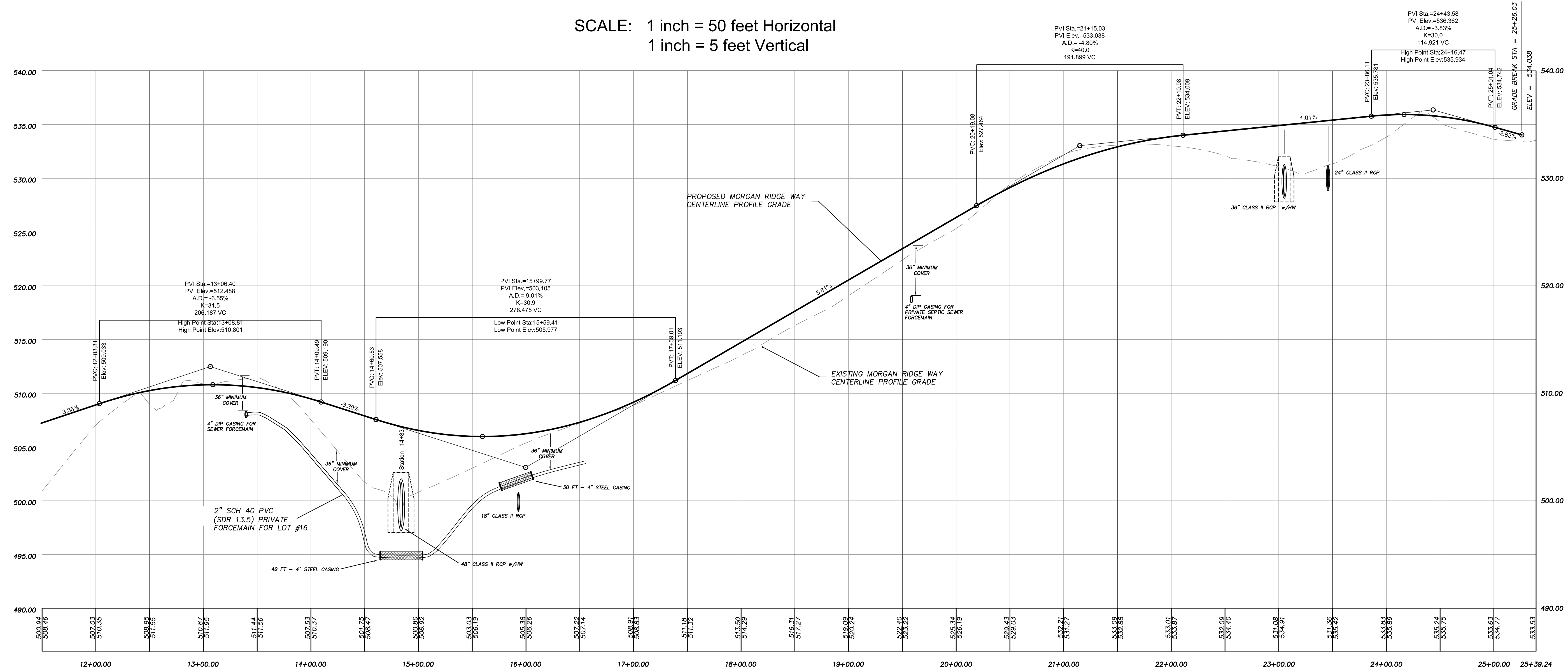
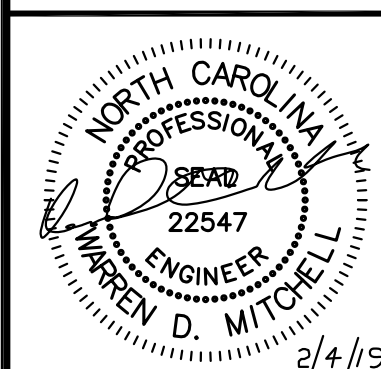


SCALE: 1 inch = 50 feet Horizontal
1 inch = 5 feet Vertical



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REVISIONS	DATE	BY	DESCRIPTION
1.	11/15/18	WDM	NC DOT comments
2.	12/19/18	WDM	EC and Stormwater
3.	1/22/19	WDM	EC and NCDOT
4.	2/4/19	WDM	NC DOT Revisions

MORGAN RIDGE SUBDIVISION Construction Drawings

Chatham County, North Carolina

August 20, 2018

Scale: 1"=50'

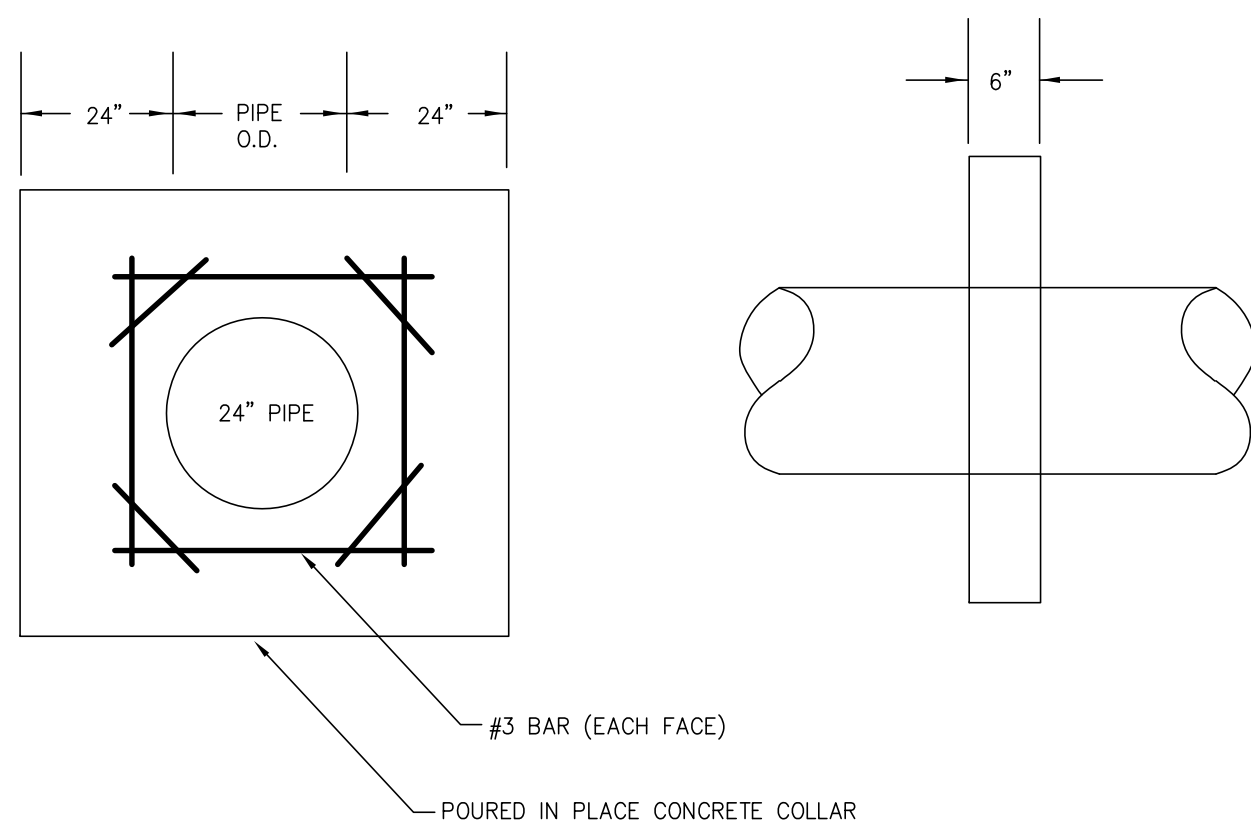
Plan and Profile
Sheet 2 of 2

C5

TURFGRASS SPECIFICATION FOR BIORETENTION CELLS

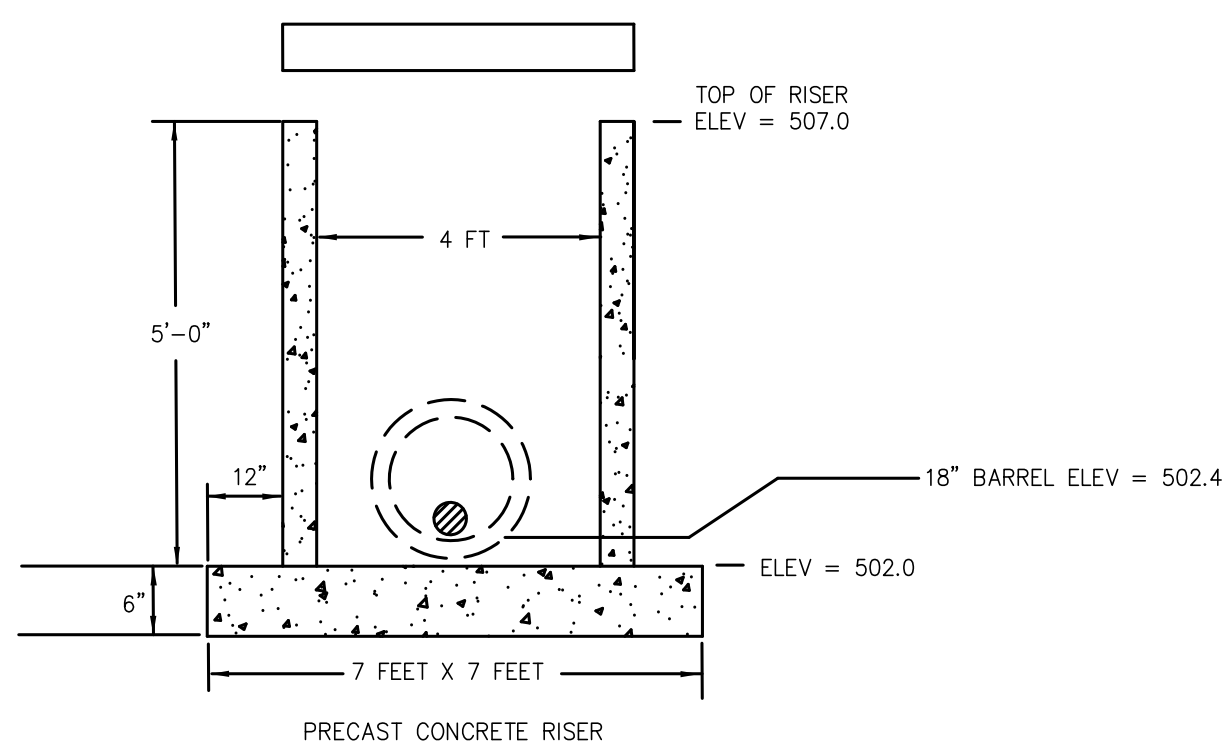
In grassed bioretention cells, use perennial grasses such as hybrid Bermuda or centipede in the CP and Piedmont. Grass should never be seeded, use sod instead. When using sod, avoid sod that is grown in soil that has an impermeable layer (such as clay).

GENERAL PLANTING DETAIL



NOTE: CONCRETE SHALL BE 3000 PSI @ 28 DAYS
COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

ANTI-SEEP COLLAR DETAIL



RISER DETAIL

BIORETENTION BASIN PLANT LIST		
BOTANICAL NAME	COMMON NAME	SIZE/CAL.
Acorus subcordatum	SWEETFLAG	PLUG
Panicum virgatum	SWITCHGRASS	PLUG
Asclepias incarnata	SWAMP MILKWEED	PLUG
Kosteletskya virginica	MARSH MALLOW	PLUG
Lobelia cardinalis	CARDINAL FLOWER	PLUG
Juncus Effusus	SOFTGRASS	PLUG
Iris virginica	SOUTHERN BLUE FLAG	PLUG
Carex amphibola	CREEK SEDGE(any sedge)	PLUG

BIORETENTION BASIN Planting Schedule

Area of the Bioretention Basin = 3878 square feet
50 plants per 250 sf = 15.5 X 50 plants = 775 plants

Choose a minimum of 6 varieties from the list above.

Plant individual plants 2.0 feet apart. Plant varieties in groups of 5 to 10 plants.

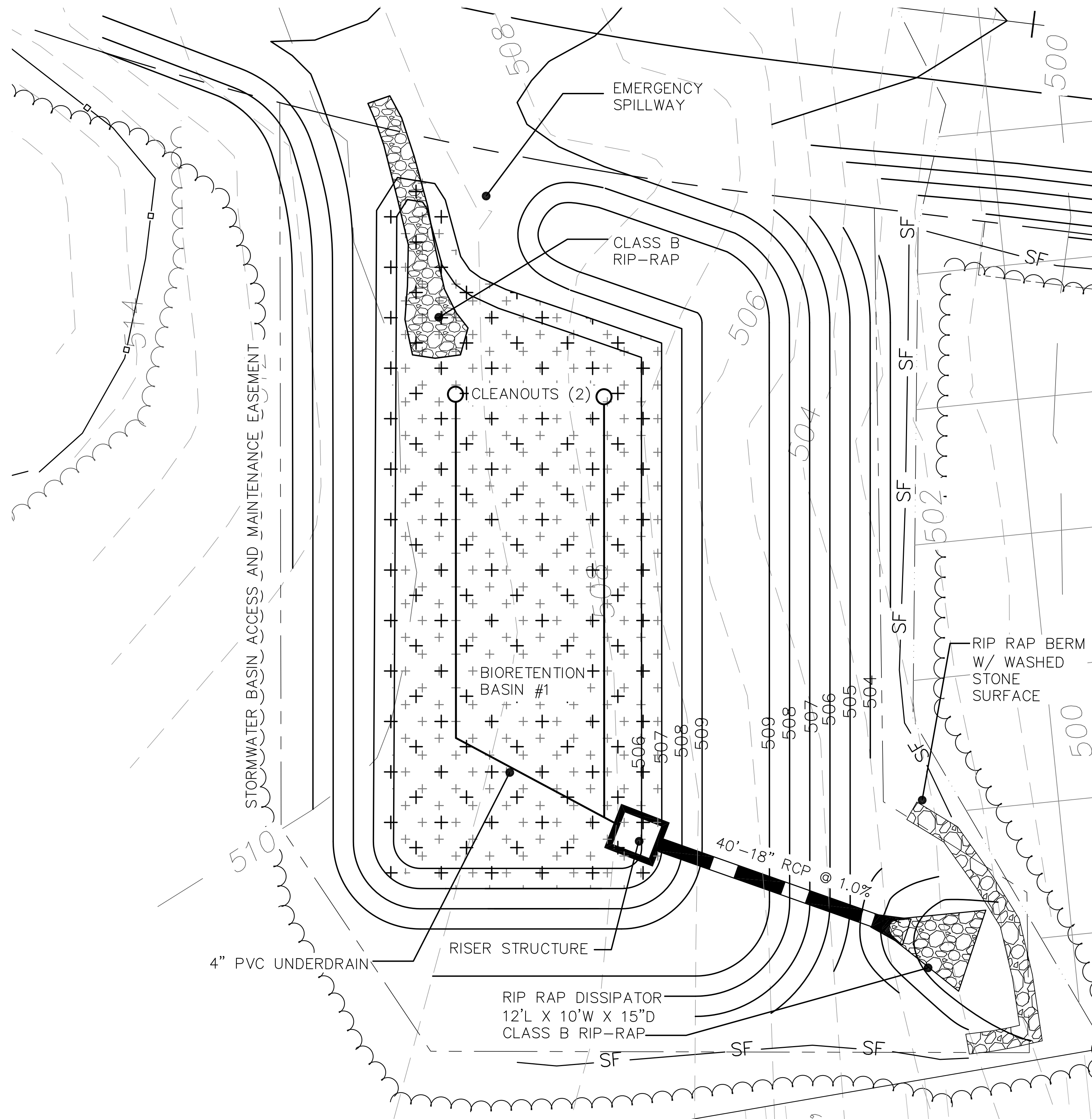
GENERAL PLANTING NOTES

1. AVOID COMPACTING TOPSOIL TO PROMOTE HEALTHY CONDITIONS FOR THE PLANTS.
2. BEGIN PLANTING DURING THE LOCAL GROWING SEASON IN ORDER TO ENSURE THAT PLANTS HAVE ADEQUATE TIME TO ESTABLISH BEFORE WINTER MONTHS.
3. OBTAIN PLANTS FROM: MELLOW MARSH FARMS (919-742-1200) OR CURE NURSERY (919-542-6186).
4. REFER TO THE EROSION CONTROL DETAIL SHEET C6 FOR SEEDING SPECS FOR AREAS OF POND.

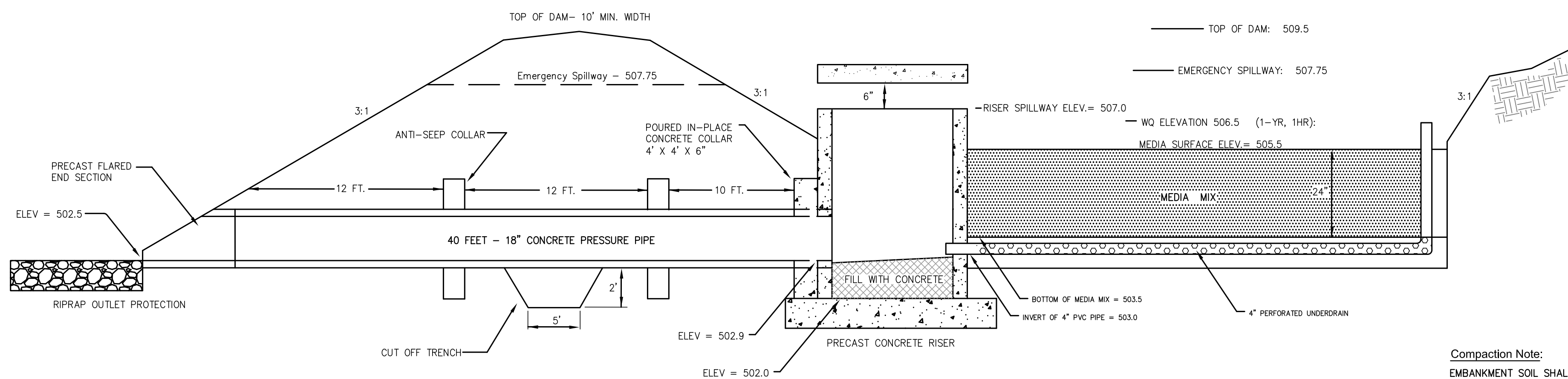
THE MEDIA SHALL BE A HOMOGENOUS SOIL MIX ENGINEERED MEDIA BLEND WITH APPROXIMATE VOLUMES OF THE FOLLOWING:

- (a) 75 to 85 percent medium to coarse washed sand (ASTM C33, AASHTO M 6/M 80, ASTM C330, AASHTO M195, or the equivalent);
- (b) 8 to 15 percent fines (silt and clay); and
- (c) 5 to 10 percent organic matter (such as pine bark fines).

MEDIA MIX SPECIFICATION



SCALE: 1 inch = 10 feet Horizontal



BIORETENTION BASIN

nts

Compaction Note:
EMBANKMENT SOIL SHALL BE COMPACTED TO ACHIEVE 99% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY FOR THE MATERIAL.

Stormwater Statement:

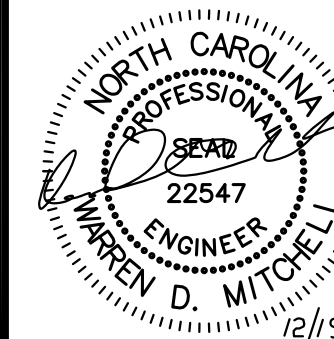
The design of all stormwater management facilities and practices will control and treat the runoff from the 1 year-1hour storm over the total wet pond drainage area, that the designs and plans are sufficient to comply with applicable standards and policies found in the NCDENR Stormwater BMP Design Manual, and that the designs and plans ensure compliance with the County's Stormwater Ordinance

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Date

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REVISIONS
1. 12/5/18 EC and Stormwater
2. 12/19/18 EC and Stormwater

MORGAN RIDGE SUBDIVISION
Construction Drawings

Chatham County, North Carolina

August 20, 2018

As Noted

Bioretention
Pond #1
(sed./riser
basin #2)

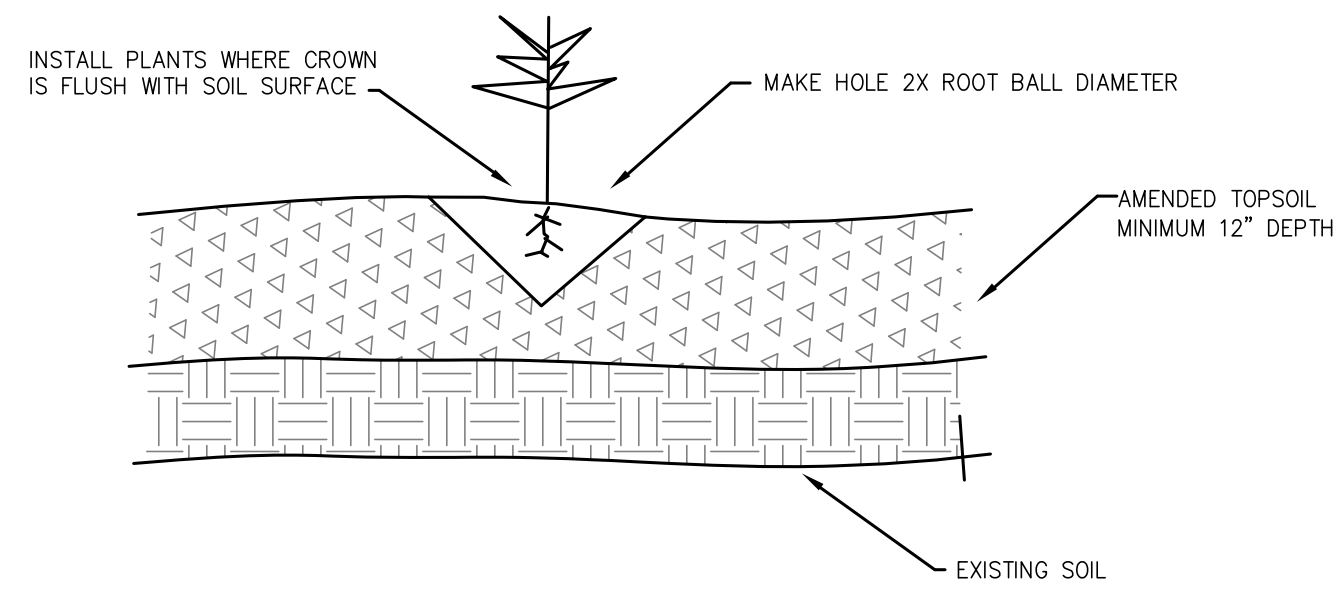
C6

Stormwater Wetland Planting Schedule

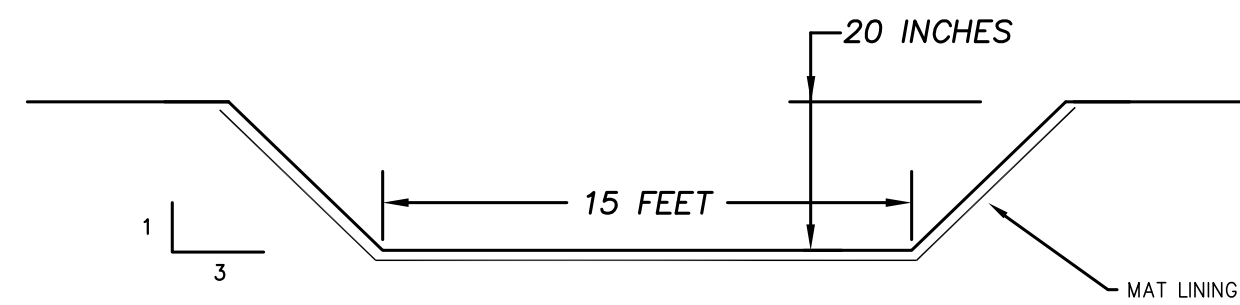
Area of the Shallow Water Zone = 2240 square feet
 50 plants per 200 sf = 11.2 X 50 plants = 560 plants

Area of the Temporary Inundation Zone = 2280 square feet
 50 plants per 200 sf = 11.4 x 50 plants = 570 plants

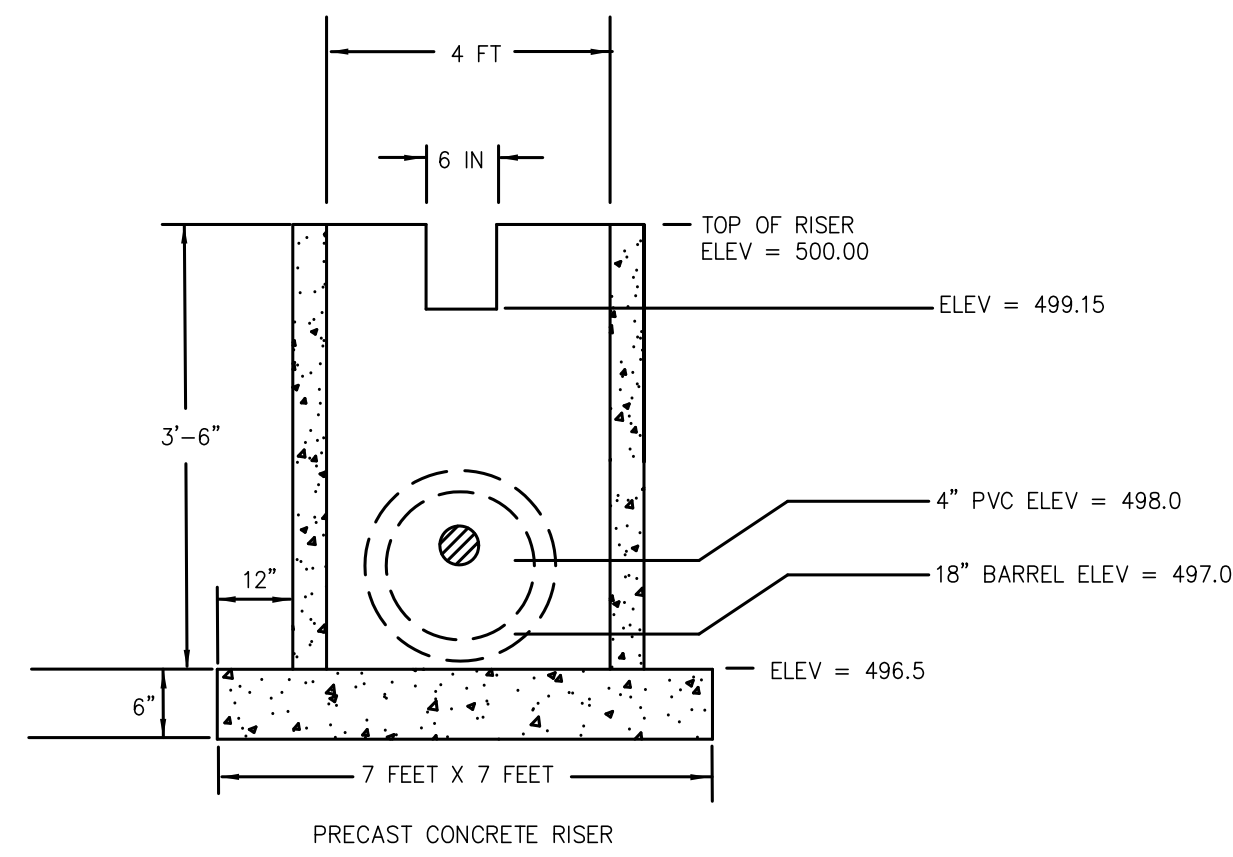
Plant individual plants 2.0 feet apart. Plant varieties in groups of 5 to 10 plants.



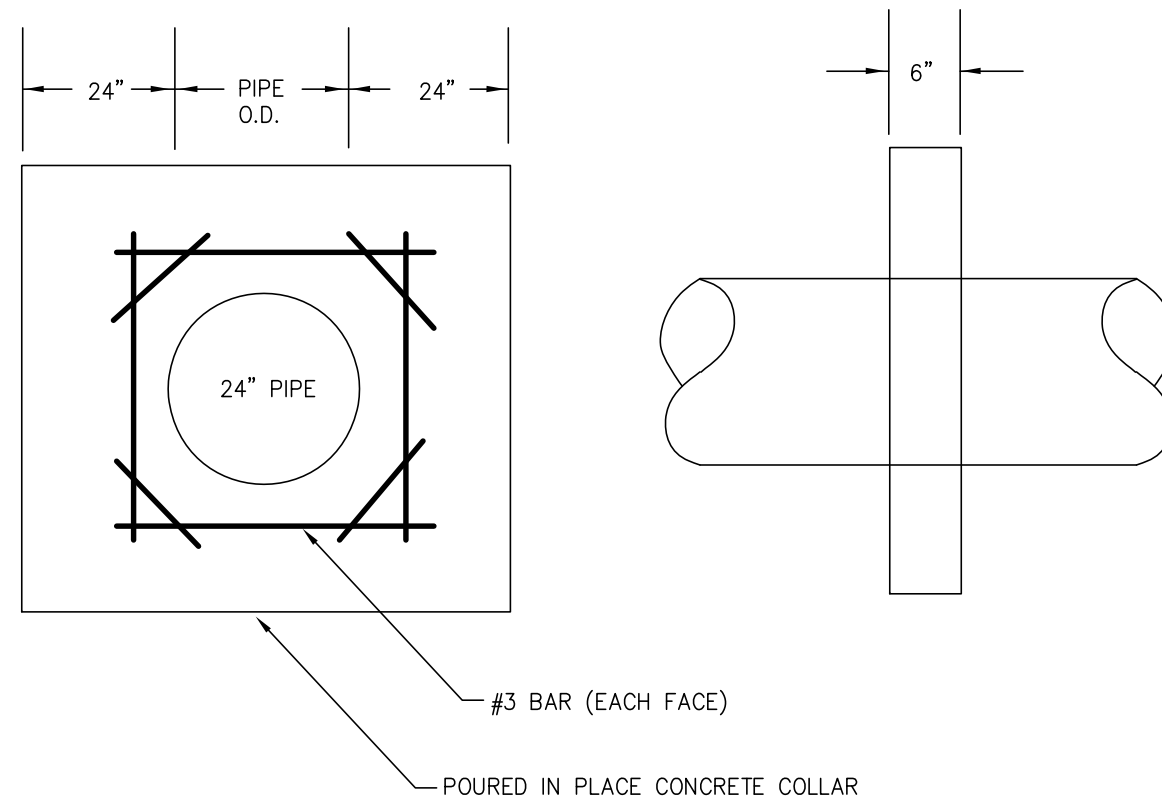
GENERAL PLANTING DETAIL



EMERGENCY SPILLWAY

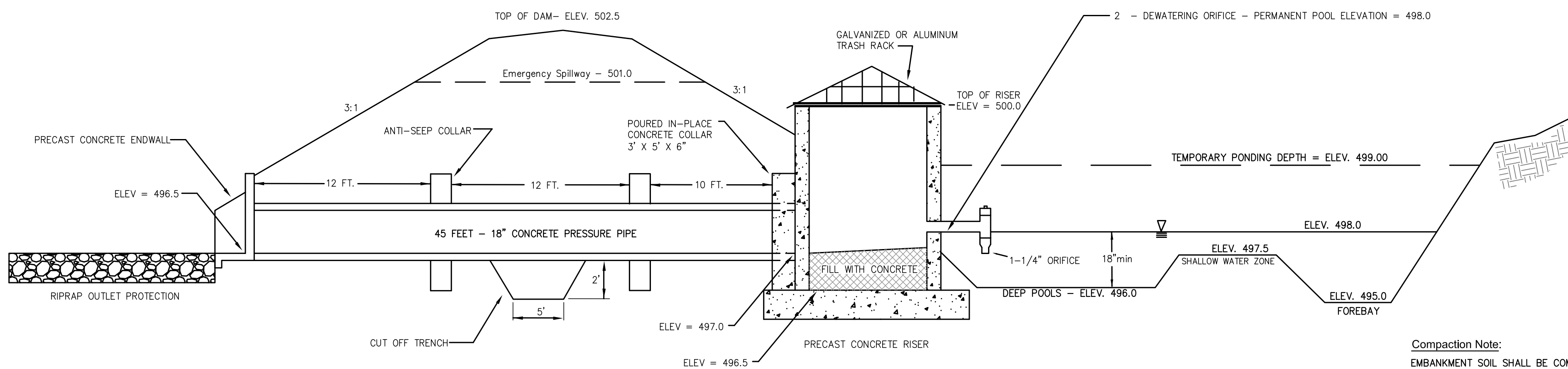


RISER DETAIL



NOTE: CONCRETE SHALL BE 3000 PSI @ 28 DAYS
 COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

ANTI-SEEP COLLAR DETAIL



STORMWATER WETLANDS

GENERAL PLANTING NOTES

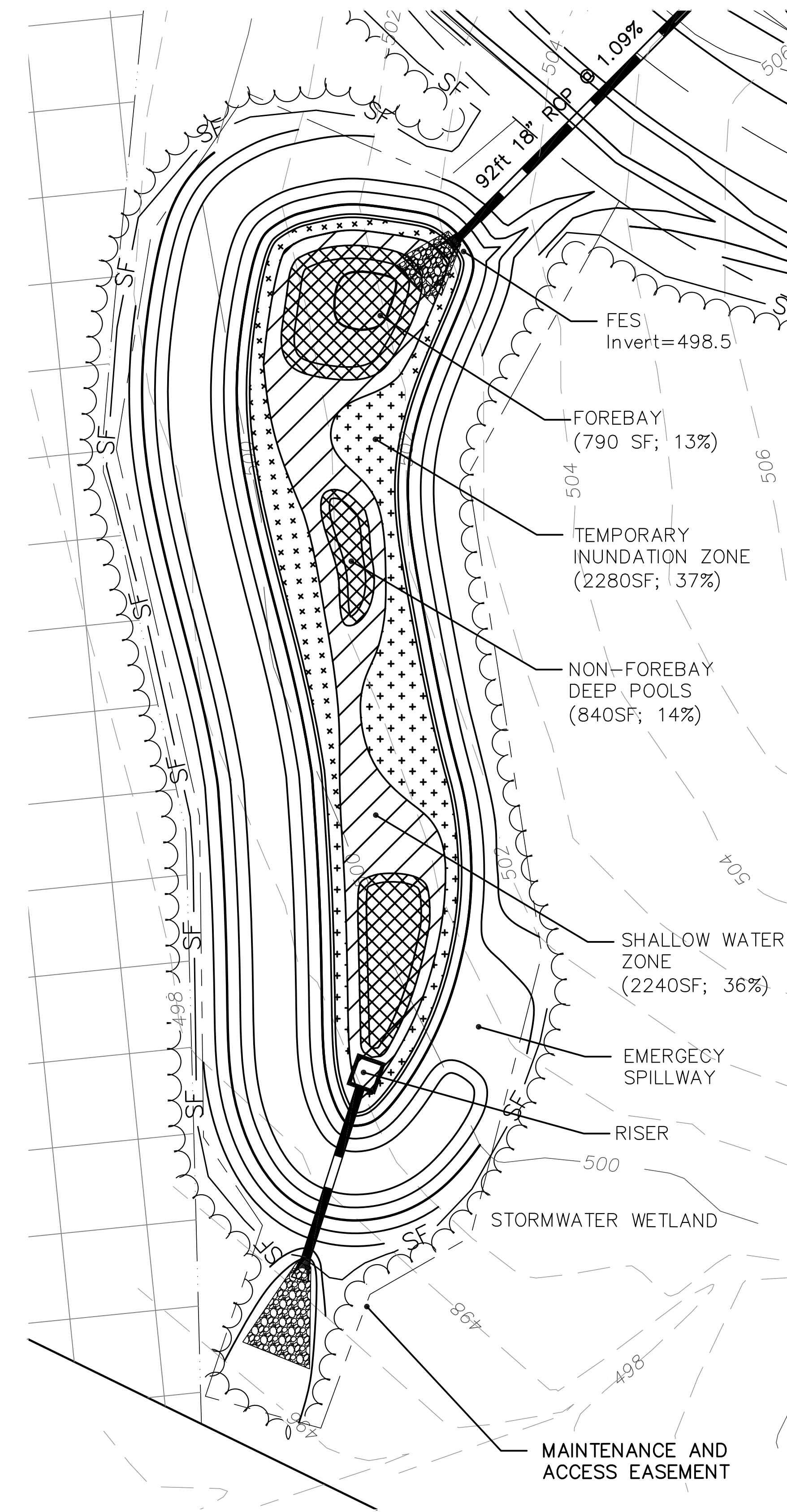
1. AVOID COMPACTING TOPSOIL TO PROMOTE HEALTHY CONDITIONS FOR THE PLANTS.
2. BEGIN PLANTING DURING THE LOCAL GROWING SEASON IN ORDER TO ENSURE THAT PLANTS HAVE ADEQUATE TIME TO ESTABLISH BEFORE WINTER MONTHS.
3. OBTAIN PLANTS FROM: MELLOW MARSH FARMS (919-742-1200) OR CURE NURSERY (919-542-6186).
4. REFER TO THE EROSION CONTROL DETAIL SHEET C6 FOR SEEDING SPECS FOR AREAS OF POND.

PLANTS FOR SHALLOW WATER ZONE

50 PLANTS / 200 SF = 560 PLANTS			
BOTANICAL NAME	COMMON NAME	CONTAINER	QUANT.
<i>Acorus subcordatum</i>	SWEETFLAG	3.6-6.8 cu.in.	50
<i>Pontederia cordata</i>	PICKERELWEED	ROOT	100
<i>Asclepias incarnata</i>	SWAMP MILKWEED	ROOT	50
<i>Kosteletskya virginica</i>	MARSH MALLOW	ROOT	80
<i>Schoenoplectus americanus</i>	SWORDGRASS	ROOT	100
<i>Juncus Effusus</i>	SOFTTRUSH	3.6-6.8 cu.in.	40
<i>Iris virginica</i>	SOUTHERN BLUE FLAG	3.6-6.8 cu.in.	40
<i>Schoenoplectus americanus</i>	THREE SQUARE BULRUSH	3.6-6.8 cu.in.	100

HERBACEOUS PLANTS FOR THE TEMP. INUNDATION ZONE

50 PLANTS / 200 SF = 570 PLANTS			
BOTANICAL NAME	COMMON NAME	CONTAINER	QUANT.
<i>Cladium jamaicense</i>	Saw grass	3.6-6.8 cu.in.	150
<i>Carex crinita</i>	Fringed Sedge	3.6-6.8 cu.in.	50
<i>Carex glaucescens</i>	Southern waxy sedge	3.6-6.8 cu.in.	50
<i>Carex gravi</i>	Gray's Sedge	3.6-6.8 cu.in.	50
<i>Carex lupulina</i>	Hop sedge	3.6-6.8 cu.in.	50
<i>Dulichium arundinaceum</i>	Three-way sedge	3.6-6.8 cu.in.	50
<i>Hibiscus moscheutos</i>	Marsh Hibiscus	3.6-6.8 cu.in.	75
<i>Juncus effusus</i>	Common Rush	3.6-6.8 cu.in.	100



SCALE: 1 inch = 20 feet Horizontal

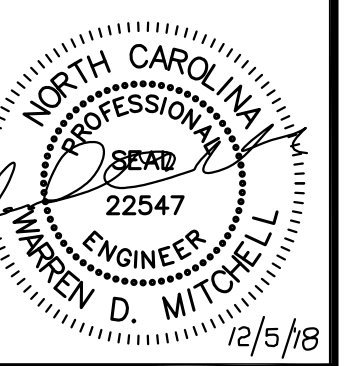
Stormwater Statement:

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Date

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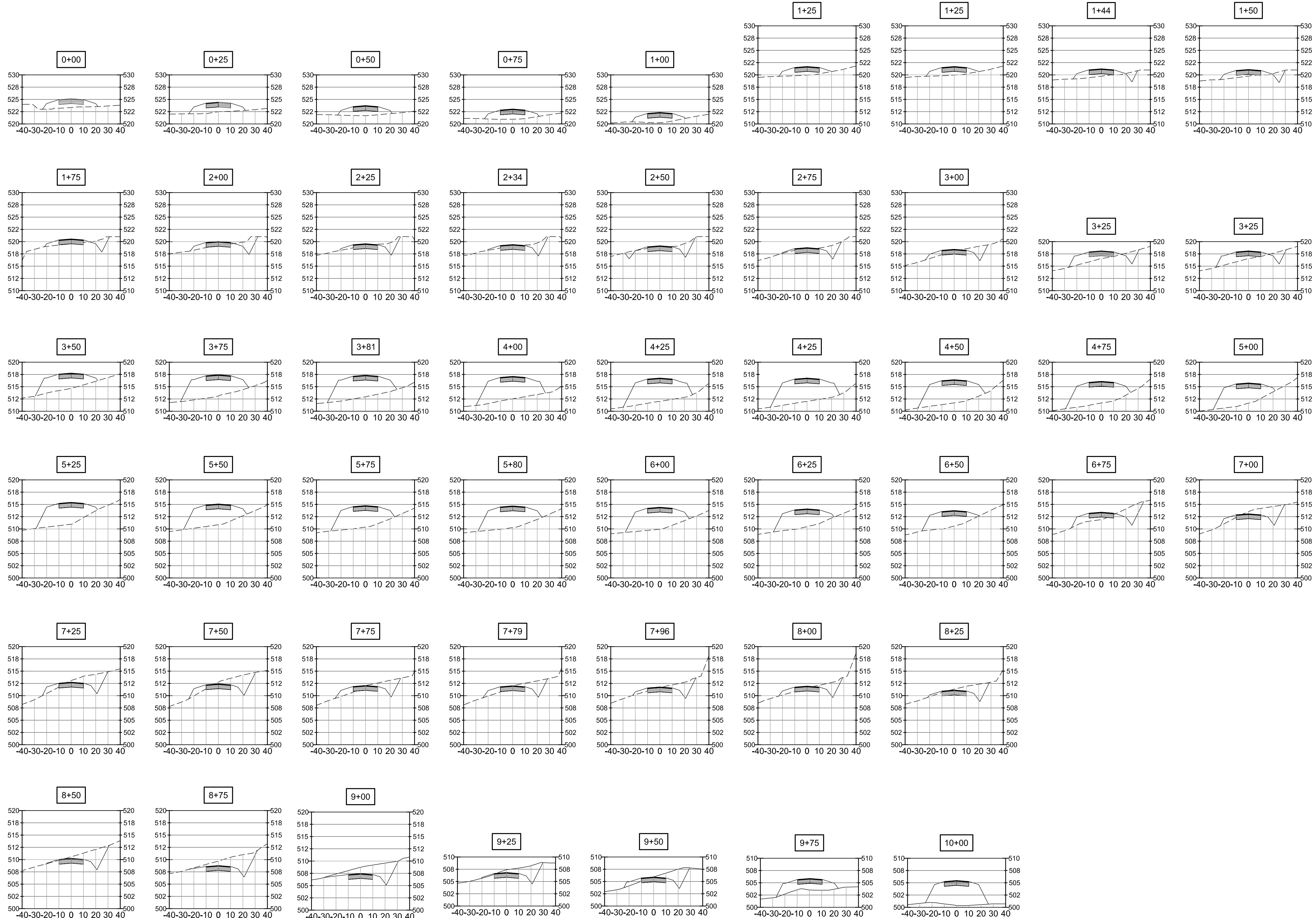
REVISIONS
 1. 12/5/18 EC and Stormwater

MORGAN RIDGE SUBDIVISION
Construction Drawings
 Chatham County, North Carolina

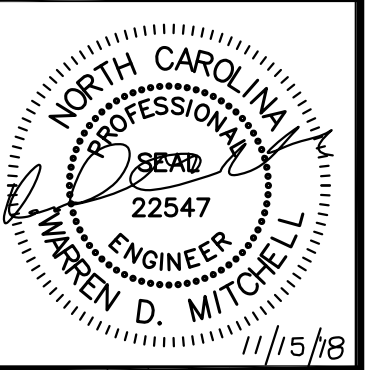
August 20, 2018

Stormwater
 Wetland
 (Sediment
 Basin #3)

C7



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REVISIONS
 1. 11/15/18 NCDOT comments

MORGAN RIDGE SUBDIVISION
 Construction Drawings
 Chatham County, North Carolina

August 20, 2018

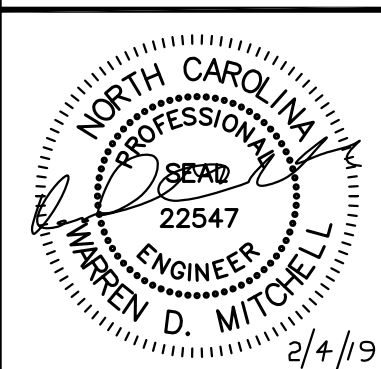
As Noted

Road
 X- Sections

C8

SCALE: 1 inch = 40 feet Horizontal
 1 inch = 10 feet Vertical

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REVISIONS	DATE	DESCRIPTION
1.	11/15/18	NC DOT comments
2.	1/22/19	EC and Stormwater
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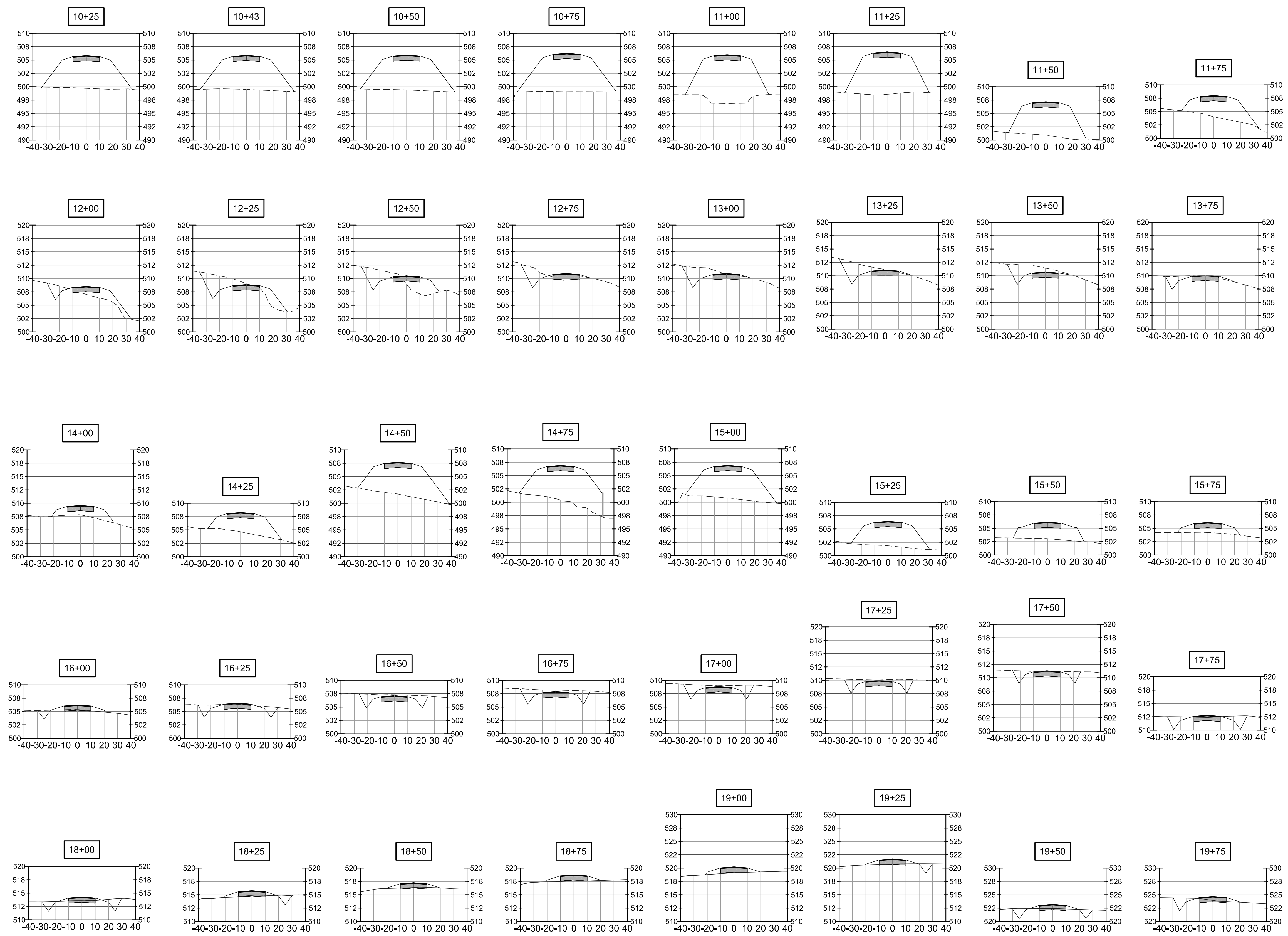
MORGAN RIDGE SUBDIVISION
Construction Drawings
 Chatham County, North Carolina

August 20, 2018

As Noted

Road
 X- Sections

C9



SCALE: 1 inch = 40 feet Horizontal
 1 inch = 10 feet Vertical