

TERRELL HEIGHTS STORM SEWER IMPROVEMENTS PHASE 1 CARTERSVILLE, GEORGIA

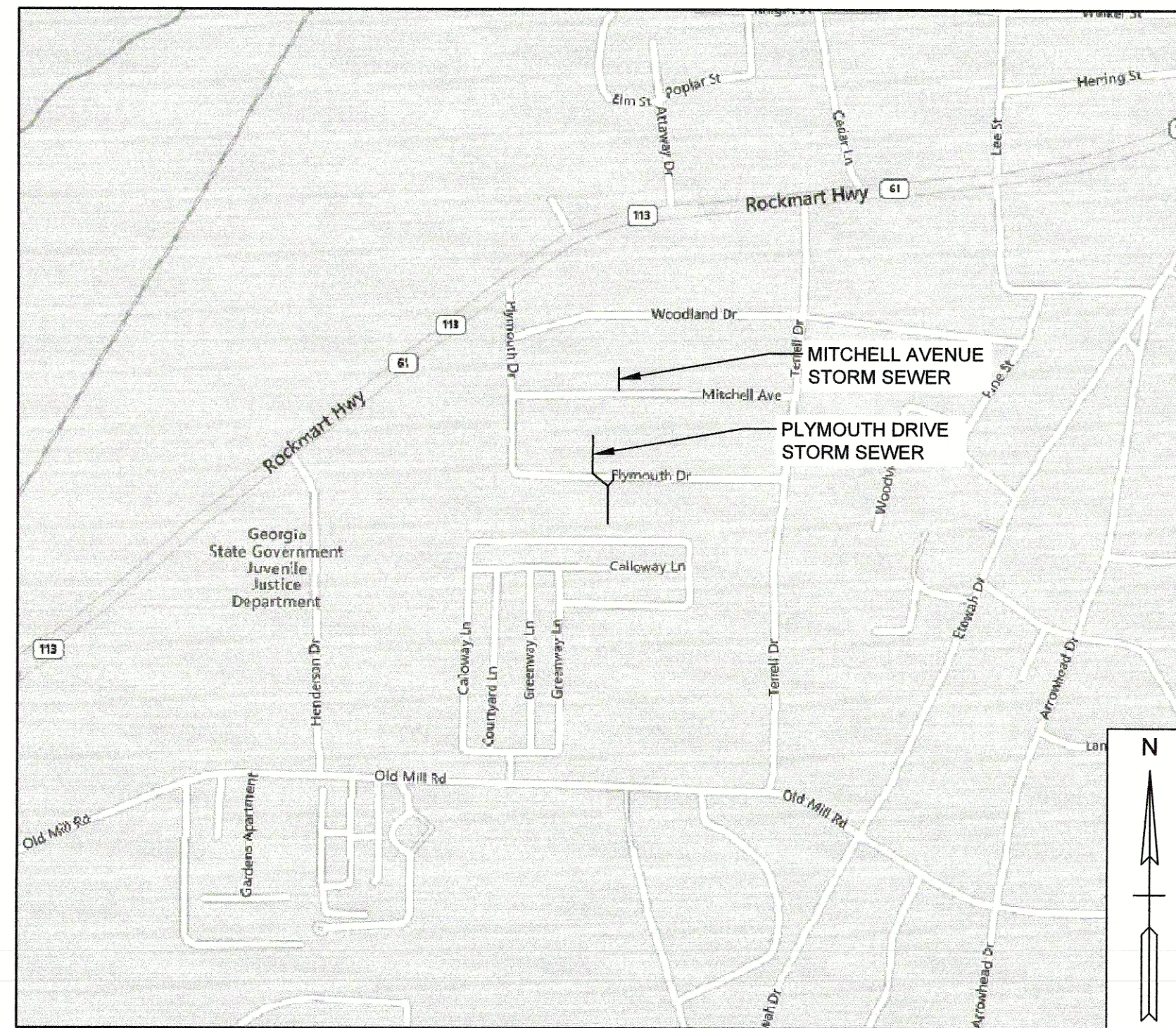
CONTACTS

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VICINITY MAP

NOT TO SCALE

City of Cartersville Site Plan Approval
In accordance to the City of Cartersville Development Regulations and the City's Zoning Ordinance, all requirements of approval have been fulfilled; These Site Plans were given final approval by the following City personnel.

	4-18-23
Electric Department	Date
	4-18-2023
Fibercomm Department	Date
	4-18-2023
Fire Department	Date
	04.18.2023
Gas Department	Date
	4-18-23
Planning and Development	Date
	4-18-23
Public Works Department	Date
	4-18-23
Water & Sewer Department	Date

FEMA NOTE

THIS PARCEL IS NOT LOCATED IN A FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY NO. 13015C, PANEL NOS. 0262H, 0264H, 0266H AND 0268H, DATED OCTOBER 5, 2018. ZONE "X."



BARGE

DESIGN SOLUTIONS

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Digitally signed by David Lavergne
DN: cn=David Lavergne,
ou=engineers,
ou=Atlanta, ou=BWSC
Users: dn=BWSC,
DC=corp, DC=basic,
DC=net
Date: 2023.03.27
16:56:07-0400



TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

G0.00
PROJECT No.
37697-01

GENERAL NOTES

- 1. THE FOLLOWING NOTES ARE APPLICABLE TO ALL CIVIL DOCUMENTS.
2. THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND OBTAIN ALL PERMITS AND BOND, IF REQUIRED, PRIOR TO BEGINNING WORK.
4. ALL RADII SHALL BE 5' UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO THE FACE OF CURBS, EDGE OF CONCRETE, OR TO FACE OF BUILDING, UNLESS OTHERWISE NOTED.
5. CURBS SHALL BE PARALLEL TO THE CENTERLINE OF DRIVES. THE CURB SHALL BE PLACED ONLY AFTER HAVING ALL BREAK POINTS (PC & PT OF CURVES) LOCATED AT THE FACE OF CURB OR AT A CONSISTENT OFFSET BY A LAND SURVEYOR.
6. THE SITE LAYOUT IS BASED ON THE CONTROL POINTS AS NOTED.
7. DO NOT SCALE DRAWING AS THEY ARE REPRODUCTION AND SUBJECT TO DISTORTION.
8. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE STARTING ANY WORK. DAMAGES TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED ACCORDING TO LOCAL STANDARDS AND SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
9. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATIONS AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATING, RELOCATION AND TIE-IN TO PUBLIC UTILITIES. ALSO, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL INSPECTORS A MINIMUM 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY WITH GOVERNING AGENCY
10. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY. INSTALL ALL UTILITIES PRIOR TO INSTALLATION OF PAVEMENT.
11. CONCRETE WALKS AND PADS SHALL HAVE A BROOM FINISH. ALL CONCRETE SHALL BE CLASS "A" (4,000 P.S.I.), UNLESS OTHERWISE NOTED.
12. ALL DAMAGE TO EXISTING ASPHALT PAVEMENT TO REMAIN, WHICH RESULTS FROM NEW CONSTRUCTION, SHALL BE REPLACED WITH LIKE MATERIALS AT CONTRACTOR'S EXPENSE.
13. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD ELECTRICAL WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK, THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF THE ABOVE NOTED WIRES, THE ELECTRICAL COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN.
14. IN EASEMENTS AND RIGHTS-OF-WAY, CONTRACTOR SHALL PROTECT AND RESTORE SAID PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING AT THE COMMENCEMENT OF CONSTRUCTION EXCEPT AS NOTED.
15. THESE PLANS, PREPARED BY BARGE DESIGN SOLUTIONS, DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF BARGE DESIGN SOLUTIONS REGISTERED PROFESSIONAL ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
16. THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.
17. UNLESS NOTED, SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS FOR REVIEW. DESIGN DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS.
18. ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF TN PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED AND PAID FOR BY THE CONTRACTOR.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING VEGETATION DURING CONSTRUCTION. THE COST TO REPLACE OR RESTORE VEGETATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
21. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ON COPY OF THE CURRENT CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED PERMITS.
22. ALL PAVING, CONSTRUCTION, MATERIALS AND WORKMANSHIP WITHIN THE STATE ROW SHALL BE IN ACCORDANCE WITH (GDOT'S) SPECIFICATIONS AND STANDARDS (LATEST EDITION).
23. ALL PAVING, CONSTRUCTION, MATERIALS AND WORKMANSHIP WITHIN THE CITY OF CARTERSVILLE RIGHT-OF-WAY (ROW) SHALL BE IN ACCORDANCE WITH CITY OF CARTERSVILLE SPECIFICATIONS AND STANDARDS (LATEST EDITION).
24. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
25. ANY WELLS DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.

GRADING NOTES

- 1. ALL STORMWATER PIPES, STRUCTURES, AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF CARTERSVILLE STANDARD SPECIFICATIONS AND DETAILS.
2. NO TREES ARE TO BE REMOVED AND/OR VEGETATION DISTURBED EXCEPT AS NECESSARY FOR GRADING PURPOSES AND ONLY AS APPROVED BY OWNER'S REPRESENTATIVE AND CITY ENGINEER.
3. STRIP ALL TOPSOIL AND OTHER DELETERIOUS MATERIALS AS PER SOIL CONSULTANT'S GEOTECH REPORT. TO ACCOMPLISH GRADING AS INDICATED ON THE PLANS. STOCKPILE TOPSOIL IN AREA(S) DESIGNATED BY THE OWNER FOR REUSE IN LANDSCAPE ISLANDS AND / OR GREEN SPACE AREAS.
4. ALL TOPSOIL, FILL MATERIAL, EXISTING FOUNDATIONS, UTILITIES, UNDER GROUND TANKS, PAVEMENT BASE AND ANY OTHER DELETERIOUS MATERIALS SHALL BE COMPLETELY REMOVED FROM WITHIN THE BEARING ZONE BELOW THE STRUCTURE.
5. ADJUST FINAL GRADES TO EXISTING PAVEMENTS TO ASSURE A SMOOTH TRANSITION.
6. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS. SUBGRADE SOFTENED BY PERCHED WATER IN FOUNDATIONS AND PAVEMENT AREAS MUST BE UNDERCUT AND RE-COMPACTED WITH SUITABLE FILL MATERIAL AS DIRECTED BY THE ON-SITE SOIL CONSULTANT.
7. FILL ALL PLANTERS/ISLANDS TO TOP OF CONCRETE CURB WITH TOPSOIL. TOPSOIL TO BE CLEAN AND FREE OF DEBRIS, ETC.
8. IN NO CASE SHALL SLOPE HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING TRENCH CONSTRUCTION, EXCEED THOSE SPECIFIED IN LOCAL, STATE AND FEDERAL REGULATIONS, SPECIFICALLY THE CURRENT OSHA HEALTH AND SAFETY STANDARDS FOR EXCAVATIONS (29 CFR PART 1926) SHALL BE FOLLOWED
9. MINIMUM SLOPE ON ASPHALT OR CONCRETE PAVING SHALL BE 1.0% AND A MINIMUM 0.5% SLOPE ON CURBS. THE MAXIMUM SLOPE IN HANDICAP PARKING OR OTHER ADA DESIGNATED AREAS SHALL BE 2.0%.
10. ALL GRADED AREAS, INCLUDING SLOPES, ARE TO BE MULCHED, SEEDED, AND/OR SODDED AS SOON AS POSSIBLE AFTER GRADING IS COMPLETED.
11. CONSTRUCT EROSION CONTROL AS SHOWN ON DRAWINGS PRIOR TO BEGINNING GRADING OPERATIONS.
12. ALL NEW STRUCTURES AND EXISTING STRUCTURES SHALL HAVE SEDIMENT REMOVED PRIOR TO ACCEPTANCE.
13. SILT BARRIERS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN APPROXIMATELY 50% FILLED WITH SUCH SEDIMENT.
14. ALL DIMENSIONS AND LOCATIONS OF TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
15. WHEN THE TEMPORARY SOIL EROSION AND WATER POLLUTION DEVICES ARE NO LONGER REQUIRED FOR THE INTENDED PURPOSE IN THE OPINION OF THE OWNER'S REPRESENTATIVE THEY SHALL BE REMOVED.
16. REPLACE SILT BARRIERS WHEN CONDITIONS WARRANT AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND CITY ENGINEER.
17. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING WORK.
18. CONTOUR LINES AND SPOT ELEVATIONS ARE BASED ON ESTABLISHED PROJECT BENCHMARK, WHICH THE CONTRACTOR SHALL VERIFY WITH TOPOGRAPHY SURVEY. SHOULD THE CONTRACTOR HAVE ANY QUESTION OF THE INTENT OR ANY PROBLEMS WITH CONTINUITY OF GRADES, THE ENGINEER SHOULD BE CONTACTED IMMEDIATELY PRIOR TO BEGINNING WORK.
19. ALL UN-SURFACED AREA DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. ALL SLOPES 3:1 OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL MATTING INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO MAINTAIN DISTURBED AREAS UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
20. PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. ANY MUD/CONSTRUCTION DEBRIS THAT MAY BE TRANSPORTED ONTO SURROUNDING ROADS OR PARKING AREAS SHALL BE SWEEPED AND CLEANED IMMEDIATELY.
21. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
22. CONSTRUCTION ENTRANCE SHALL BE IN PLACE PRIOR TO ANY COMBUSTIBLES, I.E. CONSTRUCTION TRAILER, LUMBER, ETC. BEING PRESENT ON JOB SITE. IN ADDITION TO THE CONSTRUCTION ENTRANCE, AN ALL WEATHER DRIVE MUST BE IN PLACE AND ACCESSIBLE TO ALL AREAS OF THE CONSTRUCTION SITE THAT WILL CONTAIN COMBUSTIBLES THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROCESS. THE ALL WEATHER DRIVE SHALL BE NO LESS THAN 20 FEET OF UNOBSTRUCTED WIDTH WITH ADEQUATE TURNING RADIUS CAPABLE OF SUPPORTING THE IMPOSED LOADS OF THE FIRE DEPARTMENT PROCESS.
23. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
24. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT (1' FOOT).
25. THIS GRADING AND DRAINAGE PLAN IS NOT A DETERMINATION OR GUARANTEE OF THE SUITABILITY OF SURFACE CONDITIONS FOR THE WORK INDICATED. DETERMINATION OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
26. DO NOT DISTURB VEGETATION OR REMOVE ANY EXISTING TREES EXCEPT WHERE DESIGNATED ON THE PLAN.
27. TOP OF GRATE ELEVATIONS AND LOCATION OF COORDINATES FOR DRAINAGE STRUCTURES SHALL BE SHOWN ON THE PLAN UNLESS OTHERWISE NOTED. THE GRATES SHALL SLOPE LONGITUDINALLY WITH THE PAVEMENT GRADES.

EROSION CONTROL NOTES

- 1. NO VEGETATION IS TO BE DISTURBED EXCEPT AS NECESSARY FOR GRADING AND UTILITY INSTALLATION PURPOSES.
2. TOPSOIL IS TO BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED, AND REDISTRIBUTED OVER GRADED AREAS TO A MINIMUM DEPTH OF 6". THE SOIL IS TO BE STOCKPILED IN THE LOCATIONS AS DESIGNATED BY THE OWNER.
3. ALL GRADED AREAS INCLUDING 3:1 SLOPES ARE TO BE MULCHED AND SEEDED/SODDED WITHIN 7 DAYS OF FINAL GRADING. ANY AREAS LEFT UNDISTURBED FOR 7 DAYS SHALL HAVE ADEQUATE STABILIZATION.
4. ALL DIMENSIONS AND LOCATIONS OF TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DESIGNATED BY THE ENGINEER.
5. WHEN THE TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES ARE NO LONGER REQUIRED FOR THE INTENDED PURPOSE, IN THE OPINION OF THE ENGINEER, THEY SHALL BE REMOVED.
6. NO WORK IS TO BE STARTED UNTIL MANDATORY PRE-CONSTRUCTION MEETING WITH THE CITY OF CARTERSVILLE.
7. INSTALL SILT FENCE AROUND THE BASE OF ANY STOCK PILES.
8. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA, THE EQUIPMENT MAINTENANCE AND CLEANING AREA, CONTRACTOR'S EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, CONCRETE TRUCK WASHOUT AREA, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR TO COORDINATE EXACT LOCATION WITH PROJECT ENGINEER AND CITY ENGINEER DURING PRECONSTRUCTION MEETING.
9. ALL UNDISTURBED AREAS INCLUDING WETLAND/STREAM BUFFERS, SHALL BE FIELD MARKED AND KEPT FREE OF CONSTRUCTION EQUIPMENT.
10. CURRENT VERSIONS OF THE STORM WATER POLLUTION PREVENTION PLAN, NOTICE OF INTENT, AND NOTICE OF COVERAGE SHALL BE KEPT ON SITE AND IS TO BE ACCESSIBLE FOR THE DURATION OF THE PROJECT.
11. APPLY PERMANENT SEEDING WHENEVER GRADING OPERATIONS ARE COMPLETED AND ALL CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBED AREA. APPLY PERMANENT SEEDING TO ALL NON-CONSTRUCTION AREAS THAT SHOW SIGNS OF EXCESSIVE EROSION.
12. MULCH WITH STRAW AT A RATE OF 100 LBS/1000 S.F. OVER THE SEEDED AREAS.
13. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH GDOT'S EROSION AND SEDIMENT CONTROL HANDBOOK AND GDOT'S CONSTRUCTION ACTIVITY PERMIT REQUIREMENTS. THE DEVICES SHOWN ON THE DRAWINGS ARE THE MINIMUM REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION CONTROL DEVICES AS NEEDED.
14. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH CITY OF CARTERSVILLE STANDARDS, RESPECTIVELY. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE. LOCATION OF AND/OR NOTES REFERRING TO THESE BMP'S SHALL BE SHOWN ON THE EPS3 PLAN.
15. THE SITE SHALL BE STABILIZED WITHIN 14 DAYS AFTER CONSTRUCTION HAS TEMPORARILY/PERMANENTLY CEASED.
16. VEGETATION AND EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT ARE AFFECTED BY CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITHIN 7 DAYS.

UTILITY NOTES

- 1. ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF LOCAL UTILITY COMPANY PROVIDER.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND INVERTS OF ALL EXISTING UTILITY LINES AND STRUCTURES (INCLUDING STORM DRAINAGE PIPES OR STRUCTURES) BEFORE THE COMMENCEMENT OF CONSTRUCTION.
3. THE PARKING LOT SHALL BE CONSTRUCTED TO SUBGRADE. ALL PROPOSED FILLS SHALL BE INSTALLED AND COMPACTED PRIOR TO CONSTRUCTION OF SANITARY SEWERS.
4. SEWER SERVICE LINE CLEAN-OUT ASSEMBLY SHALL BE INSTALLED ACCORDING TO THE SPECIFICATIONS OF LOCAL UTILITY COMPANY PROVIDER.
5. ALL PUBLIC AND PRIVATE WATER MAINS SHALL COMPLY WITH NFPA 13 AND 24 UNLESS LOCAL JURISDICTION STATES OTHERWISE.
6. CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, AND PAY ANY APPLICABLE FEES.
7. IN THE EVENT OF ANY DISCREPANCIES AND/OR ERRORS FOUND IN THE DRAWINGS, OR IF PROBLEMS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. IF ENGINEER IS NOT NOTIFIED, THE CONTRACTOR SHALL TAKE RESPONSIBILITY FOR THE COST OF ANY REVISION.
8. THE CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES, TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN, REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE, AND COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
9. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND ELECTRICAL WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN THE CLOSE PROXIMITY OF THE ABOVE NOTED WIRES, THE ELECTRIC COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION.
10. THE OWNER AND ENGINEER DO NOT ASSUME RESPONSIBILITY FOR THE POSSIBILITY THAT, DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED OR THAT ACTUAL LOCATION OF THOSE SHOWN MAY BE DIFFERENT FROM LOCATIONS DESIGNATED ON THE CONTRACT DRAWINGS. IN AREAS WHERE IT IS NECESSARY THAT EXACT LOCATIONS BE KNOWN OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH ALL LABOR AND TOOLS NECESSARY TO EITHER VERIFY AND SUBSTANTIATE OR DEFINITELY ESTABLISH THE POSITION OF UNDERGROUND UTILITY LINES.
11. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN ALL SANITARY SEWER AND WATERLINE CROSSINGS, UNLESS LOCAL UTILITY JURISDICTION SPECS STATES OTHERWISE.

SURVEY NOTES

- 1. SURVEYOR'S LIABILITY FOR THE DOCUMENT SHALL BE LIMITED TO THE ORIGINAL PURCHASER AND DOES NOT EXTEND TO ANY UNNAMED PERSON OR ENTITIES WITHOUT AN EXPRESSED RE-CERTIFICATION BY WHOSE SIGNATURE APPEARS ON THIS SURVEY.
2. ALL DISTANCES WERE MEASURED WITH E.D.M EQUIPMENT AND HAVE BEEN ADJUSTED FOR TEMPERATURE.
3. PRIOR TO ANY CONSTRUCTION, EXCAVATION, OR ANY DISTURBANCE OF THE EXISTING GROUND ELEVATION, THE OWNER AND / OR CONTRACTOR SHOULD ASSUME RESPONSIBILITY OF CONTACTING THE LOCAL UTILITY AUTHORITIES FOR EXACT LOCATION OF UNDERGROUND GAS LINES, TELEPHONE LINES, ELECTRIC CABLES, WATER LINES, ETC. TO AVOID ANY HAZARD OR CONFLICT. IN GEORGIA, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) NOR MORE THAN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR EXCAVATION TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. DIAL 811 FOR ONE CALL CENTER.
4. UTILITIES SHOWN WERE TAKEN FROM FIELD LOCATIONS THAT WERE APPARENT AND COPIED FROM APPROPRIATE GOVERNMENT AGENCIES MAPS AND ARE APPROXIMATE AT BEST. THERE MAY BE UTILITIES, THE EXISTENCE OF WHICH IS UNKNOWN BY THE SURVEYOR.
5. TOPOGRAPHIC INFORMATION WAS DERIVED BY RANDOM SHOTS PER FIELD SURVEY; CONTOUR INTERVAL IS 1'. DATUM BASED ON NAVD83.



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GENERAL NOTES

TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

Table with columns: REV., DR., CHK., DATE, DESCRIPTION

G0.01

PROJ. NO. 37697-01

LEGEND

- IR(0) IRON ROD (OLD)
- I.R.(N) IRON ROD (SET)
- PROPERTY LINE
- CONTOUR LINE (MAJOR)
- CONTOUR LINE (MINOR)
- UNDERGROUND ELECTRIC LINE
- OVERHEAD POWER LINE
- 12"SA SANITARY SEWER LINE
- 15"ST STORM SEWER LINE
- 8"W WATER LINE
- ER ELECTRIC RISER
- EB/V ELECTRIC METER / VAULT
- U UTILITY POLE
- GUY WIRE
- TBOX TRAFFIC SIGNAL BOX
- S SANITARY SEWER MANHOLE
- ST STORM SEWER MANHOLE
- CURB INLET/CATCH BASIN
- CLEANOUT
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- SIGN POST
- BOLLARD

ABBREVIATIONS

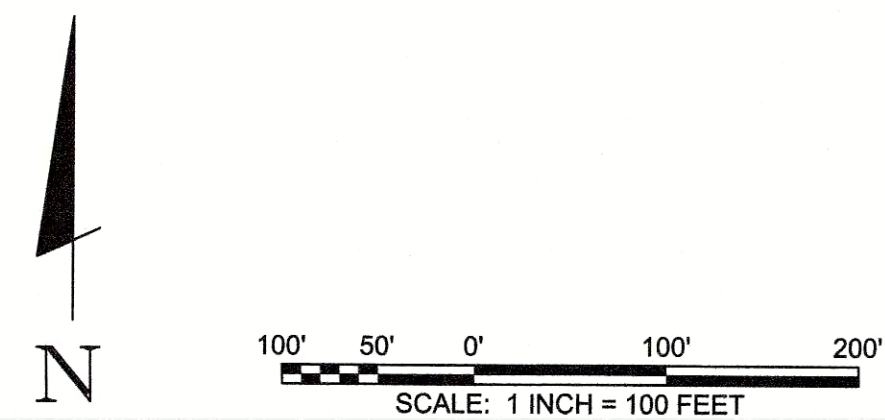
- Ø DIAMETER
- BOC BACK OF CURB
- BFP BACKFLOW PREVENTER
- BFV BUTTERFLY VALVE
- CI CURB INLET
- CL CENTERLINE
- CO CLEAN OUT
- CONC CONCRETE
- CONN CONNECT
- CU COPPER
- CV CHECK VALVE
- DI DROP INLET
- DIP DUCTILE IRON PIPE
- DWCB DOUBLE WING CATCH BASIN
- D/W DRIVEWAY
- EX. EXISTING
- ELEC ELECTRICAL SERVICE
- EOP EDGE OF PAVEMENT
- FH FIRE HYDRANT
- GV GATE VALVE
- HDPE HIGH DENSITY POLYETHYLENE
- HORZ HORIZONTAL
- HWY HIGHWAY
- ID INSIDE DIAMETER
- INT INTERSECTION
- LF LINEAR FEET
- MIN MINIMUM
- MH MANHOLE
- NTS NOT TO SCALE
- OD OUTSIDE DIAMETER
- PG PAGE
- PP POWER POLE
- PV PLUG VALVE
- PVC POLYVINYL CHLORIDE
- PVMNT PAVEMENT
- RD ROAD
- RET RETAINER
- RJ RESTRAINED JOINT
- R/W RIGHT-OF-WAY
- SD STORM DRAIN
- SHT SHEET
- SP SIGNAL POLE
- SR STATE ROUTE
- SS SANITARY SEWER
- SAMH SANITARY SEWER MANHOLE
- SSTL STAINLESS STEEL
- STA STATION
- SWMH STORMWATER MANHOLE
- TS&V TAPPING SLEEVE AND VALVE
- TYP TYPICAL
- WL WATER LINE
- WM WATER METER
- WTR WATER
- W/ WITH
- ' FEET
- " INCHES
- ° DEGREE



KEY MAP, LEGEND AND ABBREVIATIONS

TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

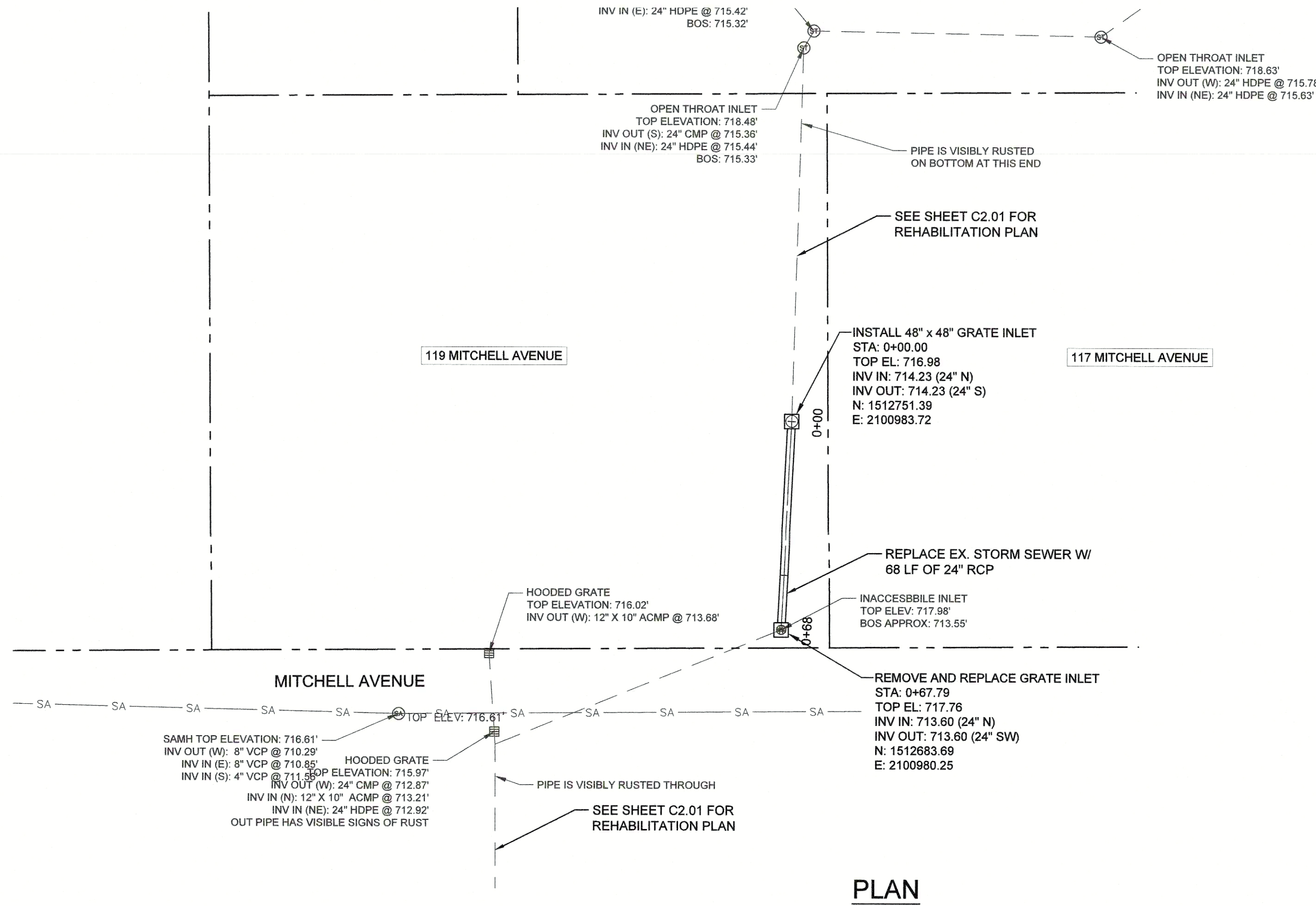
REV.	DR.	CHK.	DATE	DESCRIPTION



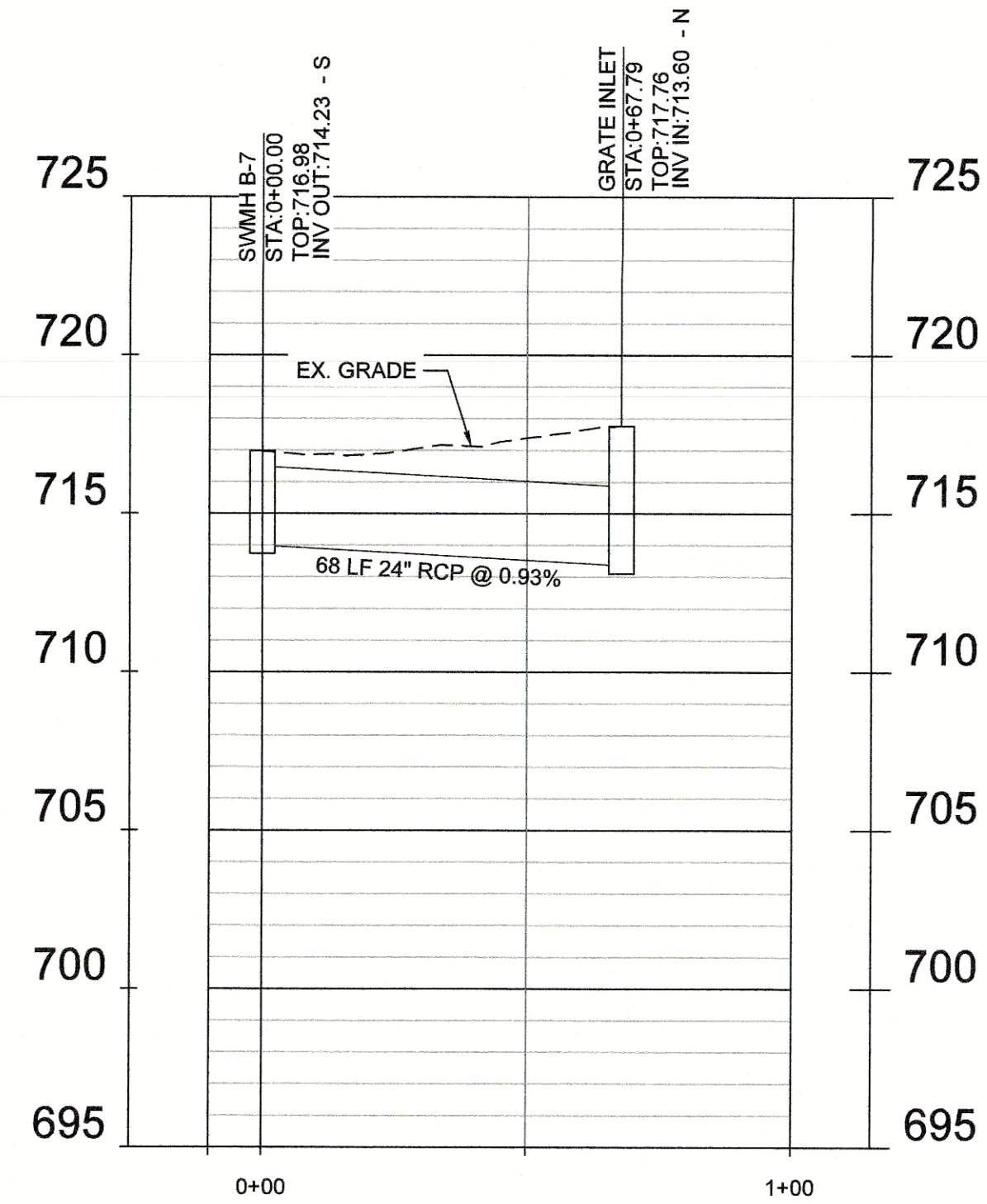
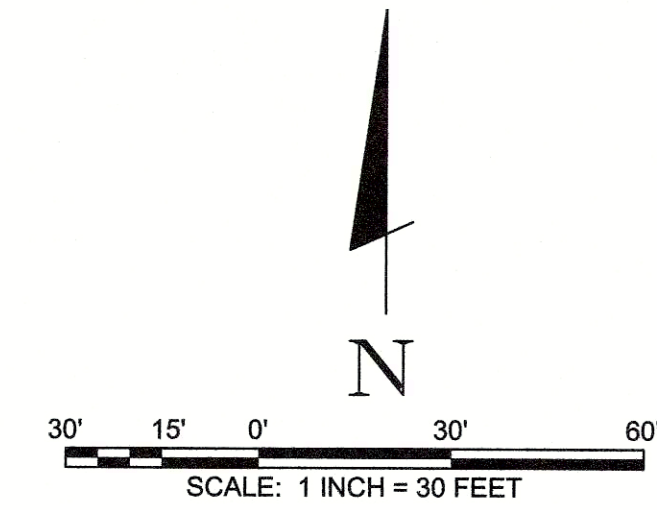
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SAVED: 2/13/2023
PLOTTED: 2/10/2023



PLAN



PROFILE

SCALE: 1" = 30' HORIZ.
1" = 5' VERTICAL

BARGE
DESIGN SOLUTIONS

6525 The Corners Parkway // Suite 450 // Peachtree Corners, Georgia 30092
PHONE (678) 815-9411

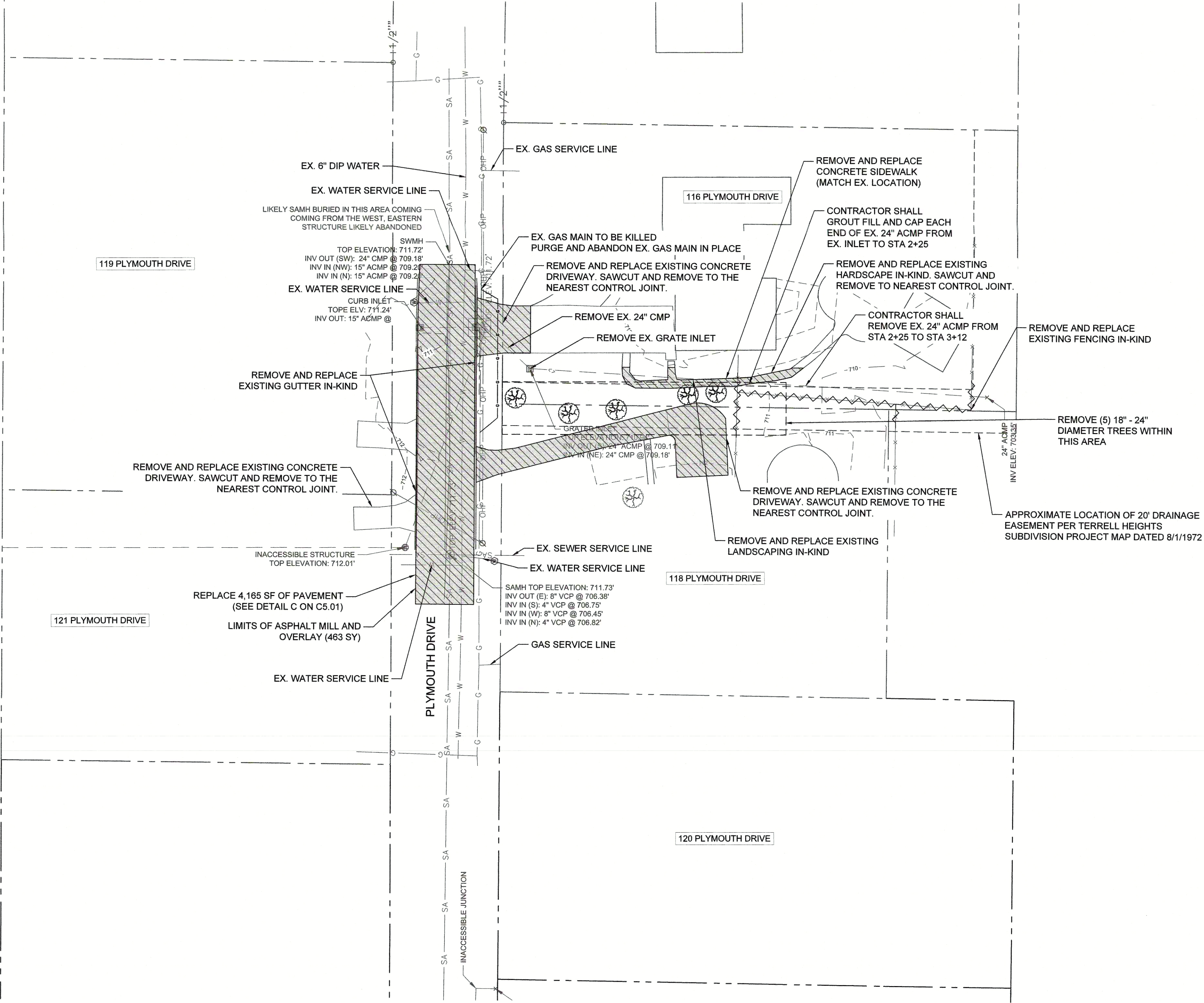


MITCHELL AVENUE PLAN & PROFILE
STA 0+00 TO E.O.L.

TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

REVISION INFORMATION

C1.01
PROJ. NO. 37697-01



- NOTES:**
1. THE CONTRACTOR SHALL RESTORE ALL DAMAGED OR OBLITERATED STREET PAVEMENT MARKINGS AND SIGNAGE TO THEIR ORIGINAL CONDITION.
 2. THE CONTRACTOR TO PROVIDE AND MAINTAIN NECESSARY FENCES, BARRICADES, LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL MEASURES AS REQUIRED FOR THE PROTECTION AND SAFETY OF THE PUBLIC THROUGHOUT THE DEMOLITION AND CONSTRUCTION ACTIVITIES ON THE SITE.
 3. THE CONTRACTOR SHALL MINIMIZE THE IMPACT OF CONSTRUCTION ACTIVITIES ON THE TRAFFIC FLOW AND MAINTAIN ONE LANE OF TRAFFIC DURING ACTIVE CONSTRUCTION.
 4. THE CONTRACTOR SHALL COVER THE EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS TO ALLOW NORMAL TRAFFIC FLOW.
 5. THE CONTRACTOR SHALL INSTALL ALL INITIAL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO DEMOLITION OPERATIONS BEGINNING.
 6. ALL SAWCUTS NECESSARY TO REMOVE CONCRETE ARE TO BE PERPENDICULAR OR PARALLEL TO FACE OF CURB. ALL CONCRETE TO BE REMOVED SHALL BE REMOVED TO THE NEAREST JOINT.

BARGE
DESIGN SOLUTIONS

8525 The Corners Parkway / Suite 450 / Peachtree Corners, Georgia 30092
PHONE (770) 915-9411

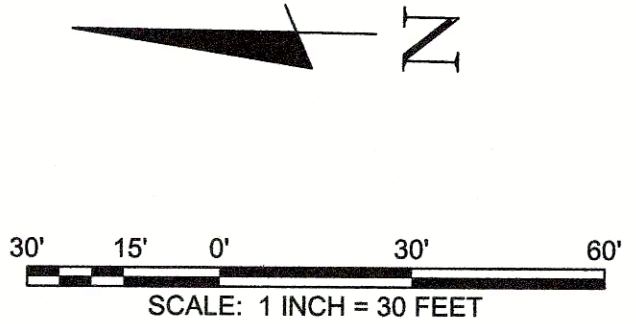


PLYMOUTH DRIVE DEMOLITION PLAN

TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

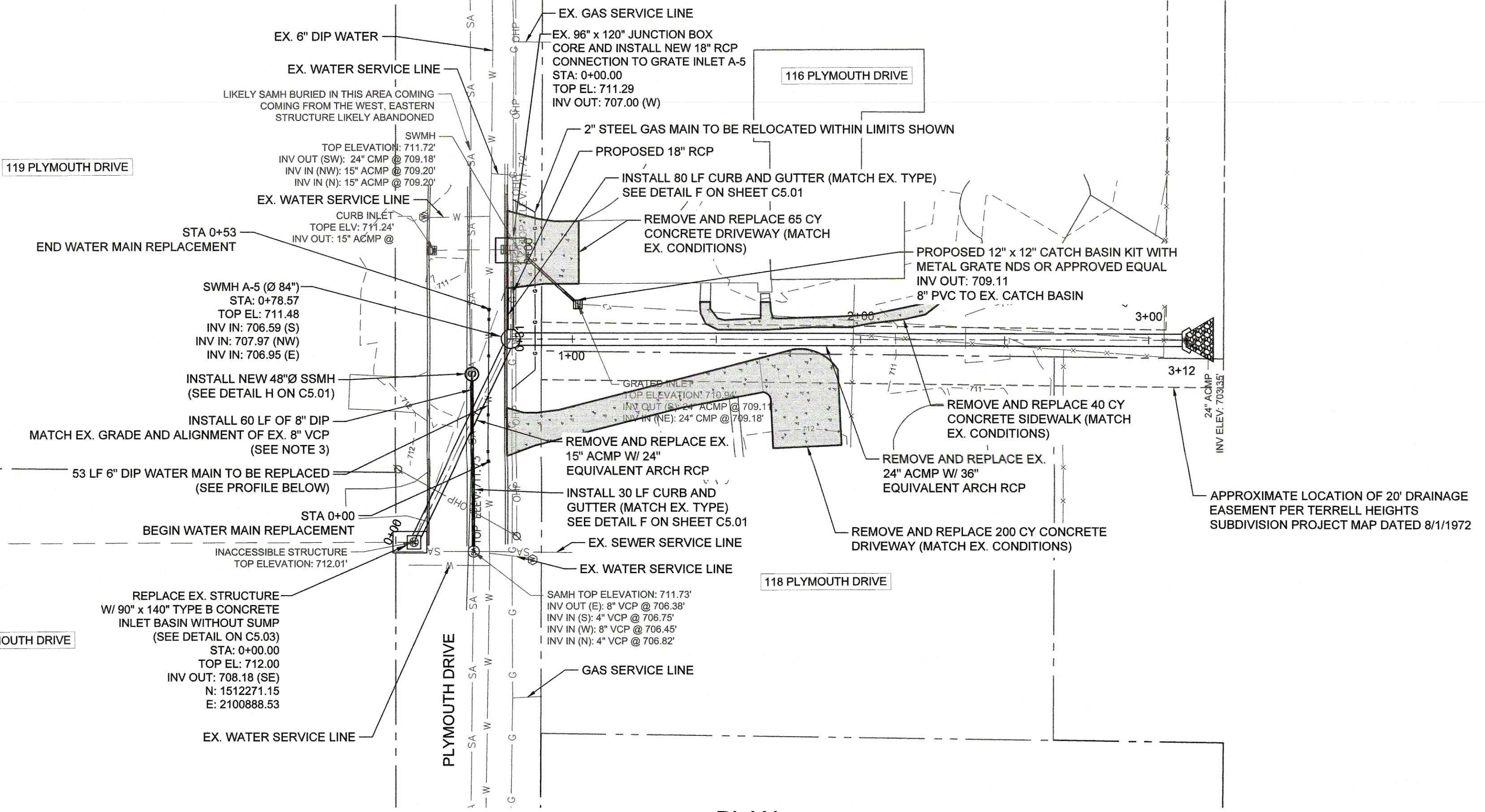
REVISION INFORMATION

C1.02
PROJ. NO. 37697-01

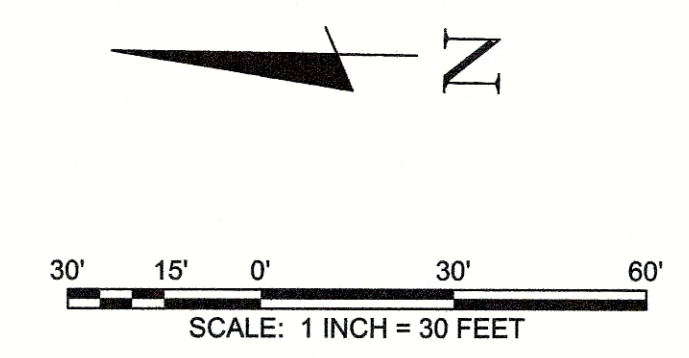


DEMOLITION PLAN

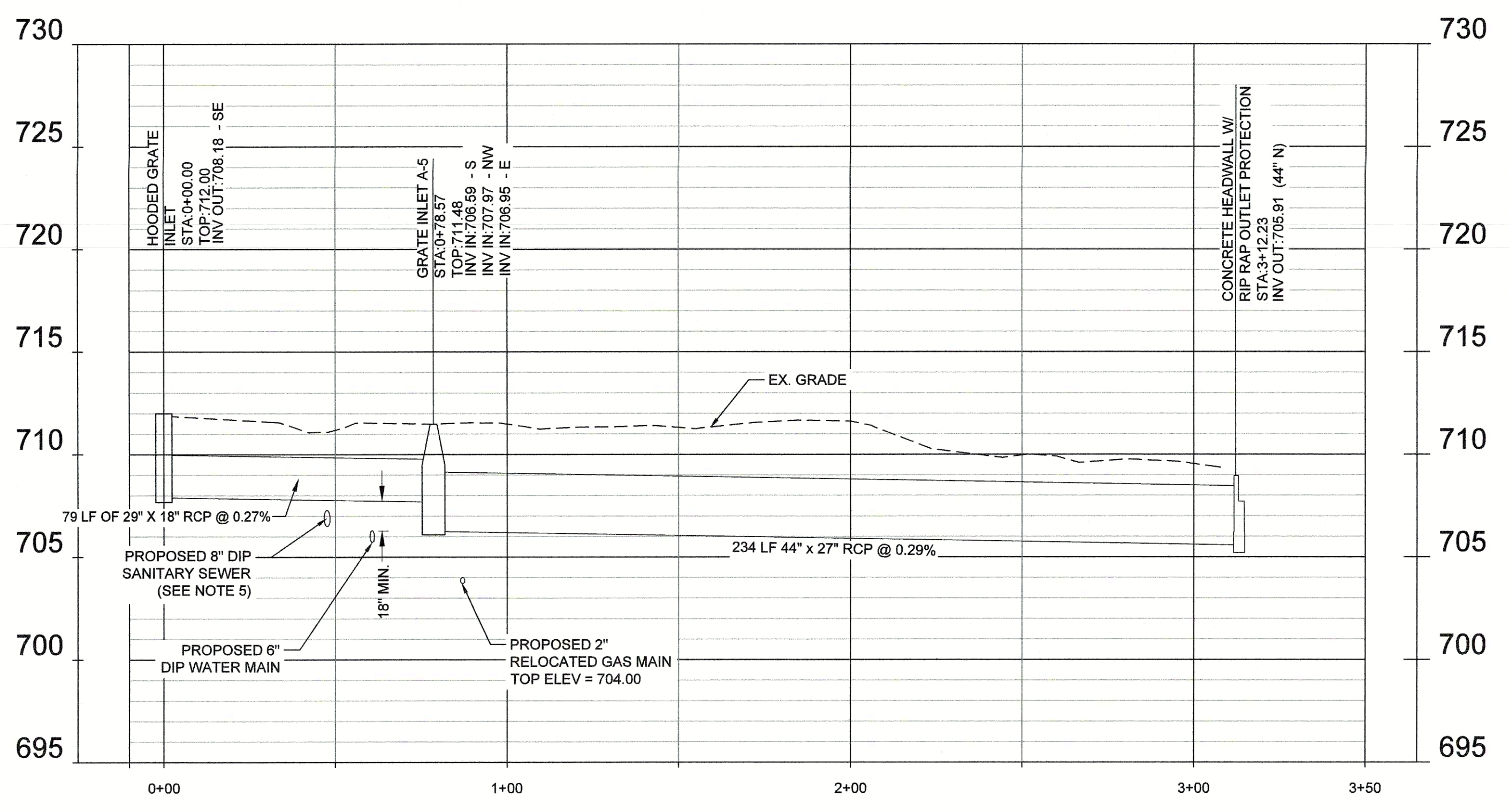
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SAVED: 3/13/2023
PLOTTED: 3/20/2023



- NOTES:**
- CONTRACTOR SHALL PROVIDE ALL REQUIRED STAKING AND NOTING DEPTH OF COVER OF THE PROPOSED NEW GAS MAIN AT THE PROPOSED STORM LINE CROSSING AT STATION 0+87.
 - BACKFILL MATERIAL REQUIREMENTS FOR THE PROPOSED GAS MAIN INCLUDE CLEAN, SELECT MATERIAL FREE FROM ROCK AND STONES WITHIN ONE FOOT OF EACH SIDE OF THE GAS MAIN.
 - NEW SANITARY SEWER PIPE SHALL BE DIP WITH PROTECTO 401 INTERNAL COATING.
 - ALL WORK ASSOCIATED WITH THE RELOCATION OF THE WATER MAIN TO BE COORDINATE WITH CARTERSVILLE WATER DEPARTMENT OF PREPARATION OF VALVES NECESSARY FOR PIPELINE SHUTDOWN. WORK TO BE SCHEDULED AS NECESSARY TO MINIMIZE DISRUPTION OF SERVICE TO EXISTING WATER CUSTOMERS.
 - CONTRACTOR SHALL PROVIDE CRUSHED STONE BEDDING AND BACKFILL OF SANITARY SEWER FROM BOTTOM OF TRENCH TO ABOVE THE BOTTOM OF STORM DRAIN FOR THE FULL LENGTH OF SANITARY SEWER WHEN IMPACTED BY STORM DRAIN CROSSING.

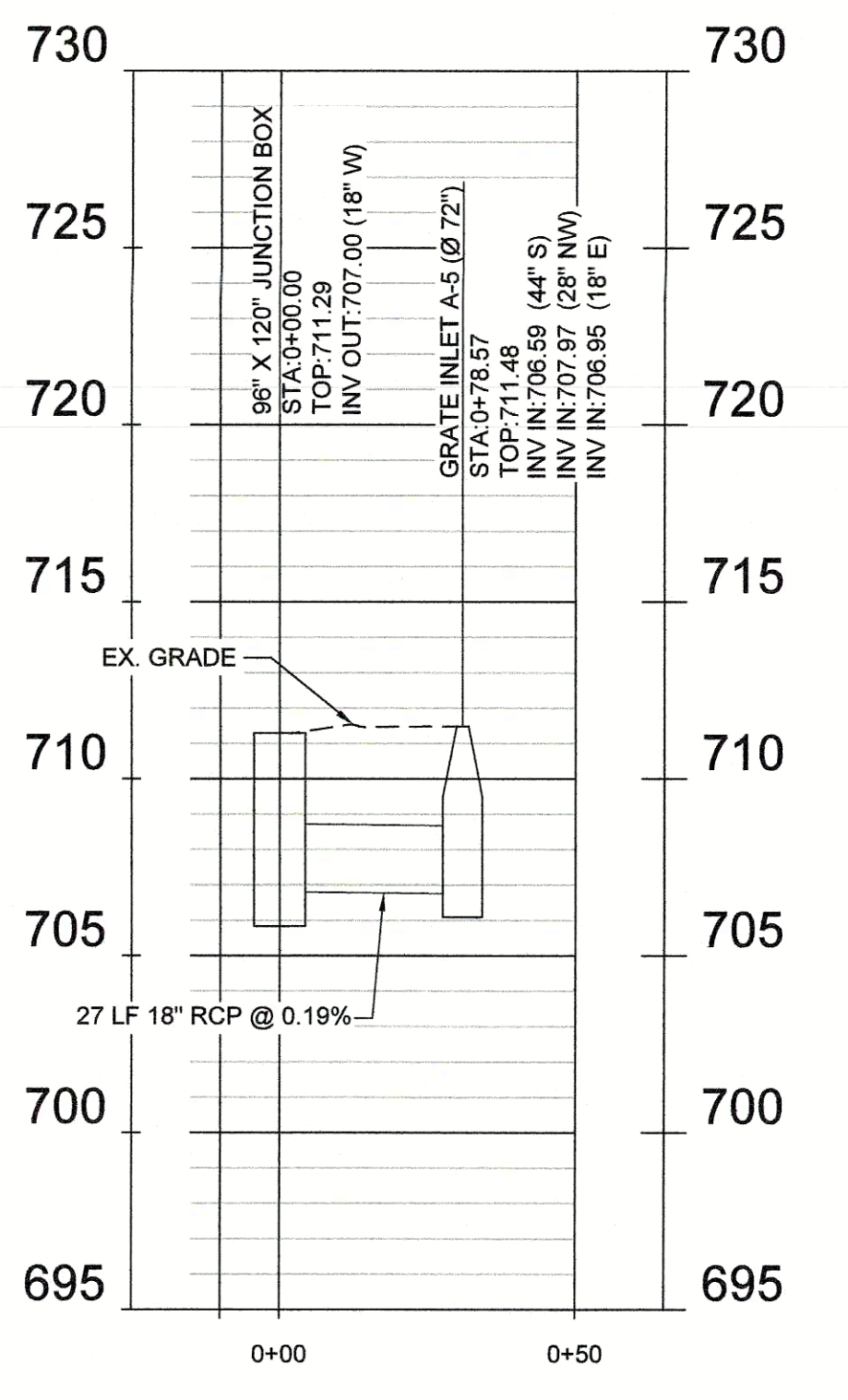


PLAN



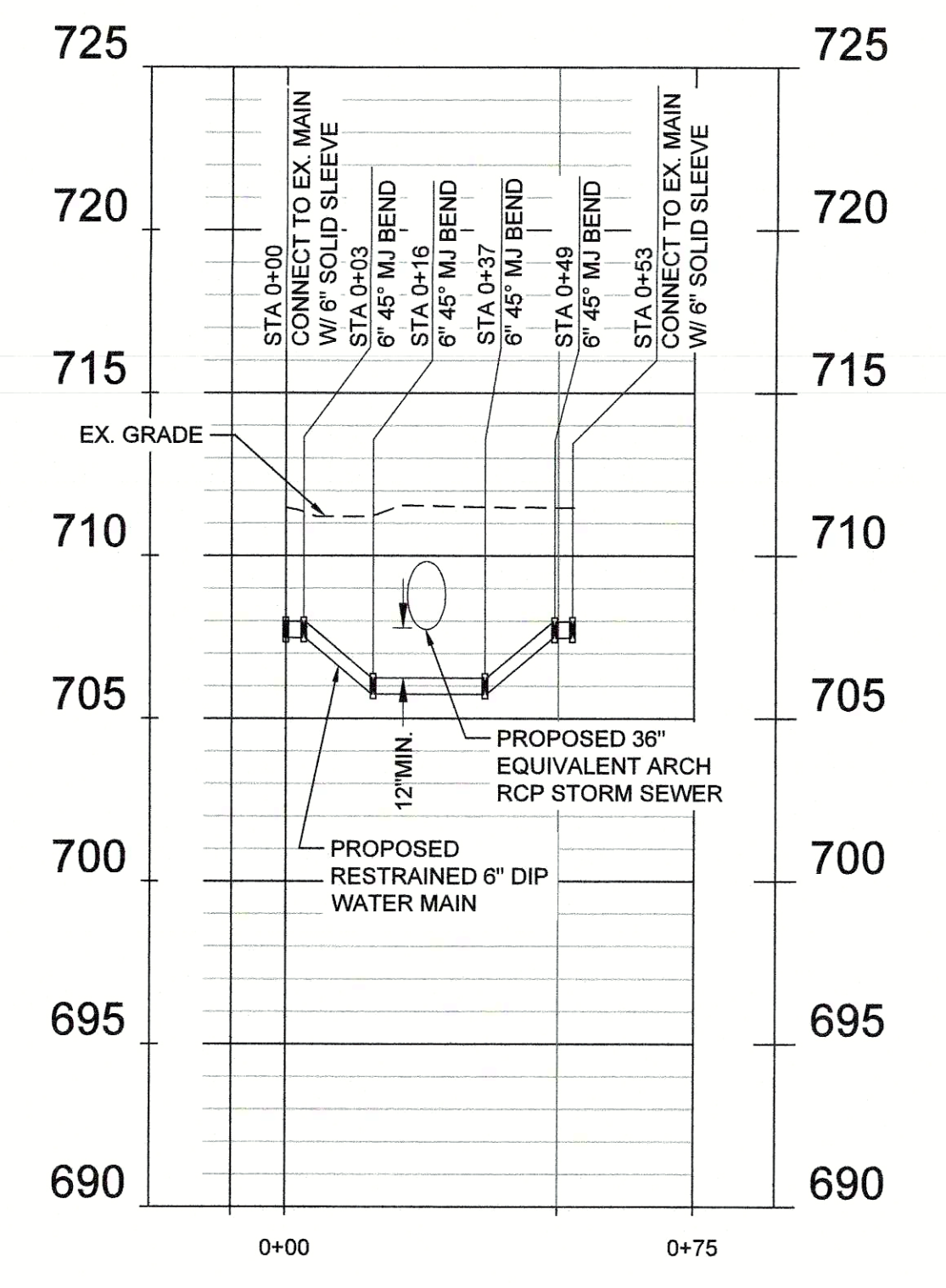
PROFILE - LINE A

SCALE: 1" = 30' HORIZ.
1" = 5' VERTICAL



PROFILE - LINE B

SCALE: 1" = 30' HORIZ.
1" = 5' VERTICAL



WATER CROSSING

SCALE: 1" = 30' HORIZ.
1" = 5' VERTICAL

**PLYMOUTH DRIVE PLAN & PROFILE
STA 0+00 TO E.O.L.**

**TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA**

REV.	DR.	CHK.	DATE	DESCRIPTION

C1.03

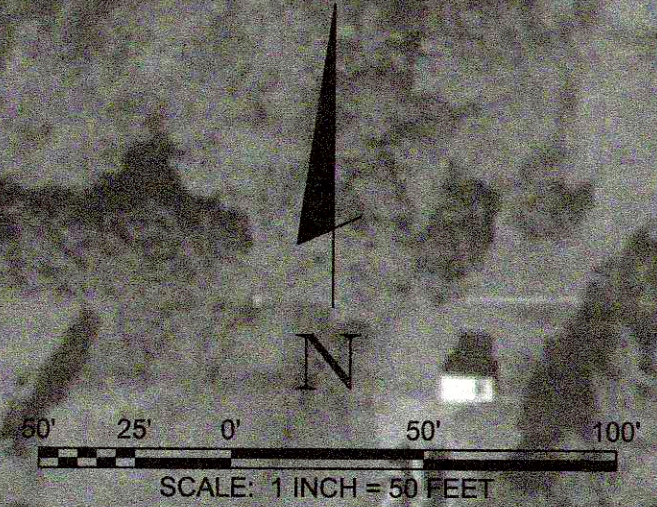
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SAVED: 3/20/2023
PLOTTED: 3/20/2023



NOTES:

1. THE CONTRACTOR SHALL CONTACT THE CITY OF CARTERSVILLE PUBLIC WORKS IMMEDIATELY IF IT IS DISCOVERED DURING THE CONTRACTOR'S CLOSED CIRCUIT TELEVISION (CCTV) THAT A SEWER MAIN CANNOT BE LINED DUE TO NEEDING A POINT REPAIR.
2. THE CONTRACTOR SHALL REFER TO SPECIFICATION 33 01 30.83, ARTICLE 3.1.G FOR MANHOLE REHABILITATION SEQUENCING REQUIREMENTS.



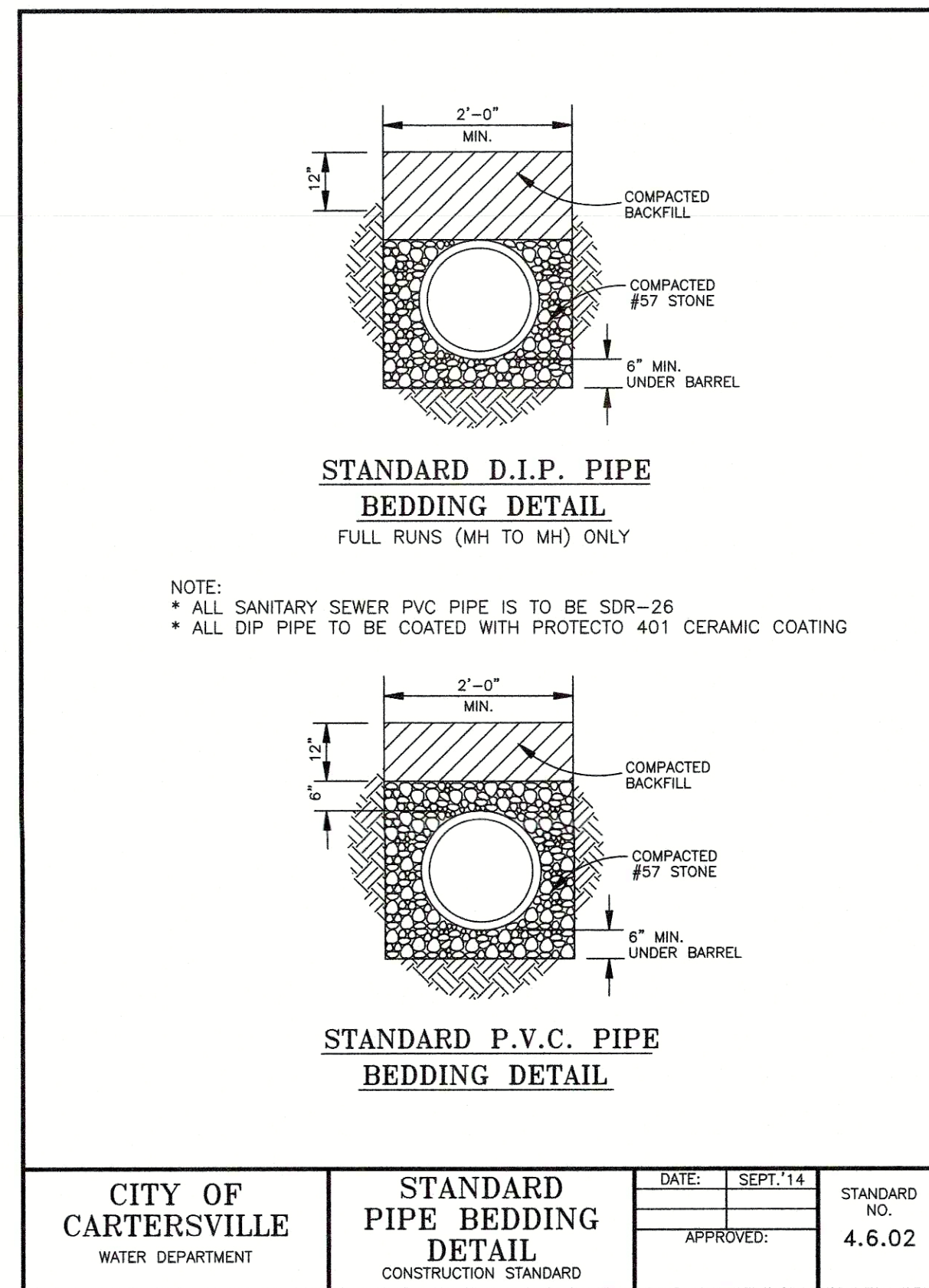
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 PLOTTED: 3/10/2023



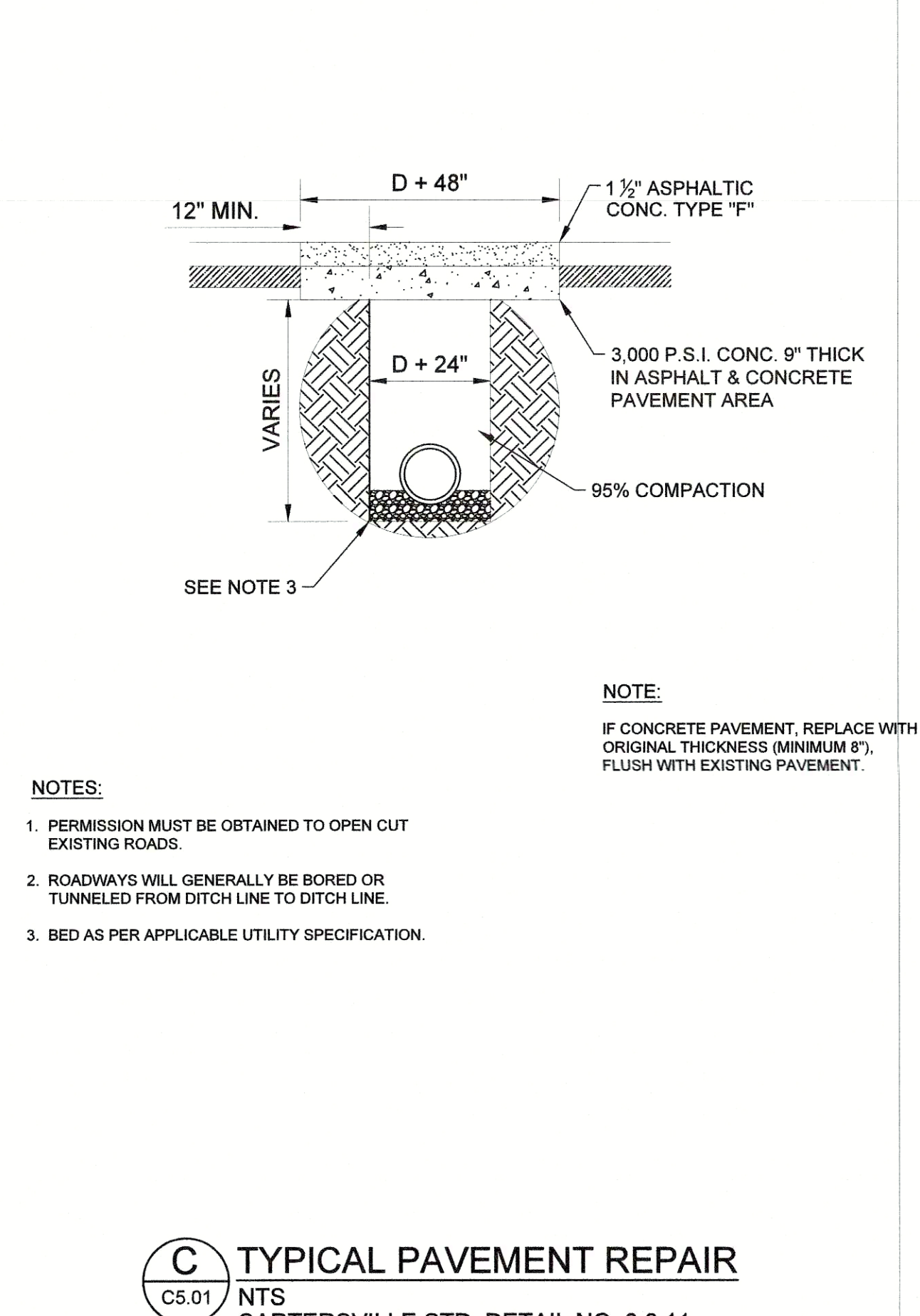
REHABILITATION PLAN
 TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
 PHASE 1
 CARTERSVILLE, GEORGIA

REV.	DR.	CHK.	DATE	DESCRIPTION

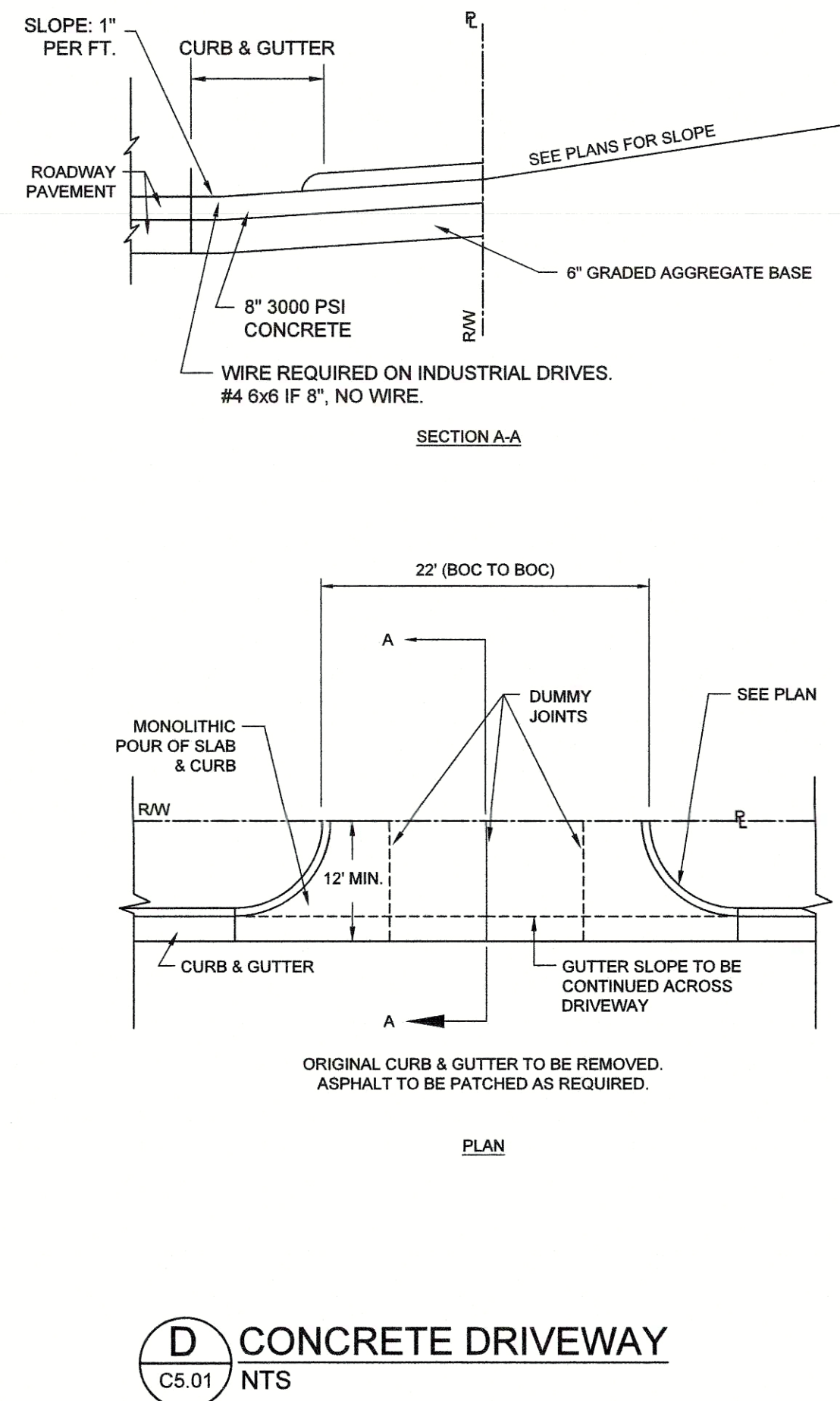
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 PROJ. NO. 37697-01



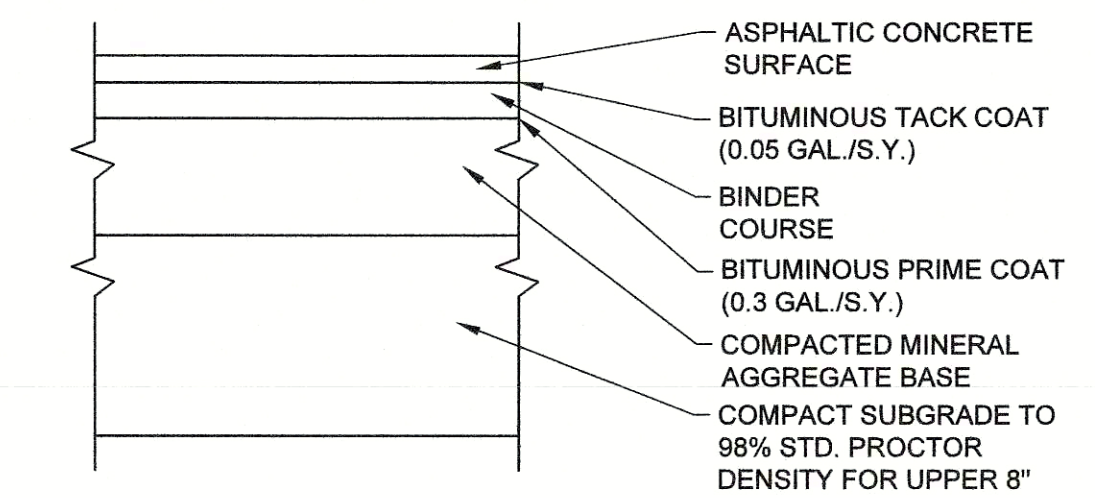
A PIPE BEDDING DETAIL
C5.01 NTS



C TYPICAL PAVEMENT REPAIR
C5.01 NTS



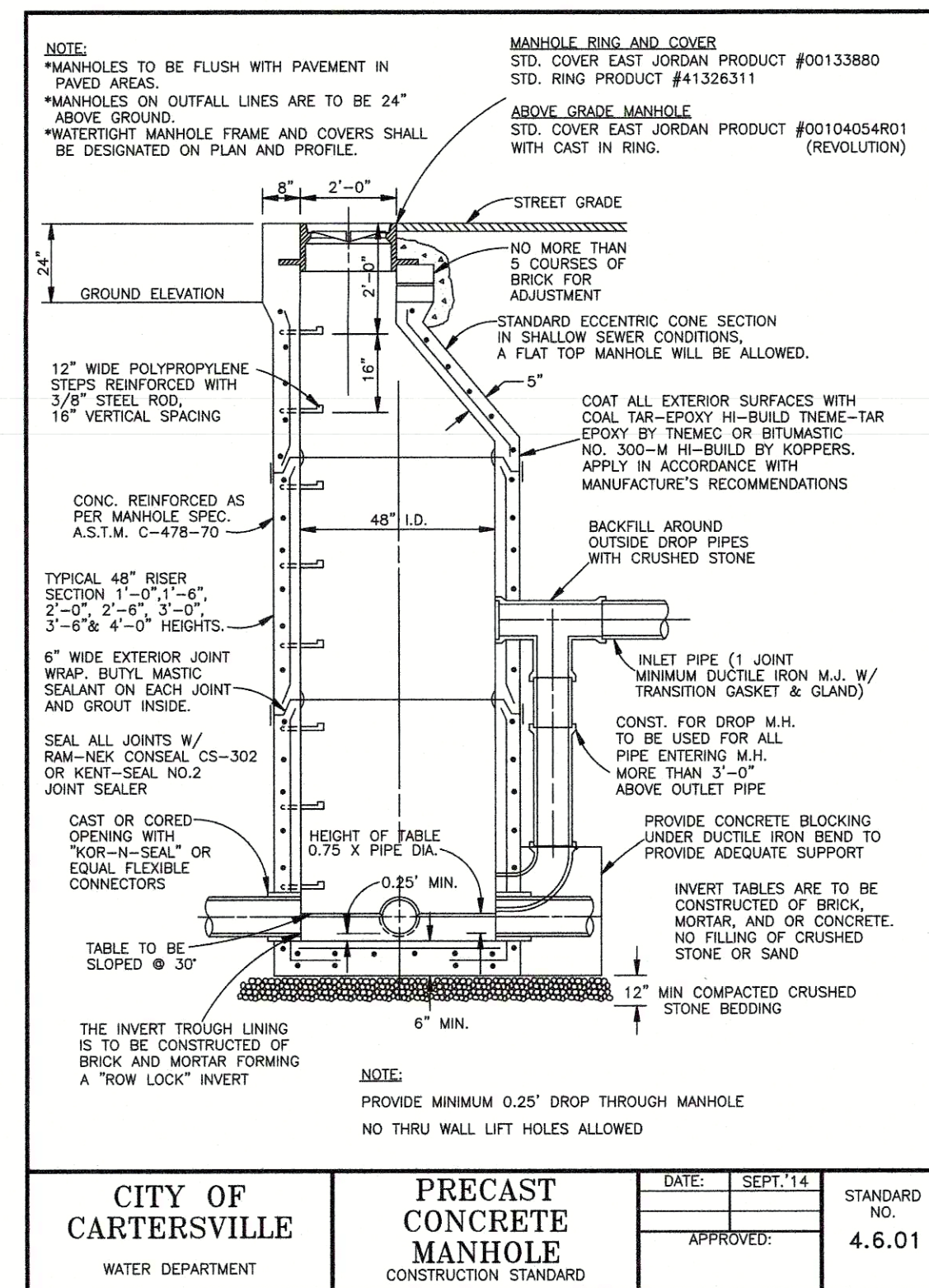
D CONCRETE DRIVEWAY
C5.01 NTS



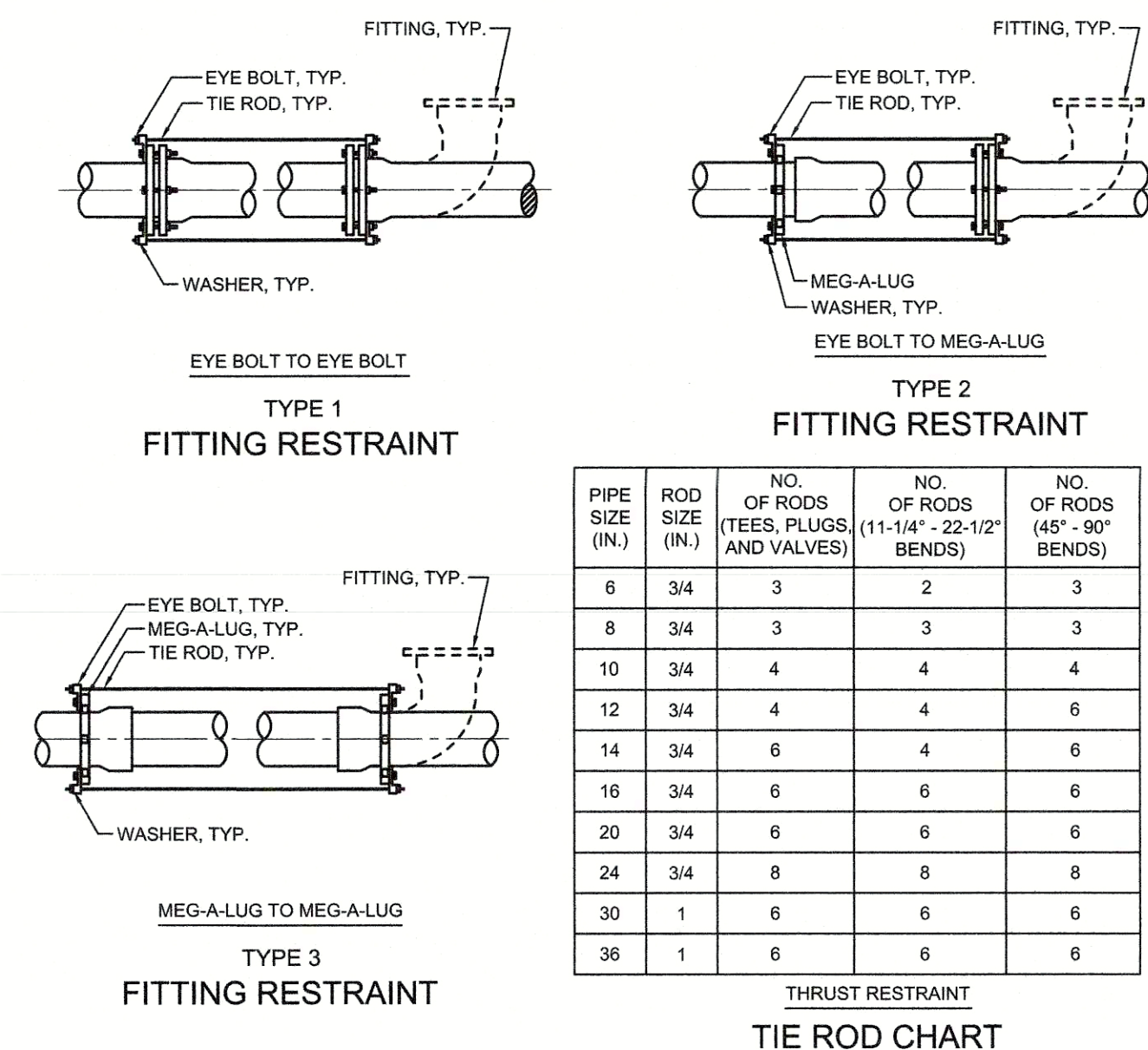
NOTES:

- ASPHALTIC CONCRETE SURFACE 9.5 MM (PG64-22), MATERIAL AND INSTALLATION IN ACCORDANCE WITH GDOT STANDARDS.
- BINDER COURSE 19 MM SHALL BE IN ACCORDANCE WITH GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS".
- DENSITY REQUIREMENTS FOR COMPACTION PER GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS".
- FOR PREPARATION OF PAVEMENT SUBGRADE, FILL PLACED WITHIN 8 INCHES OF FINISHED SUBGRADE ELEVATION IN AREAS TO BE PAVED SHOULD BE COMPACTED TO AT LEAST 98% OF MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D698). FILL PLACED BELOW THIS LEVEL SHOULD BE COMPACTED TO AT LEAST 95% OF MATERIAL'S MAXIMUM DRY DENSITY.
- AFTER PROOFROLLING WITH A LOADED TANDEM AXLE DUMP TRUCK AND REPAIRING DEEP SUBGRADE DEFICIENCIES, ENTIRE SUBGRADE SHOULD BE SCARIFIED TO DEPTH OF 8 INCHES AND UNIFORMLY COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR.
- GRAVEL BASE COURSE MIXTURES SHOULD CONFORM TO REQUIREMENTS OF GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS".
- ASPHALTIC BINDER COURSE MIXTURES SHALL BE IN ACCORDANCE WITH TYPE REFERENCED IN GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS".
- ASPHALTIC SURFACE COURSE MIXTURES SHALL BE IN ACCORDANCE WITH TYPE REFERENCED IN SECTION 411 OF GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS".
- PROVIDE PRIME COAT AND TACK COAT TO FACE OF CURB WHERE CURB CONTACTS ASPHALT.
- ALL MATERIALS AND METHODS OF INSTALLATION SHALL COMPLY WITH THE GDOT "STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS", LATEST EDITION.

E ASPHALT PAVING
NTS



F PRECAST CONCRETE MANHOLE
C5.01 NTS



G TIE ROD RESTRAINT
C5.01 NTS

BARGE DESIGN SOLUTIONS

8525 The Commons Parkway / Suite 450 / Peachtree Corners, Georgia 30092
PHONE (978) 515-4411



STANDARD DETAILS

TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

REV.	DR.	CHK.	DATE	REVISION INFORMATION	DESCRIPTION

C5.01
PROJ. NO. 37697-01

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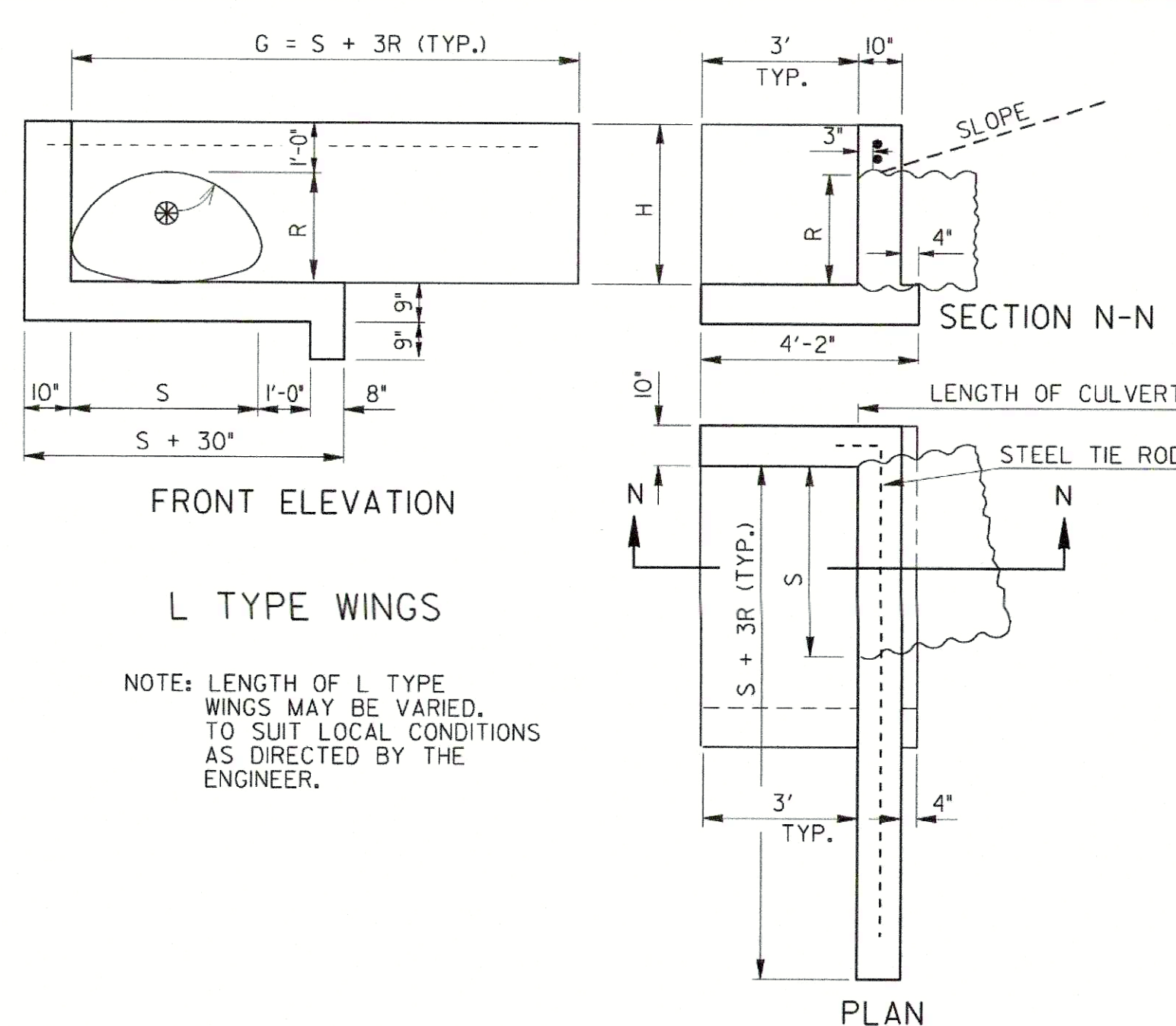
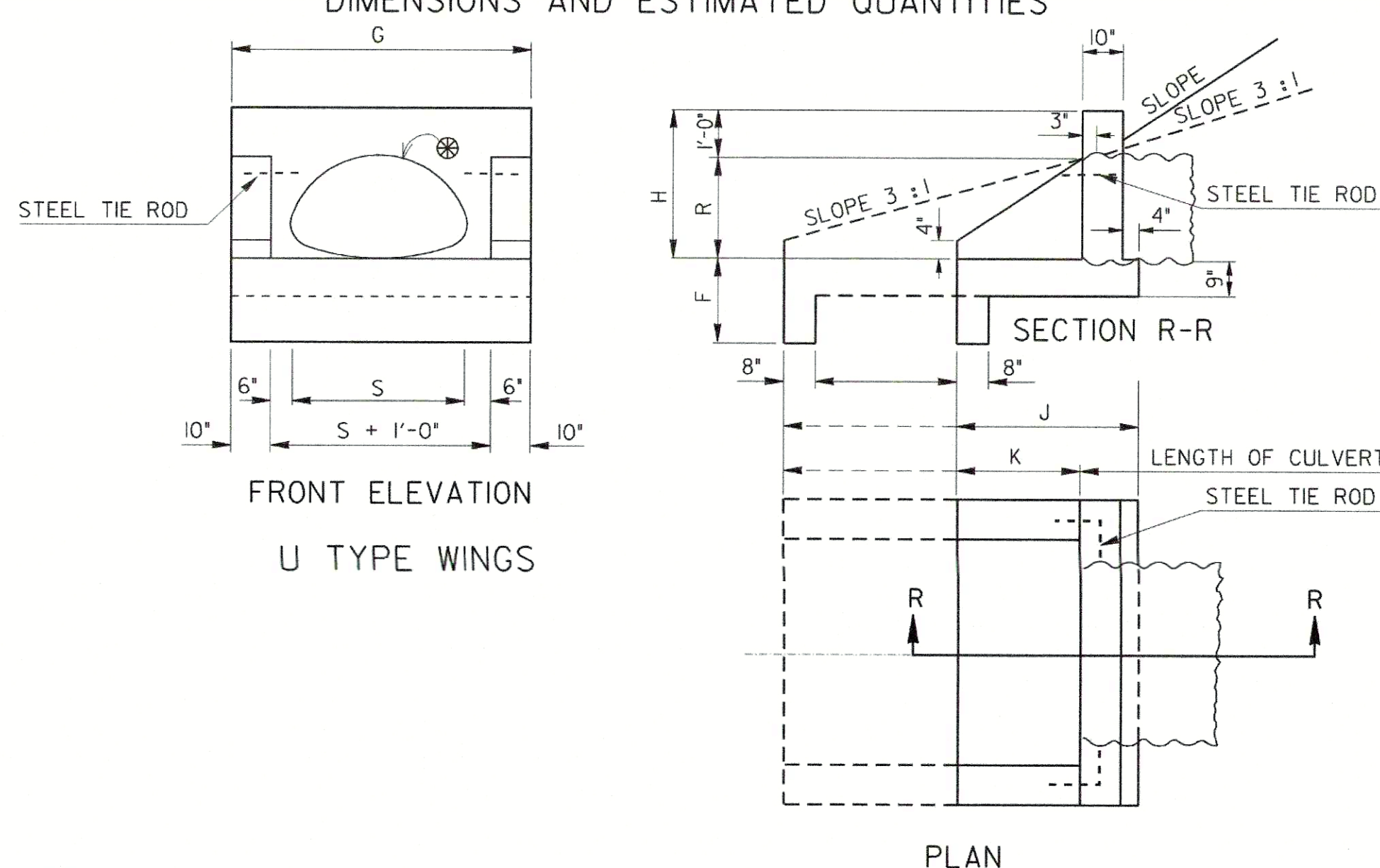
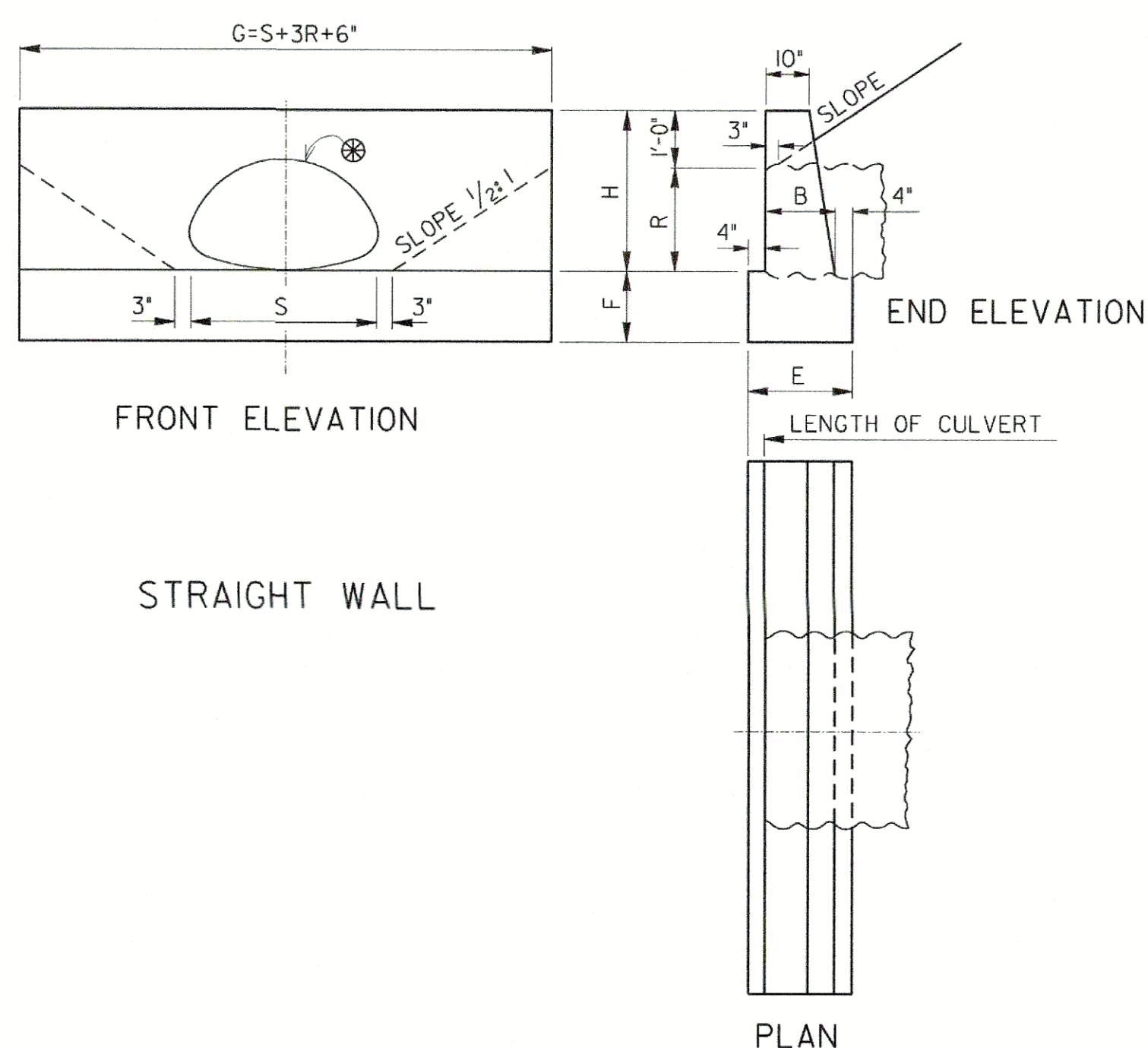


STANDARD DETAILS

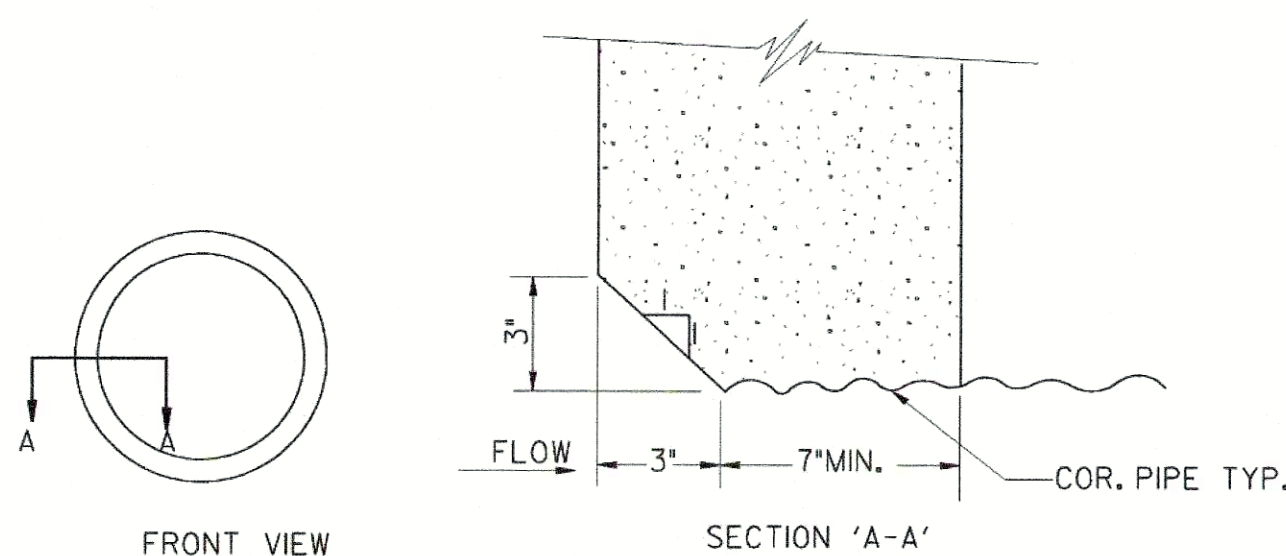
TERRELL HEIGHTS STORM SEWER IMPROVEMENTS PHASE 1 CARTERSVILLE, GEORGIA

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CONCRETE END WALLS DIMENSIONS AND ESTIMATED QUANTITIES



INLET BEVEL DETAIL



STRAIGHT WALL

ARCH NUMBER	GAUGE	DIMENSIONS								QUANTITIES ONE END WALL				CONC. IN WALL AND FOOTING FOR EACH ADDITIONAL PIPE LINE
		OPENING		AREA SQ.FT.	WALL		FOOTING		CL. 'B' CONCRETE					
		S SPAN	R RISE		G	H	B	E	F	WALL CU.FT.	FOOT CU.FT.	TOTAL CU.FT.	CU.YD.	
1	16	18"	11"	1.1	4'-9"	1'-11"	1'-2"	1'-10"	1'-0"	7.91	8.71	16.62	0.62	0.30
2	16	22"	13"	1.5	5'-7"	2'-1"	1'-2"	1'-10"	1'-0"	10.01	10.24	20.25	0.75	0.35
3	16	26"	15 1/2"	2.1	6'-6 1/2"	2'-3 1/2"	1'-2"	1'-10"	1'-2"	12.74	13.99	26.73	0.99	0.44
4	14	30"	17"	2.8	7'-3"	2'-5"	1'-3"	1'-11"	1'-3"	15.07	17.37	32.44	1.20	0.52
5	14	37"	21"	4.3	8'-10"	2'-9"	1'-4"	1'-4"	2'-0"	21.19	23.56	44.75	1.66	0.66
6	12	44"	25"	5.9	10'-5"	3'-1"	1'-4"	1'-4"	2'-0"	27.83	27.78	55.61	2.06	0.78
7	12	52"	30"	8.4	12'-4"	3'-6"	1'-6"	1'-6"	2'-2"	39.55	40.08	79.63	2.95	1.05
8	12	59"	34"	10.6	13'-11"	3'-10"	1'-7"	1'-7"	2'-3"	50.33	49.58	99.91	3.70	1.27
9	12	66"	38"	13.2	15'-6"	4'-2"	1'-9"	1'-8"	2'-5"	64.48	62.43	126.91	4.70	1.56
10	10	72"	44"	16.9	17'-6"	4'-8"	2'-0"	2'-8"	2'-0"	89.00	93.33	182.33	6.75	2.11

L TYPE WINGS

ARCH NUMBER	GAUGE	DIMENSIONS								QUANTITIES ONE END WALL				STEEL TIE RODS
		OPENING		AREA SQ.FT.	WALL		FOOTING		CL. 'B' CONCRETE					
		S SPAN	R RISE		H	G	S + 3R	S + 30"	WALL CU.FT.	FOOT CU.FT.	TOTAL CU.FT.	CU.YD.		
1	16	18"	11"	1.1	4'-3"	1'-11"	1'-2"	1'-10"	1'-0"	11.99	14.58	26.57	0.98	2-3/4" DIA. 4'-3" LONG
2	16	22"	13"	1.5	5'-1"	2'-1"	1'-2"	1'-10"	1'-0"	14.23	15.62	29.85	1.11	2-3/4" DIA. 5'-1" LONG
3	16	26"	15 1/2"	2.1	6'-0 1/2"	2'-3 1/2"	1'-2"	1'-10"	1'-2"	17.11	16.67	33.78	1.25	2-3/4" DIA. 6'-0" LONG
4	14	30"	17"	2.8	7'-5"	2'-5"	1'-3"	1'-11"	1'-3"	18.98	17.71	36.69	1.36	2-3/4" DIA. 6'-9" LONG
5	14	37"	21"	4.3	8'-9"	2'-9"	1'-4"	1'-4"	2'-0"	24.30	19.53	43.83	1.62	2-3/4" DIA. 8'-9" LONG
6	12	44"	25"	5.9	10'-9"	3'-1"	1'-4"	1'-4"	2'-0"	30.41	21.36	51.77	1.92	2-3/4" DIA. 9'-9" LONG
7	12	52"	30"	8.4	13'-6"	3'-6"	1'-6"	1'-6"	2'-2"	38.69	23.44	62.13	2.30	2-3/4" DIA. 11'-0" LONG
8	12	59"	34"	10.6	15'-6"	4'-2"	1'-9"	1'-8"	2'-5"	46.27	25.26	71.53	2.65	2-3/4" DIA. 13'-5" LONG
9	12	66"	38"	13.2	17'-6"	4'-8"	2'-0"	2'-8"	2'-0"	54.39	27.08	81.47	3.02	2-3/4" DIA. 15'-0" LONG
10	10	72"	44"	16.9	19'-6"	5'-8"	2'-0"	3'-6"	2'-0"	66.93	28.65	95.58	3.54	2-3/4" DIA. 17'-0" LONG

1/2 : 1 FILL SLOPE

U TYPE WINGS

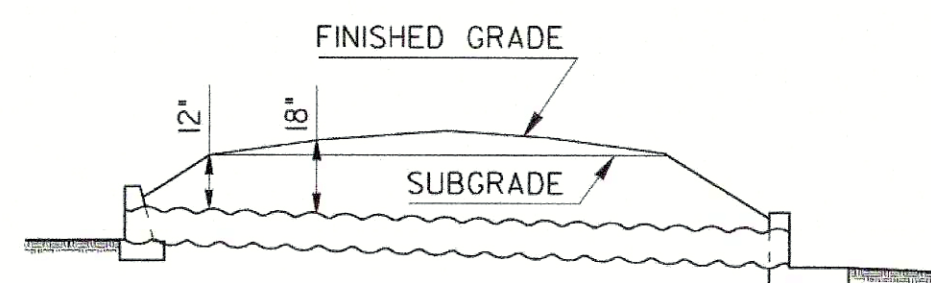
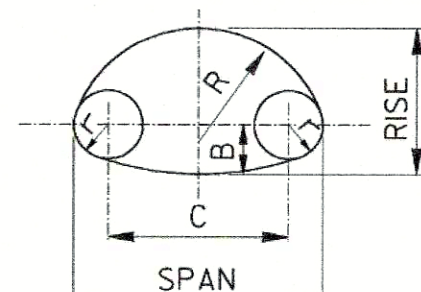
3 : 1 FILL SLOPE

ARCH NUMBER	GAUGE	DIMENSIONS								QUANTITIES ONE END WALL				STEEL TIE RODS	K	J
		OPENING		AREA SQ.FT.	WALL		FOOTING		CL. 'B' CONCRETE							
		S SPAN	R RISE		G	H	K	F	J	WALL CU.FT.	FOOT CU.FT.	TOTAL CU.FT.	CU.YD.			
1	16	18"	11"	1.1	4'-2"	1'-11"	0'-11"	1'-3"	2'-1"	6.7	7.9	14.6	0.54	NONE	1'-9"	2'-11"
2	16	22"	13"	1.5	4'-6"	2'-1"	1'-2"	1'-3"	2'-4"	7.9	9.4	17.3	0.64	NONE	2'-3"	3'-5"
3	16	26"	15 1/2"	2.1	4'-10"	2'-3 1/2"	1'-6"	1'-3"	2'-8"	9.5	11.3	20.8	0.77	2 3/4" DIA. 2'-0" LONG	2'-11"	4'-2"
4	14	30"	17"	2.8	5'-2"	2'-5"	1'-8"	1'-6"	2'-10"	10.5	13.6	24.1	0.89	2 3/4" DIA. 2'-0" LONG	3'-3"	4'-5"
5	14	37"	21"	4.3	5'-9"	2'-9"	1'-6"	1'-6"	3'-4"	13.4	17.2	30.6	1.13	2 3/4" DIA. 2'-6" LONG	4'-3"	5'-5"
6	12	44"	25"	5.9	6'-4"	3'-1"	2'-8"	1'-9"	3'-10"	16.7	22.4	39.1	1.45	2 3/4" DIA. 2'-6" LONG	5'-3"	6'-5"
7	12	52"	30"	8.4	7'-0"	3'-6"	3'-3"	1'-9"	4'-5"	21.1	27.9	49.0	1.81	2 3/4" DIA. 3'-0" LONG	6'-6"	7'-8"
8	12	59"	34"	10.6	7'-7"	3'-10"	3'-9"	2'-0"	4'-11"	25.3	34.3	59.6	2.21	2 3/4" DIA. 3'-6" LONG	7'-6"	8'-8"
9	12	66"	38"	13.2	8'-2"	4'-2"	4'-3"	2'-0"	5'-5"	29.8	40.0	69.8	2.59	2 3/4" DIA. 4'-0" LONG	8'-6"	9'-8"
10	10	72"	44"	16.9	8'-8"	4'-8"	5'-0"	2'-0"	6'-2"	36.3	47.3	83.6	3.10	2 3/4" DIA. 4'-6" LONG	10.0"	11'-2"

APPROXIMATE DIMENSIONS OF THE PIPE ARCH

ARCH NUMBER	SPAN INSIDE	RISE INSIDE	OUTSIDE MEASUREMENTS OVER PLAIN END			
			W	R	B	C
1	18"	11"	4 1/2"	11 3/8"	5"	10 1/4"
2	22"	13"	4 1/2"	13"	5 1/8"	13 3/8"
3	26"	15 1/2"	5"	15 1/2"	5 3/4"	15 3/4"
4	30"	17"	5 1/2"	18 1/2"	6 3/8"	19 3/4"
5	37"	21"	6"	21"	7 3/8"	25 1/2"
6	44"	25"	6"	24"	8 1/4"	33 1/4"
7	52"	30"	6"	28"	8 3/4"	41 1/4"
8	59"	34"	8"	31"	10 3/4"	43 3/4"
9	66"	38"	8"	35"	11"	51 1/4"
10	72"	44"	8"	38"	11 3/4"	55 1/2"

DIMENSIONS ARE MEASURED FROM INSIDE CRESTS OF CORRUGATIONS.



SECTION OF ROADWAY SHOWING DESIRABLE MINIMUM DEPTHS OF FILL OVER CULVERTS

NOTE: GRADE GENERALLY TO FOLLOW SLOPE OF STREAM. DESIRABLE LIMITS 2% TO 4%.

GENERAL NOTES:

- QUANTITIES SHOWN ARE TO BE USED WHEN CORRUGATED METAL PIPE IS DESIGNATED. WHEN ANY OTHER TYPE OF PIPE IS DESIGNATED DEDUCTIONS SHALL BE MADE FROM QUANTITY SHOWN TO ALLOW FOR THICKNESS OF PIPE.
- DIMENSION "F" TO BE VARIED TO FIT LOCAL CONDITIONS. THE TABULATED VALUES ARE RECOMMENDED UNDER USUAL CONDITIONS BUT FOOTINGS SHOULD BE PROTECTED FROM SCOUR.
- CHAMFER ALL EXPOSED EDGES 3/4".
- PROVIDE GOOD FOUNDATION UNDER PIPES USING CONCRETE IF NATURAL CONDITIONS ARE VERY BAD. PROTECT BED AND SLOPES WITH RIP RAP OR PAVING WHERE NECESSARY, ESPECIALLY NEAR OUTLETS. PAVING TO BE LAID IN CEMENT MORTAR OR GROUTED.
- A 2" TOLERANCE, PLUS OR MINUS, ON SPAN AND RISE WILL BE PERMITTED, BUT OPENING SPECIFIED FOR VARIOUS ARCHES WILL BE REQUIRED.
- PIPE ARCH CULVERTS ARE TO BE USED ONLY WHERE SUFFICIENT HEADROOM IS NOT AVAILABLE FOR USE OF FULL ROUND PIPE. USE MULTIPLE LINE OF ROUND PIPE WHERE FEASIBLE.

* IF PIPE HAS NEITHER A GROOVE NOR A SPIGOT AT ITS INLET, AN INLET BEVEL WILL BE REQ'D.

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

STANDARD PIPE ARCH CULVERTS 18" TO 72" SPAN CONCRETE ENDWALLS

SCALE AS SHOWN

REV. & REDR. AUG. 1999

DESIGNED
CHECKED
REVISION

(SUBMITTED) *James A. Kennel*
STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) *David L. Paulty*

NUMBER
1017

C5.02

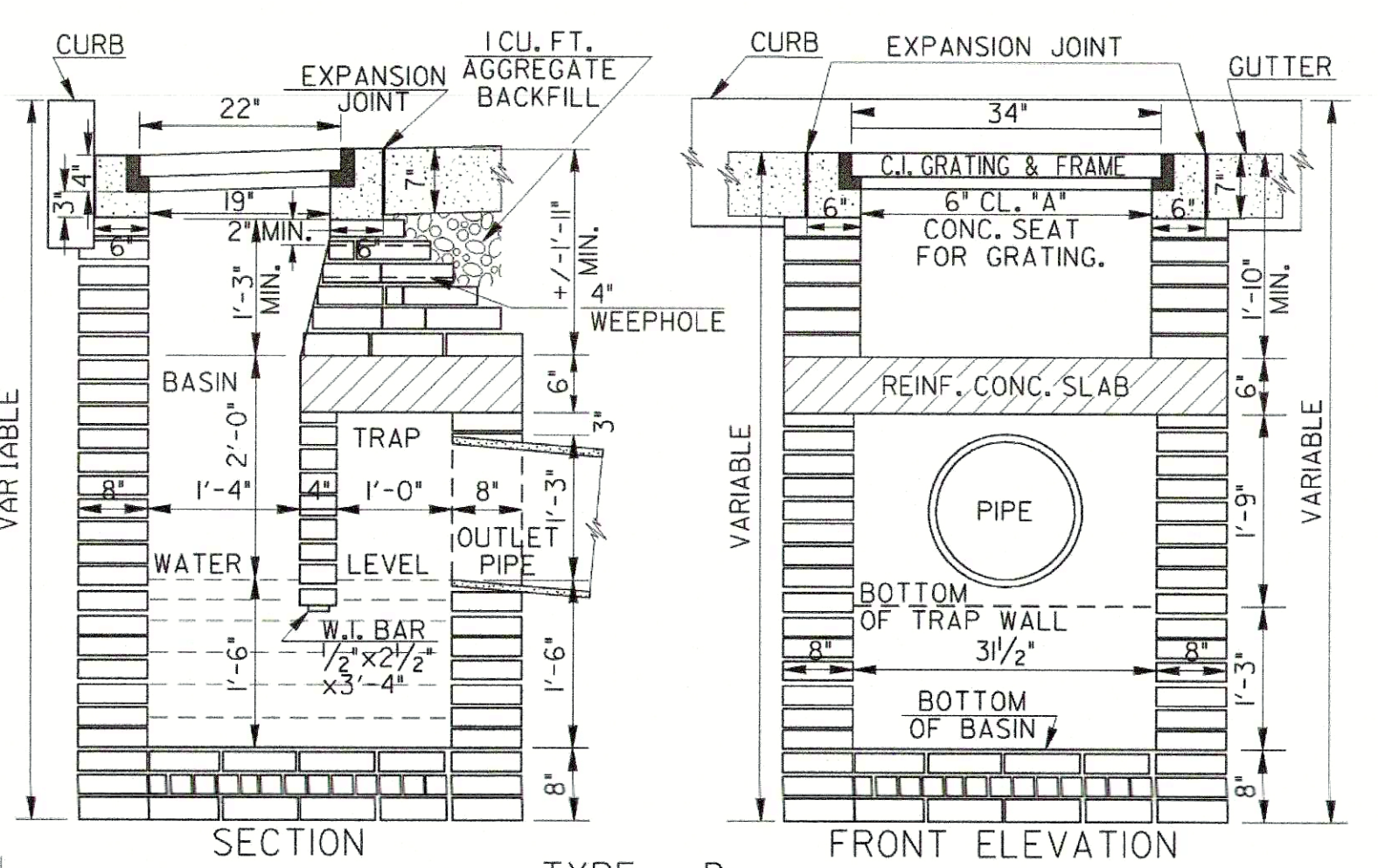
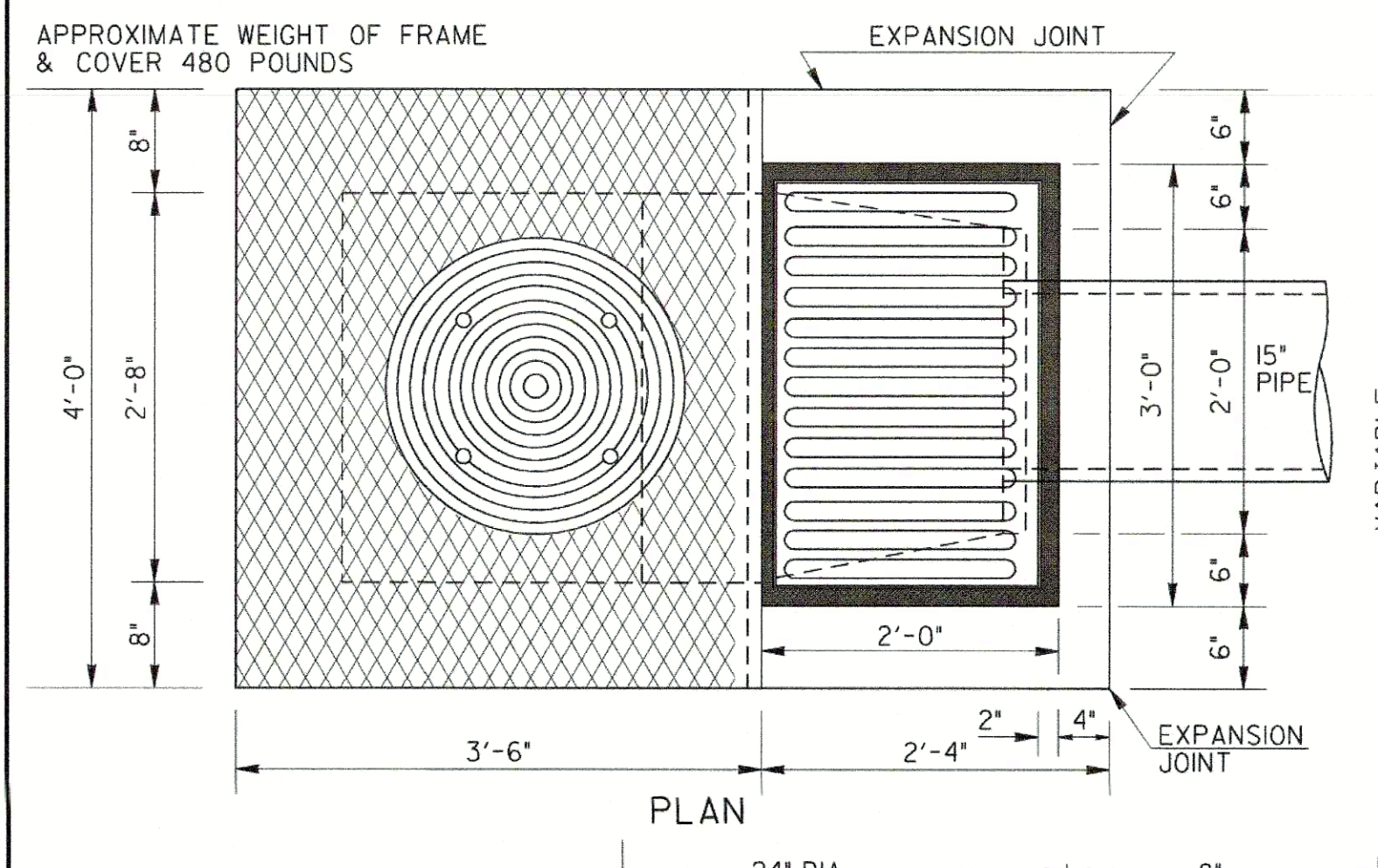
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STANDARD DETAILS

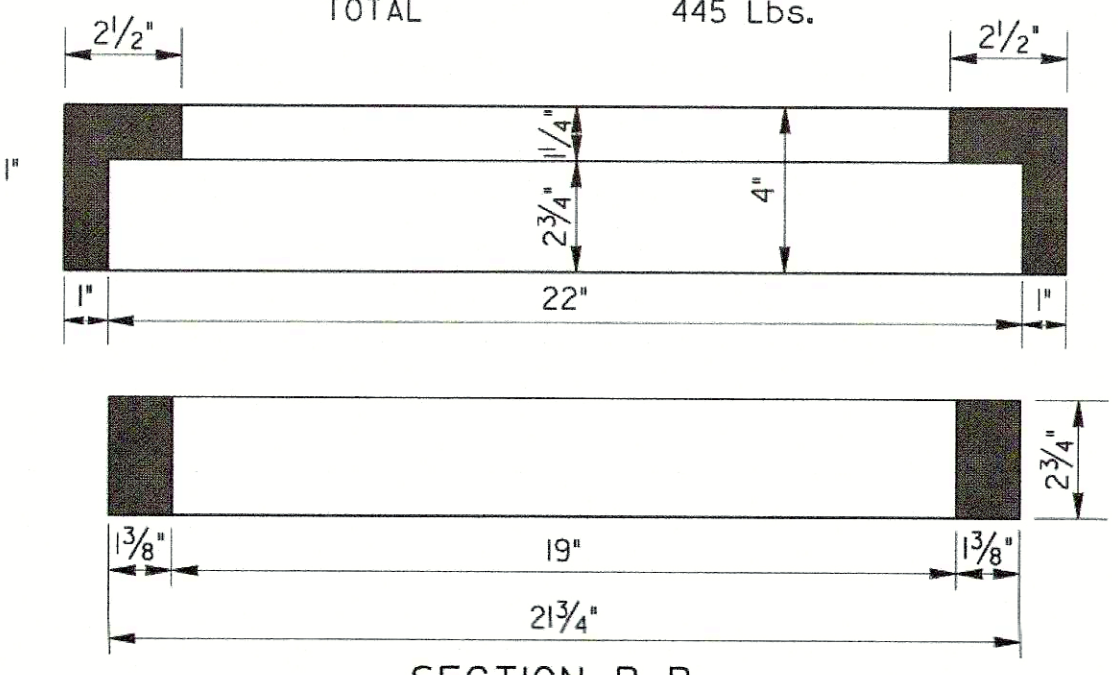
TERRELL HEIGHTS STORM SEWER IMPROVEMENTS PHASE 1 CARTERSVILLE, GEORGIA

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

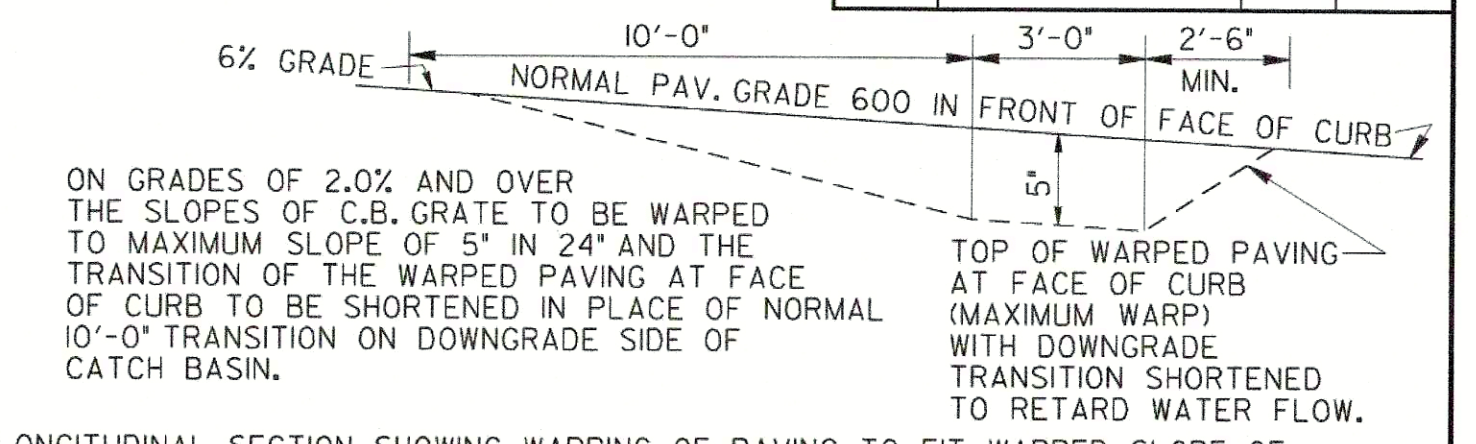


NOTE:
ALL CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

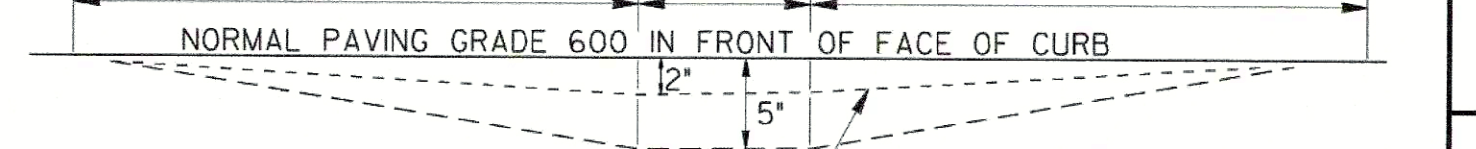
WEIGHTS
FRAME ESTIMATED 180 Lbs.
GRATING ESTIMATED 265 Lbs.
TOTAL 445 Lbs.



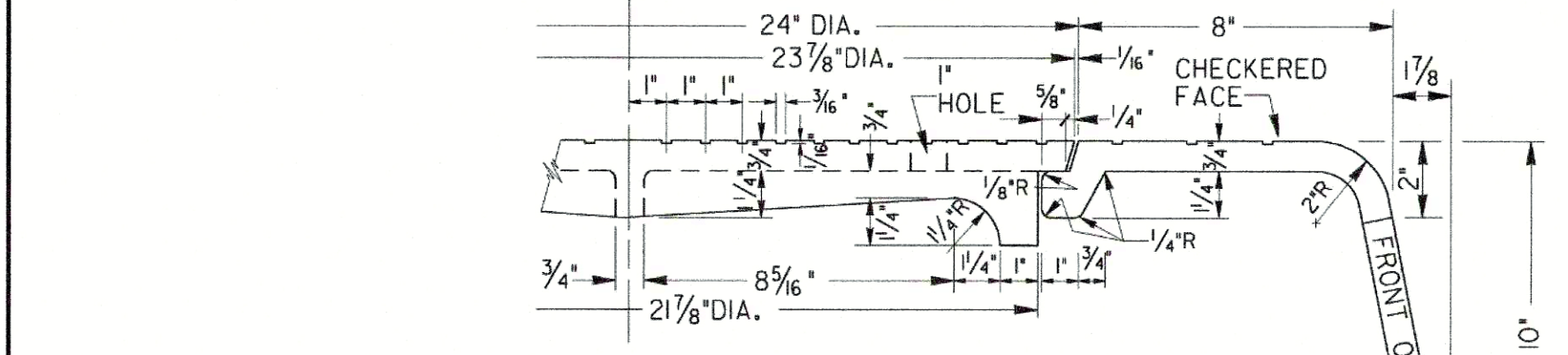
NOTE:
CASTINGS ARE CITY OF ATLANTA STD. AND MODIFICATION AS SHOWN FOR SECTION OF FRAME AND COVER.



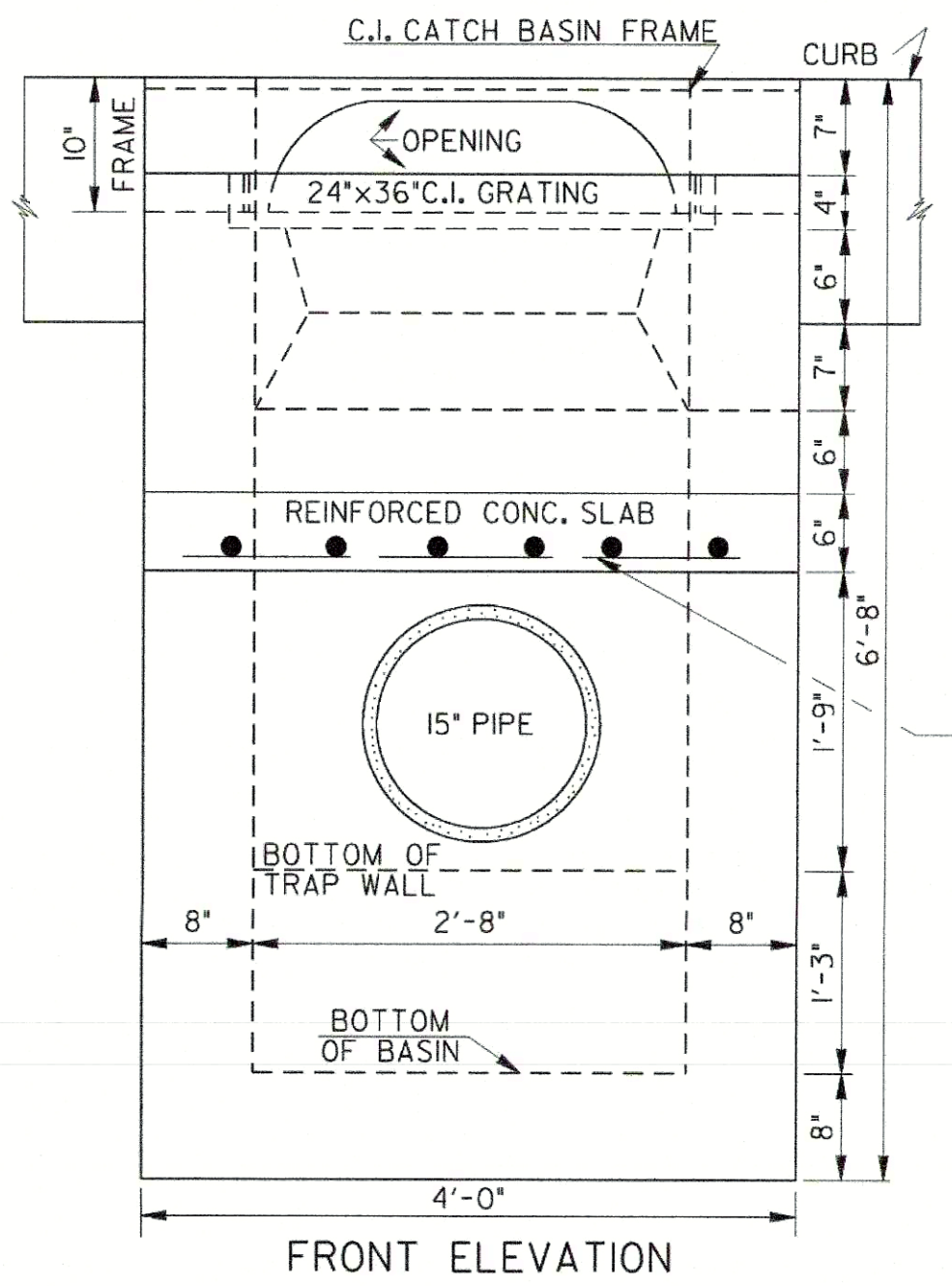
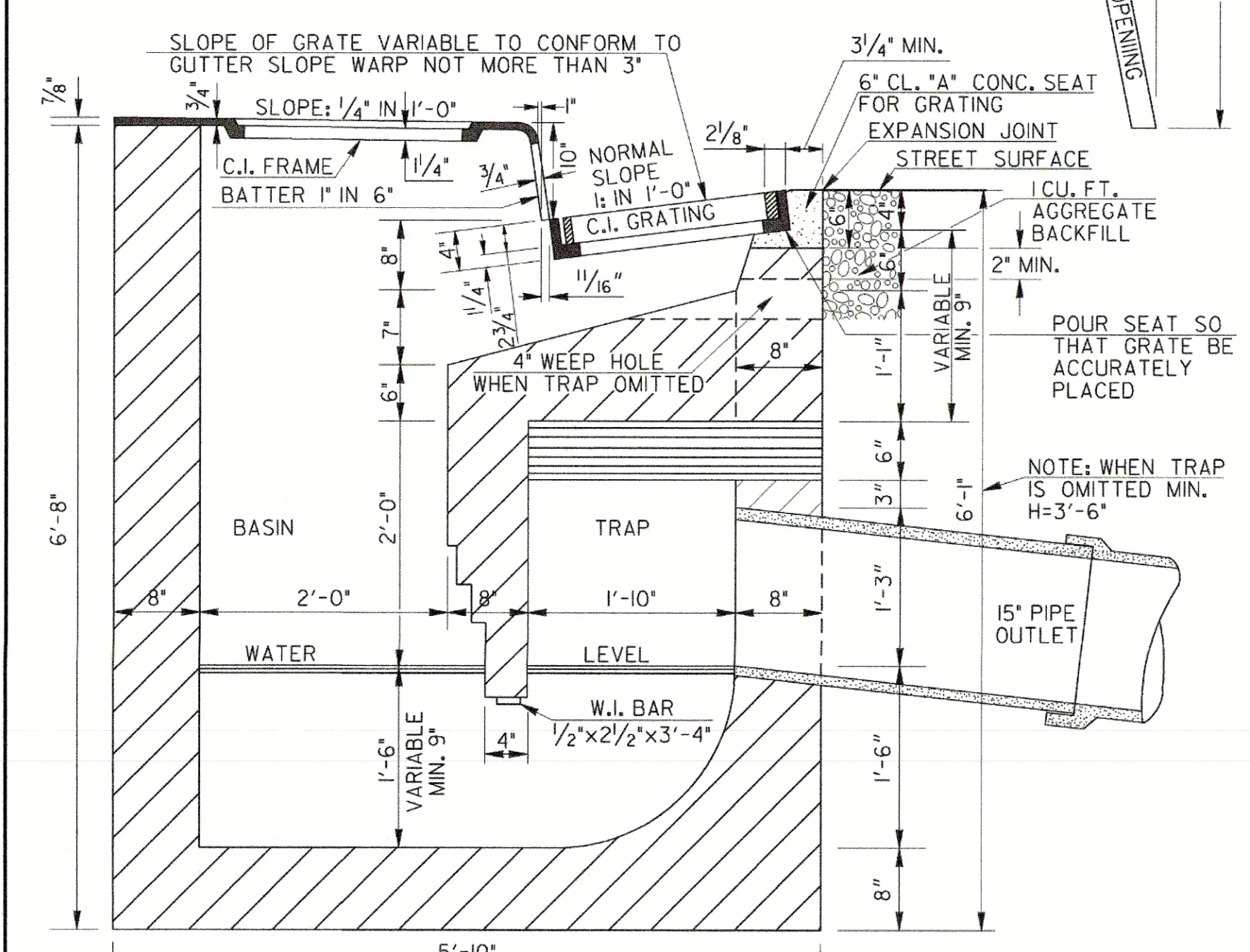
ON GRADES OF 2.0% AND OVER THE SLOPES OF C.B. GRATE TO BE WARPED TO MAXIMUM SLOPE OF 5" IN 24" AND THE TRANSITION OF THE WARPED PAVING AT FACE OF CURB TO BE SHORTENED IN PLACE OF NORMAL 10'-0" TRANSITION ON DOWNGRADE SIDE OF CATCH BASIN.



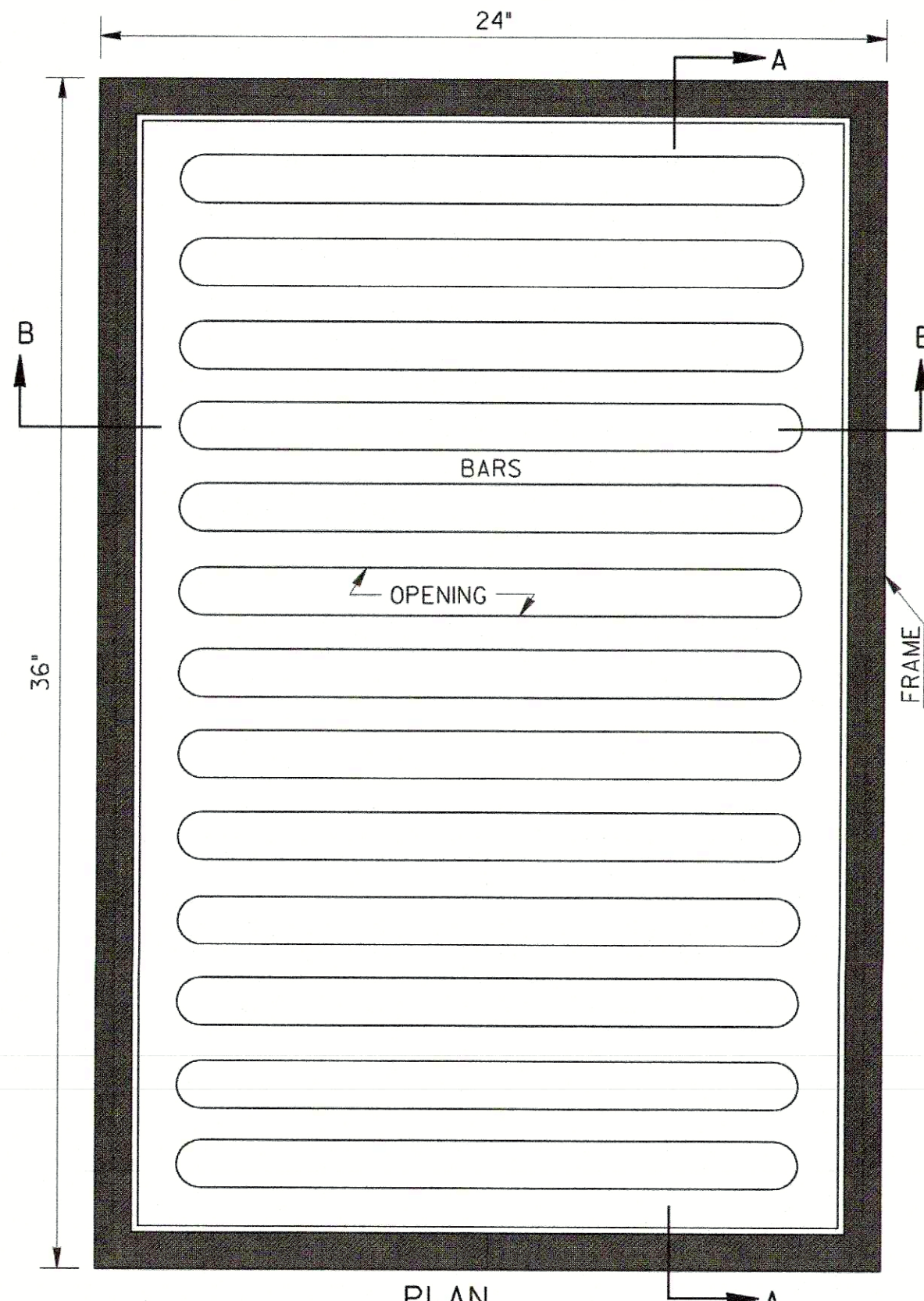
LONGITUDINAL SECTION SHOWING WARPING OF PAVING TO FIT SLOPE OF GRATING WHERE PAVING IS FULL WIDTH WITH INTERGRAL CURB (AND NO GUTTER).



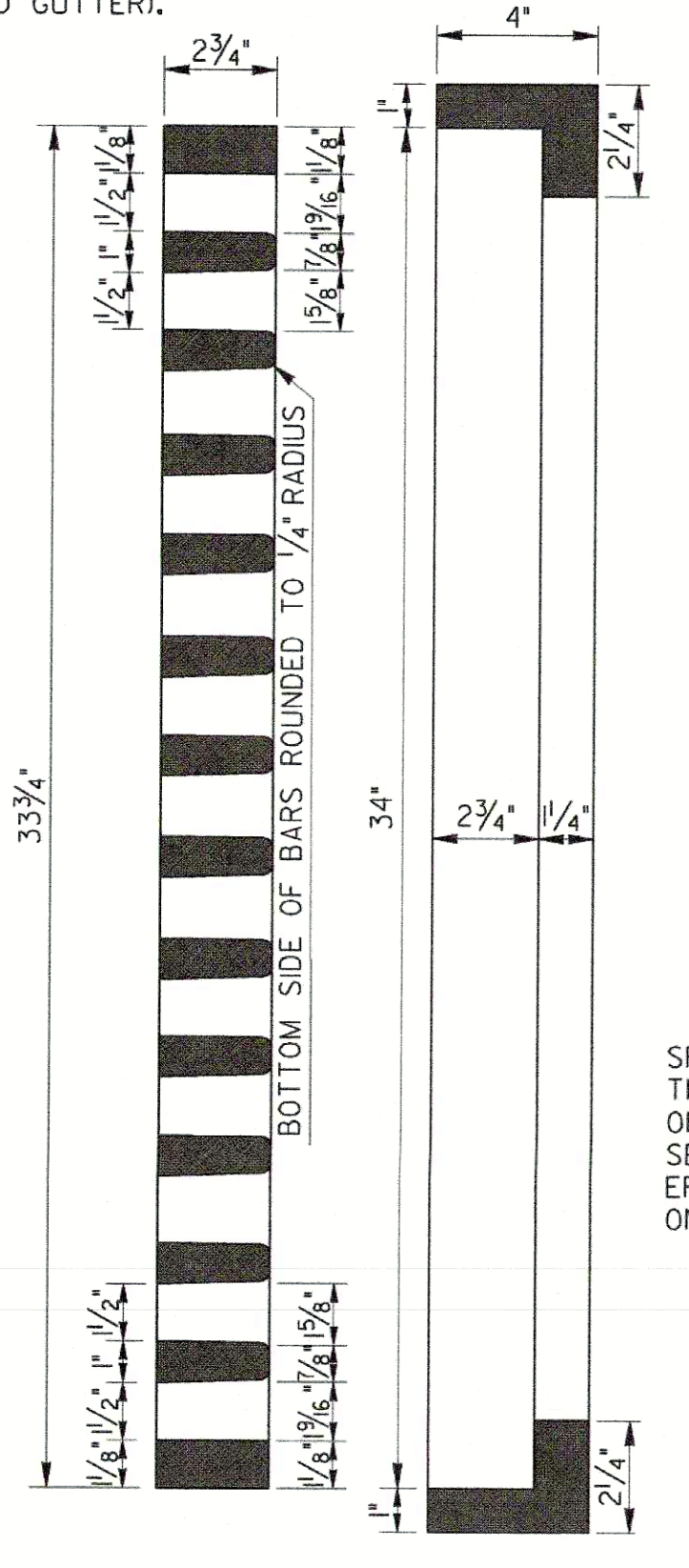
SECTION TYPE - D
TRAPPED BRICK INLET WITH GRATE
SECTION OF FRAME AND COVER



FRONT ELEVATION



PLAN



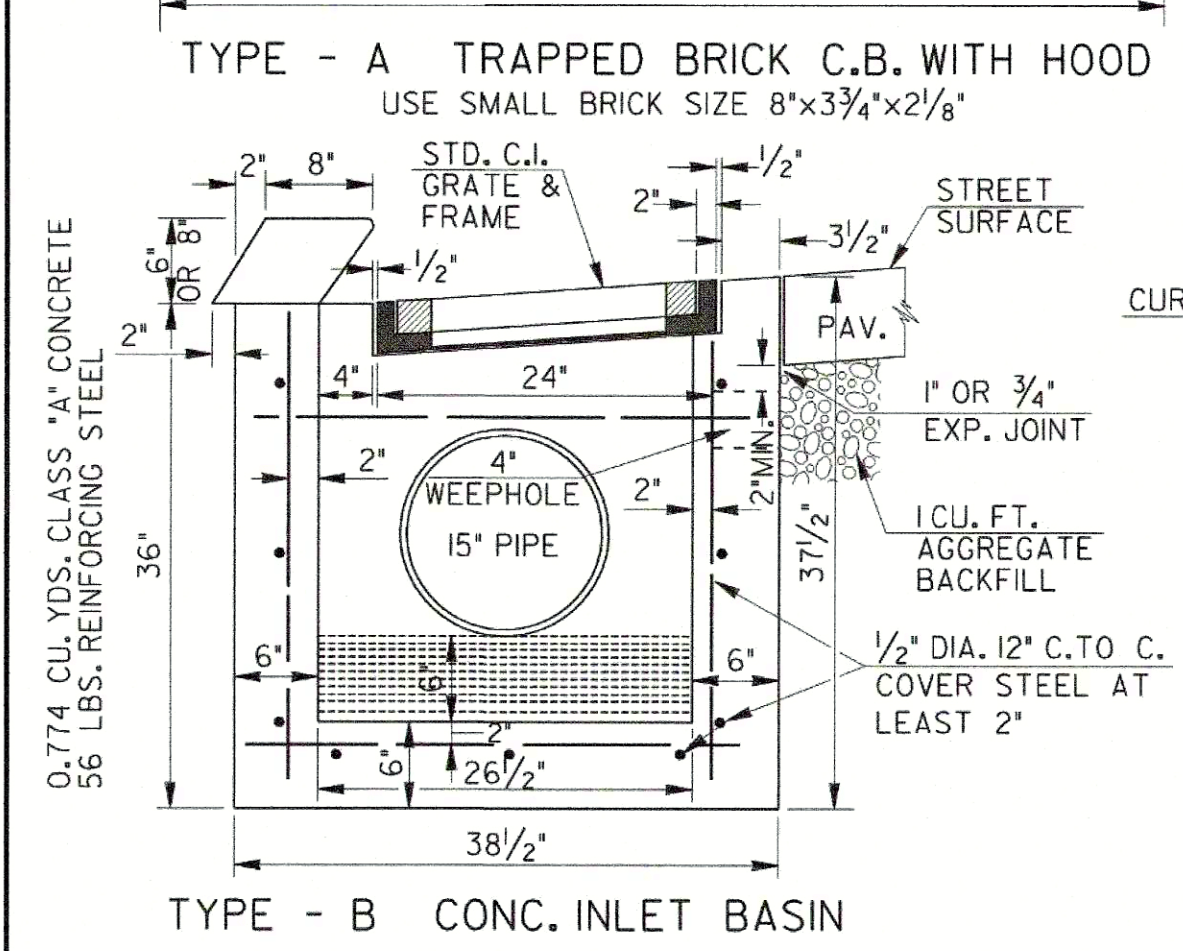
SECTION A-A
SCALE: HOR. 1"=3'-0"
VERT. 1"=1'-0"

NOTE:
WEEPHOLES MAY BE 4" DIA. ROUND OR 4" SQUARE AT THE OPTION OF THE CONTRACTOR. AGGREGATE FOR BACKFILL SHALL CONSIST OF A MIXTURE OF 50% SIZE #7, M-58, 357, OR 467 COARSE AGGREGATE AND 50% SIZE #10 SAND AND SHALL BE PLACED IMMEDIATELY PRIOR TO COMPACTING OF THE BASE MATERIAL.

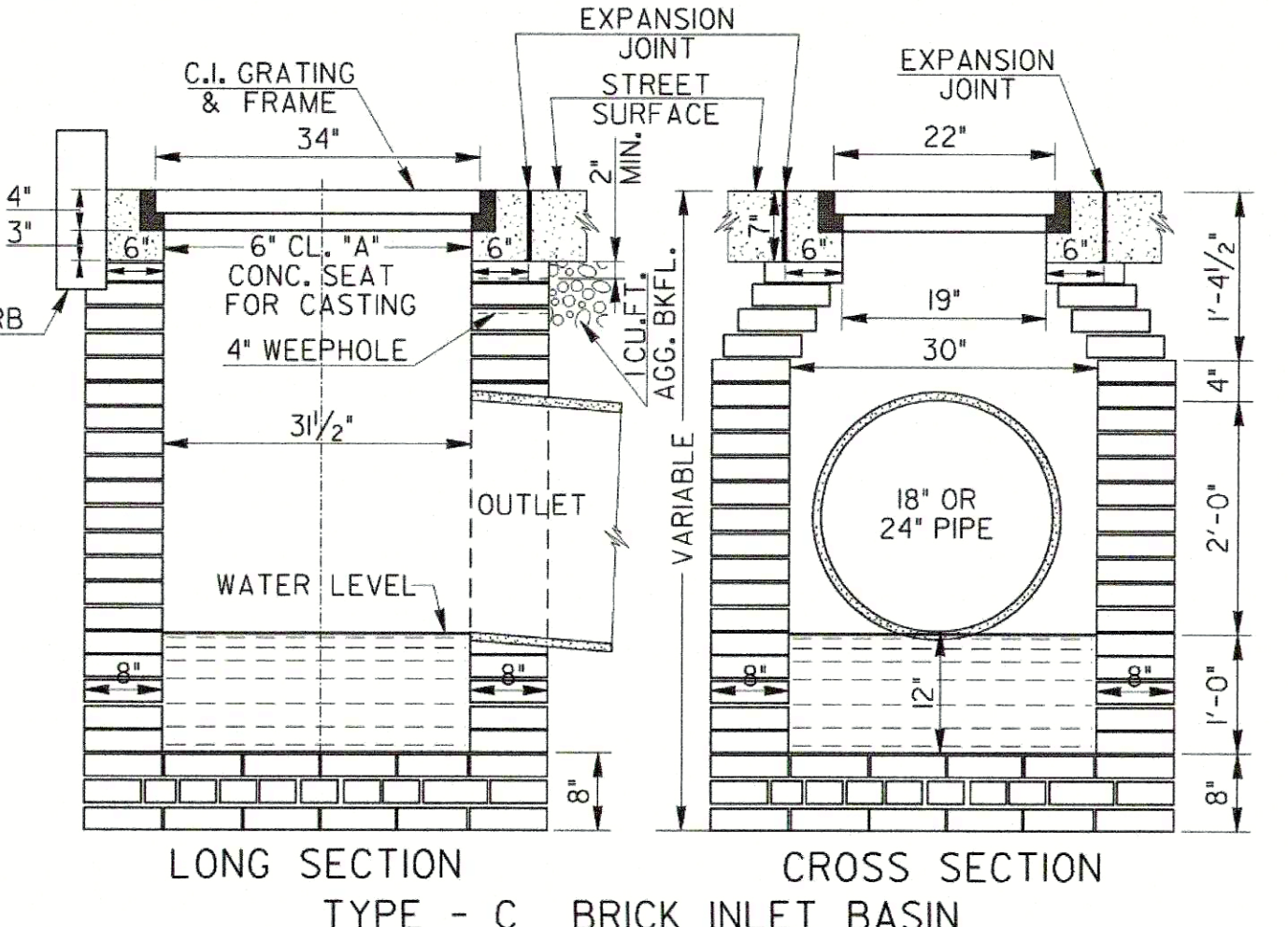
NOTE:
OPENINGS IN GRATES SHALL BE PERPENDICULAR TO DIRECTION OF TRAFFIC FOR ALL STRUCTURES.

NOTE:
STD. 1019B GRATE MAY BE SUBSTITUTED FOR IMPROVED HYDRAULIC CAPACITY.

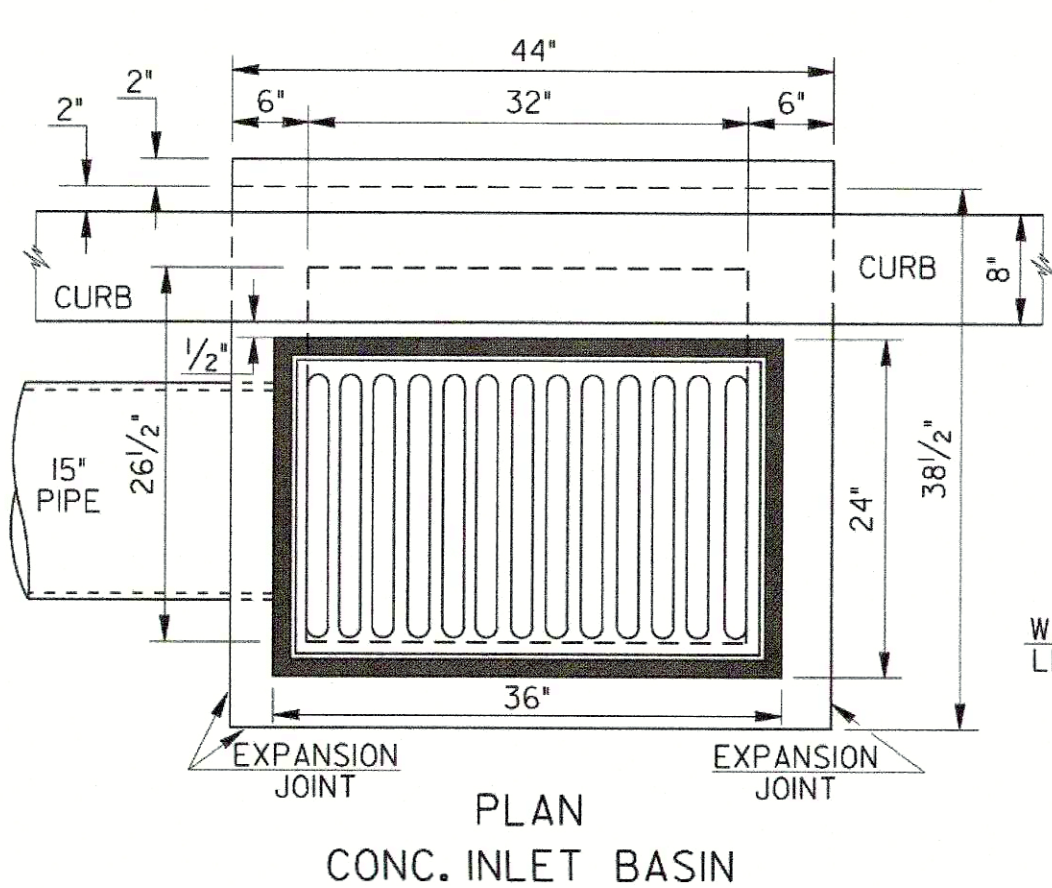
SPECIAL NOTE:
THIS STANDARD SHOULD BE USED ONLY IN SAGS OR LOW POINTS. SEE OTHER STANDARDS FOR MORE EFFICIENT DRAINAGE STRUCTURES ON GRADES.



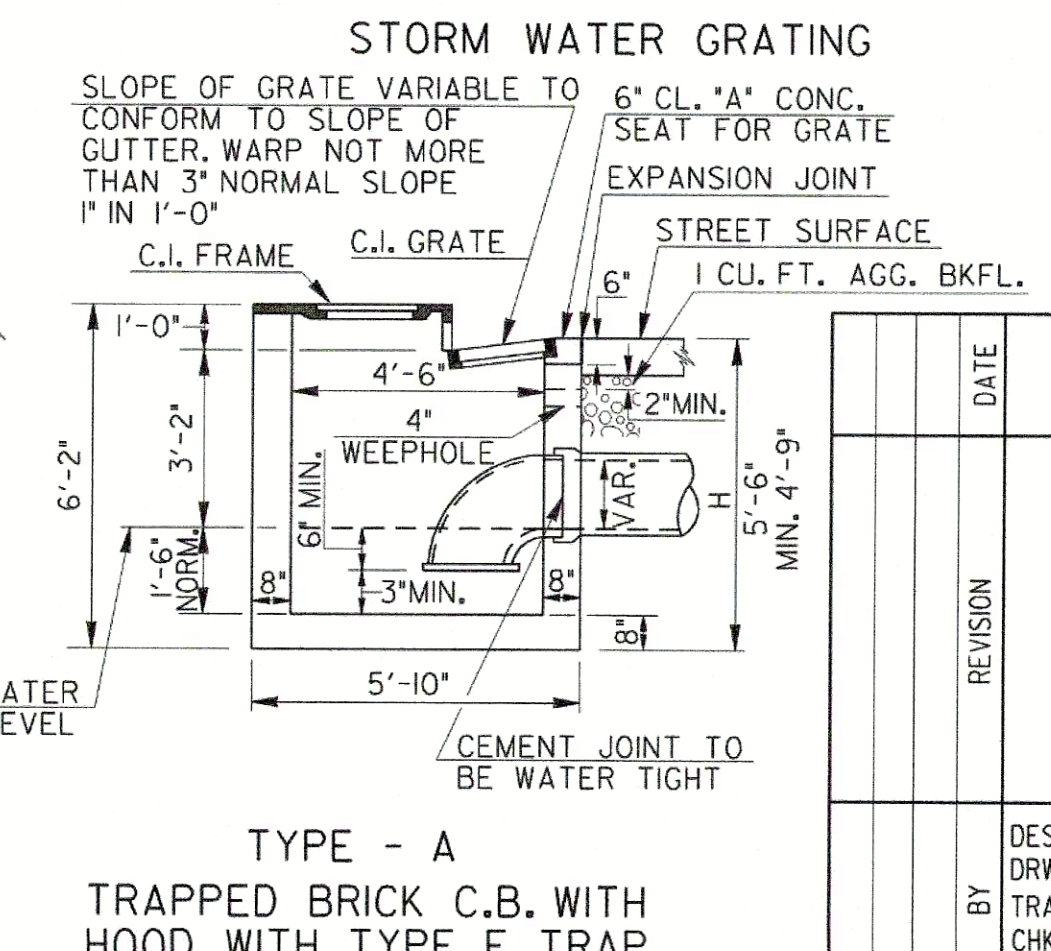
TYPE - B CONC. INLET BASIN



LONG SECTION
TYPE - C BRICK INLET BASIN
CROSS SECTION



PLAN
TYPE - A
TRAPPED BRICK C.B. WITH HOOD WITH TYPE E TRAP



SECTION
TYPE - A
TRAPPED BRICK C.B. WITH HOOD WITH TYPE E TRAP

GENERAL NOTE:
ALL TRAPS WILL BE OMITTED UNLESS SHOWN ON PLANS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CATCH BASINS WITH
CAST IRON GRATE INLETS

REV. & REDR. SEPT. 1999

REVISION	DATE	DESCRIPTION

DES. (SUBMITTED) *James A. Kennel*
DRW. STATE ROAD & AIRPORT DESIGN ENGINEER
TRA. (APPROVED) *Carol L. Fawcett*
CHK. CHIEF ENGINEER

NUMBER
1010

C5.03

PROJ. NO. 37697-01

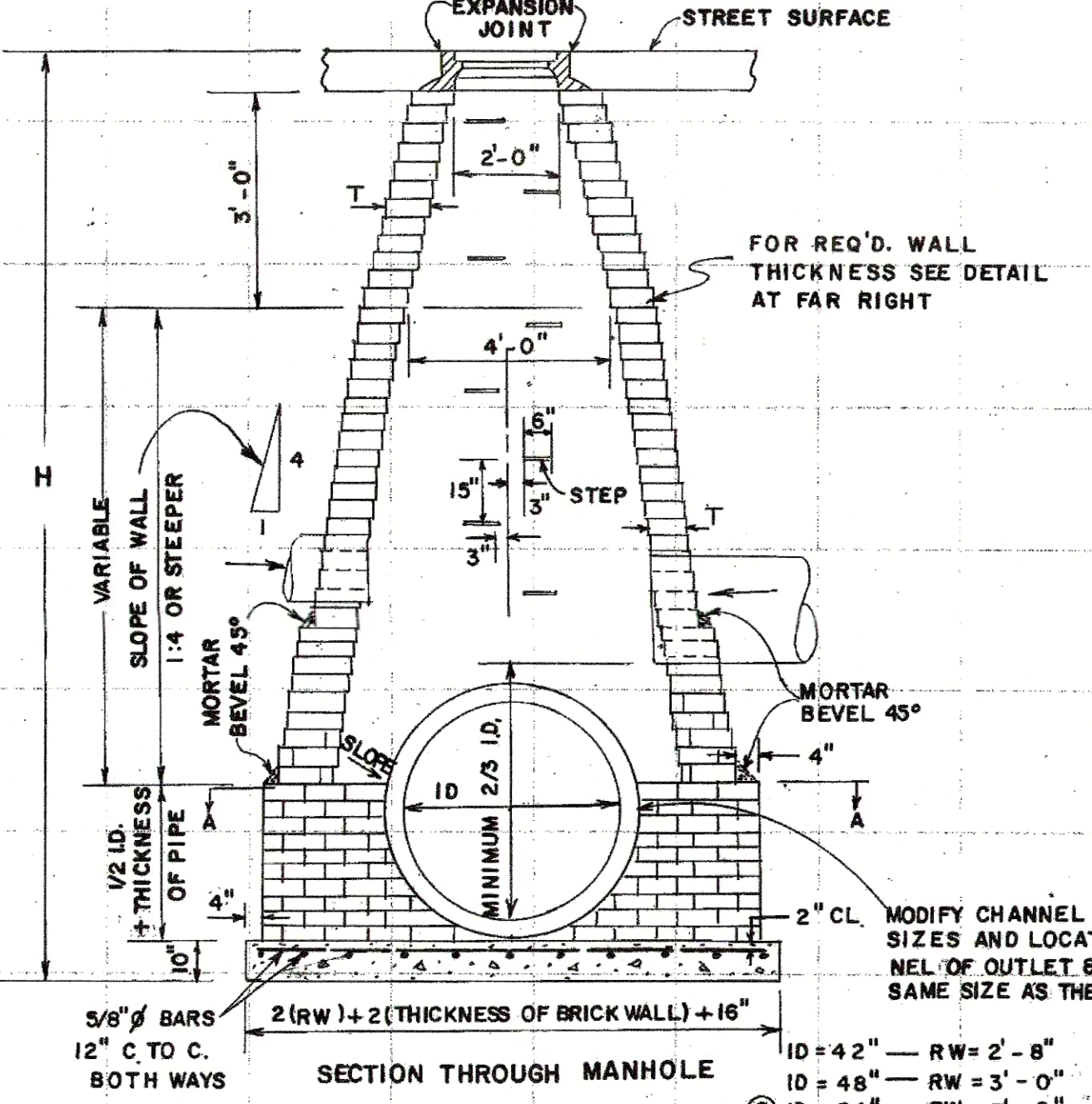


STANDARD DETAILS
TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

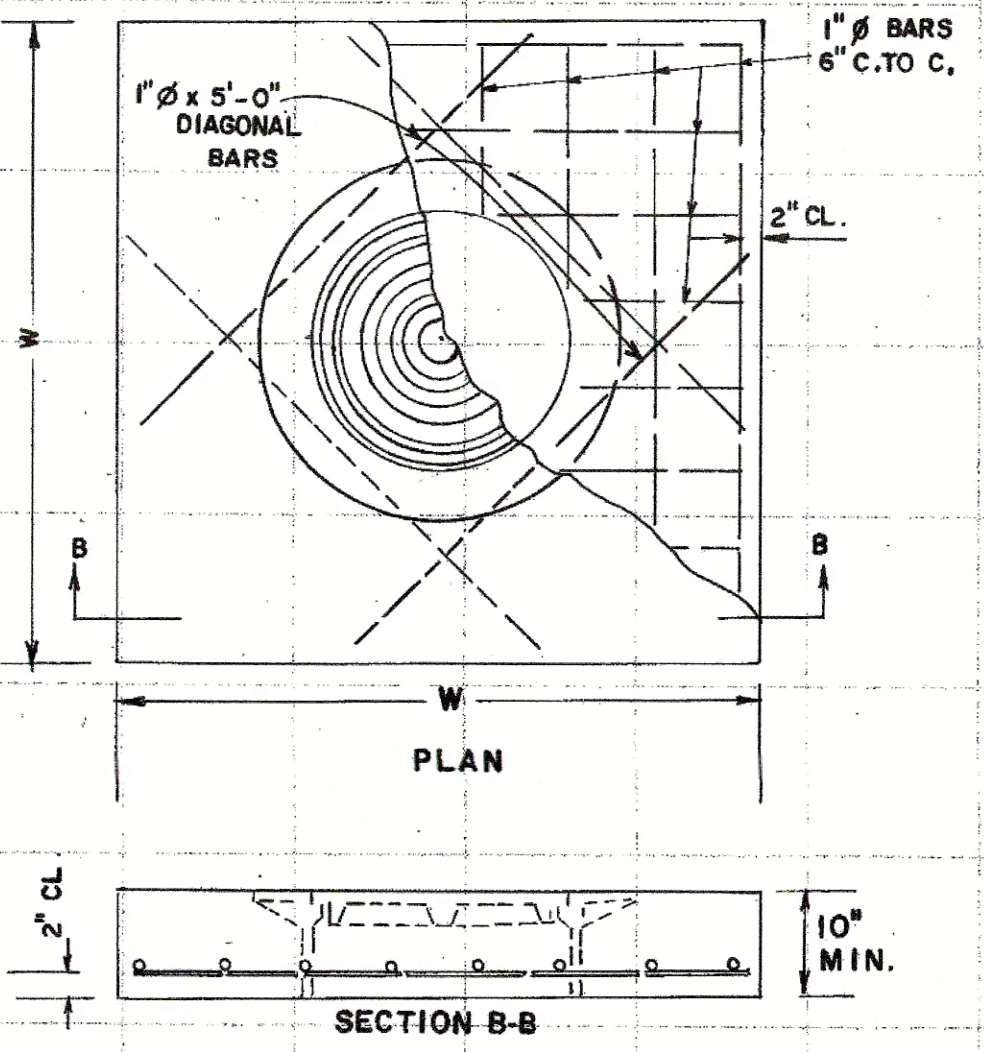
REVISION INFORMATION
REV. DR. CHK. DATE DESCRIPTION

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			

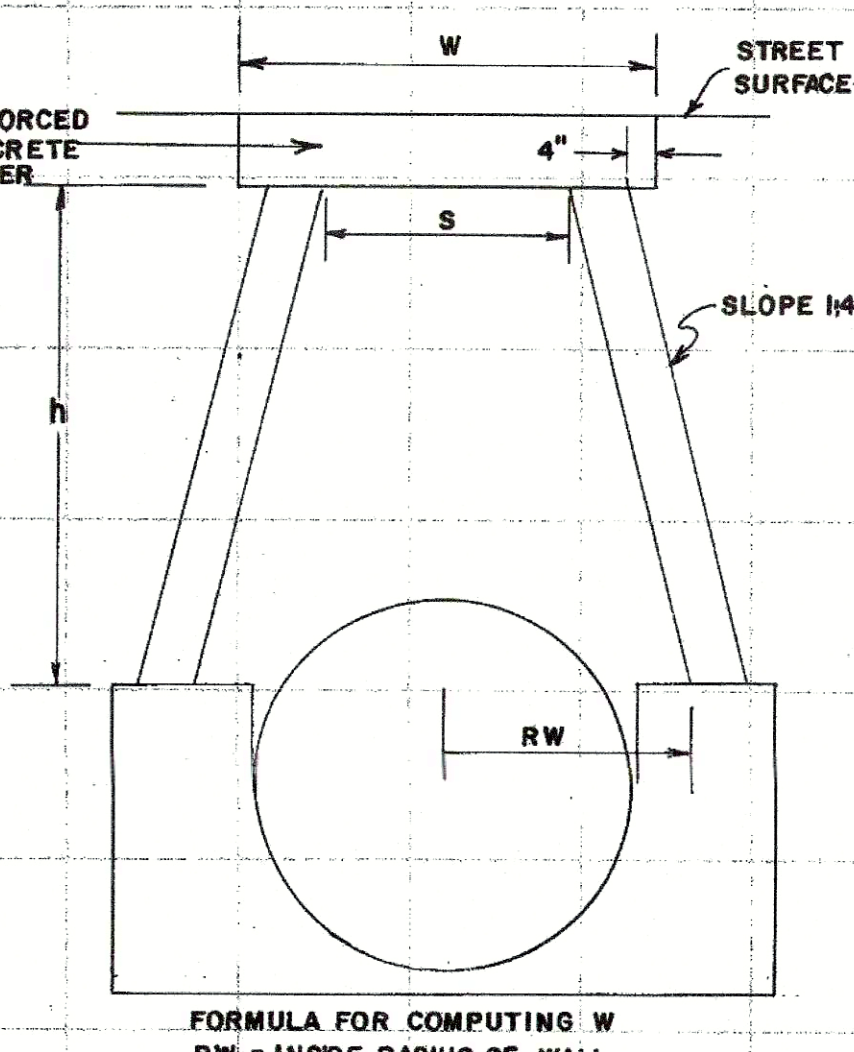
BRICK MANHOLE SECTION (PIPE OUTSIDE DIAMETER IS 48" OR MORE)



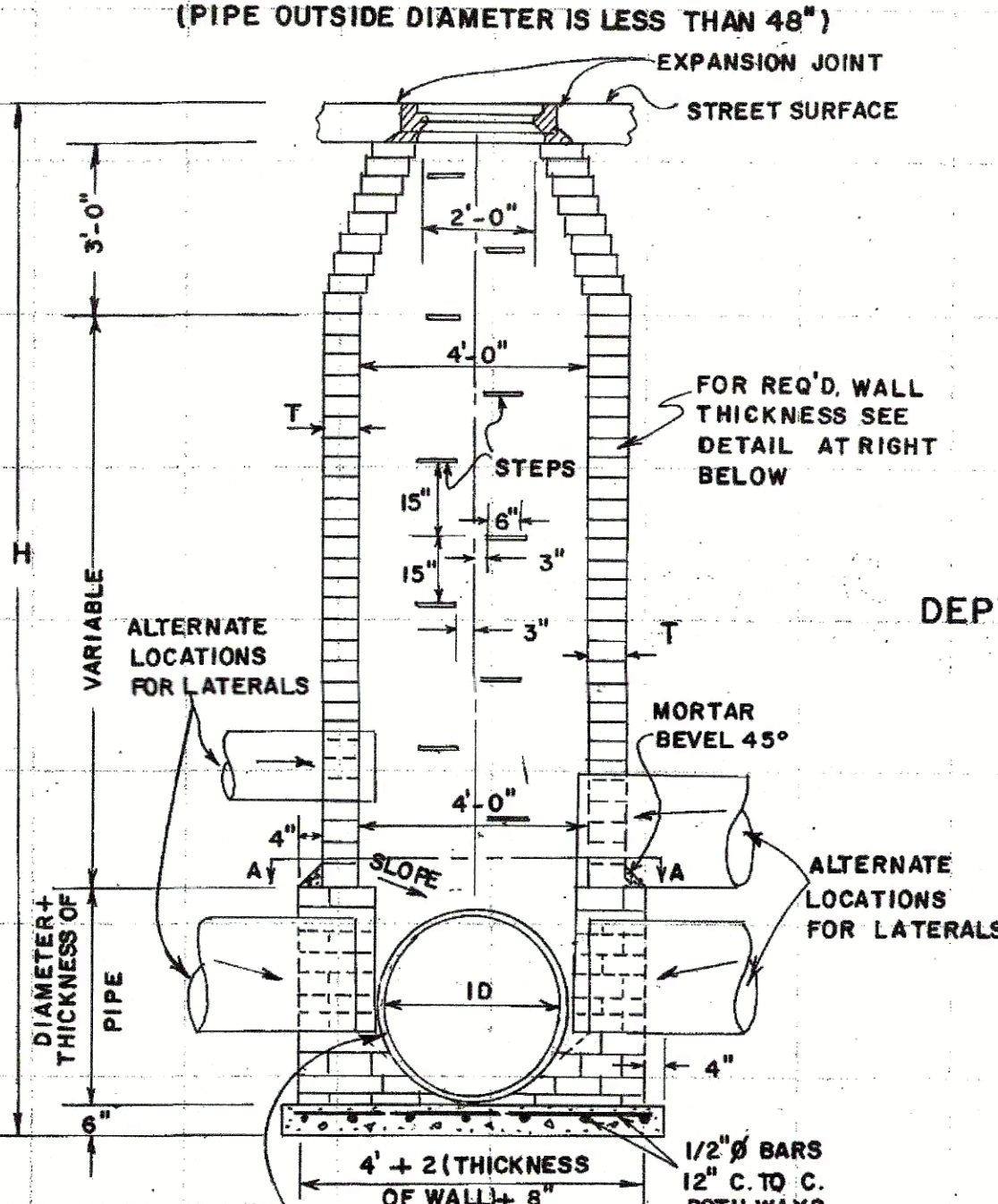
REINFORCED CONCRETE COVER



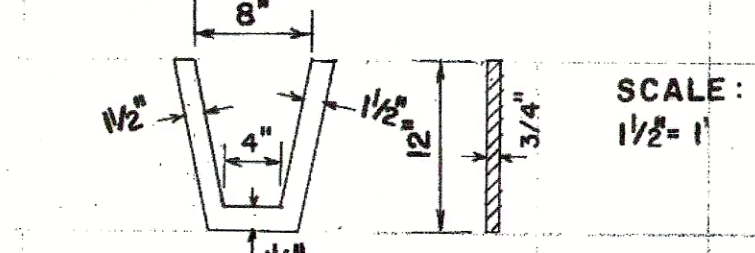
PLACEMENT FOR CONCRETE COVER



BRICK MANHOLE SECTION (PIPE OUTSIDE DIAMETER IS LESS THAN 48")

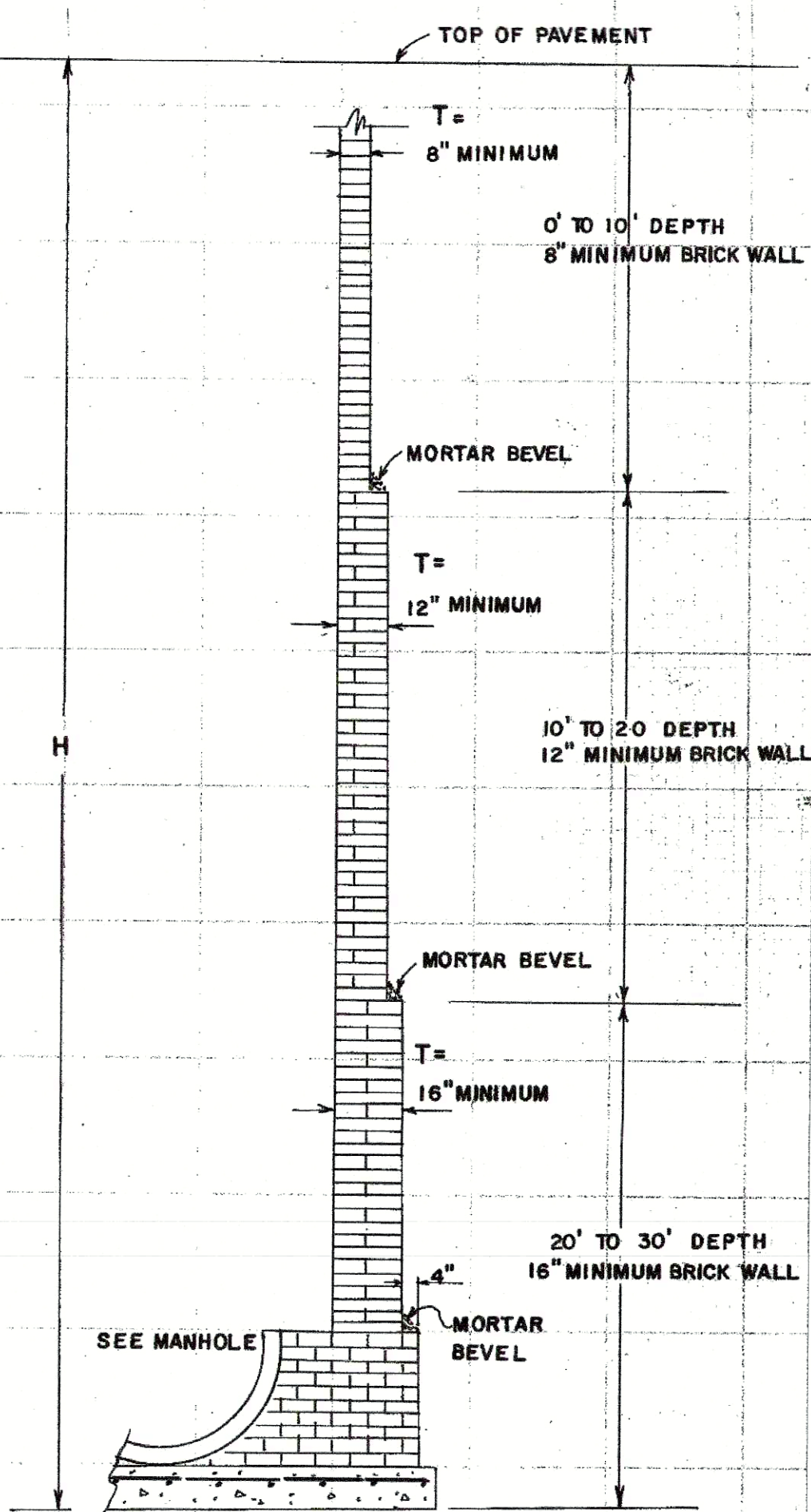


CAST IRON STEP



NOTE: STEPS ARE REQUIRED IN ALL MANHOLES WHERE "H" IS GREATER THAN 4'-0". NUMBER AND LOCATION OF STEPS TO BE AS DIRECTED BY THE ENGINEER. PLASTIC OR RUBBER COATED STEPS LISTED IN THE G.A. D.O.T. QUALIFIED PRODUCTS MANUAL MAY BE SUBSTITUTED.

DEPTH LIMITS FOR INCREASING WALL THICKNESS



MODIFY CHANNEL SUIT PIPE SIZES AND LOCATIONS CHANNEL OF OUTLET TO BE THE SAME SIZE AS THE OUTLET PIPE.

ID = 42"	RW = 2'-8"
ID = 48"	RW = 3'-0"
ID = 54"	RW = 3'-2"
ID = 60"	RW = 3'-4"
ID = 66"	RW = 3'-7"
ID = 72"	RW = 3'-9"
ID = 78"	RW = 3'-11"
ID = 84"	RW = 4'-2"

RW = INSIDE RADIUS OF WALL

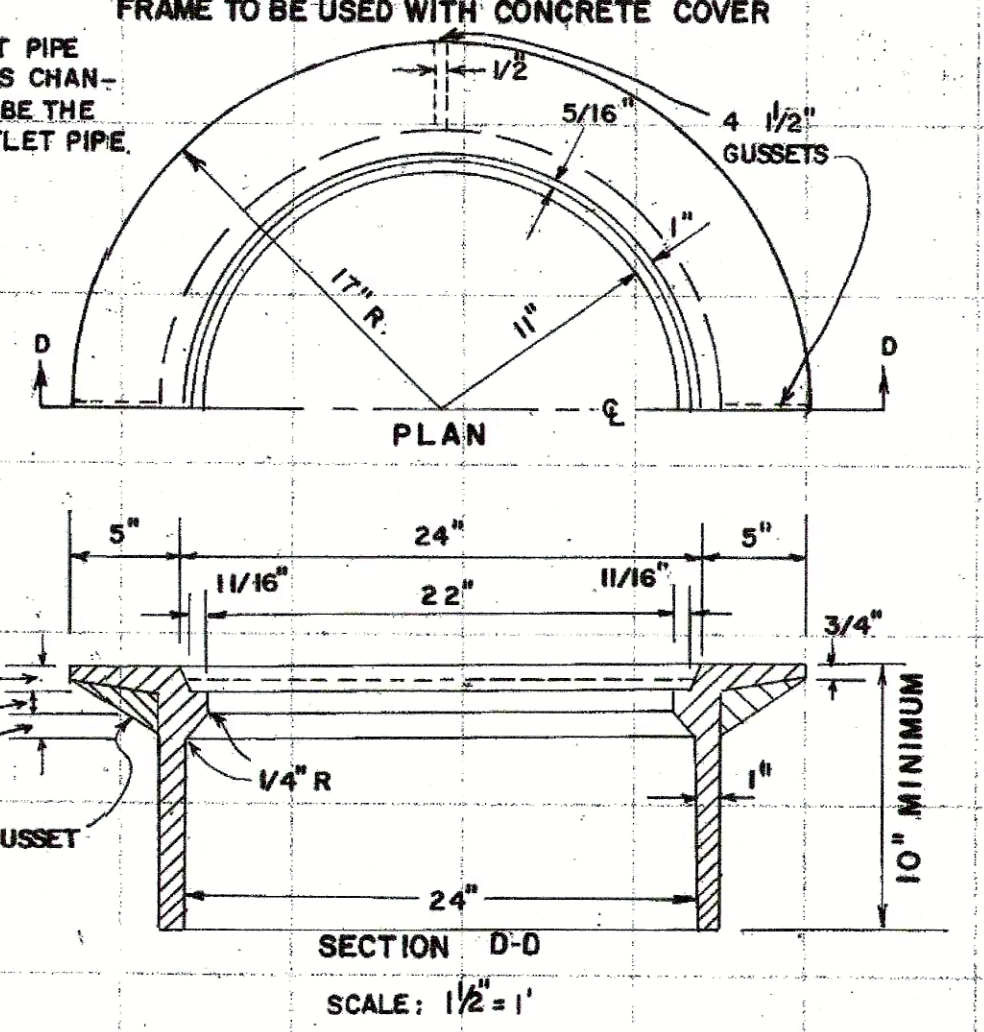
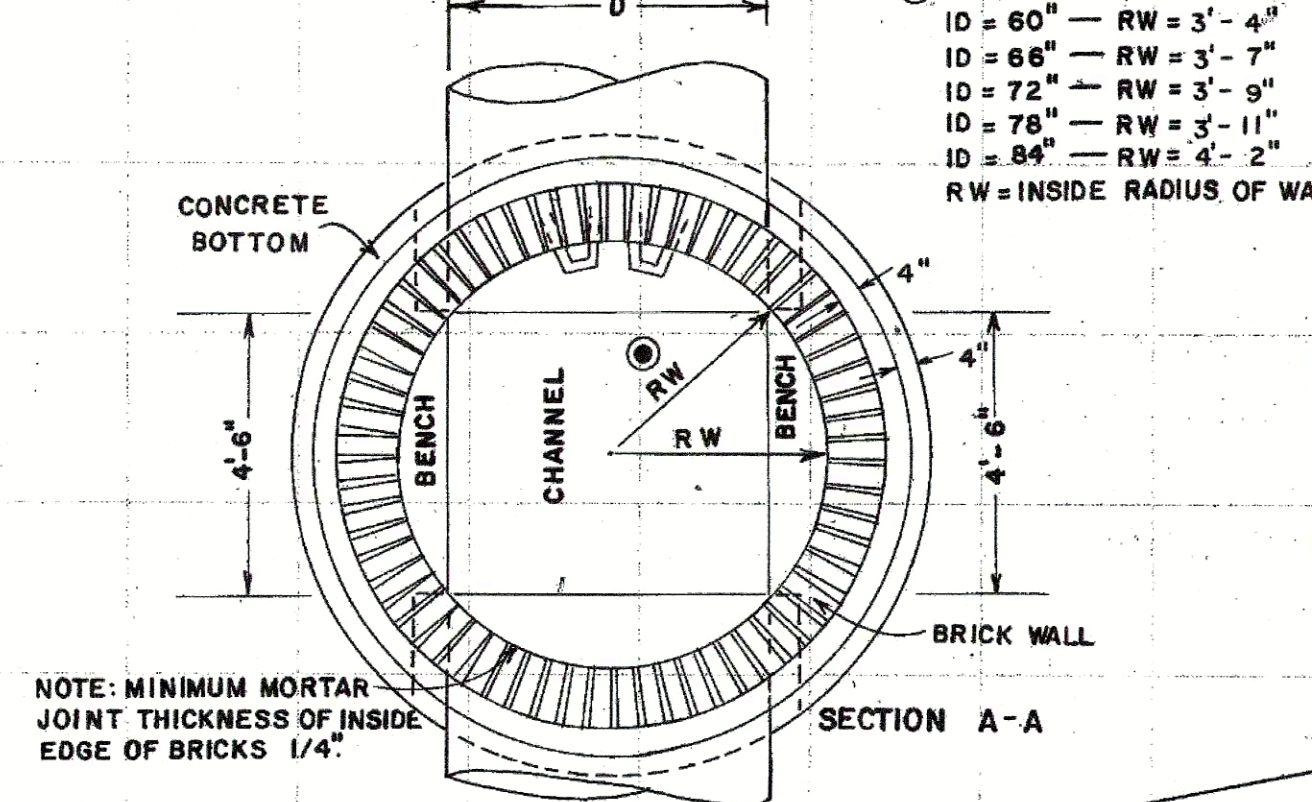
NOTE: USE CONCRETE COVER WITH MANHOLE CASTINGS IF FILL FROM TOP OF PIPE TO FINISHED SURFACE IS LESS THAN:

4'-6"	FOR 42" PIPE
5'-0"	FOR 48" PIPE
5'-0"	FOR 54" PIPE
5'-6"	FOR 60" PIPE
6'-0"	FOR 66" PIPE
6'-6"	FOR 72" PIPE
7'-0"	FOR 78" PIPE
8'-0"	FOR 84" PIPE

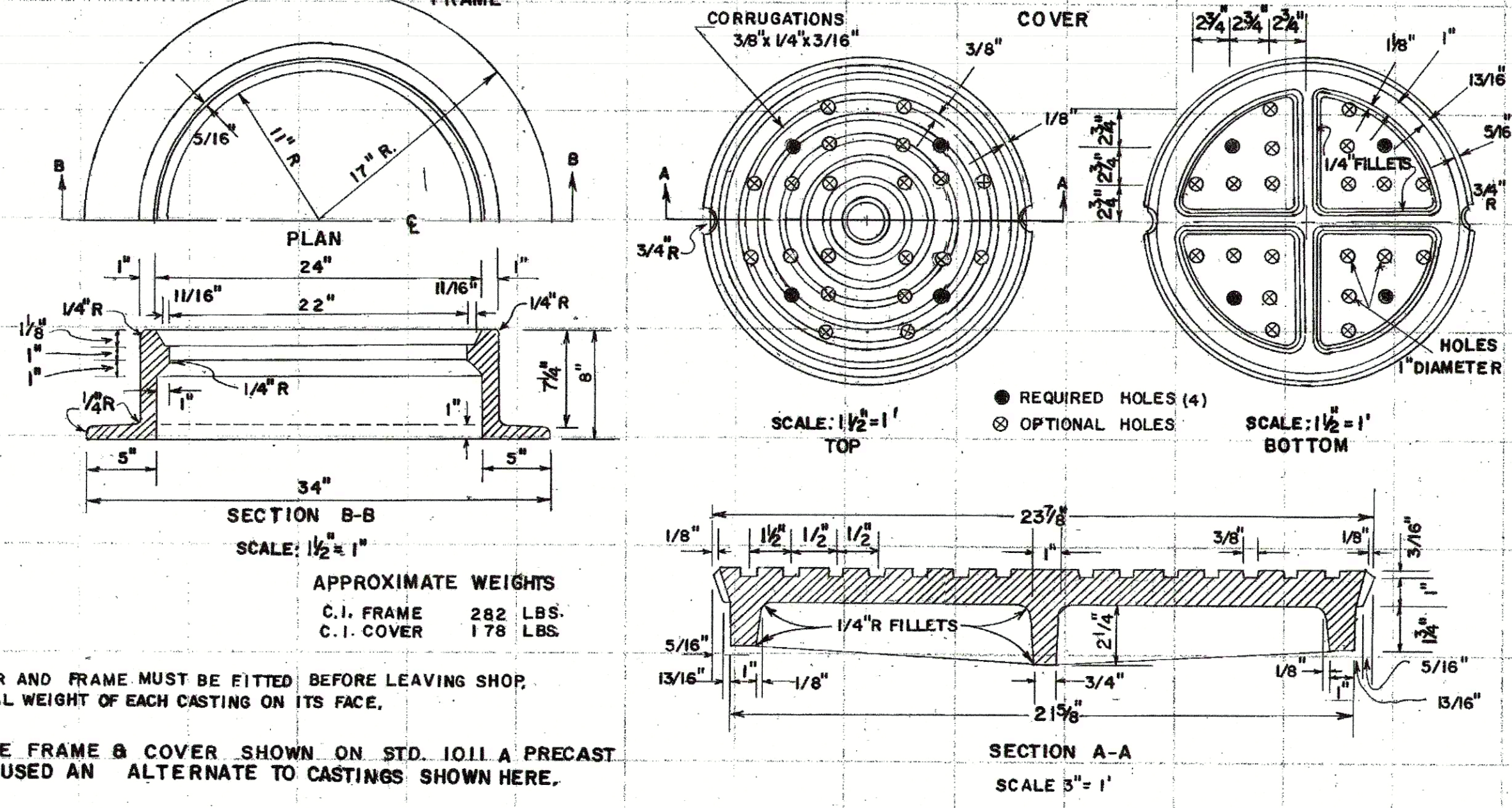
THICKNESS OF BRICK WALL (SEE DETAIL AT FAR RIGHT)

DEPTH	THICKNESS (T)
TO 10'	* 8" MIN.
10' TO 20'	12" MIN.
20' TO 30'	16" MIN.

* FOR COMBINATION BRICK & PRECAST M.H. (SEE BELOW) ONLY 12" OR 16" BRICK WALL THICKNESS IS TO BE USED FOR BASE.

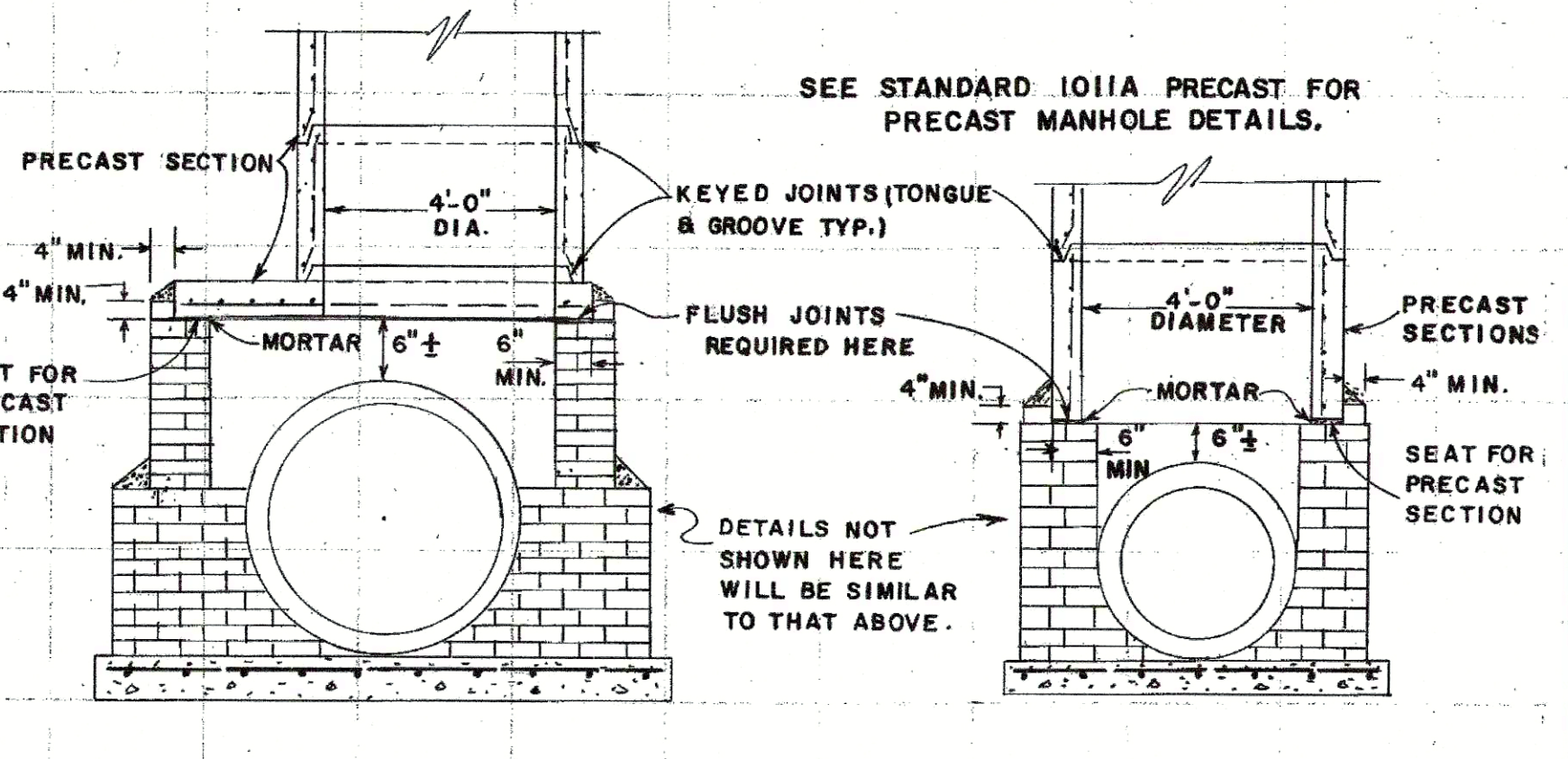


MANHOLE CASTINGS



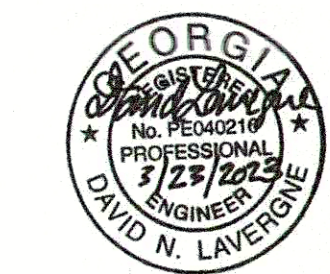
ALTERNATE - COMBINATION BRICK & PRECAST MANHOLES

NOTES FOR COMBINATION MANHOLE:
- BRICK PORTION OF MANHOLE WILL BE CONSTRUCTED WITH SEAT TO GIVE BEST POSSIBLE FIT FOR PRECAST UNIT. MINIMUM THICKNESS FOR BRICK WALL WILL BE 12" FOR H TO 20 FT. AND 16" FOR H=20 FT. TO 30 FT.
- PRECAST UNIT WITHOUT TONGUE OR GROOVE AT BOTTOM SHALL BE PLACED IN BRICK SEAT WITH MORTAR IN JOINT ALL ROUND. BRICK BASE SHALL SET FOR 24 HOURS MIN. BEFORE PRECAST SECTIONS ARE INSTALLED.
- STEPS IN THE BRICK PORTION OF MANHOLE WILL BE IN ALIGNMENT WITH AND MATCH THE STEPS IN THE PRECAST SECTIONS RATHER THAN AS SHOWN FOR THE ALL BRICK MANHOLES.



DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
STANDARD BRICK MANHOLES	
SCALE AS SHOWN	REV. & RED. OCTOBER, 1981
DES. 8-58 DRAW. R.M.U. TRA. G.M.E. CHK. R.K.C.	(SUBMITTED) <i>Handwritten Signature</i> STATE ROAD & AIRPORT DESIGN ENGR. (APPROVED) <i>Handwritten Signature</i> STATE HIGHWAY ENGINEER
	NUMBER 1011A

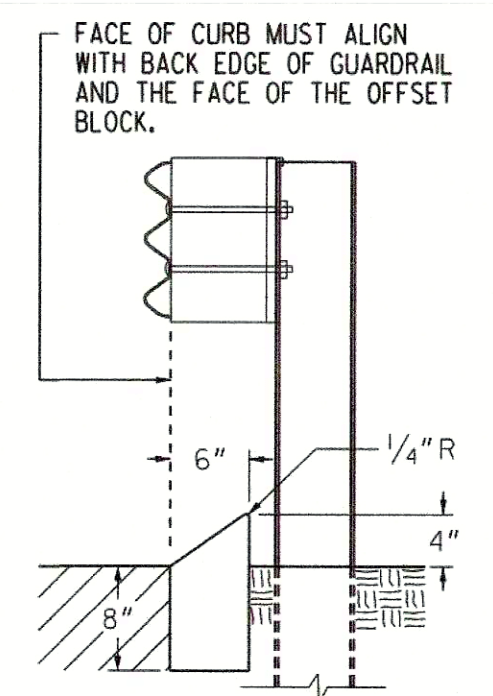
USER: C5ANDERS
FILE: 1275797376970104_CADDICALPHASE1PLOTCS-01-C5.04.dwg
SAVED: 21/12/2023
PLOT: 23/12/2023



STANDARD DETAILS
TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

REVISION INFORMATION
REV. DR. CHK. DATE DESCRIPTION

GDOT Georgia Department of Transportation P. I. Number

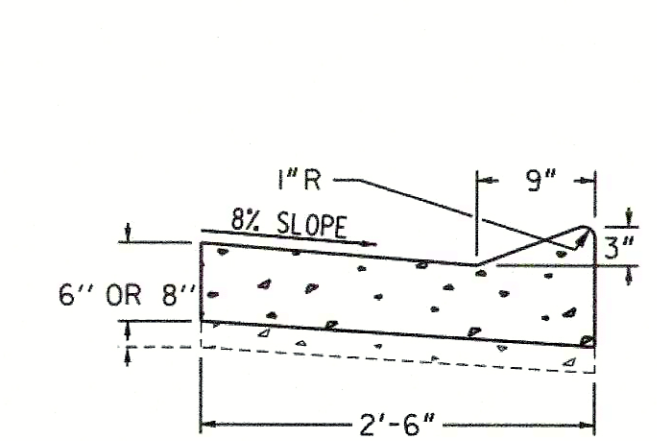


TYPE 8

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	3" OR 4"	6" min.
2	6"	8" min.
3	8"	10" min.
4	10"	12" min.
6	6"	7" min.
7	6"	8" min.
9	3" OR 4"	8" min.

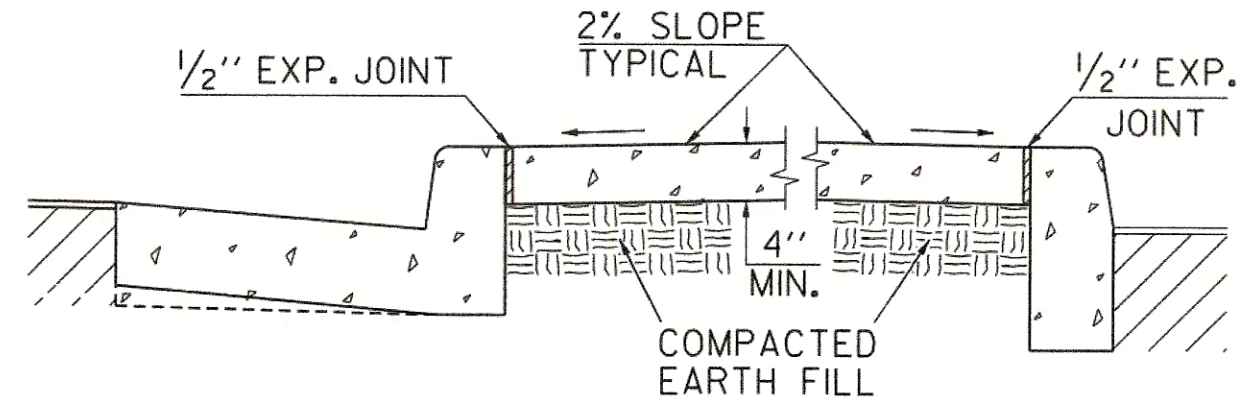
RAISED EDGE WITH CONCRETE GUTTER



RAISED EDGE TO BE CONSTRUCTED WITH SAME CONCRETE MIX AS THE GUTTER AND SHALL BE FORMED MONOLITHIC WITH GUTTER. JOINTS IN RAISED EDGE SHALL MATCH THOSE IN THE GUTTER.

CONCRETE MEDIAN (Between Curbs)

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

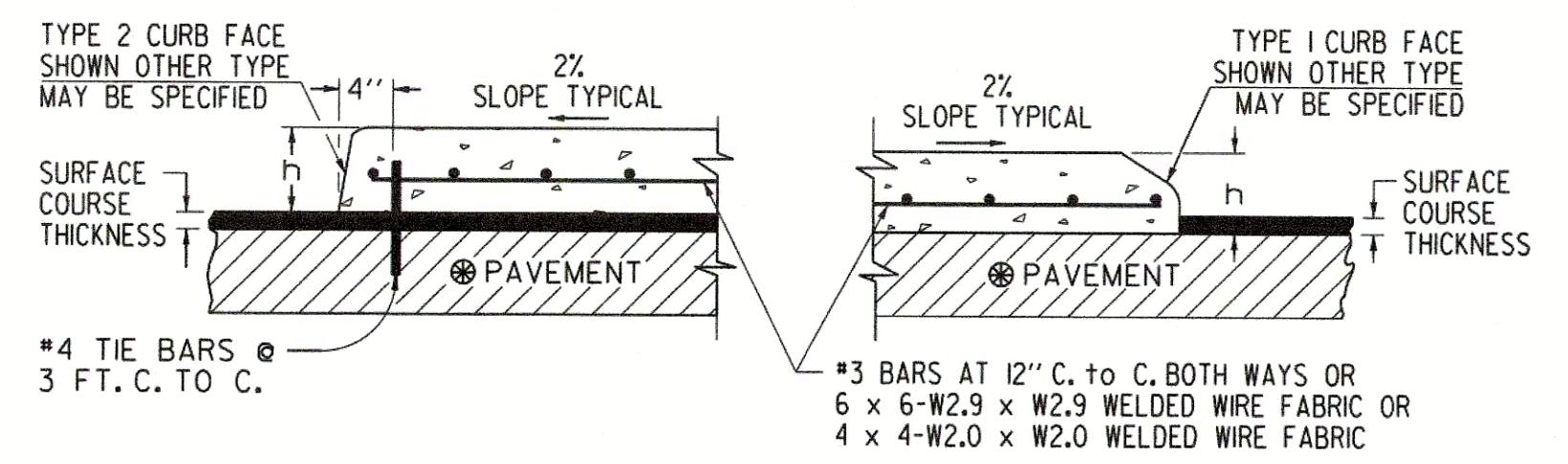


NOTE: WIDTH OF CONCRETE MEDIAN WILL BE AS SHOWN IN PLANS

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

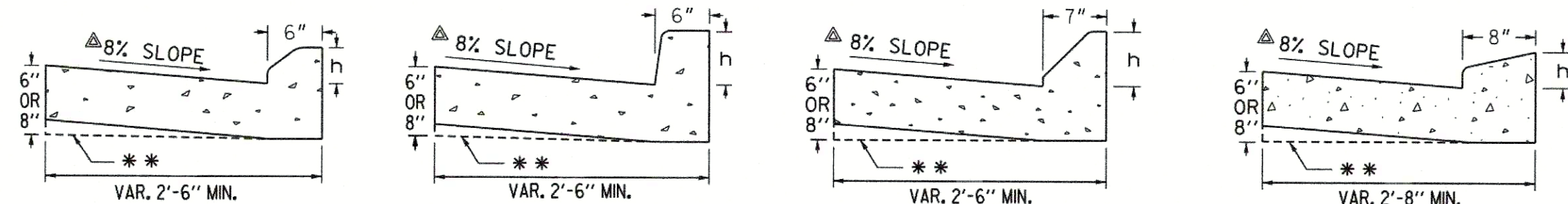
CONCRETE MEDIANS (Integral)

-WITH TIE BARS- -WITHOUT TIE BARS-



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.

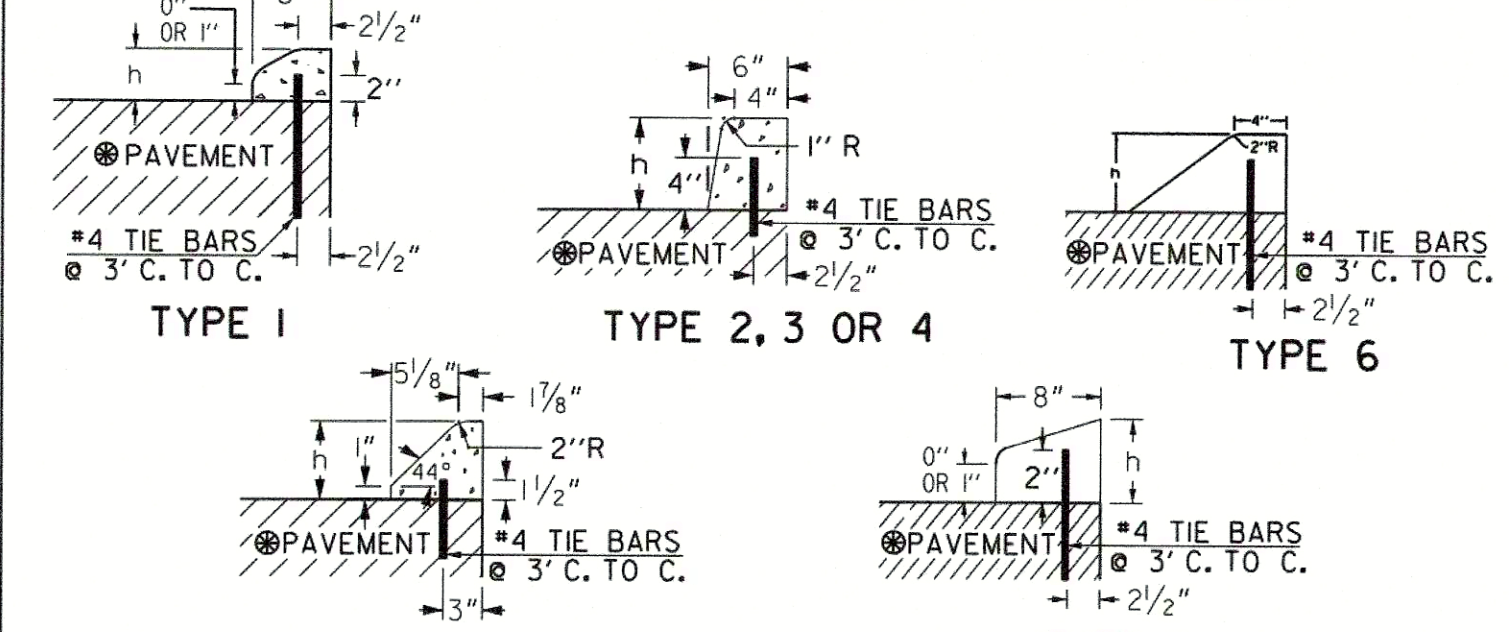
CONCRETE CURB & GUTTER



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.
▲ WHEN POSITIVE SUPERELEVATION IS REQUIRED, THE SLOPE OF THE GUTTER ON THE HIGH SIDE SHALL BE A CONTINUATION OF THE SLOPE OF THE SUPERELEVATED PAVEMENT.

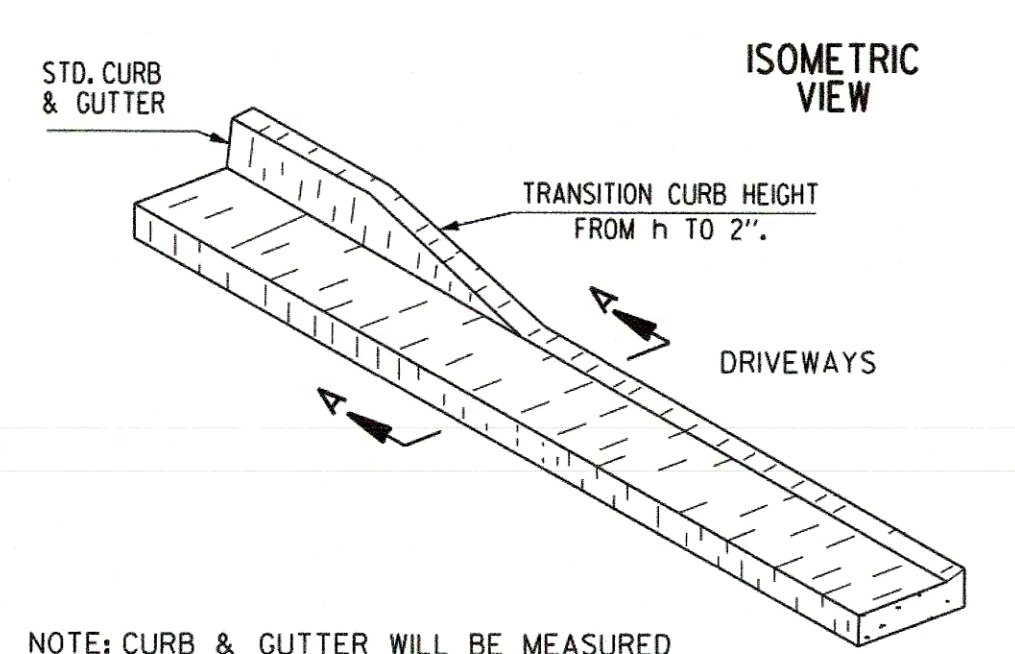
CONCRETE DOWELED INTEGRAL CURBS



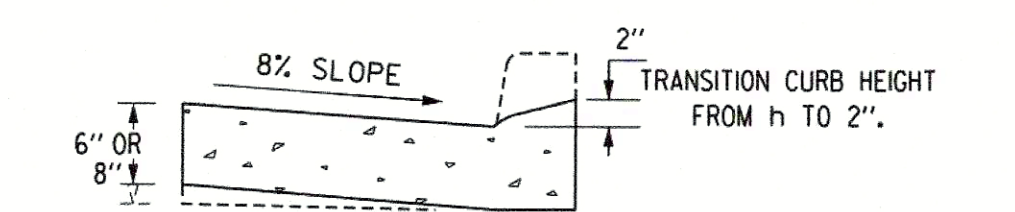
NOTES:
1. CONCRETE CURB CAN BE INSTALLED AFTER INITIAL SET AS LONG AS TIE BARS ARE DRILLED INTO UNDERLYING CONCRETE PAVEMENT.
2. CONCRETE CURB CAN BE INSTALLED BEFORE INITIAL SET WITH DOWELS THAT ARE DRIVEN INTO UNDERLYING CONCRETE PAVEMENT.
3. JOINTS IN CURB AND CONCRETE MEDIAN WILL MATCH THOSE IN THE CONCRETE PAVEMENT.
4. 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.
5. TIE BARS FOR DOWELED CURBS MAY BE UNCOATED PLAIN OR DEFORMED BULLET-STEEL BARS (GRADE 40) AS USED FOR CONCRETE REINFORCEMENT. (AASHTO M-3)

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

DETAILS OF RECESSED CURB FOR DRIVEWAYS



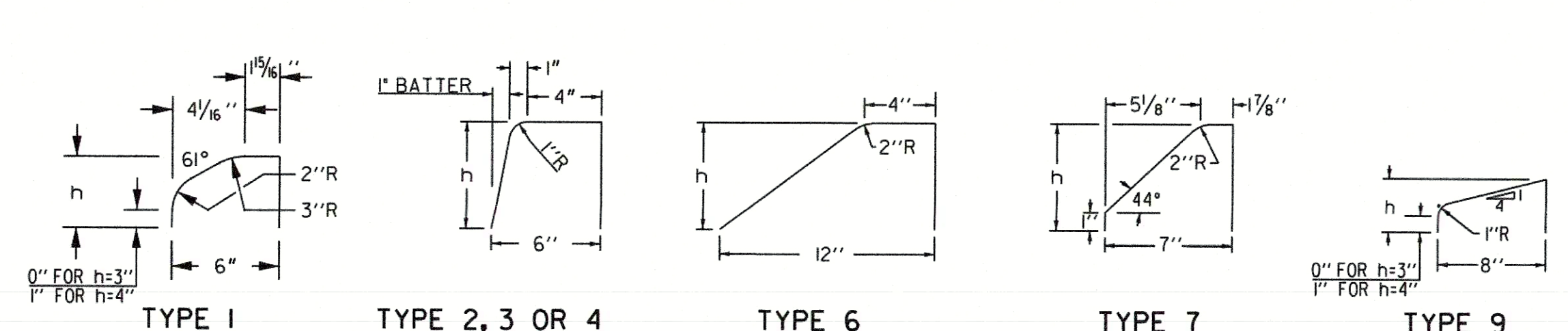
NOTE: CURB & GUTTER WILL BE MEASURED FOR PAYMENT THRU THE DRIVE



SECTIONAL VIEW SECTION A-A

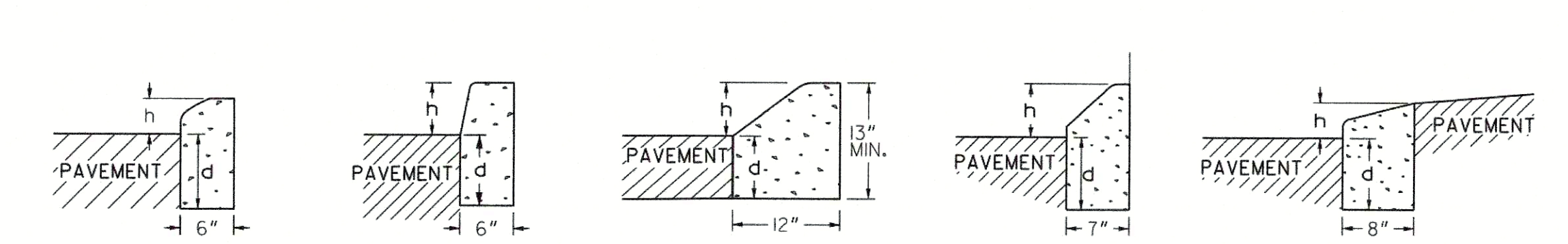
(SEE SEPARATE CONSTRUCTION DETAILS FOR DRIVEWAYS)

CURB FACE DESIGN



TYPE 1 TYPE 2, 3 OR 4 TYPE 6 TYPE 7 TYPE 9

CONCRETE HEADER CURBS

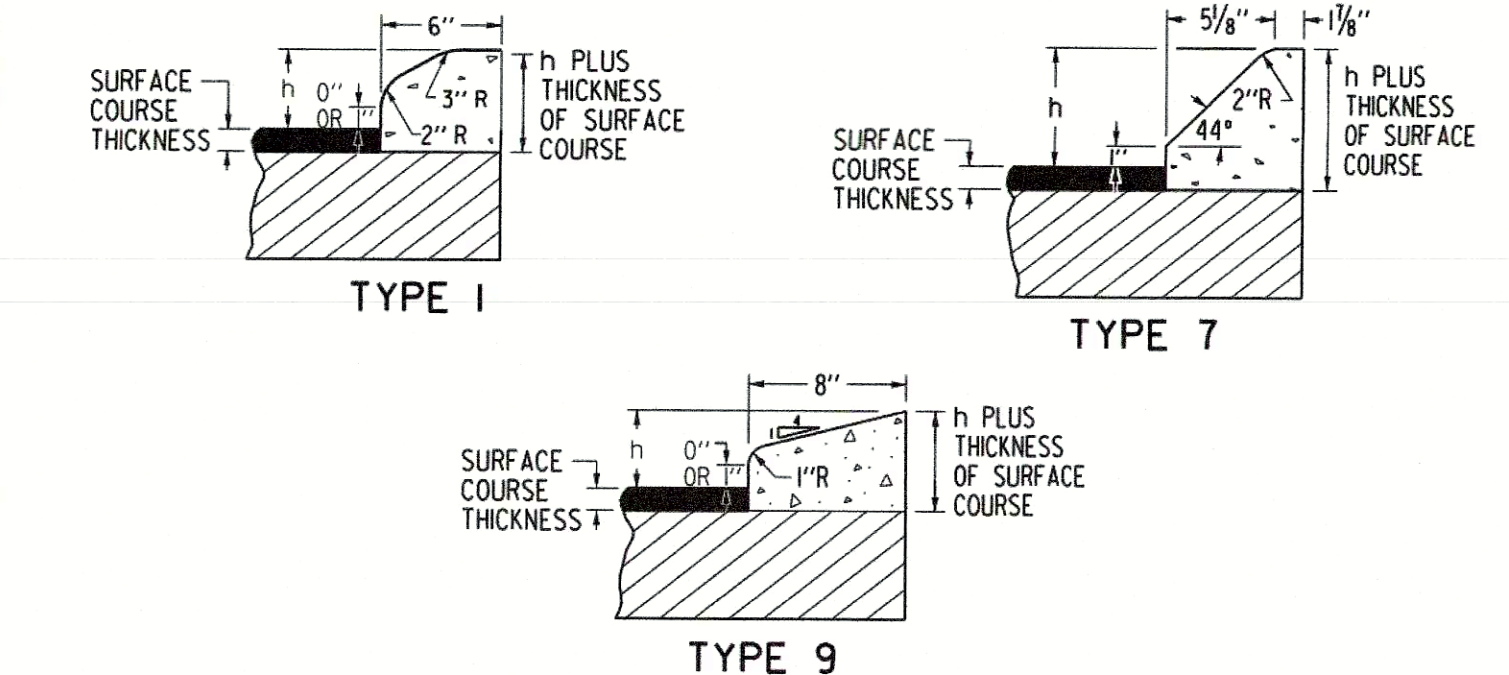


TYPE 1 TYPE 2, 3 OR 4 TYPE 6 TYPE 7 TYPE 9

TRUCK APRON IN ROUNDABOUTS

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

CONCRETE INTEGRAL CURB



TYPE 1 TYPE 7

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

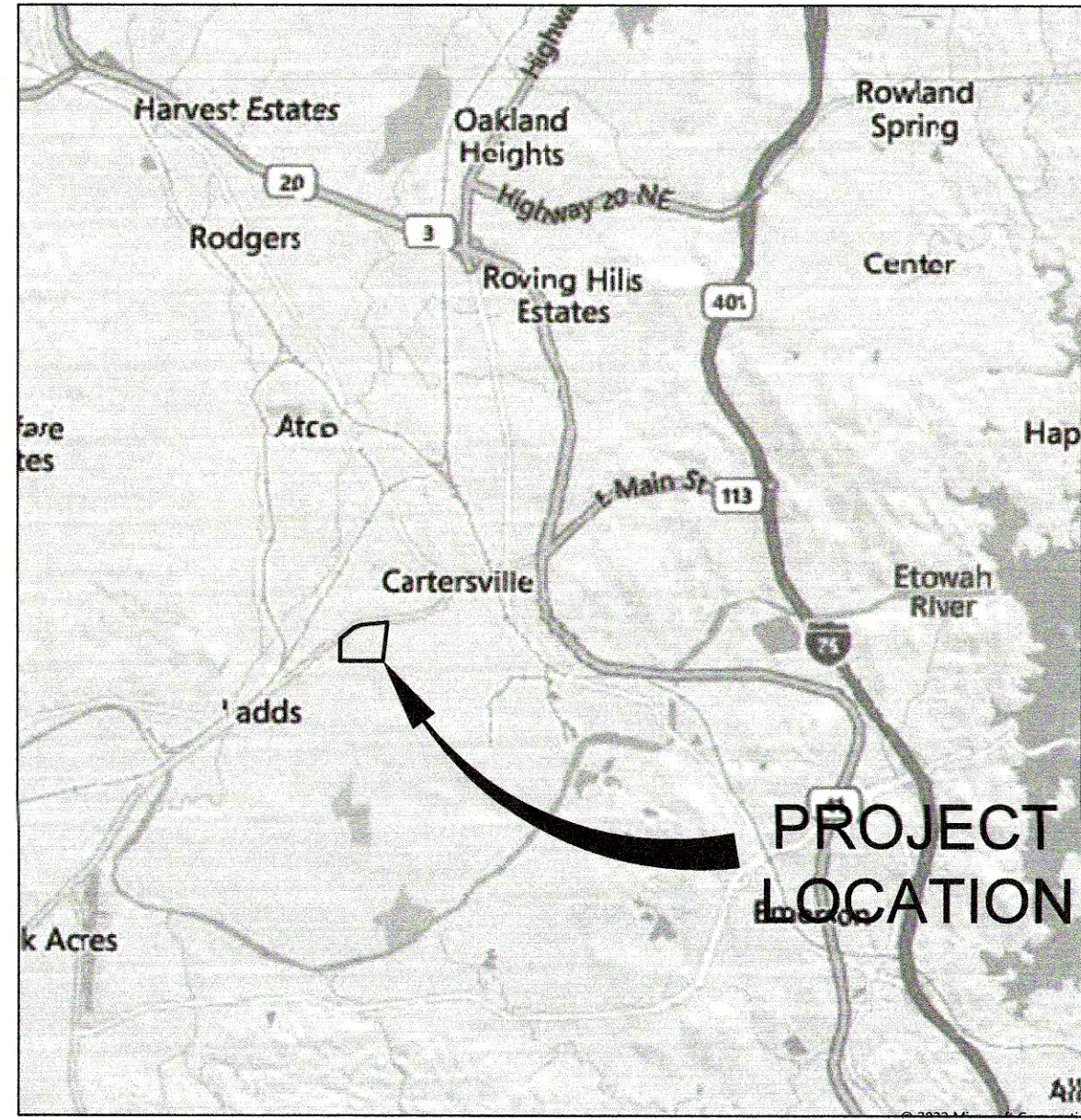
STANDARD
CONCRETE CURB & GUTTER
CONCRETE CURBS, CONCRETE MEDIANS

NOT TO SCALE MAR. 2003

DES. (SUBMITTED)	NUMBER
DRW. STATE DESIGN POLICY ENGINEER	9032B
TRA. (APPROVED) <i>Daniel M. Pugh</i>	
CHK. CHIEF ENGINEER	

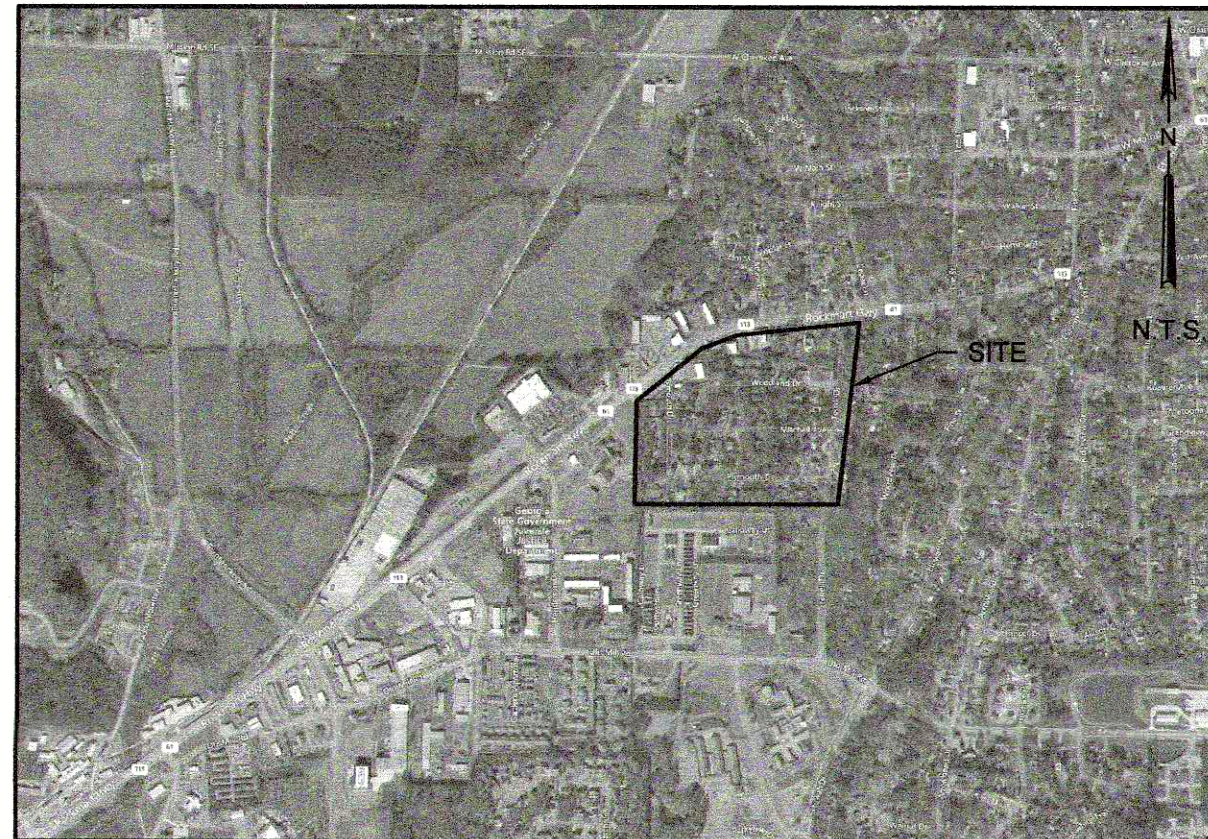
EROSION, SEDIMENTATION & POLLUTION CONTROL PLANS

TERRELL HEIGHTS STORM SEWER IMPROVEMENTS CARTERSVILLE, GEORGIA MARCH 2023



NTS
VICINITY MAP

CHECKLIST # 9



NTS
LOCATION MAP

GPS LOCATION OF CONSTRUCTION EXIT, OR BEGINNING AND END OF LINEAR PROJECT:

CONSTRUCTION EXIT: lat 34.157775° lon -84.812279°

CONTACT INFORMATION

PRIMARY PERMITTEE	OPERATOR	DESIGN PROFESSIONAL
OWNER/DEVELOPER	CONTRACTOR # INFO	PROJECT ENGINEER
OWNER: WADE WILSON, P.E. CITY OF CARTERSVILLE, PUBLIC WORKS 330 S. ERWIN STREET CARTERSVILLE, GEORGIA 30120 PHONE:	CONTRACTOR # INFO TO BE DETERMINED	DAVID LAVERGNE, P.E. BARGE DESIGN SOLUTIONS, INC. 6525 THE CORNERS PKWY, SUITE 450 PEACHTREE CORNERS, GA 30092 PHONE: (678) 515-9415 GSWCC LEVEL II CERT. # <u>73529</u> EXPIRES <u>03/13/2024</u>

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

INITIAL PERIMETER AND SEDIMENT STORAGE BMP'S
CLEARING ACTIVITIES
GRADING AND DRAINAGE ACTIVITIES
MAINTAIN BMP'S
SITE RESTORATION AND CLEANUP
REMOVE TEMPORARY BMP'S
CONSTRUCTION/PROJECT COMPLETION

OVERALL PROJECT SCHEDULE															
MONTHS AFTER BEGINNING CONSTRUCTION															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INITIAL PERIMETER AND SEDIMENT STORAGE BMP'S	█														
CLEARING ACTIVITIES	█														
GRADING AND DRAINAGE ACTIVITIES			█												
MAINTAIN BMP'S	█														
SITE RESTORATION AND CLEANUP	█														
REMOVE TEMPORARY BMP'S						█									
CONSTRUCTION/PROJECT COMPLETION															◆

INDEX TO DRAWINGS

NO.	NAME
	INDEX
	EROSION CONTROL COVER
EC0.01	EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLANS
	EROSION CONTROL PLAN
EC1.01	EROSION CONTROL PLAN
EC1.02	EROSION CONTROL PLAN
	STANDARD EROSION, SEDIMENTATION & POLLUTION CONTROL DETAILS
EC5.01	ESPC DETAILS
EC5.02	ESPC DETAILS
EC5.03	ESPC DETAILS

PROJECT INFORMATION & DATA

1. PROJECT DESCRIPTION:
PROJECT IS LOCATED IN BARTOW COUNTY, GEORGIA. THE PURPOSE OF THE PROJECT IS TO ALLEVIATE LOCALIZED FLOODING CONDITIONS WITHIN THE TERRELL HEIGHTS NEIGHBORHOOD. IMPROVEMENTS INCLUDE: REPLACEMENT OF 24-INCH CORRUGATE METAL PIPE WITH 36" REINFORCED CONCRETE PIPE, REPLACEMENT OF 15-INCH CORRUGATED METAL PIPE WITH 24-INCH PIPE, AND LINING OF APPROXIMATELY 500 LF PIPE.

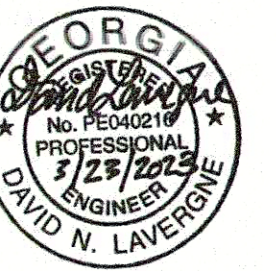
TOTAL SITE AREA: 0.37 ACRES
TOTAL DISTURBED AREA: 0.37 ACRES

- EXISTING CONDITIONS: THE PROJECT IS LOCATED IN THE TERRELL HEIGHTS NEIGHBORHOOD, WITHIN THE CITY OF CARTERSVILLE, BARTOW COUNTY, GEORGIA. THE SITE CONSISTS OF EXISTING STORMWATER PIPING SYSTEM AND STRUCTURES. THE MAJORITY OF THE SITE IS RESIDENTIAL.
- EXISTING CONTOURS OBTAINED BY: TOPOGRAPHIC SURVEY PERFORMED BY BARGE DESIGN SOLUTIONS, INC.
- DISPOSAL OF DEBRIS: ALL DEBRIS WILL BE HAULED OFFSITE TO A STATE APPROVED LANDFILL UNLESS AUTHORIZED OTHERWISE.
- NO PORTION OF THIS PROJECT LIES WITHIN A FLOOD HAZARD ZONE AS PER FIRM MAPS 13015C0262H, 13015C0266H, 13015C0264H, AND 13015C0268H DATED OCTOBER 5, 2018.

PROJECT RECEIVING WATERS
ETOWAH RIVER VIA PETIT CREEK

BARGE
DESIGN SOLUTIONS

8525 The Corners Parkway // Suite 450 // Peachtree Corners, Georgia 30092
PHONE (678) 515-9411



EROSION CONTROL COVER

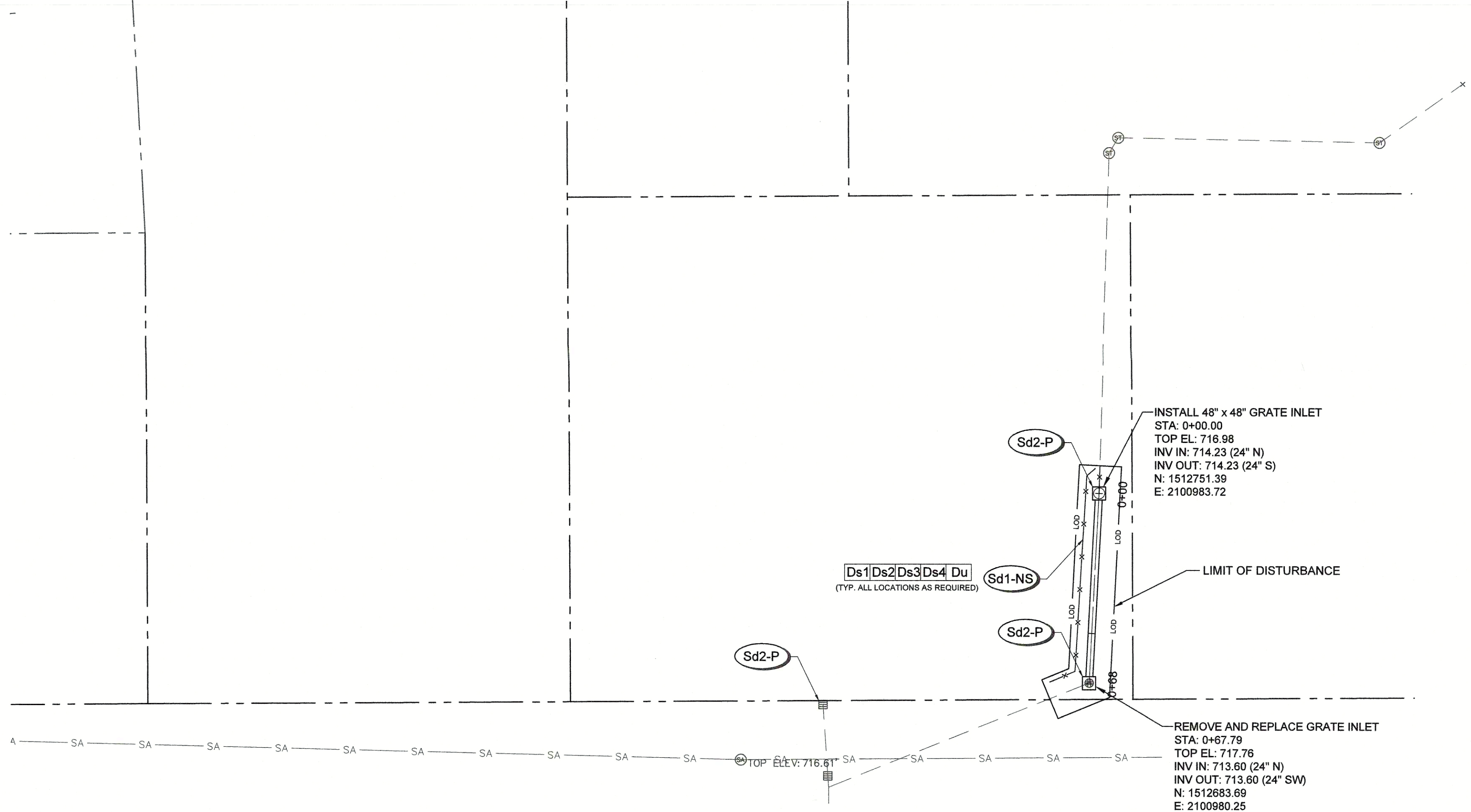
TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA

REVISION INFORMATION
REV. DR. CHK. DATE DESCRIPTION

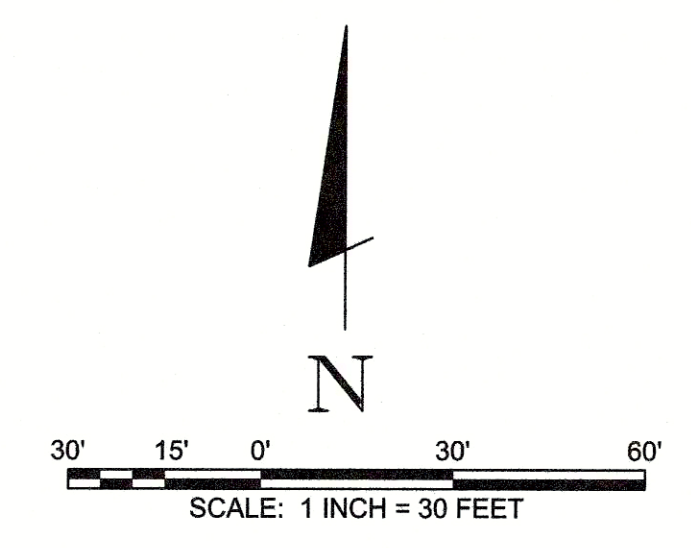
EC0.01
PROJ. NO. 37697-01



- LEGEND:**
- LIMITS OF DISTURBANCE
 - SOIL TYPE LINE
 - EXISTING MINOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED OUTLET PROTECTION
 - PROPOSED STORMWATER PIPE
 - PROPOSED FLARED END SECTION
 - EXISTING DRAINAGE FLOW PATTERN
 - PROPOSED GUARD RAIL
 - PROPOSED SIGNAGE
 - EXISTING OVERHEAD POWERLINE
 - EXISTING STORM LINE
 - PROPOSED STORM LINE
 - PROPOSED SILT FENCE
 - TREE PROTECTION FENCING



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.
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.
St	STORMWATER OUTLET PROTECTION A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
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 (SOCCOVAR) 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.
Ss	SLOPE STABILIZATION A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tr	TREE PROTECTION To protect desirable trees from injury during construction activity.



BARGE
DESIGN SOLUTIONS
6625 The Corners Parkway / Suite 452 / Peachtree Corners, Georgia 30092
PHONE (878) 516-8411



EROSION AND SEDIMENT CONTROL PLAN
TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
 CARTERSVILLE, GEORGIA

REV.	DR.	CHK.	DATE	DESCRIPTION

EC1.01
 PROJ. NO. 37697-01

USER: CDS/ANDERS
 FILE: F:\37697\37697\01\04_CADD\CIVIL\PHASE 1\PL01TEC1_01-EC1.04.dwg
 SAVED: 2/13/2023
 PLOTTED: 3/20/2023

LEGEND:

	LIMITS OF DISTURBANCE
	SOIL TYPE LINE
	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED OUTLET PROTECTION
	PROPOSED STORMWATER PIPE
	PROPOSED FLARED END SECTION
	EXISTING DRAINAGE FLOW PATTERN
	PROPOSED GUARD RAIL
	PROPOSED SIGNAGE
	EXISTING OVERHEAD POWERLINE
	EXISTING STORM LINE
	PROPOSED STORM LINE
	PROPOSED SILT FENCE
	TREE PROTECTION FENCING

REPLACE EX. STRUCTURE
W 90" x 140" TYPE B CONCRETE
INLET BASIN WITHOUT SUMP
(SEE DETAIL ON C5.03)
STA: 0+00.00
TOP EL: 712.00
INV OUT: 706.18 (SE)
N: 1512271.15
E: 2100888.53

SWMH A-5 (Ø 84")
STA: 0+78.57
TOP EL: 711.48
INV IN: 706.59 (S)
INV IN: 707.97 (NW)
INV IN: 706.95 (E)

EX. 96" x 120" JUNCTION BOX
CORE AND INSTALL NEW 18" RCP
CONNECTION TO GRATE INLET A-5
STA: 0+00.00
TOP EL: 711.29
INV OUT: 707.00 (W)

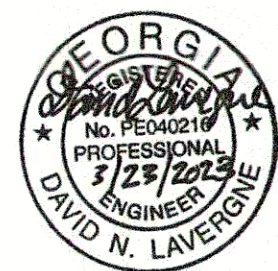
Ds1|Ds2|Ds3|Ds4| Du
(TYP. ALL LOCATIONS AS REQUIRED)

LIMIT OF DISTURBANCE

	CONSTRUCTION EOT	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
	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.
	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.
	STORMWATER OUTLET PROTECTION	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion-retarding cover.
	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)	Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
	DISTURBED AREA STABILIZATION (SEEDING)	A permanent vegetative cover using sods on highly erodible or critically eroded lands.
	DUST CONTROL ON DISTURBED AREAS	Controlling surface and air movement of dust on construction site, roadways and similar sites.
	SLOPE STABILIZATION	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, storm lines, or channels.
	TREE PROTECTION	To protect desirable trees from injury during construction activity.



30' 15' 0' 30' 60'
SCALE: 1 INCH = 30 FEET



EROSION AND SEDIMENT CONTROL PLAN

**TERRELL HEIGHTS
STORM SEWER IMPROVEMENTS
PHASE 1
CARTERSVILLE, GEORGIA**

REV.	DR.	CHK.	DATE	DESCRIPTION

MULCHING APPLICATION REQUIREMENTS table with columns MATERIAL, RATE, DEPTH. Includes straw/hay and geotextiles.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCH ONLY)

TABLE 1 SUGGESTED SEEDBED DEPTHS table with columns SLOPE, SEEDBED DEPTH. Includes 3:1 or flatter, 2:1 to 3:1, and 2:1 or steeper.

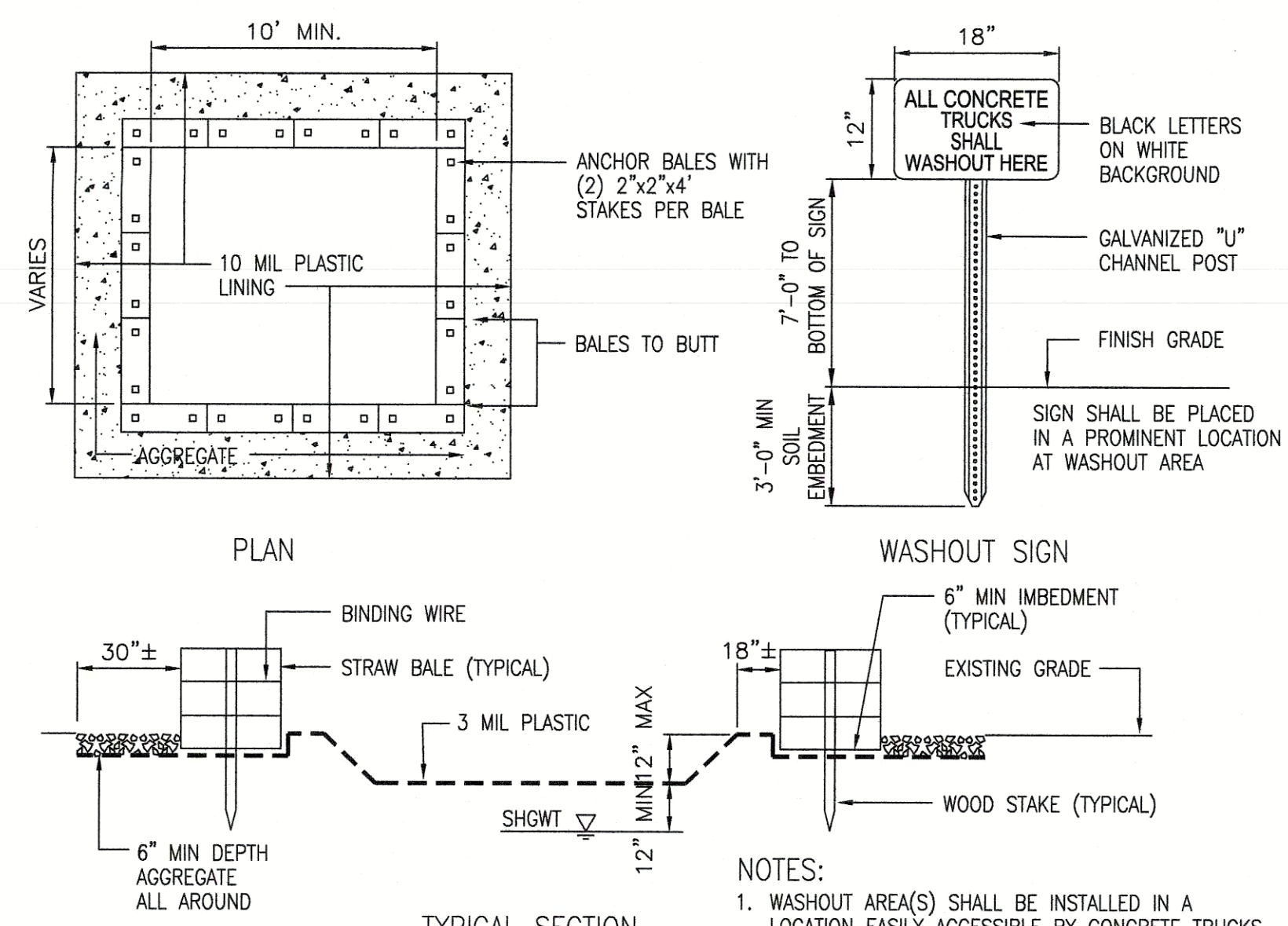
RE-SEED AREAS WHERE AN ADEQUATE STAND OF TEMPORARY VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.

TABLE 2 SOME TEMPORARY PLANT SPECIES, SEEDING RATES AND PLANTING DATES table with columns SPECIES, RATES PER 1,000 SQ. FT., RATES PER ACRE, PLANTING DATES BY REGION (M-L, P, C).

- 1. UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.
- 2. SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

TABLE 3 FERTILIZER REQUIREMENTS FOR TEMPORARY VEGETATION table with columns TYPE OF SPECIES, PLANTING YEAR, FERTILIZER (N-P-K), RATE (LBS./ACRE), N TOP DRESSING RATE (LBS./ACRE).

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)



- NOTES: 1. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS. 2. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES. 3. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

TABLE 1 SOME PERMANENT PLANT SPECIES, SEEDING RATES, AND PLANTING DATES

Table with columns SPECIES, RATES PER ACRE, RATES PER 1,000 SQ. FT., PLANTING DATES BY REGION (M-L, P, C), REMARKS. Lists various grasses and legumes.

TABLE 2

SUGGESTED SEEDBED DEPTHS table with columns SLOPE, SEEDBED DEPTH. Includes 3:1 or flatter, 2:1 to 3:1, and 2:1 or steeper.

- LIME
- AGRICULTURAL LIME IS REQUIRED AT THE RATE OF 2 TONS PER ACRE.
- AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
- LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIME".
- AGRICULTURAL LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIME".

TABLE 3 FERTILIZER REQUIREMENTS FOR PERMANENT VEGETATION

Table with columns TYPES OF SPECIES, PLANTING YEAR, FERTILIZER (N-P-K), RATE (LBS./ACRE), N TOP DRESSING RATE (LBS./ACRE).

- 1. RATES ARE FOR BROADCASTED SEED. IF A SEED DRILL IS USED, REDUCE THE RATES BY ONE-HALF.
- 2. PLS IS AN ABBREVIATION OF PURE LIVE SEED.
- 3. CONTRACTOR SHALL USE COASTAL REGION FOR DETERMINATION OF SEED TYPES AND PLANTING DATES.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)



ESPc DETAILS
TERRELL HEIGHTS
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PHASE 1
CARTERSVILLE, GEORGIA

REVISION INFORMATION table with columns REV., DR., CHK., DATE, DESCRIPTION.

DUST CONTROL

N.T.S.

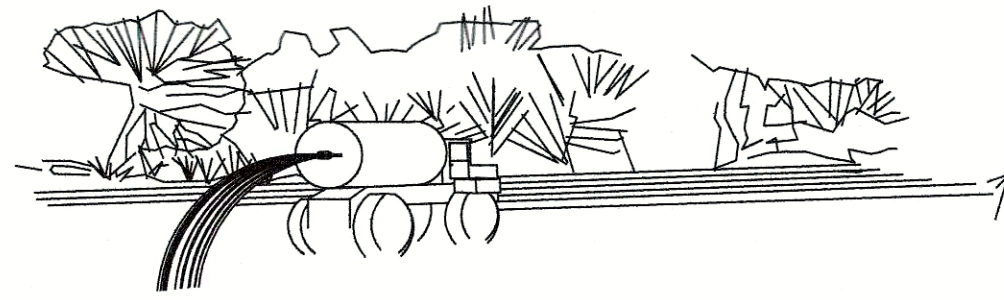
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PERMANENT METHODS:

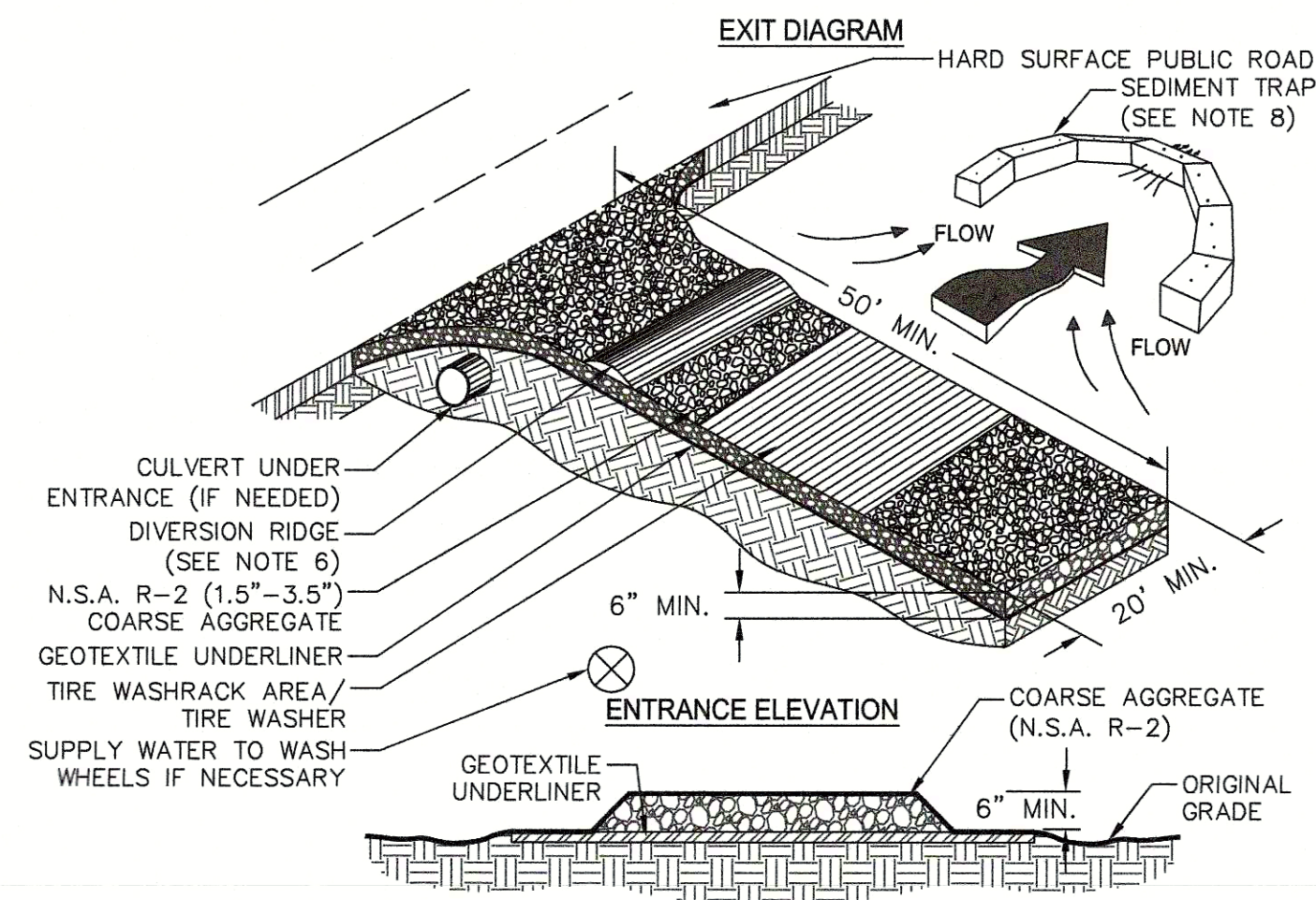
PERMANENT VEGETATION - REFER TO Dd3 (DISTURBED AREA STABILIZATION WITH PERMANENT VEGETATION)
 TOPSOILING - COVERING THE SURFACE WITH A LESS EROSION SOIL MATERIAL
 STONE - SURFACE WITH CRUSHED STONE OR COARSE GRAVEL (SEE C - CONSTRUCTION ROAD STABILIZATION)

TEMPORARY METHODS:

MULCHES - REFER TO Dd1 (DISTURBED AREA STABILIZATION)
 VEGETATIVE COVER - REFER TO Dd2 (DISTURBED AREA STABILIZATION WITH TEMPORARY SEEDING)
 TILLAGE - ROUGHEN AND BRING CLODS TO THE SURFACE BY USE OF CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART
 IRRIGATION - SITE SPRINKLED WITH WATER UNTIL WET. REPEAT AS NEEDED
 BARRIERS - FENCES, HAY BALES, AND CRATE WALLS PLACED AT INTERVALS 15 TIMES THEIR HEIGHT AND PERPENDICULAR TO AIR CURRENTS
 CALCIUM CHLORIDE - APPLY TO KEEP SURFACE WET. REPEAT AS NEEDED.



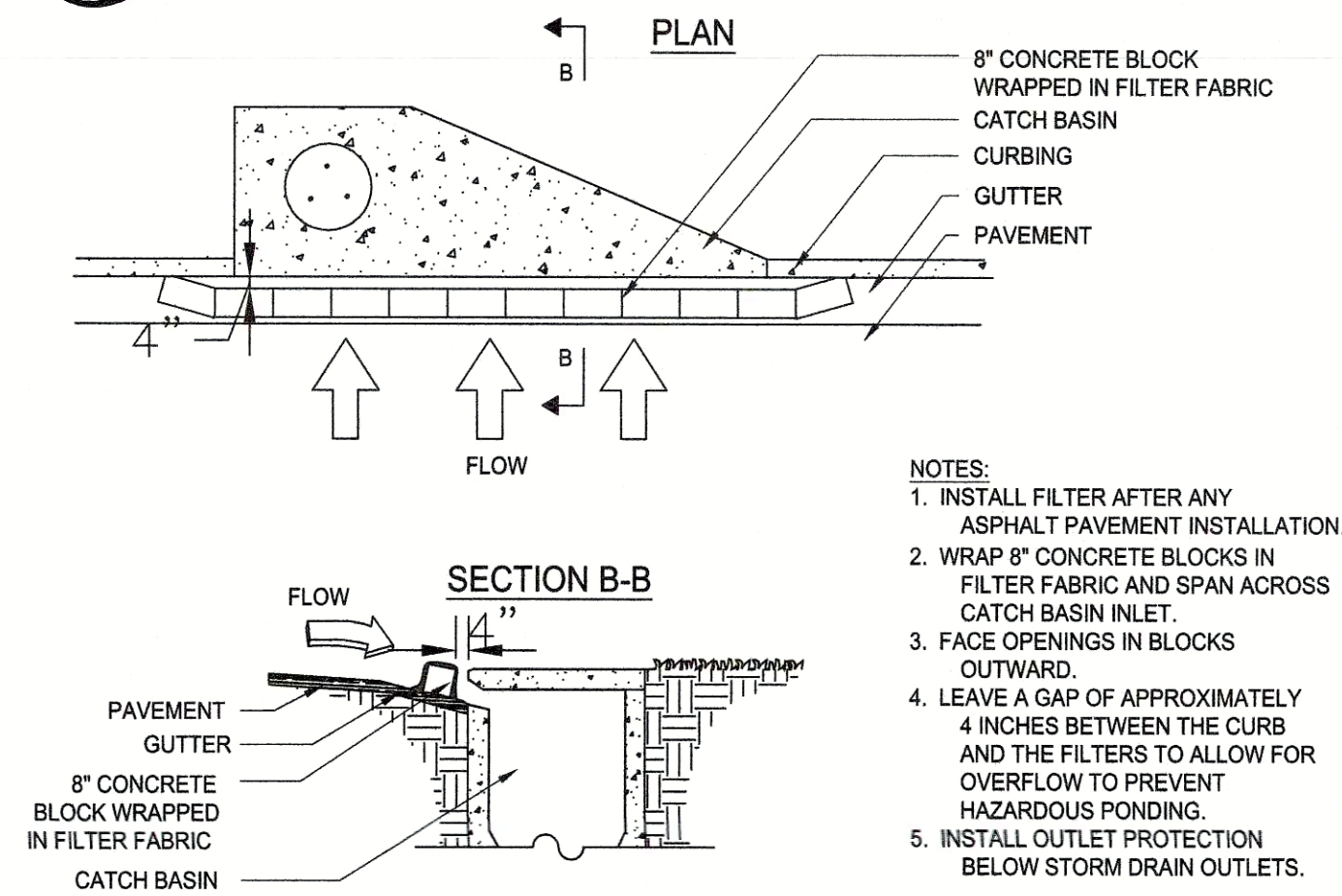
Co CONSTRUCTION EXIT



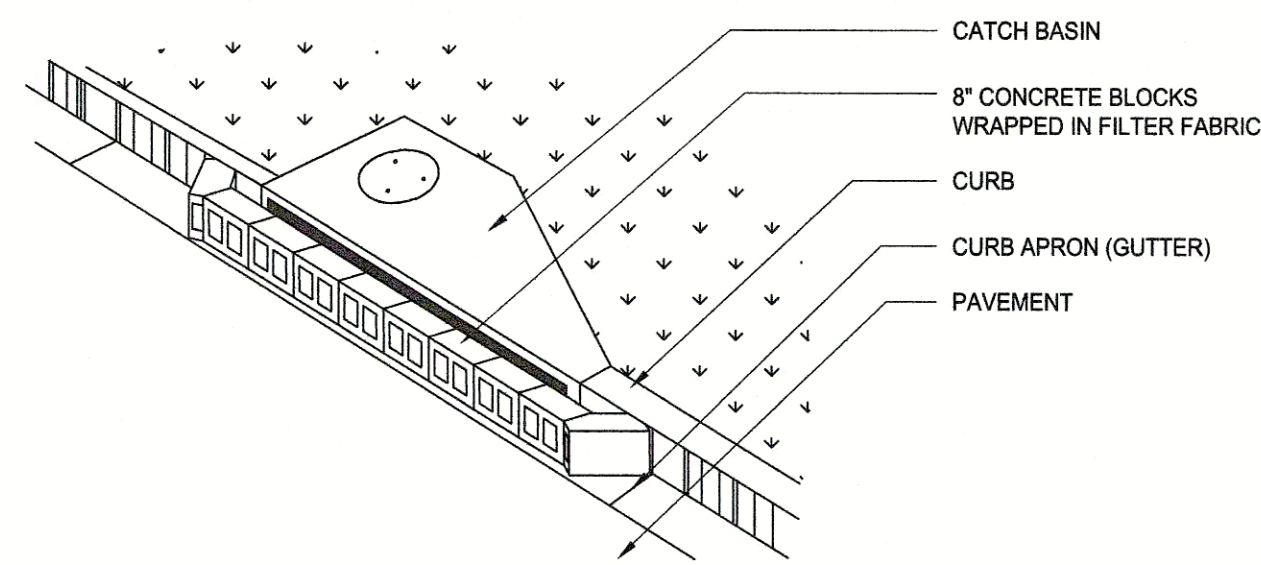
CONSTRUCTION EXIT NOTES:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASH RACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASH RACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Sd2-P CURB INLET FILTER "PIGS IN BLANKET"

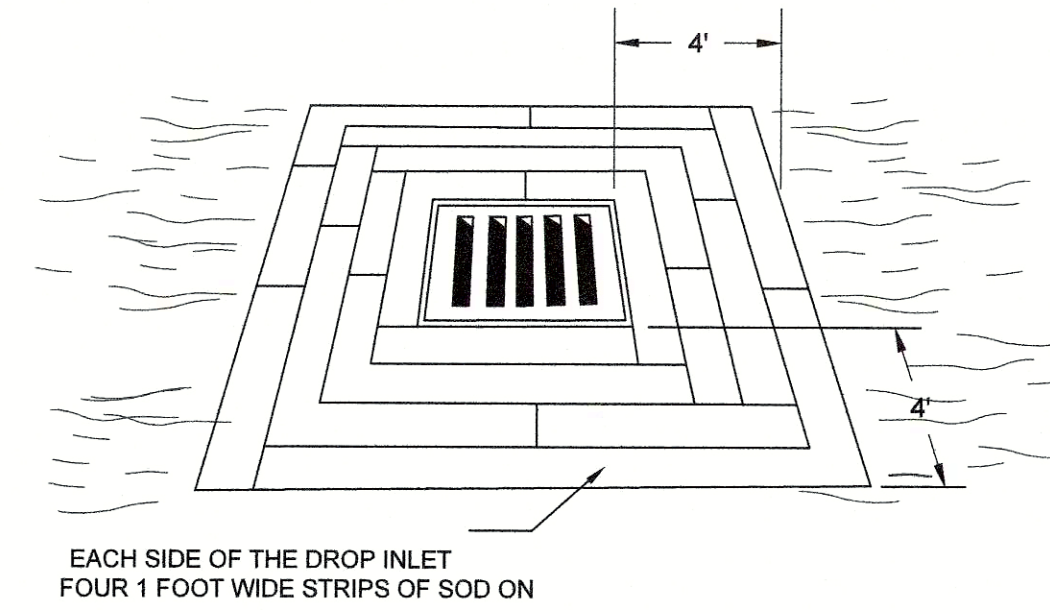


- NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
 2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
 3. FACE OPENINGS IN BLOCKS OUTWARD.
 4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
 5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.



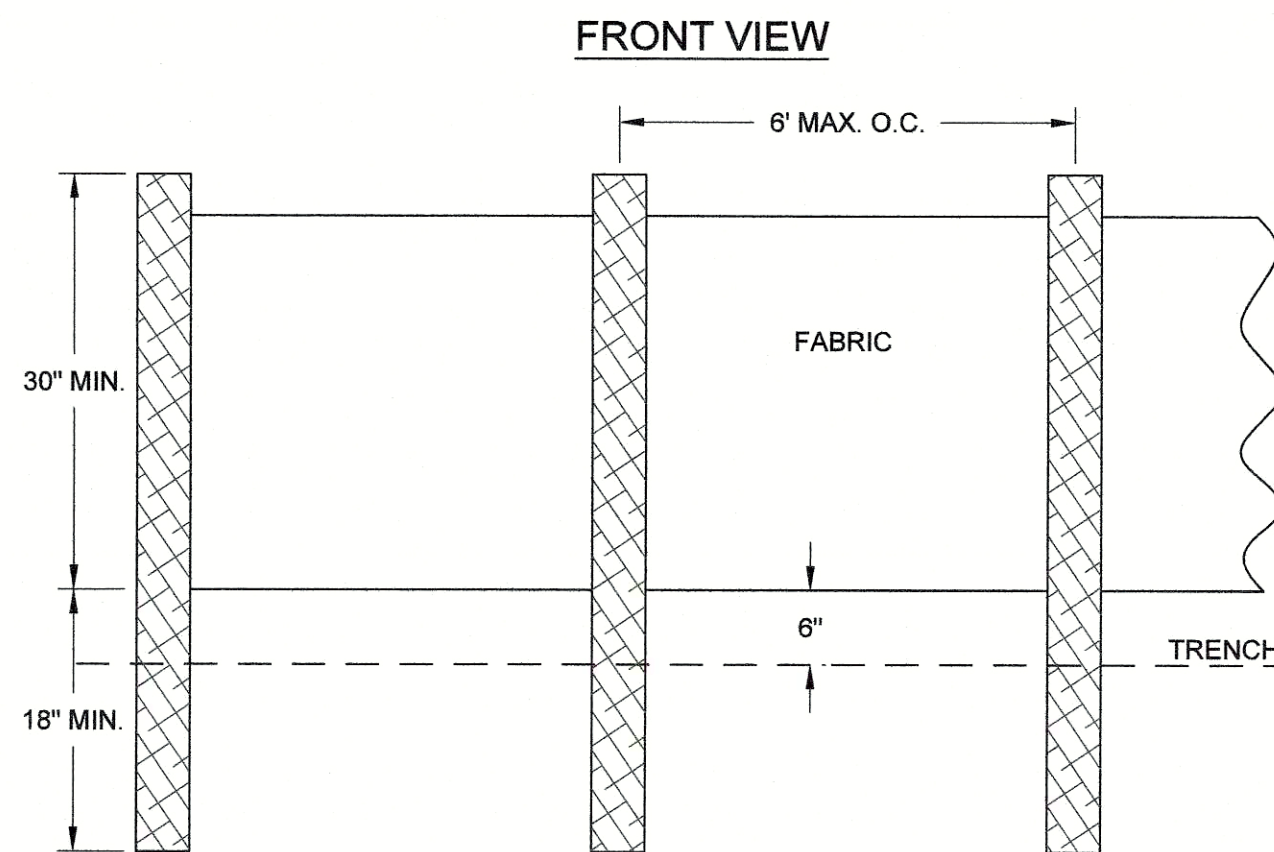
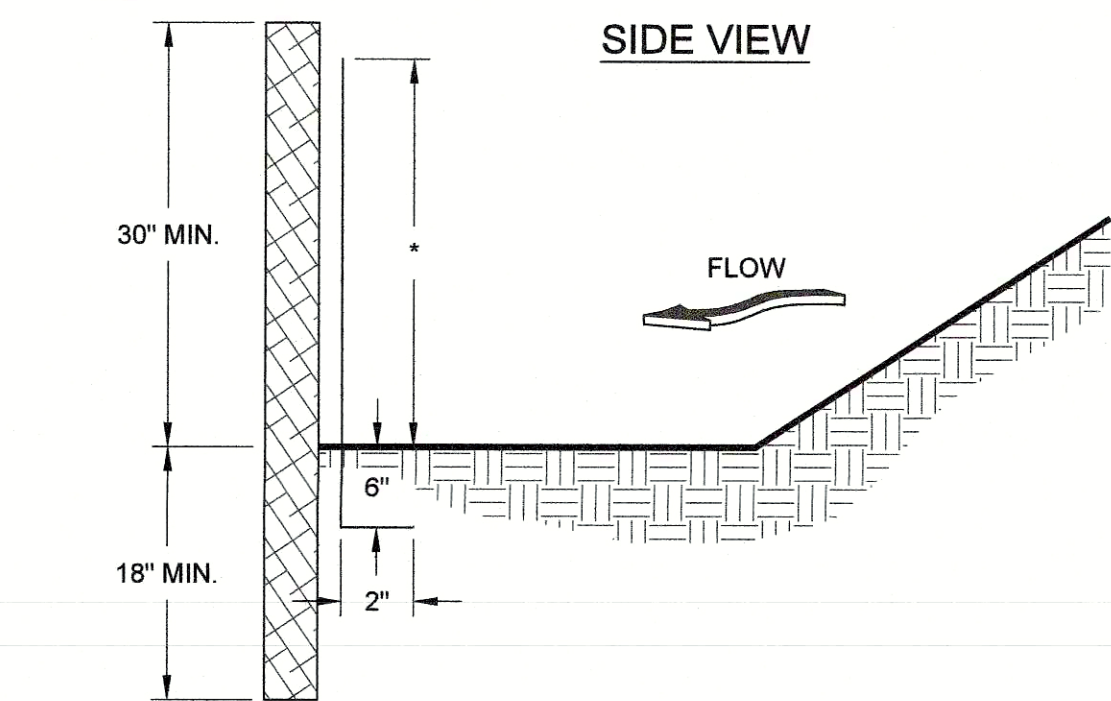
INLET SEDIMENT TRAP

SOD STRIPS PROTECT INLET AREA FROM EROSION (SOURCE: VA SWCC)



EACH SIDE OF THE DROP INLET FOUR 1 FOOT WIDE STRIPS OF SOD ON

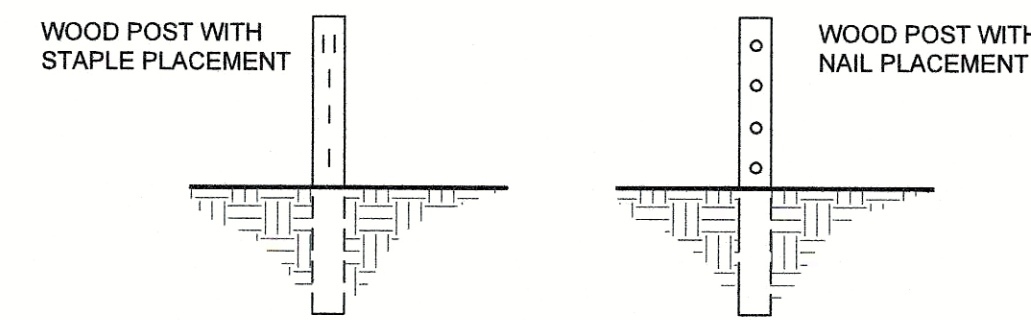
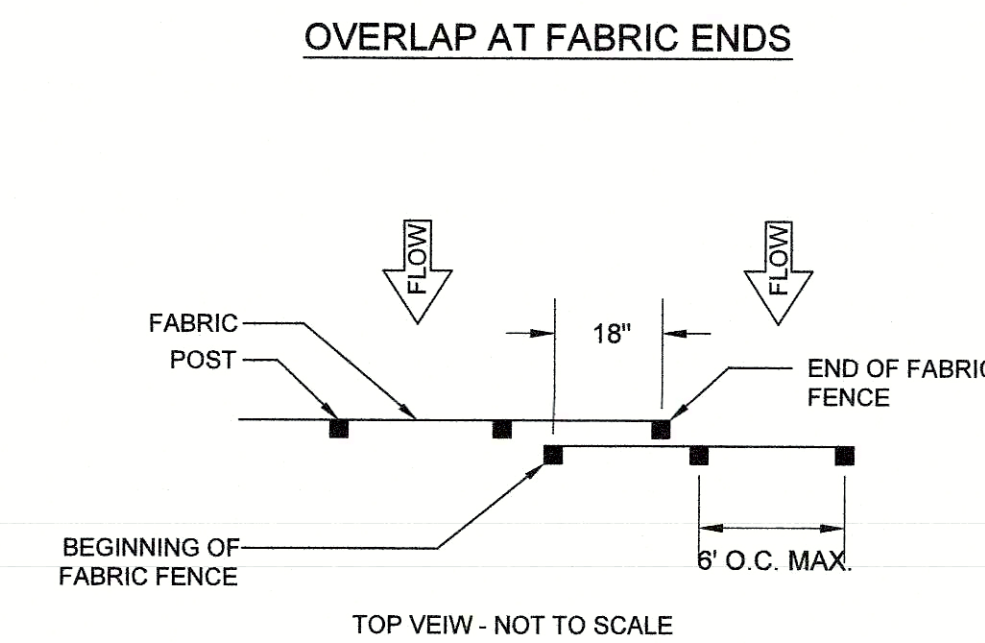
Sd1-NS SILT FENCE - NON-SENSITIVE



NOTES:

1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Sd1 FASTENERS FOR SILT FENCES



FRONT VIEWS - NOT TO SCALE

NOTES:

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



ESPC DETAILS

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EC5.02

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