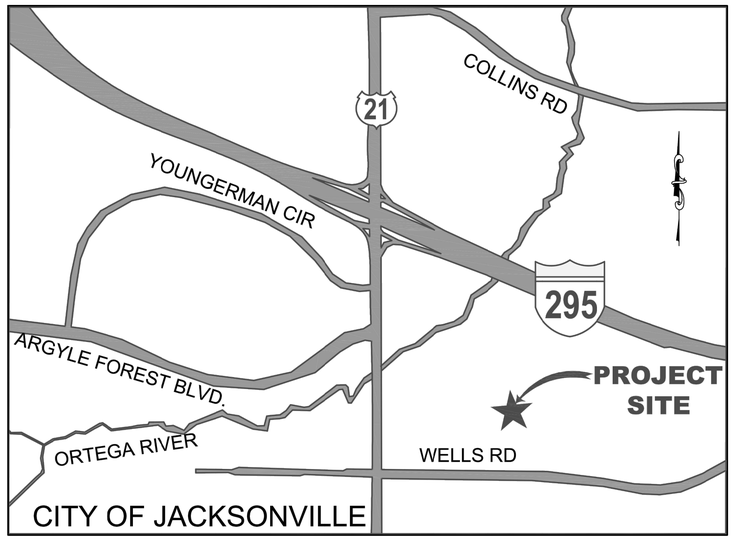
ORANGE PARK MALL
AMPHITHEATER
1910 WELLS ROAD
ORANGE PARK, FLORIDA 32073



Sheet Index

No	Revisions	By
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AVA ENGINEERS, INC.
Commercial | Residential | Marine
Florida Certificate No. 00008161
4201 BAYMEADOWS RD. SUITE 3 | JACKSONVILLE, FLORIDA 32217
Ph. (904) 730-3223 | Fx. (904) 730-3226
Henry A. Varga Jr. No. 49043

ORANGE PARK MALL AMPHITHEATER

COVER SHEET

FLORIDA

CLAY COUNTY

Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	N.T.S.
Sheet:	1 of 12

Clay County General Notes (Commercial)

1. Clay County Engineering Division requires twenty-four hours (24-hr) notice on all meetings and or testing procedures.
2. Construction warning signs are to be post mounted and erected before construction can commence. These and all traffic control devices shall follow the standards set forth by the Manual of Uniform Traffic Control Devices (MUTCD) and the Florida Department of Transportation Standard Specifications and Details.
3. All construction projects 1 acre or more in size shall be required to abide by the provisions of the National Pollutant Discharge Elimination (NPDES) permit. The owner or contractor is responsible for preparing the Stormwater Pollution Prevention Plan (SWPPP) and submitting the NPDES ?Notice of Intent ? (NOI) and ?Notice of Termination ? (NOT) to the EPA or local state agency having jurisdiction over the NPDES program. The contactor shall keep onsite copies of the SWPPP, NOI, and water management district permits.
4. It is the responsibility of the contractor to recognize and abide by all OSHA safety standards.
5. All disturbed Clay County Rights-of-Way shall be sodded to the discretion and approval of the Clay County Engineering Division.
6. The contractor shall verify all utility locations prior to excavation and take all measures necessary to protect utilities during construction. Should any utility line or component become damaged or require relocation the contractor shall immediately notify the responsible utility company, the engineer, and the county.

CALL BEFORE YOU DIG 800-432-4770 & 904-269-6359

Call 800-432-4770 two full business days before digging. Call 10 days before digging when digging under water.

Call 904-269-6359 (Clay County Signal & Maintenance Division) two full business days before digging

Wait the required time for buried utilities to be located and marked.

Protect the marks during your project. If marks are destroyed, call again.

Dig safely, using extreme caution when digging within 24 inches on either side of the marks to avoid hitting the buried utility lines.

Before working in existing county rights-of-way, the contractor shall be required to obtain a right-of-way permit. The permit can be obtained at the Clay County Engineering Division, 477 Houston Street, 3rd Floor, Green Cove Springs, Florida.All swale sections and ponds are to be sodded within 15 days of their final grading.

7. Any offsite swales or ditches impacted by the development, the contactor shall re-grade and restore, to obtain positive drainage.
8. A copy of the contractors' general license and the under ground utility license shall be provided at the time of the pre-construction conference.
9. Any applicable Saint Johns River Water Management District (SJRWMD), FDEP (Generic Permit for Stormwater Discharge from Large and Small Construction Activities, Army Corp of Engineers, and a Florida Department of Transportation (FDOT) permits shall be provided to the county by the pre-construction conference. No work shall begin without all applicable permits on file.
10. The contractor must obtain approval from the Saint Johns River Water Management District (SJRWMD) before the county will accept the project.
11. All storm pipes shall be videoed prior to a final inspection and all data shall be recorded in High quality DVD format with sound or any equipment approved by the Engineering Division (Ref. FDOT SSRBC latest edition).
12. There shall be a minimum five (5) days notice given for scheduling the final inspection.
13. At the final inspection a letter of compliance will need to be filled out and signed by the State of Florida Registered Professional Engineer of record for the project. The letter shall state that the project has been built in accordance of the approved design plans and other agency permits.
14. All soil and debris tracked out of the project shall be cleaned in accordance with the approved SWPPP or at the discretion of the Clay County Engineering Division.
15. Prior to any inspection or testing, all pipe line, structures, roadway, etc. shall be cleaned.

Erosion Control

16. Pursuant to Comprehensive Plan Policy 9:1 of the conservation element, the use of one or more erosion control measures, as requested by the Clay County Engineering Division, shall be used during construction. These will be, but not limited to, items such as temporary grass cover, sediment basins or ponds, mulching, temporary fences, diversion channels, and hay bales.
17. Pursuant to Comprehensive Plan Policy 9:1 of the conservation element, scheduling of construction shall be given special consideration to minimize exposure of bare soil. The contractor will formulate a construction schedule to be given to the county representative.
18. The governing publications for erosion control are current FDOT Roadway and Traffic Design Standards, Index 100-105, current FDOT STD. Spec. for Roadway & Bridge Const., Section 104, and the NPDES Stormwater and Erosion Control Manual latest edition.
19. The contractor shall check each day to insure that all erosion control devices are in place and working properly
20. All erosion control measures shall be in compliance with the rules, regulations and standards of the Saint Johns River Water Management District, The Florida Department of Environmental Protection, and The United States Army Corp of Engineers and Clay County Regulations and Ordinances.
21. The contractor shall take whatever means necessary to prevent the erosion of soil and deposition of sediment on adjacent and downstream properties
22. All erosion control measures shall be installed prior to commencement of construction. Sediment control consists of silt fencing, hay bales, and floating turbidity barriers per FDOT Index No. 102 &103. Erosion control consists of seeding and mulching, sodding, wetting surfaces, placement of coarse aggregate, temporary paving.
23. The contactor shall respond to erosion and sediment control maintenance with 24-hours of being informed by Clay County, unless the situation requires an immediate response. The contractor will then respond immediately after notification by the county. The contactors erosion control inspector shall be a qualified stormwater management inspector by the Florida Department of Environmental Protection
24. The contractor shall be required to incorporate permanent erosion control measures at the earliest practical time so as to minimize the need for temporary controls.
25. The erosion and sediment control measures shown on the plans are minimum requirements. The contractor shall be responsible for additional erosion control measures as determined by the county or the contactor to insure quality control.
26. All disturbed areas shall be grassed within 7 days of the initial disturbance. Types of grassing shall be as follows: Sodding is required for around all drainage structures, retention/detention areas, swales, ditches, and where 4:1 slopes are exceeded. Seed and mulch may be used at all other locations unless specifically called out for on these drawings. There shall be a standing row of grass at the time of final acceptance. If seed and mulch has been used and has not taken to, sod will be required for established grass
27. The contractor shall inspect and report erosion and sediment control methods every week and after ½ inch of rain during construction. The contractor shall remove any sediment build up, repair or reinstall any control measures.
28. The county requires background testing of local waterways and additional periodic testing during construction for water quality and conformity with Clay County Standards.

Drainage Structures & Pipe Installation

29. The governing publications for pipe are the current FDOT Roadway and Traffic Design Standards, Index 205 and the current FDOT STD. Spec. for Roadway & Bridge Const. Section 430.
30. The governing publications for Inlets, Junction Boxes and Manholes are the current FDOT Roadway and Traffic Design Standards, Index 201, 209, 215 and the current FDOT STD. Spec. for Roadway & Bridge Const. Section 425.
31. All joints of pipe regardless of material type shall be wrapped with fabric filter cloth per Florida Department of Transportation index number 199, type D-3, A.O.S. 70-100. The fabric shall be installed in accordance with FDOT index number 280. The contractor will provide a minimum 12 overlap in the fabric.
32. All storm sewer pipes are to be steel reinforced concrete pipe (SRCP) unless otherwise noted on these drawings. Round concrete pipe shall comply with ASTM C76. Elliptical pipe shall comply with ASTM C507. Pipe joints and O ring gaskets shall comply with ASTM C443.
33. All storm sewer pipes shall be subjected to leakage testing and shall be videoed/ TV prior to the final inspection.
34. All storm sewer pipes shall be cut flush with the interior wall of any type manhole or curb and ditch bottom inlets. .
35. If the approved design requires the inlet or storm run be surcharged, all inlets shall be inspected before being exposed to the system.
36. Mitered End Sections shall meet the requirements under the current FDOT Roadway and Traffic Design Standards, Index 272 & 273.
37. No manhole shall be placed within 2.5' of the curb.
38. No brick adjustment shall be allowed for manholes underneath the pavement.
39. The maximum threshold for manhole adjustment underneath the roadway shall be between 0 to 4
40. Final Pipe Inspection in the Right-of-Way or County's easement: After the final pavement operation, the contractor shall dewater and video the pipe/culvert; the County will only review the video Data post asphalt construction supplied by the contractor/developer, and the tests and DVD must meet section 430 of the latest edition of the FDOT Standard Specifications for Road and Bridge Construction.

Signage & Pavement Markings

41. All signs and pavement markings shall be in accordance with the Manuel of Uniform Traffic Control Devices and the latest implemented addition of the FDOT Roadway and Traffic Design Standards Index numbers 9535, 11860, 11862, 11865, 17302, 17346 and 17349.
42. All final pavement markings within the rights-of-way shall be thermoplastic.
43. All signs shall be on a ten-foot (10') pole a minimum seven feet (7') from the ground.
44. Street signs shall be mounted with tee caps.
45. Street signs shall be a six inches (6) wide with green backings and white letters and bordering.
46. Stop signs shall meet the minimum size requirements of the MUTCD.
47. Stop signs are to be placed four feet (4') from back of curb, four feet (4') behind cross walks and on the right hand side of the road.
48. All regulatory signs shall be black and white. All construction warning signs shall be orange and black. All warning signs shall be yellow and black. All no parking and stop signs shall be red and white.
49. Stop bars shall be twenty-four inches (24) wide and lane width. All stop bars shall be thermoplastic.
50. All signs must meet Florida Department of Transportation (FDOT) standards for engineering grade sign faces in reflectivity.
51. For county maintained roads, street signs shall be colored with a green background and white lettering. For private roads, the sign shall be a white background with green lettering.
52. All pavement markings require layout approval by Clay County.

Sidewalks

53. The governing publications for sidewalk are the current FDOT Roadway and Traffic Design Standards, Index 304-310 and the current FDOT STD. Spec. for Roadway & Bridge Const. Section 522.
54. Sidewalks are a minimum of 5' in width for a local road and 6' in width for a residential collector. All other roadway classifications shall refer to the details herein. In no case shall the sidewalk be less than 5' without written approval from the Engineering Division.
55. All sidewalks that are not in front of a build able lot, shall be installed prior to the final inspection
56. Pedestrian crossing/handicap ramps shall be installed wherever the sidewalk meets the curb. The ramps shall be in accordance with Florida Department of Transportation standard index number 304. All ADA ramps shall be installed prior to final acceptance unless otherwise approved by the Engineering Division.
57. Whether depicted on the plans or not, a sidewalk is to be installed at the subdivision entrance running parallel to the right of way for the extent of the property.
58. Sidewalks are to be placed, at a minimum, 3' from the property line or as otherwise approved by the Engineering Division.

Maintenance of Traffic

59. The governing publications for maintenance of traffic are the current FDOT Roadway and Traffic Design Standards, Index 600 and the current FDO STD. Spec. for Roadway & Bridge Const., Section 102, and the latest edition of the MUTCD.

S-BUILT REQUIREMENTS - P AVING AND DRAINAGE

General

1)Submit Two (2) signed and sealed sets of prints and one digital copy (AutoCAD format; Please do not use Reference files) with the design information (elevations, pipe lengths, stationing, etc.) lined through (~~28.48~~) and the as-built information placed adjacent to it.

NOTE: The firm or licensed surveyor shall use the original paving and drainage sheet(s)) specifically for as-built information. The drawing(s) are to be on 24 sheet(s) and contain the following in addition to the as-built information:

Project name as it appears on the plat
Project/Development number
Street names
All commercial sites shall show the site physical address in the title block
Design information for all as-built information provided lined through
North arrow
Scale
Show and label all survey-lines used for locations

2)The words ?AS-BUILT? in at least one-inch high letters
3)Materials certification statement signed by the contractor
4)Signed engineer's certification statement
5)Information pertaining to benchmark(s) (location, elevation, and reference type)
6)Show STATE PLANE COORDINATE (NAD. 83)

Plats and AS-Builts.

References on at least four (4) boundary corners and on all PRM(s) (One position, to be known as the Northing, shall give the position in a north and south direction; the other, to be known as the Easting, shall give the position in an east and west direction, Ref. F.S Ch. 177.151) for

Benchmarks

Permanent Benchmarks are to be situated as to facilitate lot grading (i.e. top of metal curb hoods, manhole rims, etc.).
At least two (2) permanent benchmarks shall be established within a subdivision or in each phase of a subdivision and located so that no lot is more than one thousand feet (1,000') from a benchmark. PLEASE REFERENCE EACH BENCHMARK BY STATION.

Paving

Stations, offsets, and elevations on:

Center-line or profile grade line
Top of curb
Gutter or edge of pavement (specify which)
Back of sidewalks

a minimum of every 100 feet and at the following changes in vertical and horizontal alignment:

PVC, PC and PVT
Low and high points
Curb returns
Centerline intersections
Begin and end valley gutter
Begin and end superelevation transition
Begin and end full superelevation
Begin and end Roadway transition
Gutter line (Cul-De-Sac every 25')

Drainage

1)Location of all drainage structures. Location should be by station and offset whenever possible, otherwise structures must be tied down from at least two directions.
2)Sizes, lengths, and types of drainage pipes including underdrain.
3)Information for all structures to include:
Pipe invert elevations including underdrain
Top or grate elevations (specify which)
Weir or slot elevations and sizes

4)Cross sections through all swale and ditch construction a minimum of every 25 feet to include elevations and locations of the centerline or toes of slope (specify which) and the tops of bank.
5)Information for retention / detention basins to include:

Elevations and locations along the top of bank a minimum of every 100 feet
Dated elevation of the water stage at the time of as-built
Ties from the top of bank to the waters edge a minimum of every 100 feet
Elevations along the bottom of basin (2 shots per average pond acreage)

6)Information for control structure to include:
Location
Top elevation
Weir or slot elevation and size
Elevation and size of drawdown orifice
Length, size, and inverts (at high and low points) of filter drain
Invert of outfall pipe

7)Show all drainage easements, encroachments within the easements, and any encroachments of drainage outside of easements.

Signage

1) The location of all street signs shall be shown by station and offset whenever possible, otherwise, the signs must be tied down from at least two directions.

ADDITIONAL NOTES

1) All proposed elevations shall be checked for approval; additional elevations may be required to check for positive drainage.
2) All cul-de-sac curbing shall be surveyed every 25'.
3) Submit the blue-line or black-line (the final set must be signed and sealed by a professional land surveyor, licensed by the state of Florida) with the CAD disk five (5) days prior to scheduling the final inspection.
4) Water management approvals are required prior to final acceptance.
5) As-builts shall be signed in, if revisions are required, the company will be notified to pick them up and sign them out. Once revisions have been made, the documents shall be signed back in.
6) The files on the CAD disk should reflect the site without additional editing.

21-002-2.DWG PLOTTED:2021/04/07

GENERAL NOTES:

1. Topographic boundary survey, including property lines, legal description, existing utilities, site topography with spot elevations, outstanding physical features and existing structure locations was provided by L.D. Bradley Land Surveyors - 5773 Normandy Boulevard, Jacksonville, FL 32205.
2. AVA Engineers and its associates will not be held responsible for the accuracy of survey for design errors or omissions resulting from survey inaccuracies.
3. All phases of site work for this project shall meet or exceed the Clay County site work specifications.
4. The general contractor will be held solely responsible for and shall take all precautions necessary to avoid property damage to adjacent properties during the construction phases of this project.
5. Warranty / Disclaimer
   The designs represented in these plans are in accordance with established practices of civil engineering for the design functions. Neither the engineer nor its personnel can or do warrant these designs or plans as constructed except in the specific cases where the engineer inspects and controls the physical construction on a contemporary basis at the site.
6. For boundary, roadway and building geometry information see engineering site plan. It is the Contractor's responsibility to verify that the building dimensions shown on the engineering plan agrees with the dimensions shown on the architectural plan. If any dimensions do not agree, the architect, engineer and owner shall be notified and the dimensions adjusted prior to commencing with construction.
7. All construction within Clay County right-of-way shall be coordinated with the County. The contractor shall notify all utility companies prior to construction for verification and location of all utilities.
8. Contractor shall furnish shop drawings to engineer indicating materials and manner of installation for all components of the project prior to purchase of materials and construction.
9. These engineering drawings may not show all of the Clay County standard details required to complete construction of this project. It is the contractor's responsibility that the construction, outside Clay County right of way be in accordance with all current Clay County Standard Details and Specifications.
10. All contractors shall furnish certified "as-builts" , see As-Built Requirements on this sheet.

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11. Contractor shall verify and protect all existing trees and natural vegetation that are to remain undisturbed. The areas indicated for construction shall be cleared and grubbed to remove all roots and miscellaneous vegetation except specific trees that shall be protected from damage during construction with the use of tree barriers. Trees to be preserved are flagged, contractor shall verify before the start of construction.
12. All work shall be performed in a safe manner. All safety rules and guidelines of OSHA shall be followed. The Contractor shall be solely responsible for any injuries of his employees, and any damage to private property or persons during the course of this project. All costs associated with complying with OSHA regulations and the Florida Trench Safety Act must be included in the Contractors bid.
13. All improvements shown are to be warranted by the Contractor to the Developer for a period of one year from date of acceptance by the Owner. If the work is in the County Right-Of-Way or easement, the Contractor's one year warranty shall extend to the Clay County.
14. The Contractor will contract with an independent testing laboratory to perform material testing and soil testing in accordance with the County requirement and the recommendations outlined in the geotechnical report. This shall include density testing in all pavement areas and building pads and in the utility trenches located in pavement areas, concrete testing and all other material testing. Prior to limerock placement, the project geotechnical engineer shall make recommendations for underdrain placement.
15. The Contractor shall be responsible for obtaining all necessary permits and insurance required for the project, incl. Clay County Right-Of-Way permits for work in the County right-of-way or easement.
16. The Contractor shall coordinate the work within County Right-Of-Way with the proper agencies for maintenance of traffic and method of construction and repair.
17. The Contractor shall provide no less than a 6 inch clearance between all utilities other than water mains, which shall be to County Health Department permit conditions.
18. These plans do not stand by themselves. Bid documents, JEA water and sewer standards details & materials, Clay County standard specifications & details and any other standards, listed or references, are included in the project documents.
19. The contractor shall notify the Clay County a minimum of 48 hours prior to starting construction.

AS-BUILT REQUIREMENTS

Contractor shall provide complete as-built information to the project engineer in accordance with the following requirements:

1. As-built drawings shall be prepared in AutoCAD format by a registered land surveyor. One set of signed mylars and a set of computer disks of the project shall be submitted to the Engineer for review and approval. Signed and sealed prints shall be provided to the Engineer as requested.
2. As-built drawings shall be in accordance with all authorities having jurisdiction. Contractor shall coordinate as-built submittals and approvals with jurisdictional agencies unless otherwise directed by the Project Engineer.
3. Provide building locations, finish floor elevations, pavement grades and all underground facilities.
4. Provide perimeter dimensions at top of bank and at bottom of pond.

   Provide elevations at top of bank and bottom of pond.

6. Provide special detail drawings where installations were not as shown on contract drawings due to field conditions or where required for clarity.
7. Provide location, elevation and description of benchmark(s).
8. Locate and provide elevations of all structures. Location of all structures shall be from two (2) directions.
9. Locate all pipes and provide size, elevation, invert elevations, length and type.
10. Provide dimensions and elevations of the pond outfall structure(s).
11. Water as-builts shall indicate the location of bacteriological sample points. Sample points shall be indicated in red or pink.
12. The as-builts shall include a detail of every crossing of the new water main with gravity sewers, force mains and storm pipes clearly shown & indicating the vertical clearances at each crossing. Details shall be furnished for parallel runs where the horizontal separation is less than 10 feet.
13. The centering of uncut lengths of pipe at points of crossing shall be documented on the as-builts and all mitigating construction measures clearly depicted in cases where a minimum of 18" of vertical clearance between the water and sewer (including storm) lines is not possible.

GRADING AND DRAINAGE NOTES:

1. Contractor shall verify existing elevations at connection points prior to construction and notify Engineer of any discrepancies.
2. See geotechnical report for site preparation requirements.
3. The contractor shall coordinate the grading and drainage construction with all other construction.
4. Contractor shall furnish shop drawings to the engineer for approval prior to beginning construction.
5. All construction and materials shall conform with all Clay County standards.
6. The contractor shall stake the storm sewer system and the sanitary sewer system and shall notify the engineer of any conflicts prior to installation of any pipe.
7. The existing utility facilities and locations shown on the drawings are taken from readily available information. The actual locations of the utility facilities may vary somewhat from the locations shown and there may be utility facilities existing that are not shown or indicated on the drawings. The site utility contractor shall contact

   beginning work. The contractor shall protect all utility facilities and repair any damages resulting from their work. in conformance with the contract documents and specifications and relocate if required at no cost to the owner.
8. All underground utilities shall be installed prior to preparation of subgrade for pavement.
9. Pavement subgrade shall have all unsuitable material removed to a depth of 3.0 feet below subgrade and 2.5 feet beyond back of curb. Backfill with suitable material per the geotechnical report.
10. Any unsuitable material encountered and excess suitable fill material shall be removed from the site. The contractor shall be responsible for the removal of all unsuitable material and replacement with structural fill. See geotechnical report.
11. The contractor shall be responsible for all subgrade, limerock and asphalt testing as required by the project specifications.
12. Slopes of new pond shall be sodded to one foot (vertical) below normal water line. One row of sod shall be installed along all edges of pavement. All disturbed areas which are not sodded shall receive grass seed, fertilizer and mulch. See landscape plans for other requirements.
13. Stormwater Collection System design is based on the 5-year return frequency storm (Rational Method). Stormwater detention pond has been designed to attenuate peak flows from the 25-year return frequency storm. (SCS Method).
14. All RCP pipe shall meet the requirements of ASTM C-76 and shall be Class III, Wall B.
15. All pipe lengths are approximate and measured to the center of structure or mitered end section. Actual lengths may vary.
16. Do not scale these drawings. Use dimensions only.
17. A qualified soils laboratory shall be on site during excavating to determine the suitability of the existing sub-grade and existing on-site material prior to beginning any filling operation.
18. Grading contractor shall take all available precautions to control dust. Contractor shall control dust by sprinkling, or by other methods as directed by engineer and/or owner's representative at no additional cost to the owner.
19. Contractor to coordinate all work with other utility installations not covered in these plans (Electric, Telephone, Gas, Cable, Etc.) and allow for their operations and construction to be performed.
20. Cut and fill slopes are not to exceed 4:1 unless otherwise noted.
21. Contractor shall repair or replace in-kind any damage that occurs as result of his work.
22. All soils test reports to be submitted to Project Manager.
23. For all trench excavations which exceed five feet (utilities and storm), the following must be adhered to:
    a. Contractor must follow OSHA Standard 29 CFR, section 1926.650 subpart P, which is now a part of Laws of Florida Chapter 90-96.
    b. The Contractor shall provide written assurance of compliance with this law.
    c. A separate price item shall be included in their base bid identifying the cost of compliance
    d. A trench safety system shall be designed by the Contractor.
24. The Contractor shall coordinate connection with site piping and building piping.
25. All areas shown to be filled shall be cleared and grubbed in accordance with County Standards and shall be filled with clean structural fill compacted and tested in accordance with the geotechnical report.
26. All debris resulting from all activities shall be disposed of off-site by the Contractor.
27. All existing trees to remain shall be protected and preserved.
28. Burning of trees, brush and other material shall be approved, permitted and coordinated with the Clay County fire marshall by the Contractor.
29. The Contractor shall submit shop drawings to the engineer and the County, if required, on all materials, for review and approval, prior to purchase or fabrication of any utility pipe or structure.
30. All pipe lengths are scaled dimensions. All drainage structures shall be constructed to conform to County requirements and shall be constructed to conform to curbing, property lines and low points as shown on plans.
31. Contractor shall ensure that all drainage structures, pipes, etc.. are clean and functioning properly at time of acceptance.
32. All drainage pipe joints in County drainage easements and drainage right-of-ways are to be filter-wrapped.
33. All inverts in drainage structures to be precast or brick with layer of mortar between each layer of brick, or reddi-mix concrete with #57 stone.
34. The Contractor shall restore all culverts, headwalls and storm drain inlets removed or disturbed by the construction operation. The cost of these items shall be included in the price bid for furnishing and installing any new iterm causing such damage.

Call Before You Dig
811 or 800-432-4770

UTILITY CONTACTS

A.	American Telephone and Telegraph	1-800-222-0400
B.	Bell South Telephone	780-2800
C.	Florida Department of Transportation	360-5400
D.	AT&T Broadband	1-800-222-0400
E.	Mobile Gas	733-9533
F.	Peoples Gas	737-4635

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Henry A. Varga Jr. No. 45049

ORANGE PARK MALL AMPHITHEATER

GENERAL NOTES

Clay County Florida

Date: 05-08-18
Designer: HAV
Job #: 21-002
Drawn: SG
Scale: N.T.S.
Sheet: 2 of 11

ORANGE PARK MALL

21-3001-2.DWG PLOTTED:2021/04/07

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AVA ENGINEERS, INC.
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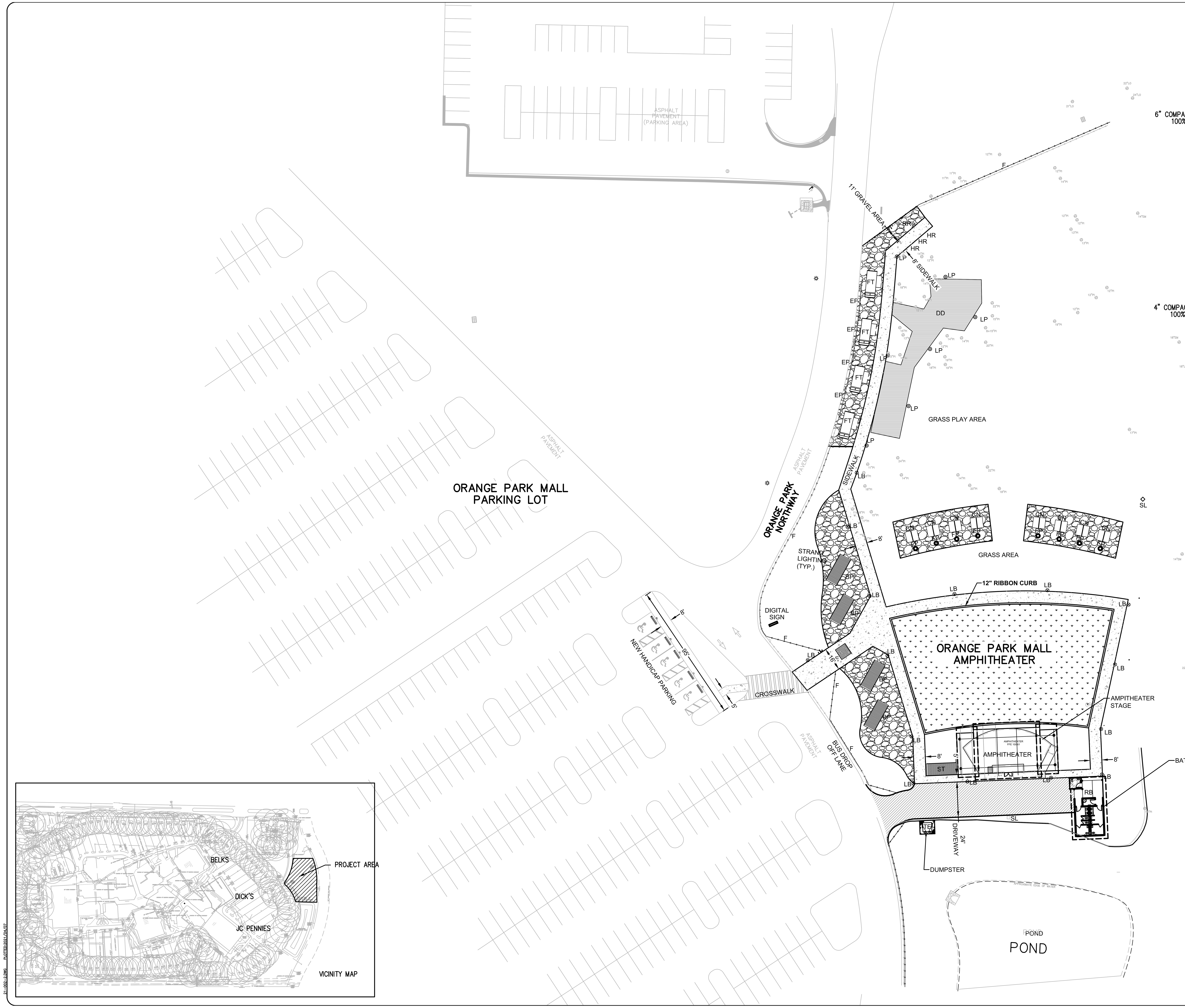
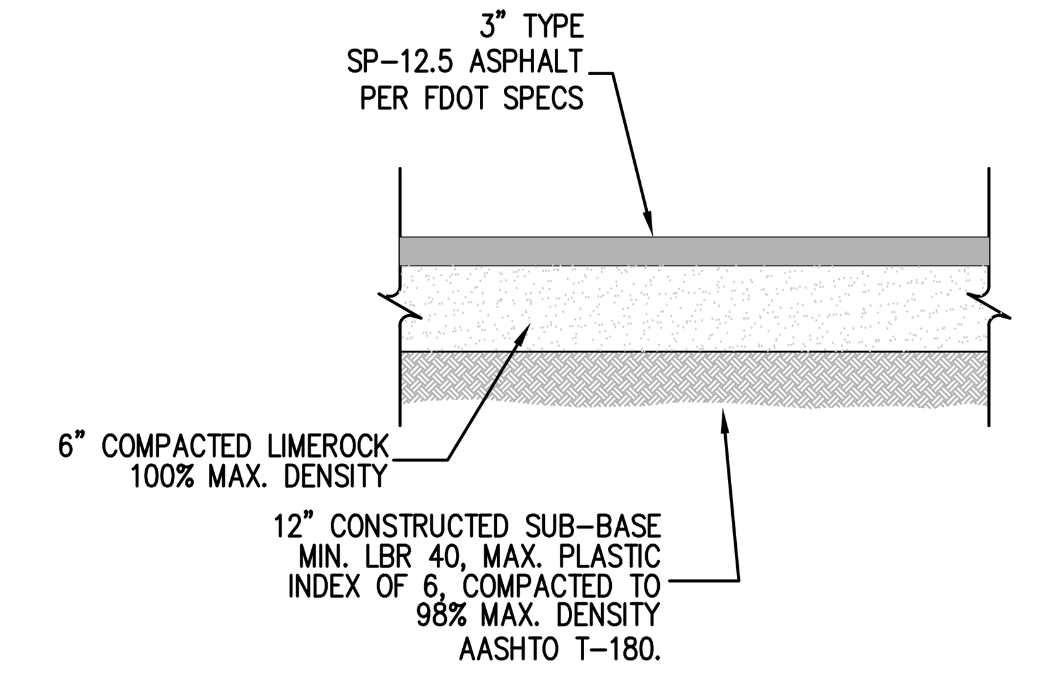
Henry A. Verge Jr. No. 49049

ORANGE PARK MALL AMPHITHEATER

EXISTING CONDITION PLAN
FLORIDA
CLAY COUNTY

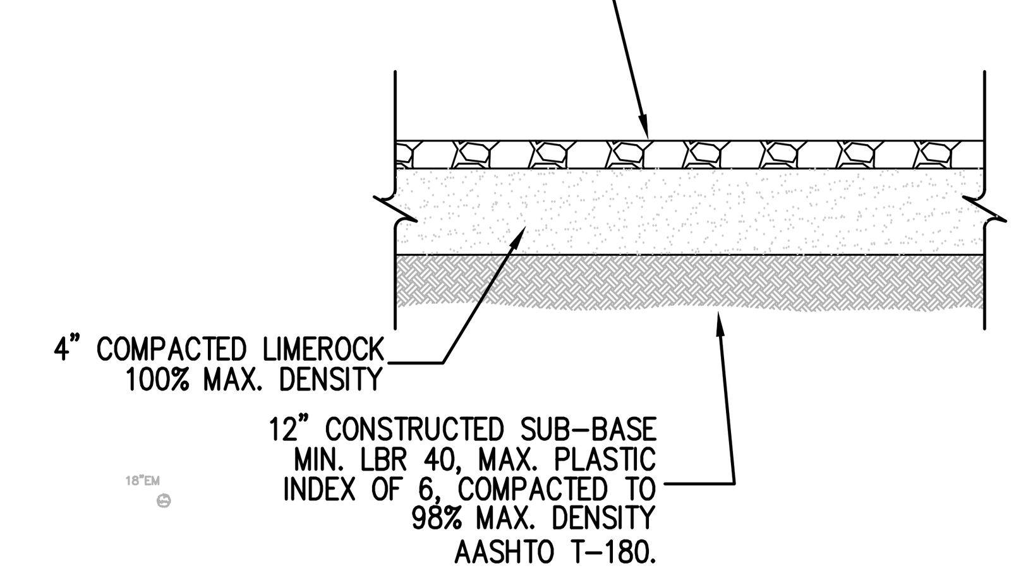
Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	
Sheet:	3 of 12





ASPHALT PAVEMENT SECTION

NTS



GRAVEL SECTION

NTS

LEGEND:

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- GRAVEL
- GRASS

SL	SAFETY LIGHT
LB	LIGHT BOLLARD
LP	LIGHT POLE
FP	FIRE PIT - LP GAS SUPPLIED
EP	ELECTRICAL POST
FT	FOOD TRUCK LOCATION
DD	DINING DECK W/ FESTOON LIGHTING (2,800 SF)
CN	CABANA LOCATION
BP	BOX POP LOCATION (PROVIDE UNDERGROUND ELECT. SERVICE)
ST	STORAGE CONTAINER
TE	TRASH ENCLOSURE
RR	RESTROOM TRAILER
HR	HANDICAP RESTROOM
F	SPLIT RAIL FENCE
ME	MAIN ENTRANCE FEATURE
RB	RESTROOM BUILDING

NOTES

1. ALL DISTURB AREAS TO BE HYDRO SEEDED OR SODDED.

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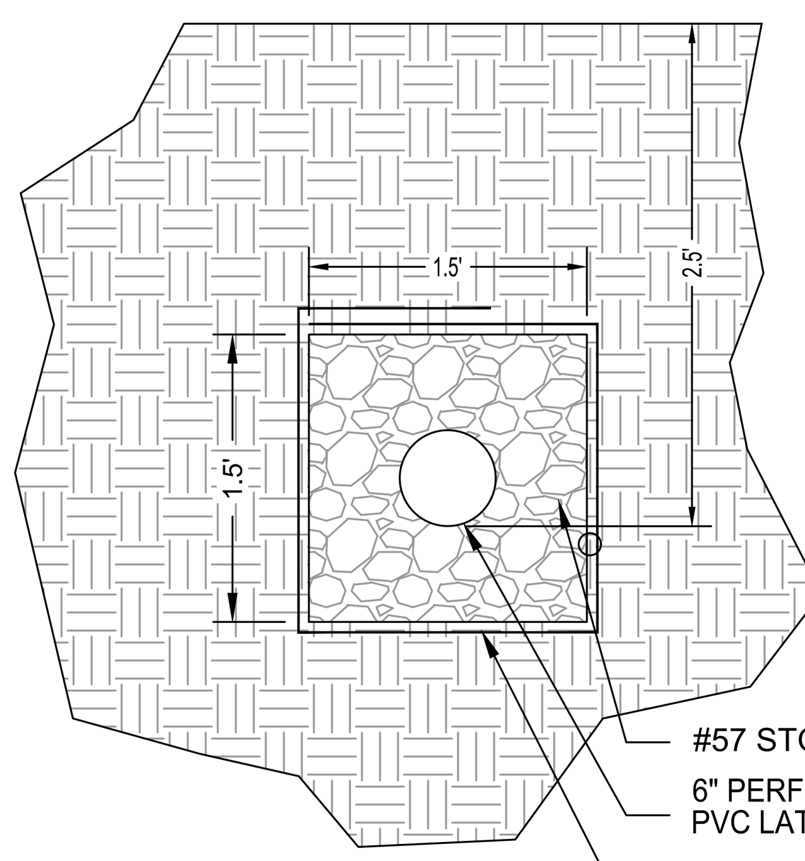
4201 BAYMEADOWS RD, SUITE 3 | JACKSONVILLE, FLORIDA 32217
Ph. (904) 730-3223 | Fx. (904) 730-3226
Henry A. Vorpe Jr. No. 49049

ORANGE PARK MALL AMPHITHEATER

SITE PLAN

CLAY COUNTY FLORIDA

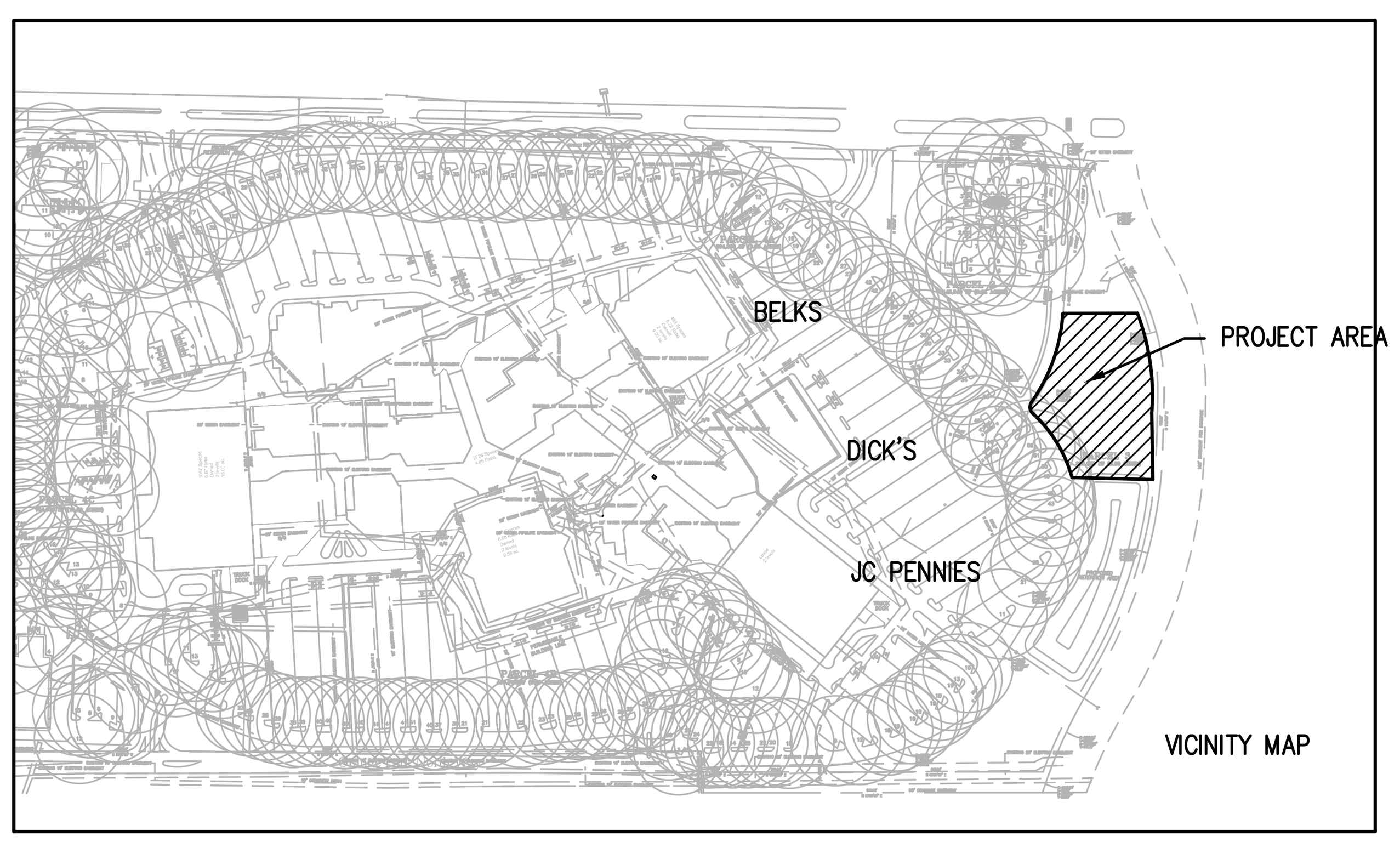
Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	1"=20'



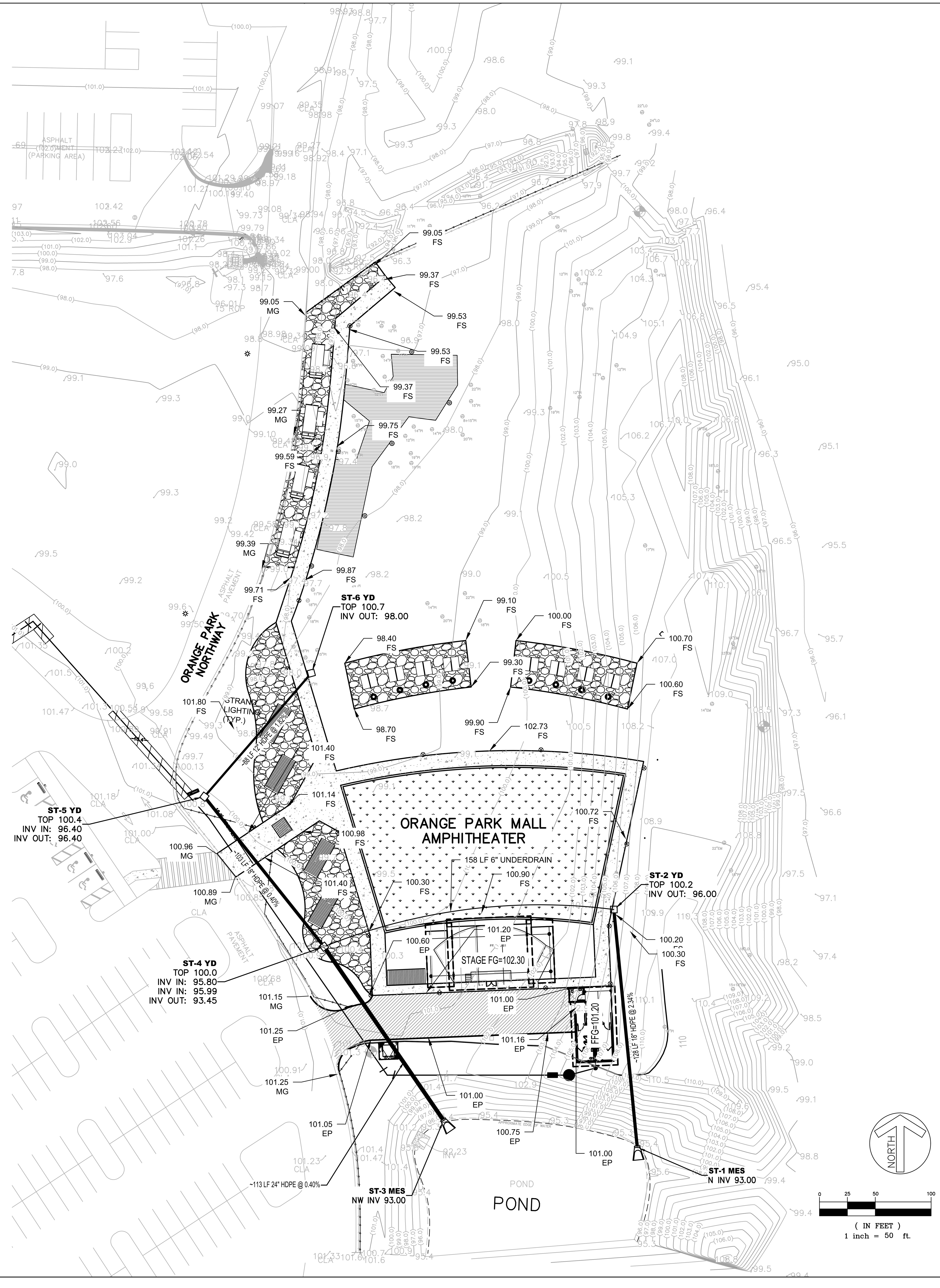
UNDERDRAIN SECTION

N.T.S.

LEGEND:	
FG	FINISH GRADE
MG	MATCH GRADE
FS	FINISHED SURFACE
EP	EDGE OF PAVEMENT
YD	YARD DRAIN
MES	MITER END SECTION



VICINITY MAP



0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	Revisions	By
1		
2		
3		
4		

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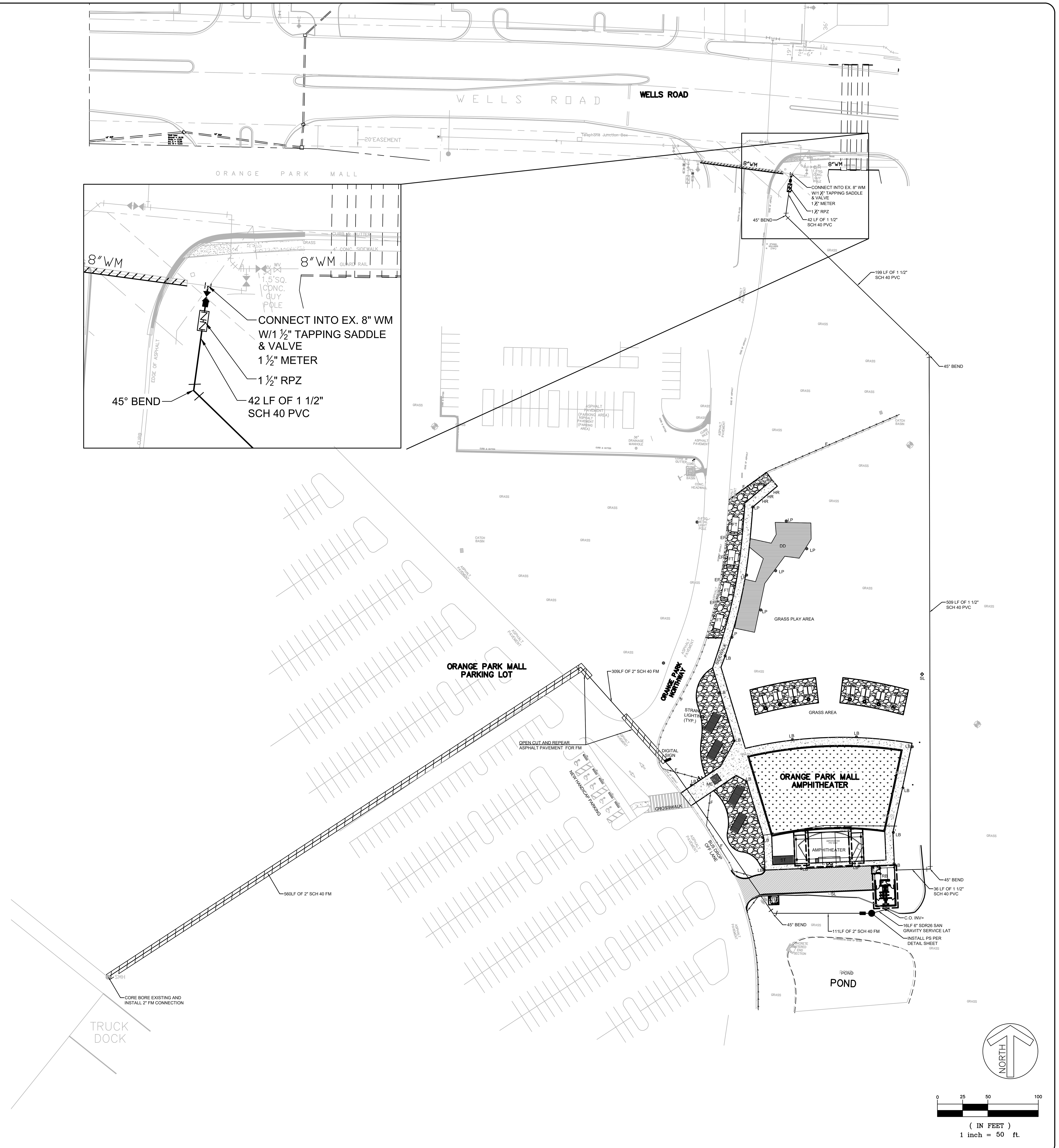
Henry A. Vorpe Jr. No. 49049

ORANGE PARK MALL AMPHITHEATER

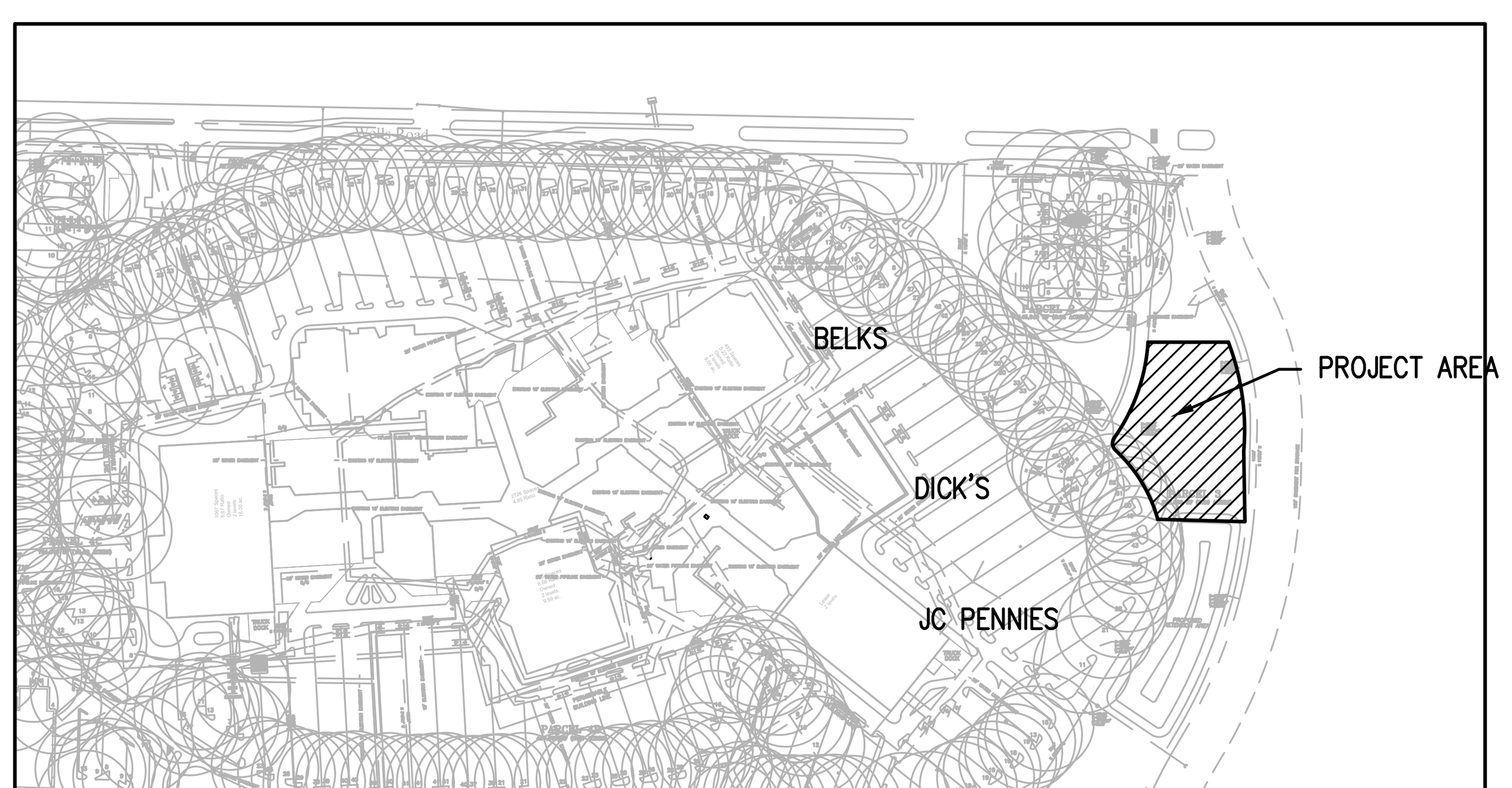
GRADING PLAN

CLAY COUNTY FLORIDA

Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	1"=20'
Sheet:	5 of 12



LEGEND:	
SL	SAFETY LIGHT
LB	LIGHT BOLLARD
EP	ELECTRICAL POST
FT	FOOD TRUCK LOCATION
RR	RESTROOM TRAILER
HR	HANDICAP RESTROOM
F	SPLIT RAIL FENCE



VICINITY MAP

No.	Revisions	By
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ORANGE PARK MALL AMPHITHEATER

UTILITY PLAN

CLAY COUNTY FLORIDA

Date: 4/21
Designer: HAV
Job #: 21-002
Drawn: SG
Scale: 1"=20'

SPECIFICATIONS

PUMPS SHALL BE OF THE SUBMERSIBLE, TYPE. EACH PUMP SHALL BE MOUNTED ON A METAL–TO–METAL RAIL SYSTEM. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, Ø1" STAINLESS STEEL GUIDE RAILS, STAINLESS STEEL UPPER GUIDE BRACKET, STAINLESS STEEL LIFTING BAIL AND CABLE, AND A FOUR HOOK, STAINLESS STEEL CABLE HOLDER. THE RAIL SYSTEM SHALL BE AS SPECIFIED BT THE PUMP MANUFACTURER.

CONTROLS

THE CONTROL PANEL SHALL BE UL LISTED AND MEET DEP REQUIREMENTS. A NEMA 3R FIBERGLASS OR STAINLESS STEEL ENCLOSURE SHALL BE PROVIDED. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLEX AND ABOVE), MAIN CIRCUIT BREAKER, A GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE SHIPPED LOOSE FOR FIELD INSTALLATION. ADDITIONAL CONTROL PANEL OPTIONS:

A. GFI RECEPTACLE
B. 24 VOLT FLOAT CONTROL
C. LEVEL TEST SWITCHES
D. INTRINSICALLY SAFE CONTROLS (FLOATS ONLY)
E. NUMBERED WIRES
F. MANUAL ALTERNATOR SELECTOR SWITCH
G. MAINTENANCE LIGHT WITH ON/OFF TOGGLE SWITCH
H. MOTOR STARTER AUXILIARY CONTACTS (DRY)
I. PUSH TO TEST BUTTONS FOR INDICATING LIGHTS
J. ALARM DRY CONTACT
K. OPERATING MECHANISM FOR MAIN BREAKER (PADLOCKABLE)
L. THROUGH–THE–DOOR MOUNTING (NON–DEADFRONT)

PUMP STATION NOTES:

1.) AN UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL AT A LOCATION VISIBLE TO THE PUBLIC. THE SIGN SHALL BE POSTED AT ALL PUMPING STATIONS AND LIFT STATIONS WITH THE FOLLOWING, CURRENT, INFORMATION:
   A. TWENTY–FOUR (24) HOUR TELEPHONE OR BEEPER NUMBER FOR OPERATOR NOTIFICATION
   B. NAME AND ADDRESS OF THE OPERATOR
   C. NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PUMP STATION OR LIFT STATION OWNER

2.) PUMP #1 SHALL BE HYDROMATIC MODEL NO. HSHH, 3HP, TDH 35.5 FEET, @ 1260 GPM, 5.75" IMPELLER, 3500RPM OR EQUIVALENT, 230V 3 PHASE

3.) ELECTRICAL PANEL TO INCLUDE ALARM LIGHT, ALARM HORN, MOTOR STARTERS, ALTERNATOR, H.O.A. SWITCHES, GENERATOR RECEPTACLE AND LIGHTNING ARRESTORS ON THE INCOMING SERVICE. PANEL SHALL BE LOCKING TYPE WITH LOCK AND KEY. PANEL SHALL MEET CURRENT FLORIDA D.E.P. REQUIREMENTS.

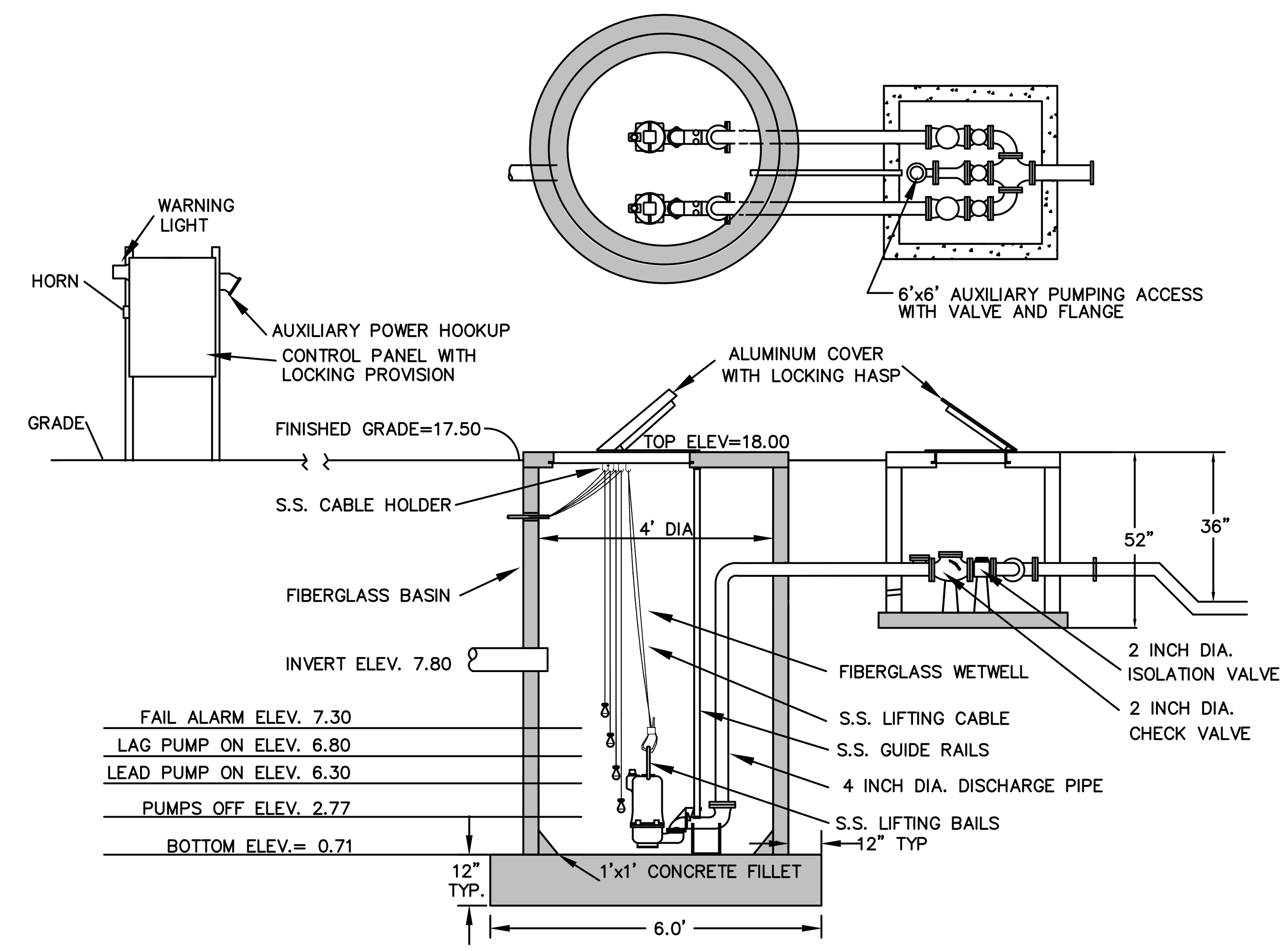
4.) IF WARRANTED BY EQUIPMENT SPECIFIED ELECTRICAL COMPONENTS SHALL BE PROTECTED BY PHASE PROTECTION AND SURGE CAPACITORS IN ACCORDANCE WITH FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATION.

5.) CONTRACTOR TO SUBMIT SHOP DRAWINGS OF MAJOR ITEMS OF EQUIPMENT TO OWNER/ENGINEER PRIOR TO COMMENCING CONSTRUCTION.

6.) PUMP SUPPLIER SHALL PROVIDE ENGINEER WITH 3 SETS OF OPERATION AND MAINTENANCE MANUAL FOR PUMP STATION.

7.) THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.

8.) PRIOR TO ALTERNATION OF LAG PUMP, IF LEAD PUMP WERE TO FAIL, A STATION ALARM WILL BE ACTIVATED TO IDENITFY LEAD PUMP FAILURE.



SANITARY SEWER PUMP STATION DETAIL

NOT TO SCALE

No.	Revisions	By
1		
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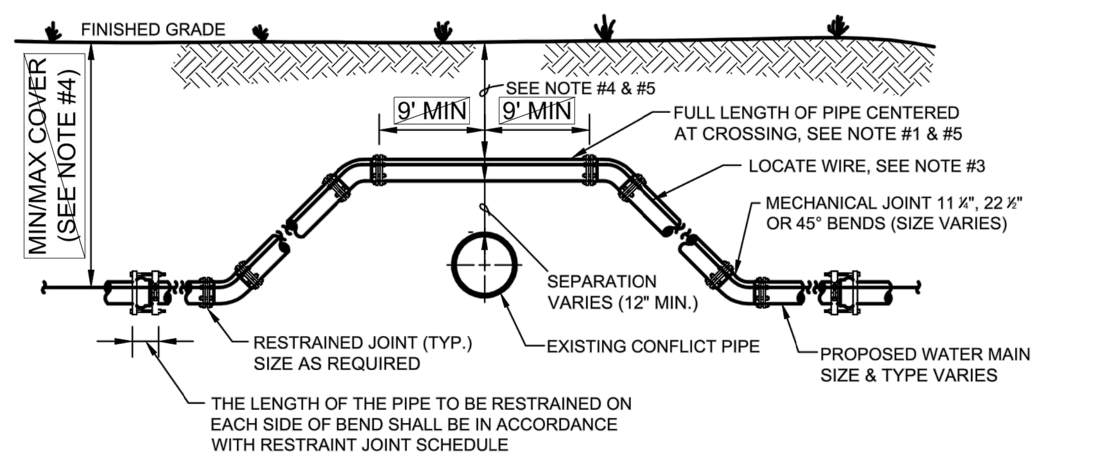
ORANGE PARK MALL AMPHITHEATER

LIFT STATION

CLAY COUNTY FLORIDA

Date: 4/21
Designer: HAV
Job #: 21-002
Drawn: SG
Scale: N.T.S.

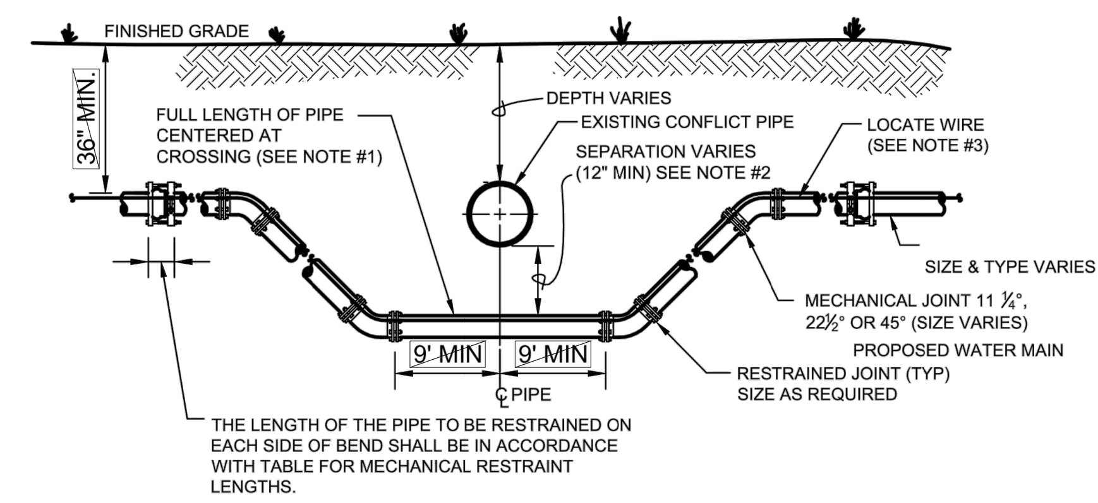


CASE "A" CROSSING

NOTES

1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
2. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS, TO WITHSTAND 150 P.S.I. PRESSURE TEST.
3. LOCATING WIRE REQUIRED.
4. THE COVER FOR PIPING SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY CCUA.
5. IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND IF THE NEW PIPE SHALL BE DUCTILE IRON PIPE, THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

ADJUSTMENT OVER EXISTING UTILITIES MECHANICAL RESTRAINTS (NTS)



CASE "B" CROSSING

NOTES

1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
2. LOCATING WIRE REQUIRED.
3. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS, TO WITHSTAND 150 P.S.I. PRESSURE TEST.
4. THE COVER FOR ALL PIPING SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY CCUA.

ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS (NTS)

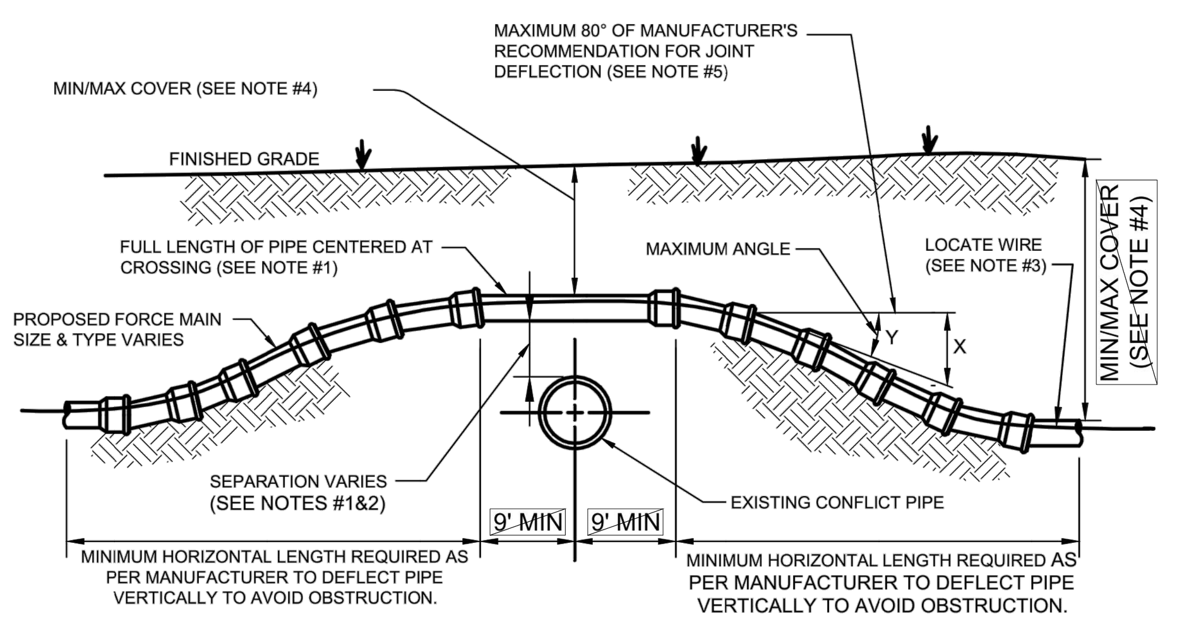
FOR PIPE RESTRAINT JOINT SCHEDULES, SEE STANDARD WATER MISCELLANEOUS DETAILS SHEET

LOCATION OF PUBLIC WATER SYSYEM 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, Stormwater Force Main, Reclaimed Water (2)	Water Main; 3 ft. minimum	Water Main; 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum; Water Main
Vacuum Sanitary Sewer	Water Main; 10 ft. preferred 3 ft. minimum	Water Main; 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum; Water Main
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main; 10 ft. preferred 6 ft. minimum (3)	Water Main; 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum; Water Main
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(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) 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.
(5) All bells must be offset.

Disclaimer – This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.



CASE "A" CROSSING

NOTES

1. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.

2. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS TO WITHSTAND 150 P.S.I. PRESSURE TEST.

3. LOCATING WIRE REQUIRED.

4. THE COVER OVER ALL PIPING SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS OTHERWISE APPROVED BY CCUA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

5. CCUA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY CCUA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

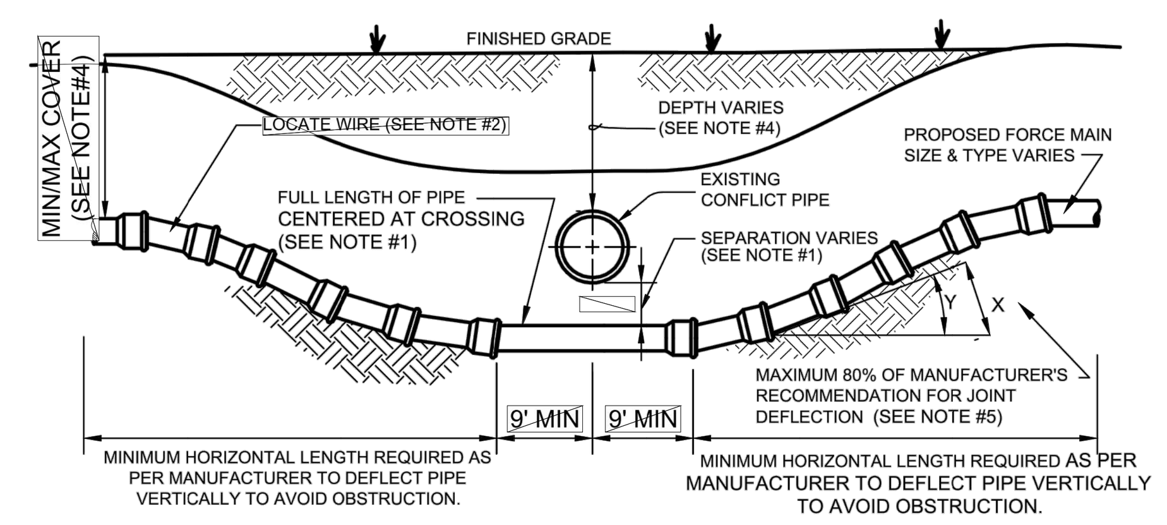
PVC PIPE

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

DUCTILE IRON PIPE (Mechanical Joint)

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
-	-	-	-
4	27	6.5°	177 FT
6	24	5.7°	200 FT
8 - 12	17.5	4.2°	273 FT
14 - 16	12	2.9°	400 FT
18 - 20	10	2.4°	477 FT
24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

ADJUSTMENT OVER EXISTING UTILITIES PIPE JOINT DEFLECTION



CASE "B" CROSSING

NOTES

1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12 INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED UNDER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
2. LOCATING WIRE REQUIRED.
3. THE COVER OVER ALL PIPING SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS OTHERWISE APPROVED BY CCUA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
4. CCUA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY CCUA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

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8	10	2.4°	480 FT
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14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

DUCTILE IRON PIPE (Mechanical Joint)

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
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14 - 16	12	2.9°	400 FT
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24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

ADJUSTMENT UNDER EXISTING UTILITIES PIPE JOINT DEFLECTION

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

1) SEPARATION OF WATER AND SEWER MAINS. HORIZONTAL AND VERTICAL SEPARATION BETWEEN POTABLE WATER SYSTEM MAINS AND OR APPURTENANCES AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER MAINS SHALL BE IN ACCORDANCE WITH RULE 62-555.314 FAC.

2. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER MAIN REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C, OR PROPOSED VACUUM-TYPE SANITARY SEWER.

3. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, 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 THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

4. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE, OR AT LEAST 12 INCHES BELOW, THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE (SEE CROSSING "A" AS SHOWN ON DETAIL SHEET WAT-02).

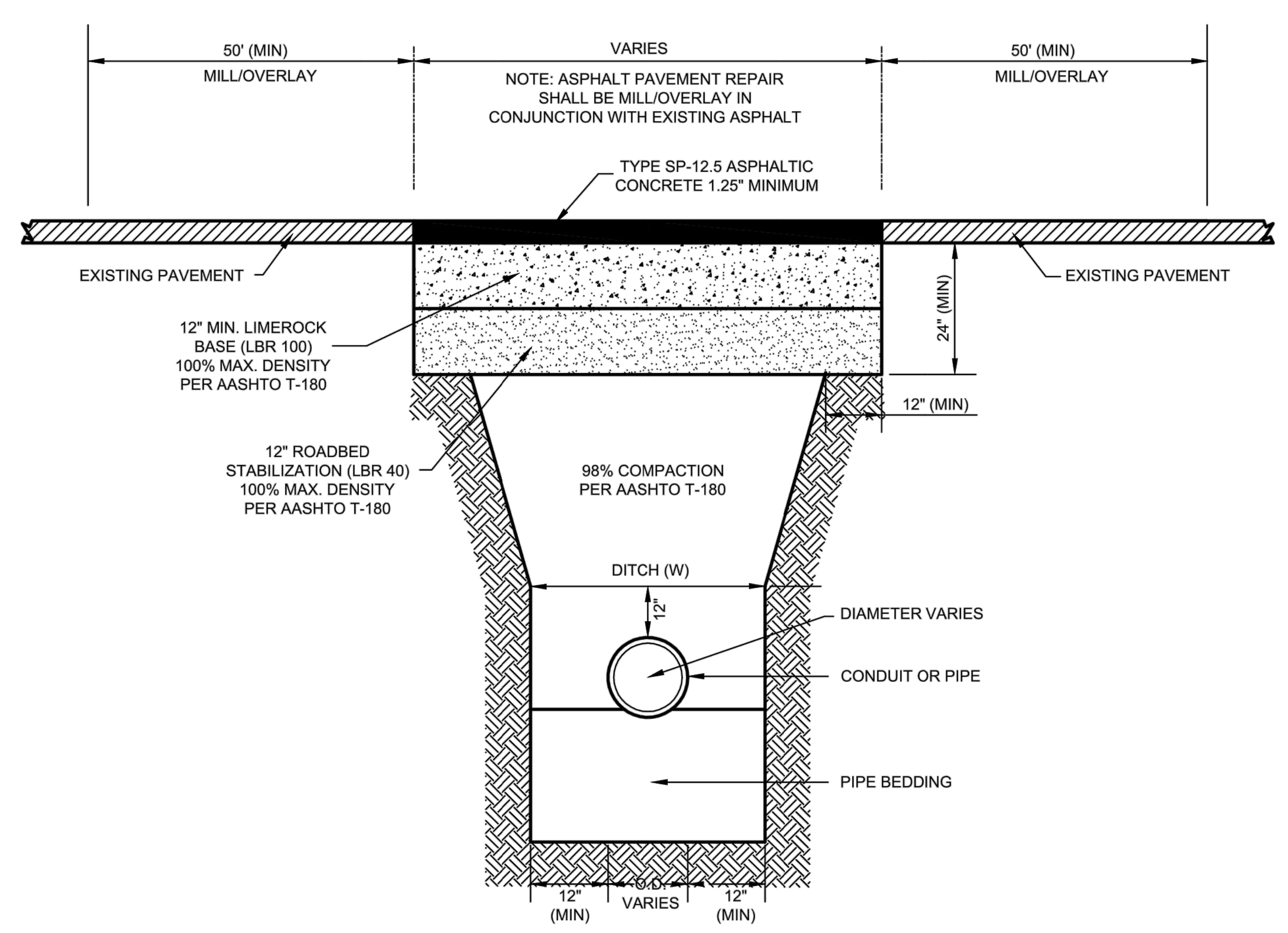
5. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

6. AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (4) AND (5) ABOVE, 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 THREE FEET 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 SIX FEET 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.

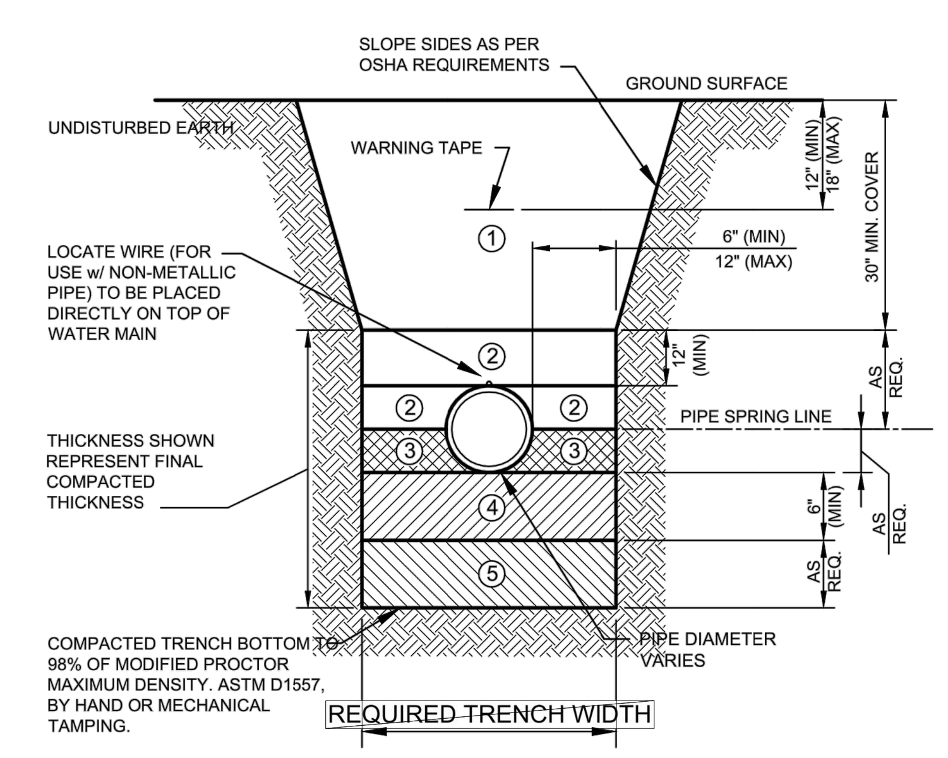
7. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.

8. WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS PRIOR TO CONSTRUCTION.

NOTES ON UTILITY SEPARATION REQUIREMENTS



REVISED CLAY COUNTY CASE 2 ASPHALT PAVEMENT REPAIR DETAIL
(NTS)



1. FINAL BACKFILL - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 95% (UNPAVED) AND 98% (PAVED) MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557.

2. INITIAL BACKFILL - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557. BACKFILL SHALL EXTEND TO THE TOP OF THE PIPE AFTER COMPACTION. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE PIPE.

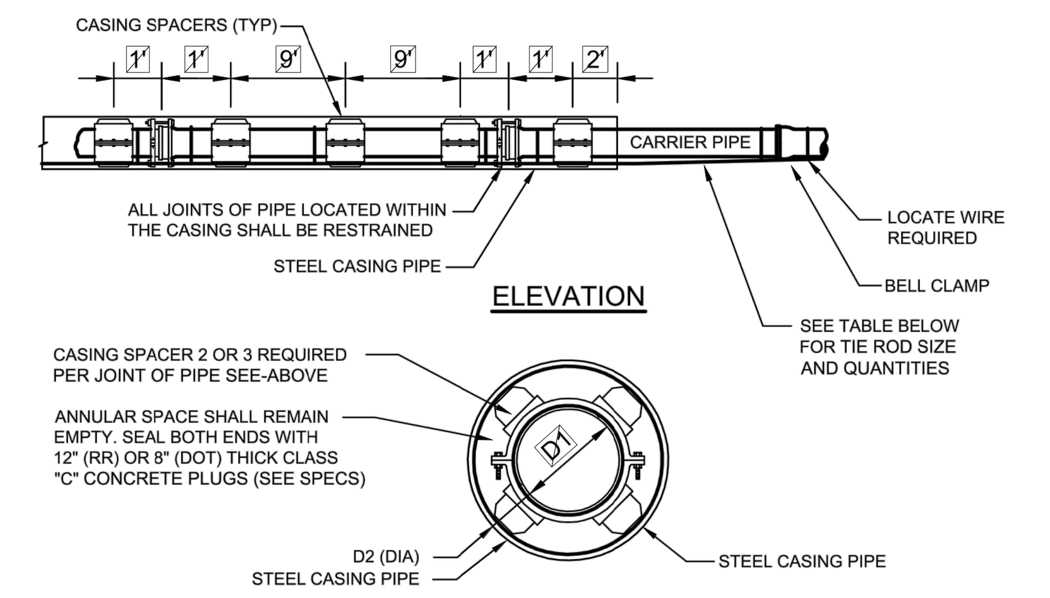
3. HAUNCHING - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. HAUNCHING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 4 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557, BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE. COMPACT BACKFILL TO MID-PIPE.

4. BEDDING - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557, BY HAND TAMPING OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE COMPACTED BEDDING TO PERMIT ASSEMBLY OF THE PIPE. SEE SPECIFICATIONS FOR UNSUITABLE MATERIALS EXCAVATION IF REQUIRED. TRENCH BOTTOM IS AT BOTTOM OF PIPE IF UNSUITABLE MATERIAL IS NOT ENCOUNTERED.

NOTE: NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF BELL HOLES, AND WHERE REFILL IS REQUIRED.

5. REFILL - REQUIRED WHERE TRENCH HAS BEEN OVER-EXCAVATED. REFILL SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES AND SHALL BE COMPACTED TO 98% OF ASTM D-1557 MAX DRY DENSITY, BY HAND OR MECHANICAL TAMPING.

TYPICAL PIPE TRENCH DETAIL (NTS)



CASING DETAIL

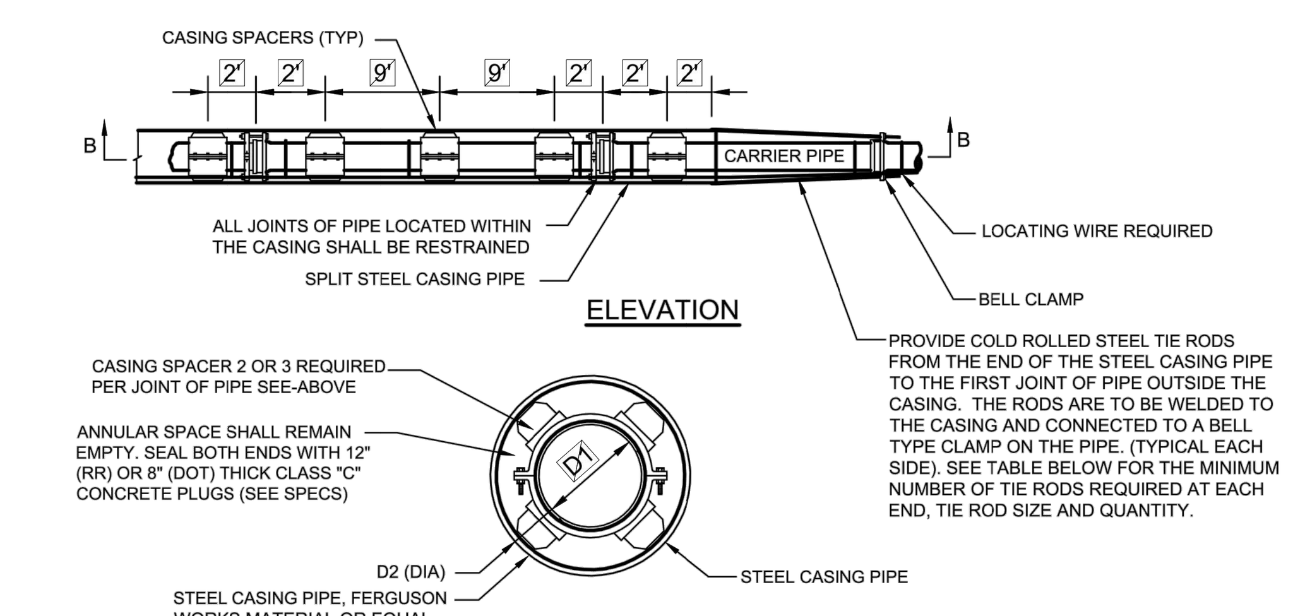
CARRIER TYPE AND CASING PIPE SIZES (MIN) IN INCHES												
CARRIER PIPE NO. DIA. (D1)	4	6	8	10	12	14	16	18	20	24	30	36
CASING PIPE NOM. DIA. (D2)	14	16	20	20	24	30	30	30	36	42	48	54
WALL THICKNESS RAILROAD (CSX)	0.25	0.281	0.375	0.375	0.375	0.469	0.469	0.469	0.562	0.625	0.688	0.781
WALL THICKNESS DOT	0.25	0.25	0.25	0.25	0.25	0.312	0.312	0.312	0.375	0.50	0.50	0.50
NUMBER OF TIE RODS (EACH END)	2	2	2	4	4	6	6	8	8	12	14	14
TIE ROD SIZE (DIA.)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"

CASING SIZE SCHEDULE

NOTES

1. MIN. COVER TO TOP OF CASING; a) FDOT-3.0' b)RAILROAD-5.5' TO BASE OF RAIL, 4.5' FOR SECONDARY OR INDUSTRIAL TRACKS.
2. ALL JOINTS WITHIN CARRIER PIPE SHALL BE MECHANICAL RESTRAINED JOINTS.
3. FOR STREET USES WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER.
4. CASING PIPE SHALL BE FURNISHED IN NOMINAL 8 FOOT LENGTHS (MIN.) UNLESS OTHERWISE INDICATED ON THE DRAWING OR APPROVED BY CCUA.
5. PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 FOR "ELECTRIC FUSION (ARC) WELDED STEEL PIPE". WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE".

TYPICAL CASING DETAIL - WATER (NTS)



SPLIT CASING DETAIL

CARRIER TYPE AND CASING PIPE SIZES (MIN) IN INCHES														
CARRIER PIPE NO. DIA. (D_1)	4	6	8	10	12	14	16	18	20	24	30	36	42	48
CASING PIPE NOM. DIA. (D_2)	14	16	20	20	24	30	30	30	36	42	48	54	60	66
WALL THICKNESS RAILROAD-(CSX)	0.25	0.281	0.375	0.375	0.375	0.469	0.469	0.469	0.562	0.625	0.688	0.781	0.844	0.938
WALL THICKNESS DOT	0.25	0.25	0.25	0.25	0.25	0.312	0.312	0.312	0.375	0.50	0.50	0.50	0.50	0.50
NUMBER OF TIE RODS (EACH END)	2	2	2	4	4	6	6	8	8	12	14	14	16	16
TIE ROD SIZE (DIA.)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1 1/4"	1 1/4"

NOTES

1. NOT ALLOWED UNDER RAILROADS.

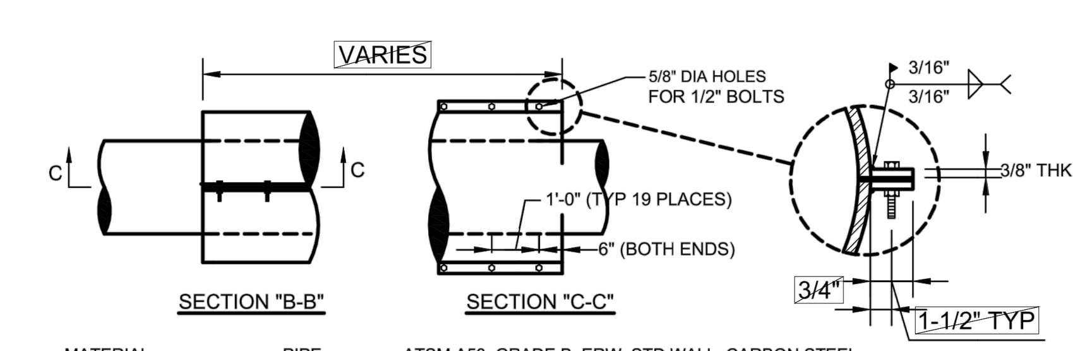
2. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF 4 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING.

3. ALL JOINTS WITHIN CARRIER PIPE SHALL BE MECHANICAL RESTRAINED JOINTS.

4. FOR STREET USES WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER.

5. CASING PIPE SHALL BE FURNISHED IN NOMINAL 8 FOOT LENGTHS (MIN.) UNLESS OTHERWISE INDICATED ON THE DRAWING OR APPROVED BY CCUA.

6. PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 FOR "ELECTRIC FUSION (ARC) WELDED STEEL PIPE". WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE".



MATERIAL: PIPE - ATSM A53, GRADE B, ERW, STD WALL, CARBON STEEL
PLATE - STM A36, GRADE B, CARBON STEEL (THICKNESS AS NOTED)
WELDS: ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER
LININGS/COATINGS: INTERIOR - BARE; EXTERIOR - BARE

PIPE MAIN FOR CROSSINGS USING SPLIT CASING PIPE
NOT ALLOWED UNDER RAILROADS

TYPICAL SPLIT CASING DETAIL - WATER (NTS)

NO | DATE | BY | REVISION DESCRIPTION

DESG | DRWN | CHKD | APRV | DATE

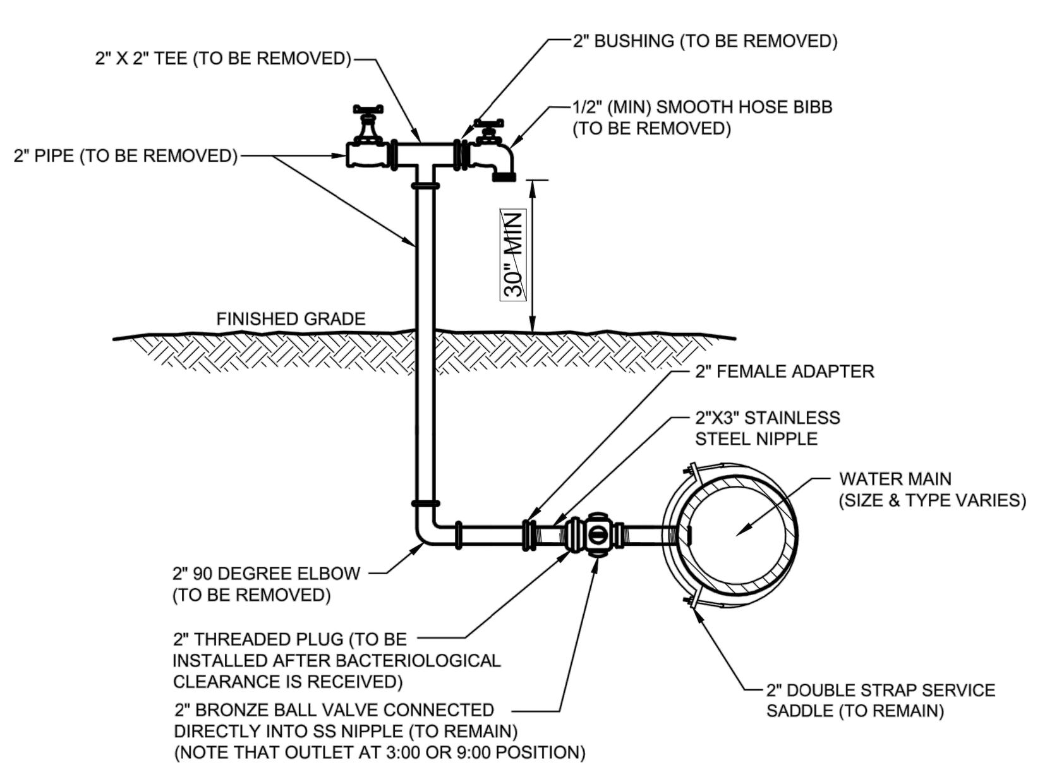
STANDARD WATER CASING, CROSSING TYPE AND PIPE RESTRAINT DETAILS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

ACAD FILE NAME

SHEET NO.

WAT 02



NOTES

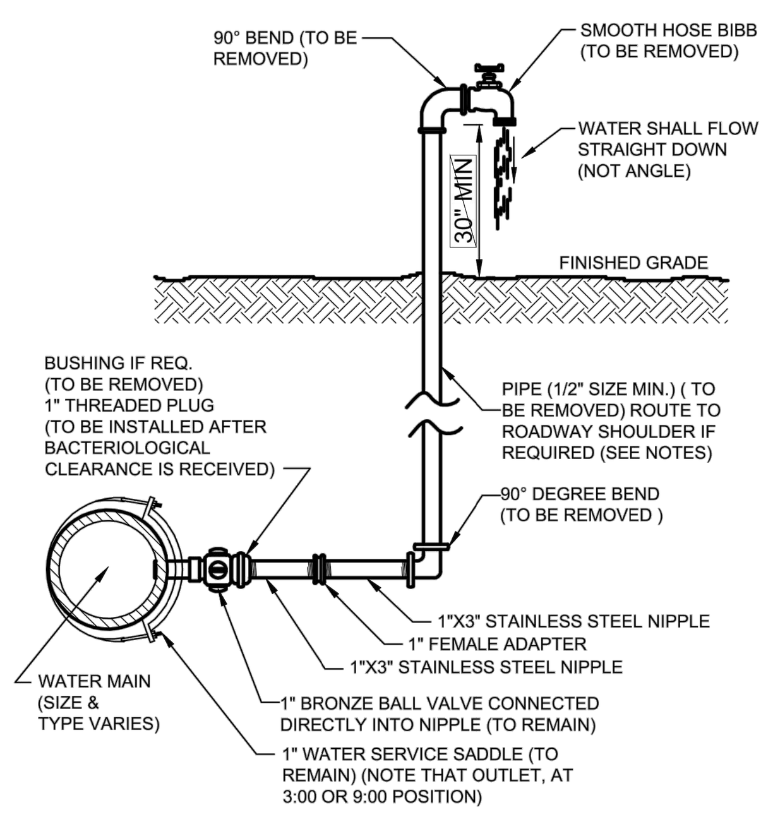
1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).

2. ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR SCH 80 PVC.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.

4. THE CONTRACTOR SHALL COMPLY WITH ALL CCUA RULES AND POLICES AS OUTLINED BY CCUA'S STANDARD WATER SYSTEM STANDARDS AND OTHER ASSOCIATED CCUA STANDARDS.

2" TEMPORARY SAMPLE TAP FOR STUB OUT (NTS)



NOTES

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).

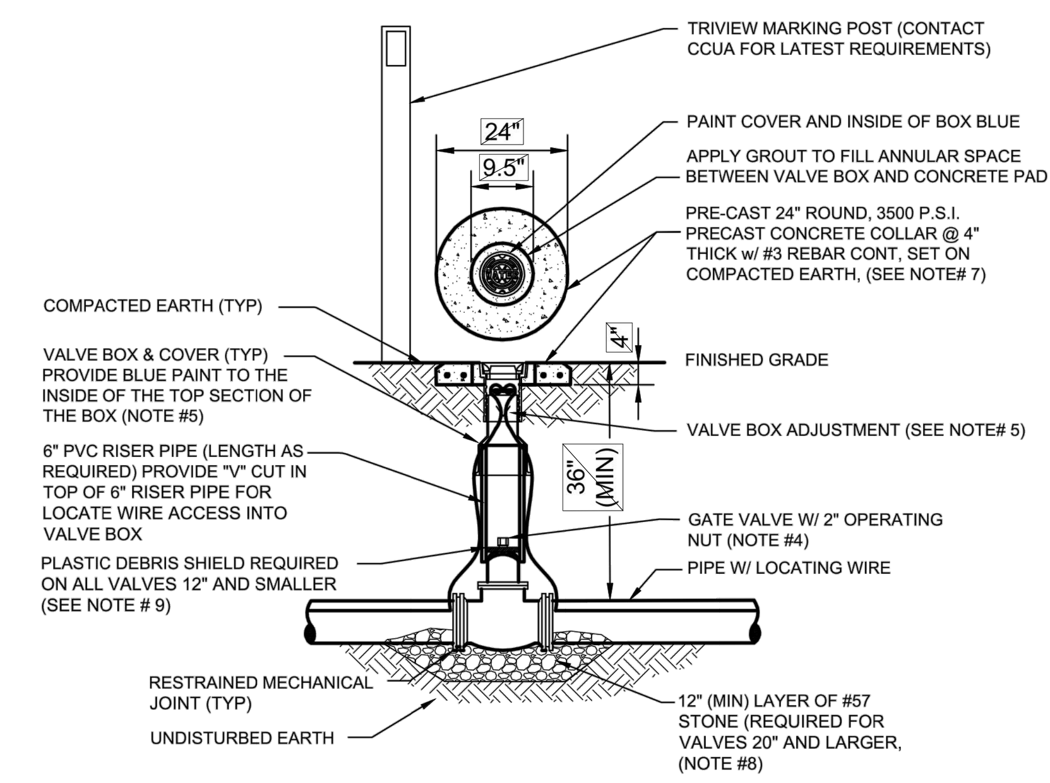
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED), AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.

3. PIPE AND FITTINGS SHALL BE PVC SCH 80 OR GALV. MATERIAL.

4. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS IS NOT FEASIBLE OR IF DIRECTED OTHERWISE BY CCUA.

5. THE CONTRACTOR SHALL COMPLY WITH ALL CCUA RULES AND POLICIES AS AS OUTLINED BY CCUA'S STANDARD WATER SYSTEM STANDARDS AND OTHER ASSOCIATED CCUA STANDARDS.

TEMPORARY SAMPLE TAP (NTS)



NOTES

1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.

2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAILW-44).

3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.

4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.

5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 12" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.

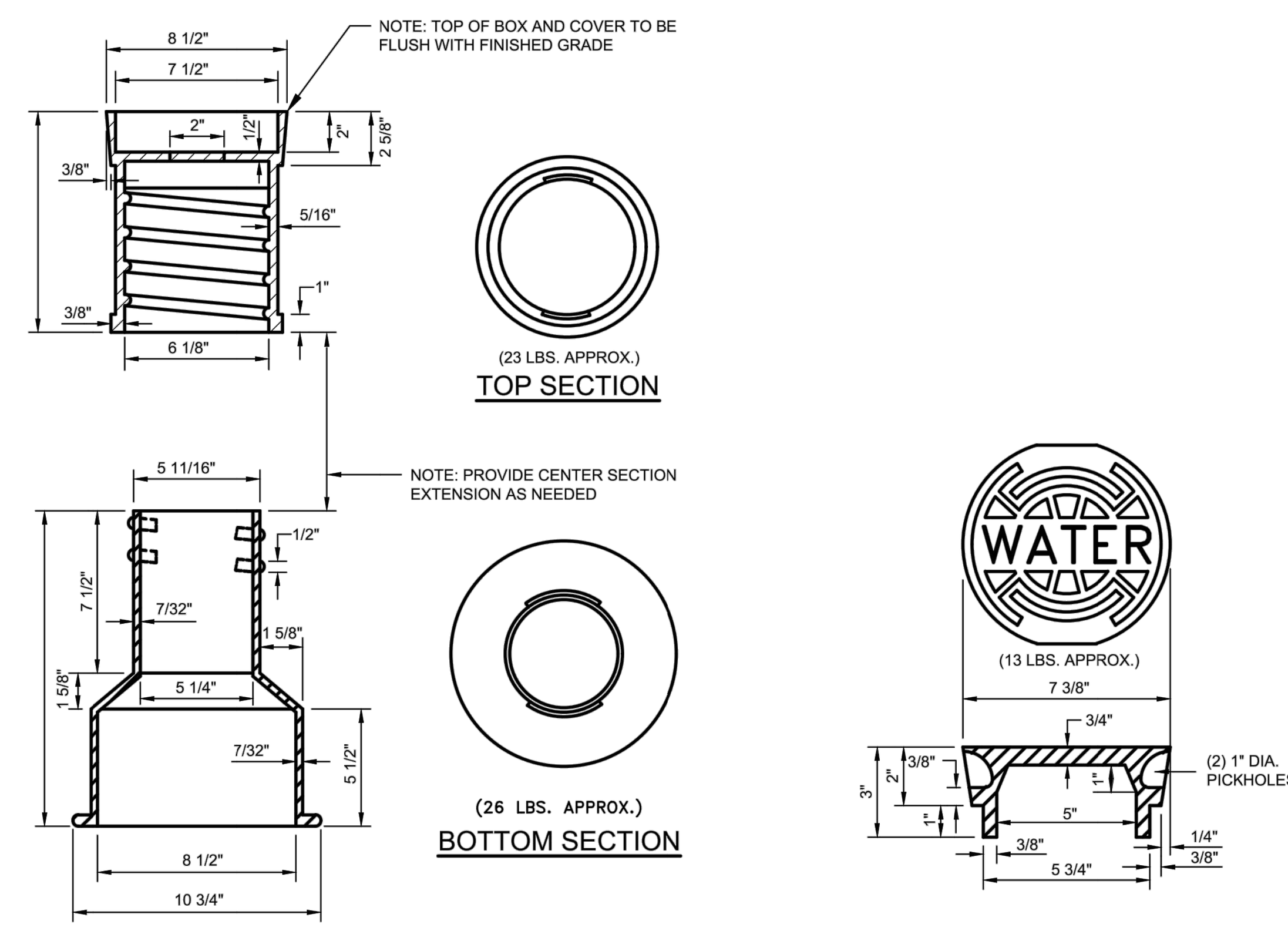
6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 1/4" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.

7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.

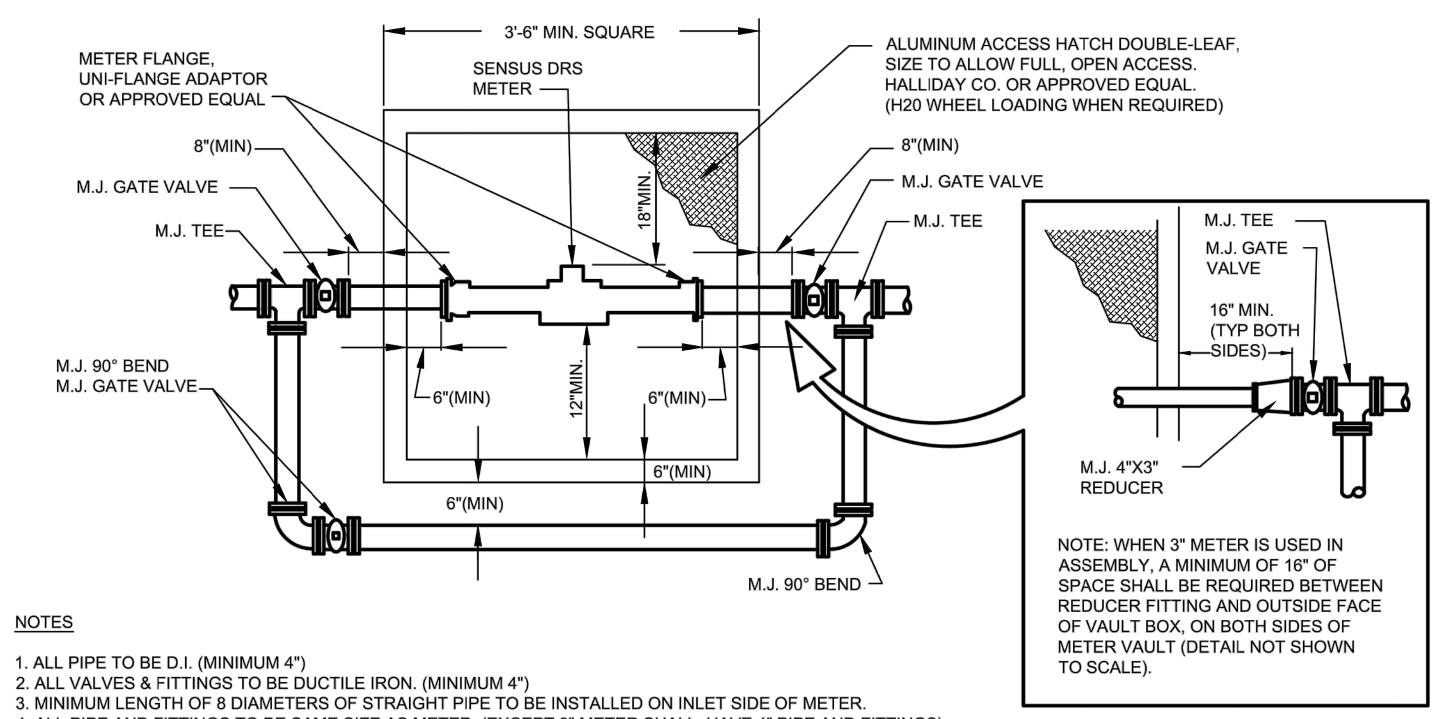
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.

9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.

WATER VALVE INSTALLATION DETAIL



VALVE BOX AND COVER

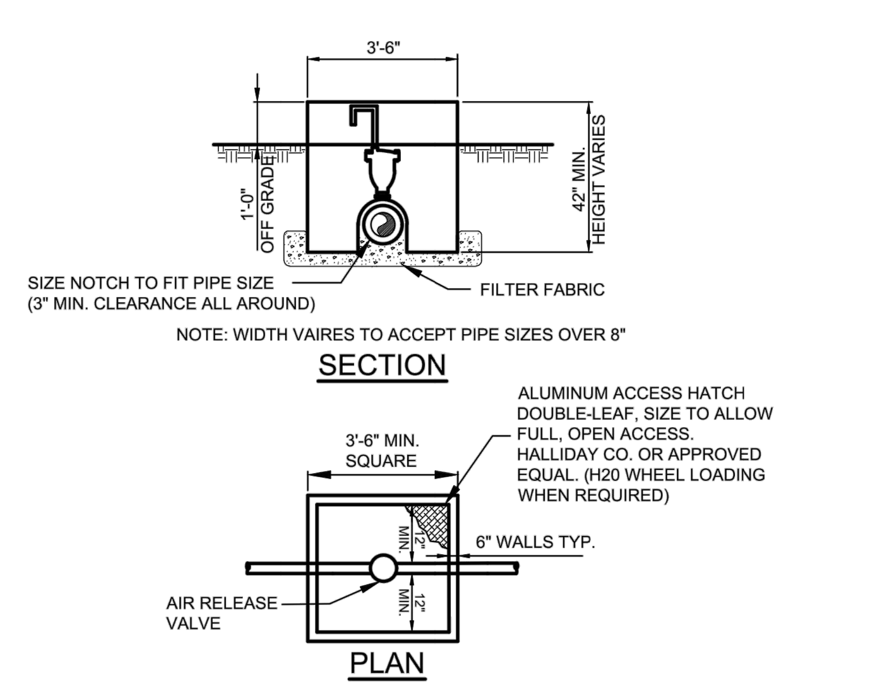


NOTES

1. ALL PIPE TO BE D.I. (MINIMUM 4")
2. ALL VALVES & FITTINGS TO BE DUCTILE IRON. (MINIMUM 4")
3. MINIMUM LENGTH OF 8 DIAMETERS OF STRAIGHT PIPE TO BE INSTALLED ON INLET SIDE OF METER.
4. ALL PIPE AND FITTINGS TO BE SAME SIZE AS METER. (EXCEPT 3" METER SHALL HAVE 4" PIPE AND FITTINGS)
5. CONC. BOX SHALL BE A MINIMUM OF 42" DEEP WITH OPEN BOTTOM, PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED 36" DEEP, INSTALLED ON 12" OF #57 STONE.
6. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY CCUA.
7. THE COST OF THE METER WILL BE ASSESSED TO DEVELOPER UNDER SEPARATE AGREEMENT. THE METER ONLY WILL BE FURNISHED TO THE CONTRACTOR BY THE CLAY COUNTY UTILITY AUTHORITY AND THE CONTRACTOR SHALL INSTALL THE METER TO COMPLETE THE INSTALLATION SHOWN HEREON.
8. PIPES COMING IN AND GOING OUT OF BOX SHALL BE 36" DEEP. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST THE ELEVATION OF THESE PIPES, USE OF BENDS ARE PERMITTED TO ACHIEVE THIS.
9. FOR ANY SIZE WATER AND FIRE LINE METERS NOT LISTED, THE CONTRACTOR SHALL SUBMIT ALL NECESSARY SUBMITTALS TO BE APPROVED BY CCUA.

METER VAULT DIMENSIONS (OVER 8" CONTACT CCUA ENGINEERING DEPARTMENT)			
METER TYPE	3" and 4" VAULT DIMENSIONS	6" VAULT DIMENSIONS	8" VAULT DIMENSIONS
SENSUS TURBINE	4'-0" OUTSIDE 3-'0" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE
SENSUS COMPOUND	4'-0" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-0" INSIDE
SENSUS F2 FIRE LINE	5'-0" OUTSIDE 4'-0" INSIDE	6'-0" OUTSIDE 5'-0" INSIDE	6'-10" OUTSIDE 5'-6" INSIDE
"McCROMETER" PROPELLER	4'-0" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE

METER VAULT - 3" AND LARGER METERS

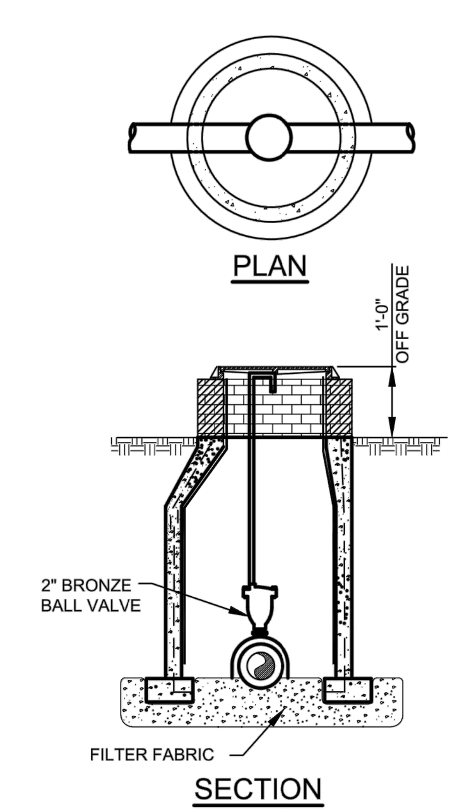


NOTES

1. CONCRETE BOX SHALL BE 42" MIN. DEPTH BUT SHALL BE DEEP ENOUGH TO ACCOMMODATE THE SIZE PIPE AND TYPE OF AIR RELEASE VALVE REQUIRED, WITH OPEN BOTTOM, PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED WITH 36" COVER FROM TOP OF PIPE TO FINISH GRADE, ON 12" OF #57 STONE,WITH FILTER FABRIC ABOVE AND BELOW THE STONE.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY CCUA.
3. DIMENSIONS SHOWN ARE MINIMUM AND SHALL BE INCREASED BASED UPON ACTUAL SIZE OF PIPE INSTALLED.

WATER MAIN AIR RELEASE VALVE VAULT

TO BE USED ON ALL PIPES 12" OR LARGER



NOTES

1. FOR PIPE 10" OR SMALLER A 4' DIAMETER, NOTCHED MANHOLE CAN BE USED FOR AIR RELEASE VALVE.
2. SET MANHOLE ON MIN. OF 4 SOLID CONCRETE BLOCKS SPACED EVENLY AROUND THE MANHOLE W/ A MIN. OF 12" OF #57 STONE WITH FILTER FABRIC ABOVE AND BELOW THE STONE.

WATER MAIN AIR RELEASE VALVE VAULT

TO BE USED ON ALL PIPES 10" OR SMALLER

PVC PIPE RESTRAINT NOTES

1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THIS SCHEDULE, AT A MINIMUM.

2. ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.

3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.

4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.

5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.

6. HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

7. THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER Lu (FT.)	LOWER Li (FT.)	L (FT.)
4	20	8	4	2	20	3	50
6	28	10	5	2	28	4	20
8	36	14	6	3	36	5	90
10	40	18	8	4	45	6	110
12	50	20	9	4	52	8	120
14	56	23	10	5	60	9	140
16	60	26	11	6	67	10	160
18	69	29	12	6	74	12	180
20	75	32	13	7	80	13	195
24	76	33	15	7	81	14	200
30	88	36	18	9	97	16	235
36	100	40	20	10	110	20	270
42	115	48	23	11	125	24	300
48	125	52	25	12	140	30	340

REDUCERS	
SIZE (IN.)	L (FT.)
6x4	35
8x6	35
8x4	65
10x8	35
10x6	65
12x10	35
12x8	65
16x12	65
16x10	95
20x18	35
20x16	65
20x12	120
24x20	65
24x18	95
24x16	120
30x24	80
30x20	150
36x30	80
36x24	150
42x36	80
42x30	150
48x42	80
48x36	150

TEES SEE NOTE 5		
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	10 F.O.
8	8 6 < LESS	30 F.O.
10	10 8 6 < LESS	48 14 F.O.
12	12 10 8 < LESS	65 35 F.O.
16	16 12 10 < LESS	100 40 F.O.
20	20 16 12 < LESS	130 80 F.O.
24	24 20 16 12 < LESS	130 90 40 F.O.
30	30 24 20 16 < LESS	140 80 50 F.O.
36	36 30 24 20 < LESS	180 120 50 F.O.
42	42 36 30 24 20 < LESS	220 160 80 40 F.O.
48	48 42 36 30 24 < LESS	250 180 90 40 F.O.

F.O. = FITTING ONLY

PVC PIPE RESTRAINT JOINT SCHEDULE

DUCTILE IRON PIPE RESTRAINT NOTES

1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.

2. ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.

3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.

4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.

5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.

6. HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

LENGTH (L) TO BE RESTRAINED

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER Lu (FT.)	LOWER Li (FT.)	L (FT.)
4	18	6	4	2	12	2	30
6	22	10	5	2	17	3	40
8	30	13	6	3	22	4	50
10	35	14	7	4	26	5	64
12	42	16	8	4	31	6	75
14	46	20	9	5	35	7	85
16	53	22	11	5	40	8	95
18	57	24	12	6	44	9	105
20	62	26	13	6	48	10	110
24	64	27	14	6	50	11	111
30	73	30	15	7	57	13	137
36	85	34	18	8	66	17	159
42	93	38	20	9	75	20	176
48	102	43	22	10	82	22	198

REDUCERS	
SIZE (IN.)	L (FT.)
6x4	20
8x6	20
8x4	40
10x8	20
10x6	40
12x10	20
12x8	40
16x12	40
16x10	57
20x18	20
20x16	40
20x12	73
24x20	40
24x18	50
24x16	60
30x24	50
30x20	76
36x30	50
36x24	88
42x36	40
42x30	88
48x42	40
48x36	88

TEE SEE NOTE 5		
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	6 F.O.
8	8 6 < LESS	18 F.O.
10	10 8 6 < LESS	27 8 F.O.
12	12 10 8 < LESS	38 20 F.O.
16	16 12 10 < LESS	60 20 F.O.
20	20 16 12 < LESS	78 40 F.O.
24	24 20 16 12 < LESS	76 53 20 F.O.
30	30 24 20 16 < LESS	99 60 37 F.O.
36	36 30 24 20 16 < LESS	118 88 52 37 F.O.
42	42 36 30 24 20 < LESS	138 110 78 37 F.O.
48	48 42 36 30 24 < LESS	154 132 99 59 F.O.

F.O. = FITTING ONLY

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE

NO	DATE	BY	REVISION DESCRIPTION
4	JUN 17	RHD	REVISED NOTES AND DETAILS
3	OCT 16	RHD	MODIFIED VAULT DIMENSION CHART
2	SEPT 16	RHD	ADDED PIPE JOINT SCHEDULES
1	JUNE 15	RHD	NEW DETAIL SHEET DESIGN

DESG ____
DRWN ____
CHKD ____
APRV ____
DATE ____

STANDARD WATER MISC DETAILS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

ACAD FILE NAME

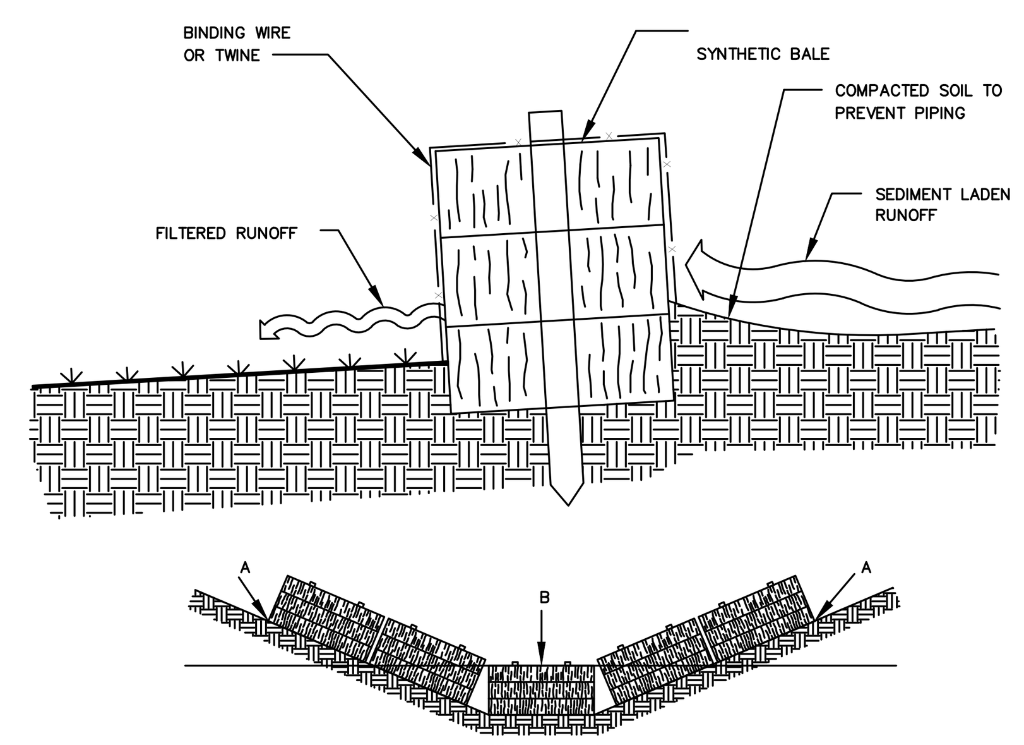
SHEET NO.

WAT 03

Tue 06/06/17 9:13:37 AM, DWG To PDF.pc3, PLOTTED BY RHD

EROSION AND SEDIMENT CONTROL NOTES

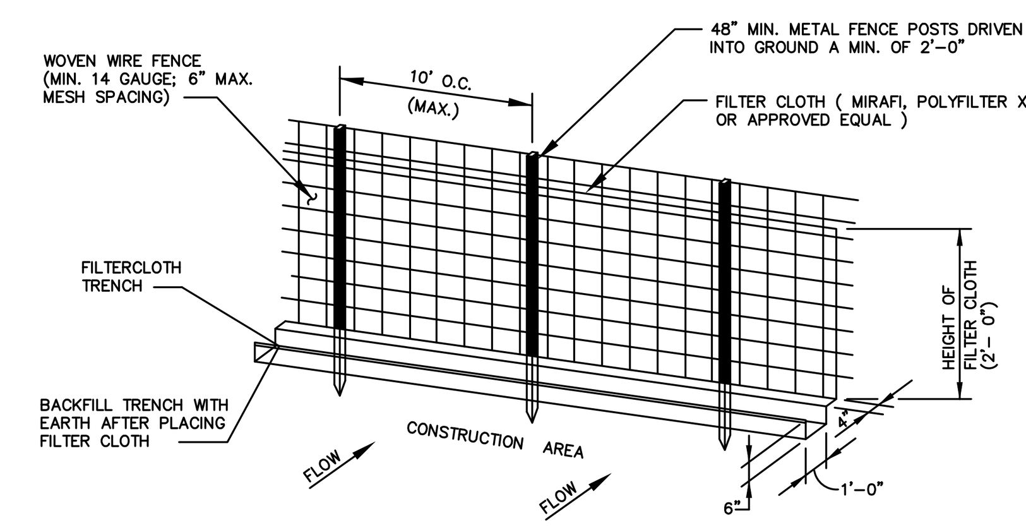
1. The Environmental Protection Agency (EPA) has issued to Florida a National Pollutant Discharge Elimination System (NPDES) General Permit for certain Stormwater discharges. This NPDES program requires that if the magitude of construction sctivities covered by the general permit are above certain thresholds, then a Storm Water Pollution Prevention PLan (SWPPP) is required. Also involved are certain certification, notification, inspection and record keeping in accordance with the EPA Publication EPA 832-r-92-005 dated Sept., 1992 & titled "Storm Water Management for Construction Activities—Developing Pollution Prevention Plans & Best Management Practices. It is the Contractor's responsibility to determine if this project requires an NPDES application and notification and, if necessary, prepare, submit and maintain the required documentation in compliance with the EPA guidelines and criteria.
2. These plans indicate the minimum erosion and sediment control measures required for this project. The contractor is responsible for meeting all applicable rules, regulations and water quality guidelines and may need to install additional controls.
3. The Contractor is responsible for following the best erosion and sediment control practices as outlined in the plans, specifications, and the St. Johns River Management District Permit and Regulations. Dewatering pumps shall not exceed the capacity of that which requires a consumptive use permit from the St. Johns River Management District.
4. All excavations and earthwork shall be done in a manner to minimize water turbidity and pollution. Discharge shall be controlled and rerouted through hay filters, siltation diapers and sumps. The Contractor shall be responsible for the prevention, correction, control and abatement of erosion and water pollution in accordance with Chapter 17-3, Florida Administrative Code. For additional information on sediment and erosion control refer to "Florida Developement Manual – A Guide to Sound Land and Water Management" from the State of Florida Department of Environmental Protection, Chapter 6.
5. The Contractor shall pay for any water quality control violations from any agency that results in fines being assessed to the owner because of the Contractor's failure to eliminate turbid runoff from leaving the site and raising background levels.
6. Erosion and sediment control barriers shall be placed adjacent to all wetland areas where there is potential for downstream water quality degradation.
7. Additional Protection – On Site protection, as may be deemed necessary during construction shall be provided that will not permit silt to leave the project confines due to unforseen conditions or accidents,
8. Wire mesh shall be laid over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Hardware cloth or comparable wire mesh with 1/2-inch openings shall be used. If more than one strip of mesh is necessary, the strips shall be overlapped. FDOT No. 1 coarse aggregate shall be placed over the wire mesh. The depth of stone shall be at least 12 inches over the entire inlet opening. The stone shall extend beyond the inlet opening at least 18 inches on all sides.
9. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stones must be pulled away from the inlet, cleaned and replaced.
10. Bales shall be placed lengthwise in single row surrounding the inlet, with the ends of adjacent bales pressed together. Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.
11. The filter barrier shall be entrenched and backfilled. A trench shall be excavated to a minimum depth of 8 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier. Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale. Loose straw should be wedged between bales to prevent water from entering between bales.
12. Sod shall be placed in areas which may require immediate erosion protection to ensure water quality standards and shall be maintained until completion of all construction activity.
13. Contractor shall ensure that all drainage structures, pipes, etc., are cleaned out and working properly at all times and the structure shall be inspected after each rainfall event and repairs, as needed, shall be made immediatly.
14. Any discharge from a dewatering activity shall be filtered and conveyed to the outfall in a manner which prevents erosion and the transportation of suspended solids to the receiving outfall.
15. Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
16. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
17. The Contractor is responsible for the removal of any sediment that leaves the site and changes any downstream conditions by raising channel bottoms and/or clogging outfall culverts.
18. Sediment deposits to be removed after each rainfall and removed when the level of deposition reaches approximately one-half the height on the barrier. Sediment traps to be restored to thier origional dimensions by removing the sediment when it has accumulated to one-third the design depth of the trap. Removed sediment to be deposited in a suitable area and manner that it will not erode.
19. Any sediment deposits remaining in place after the silt fence, SYNTHETIC BALE or filter barrier is no longer required or after completion of construction shall be dressed to conform with the existing grade, prepared and seeded.
20. The site Contractor is responsible for removing the temporary erosion and sediment control devices after completion of construction and only when areas have been stabilized. All dewatering, erosion and sediment control to remain in place after completion of construction and removed only when all disturbed areas have been stabilized.
21. All disturbed areas shall be stabilized through compaction, grassing and sodding. The grass/sodding shall be maintained until permanent vegetative cover is established. All fill slopes 4:1 or greater to receive staked solid sod.



POINTS "A" SHOULD BE HIGHER THAN POINT "B"

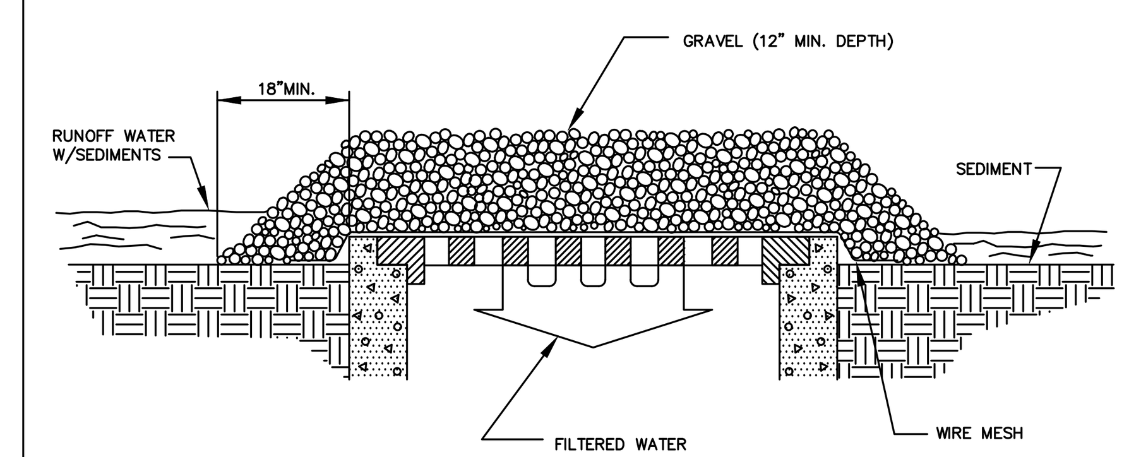
NOTES:
1. EXCAVATE THE TRENCH
2. PLACE AND STAKE SYNTHETIC BALES
3. WEDGE LOOSE STRAW BETWEEN BALES
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

Synthetic Bale Barrier



CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS BY USE OF WIRE TIES
2. FILTER CLOTH TO BE FASTEN SECURELY TO WOVEN WIRE FENCE BY USE OF WIRE TIES SPACED EVERY 24"x 24".
3. SILT FENCES TO BE INSTALLED IN LOCATIONS AS SHOWN ON THIS EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING OF CONSTRUCTION TO CONTROL SEDIMENT.
4. SILT FENCES TO BE MAINTAINED AND CLEANED AS NECESSARY TO MAINTAIN IN FUNCTIONAL CONDITION.
5. SILT FENCES TO BE REMOVED AND THE AREA TO BE RESTORED TO ITS NATURAL CONDITION WHEN PERMANENT EROSION AND SEDIMENT CONTROL PROCEDURES ARE EFFECTIVE.

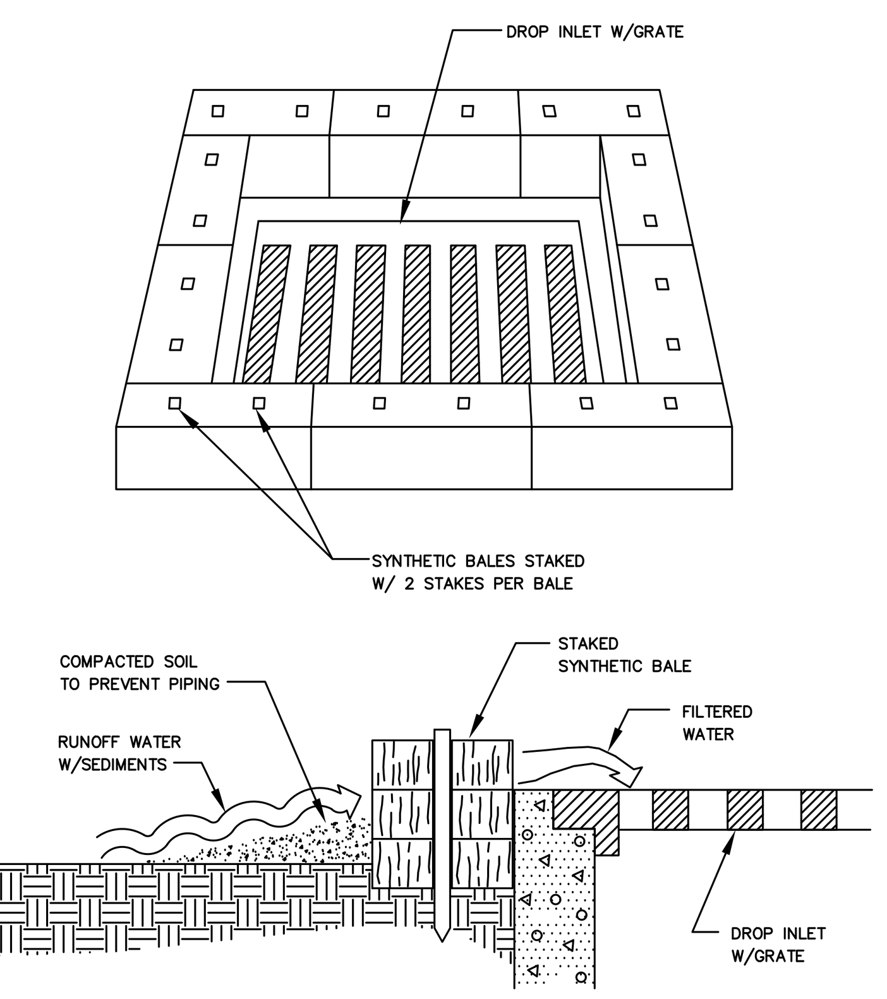
FILTER FENCE



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURED ARE UNPROTECTED AREAS.

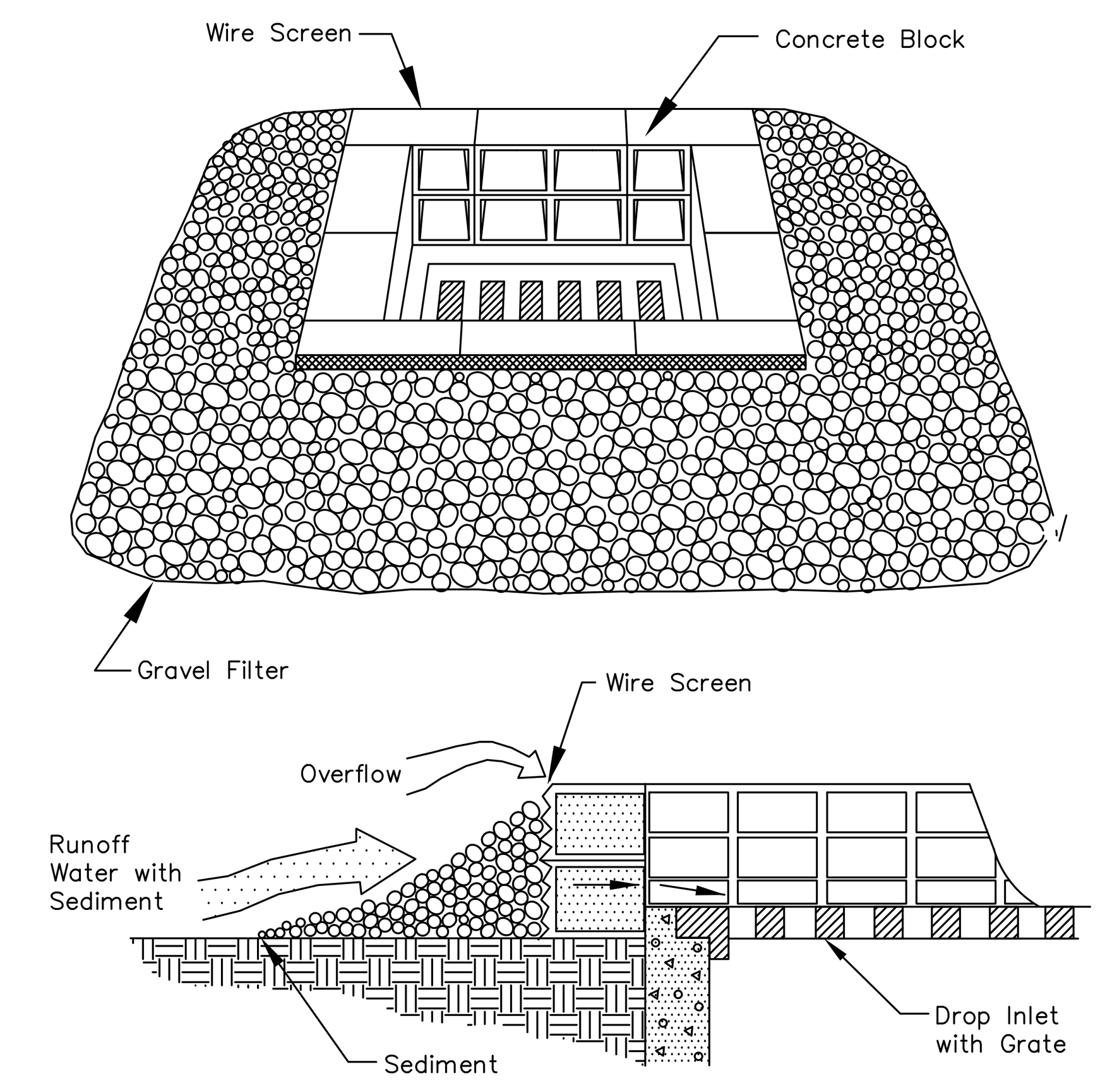
GRAVEL & WIRE MESH DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5%) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

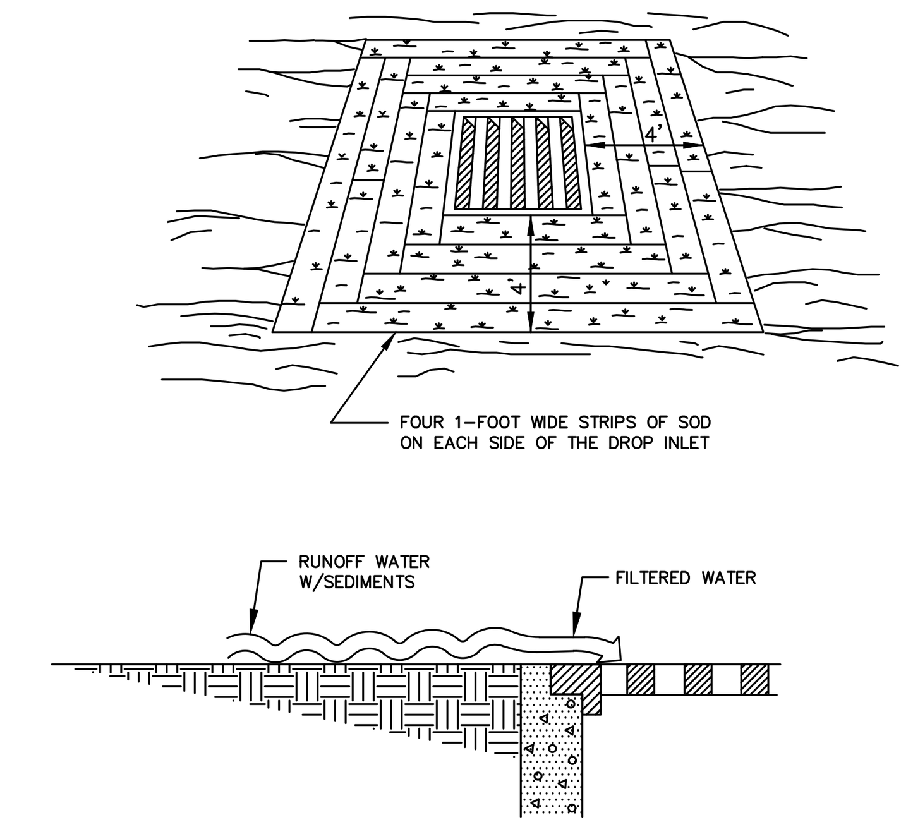
SYNTHETIC BALE DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

This method of inlet protection is applicable where heavy flows are expected and where overflow capacity is necessary to prevent excessive ponding around the structure.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER

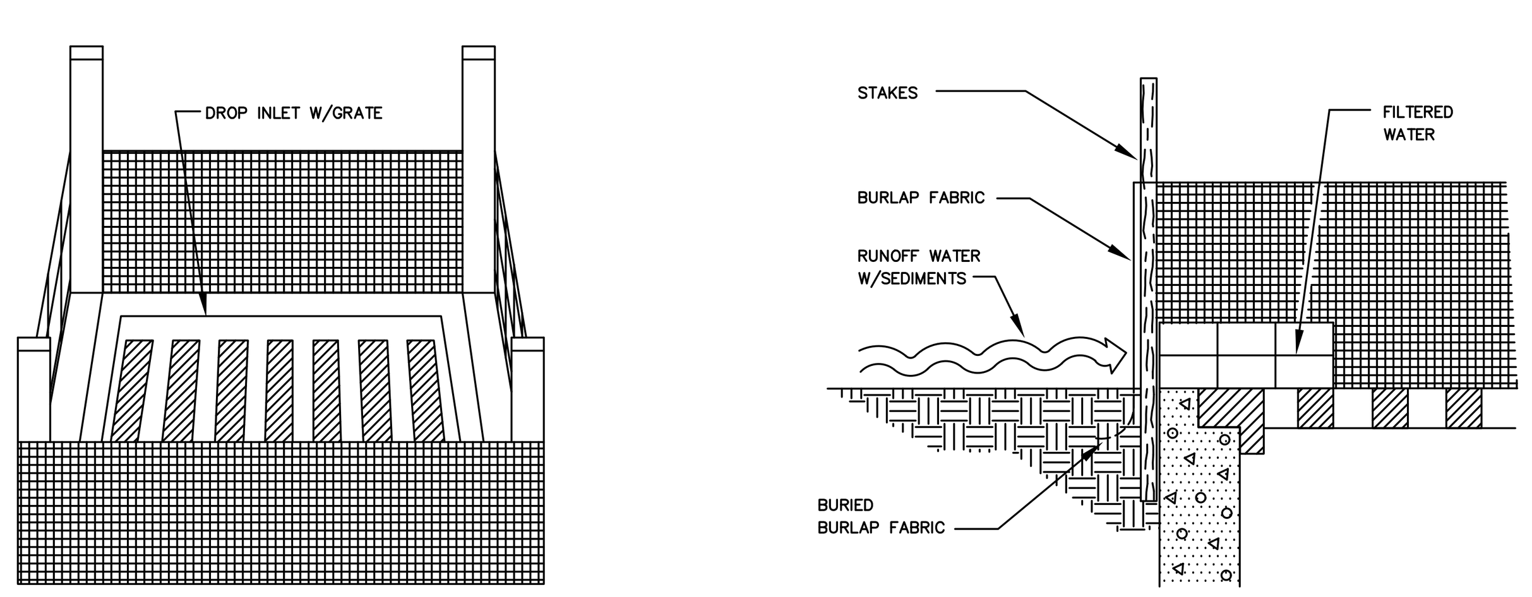


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABEL ONLY AT THE TIME OF PERMANENT SEEDING, TO PROTECT THE INLET FROM SEDIMENT AND MULCH MATERIALS UNTIL PERMANENT VEGETATION HAS BECOME ESTABLISHED.

SOD DROP INLET SEDIMENT FILTER

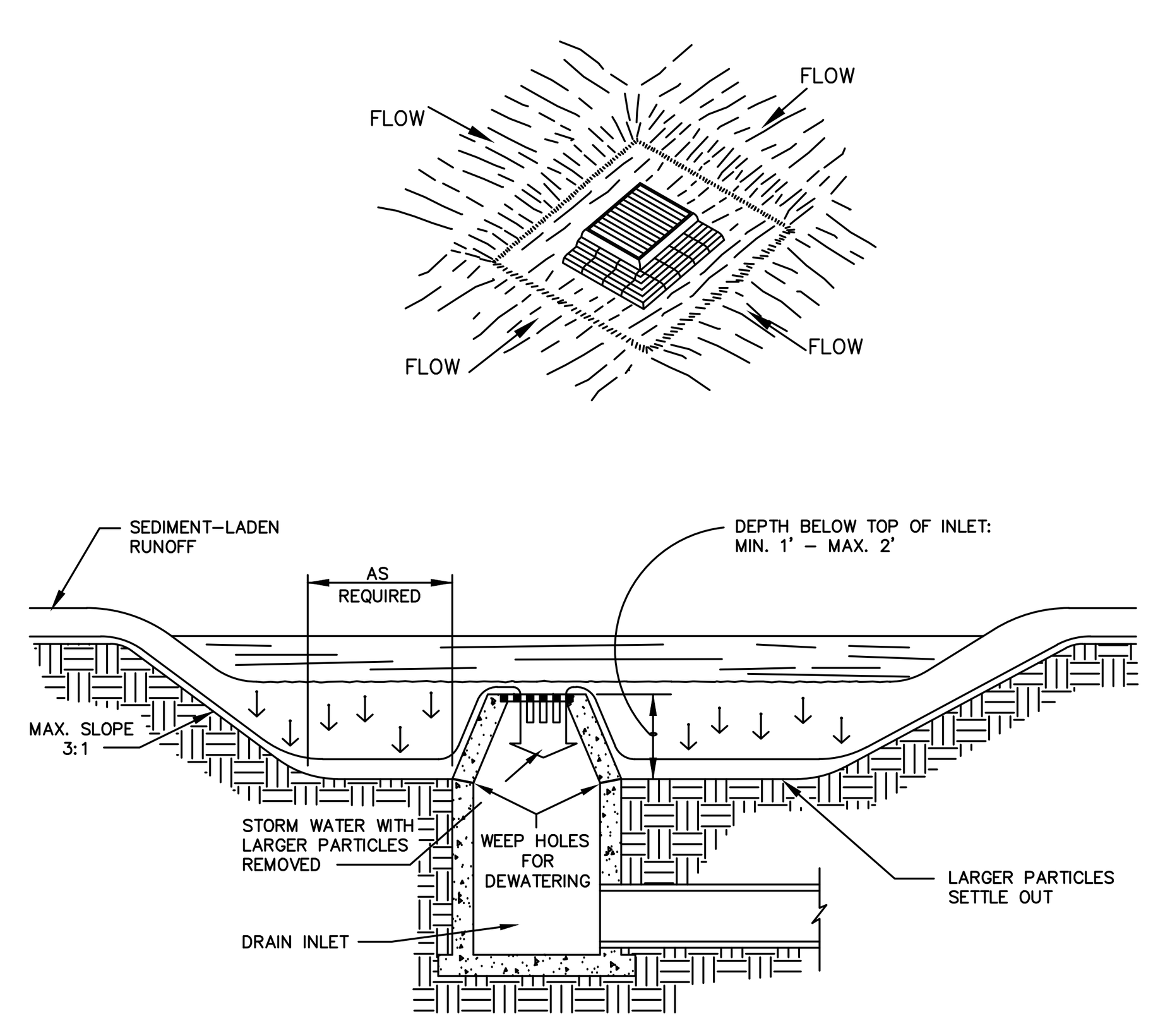
ONLY SYNTHETIC BALES TO BE USED (TYP)



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5%) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

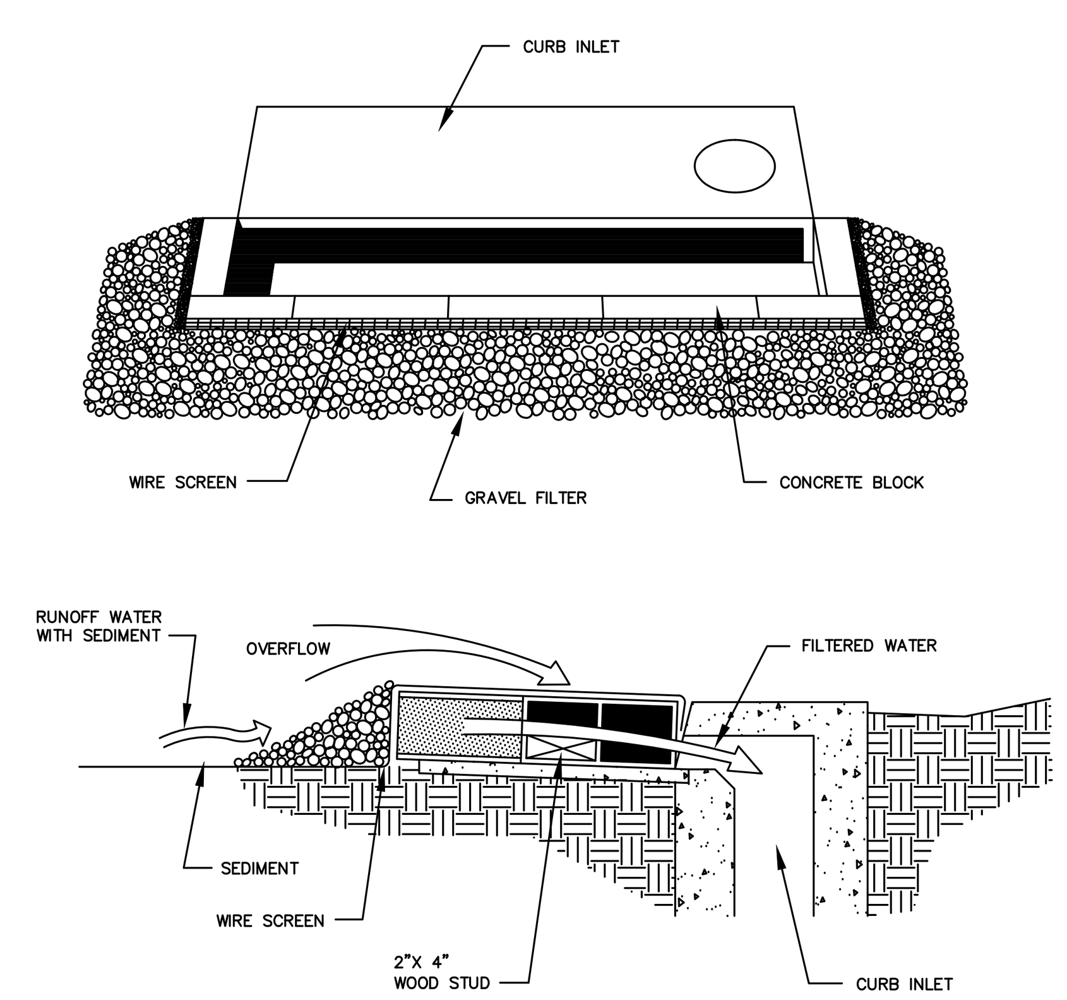
BURLAP DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPABILITY AND EASE OF MAINTENANCE ARE DESIRABLE.

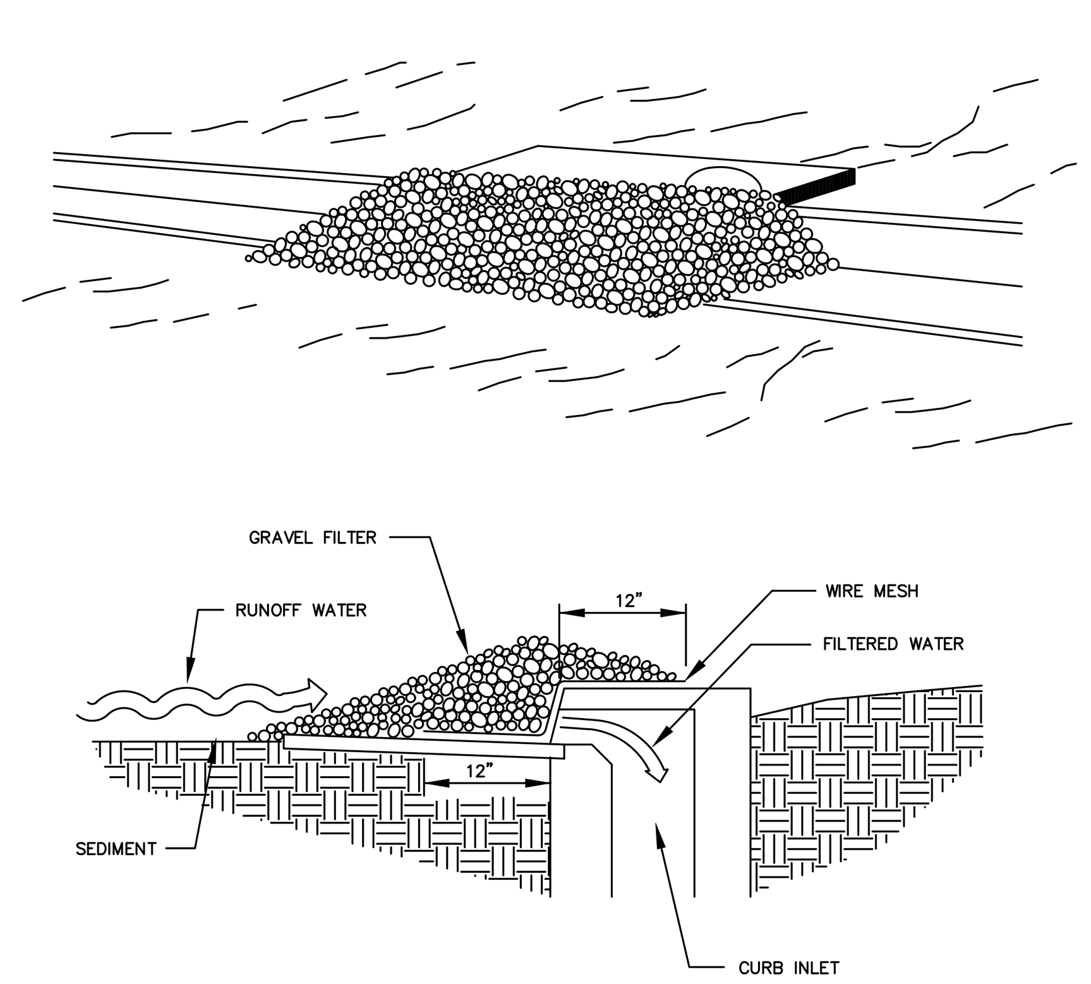
EXCAVATED DROP INLET SEDIMENT TRAP



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL CURB INLET SEDIMENT FILTER

No	Revisions	By
1		
2		
3		
4		

AVA ENGINEERS, INC.
Commercial | Residential | Marine
Florida Certificate No. 00008161
4201 BAYMEADOWS RD, SUITE 3 | JACKSONVILLE, FLORIDA 32217
Ph. (904) 730-3223 | Fx. (904) 730-3226
Henry A. Vorpe Jr. No. 49049

ORANGE PARK MALL AMPHITHEATER

Erosion Control Details

CLAY COUNTY FLORIDA

Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	N.T.S.

OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
SAVANNAS RIDGE
3030 US–1, ST. LUCIE COUNTY
FORT PIERCE, FL 34982

OWNER NAME AND ADDRESS:
YES SANDHILL EXP LLC
1900 16th ST. SUITE 950
DENVER, CO. 80202–5228

DESCRIPTION:
22 35 40 FROM SE COR OF SEC RUN W ON SEC LI 450 FT FOR POB, TH N 63 DEG 16 MIN 30 SEC W 1078.06 FT TO FEC RR R/W, TH SWLY ALG RR R/W TO PT 99 FT E OF C/L OF SR 4, TH S ON LI // WITH E R/W TO S SEC LI, THE E SEC LI TO ALG SEC LI TO POB (32.26 AC) (OR 4035–1063, 1067)

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
CLEARING AND GRUBBING; PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING ; EXCAVATION FOR UTILITIES, STORM PIPING; CURB AND GUTTER; ASPHALT PAVING; ALSO INCLUDES PREPARATION FOR FINAL PLANTING AND SEEDING.

RUNOFF COEFFICIENT:
1. PRE–CONSTRUCTION = 78
2. DURING CONSTRUCTION = 85
3. POST–CONSTRUCTION =90

SOILS:
SEE SOILS REPORT FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED GRADING PLAN FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOIL, DISTURBANCE, LOCATION OF SURFACE WATERS, PROTECTED AREAS, MAJOR STRUCTURAL AND NON–STRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.

* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS.

* SEE GENERAL NOTES FOR REQUIREMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:

1. TOTAL AREA OF SITE = XX Ac.
2. TOTAL AREA TO BE DISTURBED = XXX Ac.

NAME OF RECEIVING WATERS:

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUNOFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL , STATE, AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY CURB AND GUTTER, STORM SEWER, CURB INLETS AND CATCH BASINS
FOR THE PAVED AREAS. AREAS WHICH ARE NOT DEVELOPED BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF __ ACRES WILL HAVE BEEN REGRADED. THE SITE DISCHARGES TO AN EXISTING WETLAND SYSTEM
WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN.

TIMING OF CONTROLS/MEASURES

REFER TO " CONTRACTORS RESPONSIBILITY " FOR THE TIMING OF CONTROL/MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED:

D.E.R. DREDGE/FILL PERMIT #
C.O.E. DREDGE/FILL PERMIT #
S.J.R.W.M.D. PERMIT #
CITY OF JACKSONVILLE, FL DEVELOPMENT PERMIT

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: ______________________________
CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR, EXECUTIVE OFFICER, RANKING ELECTED OFFICIAL

DATE: ______________________

CONTRACTOR'S REQUIREMENTS

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULATES TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL UTILITIES, STORM SEWER CURBS AND GUTTER.
10. APPLY BASE TO PARKING LOT
11. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/ SOD AS REQUIRED

CONTROLS

IT IS IN THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES. AS REQUIRED TO ENSURE THE SITE MEETS ALL FEDERAL, STATE, AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS
STABILIZATION PRACTICES

1. STRAW BALE BARRIER: STRAW BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.
5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING OR GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF–SITE DEPOSIT OF SEDIMENTS.
7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF–SITE SHALL BE PROTECTED FROM SEDIMENT –LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPRED TO BE RE–EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT AFTER COMPETE WITH PERMANENT GRASSING.
9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
11. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFF SITE FACILITIES.
14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG–TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF TROUGH A SEDIMENT–TRAPPING FACILITY.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING LIMITATIONS:
   A. THE SEDIMENT TRAP MAY BE INSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE VELOCITY OF FLOW AT DESIGN CAPACITY OF THE OUTLET WILL EXCEED THE PERMISSIBLE VELOCITY OF THE RECEIVING CHANNEL OR AREA.
4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3, 600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3, 600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY–TO–DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESES PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN
THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY–TO–DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE
FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMETS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY
TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

CONCRETE	FERTILIZERS	WOOD
ASPHALT	PETROLEUM BASED PRODUCTS	MASONRY BLOCKS
TAR	CLEANING SOLVENTS	ROOFING MATERIALS
DETERGENTS	PAINTS	METAL STUDS

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
2. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
3. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURERS LABEL.
4. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
5. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
6. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
7. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

1. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
2. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
3. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC, AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A
DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY–TO–DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

1. NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
2. ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
3. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
4. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE–THIRD THE HEIGHT OF THE FENCE.
5. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
6. THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.
7. DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
8. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
9. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
   THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER, OR ANY FEDERAL, STATE, OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS.
   THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON– COMPLIANCE.
10. THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
11. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON–STORM WATER DISCHARGES

1. IT IS EXPECTED THAT THE FOLLOWING NON–STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:
2. WATER FROM WATER LINE FLUSHING
3. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
4. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON–STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE	BUSINESS NAME AND ADDRESS OF CONTRACTOR AND ALL SUBS	RESPONSIBLE FOR/DUTIES
		GENERAL CONTRACTOR
		SUB–CONTRACTOR
		SUB–CONTRACTOR
		SUB–CONTRACTOR
		SUB–CONTRACTOR

No.	Revisions	By
1		
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AVA ENGINEERS, INC.
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Henry A. Vorpe Jr. No. 49049

UNLESS THIS DRAWING BEARS THE EMBOSSED SEAL OF A FLORIDA REGISTERED ENGINEER ACTING AS AN AUTHORIZED AGENT FOR AVA ENGINEERS, INC., IT IS FOR INFORMATION PURPOSES ONLY AND IS NOT VALID.

THE STORMWATER SYSTEM AS SHOWN ON THESE PLANS HAS BEEN PREPARED IN ACCORDANCE WITH STANDARD, ACCEPTED ENGINEERING PRACTICE, HOWEVER, CERTAIN DESIGN CRITERIA, RULES OR LAWS THAT ARE MANDATED BY OTHERS (ie CITY, COUNTY, STATE, FEDERAL, etc.) HAVE BEEN USED TO DETERMINE THE FINAL DESIGN FOR SUCH STORMWATER FACILITIES. THE ENGINEER DOES NOT ACCEPT RESPONSIBILITY FOR POSSIBLE FUTURE CONTAMINATION RESULTING FROM THE REQUIREMENT FOR RETENTION AND TREATMENT OF STORMWATER.

ORANGE PARK MALL AMPHITHEATER

CLAY COUNTY | FLORIDA

SWPPP-1

Date: 4/21
Designer: HAV
Job #: 21-002
Drawn: SG
Scale: N.T.S.
Sheet: 11 of 12

JOB DESCRIPTION

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT

TO BE COMPLETED EVERY SEVEN (7) DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF A RAINFALL EVENT OF 0.25 INCHES OR MORE

INSPECTOR: _____ DATE: _____

INSPECTOR'S QUALIFICATIONS:

_____
_____
_____
_____
_____

DATES SINCE LAST RAINFALL:_____ AMOUNT OF LAST RAINFALL:_____ INCHES

STABILIZATION MEASURES

INSPECTION AREA (DESCRIPTION OF LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED ? (YES / NO)	STABILIZED WIDTH	CONDITION

STABILIZATION REQUIRED:

_____
_____
_____
_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

SHEET 1 OF 4

JOB DESCRIPTION

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT

DATE:_____

STRUCTURAL CONTROLS

EARTH DIKES / SWALES

DIKE OR SWALE	FROM	TO	IS DIKE / SWALE STABILIZED?	IS THERE EVIDENCE OF WASHOUT OR OVER TOPPING?

MAINTENANCE REQUIRED FOR EARTH DIKE / SWALE:

_____
_____
_____
_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

EARTH DIKES / SWALES

STRUCTURAL/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE?	ANY EVIDENCE OF CLOGGING/WASHOUT OR BYPASSING?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING?	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL?

MAINTENANCE REQUIRED FOR CATCH BASIN / CURB INLETS / OUTFALLS TRUBIDITY CONTROLS:

_____
_____
_____
_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

SHEET 2 OF 4

JOB DESCRIPTION

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT

SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	IS THERE EVIDENCE OF OVER TOPPING OF EMBANKMENT?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:

_____
_____
_____
_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE

DOES MUCH SEDIMENT GET TRACKED ON TO ROADWAY?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE LEAVE THE SITE?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____
_____
_____
_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

SHEET 3 OF 4

JOB DESCRIPTION

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

REASONS FOR CHANGES:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERTY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE: _____ DATE: _____

SHEET 4 OF 4

NOTE TO CONTRACTOR:

THIS IS THE CONTRACTORS CERTIFICATE REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER FIVE (5) ACRES. IT IS SUGGESTED THAT THIS SHEET BE REMOVED FROM THE PLAN SET AND DUPLICATED AS NEEDED BY THE CONTRACTOR.

AN INSPECTOR, CERTIFIED BY THE STATE OF FLORIDA OR EXPERIENCED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROLS, IS REQUIRED TO INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE APPROVED STORMWATER POLLUTION PREVENTION PLAN. INSPECTION REPORTS ARE TO BE COMPLETED ONCE EVERY WEEK AND AFTER EVERY RAINFALL EVENT OF 0.5" OR MORE DURING THE CONSTRUCTION PHASE. THESE REPORTS SHALL BE MADE AVAILABLE TO THE CITY AT ANY TIME AND COPIES OF ALL OF THE INSPECTIONS SHALL BE SUBMITTED TO THE CITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLETION OR OCCUPANCY.

No.	Revisions	By
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ORANGE PARK MALL AMPHITHEATER

SWPPP-2

FLORIDA

CLAY COUNTY

Date:	4/21
Designer:	HAV
Job #:	21-002
Drawn:	SG
Scale:	N.T.S.
Sheet:	12 of 12

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