

# MAIDEN MINI-STORAGE

THIS PROJECT CONSISTS OF A SELF-STORAGE  
COMMERCIAL/INDUSTRIAL PLAN

## PROJECT CONTACTS

### DEVELOPER

TUSSMORE, LLC

Zach Tusnel  
2326 N NC 16 Business HWY  
Denver, NC 28037  
zachtusnel@gmail.com

### CIVIL ENGINEER

EastLake Engineering, PLLC

Paul Carter, PE  
464-C Williamson Road  
Mooresville, NC 28117  
(704) 728 - 0400  
pcarter@ele-nc.com

### OWNER(S)

TUSSMORE, LLC

Zach Tusnel  
2326 N NC 16 Business HWY  
Denver, NC 28037

## PROJECT LOCATION

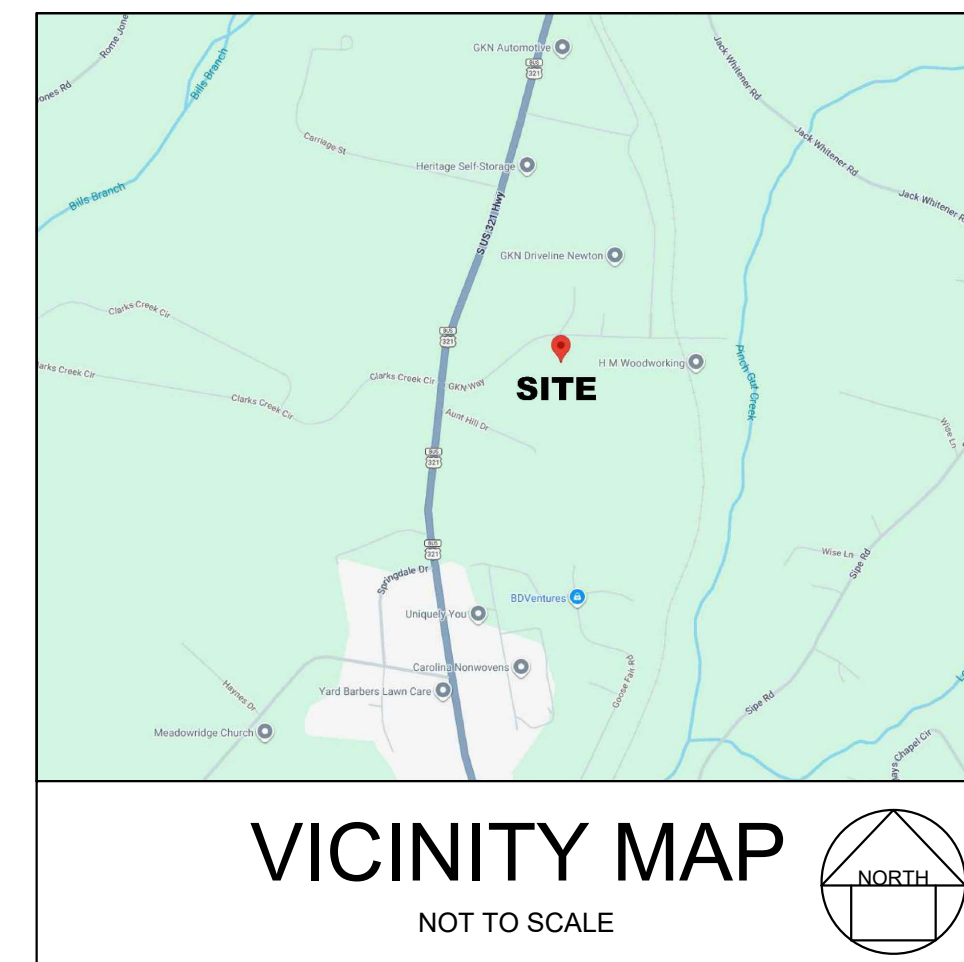
TOWN OF MAIDEN  
CATAWBA COUNTY  
NORTH CAROLINA

## SITE COORDINATES

35.6029 N  
81.2150 W

## PARCEL NUMBER(s)

3648-17-11-7516



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PROJECT #: 2023-07

DRAWN: JR CHECKED: PC

SEAL:

PRELIMINARY

NOT  
FOR CONSTRUCTION

REVISIONS:

Project Title:

**Maiden Mini  
Storage**

Contact:

**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

Sheet Title:

**Cover Sheet**

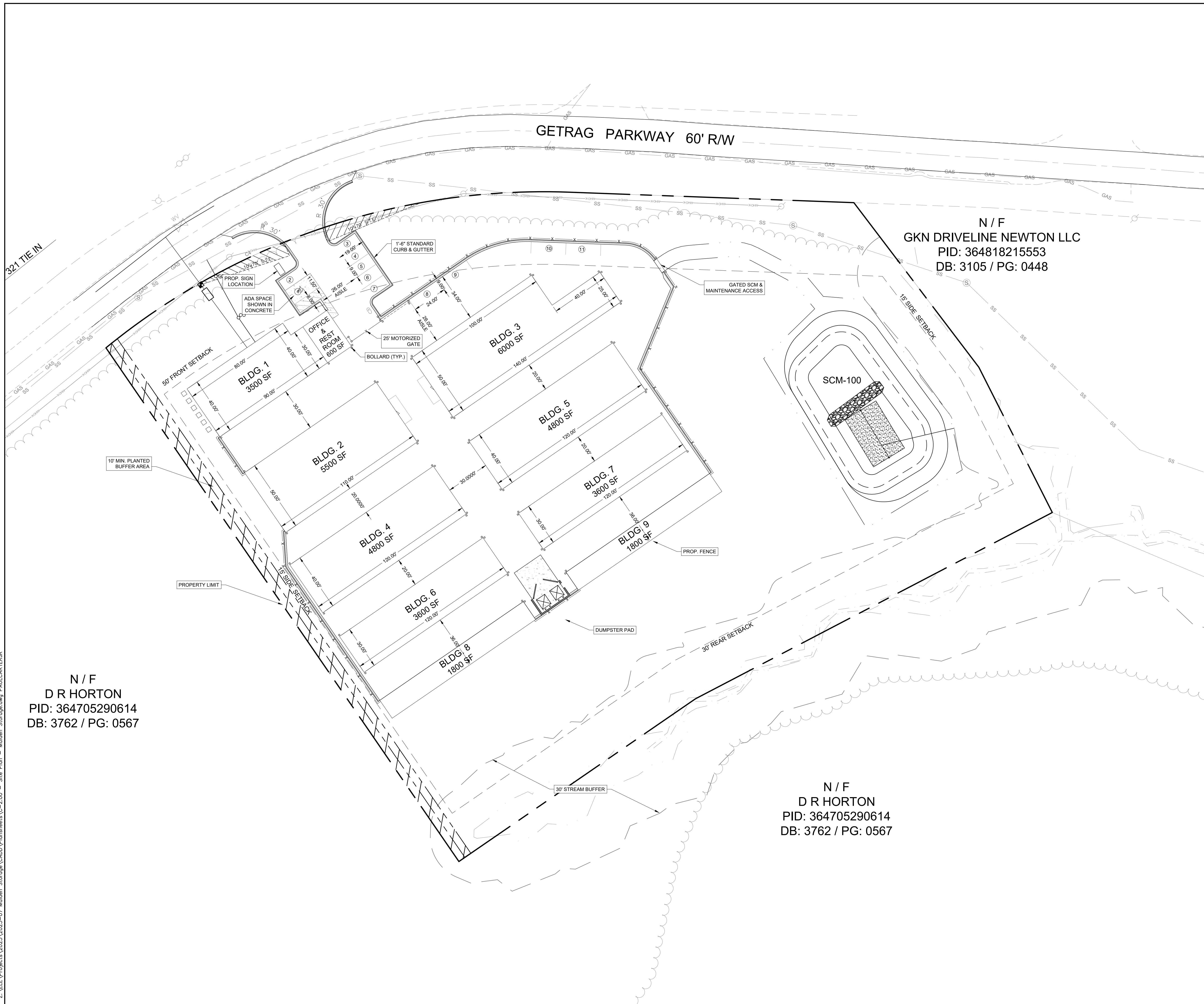
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D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

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D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

**PROJECT DATA**  
Maiden Mini-Storage

DEVELOPER		
Tussmore LLC	2326 N NC 16 Business HWY Denver, NC 28037	
DESIGNER		
EastLake Engineering, PLLC	464-C Williams on Drive Mooresville, NC 28117	
PARCEL DATA		
Tussmore LLC		
1821 GKN Wby, Newton, NC 28658		
PN#	DEED	AREA
3648-17-11-7616	3941 / 0802	4.20 AC
<b>TOTAL SITE AREA</b>		4.20 AC

**SITE & ZONING DATA**

TOTAL SITE AREA 4.20 AC  
CURRENT ZONING M-1  
JURISDICTION TOWN OF MAIDEN

**HLI: DIMENSIONAL REQUIREMENTS**

	NA	AC
MINIMUM LOT AREA	NA	AC
MINIMUM WIDTH AT RIGHT-OF-WAY	NA	LF
MINIMUM WIDTH AT SET BACK	NA	SF
SETBACKS		
FRONT	50	LF
REAR	20	LF
SIDE / CORNER	15	LF
MAXIMUM BUILDING HEIGHT	50	FT
MAXIMUM DENSITY	NA	DU/AC

**USAGE REQUIREMENTS**

PROPOSED USAGE: Mini-Storage Facility

AUTO PARKING MINIMUM	PER 1,000 SF FOR FIRST 3,000 SF	PER 3,500 SF THEREAFTER
1	1	1
REQUIRED PARKING		
SQUARE FOOTAGE	31,200	
TOTAL PARKING REQ'D	11 SPACES	
PROVIDED PARKING		
STANDARD SPACES	10 SPACES	
ADA SPACES	1 SPACES	
TOTAL PARKING	11 SPACES	

**WATERSHED DATA**

SITE IS NOT LOCATED WITHIN A PROTECTED WATERSHED.

**IMPERVIOUS DATA**

ALLOWED IMPERVIOUS (70% OF SITE)	146,382 SF
APPROX. DESIGNED IMPERVIOUS	70,731 SF
ASPHALT	37,102 SF
6" CONCRETE (DRIVEWAYS)	1,204 SF
CURB & GUTTER	1,225 SF
BUILDING PADDS	31,200 SF
APPROX. TOTAL OF DESIGNED IMP.	70,731 SF
APPROX. PERCENTAGE OF TOTAL SITE	38.66 %

**FLOOD DATA**

THIS SITE IS NOT LOCATED WITHIN A DOCUMENTED FLOOD ZONE PER FEMA FLOOD INSURANCE RATE MAP.

COMMUNITY PANEL 3710364800J  
EFFECTIVE DATE 9/5/2007

**LANDSCAPING DATA**

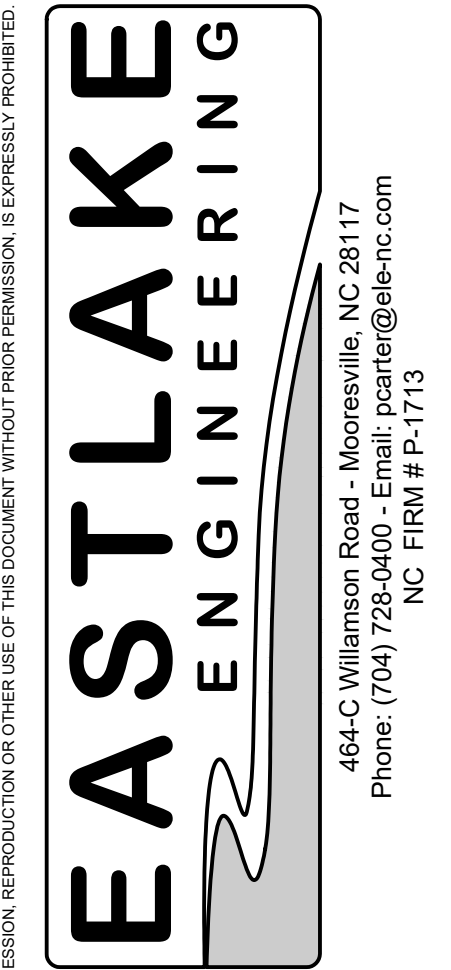
LANDSCAPING SHALL COMPLY WITH THE TOWN OF MAIDEN UDO. SEE ARTICLE 9 LANDSCAPING AND BUFFERING, SECTION 9.4.2. FURTHER DETAIL PROVIDED ON C-2.01 LANDSCAPING PLAN

**BUFFER REQUIREMENTS (UDO 5.3.6)**

PROPOSED USE OF SITE	MIN. BUFFER WIDTH
INDUSTRIAL	10'

**UTILITY DATA**

UTILITY	TOWN OF MAIDEN
WATER	TOWN OF MAIDEN
SEWER	TOWN OF MAIDEN
TRASH	PRIVATE COLLECTION



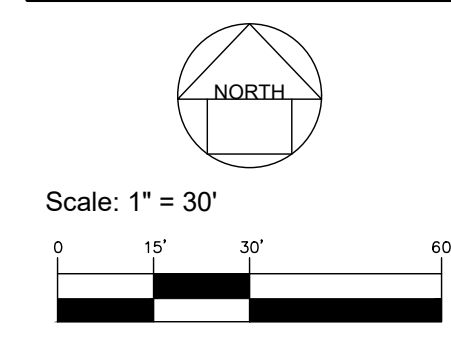
464-C Williams on Drive - Mooresville, NC 28117  
Phone: (704) 728-0000 - Email: paulcarter@eastlake.com  
NC FIRM # P-1713

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Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

Sheet Title:  
**Site Plan**

Sheet Number:  
**C-2.00**

Z:\ELEV\Projects\2023\2023-07 Maiden Storage\2023-07 Landscaping Plan - Maiden Storage.dwg PAULCARTER



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PID: 364705290614  
DB: 3762 / PG: 0567

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GKN DRIVELINE NEWTON LLC  
PID: 364818215553  
DB: 3105 / PG: 0448

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D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

PLANT KEY				
SYMBOL	QTY	COMMON NAME	SCIENTIFIC NAME	MIN. Cal. / Hgt.
<b>LARGE CONIFEROUS TREES</b>				
	45	EASTERN WHITE PINE	<i>Pinus strobus</i>	8' / 6'
		RED SPRUCE	<i>Picea rubens</i>	8' / 6'
		EASTERN RED CEDAR	<i>Juniperus virginiana</i>	8' / 6'
<b>LARGE DECIDUOUS TREES</b>				
	2	SOUTHERN RED OAK	<i>Quercus falcata</i>	8' / 6'
	3	RED MAPLE	<i>Acer rubrum</i>	8' / 6'
<b>FLOWERING TREES</b>				
		CHEROKEE CHIEF FLOWERING DOGWOOD	<i>Cornus florida 'Cherokee Chief'</i>	3' / 4'
<b>SMALL DECIDUOUS TREES</b>				
		EASTERN REDBUD	<i>Cercis canadensis</i>	2' / 5'
		WINTER KING GREEN HAWTHORNE	<i>Crataegus viridis</i>	8' / 6'
<b>SHRUBS</b>				
	7	ENGLISH LAUREL	<i>Prunus laurocerasus</i>	8' / 6'
	125	GREEN MOUNTAIN BOXWOOD	<i>Buxus 'Green Mountain'</i>	8' / 6'
	21	LOROPETALUM	<i>Loropetalum chinense</i>	8' / 6'
	7	INDIAN HAWTHORN	<i>Rhaphiolepis indica</i>	8' / 6'
	27	HELLERI HOLLY	<i>Ilex crenata 'Helleri'</i>	8' / 6'

- GENERAL NOTES:**
- NO CHANGES TO ANY ASPECT OF THIS SITE PLAN, INCLUDING BUT NOT LIMITED TO, LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING OR UTILITIES WILL BE MADE WITHOUT THE APPROVAL OF THE DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT.
  - THE SITE SHALL BE STABILIZED AND SEEDING PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
  - A PRE-INSTALLATION CONFERENCE BETWEEN THE LANDSCAPE CONTRACTOR AND THE PLANNING DEPARTMENT STAFF SHALL BE SCHEDULED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO LANDSCAPING INSTALLATION.
  - ALL REQUIRED IMPROVEMENTS SHALL COMPLY WITH THE STANDARDS OF THE TOWN OF MAIDEN UNIFIED DEVELOPMENT ORDINANCE.
  - ALL SIGNAGE TO BE PERMITTED SEPARATELY.
  - LANDSCAPING SHALL COMPLY WITH ALL TOWN OF MAIDEN STANDARDS PER UDO. SEE ARTICLE 9: LANDSCAPING AND BUFFERING.
  - AREA LIGHTING WILL BE ATTACHED TO BUILDINGS AND SHALL COMPLY WITH ALL TOWN OF MAIDEN REQUIREMENTS.

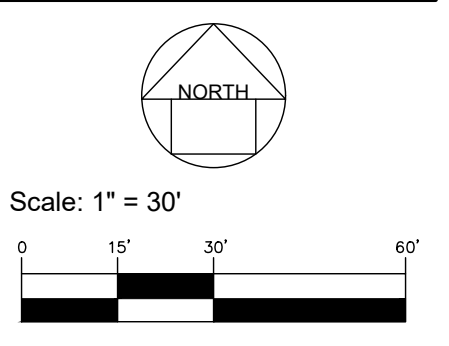
**EASTLAKE ENGINEERING**

464-C Williamson Road - Mooresville, NC 28117  
Phone: (704) 728-0400 - Email: paulcarter@eastlake.com  
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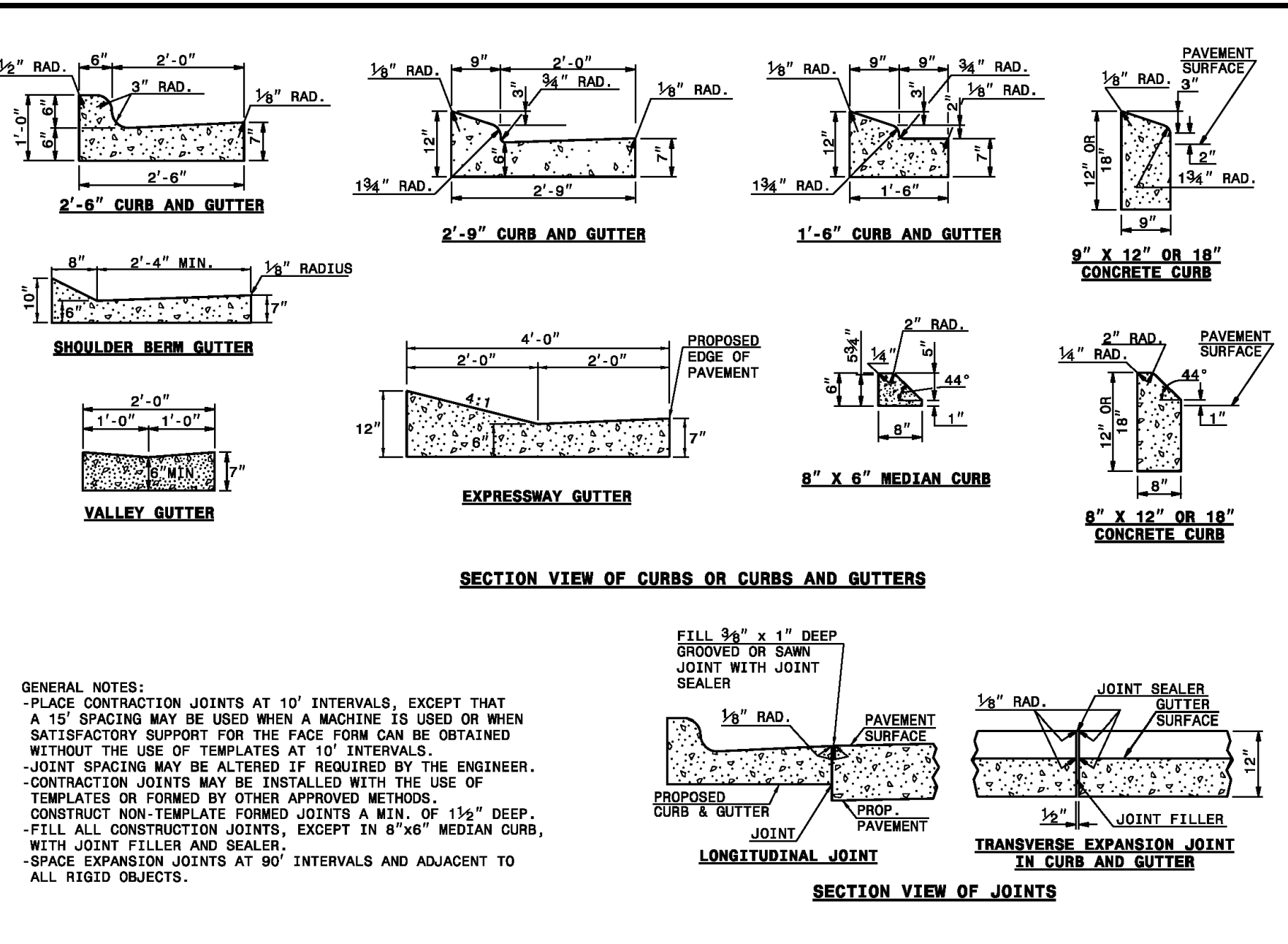
Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

Sheet Title:  
**Landscaping & Lighting Plan**

Sheet Number:  
**C-2.01**

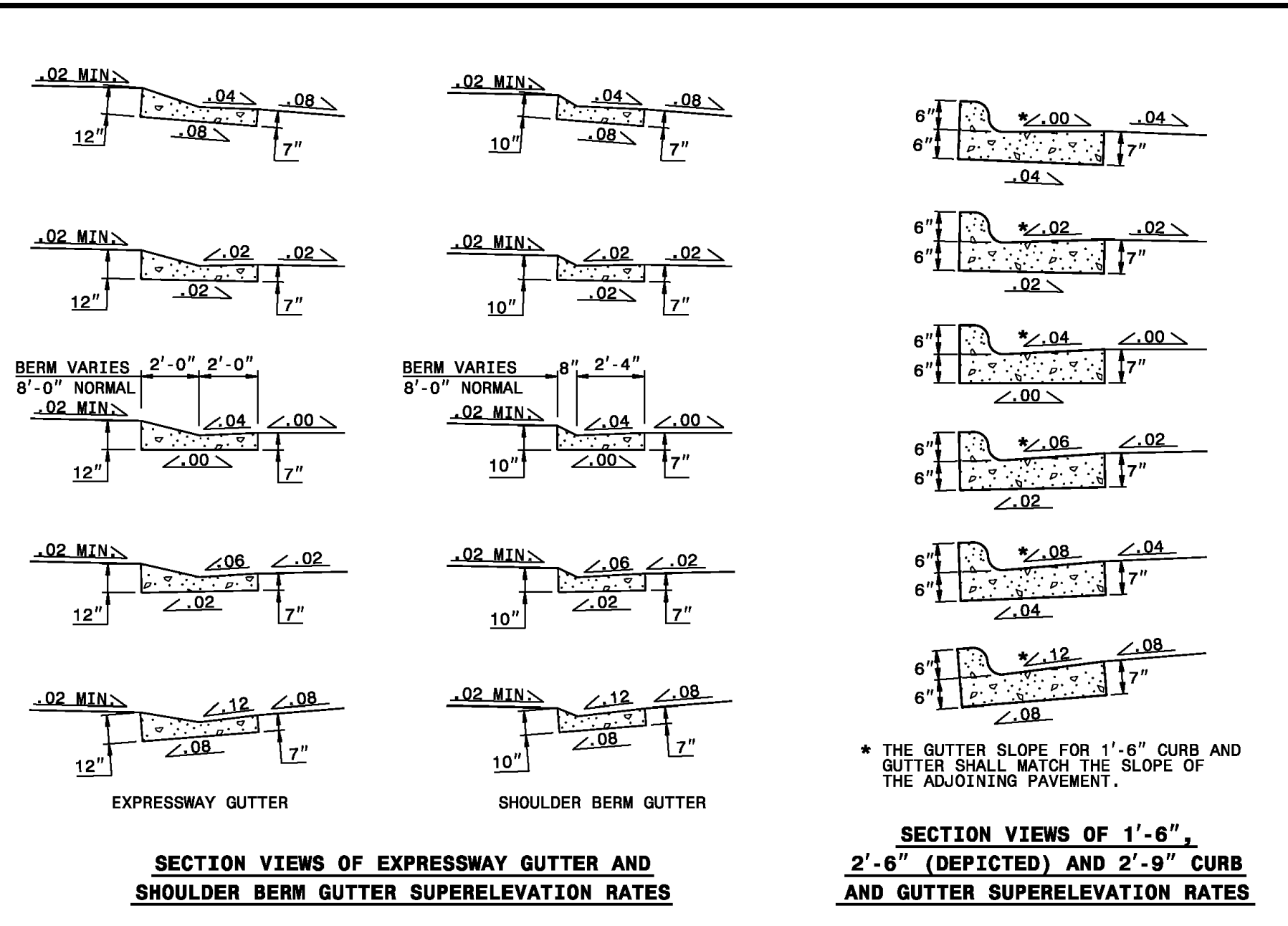
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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER

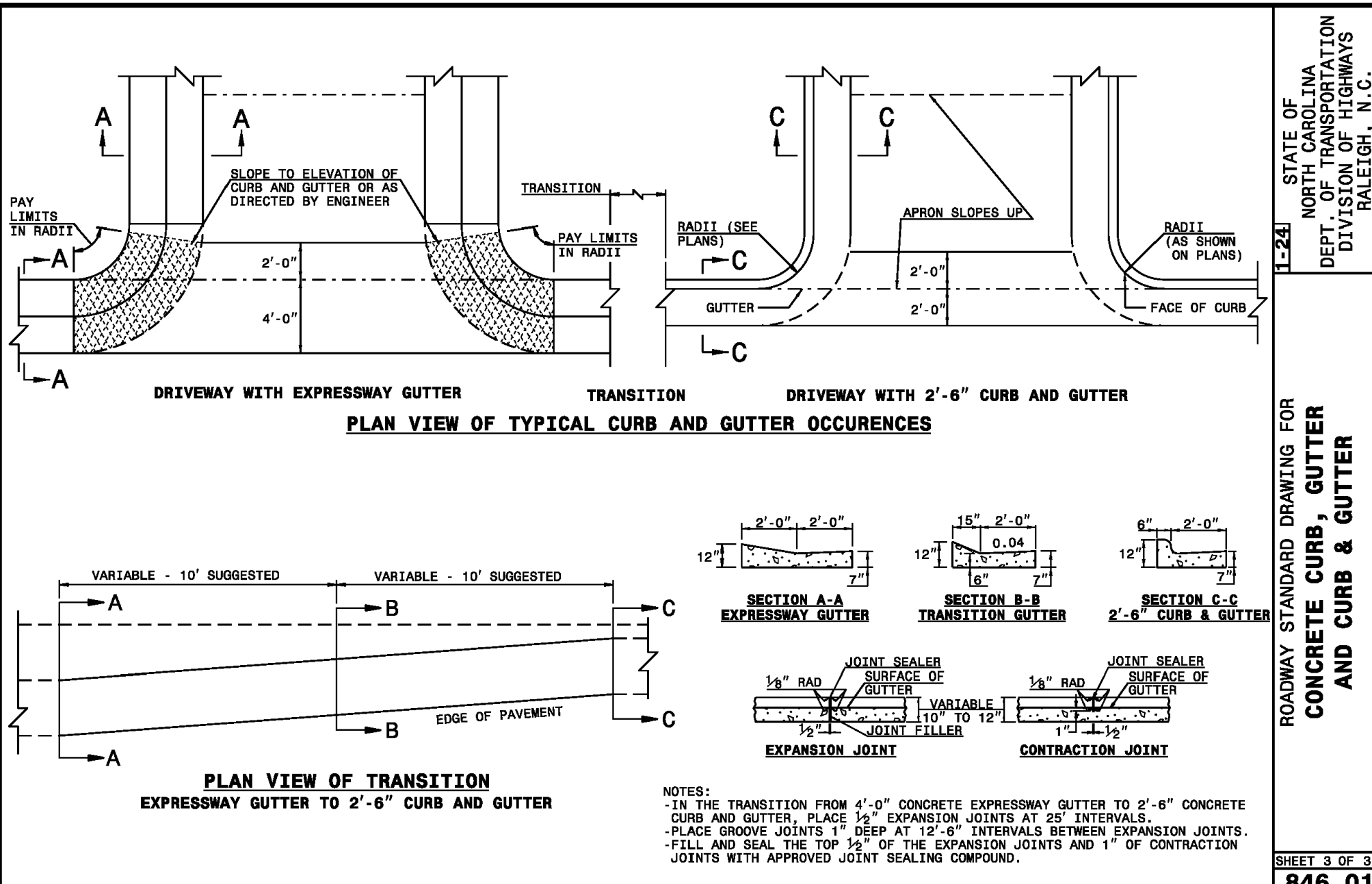
SHEET 1 OF 3 846.01



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER

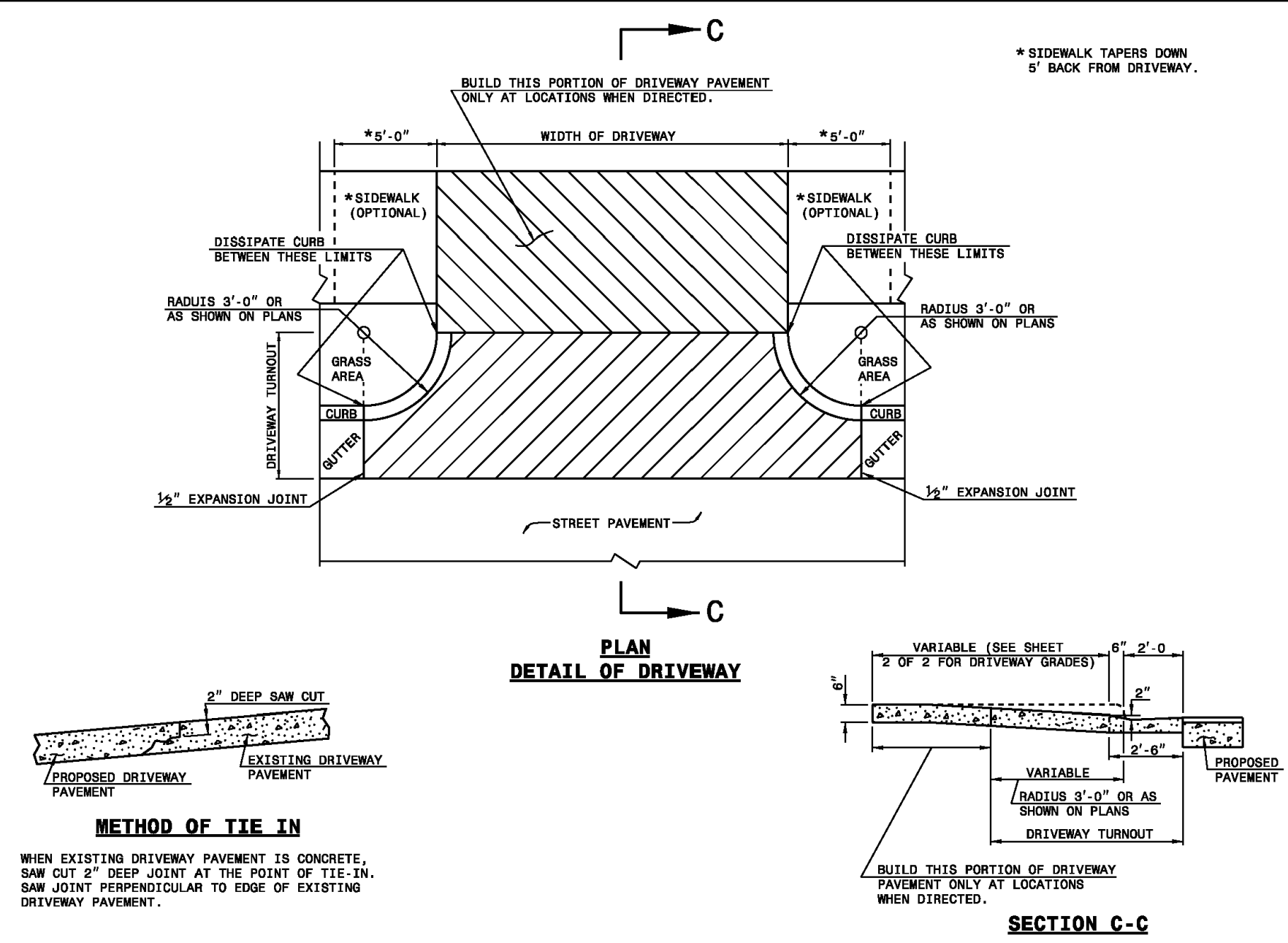
SHEET 2 OF 3 846.01



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

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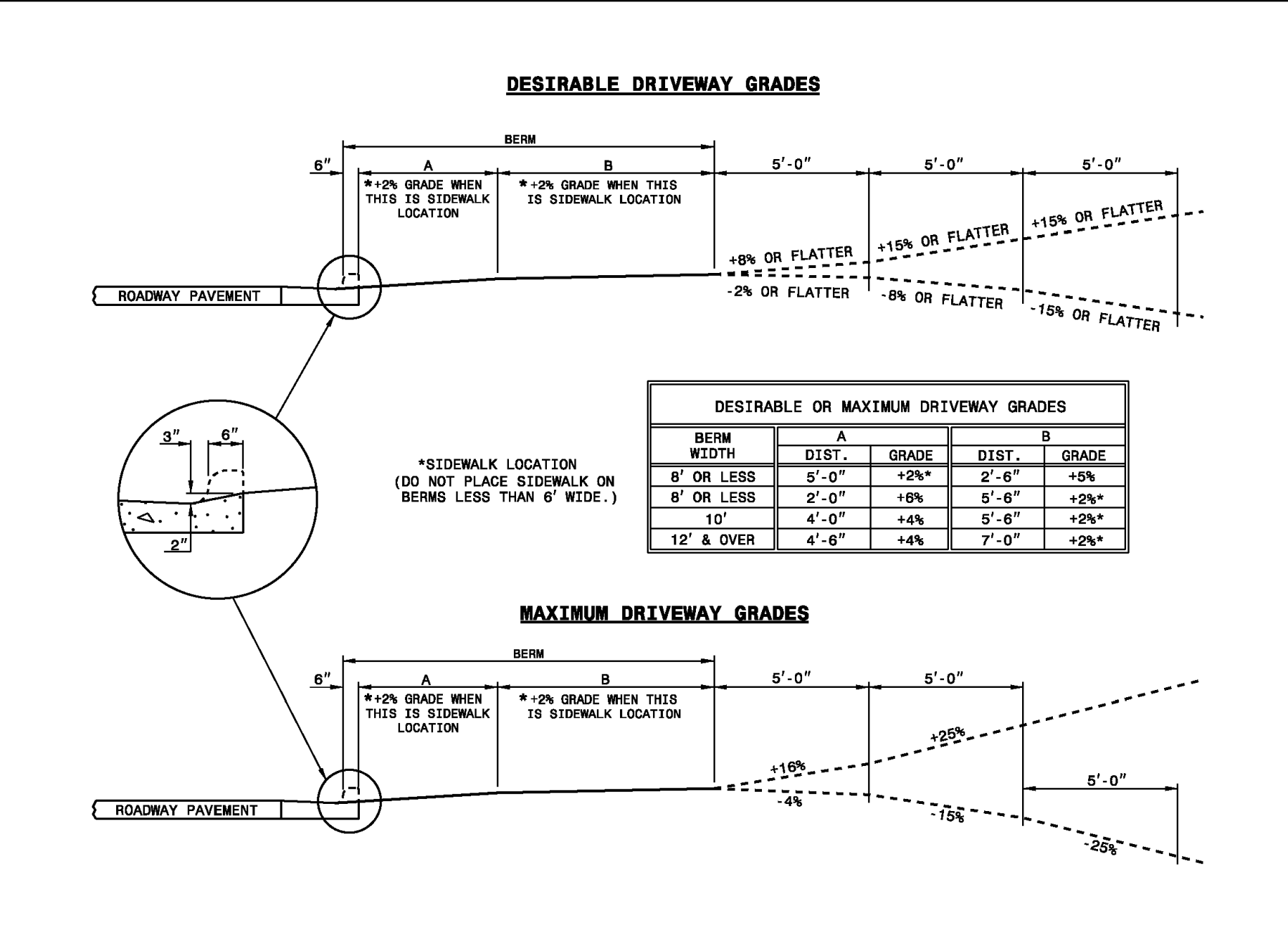
SHEET 3 OF 3 846.01



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR DRIVEWAY TURNOUT RADIUS TYPE

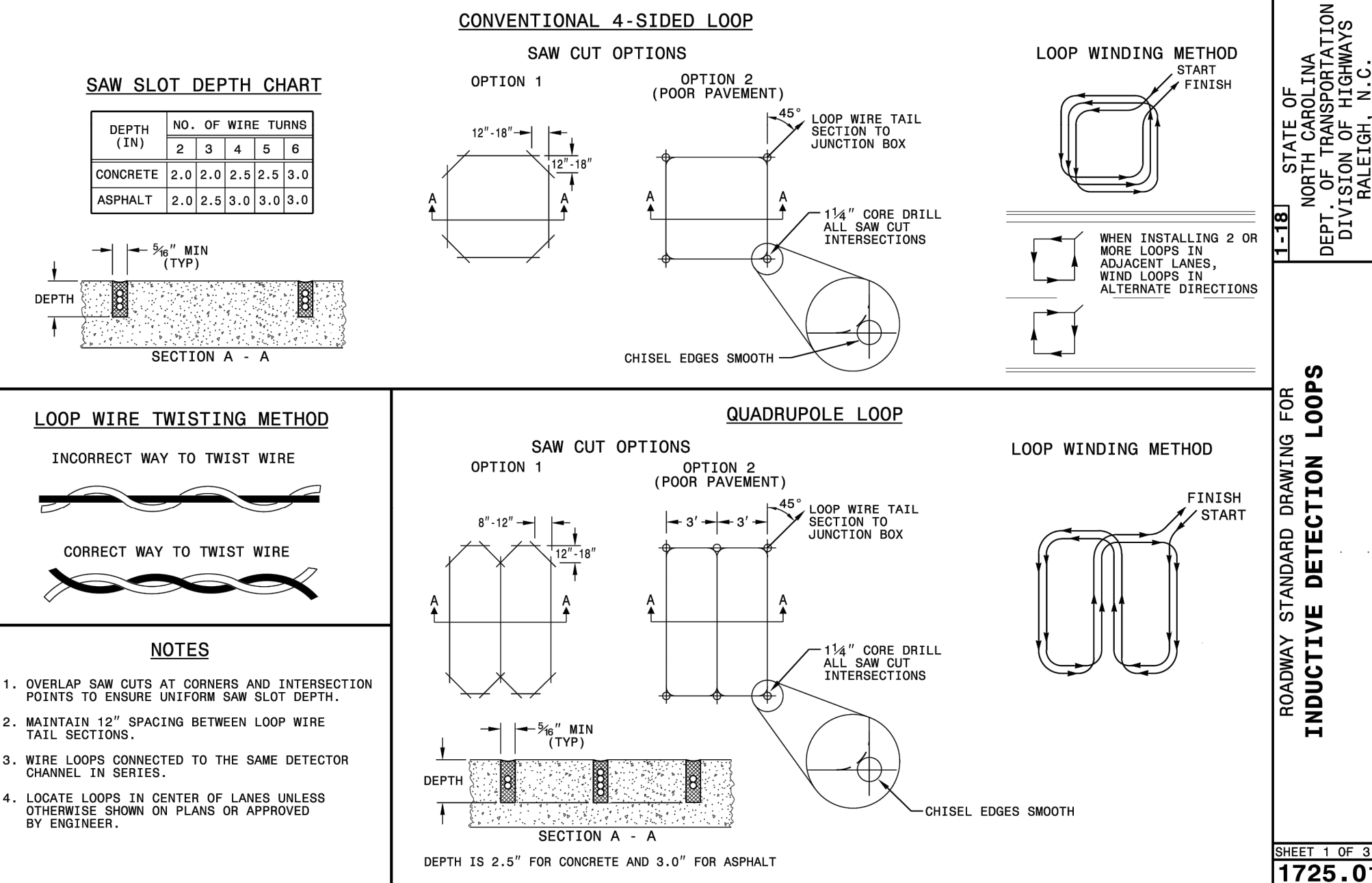
SHEET 1 OF 2 848.02



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ROADWAY STANDARD DRAWING FOR DRIVEWAY TURNOUT DRIVEWAY GRADES

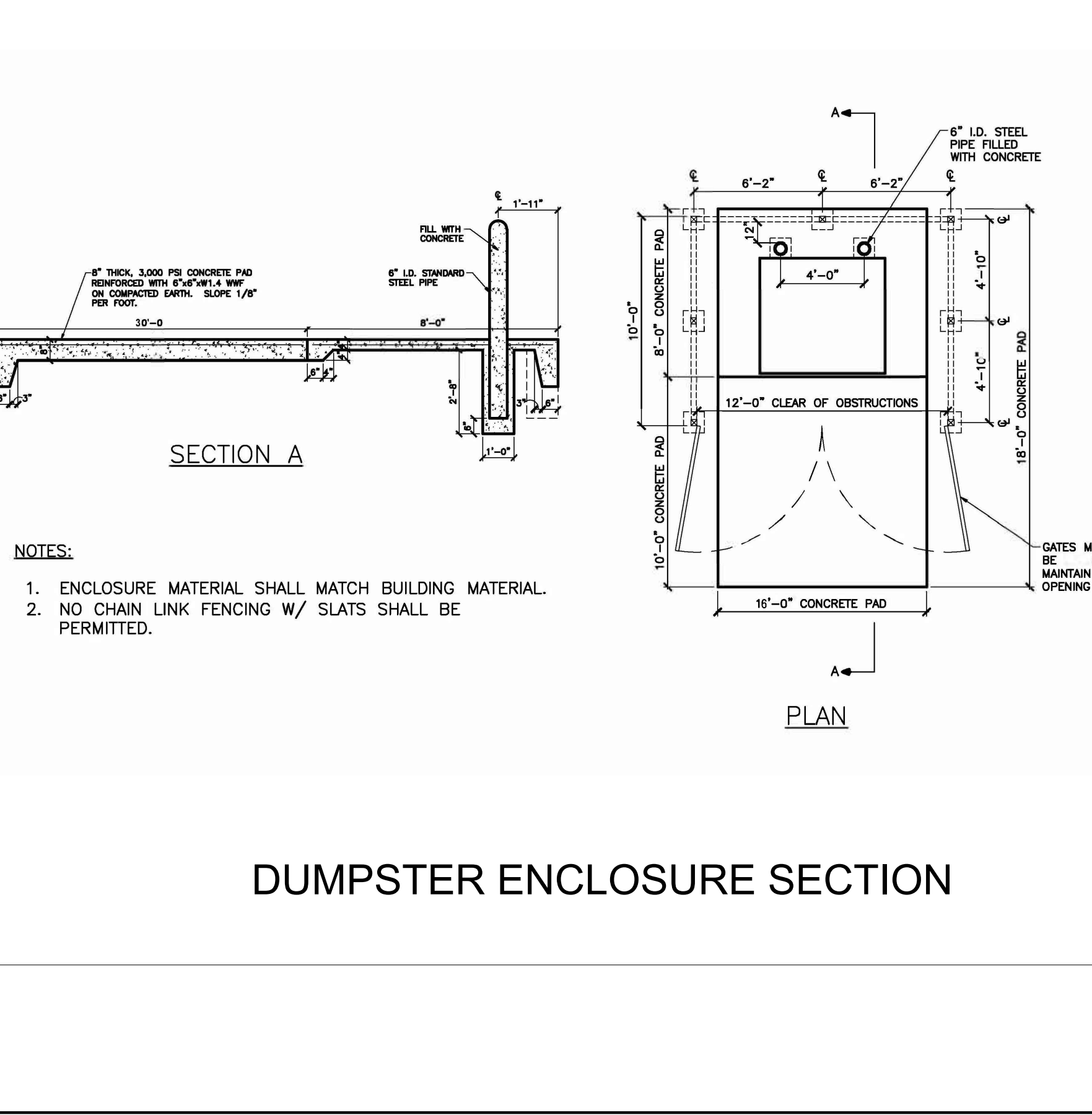
SHEET 2 OF 2 848.02



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR INDUCTIVE DETECTION LOOPS

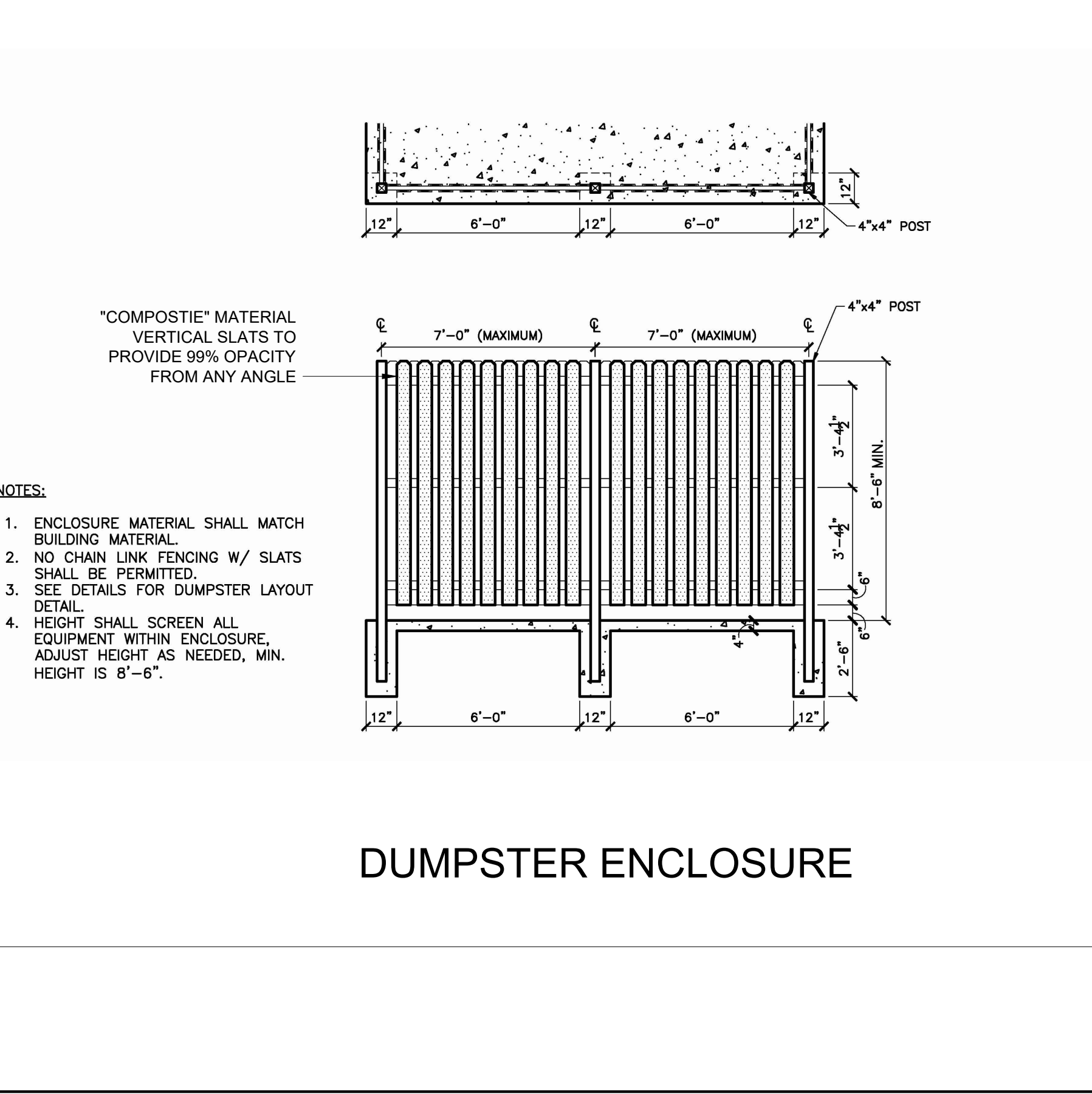
SHEET 1 OF 3 1725.01



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR DUMPSTER ENCLOSURE

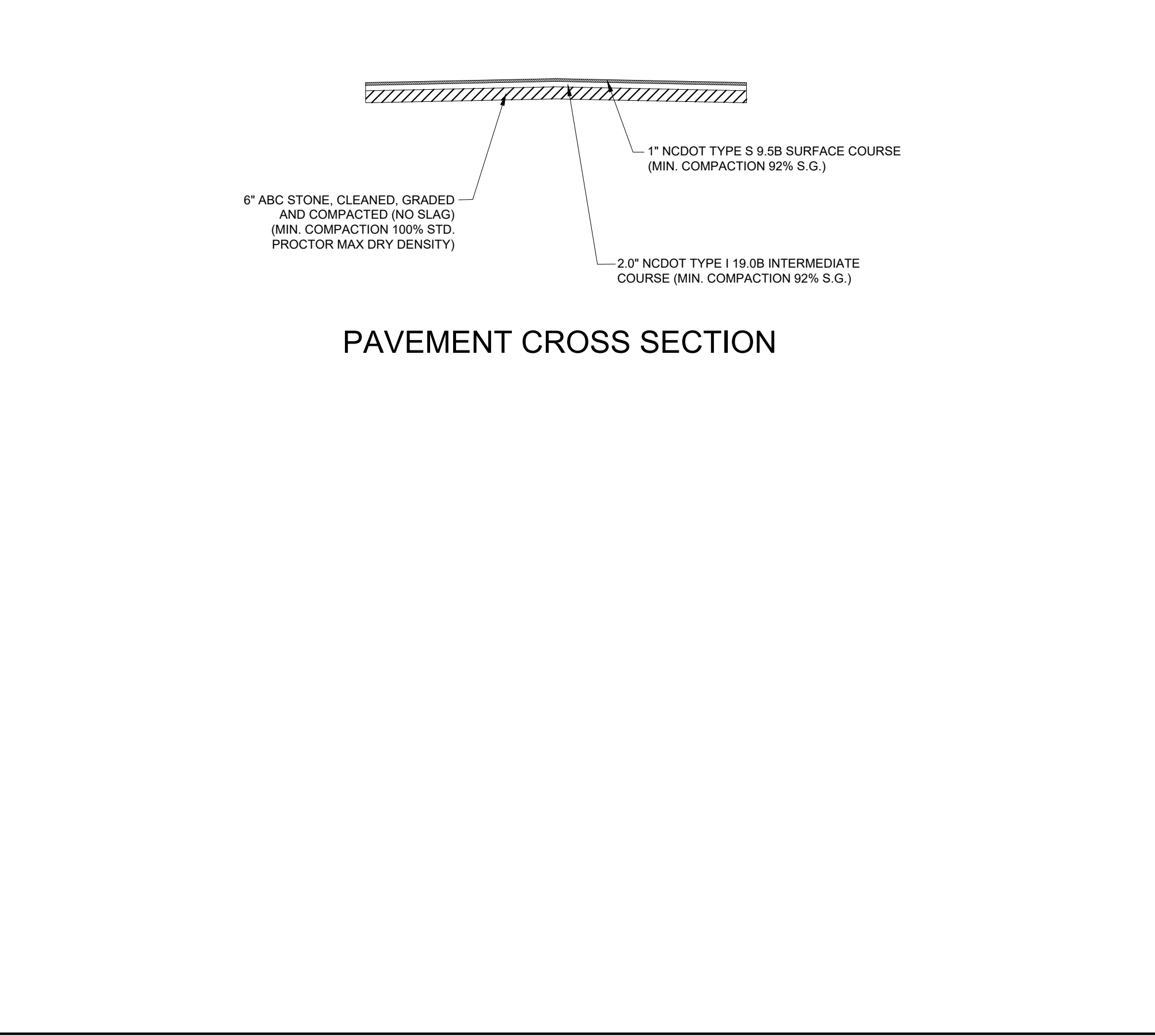
SHEET 1 OF 1 848.03



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR PAVEMENT CROSS SECTION

SHEET 1 OF 1 1725.02



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.

ROADWAY STANDARD DRAWING FOR PAVEMENT CROSS SECTION

SHEET 1 OF 1 1725.02

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Phone: (704) 728-0000 - Email: paulcarter@eastlake.com  
NC FIRM # P-1713

PROJECT #: 2023-07  
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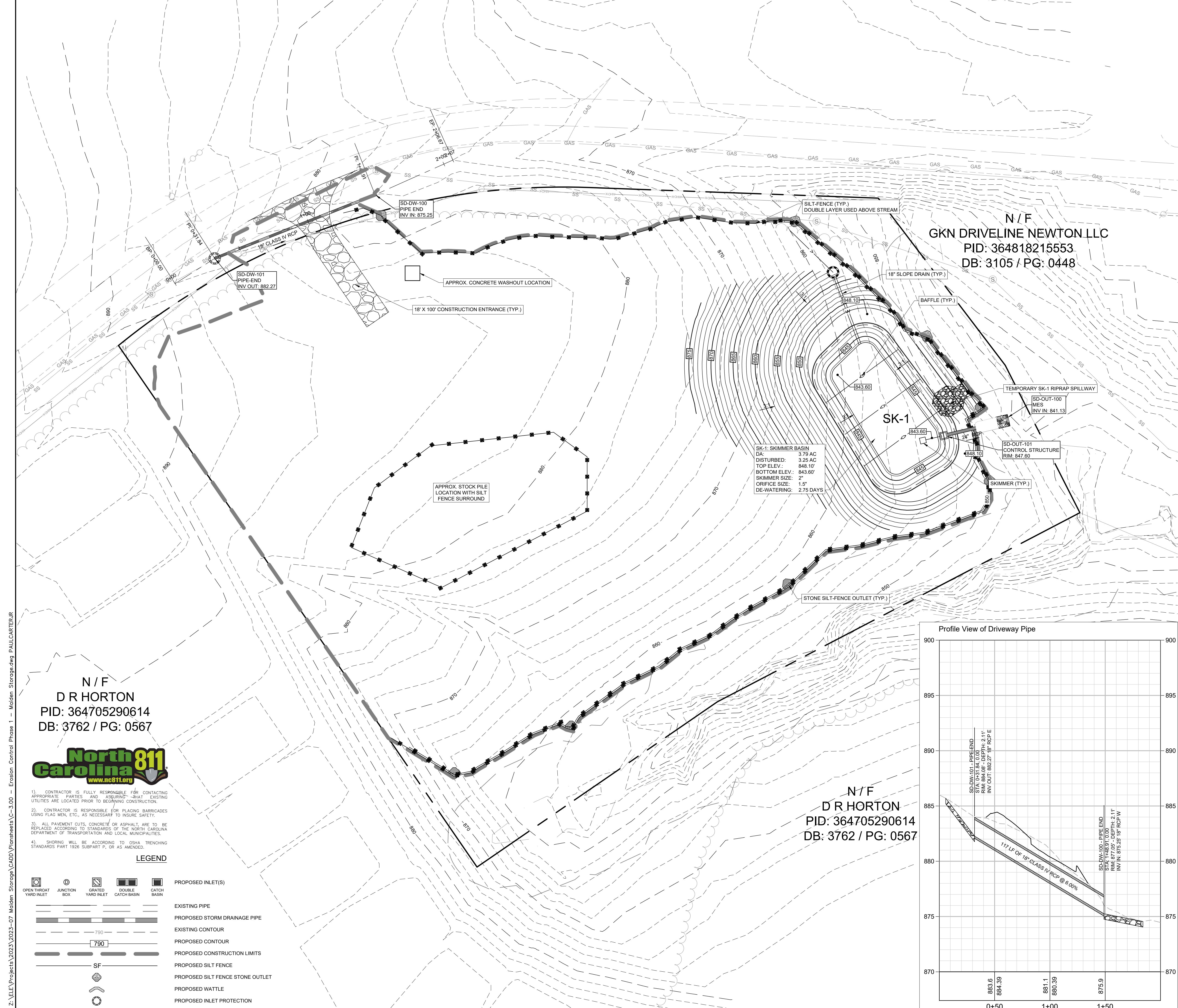
Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

Sheet Title:  
**Site Details**

Sheet Number:  
**C-2.02**



**NARRATIVE**  
**Maiden Mini-Storage** is a self-storage facility project located within the Town of Maiden, Catawba County, North Carolina. The total disturbed acreage for the proposed site development is **3.25 AC**. The scope of work includes clearing, stripping and grading, construction of erosion control and stormwater control measures, grass-lined ditches, storm drainage pipes, utilities, and paving.

**SITE LOCATION**  
 Latitude 35.603 N  
 Longitude 81.215 W

**FLOOD DATA**  
 THIS SITE IS NOT LOCATED WITHIN A DOCUMENTED FLOOD ZONE PER FEMA FLOOD INSURANCE RATE MAP.

COMMUNITY PANEL 3710364800J  
 EFFECTIVE DATE 9/5/2007

**SOIL DATA**  
 BASED ON SCS SOIL SURVEY MAP, SITE CONSISTS PREDOMINATELY OF:

% OF SITE	SOIL TYPE	%SLOPE
61.0%	PaE3 Paolet Sandy Clay Loam	10 TO 25
39.0%	LoB Lloyd Loam	2 TO 6

THE SOIL HYDROLOGIC GROUP IS PREDOMINATELY "C"

**RECEIVING WATERS**  
 WATER IS RECEIVED DOWNSTREAM BY: PINCH CREEK  
 WATERSHED: CATAWBA RIVER BASIN  
 STREAM INDEX#: 11-129-5-7  
 STREAM CLASS C  
 DATE OF CLASSIFICATION: August 31, 1974

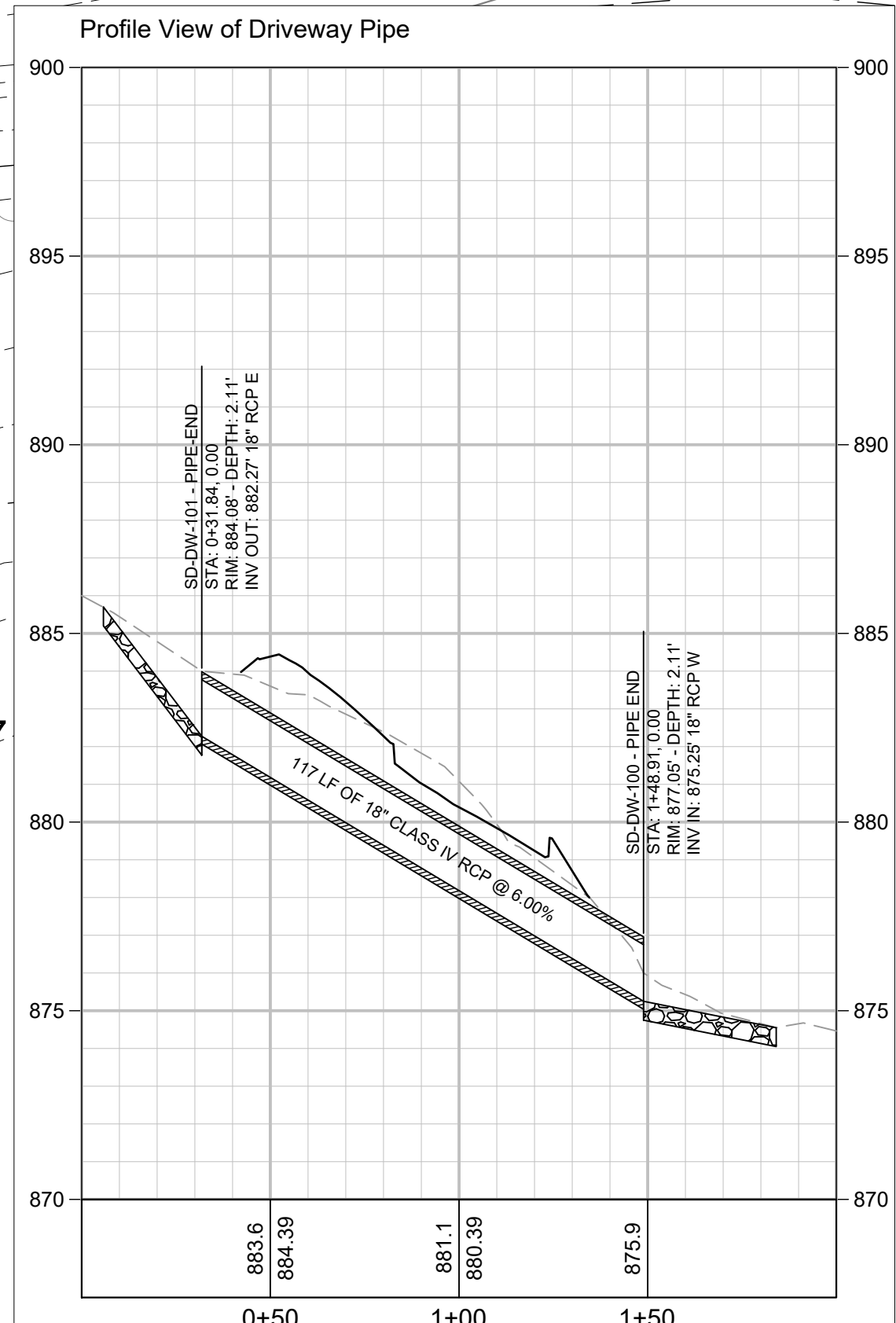
- CONSTRUCTION SEQUENCE:**
- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM CATAWBA.
  - SET UP A ON-SITE PRE-CONSTRUCTION CONFERENCE WITH AN INSPECTOR WITH TOM HORTON OF CATAWBA COUNTY ENGINEERING TO DISCUSS EROSION CONTROL MEASURES.
  - FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE.
  - COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURES.
  - THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
  - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
  - CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS: 1A AND 2A TO LIMIT THE DISTURBED AREA TO UNDER 20 ACRES AT ONE TIME.
  - THE BUILDER WILL BE RESPONSIBLE FOR CONTROLLING SEDIMENT ON EACH LOT DURING HOME CONSTRUCTION AND FOR
  - CLEANING AND/OR REPLACING SILT SACKS IN CATCH BASINS. (SEE DETAIL C-3.2 FOR INDIVIDUAL LOT EROSION CONTROL)

- PHASE 1**
- CLEAR ONLY AS NECESSARY TO INSTALL EROSION CONTROL MEASURES IN THIS PHASE.
  - INSTALL CONSTRUCTION ENTRANCE AND SILT FENCE.
  - INSTALL SKIMMER BASIN SK-1.
  - CALL EROSION INSPECTOR FOR APPROVAL PRIOR TO BEGINNING FULL GRADING OPERATION.

- PHASE 2**
- GRADE SITE TO FINAL GRADES AS SHOWN ON C-4.00.
  - CONSTRUCT STORM DRAINAGE AND UTILITIES.
  - INSTALL TEMPORARY INLET PROTECTION ON ALL DROP INLETS AND BASINS
  - SEED AND MULCH AREAS AS SPECIFIED.
  - INSTALL CURB & GUTTER, ASPHALT, AND BUILDING PADS.
  - ONCE DRAINAGE IS FUNCTIONAL, CONVERT SK-1 TO PERMANENT SCM-100.
  - CALL EROSION CONTROL INSPECTOR FOR APPROVAL AND FINAL RELEASE.

- EROSION CONTROL NOTES:**
- ON-SITE BURIAL PIT LOCATIONS MUST BE DOCUMENTED ON FINAL PLAN.
  - GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE STATE EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
  - NO MORE THAN 20 ACRES TO BE DISTURBED AT ONE TIME.
  - STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.
  - ALL AREAS ARE TO BE SEEDDED AND MULCHED PER THE NEW STABILIZATION TIMEFRAME TABLE ON SHEET C-3.2.
  - ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY.
  - MAXIMUM TEMPORARY GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED, PLANS SHALL BE SEALED BY A GEOTECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
  - ALL WORK IMPACTING STREAMS MUST HAVE APPROPRIATE NCDENR-DWQ AND U.S.A.C.E. (401/404) PERMITS.
  - ALL FLOW FROM PERMANENT TEMPORARY DITCHES SHOULD BE DIRECTED TOWARDS SEDIMENT TRAPS UNTIL SITE IS COMPLETELY STABILIZED.
  - ALL PERMANENT SLOPES STEEPER THAN 3:1 SHALL HAVE EROSION CONTROL MAT EQUIVALENT TO NORTH AMERICAN GREEN SOT5.
  - DEWATERING OF THE WORK AREA DIRECTLY INTO A STREAM, CREEK, WETLAND, ETC. IS PROHIBITED.
  - THE MINIMUM BUFFER FOR ALL NATURAL WATER COURSES IS CALCULATED AT 35 FT.
  - IF THE NEED ARISES FOR ANY OFF-SITE BORROW OR SPILL SITE DURING CONSTRUCTION, SUBMIT A REVISION THAT DEMONSTRATES EROSION CONTROL FOR THE AREA AND ACCOUNT FOR THE ADDITIONAL ACREAGE IN THE REVIEW FEE IF AN APPROVED SITE.

- MAINTENANCE PLAN:**  
 THE FOLLOWING MAINTENANCE PLAN SHALL BE FOLLOWED UNTIL THE SITE IS COMPLETELY STABILIZED AFTER CONSTRUCTION. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL STRUCTURES.
- ALL EROSION CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING ANY RAINFALL PRODUCING RUNOFF AND AT LEAST ONCE EVERY WEEK. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY SO THAT ALL EROSION CONTROL MEASURES ARE MAINTAINED AS DESIGNED.
  - ALL SEEDDED AREAS WILL BE FERTILIZED, RESEEDDED AS NECESSARY, AND MULCHED IN ACCORDANCE WITH THE SEEDING SPECIFICATIONS IN ORDER TO MAINTAIN A DENSE VEGETATIVE COVER.
  - SEDIMENT DEPOSITS SHALL BE REMOVED FROM SEDIMENT FENCE AFTER EACH STORM EVENT OR SEDIMENT FENCE SHOULD BE REPLACED. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDDED.
  - SKIMMER/SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE LEVEL REACHES THE MID-DEPTH POINT BELOW THE WEIR ELEVATION. WASHED STONE SHALL BE CLEANED OR REPLACED WHEN THE BASIN NO LONGER DRAINS PROPERLY.
  - SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND WATTLES AFTER EACH STORM EVENT. ALL WATTLES SHALL BE CHECKED, RESTAKED, OR REPLACED IF NECESSARY.
  - ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY REDELL COUNTY.



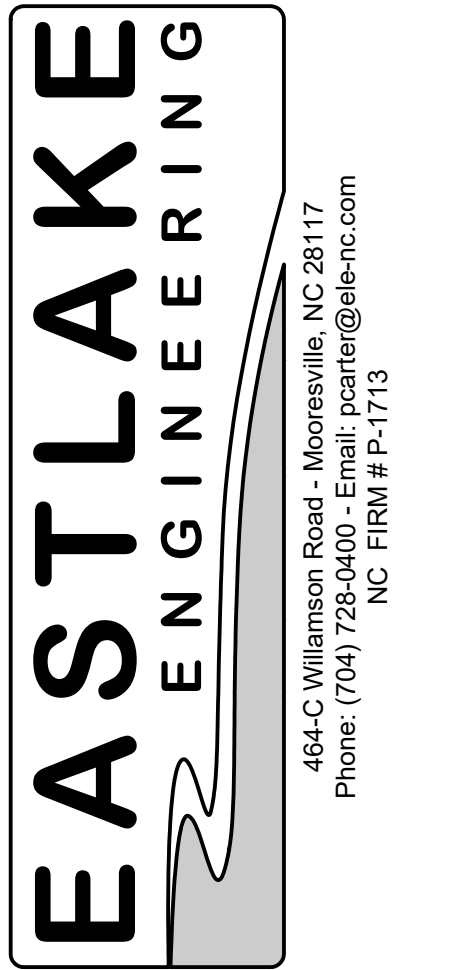
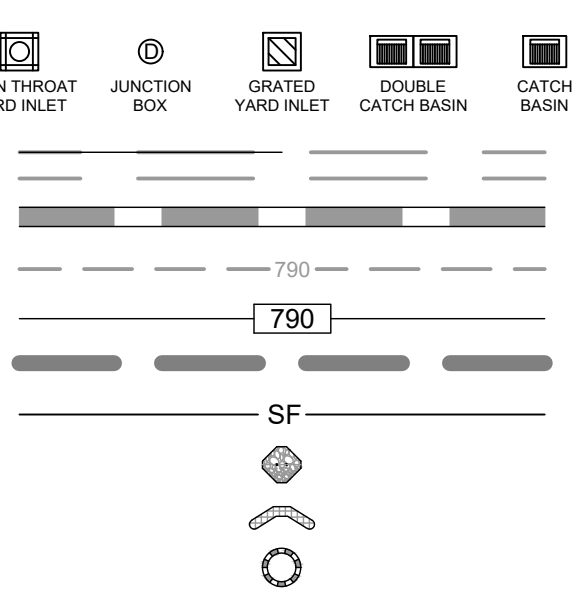
SK-1: SKIMMER BASIN  
 DA: 3.73 AC  
 DISTURBED: 3.25 AC  
 TOP ELEV.: 848.10'  
 BOTTOM ELEV.: 843.60'  
 SKIMMER SIZE: 7'  
 ORIFICE SIZE: 1.5"  
 DE-WATERING: 2.75 DAYS

N / F  
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 PID: 364705290614  
 DB: 3762 / PG: 0567



- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC., AS NECESSARY TO INSURE SAFETY.
- ALL PAVEMENT OUTFITS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND LOCAL MUNICIPALITIES.
- SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

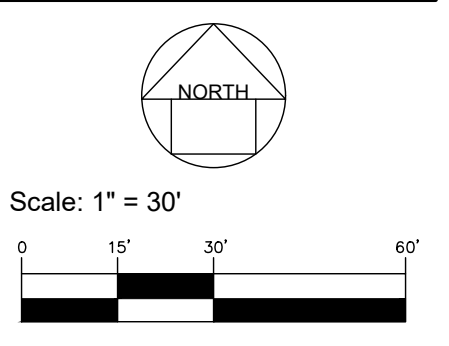
**LEGEND**



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 Denver, NC 28037

Sheet Title:  
**Erosion Control Plan Phase 1**

Sheet Number:  
**C-3.00**

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**NARRATIVE**  
Maiden Mini-Storage is a self-storage facility project located within the Town of Maiden, Catawba County, North Carolina. The total disturbed acreage for the proposed site development is **3.25 AC**. The scope of work includes clearing, stripping and grading, construction of erosion control and stormwater control measures, grass-lined ditches, storm drainage pipes, utilities, and paving.

**SITE LOCATION**  
Latitude 35.603 N  
Longitude 81.215 W

**FLOOD DATA**  
THIS SITE IS NOT LOCATED WITHIN A DOCUMENTED FLOOD ZONE PER FEMA FLOOD INSURANCE RATE MAP.

COMMUNITY PANEL 3710364800J  
EFFECTIVE DATE 9/5/2007

**SOIL DATA**  
BASED ON SCS SOIL SURVEY MAP, SITE CONSISTS PREDOMINATELY OF:

% OF SITE	SOIL TYPE	%SLOPE
61.0%	PaE3 Paolet Sandy Clay Loam	10 TO 25
39.0%	LoB Lloyd Loam	2 TO 6

THE SOIL HYDROLOGIC GROUP IS PREDOMINATELY "C"

**RECEIVING WATERS**  
WATER IS RECEIVED DOWNSTREAM BY: PINCH CREEK  
WATERSHED: CATAWBA RIVER BASIN  
STREAM INDEX#: 11-129-5-7  
STREAM CLASS: C  
DATE OF CLASSIFICATION: August 31, 1974

- CONSTRUCTION SEQUENCE:**
- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM CATAWBA.
  - SET UP A ON-SITE PRE-CONSTRUCTION CONFERENCE WITH AN INSPECTOR WITH TOWN ENGINEER OF CATAWBA COUNTY ENGINEERING TO DISCUSS EROSION CONTROL MEASURES.
  - FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE.
  - COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURES.
  - THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
  - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
  - CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS: 1A AND 2A TO LIMIT THE DISTURBED AREA TO UNDER 20 ACRES AT ONE TIME.
  - THE BUILDER WILL BE RESPONSIBLE FOR CONTROLLING SEDIMENT ON EACH LOT DURING HOME CONSTRUCTION AND FOR
  - CLEANING AND/OR REPLACING SILT SACKS IN CATCH BASINS. (SEE DETAIL C-3.2 FOR INDIVIDUAL LOT EROSION CONTROL)

- PHASE 1**
- CLEAR ONLY AS NECESSARY TO INSTALL EROSION CONTROL MEASURES IN THIS PHASE.
  - INSTALL CONSTRUCTION ENTRANCE AND SILT FENCE.
  - INSTALL SKIMMER BASIN SK-1.
  - CALL EROSION INSPECTOR FOR APPROVAL PRIOR TO BEGINNING FULL GRADING OPERATION.
- PHASE 2**
- GRADE SITE TO FINAL GRADES AS SHOWN ON C-4.00.
  - CONSTRUCT STORM DRAINAGE AND UTILITIES.
  - INSTALL TEMPORARY INLET PROTECTION ON ALL DROP INLETS AND BASINS.
  - SEED AND MULCH AREAS AS SPECIFIED.
  - INSTALL CURB & GUTTER, ASPHALT, AND BUILDING PADS.
  - ONCE DRAINAGE IS FUNCTIONAL, CONVERT SK-1 TO PERMANENT SCM-100.
  - CALL EROSION CONTROL INSPECTOR FOR APPROVAL AND FINAL RELEASE.

- EROSION CONTROL NOTES:**
- ON-SITE BURIAL PIT LOCATIONS MUST BE DOCUMENTED ON FINAL PLAN.
  - GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE STATE EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
  - NO MORE THAN 20 ACRES TO BE DISTURBED AT ONE TIME.
  - STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENuded AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.
  - ALL AREAS ARE TO BE SEEDED AND MULCHED PER THE NEW STABILIZATION TIMEFRAME TABLE ON SHEET C-3.2.
  - ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY.
  - MAXIMUM TEMPORARY GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED, PLANS SHALL BE SEALED BY A GEOTECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
  - ALL WORK IMPACTING STREAMS MUST HAVE APPROPRIATE NCDENR-DWQ AND U.S.A.C.E. (401/404) PERMITS.
  - ALL FLOW FROM PERMANENT TEMPORARY DITCHES SHOULD BE DIRECTED TOWARDS SEDIMENT TRAPS UNTIL SITE IS COMPLETELY STABILIZED.
  - ALL PERMANENT SLOPES STEEPER THAN 3:1 SHALL HAVE EROSION CONTROL MAT EQUIVALENT TO NORTH AMERICAN GREEN SOT5.
  - DEWATERING OF THE WORK AREA DIRECTLY INTO A STREAM, CREEK, WETLAND, ETC. IS PROHIBITED.
  - THE MINIMUM BUFFER FOR ALL NATURAL WATER COURSES IS CALCULATED AT 35 FT.
  - IF THE NEED ARISES FOR ANY OFF-SITE BORROW OR SPILL SITE DURING CONSTRUCTION, SUBMIT A REVISION THAT DEMONSTRATES EROSION CONTROL FOR THE AREA AND ACCOUNT FOR THE ADDITIONAL ACREAGE IN THE REVIEW FEE IF AN APPROVED SITE.

**MAINTENANCE PLAN:**  
THE FOLLOWING MAINTENANCE PLAN SHALL BE FOLLOWED UNTIL THE SITE IS COMPLETELY STABILIZED AFTER CONSTRUCTION. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL STRUCTURES.

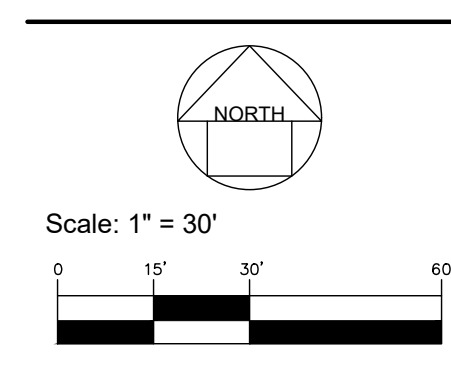
- ALL EROSION CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING ANY RAINFALL PRODUCING RUNOFF AND AT LEAST ONCE EVERY WEEK. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY SO THAT ALL EROSION CONTROL MEASURES ARE MAINTAINED AS DESIGNED.
- ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED IN ACCORDANCE WITH THE SEEDING SPECIFICATIONS IN ORDER TO MAINTAIN A DENSE VEGETATIVE COVER.
- SEDIMENT DEPOSITS SHALL BE REMOVED FROM SEDIMENT FENCE AFTER EACH STORM EVENT OR SEDIMENT FENCE SHOULD BE REPLACED. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- SKIMMER/SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE LEVEL REACHES THE MID-DEPTH POINT BELOW THE WEIR ELEVATION. WASHED STONE SHALL BE CLEANED OR REPLACED WHEN THE BASIN NO LONGER DRAINS PROPERLY.
- SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND WATTLES AFTER EACH STORM EVENT. ALL WATTLES SHALL BE CHECKED, RESTAKED, OR REPLACED IF NECESSARY.
- ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY REDELL COUNTY.

PROJECT #: 2023-07  
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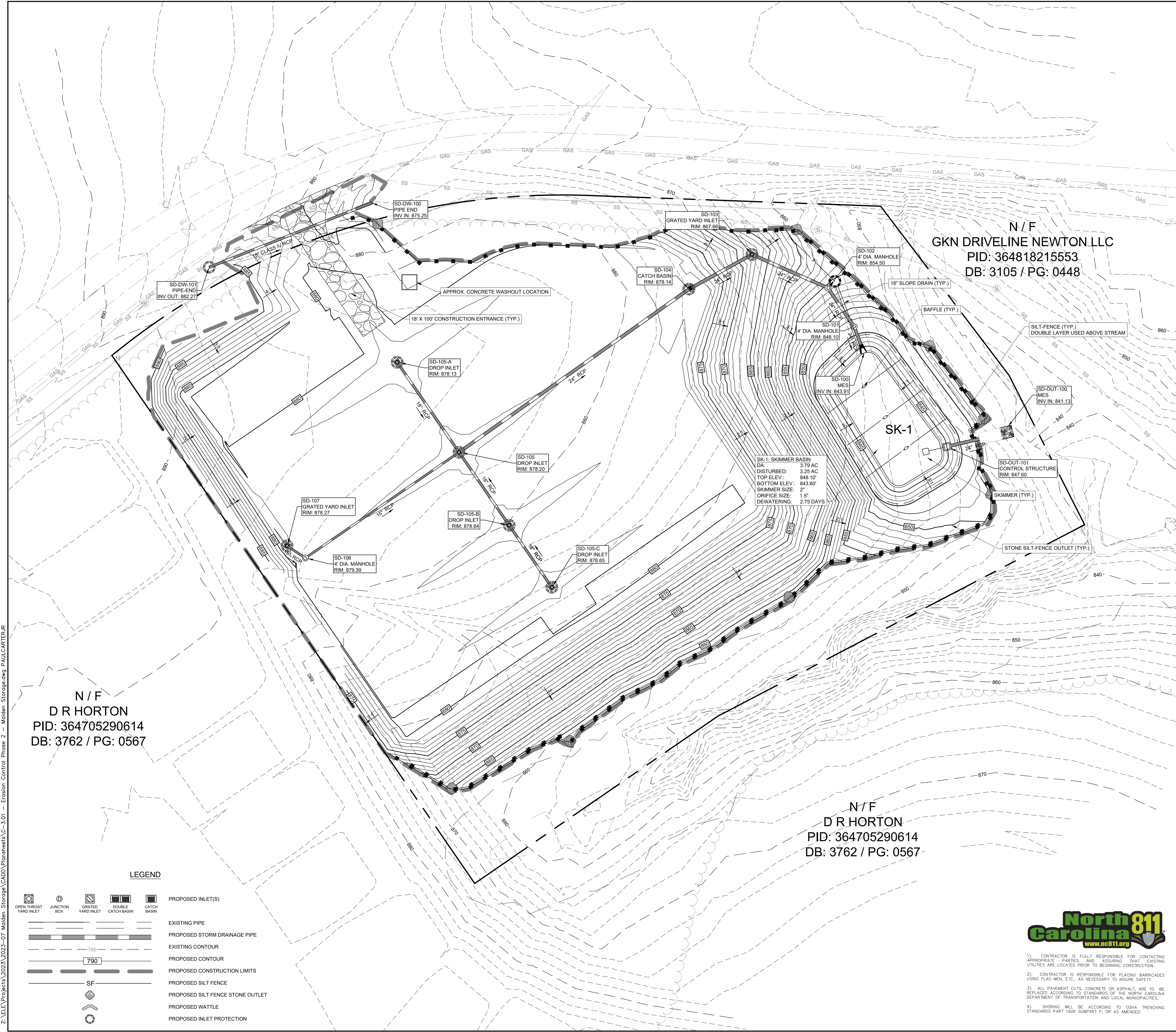
Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

Sheet Title:  
**Erosion Control Plan Phase 2**

Sheet Number:  
**C-3.01**



**SK-1: SKIMMER BASIN**  
DA: 3.73 AC  
DISTURBED: 3.25 AC  
TOP ELEV.: 848.10'  
BOTTOM ELEV.: 843.60'  
SKIMMER SIZE: 7'  
ORIFICE SIZE: 1.5"  
DEWATERING: 2.75 DAYS

N / F  
D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

N / F  
D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

**LEGEND**

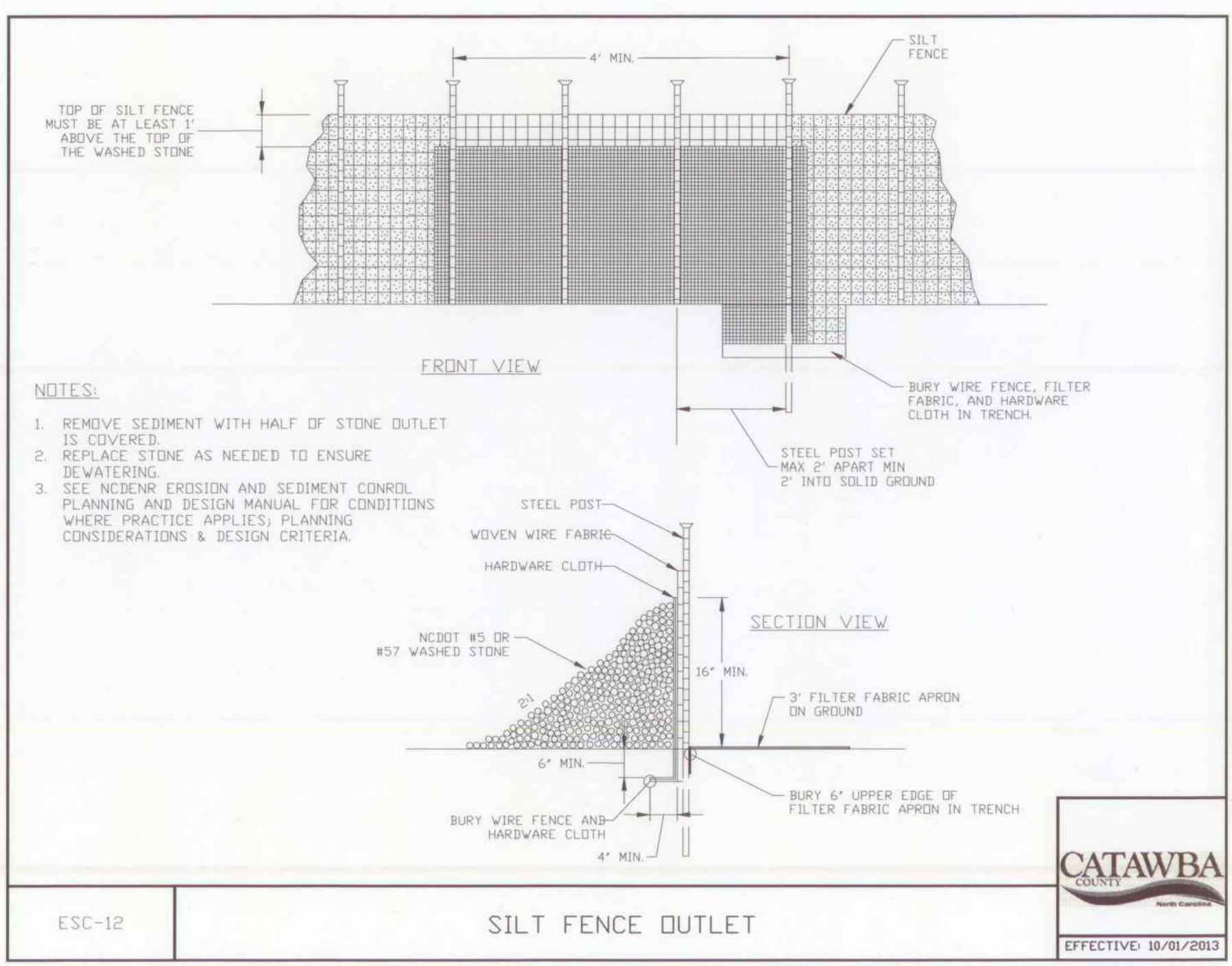
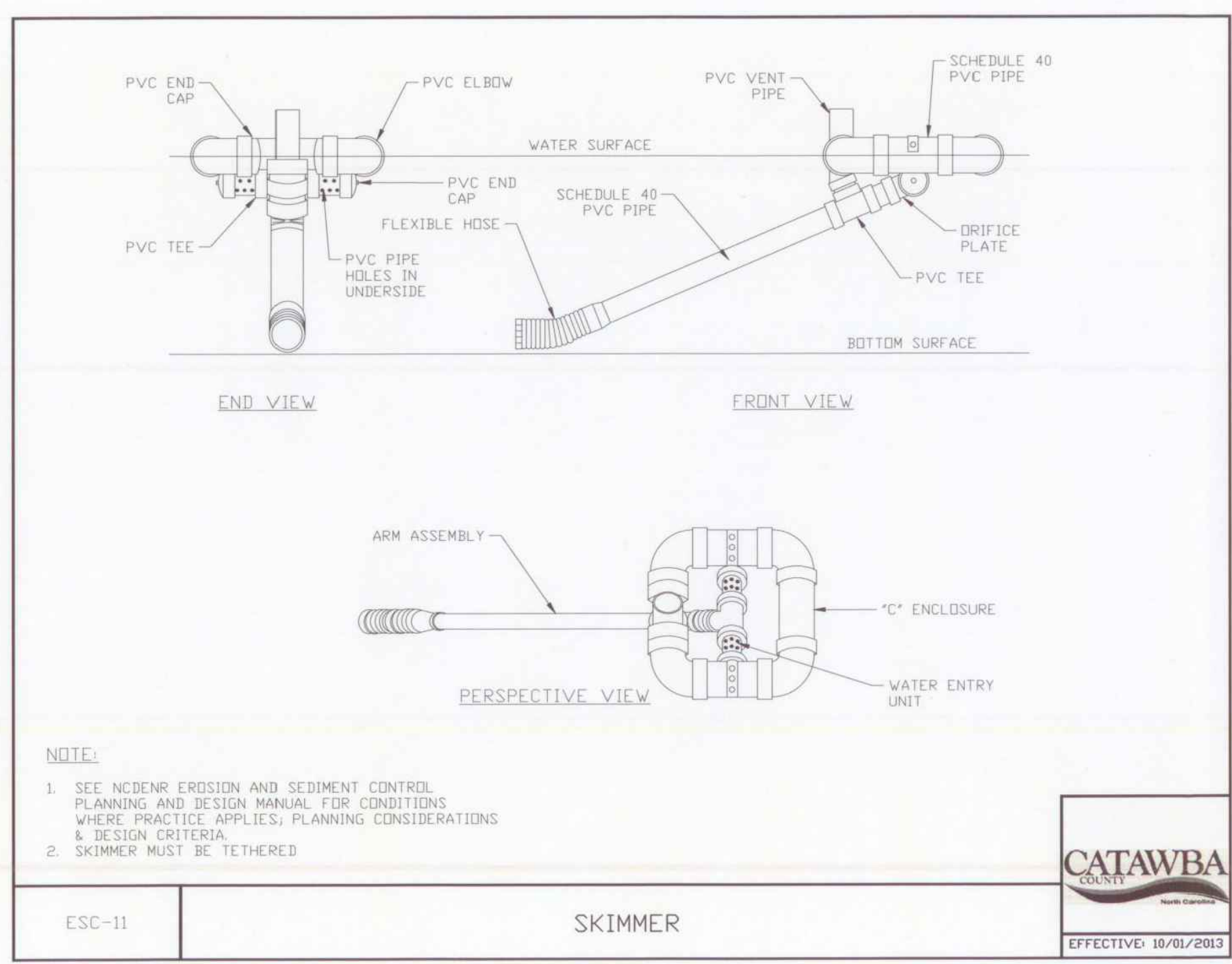
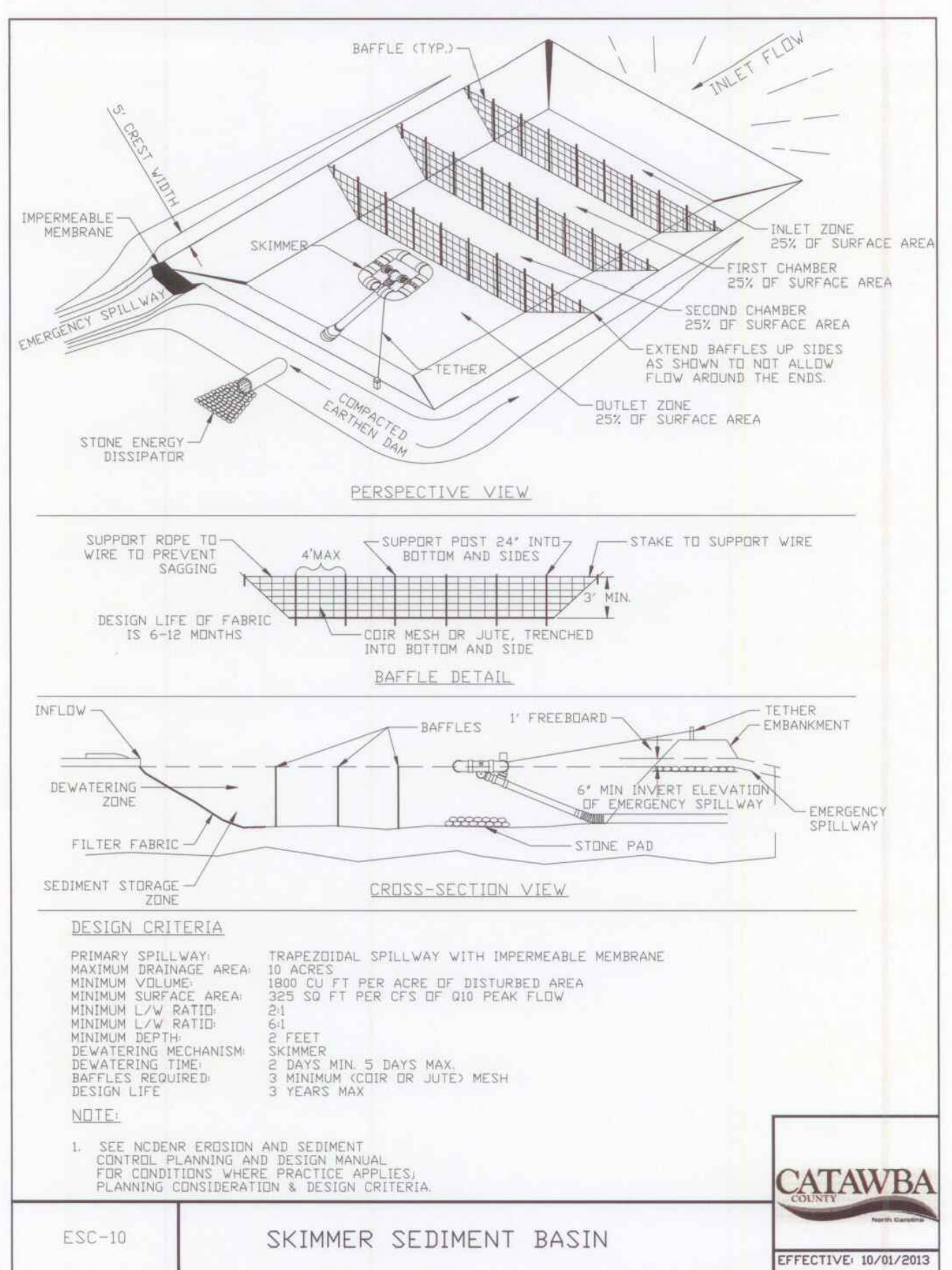
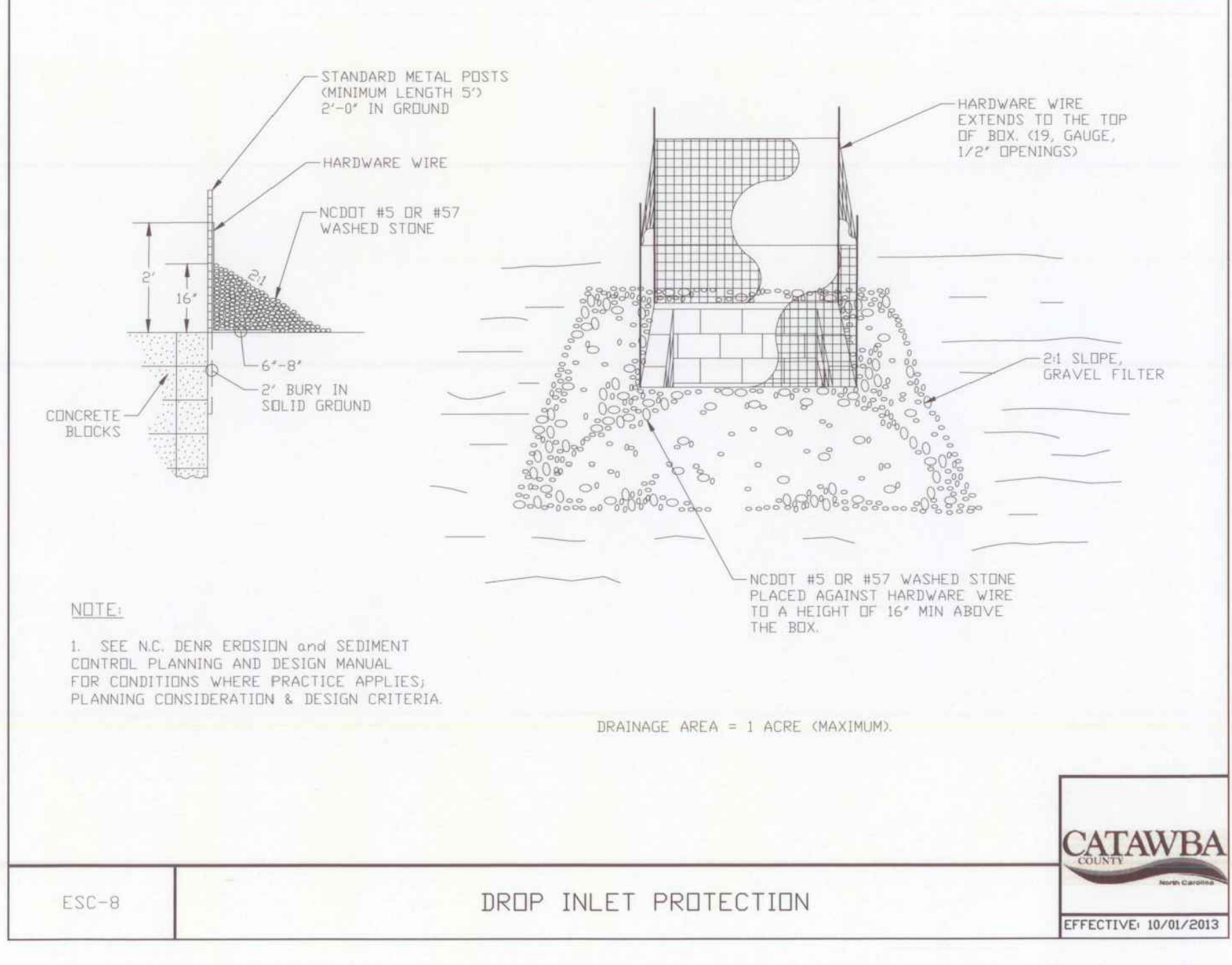
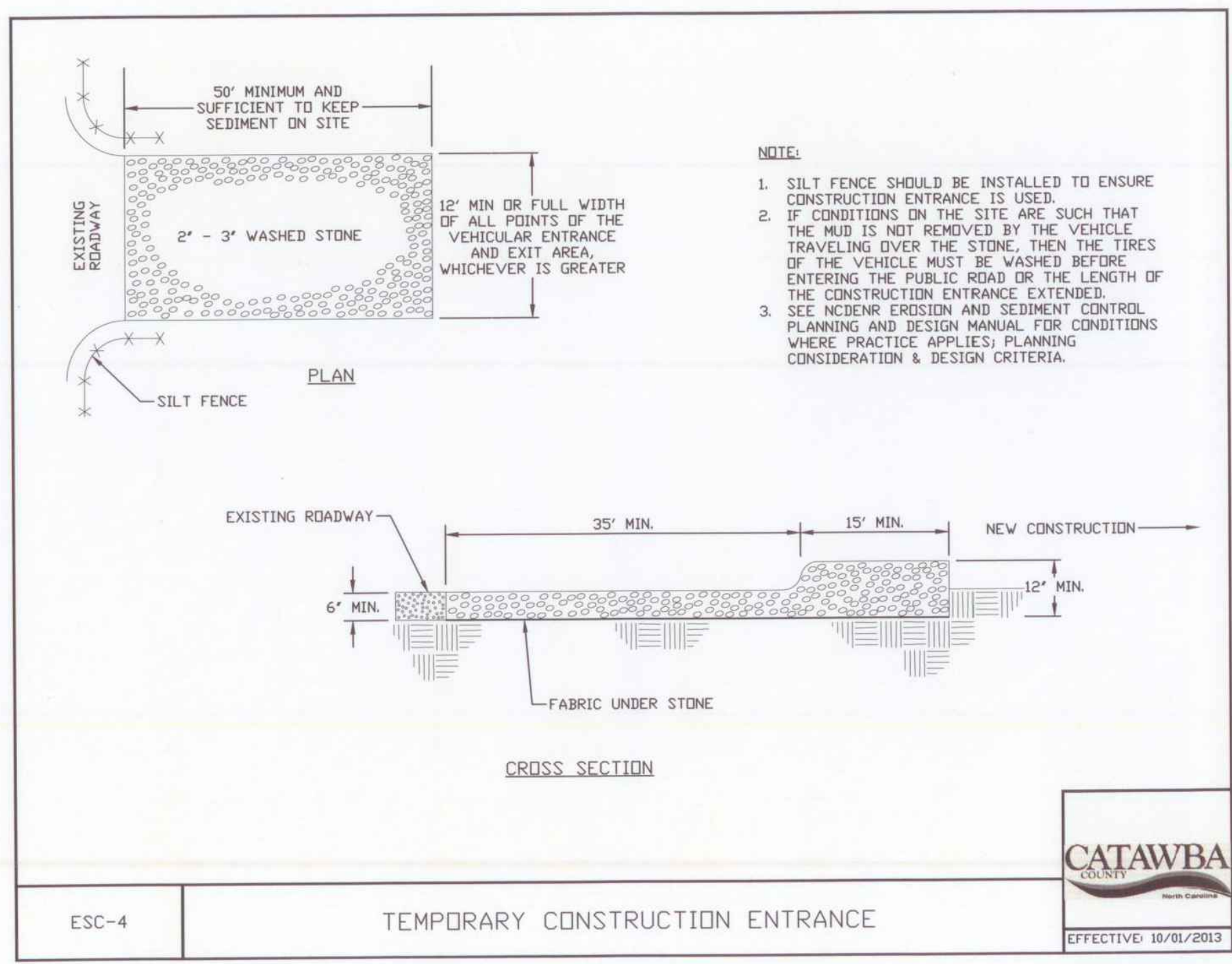
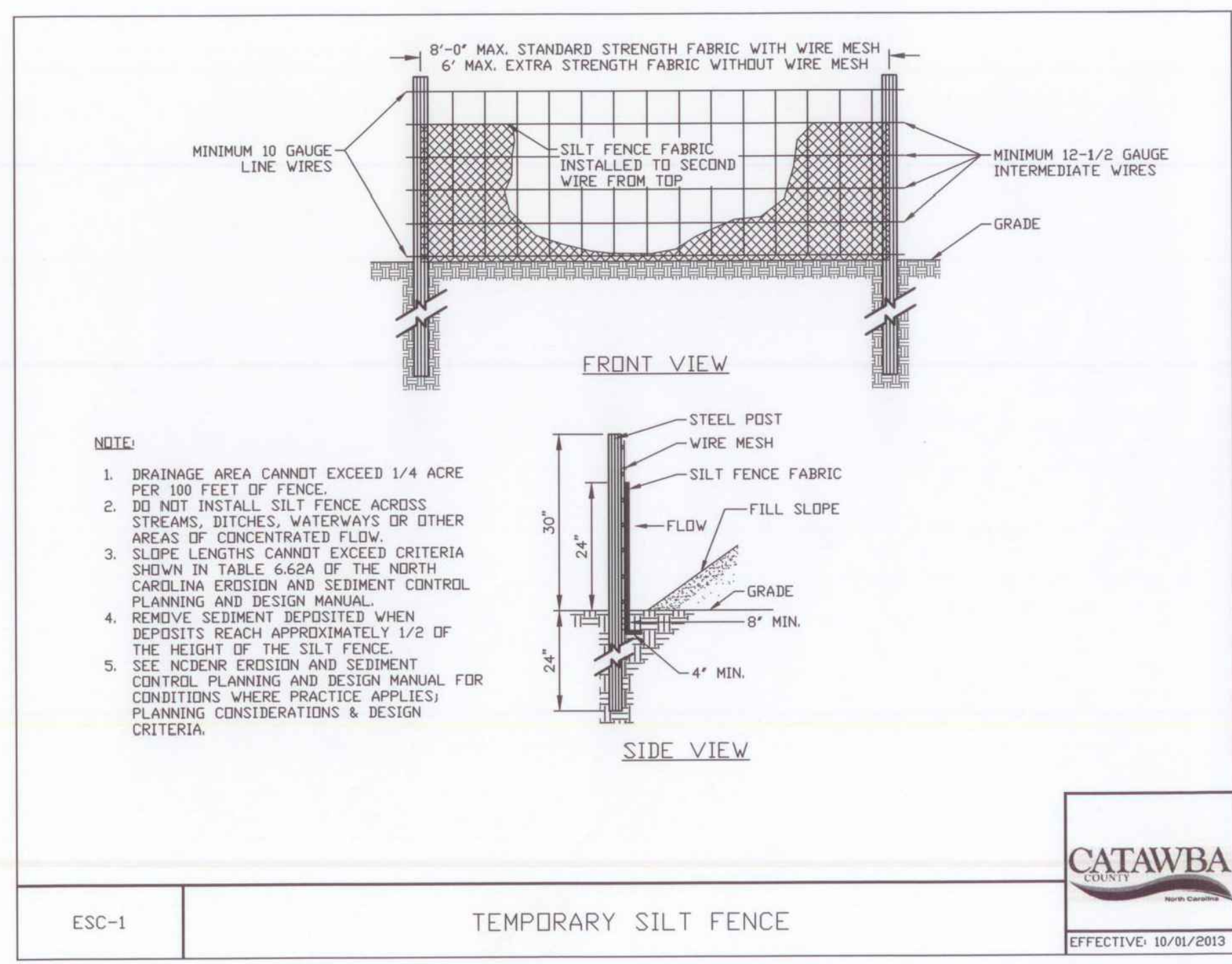
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|--|----------------------------------|--|------------------------------|
|  | OPEN THROAT YARD INLET           |  | PROPOSED INLET(S)            |
|  | JUNCTION BOX                     |  | EXISTING PIPE                |
|  | GRATED YARD INLET                |  | PROPOSED STORM DRAINAGE PIPE |
|  | DOUBLE CATCH BASIN               |  | EXISTING CONTOUR             |
|  | CATCH BASIN                      |  | PROPOSED CONTOUR             |
|  | PROPOSED CONSTRUCTION LIMITS     |  | PROPOSED SILT FENCE          |
|  | PROPOSED SILT FENCE STONE OUTLET |  | PROPOSED WATTLE              |
|  | PROPOSED INLET PROTECTION        |  |                              |



- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC., AS NECESSARY TO INSURE SAFETY.
- ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND LOCAL MUNICIPALITIES.
- SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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BASIN ID	DRAINAGE AREA ACRES	DENUDED AREA ACRES	C	Q10 CFS	VOLUME		SURFACE AREA		DIMENSIONS		CLEANOUT				TOP OF DAM W FT	WEIR LENGTH WL FT	SKIMMER	
					REQUIRED FT <sup>3</sup>	PROVIDED FT <sup>3</sup>	REQUIRED FT <sup>2</sup>	PROVIDED FT <sup>2</sup>	L FT	L/2 FT	DEPTH H/2 FT	H FT	T FT	Z FT			PIPE DIA. IN	ORIFICE IN
SK-1	3.79	3.25	0.6	12.80	5,850	13,311	4,161	5,742	99	58	1	3	1.5	4.5	878.10	10	2	1.5

464-C Williamson Road - Mooresville, NC 28117  
Phone: (704) 728-0400 - Email: paulcarter@eastlake.com  
NC FIRM # P-1713

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PROJECT #: 2023-07

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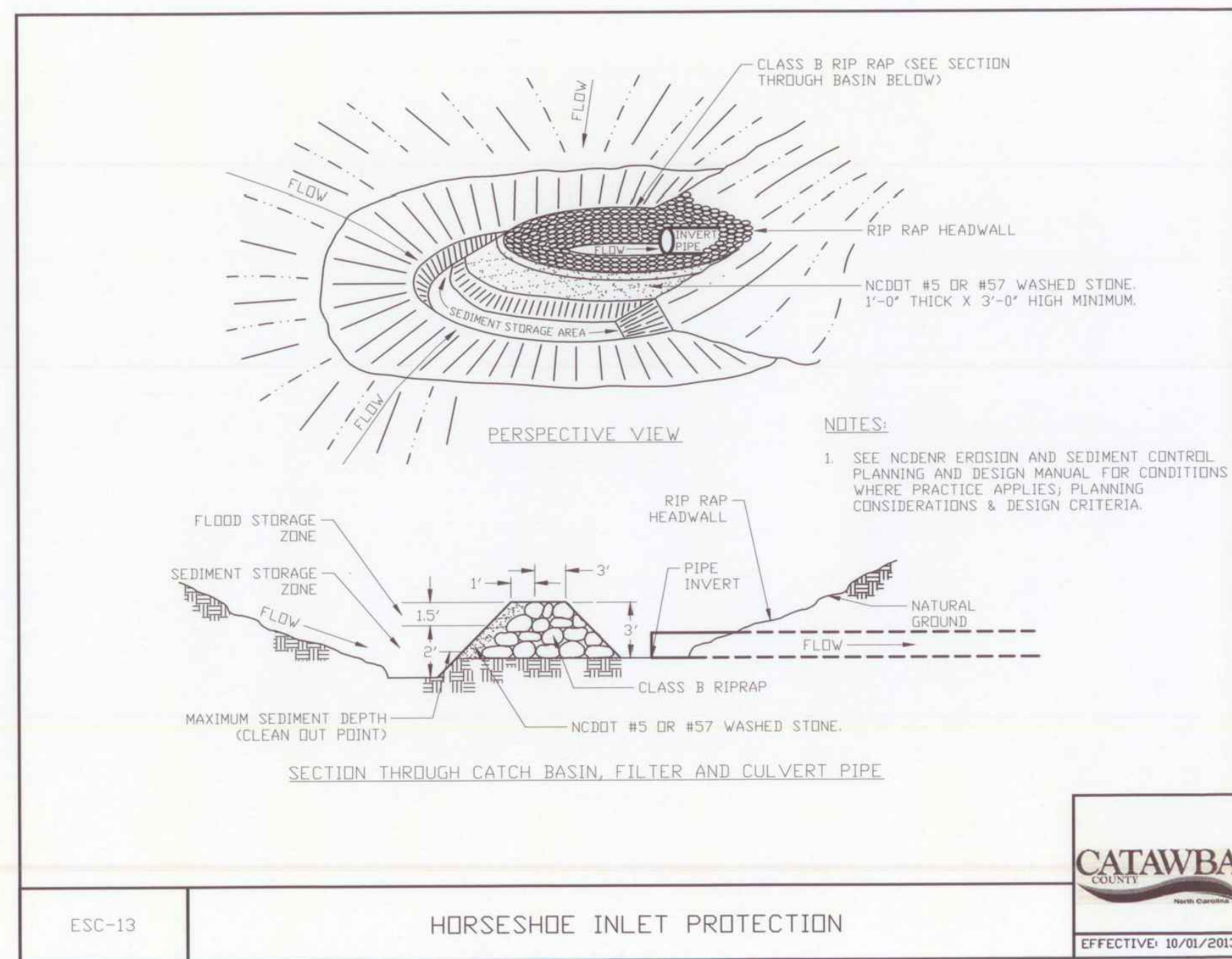
Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

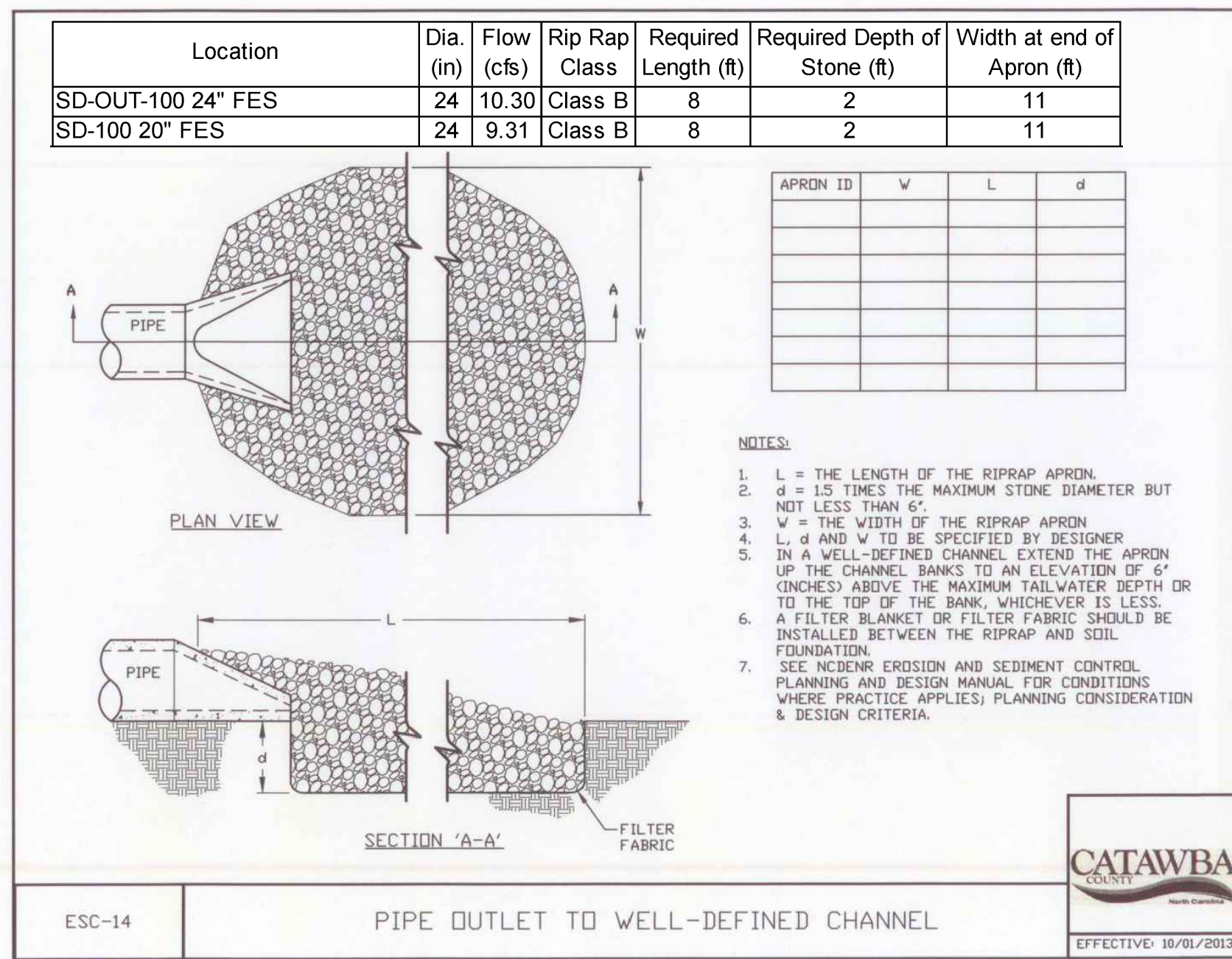
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Sheet Title:  
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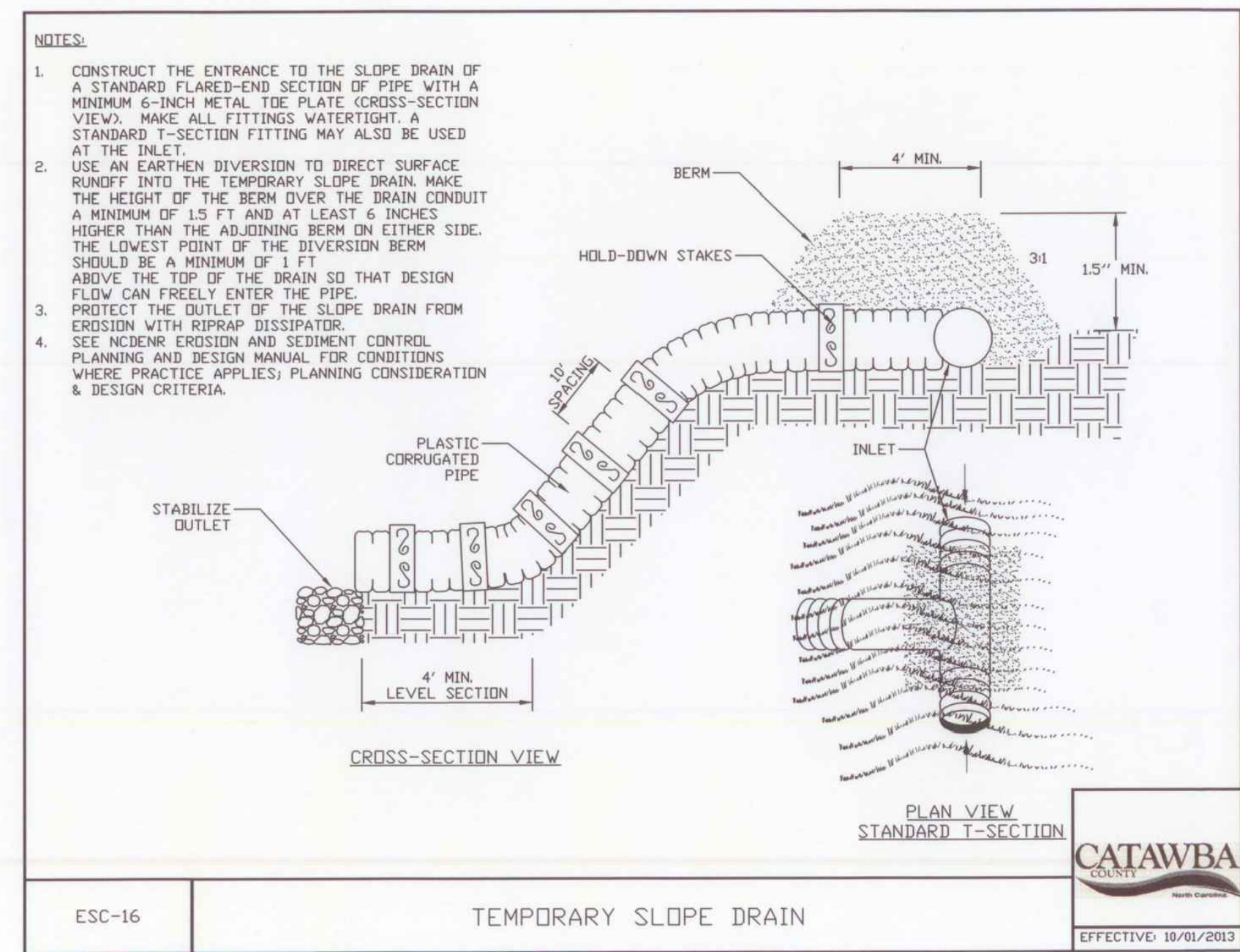
Sheet Number:  
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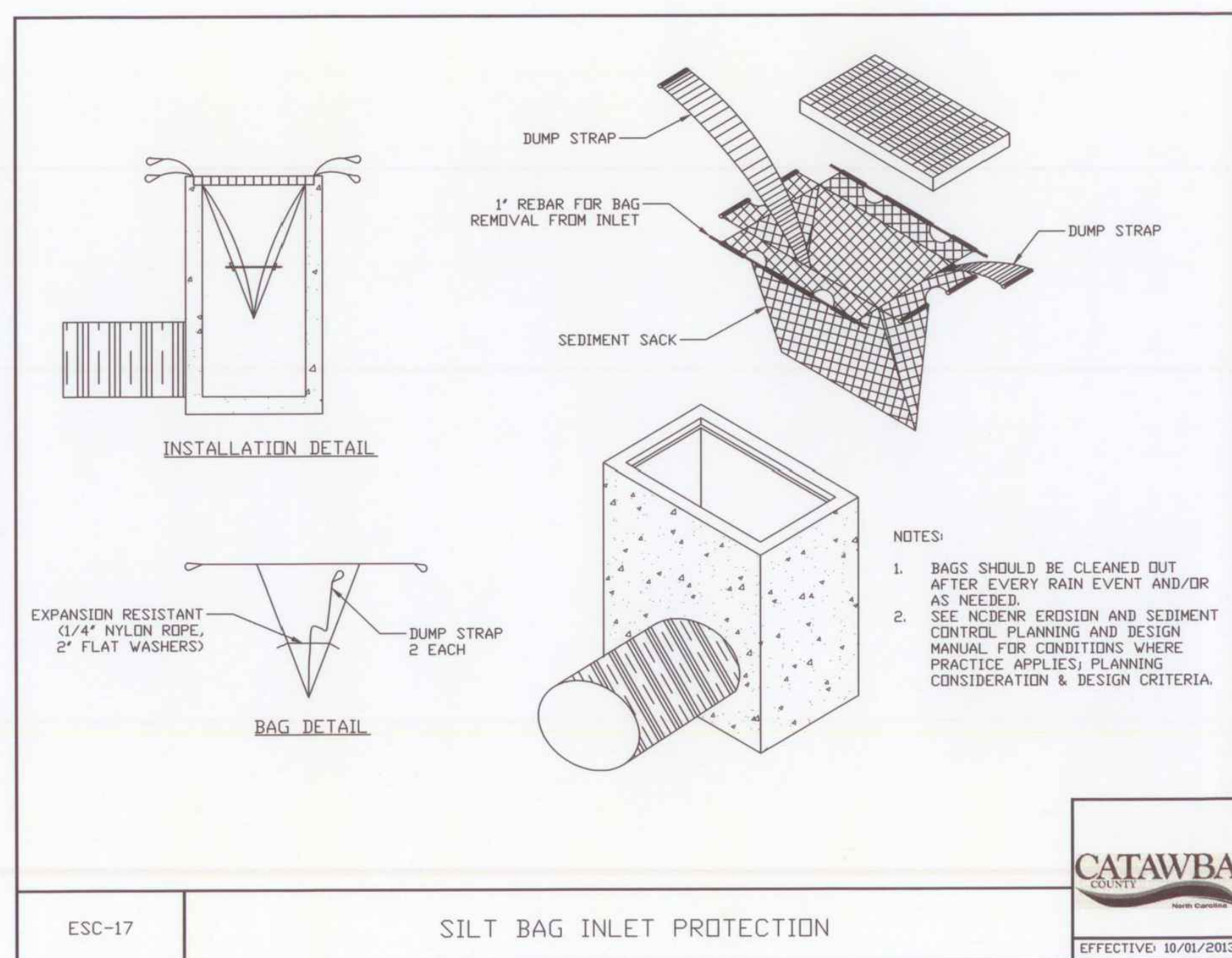
ESC-13 HORSESHOE INLET PROTECTION EFFECTIVE: 10/01/2013



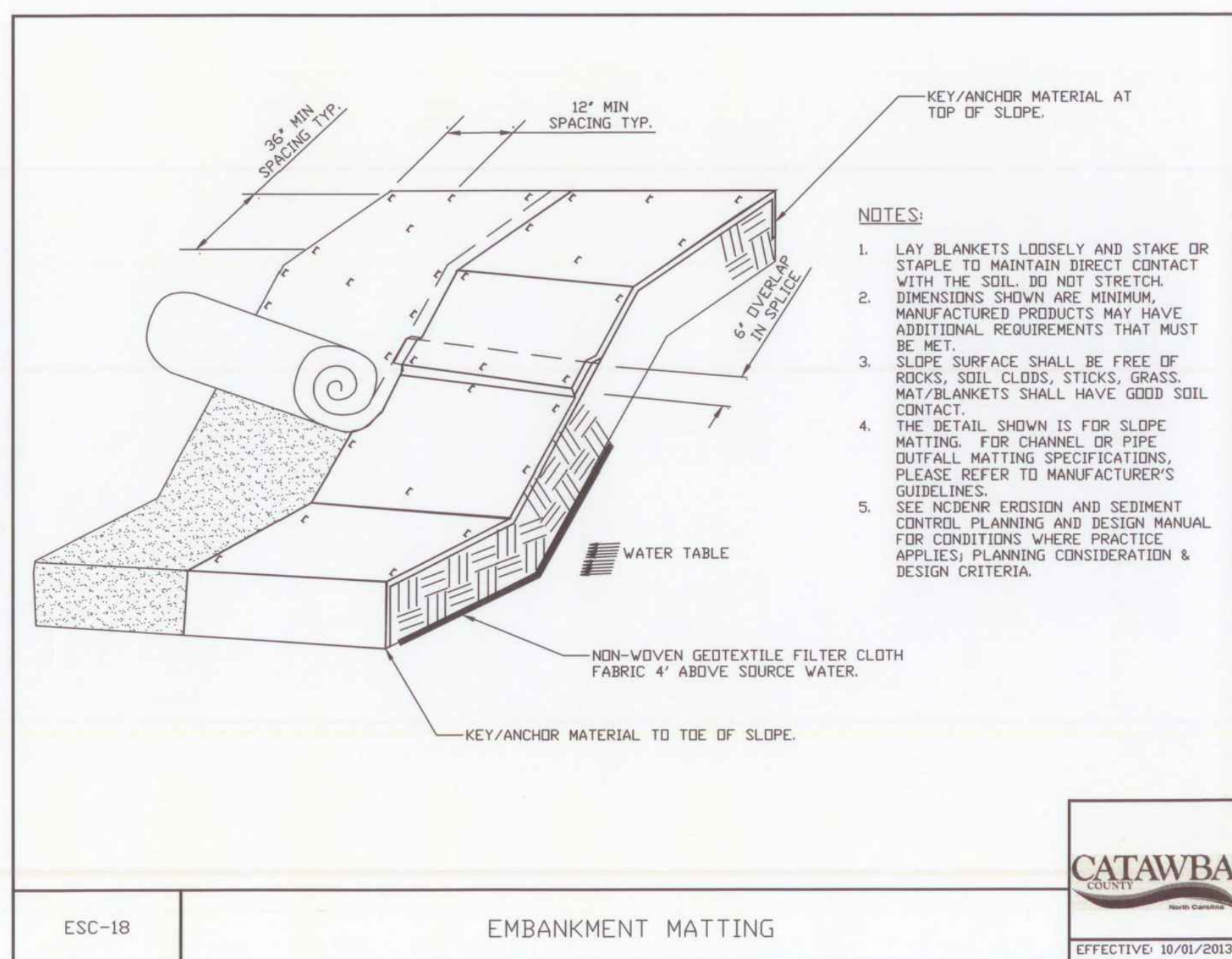
ESC-14 PIPE OUTLET TO WELL-DEFINED CHANNEL EFFECTIVE: 10/01/2013



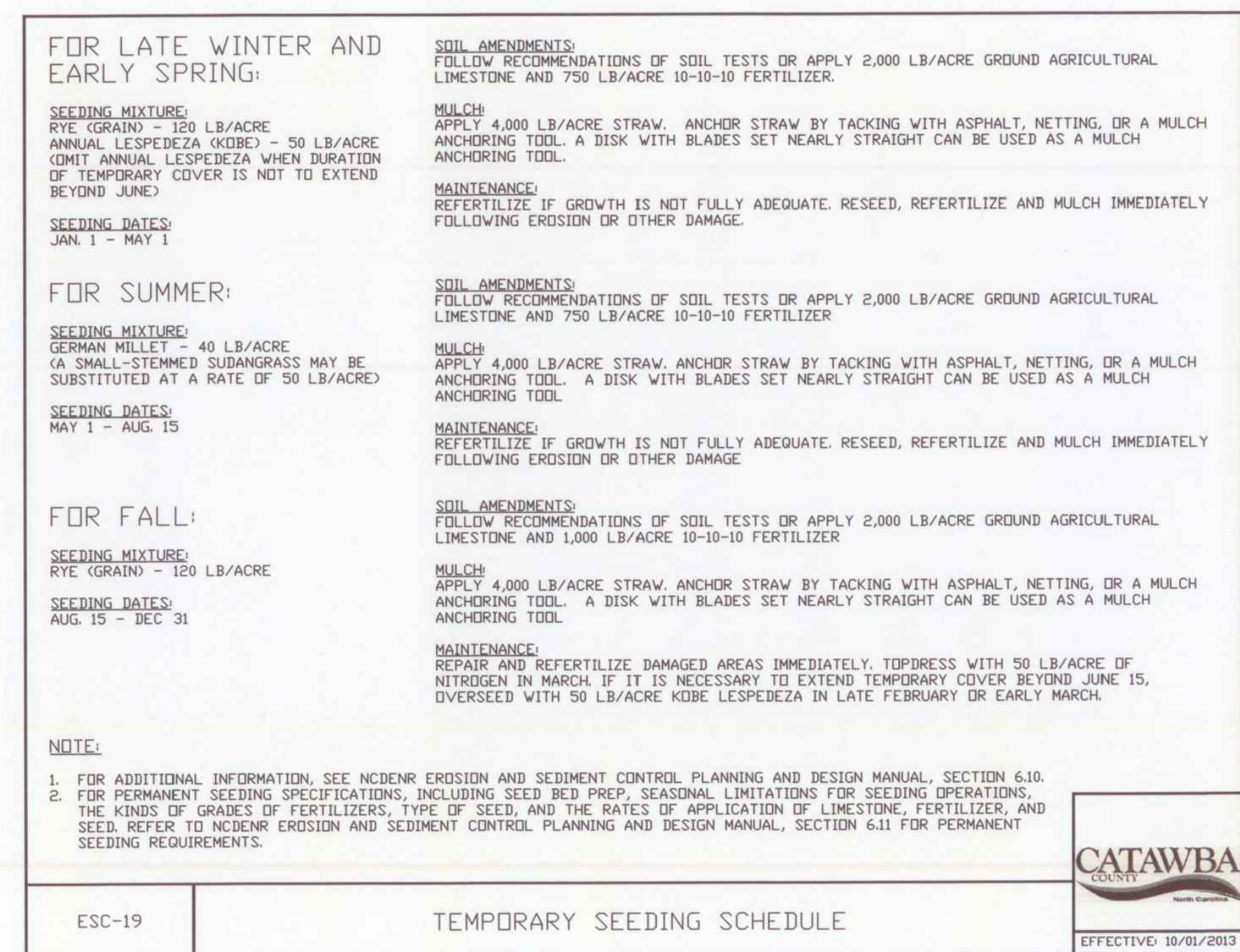
ESC-16 TEMPORARY SLOPE DRAIN EFFECTIVE: 10/01/2013



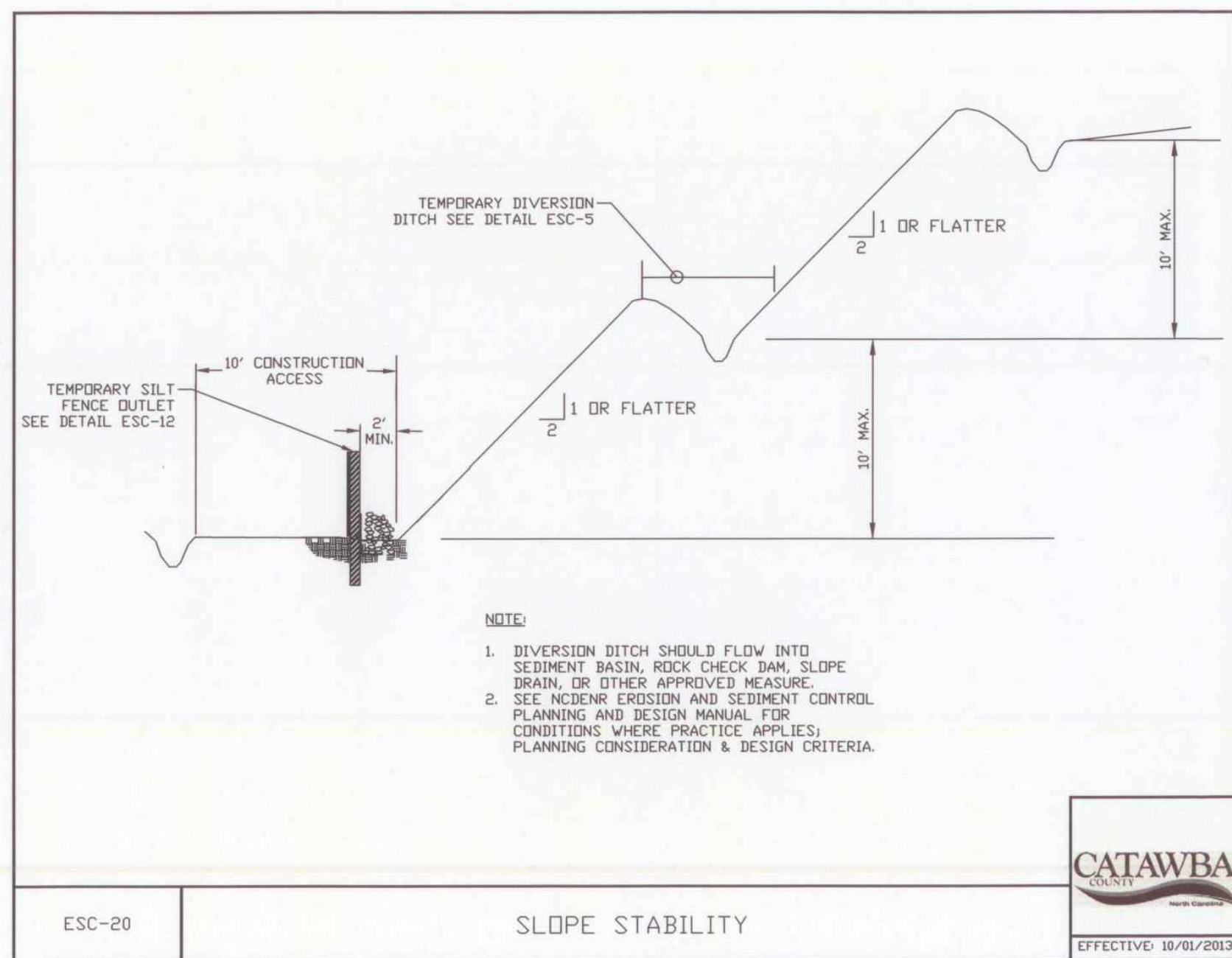
ESC-17 SILT BAG INLET PROTECTION EFFECTIVE: 10/01/2013



ESC-18 EMBANKMENT MATTING EFFECTIVE: 10/01/2013



ESC-19 TEMPORARY SEEDING SCHEDULE EFFECTIVE: 10/01/2013



ESC-20 SLOPE STABILITY EFFECTIVE: 10/01/2013

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**EASTLAKE ENGINEERING**

464-C Williamson Road - Mooresville, NC 28117  
 Phone: (704) 728-0000 - Email: paulcarter@eastlake.com  
 NC FIRM # P-1713

PROJECT #: 2023-07  
 DRAWN: JR CHECKED: PC  
 SEAL:  
 PRELIMINARY  
 NOT FOR CONSTRUCTION

REVISIONS:

Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

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 Denver, NC 28037

Sheet Title:  
**Erosion Control Details - B**

Sheet Number:  
**C-3.03**

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**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
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Roller erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Roller erosion control products with grass seed</li> </ul>

**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 offsite.
- 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 project.
- 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.

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

- 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.
- 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.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

**PORTABLE TOILETS**

- 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.

**EARTHEN STOCKPILE MANAGEMENT**

- 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.
- 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.

**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 lot perimeter silt fence.
- 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.
- 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 restrictions.
- 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.

**HAZARDOUS AND TOXIC WASTE**

- 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

**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 unattended days (note 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-measuring 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 outlets (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 outlets 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 on 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)(j) 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.

**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:

- 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,
- 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,
- 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 sized, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- 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,
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- 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.

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

**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 completion 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 practicable:

- This General Permit as well as the Certificate of Coverage, after it is received.
- 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:

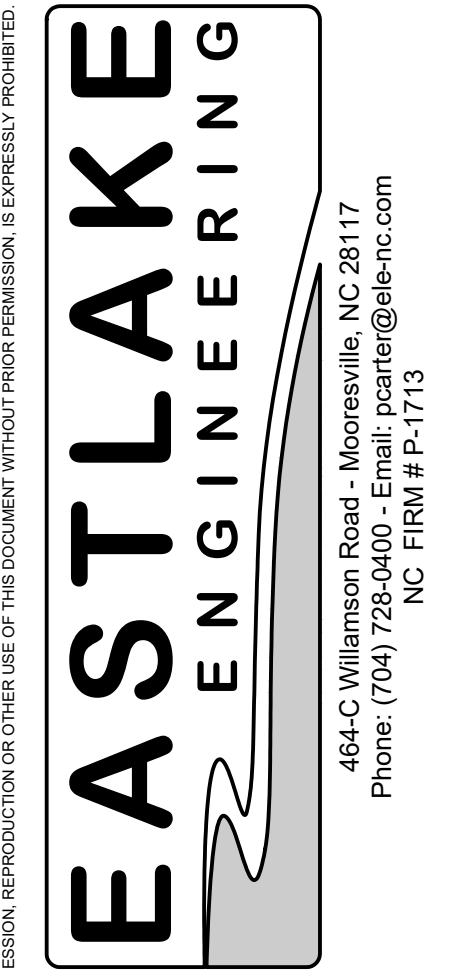
- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- 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.
- Anticipated bypasses and unanticipated bypasses.
- 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	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, 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 <a href="#">NC 303(d) list</a> 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.</li> </ul>
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>A report at least ten days before the date of the bypass, if possible.</b> The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(n)(7)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, 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 recurrence of the noncompliance. [40 CFR 122.41(i)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

### NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



464-C Williamson Road - Mooresville, NC 28117  
Phone: (704) 728-0000 - Email: paulcarter@ele-nc.com  
NC FIRM # P-1713

PROJECT #: 2023-07  
DRAWN: JR CHECKED: PC  
SEAL:

PRELIMINARY  
NOT FOR CONSTRUCTION

REVISIONS:

Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

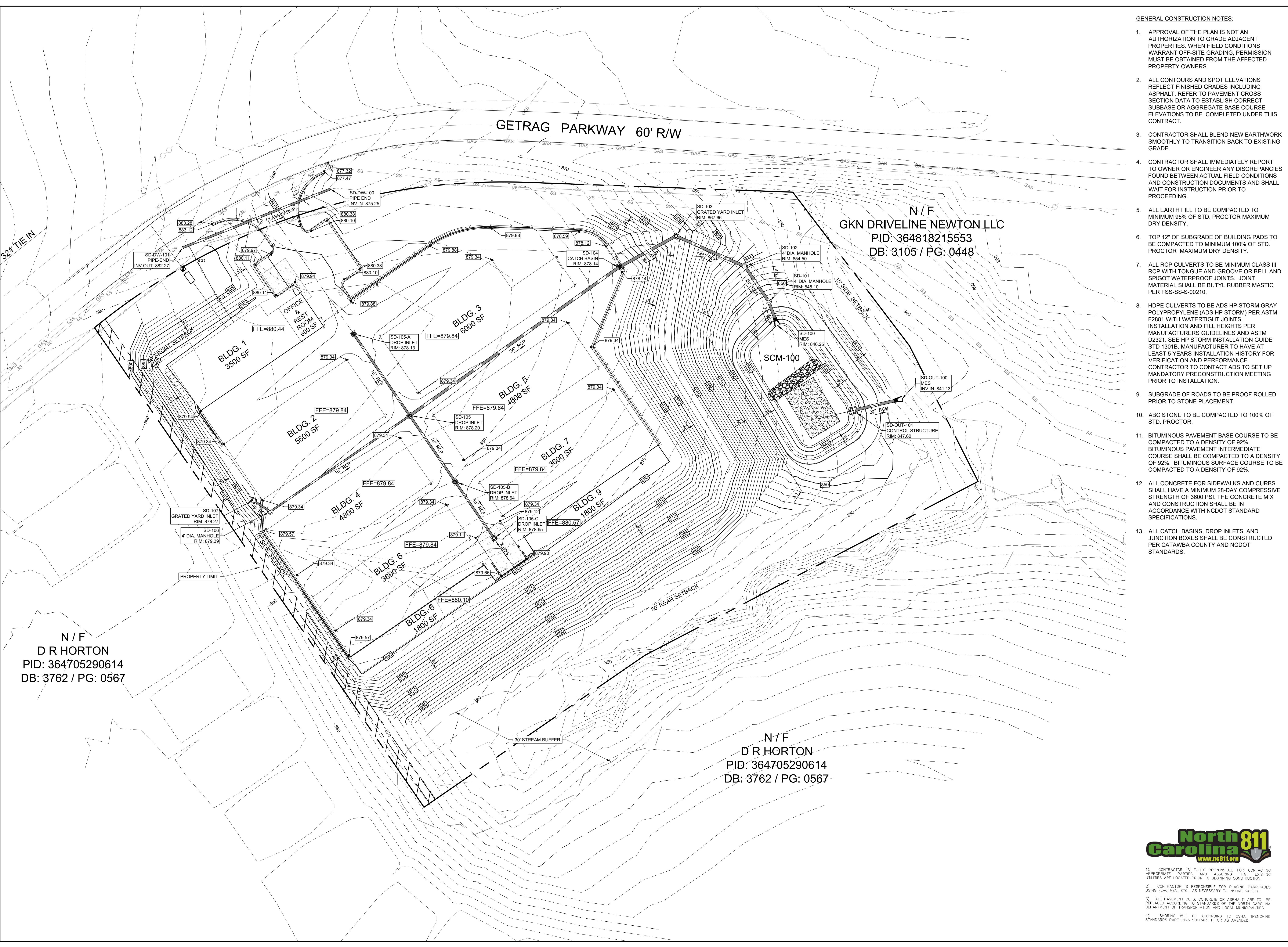
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Sheet Title:  
**Erosion Control Details - C**

Sheet Number:  
**C-3.04**

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Z:\ELEV\Projects\2023\2023-07 Maiden Storage\CADD\Plan sheets\C-4.00 - Grading & Drainage Plan - Maiden Storage.dwg PAUL CARTER

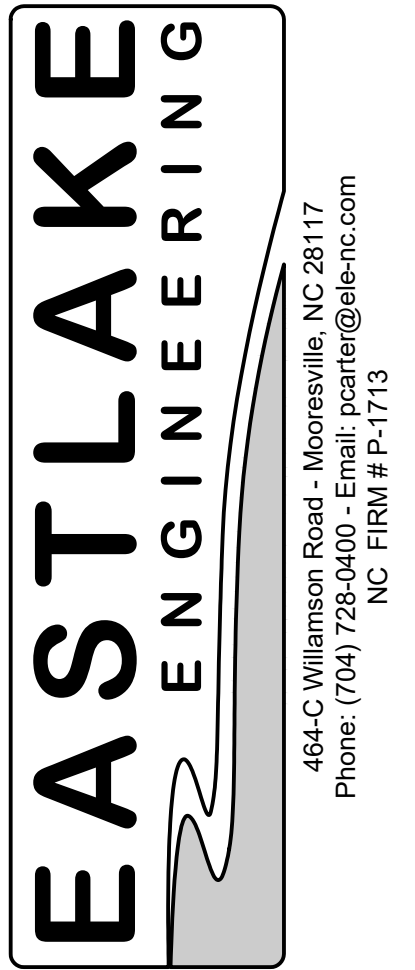


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PID: 364705290614  
DB: 3762 / PG: 0567

N / F  
GKN DRIVELINE NEWTON LLC  
PID: 364818215553  
DB: 3105 / PG: 0448

N / F  
D R HORTON  
PID: 364705290614  
DB: 3762 / PG: 0567

- GENERAL CONSTRUCTION NOTES:
- APPROVAL OF THE PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
  - ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
  - CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
  - CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER OR ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
  - ALL EARTH FILL TO BE COMPACTED TO MINIMUM 95% OF STD. PROCTOR MAXIMUM DRY DENSITY.
  - TOP 12" OF SUBGRADE OF BUILDING PADS TO BE COMPACTED TO MINIMUM 100% OF STD. PROCTOR MAXIMUM DRY DENSITY.
  - ALL RCP CULVERTS TO BE MINIMUM CLASS III RCP WITH TONGUE AND GROOVE OR BELL AND SPIGOT WATERPROOF JOINTS. JOINT MATERIAL SHALL BE BUTYL RUBBER MASTIC PER FSS-SS-S-00210.
  - HDPE CULVERTS TO BE ADS HP STORM GRAY POLYPROPYLENE (ADS HP STORM) PER ASTM F2881 WITH WATERTIGHT JOINTS. INSTALLATION AND FILL HEIGHTS PER MANUFACTURERS GUIDELINES AND ASTM D2321. SEE HP STORM INSTALLATION GUIDE STD 1301B. MANUFACTURER TO HAVE AT LEAST 5 YEARS INSTALLATION HISTORY FOR VERIFICATION AND PERFORMANCE. CONTRACTOR TO CONTACT ADS TO SET UP MANDATORY PRECONSTRUCTION MEETING PRIOR TO INSTALLATION.
  - SUBGRADE OF ROADS TO BE PROOF ROLLED PRIOR TO STONE PLACEMENT.
  - ABC STONE TO BE COMPACTED TO 100% OF STD. PROCTOR.
  - BITUMINOUS PAVEMENT BASE COURSE TO BE COMPACTED TO A DENSITY OF 92%. BITUMINOUS PAVEMENT INTERMEDIATE COURSE SHALL BE COMPACTED TO A DENSITY OF 92%. BITUMINOUS SURFACE COURSE TO BE COMPACTED TO A DENSITY OF 92%.
  - ALL CONCRETE FOR SIDEWALKS AND CURBS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3600 PSI. THE CONCRETE MIX AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
  - ALL CATCH BASINS, DROP INLETS, AND JUNCTION BOXES SHALL BE CONSTRUCTED PER CATAWBA COUNTY AND NCDOT STANDARDS.

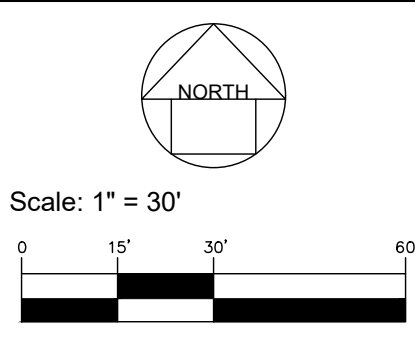


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NC FIRM # P-1713

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FOR CONSTRUCTION

REVISIONS:



Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
Denver, NC 28037

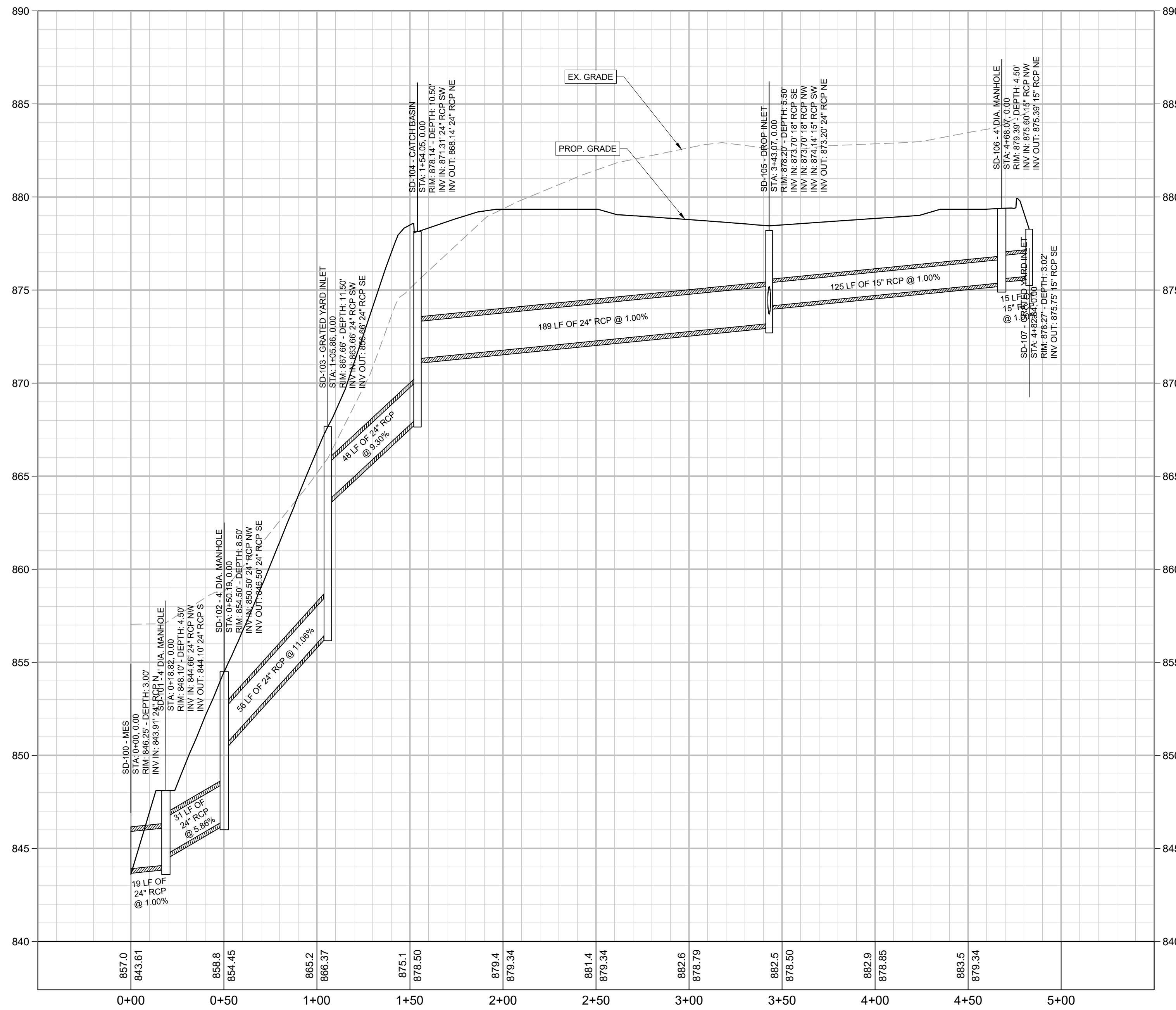
Sheet Title:  
**Grading & Drainage Plan**

Sheet Number:  
**C-4.00**

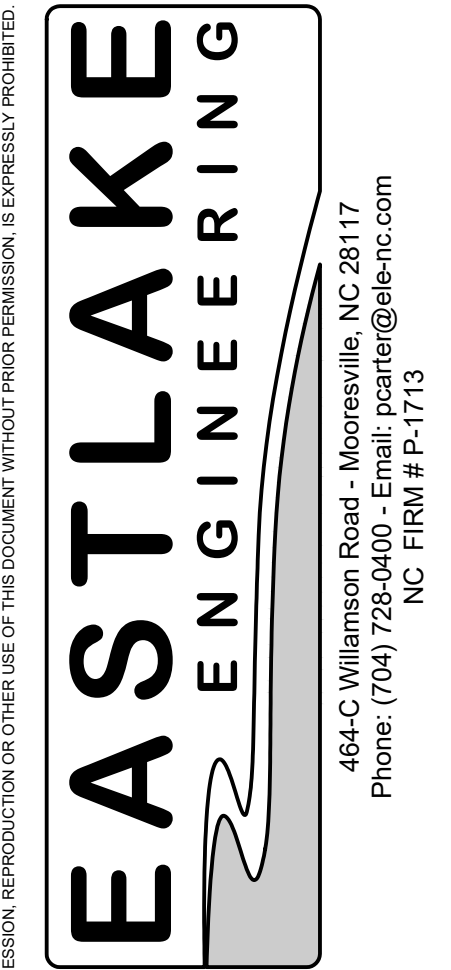
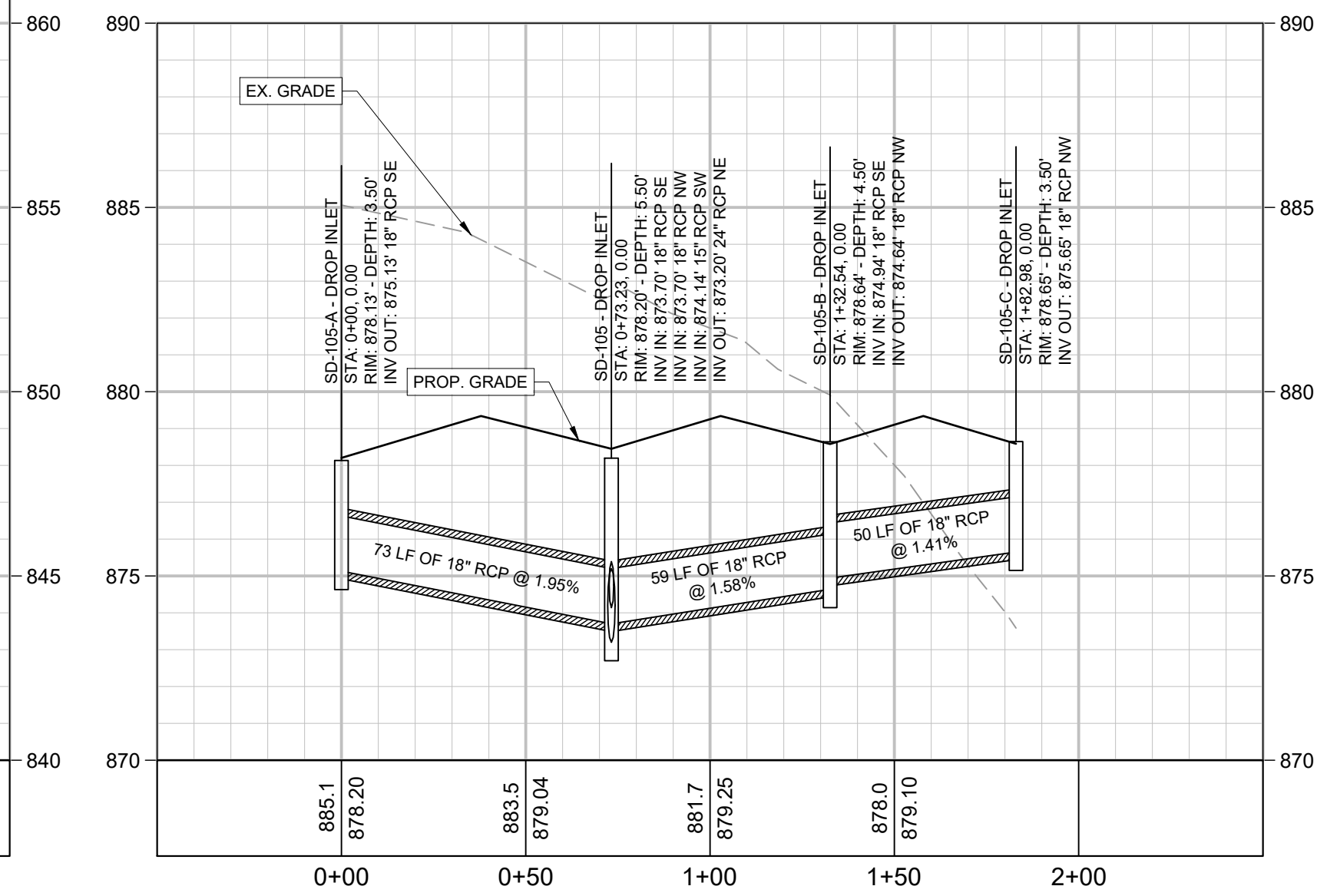


- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC., AS NECESSARY TO INSURE SAFETY.
- ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND LOCAL MUNICIPALITIES.
- SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

Profile View of Storm - SD-101 to SD-106



Profile View of Storm - SD-105-A to SD-105-C



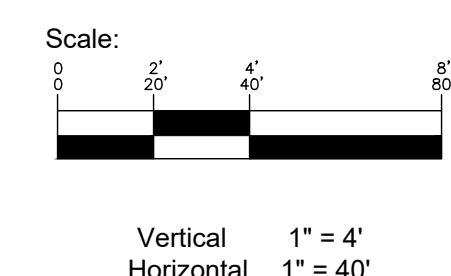
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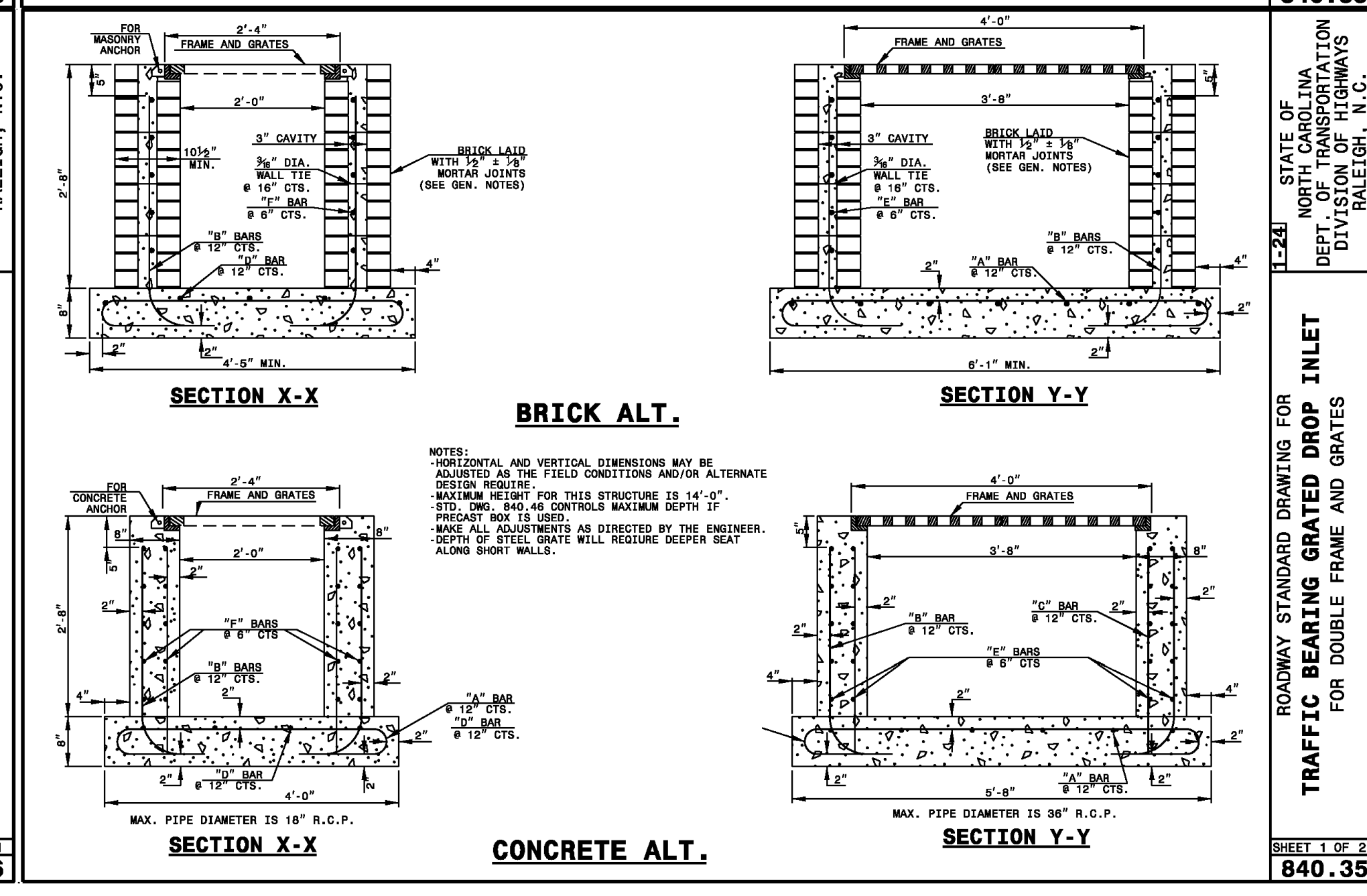
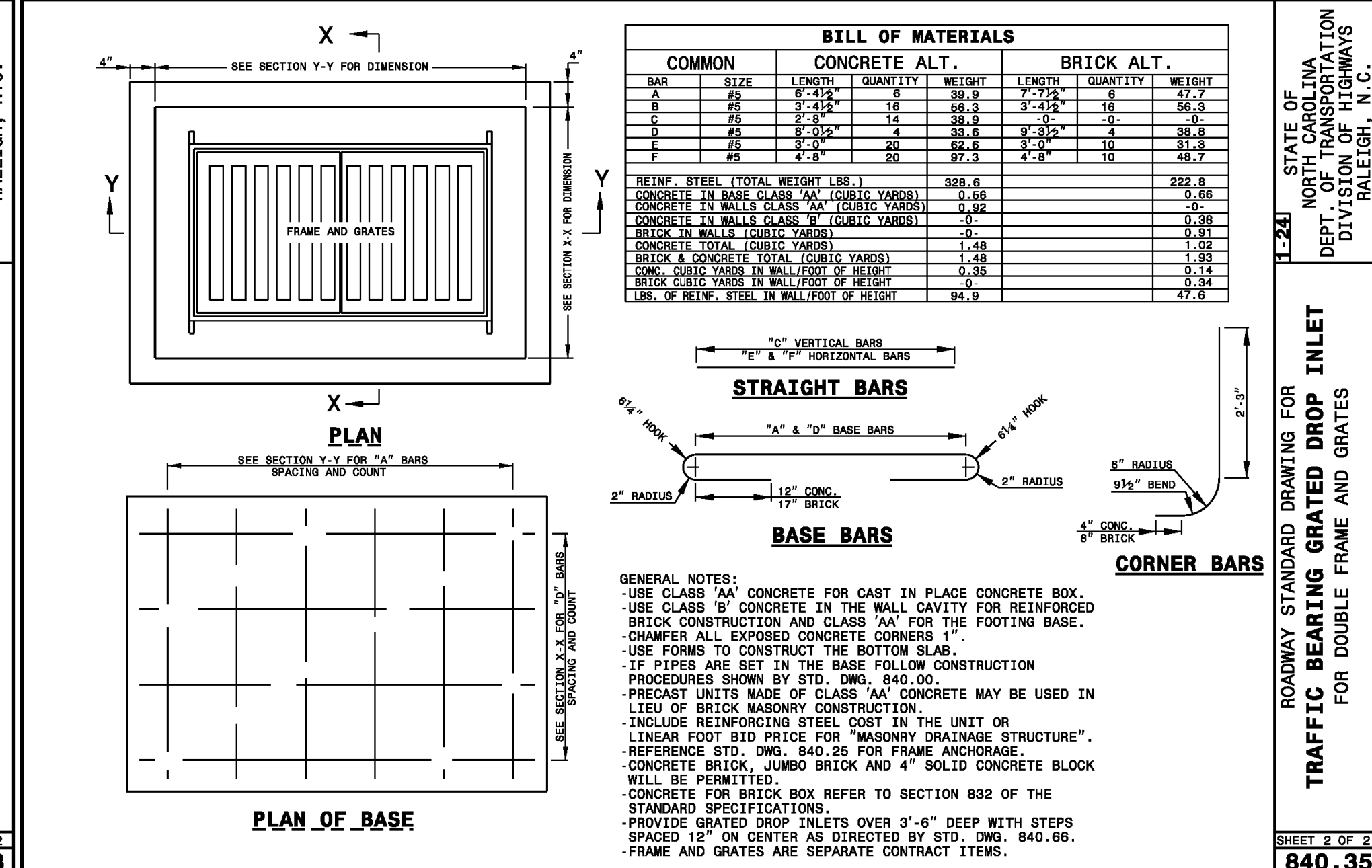
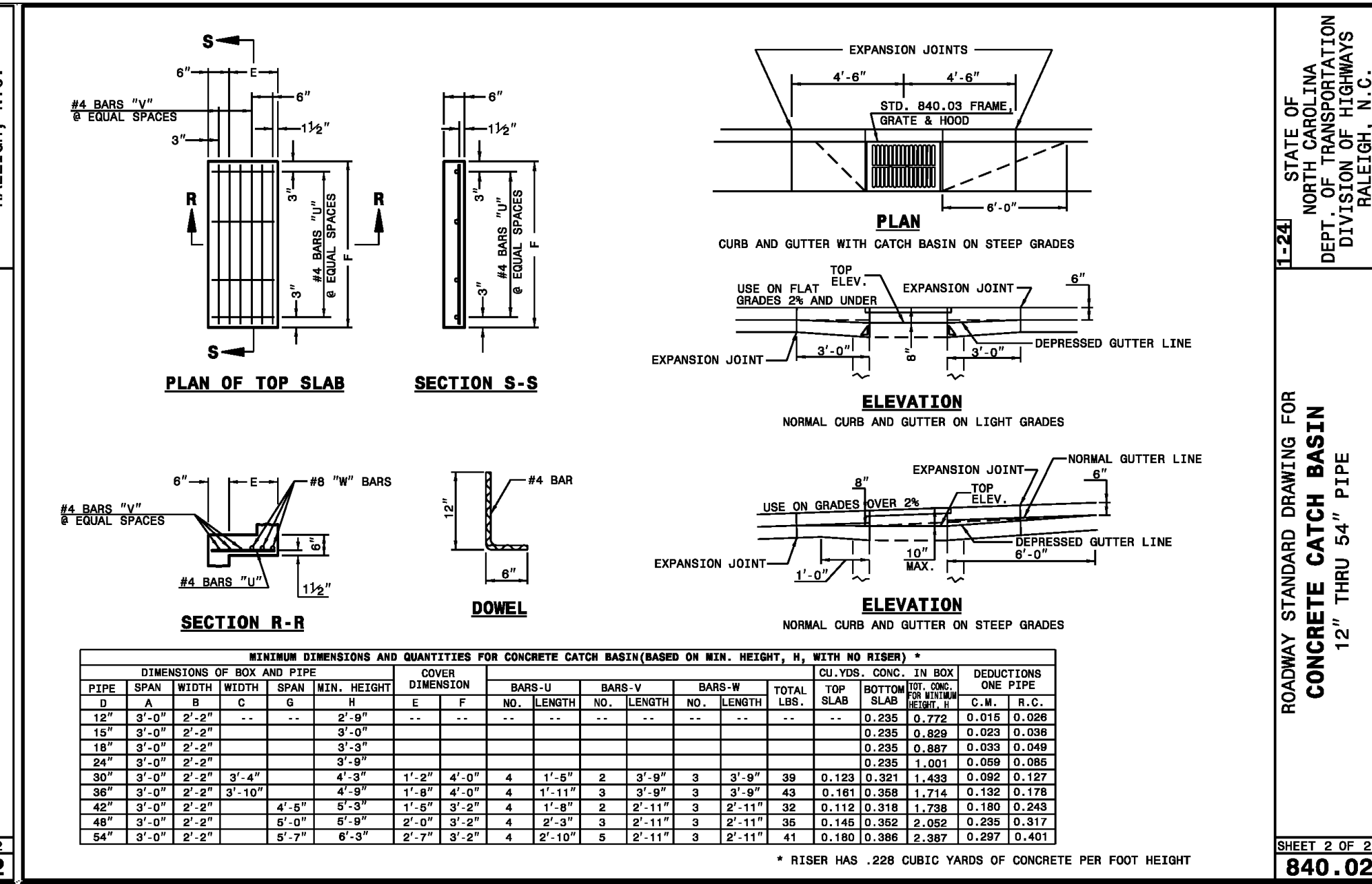
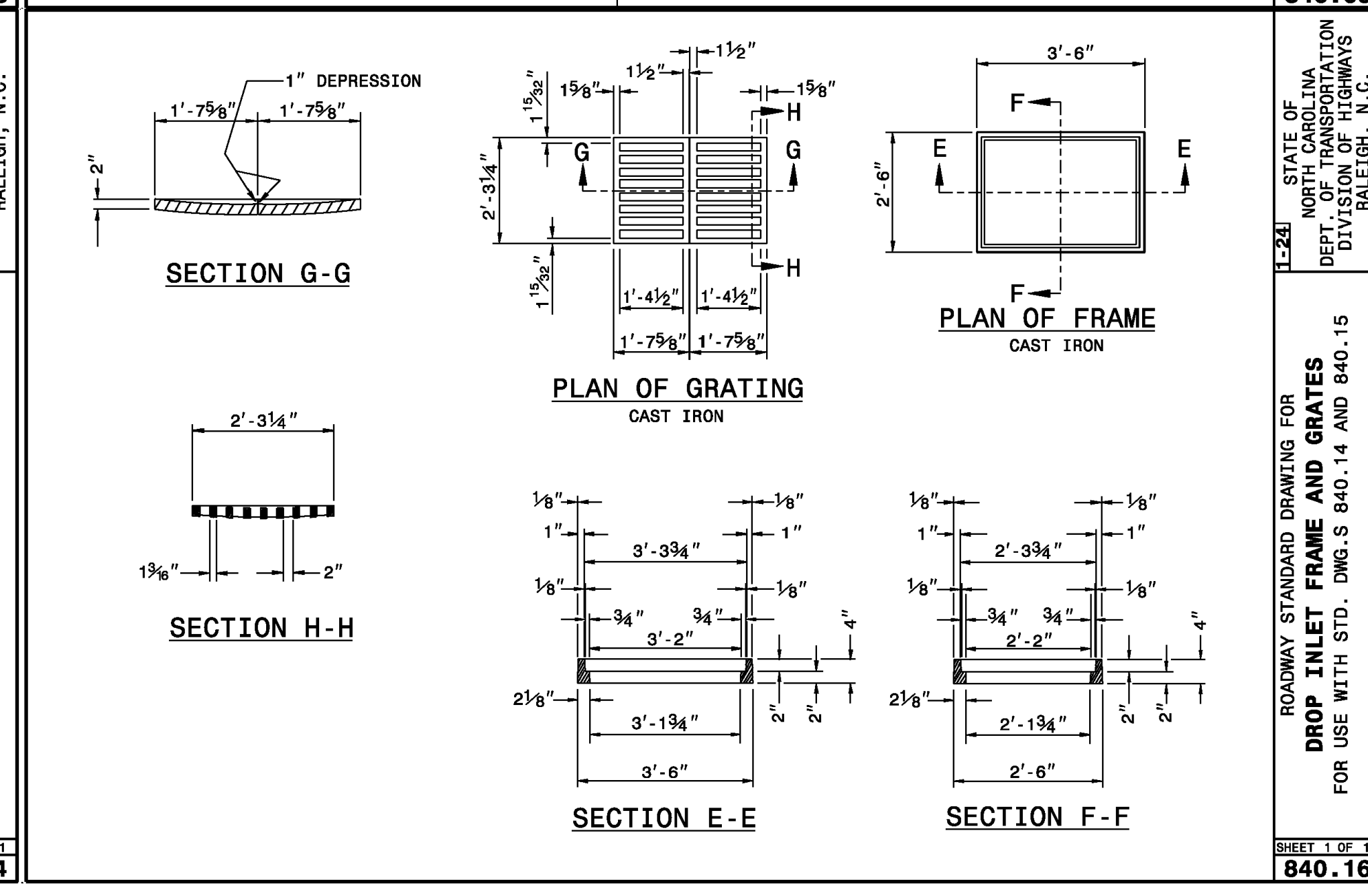
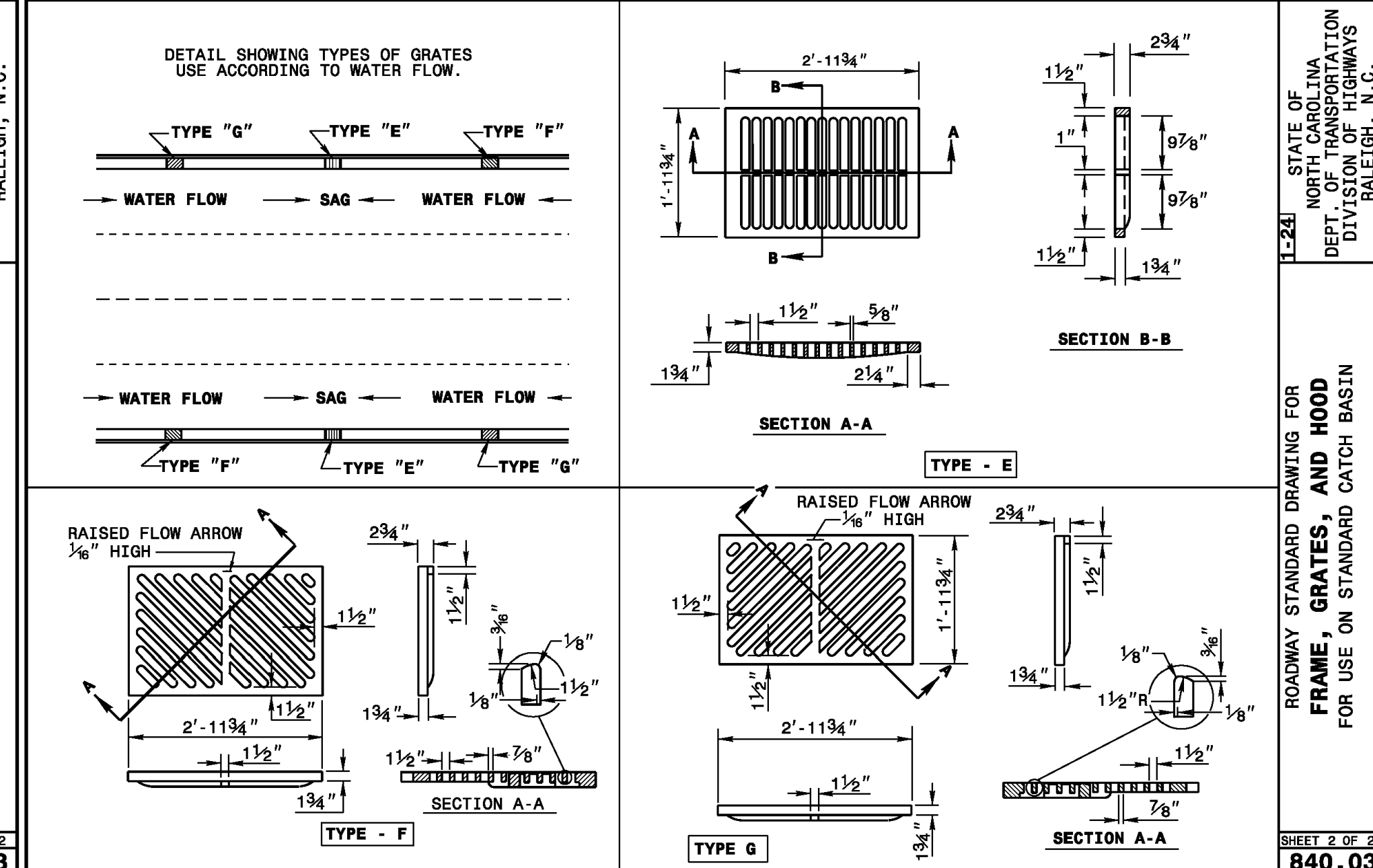
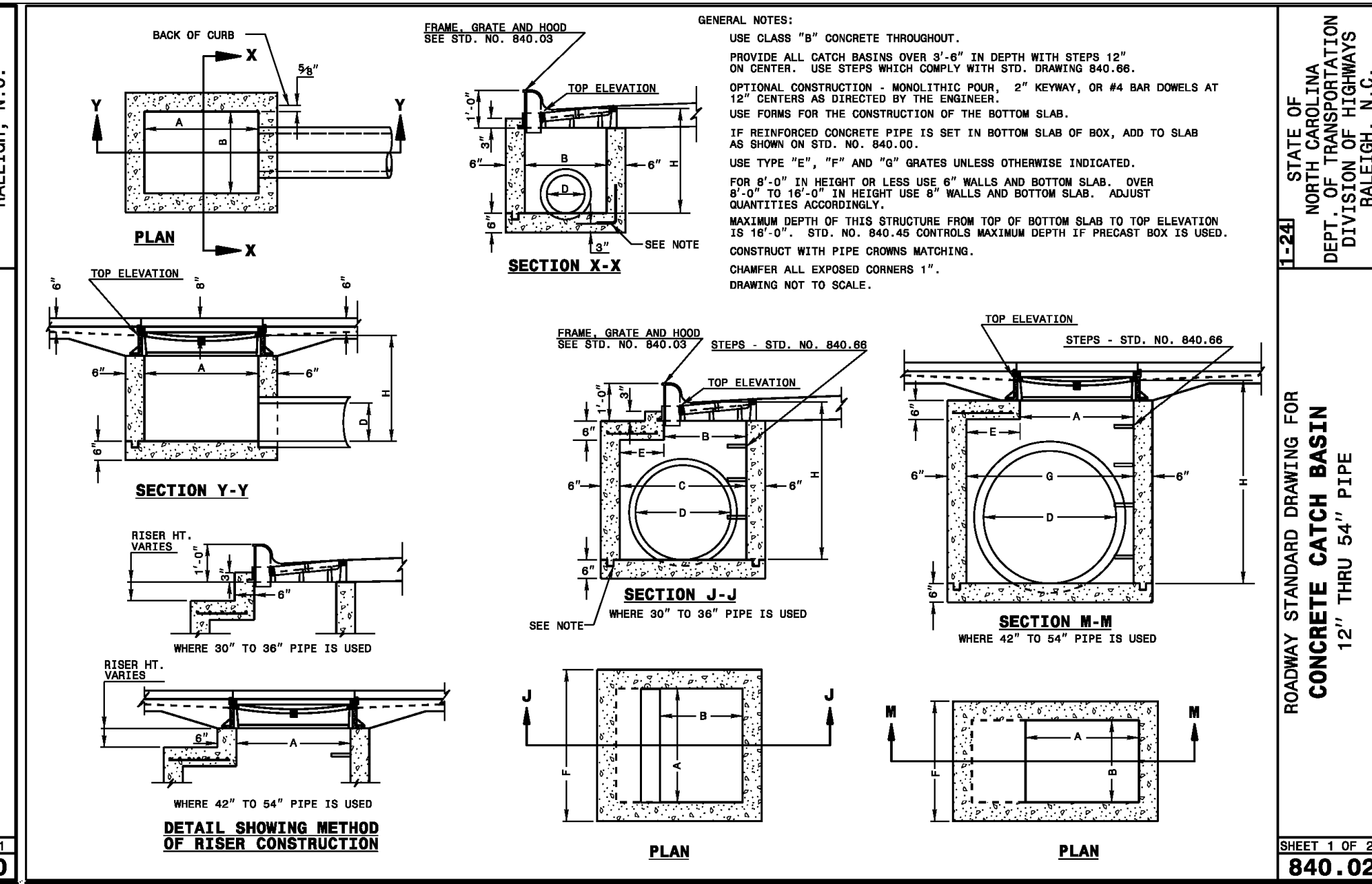
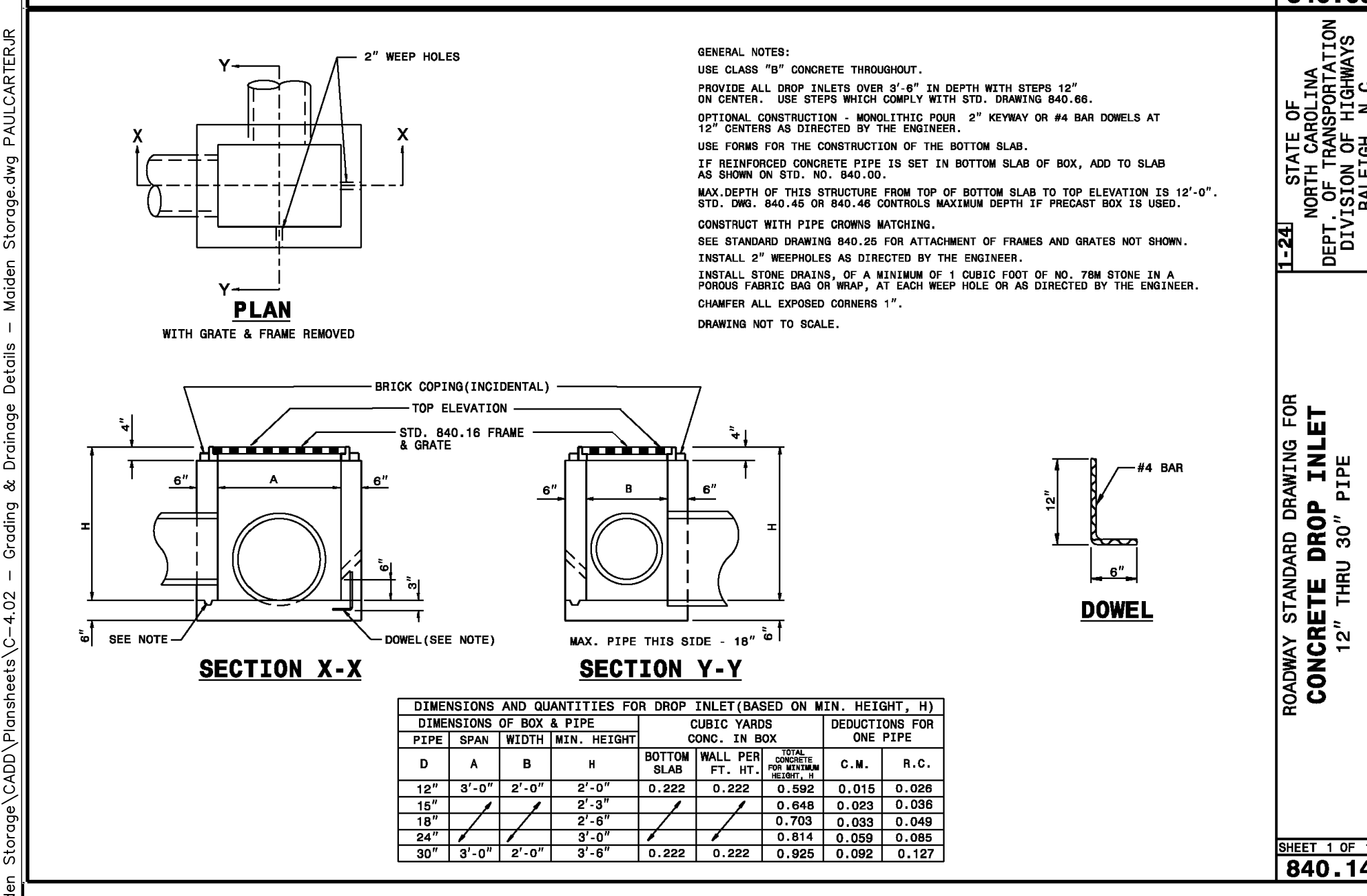
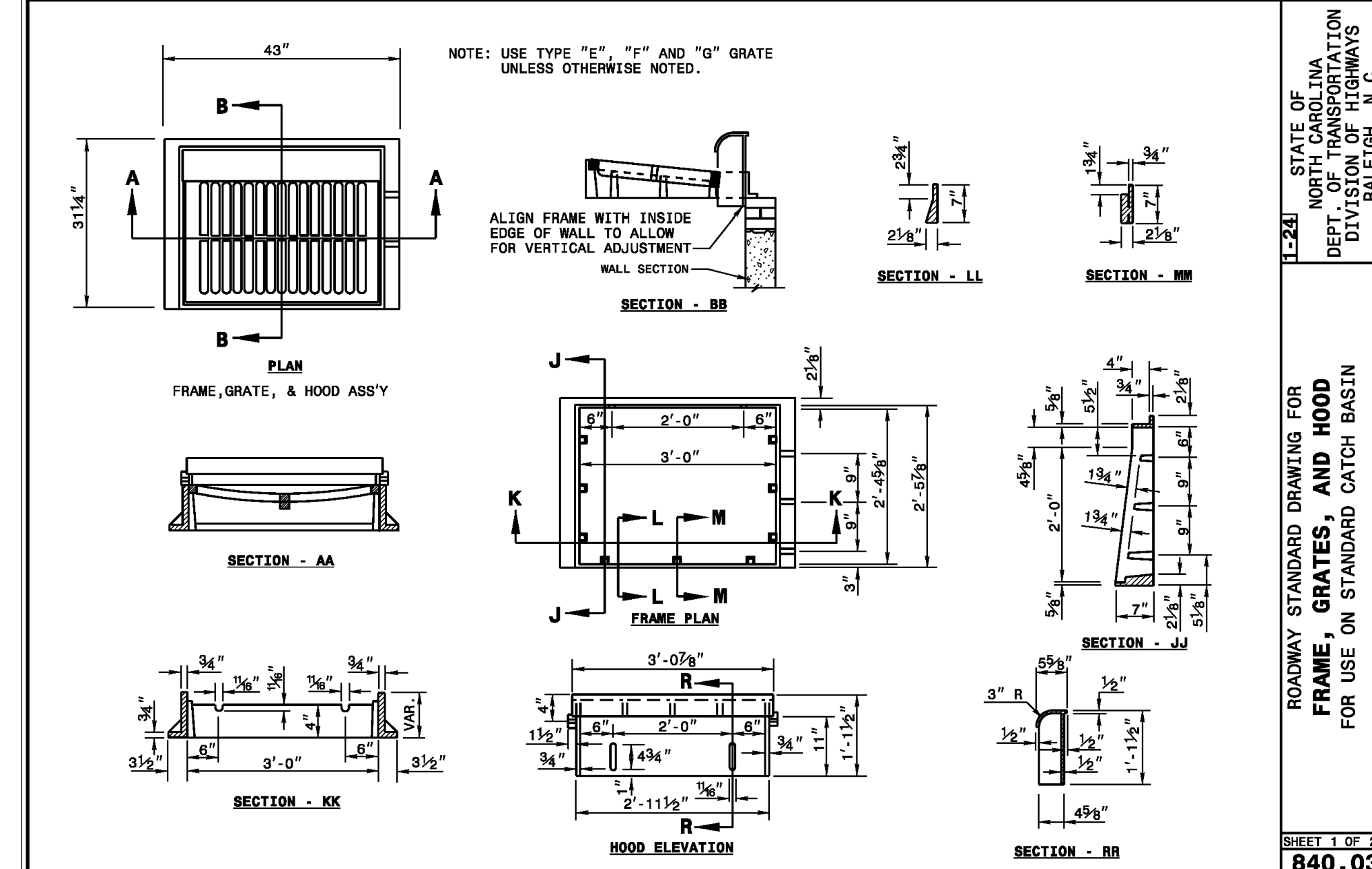
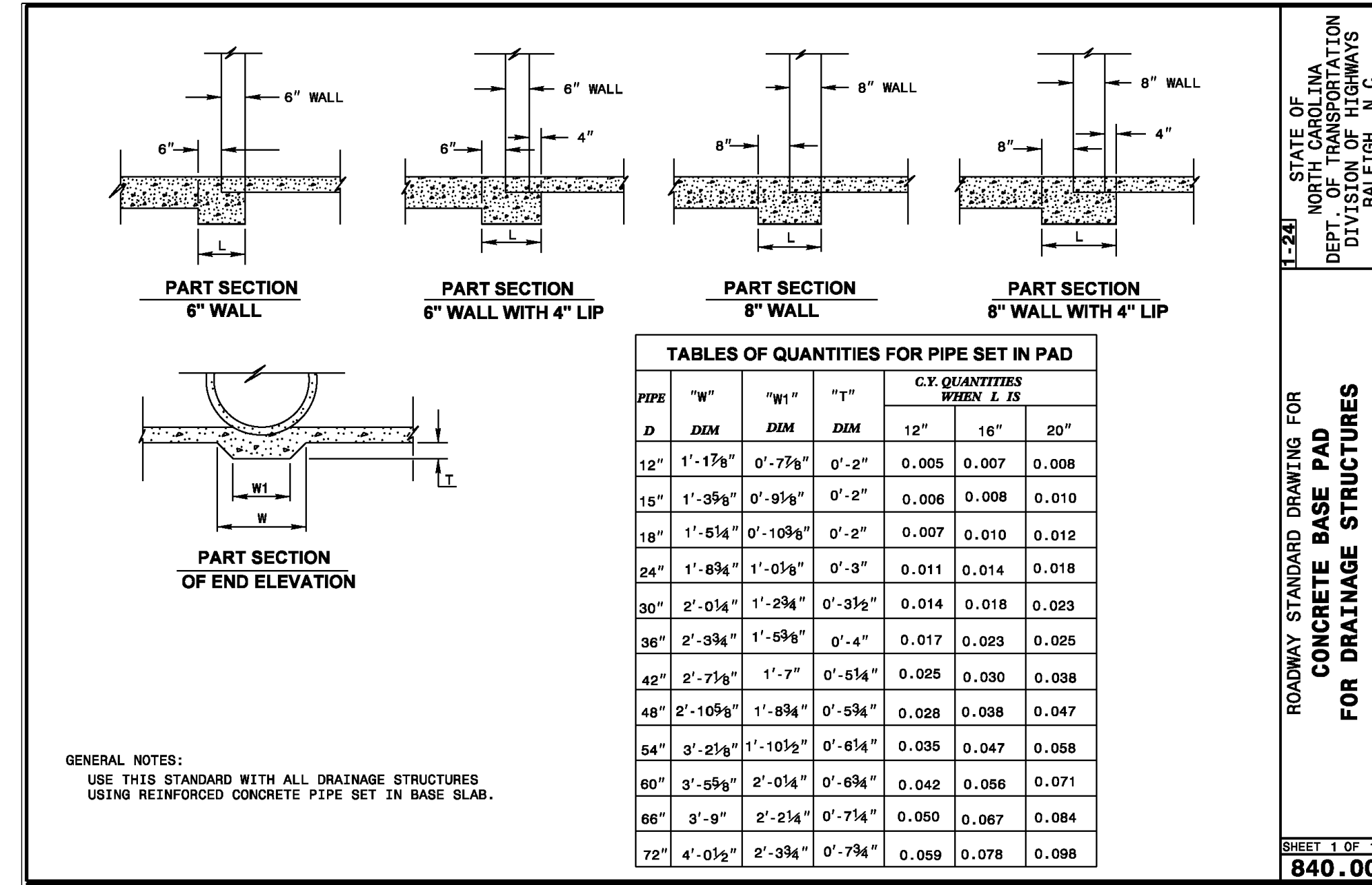
Contact:  
**TUSSMORE LLC**

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Sheet Title:  
**Storm Drainage Profiles**

Sheet Number:  
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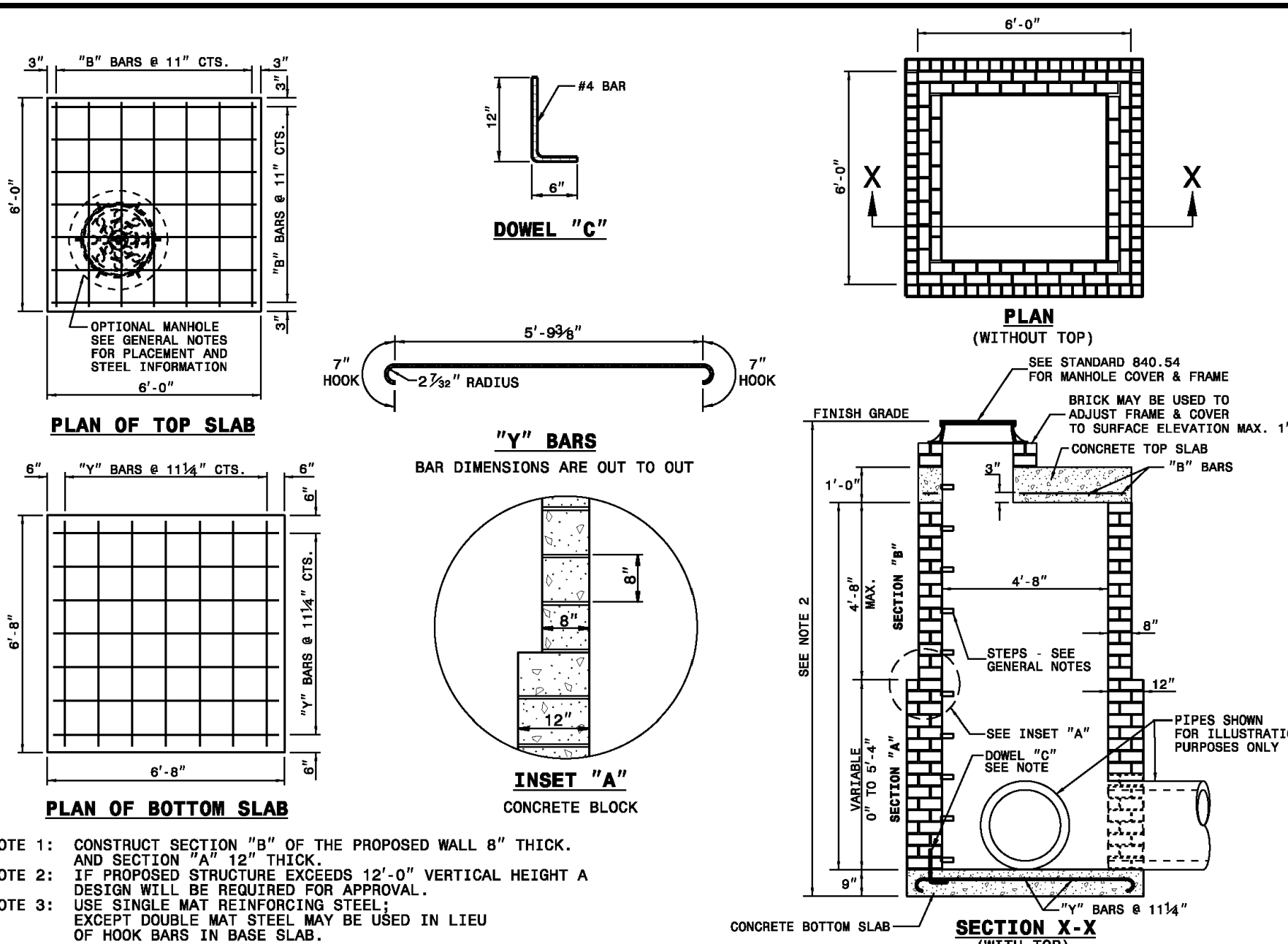
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Contact:  
**TUSSMORE LLC**

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Sheet Title:  
**Grading & Drainage Details - A**

Sheet Number:  
**C-4.02**



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

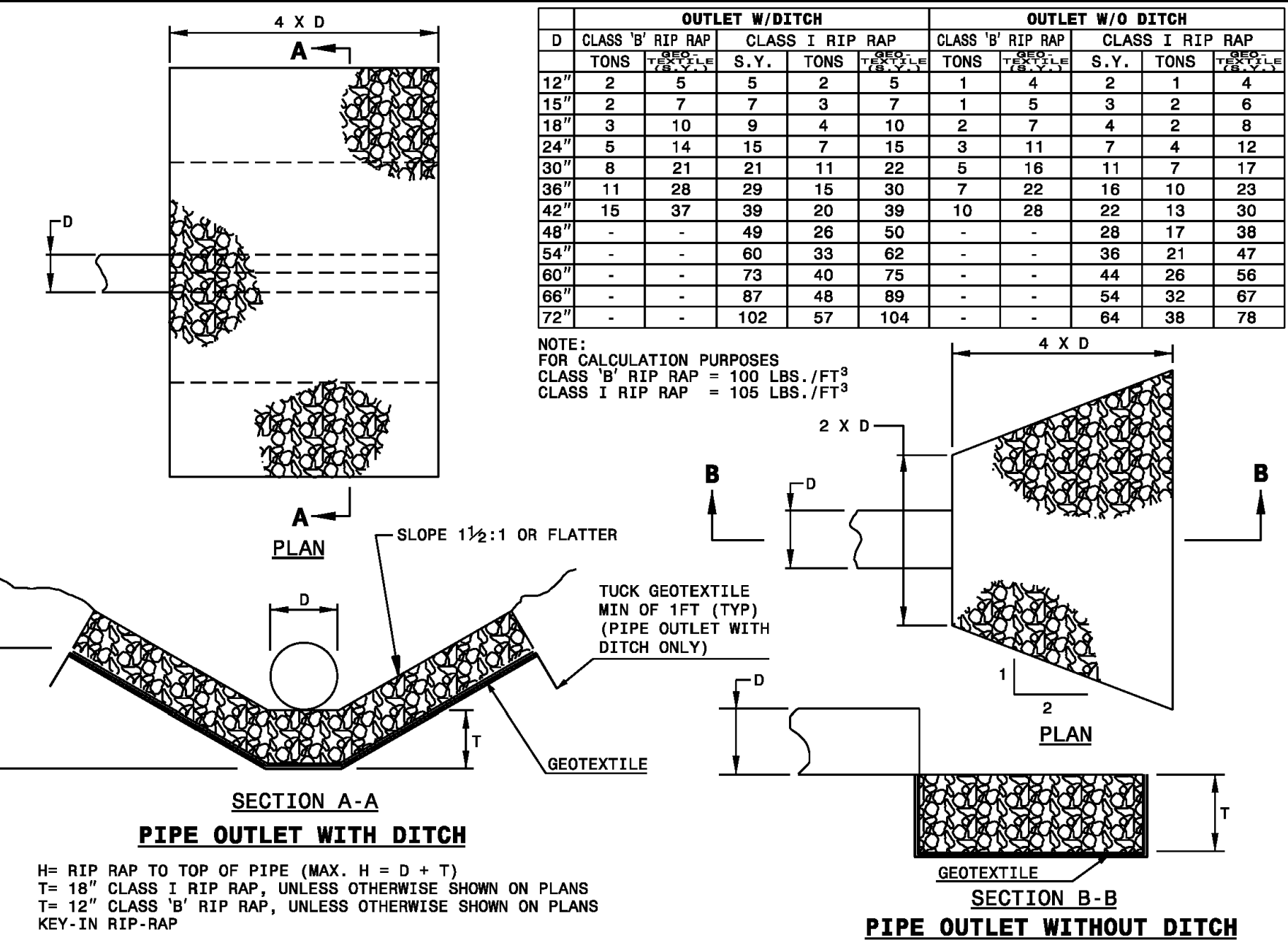
ROADWAY STANDARD DRAWING FOR TRAFFIC BEARING JUNCTION BOX FOR USE WITH PIPES 42" AND UNDER

SHEET 1 OF 2  
840.34

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR GUIDE FOR RIP RAP AT PIPE OUTLETS

SHEET 1 OF 1  
876.02



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR TRAFFIC BEARING JUNCTION BOX FOR USE WITH PIPES 42" AND UNDER

SHEET 2 OF 2  
840.34

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR GUIDE FOR RIP RAP AT PIPE OUTLETS

SHEET 1 OF 1  
876.02

**BILL OF MATERIAL**

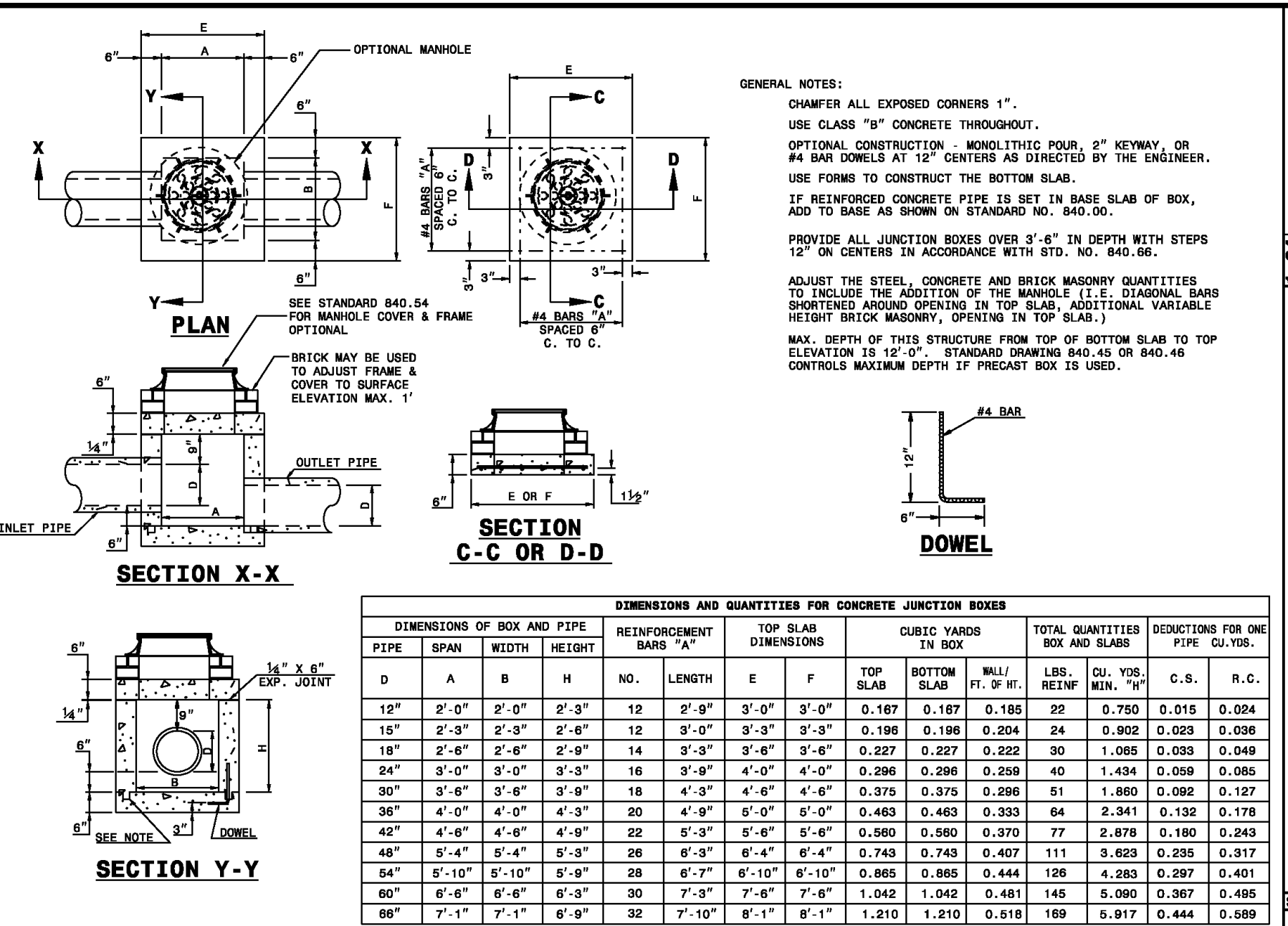
BAR	QTY.	SIZE	LENGTH	WEIGHT
A	8	#5	1'-2"	9.7
B	14	#5	5'-6"	80.3
C	28	#4	1'-6"	26.1
Y	14	#5	6'-11 1/2"	101.5
STEEL TOTAL WEIGHT				217.6

CU. YDS. CLASS "AA" CONC. 2.8  
 CU. YDS. BRICK/FT. WT. (8") 0.53  
 CU. YDS. BRICK/FT. WT. (12") 0.84

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR TRAFFIC BEARING JUNCTION BOX FOR USE WITH PIPES 42" AND UNDER

SHEET 2 OF 2  
840.34



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CONCRETE JUNCTION BOX 12" THRU 66" PIPE

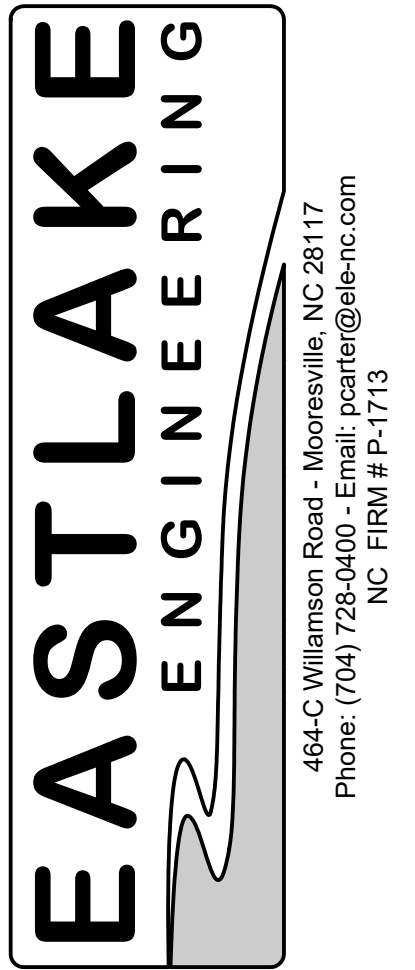
SHEET 1 OF 1  
840.31

**DRAINAGE STRUCTURES**

NAME	TYPE	RIM	INVERT
SD-100	MES	846.25'	INV IN = Pipe-101 = 843.91'
SD-101	4' DIA. MANHOLE	848.10'	INV IN = Pipe-102 = 844.66' INV OUT = Pipe-101 = 844.10'
SD-102	4' DIA. MANHOLE	854.50'	INV IN = Pipe-103 = 850.50' INV OUT = Pipe-102 = 846.50'
SD-103	GRATED YARD INLET	867.66'	INV IN = Pipe-104 = 863.66' INV OUT = Pipe-103 = 856.66'
SD-104	CATCH BASIN	878.14'	INV IN = Pipe-105 = 871.31' INV OUT = Pipe-104 = 868.14'
SD-105	DROP INLET	878.20'	INV IN = Pipe-105-B = 873.70' INV IN = Pipe-105-A = 873.70' INV IN = Pipe-106 = 874.14' INV OUT = Pipe-105 = 873.20'
SD-105-A	DROP INLET	878.13'	INV OUT = Pipe-105-A = 875.13'
SD-105-B	DROP INLET	878.64'	INV IN = Pipe-105-C = 874.94' INV OUT = Pipe-105-B = 874.64'
SD-105-C	DROP INLET	878.65'	INV OUT = Pipe-105-C = 875.65'
SD-106	4' DIA. MANHOLE	879.39'	INV IN = Pipe-107 = 875.60' INV OUT = Pipe-106 = 875.39'
SD-107	GRATED YARD INLET	878.27'	INV OUT = Pipe-107 = 875.75'
SD-OUT-100	MES	843.46'	INV IN = Pipe-Out-101 = 841.13'
SD-OUT-101	CONTROL STRUCTURE	847.60'	INV OUT = Pipe-Out-101 = 841.35'

**PIPE TABLE**

FROM	TO	SIZE-MATERIAL	LENGTH	INV (FROM)	INV (TO)	SLOPE
SD-100	SD-101	24 RCP	18.82'	844.10	843.91	1.00%
SD-101	SD-102	24 RCP	31.37'	846.50	844.66	5.86%
SD-102	SD-103	24 RCP	55.68'	856.66	850.50	11.06%
SD-103	SD-104	24 RCP	48.18'	868.14	863.66	9.30%
SD-104	SD-105	24 RCP	189.02'	873.20	871.31	1.00%
SD-105	SD-106	15 RCP	125.00'	875.39	874.14	1.00%
SD-105	SD-105-A	18 RCP	73.23'	875.13	873.70	1.95%
SD-105	SD-105-B	18 RCP	59.31'	874.64	873.70	1.58%
SD-105-B	SD-105-C	18 RCP	50.44'	875.65	874.94	1.41%
SD-106	SD-107	15 RCP	14.77'	875.75	875.60	1.00%
SD-DW-100	SD-DW-101	18 CLASS IV RCP	117.08'	882.27	875.25	6.00%
SD-OUT-100	SD-OUT-101	24 RCP	37.37'	841.35	841.13	0.60%



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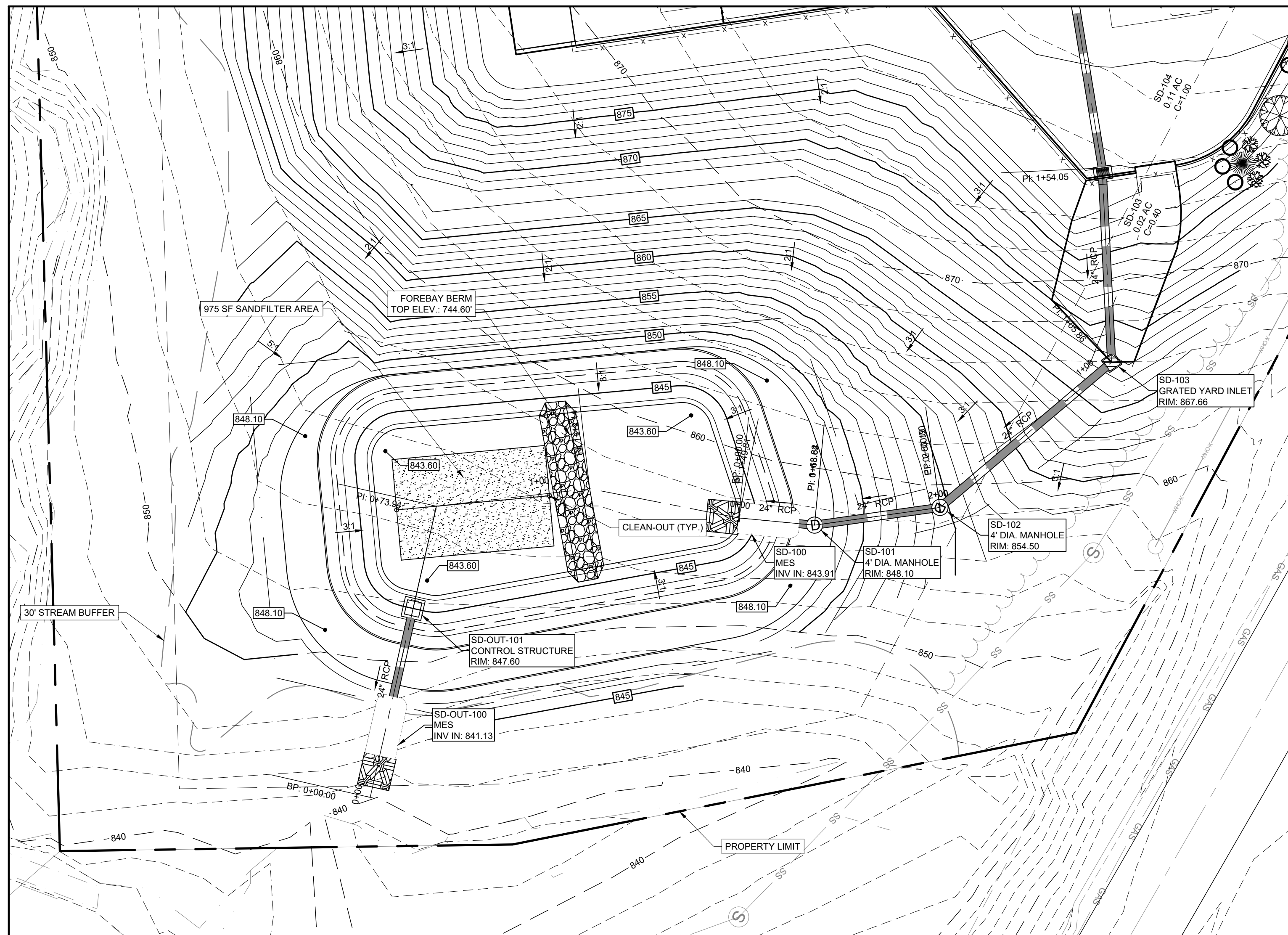
Contact:  
**TUSSMORE LLC**

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Denver, NC 28037

Sheet Title:  
**Grading & Drainage Details - B**

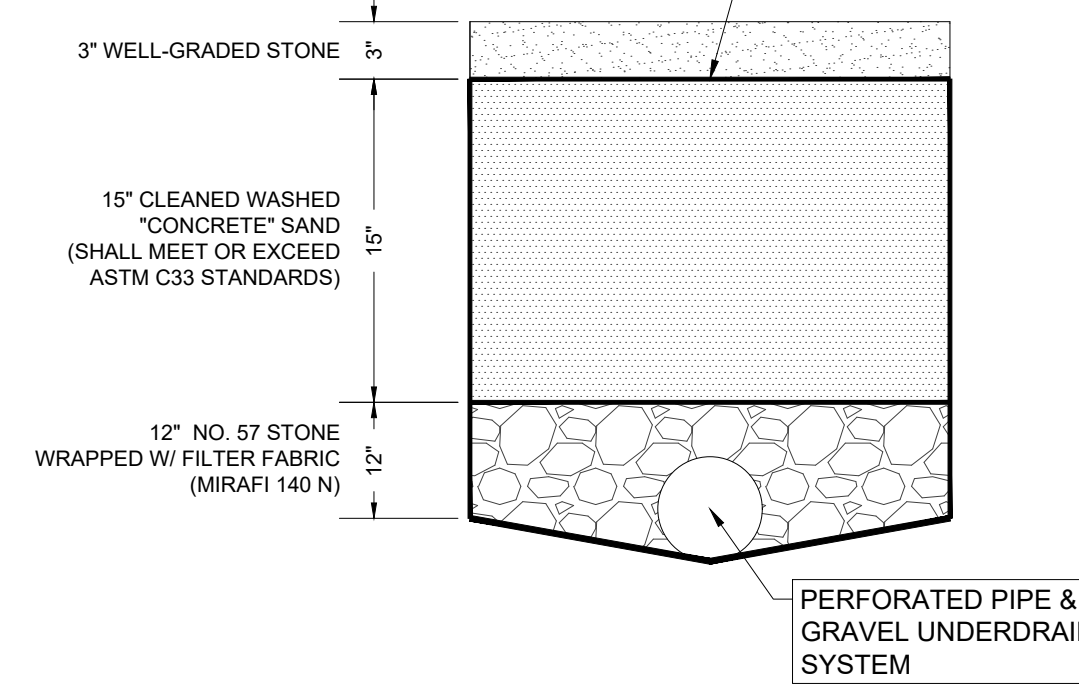
Sheet Number:  
**C-4.03**

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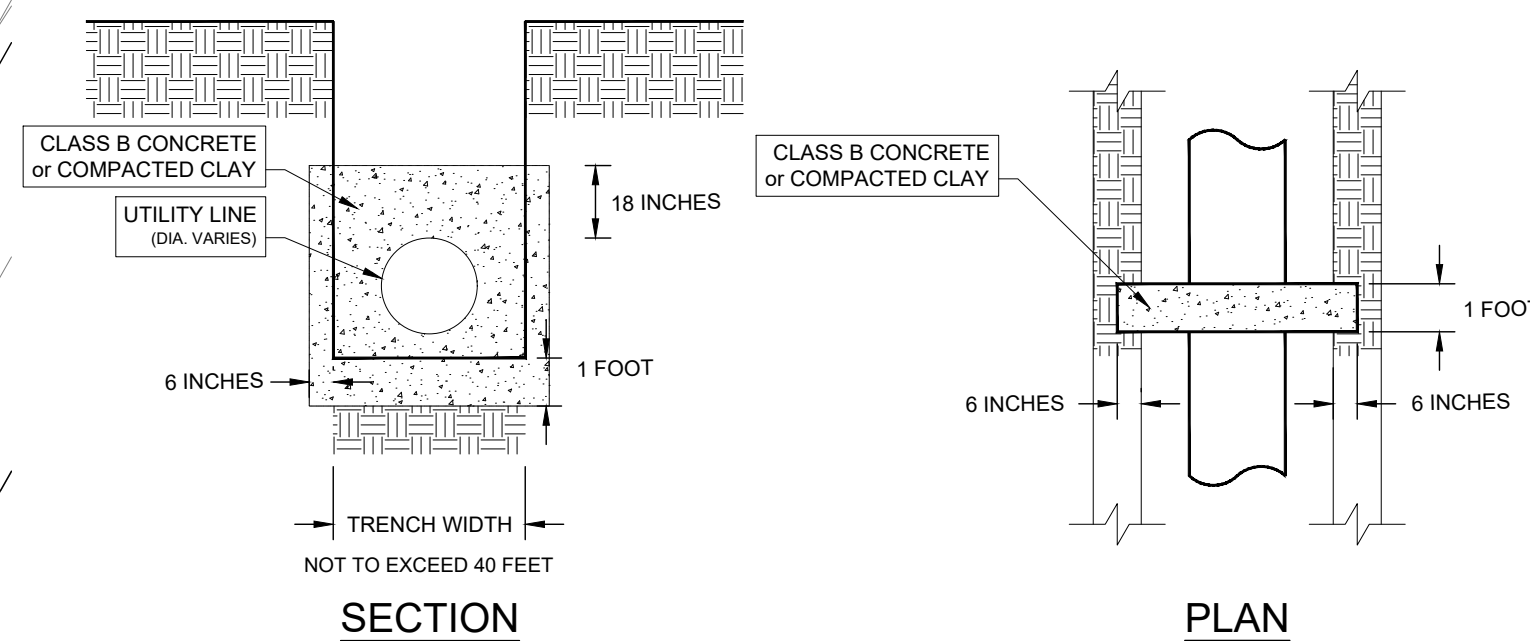


**SAND FILTER NOTES:**

- "CONCRETE" SAND REFERS TO SAND THAT IS COMMONLY USED IN CONCRETE MIXES.
- ALL DRAINAGE AREAS TO A SAND FILTER FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF SAND.
- UNDERDRAIN PIPES SHOULD BE MIN. 6" PERFORATED SCHEDULE 40 PVC (PER AASHTO M278) OR DOUBLE WALL HDPE (PER AASHTO M252). PERFORATIONS SHOULD BE 3/4" SPACED 3" ON CENTER ALONG 4 LONGITUDINAL ROWS SPACED 90° APART.



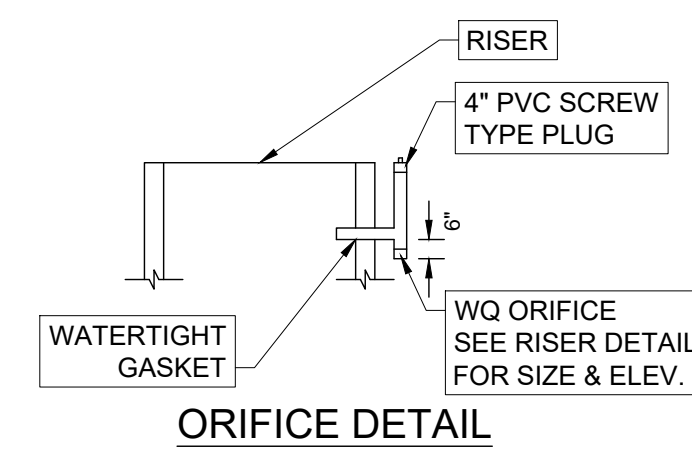
**SAND FILTER CROSS SECTION**



**ANTI-SEEP COLLAR**

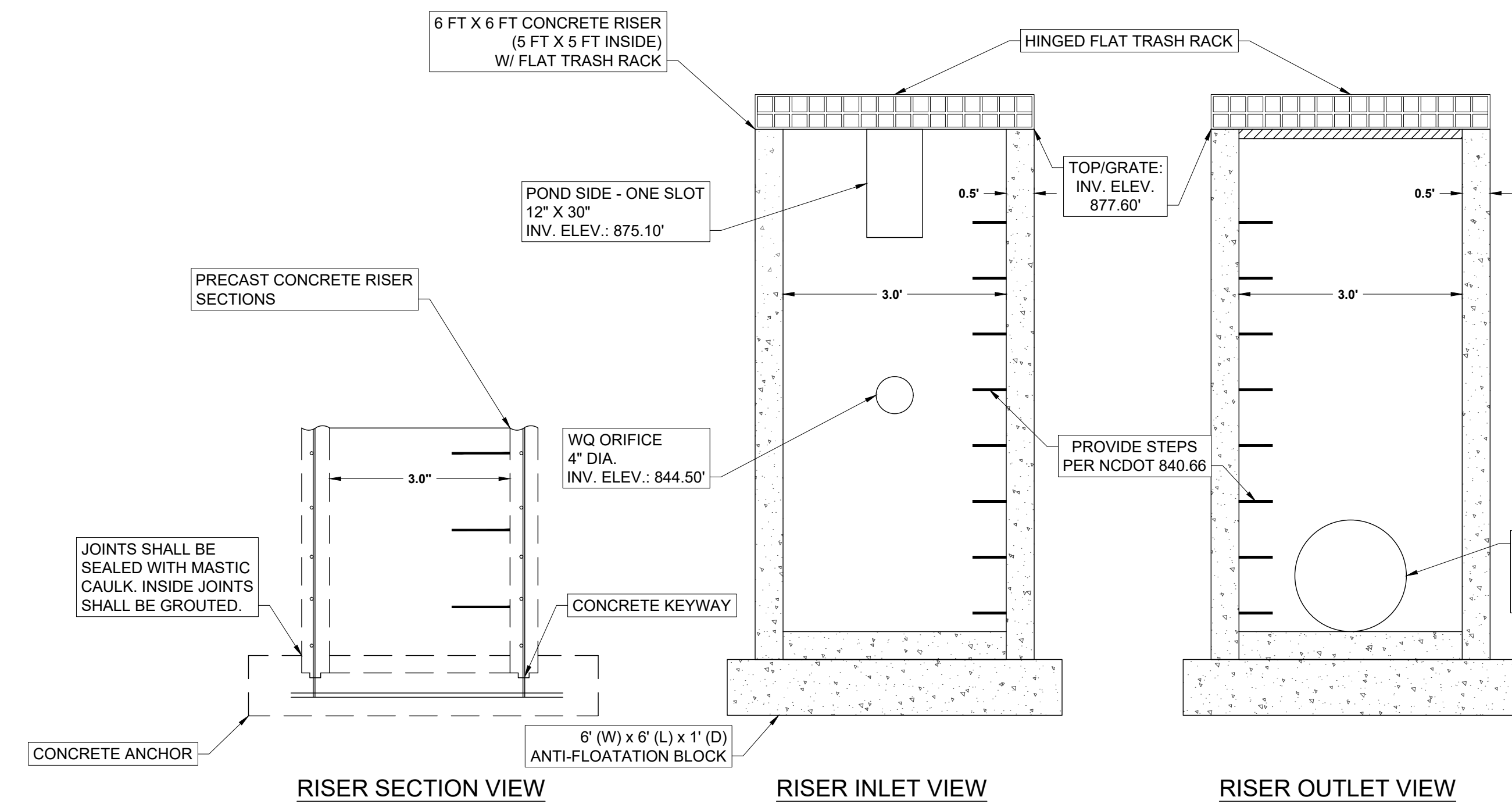
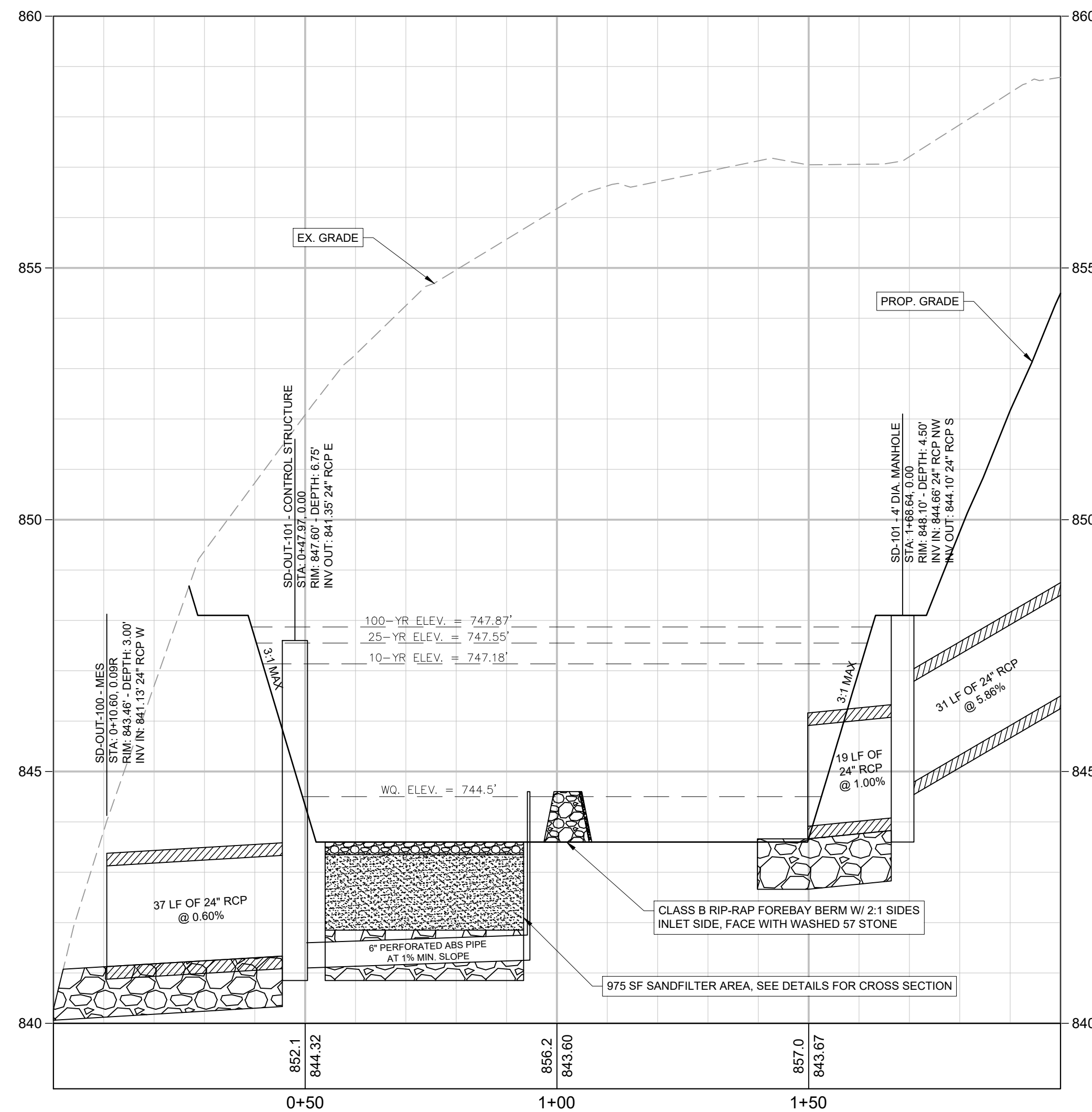
**TECHNICAL SPECIFICATIONS:**

- SUBGRADE FOR DAM TO BE PROOF ROLLED PRIOR TO EARTH FILL PLACEMENT. ANY SOFT OR PUMPING AREAS ARE TO BE UNDERCUT AND REPLACED WITH COMPACTED EARTH FILL.
- COMPACTED EARTH FILL TO HAVE DRY UNIT WEIGHT OF AT LEAST 90 PCF. ALL EARTH FILL TO BE COMPACTED TO MINIMUM OF 95% OF STD. PROCTOR MAXIMUM DRY DENSITY.
- EXCAVATED SIDE SLOPES TO BE STABILIZED WITH GRASS COVER IN ACCORDANCE WITH SEEDING SPECIFICATIONS FROM EROSION & SEDIMENT CONTROL PLAN.
- FINAL DAM EMBANKMENT SLOPES TO BE TRACKED AND STABILIZED WITH GRASS COVER IN ACCORDANCE WITH SEEDING SPECIFICATIONS FROM EROSION & SEDIMENT CONTROL PLAN.
- REINFORCED CONCRETE RISER STRUCTURE TO BE PREFABRICATED 3FT x 3FT INTERIOR DIMENSIONS.

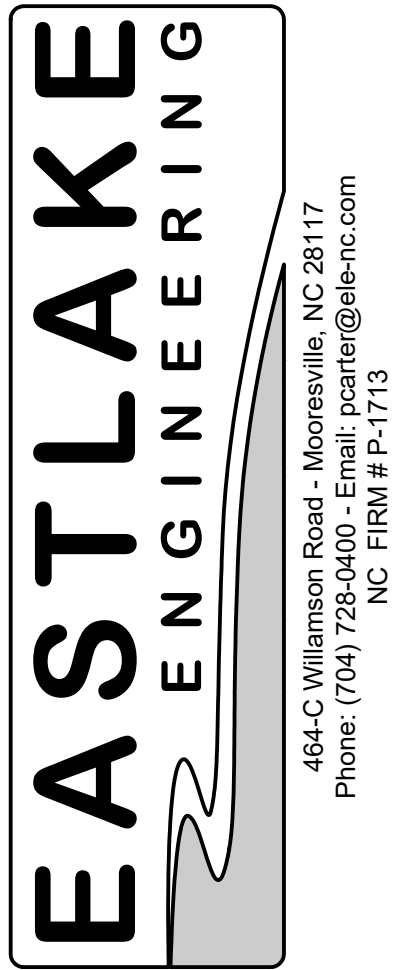


**ORIFICE DETAIL**

SAND FILTER SCM 100 SUMMARY CHART				
PEAK CONTROL	PRE-DEVELOPMENT	POST-DEVELOPMENT	POST-ROUTING	ELEVATION
	CFS	CFS	CFS	FT
1-INCH - 24HR	0.01	1.60	0.00	844.29
1YR - 24HR	3.21	9.32	1.91	845.70
2YR - 24HR	5.03	11.98	4.17	846.19
10YR - 24HR	10.54	18.99	10.30	847.18
25YR - 24HR	14.15	23.20	13.01	847.55
50YR - 24HR	17.12	26.55	18.35	847.75
100YR - 24HR	20.22	29.97	24.25	847.87



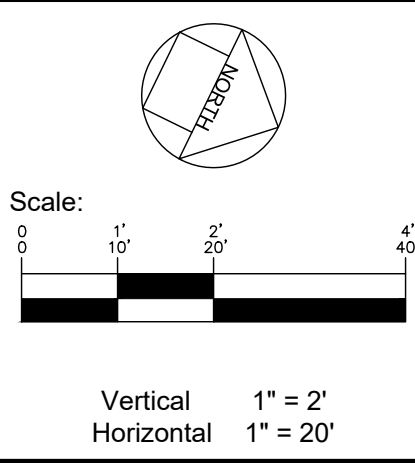
**SAND FILTER CONTROL STRUCTURE DETAIL**



PROJECT #: 2023-07  
 DRAWN: JR CHECKED: PC  
 SEAL:

**PRELIMINARY**  
 NOT FOR CONSTRUCTION

REVISIONS:



Project Title:  
**Maiden Mini Storage**

Contact:  
**TUSSMORE LLC**

2326 N NC 16 Business HWY  
 Denver, NC 28037

Sheet Title:  
**SCM-100 Plan & Profile**

Sheet Number:  
**C-8.00**

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