

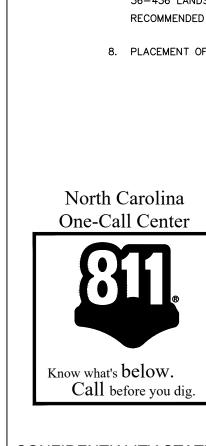
LANDSCAPING SCHEDULE				
LOCATION & TYPE	MINIMUM QUANTITY	MINIMUM SIZE AT INSTALLATION	<u>NOTES</u>	
TYPE C BUFFER YARD  LAWN OR OTHER  GROUND COVER			MINIMUM 5' YARD SHALL BE LAWN, LOW GROWING EVERGREEN SHRUBS, BROADLEAF EVERGREENS, OR OTHER GROUND COVER.	
STREET FRONTAGE SCREENING  EVERGREEN OR DECIDUOUS SHRUBS	7 56	TREES 3 GALLON CONTAINER	MINIMUM 5' YARD SHALL CONTAIN A MINIMUM OF 8 SHRUBS PER 40 LINEAR FEET OF STREET FRONTAGE. NATURAL MULCH OR PINE STRAW SHALL BE PROVIDED TO FORM A CONTINUOUS GROUND COVER AROUND SHRUBS.	
PERIPHERAL SCREENING ORNAMENTAL TREE	5	1 1/2" CALIPER OR 6 FT. IN HEIGHT	MINIMUM 5' YARD SHALL CONTAIN A MINIMUM OF 1 SHADE OR ORNAMENTAL TREE AND 8 SHRUBS PER 40 LINEAR FEET OF PARKING AREA PERIMETER.	
EVERGREEN OR DECIDUOUS SHRUBS		3 GALLON CONTAINER	NATURAL MULCH OR PINE STRAW SHAL BE PROVIDED TO FORM A CONTINUOUS GROUND COVER AROUND SHRUBS.	

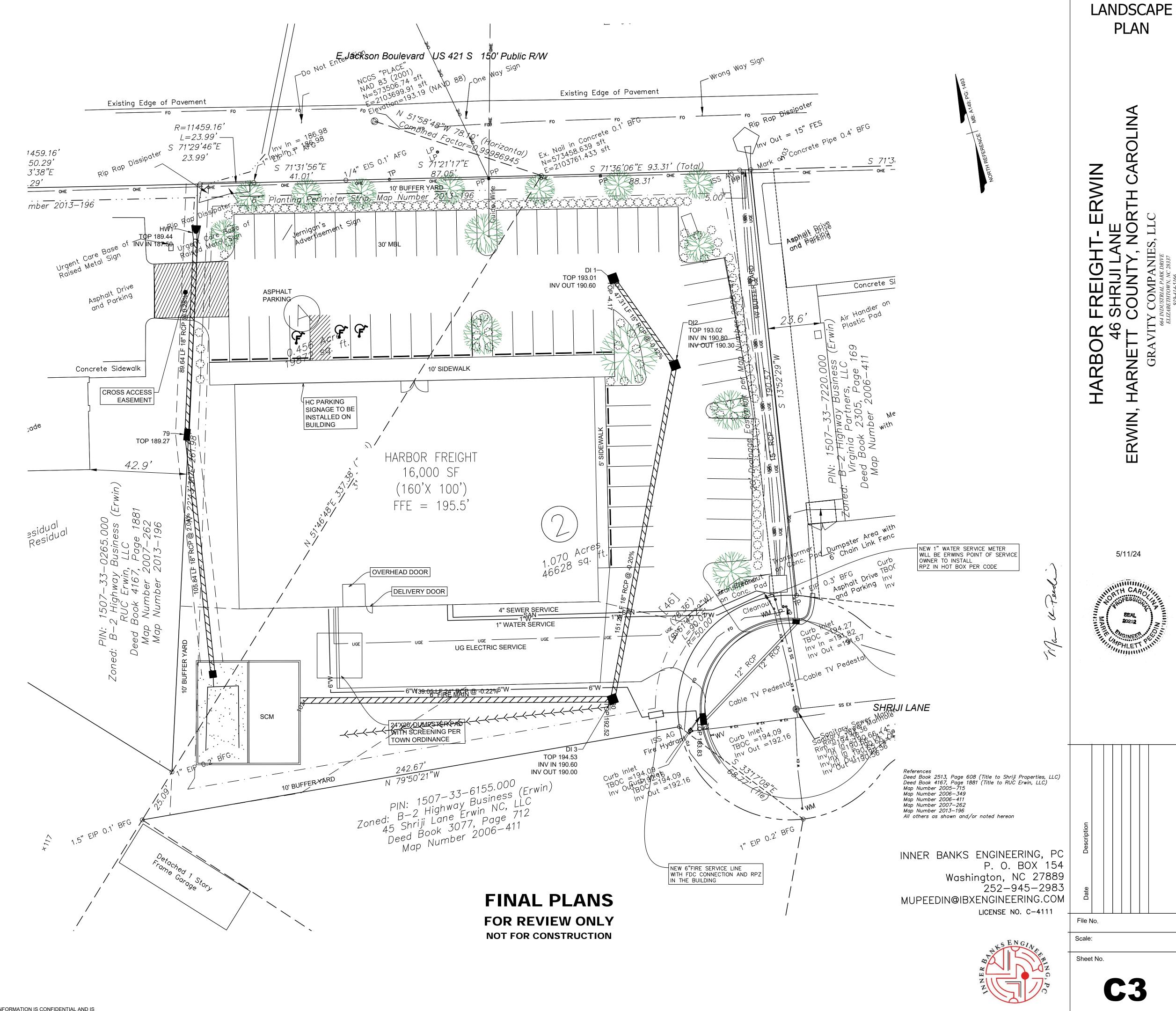
REFERENCE TOWN OF ERWIN ORDINANCE SECTION 36-436

FROM UNDERGROUND UTILITIES AND BUILDINGS

# LANDSCAPING NOTES

- LARGE TREES (MATURE HEIGHT OF MORE THAN 40 FT.) TO BE LOCATED A MINIMUM OF 15
  FROM OVERHEAD UTILITY WIRES, POLES AND STREET LIGHTS AND A MINIMUM OF 10 FT. FROM UNDERGROUND UTILITIES AND BUILDINGS.
- 2. MEDIUM TREES (MATURE HEIGHT OF LESS THAN 40 FT. AND GREATER THAN 20 FT.) TO BE LOCATED A MINIMUM OF 10 FT. FROM OVERHEAD UTILITY WIRES, POLES, AND STREET LIGHTS AND A MINIMUM OF 8 FT. FROM UNDERGROUND UTILITIES AND BUILDINGS
- 3. SMALL AND ORNAMENTAL TREES (MATURE HEIGHT OF LESS THAN 20 FT.) TO BE LOCATED A MINIMUM OF 5 FT. FROM OVERHEAD UTILITY WIRES, POLES, AND STREET LIGHTS AND A MINIMUM OF 8 FT.
- 4. ALL REQUIRED TREES AND SHRUBS SHALL BE LOCATED A MINIMUM OF 5 FT. FROM EXISTING AND PROPOSED DITCH BANKS.
- 5. SHRUBS SHALL BE ALLOWED WITHIN DRAINAGE AND UTILITY EASEMENTS. TREES SHALL BE A MINIMUM OF 5 FT. OUTSIDE OF DRAINAGE AND UTILITY EASEMENTS.
- 6. ALL FRONT AND BUFFER YARDS SHALL BE SEEDED ACCORDING TO THE SEEDING NOTES IN THESE PLANS. ALL TREES AND SHRUBS IN FRONT AND BUFFER YARDS SHALL HAVE A MINIMUM 4 FT. DIA. BY 4 INCH THICK BEDDING OF PINE BARK MULCH UNLESS NOTED OTHERWISE.
- 7. ALL LANDSCAPING TO BE INSTALLED AND MAINTAINED PER THE TOWN OF ERWIN ORDINANCE SECTION 36-436 LANDSCAPING, BUFFERING AND SCREENING REGULATION. SEE SECTION 36-436(18): RECOMMENDED PLANT LIST FOR APPROVED LIST OF TREES, SHRUBS, AND SCREENING PLANTS.
- 8. PLACEMENT OF REQUIRED PLANTS SHALL BE THE DECISION OF THE DEVELOPER.





## GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

	Re	equired Ground Stabil	ization Timeframes	
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations	
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None	
(b)	High Quality Water (HQW) Zones	7	None	
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed	
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed	
(e)	Areas with slopes flatter than 4:1	14	<ul> <li>-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zone</li> <li>-10 days for Falls Lake Watershed unless- there is zero slope</li> </ul>	

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

# GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below

Temporary Stabilization	Permanent Stabilization	
<ul> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed	

### POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures. Apply flocculants at the concentrations specified in the NC DWR List of Approved
- *PAMS/Flocculants* and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures

### EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as
- hazardous waste (recycle when possible
- Remove leaking vehicles and construction equipment from service until the problem Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products

## LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

to a recycling or disposal center that handles these materials.

- Never bury or burn waste. Place litter and debris in approved waste containers Provide a sufficient number and size of waste containers (e.g dumpster, trash
- receptacle) on site to contain construction and domestic waster Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available
- Locate waste containers on areas that do not receive substantial amounts of runoff
- from upland areas and does not drain directly to a storm drain, stream or wetland. Cover waste containers at the end of each workday and before storm events or
- provide secondary containment. Repair or replace damaged waste containers. Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if

### Dispose waste off-site at an approved disposal facility. 9. On business days, clean up and dispose of waste in designated waste containers.

### PAINT AND OTHER LIQUID WASTE

- Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- 2. Provide staking or anchoring of portable toilets during periods of high winds or in high
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

# SECTION A—A NOTES: 1. ACTUAL LOCATION DETERMINED IN FIELD THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. ABOVE GRADE WASHOUT STRUCTURE NOT TO SCALE BELOW GRADE WASHOUT STRUCTURE NOT TO SCALE

### CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 0. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout

### HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.

# Do not stockpile these materials onsite

- Create designated hazardous waste collection areas on-site.

# IAZARDOUS AND TOXIC WASTE

- Place hazardous waste containers under cover or in secondary containment.

- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

# NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

# SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections

Inspect	Frequency (during normal business hours)	Inspection records must include:		
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts.  If no daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.		
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.		
(3) Stormwater discharge outfalls (SDGs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls Inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.		
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made:  Actions taken to clean up or stabilize the sediment that has left the site limits,  Description, evidence, and date of corrective actions taken, and An explanation as to the actions taken to control future releases.		
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made:  1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.		
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perlmeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover).  2. Documentation that the required ground stabilization.		

NOTE: The rain inspection resets the required 7 calendar day inspection requirement

measures have been provided within the required

timeframe or an assurance that they will be provided as

Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

**Documentation Requirements** 

report to indicate the completion of the

SECTION B: RECORDKEEPING 1. E&SC Plan Documentation

Item to Document

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

corrective action.

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

of three years after project completion and made available upon request, [40 CFR 122.41]

### I. Documentation to be Retained for Three Years All data used to complete the e-NOI and all inspection records shall be maintained for a period

PART II, SECTION G, ITEM (4)

## Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather).

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit, (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include
- properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems, (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

# NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

quality and effect of the bypass

case-by-case basis.

### PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

### SECTION C: REPORTING 1. Occurrences that Must be Reported

Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland.

# (b) Oil spills if:

bypasses [40 CFR

22.41(m)(3)]

(d) Unanticipated

bypasses [40 CFR

(e) Noncompliance

with the conditions

of this permit that

may endanger

environment[40

CFR 122.41(I)(7)]

health or the

122.41(m)(3)]

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,

(c) Releases of hazardous substances in excess of reportable quantities under Section 311

of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA

- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

# (d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment

# 2. Reporting Timeframes and Other Requirements

(Ref: 40 CFR 302.4) or G.S. 143-215.85.

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800)

### Occurrence Reporting Timeframes (After Discovery) and Other Requirements (a) Visible sediment Within 24 hours, an oral or electronic notification. deposition in a Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the <u>NC 303(d) list</u> as impaired for sedimentrelated causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance

- with the federal or state impaired waters conditions (b) Oil spills and Within 24 hours, an oral or electronic notification. The notification release of shall include information about the date, time, nature, volume and hazardous location of the spill or release. substances per Iten 1(b)-(c) above
  - A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that includes an evaluation of the
  - Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6). Division staff may waive the requirement for a written report on a



**EFFECTIVE: 04/01/19** 

1. NO LAND DISTURBING ACTIVITY BEYOND THE REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MEASURES MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE

WHERE 30° 10'36° PIPE S USED

<u>DETAIL SHOWING METHOD</u> <u>OF RISER CONSTRUCTION</u>

<sup>건</sup> 유 역

2 <del>2</del> 2

840.01

- 2. SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL DENUDED SLOPES WITHIN 7 DAYS FOR SLOPES STEEPER THAN 3:1 OR 14 DAYS FOR SLOPES FLATTER THAN 4:1.
- 3. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP EROSION CONTROL DEVICES IN GOOD WORKING ORDER MAY RESULT IN ISSUANCE OF A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5000 PER DAY OF VIOLATION. SITES UTILIZING SEDIMENT TRAPS MUST ALSO SPECIFY A MAXIMUM DEPTH OF SEDIMENT PRIOR TO CLEAN OUT.
- 4. THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
- 5. ACCEPTANCE & APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATIONS AND RULES.
- 6. MAINTAIN EROSION CONTROL MEASURES AS NECESSARY.

# CONSTRUCTION SCHEDULE:

- OBTAIN PLAN APPROVALS AND ALL APPLICABLE PERMITS
- INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE 3. INSTALL PERMANENT PERIMETER SEDIMENT FENCES AS THE FIRST
- CONSTRUCTION ACTIVITY PRIOR TO THE INSTALLATION OF ANY FILL. 4. STRIP SITE OF TOPSOIL (6") AND STOCKPILE ON SITE TO USE IN FINAL GRADING OF SITE. . PERFORM GRADING ACTIVITIES IN PARKING LOTS & BUILDING PADS.
- INSTALL STORM DRAINAGE PIPE 7. INSTALL EROSION CONTROL MEASURES AT ENDS OF STORM DRAINAGE PIPES AND INLETS 8. CONSTRUCT SANDFILTER BASIN
- 10. INSTALL WATER LINE AND SERVICES. 11. FINE GRADE PARKING LOTS & BUILDING PADS.

9. BEGIN SEWER SERVICE CONSTRUCTION.

12. APPLY TEMPORARY SEEDING TO ALL DISTURBED AREAS WHERE WORK IS DELAYED AND/OR WHERE WORK IS COMPLETE. 13. PROOF ROLL SUBGRADE.

16. INSTALL UNDERGROUND ELECTRICAL.

(14) DAYS FOR SLOPES FLATTER THAN 4:1.

- 14. INSTALL SIDEWALKS AND HC RAMPS. 15. INSTALL CABC UNDER ASPHALT.
- 17. FINE GRADE BUILDING PADS AND OPEN AREAS AND TOP DRESS AREAS TO BE SEEDED WITH STOCKPILED TOPSOIL
- 18. SEED & MULCH ALL EXPOSED AREAS EXCEPT BUILDING PADS PER SEEDING SPECIFICATIONS. 19. PERFORM THICKNESS AND COMPACTION TESTING ON CABC(BY OWNER). 20. PAVE PARKING LOT AND STRIPE
- 21. IN ANY EVENT, SLOPES LEFT EXPOSED WILL BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION WITHIN SEVEN (7) DAYS FOR SLOPES STEEPER THAN 3:1, OR WITHIN FOURTEEN
- 22. ADDITIONAL EROSION & SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY THE CITY OR ENGINEER IF DEEMED NECESSARY. 23. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES, FINE GRADE DISTURBED AREAS, AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.
- 24. AFTER AREA IS STABILIZED REMOVE SEDIMENT FROM SAND FILTER BASIN AND INSTALL REQUIRED STONE AND SAND FILTER MATERIALS.
- 25. FINE GRADE, PERMANENTLY SEED AND MULCH ALL LANDSCAPED AREAS. 26. REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES UPON COMPLETION AND STABILIZATION OF PROJECT.

# SEEDING BED AND MULCHING SCHEULE PER ARCE

нотея: монтия дозчта №" +/ №" тизск,

иве сылав "в" солскате тикораност

UBE #4 BAR DOMELS AT 12" CENTERS

USE FORMS FOR CONSTRUCTION OF THE BOTTOM SLAB

S'-O". DUANTITES D'UE ADJUSTED ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

CHANFER ALL EXPOSED CORNERS 1".

DRAWEND NOT TO SEALE

SECTION X-X

PROVIDE ALL CATCH BASINS OVER 2'-6" IN DEPTH WITH STEPS 12' DN CENTER. USE STEPS WHICH COMPLY MITH SID. DRAWING BAD.88.

USE TYPE "E", "=" AND "G" GRATES UNLESS OTHERWISE INDIGATED.

USE BETCK OF CONCRETE BLOCK WHICH COMPLIES MITH THE DEGUTDEMENTS OF SECILOR 940 OF THE STANDARD SPECIFICATIONS.

I- REINHÓRCEU CONCRETE PIPE IS SE' IM BOTTON SLAB OF BÓX, AUD TO SLAS BHOWN ON STO. NO. B40.00.

FOR R'-01 IN HEIGHT OR LESR, USE R' WALL. INVER S'-0" IN HEIGHT, USE 12" WALL TO 6'-0" [ROW TOP OF WALL AND 6" WALL FOR THE REMAINING

COMPLETE GRADING BEFORE PREPARING SEEDBEDS, AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES SUCH AS SWALES AND BASINS. MINIMIZE STEEP SLOPES. IF SOILS HAVE BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL PLOW. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. CROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR

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 BY THE ENGINEER.

# SEEDING PLAN

TEMPORARY SEEDING

MULCH

TACK RATE = 11 GAL / 1000 SF

	PLANING DATES DEC. 1 - APR. 15 APR. 15 - AUG. 15	GRASS TYPE RYE (GRAIN) KOBE LESPEDEZA GERMAN MILLET	POUNDS/ACRE 120 50 40
	AUG. 15 — DEC. 1	RYE (GRAIN)	120 3,000
	FERTILIZER MULCH	10-10-10 STRAW	800 4,000
2.	PERMANENT SEEDING		
	PLANING DATES SEPT. 1 - OCT. 3	GRASS TYPE TALL FESCUE KOBE LESPEDEZA RYE (GRAIN)	POUNDS/ACRE 200 50 25 4,000
	FERTILIZER	10-10-10	1,000

STRAW

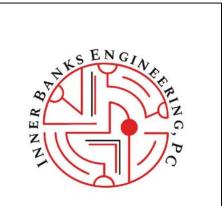
INNER BANKS ENGINEERING, PC P. O. BOX 154

4,000

FINAL PLANS FOR REVIEW ONLY

**NOT FOR CONSTRUCTION** 

Washington, NC 27889 MUPEEDIN@IBXENGINEERING.COM LICENSE NO. C-4111



RB

ERWIN

EIGH

ᆤᇈ

840.01

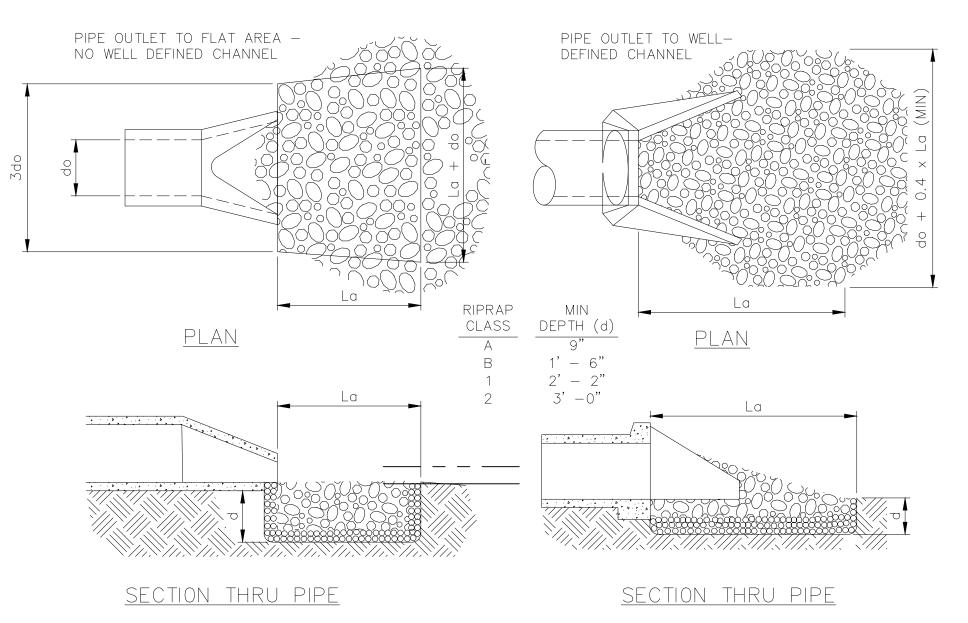
**DETAILS** 

**PLAN** 



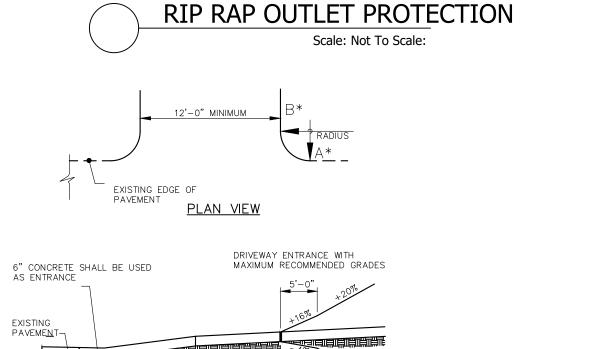
File No. 23039 NTS

Sheet No.



NOTES: 1. La IS THE LENGTH OF THE RIP-RAP APRON.

- 2. do IS THE NOMINAL SIZE OF THE OUTLET PIPE.
- 3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS. WIDEN CHANNEL AS NECESSARY TO ACHIEVE REQUIRED WIDTH AT DISTANCE La FROM OUTLET. RIPRAP ENTIRE DISTURBED PORTION OF THE CHANNEL.
- 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIP-RAP AND SOIL FOUNDATION.



# NOTES:

1. CURB SHALL BE TAPERED TO FINISH FLUSH WITH SIDEWALK.

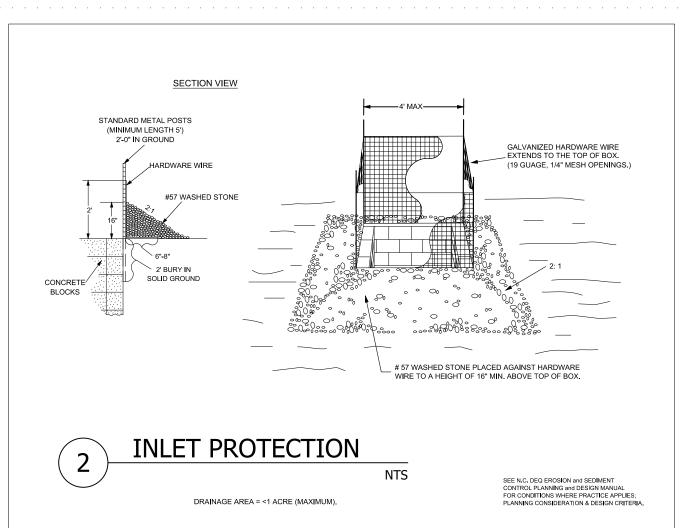
TYPICAL SECTION

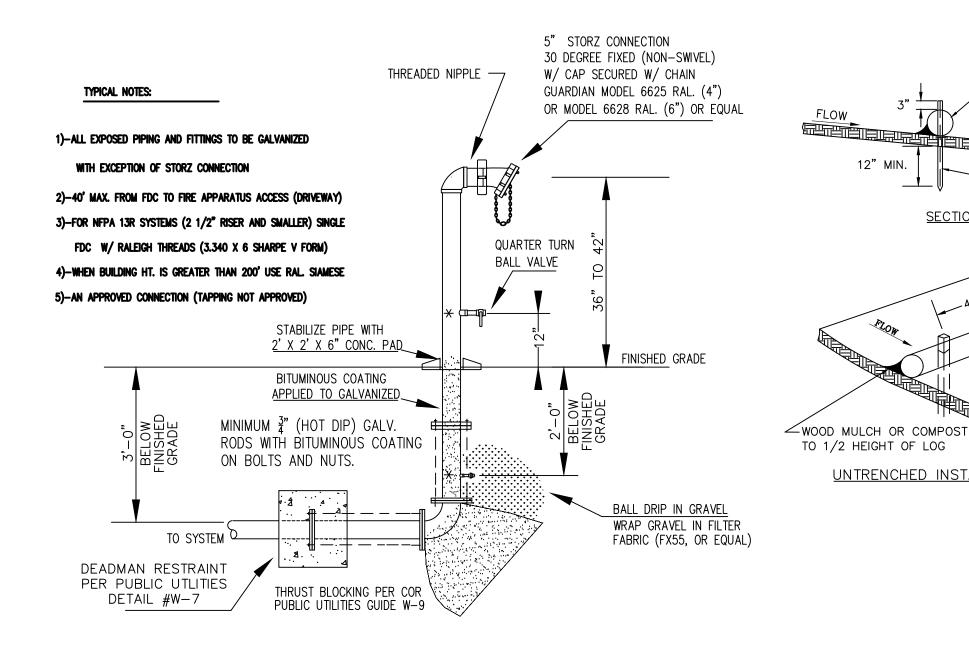
COMPACTED

BACKFILL -

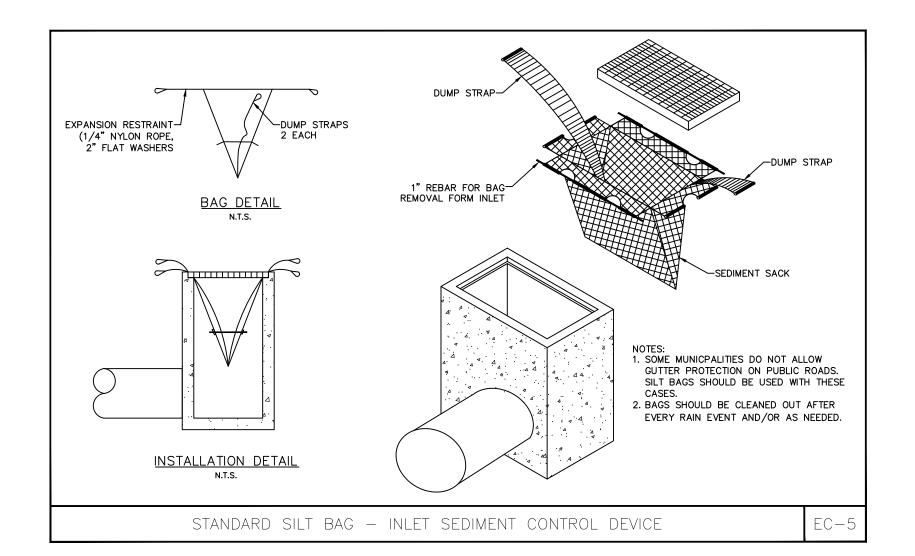
- 2. BEGINNING RADIUS SHALL NOT ENCROACH ON ADJACENT PROPERTIES BASED ON A PROJECTION OF THE PROPERTY LINE FROM THE RIGHT OF WAY TO THE CURB LINE.
- 3. SIDEWALK SECTION SHALL BE REQUIRED TO BE REPLACED

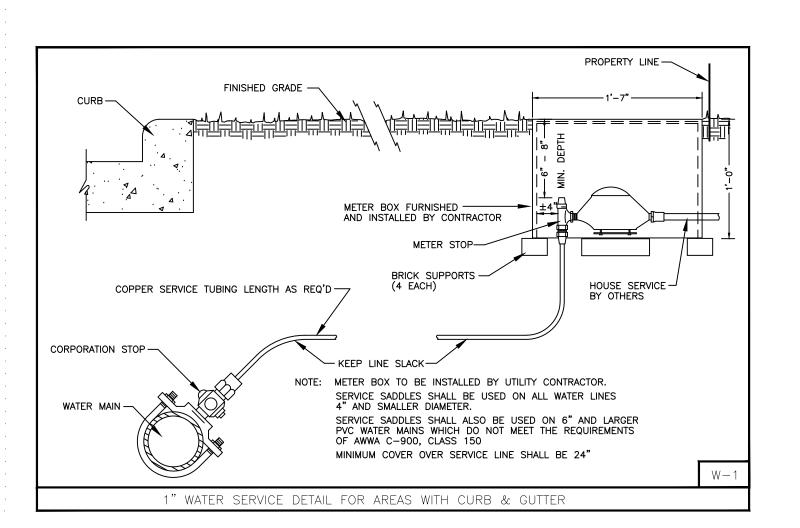
## NCDOT STD. DRIVE ENTRANCE Scale: Not To Scale NOTES TO CONTRACTOR: -COMMERCIAL AND INDUSTRIAL DRIVEWAYS TO BE A MAXIMUM OF 36 FEET WIDE. -ALL CONCRETE SHALL BE 3000 P.S.I. \*-ELEVATION "B" MINUS ELEVATION "A" EQUALS 1 INCH.

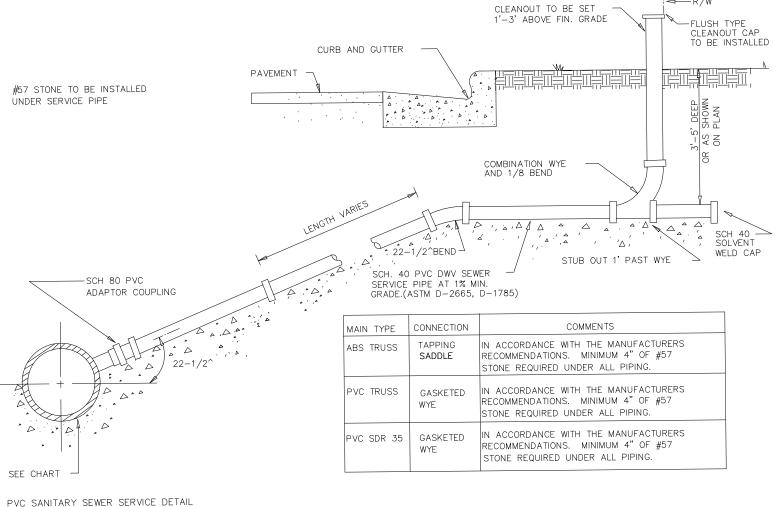












-COMPOST SOCK

AREA TO BE

MULCH OR COMPOST FOR

SHEET FLOW

WORK AREA

UNTRENCHED SOCKS

PROTECTED

-2"X2" STAKES

UNTRENCHED INSTALLATION

**SEWER SERVICE** 

FOR AREA WITH CURB AND GUTTER

FOR MAINS WITH A MAXIMUM DEPTH OF 12'

## MAINTENANCE PLAN

CONSTRUCTION ENTRANCE MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING 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.

SILT FENCE INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. ENSURE SEDIMENT FENCE IS STILL TOED IN AS PER DRAWINGS. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. 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 UNDERMING 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.

INLET PROTECTION - HARDWARE CLOTH AND GRAVEL INLET PROTECTION 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.

ROCK RIP-RAP INSPECT CHANNELS AT REGULAR INTERVALS AS WELL AS MAJOR RAINS, AND MAKE REPAIRS PROMPTLY. GIVE SPECIAL ATTENTION TO THE OUTLET AND INLET SECTIONS AND OTHER POINTS WHERE CONCENTRATED FLOW ENTER CAREFULLY CHECK STABILITY AT ROAD CROSSINGS, AND LOOK FOR INDICATION OF PIPING SCOURING HOLES, OR BANK FAILURES. MAKE REPAIRS IMMEDIATELY. MAINTAIN ALL VEGETATION ADJACENT TO THE CHANNEL IN A HEALTHY, VIGOROUS CONDITION TO PROTECT THE AREA FROM EROSION AND SCOUR DURING OUT OF BANK FLOW.

–COMPOST SOCK

PROTECTED

<u>SECTION</u>

ENTRENCHED INSTALLATION

USED WITH COMPOST SOCKS SMALLER THAN 12 IN.

AREA TO BE

- COMPOST SOCK

Scale: Not To Scale:

PROTECTED

\*THIS APPLICATION MAY NOT BE

TRENCH INTO-

ISOMETRIC VIEW

PLAN VIEW

WADDELS DETAIL

GROUND 4" MIN.

PERIODICALLY, CHECK ALL GRADED AREAS AND THE SUPPORTING EROSION AND SEDIMENTATION CONTROL PRACTICES, ESPECIALLY AFTER HEAVY RAINFALLS PROMPTLY REMOVE ALL SEDIMENT FROM DIVERSIONS AND OTHER WATER-DISPOSAL PRACTICES. IF WASHOUTS OR BREAKS OCCUR, REPAIR THEM IMMEDIATELY. PROMPT MAINTENANCE OF SMALL ERODED AREAS BEFORE THEY BECOME SIGNIFICANT GULLIES. AREAS ARE TO BE SEEDED AS PER NORTH CAROLINA EROSION AND SEDIMENTATION NOTES AND SEEDING CRITERIA.

MAINTAIN ALL AND ANY DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.

### CONCRETE WASHOUT

OPERATING AND INSPECTING WASHOUT FACILITIES CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED WEEKLY AND ESPECIALLY AFTER HEAVY RAINS TO CHECK FOR LEAKS, IDENTIFY ANY PLASTIC LININGS AND SIDEWALLS HAVE BEEN DAMAGED BY CONSTRUCTION ACTIVITIES, AND DETERMINE WHETHER THEY HAVE BEEN FILLED TO OVER 75 PERCENT CAPACITY. WHEN THE WASHOUT CONTAINER IS FILLED TO OVER 75 PERCENT OF ITS CAPACITY, DISCONTINUE POURING CONCRETE INTO THE FACILITY UNTIL IT HAS BEEN CLEANED OUT. ALLOW SLURRY TO EVAPORATE OR REMOVE FROM SITE IN A SAFE MANNER. ALL HARDENED MATERIAL SHOULD BE REMOVED AND RECYCLED. DAMAGES TO THE CONTAINER SHOULD BE REPAIRED PROMPTLY. BEFORE HEAVY RAINS, THE WASHOUT CONTAINER'S LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER SHOULD BE COVERED TO AVOID AN OVERFLOW DURING THE RAIN STORM. ANY OVERFLOWING OF THE WASHOUT FACILITIES ONTO THE GROUND MUST BE CLEANED AND REMOVED WITHIN 24 HOURS OF EVENT. REMOVE TEMPORARY CONCRETE WASHOUT FACILITY WHEN THEY ARE NO LONGER NEEDED AND RESTORE THE DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR AS PROPOSED ON THE PLAN.

TEMPORARY VEGETATION RESEED AND MULCH AREA WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

ROCK DONUT INLET PROTECTION INSPECT ROCK DOUGHNUT INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.

TO PROVIDE SATISFACTORY INLET PROTECTION EFFICIENCY, REMOVE SEDIMENT FROM THE SEDIMENT POOL AREA WHEN THE VOLUME IS DECREASED BY HALF. THIS WILL HELP PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN.

TAKE CARE NOT TO DAMAGE OR UNDERCUT THE STRUCTURE DURING SEDIMENT REMOVAL. REMOVE DEBRIS FROM THE INLET AND REPLACE STONE AS NEEDED. IF THE INLET WAS COVERED WITH WIRE MESH THE MESH SHOULD BE CLEANED

WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND DISPOSE OF SEDIMENT PROPERLY. BRING THE DISTURBED AREA TO THE GRADE OF THE DROP INLET. SMOOTH AND COMPACT IT AS NEEDED.

APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET WITH GROUND

# MULCHING

REPLACE PROMPTLY.

INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.

### INSPECT WATTLES AT LEAST ONCE A WEEK AND AFTER EACH SIGNIFICANT RAINFALL (%" OR GREATER). MAKE ANY REPAIRS IMMEDIATELY.

SHOULD WATTLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE,

REMOVE SEDIMENT DEPOSITS TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE WATTLE DIAMETER SIZE.

TAKE CARE TO AVOID DAMAGING OR UNDERMINING THE WATTLE DURING CLEANOUT.

# SILT BAG

REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE AND VICINITY OF THE UNIT AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL

REMOVE THE SEDIMENT THAT HAS ACCUMULATED WITHIN CONTAINMENT AREA OF THE SILT BAG WHEN TRAPPED SEDIMENT HAS ACCUMULATED TO 50% OF THE BAG CAPACITY OR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

> INNER BANKS ENGINEERING, PC P. O. BOX 154 Washington, NC 27889 252-945-2983

> MUPEEDIN@IBXENGINEERING.COM LICENSE NO. C-4111

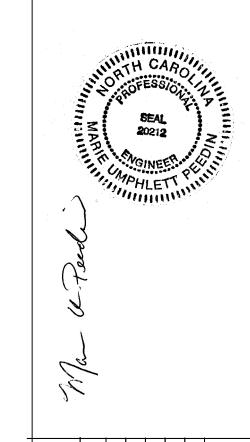
FINAL PLANS **FOR REVIEW ONLY NOT FOR CONSTRUCTION** 

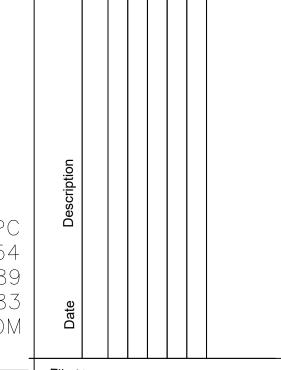


**DETAILS PLAN** 

R 田 S S 2

1/24/24

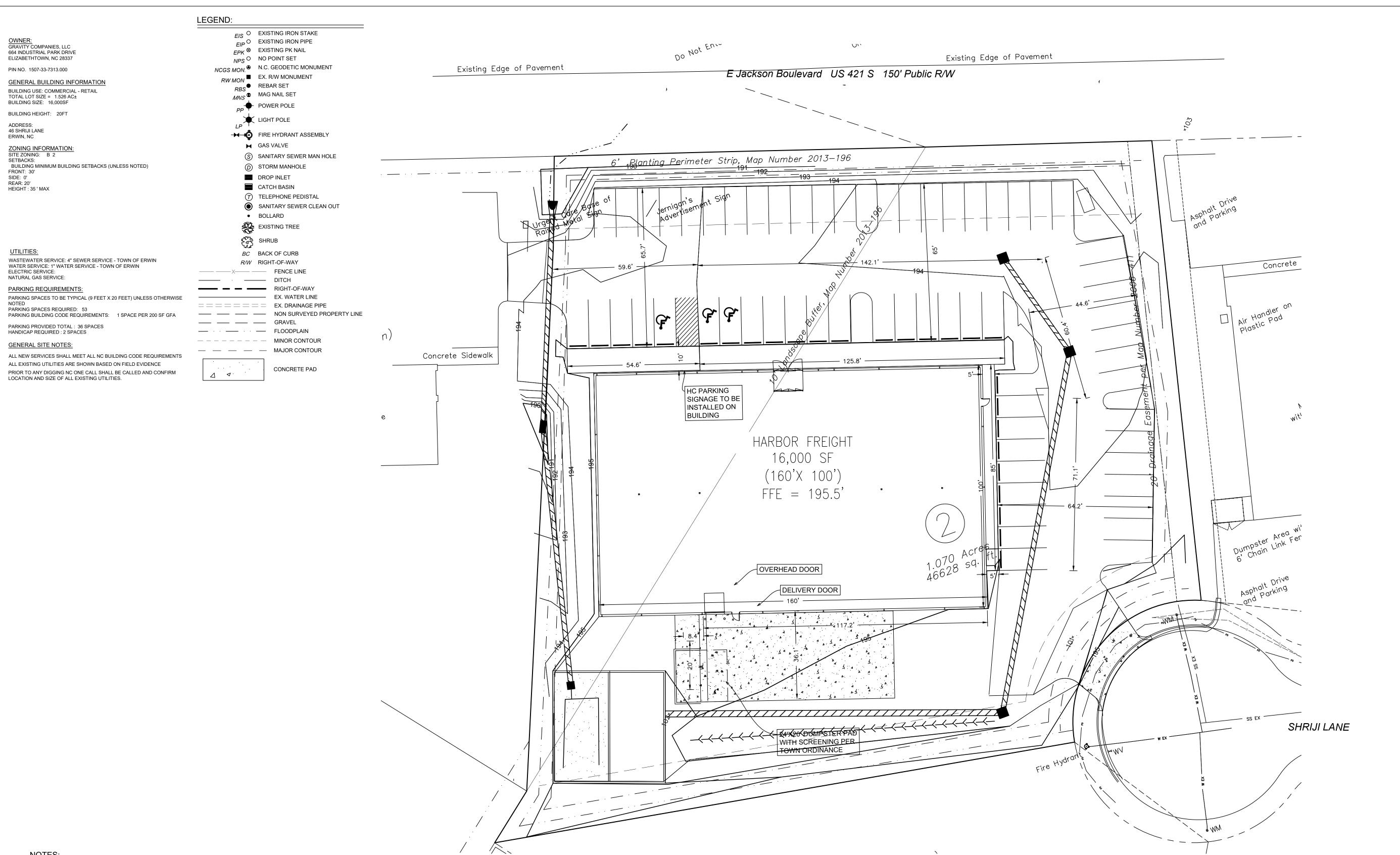




File No. 23039

Scale: NTS

Sheet No.



NOTES

A WETLAND EVALUATION WAS NOT PERFORMED ON THIS PROPERTY.
 FRED SMITH THE SOIL SCIENTIST WAS ON SITE AND MADE NO

COMMENTS REGARDING WETLANDS.

3. SOILS WERE EVALUATED AND SOIL MAPS WERE REVIEWED FOR THIS

DETERMINATION

4. THEREFORE I, MARIE PEEDIN, PE DEEM THIS SITE TO HAVE NOT WETLANDS AS DEFINED BY NCDEQ 401 AND OR THE USACOE.

North Carolina One-Call Center



INNER BANKS ENGINEERING, PC P. O. BOX 154 Washington, NC 27889 252-945-2983 MUPEEDIN@IBXENGINEERING.COM

LICENSE NO. C-4111

File No. 23039

Scale: 1"=20'

BUA

**DIMENSIONS** 

ERWIN

HARBOR |

5/11/24

Sheet No.



