

APRIL 1, 2021

SUBJECT: INITIAL COMMENTS LETTER

PROJECT NAME: FREEDOM CROSSING AMENITIES AREA

PROJECT #2021030038

APPLICATION: MAJOR SITE PLAN #26421

Did not meet with staff. DRC 05/03/21.

1. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: Copy of District Permit (County Interest)
STATUS OF REVIEW: INFO
REMARKS: Please provide a copy of the District permit modification.
2. DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.K - List of approved waivers, their conditions, and the date of approval
STATUS OF REVIEW: INFO
REMARKS: 4/1/21 - Add waivers if requested in the future
3. DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: Additional Development Review Comments
STATUS OF REVIEW: INFO
REMARKS: After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24"x 36" sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.
4. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: Parcel numbers identified in project match proposed site plan layout
STATUS OF REVIEW: INFO
REMARKS: Project area is within master PA#; will be reviewed during building permit phase.
5. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2.C - Industrial Pretreatment
STATUS OF REVIEW: INFO
REMARKS: Pool runoff may not drain in to sanitary sewer.
6. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.4 - Water (potable) Capital Charges and Flow Rates - proposed use identified to calculate
STATUS OF REVIEW: INFO
REMARKS: Capital charges for water and sewer will be due at time of permitting. In order to calculate the total capital charges, the Capital Charge Determination form must be submitted along with an interior floorplan identifying all restroom facilities, tables & chairs (seating capacity). Allow up to 10 working days for this to be calculated.

7. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.5.C - All issued permits related to this project shall be submitted to MCU (DOT, ROW, misc)
STATUS OF REVIEW: INFO
REMARKS:
8. DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.24 - Landscape requirements/6.8.6 - Buffering
STATUS OF REVIEW: INFO
REMARKS: Buffering requirement to conform with approved PUD development standards (181015Z).
9. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: 6.13.2.B(5) - Hydraulic Analysis
STATUS OF REVIEW: NO
REMARKS: A few of the 8" yard drain lines were left out of the analysis. Please verify the drainage was accounted for at the next downstream inlet.
10. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: 6.13.8.B(7) - Minimum Pipe Size
STATUS OF REVIEW: WAIVER REQUESTED. STAFF SUPPORTS SUBJECT TO PROVIDING SUPPORTING CALCULATIONS

REMARKS: Minimum pipe size 18". Waiver will be supported with supporting calculations.

LDC 6.13.8.B(7) - Minimum Stormwater Pipe Size

CODE states stormwater conveyance pipes and cross culverts shall be a minimum of 18 inches diameter or equivalent. Driveway culverts shall be a minimum of 15 inches diameter or equivalent for residential use and a minimum of 18 inches diameter or equivalent for commercial use. Roof drains, prior to connection to the overall stormwater system, are exempt from minimum diameter requirements.

APPLICANT requests waiver to provide smaller pipe sizes for conveying roof drain/yard drain and parking lot runoff to standard conveyance system to minimize utility conflicts.

11. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: 6.13.2.A(5) - Existing/Proposed Stormwater Structures
STATUS OF REVIEW: NO
REMARKS: 1) Please provide specify the type of yard drain and grate to be used. Provide a detail or a reference to a detail. 2) Please specify trench drain to be used. Provide a detail or reference to a detail.
12. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: 6.13.2.A(7) - Existing/Proposed Stormwater Swales
STATUS OF REVIEW: NO
REMARKS: Please provide a typical swale detail for the swales shown on plan. Please show as sodded.
13. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: 6.13.2.A(12)/6.12.5 - Stormwater Details, Cross Sections, References
STATUS OF REVIEW: NO
REMARKS: It appears Detail Sheet 12.01 was not uploaded. Please upload.

14. DEPARTMENT: ENGDRN - STORMWATER REVIEW
REVIEW ITEM: Please provide a final signed and sealed hard copy signature page with references to the stormwater analysis or final hard copy of the full stormwater analysis.
STATUS OF REVIEW: NO
REMARKS: Please provide a final signed and sealed hard copy signature page with references to the stormwater analysis or final hard copy of the full stormwater analysis.
15. DEPARTMENT: ENGTRF - TRAFFIC REVIEW
REVIEW ITEM: 6.11.5 - Driveway access
STATUS OF REVIEW: WAIVER REQUESTED.
REMARKS: 03/15/21 - The driveway does not meet spacing criteria from the intersection. Staff supports a waiver.
- LDC 6.11.5.C(1) - Driveway Spacing**
CODE states the minimum allowed distance between a commercial driveway and the nearest intersecting roadway or driveway shall be as shown in Table 6.11-2 and 6.11-3. APPLICANT requests waiver to provide a driveway that does not meet spacing criteria from intersection. Proposed driveway location was placed to avoid storm conflict and central access to parking area.
16. DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.21.2.B - Major Site Plan fee of \$250.00 + (\$5.00 x total site acreage) made payable to Marion County BCC
STATUS OF REVIEW: NO
REMARKS: 4/1/21 - Due with resubmittal
17. DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.B - Project name centered at top of front page
STATUS OF REVIEW: NO
REMARKS: 4/1/21 - Clarify project name: Title block calls it "Armstrong" Freedom Crossings etc...but title at top of cover sheet does not include "Armstrong"
18. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2.C.2(e) - Grease Trap, FOG Worksheet
STATUS OF REVIEW: NO
REMARKS: Grease trap on Legend 07.01 but don't see location of unit on sheet? Confirm with Kathy Holley, MCU Pretreatment Coordinator any grease trap requirement or other industrial pretreatment issues as a result of the pool or banquet area. Include response with resubmittal. Ms. Holley can be reached at Kathleen.Holley@MarionFL.org or 352-470-6633. A copy of the required FOG Worksheet can be obtained at MCU's webpage or by contacting Carrie or Kathy by email.
19. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.7 - Construction Inspection - PLAN NOTE:
STATUS OF REVIEW: NO
REMARKS: **REVISION/STAFF UPDATE only** Utility Installation projects shall be inspected by MCUD. A pre-construction meeting is to be organized no later than 72 hours in advance of scheduled construction with MCUD Construction Officer Mark Rudowske at MarkRudowske@MarionFL.org; failure to conduct a pre-con may result in a stop-work order.

20. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.15.6.D - Meter Location
STATUS OF REVIEW: NO
REMARKS: 1. Water meter is typically at property line, but considering close proximity to main, either (a) abandon existing water meter location and move the new water meter there or (b) straighten up service; the bend is not acceptable as shown (see changemarks on sheet 7.01 in eplans)
2. shows a 1" "corp stop" at the meter connection. This needs to be a 1" PJ x 1" MN "curb stop" that has the ability to be locked.
21. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.15.6.E - Meter Easements
STATUS OF REVIEW: NO
REMARKS: Will require meter easement; refer to Code and show on plan
22. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: Utilities Plan Review Fee per Resolution 15-R-583 - payable to Marion County Utilities
STATUS OF REVIEW: NO
REMARKS: \$130 - this amount will not change even if there are additional comments to be resolved and should be submitted with next plan to expedite approval,
23. DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: Additional Utilities comments
STATUS OF REVIEW: NO
REMARKS: EoR to confirm with Marion County DOH that non-potable water is acceptable for supply water to a public access pool. MCU understands potable water is required for supply to any public access pool in Marion County.
24. DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.4.L(3) - All applicable Developer's Agreements listed?
STATUS OF REVIEW: NO
REMARKS: Revise the Cover Sheet to add the following note:
"Development Agreement(s): OR Bk/Pg 5163/1026 and 7309/347-384"
25. DEPARTMENT: 911 - 911 MANAGEMENT
REVIEW ITEM: Additional 911 comments
STATUS OF REVIEW: NO
REMARKS: The title bar has Freedom misspelled as Freedon on every sheet. Sheet 04.01 the parcel number is incorrect under the Site Data. It should be 35699-006-00 not 35625-000-00.
26. DEPARTMENT: ENGSUR - SURVEY REVIEW
REVIEW ITEM: 6.4.7.A(2 & 3) - One copy of the vertical control field notes shall be submitted to the Office of the County Engineer for review
STATUS OF REVIEW: NO
REMARKS: Please provide.
27. DEPARTMENT: ENGSUR - SURVEY REVIEW
REVIEW ITEM: 6.4.7.B(4) - One copy of the horizontal control notes along with reduction reports shall be submitted to the Office of the County Engineer for review
STATUS OF REVIEW: NO
REMARKS: Please provide.

28. DEPARTMENT: ENGSUR - SURVEY REVIEW
REVIEW ITEM: 6.4.7.D - The location of the existing one percent (100-year) flood plain as shown on FEMA FIRM, with zone, elevation, and vertical datum noted
STATUS OF REVIEW: NO
REMARKS: Please provide flood plain information on survey.
29. DEPARTMENT: ENGSUR - SURVEY REVIEW
REVIEW ITEM: 6.4.7.D - A note shall appear on the construction plans detailing source and survey field methods used to obtain and delineate the flood plain line shown
STATUS OF REVIEW: NO
REMARKS: Please provide.
30. DEPARTMENT: ENGSUR - SURVEY REVIEW
REVIEW ITEM: 2.12.8 - Provide current boundary and topographic survey less than one year old
STATUS OF REVIEW: WAIVER REQUESTED
REMARKS: Please update survey.

LDC 2.12.8 - Boundary and Topographic Survey

CODE states to provide a current boundary and topographic survey less than one year old, (one foot contour intervals extending 100 feet beyond the project boundary) based upon accepted vertical datum.

APPLICANT requests waiver to use survey provided with the residential development. The project has been under construction and the amenity area has been graded and pad ready per design plans.

31. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.4 - Shade tree requirements
STATUS OF REVIEW: NO
REMARKS: Provide shade tree calculations
32. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.2 - Landscape plan requirements (details, schedule, calculations, notes)
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
33. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.3 - Landscape design standards
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
34. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.4 - Landscape area requirements for non-residential development
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
35. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.6 - Buffers
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans

36. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.7 - Parking areas and vehicular use areas
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
37. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.8 - Building landscaping
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
38. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.9 - Service and equipment areas
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
39. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.10 - General planting requirements (specifications)
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
40. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.11 - Landscape installation
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
41. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.12 - Landscape completion inspection requirements
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
42. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.9.2 - Irrigation plan requirements (details, legend, notes)
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
43. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.9.3 - Irrigation design standards
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
44. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.9.5 - Irrigation system installation
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans
45. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.9.6 - Completion inspection requirements
STATUS OF REVIEW: NO
REMARKS: Please submit Landscape and Irrigation plans

46. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.19.3 - Outdoor lighting plan requirements
STATUS OF REVIEW: NO
REMARKS: Will there be outdoor lighting? If so, a photometric plan is required
47. DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.19.4 - Exterior lighting design standards
STATUS OF REVIEW: NO
REMARKS:
48. DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: Additional Zoning comments
STATUS OF REVIEW: NO
REMARKS: Amenities shown do match PUD development standards to include a BBQ area and picnic/seating area.



**Marion County
Board of County Commissioners**

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date: 04/28/2021 Parcel Number(s): 35699-006-00 Permit Number: AR# 26421
mm/dd/yyyy 12672-000-00, 13668-000-02, 12674-001-03, 12673-00008, 12673-00009

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: Armstrong Freedom Crossing Amenities Area Commercial ☒ or Residential ☐
Subdivision Name (if applicable): Freedom Crossing
Unit _____ Block _____ Lot 0

B. PROPERTY OWNER'S AUTHORIZATION: Attach a letter from the owner(s) or the owner(s) may sign below authorizing the applicant to act on the owner's behalf for this waiver request:

Property Owner's Name (print): Freedom Crossing LLC
Property Owner's Signature: _____
Property Owner's Mailing Address: 1415 SW 17th Street
City: Ocala State: FL Zip Code: 34471 Phone # (352) 624-0120

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive correspondence.

Firm Name (if applicable): Tillman & Associates Engineering, LLC Contact Name: _____
Mailing Address: 1720 SE 16th Ave, Bldg 100 City: Ocala State: FL Zip Code: 34471
Phone # 352-387-4540 Alternate Phone # _____
Email address: permits@tillmaneng.com

D. WAIVER INFORMATION:

Section & Title of Code: Comment #10 - 6.13.8.B(7) - Minimum Pipe Size
Reason/Justification for Waiver Request: Request to provide smaller pipe sizes for conveying roof drain/yard drain and parking lot runoff to standard conveyance system to minimize utility conflicts.

DEVELOPMENT REVIEW USE:

Received By: _____ Date Processed: _____ Project # _____ AR # _____

ZONING USE: Parcel of record: Yes ☐ No ☐ Eligible to apply for Family Division: Yes ☐ No ☐
Zoned: _____ ESOZ: _____ P.O.M. _____ Must Vacate Plat: Yes ☐ No ☐
Land Use: _____ Date: _____ Verified by: _____

Revised 5/2017



**Marion County
Board of County Commissioners**

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Section & Title of Code: _____ Comment #15 - 6.11.5 - Driveway access
Reason/Justification for Waiver Request: Request to provide driveway that does not meet spacing
criteria from intersection. Proposed driveway location was placed to avoid storm conflict and central
access to parking area.

Section & Title of Code: _____ Comment #30 - 2.12.8 - Current Boundary and Topo Survey
Reason/Justification for Waiver Request: Request to use survey provided with residential development.
Project has been under construction and amenity area has been graded pad ready per design plans.

Section & Title of Code: _____
Reason/Justification for Waiver Request: _____

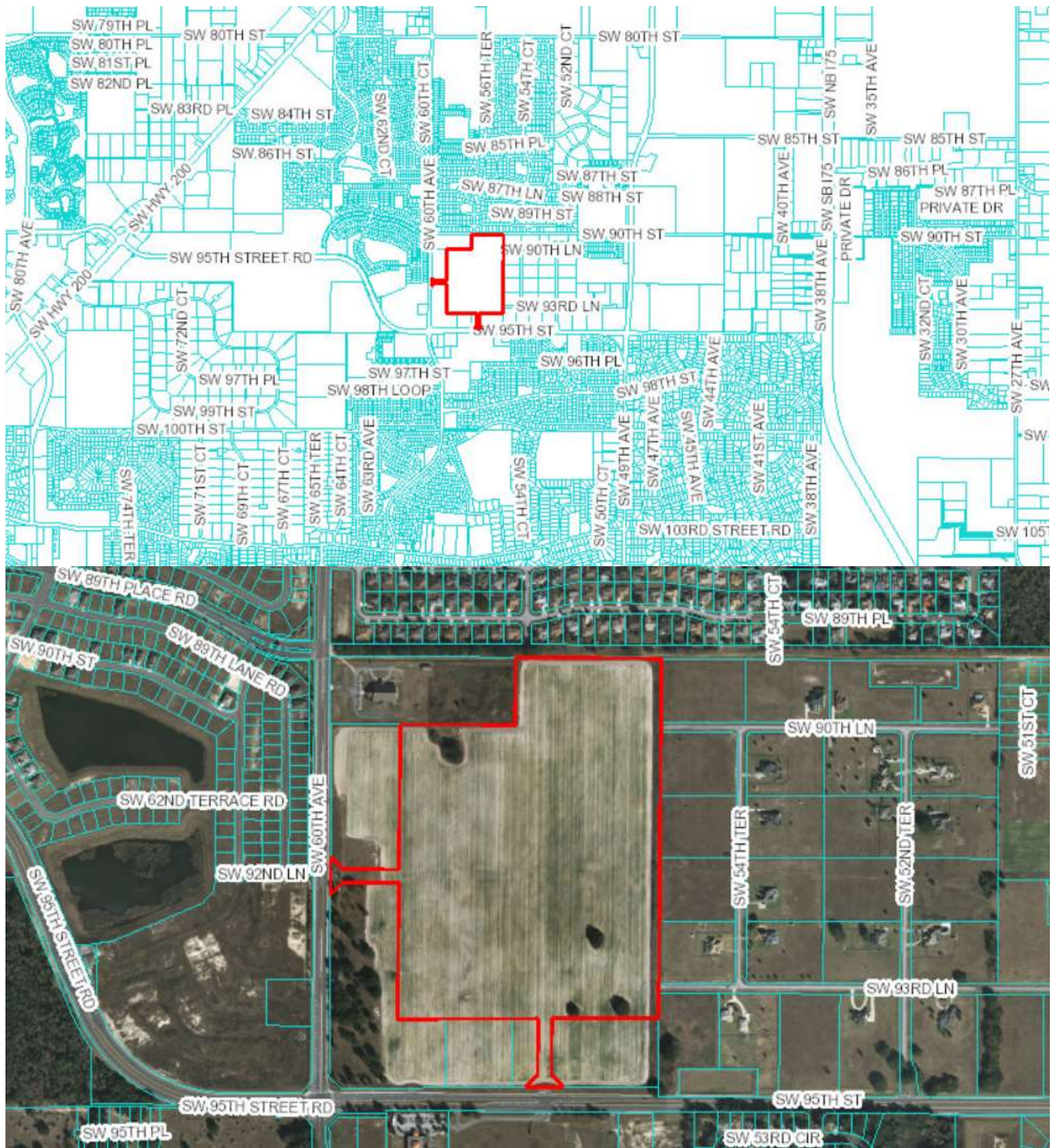
Section & Title of Code: _____
Reason/Justification for Waiver Request: _____

Section & Title of Code: _____
Reason/Justification for Waiver Request: _____

Section & Title of Code: _____
Reason/Justification for Waiver Request: _____

Revised 7/2017

TILLMAN & ASSOCIATES ENGINEERING



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF SIZE AND LOCATION OF ALL EXISTING UTILITIES AND RELATED CONSTRUCTION PRIOR TO WORK COMMENCEMENT. CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF MARION COUNTY AND FDOT.
3. PAVEMENT STRIPPING TO BE IN ACCORDANCE WITH MARION COUNTY SPECIFICATIONS AND WITH THE FLORIDA D.O.T. ROADWAY & TRAFFIC STANDARDS, INDEX 17346.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5. WHERE MUCK OR OTHER ORGANIC MATERIAL IS FOUND, IT SHALL BE REMOVED AND REPLACED BY GOOD QUALITY BACKFILL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED BY THE ENGINEER. THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN SANDY SOIL.
6. ALL FINISHED GRADES AND ELEVATIONS ARE AS DENOTED BY THE APPLICABLE LEGEND.
7. AS PART OF THE CLEANING AND GRABBING OPERATION, THE CONTRACTOR IS TO REMOVE EXISTING FACILITIES AND / OR FENCING FROM THE SITE AS SHOWN ON PLANS.
8. THE CONTRACTOR SHALL NOTIFY MARION COUNTY ENGINEERING DIVISION AND TILLMAN AND ASSOCIATES ENGINEERING, LLC AT LEAST ONE WEEK BEFORE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR SHALL OBTAIN A MARION COUNTY R/W PERMIT PRIOR TO COMMENCING WORK WITHIN MARION COUNTY R/W'S.
9. A MINIMUM SEPARATION OF 1.5 FEET BETWEEN THE LIMEROCK BASE AND THE HIGHEST GROUNDWATER ELEVATION SHALL BE MAINTAINED WITHIN THE RIGHT-OF-WAY. CONTRACTOR TO NOTIFY ENGINEER IF 1.5 FEET OF SEPARATION IS NOT ACHIEVED.
10. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. PER SECTION 82-371, CODE OF ORDINANCES: FOR ANY WORK WITHIN PUBLIC RIGHT OF WAYS, A RIGHT OF WAY UTILIZATION PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
12. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF STANDARD SHOP DRAWINGS AND MANUFACTURER'S CATALOGS WITH THE MODEL NUMBER OR TYPE OF THE ITEM ENCLOSED OR OTHERWISE DESIGNATED. THE SUBMITTALS SHALL BEAR THE APPROVAL OF THE UNDERGROUND UTILITY CONTRACTOR. ALL UTILITY SHOP DRAWINGS AND MANUFACTURER'S CATALOGS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND MARION COUNTY PRIOR TO CONSTRUCTION.
13. ALL AS-BUILTS SHALL COMPLY WITH THE CURRENT LDC, SECTION 6.1.4.8 AND RETURNED IN NAD83 W. FORMAT WITH NORTING AND EASTING COORDINATES FOR ALL ITEMS UNDER WATER AND WASTEWATER COMPONENTS.

PAVING AND DRAINAGE NOTES

1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES.
2. ALL PAVEMENT RETURN RADI SHALL BE 28' AND MEASURED FROM THE INTERFACE OF THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
3. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.
4. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.
5. TOP ELEVATIONS OF MANHOLES IN GRASSED AREAS SHALL BE LOCATED AT FINISHED GRADE ELEVATION.
6. AS AN ALTERNATIVE, CONTRACTOR MAY USE ALTERNATIVE PIPE MATERIALS IN LIEU OF RCP. HOWEVER, CONTRACTOR MUST RECEIVE APPROVAL OF ALTERNATIVE PIPE MATERIALS IN WRITING BY MARION COUNTY AND TILLMAN & ASSOCIATES ENGINEERING, LLC PRIOR TO CONSTRUCTION.
7. TOP SOIL WHICH HAS BEEN STRIPPED AND STOCK PILED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AT LEAST FOUR INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING
8. ALL DISTURBED AREAS WITH SLOPES UP TO 6:1 SHALL BE SEEDED AND MULCHED. SLOPES STEEPER THAN 6:1 SHALL BE SODDED AND SLOPES 3:1 OR STEEPER SHALL HAVE THE SOD REGGED.
9. SEE TABLE 2.0 FOR REQUIRED STORM PIPE COVER BENEATH AN UNPAVED SECTION.
10. SEE TABLE 3.0 FOR REQUIRED STORM PIPE COVER BENEATH RIGID PAVEMENT.
11. SEE TABLE 4.0 FOR REQUIRED STORM PIPE COVER BENEATH FLEXIBLE PAVEMENT
12. THE TABULATED VALUES ARE RECOMMENDED MINIMUM DIMENSIONS TO WITHSTAND ANTICIPATED HIGHWAY TRAFFIC LOADS. ADDITIONAL COVER MAY BE REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT LOADS OR HIGHWAY TRAFFIC LOADS BEFORE PAVEMENT IS COMPLETED. SOME SIZE THICKNESS COMBINATIONS MAY REQUIRE MINIMUM COVER GREATER THAN THOSE LISTED ABOVE. SEE FOOT INDEX 205, SHEETS 1-5.
13. ALL RCP STORM WATER PIPE SHALL MEET THE COVER & CLASS CRITERIA AS OUTLINED IN FOOT INDEX 205.
14. ALL STORM PIPE JOINTS SHALL BE WRAPPED AS SPECIFIED IN FOOT INDEX 280.
15. THE LAST FOOT OF STORM WATER POND SHALL NOT BE EXCAVATED UNTIL ALL DISTURBED AREAS ARE STABILIZED.
16. ANY FILL MATERIAL MUST BE APPROVED BY ENGINEER IN WRITING PRIOR TO PLACEMENT.
17. SIGNIFICANT CARE MUST BE TAKEN WHEN GRADING RETENTION PONDS TO ENSURE THAT POND BOTTOMS DO NOT BECOME COMPACTED DURING CONSTRUCTION OR SEALING BY CONSTRUCTION SEDIMENT. IF SEDIMENTATION OR COMPACTION OF A POND BOTTOM OCCURS, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE THE DESIGN HYDRAULIC CONDUCTIVITY.

SANITARY SEWER NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE MARION COUNTY MANUAL OF STANDARD SPECIFICATIONS FOR WASTEWATER CONSTRUCTION.
2. ALL SANITARY SEWER CONSTRUCTION AND MATERIALS WITHIN R/W OR EASEMENT TO BE OWNED AND MAINTAINED BY MARION COUNTY UTILITIES.
3. ALL MANHOLES SHALL BE 4 FT. INSIDE DIAMETER.
4. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE.
5. ALL SANITARY SEWER LATERALS SHALL BE 6 INCH DIAMETER, UNLESS SPECIFIED OTHERWISE ON PLANS.
6. INVERTS OF SANITARY SEWER LATERALS AT THEIR CONNECTION TO SANITARY MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT.
7. MINIMUM AS BUILT P.V.C. SEWER LINE SLOPE WILL BE 0.40% MINIMUM SLOPE OR WILL BE RELAID BY CONTRACTOR TO MEET THE MINIMUM SLOPE REQUIREMENT AT NO ADDITIONAL COST.
8. MARK LATERALS WITH 4" x 4" x 8" PT POST PAINTED GREEN ON END.
9. PIPE MATERIAL IS ASTM D3034, SDR-26 UNLESS OTHERWISE NOTED.
10. A MINIMUM 1.04% SLOPE SHALL BE MAINTAINED ON THE SANITARY SEWER SERVICE LATERALS. AT NO TIME SHALL A SANITARY SEWER LATERAL HAVE A SLOPE OF .15% OR GREATER.
11. SANITARY SEWER GRAVITY MAINS ARE TO BE UPGRADED IN MATERIAL TO WATER MAIN STANDARDS AND HYDROSTATICALLY PRESSURE TESTED WITH WATER TO ENSURE JOINT TIGHTNESS IF EITHER OF THE HORIZONTAL OR VERTICAL MINIMUM REQUIRED CLEARANCE FROM A WATER MAIN CANNOT BE MAINTAINED OR IF THE SEWER MAIN IS ABOVE THE WATER MAIN. UPGRADE TO MATERIAL CANNOT BE MADE WITHOUT PRIOR APPROVAL FROM FDEP.
12. LEAKAGE TEST ARE SPECIFIED REQUIRING THAT
 - A) THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM.
 - B) EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET.
 - C) AIR TESTS, AS MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES, AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, CONFORMS TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.
13. DEFLECTION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, CHAPTER 33.8, FOR ALL GRAVITY SANITARY SEWER LINES. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM TESTING REQUIREMENTS SPECIFY:
 - 1) NO PIPE SHALL EXCEED A DEFLECTION OF 5%.
 - 2) USING A RIGID BALL OR PIPE PIPE DEFLECTION TESTS WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDS ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED.
 - 3) PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
14. TESTING OF THE SEWAGE COLLECTION SYSTEM IS AS FOLLOWS:
 - A. ALL GRAVITY MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW PRESSURE AIR TEST, AS A MINIMUM, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM SPECIFICATIONS, ASTM F1417 FOR PLASTIC PIPE.
 - B. ALL SEWER MAINS SHALL BE LAMPED BY IN THE PRESENCE OF A MARION COUNTY REPRESENTATIVE.
 - C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHTOUT.
 - D. HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 150 PSI FOR TWO (2) HOURS.
 - E. DEFLECTION TEST ARE REQUIRED FOR ALL FLEXIBLE PIPE EXCLUDING FORCE MAINS. TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES & MEASURED FROM THE INTERFACE TO THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
15. SANITARY SEWER SERVICES SHALL BE INSTALLED 10' FROM BACK OF CURB.
16. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF COMPLETE DETAILED SHOP DRAWINGS FOR ALL SANITARY MANHOLES, WET WELLS, OTHER CASTINGS, AND PUMPS. THE SUBMITTALS SHALL BEAR THE APPROVAL OF THE UNDERGROUND UTILITY CONTRACTOR ON EACH SHEET. A COMPLETE SET OF THE LIFT STATION ELECTRICAL SHOP DRAWINGS IS ALSO REQUIRED IF APPLICABLE. ALL UTILITY SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND MARION COUNTY PRIOR TO CONSTRUCTION.

WATER MAIN CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH AWWA AS WELL AS THE MARION COUNTY MANUAL OF STANDARDS AND SPECIFICATIONS FOR WATER MAIN CONSTRUCTION.
2. ALL WATER MAIN CONSTRUCTION AND MATERIALS WITHIN R/W OR EASEMENT TO BE OWNED AND MAINTAINED BY MARION COUNTY UTILITIES.
3. SEPARATION REQUIREMENTS (SEE TABLE 1.0-UTILITY SEPARATIONS)
- 2.1. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS, SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS:
 - 2.1.1. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - 2.1.2. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
 - 2.1.3. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 6' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610 F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3' WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE SEWER.
- 2.2. VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS OR RECLAIMED WATER PIPELINES:
 - 2.2.1. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY GRAVITY OR VACUUM-TYPE SANITARY SEWER PIPE SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12" ABOVE AND PREFERABLY 12" ABOVE OR AT LEAST 12" BELOW THE OUTSIDE OF THE OTHER PIPE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - 2.2.2. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12" ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - 2.2.3. AT THE UTILITY CROSSINGS DESCRIBED IN THE ABOVE PARAGRAPHS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST 8' FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C..
- 2.3. NO WATER MAIN SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR A STORM SEWER MANHOLE.
- 2.4. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST 3' FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AT LEAST 3' BUT PREFERABLY 10' FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST 10' FROM ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT OR DISPOSAL SYSTEM AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 6A-6.002, F.A.C..
- 2.5. EXCEPTIONS / MITIGATION: ADHERENCE TO THE ABOVE CONSTRAINTS AND SEPARATIONS IN THE ABOVE ITEMS SHALL BE COMPLIED WITHOUT EXCEPTION, IF FOR SOME REASON WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE THAT THE ABOVE ITEMS CANNOT BE COMPLIED WITH, CONTRACTOR IS TO STOP WORK AND NOTIFY THE ENGINEER OF RECORD FOR THE APPROPRIATE SOLUTION. THE SOLUTION WILL BE SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR APPROVAL PRIOR TO WORK COMMENCEMENT.
4. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS.
5. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER.
6. ALL GATE VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED EXTENSION WHERE NEEDED.
7. ALL PUBLIC WATER SYSTEMS COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT SHALL BE INSTALLED UNDER THIS PROJECT, AND THAT SHALL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AND SHALL BE MARKED WITH NSF SEAL OF APPROVAL.
8. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. ALL DUCTILE IRON WATER MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE BLUE IN COLOR IF PAINT IS USED INSTEAD OF TAPE. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION. FOR PIPE WITH AN INTERNAL DIAMETER OF 24" OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES A LONG EACH SIDE OF THE PIPE AS WELL AS A LONG THE TOP OF THE PIPE.
9. ALL NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 14 GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR IDENTIFICATION PURPOSES. SEE STANDARD DRAWINGS. IN ADDITION, ALL P.V.C. WATER MAINS SHALL BE A SOLID BLUE COLOR.
10. MARK DRINKING WATER FITTINGS WITH 4" x 4" x 8" PT POST PAINTED BLUE ON END.
11. PIPE MATERIALS - ALL PIPES, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AWWA STANDARDS.
 - A. P.V.C. WATER MAINS 4 INCHES TO 12 INCHES SHALL BE IN ACCORDANCE WITH AWWA C900, LATEST EDITION AND SHALL BE DR18. P.V.C. WATER MAINS 14 INCHES TO 36 INCHES SHALL BE IN ACCORDANCE WITH AWWA C905, LATEST EDITION AND SHALL BE DR18. P.V.C. PIPES LESS THAN 4 INCHES ARE NOT ALLOWED IN MARION COUNTY. IN OTHER JURISDICTIONS, THEY SHALL BE IN ACCORDANCE WITH ASTM D1785 (SCHEDULE 40, 80, 120) OR ASTM D2241 (SDR 21). MINIMUM WORKING PRESSURE FOR ALL P.V.C. SHALL BE 150 PSI. ALL P.V.C. PIPE SHALL HAVE THE SAME O.D. AS DUCTILE IRON PIPE. P.V.C. PIPE JOINTS SHALL BE IN ACCORDANCE WITH ASTM D3339 AND AWWA C111.
 - B. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51/AWWA C151 AND SHALL BE A MINIMUM OF CLASS 50. DUCTILE IRON JOINTS SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111.
 - C. ALL SERVICES SHALL BE POLYETHYLENE TUBING, CLASS 150 AND SHALL BE IN ACCORDANCE WITH AWWA C901.
12. WATER MAIN CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE MARION COUNTY. ALL VALVES SHALL BE OPERATED BY MARION COUNTY PERSONNEL ONLY. WATER MAINS ARE TO BE DISCHARGED PER AWWA C651-92 AND MARION COUNTY LAND DEVELOPMENT CODE OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION SECTION 51.6 WHICH INCLUDES A FULL FLUSH.
13. ALL VALVES SHALL BE LOCATED IN NON PAVED AREAS, UNLESS SPECIFIED ON PLANS.
14. FIRE HYDRANT LEADS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 6" AND SHALL INCLUDE AN AUXILIARY VALVE.
15. IF AGGRESSIVE SOIL CONDITIONS ARE FOUND DURING CONSTRUCTION, WATER MAINS SHALL BE PROTECTED THROUGH THE USE OF CORROSION RESISTANT MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION.
16. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE "LEAD FREE" AS DEFINED IN THE LATEST VERSION OF THE SAFE WATER DRINKING ACT.
17. WHERE NEW OR ALTERED DEAD-END WATER MAINS INCLUDED IN THIS PROJECT CANNOT BE AVOIDED, THEY SHALL BE PROVIDED WITH A FIRE FLUSHING HYDRANT OR BLOW OFF FOR FLUSHING PURPOSES.
18. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT SHALL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER. AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
19. PROPOSED FIRE HYDRANTS CONNECTED TO THE POTABLE WATER MAIN, FOR THIS PROJECT, SHALL BE PAINTED PER NFPA AND AWWA STANDARDS. FIRE HYDRANTS CONNECTED TO THE DESIGNATED FIRE LINE SHALL BE PAINTED PER JURISDICTION.
20. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE; WALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPED APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE. THE PAINT OR STRIPE SHALL BE LOCATED AT LEAST THREE FEET FROM THE END OF THE PIPE, AND THAT REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE, AND THAT IS LOCATED ALONG THE TOP OF THE PIPE. FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE. (FAC 62-555.320(21)(b)3)
21. THE OPEN END OF THE AIR RELIEF PIPE FROM ALL AUTOMATIC AIR RELIEF VALVES WILL BE EXTENDED TO AT LEAST ONE FOOT ABOVE GRADE AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD-FACING ELBOW. (FAC 62-555.320(21)(b)3, AND RSWW 8.4.2)
22. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE. BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE, AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE. (FAC 62-555.320(21)(b)3, AND RSWW 8.5.2)
23. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT. (FAC 62-555.320(21)(b)3, AND RSWW 8.5.4)
24. NEW OR ALTERED WATER MAIN INSTALLATION AND PRESSURE AND LEAKAGE TESTING, SHALL BE PROVIDED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS. P.V.C. WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C605. DUCTILE IRON WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C600.
25. NEW OR ALTERED WATERMAINS, INCLUDING FIRE HYDRANT LEADS AND SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH AWWA C651.
26. THE MINIMUM COVER TO BE PROVIDED OVER POTABLE WATER LINES SHALL BE 3'. RSWW 8.7.3
27. WATER SERVICES SHALL BE INSTALLED 10' FROM BACK OF CURB.

AS-BUILT NOTES

1. THE CONTRACTOR SHALL SUBMIT A CERTIFIED SET OF RECORD DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. RECORD DRAWINGS SUBMITTED TO THE ENGINEER AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS.
 - A. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
 - B. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE, WATER, REUSE AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL PIPING LOCATIONS INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, CLASS, ETC.
 - C. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.
 - D. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS, BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.
 - E. LOCATION OF ALL INLETS AND MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO PREFERABLY THREE PERMANENT POINTS.
 - F. DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE VERIFIED AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS, CONTROL STRUCTURES AND MANHOLES SHALL BE SHOWN.
 - G. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR POND GRADING. SPOT ELEVATIONS SHALL BE TAKEN AT TOP OF BANK, POND BOTTOM, AND ALL GRADE BREAKS AT 50' INTERVALS.
 - H. DRAWINGS SHALL CLEARLY INDICATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN WATER MAIN AND STORM DRAINAGE/SANITARY SEWER/RECLAIM WATER MAINS AT POINTS OF CROSSING IN ACCORDANCE WITH FDEP CRITERIA.
1. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE CONSTRUCTED ELEVATIONS IN SUCH A WAY THAT THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND OTHER UTILITIES MAY BE VERIFIED BY THE ENGINEER. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED AND DATED BY REGISTERED SURVEYOR WITH A NOTE READING: "THESE AS-BUILT DRAWINGS ACCURATELY PICTER THE ACTUAL IMPROVEMENTS AS CONSTRUCTED".

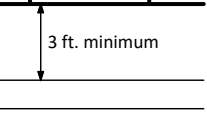
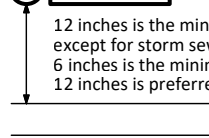
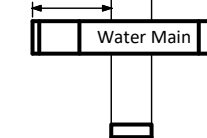
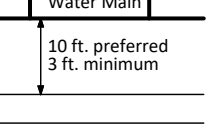
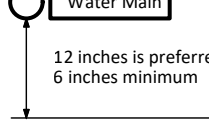
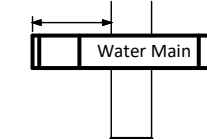
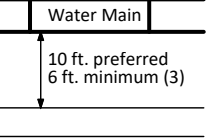
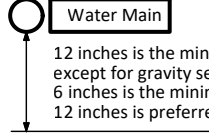
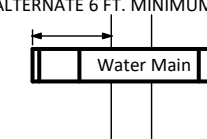
REUSE NOTES

1. ALL IRRIGATION, REUSE AND EFFLUENT REUSE PIPING TO BE OWNED AND MAINTAINED BY MARION COUNTY SHALL BE A SOLID PURPLE COLOR.
2. REUSE AND EFFLUENT REUSE MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" & LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.
3. DEPTH OF REUSE AND EFFLUENT REUSE LINES TO BE 36" BELOW FINISHED GRADE.
4. REUSE AND EFFLUENT REUSE MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
5. ALL REUSE AND EFFLUENT REUSE MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON PIPE AND SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB.
6. ALL IRRIGATION SLEEVING UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB.

EROSION CONTROL NOTES

1. DURING CONSTRUCTION, THE CONTRACTORS SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING SURFACE WATERS. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS.
2. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN.
3. SODDING OF DETENTION PONDS SHOULD BE ACCOMPLISHED WITHIN 14 DAYS OF POND GRADING TO MINIMIZE EROSION POTENTIAL.
4. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED WITHIN ONE FOOT PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
5. IF DURING CONSTRUCTION, THE PROPOSED EROSION SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH THE EROSION CONTROL PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
6. A 2" STRIP OF SOD SHALL BE PLACED BEHIND BACK OF CURB.
7. ALL SODDED AND/OR SEEDED AREAS MUST BE WATERED AS NECESSARY DURING CONSTRUCTION AND 2 MONTHS AFTER COMPLETION OF CONSTRUCTION IN ORDER TO ENSURE STABILIZATION AND SURVIVAL.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, RECLAIMED WATER (2)			
VACUUM SANITARY SEWER			
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (2)			
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM		—	—

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

CLEARANCES

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING 90 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
2. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL UTILITY IMPROVEMENTS, PRESSURE TESTS, BACTERIOLOGICAL TESTS, AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH F.D.E.P. AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL STORM WATER SYSTEM IMPROVEMENTS AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH S.W.F.W.D. AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.

TABLE 3.0 - STORM PIPE COVER (RIGID PAVEMENT)

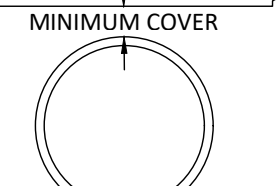
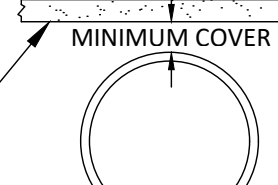
RIGID PAVEMENT (DOWELED JOINTS AND GOOD CONDITION)	
	MINIMUM COVER
PIPE TYPE/SIZE & SHAPE	MINIMUM COVER
CONCRETE *	
ROUND & ELLIPTICAL	9"
CORRUGATED STEEL *	
15"-72" ROUND & ARCH EQUIVALENT	9"
78" & LARGER ROUND AND ARCH EQUIVALENT	15"
CORRUGATED ALUMINUM	
15" - 72" ROUND AND ARCH EQUIVALENT	9"
78" - 102" ROUND AND ARCH EQUIVALENT	15"
108" & LARGER ROUND	18"
CORRUGATED POLYETHYLENE	
15" - 48" ROUND	9"
POLYVINYL CHLORIDE	
15" - 48" ROUND	9"
*FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.	

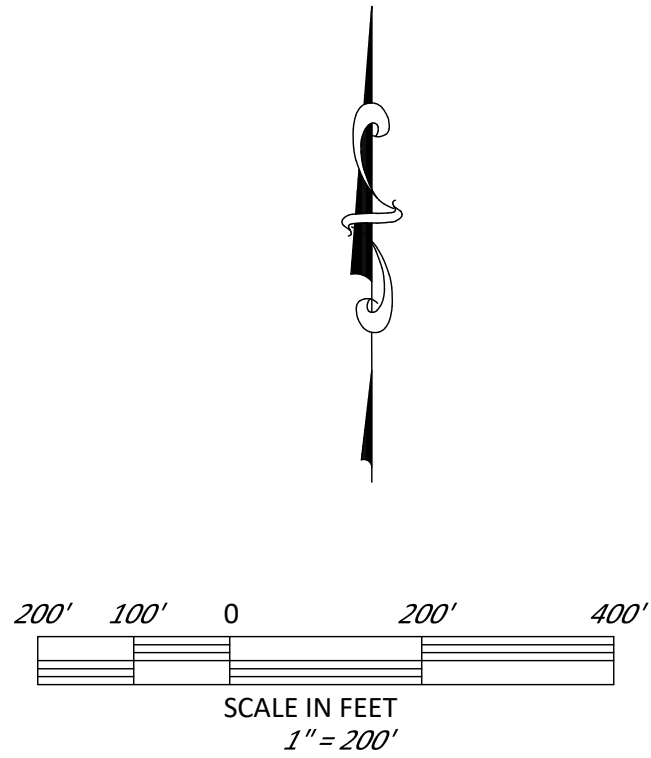
TABLE 2.0 - STORM PIPE COVER (UNPAVED)

PIPE TYPE/SIZE & SHAPE	COMMERCIAL	NON-COMMERCIAL
CONCRETE *		
ROUND & ELLIPTICAL	12"	3"
CORRUGATED STEEL *		
12" - 30" ROUND	18" [15"]	12" [12"]
36" - 48" ROUND	18" (12") [15"]	12" (12") [12"]
54" - 72" ROUND	18" (12") [15"]	15" (12") [12"]
78" - 96" ROUND	(18") [27"]	(12") [12"]
102" & LARGER ROUND	24" [33"]	18" [21"]
15" - 30" ARCH EQUIVALENT	18" [18"]	12" [12"]
36" - 48" ARCH EQUIVALENT	24" (12") [21"]	18" (12") [15"]
54" - 72" ARCH EQUIVALENT	30" (18") [24"]	24" (12") [18"]
78" - 96" ARCH EQUIVALENT	(24") [27"]	(18") [21"]
102" & LARGER ARCH EQUIVALENT	(30")	(24")
CORRUGATED ALUMINUM		
12" - 24" ROUND	21" [21"]	15" [15"]
30" - 48" ROUND	24" (18") [21"]	18" (12") [15"]
54" - 72" ROUND	30" (24") [27"]	24" (18") [21"]
78" - 102" ROUND	(30") [33"]	(24") [27"]
108" & LARGER ROUND	36"	30"
15" - 24" ARCH EQUIVALENT	27" [24"]	24" [21"]
30" - 48" ARCH EQUIVALENT	33" (21") [27"]	27" (15") [21"]
54" - 72" ARCH EQUIVALENT	38" (24") [30"]	30" (18") [24"]
78" - 90" ARCH EQUIVALENT	(30") [36"]	(24") [30"]
96" - 102" ARCH EQUIVALENT	(36")	(30")
CORRUGATED POLYETHYLENE		
15" - 48" ROUND	21"	15"
POLYVINYL CHLORIDE		
15" - 48" ROUND	21"	15"

VALUES SHOWN IN PARENTHESES () ARE FOR 3" X 1" CORRUGATIONS WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER. VALUES SHOWN IN BRACKETS () APPLY TO TYPE 1-R (SPIRAL RIB) PIPE WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER. *FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.

TABLE 4.0 - STORM PIPE COVER (FLEXIBLE PAVEMENT)

FLEXIBLE PAVEMENT OR RIGID PAVEMENT [JOINTS NOT DOWELED OR POOR CONDITION (FRACTURED)]	
	MINIMUM COVER
PIPE TYPE/SIZE & SHAPE	MINIMUM COVER
CONCRETE *	
ROUND & ELLIPTICAL	7"
CORRUGATED STEEL *	
12"-30" ROUND	12" [12"]
36"-48" ROUND	18" [12"] [15"]
54"-72" ROUND	21" [15"] [18"]
78"-96" ROUND	(18")



MAJOR SITE PLAN
ARMSTRONG FREEDON CROSSINGS AMENITIES AREA
MARION COUNTY, FLORIDA

DATE 1/29/21
DRAWN BY MR
CHKD. BY TB
JOB NO. 19-5008

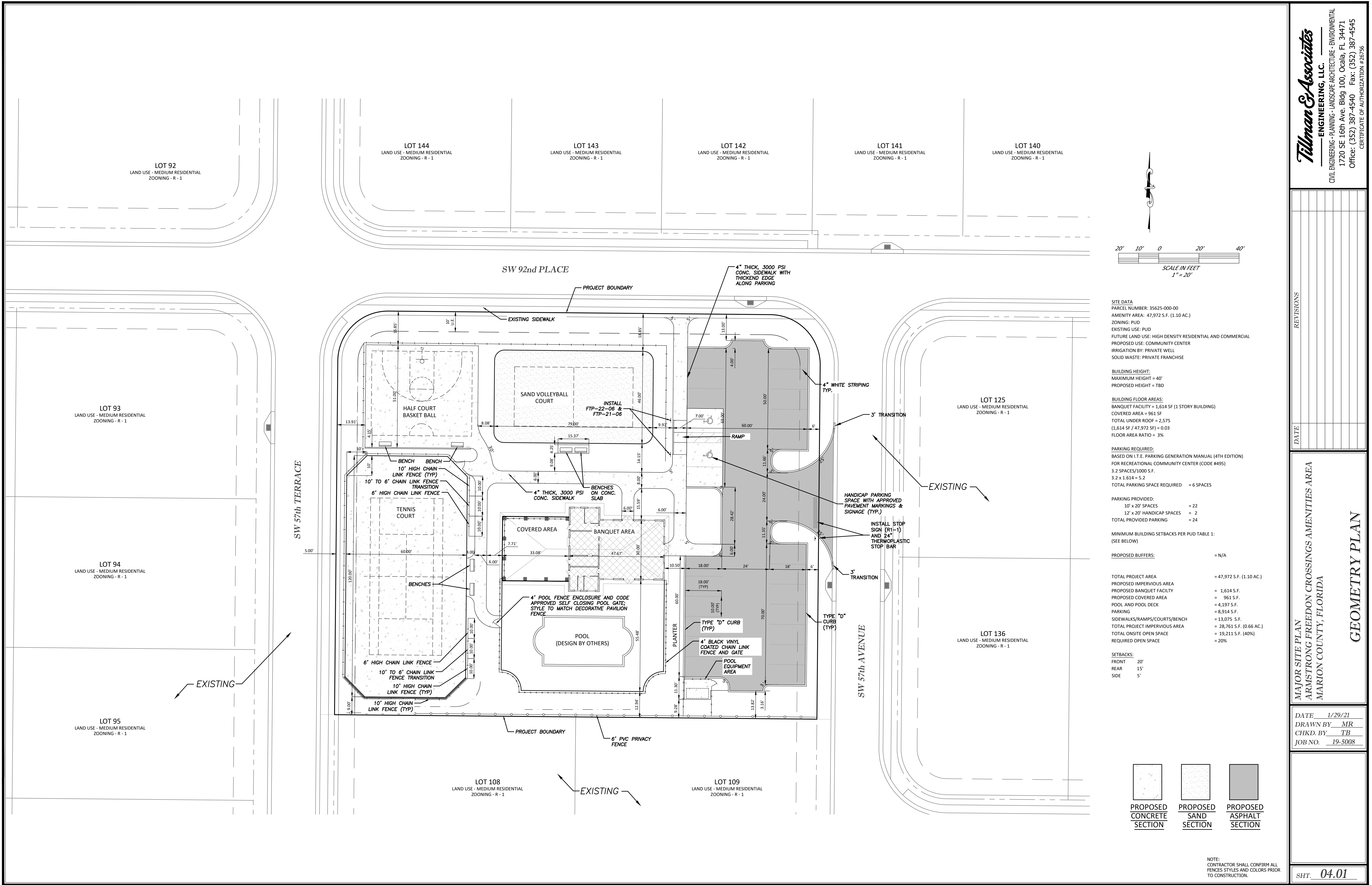
SHT. 03.01

REVISIONS

DATE

Tillman & Associates
ENGINEERING, LLC.

CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545
CERTIFICATE OF AUTHORIZATION #26756



REVISIONS

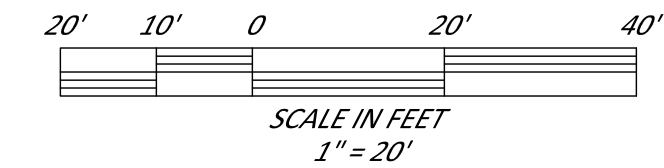
DATE

MAJOR SITE PLAN
ARMSTRONG FREEDOM CROSSINGS AMENITIES AREA
MARION COUNTY, FLORIDA

GEOMETRY PLAN

DATE 1/29/21
DRAWN BY MR
CHKD. BY TB
JOB NO. 19-5008

SHT. 04.01



SITE DATA
PARCEL NUMBER: 35625-000-00
AMENITY AREA: 47,972 S.F. (1.10 AC.)
ZONING: PUD
EXISTING USE: PUD
FUTURE LAND USE: HIGH DENSITY RESIDENTIAL AND COMMERCIAL
PROPOSED USE: COMMUNITY CENTER
IRRIGATION BY: PRIVATE WELL
SOLID WASTE: PRIVATE FRANCHISE

BUILDING HEIGHT:
MAXIMUM HEIGHT = 40'
PROPOSED HEIGHT = TBD

BUILDING FLOOR AREAS:
BANQUET FACILITY = 1,614 SF (1 STORY BUILDING)
COVERED AREA = 961 SF
TOTAL UNDER ROOF = 2,575
(1,614 SF / 47,972 SF) = 0.03
FLOOR AREA RATIO = 3%

PARKING REQUIRED:
BASED ON I.T.E. PARKING GENERATION MANUAL (4TH EDITION)
FOR RECREATIONAL COMMUNITY CENTER (CODE #495)
3.2 SPACES/1000 S.F.
3.2 x 1,614 = 5.2
TOTAL PARKING SPACE REQUIRED = 6 SPACES

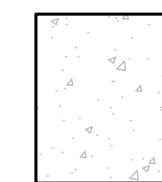
PARKING PROVIDED:
10' x 20' SPACES = 22
12' x 20' HANDICAP SPACES = 2
TOTAL PROVIDED PARKING = 24

MINIMUM BUILDING SETBACKS PER PUD TABLE 1:
(SEE BELOW)

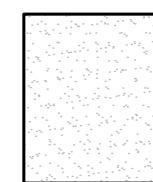
PROPOSED BUFFERS: = N/A

TOTAL PROJECT AREA = 47,972 S.F. (1.10 AC.)
PROPOSED IMPERVIOUS AREA = 1,614 S.F.
PROPOSED BANQUET FACILITY = 961 S.F.
PROPOSED COVERED AREA = 4,197 S.F.
POOL AND POOL DECK = 8,914 S.F.
PARKING = 13,075 S.F.
SIDEWALKS/RAMPS/COURTS/BENCH = 28,761 S.F. (0.66 AC.)
TOTAL PROJECT IMPERVIOUS AREA = 19,211 S.F. (40%)
TOTAL ONSITE OPEN SPACE = 20%

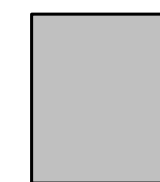
SETBACKS:
FRONT 20'
REAR 15'
SIDE 5'



PROPOSED
CONCRETE
SECTION

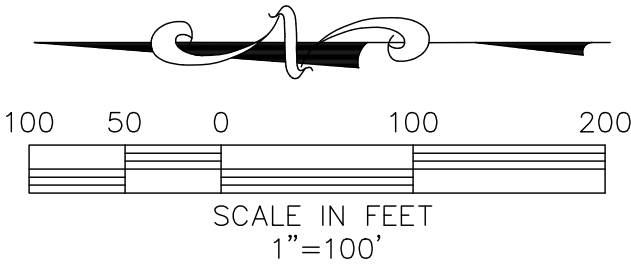
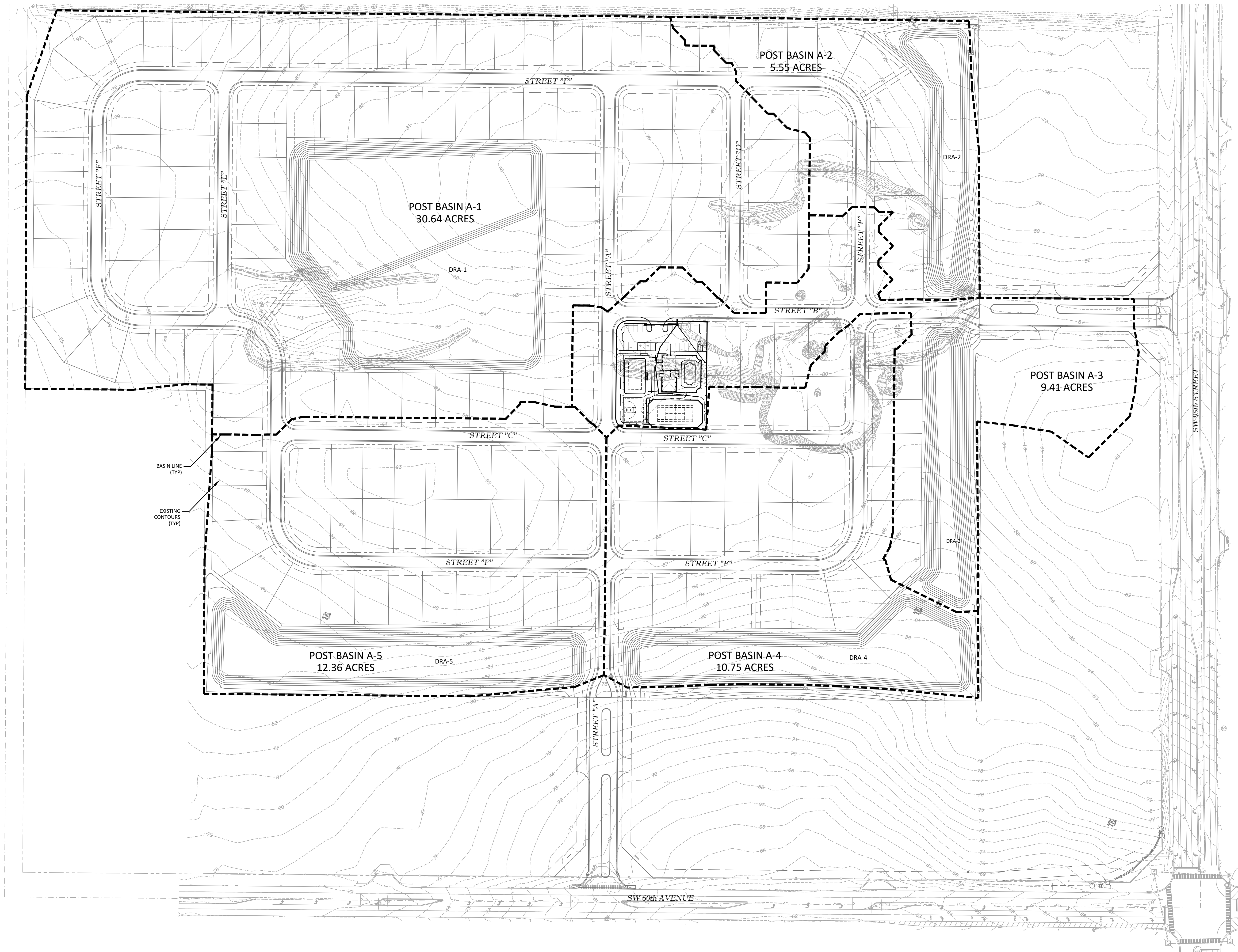


PROPOSED
SAND
SECTION



PROPOSED
ASPHALT
SECTION

NOTE:
CONTRACTOR SHALL CONFIRM ALL
FENCES STYLES AND COLORS PRIOR
TO CONSTRUCTION.



GRADING LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED STORM PIPE
	PROPOSED STRUCTURE ID

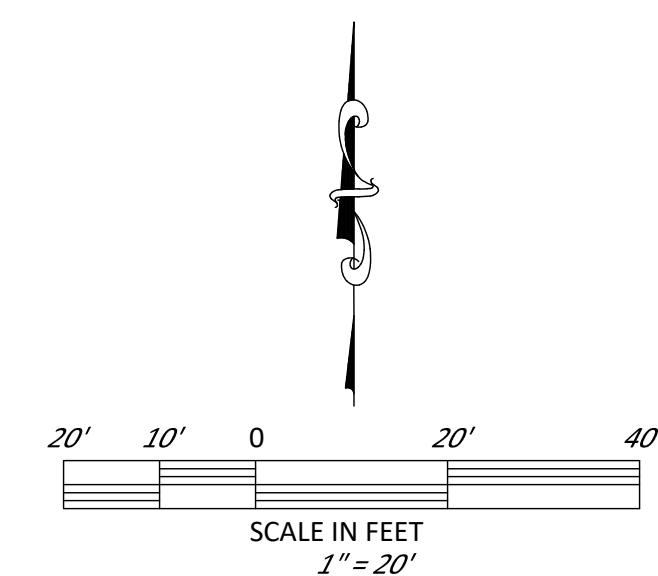
REVISIONS	
DATE	

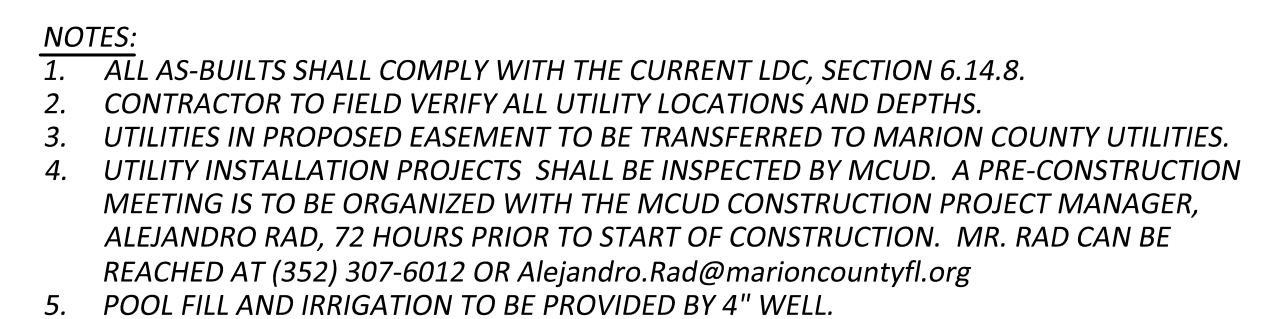
MAJOR SITE PLAN
ARMSTRONG FREEDON CROSSINGS AMENITIES AREA
MARION COUNTY, FLORIDA

MASTER DRAINAGE PLAN

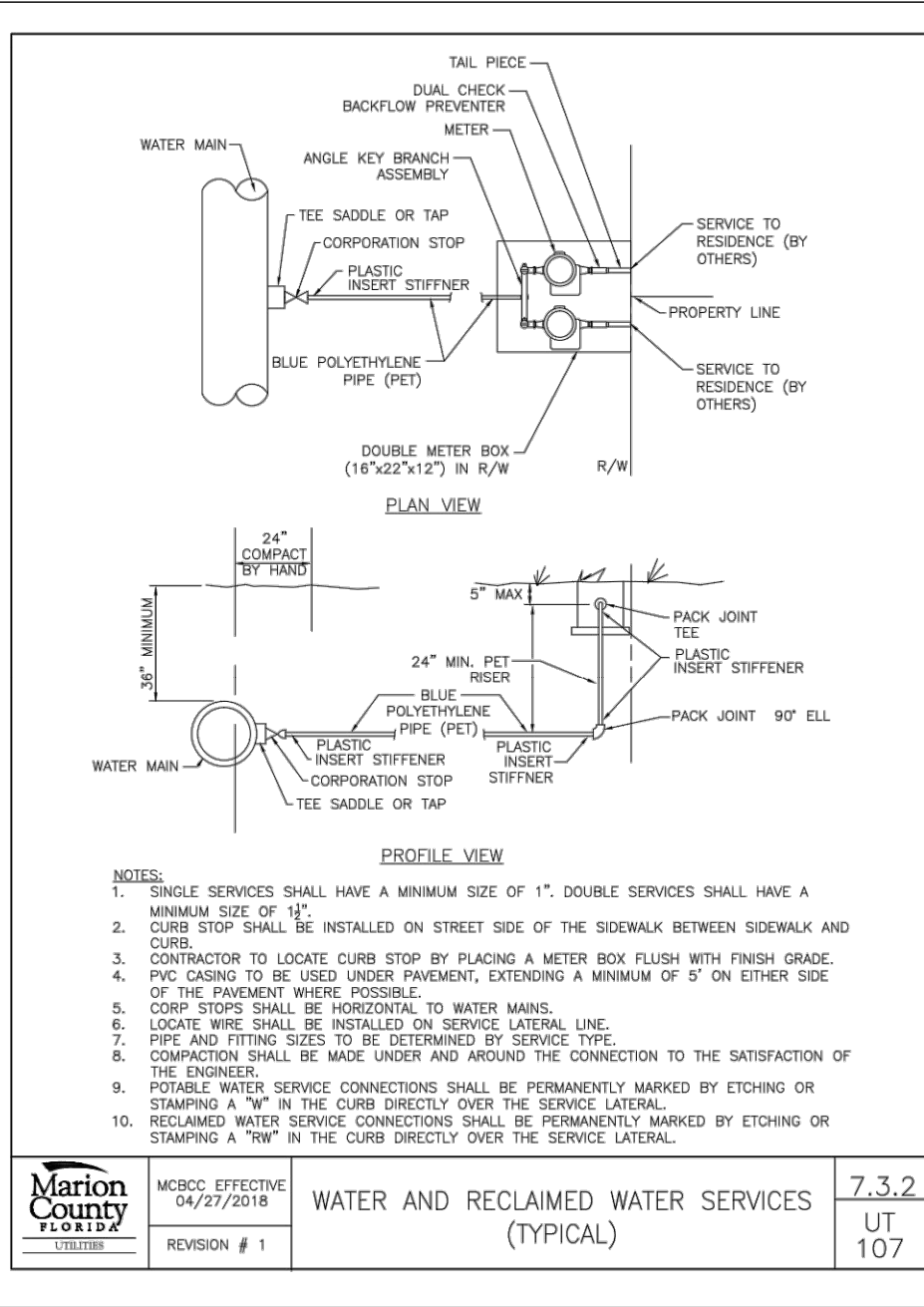
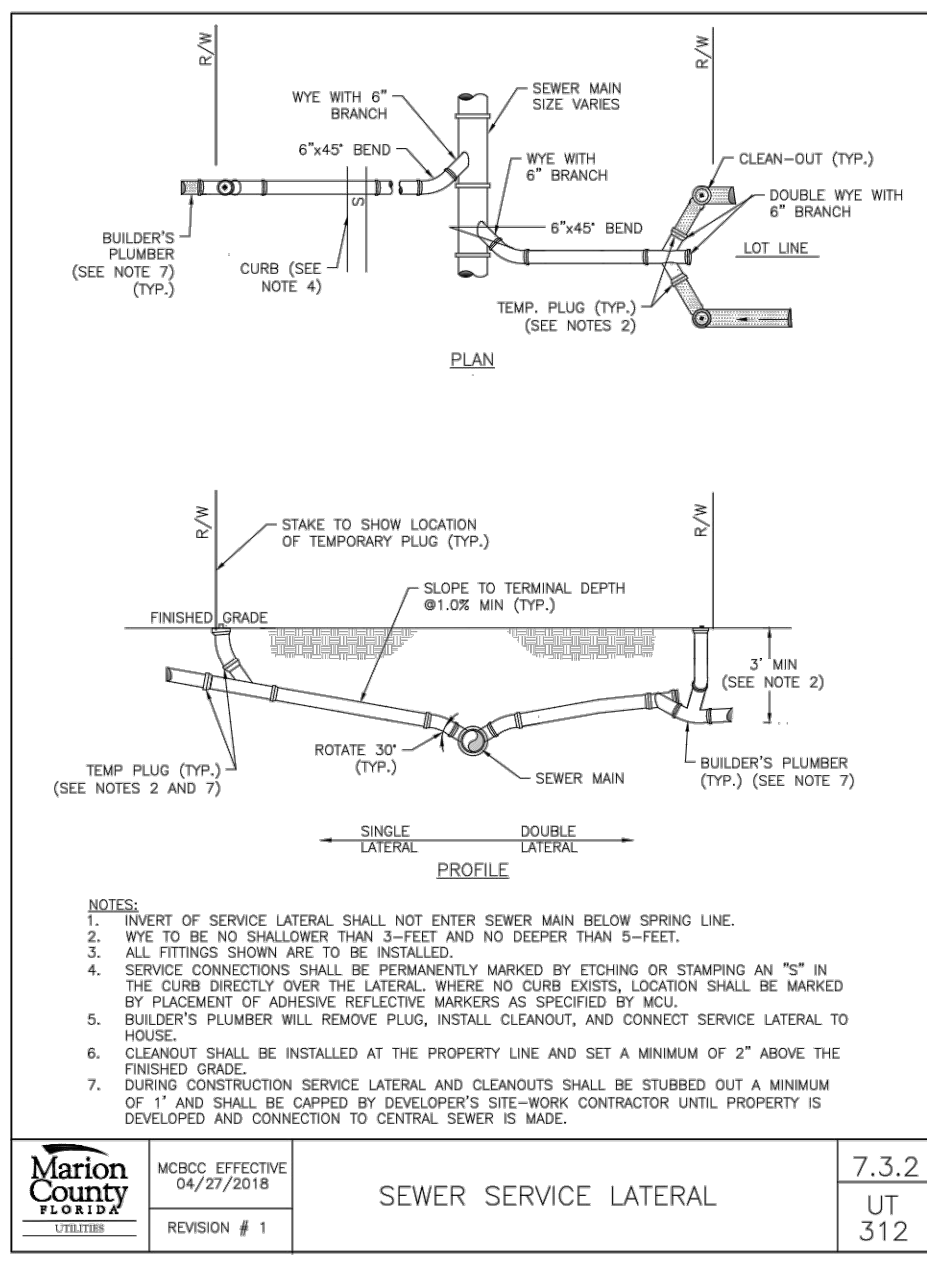
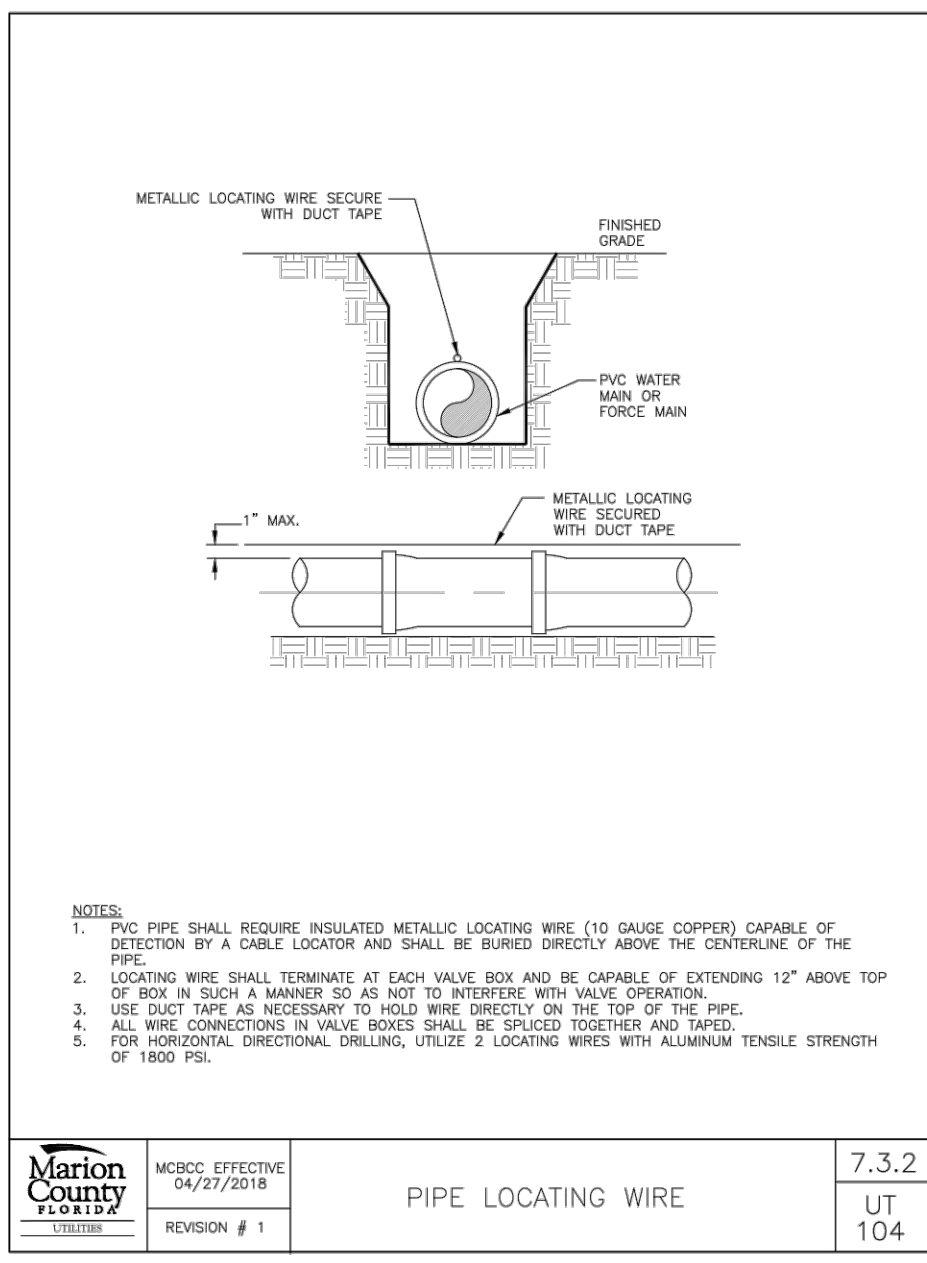
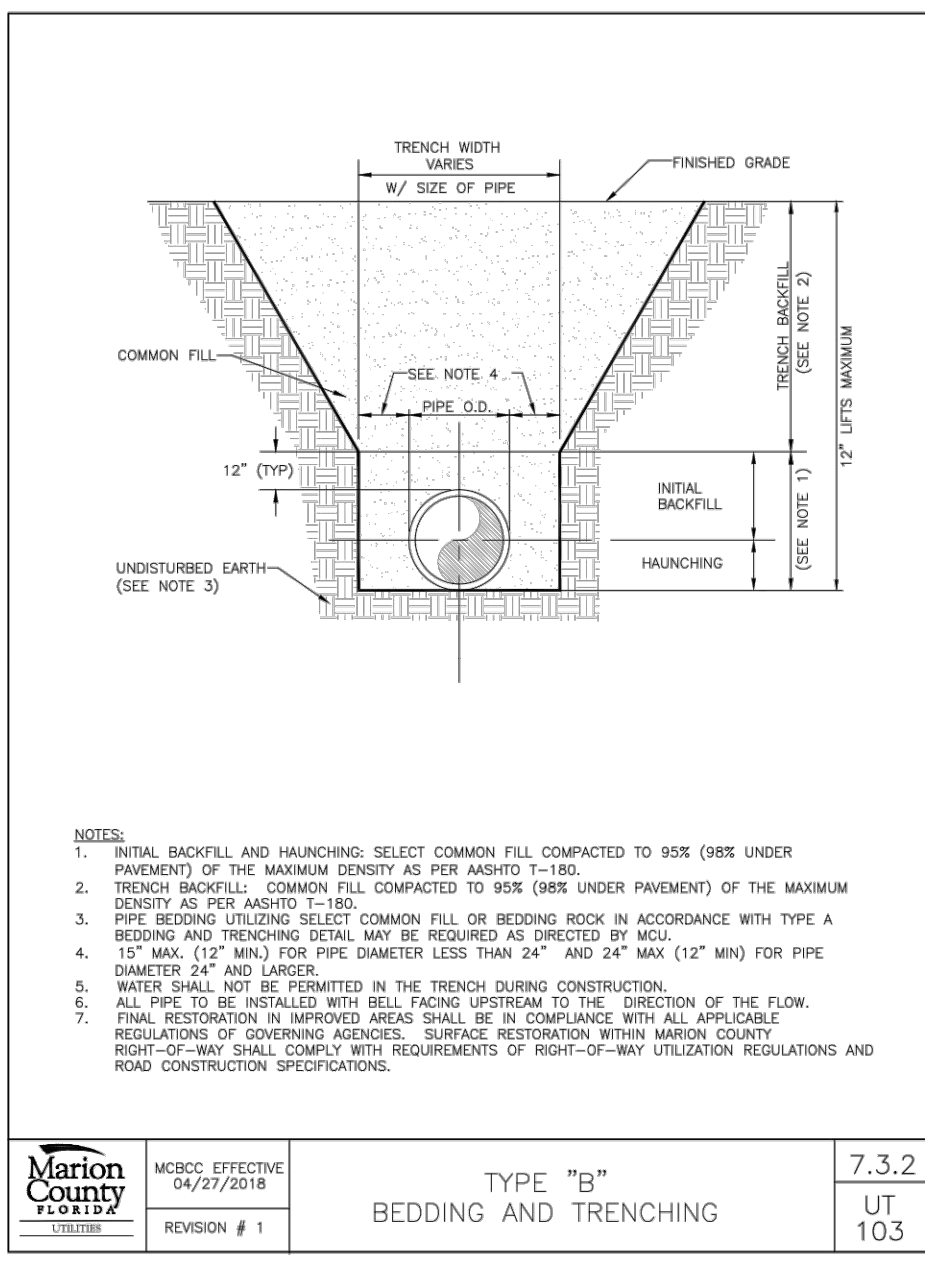
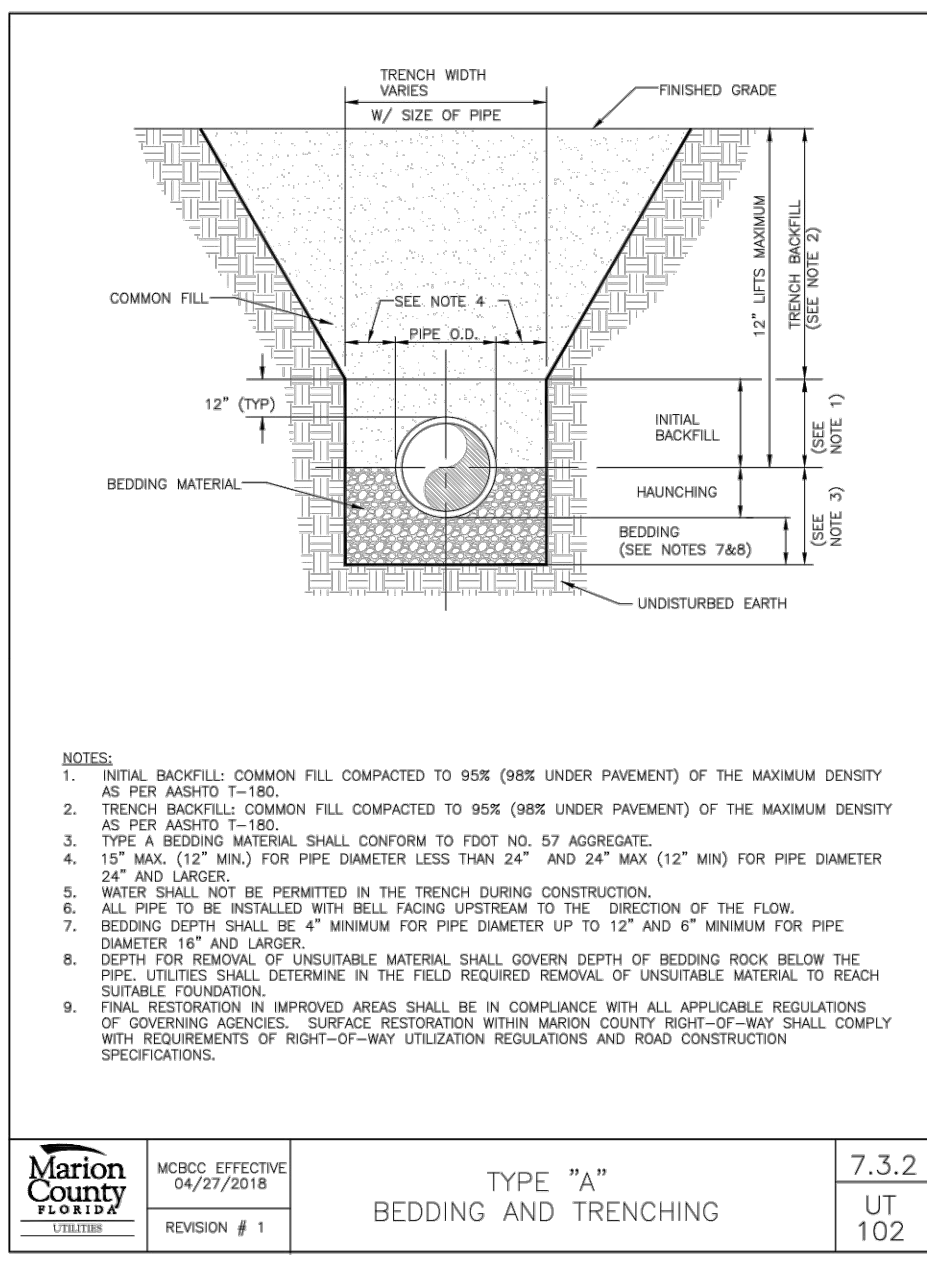
DATE	1/29/21
DRAWN BY	MR
CHKD. BY	TB
JOB NO.	19-5008

SHT. **05.01**





SHT. 07.01



MAJOR SITE PLAN
ARMSTRONG FREEDON CROSSINGS AMENITIES AREA
MARION COUNTY, FLORIDA

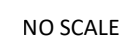
POTABLE WATER AND
SANITARY SEWER DETAILS

DATE 1/29/21
DRAWN BY MR
CHKD. BY TB
JOB NO. 19-5008

SHT. 08.01

REVISIONS

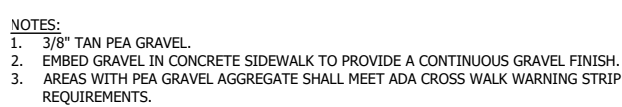
DATE



NOTES:

1. ALIGN SOIL PLATE BOTTOM AT 2/3 OF FOUNDATION DEPTH.
2. SLOT UP TO 1" LONG IS ALLOWED TO ACCOMMODATE VARIOUS POST SIZES.
3. RECTANGULAR SOIL PLATE OF SIZE 1'-2"x1'-0" MAY BE USED AS AN ALTERNATIVE.

"ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE MARION COUNTY LAND DEVELOPMENT CODE."



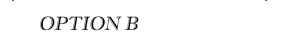
NOTES

- NOTES:**
1. 3/8" TAN PEA GRAVEL.
 2. EMBED GRAVEL IN CONCRETE SIDEWALK TO PROVIDE A CONTINUOUS GRAVEL FINISH.
 3. AREAS WITH PEA GRAVEL AGGREGATE SHALL MEET ADA CROSS WALK WARNING STRIP REQUIREMENTS.

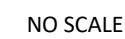


NOTE:

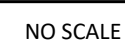
- NOTES:**
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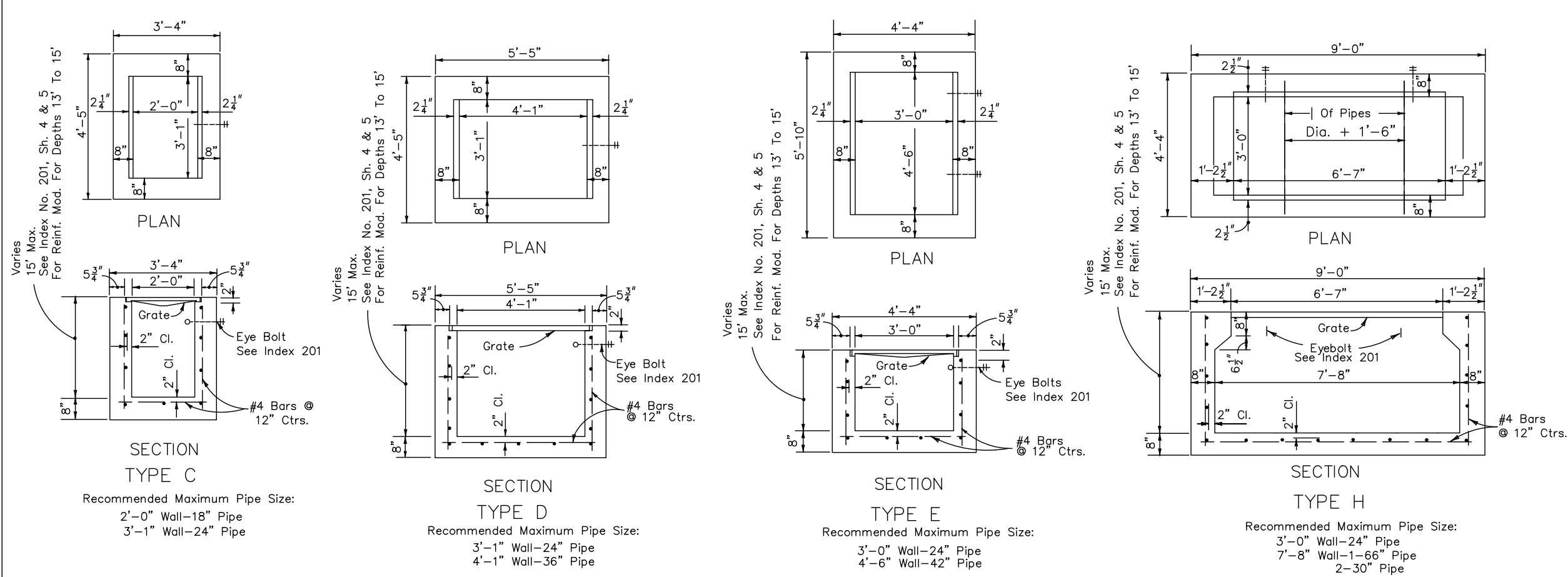


- NOTES:
1. 3/8" TAN PEA GRAVEL.
 2. EMBED GRAVEL IN CONCRETE SIDEWALK TO PROVIDE A CONTINUOUS GRAVEL FINISH.
 3. APPROXIMATE TOTAL VOLUMES FOR EACH MATERIAL ARE LISTED IN THE TABLE.

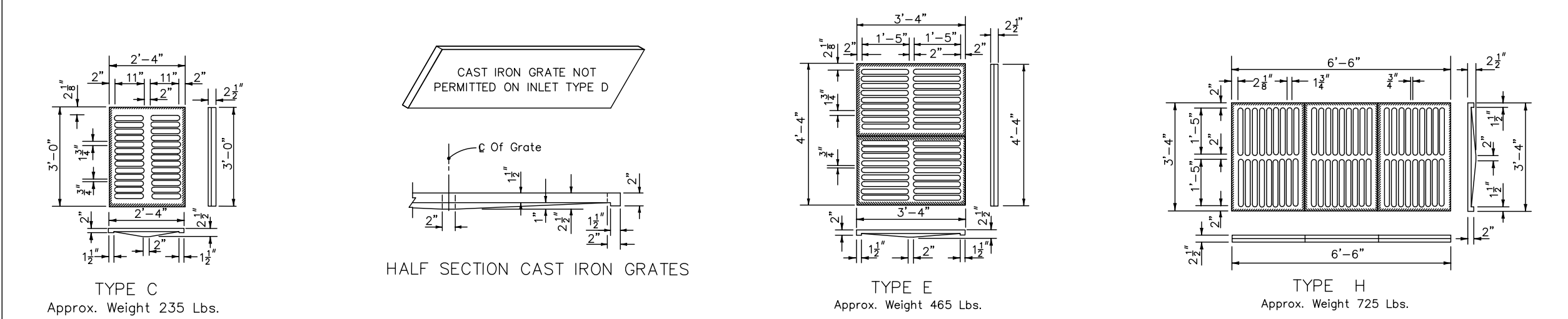


TRANSITION CURB
TYPE D CURB TO DROP CURB

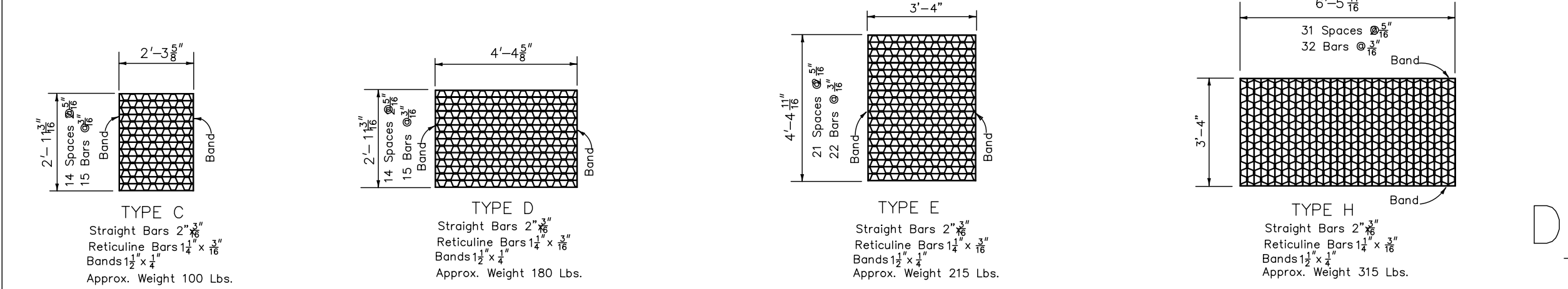




INLETS



CAST IRON GRATES



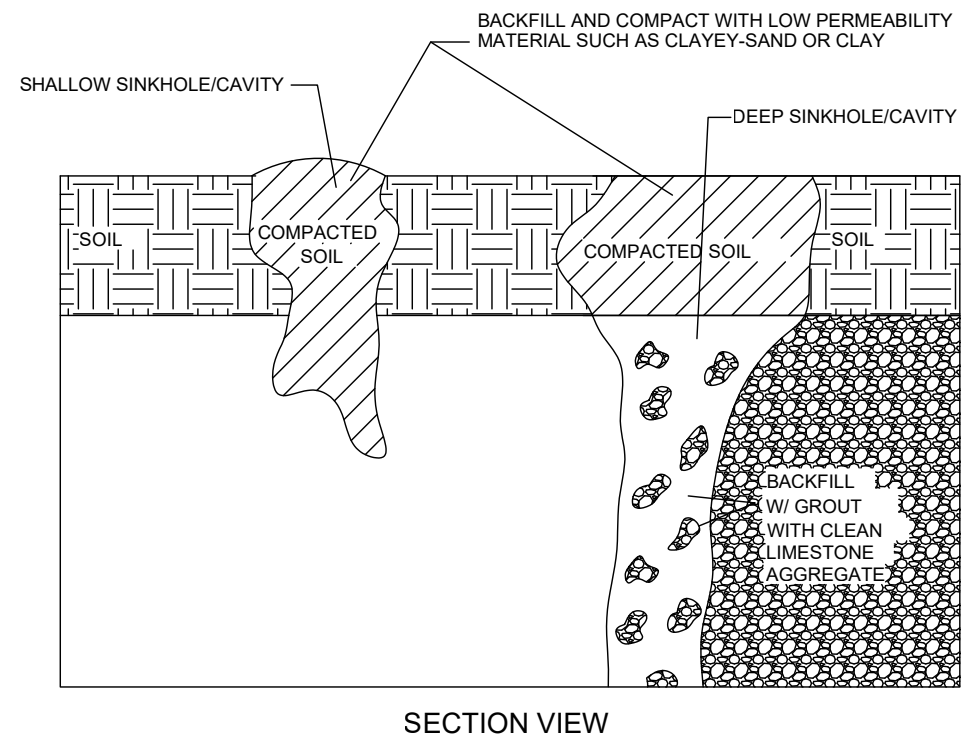
NOTICE: Steel Grates Are Required On Inlets With Traversable Slots And On Inlets where Bicycle Traffic Is Anticipated.

STEEL GRATES

- GENERAL NOTES**
- These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas subject to infrequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
 - Inlets subject to minimal debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Slotted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to inlet Type H. Slots may be constructed at either or both ends as shown on plans.
 - Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
 - Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
 - All exposed corners and edges of concrete are to be chamfered $\frac{1}{2}$ ".
 - Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans; but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
 - Traversable slots constructed in existing inlets shall be paid for as inlets partial, and shall include the cost for slot openings, paving and any required replacement grates.
 - Sodding to be used on all inlets not located in paved areas and paid for under contract unit price for Sodding SY.
 - For supplementary details see Index No. 201.

DITCH BOTTOM INLETS TYPES C, D, E & H

1 of 4 232



NOTES

IN THE EVENT THAT ANY KARST FEATURES SUCH AS SINKHOLES, SOLUTION CAVITIES, CHIMNEYS, ETC. ARE DISCOVERED DURING ROUTINE INSPECTIONS OF THE STORMWATER BASINS, THE FOLLOWING REMEDIATION PROCEDURE SHALL BE PERFORMED

SHALLOW REPAIR (SEE DETAIL):
IF THE COLLAPSE IS SHALLOW (<4' DEEP) AND THE VOIDS IN THE LIMESTONE ARE SMALL, THEN THE SINKHOLE CAN BE REPAIRED BY BACKFILLING WITH A LOWER-PERMEABILITY MATERIAL, SUCH AS CLAYEY-SAND OR CLAY. THE MATERIAL SHOULD BE COMPACTED AND THE REPAIR SHALL BE SLIGHTLY ABOVE THE ORIGINAL BOTTOM IN ORDER TO CREATE A SMALL MOUND TO ACCOUNT FOR SETTLING

DEEP REPAIR (SEE DETAIL):
IF THE COLLAPSE IS DEEP, THEN THE REPAIR SHALL BE MORE PERMANENT. THE COLLAPSE SHALL BE EXCAVATED TO THE LIMESTONE BEDROCK (THE VOID(S) IN THE BEDROCK SHALL BE PLUGGED WITH CLEAN GROUT. A LOW PERMEABILITY MATERIAL SHALL BE PLACED OVER THE CONCRETE PLUG. THE MATERIAL SHALL BE COMPACTED AND BROUGHT TO EXISTING BASIN BOTTOM.

NOTIFICATION:
THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) SHALL BE NOTIFIED OF ANY SINKHOLE DEVELOPMENT WITHIN 48 HOURS OF DISCOVERY AND THE PROPOSED METHOD BY WHICH THE SINKHOLE WILL BE REPAIRED SHALL BE SUBMITTED TO THE SJRWMD FOR APPROVAL WITHIN 30 DAYS. THE SJRWMD WILL THEN NOTIFY THE RESPONSIBLE PARTY AS TO THE ACCEPTANCE, DENIAL OR NEED FOR MODIFICATION OF THE REPAIR METHOD.

SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL

N.T.S

SINGLE AND MULTIPLE ROUND CONCRETE PIPE

DIMENSIONS & QUANTITIES																							
D	X	A	B	C	E	F	G	M				N	GRATE SIZES		CONCRETE				(Cu. Yds.)	SODDING (Sq. Yds.)			
								Single Pipe	Double Pipe	Triple Pipe	Quad Pipe		Standard Weight Pipe	Extra Strong Pipe	Single Pipe	Double Pipe	Triple Pipe	Quad Pipe		Single Pipe	Double Pipe	Triple Pipe	Quad Pipe
15"	2'-7"	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.63'	7.21'	9.79'	12.37'	1.19'				0.76	1.16	1.54	1.94	8	10	11	12
18"	2'-10"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.92'	7.75'	10.58'	13.42'	1.21'				0.85	1.28	1.71	2.17	9	10	12	13
24"	3'-4"	2.53'	7.61'	9.71'	7.03'	11'	1.73'	5.50'	8.92'	12.33'	15.75'	1.23'				1.02	1.58	2.15	2.75	10	12	13	15
30"	4'-3"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	6.08'	10.33'	14.58'	18.83'	1.29'	2 1/2"	3"		1.23	1.98	2.74	3.50	12	14	15	17
36"	5'-1"	2.87'	11.30'	14.18'	11.03'	15'	2.24'	6.67'	11.75'	16.83'	21.92'	1.33'	2 1/2"	3"		1.40	2.38	3.33	4.24	13	15	17	20
42"	6'-0"	3.05'	13.37'	16.62'	13.03'	17'	2.45'	7.25'	13.25'	19.25'	25.25'	1.38'	2 1/2"	3"		1.60	2.83	4.04	5.26	14	17	19	22
48"	6'-9"	3.22'	15.43'	18.65'	15.03'	19'	2.65'	7.83'	14.58'	21.33'	28.08'	1.42'	2 1/2"	3"		1.81	3.26	4.70	6.14	15	18	21	24
54"	7'-8"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	8.42'	16.08'	23.75'	31.42'	1.46'	3"	4"		2.03	3.78	5.54	7.28	17	20	23	27
60"	8'-6"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	9.00'	17.50'	26.00'	34.50'	1.50'	3"	4"		2.28	4.36	6.43	8.50	18	22	25	29

Δ 6.42"

○ 10.40"

Δ 6.25"

○ 10.10"

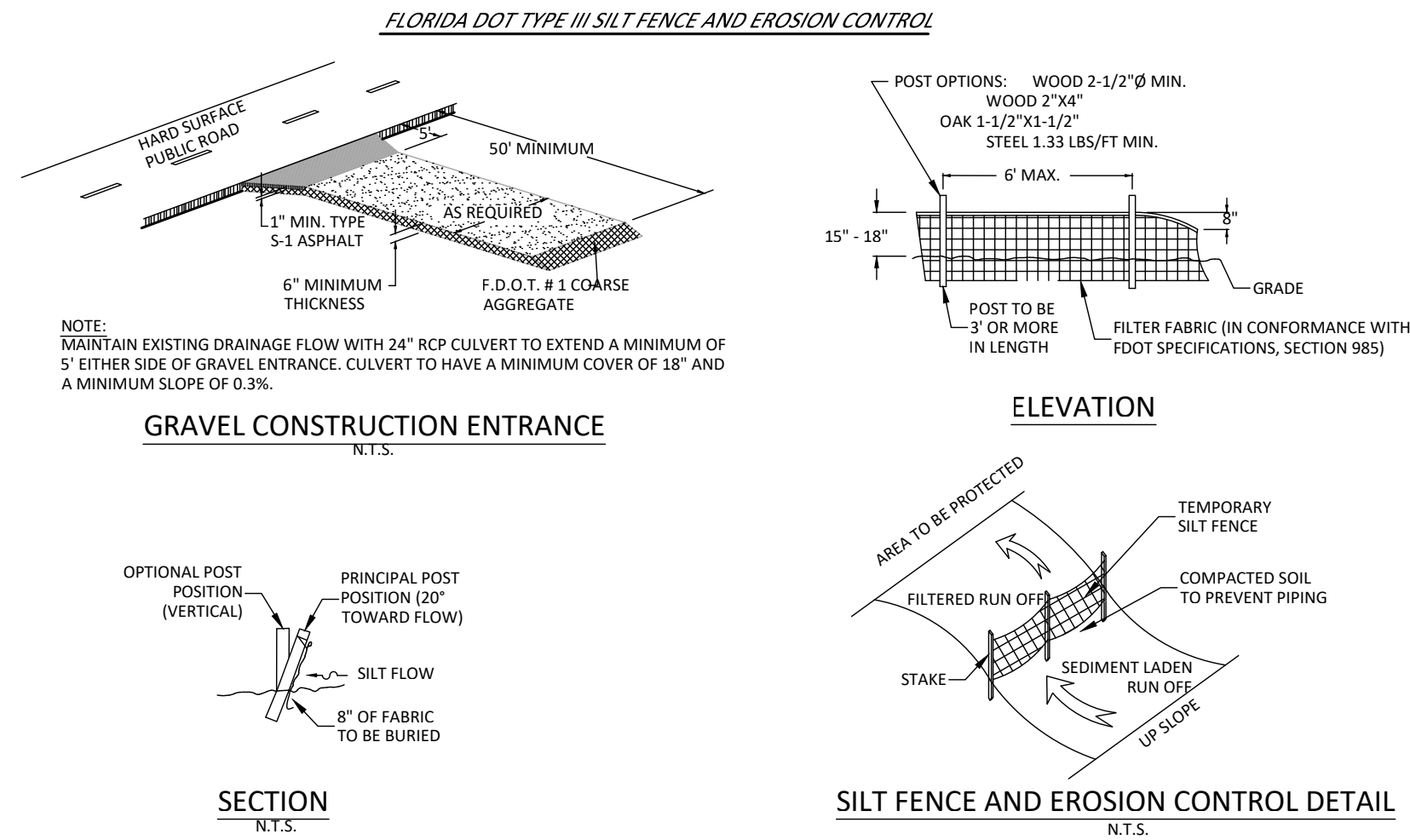
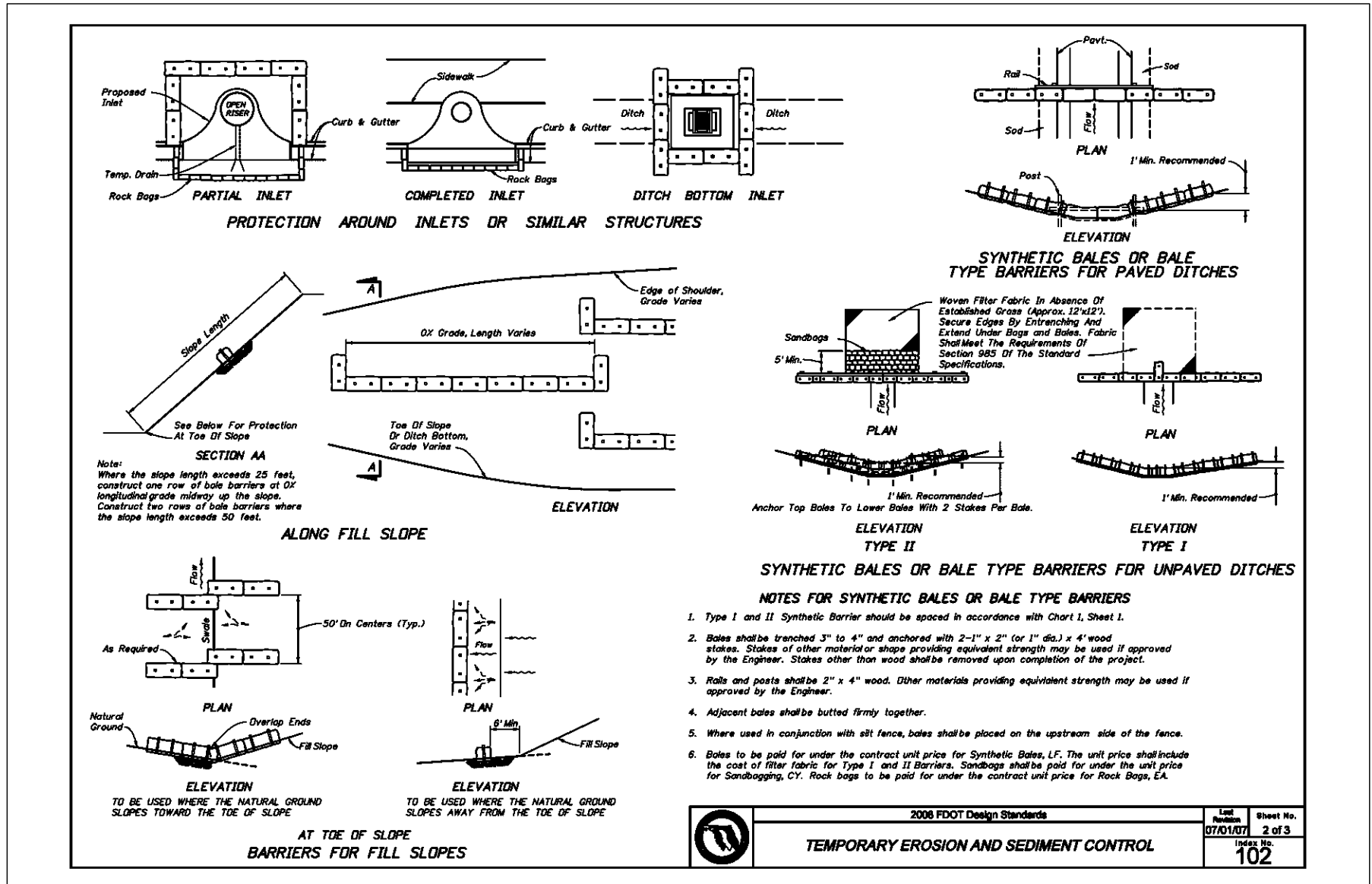
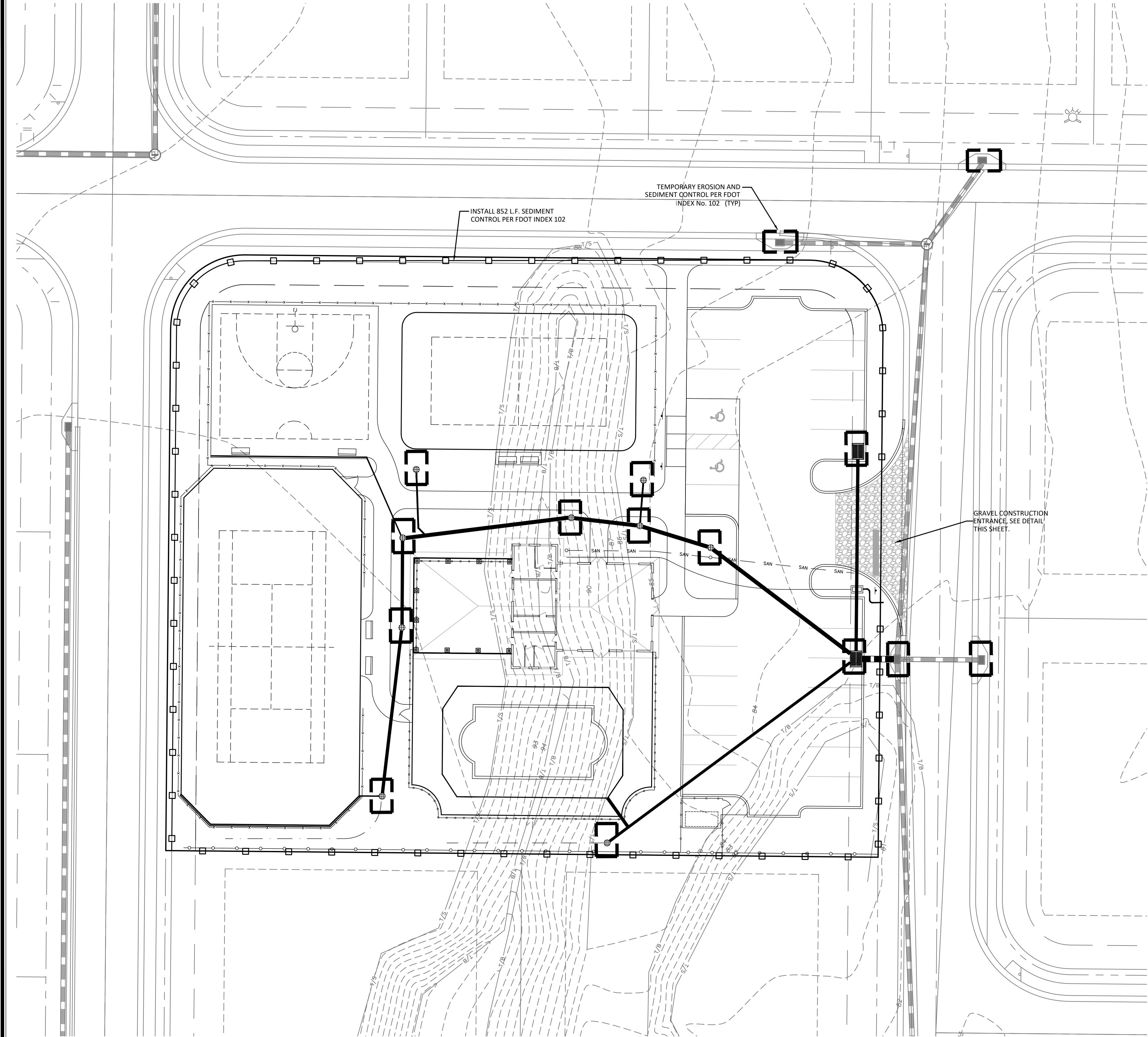
Dimensions permitted to allow use of 8' standard pipe lengths.

Dimensions permitted to allow use of 12' standard pipe lengths.

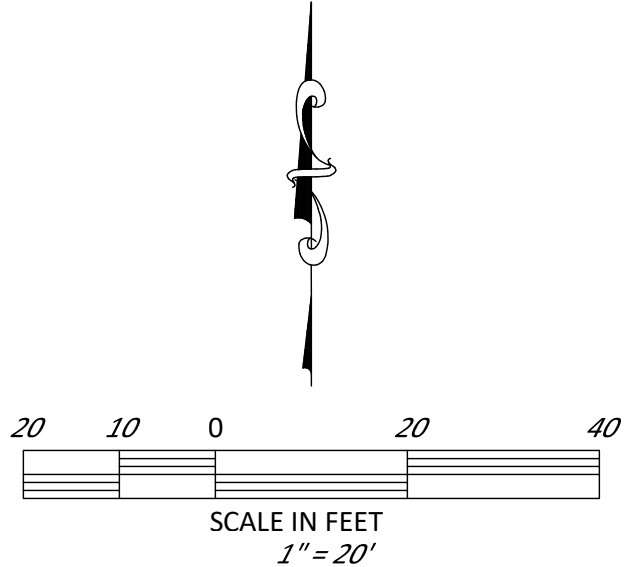
Δ Concrete slab shall be deepened to form bridge across crown of pipe. See section below.

△ 6.42' Dimensions permitted to allow use of 8' standard pipe lengths.
 ◇ 10.40' Dimensions permitted to allow use of 12' standard pipe lengths.
 △ ◇ Concrete slab shall be deepened to form bridge across crown of pipe. See section below.

DIMENSIONS & QUANTITIES																							
RISE R	SPAN S	X	A	B	C	E	F	G	M				N	GRATE SIZES		CONCRETE (CU.YDS)				SODDING (SQ.YDS.)			
									SINGLE PIPE	DOUBLE PIPE	TRIPLE PIPE	QUAD. PIPE		STANDARD WEIGHT PIPE	EXTRA STRONG PIPE	SINGLE PIPE	DOUBLE PIPE	TRIPLE PIPE	QUAD. PIPE	SINGLE PIPE	DOUBLE PIPE	TRIPLE PIPE	QUAD. PIPE
12"	18"	2'-10"	2.36'	3.06'	5.42'	3.03'	5'	1.50'	4.92'	7.75'	10.58'	13.42'	1.21'			0.30	0.45	0.61	0.76	9	11	12	14
14"	23"	3'-4"	2.44'	3.75'	6.19'	3.70'	6'	1.90'	5.38'	8.71'	12.04'	15.38'	1.23'			0.36	0.56	0.76	0.95	9	12	14	16
19"	30"	4'-0"	2.62'	5.47'	8.09'	5.36'	8'	2.37'	6.04'	10.04'	14.04'	18.04'	1.27'	2 1/2"	3"	0.51	0.79	1.08	1.36	11	13	16	19
24"	38"	5'-0"	2.79'	7.18'	9.97'	7.03'	10'	2.85'	6.79'	11.79'	16.79'	21.79'	1.31'	2 1/2"	3"	0.68	1.10	1.53	1.96	12	15	19	22
29"	45"	5'-11"	3.05'	8.90'	11.95'	8.70'	12'	3.19'	7.50'	13.42'	19.33'	25.25'	1.38'	2 1/2"	3 1/2"	0.96	1.45	2.04	2.63	13	17	21	25
34"	53"	7'-0"	3.22'	10.62'	13.84'	10.36'	13'	3.57'	8.25'	15.25'	22.25'	29.25'	1.42'	3"	3 1/2"	1.02	1.81	2.60	3.39	15	19	24	29
38"	60"	7'-10"	3.39'	11.99'	15.38'	11.70'	15'	3.95'	8.92'	16.75'	24.58'	32.42'	1.46'	3"	4"	1.18	2.14	3.10	4.05	16	21	26	31
43"	68"	8'-11"	3.56'	13.71'	17.27'	13.36'	17'	4.28'	9.57'	18.58'	27.50'	36.42'	1.50'	3"	4"	1.38	2.58	3.79	4.99	17	23	29	35
48"	76"	9'-11"	3.73'	15.43'	19.16'	15.03'	19'	4.59'	10.42'	20.33'	30.25'	40.17'	1.54'	SPECIAL	SPECIAL	1.59	3.05	4.51	5.97	18	25	32	38
53"	83"	10'-8"	3.91'	17.15'	21.06'	16.70'	20'	4.77'	11.08'	21.75'	32.42'	43.08'	1.58'	SPECIAL	SPECIAL	1.80	3.50	5.19	6.88	20	27	34	41
58"	91"	11'-8"	4.08'	18.87'	22.95'	18.36'	22'	5.01'	11.83'	23.50'	35.17'	46.83'	1.63'	SPECIAL	SPECIAL	2.04	4.04	6.05	8.05	21	29	37	44



- NOTES:
1. THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.
 2. TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE OWNER.
 3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.
 4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENT IN LIEU OF PERMANENT MEASURES.
 5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.
 6. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
 7. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
 8. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.
 9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
 10. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).
 11. ALL INLETS TO BE PROTECTED BY DETAILS AS OUTLINED IN F.D.O.T. 2008 INDEX NO. 102.



MAJOR SITE PLAN
ARMSTRONG FREEDOM CROSSINGS AMENITIES AREA
MARION COUNTY, FLORIDA

DATE 1/29/21
DRAWN BY MR
CHKD. BY TB
JOB NO. 19-5008

SHT. 11.01

REVISIONS

DATE

EROSION CONTROL

Tillman & Associates
ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545
CERTIFICATE OF AUTHORIZATION #26756

PER TITLE COMMITMENT NO. 2076-4035364, ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, FOR GRAY, ACKERMAN AND HAINES, P.A., ISSUING OFFICE FILE NO. 18-2142, BEARING A COMMITMENT DATE OF JUNE 13, 2018.

A PORTION OF THE N.W. 1/4 OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 21 EAST, MARION COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PLAT MAP

SCALE: 1" = 3000'

SUBJECT PROPERTY

STREETS:
 S.W. 60TH AVENUE
 S.W. 62ND AVE. RD
 S.W. 49TH AVENUE
 S.W. 95TH STREET ROAD
 S.W. 100TH STREET
 S.W. 103RD STREET ROAD

LANDMARKS AND UTILITIES:
 STATE ROAD 200
 S.W. COLLEGE ROAD
 LOWE'S
 FREEDOM PUBLIC LIBRARY
 LIBERTY MIDDLE SCHOOL
 HAMMITT BOWEN JR. ELEMENTARY SCHOOL
 INTERSTATE NO. 75

SECTIONS:
 SECTION 16
 SECTION 21
 SECTION 22
 SECTION 28

A PORTION OF THE N.W. 1/4 OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 21 EAST, MARION COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

1. CHRIS ARMSTRONG
2. GRAY, ACKERMAN AND HAINES, P.A.
3. FIRST AMERICAN TITLE INSURANCE COMPANY
4. GILLIGAN, GOODING, FRANJOLA & BATSEL, P.A.

POINT	NORTHING	EASTING	SCALE FACTOR
COED 0013	1735050.441	588972.398	0.999946351
A	1729367.9033	586404.3887	0.999946754
B	1729362.2985	587478.0946	0.999946583
C	1729762.3335	587481.9145	0.999946583
D	1729758.1913	588325.1303	0.999946451
E	1727247.0932	588302.1801	0.999946454

TOGETHER WITH A 20 FOOT LANDSCAPE BUFFER AND UTILITY EASEMENT DESCRIBED AS FOLLOWS:

LEGEND UNLESS OTHERWISE NOTED

- NOTES:**

- SURVEYOR'S CERTIFICATION:**

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

SIGNATURE DATE
RAVIS@RMBARRINEAU.C

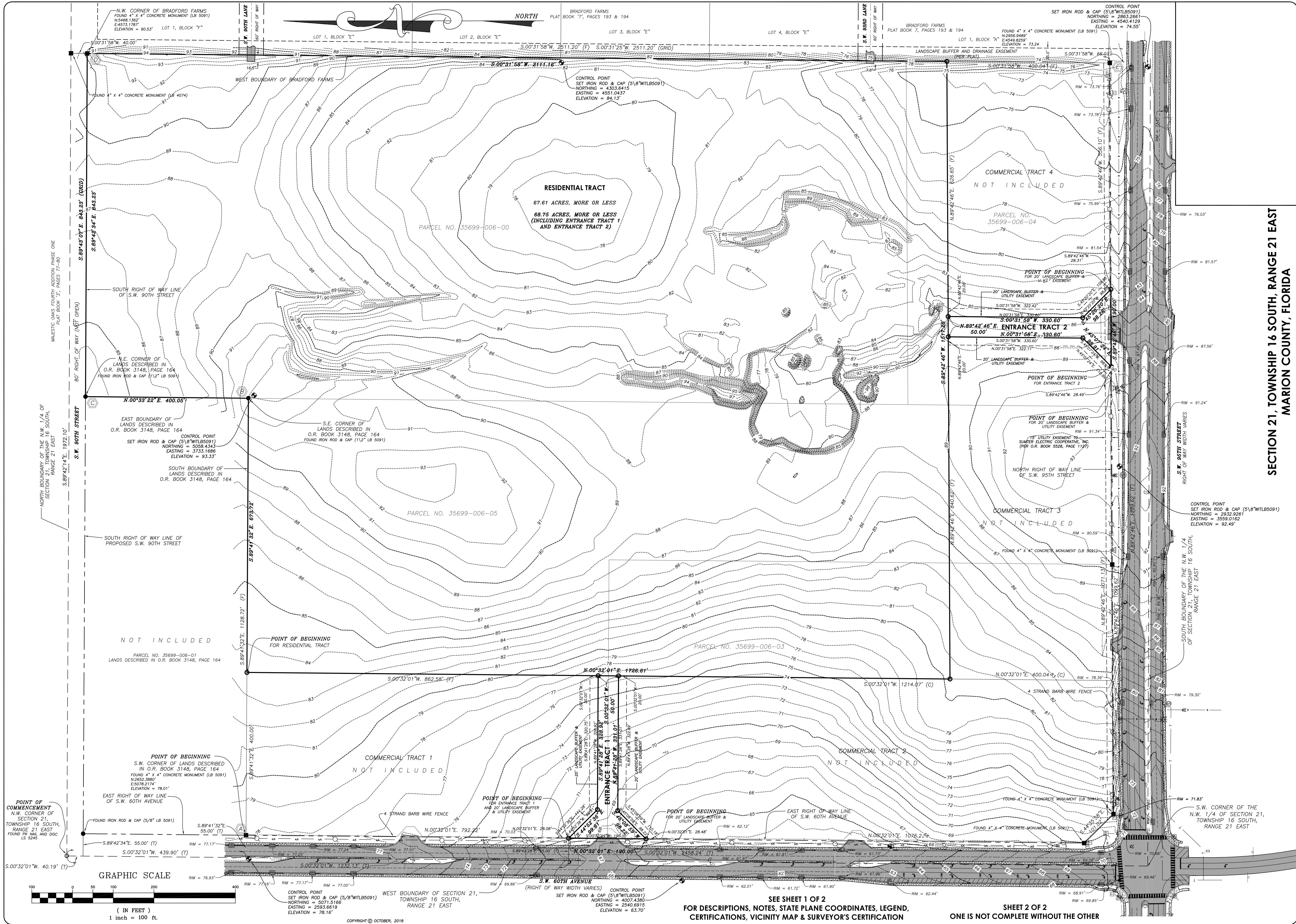
TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

SECONDARY & TOPOGRAPHIC SURVEY FOR: CHRIS ARMSTRONG

REFERENCES:
X-REF: 0552.

DWG.# 18179 TOPO
SHT 1 OF 3

FILE: 21-16-21



NO.	1	TPB	10/22/18	DATE
REVISIONS				
ADD TOPOGRAPHY				

NO.	1	TPB	10/22/18	DATE
REVISIONS				
ADD TOPOGRAPHY				

R.M. BARRINEAU
AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
FLORIDA 34471
PHONE (352) 682-2133 • FAX (352) 388-3771 • www.rmbarneau.com
BARRINEAU BARRINEAU P.S.M. - LICENSED - CERTIFICATE OF AUTHORIZATION LB 5091
TRANS F. BARRINEAU P.S.M. - LICENSED - KELLE BOWEN S.L.T.

**BOUNDARY & TOPOGRAPHIC
SURVEY FOR:
CHRIS ARMSTRONG**

REFERENCES:	J.O.# 18179
X-REF: 05524	DWG.# 18179 TOPO
F.B. 599, PGS 61-70	SHT 2 OF 2