

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

	Required Ground Stabilization Timeframes				
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance			
(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	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zone: -10 days for Falls Lake Watershed unless there is zero slope		

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:

1	remporary argumeation
Ì	Temporary grass seed covered wit
	other mulches and tackifiers
1	a Herdinaaa addum

- Hydroseeding Rolled erosion control products with or
- without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting
- ith straw or | Permanent grass seed covered with straw or other mulches and tackifiers
  - reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover

sufficient to restrain erosion

Geotextile fabrics such as permanent soil

Structural methods such as concrete, asphalt o

 Rolled erosion control products with grass seed POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

retaining walls

#### 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 MAINTENANC

- 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 has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

#### ITTER, BUILDING MATERIAL AND LAND CLEARING WAST

- 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 wastes
- 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 containers overflow.
- 8. Dispose waste off-site at an approved disposal facility. 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.
- 5. 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.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- 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 with properly operating unit.

## Show stockpile locations on plans. Locate earthen-material stockpile areas at least

1. E&SC Plan Documentation

- 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 available. 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

# 2. HE CHICATE SHOULD SHALL BE USED MAJOR SHALL LANCINET WHICH STRUCKE HOME TO ME SLEWY SHOW WITH STRUCK HOME SHAPE, THE REAL PROPERTY.

## 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 spills or overflow.
- 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.

#### **IERBICIDES, PESTICIDES AND RODENTICIDES** Store and apply herbicides, pesticides and rodenticides in adcordance 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
- accidental poisoning. 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. 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 of holiday periods, and no individual-day rainfall information available, record the cumulative rain measurement for those us attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shail be recorded a "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	Identification of the measures inspected,     Date and time of the inspection,     Name of the person performing the inspection,     Indication of whether the measures were operating properly,     Description of maintenance needs for the measure,     Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the discharge outfalls inspected,     Date and time of the inspection,     Name of the person performing the inspection,     Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration,     Indication of visible sediment leaving the site,     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:  1. Actions taken to clean up or stabilize the sediment that has lef the site limits,  2. Description, evidence, and date of corrective actions taken, an 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible) (6) Ground stabilization measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours After each phase of grading	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 1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover).
		Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

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

#### SELF-INSPECTION, RECORDKEEPING AND REPORTING **SECTION B: RECORDKEEPING**

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

Item to Document	Documentation Requirements
(a) Each E&\$C measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&\$C 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 report to indicate the completion of the corrective action.

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:

- (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. 3. 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 of three years after project completion and made available upon request. [40 CFR 122.41]

#### PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

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

(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, (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

EFFECTIVE: 04/01/19

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

## 1. Occurrences that Must be Reported

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

- (d) Anticipated bypasses and unanticipated bypasses.

## 2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact reported to the Department's Environmental Emergency Center personnel at (800)

(a) Visible sediment • Within 24 hours, an oral or electronic notification.

deposition in a stream or wetland	<ul> <li>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.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related 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 complia with the federal or state impaired-waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per Item	Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.

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

122.41(m)(3)] quality and effect of the bypass. (e) Noncompliance Within 24 hours, an oral or electronic notification with the conditions Within 7 calendar days, a report that contains a description of the of this permit that noncompliance, and its causes; the period of honcompliance. may endanger including exact dates and times, and if the noncompliance has not health or the been corrected, the anticipated time noncompliance is expected to environment[40 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

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

1(b)-(c) above

(c) Anticipated

122.41(m)(3)]

(d) Unanticipated

bypasses [40 CFR

bypasses [40 CFR]

- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (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 (Ref: 40 CFR 302.4) or G.S. 143-215.85.

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

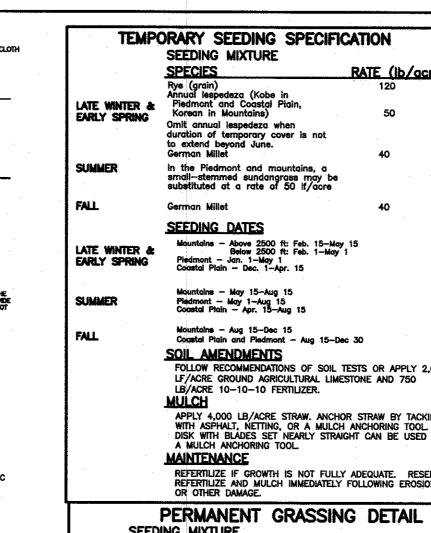
the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be

Reporting Timeframes (After Discovery) and Other Requirements

•	If the stream is named on the NC 303(d) list as related causes, the permittee may be required monitoring, inspections or apply more stringe determine that additional requirements are now with the federal or state impaired-waters continued to the stream of the stream o	to perform additional nt practices if staff eeded to assure compliance		EXCELSIOR MATT
•	Within 24 hours, an oral or electronic notifical shall include information about the date, time location of the spill or release.	ion. The notification , nature, volume and	<u> </u>	ZCITY OF LINE
•	A report at least ten days before the date of	he bypass, if possible.		

For each open utility cut

City streets, d \$325 shall be required from the City prior to occupancy and/or project acceptance.



SEEDING MIXTURE SPECIES FENCE FABRIC SHALL BE A MIN. OF 32" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY

ARDWARE CLOTH AND GRAVEL INLET PROTECTION

TEMPORARY SILT FENCE

TEMPORARY GRAVELLED

CONSTRUCTION ENTRANCE

BASIC INSTALLATION GUIDELINES
THESE GUIDELINES ARE RECOMMENDATIONS ONLY. ANY QUESTIONS ABOUT THE

1. PREPARE THE SOIL SURFACE INCLUDING RAKING, SEEDING AND FERTILIZING.
2. BEGIN THE INSTALLATION PROCESS BY DIGGING A TRENCH 6" DEEP BY 6" WIDE AT THE TOP OF THE SLOPE. PLACE 12" OF BLANKET OVER THE UP-SLOPE PORTION OF THE TRENCH. SECURE THE BLANKET AT THE BOTTOM OF THE TRENCH WITH STAPLES

PLACES 12" APART. BACKFILL AND COMPACT THE TRENCH. APPLY SEED AND FOLD REMAINING 12" OF BLANKET OVER SOIL, SECURE WITH A ROW OF STAPLES PLACE 12" APART ACROSS THE WIDTH OF THE BLANKET. (SEE DIAGRAM A)

3. ROLL THE BLANKET VERTICALLY DOWN THE SLOPE. SECURE USING THE APPROPRIATE STAPLE PATTERN SHOWN HERON SPECIFIED BY SLOPES.

4. PARALLEL BLANKETS MUST BE OVERLAPPED BY A MINIMUM 4" AND SECURED WITH A ROW OF STAPLES PLACES APPROXIMATELY 3' APART. (SEE DIAGRAM B)
5. ADDITIONAL VERTICAL BLANKETS CAN BE JOINED USING A MINIMUM 4" OVERLAPPING

(SHINGLE STYLE) IN THE DIRECTION OF WATER FLOW. CONNECT THE BLANKETS BY USING STAPLES APPROXIMATEY12" APART ACROSS THE WIDTH OF THE BLANKET. (SE

6. FOR MAXIMUM PERFORMANCE A CHECK SLOT SHOULD BE PLACED AT 25'-40' INTERVALS. A 6" DEEP BY 6" WIDE TRENCH IS MADE. THE BLANKET IS PLACE T THE BOTTOM OF THE TRENCH AND COVERED WITH APPROXIMATELY 2" OF SOIL. THE

BLANKET IS ROLLED OVER COMPACTED SOIL AND SECURED WITH STAPLES PLACES 4" APART. A SECOND ROW OF STAPLES SHOULD BE PLACES 4" BELOW IN A STAGGERED PATTERN. BACKFILL AND COMPACT THE TRENCH. APPLY SEED AND CONTINUE WITH

ING INSTALLATION

General installation. (See diagrams D & E) 7. The end of the blanket must be secured in a 6"  $\times$  6" trench with a row of

SEEDING DATES

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000-5,000 lb/acre GROUND AGRICULTURE LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lb/acre 10-10-10 FERTILIZER.

APPLY 4,000 ib/gcre grain strawor equivalent cover of another suitable mulch. Anchor by tacking with asphalt, roying, or netting or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can bused as a mulch anchoring tool.

FERTILIZE ACCORDING TO SOIL TESTS OR APPLY 40 LF/ACRE NITROGEN IN JANUARY OR FEBRUARY, 40 LB IN SEPTEMBER AND 40 LB IN NOVEMBER, FROM A 12-4-8, 16-4-8, OR SMILLAR TURF FERTILIZER, AVOID FERTILIZER APPLICATIONS DURING WARM WEATHER, AS THIS INCREASES STAND LOSSES TO DISEASE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY. MOW TO A HEIGHT OF 2.5-3.5 INCHES AS NEEDED.

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND 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 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

#### HQW ZONES) NPDES GROUND STABILIZATION CRITERIA

SITE POLLUTANTS NOTES

1. LOCATE AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, CONSTRUCTION AND DOMESTIC WASTE, AND HAZARDOUS OR TOXIC WASTE. THIS LOCATION SHALL BE AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY . DUMPING OF PAINT OR OTHER LIQUID BUILDING MATERIAL WASTES IN STORM DRAINS IS PROHIBITED. 3. LITTER AND SANITARY WASTE-THE PERMITTEE SHALL CONTROL THE MANAGEMENT AND DISPOSAL OF LITTER AND SANITARY WASTE FROM 4. LOCATE EARTHEN-MATERIAL STOCK PILE AREAS AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE

SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. CONCRETE MATERIALS ONSITE, INCLUDING EXCESS CONCRETE, MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE . ANY HARDENED CONCRETE RESIDUE WILL BE DISPOSED OF, ( RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS. SOIL STABILIZATION SHALL BE ACHEIVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE: i. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND

CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.

ii. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. 3. CONDITIONS—IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, HE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY: . EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE—SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE. II. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY TO GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS

ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL

PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND OVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7

III. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT. iv. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

v. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.

vi. FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (15A NCAC 04A 0105), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE

WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT

EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7-DAY

REQUIREMENT APPLIES.

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE. <u> Seeding Notes (Spring—Summer)</u> SPRING SUMMER APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 lb/core GROUND AGRICULTURE LIMESTONE AND 500 lb/core 10-10-10 FERTILIZER.

NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL) NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION. INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED CONSTRUCTION ENTRANCE, SILT FENCE, CHECK DAMS, ETC. INSTALL ALL SECONDARY EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER BEGINNING

ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION ARE TO BE CLEANED WHEN 0.5 FEET OF SEDIMENT HAVE ACCUMULATED IN FRONT OF THE DEVICE OR WHEN THEY LEAK OR FAIL. SEDIMENT TRAPS ARE CLEANED OUT AS STATED OR WHEN HALF FULL. IF APPLICABLE, CONSTRUCT PROPOSED RETENTION POND TO ACT AS A SEDIMENT BASIN

THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIARIZED WITH EXISTING

CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS

VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC

MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.

MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL

EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND

EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS

EXISTING SURVEYING PERFORMED BY MICHAEL UNDERWOOD AND ASSOCIATES, P.C. AND

THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER

15. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL AND STATE CODES.

16. ALL PAVEMENT, BASE AND SUBGRADE SHALL CONFORM TO NCDOT STANDARDS INCLUDING

WORKMANSHIP, MATERIALS AND EQUIPMENT. APPROPRIATE BARRICADES, SIGNS, LIGHTS

17. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. THE CONTRACTOR SHALL REPORT

18. CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III WITH RUBBER GASKETED JOINTS

19. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS, PAINT SHALL BE A

NON BLEEDING. REFLECTIVE MATERIAL MAY BE ADDED AT OWNER'S OPTION FOR

21. CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE

BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE

CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III. FACTORY MIXED, QUICK DRYING.

23. SEE GEOTECHNICAL REPORT NO. 2539-22, DATED APRIL 20, 2022, BY RFTS SOIL ENGINEERING

ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE

OR OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NCDOT

METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY

12. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE

13. THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT

14. ALL PVC UTILITY MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER

THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.

AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.

. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE

THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL

IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/

RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH

EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF

THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED

DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE

REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.

GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS. STUMPS.

CONDITIONS BOTH ON AND IMMEDIATELY ADJACENT TO THE SITE.

OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.

REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.

FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL REPORT.

FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.

PROPERLY PERMITTED FACILITY AS REQUIRED.

HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.

SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.

STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.

AND TESTING SERVICES FOR ADDITIONAL REQUIREMENTS.

TO MAINTAIN SAFETY AND TWO WAY TRAFFIC.

APPROPRIATE PERSONNEL.

SUPPLIED BY THE OWNER.

PRIOR TO INSTALLATION

AT FINAL GRADE.

NIGHT REFLECTING

20. DUCTILE IRON SHALL BE CLASS 50.

PAID FOR BY THE CONTRACTOR.

DURING CONSTRUCTION. REMOVE ACCUMULATION OF SILT AS REQUIRED TO ALLOW PROPER FUNCTIONING. RESTORE POND TO DESIGN LEVELS AT THE COMPLETION OF CONSTRUCTION. IF APPLICABLE, INSTALL DROP INLETS WITH INLET PROTECTION TO ACT AS SILT TRAPS DURING CONSTRUCTION. REMOVE ACCUMULATED SILT AS NEEDED TO PREVENT SILT FROM FNTFRING STORM DRAIN PIPING A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.

MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE. MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS

10. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

#### MAINTENANCE PLAN

SITE WORK NOTES

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL. 2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED

ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION. BLOCK AND GRAVEL INLET, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS once a week and after every rain event.

DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.

5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC. WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED R REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS

BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE. TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED

PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL

OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS. FLOCCULATES WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

## BUILDING WASTE HANDLING 1. NO PAINT OR LIQUID WASTES IN STREAMS OR STORM DRAINS. 2. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM

STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE. 3. EARTHEN-MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE. 4. CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR DRAWING

1. SAME WEEKLY INSPECTION REQUIREMENTS. 2. SAME RAIN GAUGE AND INSPECTIONS AFTER 0.5" RAIN EVENT. 3. INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS".
4. INSPECTION REPORTS MUST BE AVAILABLE ON—SITE DURING BUSINESS HOURS UNLESS A SITE—SPECIFIC

EXEMPTION IS APPROVED . RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST. 6. ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.

SEDIMENT BASINS
1. OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACE UNLESS DRAINAGE AREA IS LESS THAN 1 2. USE ONLY DWQ-APPROVED FLOCCULENTS.

NPDES—SPECIFIC PLAN SHEETS NOTES

1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000. 2. THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCGO10000 ONLY 3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000. 4. THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT A PART OF THE APPROVED PLANS FOR THE PURPOSES OF ENFORCEMENT ACTION UNDER THE COUNTY CODE

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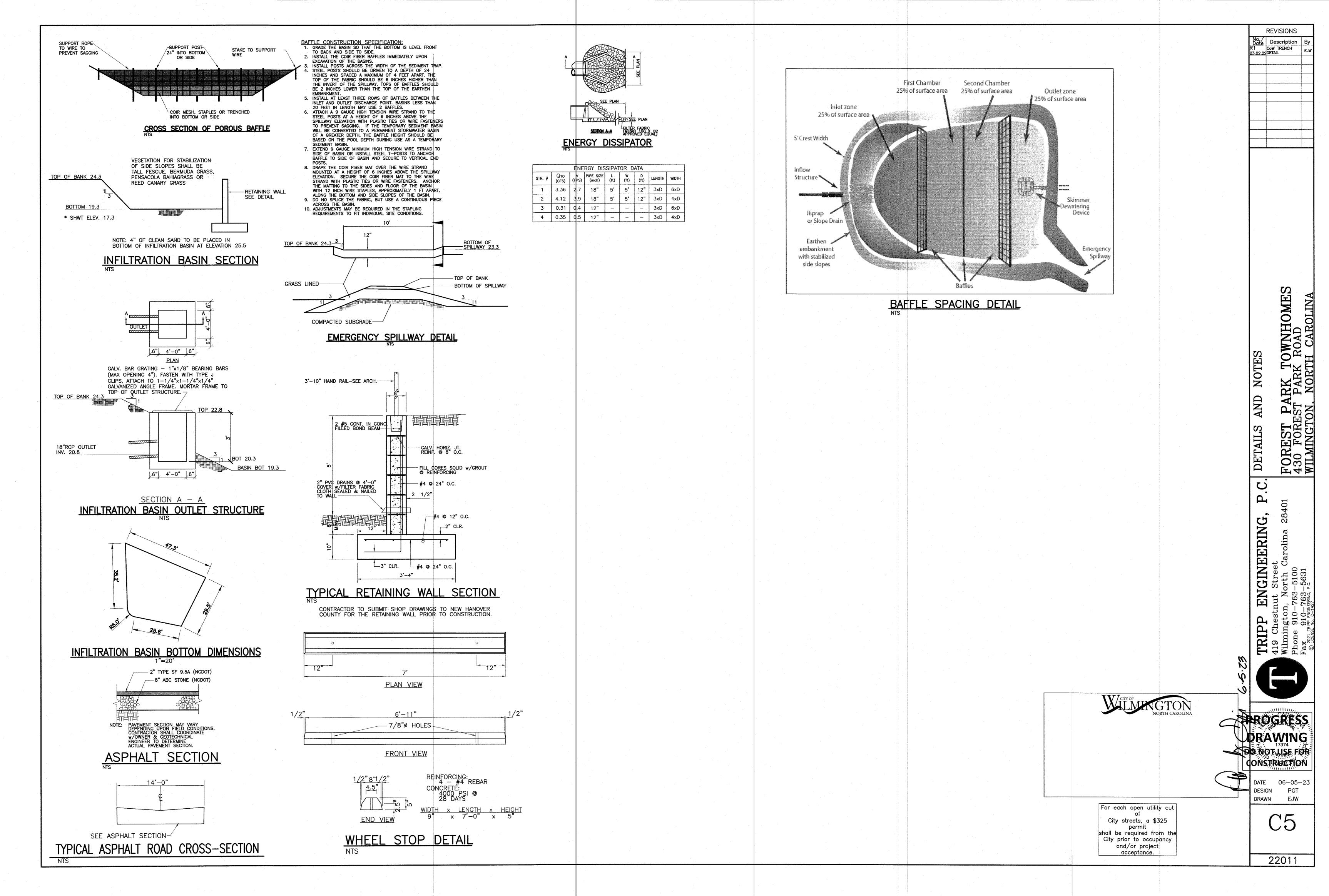
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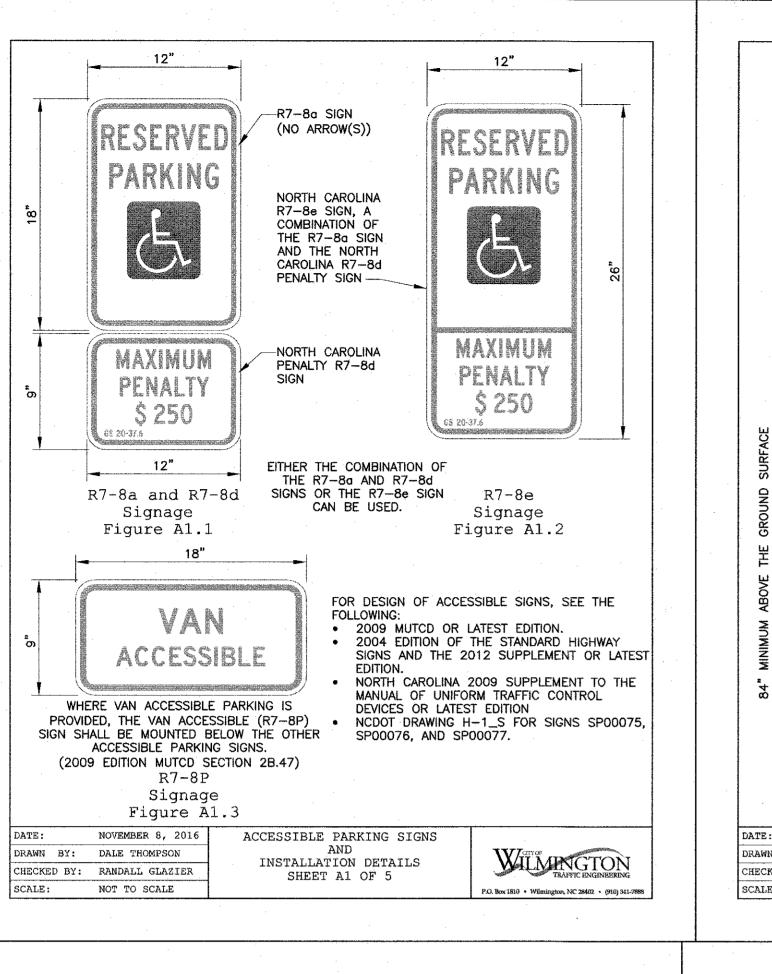
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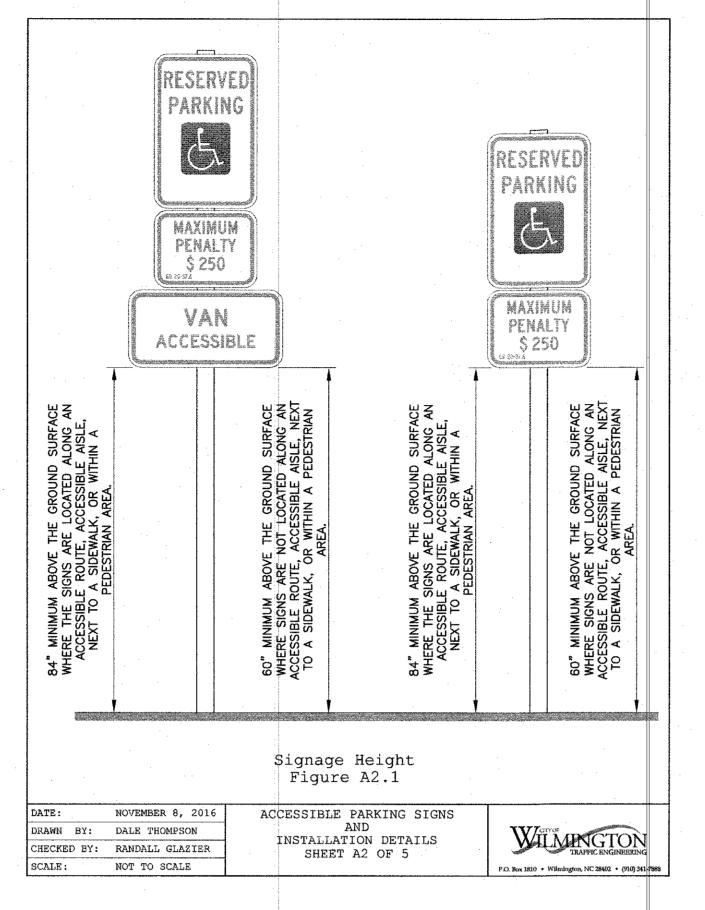
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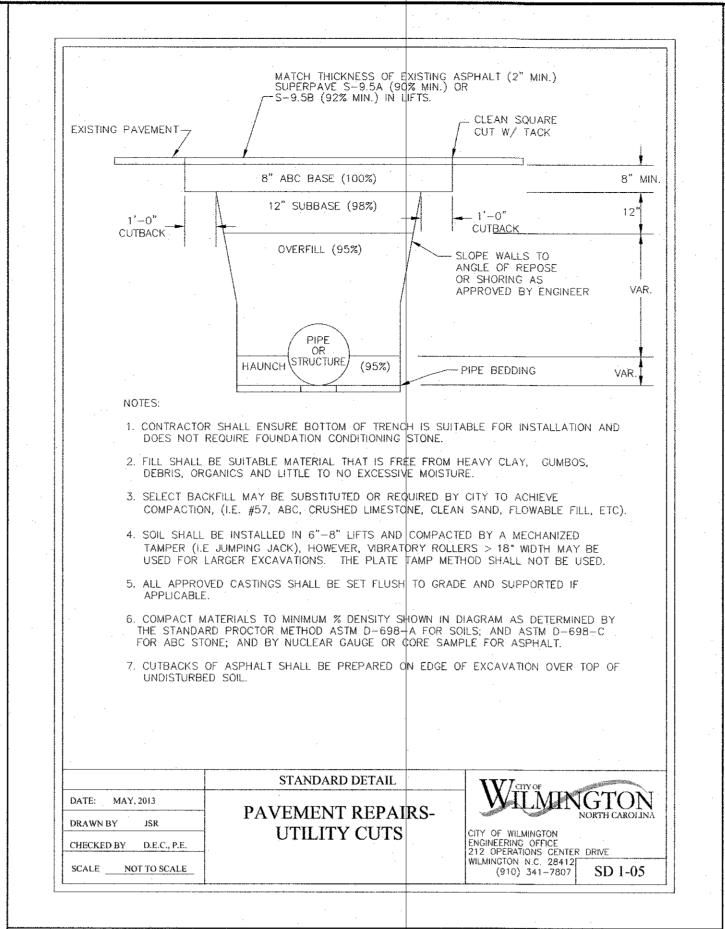
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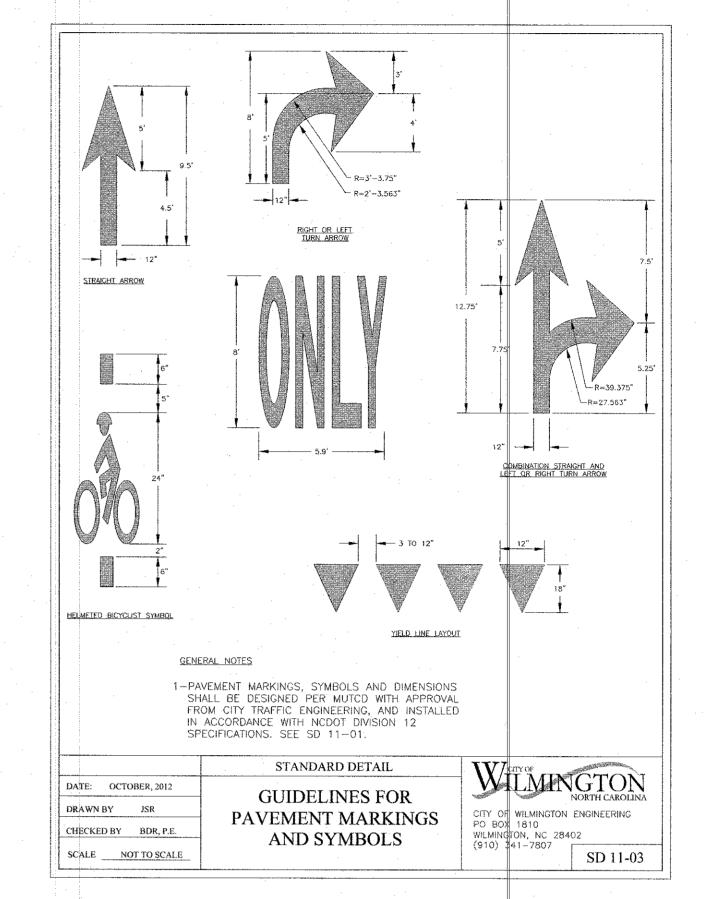
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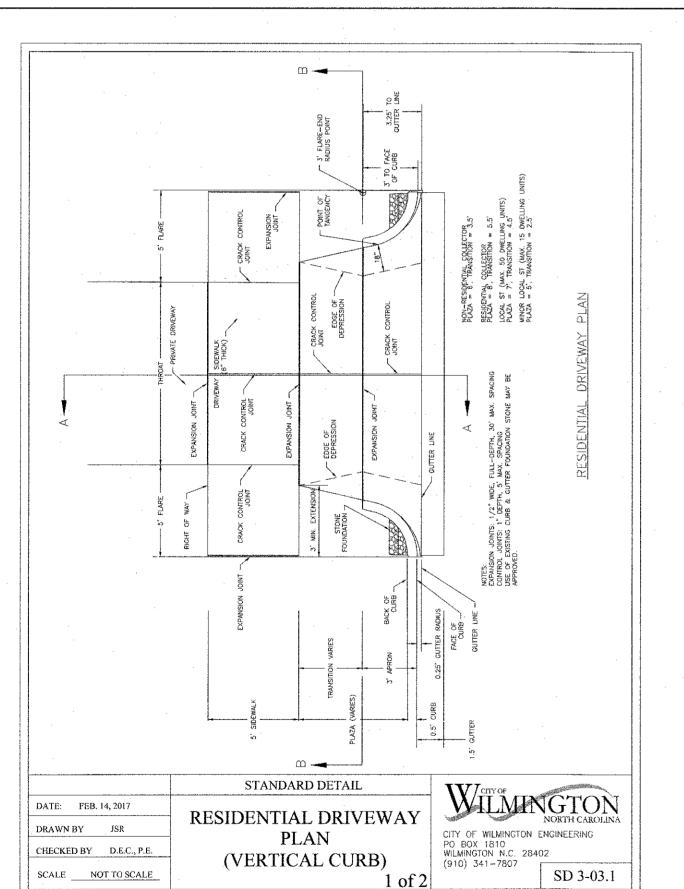


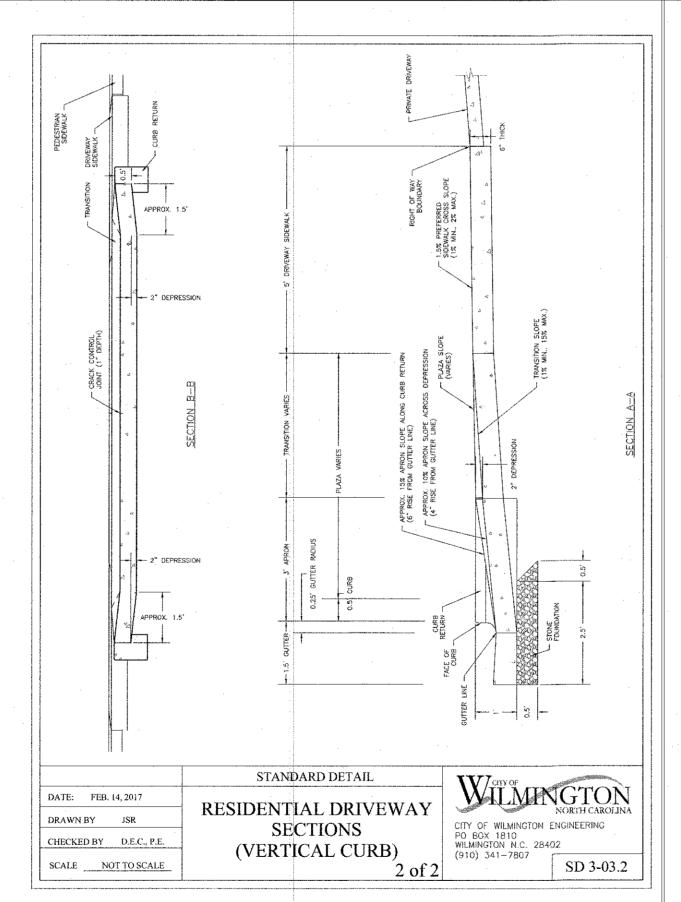


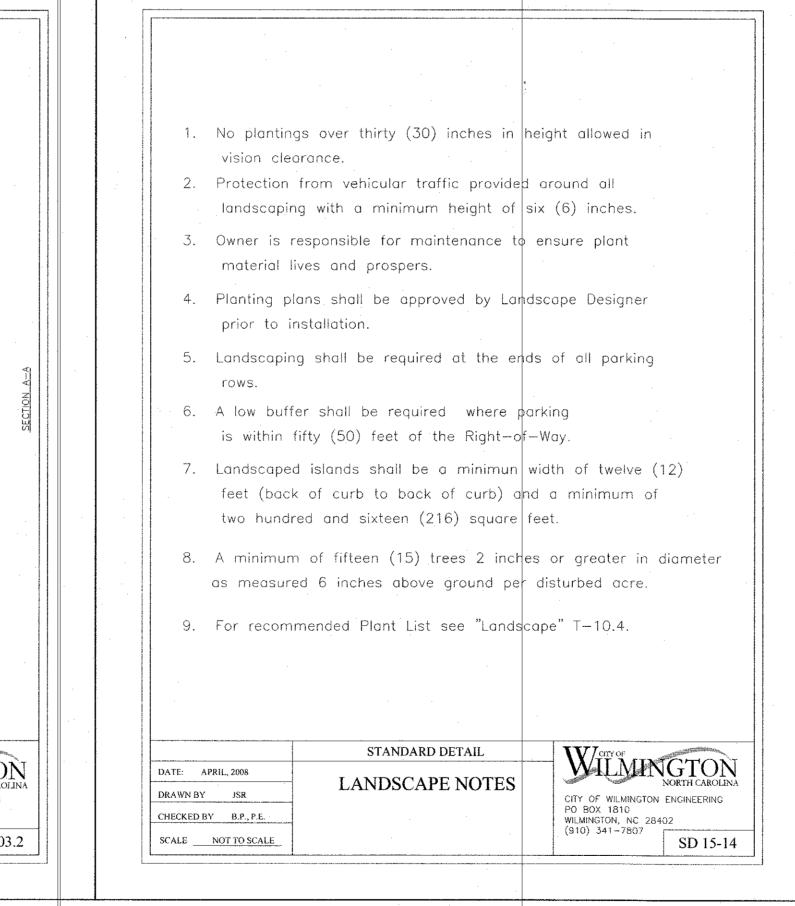












- Variances on stall widths, angle and other dimensions will be allowed only upon approval of the Traffic Engineer.
- Wheel stops shall be required three (3) feet from the end of parking stall when using eighteen (18) feet deep stalls
- 3. Curbing, crossties, utility poles, etc., can be used as wheel stops. (Must be anchored down)
- 4. All medians shall be a minimum of six (6) feet wide.
- 5. Parking bays which terminate at a circulation way shall provide for a minimum turning radius of wenty—five (25) feet, as measured from the edge of the travel portion.
- 6. All parking stall markings and lane arrows shall be
- 7. All other pavement markings, signs or other traffic control devices shall conform to the latest edition and/or interpretation of the Manual on Uniform Traffic Control Devices (MUTCD).
- No obstructions will be allowed adjacent to a parking stall which would prevent safe ingress and egress from a parked vehicle.
- 9. Parking in fire lanes and in non-residential driveways shall be prevented by standard signs and as needed by portable barricades.

portable barricades.

STANDARD DETAIL

DATE: 2001

DRAWN BY JSR/CMR

CHECKED BY B.P., P.E.

SCALE NOT TO SCALE

STANDARD DETAIL

PARKING FACILITY

DESIGN NOTES

CITY OF WILMINGTON ENGINEERING PO BOX 1810

WILMINGTON, NC 28402

(910) 341-7807

SD 15-13



For each open utility cut
of
City streets, a \$325
permit
shall be required from the
City prior to occupancy
and/or project
acceptance.

PROGRESS DRAWING DO NOT USE FOR

**REVISIONS** 

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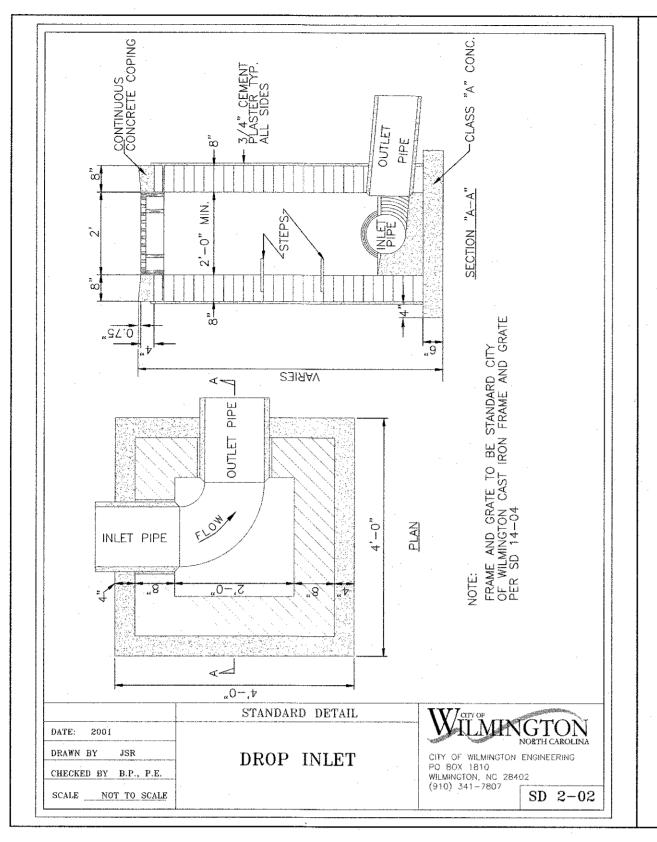
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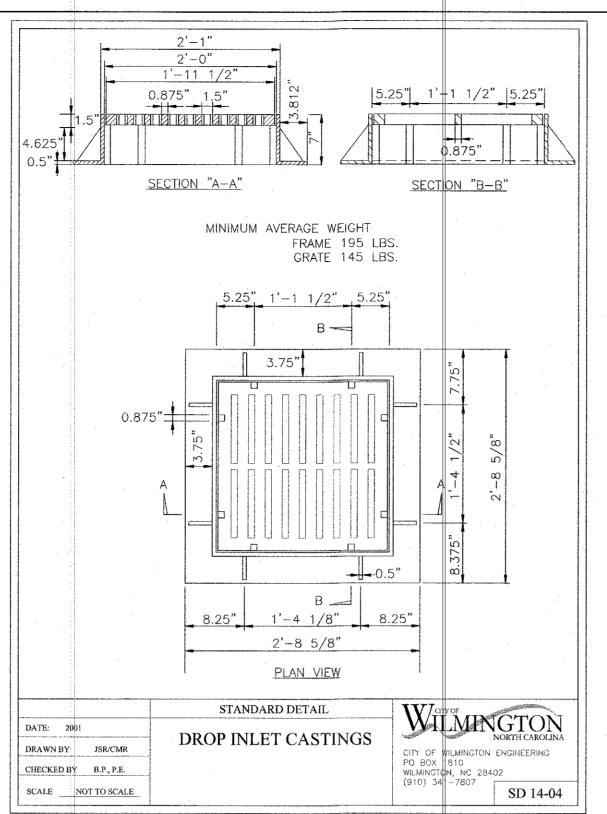
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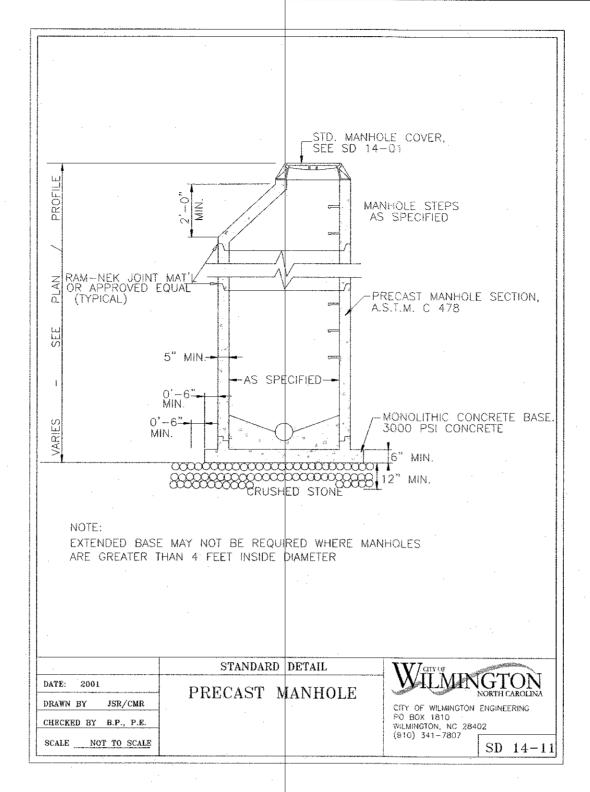
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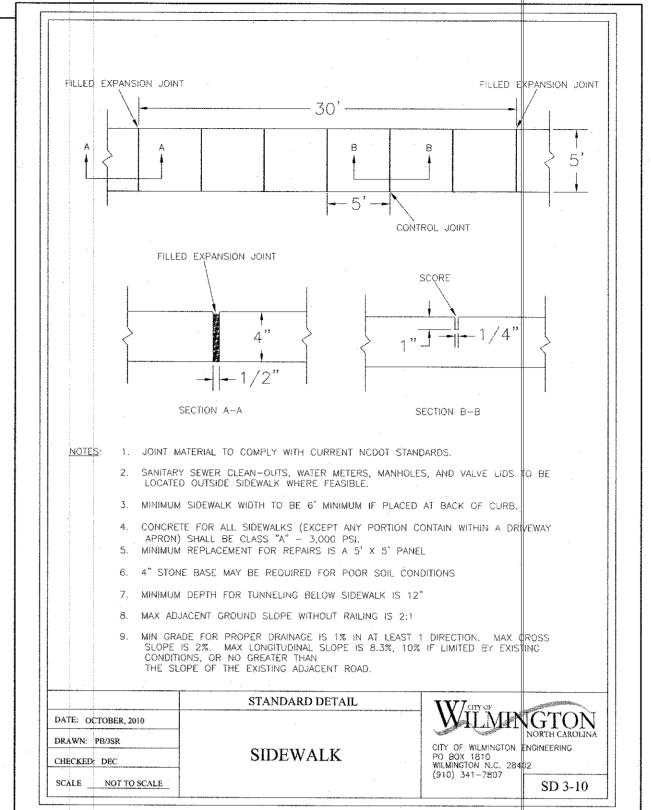
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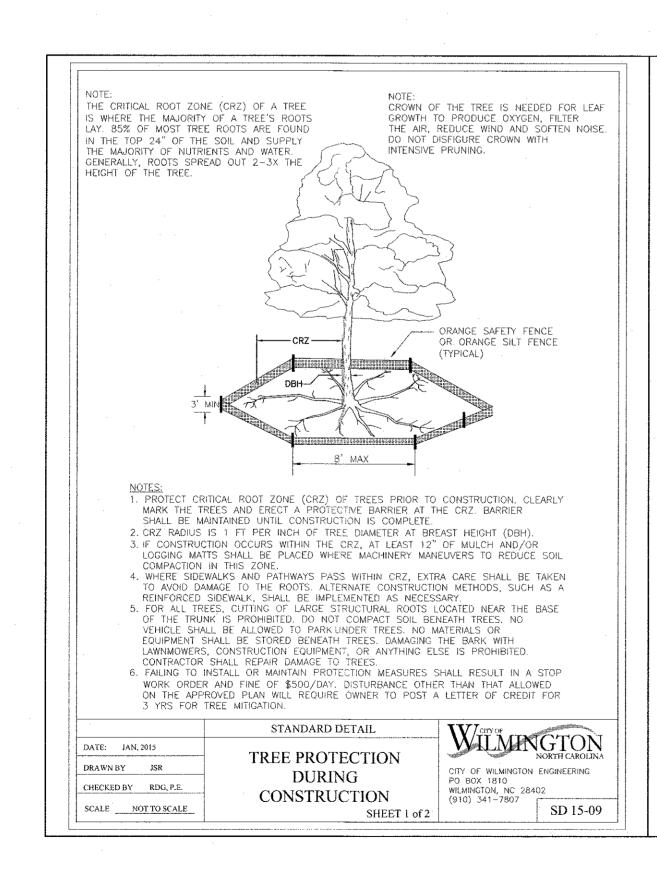
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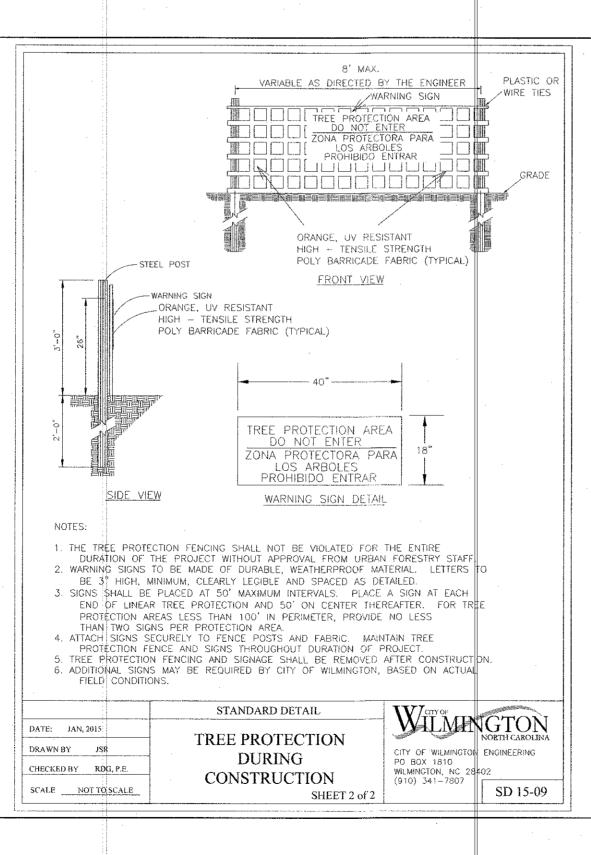


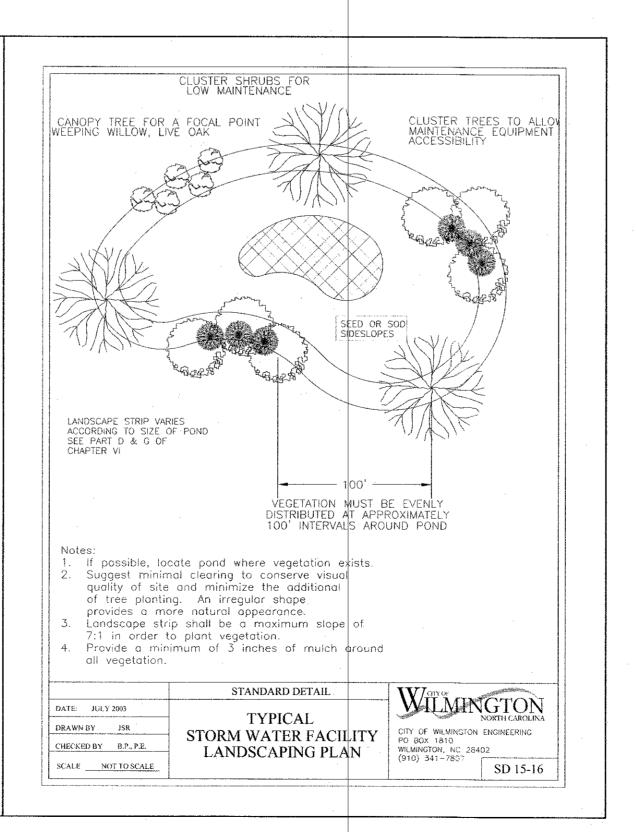


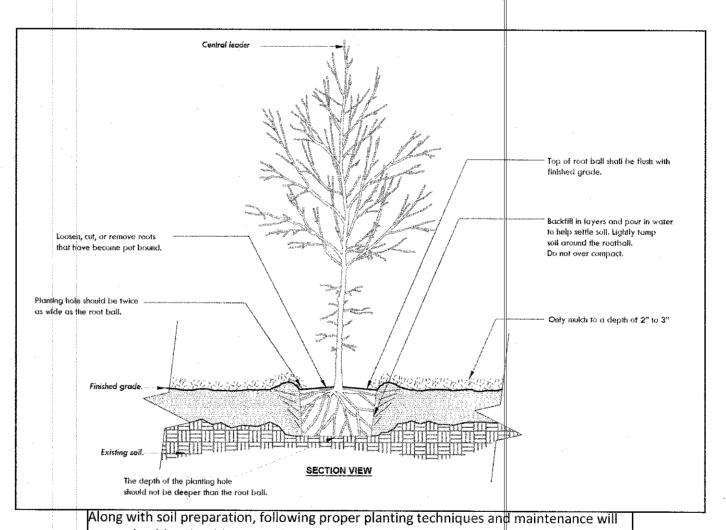












ensure healthy, durable vegetation, and increase the rate of growth. The following recommendations apply to inground and container plantings. General practices include:

• The planting hole should be a minimum of twice as wide as the root ball.

• The depth of the planting hole should be approximately two inches less than the bottom of the root system. Do not dig deeper than the root ball.

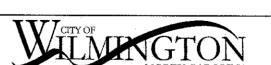
• Remove any strapping, wire, plastic, or paper and remove the top half of any burlap, fabric or wire basket from the root ball.

• Loosen, cut, or remove roots that have become pot bound (compacted, matted, kinked, or are circled around the root ball) and ensure the root flare is exposed.

• Fill 1/3 of the hole and pack soil around the base of the root ball.

• Instead of compacting soil with a shovel or foot, use water to settle the soil by adding a layer of soil and then watering. Repeat with a layer of soil and watering until the hole has been completely backfilled.

• Mulch to a depth of 2-3 inches.



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of
City streets, a \$325
permit
shall be required from the
City prior to occupancy
and/or project
acceptance.

VG, P.C. DETAILS AND NOTES

POREST PARK ROAD

WILMINGTON, NORTH CAROLINA

REVISIONS

Date Description B

TRIPP ENGINEERING
419 Chestnut Street
Wilmington, North Carolina 2
Phone 910-763-5100
Fax 910-763-5631
© 100-763-5631

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CONSTRUCTION

DATE 06-05-23
DESIGN PGT
DRAWN EJW

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