARALLELS AUGUSTA RD)
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

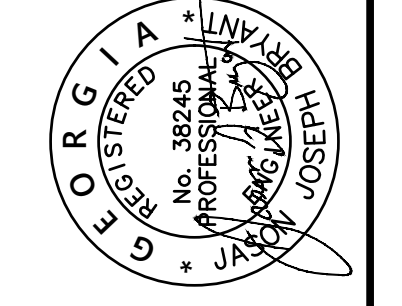
MATCHLINE - SEE ABOVE



WATER PROFILES
(PARALLELS AUGUSTA RD)
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

NOTE:
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3. WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECT TO HYDROSTATIC TEST, AS PRESCRIBED IN THESE NOTES. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:
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MATCHLINE - SEE BELOW



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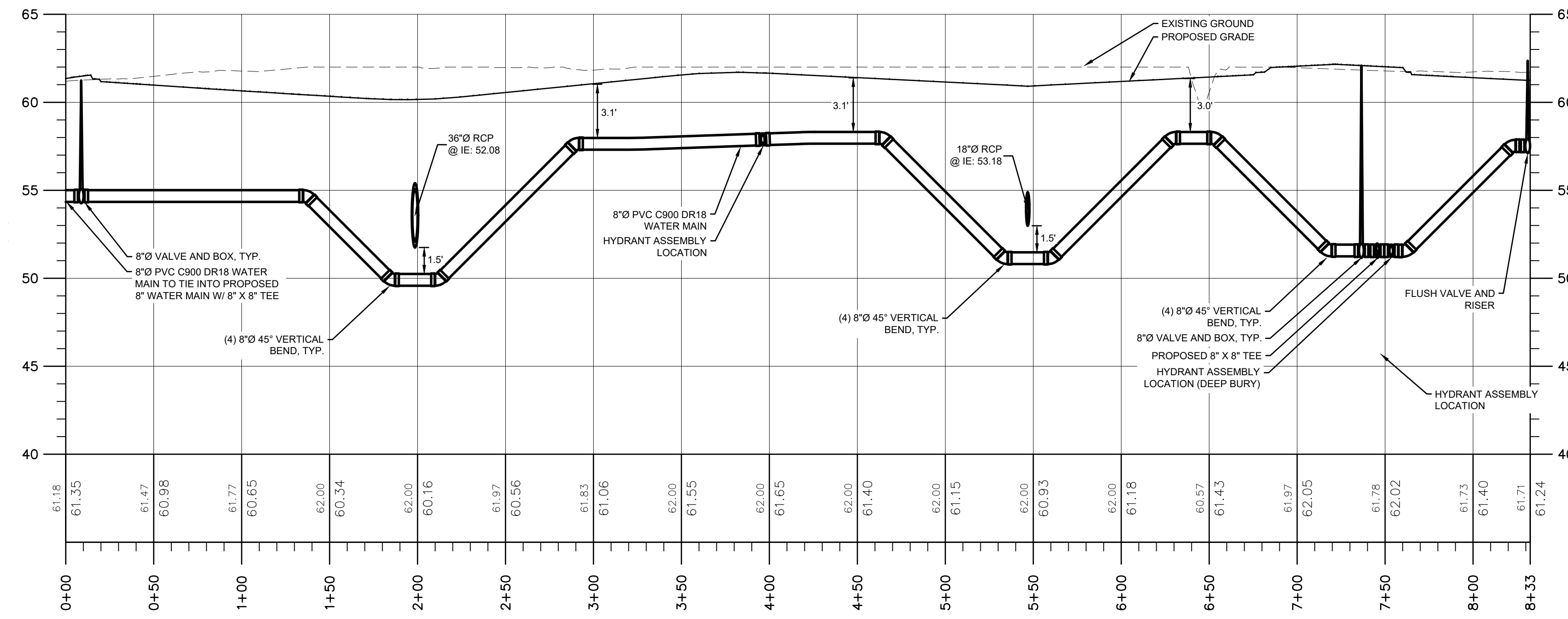
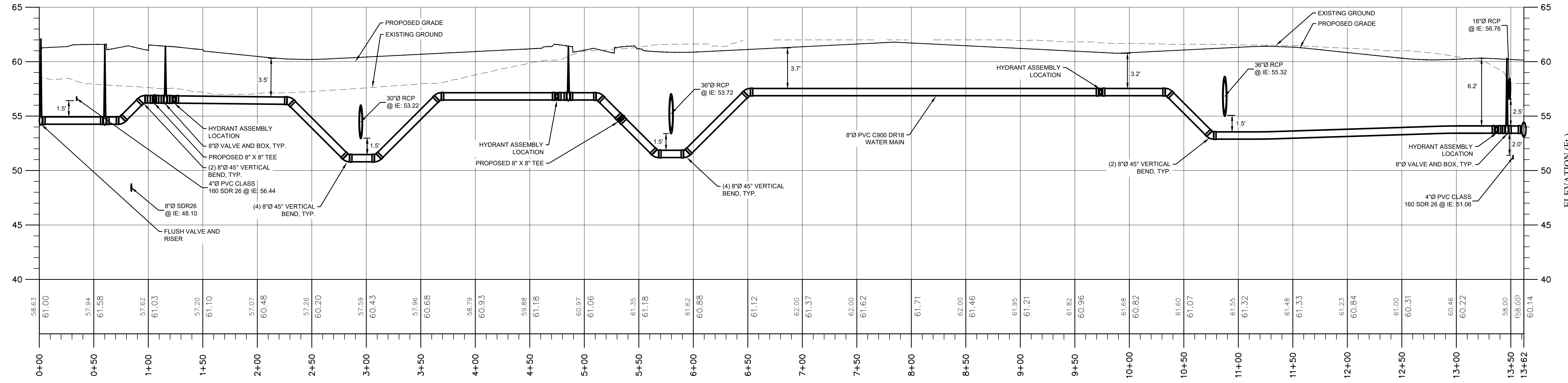
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SHEET
C2.11

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1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23



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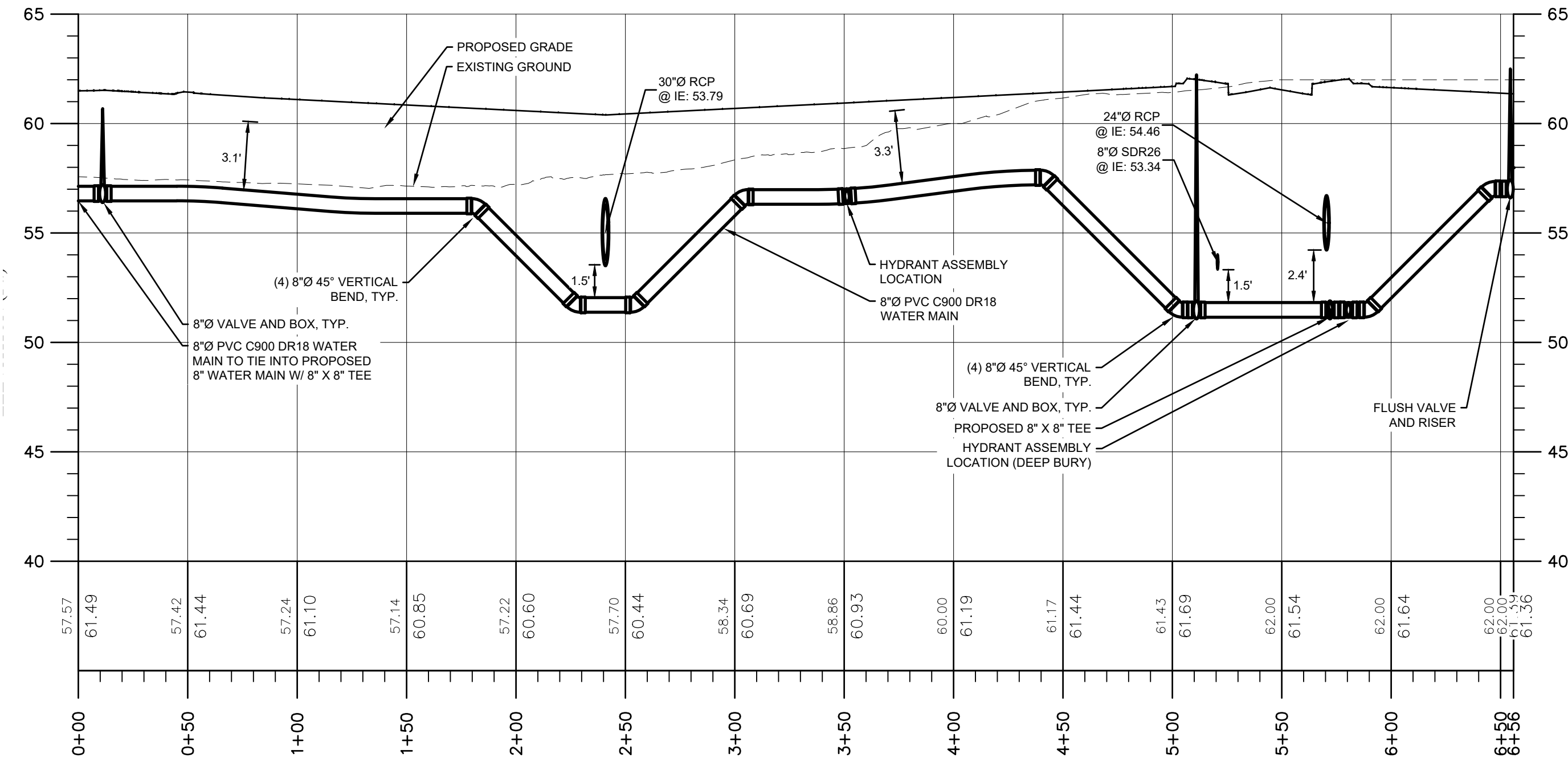
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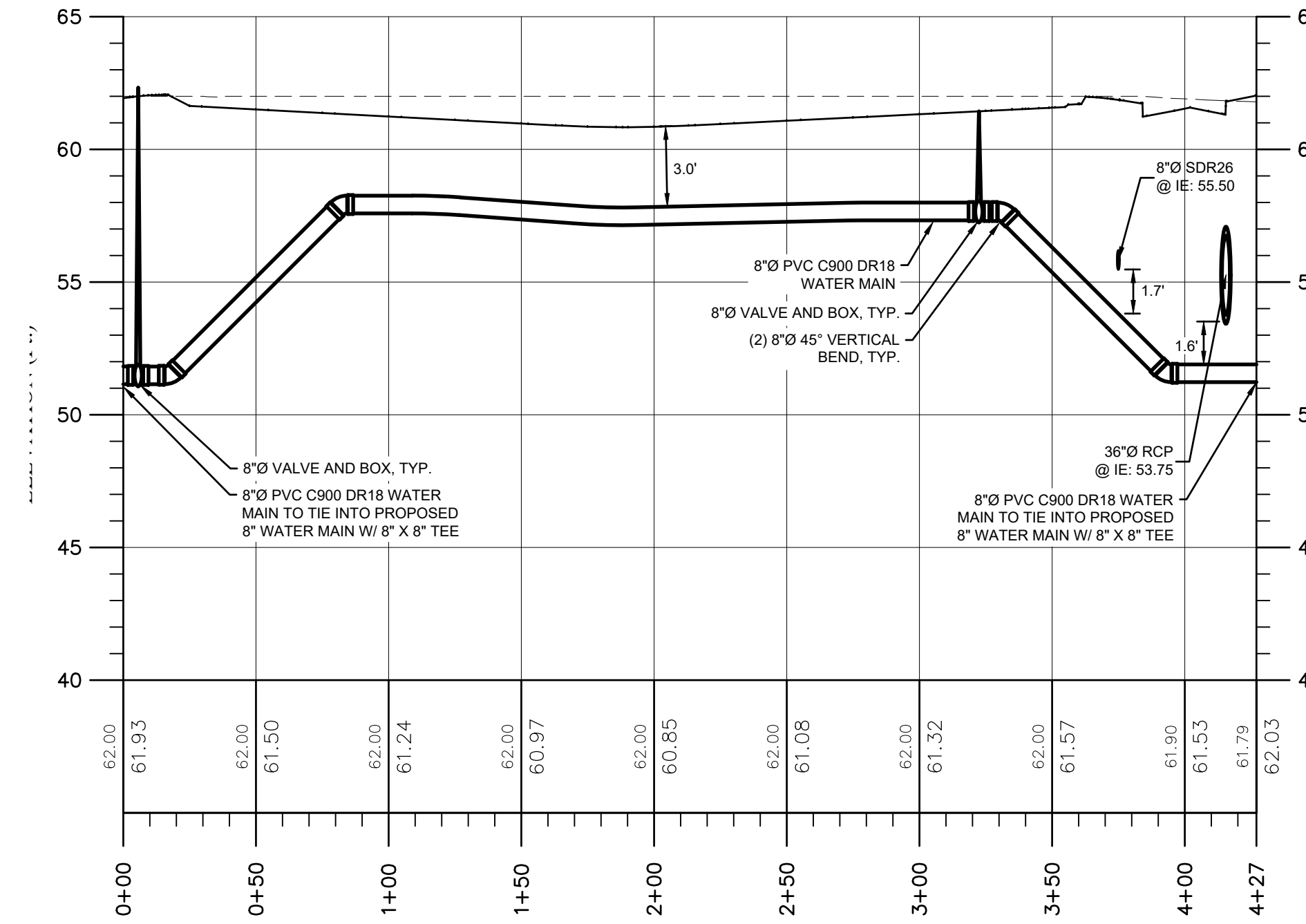
WATER MAIN PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	---
Date:	8/3/23

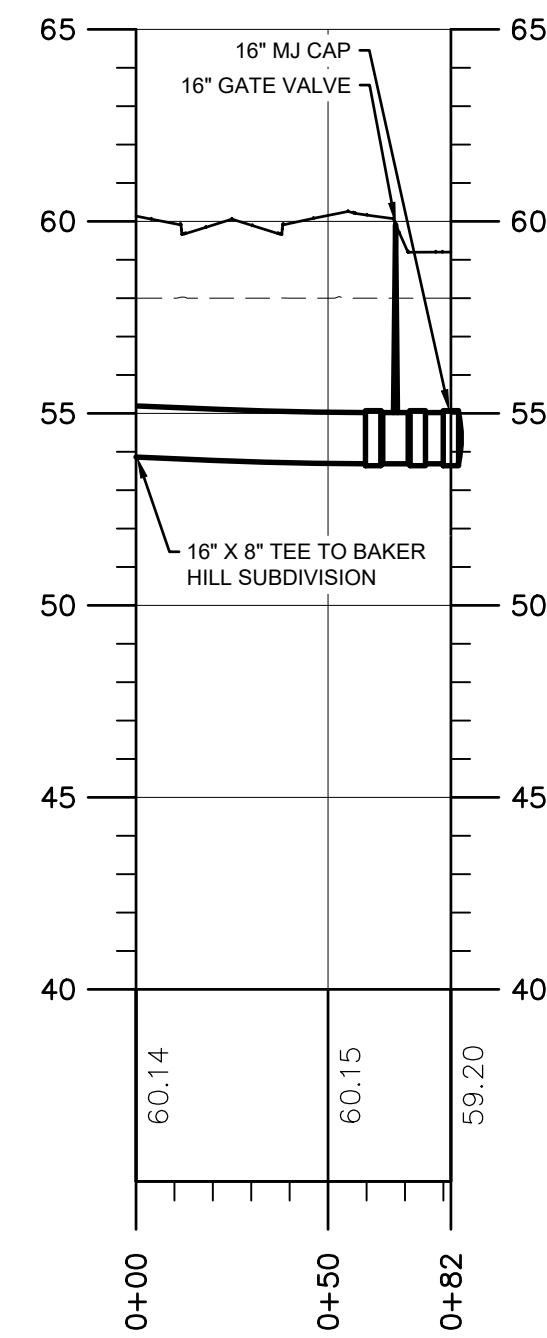
SHEET
C2.12



**WATER PROFILES
(PARALLELS MAJOR PATH)**
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



**WATER PROFILES
(PARALLELS CAPTAIN AVENUE)**
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



**WATER PROFILES
(PARALLELS AUGUSTA RD
NORTH)**
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

NOTE:
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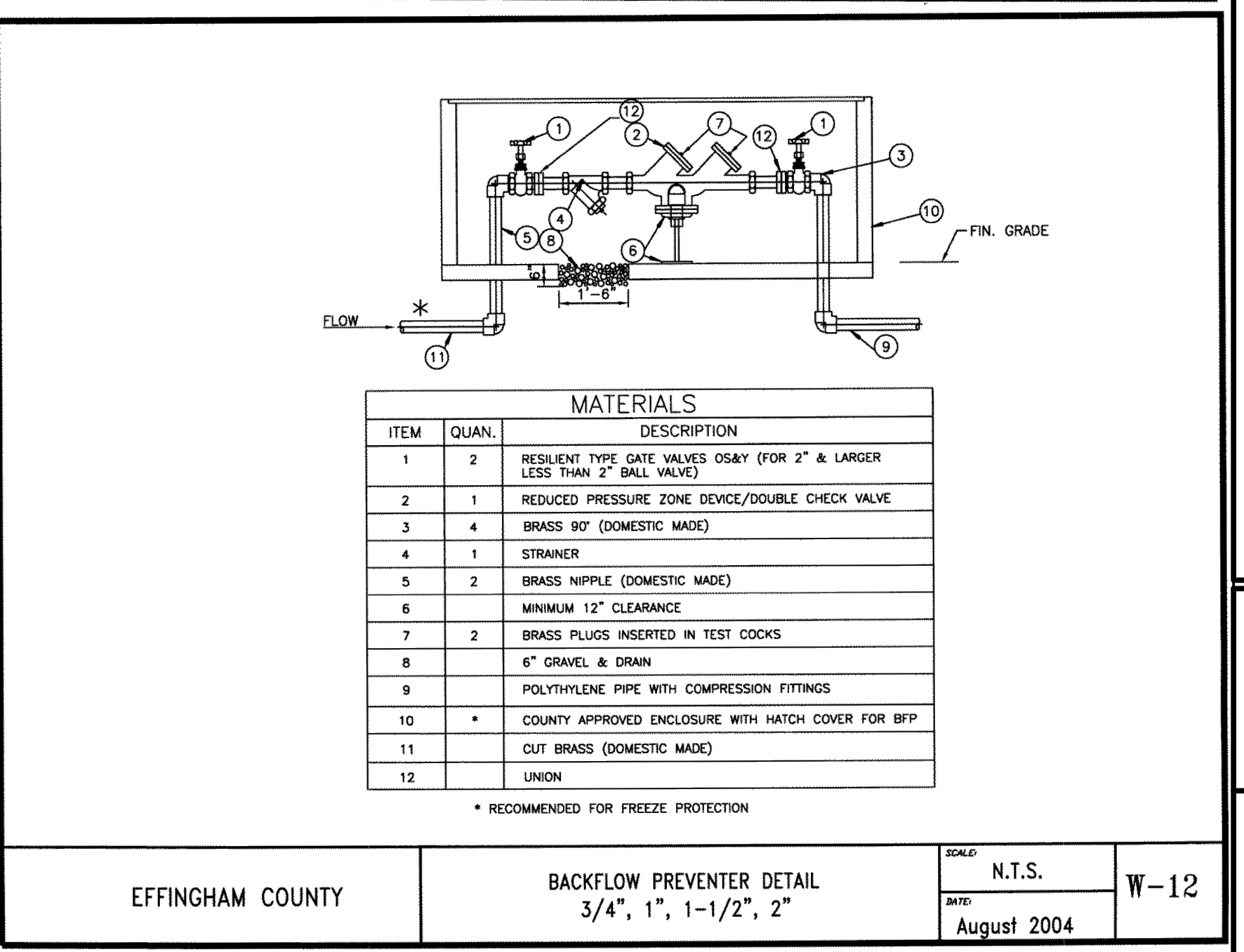
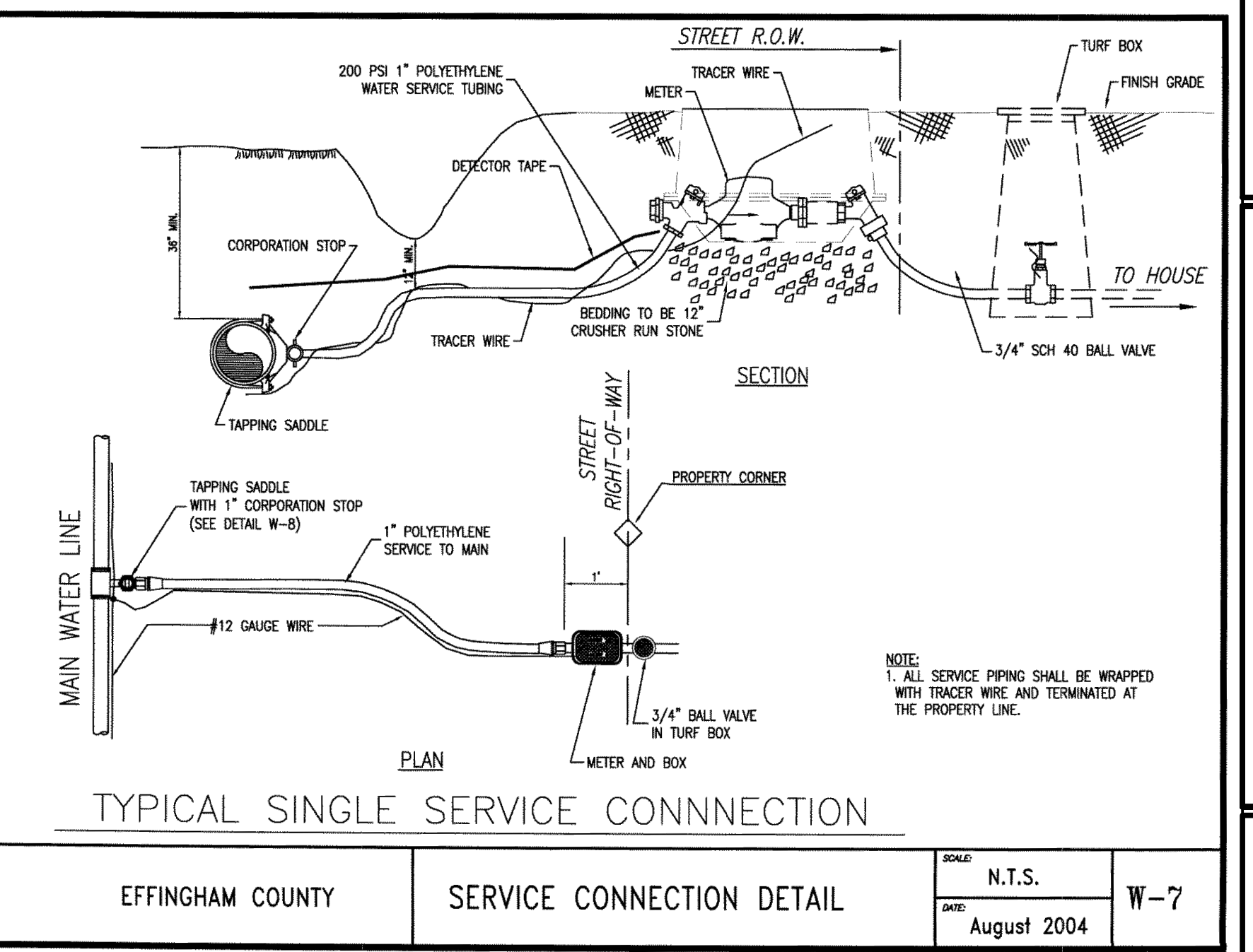
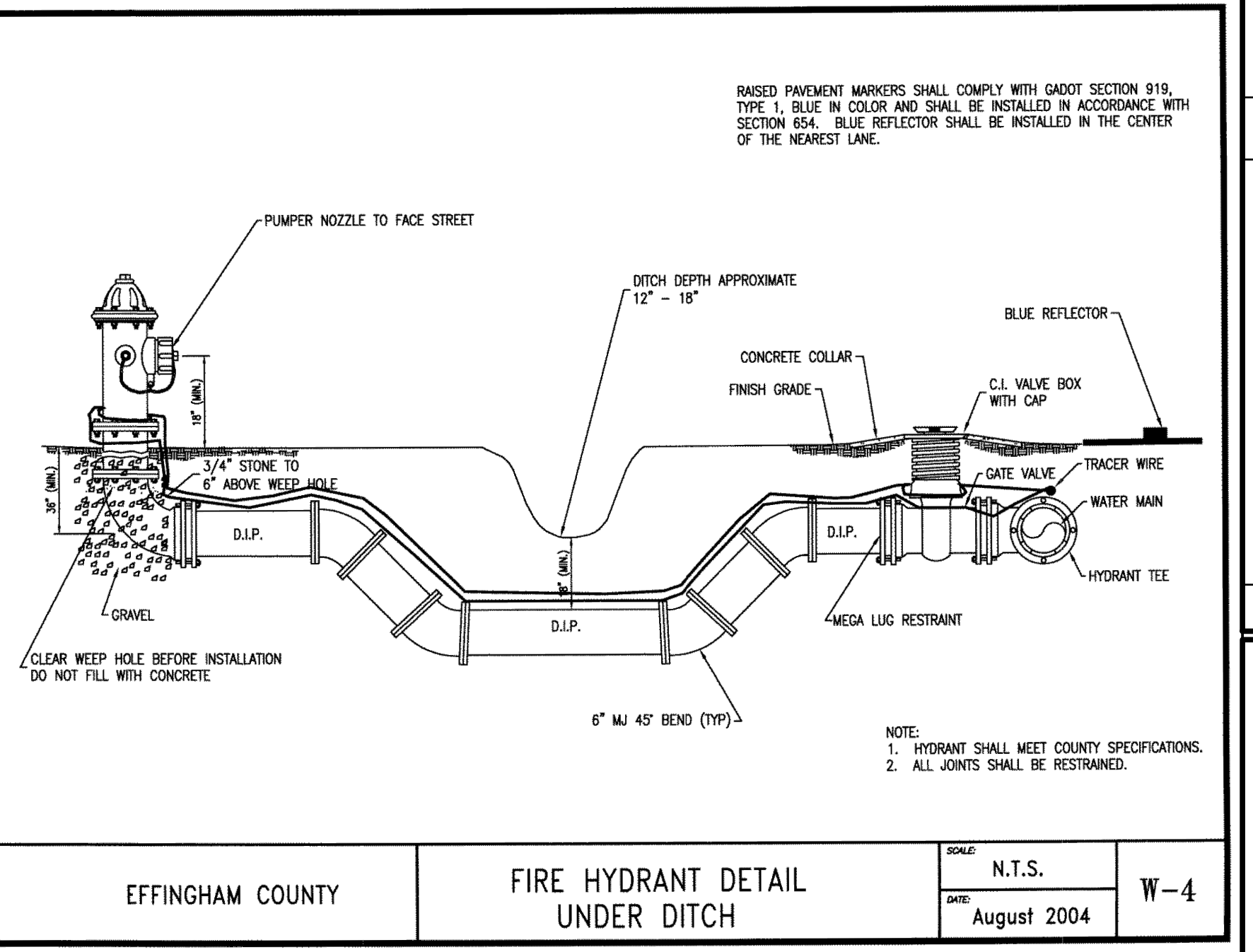
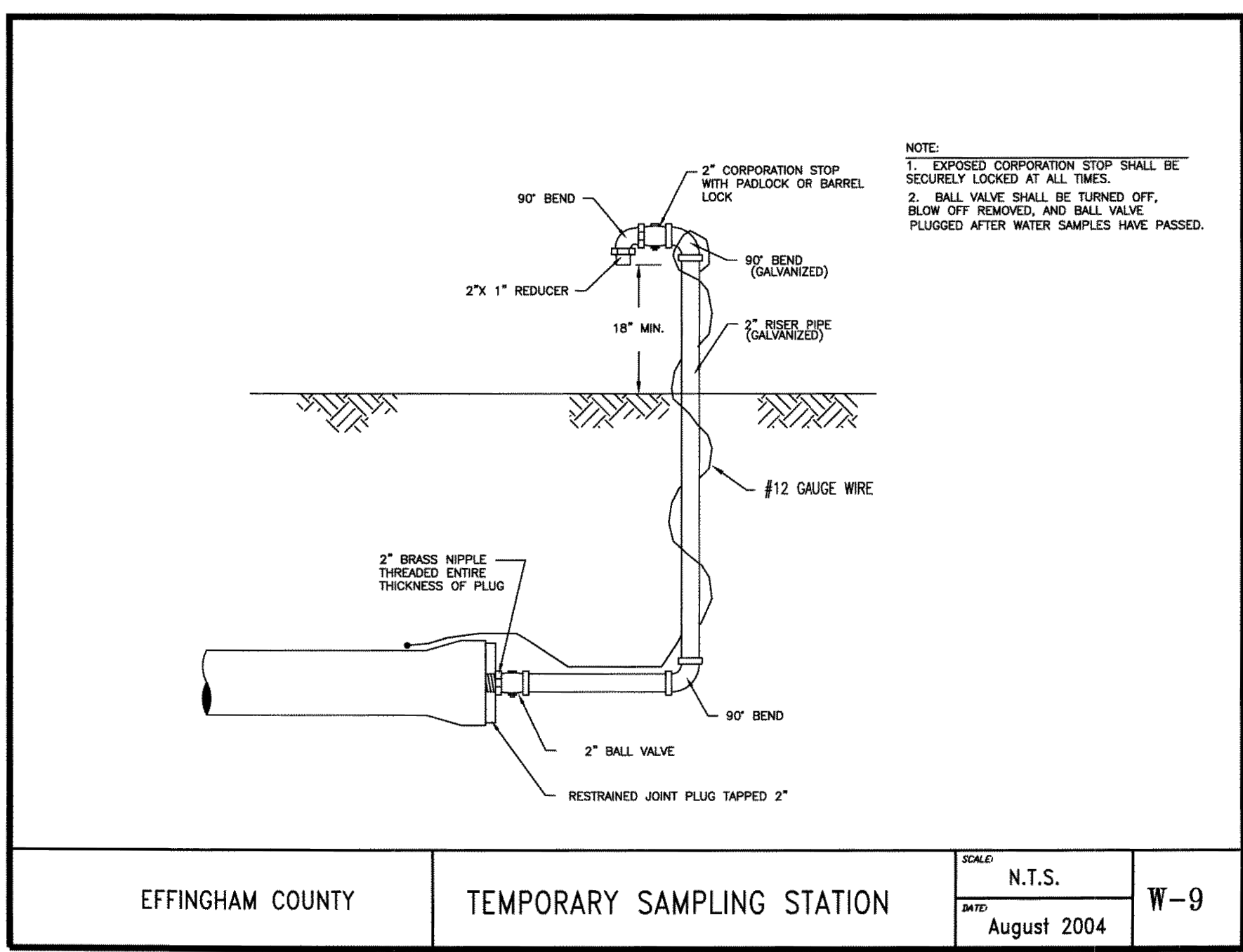
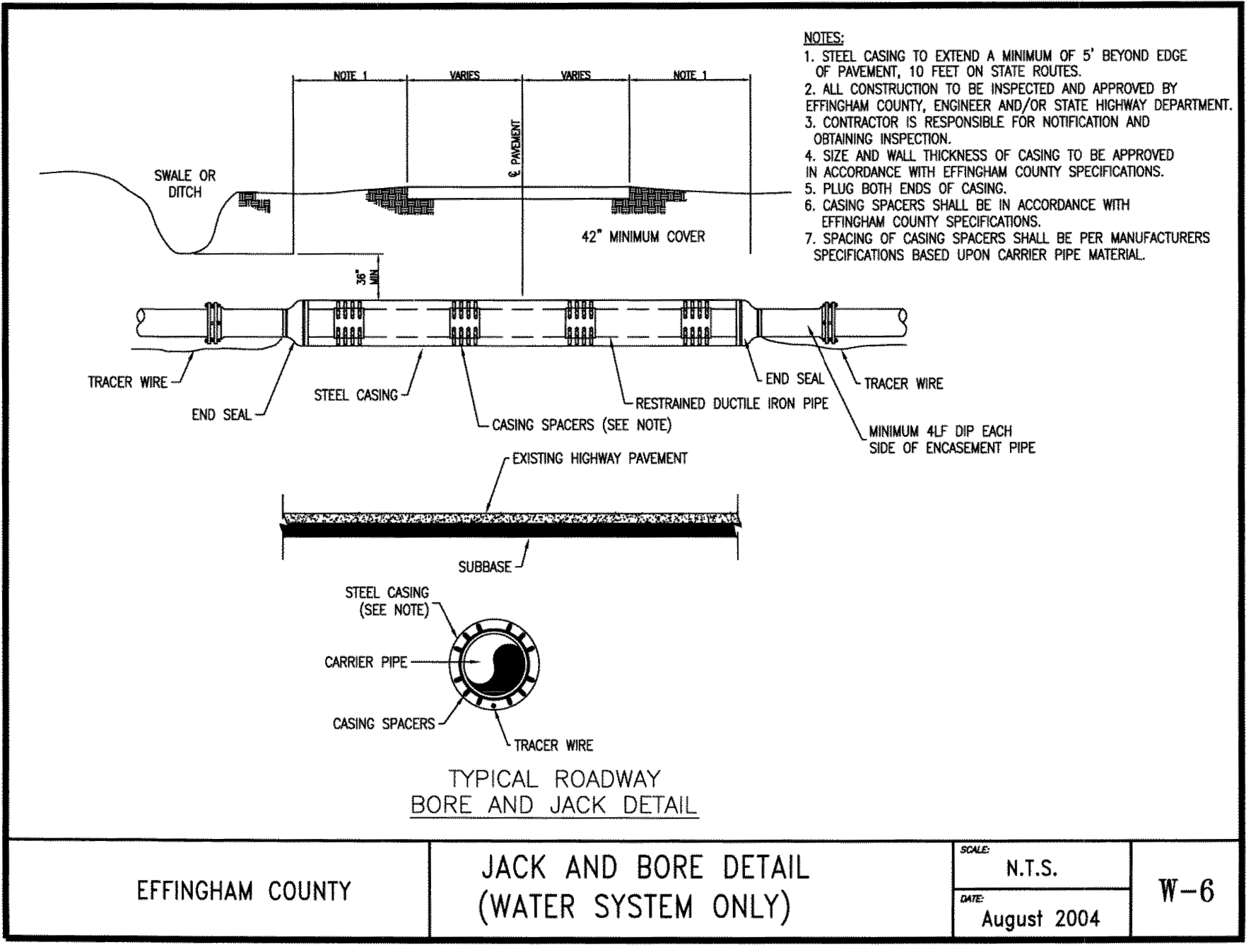
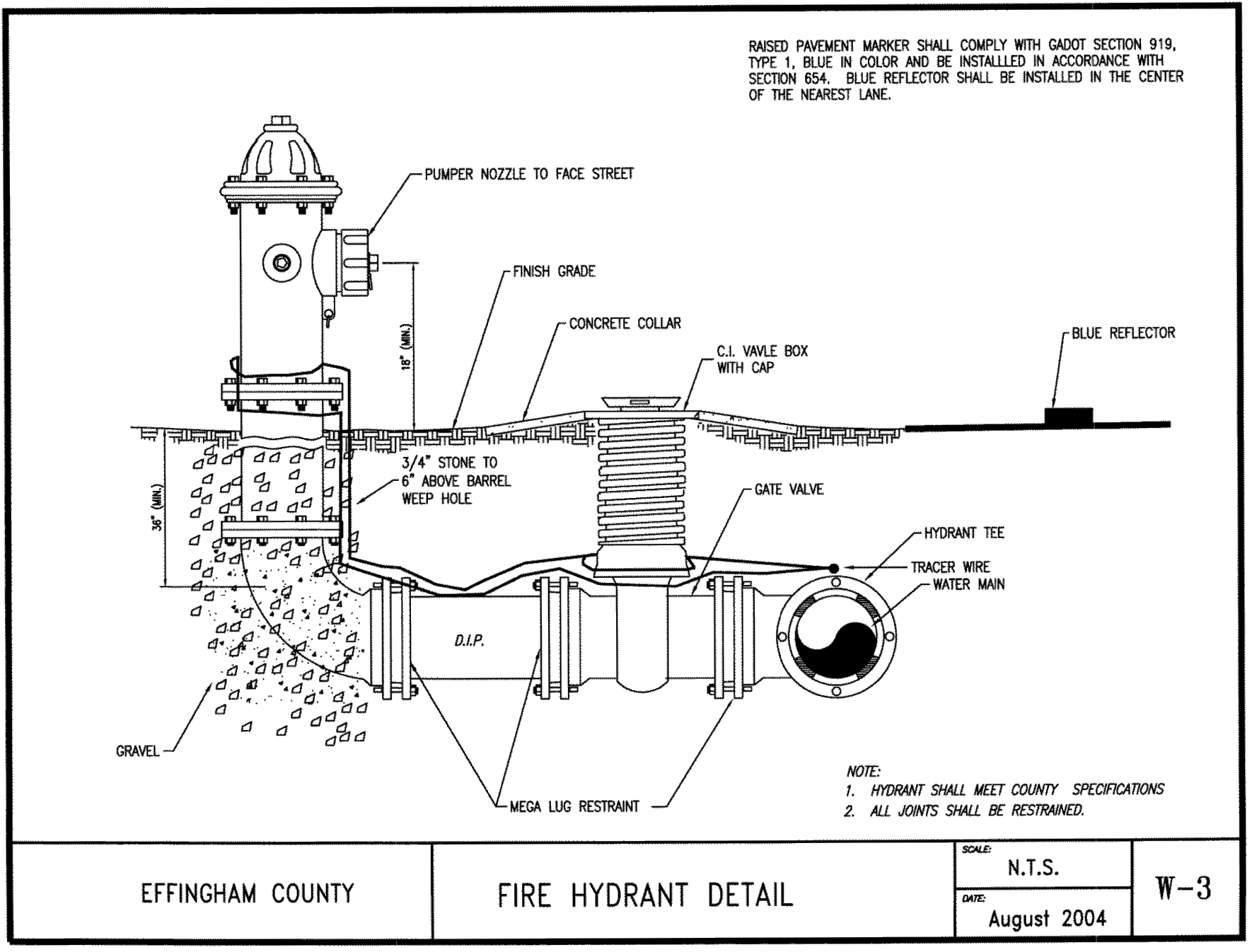
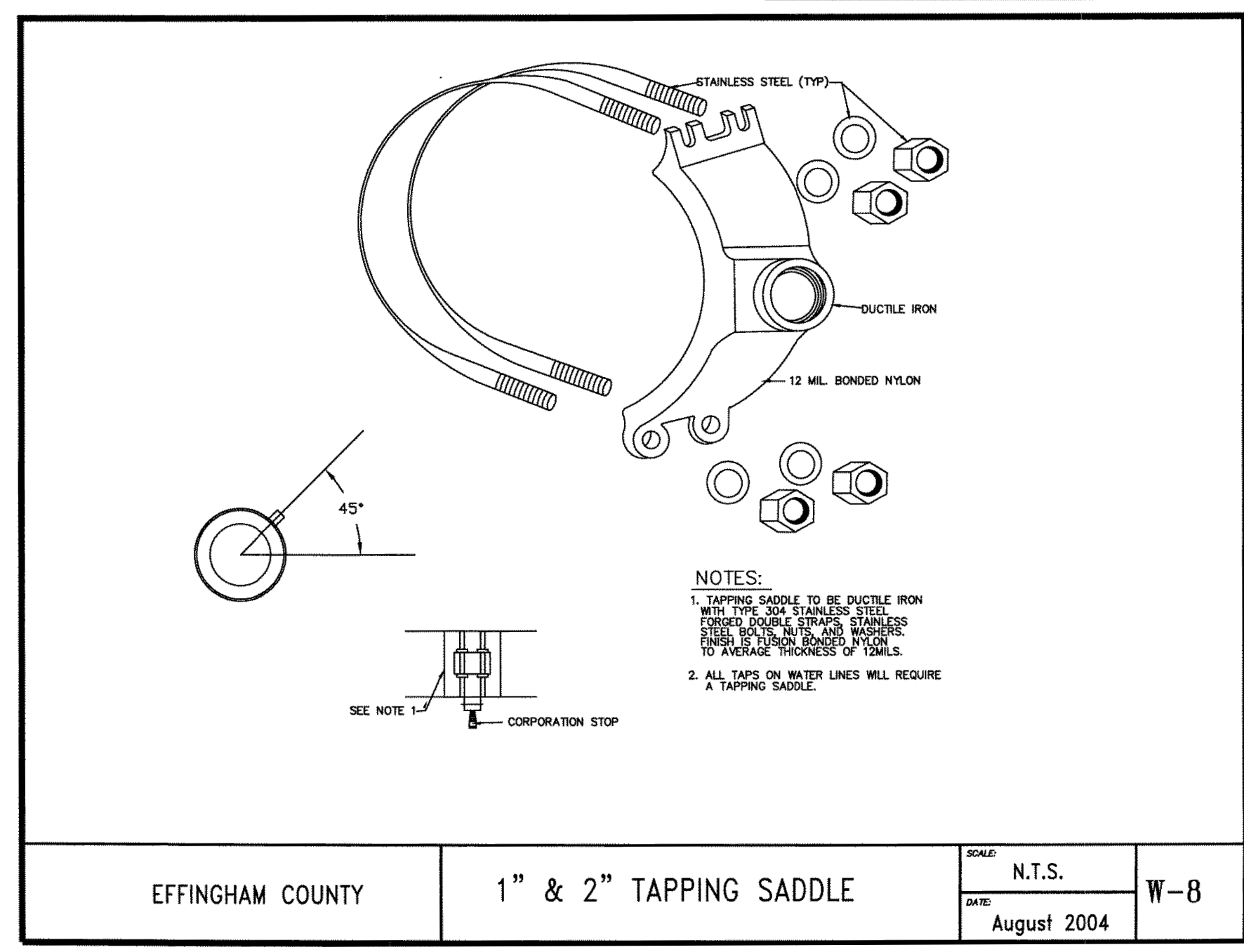
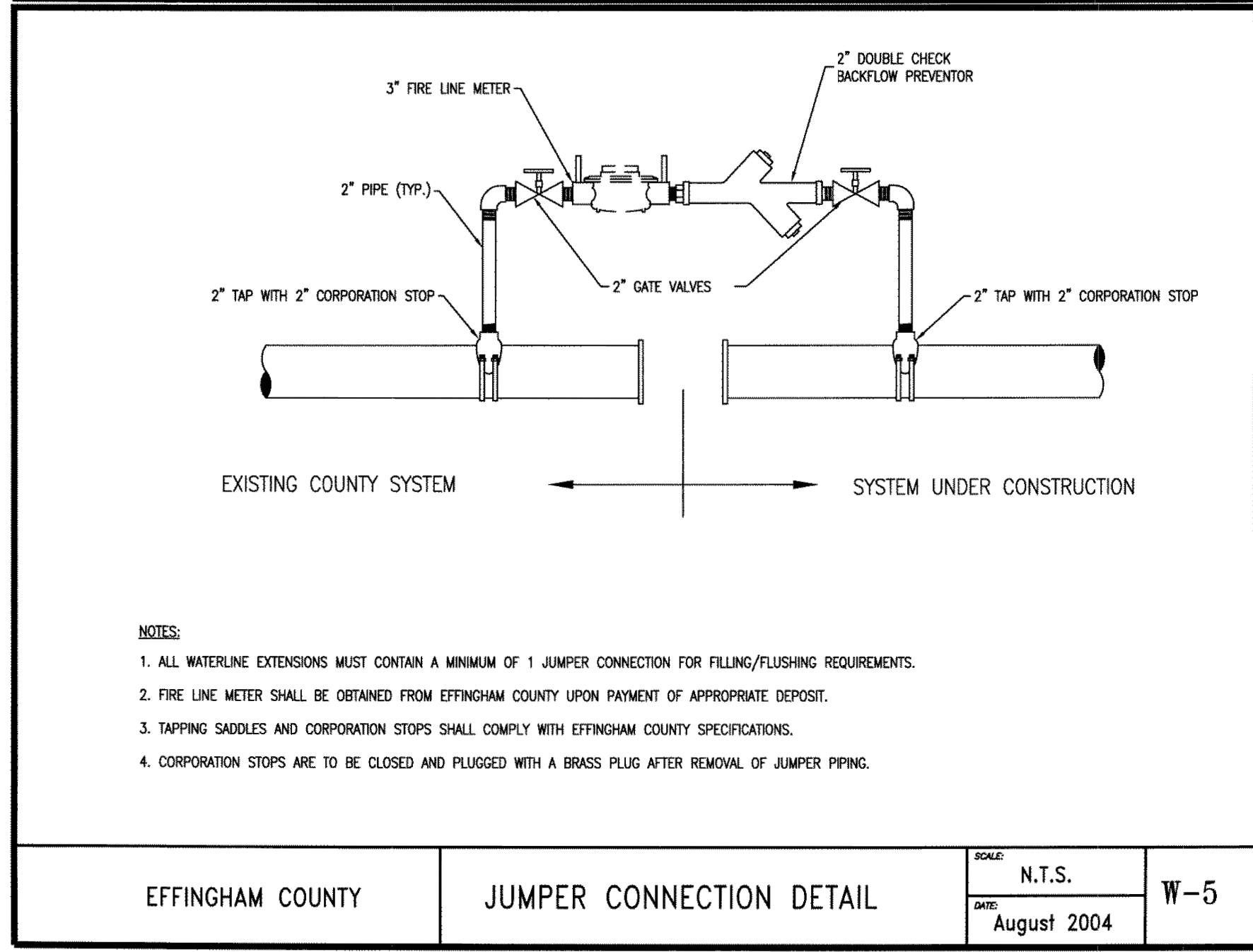
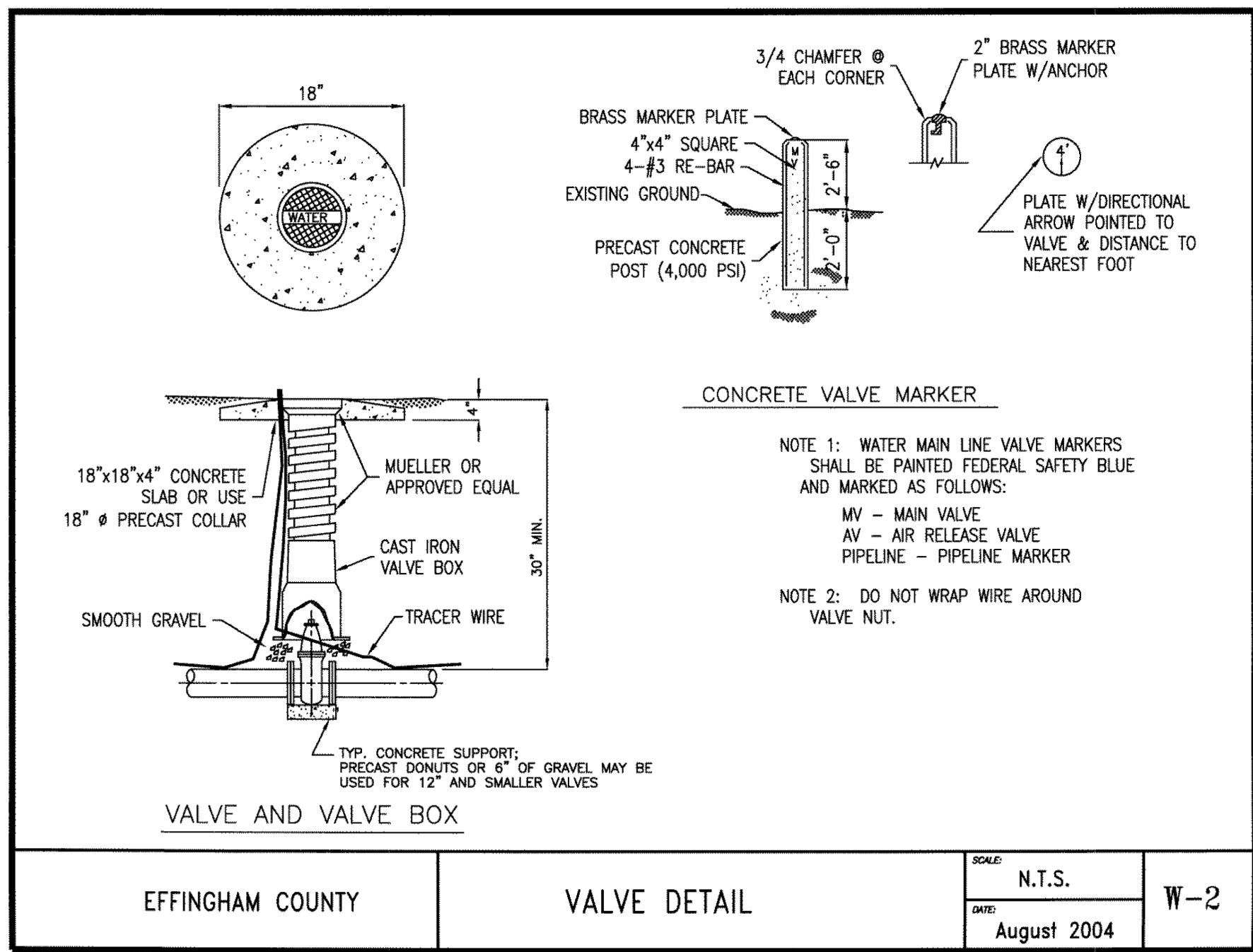
JASON J. BRYANT, P.E.
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION #73897

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WATER MAIN PROFILES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: ---
Date: 8/3/23

SHEET
C2.13



11/12/24
JAF
7/23/24
JAF
4/16/24
JAF
11/29/23
JAF
10/31/23
JAF

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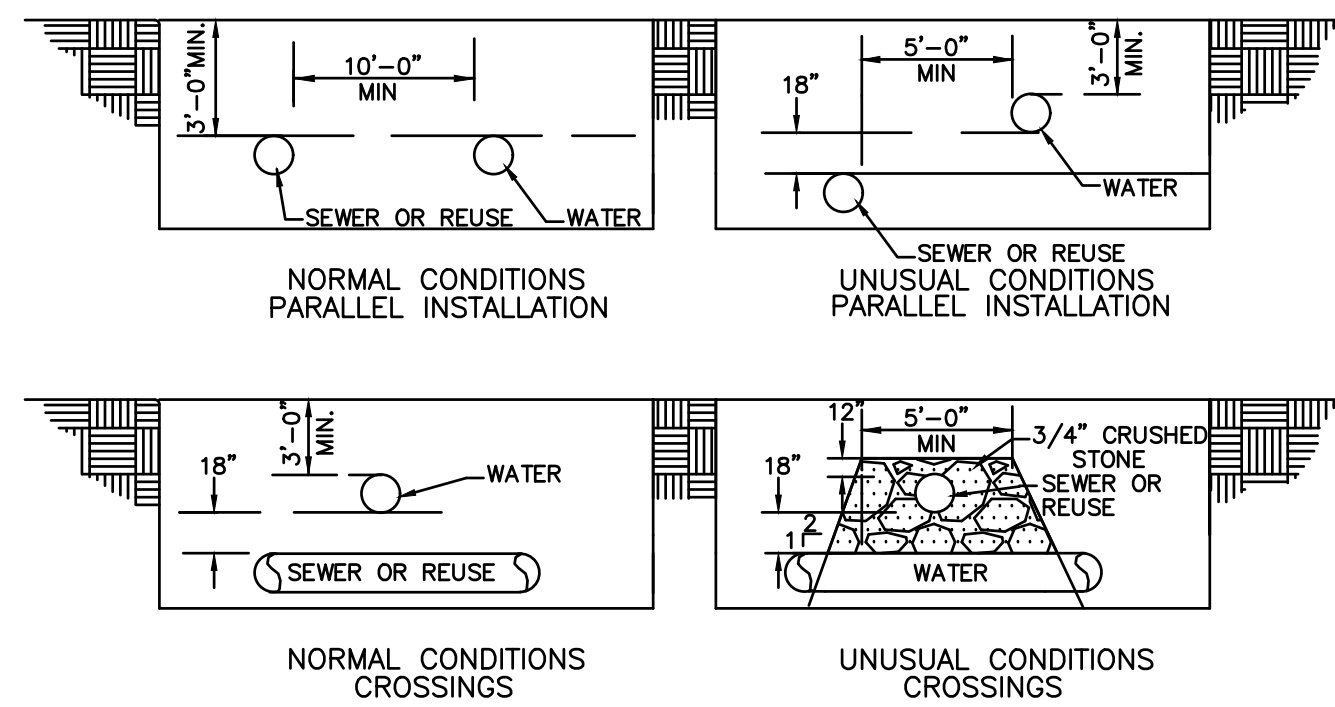
JASON I. BRYANT, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL CERTIFICATION #73897

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WATER AND SEWER DETAILS
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N.T.S.
Date: 8/3/23

SHEET
C2.14



NOTES:

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

A. 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 A 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.

B. 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 OR REUSE MAIN, THE TOP OF 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.

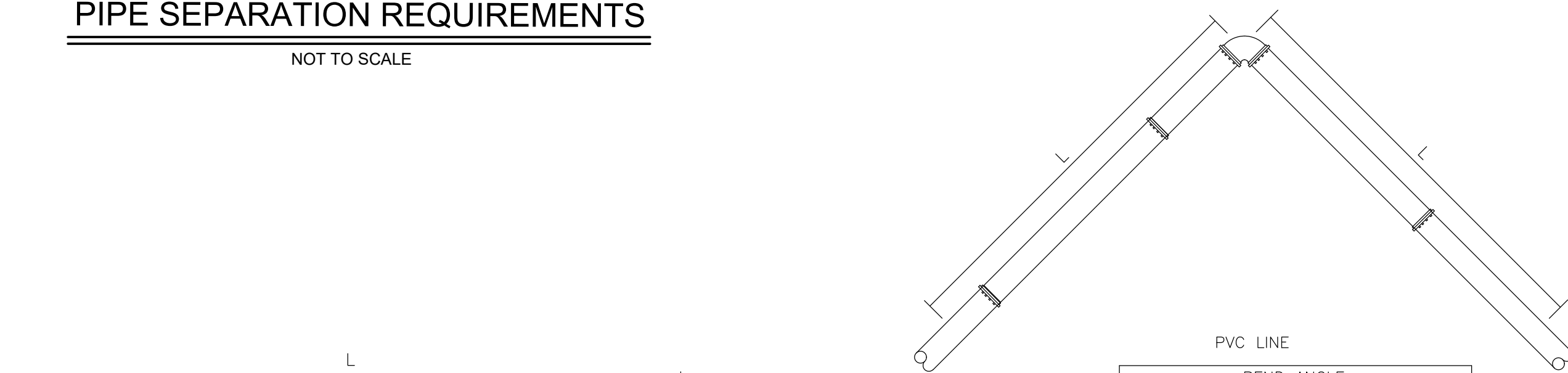
WHEN WATER MAINS AND WATER SERVICE LINES (BEFORE THE CURB STOP AND CUSTOMER METER) OWNED BY THE PUBLIC WATER SYSTEMS CROSS UNDER SEWERS, ADDITIONAL MEASURES SHALL BE TAKEN BY PROVIDING BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND SUBJECTED TO HYDROSTATIC TESTS, AS PRESCRIBED IN THIS DOCUMENT. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:

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MINIMUM WATER AND SEWER PIPE SEPARATION REQUIREMENTS

NOT TO SCALE



POLYETHYLENE WRAPPED DUCTILE IRON LINE

PIPE DIA.	L
4	58
6	82
8	107
10	128
12	151
16	193
20	234
24	273

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

PVC LINE

PIPE DIA.	L
4	39
6	55
8	72
10	87
12	102
16	131
20	159
24	185

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

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

PIPE DIA.	BEND ANGLE			
	11 1/4'	22 1/2'	45'	90'
4	2	4	8	18
6	3	5	11	25
8	4	7	14	33
10	4	8	16	39
12	5	9	19	45
16	5	9	19	45
20	6	11	23	54
24	8	16	26	62

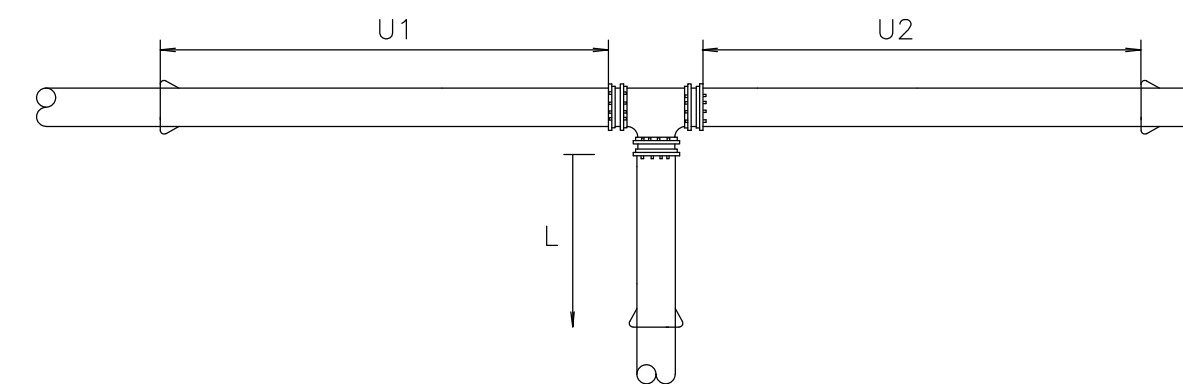
PIPE DIA.	BEND ANGLE			
	11 1/4'	22 1/2'	45'	90'
4	3	5	9	20
6	3	6	12	28
8	4	8	16	36
10	5	9	19	43
12	6	11	22	51
16	7	14	28	65
20	8	16	33	79
24	9	19	38	92

MINIMUM RESTRAINED LENGTH (L)

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

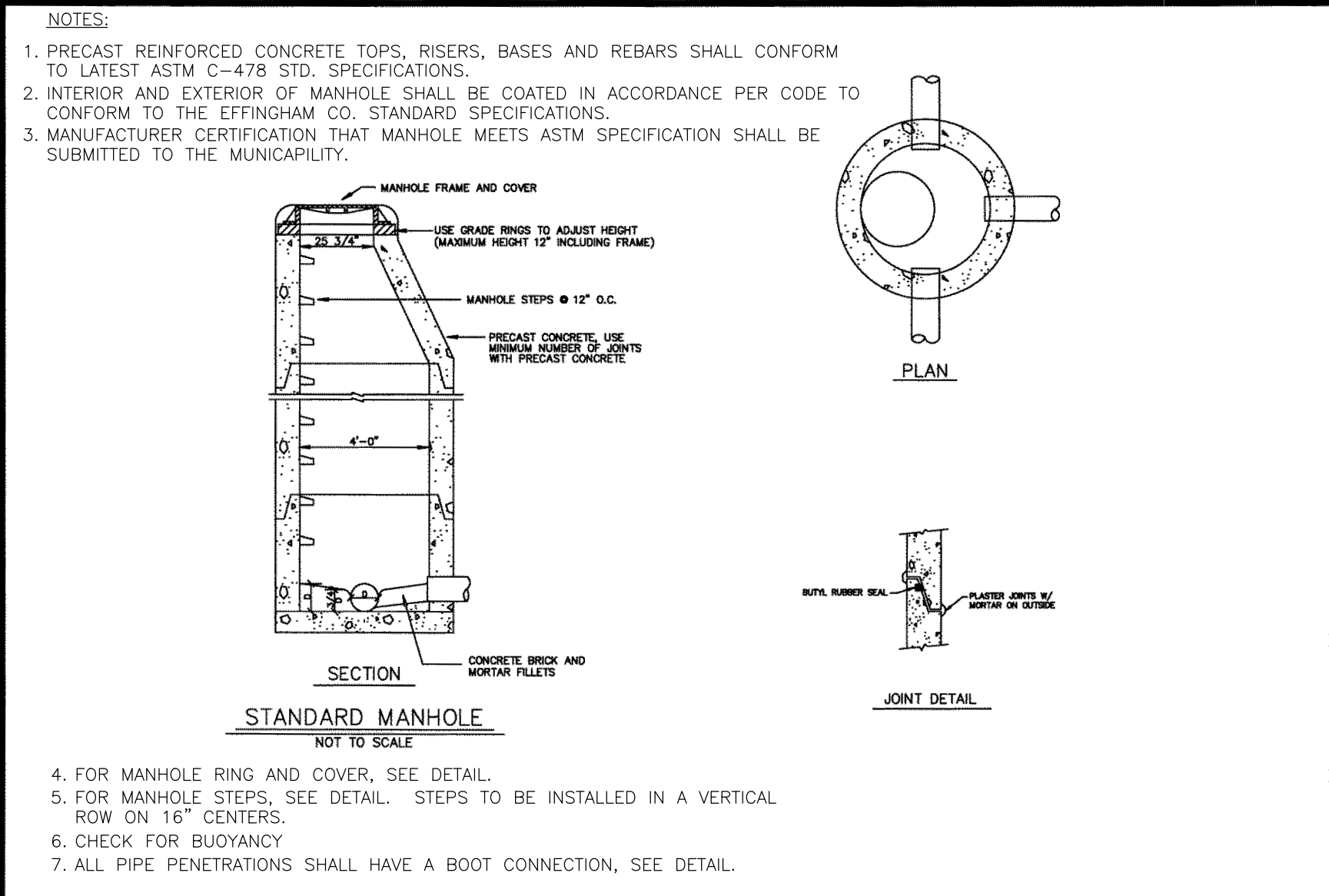
HORIZONTAL BEND RESTRAINT

NOT TO SCALE

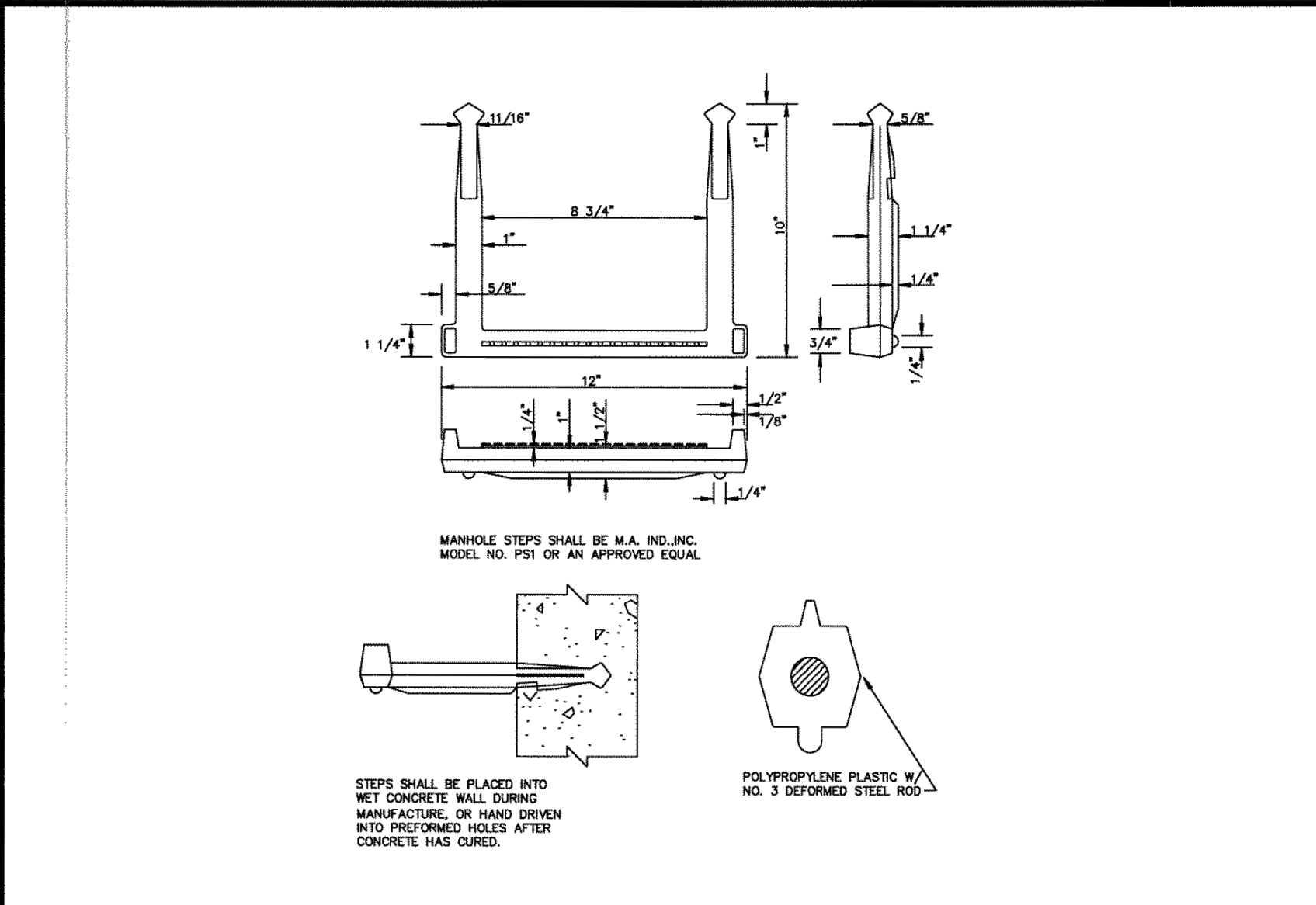


- NOTES:**
- LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
 - WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
 - U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
 - Ur = THE SMALLER OF U1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

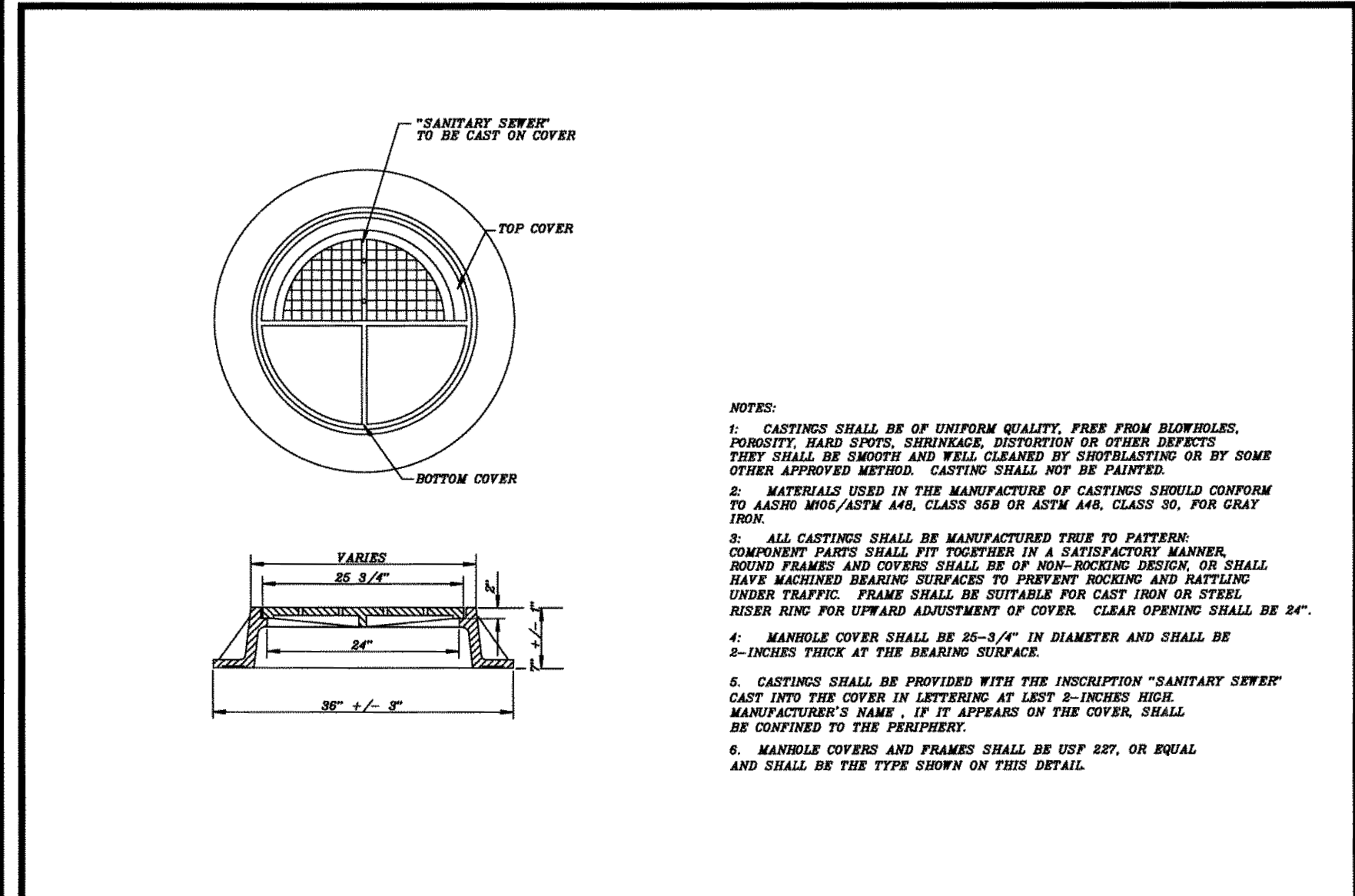
PIPE DIA.	10'	20'
4x4	3	4
6x6	4	5
8x8	5	6
10x10	6	8
12x12	8	10
16x16	10	14
20x20	14	18
24x24	18	24
30x30	24	30
36x36	30	36
42x42	36	42
48x48	42	48
60x60	48	60
72x72	60	72
84x84	72	84
96x96	84	96
108x108	96	108
120x120	108	120
144x144	120	144
168x168	144	168
192x192	168	192
216x216	192	216
240x240	216	240
264x264	240	264
288x288	264	288
312x312	288	312
336x336	312	336
360x360	336	360
384x384	360	384
408x408	384	408
432x432	408	432
456x456	432	456
480x480	456	480
504x504	480	504
528x528	504	528
552x552	528	552
576x576	552	576
600x600	576	600
624x624	600	624
648x648	624	648
672x672	648	672
696x696	672	696
720x720	696	720
744x744	720	744
768x768	744	768
792x792	768	792
816x816	792	816
840x840	816	840
864x864	840	864
888x888	864	888
912x912	888	912
936x936	912	936
960x960	936	960
984x984	960	984
1008x1008	984	1008
1032x1032	1008	1032
1056x1056	1032	1056
1080x1080	1056	1080
1104x1104	1080	1104
1128x1128	1104	1128
1152x1152	1128	1152
1176x1176	1152	1176
1200x1200	1176	1200
1224x1224	1200	1224
1248x1248	1224	1248
1272x1272	1248	1272
1296x1296	1272	1296
1320x1320	1296	1320
1344x1344	1320	1344
1368x1368	1344	1368
1392x1392	1368	1392
1416x1416	1392	1416
1440x1440	1416	1440
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1488x1488	1464	1488
1512x1512	1488	1512
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1824x1824	1800	1824
1848x1848	1824	1848
1872x1872	1848	1872
1896x1896	1872	1896
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1944x1944	1920	1944
1968x1968	1944	1968
1992x1992	1968	1992
2016x2016	1992	2016
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2064x2064	2040	2064
2088x2088	2064	2088
2112x2112	2088	2112
2136x2136	2112	2136
2160x2160	2136	2160
2184x2184	2160	2184
2208x2208	2184	2208
2232x2232	2208	2232
2256x2256	2232	2256
2280x2280	2256	2280
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2328x2328	2304	2328
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2376x2376	2352	2376
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3624x3624	3600	3624
3648x3648	3624	3648
3672x3672	3648	3672
3696x3696	3672	3696
3720x3720	3696	3720
3744x3744	3720	3744
3768x3768	3744	3768
3792x3792	3768	3792
3816x3816	3792	3816
3840x3840	3816	3840
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4056x4056	4032	4056
4080x4080	4056	4080
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4272x4272	4248	4272
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4392x4392	4368	4392
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4536x4536	4512	4536
4560x4560	4536	4560
4584x4584	4560	4584
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4824x4824	4800	4824
4848x4848	4824	4848
4872x4872	4848	4872
4896x4896	4872	4896
4920x4920	4896	4920
4944x4944	4920	4944
4968x4968	4944	4968
4992x4992	4968	4992
5016x5016	4992	5016
5040x5040	5016	5040
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5136x5136	5112	5136
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5184x5184	5160	5184
5208x5208	5184	5208
5232x5232	5208	5232
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5280x5280	5256	5280
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5328x5328	5304	5328
5352x5352	5328	5352
5376x5376	5352	5376
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5496x5496		



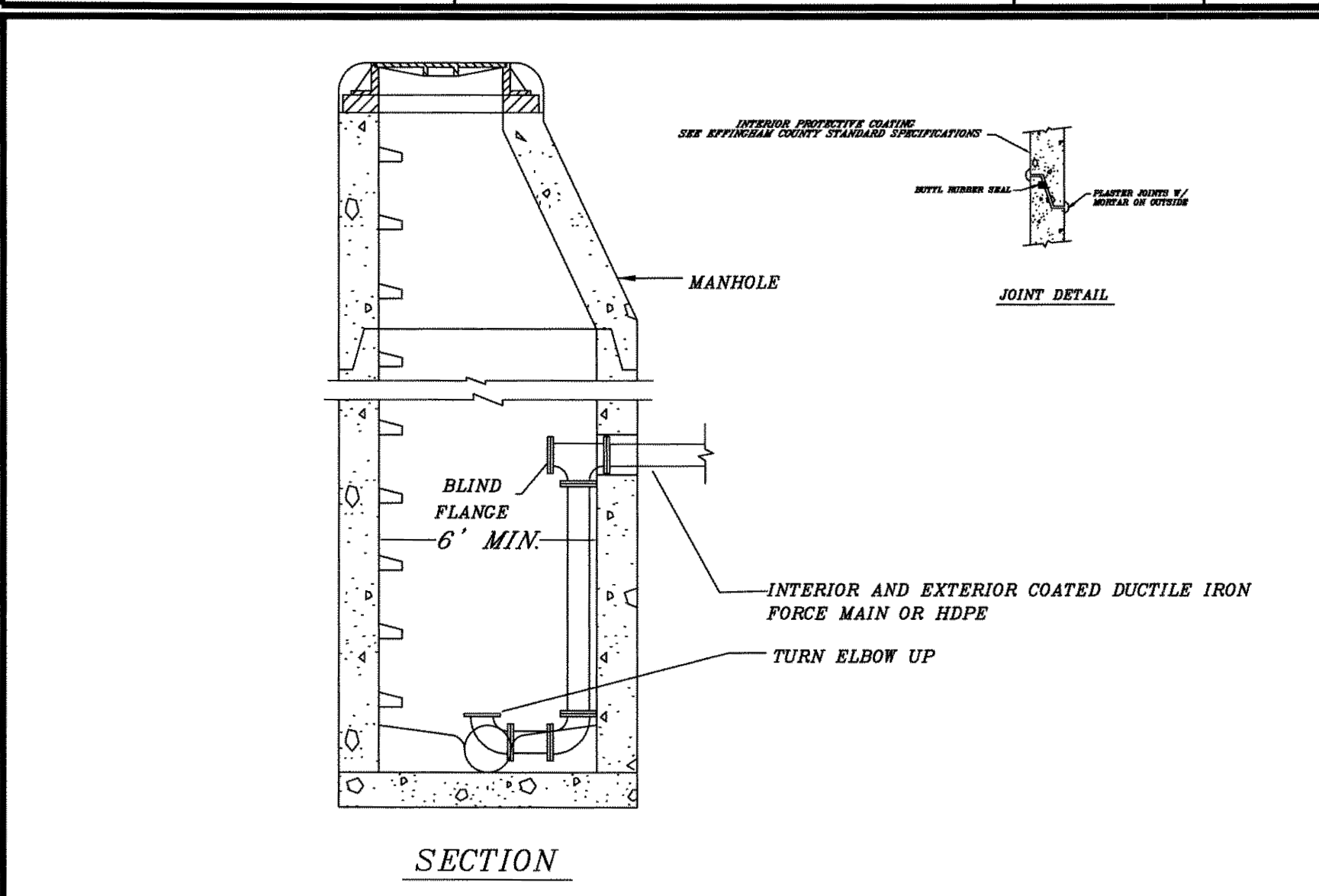
EFFINGHAM COUNTY	STANDARD MANHOLE	SCALE: N.T.S.	S-1
		DATE: August 2004	



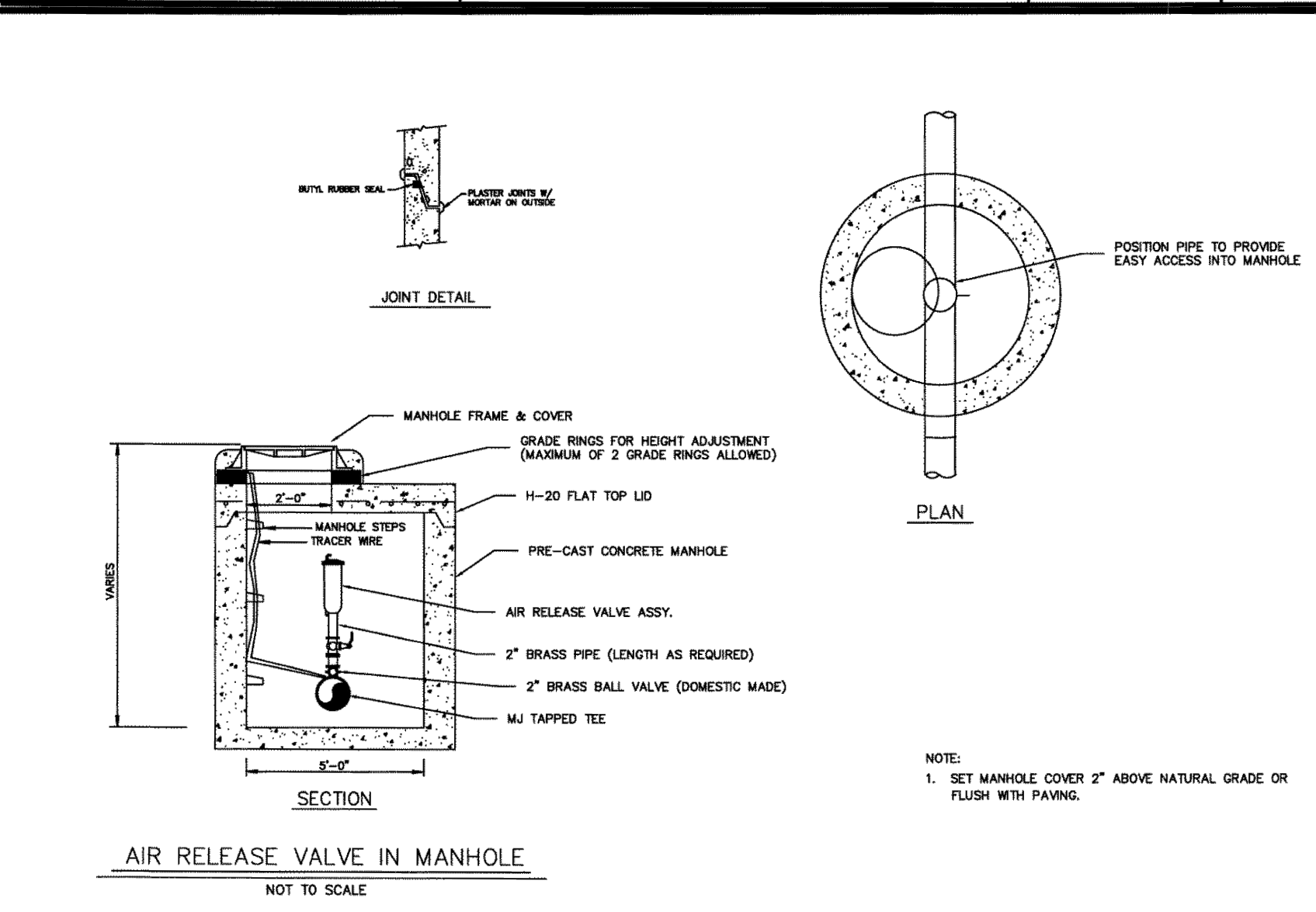
EFFINGHAM COUNTY	MANHOLE STEP DETAIL	SCALE: N.T.S.	S-2
		DATE: August 2004	



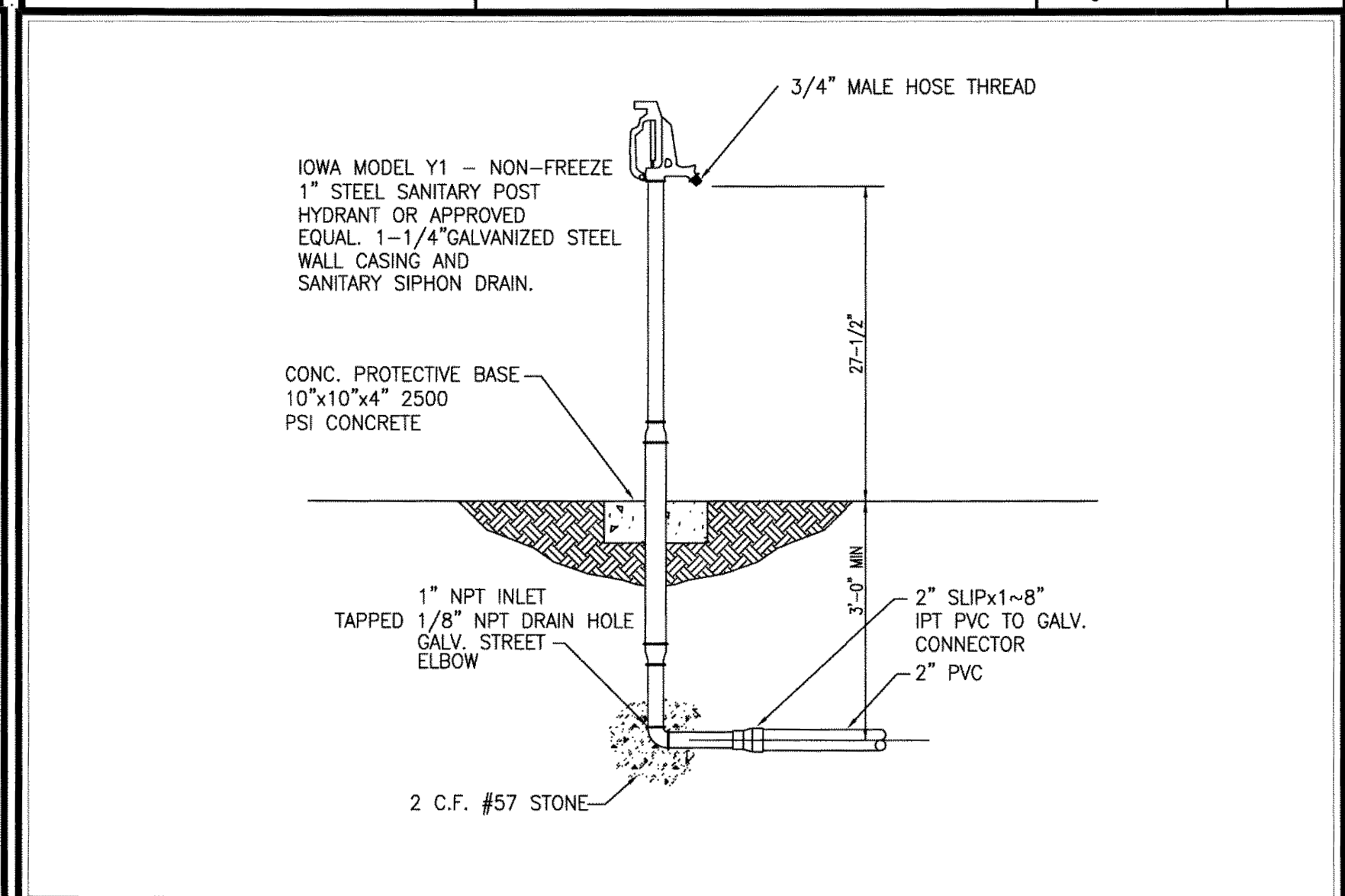
EFFINGHAM COUNTY	MANHOLE COVER & FRAME DETAIL	SCALE: N.T.S.	S-3
		DATE: August 2004	



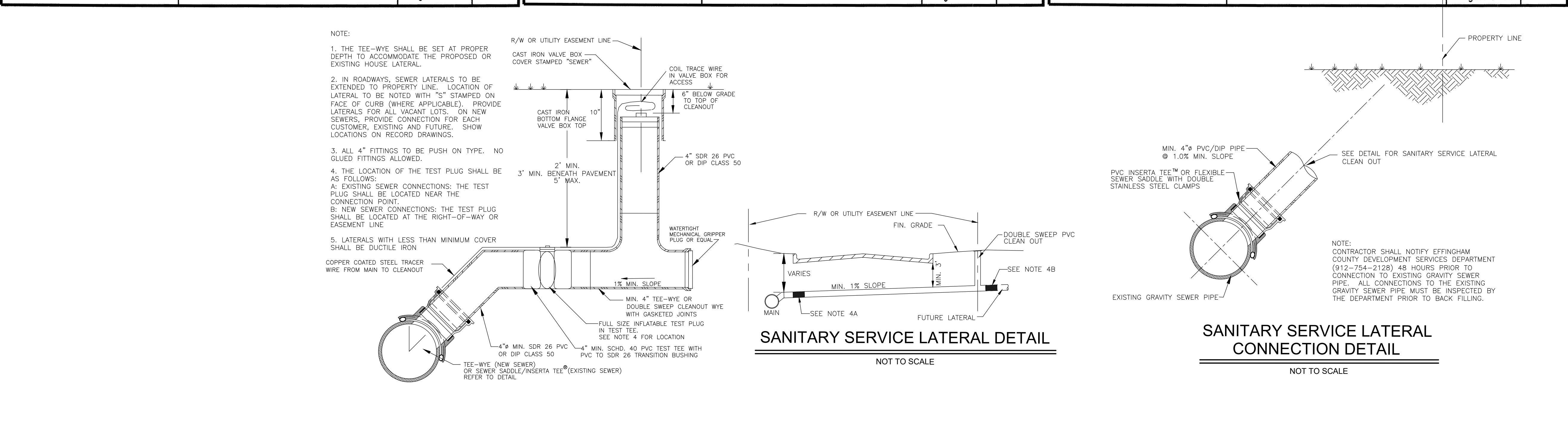
EFFINGHAM COUNTY	FORCEMAIN DROP INTO MANHOLE	SCALE: N.T.S.	S-4
		DATE: August 2004	



EFFINGHAM COUNTY	AIR RELEASE VALVE	SCALE: N.T.S.	S-5
		DATE: August 2004	



EFFINGHAM COUNTY	NON FREEZE YARD HYDRANT DETAIL	SCALE: N.T.S.	S-11
		DATE: August 2004	



EFFINGHAM COUNTY	SANITARY SERVICE LATERAL CONNECTION DETAIL	SCALE: N.T.S.	S-11
		DATE: August 2004	

11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.	BY	DATE
7/23/24	JAF	REVISED PER EPD COMMENTS		
4/16/24	JAF	REVISED PER EFFINGHAM CO. COMMENTS		
11/29/23	JAF	REVISED PER CONSOLIDATED UTILITIES COMMENTS		
10/31/23	JAF	REVISED PER CONSOLIDATED UTILITIES COMMENTS		
		REVISIONS		

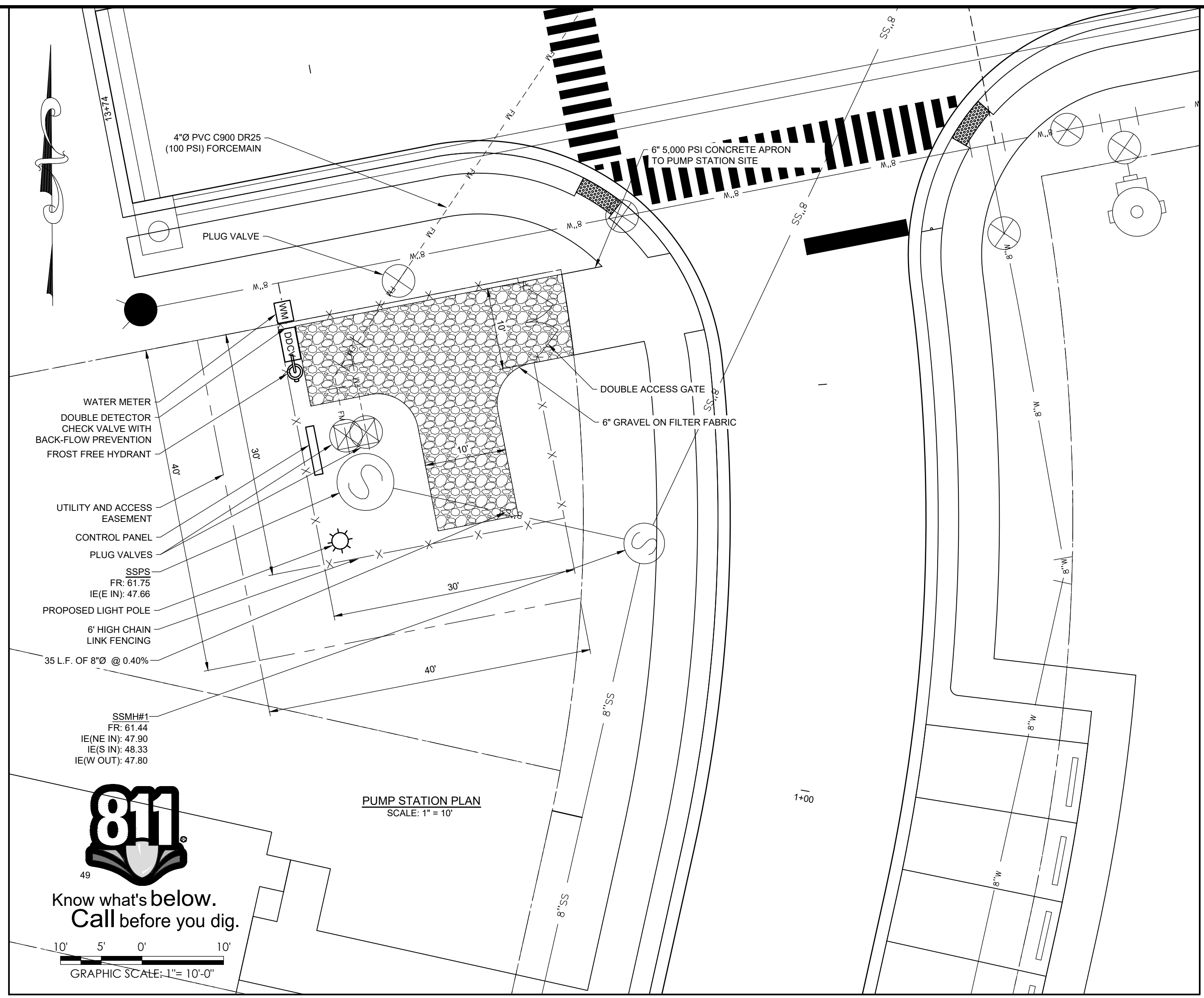
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #7897

PITTMAN ENGINEERING
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 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

WATER AND SEWER DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

SHEET
C2.16

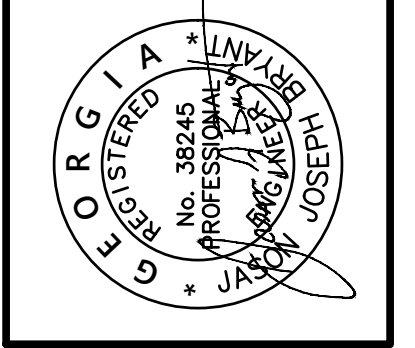


WATER AND SEWER DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

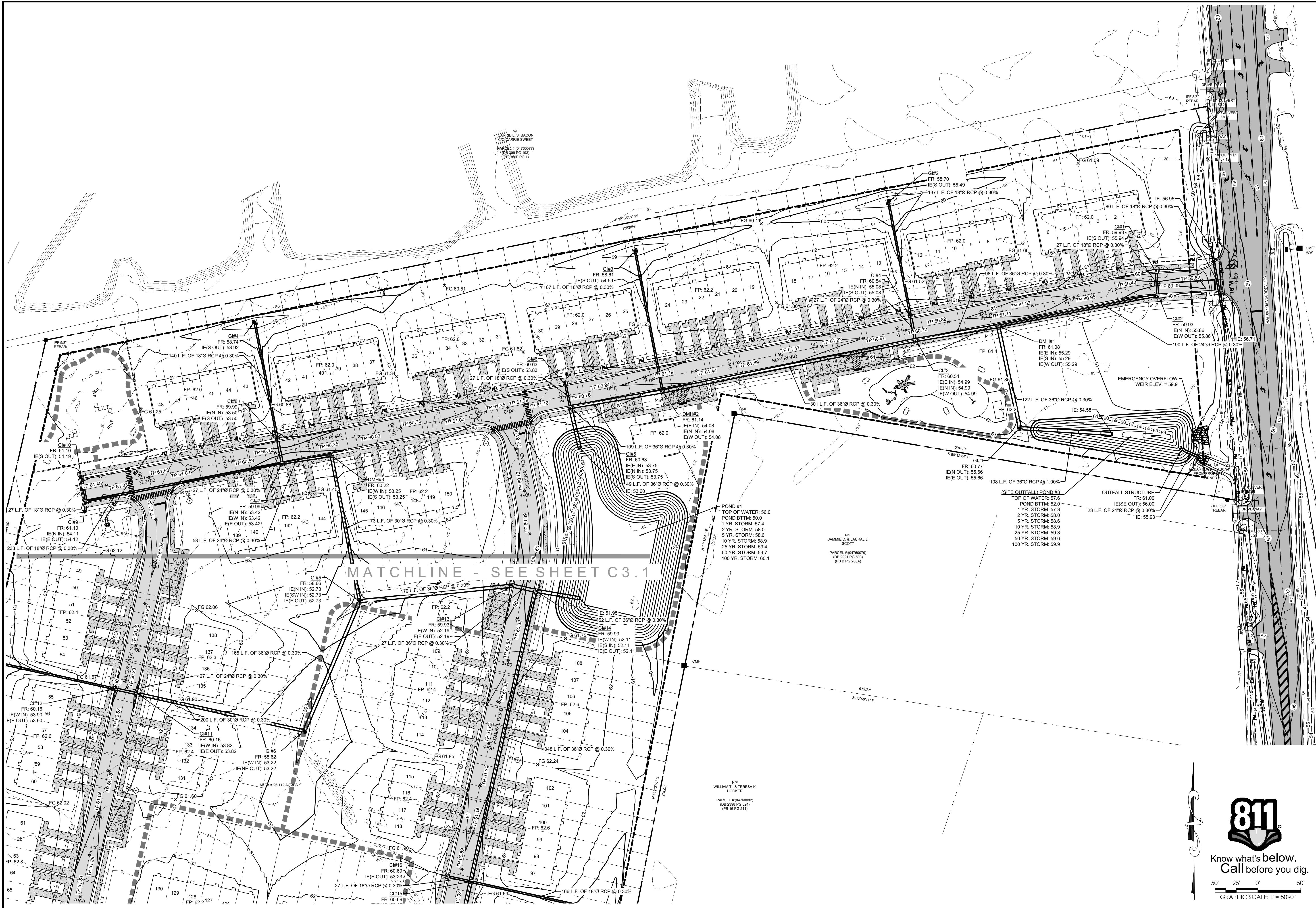
SHEET
C2.18

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JASON J. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23



REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	JAF 7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF 4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 10/31/23

JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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 www.PittmanEngineeringCo.com

PAVING, GRADING, AND DRAINAGE PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
C3.0

Know what's below.
 Call before you dig.

50' 25' 0' 50'
 GRAPHIC SCALE: 1" = 50'-0"



REV	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

JASON L. BRYANT, P.E.
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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PAVING, GRADING, AND DRAINAGE PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
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 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
C3.1

108 L.F. OF 36" RCP @ 1.00%

SITE OUTFALL POND #1
 TOP OF WATER: 57.0
 POND BTM: 52.0
 1 YR. STORM: 57.4
 2 YR. STORM: 58.0
 5 YR. STORM: 58.6
 10 YR. STORM: 58.9
 25 YR. STORM: 59.4
 50 YR. STORM: 59.8
 100 YR. STORM: 60.1

NF
 JAMMIE D. & LAURAL J. SCOTT
 PARCEL # (04760079)
 (DB 221 PG 593)
 (PB 9 PG 200A)

POND #1
 TOP OF WATER: 56.0
 POND BTM: 50.0
 1 YR. STORM: 57.4
 2 YR. STORM: 58.0
 5 YR. STORM: 58.6
 10 YR. STORM: 58.9
 25 YR. STORM: 59.4
 50 YR. STORM: 59.7
 100 YR. STORM: 60.1

NF
 WILLIAM T. & TERESA K. HOOKER
 PARCEL # (04760082)
 (DB 208 PG 594)
 (PB 16 PG 211)

NF
 DEBBIE J. GRONER
 PARCEL # (04760084)
 (DB 206 PG 611)
 (PB A301 PG 6)

NF
 CRYSTAL J. SLATER
 PARCEL # (04760085)
 (DB 126 PG 396)
 (PB 8159 PG C)

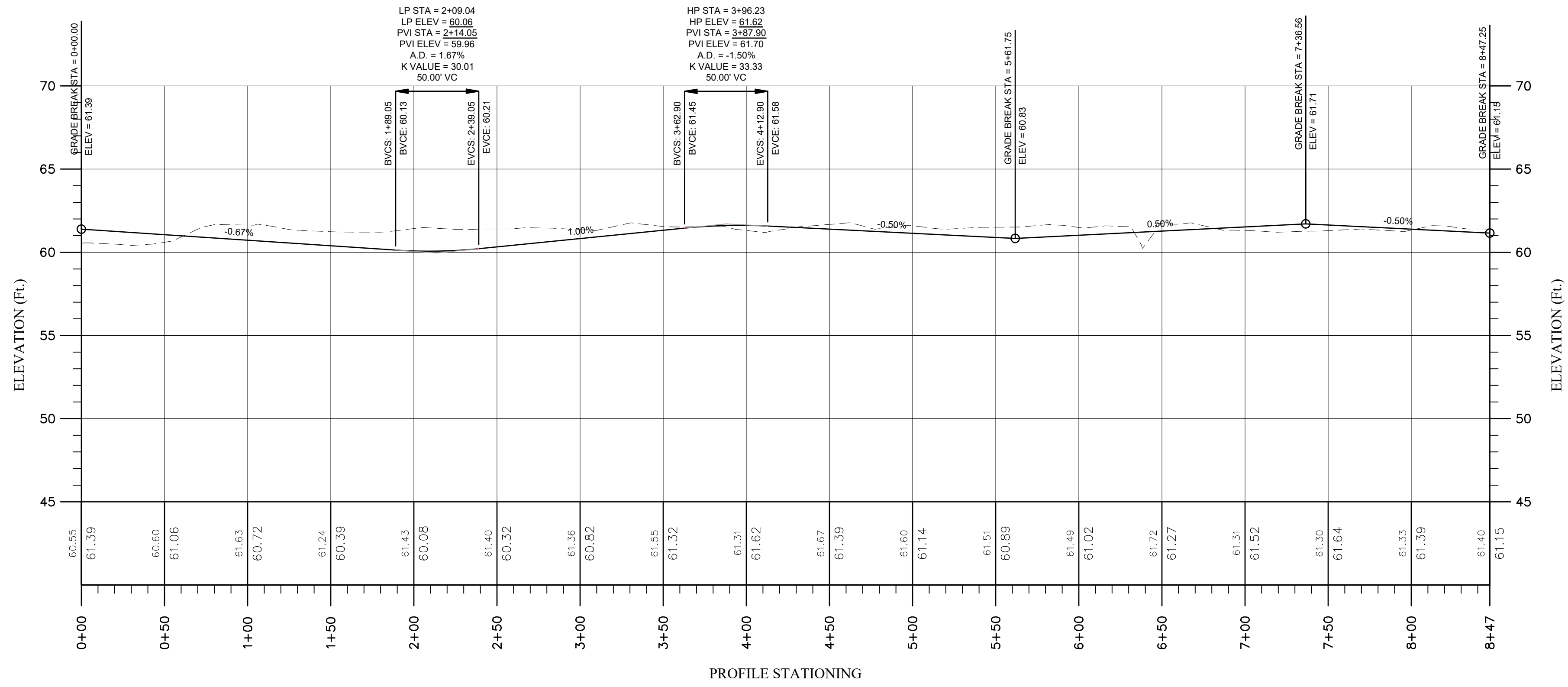
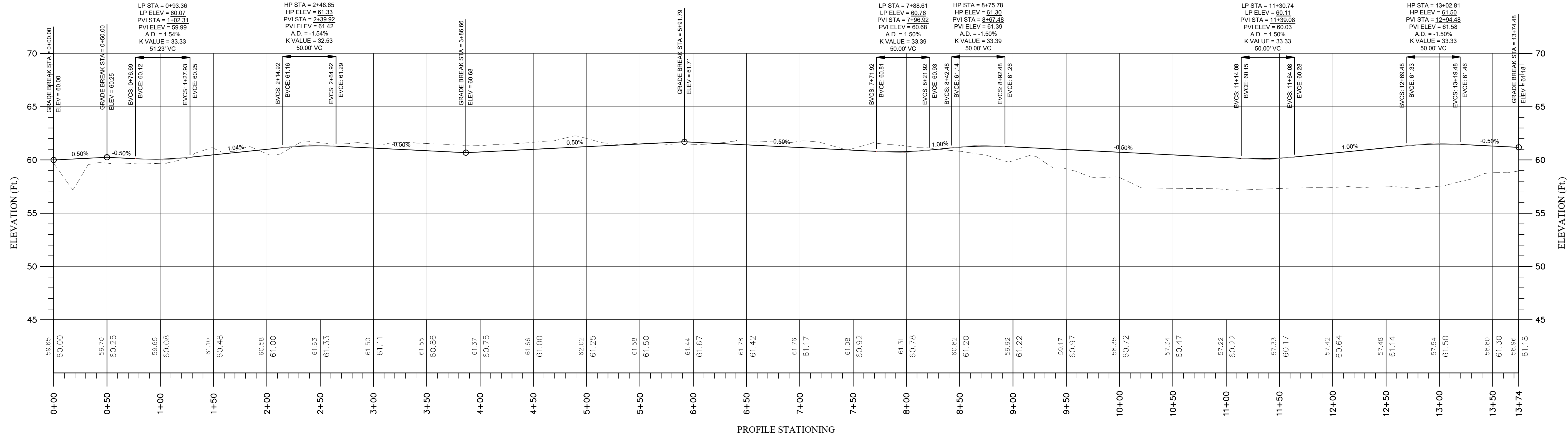
NF
 ROBERT C. JR. & PATRICIA M. FIELDS
 PARCEL # (04760089)
 (DB 522 PG 574)
 (PB 836 PG C)

NF
 CRYSTAL YOUNG & GLORIA BARBER
 PARCEL # (04760070)
 (DB 115 PG 151)
 (PB 9 PG 62)

NF
 CHARLOTTE E. JOHNSON
 PARCEL # (04760086)
 (DB 367 PG 442)
 (PB A288 PG D)

POND #2
 TOP OF WATER: 53.0
 POND BTM: 50.0
 1 YR. STORM: 57.4
 2 YR. STORM: 58.0
 5 YR. STORM: 58.6
 10 YR. STORM: 58.9
 25 YR. STORM: 59.4
 50 YR. STORM: 59.8
 100 YR. STORM: 60.1

MATCHLINE - SEE SHEET C3.0



REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CITY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

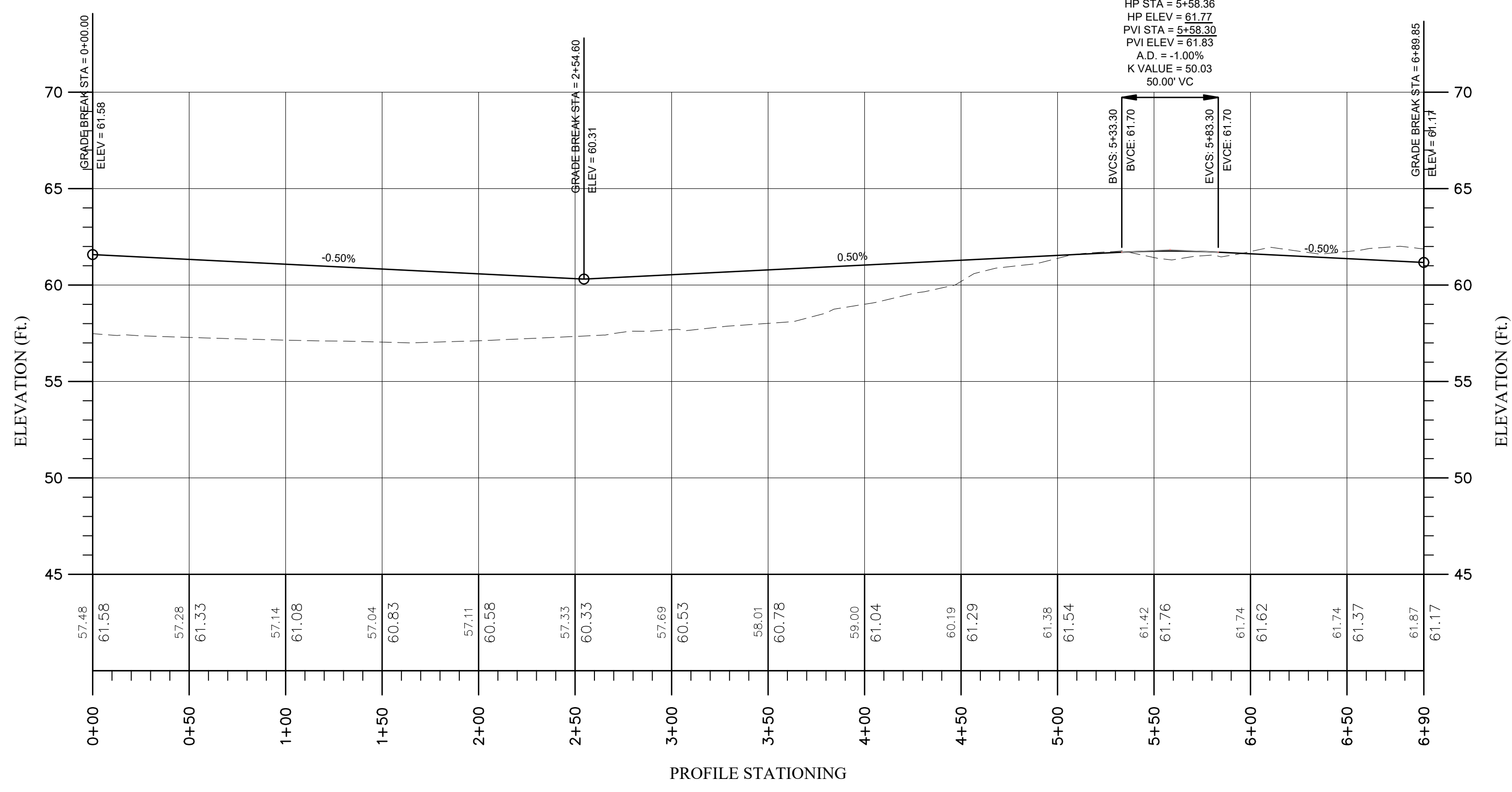
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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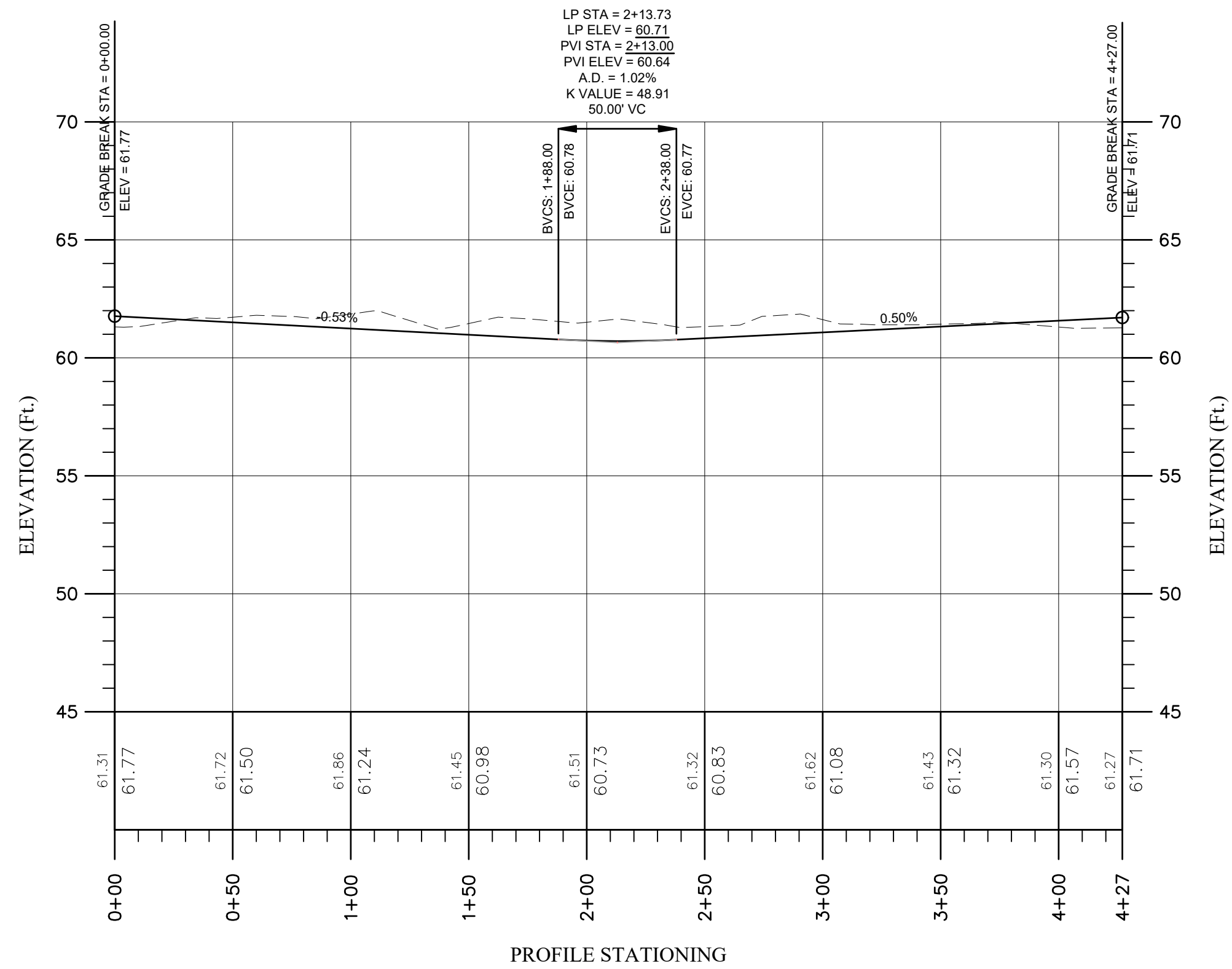
ROAD PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	---
Date:	8/3/23

SHEET
C3.2



MAJOR PATH
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



CAPTAIN AVENUE
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'

REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
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2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

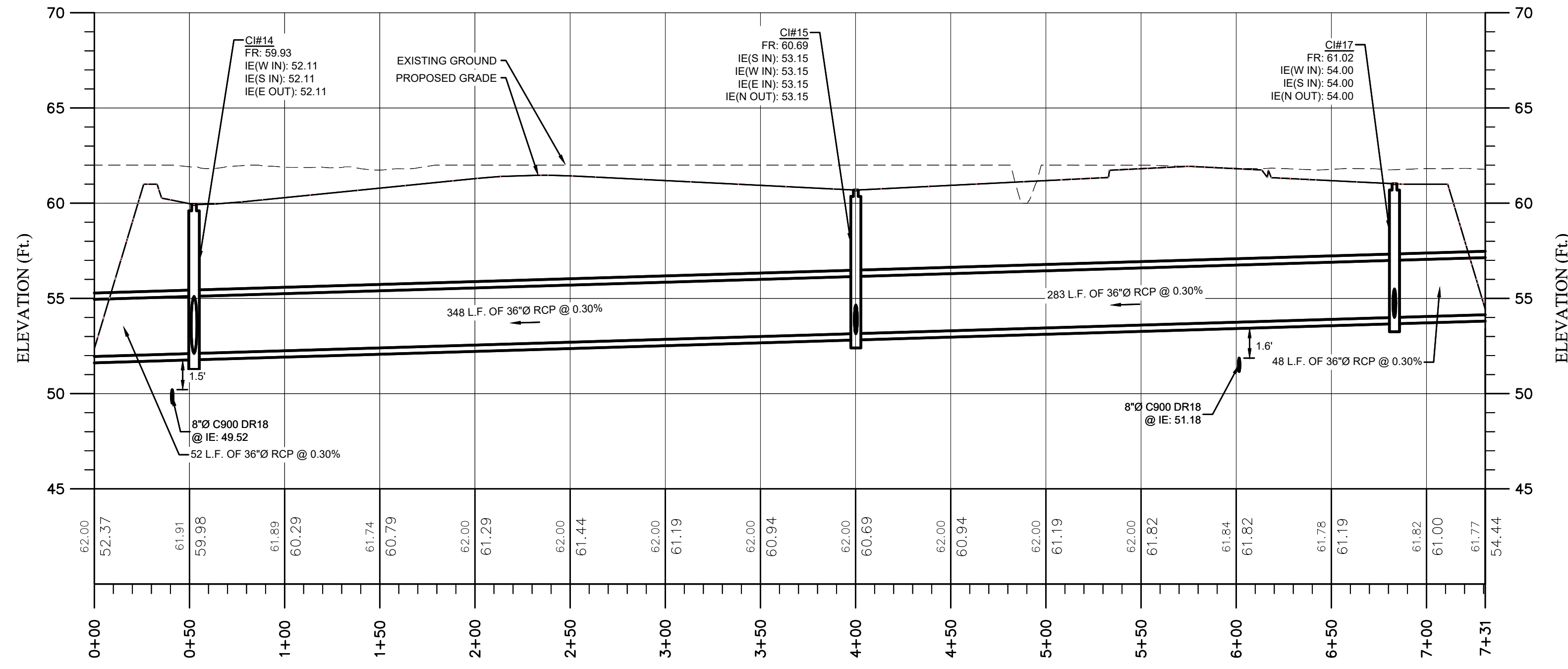
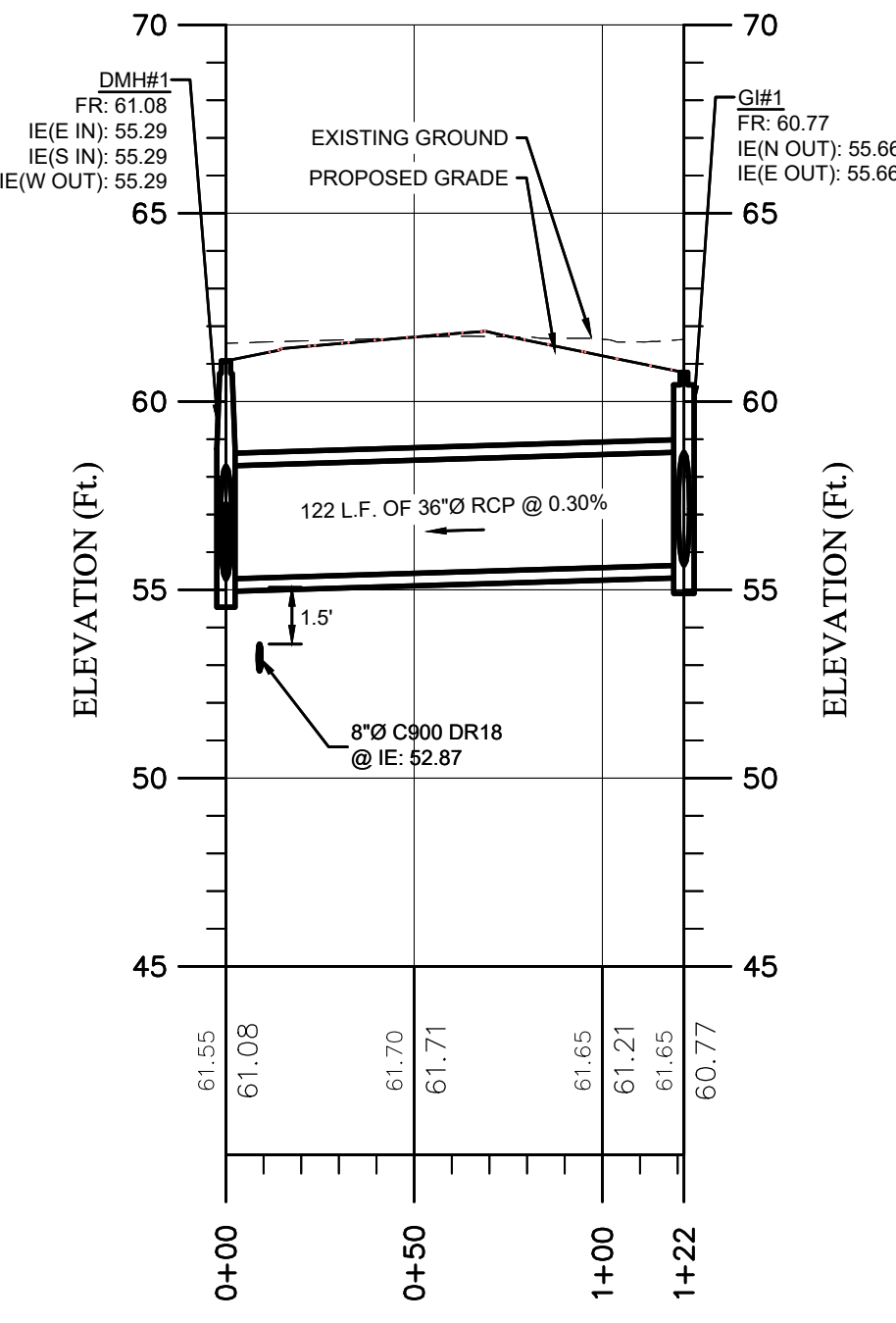
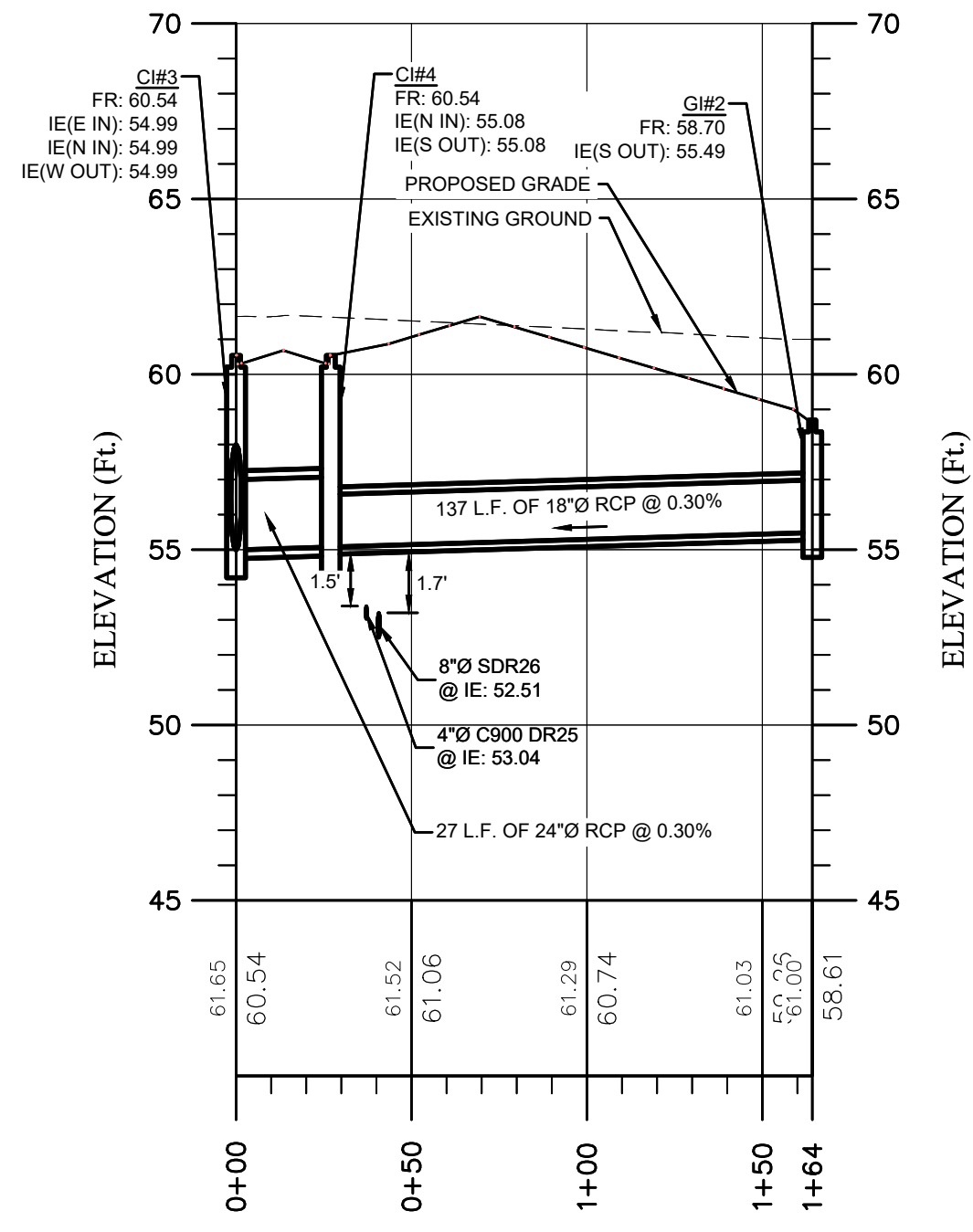
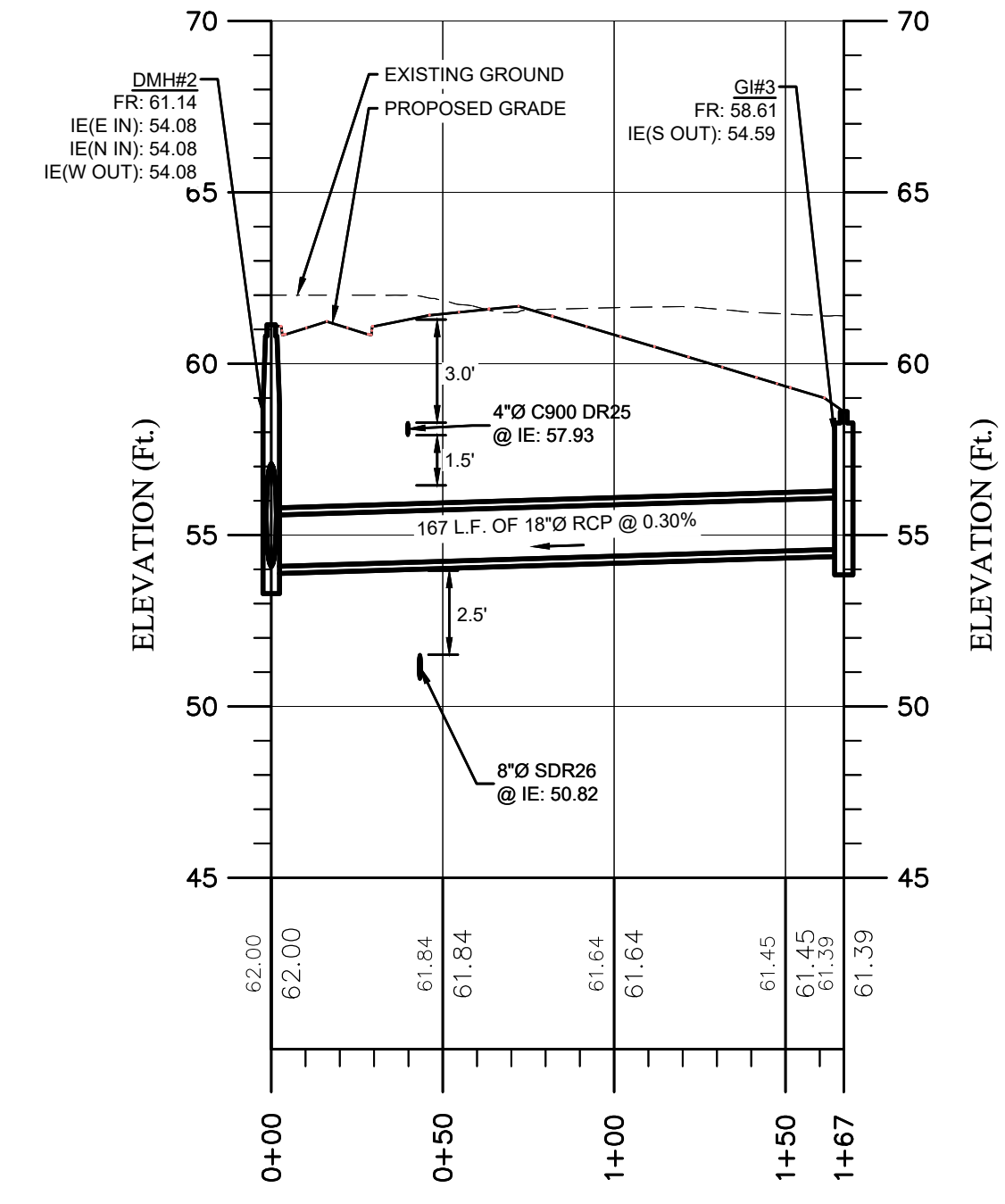
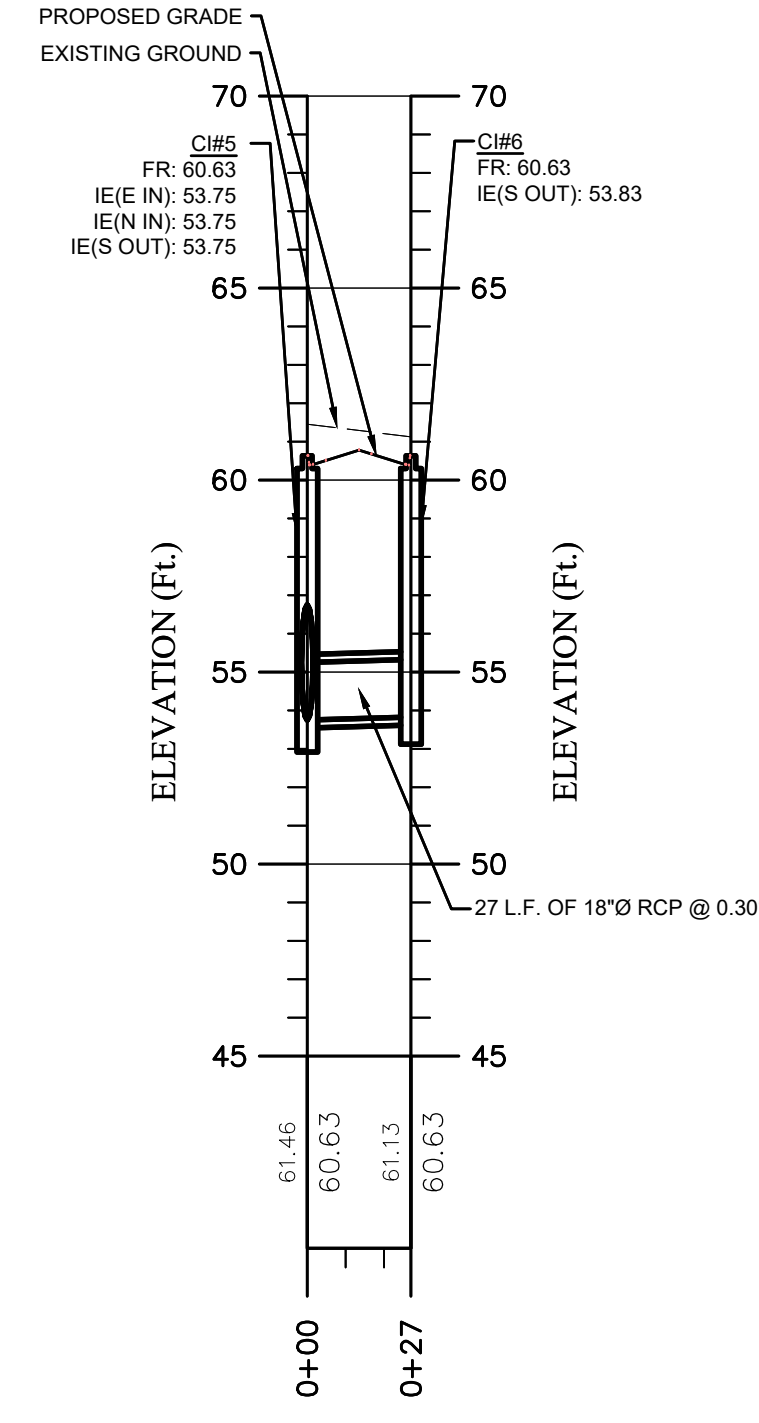
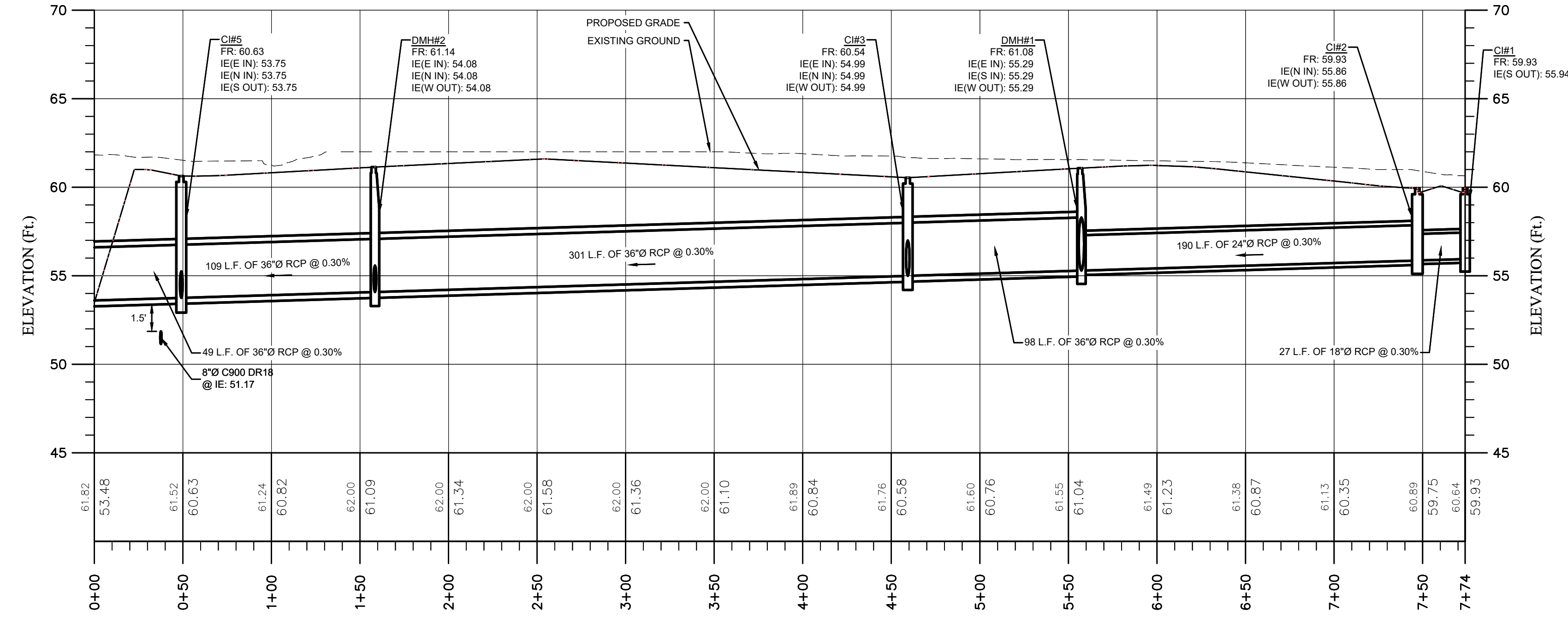
JASON J. BRYANT, P.E.
GSWCC LEVEL II
DESIGN PROFESSIONAL
CERTIFICATION 7/3897

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www.PittmanEngineeringCo.com

ROAD PROFILES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: ---
Date: 8/3/23

SHEET
C3.3



REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

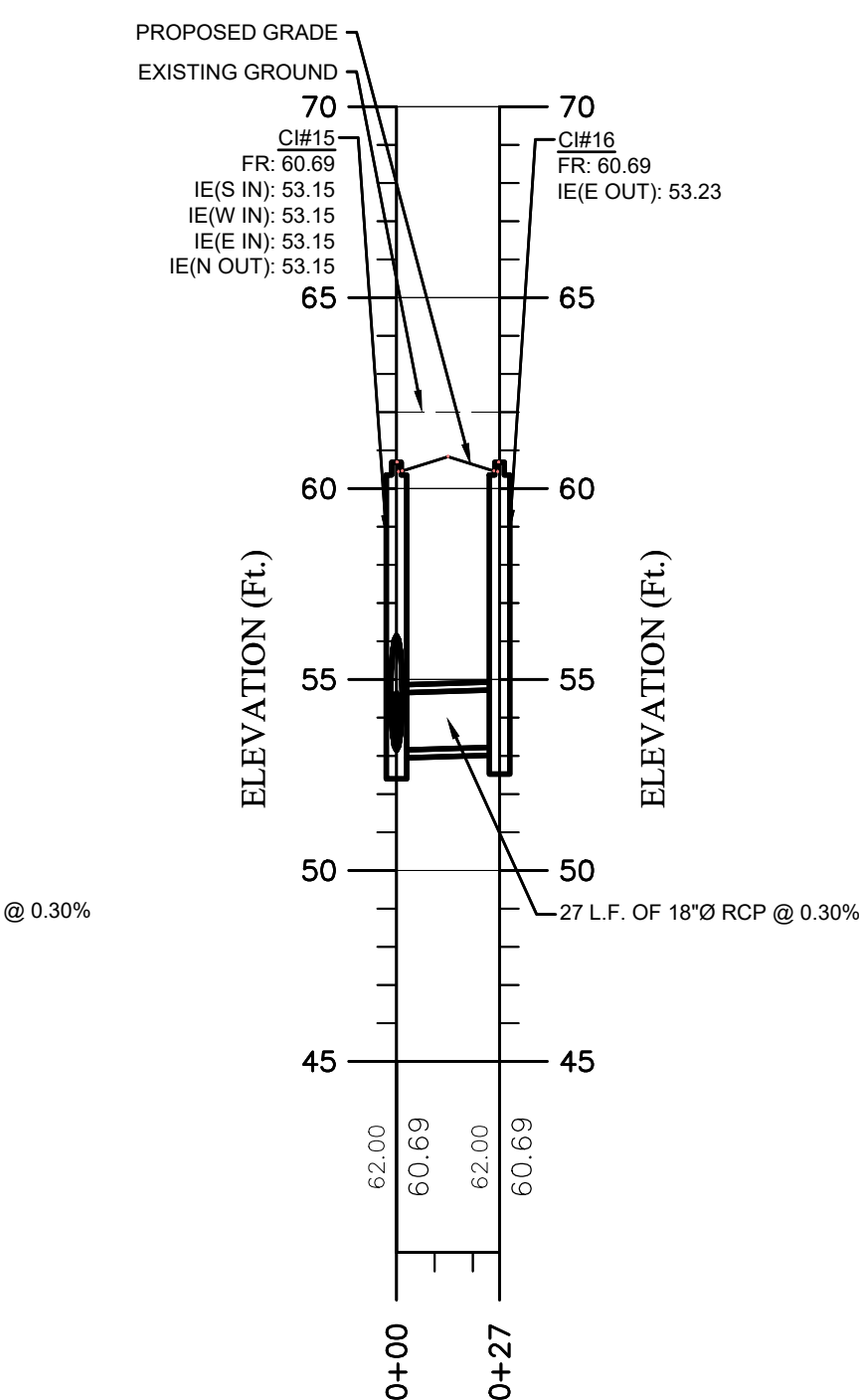
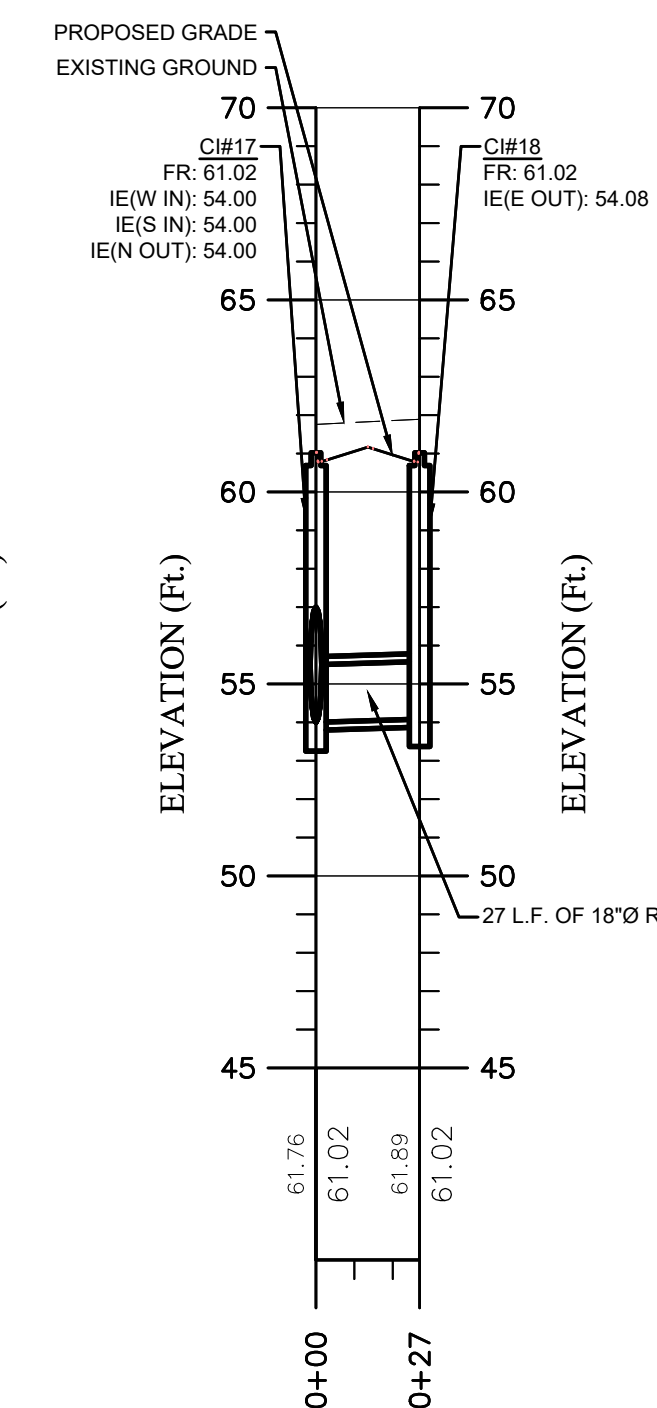
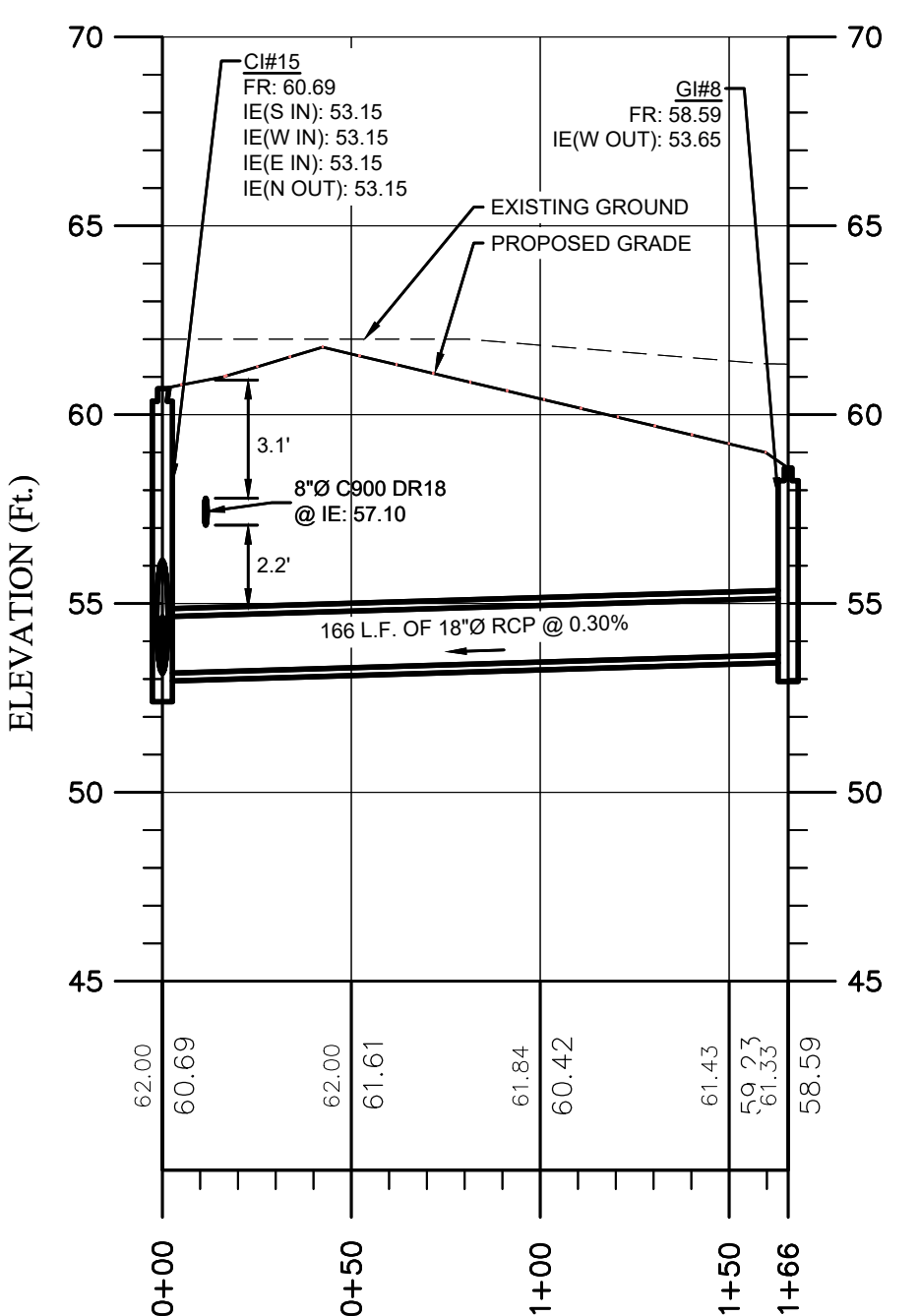
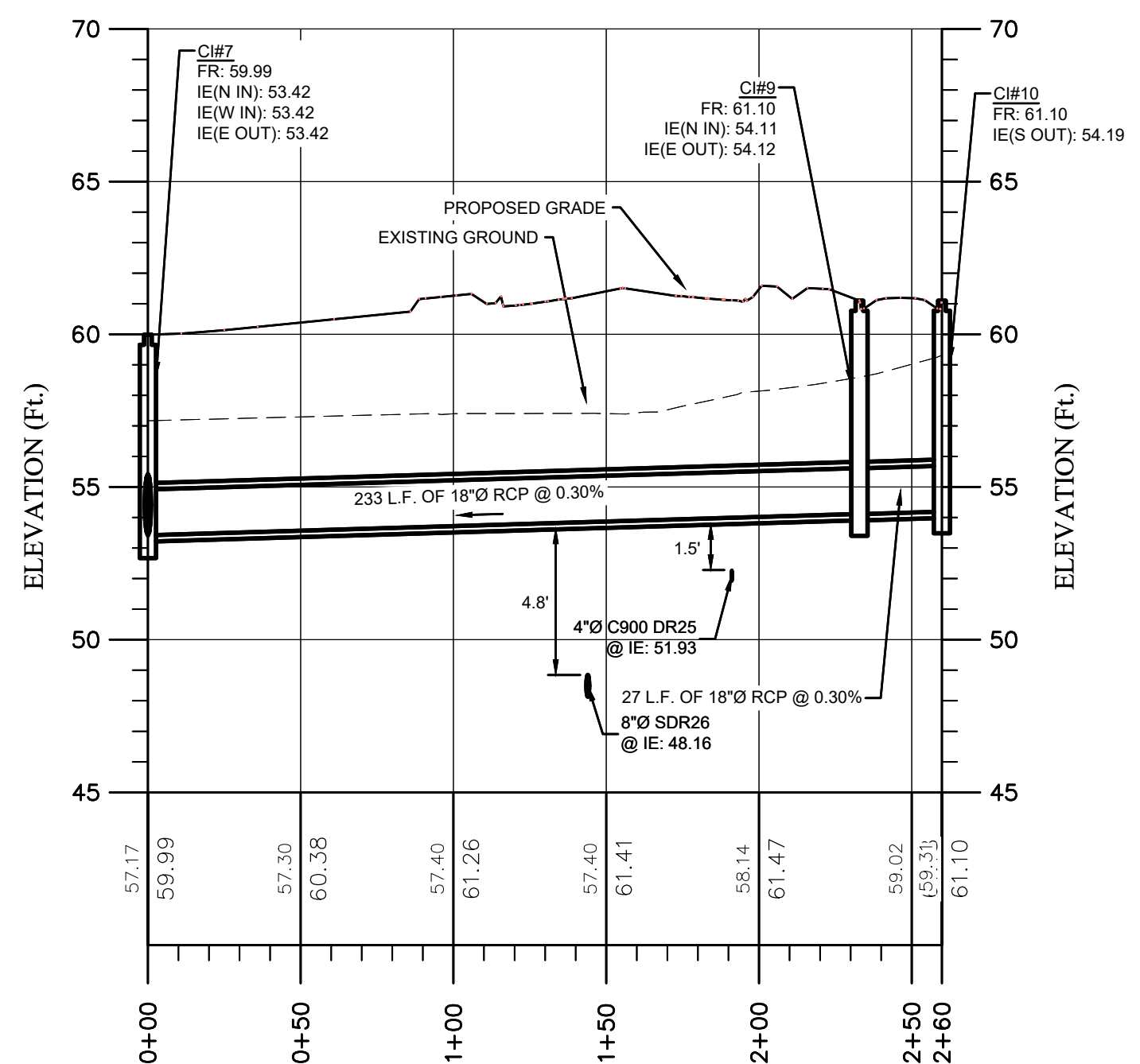
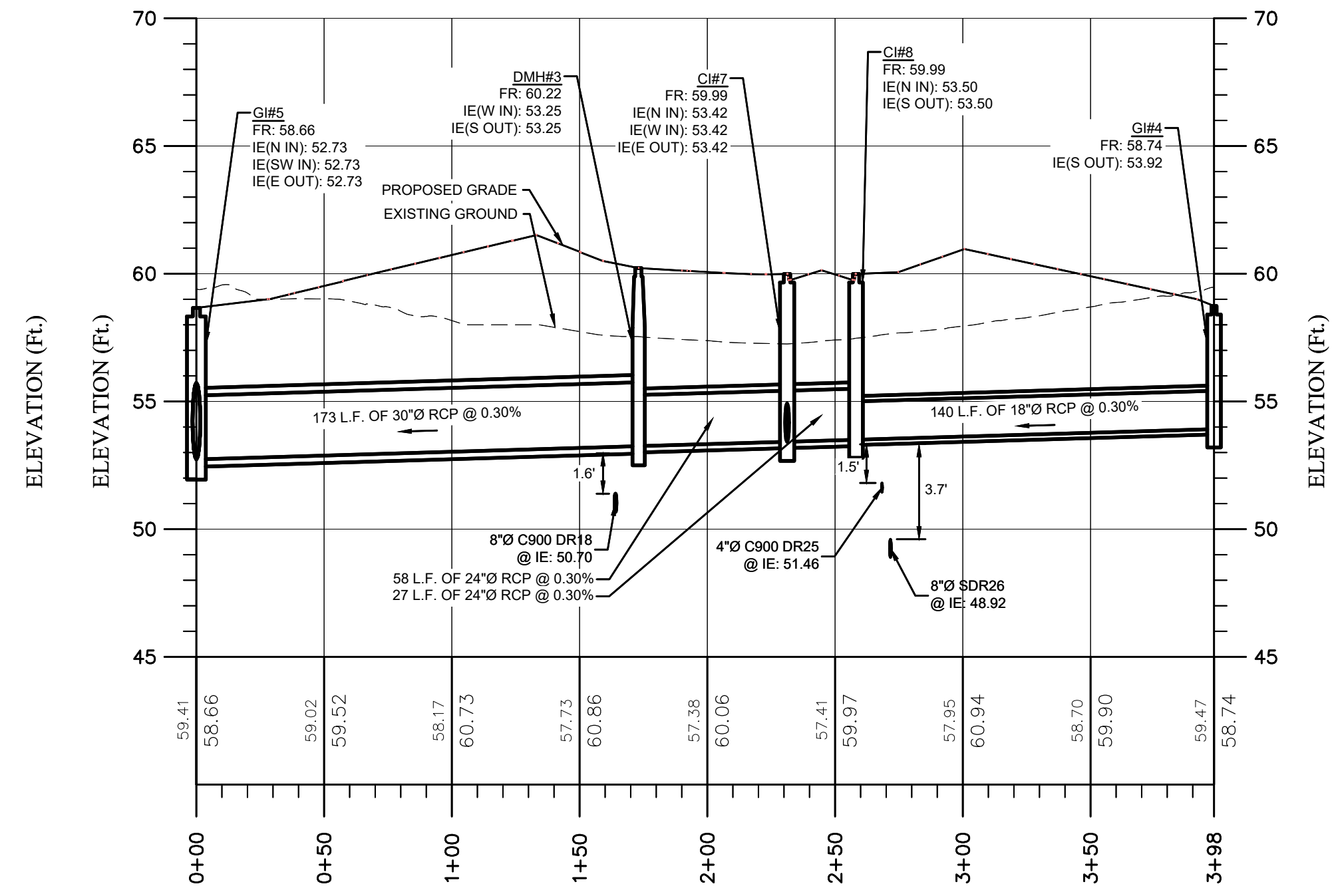
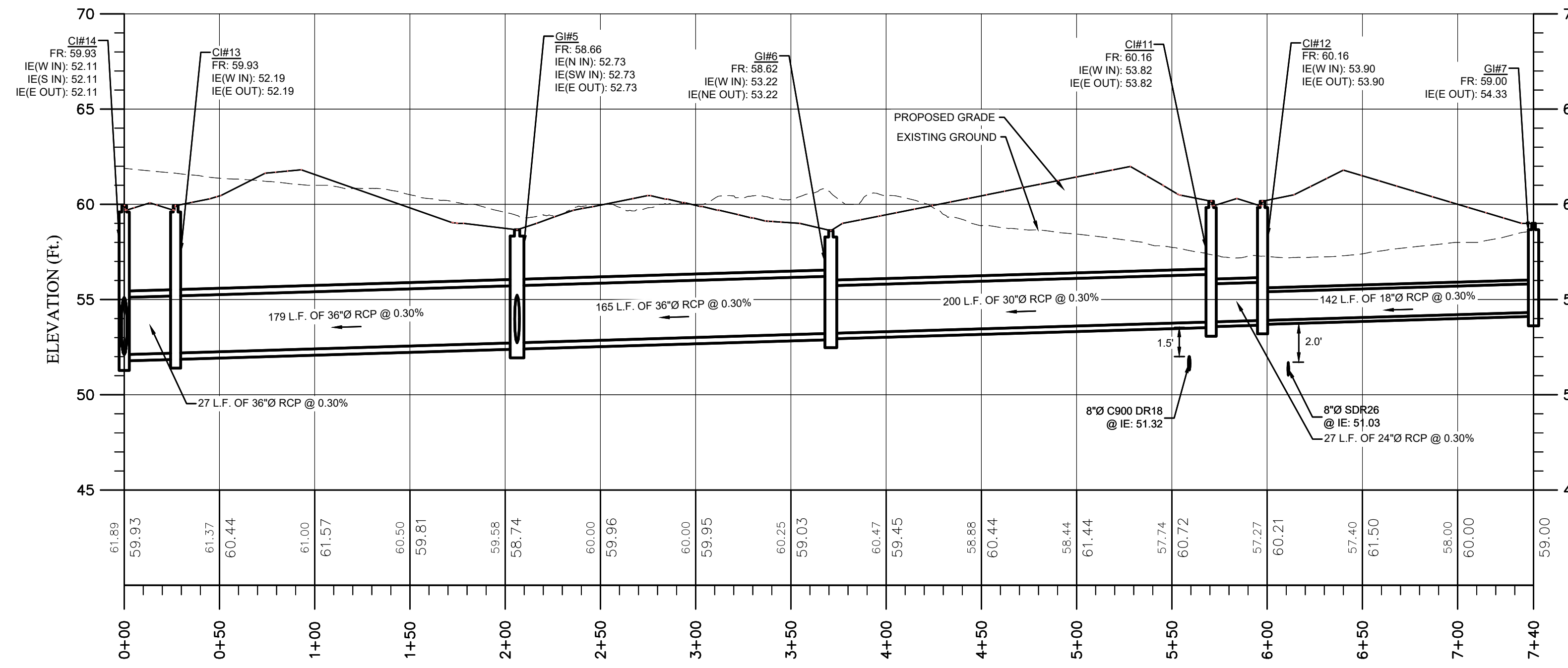
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

STORM DRAINAGE PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JUB
 Checked By: JUB
 Scale: ---
 Date: 8/3/23

SHEET
C3.4



REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

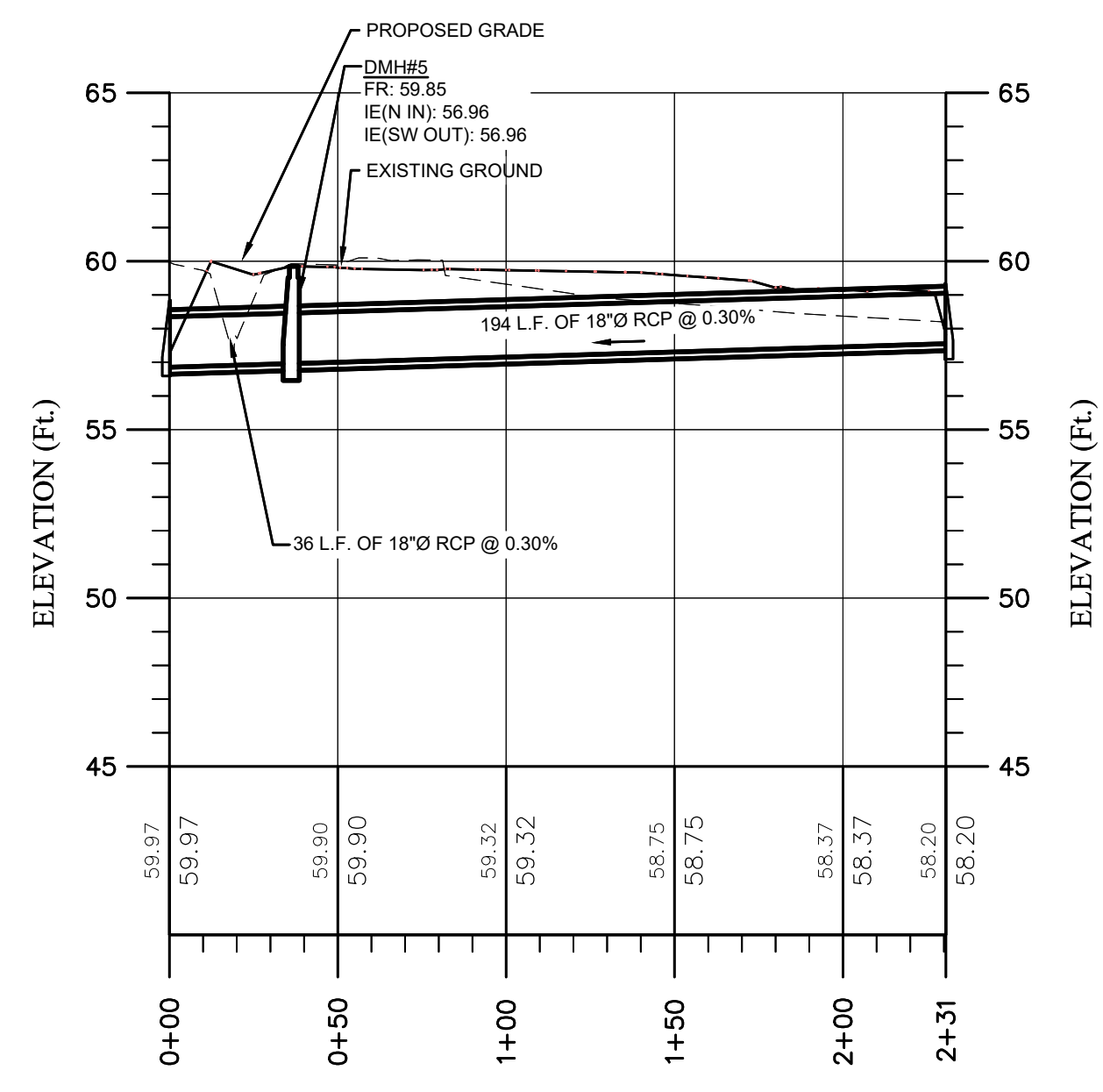
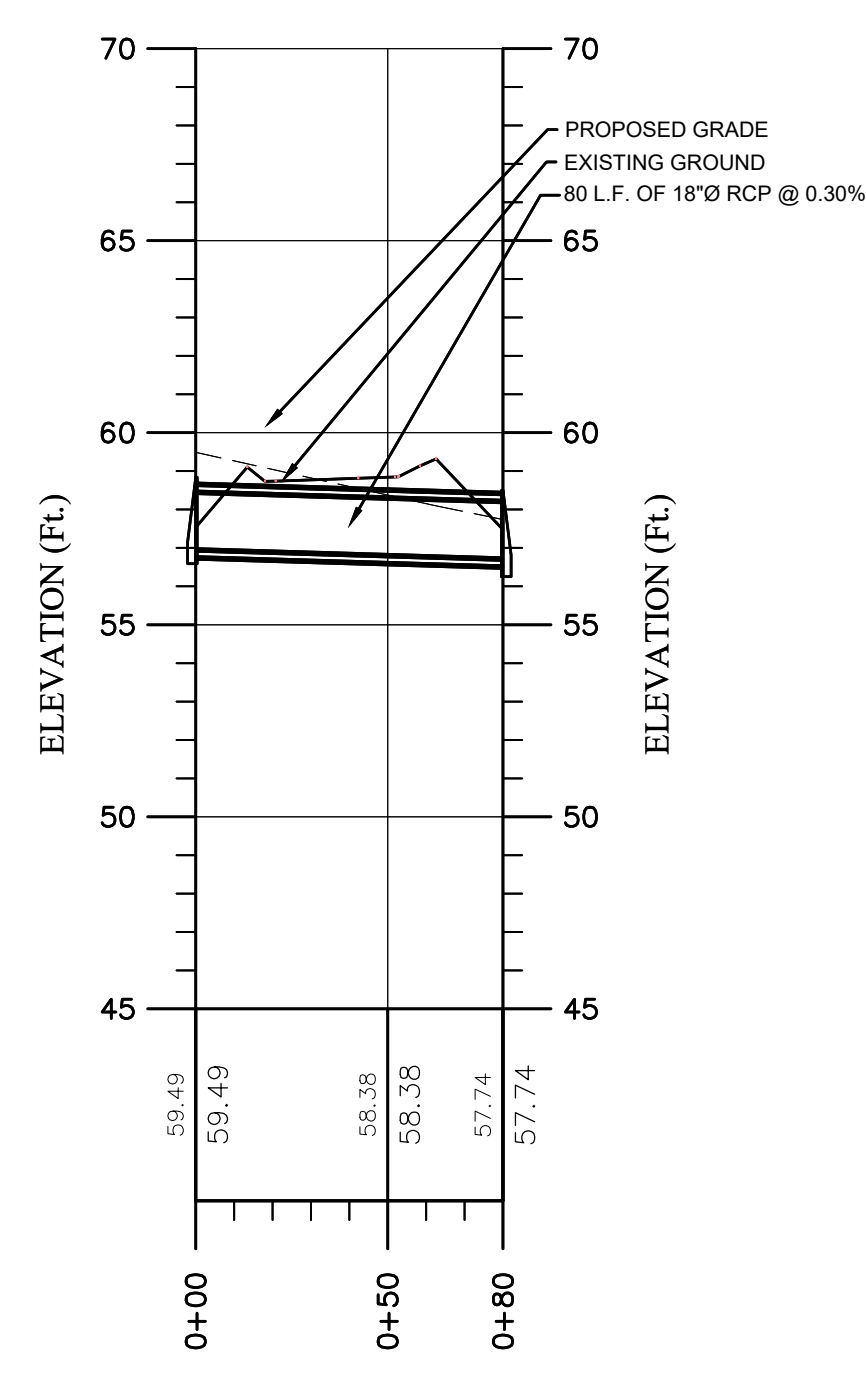
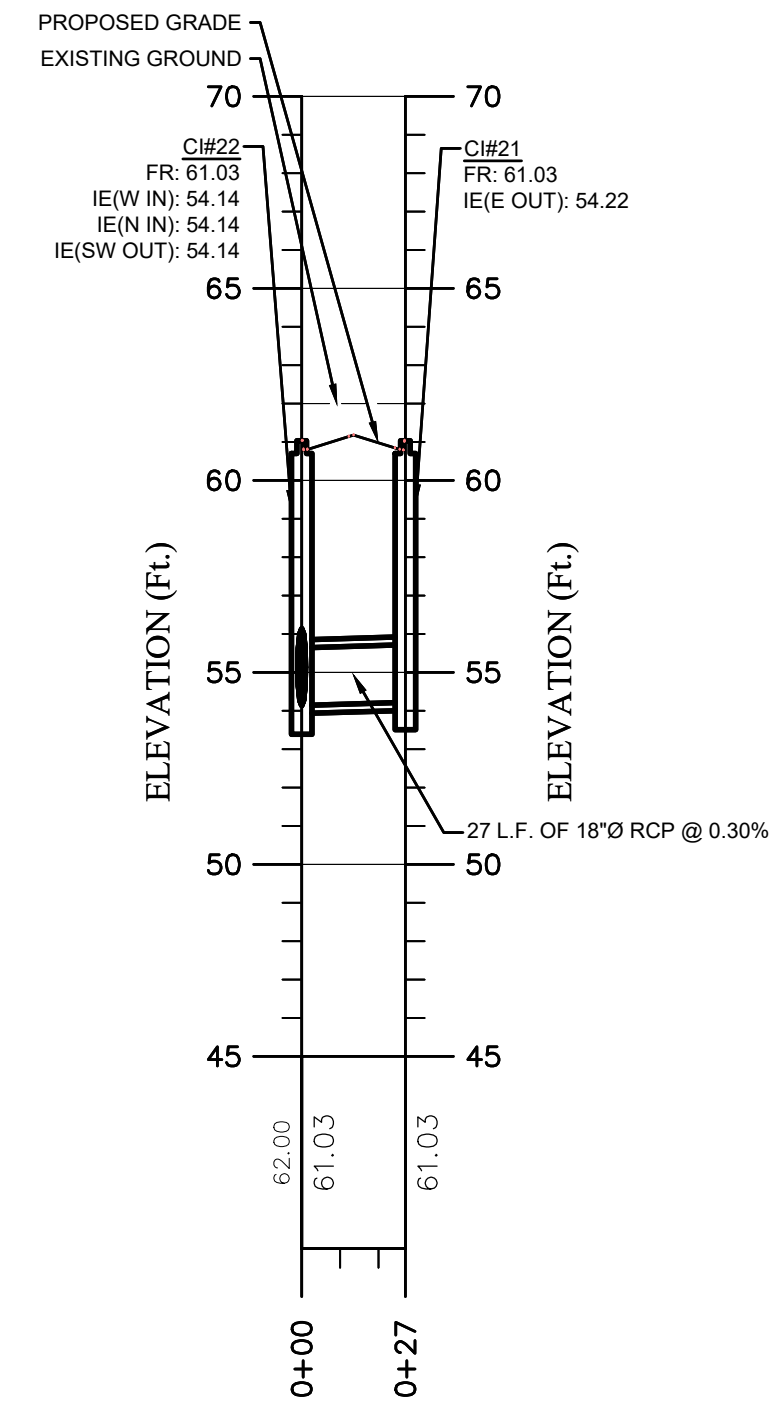
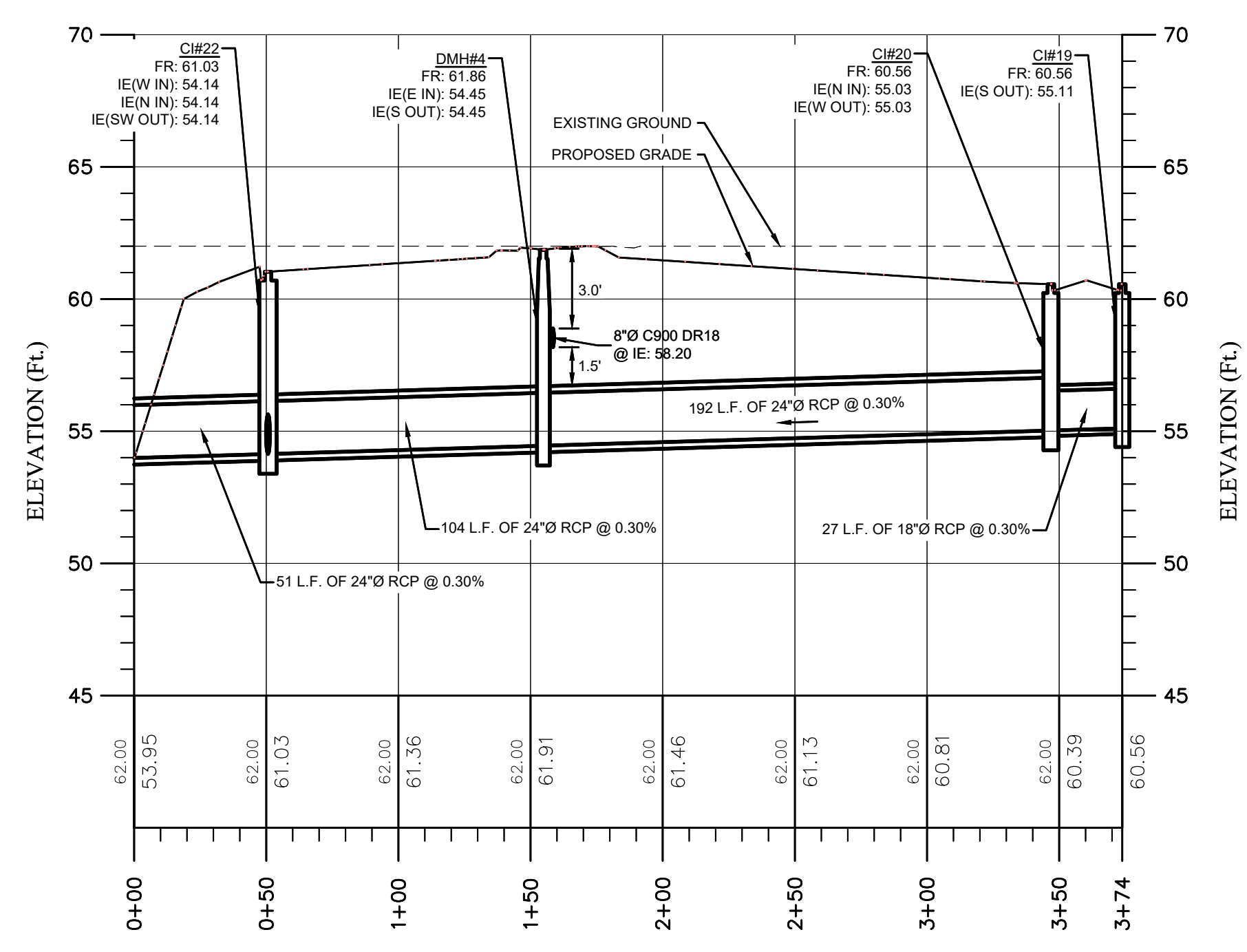
JASON L. BRYANT, P.E.
 GSWCC LEVEL II
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

STORM DRAINAGE PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	---
Date:	8/3/23

SHEET
C3.5

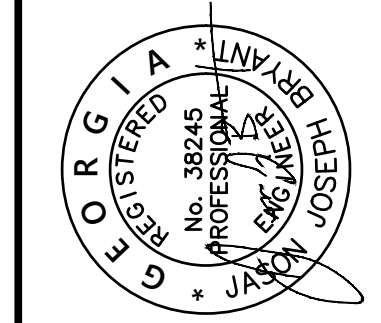


STORM DRAINAGE PROFILES
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
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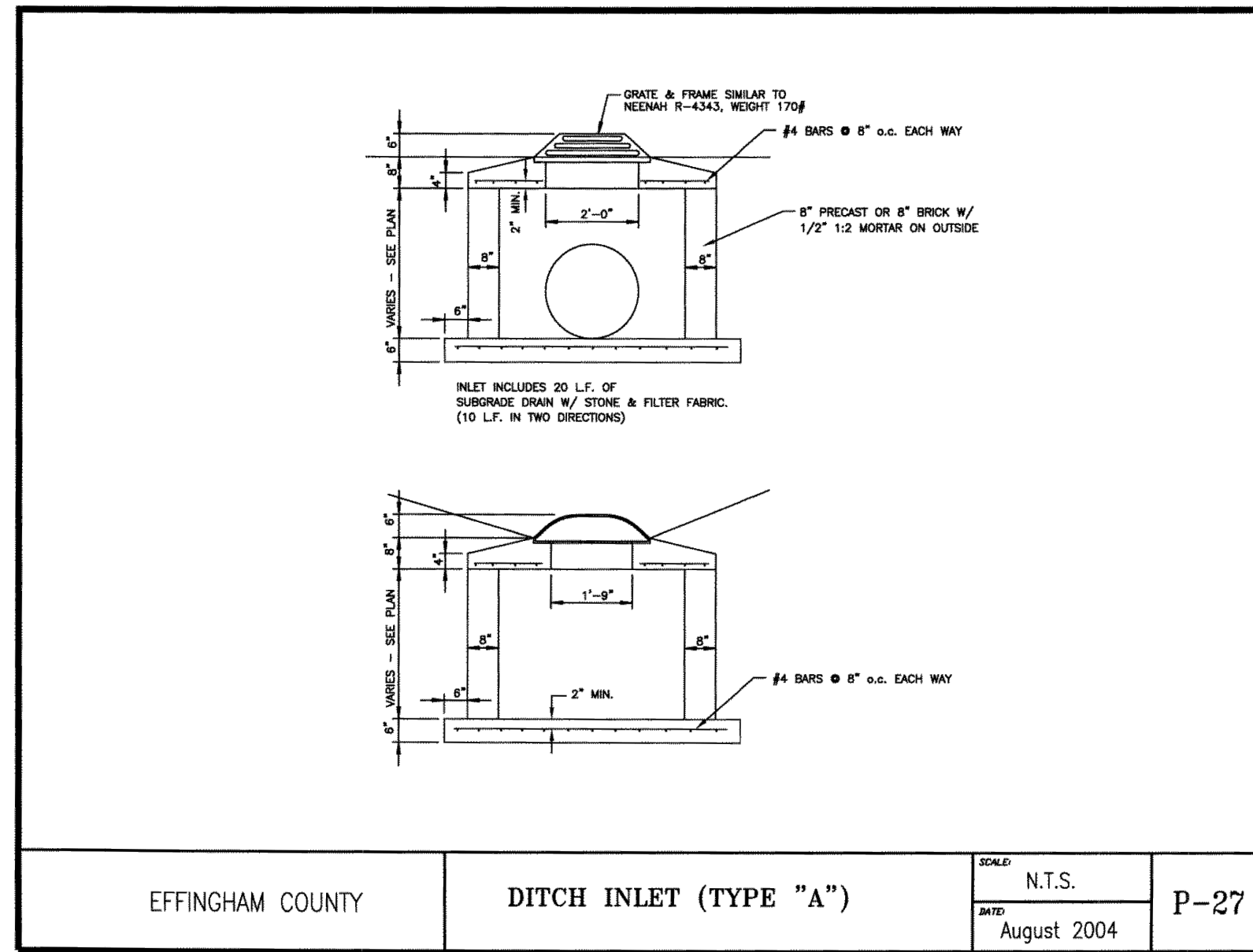
SHEET
C3.6

Pittman Engineering Co., LLC
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 Richmond Hill, GA 31324
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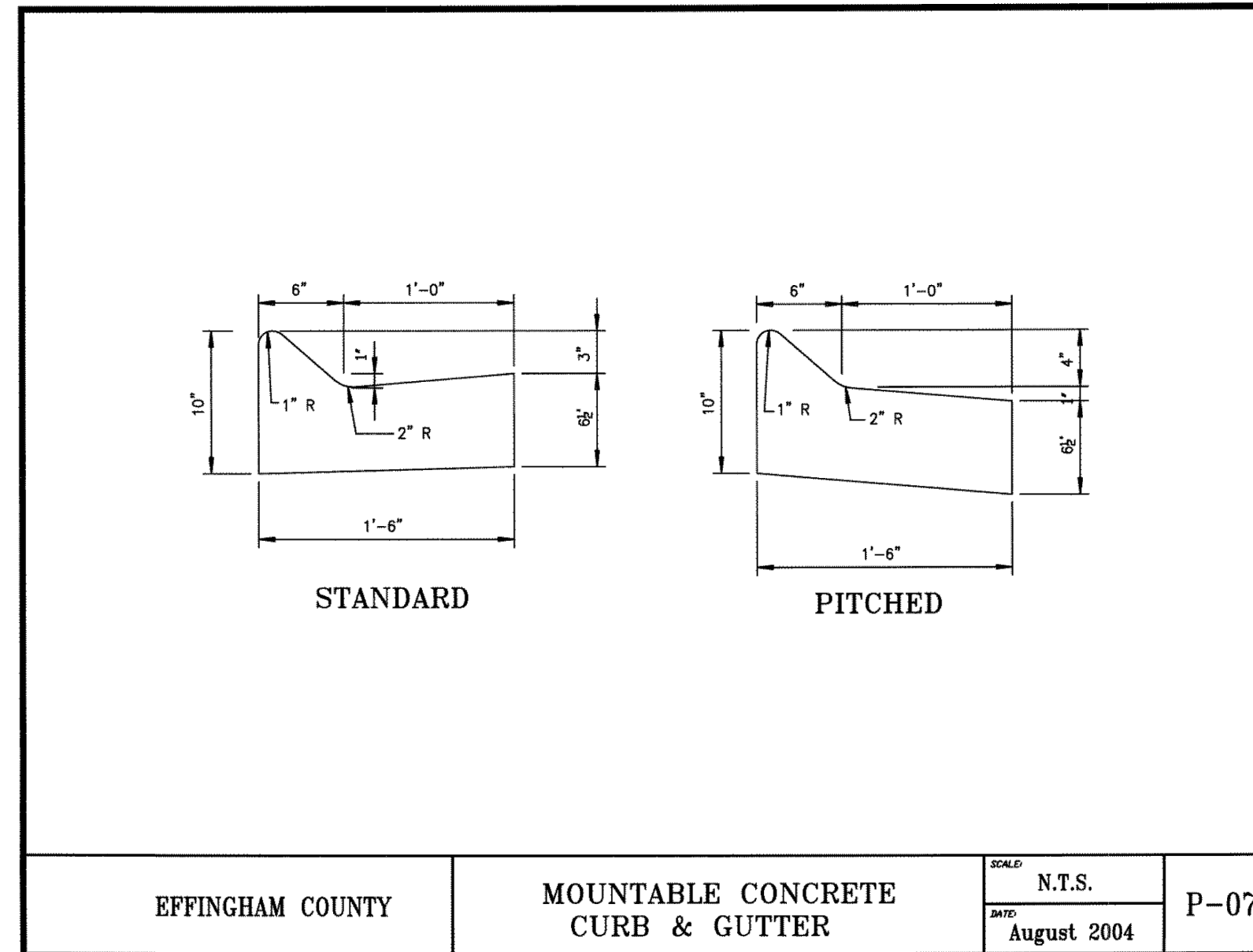


JASON J. BRYANT, P.E.
 GSWCC LEVEL II
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

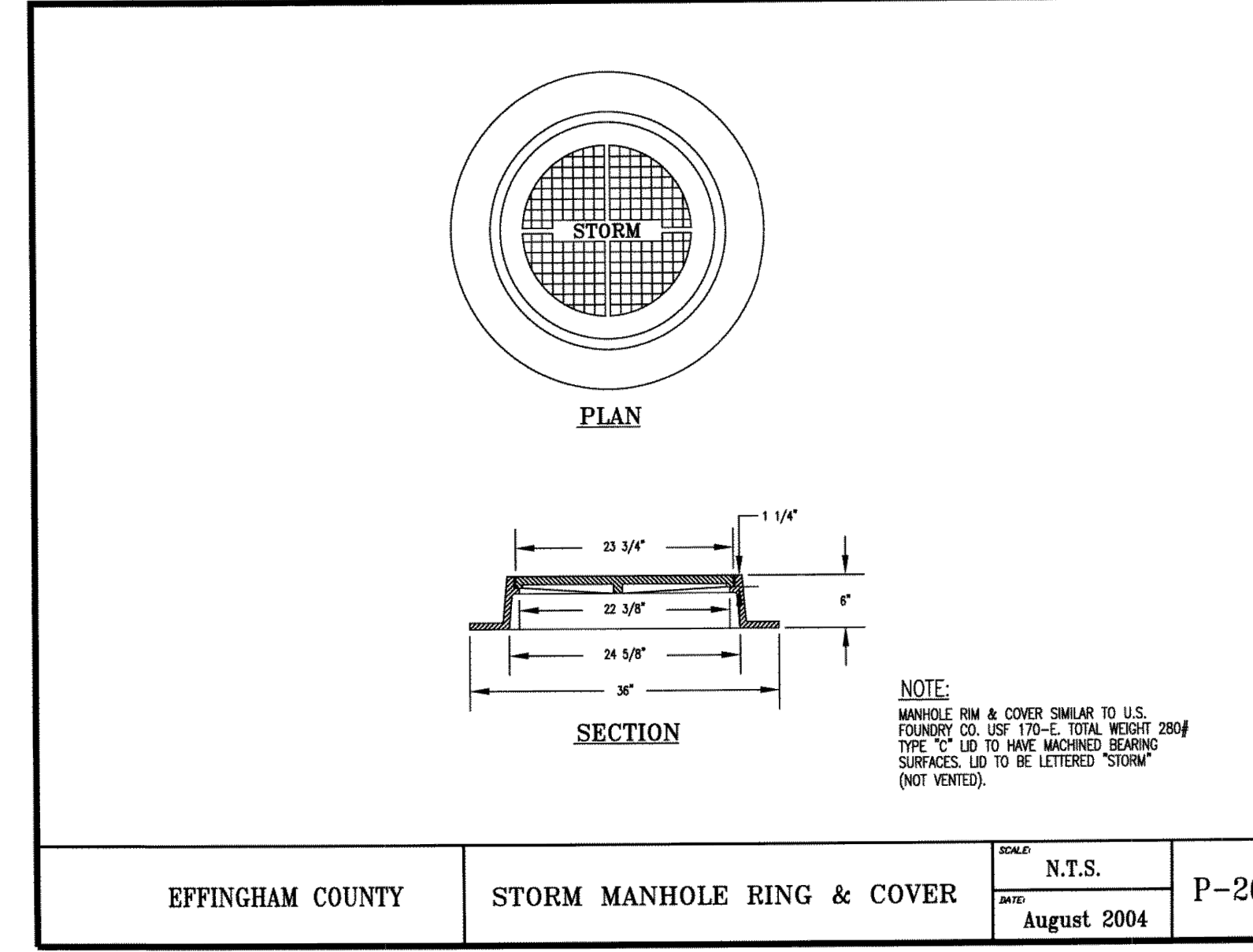
REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23



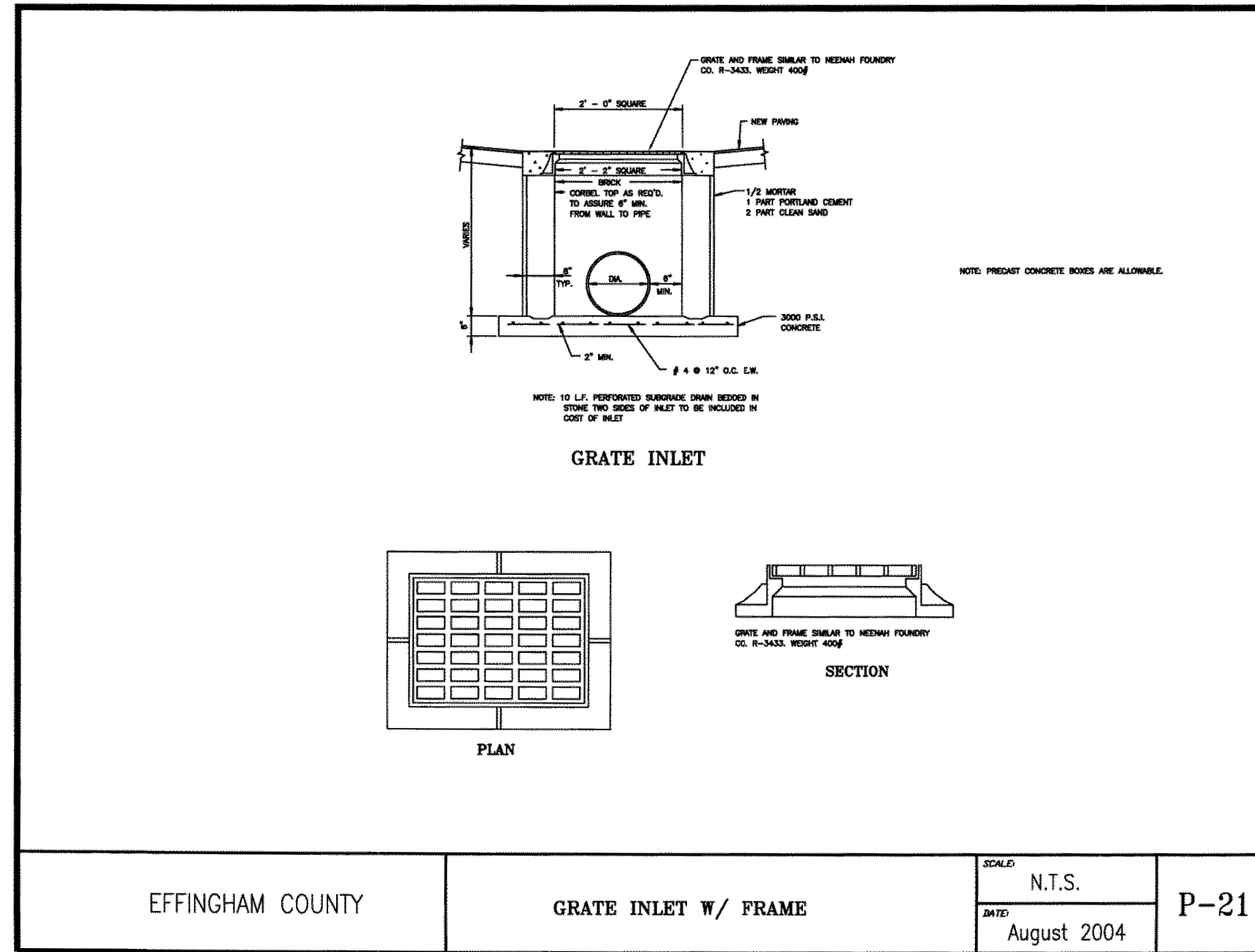
EFFINGHAM COUNTY DITCH INLET (TYPE "A") P-27



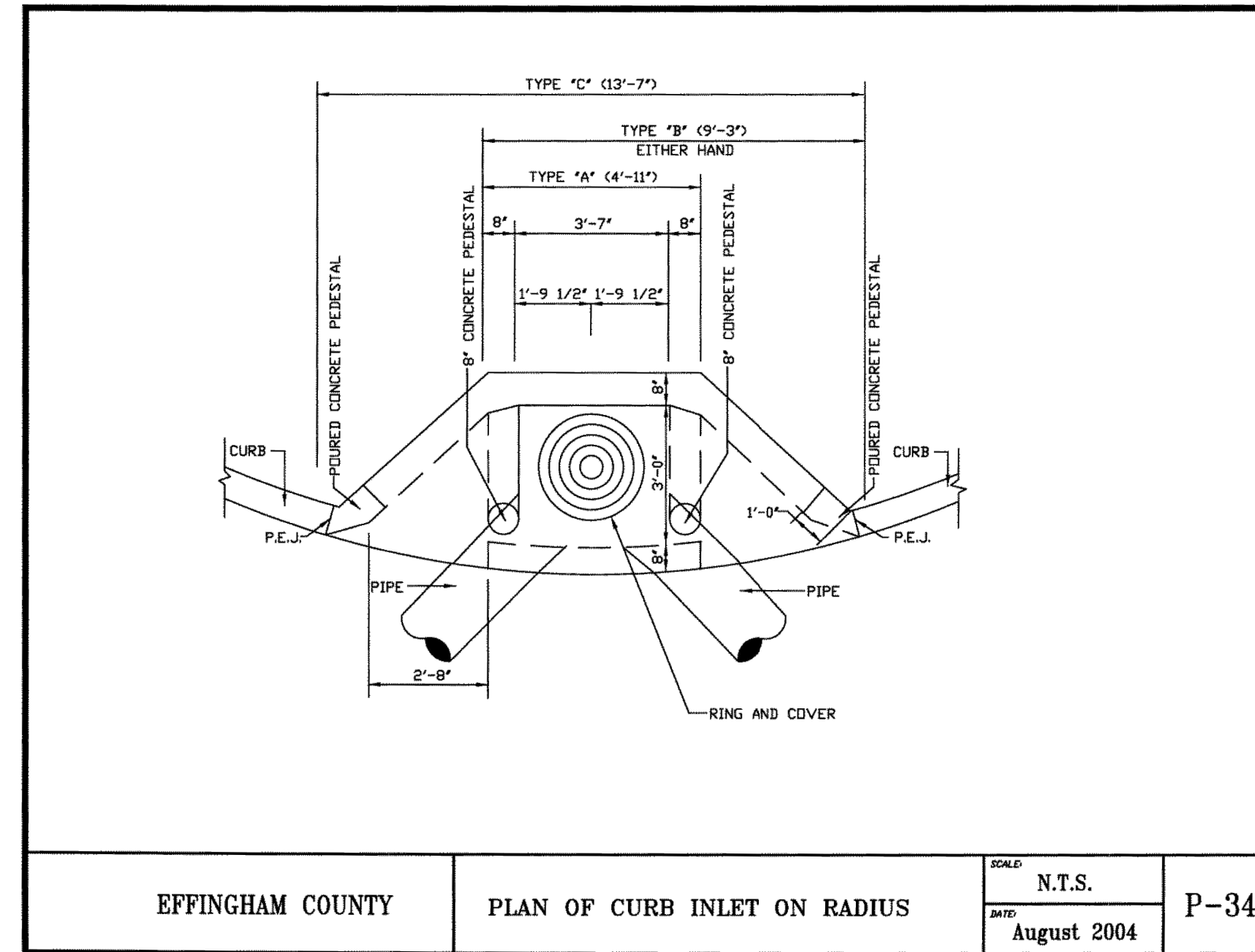
EFFINGHAM COUNTY MOUNTABLE CONCRETE CURB & GUTTER P-07



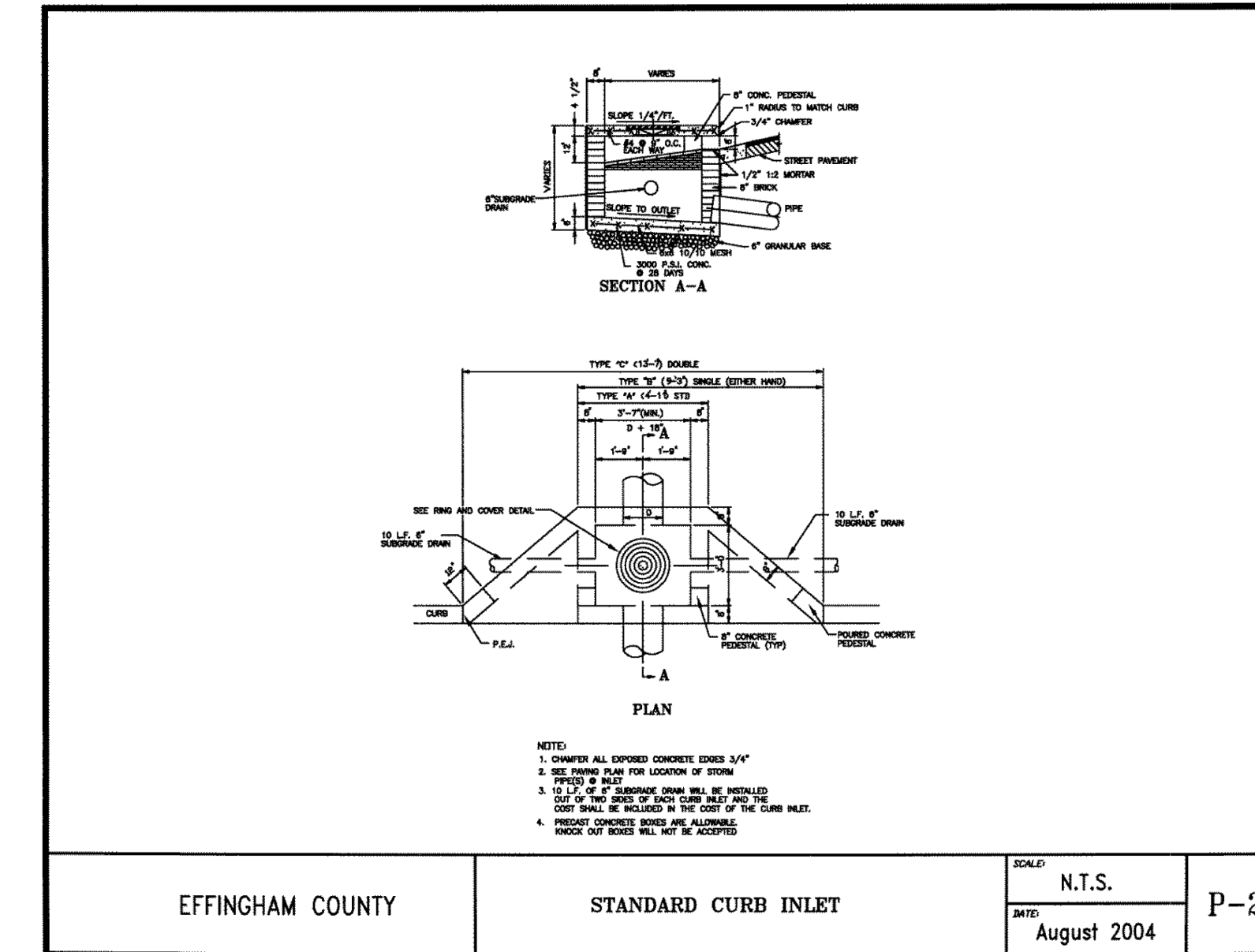
EFFINGHAM COUNTY STORM MANHOLE RING & COVER P-26



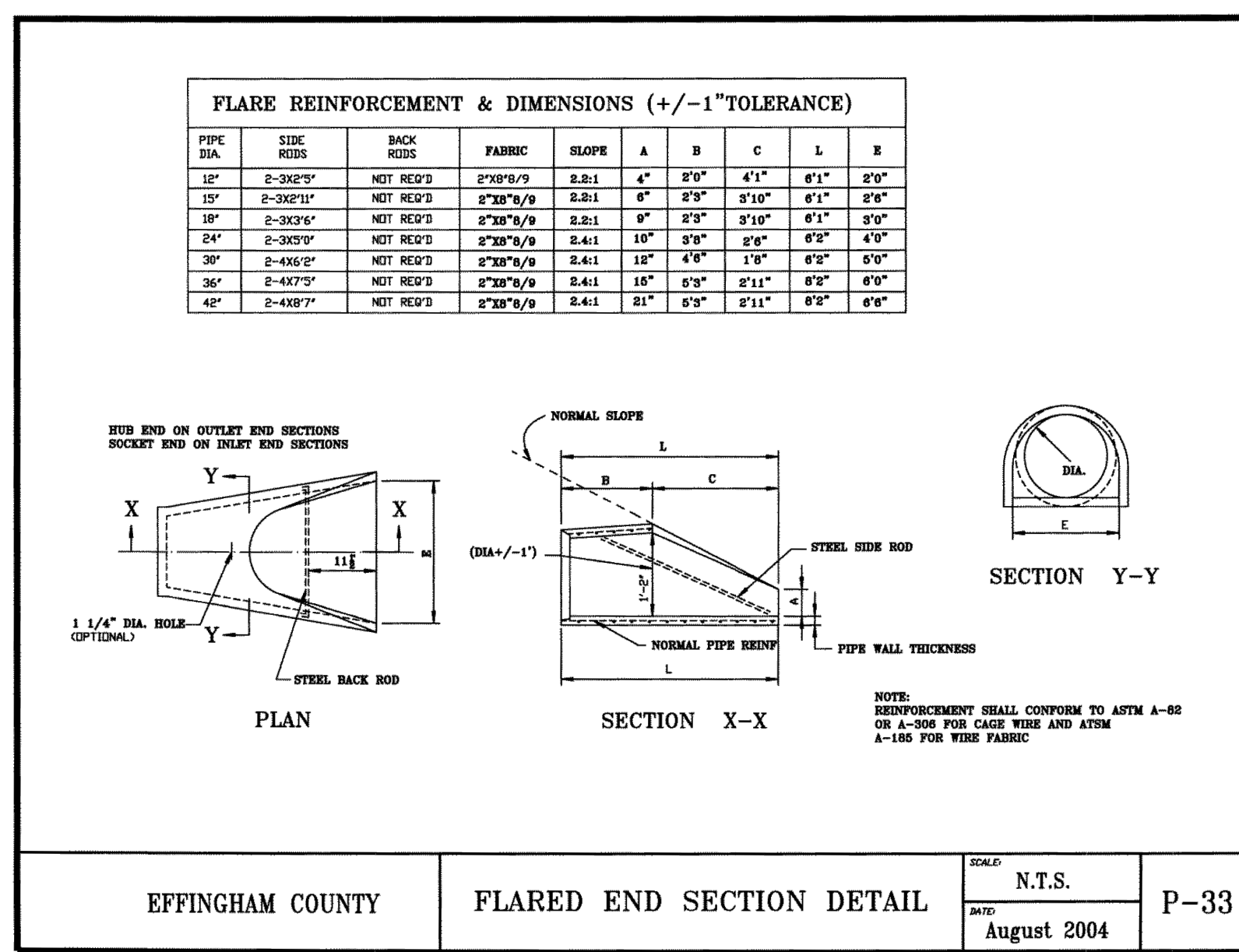
EFFINGHAM COUNTY GRATE INLET W/ FRAME P-21



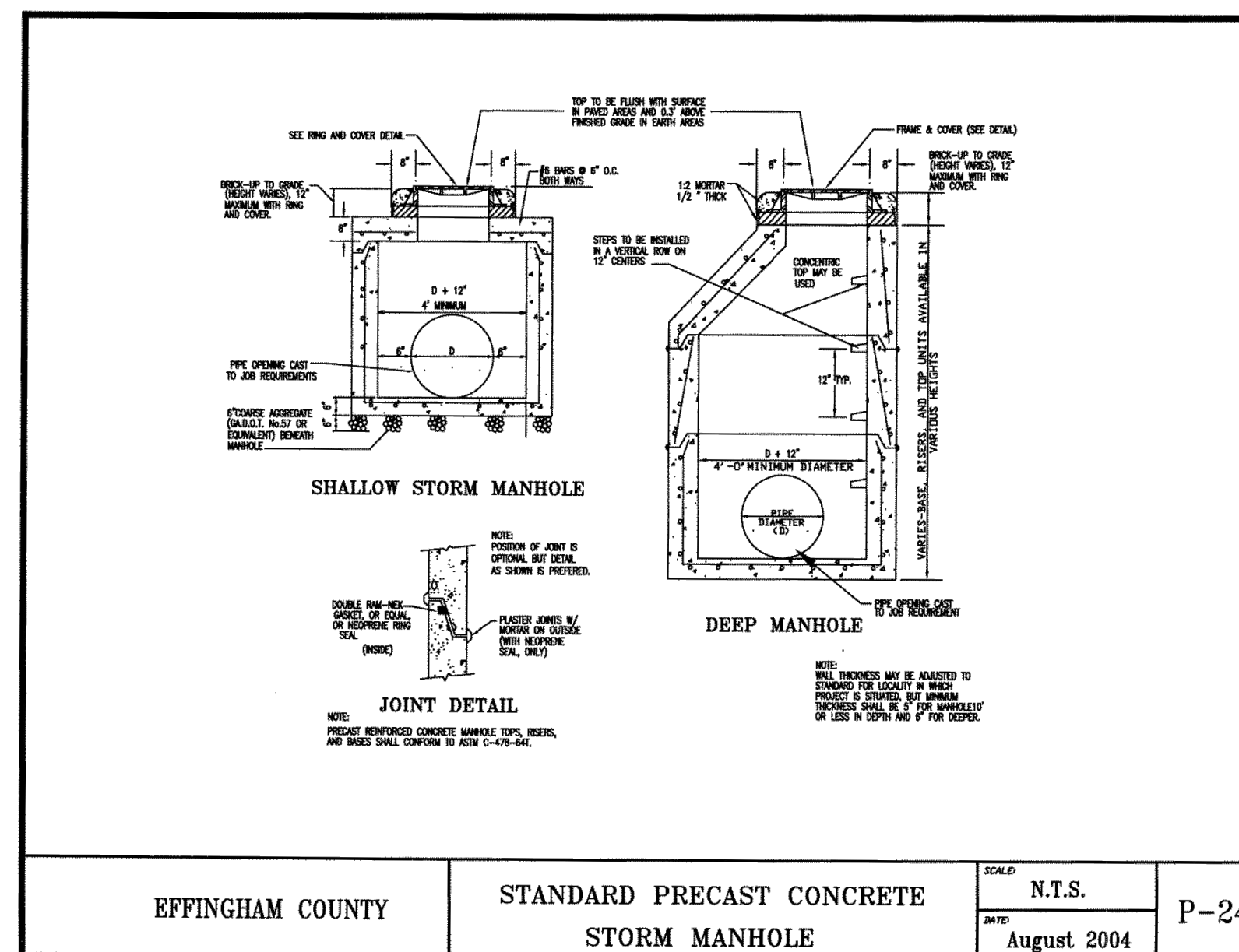
EFFINGHAM COUNTY PLAN OF CURB INLET ON RADIUS P-34



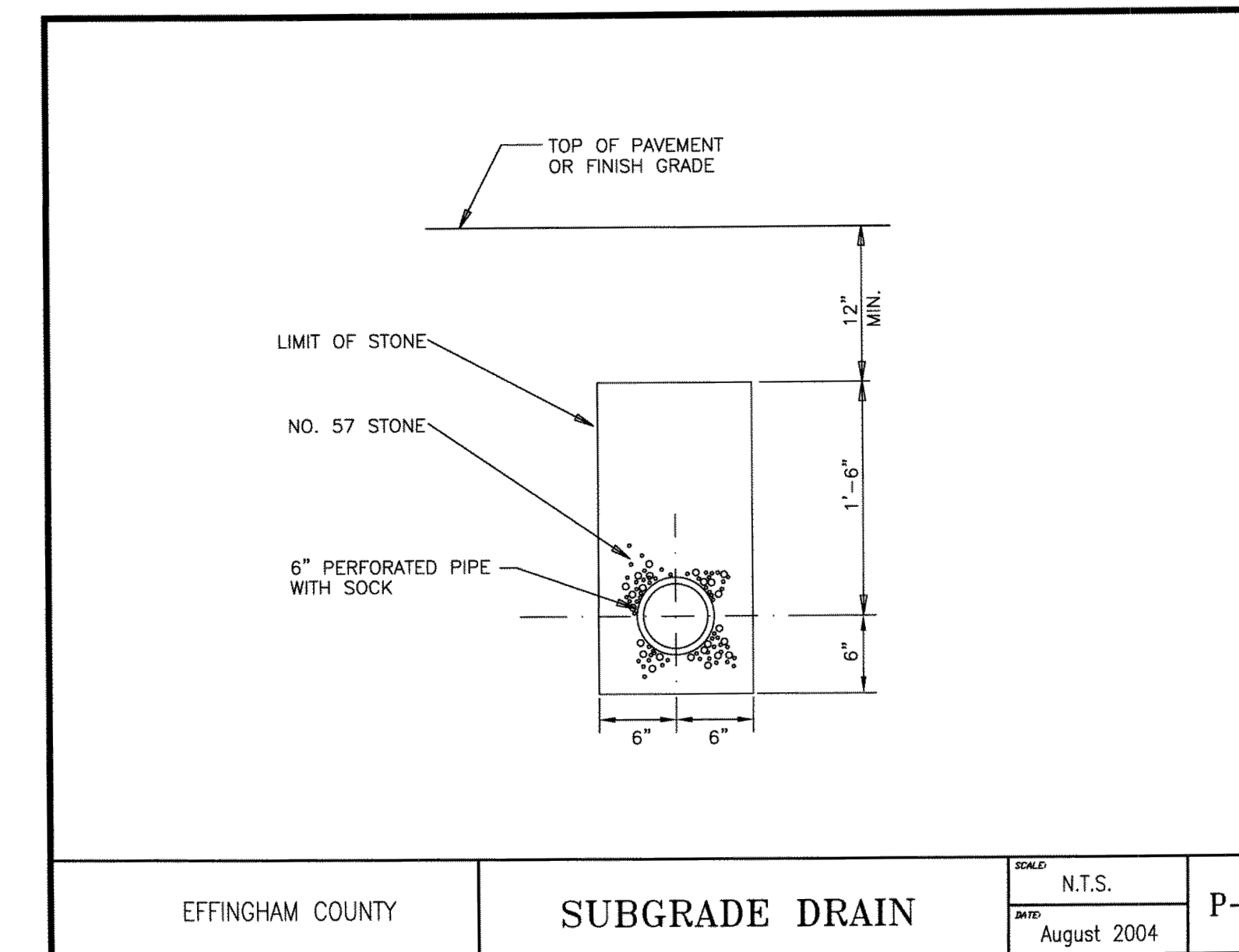
EFFINGHAM COUNTY STANDARD CURB INLET P-20



EFFINGHAM COUNTY FLARED END SECTION DETAIL P-33



EFFINGHAM COUNTY STANDARD PRECAST CONCRETE STORM MANHOLE P-24



EFFINGHAM COUNTY SUBGRADE DRAIN P-31

Project No. 2023-6
 Drawn By: JAF
 Designed By: JUB
 Checked By: JUB
 Scale: N.T.S.
 Date: 8/3/23

SHEET C3.7

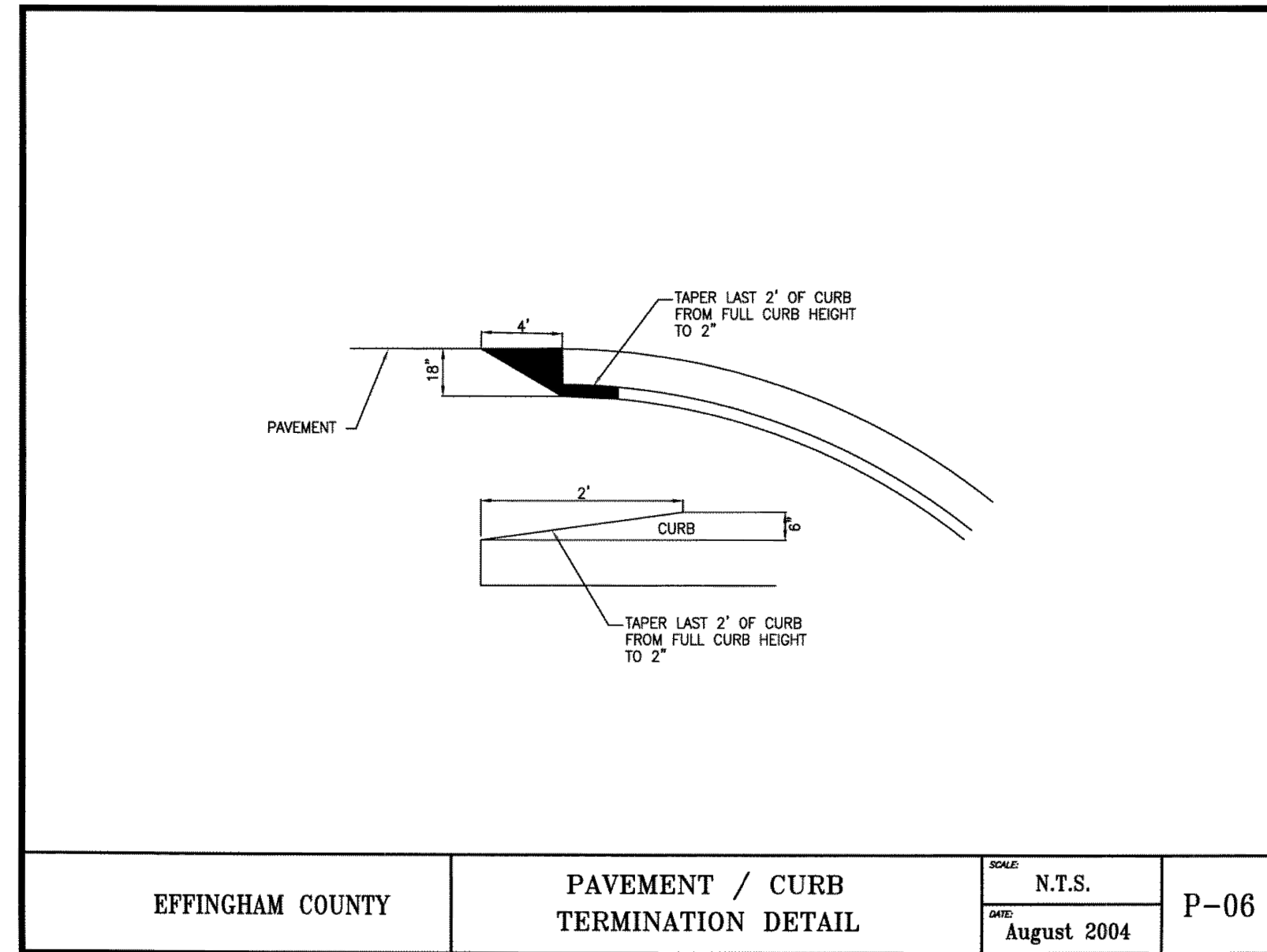
PAVING, GRADING, AND DRAINAGE DETAILS
 BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
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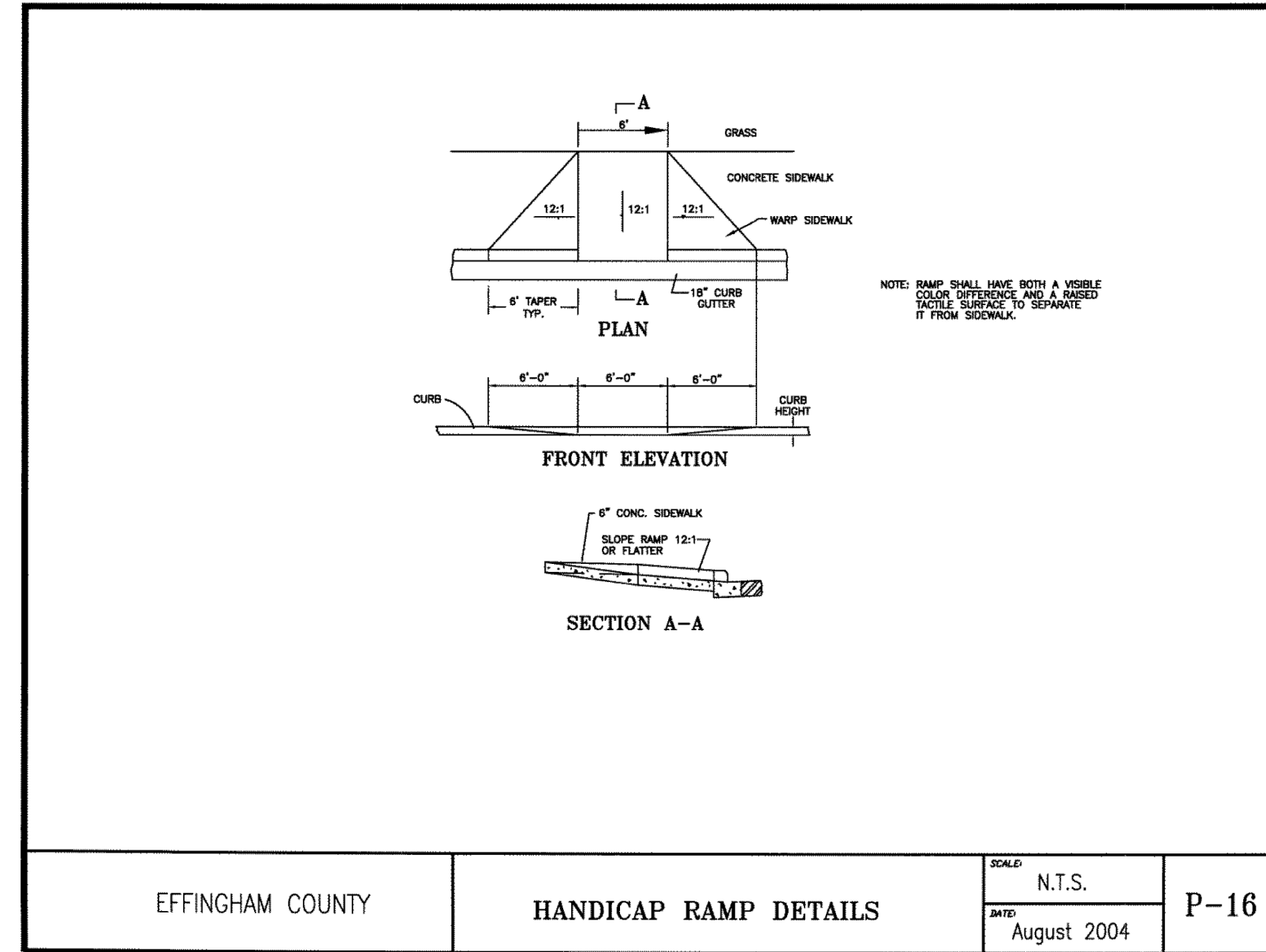
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

REVISIONS

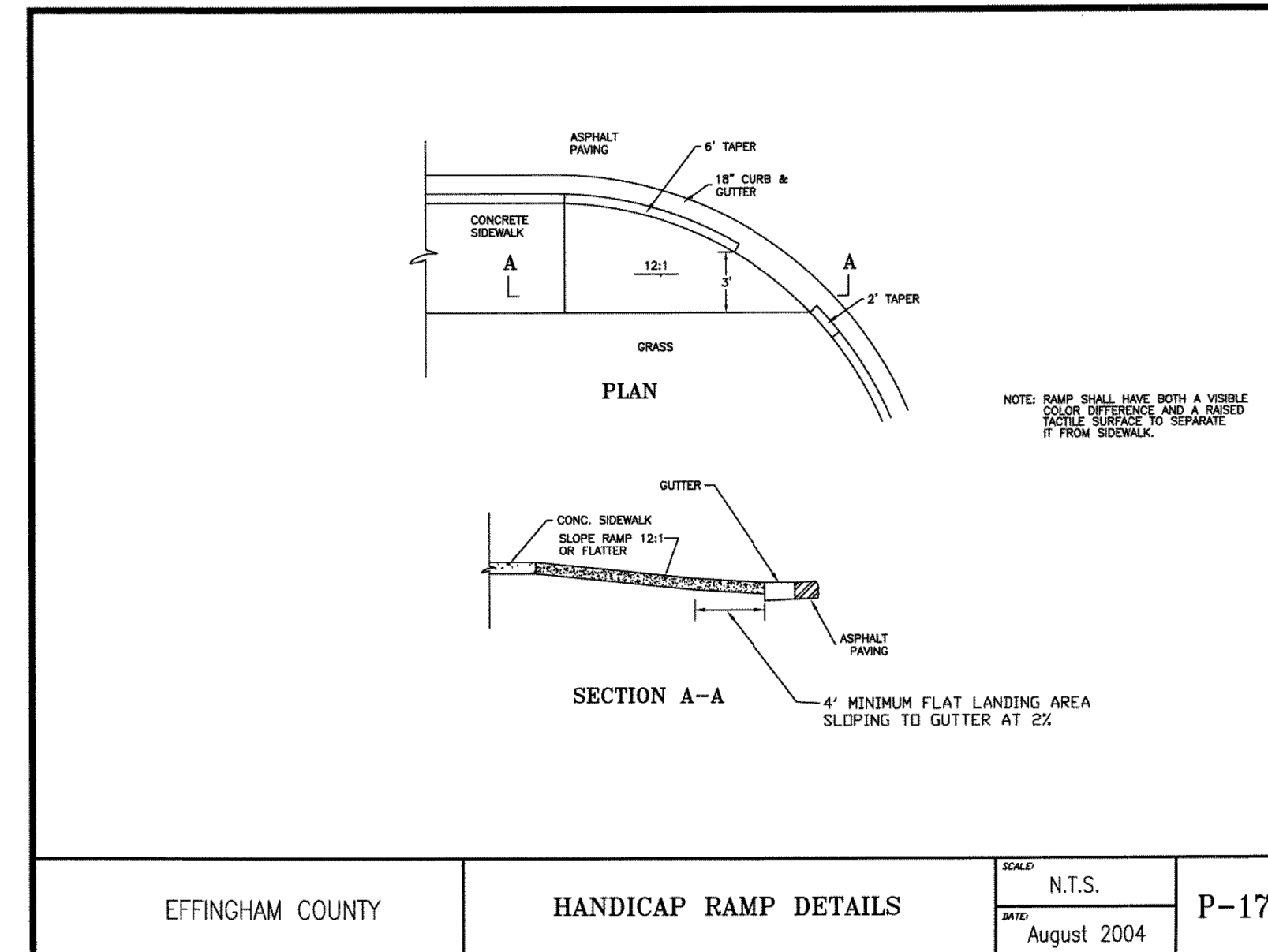
REV	DATE	BY	REVISIONS
5	11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.
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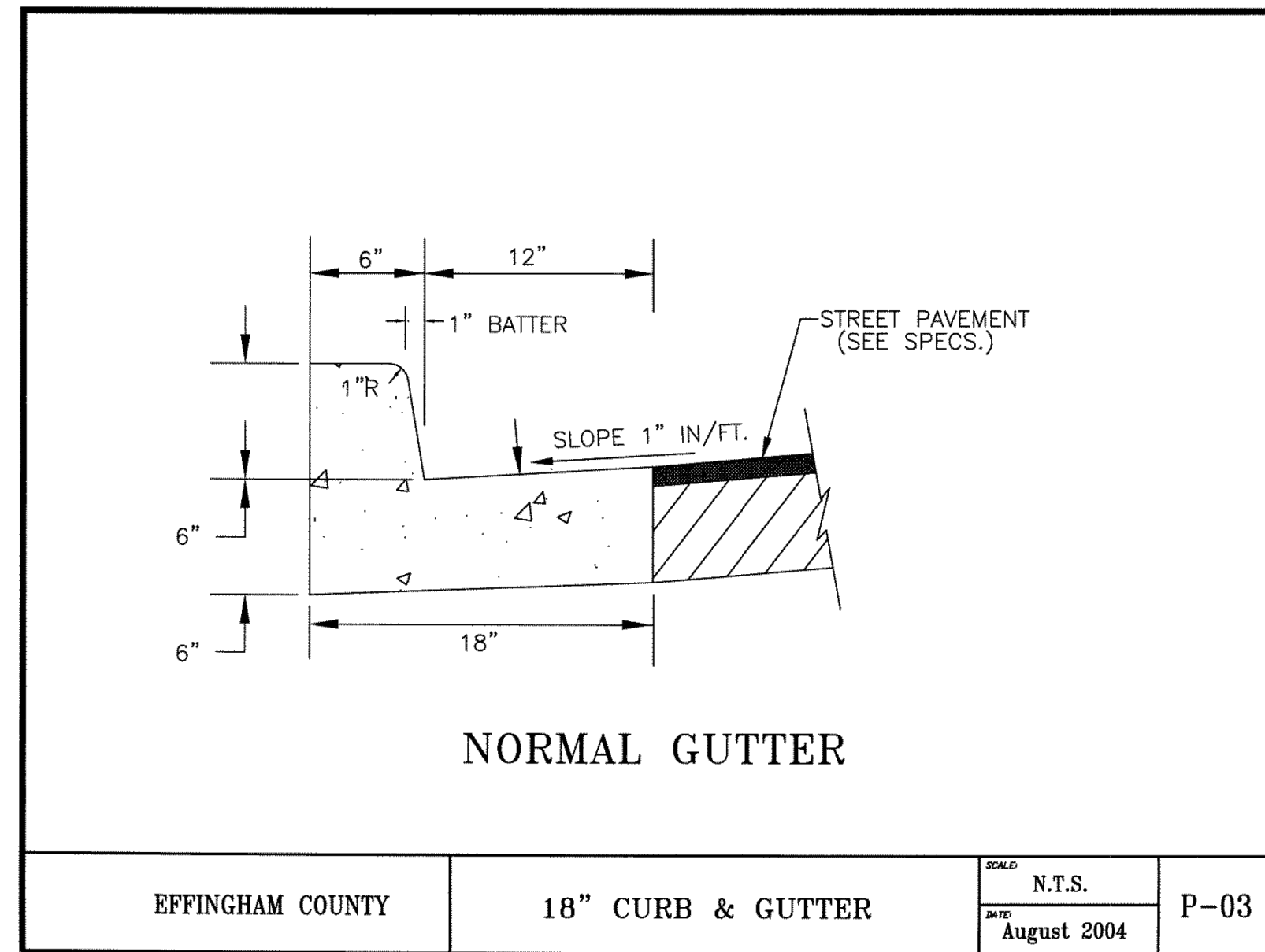
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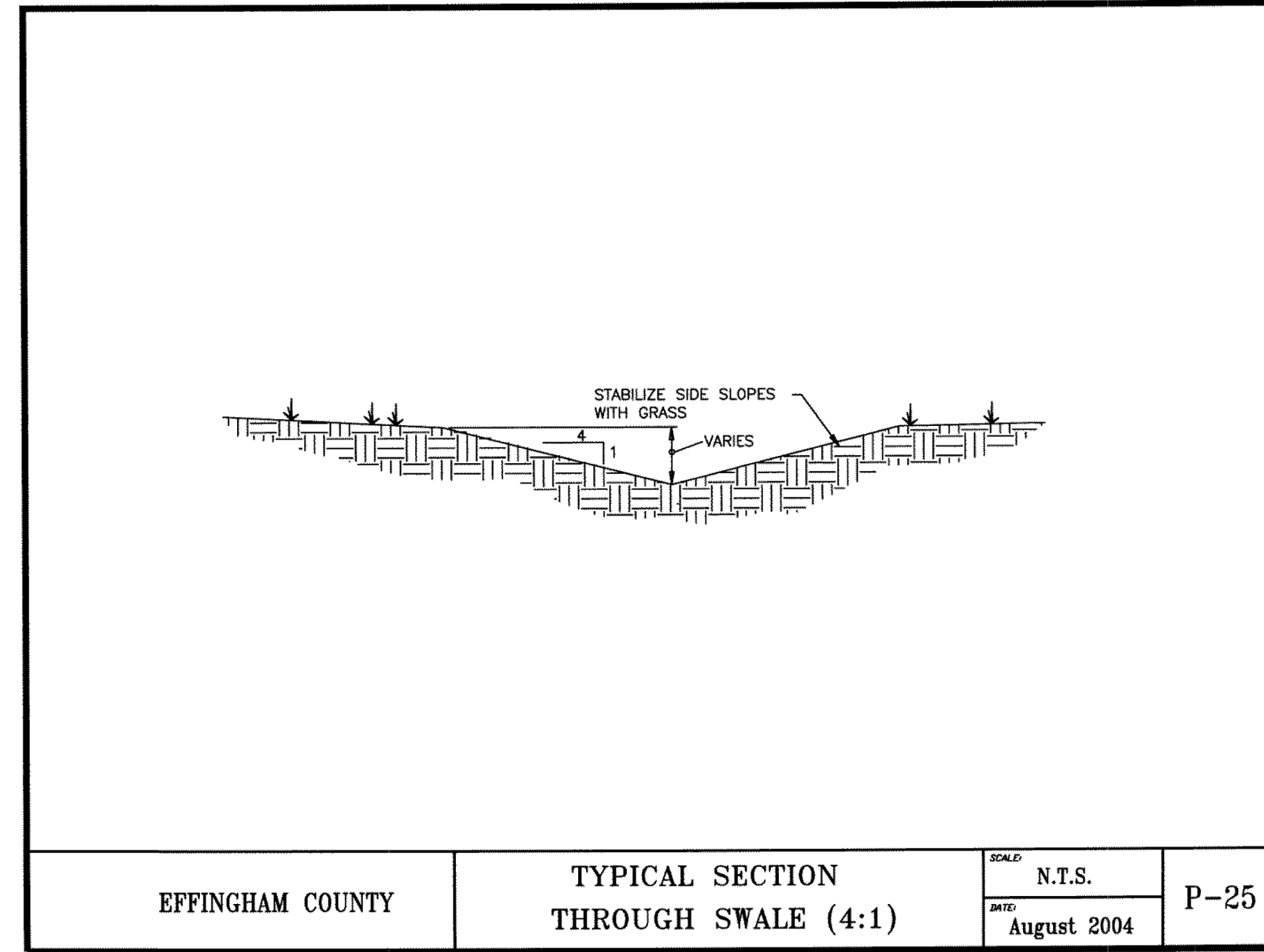
EFFINGHAM COUNTY HANDICAP RAMP DETAILS SCALE: N.T.S. DATE: August 2004 P-16



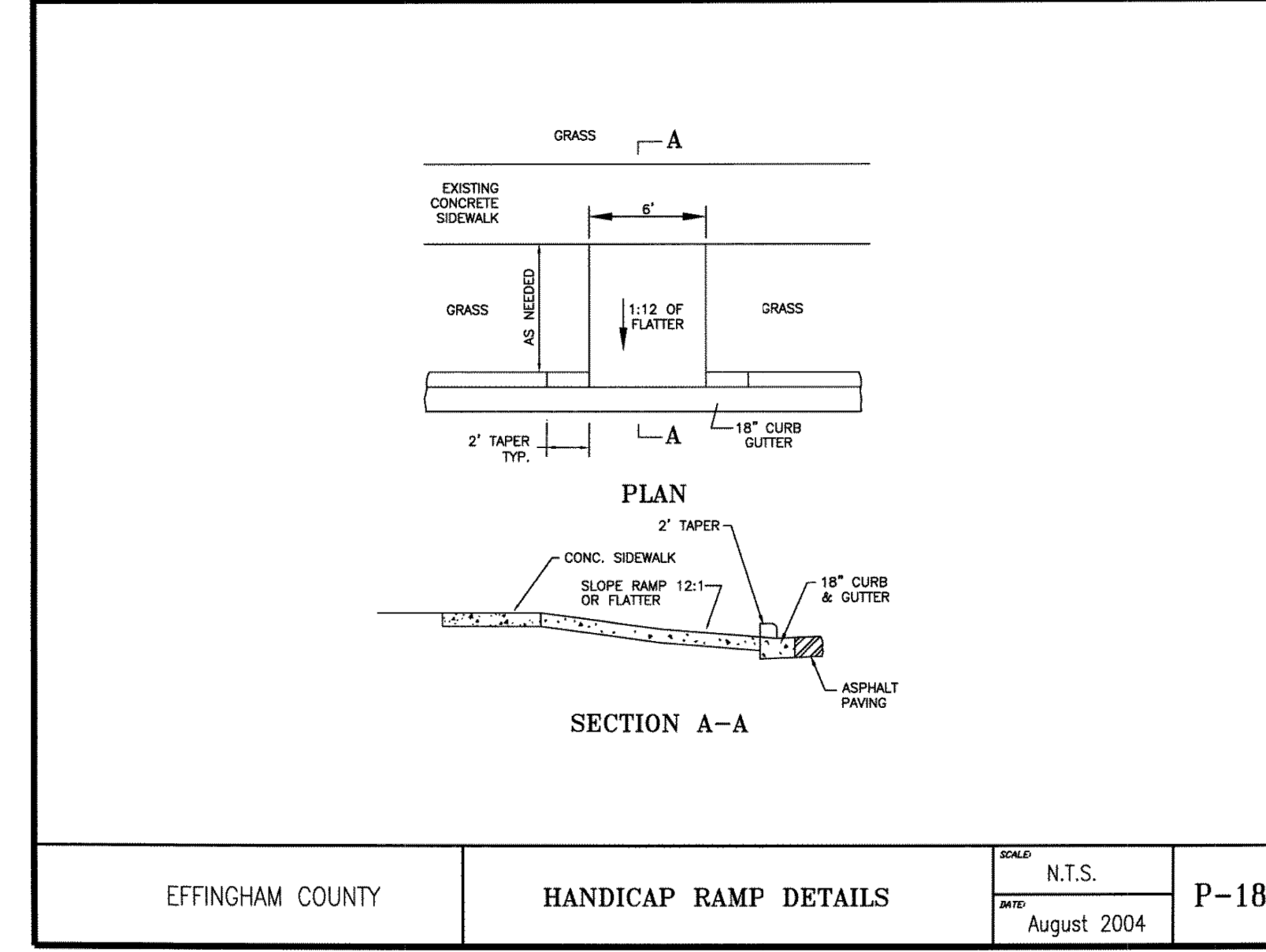
EFFINGHAM COUNTY HANDICAP RAMP DETAILS SCALE: N.T.S. DATE: August 2004 P-17



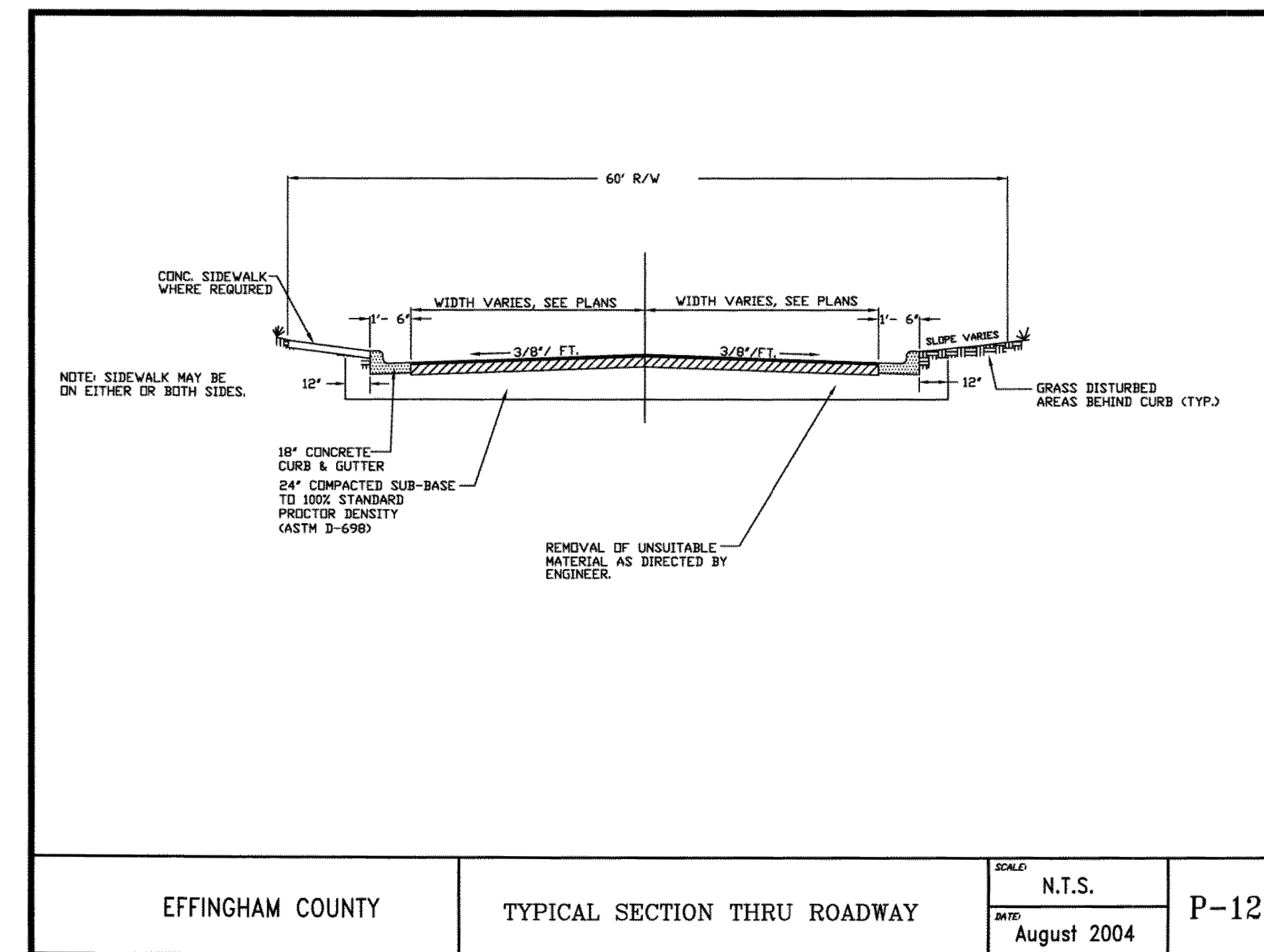
EFFINGHAM COUNTY 18" CURB & GUTTER SCALE: N.T.S. DATE: August 2004 P-03



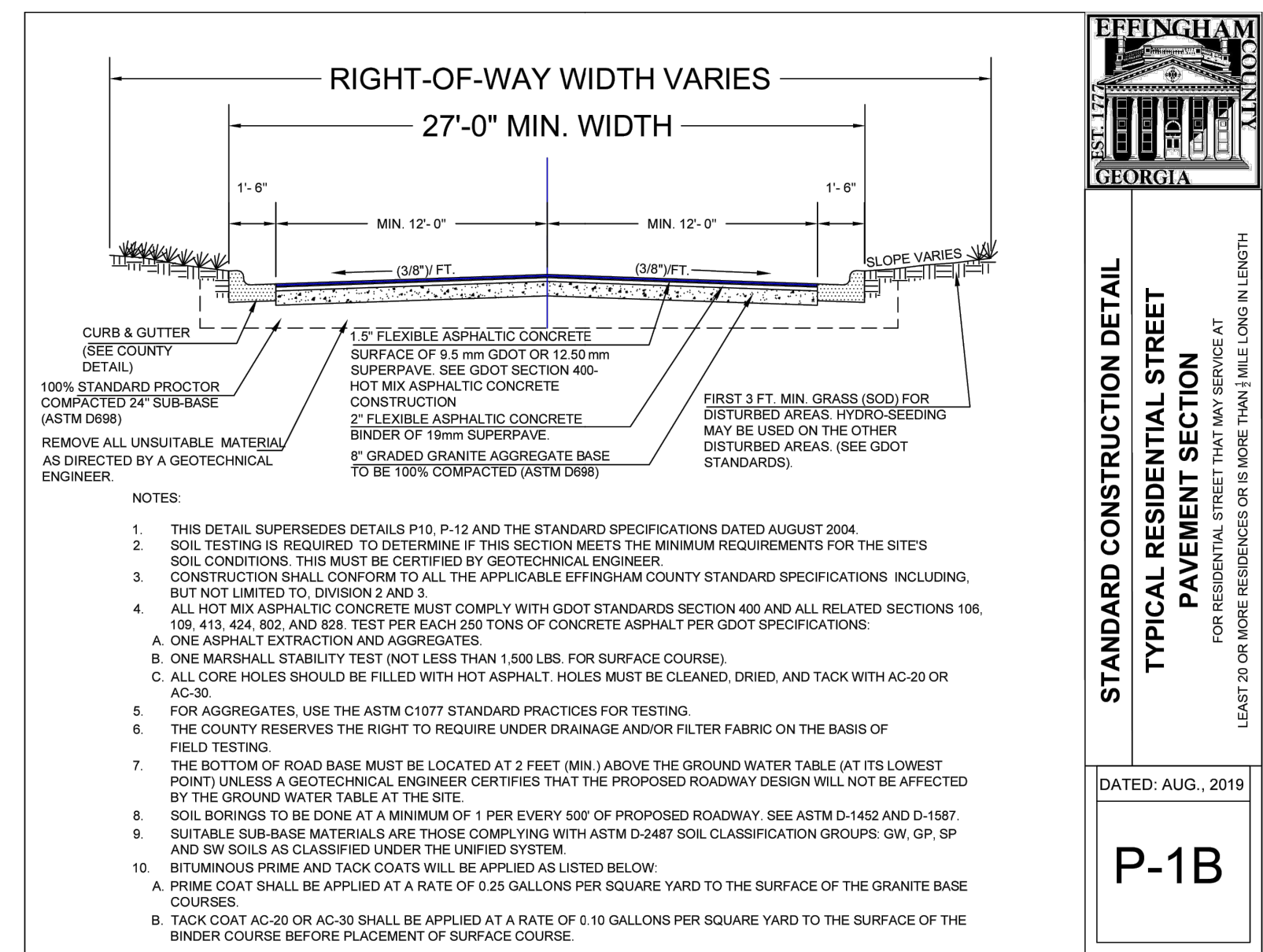
EFFINGHAM COUNTY TYPICAL SECTION THROUGH SWALE (4:1) SCALE: N.T.S. DATE: August 2004 P-25



EFFINGHAM COUNTY HANDICAP RAMP DETAILS SCALE: N.T.S. DATE: August 2004 P-18



EFFINGHAM COUNTY TYPICAL SECTION THRU ROADWAY SCALE: N.T.S. DATE: August 2004 P-12



EFFINGHAM COUNTY STANDARD CONSTRUCTION DETAIL TYPICAL RESIDENTIAL STREET PAVEMENT SECTION FOR RESIDENTIAL STREETS THAT MAY VARY AT LEAST 20 OR MORE RESIDENCES OR BE MORE THAN 1/4 MILE LONG IN LENGTH. DATED: AUG. 2019 P-1B

REV.	DATE	BY	REVISIONS
5	11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.
4	7/23/24	JAF	REVISED PER EPD COMMENTS
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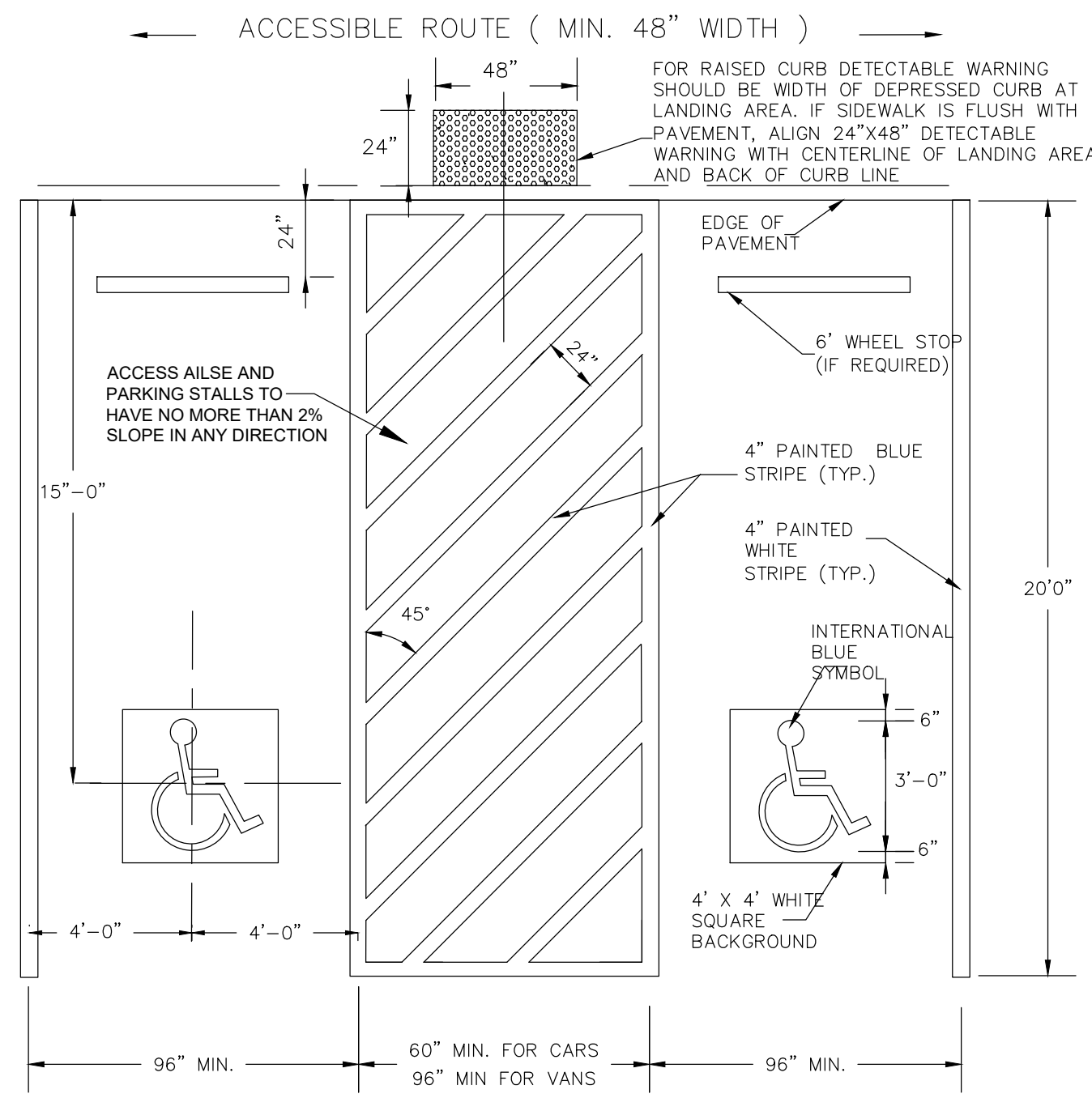
JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897
 JOSEPH H. JACOBI, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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PAVING, GRADING, AND DRAINAGE DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
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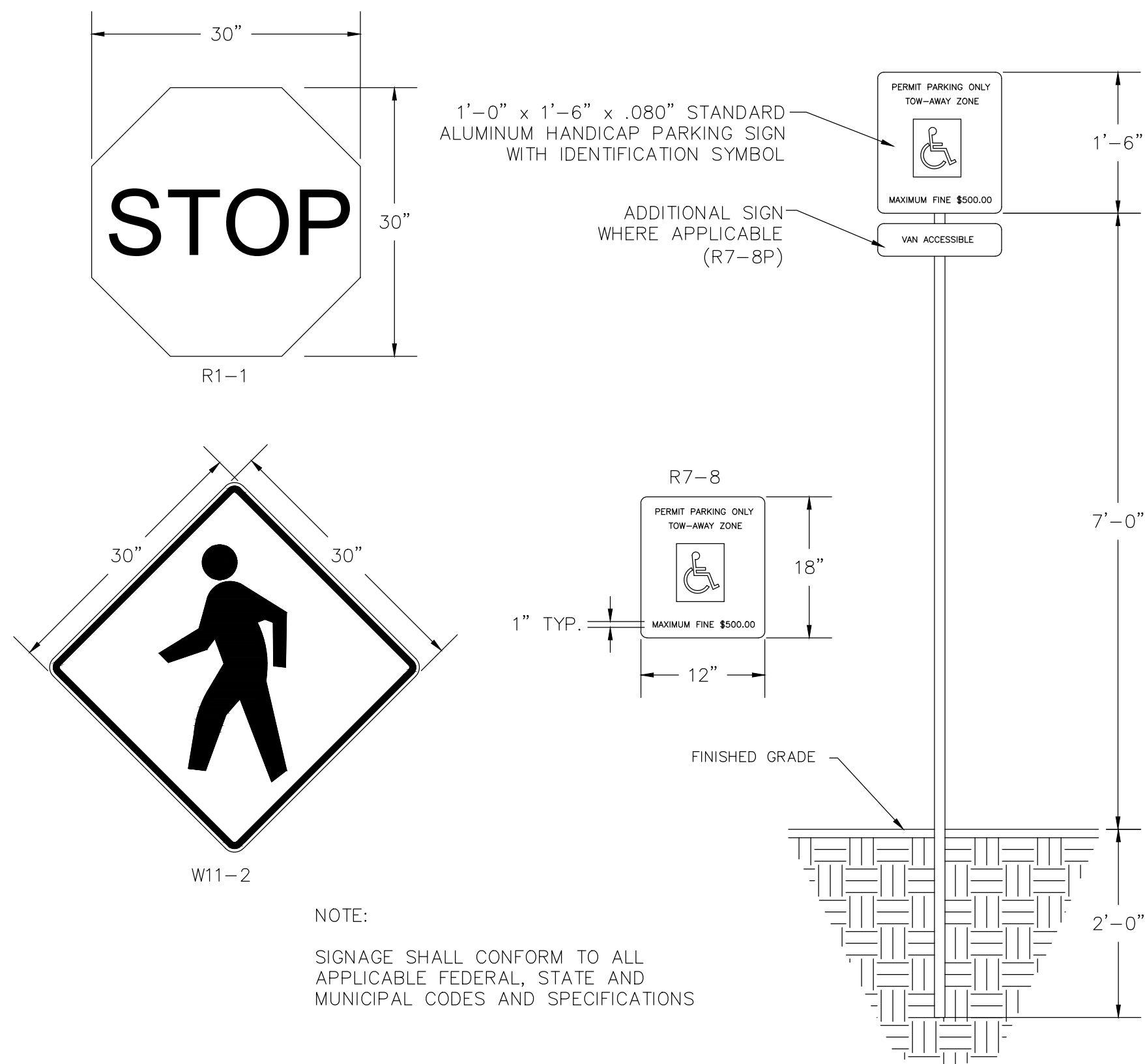
SHEET
C3.8



- NOTE:
1. STRIPING AND CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL CODES AND SPECIFICATIONS.
 2. ALL PAVEMENT MARKINGS AND STRIPING IN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC.

ADA HANDICAP PARKING SPACE STRIPING DETAIL

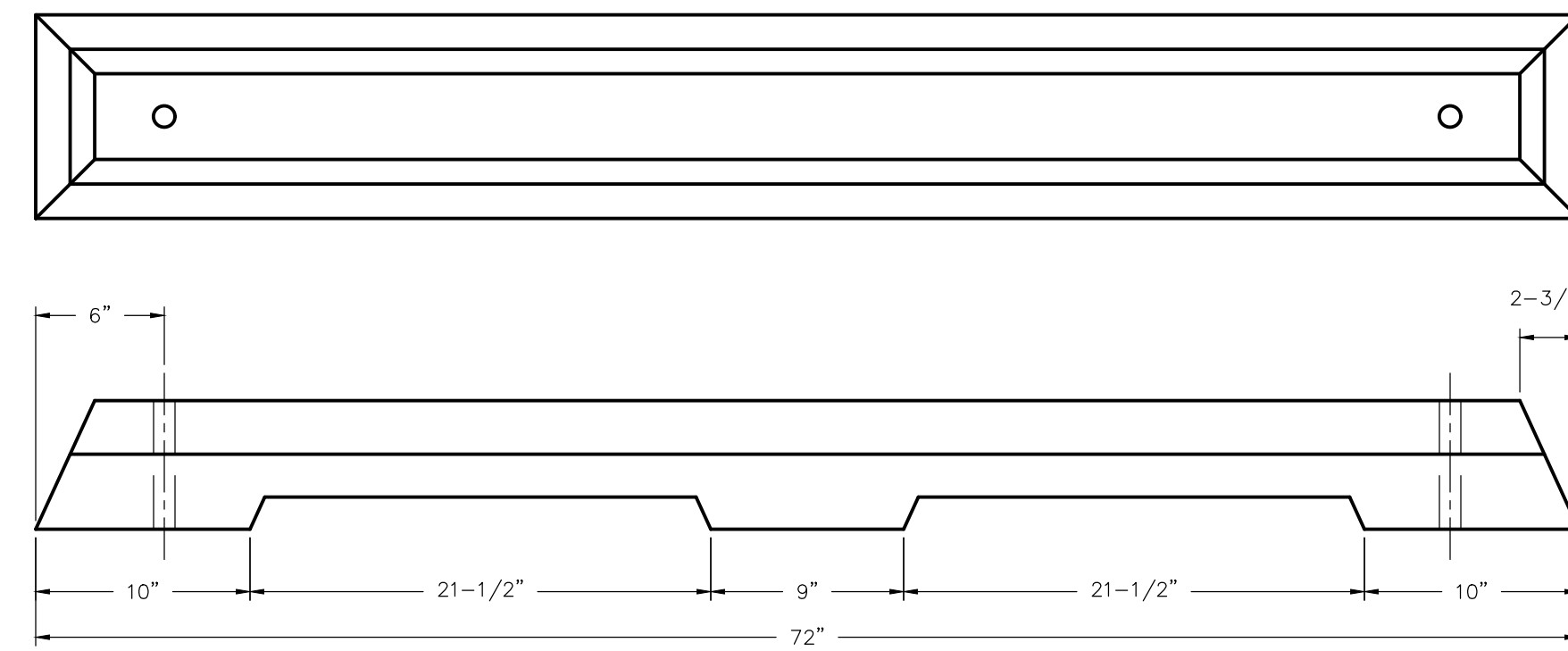
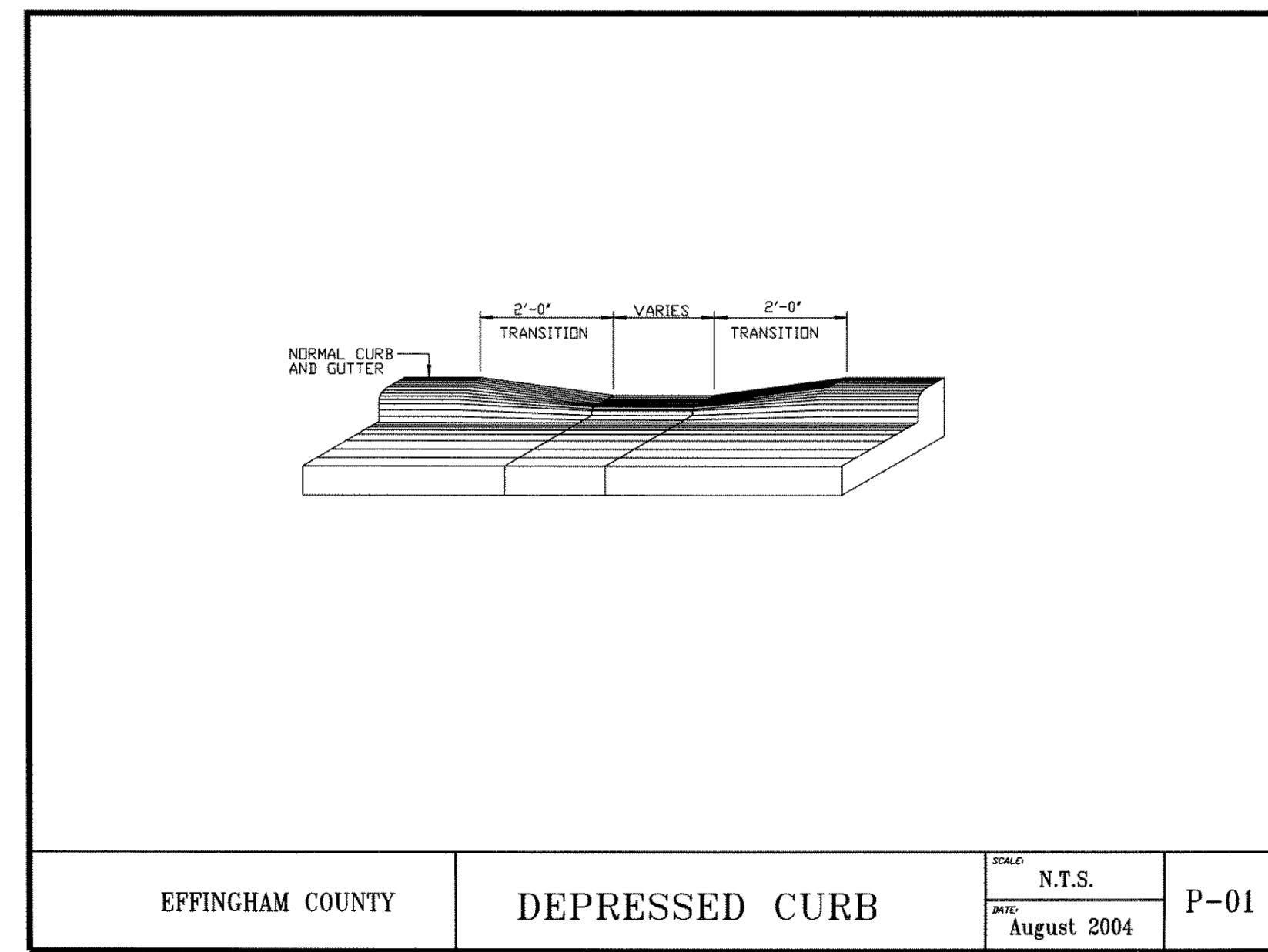
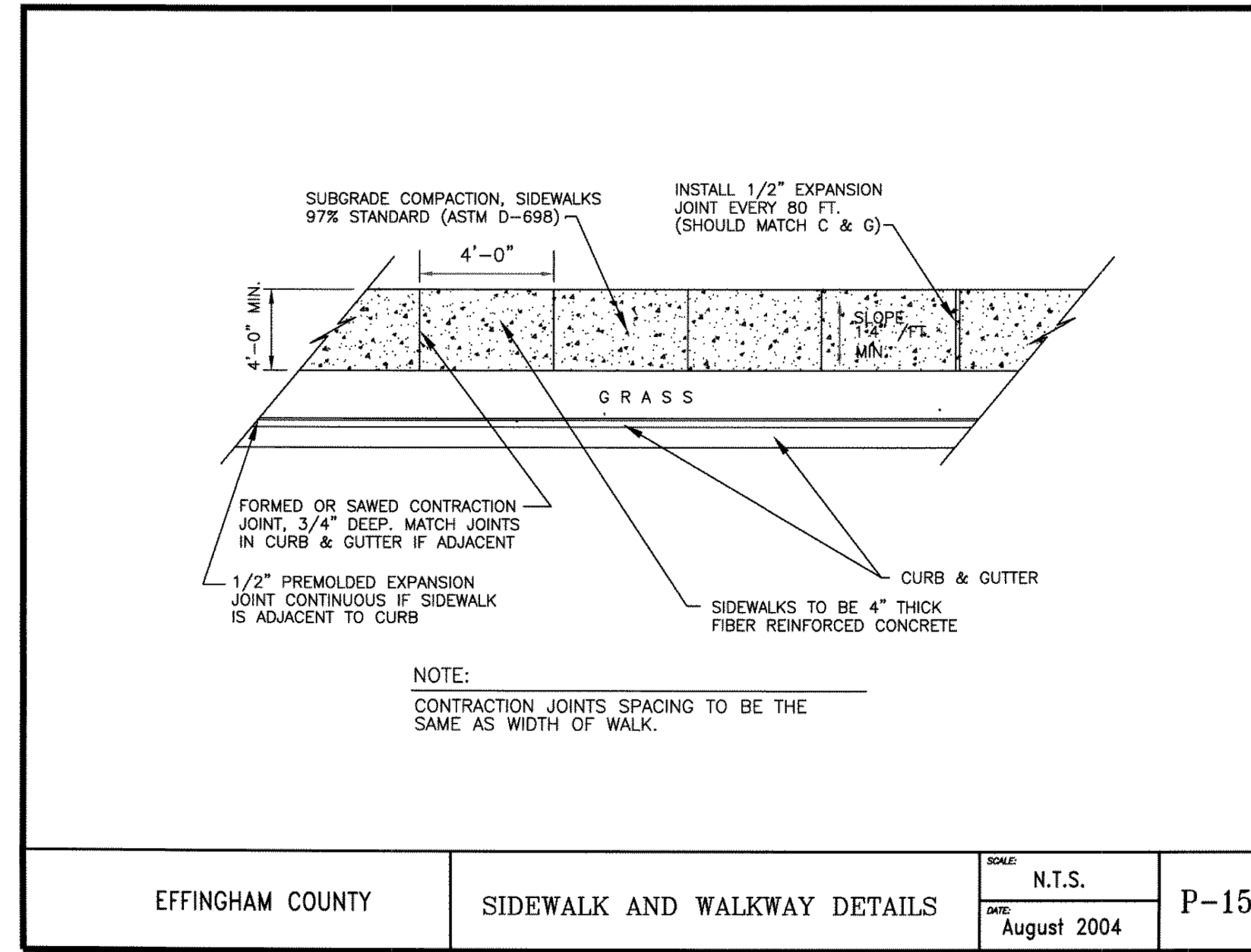
NOT TO SCALE



- NOTE:
- SIGNAGE SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL CODES AND SPECIFICATIONS

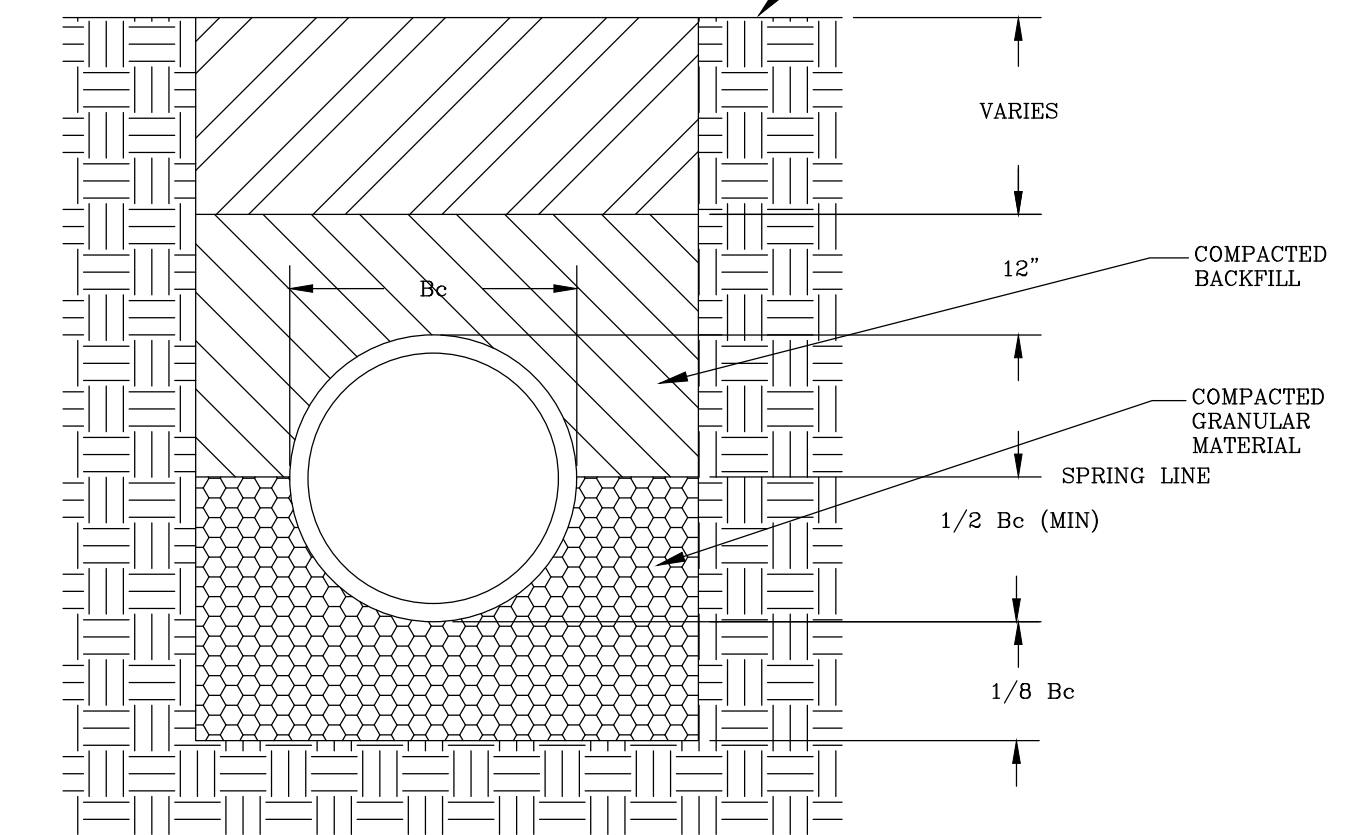
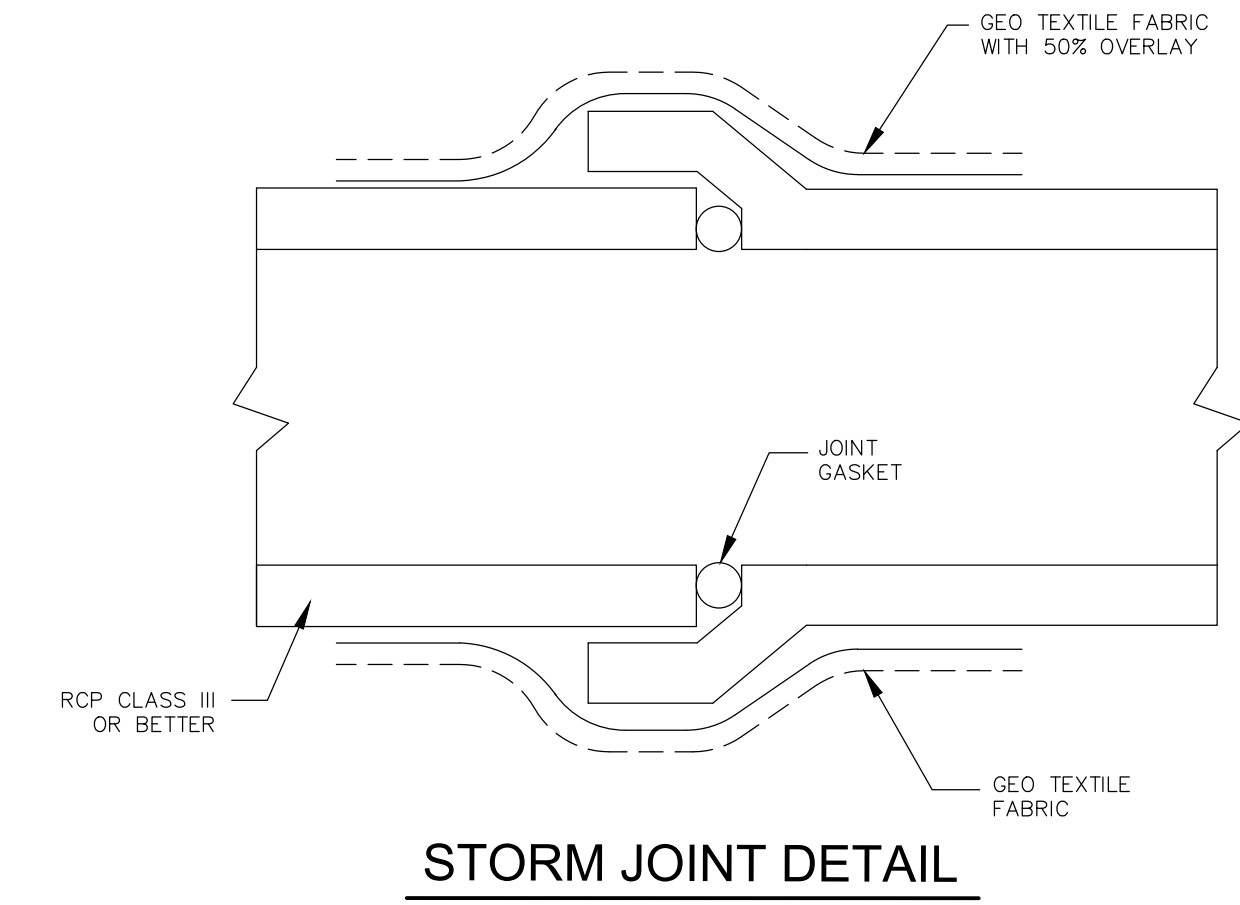
HANDICAP PARKING SIGN DETAIL

NOT TO SCALE



WHEEL STOP DETAIL

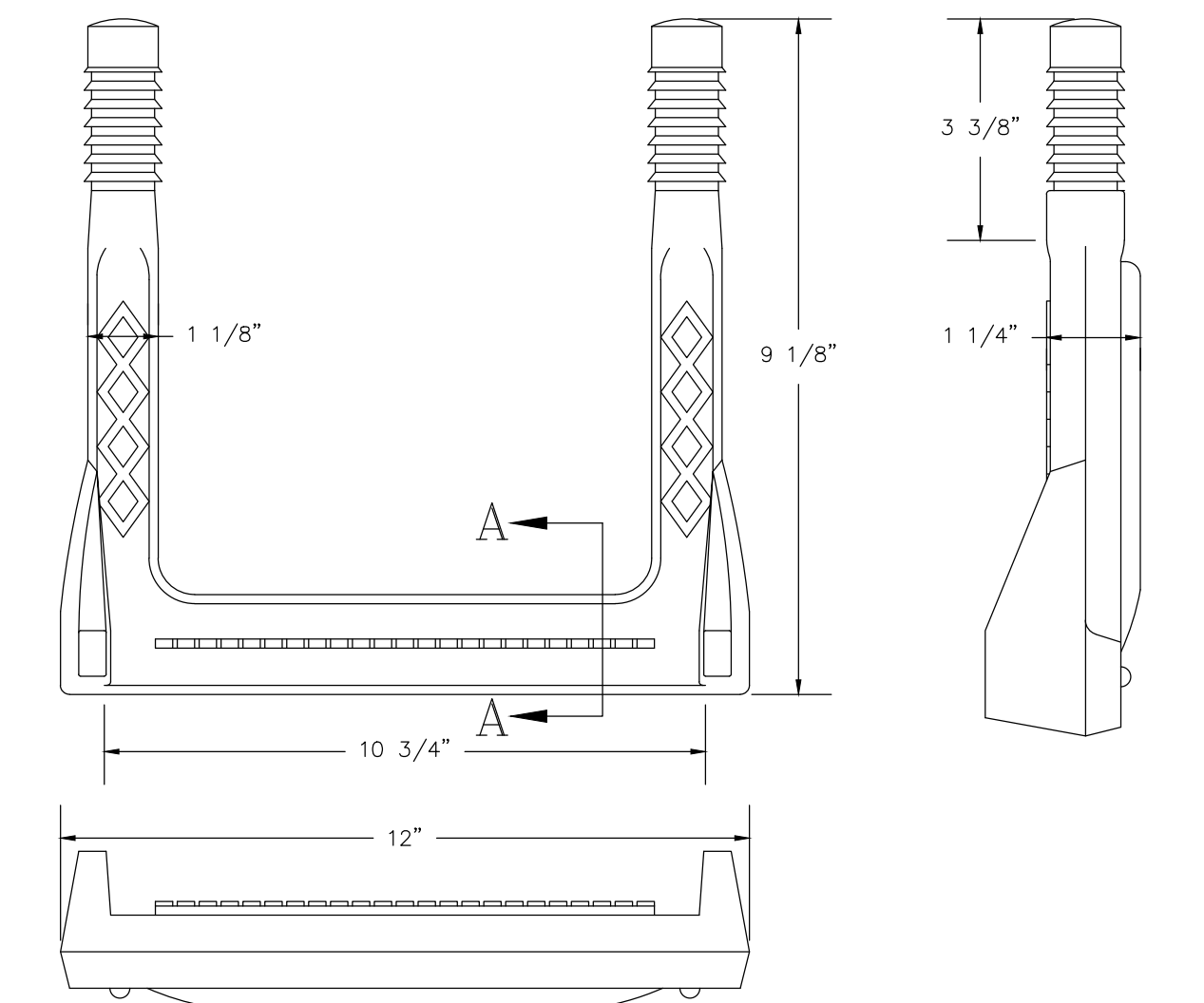
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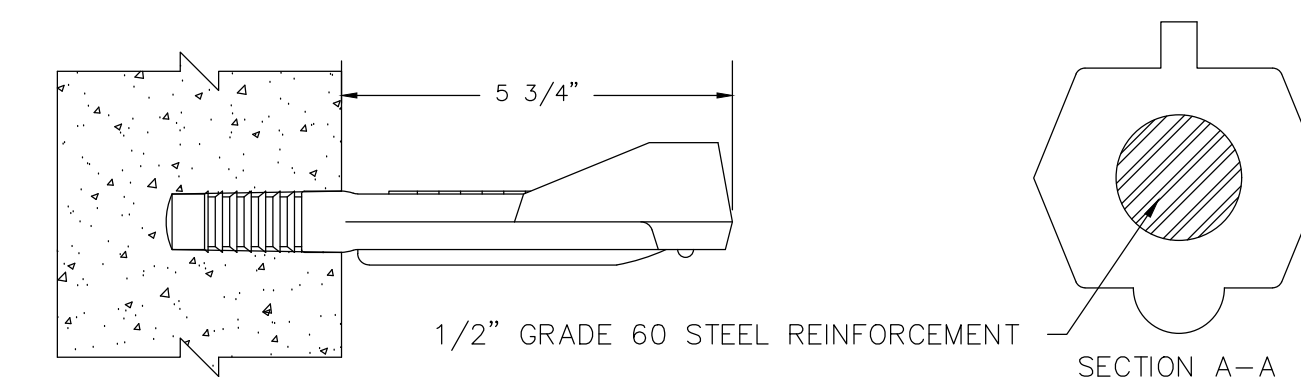
- NOTE:
1. USE CLASS I MATERIAL, ASTM #67 OR ASTM #57 STONE IN WET CONDITIONS.
 2. USE CLASS II MATERIAL, COURSE GRAIN SANDS IN DRY CONDITIONS.

PIPE BEDDING DETAIL

NOT TO SCALE



COPOLYMER POLYPROPYLENE PLASTIC



MANHOLE STEP - POLYPROPYLENE

NOT TO SCALE

REV	DATE	BY	REVISIONS
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JASON I. BRYANT, P.E.
CIVIL ENGINEER
DESIGN PROFESSIONAL
CERTIFICATION #73897

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PAVING, GRADING, AND DRAINAGE DETAILS

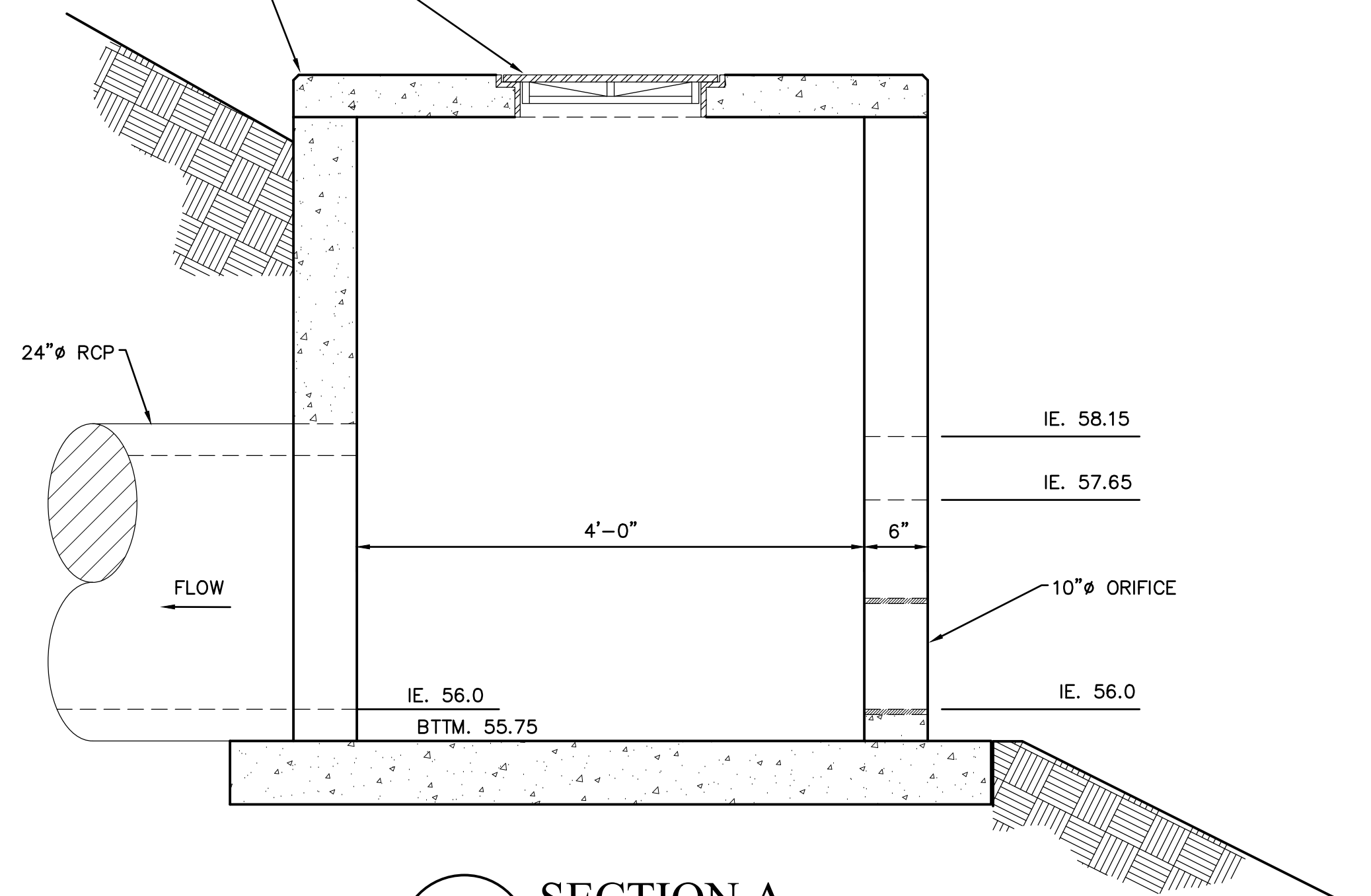
BAKER HILL
EFFINGHAM COUNTY, GEORGIA

Prepared For
3 BYRDS DEVELOPMENT LLC

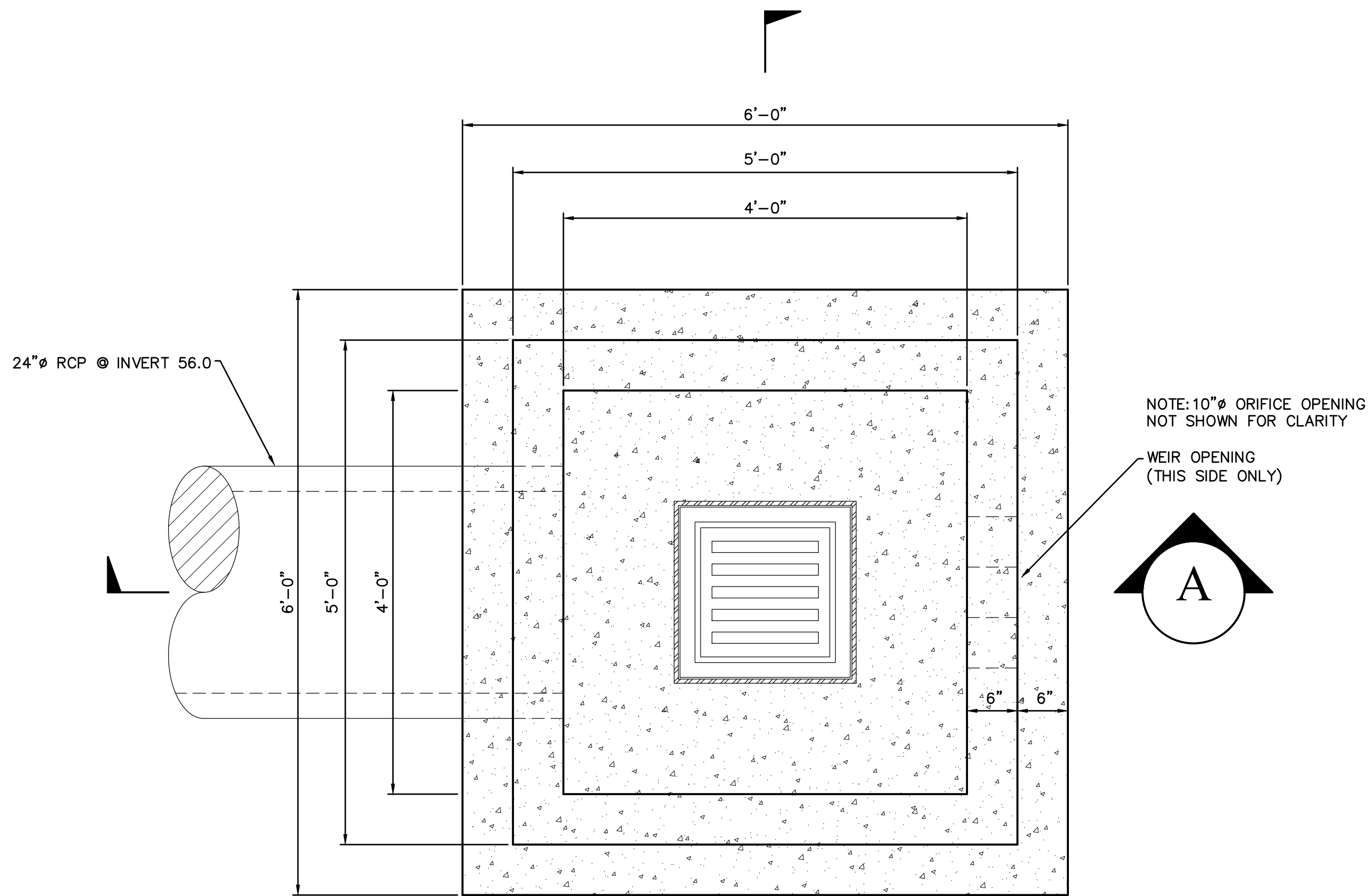
Project No.	2023-6
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Date:	8/3/23

SHEET
C3.9

HEAVY DUTY FRAME W/ GRATE
 CLEAR OPENING = 22 3/4", WT. = 295#
 NEENAH #R-3403-F (RECTANGULAR) OR EQUIVALENT.
 4" THICK PRECAST CONCRETE TOP W/ CHAMFERED EDGES

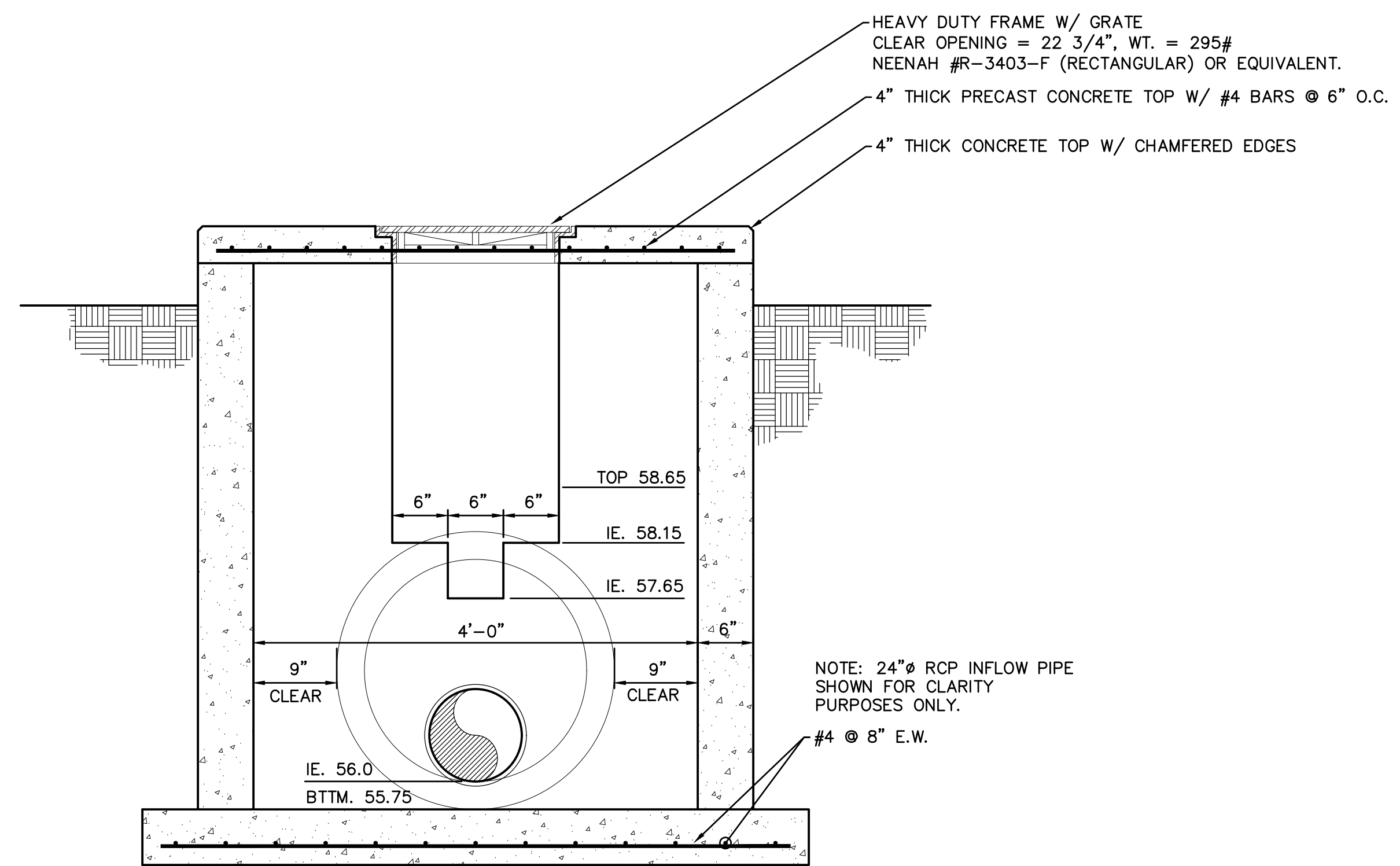


A SECTION A
 SCALE: NTS



B

OUTFALL STRUCTURE DETAIL
 NOT TO SCALE



B SECTION B
 SCALE: NTS

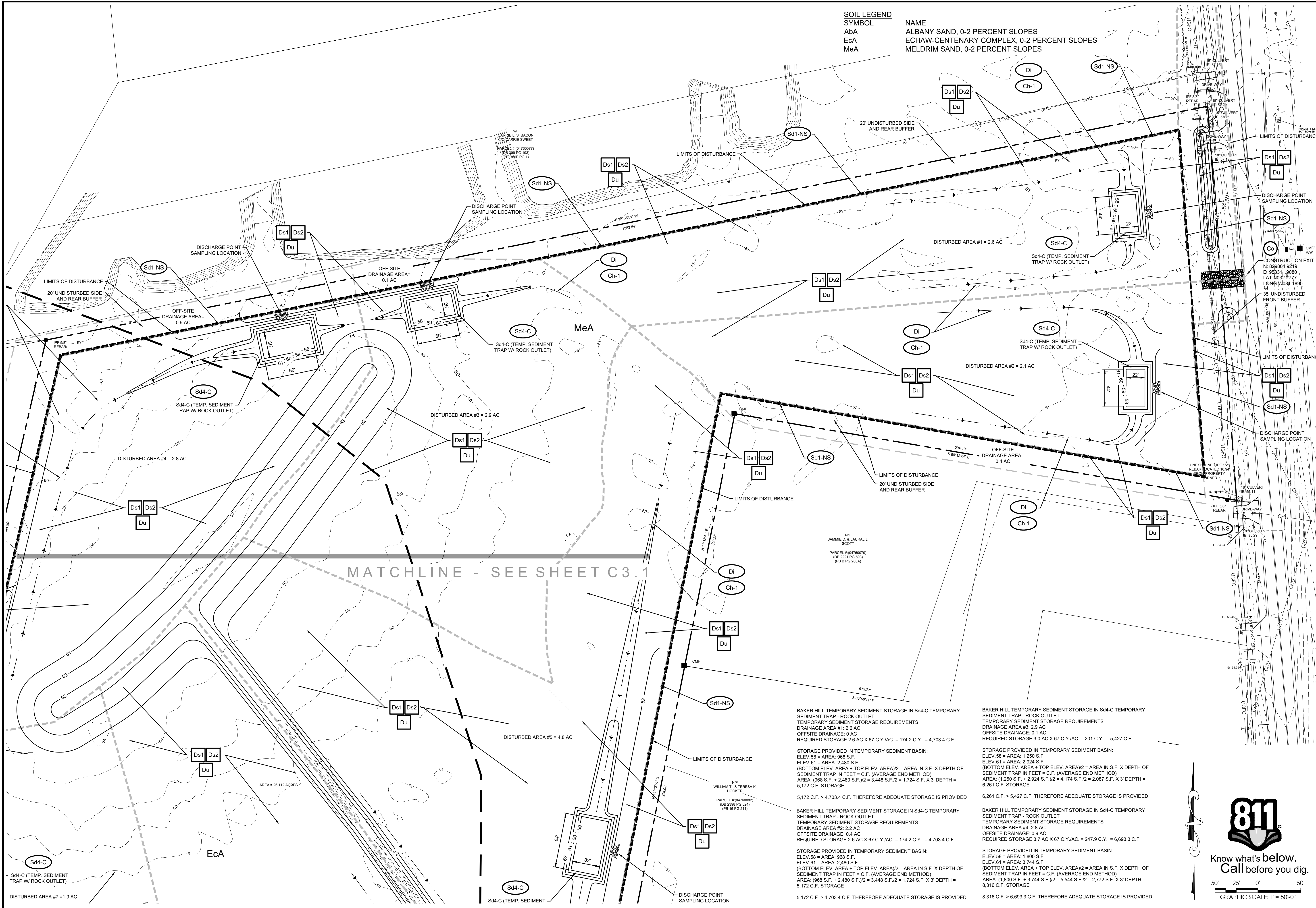
REV	REVISIONS	DATE
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2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 10/31/23

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JASON L. BRYANT, P.E.
 (SINCE LEVEL 1)
 DESIGN PROFESSIONAL
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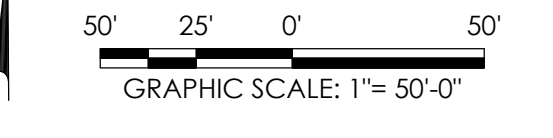
INITIAL EROSION CONTROL PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

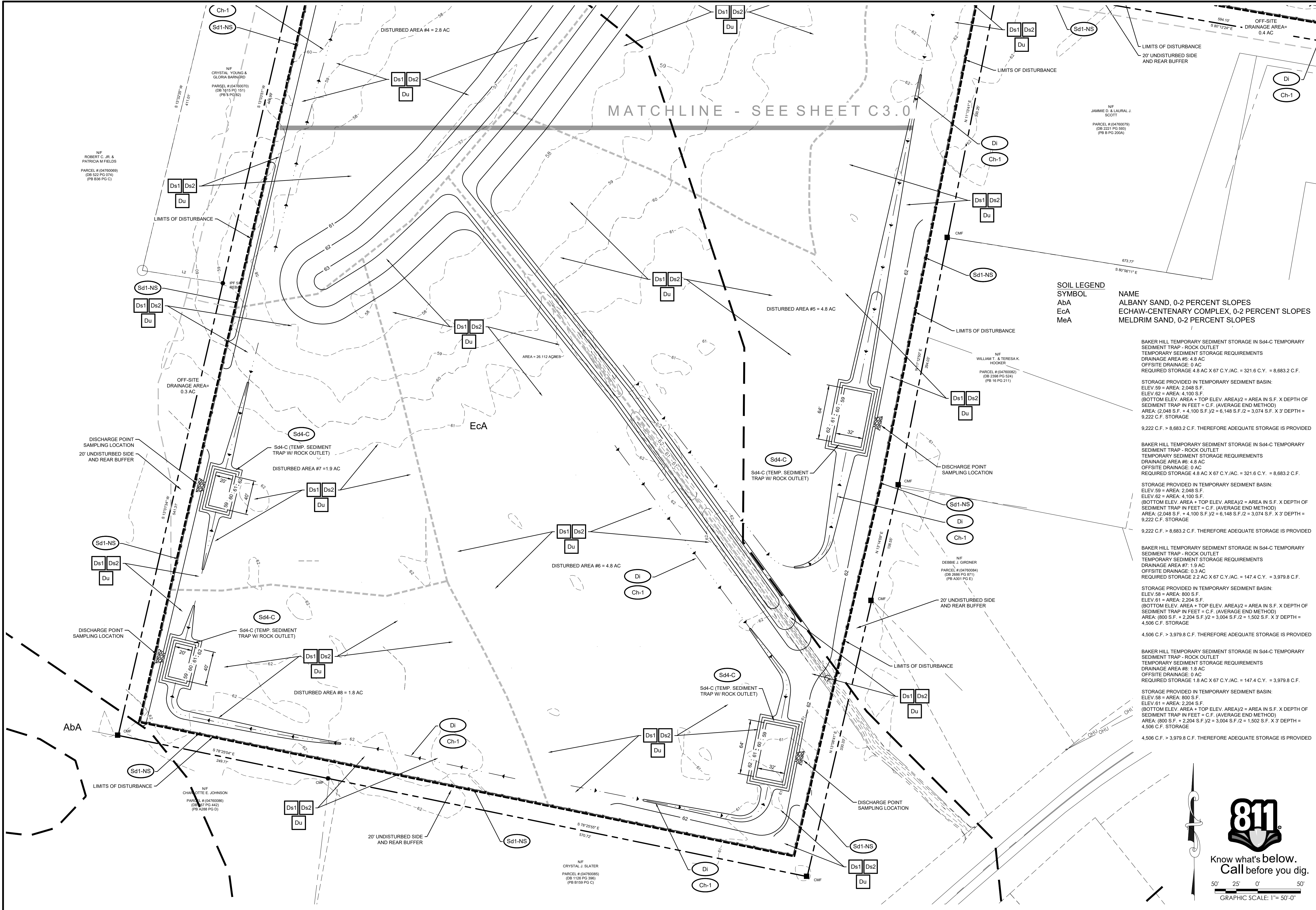
Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
EC3.0



Know what's below.
 Call before you dig.





REV.	DATE	BY	REVISIONS
5	11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.
4	7/23/24	JAF	REVISED PER EPD COMMENTS
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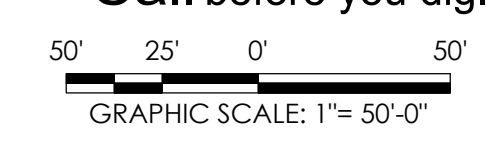
INITIAL EROSION CONTROL PLAN
BAKER HILL
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SHEET
EC3.1



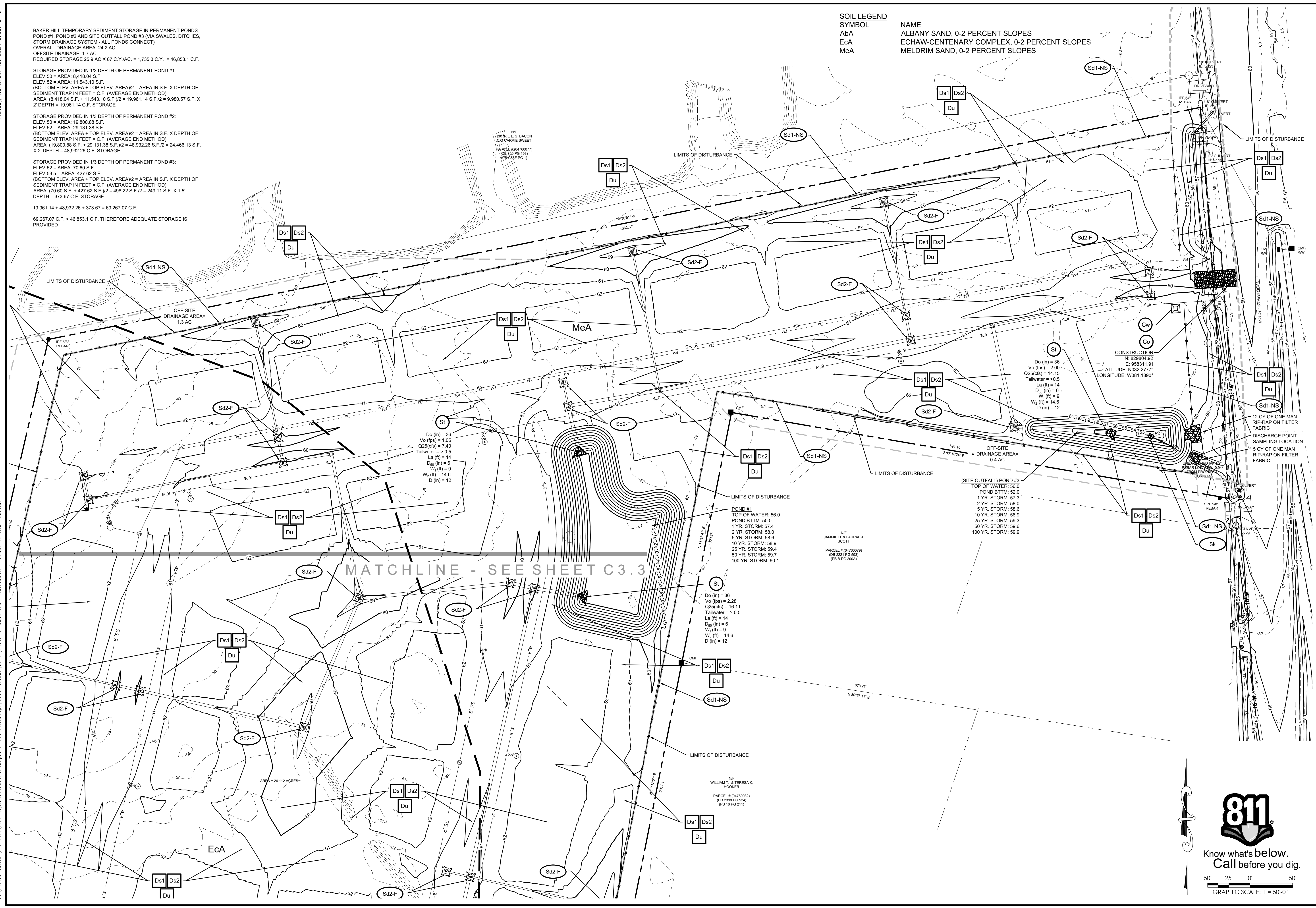
Know what's below.
 Call before you dig.



Monday, November 18, 2024 3:39:46 PM g:\shared drives\Projects\matt_byrd_homes\old augusta road\Drawings\construction plans\2023-6 Baker Hill Intermediate Erosion Control Plan.dwg

BAKER HILL TEMPORARY SEDIMENT STORAGE IN PERMANENT PONDS
 POND #1, POND #2 AND SITE OUTFALL POND #3 (VIA SWALES, DITCHES,
 STORM DRAINAGE SYSTEM - ALL PONDS CONNECT)
 OVERALL DRAINAGE AREA: 24.2 AC
 OFFSITE DRAINAGE: 1.7 AC
 REQUIRED STORAGE 25.9 AC X 67 C.Y./AC. = 1,735.3 C.Y. = 46,853.1 C.F.
 STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #1:
 ELEV. 50 = AREA: 8,418.04 S.F.
 ELEV. 52 = AREA: 11,543.10 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (8,418.04 S.F. + 11,543.10 S.F.)/2 = 19,961.14 S.F./2 = 9,980.57 S.F. X
 2' DEPTH = 19,961.14 C.F. STORAGE
 STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #2:
 ELEV. 50 = AREA: 19,800.88 S.F.
 ELEV. 52 = AREA: 29,131.38 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (19,800.88 S.F. + 29,131.38 S.F.)/2 = 48,932.26 S.F./2 = 24,466.13 S.F. X
 2' DEPTH = 48,932.26 C.F. STORAGE
 STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #3:
 ELEV. 52 = AREA: 70.60 S.F.
 ELEV. 53.5 = AREA: 427.62 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (70.60 S.F. + 427.62 S.F.)/2 = 498.22 S.F./2 = 249.11 S.F. X 1.5'
 DEPTH = 373.67 C.F. STORAGE
 19,961.14 + 48,932.26 + 373.67 = 69,267.07 C.F.
 69,267.07 C.F. > 46,853.1 C.F. THEREFORE ADEQUATE STORAGE IS
 PROVIDED

SOIL LEGEND
 SYMBOL NAME
 AbA ALBANY SAND, 0-2 PERCENT SLOPES
 EcA ECHAW-CENTENARY COMPLEX, 0-2 PERCENT SLOPES
 MeA MELDRIM SAND, 0-2 PERCENT SLOPES



MATCHLINE - SEE SHEET C3.3

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
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3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
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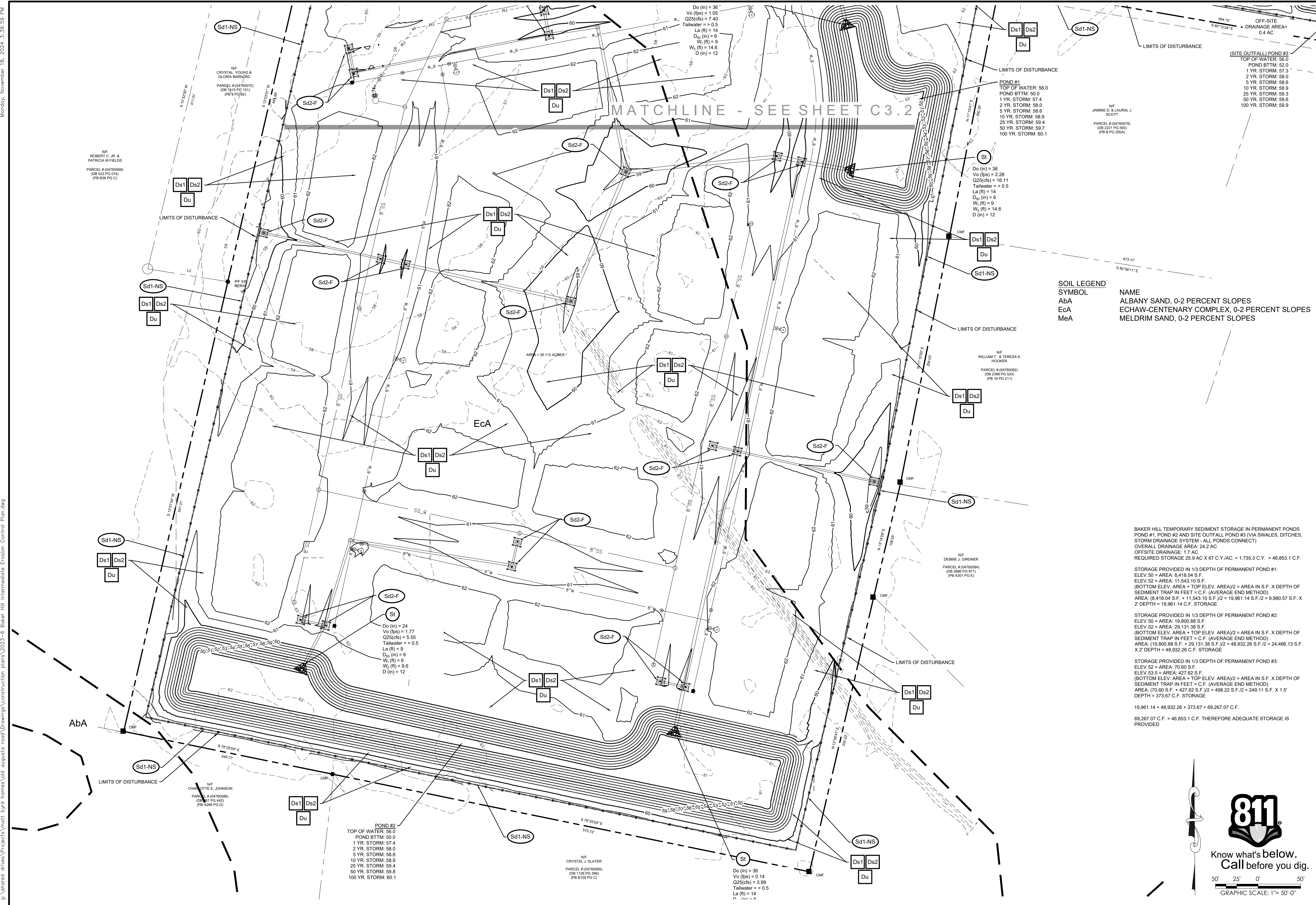
JASON L. BRYANT, P.E.
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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 912-445-0578
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INTERMEDIATE EROSION CONTROL PLAN
 BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
 3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
EC3.2



SOIL LEGEND

SYMBOL	NAME
AbA	ALBANY SAND, 0-2 PERCENT SLOPES
EcA	ECHAW-CENTENARY COMPLEX, 0-2 PERCENT SLOPES
MeA	MELDRIM SAND, 0-2 PERCENT SLOPES

BAKER HILL TEMPORARY SEDIMENT STORAGE IN PERMANENT PONDS
 POND #1, POND #2 AND SITE OUTFALL POND #3 (VIA SWALES, DITCHES,
 STORM DRAINAGE SYSTEM - ALL PONDS CONNECT)
 OVERALL DRAINAGE AREA: 24.2 AC
 OFFSITE DRAINAGE: 1.7 AC
 REQUIRED STORAGE 25.9 AC X 67 C.Y./AC. = 46,853.1 C.F.

STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #1:
 ELEV 50 = AREA: 8,418.04 S.F.
 ELEV 52 = AREA: 11,543.10 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (8,418.04 S.F. + 11,543.10 S.F.)/2 = 19,961.14 S.F./2 = 9,980.57 S.F. X
 2' DEPTH = 19,961.14 C.F. STORAGE

STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #2:
 ELEV 50 = AREA: 19,800.88 S.F.
 ELEV 52 = AREA: 29,131.38 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (19,800.88 S.F. + 29,131.38 S.F.)/2 = 48,932.26 S.F./2 = 24,466.13 S.F. X
 2' DEPTH = 48,932.26 C.F. STORAGE

STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #3:
 ELEV 50 = AREA: 70.60 S.F.
 ELEV 53.5 = AREA: 427.62 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (70.60 S.F. + 427.62 S.F.)/2 = 498.22 S.F./2 = 249.11 S.F. X 1.5'
 DEPTH = 373.67 C.F. STORAGE

19,961.14 + 48,932.26 + 373.67 = 69,267.07 C.F.
 69,267.07 C.F. > 46,853.1 C.F. THEREFORE ADEQUATE STORAGE IS
 PROVIDED

Know what's below.
 Call before you dig.

50' 25' 0' 50'
 GRAPHIC SCALE: 1" = 50'-0"

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	JAF 7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF 4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF 10/31/23

JASON L BRYANT, P.E.
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

Pittman Engineering Co., LLC
 2591 Hwy 175 Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

INTERMEDIATE EROSION CONTROL PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
EC3.3

Monday, November 18, 2024 3:40:31 PM
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BAKER HILL TEMPORARY SEDIMENT STORAGE IN PERMANENT PONDS
 POND #1, POND #2 AND SITE OUTFALL POND #3 (VIA SWALES, DITCHES,
 STORM DRAINAGE SYSTEM - ALL PONDS CONNECT)
 OVERALL DRAINAGE AREA: 24.2 AC
 OFF-SITE DRAINAGE: 1.1 AC
 REQUIRED STORAGE 25.9 AC X 67 C.Y./AC. = 1,735.3 C.Y. = 46,853.1 C.F.

STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #1:
 ELEV. 50 = AREA: 8,418.04 S.F.
 ELEV. 52 = AREA: 11,543.10 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
 SEDIMENT TRAP IN FEET = C.F. (AVERAGE END METHOD)
 AREA: (8,418.04 S.F. + 11,543.10 S.F.)/2 = 19,961.14 S.F./2 = 9,980.57 S.F. X
 2' DEPTH = 19,961.14 C.F. STORAGE

STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #2:
 ELEV. 50 = AREA: 19,800.88 S.F.
 ELEV. 52 = AREA: 29,131.38 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
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 2' DEPTH = 48,932.26 C.F. STORAGE

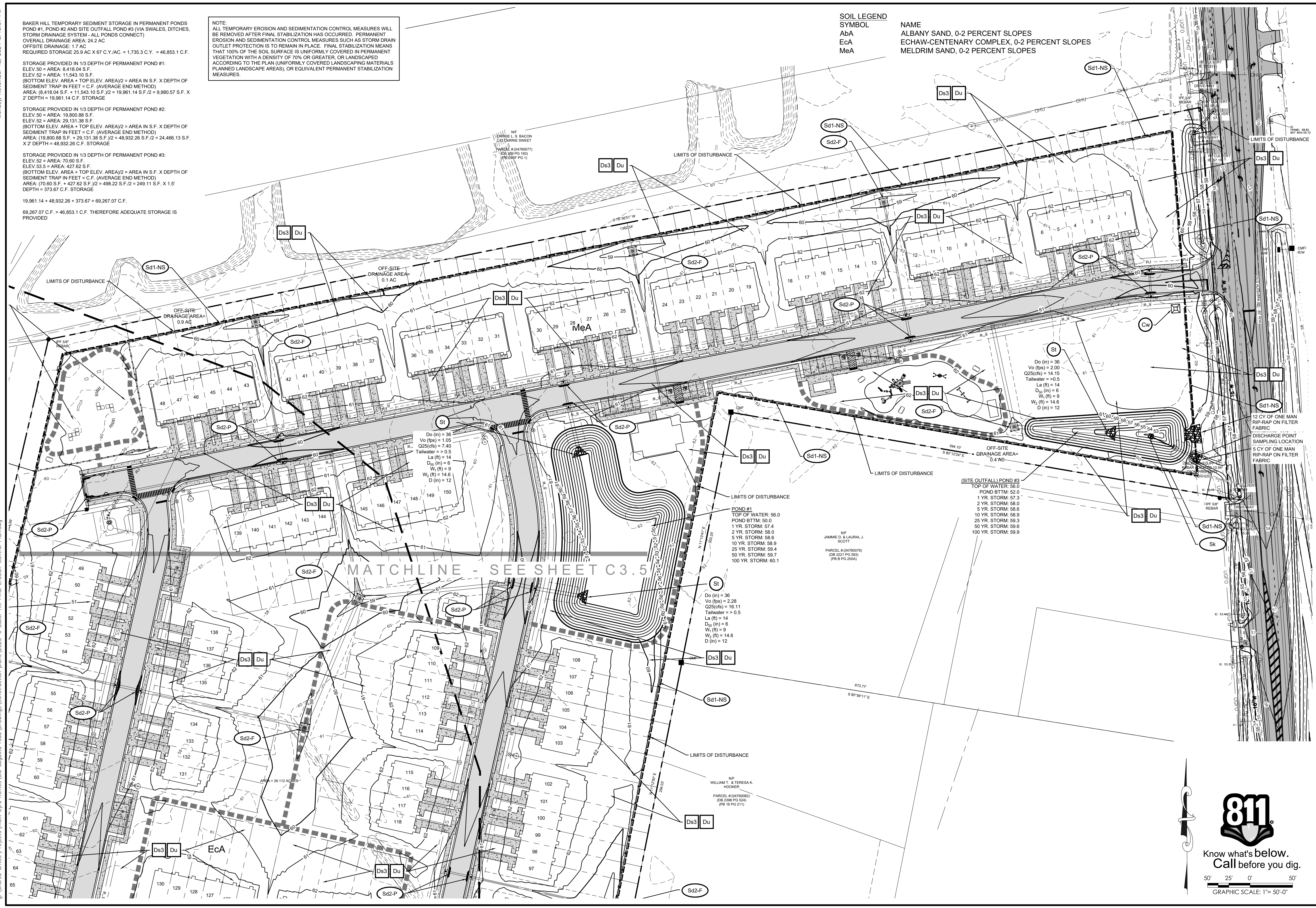
STORAGE PROVIDED IN 1/3 DEPTH OF PERMANENT POND #3:
 ELEV. 52 = AREA: 70.60 S.F.
 ELEV. 53.5 = AREA: 427.82 S.F.
 (BOTTOM ELEV. AREA + TOP ELEV. AREA)/2 = AREA IN S.F. X DEPTH OF
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 DEPTH = 373.67 C.F. STORAGE

19,961.14 + 48,932.26 + 373.67 = 69,267.07 C.F.

69,267.07 C.F. > 46,853.1 C.F. THEREFORE ADEQUATE STORAGE IS
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NOTE:
 ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WILL
 BE REMOVED AFTER FINAL STABILIZATION HAS OCCURRED. PERMANENT
 EROSION AND SEDIMENTATION CONTROL MEASURES SUCH AS STORM DRAIN
 OUTLET PROTECTION IS TO REMAIN IN PLACE. FINAL STABILIZATION MEANS
 THAT 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT
 VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED
 ACCORDING TO THE PLAN (UNIFORMLY COVERED LANDSCAPING MATERIALS
 PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION
 MEASURES.

SOIL LEGEND
 SYMBOL NAME
 AbA ALBANY SAND, 0-2 PERCENT SLOPES
 EcA ECHAW-CENTENARY COMPLEX, 0-2 PERCENT SLOPES
 MeA MELDRIM SAND, 0-2 PERCENT SLOPES



REV.	REVISIONS	DATE
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FINAL EROSION CONTROL PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

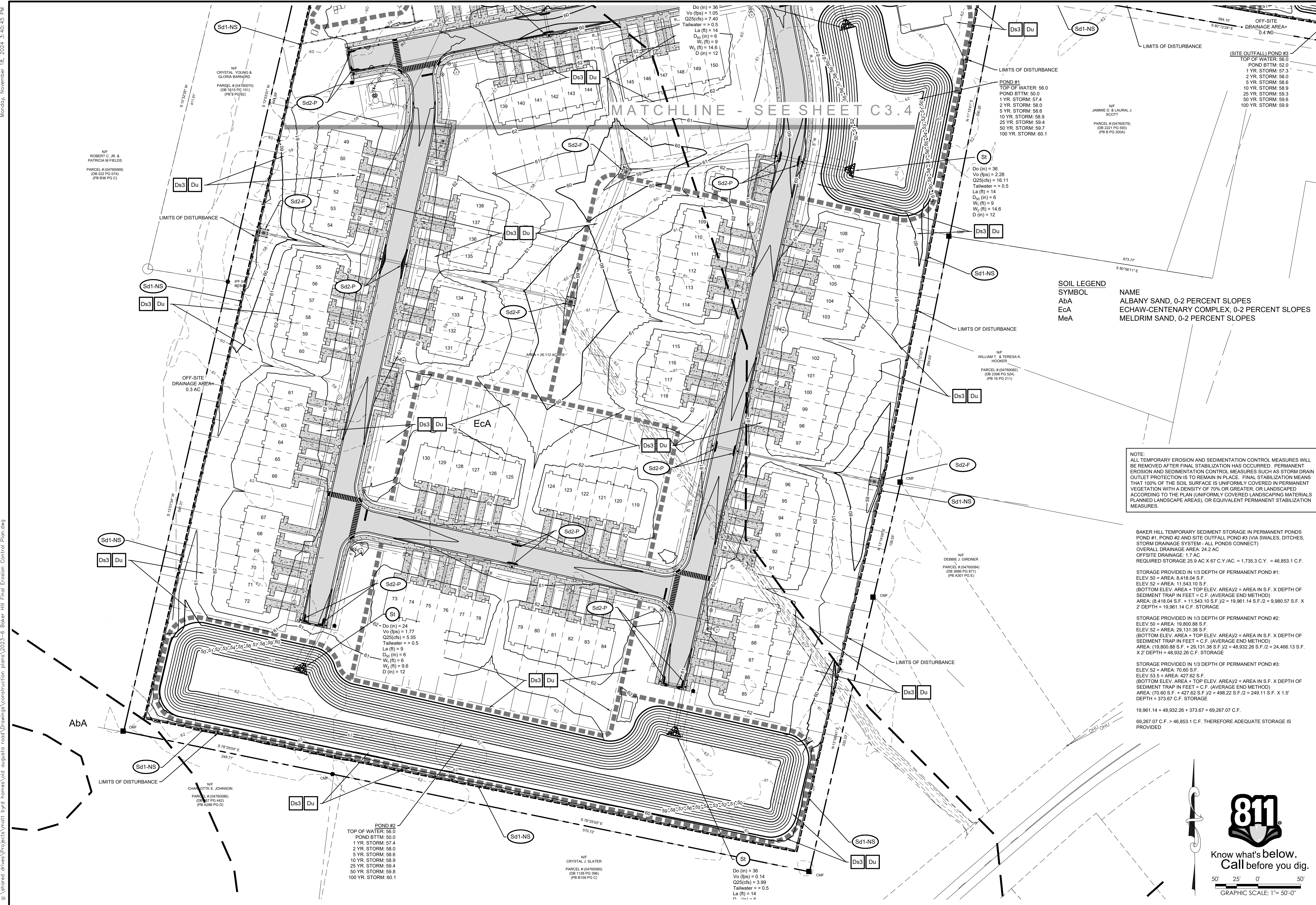
Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
 Date: 8/3/23

SHEET
EC3.4

811
 Know what's below.
 Call before you dig.
 GRAPHIC SCALE: 1" = 50'-0"

Monday, November 18, 2024 3:40:45 PM

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MATCHLINE - SEE SHEET C3.4

SOIL LEGEND

SYMBOL	NAME
AbA	ALBANY SAND, 0-2 PERCENT SLOPES
EcA	ECHAW-CENTENARY COMPLEX, 0-2 PERCENT SLOPES
MeA	MELDRIM SAND, 0-2 PERCENT SLOPES

NOTE:
 ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE REMOVED AFTER FINAL STABILIZATION HAS OCCURRED. PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES SUCH AS STORM DRAIN OUTLET PROTECTION IS TO REMAIN IN PLACE. FINAL STABILIZATION MEANS THAT 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED LANDSCAPING MATERIALS PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES.

BAKER HILL TEMPORARY SEDIMENT STORAGE IN PERMANENT PONDS
 POND #1, POND #2 AND SITE OUTFALL POND #3 (VIA SWALES, DITCHES, STORM DRAINAGE SYSTEM - ALL PONDS CONNECT)
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4	7/23/24	JAF	REVISED PER EFD COMMENTS
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2	11/29/23	JAF	REVISED PER CONSOLIDATED UTILITIES COMMENTS
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JASON L. BRYANT, P.E.
 (SINCE LEVEL 1)
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

Pittman Engineering Co., LLC
 2591 Hwy 175 Suite 303
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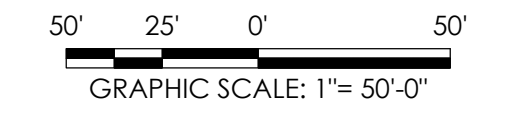
FINAL EROSION CONTROL PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: 1" = 50'
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SHEET
EC3.5



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EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

SWCD: COASTAL

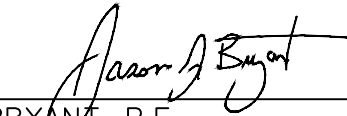
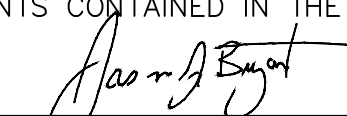
Project Name: BAKER HILL

Address: EFFINGHAM COUNTY, GEORGIA

City/County: RINCON / EFFINGHAM COUNTY

Date on Plans: 8/3/2023

Provide name and email of the person filling out the checklist: Jason Bryant, jason@pittmanengineeringco.com

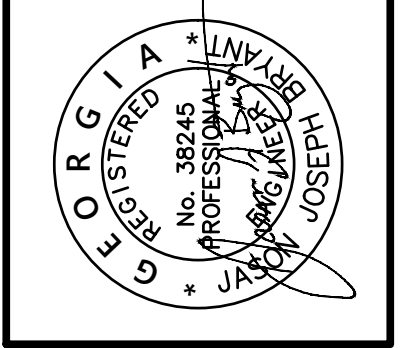
Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.1-EC4.3	YES	1. The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.
EC1.1-EC5.3	YES	2. Level II certification number issued by the Commission, signature and seal of the certified design professional.
N/A	NO	3. Limit of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist.*
EC4.1	YES	4. The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls. 3 BYRDS DEVELOPMENT LLC ATTN: BRITTANY BENTLEY 100 BLUE MOON CROSSING, SUITE 117 POOLER, GA 31322 (912) 328-6500 EMAIL: b.bentley@mattbyrdhomes.com
EC4.1	YES	5. Provide the name, address, email and phone number of the primary permittee. 3 BYRDS DEVELOPMENT LLC ATTN: BRITTANY BENTLEY 100 BLUE MOON CROSSING, SUITE 117 POOLER, GA 31322 (912) 328-6500 EMAIL: b.bentley@mattbyrdhomes.com
EC4.1	YES	6. Note total and disturbed acreage of the project or phase under construction. TOTAL ACREAGE: 26.112 AC DISTURBED ACREAGE: 24.2 AC
EC1.1-EC3.1	YES	7. Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees. N: 032.2777 E: -081.1890
COVER-EC5.3	YES	8. Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
EC4.1	YES	9. Description of the nature of construction activity. PROJECT INCLUDES CONSTRUCTING A MULTI-FAMILY RESIDENTIAL SUBDIVISION AND ALL ASSOCIATED ROADS AND INFRASTRUCTURE. THE EXISTING SITE IS A WOODED, UNDEVELOPED LOT.
COVER	YES	10. Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
EC4.1	YES	11. Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected. RECEIVING WATERS=DITCH TO MILL CREEK AND THEN ABERCORN CREEK TO THE SAVANNAH RIVER AND THEN TO THE ATLANTIC OCEAN
EC4.1	YES	12. Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 19 of the permit. "I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION."  08/03/23 JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL - CERTIFICATION #73897
EC4.1	YES	13. Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 19 of the permit.* "I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100001."  08/03/23 JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL - CERTIFICATION #73897
EC4.1	YES	14. Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit.* THE PRIMARY PERMITTEE MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE PLAN (EXCEPT WHEN THE PRIMARY PERMITTEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL), TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPs HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PRIMARY PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL (UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED).

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC4.1	YES	14. Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit.* <u>DESIGN PROFESSIONAL'S 7-DAY VISIT CERTIFICATION:</u> DATE OF INSPECTION: _____ I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION. JASON J. BRYANT, P.E. DATE GSWCC LEVEL II DESIGN PROFESSIONAL - CERTIFICATION #73897 <u>INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:</u> _____ _____ _____ _____ _____ THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.
EC4.1	YES	15. Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wretsed vegetation or within 25-feet of the coastal mainland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits." "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS." N/A NO 16. Provide a description of any buffer encroachments and indicate whether a buffer variance is required. NO BUFFERS REQUIRED.
EC4.1	YES	17. Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." "AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL."
EC4.1	YES	18. Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit." "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT." <u>Waste Materials</u> All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of once per week or more often if necessary and trash will be hauled as required by local regulations. No construction waste will be buried onsite. All personnel will be instructed on proper procedures for waste disposal. A notice stating these practices will be posted at the jobsite and the Contractor will be responsible for seeing that these procedures are followed.
EC4.1	YES	19. Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities." "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."
EC4.1	YES	20. Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source." "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."
EC4.1	YES	21. Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding." "ANY UNDISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."
N/A	NO	22. Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
N/A	NO	23. If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
EC2.1-EC3.1 EC5.1	YES	24. BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.* CONCRETE WASHDOWN FOR TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND REAR OF THE VEHICLES PLACED NEXT TO CONSTRUCTION EXIT. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
EC4.1	YES	25. Provide BMPs for the remediation of all petroleum spills and leaks. <u>Spill Cleanup and Control Practices</u> Local, State and manufacturer's recommended methods for spill cleanup will be clearly posted and procedures will be made available to site personnel. Material and equipment necessary for spill cleanup will be kept in the material storage areas. Typical materials and equipment includes, but is not limited to, brooms, dustpans, mops, gloves, goggles, cat litter, sand, sawdust and properly labeled plastic and metal waste container. Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent future spills. All spills will be cleaned up immediately upon discovery. All spills will be reported as required by local, State, and Federal Regulations. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED. The contractor shall notify the licensed professional who prepared this plan if more than 1320 gallons of petroleum is stored onsite (this includes capacities of equipment) or if any one piece of equipment has a capacity greater than 660 gallons. The contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licensed professional.
EC1.1-EC3.1 EC4.1-EC4.3 EC5.1-EC5.3	YES	26. Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.* <u>THE FOLLOWING PERMANENT MEASURES HAVE BEEN ESTABLISHED:</u> 1. DETENTION POND 2. RIP-RAP APRONS 3. DISTURBED AREA STABILIZATION WITH PERMANENT GRASSING <u>CONTROLS:</u> <u>EROSION AND SEDIMENT CONTROLS:</u> ALL PERIMETER SILT FENCES AND CONSTRUCTION EXITS SHALL BE IN PLACE PRIOR TO ANY LAND DISTURBING ACTIVITIES. EXISTING VEGETATION SHALL BE LEFT IN PLACE UNTIL SUCH TIME THAT LAND DISTURBING ACTIVITIES ARE TO TAKE PLACE UPON THAT PORTION OF THE SITE. WHEN CONSTRUCTION ACTIVITIES HAVE CEASED IN AN AREA, THAT AREA SHALL BE STABILIZED WITHIN 14 DAYS. IF THE AREA IS NOT TO FINAL GRADE, THE AREA SHALL BE MULCHED. IF THE AREA IS TO FINAL GRADE AND WILL EVENTUALLY CONTAIN SITE IMPROVEMENTS SUCH AS STRUCTURES OR SIDEWALKS, IT SHALL BE TEMPORARY SEEDED. AREAS BROUGHT TO FINAL GRADE THAT WILL REMAIN PERVIOUS ARE TO BE PERMANENTLY SEEDED. ALLOWABLE EXCEPTIONS FROM THE NPDES GENERAL PERMIT NO. GAR 100001, ARE NOTED BELOW. "WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14th DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES DUE TO SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE." "WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (e.g. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14th DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED." PLEASE REFER TO ATTACHED SHEETS FOR THE LAND DISTURBANCE CONSTRUCTION SCHEDULE (SHEET EC4.1) AND TEMPORARY AND PERMANENT GRASSING SCHEDULE (SHEET EC5.1). THE STORMWATER WILL BE DISCHARGED FROM THE BASIN TO THE EXISTING STORMWATER SYSTEM AND THROUGH THE DOWNSTREAM DITCH SYSTEM AND EVENTUALLY TO THE ST. AUGUSTINE CREEK. <u>NON-STORMWATER DISCHARGE:</u> ALL NON-STORMWATER DISCHARGES WILL BE ROUTED THROUGH ON-SITE BMP'S AND THE STORMWATER MANAGEMENT SYSTEM WHERE POSSIBLE. THESE DISCHARGES INCLUDE FLUSHING OF WATER AND FIRE LINES, IRRIGATION WATER, GROUND WATER, DEWATERING OF PITS OR DEPRESSIONS WITHIN THE CONSTRUCTION SITE AND RINSE-OFF WATER OF NON-MATERIALS. <u>OTHER CONTROLS:</u> NO WASTE WILL BE DISPOSED INTO STORMWATER INLETS OR WATERS OF THE STATE. <u>HAZARDOUS WASTES:</u> ALL HAZARDOUS WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE A WEEK OR MORE OFTEN IF NEEDED AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ON-SITE. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURE FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED. <u>HAZARDOUS WASTES:</u> ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT (WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED) WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES. THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THE ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIAL OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORM WATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORM WATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES (IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS) ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORM WATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN. <u>SANITARY WASTES:</u> A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY 10 WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS. ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTION TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASES, TO PREVENT WASTE FROM CONTRIBUTING TO STORM WATER DISCHARGE. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED IN THE EROSION CONTROL GRADING PLAN, BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. SANITARY SEWER WILL BE PROVIDED BY BRYAN COUNTY AT THE COMPLETION OF THIS PROJECT. <u>OFF-SITE VEHICLE TRACKING:</u> A STABILIZED CONSTRUCTION EXIT HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENT. SEE SHEETS EC1.1-EC3.1 FOR CONSTRUCTION EXIT LOCATIONS AND SHEET EC5.1 FOR DETAILS. THE PAVED STREET ADJACENT TO THE SITE EXIT WILL BE INSPECTED DAILY FOR TRACKING OF DIRT, MUD, OR ROCK. DUMP TRUCKS HAULING MATERIAL TO OR FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPULIN.

REV	BY	DATE
5	JAF	11/12/24
4	JAF	7/23/24
3	JAF	4/16/24
2	JAF	11/29/23
1	JAF	10/31/23

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EROSION CONTROL NOTES
BAKER HILL
EFFINGHAM CO., GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N/A
 Date: 8/3/23

SHEET
EC4.1

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

INVENTORY FOR POLLUTION PREVENTION PLAN:

THE FOLLOWING MATERIALS ARE EXPECTED ON-SITE DURING CONSTRUCTION: CONCRETE PRODUCTS, ASPHALT, PETROLEUM BASED FUEL AND LUBRICANTS FOR EQUIPMENT, TAR, METAL BUILDING MATERIALS, LUMBER, SHEET ROCK, FLOOR COVERINGS, ELECTRICAL WIRE AND FIXTURES, PAINT/STAINS/FINISHING TREATMENTS, PAINT, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CLEANING SOLVENTS, PESTICIDES, FERTILIZERS, HERBICIDES, CRUSHED STONE, AND METAL PIPES.

SPILL PREVENTION:

PRACTICES SUCH AS GOOD HOUSEKEEPING, PROPER HANDLING OF HAZARDOUS PRODUCTS AND PROPER SPILL CONTROL PRACTICES WILL BE FOLLOWED TO REDUCE THE RISKS OF SPILLS AND SPILLS FROM DISCHARGING INTO STORMWATER RUNOFF.

GOOD HOUSEKEEPING:

- QUANTITIES OF PRODUCTS STORED ON-SITE WILL BE LIMITED TO THE AMOUNT NEEDED FOR THE JOB.
- PRODUCTS AND MATERIALS WILL BE STORED IN A NEAT, ORDERLY MANNER IN APPROPRIATE CONTAINERS PROTECTED FROM RAINFALL, WHERE POSSIBLE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH MANUFACTURER LABELS VISIBLE.
- PRODUCTS MIXING, DISPOSAL AND DISPOSAL OF PRODUCT CONTAINERS WILL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR WILL INSPECT SUCH MATERIALS TO ENSURE PROPER USE, STORAGE, AND DISPOSAL.

MAINTENANCE & INSPECTION OF EROSION & SEDIMENT CONTROLS:

MAINTENANCE:

THE FOLLOWING BEST MANAGEMENT PRACTICE MAINTENANCE CRITERIA ARE TAKEN FROM THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA," LATEST EDITION.

CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OR MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANING OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

RETROFIT STRUCTURES SHALL BE KEPT CLEAR OF TRASH AND DEBRIS. THIS WILL REQUIRE CONTINUOUS MONITORING AND MAINTENANCE, WHICH INCLUDES SEDIMENT REMOVAL WHEN ONE-THIRD OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST.

SEDIMENT SHALL BE REMOVED FROM SILT FENCES ONCE IT HAS ACCUMULATED ONE-THIRD THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS).

SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION.

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN.

WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, SMOOTHED AND COMPACTED.

APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

REPAIR ALL DAMAGES CAUSED TO TEMPORARY SEDIMENT BASINS BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE TOP OF THE RISER. SEDIMENT SHALL NOT ENTER ADJACENT STREAMS OR DRAINAGE WAYS DURING SEDIMENT REMOVAL OR DISPOSAL. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM OR FLOODPLAIN.

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

ROUGHENED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO OBTAIN OPTIMUM SEED GERMINATION AND SEEDING GROWTH.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCES. MULCH CAN BE USED AS A SINGLE EROSION CONTROL DEVICE FOR UP TO 6 MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH (DEPENDING ON THE MATERIALS USED), ANCHORED, AND HAVE A CONTINUOUS 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN 8 MONTHS. IF THE AREA WILL REMAIN UNDISTURBED FOR GREATER THAN 6 MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

PERMANENT VEGETATION SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN 6 MONTHS. THIS PRACTICE OF SODDING SHALL BE APPLIED IMMEDIATELY TO ALL AREAS AT FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND THAT FOR THE UNPAVED AREAS AND AREAS NOT COVERED IN PERMANENT STRUCTURES AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIPRAP, GABIONS, PERMANENT MULCHES OR GEOTEXTILES) HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF PLANTED TREES, SHRUBS, PERENNIAL VINES, A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON, A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION UNTIL THIS STANDARD IS MET AND PERMANENT CONTROL MEASURES AND FACILITIES ARE OPERATIONAL. INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED.

EC4.2 YES 27. DESCRIPTION OF PRACTICES TO PROVIDE COVER FOR BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE.*

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

EC4.2 YES 28. Description of the practices that will be used to reduce the pollutants in storm water discharges.*

Product Specific Practices

Petroleum Based Products - Containers for products such as fuel, lubricants and tars will be inspected daily for leaks and spills. This includes on-site vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas will be located away from state water, natural drains and storm water drainage inlets. In addition, temporary fueling tanks shall have a secondary containment liner to prevent/minimize site contamination. Discharge of oils, fuels and lubricants is prohibited. Proper disposal methods will include collection in a suitable container and disposal as required by local and State regulations.

Paints/Finishes/Solvents - All products will be stored in tightly sealed original containers when not in use. Excess product will not be discharged to the storm water collection system. Excess product, materials used with these products and product containers will be disposed of according to manufacturer's specifications and recommendations.

Concrete Truck Washing - NO concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water onsite.

Fertilizer/Herbicides - These products will be applied at rates that do not exceed the manufacturer's specifications or above the guidelines set forth in the crop establishment or in the GSWC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials will be under roof in sealed containers.

Building Materials - No building or construction materials will be buried or disposed of onsite. All such materials will be disposed of using proper waste disposal procedures.

EC4.2 YES 29. Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).

CONSIDERATIONS FOR CONSTRUCTION SCHEDULING

A SPECIFIED WORK SCHEDULE IS NEEDED TO COORDINATE THE TIMING OF LAND DISTURBING ACTIVITIES WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES.

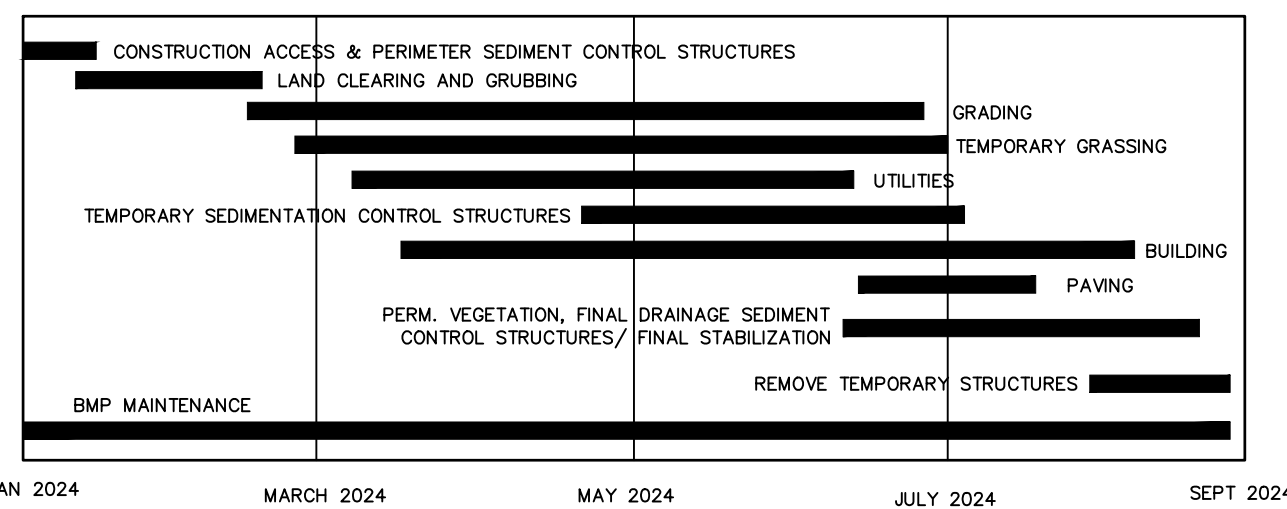
THE PURPOSE OF THE SCHEDULE IS TO REDUCE ON-SITE EROSION AND OFF-SITE SEDIMENTATION BY PERFORMING LAND DISTURBING ACTIVITIES AND INSTALLING EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH A PLANNED SCHEDULE.

IN PLANNING CONSTRUCTION WORK, IT MAY BE HELPFUL TO OUTLINE ALL LAND DISTURBING ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED PROJECT. THEN LIST ALL PRACTICES NEEDED TO CONTROL EROSION AND SEDIMENTATION ON THE SITE. THESE TWO LISTS CAN THEN BE COMBINED IN LOGICAL ORDER TO PROVIDE A PRACTICAL AND EFFECTIVE CONSTRUCTION SEQUENCE SCHEDULE THAT BECOMES PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN.

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1. OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION.	
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	
4. CONSTRUCTION ACCESS - CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS.	FIRST LAND DISTURBING ACTIVITY -- STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE.
5. SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION.	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING.
6. RUNOFF CONTROL - DIVERSIONS, PERMETER DIKES, WATER BARS, AND OUTLET PROTECTION.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
7. RUNOFF CONVEYANCE SYSTEM- STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF- CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
8. LAND CLEARING AND GRADING-SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES ARE INSTALLED. CLEAR BORROW AND DISPOSAL AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.
9. SURFACE STABILIZATION-TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
10. UTILITIES, PAVING, BUILDING	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
11. LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP.	LAST CONSTRUCTION PHASE--STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.

PROPOSED CONSTRUCTION SCHEDULE:



EC4.2 YES 30. Provide complete requirements of inspections and record keeping by the primary permittee.*

INSPECTIONS

A. PERMITTEE REQUIREMENTS.

- 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:
 - 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
 - ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
- MEASURE 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 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):
 - DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE;
 - AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND
 - 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.
- CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
- BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
- A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

AN "EROSION & SEDIMENTATION INSPECTION AND MAINTENANCE REPORT" SHEET IS ATTACHED. SHOULD THE INSPECTION REVEAL ANY DEFICIENCIES, A COPY SHALL BE SENT TO:

3 BYRDS DEVELOPMENT LLC
ATTN: BRITTANY BENTLEY
100 BLUE MOON CROSSING, SUITE 117
POOLER, GA 31322
(912) 328-6500
EMAIL: b.bentley@mattbyrdhomes.com

ATTN:
PITTMAN ENGINEERING CO. LLC
2591 HWY 17 SUITE 303
RICHMOND HILL, GA 31324
912-445-0578
JASON@PITTMANENGINEERINGCO.COM

EC4.2 YES 31. Provide complete requirements of sampling frequency and reporting of sampling results.*

STORM WATER SAMPLING:

SAMPLING FREQUENCY:

- THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW FOR A QUALIFYING EVENT. THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN 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 STORMWATER 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 OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;
 - 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 BMPs ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;
 - WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.(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
 - EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (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 II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS IN 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 THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
- ALL SAMPLING REPORTS 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 SUCH ANALYSES, 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 RECEIPTED CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

EC4.2 YES 32. Provide complete details for retention of records as per Part IV.F. of the permit.*

RETENTION OF RECORDS:

- THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE (OR THE RECORDS SHALL BE READILY AVAILABLE AT THE DESIGNATED ALTERNATE LOCATION) FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI.
 - A COPY OF NOTICES OF INTENT SUBMITTED TO EPD.
 - A COPY OF ALL EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED WITH THIS PERMIT.
 - THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5 OF THIS PERMIT.
 - A COPY OF ALL MONITORING INFORMATION, RESULTS AND REPORTS REQUIRED BY THIS PERMIT.
 - A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.(a),(1)(c) OF THIS PERMIT.
 - A COPY OF VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2 OF THIS PERMIT.
 - DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(a),(1)(c) OF THIS PERMIT.
- COPIES OF ALL NOTICES OF INTENT, NOTICE OF TERMINATION, REPORTS, PLANS, MONITORING INFORMATION (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION), EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND OF THIS PERMIT RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST 3 YEARS FROM THE DATE THAT THE NOTICE OF TERMINATION IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS (OR AT A DESIGNATED ALTERNATE LOCATION) ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST BY THE EPD AT ANY TIME UPON WRITTEN REQUEST TO THE PERMITTEE.

REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
5	JAF
4	JAF
3	JAF
2	JAF
1	JAF

JASON L. BRYANT, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL
CERTIFICATION #73897

OR
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL
CERTIFICATION #73897

PITTMAN ENGINEERING
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Richmond Hill, GA 31324
(912) 445-0578
www.PitmanEngineeringCo.com

EROSION CONTROL NOTES
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N/A
Date: 8/3/23

SHEET
EC4.2

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE DEVELOPMENT CONSTRUCTION PROJECTS

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

EC4.3 YES 33. DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION.*

a. SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:

(1). A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE STAND ALONE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORMWATER IS DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORMWATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

b. SAMPLE TYPE. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD. (1). SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES. (2). SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER. (3). LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION. (4). MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. ANALYSIS OF SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED. (5). SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

c. SAMPLING POINTS. (1). FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORMWATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES: (A). THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORMWATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY (B). THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE. (C). IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORMWATER OUTFALL CHANNEL(S). (D). CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORMWATER CHANNEL. (E). THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM. (F). THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS. (G). PERMITTEES DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). (H). ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORMWATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

EC4.3 YES 34. Appendix B rationale for NTU values at all outfall sampling points where applicable.* FOR A SITE ACREAGE SIZE OF 25.01-50 AC AND WATERS SUPPORTING WARM WATER FISHERIES DRAINAGE AREA LESS THAN 5 SQUARE MILES, THE NTU VALUE TO USE IN PART III.D.4. IS 50 NTU.

APPENDIX B Nephelometric Turbidity Unit (NTU) Table Warm Water (Supporting Warm Water Fisheries)

SITE SIZE (ACRES)	Surface Water Drainage Area (Square Miles)							
	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

EC1.1-EC3.1 YES 35. Delineate all sampling locations if applicable, perennial and intermittent streams and other water bodies into which storm water is discharged. *

EC1.1-EC3.1 YES 36. A description of appropriate controls and measures that will be implemented at the construction site including: (1) Initial Sediment Storage Requirements and Perimeter Control BMPs, (2) Intermediate Grading and Drainage BMPs, and (3) Final BMPs. For construction sites where there will be no mass grading and the Initial Perimeter Control BMPs, Intermediate Grading and Drainage BMPs, and Final BMPs are the same, the plan may combine all of the BMPs into a single phase.* A temporary sediment trap will accommodate initial sediment storage. Silt fence will provide perimeter control. Intermediate grading and drainage BMPs include construction exit, permanent ponds used for sediment storage, concrete wash down, storm outlet protection, dust control, mulching, temporary seeding and silt fence. Final phase BMPs include construction exit, concrete wash down, storm outlet protection, dust control and permanent vegetation stabilization. Each phase of the plan includes the appropriate controls and measures, including the initial sediment storage requirements, intermediate grading and drainage BMPs and Final BMPs. Refer to Sheets EC1.1, EC2.1 and EC3.1.

EC1.1-EC3.1 YES 37. Graphic scale and North arrow.

EC1.1-EC3.1 YES 38. Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2% Rolling 2 - 8% Steep 8% +	0.5 or 1 1 or 2 2.5 or 10

N/A NO 39. Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.goswcc.org.

N/A NO 40. Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.*

EC1.1-EC3.1 EC4.3 NO 41. Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact. THERE ARE NOT ANY STATE WATERS LOCATED ON OR WITHIN 200' OF THIS PROJECT SITE. BUFFERS ARE NOT REQUIRED SINCE THERE IS NOT ANY WRESTED VEGETATION.

CE1.1-CE3.1 NO 42. Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site. THERE ARE ON-SITE WETLANDS OR STATE WATERS LOCATED ON OR WITHIN 200' OF THIS PROJECT SITE.

EC4.3 NO 43. Delineation and acreage of contributing drainage basins on the project site. SEE SEPARATE HYDROLOGY REPORT.

EC4.3 NO 44. Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.* SEE SEPARATE HYDROLOGY REPORT.

EC4.3 YES 45. An estimate of the Runoff Coefficient or Peak Discharge Flow of the site prior to and after construction activities are completed. RUNOFF CURVE NUMBER (SCS METHOD USED): PRE-DEVELOPMENT: CN=57 POST-DEVELOPMENT: CN=79

EC1.1-EC3.1 YES 46. Storm-Drain Pipe and Weir Velocities with appropriate Outlet Protection to accommodate discharges without erosion. Identify/Delineate all Storm Water Discharge Points.

EC1.1-EC3.1 EC4.3 YES 47. Soil series for the project site and their delineation. SOILS LEGEND:

SYMBOL	NAME	RATING
AaA	ALBANY SAND, 0-2 PERCENT SLOPES	A/D
EaA	ECHAW-CENTENARY COMPLEX, 0-2 PERCENT SLOPES	A
MeA	MELDRIM SAND, 0-2 PERCENT SLOPES	A

EC1.1-EC3.1 YES 48. The Limits of Disturbance for each phase of construction.

EC1.1-EC3.1 EC4.3, EC5.3 YES 49. Provide a minimum of 67 Cubic Yards of sediment storage per acre drained using a Temporary Sediment Basin, Retrofitted Detention Pond, and/or Excavated Inlet Sediment Traps for each common drainage location. Sediment Storage Volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a Sediment Basin is not attainable must be included in the plan for each common drainage location in which a Sediment Basin is not provided. A written justification as to why 67 Cubic Yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the Design Professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize Outlet Structures that withdraw water from the surface, unless infeasible. If Outlet Structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.

67 CY SEDIMENT STORAGE PER DISTURBED ACRE REQUIREMENT

- TOTAL PROJECT ACREAGE = 26.1
- TOTAL DISTURBED ACREAGE = 24.2
- TOTAL REQUIRED SEDIMENT STORAGE: 24.2 X 67 c.y./Ac. = 1,621 c.y.
- THIS PROJECT WILL UTILIZE 8 TEMPORARY SEDIMENT TRAPS AND SILT FENCE FOR THE SEDIMENT STORAGE REQUIREMENT FOR THE INITIAL PHASE AND 3 PERMANENT DETENTION PONDS AND SILT FENCE FOR SEDIMENT STORAGE REQUIREMENT FOR THE INTERMEDIATE AND FINAL PHASE. THE PROPOSED LAND DISTURBING ACTIVITIES FOR THIS PROJECT ARE TO RE-GRADE TO PROVIDE POSITIVE DRAINAGE TO SPECIFIC AND LIMITED AREAS OF THE SITE. SEDIMENT STORAGE CALCULATIONS ARE LOCATED ON EROSION CONTROL PLAN SHEETS.

EC1.1-EC3.1 EC5.1-EC5.3 YES 50. Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.

EC5.1-EC5.3 YES 51. Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.

Plan Page # Included Y/N TO BE SHOWN ON ES&PC PLAN

EC4.3, EC5.1, EC5.2 YES 52. Provide Vegetative Plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative Plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

LIME RATES AND ANALYSIS

- AGRICULTURAL LIME SHALL BE APPLIED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
- MULCHING (MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS). MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:
 - DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE. DRY HAY SHALL BE APPLIED AT THE RATE OF 2-1/2 TONS PER ACRE.
 - WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED BELOW) AFTER HYDRAULIC SEEDING.
 - ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 4:1 OR STEEPER.
 - SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE.
 - PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
 - WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLACK SOD, MULCH IS NOT REQUIRED.

FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST MAINTENANCE	6-12-12	1500lbs./ac.	50-100 lbs./ac. 1/2/
	SECOND MAINTENANCE	6-12-12 10-10-10	1000lbs./ac. 400 lbs./ac.	- 30
2. COOL SEASON GRASSES AND LEGUMES	FIRST MAINTENANCE	6-12-12	1500lbs./ac.	0-50 lbs./ac. 1/
	SECOND MAINTENANCE	0-10-10 10-10-10	1000lbs./ac. 400 lbs./ac.	- -
3. GROUND COVERS	FIRST MAINTENANCE	10-10-10	1300lbs./ac.	-
	SECOND MAINTENANCE	10-10-10 10-10-10	1300lbs./ac. 1100 lbs./ac.	3/ 3/
4. PINE SEEDLINGS	FIRST MAINTENANCE	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	-
5. SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10	700lbs./ac.	-
	SECOND MAINTENANCE	0-10-10	700lbs./ac.	4/
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST MAINTENANCE	10-10-10	500lbs./ac.	30 lbs./ac. 5/
	SECOND MAINTENANCE	10-10-10	500lbs./ac.	-
7. WARM SEASON GRASSES	FIRST MAINTENANCE	6-12-12	1500lbs./ac.	50-100 lbs./ac. 2/6/
	SECOND MAINTENANCE	6-12-12 10-10-10	800lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 30 lbs./ac. 2/
8. WARM SEASON GRASSES AND LEGUMES	FIRST MAINTENANCE	6-12-12	1500lbs./ac.	50 lbs./ac. 6/
	SECOND MAINTENANCE	0-10-10 10-10-10	1000lbs./ac. 400 lbs./ac.	- -

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

*IF USING THIS CHECKLIST FOR A PROJECT THAT IS LESS THAN 1 ACRE AND NOT PART OF A COMMON DEVELOPMENT BUT WITHIN 200 FT OF A PERENNIAL STREAM THE * CHECKLIST ITEMS WOULD BE N/A.
Effective January 1, 2023

REV.	DATE	REVISIONS
5	11/12/24	REVISED WATER CONNECTION TO EFF. CNTY.
4	JAF 7/23/24	REVISED PER EPD COMMENTS
3	JAF 4/16/24	REVISED PER EFFINGHAM CO. COMMENTS
2	JAF 11/29/23	REVISED PER CONSOLIDATED UTILITIES COMMENTS
1	JAF 10/31/23	REVISED PER CONSOLIDATED UTILITIES COMMENTS

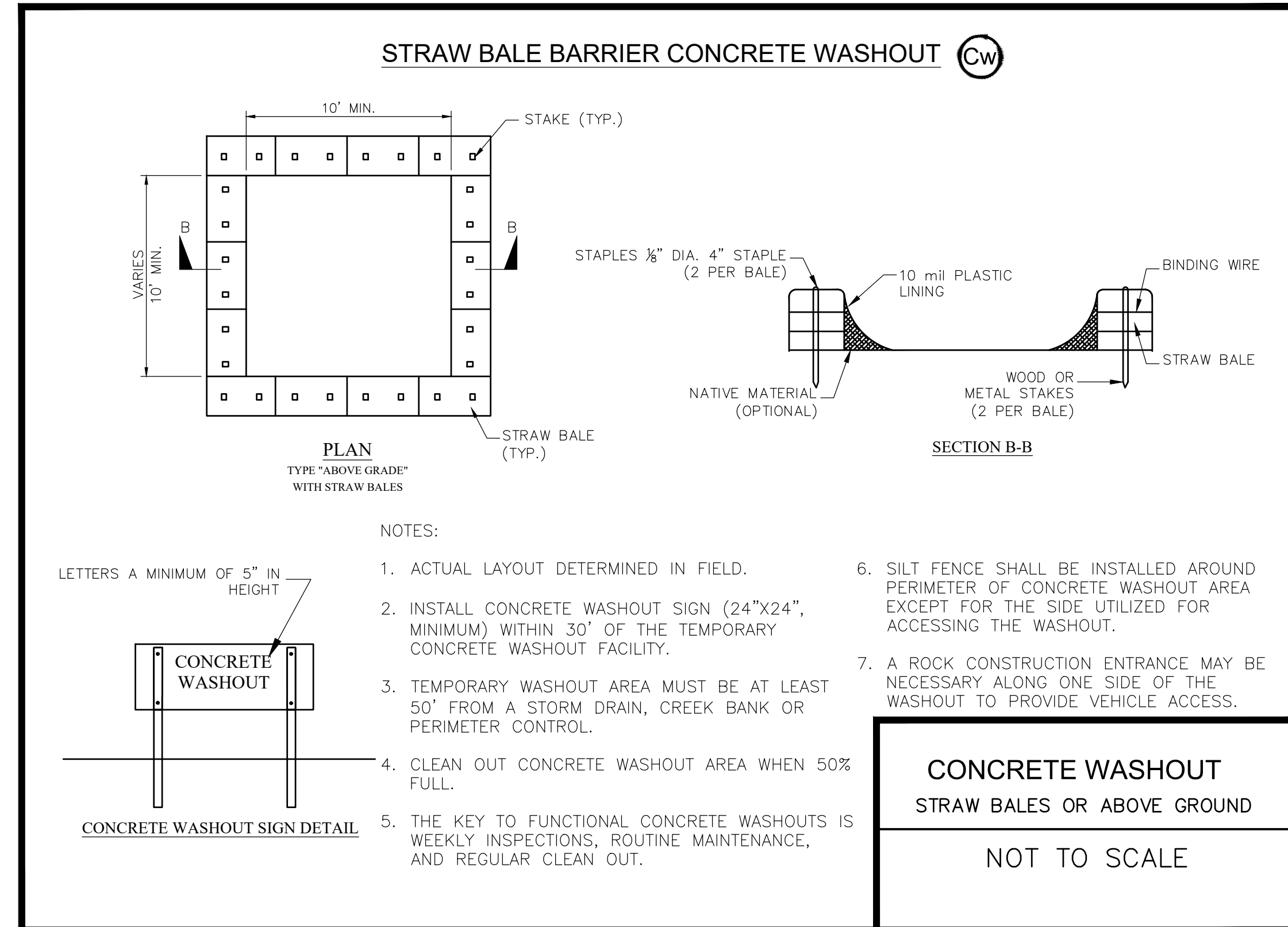
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EROSION CONTROL NOTES
BAKER HILL
EFFINGHAM CO., GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N/A
Date: 8/3/23

SHEET
EC4.3



Disturbed Area Stabilization (With Mulching Only) Ds1



DEFINITION
Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

- PURPOSE**
- To reduce runoff and erosion
 - To conserve moisture
 - To prevent surface compaction or crusting
 - To control undesirable vegetation
 - To modify soil temperature
 - To increase biological activity in the soil

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months.

If any area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to **Ds2 -Dis-**

GSWCC 2016 Edition

turbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding).

SPECIFICATIONS
Mulching Without Seeding
This standard applies to graded or cleared areas where seedlings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

- Site Preparation**
1. Grade to permit the use of equipment for applying and anchoring mulch.
 2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
 3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
Select one of the following materials and apply at the depth indicated:

1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.

6-27

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 much of it in an erect position. Straw or hay mulch shall be anchored immediately after application.

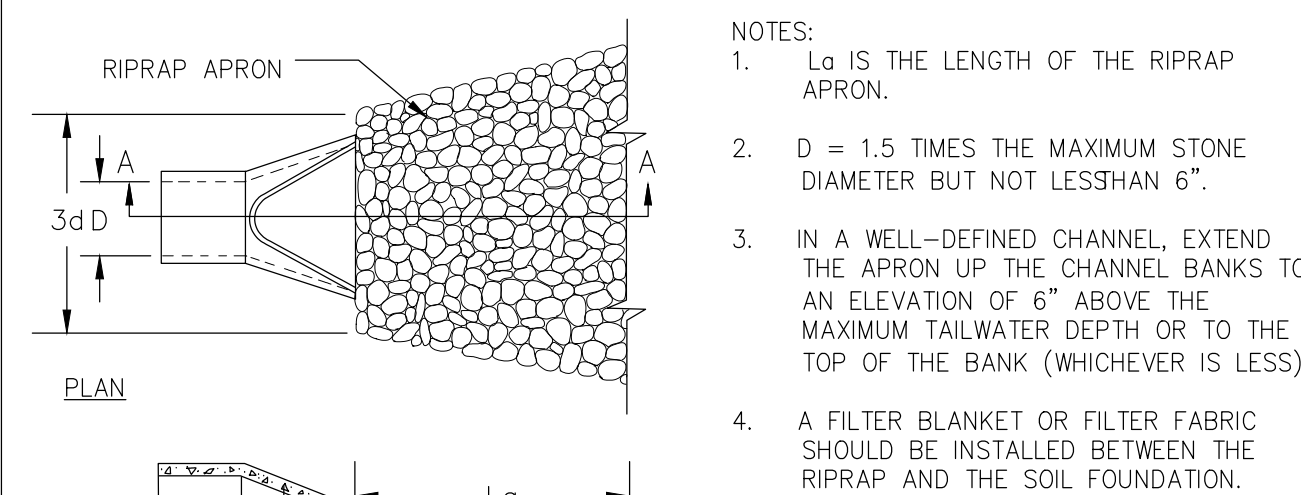
Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifiers, binders and hydraulic mulch with tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Please refer to specification **Tac-Tackifiers**. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.

2. 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.

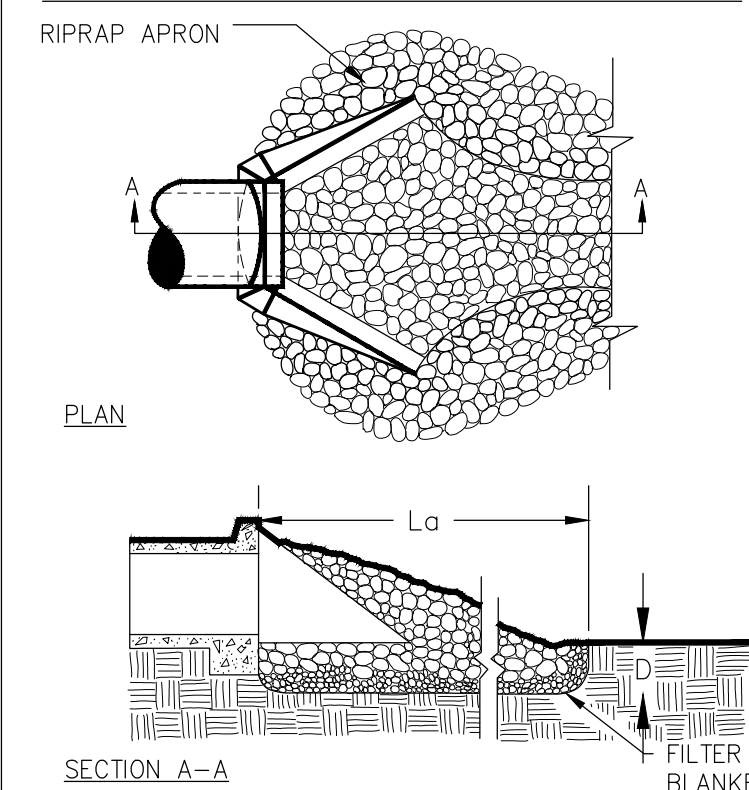
3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

RIPRAP OUTLET PROTECTION (St)

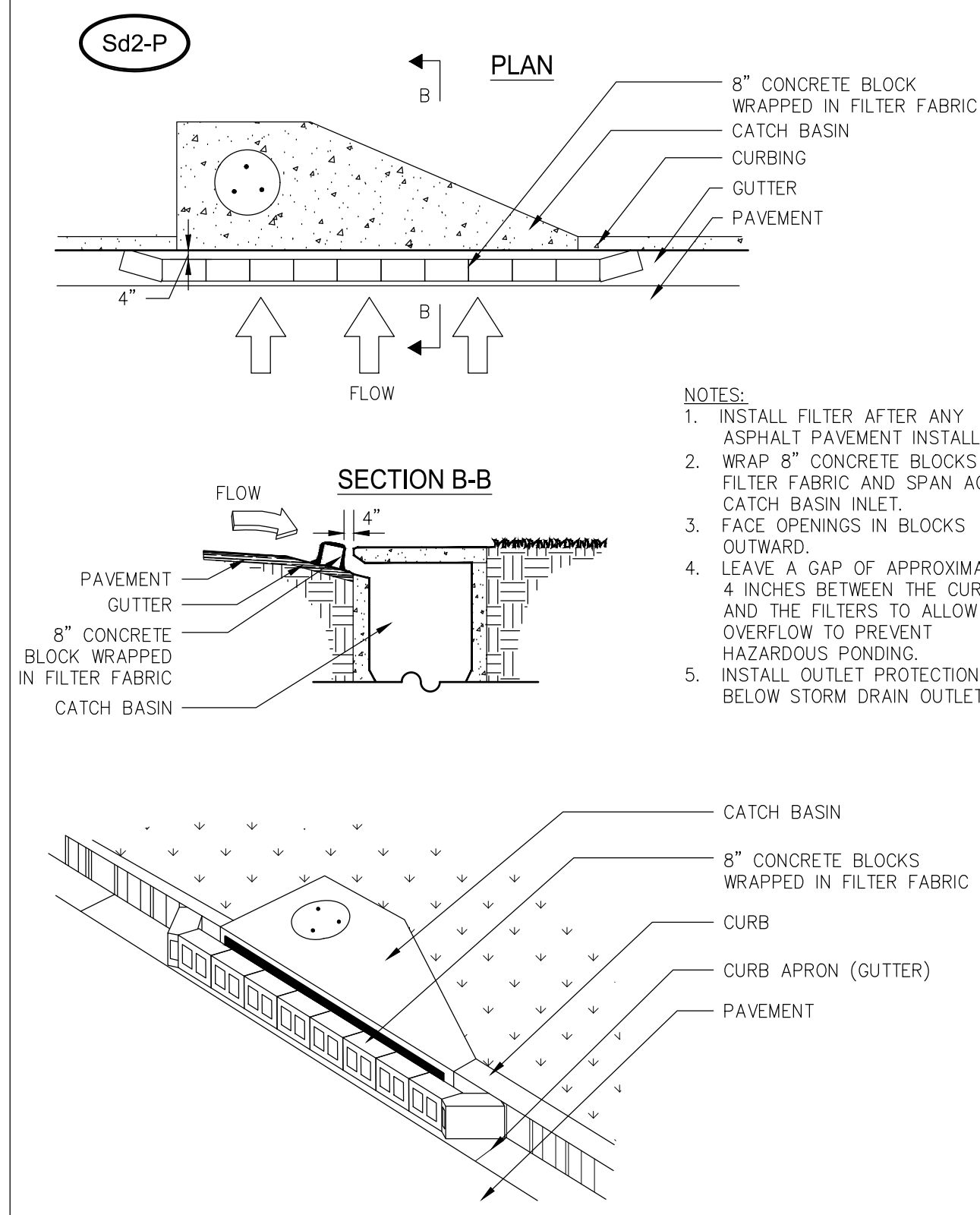
PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



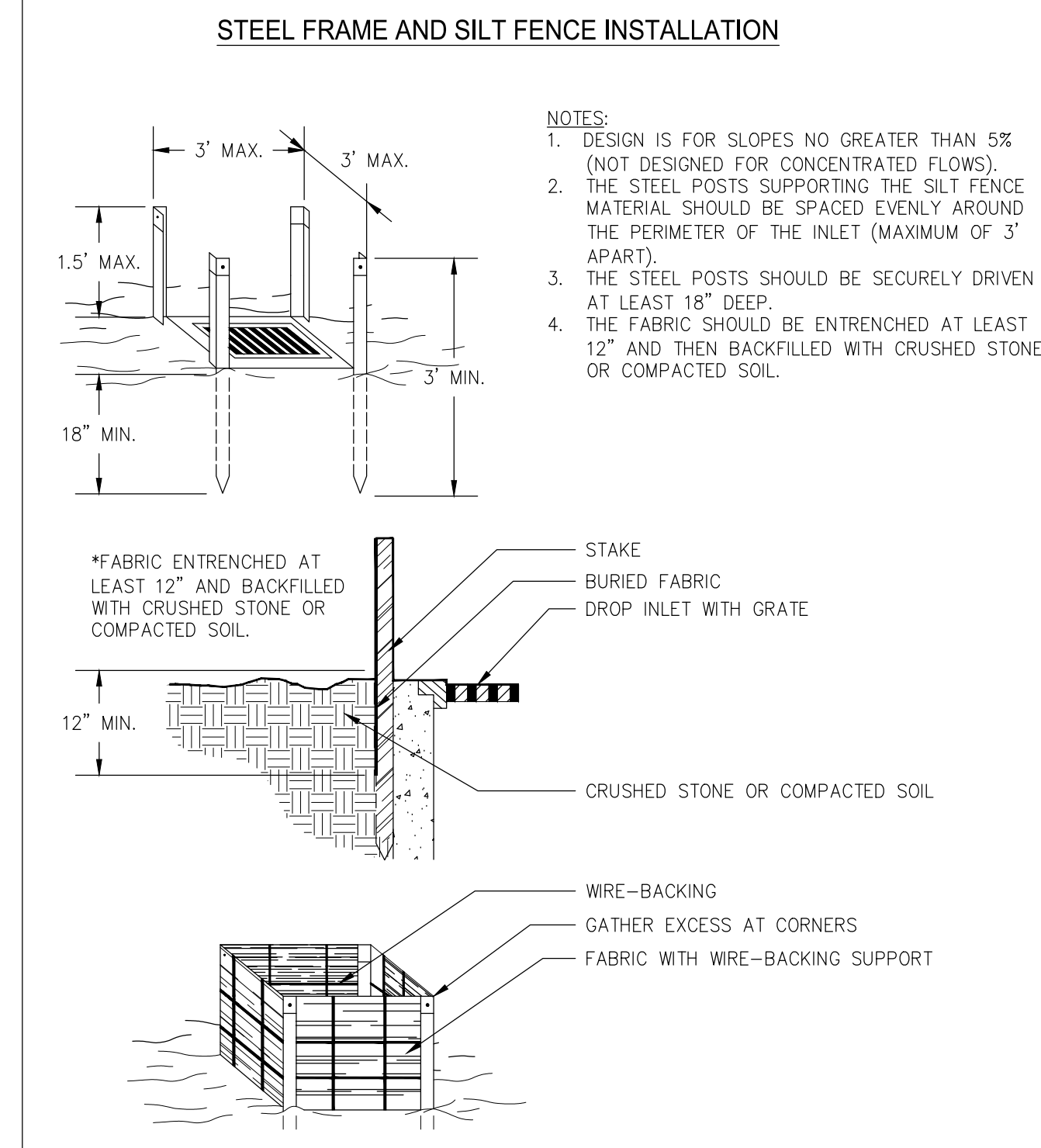
PIPE OUTLET TO WELL DEFINED CHANNEL



CURB INLET FILTER "PIGS IN BLANKET" (Sd2-F)



FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION (Sd2-F)



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EROSION CONTROL DETAILS

BAKER HILL
EFFINGHAM COUNTY, GEORGIA

Prepared For
3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	N.T.S.
Date:	8/3/23

SHEET
EC5.1

GEORGIA UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below or across a slope to divert runoff.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

GSWCC (Amended - 2013)

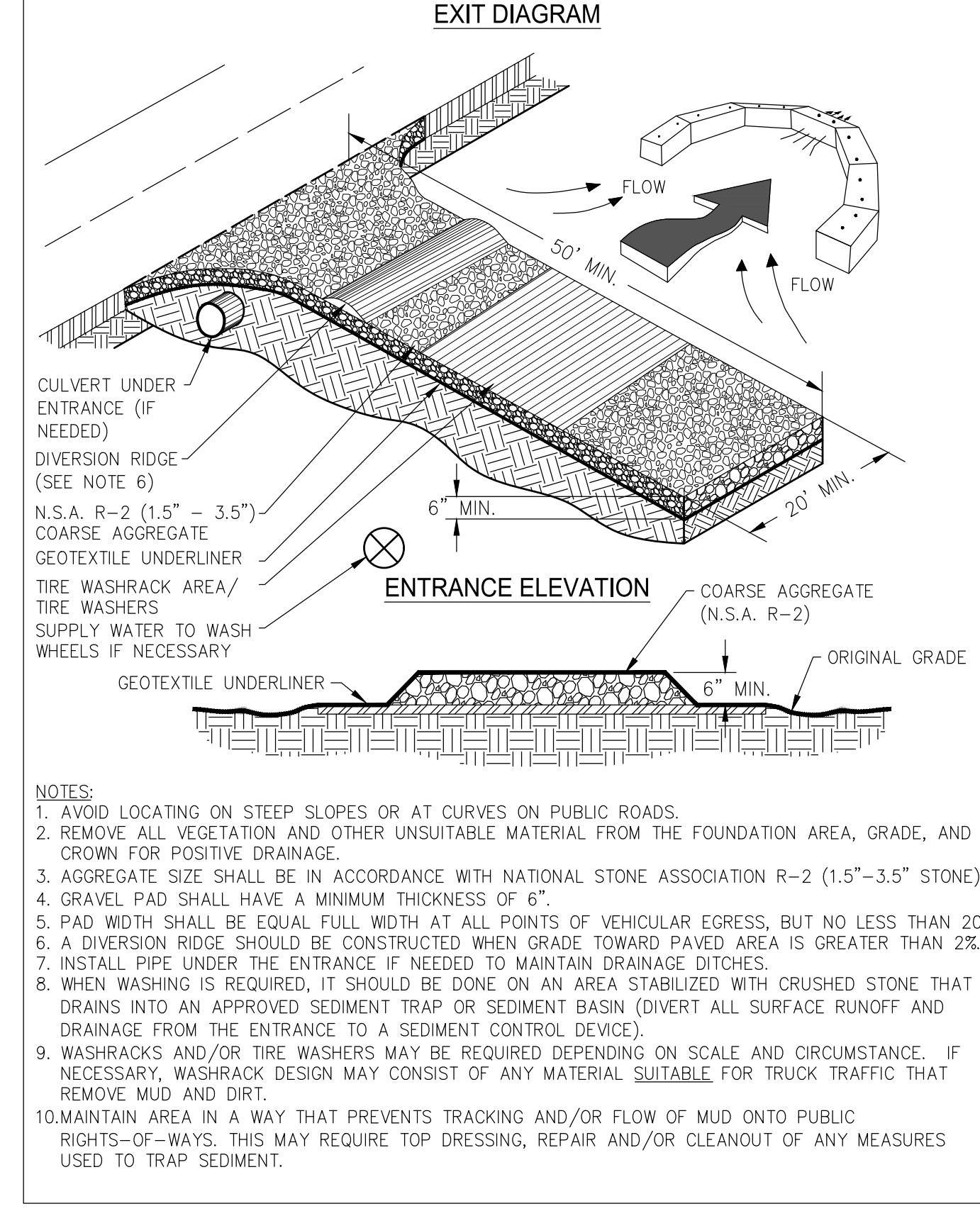
STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wl	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

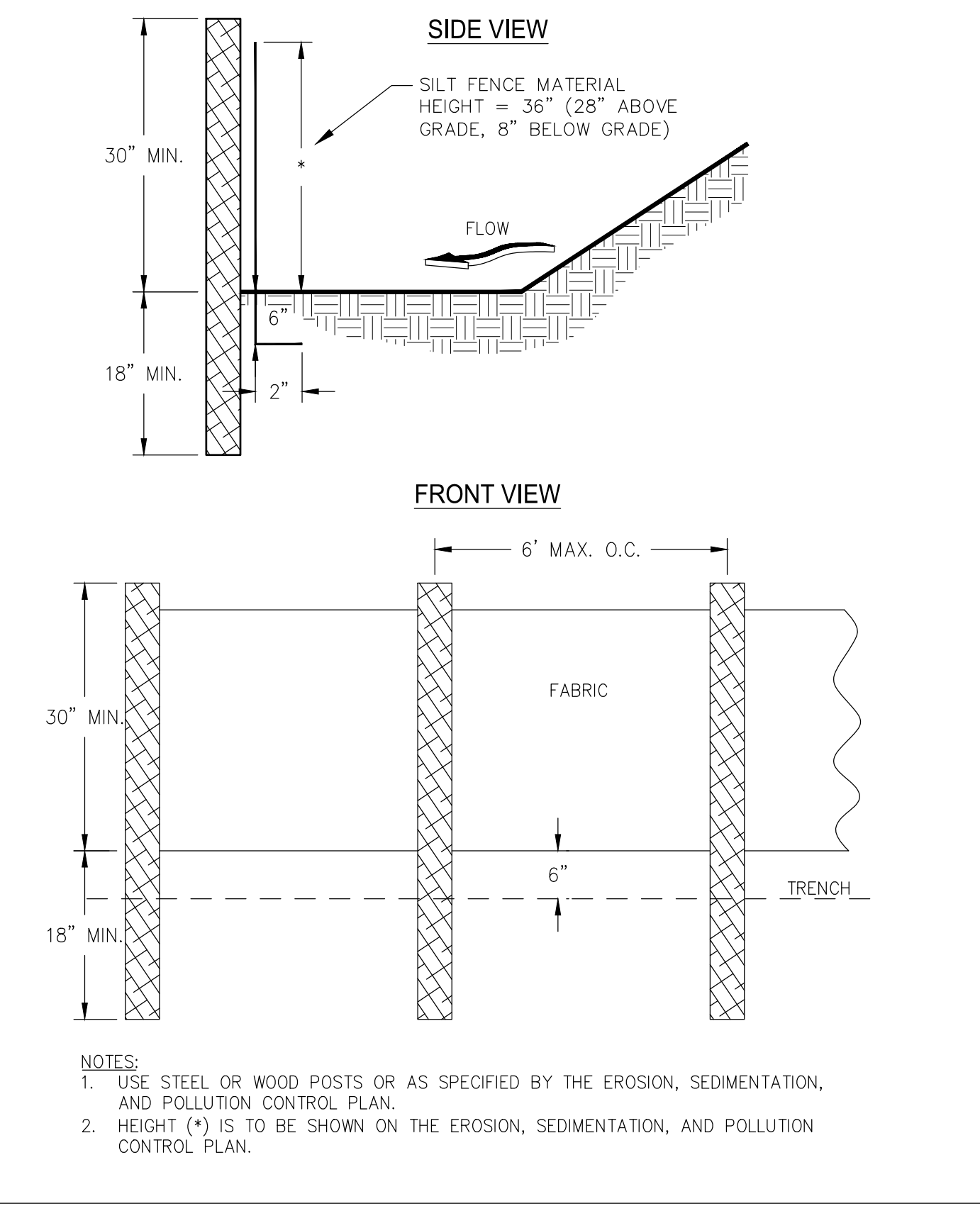
VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)			Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)			Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)			Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SOODING)			A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS			Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS			Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)			The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION			A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKERS AND BINDERS			Substance used to anchor straw or hay mulch by causing the organic material to bind together.

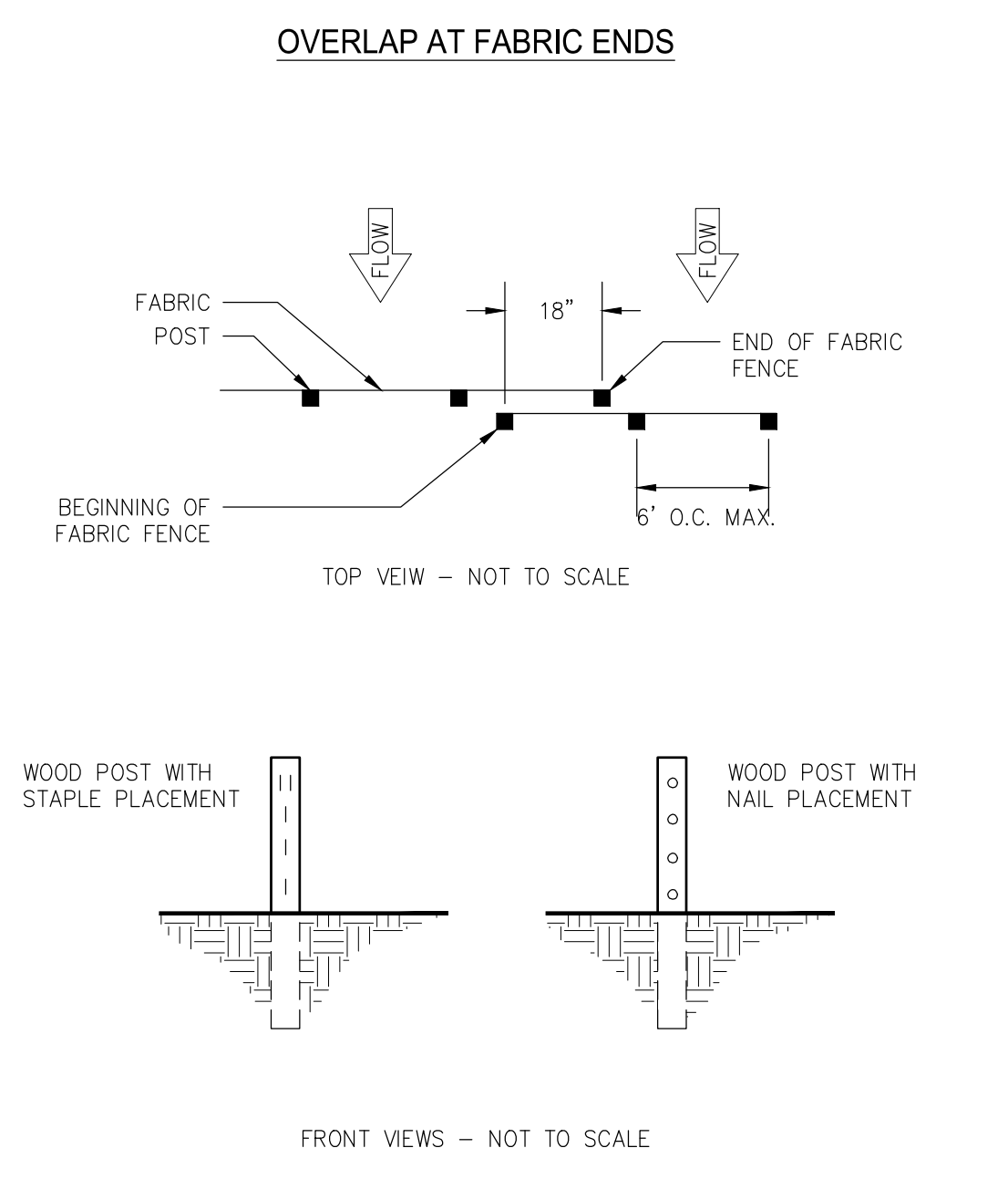
CRUSHED STONE CONSTRUCTION EXIT (Co)



SILT FENCE - TYPE NON-SENSITIVE (Sd1-NS)



FASTENERS FOR SILT FENCES

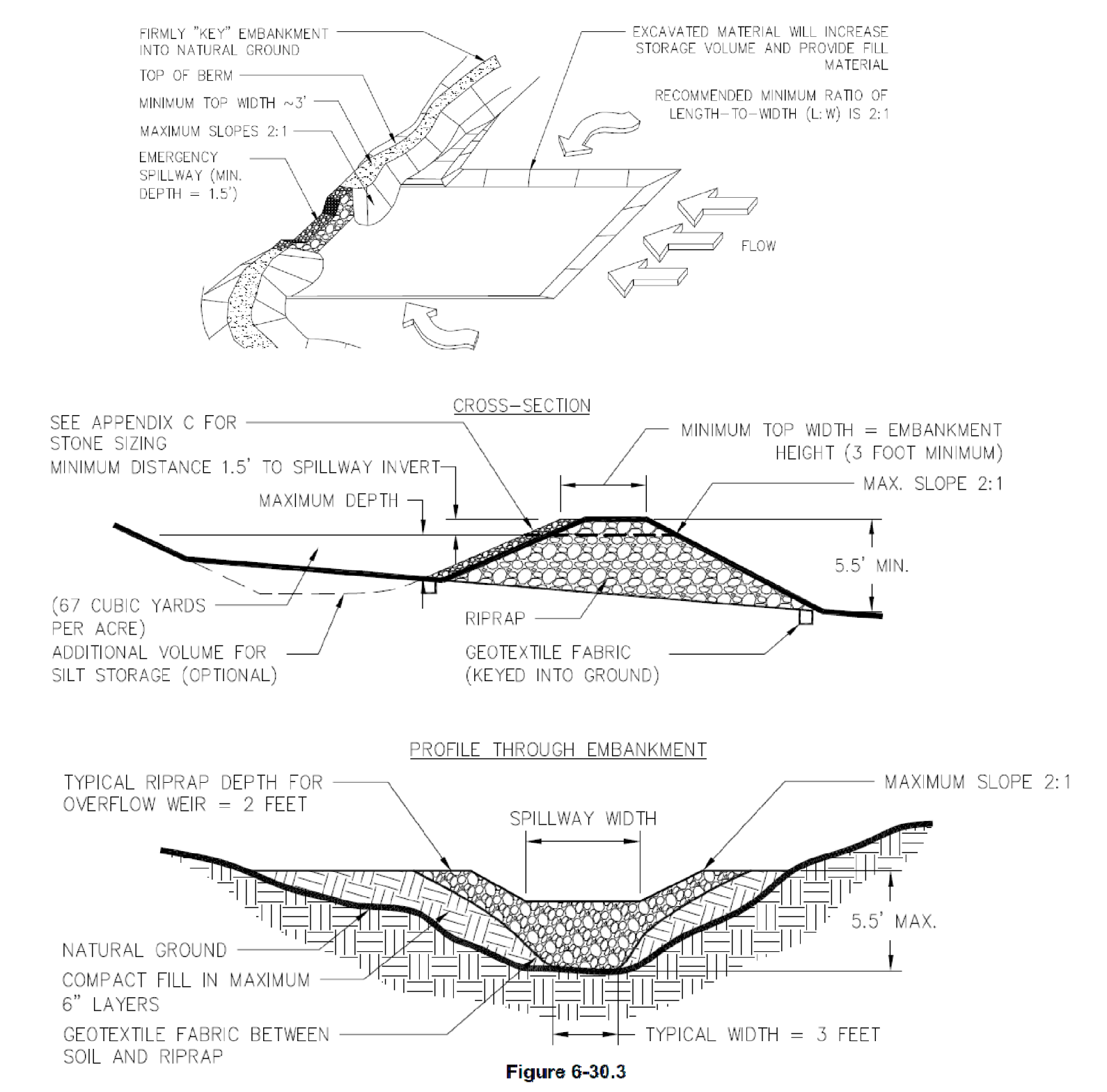


NOTES:

1. THE FABRIC AND WIRE SHOULD BE SECURELY FASTENED TO POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT CONTROL



TEMPORARY SEDIMENT TRAP DETAILS

SCALE: N.T.S.

REV.	DATE	BY	REVISIONS
5	11/12/24	JAF	REVISED WATER CONNECTION TO EFF. CNTY.
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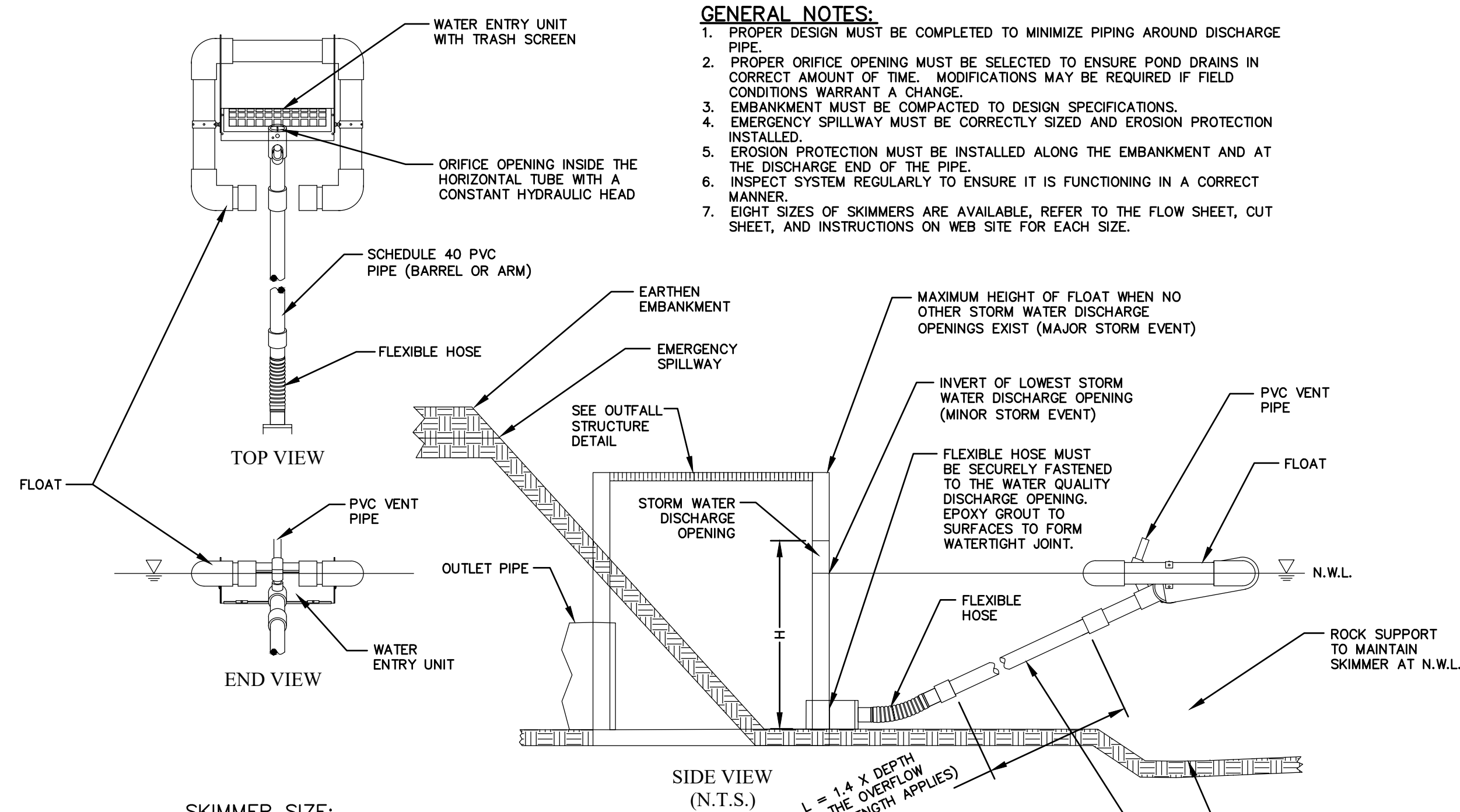
EROSION CONTROL DETAILS

BAKER HILL
EFFINGHAM COUNTY, GEORGIA

Prepared For
3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	N.T.S.
Date:	8/3/23

SHEET
EC5.2



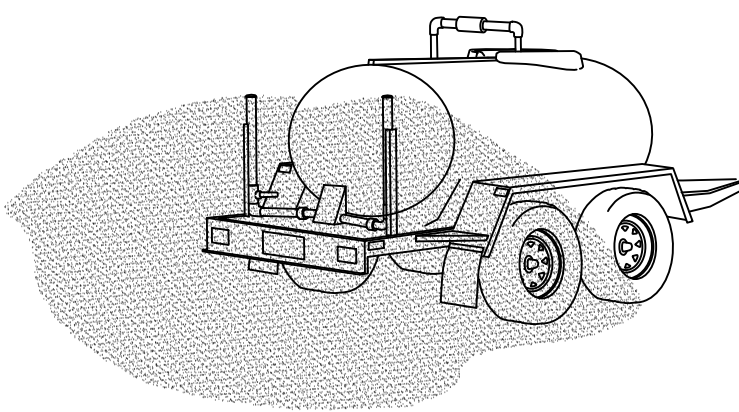
SKIMMER SIZE:
 1 SKIMMER REQUIRED
 BASIN VOLUME: 27,228 CF
 DAYS TO DRAIN: 3 DAYS
 SKIMMER SIZE: 3 INCHES
 ORIFICE RADIUS: 1.4 INCHES
 ORIFICE DIAMETER: 2.9 INCHES

FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH OUTLET STRUCTURE
 SCALE: N.T.S.

GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

DUST CONTROL ON DISTURBED AREAS [Du]



DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE

- To prevent surface and air movement of dust from exposed soil surfaces.

- To reduce the presence of airborne substances that may be harmful or to human health, welfare, or safety, or to animals or plant life.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. TEMPORARY METHODS
 Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification Tac - Tackifiers. Resins should be used according to manufacturer's recommendations.

Vegetative Cover. See specifications Ds2 - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification Tac - Tackifiers.

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency

measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

B. PERMANENT METHODS

Permanent Vegetation. See specification Ds3 - Disturbed Areas Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

Topsolling. This entails covering the surface with less erosive soil material. See specification Tp - Topsolling.

Stone. Cover surface with crushed stone or coarse gravel. See specification Cr - Construction Road Stabilization.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CORPS 1/

Species	Broadcast Rates 2-/PLS3/		Area	Planting Dates (Solid lines indicate optimum dates dotted lines indicate permissible but marginal dates.)	Remarks
	Per Acre	Per 1000 sq. ft.			
MILLET, PEARL (Pennisetum glaucum)	50 lbs.	1.1 lb.	M-L P C	J F M A M J J A S O N D	88,000 Seed per pound. Quick dense cover. May reach 6 feet in height. Not recommended for mixtures.
RYEGRASS, ANNUAL (Lolium Temuatum)	40 lbs.	0.9 lb.	M-L P C	J F M A M J J A S O N D	227,000 seed pound. Dense cover. Very competitive and is not to be used in mixtures.

1. Temporary cover crops are very competitive and will crowd perennials if seeded too heavily.
2. Reduce seeding rates by 50% when drilled.
3. PLS is an abbreviation for Pure Live Seed.
4. M-L represents the Mountain Blue Ridge; and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents Southern Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

Species	Broadcast Rates 2-/PLS3/		Area	Planting Dates (Solid lines indicate optimum dates dotted lines indicate permissible but marginal dates.)	Remarks
	Per Acre	Per 1000 sq. ft.			
BERMUDA, COMMON (Cynodon dactylon) Hulled seed alone with other perennials	10 lbs. 6 lbs.	0.2 lb. 0.1 lb.	P C	J F M A M J J A S O N D	1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
BERMUDA, COMMON (Cynodon dactylon) Unhulled seed with temporary cover with other perennials	10 lbs. 6 lbs.	0.2 lb. 0.1 lb.	P C	J F M A M J J A S O N D	Plant with winter annuals. Plant with Tall fescue.
BERMUDA SPRIGS (Cynodon dactylon) Coastal, Common, Midland, or Tift 44 Coastal, Common, or Tift 44 Tift 78	40 cu. ft.	0.9 cu. ft. of sod plugs 3' x 3'	M-L P C C	J F M A M J J A S O N D	A cubic foot contains approximately 650 sprigs. A basket contains 1.25 cubic feet or approximately 800 sprigs. Same as above Southern coastal Plain only.
CENTPEDEE (Eremochloa opturoides)	Block sod only		P C	J F M A M J J A S O N D	Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in concentrated flow areas. Irrigation is needed until fully established. Do not plant near pastures. Winterhardy as far north as Athens and Atlanta.
LOVEGRASS, WEEPING (Eragrostis curvula)	4 lbs. 2 lbs.	0.1 lb. 0.05 lb.	M-L P C	J F M A M J J A S O N D	1,500,000 Seed per pound. May last for several years. Mix with Sericea lespedeza.

1. Reduce seeding rates by 50% when drilled.
2. PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of these specification.
3. M-L represents the Mountain Blue Ridge; and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA; C represents Southern Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast

NO.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EFD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

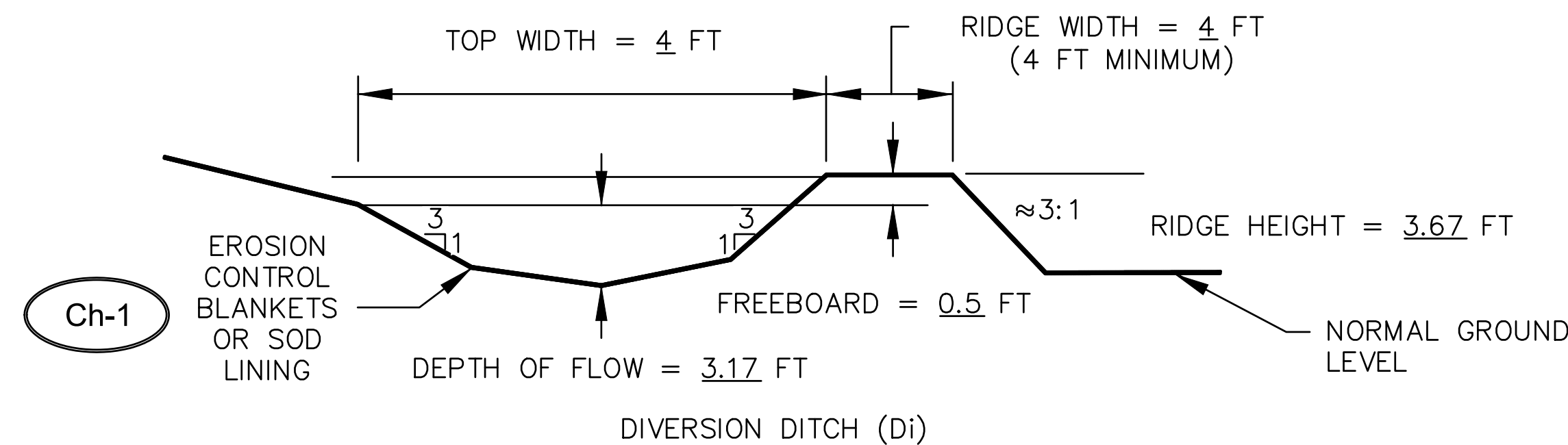
JASON L. BRYANT, P.E.
 SOUVENIR LEVEL
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

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

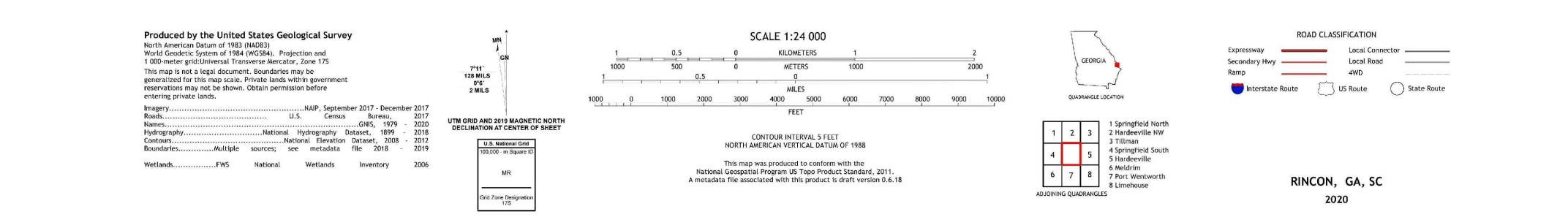
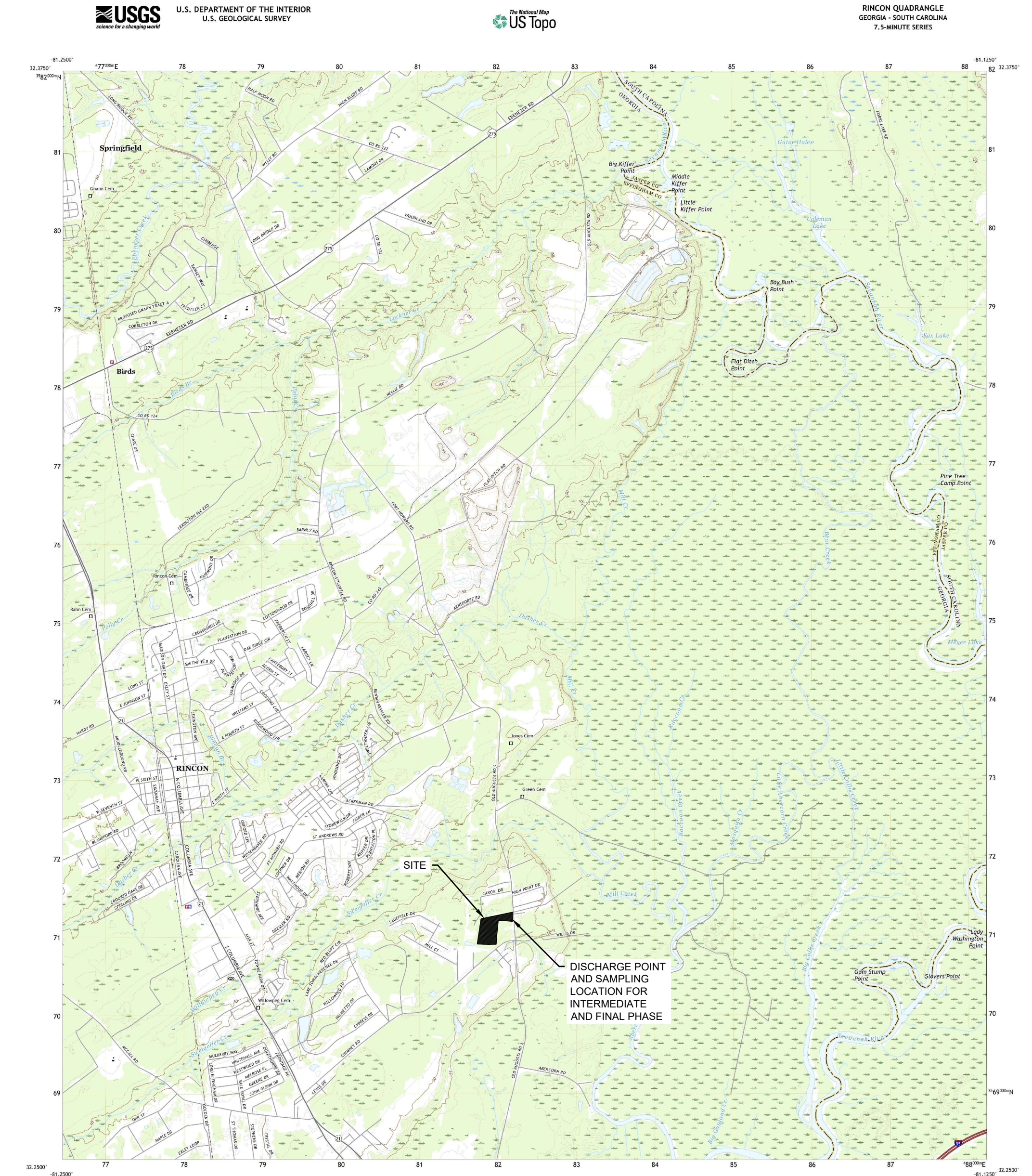
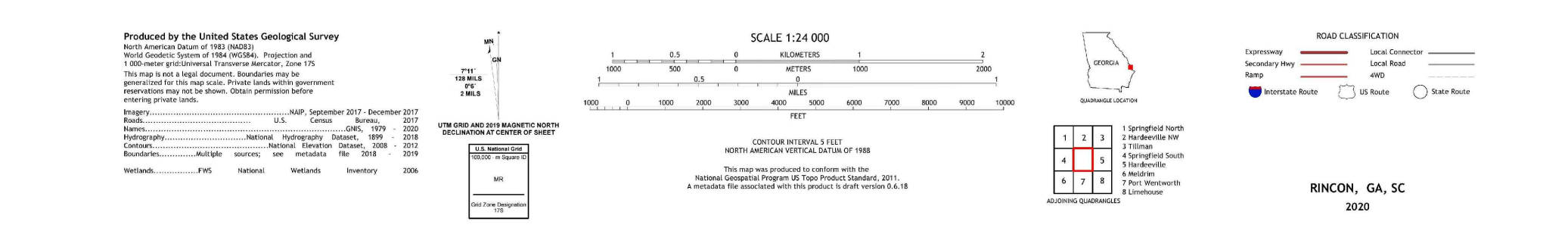
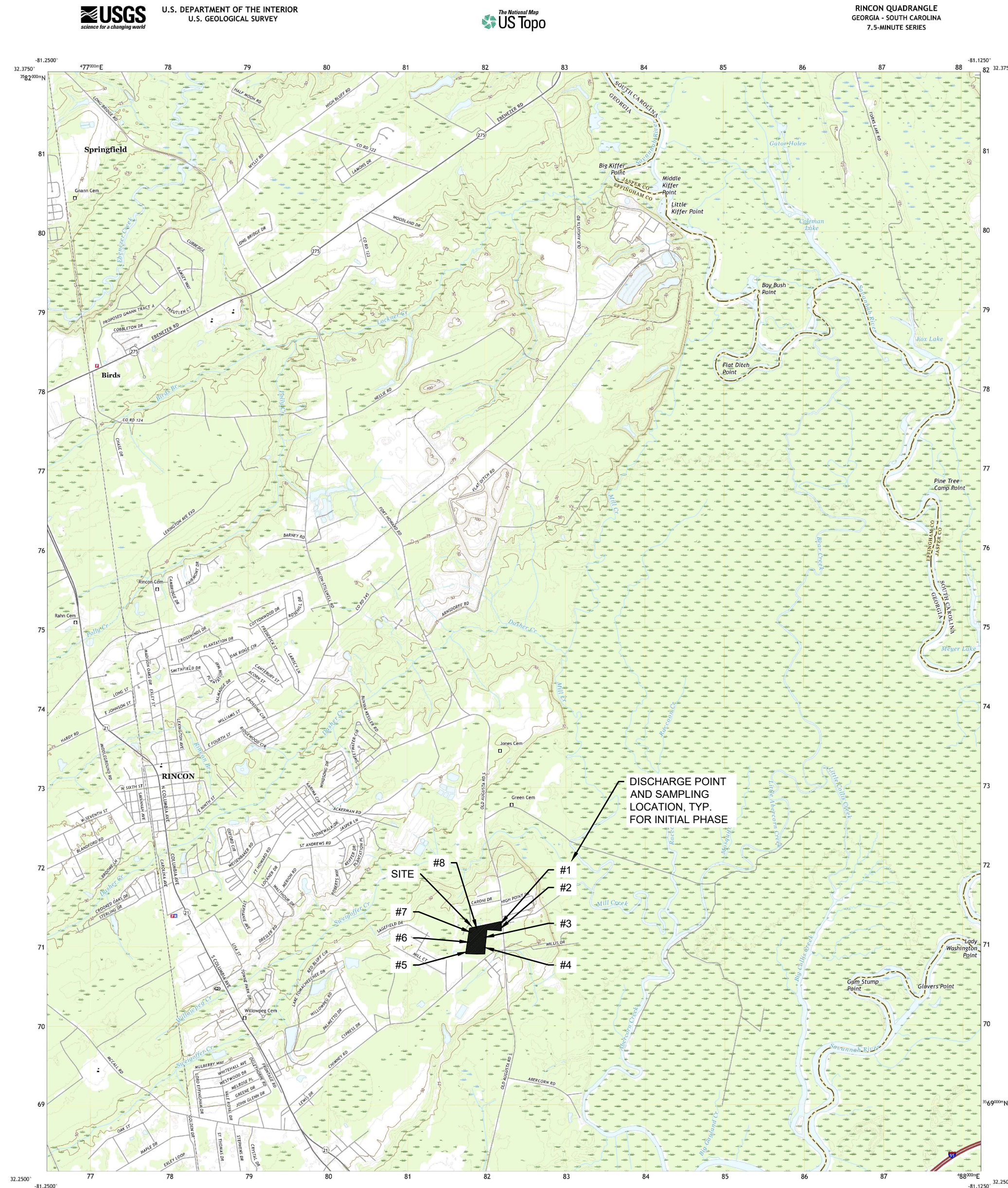
EROSION CONTROL DETAILS
 BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
 3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	N.T.S.
Date:	8/3/23

SHEET
EC5.3



Di DIVERSION DITCH
 SCALE: N.T.S.



REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON L. BRYANT, P.E.
 JAWAY CONSULTANTS, LLC
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

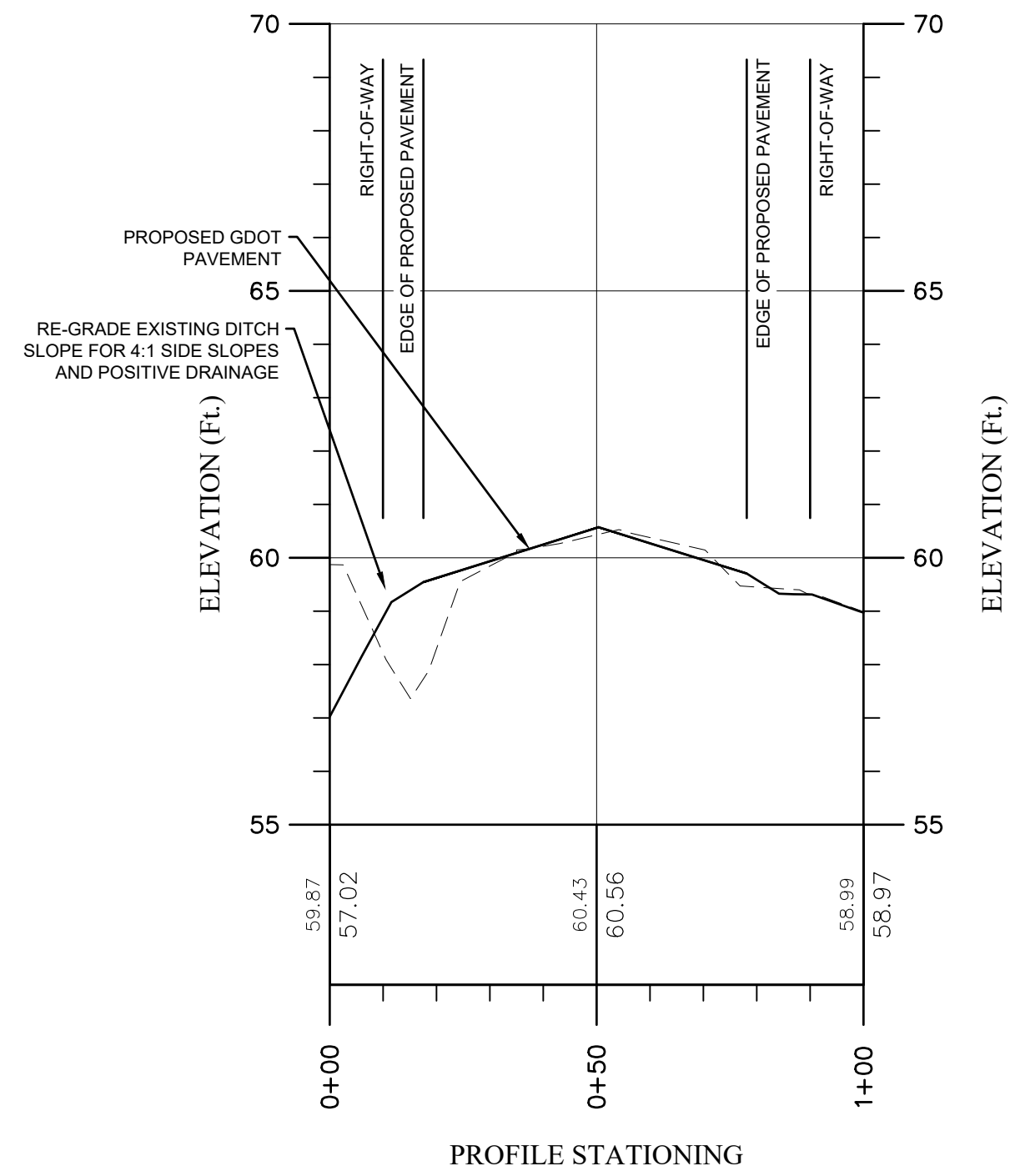
PITTMAN ENGINEERING
 2591 Hwy. 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
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EROSION CONTROL DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

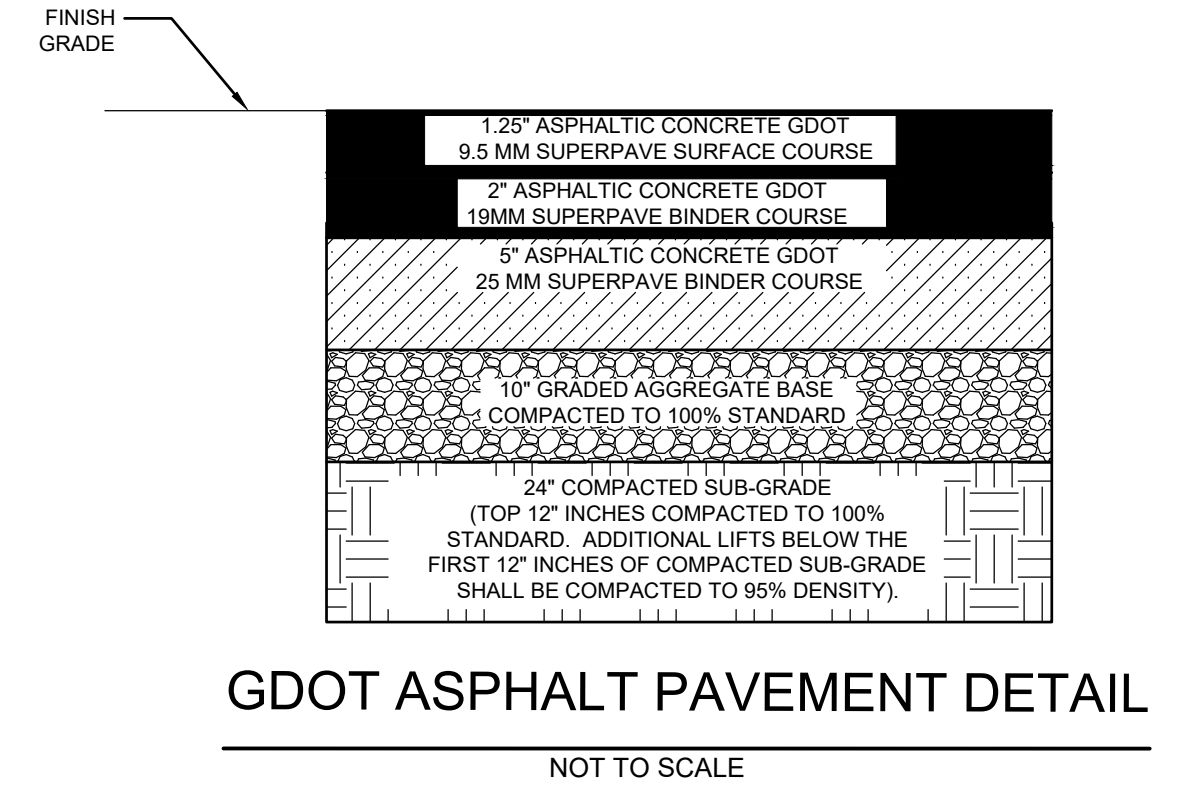
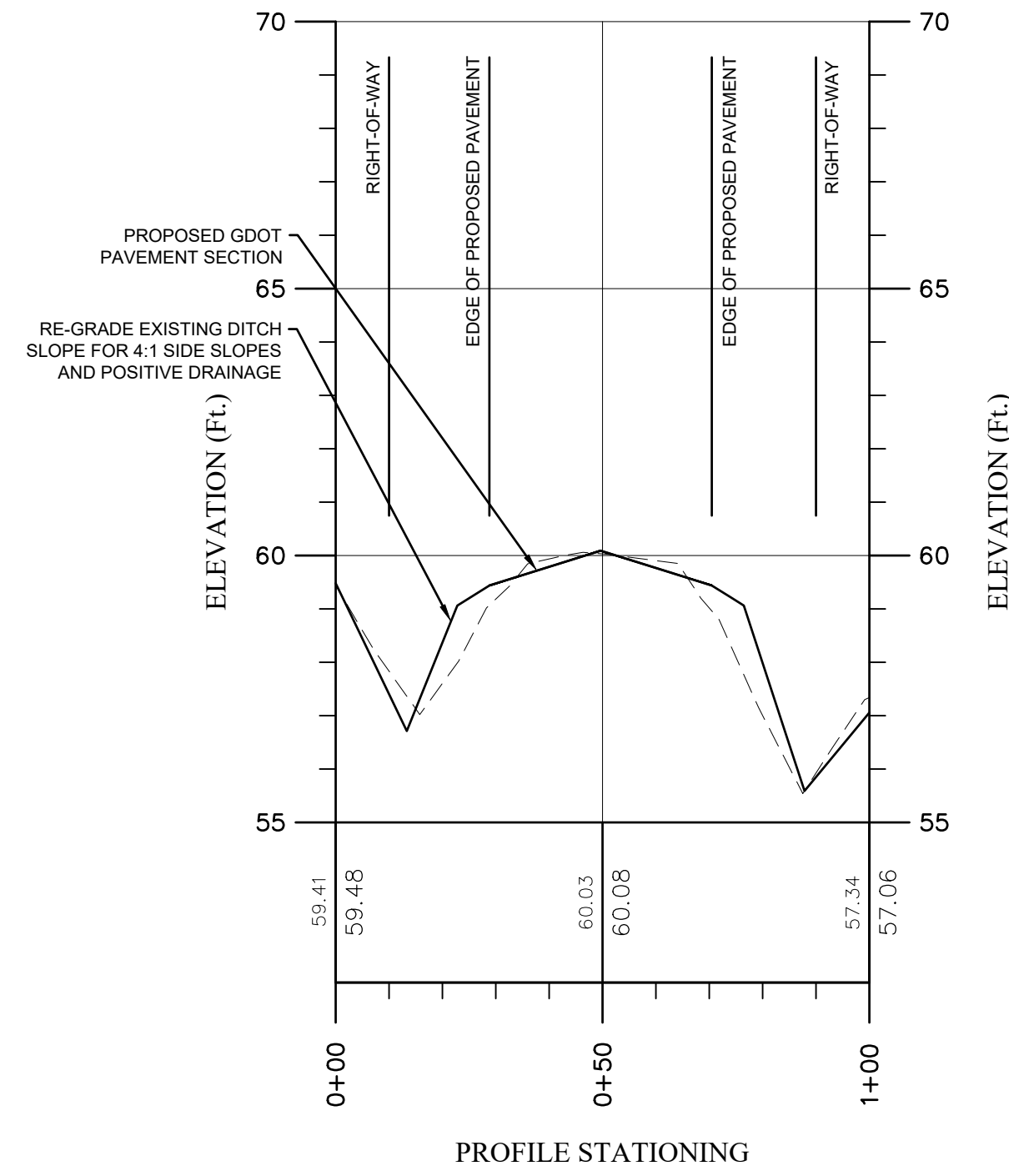
Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

SHEET
EC5.4

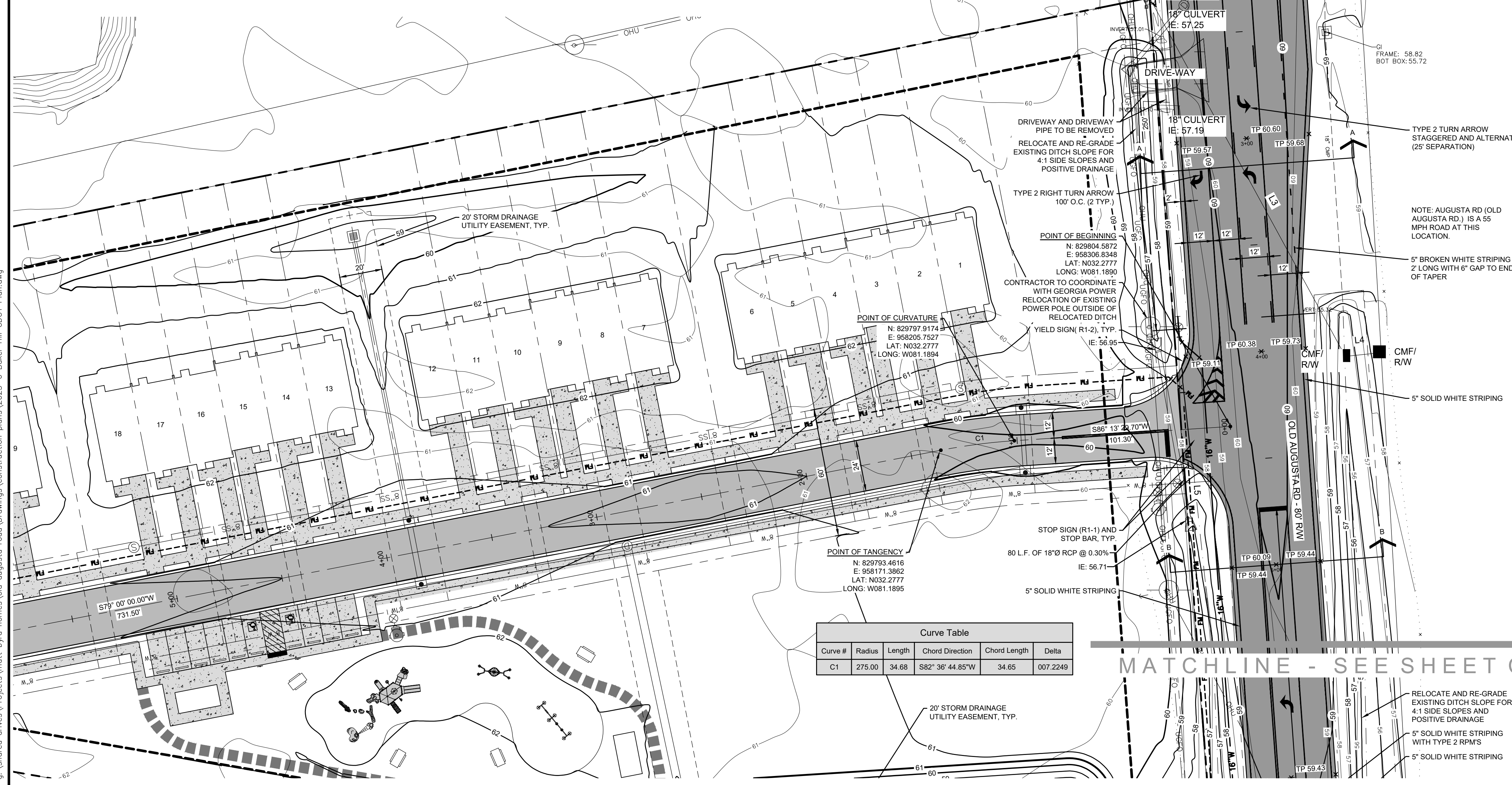
CROSS SECTION A-A



PV - (3)



GDOT ASPHALT PAVEMENT DETAIL
NOT TO SCALE



Curve #	Radius	Length	Chord Direction	Chord Length	Delta
C1	275.00	34.68	S82°36'44.85\"/>		

REV	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
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1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON L. BRYANT, P.E.
DESIGN PROFESSIONAL
CERTIFICATION #73897

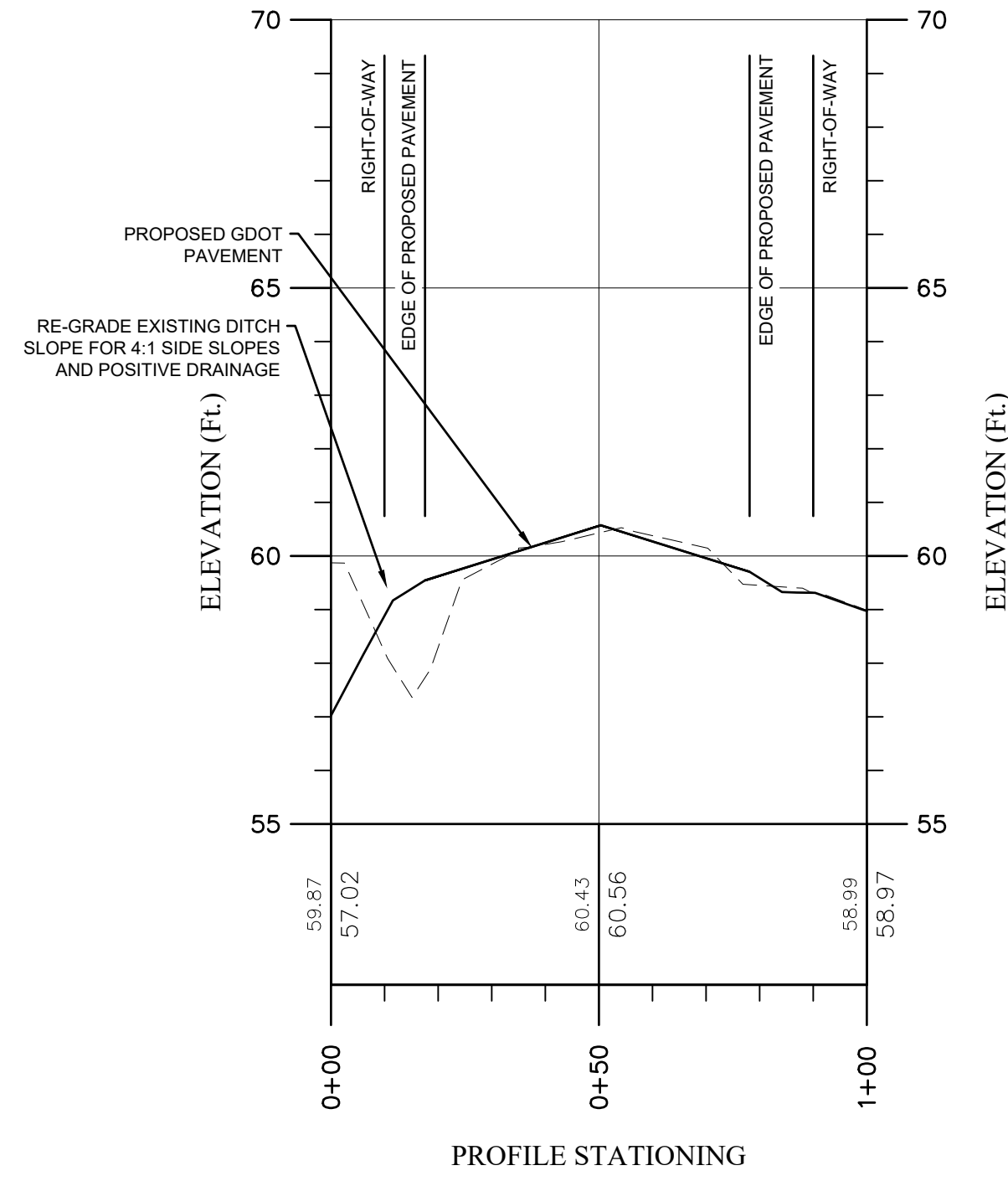
Pittman Engineering Co., LLC
2591 Hwy 175 Suite 303
Richmond Hill, GA 31324
912-445-0578
www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENTS AND GRADING PLAN
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

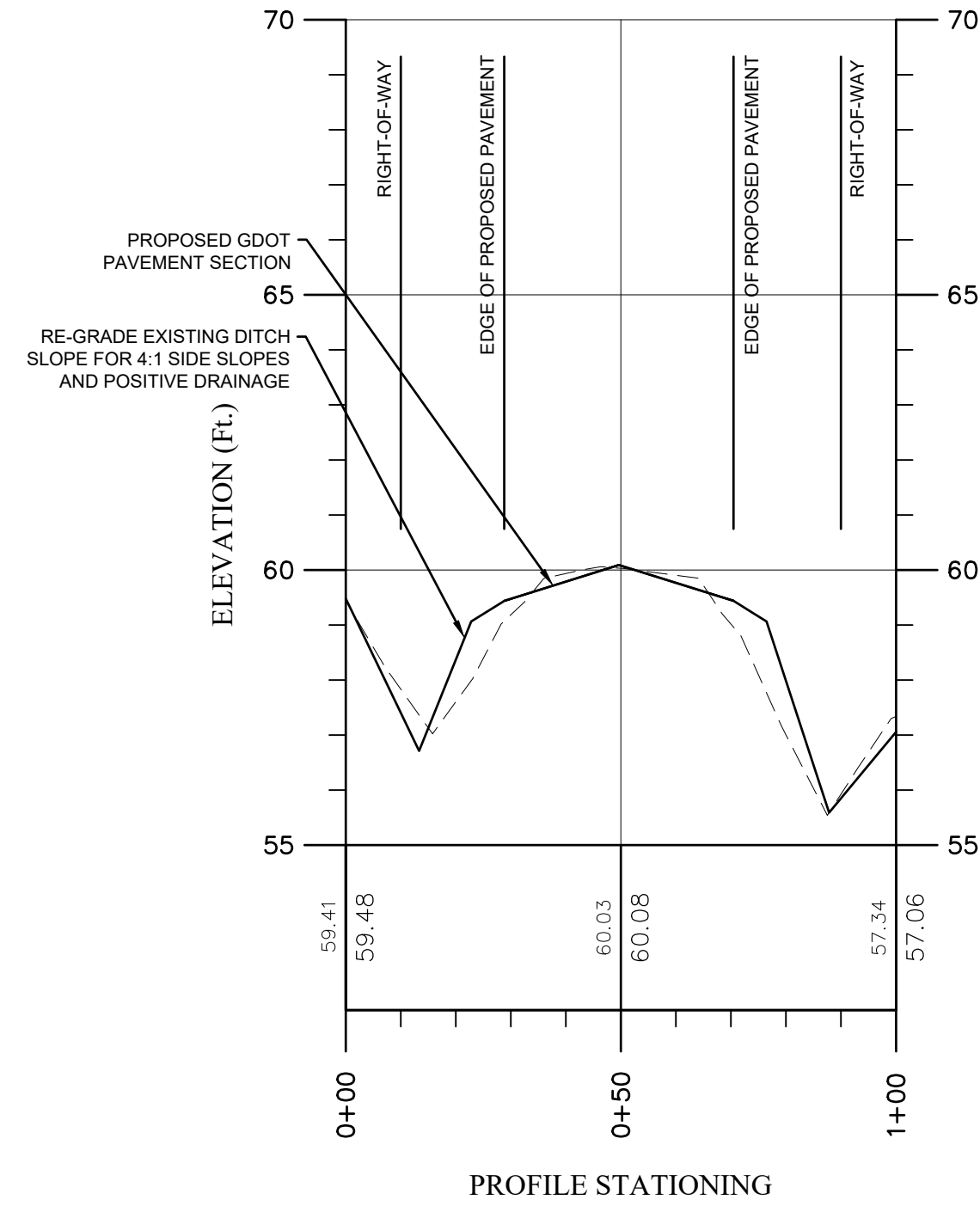
Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: ---
Date: 8/3/23

SHEET
CR1.0

CROSS SECTION A-A

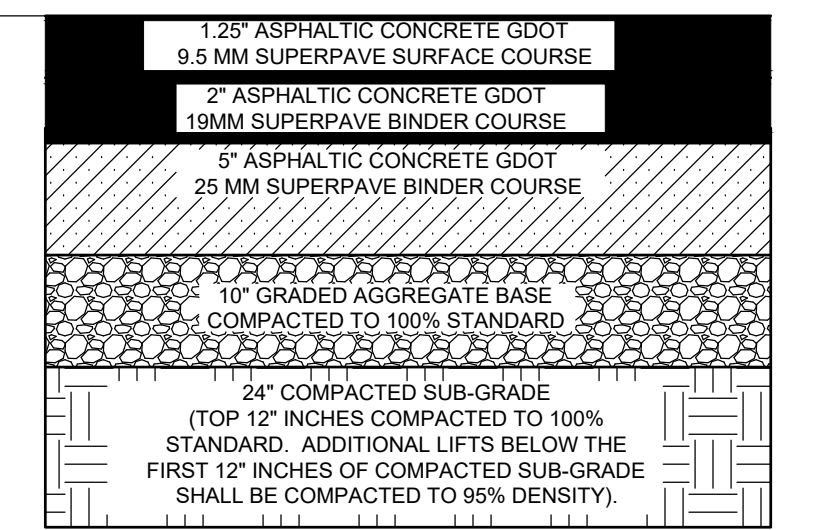
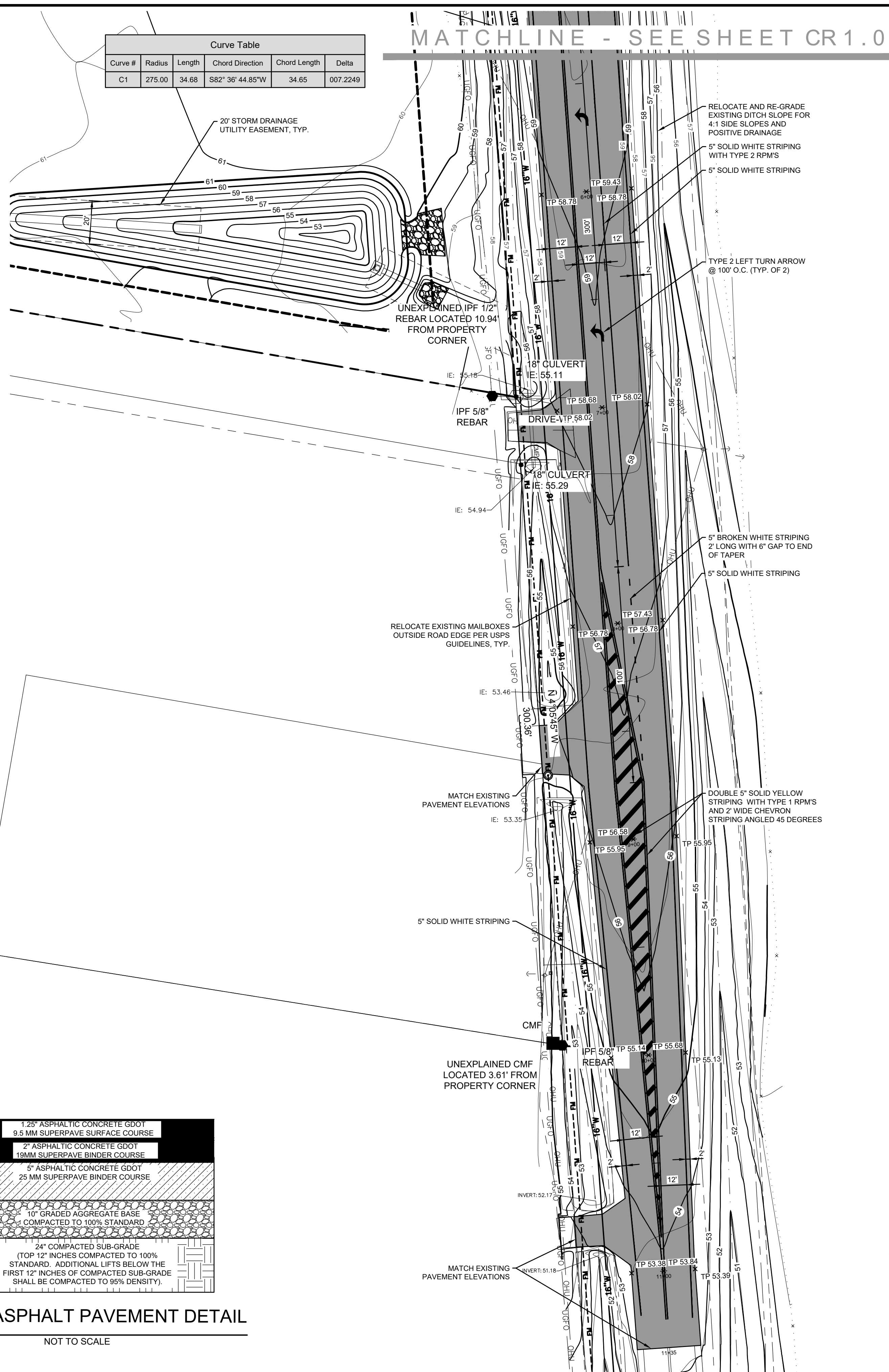


PV - (3)



Curve Table					
Curve #	Radius	Length	Chord Direction	Chord Length	Delta
C1	275.00	34.68	S82° 36' 44.85"W	34.65	007.2249

MATCHLINE - SEE SHEET CR1.0



N/F
WILLIAM T. & TERESA K.
HOOKER
PARCEL #:(04760082)
(DB 2398 PG 524)
(PB 16 PG 211)

REV	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
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JASON L. BRYANT, P.E.
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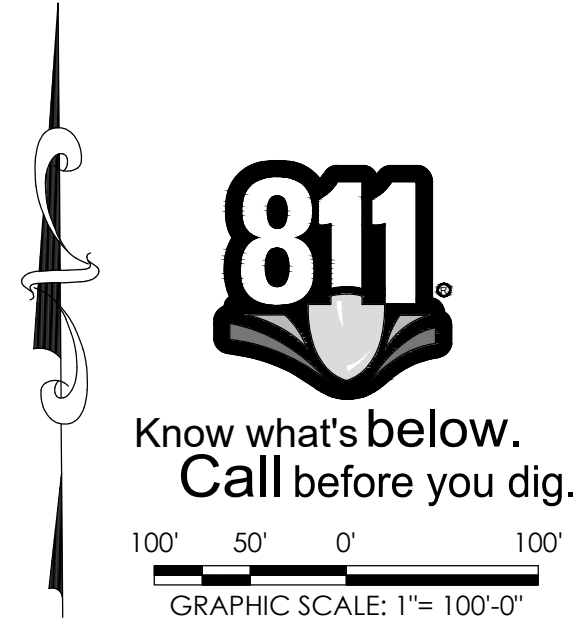
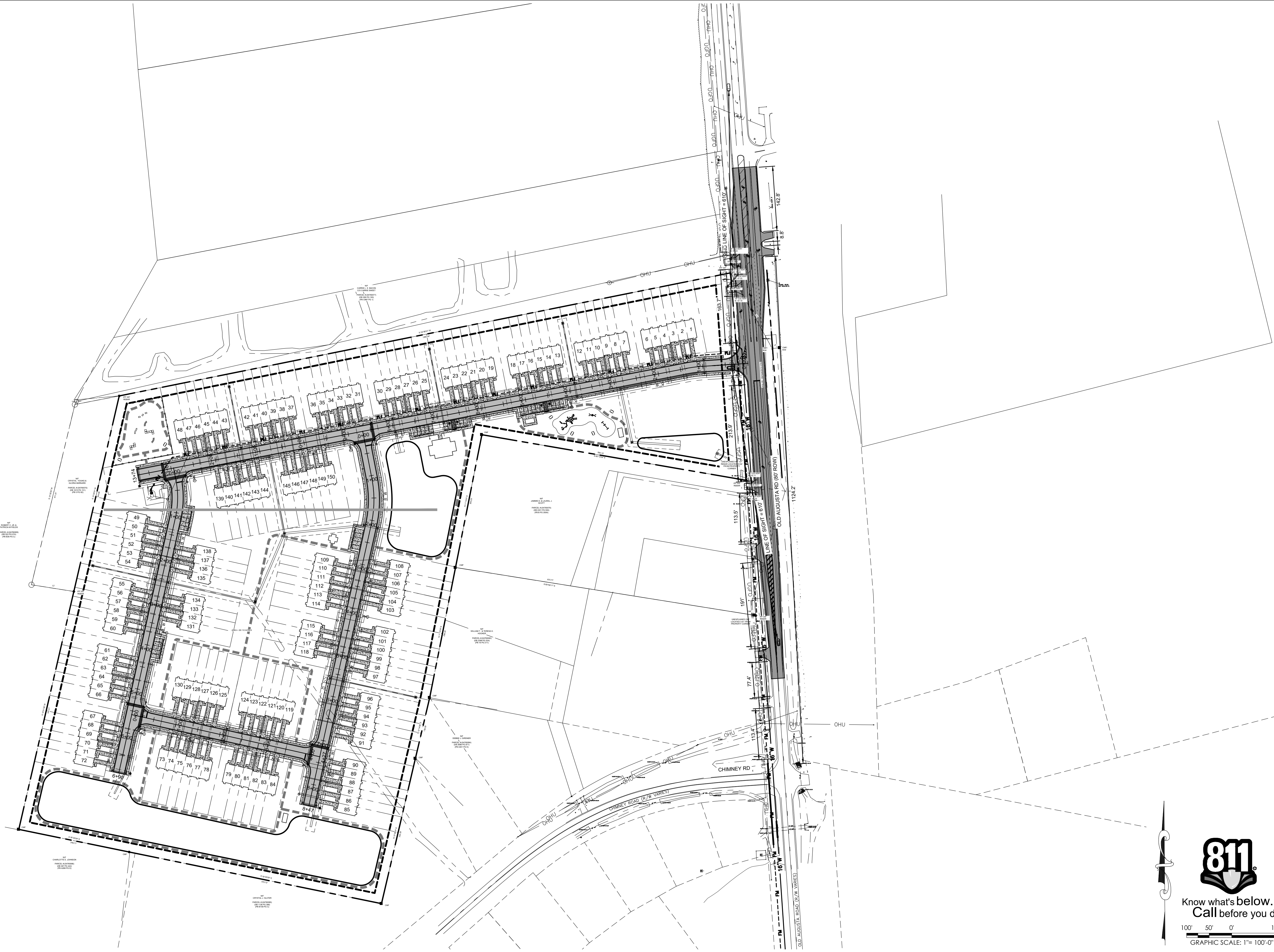
Pittman Engineering Co., LLC
2591 Hwy. 17S Suite 303
Richmond Hill, GA 31324
912-445-0578
www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENTS AND GRADING PLAN
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JUB
Checked By: JUB
Scale: ---
Date: 8/3/23

SHEET
CR1.1

811
Know what's below.
Call before you dig.
GRAPHIC SCALE: 1" = 30'-0"

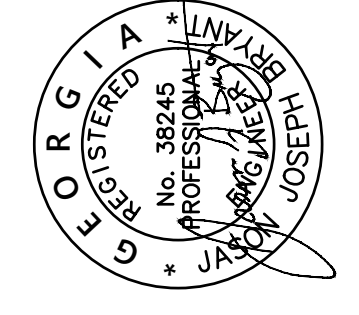


COUNTY ROAD LINE OF SIGHT PLAN
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: ---
 Date: 8/3/23

SHEET
CR1.2

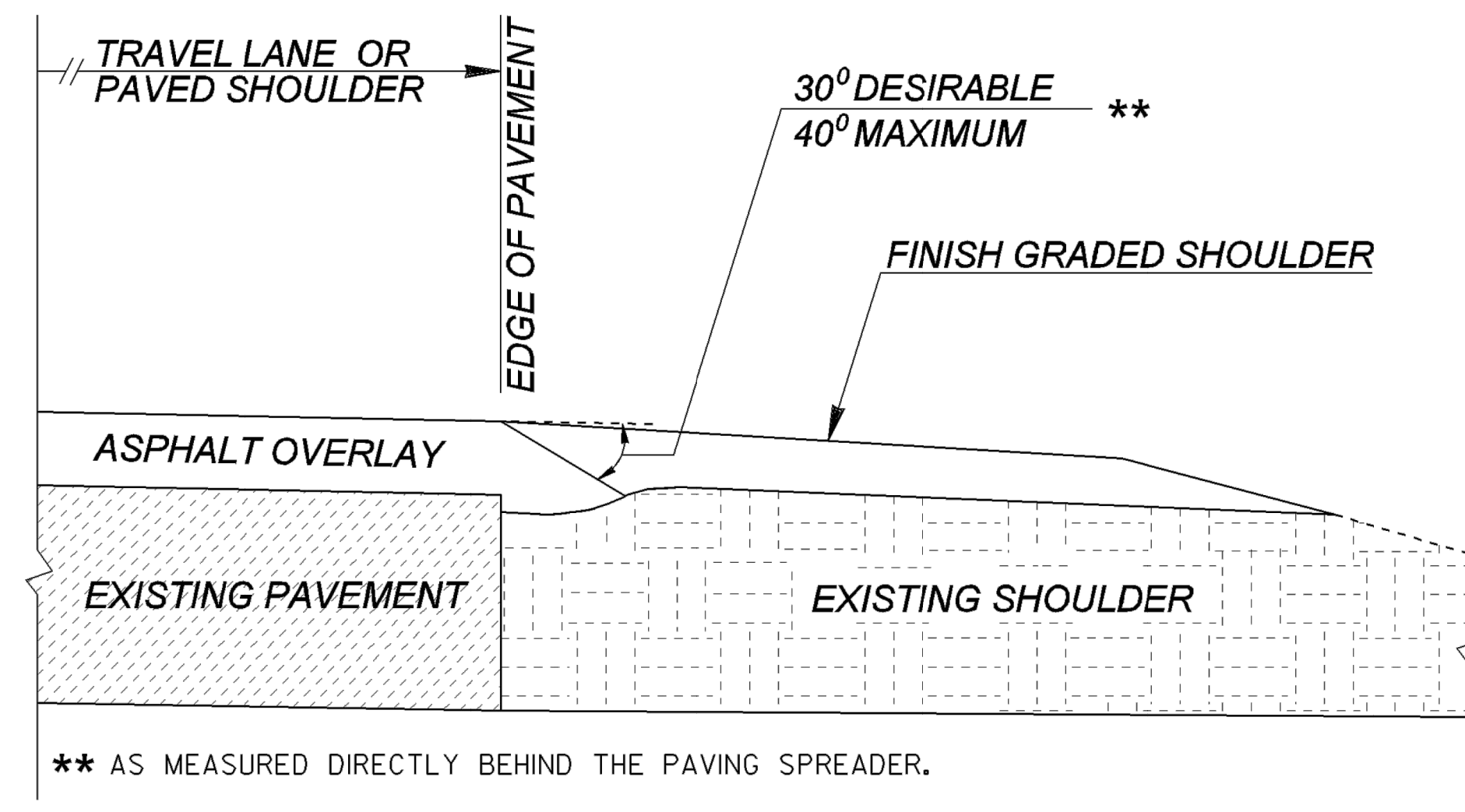
Pittman Engineering Co., LLC
 2591 Hwy 175 Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com



JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

REV.	REVISIONS	BY	DATE
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1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

ASPHALT PAVEMENT - OVERLAY

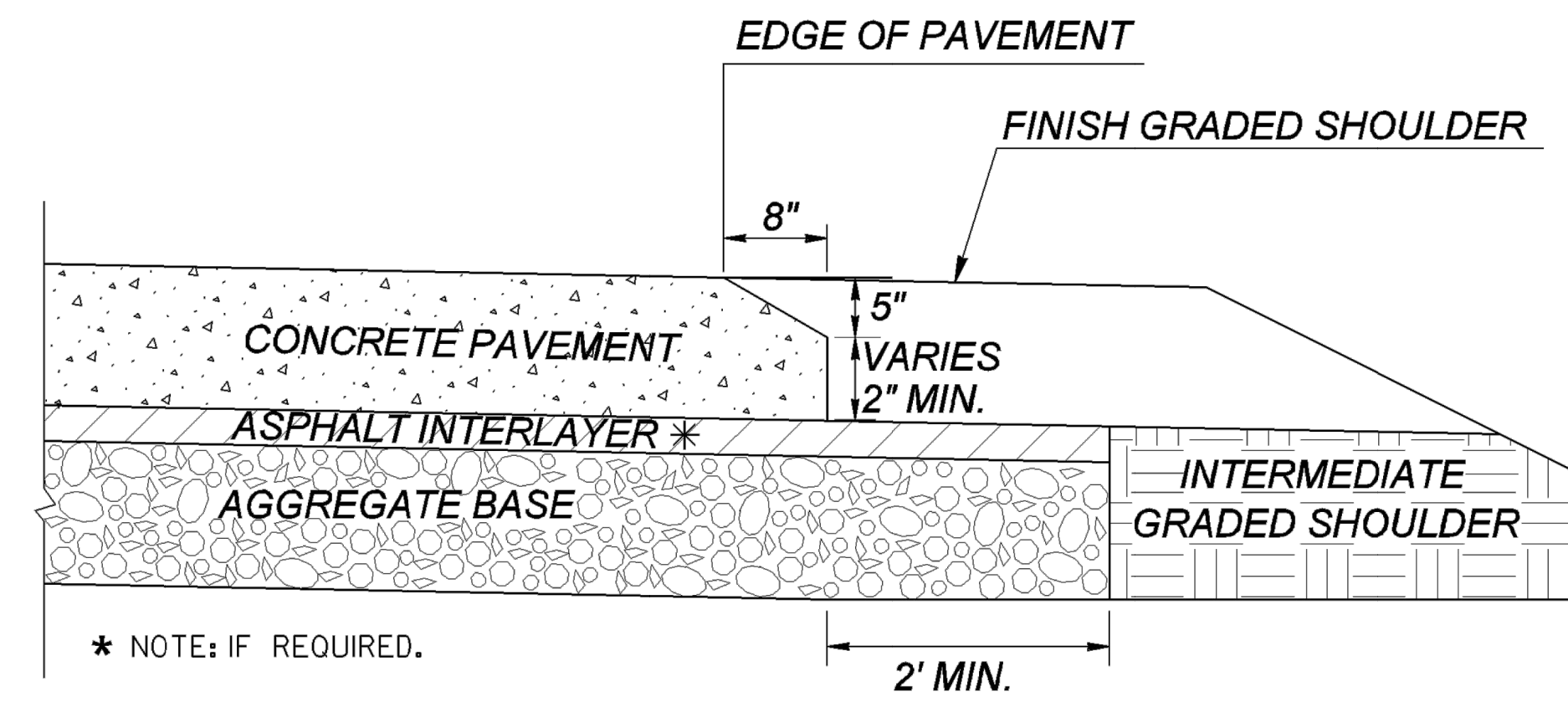


ADDITIONAL QUANTITIES:
DEPTH OF OVERLAY (T), NO RUTTING
(T)² (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) = _____ TN

DEPTH OF OVERLAY (T), WITH 1 IN. RUTTING
(T)² (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) + (T) (IN.) X 0.000882 TN/IN.-FT X LENGTH (FT) = _____ TN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

PLAIN PC CONCRETE PAVEMENT OR ROLLER COMPACTED CONCRETE PAVEMENT

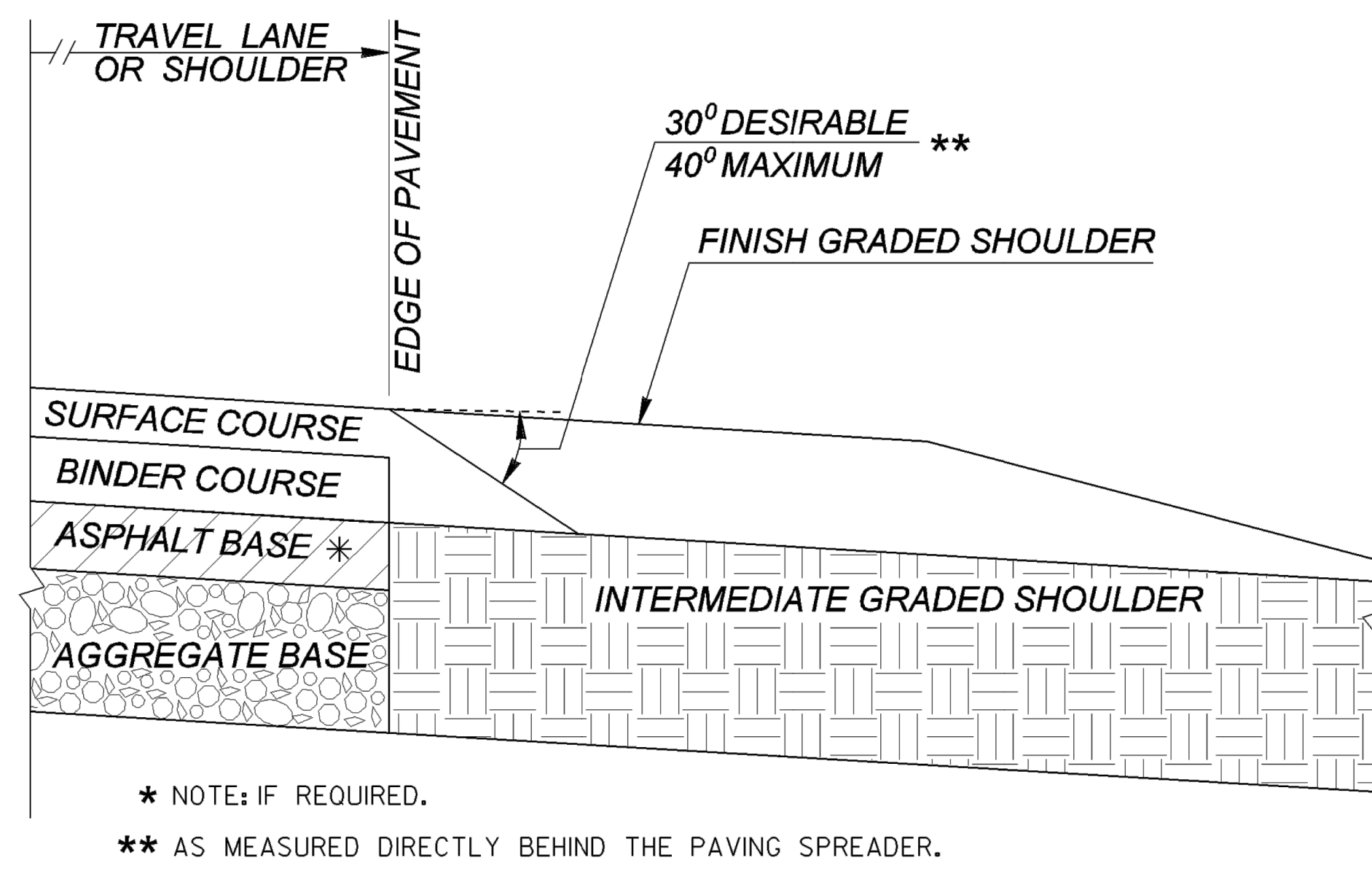


ADDITIONAL QUANTITIES:
CONCRETE
0.07407 SY/FT X LENGTH (FT) = _____ SY

ASPHALT INTERLAYER, IF REQUIRED
(T) IN. X LENGTH (FT) X 0.004074 TN/IN.-FT = _____ TN

AGGREGATE BASE (BASED ON 2.07 TN/CY)
(T) IN. X LENGTH (FT) X 0.0042592 TN/IN.-FT = _____ TN

ASPHALT PAVEMENT - NEW



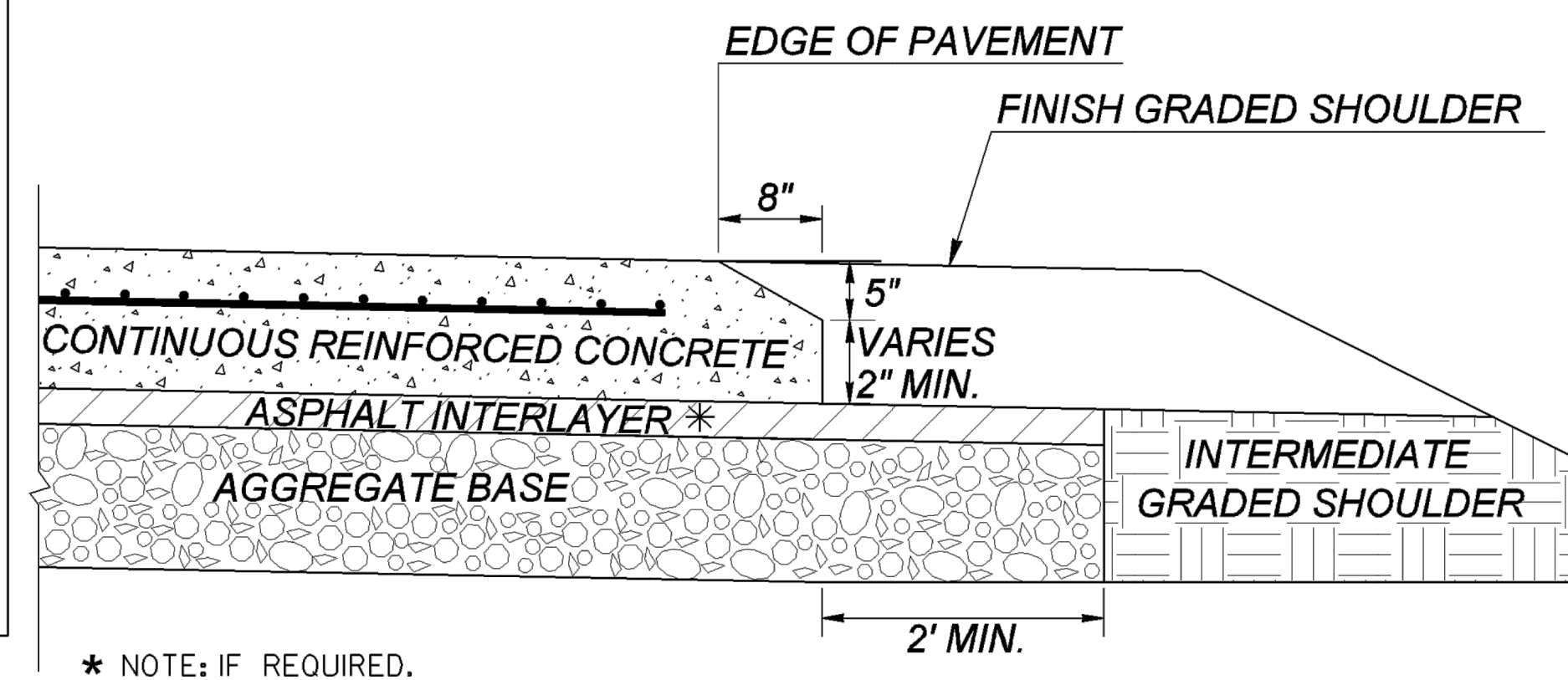
ADDITIONAL QUANTITIES:
SURFACE COURSE PAVING DEPTH (T)
(T)² (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) = _____ TN

GENERAL NOTES:
1. THE SAFETY EDGE SHALL BE CONSTRUCTED AS AN INTEGRAL OPERATION OF THE ROADWAY PAVEMENT PLACEMENT PROCESS.

(ASPHALT PAVEMENT)

- USE AN APPROVED MECHANICAL DEVICE THAT WILL:
 - APPLY COMPACTIVE EFFORT TO THE ASPHALT MIXTURE TO ELIMINATE OBJECTABLE VOIDS AS THE MIXTURE PASSES THROUGH THE WEDGE DEVICE.
 - PRODUCE A WEDGE WITH A UNIFORM TEXTURE, SHAPE, AND DENSITY WHILE AUTOMATICALLY ADJUSTING TO VARYING HEIGHTS ENCOUNTERED ALONG THE ROADWAY SHOULDER.
- A SINGLE-PLATE STRIKE-OFF METHOD SHALL NOT BE USED FOR BITUMINOUS PAVING, AS THE SINGLE-PLATE STRIKE-OFF METHOD HAS BEEN FOUND TO PRODUCE A NON-DURABLE EDGE.
- COMPACTION OF THE EDGE SHOULD NOT BE DONE WITH THE FIRST PASS OF THE ROLLER; WITH THE ROLLER STAYING OFF THE EDGE AT LEAST 6 INCHES. THIS IS IN ORDER TO ALLOW THE EDGE MIX TO SLIGHTLY COOL PRIOR TO COMPACTION.
- SHORT SECTIONS OF HANDWORK ARE ALLOWED, WHEN NECESSARY, FOR TRANSITIONS AND TURNOUTS.

CONTINUOUS REINFORCED CONCRETE PAVEMENT



ADDITIONAL QUANTITIES:
CONCRETE
0.07407 SY/FT X LENGTH (FT) = _____ SY

ASPHALT INTERLAYER, IF REQUIRED
(T) IN. X LENGTH (FT) X 0.004074 TN/IN.-FT = _____ TN

AGGREGATE BASE (BASED ON 2.07 TN/CY)
(T) IN. X LENGTH (FT) X 0.0042592 TN/IN.-FT = _____ TN

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
CONSTRUCTION DETAIL PAVEMENT EDGE TREATMENT ASPHALT AND CONCRETE PAVEMENT	
NO SCALE	SEPTEMBER 2011
TC	REVISION
BY	DES. B.A.S.
CHK.	DRW. G.L.O.
REVIEW	CHK. D.G.P.
	REVIEW B.A.S.
NUMBER P-7	

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
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2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23
		BY

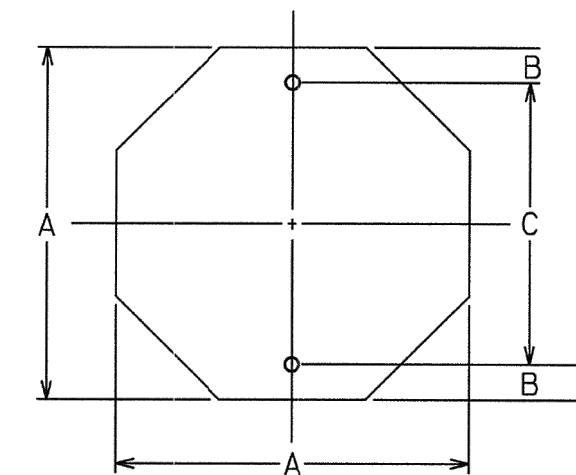
JASON I. BRYANT, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL CERTIFICATION #7897

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

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

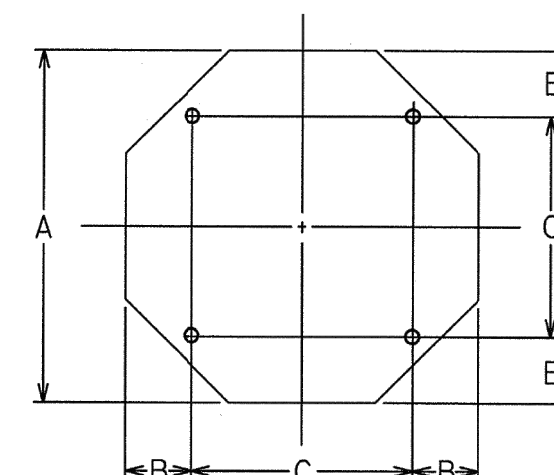
Project No. 2023-6
Drawn By: JAF
Designed By: JUB
Checked By: JUB
Scale: N.T.S.
Date: 8/3/23

SHEET
CR2.0



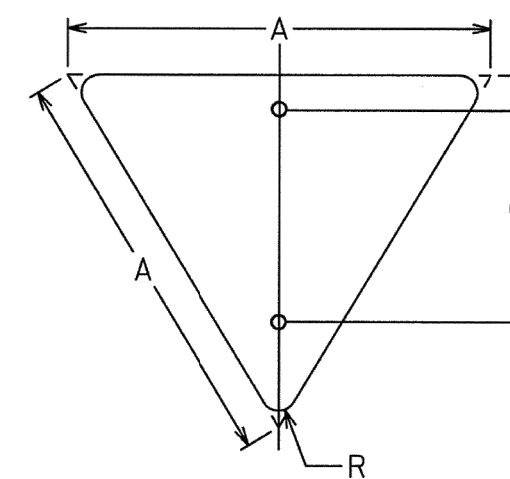
OCTAGON

A	B	C
24	3	18
30	3	24
36	3	30



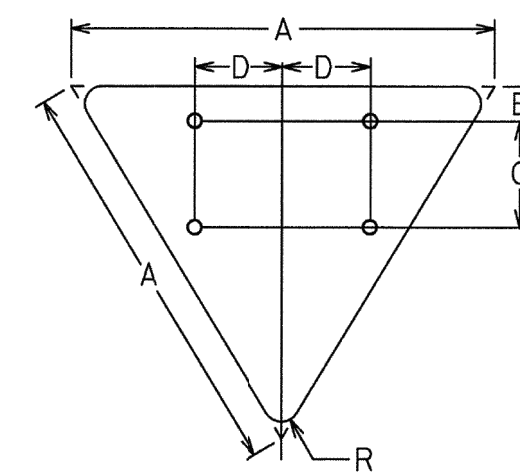
EQUILATERAL TRIANGLE

A	B	C
48	9	30

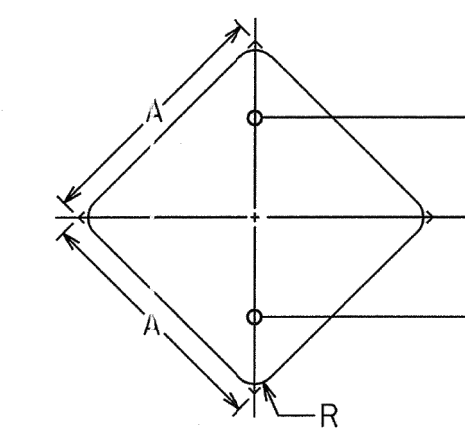


DIAMOND

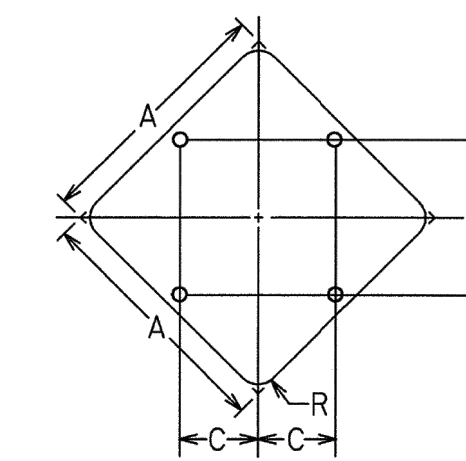
A	B	C	R
30	3	18	1 1/2
36	3	21	2
48	3	27	3



A	B	C	D	R
60	3	18	15	3

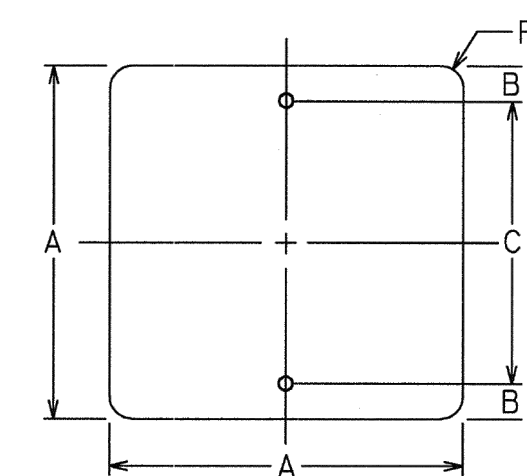


A	B	R
24	12	1 1/2
30	15	1 7/8
36	18	2 1/4



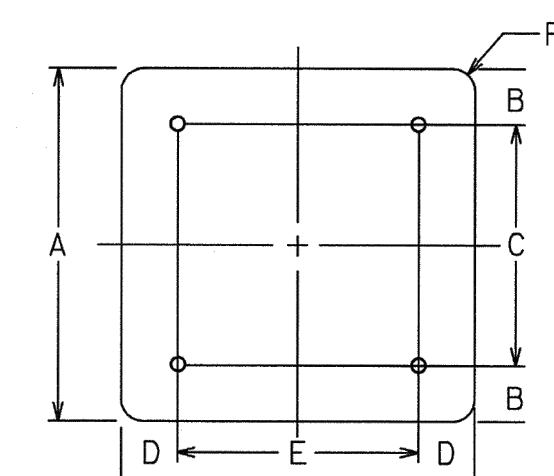
A	B	C	R
36	10	10	2 1/4
48	15	15	3
60	18	18	3 3/4

* FOR TWO POST ERECTION

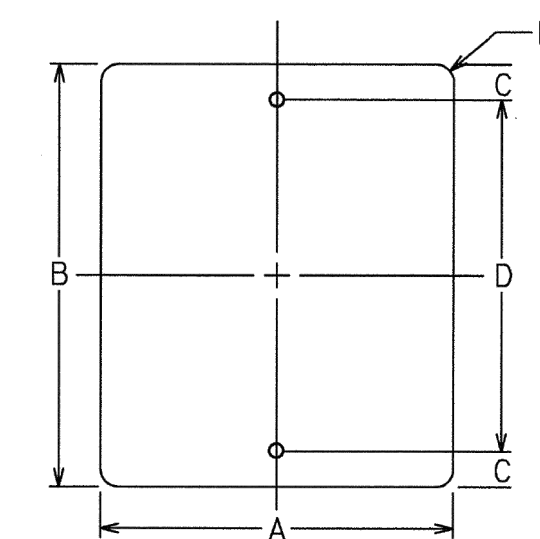


SQUARE

A	B	C	R
18	3	12	1 1/2
24	3	18	1 1/2
30	3	24	1 7/8

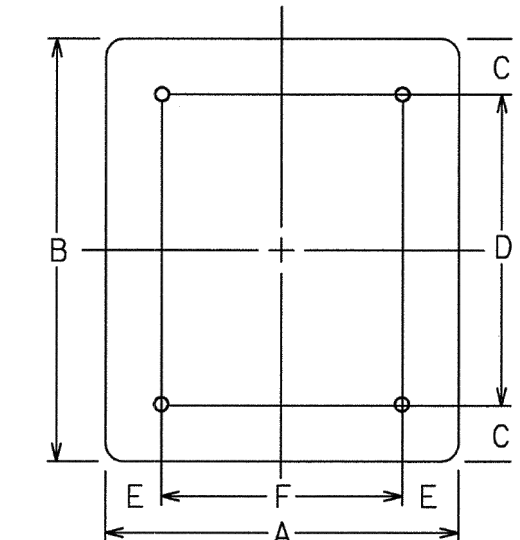


A	B	C	D	E	R
36	6	24	6	24	2 1/4
48	6	36	6	36	3

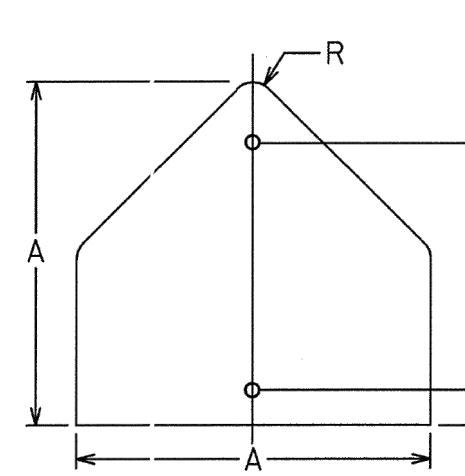


VERTICAL RECTANGLE

A	B	C	D	R
12	18	1 1/2	15	1 1/2
18	24	3	18	1 1/2
24	30	3	24	1 1/2
30	36	3	30	1 7/8

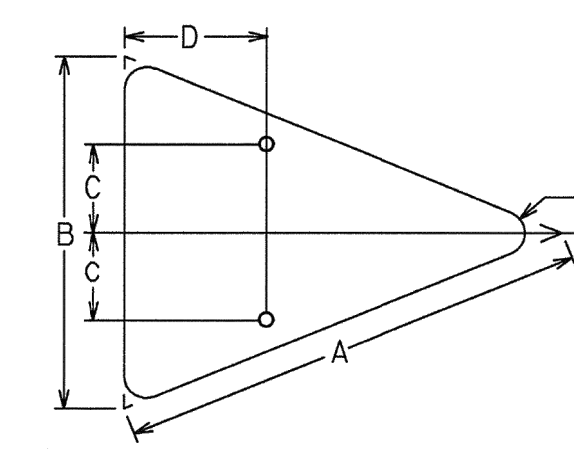


A	B	C	D	E	F	R
36	48	6	36	6	24	2 1/4
48	60	6	48	9	30	3



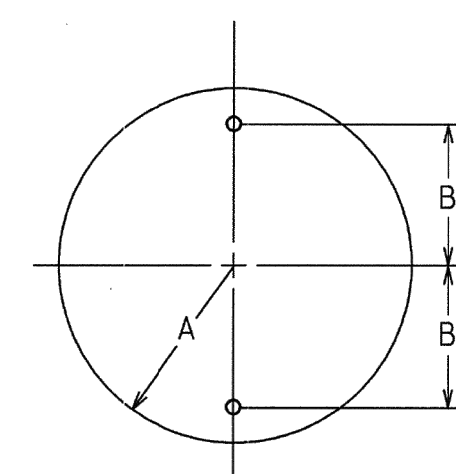
PENTAGON

A	B	C	R
30	21	3	1 7/8
36	24	3	2 1/4



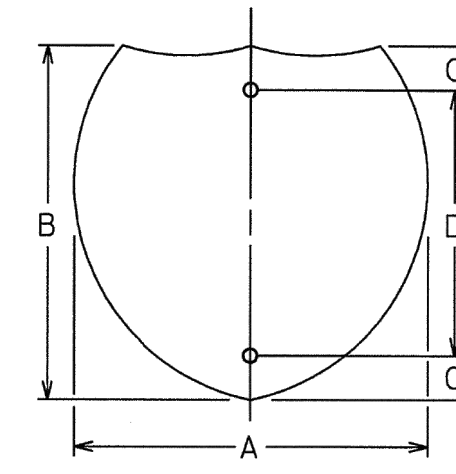
ISOSCELES TRIANGLE

A	B	C	D	R
40	30	7 1/2	12	1 7/8
48	36	9	15	2 1/4



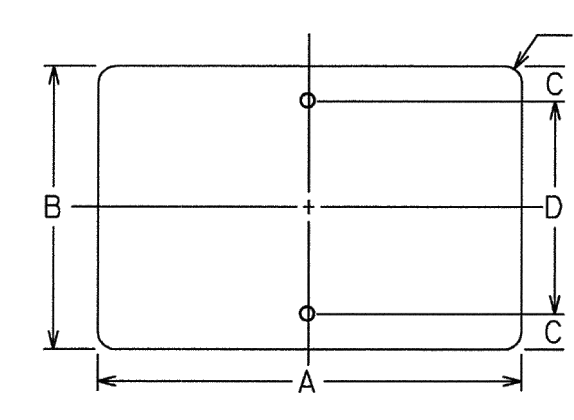
CIRCLE

A	B
15	12
18	15



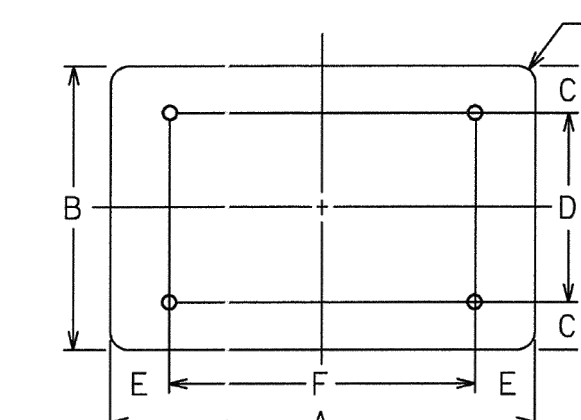
INTERSTATE SHIELD

A	B	C	D
24	24	3	18
30	24	3	18
36	36	6	24
45	36	6	24



HORIZONTAL RECTANGLE

A	B	C	D	R
21	15	1 1/2	12	1 1/2
24	12	1 1/2	9	1 1/2
24	18	3	12	1 1/2
30	15	1 1/2	12	1 1/2
30	24	3	18	1 1/2
36	12	1 1/2	9	1 1/2
36	24	3	18	1 1/2
48	12	1 1/2	9	1 1/2
48	24	3	18	1 7/8



A	B	C	D	E	F	R
48	36	6	24	9	30	2 1/4
60	24	3	18	12	36	1 1/2
60	36	6	24	12	36	2 1/4

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DATE	REVISIONS	GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY & DESIGN
		DETAILS OF SIGN PLATES
		NO SCALE JANUARY 2000

REV.	BY	DATE	REVISIONS
5	JAF	11/12/24	REVISED WATER CONNECTION TO EFF. CNTY.
4	JAF	7/23/24	REVISED PER EPD COMMENTS
3	JAF	4/16/24	REVISED PER EFFINGHAM CO. COMMENTS
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1	JAF	10/31/23	REVISED PER CONSOLIDATED UTILITIES COMMENTS

JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

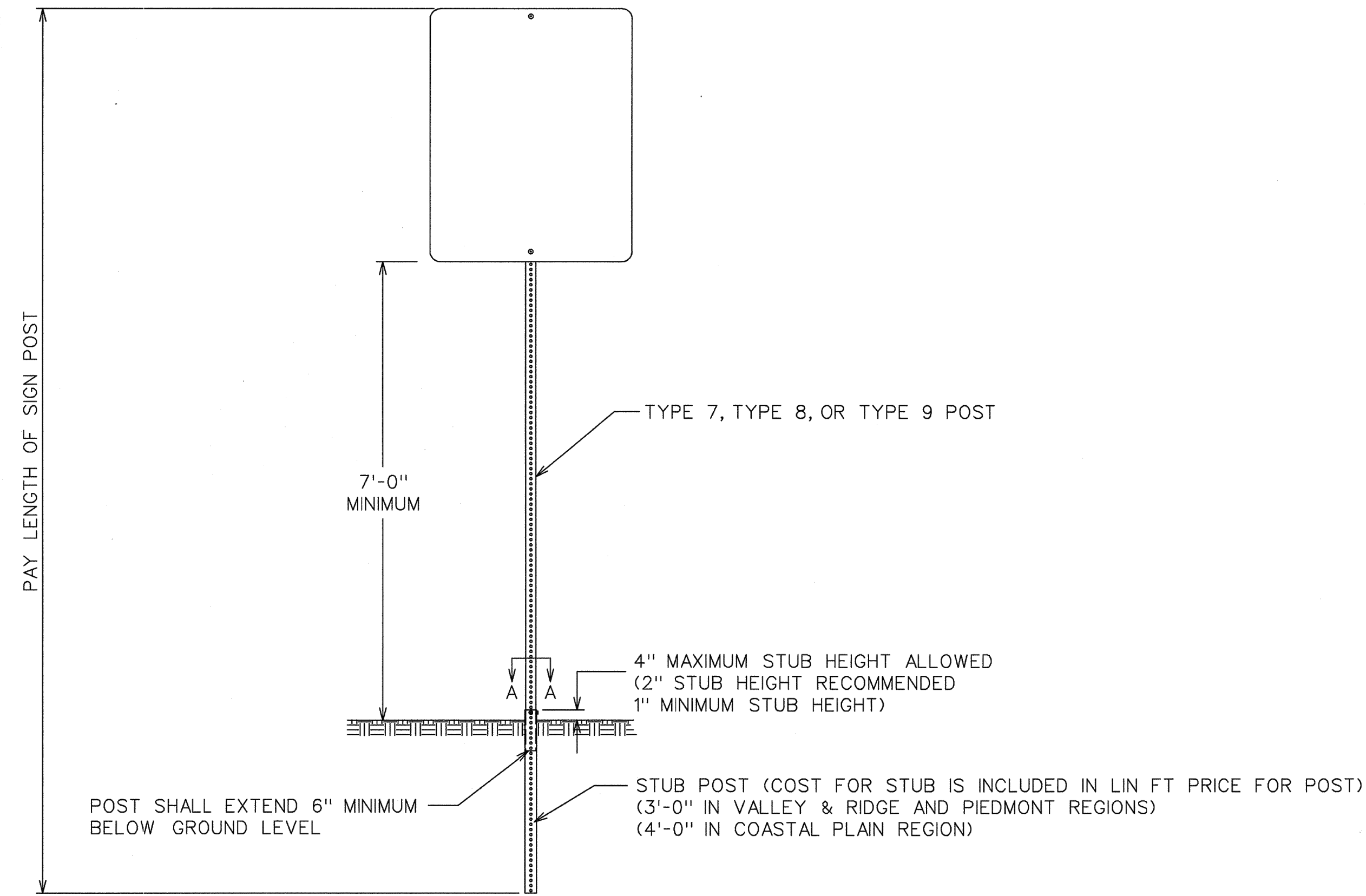
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COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

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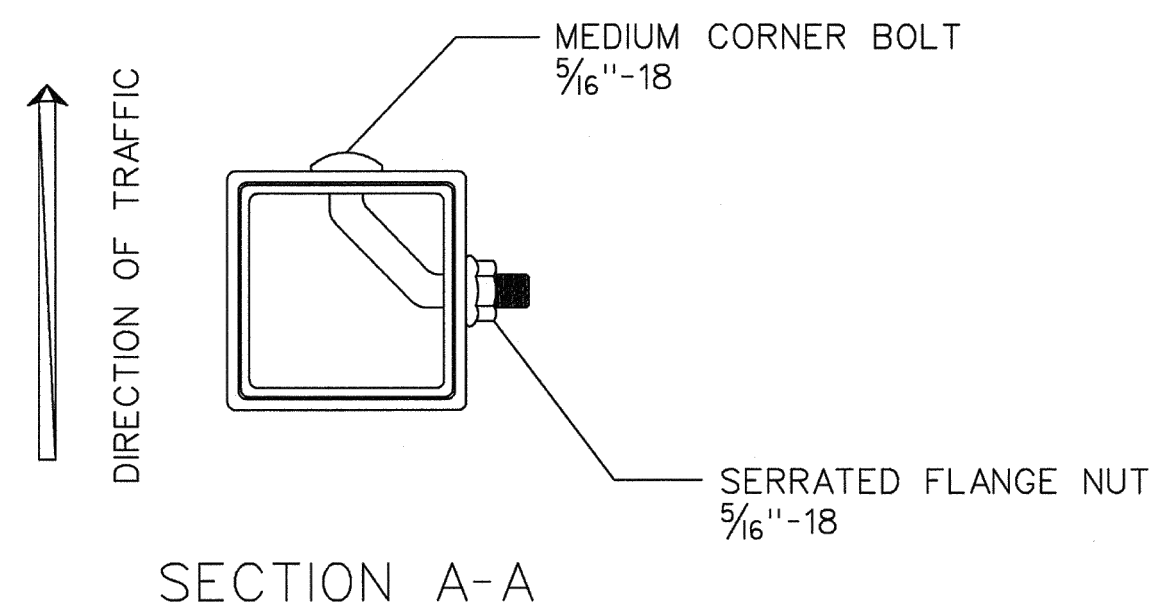
SHEET
CR2.1

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



FRONT VIEW

POST	STUB SIZE
TYPE 7	2 1/4" x 2 1/4"
TYPE 8	2 3/4" x 2 3/4"
TYPE 9	2 1/2" x 2 1/2"



SECTION A-A

SIGN POST SELECTION CHART

70 MPH Wind Load Chart • 15% Gust Factor

Sign Centroid	SLIP BASE NOT REQUIRED				GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED				
	TYPE 7 2 1/4" ga.		TYPE 9 2 1/4" 14 ga.	TYPE 8 2 1/2" 12 ga.	TYPE 8 2 1/2" 12 ga.		TYPE 8 w/TYPE 9 Insert 2 1/2" 12 ga. W/2 1/4" 14 ga.		
	1 Post	2 Post	1 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post
	SQUARE FOOTAGE				SQUARE FOOTAGE				
6'	13.50	27.00	19.25	30.00	60.00	90.00	49.25	98.50	147.75
7'	11.60	23.20	16.50	25.75	51.50	77.25	42.25	84.50	126.75
8'	10.15	20.30	14.45	22.55	45.10	67.65	37.00	74.00	111.00
9'	9.00	18.00	12.85	20.00	40.00	60.00	32.85	65.70	98.55
10'	8.10	16.20	11.55	18.00	36.00	54.00	29.55	59.10	88.65
11'	7.40	14.80	10.50	16.40	32.80	49.20	26.90	53.80	80.70
12'	6.80	13.60	9.65	15.00	30.00	45.00	24.65	49.30	73.95
13'	6.25	12.50	8.90	13.85	27.70	41.55	22.75	45.50	68.25
14'	5.80	11.60	8.25	12.90	25.80	38.70	21.15	42.30	63.45
15'	5.00	10.00	6.45	10.10	20.20	30.30	16.55	33.10	49.65
16'	4.70	9.40	6.05	9.45	18.90	28.35	15.50	31.00	46.50
17'	4.40	8.80	5.70	8.90	17.80	26.70	14.60	29.20	43.80
18'	4.15	8.30	5.40	8.40	16.80	25.20	13.80	27.60	41.40
19'	3.95	7.90	5.10	7.95	15.90	23.85	13.05	26.10	39.15
20'	3.75	7.50	4.85	7.55	15.10	22.65	12.40	24.80	37.20

SIGN CENTROID IS DISTANCE FROM GROUND LEVEL TO BOTTOM OF SIGN PLUS HALF THE HEIGHT OF SIGN.
 EXAMPLE: 24" X 48" SIGN THAT IS 7 FEET FROM GROUND TO BOTTOM OF SIGN. ADD HALF OF 48" (24" OR 2 FT) PLUS 7 FT. = 9' CENTROID.
 SIGN PLATE SHALL NOT EXCEED 48" IN WIDTH ON A SINGLE POST.

* TYPE 9 INSERT SHALL BE A CONTINUOUS POST INSERTED INTO THE TYPE 8 POST WHERE REQUIRED. THE INSERT POST SHALL EXTEND FROM THE BOTTOM OF THE SLIP BASE UPPER ASSEMBLY TO 4" BELOW THE BOTTOM OF THE SIGN. THE INSERT POST SHALL NOT EXTEND ABOVE THE BOTTOM OF THE SIGN. PAYMENT FOR THE INSERT POST SHALL BE PER LINEAR FOOT OF TYPE 9 POST.

GROUND MOUNTED BREAKAWAY SIGN SUPPORT WILL BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR THIS WORK SHALL INCLUDE THE UPPER AND LOWER ASSEMBLY, STUB POST, CLASS "A" CONCRETE, ALL HARDWARE NECESSARY TO COMPLETE THE INSTALLATION, AND BE INCLUDED IN THE BID PRICE SUBMITTED FOR ITEM 636-3010.

DATE	REVISIONS	GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY & DESIGN
		TYPE 7, 8, AND 9 SQUARE TUBE POST INSTALLATION DETAIL
		NO SCALE JULY 2002

T-3A

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

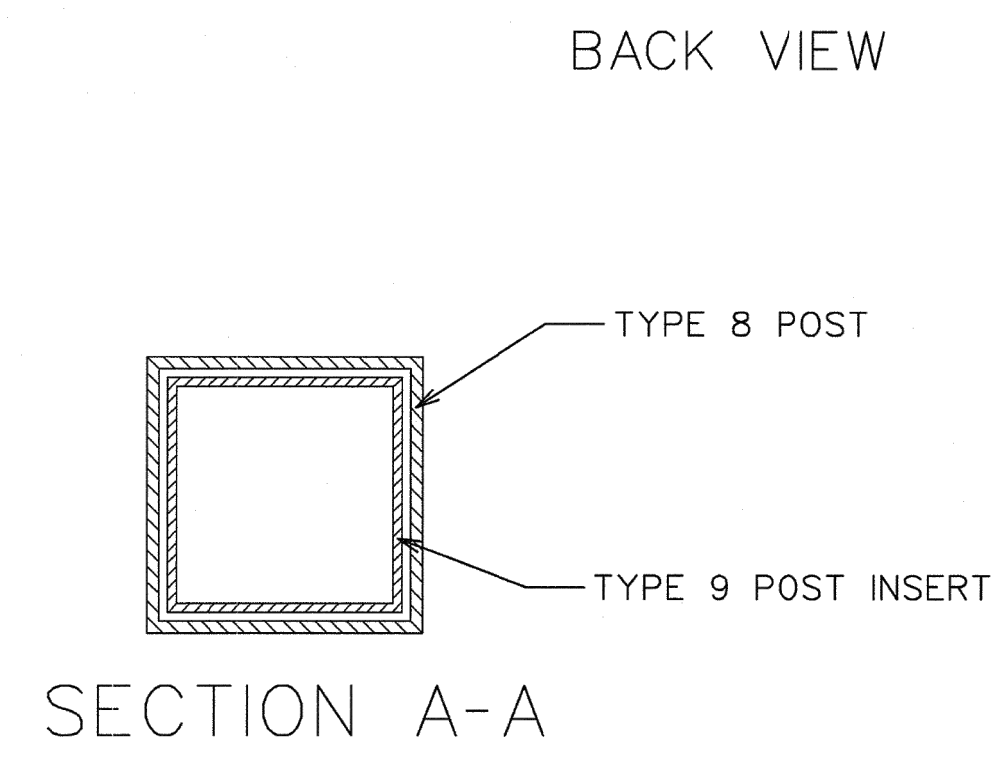
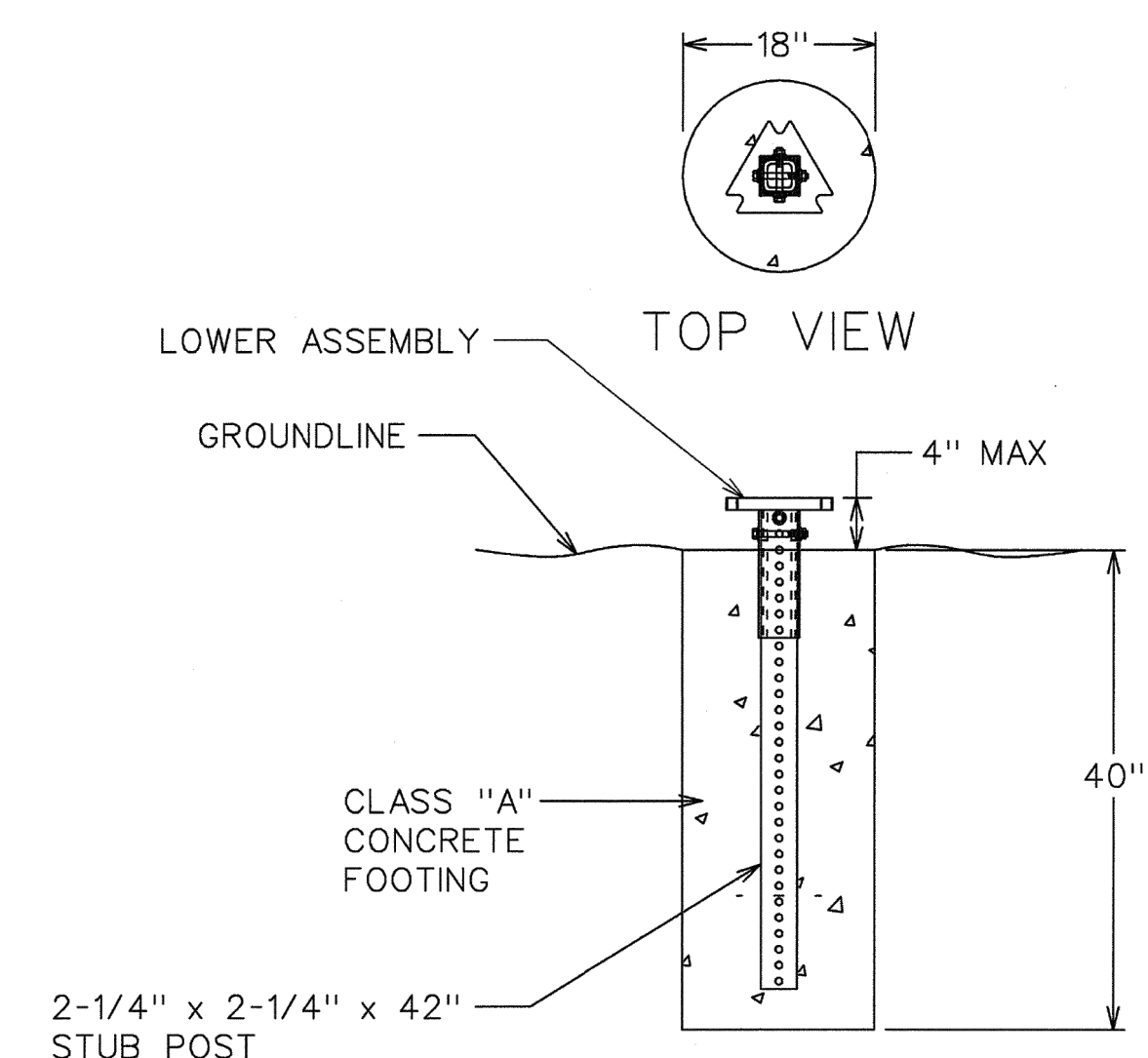
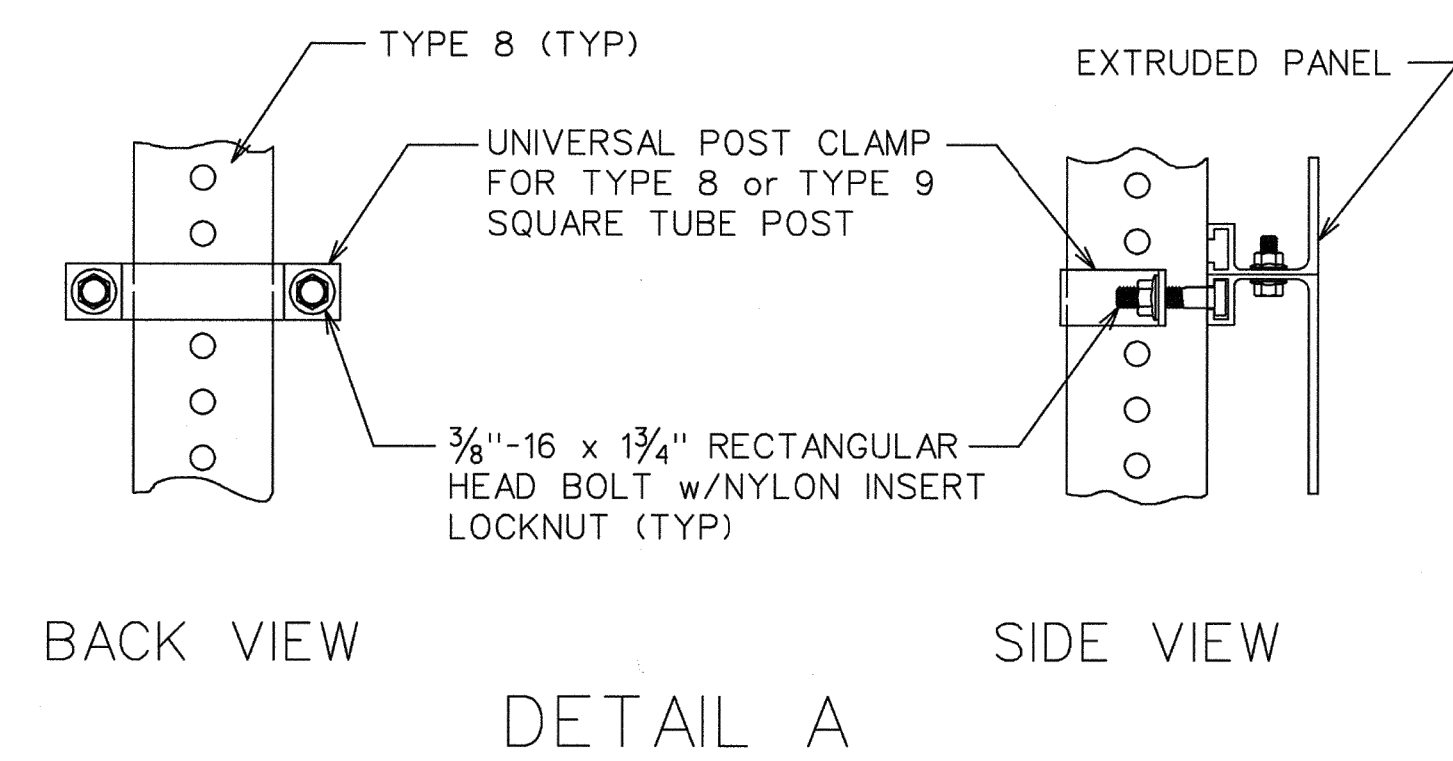
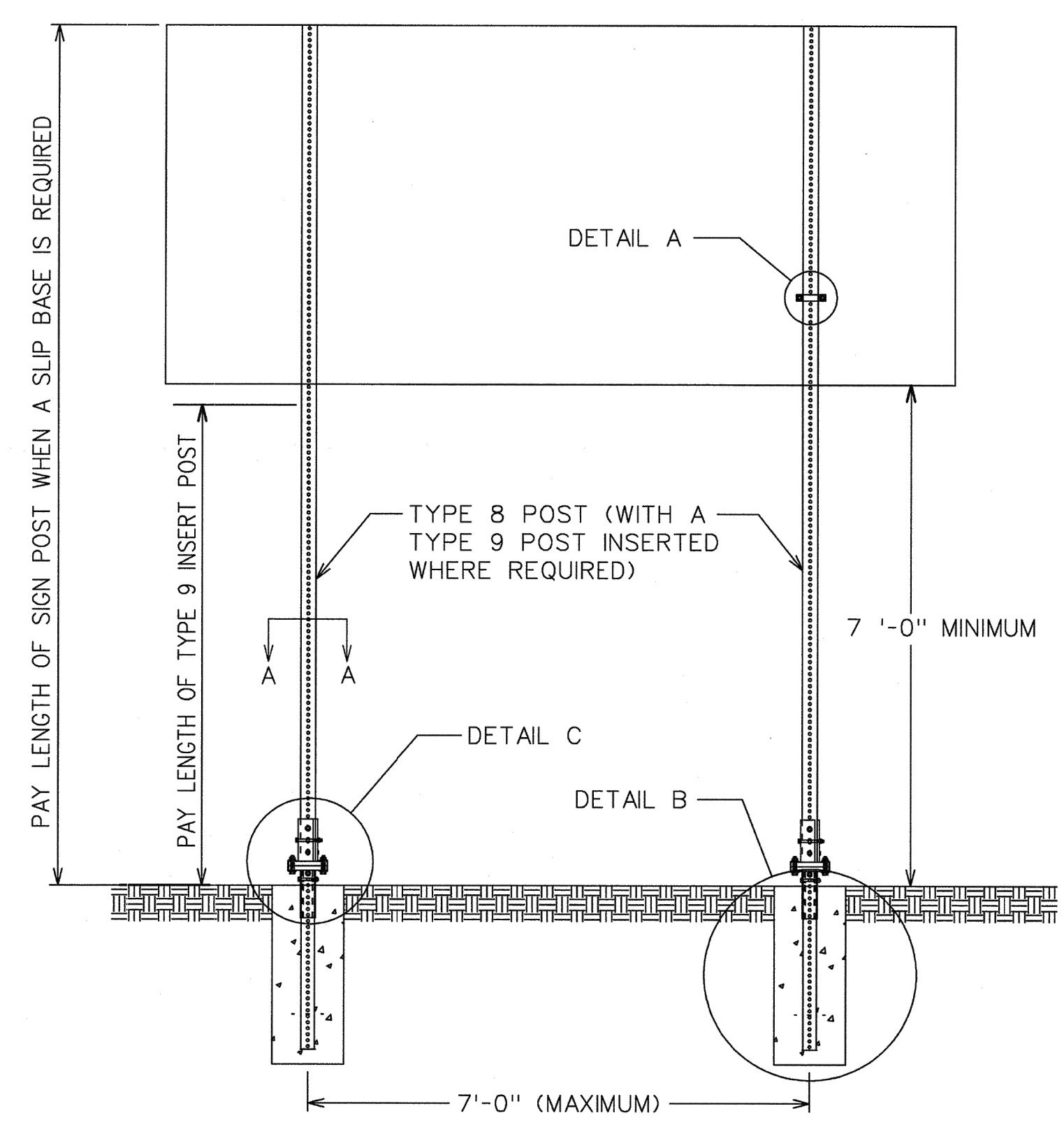
PITTMAN ENGINEERING
 2591 Hwy 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

SHEET
CR2.2

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



SIGN POST SELECTION CHART

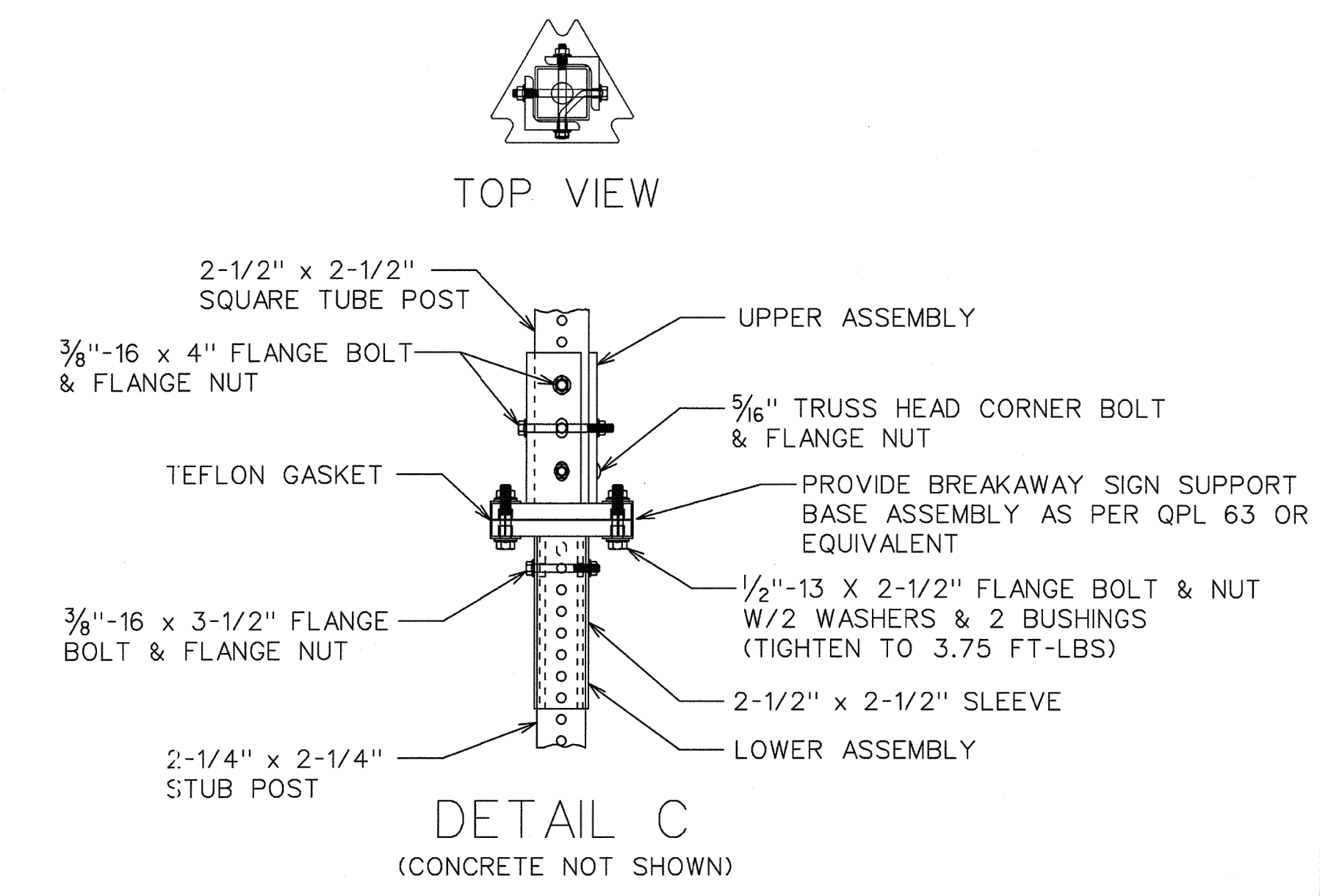
70MPH Wind Load Chart + 15% Gust Factor

Sign Centroid	SLIP BASE NOT REQUIRED			GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED					
	TYPE 7 2 1/4" 14 ga.	TYPE 9 2 1/4" 14 ga.	TYPE 8 2 1/2" 12 ga.	TYPE 8 2 1/2" 12 ga.		TYPE 8 w / TYPE 9 Insert 2 1/2" 12 ga. w / 2 1/4" 14 ga.			
	1 Post	2 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post	
	SQUARE FOOTAGE			SQUARE FOOTAGE					
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DATE	REVISIONS	GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY & DESIGN
		DETAILS OF SQUARE TUBE POST (BREAKAWAY SIGN SUPPORT)
		NO SCALE July 2002

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL CERTIFICATION #73897

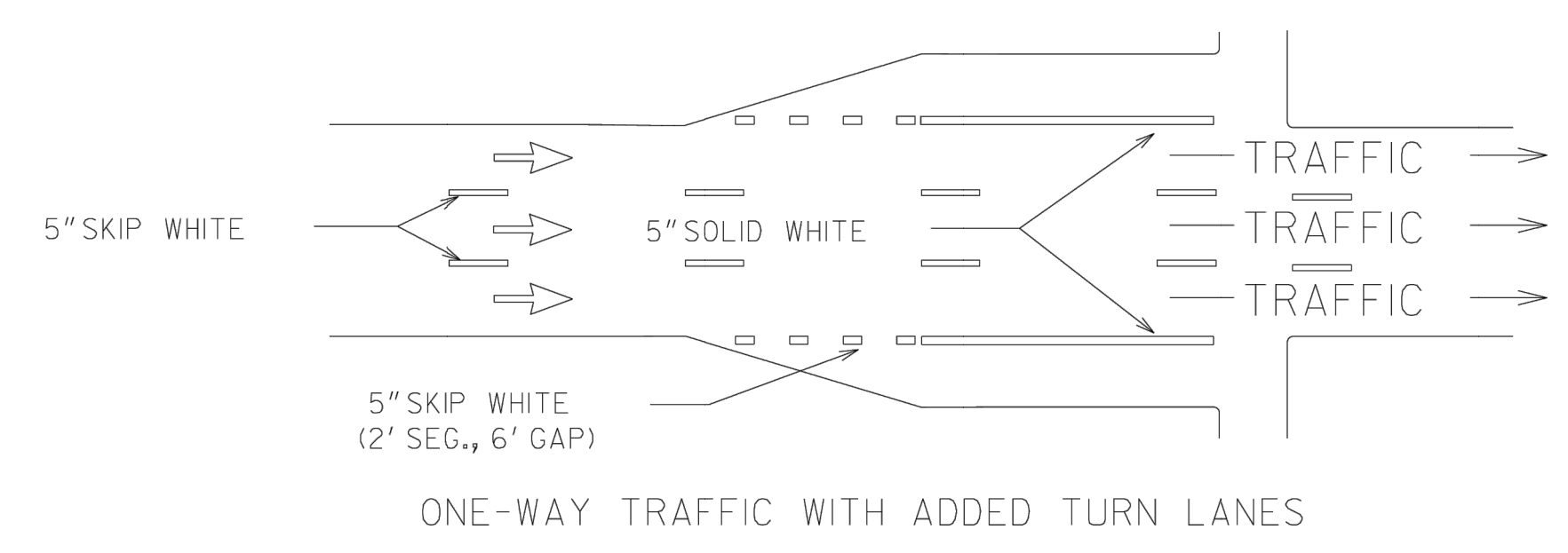
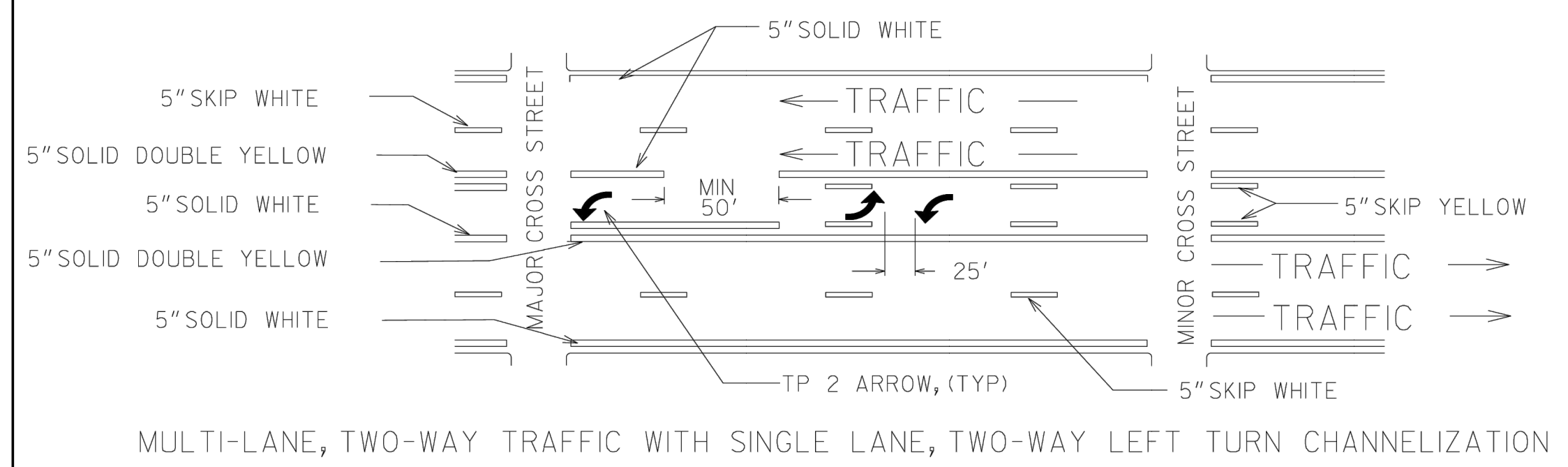
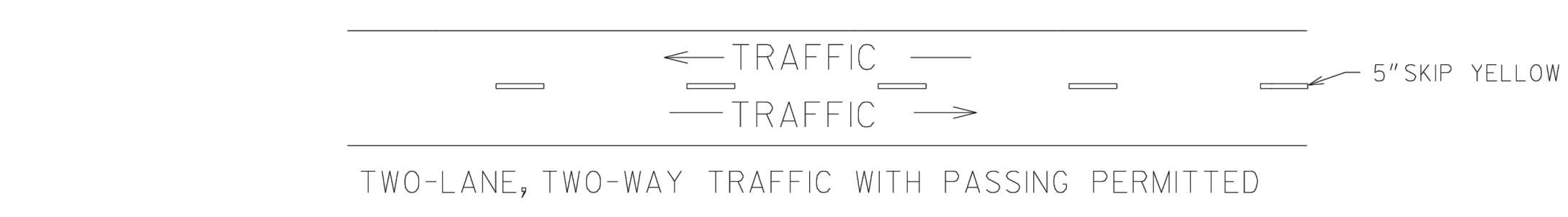
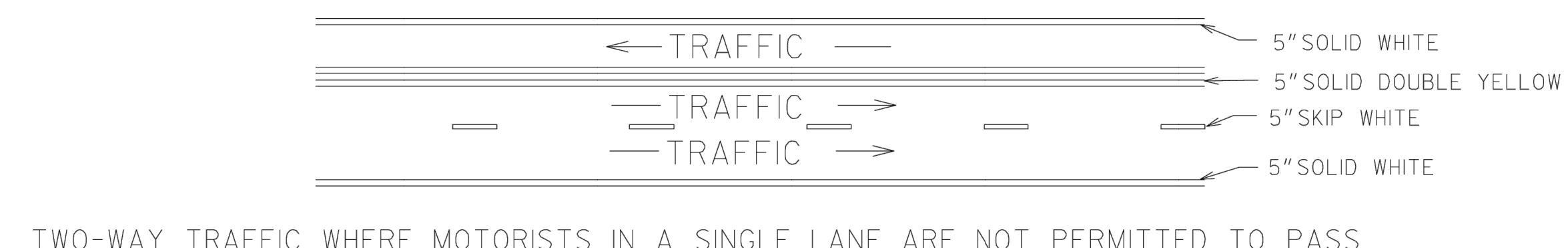
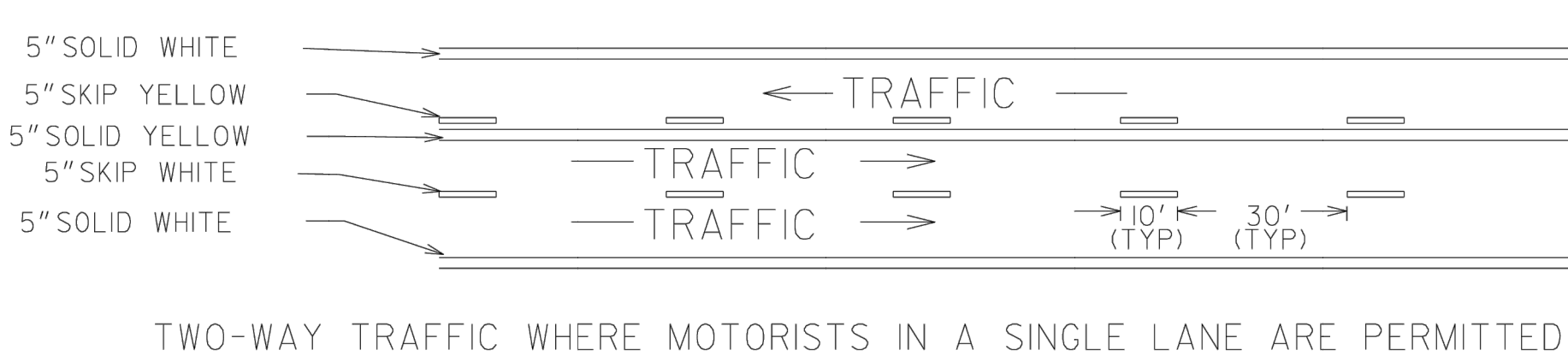
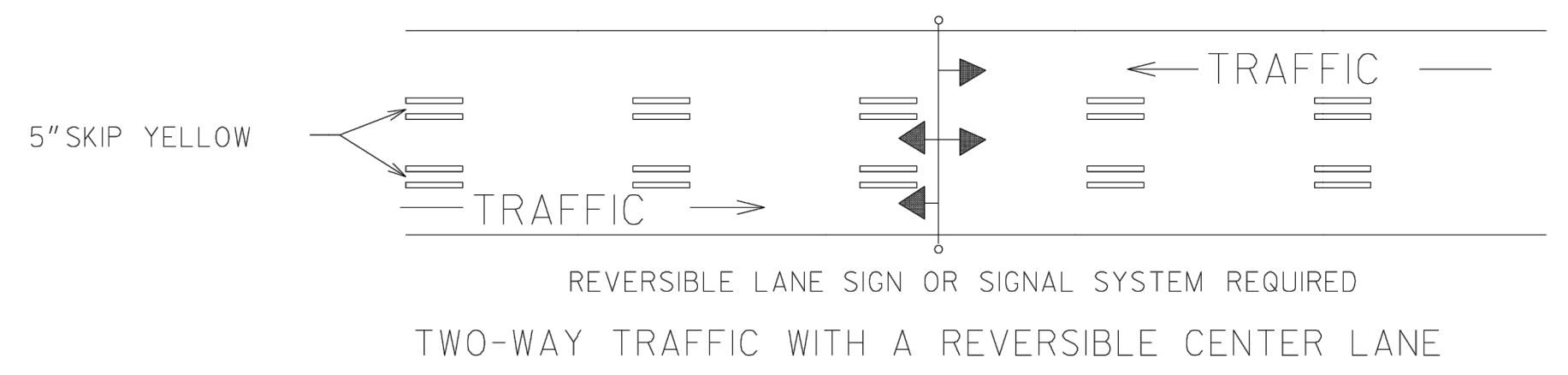
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 2591 Hwy. 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

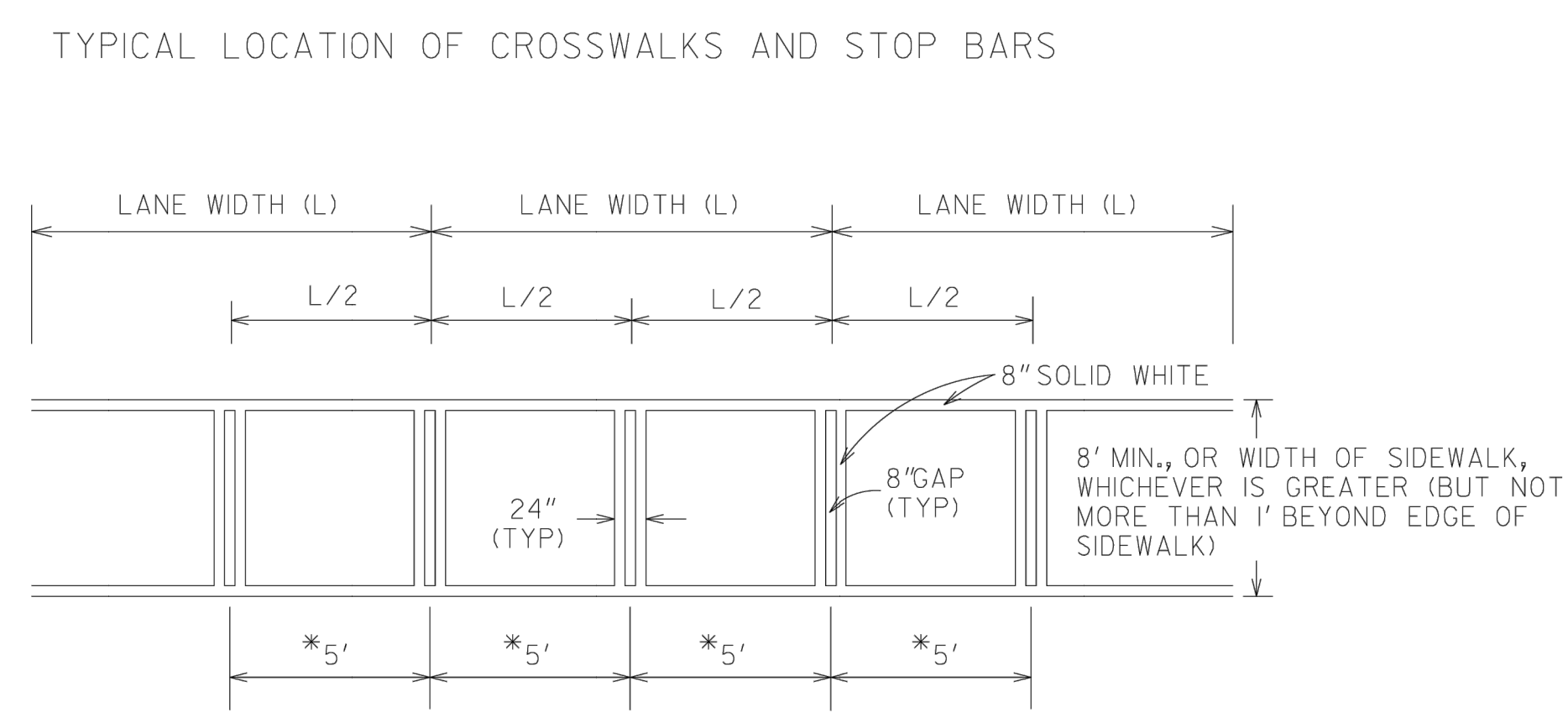
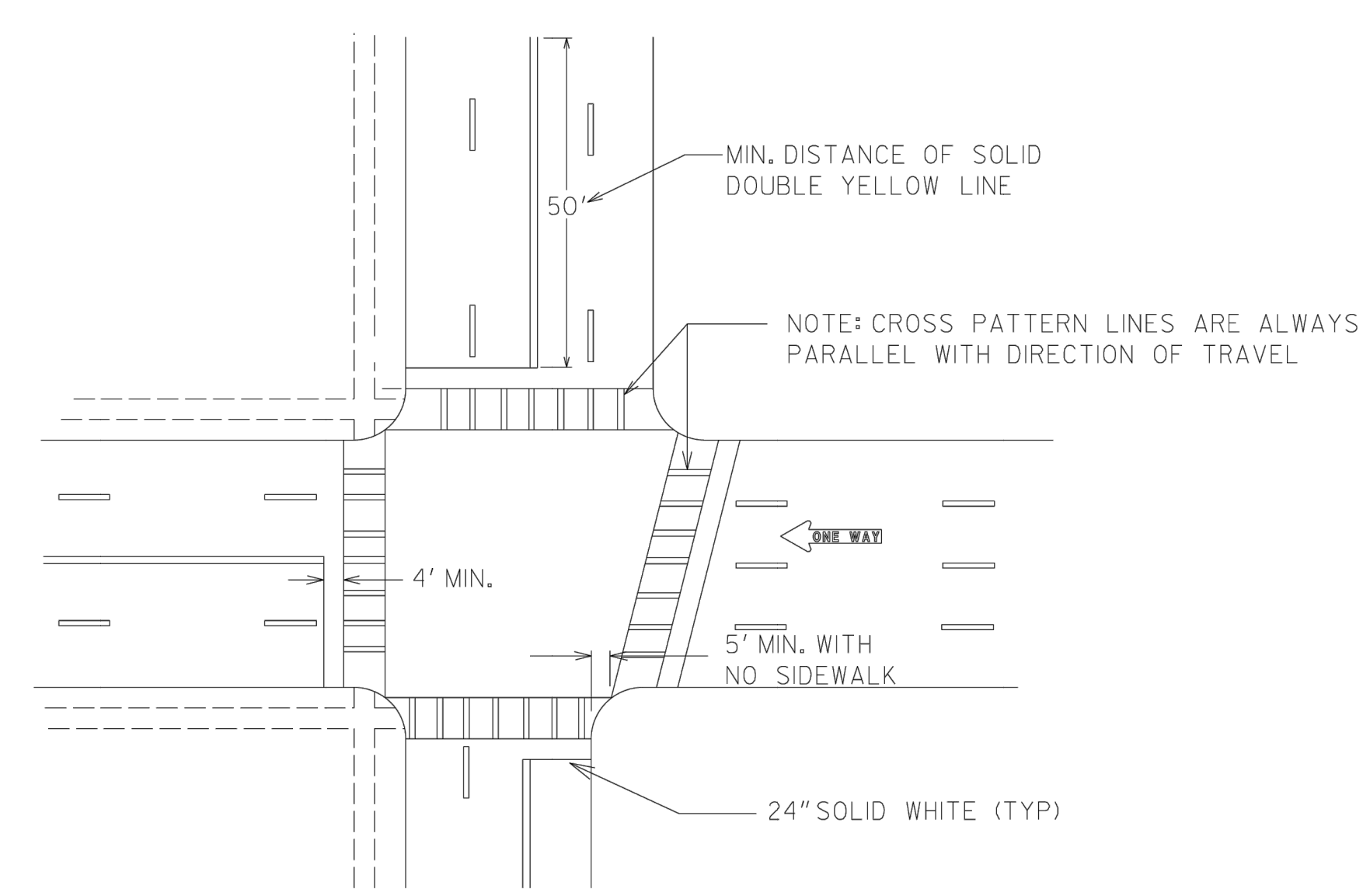
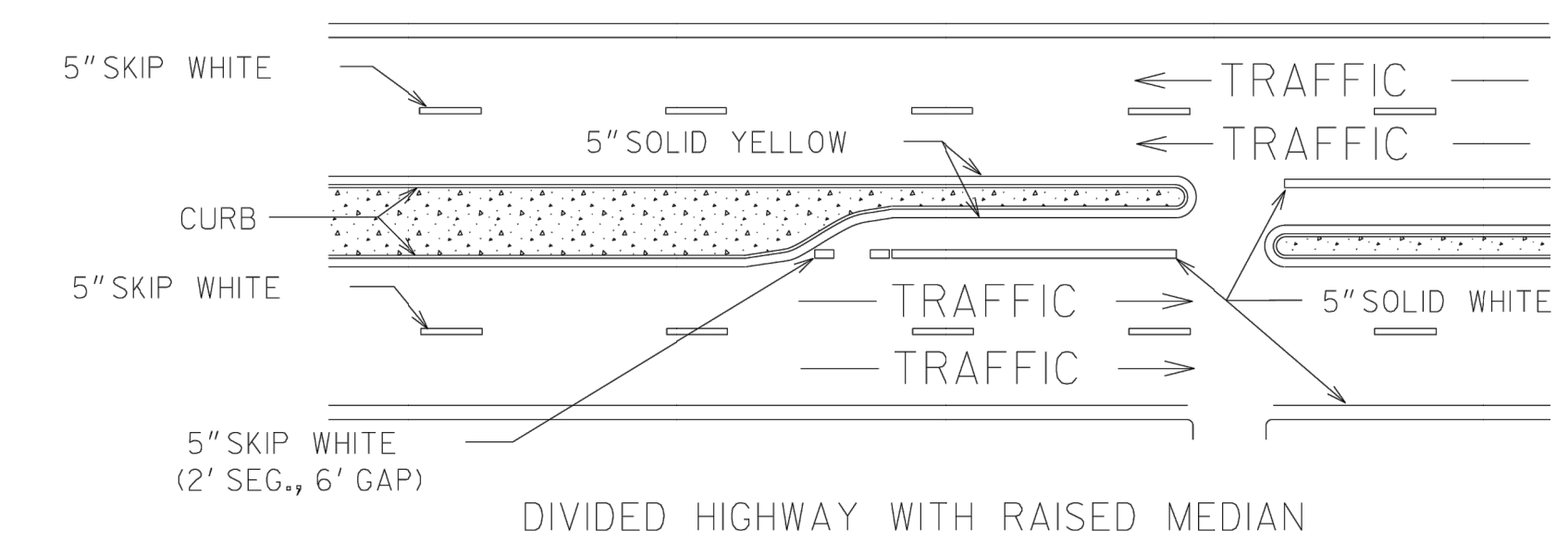
Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

SHEET
CR2.3

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



- GENERAL NOTES:**
1. SPACING BETWEEN DOUBLE LINES SHALL BE EQUAL TO THE LINE WIDTH.
 2. EDGE LINES SHALL BE PLACED A MINIMUM OF 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.
 3. CONTRAST MARKINGS FOR SKIP STRIPING SHALL BE AS SHOWN IN DETAIL T-IIIB.



*USE WHERE THE LANE WIDTH EXCEEDS 12' OR WHERE LANE LINES HAVE BEEN OMITTED

CROSSWALK DETAIL

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
CONSTRUCTION DETAILS PAVEMENT MARKING PLACEMENT NON-LIMITED ACCESS ROADWAY	
NO SCALE	JANUARY 2000
DESIGNED _____ DRAWN _____ TRACED _____ CHECKED _____	NUMBER T-IIA

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

JASON J. BRYANT, P.E.
CIVIL ENGINEER
DESIGN PROFESSIONAL
CERTIFICATION #73897

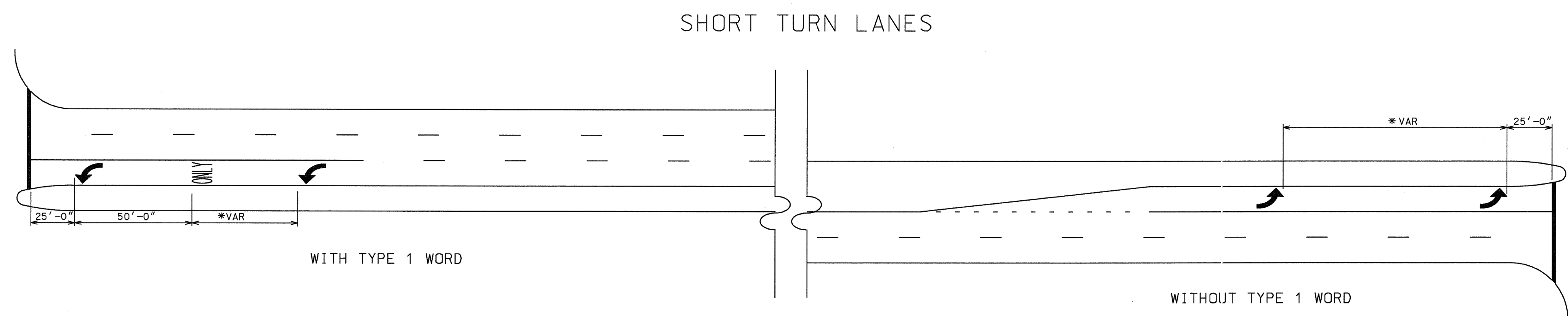
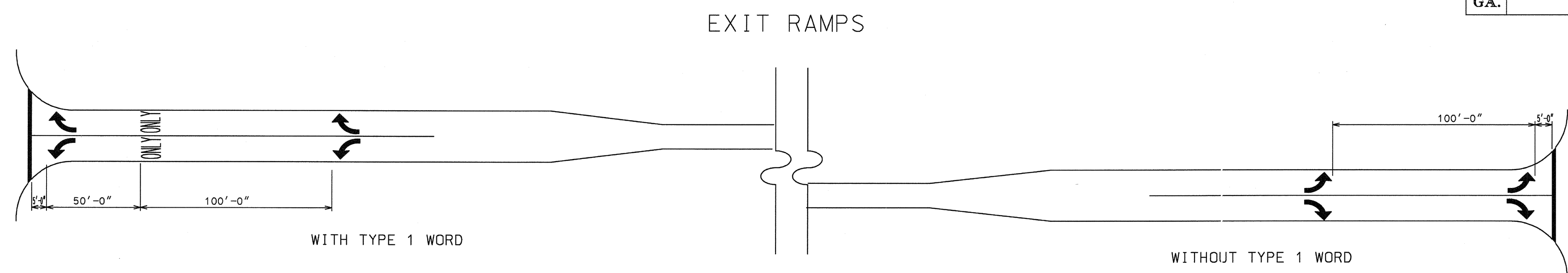
PITTMAN ENGINEERING
2591 Hwy. 17S Suite 303
Richmond Hill, GA 31324
912-445-0578
www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

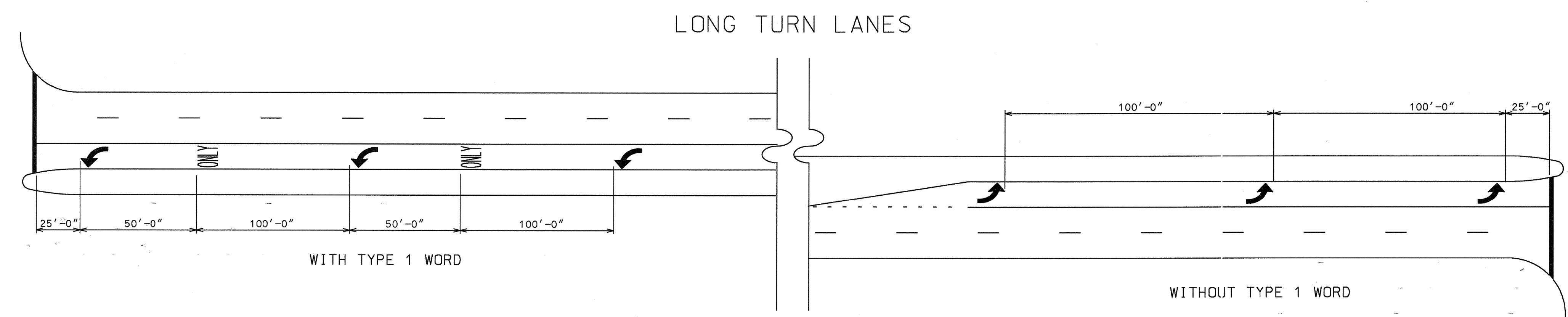
Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N.T.S.
Date: 8/3/23

SHEET
CR2.4

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



*ADJUST TO MEET LOCAL CONDITIONS (NOT LESS THAN 50' NOR MORE THAN 100')



- GENERAL NOTES:**
1. SPACING OF TYPE 2 ARROW IS REPRESENTATIVE OF SPACING FOR TYPE 1, TYPE 3, TYPE 4, & TYPE 5 ARROWS.
 2. ALL TURNING LANES SHALL HAVE A MINIMUM OF 2 ARROWS.
 3. GROUND MOUNTED OR OVERHEAD SIGNING SHALL BE SUPPLEMENTED BY TYPE 1 WORD.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
 OFFICE OF TRAFFIC SAFETY & DESIGN

 DETAILS OF PAVEMENT MARKING
 ARROW LOCATION

 NO SCALE JANUARY 2000

REV.	REVISIONS	BY	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	JAF	11/12/24
4	REVISED PER EPD COMMENTS	JAF	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	JAF	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	JAF	10/31/23

PITTMAN ENGINEERING
 JASON L. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897
 JOSEPH J. JACOBI, P.E.
 CIVIL ENGINEER
 CERTIFICATION #73897

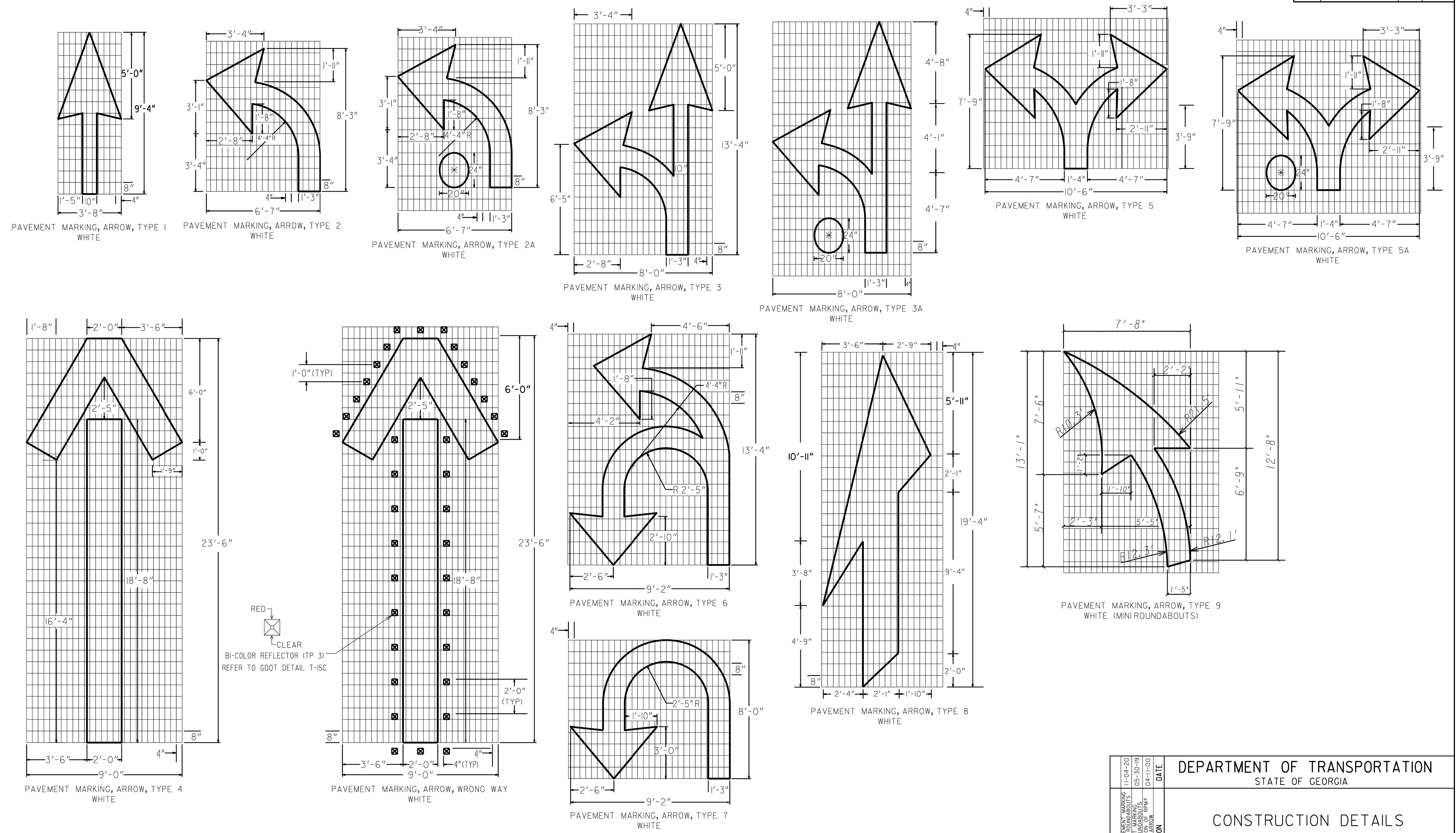
PITTMAN ENGINEERING
 2591 Hwy. 175 Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
 Drawn By: JAF
 Designed By: JJB
 Checked By: JJB
 Scale: N.T.S.
 Date: 8/3/23

SHEET
CR2.5

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTES
1. PAVEMENT MARKING ARROWS WITH A DOT (2A, 3A, 5A) SHALL BE USED ALONG MULTI-LANE ROUNDABOUT APPROACHES ALONG THE INSIDE LANE ONLY

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
CONSTRUCTION DETAILS PAVEMENT MARKINGS - ARROWS	
NO SCALE	APRIL 2000
DESIGNED BY _____	NUMBER T-12B
DRAWN BY _____	
TRACED BY _____	
CHECKED BY _____	

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

JASON J. BRYANT, P.E.
CONSTRUCTION
DESIGN PROFESSIONAL
CERTIFICATION #73897

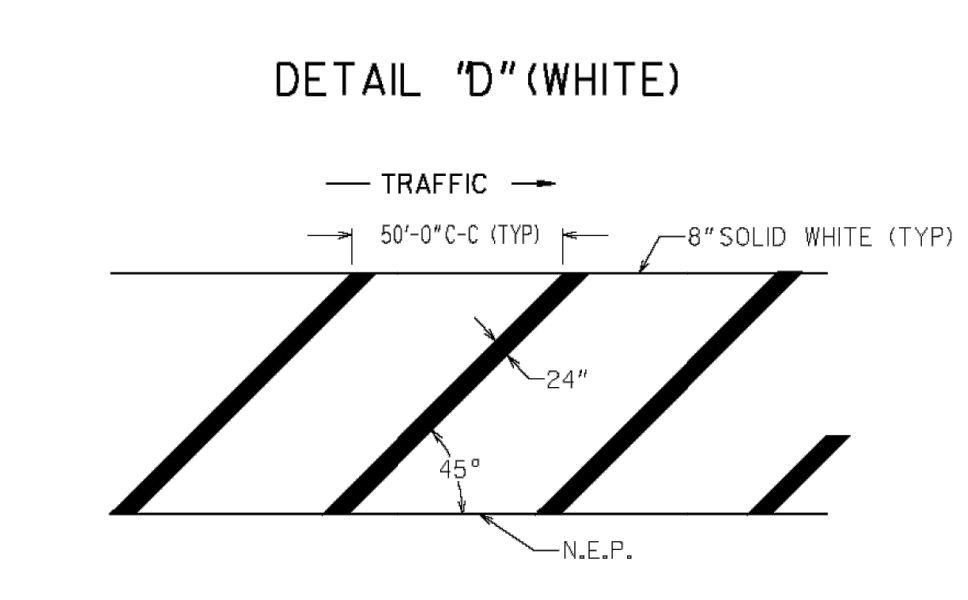
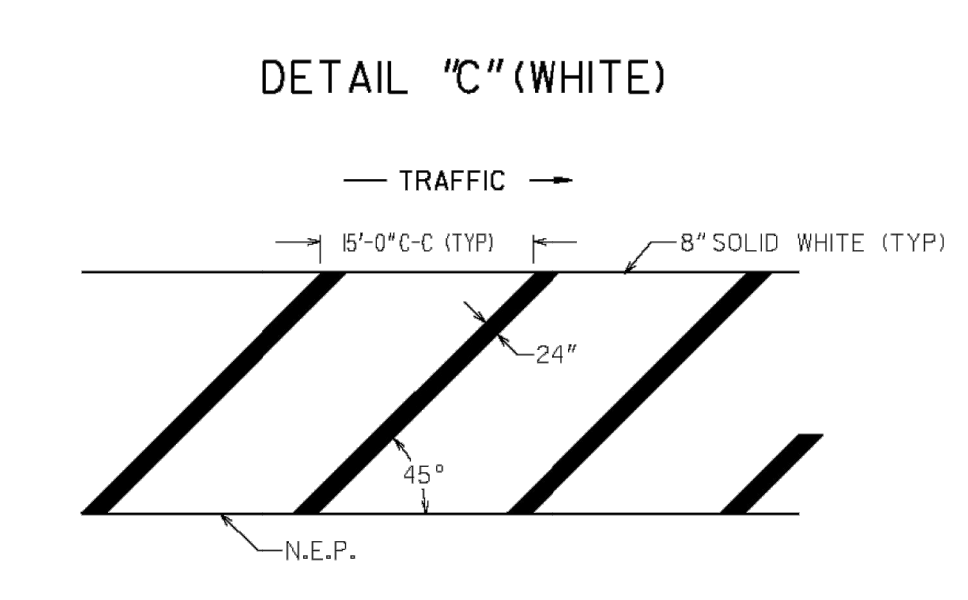
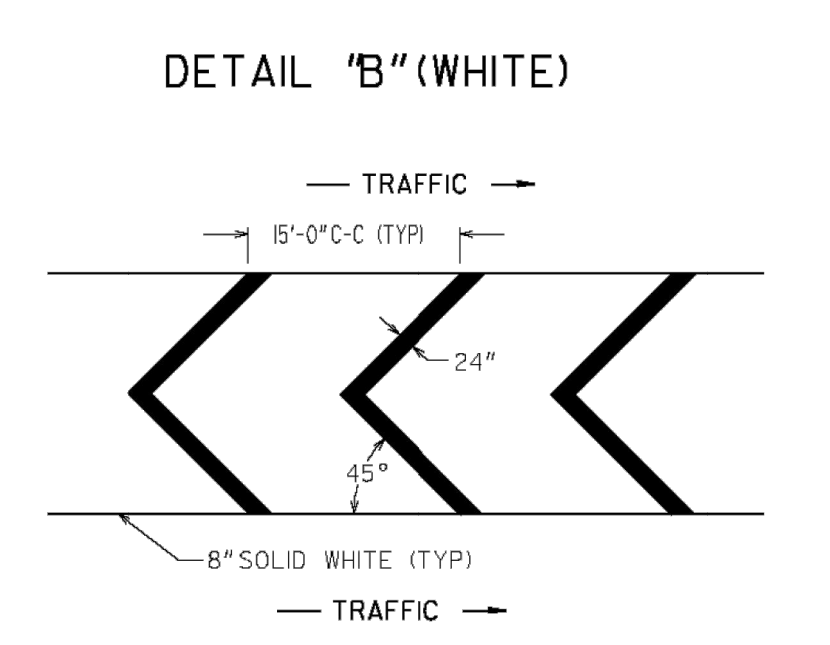
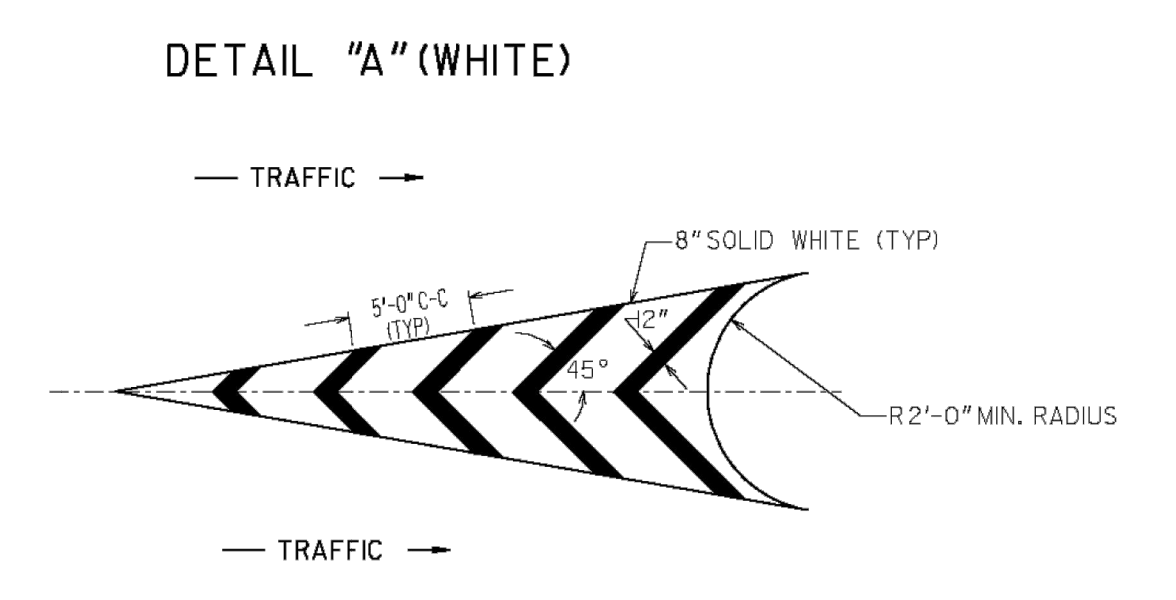
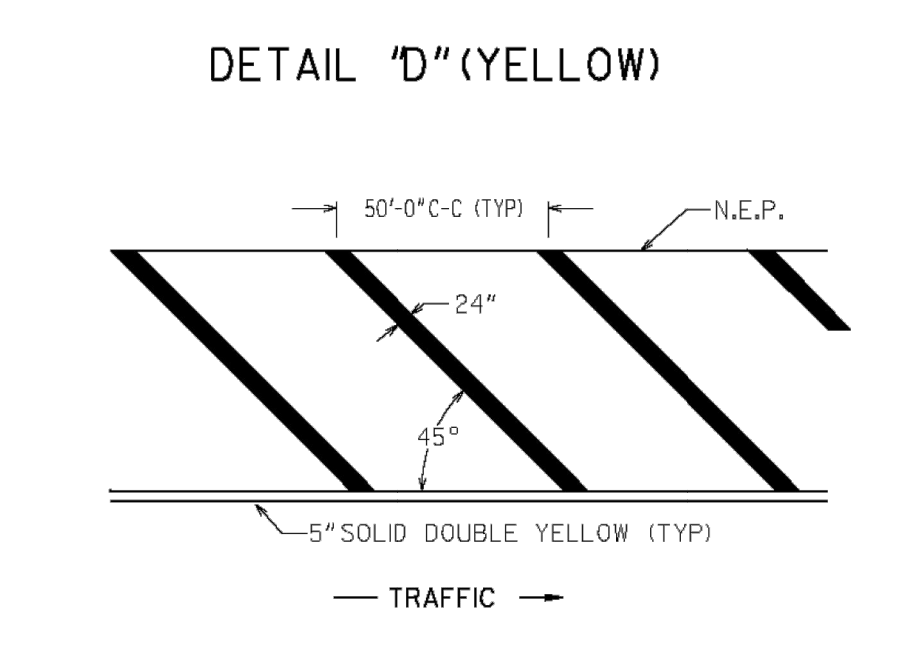
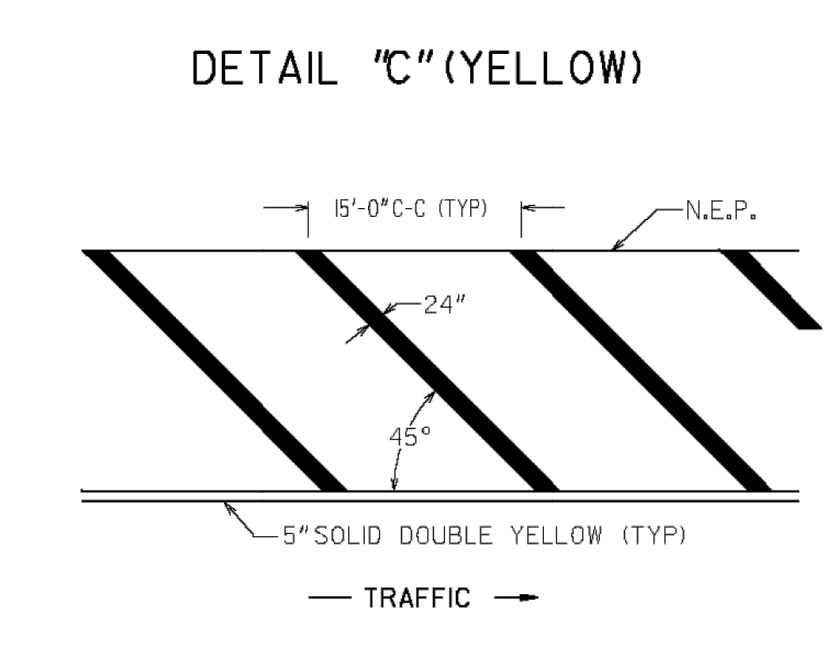
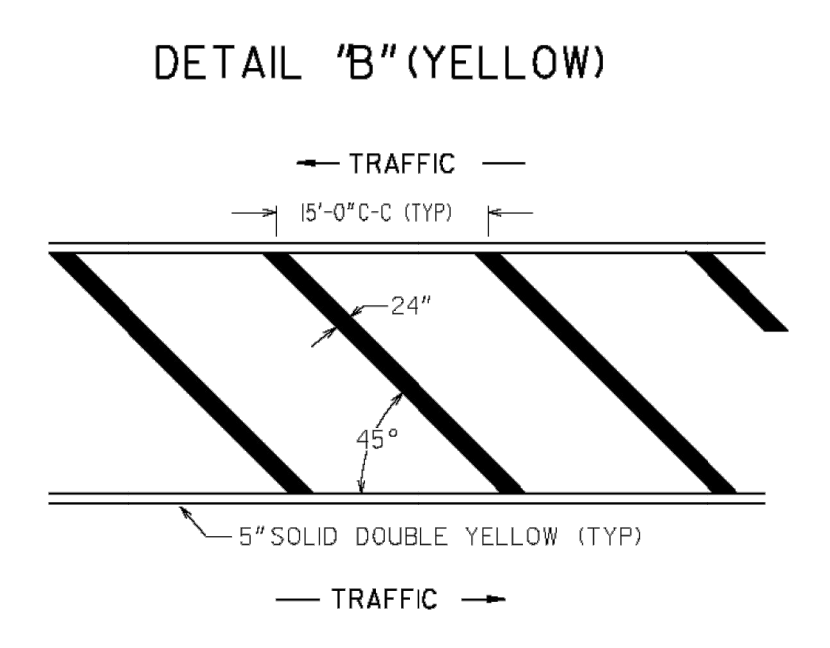
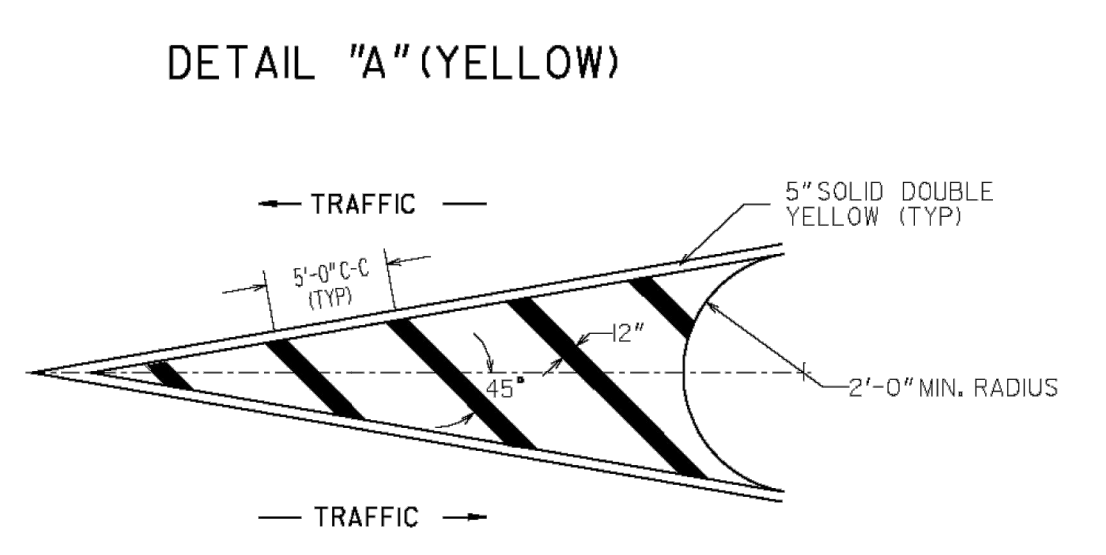
REGISTERED PROFESSIONAL ENGINEER
STATE OF GEORGIA
NO. 12845
J. JOSEPH H.

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

COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N.T.S.
Date: 8/3/23

SHEET
CR2.6



- GENERAL NOTES:**
1. FOR YELLOW STRIPING, THE SQUARE YARDS SHOWN ON PLAN, SUMMARY AND DETAILED ESTIMATE SHEETS INCLUDE THE AREA WITHIN THE BORDERS AND THE 5" SOLID DOUBLE YELLOW BORDER.
 2. FOR WHITE STRIPING, THE SQUARE YARDS SHOWN ON PLAN, SUMMARY AND DETAILED ESTIMATE SHEETS INCLUDES THE AREA WITHIN THE BORDERS AS WELL AS THE 8" SOLID WHITE BORDER.

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

- NO SCALE -

DATE	REVISIONS
6/25/04	Modified general note 1
1/18/05	CHANGED BORDER
11/21/08	Modified general note 1

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS
SIGNING AND MARKING PLANS

DETAIL OF PAVEMENT MARKING HATCHING
JANUARY 2000
NUMBER T-14

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

JASON J. BRYANT, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL CERTIFICATION #73897
JOSEPH J. JACOBI, P.E.
REGISTERED PROFESSIONAL ENGINEER
DESIGN PROFESSIONAL CERTIFICATION #73897

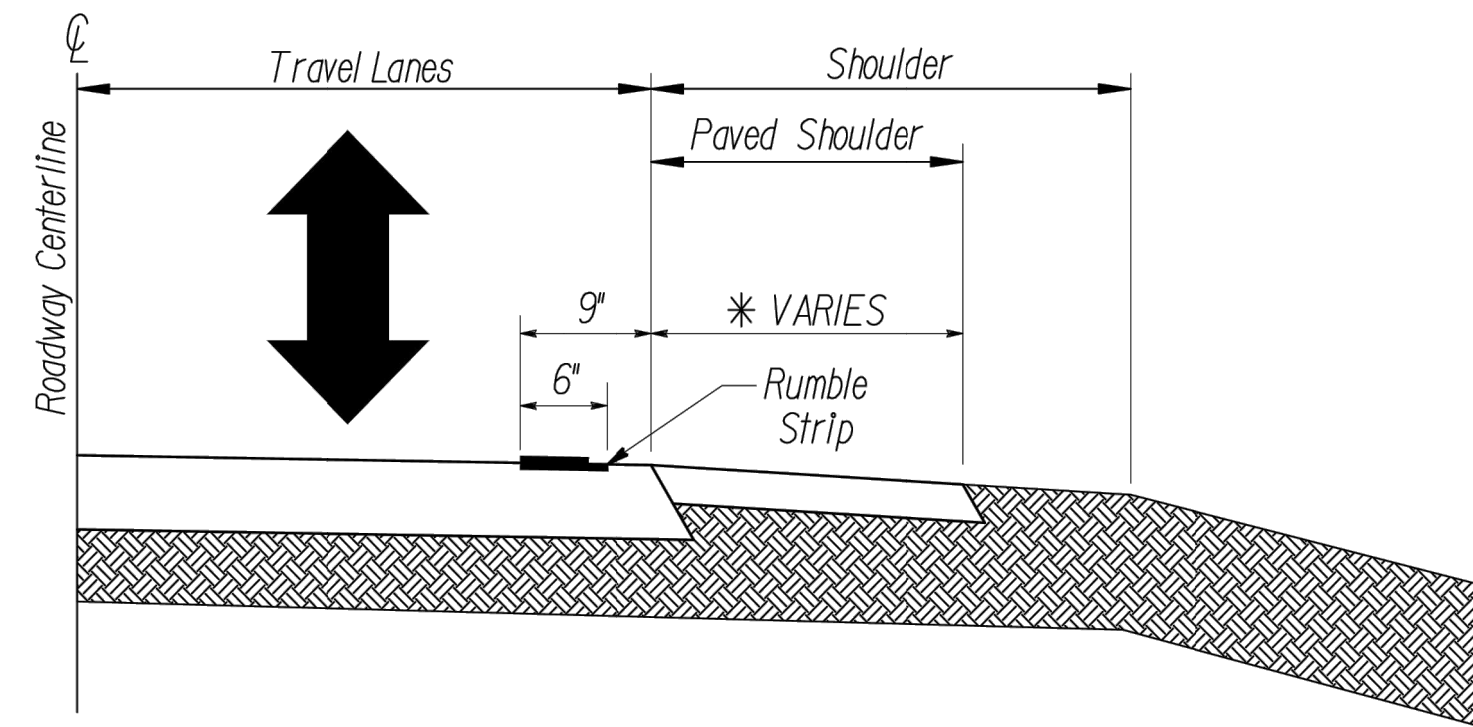
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COUNTY ROAD IMPROVEMENT DETAILS
BAKER HILL
EFFINGHAM COUNTY, GEORGIA
Prepared For
3 BYRDS DEVELOPMENT LLC

Project No. 2023-6
Drawn By: JAF
Designed By: JJB
Checked By: JJB
Scale: N.T.S.
Date: 8/3/23

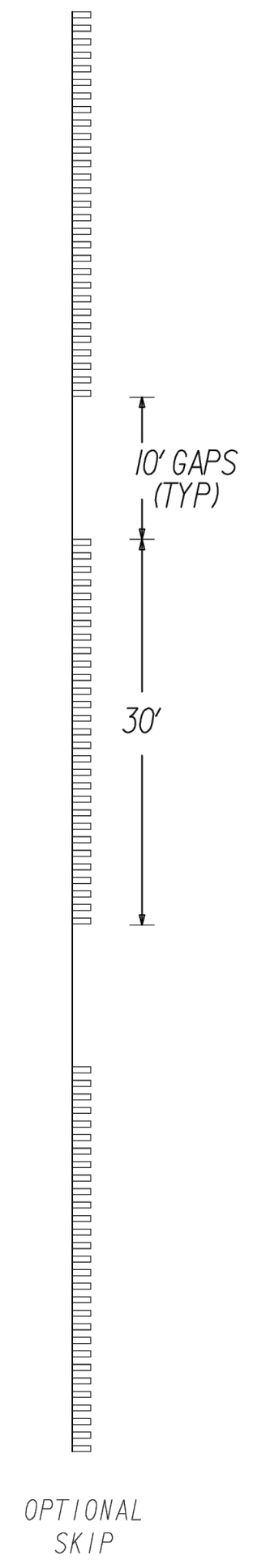
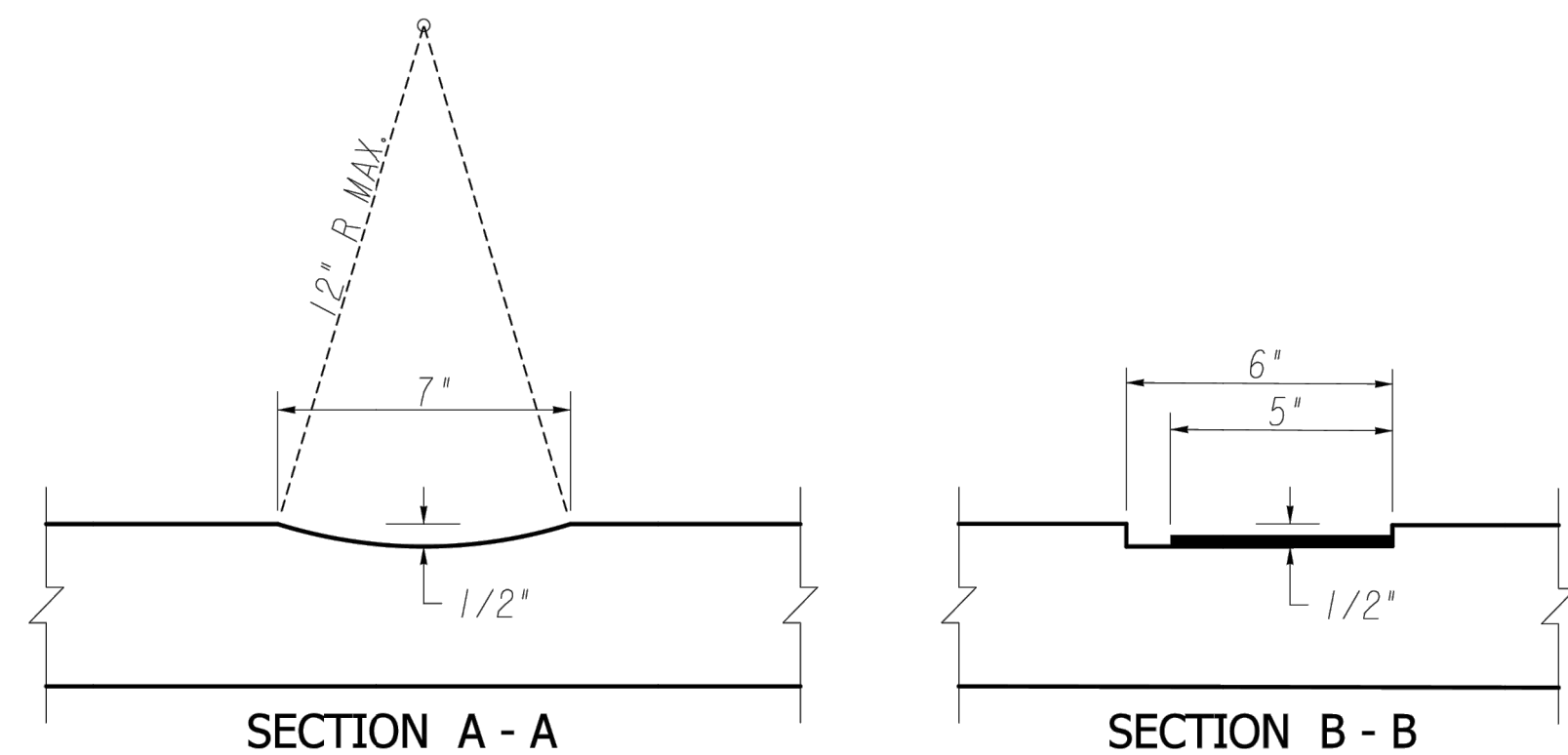
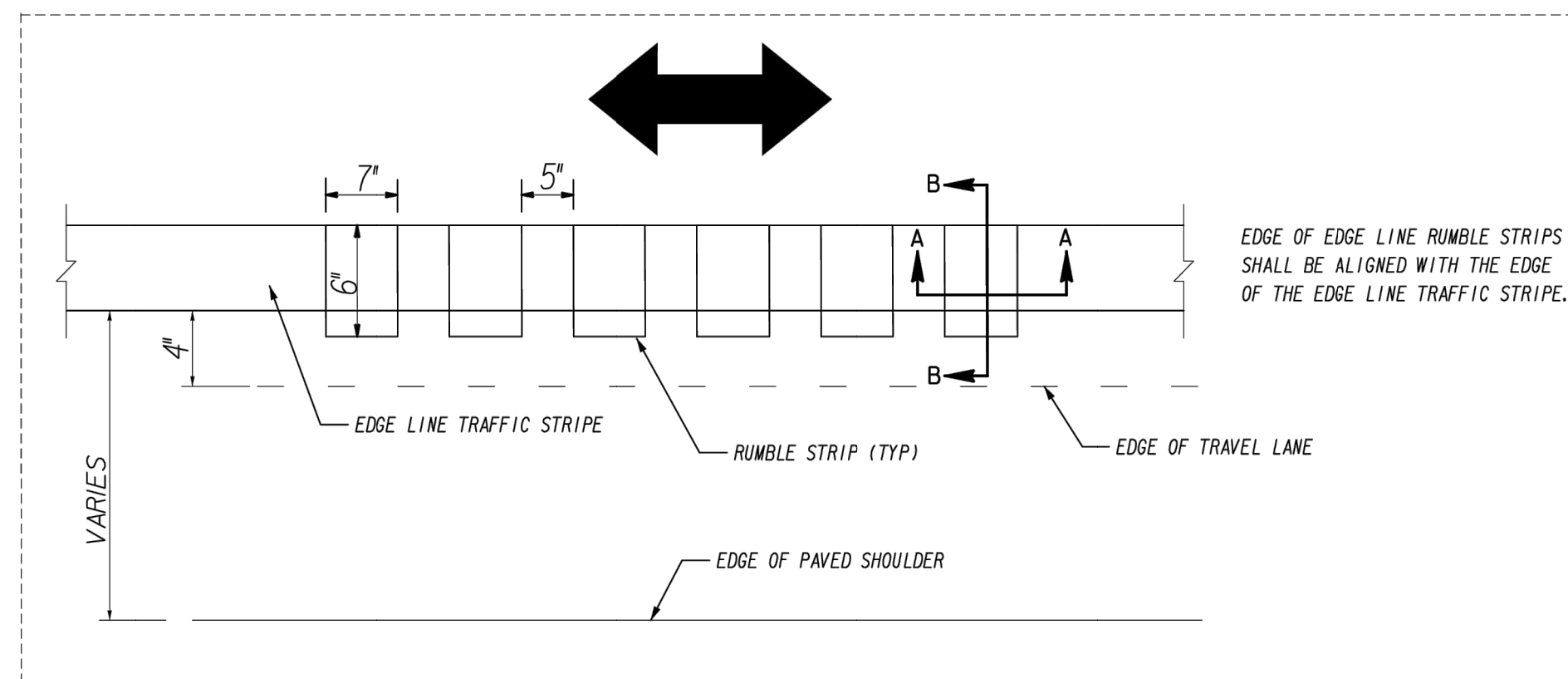
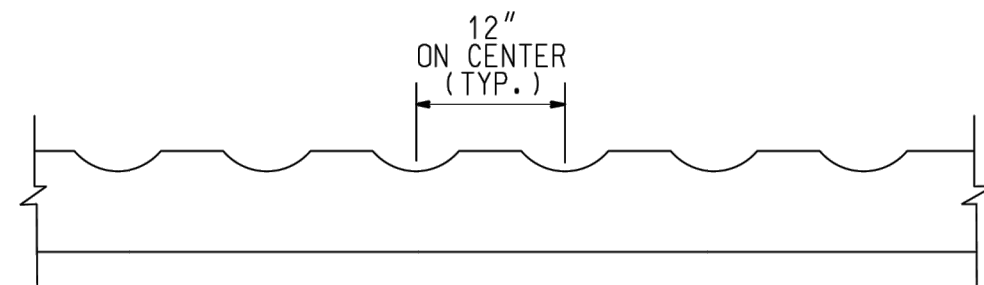
SHEET
CR2.7

EDGE LINE RUMBLE STRIP DETAILS



* <4' PAVED OUTSIDE SHOULDER WITH 6" MILLED RUMBLE STRIPS ON ROADS WITH OTHER PAVEMENT MIX

* <2' PAVED INSIDE SHOULDER WITH 6" MILLED RUMBLE STRIPS ON ROADS WITH OTHER PAVEMENT MIX



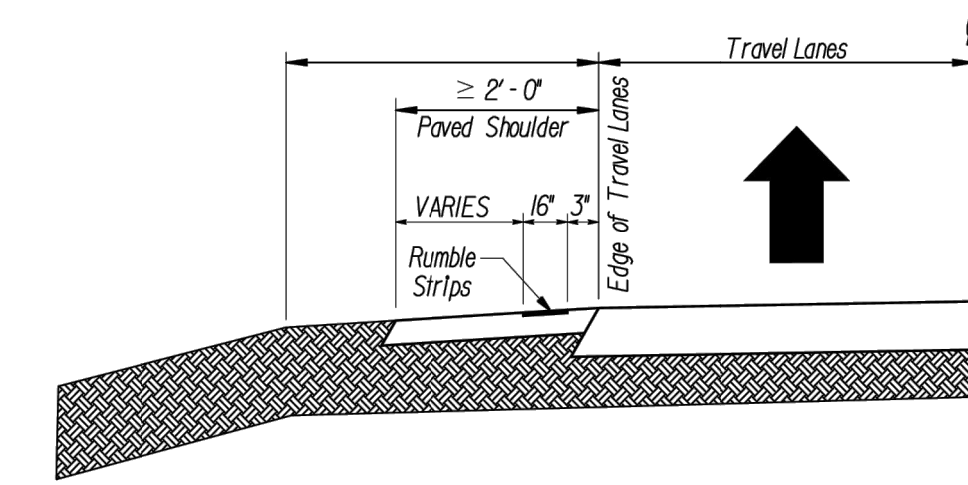
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

SHOULDER RUMBLE STRIP DETAILS

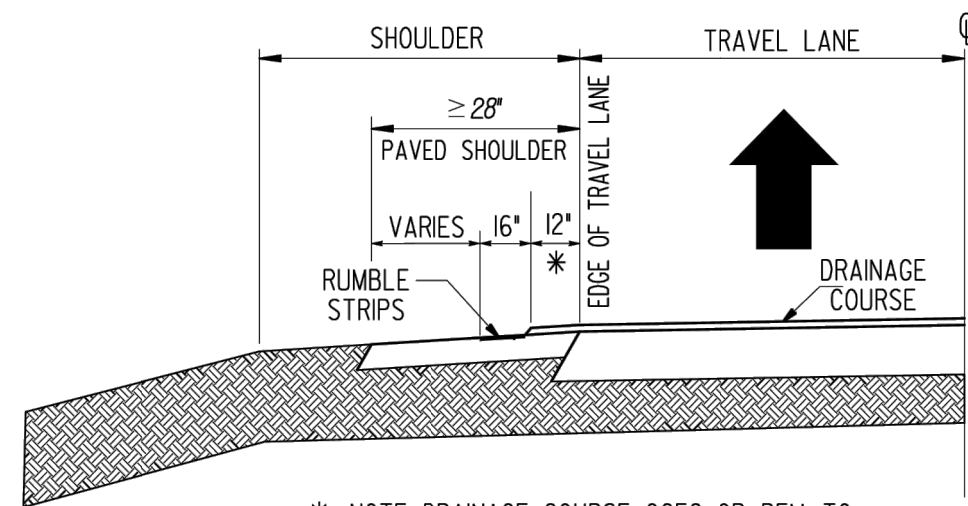
INSIDE

OUTSIDE

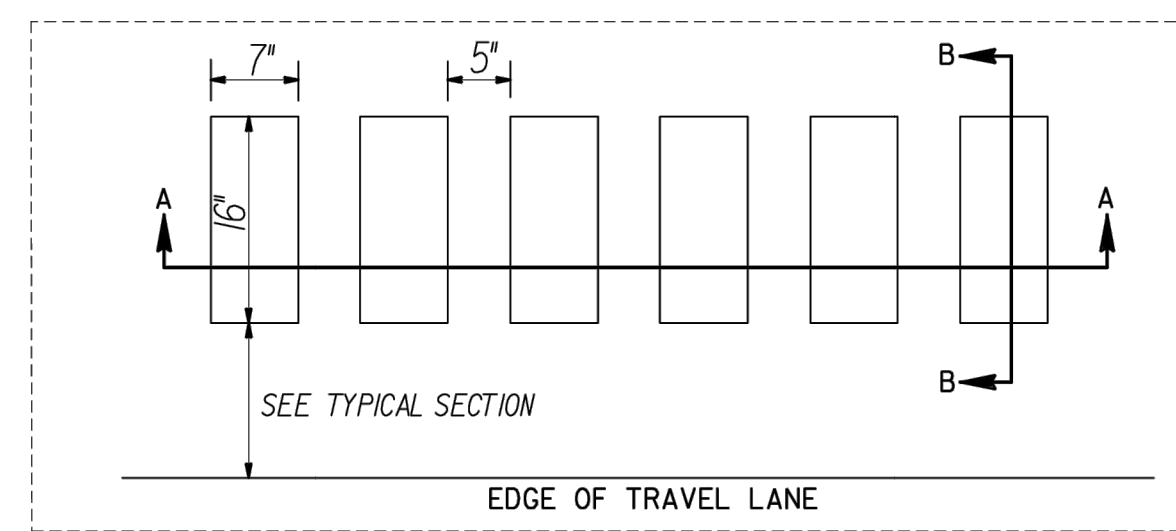
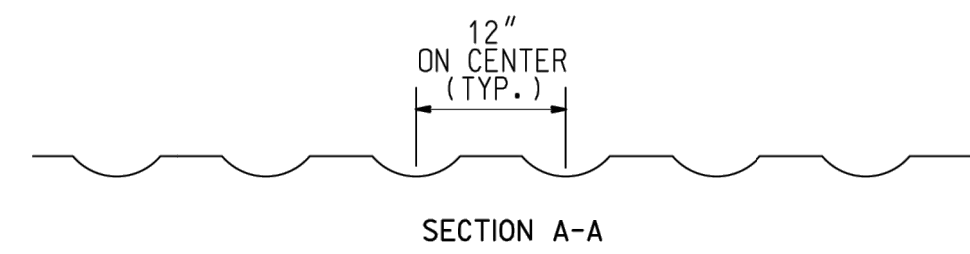
≥ 2' PAVED INSIDE SHOULDER WITH 16" MILLED RUMBLE STRIPS ON ROADS WITH OTHER PAVEMENT MIX



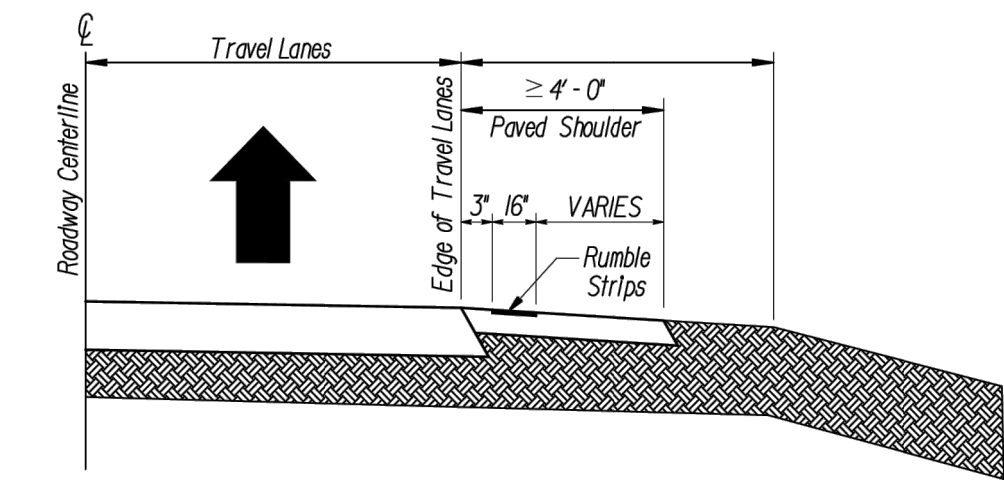
OGFC OR PEM, INSIDE PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS



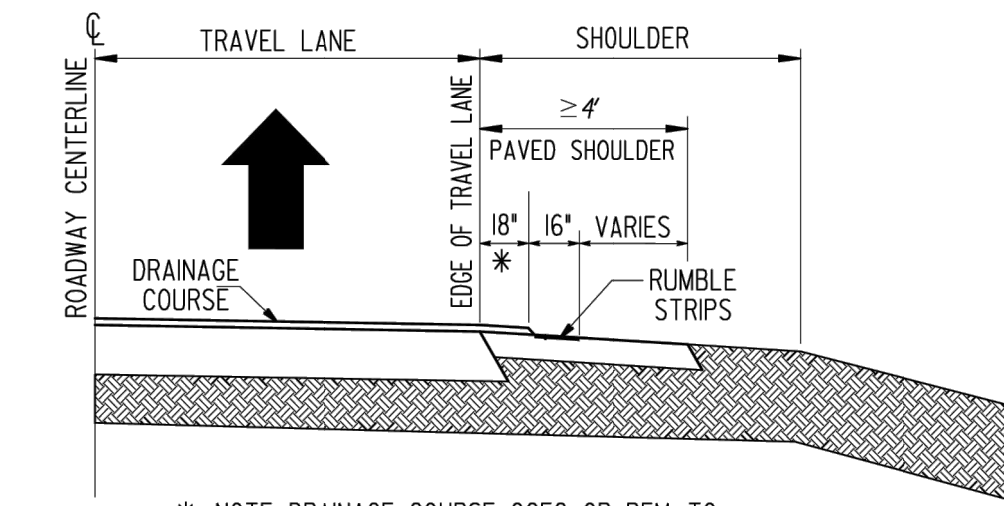
* NOTE: DRAINAGE COURSE OGFC OR PEM TO BE PLACED ON TO THE SHOULDER PAVING A DISTANCE OF 12" ON THE INSIDE SHOULDER.



≥ 4' PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS ON ROADS WITH OTHER PAVEMENT MIX



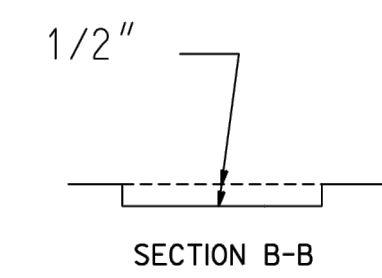
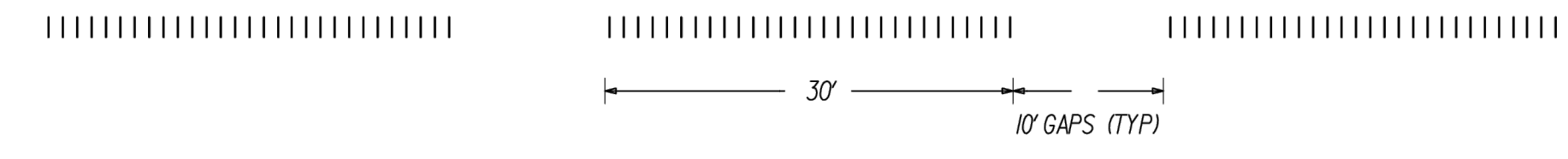
OGFC OR PEM, ≥ 4' ** PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS



* NOTE: DRAINAGE COURSE OGFC OR PEM TO BE PLACED ON TO THE SHOULDER PAVING A DISTANCE OF 18" ON THE OUTSIDE SHOULDER.

** NOTE: IF OGFC OR PEM SHOULDER IS UTILIZED TO ACCOMMODATE BIKING ON THE SHOULDER, PAVED SHOULDER MUST BE A MINIMUM OF 7' WIDE.

OUTSIDE SKIP PATTERN (FOR NON-FREEWAY, USE CONTINUOUS PATTERN FOR FREEWAY)



DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		CONSTRUCTION DETAILS	
BY		RUMBLE STRIP DETAILS FOR SHOULDER, EDGELINE AND FREEWAY	
DESIGNED	_____	NO SCALE	DATE: SEPTEMBER 2017
DRAWN	_____		NUMBER
TRACED	_____		T-25
CHECKED	_____		

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
2	REVISED PER CONSOLIDATED UTILITIES COMMENTS	11/29/23
1	REVISED PER CONSOLIDATED UTILITIES COMMENTS	10/31/23

JASON J. BRYANT, P.E.
 CIVIL ENGINEER
 DESIGN PROFESSIONAL
 CERTIFICATION #73897

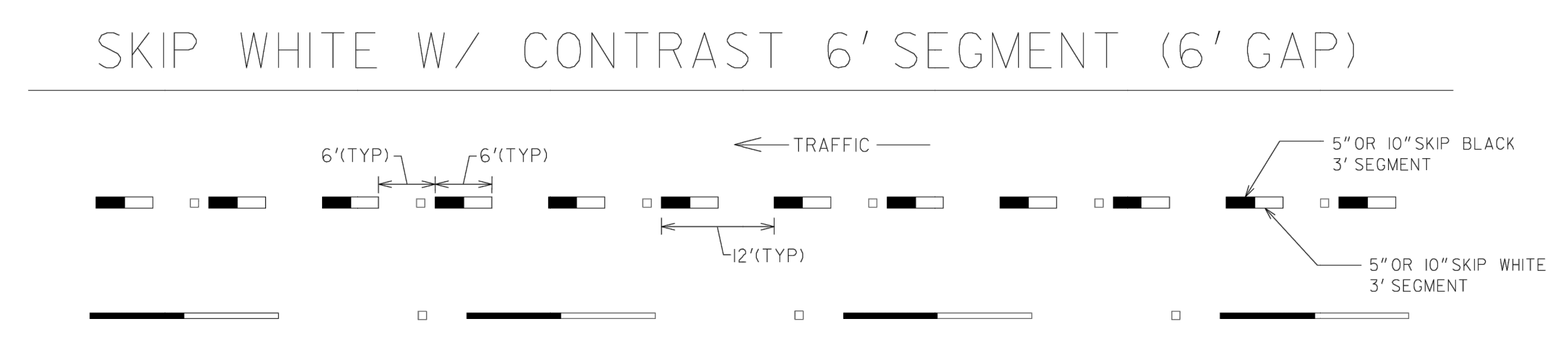
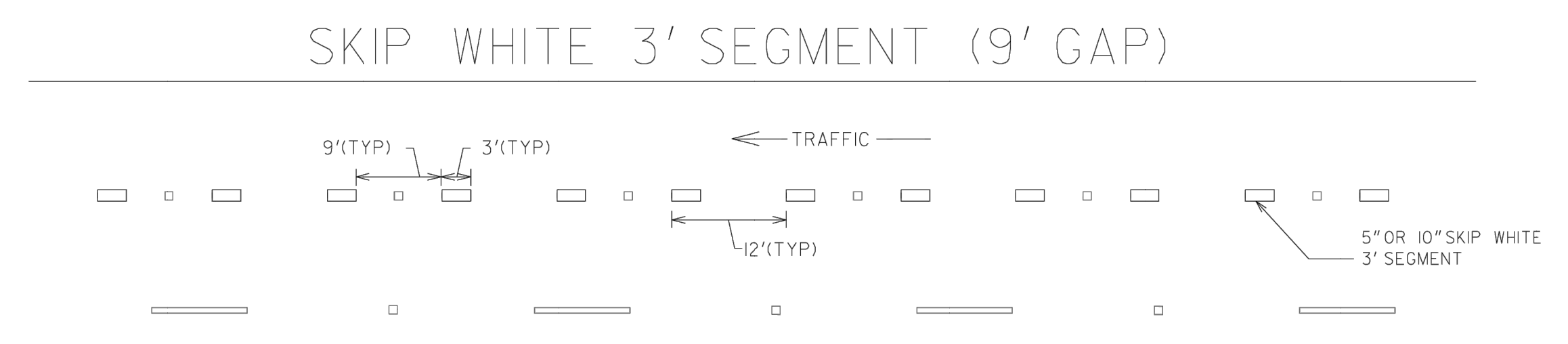
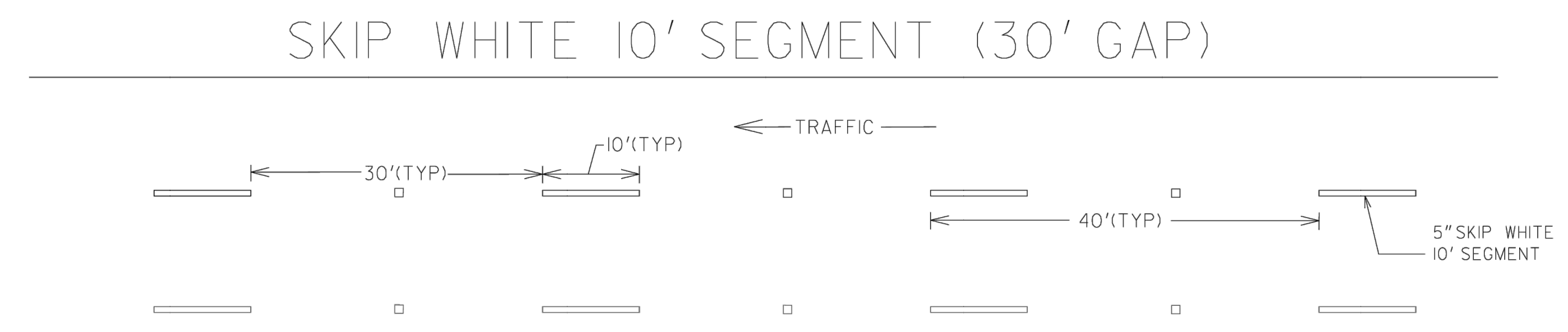
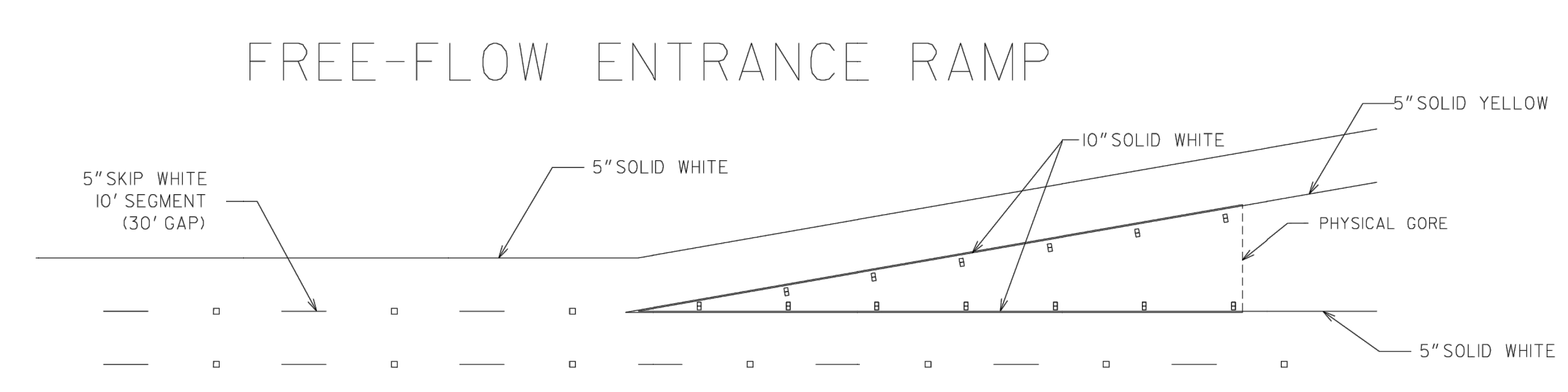
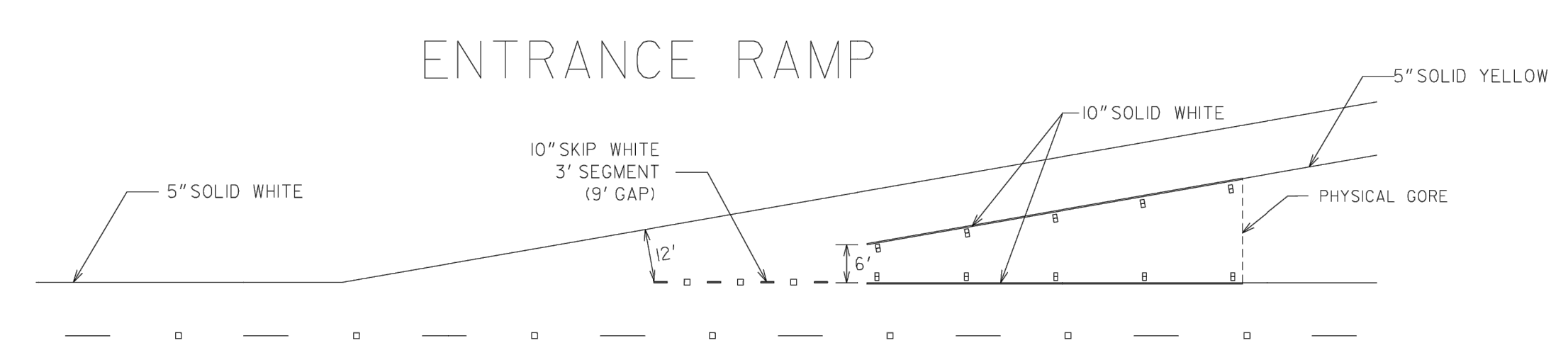
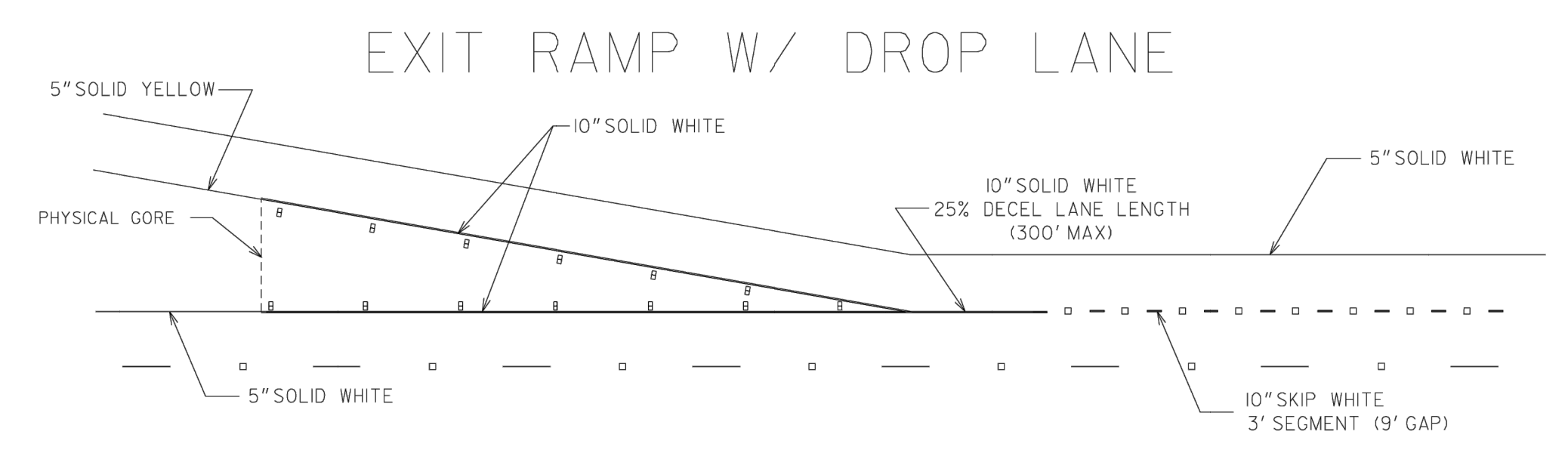
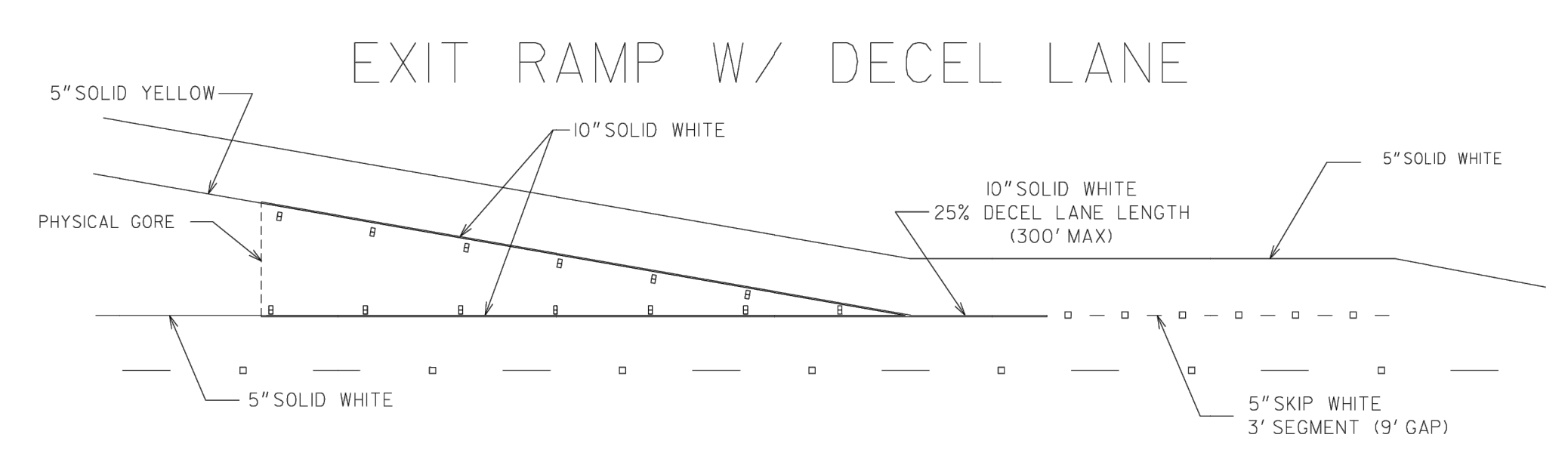
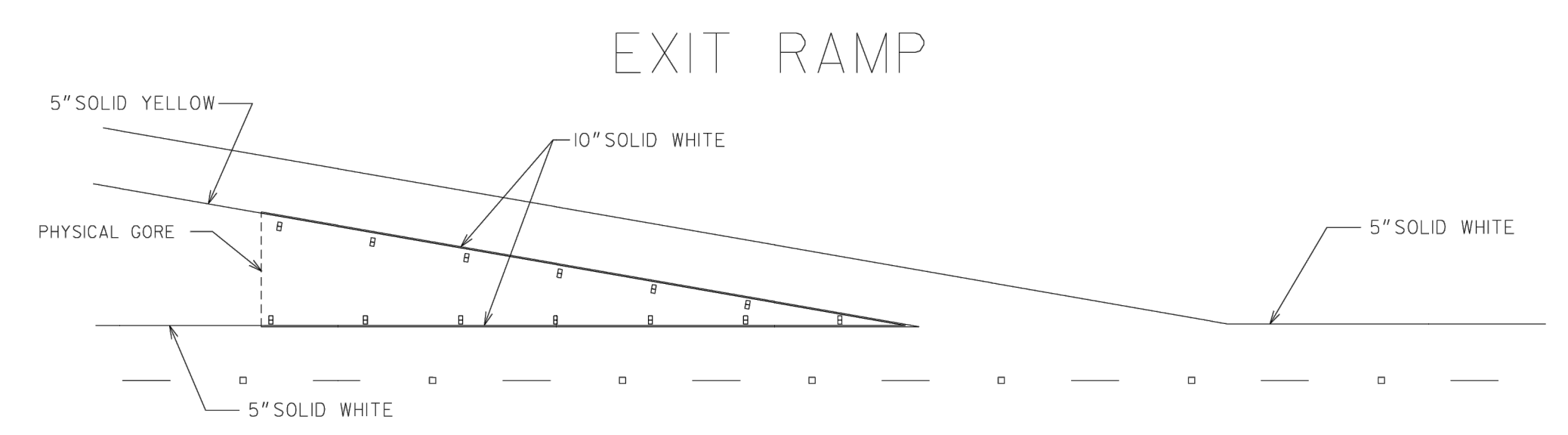
PITTMAN ENGINEERING
 2591 Hwy 17S Suite 303
 Richmond Hill, GA 31324
 912-445-0578
 www.PittmanEngineeringCo.com

COUNTY ROAD IMPROVEMENT DETAILS
 BAKER HILL
 EFFINGHAM COUNTY, GEORGIA
 Prepared For
 3 BYRDS DEVELOPMENT LLC

Project No.	2023-6
Drawn By:	JAF
Designed By:	JJB
Checked By:	JJB
Scale:	N.T.S.
Date:	8/3/23

SHEET
CR2.8

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED.
2. EDGE LINES SHALL BE OFFSET 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.
3. CONTRAST MARKINGS ARE TO BE PLACED AT LOCATIONS AS SPECIFIED IN THE PAVEMENT MARKING SELECTION CHART IN THE SIGNING AND MARKING GUIDELINES.
4. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH NEW PAVEMENT MARKINGS SHALL BE OBLITERATED OR REMOVED PRIOR TO THE INSTALLATION OF NEW PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE NEW PAVEMENT MARKINGS.

COR		REVISION		DATE	
DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA					
CONSTRUCTION DETAILS PAVEMENT MARKING PLACEMENT LIMITED ACCESS ROADWAY					
NO SCALE			JANUARY 2000		
DESIGNED					
DRAWN					
TRACED					
CHECKED					
NUMBER					T-IIB

REV.	REVISIONS	DATE
5	REVISED WATER CONNECTION TO EFF. CNTY.	11/12/24
4	REVISED PER EPD COMMENTS	7/23/24
3	REVISED PER EFFINGHAM CO. COMMENTS	4/16/24
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SHEET
CR2.9