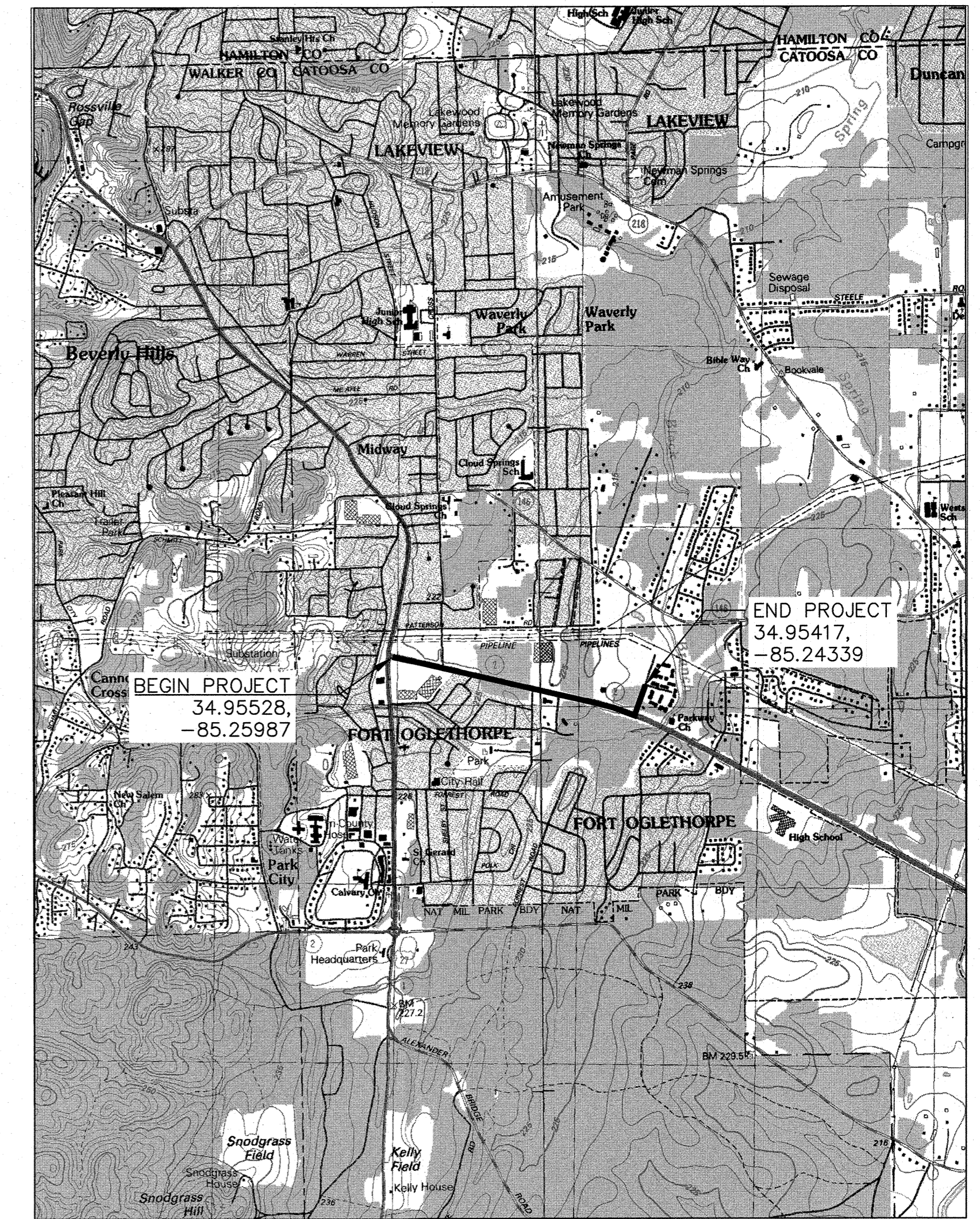


CTI PROJECT: G19015-04 (Fort Oglethorpe, Georgia) Battlefield Parkway W. DRAWING: TITLE (614838/20/11/20/24 2:49PM) LAYOUT: TITLE

FORT OGLETHORPE, GEORGIA BATTLEFIELD PARKWAY WATER LINE REPLACEMENT PROJECT



LOCATION MAP
 SCALE: 1" = 2000'

PREPARED FOR
 CITY OF FORT OGLETHORPE, GEORGIA
 500 CITY HALL DRIVE
 FORT OGLETHORPE, GEORGIA 30742

MAYOR AND CITY COUNCIL

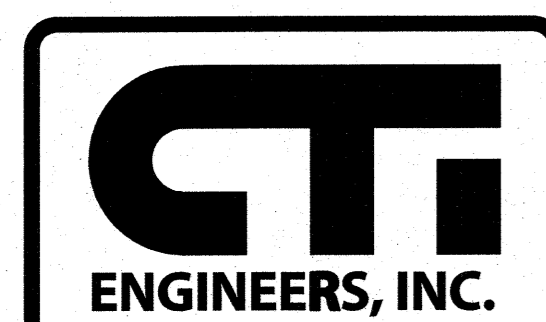
EARL GRAY, MAYOR
 CRAIG CRAWFORD, COUNCIL MEMBER
 JIM CHILDS, COUNCIL MEMBER
 RHONDA JAMES, COUNCIL MEMBER
 DEREK ROGERS, COUNCIL MEMBER
 PAULA STINNETT, COUNCIL MEMBER

△ MOLLY HUHN, CITY MANAGER
 COURTNEY JOHNSON, UTILITIES DIRECTOR



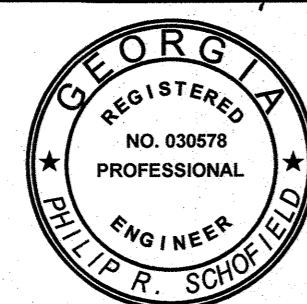
<u>TITLE</u>	<u>DRAWING INDEX</u>	<u>DRAWING NO.</u>
TITLE SHEET	-----	1
GENERAL NOTES	-----	2
GENERAL PLAN	-----	3
△ PROPOSED PLAN DRAWINGS	-----	4 thru 12
STANDARD DETAILS	-----	D-1 thru D-3
GEORGIA DEPARTMENT OF TRANSPORTATION DETAILS △		
PAVEMENT PATCHING DETAILS	-----	1401
CONCRETE CURB & GUTTER, CONCRETE CURBS, CONCRETE MEDIANS	-----	9032B
PAVEMENT MARKING PLACEMENT	-----	T-11A
DETAIL OF PAVEMENT MARKING HATCHING	-----	T-14
INDUCTIVE-LOOP DETECTOR INSTALLATION	-----	TS-01

PREPARED BY:



CTI ENGINEERS, INC.
 1122 RIVERFRONT PARKWAY
 CHATTANOOGA, TN 37402
 423-287-7613
 www.ctiengr.com

PHILIP R. SCHOFIELD, PE
 GEORGIA LICENSE NO. 030578
 GSWCC CERTIFICATION NO. 934



11/25/2024
 DATE

PLAN DATE: MAY 4, 2020
 PROJECT NO. G19015-04

24 HOUR ESPC CONTACT
 COURTNEY JOHNSON
 CITY OF FORT OGLETHORPE
 PHONE 423-402-5372

LAND LOTS 84, 85, AND 86
 CATOOSA COUNTY, GEORGIA
 PARAMETERS:
 TOTAL LENGTH 5,095± LF
 DISTURBED AREA 0.94 AC



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

REVISION NO.	DATE	REQUESTED BY
△	6/5/2020	GEORGIA D.O.T.
△	11/25/2024	SURVEY UPDATE
△		
△		

PROJECT INFORMATION

BATTLEFIELD PARKWAY WATERLINE REPLACEMENT
FORT OGLETHORPE, GEORGIA
CATOOSA COUNTY

CONTACT INFORMATION

OWNER (PRIMARY PERMITEE):
CITY OF FORT OGLETHORPE
500 CITY HALL DRIVE
FORT OGLETHORPE, GEORGIA 30742

OWNER'S REPRESENTATIVE:
MR. COURTNEY JOHNSON, UTILITIES DIRECTOR
CITY OF FORT OGLETHORPE
500 CITY HALL DRIVE
FORT OGLETHORPE, GEORGIA 30742

CONSTRUCTION MANAGER:
TO BE DETERMINED

CIVIL ENGINEER:
MR. PHILIP R. SCHOFIELD, P.E.
BRANCH MANAGER
CSWCC CERTIFICATION # 934
CTI ENGINEERS, INC.
1122 RIVERFRONT PARKWAY
CHATTANOOGA, TENNESSEE 37402

24-HOUR CONTACT
MR. COURTNEY JOHNSON, UTILITIES DIRECTOR
CITY OF FORT OGLETHORPE
500 CITY HALL DRIVE
FORT OGLETHORPE, GEORGIA 30742

SURVEY INFORMATION

SURVEY INFORMATION:
SURVEY DATE: APRIL 2020
MARIO G. FORTE, P.S.
BEGINNING POINT SURVEY
423-624-0020

BENCHMARK INFORMATION:
ELEVATION DATUM: MEAN SEA LEVEL (NGVD 1988)

FLOOD MAP INFORMATION:
THE SUBJECT PROJECT DOES NOT LIE WITHIN A FLOOD HAZARD AREA.

UTILITY INFORMATION:

- 1. LOCATIONS OF UTILITIES, PUBLIC AND/OR PRIVATE, ARE APPROXIMATE ONLY...
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITY OWNERS...
3. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY OWNERS PRIOR TO INTERRUPTING ANY GAS, WATER, OR SEWER SERVICES...
4. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT...
5. ANY EXISTING STORM SEWER DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AS RAPIDLY AS POSSIBLE...
6. THE UNDERGROUND UTILITIES SHOWN ON THE SURVEY HAVE BEEN LOCATED FROM FIELD INFORMATION...
7. UNLESS NOTED OTHERWISE, NEITHER THE ENGINEER NOR THE SURVEYOR WARRANTS THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
8. UNLESS NOTED OTHERWISE, NEITHER THE ENGINEER NOR THE SURVEYOR HAS PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

DRAWING INFORMATION

- THE FOLLOWING ARE APPLICABLE TO ALL CIVIL DOCUMENTS:
1. THE ISSUED PROJECT DRAWINGS ARE ONE COMPONENT OF THE CONSTRUCTION CONTRACT DOCUMENTS AND IN CONJUNCTION WITH THE GENERAL SPECIFICATIONS, DETAILS AND APPLICABLE CODES AND REGULATIONS ARE INTENDED TO COVER A COMPLETE PROJECT, READY TO USE ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB...
2. WHERE A DETAIL SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, UNLESS NOTED OTHERWISE ON THE PLANS.
3. EXISTING CONTOURS ARE AT TWO (2) FOOT INTERVALS.

CONTRACTOR RESPONSIBILITIES

- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING UTILITIES (INVERTS, CONNECTIONS, MATERIALS, ETC.) AND DIMENSIONS WITHIN THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION...
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATIONS AND LIAISONS WITH UTILITY COMPANIES DURING THE PROCESS OF LOCATING, RELOCATING, AND TYING INTO PUBLIC UTILITIES...
3. PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS...
4. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
1. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THESE PLANS...
2. THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND ANY ASSOCIATED SPECIFICATIONS...
3. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION...
4. ALL CONSTRUCTION MUST CONFORM TO THE STANDARDS, SPECIFICATIONS, AND CODES OF THE GOVERNING MUNICIPALITIES...
5. CONSTRUCTION SHALL MEET ALL STANDARDS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT...
6. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO THE ORIGINAL CONDITION AND QUALITY...
7. IF THE CONTRACTOR DAMAGES ANY EXISTING SITE FEATURES DURING CONSTRUCTION, HE SHALL AT HIS OWN EXPENSE, REPLACE OR REPAIR THE FEATURES TO ORIGINAL CONDITION AND QUALITY...
8. SUFFICIENT BARRICADES, LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS IN ACCORDANCE WITH GOVERNING ORDINANCES MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC...
9. TRAFFIC CONTROLS AND OTHER WARNING DEVICES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORK ON CITY, COUNTY, OR GEORGIA DEPARTMENT OF TRANSPORTATION ROADS...
10. ALL WARNING DEVICES SHALL BE EITHER TYPE I BARRICADES OR DRUMS WITH WARNING LIGHTS ON EVERY OTHER DEVICE...
11. FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED AT ALL TIMES.
12. CONTRACTOR SHALL SHORE AND BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION.
13. ON-SITE BURIAL OF DEBRIS IS PROHIBITED.
14. UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS TO THE ENGINEER FOR REVIEW...
15. IN CASE OF UNFORESEEN CONSTRUCTION COMPLICATIONS OR DISCREPANCIES, THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.
16. ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
17. AS-BUILT DRAWINGS OF ROADWAYS, STORM DRAINS, SANITARY SEWER AND WATER LINES, FIELD APPROVAL BY THE ENGINEER, AND ALL APPLICABLE BONDS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
18. UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS, ALL FILL AREAS MUST BE COMPACTED TO MINIMUM 95% STANDARD

PROCTOR.

- 19. CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL EXISTING BUILDINGS THROUGHOUT CONSTRUCTION UNLESS APPROVAL FOR SERVICE INTERRUPTION IS OBTAINED FROM THE OWNERS IN ADVANCE.
20. CUT AND FILL SLOPES SHALL NOT EXCEED 2:1 H:V, UNLESS OTHERWISE NOTED ON THE PLANS.

TRAFFIC

- 1. THE CONTRACTOR SHALL MAINTAIN ALL BUSINESS, VEHICULAR, AND PEDESTRIAN ENTRANCES.
2. PRIOR TO CLOSING THE ROAD TO THROUGH TRAFFIC, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED LOCAL AGENCIES ABOUT THE PROPOSED ROAD CLOSURE...
3. EXISTING CONTOURS ARE AT TWO (2) FOOT INTERVALS.

DEMOLITION INFORMATION

NOTIFICATIONS:
1. THE CONTRACTOR SHALL NOTIFY THE OWNER AND COUNTY/CITY INSPECTOR(S) 24 HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

DISPOSAL GUIDELINES:

- 1. ONLY ITEMS SPECIFICALLY NOTED TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE.
2. REMOVE EXISTING PAVED AREAS AS SHOWN INCLUDING DRIVEWAYS, SIDEWALKS, PARKING AREAS, SERVICE AREAS, EQUIPMENT PADS, AND ALL MISCELLANEOUS PAVING.
3. ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR...
4. ALL DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.

TREE PROTECTION GUIDELINES:

- 1. PROTECT ALL EXISTING TREES AND ALL ITEMS TO BE TURNED OVER TO THE OWNER DURING DEMOLITION...
2. ALL ABANDONED WATER LINES, STORM SEWER PIPE, SANITARY SEWER PIPES, GAS LINES, OR ANY OTHER ABANDONED UNDERGROUND UTILITY SHALL BE COMPLETELY REMOVED UNLESS NOTED OTHERWISE.

GRADING:

COMPACT AND ROUGH GRADE THE ENTIRE SITE IN ACCORDANCE WITH SECTION 31 2000 OF THE CIVIL SPECIFICATIONS. ANY EXCAVATIONS IN THESE AREAS SHALL BE TO GRADES AS SHOWN ON THE PLANS.

GRADING AND EXCAVATION:

- 1. FINISHED GRADES ON PROFILES ARE THE SAME AS FINISHED GRADES SHOWN ON TYPICAL SECTIONS AND ON CROSS SECTIONS.
2. THE COST OF REMOVAL AND DISPOSAL OF EXISTING FLEXIBLE PAVEMENT ENCOUNTERED IN THE PROGRESS OF THE WORK AND NOT COVERED IN OTHER BID ITEMS SHOWN ON PLANS, SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
3. WHEN SPECIFIED GRADING REQUIREMENTS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL GRADE ALL AREAS DISTURBED BY CONSTRUCTION TO DRAIN AND TO MATCH THE EXISTING, ADJACENT GROUND.
4. ON THE PROJECT, NEWLY GRADED, EARTH AREAS NOT TO BE PAVED, RIP-RAPPED, OR STABILIZED SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS.
5. THE CONTRACTOR IS TO DISPOSE OF, AT HIS OWN EXPENSE, ALL UNSUITABLE AND/OR SURPLUS, EXCAVATED MATERIAL.
6. EXCAVATION ADJACENT TO EXISTING PAVEMENT SHALL BE MADE TO A NEAT SAW-CUT LINE.

EROSION AND POLLUTION CONTROL

- 1. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL EROSION AND WATER POLLUTION THROUGH THE CONSTRUCTION PERIOD...
2. ANY STOCKPILED SOIL OR FILL MATERIAL SHALL BE LOCATED AND TREATED IN A MANNER TO PREVENT SILT'S ENTERING STREAMS...
3. THE CONTRACTOR MUST INSTALL EROSION AND SEDIMENT CONTROL AND MAINTAIN CONTROLS UNTIL THE ESTABLISHMENT OF FINAL VEGETATIVE COVER...
4. WITHIN THE UNIT PRICE FOR EACH EROSION CONTROL ITEM, THE CONTRACTOR IS EXPECTED TO MAINTAIN THE EROSION CONTROL MEASURES THROUGHOUT THE LENGTH OF THE CONTRACT AS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND WATER CONTROL MEASURES (SUCH AS BERMS, SEDIMENT BASINS,

SLOPE DRAINS, HAY BALES, AND SILT FENCES) AS REQUIRED BY LAW TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THESE TEMPORARY MEASURES SHALL BE COORDINATED WITH THE PERMANENT EROSION CONTROL FEATURES TO ASSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS EROSION CONTROL THROUGHOUT THE PROJECT.

- 6. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL EROSION CONTROL PROVISIONS AS SET FORTH IN THE EPSC ORDINANCE.
7. DRAINAGE WATER FROM DEWATERING EXCAVATIONS THAT CONTAINS MUD OR SEDIMENT SHALL NOT BE DISCHARGED DIRECTLY INTO DITCHES OR CREEKS. FILTER SUCH WATER USING APPROPRIATE SEDIMENT TRAPS PRIOR TO DISCHARGE. NO SEPARATE PAYMENT WILL BE MADE FOR COMPLYING WITH THIS REQUIREMENT.

RIGHTS-OF WAY/EASEMENTS

- 1. BEFORE CONSTRUCTION OF A CITY PROJECT BEGINS, THE CITY SHALL ATTEMPT TO SECURE ALL RIGHT-OF-WAYS AND EASEMENTS REQUIRED FOR COMPLETION OF THE PROJECT.

MISCELLANEOUS

- 1. THE CONTRACTOR SHALL NOT BE ALLOWED TO REMOVE ANY FENCE OTHER THAN THAT NECESSARY FOR THE CONSTRUCTION OF THE NEW STORM SEWER OR RELATED APPURTENANCES...
2. THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS ONE WEEK'S NOTICE PRIOR TO CUTTING FENCES...
3. ALL CONCRETE SHALL BE CLASS "A" (4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS OR DETAILS...
4. CONTRACTOR SHALL RESTORE/STABILIZE DISTURBED PROPERTY DAILY AFTER PIPE INSTALLATION.

GENERAL LEGEND

Table with columns for EXISTING and PROPOSED symbols and descriptions. Includes symbols for Electric, UGE, OHT, UGT, Guard Rail, Fence, ROW, Property Line, Water, Non-potable Water, Storm Drain, Sanitary Sewer, Force Main, Gas, Petroleum, Utility Pole/Guy Pole, Light Pole, Guy Anchor, Marker, Splice Box, Cabinet, Vent, Electric Manhole, Hand Hole, Transformer, Electric Meter, Electric Box, Transmission Tower, Telecommunications Manhole, Telecommunications Pedestal, Subscriber Loop Carrier, Phone Booth, Cable TV Pedestal, Cable TV Manhole, Water Valve, Water Meter, Water Manhole, Storm Manhole, Fire Hydrant Assembly, Backflow Preventer, Pressure Indicator Valve, Air Release Valve, Well, Water Vault, Water Valve Marker, Stand Pipe, Cleanout, Sanitary Sewer Manhole, Air Release Valve, Grease Trap, Sanitary Sewer Force Main Valve, Gas Valve, Gas Meter, Gas Manhole, Gas Pressure Regulator, Gas Vault, Gas Test Station, Petroleum Valve, Sign, Tree/Shrub.



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Table with columns: REVISIONS, NO., DESCRIPTIONS, DATE, BY, APP'D.

Table with columns: DESIGN, PLS, DRAWN, PLW, CHECKED, MAB, APPROVED, PLS.

FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT
GENERAL NOTES

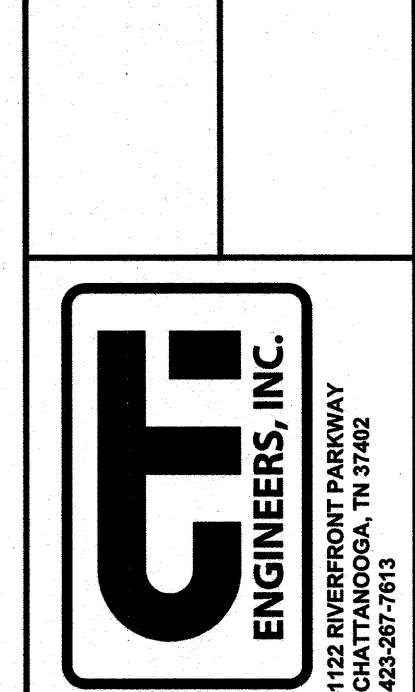
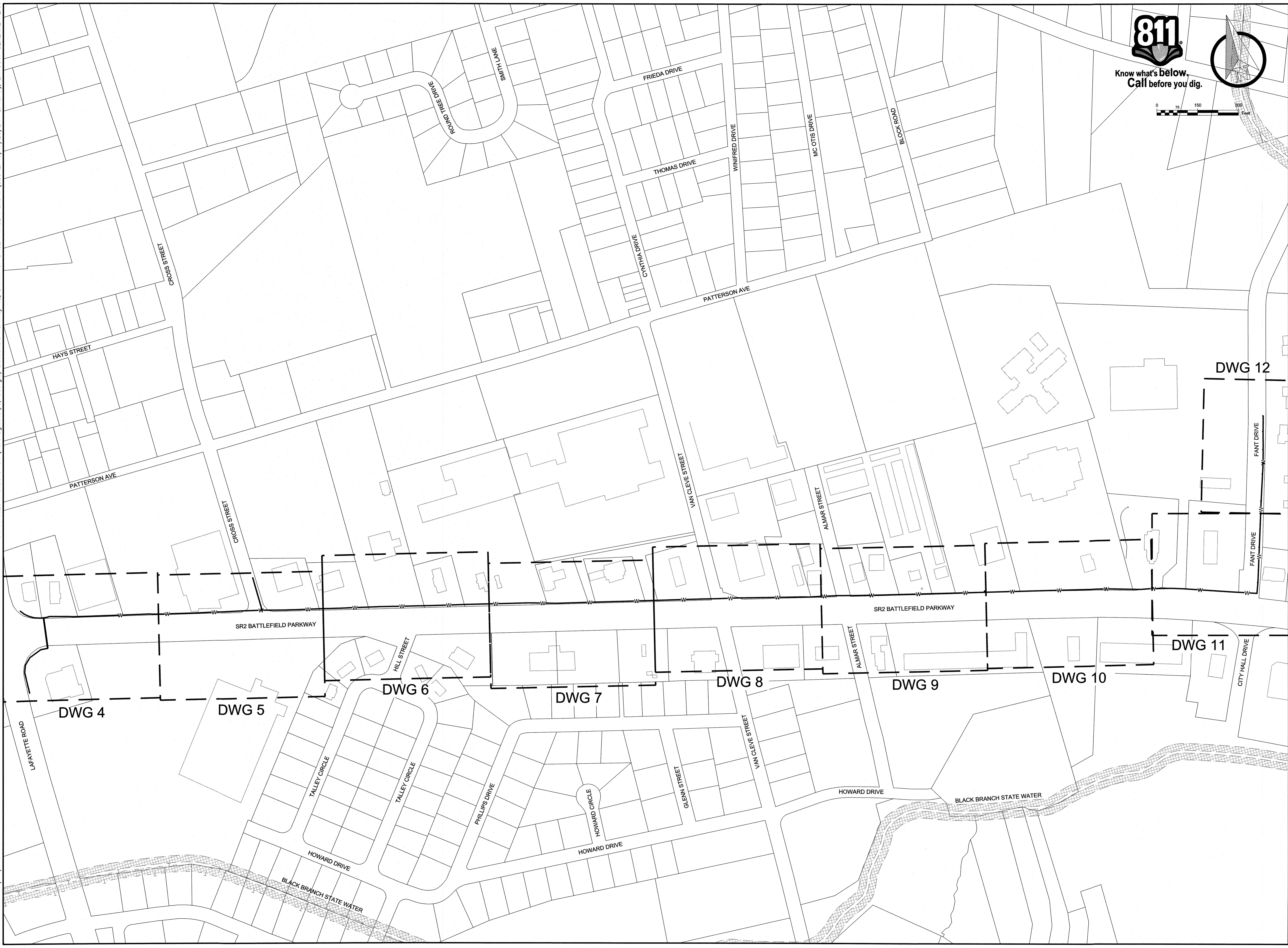


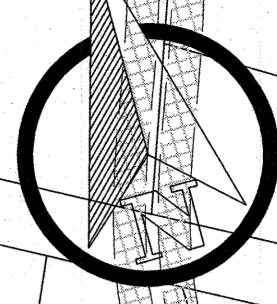
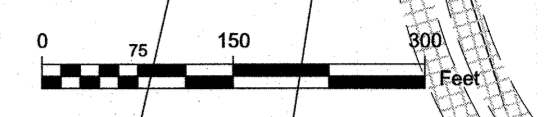
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CTI PROJECT: G19015-04 (Fort Oglethorpe, Georgia) Battlefield Parkway W, DRAWING: BASE PHASE I and II (8/24/24 2:48PM), LAYOUT: GENERAL PLAN

DATE OF PRINT: 11/20/2024 2:48 PM



Know what's below.
Call before you dig.



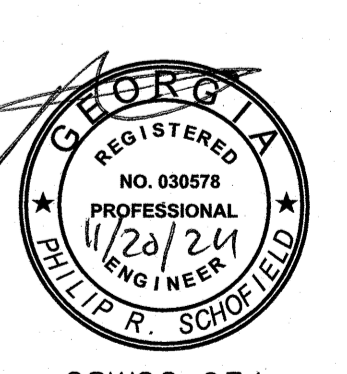
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NO.	DESCRIPTIONS	DATE	BY	APP'D
1	UPDATED BACKGROUND	11/24	ZWR	PRS

DESIGN	DRWN	CHECKED	APPROVED
PRS	PLW	MAB	PRS

**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

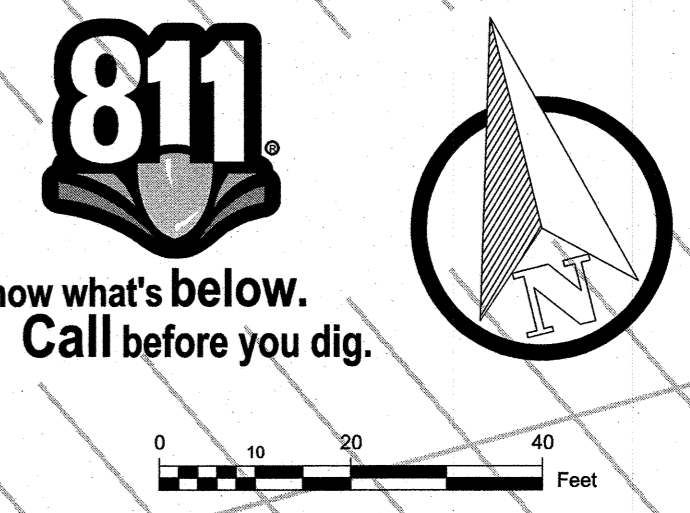
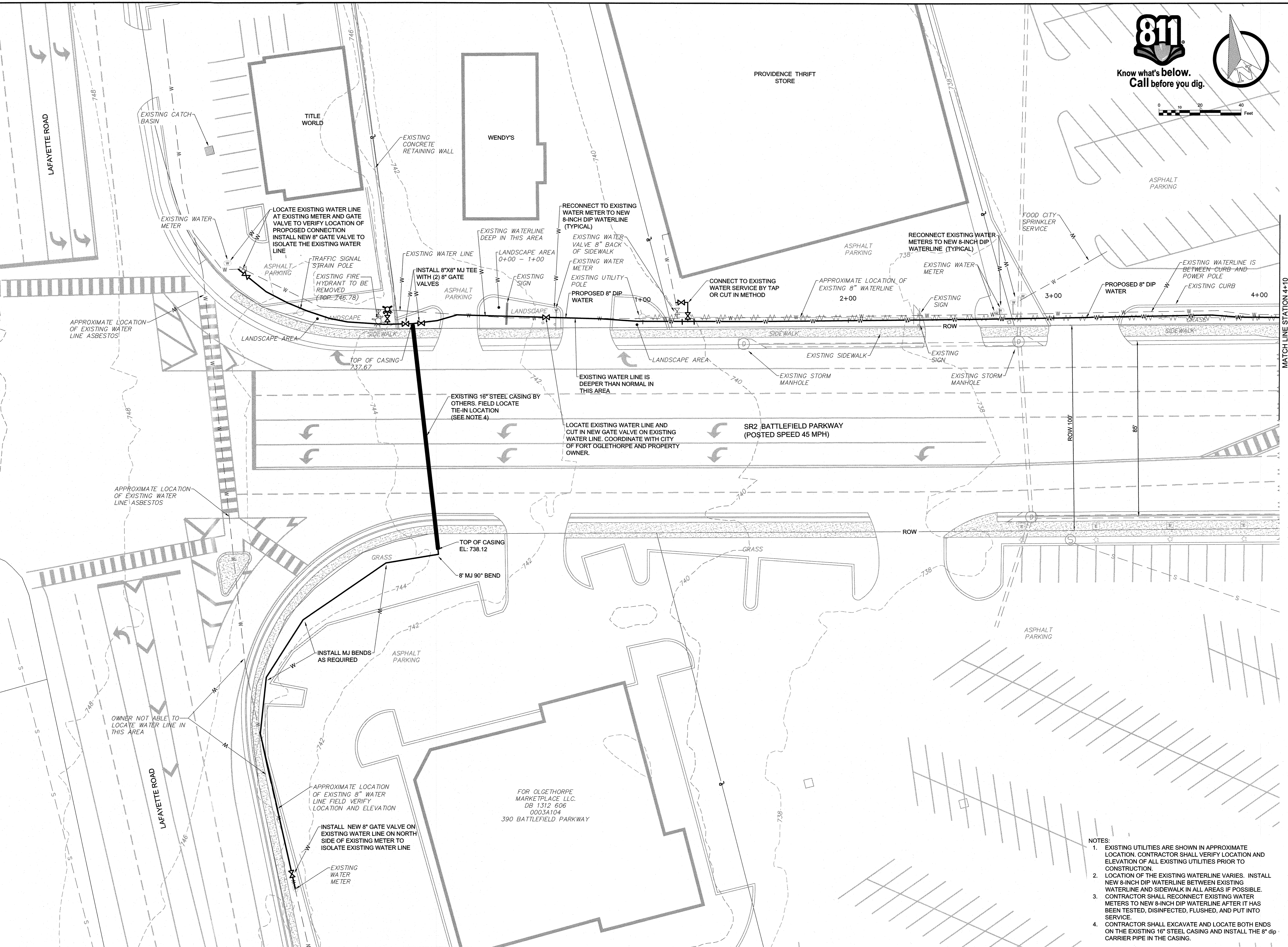
GENERAL PLAN



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 3.1

CTI PROJECT: G19015-04 (Fort Oglethorpe, Georgia) Battlefield Parkway W. DRAWING: BASE PHASE I and II (8:39:42/11/20/24 1:50PM), LAYOUT: 4

DATE OF PRINT: 11/20/2024 1:53 PM



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NO.	REVISIONS	DATE	BY	APP'D
1	REVISED BORE	10/20/24	MAB	PRS
2	UPDATED BACKGROUND	11/24/24	ZWR	PRS

DESIGN	PR	DR	CHK	APP
PRS	PLW	MAB	PRS	

**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 1 OF 9

GSWCC 934

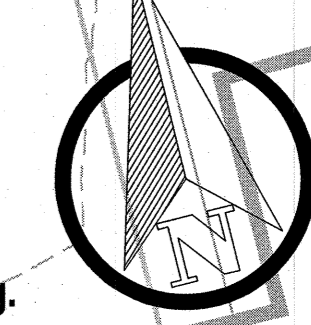
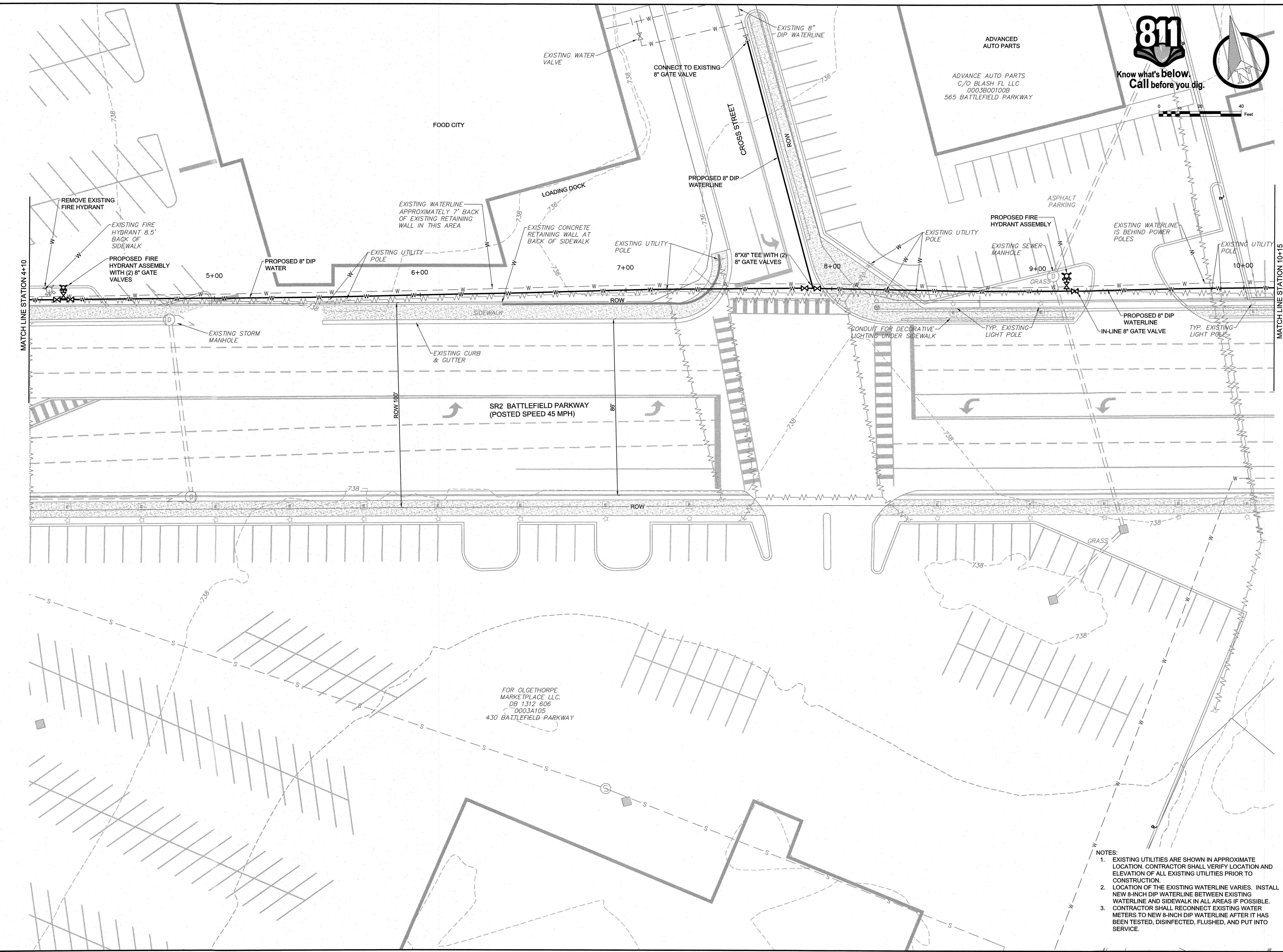
JOB NO. G19015-04

ISSUE DATE 05/04/2020

SCALE AS NOTED

DRAWING NO. 4.2

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - LOCATION OF THE EXISTING WATERLINE VARIES. INSTALL NEW 8-INCH DIP WATERLINE BETWEEN EXISTING WATERLINE AND SIDEWALK IN ALL AREAS IF POSSIBLE. CONTRACTOR SHALL RECONNECT EXISTING WATER METERS TO NEW 8-INCH DIP WATERLINE AFTER IT HAS BEEN TESTED, DISINFECTED, FLUSHED, AND PUT INTO SERVICE.
 - CONTRACTOR SHALL EXCAVATE AND LOCATE BOTH ENDS ON THE EXISTING 16" STEEL CASING AND INSTALL THE 8" DIP CARRIER PIPE IN THE CASING.



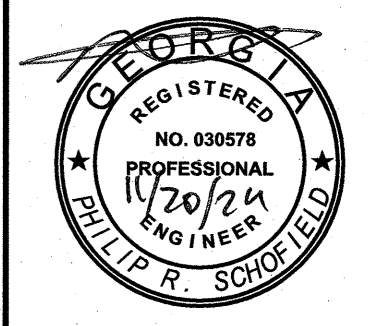
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NO.	DESCRIPTIONS	DATE	BY	APP'D
1	UPDATED BACKGROUND	11/24	ZWR	PRS

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CH	MAB			
AP	PRS			

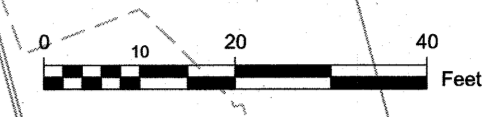
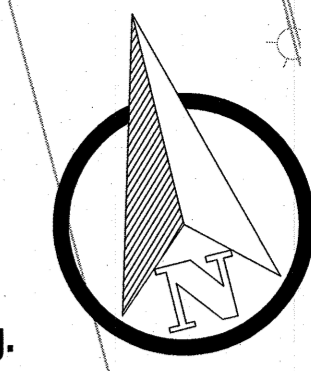
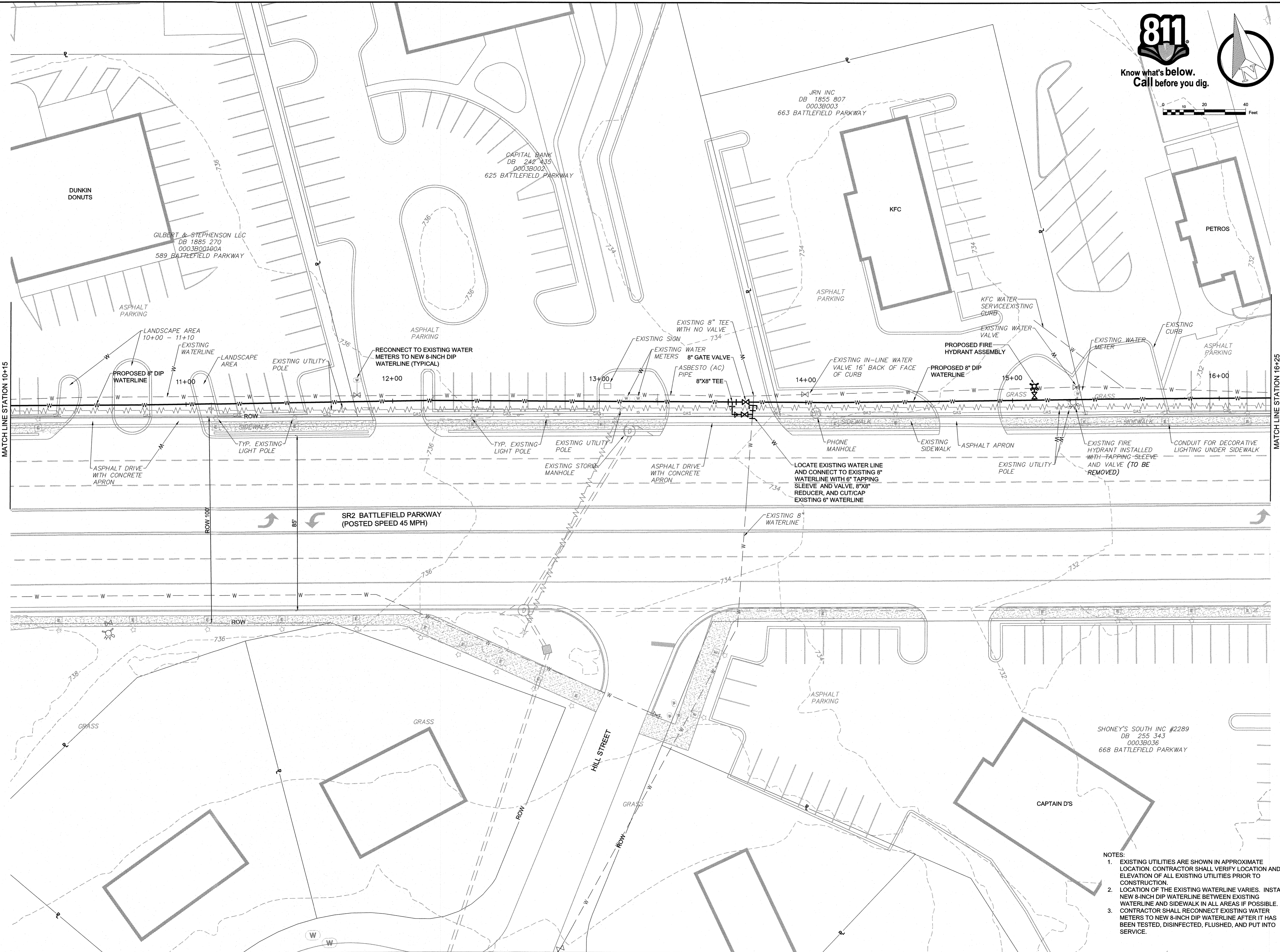
**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 2 OF 9



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 5.1

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - LOCATION OF THE EXISTING WATERLINE VARIES. INSTALL NEW 8-INCH DIP WATERLINE BETWEEN EXISTING WATERLINE AND SIDEWALK IN ALL AREAS IF POSSIBLE. CONTRACTOR SHALL RECONNECT EXISTING WATER METERS TO NEW 8-INCH DIP WATERLINE AFTER IT HAS BEEN TESTED, DISINFECTED, FLUSHED, AND PUT INTO SERVICE.



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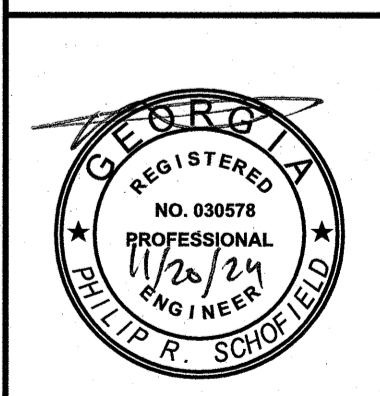
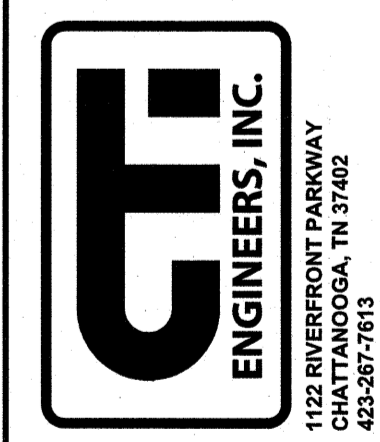
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DESIGN	NO.	DESCRIPTIONS	DATE	BY	APP'D
PRS	1	UPDATED BACKGROUND	11/24	ZWR	PRS

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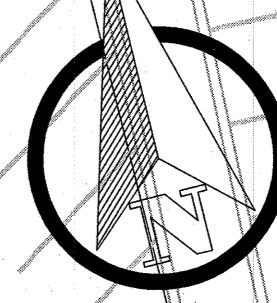
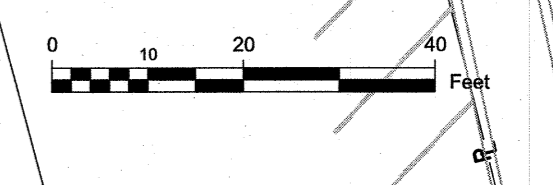
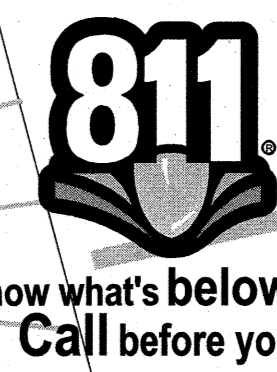
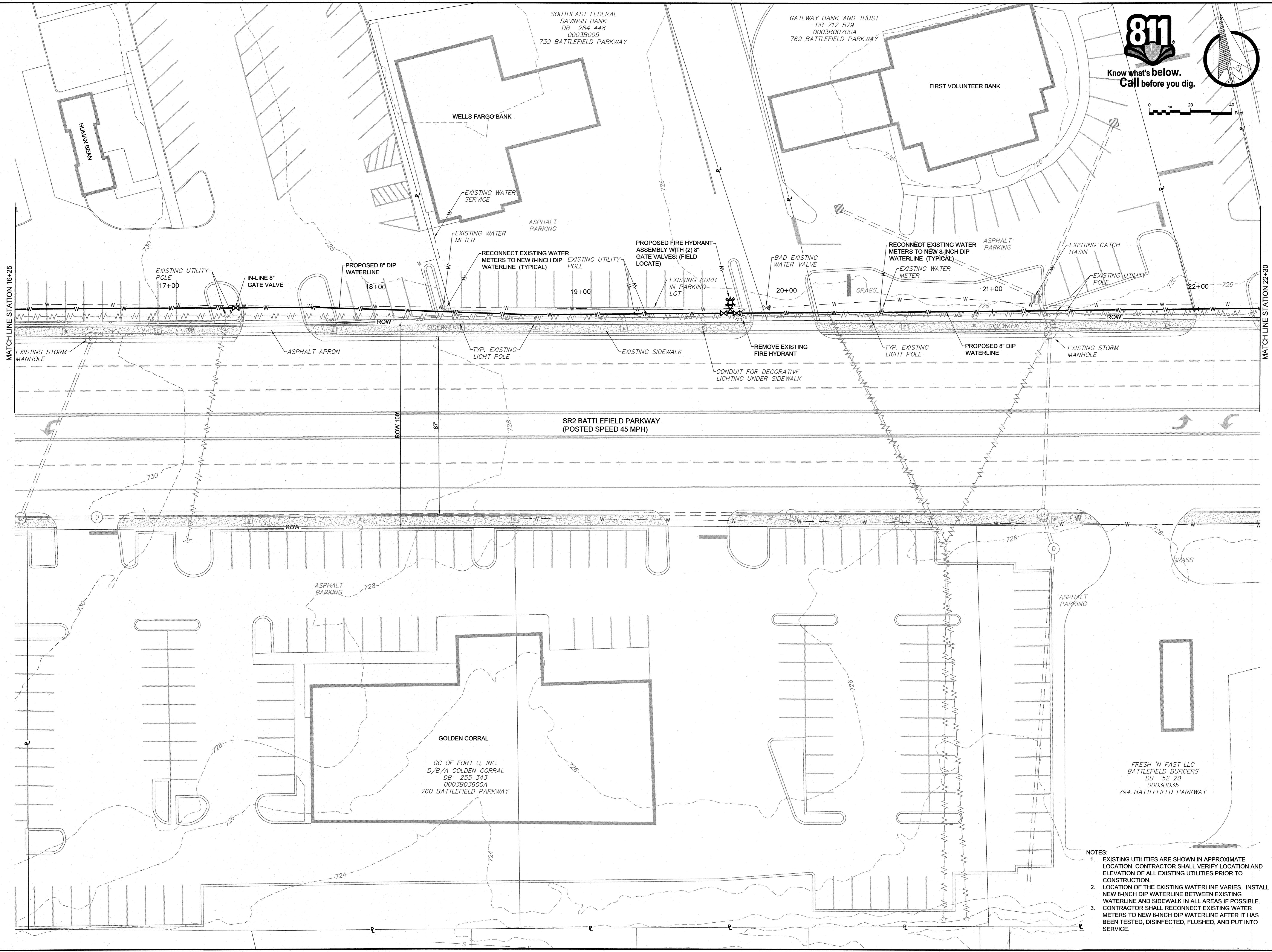
**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 3 OF 9



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 6.1

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - LOCATION OF THE EXISTING WATERLINE VARIES. INSTALL NEW 8-INCH DIP WATERLINE BETWEEN EXISTING WATERLINE AND SIDEWALK IN ALL AREAS IF POSSIBLE. CONTRACTOR SHALL RECONNECT EXISTING WATER METERS TO NEW 8-INCH DIP WATERLINE AFTER IT HAS BEEN TESTED, DISINFECTED, FLUSHED, AND PUT INTO SERVICE.



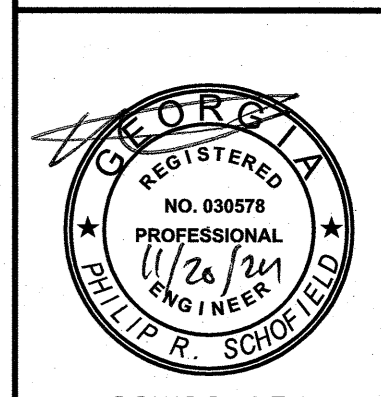
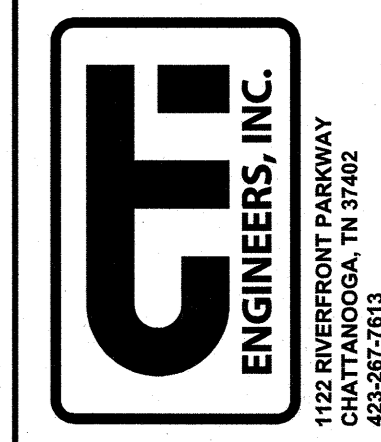
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NO.	DESCRIPTIONS	DATE	BY	APPD
1	UPDATED BACKGROUND	11/24	ZWR	PRS

DESIGN	PR	DR	CHECKED	APPROVED
PRS	PLW	MAB	PRS	

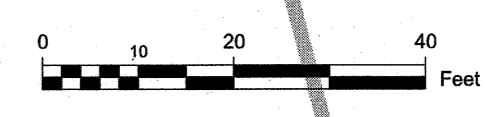
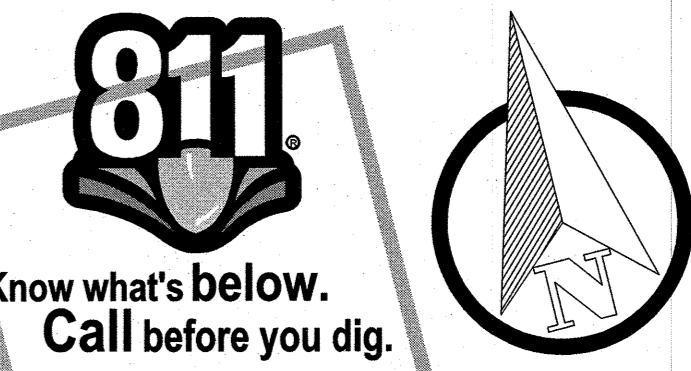
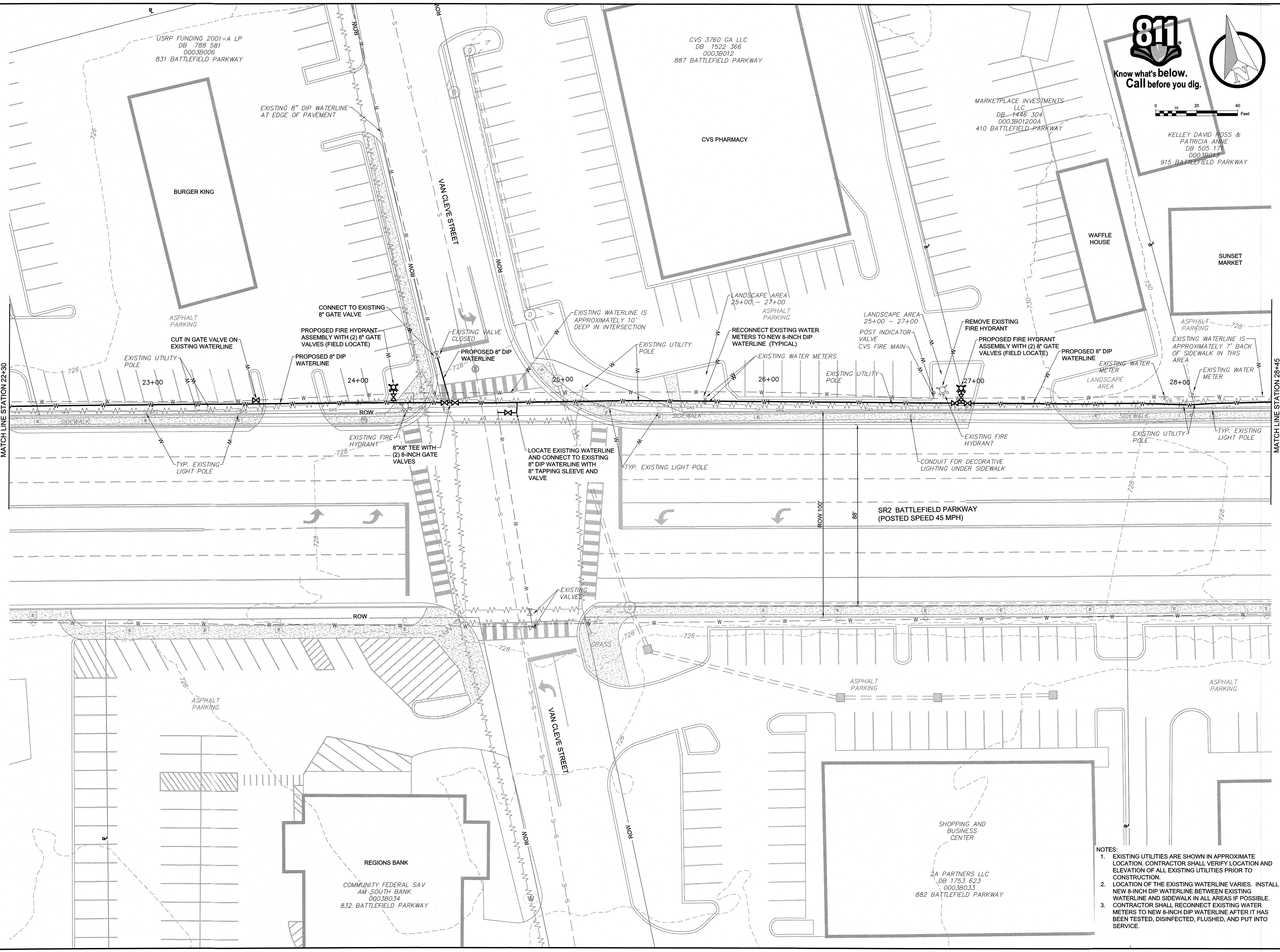
**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 4 OF 9



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 7.1

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - LOCATION OF THE EXISTING WATERLINE VARIES. INSTALL NEW 8-INCH DIP WATERLINE BETWEEN EXISTING WATERLINE AND SIDEWALK IN ALL AREAS IF POSSIBLE. CONTRACTOR SHALL RECONNECT EXISTING WATER METERS TO NEW 8-INCH DIP WATERLINE AFTER IT HAS BEEN TESTED, DISINFECTED, FLUSHED, AND PUT INTO SERVICE.



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REVISIONS	
NO.	DESCRIPTIONS
1	UPDATED BACKGROUND

DESIGN	DATE	BY	APP'D
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CHECKED			
MAB			
APPROVED			
PRS			

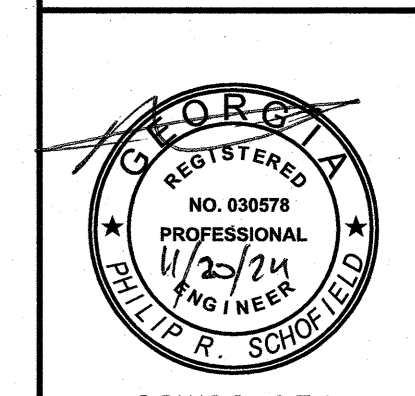
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 DRAWN: PLW
 CHECKED: MAB
 APPROVED: PRS

REVISIONS:
 1. UPDATED BACKGROUND

DATE: 11/24
 BY: ZWR
 APP'D: PRS

PROJECT: FORT OGLETHORPE, GEORGIA
 BATTLEFIELD PARKWAY
 WATER LINE REPLACEMENT

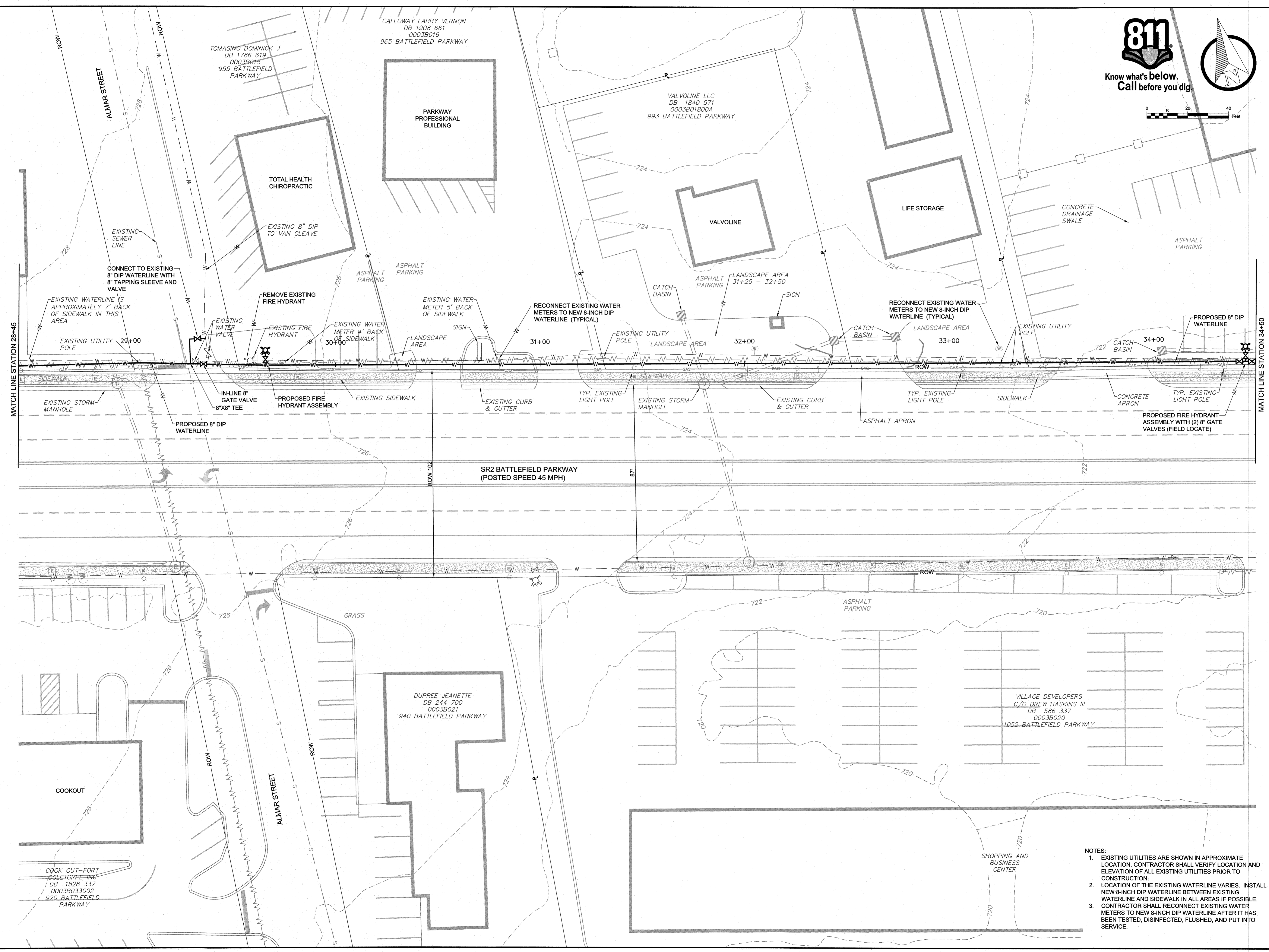
PROPOSED PLAN DRAWING 5 OF 9



GSWCC 934
 JOB NO. G19015-04
 ISSUE DATE 05/04/2020
 SCALE AS NOTED
 DRAWING NO. 8.1

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
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DATE OF PRINT: 11/20/2024 1:57 PM
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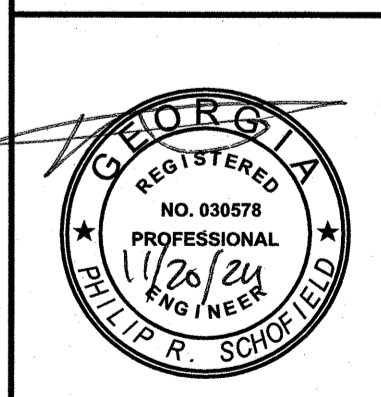
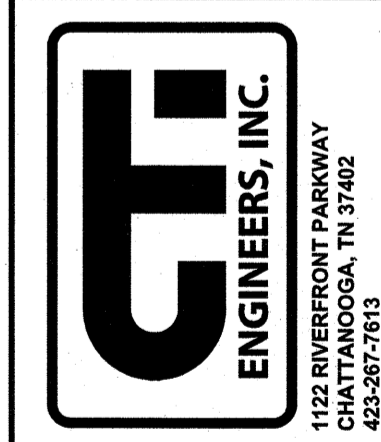
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NO.	DESCRIPTIONS	DATE	BY	APPD
1	UPDATED BACKGROUND	11/24	ZWR	PRS

DESIGN	PR	DR	CHK	MAB	APR	PR
	PRS	PLW				PRS

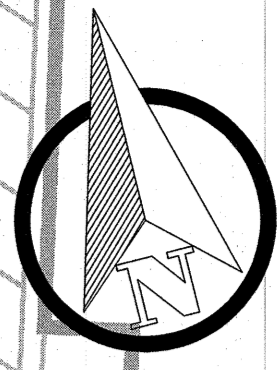
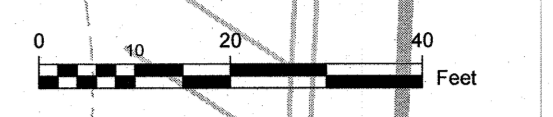
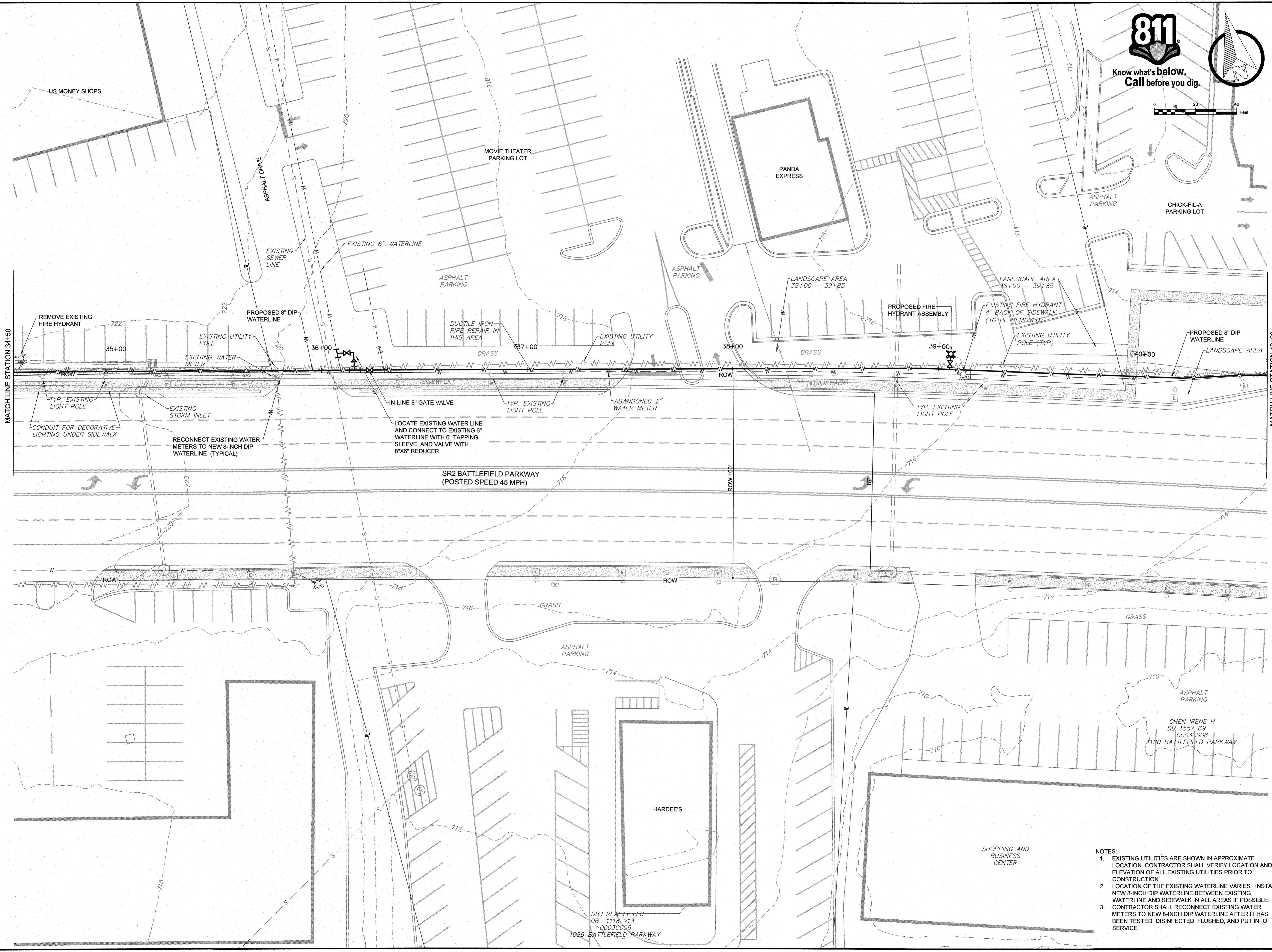
**FORT OGLETHORPE, GEORGIA
 BATTLEFIELD PARKWAY
 WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 6 OF 9



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 9.1

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - LOCATION OF THE EXISTING WATERLINE VARIES. INSTALL NEW 8-INCH DIP WATERLINE BETWEEN EXISTING WATERLINE AND SIDEWALK IN ALL AREAS IF POSSIBLE.
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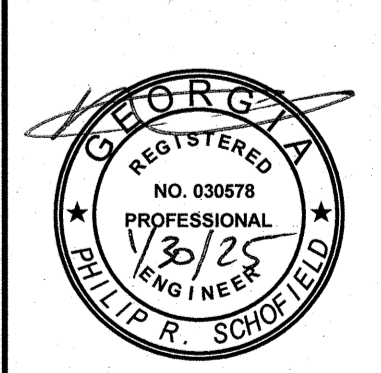
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DESIGN		DATE		BY		APP'D	
NO.	DESCRIPTIONS						
1	UPDATED BACKGROUND	11/24	ZWR	PRS			

DESIGN	PRW	PLW	CHECKED	MAB	APPROVED	PRS

**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 7 OF 9

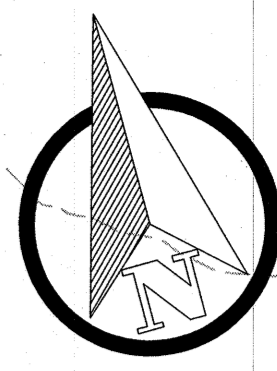
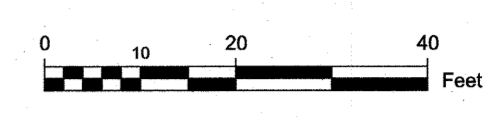
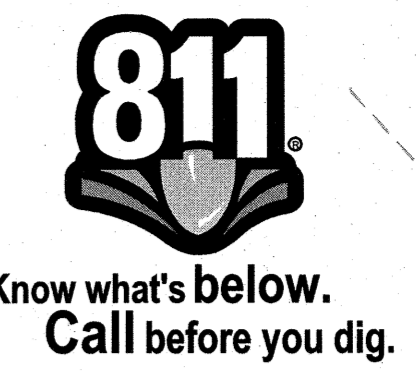
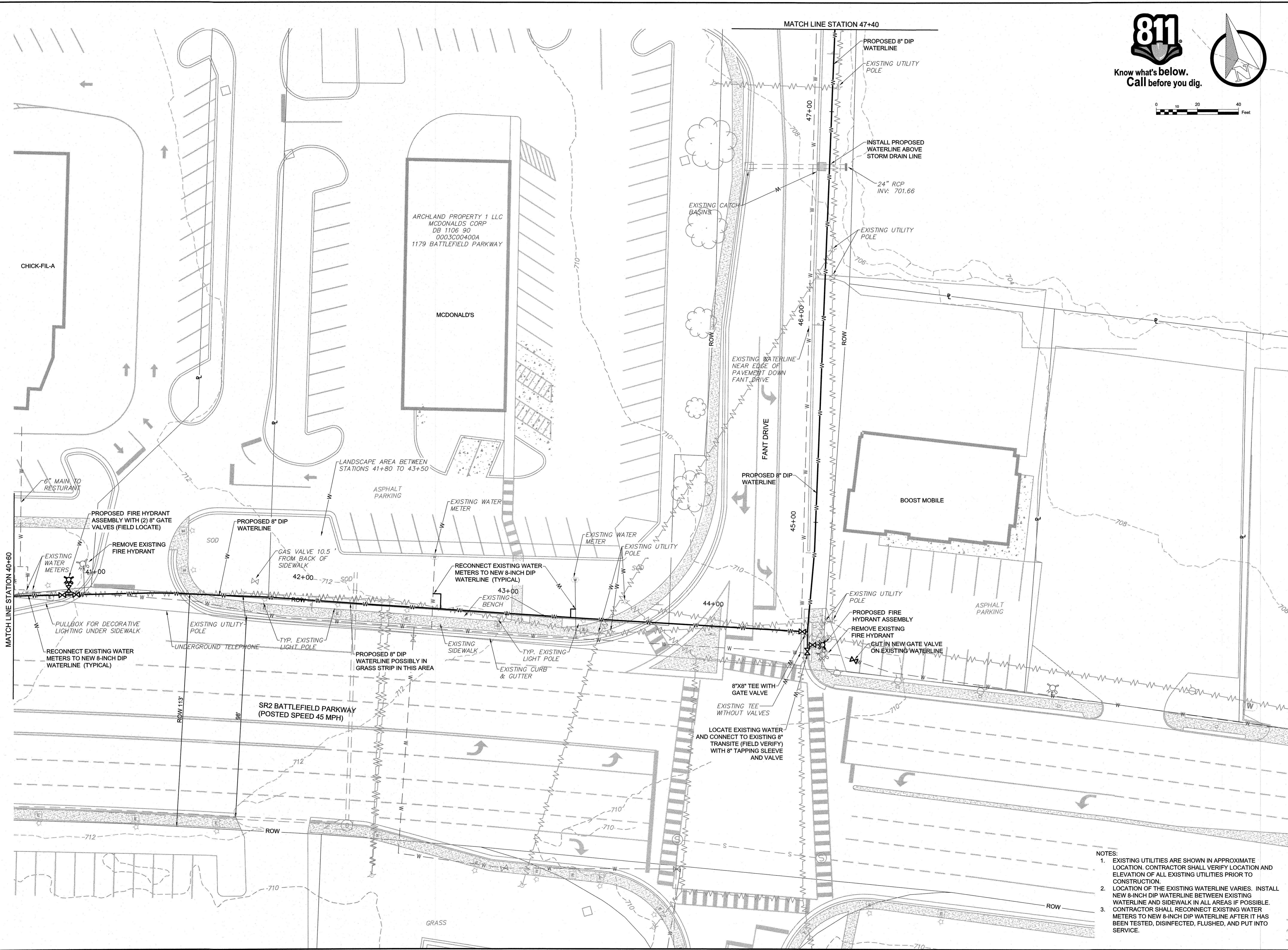


GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 10.1

- NOTES:
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DBJ REALTY LLC
DB 1118, 213
0003005
1086 BATTLEFIELD PARKWAY

CHEN IRENE H
DB 1557, 69
0003006
7120 BATTLEFIELD PARKWAY



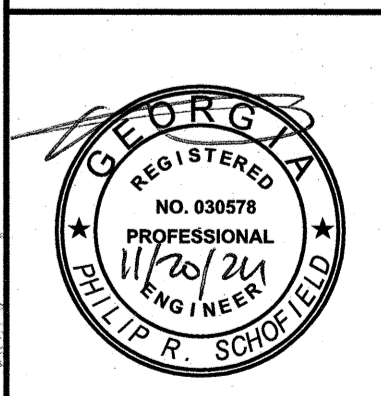
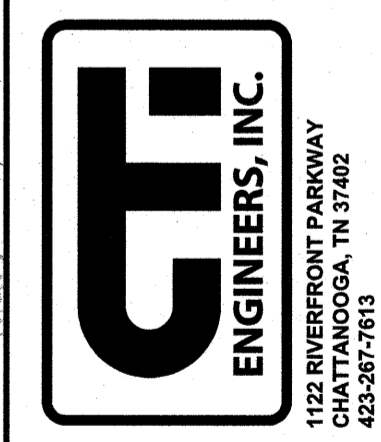
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DESIGN		REVISIONS	
NO.	DESCRIPTIONS	DATE	BY
1	UPDATED BACKGROUND	11/24	ZWR

DESIGN: PRS
 DRAWN: PLW
 CHECKED: MAB
 APPROVED: PRS

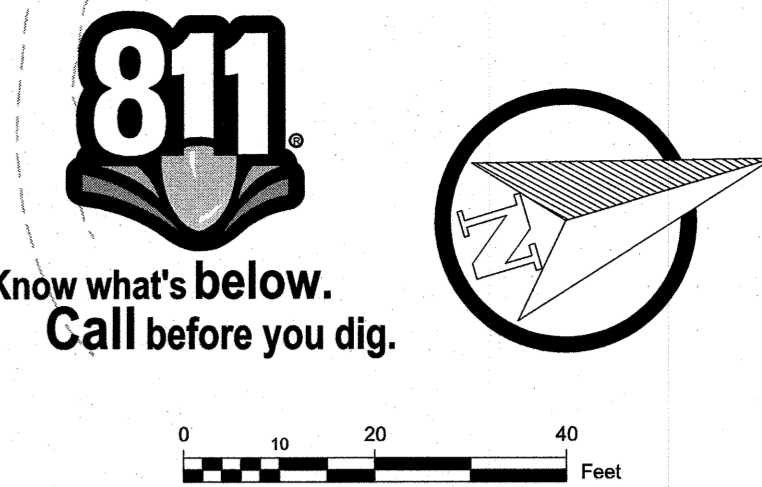
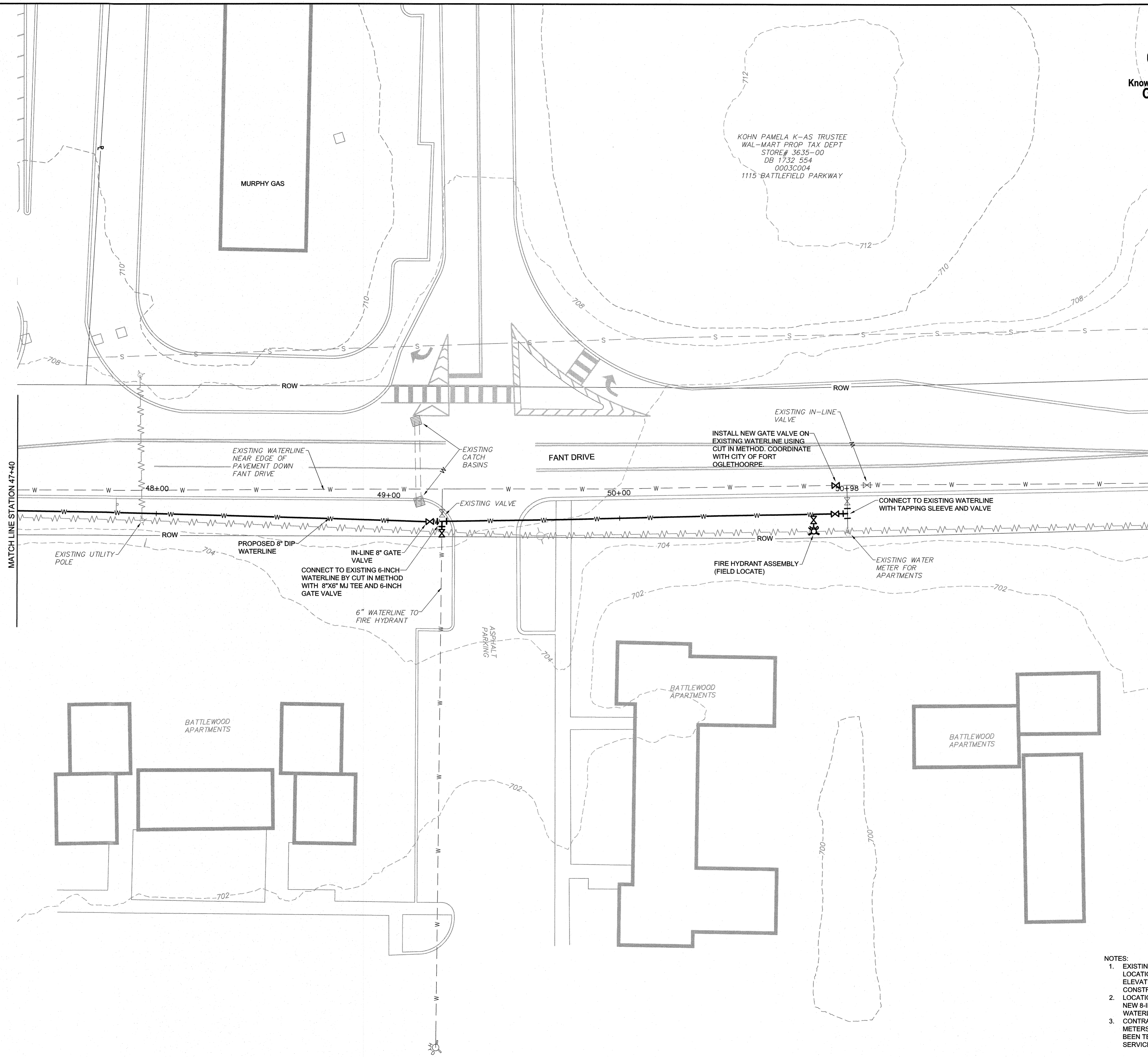
**FORT OGLETHORPE, GEORGIA
 BATTLEFIELD PARKWAY
 WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 8 OF 9



GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 11.1

- NOTES:
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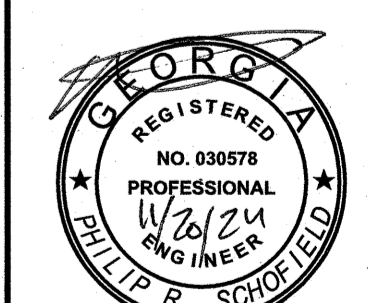
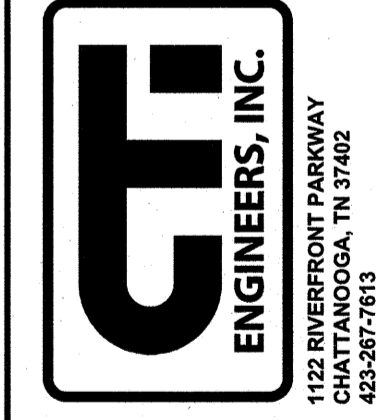
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NO.	DESCRIPTIONS	DATE	BY	APP'D
1	UPDATED BACKGROUND	11/24	ZWR	PRS

DESIGN	PRW	CHKD	APP'D
PRS	PLW	MAB	PRS

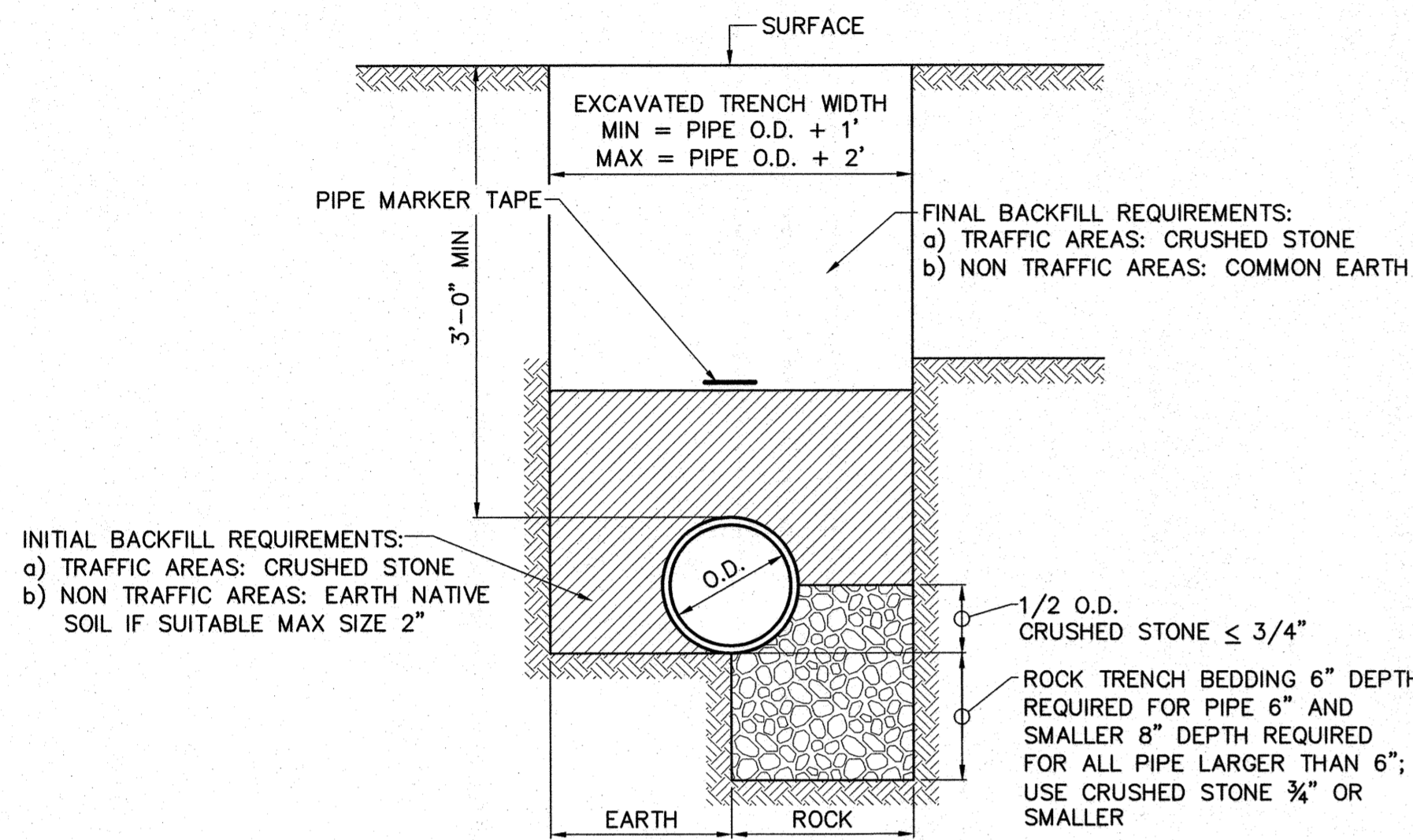
**FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT**

PROPOSED PLAN DRAWING 9 OF 9

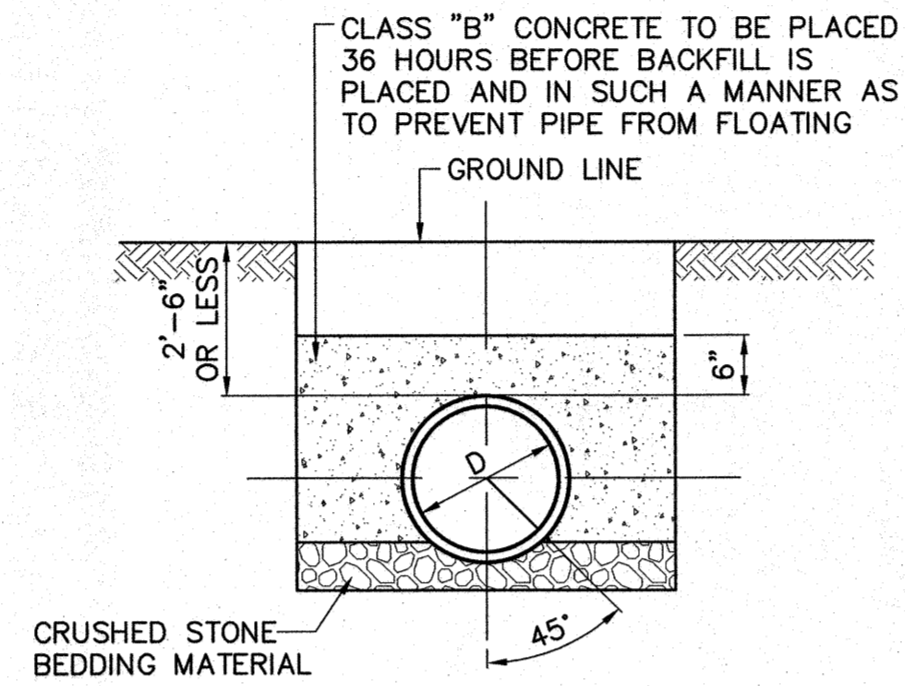


GSWCC 934
JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. 12.1

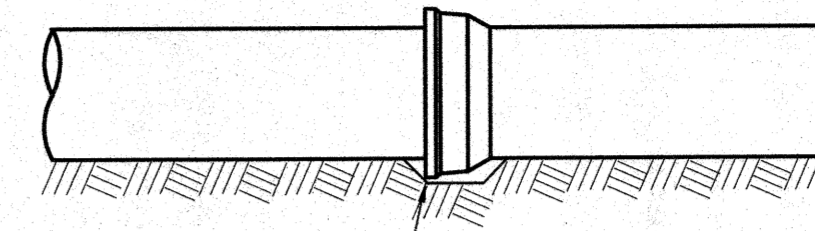
- NOTES:
- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
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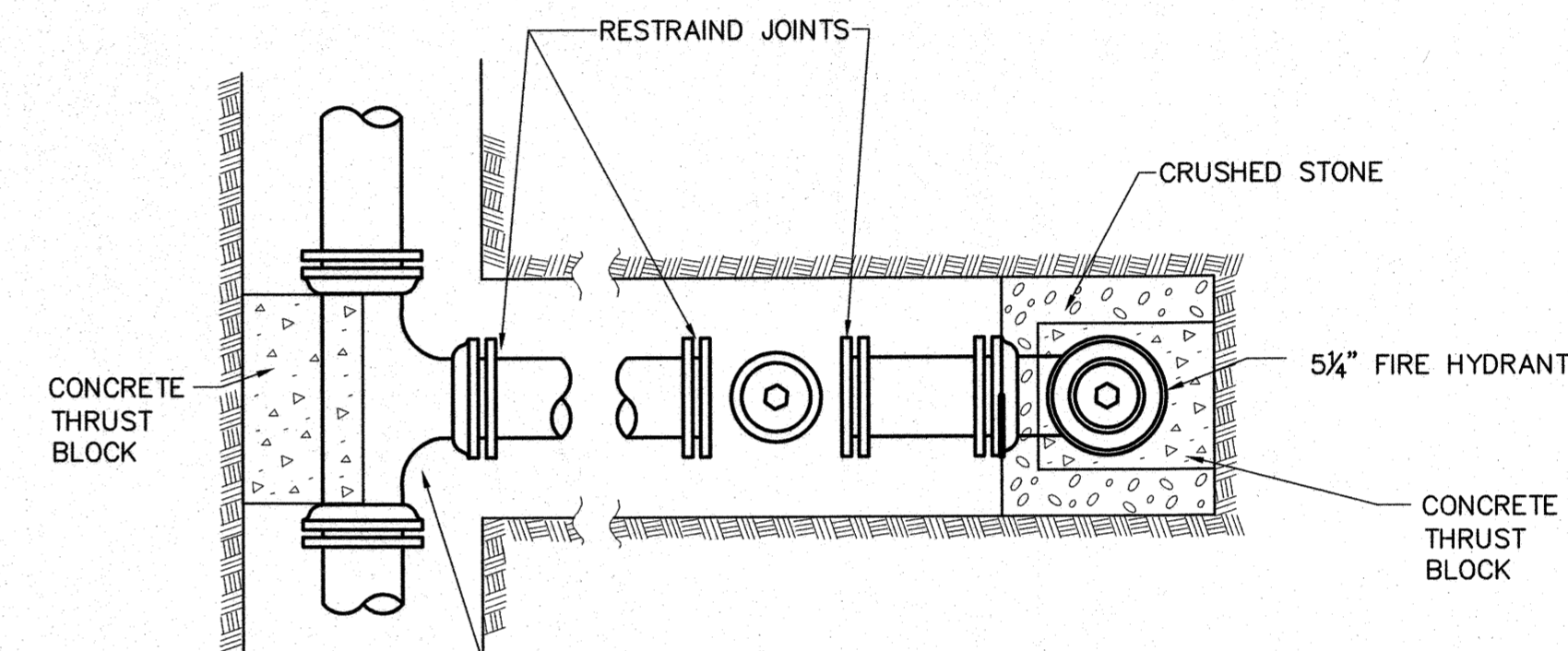
D.I.P. INSTALLATION DETAIL
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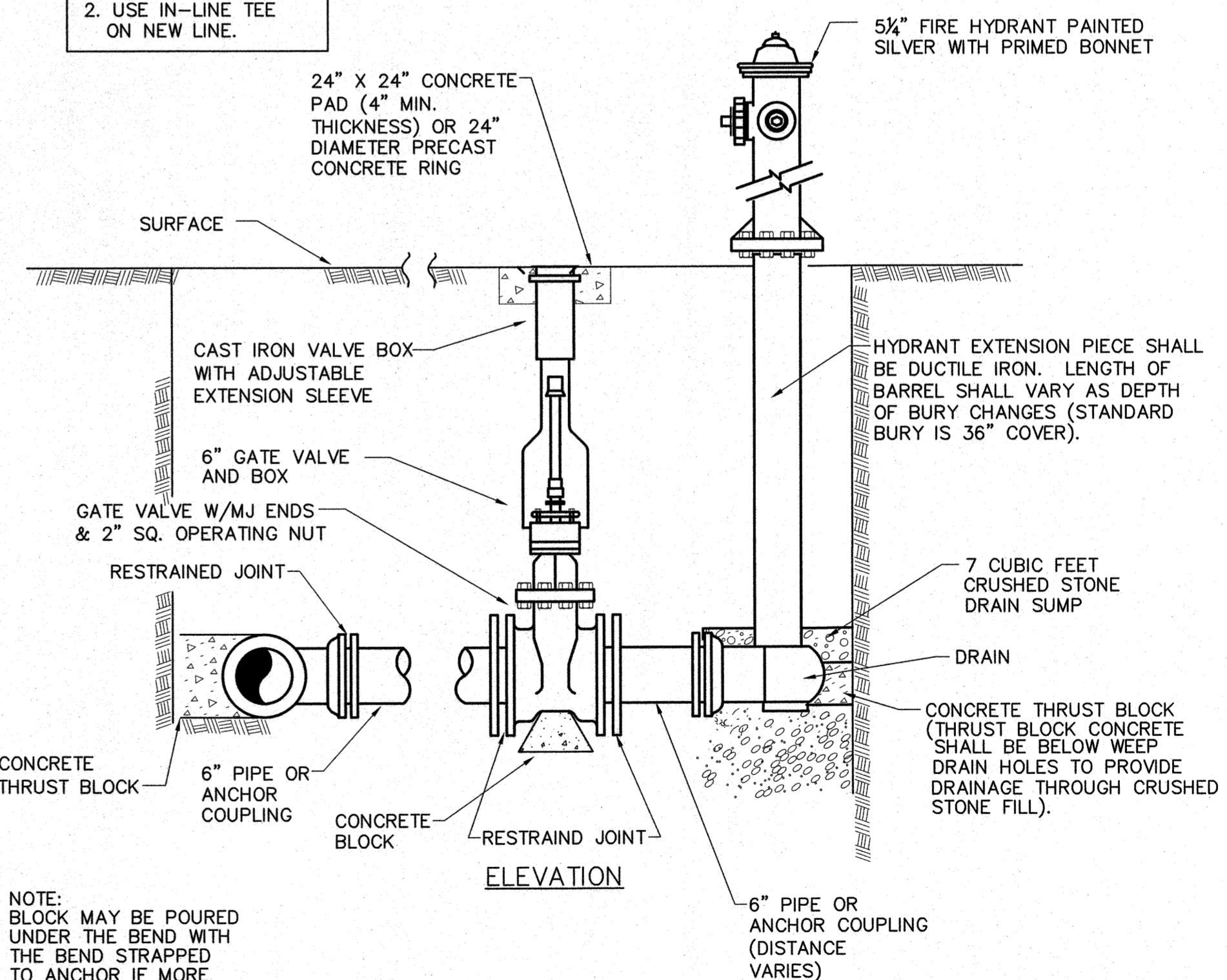
TYPICAL SECTION CONCRETE PROTECTION
NOT TO SCALE



UNIFORM PIPE SUPPORT DETAIL
NOT TO SCALE



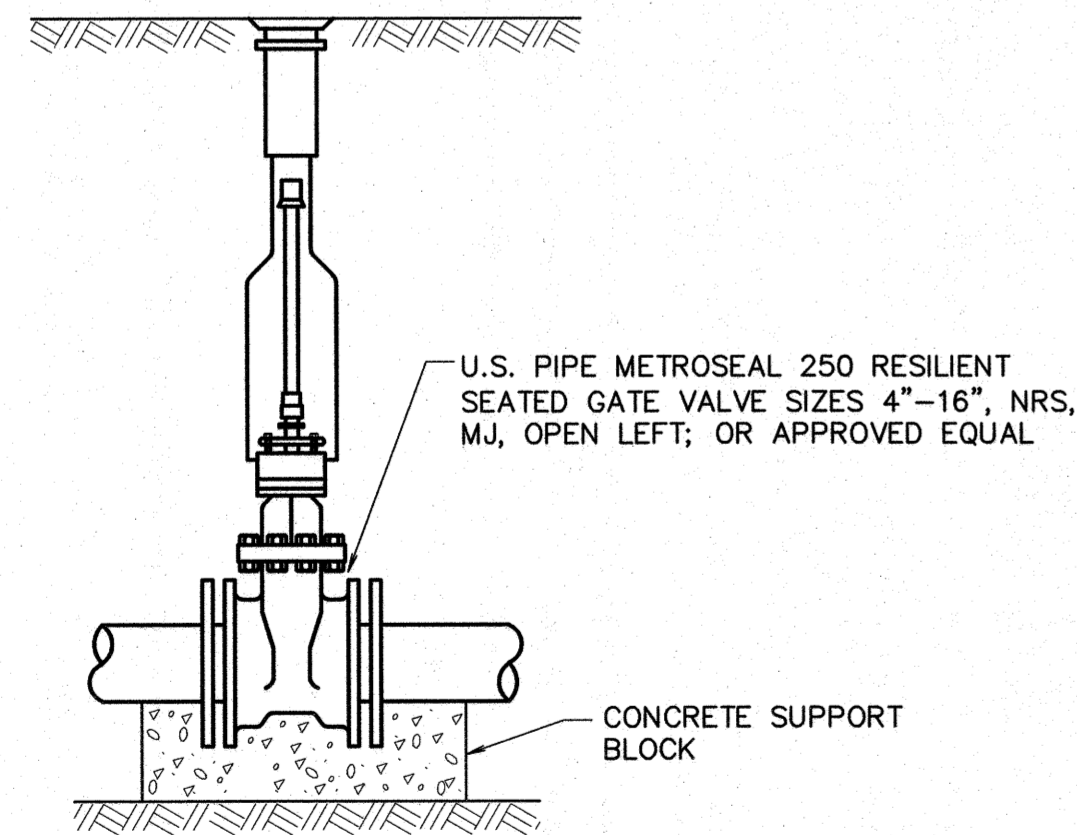
PLAN



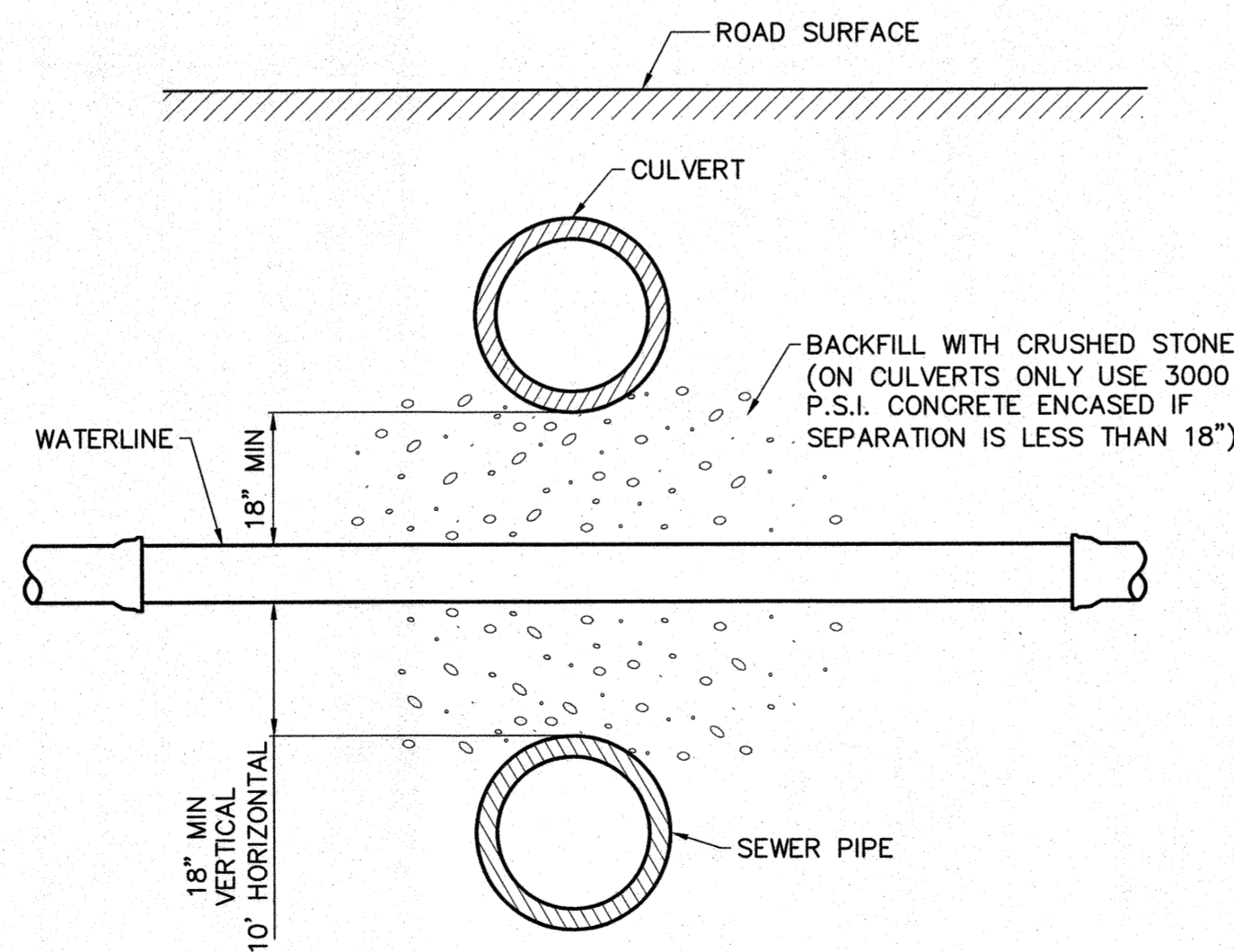
ELEVATION

NOTE:
BLOCK MAY BE POURED UNDER THE BEND WITH THE BEND STRAPPED TO ANCHOR IF MORE PRACTICABLE.

FIRE HYDRANT ASSEMBLY
NOT TO SCALE



GATE VALVE INSTALLATION DETAIL
NOT TO SCALE



DETAIL OF INSTALLATION UNDER CULVERT OR OVER SEWER PIPE
NOT TO SCALE

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NO.	REVISIONS	DATE	BY	APP'D

DESIGN	PR	DRAWN	CHECKED	APPROVED

CITY OF FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT

STANDARD DETAILS 1

ENGINEERS, INC.
1122 RIVERBENT PARKWAY
CHATTAHOOCHEE, GA 31702
423-267-7813

NO. 030578
PROFESSIONAL
ENGINEER
R. R. SCHWELB

GSWCC 934
JOB NO.
G19015-04
ISSUE DATE
05/04/2020
SCALE
AS NOTED
DRAWING NO.
D-1.0

TYPE 2 BEDDING

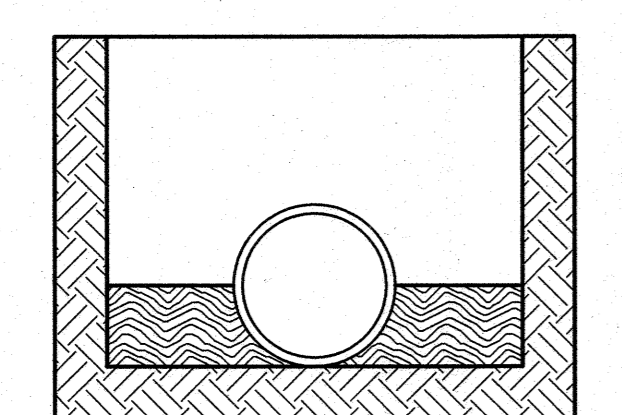
NOM. PIPE SIZE (IN.)	HORIZONTAL & VERTICAL UP (NON-ENCROACHING) BENDS																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	4	7	15	36	5	10	20	48	6	12	25	60	4	4	9	18	43	6	12	24	58	7	14	30	72
4	6	12	25	61	8	16	34	82	10	20	42	102	8	8	16	33	79	10	21	43	105	13	26	54	131
10	9	19	39	95	12	25	52	126	16	31	65	158	12	11	22	46	110	15	29	61	147	18	37	76	228
14	12	25	52	126	17	33	69	169	21	42	87	209	16	14	28	58	140	17	37	77	187	23	46	97	234
18	15	31	64	154	20	41	85	206	25	51	107	257	18	15	31	64	154	20	41	85	206	25	51	107	257
20	17	33	69	168	22	44	93	224	28	56	116	279	20	17	33	69	168	22	44	93	224	28	56	116	279
24	19	39	80	194	25	51	107	259	32	64	134	323	24	19	39	80	194	25	51	107	259	32	64	134	323

NOM. PIPE SIZE (IN.)	VERTICAL DOWN (NON-ENCROACHING) BENDS																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	5	11	23	56	2	3	6	15	2	4	8	20	4	7	13	28	67	2	4	9	18	2	5	10	25
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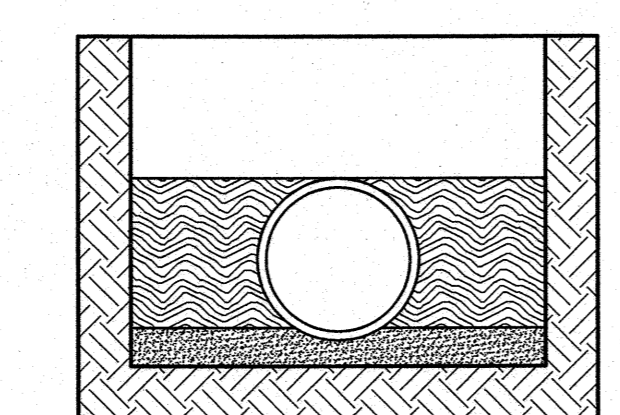
NOM. PIPE SIZE (IN.)	VERTICAL UP (ENCROACHING) & COMBINED VERTICAL OFFSET (OVER OBJECT)																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	7	14	30	72	8	18	39	95	11	23	49	119	4	9	17	36	87	10	22	47	115	13	28	59	144
6	12	24	51	123	15	31	67	162	19	40	84	203	8	16	31	65	157	20	41	86	209	25	51	108	261
10	19	38	79	190	24	49	104	252	30	62	130	315	12	22	44	92	221	28	58	121	294	35	72	152	367
14	25	50	104	251	32	66	138	334	40	82	173	418	18	28	56	116	280	36	73	154	373	45	92	193	466
18	30	61	128	309	40	81	169	410	50	101	212	513	20	33	67	139	335	43	88	184	446	54	110	231	558
24	38	77	161	388	50	102	213	516	63	128	267	646	24	41	82	164	342	56	114	239	578	74	154	374	769

NOM. PIPE SIZE (IN.)	VERTICAL DOWN (ENCROACHING) & COMBINED VERTICAL OFFSET (UNDER OBJECT)																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	11	22	46	112	14	29	61	148	17	36	76	185	4	13	27	56	135	17	35	73	178	21	44	92	223
6	19	38	79	191	24	50	104	253	30	62	131	317	8	16	31	65	157	20	41	86	209	25	51	108	261
10	29	58	123	297	38	78	163	395	48	98	204	494	12	34	69	144	347	45	91	191	462	56	114	239	578
14	39	79	164	396	51	104	218	527	64	130	273	659	16	44	88	183	443	57	116	244	590	72	146	305	737
18	48	97	203	489	63	129	269	651	79	161	337	814	20	52	106	221	553	69	140	293	709	86	176	367	887
24	61	123	257	621	80	164	342	826	101	205	427	1033	24	61	123	257	621	80	164	342	826	101	205	427	1033

NOM. PIPE SIZE (IN.)	TEES, VALVES, DEAD-ENDS				REDUCERS			
	150psi		200psi		250psi		250psi	
	REDUCERS	TEES, VALVES, DEAD-ENDS	REDUCERS	TEES, VALVES, DEAD-ENDS	REDUCERS	TEES, VALVES, DEAD-ENDS	REDUCERS	TEES, VALVES, DEAD-ENDS
3	---	56	---	74	---	93	---	93
4	21	67	29	90	36	112	---	112
6	49	95	66	127	82	159	---	159
8	51	123	69	164	86	205	---	205
10	50	149	66	198	83	248	---	248
12	51	174	68	231	85	289	---	289
14	51	198	69	264	84	330	---	330
16	50	221	67	295	84	369	---	369
18	50	245	66	328	83	408	---	408
20	49	266	66	355	82	444	---	444
24	93	310	124	414	155	517	---	517



TYPE 2 BEDDING
FLAT-BOTTOM TRENCH*. BACKFILL LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE.



TYPE 3 BEDDING
PIPE BEDDED IN 4" MIN. LOOSE SOIL**. BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE.

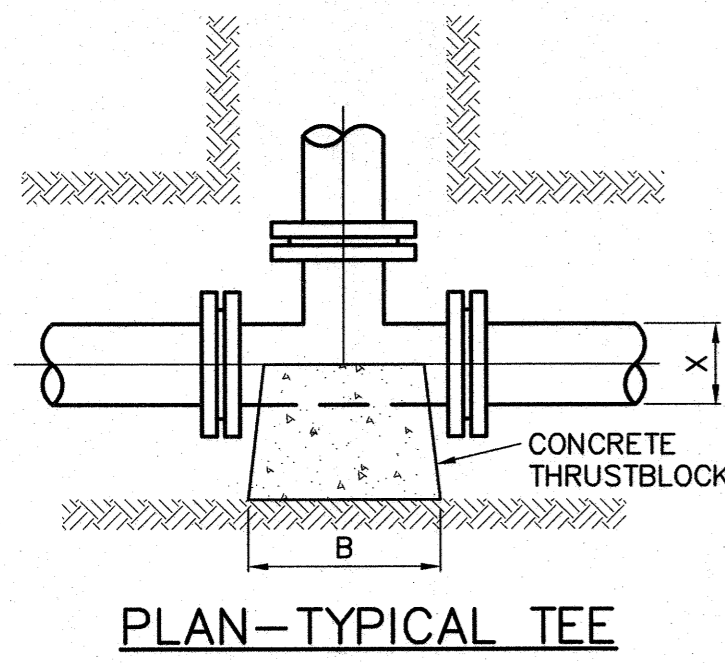
* "FLAT-BOTTOM" IS DEFINED AS "UNDISTURBED EARTH".
** "LOOSE SOIL" IS DEFINED AS "NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH".

TYPE 3 BEDDING

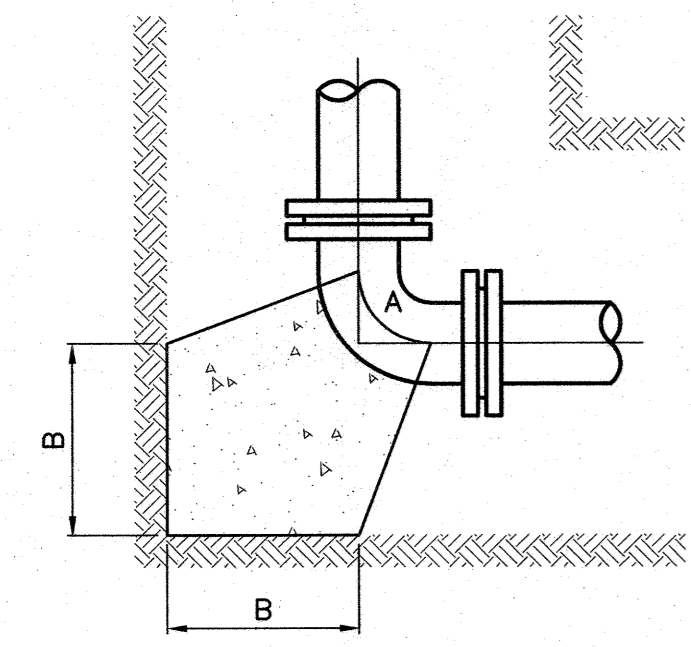
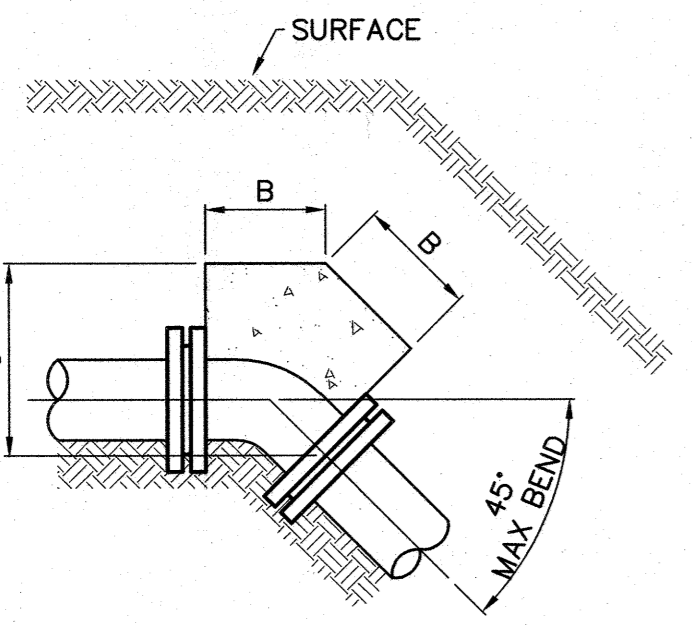
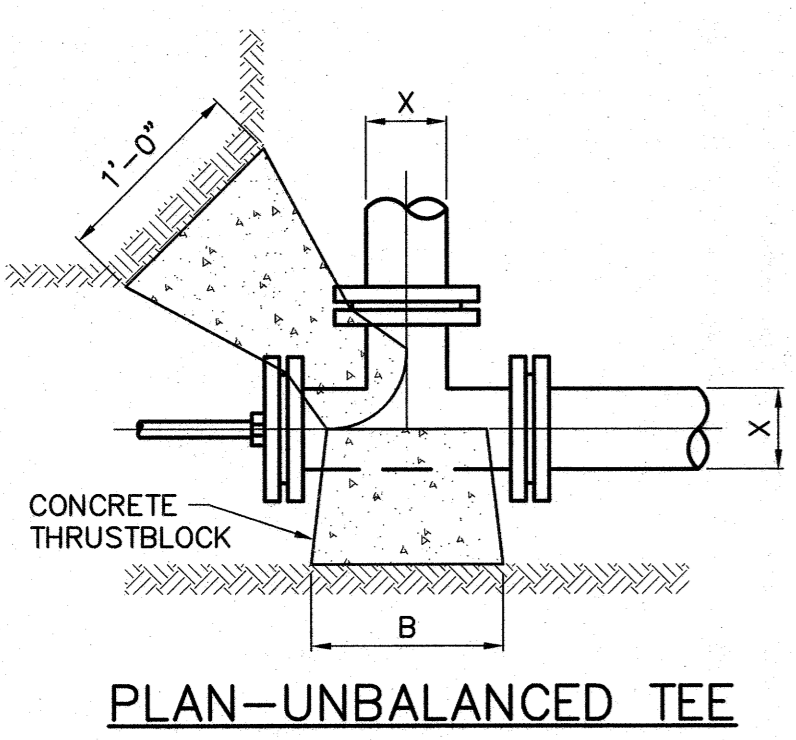
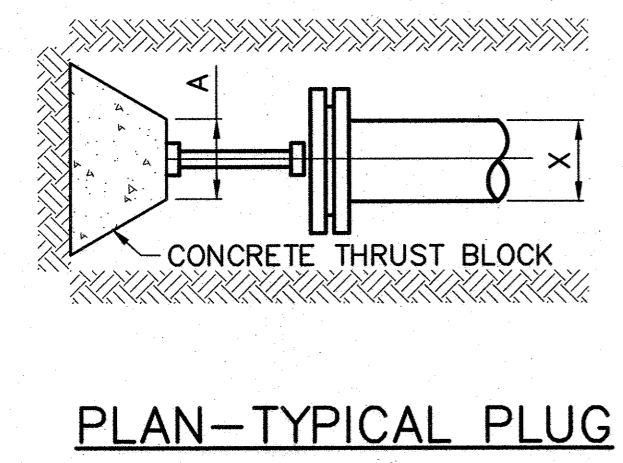
NOM. PIPE SIZE (IN.)	HORIZONTAL & VERTICAL UP (NON-ENCROACHING) BENDS																										
	ELBOWS (DEGREES)				150psi				200psi				250psi														
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90											
3	2	4	9	21	3	6	12	28	3	7	15	35	4	3	5	11	25	3	7	14	34	4	8	18	42		
4	3	5	11	25	3	6	12	28	3	7	14	34	4	3	5	11	25	3	6	12	28	6	12	25	60		
6	4	7	15	36	3	6	12	28	6	12	28	6	12	28	6	12	28	6	12	28	6	12	28	6	12	28	60
8	5	9	19	46	6	12	25	62	8	15	32	77	10	5	11	23	56	7	15	31	74	9	18	38	93		
10	5	11	23	56	7	15	31	74	9	18	38	93	12	6	13	27	65	8	17	36	86	11	21	45	108		
14	7	15	30	74	10	19	41	98	12	24	51	123	14	7	15	30	74	10	19	41	98	12	24	51	123		
16	9	16	34	82	11	22	45	109	13	27	57	137	16	9	16	34	82	11	22	45	109	13	27	57	137		
18	9	18	37	90	12	24	50	120	15	30	62	150	18	9	18	37	90	12	24	50	120	15	30	62	150		
20	10	19	41	98	13	26	54	131	16	32	68	163	20	10	19	41	98	13	26	54	131	16	32	68	163		
24	11	23	47	113	15	30	63	151	19	38	78	189	24	11	23	47	113	15	30	63	151	19	38	78	189		

NOM. PIPE SIZE (IN.)	VERTICAL DOWN (NON-ENCROACHING) BENDS																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	4	7	15	36	5	10	20	48	6	12	25	60	4	4	9	18	43	6	12	24	58	7	14	30	72
4	6	12	25	61	8	16	34	82	10	20	42	102	8	8	16	33	79	10	21	43	105	13	26	54	131
10	9	19	39	95	12	25	52	126	16	31	65	158	12	11	22	46	110	15	29	61	147	18	37	76	228
14	12	25	52	126	17	33	69	169	21	42	87	209	16	14	28	58	140	17	37	77	187	23	46	97	234
18	15	31	64	154	20	41	85	206	25	51	107	257	18	15	31	64	154	20	41	85	206	25	51	107	257
20	17	33	69	168	22	44	93	224	28	56	116	279	20	17	33	69	168	22	44	93	224	28	56	116	279
24	19	39	80	194	25	51	107	259	32	64	134	323	24	19	39	80	194	25	51	107	259	32	64	134	323

NOM. PIPE SIZE (IN.)	VERTICAL UP (ENCROACHING) & COMBINED VERTICAL OFFSET (OVER OBJECT)																								
	ELBOWS (DEGREES)				150psi				200psi				250psi												
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90									
3	3	7	17	41	5	10	22	55	6	13	28	70	4	4	9	20	50	6	13	27	67	7	16	34	84
4	4	9	20	50	6	13	27	67	7	16	34	84	6	6	13	29	71	8	18	39	95	11	23	49	119
6	6	13	29	71	8	18	39	95	11	23	49	119	8	8	17	37	91	11	23	50	122	14	30	63	153
10	10	21	45	110	14	28	60	147	17	36	76	184	12	12	25	53	128	16	33	70	171	20	42		



WELDED STEEL (MIN STDS)		
CARRIER SIZE	CASING SIZE	WALL THICKNESS OF CASING PIPE
2"	4"	0.237"
4"	10"	0.250"
6"	12"	0.250"
8"	16"	0.312"
10"	20"	0.375"
12"	24"	0.375"
18"	30"	0.500"
24"	36"	0.500"



CONCRETE THRUST BLOCK DETAILS
N.T.S.

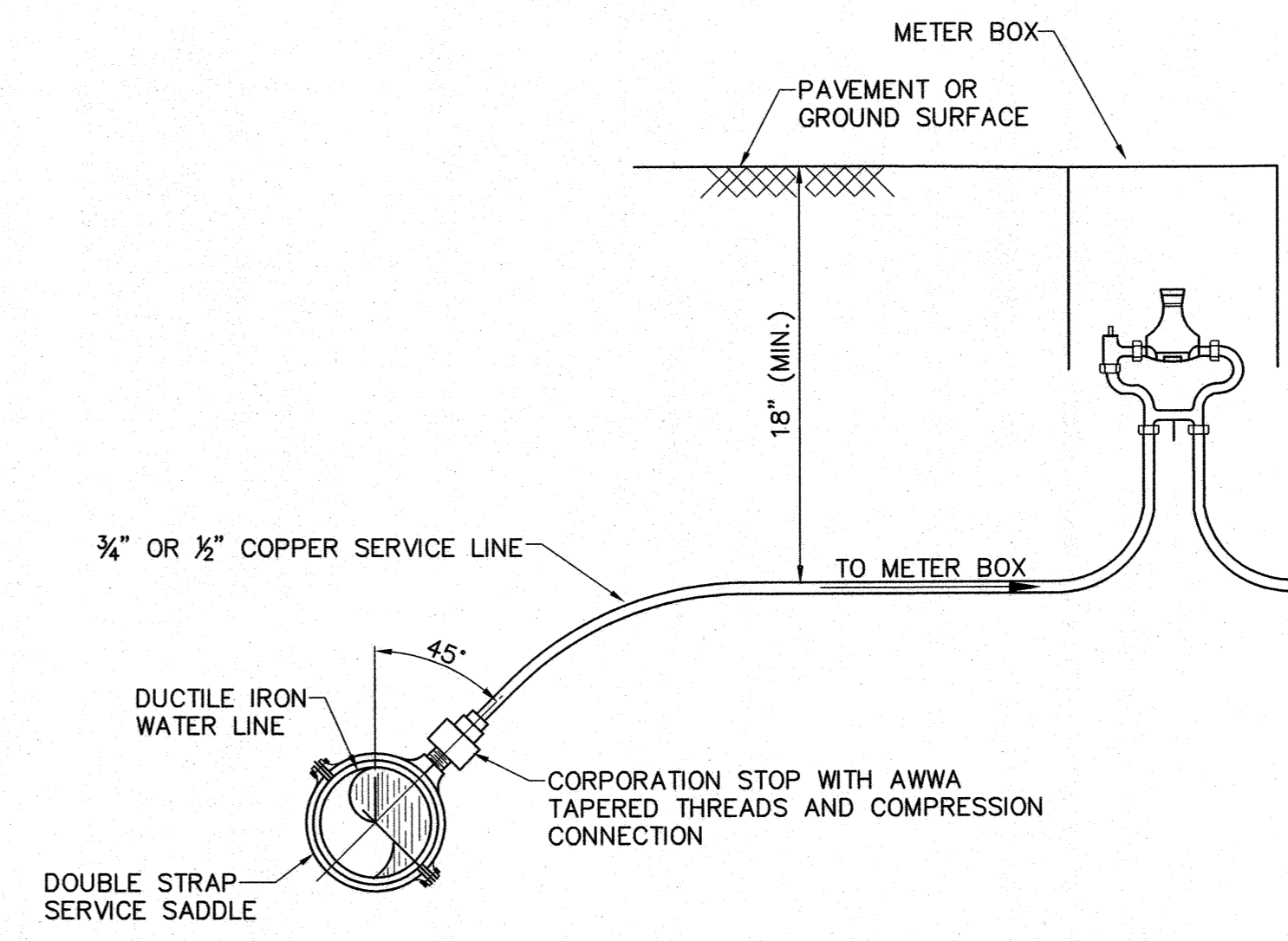
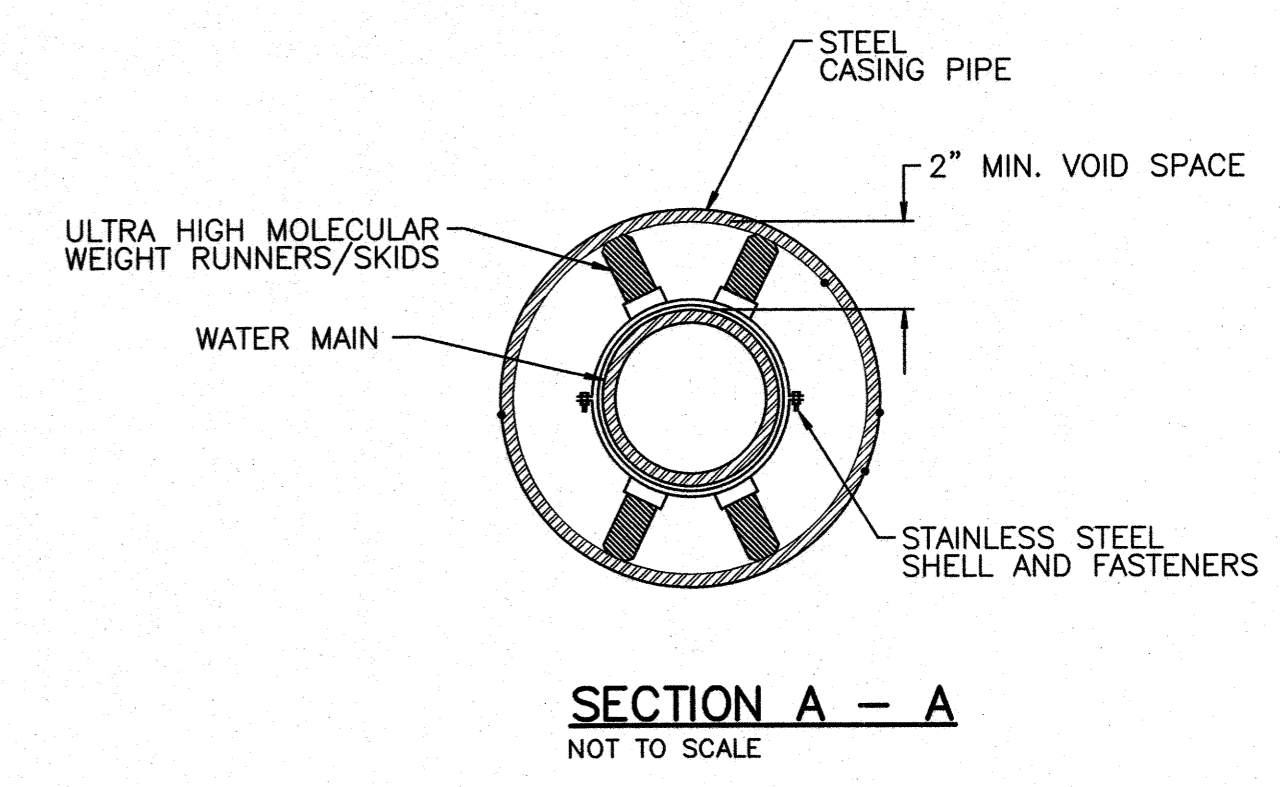
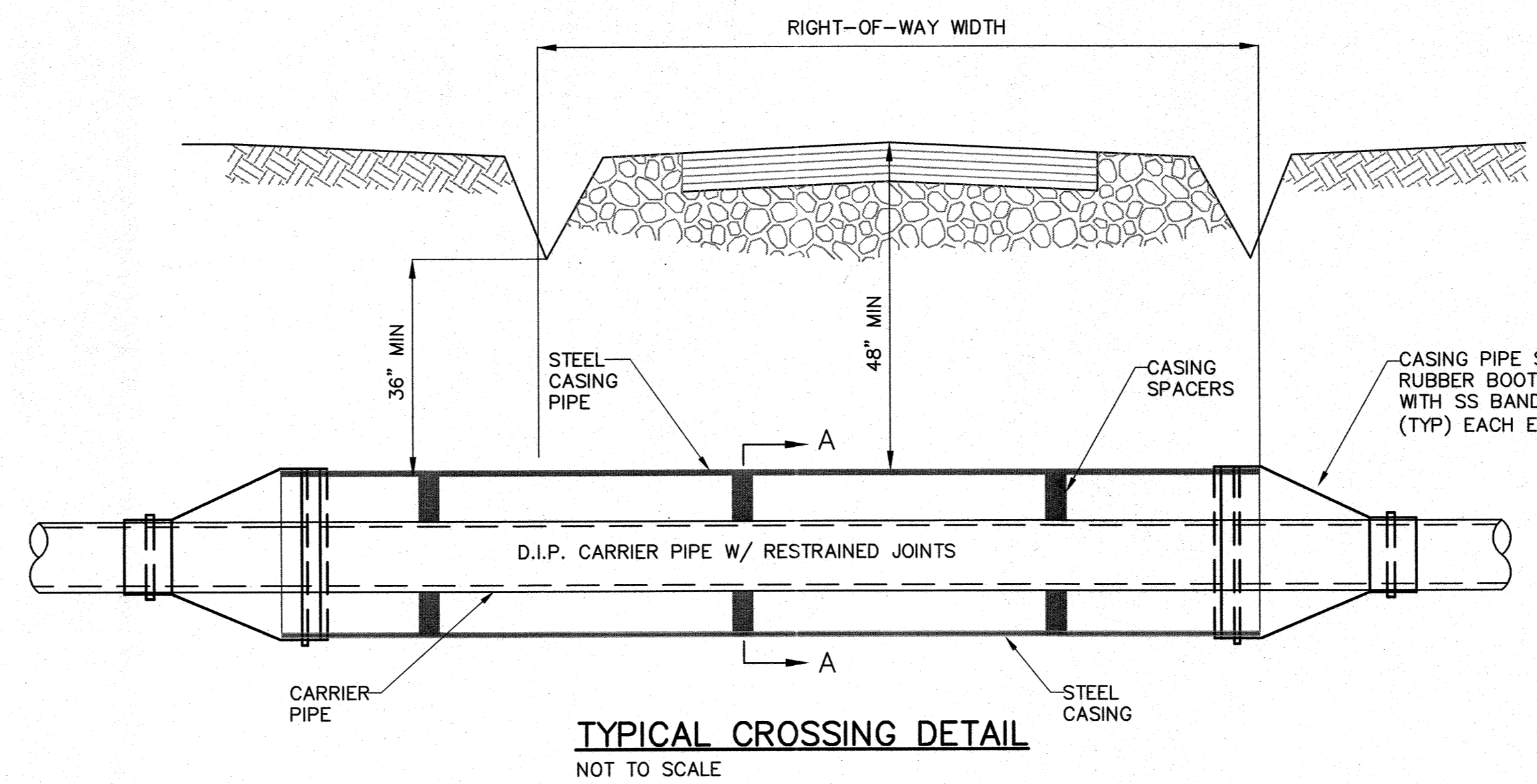
CROSSING NOTES:

1. WATER LINES CROSSING UNDER PAVED ROADS AND PAVED CROSSROADS WITHIN THE DESIGNATED STREETS SHALL BE ENCASED AND PLACED BY BORING AND JACKING SHALL EXTEND FROM TOE OF SHOULDER SLOPE TO TOE OF SHOULDER SLOPE ON LINES CROSSING THE ENTIRE WIDTH OF RIGHT-OF-WAY. THE LENGTH OF CASING SHALL BE DETERMINED BY THE COUNTY HIGHWAY DEPARTMENT ENGINEER OR THE ENGINEER. ALL WORK SHALL BE COMPLETED AS SHOWN ON THIS DRAWING.
2. ALL WATER LINE SHALL HAVE A MINIMUM COVER OF 36" EXCEPT WHERE DEEPER COVER IS INDICATED ON THE DRAWINGS. ALL TRENCH EXCAVATION WITHIN RIGHT-OF-WAY BUT NOT UNDER PAVEMENT SHALL BE BACKFILLED BY TAMPING IN 6" LAYERS. ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE RIGHT-OF-WAY AND THE EXCAVATION FINISHED FLUSH WITH SURROUNDING GROUND.
3. CASING PIPE SHALL BE WELDED STEEL PIPE AND SHALL BE COATED INSIDE AND OUT PER SPECIFICATIONS.
4. ALL INSTALLATION SHALL BE DONE IN A MANNER WHICH WILL NOT OBSTRUCT STORMWATER PIPES, CULVERTS OR SURFACE WATER DRAINAGE FACILITIES OF HIGHWAY, STREET OR CONNECTION.
5. THE INSTALLATION OF SAID FACILITY SHALL BE DONE UNDER THE SUPERVISION AND CONTROL OF THE COUNTY HIGHWAY DEPARTMENT PROJECT ENGINEER.
6. THE CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS FOR HIGHWAY TRAFFIC CONTROL DURING THE WORK AND SHALL PROVIDE NECESSARY BARRICADES, WARNING SIGNS, SIGNALS, LIGHTS, AND NECESSARY FLAGMEN FOR THE TRAVELING PUBLIC.

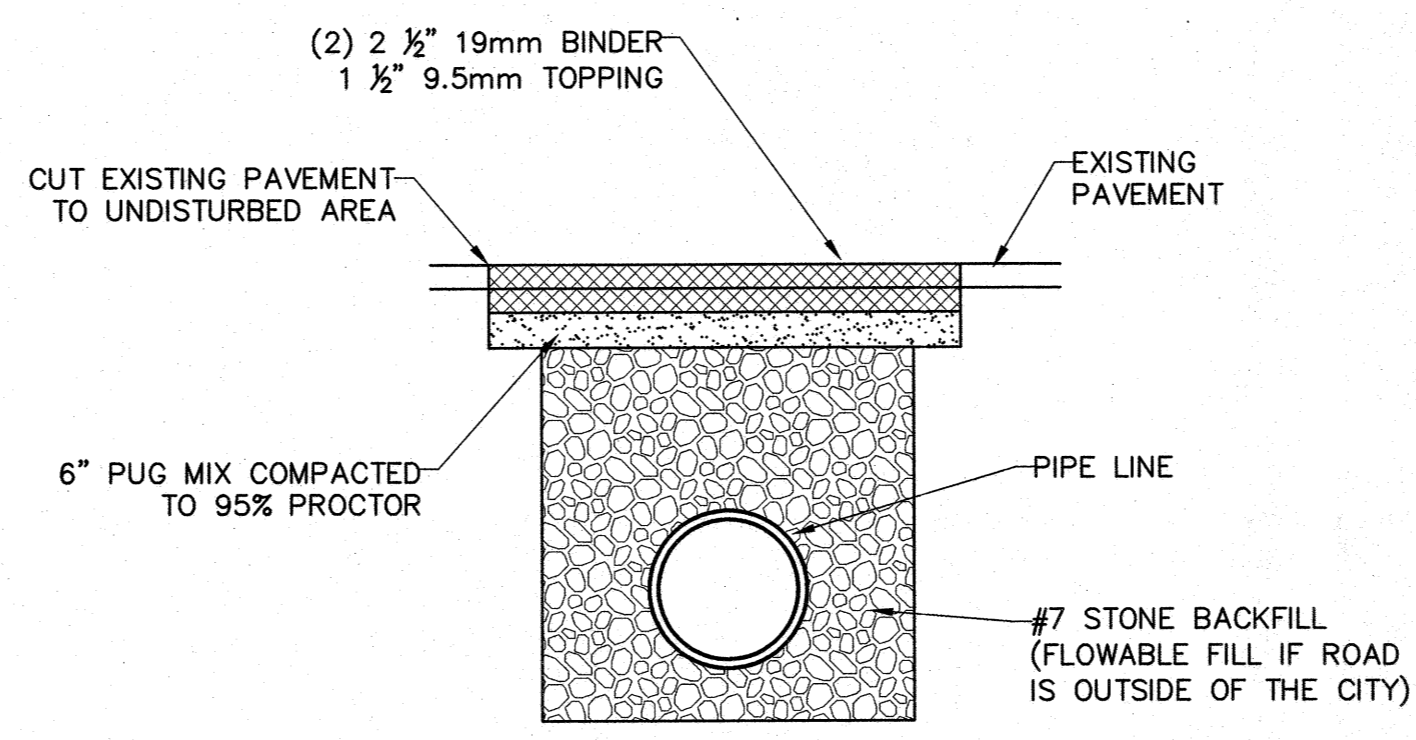
PIPE SIZE	A	B	DEPTH C	PIPE SIZE	A	B	DEPTH C
11 1/2° BEND				90° BEND & UNBALANCED TEE			
18"	1'-3"	3'-0"	1'-6"	18"	1'-0"	6'-2"	3'-6"
16"	1'-0"	1'-9"	1'-6"	16"	1'-9"	5'-0"	3'-6"
12"	1'-0"	1'-2"	1'-3"	12"	1'-6"	3'-3"	3'-0"
10"	0'-9"	1'-0"	1'-0"	10"	1'-4"	2'-6"	3'-0"
8"	0'-9"	1'-0"	0'-8"	8"	1'-0"	2'-0"	2'-3"
6"	0'-9"	1'-0"	0'-6"	6"	1'-0"	1'-3"	2'-0"
4"	0'-6"	1'-0"	0'-4"	4"	0'-9"	1'-0"	1'-0"
DEAD END				45° BEND			
18"	1'-3"	6'-10"	3'-6"	18"	1'-3"	4'-9"	2'-6"
16"	1'-0"	3'-0"	3'-0"	16"	1'-0"	4'-3"	2'-3"
12"	0'-11"	4'-3"	3'-3"	12"	1'-0"	2'-6"	2'-3"
10"	0'-9"	3'-0"	3'-0"	10"	0'-9"	2'-0"	2'-0"
8"	0'-7"	2'-9"	2'-3"	8"	0'-9"	1'-8"	1'-6"
6"	0'-5"	1'-3"	1'-5"	6"	0'-9"	1'-0"	1'-6"
4"	0'-4"	0'-10"	0'-11"	4"	0'-9"	1'-0"	1'-0"
TEE				22 1/2° BEND			
18"	2'-9"	12'-3"	3'-6"	18"	1'-3"	2'-6"	2'-0"
16"	2'-6"	10'-0"	3'-6"	16"	1'-0"	2'-6"	2'-0"
12"	2'-0"	6'-6"	3'-0"	12"	1'-0"	1'-6"	2'-0"
10"	1'-9"	5'-0"	2'-6"	10"	0'-9"	1'-3"	2'-0"
8"	1'-6"	4'-0"	2'-3"	8"	0'-9"	1'-0"	2'-0"
6"	1'-0"	2'-8"	1'-6"	6"	0'-9"	0'-10"	1'-0"
4"	1'-0"	2'-0"	1'-0"	4"	0'-9"	0'-7"	1'-0"

NOTE : ALL CONCRETE FOR THRUST BLOCKS SHALL BE READY-MIXED 3000 psi (MINIMUM) CLASS "B" MIX DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO USE. THRUST BLOCKS BASED ON 225 psi & 2000lb/ft2 SOIL RESISTANCE TYPICAL FOR UNDISTURBED SAND AND GRAVEL CEMENTED WITH CLAY. FOR OTHER SOILS THE BEARING FACE OF THE THRUST BLOCKS SHOULD BE INCREASED BY THE FOLLOWING FACTORS.

SAND 2
SAND & GRAVEL 1.33
SHALE 0.4
SOFT CLAY, MUCK AND PEAT SHALL USE RESTRAINED JOINTS IN LIEU OF THRUST BLOCKS.



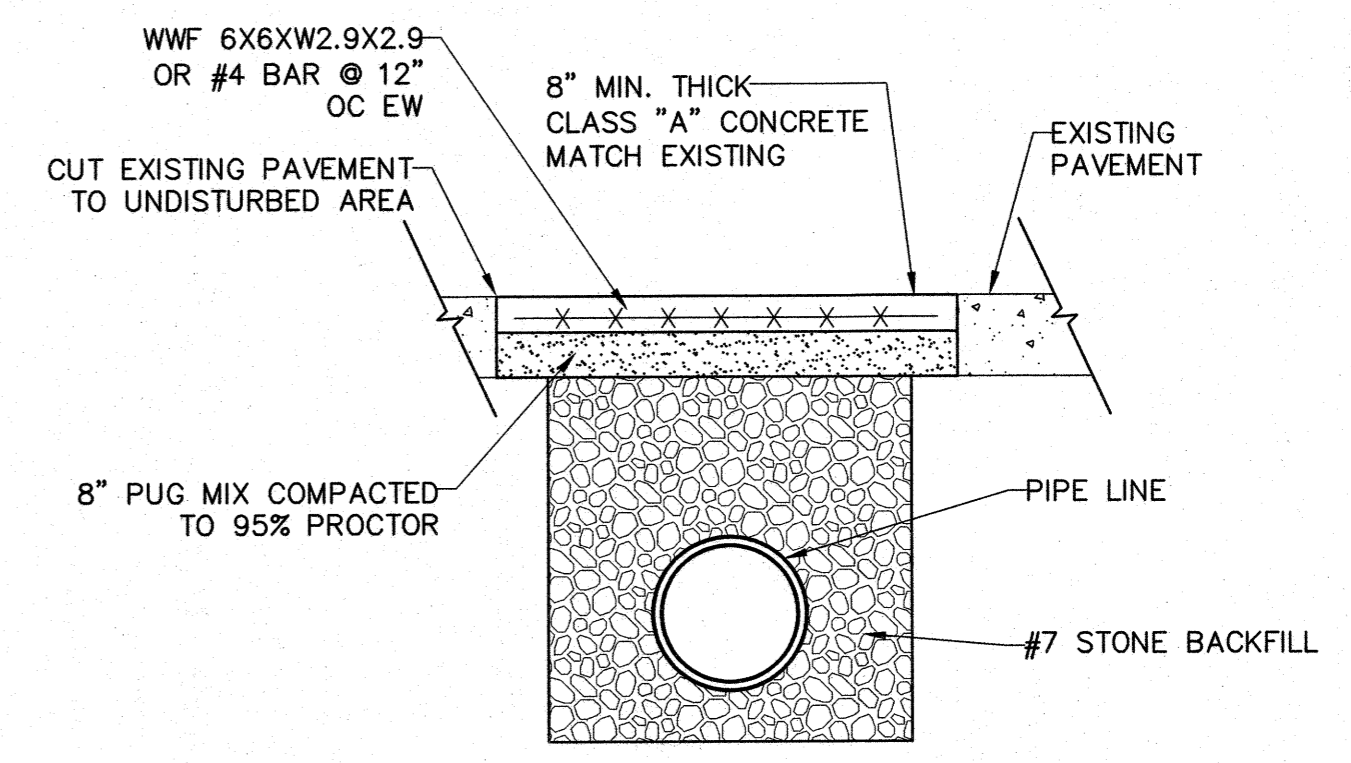
SERVICE INSTALLATION DETAIL (METERS 1" AND SMALLER)
NOT TO SCALE



TO BE USED ON HOT MIX PAVED ROADS AND ELSEWHERE AS DESIGNATED BY THE ENGINEER. COST OF SAW CUTTING, COMPACTING, PUG MIX, CONCRETE, ETC. TO BE INCLUDED IN THE UNIT PRICE FOR HOT MIX PAVEMENT IN THE BID SCHEDULE, AND SHALL BE PAID FOR ON A LINEAR FOOT BASIS, COMPLETE IN PLACE.

IT IS THE INTENTION OF THE OWNER TO INSTALL ALL LINES OUT OF PAVEMENT IF POSSIBLE, IN ROAD SHOULDERS OR DITCHES; IF THE LINE IS INSTALLED UNDER PAVEMENT FOR CONVENIENCE OF CONTRACTOR, NO SEPARATE PAYMENT WILL BE MADE FOR EXTRA PAVEMENT AND CRUSHED ROCK BACKFILL REQUIRED.

TYPE "1" CEMENT CONCRETE PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



1. TO BE USED ON CONCRETE DRIVEWAYS AND PARKING AREAS AND ELSEWHERE AS DESIGNATED BY THE ENGINEER. COST OF SAW CUTTING, COMPACTING, PUG MIX, CONCRETE, ETC. TO BE INCLUDED IN THE UNIT PRICE FOR CONCRETE PAVEMENT IN THE BID SCHEDULE, AND SHALL BE PAID FOR ON A LINEAR FOOT BASIS, COMPLETE IN PLACE.
2. IT IS THE INTENTION OF THE OWNER TO INSTALL ALL LINES OUT OF PAVEMENT IF POSSIBLE, IN ROAD SHOULDERS OR DITCHES; IF LINE IS INSTALLED UNDER PAVEMENT FOR CONVENIENCE OF CONTRACTOR, NO SEPARATE PAYMENT WILL BE MADE FOR EXTRA PAVEMENT AND CRUSHED ROCK BACKFILL REQUIRED.

TYPE "5" CEMENT CONCRETE PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE

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NO.	REVISIONS DESCRIPTIONS	DATE	BY	APP'D	DESIGN	DRAWN	CHECKED	APPROVED
					PRS	TGF	MAB	PRS

CITY OF FORT OGLETHORPE, GEORGIA
BATTLEFIELD PARKWAY
WATER LINE REPLACEMENT

STANDARD DETAILS 3

ENGINEERS, INC.
1122 BIRCHMOUNT PARKWAY
CHATTANOOGA, TN 37402
423-287-7613

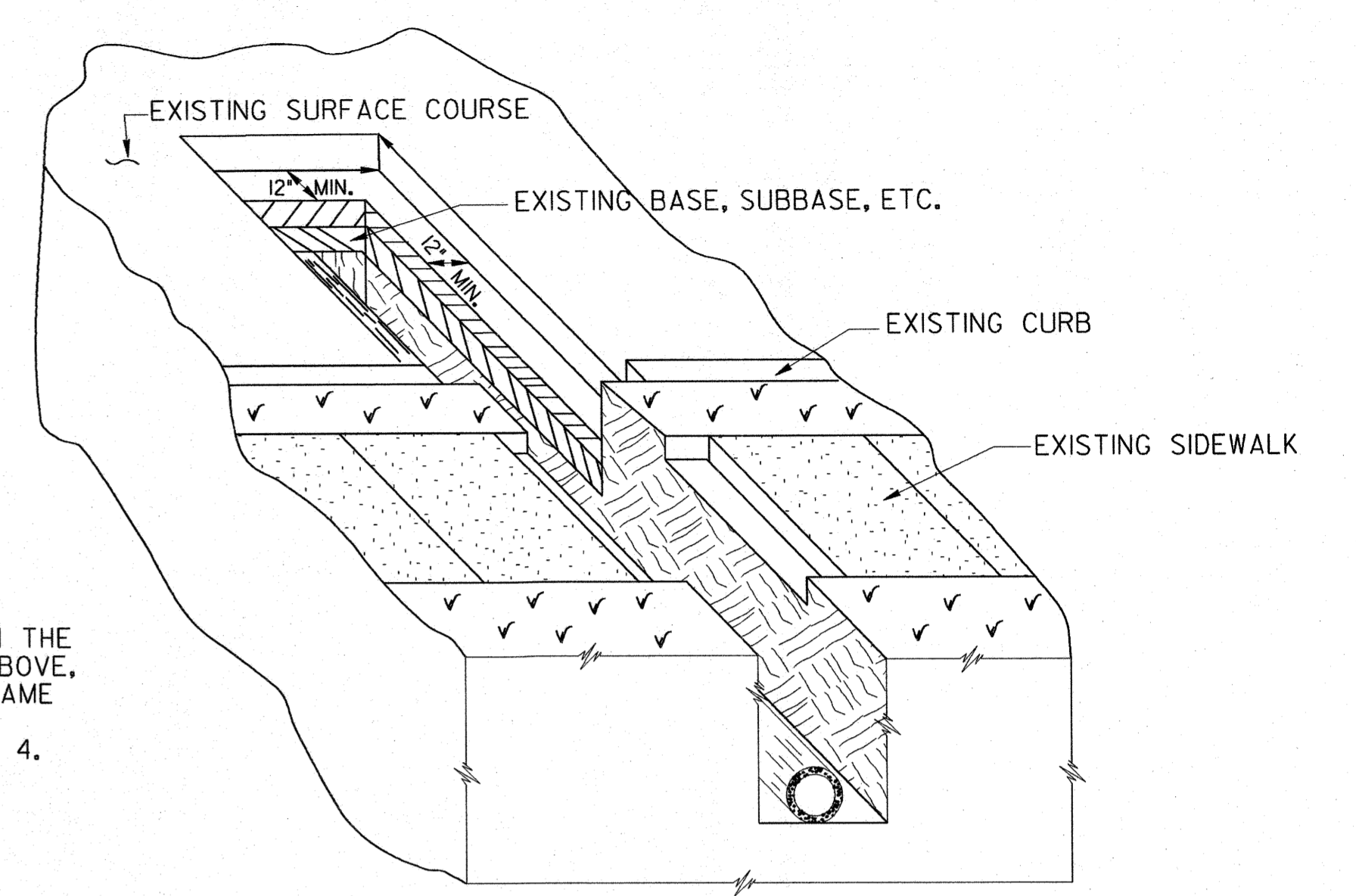
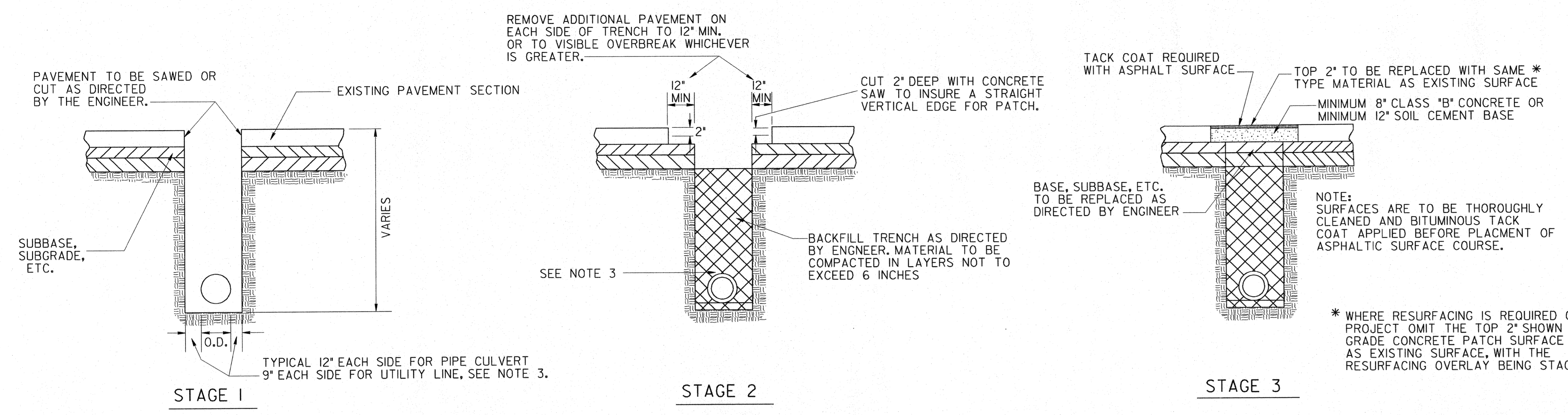
NO. 03578
PROFESSIONAL ENGINEER
5-2-20
G. J. NEWBY
P.L.L.C. R. SCHWABER

GSWCC 934

JOB NO. G19015-04
ISSUE DATE 05/04/2020
SCALE AS NOTED
DRAWING NO. D-3.0

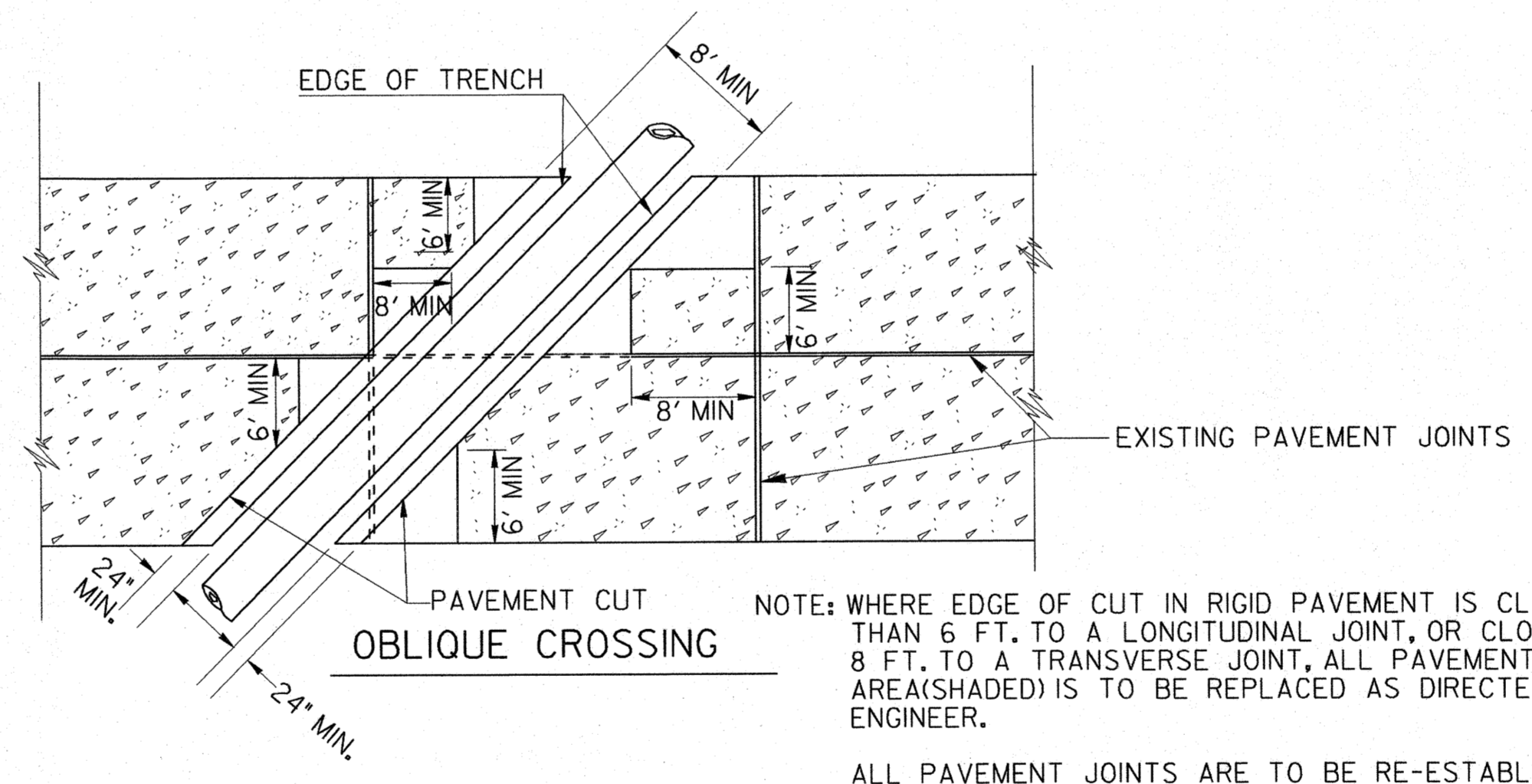
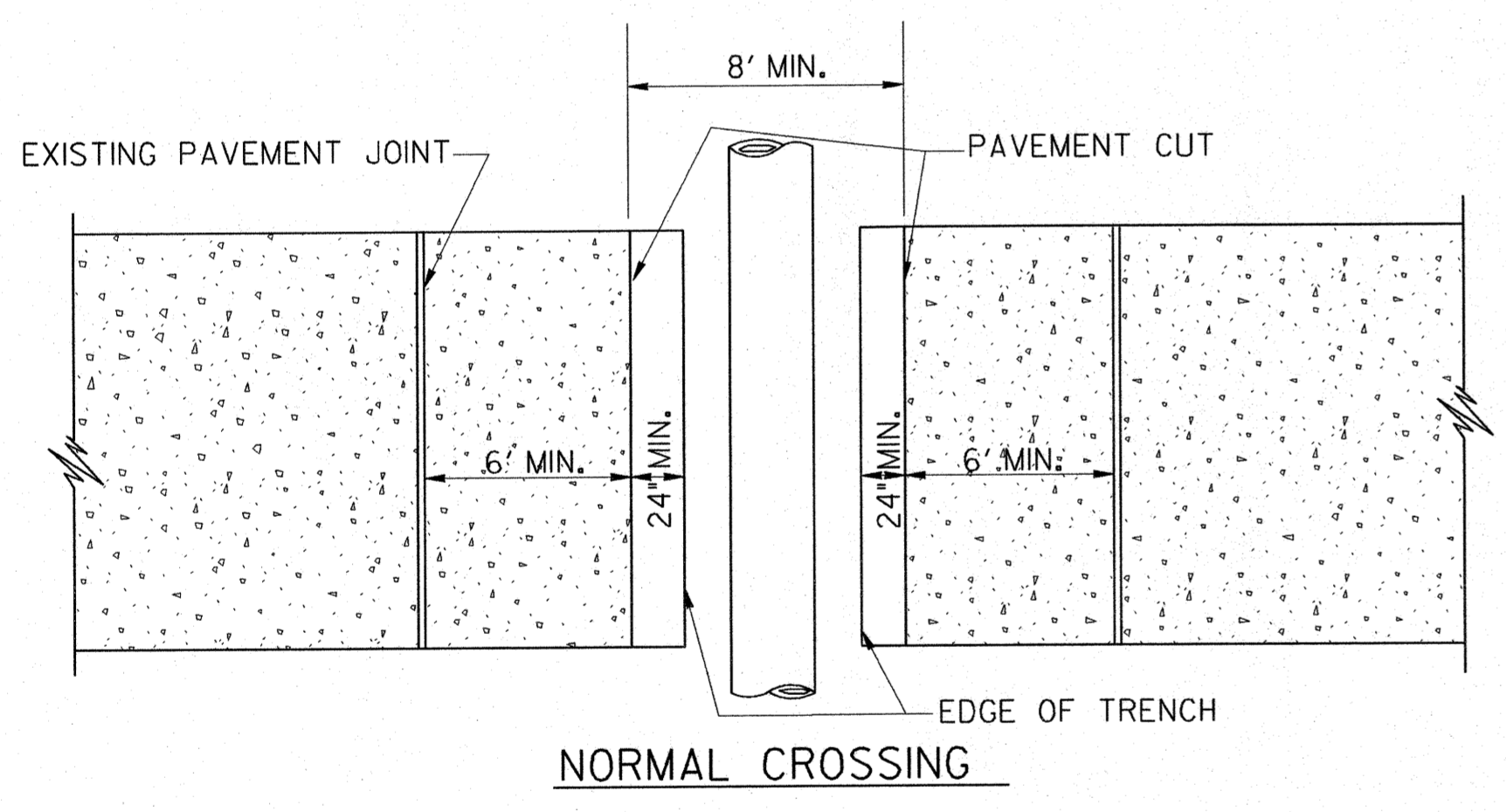
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

STORM DRAIN AND UTILITY INSTALLATION BY OPEN CUT - GENERAL



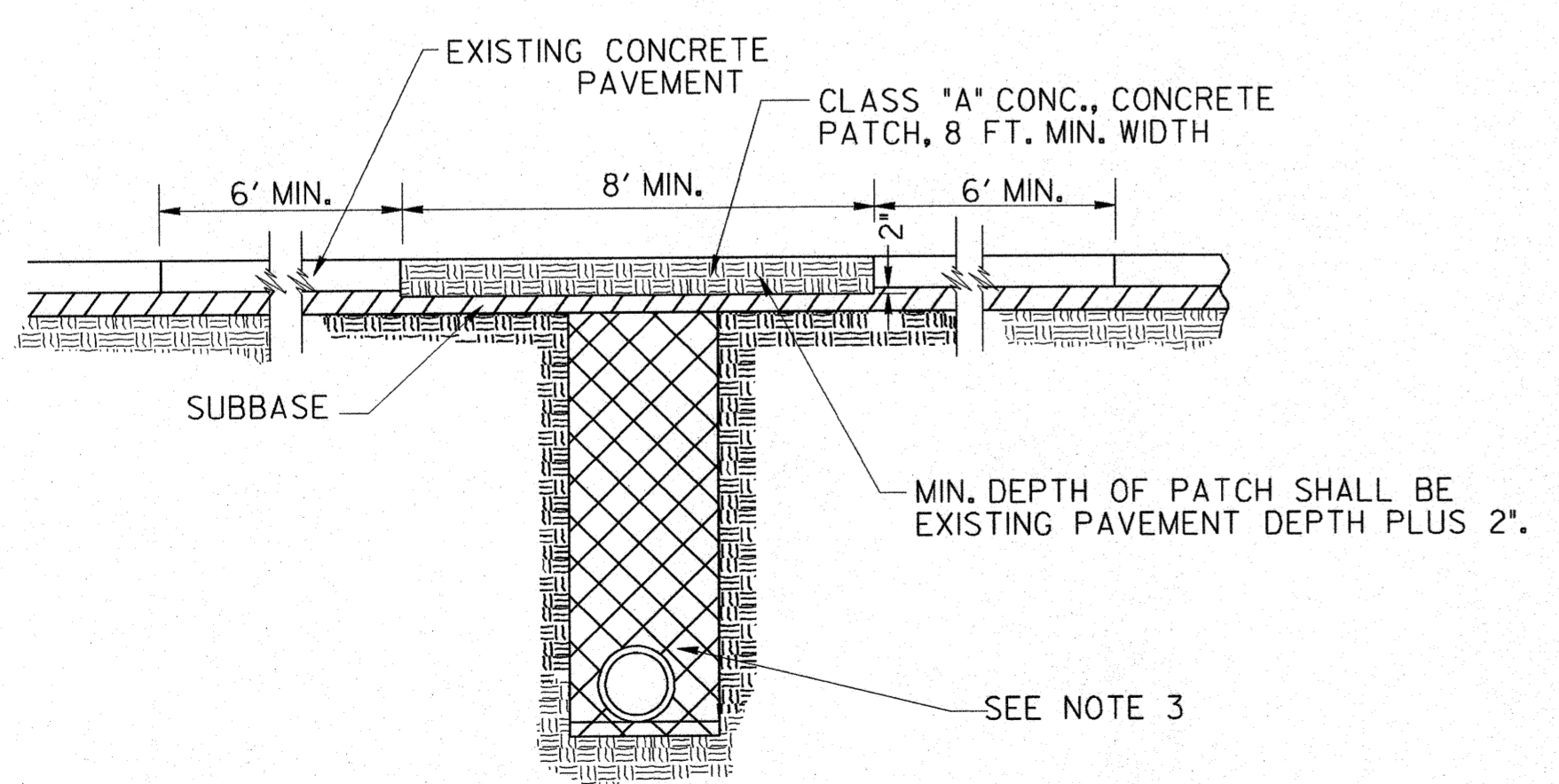
* WHERE RESURFACING IS REQUIRED ON THE PROJECT OMIT THE TOP 2" SHOWN ABOVE. GRADE CONCRETE PATCH SURFACE SAME AS EXISTING SURFACE, WITH THE RESURFACING OVERLAY BEING STAGE 4.

STORM DRAIN AND UTILITY INSTALLATION BY OPEN CUT ACROSS P.C. CONCRETE PAVING



NOTE: WHERE EDGE OF CUT IN RIGID PAVEMENT IS CLOSER THAN 6 FT. TO A LONGITUDINAL JOINT, OR CLOSER THAN 8 FT. TO A TRANSVERSE JOINT, ALL PAVEMENT IN THAT AREA (SHADED) IS TO BE REPLACED AS DIRECTED BY THE ENGINEER.

ALL PAVEMENT JOINTS ARE TO BE RE-ESTABLISHED. DOWELS AND TIE-BARS ARE TO BE REPLACED.



NOTE: WHEN THE CONCRETE IS POURED, IT SHALL BE STRUCK OFF AT AN ELEVATION SLIGHTLY HIGHER THAN THE INTENDED SURFACE AND TAMPED TO OFFSET SHRINKAGE. MECHANICAL VIBRATING EQUIPMENT SHALL BE USED TO CONSOLIDATE THE PLACED CONCRETE, ESPECIALLY AT THE EDGES AND AROUND THE STEEL AT JOINTS. THE CONCRETE SHALL THEN BE TAMPED A SECOND TIME, THEN SCREEDED AND CHECKED WITH A STRAIGHT EDGE TO GIVE THE SAME SURFACE GRADE AS THE EXISTING PAVEMENT.

GENERAL NOTES:

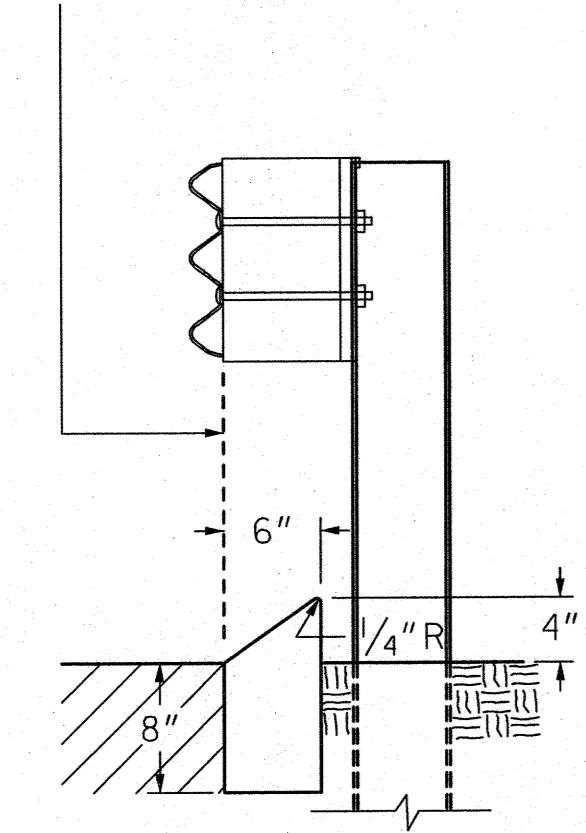
- SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
- (a) OTHER PAVEMENT REPLACEMENT MATERIALS, SUCH AS HIGH EARLY STRENGTH CONCRETE, MAY BE SUBSTITUTED FOR MATERIALS SHOWN WHEN CALLED FOR IN THE PLANS OR BY THE ENGINEER.
(b) PAYMENT FOR PIPE CULVERT OR UTILITY SHALL INCLUDE SAWING AND/OR CUTTING AND REMOVING EXISTING PAVEMENT AND REPLACING THE PAVEMENT AS SPECIFIED. PAYMENT FOR PIPE OR UTILITY INCLUDES THIS PAVEMENT REPLACEMENT MATERIAL, REGARDLESS OF WHERE MATERIALS SHOWN ARE USED OR WHERE OTHER MATERIALS SUCH AS HIGH EARLY STRENGTH CONCRETE ARE USED.
(c) PAYMENT FOR PIPE CULVERT OR UTILITY INSTALLATION SHALL INCLUDE REPLACING IN KIND ANY PORTIONS OF SIDEWALK, CURB, CURB & GUTTER, MEDIAN PAVING, DRIVEWAYS, ETC., WHICH ARE DISTURBED DUE TO THE INSTALLATION.
- TRENCH DETAIL SHOWN IS GENERAL, SEE STANDARD I030D FOR DETAILS REQUIRED FOR PIPE CULVERT INSTALLATIONS. SEE THE UTILITIES MANUAL FOR UTILITY INSTALLATION REQUIREMENTS.
- AFTER REMOVING EXISTING PAVEMENT, THE SUBBASE AND VERTICAL FACE OF EXISTING PAVING SHALL BE DAMPED (BUT NOT WET), ADDITIONALLY, THE VERTICAL FACE OF THE EXISTING PAVEMENT SHALL BE PAINTED WITH A SOLUTION OF PORTLAND CEMENT AND WATER MIXED TO THE CONSISTENCY OF HEAVY PAINT. THE CONCRETE MIX SHALL THEN BE POURED BEFORE THIS SURFACE DRIES OUT. AFTER CONCRETE IS POURED, IT SHALL BE WORKED INTO ALL CORNERS AND INTO ALL ROUGH SURFACES OF THE EXISTING PAVEMENT.
- WHERE PIPE IS REMOVED, BUT NOT REPLACED, PAYMENT FOR PIPE REMOVAL INCLUDES ALL ITEMS DESCRIBED IN GENERAL NOTE 2., WITH ALL OTHER NOTES AND DETAILS ALSO BEING APPLICABLE.

NOTE: THIS STANDARD IS FOR USE WHERE PERMANENT PAVEMENT PATCHING IS REQUIRED. TEMPORARY PATCHING, IF REQUIRED, SHALL BE ACCORDING TO OTHER DETAILS, SPECIFICATIONS, AND/OR AS DIRECTED BY THE ENGINEER.

DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION		STANDARD	
BY		PAVEMENT PATCHING DETAILS (STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT)	
NO SCALE		REV. & REDR., AUG. 1999	
REV. _____	(SUBMITTED)	<i>James A. Kinnel</i> STATE ROAD & AIRPORT DESIGN ENGR. <i>Sam L. Eubanks</i> CHIEF ENGINEER	NUMBER
TRA. _____	(APPROVED)		1401
CHK. _____			

RAISED EDGE WITH CONCRETE GUTTER

FACE OF CURB MUST ALIGN WITH BACK EDGE OF GUARDRAIL AND THE FACE OF THE OFFSET BLOCK.

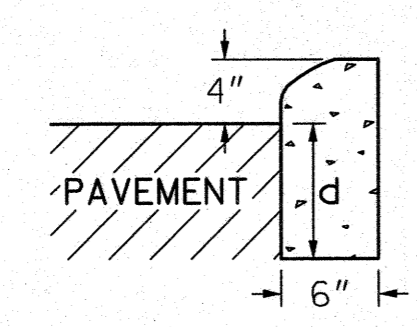


TYPE 8

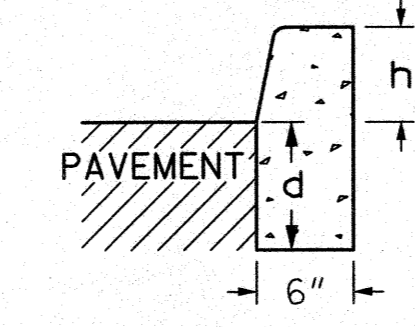
TYPE 8 HEADER CURB IS USED IN CONJUNCTION WITH GUARDRAIL CONNECTIONS TO CONCRETE BARRIER AS NOTED ON GA. STD. 4382.

CURB TYPE	h	d
1	4"	6" min.
2	6"	8" min.
3	8"	10" min.
4	10"	12" min.
6	6"	7" min.
7	6"	8" min.
9	4"	8" min.

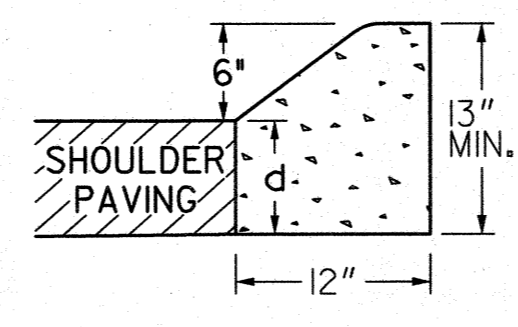
THE DIMENSION d MAY BE INCREASED AT CONTRACTOR'S OPTION SO BOTTOM OF HEADER CURB WILL ALIGN WITH BOTTOM OF PAVEMENT TYPICAL SECTION.



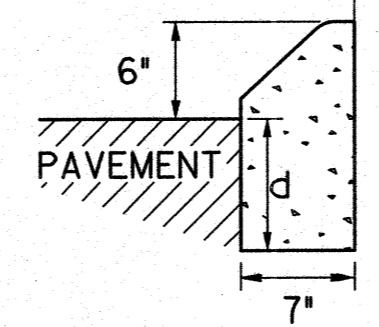
TYPE 1



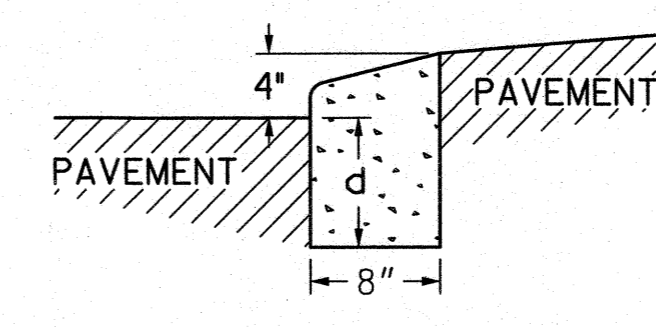
TYPE 2, 3 OR 4



TYPE 6



TYPE 7

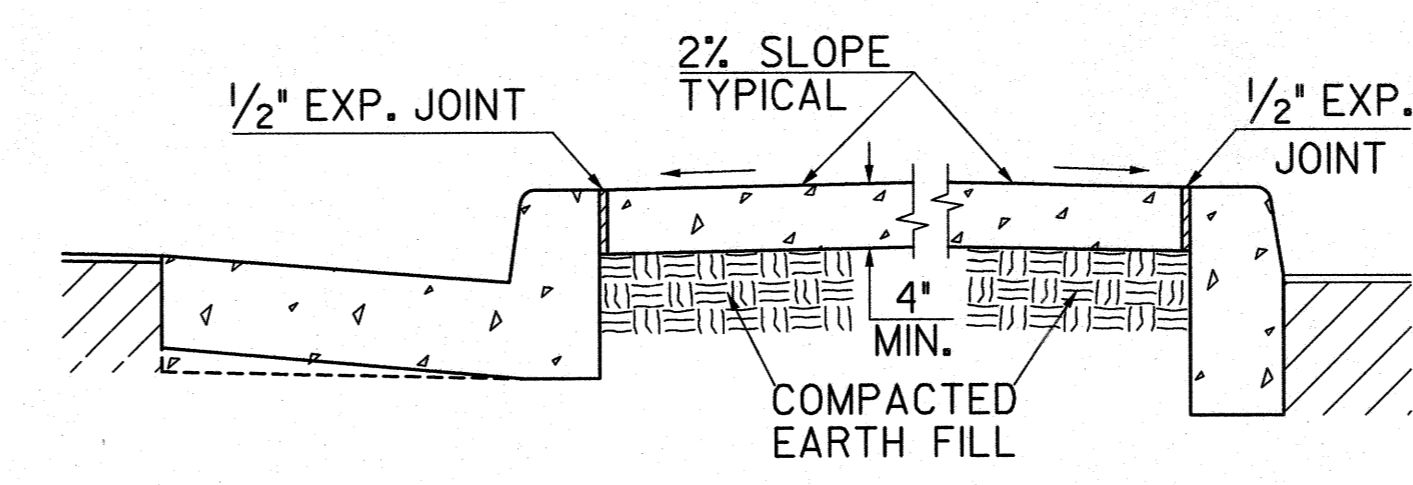


TYPE 9 TRUCK APRON IN ROUNDABOUTS

NOTE: IF CONCRETE MEDIAN INTERCEPTS PEDESTRIAN CROSSWALKS, WHEELCHAIR RAMPS (CONSTRUCTION DETAIL A-3 AND A-4) WILL BE REQUIRED.

CONCRETE MEDIAN (Between Curbs)

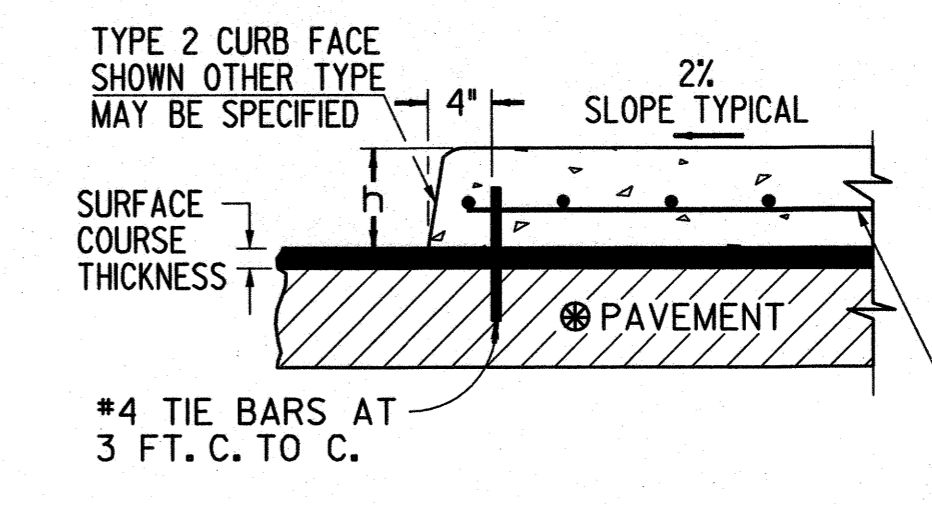
NOTE: CURB TYPES SHOWN ARE TYPICAL. OTHER TYPES MAY BE SPECIFIED.



NOTE: WIDTH OF CONCRETE MEDIAN WILL BE AS SHOWN IN PLANS

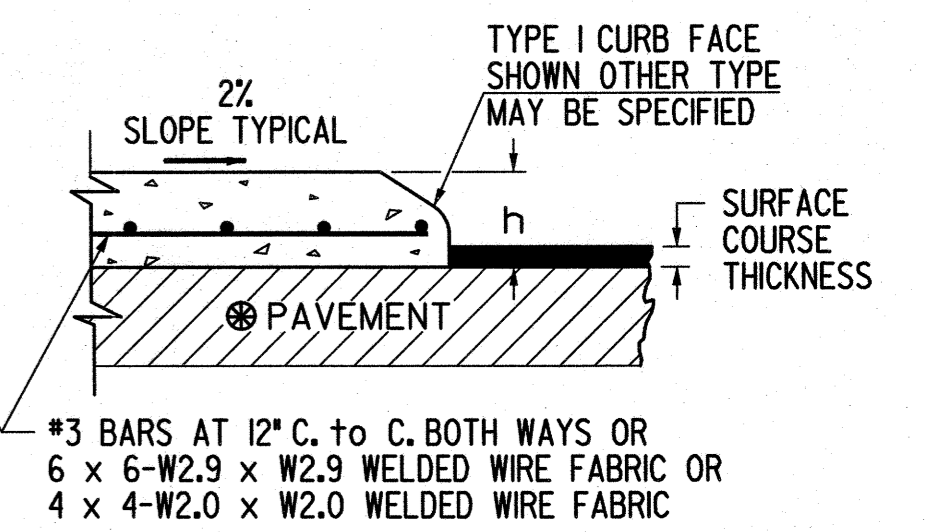
CONCRETE MEDIANS (Integral)

-WITH TIE BARS-



*4 TIE BARS AT 3 FT. C. TO C.

-WITHOUT TIE BARS-

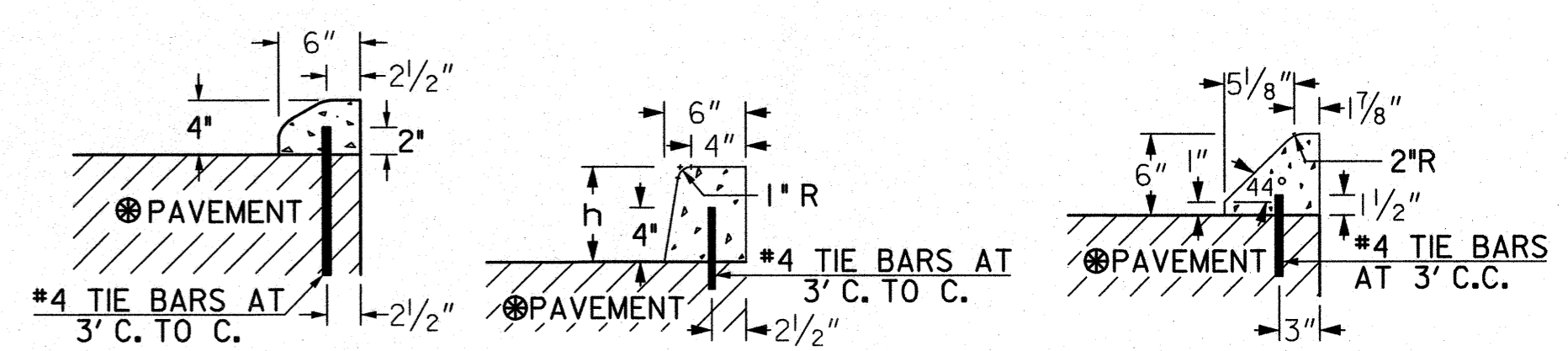


*3 BARS AT 12" C. TO C. BOTH WAYS OR 6 x 6-W2.9 x W2.9 WELDED WIRE FABRIC OR 4 x 4-W2.0 x W2.0 WELDED WIRE FABRIC

NOTE: IF FINAL SURFACE COURSE IS PRESENT OR MUST BE INSTALLED BEFORE THE CONCRETE MEDIAN CAN BE INSTALLED, THEN DOWELED IN CONCRETE MEDIAN IS REQUIRED.

CONCRETE HEADER CURBS

CONCRETE DOWELED INTEGRAL CURBS



TYPE 1

TYPE 2, 3 OR 4

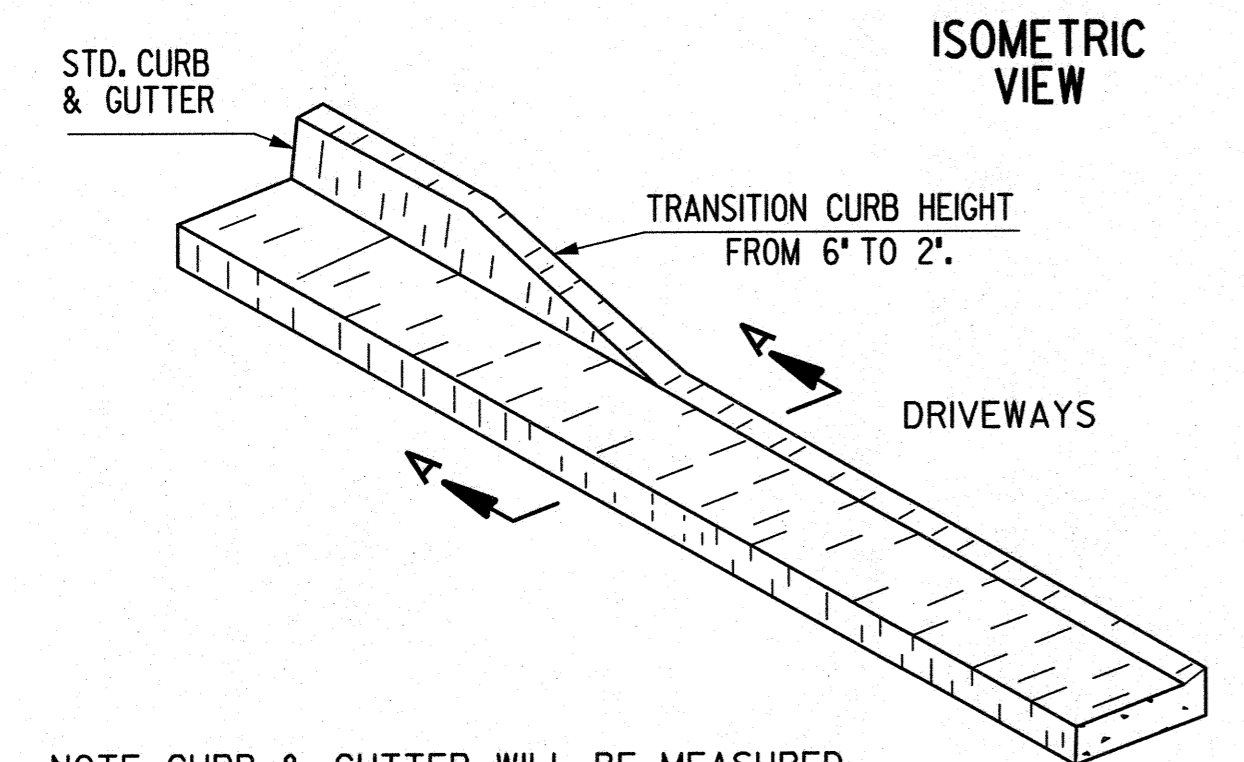
TYPE 7

- NOTES:
- CONCRETE CURB CAN BE INSTALLED AFTER INITIAL SET AS LONG AS TIE BARS ARE DRILLED INTO UNDERLYING CONCRETE PAVEMENT.
 - CONCRETE CURB CAN BE INSTALLED BEFORE INITIAL SET WITH DOWELS THAT ARE DRIVEN INTO UNDERLYING CONCRETE PAVEMENT.
 - JOINTS IN CURB AND CONCRETE MEDIAN WILL MATCH THOSE IN THE CONCRETE PAVEMENT.
 - ALL TYPES OF CONCRETE CURB CAN BE PLACED ON ASPHALT PAVEMENTS WHERE TIE BARS MAY BE EITHER DRIVEN OR DRILLED INTO THE UNDERLYING PAVEMENT. CONTRACTION JOINTS SHALL BE CONSTRUCTED IN CURB OR CONCRETE MEDIAN AT 20 FT. SPACING.

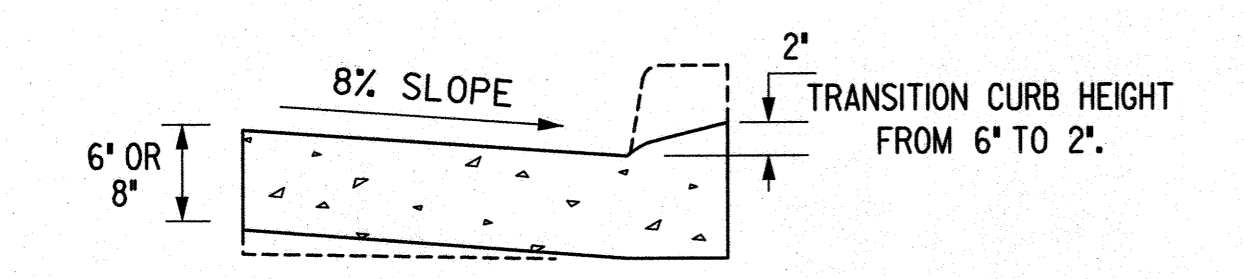
CURB TYPE	MINIMUM TIE BAR LENGTHS (FOR CONC. DOWELED CURBS OR CONC. MEDIAN)	
	P.C. CONC. PAV.	ASPHALT PAV.
1	6"	8"
2, 3 or 4	8"	12"
7	6"	8"
9	6"	8"

NOTE: TIE BARS FOR DOWELED CURBS MAY BE UNCOATED PLAIN OR DEFORMED BILLET-STEEL BARS (GRADE 40) AS USED FOR CONCRETE REINFORCEMENT. (AASHTO M-31)

DETAILS OF RECESSED CURB FOR DRIVEWAYS



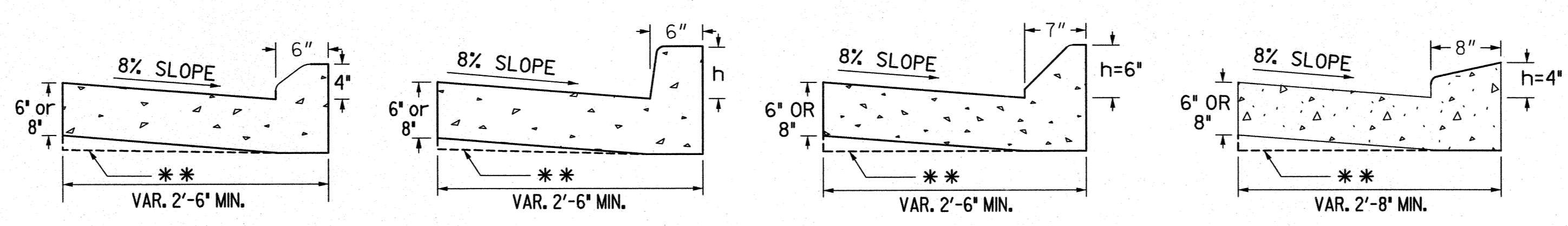
NOTE: CURB & GUTTER WILL BE MEASURED FOR PAYMENT THRU THE DRIVE



SECTIONAL VIEW SECTION A-A

(SEE SEPARATE CONSTRUCTION DETAILS FOR DRIVEWAYS)

CONCRETE CURB & GUTTER



TYPE 1

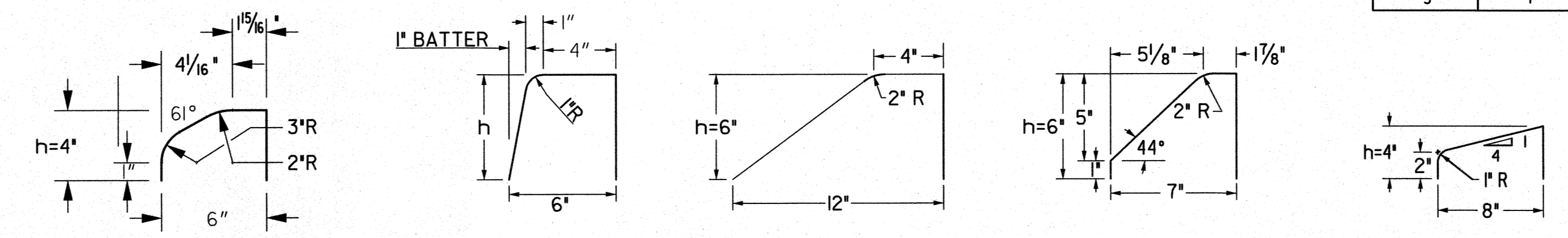
TYPE 2, 3 OR 4

TYPE 7

TYPE 9

** AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE, BUT THE GUTTER THICKNESS MUST NOT BE LESS THAN THE SPECIFIED 6" OR 8" AT ANY POINT.

CURB FACE DESIGN



TYPE 1

TYPE 2, 3 OR 4

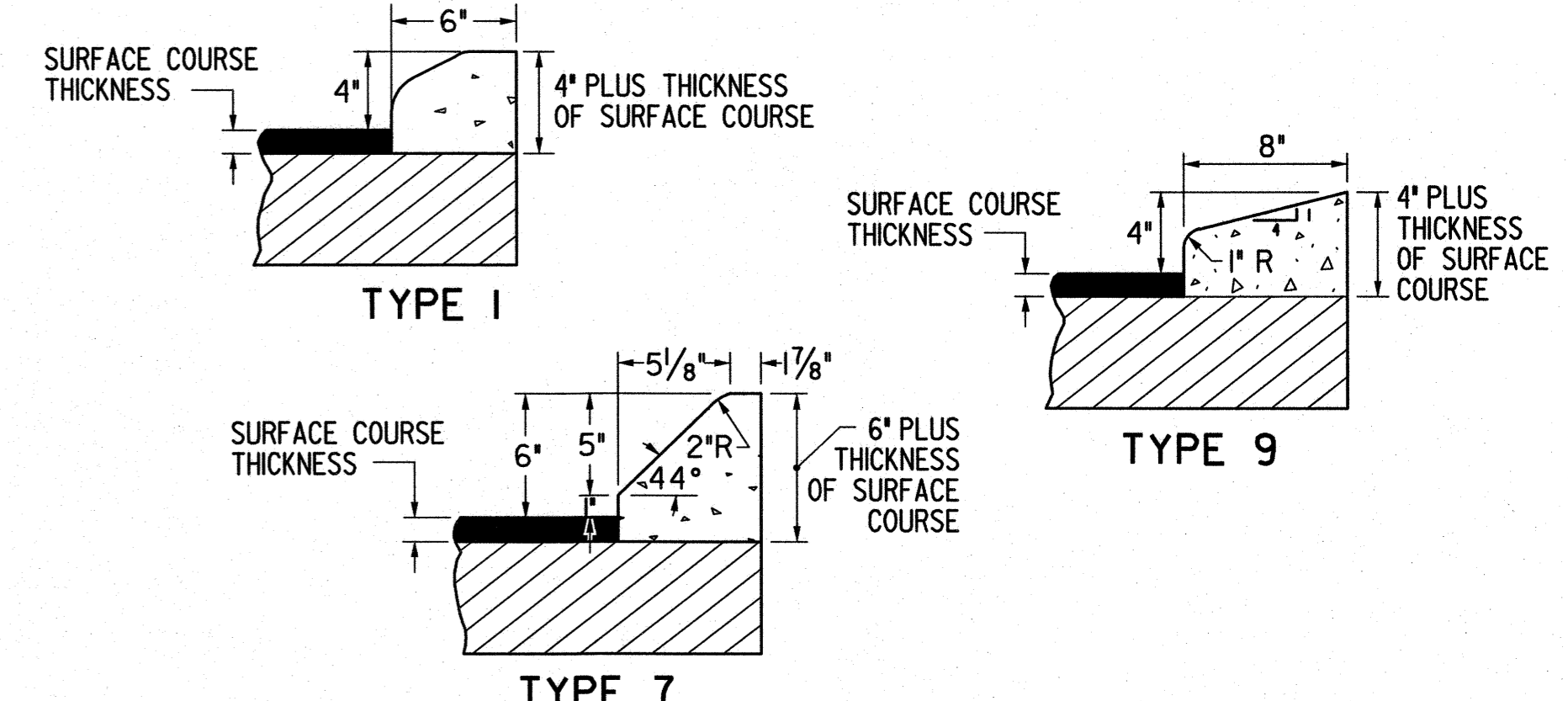
TYPE 6

TYPE 7

TYPE 9

TYPE	h
1	4"
2	6"
3	8"
4	10"
6	6"
7	6"
9	4"

CONCRETE INTEGRAL CURB



TYPE 1

TYPE 7

TYPE 9

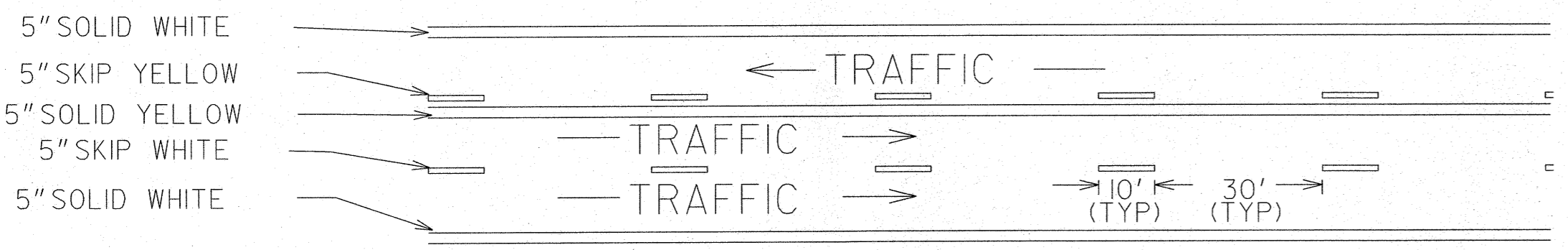
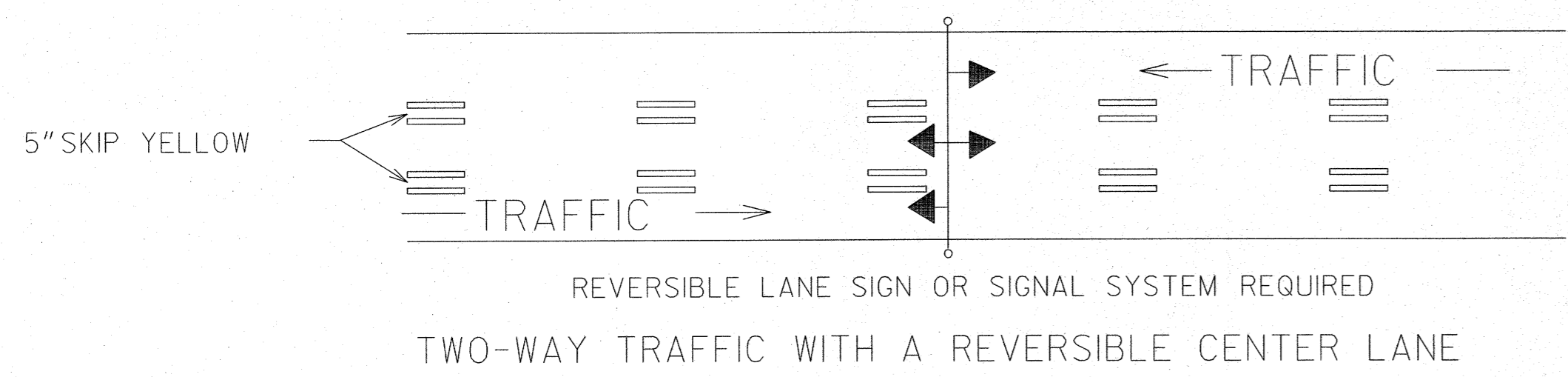
DEPARTMENT OF TRANSPORTATION
 STATE OF GEORGIA

STANDARD
 CONCRETE CURB & GUTTER
 CONCRETE CURBS, CONCRETE MEDIANS

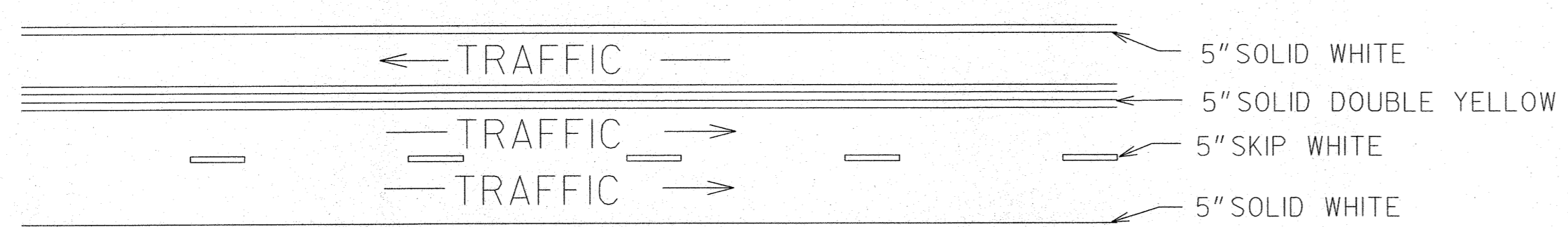
NOT TO SCALE OCT. 2011

DES. (SUBMITTED)	TRA. (APPROVED)	CHK.
DRW. <i>B. A. S.</i>	DRW. <i>D. M. P.</i>	DRW.
STATE DESIGN POLICY ENGINEER	CHIEF ENGINEER	

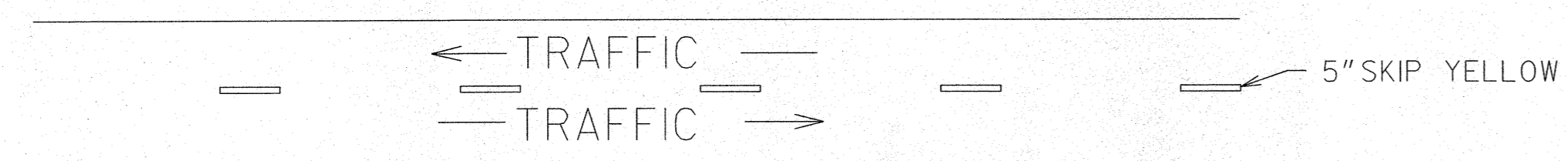
NUMBER 9032B



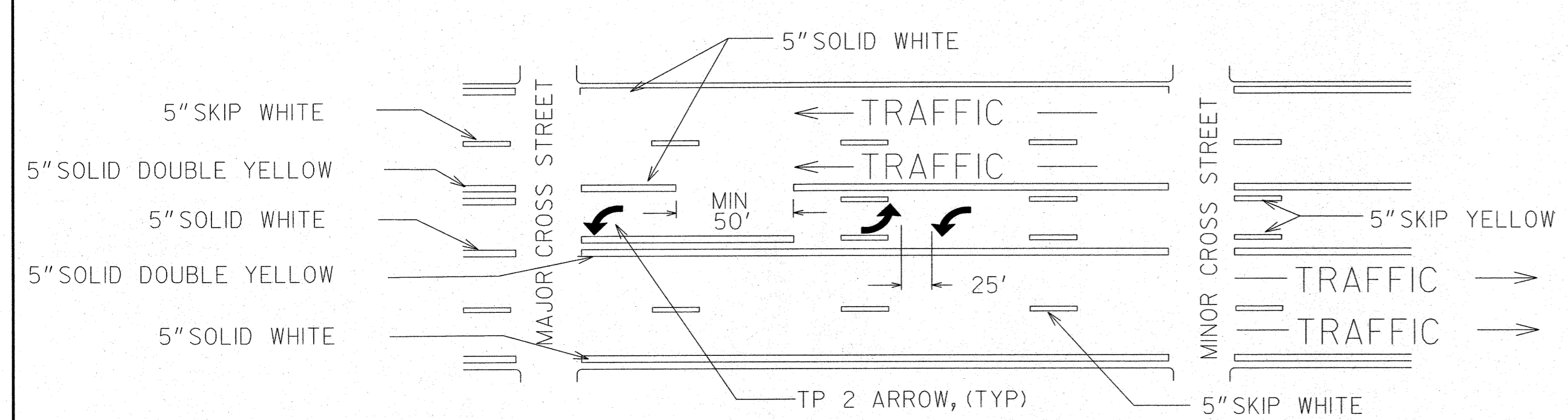
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE PERMITTED TO PASS



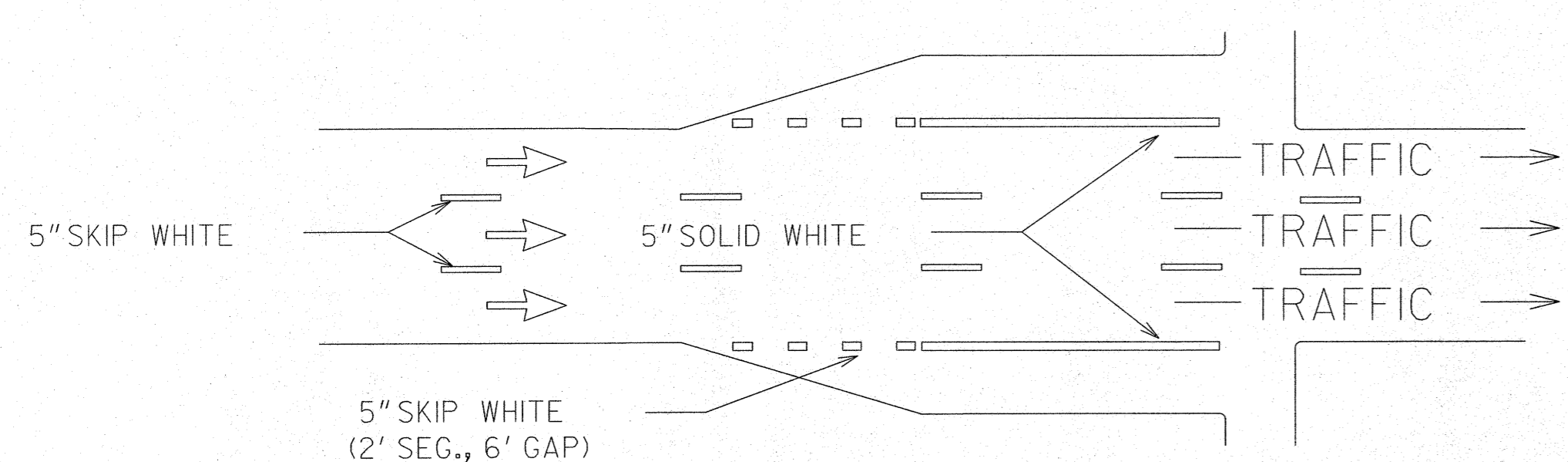
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE NOT PERMITTED TO PASS



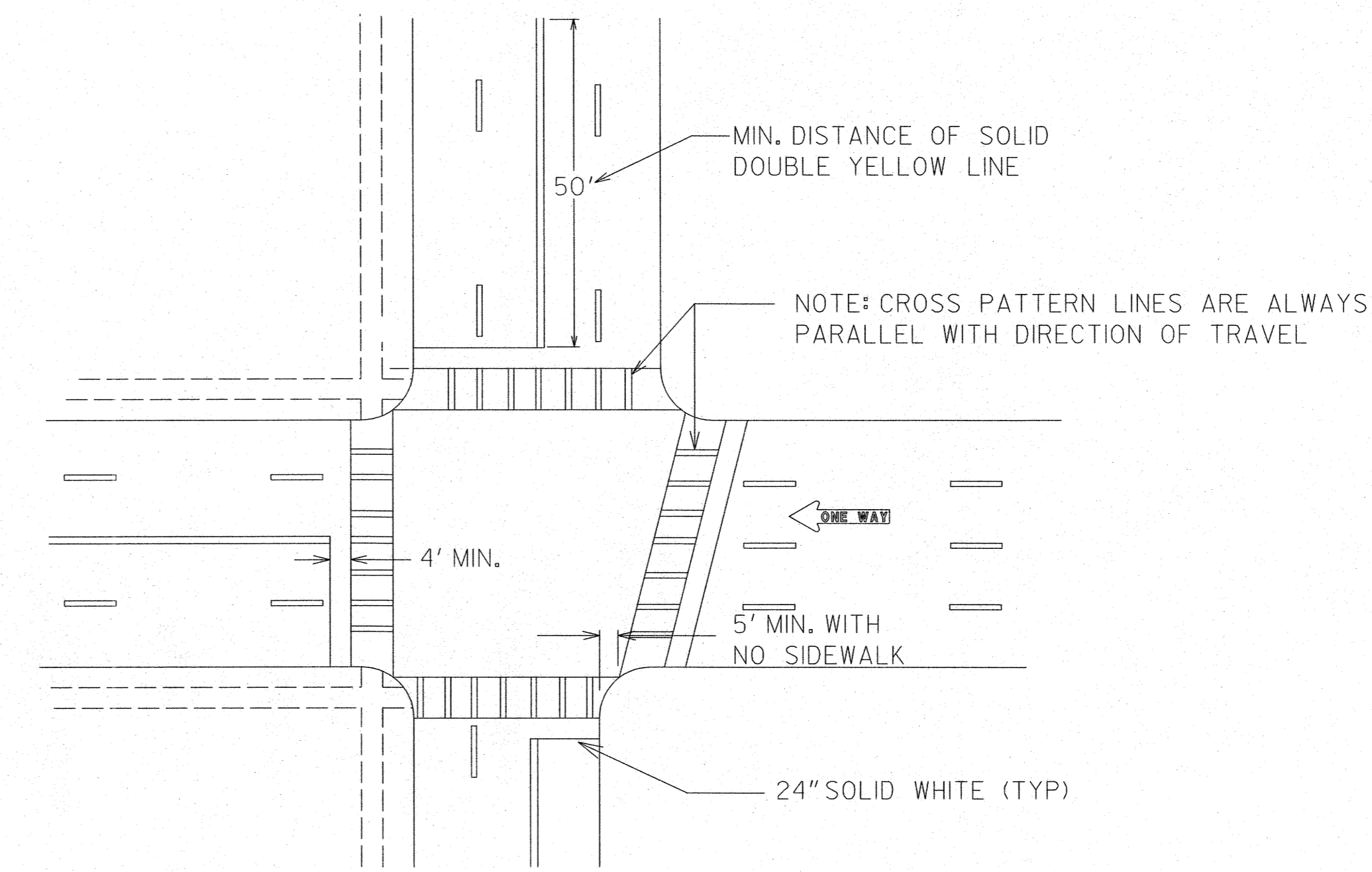
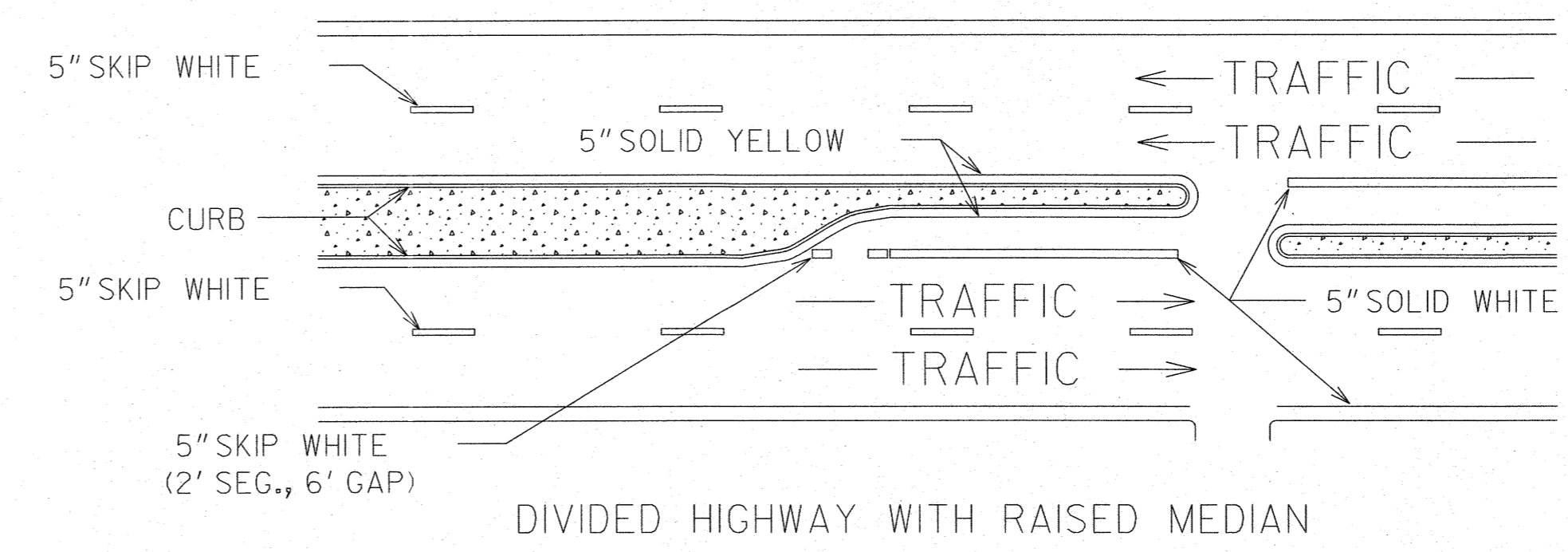
TWO-LANE, TWO-WAY TRAFFIC WITH PASSING PERMITTED



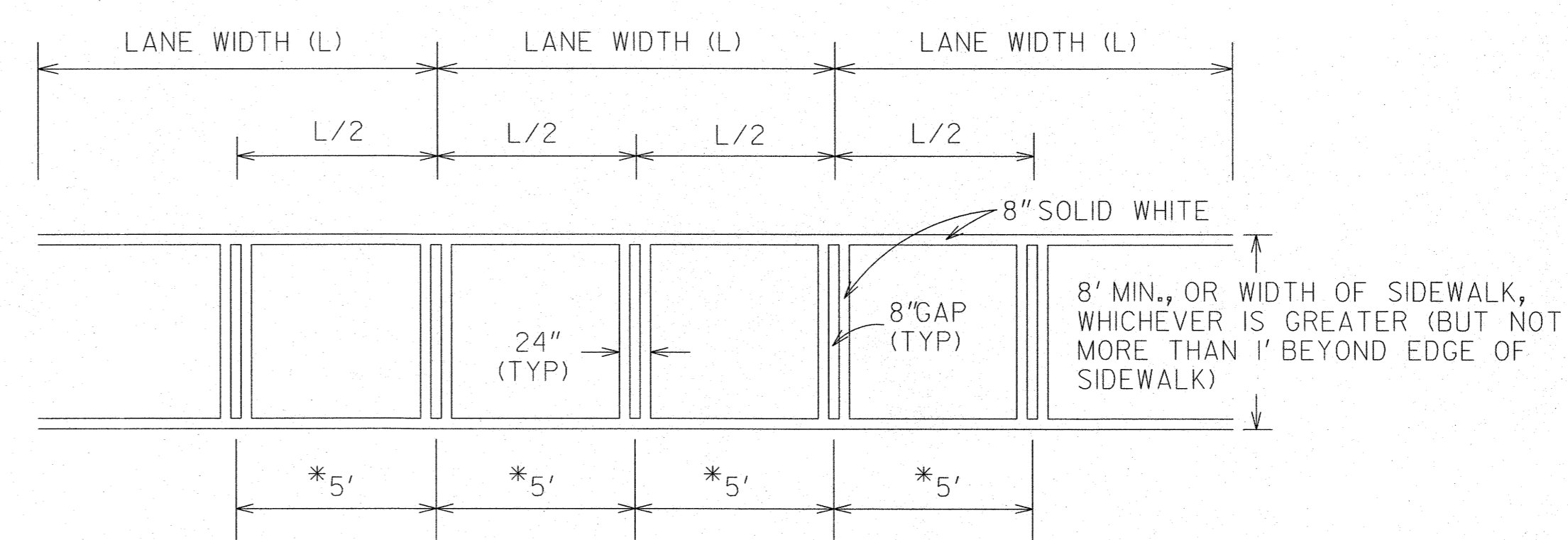
MULTI-LANE, TWO-WAY TRAFFIC WITH SINGLE LANE, TWO-WAY LEFT TURN CHANNELIZATION



ONE-WAY TRAFFIC WITH ADDED TURN LANES



TYPICAL LOCATION OF CROSSWALKS AND STOP BARS



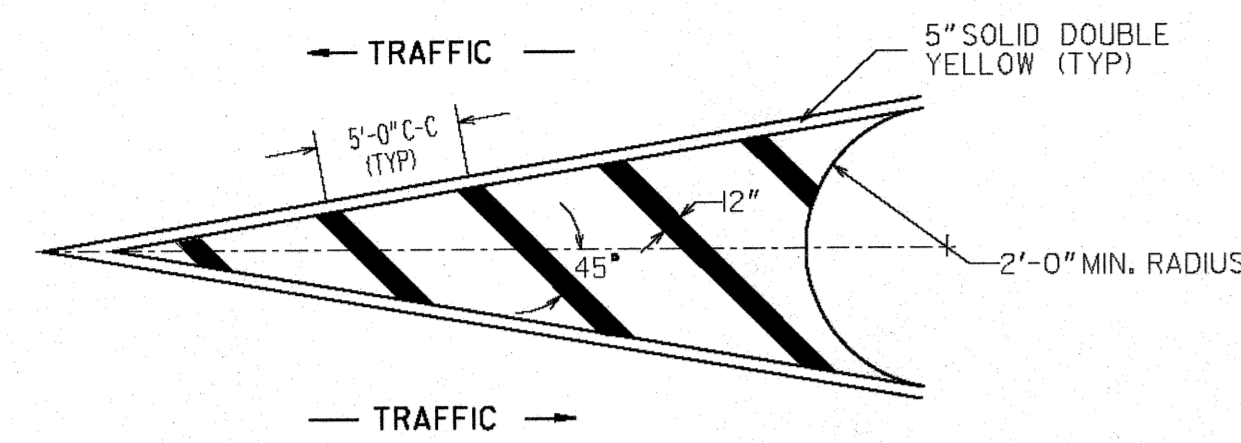
*USE WHERE THE LANE WIDTH EXCEEDS 12' OR WHERE LANE LINES HAVE BEEN OMITTED

CROSSWALK DETAIL

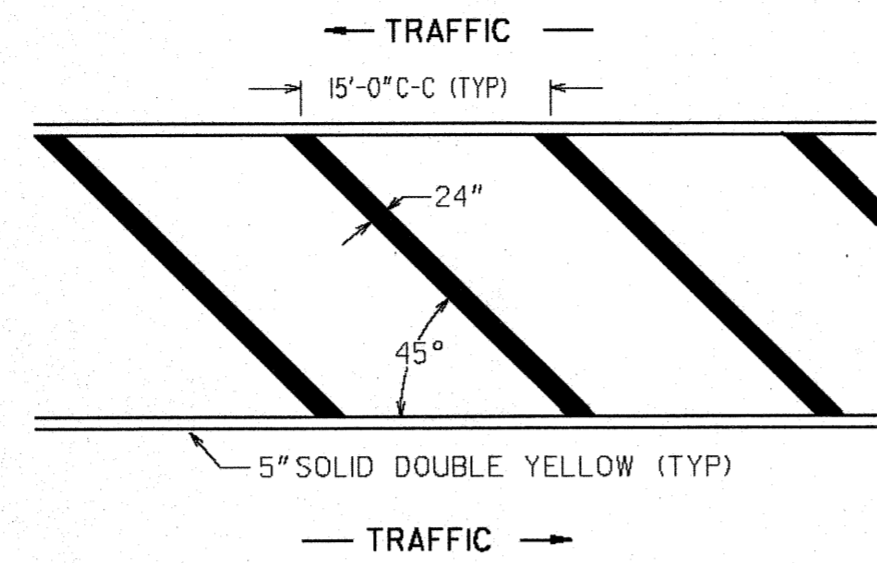
- GENERAL NOTES:
1. SPACING BETWEEN DOUBLE LINES SHALL BE EQUAL TO THE LINE WIDTH.
 2. EDGE LINES SHALL BE PLACED A MINIMUM OF 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.
 3. CONTRAST MARKINGS FOR SKIP STRIPING SHALL BE AS SHOWN IN DETAIL T-IIIB.

		9-15-16		DATE		DEPARTMENT OF TRANSPORTATION	
						STATE OF GEORGIA	
		3		REVISION		CONSTRUCTION DETAILS	
						PAVEMENT MARKING PLACEMENT	
						NON-LIMITED ACCESS ROADWAY	
				NO SCALE		JANUARY 2000	
CDR		BY		DESIGNED		NUMBER	
				DRAWN		T-IIA	
				TRACED			
				CHECKED			

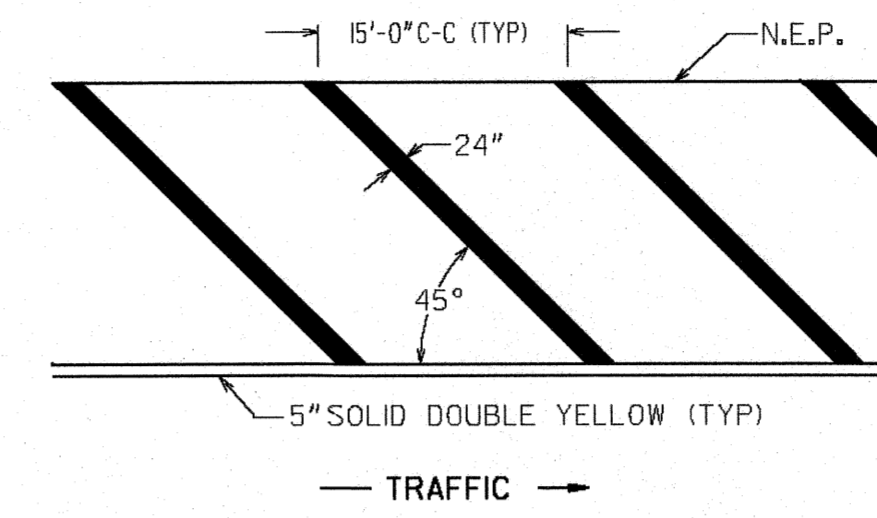
DETAIL "A" (YELLOW)



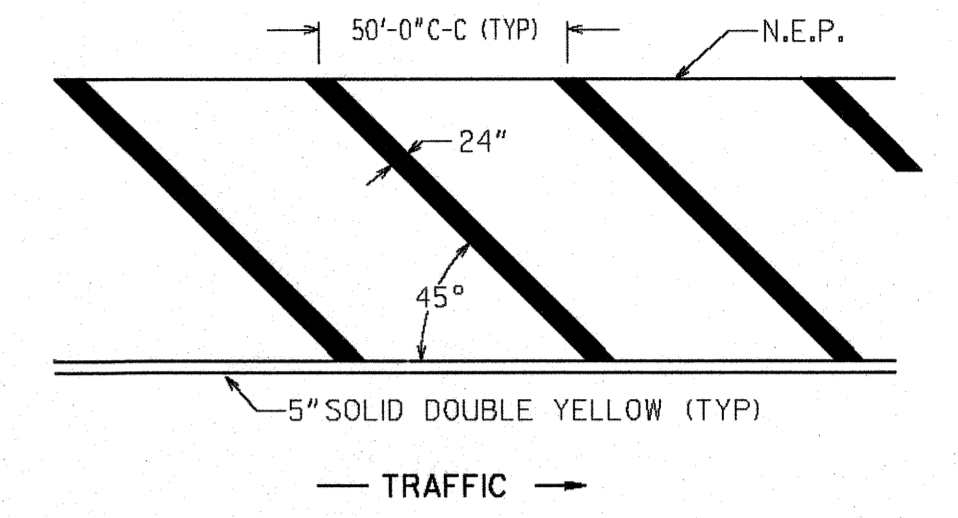
DETAIL "B" (YELLOW)



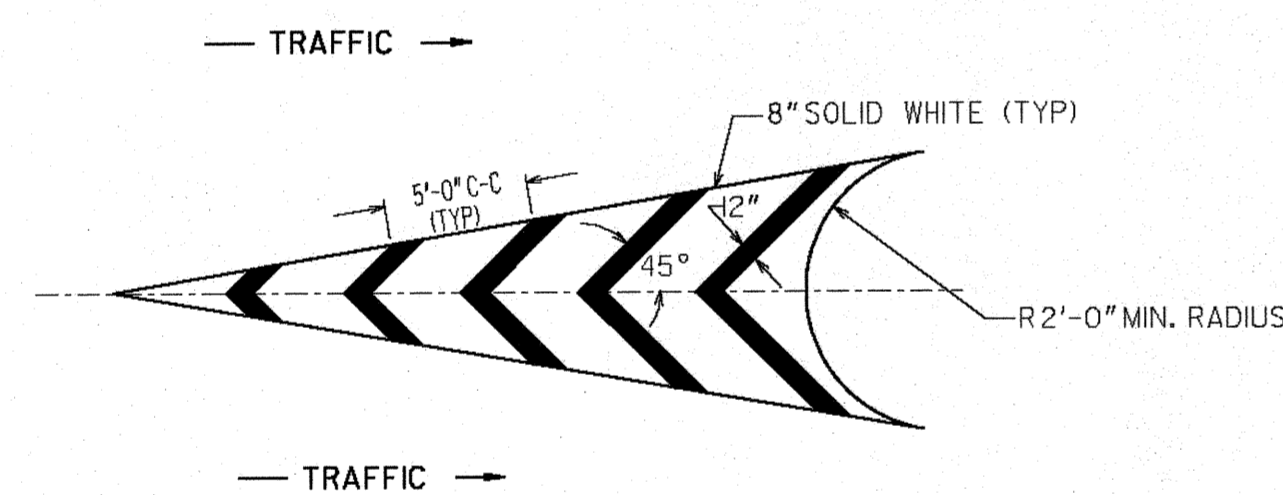
DETAIL "C" (YELLOW)



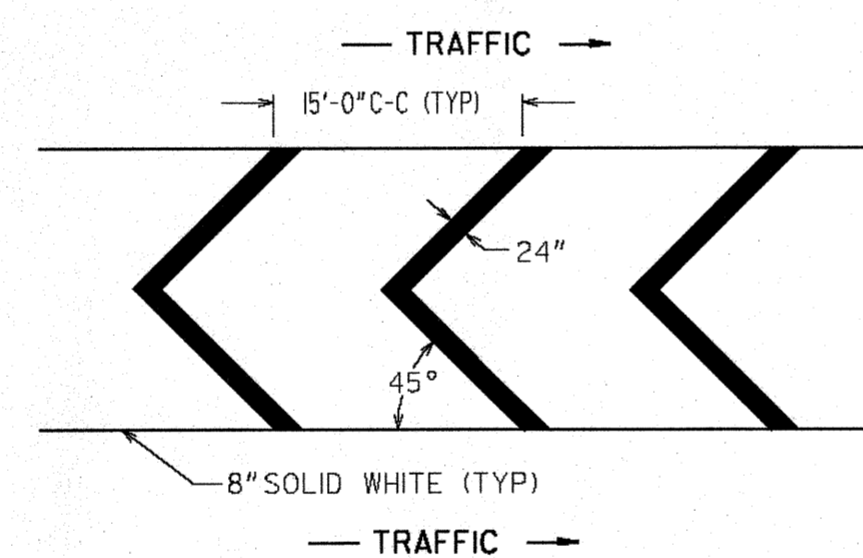
DETAIL "D" (YELLOW)



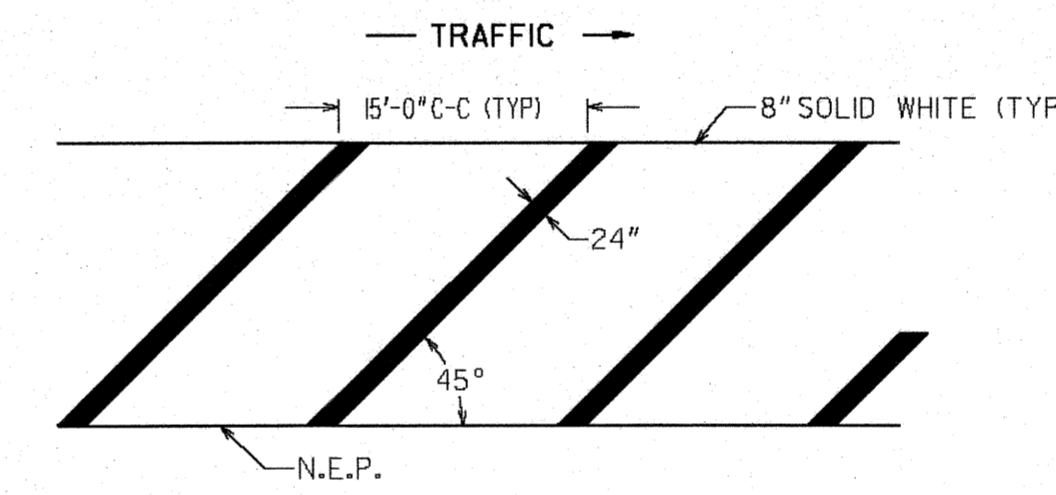
DETAIL "A" (WHITE)



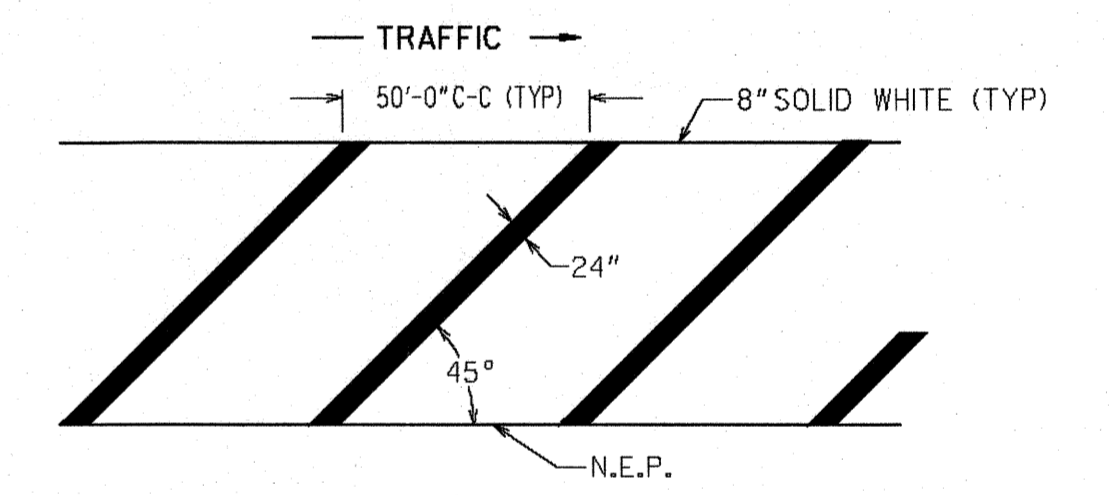
DETAIL "B" (WHITE)



DETAIL "C" (WHITE)



DETAIL "D" (WHITE)



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

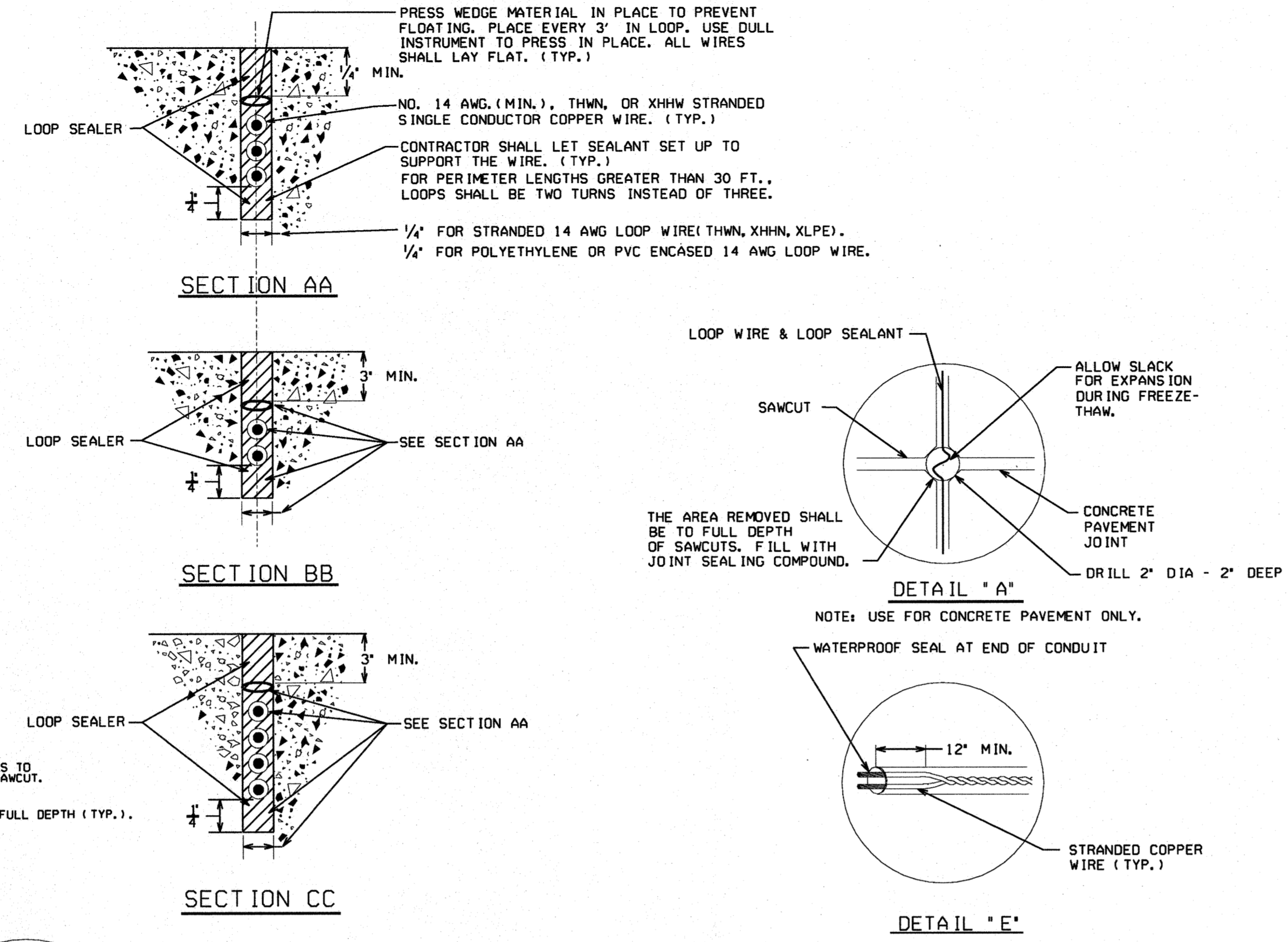
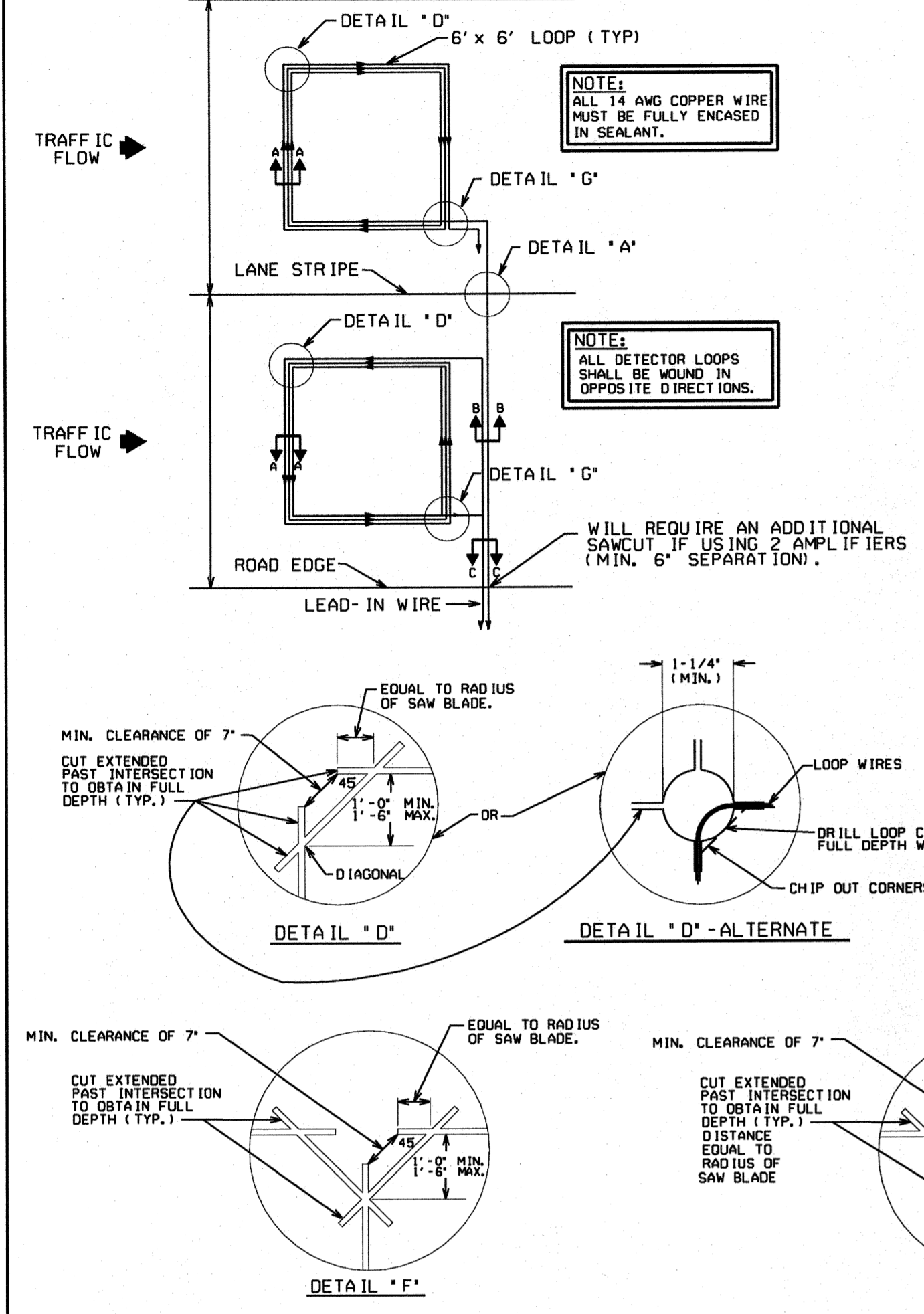
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS
SIGNING AND MARKING PLANS

DETAIL OF PAVEMENT MARKING
HATCHING
JANUARY 2000

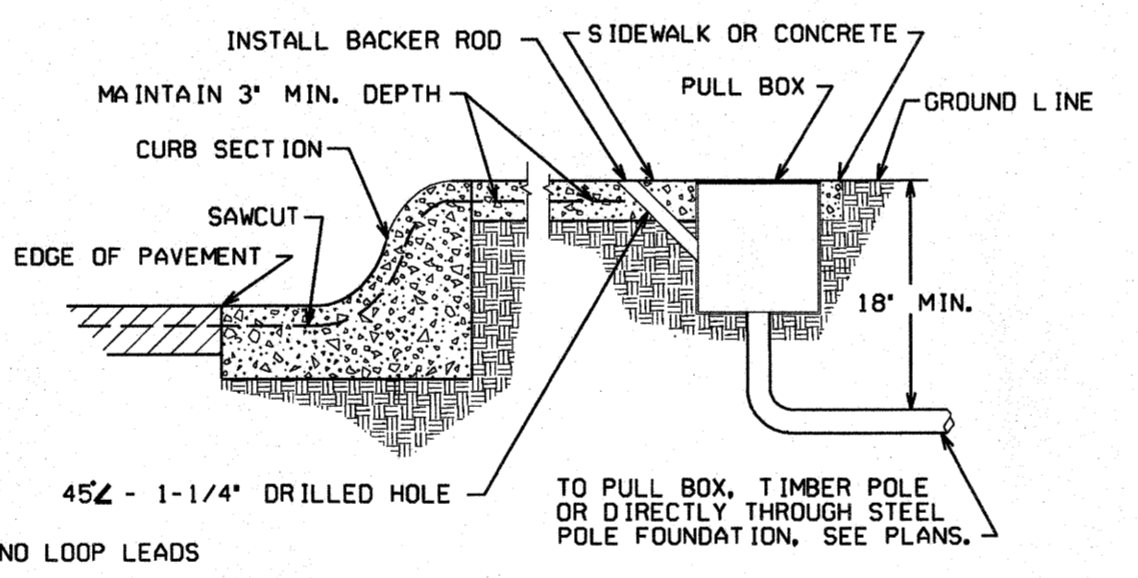
T-14
NUMBER
T-14

INDUCTIVE LOOP VEHICLE DETECTOR DETAILS USING STRANDED COPPER WIRE

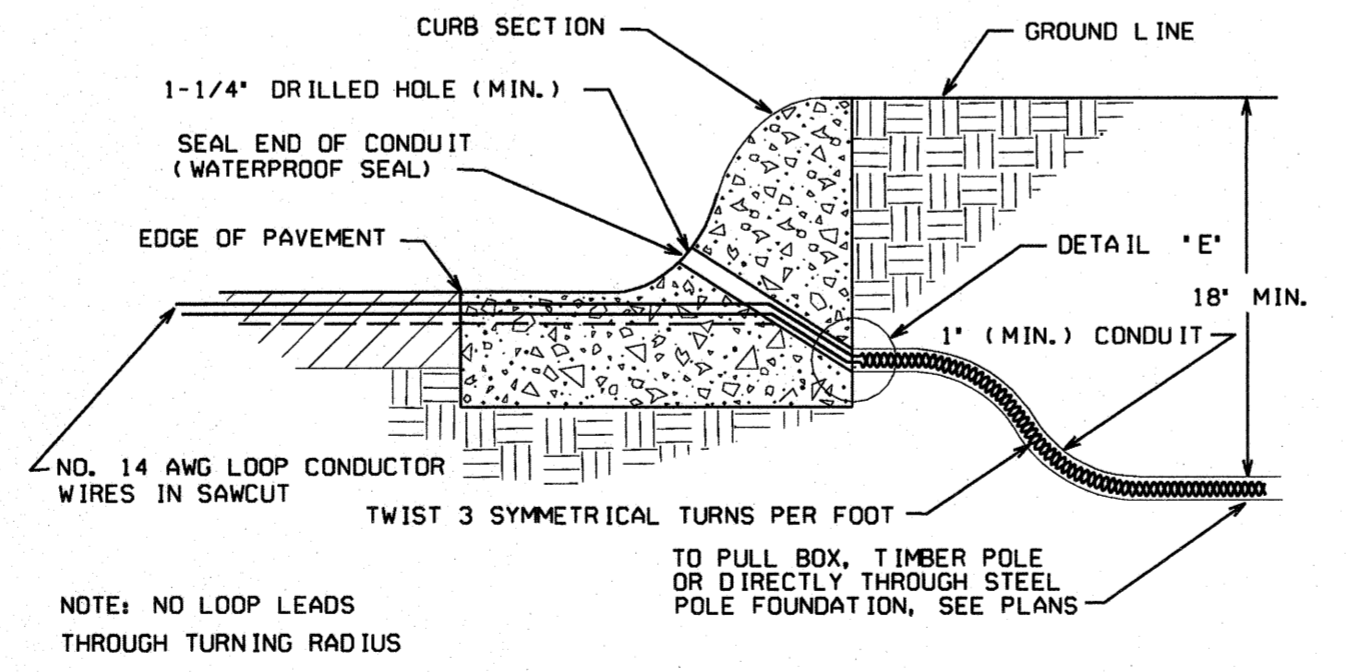
PLAN VIEW OF STANDARD LOOP SAW CUTS



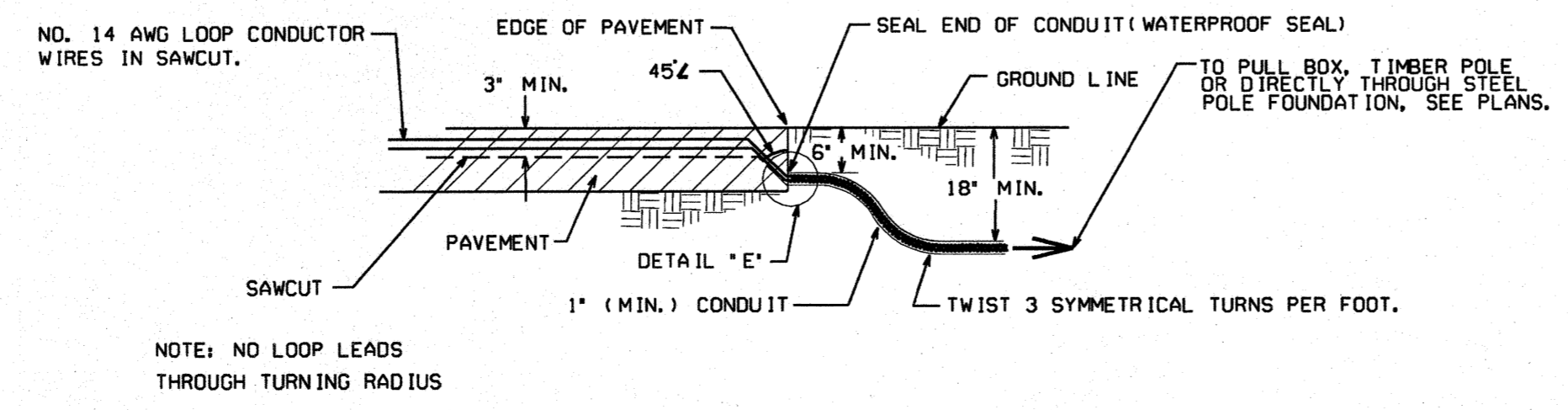
TYPICAL CURB DETAIL (WITH SIDEWALK)



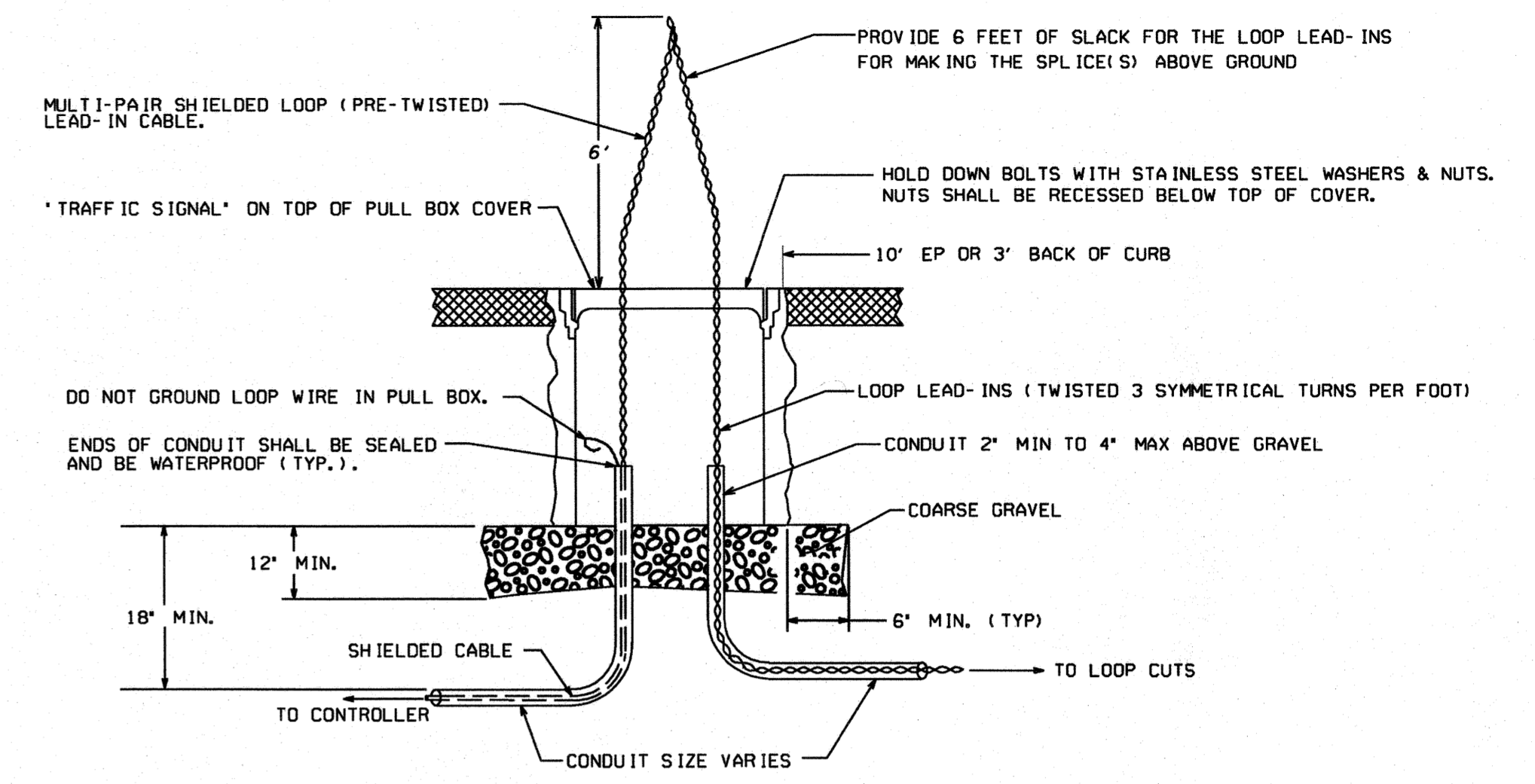
TYPICAL CURB DETAIL (WITHOUT SIDEWALK)



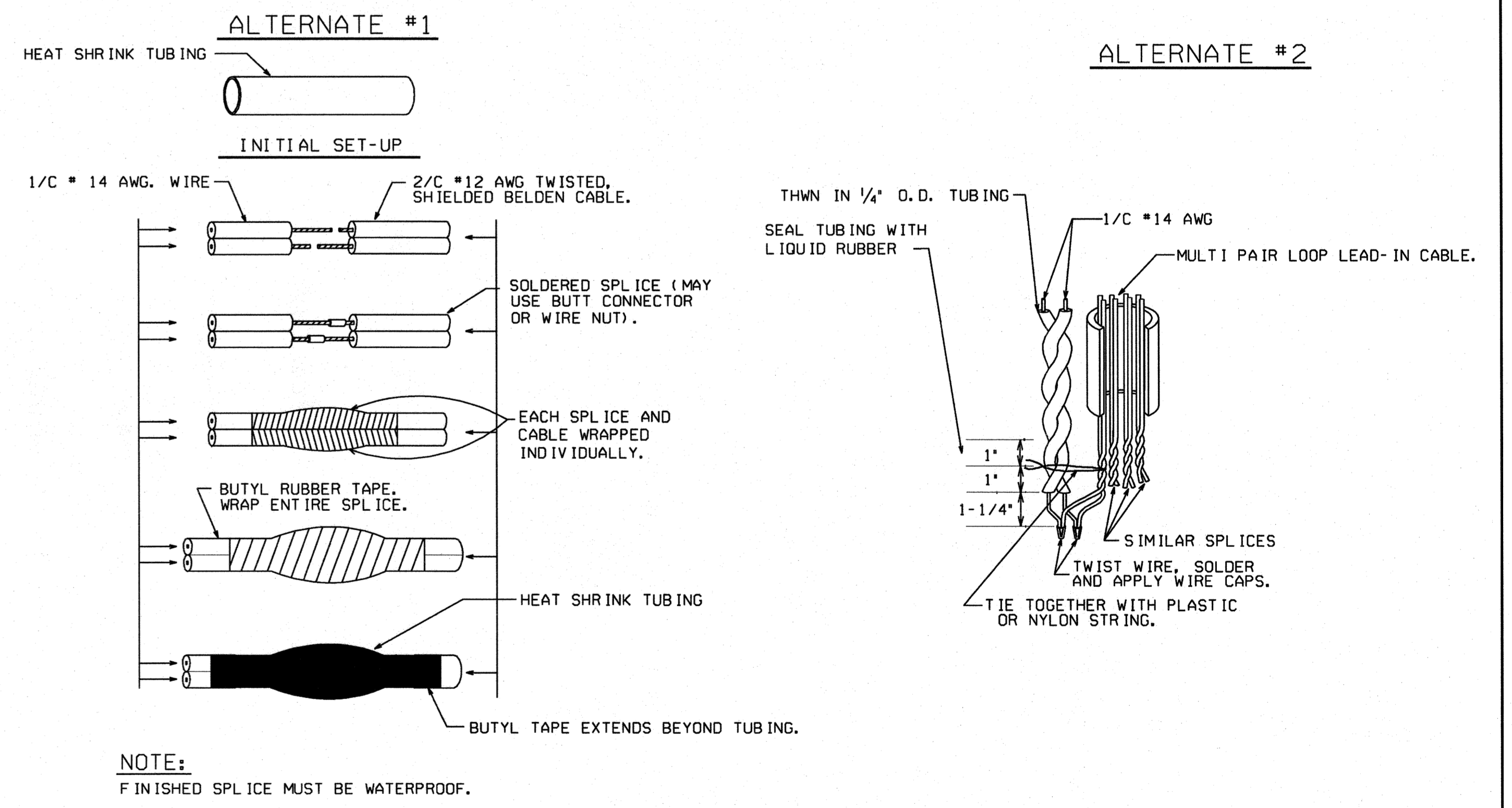
DETAIL WHERE NO CURB EXISTS



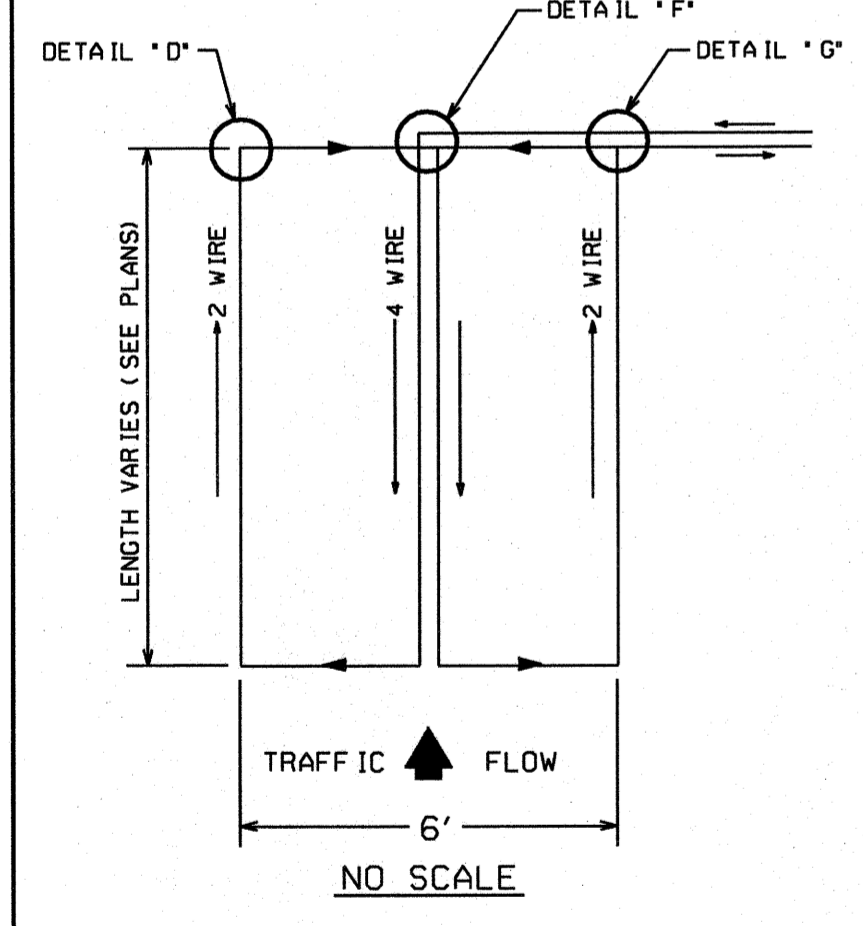
PULL BOX-SPLICE DETAILS



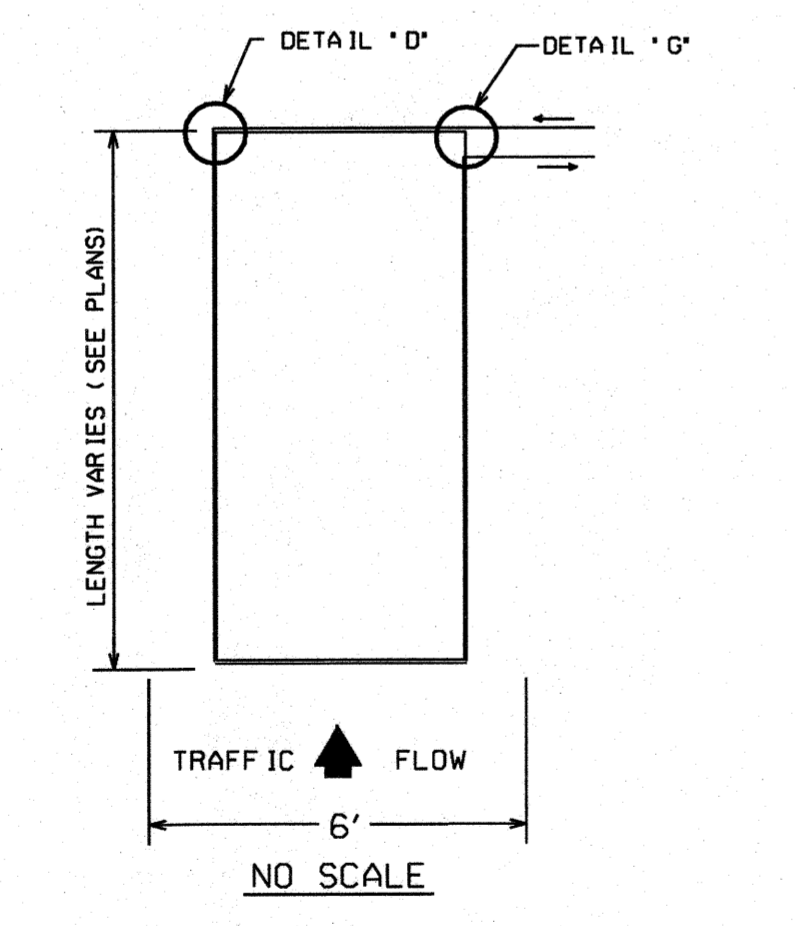
SPLICE DETAILS



PLAN VIEW OF QUADRUPOLE



PLAN VIEW OF STANDARD LOOP



LOOP WIRE CONFIGURATION

THE DOUBLE LAYER CONFIGURATION (2-2-4-2) SHOWN IS A MINIMUM DESIGN FOR NORMAL INSTALLATIONS WHEN REQUIRED BY THE PLANS.

LOOP WIRE CONFIGURATION

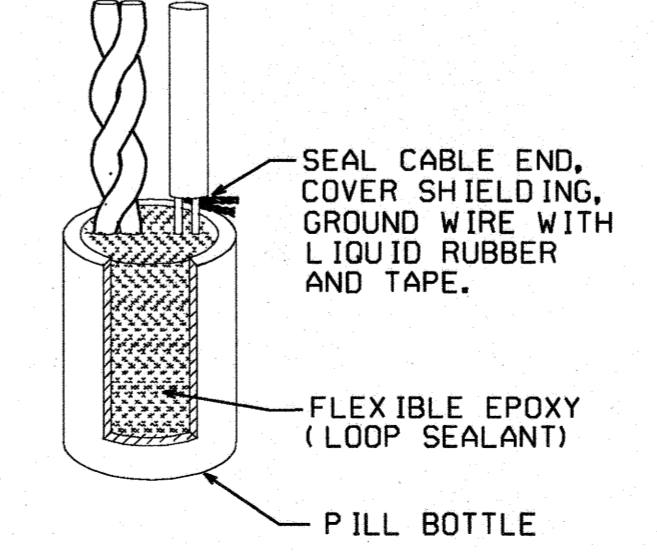
THE DOUBLE LAYER CONFIGURATION (2-2) SHOWN IS A MINIMUM DESIGN FOR NORMAL INSTALLATIONS WHEN REQUIRED BY THE PLANS.

NOTE: INDUCTIVE LOOPS SHALL NOT BE INSTALLED IN A BRIDGE DECK. LOOPS MAY BE INSTALLED IN AN APPROACH SLAB.

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1" = 25mm, 4" = 100mm, and 12" = 300mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

FINISHED SPLICE



DATE		DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION DESCRIPTION		TRAFFIC SIGNAL DETAIL INDUCTIVE-LOOP DETECTOR INSTALLATION	
REV. BY:		APRIL 2010	DETAIL NUMBER TS-01
NOT TO SCALE - REPORT ERRORS			