



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Roy Cooper
Governor

James H. Trogdon, III
Secretary

April 15, 2019

City of Wilson
P.O. Box 10
Wilson, NC 27894

SUBJECT: Encroachment Contract - City of Wilson
Route(s): NC 42 and SR 1326 (Corbett Ave)
Encroachment Number: E042-098-19-00034
Wilson County

Dear Sir:

Attached for your files is a copy of right-of-way encroachment agreement R/W 16.1 that has been properly executed. This contract covers the following:

Grading and installation of approximately 35 LF of 36" HDPE at the intersection of Ward Blvd (NC 42) and Corbett Ave (SR 1326) and also grading within the Ward Blvd R/W south of Fairfax Ave

The Encroacher shall notify the District Engineer's Office (252)-462-2550 prior to beginning work. The Encroacher shall provide 24 hours notification for inspections.

This encroachment is approved subject to the standard and special provisions that are attached to and made part of the encroachment contract.

Respectfully yours,

DocuSigned by:

Bobby Liverman

Bobby Liverman, PE
District Engineer

For R Keeter

RLK/BLL/RLG

Attachments

cc:

Mr. B. L. Liverman, PE- District Engineer
Wilson County Maintenance Engineer
Robert Bartlett - Bartlett Engineering & Surveying, PC

Standard Provisions

1. An executed copy of this Encroachment Agreement will be present at the construction site at all times during construction. NCDOT reserves the right to stop all work unless evidence of approval can be shown.
2. All materials and construction shall be in accordance with NCDOT standards and specifications, including but not limited to, the current NCDOT Standard Specifications of Roads and Structures, NCDOT Roadway Standard Drawings, and NCDOT Policies, & Procedures for Accommodating Utilities on Highway Rights of Way.
3. That the party of the second part agrees to provide traffic control devices, lane closures, road closures, positive protection and/or any other warning or positive protection devices necessary for the safety of road users **and Pedestrians** during construction and any subsequent maintenance. This shall be performed in conformance with the latest NCDOT Roadway Standard Drawings and Standard Specifications for Roads and Structures and Amendments or Supplements thereto. When there is no guidance provided in the Roadway Standard Drawings or Specifications, comply with the Manual on Uniform Traffic Devices for Streets and Highways and Amendment or Supplement thereto. **Regarding pedestrian guidance all sections of the MUTCD Chapter 6 shall be followed regarding pedestrian access within the construction zone up to but not limited to ADA devices for sidewalks, advanced warning for Sidewalk closures, and alternate routes for pedestrians.** Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.
4. The traveling public (motorists, bicyclists, and pedestrians) shall be warned of construction with complete and proper signing and traffic control devices in accordance with the current NCDOT Standard Specifications of Roads and Structures and NCDOT Roadway Standard Drawings, and the MUTCD (Manual on Uniform Traffic Control Devices). The traveling public shall be warned, if deemed necessary by the District Engineer, of construction traffic entering the roadway during times of operation from a temporary construction site located outside the right-of-way. The method shall include temporary traffic control signing stating, "TRUCKS ENTERING HIGHWAY" or "TRUCK CROSSING". These signs shall be placed in accordance to MUTCD Chapter 6 Guidelines. No work shall be performed in the Right of Way unless this requirement is satisfied. NCDOT reserves the right to require a written traffic control plan for encroachment operations.
5. NCDOT does not guarantee the Right of Way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of the installation. All Right of Way and easements necessary for construction and maintenance shall be dedicated to NCDOT with proof of dedication furnished to the District Engineer prior to beginning work.

6. Two- way traffic shall be maintained at all times. Lane closures shall be performed using proper signing and flagged techniques as described in the current NCDOT Standard Specifications of Roads and Structures NCDOT Roadway Standard Drawings, and NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way.
7. No lane of traffic shall be closed or restricted before 9:00 a.m. or after 4:00 p.m.
8. NCDOT reserves the right to further limit, restrict, or suspend operations within the Right of Way if, in the opinion of NCDOT, safety or traffic conditions warrant such action.
9. The Traffic Services Supervisor shall be notified in Wilson, N. C. at (252) 296-3544 prior to beginning work on the Right of Way if there are existing NCDOT signs, traffic signals, or signal equipment in or near the proposed work zone. Costs to relocate, replace, or repair NCDOT signs, signals, or associated equipment shall be the responsibility of the Encroacher.
10. All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Permittee in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. All earth areas shall be regraded and seeded in accordance with the current NCDOT Standard Specifications for Roads and Structures.
11. When surface area in excess of one acre will be disturbed, the Encroacher shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the Right of Way. Failure to provide this information shall be grounds for suspension of operations.
12. It shall be the responsibility of the Encroacher to determine the location of utilities in the encroachment area. The Encroacher shall be responsible for notifying utility owners, providing protection and safeguards to prevent damage or interruption to existing facilities, and for maintaining accessibility to existing utilities.

Special Provisions

- 1. The Encroacher shall notify the District Engineer's Office (252)-462-2550 prior to beginning work. The Encroacher shall provide 24 hours notification for inspections.**
2. The proposed utility shall be placed a minimum of 3 feet below the travel surface and/or a minimum of 2 feet below the ditch line. Where a utility runs parallel to a state maintained roads it shall be placed no closer than 5 feet (3 feet for plowed cable) from the edge of pavement.
3. Any damaged storm drainage pipes, pavement, pavement markings, reflectors or curb and gutter shall be repaired and/or replaced by the encroaching party.

4. All lines shall be placed around the end or under all existing storm drains. At points where the utility is placed under existing storm drains, there SHALL be a minimum of two feet separation between the top of the proposed line and the bottom of the existing storm drain and the trench will be backfilled with Class F concrete up to the outside diameter of the existing pipe. There SHALL be no lines placed over the top of any existing storm drains.
- 5. Positive drainage in all ditches must be maintained during and after the installation of the proposed utility.**
- 6. MUTCD MUST be followed.**
7. Any traffic control including lane closure or detour shall be the responsibility of the encroaching party notifying the DOT of closure or detour one week prior to closure.
8. Precast concrete manholes or structures of any type shall be pre-approved by NCDOT for use within highway Rights of Way, and shall be installed flush with pavement (if permitted in roadway) and/or natural ground, at a minimum of 6 feet from the edge of pavement and shall not be in conflict with any roadway ditch.
9. Excavated areas adjacent to pavement having more than a 2 inch drop shall be made safe with a 6:1 or flatter slope and shall be designated by appropriate delineation during periods of construction inactivity including, but not limited to, night and weekend hours.
10. All temporary and final pavement markings, reflective pavement markers and signage are the responsibility of the Encroacher. Final pavement marking and sign plans shall be submitted to the Division Traffic Engineer at P.O. Box 3165, Wilson, NC 27893 (telephone 252-640-6500).
11. All COST, LIABILITY and MAINTENANCE of the installation SHALL be the responsibility of the encroaching party.
12. NCDOT approval of this Encroachment Agreement covers only the area within NCDOT R/W and does not grant permission to work in any RAIL ROAD RIGHT OF WAYS, Wet Land, Sensitive Environmental Areas, Private Property Etc. Permits and permission must be obtained from the appropriate authorities.
13. The encroaching party shall comply with all applicable federal, state, and local environmental regulations, and shall obtain all necessary federal, state, and local environmental permits, including but not limited to, those related to sediment control, stormwater, wetland, streams, endangered species, and historical sites.
14. All pipe protruding inside drainage structures shall be cut off and properly grouted, leaving box with a smooth inside finish.
- 15. All ditches, slopes and other disturbed area shall be shaped to a uniform grade and seeded. All seeding operations SHALL be done within a reasonable time frame.**

16. The encroaching party is responsible for all clearing, grubbing and stabilization of the disturbed area during the installation of the proposed utility.
17. If there are any changes to be made from the original plan location within the NCDOT Roadway or R/W the encroaching party shall cease work immediately and notify DOT for re-evaluation and approval of possible changes from the original encroachment contract.
18. The contractor and/or the City shall notify 911 and all appropriate emergency agencies providing them with the closing and detour information. It is encouraged to also put this information in the local newspapers. Also advise my office with this information so we may place it in the TIMS system.
19. After repairs have been satisfactorily completed the encroaching party shall notify the district engineer for a review to determine if a portion or the entire roadway should have an overlay of one inch of superpave mix SF-9.5B as deemed necessary. All traffic control including roadway closure and detour shall be the responsibility of the encroaching party notifying the NCDOT of closure and detour one week prior to closure.
20. There SHALL be no excavating or drilling equipment operating within the NCDOT Roadway.
21. Due to the nature of the proposed work, the Division Engineer may assign an inspector to make periodic inspections as the work progresses, the cost of which is to be borne by the utility owner.
22. Right of Way monuments disturbed during construction shall be referenced by a professional land surveyor and reset after construction.
23. All fill areas/backfill shall be compacted to 95% density in accordance with AASHTO T99 as modified by NCDOT.

ROUTE NC 42 & SR 1326 PROJECT Grading/Storm Drain COUNTY OF WILSON STATE OF NORTH CAROLINA
Wilson

DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY ENCROACHMENT AGREEMENT
PRIMARY AND SECONDARY HIGHWAYS

-AND-
City of Wilson

P.O. Box 10, Wilson, NC 27894

THIS AGREEMENT, made and entered into this the 15 day of April 20 19 by and between the Department of Transportation, party of the first part; and City of Wilson party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as Route(s) NC 42 & SR 1326, located At the intersection with Corbett Avenue and south of the intersection of Fairfax Avenue, as shown on the attached Toisnot Dog Park Plans. with the construction and/or erection of: Grading and installation of approximately 35 lf of 36-inch HDPE at the intersection of Ward Blvd. (NC 42) and Corbett Ave. (SR 1326) and also grading within the Ward Blvd. R/W south of Fairfax Ave.

WHEREAS, it is to the material advantage of the party of the second part to affect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

- a. Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U. S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- b. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials

grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

- c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- d. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
- e. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to,
 - (1) withholding of payments to the contractor under the contract until the contractor complies, and/or
 - (2) cancellation, termination or suspension of the contract, in whole or in part.
- f. Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "f" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

R/W (161) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

ATTEST OR WITNESS:

George S. West
 City Clerk
 City of Wilson



DEPARTMENT OF TRANSPORTATION

DocuSigned by:
 BY: Bobby Liverman For R Keeter
 DIVISION ENGINEER

C. Bruce Rose
 C. Bruce Rose, Mayor City of Wilson
 P.O. Box 10 Wilson, North Carolina 27894
 Second Party

INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the existing and/or proposed encroachment.
4. Length, size and type of encroachment.
5. Method of installation.
6. Dimensions showing the distance from the encroachment to edge of pavement, shoulders, etc.
7. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
8. Drainage structures or bridges if affected by encroachment (show vertical and horizontal dimensions from encroachment to nearest part of structure).
9. Method of attachment to drainage structures or bridges.
10. Manhole design.
11. On underground utilities, the depth of bury under all traveled lanes, shoulders, ditches, sidewalks, etc.
12. Length, size and type of encasement where required.
13. On underground crossings, notation as to method of crossing - boring and jacking, open cut, etc.
14. Location of vents.

GENERAL REQUIREMENTS

1. Any attachment to a bridge or other drainage structure must be approved by the Head of Structure Design in Raleigh prior to submission of encroachment agreement to the Division Engineer.
2. All crossings should be as near as possible normal to the centerline of the highway.
3. Minimum vertical clearances of overhead wires and cables above all roadways must conform to clearances set out in the National Electric Safety Code.
4. Encasements shall extend from ditch line to ditch line in cut sections and 5' beyond toe of slopes in fill sections.
5. All vents should be extended to the right of way line or as otherwise required by the Department.
6. All pipe encasements as to material and strength shall meet the standards and specifications of the Department.
7. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.

STANDARD NOTES

WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED ON THIS PROPERTY. THIS PROPERTY IS LOCATED IN A FLOOD HAZARD AREA, PANEL NO. 3720372200K DATED 4/16/2013.

THIS PROPERTY IS LOCATED IN THE WS3-C PROTECTED WATERSHED AREA; HOWEVER, DRAINAGE FLOWS OUTSIDE THE WATERSHED.

ALL DISTANCES ARE HORIZONTAL UNLESS NOTED OTHERWISE.

10'x70' SIGHT DISTANCE TRIANGLES ARE FROM RIGHT-OF-WAY.

NO CEMETERIES FOUND ON THE PROPERTY.

AREAS COMPUTED BY COORDINATE CALCULATIONS.

NO GRID MONUMENT FOUND WITHIN 2000'.

ALL DISTANCES SHOWN ARE HORIZONTAL UNLESS NOTED OTHERWISE.

ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.

THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.

ALL PROPOSED SPOT ELEVATIONS ARE ASPHALT / STONE GRADE, OR AS NOTED.

ALL OUTDOOR LIGHTING SHALL BE FACED DOWNWARD AWAY FROM RESIDENTIAL PROPERTIES.

5' MINIMUM GRASS BUFFER REQUIRED AROUND ALL PARKING AREAS.

GARBAGE PICK-UP IS BY PRIVATE COLLECTION WITHOUT A DUMPSTER.

DRIVEWAYS TO BE CROWNED AND PARKING AREAS GRADED SUCH THAT STORM WATER DOES NOT FLOW OUT DRIVEWAYS.

NO BUILDING PERMIT SHALL BE ISSUED PRIOR TO THE PUBLIC SERVICES ENGINEERING DIVISION RECEIVING THE DIGITAL FILE FOR THE ABOVE-REFERENCE SITE PLAN. PLEASE CONTACT JANET HOLLAND AT (252) 399-2215 FOR ADDITIONAL INFORMATION. ALSO ANY CHANGES THROUGHOUT THE DEVELOPMENT PROCESS SHALL REQUIRE AN "AS-BUILT" SITE PLAN PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

ALL TRAFFIC CONTROL DEVICES, PAVEMENT MARKINGS, SIGNS AND SIGNALS SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN CONFORMANCE WITH THE STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR CITY R/W. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

ALL LANDSCAPE WARRANTY, MAINTENANCE AND RELATED CERTIFICATIONS SHALL BE FILED WITH DEVELOPMENT SERVICES PRIOR TO ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN, SHALL MEET THE STANDARDS SET FORTH IN THE CITY OF WILSON UNITED DEVELOPMENT ORDINANCE AND APPROVED BY DEVELOPMENT SERVICES PRIOR TO INSTALLATION. A REVISED LANDSCAPE PLAN MAY BE REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

A SEDIMENTATION AND EROSION CONTROL PERMIT IS REQUIRED DUE TO DISTURBING MORE THAN ONE ACRE.

ACCESSIBLE RAMPS SHALL HAVE SLOPE NO GREATER THAN 1:12.

ALL REQUIRED EXITS TO BE HANDICAP ACCESSIBLE.

ALL HANDICAP ACCESSIBLE AREAS INCLUDING REQUIRED EXITS AND CURB CUTS FOR ACCESS SHALL CONFORM TO THE REQUIREMENTS OF NC BUILDING CODE AND ICC A117.1-2009 AMERICAN NATIONAL STANDARD (ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES). ALL HANDICAP ACCESSIBLE AREAS SHALL NOT EXCEED 1/4" PER FOOT CROSS-SLOPE.

STANDARD R7-8A RESERVE PARKING AND MAXIMUM PENALTY \$250 NCGS 20-37.6 SIGNS MUST BE INSTALLED IN FRONT OF THE HANDICAP PARKING SPACES. VAN ACCESSIBLE SIGN(S) MUST BE PROVIDED IN FRONT OF ALL VAN ACCESSIBLE SPACES.

IF GAS SERVICE IS REQUESTED FROM THE CITY OF WILSON GAS DIVISION, THE PLUMBING/HVAC CONTRACTOR MUST EMAIL OR FAX THE DTU'S PERMITS APPLIANCE AND THE DELIVERY PRESSURE REQUIRED PRIOR TO THE INSTALLATION OF GAS SERVICE. CALL (252) 296-3339 FOR FURTHER INFORMATION. IT IS IMPERATIVE THE GAS DIVISION IS NOTIFIED AND GIVEN AMPLE TIME TO RUN NATURAL GAS LINES BEFORE ANY ROCK, ASPHALT OR CONCRETE IS INSTALLED. THE GAS SERVICE CANNOT BE INSTALLED WITHIN ANY ENCLOSED OR FENCED AREA. NO BUILDING OR STRUCTURE SHALL BE INSTALLED OVER A GAS PIPELINE.

ELECTRIC SERVICE: METER BASES CANNOT BE MOUNTED ON TRANSFORMERS. CURRENT TRANSFORMERS FOR SERVICES ABOVE 400 AMPERES CAN BE INSTALLED ON POLES, BUILDINGS, OR INSIDE TRANSFORMERS. CHARGES WILL BE DETERMINED WHEN DETAILED INFORMATION IS AVAILABLE. WILSON ENERGY WILL SPOT ALL TRANSFORMER AND METER LOCATIONS. PLEASE NOTIFY WILSON ENERGY OF EXACT ELECTRICAL REQUIREMENTS SUCH AS TOTAL CONNECTED LOAD AND VOLTAGE REQUIREMENTS, I.E. 200 AMPS 120/240 VOLTS, OR 600 AMPS 120/208 VOLTS, OR 1200 AMPS 277/480 VOLTS. ANY TREES OR SHRUBBERY THAT INTERFERES WITH WILSON ENERGY ELECTRICAL LINES IN THE FUTURE WILL BE REMOVED.

THE UTILITY LOCATIONS SHOWN ON THIS MAP ARE APPROXIMATE ONLY, AND ARE NOT RELIABLE FOR CONSTRUCTION PURPOSES FOR ACTUAL FIELD LOCATIONS. CALL 1-800-632-4949 OR 811 THREE WORKING DAYS MINIMUM PRIOR TO EXCAVATION.

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF RELOCATION OF ANY UTILITY POLES. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING/RELOCATION OF ANY OTHER UTILITIES AS REQUIRED (INCLUDING BUT NOT LIMITED TO MANHOLE TOPS, VALVE BOXES, ETC.).

***ISSUANCE OF A BUILDING PERMIT BASED UPON THIS SITE PLAN SHALL NOT PREVENT PLANNING AND DEVELOPMENT SERVICES FROM THEREAFTER REQUIRING CORRECTION OF ERRORS IN PLANS, CONSTRUCTION OR VIOLATIONS OF THE STATE BUILDING CODE.

SITE INSPECTION FEE OF \$322 DUE PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

THE RMX PORTION OF THE PROPERTY MUST BE REZONED TO OS.

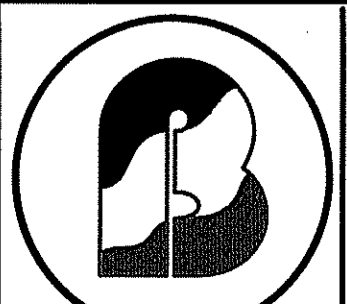
A FLOODPLAIN DEVELOPMENT PERMIT WILL BE REQUIRED FOR ALL WORK. OBSTRUCTIONS WITHIN THE FLOODWAY WILL REQUIRE A NO-RISE CERTIFICATION.

SHEET INDEX

- SP1 OVERALL SITE
- SP2 EXISTING CONDITIONS
- SP3 DEMOLITION PLAN
- SP4 SITE PLAN
- SP5 GRADING PLAN
- SE1 SEDIMENTATION & EROSION CONTROL SHEET 1 (NOT INCLUDED WITH SITE PLAN REVIEW)
- SE2 SEDIMENTATION & EROSION CONTROL DRAINAGE AREAS SHEET 2 (NOT INCLUDED WITH SITE PLAN REVIEW)
- DT1 DETAILS-GENERAL
- DT2 DETAILS-EROSION CONTROL (NOT INCLUDED WITH SITE PLAN REVIEW)

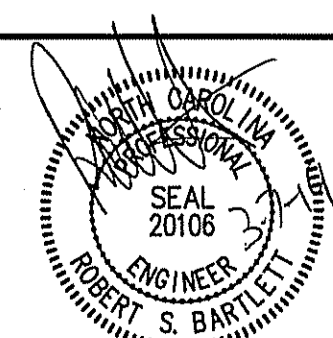
TRC COMMENTS 3/5/2019
S&E COMMENTS 3/7/2018

PROPERTY OWNER:
CITY OF WILSON
PO BOX 10
WILSON, NC 27894



BARTLETT
ENGINEERING & SURVEYING, PC

1906 NASH STREET NORTH TELE: (252) 399-0704
WILSON, N.C. 27893-1726 FAX: (252) 399-0804
LICENSE# C-1551 www.bartlett.us.com



TRC APPROVAL

CITY COUNCIL APPROVAL

ENGINEER NOTES

CONTRACTOR RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS/CONDITIONS OF ALL ENCROACHMENTS & PERMITS INCLUDING PROVIDING BONDS/INSURANCE IF REQUIRED.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING REQUIRED INSPECTIONS BY CITY OF WILSON.

UTILITIES SHOWN ON PLANS ARE LOCATED APPROXIMATELY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES AND SERVICES WHETHER SHOWN ON PLANS OR NOT.

CONTRACTOR TO BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF THESE FACILITIES IF DAMAGED.

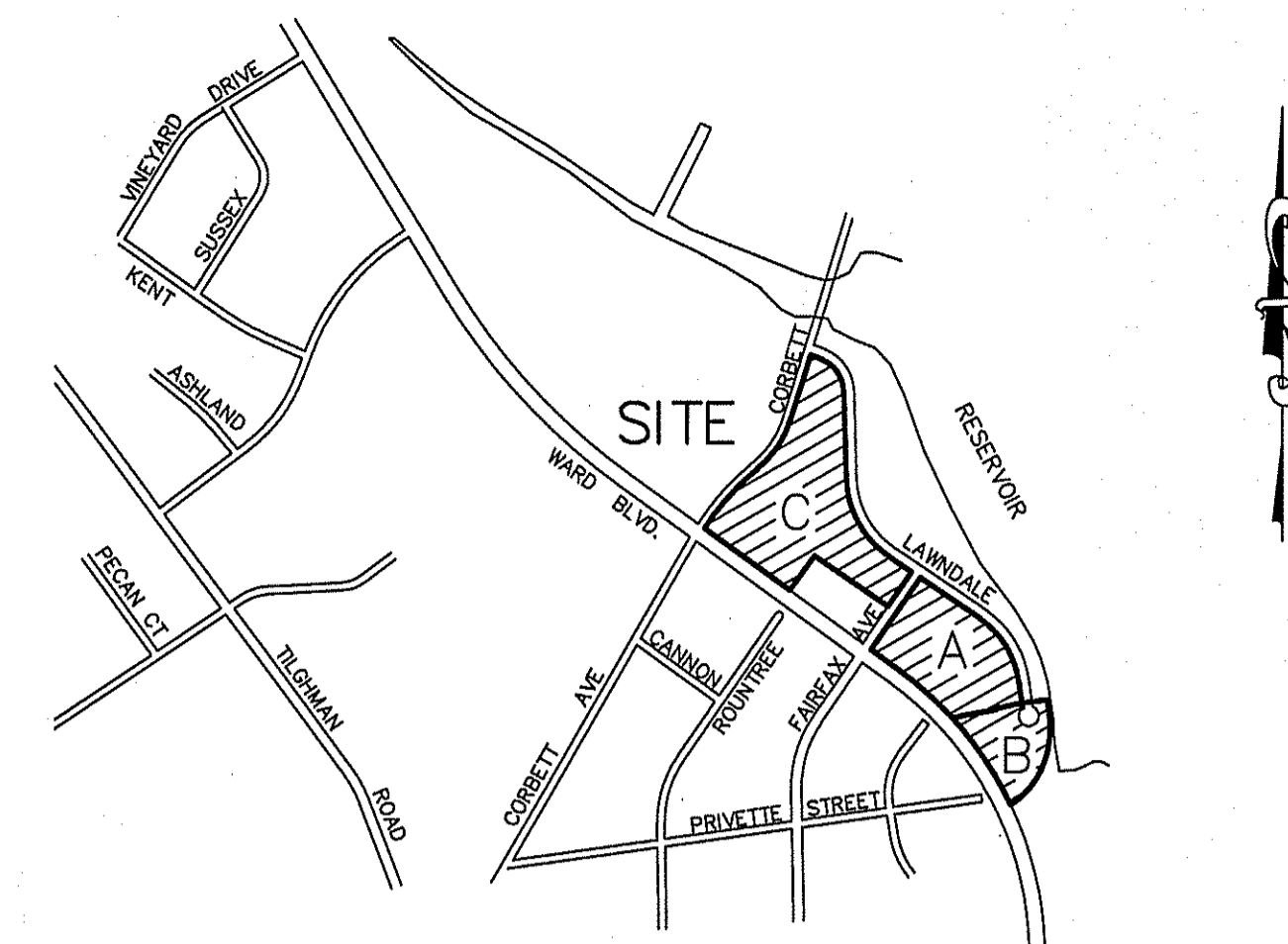
LOCATION, QUANTITY AND PLACEMENT OF DRAINAGE PIPES AND EROSION CONTROL DEVICES MAY VARY TO BETTER CONFORM TO FIELD CONDITIONS.

WATER, SEWER, AND STORM DRAINAGE LINES SHOULD BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:

- MIN. 10' LATERAL SEPARATION BETWEEN WATER/SEWER LINES.
- MIN. 24" VERT. SEPARATION BETWEEN WATER/SEWER, IF WATER MUST BE PLACED BELOW SEWER, DUCTILE IRON IS REQUIRED ON BOTH LINES. DUCTILE IRON SHOULD EXTEND 10' PAST INTERSECTION ON WATER LINE AND TO THE NEXT MANHOLE ON SEWER LINE PER CITY OF WILSON SPECIFICATIONS.
- WATER/SEWER CROSSINGS SHALL BE ARRANGED SO THAT SEWER JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
- MIN. 24" VERT. SEPARATION BETWEEN STORM DRAIN AND SAN. SEWER OR DUCTILE IRON IS REQUIRED.

ALL WORK SHALL CONFORM TO LATEST EDITION OF THE CITY OF WILSON STANDARDS AND SPECIFICATIONS.

FOR CITY OF WILSON REQUIRED PERMITS AND ASSOCIATED FEES, CONTACT JIMMY TAYLOR, ENGINEERING SERVICES COORDINATOR, AT (252) 399-2468.



LOCATION MAP
NO SCALE

SITE DATA:

| | | | | | |
|--------------------------|----------------|--|-----------|-----|--|
| LOT AREA: | PARCEL A | 3.64 AC± | | | |
| | PARCEL B | 1.19 ACRES± | | | |
| | PARCEL C | 6.58 ACRES± | | | |
| | TOTAL | 11.41 ACRES± | | | |
| TOTAL # LOTS: | | 3 | | | |
| ZONING: | | RMX/OS | | | |
| MIN. BLDG. LINES: | RMX: FRONT | 6' | OS: FRONT | N/A | |
| | SIDE | 0' | SIDE | N/A | |
| | ST. SIDE | 6' | ST. SIDE | N/A | |
| | REAR | 3' | REAR | N/A | |
| IMPERVIOUS AREA: | PRE-REGULATION | | PROPOSED | | |
| | PARCEL A | 35,140 SF | 74,279 SF | | |
| | PARCEL B | 17,800 SF | 17,942 SF | | |
| | PARCEL C | 0 | 0 | | |
| | TOTAL | 52,940 SF | 92,221 SF | | |
| PARKING SPACES REQUIRED: | | N/A | | | |
| PROPOSED PARKING SPACES: | | 32 - 9x18 | | | |
| | | 4 - 9x18 H/C SPACE | | | |
| | | 36 - TOTAL SPACES | | | |
| SITE LOCATION: | | 1413 LAWDALE DRIVE NE | | | |
| EXISTING LAND USAGE: | | VACANT/SKATE PARK | | | |
| OWNER: | | CITY OF WILSON PO BOX 10 WILSON, NC 27894 | | | |
| PARCEL ID No.: | | 3722-48-9145 3722-58-0110 3722-58-1034 3722-57-2905 3722-57-2843 3722-57-2766 3722-47-5943 | | | |
| REFERENCES: | | DEED BOOK 1789 PAGE 547 DEED BOOK 1789 PAGE 551 PLAT BOOK 14 PAGE 79 | | | |

WATERSHED/STORMWATER
INFORMATION & CERTIFICATIONS

| NITROGEN CALCULATION FOR REDEVELOPMENT | | | | |
|---|---------------------------|---------------------|---------------------|----------------|
| | PRE-REGULATION CONDITIONS | EXISTING CONDITIONS | PROPOSED CONDITIONS | NET DIFFERENCE |
| TOTAL ACRES | 11.41 | 1.22 | 11.41 | 0 |
| IMPERVIOUS | 1.22 | 0.00 | 2.12 | 0.90 |
| MANAGED OPEN SPACE | 10.19 | 0.00 | 9.29 | -0.90 |
| UNDISTURBED OPEN AREA | 0 | 0 | 0 | 0 |
| TOTAL TN (LBS PER YEAR) | 23.87 | | | |
| TOTAL TN (LBS/ACRE/YEAR) | 2.09 | | | |
| (LESS THAN 3.6; NO REDUCTION OR BUYDOWN REQUIRED) | | | | |

| PEAK RUN-OFF (RATIONAL METHOD) | | |
|---|--------------------|---------------------|
| | Pre-Reg CONDITIONS | PROPOSED CONDITIONS |
| TOTAL ACRES | 11.41 | 11.41 |
| IMPERVIOUS AREA (Ac) | 1.22 | 2.12 |
| COMPOSITE "C" VALUE | 0.44 | 0.46 |
| INTENSITY | 7.56 | 7.56 |
| RUN-OFF (CFS) | 37.72 | 40.11 |
| 6.33% INCREASE REQUIRES NO FLOW CONTROL | | |

| WATERSHED - LOW DENSITY (12%) | |
|-------------------------------|----------|
| TOTAL AREA | 11.41 AC |
| NET AREA SUBJECT TO 24% | 10.19 AC |
| NET IMPERVIOUS AREA | 0.90 AC |
| % IMPERVIOUS AREA | 8.85% |

CERTIFICATE OF APPROVAL UNDER NEUSE RIVER BASIN STORMWATER PROTECTION PROGRAM FOR NITROGEN REMOVAL REGULATIONS.

I CERTIFY THAT THE (PLAT/DEVELOPMENT PLAN) SHOWN HEREON COMPLIES WITH THE NEUSE RIVER BASIN STORMWATER PROGRAM FOR NITROGEN REMOVAL REGULATIONS FOR THE CITY OF WILSON, PRIOR TO THE NEUSE RIVER REGULATIONS.

PUBLIC SERVICES/STORMWATER DATE

I CERTIFY THAT THE (PLAT/DEVELOPMENT PLAN) SHOWN HEREON IS EXEMPT FROM THE PEAK FLOW REQUIREMENTS SINCE THE INCREASE IN PEAK FLOW BETWEEN PRE- AND POST-DEVELOPMENT IS LESS THAN 10%.

PUBLIC SERVICES/STORMWATER DATE

THIS PLAT/DEVELOPMENT IS IN THE WS-3C WATERSHED DISTRICT AND THE DEVELOPER IS USING THE LOW DENSITY OPTION OF 12% IMPERVIOUS.

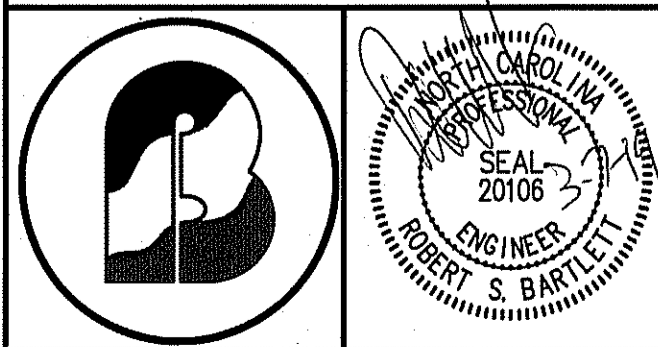
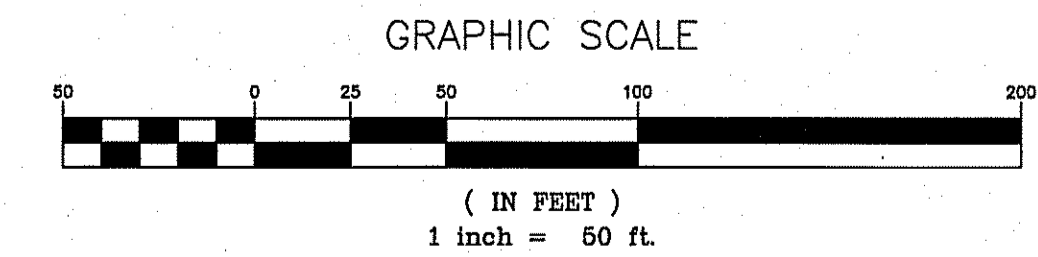
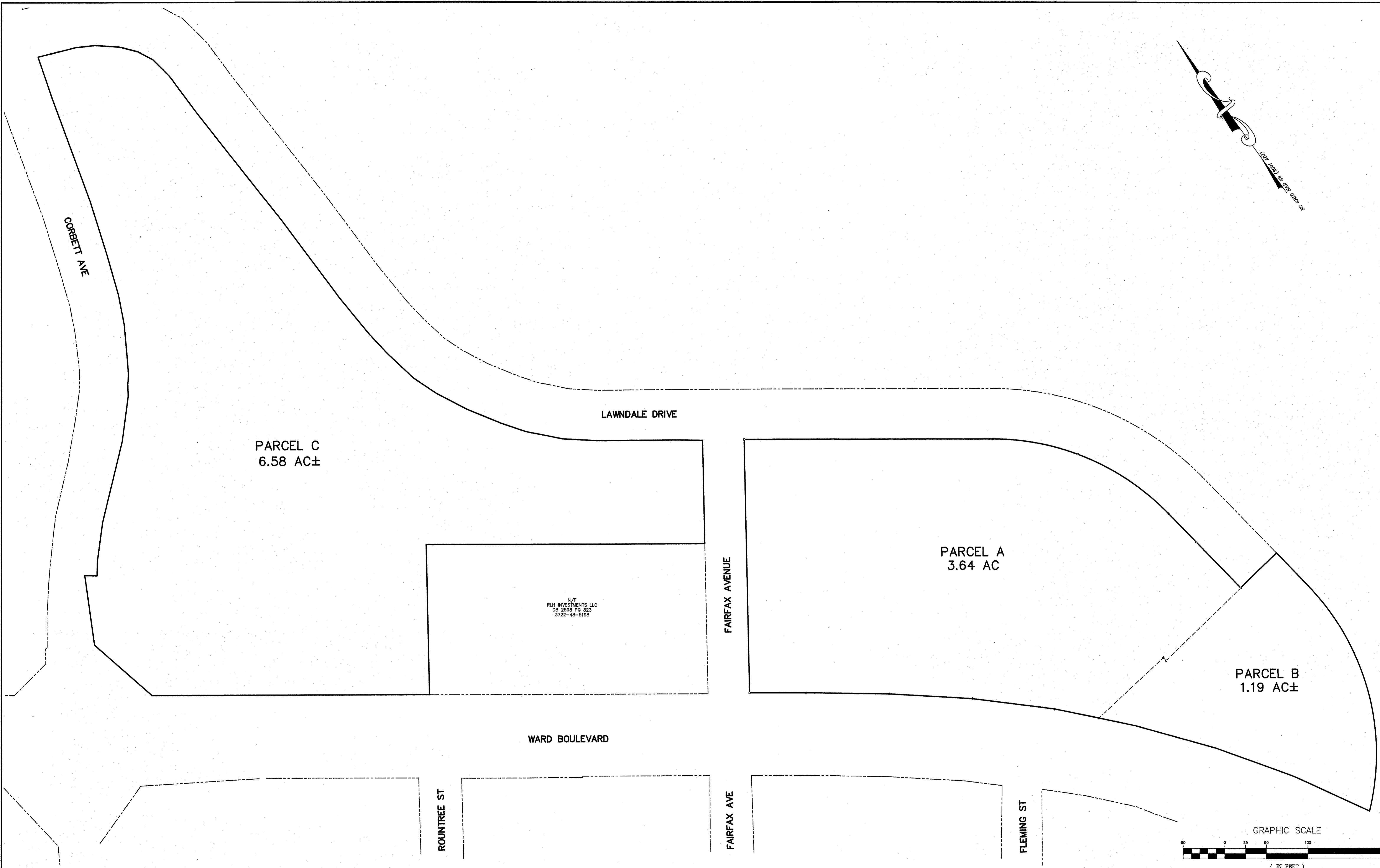
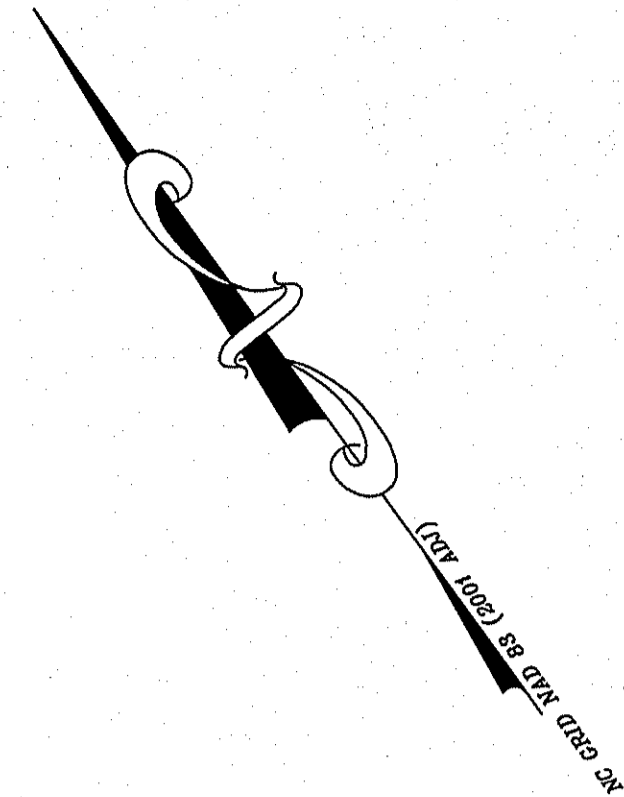
I CERTIFY THAT THE LOT SHOWN HEREIN COMPLIES WITH THE WATERSHED PROTECTION REGULATIONS FOR THE CITY OF WILSON.

WATERSHED ADMINISTRATION /PUBLIC SERVICES DATE

SITE PLAN
for
TOISNOT DOG PARK

1413 LAWDALE DRIVE NE

WILSON, NORTH CAROLINA 27896



BARTLETT
ENGINEERING & SURVEYING, PC
1906 NASH STREET NORTH
WILSON, N.C. 27893-1726
License No. C-1551
TELE: (252) 399-0704
FAX: (252) 399-0804
www.bartlett.us.com

**OVERALL PARCEL
PLAN**

TOISNOT DOG PARK
- 1413 LAWDALE DRIVE NE -

DATE: MARCH 2019
SCALE(HORZ): 1"=50'
SCALE(VERT): N/A
REVISIONS: TRC COMMENTS 3/5/2019

| | | |
|-------------------|----------------|---------------|
| PROJECT: 18478 | CITY OF WILSON | WILSON COUNTY |
| CLIENT CODE: WC | NORTH CAROLINA | ZONE: RMX/OS |
| CADFILE: 18478SP4 | PIN # | SHEET SP1 |
| FIELD BOOK: 348 | | |
| DRAWN BY: CEP | | |
| SURVEY BY: DB, JB | | |

P:\CAD\LANDPROJECTS\WC\18478\DWG\18478SP4.dwg, Mar 07, 2019 8:50AM EST

- NOTES**
- AREAS COMPUTED BY COORDINATE CALCULATIONS.
 - COORDINATES SHOWN ON PLAT ARE HORIZONTAL COORDINATES UNLESS STATED OTHERWISE.
 - ALL DISTANCES SHOWN ARE HORIZONTAL UNLESS NOTED OTHERWISE.
 - ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.
 - WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED
 - THERE ARE NO CEMETERIES VISIBLE.
 - THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.
 - UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS ONLY.
 - A PORTION OF THIS PROPERTY IS IN A SPECIAL FLOOD HAZARD AREA (100 YR FLOOD).
 - A PORTION OF THIS PROPERTY IS IN A FLOODWAY.

| Curve # | Length | Radius | Delta | Chord Direction | Chord Length |
|---------|--------|--------|-------|-----------------|--------------|
| C1 | 104.38 | 293.54 | 20.37 | N43° 42' 13"W | 103.83 |
| C2 | 131.21 | 293.54 | 25.61 | N20° 42' 41"W | 130.12 |
| C3 | 293.44 | 289.89 | 58.00 | N20° 59' 32"E | 281.07 |

REFERENCES: DEED BOOK 1799 PAGE 547
 DEED BOOK 1799 PAGE 551
 PLAT BOOK 14 PAGE 79

SITE DATA

LOT AREA: PARCEL A 3.64 AC.±
 PARCEL B 1.19 ACRES±

ZONING: RMX/OS

MIN. BLDG. LINES:
 RMX: FRONT 6'
 SIDE 0'
 ST. SIDE 6'
 REAR 3'

OS: FRONT N/A
 SIDE N/A
 ST. SIDE N/A
 REAR N/A

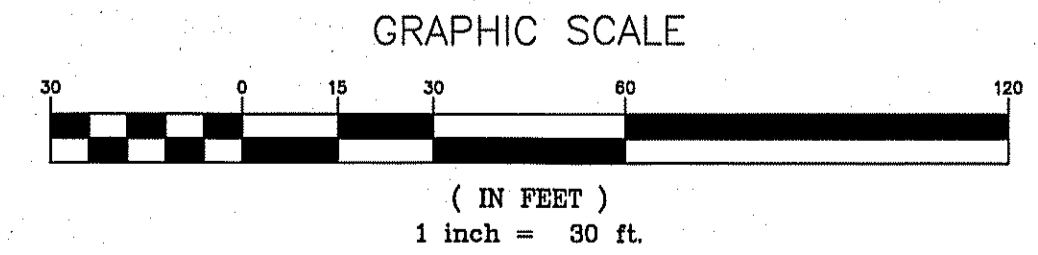
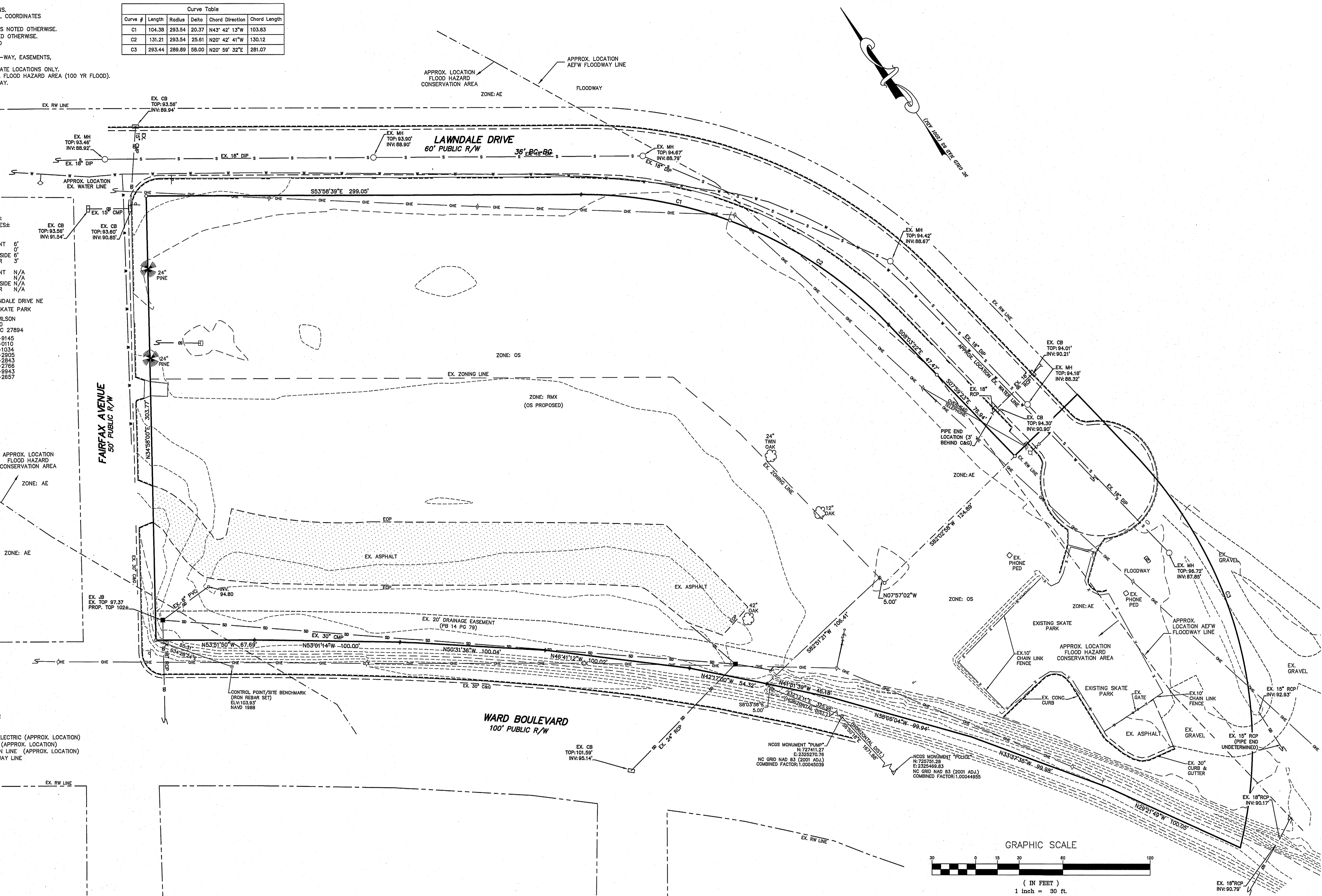
SITE LOCATION: 1413 LAWDALE DRIVE NE
 EXISTING LAND USAGE: VACANT/SKATE PARK

OWNER: CITY OF WILSON
 PO BOX 10
 WILSON, NC 27894

PARCEL ID No.:
 3722-48-9145
 3722-58-0110
 3722-58-1034
 3722-57-2905
 3722-57-2843
 3722-57-2766
 3722-47-9943
 3722-57-2657

- LEGEND**
- EXISTING IRON PIPE
 - ⊙ IRON REBAR SET (CONTROL POINT)
 - △ EXISTING NCGS MONUMENT
 - COMPUTED POINT
 - ⊕ EXISTING HYDRANT
 - ⊕ EXISTING WATER VALVE
 - ⊕ EXISTING WATER METER
 - ⊕ EXISTING HOT BOX
 - ⊕ EXISTING UTILITY POLE
 - ⊕ EXISTING GUY WIRE
 - ⊕ EXISTING TELEPHONE PEDESTAL
 - ⊕ EXISTING CATCH BASIN
 - ⊕ EXISTING DROP INLET
 - ⊕ EXISTING SIGN

- LINE LEGEND & ABBREVIATIONS**
- C&G EXISTING CONCRETE CURB AND GUTTER
 - EOP EXISTING EDGE OF PAVEMENT
 - R/W EXISTING RIGHT OF WAY LINE
 - OHE EXISTING OVERHEAD ELECTRIC (APPROX. LOCATION)
 - W EXISTING WATER LINE (APPROX. LOCATION)
 - SD EXISTING STORM DRAIN LINE (APPROX. LOCATION)
 - EXISTING RIGHT-OF-WAY LINE



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 FAX: (252) 399-0804
 www.bartlett.us.com

EXISTING CONDITIONS

TOISNOT DOG PARK
 - 1413 LAWDALE DRIVE NE -

DATE: MARCH 2019
 SCALE(HORZ): 1"=30'
 SCALE(VERT): N/A

PROJECT: 18478
 CLIENT CODE: WC
 CADFILE: 18478SP4
 FIELD BOOK: 348
 DRAWN BY: CEF
 SURVEY BY: DB, JB

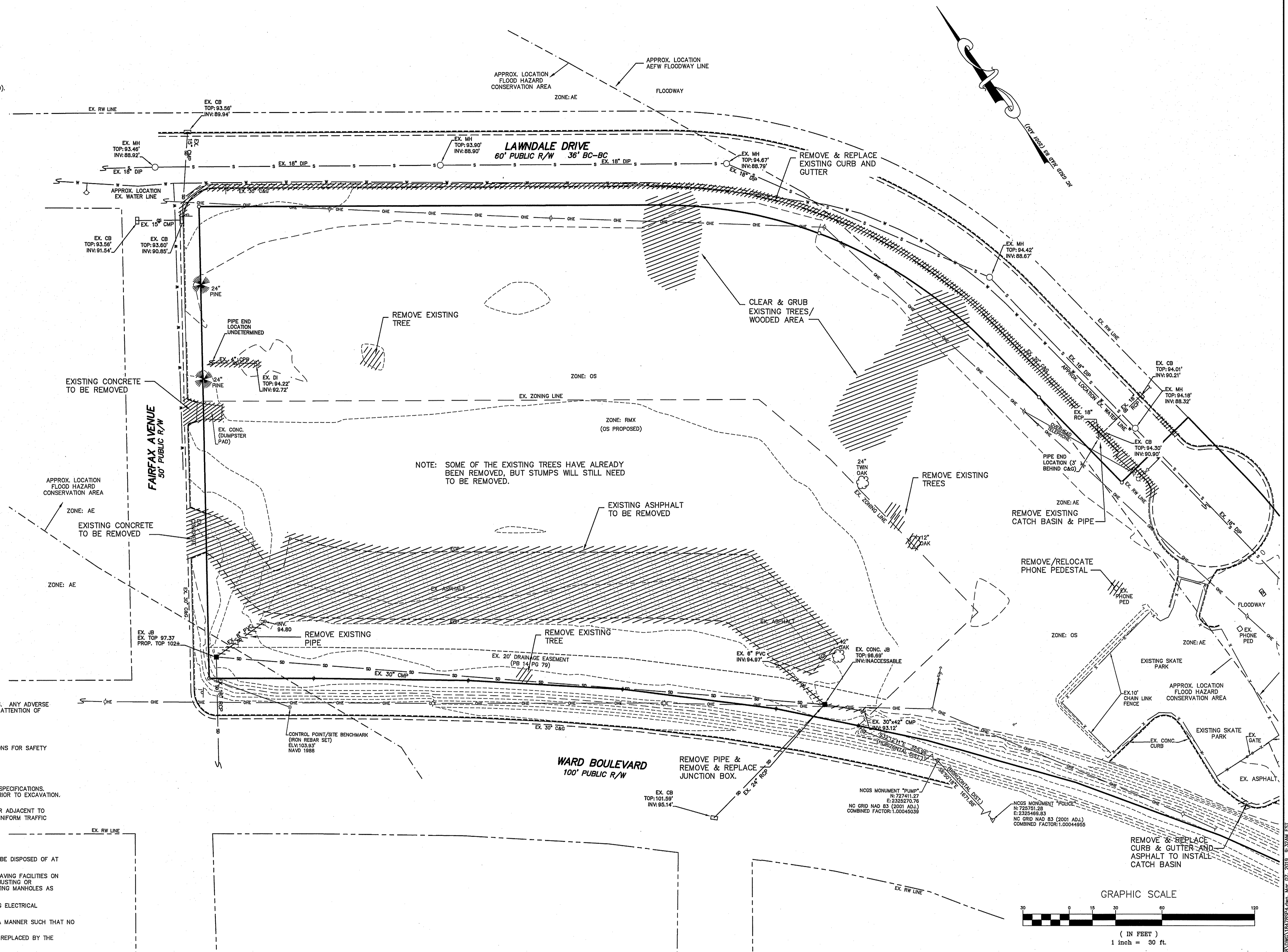
REVISIONS: TRC COMMENTS 3/5/2019

CITY OF WILSON WILSON COUNTY
 NORTH CAROLINA ZONE: RMX/OS
 PIN # SHEET SP2

PROJECT: 18478 TOISNOT DOG PARK, WILSON, NC, 3/5/2019 9:30 AM EST

- NOTES**
- AREAS COMPUTED BY COORDINATE CALCULATIONS.
 - COORDINATES SHOWN ON PLAT ARE HORIZONTAL COORDINATES UNLESS STATED OTHERWISE.
 - ALL DISTANCES SHOWN ARE HORIZONTAL UNLESS NOTED OTHERWISE.
 - ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.
 - WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED.
 - THERE ARE NO CEMETERIES VISIBLE.
 - THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.
 - UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS ONLY.
 - A PORTION OF THIS PROPERTY IS IN A SPECIAL FLOOD HAZARD AREA (100 YR FLOOD).
 - A PORTION OF THIS PROPERTY IS IN A FLOODWAY.

REFERENCES:
 DEED BOOK 1799 PAGE 547
 DEED BOOK 1799 PAGE 551
 PLAT BOOK 14 PAGE 79



- LEGEND**
- EXISTING IRON PIPE
 - ⊙ IRON REBAR SET (CONTROL POINT)
 - △ EXISTING NCSS MONUMENT
 - COMPUTED POINT
 - ⊕ EXISTING HYDRANT
 - ⊗ EXISTING WATER VALVE
 - ⊚ EXISTING UTILITY POLE
 - ⊙ EXISTING GUY WIRE
 - ⊙ EXISTING TELEPHONE PEDESTAL
 - ⊙ EXISTING CATCH BASIN
 - ⊙ EXISTING DROP INLET
 - ⊙ EXISTING SIGN
- LINE LEGEND & ABBREVIATIONS**
- C&G EXISTING CONCRETE CURB AND GUTTER
 - EOP EXISTING EDGE OF PAVEMENT
 - R/W EXISTING RIGHT OF WAY LINE
 - EX. OVERHEAD ELECTRIC (APPROX. LOCATION)
 - EX. WATER LINE (APPROX. LOCATION)
 - EX. STORM DRAIN LINE (APPROX. LOCATION)
 - EX. RIGHT-OF-WAY LINE

EXISTING CONDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING JOB CONDITIONS. ANY ADVERSE CONDITIONS AFFECTING WORK SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER FOR POSSIBLE CLARIFICATION OR RECONCILIATION.

CONSTRUCTION SAFETY:

THESE DRAWINGS DO NOT CONTAIN THE REQUIREMENTS FOR JOB SAFETY. ALL PROVISIONS FOR SAFETY SHALL BE SOLE RESPONSIBILITY OF THE CONTRACTOR.

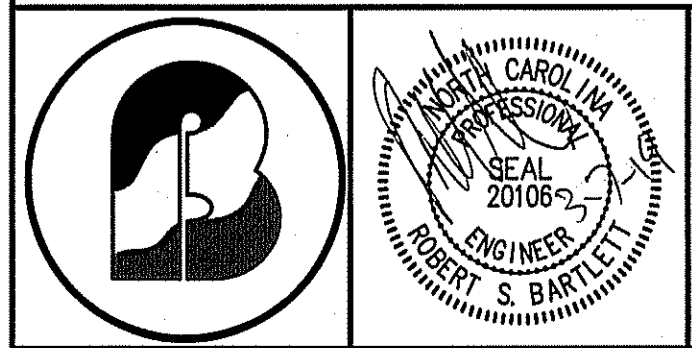
GENERAL NOTES:

WORK WITHIN THE NCDOT RIGHT-OF-WAY SHALL CONFORM TO NCDOT STANDARDS AND SPECIFICATIONS. CALL ONE CALL CENTER AT 1-800-632-4949 FOR LOCATIONS OF EXISTING UTILITIES PRIOR TO EXCAVATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR CITY RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

- DEMOLITION NOTES:**
1. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM DEMOLITION SHALL BE DISPOSED OF AT AN APPROVED PERMITTED OFF-SITE LOCATION BY CONTRACTOR.
 2. CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL RAISE OR LOWER TOPS OF EXISTING MANHOLES AS REQUIRED TO MATCH FINISHED GRADES.
 3. COORDINATE WITH THE LOCAL UTILITY PROVIDER FOR REMOVAL/RELOCATION OF EXISTING ELECTRICAL TRANSFORMERS AND/OR LIGHT POLES.
 4. SIDEWALK AND CURB & GUTTER TO BE REMOVED TO NEAREST JOINT OR SAW-CUT IN A MANNER SUCH THAT NO JOINT IS LESS THAN 5 FEET.
 5. ANY EXISTING CURB & GUTTER OR ASPHALT DAMAGED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

NOTE: SOME OF THE EXISTING TREES HAVE ALREADY BEEN REMOVED, BUT STUMPS WILL STILL NEED TO BE REMOVED.



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 www.bartlett.us.com

DEMOLITION PLAN

TOISNOT DOG PARK
 - 1413 LAWDALE DRIVE NE -

| | |
|----------------------------------|-------------------|
| DATE: MARCH 2019 | PROJECT: 18478 |
| SCALE(HORZ): 1"=30' | CLIENT CODE: WC |
| SCALE(VERT): N/A | CADFILE: 18478SP4 |
| REVISIONS: TRC COMMENTS 3/5/2019 | FIELD BOOK: 348 |
| | DRAWN BY: CEP/LR |
| | SURVEY BY: DB, JB |

| | |
|----------------|---------------|
| CITY OF WILSON | WILSON COUNTY |
| NORTH CAROLINA | ZONE: RMX/OS |
| PIN # | SHEET SP3 |

P:\CAD\LANDSCAPE\PROJECTS\18478 TOISNOT DOG PARK\18478.dwg, Mar 07, 2019 9:32AM EST

NOTES

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- COORDINATES SHOWN ON PLAT ARE HORIZONTAL COORDINATES UNLESS STATED OTHERWISE.
- ALL DISTANCES SHOWN ARE HORIZONTAL UNLESS NOTED OTHERWISE.
- ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.
- WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED.
- THERE ARE NO CEMETERIES VISIBLE.
- THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.
- UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS ONLY.
- THIS PROPERTY IS LOCATED IN A FLOOD HAZARD AREA (100 YR FLOOD).
- A PORTION OF THIS PROPERTY IS LOCATED IN THE FLOODWAY.

REFERENCES:

| | |
|----------------|----------|
| DEED BOOK 1799 | PAGE 547 |
| DEED BOOK 1799 | PAGE 551 |
| PLAT BOOK 14 | PAGE 79 |

SITE DATA

LOT AREA: PARCEL A 3.64 AC.±
PARCEL B 1.19 ACRES±

ZONING: RMX/OS

MIN. BLDG. LINES: RMX: FRONT 6'
SIDE 0'
ST. SIDE 6'
REAR 3'

OS: FRONT N/A
SIDE N/A
ST. SIDE N/A
REAR N/A

IMPERVIOUS AREA AFTER CONSTR.: 92,221 SF±

PARKING SPACES REQUIRED: N/A

PROPOSED PARKING SPACES: 32 - 9x18
4 - 9x18 H/C SPACE
36 - TOTAL SPACES

SITE LOCATION: 1413 LAWDALE DRIVE NE
EXISTING LAND USAGE: VACANT/SKATE PARK
OWNER: CITY OF WILSON
PO BOX 10
WILSON, NC 27894

PARCEL ID No.: 3722-48-9145
3722-58-0110
3722-58-1034
3722-57-2905
3722-57-2843
3722-57-2786
3722-47-9943
3722-57-2657

LEGEND

- EXISTING IRON PIPE
- ⊙ IRON REBAR SET (CONTROL POINT)
- ⊠ EXISTING NCGS MONUMENT
- ⊕ COMPUTED POINT
- ⊙ EXISTING HYDRANT
- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING GUY WIRE
- ⊕ EXISTING TELEPHONE PEDESTAL
- ⊕ EXISTING CATCH BASIN
- ⊕ EXISTING DROP INLET
- ⊕ EXISTING SIGN

LINE LEGEND & ABBREVIATIONS

C&G EXISTING CONCRETE CURB AND GUTTER
EOP EXISTING EDGE OF PAVEMENT
R/W EXISTING RIGHT OF WAY LINE

— OHE — EXISTING OVERHEAD ELECTRIC (APPROX. LOCATION)
— W — EXISTING WATER LINE (APPROX. LOCATION)
— SD — EXISTING STORM DRAIN LINE (APPROX. LOCATION)
- - - EXISTING RIGHT-OF-WAY LINE

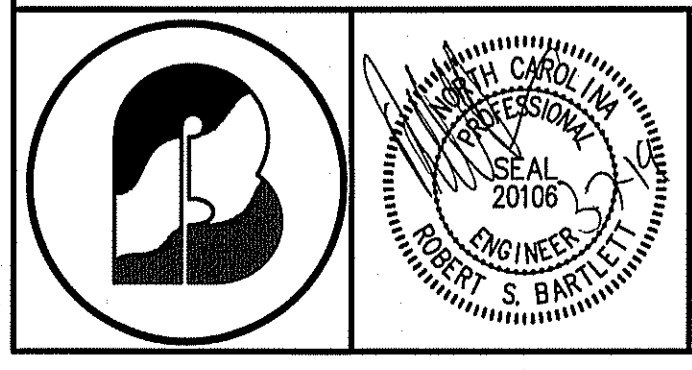
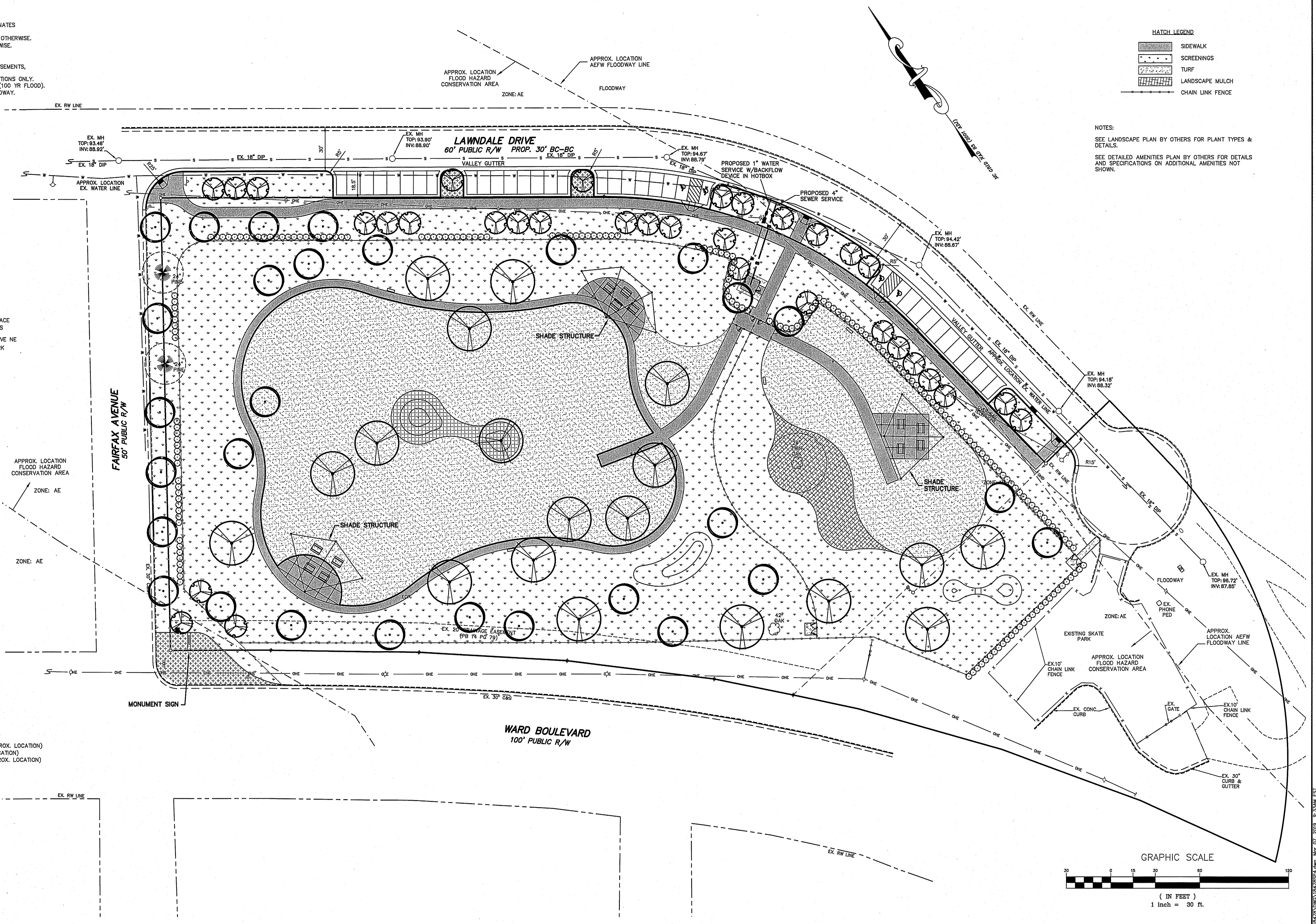
HATCH LEGEND

- ▬ SIDEWALK
- ▬ SCREENINGS
- ▬ TURF
- ▬ LANDSCAPE MULCH
- ▬ CHAIN LINK FENCE

NOTES:

SEE LANDSCAPE PLAN BY OTHERS FOR PLANT TYPES & DETAILS.

SEE DETAILED AMENITIES PLAN BY OTHERS FOR DETAILS AND SPECIFICATIONS ON ADDITIONAL AMENITIES NOT SHOWN.



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SITE and UTILITY PLAN

TOISNOT DOG PARK
- 1413 LAWDALE DRIVE NE -

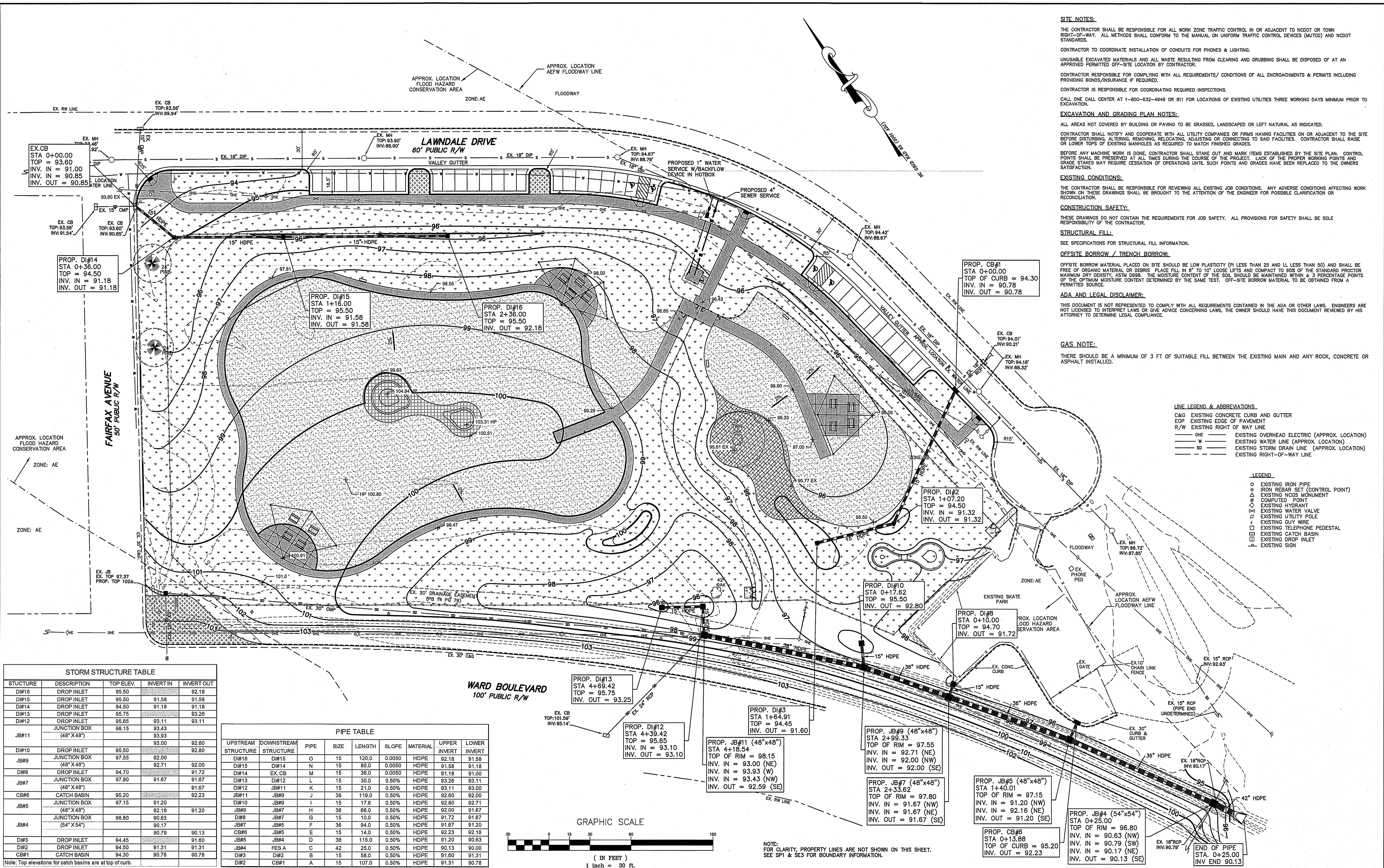
DATE: MARCH 2019
SCALE(HORZ): 1"=30'
SCALE(VERT): N/A

PROJECT: 18478
CLIENT CODE: WC
CADFILE: 18478SP4
FIELD BOOK: 348
DRAWN BY: CEP/LR
SURVEY BY: DB, JB

REVISIONS: TRC COMMENTS 3/5/2019

| | |
|----------------|---------------|
| CITY OF WILSON | WILSON COUNTY |
| NORTH CAROLINA | ZONE: RMX/OS |
| PIN # | SHEET SP4 |

PLANNING PROJECTS INC. 10175 DIXIE DRIVE, SUITE 100, WILSON, NC 27894, MAR 07, 2019 9:33AM EST



SITE NOTES:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR TOWN RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
 CONTRACTOR TO COORDINATE INSTALLATION OF CONDUITS FOR PHONES & LIGHTING.
 UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF AT AN APPROVED PERMITTED OFF-SITE LOCATION BY CONTRACTOR.
 CONTRACTOR RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS/ CONDITIONS OF ALL ENCROACHMENTS & PERMITS INCLUDING PROVIDING BONDS/INSURANCE IF REQUIRED.
 CONTRACTOR IS RESPONSIBLE FOR COORDINATING REQUIRED INSPECTIONS.
 CALL ONE CALL CENTER AT 1-800-632-4949 OR 811 FOR LOCATIONS OF EXISTING UTILITIES THREE WORKING DAYS MINIMUM PRIOR TO EXCAVATION.

EXCAVATION AND GRADING PLAN NOTES:
 ALL AREAS NOT COVERED BY BUILDING OR PAVING TO BE GRASSED, LANDSCAPED OR LEFT NATURAL AS INDICATED.
 CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL RAISE OR LOWER TOPS OF EXISTING MANHOLES AS REQUIRED TO MATCH FINISHED GRADES.
 BEFORE ANY MACHINE WORK IS DONE, CONTRACTOR SHALL STAKE OUT AND MARK ITEMS ESTABLISHED BY THE SITE PLAN. CONTROL POINTS SHALL BE PRESERVED AT ALL TIMES DURING THE COURSE OF THE PROJECT. LACK OF THE PROPER WORKING POINTS AND GRADE STAKES MAY REQUIRE CESSATION OF OPERATIONS UNTIL SUCH POINTS AND GRADES HAVE BEEN REPLACED TO THE OWNERS SATISFACTION.

EXISTING CONDITIONS:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING JOB CONDITIONS. ANY ADVERSE CONDITIONS AFFECTING WORK SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR POSSIBLE CLARIFICATION OR RECONCILIATION.

CONSTRUCTION SAFETY:
 THESE DRAWINGS DO NOT CONTAIN THE REQUIREMENTS FOR JOB SAFETY. ALL PROVISIONS FOR SAFETY SHALL BE SOLE RESPONSIBILITY OF THE CONTRACTOR.

STRUCTURAL FILL:
 SEE SPECIFICATIONS FOR STRUCTURAL FILL INFORMATION.

OFFSITE BORROW / TRENCH BORROW:
 OFFSITE BORROW MATERIAL PLACED ON SITE SHOULD BE LOW PLASTICITY (PI LESS THAN 25 AND LL LESS THAN 50) AND SHALL BE FREE OF ORGANIC MATERIAL OR DEBRIS. PLACE FILL IN 8" TO 10" LOOSE LIFTS AND COMPACT TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D998. THE MOISTURE CONTENT OF THE SOIL SHOULD BE MAINTAINED WITHIN ± 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT DETERMINED BY THE SAME TEST. OFF-SITE BORROW MATERIAL TO BE OBTAINED FROM A PERMITTED SOURCE.

ADA AND LEGAL DISCLAIMER:
 THIS DOCUMENT IS NOT REPRESENTED TO COMPLY WITH ALL REQUIREMENTS CONTAINED IN THE ADA OR OTHER LAWS. ENGINEERS ARE NOT LICENSED TO INTERPRET LAWS OR GIVE ADVICE CONCERNING LAWS, THE OWNER SHOULD HAVE THIS DOCUMENT REVIEWED BY HIS ATTORNEY TO DETERMINE LEGAL COMPLIANCE.

GAS NOTE:
 THERE SHOULD BE A MINIMUM OF 3 FT OF SUITABLE FILL BETWEEN THE EXISTING MAIN AND ANY ROCK, CONCRETE OR ASPHALT INSTALLED.

LINE LEGEND & ABBREVIATIONS:
 C&G EXISTING CONCRETE CURB AND GUTTER
 EOP EXISTING EDGE OF PAVEMENT
 R/W EXISTING RIGHT OF WAY LINE
 OHE EXISTING OVERHEAD ELECTRIC (APPROX. LOCATION)
 EW EXISTING WATER LINE (APPROX. LOCATION)
 SD EXISTING STORM DRAIN LINE (APPROX. LOCATION)
 EXISTING RIGHT-OF-WAY LINE

LEGEND:
 ○ EXISTING IRON PIPE
 ⊙ IRON REBAR SET (CONTROL POINT)
 △ EXISTING NCGS MONUMENT
 # COMPUTED POINT
 ⊕ EXISTING HYDRANT
 ⊕ EXISTING WATER VALVE
 ⊕ EXISTING UTILITY POLE
 ⊕ EXISTING GUY WIRE
 ⊕ EXISTING TELEPHONE PEDESTAL
 ⊕ EXISTING CATCH BASIN
 ⊕ EXISTING DROP INLET
 ⊕ EXISTING SIGN

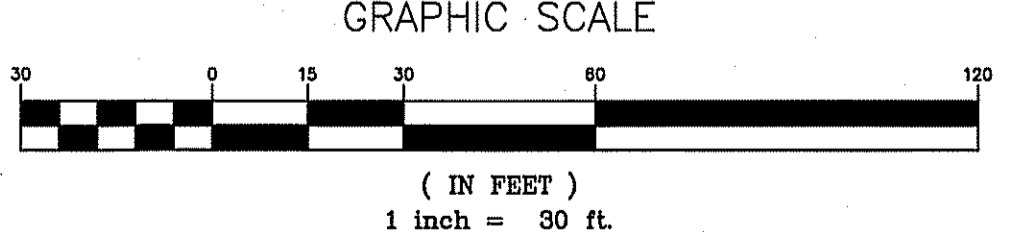
STORM STRUCTURE TABLE

| STRUCTURE | DESCRIPTION | TOP ELEV. | INVERT IN | INVERT OUT |
|-----------|--------------------------|-----------|-----------|------------|
| DI#16 | DROP INLET | 95.50 | 92.18 | 92.18 |
| DI#15 | DROP INLET | 95.50 | 91.58 | 91.58 |
| DI#14 | DROP INLET | 94.50 | 91.18 | 91.18 |
| DI#13 | DROP INLET | 95.75 | 93.26 | 93.26 |
| DI#12 | DROP INLET | 95.65 | 93.11 | 93.11 |
| JB#11 | JUNCTION BOX (48" X 48") | 98.15 | 93.43 | 93.00 |
| DI#10 | DROP INLET | 95.50 | 92.80 | 92.80 |
| JB#9 | JUNCTION BOX (48" X 48") | 97.55 | 92.00 | 92.00 |
| DI#8 | DROP INLET | 94.70 | 91.72 | 91.72 |
| JB#7 | JUNCTION BOX (48" X 48") | 97.80 | 91.67 | 91.67 |
| CB#6 | CATCH BASIN (48" X 48") | 95.20 | 92.23 | 92.23 |
| JB#5 | JUNCTION BOX (48" X 48") | 97.15 | 91.20 | 91.20 |
| DI#3 | DROP INLET | 94.45 | 91.60 | 91.60 |
| DI#2 | DROP INLET | 94.50 | 91.31 | 91.31 |
| CB#1 | CATCH BASIN (54" X 54") | 96.80 | 90.78 | 90.78 |

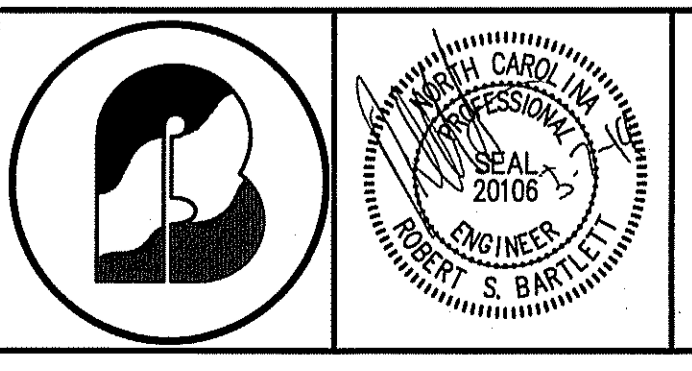
Note: Top elevations for catch basins are at top of curb.

PIPE TABLE

| UPSTREAM STRUCTURE | DOWNSTREAM STRUCTURE | PIPE | SIZE | LENGTH | SLOPE | MATERIAL | UPPER INVERT | LOWER INVERT |
|--------------------|----------------------|------|------|--------|--------|----------|--------------|--------------|
| DI#16 | DI#15 | O | 15 | 120.0 | 0.0050 | HDPE | 92.18 | 91.58 |
| DI#15 | DI#14 | N | 15 | 80.0 | 0.0050 | HDPE | 91.58 | 91.18 |
| DI#14 | EX. CB | M | 15 | 36.0 | 0.0050 | HDPE | 91.18 | 91.00 |
| DI#13 | DI#12 | L | 15 | 30.0 | 0.50% | HDPE | 93.26 | 93.11 |
| DI#12 | JB#11 | K | 15 | 21.0 | 0.50% | HDPE | 93.11 | 93.00 |
| JB#11 | JB#9 | J | 36 | 119.0 | 0.50% | HDPE | 92.80 | 92.00 |
| DI#10 | JB#9 | I | 15 | 17.5 | 0.50% | HDPE | 92.80 | 92.71 |
| JB#9 | JB#7 | H | 36 | 68.0 | 0.50% | HDPE | 92.00 | 91.67 |
| DI#8 | JB#7 | G | 15 | 10.0 | 0.50% | HDPE | 91.72 | 91.67 |
| JB#7 | JB#5 | F | 36 | 94.0 | 0.50% | HDPE | 91.67 | 91.20 |
| CB#6 | JB#5 | E | 15 | 14.0 | 0.50% | HDPE | 92.23 | 92.16 |
| JB#5 | JB#4 | D | 36 | 115.0 | 0.50% | HDPE | 91.20 | 90.83 |
| DI#3 | FES A | C | 42 | 25.0 | 0.50% | HDPE | 90.13 | 90.00 |
| DI#2 | DI#2 | B | 15 | 58.0 | 0.50% | HDPE | 91.60 | 91.31 |
| DI#2 | CB#1 | A | 15 | 107.0 | 0.50% | HDPE | 91.31 | 90.78 |



NOTE: FOR CLARITY, PROPERTY LINES ARE NOT SHOWN ON THIS SHEET. SEE SP1 & SP3 FOR BOUNDARY INFORMATION.



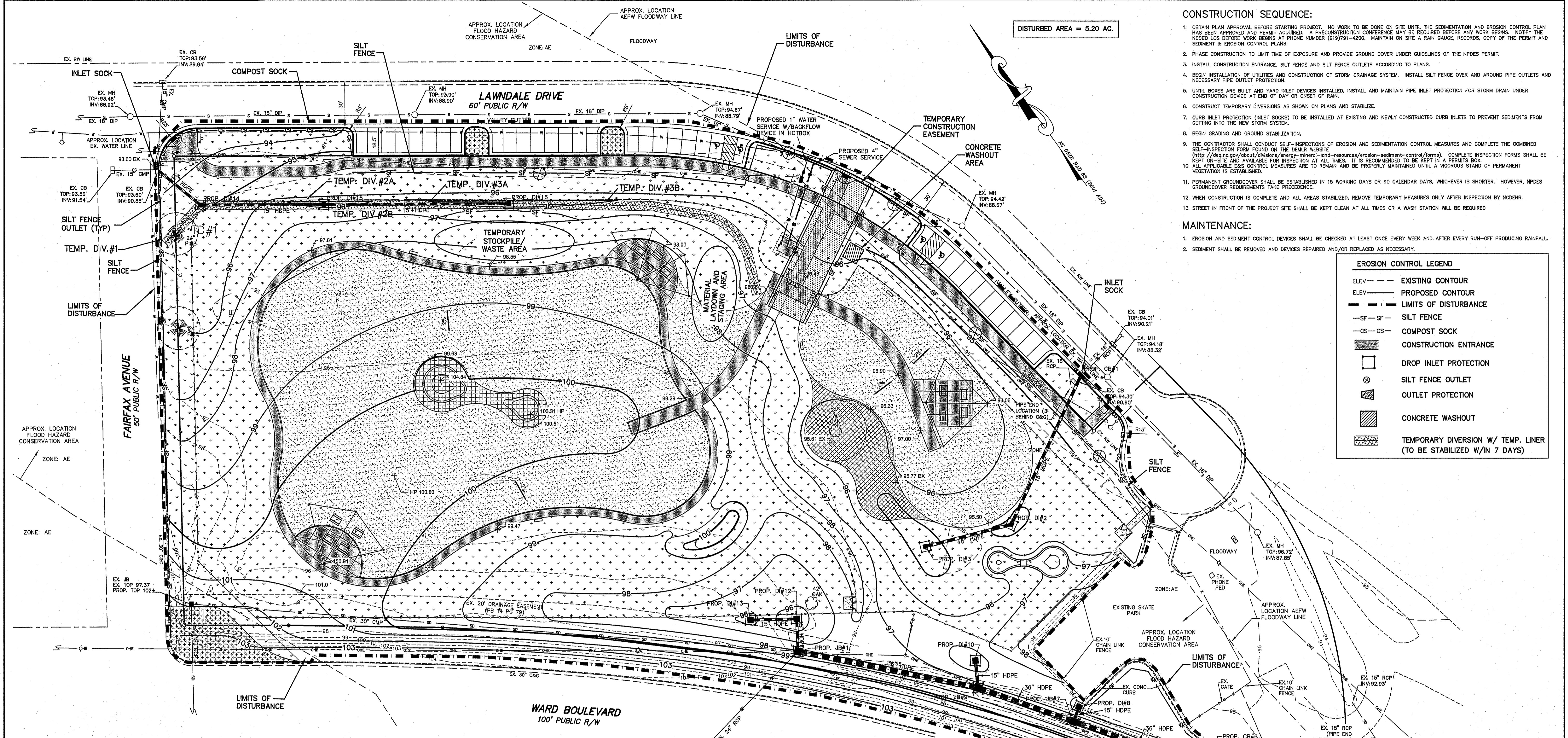
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GRADING and DRAINAGE PLAN

TOISNOT DOG PARK
 - 1413 LAWNDALE DRIVE NE -

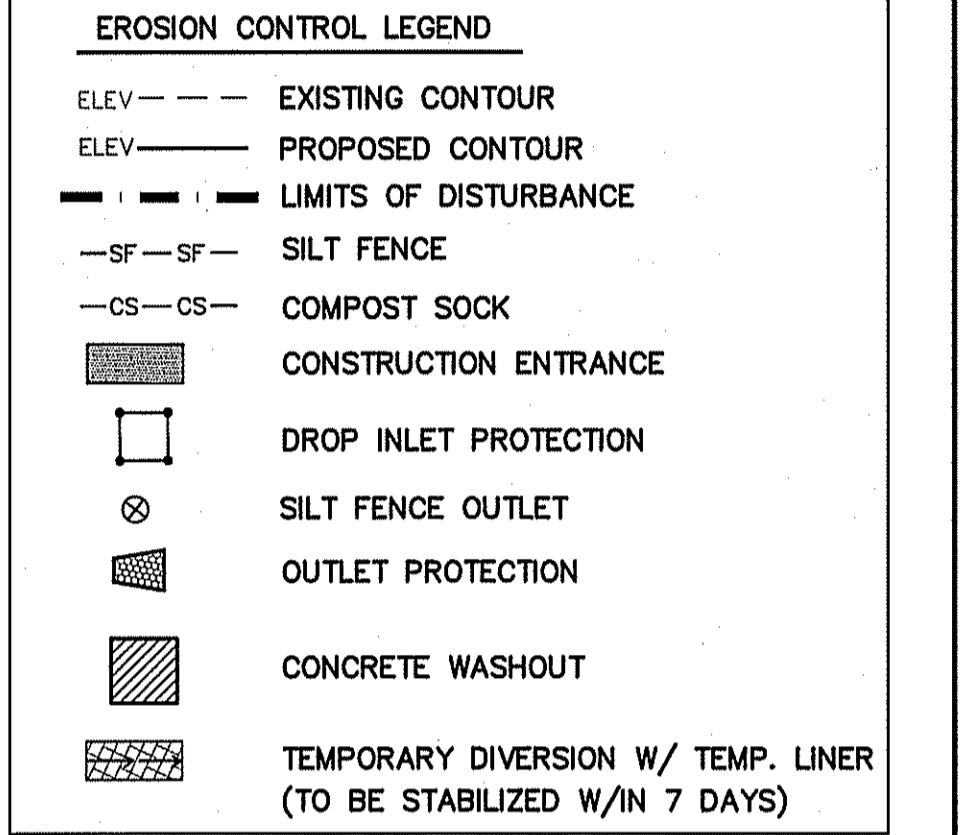
DATE: MARCH 2019
 SCALE(HORIZ): 1"=30'
 SCALE(VERT): N/A
 REVISIONS: TRC COMMENTS 3/5/2019
 S&E COMMENTS 3/7/2019

PROJECT: 18478
 CLIENT CODE: WC
 CADFILE: 18478SP4
 FIELD BOOK: 348
 DRAWN BY: CEF/LR
 SURVEY BY: DS, JB
 CITY OF WILSON
 NORTH CAROLINA
 PIN #
 WILSON COUNTY
 ZONE: RMX/OS
 SHEET SP5



- CONSTRUCTION SEQUENCE:**
- OBTAIN PLAN APPROVAL BEFORE STARTING PROJECT. NO WORK TO BE DONE ON SITE UNTIL THE SEDIMENTATION AND EROSION CONTROL PLAN HAS BEEN APPROVED AND PERMIT ACQUIRED. A PRECONSTRUCTION CONFERENCE MAY BE REQUIRED BEFORE ANY WORK BEGINS. NOTIFY THE NCEC LOS BEFORE WORK BEGINS AT PHONE NUMBER (919)791-4200. MAINTAIN ON SITE A RAIN GAUGE, RECORDS, COPY OF THE PERMIT AND SEDIMENT & EROSION CONTROL PLANS.
 - PHASE CONSTRUCTION TO LIMIT TIME OF EXPOSURE AND PROVIDE GROUND COVER UNDER GUIDELINES OF THE NPDES PERMIT.
 - INSTALL CONSTRUCTION ENTRANCE, SILT FENCE AND SILT FENCE OUTLETS ACCORDING TO PLANS.
 - BEGIN INSTALLATION OF UTILITIES AND CONSTRUCTION OF STORM DRAINAGE SYSTEM. INSTALL SILT FENCE OVER AND AROUND PIPE OUTLETS AND NECESSARY PIPE OUTLET PROTECTION.
 - UNTIL BOXES ARE BUILT AND YARD INLET DEVICES INSTALLED, INSTALL AND MAINTAIN PIPE INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION DEVICE AT END OF DAY OR ONSET OF RAIN.
 - CONSTRUCT TEMPORARY DIVERSIONS AS SHOWN ON PLANS AND STABILIZE.
 - CURB INLET PROTECTION (INLET SOCKS) TO BE INSTALLED AT EXISTING AND NEWLY CONSTRUCTED CURB INLETS TO PREVENT SEDIMENTS FROM GETTING INTO THE NEW STORM SYSTEM.
 - BEGIN GRADING AND GROUND STABILIZATION.
 - THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPLETE THE COMBINED SELF-INSPECTION FORM FOUND ON THE DEMUR WEBSITE (<http://demur.nc.gov/portal/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>). COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED TO BE KEPT IN A PERMITS BOX.
 - ALL APPLICABLE E&S CONTROL MEASURES ARE TO REMAIN AND BE PROPERLY MAINTAINED UNTIL A WORKOUS STAND OF PERMANENT VEGETATION IS ESTABLISHED.
 - PERMANENT GROUNDCOVER SHALL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER. HOWEVER, NPDES GROUNDCOVER REQUIREMENTS TAKE PRECEDENCE.
 - WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS STABILIZED, REMOVE TEMPORARY MEASURES ONLY AFTER INSPECTION BY NCEC/NR.
 - STREET IN FRONT OF THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.

- MAINTENANCE:**
- EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CHECKED AT LEAST ONCE EVERY WEEK AND AFTER EVERY RUN-OFF PRODUCING RAINFALL.
 - SEDIMENT SHALL BE REMOVED AND DEVICES REPAIRED AND/OR REPLACED AS NECESSARY.



STORM DRAIN SCHEDULE (10-YEAR STORM)

| FROM | TO | PIPE RUN | INLET AREA (SF) | INLET CONC | INLET TIME (MIN) | PIPE TIME (MIN) | TO CONC | I INTENSITY (IN/HR) | C COEFF | Q10 (CFS) | Q10 (CFS) | SLOPE (FT/FT) | Dtheo (INCHES) | SIZE (INCHES) | Vfull (FT/SEC) | Qfull (CFS) | LENGTH (FT) | SEGMENT TIME (MIN) | UPPER INVERT | LOWER INVERT |
|-------|-------|----------|-----------------|------------|------------------|-----------------|---------|---------------------|---------|-----------|-----------|---------------|----------------|---------------|----------------|-------------|-------------|--------------------|--------------|--------------|
| D#16 | D#15 | O | 18334 | 0.42 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.95 | 0.95 | 0.0050 | 8.3 | 15 | 3.7 | 4.6 | 120.0 | 0.5 | 92.18 | 91.58 |
| D#15 | D#14 | N | 8473 | 0.19 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.44 | 1.39 | 0.0050 | 9.6 | 15 | 3.7 | 4.6 | 80.0 | 0.4 | 91.58 | 91.18 |
| D#14 | EX CB | M | 33674 | 0.77 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.75 | 3.14 | 0.0050 | 13.0 | 15 | 3.7 | 4.6 | 36.0 | 0.2 | 91.18 | 91.00 |
| EX JB | JB#11 | | | | | | | | | 16.91 | 16.91 | 0.0017 | 30.0 | 30 | 3.4 | 16.9 | 395.0 | 1.9 | 94.10 | 93.43 |
| EX CB | JB#11 | | | | | | | | | 24.57 | 24.57 | 0.0118 | 24.0 | 24 | 7.8 | 24.6 | 102.0 | 0.2 | 95.13 | 93.93 |
| D#13 | D#12 | L | 37192 | 0.85 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.93 | 1.93 | 0.0050 | 10.9 | 15 | 3.7 | 4.6 | 30.0 | 0.1 | 93.26 | 93.11 |
| D#12 | JB#11 | K | 8190 | 0.19 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.43 | 2.36 | 0.0050 | 11.7 | 15 | 3.7 | 4.6 | 21.0 | 0.1 | 93.11 | 93.00 |
| JB#11 | JB#9 | J | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 43.83 | 0.0050 | 35.0 | 36 | 6.7 | 47.1 | 119.0 | 0.3 | 92.60 | 92.00 |
| D#10 | JB#9 | I | 4093 | 0.09 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.21 | 0.21 | 0.0050 | 4.7 | 15 | 3.7 | 4.6 | 17.8 | 0.1 | 92.60 | 92.71 |
| JB#9 | JB#7 | H | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 44.04 | 0.0050 | 35.1 | 36 | 6.7 | 47.1 | 66.0 | 0.2 | 92.00 | 91.67 |
| D#8 | JB#7 | G | 9760 | 0.22 | 5.0 | 0.0 | 5.0 | 7.55 | 0.70 | 1.18 | 1.18 | 0.0050 | 9.0 | 15 | 3.7 | 4.8 | 10.0 | 0.0 | 91.72 | 91.67 |
| JB#7 | JB#5 | F | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 45.23 | 0.0050 | 35.4 | 36 | 6.7 | 47.1 | 94.0 | 0.2 | 91.67 | 91.20 |
| CB#6 | JB#5 | E | 9734 | 0.22 | 5.0 | 0.0 | 5.0 | 7.55 | 0.70 | 1.18 | 1.18 | 0.0050 | 9.0 | 15 | 3.7 | 4.8 | 14.0 | 0.1 | 92.23 | 92.16 |
| JB#5 | JB#4 | D | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 48.41 | 0.0050 | 35.7 | 36 | 6.7 | 47.1 | 115.0 | 0.3 | 91.20 | 90.63 |
| EAST | JB#4 | | | | | | | | | 10.50 | 10.50 | 0.0100 | 18.0 | 18 | 5.9 | 10.5 | 50.0 | 0.1 | 90.67 | 90.17 |
| WEST | JB#4 | | | | | | | | | 10.50 | 10.50 | 0.0100 | 18.0 | 18 | 5.9 | 10.5 | 50.0 | 0.1 | 91.29 | 90.79 |
| JB#4 | FES A | C | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.80 | 0.00 | 67.41 | 0.0050 | 41.1 | 42 | 7.4 | 71.1 | 25.0 | 0.1 | 90.13 | 90.00 |
| D#3 | CB#2 | B | 27777 | 0.84 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.44 | 1.44 | 0.0050 | 9.7 | 15 | 3.7 | 4.8 | 58.0 | 0.3 | 91.80 | 91.31 |
| D#2 | CB#1 | A | 3456 | 0.08 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.18 | 1.82 | 0.0050 | 10.2 | 15 | 3.7 | 4.8 | 107.0 | 0.5 | 91.31 | 90.78 |
| CB#1 | EX CB | | 48859 | 1.14 | 5.0 | 0.0 | 5.0 | 7.55 | 0.50 | 4.32 | 5.84 | 0.0198 | 12.8 | 15 | 7.4 | 9.0 | 29.0 | 0.1 | 90.78 | 90.21 |

SILT FENCE CALCULATIONS

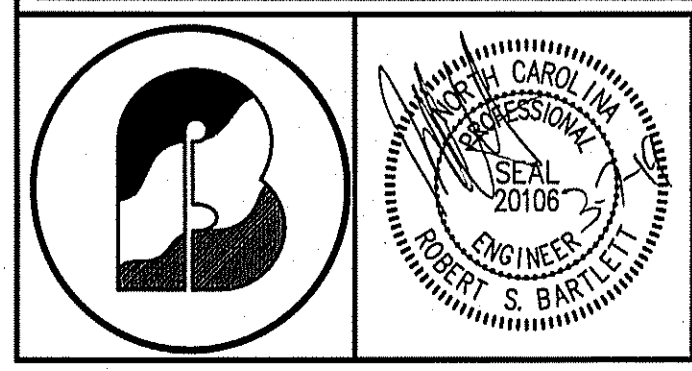
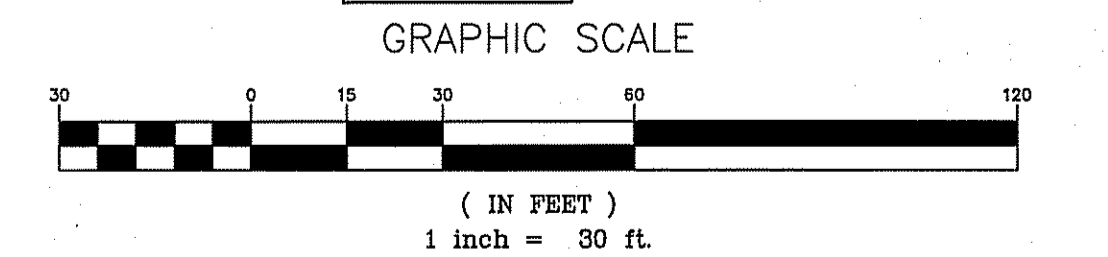
| LOCATION | DRAINAGE AREA (ACRES) | SILT FENCE LENGTH (LINEAR FT) | SLOPE | MAX. AREA (ACRES) |
|--|-----------------------|-------------------------------|-------|-------------------|
| LAWNDALE DRIVE (WEST OF CONST. ENTRANCE) | 0.42 | 277 | 2.00% | 0.48 |

DISSIPATOR PAD/OUTLET PROTECTION SCHEDULE (NYDOT METHOD)

| LOCATION | Qmax (CFS) | Qfull (CFS) | Vfull (FPS) | Vmax (FPS) | PIPE DIA. (INCHES) | ZONE | NUMBER OF PIPES | APRON LENGTH (FEET) | APRON WIDTH (FEET) | CLASS | STONE DEPTH (INCHES) | D50 STONE SIZE |
|----------|------------|-------------|-------------|------------|--------------------|------|-----------------|---------------------|--------------------|-------|----------------------|----------------|
| FES A | 76.73 | 71.12 | 7.38 | 8.45 | 42 | 2 | 8 | 21 | 16 | B | 22 | 9 |

DITCH CALCULATIONS 10-YEAR DESIGN STORM

| LOCATION | DRAINAGE AREA (SQ.FT) | DRAINAGE AREA (ACRES) | RUNOFF COEFFICIENT | RAINFALL (IN/HR) | REQUIRED FLOW (CFS) | DITCH SLOPE | BOTTOM WIDTH (FT) | FLOW DEPTH (FT) | SIDE SLOPE | FLOW AREA (SQ.FT) | WETTED PERIMETER (FT) | HYDRAULIC RADIUS (FT) | MANN VEL. (FT/SEC) | ACTUAL CAPACITY (CFS) | TOP WIDTH (FT) | SHEAR STRESS (LB/FT ²) | TEMP. LINER REQUIRED | TEMPORARY LINER TYPE |
|-------------------------|-----------------------|-----------------------|--------------------|------------------|---------------------|-------------|-------------------|-----------------|------------|-------------------|-----------------------|-----------------------|--------------------|-----------------------|----------------|------------------------------------|----------------------|----------------------|
| TEMPORARY DIVERSION #1A | 31629 | 0.73 | 0.30 | 7.55 | 1.64 | 0.0125 | 0 | 0.39 | 3 | 0.48 | 2.47 | 0.18 | 3.61 | 1.64 | 2.34 | 0.30 | YES | JUTE NET |
| TEMPORARY DIVERSION #1B | 1702 | 0.04 | 0.30 | 7.55 | 0.09 | 0.0330 | 0 | 0.11 | 3 | 0.04 | 0.69 | 0.05 | 2.50 | 0.09 | 0.65 | 0.22 | YES | JUTE NET |
| TEMPORARY DIVERSION #2A | 3957 | 0.09 | 0.30 | 7.55 | 0.21 | 0.0280 | 0 | 0.15 | 3 | 0.07 | 0.97 | 0.07 | 2.90 | 0.21 | 0.92 | 0.27 | YES | JUTE NET |
| TEMPORARY DIVERSION #2B | 4576 | 0.11 | 0.30 | 7.55 | 0.24 | 0.0250 | 0 | 0.17 | 3 | 0.09 | 1.09 | 0.08 | 2.65 | 0.24 | 1.04 | 0.22 | YES | JUTE NET |
| TEMPORARY DIVERSION #3A | 7293 | 0.17 | 0.30 | 7.55 | 0.38 | 0.0150 | 0 | 0.22 | 3 | 0.14 | 1.37 | 0.10 | 2.67 | 0.38 | 1.30 | 0.20 | YES | JUTE NET |
| TEMPORARY DIVERSION #3B | 18447 | 0.42 | 0.30 | 7.55 | 0.96 | 0.0065 | 0 | 0.36 | 3 | 0.39 | 2.28 | 0.17 | 2.47 | 0.96 | 1.15 | 0.15 | YES | JUTE NET |

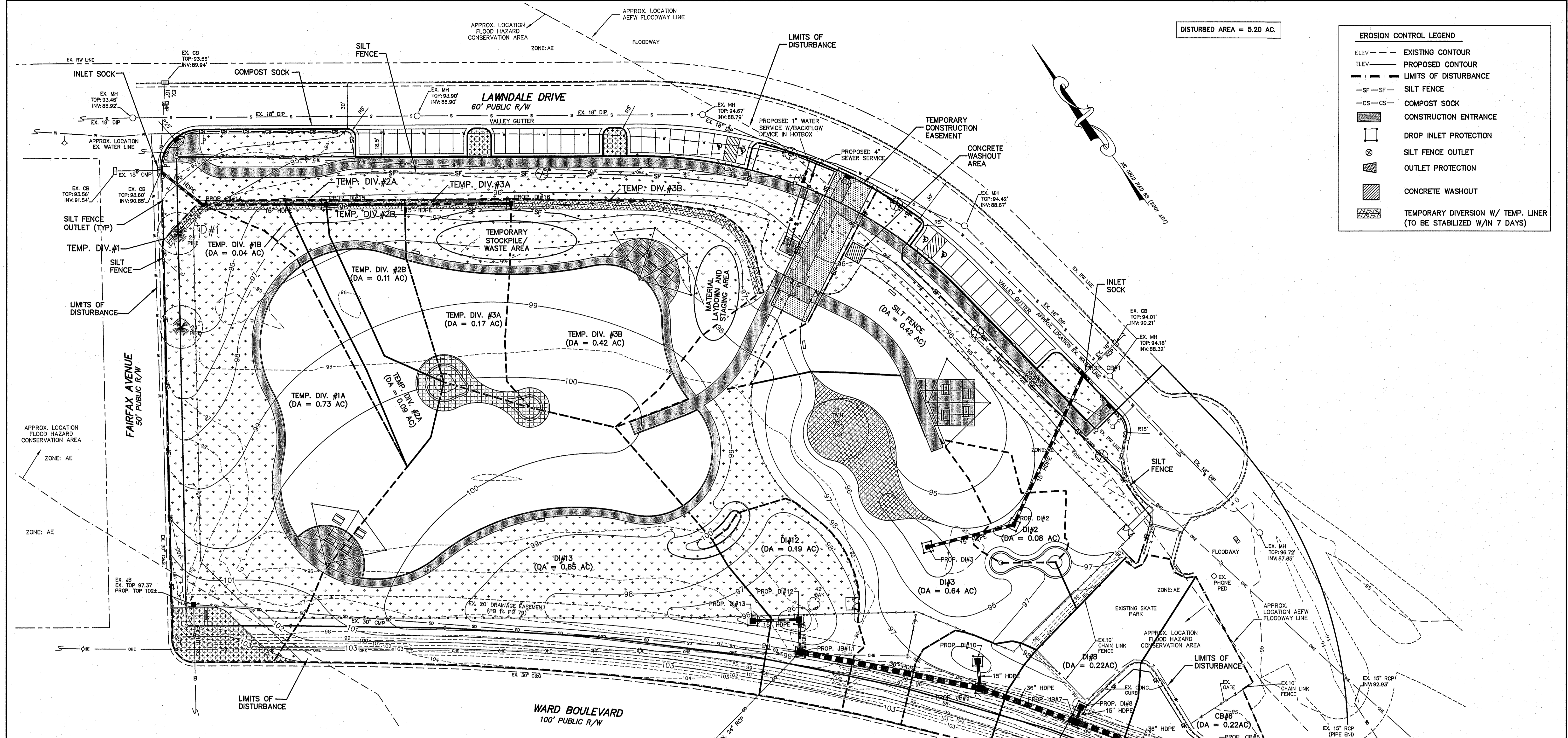


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SEDIMENTATION & EROSION CONTROL

TOISNOT DOG PARK
 - 1413 LAWNDALE DRIVE NE -

DATE: MARCH 2019
 SCALE(HORZ): 1"=30'
 SCALE(VERT): N/A
 REVISIONS: S&E COMMENTS 3/7/2019
 PROJECT: 18478
 CLIENT CODE: WC
 CADFILE: 18478SP4
 FIELD BOOK: 348
 DRAWN BY: CEP/LR
 SURVEY BY: DB, JB
 CITY OF WILSON
 NORTH CAROLINA
 WILSON COUNTY
 ZONE: RMX/OS
 PIN #
 SHEET SE1



DISTURBED AREA = 5.20 AC.

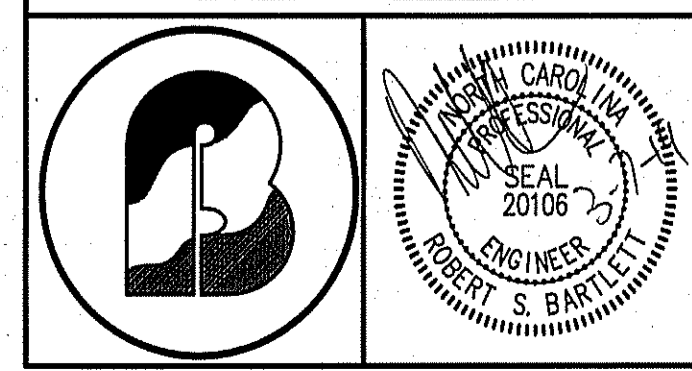
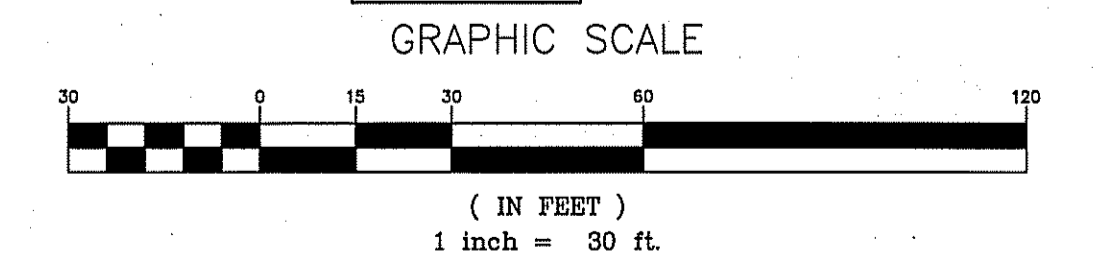
| EROSION CONTROL LEGEND | |
|------------------------|---|
| ELEV - - - | EXISTING CONTOUR |
| ELEV - - - | PROPOSED CONTOUR |
| - - - - - | LIMITS OF DISTURBANCE |
| -SF - SF- | SILT FENCE |
| -CS - CS- | COMPOST SOCK |
| [Hatched Box] | CONSTRUCTION ENTRANCE |
| [Square] | DROP INLET PROTECTION |
| [Circle] | SILT FENCE OUTLET |
| [Triangle] | OUTLET PROTECTION |
| [Hatched Box] | CONCRETE WASHOUT |
| [Hatched Box] | TEMPORARY DIVERSION W/ TEMP. LINER (TO BE STABILIZED W/IN 7 DAYS) |

| STORM DRAIN SCHEDULE (10-YEAR STORM) | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|-------|----------|-----------------|--------------------|------------------|-----------------|---------------|---------------------|----------------|------------------|------------------|---------------|----------------|---------------|----------------|-------------|-------------|--------------------|--------------|--------------|
| n = 0.013 | | | | | | | | | | | | | | | | | | | | |
| FROM | TO | PIPE RUN | INLET AREA (SF) | INLET AREA (ACRES) | INLET TIME (MIN) | PIPE TIME (MIN) | IC CONC (MIN) | I INTENSITY (IN/HR) | C RUNOFF COEFF | Q10 DSCHRG (CFS) | Q10 DSCHRG (CFS) | SLOPE (FT/FT) | Dtheo (INCHES) | SIZE (INCHES) | Vfull (FT/SEC) | Qfull (CFS) | LENGTH (FT) | SEGMENT TIME (MIN) | UPPER INVERT | LOWER INVERT |
| DI#18 | DI#17 | O | 18334 | 0.42 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.95 | 0.95 | 0.0050 | 8.3 | 15 | 3.7 | 4.6 | 120.0 | 0.5 | 92.18 | 91.58 |
| DI#17 | DI#16 | N | 8473 | 0.19 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.44 | 1.39 | 0.0050 | 9.6 | 15 | 3.7 | 4.6 | 80.0 | 0.4 | 91.58 | 91.18 |
| DI#16 | EX CB | M | 33874 | 0.77 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.75 | 3.14 | 0.0050 | 13.0 | 15 | 3.7 | 4.6 | 36.0 | 0.2 | 91.18 | 91.00 |
| EX JB | JB#11 | | | | | | | | | 18.91 | 18.91 | 0.0017 | 30.0 | 30 | 3.4 | 16.9 | 395.0 | 1.9 | 94.10 | 93.43 |
| EX CB | CB#11 | | | | | | | | | 24.57 | 24.57 | 0.0118 | 24.0 | 24 | 7.8 | 24.6 | 102.0 | 0.2 | 95.13 | 93.93 |
| DI#13 | DI#12 | L | 37192 | 0.85 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.93 | 1.93 | 0.0050 | 10.9 | 15 | 3.7 | 4.6 | 30.0 | 0.1 | 93.26 | 93.11 |
| DI#12 | JB#11 | K | 8190 | 0.19 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.43 | 2.36 | 0.0050 | 11.7 | 15 | 3.7 | 4.6 | 21.0 | 0.1 | 93.11 | 93.00 |
| JB#11 | JB#9 | J | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 43.83 | 0.0050 | 35.0 | 36 | 6.7 | 47.1 | 119.0 | 0.3 | 92.60 | 92.00 |
| DI#10 | JB#9 | I | 4093 | 0.09 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.21 | 0.21 | 0.0050 | 4.7 | 15 | 3.7 | 4.6 | 17.8 | 0.1 | 92.80 | 92.71 |
| JB#9 | JB#7 | H | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 44.04 | 0.0050 | 35.1 | 36 | 6.7 | 47.1 | 86.0 | 0.2 | 92.00 | 91.67 |
| DI#8 | JB#7 | G | 9780 | 0.22 | 5.0 | 0.0 | 5.0 | 7.55 | 0.70 | 1.18 | 1.18 | 0.0050 | 9.0 | 15 | 3.7 | 4.6 | 10.0 | 0.0 | 91.72 | 91.67 |
| JB#7 | JB#5 | F | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 45.23 | 0.0050 | 35.4 | 36 | 6.7 | 47.1 | 94.0 | 0.2 | 91.67 | 91.20 |
| CB#6 | JB#5 | E | 9734 | 0.22 | 5.0 | 0.0 | 5.0 | 7.55 | 0.70 | 1.18 | 1.18 | 0.0050 | 9.0 | 15 | 3.7 | 4.6 | 14.0 | 0.1 | 92.23 | 92.18 |
| JB#5 | JB#4 | D | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.00 | 0.00 | 46.41 | 0.0050 | 35.7 | 36 | 6.7 | 47.1 | 115.0 | 0.3 | 91.20 | 90.83 |
| EAST | JB#4 | | | | | | | | | 10.50 | 10.50 | 0.0100 | 18.0 | 18 | 5.9 | 10.5 | 50.0 | 0.1 | 91.20 | 90.79 |
| WEST | JB#4 | | | | | | | | | 10.50 | 10.50 | 0.0100 | 18.0 | 18 | 5.9 | 10.5 | 50.0 | 0.1 | 91.20 | 90.79 |
| JB#4 | FES A | C | 0 | 0.00 | 5.0 | 0.0 | 5.0 | 7.55 | 0.90 | 0.00 | 67.41 | 0.0050 | 41.1 | 42 | 7.4 | 71.1 | 25.0 | 0.1 | 90.13 | 90.00 |
| DI#3 | DI#2 | B | 27777 | 0.84 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 1.44 | 1.44 | 0.0050 | 9.7 | 15 | 3.7 | 4.6 | 58.0 | 0.3 | 91.60 | 91.31 |
| DI#2 | CB#1 | A | 3458 | 0.08 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.18 | 1.82 | 0.0050 | 10.2 | 15 | 3.7 | 4.6 | 107.0 | 0.5 | 91.31 | 90.78 |
| CB#1 | EX CB | | 49859 | 1.14 | 5.0 | 0.0 | 5.0 | 7.55 | 0.50 | 4.32 | 5.84 | 0.0198 | 12.8 | 15 | 7.4 | 9.0 | 29.0 | 0.1 | 90.78 | 90.21 |

| SILT FENCE CALCULATIONS | | | | |
|--|-----------------------|-----------------------------|-------|------------------|
| LOCATION | DRAINAGE AREA (ACRES) | SILT FENCE PIPE (LINEAR FT) | SLOPE | MAX AREA (ACRES) |
| LAWDALE DRIVE (SOUTH OF CONST. ENTRANCE) | 0.42 | 277 | 2.00% | 0.48 |

| DISSIPATOR PAD/OUTLET PROTECTION SCHEDULE (NYDOT METHOD) | | | | | | | | | | | | |
|--|----------|-----------|-----------|----------|-------------------|------|---|-----------------|------------------------|------------------|-------------|----------------|
| LOCATION | Qmax CFS | Qfull CFS | Vfull FPS | Vmax FPS | PIPE DIA 1 INCHES | ZONE | M | NUMBER OF PIPES | APRON LENGTH (La) FEET | APRON WIDTH FEET | CLASS STONE | D50 STONE SIZE |
| FES A | 76.73 | 71.12 | 7.38 | 8.45 | 42 | 2 | 6 | 1 | 21 | 16 | B | 22 |

| DITCH CALCULATIONS 10-YEAR DESIGN STORM | | | | | | | | | | | | | | | | | | |
|---|----------------------|---------------------|--------------------|------------------------|---------------------|---------------|----------------|--------------|--------------|--------------------|--------------------|--------------------|-------------|-----------------------|-------------|---------------------------|----------------------|----------------------|
| n = 0.015 | | | | | | | | | | | | | | | | | | |
| LOCATION | DRAINAGE AREA SQ.FT. | DRAINAGE AREA ACRES | RUNOFF COEFFICIENT | RAINFALL 10-YEAR IN/HR | REQUIRED FLOW Q GPM | DITCH SLOPE s | BOTTOM WIDTH d | FLOW DEPTH y | SIDE SLOPE M | FLOW AREA A SQ.FT. | WETTED PERIMETER P | HYDRAULIC RADIUS R | MANN VEL. V | ACTUAL CAPACITY Q GPM | TOP WIDTH W | SHEAR STRESS (lbs/sq.ft.) | TEMP. LINER REQUIRED | TEMPORARY LINER TYPE |
| TEMPORARY DIVERSION #1A | 31629 | 0.73 | 0.30 | 7.55 | 1.84 | 0.0125 | 0 | 0.39 | 3 | 0.46 | 2.47 | 0.18 | 3.61 | 1.64 | 2.34 | 0.30 | YES | JUTE NET |
| TEMPORARY DIVERSION #1B | 1702 | 0.04 | 0.30 | 7.55 | 0.09 | 0.0330 | 0 | 0.11 | 3 | 0.04 | 0.69 | 0.05 | 2.90 | 0.09 | 0.65 | 0.22 | YES | JUTE NET |
| TEMPORARY DIVERSION #2A | 3987 | 0.09 | 0.30 | 7.55 | 0.21 | 0.0280 | 0 | 0.15 | 3 | 0.07 | 0.97 | 0.07 | 2.90 | 0.21 | 0.92 | 0.27 | YES | JUTE NET |
| TEMPORARY DIVERSION #2B | 4575 | 0.11 | 0.30 | 7.55 | 0.24 | 0.0230 | 0 | 0.17 | 3 | 0.09 | 1.09 | 0.08 | 2.65 | 0.24 | 1.04 | 0.22 | YES | JUTE NET |
| TEMPORARY DIVERSION #3A | 7253 | 0.17 | 0.30 | 7.55 | 0.38 | 0.0150 | 0 | 0.22 | 3 | 0.14 | 1.37 | 0.10 | 2.67 | 0.38 | 1.30 | 0.20 | YES | JUTE NET |
| TEMPORARY DIVERSION #3B | 18447 | 0.42 | 0.30 | 7.55 | 0.96 | 0.0085 | 0 | 0.36 | 3 | 0.39 | 2.28 | 0.17 | 2.47 | 0.96 | 2.16 | 0.15 | YES | JUTE NET |



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DRAINAGE AREAS

TOISNOT DOG PARK
- 1413 LAWDALE DRIVE NE -

DATE: MARCH 2019
SCALE(HORIZ): 1"=30'
SCALE(VERT): N/A
REVISIONS: S&E COMMENTS 3/7/2019

PROJECT: 18478
CLIENT CODE: WC
CADFILE: 18478SP4
FIELD BOOK: 348
DRAWN BY: CEP/LR
SURVEY BY: DB, JB
CITY OF WILSON
NORTH CAROLINA
PIN #
WILSON COUNTY
ZONE: RMX/OS
SHEET SE2

CONSTRUCTION SEQUENCE:

1. LAND DISTURBANCE IS LESS THAN 1 ACRE. NO SEDIMENTATION AND EROSION CONTROL PERMIT IS REQUIRED.
2. INSTALL SILT FENCE AND SILT FENCE OUTLETS ACCORDING TO PLANS.
3. BEGIN CONSTRUCTION OF STORM DRAINAGE SYSTEM. INSTALL SILT FENCE OVER AND AROUND PIPE OUTLETS AND NECESSARY PIPE OUTLET PROTECTION.
4. UNTIL BOXES ARE BUILT, INSTALL AND MAINTAIN PIPE INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION DEVICE AT END OF DAY OR ONSET OF RAIN.
5. INSTALL DROP INLET PROTECTION THEN BEGIN GRADING AND GROUND STABILIZATION.
6. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF EROSION AND SEDIMENTATION CONTROL MEASURES.
7. ALL APPLICABLE E&S CONTROL MEASURES ARE TO REMAIN AND BE PROPERLY MAINTAINED UNTIL A VIGOROUS STAND OF PERMANENT VEGETATION IS ESTABLISHED.
8. PERMANENT GROUND COVER SHALL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
9. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS STABILIZED, REMOVE TEMPORARY MEASURES.
10. STREET IN FRONT OF THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES.

MAINTENANCE:

1. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CHECKED AT LEAST ONCE EVERY WEEK AND AFTER EVERY RUN-OFF PRODUCING RAINFALL.
2. SEDIMENT SHALL BE REMOVED AND DEVICES REPAIRED AND/OR REPLACED AS NECESSARY.

STORM DRAIN SCHEDULE (10-YEAR STORM)

| FROM | TO | PIPE RUN | INLET AREA (SF) | INLET AREA (ACRES) | INLET TIME (MIN) | PIPE TIME (MIN) | CONC (IN/HR) | I (IN/HR) | C | Q10 (CFS) | Q10 (CFS) | TOTAL DSCHRG (CFS) | SLOPE (FT/FT) | D _{theo} (INCHES) | SIZE (INCHES) | V ₁₀ (FT/SEC) | Q ₁₀ (CFS) | LENGTH (FT) | SEGMENT TIME (MIN) | UPPER INVERT | LOWER INVERT |
|-------|-------|----------|-----------------|--------------------|------------------|-----------------|--------------|-----------|------|-----------|-----------|--------------------|---------------|----------------------------|---------------|--------------------------|-----------------------|-------------|--------------------|--------------|--------------|
| EX CB | DI#18 | | | | | | | | | 6.67 | 6.67 | 0.0001 | 36.0 | 36 | 0.9 | 6.7 | 17.6 | 0.3 | 97.81 | 97.81 | |
| DI#18 | DI#17 | Q | 1112 | 0.03 | 5.0 | 0.0 | 5.0 | 7.55 | 0.30 | 0.06 | 6.73 | 0.0022 | 20.2 | 36 | 4.4 | 31.3 | 84.0 | 0.3 | 97.81 | 97.83 | |
| DI#17 | FES B | P | 5554 | 0.13 | 5.0 | 0.0 | 5.0 | 7.55 | 0.70 | 0.67 | 7.40 | 0.0023 | 20.8 | 36 | 4.5 | 32.0 | 186.0 | 0.7 | 97.83 | 97.20 | |

DISSIPATOR PAD/OUTLET PROTECTION SCHEDULE

| LOCATION | Q _{max} (CFS) | Q ₁₀ (CFS) | V ₁₀ (FPS) | V _{max} (FPS) | PIPE DIA (INCHES) | ZONE | M | NUMBER OF PIPES | APRON LENGTH (La) FEET | APRON WIDTH (W) FEET | CLASS | DEPTH (INCHES) | STONE SIZE | D50 |
|----------|------------------------|-----------------------|-----------------------|------------------------|-------------------|------|---|-----------------|------------------------|----------------------|-------|----------------|------------|-----|
| PIPE P | 34.50 | 31.98 | 4.52 | 5.17 | 36 | 2 | 6 | 1 | 18 | 12 | B | 22 | 9 | |

PIPE TABLE

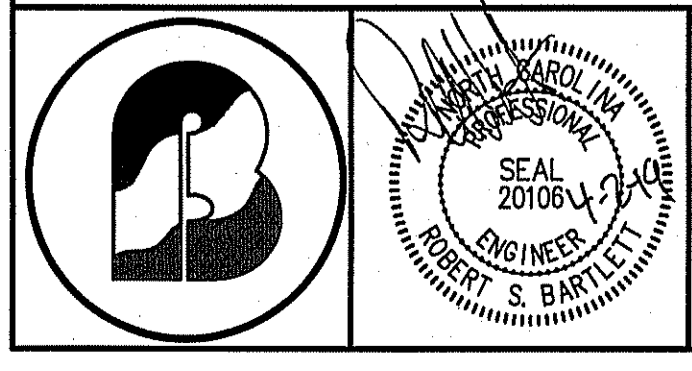
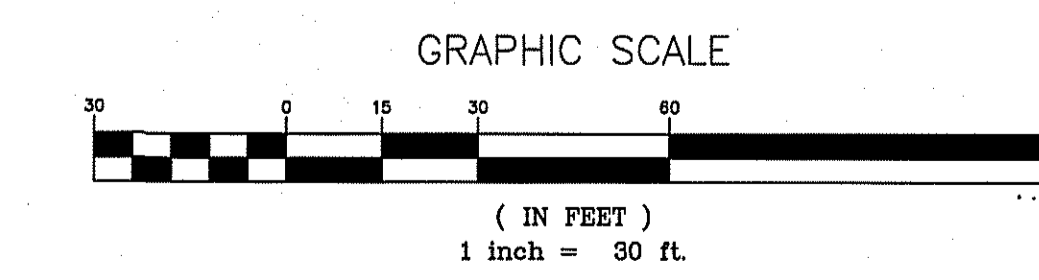
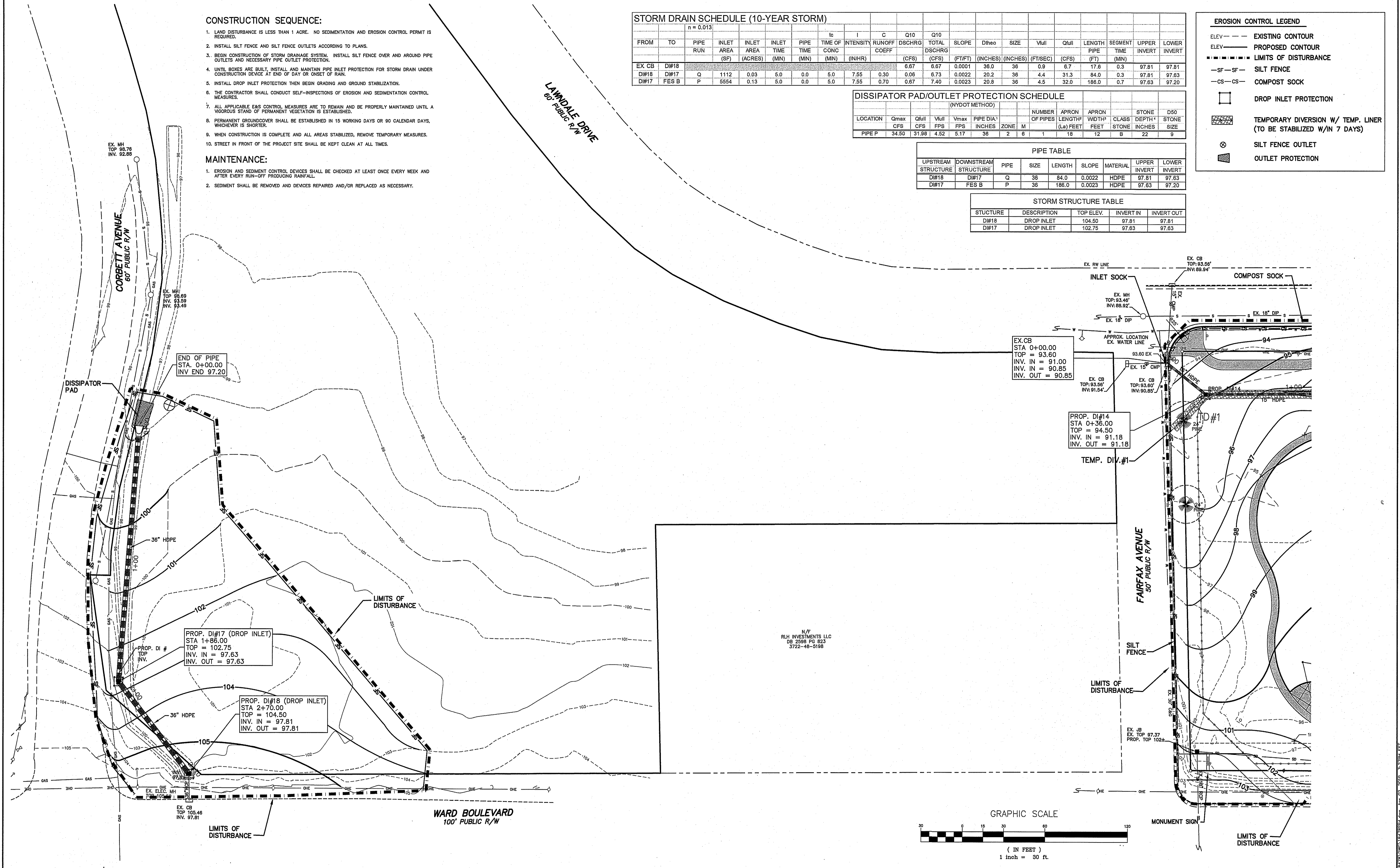
| UPSTREAM STRUCTURE | DOWNSTREAM STRUCTURE | PIPE | SIZE | LENGTH | SLOPE | MATERIAL | UPPER INVERT | LOWER INVERT |
|--------------------|----------------------|------|------|--------|--------|----------|--------------|--------------|
| DI#18 | DI#17 | Q | 36 | 84.0 | 0.0022 | HDPE | 97.81 | 97.83 |
| DI#17 | FES B | P | 36 | 186.0 | 0.0023 | HDPE | 97.83 | 97.20 |

STORM STRUCTURE TABLE

| STRUCTURE | DESCRIPTION | TOP ELEV. | INVERT IN | INVERT OUT |
|-----------|-------------|-----------|-----------|------------|
| DI#18 | DROP INLET | 104.50 | 97.81 | 97.81 |
| DI#17 | DROP INLET | 102.75 | 97.83 | 97.63 |

EROSION CONTROL LEGEND

- ELEV - - - EXISTING CONTOUR
- ELEV - - - PROPOSED CONTOUR
- - - - - LIMITS OF DISTURBANCE
- SF -SF- SILT FENCE
- CS -CS- COMPOST SOCK
- DROP INLET PROTECTION
- ▨ TEMPORARY DIVERSION W/ TEMP. LINER (TO BE STABILIZED W/IN 7 DAYS)
- ⊗ SILT FENCE OUTLET
- ⊗ OUTLET PROTECTION



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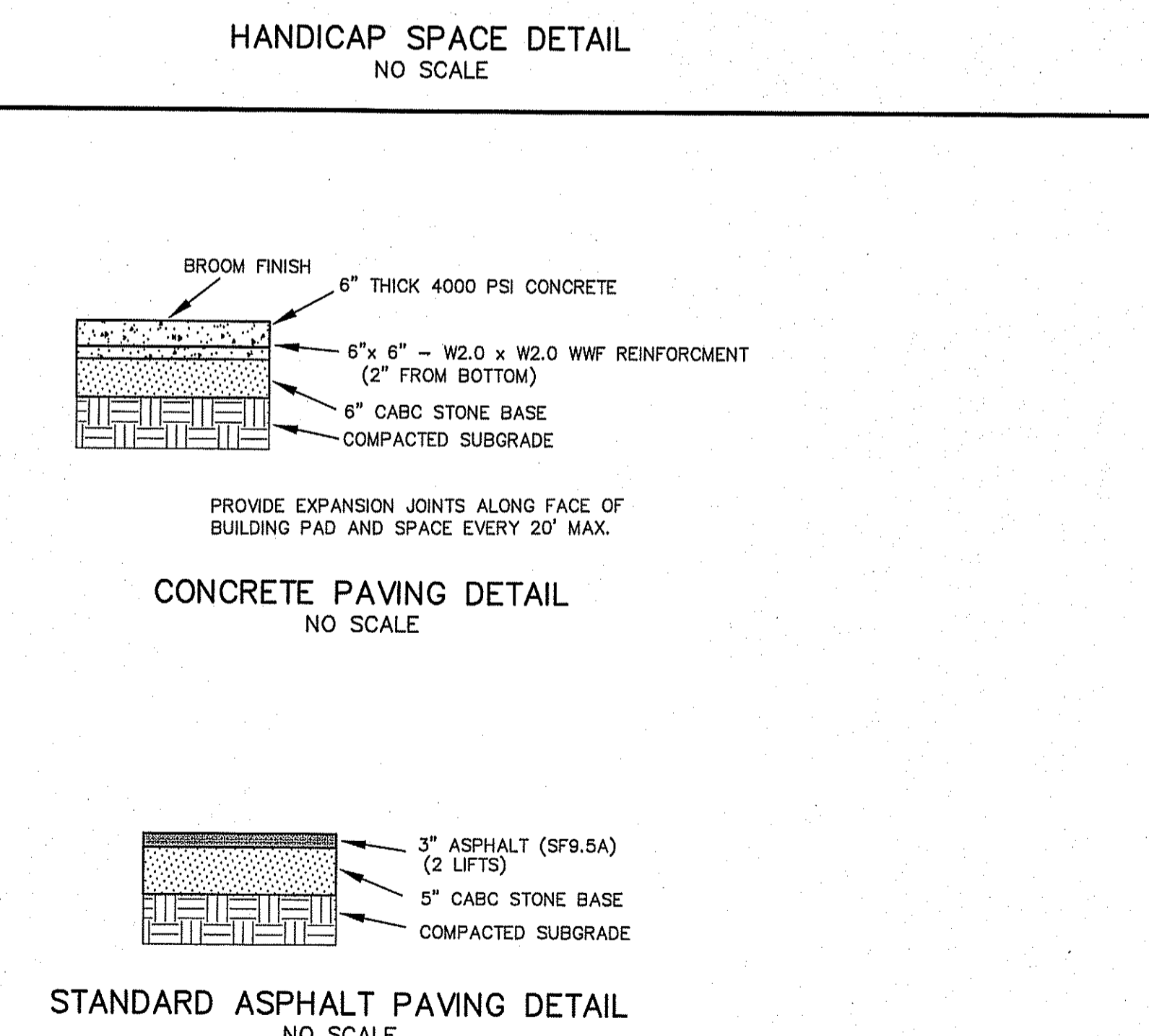
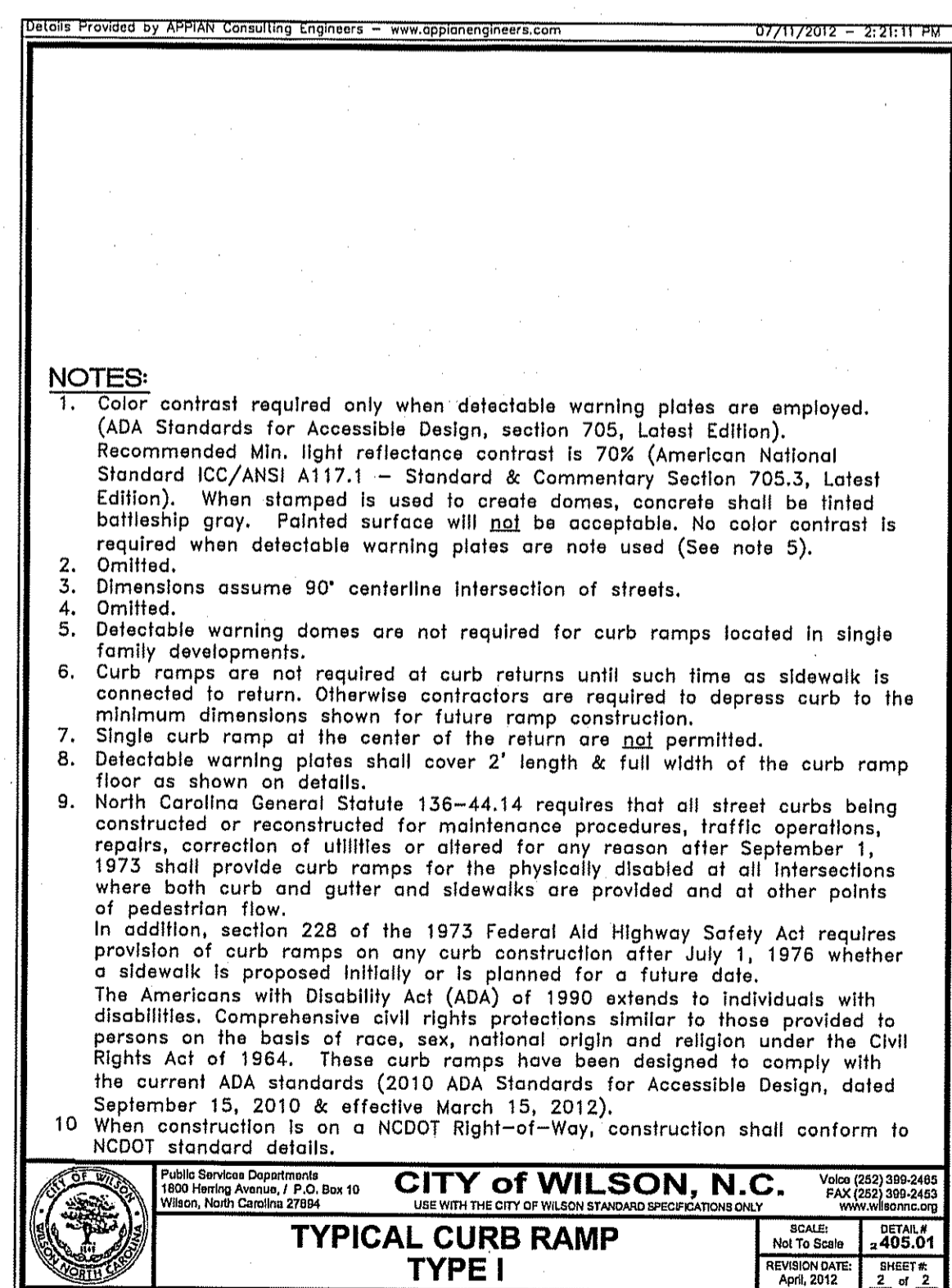
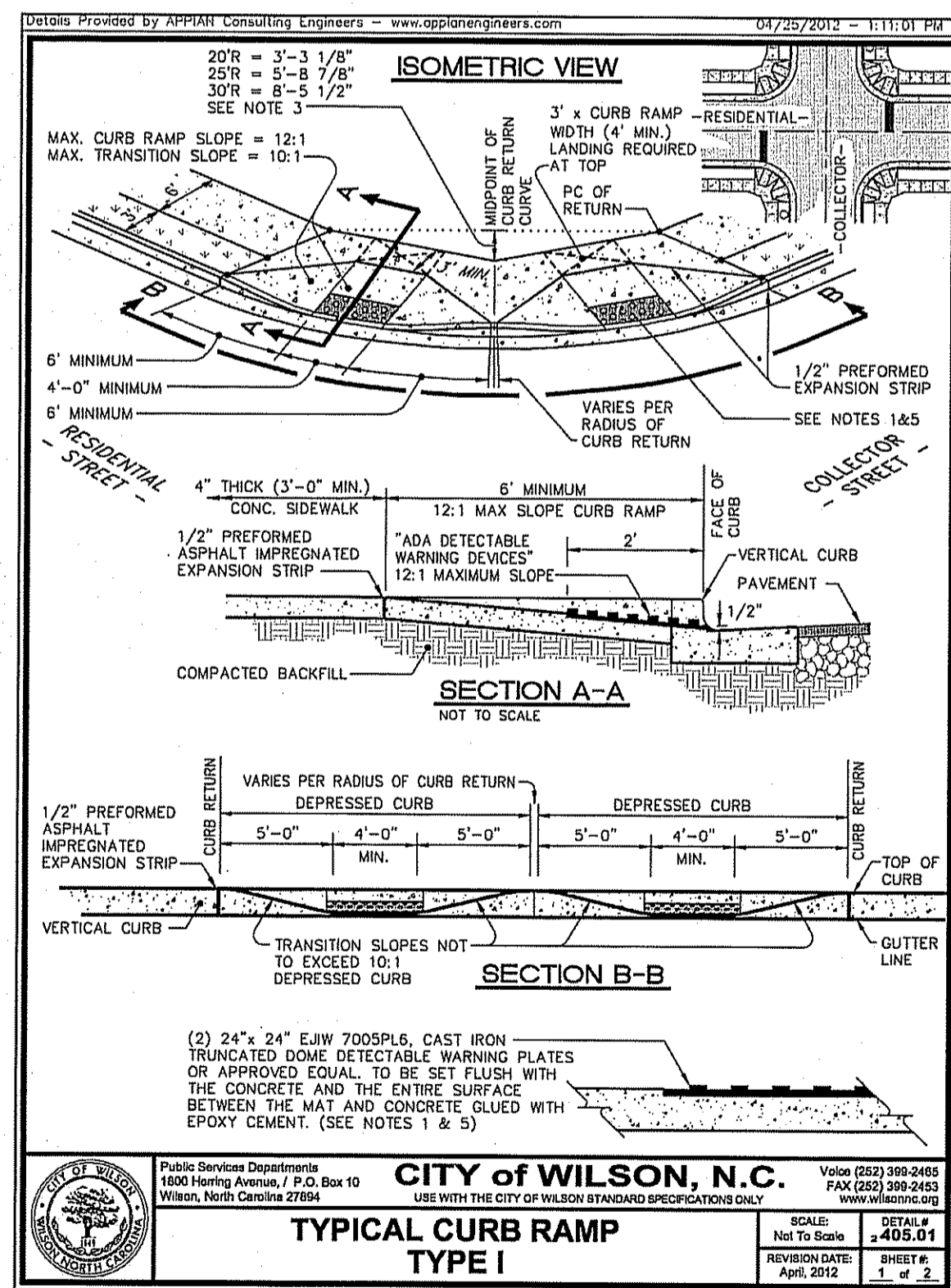
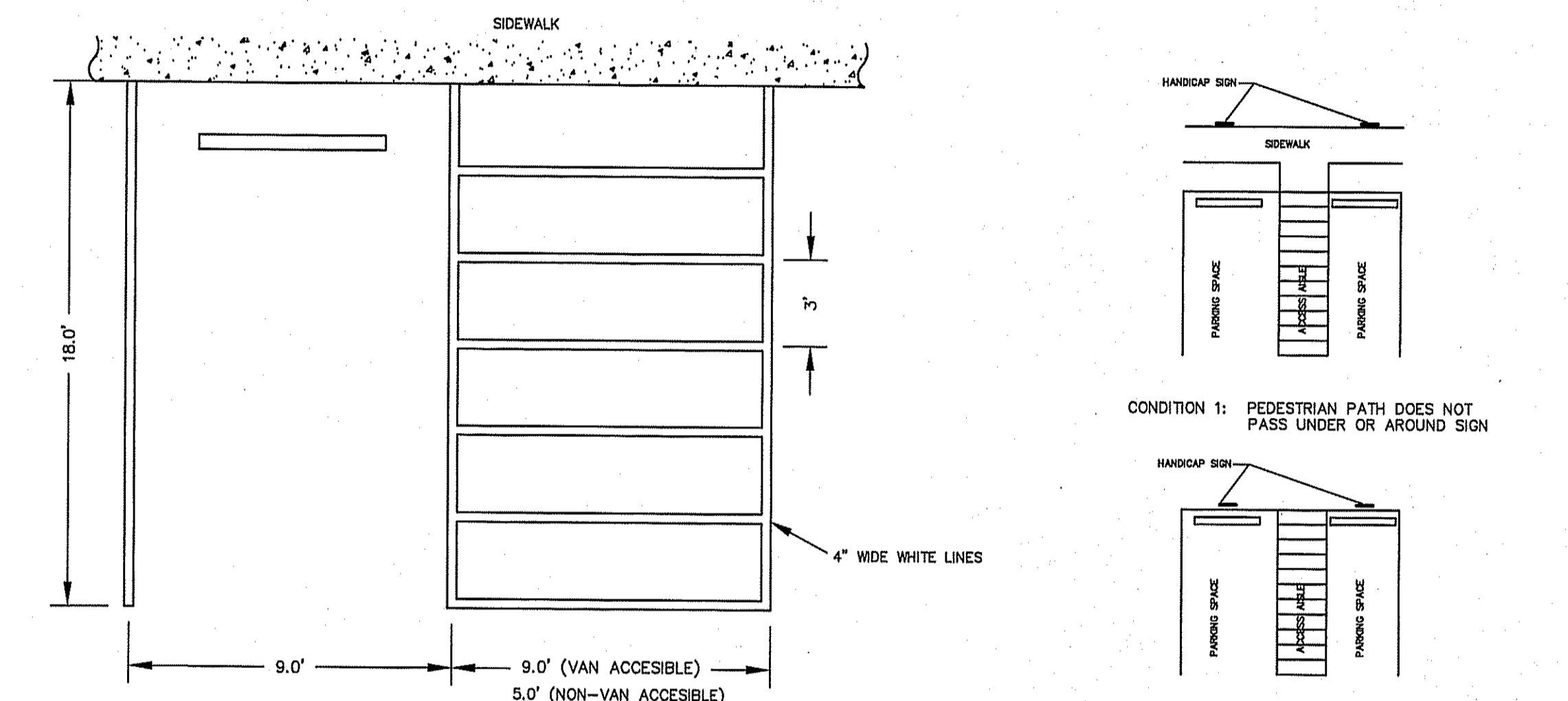
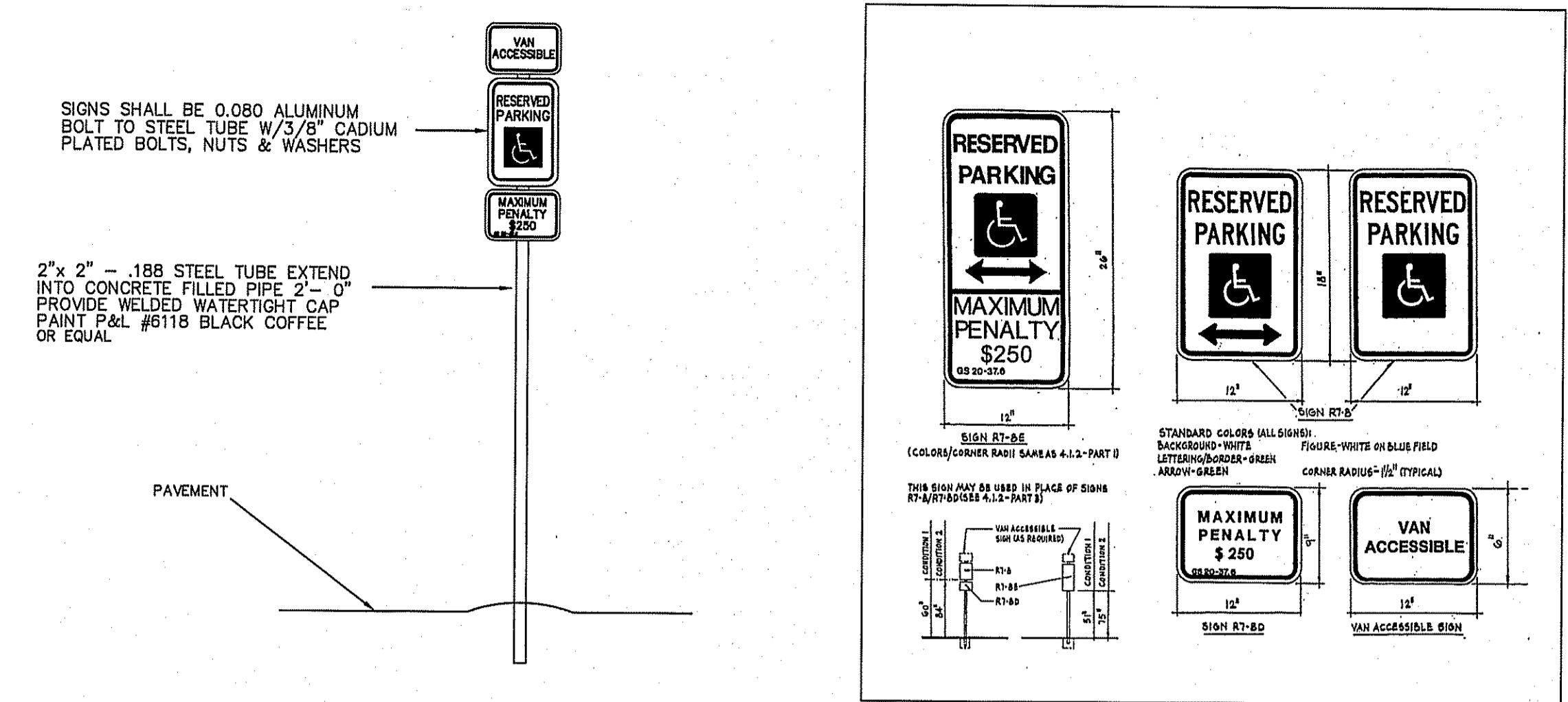
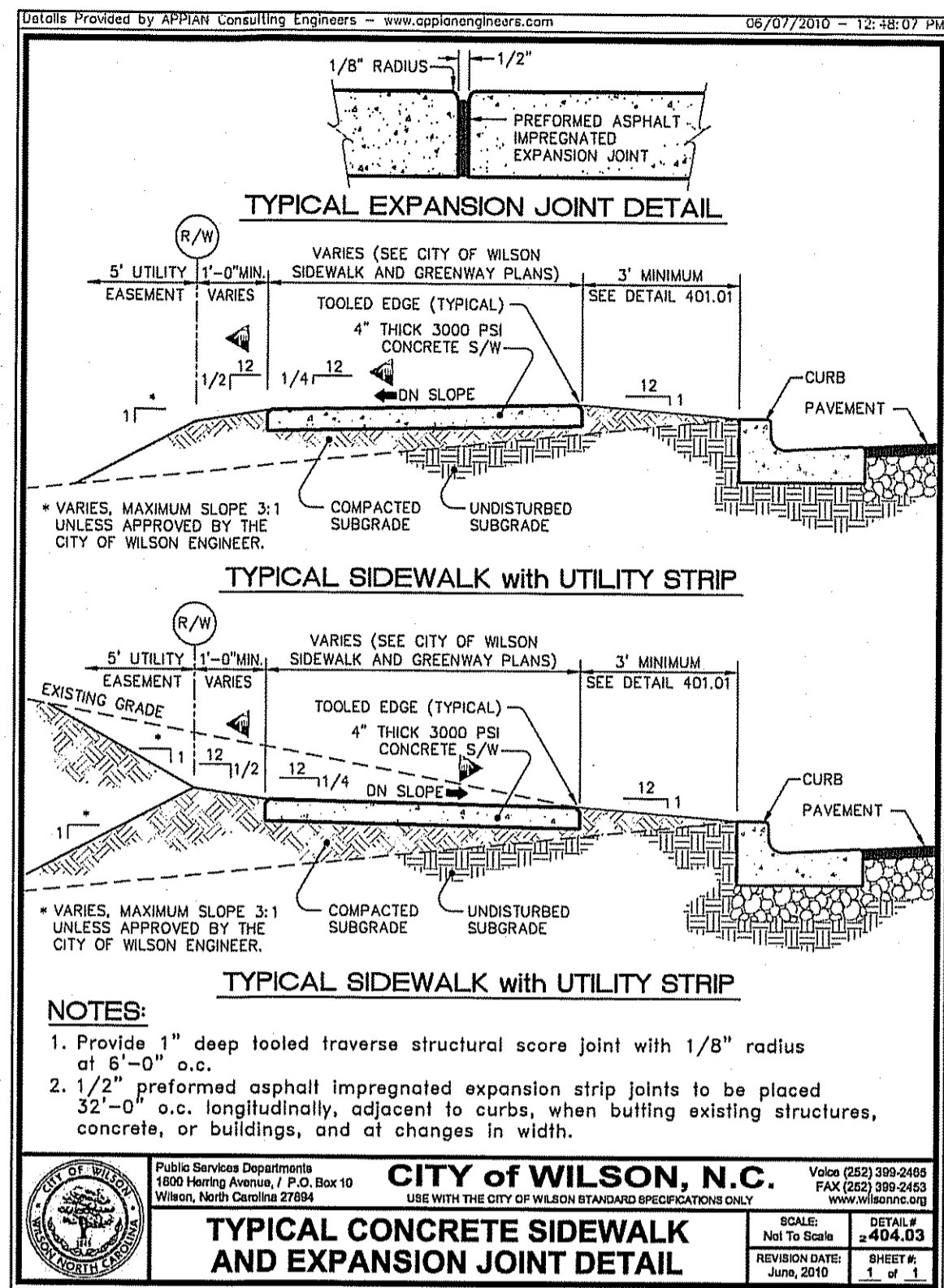
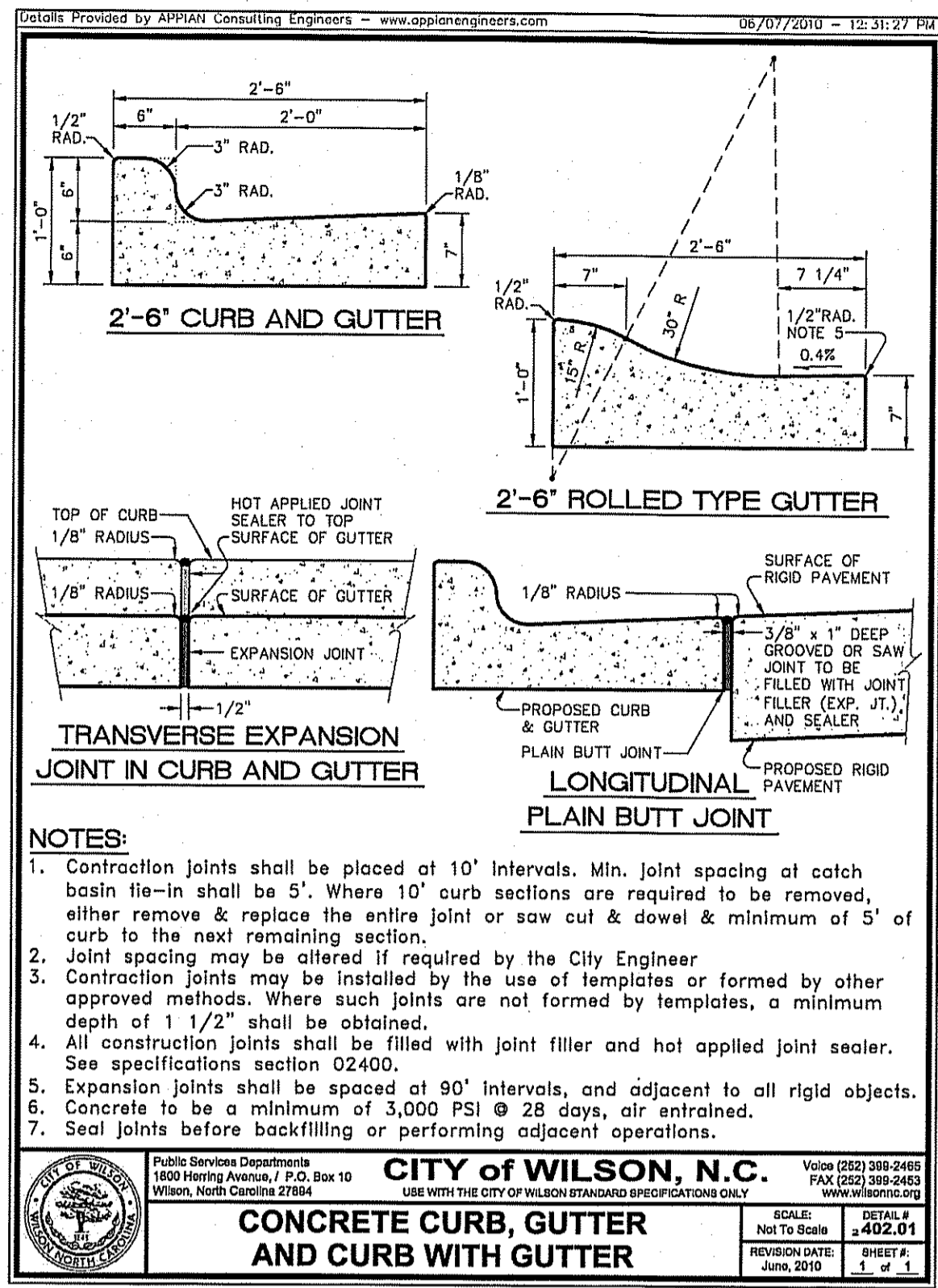
SEDIMENTATION and EROSION CONTROL

TOISNOT PARK
- ENTRANCE GRADING -

DATE: APRIL 2019
SCALE(HORZ): 1"=30'
SCALE(VERT): N/A
REVISIONS:

PROJECT: 18478
CLIENT CODE: WC
CADFILE: 18478SP4
FIELD BOOK: 348
DRAWN BY: CEP/LR
SURVEY BY: DB, JB
CITY OF WILSON WILSON COUNTY
NORTH CAROLINA ZONE: RMX/OS
PIN # SHEET SE3

C:\CAD\PROJECTS\N18478\18478SP4.dwg, Apr 02, 2019 3:37PM EST



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DETAILS

TOISNOT DOG PARK
- 1413 LAWDALE DRIVE NE -

| | | | |
|---------------------|-------------------|----------------|---------------|
| DATE: MARCH 2019 | PROJECT: 18478 | CITY OF WILSON | WILSON COUNTY |
| SCALE(HORZ): 1"=30' | CLIENT CODE: WC | NORTH CAROLINA | ZONE: RMX/OS |
| SCALE(VERT): N/A | CADFILE: 18478SP4 | PIN # | SHEET DT1 |
| REVISIONS: | FIELD BOOK: 348 | | |
| | DRAWN BY: CEP/LLR | | |
| | SURVEY BY: DB, JB | | |

SEEDBED PREPARATION:

CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3" DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
 RIP ENTIRE AREA 6" DEEP.
 REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
 APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
 CONTINUE TILLAGE UNTIL A WELL PULVERIZED, REASONABLY UNIFORM SEEDBED IS PREPARED 4" TO 6" DEEP.
 SPREAD SEED ON FRESHLY PREPARED SEEDBED AND COVER LIGHTLY WITH SEEDING EQUIPMENT OR MULTIPACKER AFTER SEEDING.
 MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

HYDROSEEDING

SURFACE ROUGHENING IS PARTICULARLY IMPORTANT WHEN HYDROSEEDING, AS A ROUGHENED SLOPE WILL PROVIDE SOME NATURAL COVERAGE FOR LIME, FERTILIZER, AND SEED. THE SURFACE SHOULD NOT BE COMPACTED OR SMOOTH. FINE SEEDBED PREPARATION IS NOT NECESSARY FOR HYDROSEEDING OPERATIONS. LARGE CLOUDS, STONES, AND IRREGULARITIES PROVIDE CAVITIES IN WHICH SEEDS CAN LODGE.
 RATE OF WOOD FIBER (CELLULOSE) APPLICATION SHOULD BE AT LEAST 2,000 LB/ACRE.
 APPLY LEGUME INOCULANTS AT FOUR TIMES THE RECOMMENDED RATE WHEN ADDING INOCULANT TO A HYDROSEEDER SLURRY.
 IF A MACHINERY BREAKDOWN OF 1/2 TO 2 HOURS OCCURS, ADD 50% MORE SEED TO THE TASK, BASED ON THE PROPORTION OF THE SLURRY REMAINING. THIS SHOULD COMPENSATE FOR DAMAGE TO SEED. BEYOND 2 HOURS, FULL RATE OF NEW SEED MAY BE NECESSARY.
 LIME IS NOT NORMALLY APPLIED WITH A HYDRAULIC SEEDER BECAUSE IT IS ABRASIVE. IT CAN BE BLOWN ONTO STEEP SLOPES IN DRY FORM.

CRIMPING STRAW MULCH
 CRIMPING CAN BE APPLIED TO AREAS ADJACENT TO ANY SECTION OF THE ROADWAY WHERE TRAFFIC IS TO BE MAINTAINED OR ALLOWED DURING CONSTRUCTION. IN AREAS WITHIN SIX FEET OF THE EDGE OF PAVEMENT, STRAW IS TO BE APPLIED AND THEN CRIMPED. AFTER THE CRIMPING OPERATION IS COMPLETE, AN ADDITIONAL APPLICATION OF STRAW SHALL BE APPLIED AND IMMEDIATELY TACKED WITH A SUFFICIENT AMOUNT OF UNDILUTED EMULSIFIED ASPHALT.
 STRAW MULCH SHALL BE OF SUFFICIENT LENGTH AND QUALITY TO WITHSTAND THE CRIMPING OPERATION. CRIMPING EQUIPMENT INCLUDING POWER SOURCE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER PROVIDING THAT MAXIMUM SPACING OF CRIMPER BLADES SHALL NOT EXCEED 6".

SEEDING SCHEDULE:

| SEEDING MIXTURE SPECIES | WINTER/EARLY SPRING RATE(LB/ACRE) | | SUMMER RATE(LB/ACRE) | | FALL RATE(LB/ACRE) | |
|-------------------------|-----------------------------------|-----------|----------------------|-----------|--------------------|------------|
| | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 |
| GERMAN MILLET | 120 | - | 120 | 120 | - | - |
| RYE (GRAIN) | 60 | - | 60 | 60 | - | - |
| PARTRIDGE PEA | 120 | - | 120 | 120 | - | - |

| SEEDING MIXTURE SPECIES | WINTER/EARLY SPRING RATE(LB/ACRE) | | SUMMER RATE(LB/ACRE) | | FALL RATE(LB/ACRE) | |
|-------------------------|-----------------------------------|----------|----------------------|----------|--------------------|-----------|
| | 2/1-4/15 | 5/1-8/15 | 8/25-10/1 | 2/1-4/15 | 5/1-8/15 | 8/25-10/1 |
| INDIAN GRASS | 200 | 200 | 200 | 200 | 200 | 200 |
| PARTRIDGE PEA | 100 | 100 | 100 | 100 | 100 | 100 |
| GERMAN MILLET | 200 | 200 | 200 | 200 | 200 | 200 |

| SOIL AMENDMENTS | WINTER/EARLY SPRING | | SUMMER | | FALL | |
|-------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 |
| LIMESTONE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE |
| FERTILIZER(10-10-10) | 750 LB/ACRE | 750 LB/ACRE | 1000 LB/ACRE | 1000 LB/ACRE | 1000 LB/ACRE | 1000 LB/ACRE |
| STRAW MULCH | 4000 LB/ACRE | 4000 LB/ACRE | 4000 LB/ACRE | 4000 LB/ACRE | 4000 LB/ACRE | 4000 LB/ACRE |
| EMULSIFIED ASPHALT TACK | 435 GALLON/ACRE | 435 GALLON/ACRE | 435 GALLON/ACRE | 435 GALLON/ACRE | 435 GALLON/ACRE | 435 GALLON/ACRE |

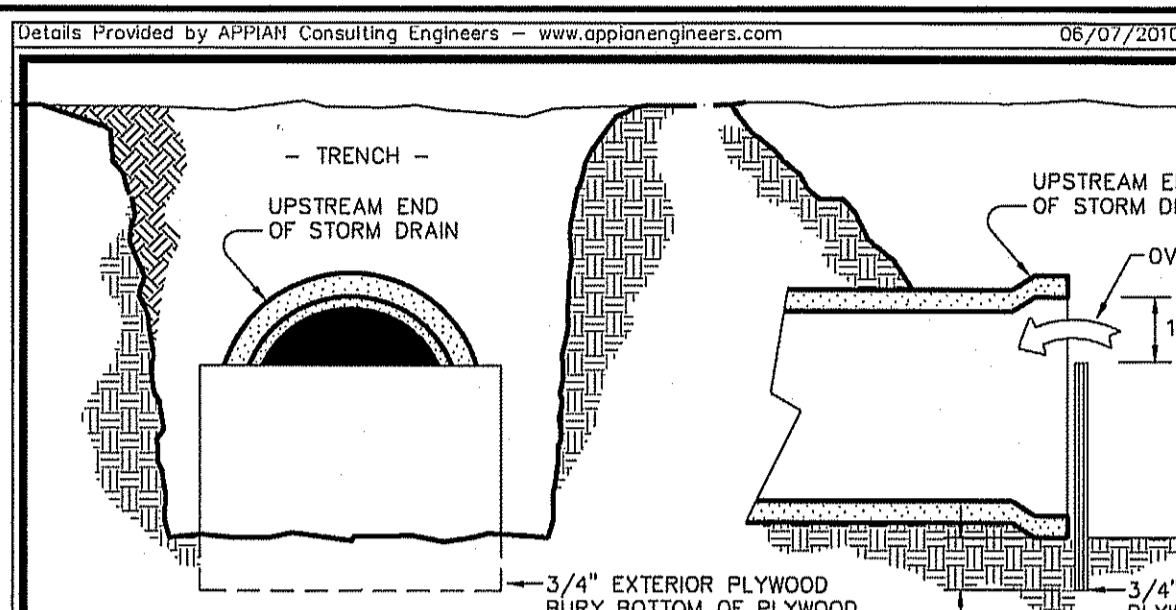
| HYDROSEEDING MATERIAL | WINTER/EARLY SPRING | | SUMMER | | FALL | |
|-----------------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 | 12/1-4/15 | 4/15-8/15 | 8/15-12/30 |
| SEED | 200 LB/ACRE | 200 LB/ACRE | 200 LB/ACRE | 200 LB/ACRE | 200 LB/ACRE | 200 LB/ACRE |
| FERTILIZER | 500 LB/ACRE | 500 LB/ACRE | 500 LB/ACRE | 500 LB/ACRE | 500 LB/ACRE | 500 LB/ACRE |
| STRAW MULCH | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE | 2000 LB/ACRE |
| TACKIFIER | 100 LB/ACRE | 100 LB/ACRE | 100 LB/ACRE | 100 LB/ACRE | 100 LB/ACRE | 100 LB/ACRE |

TEMPORARY DIVERSIONS
 NO SCALE

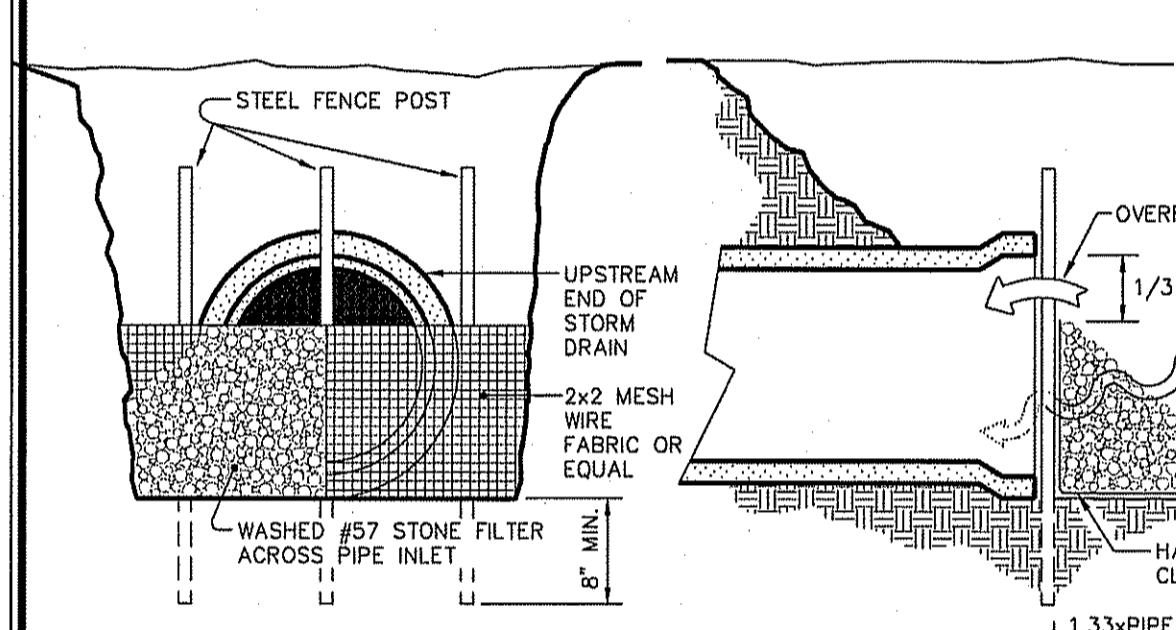
APDES Stormwater Discharge Permit for Construction Activities (9/2007)

NCDENR/Division of Energy, Mineral and Land Resources

| SITE AREA DESCRIPTION | STABILIZATION TIMEFRAMES (Effective Aug 1, 2011) | |
|--|--|--|
| | STABILIZATION | TIMEFRAME EXCEPTIONS |
| Perimeter dikes, swales, ditches, slopes | 7 days | None |
| High Quality Water (HQW) Zones | 7 days | None |
| Slopes steeper than 3:1 | 7 days | If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed. |
| Slopes 3:1 or flatter | 14 days | 7 days for slopes greater than 60' in length. |
| All other areas with slopes flatter than 4:1 | 14 days | None, except for perimeter and HQW Zones. |



OPTION A
 ILLUSTRATION OF PLYWOOD INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION.
 NOT TO SCALE REV. 9-1-92

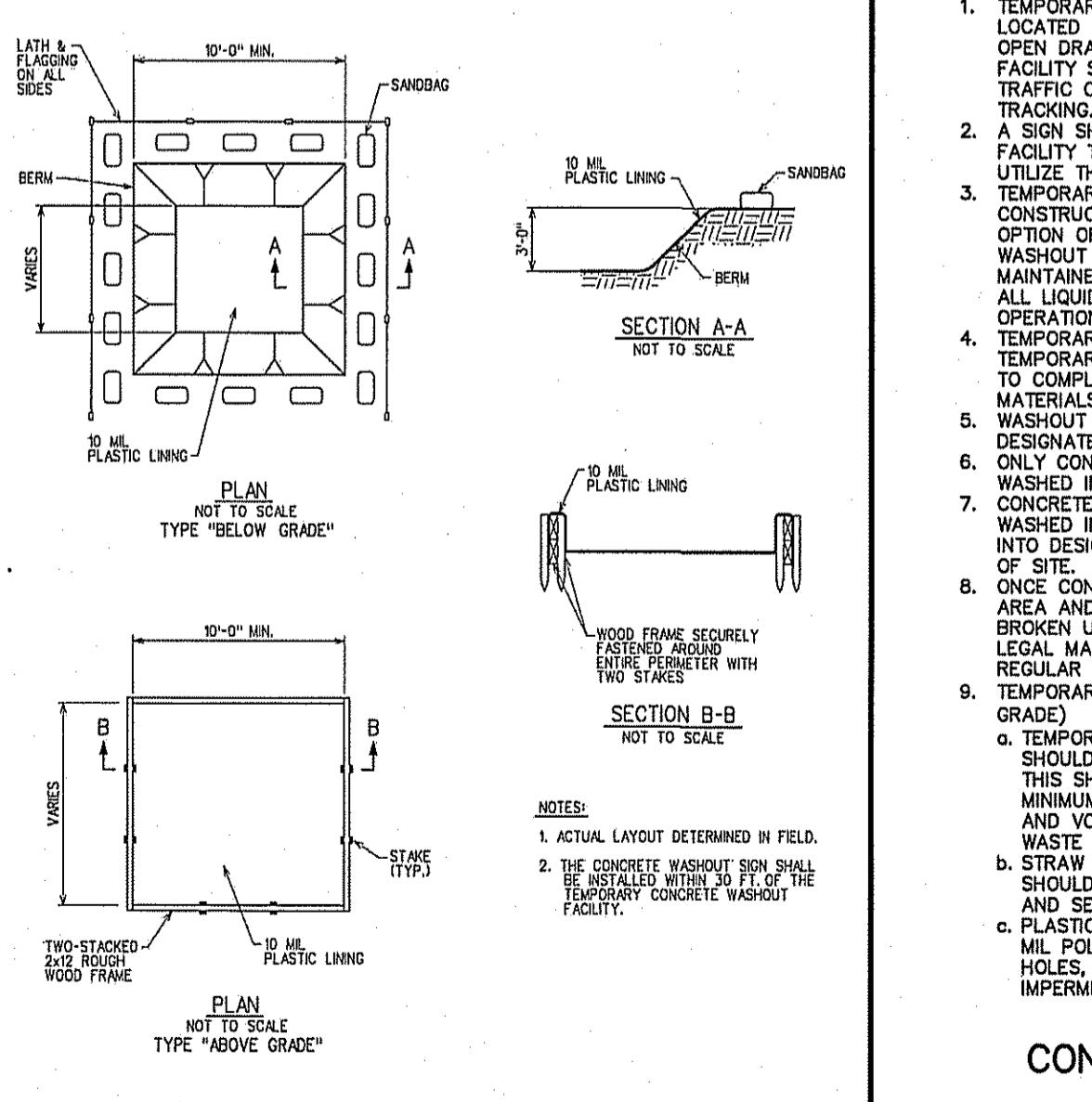


OPTION B
 ILLUSTRATION OF STONE FILTER INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION.
 NOT TO SCALE

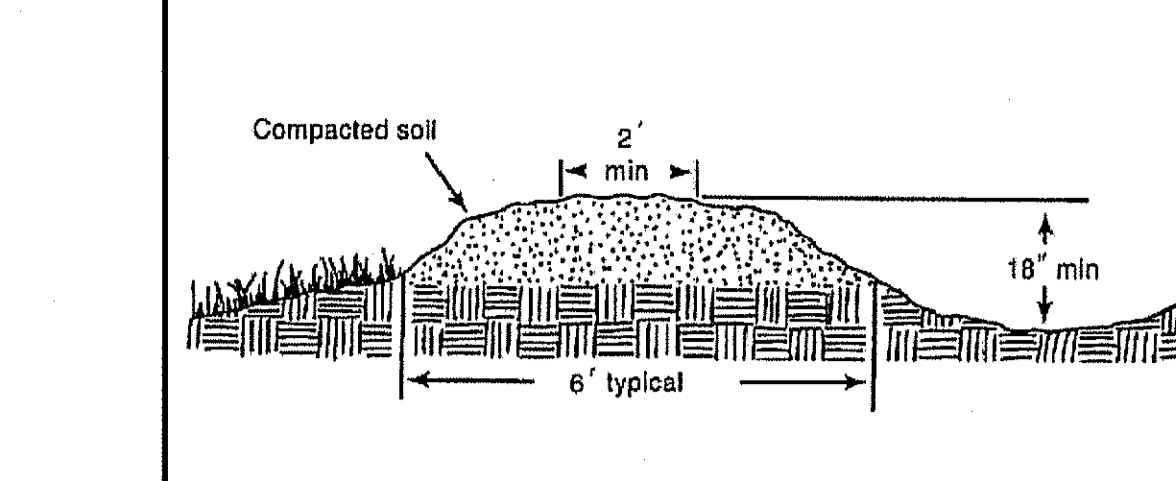
CITY OF WILSON, N.C.
 Public Services Department
 1800 Herring Avenue, / P.O. Box 10
 Wilson, North Carolina 27894
 Voice (252) 398-2465
 Fax (252) 398-2463
 www.wilsonnc.org

PIPE INLET PROTECTION
 SCALE: Not To Scale
 SHEET: 255.01
 REVISION DATE: June 2010

MAINTENANCE:
 INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.



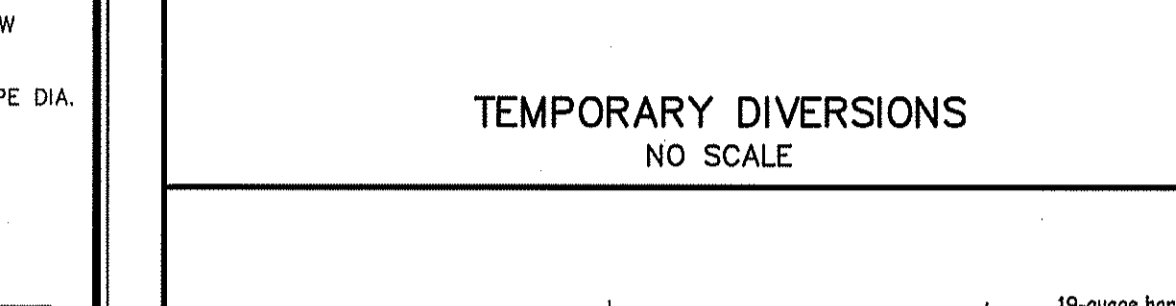
CONCRETE WASHOUT AREA
 NO SCALE



CONSTRUCTION SPECIFICATION:

- REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL
- ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
- ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
- PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
- VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.

MAINTENANCE:
 INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



TEMPORARY DIVERSIONS
 NO SCALE

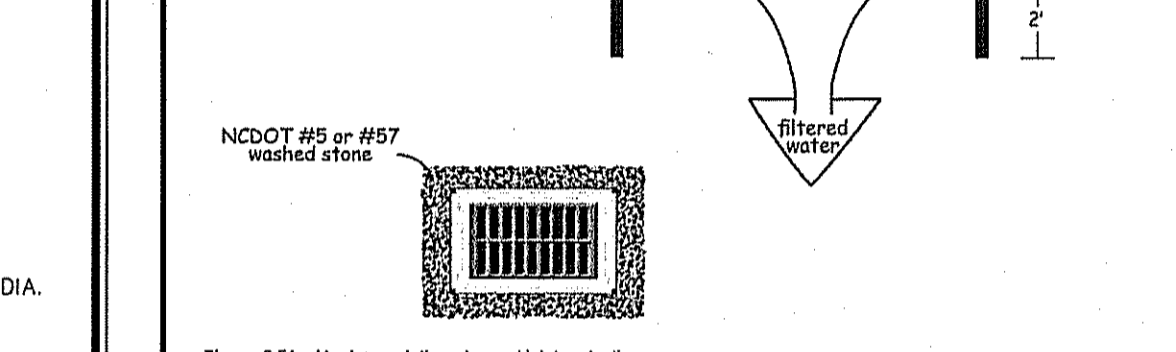


Figure 6.61a Hardware cloth and gravel inlet protection

CONSTRUCTION SPECIFICATION:

- UNIFORMLY GRADE A SHALLOW DIVERSION APPROACHING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE A CLEAN GRAVEL (NO. 57 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 18 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE WITH A 2-INCH ROLLER.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

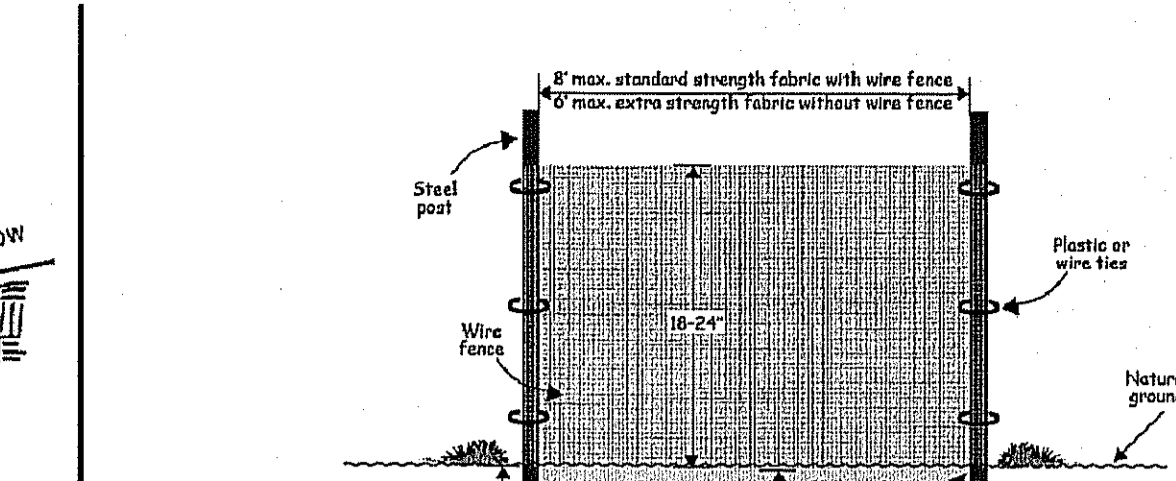
MAINTENANCE:
 INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

TEMPORARY DIVERSIONS
 NO SCALE

INSTALLATION SPECIFICATIONS

- TEMPORARY CONCRETE WASHOUT FACILITY (TYPE BELOW GRADE)
 - TEMPORARY CONCRETE WASHOUT FACILITY (TYPE BELOW GRADE) SHOULD BE LOCATED AT A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATER COURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.
 - TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
 - A SIGN SHOULD BE LOCATED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
 - TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED ABOVE GRADE, OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
 - TEMPORARY WASHOUT FACILITIES SHOULD HAVE A MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS GENERATED DURING WASHOUT PROCEDURES.
 - WASHOUT OF CONCRETE TRUCKS SHOULD BE PERFORMED IN DESIGNATED AREAS ONLY.
 - ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASHOUT.
 - CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE BROKEN UP, REMOVED, AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. DISPOSE OF HARDENED CONCRETE ON A TEMPORARY CONCRETE WASHOUT FACILITY.
 - TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE)
 - TEMPORARY WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN IN THE DETAILS ON THIS SHEET, WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
 - STRAW BALES, WOOD STAKES, AND SAND BAG MATERIALS SHOULD CONFORM TO THE PROVISIONS IN THE EROSION AND SEDIMENT CONTROL PLAN.
 - PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
- TEMPORARY CONCRETE WASHOUT FACILITY (TYPE BELOW GRADE)
 - TEMPORARY WASHOUT FACILITY (TYPE BELOW GRADE) SHOULD BE CONSTRUCTED AS SHOWN IN THE DETAILS ON THIS SHEET, WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
 - STRAW BALES, WOOD STAKES, AND SAND BAG MATERIALS SHOULD CONFORM TO THE PROVISIONS IN THE EROSION AND SEDIMENT CONTROL PLAN.
 - PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

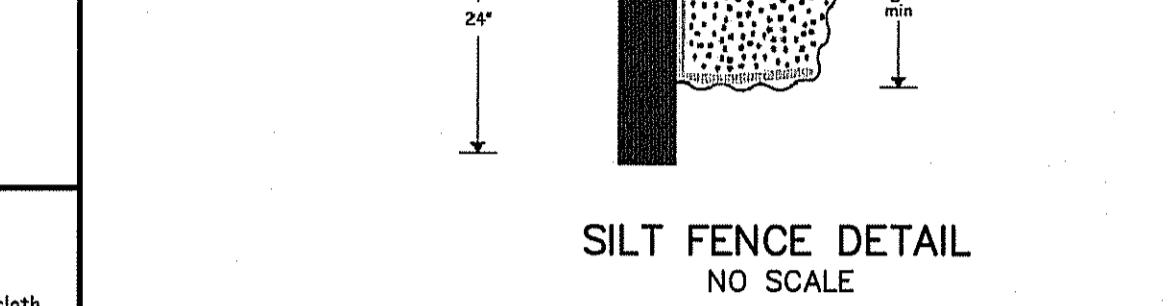
CONCRETE WASHOUT AREA
 NO SCALE



CONSTRUCTION SPECIFICATION:

- THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
- INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
- INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC. ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
- INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
- ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
- WRAP APPROXIMATELY 8 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
- NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE THE GROUND LEVEL.
- THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
- COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

MAINTENANCE:
 INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IMMEDIATELY.



SILT FENCE DETAIL
 NO SCALE

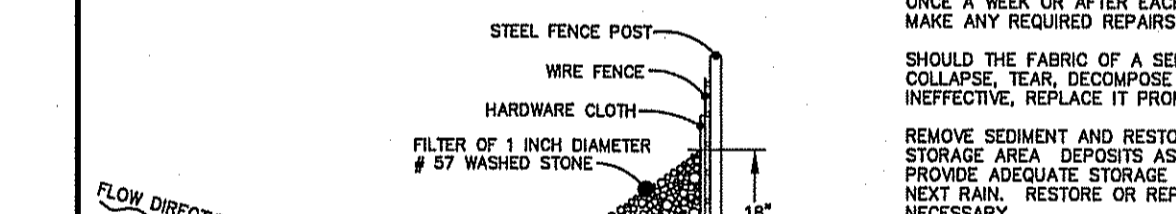
INSTALLATION SPECIFICATIONS

- THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
- INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
- INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC. ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
- INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
- ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
- WRAP APPROXIMATELY 8 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
- NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE THE GROUND LEVEL.
- THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
- COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

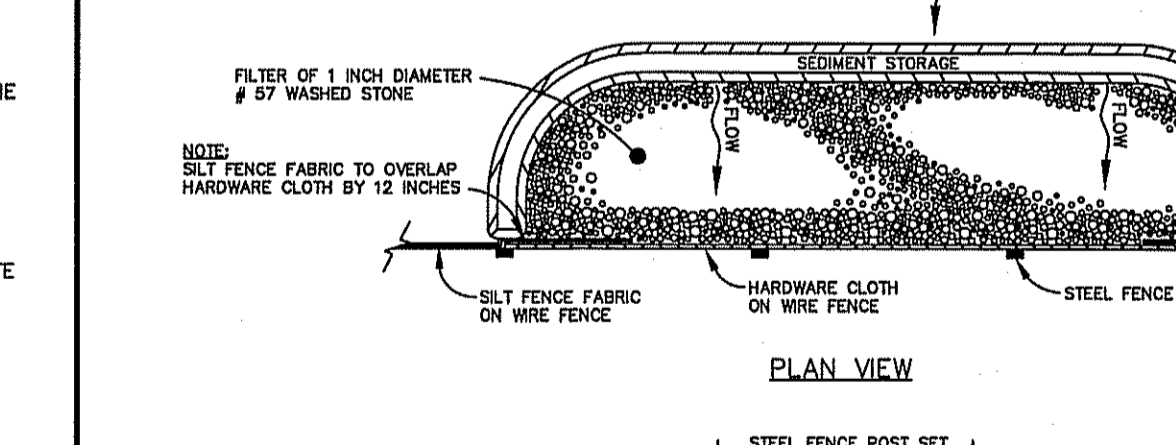
MAINTENANCE:
 INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IMMEDIATELY.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
 REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

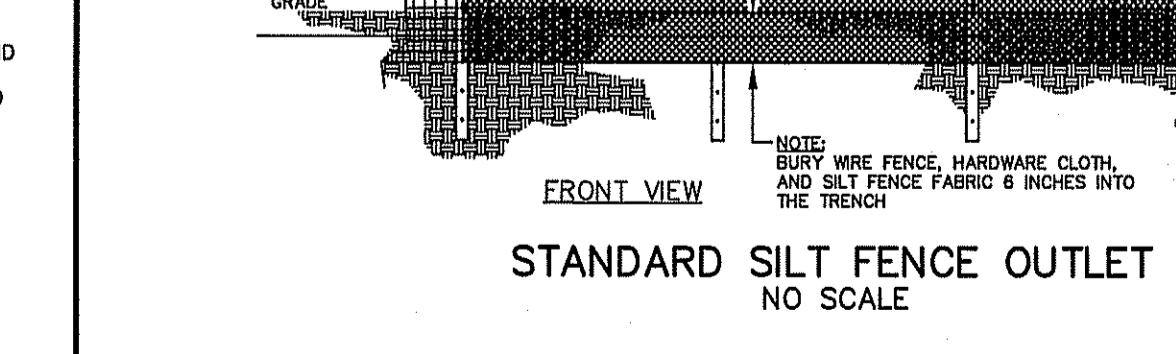
MAINTENANCE:
 INSPECT SEDIMENT FENCE OUTLET AT LEAST ONCE A WEEK OR AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
 REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA. DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. RESTORE OR REPLACE STONES AS NECESSARY.
 REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



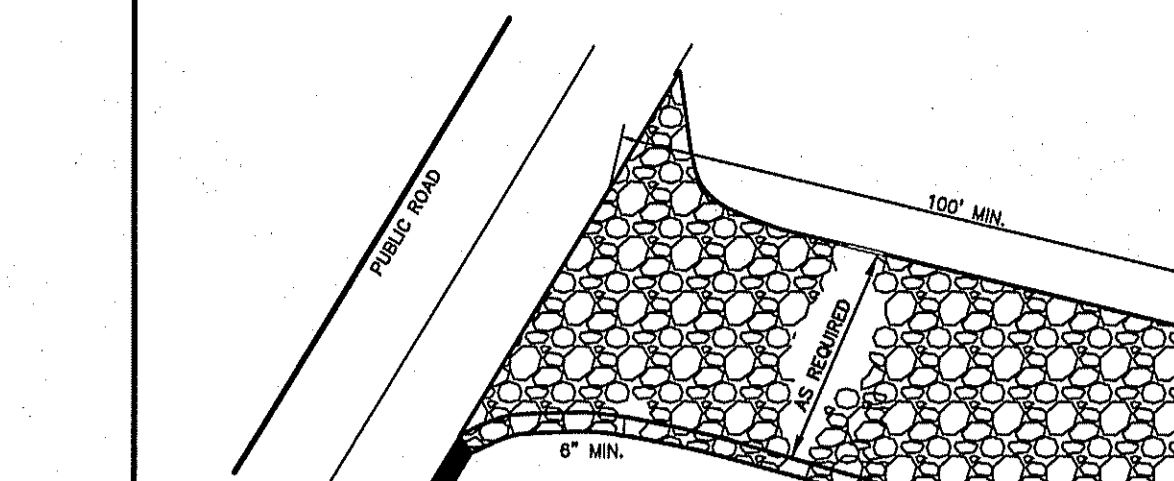
TEMPORARY DIVERSIONS
 NO SCALE



STANDARD SILT FENCE OUTLET
 NO SCALE



COMPOST SOCK
 NO SCALE



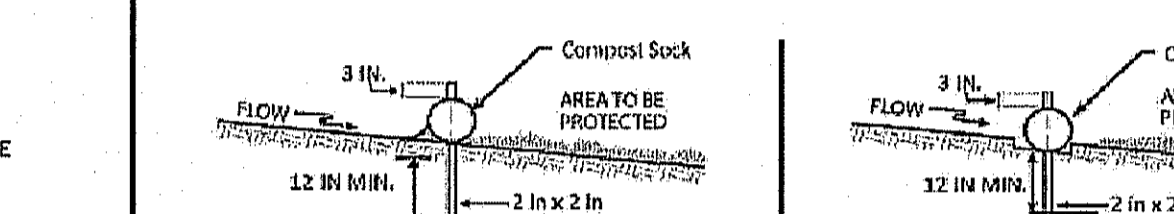
CONSTRUCTION ENTRANCE
 NO SCALE

APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.

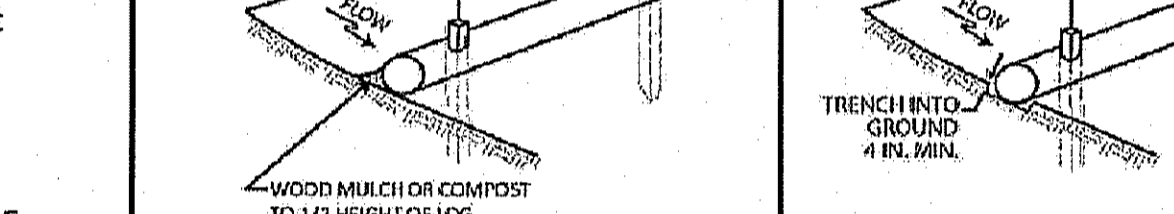
NOTES:
 A. 2'-3" COARSE AGGREGATE SHALL BE USED. PAD TO BE 100' X 100' X 6" D.
 B. TURNING RADIUS TO BE SUFFICIENT TO ACCOMMODATE LARGER TRUCKS.
 C. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILIZATION BY ALL CONSTRUCTION TRUCKS.
 D. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF TRAFFIC ONTO STREETS.
 E. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED IMMEDIATELY.

MAINTENANCE:
 MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD AND SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

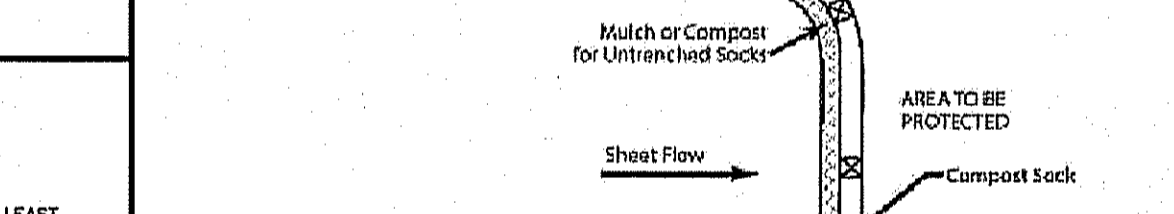
CONSTRUCTION ENTRANCE
 NO SCALE



UNTRRENCHED INSTALLATION



ENTRENCHED INSTALLATION*



ISOMETRIC VIEW

PLAN

Maryland Standards and Specifications for Soil Erosion and Sediment Control, 2011, Maryland Department of Environment, Water Management Administration

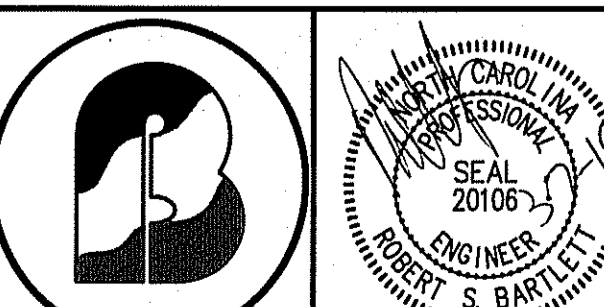
Figure 6.66b Compost Sock Installation

CONSTRUCTION SPECIFICATION:

- MATERIALS USED IN THE COMPOST SOCK MUST MEET THE SPECIFICATIONS OUTLINED IN THE NC EROSION CONTROL AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR COMPOST SOCKS AND COMPOST BLANKETS.
- COMPOST SOCKS SHOULD BE LOCATED AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
- PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLOGS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST SOCK.
- COMPOST SOCKS SHOULD BE INSTALLED PARALLEL TO THE TOE OF A GRADED SLOPE, A MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE. SOCKS LOCATED BELOW FLAT AREAS SHOULD BE LOCATED AT THE EDGE OF THE LAND-DISTURBANCE. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
- FILL SOCK NETTING UNIFORMLY WITH COMPOST TO THE DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
- ONE OR OTHER DURABLE HARDWOOD STAKES 2" X 2" IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY FLUJING THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACED IN A 4 INCH TRENCH. THE STAKES SHOULD BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCK.
- IN THE EVENT STAKING IS NOT POSSIBLE (i.e. WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
- IF THE COMPOST SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION USING THE SEEDING SPECIFICATION IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
- COMPOST SOCKS ARE NOT TO BE USED IN PERENNIAL OR INTERMITTENT STREAMS.

MAINTENANCE:
 INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OF A DIFFERENT ACTIVITY HAS BEEN COMPLETED, THE COMPOST MEDIA MAY BE DISPERSED WITH A RAKE, RAKE BULLDOZER OR SIMILAR DEVICE AND MAY BE INCORPORATED INTO THE SOIL AS AN AMENDMENT OR LEFT ON THE SOIL SURFACE TO AID IN PERMANENT SEEDING OR LANDSCAPING. LEAVING THE COMPOST MEDIA ON SITE REQUIRES REMOVAL AND DISPOSAL OF THE MEDIA AND EQUIPMENT TO OTHER LOCATIONS. THE MEDIA NETTING MATERIAL WILL BE EXTRACTED FROM THE MEDIA AND DISPOSED OF PROPERLY. THE PHOTODEGRADABLE MESH NETTING MATERIAL WILL DEGRADE IN 2 TO 5 YEARS IF LEFT ON SITE. BIODEGRADABLE MESH NETTING MATERIAL IS AVAILABLE AND DOES NOT NEED TO BE EXTRACTED AND DISPOSED OF. AS IT WILL COMPLETELY DECOMPOSE IN APPROXIMATELY 6 TO 12 MONTHS. USING BIODEGRADABLE COMPOST SOCKS COMPLETELY ELIMINATES THE NEED AND COST OF REMOVAL AND DISPOSAL.

COMPOST SOCK
 NO SCALE



BARTLETT
 ENGINEERING & SURVEYING, PC

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 WILSON, N.C. 27893-1726
 License No. C-1551

TELE: (252) 399-0704
 FAX: (252) 399-0804
 www.bartlett.us.com

DETAILS

TOISNOT DOG PARK
 - 1413 LAWDALE DRIVE NE -

DATE: MARCH 2019
 SCALE(HORIZ): 1"=30'
 SCALE(VERT): N/A
 REVISIONS: S&E COMMENTS 3/7/2019

PROJECT: 18478
 CLIENT CODE: WC
 CADFILE: 18478SP4
 FIELD BOOK: 348
 DRAWN BY: CEP, JLR
 SURVEY BY: DE, JB

CITY OF WILSON WILSON COUNTY
 NORTH CAROLINA ZONE: RMX/OS
 PIN # SHEET DT2

VERIFICATION OF COMPLIANCE WITH ENVIRONMENTAL REGULATIONS

(Check **All** Appropriate Boxes)

- Permits from the N.C. Department of Environment and Natural Resources and the U.S. Army Corp of Engineers are not required for this project. However, all applicable federal and state regulations have been followed.
- The required permits from the N.C. Department of Environment and Natural Resources and the U.S. Army Corp of Engineers have been obtained for this project. Copies of permits and Completion Certificates are attached.
- All applicable NPDES Stormwater Permit requirements have been met for this project. (The applicant should contact the N.C. Division of Water Quality in Raleigh to determine if a stormwater permit is required.)
- The project is in compliance with all applicable sedimentation and erosion control laws and regulations.

Project Name: **Toisnot Dog Park**

Township: **City of Wilson**

County: **Wilson**

Project Engineer: **Robert S. Bartlett**

Phone No.: **(252) 399-0704**

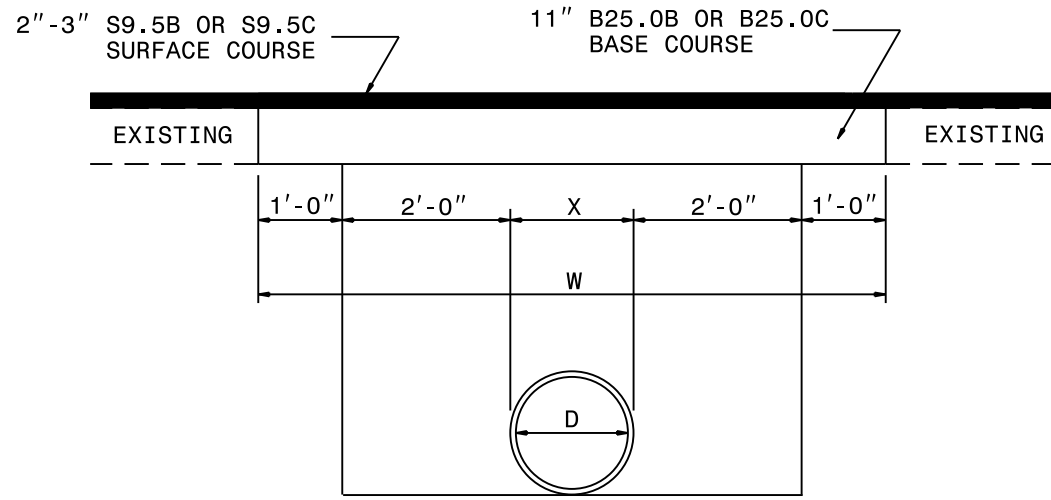
Project Contact: **Robert S. Bartlett**

Applicants Name: **Bartlett Engineering**

Date Submitted: **April 2, 2019**

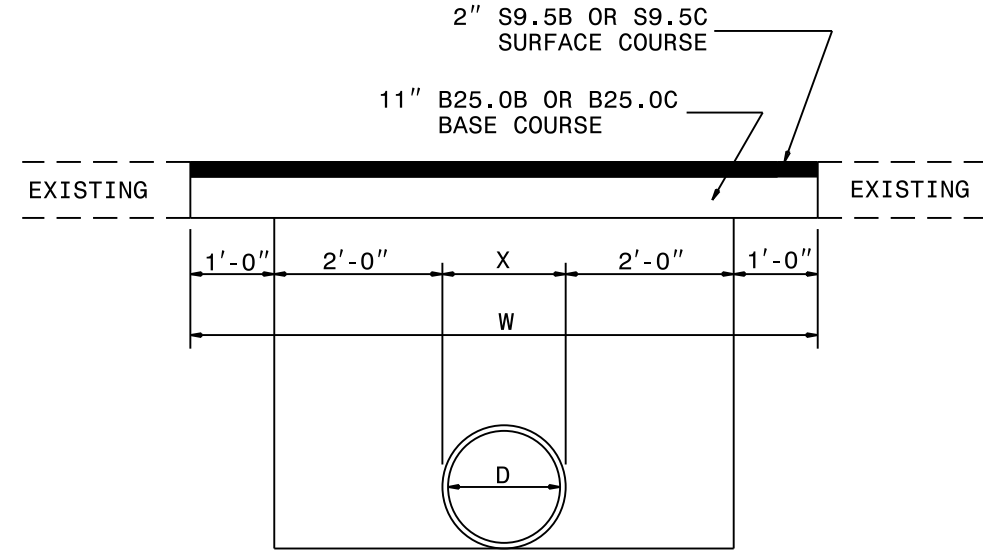


PE SEAL



**PAVEMENT REPAIRS ON ROADS TO BE RESURFACED
(PIPE IS PLACED UNDER EXISTING PAVEMENT)**

| D | X | W |
|-----|--------|--------|
| 12" | 1'-4" | 7'-4" |
| 15" | 1'-7" | 7'-7" |
| 18" | 1'-10" | 7'-10" |
| 24" | 2'-6" | 8'-6" |
| 30" | 3'-1" | 9'-1" |
| 36" | 3'-8" | 9'-8" |
| 42" | 4'-5" | 10'-5" |
| 48" | 5'-0" | 11'-0" |



**PAVEMENT REPAIRS ON ROADS NOT TO BE RESURFACED
(PIPE IS TO BE PLACED UNDER EXISTING PAVEMENT)**

STABILIZATION REQUIREMENTS:

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective August 3, 2011 issued by the North Carolina Department of Environment and Natural Resources Division of Water Quality. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING:

(East)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

| March 1 - August 31 | | September 1 - February 28 | |
|----------------------------|-----------------------|----------------------------------|-------------------------|
| 50# | Tall Fescue | 50# | Tall Fescue |
| 10# | Centipede | 10# | Centipede |
| 25# | Bermudagrass (hulled) | 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer | 500# | Fertilizer |
| 4000# | Limestone | 4000# | Limestone |

Waste and Borrow Locations

| March 1 – August 31 | | September 1 - February 28 | |
|----------------------------|-----------------------|----------------------------------|-------------------------|
| 75# | Tall Fescue | 75# | Tall Fescue |
| 25# | Bermudagrass (hulled) | 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer | 500# | Fertilizer |
| 4000# | Limestone | 4000# | Limestone |

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer’s request.

Approved Tall Fescue Cultivars

| | | | |
|----------------------------|-----------------|-----------------|--------------------|
| 06 Dust | Escalade | Justice | Scorpion |
| 2 nd Millennium | Essential | Kalahari | Serengeti |
| 3 rd Millennium | Evergreen 2 | Kentucky 31* | Shelby |
| Apache III | Falcon IV | Kitty Hawk 2000 | Sheridan |
| Avenger | Falcon NG | Legitimate | Signia |
| Barlexas | Falcon V | Lexington | Silver Hawk |
| Barlexas II | Faith | LSD | Sliverstar |
| Bar Fa | Fat Cat | Magellan | Shenandoah Elite |
| Barrera | Festnova | Matador | Sidewinder |
| Barrington | Fidelity | Millennium SRP | Skyline |
| Barrobusto | Finelawn Elite | Monet | Solara |
| Barvado | Finelawn Xpress | Mustang 4 | Southern Choice II |
| Biltmore | Finesse II | Ninja 2 | Speedway |
| Bingo | Firebird | Ol' Glory | Spyder LS |
| Bizem | Firecracker LS | Olympic Gold | Sunset Gold |
| Blackwatch | Firenza | Padre | Taccoa |
| Blade Runner II | Five Point | Patagonia | Tanzania |
| Bonsai | Focus | Pedigree | Trio |
| Braveheart | Forte | Picasso | Tahoe II |
| Bravo | Garrison | Piedmont | Talladega |
| Bullseye | Gazelle II | Plantation | Tarheel |
| Cannavaro | Gold Medallion | Proseeds 5301 | Terrano |
| Catalyst | Grande 3 | Prospect | Titan ltd |
| Cayenne | Greenbrooks | Pure Gold | Titanium LS |
| Cessane Rz | Greenkeeper | Quest | Tracer |
| Chipper | Gremlin | Raptor II | Traverse SRP |
| Cochise IV | Greystone | Rebel Exeda | Tulsa Time |
| Constitution | Guardian 21 | Rebel Sentry | Turbo |
| Corgi | Guardian 41 | Rebel IV | Turbo RZ |
| Corona | Hemi | Regiment II | Tuxedo RZ |
| Coyote | Honky Tonk | Regenerate | Ultimate |
| Darlington | Hot Rod | Rendition | Venture |
| Davinci | Hunter | Rhambler 2 SRP | Umbrella |
| Desire | Inferno | Rembrandt | Van Gogh |
| Dominion | Innovator | Reunion | Watchdog |
| Dynamic | Integrity | Riverside | Wolfpack II |
| Dynasty | Jaguar 3 | RNP | Xtremegreen |
| Endeavor | Jamboree | Rocket | |

***Note: Kentucky 31 will no longer be an approved NCDOT Tall Fescue Cultivar after December 31, 2015.**

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

TEMPORARY SEEDING:

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. Sweet Sudan Grass, German Millet or Browntop Millet shall be used in summer months and Rye Grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

FERTILIZER TOPDRESSING:

Fertilizer used for topdressing on all roadway areas except slopes 2:1 and steeper shall be 10-20-20 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 10-20-20 analysis and as directed.

Fertilizer used for topdressing on slopes 2:1 and steeper and waste and borrow areas shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

SUPPLEMENTAL SEEDING:

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, with the exception that no centipede seed will be used in the seed mix for supplemental seeding. The rate of application for supplemental seeding may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

MOWING:

The minimum mowing height on this project shall be 4 inches.