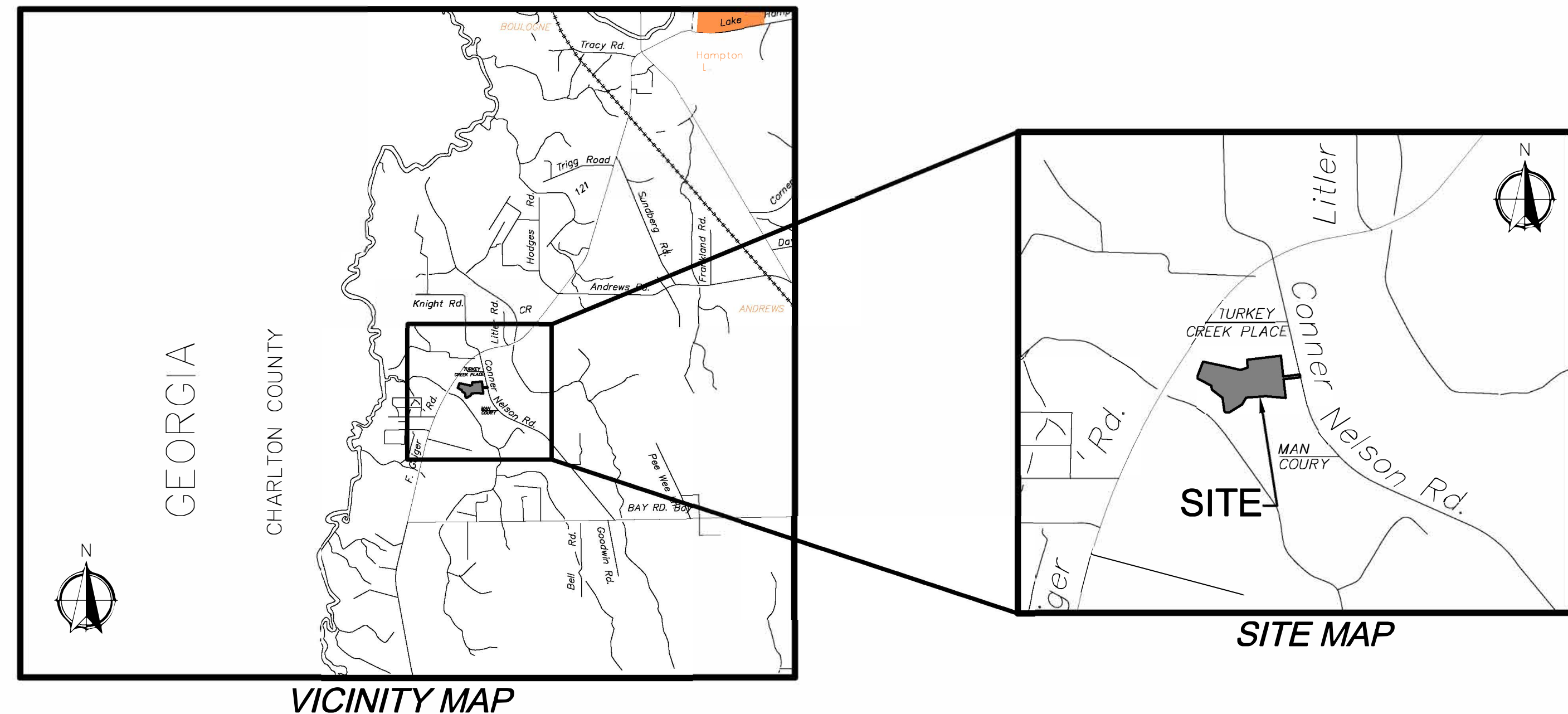


COUNTRY MEADOWS UNIT 2

NASSAU COUNTY, FLORIDA



DEVELOPER/AGENT

BOBBY FRANKLIN
P.O. BOX 809
HILLIARD, FL. 32040-0809
TELE: (904) 813-3510

ENGINEER OF RECORD

NORTH FLORIDA ENGINEERING SERVICES
3530 AGRICULTURAL CENTER DRIVE SUITE 209
ST AUGUSTINE, FLORIDA 32092
CONTACT: CHRIS FAVRE
TELE: (904) 737-0971 FAX: (904) 392-5372

SURVEYOR

GLASS LAND SURVEYING, LLC
23884 CRESCENT PARK COURT,
FERNANDINA BEACH, FLORIDA 32034
TELE: (904) 261-0128
CELL: (904) 370-0318

Michael R Light
Digitally signed by Michael R Light
Date: 2023.08.16 12:28:23 -04'00'

This item has been digitally signed and sealed by Michael R. Light, P.E. on the date adjacent to the seal.

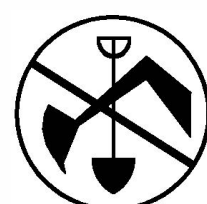
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

DATA SUMMARY

1. TOTAL OF ANTICIPATED PHASES/UNITS - 1
2. TOTAL SITE AREA - 28.4± ACRES
3. TOTAL ACRES PROVIDED FOR RECREATION AREA - 0.0
4. NUMBER OF LOTS AND DWELLING UNITS - 21 LOTS
5. EXISTING ZONING - OR
6. PROPOSED ZONING - OR
7. MAXIMUM PERCENT OF BUILDING COVERAGE TO LOT AREA- 50%
8. MINIMUM YARD REQUIREMENTS
FRONT - 35 FEET
SIDES - 15 FEET
REAR - 25 FEET
9. FIRE PROTECTION IS CURRENTLY PROVIDED BY - DRY HYDRANT
10. TYPICAL LOT SIZE - 130'X400'
11. MINIMUM LOT AREA - 43,560 SQ.FT.
12. MINIMUM LOT WIDTH - 100'

NEED TO UPDATE: BENCH MARK:

4"x4" CONCRETE MONUMENT WITH DISC, STAMPED NASSAU
352002 -EL 67.31 (NAVD 88) LAT. 30.40'54.71531"
Long.- 82.01'50.61262"



CALL BEFORE YOU DIG: 1-800-432-4770
UTILITIES PROTECTION CENTER™
CALL 1-800-432-4770 AT LEAST 12 HOURS BEFORE YOU
DIG TO BE IN FULL COMPLIANCE WITH THE LAW.

INDEX TO SHEETS

SHEET NO. DESCRIPTION

- | | |
|---|-------------------------------|
| 1 | COVER SHEET |
| 2 | PRE-DEVELOPMENT DRAINAGE MAPS |
| 3 | HORIZONTAL CONTROL PLAN |
| 4 | PAVING AND DRAINAGE PLAN |
| 5 | GRADING PLAN |
| 6 | PAVING AND DRAINAGE DETAIL |
| 7 | EROSION CONTROL DETAILS |
| 8 | FIRE PROTECTION PLAN |
| 9 | PROFILE |

COUNTRY MEADOWS
UNIT 2
COVER

NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 28085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209 ST AUGUSTINE, FL 32256
/P/ (904) 737-0971 /FAX (904) 392-5372
MICHAEL R. LIGHT
P.E.
PLANS PREPARED UNDER THE DIRECTION OF:

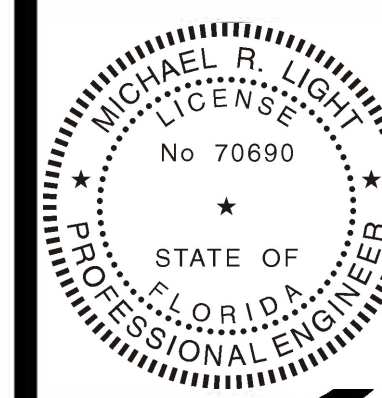
DATE: 05/15/2023

JOB NUMBER: 20-032

SCALE: NONE

* SHEET NUMBER *

1



C:\Users\Antoni\OneDrive\Jobs\2020\20-032\Code\SH2 2--20-032-PRE.dwg Current Layout Tab = SH2-2-PRE Wed Aug 09, 2023 14:54

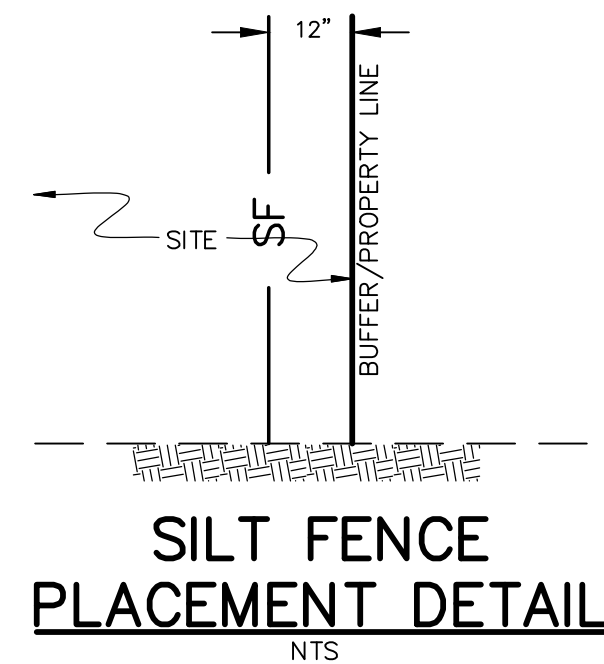
SOILS DATA					
#	SOIL NAME	HYDRO GROUP	PRE-CN	POST-CN	AREA ac
13	GOLDHEAD	B/D	87	84	3.94
16	ELLABELLE	D	87	84	0.88
47	EEFIELD	C	83	79	14.69
53	MEADOWBROOK	B/D	87	84	3.84
55	MEGETT	D	87	84	0.14
57	PENNEY	A	63	51	11.94

WEIGHTED PRE-CN
 $PRE-CN = (3.94 \times 87) + (0.88 \times 87) + (14.69 \times 83) + (3.84 \times 87) + (0.14 \times 87) + (11.94 \times 63) = 77.25$
35.43

WEIGHTED POST-CN
 $POST-CN = (3.94 \times 84) + (0.88 \times 84) + (14.69 \times 79) + (3.84 \times 84) + (0.14 \times 84) + (11.94 \times 51) = 70.81$
35.43

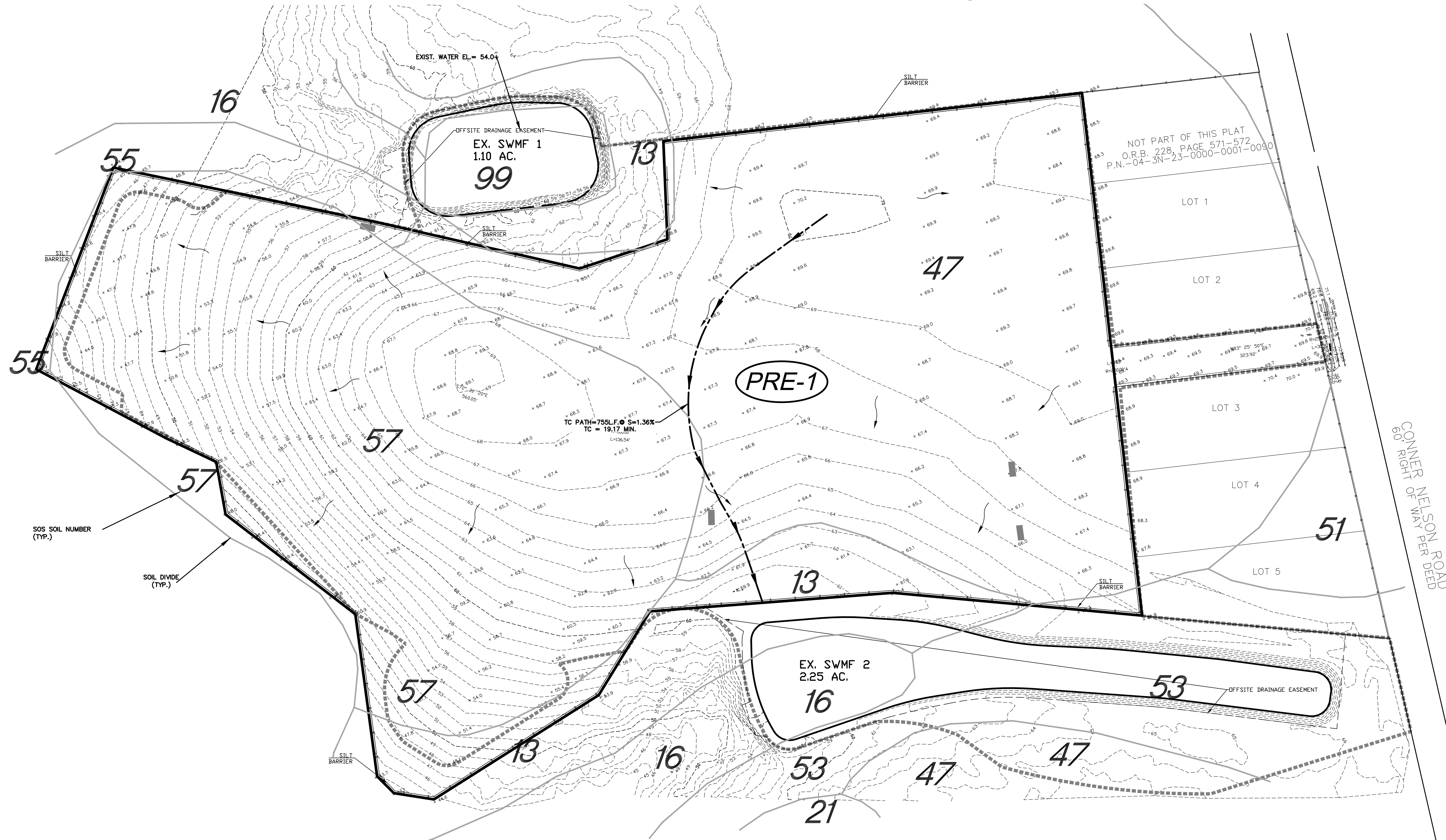
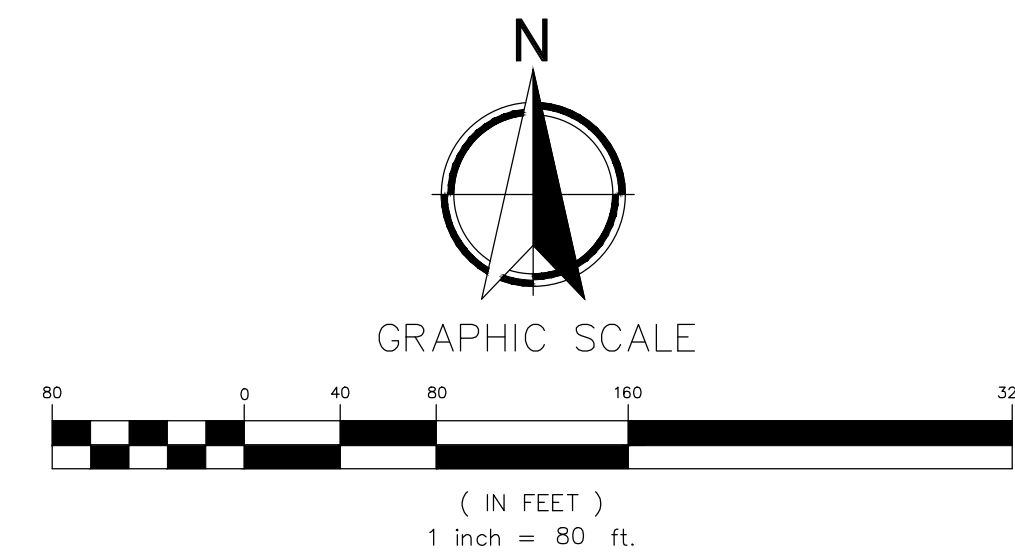
FEMA FLOOD ZONE INFO

THE PROPERTY SHOWN HEREON LIES WITHIN ZONE: "X" AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.), NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP (F.I.R.M.), COMMUNITY-PANEL NUMBER: 12089C-0110F, DATE DECEMBER 17, 2010



NOTE:
REMOVE ALL ON-SITE POWER POLES & WIRES, TELEPHONE POLES & WIRES, SEPTIC TANKS, MOBILE HOMES, SHEDS, SLABS, DRAINAGE STRUCTURES, WELLS, AND FENCES FROM PROPERTY AS PART OF THIS PROJECT.

- #### LEGEND
- BRL BUILDING RESTRICTION LINE
 - DE DRAINAGE EASEMENT
 - VNB VEGETATED NATURAL BUFFER
 - UAE UNOBSTRUCTED ACCESS EASEMENT
 - UDE UNOBSTRUCTED DRAINAGE EASEMENT
 - USUAUE UNOBSTRUCTED ST. JOHNS UTILITY AUTHORITY UTILITY EASEMENT
 - PDE PRIVATE DRAINAGE EASEMENT
 - PUDE PRIVATE UNOBSTRUCTED DRAINAGE EASEMENT
 - UD&AE UNOBSTRUCTED DRAINAGE & ACCESS EASEMENT
 - DENOTES DRAINAGE DIVIDE LINES
 - - - - - DENOTES EXISTING CONTOURS
 - DENOTES EXISTING SOIL BOUNDARIES
 - - - - - DENOTES PROPOSED SILT FENCE BARRIER
 - DENOTES PROPOSED TYPICAL FLOW DIRECTION
 - DENOTES EXISTING FLOOD ZONE LINE
 - 2 DENOTES DRAINAGE DIVIDE AREA
 - 29.00 DENOTES EXISTING SPOT ELEVATIONS
 - W DENOTES WETLAND AREA
 - DENOTES DRAINAGE FLOW



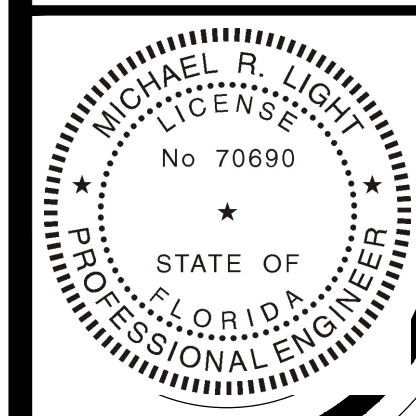
COUNTRY MEADOWS UNIT 2 PRE-DEVELOPMENT DRAINAGE MAP

NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 26085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209 ST. AUGUSTINE FL 32256
/P/ (904) 737-0971 /FAX (904) 396-5372
Email: FAYRENFES@GMAIL.COM MICHAEL R. LIGHT
PLANS PREPARED UNDER THE DIRECTION OF: MICHAEL R. LIGHT
P.E.

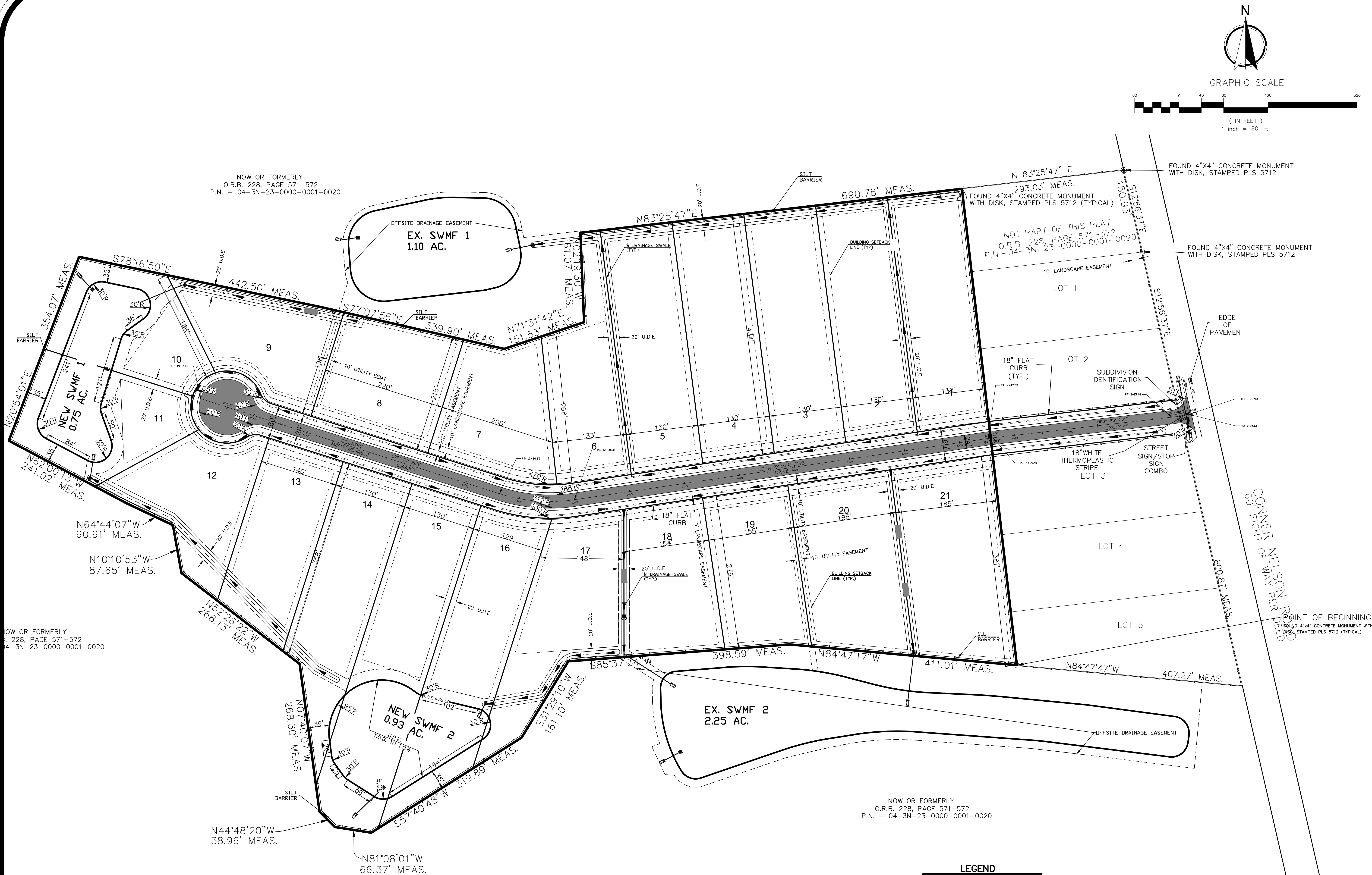
DATE: 05/15/2023
JOB NUMBER: 20-032
SCALE: 1" = 80'

* SHEET NUMBER *

2



PARCEL ID-04-3N-23-0000-0001-0110



NOTE:
1.) ALL STRIPING TO BE THERMOPLASTIC MATERIAL REFER TO NASSAU COUNTY ROADWAY & DRAINAGE STANDARDS, SECTION 11.9
2.) ALL TRAFFIC MARKINGS AND SIGNAGE SHALL COMPLY WITH THE MUTCO, NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, FDOT STANDARDS AND F.D.O.T INDEX 17346.

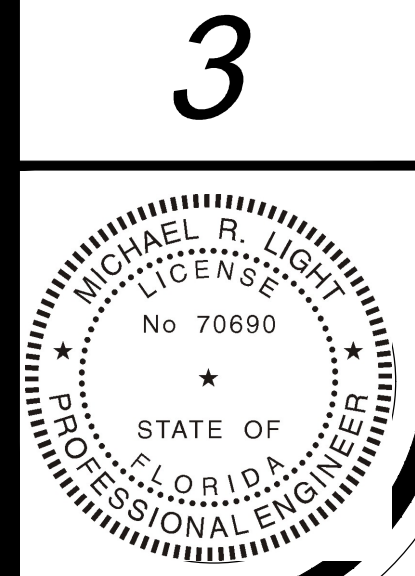
LEGEND	
BRL	BUILDING RESTRICTION LINE
DE	DRAINAGE EASEMENT
VNB	VEGETATED NATURAL BUFFER
UAE	UNOBSTRUCTED ACCESS EASEMENT
UDE	UNOBSTRUCTED DRAINAGE EASEMENT
UJEAUE	UNOBSTRUCTED J.E.A. UTILITY EASEMENT
PDE	PRIVATE DRAINAGE EASEMENT
PUDE	PRIVATE UNOBSTRUCTED DRAINAGE EASEMENT
UD&AE	UNOBSTRUCTED DRAINAGE & ACCESS EASEMENT
AB	AUGER BORING LOCATION (APPROXIMATE)
PT	PENETRATION TEST BORING LOCATION (APPROXIMATE)
FCEP	FIELD CASED PERMEABILITY TEST LOCATION (APPROXIMATE)
	DENOTES NEW PAVEMENT (PHASE ONE)

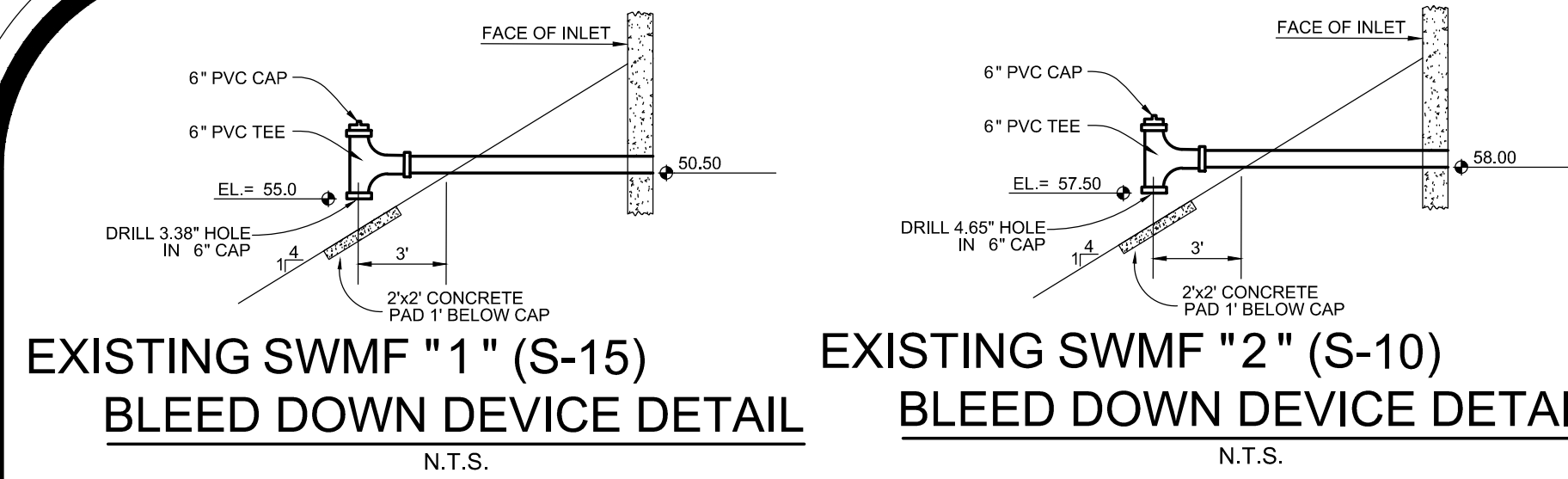
COUNTRY MEADOWS
UNIT 2
HORIZONTAL CONTROL PLAN

NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 26085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209, ST. AUGUSTINE, FL 32256
/PH (904) 737-0971 /FAX (904) 396-5372
/EMAIL: ENVRN@NFEES@GMAIL.COM
PLANS PREPARED UNDER THE DIRECTION OF:
MICHAEL R. LIGHT
P.E.
70690

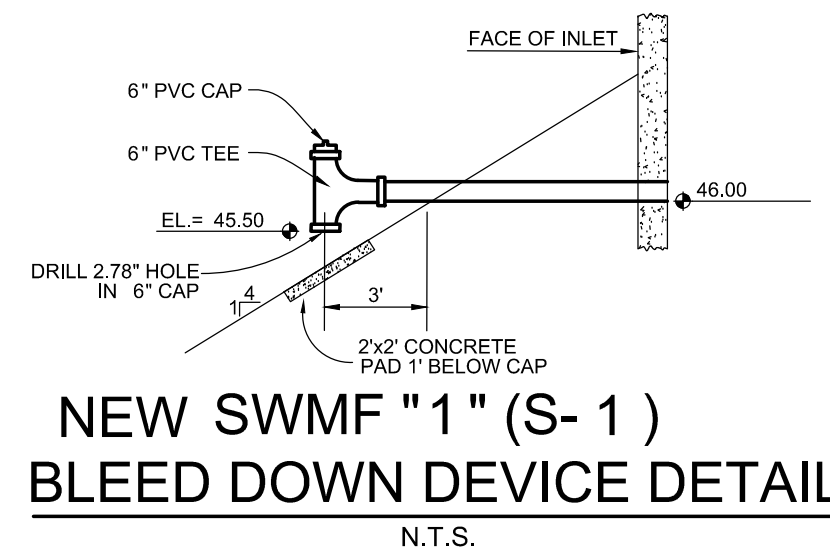
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JOB NUMBER : 20-032
SCALE : 1" = 80'

* SHEET NUMBER *

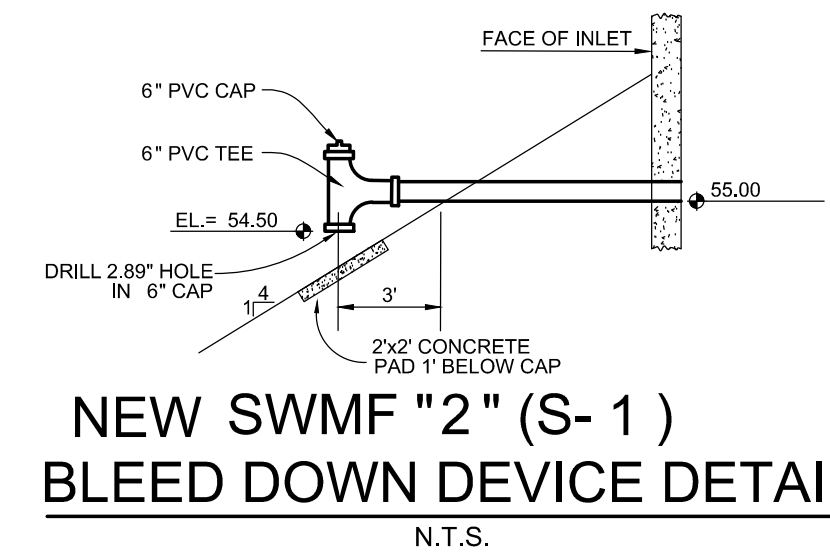




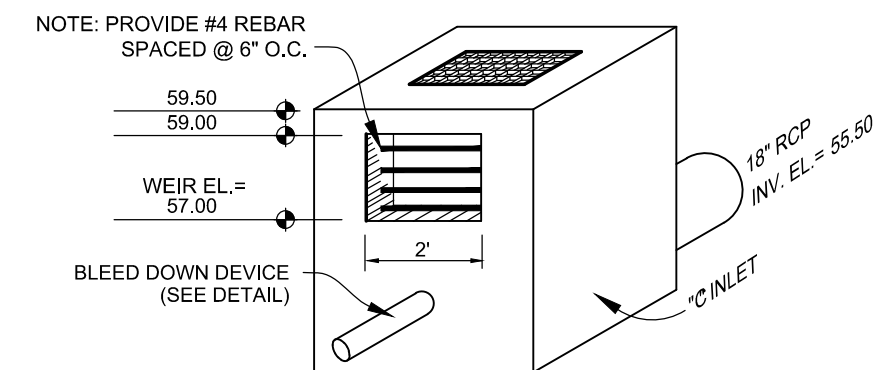
EXISTING SWMF "2" (S-10)
BLEED DOWN DEVICE DETAIL
N.T.S.



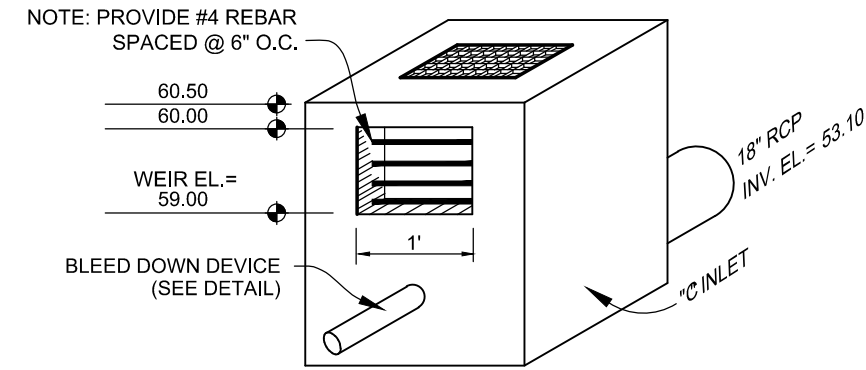
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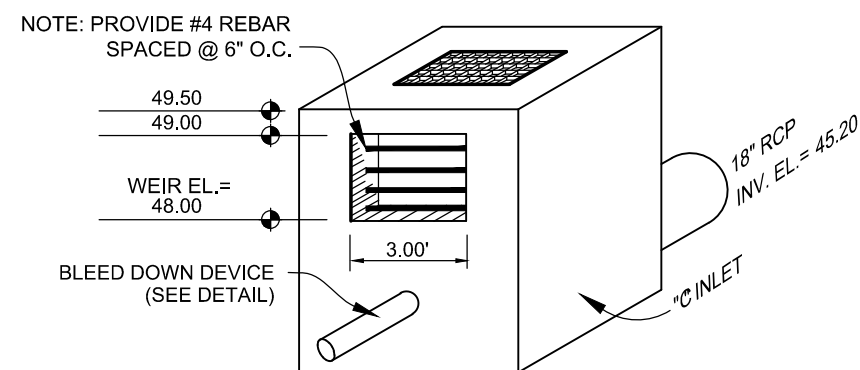
NEW SWMF "2" (S-1)
BLEED DOWN DEVICE DETAIL
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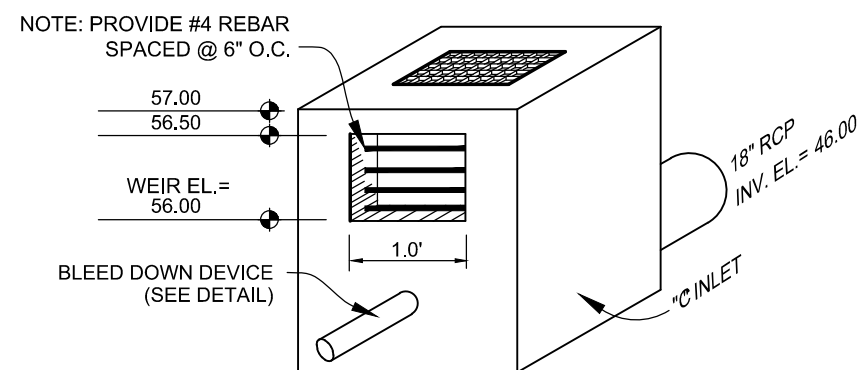
EXISTING SWMF 1 (S-15)
CONTROL STRUCTURE DETAIL
N.T.S.



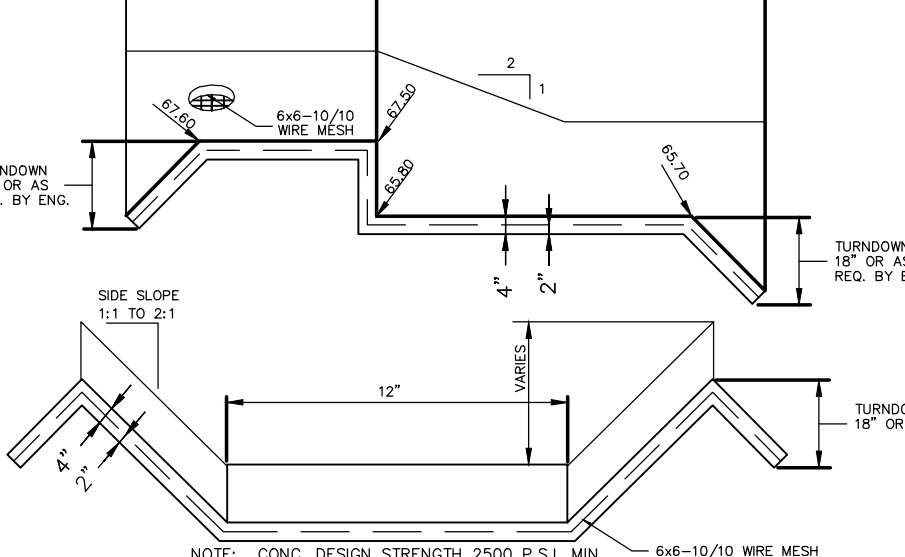
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CONTROL STRUCTURE DETAIL
N.T.S.



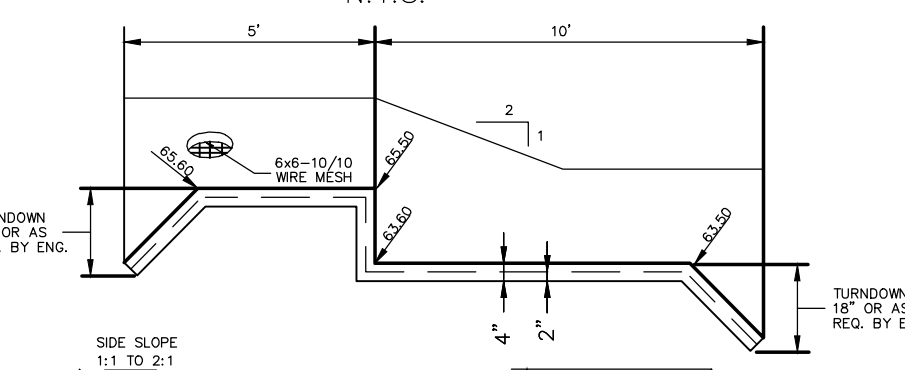
NEW SWMF 1 (S-1)
CONTROL STRUCTURE DETAIL
N.T.S.



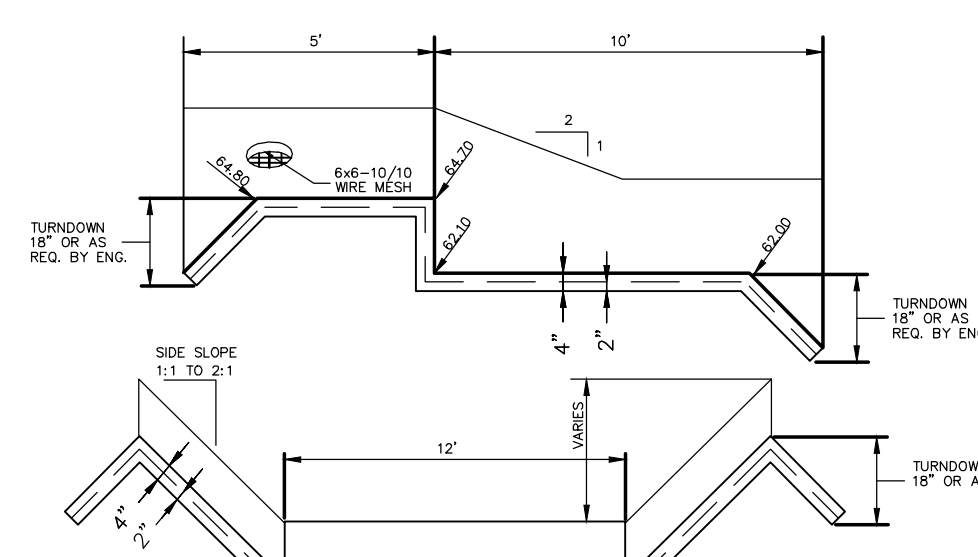
NEW SWMF 2 (S-11)
CONTROL STRUCTURE DETAIL
N.T.S.



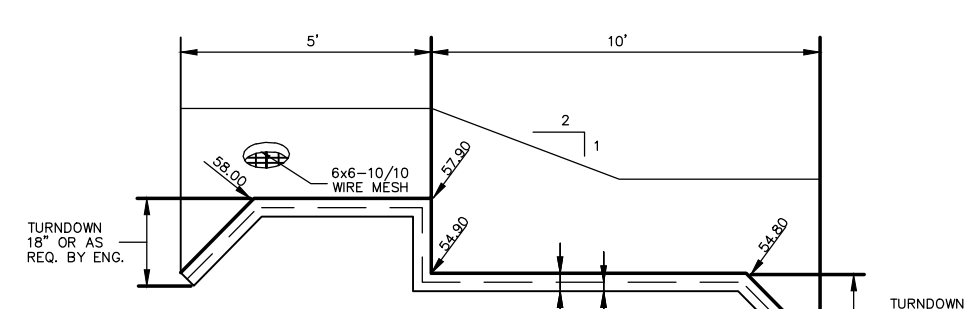
CONC. CHECK DAM (D-16)
N.T.S.



CONC. CHECK DAM (D-17)
N.T.S.

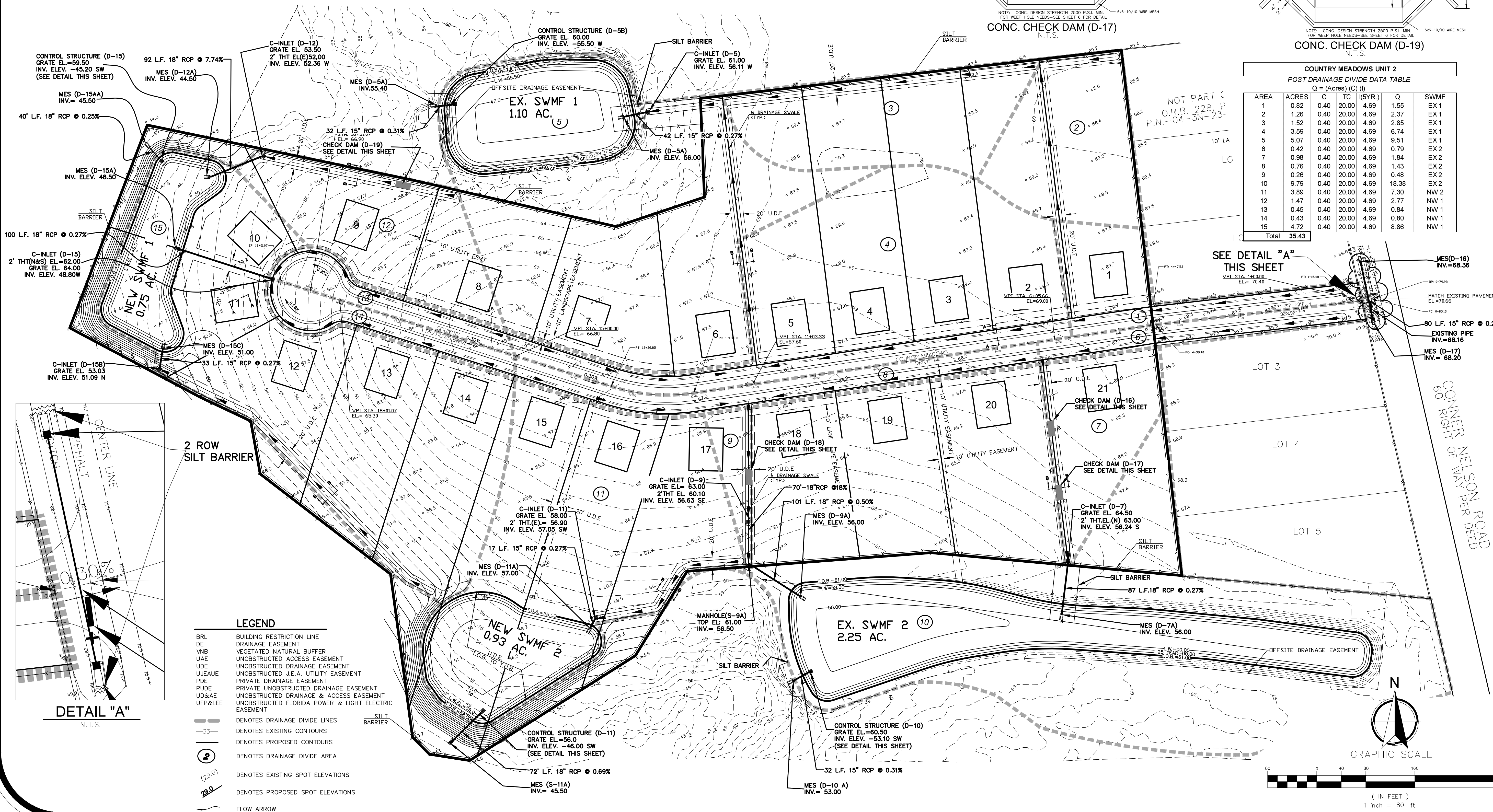


CONC. CHECK DAM (D-18)
N.T.S.



CONC. CHECK DAM (D-19)
N.T.S.

COUNTRY MEADOWS UNIT 2						
POST DRAINAGE DIVIDE DATA TABLE						
Q = (Acres) (C) (I)						
AREA	ACRES	C	TC	(K)YR	Q	SWMF
1	0.82	0.40	20.00	4.69	1.55	EX 1
2	1.26	0.40	20.00	4.69	2.37	EX 1
3	1.52	0.40	20.00	4.69	2.85	EX 1
4	3.59	0.40	20.00	4.69	6.74	EX 1
5	5.07	0.40	20.00	4.69	9.51	EX 1
6	0.42	0.40	20.00	4.69	0.79	EX 2
7	0.98	0.40	20.00	4.69	1.84	EX 2
8	0.76	0.40	20.00	4.69	1.43	EX 2
9	0.26	0.40	20.00	4.69	0.48	EX 2
10	9.79	0.40	20.00	4.69	18.38	EX 2
11	3.89	0.40	20.00	4.69	7.30	NW 2
12	1.47	0.40	20.00	4.69	2.77	NW 1
13	0.45	0.40	20.00	4.69	0.84	NW 1
14	0.43	0.40	20.00	4.69	0.80	NW 1
15	4.72	0.40	20.00	4.69	8.86	NW 1
Total:		35.42				

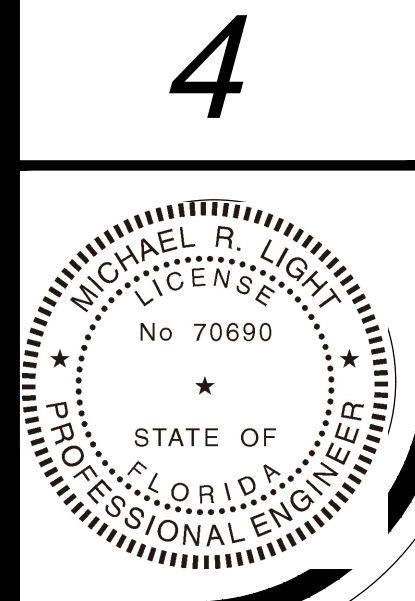


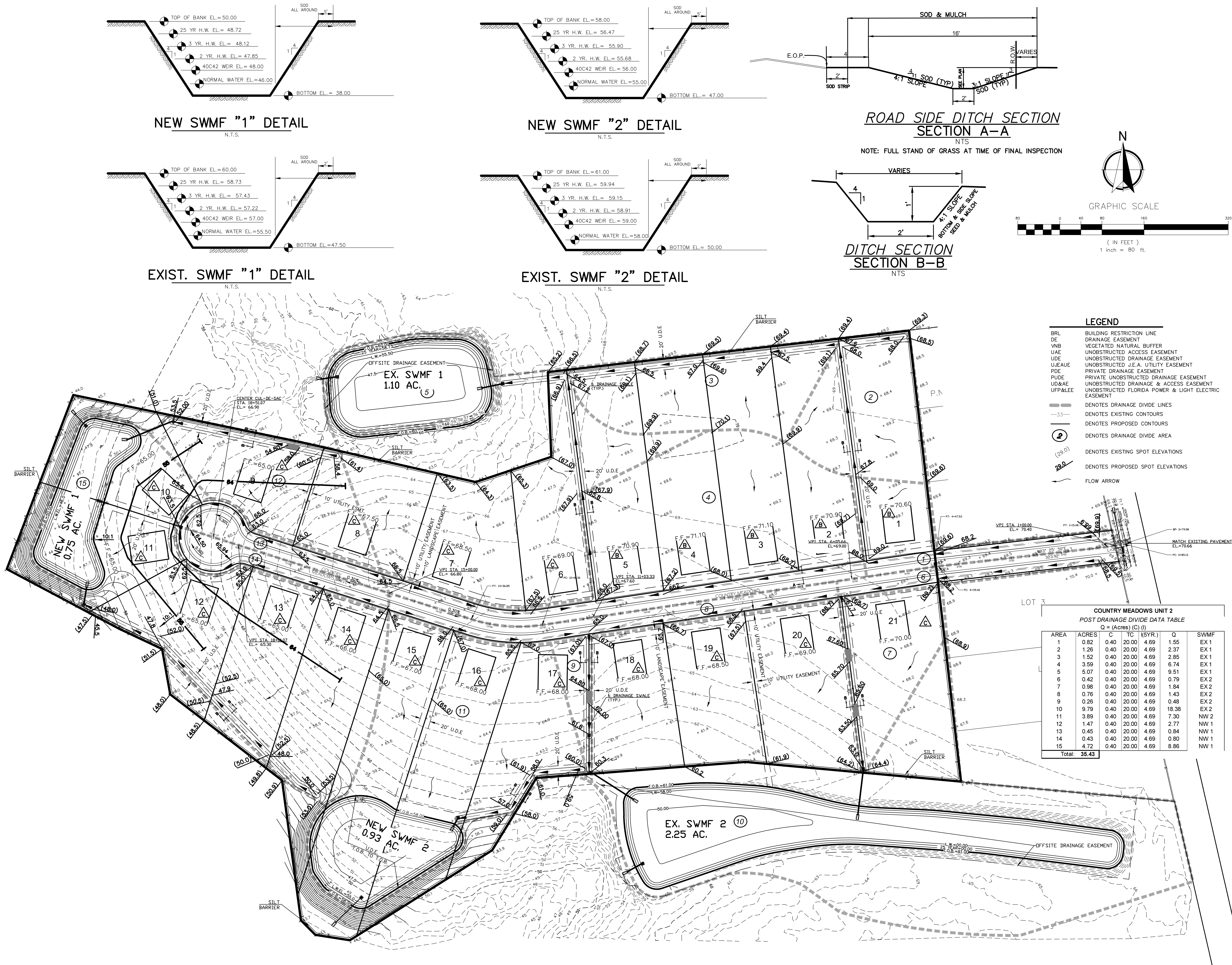
COUNTRY MEADOWS UNIT 2 PAVING AND DRAINAGE PLAN

NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 26085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209, ST. AUGUSTINE, FL 32256
/Ph (904) 737-0971 /Fax (904) 396-5372
/Email: FAYRE.NFES@GMAIL.COM
PLANS PREPARED UNDER THE DIRECTION OF:
MICHAEL R. LIGHT
P.E.

DATE: 05/15/2023
JOB NUMBER: 20-032
SCALE: 1" = 80'

* SHEET NUMBER *



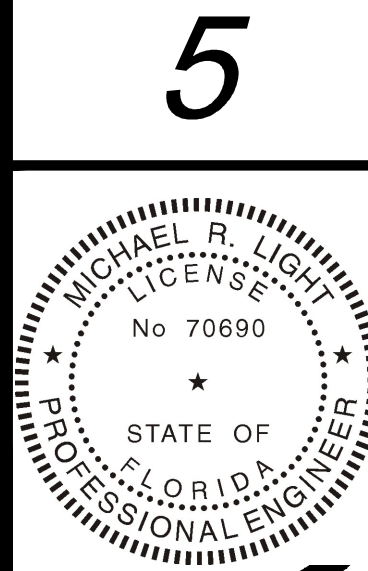


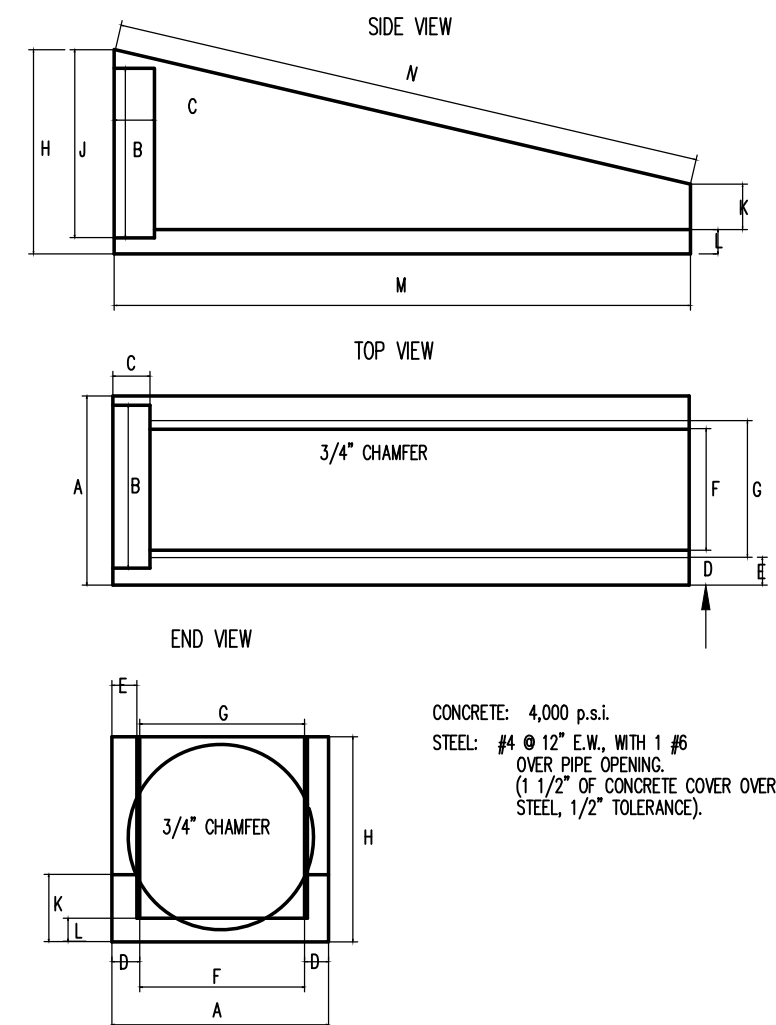
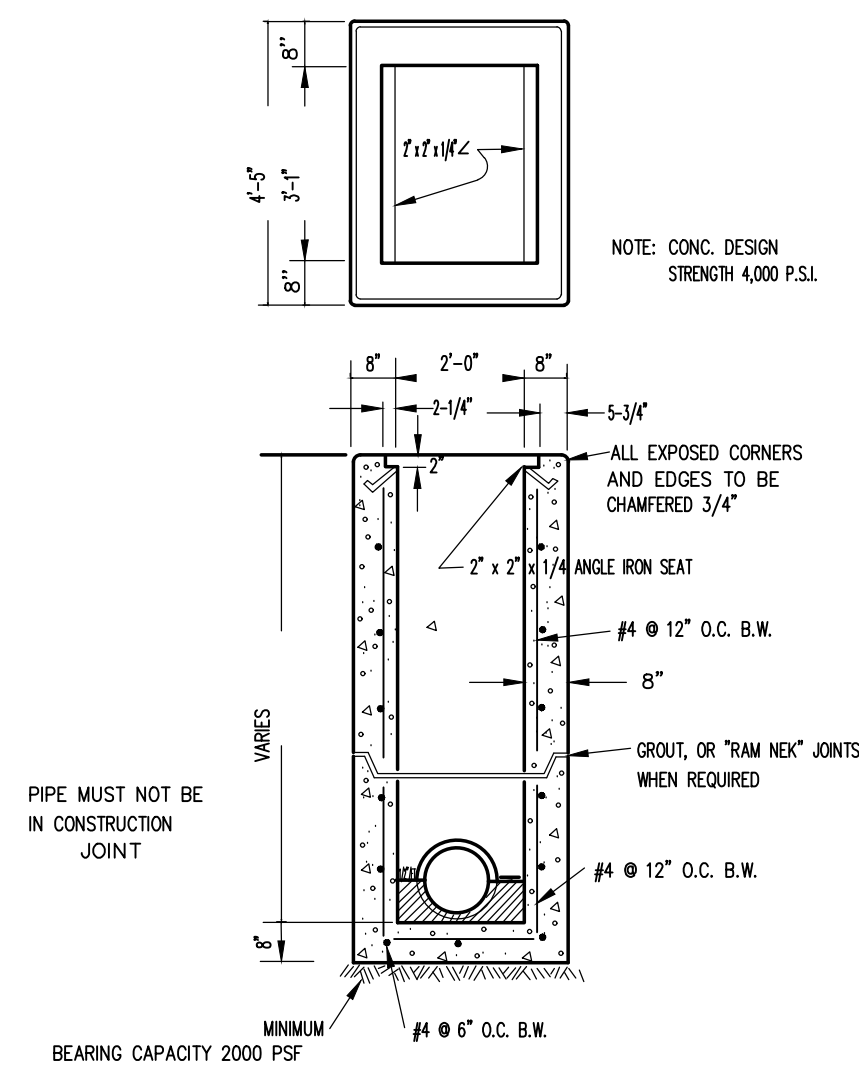
COUNTRY MEADOWS
UNIT 2
GRADING PLAN

NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 26085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209, ST. AUGUSTINE, FL 32256
//PH (904) 737-0971 //FAX (904) 396-5372
//EMAIL: FAVRE.NEES@GMAIL.COM
PLANS PREPARED UNDER THE DIRECTION OF: MICHAEL R. LIGHT P.E. 70690

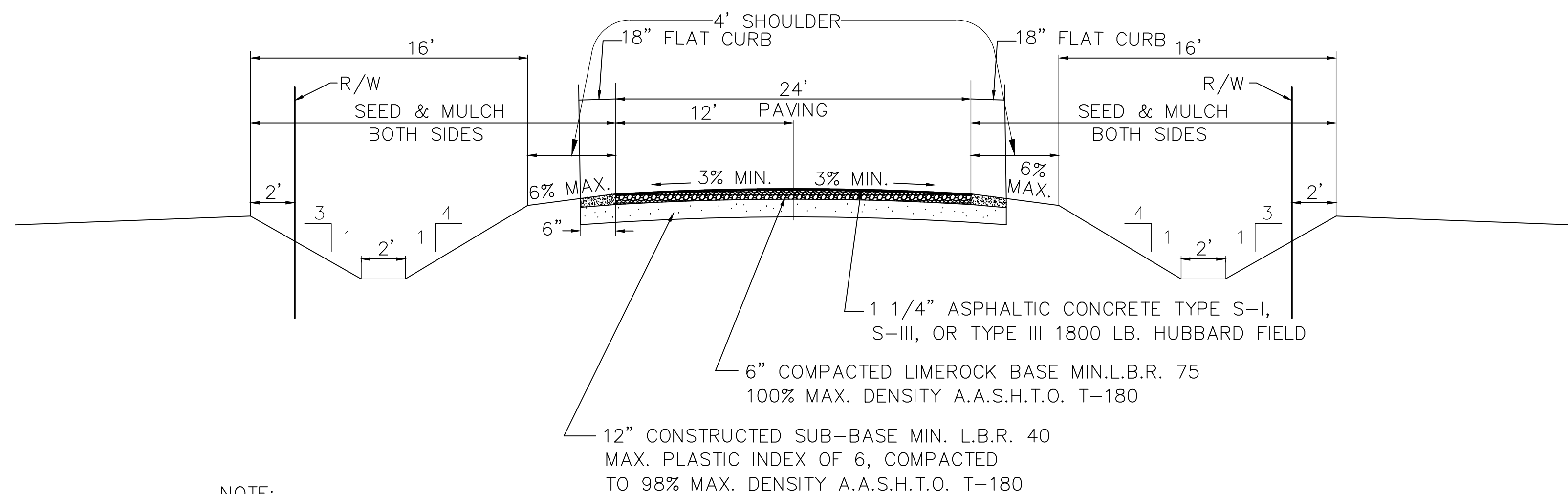
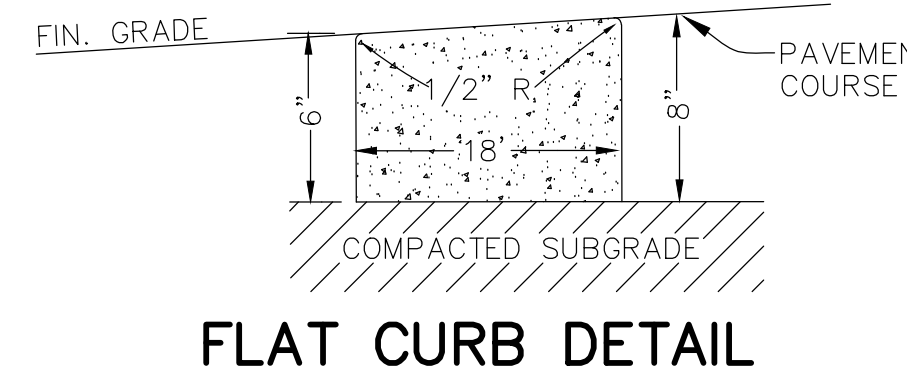
DATE: 05/15/2023
JOB NUMBER: 20-032
SCALE: 1" = 80'

* SHEET NUMBER *





RCP/CMP	A	B	C	D	E	F	G
15"/18"	2"-3"	2'-0"	6"	4.5"	4"	1'-6"	1'-7"
24"	2'-10"	2'-7"	6"	5.5"	4.5"	1'-11"	2'-1"
30"	3'-4"	3'-2"	6"	5.5"	4.5"	2'-5"	2'-5"
RCP/CMP	H	J	K	L	M	N	
15"/18"	2'-6"	2'-0"	6"	4"	6'-8"	6'-10.5"	
24"	3'-4"	3'-0"	6"	4"	10'-0"	10'-3.63"	
30"	3'-8"	3'-4"	6"	4"	11'-4"	11'-8.13"	



1. SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE SHOWN HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA & MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITIES OF VARIOUS SUBGRADES.
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED. ALL AREAS WHERE SOD HAS BEEN DISTURBED OR REMOVED SHALL BE RESODDED TO SATISFACTION OF OWNER.
3. ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR SECTION 333, F.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- *. OR IN ACCORDANCE WITH APPROVED CONSTRUCTION PLANS. VARIATIONS IN SIDEWALK LOCATION/ MEANDERING DUE TO CONFLICTS SUCH AS TREES, HYDRANTS, UTILITIES, TRAFFIC SIGN, ETC. IS PERMITTED AS PER THE APPROVED PLANS, OR AS OTHERWISE REQUIRED TO BE ADJUSTED IN THE FIELD.

- PAVING AND DRAINAGE NOTES:**
- 1.) THE CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH EXISTING SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION. ALL CONSTRUCTION SERVICES ON THE PROJECT, EXISTING CONDITIONS AS WELL AS BE REFLECTED ON THE ENGINEERING DRAWINGS WERE COMPILED FROM TOPOGRAPHIC SURVEYS, SOIL INVESTIGATION REPORTS AND ADDITIONAL INFORMATION THAT WAS MADE AVAILABLE TO THE ENGINEER. THIS INFORMATION REFLECTS THE CONDITIONS AS THEY EXISTED AT THE TIME THE INFORMATION WAS OBTAINED. SOILS INFORMATION IS FOR THE DATE AND LOCATION OF THE BORINGS ONLY. SOILS INVESTIGATION FOR THIS PROJECT WAS PROVIDED BY:
- BOUNDARY, WETLAND AND TOPOGRAPHICAL SURVEY INFORMATION FOR THIS PROJECT WAS PROVIDED BY:
- MANZIE & DRAKE LAND SURVEYING
117 SOUTH NINTH STREET
FERNANDINA BEACH, FLORIDA 32034
CONTACT: MICHAEL A. MANZIE
PHONE: (904)491-5700
- 2.) ALL DIMENSIONS TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 3.) STAKING CONTRACTOR TO RETAIN A REGISTERED LAND SURVEYOR FOR PARKING STAKEOUT UNLESS OTHERWISE APPROVED BY ENGINEER.
- 4.) NEW DRIVEWAYS PROPOSED IN COUNTY RIGHT-OF-WAY MUST CONFORM TO COUNTY STANDARDS; DRIVEWAYS TO CONFORM TO COUNTY STANDARDS. THE TOWNSHIP DEPARTMENT TO OBTAIN A RIGHT-OF-WAY PERMIT PRIOR TO CONSTRUCTION OF CONSTRUCTION.
- 5.) ALL ONSITE PAVEMENT TO BE 1½" TYPE 3-S ASPHALT PAVEMENT.
- 6.) HANDICAP RAMPS, STAIRS AND SIGNAGE TO CONFORM WITH ANS, COUNTY ADA AND STATE STANDARDS REGARDING HANDICAP ACCESS.
- 7.) ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE COUNTY STANDARD DETAILS, SPECIFICATIONS AND CODES OF SUBORDINATIONS. ALL WORK SHALL BE PERFORMED IN A GOOD WORKMANSHIP MANNER USING METHODS CONSISTENT WITH INDUSTRY STANDARDS.
- 8.) ALL DISTURBED AREAS WHICH ARE NOT SODDED SHALL RECEIVE GRASS SEED, FERTILIZER AND MULCH. REFER TO LANDSCAPE PLAN FOR ALL PROPOSED LANDSCAPE MATERIALS AND SPECIFICATIONS IN GREEN AREAS.
- 9.) THE CONTRACTOR SHALL SCHEDULE ALL WORK AND INSPECTIONS WITH THE COUNTY AND CONSTRUCTION INSPECTOR ASSIGNED TO THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WORK DRAWING APPROVALS AS MAY BE REQUIRED FOR MATERIALS USED ON THE PROJECT.
- 10.) ALTERNATE MATERIALS TO BE USED:
--ASPS & HARDIE PIPE MAY BE USED IN LIEU OF RCP.
--CRUSH CRETE MAY BE USED IN LIEU OF LIME ROCK.
- 11.) SUB-GRADE: SUBSURFACE HAS BEEN INVESTIGATED ONLY AS SHOWN. PAVEMENT SUB-GRADE SHALL HAVE ALL UNSUITABLE MATERIAL REMOVED TO A DEPTH OF 3.0 FEET BELOW SUB-GRADE AND 2.0 FEET BEYOND THE SUB-GRADE LIMITS AT ALL SITES AS REQUIRED. COMPACTED IN 1.0 FOOT LIFTS TO 95% PROCTOR DENSITY.
- 12.) ALL CONCRETE FOR CURB AND GUTTER AND SIDEWALK SHALL BE A MINIMUM STRENGTH OF 3,000 P.S.I. WITH A MAXIMUM SLUMP OF 6.0 INCHES.
- 13.) CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER FOR ALL STRUCTURES PRIOR TO ORDERING.
- 14.) ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH CITY STANDARDS AND DETAILS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING AND PROPERTY LINES.
- 15.) ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUB-GRADE FOR PAVEMENT.
- 16.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF EXISTING UTILITIES AND SHALL EXERCISE EXTREME CAUTION WHILE WORKING IN AREAS NEAR EXISTING STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING STRUCTURES AND UTILITIES.
- 17.) THE CONTRACTOR MUST OBTAIN ALL PERMITS PRIOR TO DISPOSITION OF CONSTRUCTION. ALL PERMITS MUST BE KEPT ON CONSTRUCTION SITE AT ALL TIMES AS REQUIRED.
- 18.) UNSUITABLE MATERIAL ENCOUNTERED SHALL BE LEGALLY COMPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE OR DEPOSITED IN PROPOSED LANDSCAPE/BERM AREAS AS IS FEASIBLE.
- 19.) CONTRACTOR SHALL VERIFY EXISTING PAVEMENT AND BUILDING LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 20.) STRUCTURAL FILL REQUIRED FOR ROADWAY EMBANKMENTS SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12.0 INCHES IN THICKNESS AND SHALL BE COMPACTED TO DENSITIES EQUIVALENT TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557). 42% OF THE MOISTURE CONTENT STRUCTURAL FILL IS DEFINED AS NON-PLASTIC. INORGANIC (CONTAINING LESS THAN 10% MATERIAL PASSING THE NO. 200 MESH SLEEVE) (E.I. RELATIVELY CLEAN SAND).
- 21.) ROADWAY BASE COURSE MATERIALS SHALL BE LIMEROCK AND SHALL CONFORM TO THE FLORIDA D.O.T. STANDARD SPECIFICATIONS LATEST EDITION, FOR BASE MATERIALS, INCLUDING CONSTRUCTION METHODS.
- 22.) ALL BASES SHALL BE PRIMED IN ACCORDANCE WITH FLORIDA D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. TACK COAT SHALL NOT BE REQUIRED ON PRIMED CLEANED, OR IN AREAS WHERE THE PRIME HAS CURED AND LOST ALL BONDING EFFECT. TACK COAT MATERIALS AND APPLICATION METHODS SHALL CONFORM TO FLORIDA D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION (IF APPLICABLE).
- 23.) DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE TO PLACE WAY BALES AND SILT CURTAINS AT ALL DOWNSTREAM DISCHARGE POINTS UNTIL CONSTRUCTION IS COMPLETE AND SED/SOD HAS STABILIZED THE SOIL TO AVOID SILTATION AND TURBIDITY IN ACCORDANCE WITH FLORIDA STREAM STANDARDS AND WQA.
- 24.) CONTRACTOR MUST CONTACT SUNSHINE AT (1-800-432-4770) 48 HOURS PRIOR TO DIGGING FOR ACTUAL FIELD LOCATION OF ANY KNOWN UNDERGROUND FACILITIES WITHIN THE LIMITS OF THE PROJECT.
- 25.) FOR INFORMATION REGARDING CONCERNING UNDERGROUND TELEPHONE LINES BETWEEN BEL--TEL MANHOLES, THE UTILITY CONTRACTOR IS TO CALL (1-800-432-4770) FOR INFORMATION AND TO BE SERVED BY A BEL--TEL REPRESENTATIVE (WITHIN FIVE(5) DAYS) PRIOR TO STARTING CONSTRUCTION. THEY WILL SET UP AN APPOINTMENT FOR CONFERENCE ON SITE, IF REQUIRED.

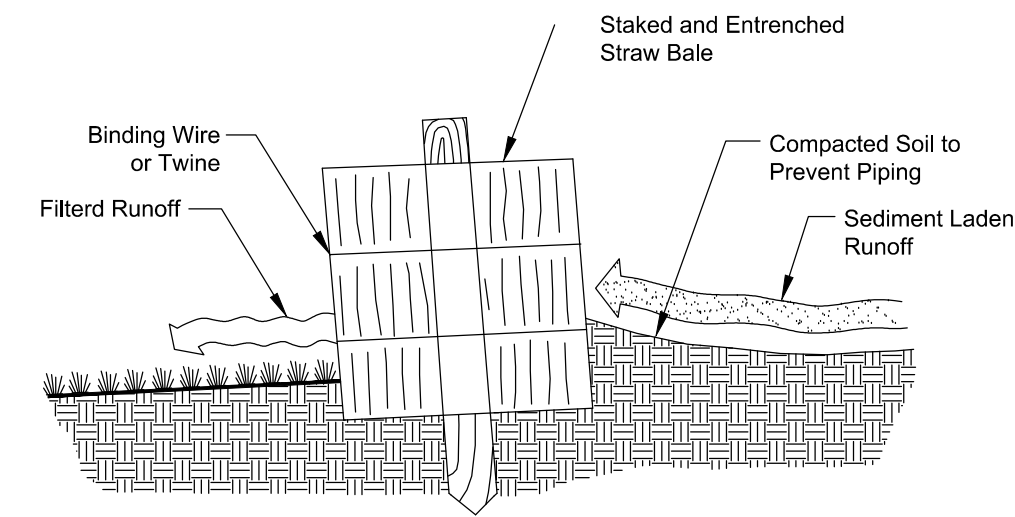
SPECIFICATIONS FOR THE STORMWATER POLLUTION AND EROSION/SEDIMENT CONTROL PLAN

GENERAL

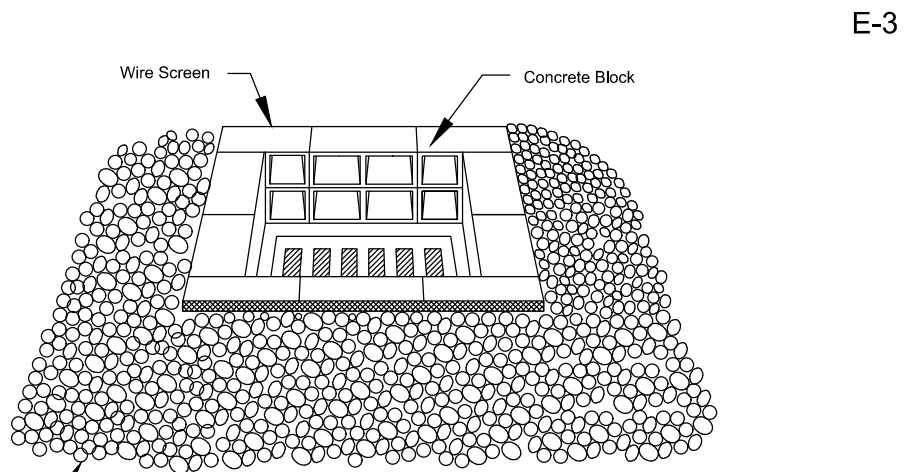
1. All pond clearing, grubbing, and other soil disturbing activity shall be completed in accordance with EPA Publication No. 832-R-82-005 (latest), "Stormwater Management for Construction Activities" and all stormwater/environmental permits issued for construction of the project. The contractor shall obtain copies of all such permits prior to commencing construction and keep copies of those permits on site at all times.
 2. The contractor shall take all measures to minimize erosion and sediment transport including, but not limited to, filter fabric barriers (silt screens), straw (hay) bale barriers, inlet sediment filters, sediment basins, etc. All such controls shall be constructed in accordance with the details shown herein.
 3. The contractor shall minimize the disturbed area of work whenever possible.
- Stockpiles and disturbed portions of the site where construction activity ceases for 21 consecutive days shall be temporarily stabilized with seed and mulch or some other method of stabilization approved by the engineer no later than the end of said 21 day period. Seeding and mulching shall be per local specifications.
- Disturbed portions of the site where construction activity is completed shall be permanently stabilized in accordance with the instructions on the plans and/or local specifications.
4. The contractor shall avoid point source discharges. If such a discharge is necessary, the contractor shall take all necessary precautions to minimize erosion and sediment transport.

CONSTRUCTION PRACTICES (see details herein)

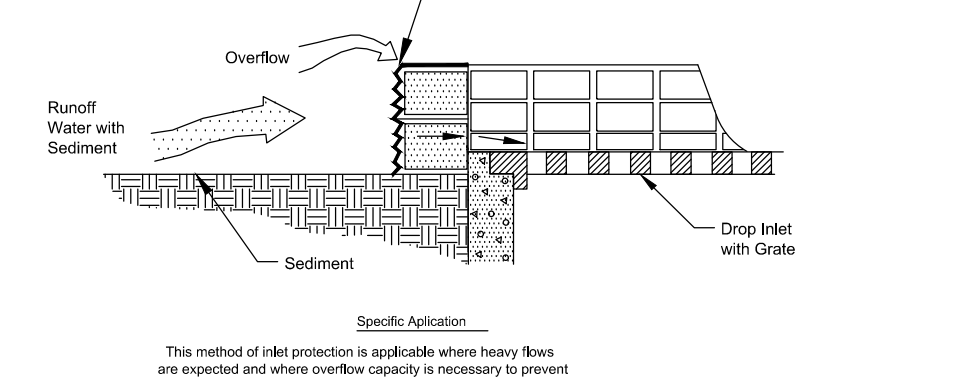
1. Straw bale barrier -- straw bale barriers can be used below disturbed areas subject to sheet and rill erosion with the following limitations:
 - a. where the maximum slope behind the barrier is 33 percent;
 - b. in minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres;
 - c. where effectiveness is required for less than 3 months;
 - d. every effort should be made to limit the use of straw bale barriers constructed in live streams or in swales where there is the possibility of a washout. If necessary, measures shall be taken to properly anchor bales to insure against washout.
2. Filter fabric barrier -- filter fabric barriers can be used below disturbed areas subject to sheet and rill erosion with the following limitations:
 - a. where the maximum slope behind the barrier is 33 percent;
 - b. in minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres.
3. Brush barrier with filter fabric -- brush barrier may be used below disturbed areas subject to sheet and rill erosion where enough residue material is available on site.
4. Temporary diversion dike -- temporary diversion dikes may be used to divert runoff through a sediment-trapping facility.
5. Temporary sediment basin -- a sediment basin is usually installed in a drainageway at a storm drain inlet or at other points of discharge from a disturbed area with the following limitations:
 - a. the sediment trap may be constructed either independently or in conjunction with a temporary diversion dike.
6. Level spreader -- a level spreader may be used where sediment-free storm runoff is intercepted and diverted away from the graded areas onto undisturbed stabilized areas. This practice applies only in those situations where the spreader can be constructed on undisturbed soil and the area below the level lip is stabilized. The water should not be allowed to reconcentrate after release.
7. Surface Roughening -- surface roughening may be used to reduce erosion and provide sediment trapping for the following conditions:
 - a. for slopes steeper than 3:1, surface roughening will consist of either stair-step grading, grooving, furrowing or tracking if they are to be stabilized with vegetation;
 - b. areas with grades less steep than 3:1 should have the soil surface lightly roughened and loose to a depth of 2 to 4 inches;
 - c. areas which have been graded and will not be stabilized immediately may be roughened to reduce runoff velocity until seeding takes place.
8. Stockpiling Material -- no excavated material shall be stockpiled in such a manner as to direct runoff directly off the project site into any adjacent water body or stormwater collection facility.
9. Inlet Protection -- inlets and catch basins which discharge directly off-site shall be protected from sediment-laden storm runoff until the completion of all construction operations that may contribute sediment to the inlet.
10. Temporary Seeding -- areas opened by construction operations and that are not anticipated to be re-excavated or dressed and receive final grassing treatment within 21 days shall be seeded with a quick-growing grass species which will provide an early cover during the season in which it is planted and will not later compete with the permanent grassing.
11. Temporary Seeding and Mulching -- slopes steeper than 6:1 that fall within the category established in Paragraph 10 above shall additionally receive mulching of approximately 2 inches loose measure of mulch material cut into the soil of the seeded area adequate to prevent movement of seed and mulch.
12. Temporary Grassing -- the seeded or seeded and mulched area(s) shall be rolled and watered or hydromulched or other suitable methods if required to assure optimum growing conditions for the establishment of a good grass cover.
13. Temporary Regrassing -- if, after 14 days from seeding, the temporary grassed areas have not attained a minimum of 75 percent good grass cover, the area will be reworked and additional seed applied sufficient to establish the desired vegetative cover.
14. Maintenance -- all features of the project designed and constructed to prevent erosion and sediment shall be maintained during the life of the construction so as to function as they were originally designed and constructed.
15. Permanent Seeding -- all areas which have been disturbed by construction will, as a minimum, be seeded. The seeding mix must provide both long-term vegetation and rapid growth seasonal vegetation. Slopes steeper than 4:1 shall be seeded and mulched or sodded.



CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE



CONSTRUCTION OF A FILTER BARRIER



PROPER PLACEMENT OF A FILTER BARRIER IN A DRAINAGE WAY

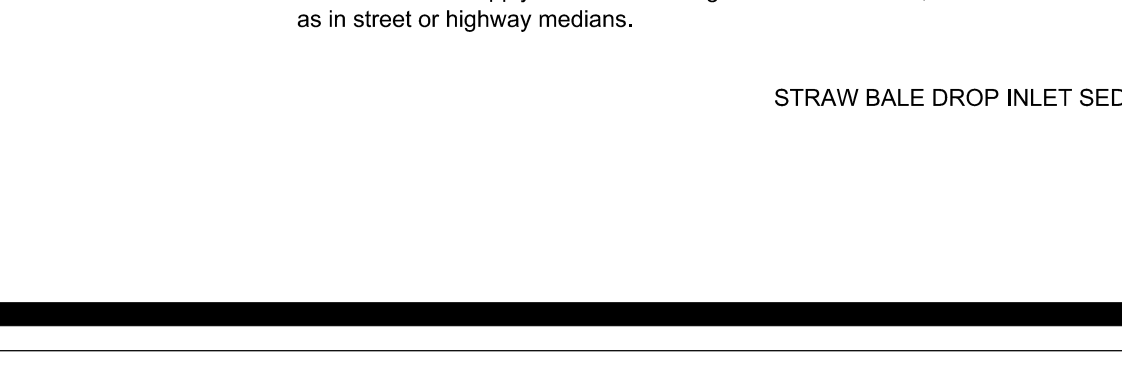
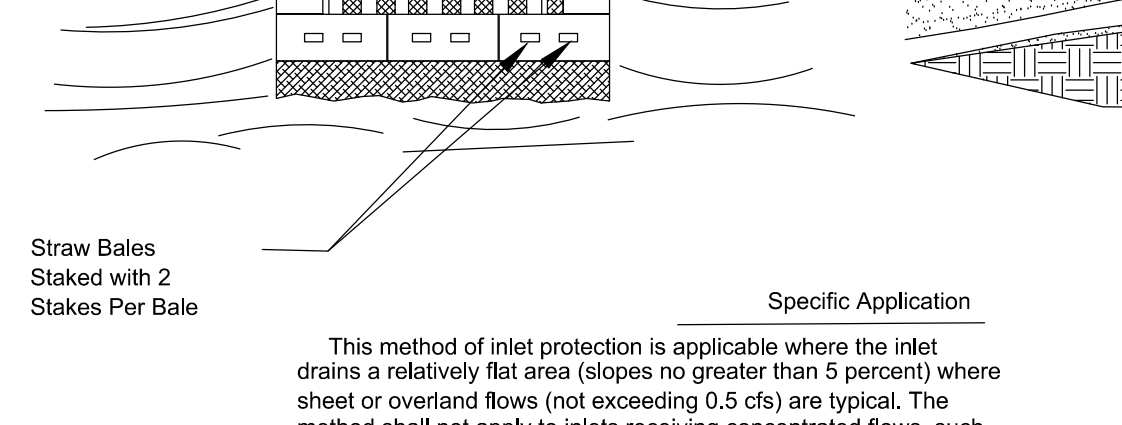
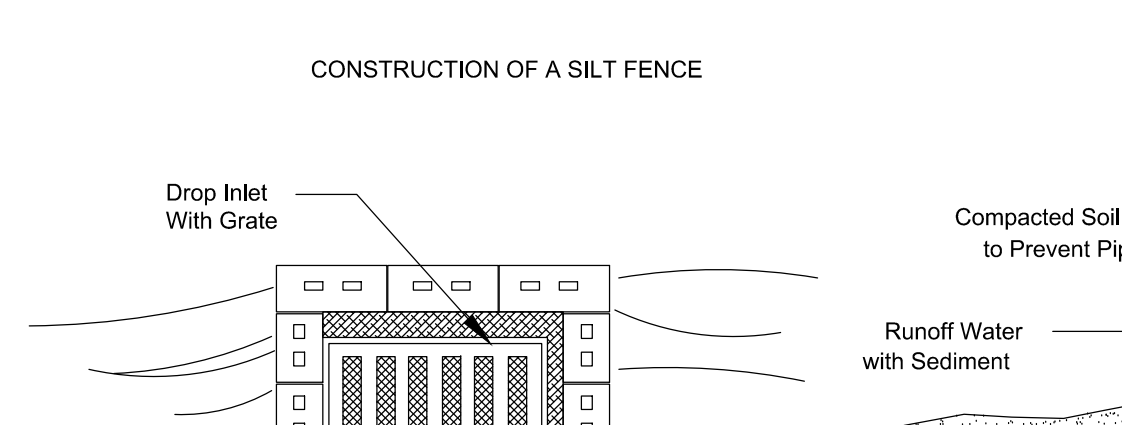
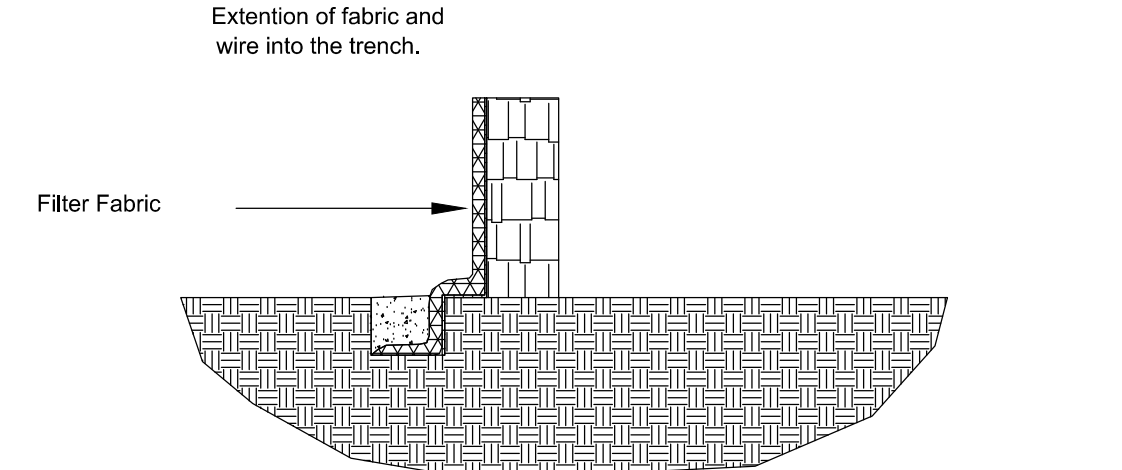
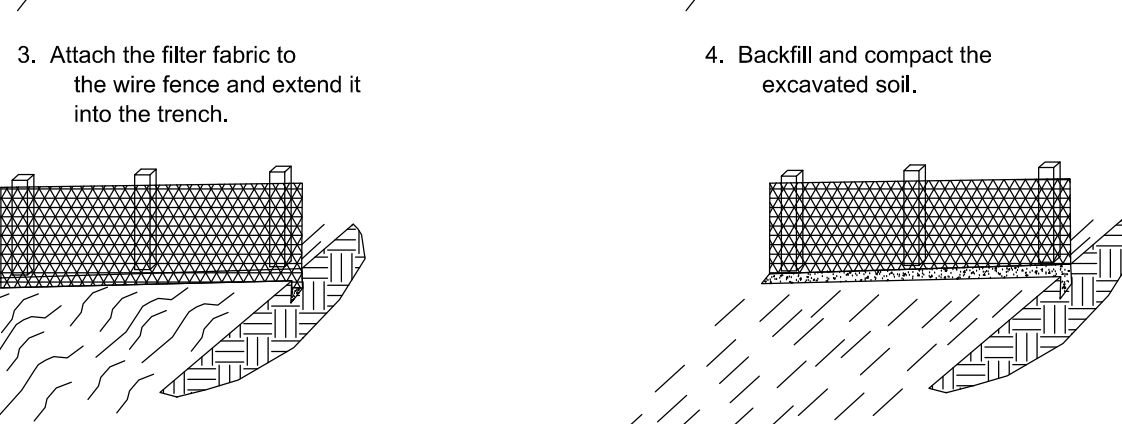
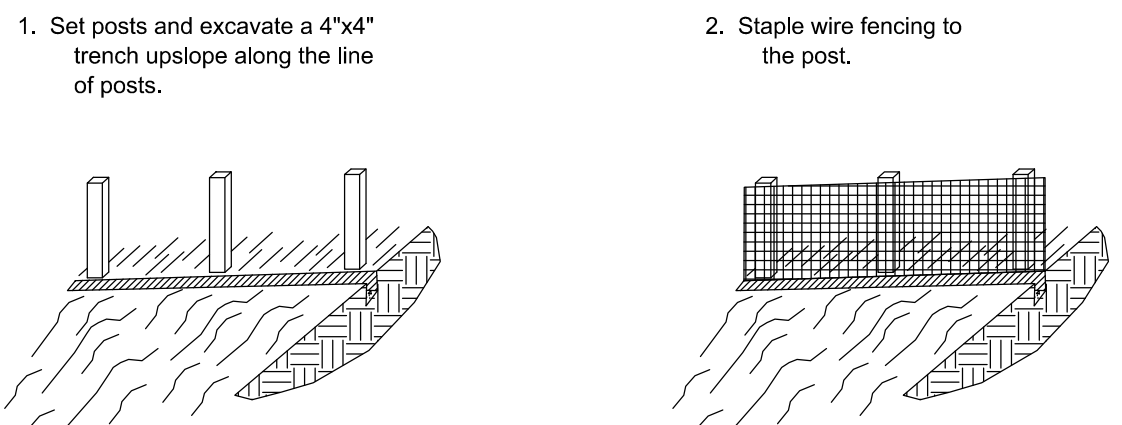


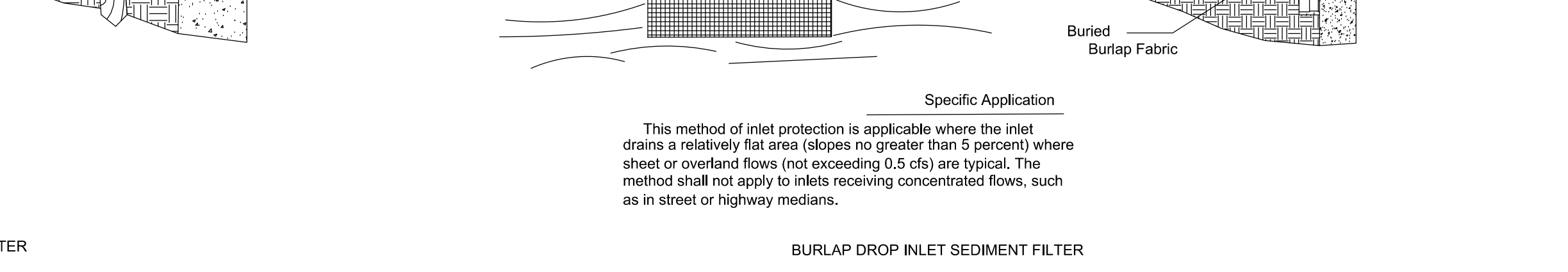
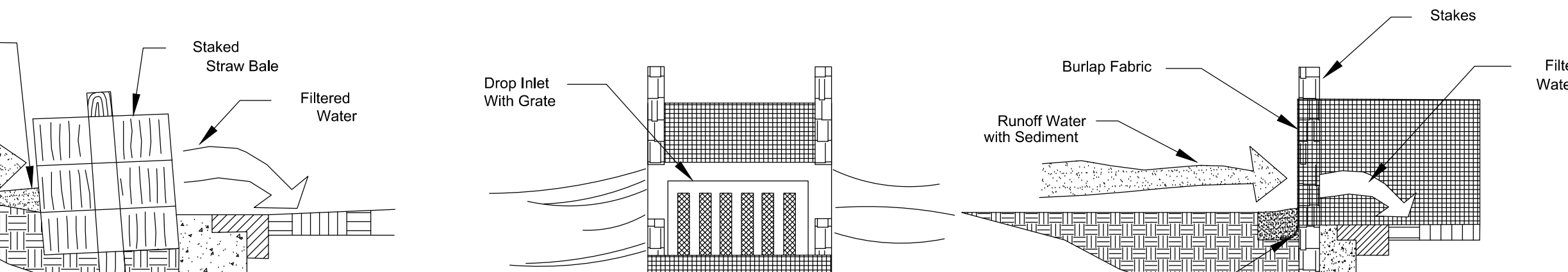
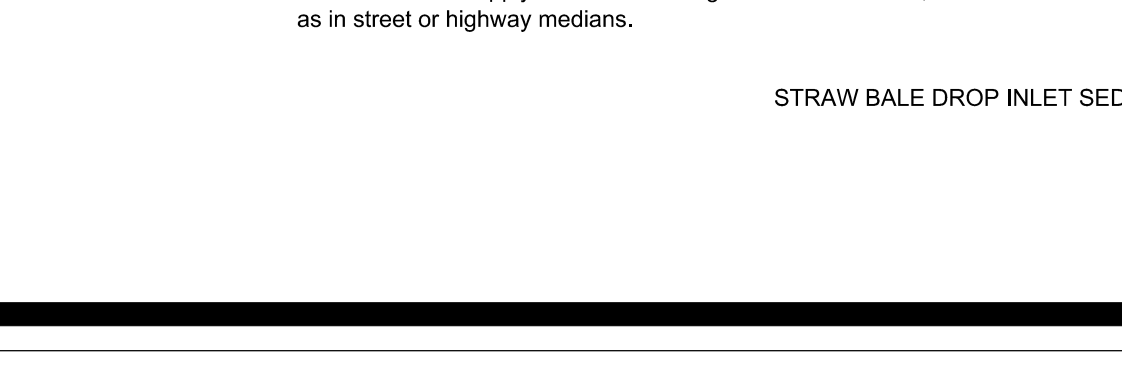
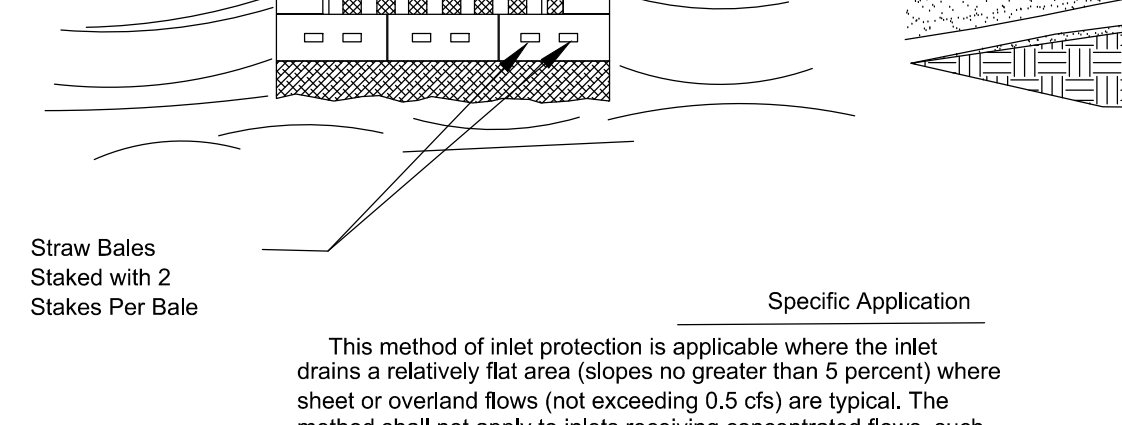
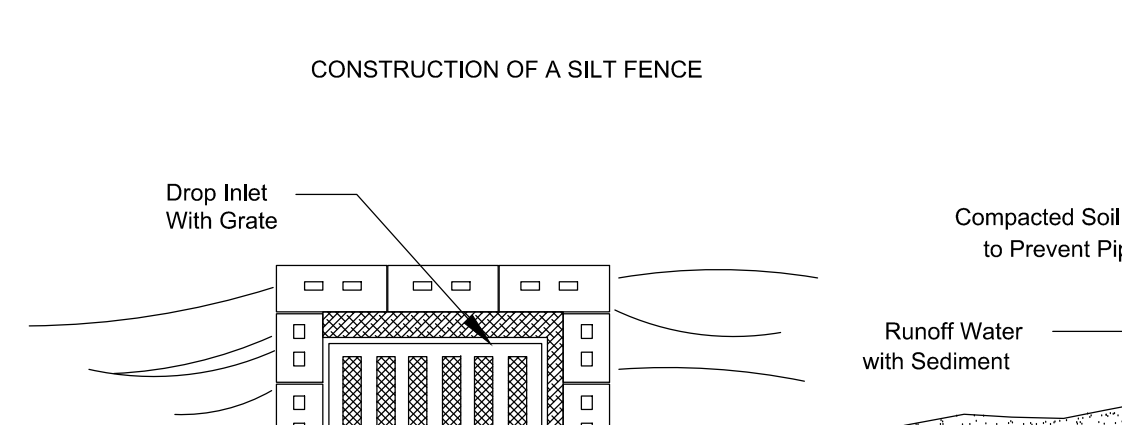
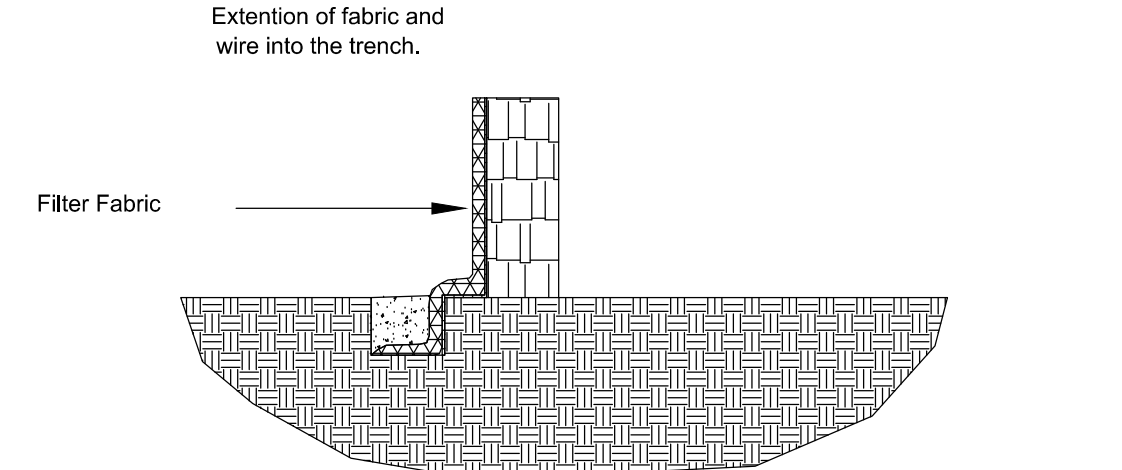
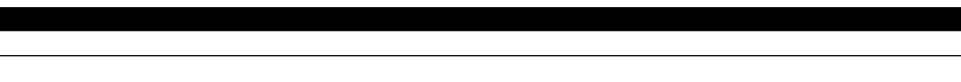
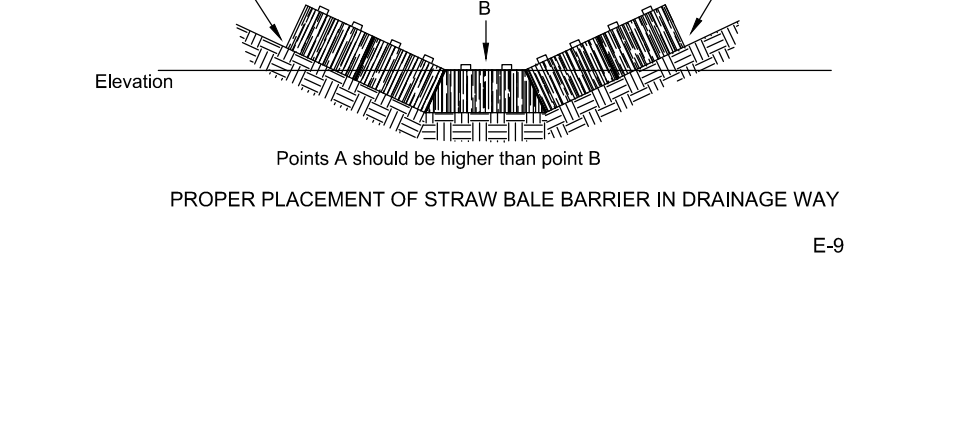
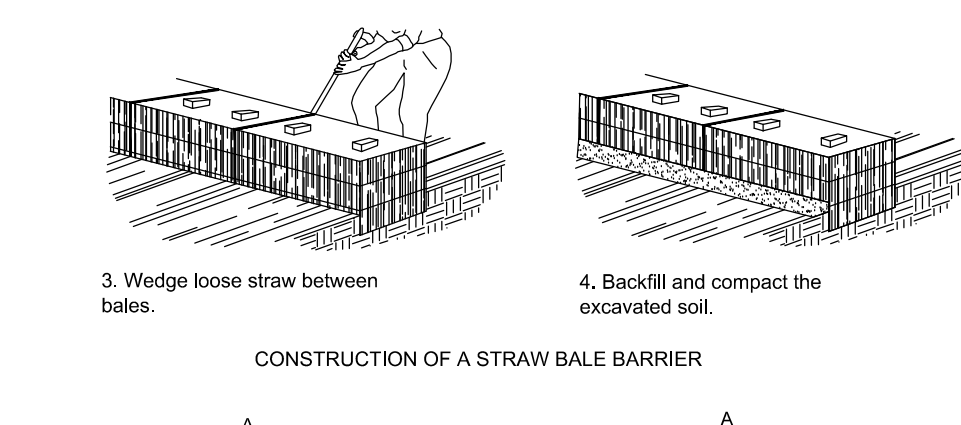
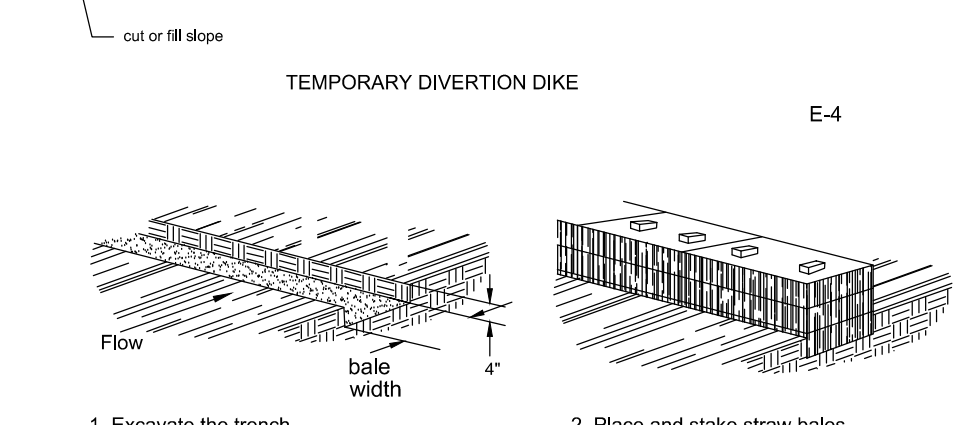
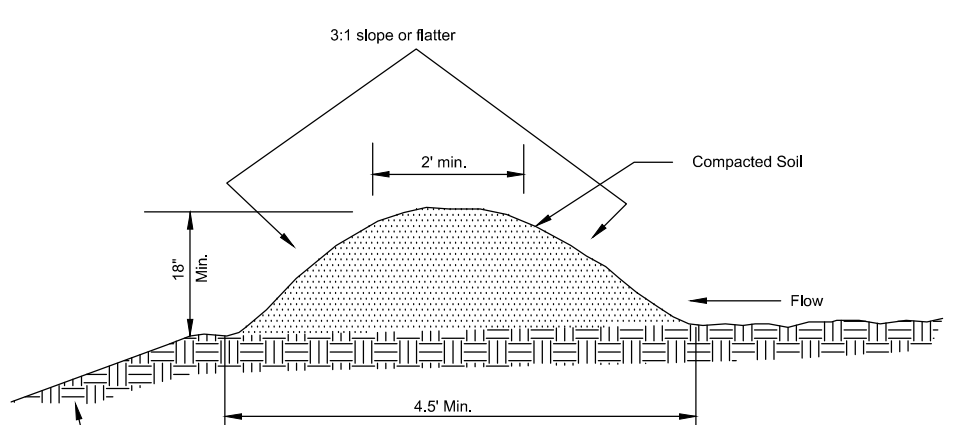
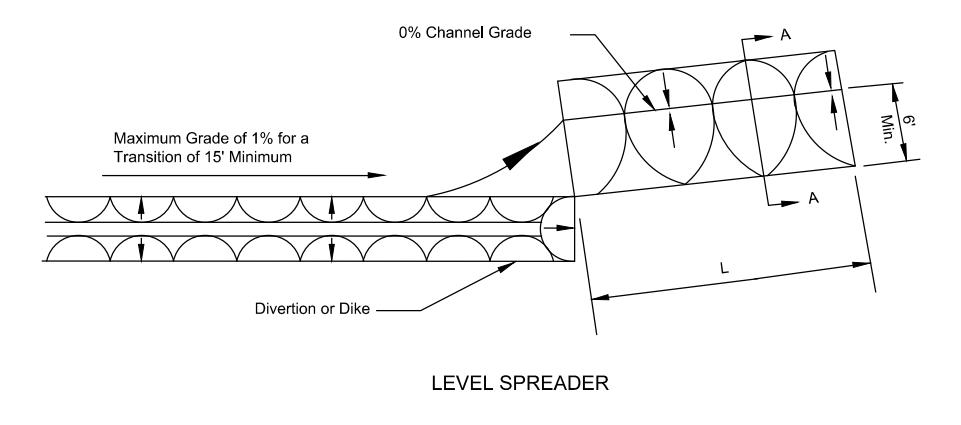
TABLE 1.65 A
TEMPORARY SEEDING PLANT MATERIALS

Common Name (Botanical Name)	Seeding Rate		Planting Dates	Comments
	Acre	1000 ft ²		
OATS (Avena sativa)	3 Bu (125 lbs)	3 lbs	October- February	Will not tolerate flooding, high water table soils.
RYE (Secale cereale)	3 Bu (170 lbs)	4 lbs	October- February	Tolerates cold and drought.
WHEAT (Triticum sp.)	3 Bu (120 lbs)	3 lbs	October- February	
ANNUAL RYEGRASS (Lolium multiflorum)	60 lbs	1.5 lbs	October- January	Volunteers may return.
CRIMSON CLOVER (Trifolium incarnatum)	25 lbs	9 oz		Annual winter legume. Inoculate seed at 5 times recommended rate. Does poorly on dry sands, will not tolerate flooding.
RED CLOVER (Trifolium pratense)	15 lbs	6 oz	October- December	Annual winter legume. Inoculate seed at 5 times recommended rate. Grows best on dry sands, will not tolerate flooding.
WHITE CLOVER (Trifolium repens)	6 lbs	2.5 lbs	October- December	Annual winter legume. Inoculate seed at 5 times recommended rate. Grows best on moist-wet soils, tolerates some flooding.
ANNUAL SWEETCLOVER (Melilotus alissima)	15 lbs	6 oz	October- December	Annual winter legume. Inoculate seed at 3 to 5 times recommended rate. Grows best on both flatlands and upland soils, will not tolerate flooding.
ARROWLEAF CLOVER (Trifolium vesiculosum)	15 lbs	6 oz	November- December	Annual winter legume. Inoculate seed at 3 to 5 times recommended rate. Grows on soils too wet for crimson, tolerates some flooding. Use scarified seeds.
LUAINE CLOVER (Lupinus sp.)	60 lbs	1.5 lbs	October- December	Annual winter legume. Inoculate seed at 3 times recommended rate. Susceptible to freeze damage at time of emergence. Use scarified seed.
ALFALFA (Medicago sativa)	22 lbs	8 oz	October- December	Short lived perennial. Some drought resistance. Grows best on well-drained, fertile soils. Will not tolerate wet soils.
AUSTRALIAN WINTER PEAS	45 lbs	1 oz	October- December	Grows best on well-drained soils with high clay content.
HAIRY VETCH (Vicia villosa)	25 lbs	9 oz	October- December	Grows best on well-drained, loamy soils.
ALYCECLOVER (Alysicarpus vaginalis)	15 lbs	6 oz	March- July	Warm season annual legume. Grows best on well-drained sandy soils.
COMMON LESPEDEZA (Lespedeza striata)	30 lbs	11 oz	February- July	Warm season annual. Needs inoculation on eroded soils. Grows best on sandy loams. Fairly drought resistant.
HAIRY INDIGO (Indigofera hirsuta)	8 lbs (120 lbs)	3 oz	February- July	
JOINT VETCH (Aeschynomene americana)	8 lbs	3 oz	February- August	Warm season annual legume. Most suitable of summer legumes for use in low, wet areas.
MILLET (Setaria sp.)	30 lbs	11 oz	February- August	Warm season annual. Does not tolerate flooding. Grows best in fertile, moist soils. Pearl and Browntop are good varieties to use.
SESBANIA (Sesban macrocarpa)	30 lbs	11 oz	February- July	Warm season annual legume. Does well under extremely wet conditions.
SORGHAM-SUNDANGRASS HYBRID	30 lbs	11 oz	February- July	Warm season annual. Rapid grower. Tolerates dryer soils than millet. Grows best on well-drained soils. Can also use Sudangrass alone.
WEEPING LOVEGRASS (Eragrostis curvula)	5 lbs	2 oz	February- August	Short-lived perennial, 2-3 years. Tolerates hot, dry slopes and acid, infertile soils.

Usually mixture of the above plant materials are better than a single plant alone. Each of the legumes discussed above can be grown in mixture with annual ryegrass and/or the small grains. In a two-crop mixture cut the seeding rate of each crop to one-half of the recommended planting rate when grown alone. Similarly three plant types in a mixture requires approximately one-third of the normal seeding rate for each plant. In a three plant mixture containing a single legume, the legume should be planted at one-half of the pure stand seeding rate.

TABLE 1.66 A
SEEDING MIXTURE, RATES AND DATES

Site Conditions	Seeding Mixtures	Seeding Rate		Seeding Dates	Comments
		Per Acre	Per 1000 Ft ²		
High Maintenance Lawns	See Table 1.67A			South	
General Use	1. Bahiagrass 2. Bahiagrass 3. Bahiagrass (Hulled) 4. Bahiagrass with one of the following: Southern White Clover Annual White Sweetclover Crimson Clover Arrowleaf Clover Alyce Clover Hairy Indigo Aeschynomene	40-60 lbs 40-60 lbs 8-12 lbs 20-30 lbs 3 lbs 8 lbs 12 lbs 8 lbs 8 lbs 4 lbs 12 lbs	1 lbs 1 lbs 4 oz 5 lbs 1.2 oz 3 oz 4.5 oz 3 oz 3 oz 1.5 oz 4.5 oz	1/15-9/15 1/15-9/15 10/1-12/15 10/1-12/15 10/1-12/15 1/15-7/15 1/15-7/15 1/15-7/15	Use 50% scarified seed. Use 50% scarified Bahia seed. Use 50% scarified Bahia seed. Inoculate legume.
Slopes	1. Sericea lespedeza 2. Sericea lespedeza with one of the following: Bahiagrass Tall Fescue Weeping Lovegrass	a. 40-50 lbs b. 75 lbs 15 lbs 20 lbs 3 lbs	1.2 lbs 1.7 lbs 7 oz 8 oz 1.2 oz	1/15-7/1 7/1-1/15 1/15-9/15 1/15-9/15	For scarified seed. For unharmed seed. Use seeding rate specified above. Best adapted to N. Florida.
DROUGHTY AREAS	1. Weeping Lovegrass 2. Weeping Lovegrass with one of the following: a. Bahiagrass (50% scarified seed) b. Bermudagrass (hulled) c. Hairy panicum d. Sericea lespedeza	5 lbs 5 lbs 30-40 lbs 8-12 lbs 8-12 lbs	2 oz 2 oz 12 oz 4 oz 4 oz	1/15-9/15 1/15-9/15 1/15-9/15 1/15-9/15 1/15-9/15	Gives quick summer cover Use seeding rate and dates specified above.



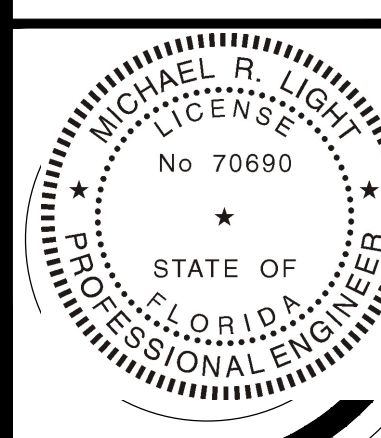
COUNTRY MEADOWS
UNIT 2
EROSION CONTROL DETAILS

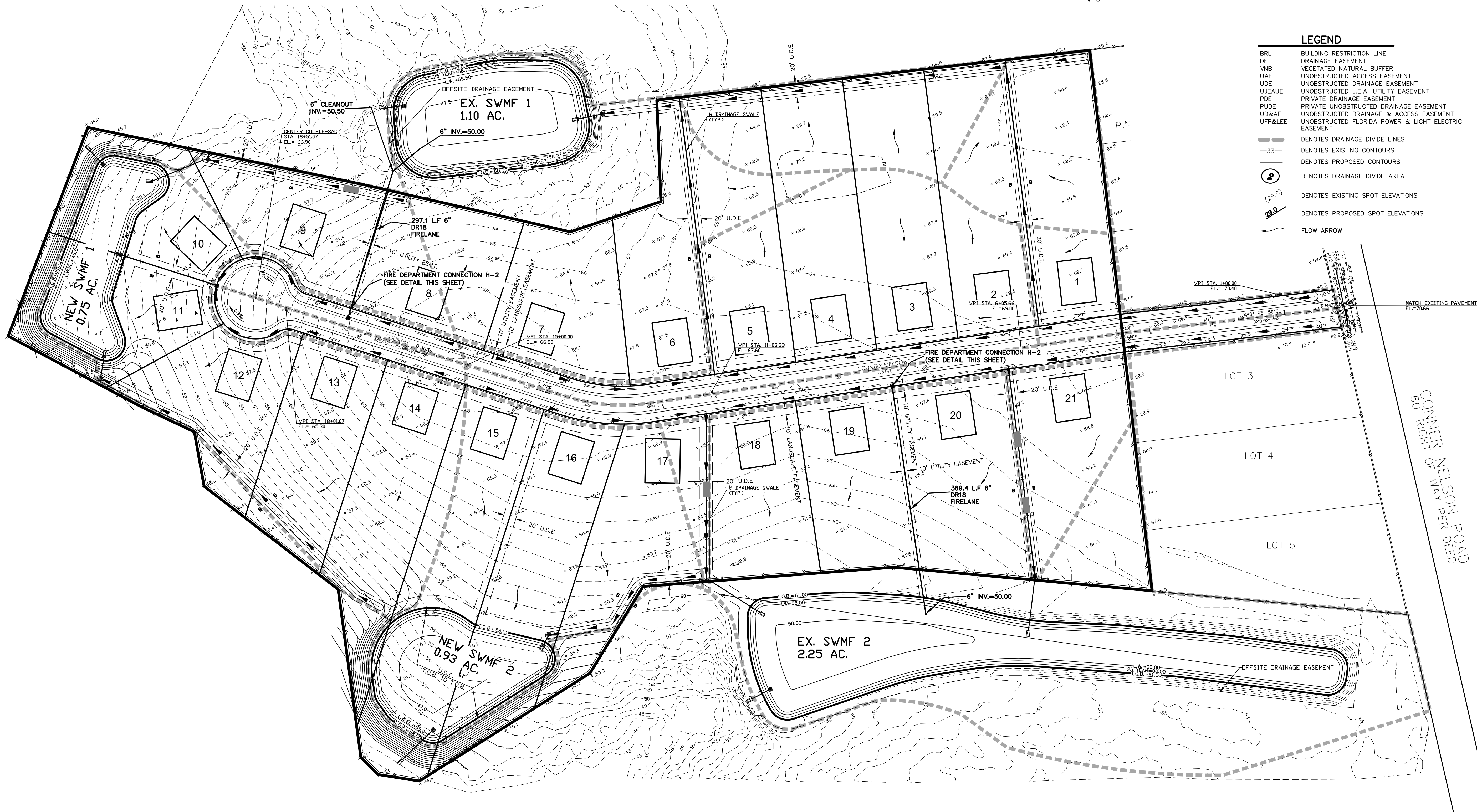
NORTH FLORIDA ENGINEERING SERVICES, INC.
CERTIFICATION # 26085 3530 AGRICULTURAL CENTER
DRIVE SUITE 209, ST AUGUSTINE, FL 32256
/PH (904) 737-0971 /FAX (904) 396-5372
/JED@NFE.NFES@GMAIL.COM
PLANS PREPARED UNDER THE DIRECTION OF:
MICHAEL R. LIGHT
P.E.
70690

DATE : 4/30/2023
JOB NUMBER : 20-032
SCALE : NONE

* SHEET NUMBER *

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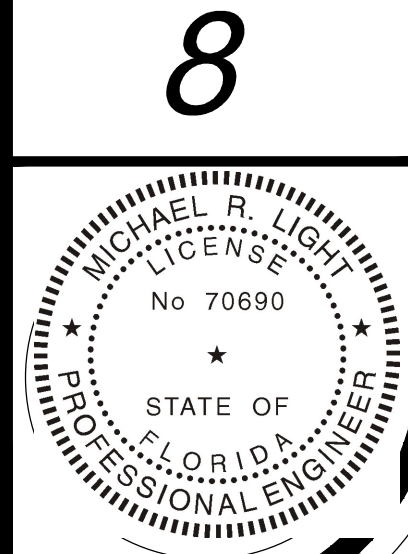


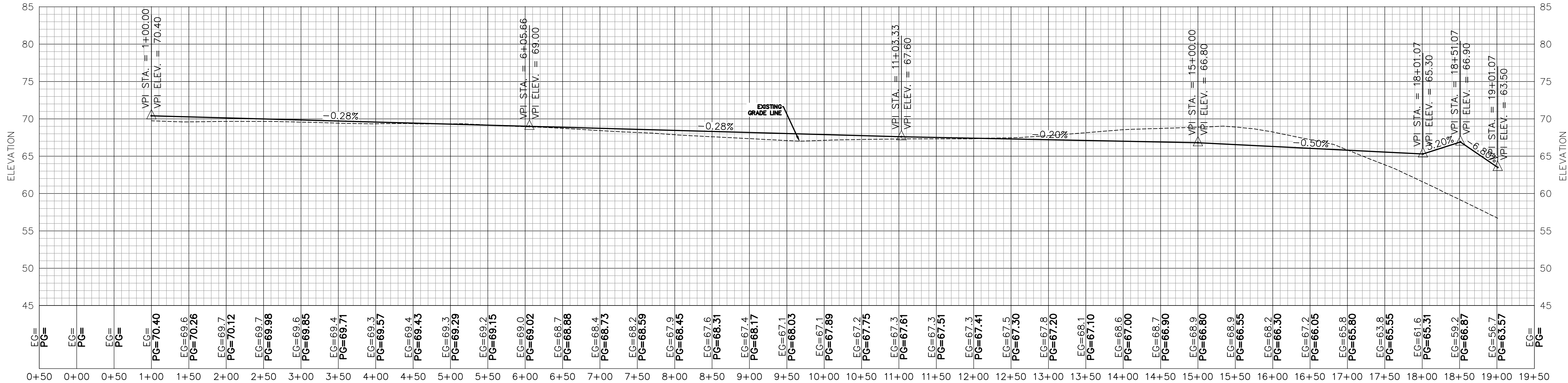
COUNTRY MEADOWS
UNIT 2
FIRE PROTECTION PLAN

NORTH FLORIDA ENGINEERING SERVICES, INC.
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/EMAIL: ENVRNENFES@GMAIL.COM
PLANS PREPARED UNDER THE DIRECTION OF: MICHAEL R. LIGHT P.E. 70690

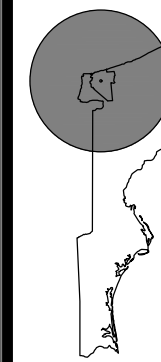
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COUNTRY MEADOW DRIVE

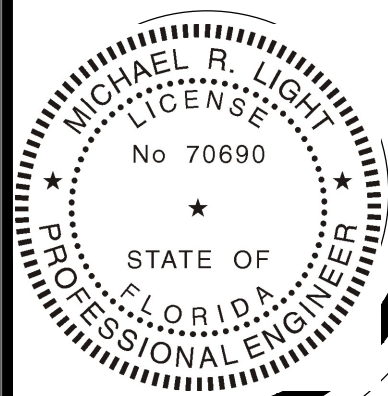


NORTH FLORIDA ENGINEERING SERVICES, INC.
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//Ph (904) 737-0971 //Fax (904) 396-5372
//Email: FAYRE.NFES@GMAIL.COM

DATE : 8/15/2023
JOB NUMBER : 20-032
SCALE : HOR: 1" = 50'
VER: 1" = 5'

* SHEET NUMBER *

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COUNTRY MEADOWS
UNIT 2
PROFILES

NO	REVISIONS	DATE