

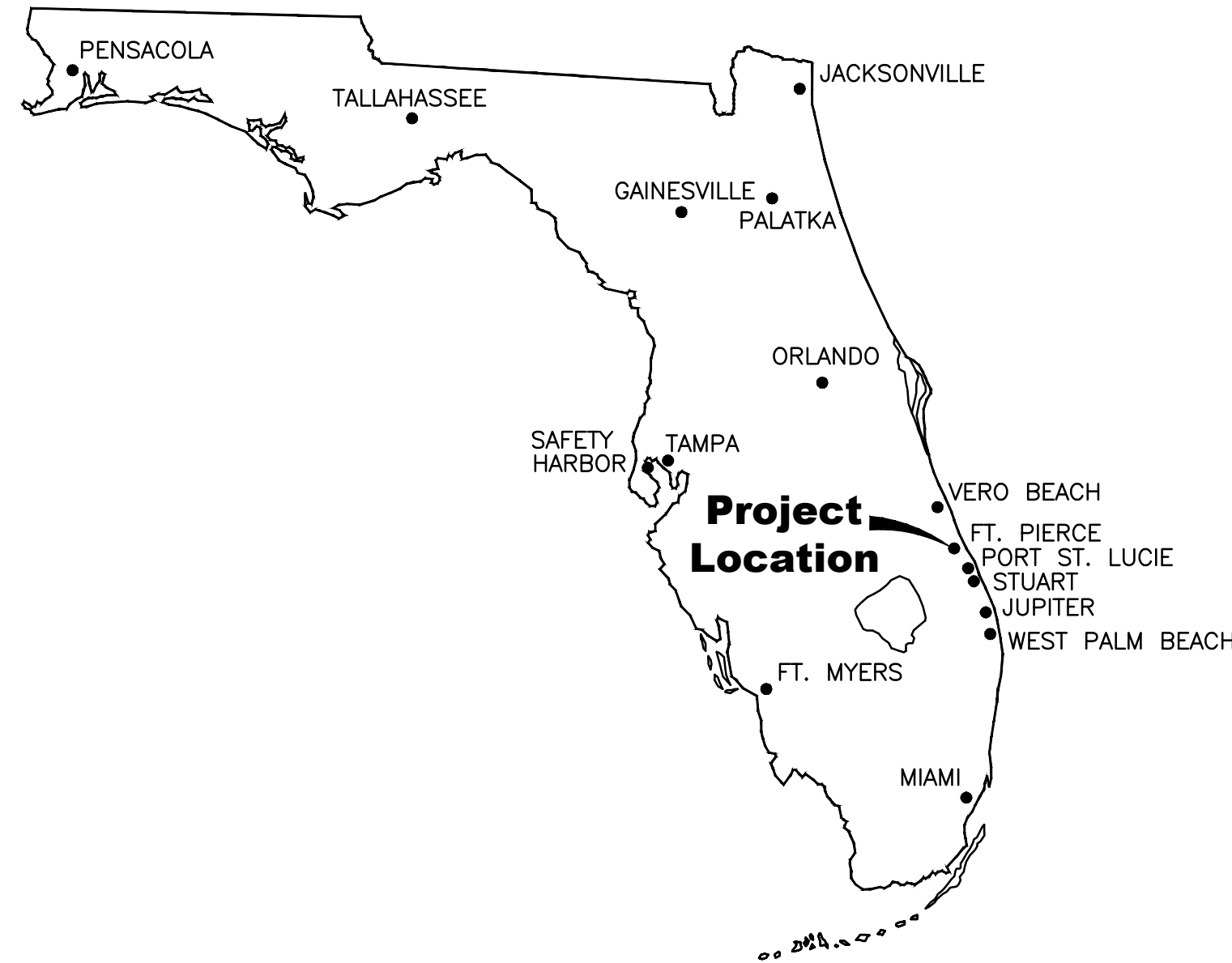
Construction Plans and Specifications

For

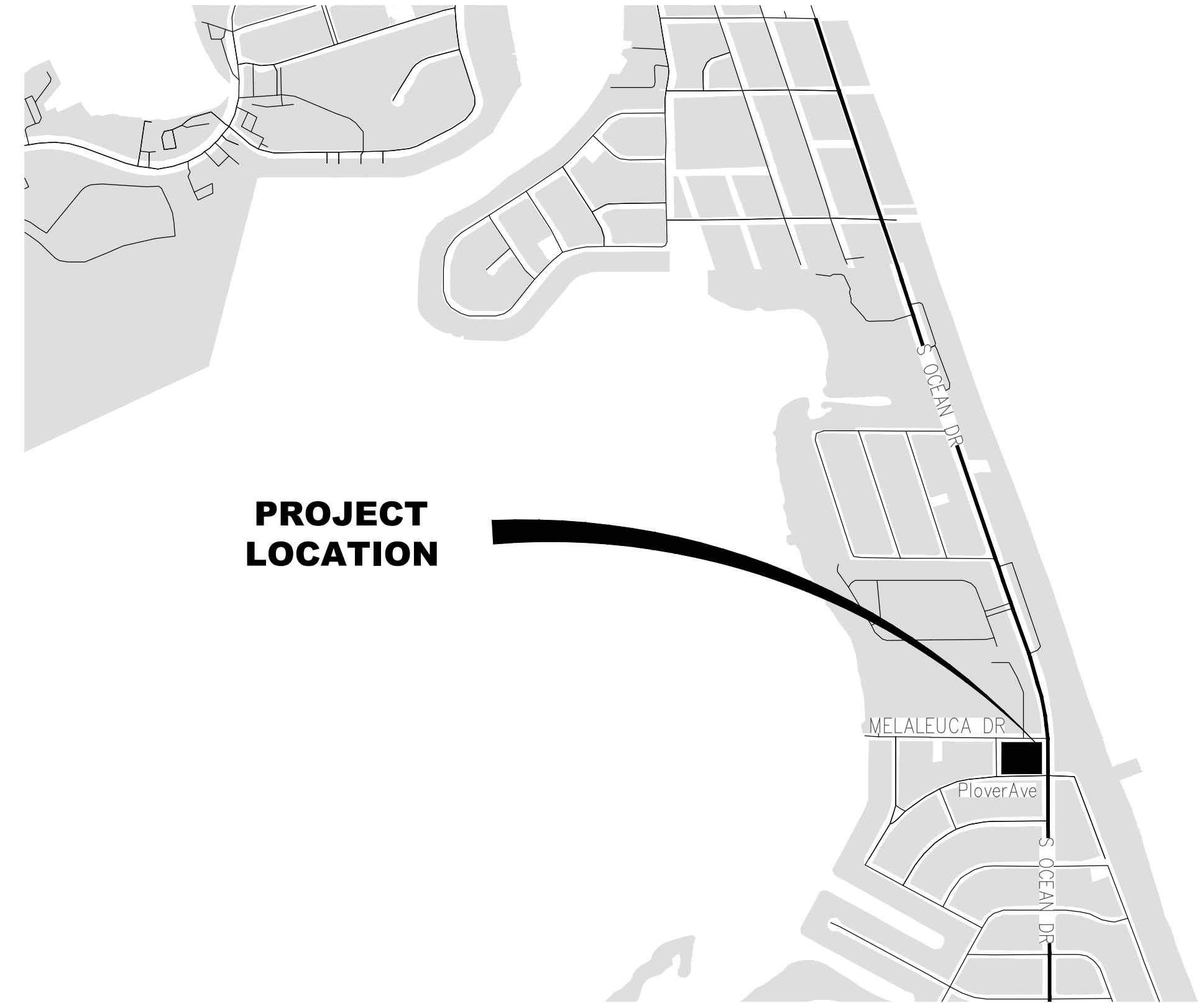
BLISS TOWNHOMES

CITY OF FORT PIERCE, FLORIDA

SECTION 12, TOWNSHIP 35 SOUTH, RANGE 40 EAST



VICINITY MAP



LOCATION MAP

N.T.S.

LEGAL DESCRIPTION:
UNDIVIDED TRACT IN BLOCK 1 OF SURFSIDE UNIT ONE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 10, PAGE 17, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

INDEX OF SHEETS

SHEET No.	SHEET TITLE/DESCRIPTION
C1.0	COVER SHEET
C2.0	EXISTING CONDITIONS PLAN
C3.0	STORM WATER POLLUTION PREVENTION PLAN
C3.1	STORM WATER POLLUTION PREVENTION DETAILS
C4.0	HORIZONTAL CONTROL PLAN
C5.0	PAVING, GRADING AND DRAINAGE PLAN
C5.1	PAVING, GRADING AND DRAINAGE
C6.0	UTILITY PLAN
C6.1	UTILITY DETAILS

NOTES:

- 1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988
- 2) CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD CONSTRUCTION (FY 2023-24)
- 3) GOVERNING SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (DATED JANUARY 2023)
- 4) THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE STANDARD DETAILS OF THE FORT PIERCE UTILITY AUTHORITY – LATEST EDITION.
- 5) ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF FORT PIERCE CODE OF ORDINANCES SECTIONS 17 AND 22.
- 6) PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATE STATUTE 554.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING COMPLIANCE WITH CURRENT OSHA, STATE, COUNTY, AND LOCAL REGULATIONS SUCH AS 54 CFR 45894 AND 29 CFR 1926.650,651.652 AND THE FLORIDA TRENCH SAFETY ACT.
- 8) THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY ENGINEER, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY ITS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF ITS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. THE CONTRACTOR SHALL DO ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK AND LANDSCAPING WORK TO SATISFY ANY RESTORATION REQUIREMENTS AT HIS EXPENSE. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
- 9) THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY THIS CONSTRUCTION TO A CONDITION EQUAL TO OR BETTER THAN CURRENTLY EXISTING.
- 10) THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES THAT REMAIN IN PLACE.
- 11) ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- 12) THE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING THEIR UTILITIES SO THAT COMPANY REPRESENTATIVES CAN BE PRESENT.
- 13) ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED. ALL STRUCTURES TO BE REMOVED SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.
- 14) CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THE PROTECTION AND PRESERVATION OF EXISTING NATIVE TREES. THE CONTRACTOR SHALL BE RESPONSIBLE IN REPLACING TREES THAT ARE HARMED DURING CONSTRUCTION WITH THE SAME VARIETY AND OF EQUAL SIZE OR GREATER.
- 15) THE MAINTENANCE OF TRAFFIC FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX NUMBERS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (U.S.DEPARTMENT OF TRANSPORTATION, FHWA). THESE SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKMEN FROM HAZARDS WITHIN THE PROJECT LIMITS.
- 16) ALL EXISTING FEATURES TO REMAIN UNLESS OTHERWISE NOTED IN THE PLANS.

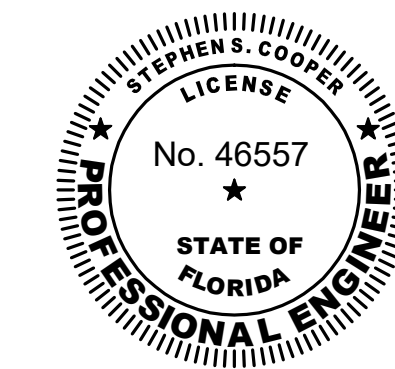
PREPARED BY



STEPHEN COOPER P. E.
Associates, INC.
Consulting Engineers

7450 South Federal Highway - Port St. Lucie
Fl 34952, Phone: (772) 336-2933
FLORIDA CERTIFICATE OF AUTHORIZATION No. 00008856
AUGUST 2018

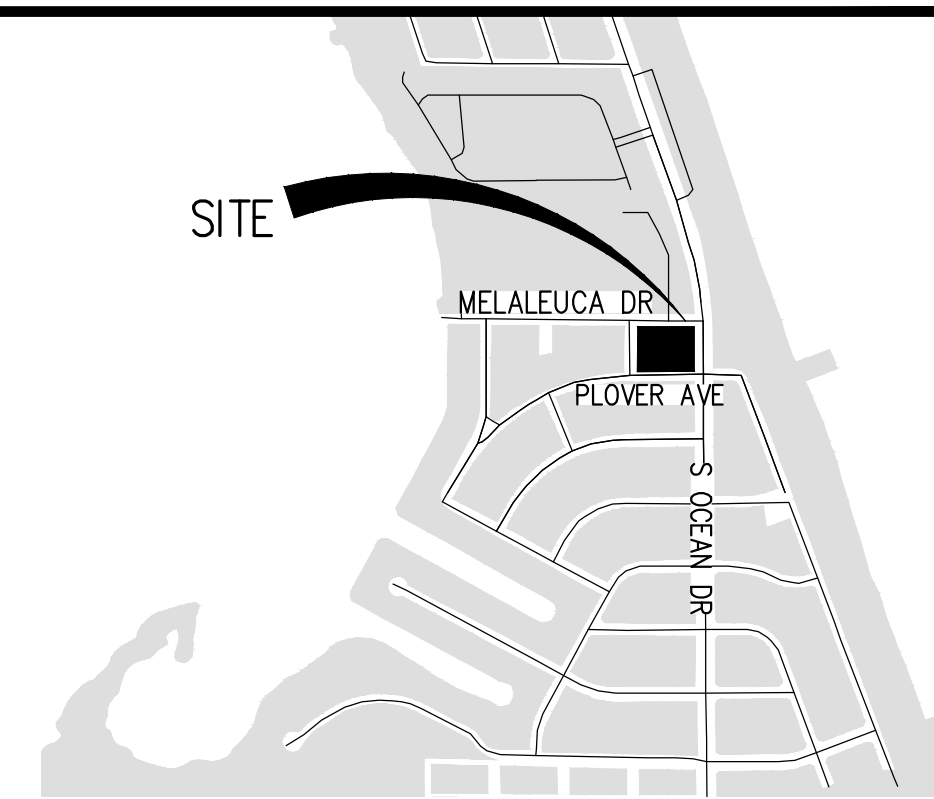
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Stephen Cooper, P.E. #46557



SHEET **C1.0**

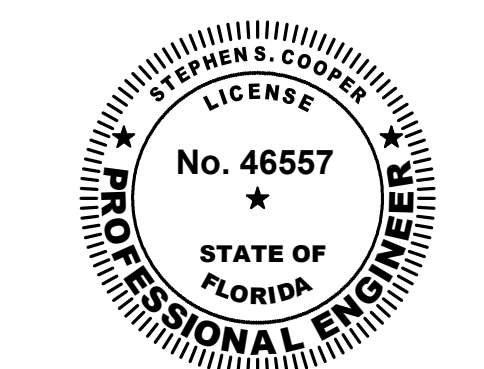
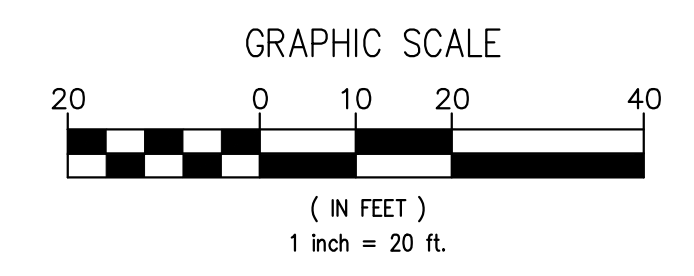


- LEGEND:**
- (C) = CALCULATED
 - (D) = DEED
 - (M) = MEASURED
 - (P) = PLATTED
 - CMP = CORRUGATED METAL PIPE
 - CNS = COULD NOT SET
 - CONC = CONCRETE
 - FFE = FINISHED FLOOR ELEVATION
 - FND = FOUND
 - IR = 5/8" IRON REBAR "NO IDENTIFICATION"
 - IRC = 5/8" IRON REBAR WITH PLASTIC CAP
 - PCOR = PROPERTY CORNER
 - PCP = PERMANENT CONTROL POINT
 - PL = PROPERTY LINE
 - PUDE = PUBLIC UTILITIES AND DRAINAGE EASEMENT
 - R/W = RIGHT-OF-WAY
 - R = RADIUS OF CURVE
 - L = LENGTH OF CURVE
 - SF = SQUARE FOOT
 - | = DELTA OF CURVE
 - o = SET 5/8" IRON REBAR WITH PLASTIC CAP "AJP PSM 6330"
- SYMBOLS:**
- [Symbol] = GUY WIRE ANCHOR
 - [Symbol] = CABLE TELEVISION BOX
 - [Symbol] = CATCH BASIN
 - [Symbol] = CATCH BASIN INLET
 - [Symbol] = ELECTRIC BOX
 - [Symbol] = SIGN
 - [Symbol] = SANITARY MANHOLE
 - [Symbol] = FIRE HYDRANT
 - [Symbol] = LIGHT POLE
 - [Symbol] = UNKNOWN UTILITY
 - [Symbol] = WATER VALVE
 - [Symbol] = WOOD POWER POLE
 - [Symbol] = SET 5/8" IRON ROD WITH PLASTIC CAP PSM#6330

LEGAL DESCRIPTION:
 UNDIVIDED TRACT IN BLOCK 1 OF SURFSIDE UNIT ONE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 10, PAGE 17, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BOUNDARY AND TOPOGRAPHIC BY:
 ALEXANDER J. PIAZZA PSM, INC.
 SURVEYING - MAPPING - CONSULTING
 519 SW BILTMORE STREET
 PORT ST. LUCIE, FLORIDA 34983
 PHONE: (772) 340-7770
 FAX: (772) 340-2250
 PROJECT NUMBER C-1605
 DATED: 3-10-22

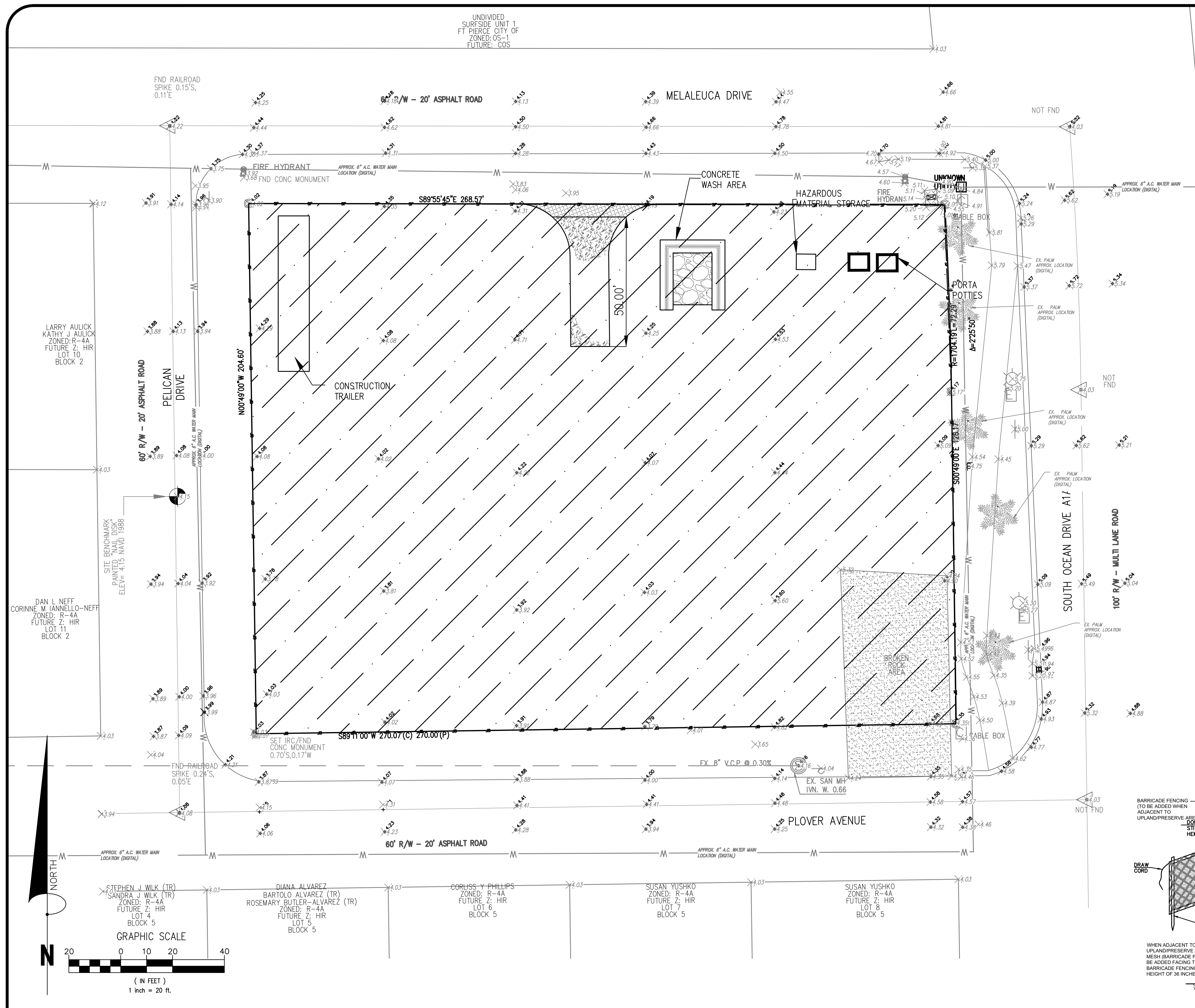
- SURVEY NOTES:**
- THIS IS A BOUNDARY SURVEY AS DEFINED IN CHAPTER 5J-17.050(11), FLORIDA ADMINISTRATIVE CODE.
 - THIS BOUNDARY SURVEY WAS PERFORMED FOR THE PURPOSE OF FUTURE DEVELOPMENT SHOWN AND DEPICTED HEREON. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS IS A TRUE, ACCURATE AND COMPLETE DEPICTION OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON 3-08-22. I FURTHER CERTIFY THAT SAID DRAWING IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
 - UNLESS OTHERWISE NOTED ONLY PLATTED EASEMENTS ARE SHOWN HEREON.
 - NO UNDERGROUND UTILITIES OR IMPROVEMENTS WERE LOCATED UNLESS OTHERWISE SHOWN.
 - THIS SITE LIES WITHIN FLOOD ZONE "X", ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 1211C0183 K, EFFECTIVE DATE FEBRUARY 19, 2020.
 - FLOOD ZONE SHOWN HEREON IS AN INTERPRETATION BY THE SURVEYOR AND IS PROVIDED AS A COURTESY. THE FLOOD ZONE SHOULD BE VERIFIED BY A DETERMINATION AGENCY.
 - BEARINGS SHOWN HEREON ARE BASED ON THE WEST R/W LINE OF STATE ROAD A1A ASSUMED TO BEAR S00°49'00"E.
 - THE PROPERTY FALLS WITHIN THE SUBURBAN CATEGORY AS CLASSIFIED IN CHAPTER 5J-17.051(2), FLORIDA ADMINISTRATIVE CODE. ALL FIELD CONTROL MEASUREMENTS EXCEEDED 1:7,500 FEET ACCURACY REQUIREMENTS FOR THIS CLASSIFICATION.
 - ALL LOT DIMENSIONS SHOWN ARE PER PLAT UNLESS OTHERWISE NOTED. ALL SURVEY MEASUREMENTS ARE IN FEET.
 - ALL MAPPED FEATURES SHOWN HEREON ARE UNDER THE DIRECT SUPERVISION AND RESPONSIBILITY OF ALEXANDER J. PIAZZA PSM, INC.
 - SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
 - ADDITIONS OR DELETIONS TO THE SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.



Stephen Cooper, P.E. #46557

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY STEPHEN COOPER P.E., SHALL BE WITHOUT LIABILITY TO STEPHEN COOPER P.E. & ASSOCIATES, P.A. CONSULTING ENGINEERS

<p>STEPHEN COOPER, P.E. & ASSOCIATES, INC. - CONSULTING ENGINEER -</p> <p>CIVIL ENGINEERING • SITE PLANNING • ENVIRONMENTAL PERMITTING 7450 SOUTH FEDERAL HIGHWAY PORT ST. LUCIE, FLORIDA 34952 Tel: 1-772-336-5933</p> <p>FLORIDA CERTIFICATE OF AUTHORIZATION No. 00089658</p>	
<p>SCPE</p>	
<p>EXISTING CONDITIONS PLAN</p>	
<p>BLISS TOWNHOMES</p> <p>CONSTRUCTION PLANS & SPECIFICATIONS</p> <p>CITY OF FORT PIERCE STATE OF FLORIDA</p>	
DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORZ. SCALE:	SC
VERT. SCALE:	SC
DRAWING NO.	C2.0
JOB NO.	2022-104



STORM WATER POLLUTION PREVENTION PLAN/ EROSION AND SEDIMENTATION CONTROL DETAILS
1. SITE DESCRIPTION
 THE PROPOSED PROJECT REQUIRES APPROXIMATELY 1.25 ACRES OF SOIL DISTURBANCE AS PART OF A PLANNED PHASE OF CONSTRUCTION. BASED ON THE SCS SOIL SURVEY OF ST. LUCIE COUNTY, THE SITE SOILS GENERALLY CONSIST CARNIVAL SAND (TYPE A).
 THE PROJECT CONSISTS OF A RESIDENTIAL TOWNHOUSE DEVELOPMENT. THE POST DEVELOPMENT SURFACE WATER MANAGEMENT PLAN CONSISTS OF SITE GRADING AND A SERIES OF INLETS AND CULVERTS WHICH DIRECT STORM WATER RUNOFF TO A PROPOSED DRY RETENTION SYSTEM CAPABLE OF RETAINING ALL RUNOFF TO THE 25UR, 3 DAY LEVEL ONSITE.

CONSTRUCTION SEQUENCING
 UNLESS AN APPROVED ALTERNATE SEQUENCE IS PROPOSED BY THE CONTRACTOR, THE FOLLOWING SITE WORK CONSTRUCTION SEQUENCE IS PROPOSED:
 1. PLACEMENT AND INSPECTION OF ALL TEMPORARY EROSION CONTROL FACILITIES.
 2. SITE CLEARING, GRUBBING AND EARTHWORK (FILL AND EXCAVATION) REQUIRED TO BRING THE SITE TO ROUGH POST DEVELOPMENT GRADES AS DEPICTED ON THE PAVING, GRADING AND DRAINAGE PLAN (SHEET 4).
 3. CONSTRUCTION OF ALL UNDERGROUND UTILITIES (IE: SANITARY SEWER, POTABLE WATER AND DRAINAGE STRUCTURES).
 4. SITE EARTHWORK ASSOCIATED WITH THE PROPOSED PAVED VEHICULAR USE AREAS, DUMPSTER'S, CURBING AND SIDEWALKS.
 5. SEED, MULCH, FERTILIZATION AND/OR SOODING OF ALL UNPAVED DISTURBED AREAS.

2. SITE SPECIFIC EROSION CONTROLS
CONSTRUCTION PHASE EROSION AND SEDIMENTATION CONTROLS
 PER THE CONSTRUCTION SEQUENCING AS DESCRIBED IN 1.2 ABOVE, SILT FENCES (PER DETAIL) SHALL BE CONSTRUCTED AROUND THE ENTIRE PROJECT PERIMETER WITH THE EXCEPTION OF THE TEMPORARY CONSTRUCTION ENTRANCE. THE TEMPORARY STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED PER DETAIL. UPON INSTALLATION OF THE DRAINAGE STRUCTURES, FILTER FABRIC SHALL BE INSTALLED IN THE DRAINAGE INLETS. ONCE THE ONSITE DRAINAGE IS CONNECTED TO THE OFFSITE STUB-OUT, TURBIDITY CURTAINS SHALL BE AROUND THE OUTFALL INTO THE LAKE IMMEDIATELY NORTH OF THE SITE. HAY BALES SHALL BE INSTALLED AROUND THE ONSITE DRAINAGE INLETS SUCH THAT RUNOFF PASSES THROUGH THE BALES PRIOR TO OVERFLOWING OFFSITE. WHEN NO CONSTRUCTION ACTIVITY IS PLANNED FOR WITHIN A MAXIMUM OF SEVEN DAYS, ALL UNPAVED DISTURBED AREAS SHALL BE SEEDDED, MULCHED AND/OR SOODING.

POST CONSTRUCTION EROSION AND SEDIMENTATION CONTROLS
 POST DEVELOPMENT STABILIZATION OF OPEN AREAS INCLUDE LANDSCAPING, SEEDING AND/OR SOODING OF ALL DISTURBED PERVIOUS SURFACES. THE POST DEVELOPMENT ONSITE STORMWATER MANAGEMENT SYSTEM INCLUDES SITE GRADING AND/OR A SERIES OF INLETS AND CULVERTS WHICH DIRECT STORMWATER RUNOFF TO A STABILIZED DRY DETENTION SYSTEM AS DESCRIBED PREVIOUSLY IN PART 1. ABOVE.

OTHER CONTROLS
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WASTE DISPOSAL AND VEHICLE SEDIMENT TRACKING PER STATE, LOCAL AND FEDERAL REGULATIONS.

3. MAINTENANCE SILT FENCE
 SILT FENCE SHALL BE MAINTAINED IN GOOD WORKING CONDITION PER THE DETAIL SHOWN ON THE PLANS. SILT FENCES SHALL BE REPLACED EVERY SIX MONTHS DURING THE CONSTRUCTION PHASE.

TURBIDITY CURTAINS
 IF APPLICABLE TURBIDITY CURTAINS SHALL BE MAINTAINED IN GOOD WORKING CONDITION PER THE DETAIL SHOWN ON THE PLANS.

RAINFALL RECORDS
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DAILY RAINFALL RECORDS PER NPDES REQUIREMENTS.

4. INSPECTION
 QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT WHICH RESULTS IN 0.50 INCHES OR GREATER. WHEN THE SITE HAS UNDERGONE FINAL STABILIZATION, INSPECTIONS SHALL BE CONDUCTED AT LEAST EVERY MONTH.

- I. POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES
- II. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION
- III. DISTURBED AREAS OF THE SITE WHICH HAVE NOT UNDERGONE FINAL STABILIZATION
- IV. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION
- V. STRUCTURAL CONTROLS
- VI. STORMWATER MANAGEMENT SYSTEM
- VII. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE

5. NON-STORMWATER DISCHARGE
 THE CONTRACTOR IS RESPONSIBLE FOR THIS PORTION OF THE SWPPP PLAN. CONTRACTOR SHALL OBTAIN ANY REQUIRED TEMPORARY OR PERMANENT DOWNSLOPE PLAN TO SOUTH FLORIDA WATER MANAGEMENT DISTRICT FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY WHICH REQUIRED DOWNSLOPE.

CLEARING AND GRUBBING:
 CONTRACTOR IS CAUTIONED TO REVIEW ALL PERMITS AND CONSTRUCTION DOCUMENTS PRIOR TO THE CLEARING/GRUBBING PHASE.
 THE CONTRACTOR WILL NOT REMOVE ANY TREES WITHOUT CONFIRMATION FROM ENGINEER OR OWNER.
 CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING PERIMETER EROSION AND SEDIMENT CONTROL UNTIL THE PROJECT IS COMPLETE.

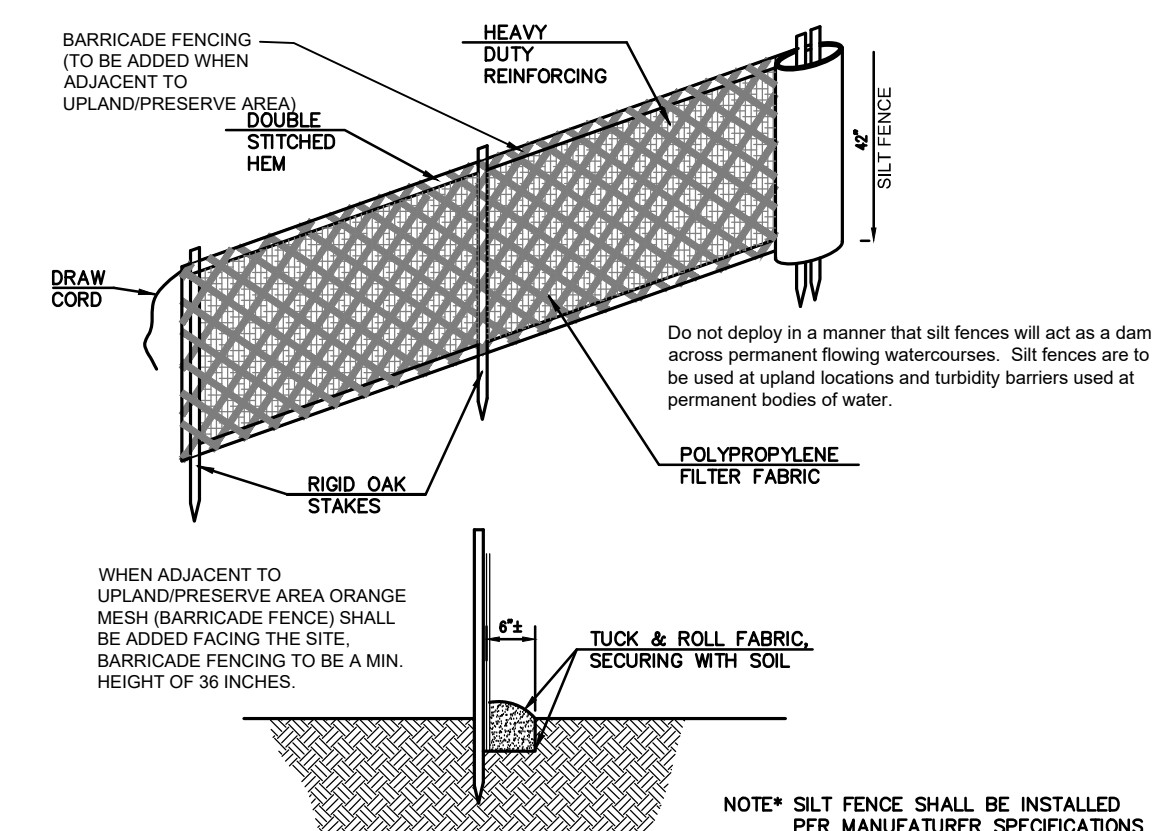
NOTE:
 ALL EXISTING TREES TO REMAIN IN AREAS NOT TO BE CLEARED

SEC. 107-7. - INSPECTION.
 (A) THE CITY ENGINEERING DEPARTMENT SHALL MAKE INSPECTIONS AS HEREAFTER REQUIRED AND NOTIFY THE BUILDING OFFICIAL UPON INSPECTION APPROVAL OR IF THE WORK FAILS TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN AS APPROVED TO REQUEST A STOP-WORK ORDER. PLANS FOR GRADING, STOPPING, EXCAVATING, AND FILING WORK BEARING THE STAMP OF APPROVAL OF THE CITY ENGINEER SHALL BE MAINTAINED AT THE SITE DURING THE DURATION OF THE WORK. TO OBTAIN INSPECTIONS, THE PERMITEE SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE THE FOLLOWING:

- (1) START OF CONSTRUCTION;
- (2) INSTALLATION OF SEDIMENT AND EROSION MEASURES;
- (3) COMPLETION OF SITE CLEARING;
- (4) COMPLETION OF ROUGH GRADING;
- (5) COMPLETION OF FINAL GRADING;
- (6) CLOSE OF THE CONSTRUCTION SEASON;
- (7) COMPLETION OF FINAL LANDSCAPING.

(B) THE PERMITEE SHALL BE RESPONSIBLE FOR THE FUNCTIONALITY OF ALL CONTROL MEASURES IN ACCORDANCE WITH THE INSPECTION SCHEDULE OUTLINED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE CONTROL PLAN AND THE POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.

(C) THE CITY ENGINEER OF HIS DESIGNEE SHALL ENTER THE PROPERTY OF THE APPLICANT AS DEEMED NECESSARY TO MAKE REGULAR INSPECTIONS TO ENSURE THE EFFECTIVENESS OF THE CONTROL PLAN AND THE POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.

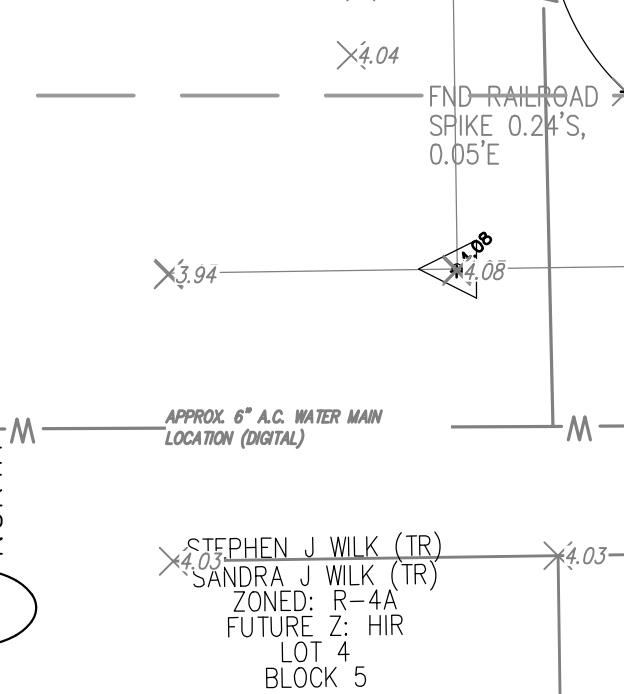
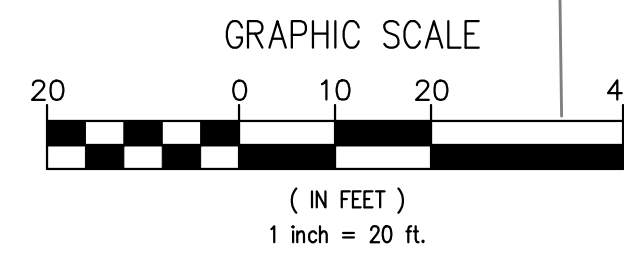
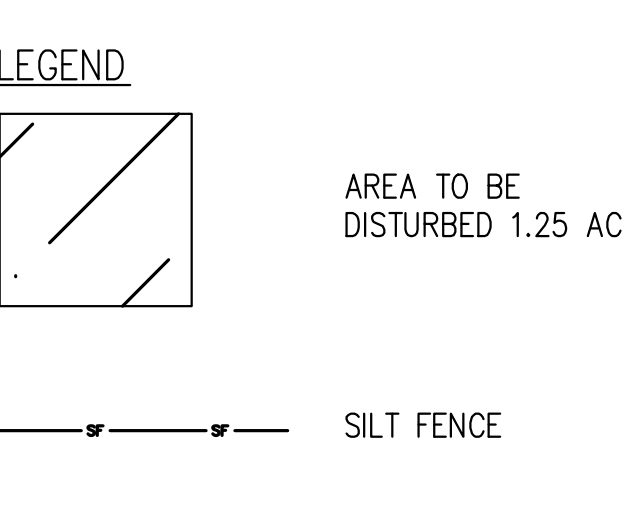


RECOMMENDED TOE-IN SILT FENCE DETAIL

SOIL EROSION NOTES
 PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SPECIFIC SOIL EROSION PLAN. IN GENERAL, THE SOIL EROSION PLAN SHALL REQUIRE THAT ALL ON-SITE SOILS WILL REMAIN ON-SITE AND WILL NOT ERODE INTO THE ADJACENT ROADSIDE SWALES, ADJACENT PROPERTIES, OR RETENTION DITCHES. ALL EXISTING SWALES SHALL REMAIN SOODED DURING CONSTRUCTION. THE CONTRACTOR SHALL SCARIFY ONLY AS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL SCARIFY AREAS TO PLACE VARIOUS PIPE WORK. AFTER PLACEMENT OF THE PIPE, THESE TRENCHES SHALL BE BACKFILLED AND COMPACTED 98% DENSITY. PRIOR TO DISCHARGE FROM THE SITE, SILTATION BARRIERS AND HAY BALES SHALL BE UTILIZED AS PER FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 102 TO AVOID FILLING THESE AREAS. UPON COMPLETION OF THE SITE WORK, ALL AREAS SHALL BE SOODED WITHIN SEVEN DAYS TO AVOID EROSION. CONTRACTOR IS REQUIRED TO COMPLY WITH ALL STATE WATER QUALITY CRITERIA, SPECIFICALLY, NO OFF-SITE DISCHARGES WILL BE ALLOWED WHICH EXCEED THE STATE TURBIDITY CRITERIA.
 ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION, 1988).
 ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEMS SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.

NOTES
 1. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE ENGINEERING DEPARTMENT'S PRE-CONSTRUCTION MEETING FOR THE SITE DEVELOPMENT.
 2. AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. THIS AUTHORIZATION SHALL BE POSTED ON THE SITE, IN THE PERMIT BOX LOCATION SHOWN ON THIS SHEET.
 3. NO ADDITIONAL LAND DISTURBANCE SHALL COMMENCE UNTIL SATISFACTORY INSPECTION OF THE REQUIRED EROSION CONTROL DEVICES HAS BEEN OBTAINED.
 4. ALL CONSTRUCTED SILT FENCES WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING THE PERMITTED DEVELOPMENT.

WIND AND WATER EROSION NOTE:
 SILT FENCE HAS BEEN PLACED AROUND THE PERIMETER OF THE SITE INSIDE THE EXISTING FENCE IN THE REAR AND ADJACENT THE DISTURBED AREAS IN THE FRONT, THIS SHALL PREVENT ANY WIND OR WATER DRIVEN EROSION FROM OCCURRING.



STEPHEN COOPER, P.E. & ASSOCIATES, INC.
 - CONSULTING ENGINEER -
 CIVIL ENGINEERING • SITE PLANNING • ENVIRONMENTAL PERMITTING
 7450 SOUTH FEDERAL HIGHWAY
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 Tel: 1-772-336-9033
 FLORIDA CERTIFICATE OF AUTHORIZATION No. 0008656

SCOPE

BLISS TOWNHOMES
 CONSTRUCTION PLANS & SPECIFICATIONS

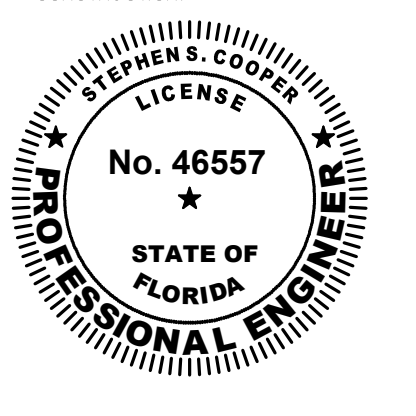
STORM WATER, POLLUTION PREVENTION PLAN

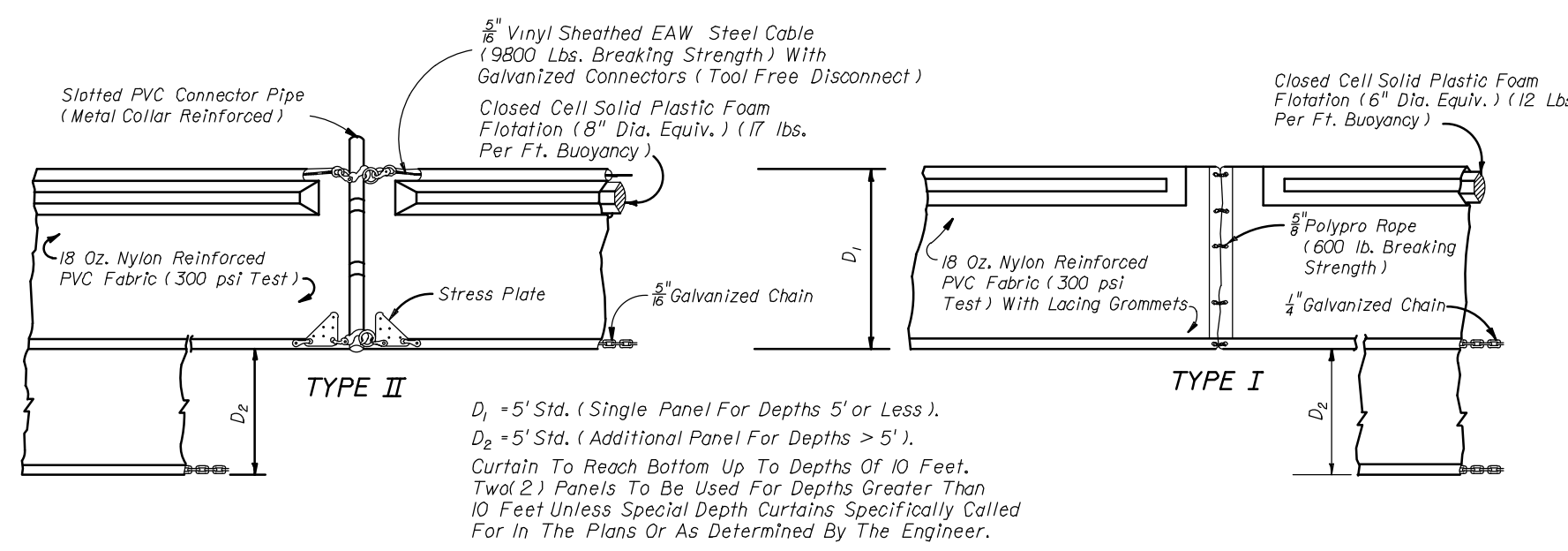
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 DRAWING NO. C3.0
 JOB NO. 2022-104

STATE OF FLORIDA
 CITY OF FORT PIERCE



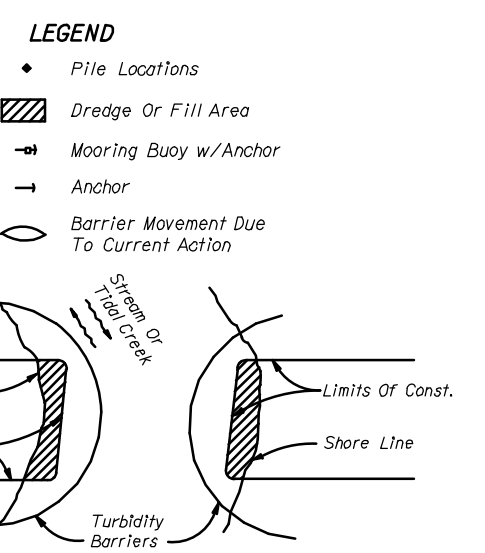
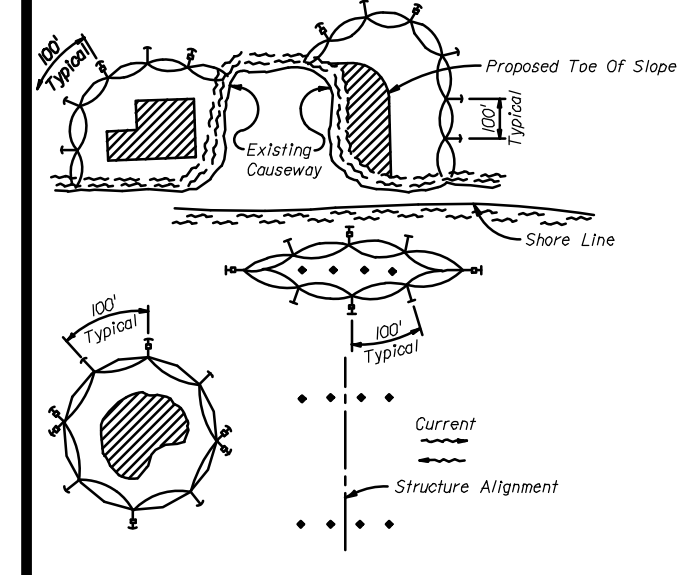
Stephen Cooper, P.E. #46557





NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

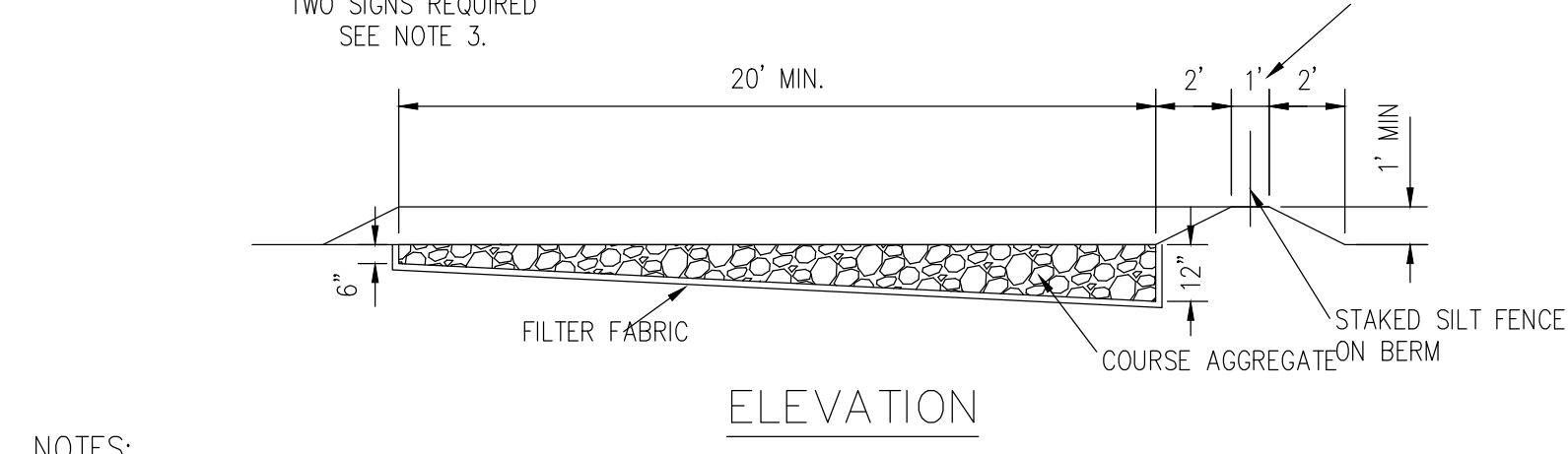
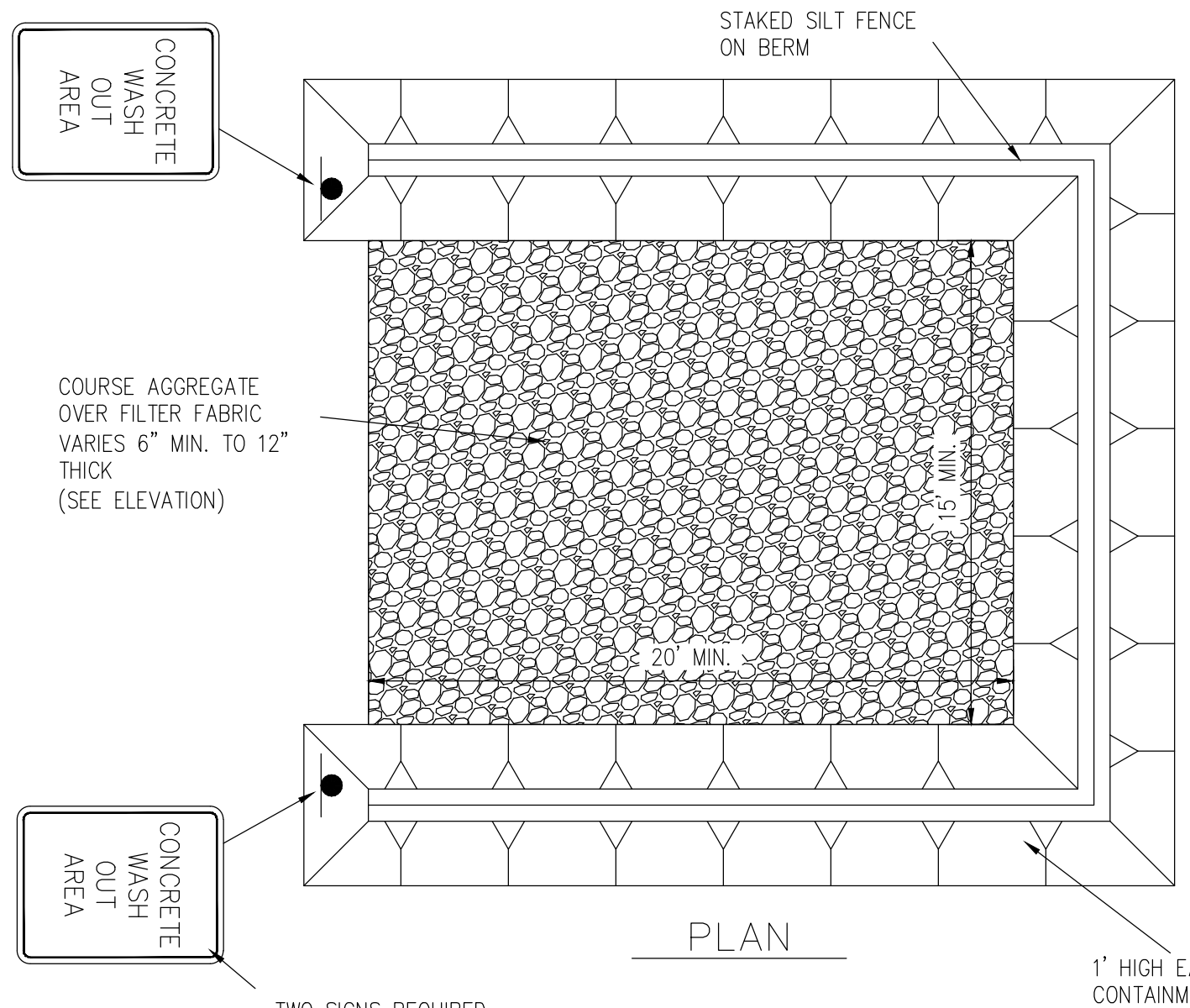


Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) shall be at the Contractors' discretion unless otherwise specified in the plans. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

- NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
 2. Number and spacing of pile locations dependent on current velocities.
 3. Deployment of barrier around pile locations may vary to accommodate construction operations.
 4. Navigation may require segmenting barrier during construction operations.
 5. For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER DETAILS

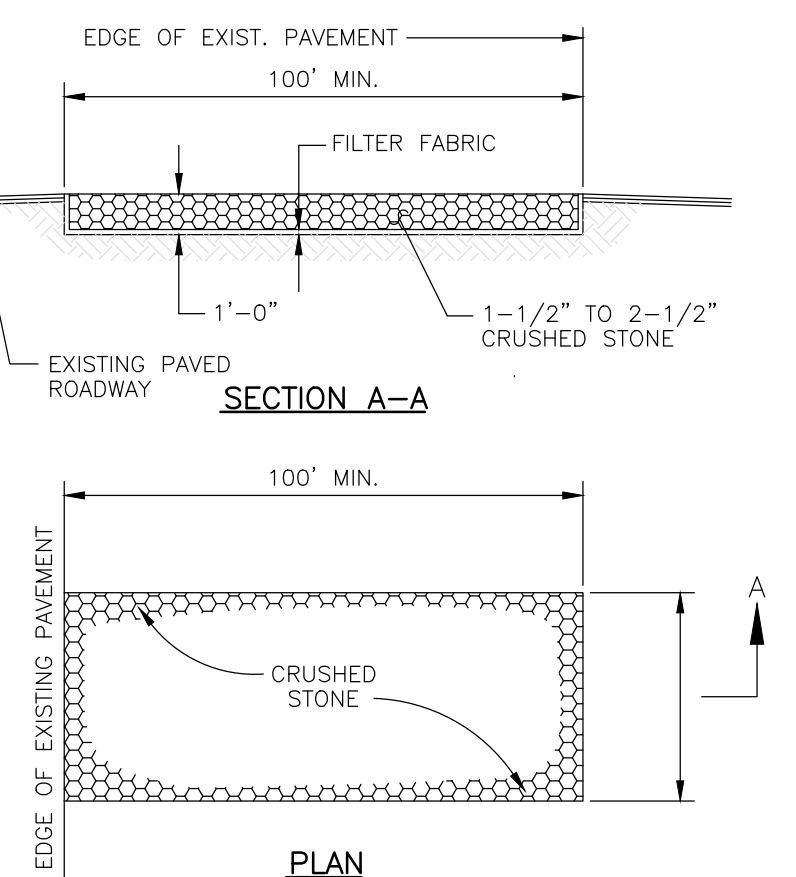
F.D.O.T. STD. INDEX #103



- NOTES:
1. ALL MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF THE PROJECT.
 2. AGGREGATE SHALL BE REPLACED AS DIRECTED BY THE ENGINEER OF RECORD AND/OR THE CITY WHEN EXCESSIVE MATERIALS BUILDUP RENDERS THE WASH OUT AREA NO LONGER FUNCTIONAL.
 3. SIGNS SHALL BE 18" X 12" MIN. SIZE WITH 2" BLACK LETTERING ON A WHITE BACKGROUND AND MOUNTED A MINIMUM OF 7 FEET ABOVE GRADE FROM THE LOWEST EDGE OF THE SIGN FACE.

CONCRETE TRUCK WASH OUT AREA

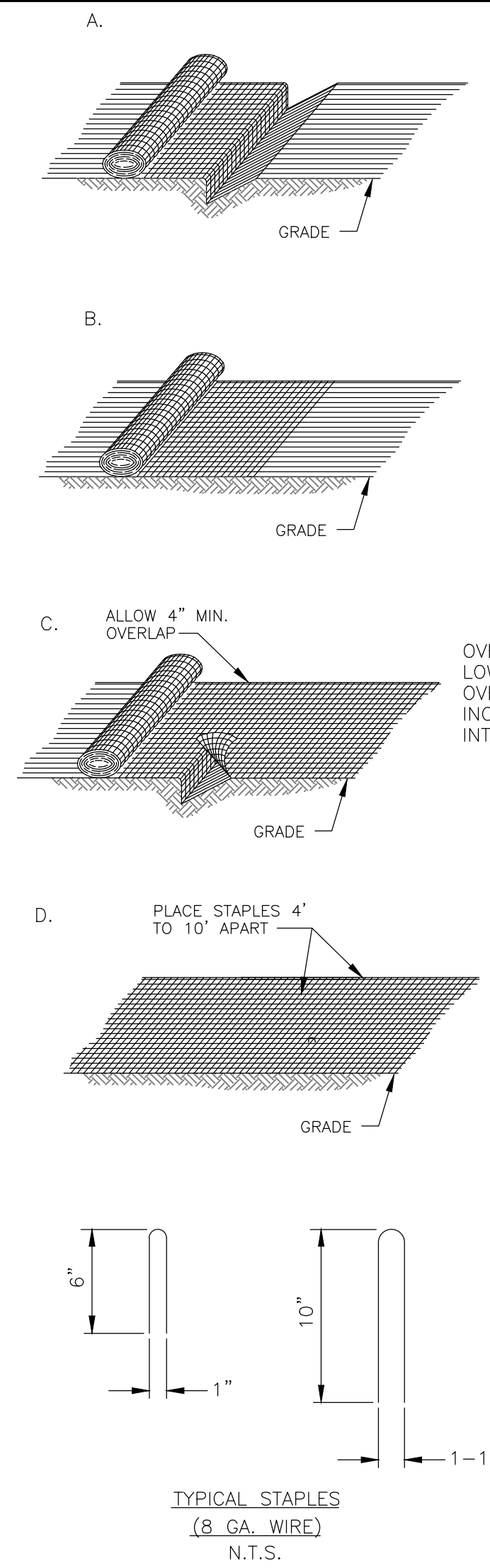
N.T.S.



NOTE: EXISTING GRADE OF GRAVEL SURFACE VARIES. LEVEL SUBGRADE BENEATH FABRIC FILTER AND CRUSHED STONE WEARING COURSE TO MEET EXISTING PAVED ROADWAY ON EITHER SIDE OF TRACKING PAD.

CONSTRUCTION SITE TRACKING PAD

N.T.S.



PREPARE ANCHORING TRENCHES AT THE TOP AND BOTTOM OF SLOPES. BURY THE TOP ENDS OF THE MATTING STRIPS IN A TRENCH 4 INCHES OR MORE IN DEPTH.

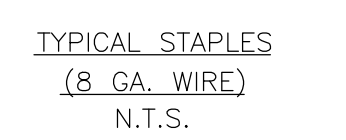
TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 10 INCH SPACING 4 INCHES DOWN FROM TRENCH.

OVERLAP—BURY UPPER END OF LOWER STRIP AS IN "A" AND "B". OVERLAP END OF TOP STRIP 4 INCHES AND STAPLE AT 10 INCH INTERVALS.

EROSION STOP—FOLD OF MATTING BURIED IN SILT TRENCH AND TAMPED. DOUBLE ROW OF STAPLES. EROSION STOPS SHOULD BE INSTALLED AT THE MIDPOINT OF SLOPES GREATER THAN 50 FEET IN LENGTH; OR AT 50 FOOT INTERVALS MEASURED FROM TOP OF SLOPES GREATER THAN 100 FEET IN LENGTH.

NOTES: APPLICABLE FOR JUTE MESH, BIODEGRADABLE MESH NETTING, AND EXCELSIOR MATTING (EXCEPT EXCELSIOR MATTING MAY BE BUTTED).

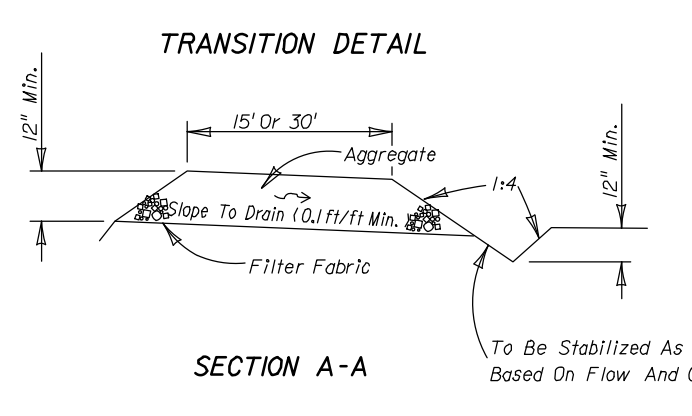
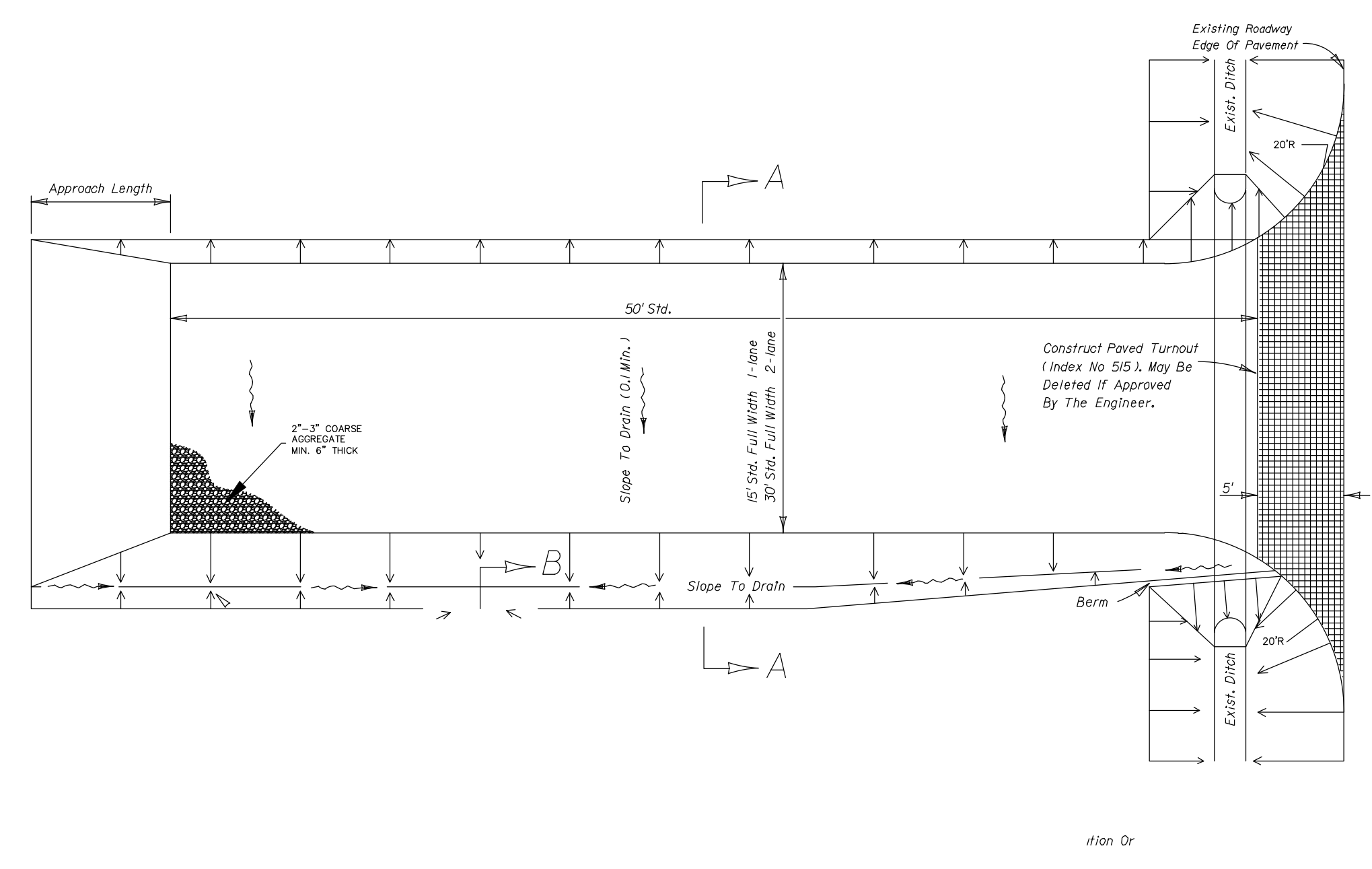
LIME FERTILIZER AND SEED IN ACCORDANCE WITH THE SEEDING SPECIFICATION EXCEPT THAT FOR JUTE MESH, ONE HALF OF THE SEED MAY BE APPLIED PRIOR TO LAYING THE MATTING AND THE REMAINING SEED APPLIED AFTER LAYING THE MATTING.



TYPICAL STAPLES (8 GA. WIRE) N.T.S.

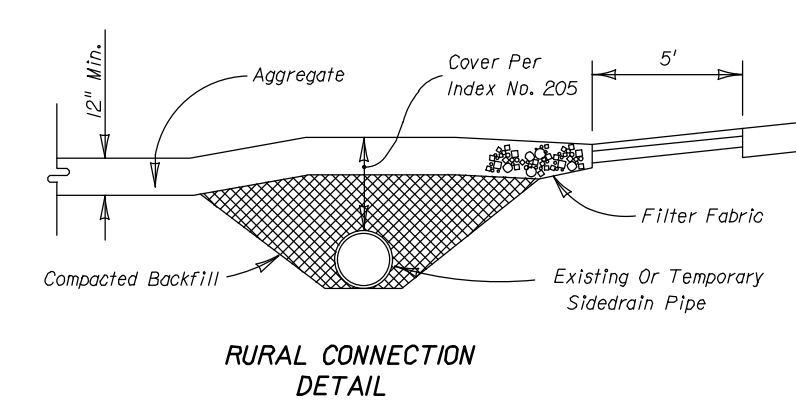
EROSION PROTECTION WITH SOIL STABILIZATION MATTING

N.T.S.

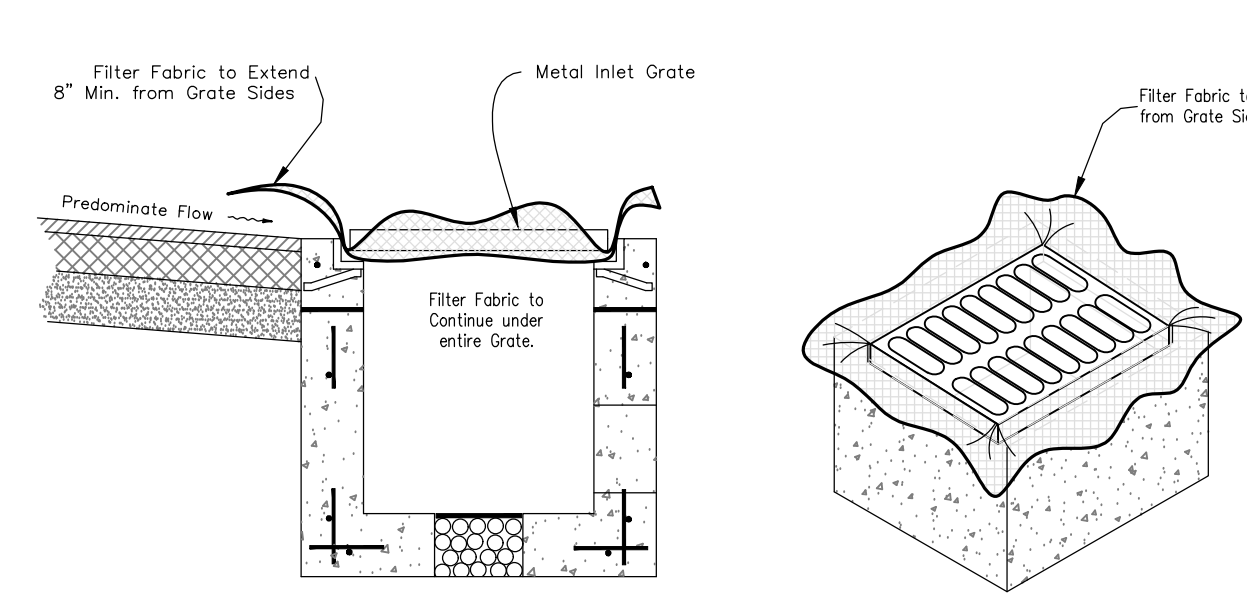


SOIL TRACKING PREVENTION DEVICE (STPD)

F.D.O.T. STD. INDEX #106



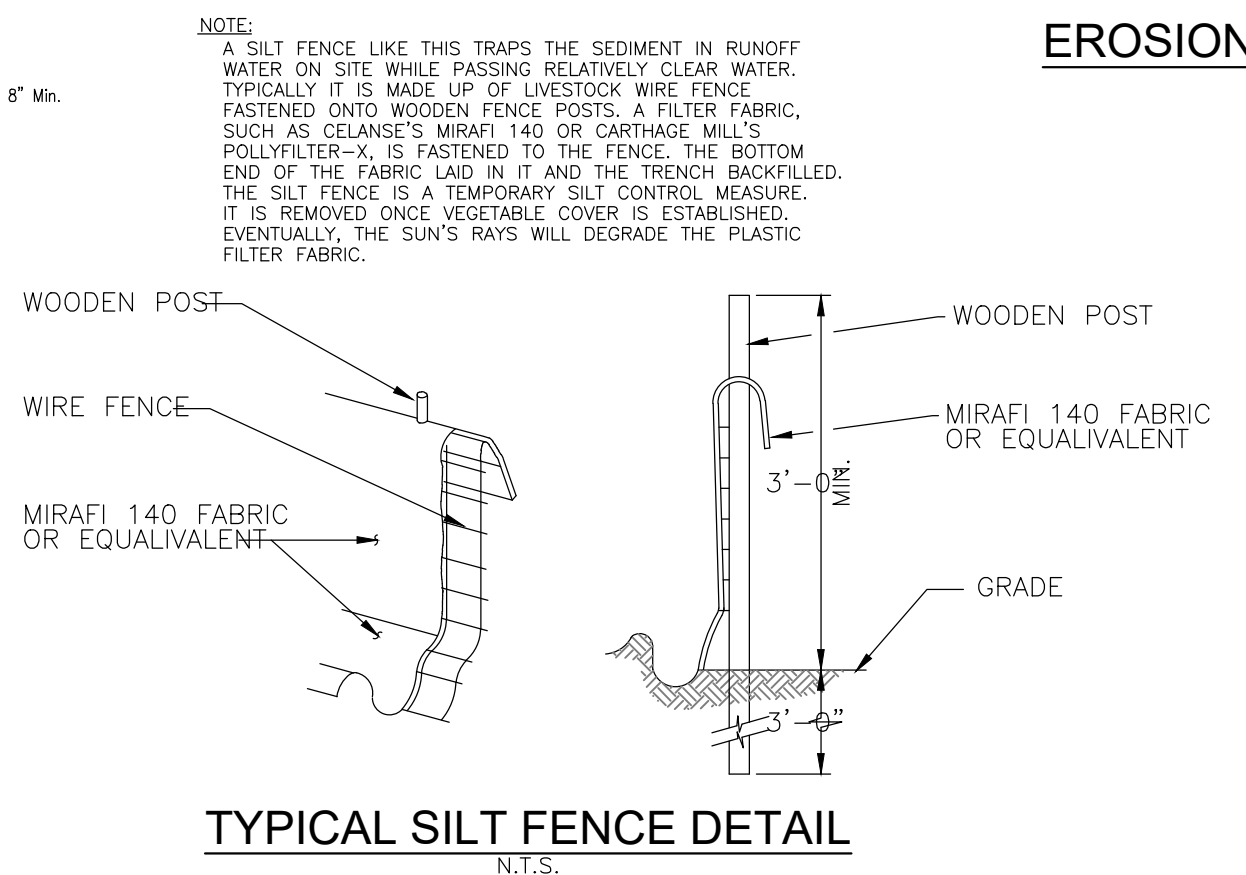
RURAL CONNECTION DETAIL



GENERAL NOTES

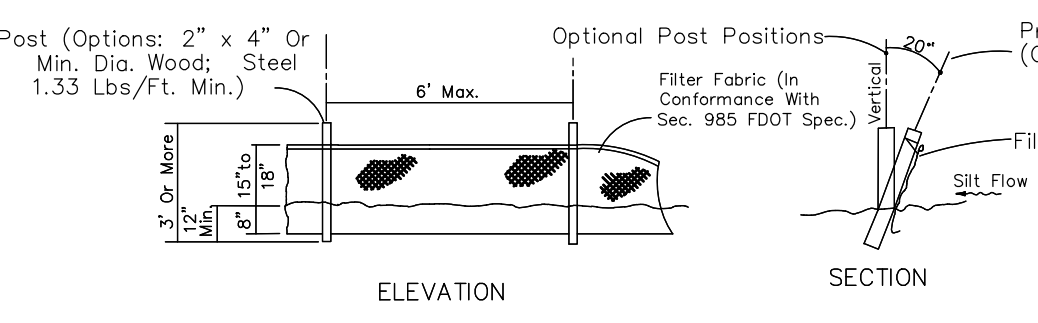
1. THIS INLET IS DESIGNED WITH FILTER FABRIC PROTRUDING 8" FROM SIDES FOR GRIPPING WHEN SEDIMENT NEEDS TO BE CLEARED AFTER FINAL CONSTRUCTION.
2. FILTER FABRIC TO BE INSTALLED AND TRIMMED BEFORE GRATE IS INSET.

FILTER FABRIC DETAIL



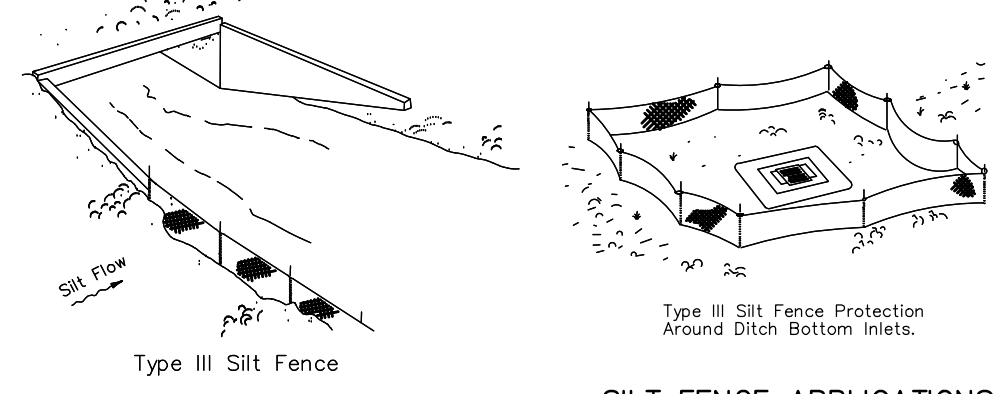
TYPICAL SILT FENCE DETAIL

N.T.S.



TYPE III SILT FENCE

Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).



SILT FENCE APPLICATIONS

SILT FENCE (TYPE III)

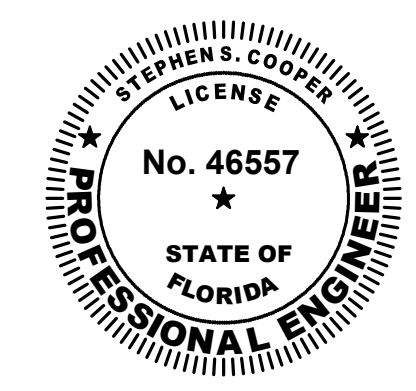
REF: F.D.O.T. STD. INDEX #102 sheet 3 of 3

Note: Spacing for Type III Fence to be in accordance with Chart I, Sheet 1 of 3 and ditch installations at drainage structures Sheet 2 of 3 of FDOT Standards.

BAILED HAY OR STRAW BARRIERS AND SILT FENCES

F.D.O.T. INDEX #102

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.



Stephen Cooper, P.E. #46557

NO.	REVISION	BY	DATE
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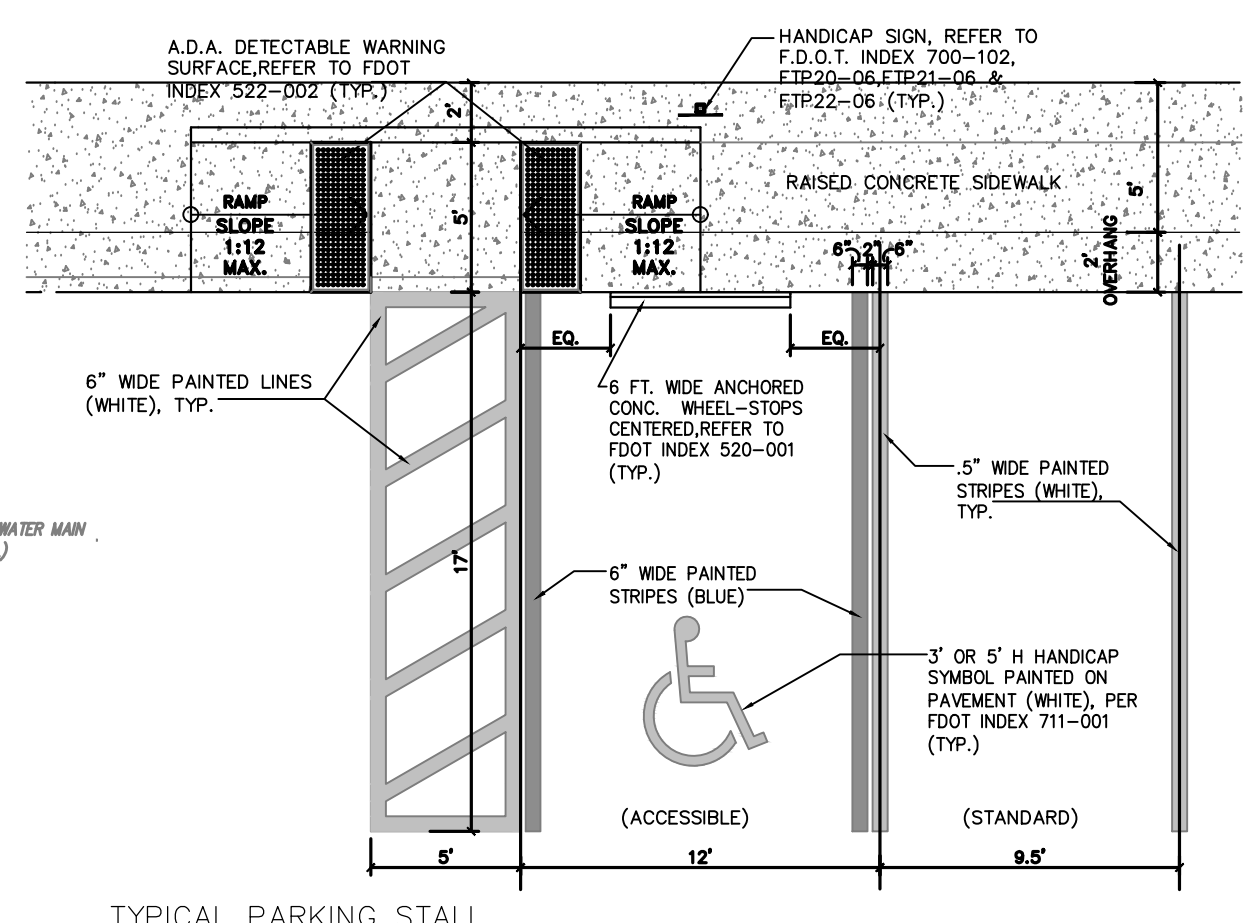
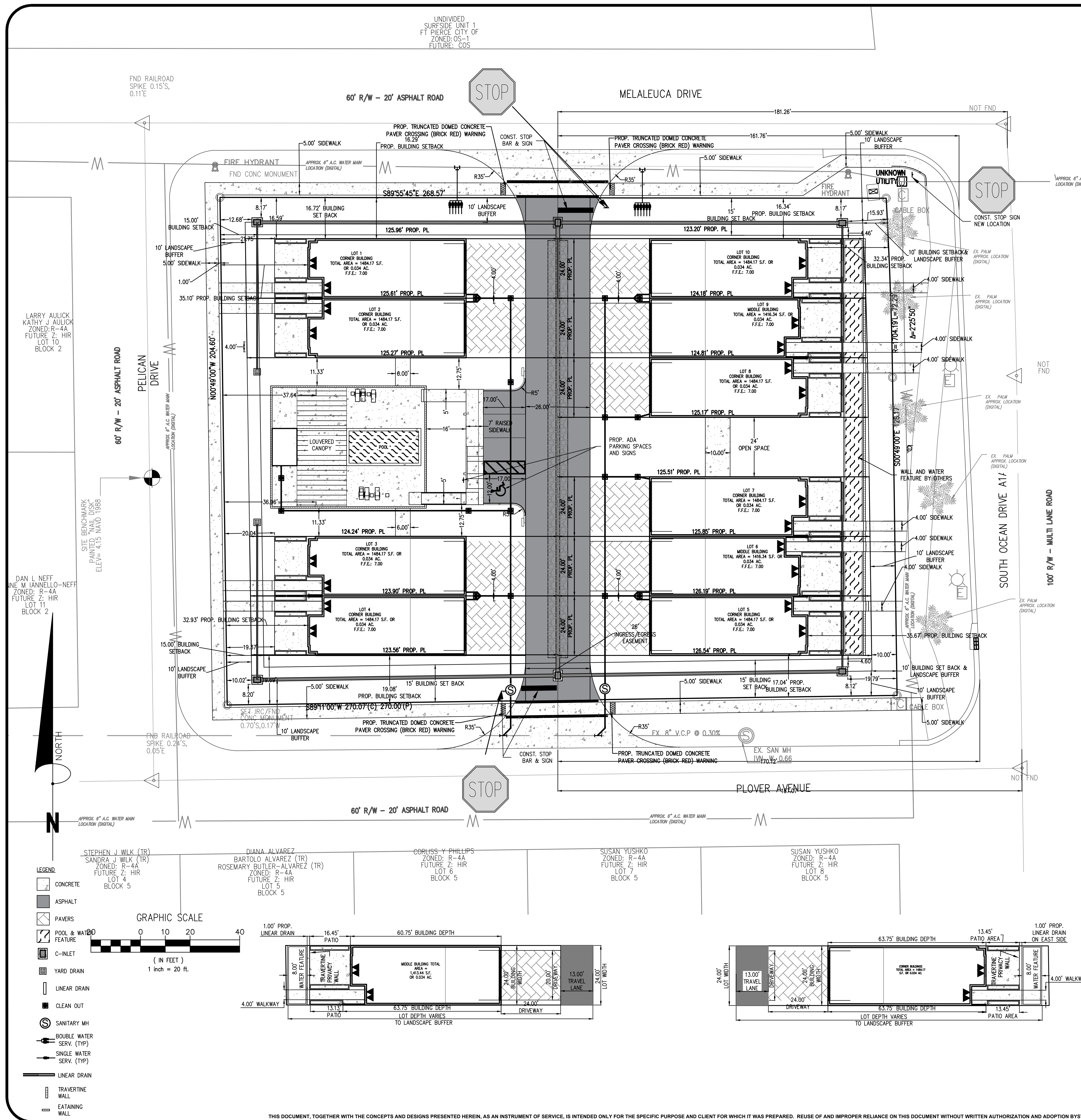
STEPHEN COOPER, P.E. & ASSOCIATES, INC.
 - CONSULTING ENGINEER -
 CIVIL ENGINEERING • SITE PLANNING • ENVIRONMENTAL PERMITTING
 7450 SOUTH FEDERAL HIGHWAY
 PORT ST. LUCIE, FLORIDA 34952
 Tel: 1-772-336-9933
 FLORIDA CERTIFICATE OF AUTHORIZATION No. 00089656

SCOPE

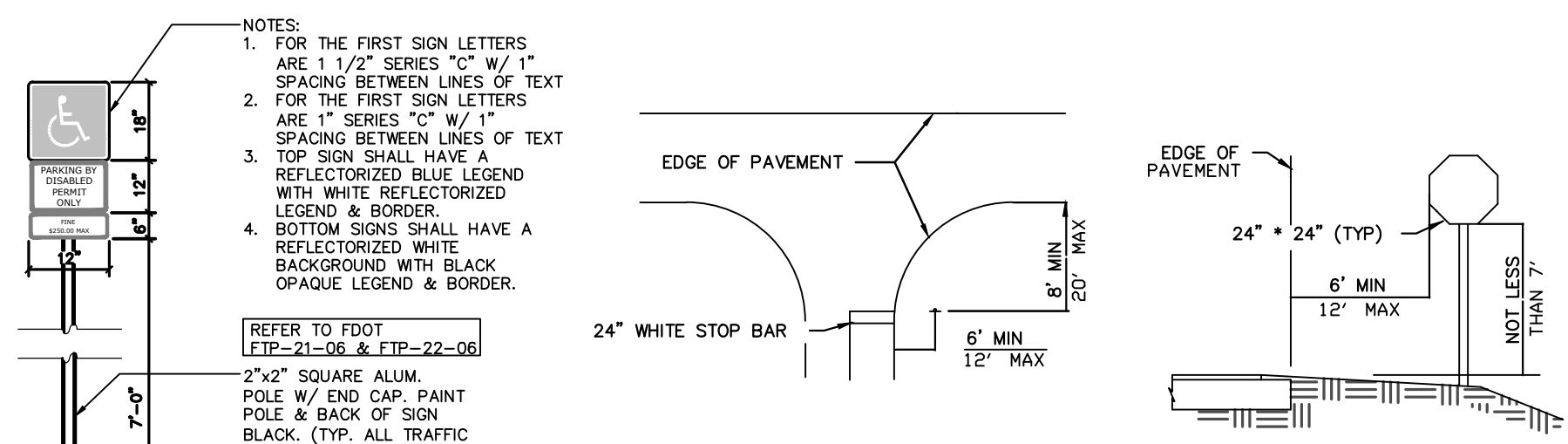
STORM WATER POLLUTION PREVENTION DETAILS

BLISS TOWNHOMES CONSTRUCTION PLANS & SPECIFICATIONS

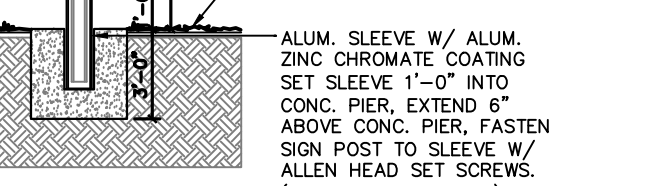
DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORIZ. SCALE:	
VERT. SCALE:	
DRAWING NO.	C3.1
JOB NO.	2022-104



TYPICAL PARKING STALL
SCALE: N.T.S. REFER TO FOOT INDEX 711-001 FOR COMPLETE NOTES & INFORMATION

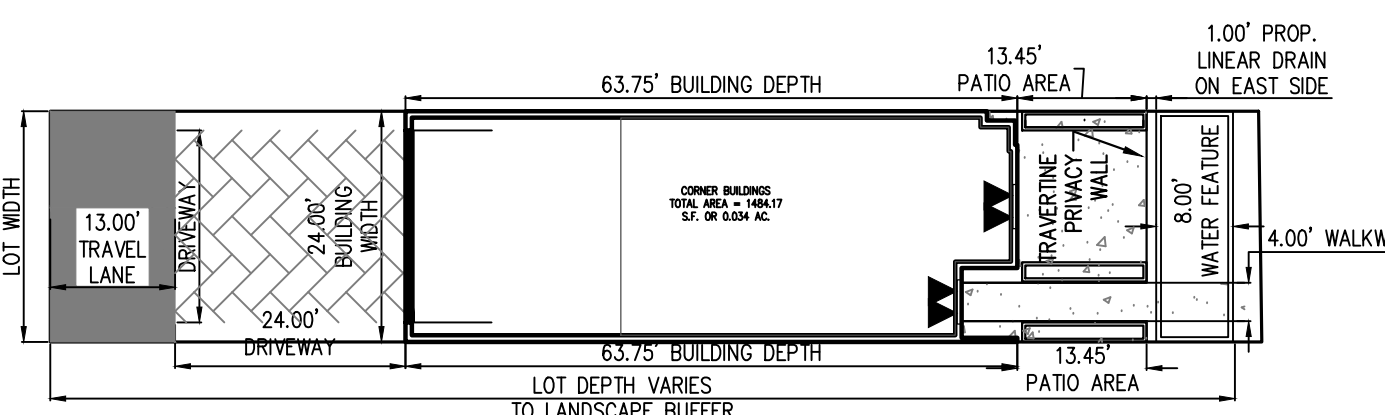
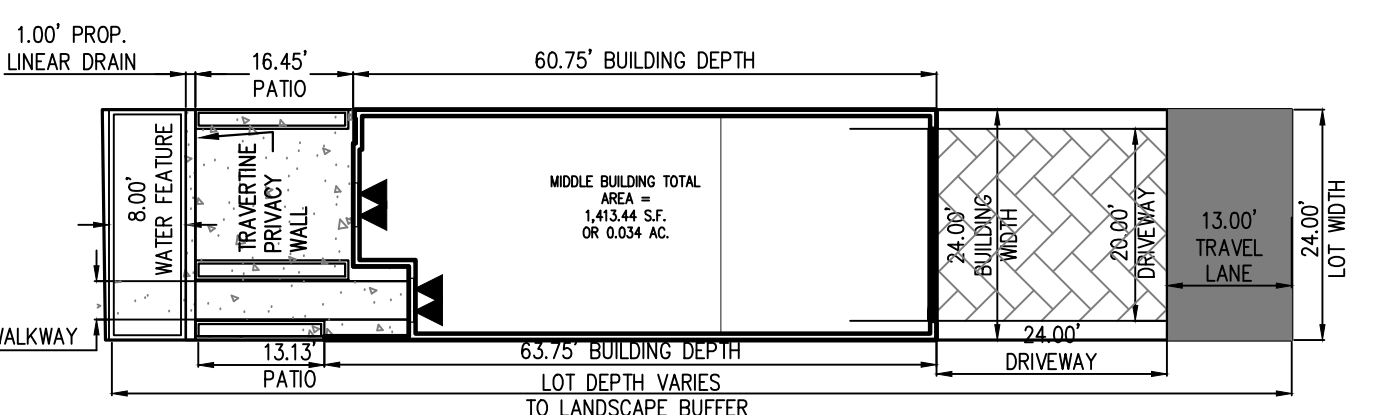
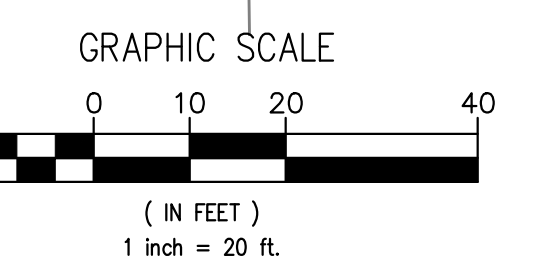


STOP SIGN LOCATION DETAIL
SCALE: N.T.S.



HANDICAP PARKING SIGN
SCALE: N.T.S. REFER TO FOOT INDEX FTP-20-06, FTP-21-06 & FTP-22-06 FOR COMPLETE NOTES & INFORMATION

- CONCRETE
- ASPHALT
- PAVERS
- POOL & WATER FEATURE
- C-INLET
- YARD DRAIN
- LINEAR DRAIN
- CLEAN OUT
- SANITARY MH
- BOULE WATER SERV. (TYP)
- SINGLE WATER SERV. (TYP)
- LINEAR DRAIN
- TRAVERTINE WALL
- EATING WALL



NO.	REVISION	DATE
1	REV. PER. DT COMM.	
2	REV. PER. DT COMM.	
3	REV. PER. DT COMM.	
4	REV. PER. DT COMM.	
5	REV. PER. DT COMM.	
6	REV. PER. DT COMM.	
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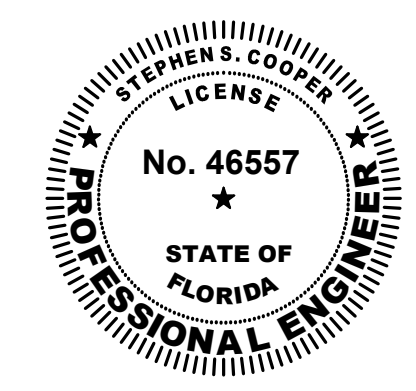
STEPHEN COOPER, P.E. & ASSOCIATES, INC.
 CONSULTING ENGINEER
 CIVIL ENGINEERING • SITE PLANNING • ENVIRONMENTAL PERMITTING
 7450 SOUTH FEDERAL HIGHWAY
 PORT ST. LUCIE, FLORIDA 34952
 Tel: 1-772-336-9933
 FLORIDA CERTIFICATE OF AUTHORIZATION No. 0008658

SCOPE

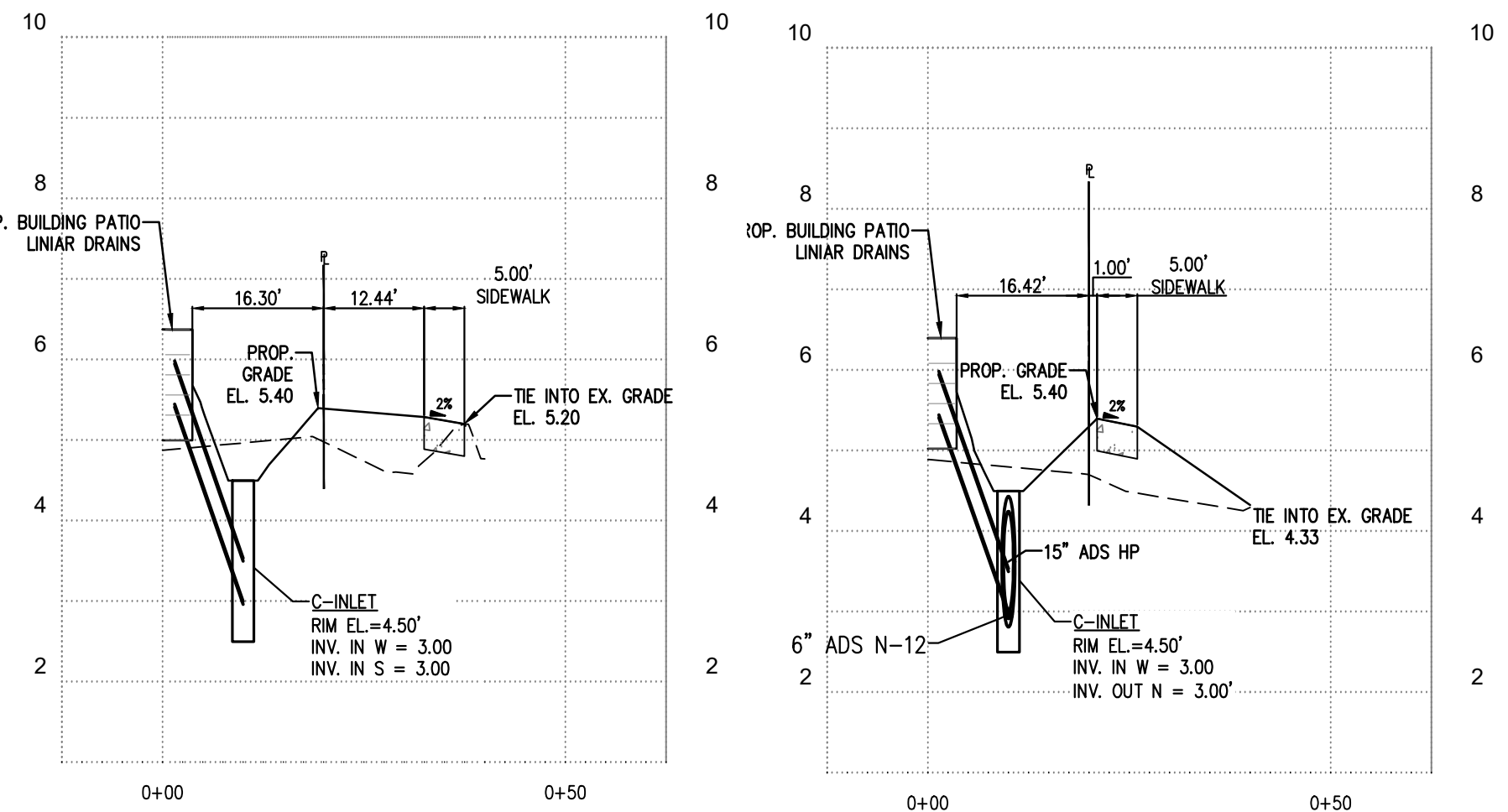
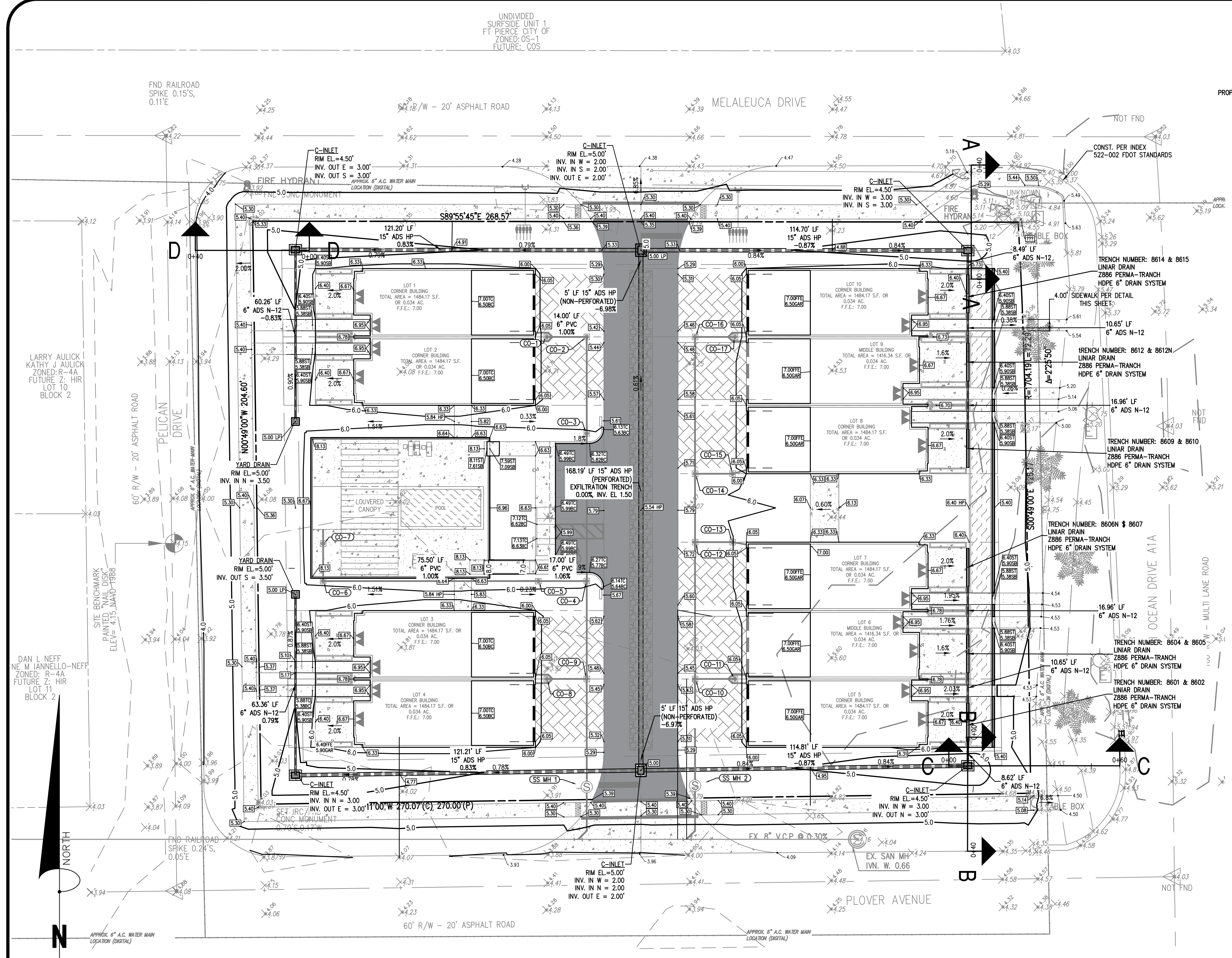
HORIZONTAL CONTROL & PAVEMENT MARKING PLAN

BLISS TOWNHOMES CONSTRUCTION PLANS & SPECIFICATIONS
 STATE OF FLORIDA
 CITY OF FORT PIERCE

DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORZ. SCALE:	
VERT. SCALE:	
DRAWING NO.	C4.0
JOB NO.	2022-104

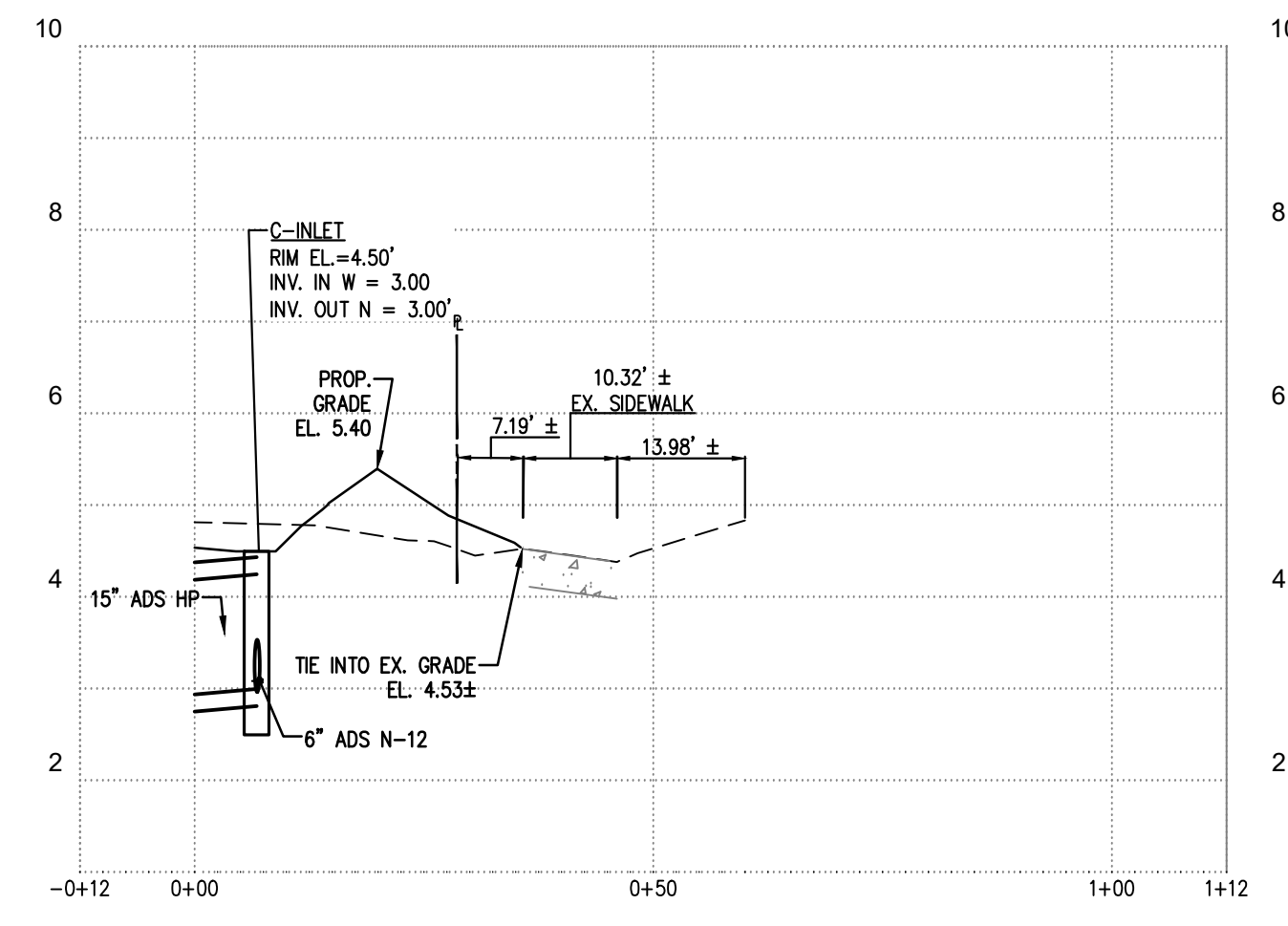


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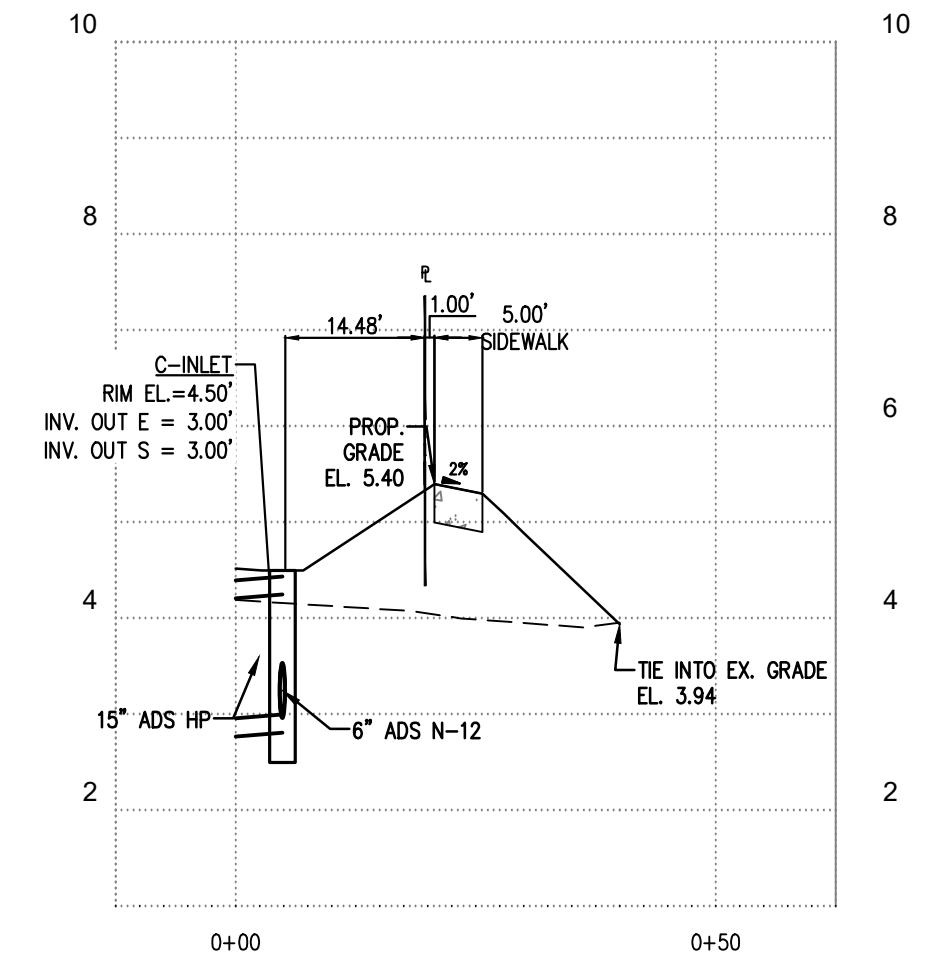


A-A SECTION
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

C-C SECTION
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

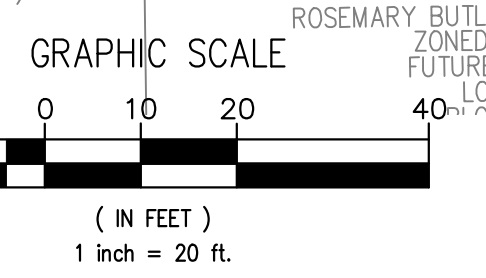


B-B SECTION
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



D-D SECTION
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

- LEGEND**
- CONCRETE
 - ASPHALT
 - PAVERS
 - POOL & WATER FEATURE
 - C-INLET
 - YARD DRAIN
 - LINEAR DRAIN
 - CLEAN OUT
 - SANITARY MH
 - BOUBLE WATER SERV. (TYP)
 - SINGLE WATER SERV. (TYP)
 - LINEAR DRAIN
 - TRAVERTINE WALL
 - ETAINING WALL



STEPHEN J. WILK (TR) ZONED: R-4A FUTURE Z: HIR LOT 4 BLOCK 5
 SANDRA J. WILK (TR) ZONED: R-4A FUTURE Z: HIR LOT 4 BLOCK 5
 DIANA ALVAREZ BARTOLO ALVAREZ (TR) ZONED: R-4A FUTURE Z: HIR LOT 4 BLOCK 5
 ROSMARY BUTLER-ALVAREZ (TR) ZONED: R-4A FUTURE Z: HIR LOT 4 BLOCK 5
 CORLISS Y. PHILLIPS ZONED: R-4A FUTURE Z: HIR LOT 6 BLOCK 5
 SUSAN YUSHKO ZONED: R-4A FUTURE Z: HIR LOT 7 BLOCK 5
 SUSAN YUSHKO ZONED: R-4A FUTURE Z: HIR LOT 8 BLOCK 5

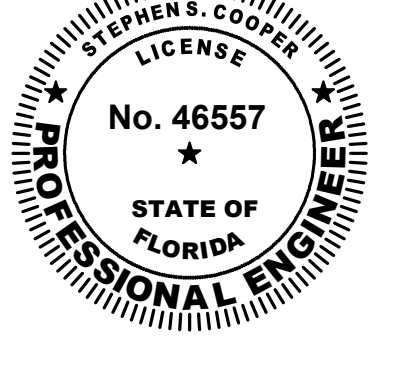
STEPHEN COOPER, P.E. & ASSOCIATES, INC.
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 CONSULTING ENGINEER
 7450 SOUTH FEDERAL HIGHWAY
 PORT ST. LUCIE, FLORIDA 34952
 Tel: 1-772-396-9933
 FLORIDA CERTIFICATE OF AUTHORIZATION No. 00088658

SCOPE

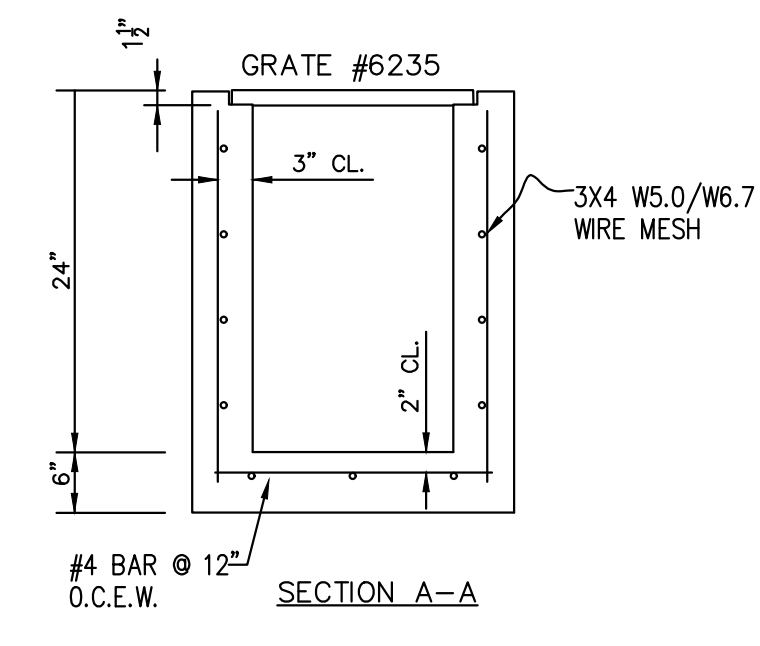
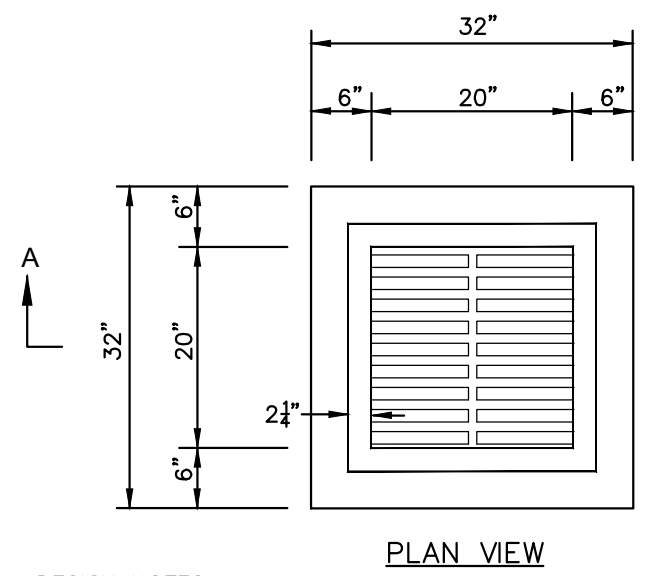
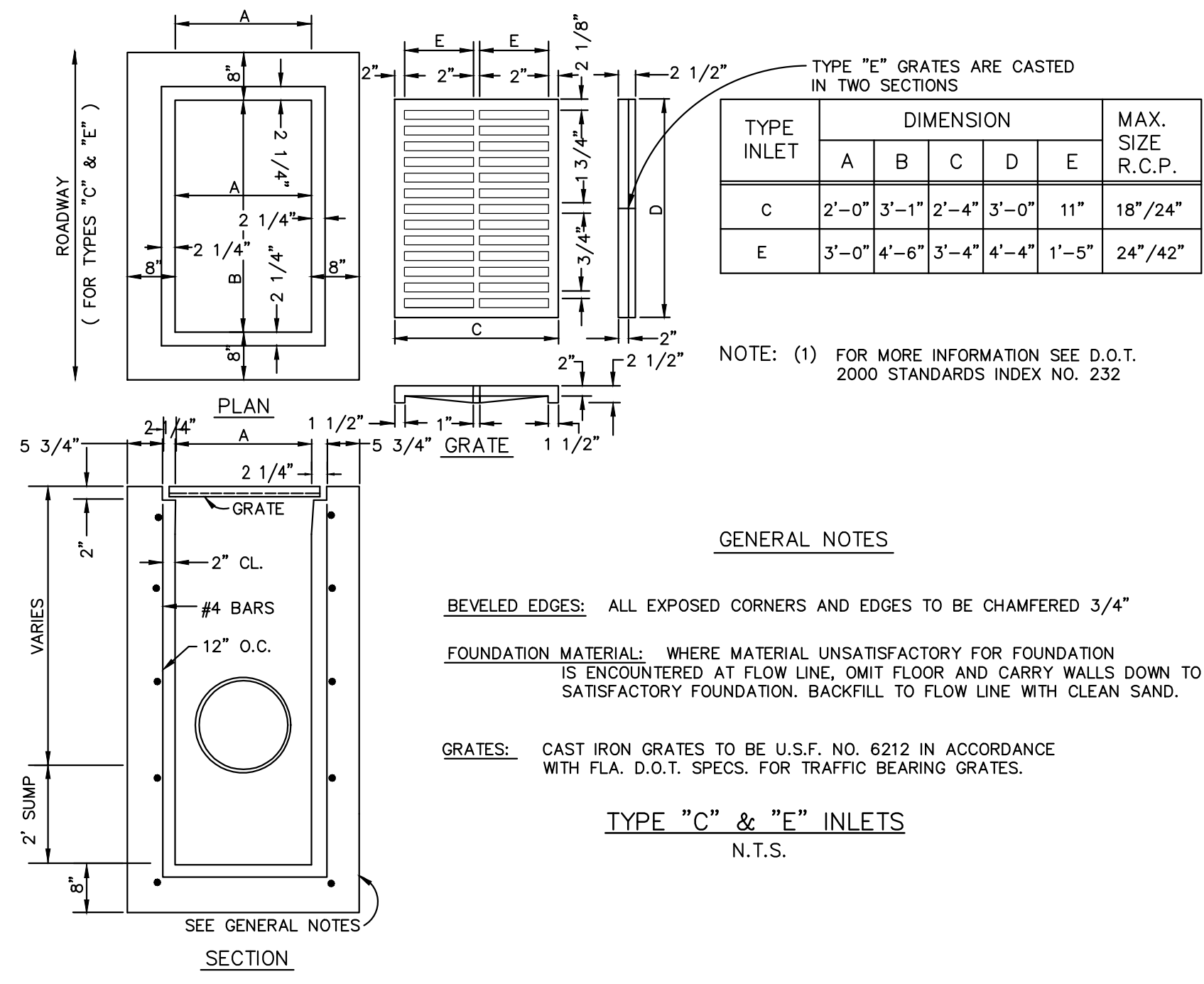
PAVING, GRADING & DRAINAGE PLAN

BLISS TOWNHOMES
 CONSTRUCTION PLANS & SPECIFICATIONS
 CITY OF FORT PIERCE STATE OF FLORIDA

DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORIZ. SCALE:	
VERT. SCALE:	
DRAWING NO.	C5.0
JOB NO.	2022-104



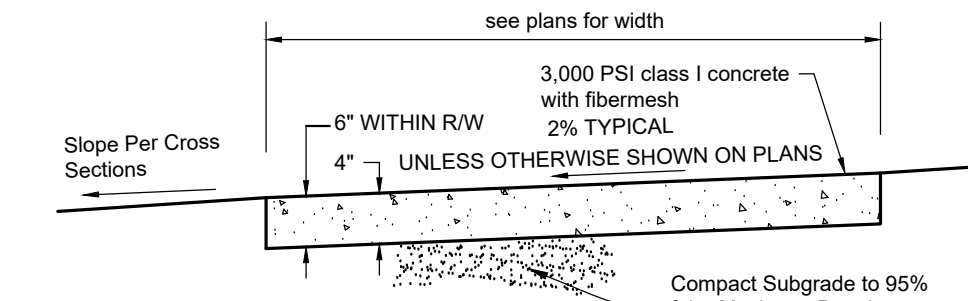
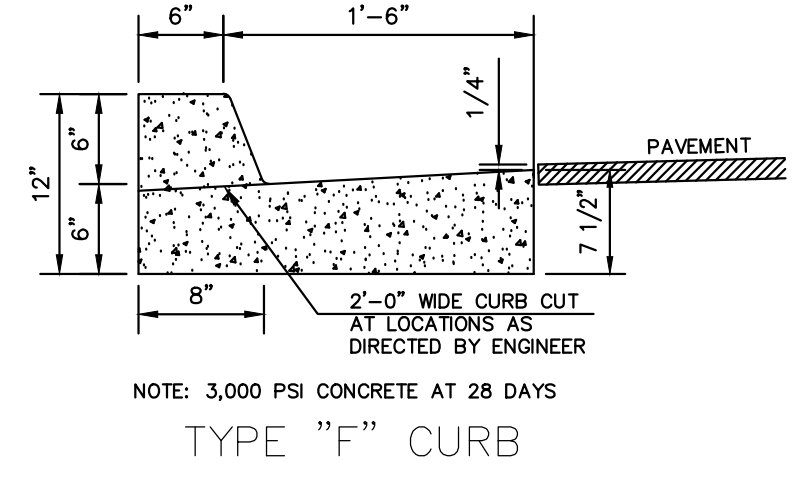
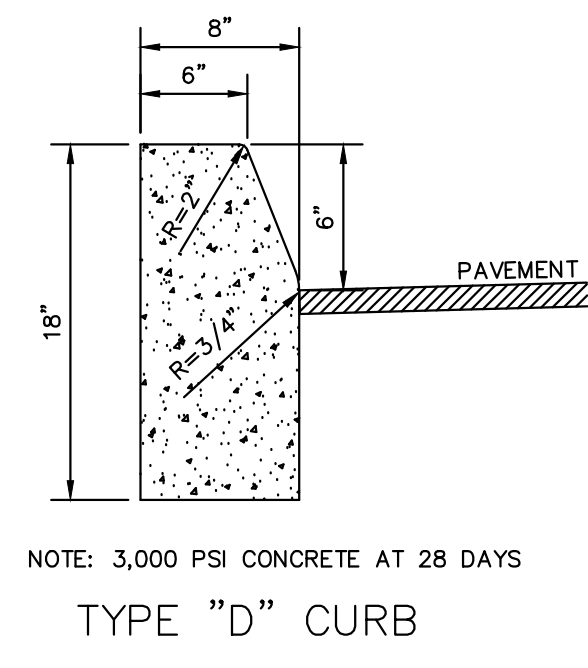
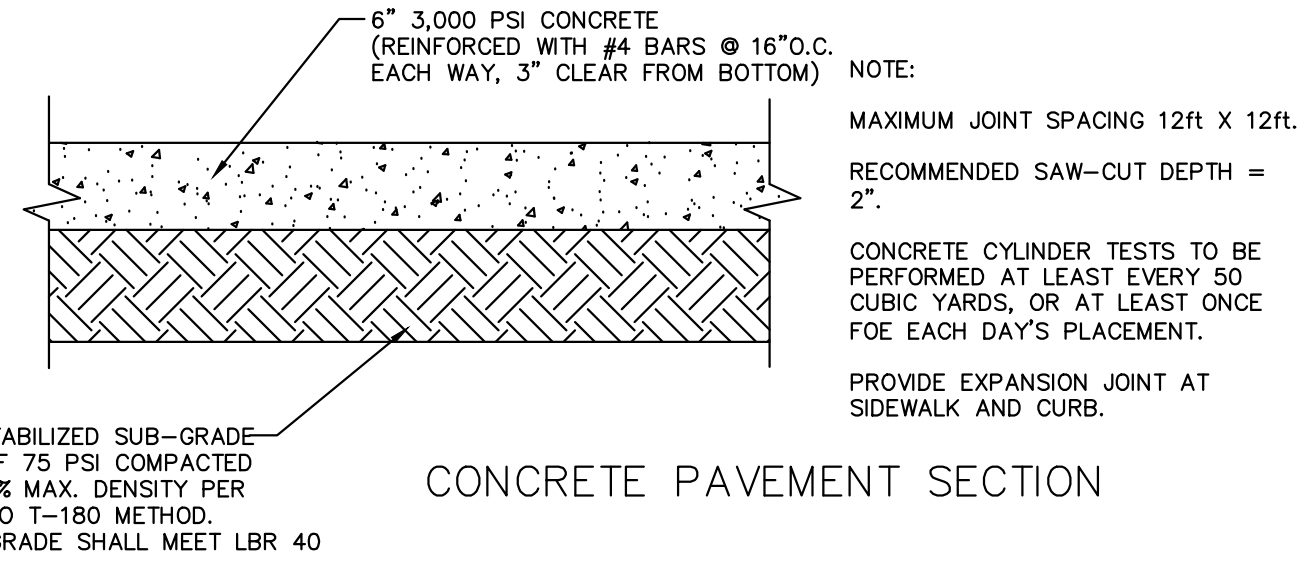
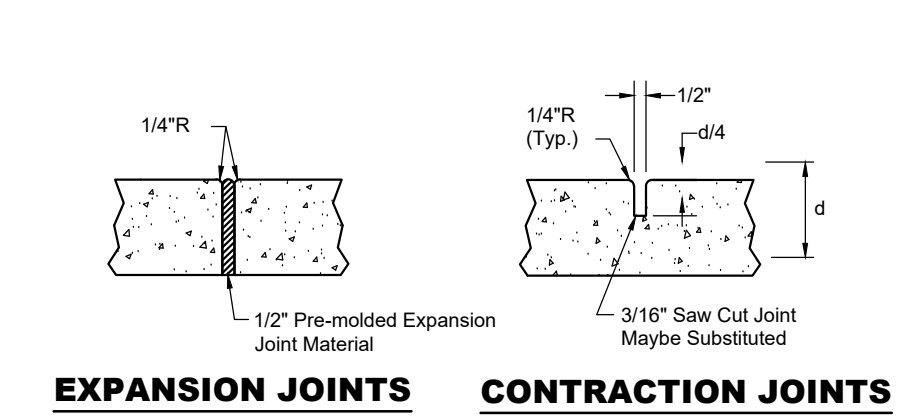
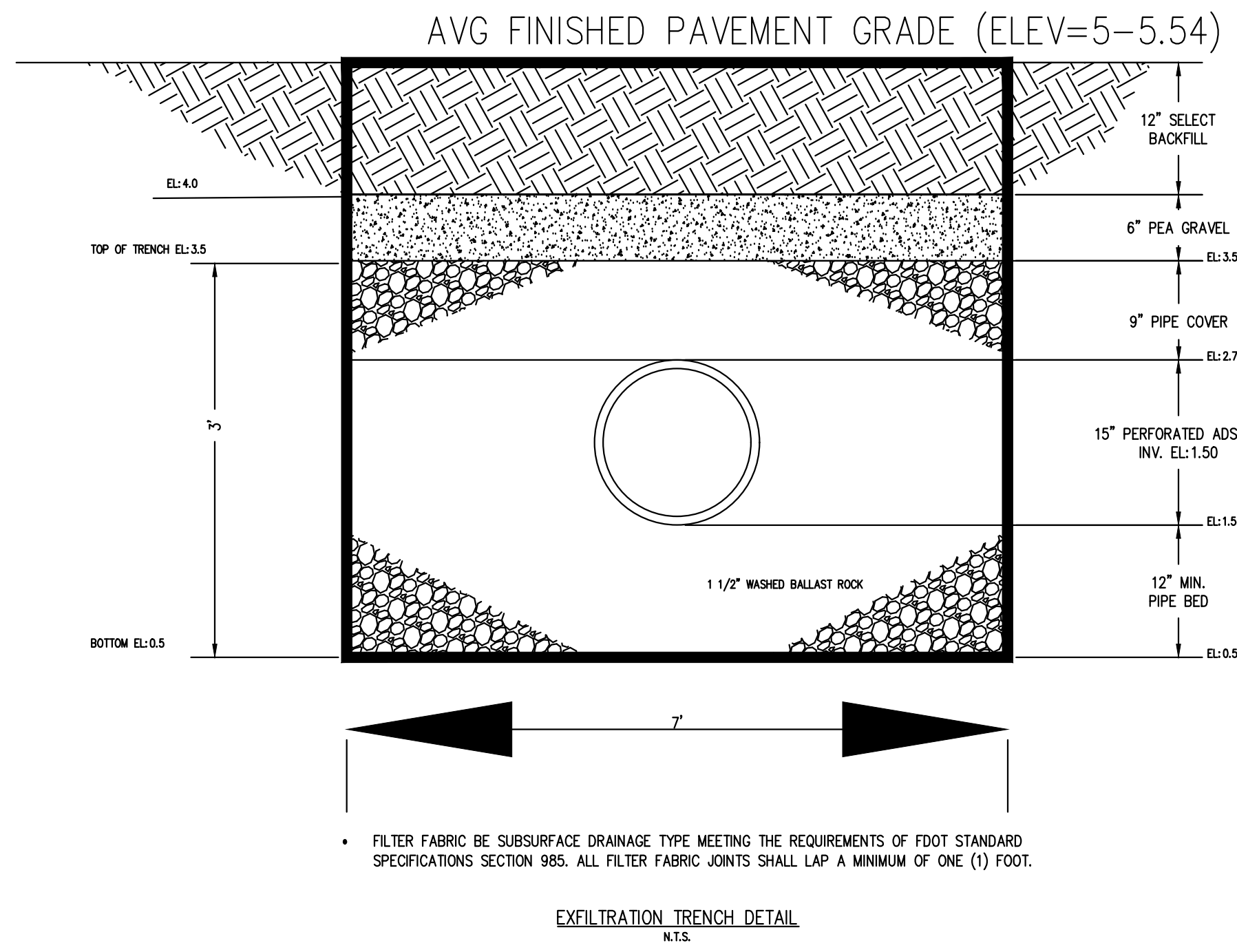
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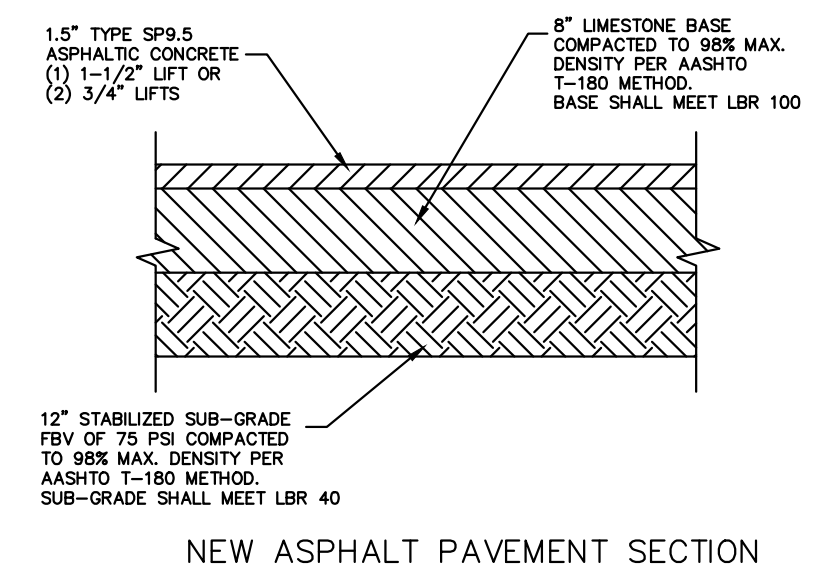
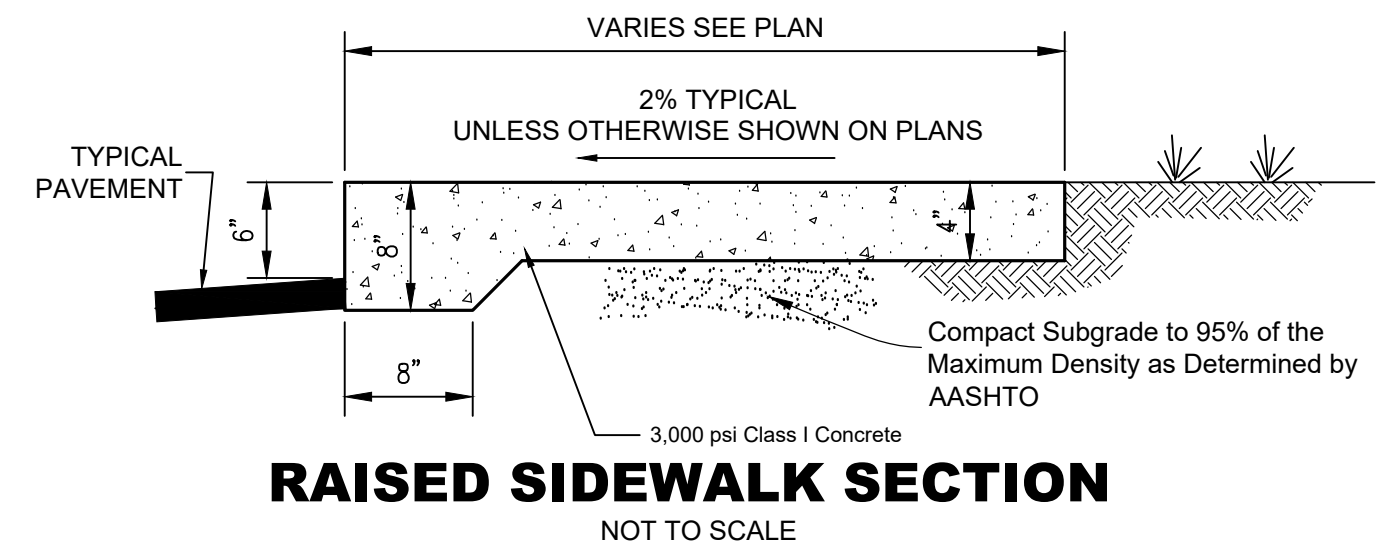
20"X20" YARD DRAIN

AMERICAN CONCRETE INDUSTRIES, INC.
 350 NORTH ROCK ROAD / FORT PIERCE, FLORIDA
 (772) 464-1187 FAX (772) 595-9050

- DESIGN NOTES:
- ALL CONCRETE HAS A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
 - TYPE II CEMENT.
 - REINFORCING STEEL IS GRADE 60 REBAR WITH A MINIMUM COVER UNLESS NOTED OTHERWISE.
 - LIFTING HOLES TAPER FROM 2 1/2" TO 2".
 - ALL PIPE OPENINGS SHALL RECEIVE 1-EXTRA #4 BAR AT EACH SIDE & ABOVE PIPE OPENING. BARS TO HAVE 1 1/2" MIN. HOLE CLEARANCE. SIDE BARS TO OVERLAP TOP BARS 3" MIN. TOP BAR TO OVERLAP SIDE BARS MIN. 6". CORNER HOLES SHALL HAVE 4 EXTRA BARS ABOVE THE HOLE (CONTINUOUS AROUND CORNER EVENLY SPACED). TIE TO THE OUTSIDE OF VERTICAL WALL REINFORCEMENT.
- N.T.S.



- NOTES:
- Provide expansion joints 20' center to center, at PC & PT of curves, junctions of existing & new sidewalks, and where sidewalk abuts curbs, driveways & similar structures.
 - Provide contraction joints 5' center to center.
 - Sod shall be placed below edge of sidewalk to allow drainage.



LEGEND

- CONCRETE
- ASPHALT
- PAVERS
- POOL & WATER FEATURE
- C-INLET
- YARD DRAIN
- LINEAR DRAIN
- CLEAN OUT
- SANITARY MH
- DOUBLE WATER SERV. (TYP)
- SINGLE WATER SERV. (TYP)
- LINEAR DRAIN
- TRAVERTINE WALL
- RETAINING WALL

STEPHEN COOPER, P.E. & ASSOCIATES, INC. - CONSULTING ENGINEER -
 CIVIL ENGINEERING • SITE PLANNING • ENVIRONMENTAL PERMITTING
 7450 SOUTH FEDERAL HIGHWAY
 PORT ST. LUCIE, FLORIDA 34952
 Tel: 1-772-336-2933

FLORIDA CERTIFICATE OF AUTHORIZATION No. 00086658

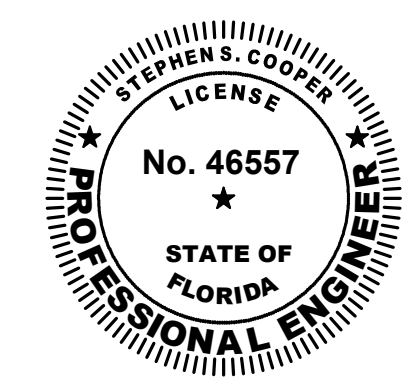
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10	REV. PER. CITY COMM.	SC	02/22/2022

SCOPE

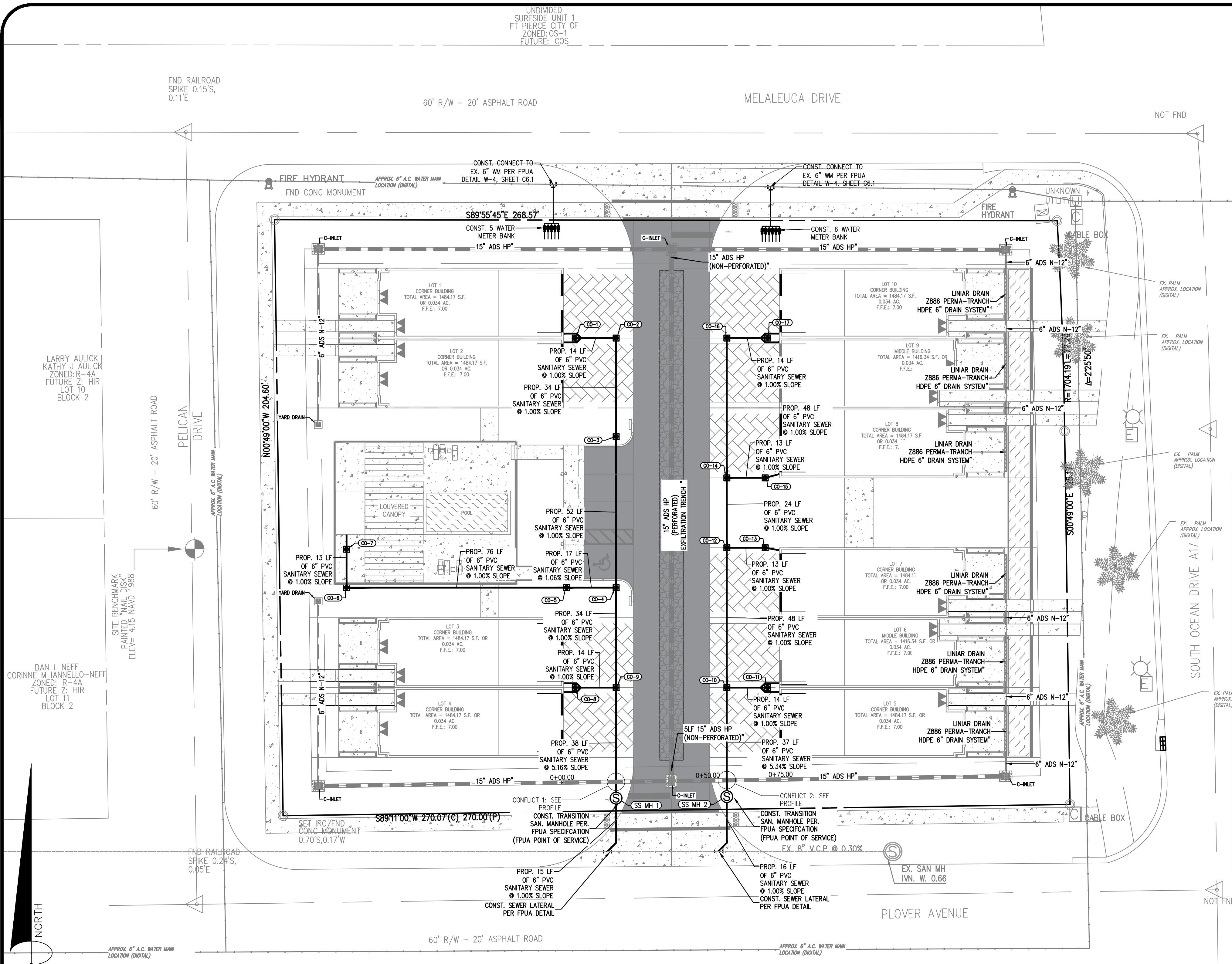
PAVING, GRADING & DRAINAGE DETAILS

BLISS TOWNHOMES CONSTRUCTION PLANS & SPECIFICATIONS

DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORZ. SCALE:	
VERT. SCALE:	
DRAWING NO.	C5.1
JOB NO.	2022-104



Stephen Cooper, P.E. #46557



FORT PIERCE UTILITIES AUTHORITY WATER DISTRIBUTION NOTES

- ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
- WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO ANSA C-800 OR C-800, PRESSURE CLASS 150, OR (18) WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO ANSA C-900 OR C-900, STANDARD CODE DESIGNATION FLEXIBLE PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURIAL (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
- WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE, SHALL CONFORM TO ANSA/ANMA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
- FOR FLEXIBLE CHLORIDE WATER MAINS SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE. ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THIN WIRE.
- FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSA/ANMA C-110/A21.10, CLASS 250 MIN. CEMENT LINED AND FACTORY COATED.
- GATE VALVES SHALL BE WELDER RESISTANT SEAT, KENNEDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO ANMA C-509.
- WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY/COUNTY/FOOT ENGINEERING. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
- NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FOOT ENGINEERING.
- THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FOOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA AND CITY/COUNTY/FOOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
- MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/COUNTY/FOOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
- DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
- EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
- WATER MAINS SHALL BE TESTED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND APPROVED C-551 FOR DISINFECTION.

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

- ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
- GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) 20-26, GREEN OR WHITE IN COLOR, SHALL CONFORM TO ASTM D-3034.
- THE MANHOLE BASE SHALL BE SET ON A FIRM AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE RIGID TO PROVIDE A FIRM AND STABLE FOUNDATION.
- WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY/COUNTY/FOOT ENGINEERING. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
- A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
- THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISTING OF PIPE SIZES, LOCATION OF SERVICE TIE, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION REQUISITE TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
- WASTEWATER FORCE MAINS SHALL BE MAINTAINED AT ALL SANITARY SERVICE LATERALS.
- WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. THE MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
- A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY/COUNTY/FOOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FOOT ENGINEERING.
- TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
- WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO ANMA C-800, AND SHALL BE GREEN IN COLOR.
- FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSA/ANMA C-110/A21.10, CLASS 250 MIN. AND FACTORY COATED.
- WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THIN WIRE (BLUE IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
- MINIMUM COVER SHALL BE 36 INCHES. PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITIES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
- EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY FM CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
- ALL MANHOLES SHALL HAVE SEWER MAN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
- THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWER AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS). SUFFICIENT LENGTHS OF DIP MUST BE PROVIDED TO MAINTAIN A SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REQUIRED UNDER PART II OF CHAPTER 62-101, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART II OF CHAPTER 62-101, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN TRENCH SEWAGE TREATMENT AND DISPOSAL SYSTEMS AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 8-FOOT AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A LADDERED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP OR THE SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

ALL DIP SHALL BE PRESSURE CLASS 250 MIN. ADOPTATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.

2. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO ANMA C-800, AND SHALL BE GREEN IN COLOR.

3. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSA/ANMA C-110/A21.10, CLASS 250 MIN. AND FACTORY COATED.

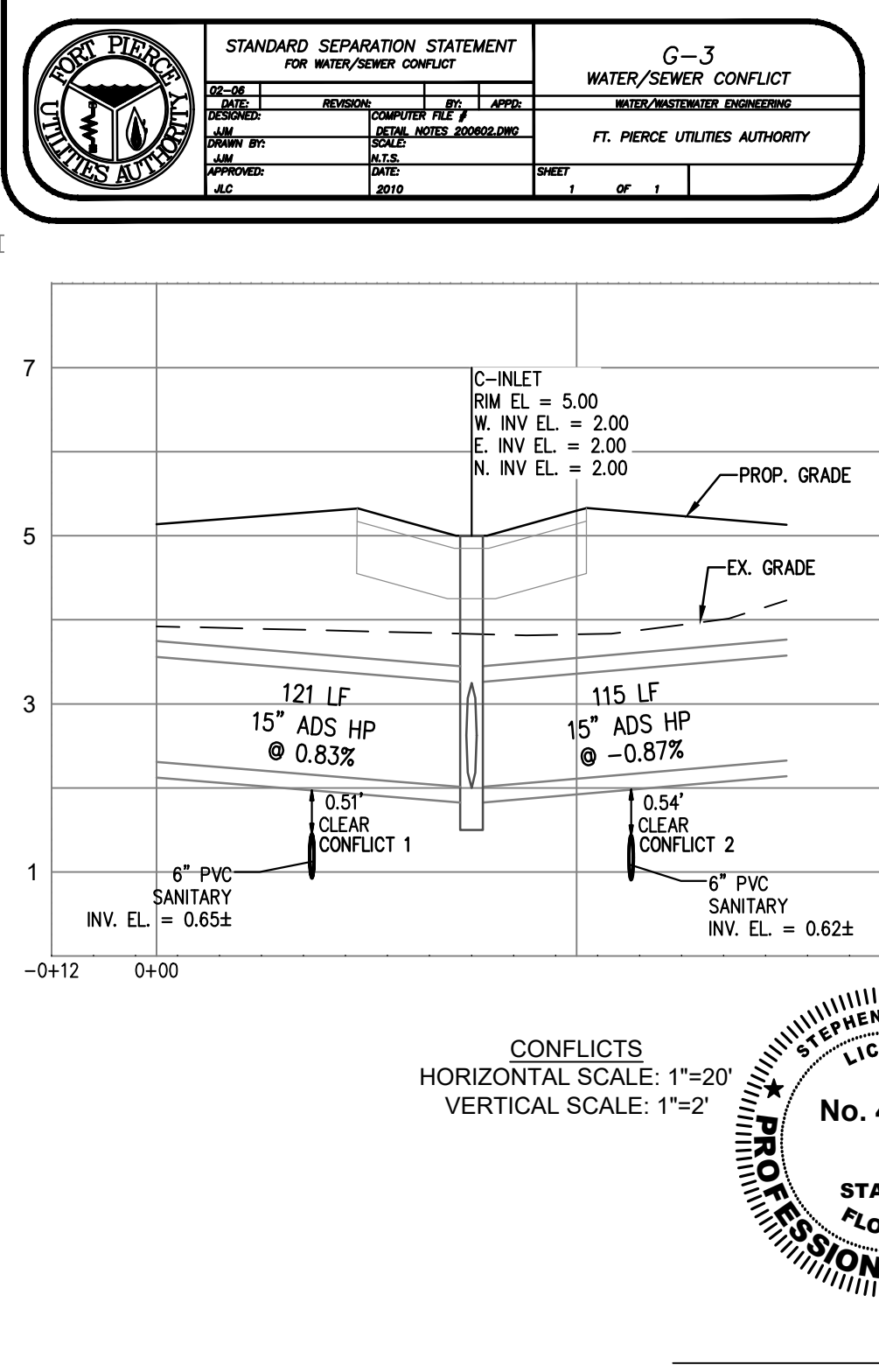
4. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THIN WIRE (BLUE IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.

5. MINIMUM COVER SHALL BE 36 INCHES. PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITIES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.

6. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY FM CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.

7. ALL MANHOLES SHALL HAVE SEWER MAN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.

8. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.



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LEGEND

(IN FEET)
1 inch = 20 ft.

- CONCRETE
- ASPHALT
- PAVERS
- POOL & WATER FEATURE
- C-INLET
- YARD DRAIN
- LINEAR DRAIN
- CLEAN OUT
- SANITARY MH
- DOUBLE WATER SERV. (TYP)

GRAPHIC SCALE

0 10 20 40

STRUCTURE NAME	STRUCTURE DETAILS	STRUCTURE NAME	STRUCTURE DETAILS	STRUCTURE NAME	STRUCTURE DETAILS	STRUCTURE NAME	STRUCTURE DETAILS
CO-6 CLEAN OUT	RIM = 6.96 INV IN N = 4.95 INV OUT E = 4.95	CO-1 CLEAN OUT	RIM = 5.98 INV OUT W = 3.96	CO-11 CLEAN OUT	RIM = 5.98 INV OUT W = 3.96	CO-16 CLEAN OUT	RIM = 5.84 INV IN E = 3.82 INV OUT S = 3.82
CO-7 CLEAN OUT	RIM = 8.13 INV IN N = 5.08 INV OUT S = 5.08	CO-2 CLEAN OUT	RIM = 5.84 INV IN W = 3.82 INV OUT S = 3.81	CO-12 CLEAN OUT	RIM = 5.84 INV IN E = 3.83 INV OUT S = 3.10	CO-17 CLEAN OUT	RIM = 5.98 INV OUT W = 3.96
CO-8 CLEAN OUT	RIM = 5.98 INV OUT E = 3.96	CO-3 CLEAN OUT	RIM = 6.09 INV IN N = 3.47 INV OUT S = 3.47	CO-13 CLEAN OUT	RIM = 6.00 INV OUT W = 3.96	SS MH 1	RIM = 5.33 INV IN N = 0.65 INV OUT S = 0.55
CO-9 CLEAN OUT	RIM = 5.62 INV IN N = 2.61 INV IN W = 3.82 INV OUT S = 2.61	CO-4 CLEAN OUT	RIM = 6.12 INV IN N = 2.95 INV IN W = 4.01 INV OUT S = 2.95	CO-14 CLEAN OUT	RIM = 5.78 INV IN N = 3.34 INV IN E = 3.83 INV OUT S = 3.34	SS MH 2	RIM = 5.33 INV IN N = 0.62 INV OUT S = 0.68
CO-10 CLEAN OUT	RIM = 5.56 INV IN N = 2.62 INV IN E = 3.82 INV OUT S = 2.62	CO-5 CLEAN OUT	RIM = 6.34 INV IN W = 4.19 INV OUT E = 4.19	CO-15 CLEAN OUT	RIM = 5.98 INV OUT W = 3.96		

STRUCTURE TABLE

STRUCTURE NAME: CO-16 CLEAN OUT
STRUCTURE DETAILS: RIM = 5.84, INV IN E = 3.82, INV OUT S = 3.82

STRUCTURE NAME: CO-17 CLEAN OUT
STRUCTURE DETAILS: RIM = 5.98, INV OUT W = 3.96

STRUCTURE NAME: SS MH 1
STRUCTURE DETAILS: RIM = 5.33, INV IN N = 0.65, INV OUT S = 0.55

STRUCTURE NAME: SS MH 2
STRUCTURE DETAILS: RIM = 5.33, INV IN N = 0.62, INV OUT S = 0.68

STRUCTURE TABLE

STRUCTURE NAME: CO-16 CLEAN OUT
STRUCTURE DETAILS: RIM = 5.84, INV IN E = 3.82, INV OUT S = 3.82

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STRUCTURE DETAILS: RIM = 5.98, INV OUT W = 3.96

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STRUCTURE DETAILS: RIM = 5.33, INV IN N = 0.65, INV OUT S = 0.55

STRUCTURE NAME: SS MH 2
STRUCTURE DETAILS: RIM = 5.33, INV IN N = 0.62, INV OUT S = 0.68

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CONSTRUCTION PLANS & SPECIFICATIONS

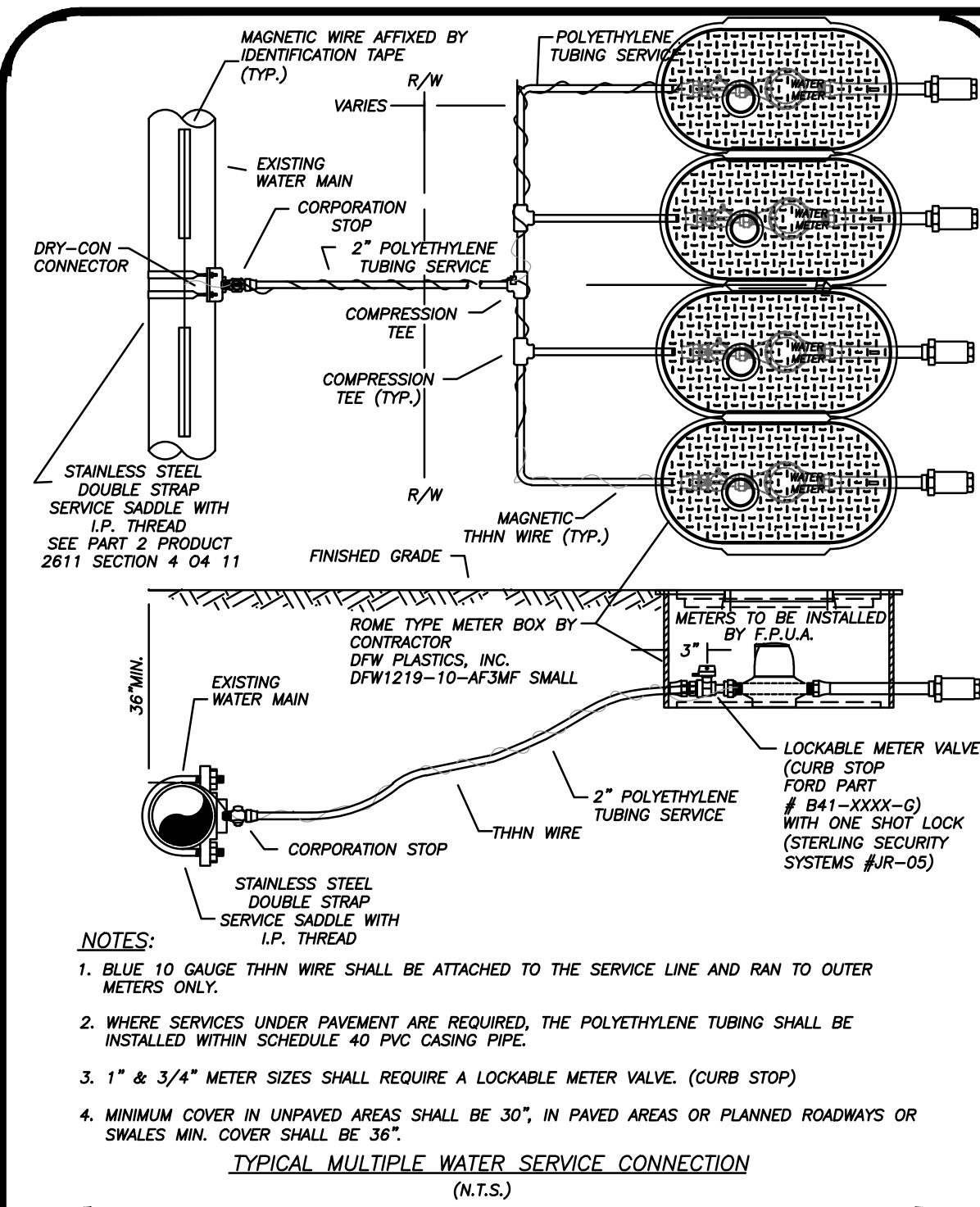
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CHECKED BY: SC
HORIZ. SCALE:
VERT. SCALE:
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JOB NO. 2022-104

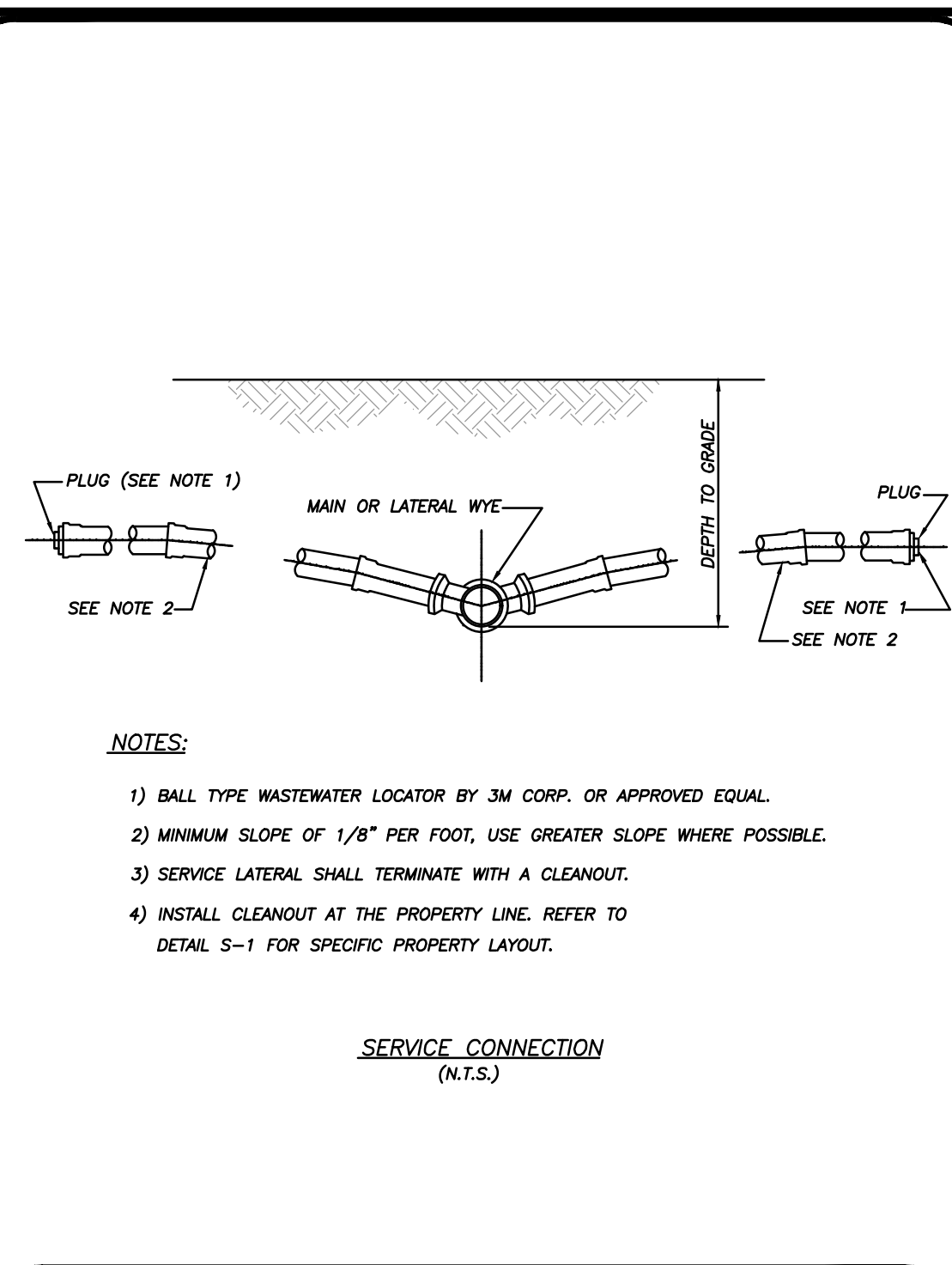
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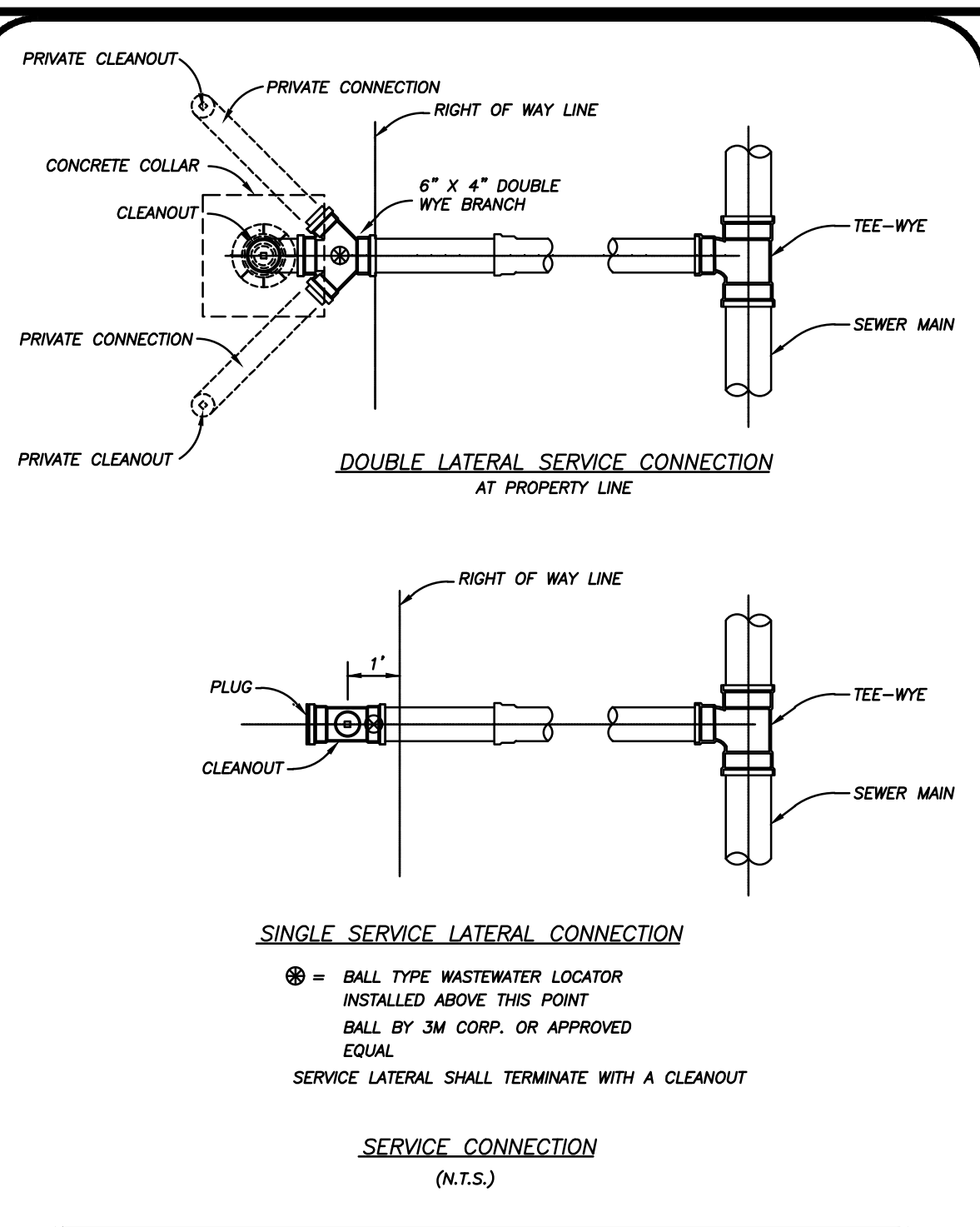
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LARRY AULICK, KATHY J. AULICK, DAN L. NEFF, CORINNE M. HANNELO-NEFF, STEPHEN J. WILK (TR), SANDRA J. WILK (TR), DIANA ALVAREZ, BARTOLO ALVAREZ (TR), ROSEMARY BUTLER-ALVAREZ (TR), CORLISS Y. PHILLIPS, SUSAN YUSHKO, SUSAN YUSHKO



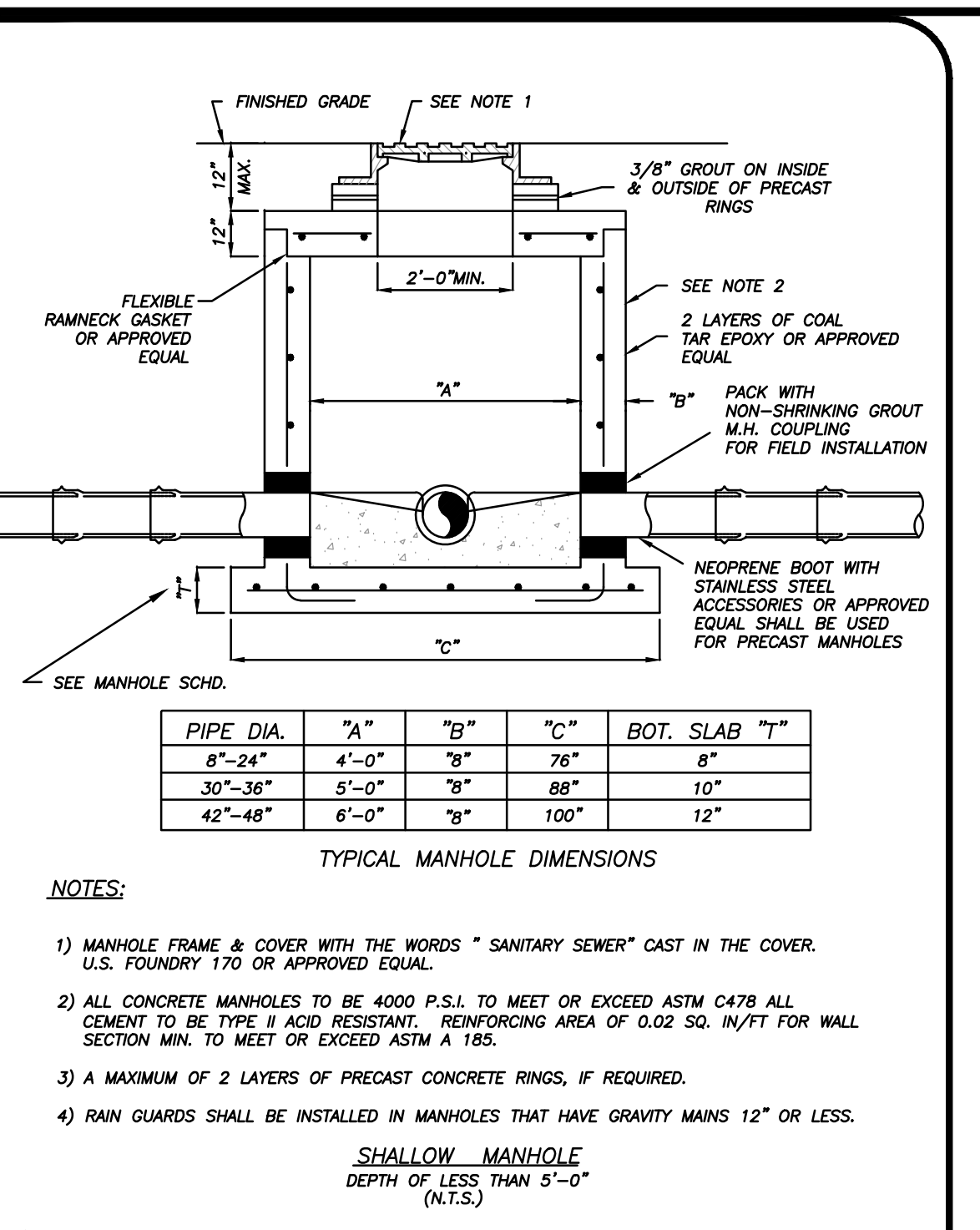
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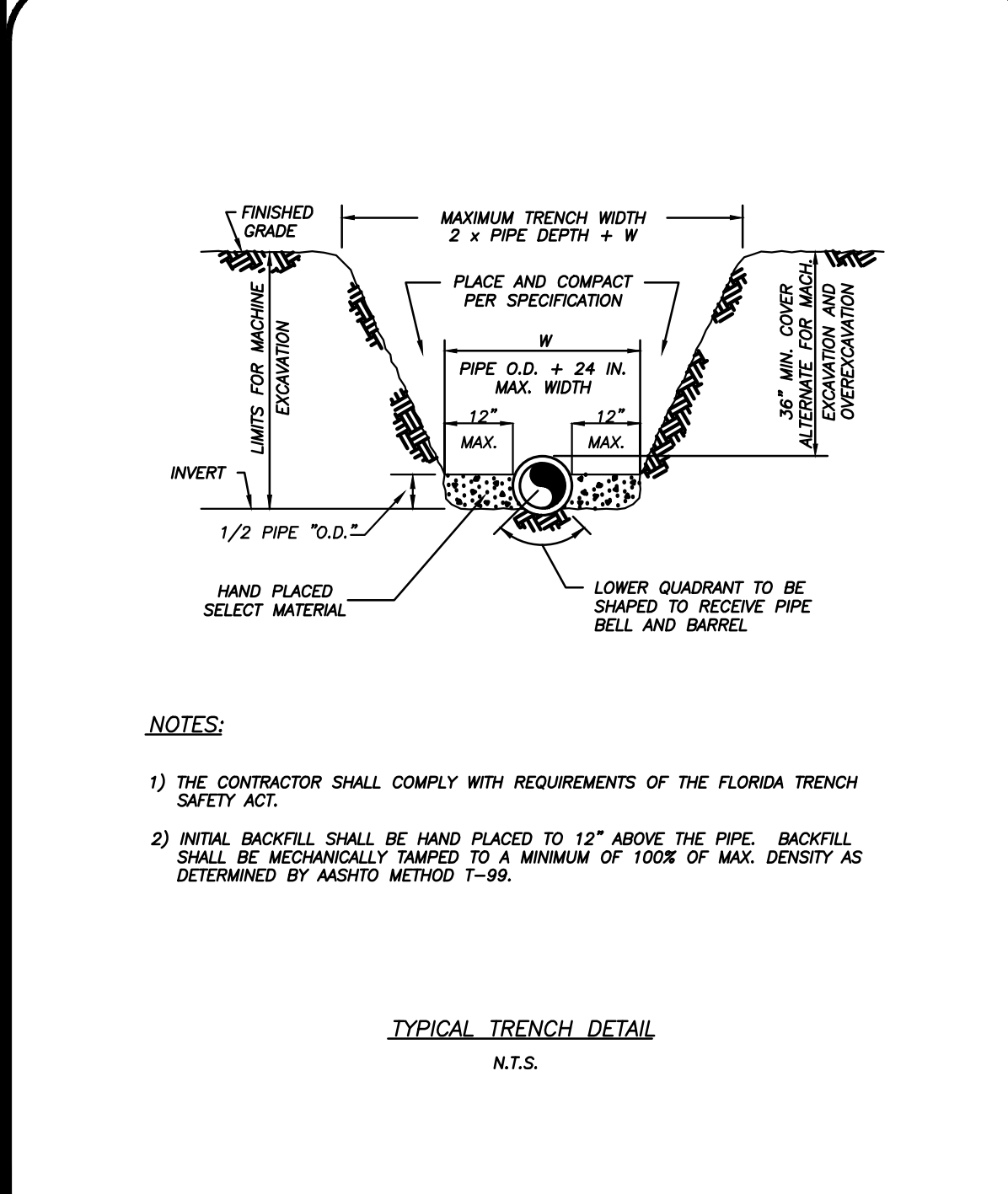
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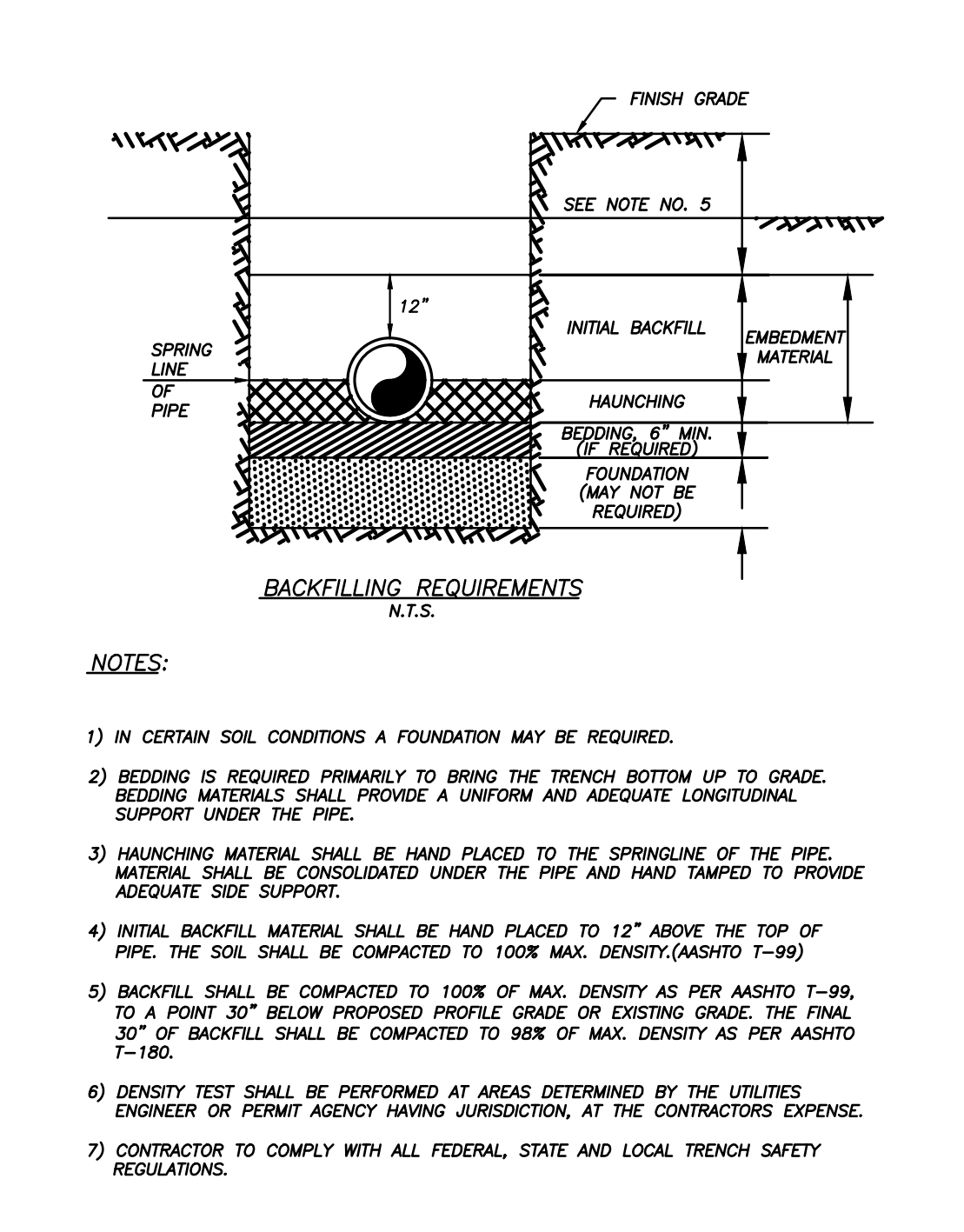
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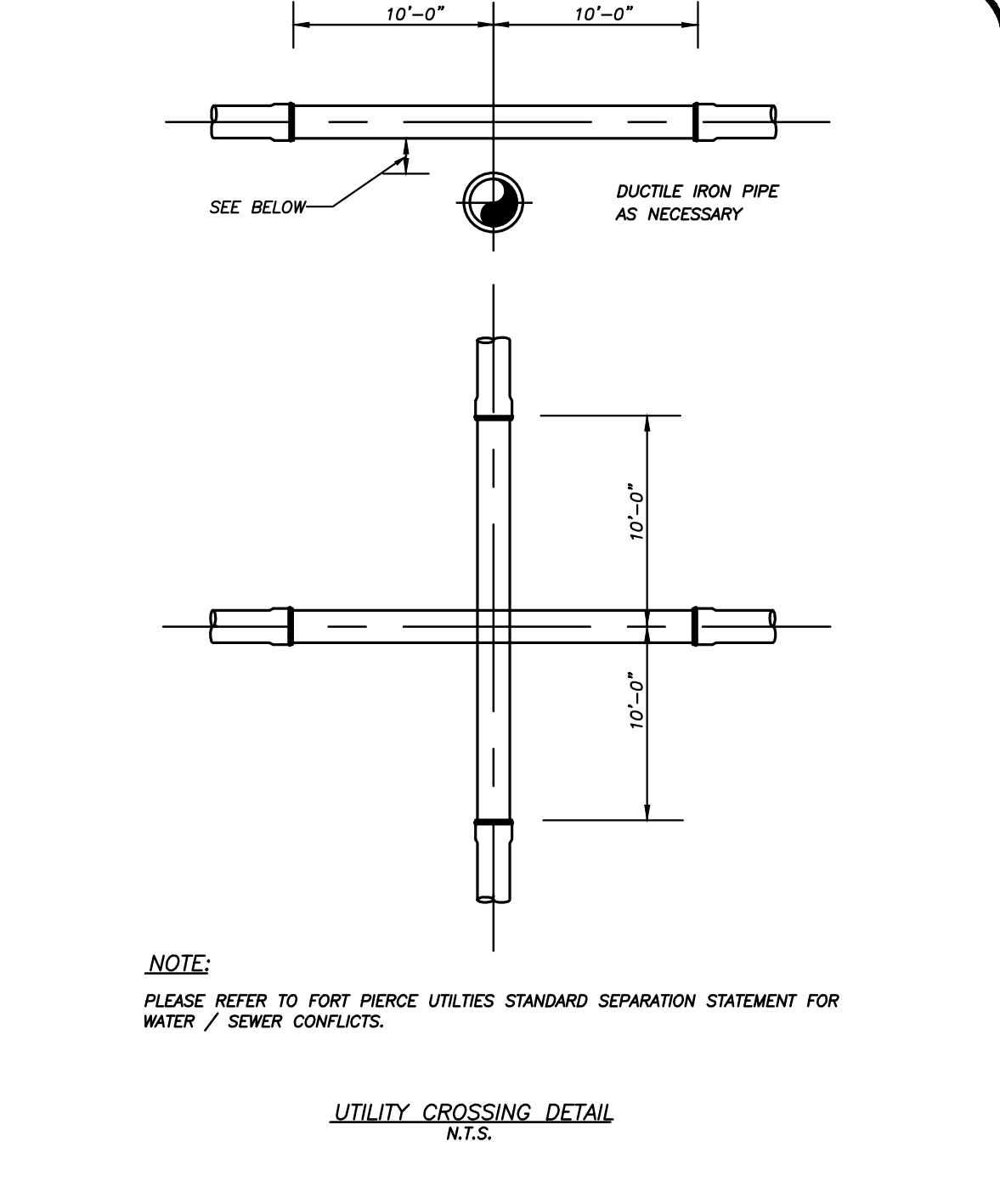
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FLORIDA CERTIFICATE OF AUTHORIZATION No. 00008856

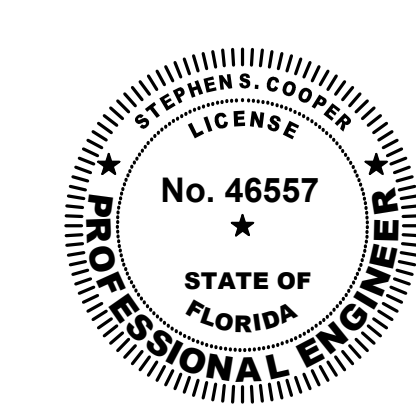
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UTILITY DETAILS

BLISS TOWNHOMES
CONSTRUCTION PLANS & SPECIFICATIONS

STATE OF FLORIDA
CITY OF FORT PIERCE

DATE:	FEB 2022
DRAWN BY:	CCL
DESIGNED BY:	SC
CHECKED BY:	SC
HORZ. SCALE:	
VERT. SCALE:	
DRAWING NO.:	C6.1
JOB NO.:	2022-104



Stephen Cooper, P.E. #46557