

Vicinity Map
NOT TO SCALE

Site Data

TOTAL ACREAGE IN SITE:	2.34± AC.
TAX MAP NUMBER:	34551, 05512, 06262, 13546
TAX PARCEL NUMBERS:	01760, 15813, 19875, 19874
CURRENT ZONING:	CD (DOWNTOWN COMMERCIAL)
ACREAGE IN COMMON AREA:	0 AC.
ACREAGE IN RECREATION AREA(S) AND THE LIKE:	0 AC.
TOTAL NUMBER OF UNITS / BEDROOMS:	0
GROSS FLOOR AREA:	0 S.F.
BUILDING LOT COVERAGE:	0% EXIST., 0% PROPOSED
BUILDING HEIGHT IN FT. & STORIES:	N/A
TOTAL NO. OF PARKING SPACES REQUIRED:	0 SPACES (INCL. 0 HC)
TOTAL NO. OF PROPOSED PARKING SPACES:	205 SPACES (INCL. 7 HC)
TOTAL SQ. FEET OF EXIST. IMPERVIOUS AREA:	15,161 SF (14.9%)
TOTAL SQ. FEET OF PROP. IMPERVIOUS AREA:	78,541 SF (77.0%)
IMPERVIOUS AREA FOR PARKING:	78,541 SF
DISTURBED ACREAGE:	3.0 AC.
REFERENCES:	MAP BOOK 76, PAGE 58
ADDRESS:	ATLANTIC AVENUE

General Notes:

- CITY OF GREENVILLE DRIVEWAY APPROVAL PERMIT IS REQUIRED.
- ANY UNUSED DRIVEWAY MUST BE CLOSED IN ACCORDANCE WITH THE CITY OF GREENVILLE'S DRIVEWAY ORDINANCE.
- CONTACT NORTH CAROLINA ONE-CALL CENTER, INC. (NC ONE-CALL) AT 811 TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
- ALL REQUIRED IMPROVEMENTS SHALL CONFORM TO THE CITY OF GREENVILLE MANUAL OF STANDARD DESIGNS AND DETAILS (MSDD) AND THE GREENVILLE UTILITIES MANUAL FOR THE DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER SYSTEM EXTENSIONS.
- CONTRACTOR SHALL NOTIFY PUBLIC WORKS, STREET MAINTENANCE DIVISION 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING STORM DRAINS LOCATED WITHIN PUBLIC STORM DRAINAGE EASEMENTS OR RIGHT-OF-WAY.
- THIS PROPERTY IS LOCATED IN A FLOOD ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP NUMBER 3720488800K, EFFECTIVE JULY 7, 2014.
- ELECTRIC AND TELEPHONE UTILITIES SHALL BE INSTALLED UNDERGROUND.
- PAVEMENT SECTIONS ARE AS INDICATED ON PLAN SHEET C-6.
- PROVIDE ALL NECESSARY SIGNAGE FOR HANDICAP PARKING.
- PARKING LOT SHALL BE STRIPED IN ACCORDANCE WITH PLAN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING OF LIGHT POLES AND COORDINATION WITH GREENVILLE UTILITIES FOR INSTALLATION OF LIGHT POLES AND RELOCATION OF EXISTING OVERHEAD ELECTRIC.
- THIS PROJECT DISTURBS MORE THAN 0.5 ACRE. STORMWATER MANAGEMENT PLAN APPROVAL IS REQUIRED.
- THIS PROJECT DISTURBS MORE THAN 1 ACRE. EROSION CONTROL PLAN APPROVAL IS REQUIRED.
- REFUSE COLLECTION SHALL BE PROVIDED BY PRIVATE SERVICE.
- ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
- SITE SHALL MEET ALL RELATED ACCESSIBILITY CODE REQUIREMENTS.

Survey Note:

BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON WAS PREPARED BY SPRUILL & ASSOCIATES AS SHOWN ON DRAWING ENTITLED TOPOGRAPHIC SURVEY AND COMPOSITE BOUNDARY MAP FOR CITY OF GREENVILLE DATED NOVEMBER 16, 2017, ATTACHED TO THIS DRAWING SET FOR REFERENCE.

Sheet Index:

Sheet No. C-1	Site Layout
Sheet No. C-2	Demolition
Sheet No. C-3	Erosion Control
Sheet No. C-4	Grading
Sheet Nos. C-5 - C-9	Details

Survey (SPRUILL & ASSOCIATES Surveyor) 1 Sheet

Owner / Developer

CITY OF GREENVILLE
1500 BEATTY STREET
GREENVILLE, NC 27834
PHONE: (252) 329-4522

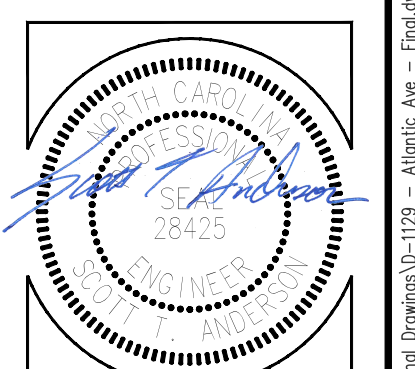


Final Drawings Issued For Bidding Purposes Only

REVISIONS:



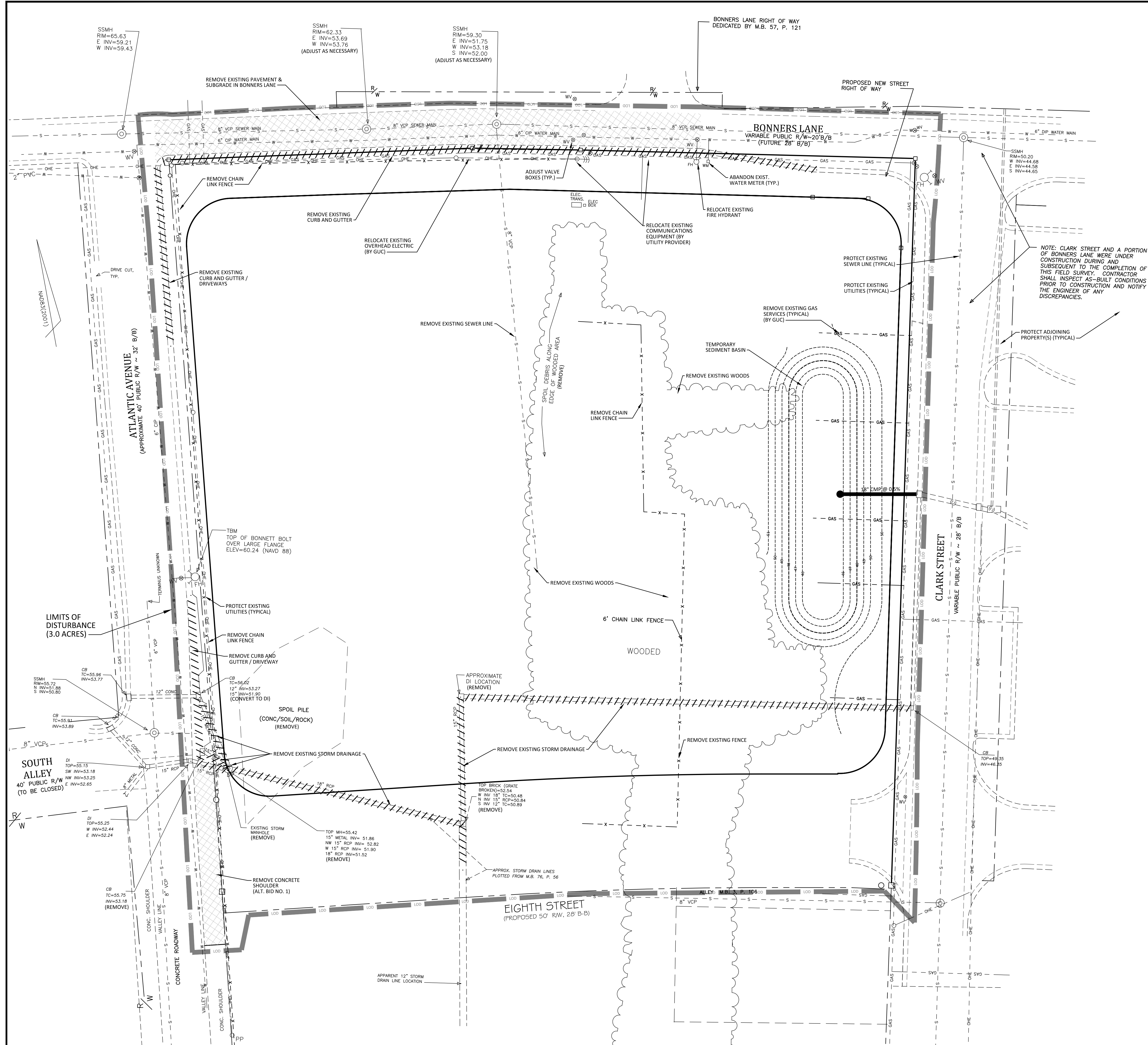
SITE PLAN
ATLANTIC AVENUE PARKING LOT
City of Greenville, Pitt County, North Carolina



ARK CONSULTING GROUP, INC.
ENGINEERS & PLANNERS
7755-B Charles Blvd.
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Project Manager:	STA
Drawn By:	EW
Checked By:	BTO
Project Number:	17042
Drawing Number:	D-1129

C-1
Date: 01-19-2018



Demolition Notes:

1. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE-CALL CENTER (NC 811) BY DIALING 811 OR 1-800-632-4949 AT LEAST 72 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY OR DIGGING AND HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND MAY NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
7. ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
8. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.
10. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE NCDOT STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH THE LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
11. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY CITY UTILITY OR ANY INFRASTRUCTURE WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR, REGARDLESS OF THESE PLANS.
13. CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
14. TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.

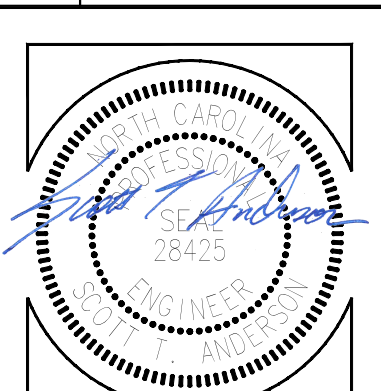
Construction Sequence

1. INSTALL PERIMETER SILT FENCE AND TEMPORARY GRAVEL CONSTRUCTION ENTRANCES.
2. INSTALL INLET PROTECTION AROUND EXISTING STORM DRAINAGE STRUCTURES.
3. INSTALL SEDIMENT SKIMMER BASIN #1 AND TEMPORARY DIVERSION DITCHES.
4. PERFORM DEMOLITION AND ON-SITE IMPROVEMENTS.
5. PERFORM ROUGH GRADING.
6. INSTALL STORM DRAINAGE, INSTALL INLET PROTECTION AROUND NEW STORM DRAINAGE STRUCTURES.
7. INSTALL CURB & GUTTER.
8. INSTALL SITE LIGHTING.
9. PLACE AND ROUGH GRADE STONE BASE IN AREAS OUTSIDE OF TEMPORARY SEDIMENT SKIMMER BASIN.
10. REMOVE TEMPORARY SEDIMENT SKIMMER BASIN AND INSTALL UNDERGROUND DETENTION SYSTEM.
11. COMPLETE PLACEMENT OF STONE BASE AND FINE GRADING.
12. PLACE ASPHALT & CONCRETE PAVEMENT.
13. INSTALL SITE LANDSCAPING.
14. PERFORM PAINT STRIPING.
15. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND INSTALL PERMANENT VEGETATION.

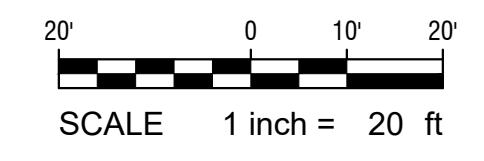
Final Drawings
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DEMOLITION PLAN
**ATLANTIC AVENUE
PARKING LOT**
City of Greenville, Pitt County, North Carolina



Project Manager: STA
Drawn By: EW
Checked By: BTO
Project Number: 17042
Drawing Number: D-1129



C-2
Date: 01-19-2018



Permanent Seeding Schedule:

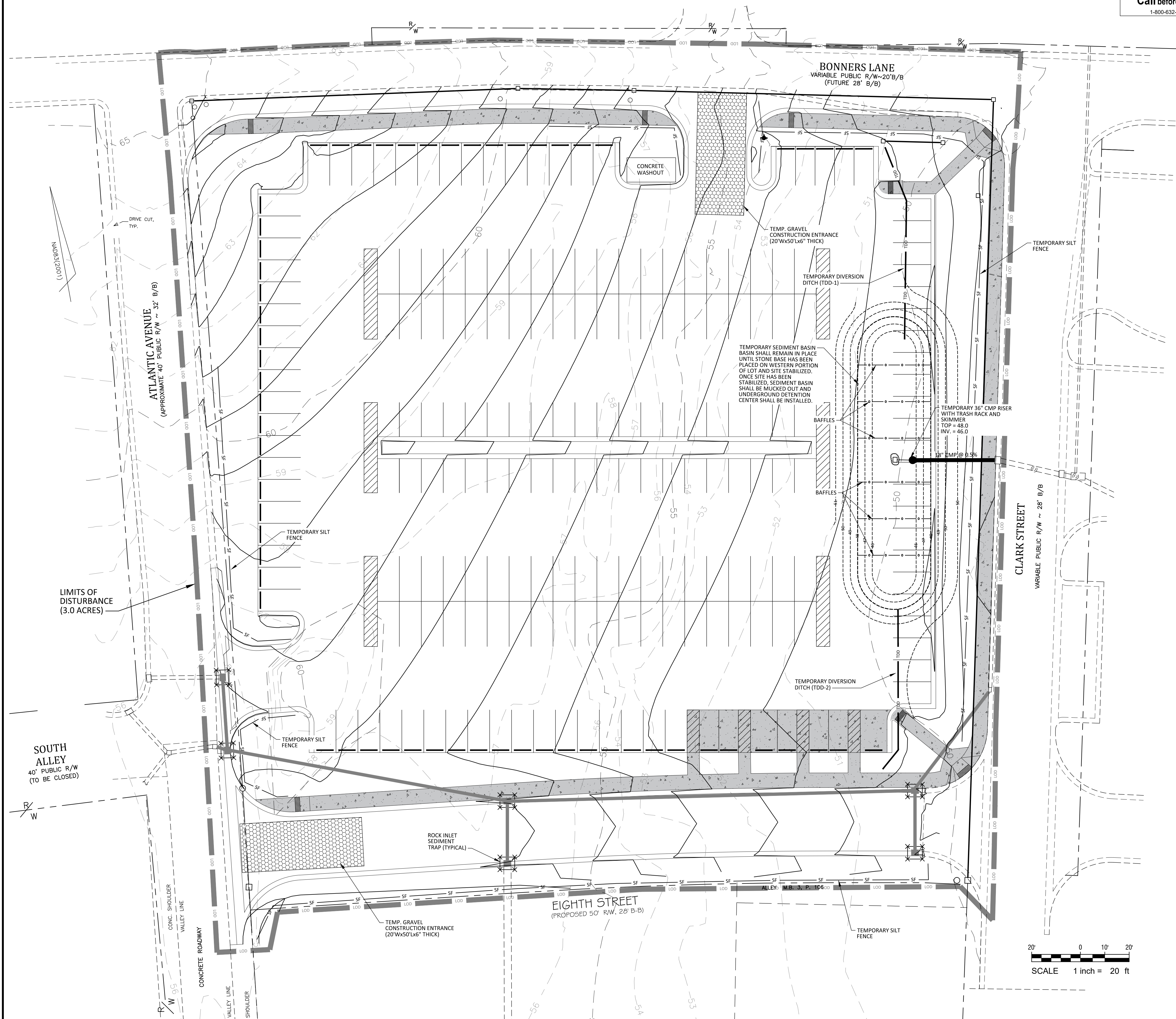
SEED BED PREPARATION	
LIME	- 2 TONS PER ACRE
FERTILIZER (10-20-20)	- 500 POUNDS PER ACRE
SEEDING MIXTURE: (JANUARY 1 - MARCH 31)	
COMMON BERMUDA GRASS (UNHULLED)	- 20 POUNDS PER ACRE
RYE (GRAIN)	- 25 POUNDS PER ACRE
(APRIL 1 - JULY 31)	
COMMON BERMUDAGRASS (HULLED)	- 15 POUNDS PER ACRE
WEeping LOVEGRASS	- 5 POUNDS PER ACRE
CENTPEDEE	- 8 POUNDS PER ACRE
(AUGUST 1 - DECEMBER 31)	
COMMON BERMUDA GRASS (UNHULLED)	- 20 POUNDS PER ACRE
TALL FESCUE	- 60 POUNDS PER ACRE
RYE (GRAIN)	- 25 POUNDS PER ACRE
SEED BED PROTECTION:	
STRAW MULCH	- 2 TONS PER ACRE (VISUAL)
ASPHALT TACK	- 0.03 GALLONS PER SQUARE YARD

Erosion Control Provisions

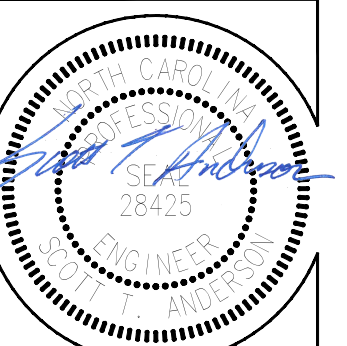
- NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING THE CITY OF GREENVILLE ENGINEERING DEPARTMENT OF THE DATE THAT THE LAND DISTURBING ACTIVITY WILL BEGIN.
- SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
- CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5,000.00 PER DAY OF VIOLATION.
- THE CITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED AND INSPECTED AS PER THE DETAIL SHEETS SHOWN.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT TEMPORARY EROSION CONTROLS AS SPECIFIED IN THE EROSION CONTROL PLAN. ADJUST THE CONTROLS AND/OR REMOVE ANY SEDIMENT BUILDUP AS NECESSARY.
- PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND TAR/PAMLICO RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE AT (252) 946-6481.
- ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATION AND RULES. IN ADDITION LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE CITY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
- LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE CITY.
- SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE EROSION CONTROL INSPECTOR IS REQUIRED PRIOR TO INITIATING LAND DISTURBING ACTIVITIES. FOR INSPECTION CALL (252) 329-4467. 48 HOUR NOTICE IS REQUIRED.
- CONTRACTOR WILL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE.
- NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND A PUBLIC STREET. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
- INSTALL ROCK INLET SEDIMENT TRAPS AROUND ALL CATCH BASINS, DROP INLETS, AND YARD INLETS.
- PROVIDE 20' X 50' X 8" STONE CONSTRUCTION ENTRANCES AS SHOWN ON PLAN.

Erosion Control General Notes

- IN THE EVENT OF A CONFLICT BETWEEN THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT, THE SUBMITTED PLAN AND/OR THE CONTRACT SPECIFICATIONS, THE MORE RESTRICTIVE REQUIREMENT SHALL PREVAIL.
- THE LAND-DISTURBING ACTIVITY SHALL BE CONDUCTED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- THE LATEST APPROVED EROSION AND SEDIMENTATION CONTROL PLAN WILL BE USED DURING PERIODIC UNANNOUNCED INSPECTIONS TO DETERMINE COMPLIANCE AND A COPY OF THE PLAN MUST BE ON FILE AT THE JOB SITE. IF IT IS DETERMINED THAT THE IMPLEMENTED PLAN IS INADEQUATE, THE ENGINEER MAY REQUIRE THE INSTALLATION OF ADDITIONAL MEASURES AND/OR THAT THE PLAN BE REVISED TO COMPLY WITH STATE LAW.
- IN ORDER TO COMPLY WITH THE INTENT OF THE ACT, THE SCHEDULING OF THE LAND-DISTURBING ACTIVITIES IS TO BE SUCH THAT BOTH THE AREA OF EXPOSURE AND THE TIME BETWEEN THE LAND DISTURBANCE AND THE PROVIDING OF A GROUND COVER IS MINIMIZED.
- UNLESS A TEMPORARY, MANUFACTURED, LINING MATERIAL HAS BEEN SPECIFIED, A CLEAN STRAW MULCH MUST BE APPLIED AT A MINIMUM RATE OF 2 TONS/ACRE TO ALL SEEDING AREAS. THE MULCH MUST COVER AT LEAST 75% OF THE SEEDING AREA AFTER IT IS EITHER TACKED, WITH AN ACCEPTABLE TACKING MATERIAL, OR CRIMPED IN PLACE.
- NEW OR AFFECTED CUT OR FILLED SLOPES MUST BE AT AN ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER, AND MUST BE PROVIDED WITH A GROUND COVER SUFFICIENT TO RESTRAIN EROSION WITHIN A MAXIMUM OF 7 CALENDAR DAYS OF COMPLETION OF ANY PHASE (ROUGH OR FINAL) OF GRADING (ANNUAL RYE GRASS IS NOT IN THE APPROVED SEEDING SPECIFICATIONS NOR IS AN ACCEPTABLE SUBSTITUTE FOR THE PROVIDING OF A TEMPORARY GROUND COVER).
- INSTALL SILT FENCE AROUND SPOIL PILES AND ALONG TRENCHES TO MINIMIZE SEDIMENT FROM ENTERING DRAINAGE WAYS.
- PROTECT STORM PIPE INLETS FROM SEDIMENT RUNOFF FROM LAND DISTURBING ACTIVITIES WITH SILT FENCE, STONE CHECK DAM, OR ABC FILTER AS APPROPRIATE FOR SITE CONDITIONS.
- EROSION CONTROL MEASURES SHALL NOT BE PLACED IN OR BELOW THE NORMAL WATER SURFACE OF A STREAM UNLESS SPECIFICALLY INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE ENGINEER OR NCDEC.
- WHERE THE AREA AROUND AN OUTLET IS DISTURBED AND NO OUTLET PROTECTION EXISTS, CLASS "1" RIP-RAP SHALL BE PLACED AROUND PIPE OUTLET AS NEEDED OR AS DIRECTED BY THE ENGINEER.
- PROVIDE EROSION CONTROL MATTING WHERE INDICATED UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- PROVIDE PERMANENT SEEDING IN ACCORDANCE WITH THE SEEDING SCHEDULE.



EROSION CONTROL PLAN
ATLANTIC AVENUE PARKING LOT
 City of Greenville, Pitt County, North Carolina



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 ENGINEERS & PLANNERS
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 Greenville, NC 27858
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Project Manager: STA
 Drawn By: EW
 Checked By: BTO
 Project Number: 17042
 Drawing Number: D-1129

C-3
 Date: 01-19-2018



Final Drawings Issued For Bidding Purposes Only

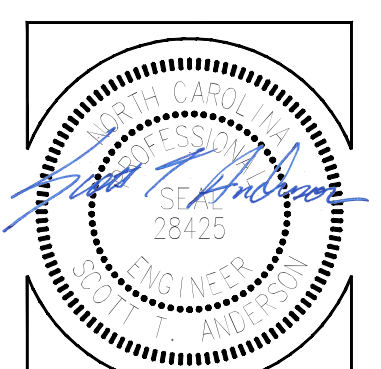
REVISIONS:



GRADING PLAN

ATLANTIC AVENUE PARKING LOT

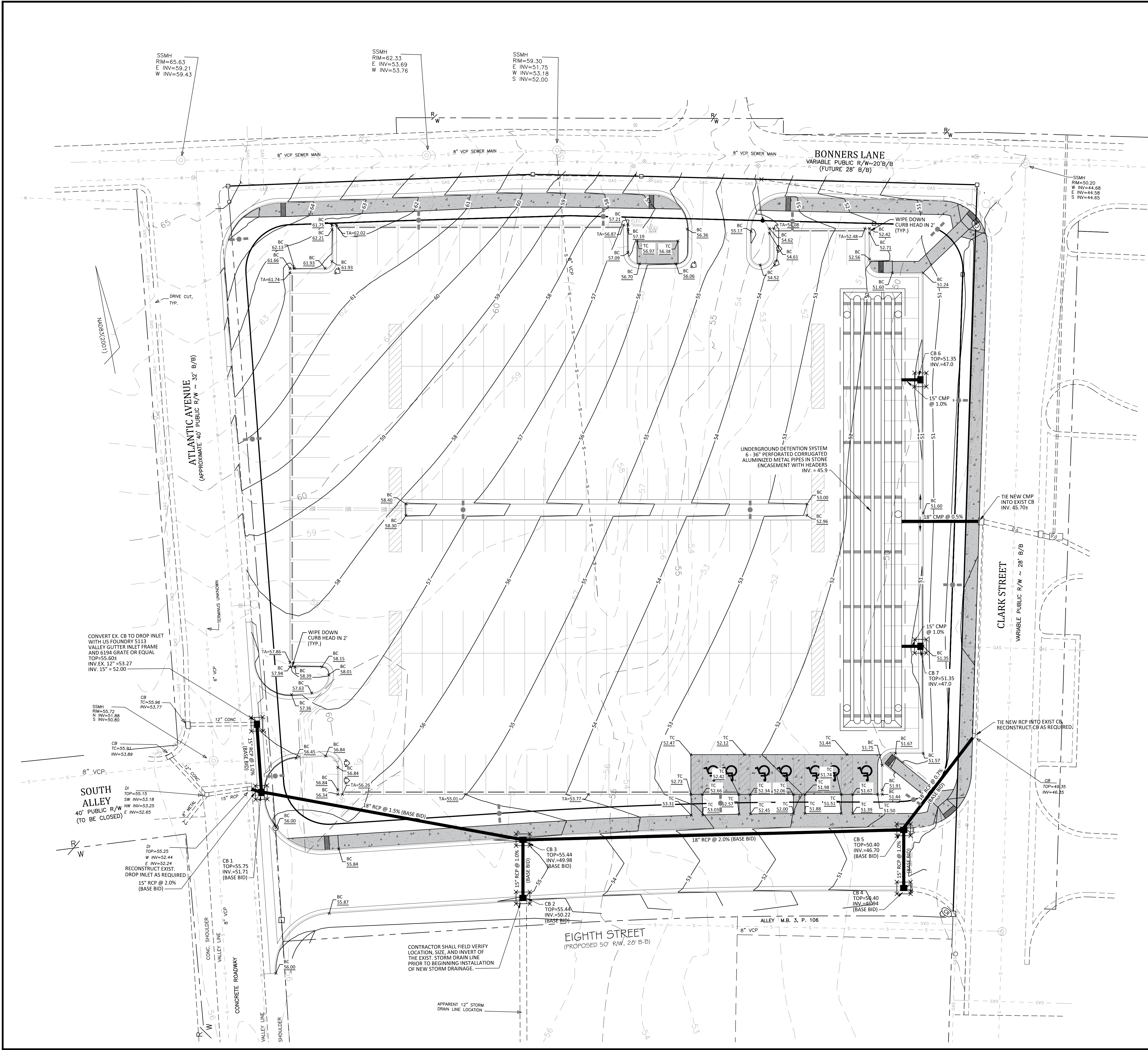
City of Greenville, Pitt County, North Carolina



NC License P-1109
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Project Manager: STA
Drawn By: EW
Checked By: BTO
Project Number: 17042
Drawing Number: D-1129

C-4
Date: 01-19-2018



Grading Notes:

1. ALL AREAS WITHIN LIMITS OF DISTURBANCE SHALL BE CLEARED AND GRUBBED.
2. CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
3. TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.
4. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
5. ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS. PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
7. TILL SOIL TO A DEPTH OF 4" MINIMUM.
8. REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
9. GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
10. ALL GRADED AREAS TO RECEIVE TOP SOIL, SEED, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
11. INSTALL TEMPORARY TURF REINFORCEMENT MATTING ON ALL SLOPES STEEPER THAN 3:1. MATTING SHALL BE CONTECH LANDLOK C2 OR EQUAL.
12. REFER TO SHEET C-6 FOR DETAILS OF PAVEMENT IN PARKING AND DRIVE AREAS.
13. CONCRETE PAD FOR FUTURE BIKE RACK SHALL BE 4" THICK 3,000 PSI CONCRETE.
14. ALL SIDEWALKS SHALL BE CONSTRUCTED OF 4" THICK 3,000 PSI CONCRETE. ALL SIDEWALKS SHALL HAVE TOoled CONTROL JOINTS NOT EXCEEDING 6' SPACING IN ANY DIRECTION.
15. ALL SIDEWALK, AND PAVEMENT SUB-GRADES SHALL BE COMPACTED TO 100% OF ASTM D698 TO A DEPTH OF 24" AND TO 95% OF ASTM D698 BELOW 24" DEPTHS. ALL OTHER NON-STRUCTURAL AREAS SHALL BE COMPACTED TO 90% OF ASTM D698.
16. ALL SUB-GRADES SHALL BE THOROUGHLY PROOF-ROLLED TO IDENTIFY SMALL LOCALIZED AREAS OF UNSUITABLE SOILS. ALL UNSUITABLE SOILS SHALL BE UNDERCUT, REPLACED WITH STRUCTURAL FILL, AND COMPACTED AS DESCRIBED ABOVE.



Erosion Control Measures:

- All work will be done in accordance with the City of Greenville Erosion Control Ordinance. No land disturbing activity beyond that required to install the appropriate erosion control measures may proceed until measures are inspected and approved by the City of Greenville. Call (252) 329-4467 to schedule an inspection.
- Prior to topsoil removal, all perimeter silt fence and temporary gravel construction entrances shall be installed. After topsoil removal, storm drainage culverts and structures shall be installed. Rock Inlet Sediment Traps shall be placed around all drainage structures to collect surface runoff and control siltation and release water at a gradual rate. All easements outside the parking lot where storm pipes are installed will be graded, seeded and mulched.
- Parking lots shall have stone base placed on them for stabilization and shoulders shall be seeded to stabilize the soil. Seed bed preparation shall be conducted according to North Carolina Department of Transportation Standard Specifications for Roads and Structures (D.O.T.). The ground surface shall be cleared of stumps, stones, roots, cables, wire, grade stakes, and other materials that might hinder proper grading, tillage, seeding or subsequent maintenance operations. Grades on the area to be seeded shall be maintained in a true and even condition. Maintenance shall include any necessary repairs to previously graded areas. All graded areas shall be thoroughly tilled to a depth of at least four (4) inches by plowing, disking, harrowing, or other approved methods until the condition of the soil is acceptable. On sites where soil conditions are such that high clay content and excessive compaction cause difficulty in getting clods and lumps effectively pulverized, the Contractor shall use the rotary tillage machinery until the mixing of the soil is acceptable and no clods or clumps remain larger than 1 1/2 inches in diameter. A firm and compact seed bed is required and after being graded, the seed bed shall be lightly compacted with a land roller, such as a cultipacker, before and after seeding. Limestones shall be dolomitic agricultural ground limestone containing not less than 10 percent magnesium oxide. Lime shall be uniformly applied at the rate of 2 tons per acre. Fertilizer shall be uniformly applied at a rate of 500 pounds per acre of 10-20-20 analysis. The fertilizer shall be incorporated into the upper three or four inches of prepared seed bed just prior to the last tillage operation, but in no case shall it be applied more than three days prior to seeding. Fertilizer shall be used immediately after delivery or stored in a manner that will not permit it to harden or destroy its effectiveness.

When hydroseeding equipment is used for seeding, fertilizer shall be applied simultaneously with seed, using the above rates of application. Seed shall be certified seed or equivalent based on North Carolina Seed Improvement Association requirements for certification. All seed shall be furnished in sealed standard containers. Seed which has become wet, moldy, or otherwise damaged prior to seeding will not be acceptable. Seeding shall be accomplished with hand planters, power-drawn planters, hand packers, or hydroseeding equipment.

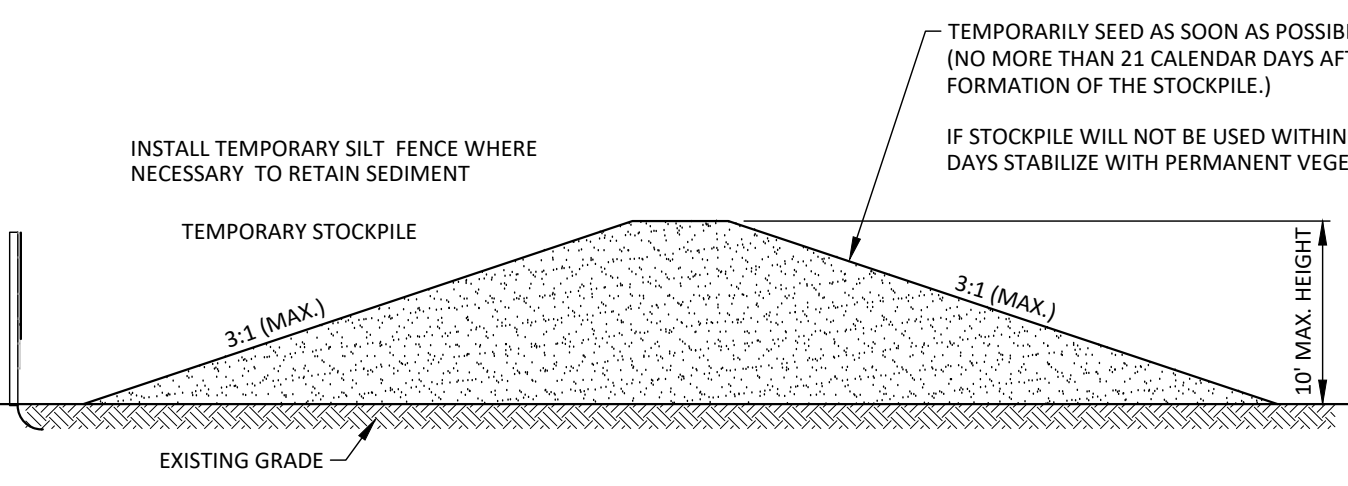
- Ground Stabilization (Per NCG010000)
 - Soil stabilization shall be achieved on any area of a site where land-disturbing activities have temporarily or permanently ceased according to the following schedule:
 - All perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1) shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 7 calendar days from the last land-disturbing activity.
 - All other disturbed areas shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 14 calendar days from the last land-disturbing activity.
 - Conditions - In meeting the stabilization requirements above, the following conditions or exemptions shall apply:
 - Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable.
 - All slopes 50' in length or greater shall apply the ground cover within 7 days except when the slope is flatter than 4:1. Slopes less than 50' shall apply ground cover within 14 days except when slopes are steeper than 3:1, the 7 day requirement applies.
 - Any sloped area flatter than 4:1 shall be exempt from the 7-day ground cover requirement.
 - Slopes 10' or less in length shall be exempt from the 7-day ground cover requirement except when the slope is steeper than 2:1.
 - Although stabilization is usually specified as ground cover, other methods, such as chemical stabilization, may be allowed on a case-by-case basis.
 - For portions of projects within the Sediment Control Commission-defined "High Quality Water Zone" (15A NCAC 04A. 0105), stabilization with ground cover shall be achieved as soon as practicable but in any event on all areas of the site within 7 calendar days from the last land-disturbing act.
 - Portions of a site that are lower in elevation than adjacent discharge locations and are not expected to discharge during construction may be exempt from the temporary ground cover requirements if identified on the approved E&S plan or added by the permitting authority.

5. Self Inspection and Reporting Requirements (Per NCG010000)

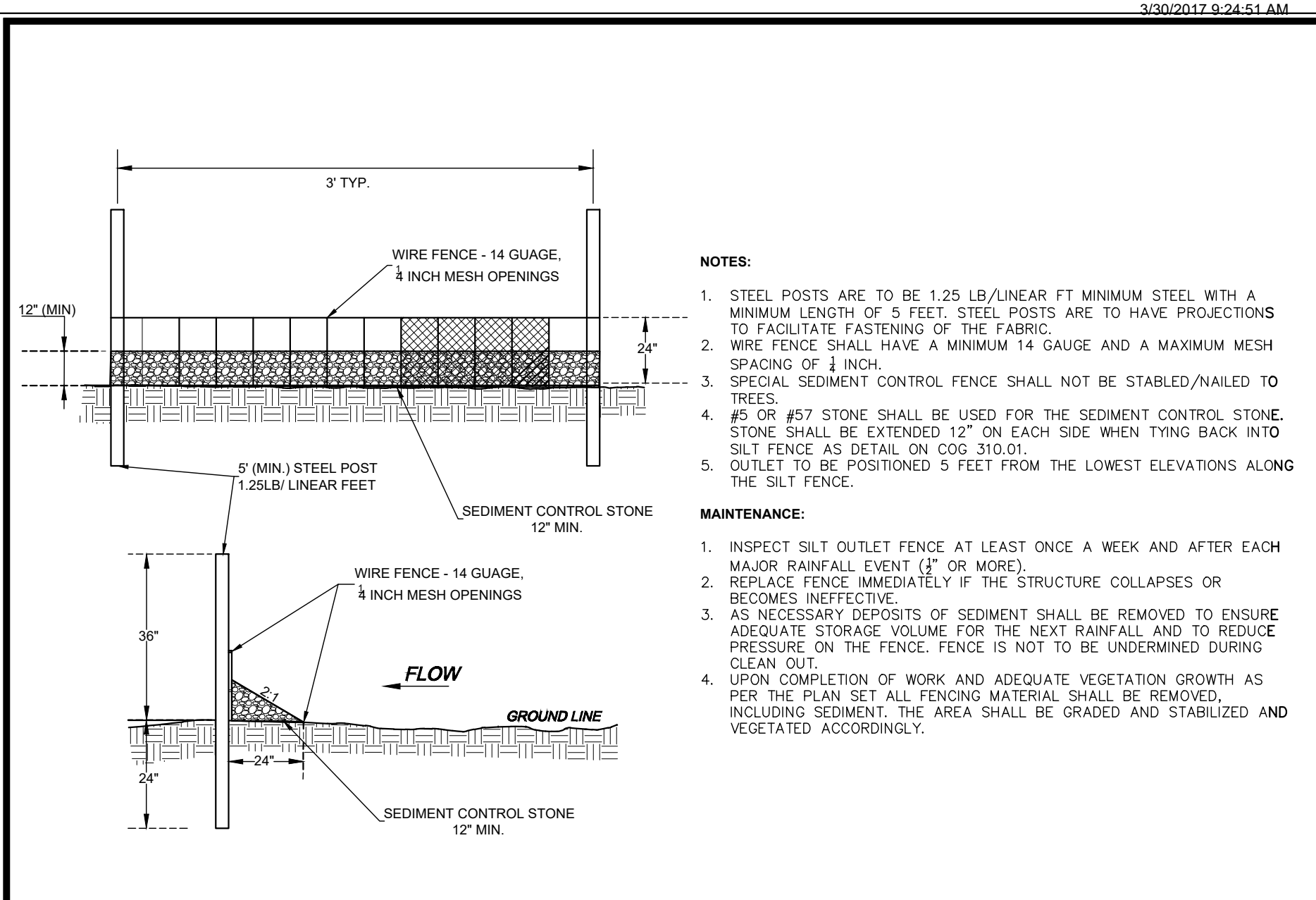
Minimum self inspection and reporting requirements are as follows unless otherwise approved in writing by the Division of Water Quality.

- A rain gauge on the site unless another rain monitoring device has been approved by the permitting authority.
- A written record of the daily rainfall amounts shall be retained and all records shall be made available to DWQ or authorized agent upon request. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, the cumulative rain measurement for those un-attended days will determine if a site inspection is needed. (Note: if no rainfall occurred, the permittee must record "zero").
- Erosion and sedimentation control measures shall be inspected to ensure that they are operating correctly. Inspection records must be maintained for each inspection event and for each measure. At a minimum, inspection of measures must occur at the frequency indicated below:
 - All erosion and sedimentation control measures must be inspected by or under the direction of the permittee at least once every seven calendar days, and
 - All erosion and sediment control measures must be inspected by or under the direction of the permittee within 24 hours after any storm event of greater than 0.50 inches of rain per 24 hour period.
- Times when a determination that adverse weather conditions prevented inspections should be documented on the Inspection Record.
- Once land disturbance has begun on the site, stormwater runoff discharge outfalls shall be inspected by observation for erosion, sedimentation and other stormwater discharge characteristics such as clarity, floating solids, and oil sheens. Inspections of the outfalls shall be made at least once every seven calendar days and within 24 hours after any storm event of greater than 0.50 inches of rain per 24 hour period.
- Inspections are only required to be made during normal business hours. When adverse weather conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection can be delayed until it is deemed safe to perform these duties. If the inspection cannot be done on that day, it must be completed on the following business day.
- Twenty-four hour Reporting for visible sediment deposition
 - The permittee shall report to the Division of Water Quality central office or the appropriate regional office any visible sediment being deposited in any stream or wetland or any other information which may endanger health or the environment. Any information shall be provided orally or electronically within 24 hours from the time the permittee became aware of the circumstances. Visible discoloration or suspended solids in the effluent should be recorded on the Inspection Record.
 - A written submission shall be provided to the appropriate regional office of the DWQ within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the sediment deposition and actions taken to address the cause of the deposition. The Division of Water Quality staff may waive the requirement for a written report on a case-by-case basis.
- Records of inspections made during the previous 30 days shall remain on the site and available for agency inspectors at all times during normal working hours, unless the permitting authority provides a site-specific exemption based on unique site conditions that make this requirement not practical. Older records must be maintained for a period of one year after project completion and made available upon request. The records must provide the details of each inspection including observations, and actions taken in accordance with this permit. The permittee shall record the required rainfall and monitoring observations on the "Inspection Record for Activities Under Stormwater General Permit NCG010000" form provided by the Division or a similar inspection form that is inclusive of all of the elements contained in the Division's form. Electronic recording of records will be allowed if approved by the permitting authority.
- Inspection records must include, at a minimum, the following:
 - Control Measure Inspections: Inspection records must include at a minimum:
 - identification of the measures inspected,
 - date and time of the inspection,
 - name of the person performing the inspection,
 - indication of whether the measures were operating properly,
 - description of maintenance needs for the measure,
 - corrective actions taken and
 - date of actions taken.
 - Stormwater Discharge Inspections: Inspection records must include at a minimum:
 - identification of the discharge outfall inspected,
 - date and time of the inspection,
 - name of the person performing the inspection,
 - evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration,
 - indication of visible sediment leaving the site,
 - actions taken to correct/prevent sedimentation and
 - date of actions taken.
 - Visible Sedimentation Found Outside the Site Limits: Inspection records must include:
 - an explanation as to the actions taken to control future releases,
 - actions taken to clean up or stabilize the sediment that has left the site limits and
 - the date of actions taken.
 - Visible Sedimentation Found in Streams or Wetlands: All inspections should include evaluation of streams or wetlands onsite or offsite (where accessible) to determine if visible sedimentation has occurred.
 - Visible Stream Turbidity - If the discharge from a site results in visible stream turbidity, inspection records must record that evidence and actions taken to reduce sediment contributions. Sites discharging to streams named on the state's 303(d) list as impaired for sediment-related causes may be required to perform additional monitoring, inspections or application of more stringent management practices if it is determined that the additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. If a discharge covered by this permit enters a stream segment that is listed on the Impaired Stream List for sediment-related causes, and a Total Maximum Daily Load (TMDL) has been prepared for those pollutants, the permittee must implement measures to ensure that the discharge of pollutants from the site is consistent with the assumptions and meets the requirements of the approved TMDL. The DWQ 303(d) list can be found at: http://h2o.enr.state.nc.us/wq/General_303d.html

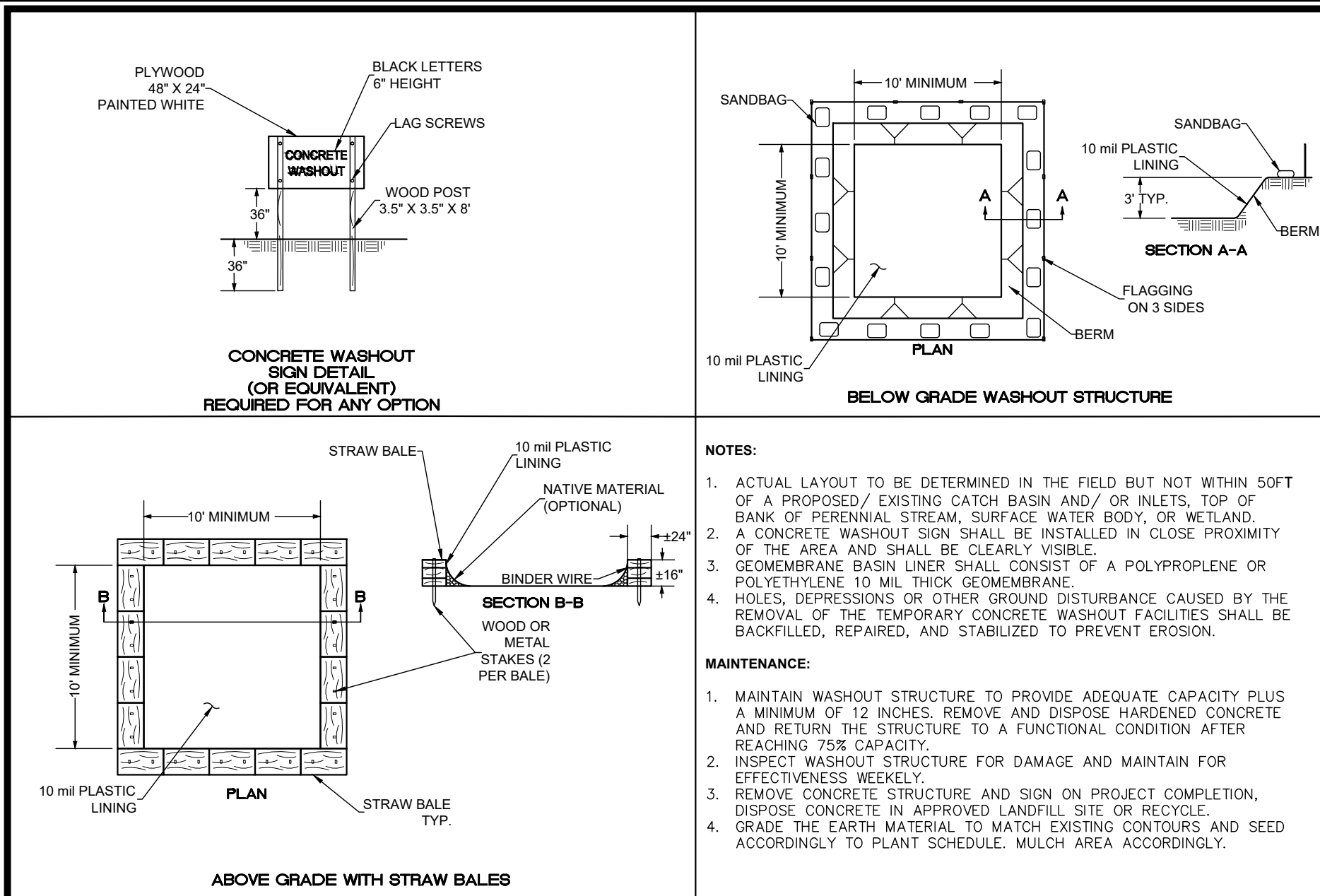
- All erosion and sedimentation control devices shall remain in place and be maintained by the Contractor until all seeding is established and construction areas have been stabilized.
- Temporary Seeding - Seed in accordance with Soil Conservation Service recommendations with regard to seed type, rate of application, fertilizer, etc.



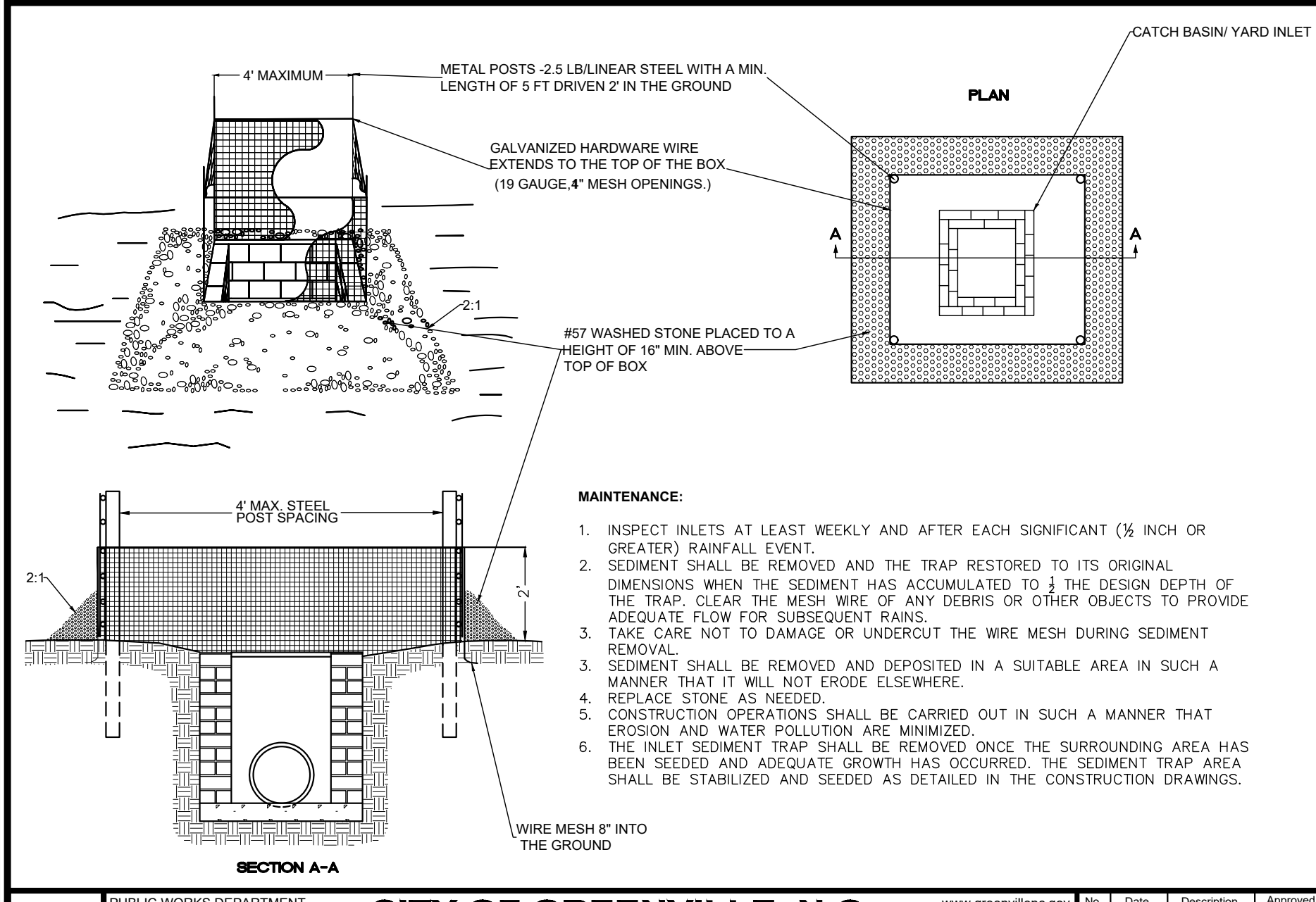
TEMPORARY STOCKPILE
NOT TO SCALE



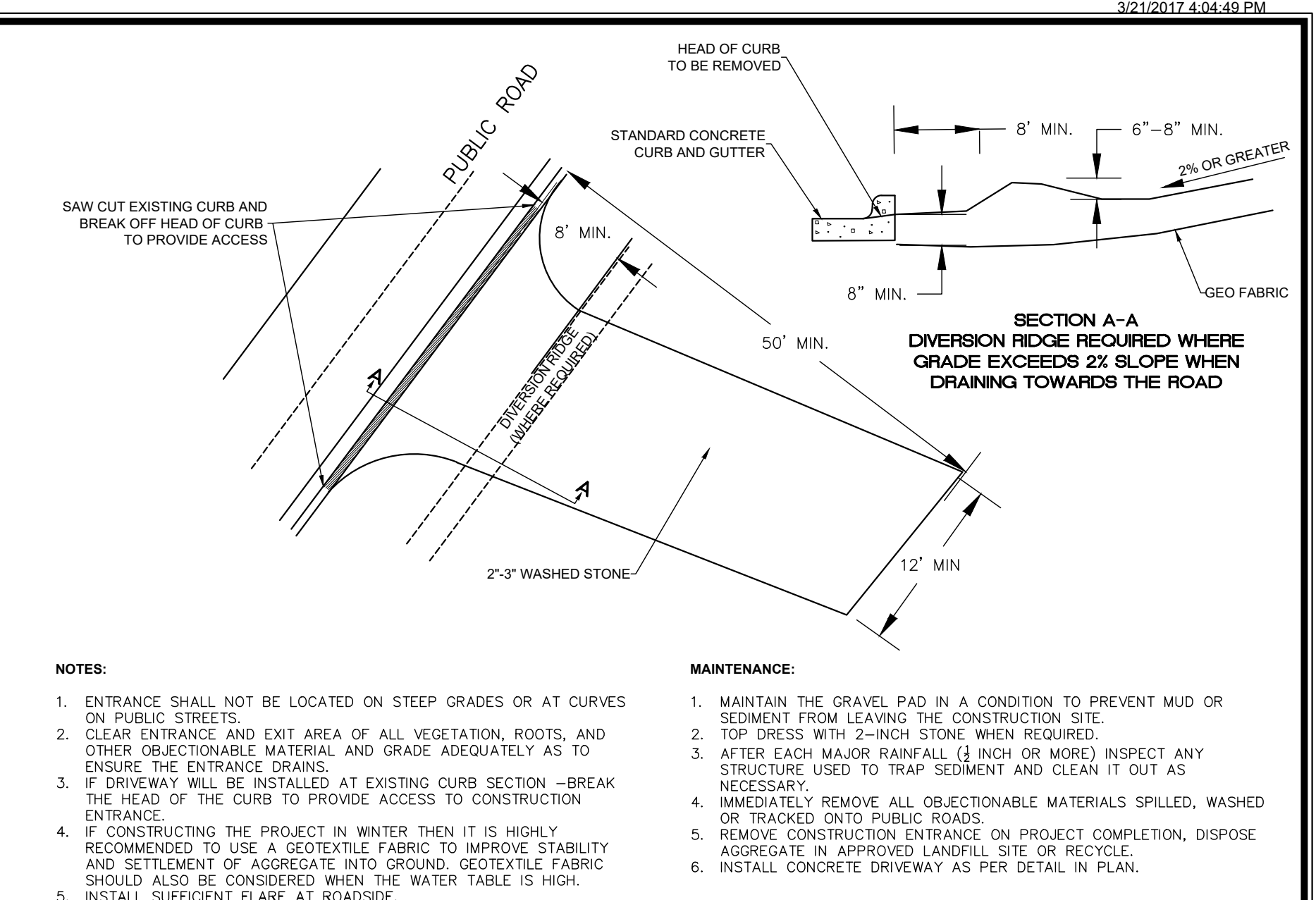
CITY OF GREENVILLE, N.C.
SILT OUTLET FENCE



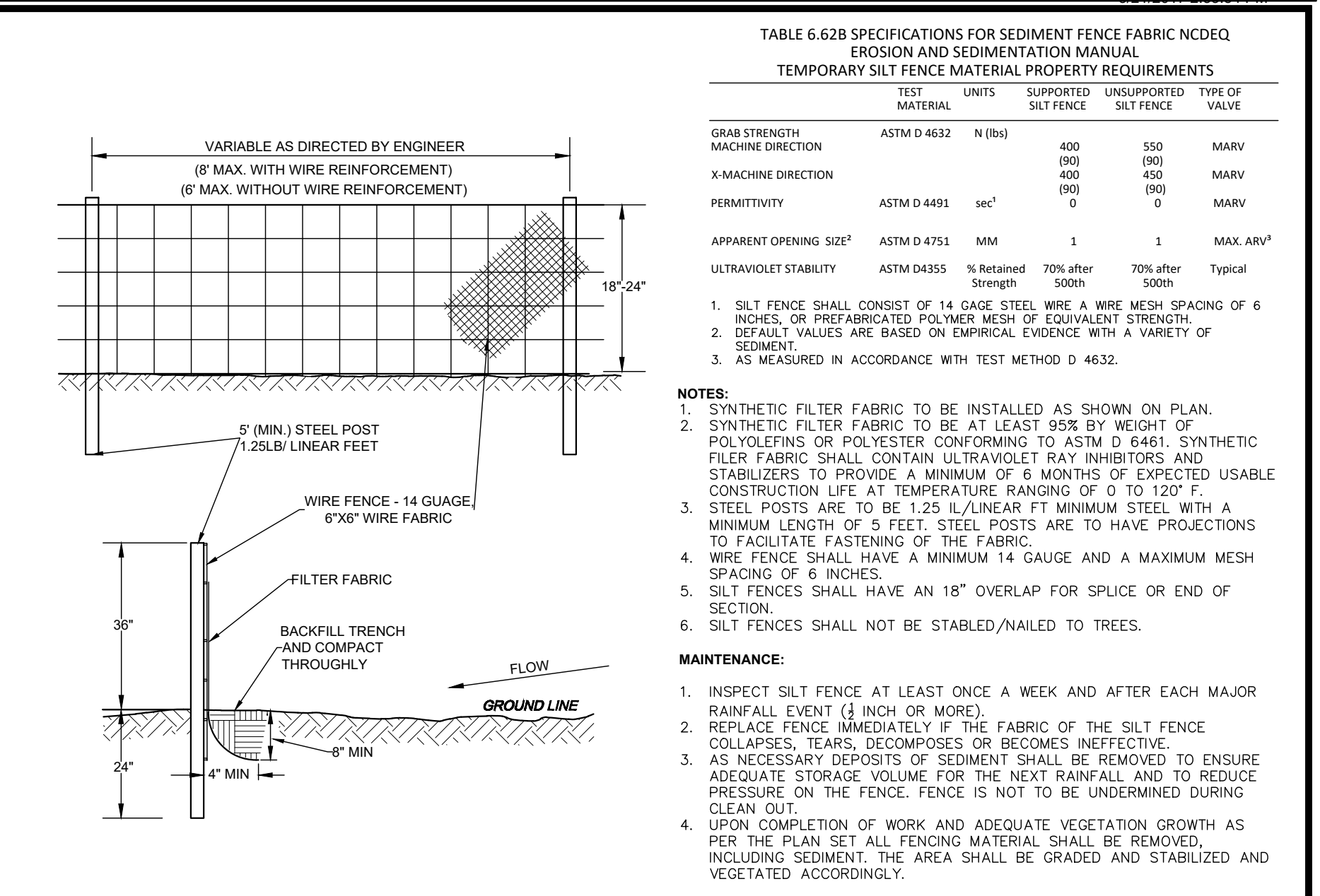
CITY OF GREENVILLE, N.C.
CONCRETE WASHOUT



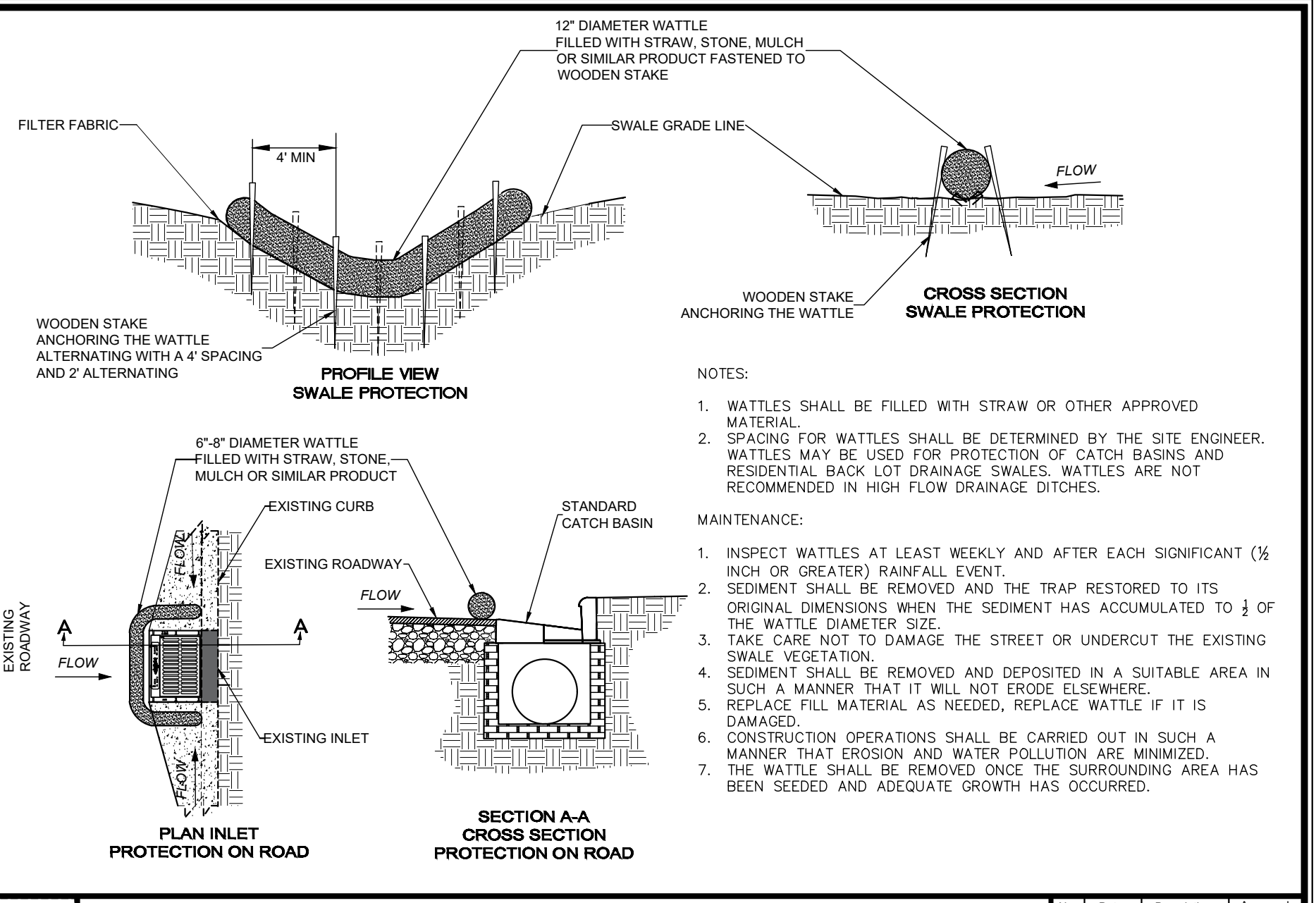
CITY OF GREENVILLE, N.C.
CATCH BASIN/YARD INLET PROTECTION



CITY OF GREENVILLE, N.C.
GRAVEL CONSTRUCTION ENTRANCE/EXIT DRIVEWAY TYPE



CITY OF GREENVILLE, N.C.
SILT FENCE



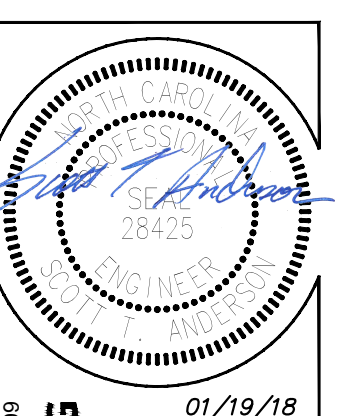
CITY OF GREENVILLE, N.C.
WATTLE DETAIL AROUND INLET OR SWALES

Final Drawings Issued For Bidding Purposes Only

REVISIONS:



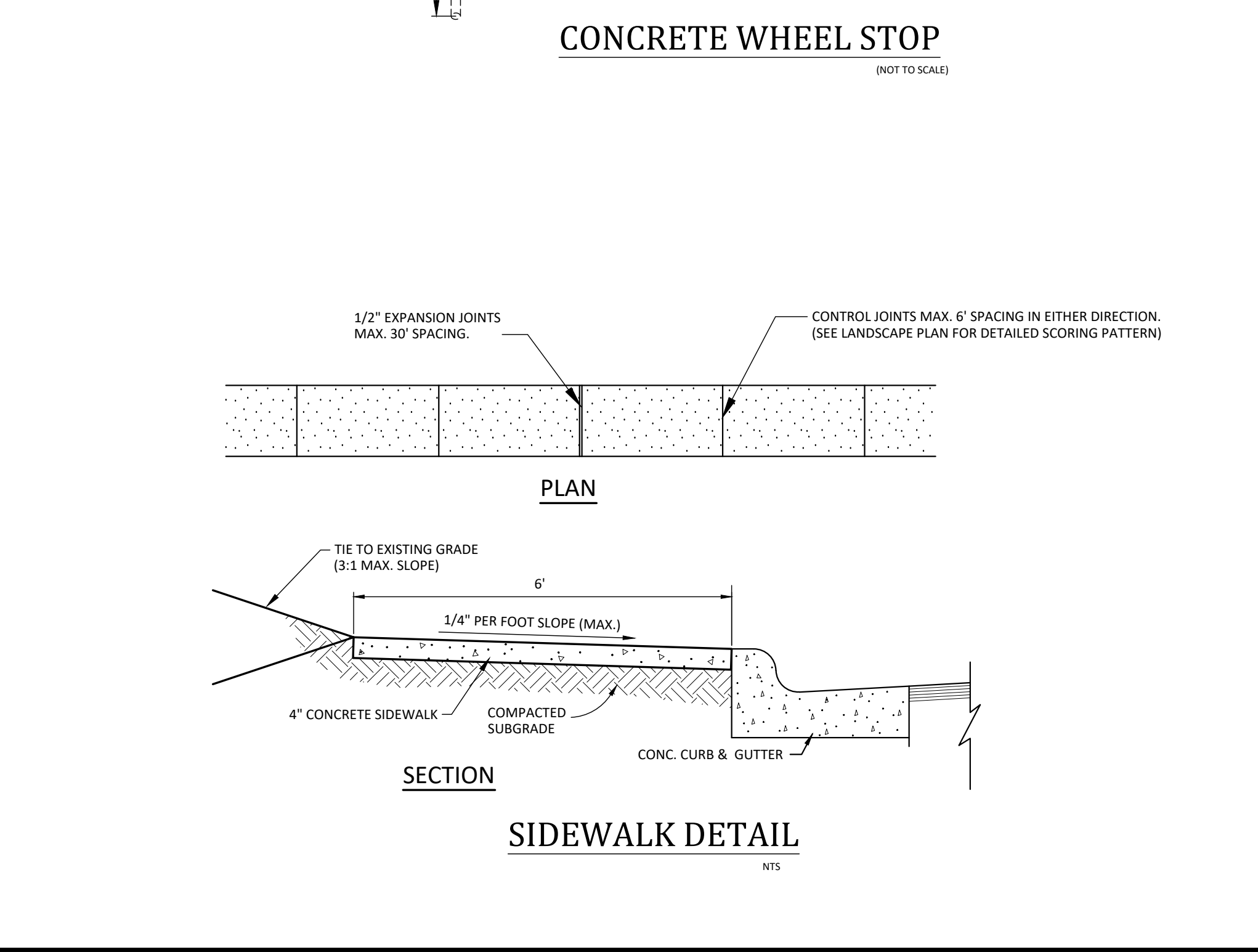
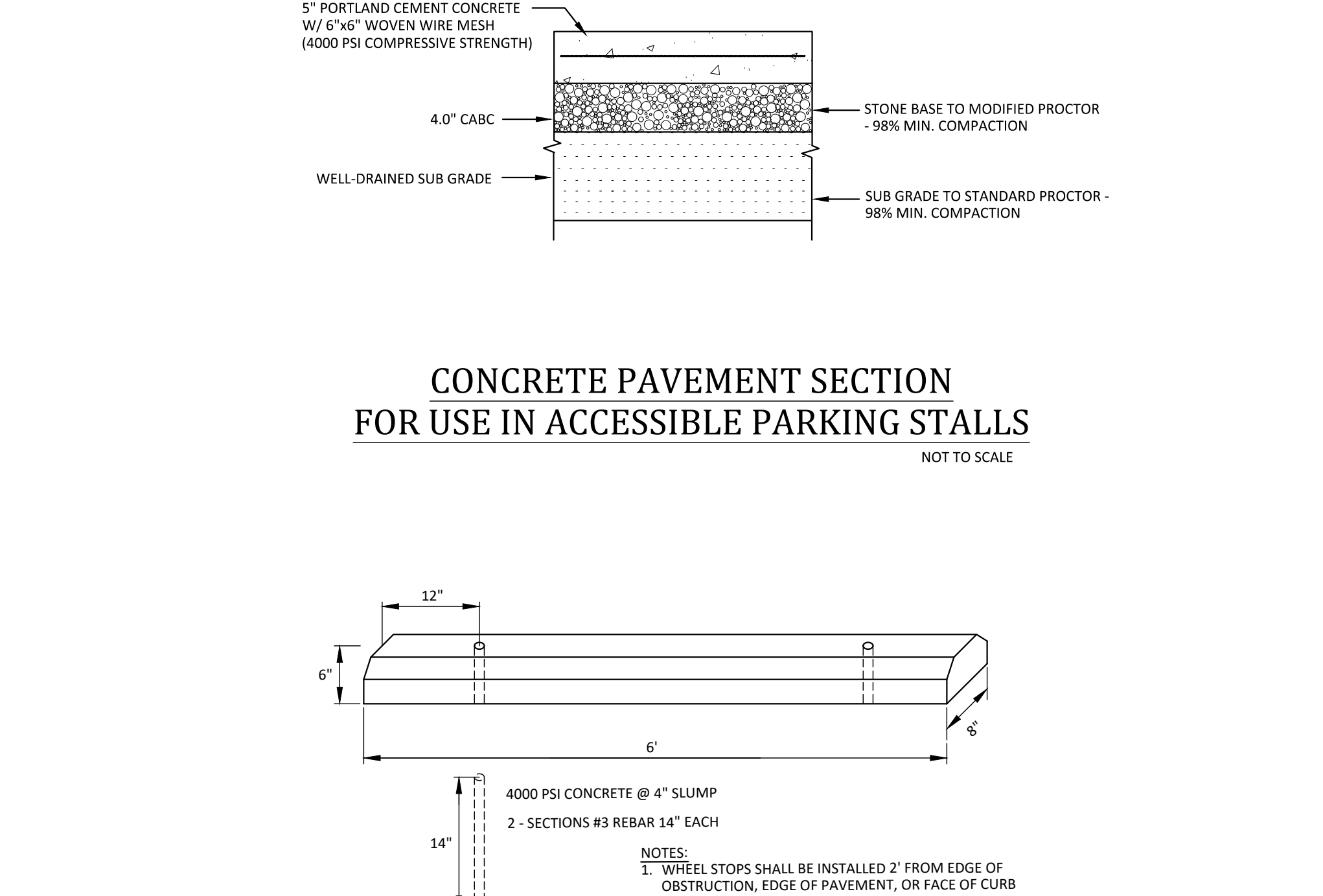
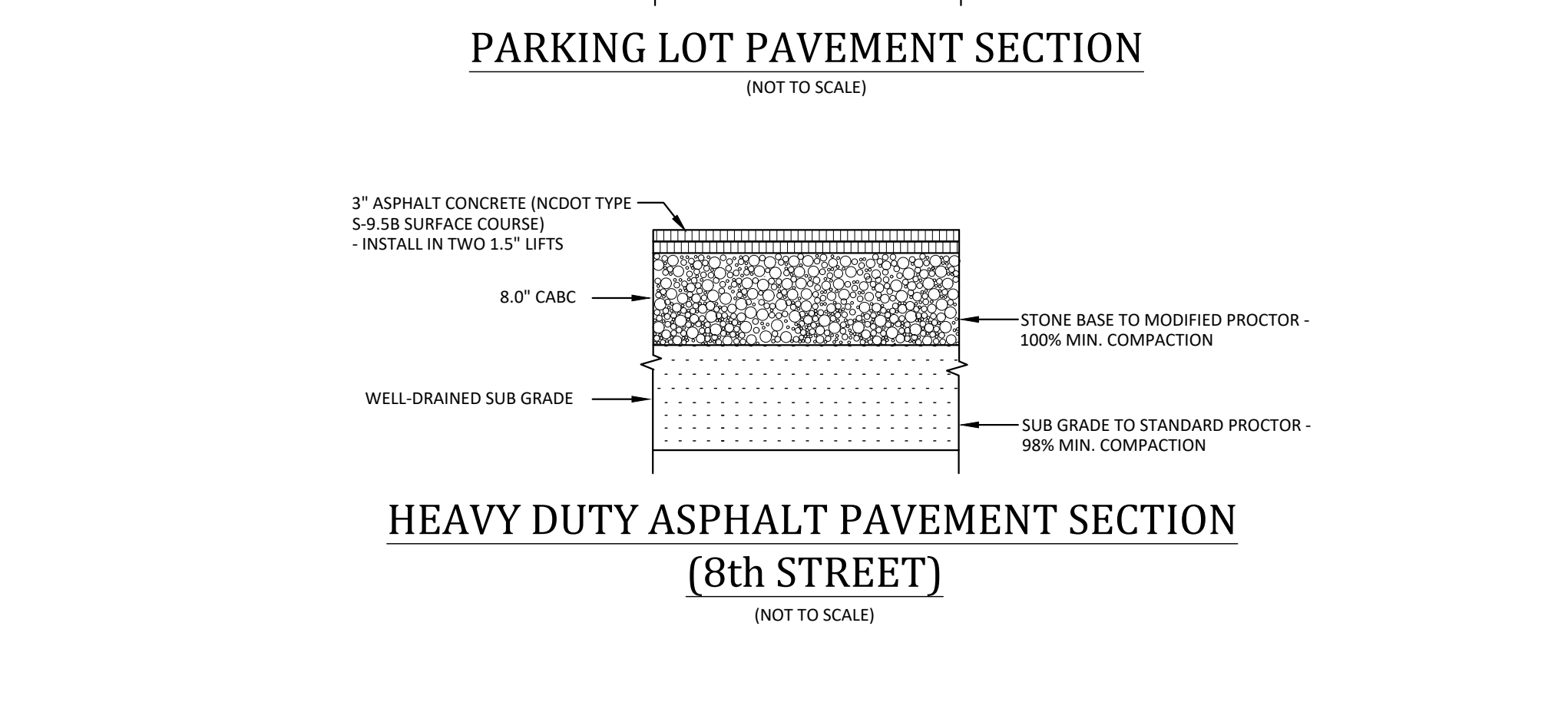
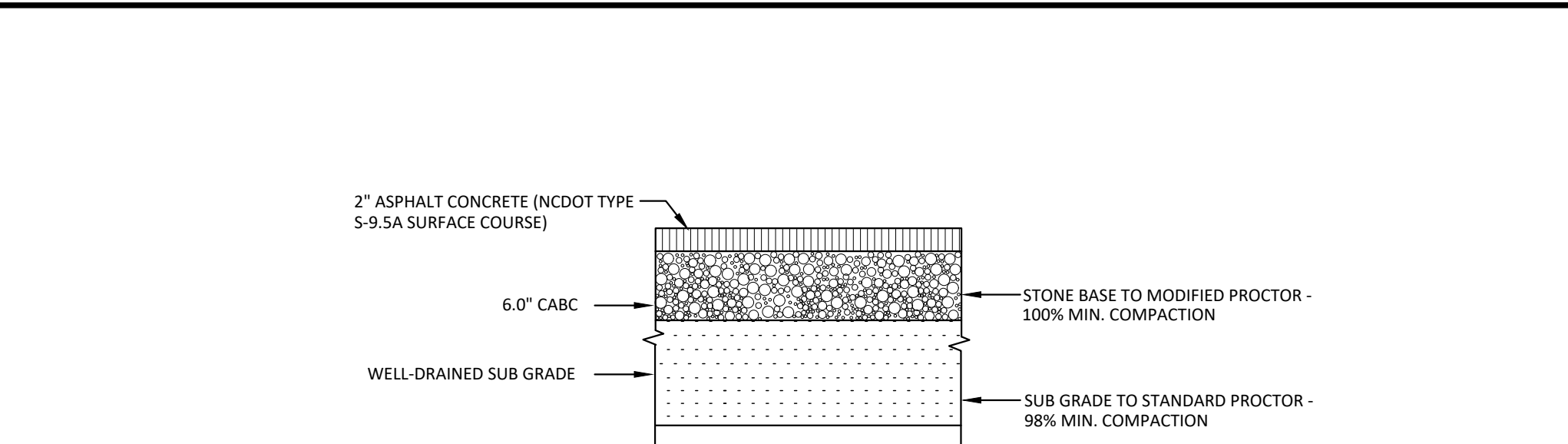
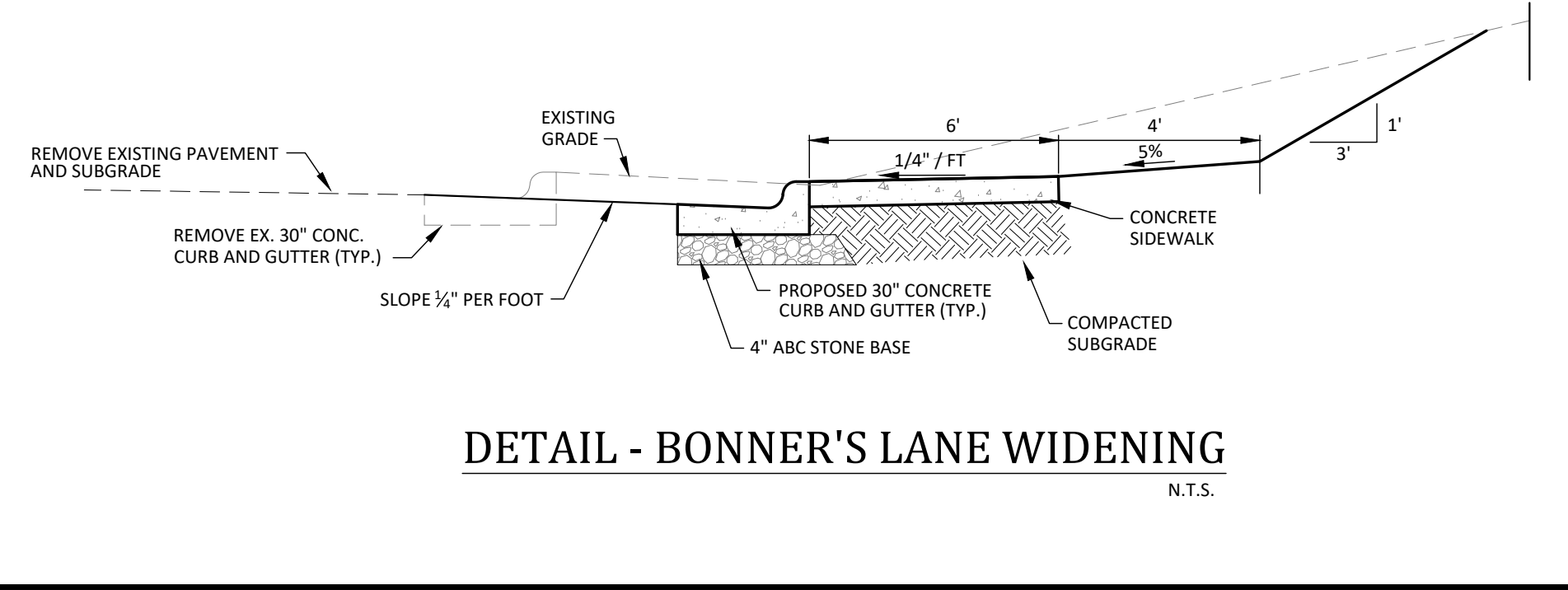
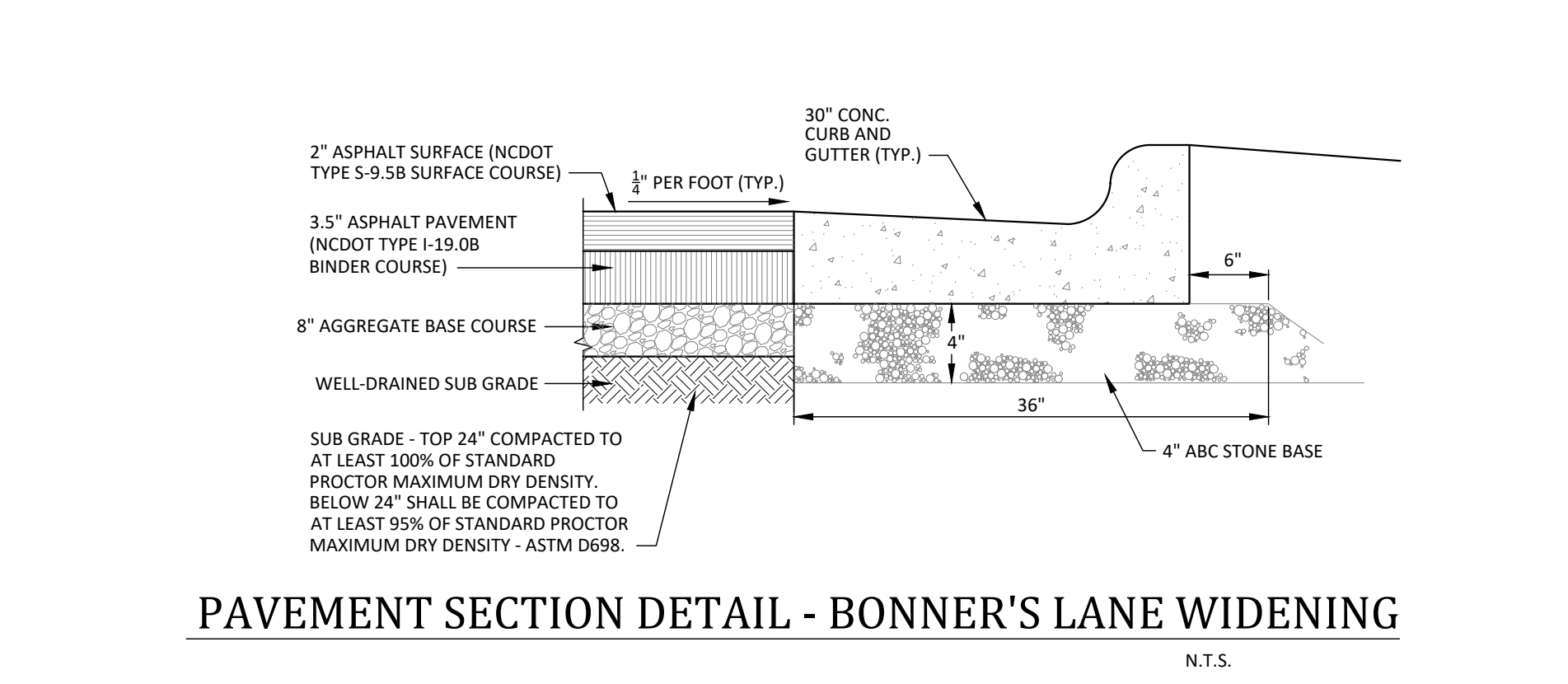
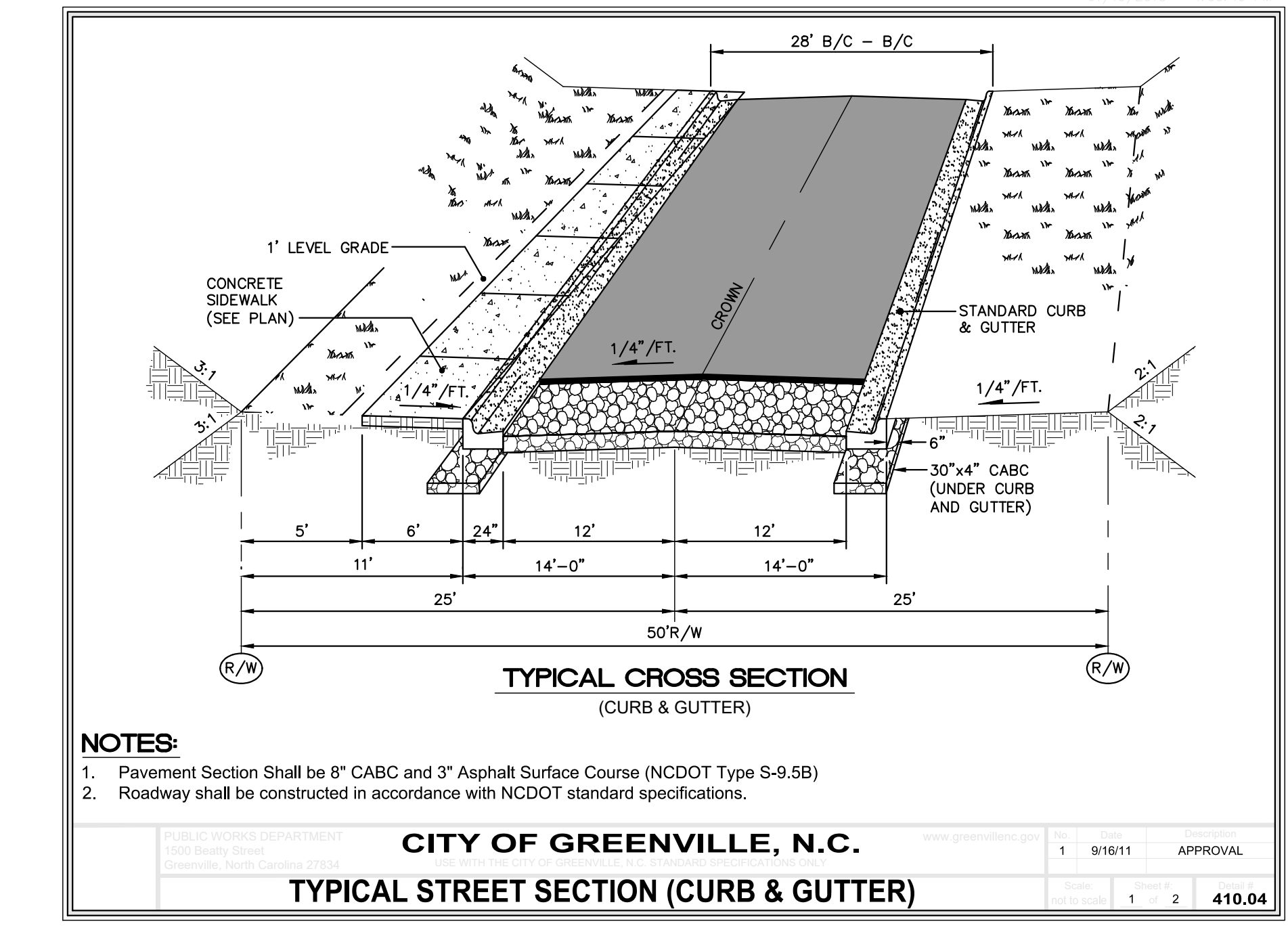
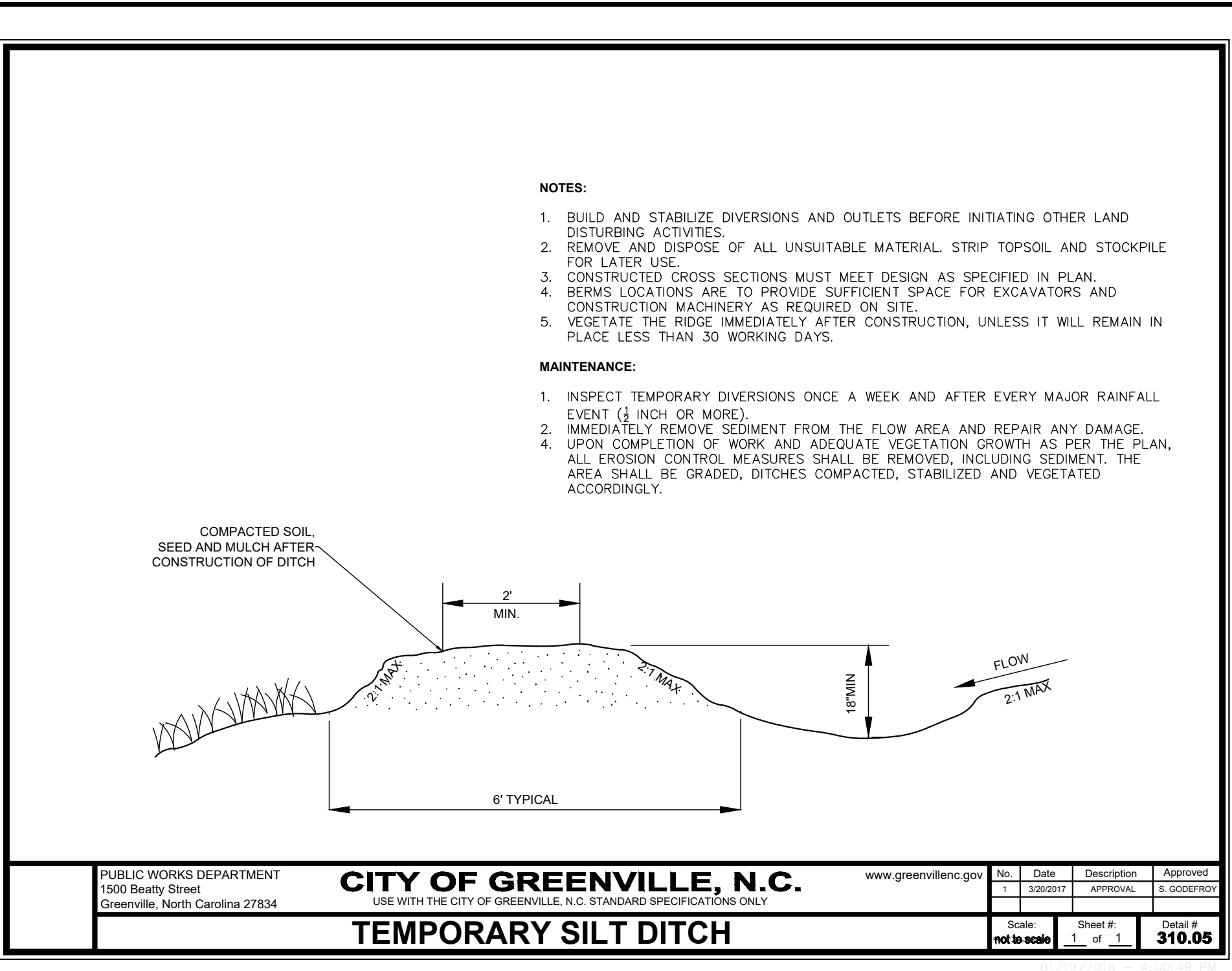
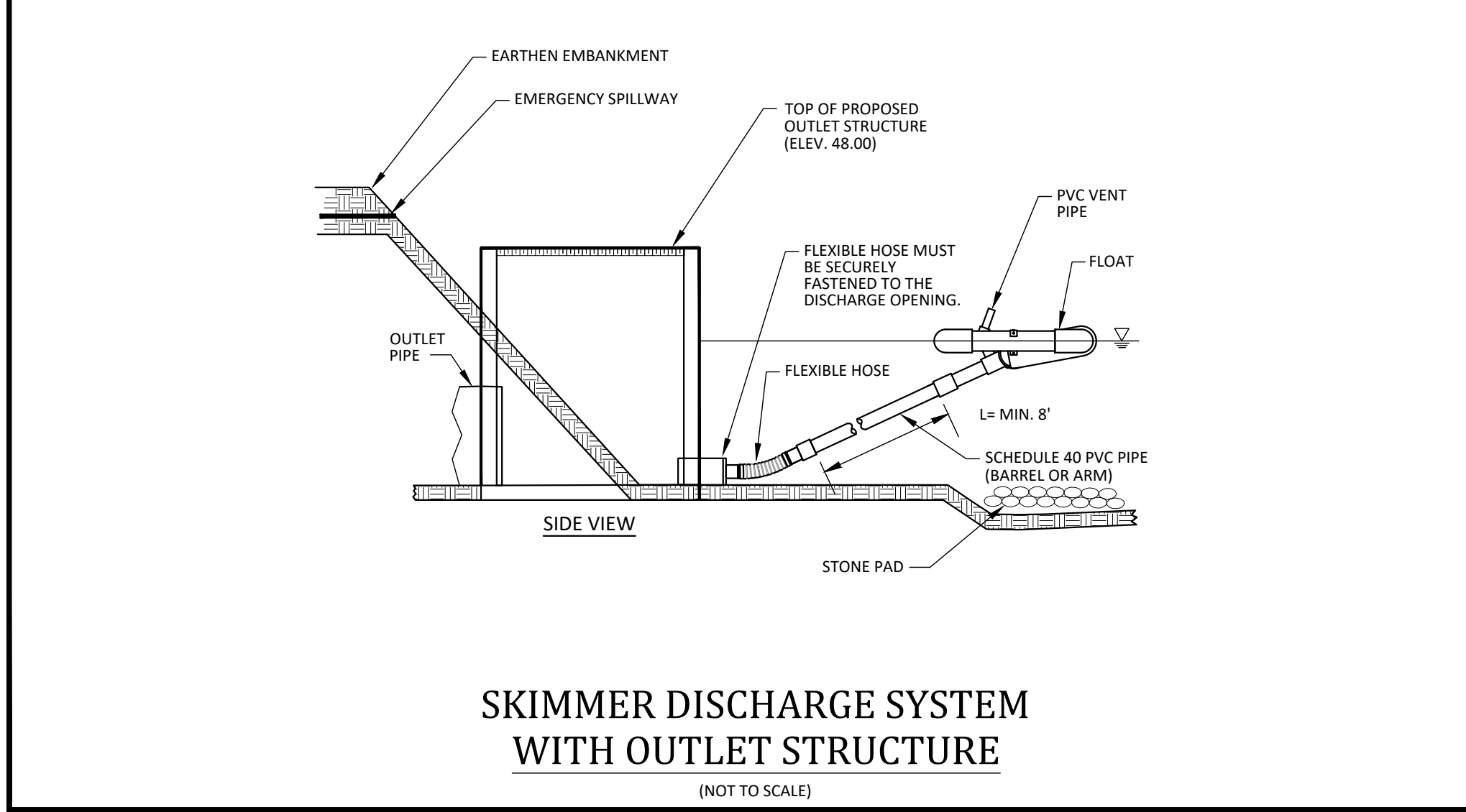
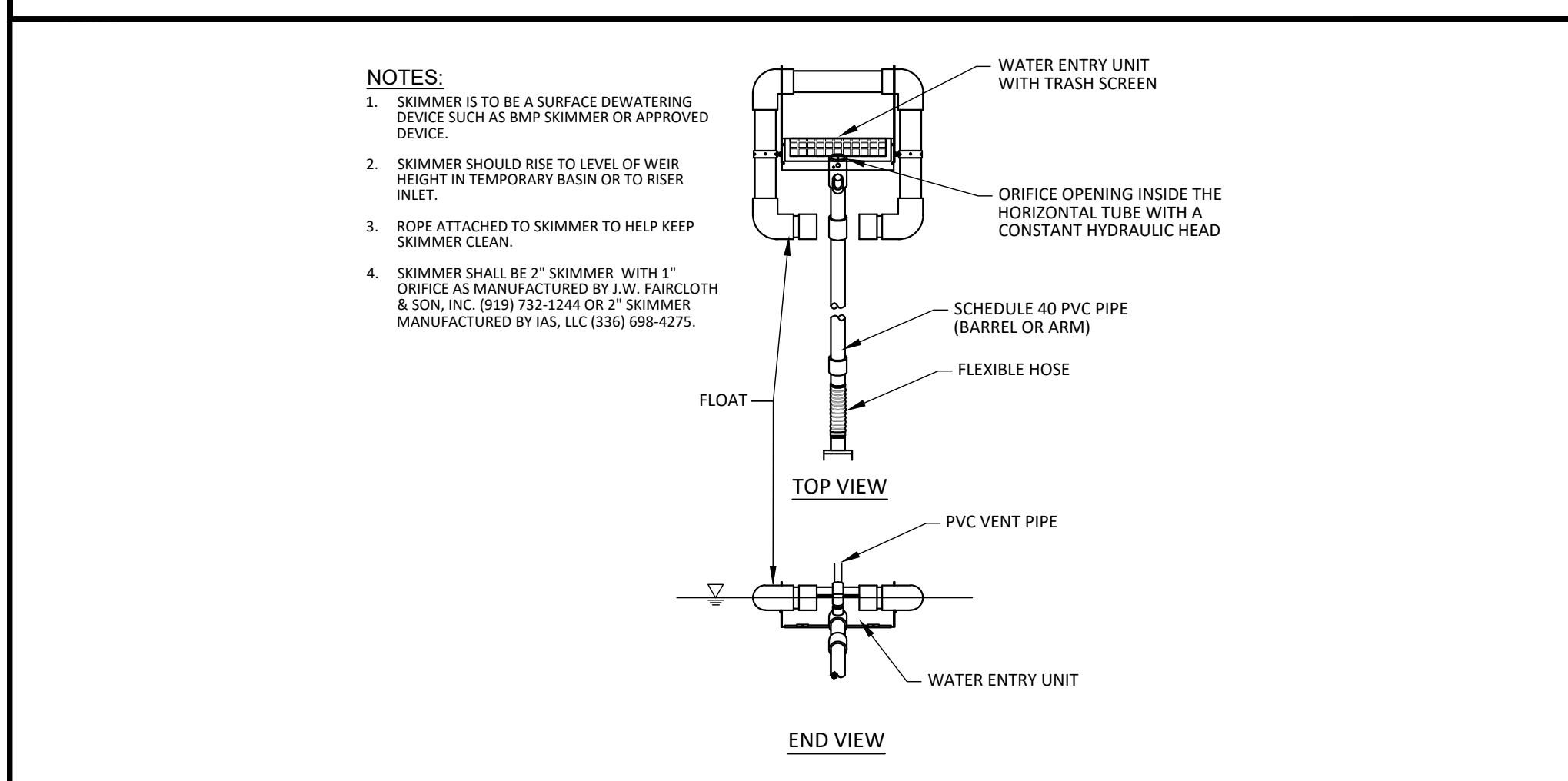
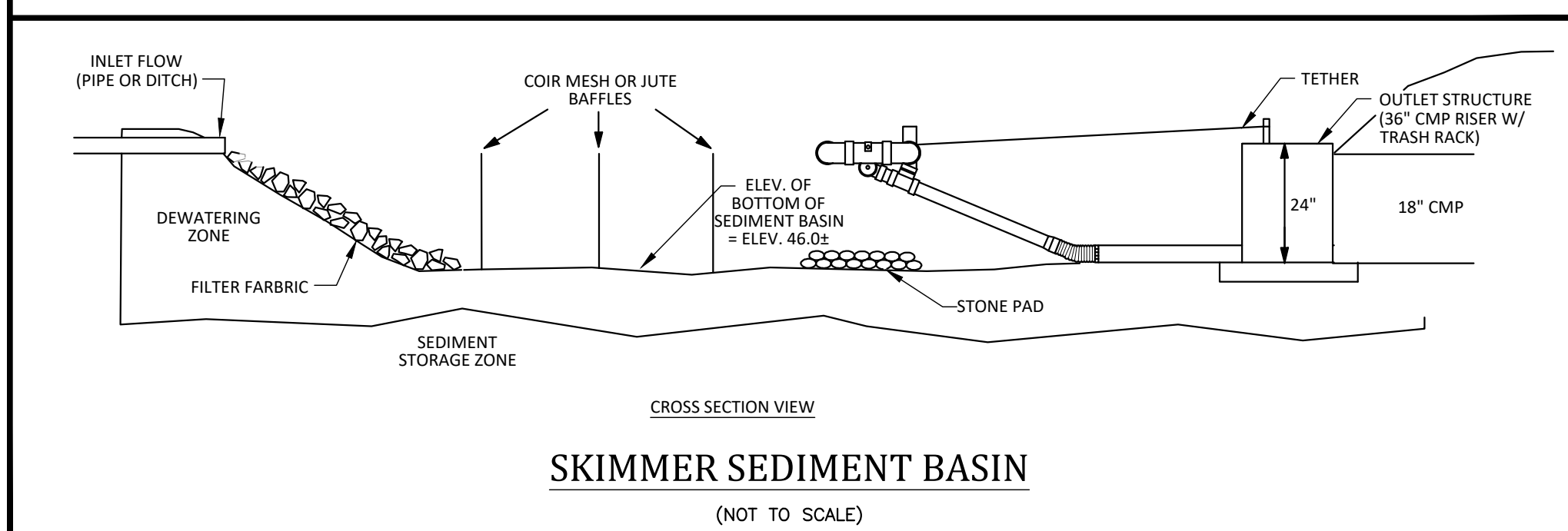
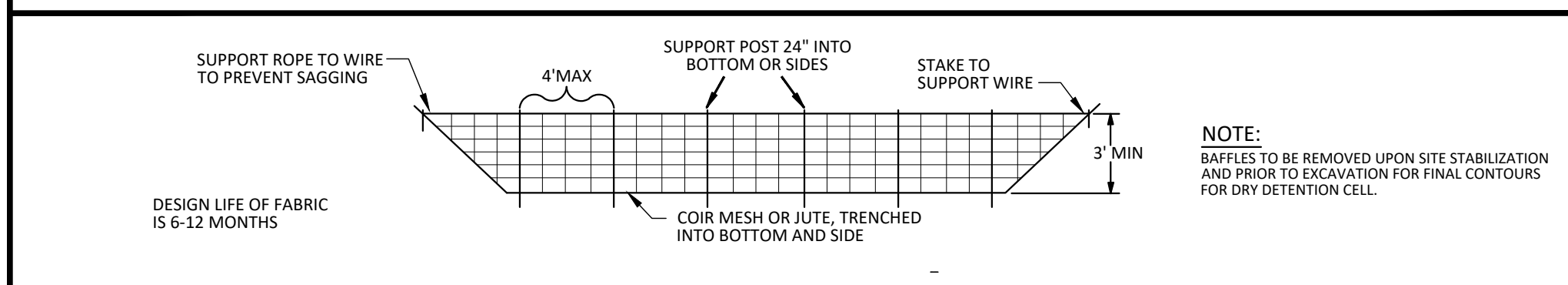
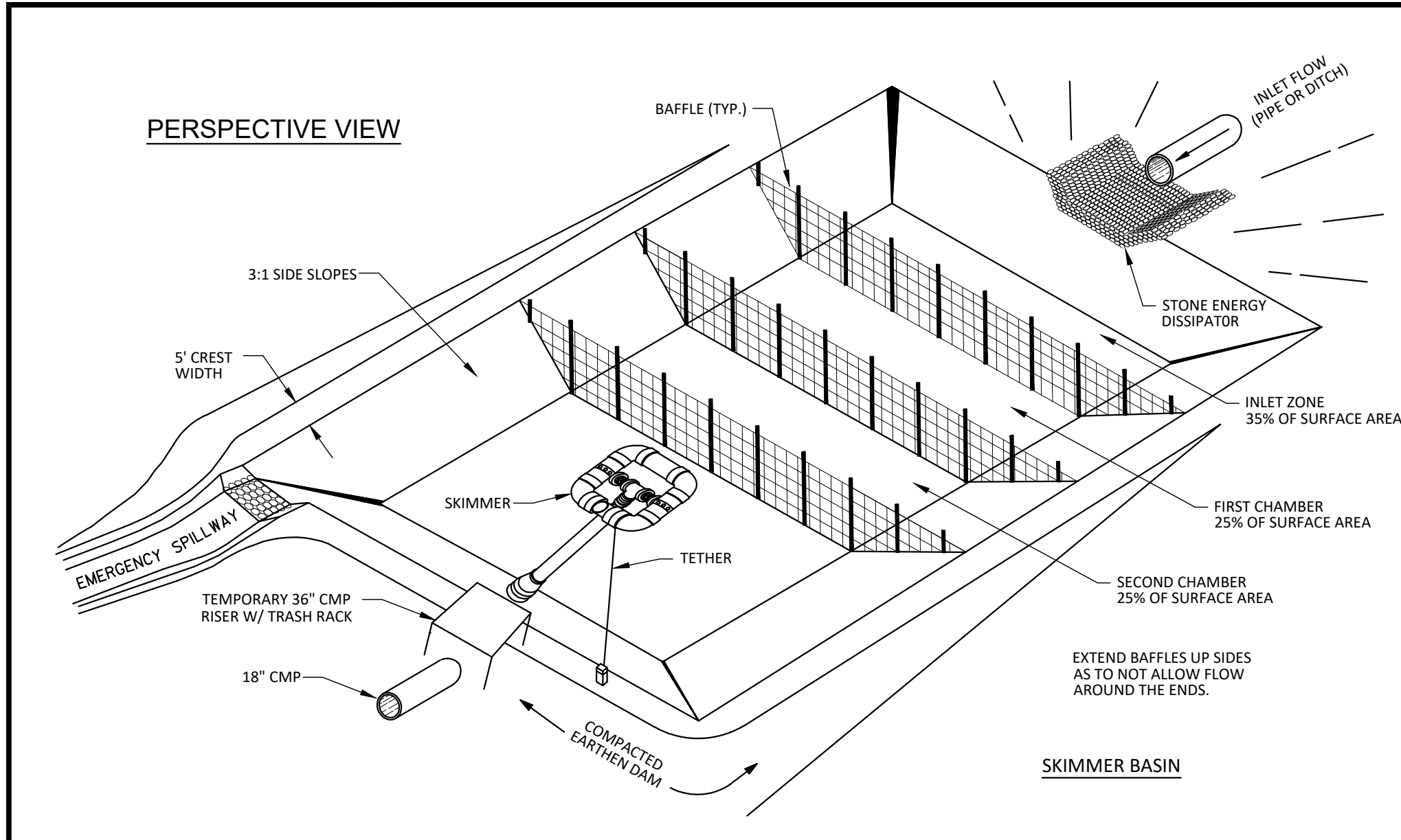
ATLANTIC AVENUE PARKING LOT
City of Greenville, Pitt County, North Carolina



ARK CONSULTING GROUP, INC.
ENGINEERS & PLANNERS
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Greenville, NC 27868
(252) 558-0888
www.arkconsultinggroup.com

Project Manager: STA
Drawn By: EW
Checked By: BTO
Project Number: 17042
Drawing Number: D-1129

C-5
Date: 01-19-2018



Final Drawings
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DETAILS
**ATLANTIC AVENUE
PARKING LOT**
City of Greenville, Pitt County, North Carolina

Project Manager: STA
Drawn By: EW
Checked By: BTO
Project Number: 17042
Drawing Number: D-1129

C-6
Date: 01-19-2018

2'-6" CURB AND GUTTER
30" CURB AND GUTTER SHALL BE PLACED IN BONNERS LN & ATLANTIC AVE R/W.

2'-0" CURB AND GUTTER
24" CURB AND GUTTER SHALL BE PLACED IN PARKING LOT & WITHIN 8TH STREET R/W

2'-0" SPILL CURB AND GUTTER

TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

NOTES:

1. Contraction joints shall be placed at 10' intervals, except that 15' spacing may be used when a machine is used or when satisfactory support for the face form can be obtained without the use of templates at 10' intervals. Joint spacing may be altered by the engineer to prevent uncontrolled cracking.
2. Contraction joints may be installed by the use of templates or formed by other approved methods. Where such joints are not formed by templates, a minimum depth of 1 1/2" shall be obtained.
3. All contraction joints shall be filled with joint filler.
4. Expansion joints shall be spaced at 90' intervals, and adjacent to all rigid objects.
5. All curb and gutters are to be poured with class "A" concrete (3,000 PSI).
6. Flexible forms are to be used when radius is less than 200'.

CITY OF GREENVILLE, N.C.

STANDARD CURB & GUTTER

1 9/16/11 APPROVAL

1 1 411.01

NOTE: A PORTION OF ONE OR BOTH RAMPS MAY EXTEND OUTSIDE THE RETURNS

ISOMETRIC VIEW

SECTION B-B

SECTION A-A

NOTES:

1. Detectable warning domes shall cover 2'-0" length and full width of the ramp floor as shown on the details.
2. The entire ramp shall be Black in color or any color with a 70% contrast ratio and approved by City Engineer.

CITY OF GREENVILLE, N.C.

STANDARD DETAIL CURB RAMP

1 9/16/11 APPROVAL

1 2 413.03

W	A	W+A	X	B
5'	0.0'	5.8'	5.8'	5.0'
6'	0.0'	6.8'	6.8'	6.0'
7'	0.0'	7.8'	7.3'	6.5'
8'	0.0'	8.8'	7.3'	6.5'
5'	1.5'	7.3'	7.5'	5.2'
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.3'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

DETECTABLE WARNING DOMES

NOTES:

1. Detectable warning domes shall cover 2'-0" length and full width of the ramp floor as shown on the details.
2. The entire ramp shall be Black in color or any color with a 70% contrast ratio and approved by City Engineer.

CITY OF GREENVILLE, N.C.

STANDARD CURB RAMP

1 9/16/11 APPROVAL

2 2 413.03

STANDARD CATCH BASIN FRAME 2'-0" IN CURB AND GUTTER

CITY OF GREENVILLE, N.C.

1 9/16/11 APPROVAL

1 1 411.03

DETAIL SHOWING TYPICAL LOCATION OF DUAL CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS

FOR CROSSING INTERSECTIONS

FOR TEE INTERSECTIONS

CITY OF GREENVILLE, N.C.

STANDARD DETAIL CURB RAMP PLACEMENT

1 9/16/11 APPROVAL

1 1 413.02

TYPE 1

Curb Ramps - Directional Ramps
NOT TO SCALE

NOTES:

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

CITY OF GREENVILLE, N.C.

STANDARD CURB RAMP

1 9/16/11 APPROVAL

2 2 413.03

CONCRETE VALLEY GUTTER

CITY OF GREENVILLE, N.C.

1 9/16/11 APPROVAL

1 1 411.05

NOTES:

1. Construct the walking surface of the detectable domes with slip resistance and a 70% contrasting color to the sidewalk.
2. Crosswalk widths and configuration vary but must conform to traffic design standards.
3. Provide curb ramps at locations as shown on the plans or as directed by the engineer. Locate curb ramps as directed by the engineer where existing light poles, fire hydrants, drop inlets, etc. affect placement. Where two ramps are installed place not less than 2 feet of full height curb between the ramps. Place dual ramps as near perpendicular to the travel lane being crossed as possible.
4. Do not exceed 0.08 ft./ft. (12:1) slope on the curb ramp in relationship to the grade of the street.
5. Construct curb ramps a minimum of 48" wide (4'-0"): Greater for dual ramps.
6. Use class "B" concrete with a sidewalk finish in order to obtain a rough non-skid type surface.
7. Place a 1/2" expansion joint where the concrete curb ramp joins the curb.
8. Place the inside pedestrian crosswalk lines no closer in the intersection than would be established by bisecting the intersection radii, with an allowance of a 4'x4' maneuvering space (2003 ICC/ANSI a17 Commentary, Fig. C406.6 & 406.10) in the vehicular travel way when one ramp is installed.
9. Coordinate the curb cut and the pedestrian crosswalk lines so the floor of the curb ramp will fall within the pedestrian crosswalk lines. Place diagonal ramps with flared sides so 24" of the full height curb falls within the crosswalk markings on each side of the flares.
10. Construct the pedestrian crosswalk a minimum width of 6 feet. A crosswalk width of 10 feet or greater is required for all thoroughfares.
11. Use stop lines, normally perpendicular to the lane lines, where it is important to indicate the point behind which vehicles are required to stop in compliance with a traffic signal, stop sign or other legal requirement. An unusual approach skew may require the placement of the stop line to be parallel to the intersecting roadway.
12. Place all pavement markings in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration and the North Carolina Supplement to the MUTCD.
13. Other detectable warning materials may be considered from that shown, but require City Engineer's written approval prior to installation.

CITY OF GREENVILLE, N.C.

STANDARD CROSSWALK & CURB RAMP NOTES

1 9/16/11 APPROVAL

1 2 413.01

NOTES:

14. For all roads with radius 25' or less. Only one curb ramp is required. Curb ramps to be placed as per traffic design standards to ensure pedestrians enter & exit without entering travel lanes.
15. Terminate parking a minimum of 20 feet back of pedestrian walk.
16. A 4'x4' maneuvering space is required at the bottom of the curb ramp and must be within the crosswalk.
17. Drop curb width (4'-0" min.) x 4' long landing required at top of curb ramp
18. North Carolina General Statute 136-44.14 requires that all street curbs being constructed or reconstructed for maintenance procedures, traffic operations, repairs, correction of utilities or altered for any reason after September 1, 1973 shall provide curb ramps for the physically disabled at all intersections where both curb and gutter and sidewalks are provided and at other points of pedestrian flow. In addition, section 228 of the 1973 Federal Aid Highway Safety Act requires provision of curb ramps on any curb construction after July 1, 1976 whether a sidewalk is proposed initially or is planned for a future date. The Americans with Disability Act (ADA) of 1990 extends to individuals with disabilities. Comprehensive civil rights protections similar to those provided to persons on the basis of race, sex, national origin and religion under the Civil Rights Act of 1964. These curb ramps have been designed to comply with the current ADA standards.
19. Construct all ramp surfaces to comply with sections R301 and R303.3.3 of the revised ADA guidelines.
20. Construct all ramps and sidewalks with a 2% cross slope.

CITY OF GREENVILLE, N.C.

STANDARD CROSSWALK & CURB RAMP NOTES

1 9/16/11 APPROVAL

2 2 413.01

Final Drawings Issued For Bidding Purposes Only

REVISIONS:

ATLANTIC AVENUE PARKING LOT

City of Greenville, Pitt County, North Carolina

DETAILS

ARK CONSULTING GROUP, INC.
ENGINEERS & PLANNERS
2755-B Charles Blvd
Greenville, NC 27858
(252) 558-0888
www.arkconsultinggroup.com

Project Manager: STA
Drawn By: EW
Checked By: BTO
Project Number: 17042
Drawing Number: D-1129

C-7

Date: 01-19-2018

- ### CATCH BASIN & JUNCTION BOX STANDARD NOTES
- Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
 - Class "A" concrete to be used. Chamfer all exposed corners 1".
 - The pouring of floor slab to be accomplished by forming.
 - All catch basins over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with std. detail No. 615.01.
 - Concrete brick may be used in lieu of clay brick. Jumbo brick will be permitted.
 - Engineered pre-cast boxes are permitted with the City Engineer's approval.
 - For 8'-0" in height or less use 8" wall. Over 8'-0" in height use 12" wall to 6'-0" from top of wall, and 8" wall for the remaining 6'-0". Adjust quantities accordingly.
 - Leave weep holes as directed by the engineer.
 - Construct with pipe crowns matching.
 - All drawings not to scale.

- ### MANHOLE STANDARD NOTES
- Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
 - Class "A" concrete to be used. Chamfer all exposed corners 1".
 - Forms to be used for the construction of the base.
 - Where the manhole top is exposed to road traffic, the top of the manhole is to be flush with the ground. At other locations it should be a minimum of 9" above the ground.
 - Manholes over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with Std. detail No. 615.01.
 - Over 36" pipe design requires City Engineer's approval.
 - For manholes over 12 ft. vertical wall depth, brick masonry wall thickness shall be 12"
 - For manholes with a vertical wall depth less than 12 ft., brick masonry wall thickness shall be 8".
 - All drawings not to scale.

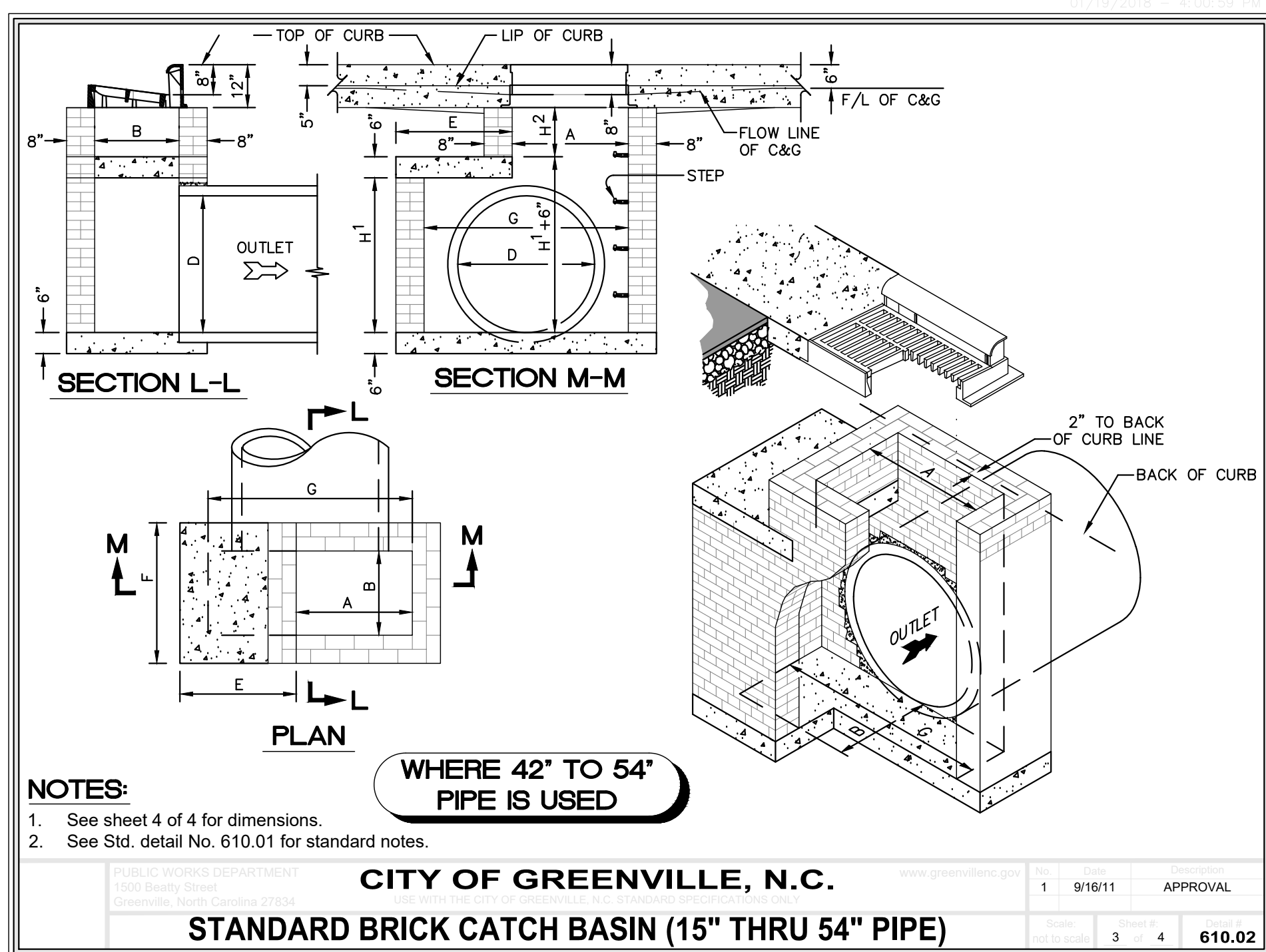
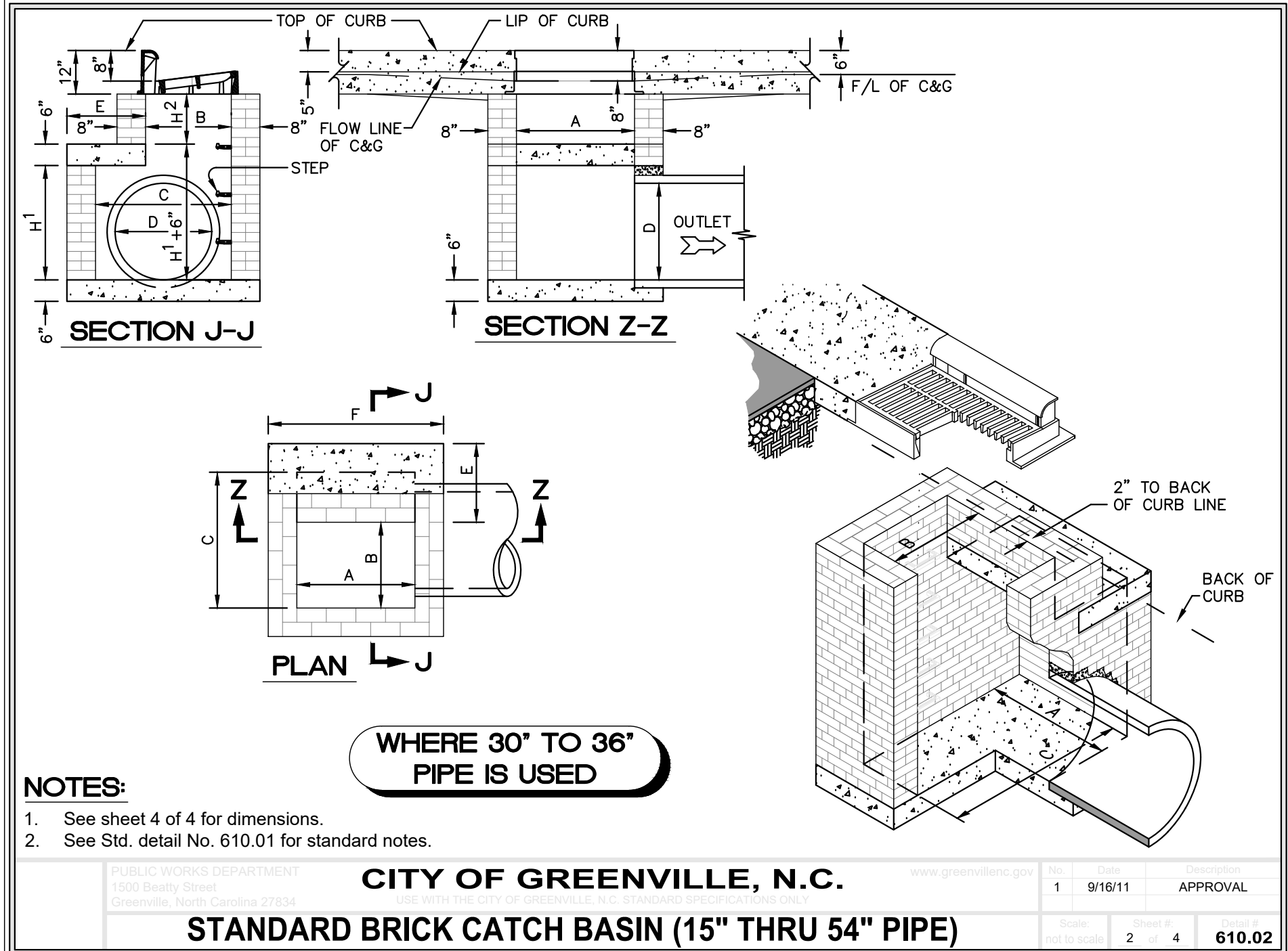
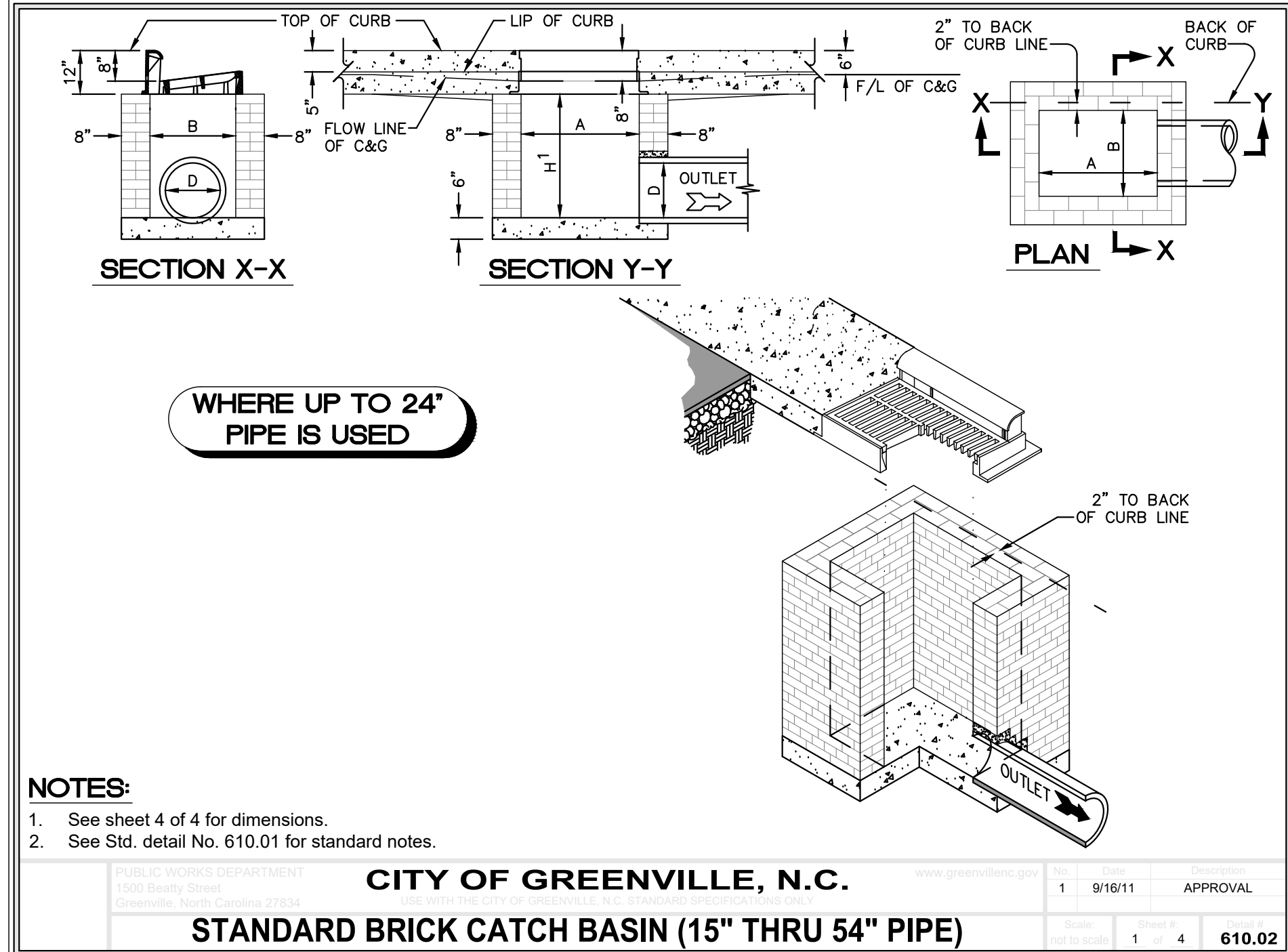
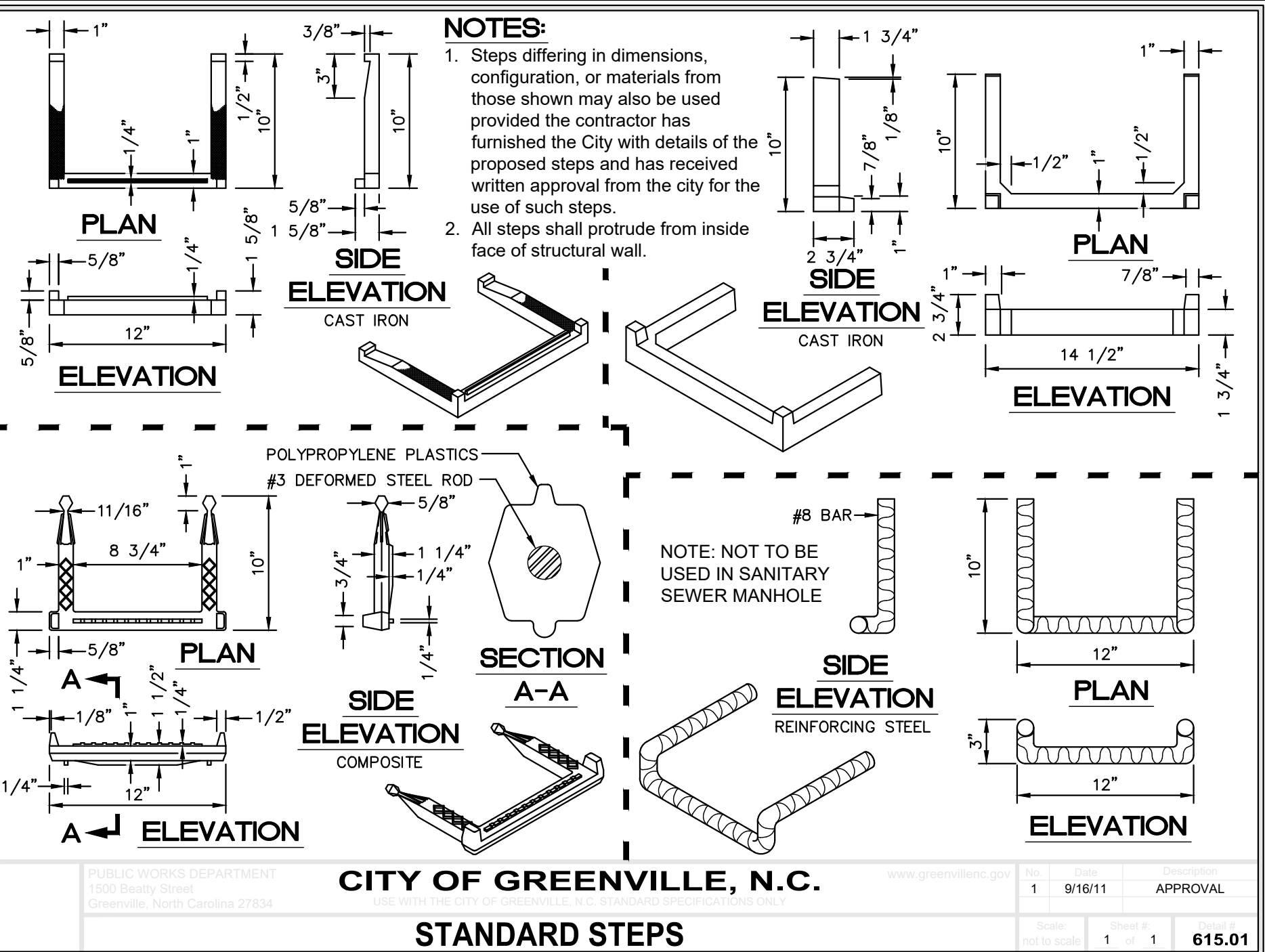
PUBLIC WORKS DEPARTMENT
1100 Beatty Street
Greenville, North Carolina 27834

CITY OF GREENVILLE, N.C.

1 9/16/11 APPROVAL

STANDARD CATCH BASIN AND MANHOLE NOTES

1 1 610.01



DIMENSIONS AND QUANTITIES FOR BRICK CATCH BASIN

DIMENSIONS OF BOX & PIPE		COVER DIMENSIONS		REINFORCEMENT		CUBIC YARDS OF CONCRETE IN BOX		BRICK MASONRY							
PIPE SPAN	WIDTH	WIDTH	HEIGHT	BARS-U	BARS-V	BARS-W	TOTAL	TOP SLAB	FLOOR	TOTAL	CU YDS.	PER FT. OF HEIGHT			
D	A	B	C	E	F	G	H	I	J	K	L	M			
15'	3'-0"	2'-2"	-	2'-6"	-	-	-	0.281	0.281	0.802	0.321	ABOVE MIN. H ¹			
18'	3'-0"	2'-2"	-	2'-10"	-	-	-	0.281	0.281	0.909	0.321	ABOVE MIN. H ¹			
24'	3'-0"	2'-2"	-	3'-4"	-	-	-	0.281	0.281	1.070	0.321	ABOVE MIN. H ²			
30'	3'-0"	2'-2"	3'-4"	3'-2"	1'-10"	4'-4"	4	1'-6"	3	4'-1"	45	0.147	0.374	0.521	1.306
36'	3'-0"	2'-2"	3'-10"	3'-8"	2'-4"	4'-4"	4	2'-0"	4	4'-1"	49	0.187	0.415	0.602	1.586
42'	3'-0"	2'-2"	4'-5"	4'-4"	2'-1"	3'-6"	4	1'-9"	3	3'-3"	38	0.135	0.373	0.508	1.811
48'	3'-0"	2'-2"	5'-0"	4'-10"	2'-8"	3'-6"	4	2'-8"	4	3'-3"	40	0.173	0.410	0.583	2.146
54'	3'-0"	2'-2"	5'-7"	5'-4"	3'-3"	3'-6"	4	3'-0"	6	3'-3"	48	0.211	0.448	0.659	2.510

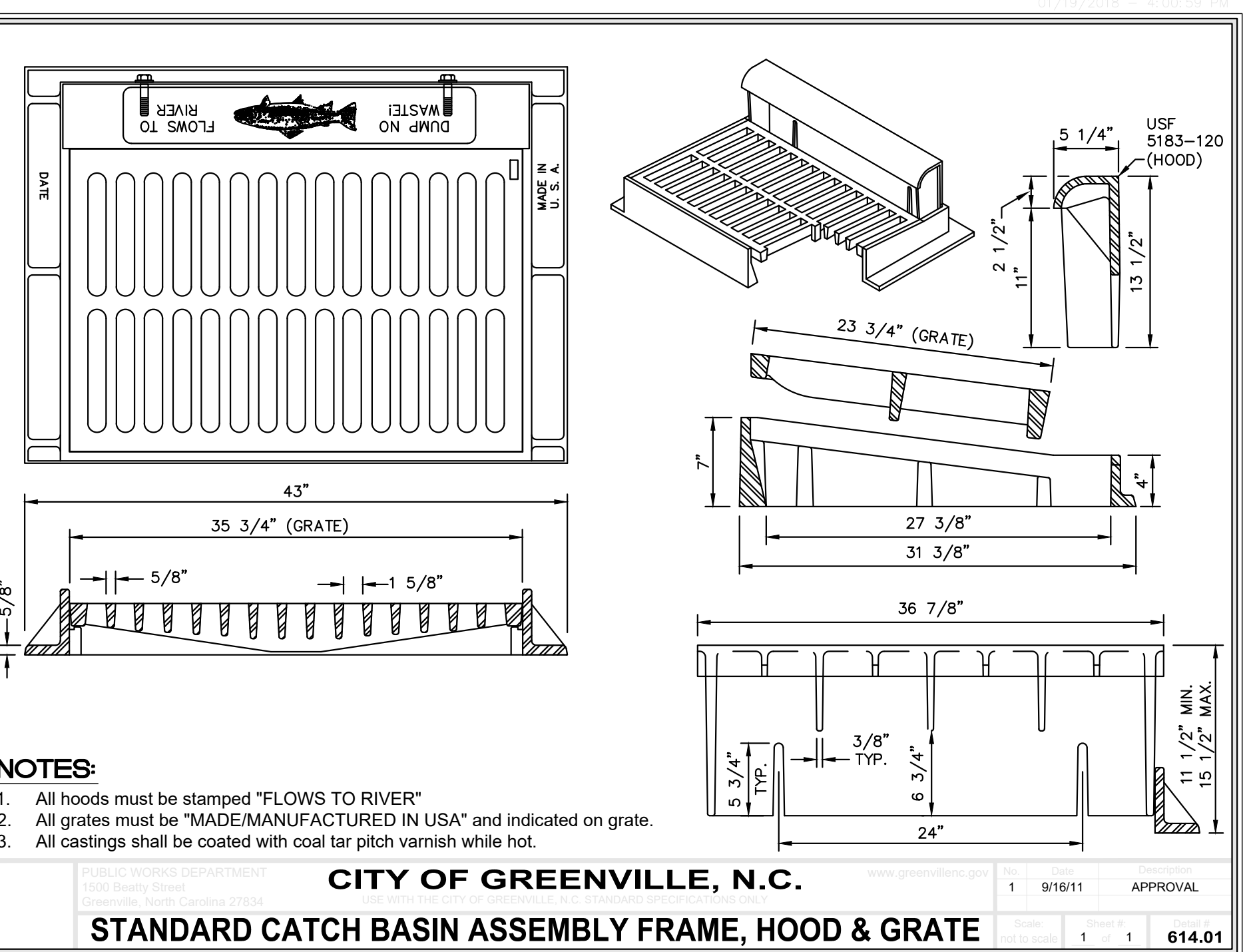
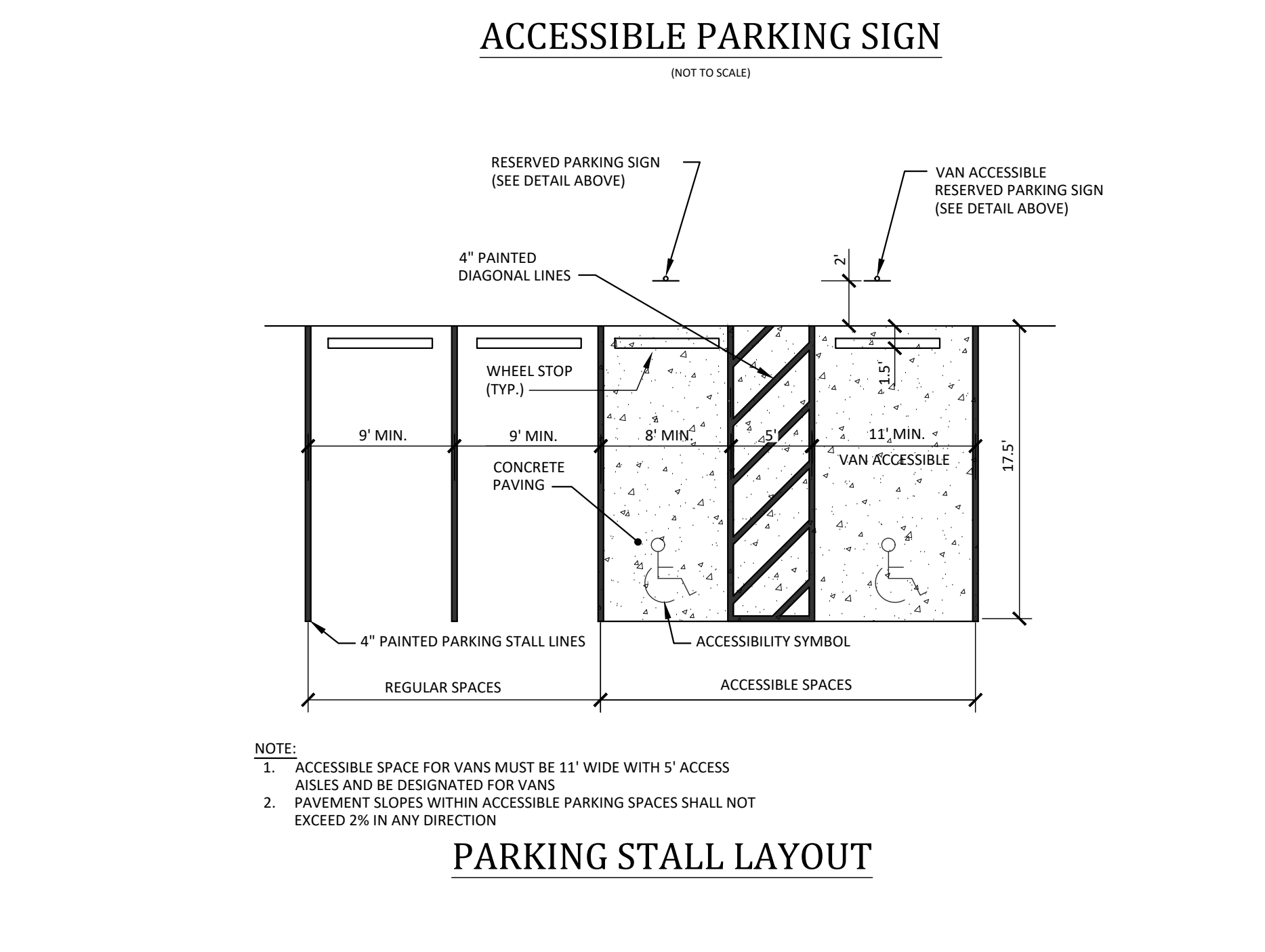
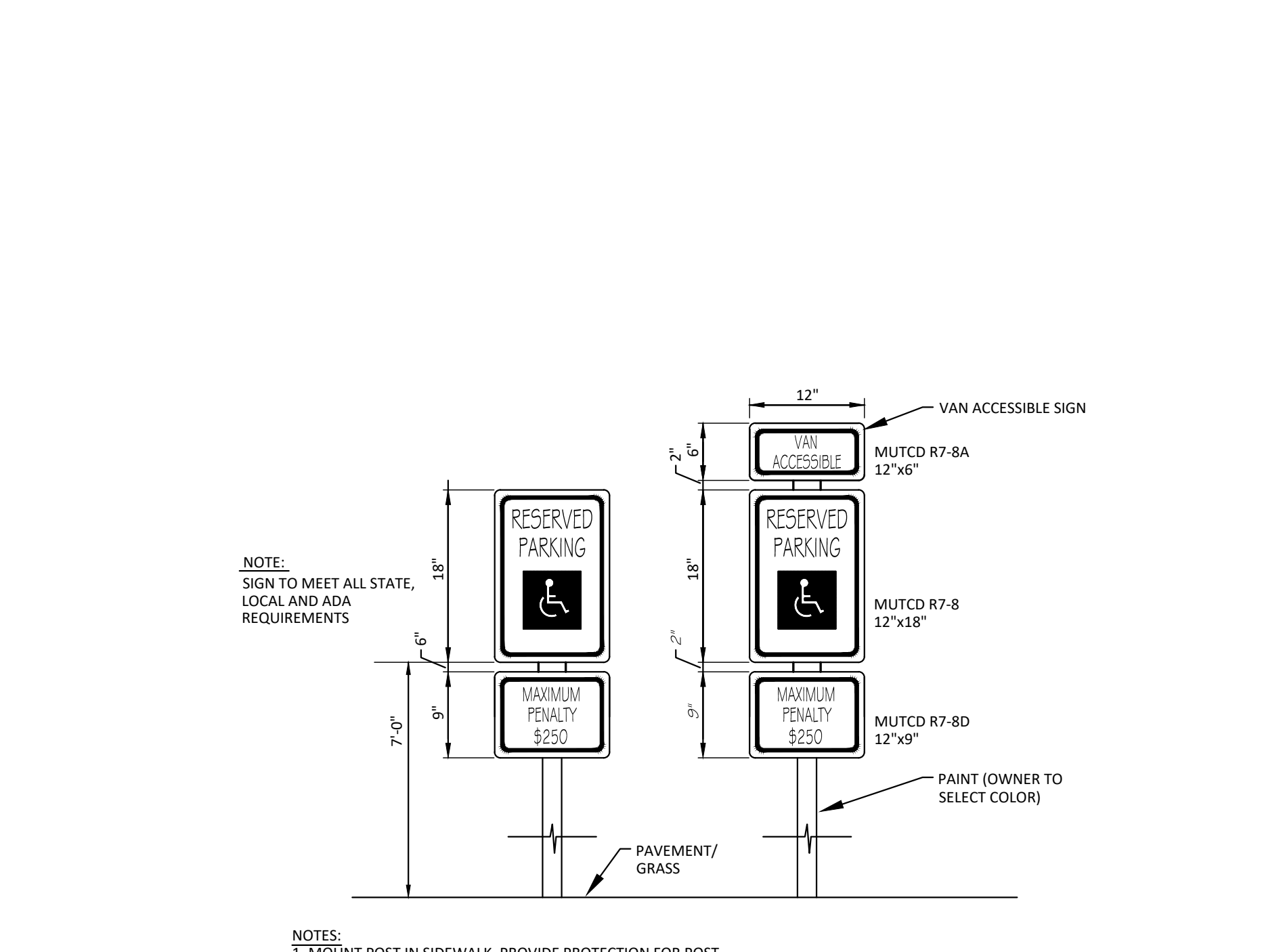
STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)

PUBLIC WORKS DEPARTMENT
1100 Beatty Street
Greenville, North Carolina 27834

CITY OF GREENVILLE, N.C.

1 9/16/11 APPROVAL

4 4 610.02

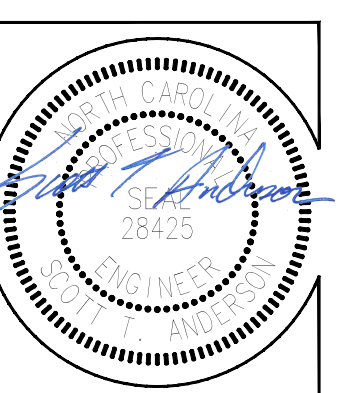


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ATLANTIC AVENUE PARKING LOT
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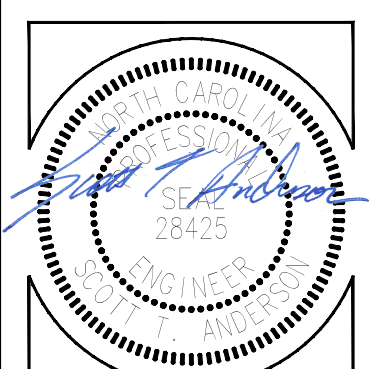


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C-8

Date: 01-19-2018



KEY

- RIGID OR FLEXIBLE PAVEMENT
- GRANULAR ROAD BASE
- 18" MIN. MEASURED TO BOTTOM OF FLEXIBLE PAVEMENT *
- FREE DRAINING ANGULAR WASHED STONE 3/4" MIN. PARTICLE SIZE.
- GRANULAR BEDDING, ROUGHLY SHAPED TO FIT THE BOTTOM OF PIPE, 4" - 6" IN DEPTH.
- CONTECH C-40 OR C-45 NON-WOVEN GEOTEXTILE REQUIRED, WRAPPING TRENCH ONLY.

FOUNDATION BEDDING PREPARATION

PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE, THE 4 INCHES OF A WELL-GRADED GRANULAR MATERIAL SHALL BE PLACED AS THE BEDDING.

BACKFILL

THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 8" - 10" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE PROJECT ENGINEER OR HIS REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT, AND MAINTAINING BALANCED LOADING ON ALL PIPES IN THE SYSTEM, DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

BACKFILL DETAIL
SCALE: N.T.S.

TYPICAL PERFORATION DETAIL
SCALE: N.T.S.

NOTES:

- PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
- PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
- ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
-

PROJECT SUMMARY

CALCULATION DETAILS

- LENGTH PER BARREL = 161 FT
- LENGTH PER HEADER = 25.5 FT
- LOADING = H20 & H25
- APPROX. CMP FOOTAGE = 1,017 FT

STORAGE SUMMARY

- STORAGE VOLUME REQUIRED = 12,000 CF
- PIPE STORAGE = 8,312 CF
- STRUCTURAL BACKFILL STORAGE = 4,876 CF
- TOTAL STORAGE PROVIDED = 13,188 CF

PIPE DETAILS

- DIAMETER = 36 IN
- CORRUGATION = 2-2 1/2" X 1/2"
- GAGE = .16
- COATING = ALUMINIZED STEEL TYPE 2 (AL2)
- WALL TYPE = PERFORATED
- BARREL SPACING = 18 IN

BACKFILL DETAILS

- WIDTH AT ENDS = 18 IN
- ABOVE PIPE = 6 IN
- WIDTH AT SIDES = 18 IN
- BELOW PIPE = 6 IN

MANHOLE CAP DETAIL
SCALE: N.T.S.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Curvite Plaza Dr., Suite 408, West Chester, OH 45380
900-685-1923 FAX 513-645-7000

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYODS - 6081-3-0
PROJECT NAME: Greenville - Atlantic Ave Parking
Greenville, NC
DESCRIPTION: ATLANTIC PARKING LOT

PROJECT NO. 6081-3-0
REV. NO. 0
DATE 1/2/2018
DESIGNED BY DYODS
DRAWN BY DYODS
CHECKED BY
APPROVED BY
SHEET NO. D1

ASSEMBLY
SCALE: 1" = 20'

PROJECT SUMMARY

CALCULATION DETAILS

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- LENGTH PER HEADER = 25.5 FT
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CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW.

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-274 OR ASTM A-492.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSIPA GUIDELINES.

NOTES:

- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.
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REINFORCING TABLE

RISE	A	REINFORCING	BEARING PRESSURE (PSF)
24"	4'x4'	#5 @ 12" O.C/W	2,410
		#5 @ 12" O.C/W	1,780
30"	4'6" X 4'6"	#5 @ 12" O.C/W	2,120
		#5 @ 12" O.C/W	1,530
36"	5' X 5'	#5 @ 10" O.C/W	1,890
		#5 @ 10" O.C/W	1,350
42"	5'6" X 5'6"	#5 @ 10" O.C/W	1,720
		#5 @ 9" O.C/W	1,210
48"	6' X 6'	#5 @ 10" O.C/W	1,600
		#5 @ 9" O.C/W	1,150

** ASSUMED SOIL BEARING CAPACITY

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