#### **LEGAL DESCRIPTION**

PARCEL

A PORTION OF THE NORTHEAST 1/4 OF SECTION 27, TOWNSHIP 22 SOUTH, RANGE 27 EAST, ORANGE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID SECTION 27, THENCE NORTH 89 DEGREES 21' 38" WEST ALONG THE NORTH LINE OF THE NORTHEAST ¼ OF SAID SECTION 27, A DISTANCE OF 635.74 FEET; THENCE DEPARTING SAID NORTH LINE, SOUTH 00 DEGREES 49' 03" WEST A DISTANCE OF 75.00 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF STATE ROAD 50, THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE SOUTH 00 DEGREES 49'03" WEST A DISTANCE OF 881.73 FEET TO A POINT OF THE NORTHERLY BOUNDARY OF VILLAGE GROVE PHASE ONE, ACCORDING TO THE PLANT RECORDED IN PLAT BOOK12, PAGE 113, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE ALONG SAID NORTHERLY BOUNDARY AND NORTHERLY LINE OF VILLAGE GRAVE PHASE TWO, ACCORDING TO THE PLAT RECORDED IN PLAT BOOK 14, PAGES 15 AND 16, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; A DISTANCE OF 964.46 FEET; THENCE NORTH 02 DEGREES 41'16" EAST A DISTANCE OF 1187.41 FEET TO THE SOUTHERLY RIGHT OF WAY OF STATE ROAD 50; THENCE SOUTH 89 DEGREES 21' 38" EAST ALONG SAID SOUTHERLY RIGHT OF WAY A

DISTANCE OF 875.28 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION BY VIRTUE OF WARRANTY DEED RECORDED AUGUST 8, 2006 IN

COMMENCE AT A 6-INCH CONCRETE MONUMENT WITHOUT IDENTIFICATION AS SHOWN ON FLORIDA DEPARTMENT OF NATURAL RESOURCES CERTIFIED CORNER RECORD DOCUMENT NO.070974 MARKING THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 27, TOWNSHIP 22 SOUTH, RANGE 27 EAST, ORANGE

OFFICIAL RECORDS BOOK 8794, PAGE 4314, DESCRIBED AS FOLLOWS:

COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 33'36" EAST ALONG THE EAST LINE OF SAID NORTHEAST ¼ OF SECTION 27 A DISTANCE OF 2666.28 FEET TO THE NORTHEAST CORNER OF SAID NORTHEAST ¼ OF SECTION 27; THENCE DEPARTING SAID EAST LINE OF THE NORTHEAST ¼ OF SECTION 27, RUN

NORTH 00 DEGREES 07' 46" WEST ALONG THE EAST LINE OF THE SOUTHEAST 1/4 OF SECTION 22, TOWNSHIP 22 SOUTH, RANGE 27 EAST, ORANGE COUNTY, FLORIDA A DISTANCE OF 1.71 FEET TO A POINT ON THE CENTERLINE OF SURVEY OF STATE ROAD 50 AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 75050, FINANCIAL PROJECT NO. 410983 1, SAID POINT ALSO BEING A POINT ON A NON-TANGENT CURVE CONCAVE NORTHERLY HAVING A RADIUS OF 68,754.94 FEET AND A CHORD BEARING OF

NORTH 89 DEGREES 25' 27" WEST; THENCE FROM A TANGENT BEARING OF NORTH 89 DEGREES 37' 36" WEST, RUN WESTERLY ALONG SAID CENTERLINE OF SURVEY AND ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 00 DEGREES 24' 16" A DISTANCE OF 485.45 FEET TO THE POINT OF TANGENCY, SAID POINT ALSO BEING A POINT ON THE NORTH LINE OF THE AFORESAID NORTHEAST 1/4 OF SECTION 27: THENCE RUN NORTH 89 DEGREES 13' 19" WEST ALONG SAID CENTERLINE OF SURVEY AND ALONG SAID NORTH LINE A DISTANCE OF 780.34 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST 1/4 OF SAID NORTHEAST ¼ OF SECTION27; THENCE DEPARTING SAID CENTERLINE OF SURVEY AND SAID NORTH LINE. RUN SOUTH 01 DEGREES 14' 52" WEST ALONG SAID EAST LINE A DISTANCE OF 75.00 FEET TO A POINT ON THE EXISTING SOUTH RIGHT OF WAY LINE OF AFORESAID STATE ROAD 50 AS SHOWN ON THE AFORESAID RIGHT OF WAY MAP: THENCE DEPARTING SAID EAST LINE, RUN NORTH 89 DEGREES 13' 19" WEST ALONG SAID EXISTING SOUTH RIGHT OF WAY LINE OF STATE ROAD 50 A DISTANCE OF 242.47 FEET; THENCE DEPARTING SAID SOUTH RIGHT OF WAY LINE OF STATE ROAD 50, RUN SOUTH 03 DEGREES 07' 51" WEST A DISTANCE OF 930.83 FEET FOR A POINT OF BEGINNING; THENCE RUN SOUTH 86 DEGREES 52' 09" EAST A DISTANCE OF 40.00 FEET; THENCE RUN NORTH 03 DEGREES 07' 51" EAST A DISTANCE OF 340.68 FEET; THENCE RUN SOUTH 86 DEGREES 52' 09" EAST A DISTANCE OF 20.00 FEET; THENCE RUN SOUTH 52 DEGREES 12' 58" EAST A DISTANCE OF 472.98 FEET; THENCE RUN SOUTH 03 DEGREES 07' 51" WEST A SISTANCE OF 116.01 FEET; THENCE RUN SOUTH 72 DEGREES 25' 21" WEST A DISTANCE OF 295.12 FEET; THENCE RUN NORTH 52 DEGREES 29' 11" WEST A DISTANCE IF 161.19 FEET; THENCE RUN NORTH 03 DEGREES 07' 51" EAST A DISTANCE OF 17.59 FEET; THENCE RUN NORTH 86 DEGREES 52' 09" WEST A DISTANCE OF 40.00 FEET; THENCE RUN NORTH 03 DEGREES 07' 51" EAST A DISTANCE OF 40.00 FEET TO THE POINT OF BEGINNING.

ALSO LESS AND EXCEPT THAT PORTION CONVEYED TO THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION BY VIRTUE OF WARRANTY DEED RECORDED AUGUST 8, 2006 IN OFFICIAL RECORDS BOOK 8794, PAGE 4374, DESCRIBED AS FOLLOWS:

COMMENCE AT A 6-INCH CONCRETE MONUMENT WITHOUT IDENTIFICATION AS SHOWN ON FLORIDA DEPARTMENT OF NATURAL RESOURCES CERTIFIED CORNER RECORD DOCUMENT NO. 070974 MARKING THE SOUTHEAST CORNER OF THE NORTHEAST ¼ OF SECTION 27, TOWNSHIP 22 SOUTH, RANGE 27 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 33' 36" EAST ALONG THE EAST LINE OF SAID NORTHEAST ¼ OF SECTION 27 A DISTANCE OF 2666.28 FEET TO THE NORTHEAST CORNER OF SAID NORTHEAST ¼ OF SECTION 27; THENCE DEPARTING SAID EAST LINE OF THE NORTHEAST ¼ OF SECTION 27, RUN

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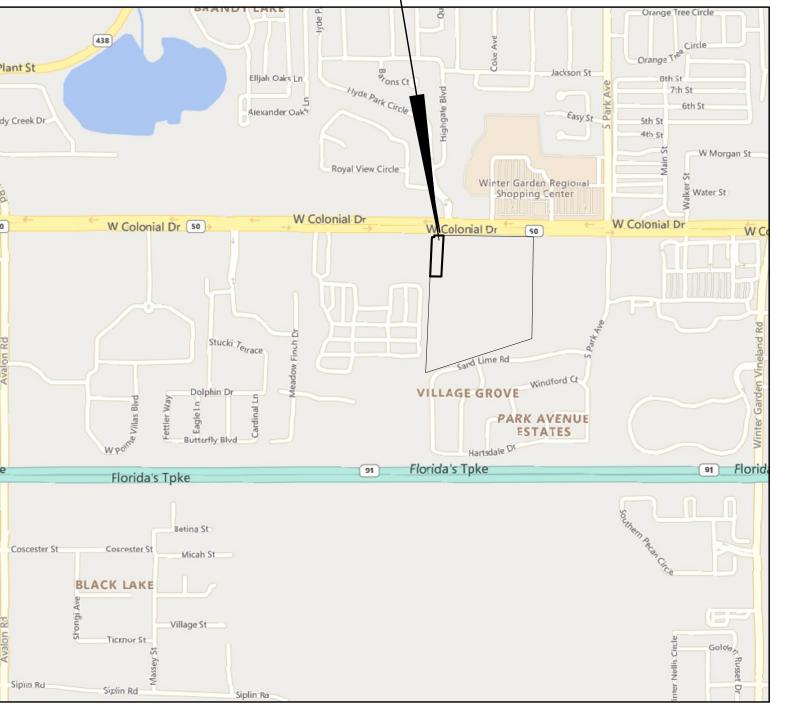
SOUTH 03 DEGREES 07' 51" WEST A DISTANCE OF 15.01 FEET; THENCE RUN NORTH 89 DEGREES 13' 19" WEST PARALLEL WITH SAID EXISTING SOUTH RIGHT OF WAY LINE OF STATE ROAD 50 A DISTANCE OF 20.02 FEET; THENCE RUN NORTH 03 DEGREES 07' 51" EAST A DISTANCE OF 15.01 FEET TO A POINT ON SAID EXISTING SOUTH RIGHT OF WAY LINE OF STATE ROAD 50; THENCE RUN SOUTH 89 DEGREES 13' 19" EAST ALONG SAID EXISTING SOUTH RIGHT OF WAY LINE OF STATE ROAD 50; THENCE RUN SOUTH 89 DEGREES 13' 19" EAST ALONG SAID EXISTING SOUTH RIGHT OF WAY LINE OF STATE ROAD 50 A DISTANCE OF 20.02 FEET TO THE POINT OF BEGINNING.

# WEST MARKET LOT 10

# WINTER GARDEN, FL

PREPARED FOR
J HEBDEN PARK, LLC
848 BENDING OAK TRAIL
WINTER GARDEN, FLORIDA 34787
PHONE: (407) 353-2296

PROJECT LOCATION
WEST MARKET LOT 10



VICINITY MAP

# Connelly & Wicker Inc.

Planning · Engineering · Landscape Architecture

10060 SKINNER LAKE DR., SUITE 500 JACKSONVILLE, FLORIDA 32246 (904) 265-3030 FAX: (904) 265-3031

FLORIDA REGISTRY 3650 L.A. NUMBER: LC26000311 www.cwieng.com

#### OWNER/DEVELOPER

GARDENIA PLAZA, LLC 1220 WEST COLONIAL DRIVE SUITE 303 WINTER GARDEN, FL 34787 (407) 654-7545

CIVIL ENGINEER
CONNELLY & WICKER INC

1560 NORTH ORANGE AVENUE, SUITE 210 WINTER PARK, FL 32789 (407) 261–3100 CONTACT: RYAN BLAIDA, P.E.

#### LANDSCAPE ARCHITECT

CONNELLY & WICKER INC
1560 NORTH ORANGE AVENUE, SUITE 210
WINTER PARK, FL 32789
(407) 261-3100
CONTACT: MICHAEL HOLBROOK, ASLA

# DRINKING WATER CITY OF WINTER GARDEN

300 W. PLANT STREET
WINTER GARDEN, FL 34787
(407) 656-4111

#### CITY OF WINTER GARDEN 300 W. PLANT STREET WINTER GARDEN, FL 34787

GARBAGE DISPOSAL
CITY OF WINTER GARDEN
300 W. PLANT STREET
WINTER GARDEN, FL 34787

(407) 656-4111

(407) 656 - 4111

#### GA

LAKE APOPKA GAS 1320 WINTER GARDEN-VINELAND RD. WINTER GARDEN, FL 34787 (407) 656-2734

GARY A. BURDEN 1507 S. HIAWASSEE ROAD SUITE 211 ORLANDO, FL 32835 (407) 694–2461

**SURVEYOR** 

#### TRAFFIC

535 VERSAILLES DR. MAITLAND, FL 32751 (407) 628-9955

#### GEOTECHNICAL ENGINEER

Wicker

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Connelly

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**WEST MARKE** 

INTEGRITY DRILLING & GEOPHYSICAL SERVICES, LLC 1506 MAX HOOKS ROAD #C GROVELAND, FL 34736 (866) 574–4347

#### DUKE ENERGY P.O. BOX 1004

P.O. BOX 1004 CHARLOTTE, NC 28201 (866) 372-4663

# PHONE CENTURY LINK

555 LAKE BORDER DRIVE APOPKA, FL 32703 (844)837-2765

# SPECTRUM

894 MAGUIRE ROAD OCOEE, FL 34761 (407)291-2500

	DRAWING INDEX				
SHEET NUMBER	SHEET TITLE				
1	COVER				
2	SIGNATURE SHEET				
3	ENERAL NOTES				
4	MASTER SITE PLAN				
5	SITE PLAN				
6	PAVING AND DRAINAGE PLAN				
7	WATER AND SEWER PLAN				
8A – 8B	PAVING AND DRAINAGE DETAILS				
9	SEDIMENT AND EROSION CONTROL PLAN				
10	SEDIMENT AND EROSION CONTROL DETAILS				
11	STORMWATER POLLUTION PREVENTION PLAN				
12	LIGHTING PLAN				
1	STANDARD DETAILS FOR UTILITIES SYSTEM				
2	STANDARD DETAILS FOR POTABLE WATER SYSTEM				
3	STANDARD DETAILS FOR WASTEWATER SYSTEM				
8	STANDARD DETAILS FOR RECLAIM WATER SYSTEM				
9	STANDARD DETAILS FOR PUBLIC SERVICES				
10	STANDARD DETAILS FOR PUBLIC SERVICES				
11	STANDARD DETAILS FOR MISCELLANEOUS DETAILS				



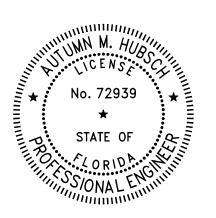
Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!

AMH DCG
Checked: O.C.:
JEW RCW
Date:
DECEMBER 2023
Scale:

23-04-0002

esigned:



PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CONNELLY & WICKER INC.
10060 SKINNER LAKE DR., SUITE 500
JACKSONVILLE, FL 32246
PHONE 904.265.3030 FAX 904.265.3031
FLORIDA REGISTRY NO. 3650 LA NO. LC26000311
AUTUMN M. HUBSCH, P.E. NO. 72939

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

	DRAWING INDEX					
SHEET NUMBER	SHEET TITLE					
1	COVER					
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Connelly & Wicker Inc. SHE URE WEST MARKET LOT

3\23-04-0002 West Market Lot 10\Design\Dwgs\Plots\CovSigNotesLegend.dwg

#### GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WINTER GARDEN DEVELOPMENT CODE REQUIREMENTS, AND THE MINIMUM STANDARD CONSTRUCTION DETAILS AND CONSTRUCTION SPECIFICATIONS. AN ENGINEERING PERMIT AND REMOVAL PERMIT IS REQUIRED PRIOR TO STARTING CONSTRUCTION.
- 2. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES TO HIS EMPLOYEES, AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH O.S.H.A. REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUB—SURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS THROUGHOUT THE PROJECT AREA TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINTS THAT MAY OCCUR DUE TO CONSTRUCTION OF THE
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL REQUIRED TO BE REMOVED AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED.
- 5. ALL IMPROVEMENTS SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE COUNTY/OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
- 6. FOR BOUNDARY, ROADWAY AND LOT GEOMETRY INFORMATION SEE PLAT OR ALTA SURVEY.
- 7. THE CONTRACTOR WILL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH THE PROJECT REQUIREMENTS. THIS SHALL INCLUDE DENSITY TESTS IN ALL PAVEMENT AREAS AND IN ALL UTILITY TRENCHES LOCATED IN PAVEMENT AREAS CONCRETE TESTING AND ALL OTHER MATERIAL TESTING. PRIOR TO ROAD BASE PLACEMENT,
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE FOR THE PROJECT INCLUDING CITY RIGHT-OF-WAY PERMITS FOR WORK IN THE CITY RIGHT-OF-WAY OR EASEMENT.
- 9. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN CITY OR STATE RIGHT—OF—WAY WITH THE PROPER AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION AND REPAIR.
- 10. "AS-BUILT" DRAWINGS AS-BUILTS TO THE CITY/OWNER AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT CITY OF WINTER GARDEN STANDARDS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE "AS-BUILT" DRAWINGS FOR APPROVAL BY THE CITY.
- 11. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 12. CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, AND BERMS INCLUDED IN THIS PROJECT, AND THE CLEARING AND GRUBBING OF ALL RIGHT-OF-WAY OR EASEMENTS SHALL BE CONSIDERED AS PART OF THE PROJECT.
- 13. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH PROJECT REQUIREMENTS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED.
- 14. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.
- 15. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- 16. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY
- THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY ENGINEER OR OWNER.

  17. ALL EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED.
- 18. NO BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE PERMITTED ON SITE.
- 19. PROVIDE CONTRACTION JOINTS AT 10' O.C. AND EXPANSION JOINTS AT 50' O.C. FOR CURBING. PROVIDE CONTRACTION JOINTS AT 6' O.C. AND EXPANSION JOINTS AT 18' O.C. ON ALL EXTERIOR SIDEWALKS.
- 20. MAINTENANCE OF TRAFFIC SHALL CONFORM TO PLAN HEREIN.
- 21. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEXES 11860, 17346, AND 17352.
- 22. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED ROADWAY/SITE DEVELOPMENT SHALL BE REMOVED BY THE CONTRACTOR UTILIZING METHOD APPROVED BY THE CITY.
- 23. ALL STORM PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 24. ALL SIDEWALKS, RAMPS, AND CROSSWALKS, WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.

#### POTABLE NOTES:

- 1. ALL PIPELINE MATERIAL AND INSTALLATION SHALL CONFORM TO THE CITY OF WINTER GARDEN STANDARDS (2020), CONTRACT DOCUMENTS, TECHNICAL SPECIFICATIONS AND ALL APPLICABLE LOCAL AND STATE REQUIREMENTS.
- 2. THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS ARE IN HAND BEFORE COMMENCEMENT OF CONSTRUCTION.
- 3. ALL UTILITY OWNERS AND SUNSHINE STATE ONE CALL (800) 432-4770 MUST BE NOTIFIED SEVENTY-TWO (72) HOURS PRIOR TO STARTING CONSTRUCTION.
- 4. THE CONTRACTOR SHALL NOTIFY FIBEROPTICS COMPANIES SEVEN (7) WORKING DAYS PRIOR TO ANY CONSTRUCTION ACTIVITY IN THEIR AREA. EXTREME CAUTION SHALL BE USED IN AREAS WHERE FIBEROPTIC CABLE IS LOCATED ADJACENT TO CONSTRUCTION ACTIVITY

- 5. ALL PIPING AND/OR APPURTENANCES CONNECTING TO ADJACENT CONSTRUCTION SHALL BE PLUGGED IF ADJACENT WORK HAS NOT BEEN COMPLETED.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINTS, BRACING, TEST PLUGS AND/OR OTHER DEVICES NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF ALL PRESSURE PIPING SYSTEMS.
- 7. ALL FITTINGS FOR BURIED PIPING 4—INCH AND LARGER, SHALL BE DUCTILE IRON MECHANICAL JOINT (D.I.M.J) BITUMEN COATED EXTERIOR, APPLIED PER ANSI/AWWA A21.15/C151 UNLESS NOTED OTHERWISE. THESE FITTINGS SHALL INCORPORATE RESTRAINING RINGS, MEGA—LUGS OR OTHER APPROVED EQUIVALENT MECHANICAL DEVICES.
- 8. ALL BURIED PIPING SPECIFIED FOR PRESSURE SERVICE SHALL BE PROVIDED WITH RESTRAINING DEVICES AT ALL DIRECTIONAL CHANGES, UNLESS NOTED OTHERWISE.
- 9. ALL PROPOSED DUCTILE IRON PIPE, FITTINGS AND RESTRAINTS WITHIN FIFTY (50) FEET OF AN EXISTING GAS MAIN SHALL BE POLYETHYLENE ENCASED.
- 10. ALL FASTENERS SHALL BE MANUFACTURED OF NON-CORROSIVE MATERIALS. WHEN STAINLESS STEEL IS REQUIRED, 304 S.S. SHALL BE USED FOR ALL BURIED APPLICATIONS AND 316 S.S. SHALL BE USED FOR ABOVE GROUND OR CORROSIVE ENVIRONMENTS
- 11. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN DERIVED FROM EXISTING UTILITY RECORDS AND ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES PRIOR TO EXCAVATION IN ORDER TO PROTECT THEM DURING CONSTRUCTION.
- 12. WHERE MINIMUM SEPARATION BETWEEN UTILITIES IS REQUIRED, THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
- 13. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK AND EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE FORTY—EIGHT (48) HOURS IN ADVANCE OF THE PROPOSED WORK. IF THERE IS A CONFLICT THE CONTRACTOR SHALL NOTIFY THE CITY OF PALM COAST IMMEDIATELY. INFORMATION ON THE OBSTRUCTION SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL INCLUDE: LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.
- 14. LOCATIONS AND DIMENSIONS OF EXISTING RIGHTS—OF—WAY AND EASEMENTS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL THE LIMITS OF RIGHTS—OF—WAY AND EASEMENTS IN ORDER TO AVOID ENCROACHMENTS.
- 15. THE CONTRACTOR SHALL REPLACE SOD 3 FEET FROM ALL DISTURBED AREAS: STRUCTURES, SIDEWALKS, ROADS, AND POND IMPROVEMENT AREAS. ALL OTHER DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE DRAWINGS.
- 16. THE CONTRACTOR SHALL REPLACE, BUT NOT BE LIMITED TO, PAVING, STABILIZED EARTH, DRIVEWAYS OR ANY ITEMS DISTURBED OR DAMAGED BY THE CONSTRUCTION OR IT'S RELATED ACTIVITIES. THE CONTRACTOR SHALL REPLACE WITH EQUAL MATERIAL OR AS DIRECTED BY THE CITY OF WINTER GARDEN.
- 17. THE DISPOSAL OF ANY EXCESS EARTHWORK MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. ALL PRACTICAL AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL.
- 20. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE HIS WORK WITH THE WORK SCHEDULE OF ADJACENT CONTRACTORS AS WELL AS THE OPERATIONS STAFF OF THE
- 21. THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN 72 HOURS BEFORE
- 22. PIPE MEASUREMENTS SHALL BE CENTER TO CENTER OF FITTINGS OR VALVES.

COMMENCING WITH CONSTRUCTION.

- 23. PVC PIPE LESS THAN 2-INCHES SHALL CONFORM TO ASTM D1785. THREADED PIPE AND FITTINGS SHALL BE SCH. 80 AND CONFORM TO ASTM D2464. UNTHREADED PIPE AND FITTINGS SHALL BE SCH. 40 WITH SOLVENT CEMENTED JOINTS. CEMENTED JOINTS AND FITTINGS SHALL COMPLY WITH ASTM D2466 AND D2855.
- 24. 2", 2 1/2" AND 3" PVC PIPE SHALL CONFORM TO ASTM D2241. PIPE SHALL BE FURNISHED IN 20-FOOT LENGTHS, SHALL HAVE DIMENSION RATIO (DR21) AND A WATER PRESSURE RATING OF 200 PSI.
- 25. PVC PIPE 4-INCHES THROUGH 12-INCHES SHALL CONFORM TO AWWA STANDARD C900 (DR18); PVC PIPE 14-INCHES THROUGH 48-INCHES SHALL CONFORM TO AWWA STANDARD C905 (DR18) UNLESS NOTED OTHERWISE.
- 26. DUCTILE IRON PIPE SHALL CONFORM TO AWWA STANDARD C151, PRESSURE CLASS 350 FOR 4—INCH THROUGH 12—INCH DIAMETER PIPE; PRESSURE CLASS 250 FOR PIPE LARGER THAN 12—INCHES IN DIAMETER UNLESS NOTED OTHERWISE.
- 27. VALVES FOR POTABLE WATER MAINS SHALL BE DUCTILE IRON (D.I.) EPOXY COATED GATE VALVES OR BUTTERFLY VALVES. VALVES FOR RAW WATER MAINS SHALL BE DUCTILE IRON (D.I.) EPOXY COATED GATE VALVES ONLY. SEE SPECIFICATIONS FOR DETAILS.
- 28. ALL POLYETHYLENE PRESSURE PIPE AND FITTINGS 4-INCH AND LARGER SHALL CONFORM TO AWWA STANDARD C906-99 (DR11) PRESSURE CLASS 160 AND ASTM STANDARD D3350, D2837 PE 3408.

#### SANITARY SEWER NOTES

1. ALL PIPELINE MATERIAL AND INSTALLATION SHALL CONFORM TO THE CITY OF WINTER GARDEN STANDARDS (2020), CONTRACT DOCUMENTS, TECHNICAL SPECIFICATIONS AND ALL APPLICABLE LOCAL AND STATE REQUIREMENTS.

- 2. THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS ARE IN HAND BEFORE COMMENCEMENT OF CONSTRUCTION.
- 3. ALL UTILITY OWNERS AND SUNSHINE STATE ONE CALL (800) 432-4770 MUST BE NOTIFIED SEVENTY-TWO (72) HOURS PRIOR TO STARTING CONSTRUCTION.
- USED IN AREAS WHERE FIBEROPTIC CABLE IS LOCATED ADJACENT TO CONSTRUCTION ACTIVITY.

  5. ALL PIPING AND/OR APPURTENANCES CONNECTING TO ADJACENT CONSTRUCTION

4. THE CONTRACTOR SHALL NOTIFY FIBEROPTICS COMPANIES SEVEN (7) WORKING DAYS

PRIOR TO ANY CONSTRUCTION ACTIVITY IN THEIR AREA. EXTREME CAUTION SHALL BE

6. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN

SHALL BE PLUGGED IF ADJACENT WORK HAS NOT BEEN COMPLETED.

DERIVED FROM EXISTING UTILITY RECORDS. ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES PRIOR TO EXCAVATION IN ORDER TO PROTECT THESE UTILITIES DURING CONSTRUCTION.

- 8. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK AND EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE FORTY—EIGHT (48) HOURS IN ADVANCE OF THE PROPOSED WORK. IF THERE IS A CONFLICT THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN IMMEDIATELY. INFORMATION ON THE OBSTRUCTION SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL INCLUDE: LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.
- 9. LOCATIONS AND DIMENSIONS OF EXISTING RIGHTS—OF—WAY AND EASEMENTS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL THE LIMITS OF RIGHTS—OF—WAY AND EASEMENTS IN ORDER TO AVOID ENCROACHMENTS.
- 10. THE CONTRACTOR SHALL REPLACE SOD 3 FEET FROM ALL DISTURBED AREAS: STRUCTURES, SIDEWALKS, ROADS, AND POND IMPROVEMENT AREAS. ALL OTHER DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE DRAWINGS.
- 11. THE CONTRACTOR SHALL REPLACE, BUT NOT BE LIMITED, TO PAVING, STABILIZED EARTH, DRIVEWAYS OR ANY ITEMS DISTURBED OR DAMAGED BY THE CONSTRUCTION OR ITS RELATED ACTIVITIES. THE CONTRACTOR SHALL REPLACE WITH EQUAL MATERIAL OR AS DIRECTED BY THE CITY OF WINTER GARDEN.
- 12. THE DISPOSAL OF ANY EXCESS EARTHWORK MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 13. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE HIS WORK WITH THE WORK SCHEDULE OF ADJACENT CONTRACTORS AS WELL AS THE STAFF OF THE CITY OF WINTER GARDEN.
- 14. THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN UTILITY DEPARTMENT 72 HOURS BEFORE COMMENCING WITH CONSTRUCTION.
- 15. WHERE MINIMUM SEPARATION BETWEEN UTILITIES IS REQUIRED, THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
- 16. PVC PIPE AND FITTINGS 4-INCHES THROUGH 15-INCHES SHALL CONFORM TO ASTM D3034, SDR 26.
- 18. PVC PIPE AND FITTINGS SHALL BE SOLID GREEN IN COLOR.
- 22. IN AREAS WHERE CONSTRUCTION ACTIVITIES RESTRICT NORMAL ACCESS TO PROPERTIES, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALTERNATE ACCESS ROUTES WHICH ARE SUBJECT TO APPROVAL BY FLORIDA WATER SERVICES.
- 23. ALL PRACTICAL AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL.
- 24.
- 25. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS FOR APPROVAL BY THE CITY OF WINTER GARDEN PRIOR TO PROCUREMENT.
- 26. THE CONTRACTOR SHALL VIDEO THE ENTIRE WORK AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION. ONE COPY OF THE PRE—CONSTRUCTION VIDEO SHALL BE SUBMITTED TO THE CITY OF WINTER GARDEN.
- 27. PIPE MEASUREMENTS ON THE MAIN "TRUNK" SEWER SHALL BE FROM CENTER TO CENTER OF MANHOLES OR CLEANOUTS, UNLESS OTHERWISE NOTED.
- 28. PIPE MEASUREMENTS FOR SERVICE LATERALS SHALL BE FROM THE MAIN "TRUNK" SEWER TO THE PROPERTY LINE. THE DEPTH OF THE LATERAL AT THE PROPERTY LINE SHALL BE MEASURED AND RECORDED ON THE RECORD DRAWINGS.
- 29. TESTING OF GRAVITY SEWER SYSTEMS AND MANHOLES SHALL FOLLOW THE REQUIREMENTS FOUND WITHIN THE SPECIFICATIONS.
- 30. CONFLICT BETWEEN WATER MAINS, STORM AND REUSE SYSTEMS AND PROPOSED SANITARY SEWER MAINS SHALL BE RESOLVED BY ADJUSTING THE PRESSURE MAINS AS NECESSARY. SEE "UTILITY SEPARATION DETAIL" AND ACCOMPANYING NOTES AS SHOWN ON THE CIVIL DETAIL (CD) SHEETS OF THIS PLAN SET.
- 31. ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORK DAY.
- 32. UTILITY INTERRUPTION SHALL NOT BE PERMITTED UNLESS WRITTEN APPROVAL IS PROVIDED BY THE CITY OF WINTER GARDEN. FOR A SCHEDULED INTERRUPTION OF SANITARY SEWER MAIN FLOW, THE CONTRACTOR SHALL PROVIDE TO THE CITY OF WINTER GARDEN FOR REVIEW A WRITTEN SCHEDULE AS TO THE METHOD AND DURATION OF FLOW INTERRUPTION. BYPASS PUMPING OR OTHER PROCEDURES MAYBE REQUIRED TO MAINTAIN ALL EXISTING SERVICE.
- 33. THE CITY OF WINTER GARDEN SHALL REVIEW THE SUBMITTAL AND WITHIN A TIMELY MANNER AND SHALL INFORM THE CONTRACTOR REGARDING APPROVAL OR DENIAL OF THEIR REQUEST. IF THEIR REQUEST IS REJECTED BY THE CITY, THE CONTRACTOR MAY RESUBMIT THEIR REQUEST MODIFYING IT TO THE SATISFACTION OF THE. ALL CONNECTIONS SHALL BE MADE ONLY ON THE AGREED UPON TIME AND DATE ESTABLISHED IN THE SUBMITTAL.
- 34. DURING NORMAL SANITARY SEWER MAIN FLOW INTERRUPTION, THE CONTRACTOR SHALL PROVIDE UNINTERRUPTED BY—PASS FLOW AND SHALL PROVIDE ALL EQUIPMENT NECESSARY TO ACCOMPLISH THE SAME IN THE FORM OF, BUT NOT LIMITED TO THE FOLLOWING: POWER, PUMPS, PIPING, APPURTENANT VALVES AND FITTINGS AND/OR SEPTIC TANKER TRUCK PUMPING, HAULING AND DISPOSAL SERVICES.
- 35. ALL BURIED UTILITY PIPES TO BE ABANDONED IN PLACE SHALL BE CUT, PLUGGED AND FILLED WITH GROUT.
- 36. IT IS THE INTENT OF THIS CONTRACT FOR THE CONTRACTOR TO MAINTAIN CONTINUOUS RESTORATION BEHIND THE UTILITY WORK ON A DAILY BASIS. NO MORE THAN FIFTY (50) LINEAL FEET OF UNRESTORED LINE WORK SHALL REMAIN AT THE END OF EACH WORK DAY.

#### FDOT ROW CONSTRUCTION

1. ALL CONSTRUCTION IN THE FDOT ROW SHALL CONFIRM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARDS, THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND

BRIDGE CONSTRUCTION, AND THE FDOT UTILITY ACCOMMODATION MANUAL.

2. FDOT 48 HOURS START NOTICE CONTACT PHONE NUMBER 321-319-8100

- 3. PERMITTEE SHALL NOT BEGIN ANY WORK ALONG THE FDOT RIGHT—OF—WAY UNTIL AN FDOT INSPECTOR IS PRESENT AT THE JOB SITE AND AGREES THAT PROPER PREPARATIONS HAVE BEEN MADE.
- 4. MOT PER FDOT INDEX 612, 613 & 660.
- 5. FOURTEEN (14) DAYS PRIOR TO CLOSING A LANE, THE PERMITTEE SHALL NOTIFY THE LCIS SYSTEM THE TIME AND LOCATION OF THE NEEDED LANE CLOSURE AND A DESCRIPTION OF WORK BEING DONE. THE UAO SHALL NOT CLOSE ANY LANES UNTIL RECEIVING APPROVAL FROM FDOT. THE UAO IS NOT REQUIRED TO REPORT LANE CLOSURES FOR EMERGENCIES AS DESCRIBED IN 2017 UAM SECTION 2.2.
- 6. FDOT RESERVES THE RIGHT TO REQUIRE SIGNS AND PAVEMENT MARKINGS TO BE UPDATED/ADDED/REMOVED IN THE FIELD.
- 7. NO LANE CLOSURES ARE ALLOWED FROM 7:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM MONDAY THROUGH FRIDAY

#### GENERAL REQUIREMENTS FROM CITY OF WINTER GARDEN

- 1. ALL GRAVITY SANITARY PIPE AND FITTING SHALL BE PVC SDR 26. NO D.I.P. WILL BE ALLOWED IN ANY PORTION OF THE SANITARY SEWER SYSTEM
- 2. ALL COMPACTION SHALL BE 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180)
- 3. AS-BUILT RECORD DRAWINGS SHALL COMPLY WITH CITY OF WINTER GARDEN REQUIREMENTS AVAILABLE ON-LINE.
- 4. ALL STORM (≥ 12") AND SANITARY LINES (≥ 6") SHALL BE INSPECTED BY CCTV PRIOR TO COMPLETION.

5. WARRANTY PERIOD FOR ANY PUBLIC IMPROVEMENTS, INCLUDING LIFT STATION AND

FORCE MAIN, SHALL BE 2 YEARS FROM THE CERTIFICIATE OF COMPLETION

6. THE USE OF HDPE PIPE SHALL MEET ALL CITY OF WINTER GARDEN'S MATERIAL AND INSTALLATION REQUIREMENTS AS SPECIFIED IN THE CITY'S STANDARDS AND SPECIFICATIONS INCLUDING CLASS I BEDDING AND LASER PROFILING (SEE UNDER ONLINE FORMS ON CITY OF WINTER GARDEN'S WEBSITE).

#### SURVEY NOTES

- 1. LANDS SHOWN HEREON WERE NOT ABSTRACTED BY THE SURVEYOR FOR
- 2. THE LAND DESCRIPTION AND EASEMENTS SHOWN HEREON ARE IN ACCORD WITH THE DESCRIPTION PROVIDED BY THE CLIENT.
- 3. BEARINGS REFER TO ASSUMED N89°32'43"E ALONG THE NORTH PROPERTY LINE

RIGHTS-OF-WAY AND/OR EASEMENTS OF RECORD OR OWNERSHIP.

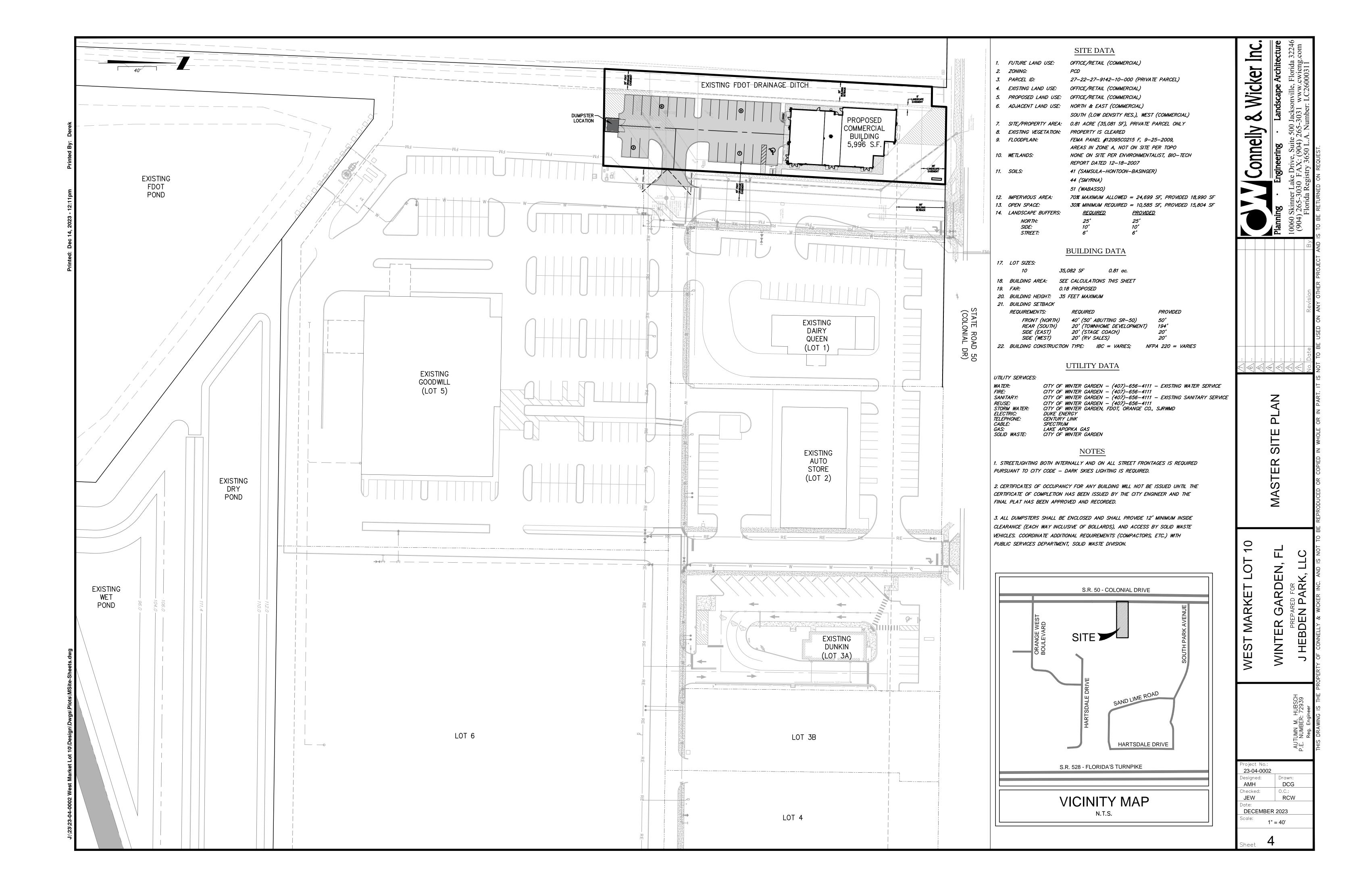
- 4. ALL DISTANCES/ANGLES ARE MEASURED/DEED UNLESS OTHERWISE SHO
- 5. BENCHMARKS REFER TO NAVD 1988 DATUM. SITE BENCH MARKS, N. RIM STRUCTURES.
- 6. FLOOD ZONE: X & AE.
- 7. ONLY VISIBLE IMPROVEMENTS LOCATED
- 8. INTERIOR ELEVATIONS DONE BY OTHERS NOT CHECKED BY THIS FIRM.
- 9. DRAINAGE STRUCTURES COULD NOT BE OPENED SO PIPE SIZES, DIRECTIONS AND INVERTS ARE APPROX.

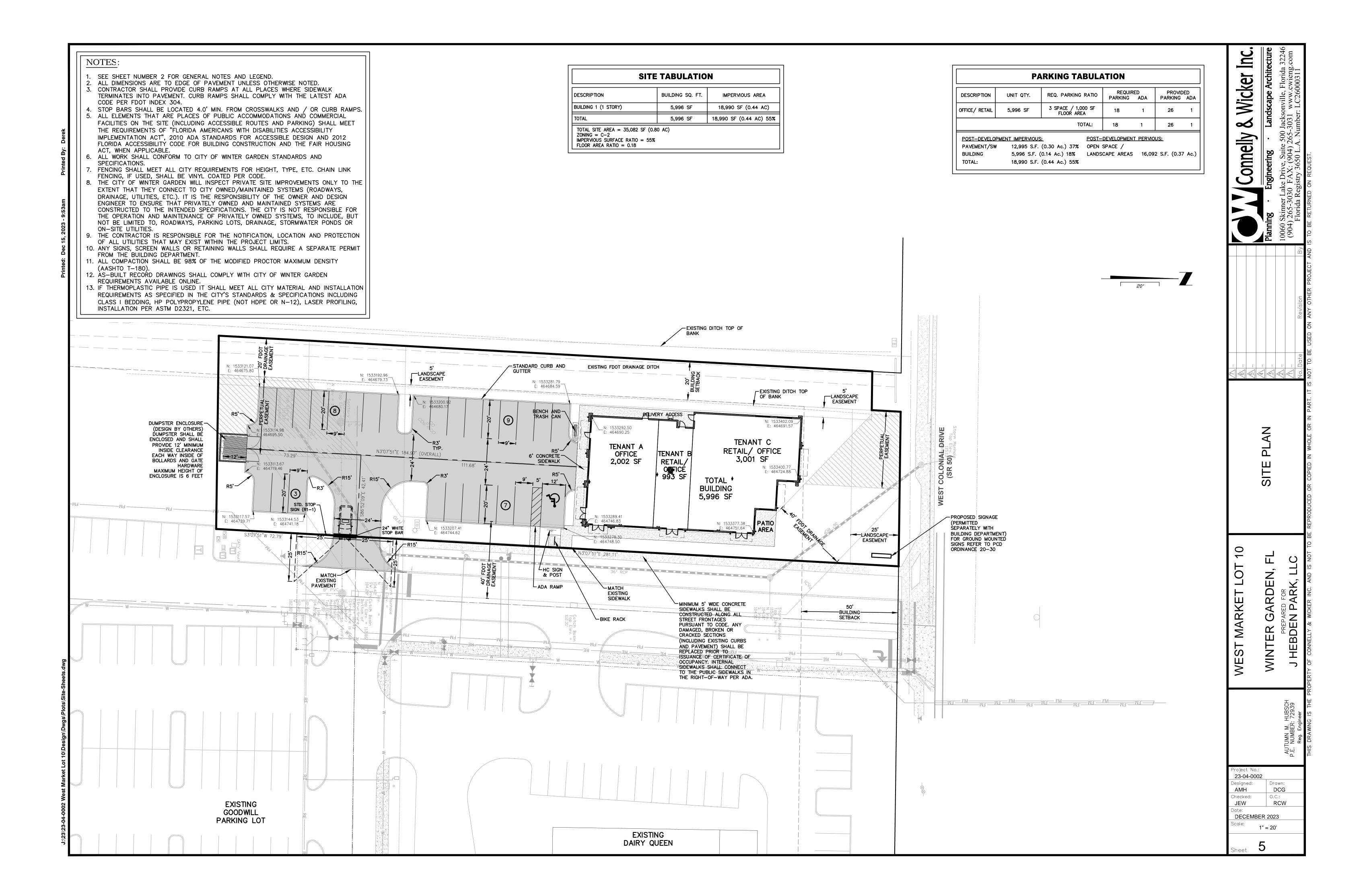
	GENERAL NOTES	
WEST MARKET LOT 10	WINTER GARDEN, FL	PREPARED FOR J HEBDEN PARK, LLC
		AUTUMN M. HUBSCH P.E. NUMBER: 72939 Red. Engineer
Project No 23-04-00 Designed: AMH Checked: JEW Date: DECEME Scale:	02 Drag 0.C. R	CG :: CW

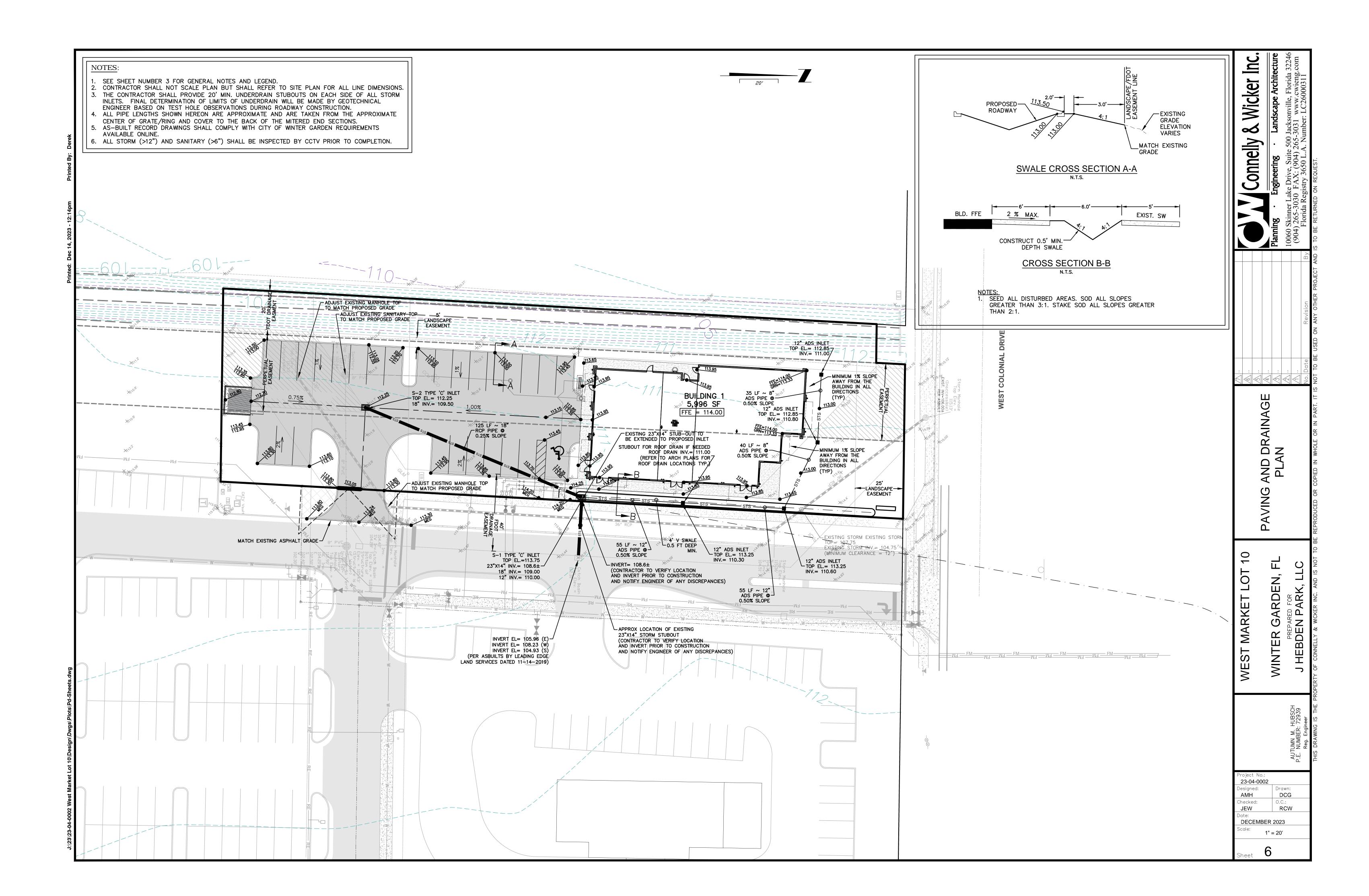
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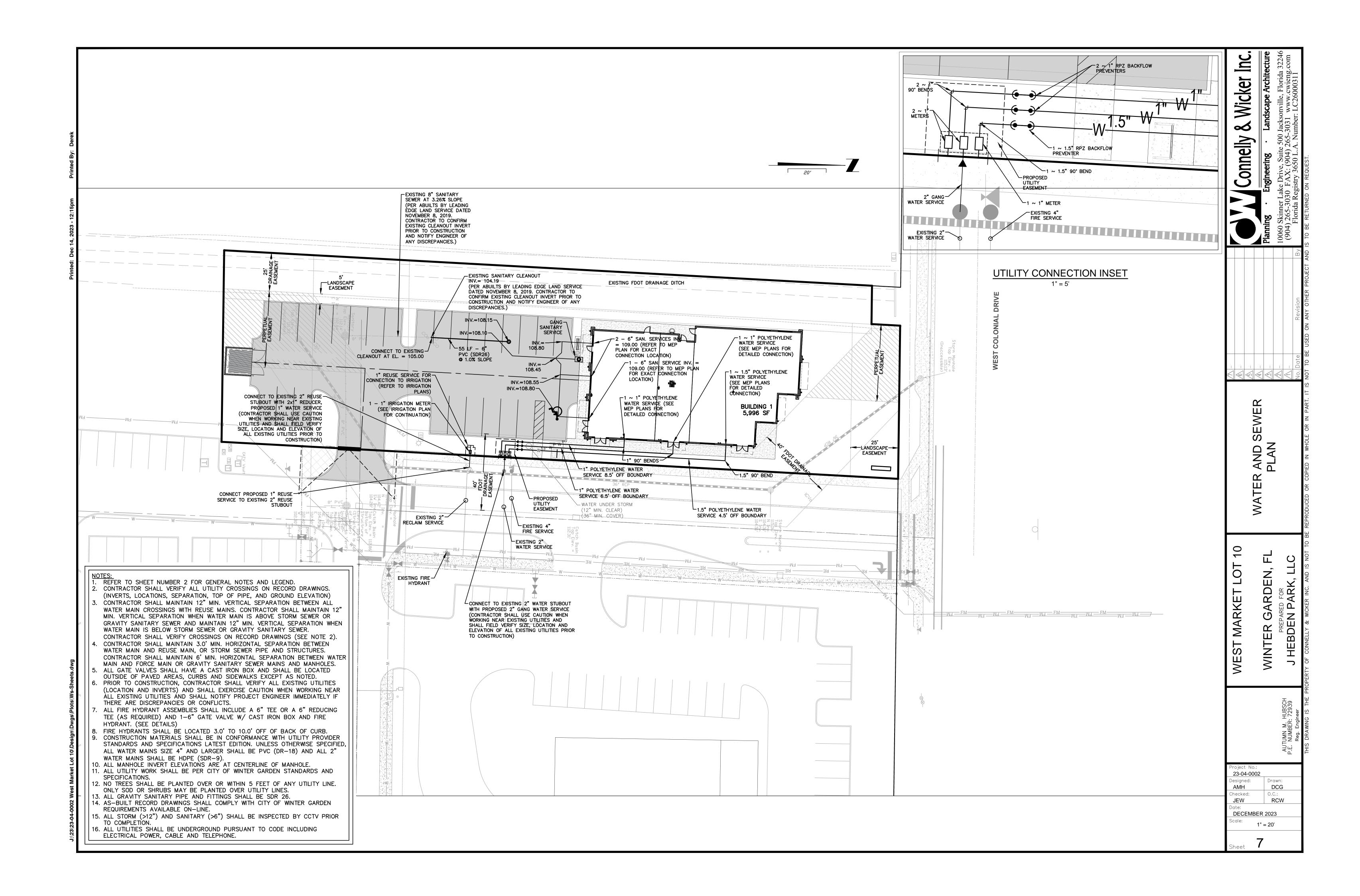
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NOTE: WHEN USED ON HIGH SIDE OF ROADWAY, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT.

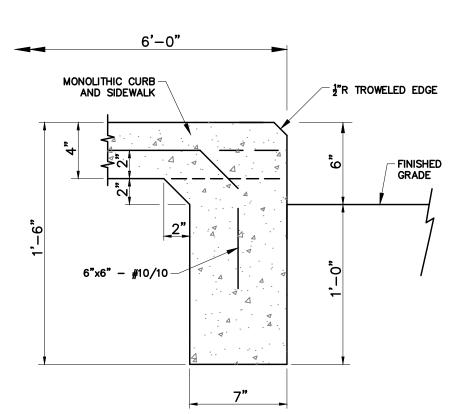
CURB AND CURB & GUTTER NOTES:

1. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. 2. CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

3. WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.

#### TYPE "F" CURB & GUTTER

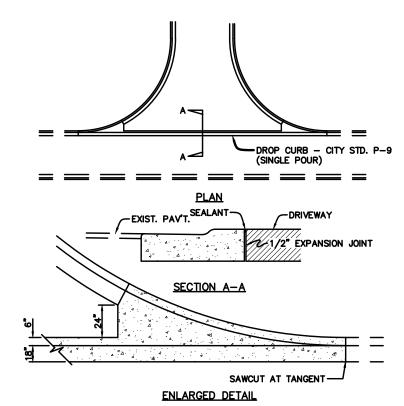
N.T.S.



1. PROVIDE TROWELED JOINTS IN SIDEWALK EQUALLY SPACED AT INTERVALS APPROX. EQUAL TO THE SIDEWALK WIDTH.

2. PROVIDE 1/2" EXPANSION JOINT WITH PRE MOLDED EXPANSION JOINT FILLER AT ALL INTERSECTIONS, STRUCTURES OR BUILDINGS AND AT A MAXIMUM SPACING OF 40 FEET.

### MONOLITHIC CURB & SIDEWALK DETAIL



TYPICAL VALLEY CURB DETAIL

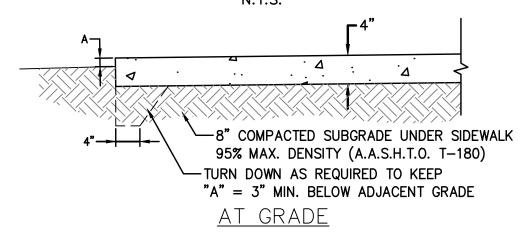
-1 1/4" TYPE S-III ASPHALTIC CONCRETE SURFACE COURSE 0 6" LIMEROCK BASE LBR 100, COMPACTED TO A MINIMUM 100% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY

(A.A.S.H.T.O. T-180). PRIMED ENTIRE WIDTH - 12" STABILIZED SUBGRADE MINIMUM LBR 40, MAXIMUM PLASTIC INDEX OF 6, COMPACTED TO MINIMUM DENSITY OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (A.A.S.H.T.O. T-180).

1. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. 2. SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA AND MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES. 3. ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR 333, FDOT STANDARD SPECIFICATIONS,

LATEST EDITION. 4. THE ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION SHALL MEET THE REQUIREMENTS SPECIFIED IN THE CITY OF JACKSONVILLE LAND DEVELOPMENT CODE SECTION 3.3.1 (ROADWAY PAVEMENT REQUIREMENTS).

#### TYPICAL PAVEMENT SECTION



1. CONSTRUCT STRAIGHT JOINTS WITH FACE PERPENDICULAR TO SURFACE OF CONCRETE. TRAVERSE JOINTS SHALL BE AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED ON PLANS.

2. PROVIDE EXPANSION JOINTS AT 100' INTERVAL MAXIMUM SPACING ON CENTER. 3. PROVIDE EXPANSION JOINTS FILLER FOR JOINTS ABUTTING CURBS, CATCH BASINS, MANHOLES, INLETS STRUCTURES, WALKS AND OTHER FIXED

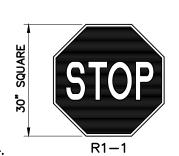
OBJECTS UNLESS OTHERWISE INDICATED ON PLANS. 4. EXTEND JOINTS FILLER FULL WIDTH AND DEPTH OF JOINT, AND 1/2" BELOW FINISHED SURFACE. PLACE SEALANT OVER JOINT FILLER PER MANUFACTURERS RECOMMENDATIONS.

5. USE PREMOLDED ASPHALT-IMPREGNATED FIBERBOARD, 1/8" THICK CONFORMING TO ASTM D1751.

6. CONTRACTION JOINT SHALL BE SAW CUT (1/4" WIDE BY 1" DEEP). 7. FINISHED SURFACE FOR CONCRETE SIDEWALK SHALL BE GRAY CONCRETE WITH LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAFFIC. 8. PROVIDE CRACK CONTROL JOINTS @(SAME AS WIDTH) O.C. 9. PROVIDE 16" STRIP SOD ADJACENT TO ALL EDGES OF SIDEWALK, CURB AND

PAVEMENT AREAS. 10. CONCRETE COMPRESSION STRENGTH 3000 P.S.I. @ 28 DAYS 11. SIDEWALK TO BE CONSTRUCTED WITH SLOPES COMPLYING TO WITH LATEST ADA CODE AND FDOT INDEX 304. SIDEWALK MAX VERTICAL SLOPE OF 5.0% AND MAX CROSS SLOPE OF 2.0%

# **CONCRETE WALK**



THE STOP SIGN SHALL BE OCTAGON WITH WHITE MESSAGE AND BORDER ON A RED BACKGROUND. THE POSTS AND BRACKETS WILL BE PER FDOT STANDARD INDEX 11860 AND 11861.

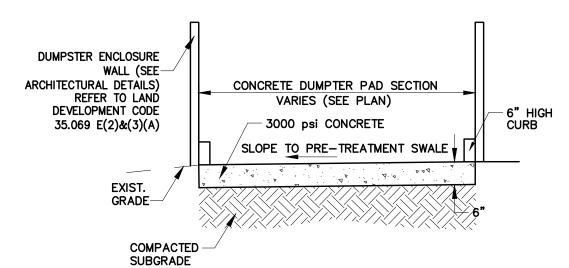
STOP SIGN DETAIL

EDGE OF DETECTABLE WARNING - DOME PATTERNS SHALL BE 2.4" MAX. IN-LINE WITH THE DIRECTION OF TRAVEL. TRUNCATED DOME (SEE DETAIL) 0.9" MIN. 0.2"±0.02"— 1.4" MAX. INTEGRAL DOME TRUNCATED DOME EDGE OF DETECTABLE NOTE: USE ADA PAVERS OR APPROVED EQUIVALENT

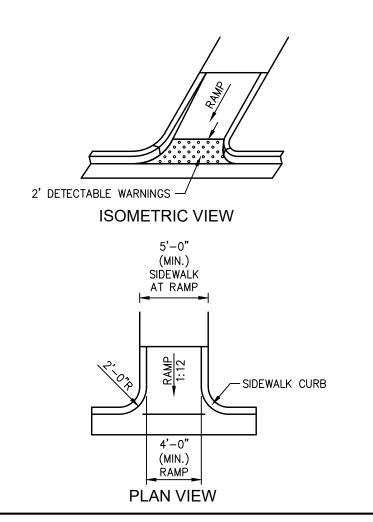
BASE-TO BASE SPACING SHALL BE 0.65" MINIMUM BETWEEN DOMES. <u>PLAN VIEW</u>

ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB

**CURB RAMP DETECTABLE WARNING** 



#### CONCRETE DUMPSTER PAD SECTION N.T.S.

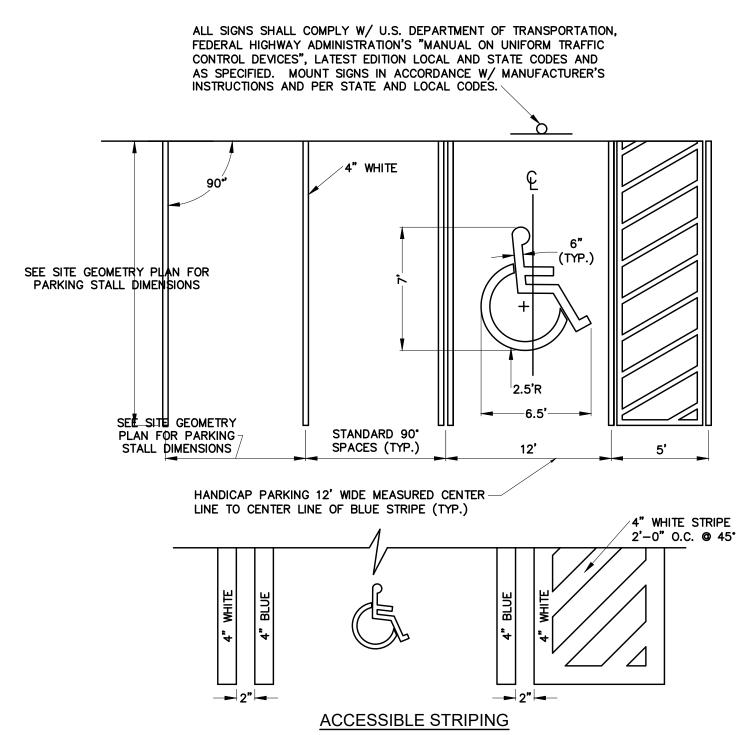


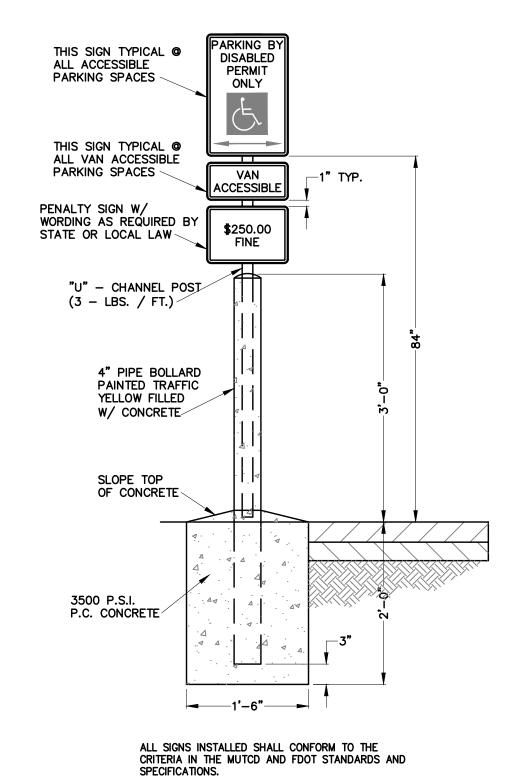
NOTES:

1. THIS DETAIL IS FOR INFORMATIONAL PURPOSES ONLY, SEE FDOT INDEX 304 FOR COMPLETE NOTES AND DETAILS

# FDOT INDEX 304 CURB RAMP DETAIL

N.T.S.





HANDICAP STRIPING

N.T.S.

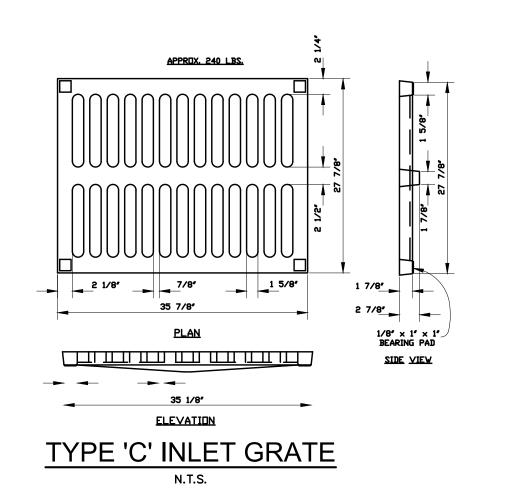
ACCESSIBLE PARKING SIGN N.T.S.

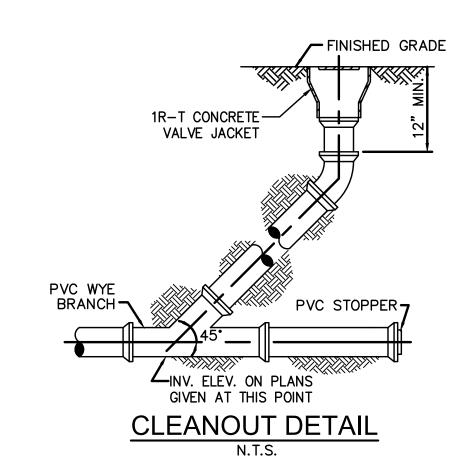
Connelly A B 10 GARDI MARKET EBDEN WINTER WEST 工 23-04-0002 esigned: DCG AMH Checked: RCW JEW DECEMBER 2023 8A

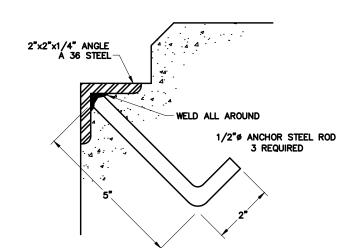
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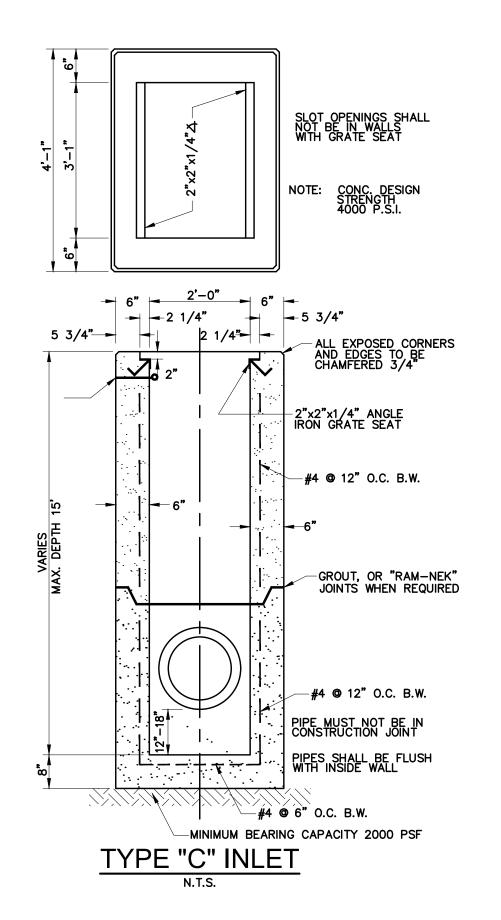
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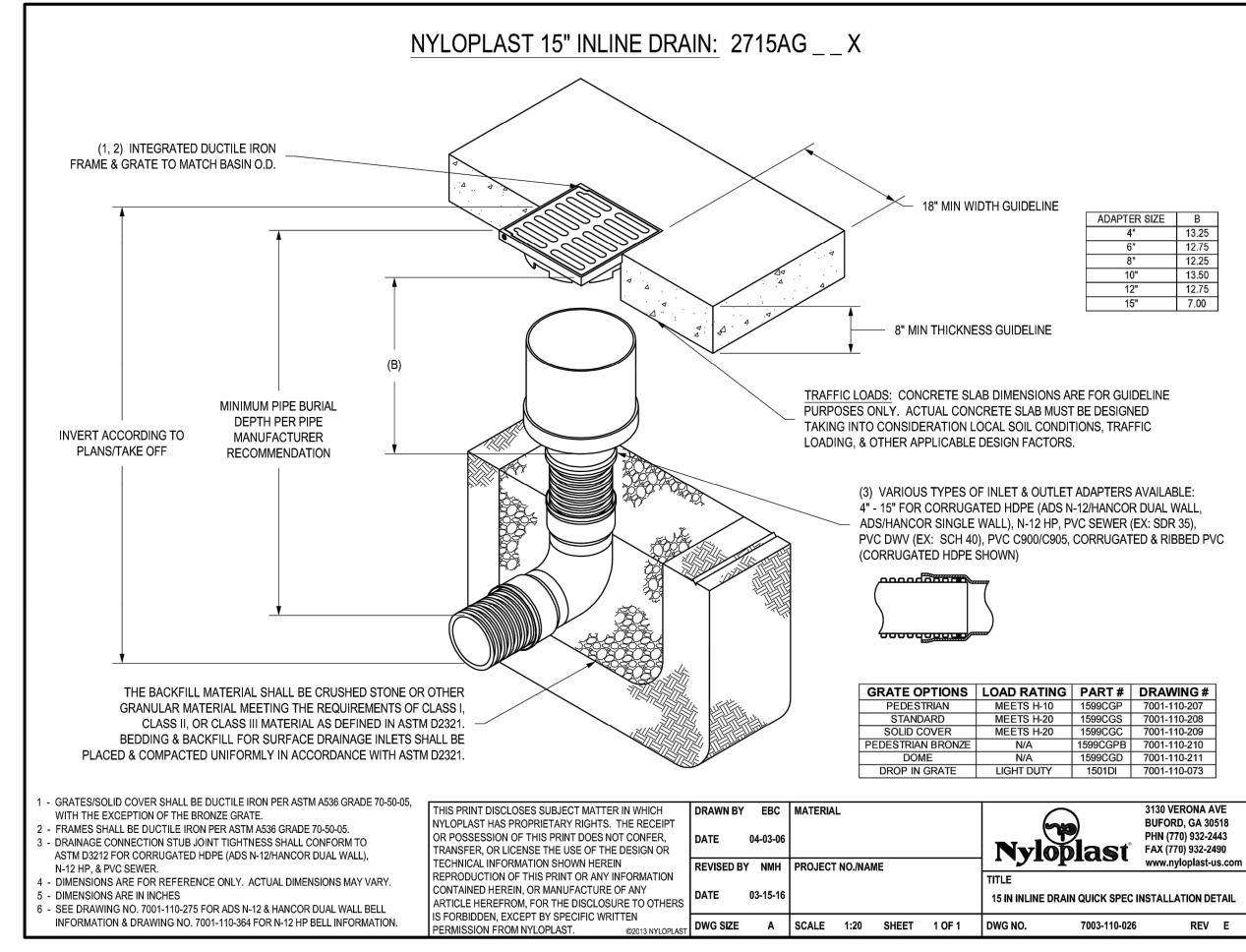


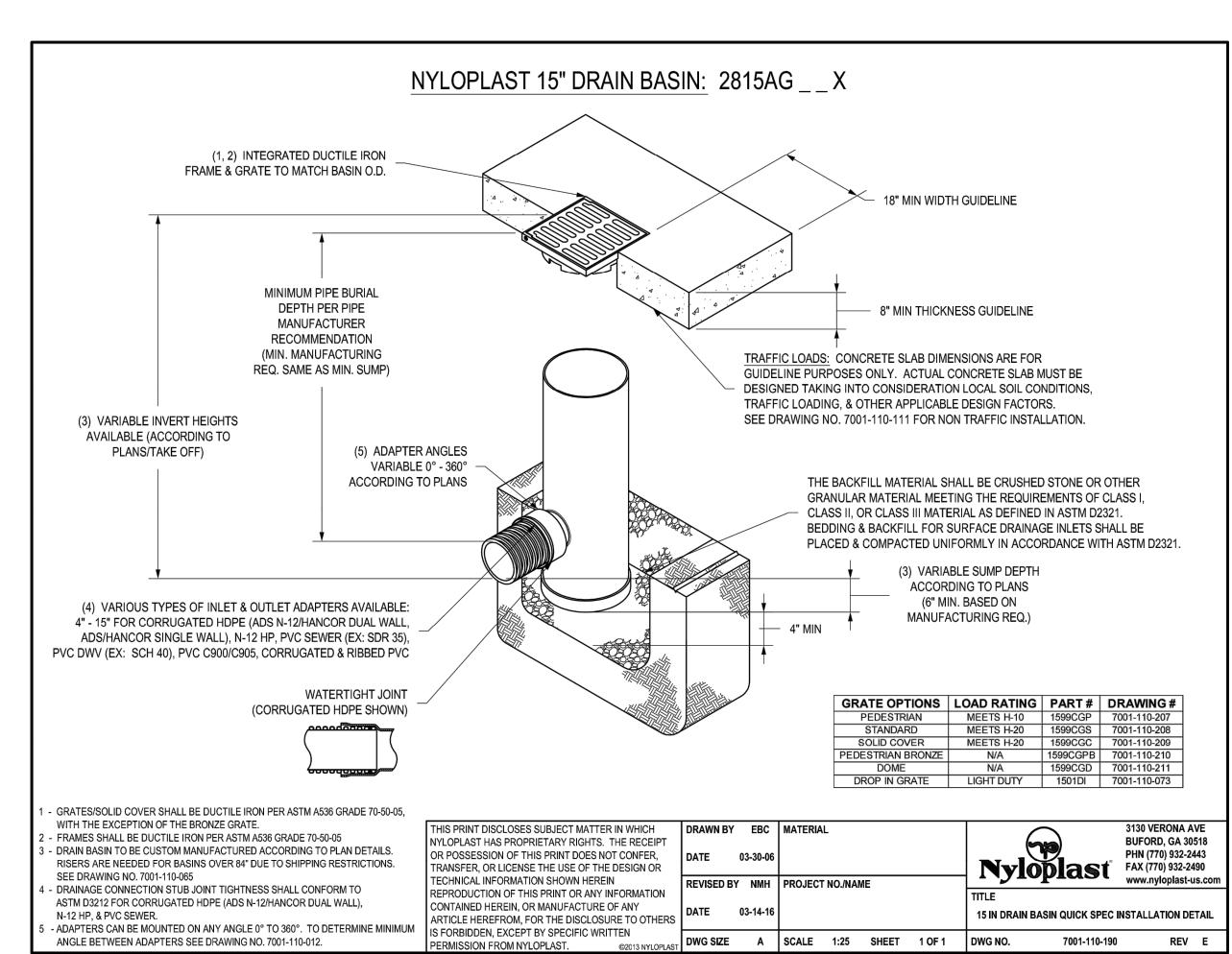


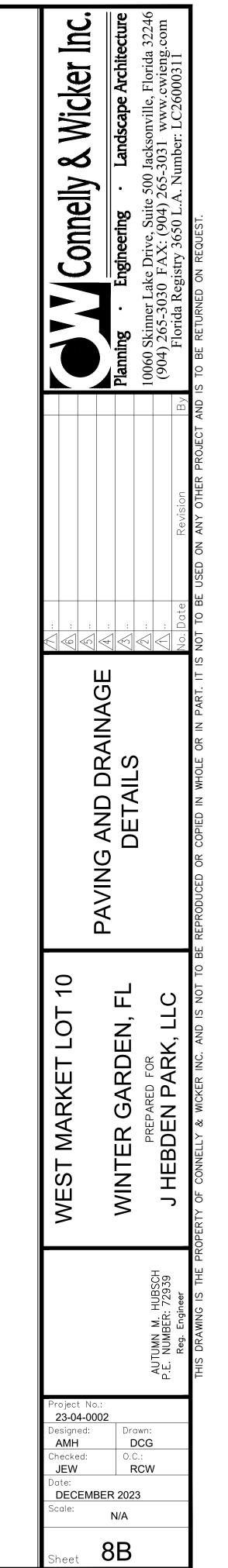


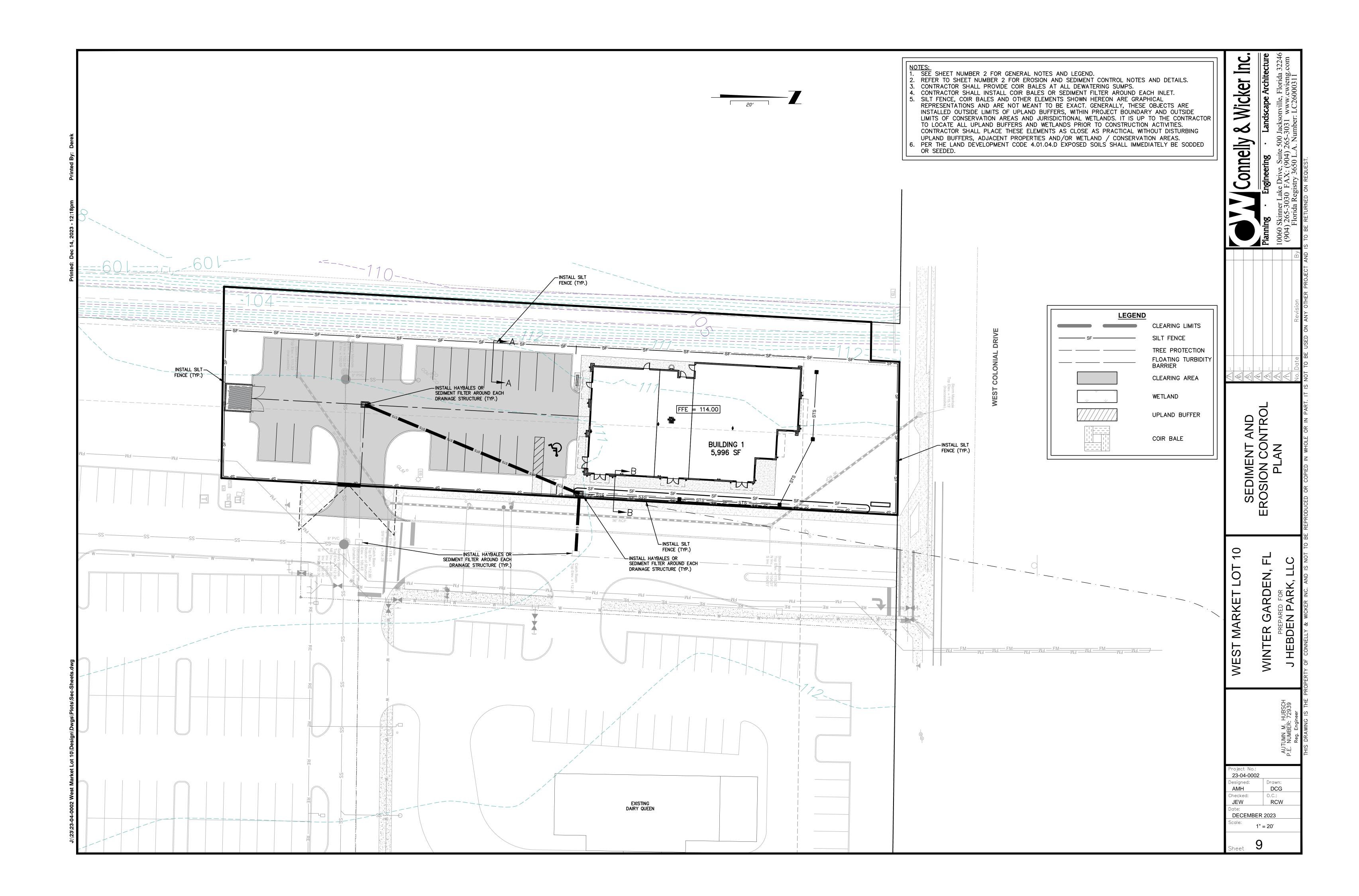
#### GRATE SEAT DETAIL FOR TYPE "C" INLET









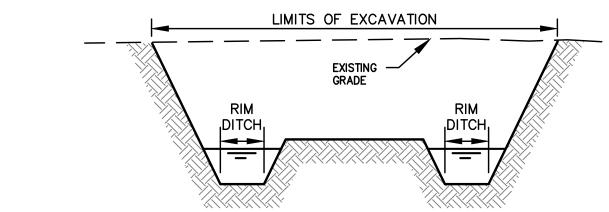


#### SEDIMENT AND EROSION CONTROL NOTES

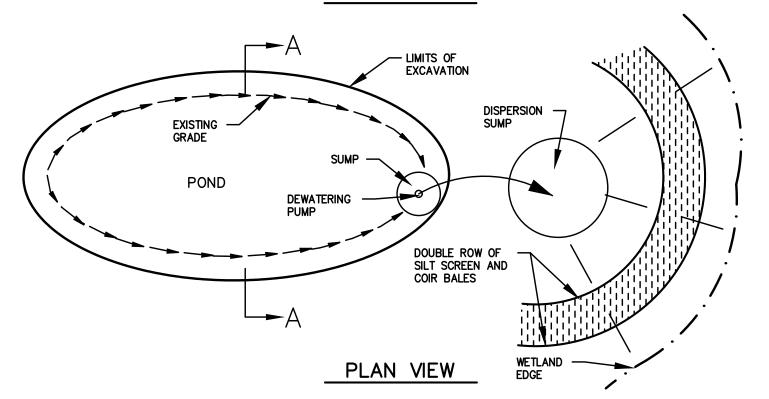
- 1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
- 2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 3. ADDITIONAL PROTECTION ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- 4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- 5. 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 REQUIRED, THE STRIPS SHALL BE OVERLAPPED.
- 6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). 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
- 7. 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.
- 8. BALES SHALL BE EITHER WIRE—BOUND OR STRING—TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
- 9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
- 10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- 11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
- 12. LOOSE COIR SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
- 13. COIR BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- 14. CLOSE ATTENTION SHALL BE GIVEN TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- 15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE
- ACCOMPLISHED PROMPTLY. 16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. IT MUST BE
- REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE COIR BALE OR FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED. 18. 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. 19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND
- THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED 20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS
- REQUIRED. 21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A
- SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. 22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT RULES AND
- 23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL — A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.P.) CHAPTER 6.
- 24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL
- 25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
- 26. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- 27. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER
- 28. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED AND MULCHED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL USE ADDITIONAL MEASURES TO STABILIZE DISTURBED AREAS THROUGH COMPACTION, SILT SCREENS, COIR BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
- 29. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 30. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT 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.
- 31. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SJRWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
- 32. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS AND PRESERVATION EASEMENTS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
- 33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER THE CONTRACT DOCUMENTS AND MEETING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, XXXXXXXX AND NPDES FINAL STABILIZATION REQUIREMENTS.
- 34. THESE PLANS INCLUDING THE POLLUTION PREVENTION PLAN INDICATE THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO

SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6. CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL AS REQUIRED TO INSURE CONFORMANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO AGENCIES REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS, AND FINES.

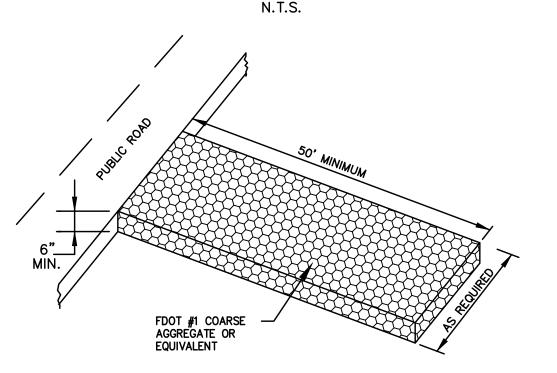
35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



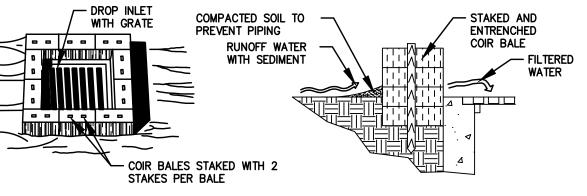
SECTION A-A



# TEMPORARY DEWATERING DETAIL



# STABILIZED CONSTRUCTION ENTRANCE

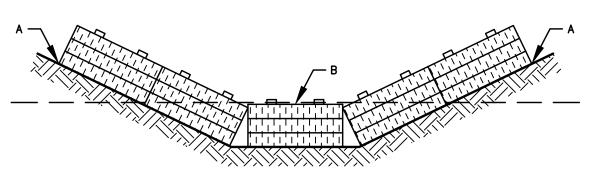


#### SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) 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.

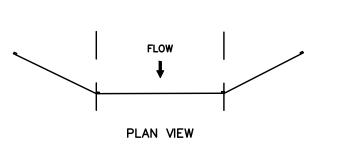
COIR BALE DROP INLET SEDIMENT FILTER

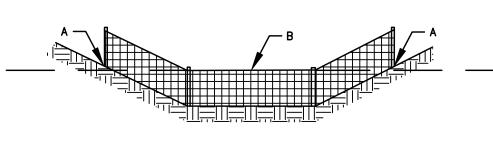
N.T.S.



POINTS A SHOULD BE HIGHER THAN POINT B

#### PROPER PLACEMENT OF COIR BALE IN A DRAINAGE WAY

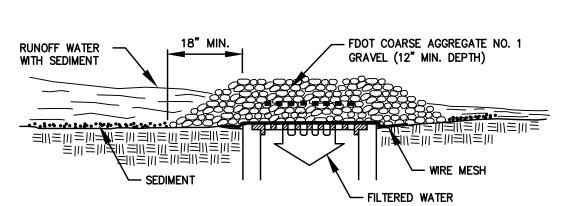




SECTION VIEW POINTS A SHOULD BE HIGHER THAN POINT B

#### PROPER PLACEMENT OF A FILTER BARRIER IN DRAINAGE WAY

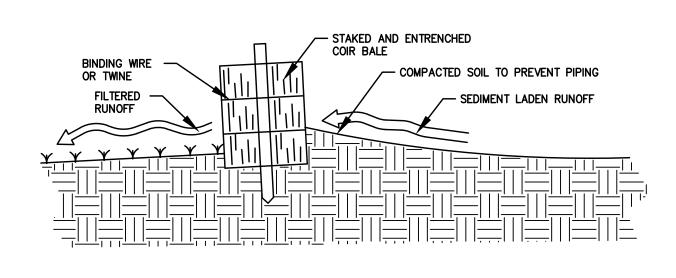
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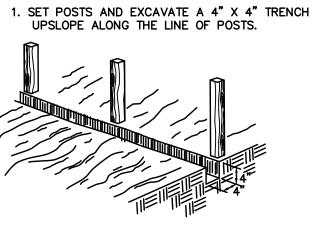
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

# GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

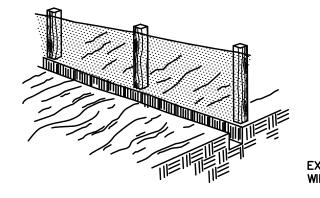
N.T.S.



**CROSS-SECTION OF A PROPERLY INSTALLED COIR BALE** N.T.S.



3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



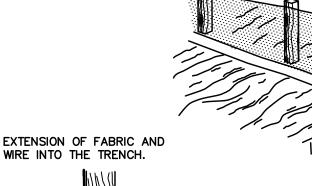
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

2. STAPLE WIRE FENCING TO THE POSTS.

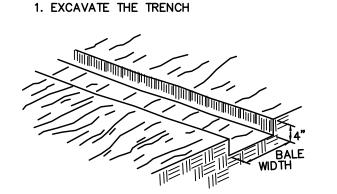
Wicker

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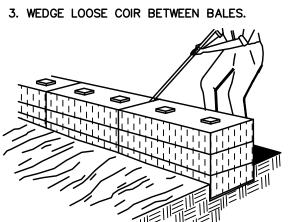
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# **CONSTRUCTION OF SILT FENCE**

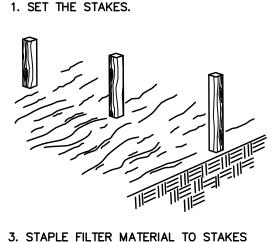


2. PLACE AND STAKE COIR BALES.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

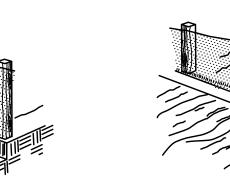
# CONSTRUCTION OF A COIR BALE BARRIER



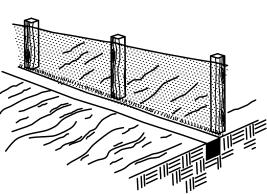
ALONG THE LINE OF STAKES

2. EXCAVATE A 4" X 4" TRENCH UPSLOPE

AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL



CONSTRUCTION OF A FILTER BARRIER

23-04-0002 esigned: DCG AMHnecked: JEW RCW DECEMBER 2023

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**WINTER** 

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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

9. INSTALL UTILITIES, STORM SEWER,

10. APPLY BASE TO PARKING AREAS

SEEDING/SOD AND PLANTING

ACTIVITY IS COMPLETE AND THE

SITE IS STABILIZED, REMOVE ANY

SWALES/DIKES AND RESEED/SOD

CURBS & GUTTER.

11. COMPLETE GRADING AND

12. COMPLETE FINAL PAVING

14. WHEN ALL CONSTRUCTION

SEDIMENT FROM BASINS

TEMPORARY DIVERSION

13. REMOVE ACCUMULATED

AS REQUIRED

INSTALL PERMANENT

#### SEQUENCE OF MAJOR ACTIVITIES:

#### THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

- INSTALL STABILIZED
- CONSTRUCTION ENTRANCE INSTALL SILT FENCES AND COIR
- BALES AS REQUIRED CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT
- CONSTRUCT SEDIMENTATION CONTINUE CLEARING AND
- GRUBBING STOCK PILE TOP SOIL IF REQUIRED PERFORM PRELIMINARY GRADING
- ON SITE AS REQUIRED STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS **PRACTICABLE** 
  - NOTE: VERTICAL CONSTRUCTION OF THE BUILDING WILL BE TAKING PLACE DURING ALL THE SEQUENCE STEPS LISTED ABOVE

#### TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND COIR BALES. STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN (DRAWING NO. 9)

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION 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 AND EROSION 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 SEDIMENT CONTROL PLAN AND AS REQUIRED TO MEET THE SEDIMENT AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE

#### EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

AGAINST WASHOUT.

RECONCENTRATE AFTER RELEASE.

- 1. COIR BALE BARRIER: COIR 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
- 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.
- 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.
- 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
- 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.
- EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND 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.

#### 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.

- TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 7 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
- 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.
- 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 OFFSITE 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

- TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
- TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING LIMITATIONS:
- A. THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION
- 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.
- 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

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 THESE 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 SEDIMENTS. 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

CONTRACTOR'S REQUIREMENTS

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

Concrete Fertilizers Asphalt Petroleum Based Products Masonry Blocks Roofing Materials Cleaning Solvents Metal Studs Detergents Paints

#### 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.
- \* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED
- \* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER
- \* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- \* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- \* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- \* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

#### \* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

#### HAZARDOUS PRODUCTS

TO DO THE JOB.

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

- \* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE. \* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- \* 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 MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED. FERTILIZER WILL 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.

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

- 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.
- \* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- \* 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.
- \* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF
- \* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- \* 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.
- \* 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.
- \* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY
- \* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- \* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE
- 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 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 OF TERMINATION IS SUBMITTED.
- \* 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

THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

\* 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

BASIN PRIOR TO DISCHARGE.

- \* IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:
- \* WATER FROM WATER LINE FLUSHING

HAZARDOUS MATERIALS HAVE OCCURRED).

- \* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR
- \* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).
- ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT

#### 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.

#### DEWATERING

PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO, WETLANDS, SWALES AND MUNICIPAL STORM SEWERS), THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2), F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.

# BUSINESS NAME AND ADDRESS RESPONSIBLE FOR/DUTIES OF CONTRACTOR & ALL SUBS GENERAL CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR

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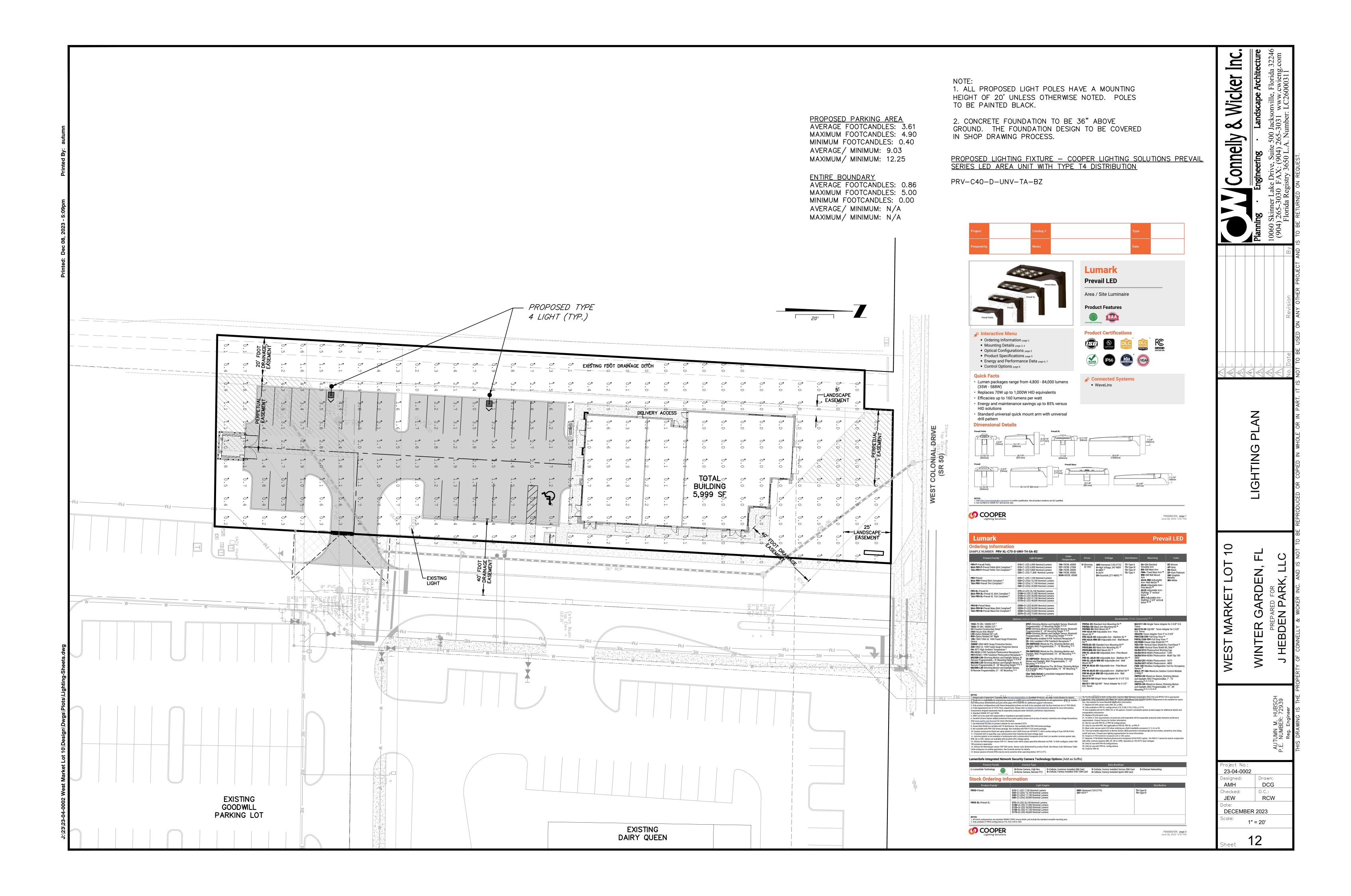
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23-04-0002 esigned: AMH DCG **RCW** DECEMBER 2023



#### **CITY OF WINTER GARDEN - GENERAL NOTES:**

- 1. ALL UTILITY SYSTEMS AND IMPROVEMENTS CONSTRUCTED IN THE CITY OF WINTER GARDEN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL OF STANDARDS AND SPECIFICATIONS FOR UTILITY CONSTRUCTION FOR THE CITY OF WINTER GARDEN. TO BE REFERRED TO AS MSS/CWG. THE LATEST EDITION AT THE TIME PERMITS ARE APPROVED SHALL BE EFFECTIVE FOR THE DURATION OF THE SUBJECT WORK OR PROJECT DEVELOPMENT.
- 2. THE CITY OF WINTER GARDEN GENERAL NOTES AND DETAILS ARE PROVIDED FOR THE CONVENIENCE OF FIELD PERSONNEL. THEY DO NOT INCLUDE ALL REQUIREMENTS OF THE MSS/CWG. THE CONTRACTOR SHALL REFER TO THE FULL TEXT OF THE MSS/CWG FOR FURTHER DETAIL AND CLARITY WHEN NEEDED.
- 3. ANY REQUEST FOR VARIANCE OR NONCOMPLIANCE FROM THE MSS/CWG NOTED ABOVE MUST BE APPROVED BY THE CITY ENGINEER OR UTILITIES DIRECTOR.
- 4. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN CLOSE PROXIMITY TO WATER, WASTEWATER, RECLAIMED WATER AND OTHER UTILITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE UTILITY LOCATIONS WITH RESPECTIVE UTILITY OWNERS AND/OR CALL,"SUNSHINE ONE CALL", 1-800-432-4770 A MINIMUM OF 72 HOURS IN ADVANCE.
- 5. CONTRACTOR'S DAMAGE OF WINTER GARDEN UTILITY SYSTEM: THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AND REPORT DAMAGE TO THE CITY OF WINTER GARDEN UTILITY DIVISION, (NO MASSAGE) PHONE #
- 6. IMMEDIATELY REPAIR OF DAMAGED UTILITY SYSTEM: THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY DAMAGE TO THE CITY OF WINTER GARDEN UTILITY SYSTEM AS REQUIRED BY THE UTILITY OWNER AT CONTRACTORS COST. IN CASE OF UNRESPONSIVE ACTION BY THE CONTRACTOR, THE CITY RESERVES RIGHT TO REPAIR DAMAGE. THE CONTRACTOR SHALL REIMBURSE THE CITY OF WINTER GARDEN OF ALL REPAIR COST.
- ADVANCE NOTIFICATION OF CONSTRUCTION: THE CONTRACTOR SHALL NOTIFY CITY OF WINTER GARDEN, UTILITY DIVISION, PH.# 407-656-4100, AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO COMMENCEMENT
- ADVANCE NOTIFICATION OF UTILITY CONNECTION: THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN AT LEAST SEVEN CALENDAR DAYS IN ADVANCE TO SCHEDULE CONNECTIONS TO UTILITY SYSTEM.
- 9. UTILITY VALVE OPERATION: ONLY CITY OF WINTER GARDEN UTILITY PERSONNEL SHALL OPERATE VALVES AND FIRE HYDRANTS. THE CONTRACTOR, WHEN NEEDED, SHALL CALL THE CITY TO REQUEST VALVE OPERATIONS AT LEAST TWO (2) DAYS IN ADVANCE OF CONSTRUCTION WORK.
- 10. OPERATIONS INVOLVING WATER OR WASTEWATER FACILITIES INCLUDING PUMPING STATIONS: THE CONTRACTOR SHALL COORDINATE AT LEAST TWO (2) WEEKS IN ADVANCE, ANY CONSTRUCTION OPERATION THAT MAY REQUIRE THE DISCONTINUATION OF SERVICE OR OPERATION OF A FACILITY. THE CITY WILL PROVIDE PERSONNEL TO OPERATE THE CITY FACILITIES.
- 11. REQUIRED TESTING BY CONTRACTOR: THE CONTRACTOR SHALL NOTIFY THE CITY OF WINTER GARDEN AT LEAST TWO (2) DAYS PRIOR TO SAMPLING ACTIVITIES FOR PURPOSE OF TESTING AS REQUIRED BY THE CITY. THE CONTRACTOR SHALL NOT TEST OR SAMPLE WITHOUT OBSERVATION BY CITY INSPECTION PERSONNEL.
- 12. TEMPORARY OR CONSTRUCTION WATER SERVICE CONNECTIONS PROVIDED BY FIRE HYDRANT CONNECTION: THE CITY WILL PROVIDE METER ON FIRE HYDRANT. THE CONTRACTOR SHALL PROVIDE NON-REFUNDABLE ACCOUNT INITIATION FEE, A REFUNDABLE SECURITY DEPOSIT FOR THE METER APPARATUS AND PAY ALL COST FOR WATER USED.
- 13. ALL AS BUILT MEASUREMENTS & ELEVATIONS ARE TO BE MADE BY A LICENSED LAND SURVEYOR.

#### CITY OF WINTER GARDEN - WATER SYSTEM NOTES:

- THE CONTRACTOR SHALL PROVIDE AND INSTALL A CITY APPROVED BACKFLOW DEVICE ASSEMBLY AT EACH CONNECTION POINT TO THE CITY WATER SYSTEM.
- 2. REPAIRS TO NEW WATER LINES, TO OBTAIN SPECIFIED PRESSURE TEST, WILL BE ALLOWED ONLY UP TO A NUMBER EQUAL TO 10% OF THE TOTAL NUMBER OF JOINT CONNECTIONS.
- 3. THE CONTRACTOR SHALL HYDROSTATICALLY TEST ALL WATER MAINS AND SERVICE LATERALS AT 150 PSI FOR A TWO HOUR PERIOD. TESTING MUST BE OBSERVED BY A CITY INSPECTOR.
- 4. THE CONTRACTOR SHALL INSTALL WARNING TAPE OVER ALL NEW WATER MAINS. WARNING TAPE SHALL BE AS FOLLOWS: NON-DETECTABLE, SIZE 2" WITH "WATER LINE BELOW", MUST BE PLACED 8" TO 12" BELOW FINISHED GRADE ON ALL PVC WATER MAINS, LATERALS AND HEADER TEES, NUMBER 10 GAUGE TRACER WIRE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH DUCT TAPE, AT LEAST FIVE TIMES PER JOINT, THE TRACER WIRE SHALL ALSO BE ATTACHED TO ALL PVC LATERALS AND ATTACHED TO THE OUTSIDE OF EACH VALVE BOX SO THAT A PIPE LOCATOR CAN BE CONNECTED TO IT.
- 5. THE CONTRACTOR SHALL INSTALL WATER MAINS PER MoSS/CoWG SPECIFICATIONS. SOLVENT CEMENTED JOINTS AND THRUST BLOCKS ON PIPING SYSTEMS SHALL NOT BE ALLOWED.
- 6. THE CONTRACTOR SHALL INSTALL ALL WATER MAINS TO A MINIMUM DEPTH OF 36 INCHES AND A MAXIMUM DEPTH OF 42 INCHES BELOW FINAL GRADE.
- 7. THE CONTRACTOR SHALL INSTALL ALL SERVICE LATERALS A UNIFORM DISTANCE APART. LOCATED ON PROPERTY LOT LINE AT 90° FROM THE WATER MAIN. SERVICE LATERALS SHALL BE SEPARATELY CONNECTED TO THE WATER MAIN, NOT SPLICED TOGETHER.
- 8. THE CONTRACTOR SHALL CUT A "W" INTO CONCRETE CURB, LOCATED INSIDE OF A PAINTED BLUE SQUARE, LOCATED DIRECTLY IN FRONT OF EACH SERVICE LATERAL.
- 9. THE CONTRACTOR SHALL INSTALL CURB STOP, IN METER BOX, CURB STOP SHALL BE SET 8" BELOW FINISHED GRADE.
- 10. THE CONTRACTOR SHALL PROVIDE AND INSTALL IN-LINE VALVES ON WATER MAINS AT 1,000 FOOT MAXIMUM SPACING BETWEEN VALVES. VALVES SHALL BE LOCATED ON ALL TEE'S AND CROSSES. WATER MAINS SHALL BE PLACED UNDER SIDEWALKS WHERE POSSIBLE.
- 11. ALL WATERMAINS SHALL BE CLEANED BY PIGGING THE LINE WITH A FOAM PIG (MINIMUM OF 2 TIMES). A FULL BORE FLUSH MAY BE REQUIRED AFTER PIGGING TO ENSURE THE PIPE IS CLEAN AND READY FOR SERVICE. THE CONTRACTOR SHALL COORDINATE LINE PIGGING AND FULL BORE FLUSH WITH THE CITY INSPECTOR.
- 12. THE CONTRACTOR SHALL DEMONSTRATE THAT LOCATION WIRE INSTALLED OVER ALL WATER MAINS IS IN WORKING CONDITION AT TIME OF ACCEPTANCE BY THE CITY.
- 13. ALL NEW SUBDIVISION CONSTRUCTION SHALL INSTALL DOUBLE POTABLE WATER SERVICES AT THE PROPERTY LINES.

#### **CITY OF WINTER GARDEN - WASTEWATER SYSTEM NOTES:**

- 1. SANITARY SEWER MAINS AND SERVICES SHALL BE PVC SDR-26 (MINIMUM). FITTINGS SHALL BE SDR-26. DUCTILE IRON IS NOT APPROVED FOR SANITARY SEWERS.
- 2. ALL SERVICES SHALL BE 6" (MINIMUM) DIAMETER AND TERMINATE AT THE PROPERTY LINE WITH 6" CLEAN OUT. (36" TO 48" DEEP AT LOT LINE)
- 3. MAGNETIC TAPE MUST BE PLACED 2' ABOVE THE TOP OF PIPE FOR THE ENTIRE LENGTH OF ALL MAINS
- 4. ALL SANITARY MANHOLES SHALL BE PAINTED INSIDE AND OUT WITH "BITUMASTIC SUPER SERVICE BLACK", BY KOPPERS OR APPROVED EQUAL. MANHOLES RECIEVING FLOW FROM FORCE MAINS SHALL BE LINED WITH FIBERGLASS OR HDPE AT THE PRECASTERS FACILITY.
- 5. ALL PIPE CONNECTIONS TO PRE-CAST MANHOLES SHALL BE MADE USING A FLEXIBLE EPDM RUBBER BOOT AND STAINLESS STEEL STRAP OR CAST IN BOOT BY A-LOK, Z-LOK OR EQUAL.
- 6. CONNECTIONS MADE TO EXISTING MANHOLES SHALL BE CORE BORED WITH A MINIMUM 6" BORE AND CONNECTION SEALED WITH FLEXIBLE BOOT AND STAINLESS STEEL CLAMP.
- 7. DEAD END MANHOLES SHALL HAVE A MINIMUM OF 5 FEET OF COVER FROM FINISHED GRADE TO OUTLET PIPE INVERT.
- 8. ALL PRECAST SEWER MANHOLES SHALL HAVE A 4 FOOT MINIMUM HIGH BARREL. CONE SECTIONS SHALL BE 3 FOOT MAXIMUM. CONCRETE DONUTS FOR EXTENDING ARE ACCEPTABLE TO RAISE MANHOLES UP TO
- 9. THE CONTRACTOR SHALL PROVIDE AND INSTALL BALLCENTRIC PLUG VALVES IN FORCE MAINS AT 1000 FOOT MAXIMUM SPACING BETWEEN VALVES. VALVES SHALL BE LOCATED AT ALL TEES AND CROSSES.
- 10. THE CONTRACTOR SHALL CUT A "S" INTO CONCRETE CURB LOCATED INSIDE OF A PAINTED GREEN SQUARE BOX. IN FRONT OF EACH SERVICE LOCATION.
- 11. THE CONTRACTOR SHALL PROVIDE TV INSPECTION OF ALL SANITARY SEWER MAINS AFTER SYSTEM IS COMPLETED, THOROUGHLY CLEANED, DRAINED AND FULLY VISIBLE. TV INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS, FAULTY INSPECTION DUE TO POOR CONDITIONS WILL REQUIRE REINSPECTION BY CONTRACTOR.
- 12. THE CONTRACTOR SHALL PROVIDE A (WARRANTY) TV INSPECTION AT THE TWO YEAR IN SERVICE MILESTONE FOR EACH SYSTEM.
- 13. THE CONTRACTOR SHALL PROVIDE SANITARY SEWER TESTING, EXFILTRATION OR AIR, AS REQUIRED BY DESIGN ENGINEER AND SUBMIT CERTIFIED RESULTS TO THE CITY ENGINEER.
- 14. GRAVITY SEWERS DEPTHS SHALL NOT EXCEED 18 FEET.
- 15. THE DESIGN ENGINEER SHALL PROVIDE A MINIMUM OF ONE FOOT OF FREEBOARD BETWEEN THE LOWEST FINISHED FLOOR ELEVATION AND THE TOP ELEVATION OF THE WET WELL.
- 16. ALL PENETRATIONS INTO CONCRETE STRUCTURES SHALL BE PRE-CAST OR CORE-DRILLED.
- 17. WARRANTY ALL MATERIALS & EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR SHALL BE WARRANTED FOR A PERIOD OF TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE THEREOF AGAINST DEFECTIVE MATERIALS, DESIGN, AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE CITY OF FAILURE OF ANY PART OF THE WARRANTED EQUIPMENT OR MATERIALS DURING THE WARRANTY PERIOD, THE AFFECTED PART, PARTS, OR MATERIALS SHALL BE PROMPLY REPLACED BY THE CONTRACTOR WITH NEW PARTS OR MATERIALS AT NO EXPENSE TO THE CITY. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS IMMEDIATELY AFTER NOTIFICATION, THE CITY MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.

#### **CITY OF WINTER GARDEN - RECLAIMED WATER SYSTEM NOTES:**

- 1. ALL PRIVATE RECLAIMED WATER SYSTEMS SHALL HAVE A CITY APPROVED BACKFLOW DEVICE ASSEMBLY AT EACH CONNECTION POINT TO THE CITY WATER SYSTEM.
- 2. REPAIRS TO NEW WATER LINES, TO OBTAIN SPECIFIED PRESSURE TEST, WILL BE ALLOWED ONLY UP TO A NUMBER EQUAL TO 10% OF THE TOTAL NUMBER OF JOINT CONNECTIONS.
- 3. ALL MAINS AND SERVICE LATERALS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI FOR A TWO HOUR
- 4. WARNING TAPE, NON-DETECTABLE, SIZE 2" WITH "REUSE WATER LINE BELOW", MUST BE PLACED 8" TO 12" BELOW FINISHED GRADE ON ALL PVC WATER MAINS, LATERALS AND HEADER TEES, NUMBER 10 GAUGE TRACER WIRE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH DUCT TAPE, AT LEAST FIVE TIMES PER JOINT. THE TRACER WIRE SHALL ALSO BE ATTACHED TO ALL PVC LATERALS AND ATTACHED TO THE OUTSIDE OF EACH VALVE BOX SO THAT A PIPE LOCATOR CAN BE CONNECTED TO IT. THE CONTRACTOR SHALL DEMONSTRATE THE LOCATE WIRE TO BE IN WORKING CONDITION AT PROJECT COMPLETION.
- 5. THE CONTRACTOR SHALL INSTALL RECLAIMED WATER MAINS PER MOSS/COWG. SOLVENT CEMENTED JOINTS AND THRUST BLOCKS SHALL NOT BE ALLOWED.
- 6. REUSE WATER MAIN SHALL BE BURIED TO A MINIMUM DEPTH OF 36" AND A MAXIMUM DEPTH 42" BELOW
- 7. SERVICE LATERALS MUST BE LOCATED A UNIFORM DISTANCE APART AND ALIGNED TO PROPERTY LOT LINE AT 90° FROM THE RECLAIMED WATERMAIN.
- 8. CUSTOMER SERVICE LATERALS SHALL NOT BE SPLICED TOGETHER BETWEEN THE WATER MAIN AND CURB
- 9. THE CONTRACTOR SHALL CUT CURB A "RW" INTO CONCRETE CURB LOCATED INSIDE OF A PAINTED SQUARE (PURPLE), DIRECTLY IN FRONT OF EACH SERVICE LATERAL AND VALVE.
- 10. THE CONTRACTOR SHALL SET DEPTH OF CURB STOP, IN METER BOX, 8" BELOW FINISHED GRADE.
- 11. THE CONTRACTOR SHALL INSTALL VALVE(S) IN MAIN, NO MORE THAN 1,000 FEET APART IN BETWEEN TEES AND CROSSES. VALVES SHALL BE PROVIDED AT EACH TEE OR CROSS LOCATED IN MAIN LINE.
- 12. RECLAIMED WATER MAINS MAY BE LOCATED UNDER SIDEWALKS. RECLAIMED MAINS LOCATED UNDER PAVEMENT SHOULD BE MINIMIZED.
- 13. ALL WATERMAINS SHALL BE CLEANED BY PIGGING THE LINE WITH A FOAM PIG (MINIMUM OF 2 TIMES). A FULL BORE FLUSH MAY BE REQUIRED AFTER PIGGING TO ENSURE THE PIPE IS CLEAN AND READY FOR SERVICE. THE CONTRACTOR SHALL COORDINATE LINE PIGGING AND FULL BORE FLUSH WITH THE CITY INSPECTOR.
- 14. RECLAIMED WATERMAIN MAINS SHALL BE 8 INCH DIAMETER MINIMUM, 4 INCH IS ALLOWED ON DEAD END RUNS SERVING LESS THAN 20 HOMES. THE DESIGN ENGINEER SHALL SUBMIT HYDRAULIC CALCULATIONS THAT DEMONSTRATE THE PROPOSED SYSTEM WILL PROVIDE REQUIRED FLOWS AND MAINTAIN SYSTEM ABOVE MINIMUM PRESSURE. PEAK IRRIGATION RATE SHALL BE SIX(6) TIMES GREATER THAN THE AVERAGE IRRIGATION RATE OF FLOW.
- 15. RECLAIMED WATER SYSTEM COMPONENTS INCLUDING PIPE, VALVE BOX TOPS AND METER BOX TOPS SHALL

BE RECLAIMED PURPLE IN COLOR.

# CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION OF SEWER LINES

1. ALL NEW SANITARY SEWER LINES, PRIVATE OR CITY MAINTAINED, IN THE CITY OF WINTER GARDEN'S SERVICE AREA SHALL BE INSPECTED BY CLOSED CIRCUIT TV INSPECTION BY THE CONTRACTOR WITH A CITY INSPECTOR PRESENT PRIOR TO BEING ACCEPTED BY THE CITY.

#### REQUIREMENTS PRIOR TO INSPECTION RELEASE:

- 1. ALL ELEMENTS OF THE SEWER SYSTEM MUST BE INSTALLED AND BE COMPLETELY FINISHED, INCLUDING MAIN SEWER LINES, LATERALS, CLEAN OUTS, AND MANHOLES PRIOR TO CCTV INSPECTION.
- 2. ALL SEWER LINES SHALL BE COMPLETELY CLEANED OF ALL DEBRIS, SAND, WATER, ETC. PRIOR TO THE CCTV INSPECTION, ANY OBJECT OR MATTER THAT PREVENTS CCTV INSPECTION FROM VIEWING CONDITION OF PIPELINE IS CONSIDERED AN OBSTRUCTION REQUIRING ADDITIONAL CLEANING, WHEN CCTV VIEW IS OBSTRUCTED, INSPECTION SHALL BE TERMINATED. THE CONTRACTOR SHALL CLEAN THE SEWER SYSTEM COMPLETELY AND RESCHEDULE CCTV RE-INSPECTION WITH THE CITY.
- 3. A HYDRAULIC SEWER CLEANER SHALL NOT BE USED DURING THE CCTV INSPECTION. IF LINES ARE FOUND TO BE OBSCURED BY WATER OR DEBRIS DURING THE CCTV INSPECTION. THE INSPECTION SHALL BE TERMINATED AND RESCHEDULED TO A TIME WHEN SEWER CLEANING IS COMPLETE.
- 4. WHEN A SEWER LINE IS UNDER A PAVED AREA, THE AREA SHALL BE COMPACTED AND PRIMED BEFORE THE SYSTEM SHALL BE RELEASED FOR TV INSPECTION.

#### TELEVISION EQUIPMENT MINIMUM REQUIREMENTS:

- 1. THE CLOSED CIRCUIT TV CAMERA SHALL PRODUCE A CLEAR COLOR PICTURE ON THE MONITOR AND ON THE DVD RECORDING. THE CAMERA SHALL BE ABLE TO SHOW DETAIL TO THE POINT THAT ALL JOINTS AND ANY DEFECTS MAY BE READILY SEEN AT THE TIME OF THE INSPECTION. THE CAMERA SHALL STOP AND PAN AT EACH JOINT FOR COMPLETE 360 DEGREE INSPECTION.
- 2. REFER TO APPENDIX B OF THE REFERENCED STANDARDS FOR SPECIFICATION OF CLOSED CIRCUIT TELEVISION INSPECTION EQUIPMENT.
- 3. THE VIDEO RECORDER SHALL PRODUCE A NO NOISE STILL PICTURE, AND PROVIDE BOTH AUDIO AND VIDEO DURING THE INSPECTION.
- 4. A MEASURING DEVICE, APPROVED BY THE CITY, TO CHECK THE GRADE OF THE PIPE DURING THE INSPECTION, SHALL BE REQUIRED. GAUGE DEPTH, 0" TO 2" MIN. WITH 1/2" MARKINGS.
- 5. AUDIO OF THE INSPECTION SHALL BE SIMULTANEOUSLY RECORDED ON DVD DISC. THE AUDIO SHALL CONSIST OF ORDINARY DESCRIPTION AND COMMENTARY. A TAPE WILL BE GIVEN TO THE INSPECTOR ON SITE AT THE END OF THE DAY.

#### PROCEDURE FOR TELEVISING:

- 1. THE CITY'S ENGINEERING INSPECTION DIVISION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS NOTICE PRIOR TO THE TIME PLANNED FOR THE TV INSPECTION TO COMMENCE, A DEFINITE TIME AND DATE WILL BE AGREED UPON BY THE CONTRACTOR AND INSPECTOR AT THAT TIME.
- 2. NO INSPECTION SHALL COMMENCE WITHOUT THE PRESENCE OF THE INSPECTOR, EXCEPT WHEN PRIOR ARRANGEMENTS HAVE BEEN MADE BETWEEN THE CONTRACTOR, INSPECTOR, AND THE CITY. TV INSPECTION SHALL BE PERFORMED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
- 3. ALL CCTV INSPECTIONS SHALL COMMENCE UP STREAM OF THE SYSTEM TO PREVENT FOREIGN SUBSTANCES FROM ENTERING A SECTION PREVIOUSLY TELEVISED. THE CAMERA SHALL BE STARTED FROM THE DOWNSTREAM MANHOLE AND PROCEED UPSTREAM IN DIRECTION OPPOSING THE NORMAL FLOW IN THE LINE. THIS PROCEDURE WILL ALLOW FOR THE VIEWING OF THE SERVICE LATERALS.
- 4. BEFORE THE CAMERA IS PLACED IN THE SEWER LINE, WATER WITH YELLOW OR ORANGE DYE SHALL BE PUT INTO THE UPSTREAM MANHOLE OF THE SECTION BEING TELEVISED. CAMERA WILL HAVE A GAUGE SHOWING 1/2" MARKS FROM 1/2" TO 2-1/2". THIS WILL ENABLE THE CAMERA TO DETECT ANY CHANGES IN GRADE THAT MAY BE PRESENT IN THE SYSTEM.
- 5. THE CCTV AND DVD RECORDER SHALL BE TURNED ON BEFORE THE CAMERA IS PLACED IN THE MANHOLE FOR INSPECTION AND SHALL NOT BE TURNED OFF UNTIL THE CAMERA IS REMOVED FROM THE MANHOLE. THE CAMERA SHALL BE MOVED THROUGH THE LINE UNDER THE CONTROL OF THE CCTV CAMERA OPERATOR. THE CAMERA SHALL BE DRAWN THROUGH THE LINE AT A RATE NOT TO EXCEED THIRTY (30) FEET PER MINUTE AND SHALL STOP AT ALL SERVICE CONNECTIONS AND PIPE JOINTS IN THE PIPELINE.
- 6. A DVD RECORDING SHALL BE MADE OF THE ENTIRE SYSTEM BEING TELEVISED. THIS SHALL BECOME THE PROPERTY OF THE CITY UPON COMPLETION OF THE TV INSPECTION (NOT A COPY). THE TAPE(S) SHALL BE LABELED IN SUCH A MANNER THAT STATES THE PROJECT NAME, DATE OF INSPECTION AND LINE SECTION ACCORDING TO CONSTRUCTION PLANS CONTAINED ON EACH TAPE. A WRITTEN REPORT SHALL ACCOMPANY THE DVD DISC.

#### HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS RECLAIMED SANITARY SEWER SANITARY SEWER STORM WATER ACCEPTABLE PROPOSED POTABLE WATER (GRAVITY) (FORCEMAIN) WATER\* HORIZ. VERT. HORIZ. VERT. HORIZ. VERT. HORIZ. VERT. HORIZ. VERT. 6' 12" 6' 12" WATER 12" B GENERAL NOTES: NO. 12" B 3' 12" RECLAIMED 4 & 5 WATER \* SEWER 12" 12" B (GRAVITY) SANITARY SEWER 6' 12" 3' 12" (FORCEMAIN)

#### **GENERAL NOTES:**

- 1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES AND EXISTING OR PROPOSED
- \*2. FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 162-610, CHAPTER III. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
- 3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE
- A. DENOTES POTABLE WATER ABOVE RECLAIMED WATER, SANITARY SEWER OR STORM WATER; OR RECLAIMED WATER ABOVE SANITARY SEWER.
- B. DENOTES POTABLE WATER BELOW RECLAIMED WATER, SANITARY SEWER OR STORM WATER; OR RECLAIMED WATER BELOW SANITARY SEWER.
- 4. UTILITY SEPARATION VERTICAL CLEARANCE MITIGATION
- A. WHERE WATER AND GRAVITY SANITARY SEWER MAINS CROSS WITH LESS THAN REQUIRED VERTICAL CLEARANCE OR THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SANITARY SEWER WILL BE 20 FEET OF EITHER:
- A.1. DUCTILE IRON PIPE, CENTERED ON THE POINT OF CROSSING, OR;

SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

- A.2. CONCRETE ENCASED VITRIFIED CLAY, OR;
- A.3. PVC PIPE UPGRADED TO WATER MAIN STANDARDS AND PRESSURE TESTED.
- B. WHERE WATER MAINS AND STORM SEWER PIPES CROSS WITH LESS THAN REQUIRED VERTICAL CLEARANCE, THE WATER MAIN SHALL BE 20 FEET OF DUCTILE IRON PIPE CENTERED ON THE POINT OF CROSSING.
- C. SEPARATION REQUIREMENTS BETWEEN FORCE MAINS AND POTABLE WATER MAINS MUST BE MAINTAINED UNLESS APPROVED IN ADVANCE BY THE DEPARTMENT
- 5. UTILITY SEPARATION HORIZONTAL SEPARATION MITIGATION
- A. WHEN A WATER MAIN PARALLELS A GRAVITY SANITARY SEWER MAIN, A SEPARATION (MEASURED EDGE TO EDGE) OF AT LEAST SIX FEET SHOULD BE MAINTAINED. WHERE THIS SEPARATION IS NOT MET, ONE OF THE FOLLOWING MUST OCCUR.
- A.1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER, OR:
- A.2. IF BOTH SANITARY SEWER AND POTABLE WATER MAINS ARE PROPOSED AND THE ABOVE (1.) IS NOT MET, THE SANITARY SEWER PIPES SHALL BE UPGRADED TO THE EQUIVALENT PIPE MATERIAL AS THE WATER MAIN AND PRESSURE TESTED.
- A.3. IF THE SANITARY SEWER IS EXISTING AND THE POTABLE WATER MAIN IS PROPOSED, THE WATER MAIN SHALL, AT A MINIMUM, BE UPGRADED TO DUCTILE IRON PIPE, CONSTRUCTED IN SEPARATE TRENCHES, LAID AT A HIGHER ELEVATION THAN THE SANITARY SEWER, AND UTILIZE STAGGERED
- B. SEPARATION REQUIREMENTS BETWEEN FORCE MAINS AND POTABLE WATER MAINS MUST BE MAINTAINED UNLESS APPROVED IN ADVANCE BY THE DEPARTMENT.
- 6. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

#### CITY OF WINTER GARDEN - TRUST RESTRAINT TABLE

#### RESTRAINED FORCE MAIN PIPE TABLE MINIMUM LENGTH(FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) PIPE SIZE 6" | 8" | 10" | 12" | 16" | 20" | 24" | 30" | 36" 90° BEND | 19 | 25 | 30 | 34 | 44 | 52 | 60 | 70 | 80 45° BEND 8 | 10 | 12 | 14 | 18 | 21 | 25 | 30 | 34 22-1/2° BEND 4 | 5 | 6 | 7 | 9 | 10 | 12 | 14 | 16 11-1/4° BEND 2 3 4 5 6 7 8 9 10 PLUG, DEAD END OR 40 52 63 72 93 111 130 155 178 BRANCH OF TEE VALVE 20 | 25 | 32 | 36 | 47 | 56 | 78 | 116 | 89

#### RESTRAINED WATER AND RECLAIMED PIPE TABLE

MINIMUM LENGTH(FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)										
	PIPE SIZE									
	6"	8"	10"	12"	16"	20"	24"	30"	36"	
90° BEND	29	37	44	51	65	77	89	105	120	
45° BEND	12	15	18	21	27	32	37	44	50	
22-1/2° BEND	6	7	9	10	13	15	18	21	24	
11-1/4° BEND	3	4	5	6	7	8	9	10	12	
PLUG, DEAD END OR BRANCH OF TEE	59	77	93	108	138	166	194	231	265	
VALVE	59	77	93	108	138	166	194	231	265	

#### THRUST RESTRAINT NOTES:

- 1. THE TABLES INDICATE MINIMUM LENGTHS OF RESTRAINED JOINTS ON EACH SIDE OF FITTINGS AND CHANGES IN DIRECTION. WHERE PRACTICAL, FULL LENGTHS OF RESTRAINED PIPE SHALL BE LAID TO ACHIEVE THE REQUIRED MINIMUM RESTRAINT.
- 2. WHERE COMBINATIONS OF FITTINGS ARE USED, THE PIPING BETWEEN THE FITTINGS SHALL BE RESTRAINED. THE MINIMUM RESTRAINED LENGTH OF PIPE REQUIRED UPSTREAM AND DOWNSTREAM OF THE COMBINATION OF FITTINGS SHALL BE DETERMINED ON THE BASIS OF ONE EQUIVALENT FITTING (I.E., 2-45 DEGREE BENDS WILL BE CONSIDERED AS THOUGH A 90° BEND WERE LOCATED MIDWAY BETWEEN THE TWO 45° BENDS).
- 3. FOR PIPE THAT IS ENCASED IN POLYETHYLENE, RESTRAINED JOINTS MINIMUM LENGTHS SHALL BE INCREASED BY 50 PERCENT.
- 4. FOR FITTINGS OTHER THAN THOSE PRESENTED IN THE ABOVE TABLES, RESTRAINED JOINT LENGTHS SHALL BE DETERMINED IN ACCORDANCE WITH "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION. RESTRAINED JOINT LENGTHS FOR A GIVEN PRESSURE RANGE SHALL BE BASED ON THE MAXIMUM PRESSURE FOR THE TEST PRESSURE RANGE, SM (SAND SILT) SOIL, 3-FEET DEPTH, LAYING CONDITION NO. 3 AND FACTOR OF SAFETY OF 1.5.
- 5. IN-LINE VALVES: PROVIDE MECHANICAL RESTRAINT ON EACH SIDE OF THE VALVE.

HYDROSTATICALLY TESTED AT A PRESSURE OF 100 PSI.

6. ALL RECLAIMED WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF 150 PSI. ALL WASTEWATER PIPING SHALL BE

#### WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

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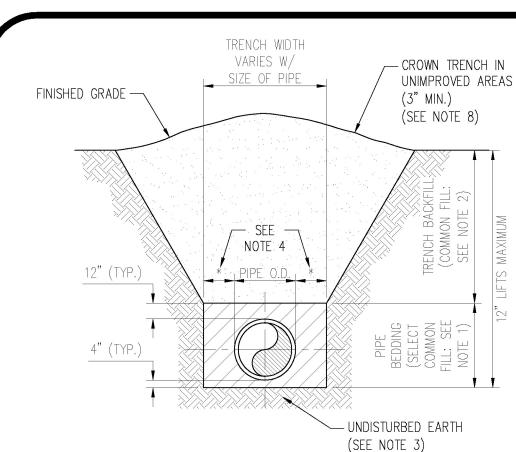
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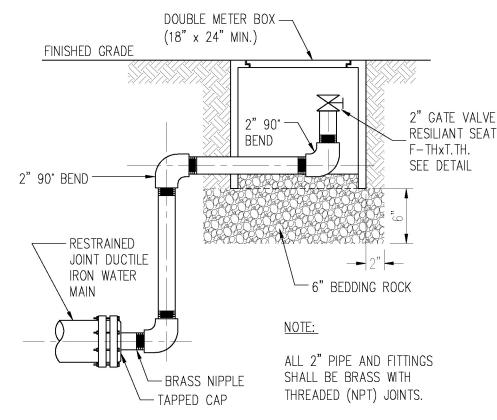
DATE **JUNE 2018** SHEET



#### NOTES:

- 1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
- 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
- 3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING MAY BE REQUIRED AS DIRECTED BY THE CITY OF WINTER GARDEN.
- 4. (\*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" LARGER.
- 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
- 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- 7. REFER TO SECTION 32.5 OF THE CITY OF WINTER GARDEN MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION FOR SHEETING AND BRACING IN EXCAVATIONS.
- 8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF WINTER GARDEN RIGHT—OF—WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT—OF—WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

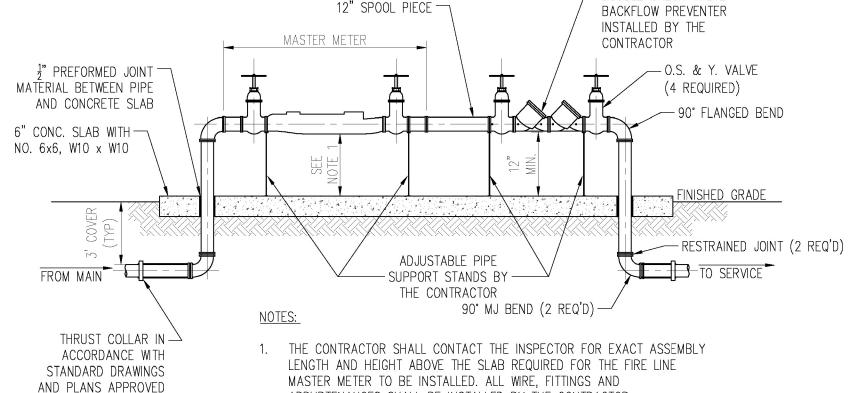
# 1 STANDARD BEDDING DETAIL



# 4 BLOWOFF VALVE DETAIL

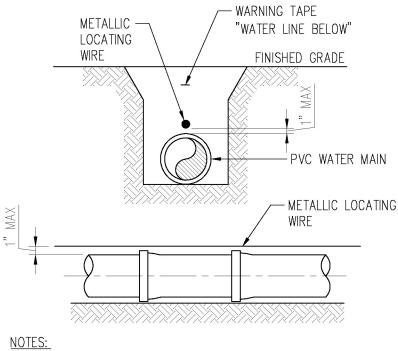
BY THE CITY OF WINTER

GARDEN (2 REQUIRED)



- MASTER METER TO BE INSTALLED. ALL WIRE, FITTINGS AND APPURTENANCES SHALL BE INSTALLED BY THE CONTRACTOR.
- 2. ALL PIPE LARGER THAN 2 INCH SHALL BE FLANGED DUCTILE IRON PIPE.
- 3. SENSUS METER REQUIRED.
- 4. 2" BYPASS METER SHALL BE CONSTRUCTED ON ALL MASTER METER ASSEMBLIES THREE INCHES AND LARGER.

# 9 MASTER METER ASSEMBLY N.T.S.



1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE ATTACHED TO THE TOP OF PIPE WITH DUCT TAPE, AT LEAST 5 TIMES PER JOINT.

2. LOCATING ROD SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING ABOVE TOP OF BOX ½" SO AS NOT TO INTERFERE WITH VALVE OPERATION.

# PVC PIPE LOCATING WIRE DETAIL

WATER MAIN

(8" MINIMUM)

RIGHT OF WAY LINE

NOTES:

ANCHORING TYPE 90' BEND

SHALL ONLY BE USED

WHERE RIGHT-OF-WAY

STRAIGHT ASSEMBLY

INSTALLED BY THE

2. METER BOX TO BE

CONTRACTOR.

CONSTRICTIONS WILL NOT

ALLOW INSTALLATION OF A

4' x 4' PRECAST

LOTS (TYP.)

PROPERTY

4" WATER

MAIN (MIN.) —

REQUIRED (TYP.)

SIDEWALK (TYP.

**CUL-DE-SAC LOOPING AND** 

METER BOX PLACEMENT DETAIL

FITTINGS AS

SERVICE (TYP!) -

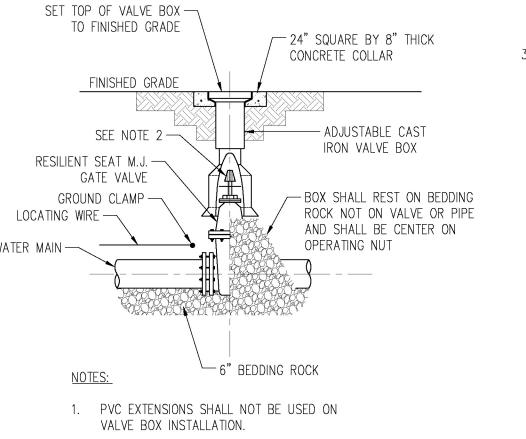
BACK OF SIDEWALK —

PROPERTY

— DOUBLE CHECK VALVE

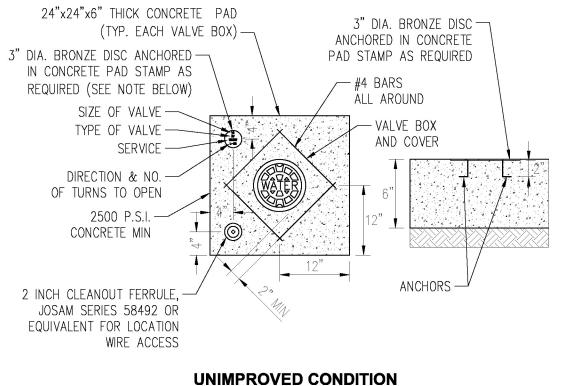
LINE (TYP.) -

LINE (TYP.) —



2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.

# GATE VALVE & BOX DETAIL



# TOPS FLUSH WITH FINISHED GRADE (TYP.) 9" ASPHALT SURFACE BASE VALVE BOX AND COVER 2" CLEANOUT FERRULE, JOSAM 4"x4"x18" LONG (MIN.)

#### IMPROVED CONDITION

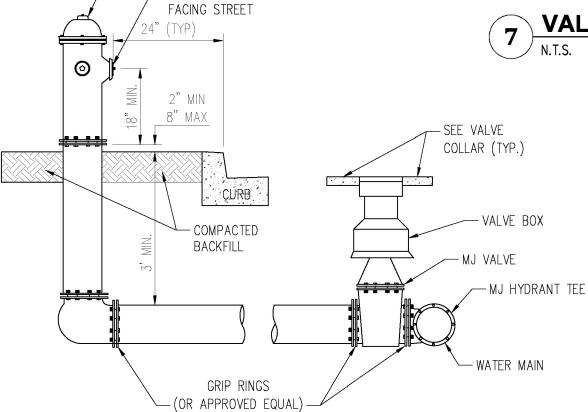
SERIES 58492 OR APPROVED EQUAL

- 2" PVC PIPE FOR ROUTING

PIPE LOCATING WIRE

BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.

# 7 VALVE BOX COLLAR



# 6 FIRE HYDRANT ASSEMBLY

- HYDRANT OR NUT

— PUMPER NOZZLE

# CONCRETE VAULT COVER WITH ACCESS LID US FOUNDRY MODEL #7665 OR EQUIVALENT GROUT FINISHED GRADE SEE APPROVED MATERIAL LIST FOR MANUFACTURERS 2" BALL VALVE SEE NOTE 2 8"x16" REINFORCED CONCRETE FOOTING

- BEDDING ROCK

— CAST IRON FRAME AND

#### NOTES:

PREMOLDED

JOINT FILLER

5" WALLS (MIN.)

FITTINGS AND PIPE

FOR A.R.V. SHALL

2" NIPPLE

BE BRASS

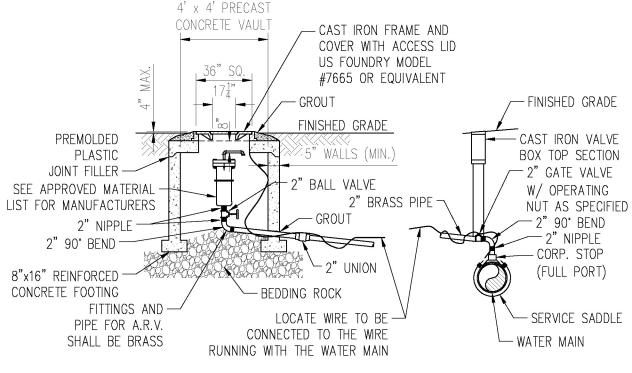
SERVICE SADDLE

PER SPECIFICATION

PLASTIC -

- 1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.
- 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
- 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
- 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
- 6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION AND "POTABLE WATER".
- 7. NO GALVANIZED PIPE/VALVES.

# AIR RELEASE VALVE & VAULT



#### NOTES:

- 1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
- 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
- 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
- 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.

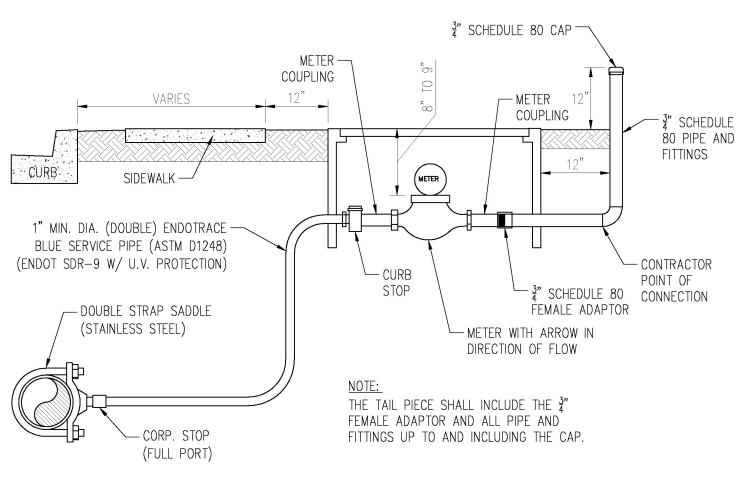
6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION, "SEWER" "RECLAIMED WATER OR POTABLE

7. NO GALVANIZED PIPE/VALVES.

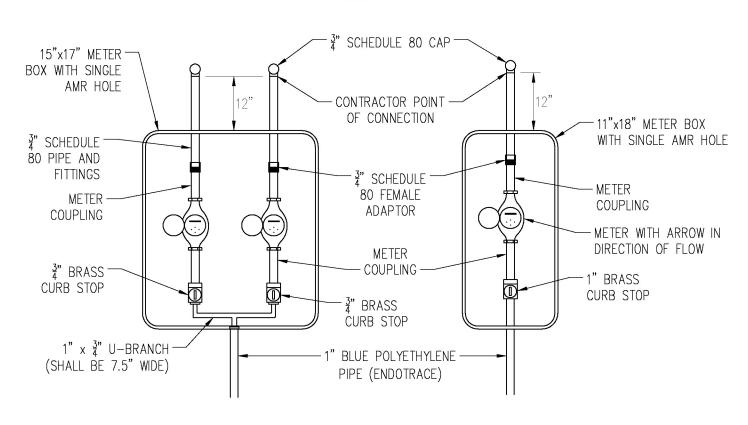
WATER".

8. LOCATE WIRE IN THE ARV VAULT SHALL BE SPLICED TO THE WIRE RUNNING WITH THE WATER MAIN AND EXCESS WIRE TO BE PLACED IN ARV VAULT. THE POINT OF CONNECTION AT THE MAIN SHALL HAVE A WATER PROOF CONNECTOR.

# OFFSET AIR RELEASE VALVE ASSEMBLY



# SERVICE SECTION N.T.S.



# DOUBLE SERVICE (TOP VIEW) SINGLE SERVICE (TOP VIEW) NTS

#### NOTES

PRECAST POST WITH

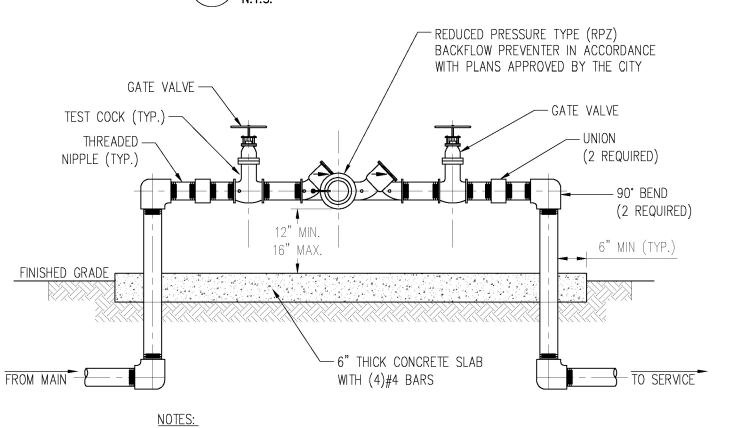
SHOWN ABOVE

3" DIAMETER BRONZE

DISC SET IN GROUT AS

- 1. ALL FITTINGS BETWEEN THE WATER MAIN AND THE METER COUPLING SHALL BE BRASS WITH COMPRESSION/PACK JOINT CONNECTIONS.
- 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
- 3. EACH SERVICE SHALL TERMINATE IN A METER BOX ASSEMBLY, WHICH SHALL BE PLACED TO GRADE IN THE UTILITY EASEMENT AT THE PROPERTY LINE(S) OF THE LOT(S) TO BE SERVED.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION TO AND INCLUDING THE METER BOX ASSEMBLY. THE CITY SHALL FURNISH THE METER AND THE TAIL PIECE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING THE METER BOX ASSEMBLY TO FINISH GRADE AND MAKING ANY GRADE ADJUSTMENTS TO THE METER BOX IF REGRADING OCCURS.
- 5. ALL SERVICE LINES SHALL BE POLY ENDOTRACE PIPE AND SHALL BE BLUE IN COLOR W/WIRE.
- 6. THE POINT OF CONNECTION IS LOCATED ONE FOOT BEYOND THE METER BOX. THE PLUMBER/CUSTOMER SHALL BE RESPONSIBLE FOR MAINTENANCE BEYOND THE POINT OF CONNECTION.
- 7. IN NO CASE IS METER TO BE INSTALLED IN SIDEWALK OR OTHER PAVED AREAS.

# 8 WATER SERVICE DETAIL



- 1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 80 PVC. NO GALVANIZED PIPE WILL BE APPROVED.
- 2. ALL PIPE LARGER THAN 2" SHALL BE FLANGED DUCTILE IRON
- 3. NO GALVANIZED PIPE ALLOWED.

# BACKFLOW PREVENTER ASSEMBLY

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JOF WINTER GARDEN, FLORID NDARDS AND SPECIFICATIONS OR UTILITIES CONSTRUCTION

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FOR BLE WATER 595TEMS

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DATE
JUNE 2018
SHEET

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CAST IRON FRAME AND

#### NOTES: 1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.

4' x 4' PRECAST

- POLY TAPE WITH STAINLESS STEEL STRAP. 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE
- HIGHEST POINT IN THE RESPECTIVE SEGMENT.
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS. 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH
- FINISHED GRADE.
- 6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION AND "WASTEWATER".
- 7. NO GALVANIZED PIPE/VALVES.

PREMOLDED >

JOINT FILLER

5" WALLS (MIN.)

FITTINGS AND PIPE

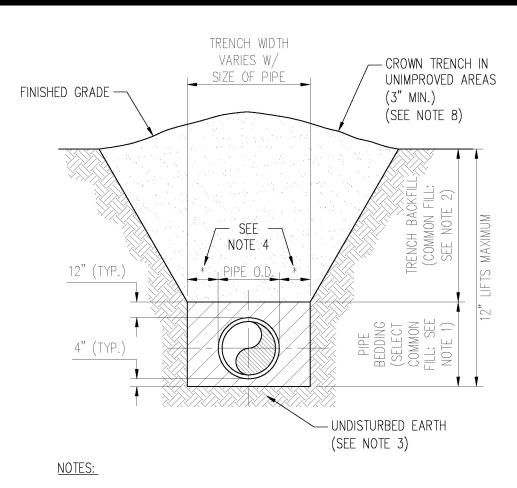
FOR A.R.V. SHALL

PLASTIC -

2" NIPPLE

BE BRASS





1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% OF THE

THAN 5% PASSING #200 SIEVE.

PASSING #200 SIEVE.

PIPE DIAMETER 24" LARGER.

DIRECTION OF THE FLOW.

CONSTRUCTION.

MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE

DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5%

ACCORDANCE WITH TYPE A BEDDING AND TRENCHING MAY BE REQUIRED

2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% OF THE MAXIMUM

3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN

4. (\*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR

AS DIRECTED BY THE CITY OF WINTER GARDEN.

5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING

6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE

7. REFER TO SECTION 32.5 OF THE CITY OF WINTER GARDEN MANUAL OF

CONSTRUCTION FOR SHEETING AND BRACING IN EXCAVATIONS.

8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE

COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION

REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN

WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE

RESTORATION WITHIN CITY OF WINTER GARDEN RIGHT-OF-WAY SHALL

CLAY, DIP OR DISSIMILAR PIPE

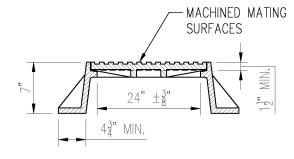
# <u>PLAN</u>

RAISED 11 LETTERS FLUSH

- 2-NON PENETRATING

PICK HOLES

WITH TOP OF COVER



#### **ELEVATION**

NOTES:

- 1. MANHOLE FRAME & COVER SHALL BE 24" OPENINGS, USE #AS-225 AS MANUFACTURED BY U.S. FOUNDRY & MFG. CORP. OR APPROVED EQUAL.
- 2. RAIN STOPPER LIDS OR RAIN GUARD LIDS (LFVHS) REQUIRED.

# MANHOLE FRAME AND COVER

#### NOTES:

OUTSIDE WALL

PRE-MOLDED

— PRE-PRIMED

JOINT SURFACES

PLASTIC JOINT

SEALER WITH

(WRAPPER TO

BE REMOVED

— SQEEZE-OUT

PROTECTIVE

WRAPPER

PRECAST -

MORTAR DAM

BRICK AND —

DROP PIPE -

PRECAST —

MANHOLE

WALL

(SEE NOTE 1)

AS REQUIRED

MANHOLE WALL

INLET CONNECTION -

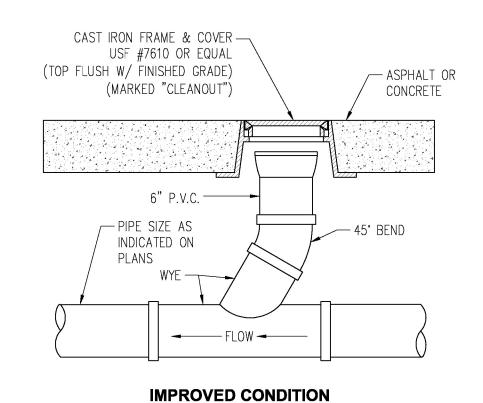
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.

STANDARD DROP CONNECTION

2. AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 2' OR MORE ABOVE THEN MANHOLE INVERT.

PRECAST MANHOLE CONNECTION

# MANHOLE CONNECTION DETAIL



(SEE NOTE 3)

OF VERTICAL PIPE

- SLAB UNDER DROP CONNECTION

SHALL BE CONTINUOUS WITH

MANHOLE BOTTOM SLAB

— STAINLESS

STEEL BAND

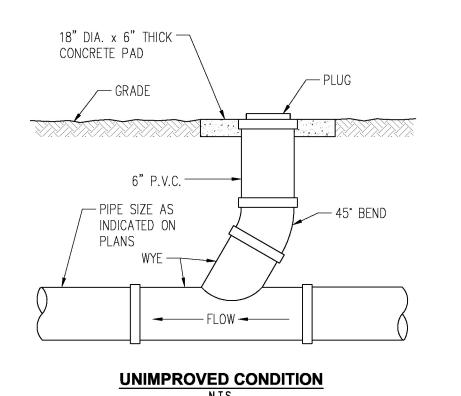
- STAINLESS STEEL

PIPE CLAMP

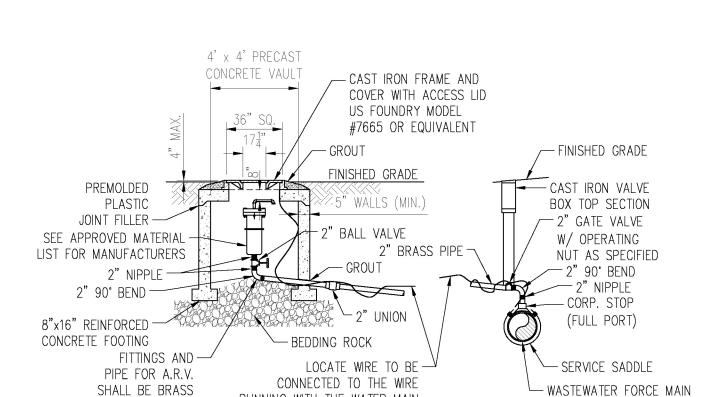
- RESILIENT

CONNECTOR

CONCRETE ENCASEMENT



# STANDARD BEDDING DETAIL



# NOTES:

1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.

RUNNING WITH THE WATER MAIN

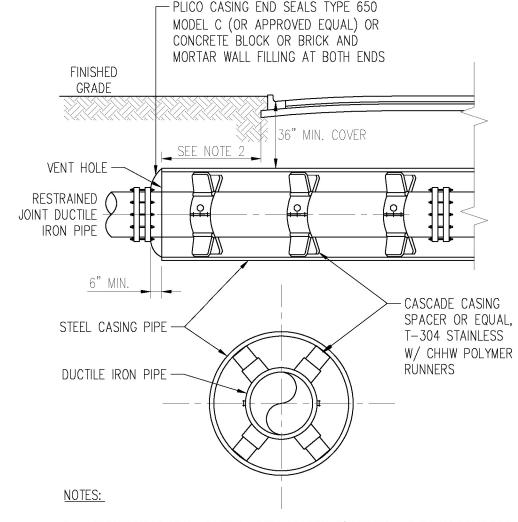
- 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
- 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
- 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
- 6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION, "SEWER" "RECLAIMED WATER OR POTABLE WATER".
- 7. NO GALVANIZED PIPE/VALVES.
- 8. LOCATE WIRE IN THE ARV VAULT SHALL BE SPLICED TO THE WIRE RUNNING WITH THE MAIN AND EXCESS WIRE TO BE PLACED IN ARV VAULT. THE POINT OF CONNECTION AT THE MAIN SHALL HAVE A WATER PROOF CONNECTOR.

# OFFSET AIR RELEASE VALVE ASSEMBLY

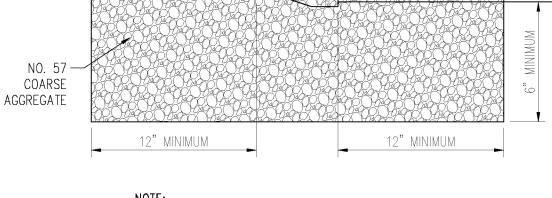
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# SANITARY SEWER CLEAN OUT DETAIL



- 1. WHERE PRACTICAL, CASING SHALL EXTEND 8' BEYOND EDGE OF PAYMENT AND SHALL NOT BE LESS THAN 6' BEYOND EDGE OF PAYMENT IN ANY
- 2. CASING SPACERS AND END SEALS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 3. DESIGN ENGINEER TO DETERMINE NEED FOR SACRIFICIAL ANODE (S) FOR CORROSION CONTROL.



#### NOTE:

P.V.C. HARD COUPLING OR —

CITY APPROVED EQUIVALENT

1. FIELD VERIFY MATERIALS OF EXISTING PIPES TO SELECT PROPER CONNECTOR. 2. HARBCO COUPLING OR APPROVED EQUIVALENT FOR ALL PIPE MATERIALS,

9 SEWER MAIN CONNECTION DETAIL

1. CLEANOUT SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH STANDARD PLUMBING CODE.

SEWER MAIN

- WYE WITH

6" BRANCH

-6" 45° BEND

DOUBLE WYE -

- SPRING LINE

(SIZE VARIES)

- CLEAN OUT

(SEE NOTE 1)

✓ WYE WITH

6" BRANCH

2. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE

SLOPE TO

TERMINAL DEPTH

(1.0% MIN TYP)

SINGLE LATERAL DOUBLE LATERAL

3. WYES AND 45' BENDS SHALL BE PVC (SDR 26).

- TROWEL-FINISHED

<u>PLAN</u>

CONCRETE BASE MONOLITHIC BASE

1. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24"

OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.

5. ALL PRECAST CONCRETE SHALL BE COATED INSIDE AND OUTSIDE WITH COAL TAR

WYE WITH

6" 45° BEND -

(SEE NOTE 2)

6" BRANCH

PRECAST CONCRETE SANITARY MANHOLE

**SECTION** 

CONCRETE BASE

SET COVERS FLUSH IN PAVED -

18" MIN - 36" MAX

(SEE NOTE 4)

PER SPECIFICATIONS

#4 @ 1' O.C. EACH WAY -

BEDDING ROCK —

NOTES:

AREAS & AT ELEVATIONS

SHOWN IN PAVED AREAS

BITUMASTIC COATINGS —

BENCHING PER -

(#57 STONE) CAST-IN-PLACE | PRECAST

ALL DROPS TO BE OUTSIDE OF THE MANHOLE.

3. GROUT WITH NON-SHRINKING GROUT INSIDE JOINTS

2. E-Z RAPP OUTSIDE ALL JOINTS

4. NO CONES OVER 3 FT. TALL

EPOXY, MINIMUM 16 MIL DMT.

CLEAN OUT -

(SEE NOTE 1)

PLUMBER TO ADJUST —

TO FINISHED GRADE

SPECIFICATIONS

CONCRETE BENCHING

- SEE MANHOLE

CONNECTION

- MANHOLE FRAME & COVER

- FRAMES BEDDED IN MORTAR

(15" MAX.)

- CONCRETE OR HDPE RISERS

INSIDE WALL ---

PRE-PRIMED -

COMPLETED —

JOINT WITH

SQEEZE-OUT

JOINT SURFACES

(SEE STANDARD DETAIL)

**DETAILS** 

- 4. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE, 25' MAXIMUM.
- 5. 4' TYP TERMINAL DEPTH (3' MIN) REQUIRED FOR SERVICE AT RIGHT-OF-WAY.
- SANITARY SEWER SERVICE LATERAL DETAIL

SEWER MAIN STEEL CASING DETAIL

UNLESS APPROVED IN WRITING BY THE CITY.

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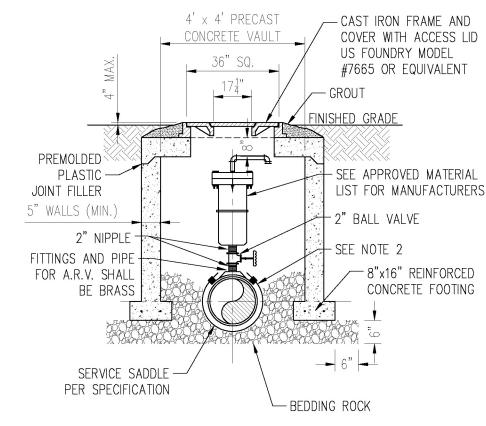
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DATE **JUNE 2018** 

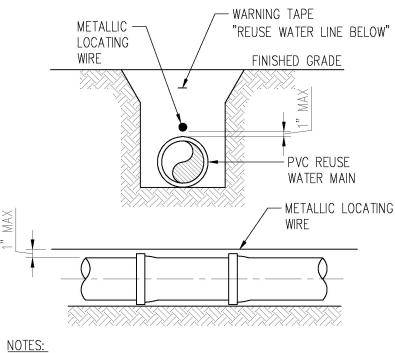
- 1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
- 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND CONTAINING NO MORE THAN 5% PASSING #200 SIEVE.
- 3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING MAY BE REQUIRED AS DIRECTED BY THE CITY OF WINTER GARDEN.
- 4. (\*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" LARGER.
- 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
- 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- 7. REFER TO SECTION 32.5 OF THE CITY OF WINTER GARDEN MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION FOR SHEETING AND BRACING IN EXCAVATIONS.
- 8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF WINTER GARDEN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

# **STANDARD BEDDING DETAIL**



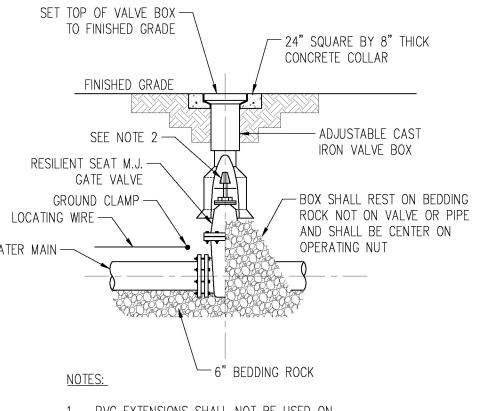
- 1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.
- 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
- 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
- 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
- 6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION AND "RECLAIMED WATER".
- 7. NO GALVANIZED PIPE/VALVES.





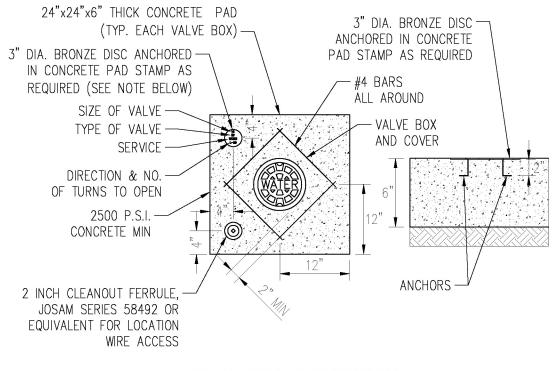
- 1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE ATTACHED TO THE TOP OF PIPE WITH DUCT TAPE, AT LEAST 5 TIMES PER JOINT.
- 2. LOCATING ROD SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING ABOVE TOP OF BOX  $\frac{1}{2}$ " SO AS NOT TO INTERFERE WITH VALVE OPERATION.

# **PVC PIPE LOCATING WIRE DETAIL**



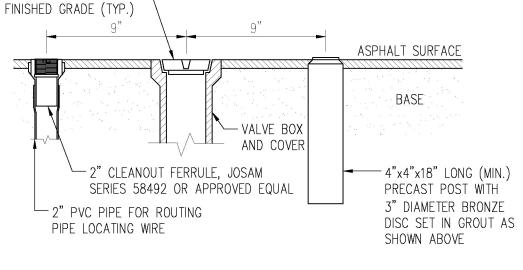
- 1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
- 2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.

# GATE VALVE & BOX DETAIL



#### **UNIMPROVED CONDITION**

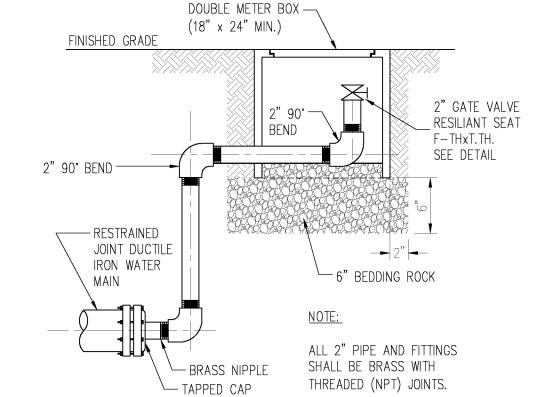
TOPS FLUSH WITH -



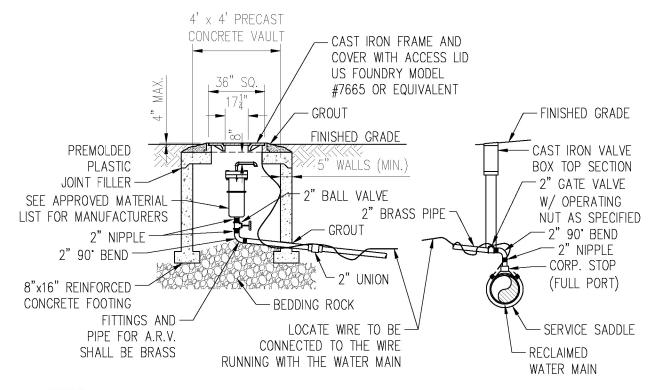
#### **IMPROVED CONDITION**

BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.

**VALVE BOX COLLAR** 



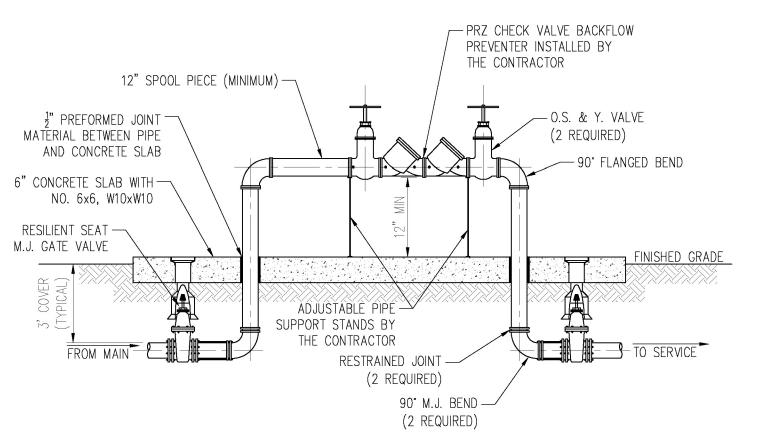
# **BLOWOFF VALVE DETAIL**



#### NOTES:

- 1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
- 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
- 3. PIPE INSTALLATION SHALL BE SUCH THAT THE A.R.V. IS LOCATED AT THE HIGHEST POINT IN THE
- 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR VALVE VAULTS.
- 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
- 6. COVER SHALL READ "WINTER GARDEN UTILITIES DIVISION, "SEWER" "RECLAIMED WATER OR POTABLE WATER".
- 7. NO GALVANIZED PIPE/VALVES.
- 8. LOCATE WIRE IN THE ARV VAULT SHALL BE SPLICED TO THE WIRE RUNNING WITH THE WATER MAIN AND EXCESS WIRE TO BE PLACED IN ARV VAULT. THE POINT OF CONNECTION AT THE MAIN SHALL HAVE A WATER PROOF CONNECTOR.

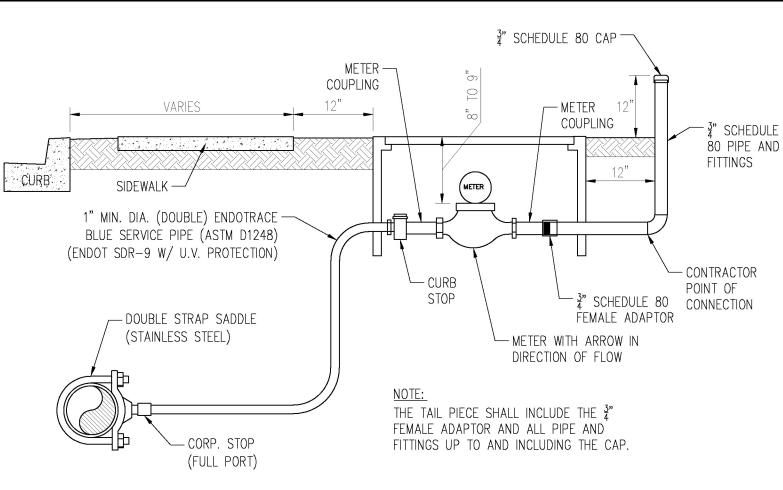
# OFFSET AIR RELEASE VALVE ASSEMBLY



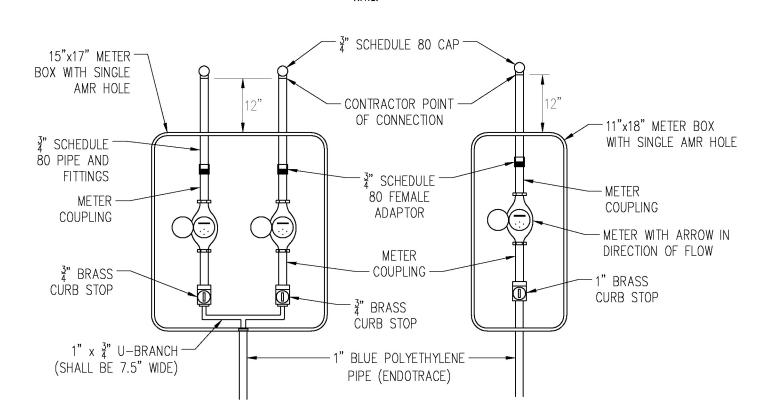
#### NOTES:

- 1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 80 PVC. NO GALVANIZED PIPE ALLOWED.
- 2. ALL PIPE LARGER THAN 2 INCH SHALL BE FLANGED DUCTILE IRON PIPE.
- 3. RECLAIMED WATER JUMPER SHALL BE SIZE ON SIZE.

# RECLAIMED WATER JUMPER CONNECTION



# SERVICE SECTION N.T.S.



#### **DOUBLE SERVICE (TOP VIEW)** SINGLE SERVICE (TOP VIEW)

#### NOTES:

- 1. ALL FITTINGS BETWEEN THE WATER MAIN AND THE METER COUPLING SHALL BE BRASS WITH COMPRESSION/PACK JOINT CONNECTIONS.
- 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
- 3. EACH SERVICE SHALL TERMINATE IN A METER BOX ASSEMBLY, WHICH SHALL BE PLACED TO GRADE IN THE UTILITY EASEMENT AT THE PROPERTY LINE(S) OF THE LOT(S) TO BE SERVED.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION TO AND INCLUDING THE METER BOX ASSEMBLY. THE CITY SHALL FURNISH THE METER AND THE TAIL PIECE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING THE METER BOX ASSEMBLY TO FINISH GRADE AND MAKING ANY GRADE ADJUSTMENTS TO THE METER BOX IF REGRADING OCCURS.
- 5. ALL SERVICE LINES SHALL BE POLY ENDOTRACE PIPE AND SHALL BE BLUE IN COLOR W/WIRE.
- 6. THE POINT OF CONNECTION IS LOCATED ONE FOOT BEYOND THE METER BOX. THE PLUMBER/CUSTOMER SHALL BE RESPONSIBLE FOR MAINTENANCE BEYOND THE POINT OF
- 7. IN NO CASE IS METER TO BE INSTALLED IN SIDEWALK OR OTHER PAVED AREAS.



WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

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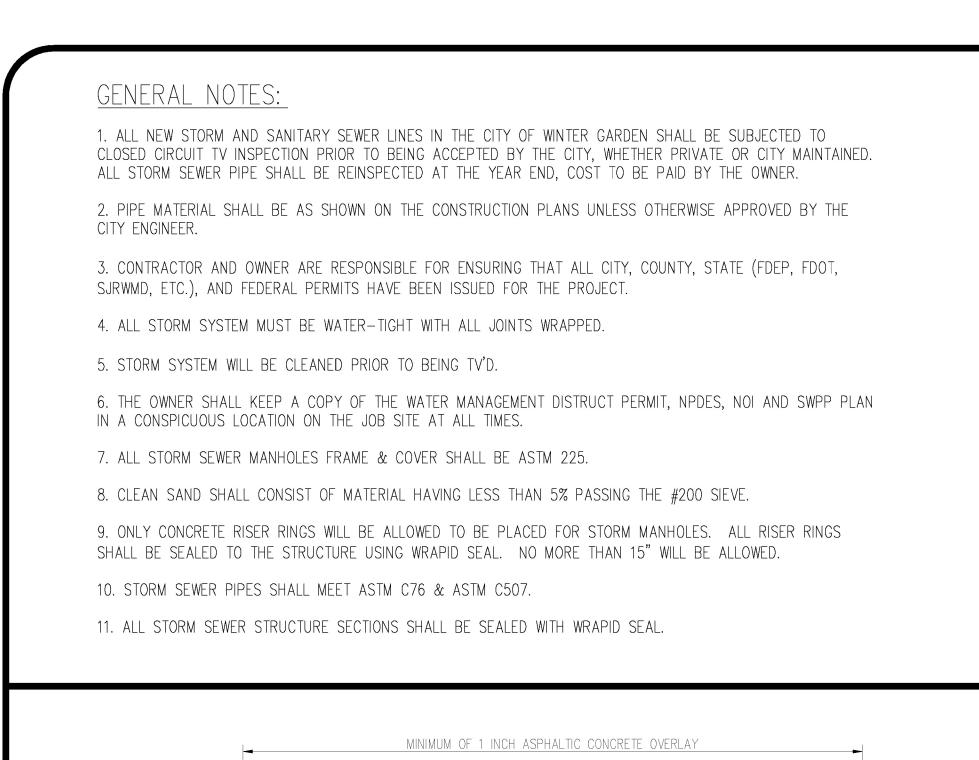
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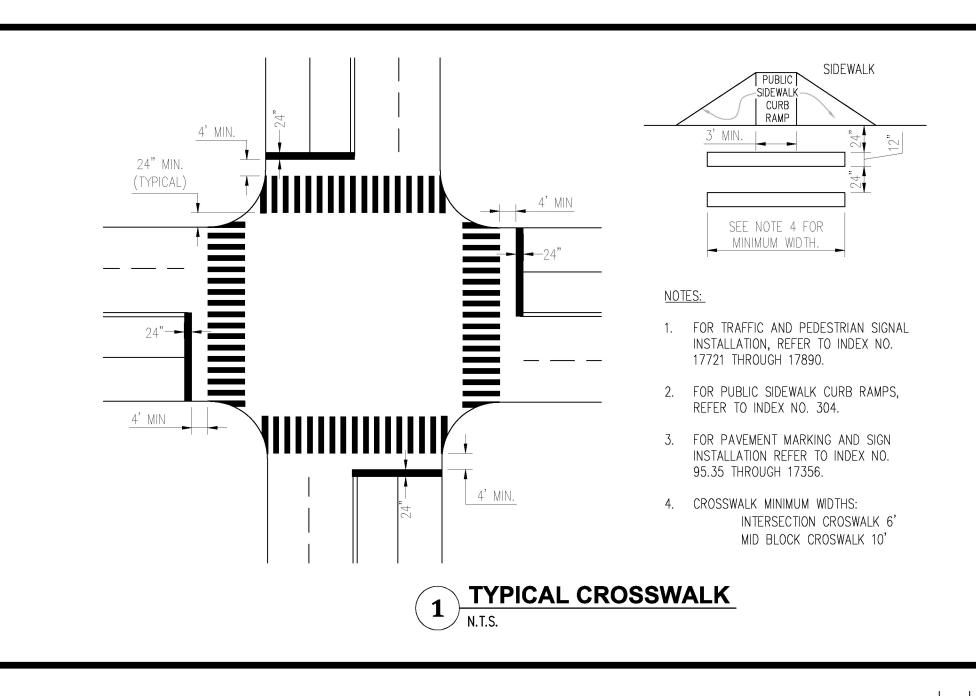
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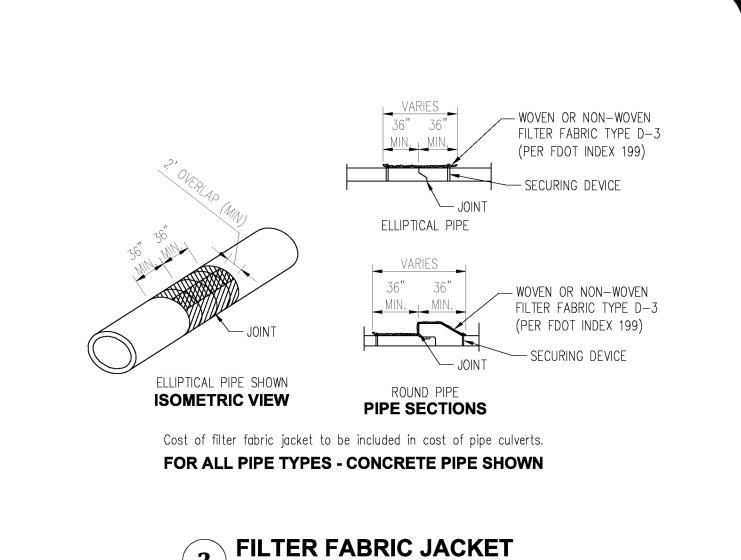
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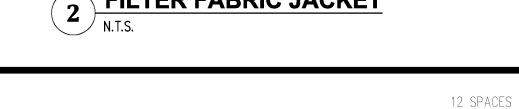
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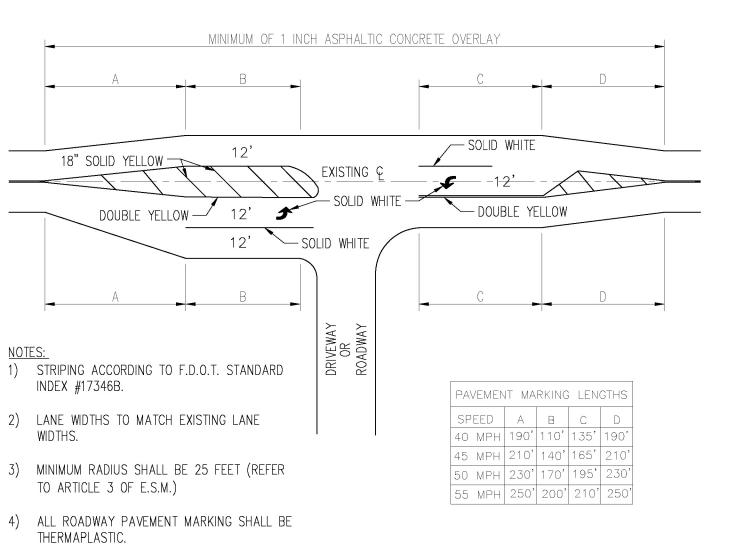
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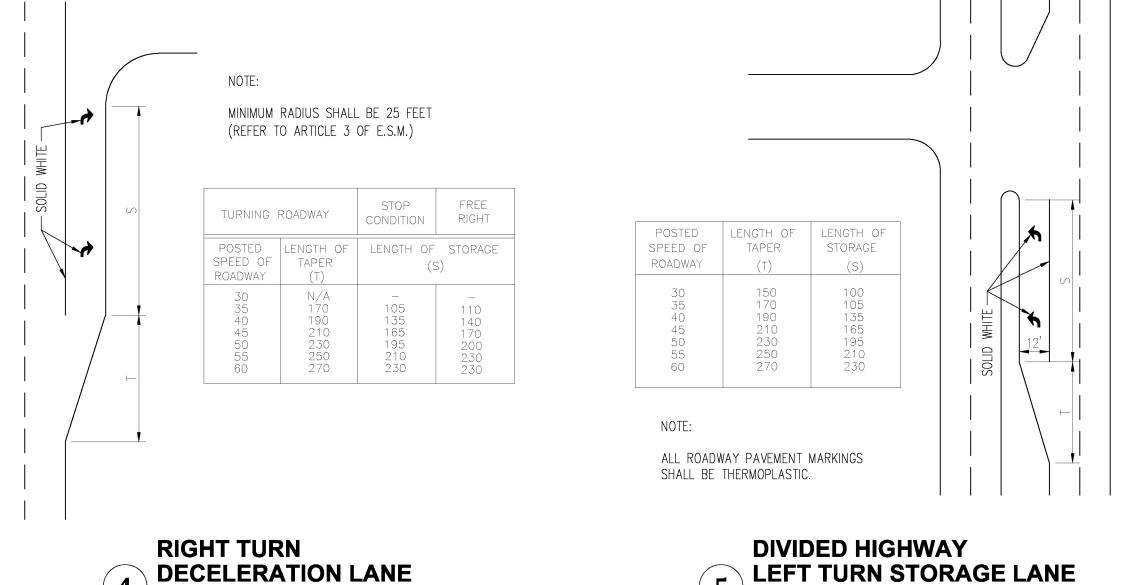
3 TYPICAL INTERSECTION

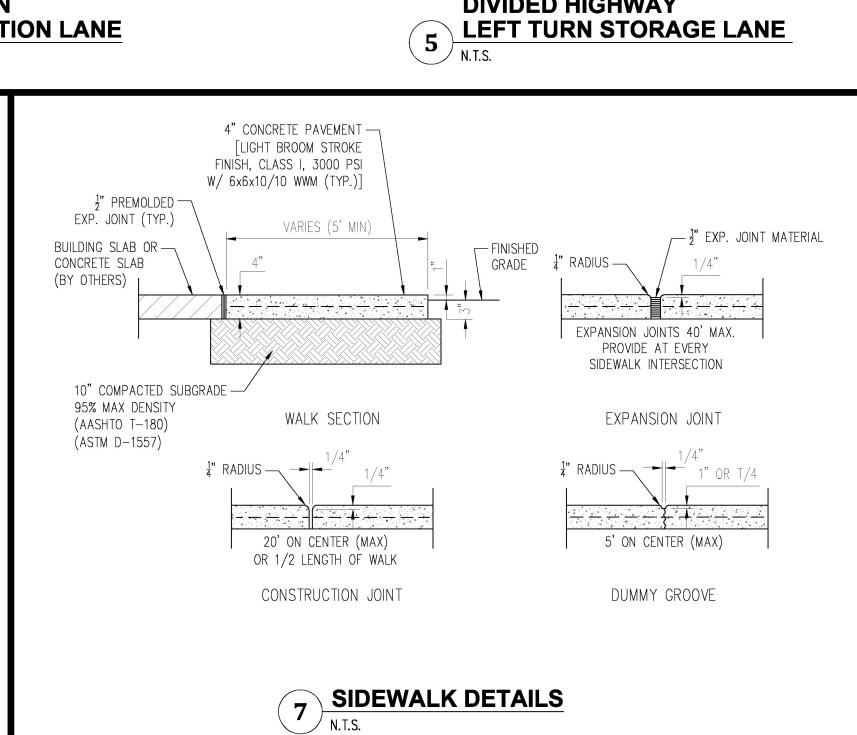
**PLAN** 

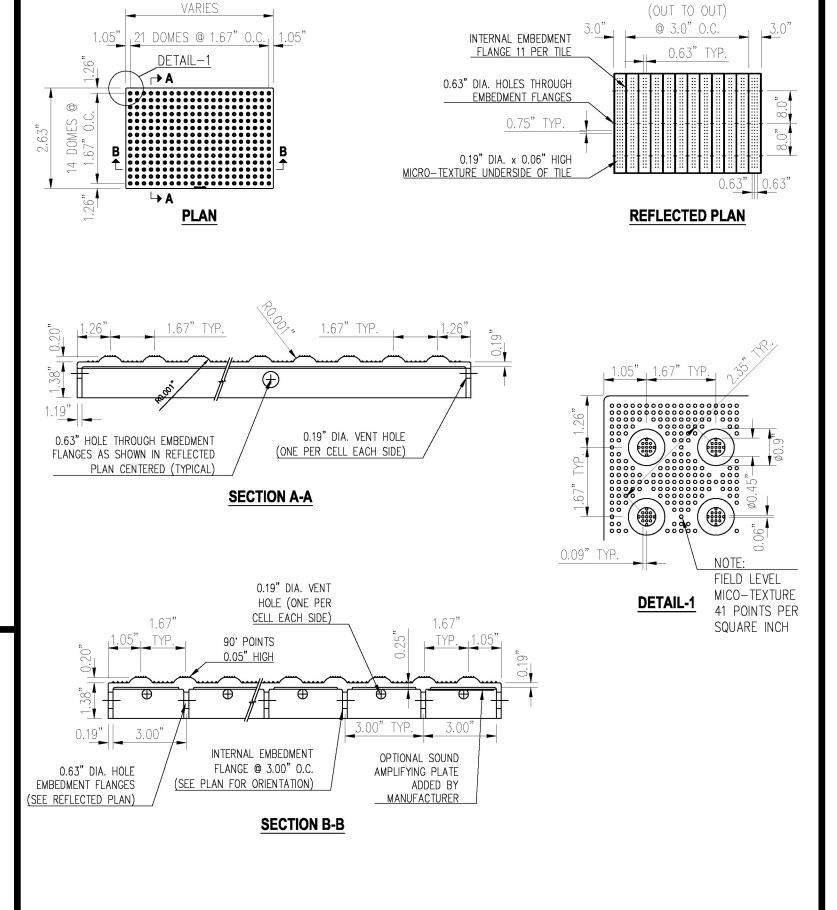
**PICTORIAL VIEWS** 

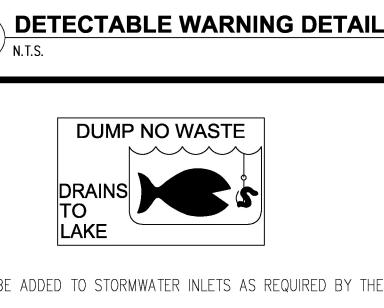
6 CURB RAMPS & DETECTABLE WARNING PLACEMENT

**PLAN** 









1. CURB RAMP DETECTABLE WARNING TILE SHALL BE ARMOR TILE OR EQUAL.

2. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES

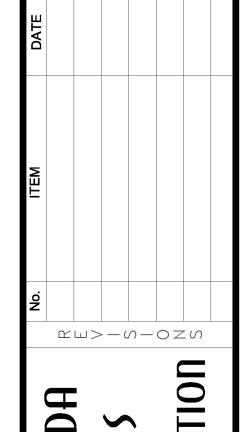
TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB.

THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF

PLATE SHALL BE ADDED TO STORMWATER INLETS AS REQUIRED BY THE CITY.

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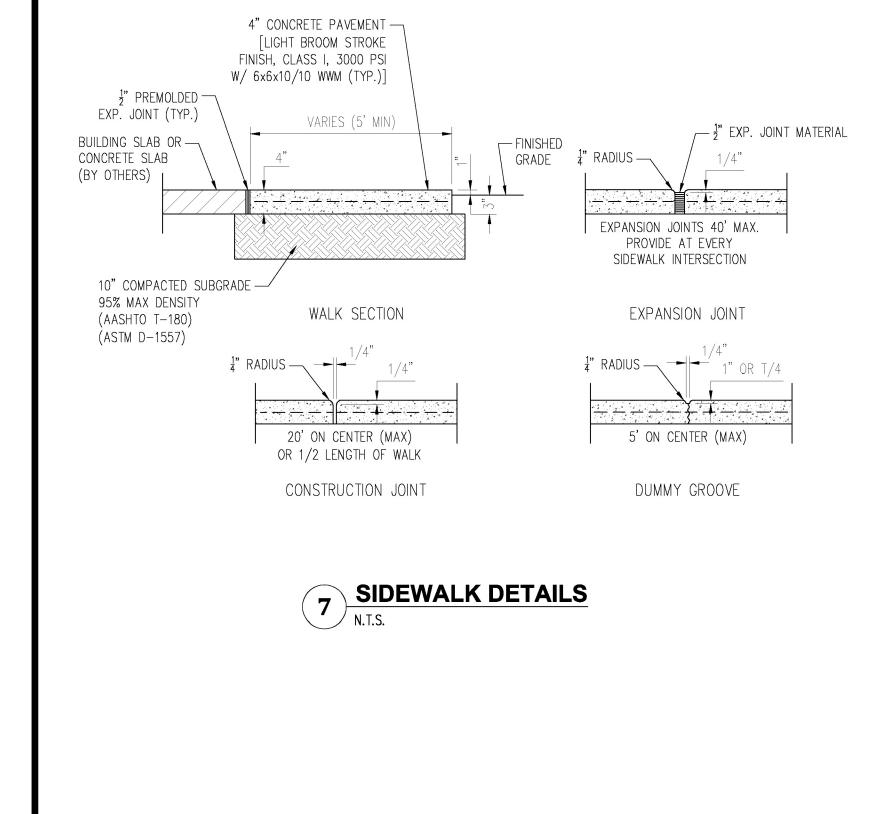


FLORIDA HTION TRUC SPECIFIC GARDEN DRAINA AND ITER RD **ROADWAY** TANDAI **9**0 FOR

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DETAIL SERVICES FOR STANDARD UB

> DATE **JUNE 2018** SHEET



CURB & GUTTER

**SECTION AA** 

**SECTION BB** 

**SECTION CC** 

**VALLEY GUTTER** 

**—** 

**TYPE F** 

NOTE: TO BE PAID FOR AS PARENT CURB.

TYPE E

**SHOULDER GUTTER** 

SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE

SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP

\* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS

- STANDARD SHOULDER LINE

GUTTER -

EDGE OF PAV'T —

GUTTER —

SHOULDER

<u>PAVEMENT</u>

PROFILE

**FLARED END** 

PLAN

PROFILE

**FLARED END** 

SLOPE TO MATCH

DRIVEWAY

EARTH

**CONCRETE CURB AND GUTTER** NOTE: FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT, CONCRETE SHOWN.

FOR DETAILS DEPICTING USAGE ADJACENT TO FLEXIBLE PAVEMENT, SEE DIAGRAM

RIGHT. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB & GUTTER AND CONCRETE PAVEMENT ONLY, SEE DIAGRAM RIGHT.

BERM 1

PLAN

**PROFILE** 

STRAIGHT END

TOP OF CURB-

GUTTER —

EDGE OF PAV'T

TOP OF CURB -

**PROFILE** 

**STRAIGHT END** 

GUTTER —

**CURB AND GUTTER TYPES E & F** 

**CURB AND GUTTER ENDINGS** 

1" EXP.JOINT AND

TYPE A

TYPE D

- JOINT SEAL

PREFORMED JOINT FILLER

NOTE: FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT, CONCRETE SHOWN.

BETWEEN CURBS AND CONCRETE PAVEMENT ONLY, SEE DIAGRAM RIGHT.

CONCRETE CURB

**ASPHALTIC CONCRETE CURB** 

EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED

PREFORMED JOINT FILLER

CLEAN MATERIAL 12" MINIMUM

<u> PAVEMENT</u>

**VERTICAL CURB** 

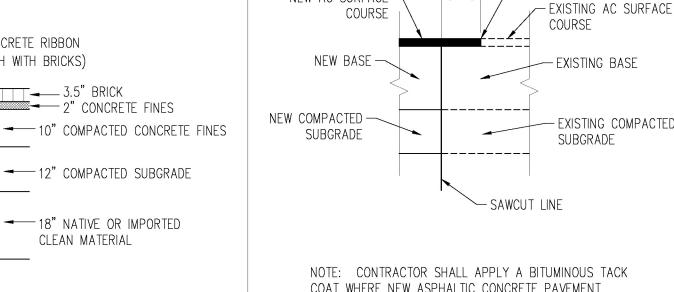
(COMMERCIAL PARKING AREAS ONLY)

BE 10" FOR DROP OR HEADER

NOTE: VERTICAL DIMENSION SHALL

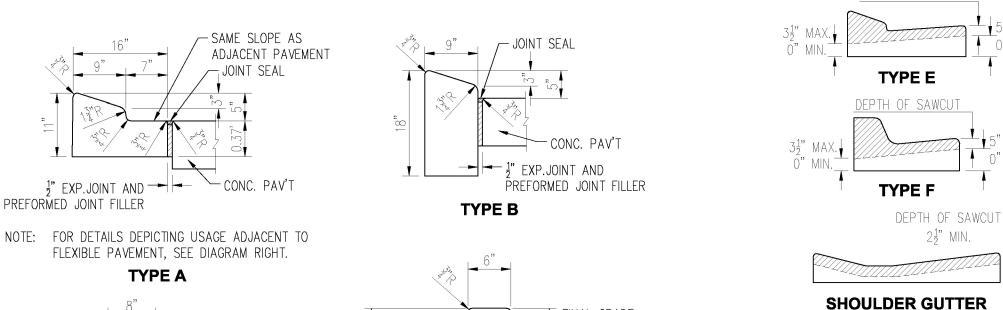
CURB APPLICATIONS.





COAT WHERE NEW ASPHALTIC CONCRETE PAVEMENT ABUTS EXISTING PORTLAND CEMENT CONCRETE PAVEMENT.

SAWCUT TYPCIAL DETAIL



FINAL GRADE

NOTE: SAWCUTS SHOULD BE AVOIDED WITHIN VALLEY GUTTER AND WITHIN CURB AND GUTTER ENDINGS. **CONTRACTION JOINT IN CURB AND GUTTER** 

BRUSH IN SAND/PORTLAND CEMENT (10%)

TYPE "F"

CURB & GUTTER

CURB & GUTTER

- 12"x10" CONCRETE RIBBON

CURB (FLUSH WITH BRICKS)

\_\_\_\_\_ 3.5" BRICK

2" CONCRETE FINES

12" COMPACTED SUBGRADE

18" NATIVE OR IMPORTED

CLEAN MATERIAL

12' STANDARD

12' STANDARD

11' MINIMUM

12' STANDARD

12' STANDARD

NEW AC SURFACE

11' MINIMUM

-EXTEND BASE UNDER

CURB & GUTTER

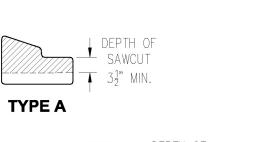
VARIES (SOD)

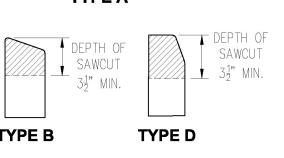
EXTEND BASE UNDER

- ASPHALT SAWCUT

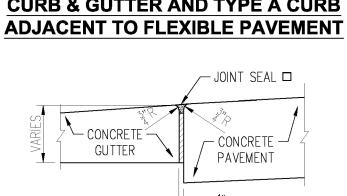
CURB & GUTTER

MIXTURE DRY, THEN WET DOWN TO FILL VOIDS





**CONTRACTION JOINT IN CURB** 

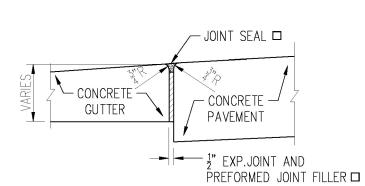


□ - APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN. **EXPANSION JOINT BETWEEN GUTTER** 

#### GENERAL NOTES

1. FOR CURB, GUTTER, AND CURB AND GUTTER PROVIDE  $\frac{1}{8}$ "  $-\frac{1}{4}$ CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.

- SURFACE ON LOW SIDE OF PAVEMENT TO BE  $\frac{1}{4}$ " ABOVE LIP OF GUTTER. SURFACE ON HIGH SIDE TO BE FLUSH WITH LIP OF CURB OR CURB & GUTTER - SLOPE VARIES FLEXIBLE PAVEMENT Δ - APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN. **CURB & GUTTER AND TYPE A CURB** 



AND CONCRETE PAVEMENT

2. ENDS OF CURBS TYPES B AND D SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3 FEET.

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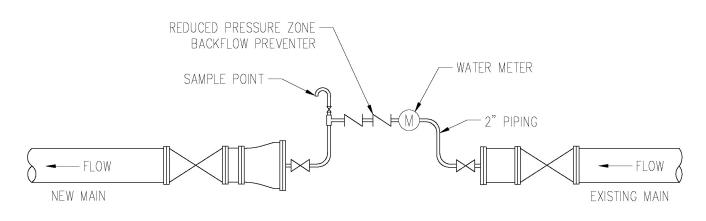
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DETAIL

TANDARD

DATE **JUNE 2018** SHEET

#### OPTION "A"



#### **OPTION "B"**

EXCEPT AS INDICATED BELOW FOR SHORT LENGTHS, EACH SECTION OF PIPELENE SHALL BE THOROUGHLY CLEANED WITH ONE POLYURETHANE FOAM PIG EACH TIME.

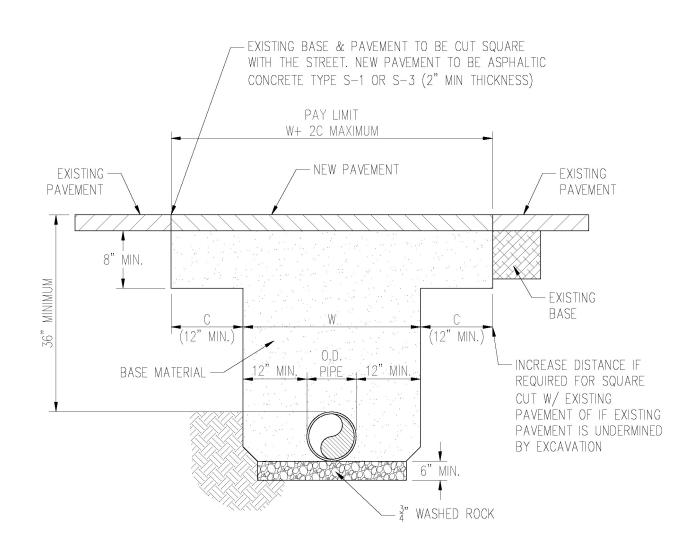
A CITY REPRESENTATIVE SHALL BE PRESENT AT THE TIME OF INSERTION AND EXIT OF THE PIGS. LINES SHALL BE PIGGED AND/OR FLUSHED UNTIL THE WATER RUNS CLEAN AND IS APPROVED BY THE CITY REPRESENTATIVE. THE CITY REPRESENTATIVE SHALL BE GIVEN 48 HOURS MINIMUM NOTICE PRIOR TO PIGGING OR FLUSHING.

ON SHORT LENGTHS OF PIPELINE (100' MAX) CLEANING MAY BE ACCOMPLISHED BY FLUSHING WITH WATER AT A MINIMUM VELOCITY OF 2.5 FEET PER SECOND. WATER REQUIRED FOR TESTING AND CLEANING SHALL BE SUPPLIED BY THE CITY AT THE CONTRACTOR'S EXPENSE. WATER SHALL BE FROM A POTABLE SOURCE SATISFACTORY TO THE CITY.

#### NOTES:

- 1. REDUCER TO BE NEW MAIN SIZE PLUS 2" LARGER.
- 2. WYE TO BE PLUGGED AND RESTRAINED AT THE END OF PIGGING.
- 3. AT THE END OF THE PROJECT, ALL CORPORATIONS TO BE REMOVED AND CORPORATION PLUGS TO BE
- 4. SAMPLE POINT TO BE LOCATED AFTER BACKFLOW PREVENTER.
- 5. ALL MATERIALS, PIPE, AND FITTINGS SHALL CONFORM THE THE CITY OF WINTER GARDEN STANDARDS.
- 6. INSTALL REDUCER WITH PIG INSIDE. ONLY ONE PIG WILL BE ALLOWED TO BE RUN THROUGH THE MAIN AT A TIME. PIPE EXTENSION CAP MAY BE REQUIRED.
- 7. PIGGING PROCEDURE TO BE PERFORMED AT LEAST TWICE.



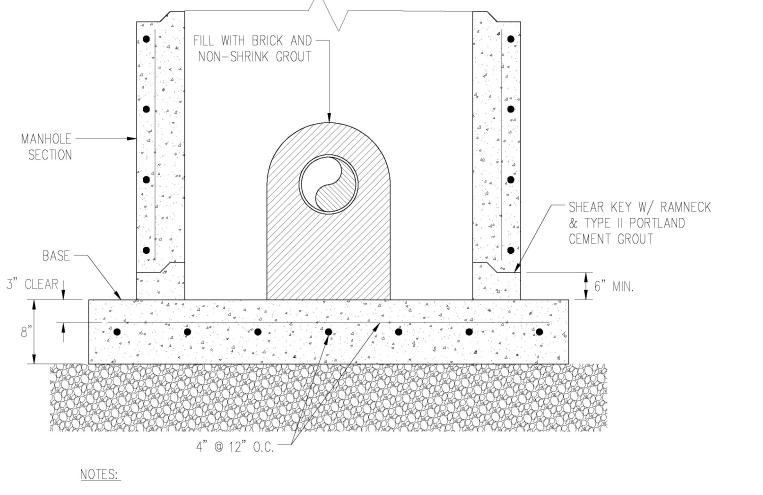


W = O.D. OF PIPE + 12" MIN. AT BOTH SIDES OF PIPE

C = VARIES W/ SOIL TYPE (CONTACT ENGINEER OF RECORD FOR DETERMINATION IN THE FIELD)

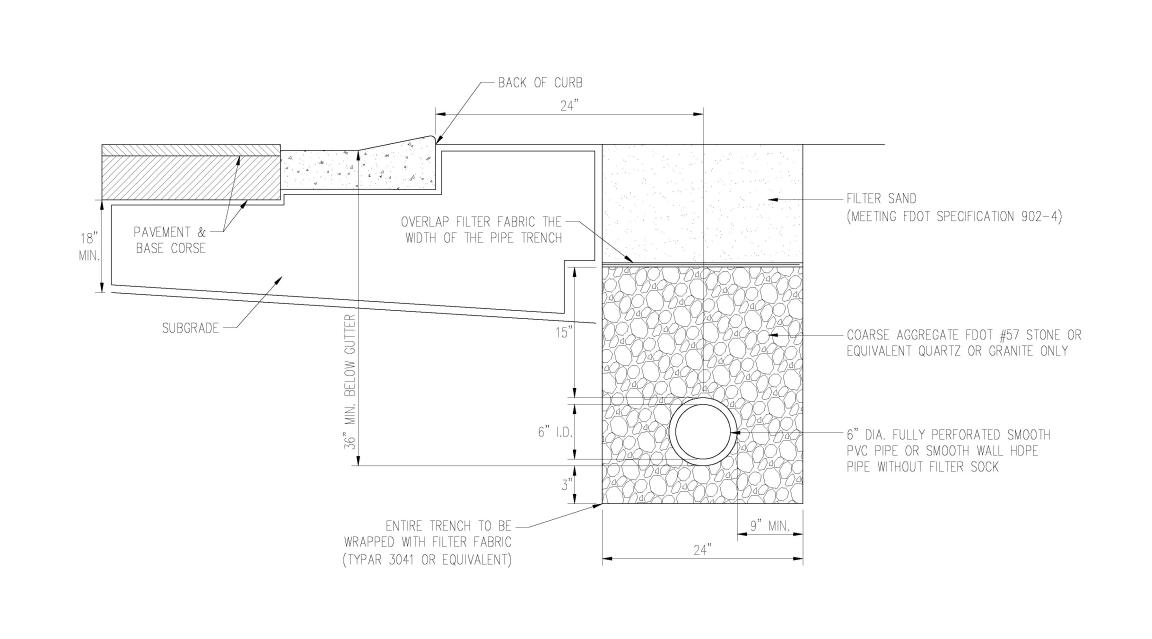
<u>NOTE:</u> ALL BACKFILL COMPACTION SHALL BE 98% OF MAXIMUM DENSITY.

5 PAVEMENT RESTORATION DETAIL
N.T.S.

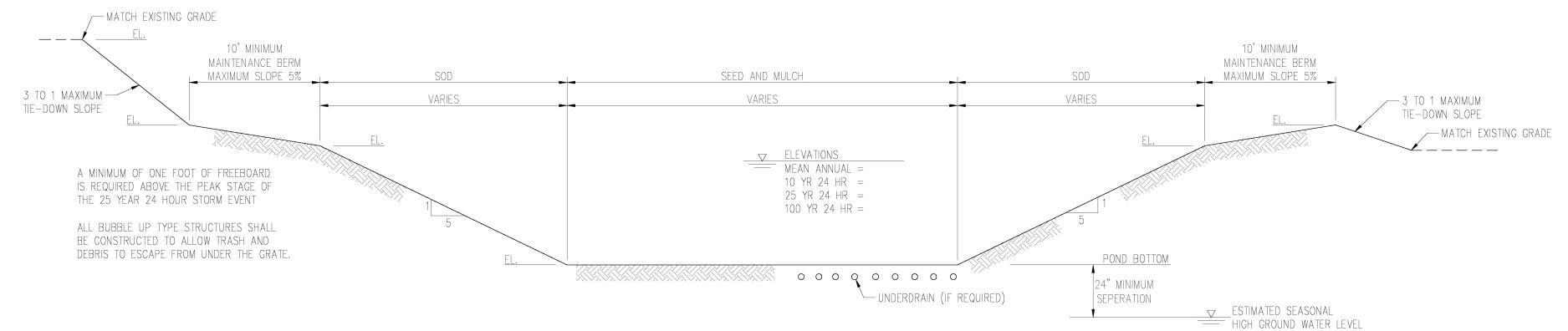


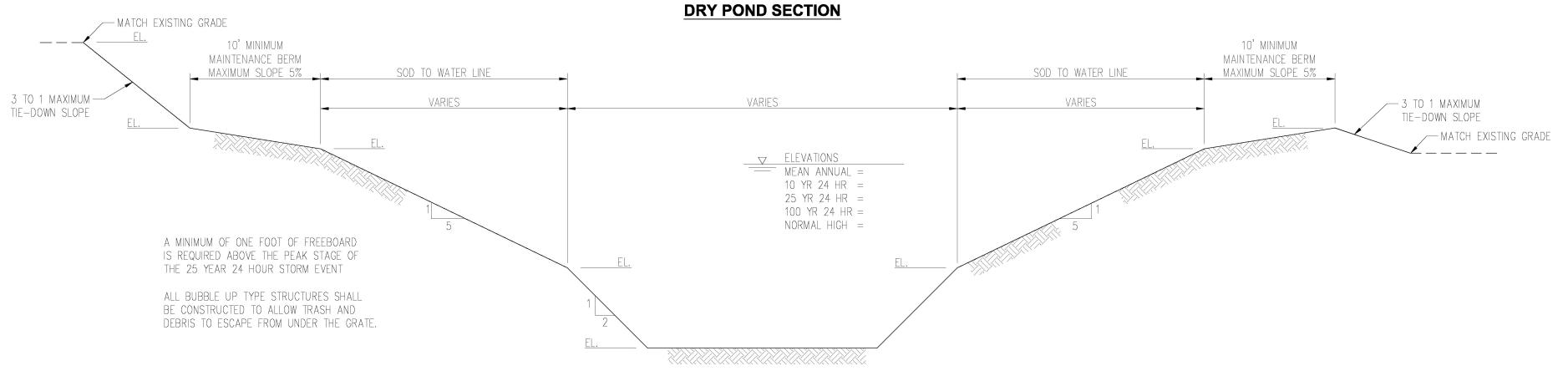
- 1. TO CONSTRUCT NEW MANHOLE OVER EXISTING SEWER, SLIDE BASE UNDER PIPE AND SET MANHOLE SECTION ON TOP.
- 2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE "GRAVITY SEWER MANHOLE STANDARD.
- 3. AT THE END OF THE PROJECT, ALL CORPORATIONS TO BE REMOVED AND CORPORATION PLUGS TO BE INSTALLED. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING INSTALLATION OF MANHOLE.

# **GRAVITY SEWER DOGHOUSE MANHOLE**



# 3 UNDERDRAIN DETAIL





# POND SECTIONS N.T.S.

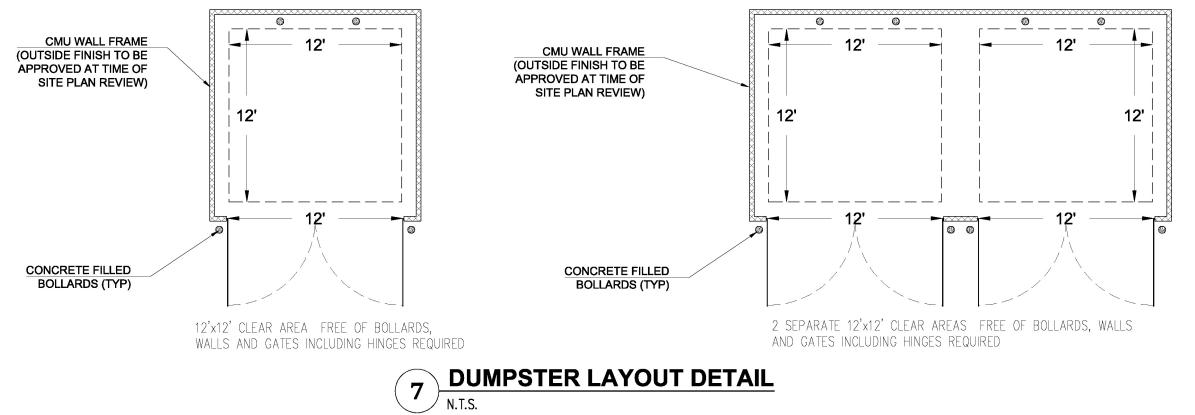
WET POND SECTION

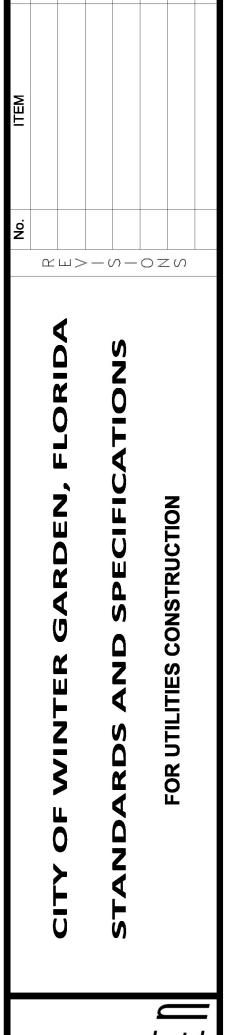
WINTER GARDEN STANDARDS INCORPORATED WITH DESIGN ENGINEERS DOCUMENTS:

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THE DETAILS, NOTES AND SPECIFICATIONS SHOWN ON THIS SHEET REPRESENT THE NOTED STANDARDS OF THE CITY OF WINTER GARDEN FOR CONSTRUCTION OF PUBLIC WORKS AND UTILITY INFRASTRUCTURE. BY INCLUDING THE STANDARDS, THE DESIGN ENGINEER HAS ACKNOWLEDGED THAT THEY ARE EFFECTIVE TO THE PROJECT AND THAT DETAILS, NOTES, OR SPECIFICATIONS ARE AS PROVIDED BY THE CITY AND HAVE NOT BEEN REVISED OR MODIFIED WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER OR UTILITY DIRECTOR.







WINTER GARDER

FOR MISCELLANEOUS DETAILS

DATE
NOVEMBER 2021
SHEET