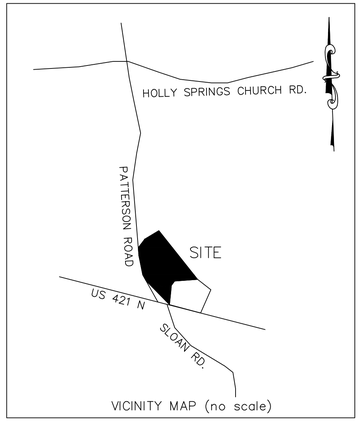
CONSTRUCTION PLANS
PATTERSON ROAD
MINI STORAGE

HARNETT COUNTY, NORTH CAROLINA

DEVELOPER: MANNING HOMES INC.
299 GLEN ROAD STE B
GARNER, N.C. 27529



VICINITY MAP (no scale)

INDEX TO PLANS

FOR REVIEW ONLY-
NOT FOR CONSTRUCTION

PLAN IS SUBJECT TO REVISIONS DURING
THE CONSTRUCTION APPROVAL PROCESS

NO. | REVISION | DATE

SEAL:
NORTH CAROLINA PROFESSIONAL SEAL 22024 ENGINEER STEWART
01-08-2022

STEWART - PROCTOR
ENGINEERING AND SURVEYING P-0148
319 CHAPANOKE ROAD
Raleigh, North Carolina 27603
Phone (919) 779-1855 Fax (919) 779-1661

PREPARED FOR :
MANNING HOMES INC.
299 GLEN ROAD STE B
GARNER, NC 27529

DATE : 01-24-2022

PROJECT ENGINEER:
MARK STEWART

PROJECT CADD DESIGNER:
JOHN A. TEEL

PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE
HARNETT COUNTY, NORTH CAROLINA
COVER SHEET

DRAWING SHEET
C-1

N/F
JAMES & MAXINE
PATTERSON
D.B. 2297, PG. 809
USE: VACANT
ZONED: AR-30

N/F
MARY POLLARD &
LUKE PATTERSON
D.B. 1081, PG. 149
USE: RESIDENTIAL
ZONED: AR-30

N61° 48' 02"E
342.04

N2° 36' 37"W
110.07

EAST, 10' PATH

TREE LINE

S61° 18' 39"E
1220.36

N/F
MARY POLLARD &
LUKE PATTERSON
D.B. 728, PG. 969
USE: VACANT
ZONED: AR-30

N/F
ROY & RHONDA
HARRINGTON
D.B. 3932, PG. 326
USE: VACANT
ZONED: AR-30

N/F
MARY POLLARD &
LUKE PATTERSON
D.B. 1081, PG. 149
USE: RESIDENTIAL
ZONED: AR-30

PATTERSON ROAD
60' PUBLIC R/W

SHOP CENTERLINE

N/F
MARY POLLARD &
LUKE PATTERSON
D.B. 1081, PG. 149
USE: RESIDENTIAL
ZONED: AR-30

714.35
N80° 40' 46"W

463.12
S72° 05' 25"W

91.25
S12° 15' 13"W

83.85
N78° 02' 02"W

N/F
CHARLES RAY &
MAIGON GABRIELLE
FISHER
D.B. 4020, PG. 593
USE: RESIDENTIAL
ZONED: AR-30

US 421 N

NOTES:
- PRESENT LAND USE IS RESIDENTIAL, VACANT, WOODED AND FALLOW.
- TOPO TAKEN FROM LIDAR TOPOGRAPHY MAPS AND CONTOUR INTERVAL IS 1'
- BOUNDARY INFORMATION TAKEN FROM STEWART-PROCTOR SURVEY AND GIS.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

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SEAL:
NORTH CAROLINA PROFESSIONAL SEAL 22024 ENGINEER JOHN A. TEEL
12-08-2022

STEWART - PROCTOR
ENGINEERING AND SURVEYING P-0148
319 CHAPANOKE ROAD
Raleigh, North Carolina 27603
Phone (919) 779-1855 Fax (919) 779-1661

PREPARED FOR :
MARKHAM ROAD, LLC
GARNER, NC 27529

DATE : 01-24-2022

PROJECT ENGINEER:
MARC STEWART

PROJECT CADD DESIGNER:
JOHN A. TEEL

PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE

HARNETT COUNTY, NORTH CAROLINA

EXISTING CONDITIONS

DRAWING
SHEET
C-2

SITE DATA

TOTAL AREA:	14.95 ACS.
ZONING:	RA-30
PIN:	0601-61-7373
WATERSHED CAPE FEAR RIVER	
DEED BOOK 3932, PAGE 326	
PHASE 1 TOTAL AREA:	5.20 ACS.
TOTAL BUILDING SIZE (STORAGE):	22,650 SF
PROPOSED ASPHALT AREA:	41,533 SF
PROPOSED BUILDING HEIGHT:	1 STORY
TOTAL IMPERVIOUS AREA :	64,183, 1.47 AC.
DENUDED AREA:	2.60 AC.
PHASE 2 TOTAL AREA:	9.75 ACS.

OWNER:

MANNING HOMES INC.
299 B GLENN ROAD
GARNER, N.C. 27529

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6. CONTRACTOR SHALL VERIFY THE ABOVE AND BELOW GROUND LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.

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NORTH CAROLINA PROFESSIONAL SEAL 22024 ENGINEER JOHN A. TEEL
12-08-2022

STEWART - PROCTOR
ENGINEERING AND SURVEYING P-0148
319 CHAPANOKE ROAD
Raleigh, North Carolina 27603
Phone (919) 779-1855 Fax (919) 779-1661

PREPARED FOR :
MANNING HOMES INC
299 GLENN ROAD SUITE B
GARNER, NC 27529

DATE : 01-24-2022

PROJECT ENGINEER:
MARC E. PROCTOR

PROJECT CADD DESIGNER:
JOHN A. TEEL

PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE

HARNETT COUNTY, NORTH CAROLINA

SITE PLAN

DRAWING SHEET
C-3

SKIMMER/ RISER BASIN	DRAINAGE AREA (Ac.)	DENUDED Ac.	Q10 (CFS)	SURFACE AREA REQUIRED (Q10*.01(43560))	SURFACE AREA PROVIDED	STORAGE REQUIRED	STORAGE PROVIDED	BASIN SIZE L x W x D	WEIR LENGHT
SB #1	W/BAFFLES 2.60	2.60	9.39	4,083 SF	4,186 SF	4,680 CF	10,200 CF	91'x46'x4.5'	10'

SKIMMER BASIN TO HAVE POROUS BAFFLES.
DIMENSIONS LISTED IS FOR WATER LEVEL OF SEDIMENT BASIN.

Calculate Skimmer Size

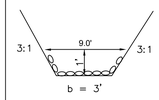
Basin Volume in Cubic Feet	10,200 Cu.Ft	**Skimmer Size**	**2.5**	Inch
Days to Drain*	3 Days	Orifice Radius	**0.9**	Inch[es]
		Orifice Diameter	**1.8**	Inch[es]

*In NC assume 3 days to drain

STORM SEWER – PIPE CHART

PIPE	SIZE	DRAIN AREA	Q25 CFS Ac	LENGTH FEET	SLOPE %	INVERT IN	INVERT OUT	DISSIPATOR DESIGN SIZE LENGTH FT	WIDTH FT	D50 THICKNESS	LINING
PIPE A	18"RCP	0.35	1.15	68	2.21	354.5	353.0	9.0	4.5	6"	18" CLASS B

SWALE DESIGN D-1



D.A. = 2.50 ACRES
Q10 = 7.20 CFS
USE MANNINGS EQ.
B = 3'
n = .035
SIDE SLOPE = 3:1
CHANNEL SLOPE = 1.0%
DEPTH = 0.76' V10 = 2.74 FPS
USE TEMPORARY MATTING
T=YDS 62.4(0.76).01 = 0.5 PSF
T (ENKA MAT) = 2.0 PSF
LENGTH = 300'

TEMPORARY DIVERSION DITCH NOTES:
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.

SKIMMER BASIN MAINTENANCE NOTES:
Inspect skimmer sediment basins at least weekly and after each significant (one-half inch or greater) rainfall event and repair immediately. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one-half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath it can be excavated. Excavate the sediment from the entire basin, not just around the skimmer or the first cell. Make sure vegetation growing in the bottom of the basin does not hold down the skimmer.
Repair the baffles if they are damaged. Re-anchor the baffles if water is flowing underneath or around them.
If the skimmer is clogged with trash and there is water in the basin, usually jerking on the rope will make the skimmer bob up and down and dislodge the debris and restore flow. If this does not work, pull the skimmer over to the side of the basin and remove the debris. Also check the orifice inside the skimmer to see if it is clogged. If so remove the debris.
If the the skimmer arm of barrel pipe is clogged, the orifice can be removed and the obstruction cleared with plumber's snake or by flushing with water. Be sure and replace the orifice before repositioning the skimmer.
Check the fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Make all necessary repairs immediately. Remove all trash and other debris from the skimmer and pool areas.

POROUS BAFFLES NOTES:
Inspect baffles at least once a week and after each rainfall. Make any required repairs immediately.
Be sure to maintain access to the baffles. Should the fabric of a baffle collapse, tear, decompose, or become ineffective, replace it promptly.
Remove sediment deposits when it reaches half full, to provide adequate storage volume for the next rain and to reduce pressure on the baffles.
Take care to avoid damaging the baffles during cleanout, and replace if damaged during cleanout operations. Sediment depth should never exceed half the designed storage depth.
After the contributing drainage area has been properly stabilized, remove all baffle materials and unstable sediment deposits, bring the area to grade, and stabilize it.

LEGEND

- RIP RAP ENERGY DISSIPATOR
- SB# SKIMMER BASIN
- TEMPORARY DIVERSION DITCH
- GRAVEL CONSTRUCTION ENTRANCE
- SF SILT FENCE
- LIMITS OF DISTURBANCE
- STORM PIPE
- SWALE
- SILT FENCE OUTLET

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1) — NCDENR/Division of Water Quality

NEW STABILIZATION TIMEFRAMES
(Effective Aug. 3, 2011)

SITE AREA DESCRIPTION	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 50' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

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CONSTRUCTION SEQUENCE

1. CONTACT NCDENR LAND QUALITY DIVISION AT (919) 791-4200 TO SCHEDULE A PRE-CONSTRUCTION MEETING.
2. INSTALL SILT FENCE, CONSTRUCTION ENTRANCES, DIVERSION DITCHES, TEMPORARY SEDIMENT TRAP, CHECK DAMS AND SKIMMER BASINS. SKIMMER BASINS TO BE GRADED AS WET PONDS.
3. CONTRACTOR SHALL LOCATE AND VERIFY DEPTH OF ALL EXISTING UTILITIES. NC ONE CALL CENTER AT (800) 632-4949.
4. INSTALL NPDES RAIN GAUGE STATION AND SECURE STATION FROM TAMPERING.
5. BEGIN PROPOSED GRADING.
6. CONSTRUCT PROPOSED STORM DRAINAGE PIPES AS GRADED AREAS ARE BROUGHT UP TO FINISHED GRADE.
7. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, ETC. REFER TO NPDES CHART FOR STABILIZATION REQUIREMENTS.
8. IF IT IS DETERMINED DURING CONSTRUCTION THAT ADDITIONAL MEASURES ARE NEEDED AND/OR THE APPROVED PLAN IS INSUFFICIENT, THEN A REVISED PLAN MUST BE SUBMITTED TO AND APPROVED BY NCDENR.
9. INSPECT AND MAINTAIN THE EROSION CONTROL DEVICES SO THEY CONTINUE TO FUNCTION PROPERLY. SILT FENCING SHALL BE INSPECTED AND CLEANED OF SEDIMENT AFTER EACH RAINFALL. ALL DEWATERING SHALL BE DONE THROUGH A SEDIMENTATION BAG.
10. COMPLETE FINAL GRADING OF BUILDING AREAS AND STABILIZE WITH GRAVEL AND PAVEMENT.
11. COMPLETE FINAL GRADING OF ALL SLOPES AND PERMANENTLY VEGETATE WITHIN 7 DAYS.
12. IF SITE IS APPROVED, REMOVE BASIN, SILT FENCE, ETC.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

DISTURBED AREA = 2.60 AC

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DATE
REVISION
NO.

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 22024 ENGINEER JOHN A. TEAL
2022-08-2022

STEWART - PROCTOR
ENGINEERING AND SURVEYING P-0148
319 CHAPANOKE ROAD
Raleigh, North Carolina 27603
Phone (919) 779-1855 Fax (919) 779-1661

PREPARED FOR :
JOHN GILL ROAD SITE
2500 GILL ROAD
GARNER, NC 27529

DATE : 01-24-2022

PROJECT ENGINEER:
JOHN A. TEAL

PROJECT CADD DESIGNER:
JOHN A. TEAL

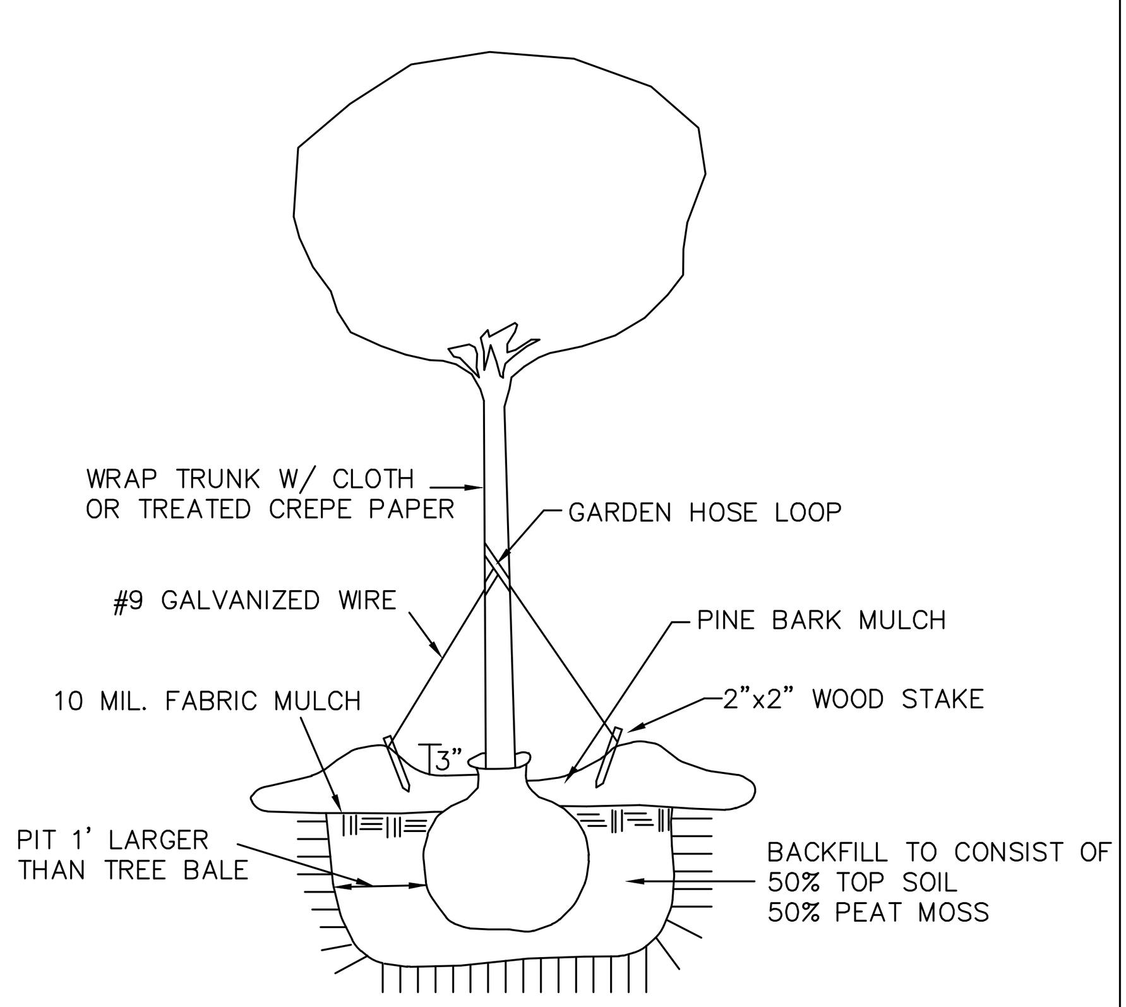
PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE

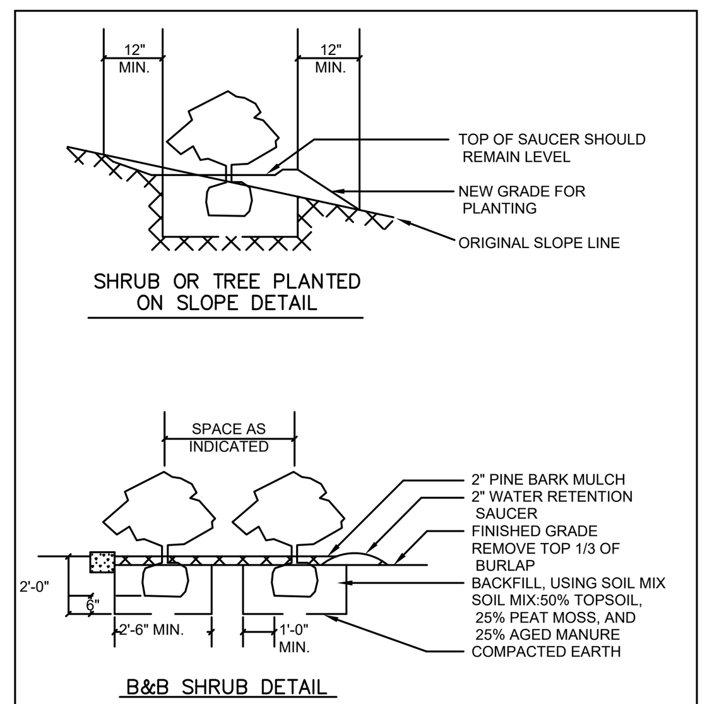
HARNETT COUNTY, NORTH CAROLINA

EROSION CONTROL, DRAINAGE AND GRADING PLAN

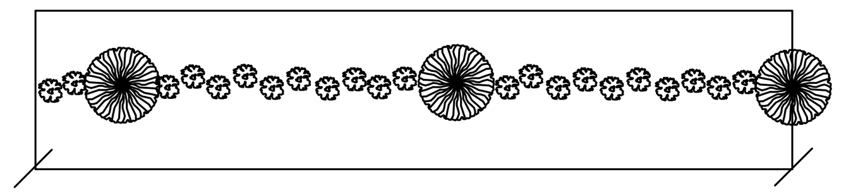
DRAWING SHEET
C-4



TREE STAKING AND PLANTING DETAIL



NOTE:
EXISTING VEGETATION AROUND PERIMETER SHALL BE USED TO MEET BUFFER REQUIREMENTS FOR 10' TYPE A, D BUFFER. ADDITIONAL PLANTING WILL BE ADDED TO SATISFY REQUIREMENTS IF NEEDED.

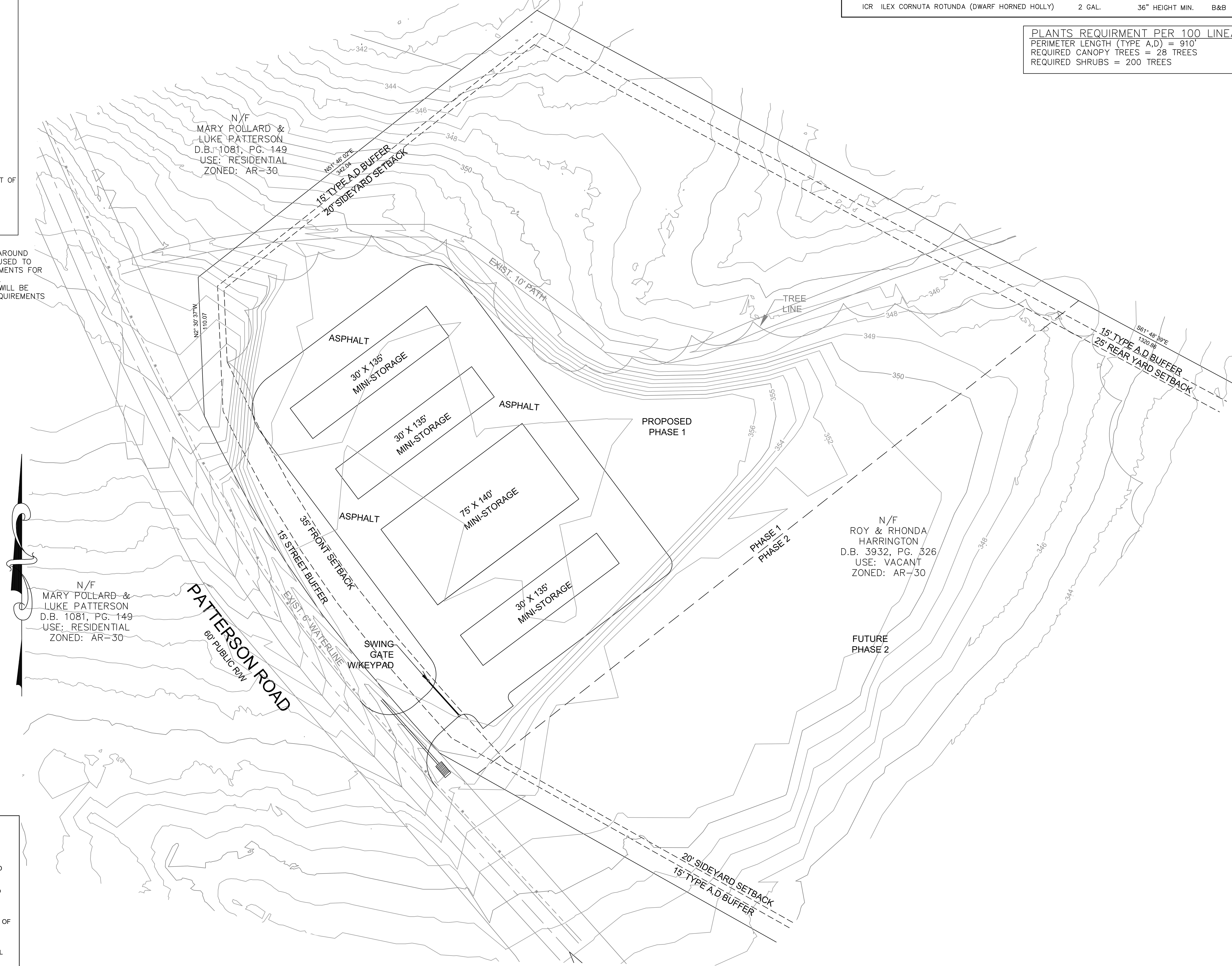


ENLARGEMENT: 100' X 15' SECTION
TYPE A,D

LANDSCAPING PLAN

PLANT LIST		CALIPER	PLANTING HEIGHT AT	TREATMENT ROOT	QUANITY
AR	ACER RUBRUM (RED MAPLE)	2" CAL. MIN.	6' HEIGHT MIN.	B&B	28
ICR	ILEX CORNUTA ROTUNDA (DWARF HORNED HOLLY)	2 GAL.	36" HEIGHT MIN.	B&B	200

PLANTS REQUIRMENT PER 100 LINEAR FEET
PERIMETER LENGTH (TYPE A,D) = 910'
REQUIRED CANOPY TREES = 28 TREES
REQUIRED SHRUBS = 200 TREES



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SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22024 MICHAEL L. STEWART
02-08-2022

STEWART - PROCTOR
ENGINEERING AND SURVEYING P-0148
319 CHAPANOKE ROAD
Raleigh, North Carolina 27603
Phone (919) 779-1855 Fax (919) 779-1661

PREPARED FOR :
MANNING HOMES INC.
299 GLEN ROAD STE B
GARNER, NC 27529

DATE : 01-24-2022

PROJECT ENGINEER:
MIKE STEWART

PROJECT CADD DESIGNER:
JOHN A. TEEL

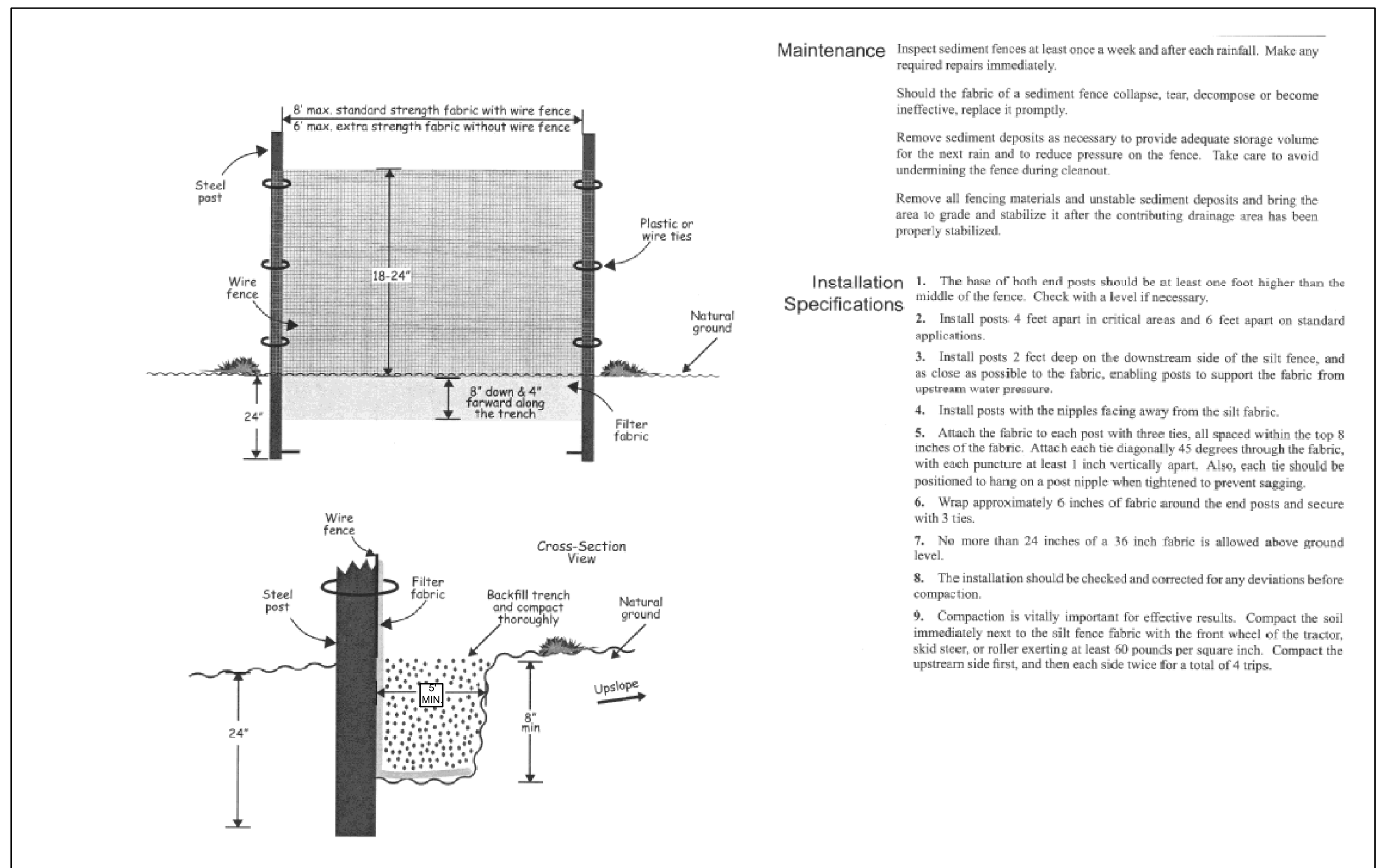
PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE

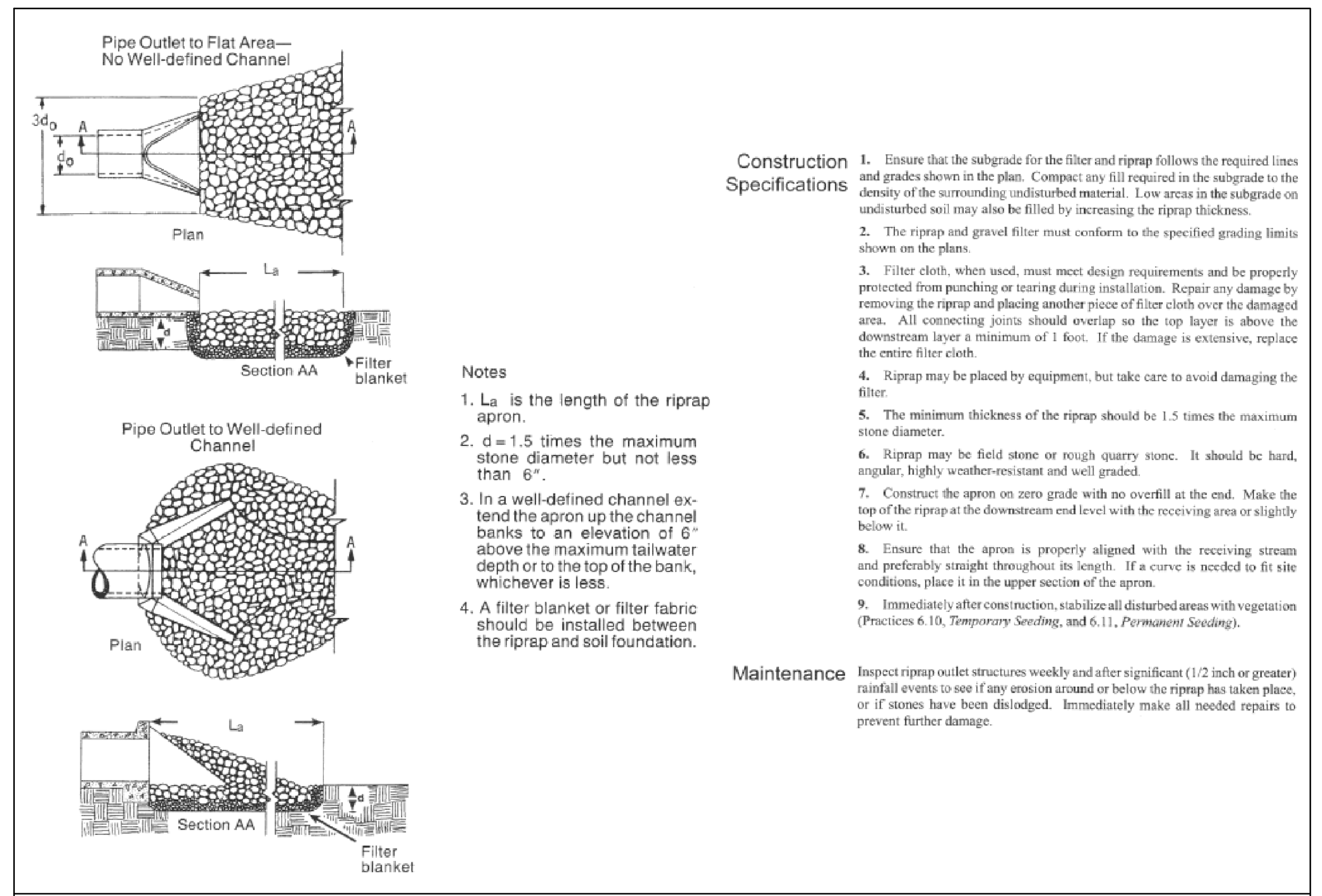
HARNETT COUNTY, NORTH CAROLINA

LANSCAPE PLAN

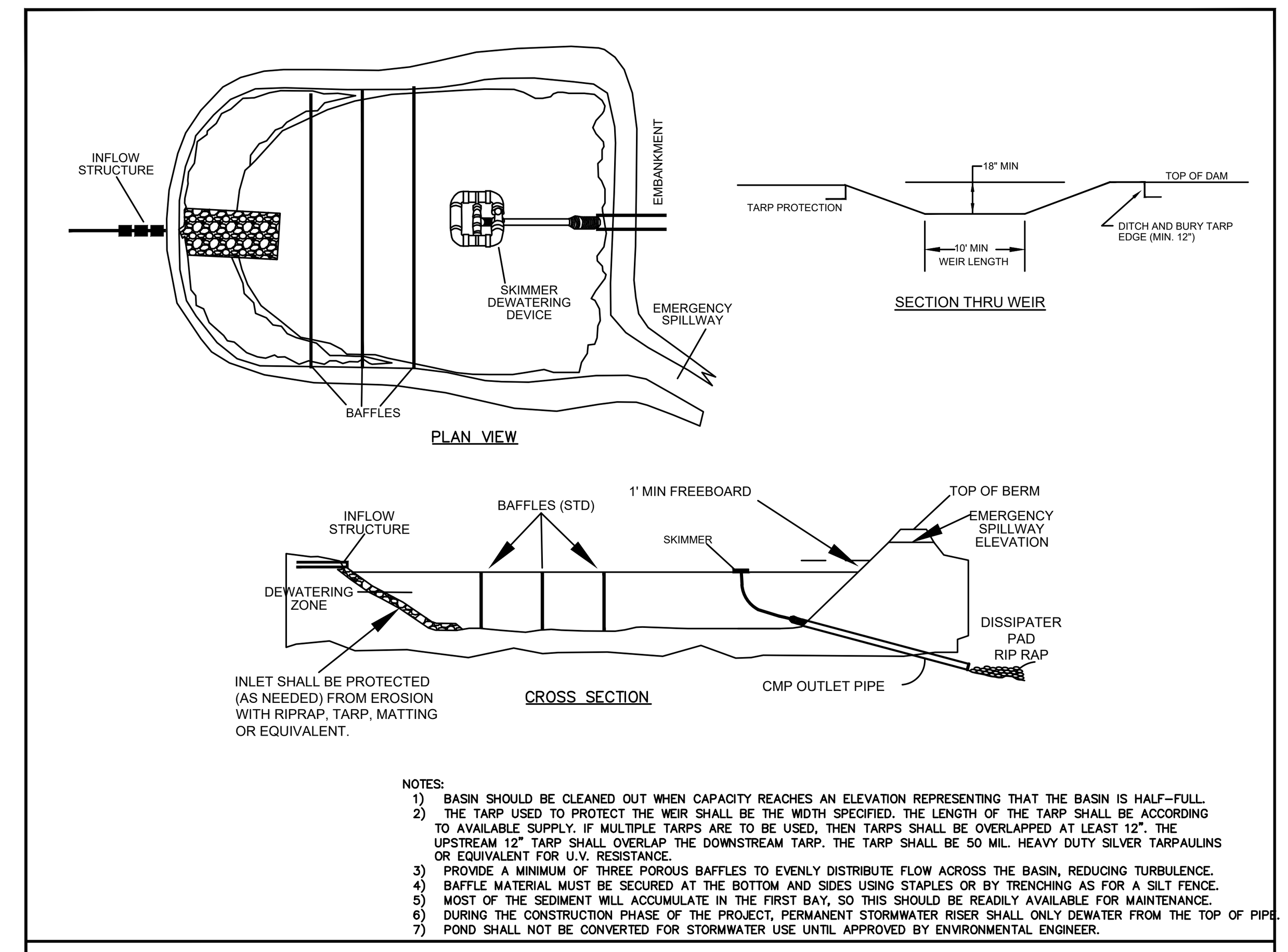
DRAWING SHEET
C-5



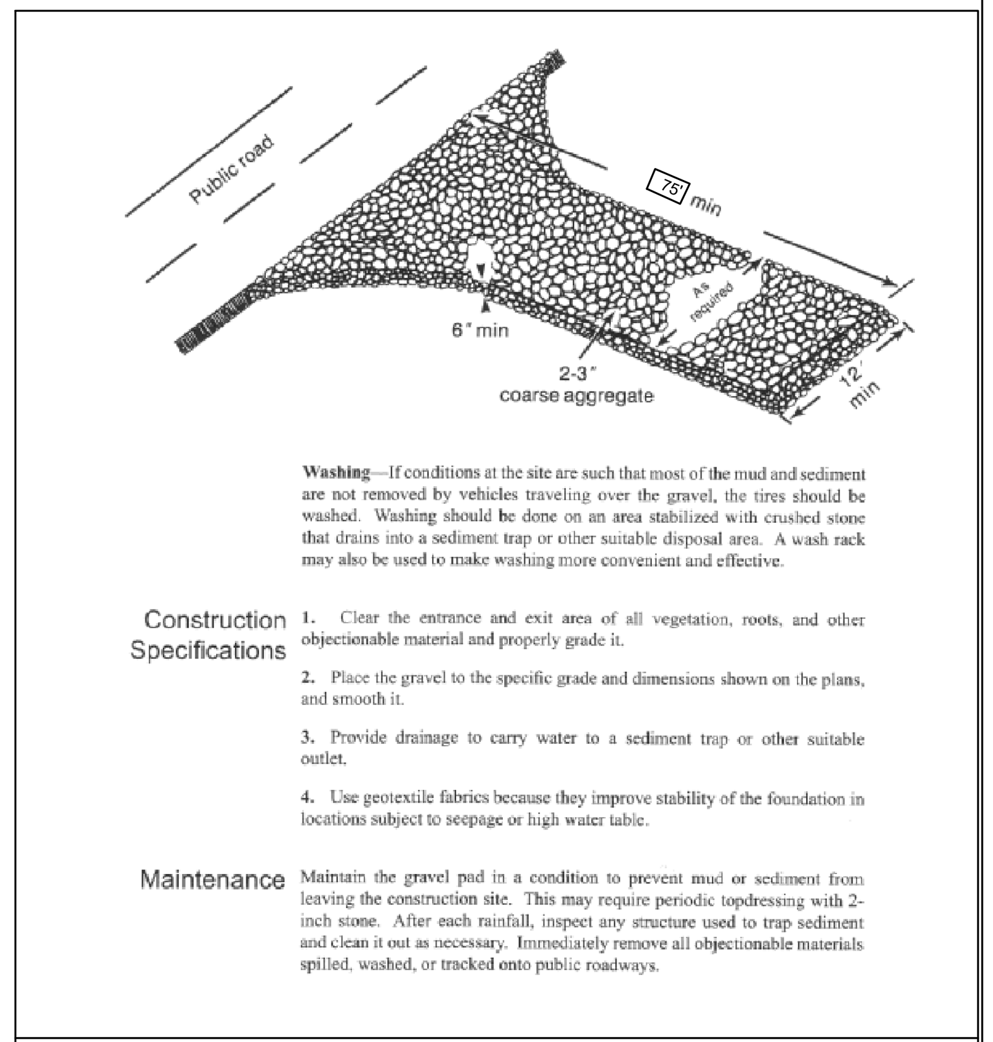
SILT FENCE



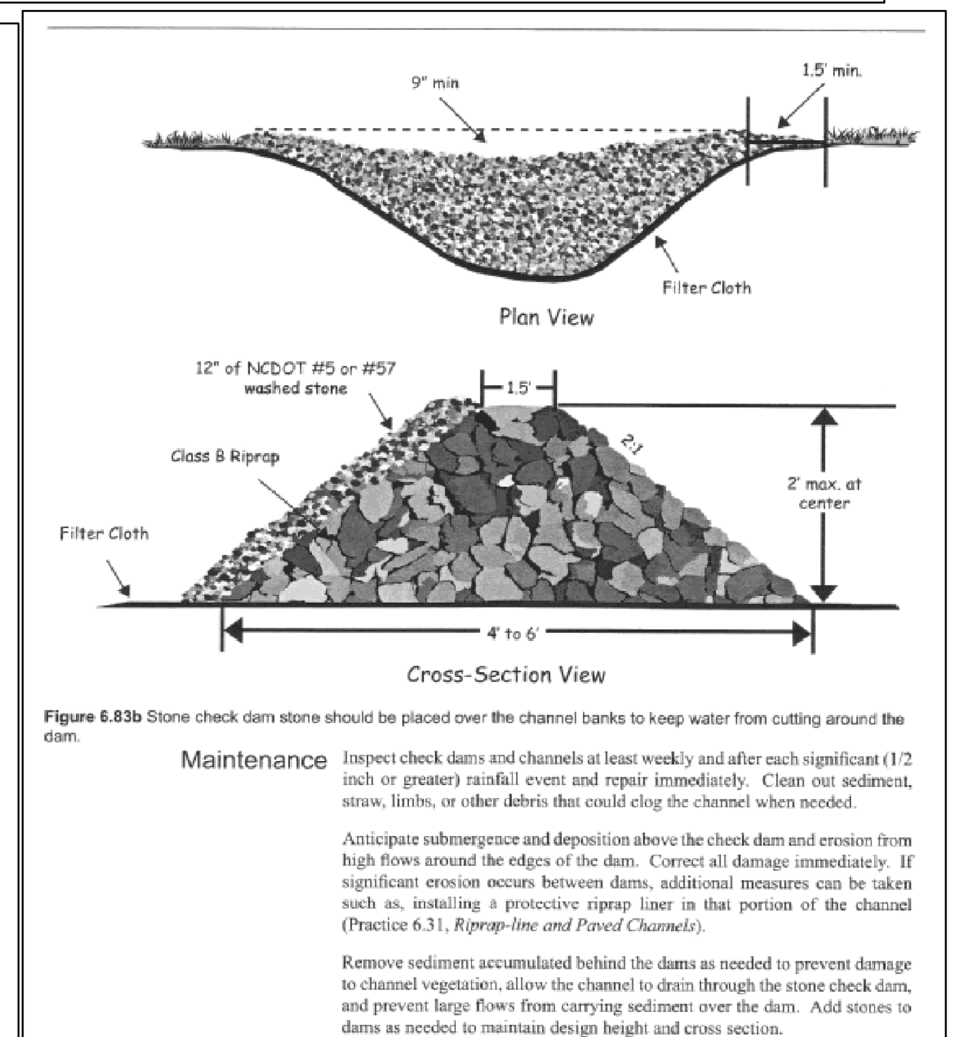
OUTLET PROTECTION



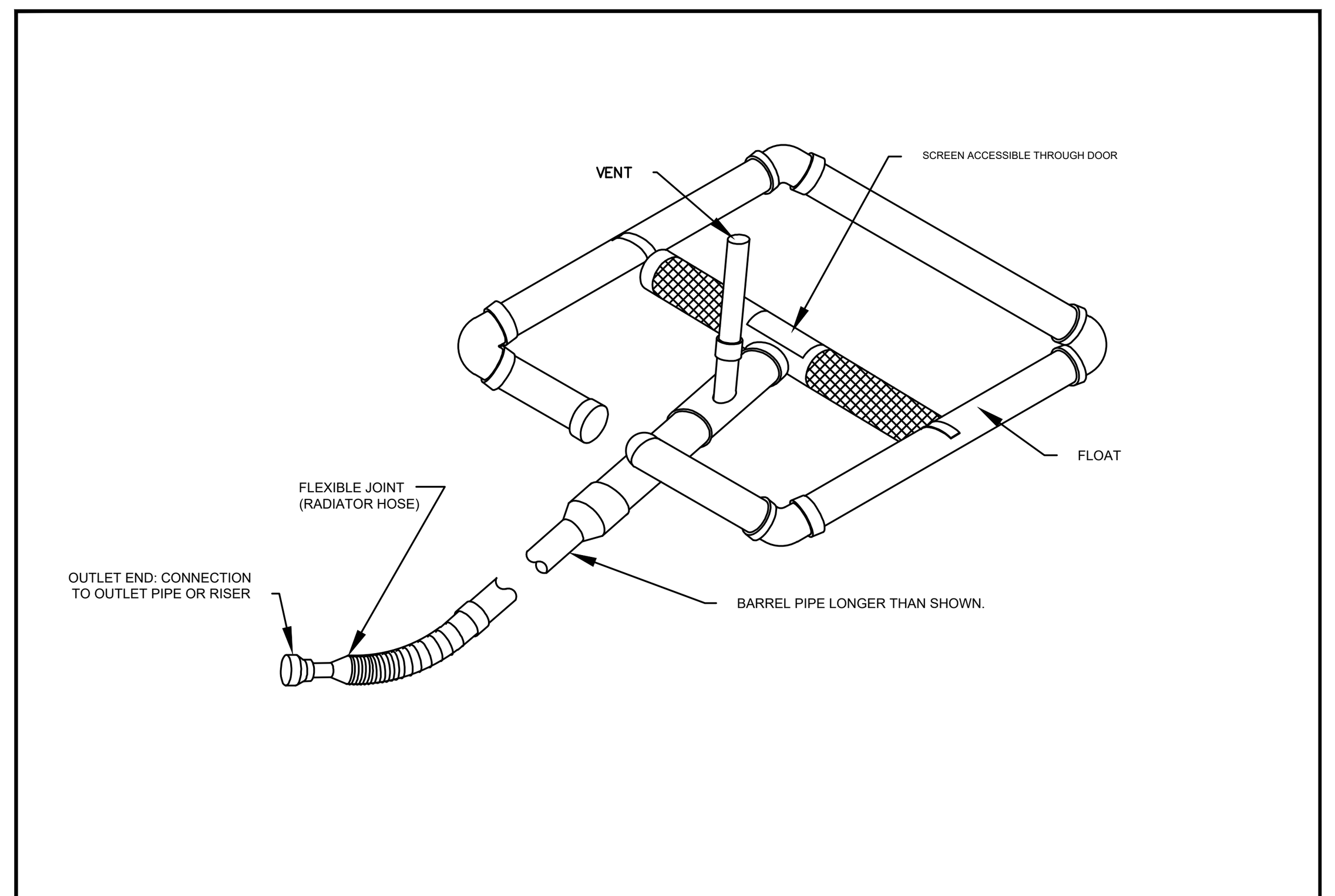
STANDARD SKIMMER BASIN



CONSTRUCTION ENTRANCE



ROCK CHECK DAM



STANDARD SKIMMER DETAIL

SEEDBED PREPARATION:

1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available. Rip the entire area to six inches deep.

2. Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.

3. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).

4. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.

5. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.

6. Mulch immediately after seeding and anchor mulch.

7. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, re-establish following the original lime, fertilizer and seeding rates.

8. Consult S&EC Environmental Engineers on maintenance treatment and fertilization after permanent cover is established.

MIXTURE

Agricultural Limestone	2 tons/acre (3 tons/acre in clay soils)
Fertilizer	1,000 lbs/acre – 10-10-10
Superphosphate	500 lbs/acre – 20% analysis
Mulch	2 tons/acre – small grain straw
Anchor	Asphalt emulsion at 300 gals/acre

SEEDING SCHEDULE

FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1):

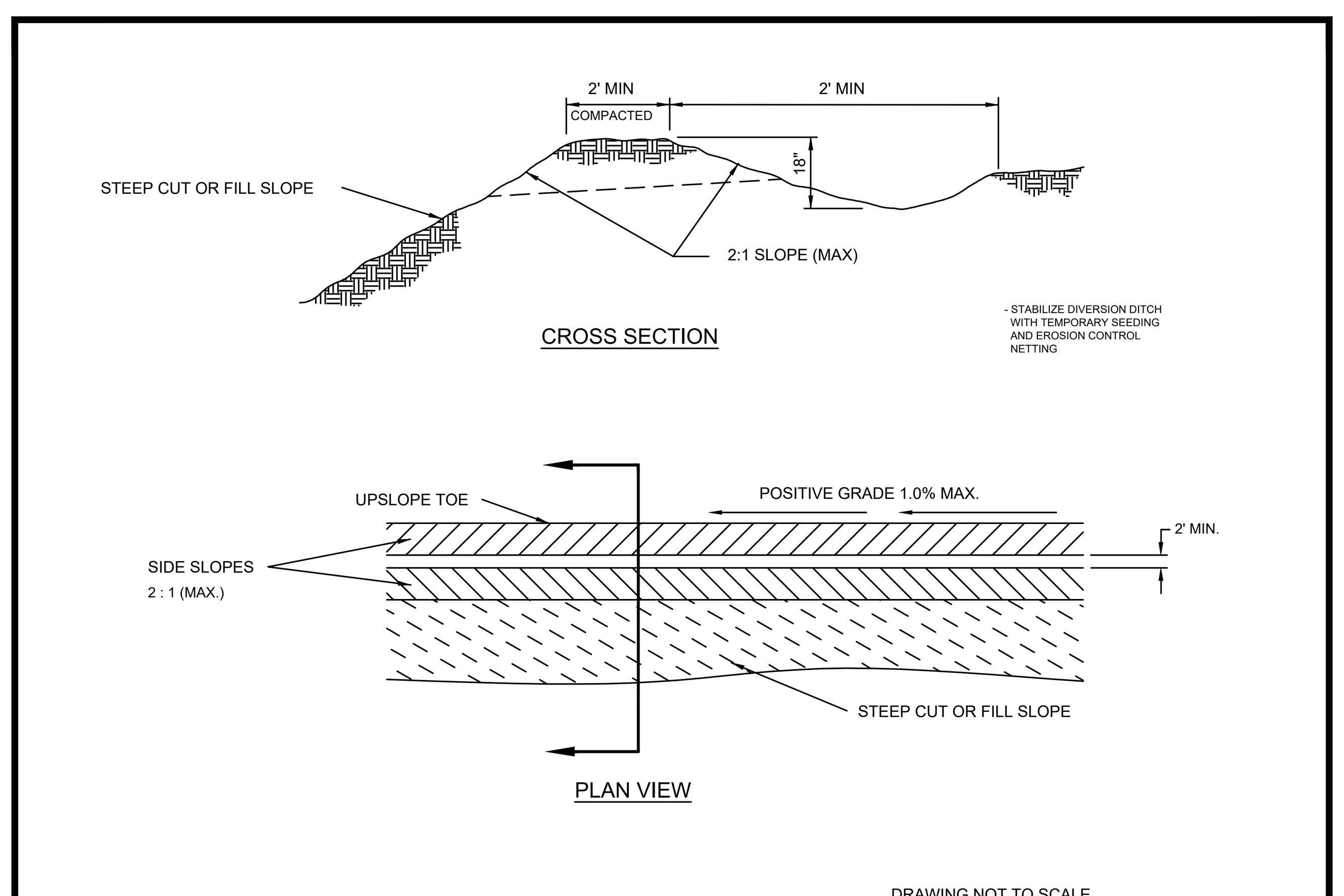
Date	Type	Planting Rate
Aug 15 – Nov 1	Tall Fescue	300 lbs/acre
Nov 1 – Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1 – Apr 15	Tall Fescue	300 lbs/acre
Apr 15–Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1– Aug 15	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)

FOR SHOULDERS, SIDE DITCHES, SLOPES (3:1 TO 2:1)

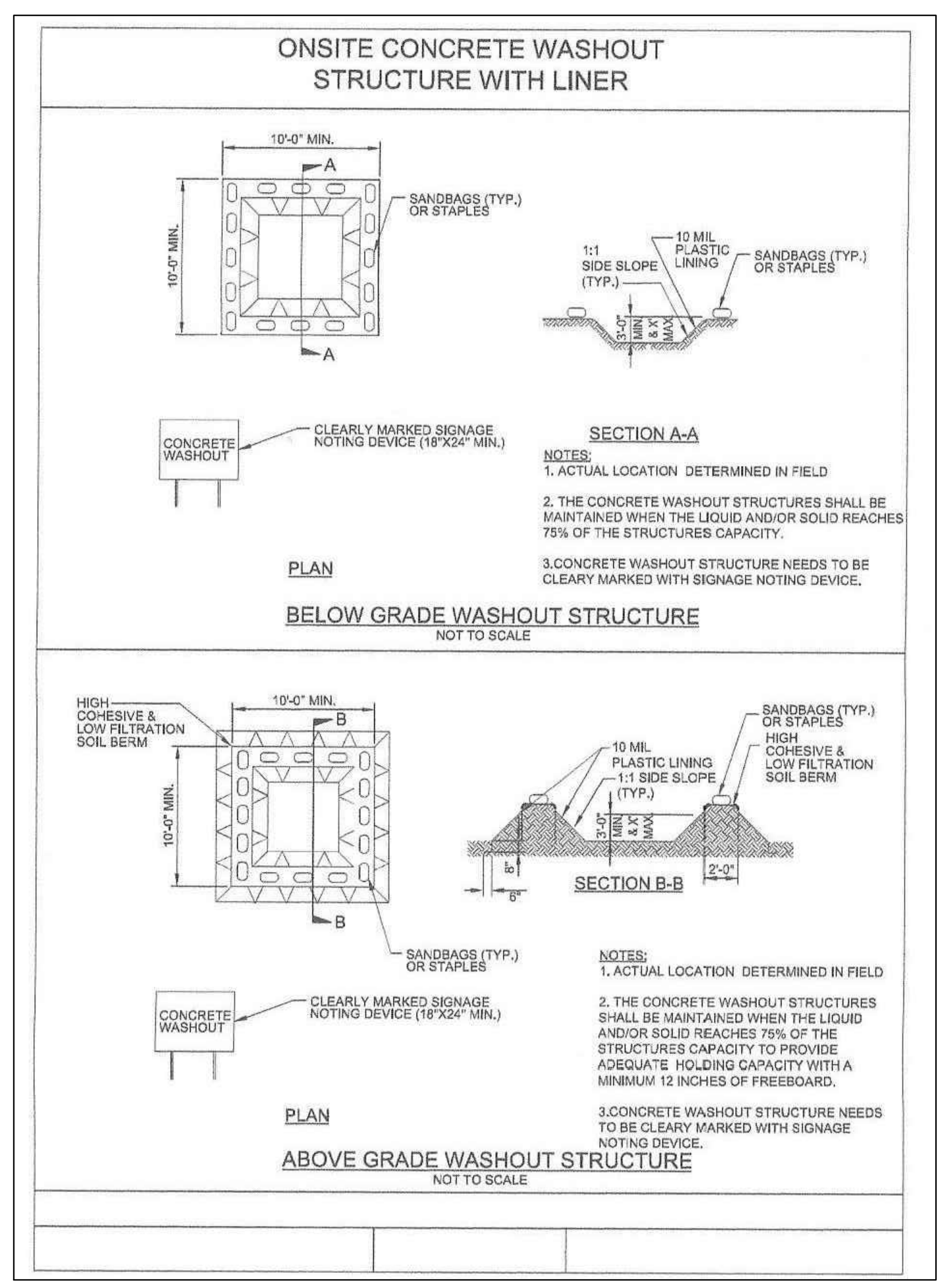
Date	Type	Planting Rate
Mar 1 – Jun 1	Sericea Lespedeza (scarified) and use the following combinations:	50 lbs/acre (Sericea Lespedeza);
Mar 1 – Apr 15	Add Tall Fescue	120 lbs/acre
Mar 1 – Jun 30	Or add Weeping Love grass	10 lbs/acre
Mar 1 – Jun 30	Or add Hulled Common Bermudagrass	25 lbs/acre
Jun 1 – Sept 1	Tall Fescue AND Browntop Mullet or Sorghum-Sudan Hybrids***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Mullet); 30 lbs/acre (Sorghum-Sudan Hybrids)
Sept 1 – Mar 1	Sericea Lespedeza (unhulled – unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1 – Mar 1	AND Abruzzi Rye	25 lbs/acre

Consult S&EC Environmental Engineers for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations are possible.

*** TEMPORARY: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow more than 12" in height before mowing; otherwise, fescue may be shaded out.



DIVERSION DITCH	STANDARD DETAIL NUMBER: HS417
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS



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ENGINEERING AND SURVEYING P-0148
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SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22024
02-08-2022

PATTERSON ROAD MINI STORAGE

HARNETT COUNTY, NORTH CAROLINA

EROSION CONTROL DETAIL SHEET

DRAWING SHEET D-1

PART III
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 were delayed shall be noted in the Inspection Record.

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 un-attended 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 (SDOs)	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: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. 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 perimeter 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 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.

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SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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.

Item to Document	Documentation Requirements
(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 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 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:

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

(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

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) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***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 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 compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***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.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***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.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***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(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

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

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.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization 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	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

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
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• 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

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

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. 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

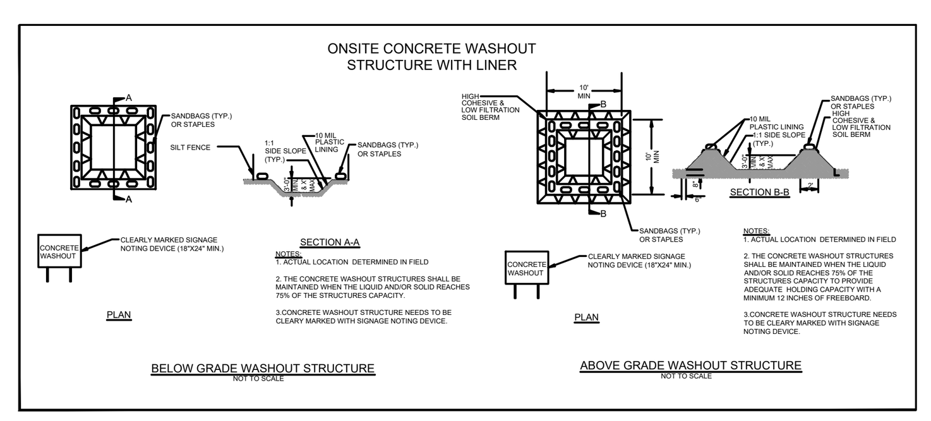
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled,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

PORTABLE TOILETS

1. 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 foot traffic areas.
3. 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.

EARTHEN STOCKPILE MANAGEMENT

1. 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 available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. 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.



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. 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 lot perimeter silt fence.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. 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.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING | EFFECTIVE: 04/01/19

NO.	REVISION	DATE

SEAL:

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DATE : 01-24-2022

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PROJECT CADD DESIGNER:
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PROJECT NUMBER:

PATTERSON ROAD MINI STORAGE

HARNETT COUNTY, NORTH CAROLINA

EROSION CONTROL DETAIL SHEET

DRAWING
SHEET
D-2