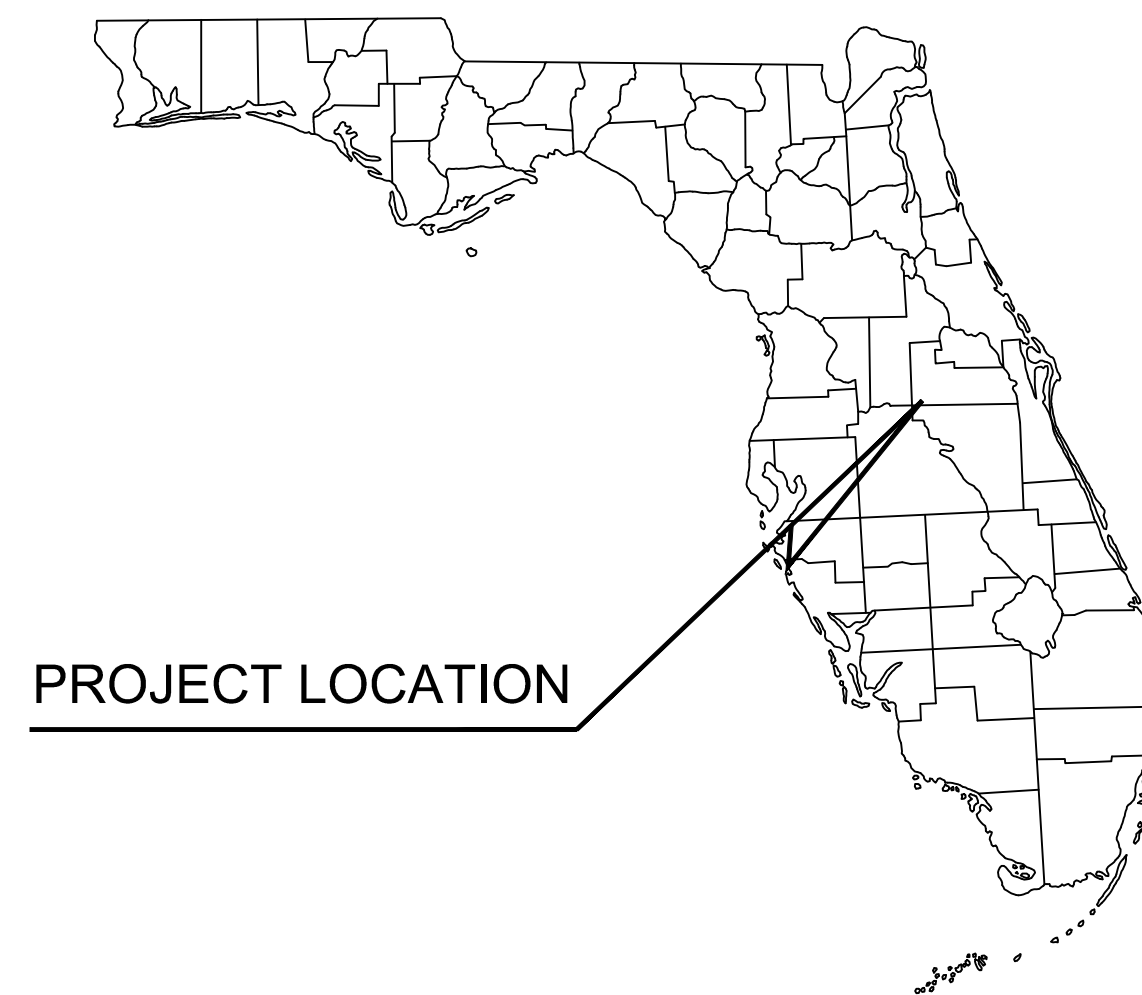


CONSTRUCTION PLANS FOR WINDERMERE DOWNTOWN PROPERTY

PARCEL ID #'s: 17-23-28-9336-02-430, 17-23-28-9336-02-470,
17-23-28-9336-02-490, 17-23-28-9336-02-500, 17-23-28-9336-02-510,
17-29-28-9336-02-520



PROJECT LOCATION



AERIAL PHOTOGRAPH
N.T.S.

TOWN OF WINDERMERE, FL February 10, 2023

SITE

LEGAL DESCRIPTION

That part of Section 33, Township 24 South, Range 27 East, Orange County, Florida, being more particularly described as follows:

Commence at the Southeast corner of said Section 33, Township 24 South, Range 27 East, Orange County, Florida; thence run S8956°28'W along the South line of said Section 33, also being the centerline of State Road 530 (U.S. Highway No. 192), a distance of 994.86 feet to a point on the Southerly projection of the East line of Shoppes of West 192, according to the plat thereof as recorded in Plat Book 93, Pages 127 and 128, Public Records of Orange County, Florida; thence run N00°14'00"E along said Southerly projection, a distance of 100.00 feet to a point on the North right of way line of said State Road 530 (U.S. Highway No. 192); thence continue N00°14'00"E along the East line of said Shoppes of West 192 and along the East line of the lands described in Official Records Book 5526, Page 1669, Public Records of Orange County, Florida, a distance of 1037.89 feet for the Point of Beginning; thence run S8946°00"E, a distance of 43.60 feet to a point on a non-tangent curve, concave to the East, having a radius of 91.00 feet; thence from a radial bearing of S8327°27'E run northeasterly along the arc of said curve through a central angle of 2347°55", an arc distance of 37.80 feet, having a chord bearing of N1826°30"E and a chord distance of 37.53 feet; thence run S3020°28'W, a distance of 1.48 feet to the beginning of a curve concave to the West, having a radius of 133.00 feet; thence run Northeasterly along the arc of said curve through a central angle of 26°32'02", an arc distance of 61.59 feet, having a chord bearing of N1704°27'E and a chord distance of 61.04 feet; thence run S8946°00"E, a distance of 80.65 feet; thence run N5830°45'E, a distance of 18.93 feet; thence run N2647°29'E, a distance of 17.99 feet; thence run S8939°32'E, a distance of 227.45 feet; thence run S0057°03'W, a distance of 47.73 feet; thence run S4418°50"E, a distance of 44.13 feet; thence run S8944°58"E, a distance of 177.16 feet; thence run N3754°25'E, a distance of 53.22 feet; thence run S6656°12'E, a distance of 65.35 feet; thence run N1826°28'E, a distance of 59.31 feet; thence run S8936°22'E, a distance of 269.13 feet; thence run N0011°30"E along the East line of said Southeast 1/4 of Section 33, a distance of 414.43 feet; thence run N8939°32'W along the South line of lands described in Official Records Book 5526, Page 1669, a distance of 993.64 feet; thence run S0014°00'W along the aforesaid East line of the lands described in Official Records Book 5526, Page 1669, a distance of 530.38 feet to the Point of Beginning.

Contains 2.17 acres, more or less



SITE

SECTION 17, TOWNSHIP 23S, RANGE 28E
LOCATION MAP

N.T.S.

Sheet Index Table	
Sheet Number	Sheet Title
C0.0	COVER
C1.0	GENERAL NOTES
C1.1	GENERAL NOTES
C2.0	SWPP NOTES
C2.1	EROSION CONTROL DETAIL
C3.0	EXISTING CONDITIONS
C4.0	SITE PLAN
C5.0	GRADING AND DRAINAGE PLAN
C6.0	UTILITY PLAN
C7.0	TRUCK ROUTING PLAN
C7.1	TRUCK ROUTING PLAN
C8.0	GENERAL CONSTRUCTION DETAILS
C8.1	GENERAL CONSTRUCTION DETAILS
C8.2	GENERAL CONSTRUCTION DETAILS
C8.3	GENERAL CONSTRUCTION DETAILS
C8.4	GENERAL CONSTRUCTION DETAILS
C9.0	UTILITY DETAILS
C9.1	UTILITY DETAILS
C9.2	UTILITY DETAILS
C9.3	UTILITY DETAILS
L0.50	TREE MITIGATION PLAN
L0.51	TREE MITIGATION CHART
L0.52	TREE MITIGATION NOTES
L1.00	LANDSCAPE PLAN
L1.01	LANDSCAPE SCHEDULE & NOTES
L1.50	LANDSCAPE DETAILS
L1.51	LANDSCAPE SPECIFICATIONS
L2.00	IRRIGATION PLAN
L2.50	IRRIGATION DETAILS
L2.51	IRRIGATION SPECIFICATIONS
L3.01	HARDSCAPE PLAN
L3.50	HARDSCAPE DETAILS
L3.51	HARDSCAPE DETAILS

PROJECT TEAM

OWNER/DEVELOPER
WINDERMERE DOWNTOWN PROPERTY, LLC
496 S. HUNT CLUB BOULEVARD
APOPKA, FL 32703
CONTACT: BRETT DARGIS
PHONE: (407)848-1663
EMAIL: brett@v3capgroup.com

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 1000
ORLANDO, FL 32801
CONTACT: JONATHAN A. MARTIN, P.E.
PHONE: (407) 898-1511
EMAIL: jonathan.martin@kimley-horn.com

LANDSCAPE ARCHITECT:
KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 100
ORLANDO, FL 32801
CONTACT: SCOTT MINGONET, PLA, AICP
PHONE: (407) 898-1511
EMAIL: scott.mingonet@kimley-horn.com

SURVEYOR
ACCURIGHT SURVEYS OF ORLANDO, INC.
2012 E. ROBINSON STREET
ORLANDO, FL 32803
CONTACT:
PHONE: (407)894-6314
EMAIL: ACCU@ACCURIGHTSURVEYS.NET

UTILITY PROVIDERS

WATER:
ORANGE COUNTY UTILITIES
9150 CURRY FORD ROAD
ORLANDO, FL 32802
CONTACT: DAVID SHORETTE
EMAIL: DAVID.SHORETTE@OCFL.NET
PHONE: (407) 836-5515

**CABLE/INTERNET/
TELEPHONE:**
CHARTER COMMUNICATIONS
3767 ALL AMERICAN BLVD.
ORLANDO, FL 32810
CONTACT: TRACEY DOMOSTOY
PHONE: (407) 532-8511

POWER:
DUKE ENERGY
452 E CROWN POINT ROAD
WINTER GARDEN, FL 34787
CONTACT: KENNETTA DOUGLAS
EMAIL: KENNETTA.DOUGLAS@DUKE-ENERGY.COM
PHONE: (407)905-3371

GAS:
LAKE APOPKA NATURAL GAS DISTRICT
1320 WINTER GARDEN-VINELAND ROAD
WINTER GARDEN, FL 34787
CONTACT: EVERETT HOLMES
EMAIL: EHOLMES@LANGD.ORG
PHONE: (407) 410-7024

TELEPHONE:
AT&T - SOUTHEAST
5100 STEYR
ORLANDO, FL 32819
CONTACT: THAINEL BRASCHI
EMAIL: TB925X@ATT.COM
PHONE: (407) 351-8190

INTERNET:
LUMEN
33 N. MAIN STREET
WINTER GARDEN, FL 34787
CONTACT: EVNS CENAFILS
PHONE: (407) 814-5373

PREPARED BY
Kimley»Horn

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
Phone: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106



MARCUS J. GEIGER, P.E.
FL. P.E. NO. 89199

WINDERMERE DOWNTOWN PROPERTY
KH PROJECT# 149973004

02/09/2023

REVISIONS:

NO.	DATE	BY	DESCRIPTION

SHEET NUMBER

C0.0

Plotted By: Geiber, Marcus - Sheet Set: Windermere Downtown Property - Layout: C1.1 - GENERAL NOTES - February 13, 2023 - 01:57:19pm - K:\DRG\Civil\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C1.0 - GENERAL NOTES.dwg
 This document, together with the concepts and designs presented herein, is an instrument of service. It is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

DATE

SCALE

DESIGNED BY

DRAWN BY

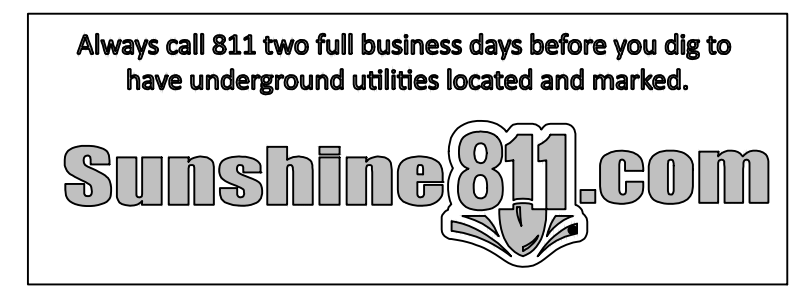
CHECKED BY

M/G

CML

M/G

DATE



**WINDERMERE
DOWNTOWN
PROPERTY**

SHEET NUMBER
C1.1

TOWN OF WINDERMERE FL

GENERAL NOTES

KHA PROJECT
149973004
DATE
02/09/2023
SCALE AS SHOWN
DESIGNED BY M/G
DRAWN BY CML
CHECKED BY M/G DATE: -----

LICENSED PROFESSIONAL
MARCUS I. GEIBER, P.E.
FL LICENSE NUMBER
89199

Kimley»»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No. REVISIONS DATE BY

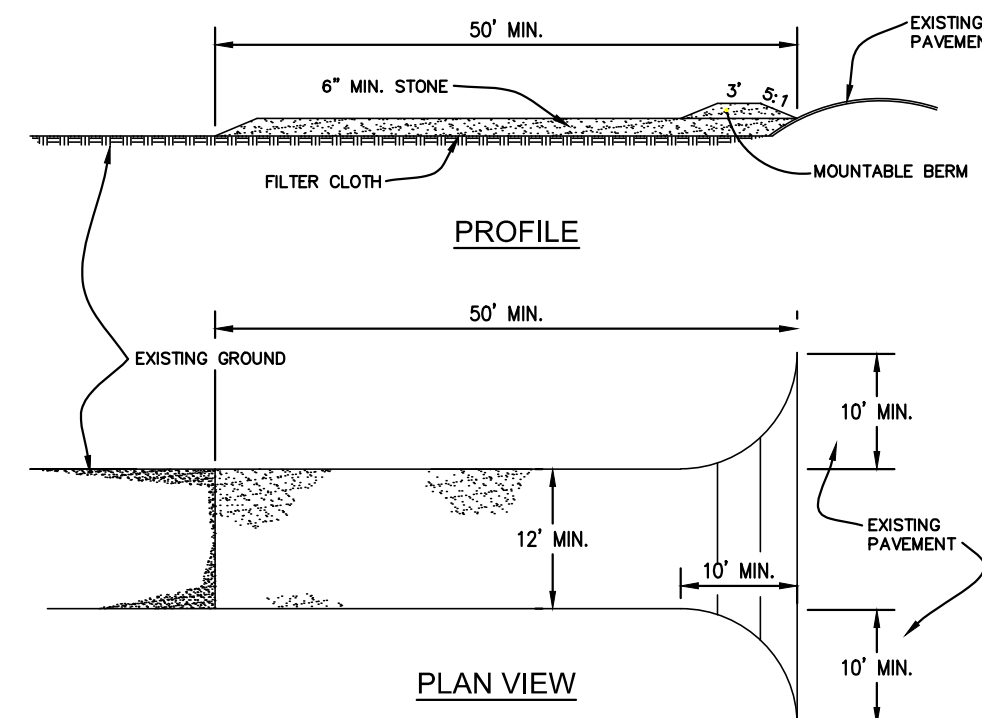
CONTRACTOR'S AS-BUILT

- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA. AT A MINIMUM, THIS "AS-BUILT" INFORMATION SHALL INCLUDE: TOP OF PIPE/INVERT ELEVATIONS AND HORIZONTAL LOCATIONS OF ALL WATER, SANITARY SEWER, AND RECLAIM WATER UTILITIES INSTALLED (AS APPLICABLE); PAVEMENT GRADE BREAK LOCATIONS AND SUFFICIENT ELEVATIONS OF FINISHED GRADE SURFACES WHICH ALLOW THE ENGINEER TO DETERMINE COMPLIANCE WITH THE PROPOSED DESIGN; TOP, GRATE, & INVERT ELEVATIONS OF THE STORMWATER COLLECTION SYSTEM, INCLUDING THE POND GRADES (TOP, BANK, BOTTOM), POND CONTROL STRUCTURE, & SWALES; ANY IMPROVEMENTS WITHIN FDOT OR COUNTY RIGHT-OF-WAYS.
- THE DIGITAL "AS-BUILT" FILE, PROVIDED IN AUTOCAD .DWG FORMAT, SHALL ALSO BE PROVIDED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM. NO ENGINEER'S CERTIFICATIONS OF COMPLETION OR REQUESTS FOR FINAL ACCEPTANCE WILL BE SUBMITTED UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

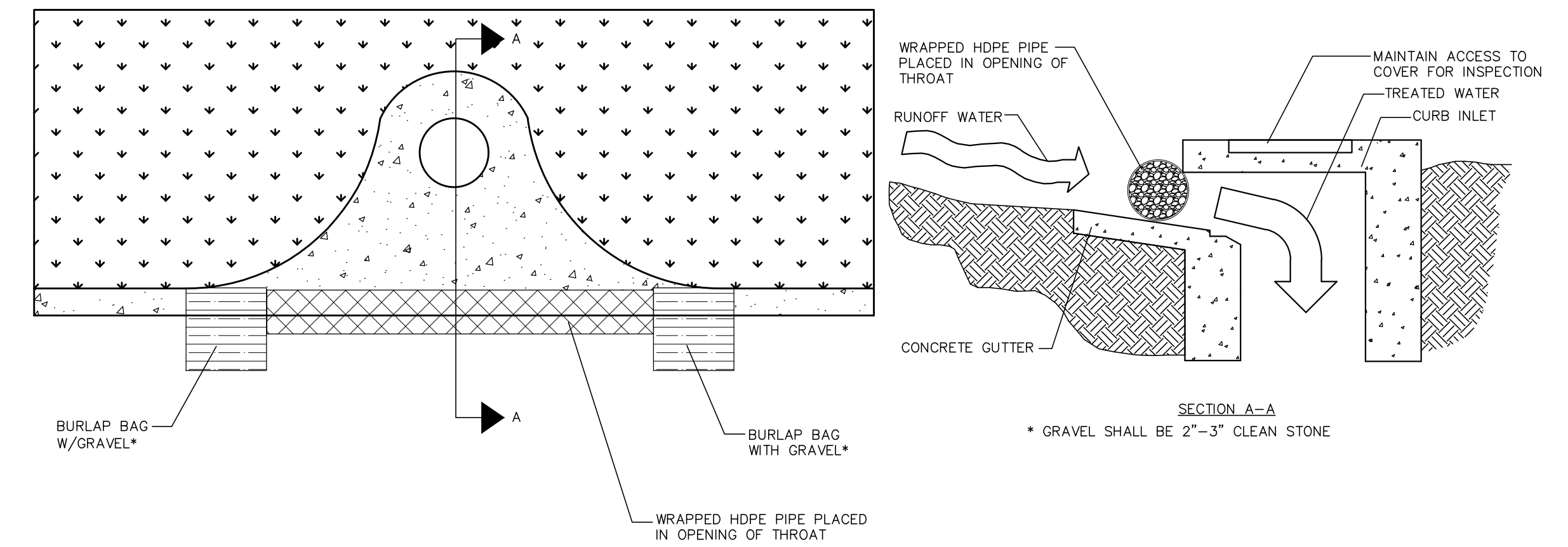
Plotted By: Geber, Marcus - Sheet Set: Windermere Downtown Property - Layout: C2.1 - EROSION CONTROL DETAIL - February 13, 2023 - 01:57:41pm - K:\ORL\Civil\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C2.1 - ERO.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

STABILIZED CONSTRUCTION ENTRANCE NOTES:

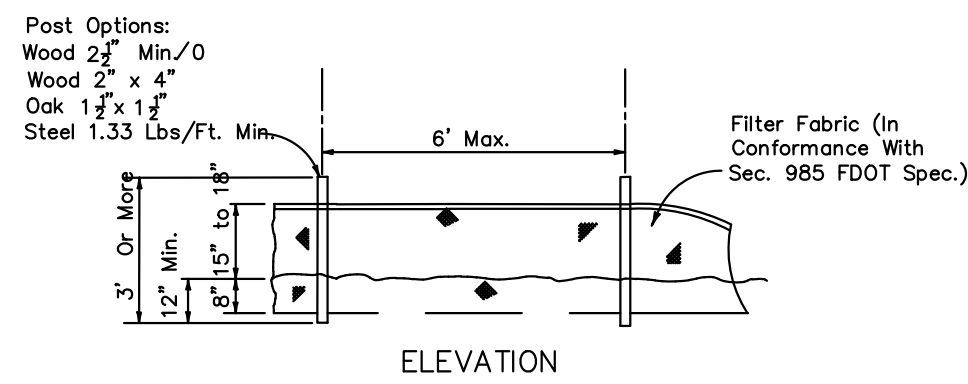
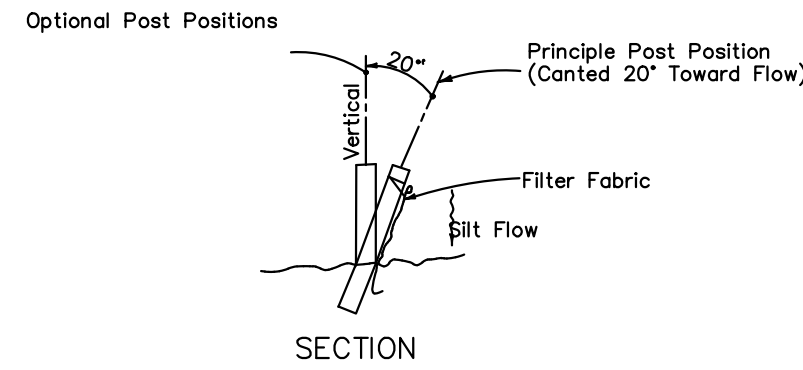
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA, PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



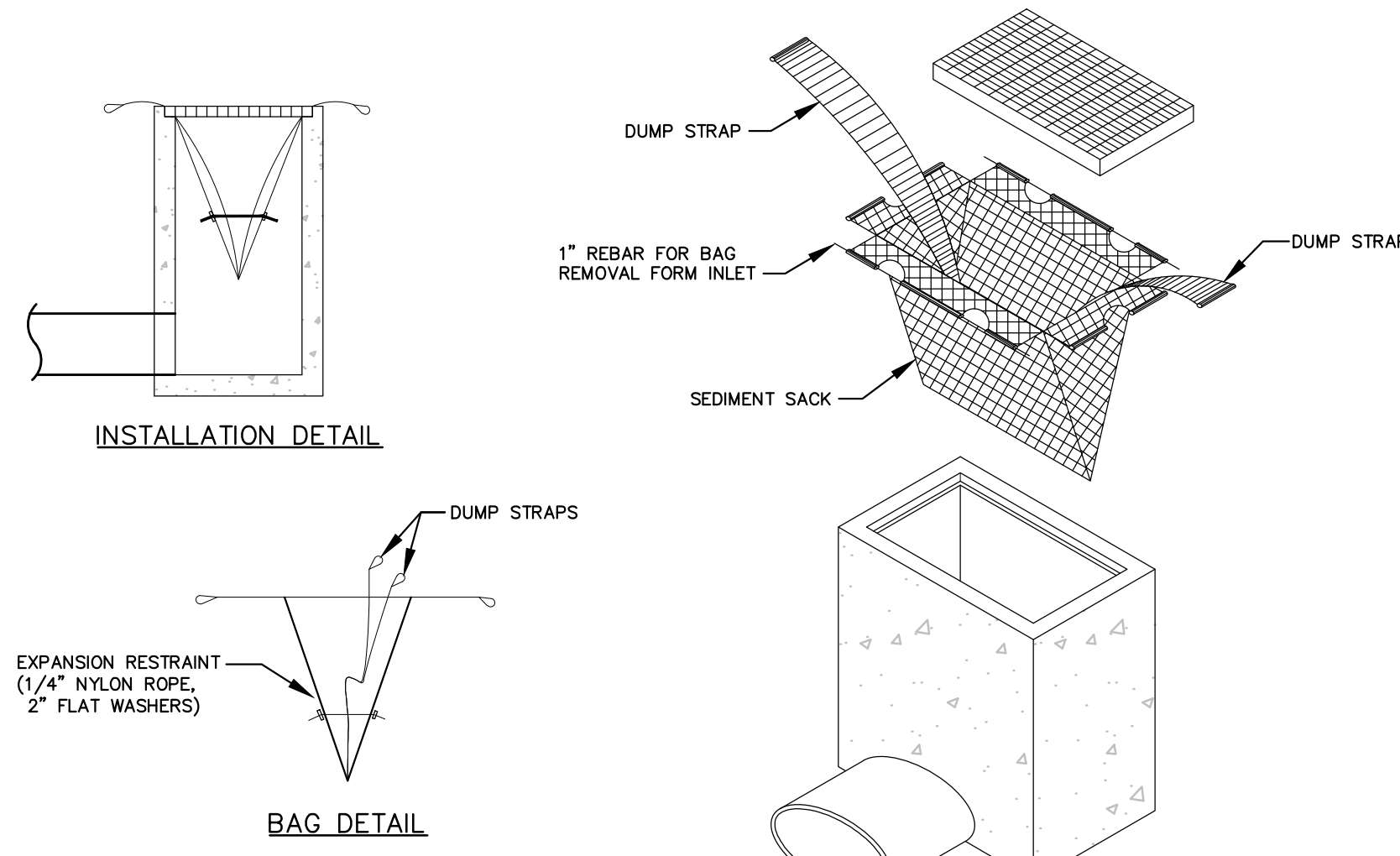
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NTS



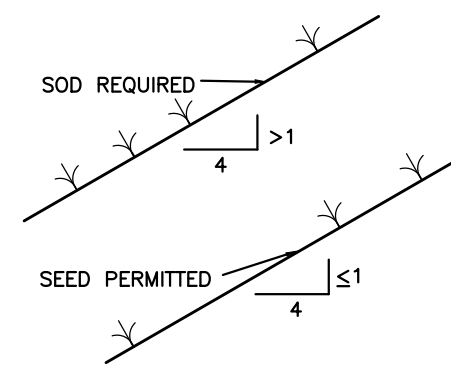
SOCK DRAIN INLET SEDIMENT FILTER
NTS



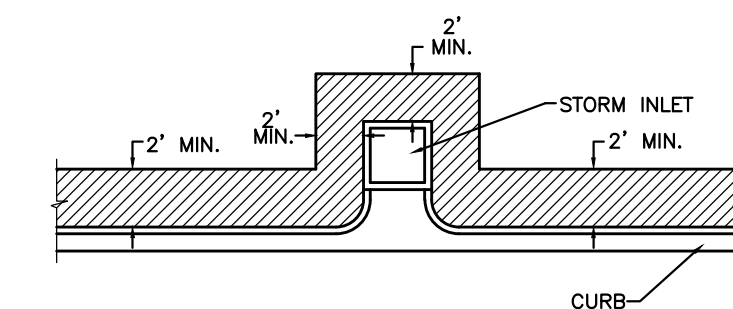
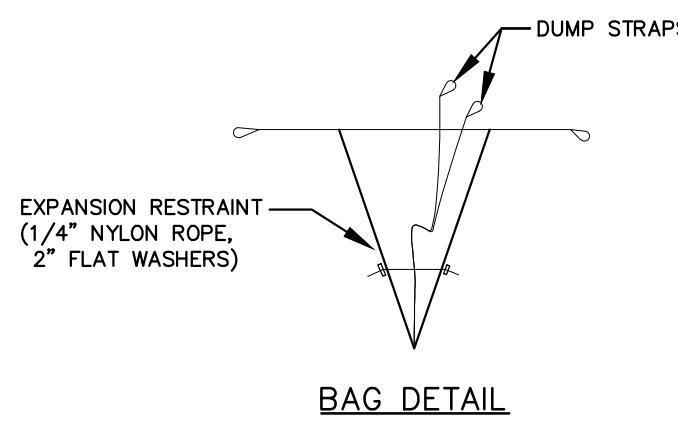
TYPE III SILT FENCE
NTS



STANDARD INLET SEDIMENT CONTROL DEVICE
NTS

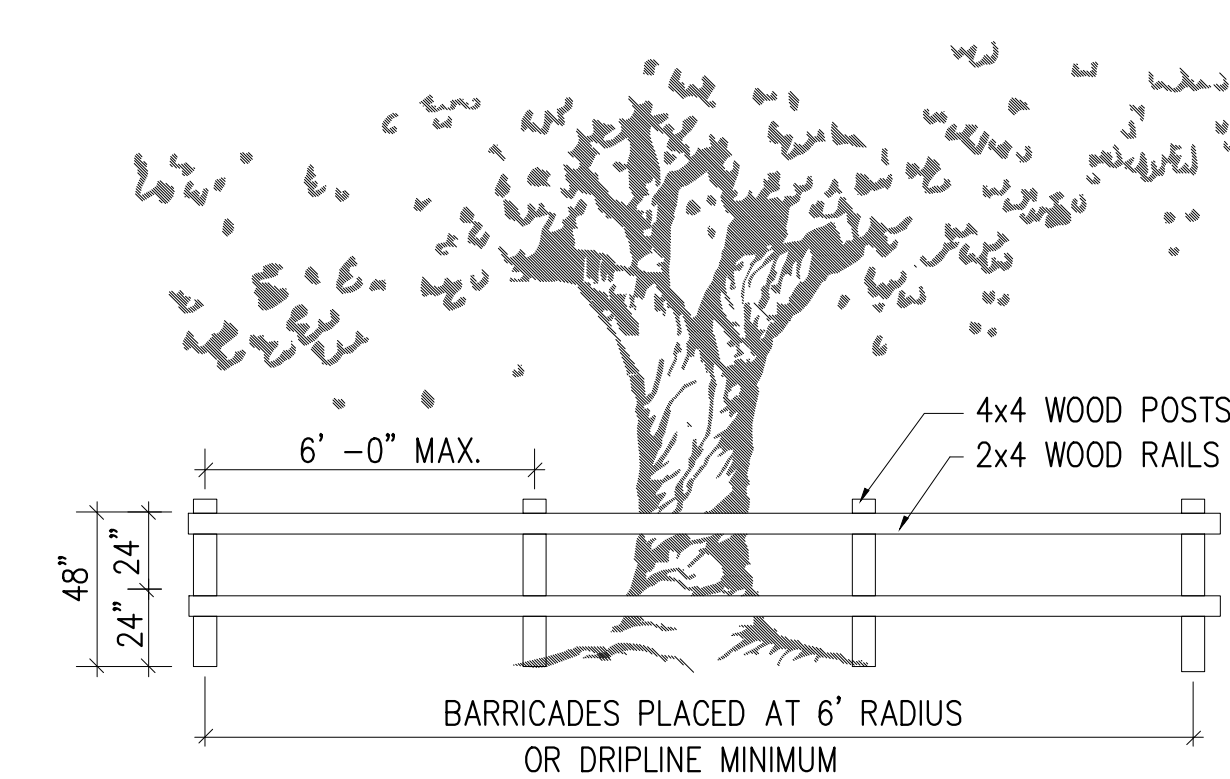


GRASS SLOPES
NTS
FIGURE 8



SOD ALONG CURB AND AROUND INLET
NTS

FIGURE 7



TREE PROTECTION DETAIL
NTS

1. ORANGE CONSTRUCTION FENCING CAN BE USED IN LIEU OF WOOD FENCE PER ENGINEER'S REVIEW AND APPROVAL.
2. NO STOCKPILING OF MATERIAL, TRASH OR DEBRIS SHALL BE PERMITTED WITHIN THE BARRIER. CONTRACTOR SHALL ADJUST AND MAINTAIN BARRIER LIMITS AS NECESSARY TO ACCOMMODATE ADJACENT CONSTRUCTION AS DIRECTED BY OWNER. REMOVE PROTECTION AFTER OWNER'S FINAL ACCEPTANCE OF THE PROJECT.

NOTES:

- 1) CONTRACTOR TO MAINTAIN DEBRIS ON-SITE, VEHICLES SHALL BE FREE OF EXCESS DEBRIS PRIOR TO ENTERING COUNTY RIGHT-OF-WAYS.
- 2) DURING ALL TIME OF CONSTRUCTION, THE CONTRACTOR MUST PROVIDE FILTER FABRIC AT ALL EXIST. OR PROP. CATCH BASIN TO PREVENT SYSTEM POLLUTION.
- 3) CONTRACTOR SHALL PROVIDE TRUCK WASH RACKS TO REMOVE CONSTRUCTION DEBRIS FROM VEHICLES PRIOR TO EGRESS.
- 4) DURING ALL TIME OF CONSTRUCTION, THE CONTRACTOR MUST PROVIDE SILT SCREENS AT CONSTRUCTION PERIMETER
- 5) UPON COMPLETION OF CONSTRUCTION, SYSTEM IS TO BE CLEANED BY "CAMELVAC" OR OTHER APPROVED SYSTEM TO THE SATISFACTION OF THE PROJECT ENGINEER AND COUNTY ENGINEER WHEN OR AFTER THE OVERALL SYSTEM IS CLEANED.
- 6) THE CONTRACTOR SHALL MAINTAIN THE FULL SET OF PLANS INCLUDING THESE POLLUTION PREVENTION REQUIREMENTS ON-SITE AT ALL TIMES.

No.	REVISIONS	DATE

Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

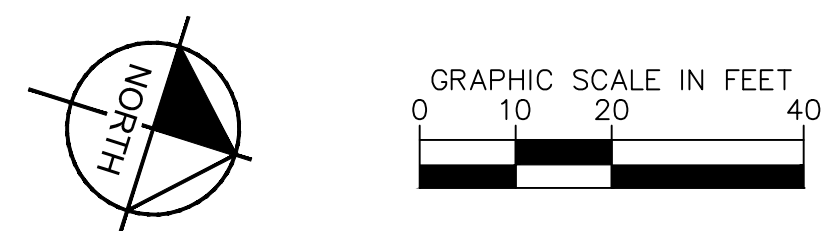
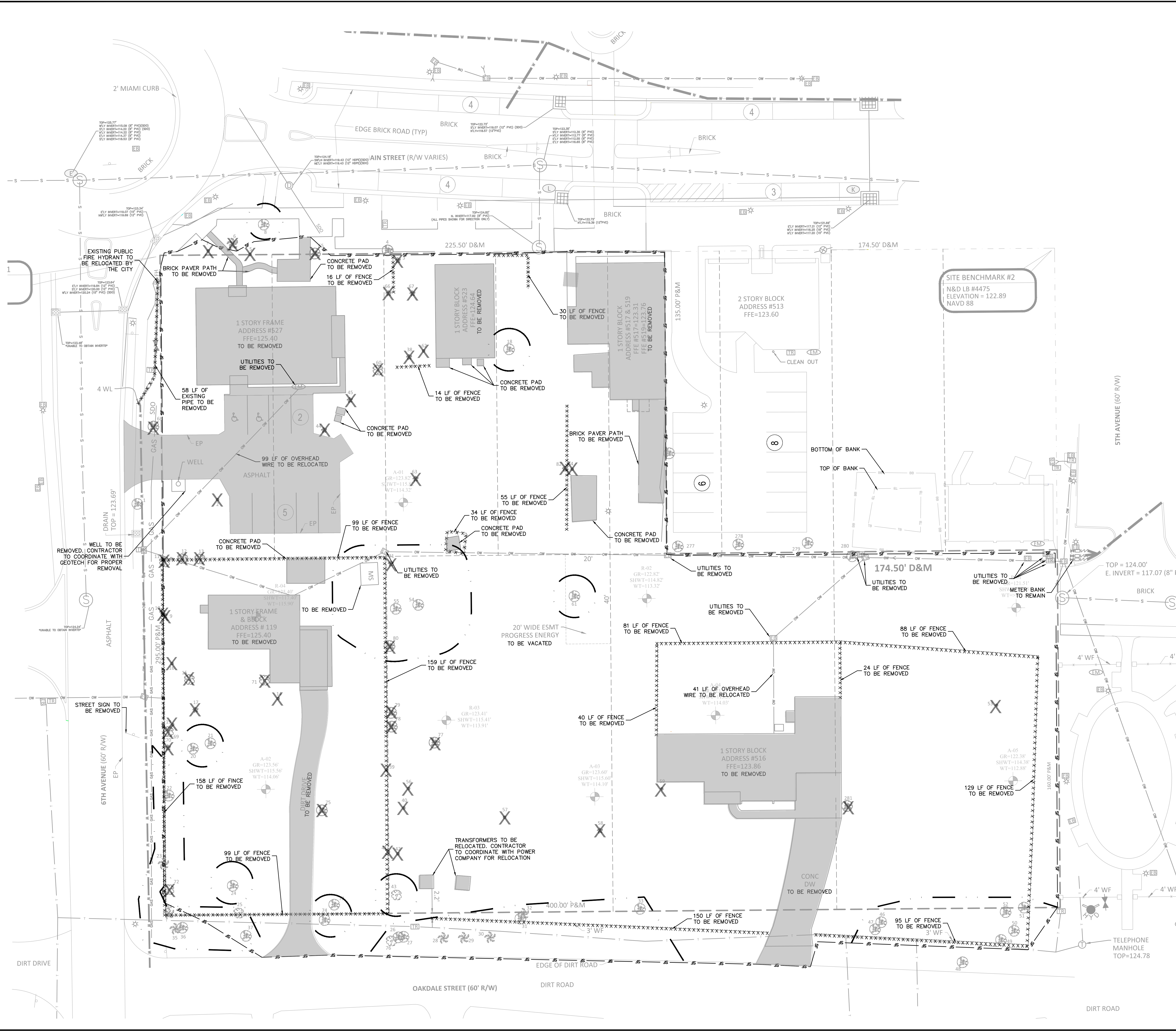
LICENSED PROFESSIONAL	MARCUS I. GEIBER, P.E.
FL LICENSE NUMBER	89199
DESIGNED BY	M/G
DRAWN BY	CML
CHECKED BY	M/G
DATE	

EROSION CONTROL DETAIL

WINDERMERE DOWNTOWN PROPERTY



Plotted By: Geiger, Marcus. Sheet Set: Windermere Downtown Property. Layout: C3.0 EXISTING CONDITIONS. February 13, 2023. 01:58:00pm. K:\DR\Civil\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C3.0 - EXCON.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



- LEGEND**
- EXISTING SANITARY MAIN
 - EXISTING REUSE MAIN
 - EXISTING WATER MAIN
 - EXISTING UNDERGROUND TELE.COMM. LINE
 - EXISTING OVERHEAD LINE
 - EXISTING NATURAL GAS LINE
 - EXISTING STORM PIPE
 - X TO BE REMOVED
 - * TREE TO REMAIN
 - PROPOSED SILT FENCE
 - PROPOSED TREE PROTECTION FENCE
 - TO BE REMOVED

- DATUM/BENCHMARK NOTE:**
- ELEVATIONS SHOWN PER NAVD 88. REFER TO SURVEY FOR ADDITIONAL DETAILS AND BENCHMARKS
- EXISTING UTILITY NOTE:**
- THERE MAY BE ON-SITE UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO IRRIGATION, SANITARY SEWER, POTABLE WATER LINES, NATURAL GAS LINES, ELECTRIC, TELEPHONE AND CABLE LINES) THAT WERE NOT LOCATED OR IDENTIFIED BY THE PROJECT SURVEYOR. PRIOR TO CONSTRUCTION START, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING ON-SITE UTILITIES AND RIGHT-OF-WAY UTILITIES.
- DEMOLITION NOTES:**
- SEE ADDITIONAL NOTES, SHEET C1.0-C1.1.
 - ANY EXISTING WELLS (I.E. ARTESIAN, IRRIGATION, DRINKING, ETC.) DISCOVERED ON-SITE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL APPLICABLE JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED. ANY WELL DISCOVERED DURING EARTHWORK OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES, OWNER, AND OWNER'S ENGINEER WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
- GEOTECH NOTE:**
- CONTRACTOR TO FOLLOW THE GUIDANCE AND RECOMMENDATIONS AS SPECIFIED WITHIN THE SUBSURFACE SOIL EXPLORATION GEOTECHNICAL ENGINEERING REPORT(S) PERFORMED BY UNIVERSAL ENGINEERING SCIENCES. (DATED APRIL 28, 2010).
- EROSION CONTROL NOTE:**
- REFER TO SWPPP SHEETS C2.0 FOR ADDITIONAL NOTES & DETAILS.
 - INSTALL AND MAINTAIN SILT FENCE PER FDOT.
 - PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT ALL CONSTRUCTION ACCESS POINTS.
 - UTILIZE PERFORATED SOCK DRAIN (OR EQUIVALENT) IN FRONT OF EXISTING/PROPOSED CURB INLETS ADJACENT TO CONSTRUCTION ACTIVITIES. ALONG ALL ROADWAYS.
 - INSTALL AND MAINTAIN FILTER FABRIC UNDER GRATES OF ALL EXISTING/PROPOSED INLETS.
 - PROVIDE TREE PROTECTION BARRIERS AROUND ALL EXISTING TREES LOCATED ON-SITE WHICH ARE DESIGNATED TO BE PRESERVED. REFER TO LANDSCAPE PLANS FOR TREES TO REMAIN AND TREE PROTECTION DETAILS/NOTES.

Always call 811 two full business days before you dig to have underground utilities located and marked.
 Sunshine811.com

No.	REVISIONS	DATE	BY

Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL
 149973004
 DATE: 02/09/2023
 SCALE: AS SHOWN
 DESIGNED BY: M/G
 DRAWN BY: CML
 CHECKED BY: M/G
 DATE: _____

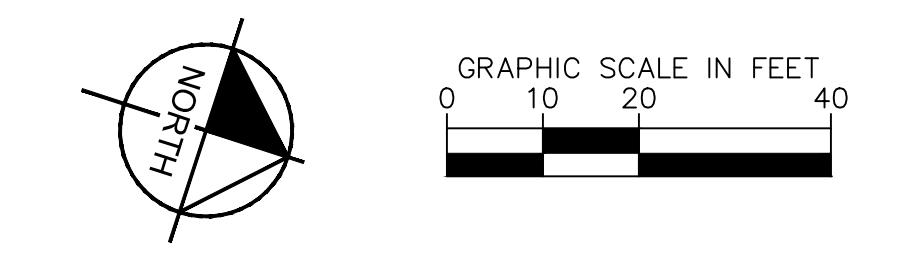
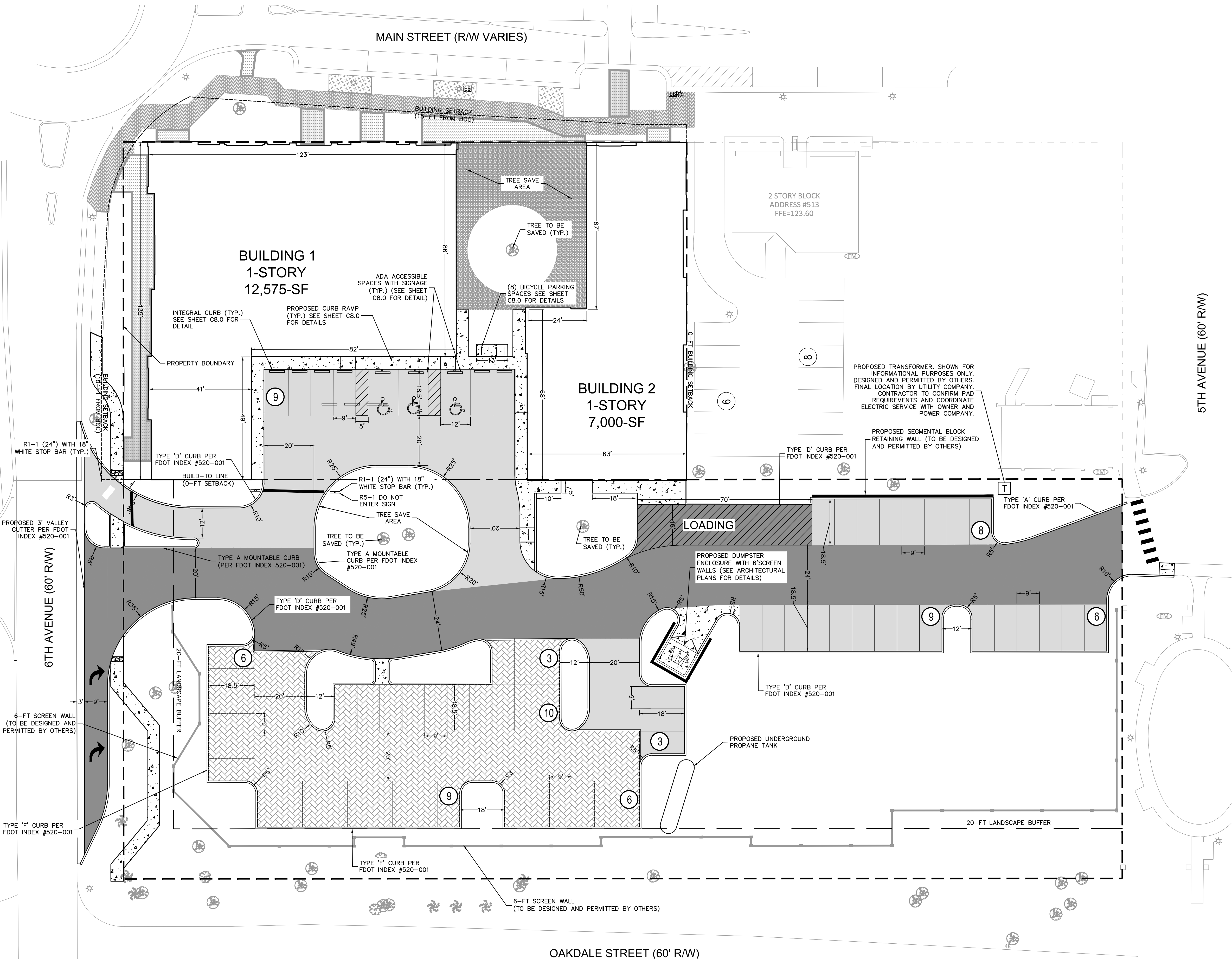
EXISTING CONDITIONS

WINDERMERE DOWNTOWN PROPERTY

TOWN OF WINDERMERE FL

SHEET NUMBER
C3.0

Plotted By: Geller, Marcus - Sheet Set: Windermere Downtown Property - Layout: C4.0 SITE PLAN - February 13, 2023 - 01:58:23pm - K:\ORL_Civil\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C4.0 - SITE PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



OVERALL SITE DATA:
 PROJECT AREA: 2.17 ACRES (94,401 SF)
 ZONING: PD - PLANNED DEVELOPMENT
 FUTURE LAND USE: COMMERCIAL/GROWTH CENTER OVERLAY
 PROPOSED USE: COMMERCIAL
 MAXIMUM BUILDING HEIGHT: 60 FEET

BUILDING COVERAGE:
 BUILDING AREA: 19,575 SF (0.45 AC)
 MAXIMUM ALLOWABLE F.A.R.: 0.30
 F.A.R. (21,750 SF/94,401 SF): 0.21

SETBACKS	BUILDING	PAVING
OAKDALE STREET (SOUTH)	15 FT	20 FT
6TH AVENUE (WEST)	10 FT	20 FT
5TH AVENUE (EAST)	0 FT	0 FT
MAIN STREET (NORTH)	15 FT	0 FT

IMPERVIOUS CALCULATIONS
 MAXIMUM ALLOWABLE IMPERVIOUS AREA (80%): 1.74 AC
 BUILDING AREA: 0.45 AC
 ASPHALT/CONCRETE AREA: 0.58 AC
 TOTAL IMPERVIOUS AREA: 1.03 AC (47.5%)

REQUIRED PARKING:
 4 SPACES / 1000 GSF: 19,575 GSF / (4 SPACES / 1000 GSF): 78 SPACES
 TOTAL PARKING SPACES REQUIRED: 78 SPACES

PROVIDED PARKING:
 REGULAR SPACES (9'x18.5'): 66 SPACES
 HANDICAP SPACES: 3 SPACES
 TOTAL SPACES PROVIDED: 69 SPACES

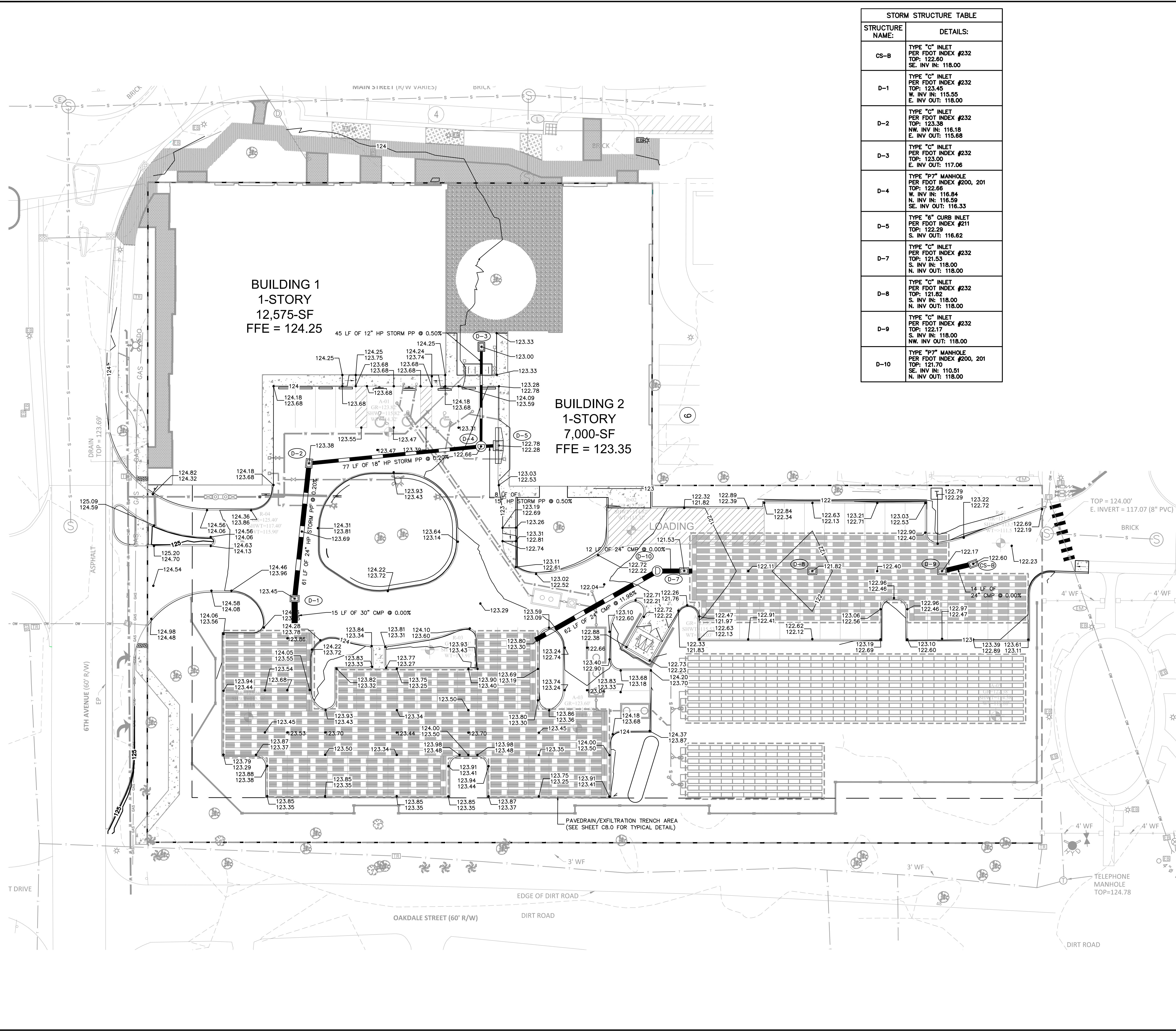
COMMERCIAL REQUIRED BICYCLE PARKING:
 REQUIRED: 0.10 PER REQUIRED PARKING SPACE
 0.10 X 79: 8 SPACES
 TOTAL SPACES PROVIDED: 8 SPACES

LEGEND

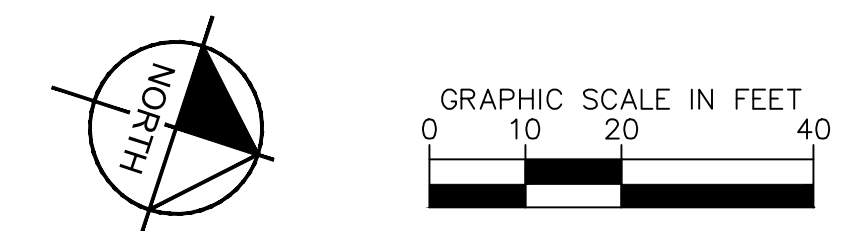
	PROPERTY BOUNDARY
	PROPOSED PAVEDRAIN/RETENTION TRENCH AREA (SEE SHEET C8.0 FOR DETAIL)
	PROPOSED HEAVY DUTY ASPHALT PAVEMENT (SEE SHEET C8.0 FOR DETAIL)
	PROPOSED LIGHT DUTY ASPHALT PAVEMENT (SEE SHEET C8.0 FOR DETAIL)

<h1 style="margin: 0;">WINDERMERE DOWNTOWN PROPERTY</h1> <p style="margin: 0;">TOWN OF WINDERMERE</p>	<h1 style="margin: 0;">SITE PLAN</h1>
<p style="margin: 0;">SHEET NUMBER C4.0</p>	<p style="margin: 0;">DATE 02/09/2023</p>
<p style="margin: 0;">DESIGNED BY M/G</p>	<p style="margin: 0;">DRAWN BY CML</p>
<p style="margin: 0;">CHECKED BY M/G</p>	<p style="margin: 0;">DATE</p>
<p style="margin: 0;">LICENSED PROFESSIONAL MARCUS I. GEBER, P.E. FL LICENSE NUMBER 89199</p>	
<p style="margin: 0;">Kimley»Horn © 2023 KIMLEY-HORN AND ASSOCIATES, INC. 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 PHONE: 407-888-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106</p>	
<p style="margin: 0;">NO.</p>	<p style="margin: 0;">REVISIONS</p>
<p style="margin: 0;">BY</p>	<p style="margin: 0;">DATE</p>

Plotted By: Deiber, Marcus. Sheet Set: Windermere Downtown Property. Layout: C5.0 GRADING AND DRAINAGE PLAN. February 13, 2023. 01:58:55pm. K:\ORL_CIVIL\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C5.0 - PAVING GRADING AND DRAINAGE PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
CS-B	TYPE "C" INLET PER FDOT INDEX #232 TOP: 122.60 SE. INV IN: 118.00
D-1	TYPE "C" INLET PER FDOT INDEX #232 TOP: 123.45 W. INV IN: 115.55 E. INV OUT: 118.00
D-2	TYPE "C" INLET PER FDOT INDEX #232 TOP: 123.38 NW. INV IN: 116.18 E. INV OUT: 115.68
D-3	TYPE "C" INLET PER FDOT INDEX #232 TOP: 123.00 E. INV OUT: 117.06
D-4	TYPE "P7" MANHOLE PER FDOT INDEX #200, 201 TOP: 122.86 W. INV IN: 116.84 N. INV IN: 116.59 SE. INV OUT: 116.33
D-5	TYPE "6" CURB INLET PER FDOT INDEX #211 TOP: 122.29 S. INV OUT: 116.62
D-7	TYPE "C" INLET PER FDOT INDEX #232 TOP: 121.53 S. INV IN: 118.00 N. INV OUT: 118.00
D-8	TYPE "P7" MANHOLE PER FDOT INDEX #232 TOP: 121.82 S. INV IN: 118.00 N. INV OUT: 118.00
D-9	TYPE "C" INLET PER FDOT INDEX #232 TOP: 122.17 S. INV IN: 118.00 NW. INV OUT: 118.00
D-10	TYPE "P7" MANHOLE PER FDOT INDEX #200, 201 TOP: 121.70 SE. INV IN: 110.51 N. INV OUT: 118.00



- NOTES:**
- ALL STORM DRAIN INLETS CONSTRUCTED AS PART OF NEW DEVELOPMENT PROJECTS IN ORANGE COUNTY SHALL HAVE METAL MEDALLION INLET MARKERS INSTALLED. TEXT ON THE MARKER SHALL BE EVENLY SPACED AND READ "NO DUMPING, ONLY RAIN IN THE DRAIN". MARKERS MUST BE COMMERCIAL GRADE STAINLESS STEEL, ALUMINUM, BRASS OR BRONZE AND EITHER STAMPED FROM SHEET METAL OR CAST. METAL MARKER COLOR MUST BE NON-REFLECTIVE BLUE OR GREEN. AQUATIC CREATURE OR SYMBOL SHOWN ON MARKER SHALL BE CONSISTENT THROUGHOUT THE SUBDIVISION. MARKERS MUST BE AFFIXED TO A CLEAN, PREPARED SURFACE WITH ADHESIVES, FASTENERS, OR HEAT AS RECOMMENDED BY THE MANUFACTURER. MARKERS SHALL BE ALIGNED WITH THE CENTER OF DRAINAGE INLETS AT THE TOP OF THE CURB. LETTERING MUST BE BETWEEN 0.4 - 0.5 INCHES AND THE TOTAL DIAMETER OF THE MARKER BETWEEN 3.75 - 4.25 INCHES.

- VERTICAL INFORMATION SHOWN HEREON BASED ON NAVD88.
- PRIOR TO THE START OF LAND DISTURBING ACTIVITIES, WHICH INCLUDES DEMOLITION, EARTHWORK AND/OR CONSTRUCTION, THE DEVELOPER/CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND SUBMIT TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) A NOTICE OF INTENT (NOI) TO OBTAIN COVERAGE UNDER THE NPDES GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (CGP) PURSUANT TO THE REQUIREMENTS OF 62-621.300(4)(A) F.A.C. A COPY OF THE NOI SHALL BE SUBMITTED TO THE ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION (OC EPD). COPIES OF THE SWPPP, NOI, AND FDEP ACKNOWLEDGEMENT LETTER ARE TO BE KEPT ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST. UPON COMPLETION OF ALL LAND DISTURBING ACTIVITIES AND AFTER FINAL STABILIZATION OF THE SITE IS COMPLETE, THE DEVELOPER/CONTRACTOR SHALL SUBMIT TO FDEP A NOTICE OF TERMINATION (NOT) TO END THEIR COVERAGE UNDER THE CGP AND PROVIDE A COPY OF THE NOT TO OC EPD.
 - THE SITE SHALL BE STABILIZED FOLLOWING CLEARING, GRUBBING, EARTH WORK OR MASS GRADING TO ESTABLISH A DENSE STAND OF GRASS, OR SHALL INCORPORATE OTHER APPROVED BEST MANAGEMENT PRACTICES, ON ALL DISTURBED AREAS IF DEVELOPMENT DOES NOT BEGIN WITHIN 7 DAYS. FINAL STABILIZATION SHALL ACHIEVE 100% COVERAGE AND A MINIMUM OF 70% DENSITY OF THE DISTURBED LAND AREA AND SHALL INCLUDE A MAINTENANCE PROGRAM TO ENSURE MINIMUM COVERAGE SURVIVAL AND OVERALL SITE STABILIZATION UNTIL SITE DEVELOPMENT.
 - DISCHARGE OF GROUNDWATER FROM DEWATERING OPERATIONS REQUIRES APPROVAL FROM FDEP AND THE APPLICABLE WATER MANAGEMENT DISTRICT. THE DEVELOPER/CONTRACTOR SHALL OBTAIN AND FDEP GENERIC PERMIT FOR THE DISCHARGE OF GROUND WATER FROM DEWATERING OPERATIONS PURSUANT TO THE REQUIREMENTS OF 62-621.300(2)(A) AND 62-620 F.A.C. AND FLORIDA STATUTES CHAPTER 403. DISCHARGES DIRECTED TO THE COUNTY'S MS4 REQUIRE AN ORANGE COUNTY RIGHT-OF-WAY UTILIZATION PERMIT FOR DEWATERING PRIOR TO THE START OF ANY DISCHARGES. TO OBTAIN RIGHT-OF-WAY APPROVAL, COPIES OF THE FDEP PERMIT, NOI, DOCUMENTATION SHOWING DEWATERING AT THE SITE IS NOT WITHIN 500 FT OF KNOWN CONTAMINATION, AND A DEWATERING PLAN SHALL BE SUBMITTED TO ALEXIS CLARK, ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION (407-836-1433) AND ORANGE COUNTY PUBLIC WORKS DEVELOPMENT ENGINEERING PERMITTING SECTION. ANALYTICAL SAMPLING OF GROUNDWATER MAY BE REQUESTED BY ORANGE COUNTY ON A CASE-BY-CASE BASIS TO CONFIRM SITE CONTAMINATION STATUS.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING FDEP GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON-CONTAMINATED SITE ACTIVITY IN ACCORDANCE WITH FLORIDA ADMINISTRATIVE CODE 62-621.300(2) AND 62-620, AND FLORIDA STATUTES CHAPTER 403.
 - THE RIGHT-OF-WAY AND ADJACENT PROPERTIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITIONS.
 - PROVIDE A 6 FOOT HIGH SCREEN FENCE FOR DUST ABATEMENT ON ALL PROPERTY LINES ADJACENT TO ROADS.
 - REFER TO TREE MITIGATION PLANS FOR TREE REMOVAL DETAILS.

GEOTECHNICAL NOTE:

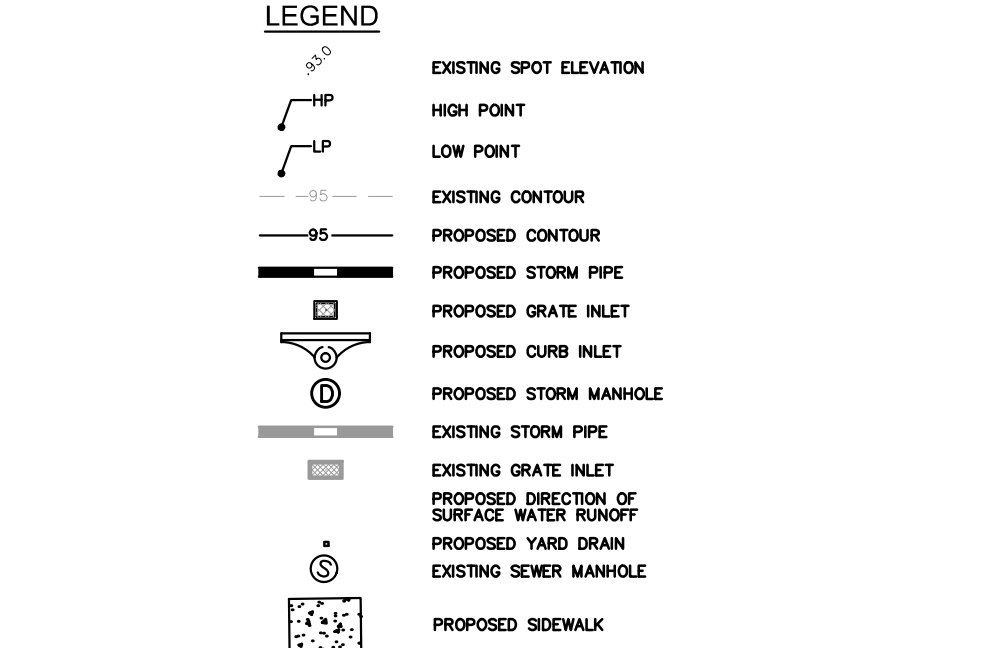
- CONTRACTOR TO FOLLOW THE GUIDANCE AND RECOMMENDATIONS AS SPECIFIED WITHIN THE SUBSIDIARY SOIL EXPLORATION GEOTECHNICAL ENGINEERING REPORT(S) PERFORMED BY UNIVERSAL ENGINEERING SCIENCES (DATED APR. 28, 2010)

PAVEDRAIN GENERAL NOTES:

- REFER TO PAVEDRAIN SPECIFICATIONS AND DETAILS, SHEETS C8.0.
- ALL PAVEDRAIN PAYER SYSTEMS SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 1.0% SLOPE (ANY DIRECTION).

IMPORT FILL NOTES:

- IMPORT FILL PLACED ON SITE SHALL BE A SOIL WITH LESS THAN 5% FINES WITH A HORIZONTAL PERMEABILITY OF NO LESS THAN 20 FT/DAY.
- PRIOR TO IMPORT FILL PROCUREMENT, CONTRACTOR SHALL PROVIDE SOILS REPORT AND SPECIFICATIONS OF THE PROPOSED FILL FOR REVIEW BY E.C.S. FLORIDA, LLC (GEOTECHNICAL ENGINEER) AND ENGINEER OF RECORD. PROVIDED FILL SHALL MEET OR EXCEED THE HYDRAULIC CONDUCTIVITY OF THE EXISTING IN SITU SOILS.



DATUM/BENCHMARKS:

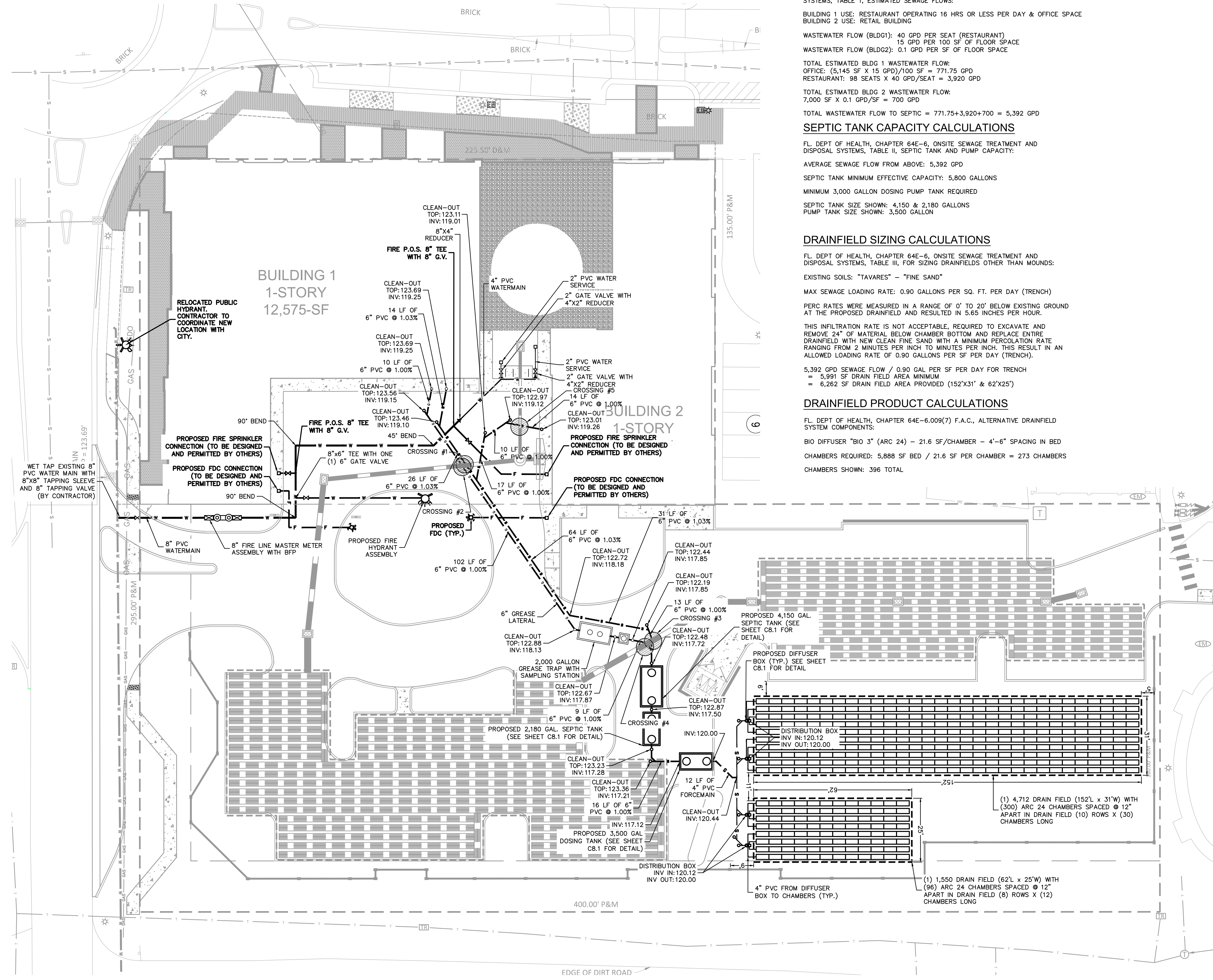
- ELEVATIONS SHOWN PER NAVD 88. REFER TO SURVEY FOR ADDITIONAL DETAILS AND BENCHMARKS.

Always call 811 two full business days before you dig to have underground utilities located and marked.



KHA PROJECT 149973004	DATE 02/09/2023	SCALE AS SHOWN	DESIGNED BY MIG	DRAWN BY CML	CHECKED BY MIG	DATE	NO.	REVISIONS	DATE	BY
WINDERMERE DOWNTOWN PROPERTY GRADING AND DRAINAGE PLAN										
SHEET NUMBER C5.0										
TOWN OF WINDERMERE										

Plotted By: Geiger, Marcus. Sheet: Windermere Downtown Property - Layout: C6.0 UTILITY PLAN - February 13, 2023 - 01:59:29pm - K:\ORL-Civil\149973004-Windermere Downtown Property\CADD\CONST\PipeSheets\C6.0 - UTILITY PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



SEWAGE FLOW CALCULATIONS

FL. DEPT. OF HEALTH, CHAPTER 64E-6, ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS, TABLE 1, ESTIMATED SEWAGE FLOWS:
 BUILDING 1 USE: RESTAURANT OPERATING 16 HRS OR LESS PER DAY & OFFICE SPACE
 BUILDING 2 USE: RETAIL BUILDING
 WASTEWATER FLOW (BLDG1): 40 GPD PER SEAT (RESTAURANT) 15 GPD PER 100 SF OF FLOOR SPACE
 WASTEWATER FLOW (BLDG2): 0.1 GPD PER SF OF FLOOR SPACE
 TOTAL ESTIMATED BLDG 1 WASTEWATER FLOW: OFFICE: (5,145 SF X 15 GPD)/100 SF = 771.75 GPD RESTAURANT: 98 SEATS X 40 GPD/SEAT = 3,920 GPD
 TOTAL ESTIMATED BLDG 2 WASTEWATER FLOW: 7,000 SF X 0.1 GPD/SF = 700 GPD
 TOTAL WASTEWATER FLOW TO SEPTIC = 771.75+3,920+700 = 5,392 GPD

SEPTIC TANK CAPACITY CALCULATIONS

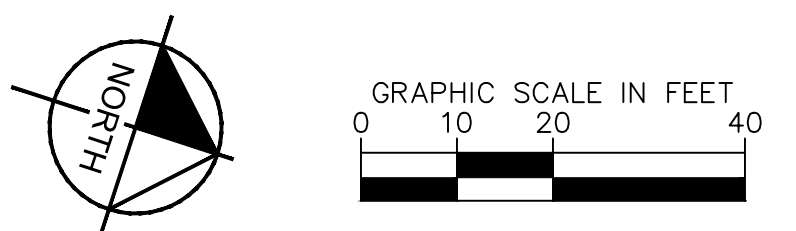
FL. DEPT. OF HEALTH, CHAPTER 64E-6, ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS, TABLE II, SEPTIC TANK AND PUMP CAPACITY:
 AVERAGE SEWAGE FLOW FROM ABOVE: 5,392 GPD
 SEPTIC TANK MINIMUM EFFECTIVE CAPACITY: 5,800 GALLONS
 MINIMUM 3,000 GALLON DOSING PUMP TANK REQUIRED
 SEPTIC TANK SIZE SHOWN: 4,150 & 2,180 GALLONS
 PUMP TANK SIZE SHOWN: 3,500 GALLON

DRAINFIELD SIZING CALCULATIONS

FL. DEPT. OF HEALTH, CHAPTER 64E-6, ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS, TABLE III, FOR SIZING DRAINFIELDS OTHER THAN MOUNDS:
 EXISTING SOILS: "TAVARES" - "FINE SAND"
 MAX SEWAGE LOADING RATE: 0.90 GALLONS PER SQ. FT. PER DAY (TRENCH)
 PERC RATES WERE MEASURED IN A RANGE OF 0' TO 20' BELOW EXISTING GROUND AT THE PROPOSED DRAINFIELD AND RESULTED IN 5.65 INCHES PER HOUR.
 THIS INFILTRATION RATE IS NOT ACCEPTABLE, REQUIRED TO EXCAVATE AND REMOVE 24" OF MATERIAL BELOW CHAMBER BOTTOM AND REPLACE ENTIRE DRAINFIELD WITH NEW CLEAN FINE SAND WITH A MINIMUM PERCOLATION RATE RANGING FROM 2 MINUTES PER INCH TO MINUTES PER INCH. THIS RESULT IN AN ALLOWED LOADING RATE OF 0.90 GALLONS PER SF PER DAY (TRENCH).
 5,392 GPD SEWAGE FLOW / 0.90 GAL PER SF PER DAY FOR TRENCH = 5,991 SF DRAIN FIELD AREA MINIMUM = 6,262 SF DRAIN FIELD AREA PROVIDED (152'X31' & 62'X25')

DRAINFIELD PRODUCT CALCULATIONS

FL. DEPT. OF HEALTH, CHAPTER 64E-6.009(7) F.A.C., ALTERNATIVE DRAINFIELD SYSTEM COMPONENTS:
 BIO DIFFUSER "BIO 3" (ARC 24) - 21.6 SF/CHAMBER - 4"-6" SPACING IN BED
 CHAMBERS REQUIRED: 5,888 SF BED / 21.6 SF PER CHAMBER = 273 CHAMBERS
 CHAMBERS SHOWN: 396 TOTAL



LEGEND

- EXISTING SANITARY MAIN
- EXISTING REUSE MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND TELE.COMM. LINE
- EXISTING OVERHEAD LINE
- EXISTING FIBER OPTIC LINE
- EXISTING NATURAL GAS LINE
- EXISTING STORM PIPE
- PROPOSED WATER LINE
- PROPOSED POTABLE WATER SERVICE
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM PIPE
- PROPOSED STORM INLET

GENERAL UTILITY NOTES:

1. PRIOR TO CONSTRUCTION START, CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING FIBER OPTIC CABLES, UNDERGROUND ELECTRIC LINES, AND UNDERGROUND TELECOM LINES. CONTRACTOR TO COORDINATE SERVICE LINE ADJUSTMENTS WITH RESPECTIVE SERVICE PROVIDER AND OWNER. BOX ADJUSTMENTS AND SERVICE LINES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DESIGNED BY OTHERS.
2. PRIOR TO CONSTRUCTION START, CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING NATURAL GAS LINES. CONTRACTOR TO COORDINATE SERVICE LINE, VALVE, AND/OR BOX ADJUSTMENTS WITH SERVICE PROVIDER AND OWNER. SERVICE LINES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DESIGNED BY OTHERS.
3. CONTRACTOR TO COORDINATE PROPOSED TRANSFORMER LOCATIONS AND ELECTRIC SERVICE WITH POWER COMPANY AND OWNER. TRANSFORMERS AND SERVICE LINES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DESIGNED BY OTHERS.
4. PRIOR TO CONSTRUCTION START, THE CONTRACTOR SHALL BE RESPONSIBLE TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH ORANGE COUNTY UTILITIES (OCU) AND TOWN OF WINDERMERE. CIVIL ENGINEER OF RECORD TO BE PRESENT AT PRE-CON MEETING.

POTABLE WATER & SANITARY WASTEWATER UTILITY NOTES:

1. ALL POTABLE WATER AND SANITARY WASTEWATER UTILITIES SHALL BE IN ACCORDANCE WITH ORANGE COUNTY UTILITIES (OCU) STANDARDS, SPECIFICATIONS, AND DETAILS, 2017 ED. CONTRACTOR SHALL BE RESPONSIBLE TO BE FAMILIAR WITH THESE STANDARDS.
2. ALL CLEAN-OUTS WITHIN ASPHALT AND/OR CONCRETE AREAS SHALL BE H-20 TRAFFIC BEARING.

GENERAL FIRE SERVICE NOTES:

1. ALL UNDERGROUND MAINS SERVING FIRE HYDRANTS OR FIRE PROTECTION SPRINKLER SYSTEMS ON PRIVATE PROPERTY MUST BE PERMITTED PRIOR TO INSTALLATION. THE DRAWING SHALL INDICATE THAT ALL UNDERGROUND FIRE MAINS WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24 (2013 EDITION, "STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES". [F.A.C. 69A-60.005(2)]
2. ALL FIRE SERVICE MAIN LOCATED DOWNSTREAM OF THE FIRE POINT OF SERVICE (POS) SHALL BE INSTALLED BY A QUALIFIED AND LICENSED CONTRACTOR. CONSTRUCTION AND MATERIALS SHALL COMPLY WITH APPLICABLE FIRE CODE. CONTRACTOR TO VERIFY REQUIREMENTS WITH ORANGE COUNTY UTILITIES DEPARTMENT PRIOR TO SHOP DRAWING REVIEW.
3. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED NOT MORE THAN 100 FT FROM THE NEAREST FIRE HYDRANT. [NFPA 14: 6.3.5.4]
4. PROVIDE SIGNAGE, INDICATING ITS LOCATION AND THE BUILDING IT SERVICES, FOR ALL PROPOSED FIRE DEPARTMENT CONNECTIONS (F.D.C.).
5. PRIOR TO FIRE INSTALLATION, THE FLORIDA LICENSED CONTRACTOR SHALL SUBMIT LAYOUT DESIGN DRAWINGS TO THE OFFICE OF THE FIRE MARSHAL. IF REQUIRED BY FLORIDA STATUTE 553.79, DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. THE DRAWINGS MUST SHOW ALL UNDERGROUND FIRE LINES AND COMPONENTS STARTING FROM THE POINT OF SERVICE AS DEFINED UNDER FLORIDA STATUTE 663.102. THE DESIGN SHALL BE IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE AND ALL ADOPTED NFPA CODES AND STANDARDS.

DATUM NOTE:
 ELEVATIONS BASED ON NAVD 88 DATUM

Always call 811 two full business days before you dig to have underground utilities located and marked.



WINDERMERE DOWNTOWN PROPERTY								
CROSSING (#)	TOP PIPE			BOTTOM PIPE			CLEARANCE (FT)	
	TYPE	SIZE (IN)	INVERT	BOTTOM	TYPE	SIZE (IN)		CROWN
1	SSWR PVC	6	119.20	118.89	STRM HP	18	117.92	0.97
2	SSWR PVC	6	119.20	118.89	STRM HP	18	117.92	0.97
3	SSWR PVC	6	117.82	117.79	STRM CMP	24	116.28	1.51
4	SSWR PVC	6	117.81	117.78	STRM CMP	24	116.51	1.27
5	STRM CMP	12	121.07	120.69	SSWR PVC	6	119.68	1.00

WINDERMERE DOWNTOWN PROPERTY

TOWN OF WINDERMERE

PROJECT NO. 149973004

DATE: 02/09/2023

SCALE: AS SHOWN

DESIGNED BY: M/G

DRAWN BY: CML

CHECKED BY: M/G

DATE:

LICENSED PROFESSIONAL

MARCUS I. GEIGER, P.E.

FL LICENSE NUMBER: 89199

189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801

PHONE: 407-898-1511

WWW.KIMLEY-HORN.COM

REVISIONS

DATE

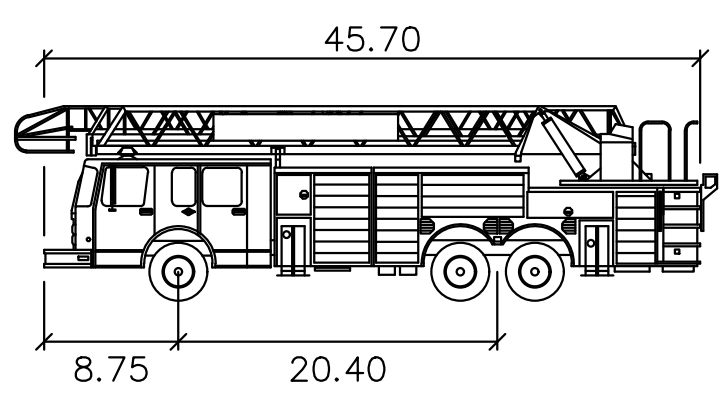
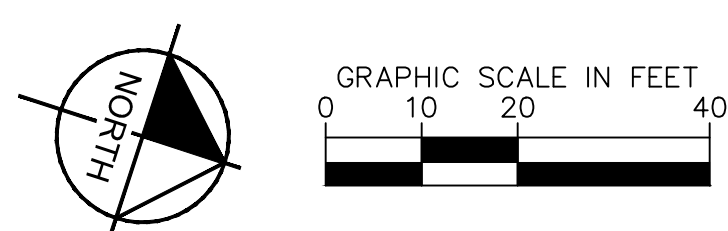
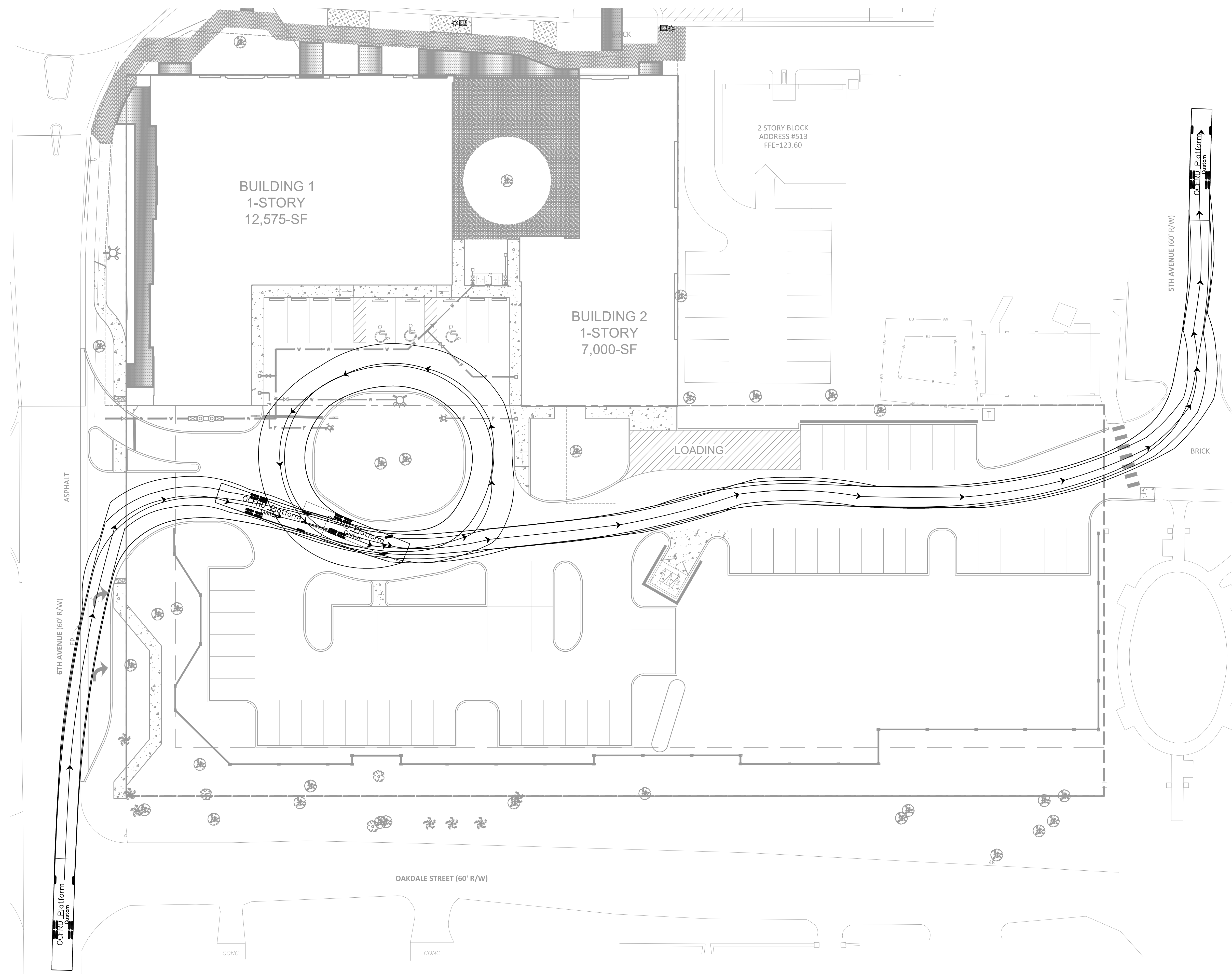
SHEET NUMBER

C6.0

UTILITY PLAN

Kimley >>> Horn

Plotted By: Geiber, Marcus. Sheet Set: Windermere Downtown Property. Layout: C7.0 TRUCK ROUTING PLAN. February 13, 2023. 01:59:59pm. K:\ORL\CIVIL\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C7.0 - TRUCK ROUTING PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



OCFRD Platform
 feet
 Width : 8.33
 Track : 8.33
 Lock to Lock Time : 6.0
 Steering Angle : 44.2

No.	REVISIONS	DATE	BY

Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL
 MARCUS I. GEIBER, P.E.
 FL LICENSE NUMBER
 89199

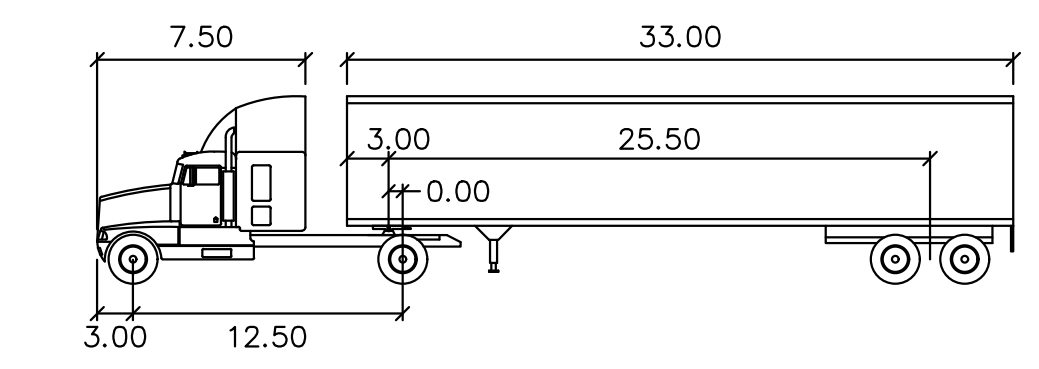
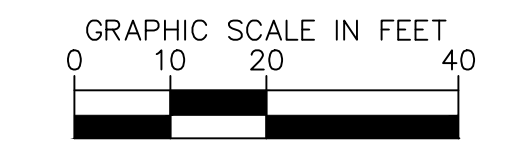
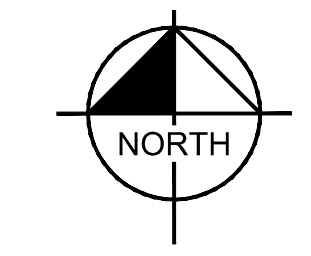
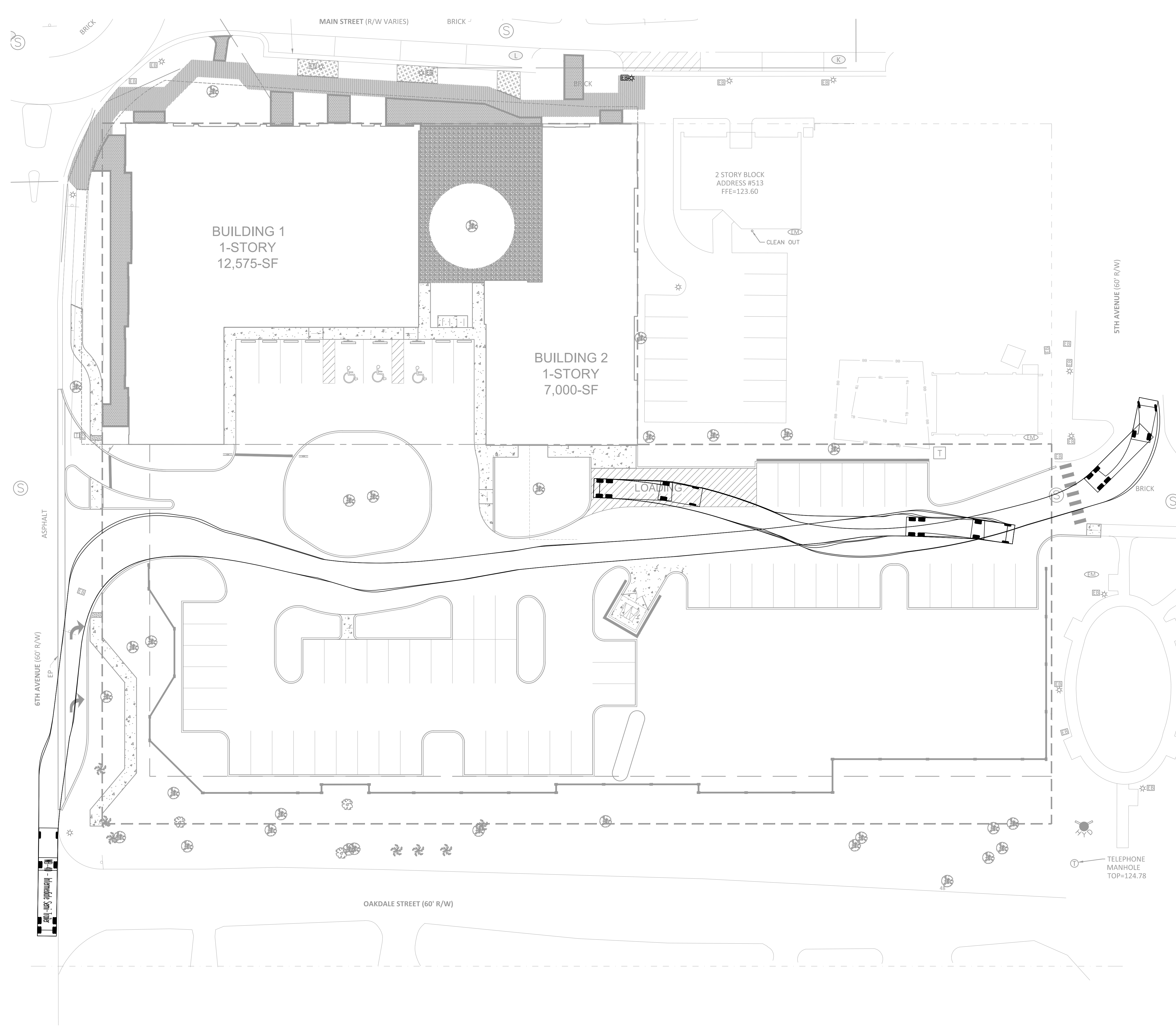
KHA PROJECT
 149973004
 DATE
 02/09/2023
 SCALE AS SHOWN
 DESIGNED BY M/G
 DRAWN BY CML
 CHECKED BY M/G DATE: _____

**TRUCK ROUTING
 PLAN**

**WINDERMERE
 DOWNTOWN
 PROPERTY**
 TOWN OF WINDERMERE FL

SHEET NUMBER
C7.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



WB-40

feet	
Tractor Width	: 8.00
Trailer Width	: 8.00
Tractor Track	: 8.00
Trailer Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 20.3
Articulating Angle	: 70.0

No.	REVISIONS	DATE	BY

Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

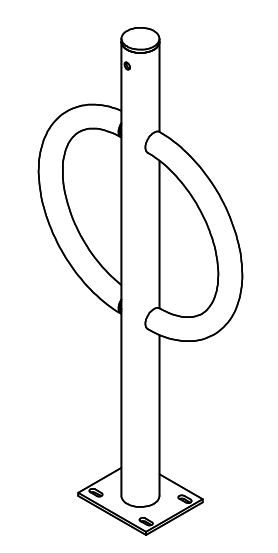
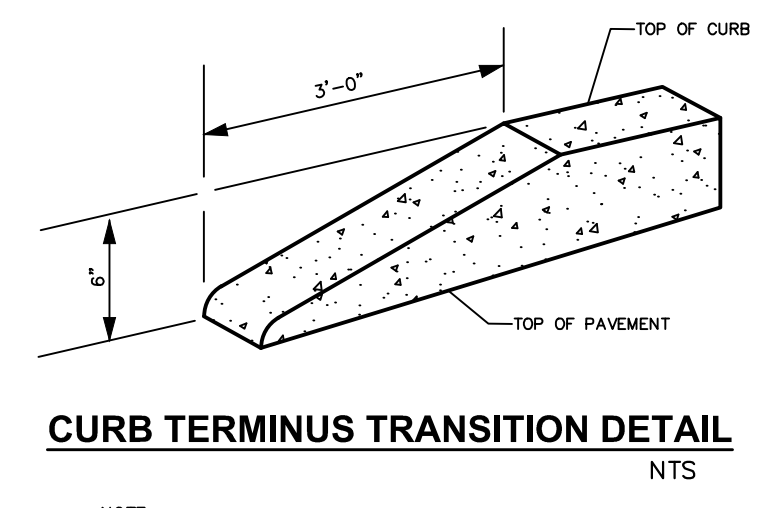
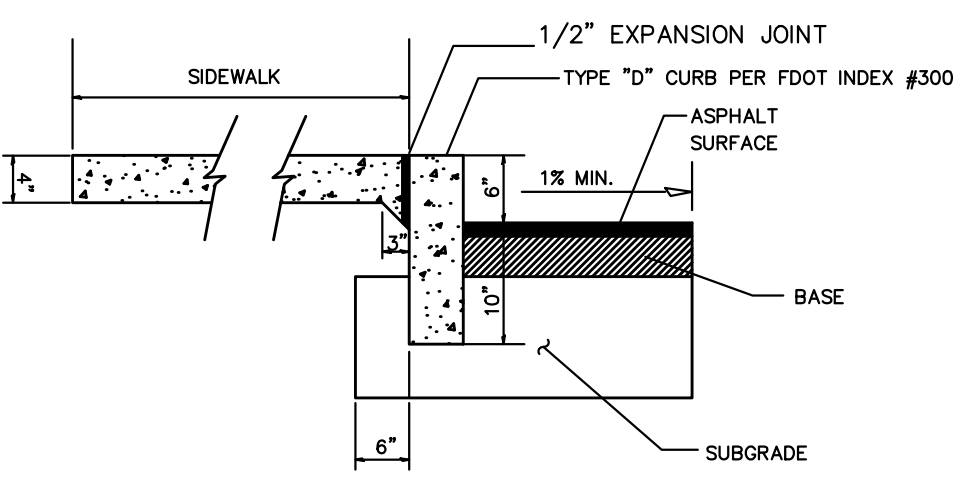
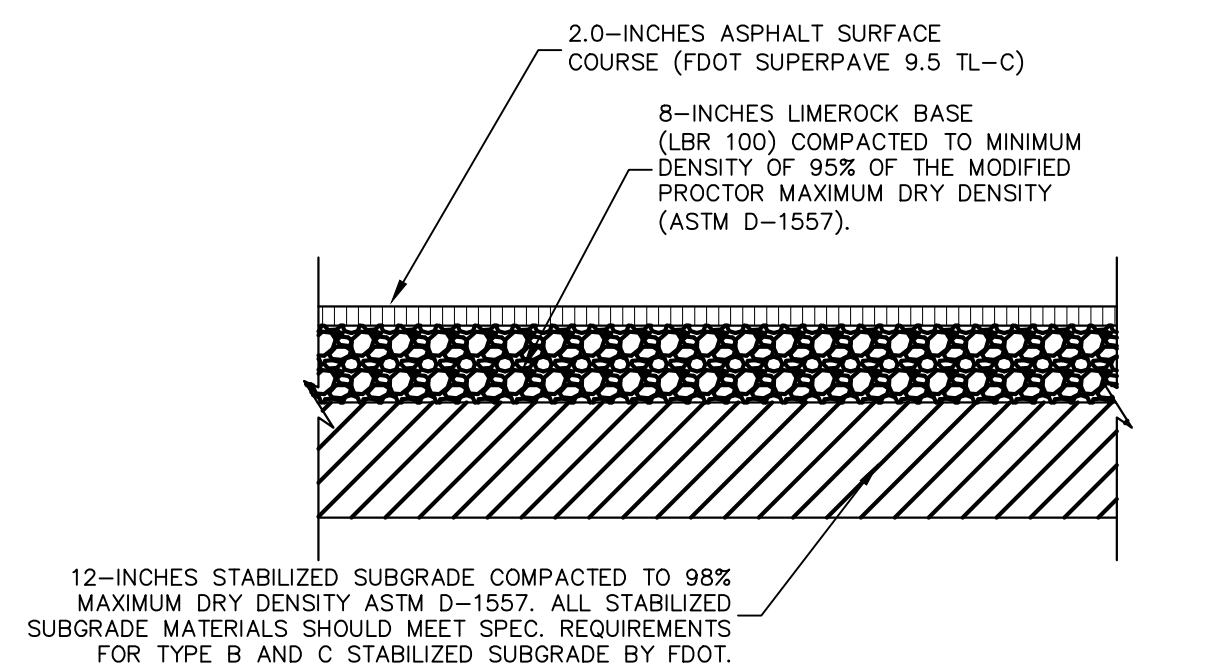
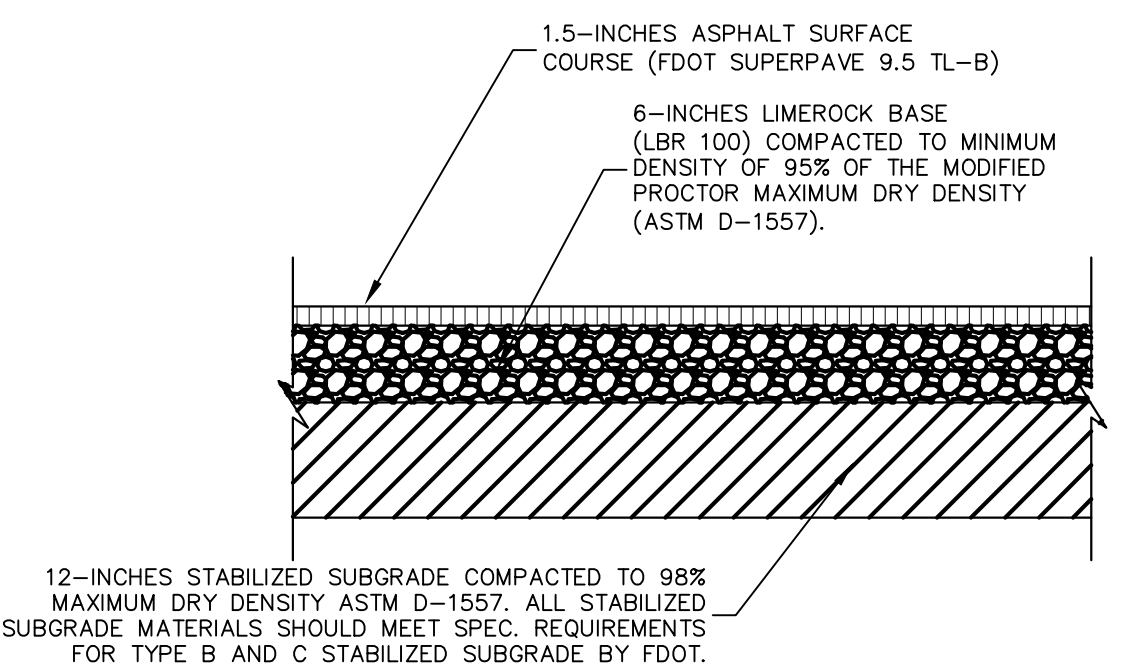
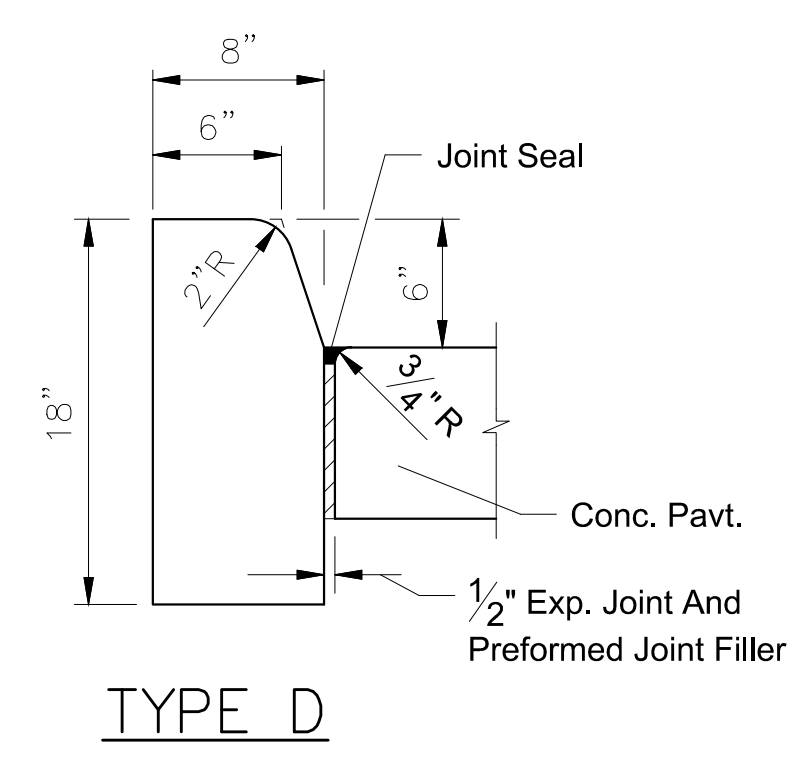
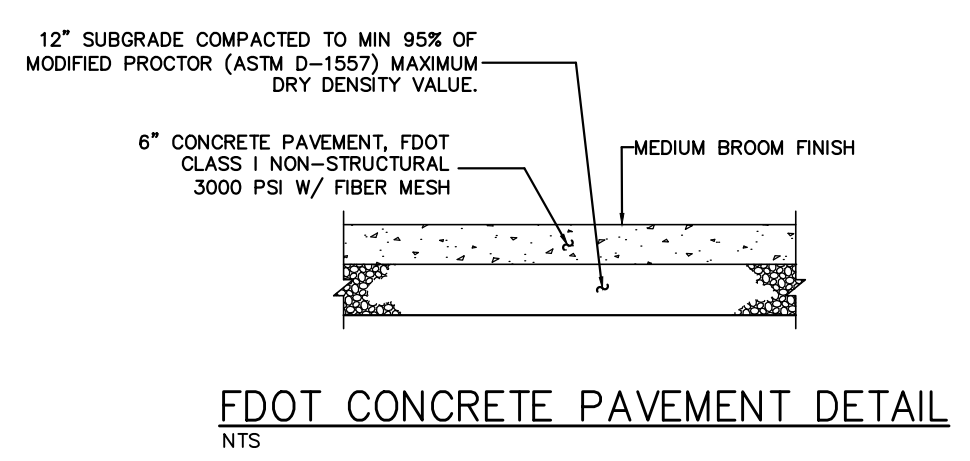
LICENSED PROFESSIONAL
 MARCUS I. REIBER, P.E.
 FL LICENSE NUMBER
 89199
 M/G DATE: _____
 CML
 M/G DATE: _____

**TRUCK ROUTING
 PLAN**

**WINDERMERE
 DOWNTOWN
 PROPERTY**
 TOWN OF WINDERMERE FL

SHEET NUMBER
C7.1

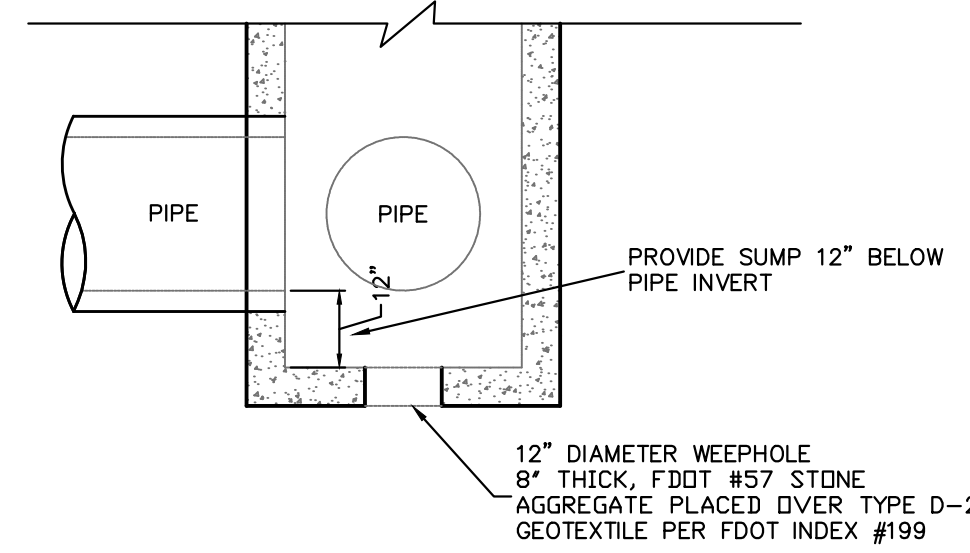
Plotted By: Geiber, Marcus. Sheet Set: Windermere Downtown Property. Layout: 08.0 GENERAL CONSTRUCTION DETAILS. February 13, 2023. 02:00:23pm. K:\ORL\Civil\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\08.0 - GENERAL CONSTRUCTION DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PRODUCT: DERO BIKE HITCH (OR EQUIVALENT)
 FINISH: STAINLESS STEEL (OR OWNER APPROVED)
 NOTE: INSTALL PER MANUFACTURER'S SPECIFICATIONS
 WWW.DERO.COM
 1-800-298-4915

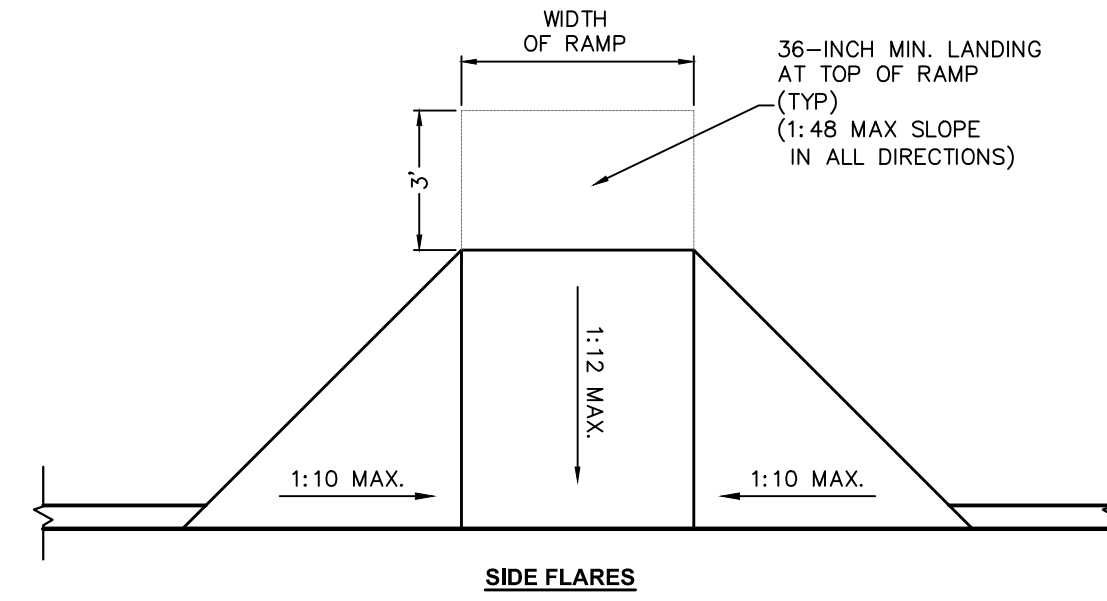
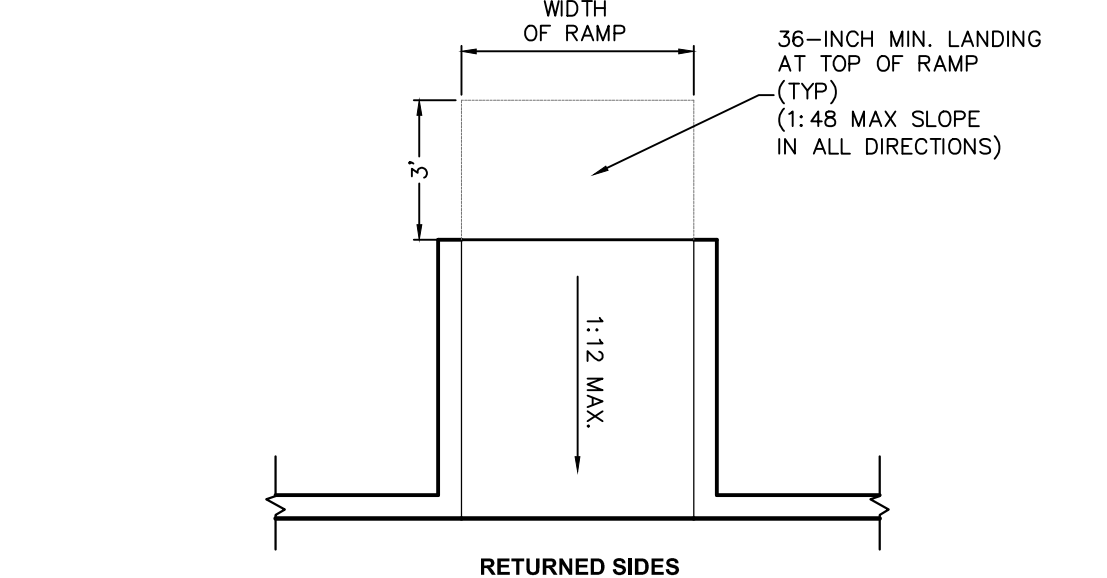
STANDARD BICYCLE RACK DETAIL
 NTS

NOTE:
 1. ALTERNATIVE CRUSHED CONCRETE BASE MAY BE USED. 8-INCHES CRUSHED CONCRETE BASE SHALL MEET THE MATERIAL SPEC'S PER FDOT ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS (ED. 2022), SECTION 204 "GRADED AGGREGATE BASE".



TYPICAL INLET SUMP DETAIL
 PER F.D.O.T. INDEX NO. 232 N.T.S.

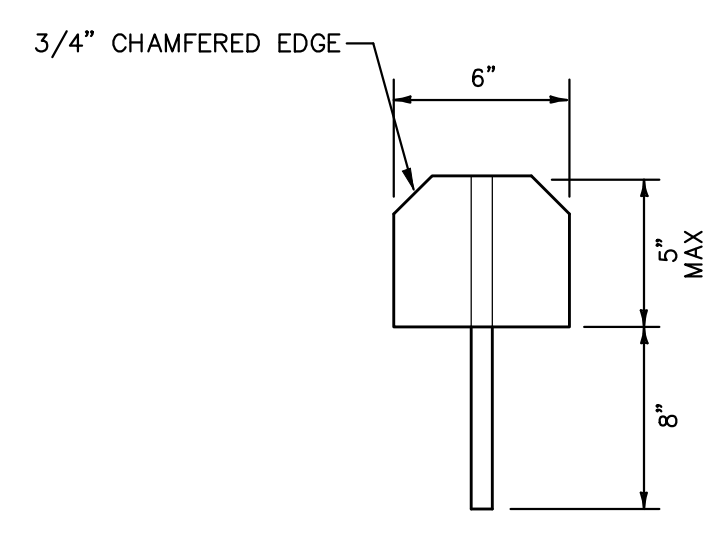
NOTE:
 1. ALTERNATIVE CRUSHED CONCRETE BASE MAY BE USED. 8-INCHES CRUSHED CONCRETE BASE SHALL MEET THE MATERIAL SPEC'S PER FDOT ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS (ED. 2022), SECTION 204 "GRADED AGGREGATE BASE".



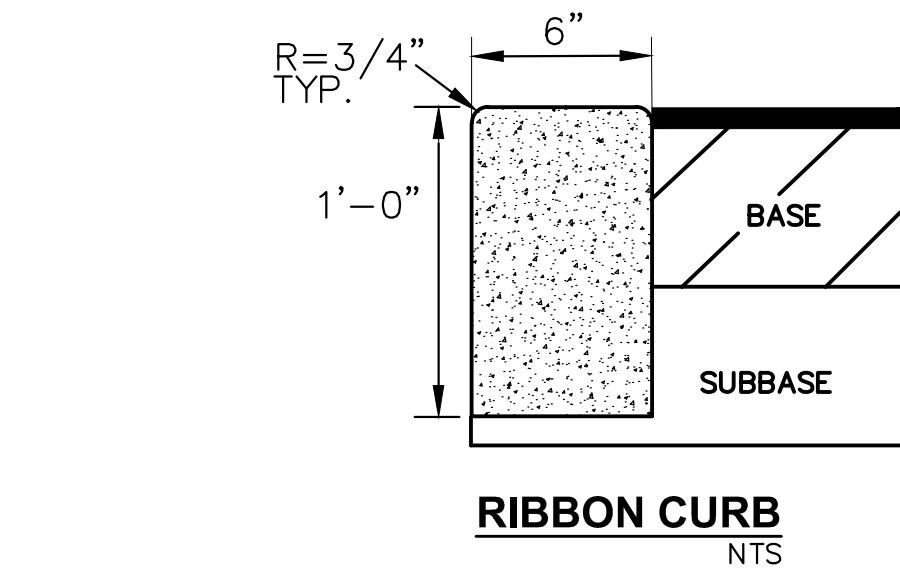
TYPICAL 'ONSITE' ACCESSIBLE CURB RAMPS
 CONSTRUCT PER F.A.C. 2012: CHAPTER 4, SECTION 406 REQUIREMENTS

SIDEWALK INTEGRAL CURB DETAIL
 NTS

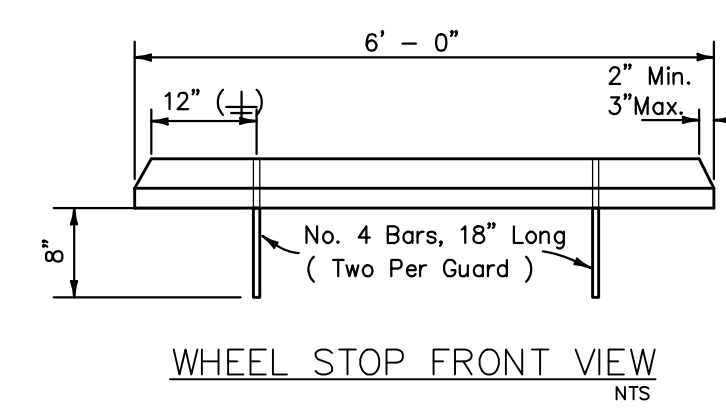
CURB TERMINUS TRANSITION DETAIL
 NTS



WHEEL STOP PROFILE (TYP.)
 NTS

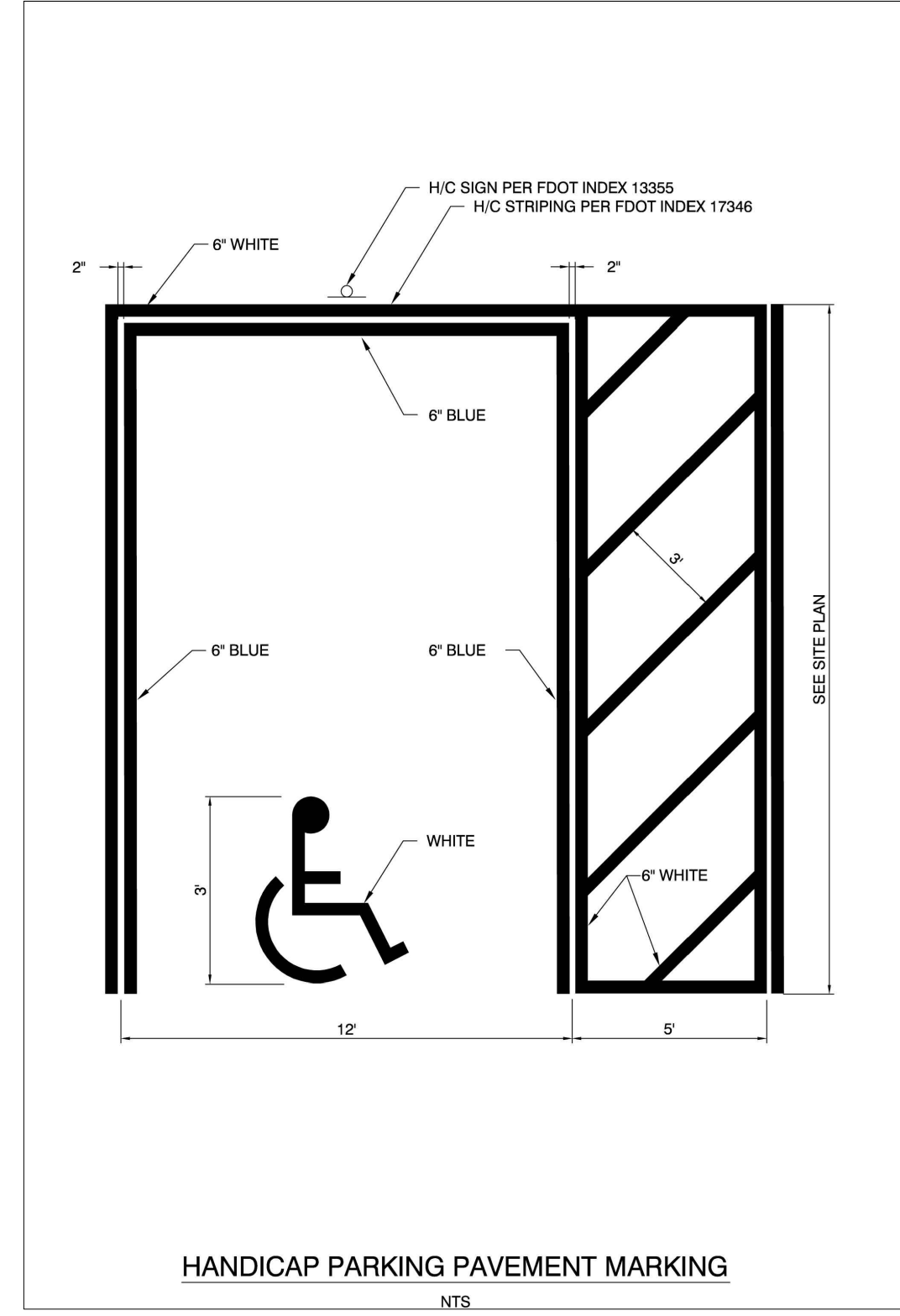


RIBBON CURB
 NTS

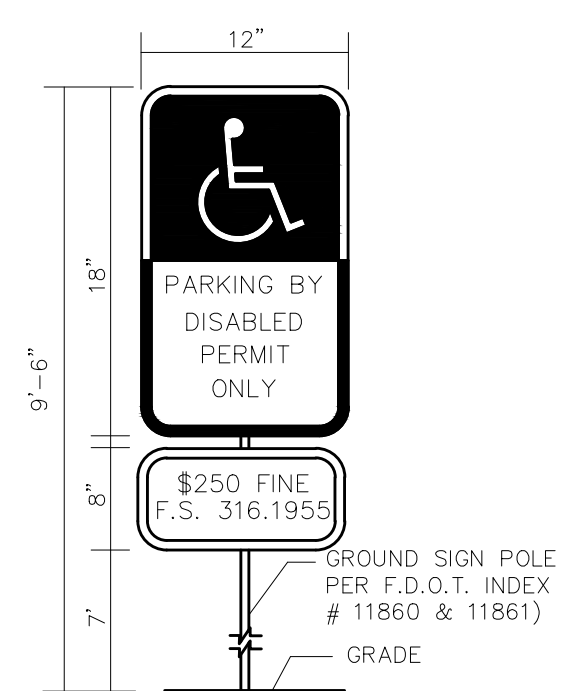


WHEEL STOP FRONT VIEW
 NTS

- NOTES:
- ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE
 - 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 500', CONSTRUCTION JOINT REQUIRED EVERY 10' MAXIMUM (4' MINIMUM).
 - 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
 - IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.



HANDICAP PARKING PAVEMENT MARKING
 NTS



- NOTES:
- ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
 - TOP PORTION OF SIGN SHALL HAVE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
 - BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
 - FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
 - ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
 - INSTALLATION HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

HANDICAP SIGN DETAIL
 NTS

NO.	REVISIONS	DATE

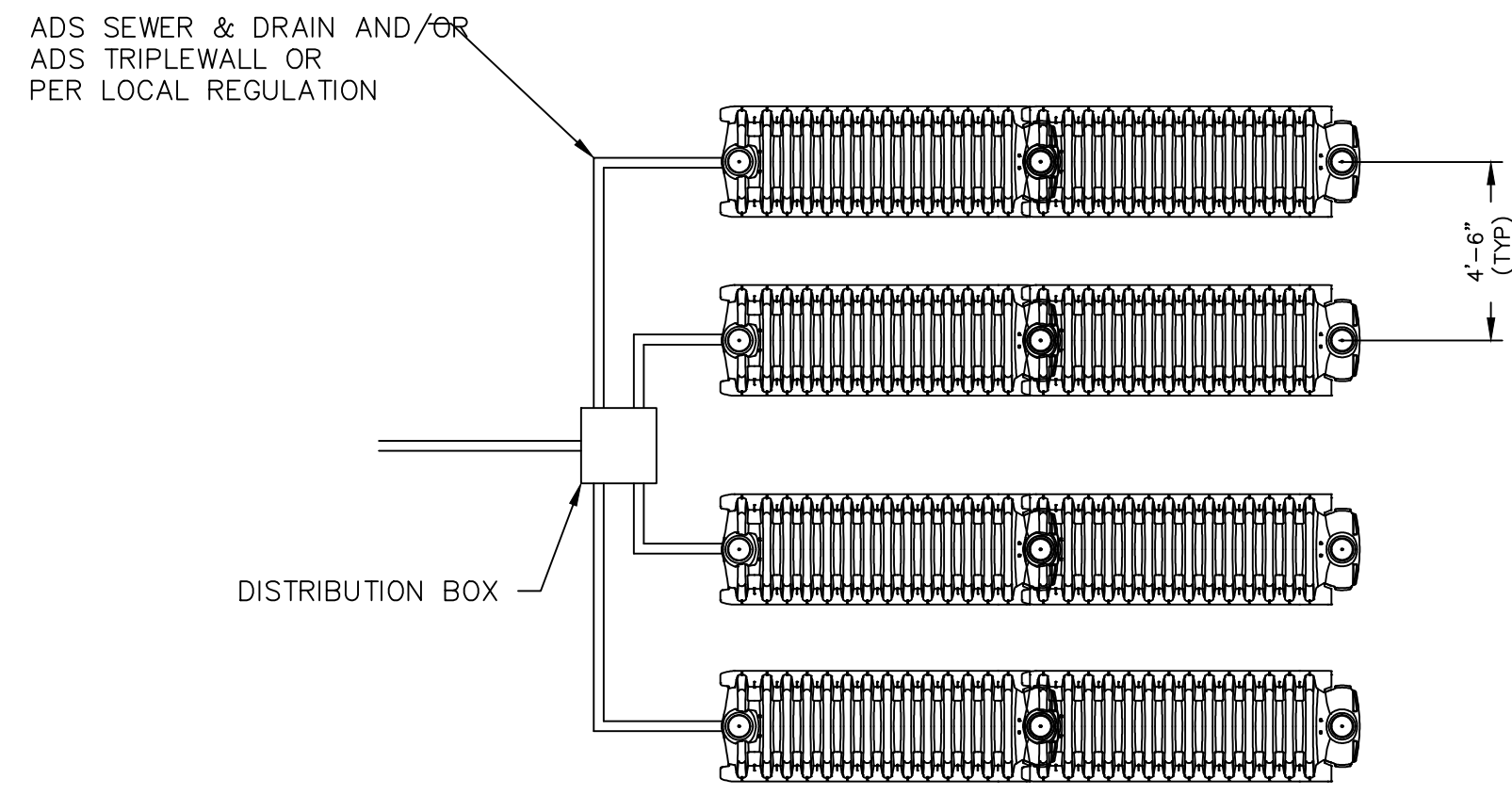
Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

KHA PROJECT	149973004	LICENSED PROFESSIONAL	MARCUS I. GEIBER, P.E.
DATE	02/09/2023	FL LICENSE NUMBER	89199
SCALE	AS SHOWN	DRAWN BY	MIG
CHECKED BY	CML	M/G	DATE:

GENERAL CONSTRUCTION DETAILS

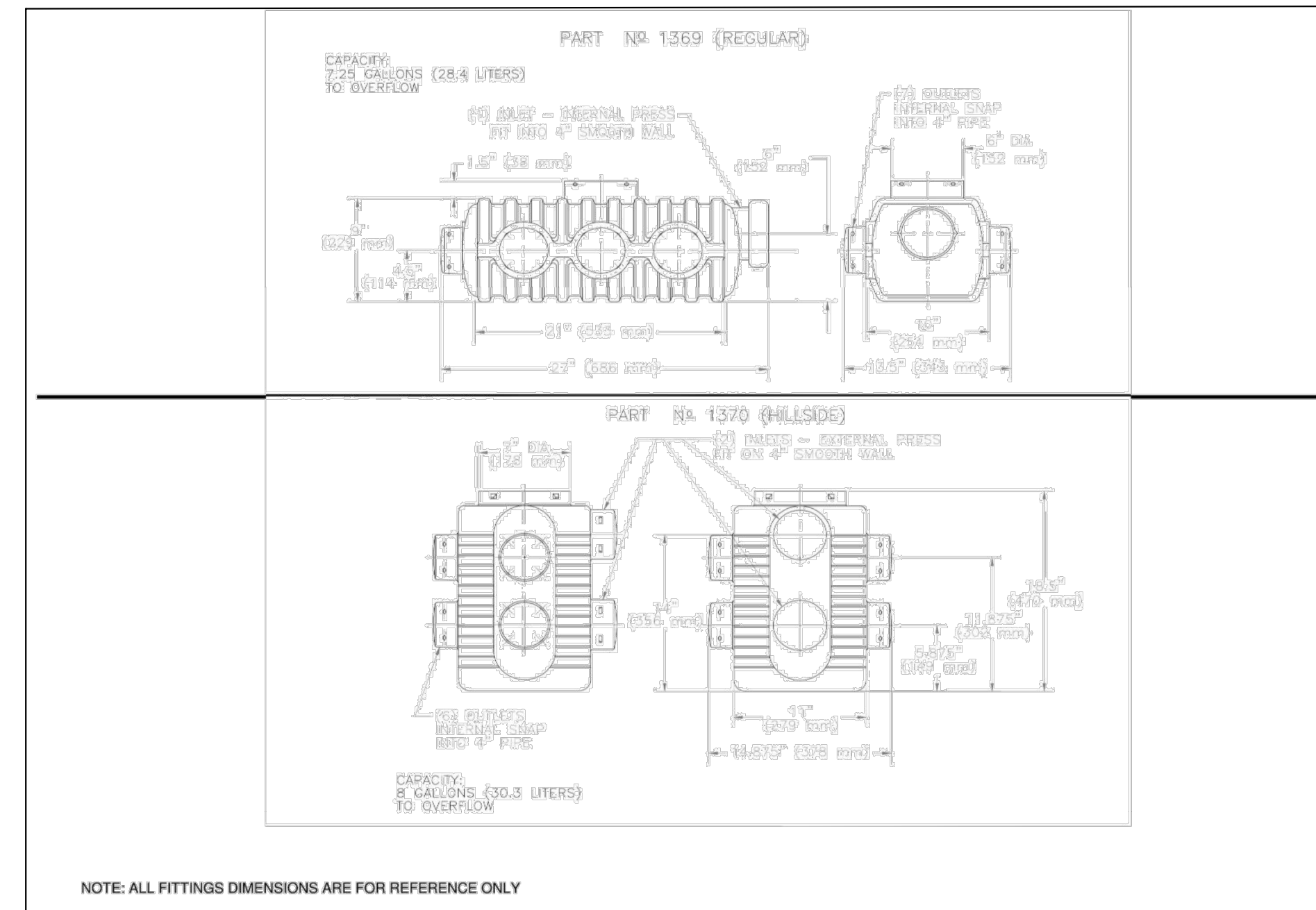
WINDERMERE DOWNTOWN PROPERTY

Plotted By: Geber, Marcus. Sheet Set: Windermere Downtown Property. Layout: 08.1. GENERAL CONSTRUCTION DETAILS. February 13, 2023. 02:00:31pm. K:\ORL\00\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\08.0 - GENERAL CONSTRUCTION DETAILS.dwg. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



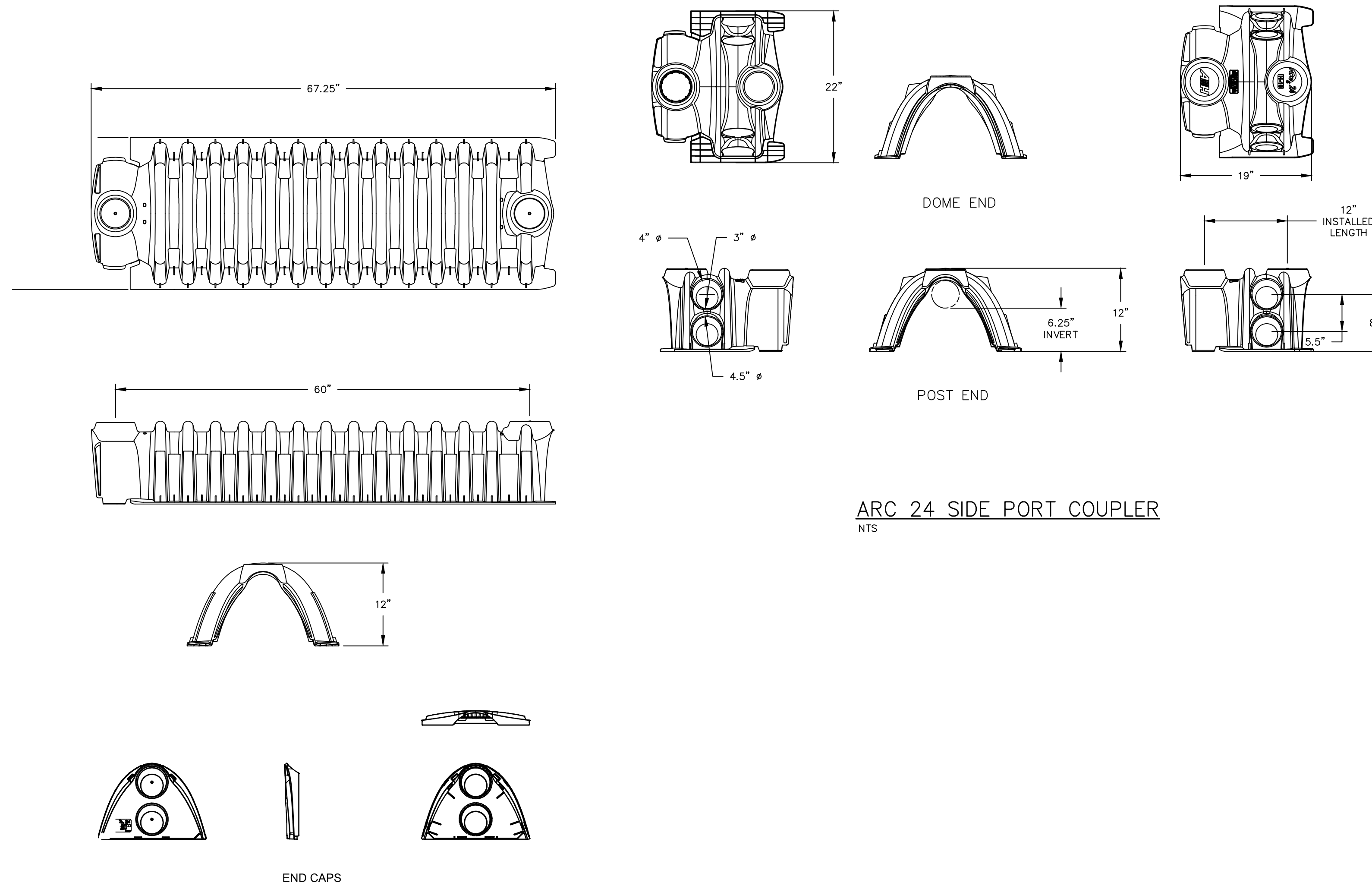
- NOTES:**
- 1. EXCAVATE AND LEVEL INSTALLATION AREAS.
 - 2. SMOOTH IRREGULARITIES IN THE EXCAVATION. A LEVEL, FLAT SURFACE IS REQUIRED.
 - 3. INSTALL ARC LEACHING CHAMBERS IN ADJACENT ROWS TO COVER DESIRED AREA.
 - 4. INSTALL UNIVERSAL END CAP AND SECURE IN PLACE WITH BACKFILL.
 - 5. INSTALL 4" PIPE TO EACH ROW OF ARC CHAMBER USING KNOCKOUTS PROVIDED IN THE UNIVERSAL END CAPS.
 - 6. ENDS OF ROWS MAY BE CONNECTED WITH ARC 24 CLUSTER INSTALLATION NTS
 - 7. FILL PERIMETER AND INTERIOR SIDEWALL AREAS TO TOP OF CHAMBERS AND WALK INTO PLACE. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL.
 - 8. COVER ARC LEACHING CHAMBERS TO A MINIMUM OF 12" OF GRANULAR OVER AFTER CONSOLIDATION FOR H-10 APPLICATIONS. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL. COVER HEIGHTS AND LIVE LOADING LIMITS ARE IMPACTED BY BOTH SOIL TYPE AND COMPACTION REQUIREMENTS. CONTACT ADS WHEN POOR SOILS ARE ENCOUNTERED AND FOR MAXIMUM FILL HEIGHTS. LIVE LOAD CONDITIONS ARE NOT RECOMMENDED.

PIPING TO IMPROVE DISTRIBUTION.



NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

DISTRIBUTION BOXES
NTS



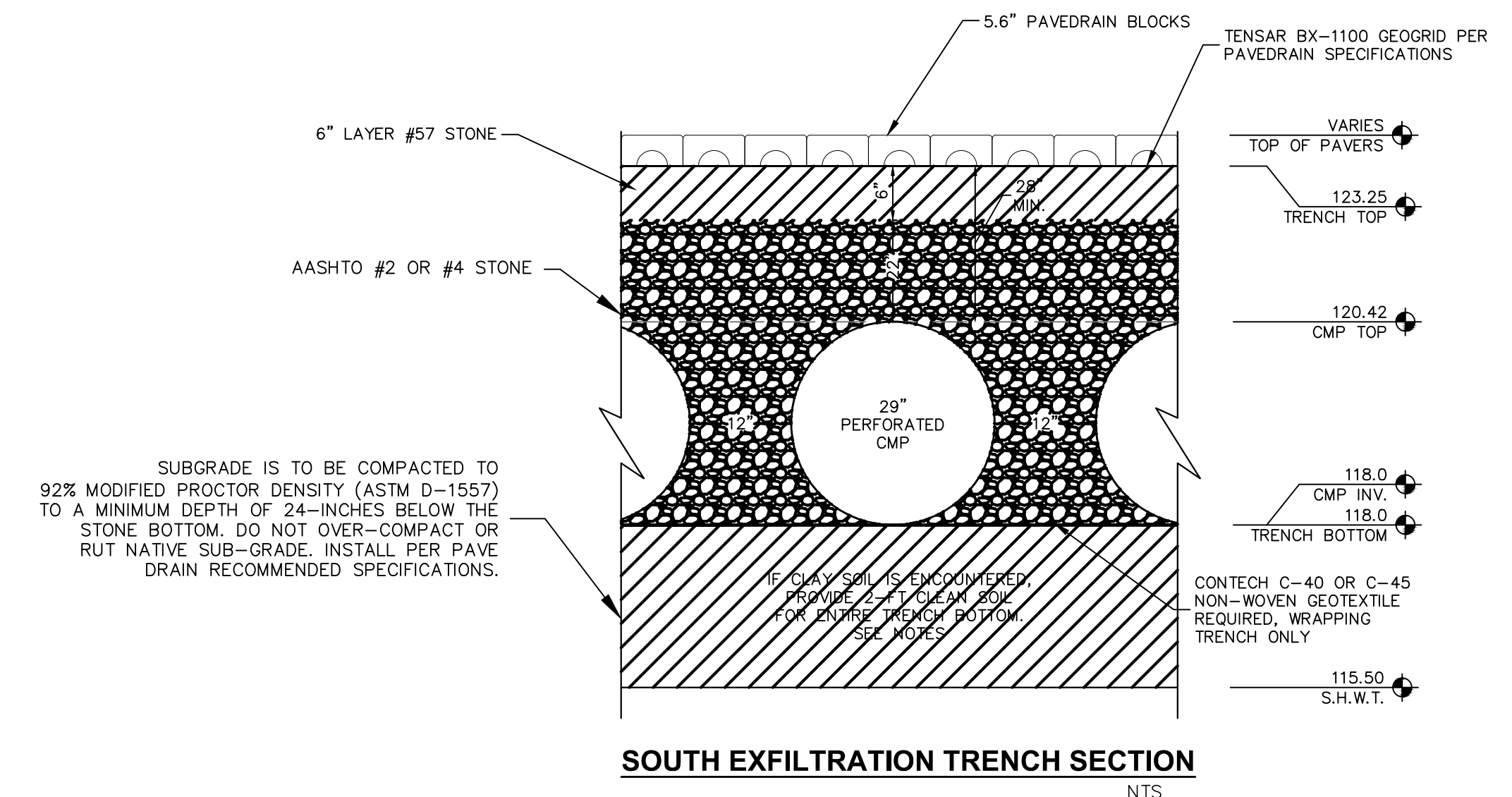
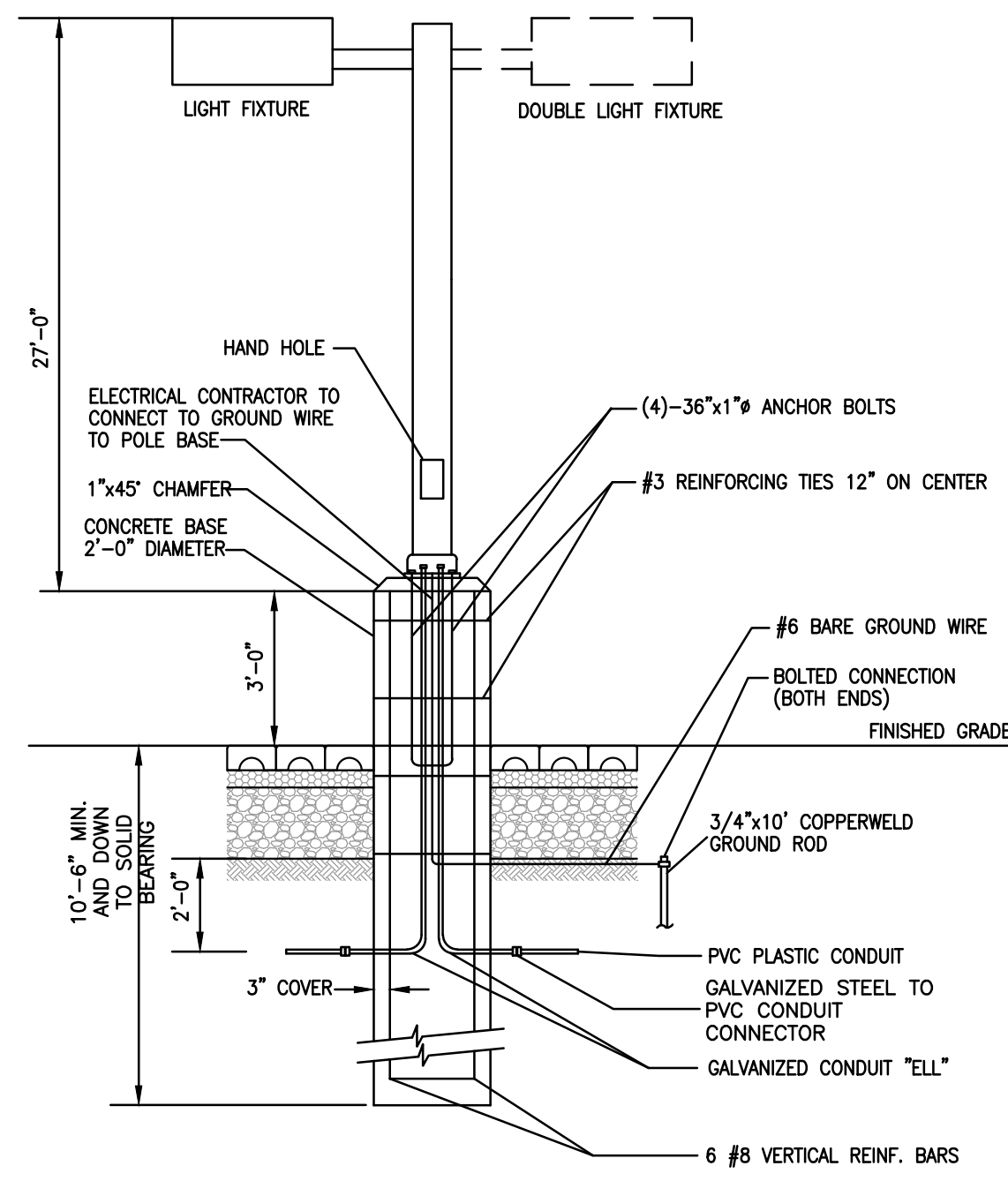
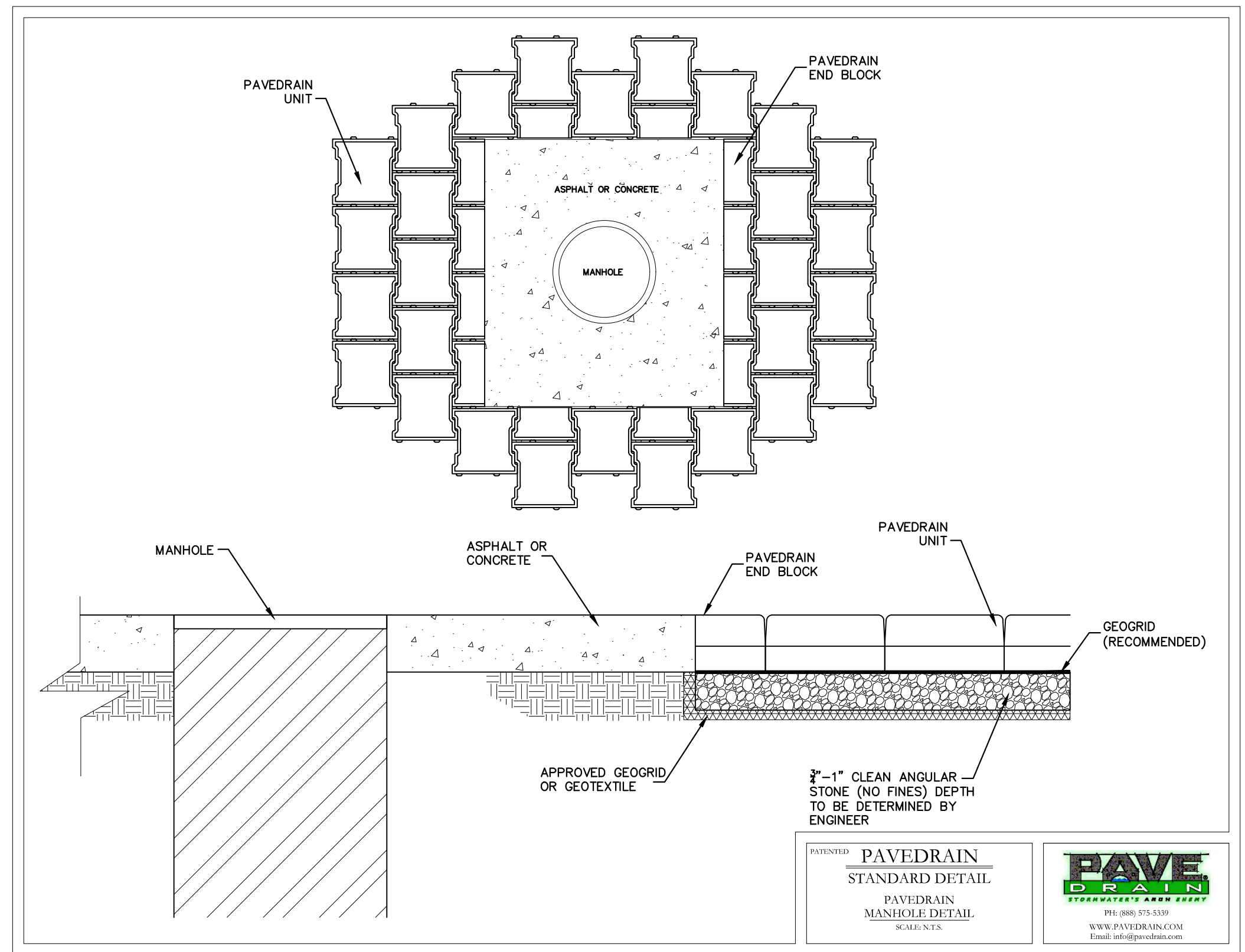
FLORIDA SEPTIC, INC.
P.O. BOX 545
HAWTHORNE, FLORIDA 32640
(800) 940-8265

MODEL: 6" 2180 GAL. TANK
REVISED: 05/01/2011
APPROVAL DATE: 04/25/2008

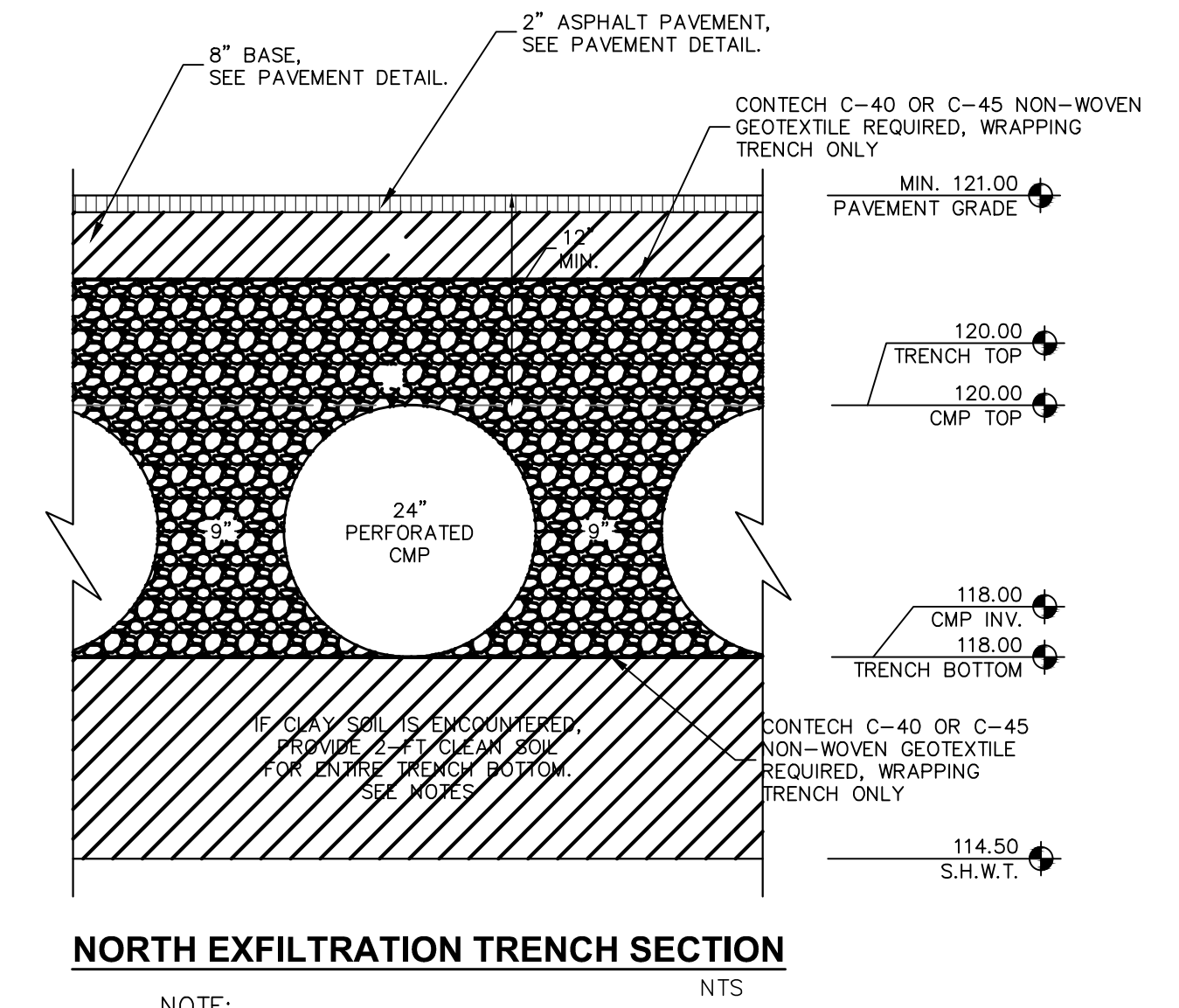
FLORIDA SEPTIC, INC.
P.O. BOX 545
HAWTHORNE, FLORIDA 32640
(800) 940-8265

MODEL: 6" 4150 GAL. TANK
REVISED: 05/01/2011
APPROVAL DATE: 02/14/2008

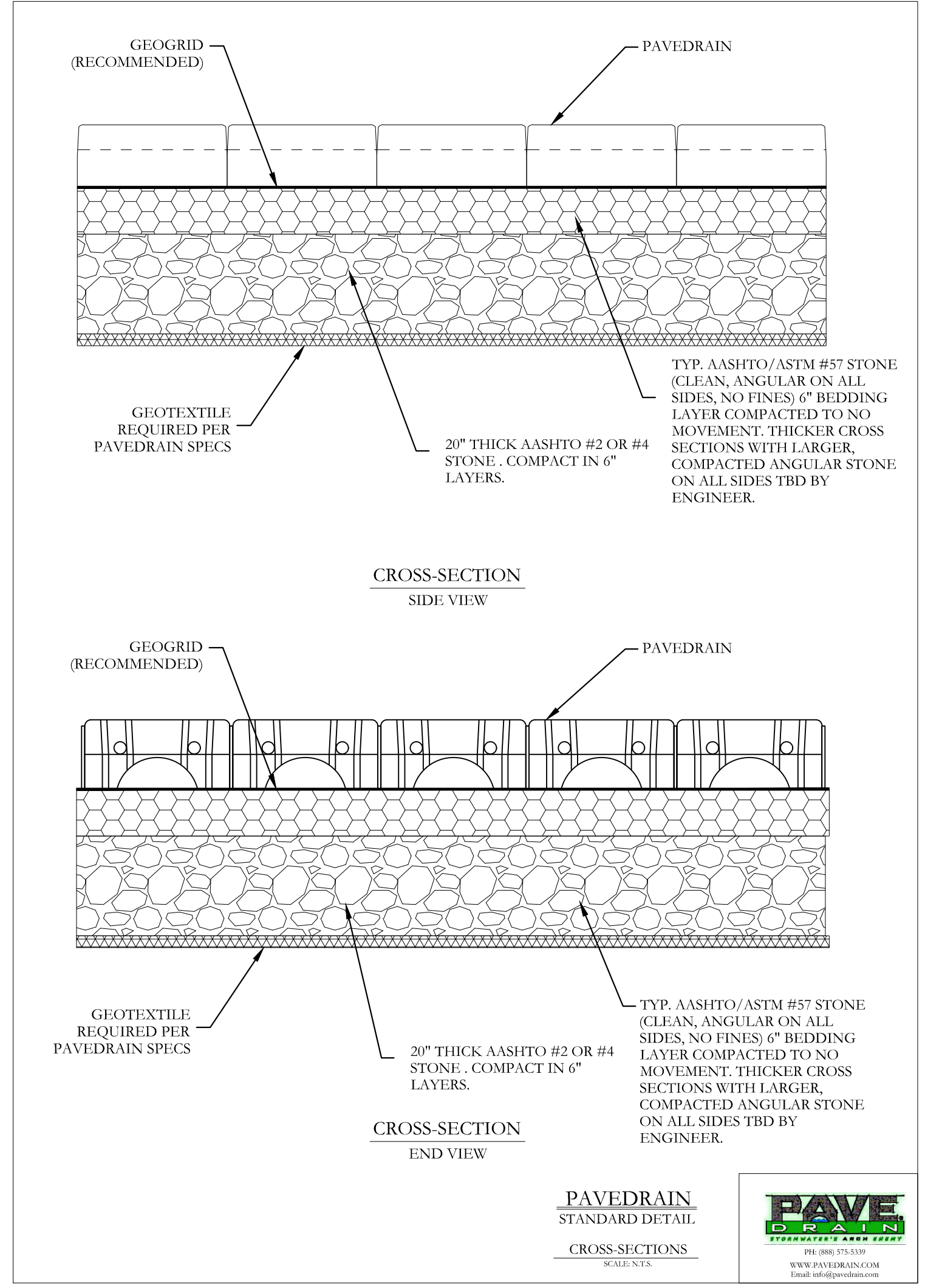
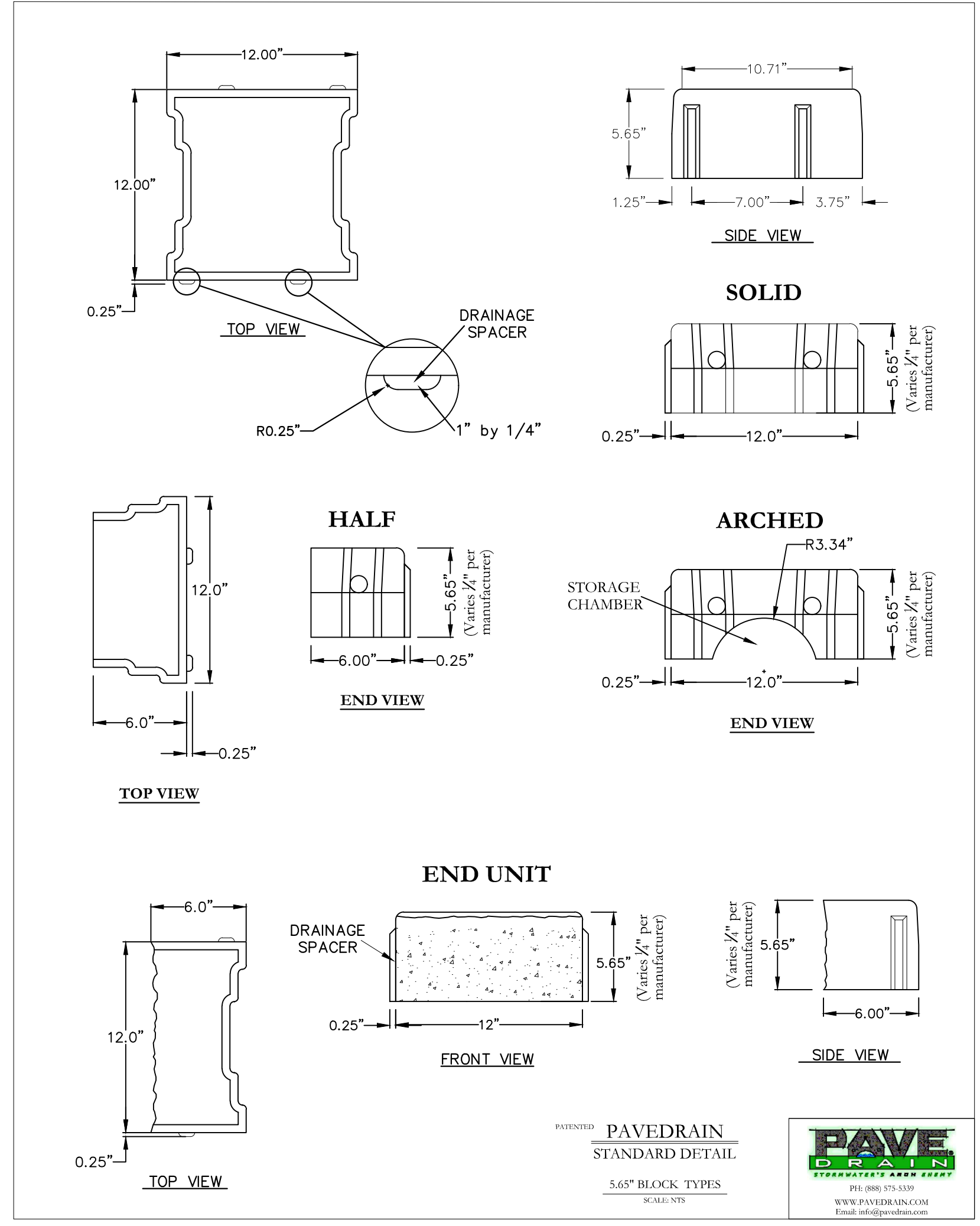
Plotted By: Geiger, Marcus - Sheet Set: Windermere Downtown Property - Layout: 08.2 GENERAL CONSTRUCTION DETAILS - February 13, 2023 - 02:00:38pm - K:\ORL\CIVIL\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\08.02-GENERAL CONSTRUCTION DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



NOTE:
 1. TRENCH BOTTOM FILL SHALL BE CLEAN, INORGANIC, GRANULAR SOIL (FINE SAND) WITH A FINES CONTENT OF NO MORE THAN 5 PERCENT. CARE SHOULD BE TAKEN NOT TO OVER-COMPACT THE BOTTOM DURING EXCAVATION AND GRADING.



NOTE:
 1. TRENCH BOTTOM FILL SHALL BE CLEAN, INORGANIC, GRANULAR SOIL (FINE SAND) WITH A FINES CONTENT



NO.	REVISIONS	DATE

Kimley»Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

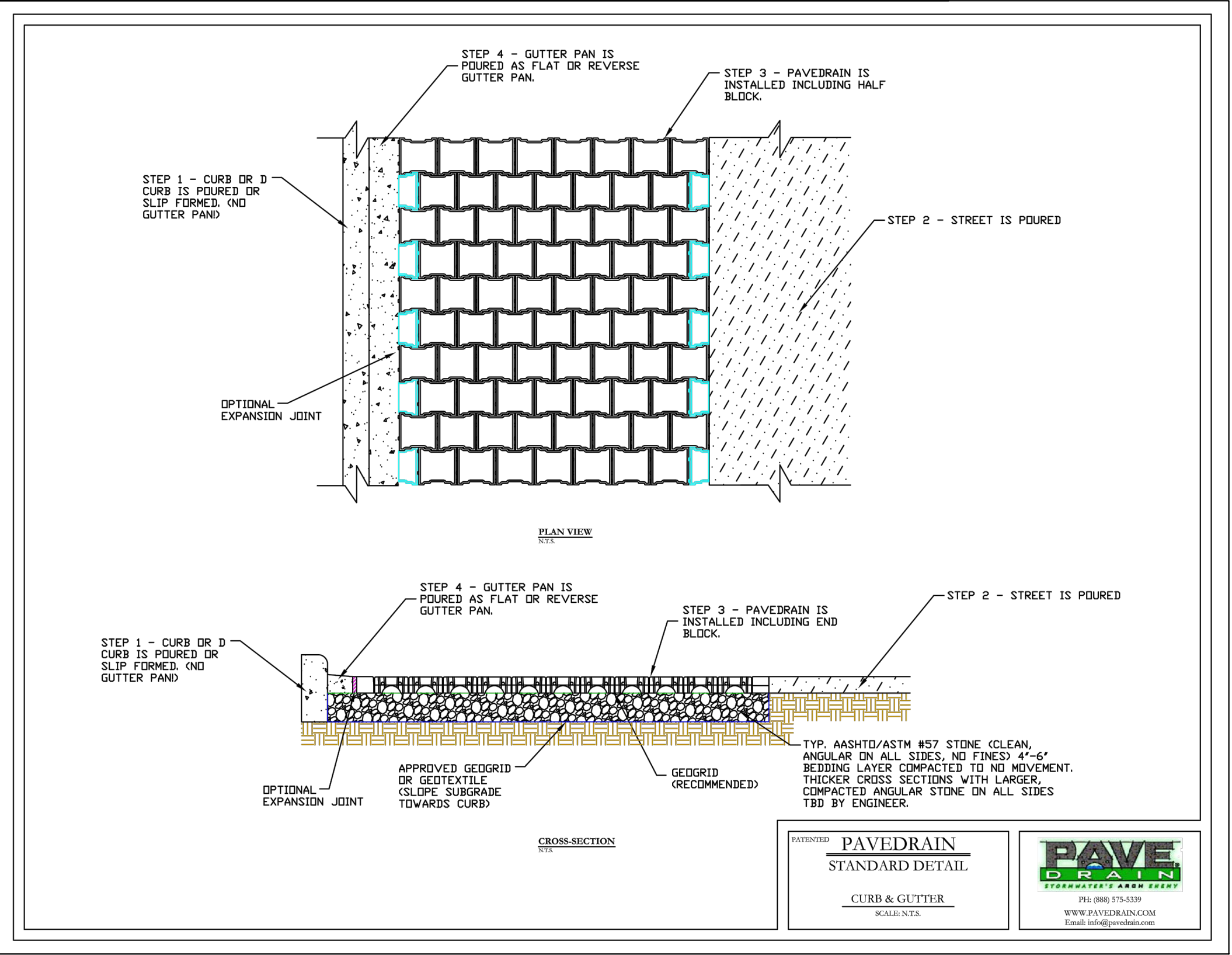
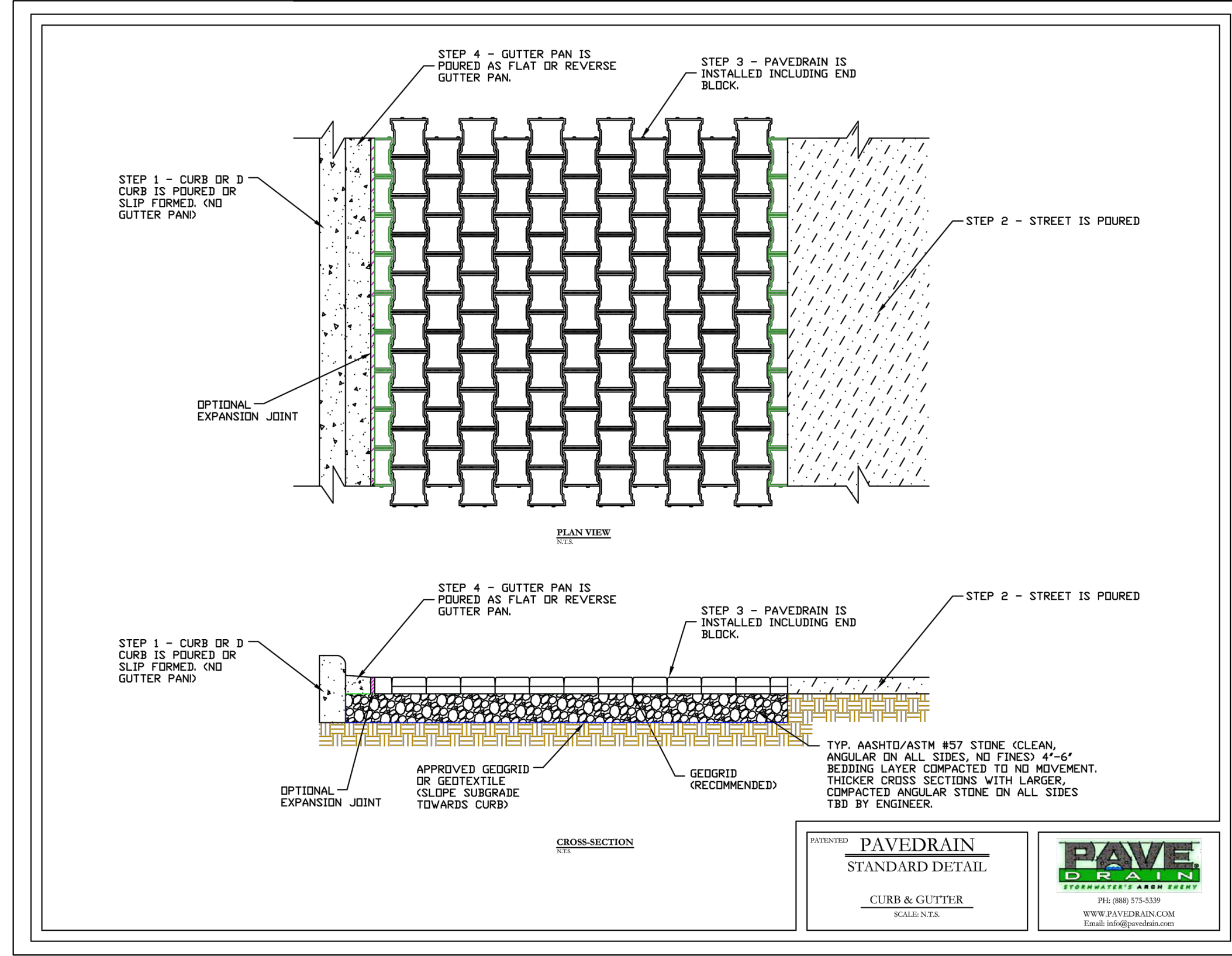
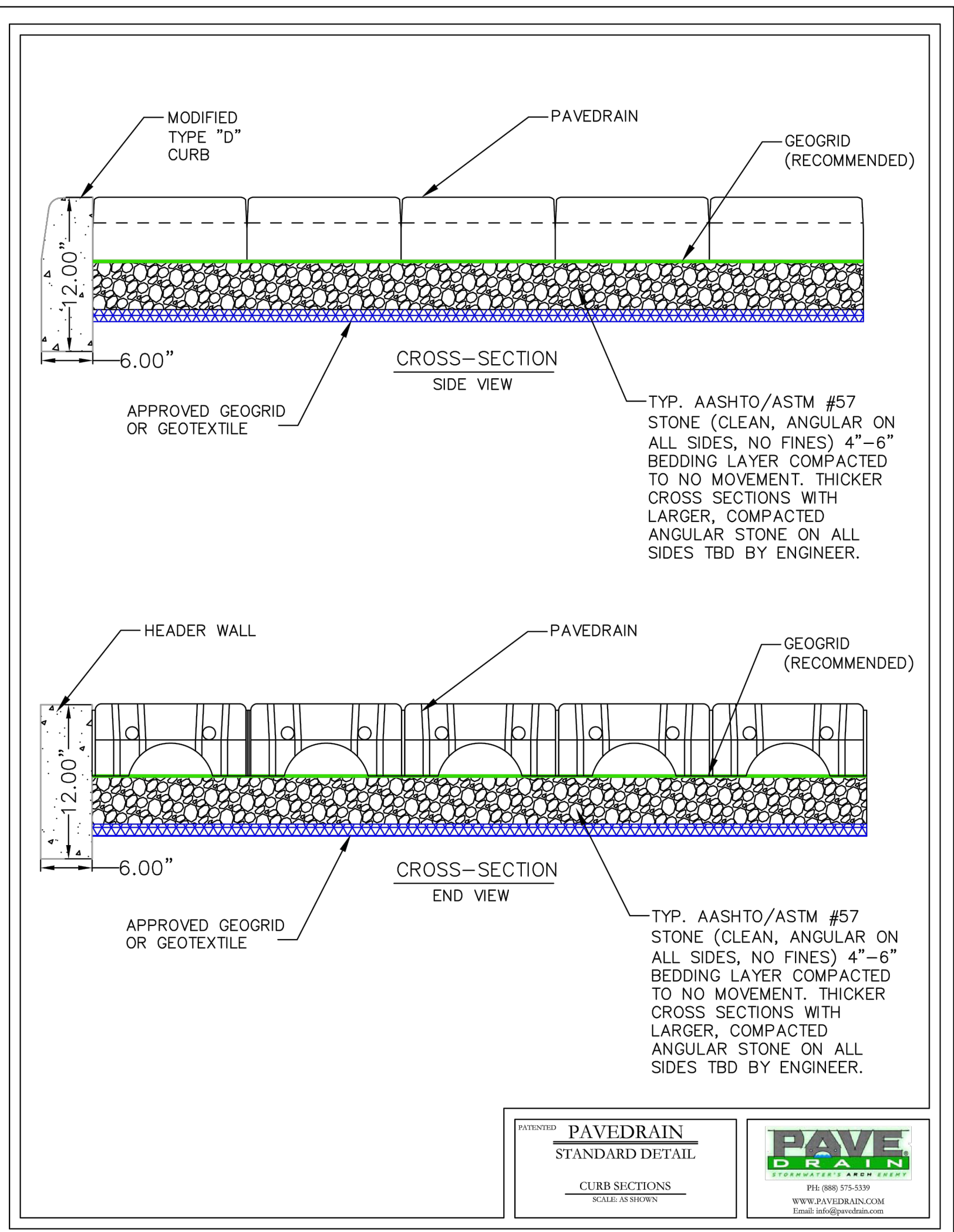
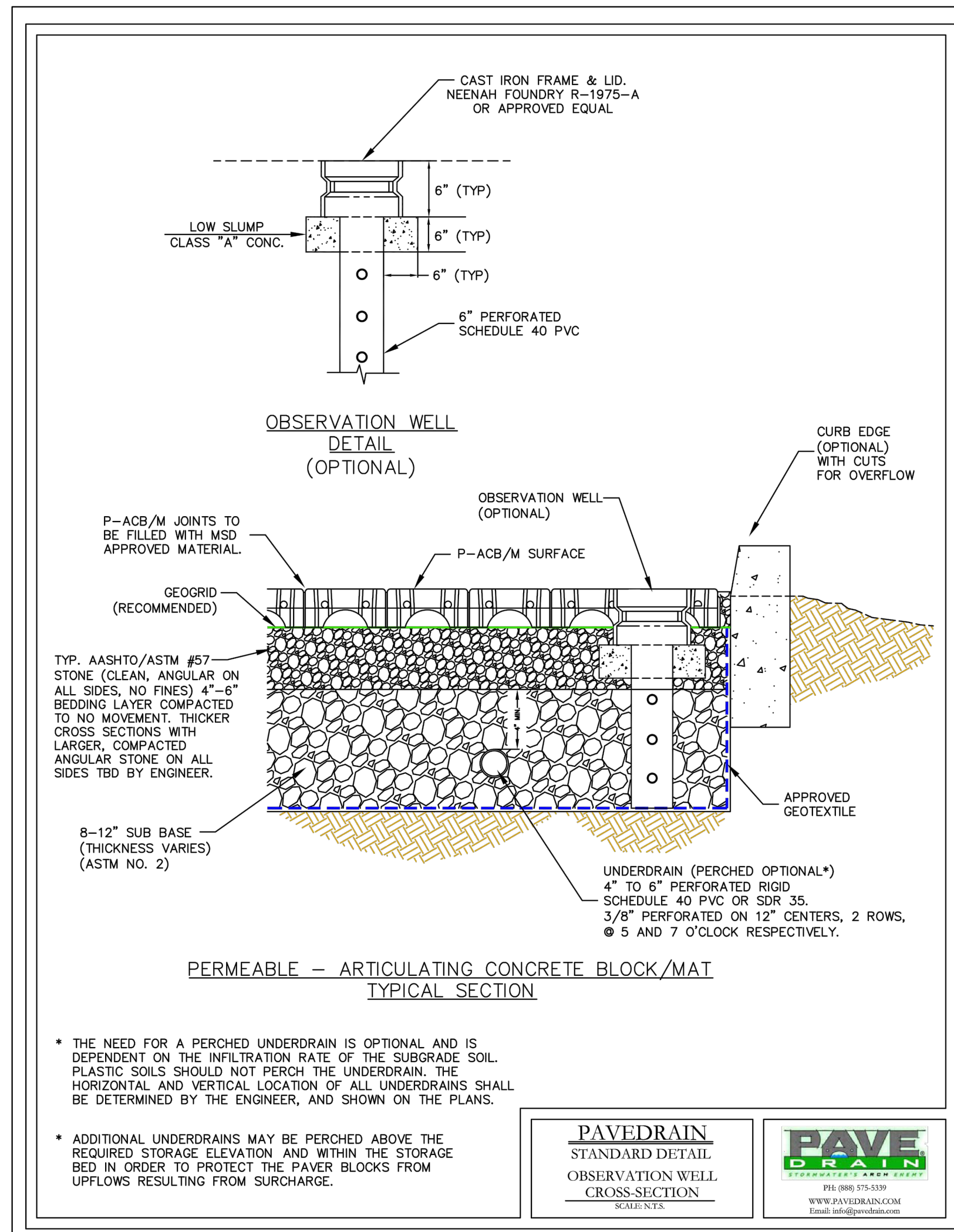
LICENSED PROFESSIONAL
 MARCUS I. GEIGER, P.E.
 FL LICENSE NUMBER 89199
 DATE 02/09/2023
 SCALE AS SHOWN
 DESIGNED BY M/G
 DRAWN BY CML
 CHECKED BY M/G

GENERAL CONSTRUCTION DETAILS

WINDERMERE DOWNTOWN PROPERTY
 TOWN OF WINDERMERE, FL

CONTRACTOR NOTE:
 1. CONSTRUCTION AND INSTALLATION SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE PRODUCT MANUFACTURER AND/OR FAMILIAR WITH AND FOLLOWING THE RECOMMENDATIONS AND PROCEDURES STATED WITHIN THE PAVEDRAIN INSTALLATION MANUAL (LATEST ED.) AND THE PAVEDRAIN NOTES CONTAINED WITHIN SHEET C9.3.
 2. WITHIN 2 WEEKS PRIOR TO THE INSTALLATION OF THE PAVEDRAIN P-ACB SYSTEM, CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH CONTRACTOR PERFORMING INSTALLATION, ENGINEER, SUPPLIER, AND ANY OTHER APPROPRIATE REPRESENTATIVE.

Plotted By: Geller, Marcus - Sheet Set: Windermere Downtown Property - Layout: 08.3 GENERAL CONSTRUCTION DETAILS - February 13, 2023 - 02:00:42pm - K:\ORL\Civil\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\08.03 - GENERAL CONSTRUCTION DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse or improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



CONTRACTOR NOTE:

- CONSTRUCTION AND INSTALLATION SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE PRODUCT MANUFACTURER AND/OR FAMILIAR WITH AND FOLLOWING THE RECOMMENDATIONS AND PROCEDURES STATED WITHIN THE PAVEDRAIN INSTALLATION MANUAL (LATEST ED.) AND THE PAVEDRAIN NOTES CONTAINED WITHIN SHEET C8.4.
- WITHIN 2 WEEKS PRIOR TO THE INSTALLATION OF THE PAVEDRAIN P-ACB SYSTEM, CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH CONTRACTOR PERFORMING INSTALLATION, ENGINEER, SUPPLIER, AND ANY OTHER APPROPRIATE REPRESENTATIVE.

WINDERMERE DOWNTOWN PROPERTY	GENERAL CONSTRUCTION DETAILS	KHA PROJECT 149973004 DATE 02/09/2023 SCALE AS SHOWN DESIGNED BY M/G DRAWN BY CML CHECKED BY M/G	MARCUS I. GELBER, P.E. FL LICENSE NUMBER 89199	© 2023 KIMLEY-HORN AND ASSOCIATES, INC. 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 PHONE: 407-898-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106	NO.	REVISIONS	DATE
					TOWN OF WINDERMERE	SHEET NUMBER C8.3	

PAVEDRAIN SPECIFICATIONS

PAVEDRAIN SPECIFICATIONS

PAVEDRAIN SPECIFICATIONS

1.0 SUBMITTALS

- A. REFER TO SECTION 01 33 00 - SUBMITTAL PROCEDURES
B. SHOP DRAWINGS: SUBMIT DESIGN DETAILS, UNIT DETAILS, CROSS-SECTIONS AND LAYOUTS AS PER CONTRACT DOCUMENTS TO ENGINEER OF RECORD (EOR).
C. SAMPLES:
1. NATURAL GRAY: SUBMIT ONE (1) FULL-SIZED P-ACB SAMPLE.
2. COLOR: SUBMIT 4" X 4" SAMPLES REPRESENTATIVE OF COLOR(S) SELECTED WITHIN THIS SPECIFICATION OR NOTED ON CONTRACT DOCUMENTS
3. MINIMUM 3 LB. SAMPLES OF PROPOSED SUBBASE &/OR BASE AGGREGATE MATERIALS.
D. GEOSYNTHETIC: SUBMIT PRODUCT DATA SHEET(S) AND TEST REPORTS FOR GEOSYNTHETIC(S) PROPOSED FOR USE BY EOR WITHIN THIS SPECIFICATION OR ON CONTRACT DOCUMENTS.
E. SUBMIT TO THE EOR MANUFACTURERS' PRINTED INSTALLATION MANUAL, LITERATURE, LAYOUT DRAWINGS, AND PRODUCT SPECIFICATIONS.
F. CERTIFICATION OF COMPLIANCE
1. TEST REPORTS - INDICATE COMPLIANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS INCLUDING:
a. P-ACB UNIT COMPRESSIVE STRENGTH, MOISTURE CONTENT AND DENSITY ON LIKE UNITS, TESTED IN ACCORDANCE TO ASTM C140 BY INDEPENDENT LABORATORY PER UNIT REQUIREMENTS OF ASTM D6684, TABLE 1.
b. SIEVE ANALYSIS OF ALL AGGREGATE GRADES INDICATED IN CONTRACT DOCUMENTS, SAMPLED ACCORDING TO ASTM D75 AND TESTED IN ACCORDANCE TO ASTM C136.
c. SPECIFIED STANDARD SIZES OF COARSE AGGREGATES SHALL COMPLY WITH SIZES GIVEN IN ACCORDANCE TO ASTM D448, TABLE 1.
2. PERFORMANCE COMPLIANCE - INDICATE COMPLIANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS INCLUDING:
a. INFILTRATION PERFORMANCE - SUBMIT INDEPENDENT LABORATORY TEST REPORT INDICATING IN-PLACE INFILTRATION PERFORMANCE OF: AVERAGE OF THREE (3) TESTS OF ONE THOUSAND (1,000) INCHES PER HOUR (IN/HR.). TEST SHALL BE PERFORMED IN ACCORDANCE TO ASTM C1781 OR C1701 AND BASED ON AN OUTDOOR WORKING SURFACE WITH TYPICAL BASE MATERIAL AND INSTALLATION.
b. STRUCTURAL PERFORMANCE - DESIGN OF THE P-ACB SHALL BE CAPABLE OF SUPPORTING AASHTO H-20, HS-20 AND HS-25 TRUCK LOADING WITH PROPER SUBGRADE AND BASE INSTALLATION. THE P-ACB'S SHALL BE ANALYZED AS UNREINFORCED CONCRETE ARCHES SUPPORTING A UNIFORM TRUCK TIRE LOAD WITH IMPACT PER AASHTO STANDARDS AS TESTED BY AN INDEPENDENT LABORATORY.
c. MAINTAINABILITY - PROVIDE MAINTENANCE STUDY BASED ON AT LEAST 24 MONTHS BY AN INDEPENDENT OR THIRD PARTY REPRESENTATIVE WHICH INCLUDES PRE AND POST INFILTRATION TESTING DOCUMENTATION IN MULTIPLE LOCATIONS IN ACCORDANCE WITH ASTM C1781 OR C1701. THE STUDY SHALL SHOW THAT AFTER MANUFACTURERS' RECOMMENDED MAINTENANCE THAT THE ORIGINAL INFILTRATION PERFORMANCE OF THE PERMEABLE SYSTEM CAN EFFECTIVELY BE RESTORED TO 80% +/- 10% OF INITIAL INFILTRATION RATES.
G. SUBSTITUTIONS
1. NO MATERIAL SHALL BE CONSIDERED AS AN EQUIVALENT TO THE P-ACB SPECIFIED HEREIN UNLESS IT MEETS ALL AREAS OF THIS SPECIFICATION WITHOUT EXCEPTION.
2. MANUFACTURER'S REQUESTING TO SUBMIT MATERIALS AS EQUIVALENT MUST PROVIDE RECORDS, DATA, INDEPENDENT LABORATORY TEST RESULTS, SAMPLES, CERTIFICATIONS, AND DOCUMENTATION MEETING ALL AREAS OF THIS SPECIFICATION WITHOUT EXCEPTION. ANY REQUESTS MUST BE SUBMITTED TO EOR 15 DAYS PRIOR TO BID DATE.

1.1 SCHEDULING

- A. CONTRACTOR SHALL CONTACT P-ACB MANUFACTURER TO DETERMINE NECESSARY LEAD TIME TO PRODUCE UNIT MATERIAL ORDER.
B. SCHEDULE MANUFACTURE AND DELIVERY OF P-ACB'S TO COINCIDE WITH CONSTRUCTION SCHEDULE TO PREVENT STORAGE FOR EXTENDED PERIODS.
C. APPROXIMATELY TWO (2) WEEKS PRIOR TO THE START OF THE INSTALLATION, A PRECONSTRUCTION MEETING SHALL OCCUR WITH REPRESENTATIVE(S) FROM THE DESIGN TEAM, GENERAL CONTRACTOR, SITE CONTRACTOR, INSTALLATION CONTRACTOR AND MANUFACTURERS' REPRESENTATIVE.

1.2 DELIVERY, STORAGE AND HANDLING

- A. P-ACB INDIVIDUAL BLOCKS MUST BE DELIVERED ON WOODEN PALLETS AND MARKED ACCORDINGLY.
B. ALL P-ACB'S SHALL BE SOUND AND FREE OF DEFECTS THAT WOULD INTERFERE WITH PROPER PLACEMENT OR THAT WOULD IMPAIR THE STRENGTH OF LONGEVITY OF THE INSTALLATION.
C. MINOR CRACKS INCIDENTAL TO THE USUAL METHOD OF MANUFACTURE; SCUFFING OR CHIPPING THAT RESULTS FROM CUSTOMARY METHODS OF HANDLING IN SHIPPING, DELIVERY AND PLACEMENT SHALL NOT BE DEEMED GROUNDS FOR REJECTION.

PART 2 - PRODUCTS

2.1 MANUFACTURED PERMEABLE ARTICULATING CONCRETE BLOCK (P-ACB)

- A. PAVEDRAIN@ P-ACB
1. COLOR(S): DARK GREY TO BE REVIEWED AND APPROVED BY THE OWNER AND EOR PRIOR TO FABRICATION.
2. TYPE: CLOSED-CELL PRE-MANUFACTURED INDIVIDUAL CONCRETE BLOCKS WITH AN ARCHED STORAGE CHAMBER FOR ADDITIONAL STORMWATER RUNOFF CAPACITIES AS PER SHOP DRAWINGS &/OR CONTRACT DOCUMENTS. BLOCKS MAY BE HAND-PLACED OR MECHANICALLY INSTALLED.
3. PHYSICAL AND PERFORMANCE REQUIREMENTS: AT THE TIME OF DELIVERY TO THE WORK SITE, THE UNITS SHALL CONFORM TO THE REQUIREMENTS PRESCRIBED IN TABLE 1 BELOW.

TABLE 1: PHYSICAL & PERFORMANCE CHARACTERISTICS

Table with 3 columns: Item, Description, Values. Includes rows for Dimensional Tolerance, Compressive Strength, Block Unit Weight, Loading Capabilities, Joint Filler Between Blocks, Percent Open Space, Water Absorption (Max. %), Density (Min. lb/ft³), Storage Capacity, and Post-Installation, Verified Surface Infiltration Rates.

B. ACCEPTABLE MANUFACTURERS AND DISTRIBUTION PARTNERS:

- 1. LOCAL - ACF ENVIRONMENTAL. (800) 448-3636, SALES@ACFENVIRONMENTAL.COM WWW.ACFENVIRONMENTAL.COM
2. NATIONAL - PAVEDRAIN, LLC. (888) 575-5339, INFO@PAVEDRAIN.COM WWW.PAVEDRAIN.COM
3. MANUFACTURER - TITAN AMERICA. CONTACT: GREG STRICKLAND 561-291-3459, GSTRICKLAND@TITANAMERICA.COM
2.2 AGGREGATE MATERIALS
A. OPEN-GRADED COARSE AGGREGATE: SELECT COARSE AGGREGATE SHALL BE CLEAN MATERIAL FREE FROM ORGANIC MATERIALS AND ANGULAR ON ALL SIDES. SELECT COARSE AGGREGATE SHALL MEET THE GRADATIONS THAT ARE LISTED IN TABLE 1 OF ASTM D448 AND BASED ON SIEVE ANALYSIS IN ACCORDANCE TO ASTM C136. RECYCLED AGGREGATE MATERIAL IS NOT ALLOWED WITHIN THE TOP 4-6" ELEVATION DIRECTLY CONTACTING THE BOTTOM OF THE PAVEDRAIN UNITS.
1. BASE COURSE AGGREGATE: ASTM GRADE #57 STONE SHALL BE USED AS THE FINISH (TOP) 4-6" LAYER OF STONE DIRECTLY UNDERNEATH THE PAVEDRAIN UNITS.
2. SECONDARY SUB-BASE AGGREGATE: ASTM GRADE #2, #3 OR #4 AS DETERMINED BY ENGINEER OF RECORD, THICKNESS AS INDICATED BY CROSS-SECTIONS ON THE SHOP DRAWINGS &/OR CONTRACT DOCUMENTS. CONTACT MANUFACTURER OR DISTRIBUTOR ABOUT LOCAL AVAILABILITY OF DIFFERENT AGGREGATE GRADES
2.3 TRANSITION AND EDGE RESTRAINTS
A. TRANSITION: UTILIZE PAVEDRAIN END BLOCK, SOLID BLOCK AND HALF BLOCK SHAPES TO MAKE SMOOTH TRANSITIONS WITH CURBS AND OTHER RIGID SURFACES AS PER SHOP DRAWINGS &/OR CONTRACT DOCUMENTS.
B. EDGE RESTRAINT: TYPE AND DIMENSIONS SHALL BE INDICATED BY EOR AS PER SHOP DRAWINGS &/OR CONTRACT DOCUMENTS.
2.4 GEOSYNTHETIC MATERIALS
A. GEOTEXTILE: ACF M200 (OR APPROVED EQUAL), A HIGH STRENGTH, HIGH WATER FLOW, WOVEN MONOFILAMENT OR MULTIFILAMENT GEOTEXTILE AS SPECIFIED BY EOR BASED ON NATIVE SOIL PROPERTIES.
B. GEOGRID: TENSAR BX-1100 OR SYNTEEN STF-P11 (OR APPROVED EQUAL) AS SPECIFIED BY EOR BASED ON NATIVE SOIL PROPERTIES. REQUIREMENT OF GEOGRID SEPARATOR TO BE DETERMINED BY THE ENGINEER OF RECORD

PART 3 - EXECUTION

- 3.1 EXAMINATION AND INSPECTION
A. THE CONTRACTOR SHALL VERIFY THAT THE SUBGRADE HAS BEEN EXCAVATED, SHAPED, STABILIZED AND COMPACTED IN ACCORDANCE TO SECTIONS 31 22 00, 31 23 00, 31 32 00 & 31 34 00 AND CONFORMS TO THE LINES, GRADES AND CROSS-SECTIONS SHOWN ON CONTRACT DOCUMENTS.
B. VERIFY THAT NATIVE SUBGRADE HAS BEEN COMPACTED TO A MAXIMUM OF 95% MODIFIED PROCTOR IN ACCORDANCE TO ASTM D 1557. DO NOT OVER-COMPACT OR RUT NATIVE SUBGRADE. OVER-COMPACTION OF THE NATIVE SOIL SUBGRADE COULD REDUCE THE INFILTRATION RATE OF THE NATIVE SOIL AND MUST BE MINIMIZED
C. IMMEDIATELY PRIOR TO PLACING THE PAVEDRAIN UNITS, THE FINAL PREPARED SUB-BASE AGGREGATE SHALL BE INSPECTED BY THE EOR AND WITNESS TO A PROOF ROLL TEST BY A FULLY LOADED DUMP TRUCK. UNSATISFACTORY CONDITIONS MUST BE CORRECTED PRIOR TO INSTALLATION OF THE PAVEDRAIN UNITS.
3.2 GEOSYNTHETIC INSTALLATION
A. GEOTEXTILE: THE CONTRACTOR SHALL PLACE ACF M200 (OR APPROVED EQUAL) WOVEN MONOFILAMENT OR MULTIFILAMENT GEOTEXTILE FLAT ON SUBGRADE AND VERTICAL SECTIONS OF BASE AGGREGATE FREE OF WRINKLES AND OVERLAPPING A MINIMUM OF TWELVE (12) INCHES. BASED ON THE SOIL PROPERTIES OF THE SITE, THE GEOTECHNICAL ENGINEER SHALL DETERMINE WHAT STRENGTH GEOTEXTILE IS REQUIRED
B. GEOGRID: INSTALL TENSAR BX-1100 OR SYNTEEN STF-P11 (OR APPROVED EQUAL) DIRECTLY ON TOP OF PROPERLY PREPARED AND LEVELED FINAL AGGREGATE BASE. REQUIREMENT OF GEOGRID SEPARATOR TO BE DETERMINED BY THE ENGINEER OF RECORD
3.3 AGGREGATE SUB BASE INSTALLATION
A. THE THICKNESS OF THE SUB-BASE, REQUIREMENT OF MULTIPLE GRADATIONS OF OPEN-GRADED COARSE AGGREGATE AND INTERMEDIATE GEOSYNTHETIC SHALL BE INDICATED BY THE EOR AND DETAILED ON THE CONTRACT DOCUMENTS. THE MINIMUM THICKNESS OF OPEN-GRADED COARSE AGGREGATE IS SIX (6) INCHES. IF MORE THAN SIX (6) INCHES OF BASE AGGREGATE IS REQUIRED, ONLY THE TOP FOUR TO SIX (4-6) INCHES SHALL BE ASTM GRADE #57.
B. ALL BASE AGGREGATES SHALL BE COMPACTED IN SIX TO EIGHT (6-8) INCH LIFTS WILL A ROLLER COMPACTOR AND FINAL GRADE LEVEL COMPACTED WITH A MINIMUM 10,000 LB. VIBRATORY PLATE COMPACTOR IN WITH AT LEAST TWO PASSES IN BOTH THE PERPENDICULAR AND PARALLEL DIRECTIONS. OPEN-GRADED BASE AGGREGATE INSTALLATION SHALL NOT DAMAGE OR DISLodge THE GEOTEXTILE.
1. WHEN USING MULTIPLE AGGREGATE LAYERS INCLUDING ASTM #2, #3 OR #4, THE CONTRACTOR SHALL COMPACT A 2" LAYER OF ASTM #57 INTO THE ASTM #2, #3 OR #4.
C. FINISHED GRADE SHALL BE A SMOOTH, PLANE SURFACE WITH NO SIGN OF MOVEMENT AND CONFORM TO THE LINES, GRADES AND CROSS-SECTIONS SHOWN ON CONTRACT DOCUMENTS.
3.4 PAVEDRAIN PERMEABLE ARTICULATING CONCRETE BLOCK INSTALLATION
A. REFER TO: PAVEDRAIN INSTALLATION MANUAL (LATEST EDITION)
B. HAND OR MECHANICAL PLACING PAVEDRAIN UNITS
1. THE CONTRACTOR SHALL DETERMINE THE BEST STARTING POINT OF THE PAVEDRAIN UNIT INSTALLATION TO CONFORM TO THE LINES, GRADES AND ELEVATIONS SHOWN ON THE CONTRACT DOCUMENTS.
2. PLACE PAVEDRAIN UNITS TIGHT TOGETHER IN RUNNING BOND PATTERN SUCH THAT ONE UNIT IS DIRECTLY IN CONTACT WITH ONE HALF OF THE TWO ADJACENT UNITS. PLACE UNITS IN SUCH A MANNER AS TO ENSURE THAT THE PATTERN REMAINS SQUARE TO CURBS, TRANSITIONS OR ADJACENT PAVEMENTS.
3. VERIFY THAT EACH PAVEDRAIN UNIT MAKES CONTACT WITH THE GEOGRID OR OPEN-GRADED AGGREGATE SUB-BASE AND IS TIGHTLY ENGAGED WITH ADJACENT UNITS.
4. WHEN NECESSARY, MAKE PARTIAL UNITS FROM SAW CUTTING SOLID, ARCH-LESS PAVEDRAIN UNITS. TRANSITIONS AGAINST CURBS AND OTHER RIGID PAVEMENTS SHOULD BE MADE WITH MAXIMUM ONE-HALF (1/2) INCH GAPS UTILIZING SOLID, END AND HALF PAVEDRAIN UNITS.
C. ADJUSTMENTS
1. MINOR ADJUSTMENTS TO PROPERLY ENGAGE PAVEDRAIN UNITS SHALL BE MADE WITH A DEAD BLOW HAMMER OR RUBBER MALLETT.
2. ONCE ALL PAVEDRAIN UNITS HAVE BEEN INSTALLED, MINOR DIFFERENTIAL HEIGHTS BETWEEN UNITS CAN BE CORRECTED WITH A SMALL NON-VIBRATORY SINGLE OR DOUBLE BARREL ROLLER COMPACTOR OR VIBRATORY PLATE COMPACTOR. WHEN USING PLATE COMPACTOR, PROTECT UNITS WITH NONWOVEN GEOTEXTILE OR MAT TO ELIMINATE SCUFFING.
3. INSPECT COMPLETED INSTALLATION AND REPLACE ANY CRACKED OR DAMAGED UNITS.
3.5 TOLERANCES
A. NO INDIVIDUAL PAVEDRAIN UNIT SHALL PROTRUDE MORE THAN ONE-QUARTER (1/4) INCH WITHIN THE PLANE OF FINAL PLACED UNITS/MATS.
B. NO GAP BETWEEN THE INDIVIDUAL PAVEDRAIN UNITS SHALL EXCEED ONE-HALF (1/2) INCH.
3.6 FINISHING
A. THE JOINTS BETWEEN THE PAVEDRAIN UNITS DO NOT REQUIRE BACKFILLING WITH SMALLER AGGREGATE JOINT MATERIAL OR SAND IN ORDER TO FUNCTION PROPERLY. THE JOINTS ARE DESIGNED TO BE LEFT OPEN; THIS INCLUDES FOLLOWING MAINTENANCE OF THE PAVEDRAIN SYSTEM.

3.7 POST INSTALLATION CERTIFICATION

- A. UPON COMPLETION OF THE PAVEDRAIN INSTALLATION, THE SURFACE INFILTRATION RATE OF THE PERMEABLE PAVEMENT AREA SHALL BE VERIFIED IN ACCORDANCE WITH ASTM C1781 OR C1701 TO CONFIRM THE REQUIRED INFILTRATION RATE AS PER TABLE 1 IN THIS SPECIFICATION.
B. IF THE SYSTEM FAILS TO PERFORM AS REQUIRED IN TABLE 1 OF THIS SPECIFICATION, IT SHALL BE REMOVED AND REPLACED AT THE SUPPLIER'S EXPENSE.
C. THE EXPENSES ASSOCIATED WITH THIS POST INSTALLATION INFILTRATION VERIFICATION ARE INCLUDED IN THE COST OF THE PERMEABLE SYSTEM AND PROVIDED BY THE SUPPLIER.
3.8 INSPECTION AND MAINTENANCE OF P-ACB SYSTEM
A. REFER TO: PAVEDRAIN MAINTENANCE MANUAL (LATEST EDITION)
B. THE MANUFACTURER'S REPRESENTATIVE OF THE P-ACB SHALL PROVIDE A MINIMUM 36 MONTH MAINTENANCE PROGRAM; INCLUDING A VISUAL INSPECTION REPORT WITH PHOTOS AND A RECOMMENDED CLEANING SCHEDULE WITH A VACUUM TRUCK SUCH AS THE ELGIN@ WHIRLWIND@ OR MEGAWIND@ OR WITH THE PAVEDRAIN@ VAC HEAD AND ASSOCIATED COMBINATION SANITATION VAC TRUCK. REFER TO THE PAVEDRAIN VAC HEAD INSTRUCTION MANUAL (LATEST EDITION).
C. MAINTENANCE SHALL BE REQUIRED WHEN EITHER OF THE FOLLOWING TWO CONDITIONS ARE MET:
1. THE SURFACE INFILTRATION RATES OF MORE THAN 75% OF THE TOTAL PERMEABLE SURFACE FALLS BELOW 10% OF THE RATE REQUIRED IN TABLE 1.
2. SURFACE PONDING REMAINS FOR 24 HOURS IN AN AREA GREATER THAN 10 SQUARE FEET OF THE PERMEABLE SURFACE.

- CONTRACTOR NOTE:
1. CONSTRUCTION AND INSTALLATION SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE PRODUCT MANUFACTURER AND/OR FAMILIAR WITH AND FOLLOWING THE RECOMMENDATIONS AND PROCEDURES STATED WITHIN THE PAVEDRAIN INSTALLATION MANUAL (LATEST ED.) AND THE PAVEDRAIN NOTES CONTAINED WITHIN SHEET C8.4.
2. WITHIN 2 WEEKS PRIOR TO THE INSTALLATION OF THE PAVEDRAIN P-ACB SYSTEM, CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH CONTRACTOR PERFORMING INSTALLATION, ENGINEER, SUPPLIER, AND ANY OTHER APPROPRIATE REPRESENTATIVE.

Plotted By: Geber, Marcus. Sheet Set: Windermere Downtown Property - Layout: C8.4 GENERAL CONSTRUCTION DETAILS - February 13, 2023. 02:00:50pm. K:\ORL_CIVIL\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C8.4 - GENERAL CONSTRUCTION DETAILS.dwg. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Kimley >>> Horn logo and contact information: 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801. PHONE: 407-898-1511. WWW.KIMLEY-HORN.COM. REGISTRY No. 35106

LICENSED PROFESSIONAL: MARCUS I. GEBER, P.E. FL LICENSE NUMBER 89199. M/G DATE: 02/09/2023. SCALE: AS SHOWN. DESIGNED BY M/G. DRAWN BY CML. CHECKED BY M/G.

GENERAL CONSTRUCTION DETAILS

WINDERMERE DOWNTOWN PROPERTY

Plotted By: Geiger, Marcus. Sheet: Windermere Downtown Property - Layout: 09.0 UTILITY DETAILS - February 13, 2023. 02:01:10pm. K:\ORL_Civil\14973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\C_X_UTILITY_DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A GENERAL **FIGURE GN**
DATE: February 11, 2011

OCU GENERAL NOTES:

- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS MAY NOT BE EXACT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
- SHOULD A PIPE EMERGENCY OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OCU DISPATCH OPERATOR (407-836-2777) AND THE OCU INSPECTOR.
- THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST SEVEN DAYS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION PROJECT BY CALLING (407) 254-9798.
- THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION BY CALLING (407) 254-9798.
- THE MATERIALS, PRODUCTS, AND CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE OCU SYSTEM SHALL BE IN CONFORMANCE WITH THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
- ALL OCU MAINS AND FACILITIES WITHIN THE LIMITS OF THE PROJECT SHALL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION.
- THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL IMMEDIATELY REPAIR ALL DAMAGES TO OCU MAINS AND FACILITIES. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY OCU, OCU MAY PERFORM REQUIRED REPAIRS AND CLEANUP. THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR.
- THE CONTRACTOR SHALL ADJUST ALL EXISTING OCU MAINS AND FACILITIES IN CONFLICT WITH NEW GRADE, NEW OR ALTERED ROADWAYS, SIDEWALKS, DRIVEWAYS, OR STORM WATER IMPROVEMENTS. OCU FACILITIES TO BE ADJUSTED INCLUDE, BUT ARE NOT LIMITED TO PIPELINES, PUMP STATIONS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, AND METERS.
- ONLY OCU SHALL OPERATE OCU WATER, WASTEWATER, AND RECLAIMED WATER VALVES. THE CONTRACTOR SHALL COORDINATE VALVE OPERATION WITH THE OCU INSPECTOR. FOR OPERATION OF MAINS NOT OWNED BY OCU, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE APPROPRIATE UTILITY REPRESENTATIVE.
- CONSTRUCTION ACTIVITIES SHALL NOT CAUSE INTERRUPTIONS IN WATER, WASTEWATER, OR RECLAIMED WATER SERVICE. THE CONTRACTOR SHALL COORDINATE PRE-APPROVED INTERRUPTIONS OF SERVICE WITH THE OCU INSPECTOR 7 WORKING DAYS IN ADVANCE.

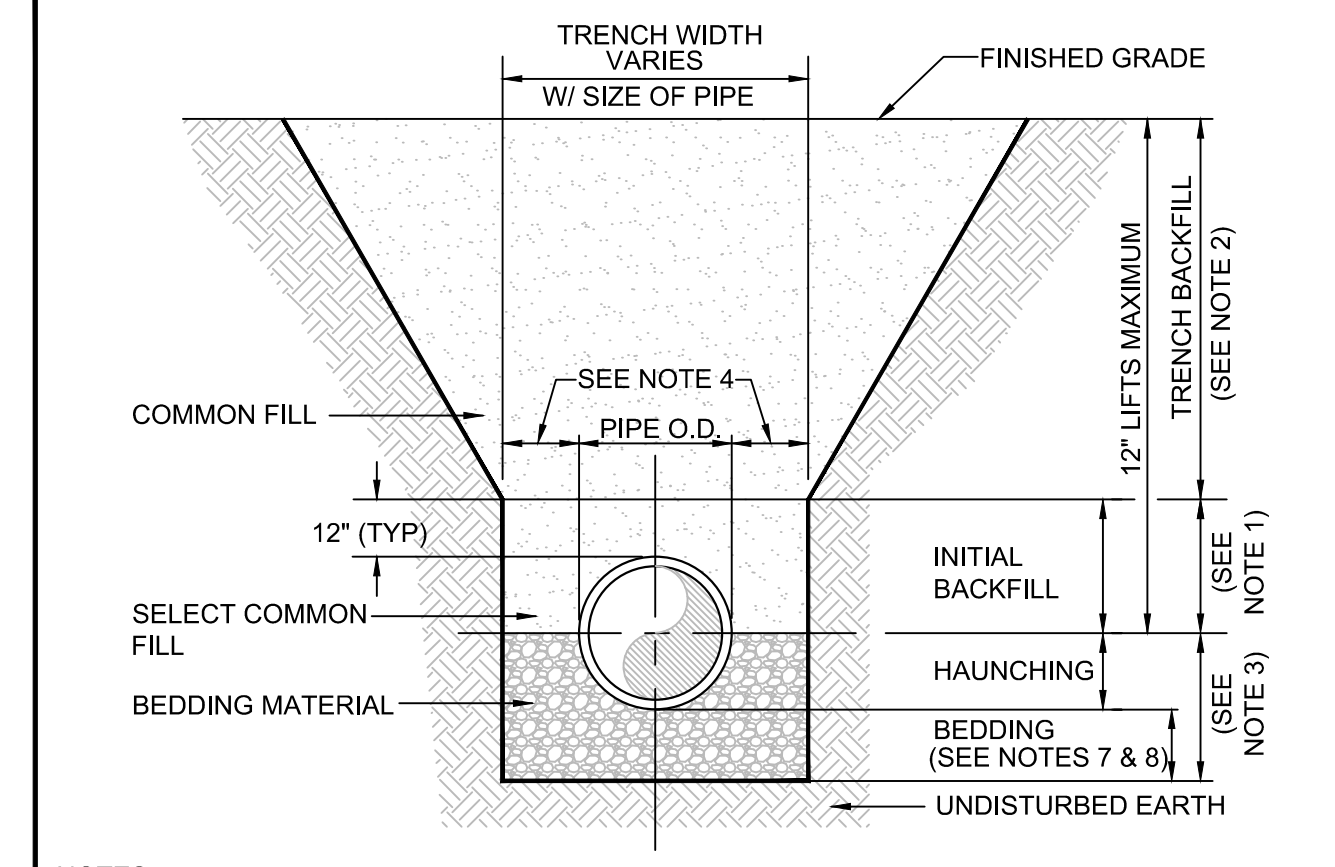
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A104-1**
DATE: February 11, 2011

- THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND/OR HAULING WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER TO OCU DEVELOPMENT ENGINEERING FOR APPROVAL PRIOR TO IMPLEMENTATION BY CONTRACTOR.
- ALL VALVES INSTALLED AS PART OF THIS CONSTRUCTION PROJECT SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT NEWLY CONSTRUCTED WATER MAINS TO ANY EXISTING WATER MAINS UNLESS CLEARED BY FDEP AND OCU.
- THE CONTRACTOR SHALL PROVIDE A JUMPER ASSEMBLY WITH A BACKFLOW PREVENTER FOR MAKING TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE IN ORDER TO CHLORINATE AND FLUSH NEW WATER MAINS WITH POTABLE WATER. ANY TEMPORARY POTABLE WATER CONNECTIONS TO RECLAIMED WATER OR FORCEMAIN SHALL ALSO BE EQUIPPED WITH A BACKFLOW PREVENTER.
- FOR PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, NO PIPE BENDING IS ALLOWED. THE MAXIMUM ALLOWABLE TOLERANCE FOR JOINT DEFLECTION IS 0.75 DEGREES (3-INCHES PER JOINT PER 20 FT STICK OF PIPE.) ALIGNMENT CHANGE SHALL BE MADE ONLY WITH SLEEVES AND FITTINGS.
- FOR NON-PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE WITH DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADII FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

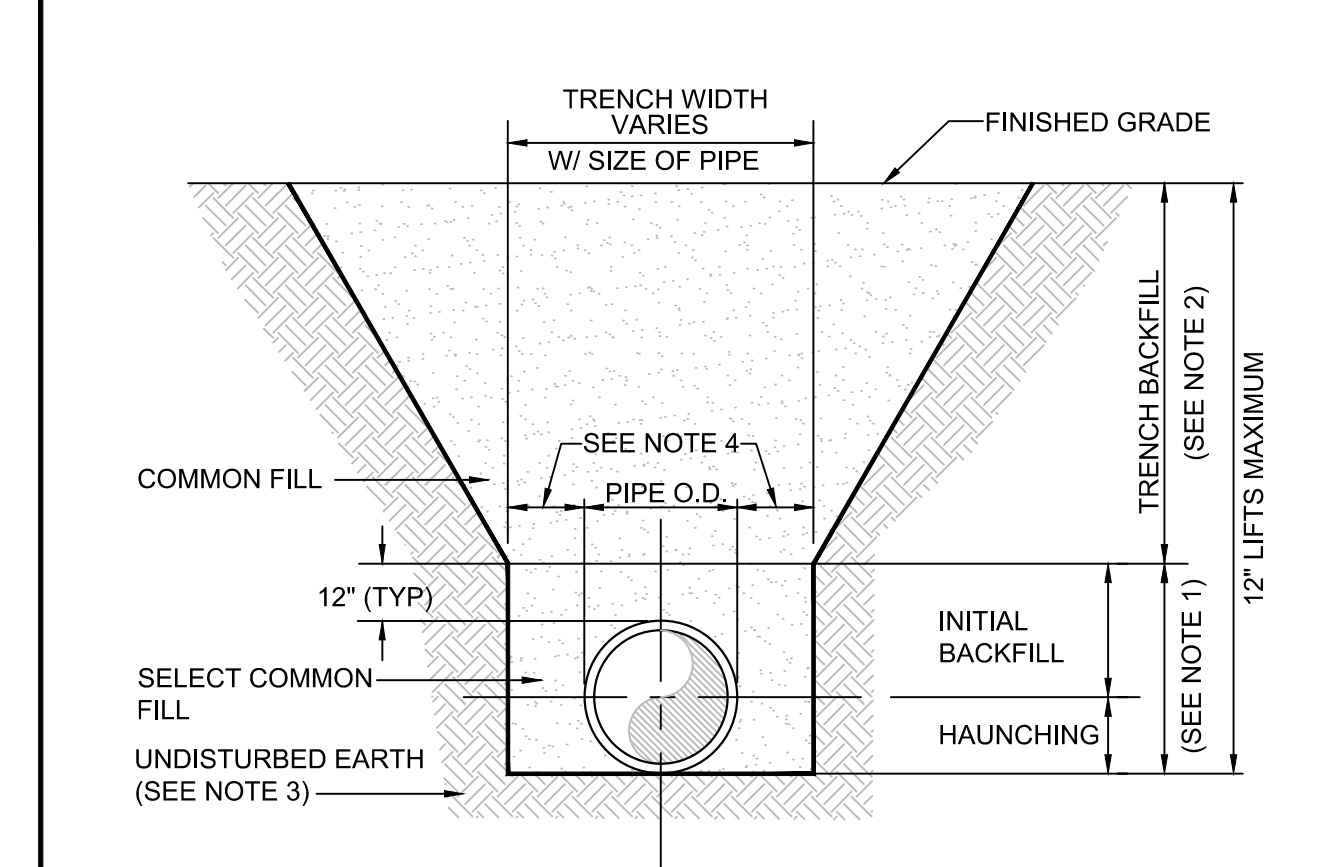
APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A101**
DATE: February 11, 2011 **BEDDING AND TRENCHING - TYPE A**



- NOTES:
- INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
 - 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
 - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
 - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
 - BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
 - DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
 - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RW UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A102**
DATE: February 11, 2011 **BEDDING AND TRENCHING - TYPE B**



- NOTES:
- INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY UTILITIES.
 - 15" MAX (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
 - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
 - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
 - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A104-1**
DATE: February 11, 2011 **RESTRAINED PIPE TABLE WATER AND RECLAIMED WATER MAINS**

TYPE	PIPE SIZE									
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	25	36	46	55	64	65	77	89	105	120
45° BEND	10	15	19	23	26	27	32	37	44	50
22-1/2° BEND	5	8	9	11	13	13	15	18	21	24
11-1/4° BEND	3	4	5	6	8	8	7	8	9	10
PLUG OR BRANCH OF TEE	53	74	97	117	135	138	166	194	231	265
VALVE	27	38	49	59	68	69	83	97	116	133
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER.									

- NOTES:
- FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
 - INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
 - WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
 - ALL INLINE VALVES SHALL BE RESTRAINED.
 - WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
 - LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW.

WORKING PRESSURE: 150 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25

THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC SOIL DESIGNATIONS, LAYING CONDITIONS, PIPE MATERIAL, ETC. FOR DIP ENCASED IN POLYETHYLENE, INCREASE THE GIVEN VALUE BY A FACTOR OF 1.25.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A104-2**
DATE: February 11, 2011 **RESTRAINED PIPE TABLE WASTEWATER FORCE MAINS**

TYPE	PIPE SIZE									
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	18	24	31	38	43	55	65	75	88	100
45° BEND	8	10	13	15	18	23	26	31	38	43
22-1/2° BEND	4	5	6	8	9	11	13	15	18	20
11-1/4° BEND	2	3	4	5	6	8	9	10	11	13
PLUG OR BRANCH OF TEE	38	50	65	79	90	117	139	163	194	223
VALVE	19	25	32	40	45	59	70	82	98	112
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER.									

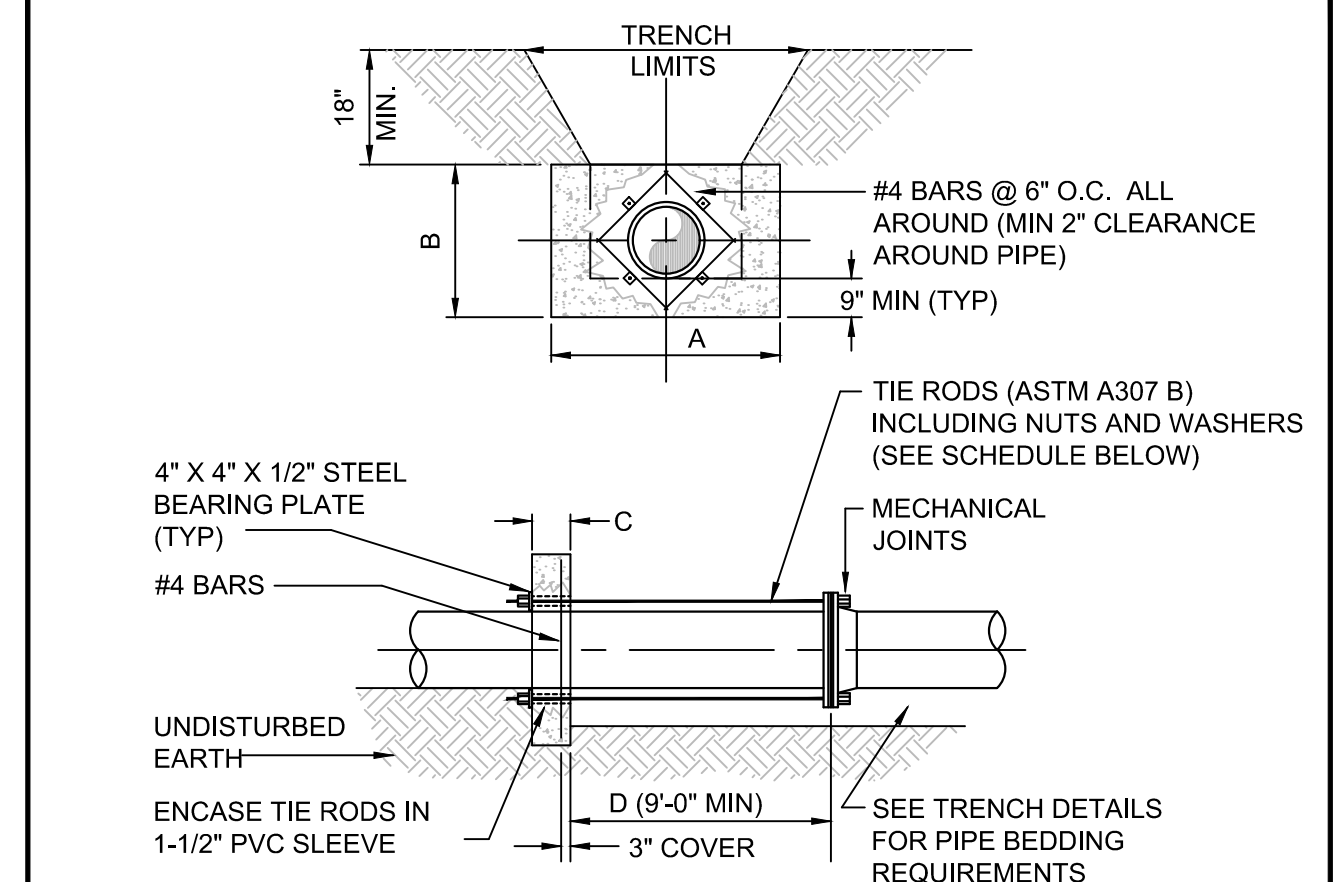
- NOTES:
- FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
 - INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
 - WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
 - ALL INLINE VALVES SHALL BE RESTRAINED.
 - WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
 - LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW.

WORKING PRESSURE: 100 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25

THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A105-1**
DATE: February 11, 2011 **THRUST COLLAR (150 psi) WATER AND RECLAIMED WATER MAINS**



- NOTES:
- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
 - MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
 - BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
 - ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
 - NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
 - DESIGN PRESSURE: 150 PSI.
 - REQUIRED FOR LINE STOPS.

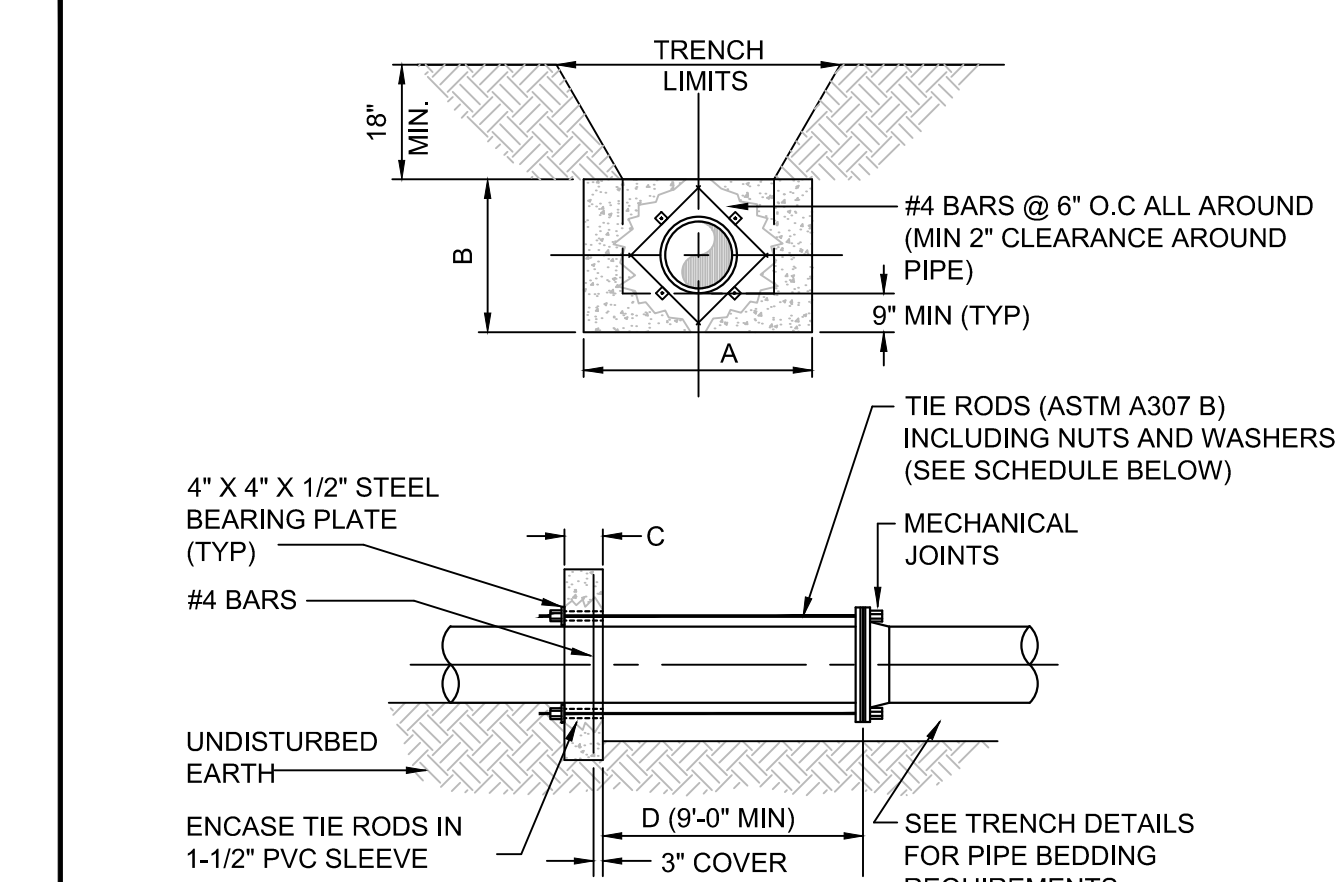
SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.0	1.0		3/4	4
12	5.0	3.0	1.0		3/4	4
16	6.0	4.0	1.5		3/4	4
20	8.0	5.0	1.5		3/4	6
24	9.0	6.0	1.5		3/4	8

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL **FIGURE A105-2**
DATE: February 11, 2011 **THRUST COLLAR (100 psi) WASTEWATER FORCE MAINS**



- NOTES:
- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
 - MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
 - BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
 - ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
 - NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
 - DESIGN PRESSURE: 100 PSI.
 - REQUIRED FOR LINE STOPS.

SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.0	2.5	1.0		3/4	4
12	4.0	3.0	1.0		3/4	4
16	5.5	3.5	1.5		3/4	4
20	7.5	4.0	1.5		3/4	4
24	8.5	5.0	1.5		3/4	6

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.

Kimley»Horn

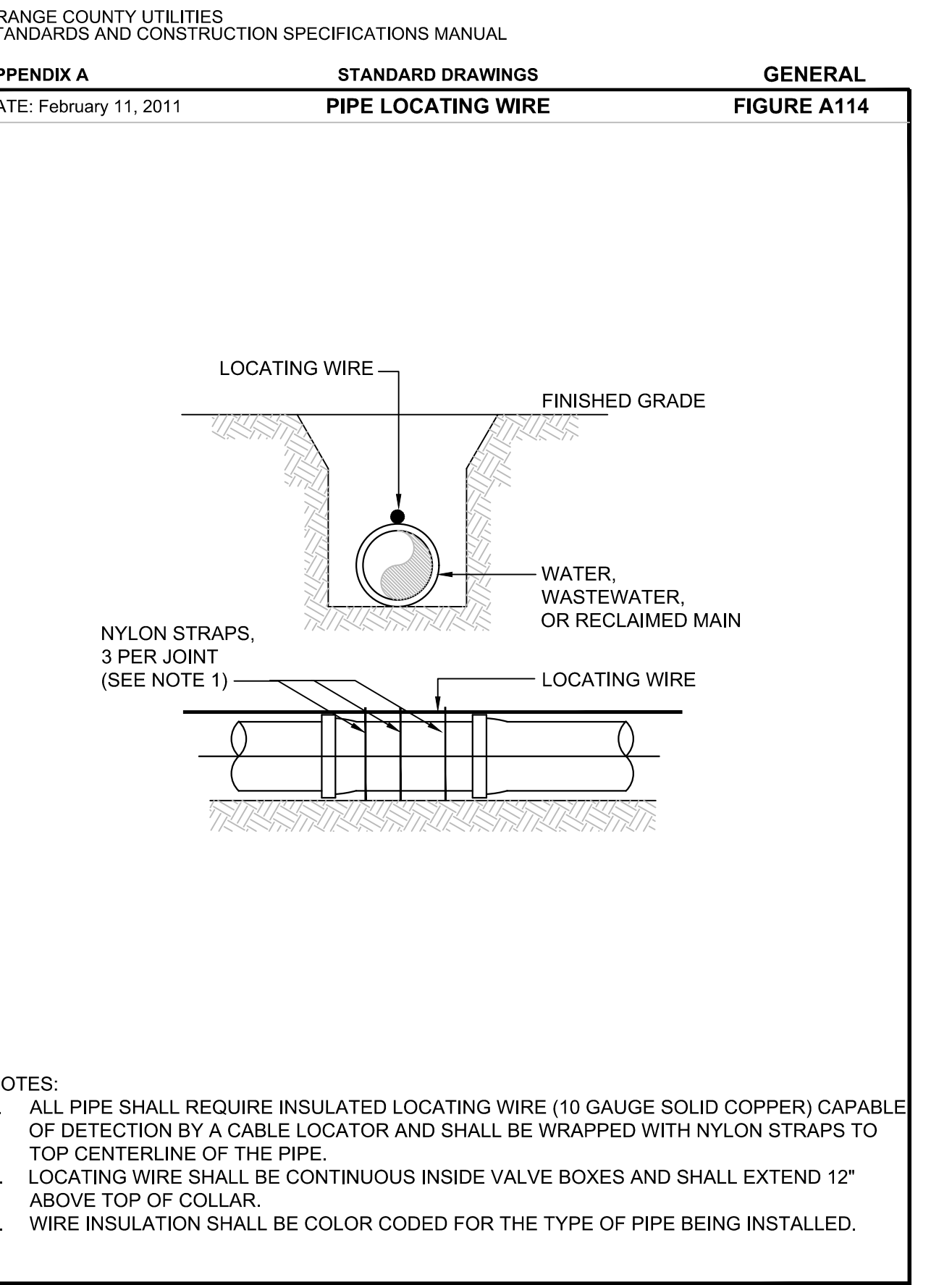
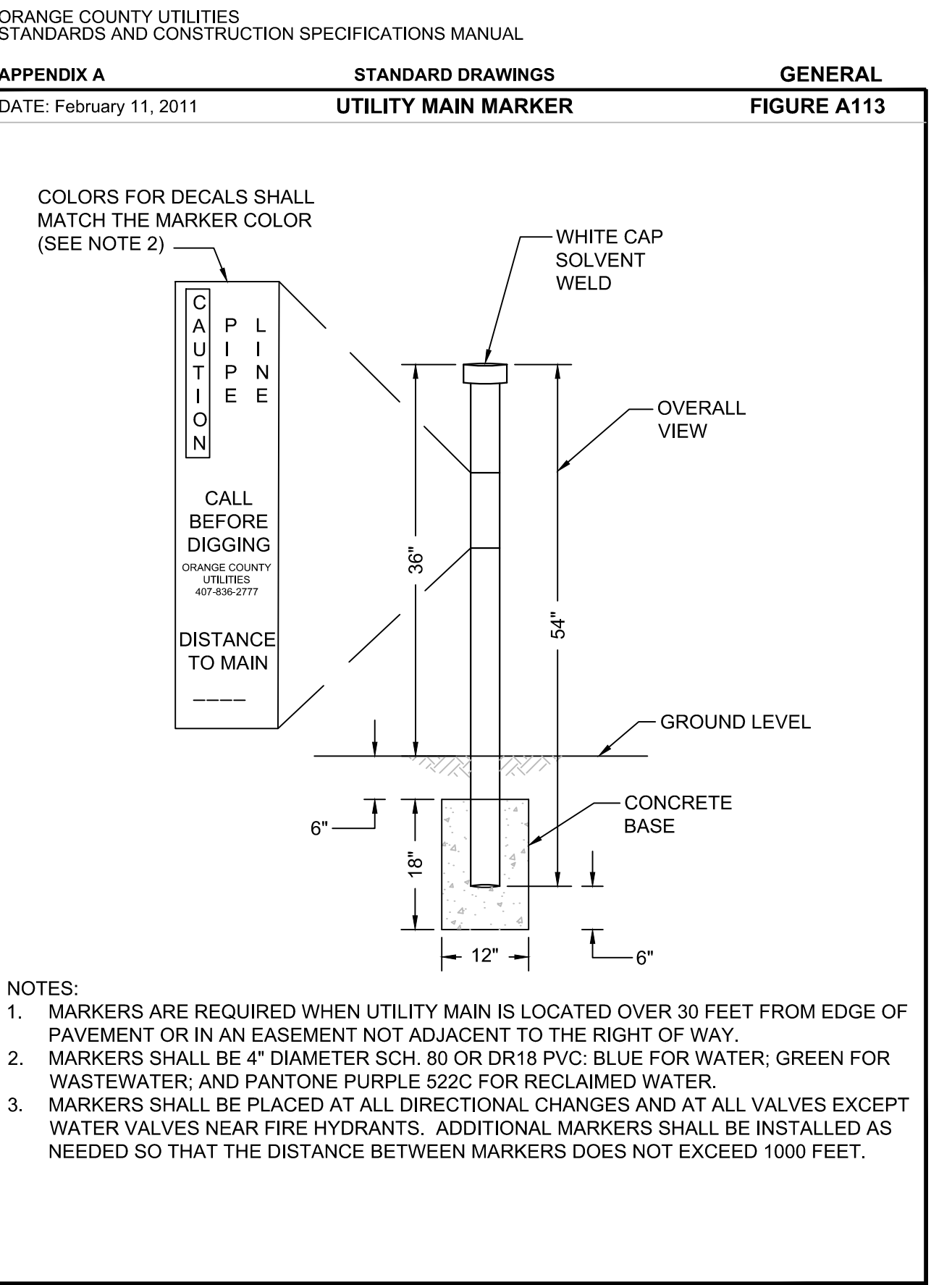
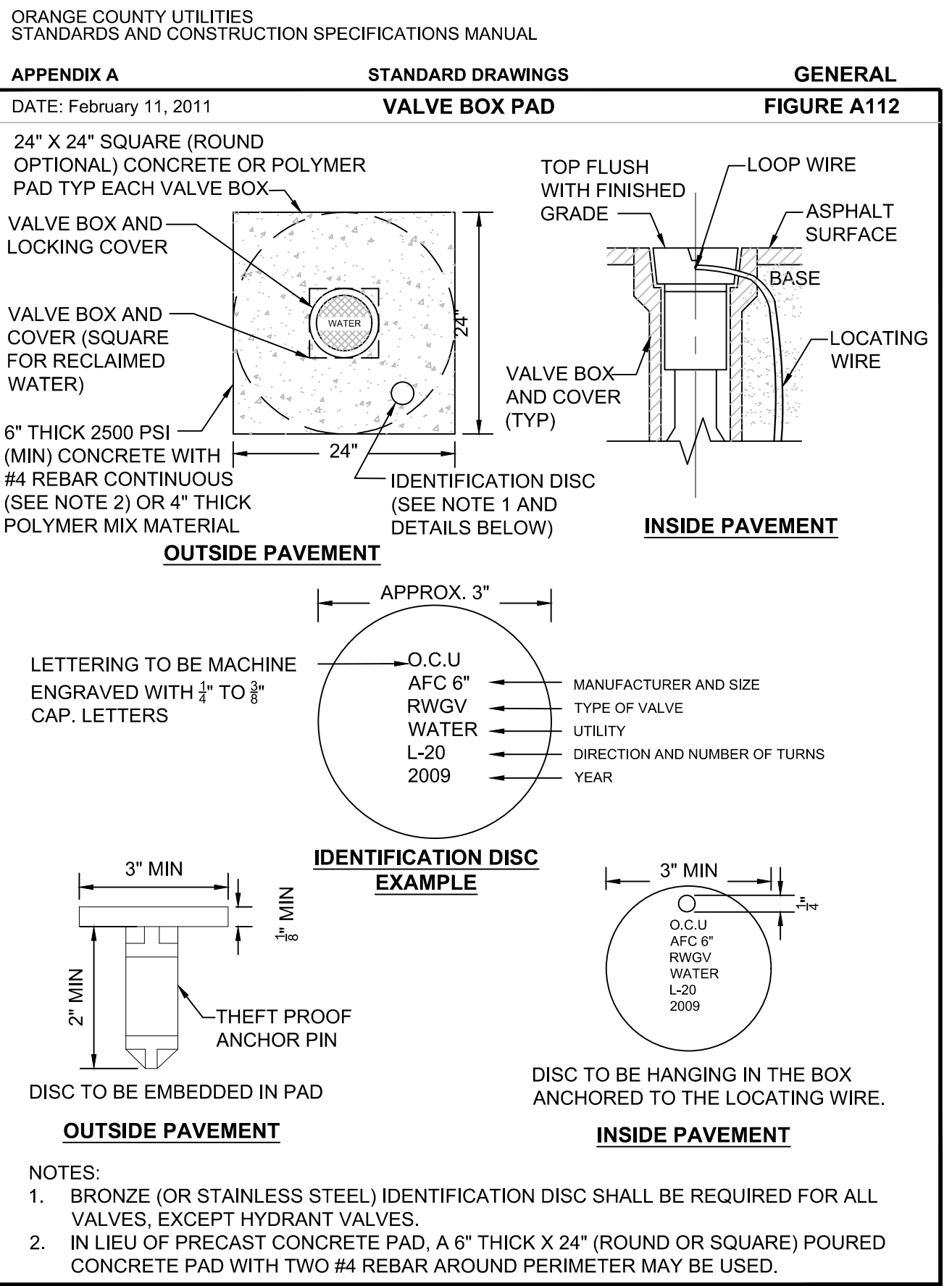
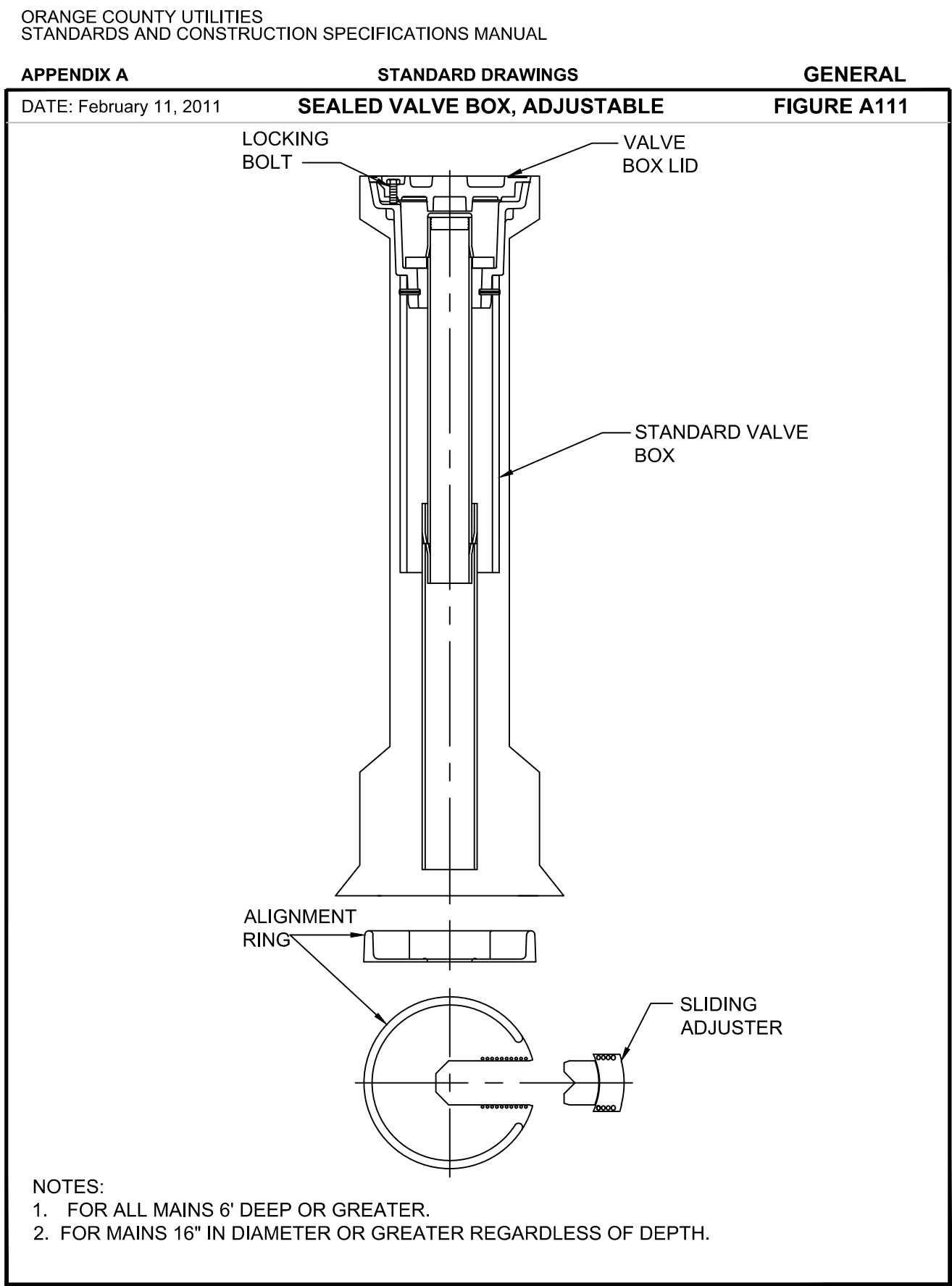
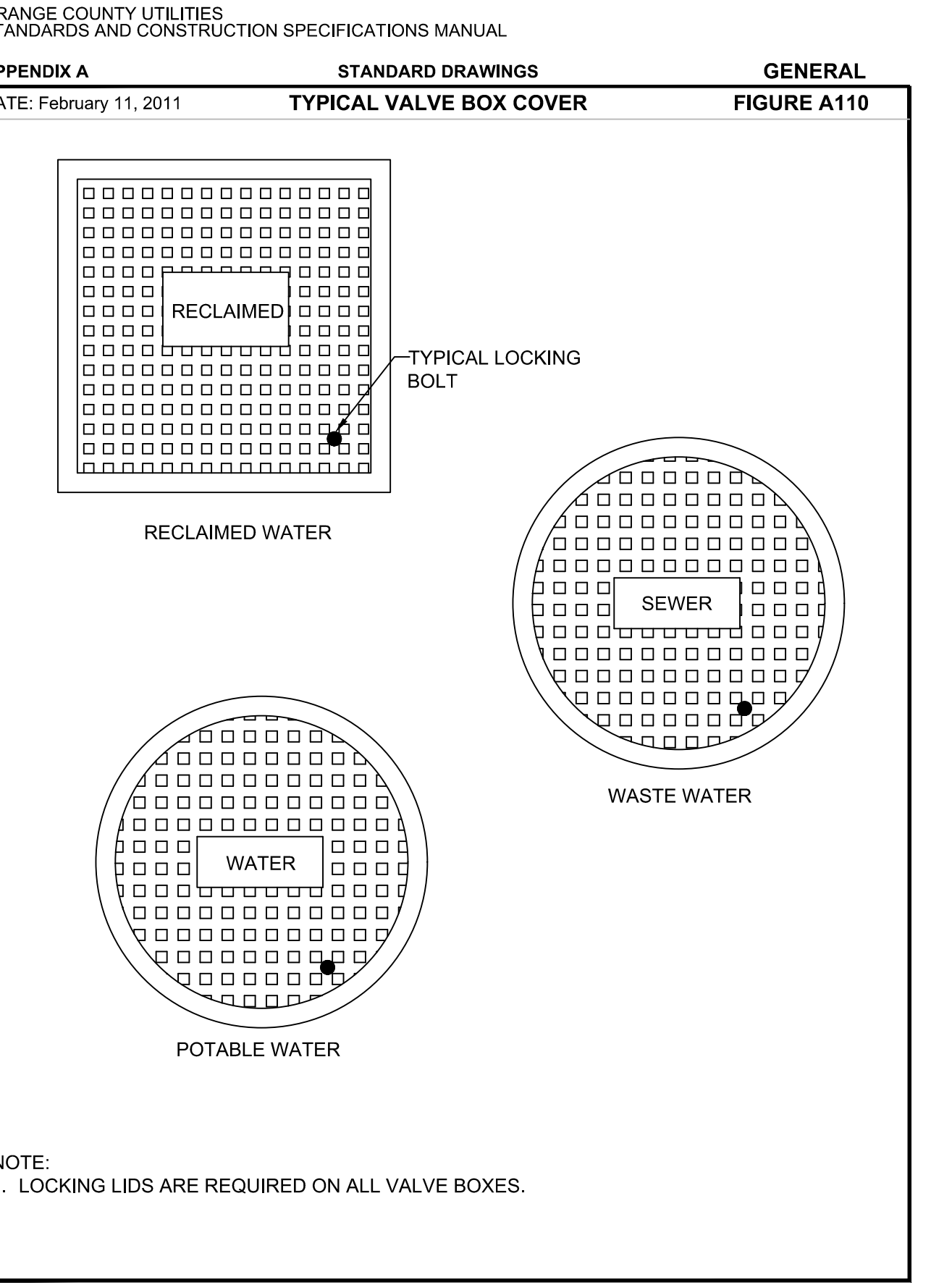
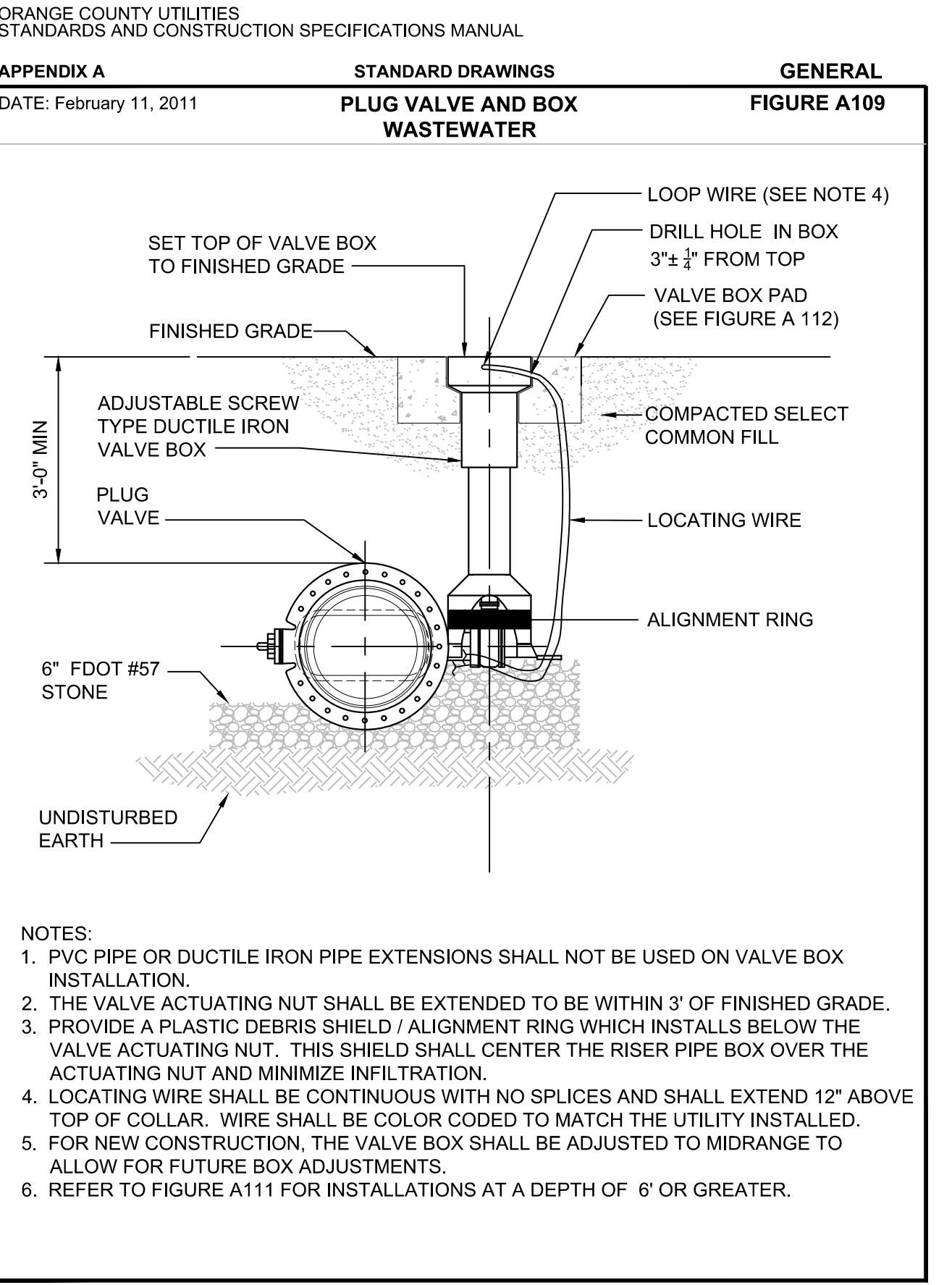
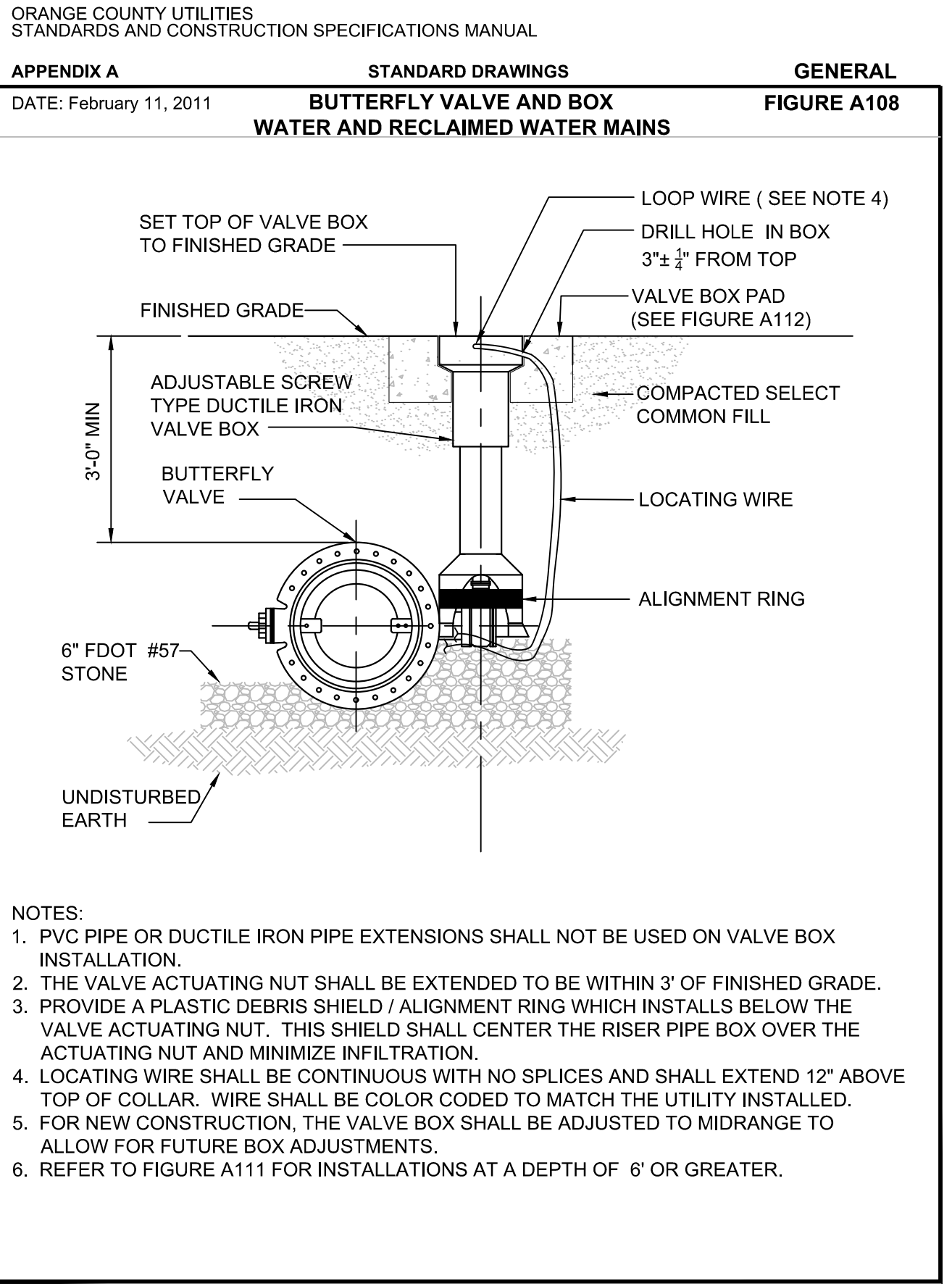
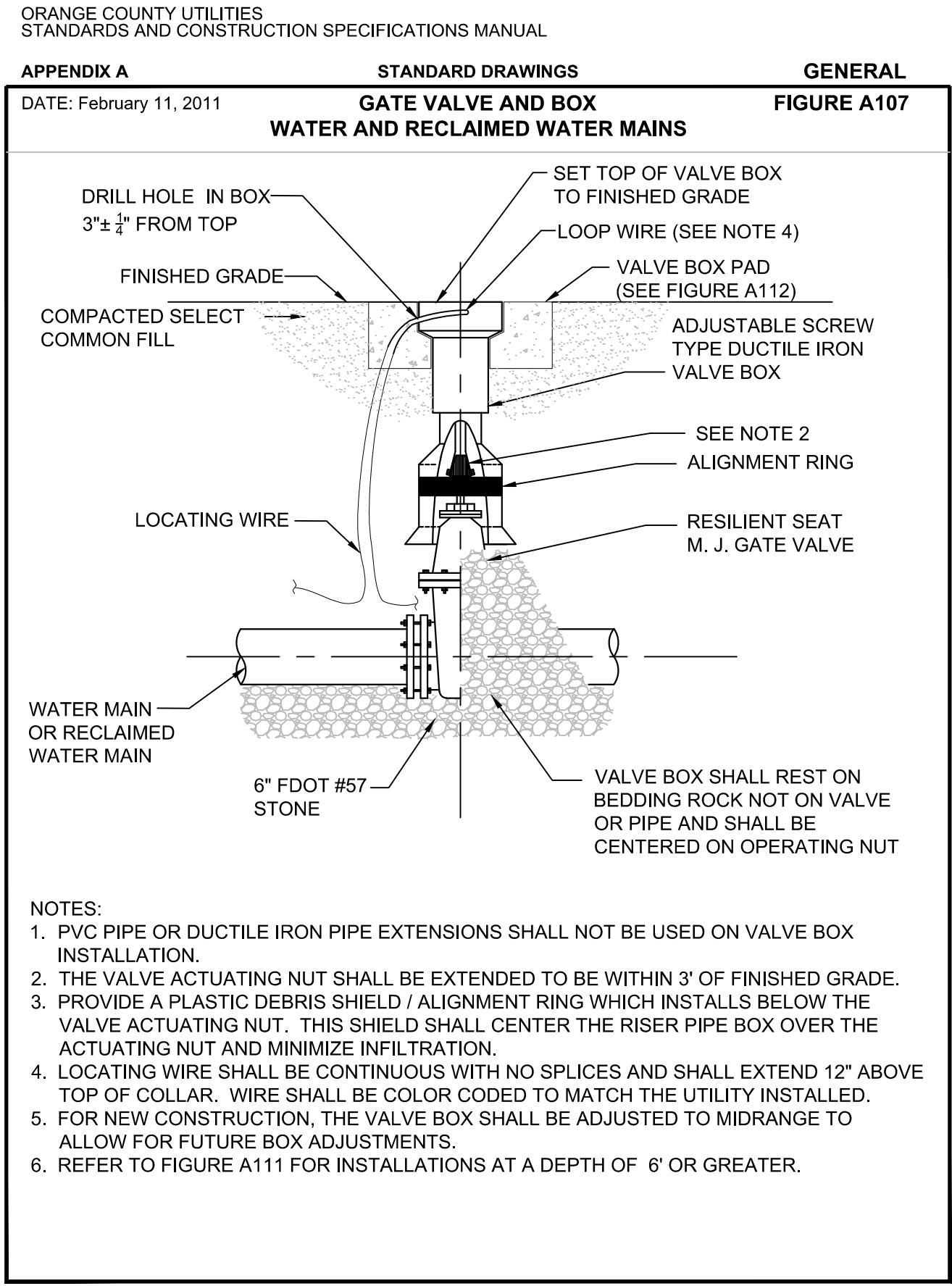
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
PHONE: 407-888-1511
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL	MARCUS I. GEIGER, P.E.
FL LICENSE NUMBER	89199
KHA PROJECT	149973004
DATE	02/09/2023
SCALE	AS SHOWN
DESIGNED BY	M/G
DRAWN BY	OML
CHECKED BY	M/G
	DATE: _____

UTILITY DETAILS

WINDERMERE DOWNTOWN PROPERTY

Plotted By: Geiser, Marcus - Sheet Set: Windermere Downtown Property - Layout: 09.1 UTILITY DETAILS - Windermere Downtown Property - CADD - CONSTRUCTION - PlanSheets - C:\X - UTILITY - DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



KHA PROJECT 149973004		LICENSED PROFESSIONAL MARCUS I. GEISER, P.E.	Kimley»Horn © 2023 KIMLEY-HORN AND ASSOCIATES, INC. 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 PHONE: 407-898-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106
DATE 02/09/2023	SCALE AS SHOWN	FL LICENSE NUMBER 89199	
DESIGNED BY M/G		CHECKED BY M/G	REVISIONS
DRAWN BY CML		DATE	BY
UTILITY DETAILS		TOWN OF WINDERMERE FL	
WINDERMERE DOWNTOWN PROPERTY		SHEET NUMBER C9.1	

Plotted By: Geiger, Marcus. Sheet Set: Windermere Downtown Property. Layout: 09.2 UTILITY DETAILS February 13, 2023 02:01:25pm k:\ORL_Civil\149373004-Windermere Downtown Property\CADD\CONSTR\SheetSet\CX\UTILITY DETAILS.dwg This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

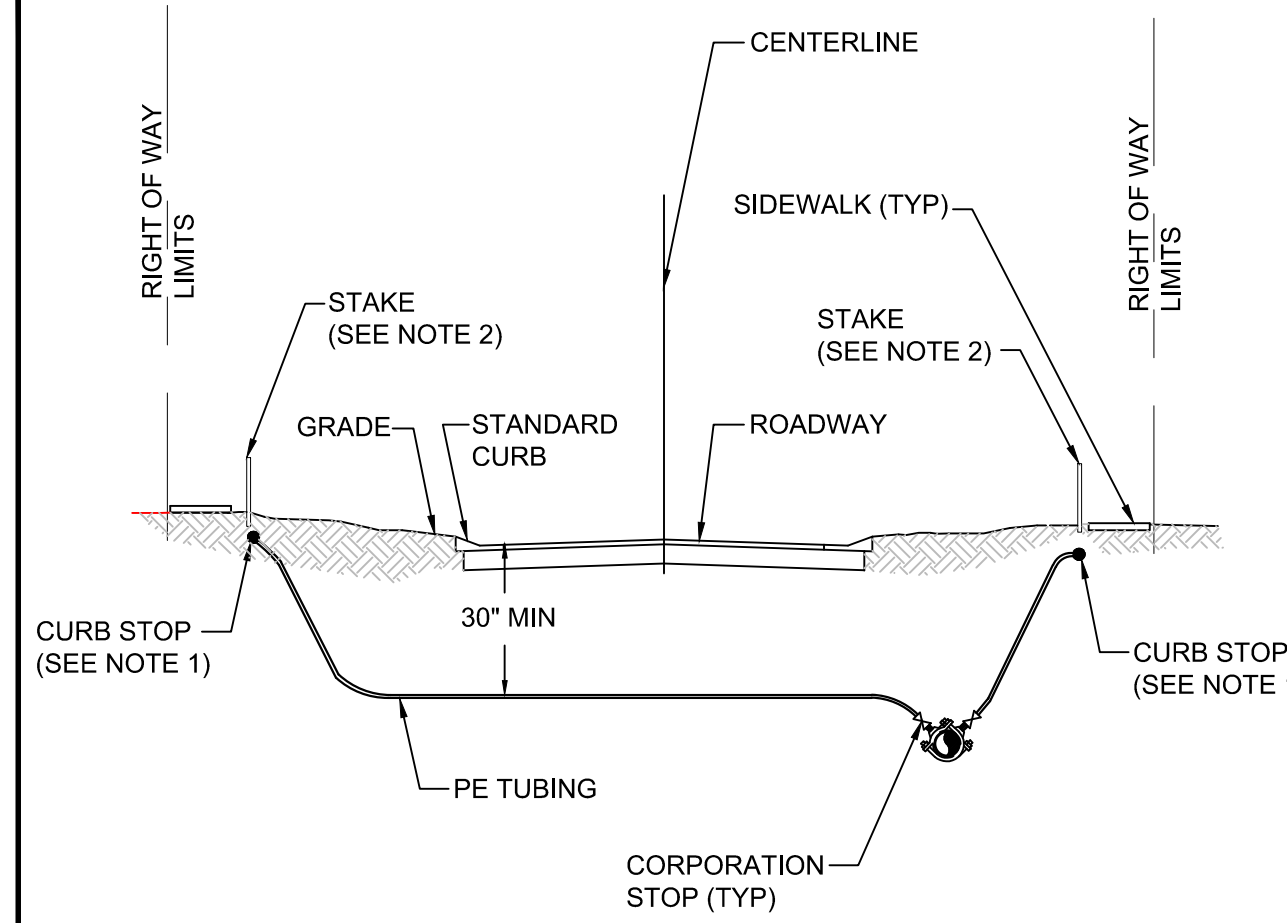
APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS FIGURE A116

PROPOSED UTILITY	HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS							
	POTABLE WATER		RECLAIMED WATER		WASTEWATER (GRAVITY & FM)		STORM SEWER	
	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT
POTABLE WATER	3' NOTE 1	12"	3' NOTE 1 & 3	12" NOTE 3	6' NOTE 3	12" NOTE 3	3' NOTE 1 & 3	12"/18" NOTE 2 & 3
RECLAIMED WATER	3' NOTE 1 & 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
WASTEWATER (GRAVITY AND FM)	6' NOTE 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
RIGHT OF WAY	3' NOTE 1	N/A	3' NOTE 1	N/A	3' NOTE 1	N/A	N/A	N/A

- NOTES:
- THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTHS, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH. THE 18-INCH SEPARATION REQUIREMENT APPLIES WHEN THE STORM PIPE CROSSES ABOVE THE OCU MAIN, AND WHEN THE STORM PIPE HAS A DIAMETER EQUAL TO OR GREATER THAN 24 INCHES. OTHERWISE, THE REQUIRED SEPARATION IS 12 INCHES.
 - THIS SEPARATION REQUIREMENT COMPLIES WITH MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED INDIVIDUALLY BY BOTH FDEP AND OCU.
 - DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
 - NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

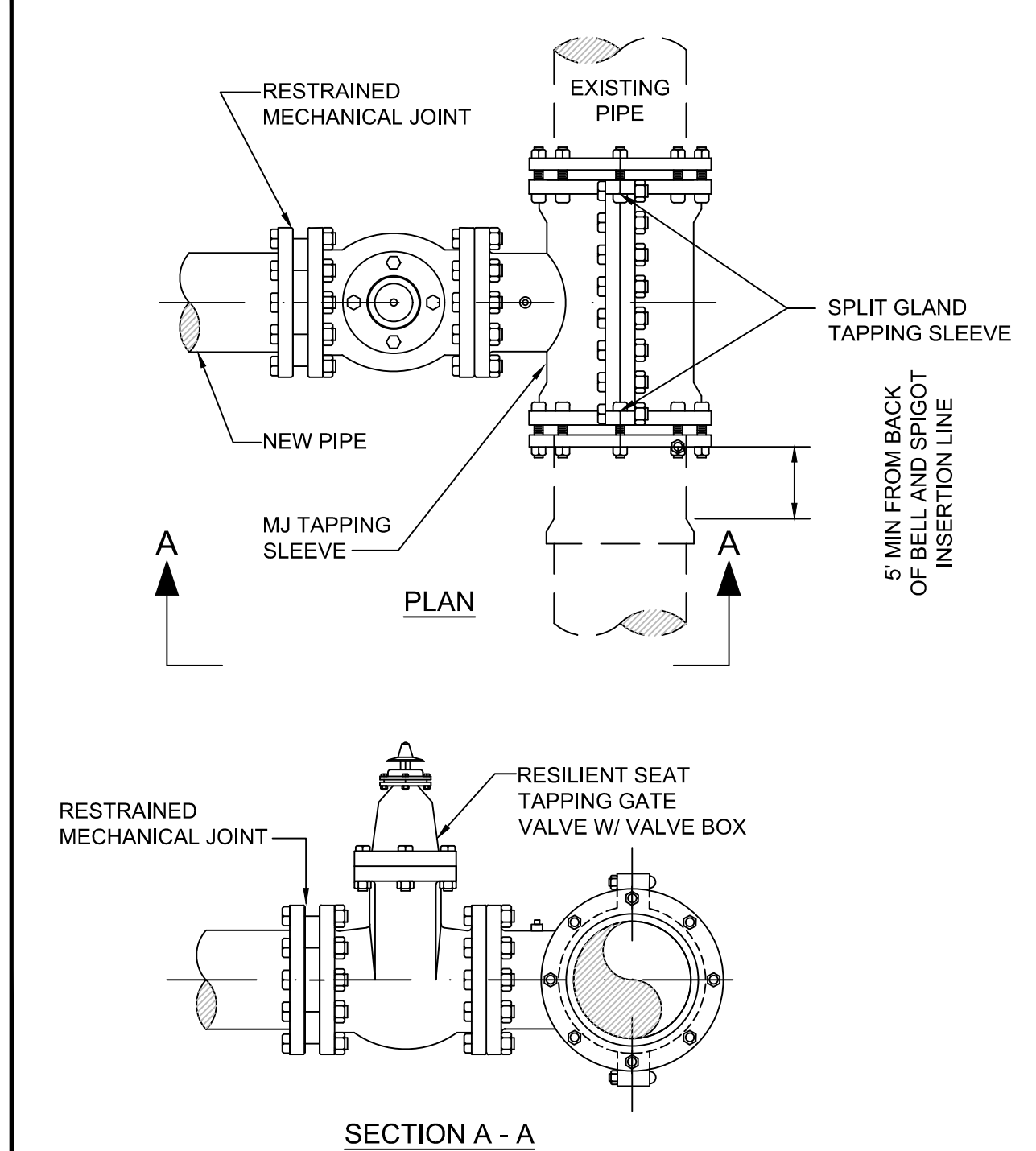
APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 WATER AND RECLAIMED WATER SERVICES (TYPICAL) FIGURE A120



- NOTES:
- CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
 - CONTRACTOR TO LOCATE CURB STOP BY PLACING A 2" X 2" SQUARE STAKE RISING 24" ABOVE THE GROUND. TOP OF STAKE SHALL BE PAINTED THE COLOR OF THE UTILITY SERVICE AND LABELED WITH THE LOT NUMBER(S) IT SERVES.

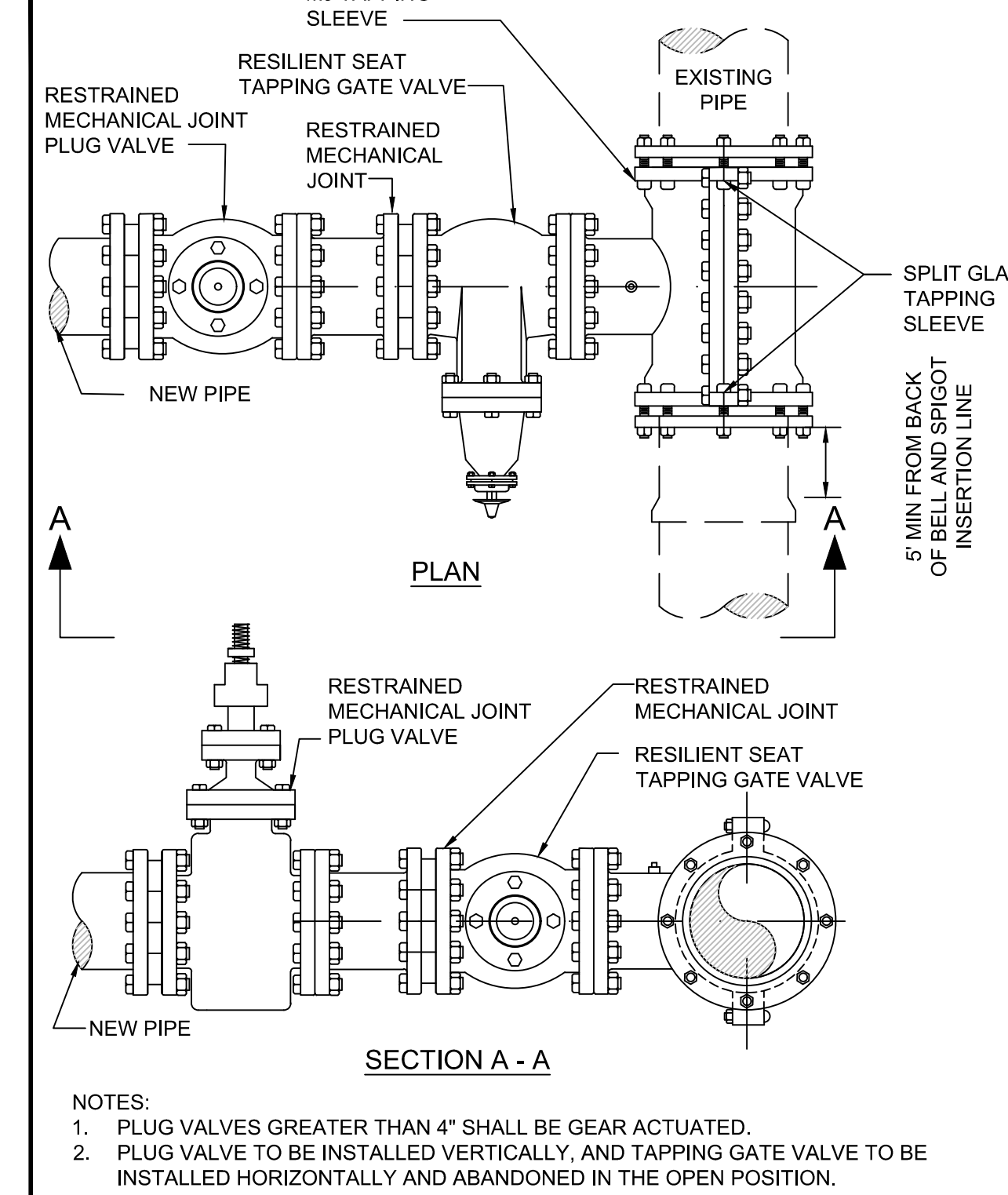
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 MJ TAPPING SLEEVE AND GATE VALVE ASSEMBLY FOR WATER AND RECLAIMED WATER FIGURE A121-1



ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

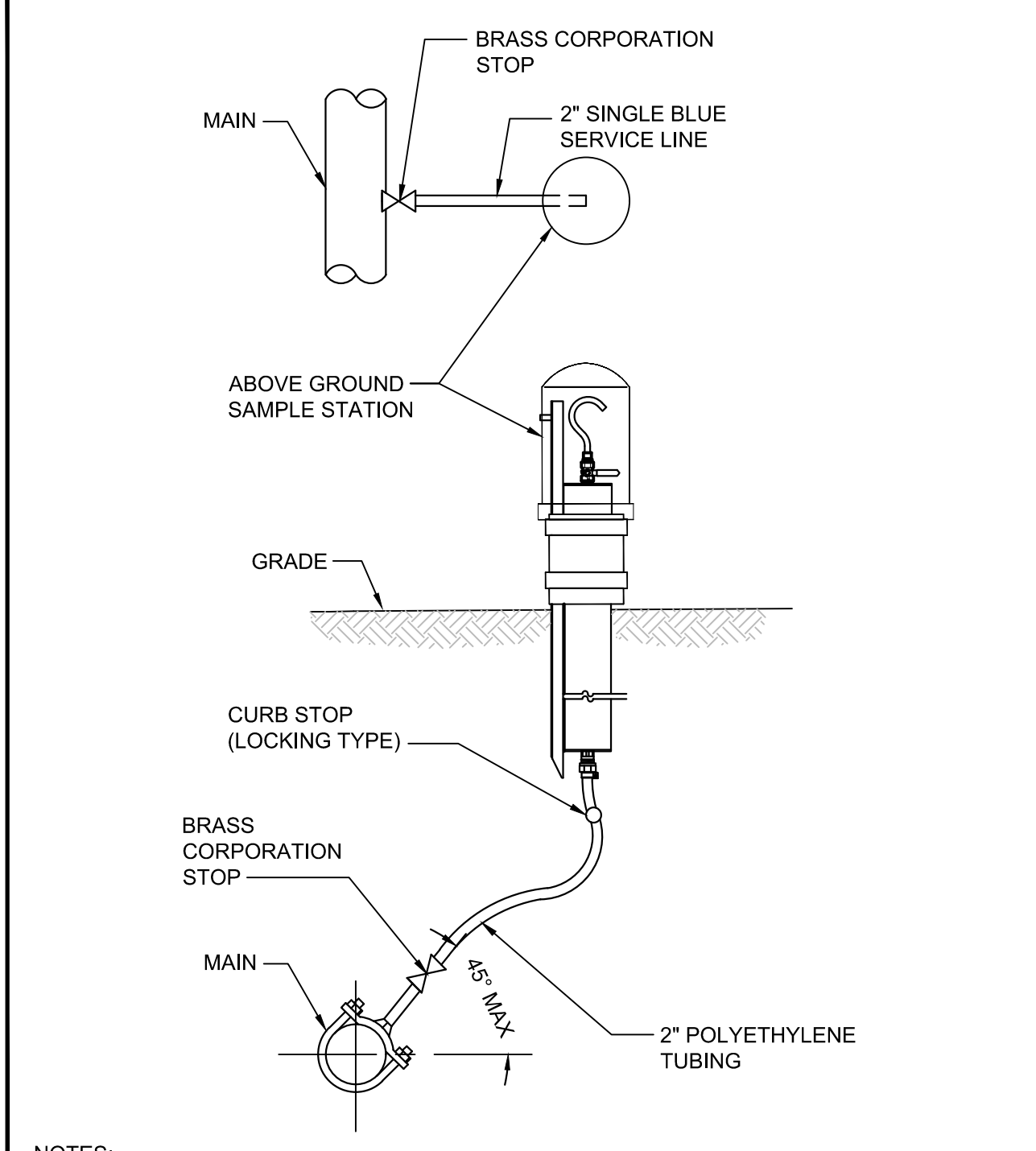
APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 MJ TAPPING SLEEVE AND GATE VALVE WITH PLUG VALVE FOR WASTEWATER FIGURE A121-2



- NOTES:
- PLUG VALVES GREATER THAN 4" SHALL BE GEAR ACTUATED.
 - PLUG VALVE TO BE INSTALLED VERTICALLY, AND TAPPING GATE VALVE TO BE INSTALLED HORIZONTALLY AND ABANDONED IN THE OPEN POSITION.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

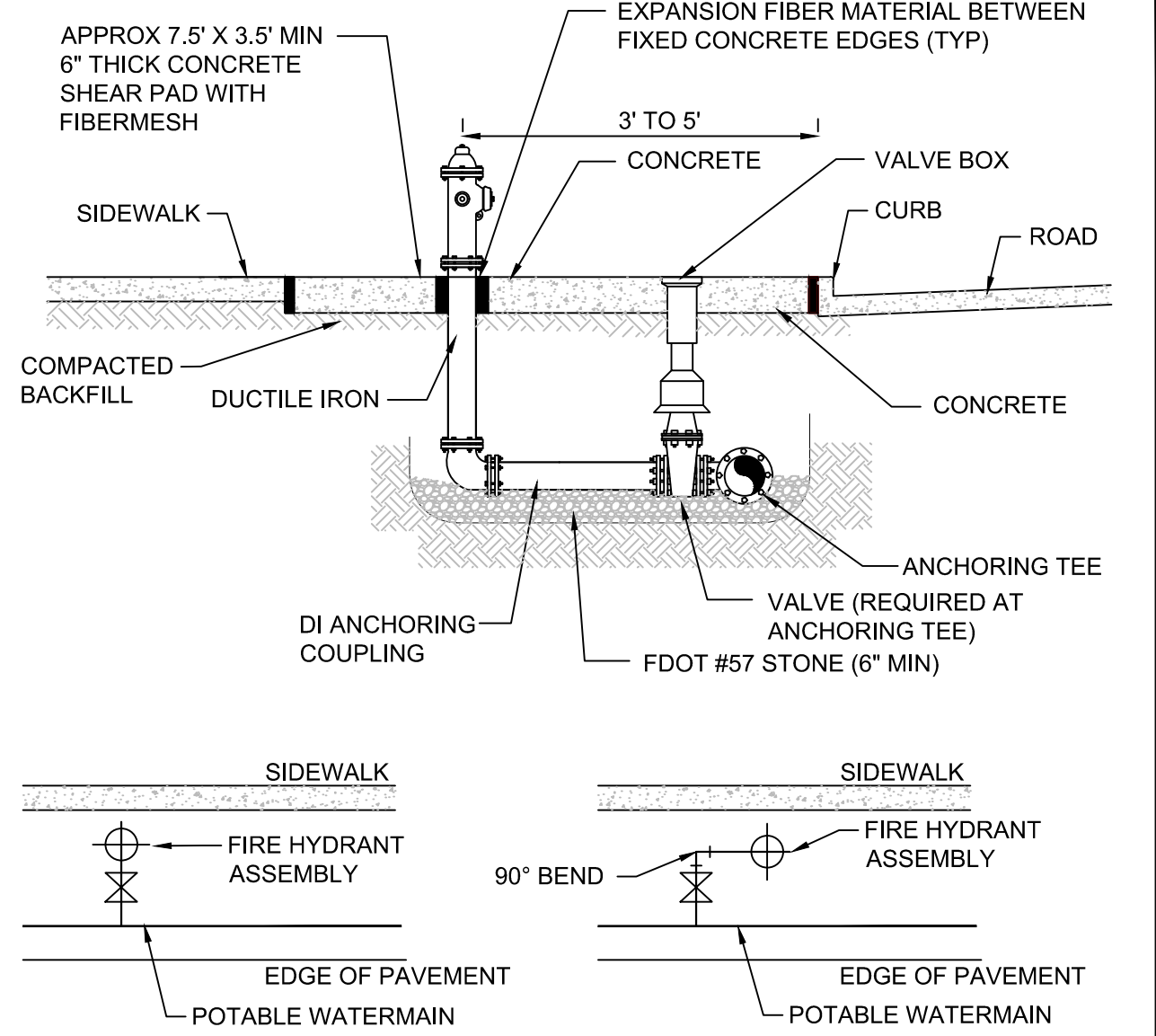
APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 WATER SAMPLE STATION FIGURE A201



- NOTES:
- A 2 INCH SAMPLE STATION INSTALLED AT THE END OF A CUL-DE-SAC CAN ALSO SERVE AS A BLOW-OFF VALVE WHEN BOTH ARE REQUIRED.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

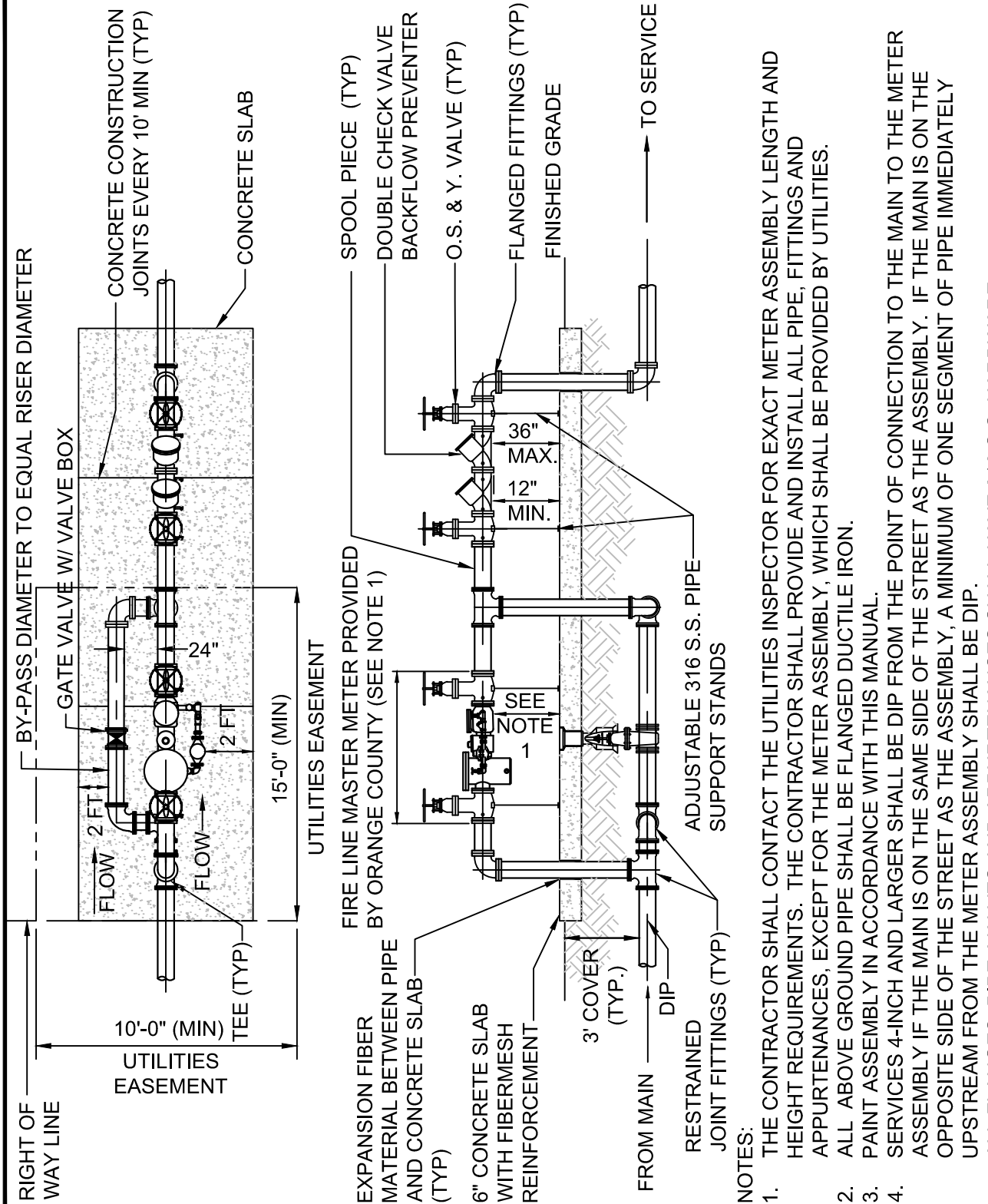
APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 FIRE HYDRANT ASSEMBLY FIGURE A203



- NOTES:
- CENTER OF THE FLANGE CONNECTION SHALL BE 5" FROM THE TOP OF THE SLAB.
 - BARREL COLORS: PRIVATE HYDRANTS - RED; PUBLIC HYDRANTS - SILVER.
 - BONNET COLORS: TO BE DETERMINED BY FLOW TEST.

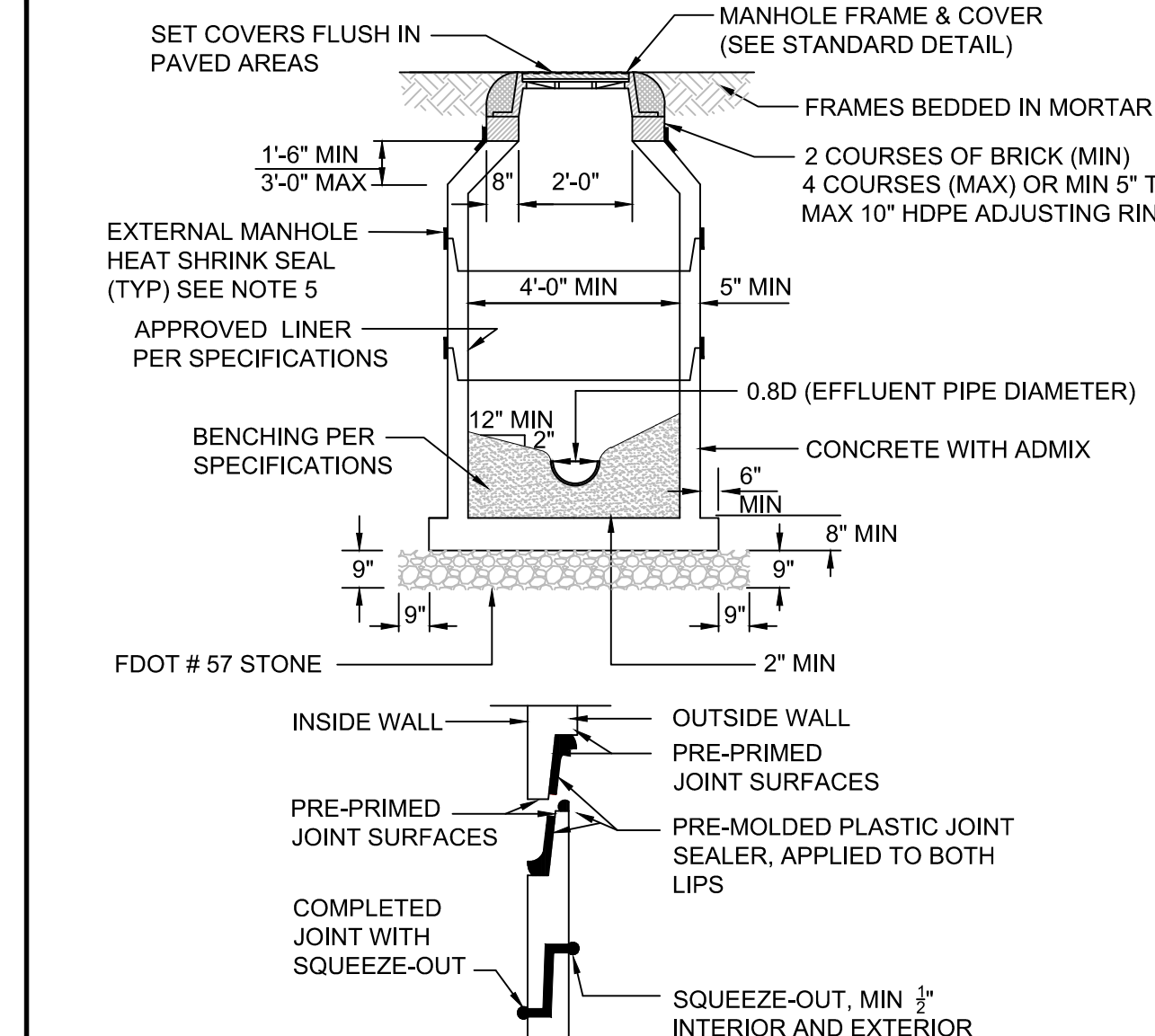
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 FIRE LINE MASTER METER ASSEMBLY FIGURE A204



ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 PRECAST CONCRETE MANHOLE FIGURE A301



- NOTES:
- DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. USE MANHOLE CONNECTION DETAIL.
 - EGGENTRIC CONE DESIGN MAY BE USED FOR CONFLICT RESOLUTION WITH OCU APPROVAL.
 - A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO A FLOW STREAM.
 - LIFT HOLES THROUGH STRUCTURE ARE NOT PERMITTED.
 - WRAP TIGHTLY AROUND CASTING JOINTS AND APPLY HIGH INTENSITY PROPANE TORCH TO EFFECTIVELY SEAL THEM FROM GROUND WATER INFILTRATION.
 - HDPE ADJUSTING RINGS MAY BE SUBSTITUTED FOR BRICK RISERS.
 - SECTION HEIGHTS VARY AS REQUIRED, AND AS AVAILABLE, FROM APPROVED MANUFACTURERS LISTED IN APPENDIX D.

NO.	REVISIONS	DATE	BY

Kimley-Horn

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
189 S ORANGE AVE. SUITE 1000, ORLANDO, FL 32801
PHONE: 407-898-1511
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL
149973004
DATE: 02/09/2023
SCALE: AS SHOWN
DESIGNED BY: M/G
DRAWN BY: CML
CHECKED BY: M/G
MARCUS I. GEIGER, P.E.
FL LICENSE NUMBER: 89199
REGISTRY NO. 35106

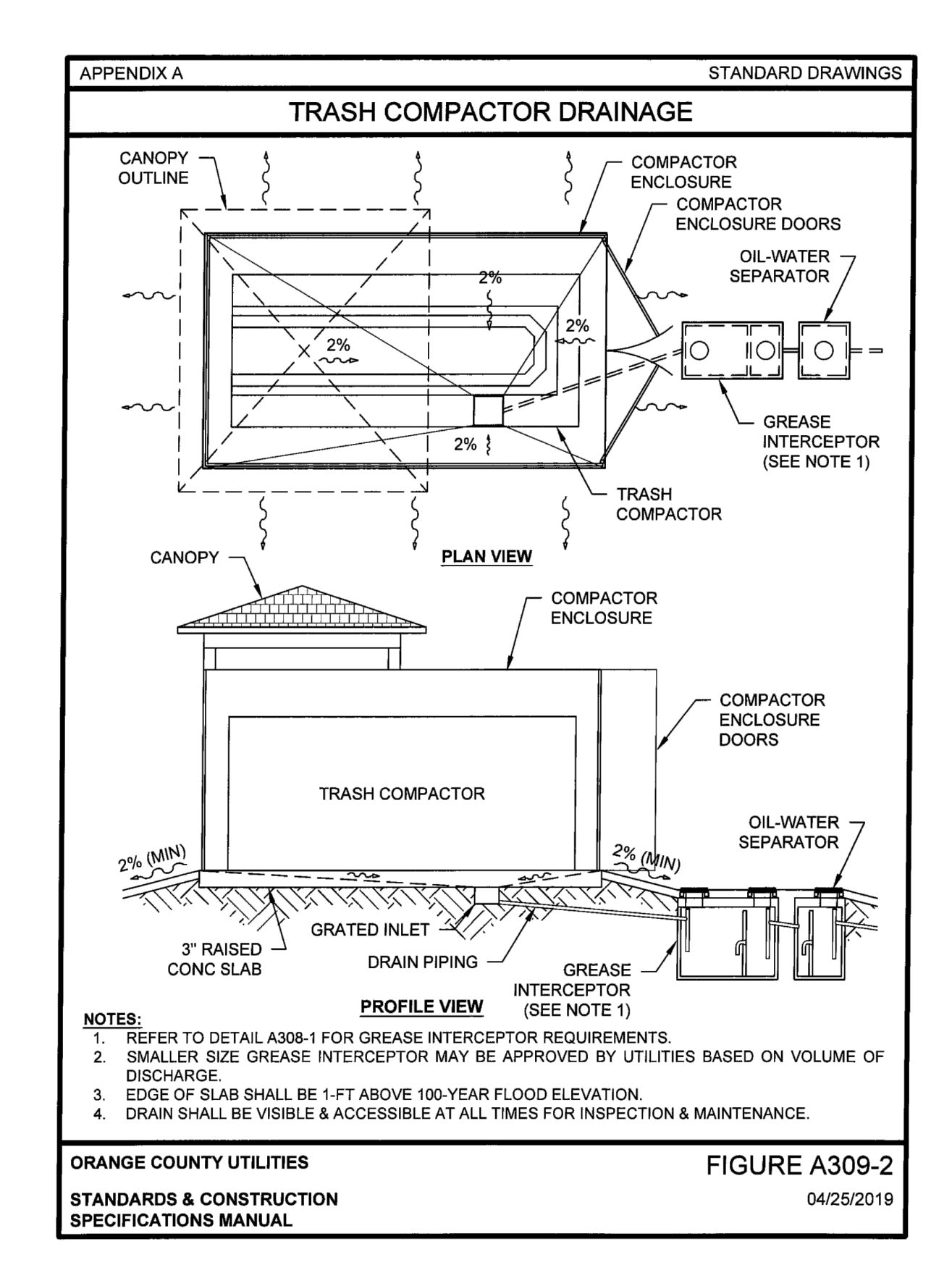
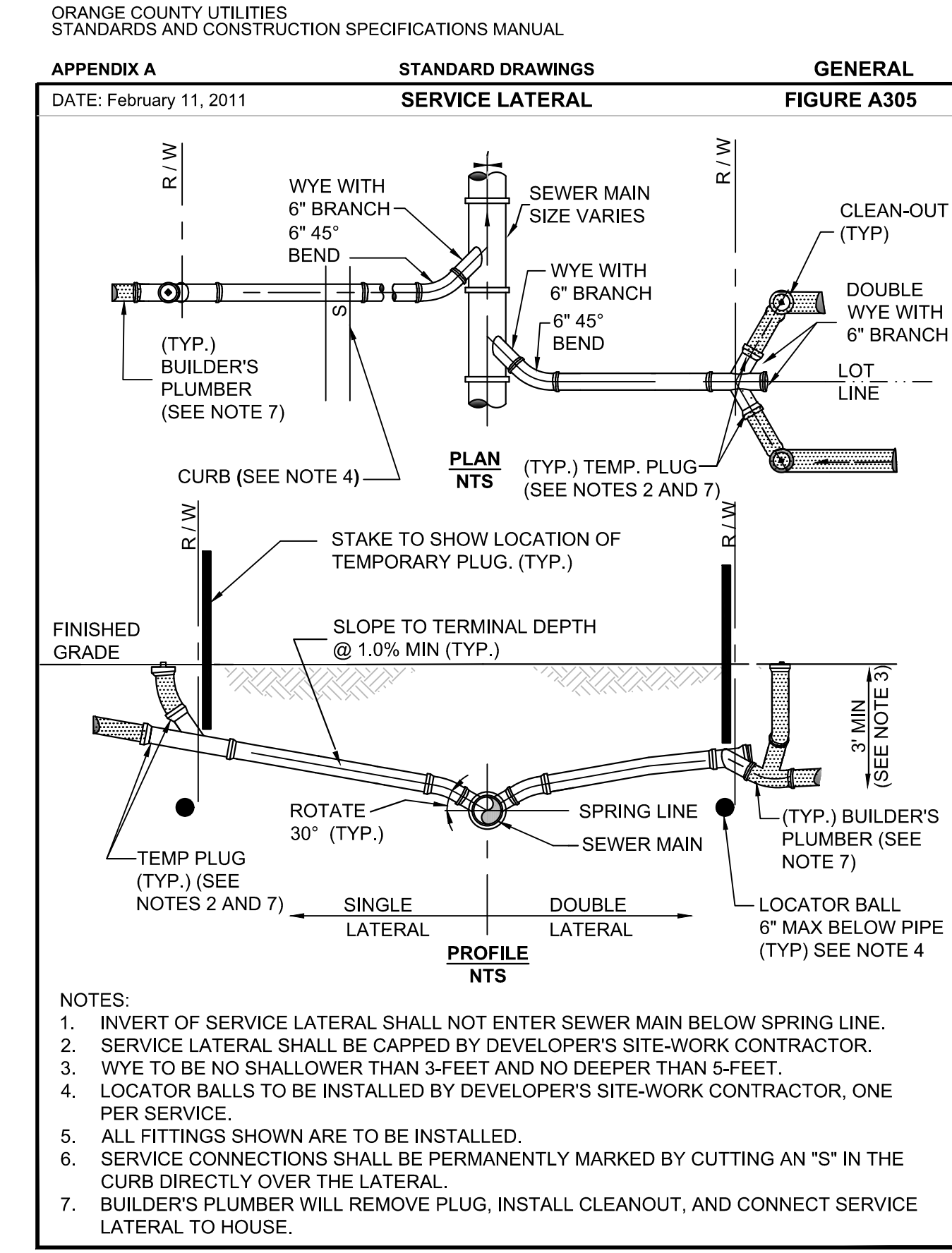
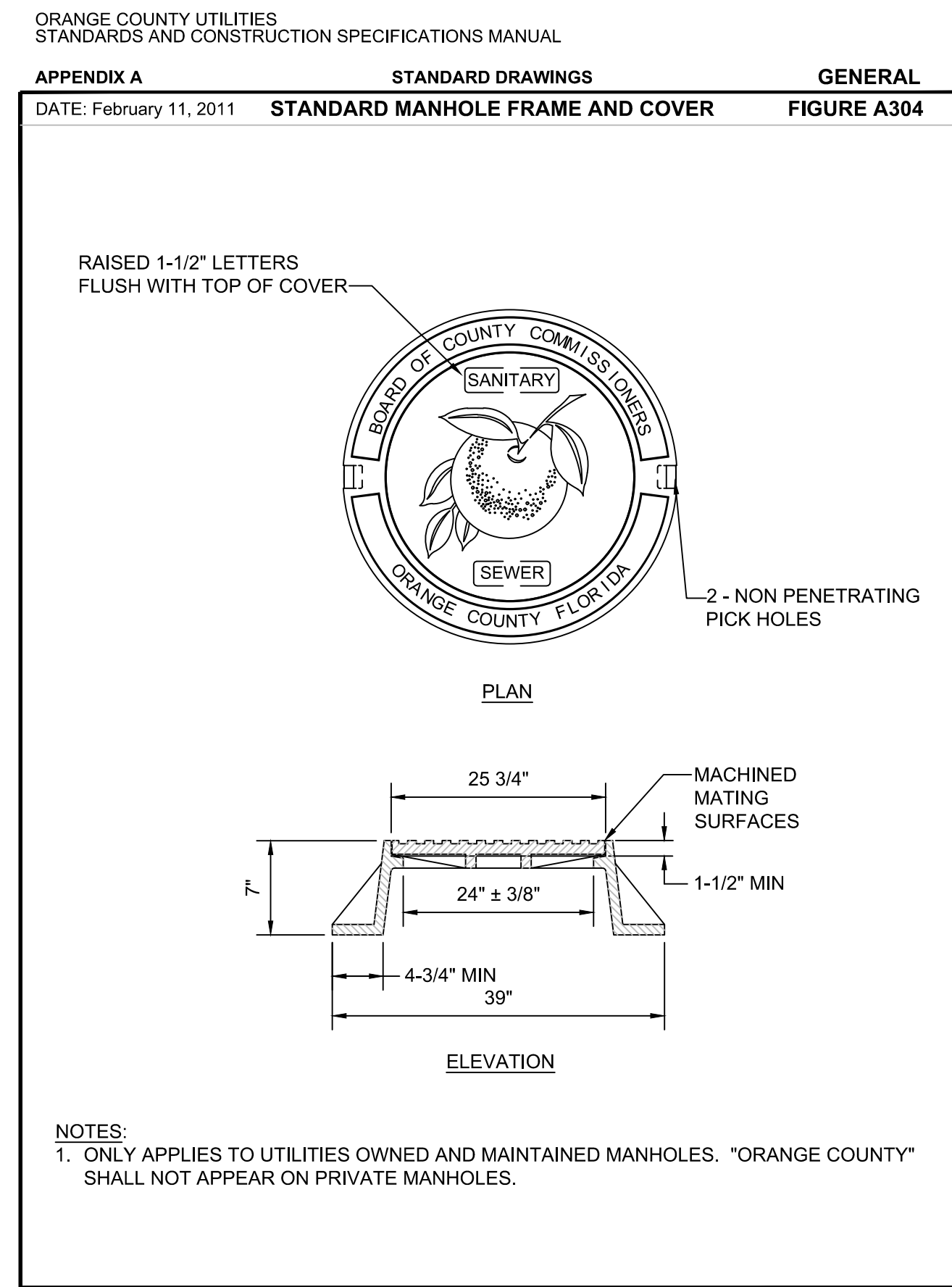
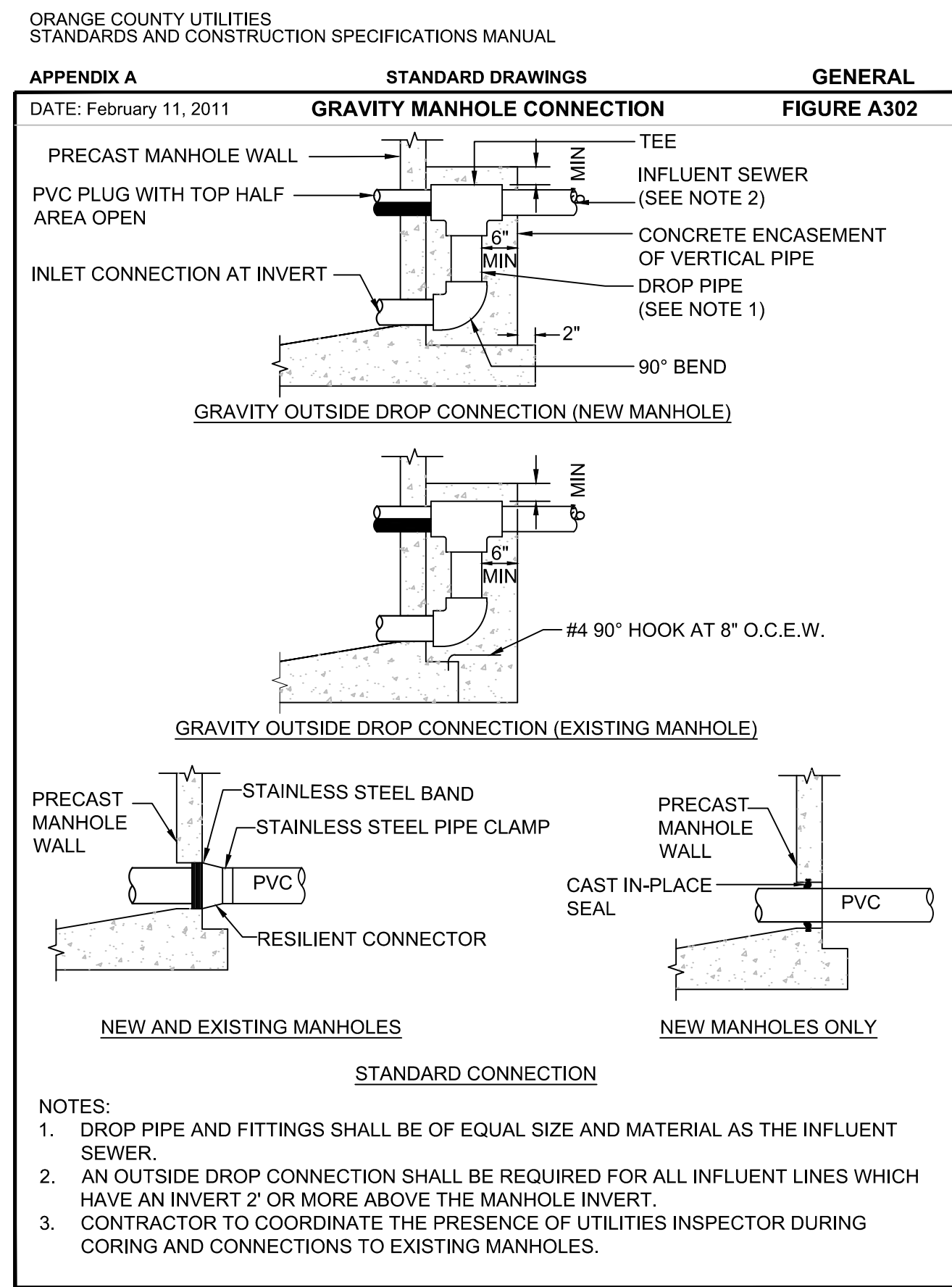
UTILITY DETAILS

WINDERMERE DOWNTOWN PROPERTY

TOWN OF WINDERMERE

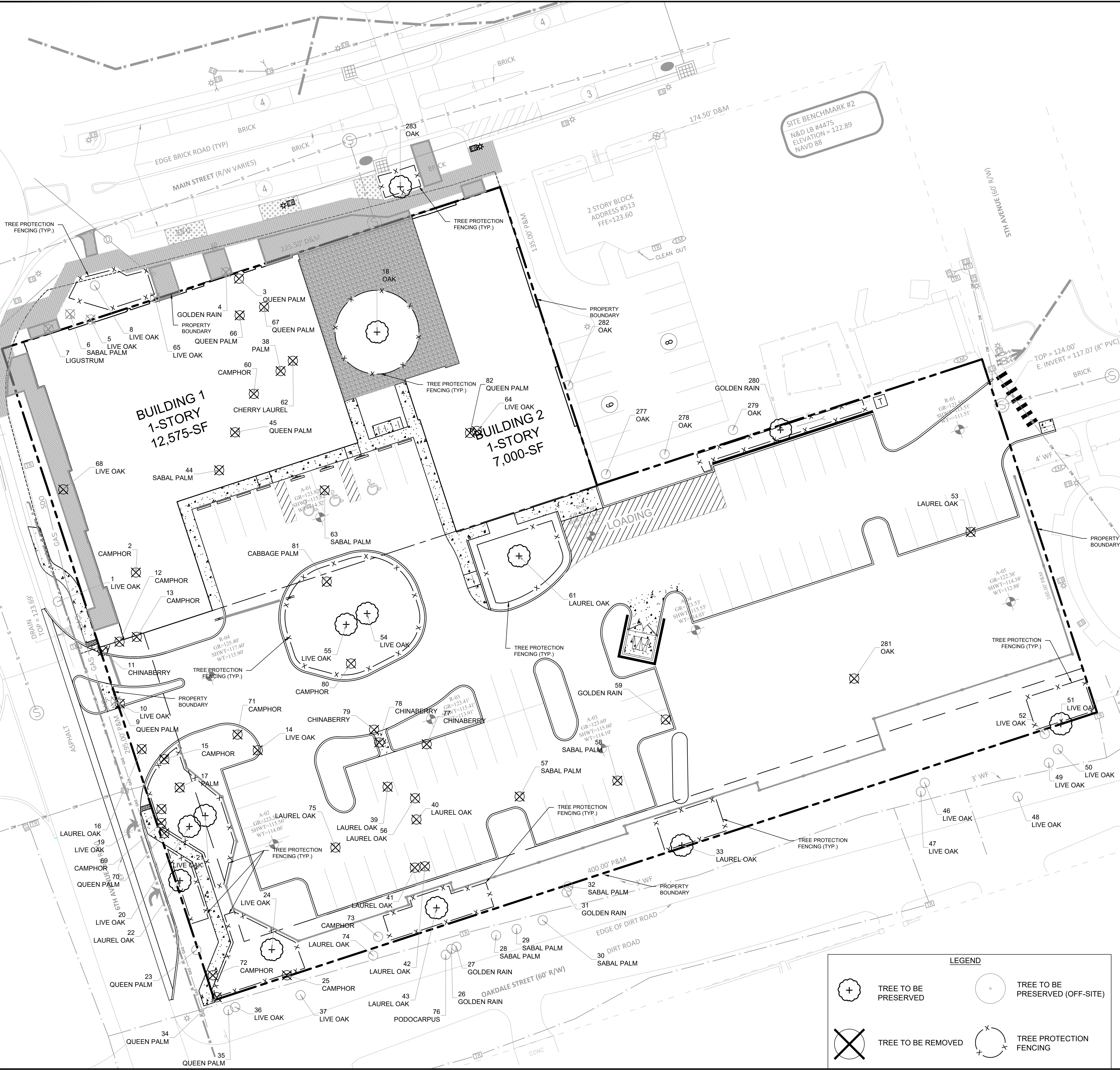
SHEET NUMBER C9.2

Plotted By: Geiger, Marcus - Sheet Set: Windermere Downtown Property - Layout: 09.3 UTILITY DETAILS - February 13, 2023 - 02:01:29pm - k:\ORL_Civil\149973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\CX\UTILITY DETAILS.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



WINDERMERE DOWNTOWN PROPERTY	UTILITY DETAILS	TOWN OF WINDERMERE	FL	SHEET NUMBER C9.3	DATE: _____	BY: _____	
							REVISIONS
		LICENSED PROFESSIONAL MARCUS I. GEIGER, P.E. 189 S ORANGE AVE. SUITE 1000, ORLANDO, FL 32801 PHONE: 407-898-1511 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106		KHA PROJECT 149973004		DATE 02/09/2023	
		SCALE AS SHOWN DESIGNED BY M/G DRAWN BY CML CHECKED BY M/G		DATE: _____		DATE: _____	

Plotted By: Gabe, Marcus
 Sheet Set: Windermere Downtown Property - Layout: L0.50 - TREE MITIGATION PLAN
 February 10, 2023 - 02:08:21 PM
 K:\ORL\Civil\14992304-Windermere Downtown Property\CADD\EXHIBITS\Fourth Workshop Tree Mitigation\LO.50 - TREE MITIGATION PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and collaboration by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811

 Know what's below.
 Call before you dig.
 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

WINDERMERE DOWNTOWN TREE MITIGATION CHART					
Tree Number	Species	DBH	Status	Reason	Location
1	LIVE OAK	15	PRESERVE		OFF-SITE
2	CAMPHOR	30	REMOVE	PROP. BUILDING	ONSITE
3	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE
4	GOLDEN RAIN	23	REMOVE		OFF-SITE
5	LIVE OAK	29	REMOVE	PROP. BUILDING	OFF-SITE
6	SABAL PALM	19	REMOVE		OFF-SITE
7	LIGUSTRUM	11	REMOVE	PROP. BUILDING	OFF-SITE
8	LIVE OAK	25	PRESERVE		OFF-SITE
9	QUEEN PALM	8	REMOVE	INGRESS/EGRESS	ONSITE
10	QUEEN PALM	9	REMOVE	INGRESS/EGRESS	OFF-SITE
11	CHINABERRY	20	REMOVE	INVASIVE	ONSITE
12	CAMPHOR	16	REMOVE	INVASIVE	ONSITE
13	CAMPHOR	10	REMOVE	INVASIVE	ONSITE
14	LIVE OAK	37	REMOVE	PROPOSED PARKING	ONSITE
15	CAMPHOR	36	REMOVE	INVASIVE	ONSITE
16	LAUREL OAK	31	REMOVE	INGRESS/EGRESS	ONSITE
17	PALM	10	REMOVE	PROPOSED WALL	ONSITE
18	OAK	38	PRESERVE		ONSITE
19	LIVE OAK	28	REMOVE	PROP. SIDEWALK	ONSITE
20	LIVE OAK	29	PRESERVE	PROPOSED WALL	ONSITE
21	LIVE OAK	21	PRESERVE	PROPOSED WALL	ONSITE
22	LAUREL OAK	23	PRESERVE		ONSITE
23	QUEEN PALM	8	PRESERVE		OFF-SITE
24	LIVE OAK	34	PRESERVE		ONSITE
25	CAMPHOR	28	REMOVE	INVASIVE	ONSITE
26	GOLDEN RAIN	10	PRESERVE	INVASIVE	OFF-SITE
27	GOLDEN RAIN	12	PRESERVE	INVASIVE	OFF-SITE
28	SABAL PALM	15	PRESERVE		OFF-SITE
29	SABAL PALM	17	PRESERVE		OFF-SITE
30	SABAL PALM	18	PRESERVE		OFF-SITE
31	GOLDEN RAIN	11	PRESERVE	INVASIVE	OFF-SITE
32	SABAL PALM	17	PRESERVE		OFF-SITE
33	OAK	36	PRESERVE		ONSITE
34	QUEEN PALM	10	REMOVE	PROP. SIDEWALK	ONSITE
35	QUEEN PALM	9	PRESERVE		OFF-SITE
36	LIVE OAK	25	PRESERVE		OFF-SITE
37	LIVE OAK	29	PRESERVE		OFF-SITE
38	PALM	10	REMOVE	PROP. BUILDING, DEAD.	ONSITE
39	LAUREL OAK	39	REMOVE	PROPOSED PARKING	ONSITE
40	LAUREL OAK	26	REMOVE	PROPOSED PARKING	ONSITE
41	LAUREL OAK	12	REMOVE	PROPOSED PARKING	ONSITE
42	LAUREL OAK	12	REMOVE	PROPOSED PARKING	ONSITE
43	LAUREL OAK	14	PRESERVE	PROPOSED WALL	ONSITE
44	SABAL PALM	21	REMOVE	PROP. BUILDING	ONSITE
45	QUEEN PALM	10	REMOVE	PROP. BUILDING	ONSITE
46	OAK	27	PRESERVE		OFF-SITE
47	OAK	17	PRESERVE		OFF-SITE
48	OAK	42	PRESERVE		OFF-SITE
49	OAK	42	PRESERVE		OFF-SITE
50	OAK	43	PRESERVE		OFF-SITE
51	OAK	48	PRESERVE		ONSITE
52	OAK	42	PRESERVE		OFF-SITE
53	OAK	38	REMOVE	PROPOSED PARKING	ONSITE
54	OAK	48	PRESERVE		ONSITE
55	OAK	48	PRESERVE		ONSITE
56	LAUREL OAK	24	REMOVE	PROPOSED PARKING	ONSITE
57	SABAL PALM	11	REMOVE	PROPOSED PARKING	ONSITE
58	SABAL PALM	15	REMOVE	PROPOSED TANK	ONSITE
59	GOLDEN RAIN	10	REMOVE	INVASIVE	ONSITE
60	CAMPHOR	32	REMOVE	INVASIVE	ONSITE
61	LAUREL OAK	22	PRESERVE		ONSITE
62	CHERRY LAUREL	14	REMOVE	PROP. BUILDING	ONSITE
63	SABAL PALM	18	REMOVE	PROPOSED PARKING	ONSITE
64	OAK	48	REMOVE	PROP. BUILDING	ONSITE
65	OAK	48	REMOVE	PROP. BUILDING	OFF-SITE
66	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE
67	QUEEN PALM	4	REMOVE	PROP. BUILDING	ONSITE
68	OAK	25	REMOVE	PROP. SIDEWALK	ONSITE
69	CAMPHOR	10	REMOVE	INVASIVE	ONSITE
70	QUEEN PALM	7	REMOVE	PROP. SIDEWALK	ONSITE
71	CAMPHOR	32	REMOVE	PROP. CURB	ONSITE
72	CAMPHOR	12	REMOVE	PROP. SIDEWALK	ONSITE
73	CAMPHOR	14	PRESERVE	INVASIVE	OFF-SITE
74	LAUREL OAK	17	PRESERVE		OFF-SITE
75	LAUREL OAK	18	REMOVE	PROPOSED PARKING	ONSITE
76	PODOCARPUS	13	PRESERVE		OFF-SITE
77	CHINABERRY	6	REMOVE	PROPOSED PARKING	ONSITE
78	CHINABERRY	23	REMOVE	PROPOSED PARKING	ONSITE
79	CHINABERRY	6	REMOVE	PROP. SIDEWALK	ONSITE
80	CAMPHOR	6	REMOVE	PROP. CURB	ONSITE
81	SABAL PALM	13	REMOVE	PROP. CURB	ONSITE
82	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE
277	OAK	35	PRESERVE		OFF-SITE
278	OAK	29	PRESERVE		OFF-SITE
279	OAK	36	PRESERVE		OFF-SITE
280	GOLDEN RAIN	38	REMOVE	PROP. WALL/PARKING	ONSITE
281	OAK	29	REMOVE	PROP. SEPTIC	ONSITE
282	OAK	36	PRESERVE		OFF-SITE
283	OAK	18	PRESERVE		OFF-SITE

Kimley»Horn
 © 2022 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL
 KHA PROJECT
 149973004
 DATE
 02/09/2023
 SCALE
 AS SHOWN
 DESIGNED BY
 AKP
 DRAWN BY
 AKP
 CHECKED BY
 AKP
 DATE:

TREE MITIGATION PLAN
 TOWN OF WINDERMERE
 SHEET NUMBER
L0.50

REVISIONS
 NO.
 DATE
 BY

Plotted By: Ceiber, Marcus. Sheet Set: Windermere Downtown Property. Layout: L0.51 TREE PROTECTION CHART - February 10, 2023. 02:18:35pm. K:\ORL_Civil\19972004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\L0.51 - TREE MITIGATION PLAN.dwg. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Release of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

TREE MITIGATION FUND CALCULATION							
Tree Number	Species	DBH	Status	Reason	Location	REPLACEMENT STATUS	INCHES REQUIRED FOR PAYMENT
2	CAMPBOR	30	REMOVE	PROP. BUILDING	ONSITE	REPLACED	
3	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	9
9	QUEEN PALM	8	REMOVE	INGRESS/EGRESS	ONSITE	PAYMENT REQ'D	8
14	LIVE OAK	37	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
16	LAUREL OAK	31	REMOVE	INGRESS/EGRESS	ONSITE	REPLACED	
17	PALM	10	REMOVE	PROPOSED WALL	ONSITE	PAYMENT REQ'D	10
19	LIVE OAK	28	REMOVE	PROP. SIDEWALK	ONSITE	REPLACED	
20	LIVE OAK	29	REMOVE	PROPOSED WALL	ONSITE	REPLACED	
21	LIVE OAK	21	REMOVE	PROPOSED WALL	ONSITE	REPLACED	
34	QUEEN PALM	10	REMOVE	PROP. SIDEWALK	ONSITE	PAYMENT REQ'D	10
38	PALM	10	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	10
39	LAUREL OAK	39	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
40	LAUREL OAK	26	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
41	LAUREL OAK	12	REMOVE	PROPOSED PARKING	ONSITE	PAYMENT REQ'D	12
42	LAUREL OAK	12	REMOVE	PROPOSED PARKING	ONSITE	PAYMENT REQ'D	12
43	LAUREL OAK	14	REMOVE	PROPOSED WALL	ONSITE	REPLACED	
44	SABAL PALM	21	REMOVE	PROP. BUILDING	ONSITE	REPLACED	
45	QUEEN PALM	10	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	10
53	OAK	38	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
56	LAUREL OAK	24	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
57	SABAL PALM	11	REMOVE	PROPOSED PARKING	ONSITE	PAYMENT REQ'D	11
58	SABAL PALM	15	REMOVE	PROPOSED TANK	ONSITE	REPLACED	
62	CHERRY LAUREL	14	REMOVE	PROP. BUILDING	ONSITE	REPLACED	
63	SABAL PALM	18	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
64	OAK	48	REMOVE	PROP. BUILDING	ONSITE	REPLACED	
66	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	9
67	QUEEN PALM	4	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	4
68	OAK	25	REMOVE	PROP. SIDEWALK	ONSITE	REPLACED	
70	QUEEN PALM	7	REMOVE	PROP. SIDEWALK	ONSITE	PAYMENT REQ'D	7
71	CAMPBOR	32	REMOVE	PROP. CURB	ONSITE	REPLACED	
72	CAMPBOR	12	REMOVE	PROP. SIDEWALK	ONSITE	PAYMENT REQ'D	12
75	LAUREL OAK	18	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
77	CHINABERRY	6	REMOVE	PROPOSED PARKING	ONSITE	PAYMENT REQ'D	6
78	CHINABERRY	23	REMOVE	PROPOSED PARKING	ONSITE	REPLACED	
79	CHINABERRY	6	REMOVE	PROP. SIDEWALK	ONSITE	PAYMENT REQ'D	6
80	CAMPBOR	6	REMOVE	PROP. CURB	ONSITE	PAYMENT REQ'D	6
81	SABAL PALM	13	REMOVE	PROP. CURB	ONSITE	REPLACED	
82	QUEEN PALM	9	REMOVE	PROP. BUILDING	ONSITE	PAYMENT REQ'D	9
280	GOLDEN RAIN	38	REMOVE	PROP. WALL/PARKING	ONSITE	REPLACED	
281	OAK	29	REMOVE	PROP. SEPTIC	ONSITE	REPLACED	
TOTAL INCHES REQUIRED TO BE PAID INTO THE TREE MITIGATION FUND							151

SEC. 5.01.17. - DEVELOPMENT SITE TREE PROTECTION STANDARDS.

(A) DURING CONSTRUCTION AND DEVELOPMENT, ALL REASONABLE STEPS NECESSARY TO PREVENT DESTRUCTION OR DAMAGE TO TREES AND NATIVE VEGETATION SHALL BE TAKEN. ALL TREE AND LANDSCAPE WORK SHALL BE GOVERNED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 SERIES AND THE BEST MANAGEMENT PRACTICES. UNLESS OTHERWISE AUTHORIZED BY A TREE REMOVAL PERMIT, TREES AND NATIVE VEGETATION DESTROYED OR RECEIVING MAJOR DAMAGE MUST BE REPLACED BY TREES AND VEGETATION OF EQUAL ENVIRONMENTAL VALUE, AS SPECIFIED BY THE TOWN MANAGER OR HIS DESIGNEE (PERMITTING AUTHORITY), BEFORE OCCUPANCY OR USE.

(B) APPROVED TREE REMOVAL PERMITS ARE TO BE POSTED ON SITE, LEGIBLE, AND VISIBLE FROM THE STREET PRIOR TO COMMENCEMENT AND THROUGHOUT COMPLETION OF THE WORK.

(C) DURING CONSTRUCTION, UNLESS OTHERWISE AUTHORIZED BY A TREE REMOVAL PERMIT, NO EXCESS SOIL, ADDITIONAL FILL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED WITHIN THE DRIP LINE OF ANY TREE THAT IS REQUIRED TO BE PRESERVED IN ITS ORIGINAL LOCATION.

(D) NO ATTACHMENTS OR WIRES OTHER THAN THOSE OF A PROTECTIVE AND NON-DAMAGING NATURE SHALL BE ATTACHED TO ANY TREE DURING CONSTRUCTION OR DEVELOPMENT.

(E) UNLESS OTHERWISE AUTHORIZED BY THE TREE REMOVAL PERMIT, NO SOIL SHALL BE REMOVED FROM WITHIN THE DRIP LINE OF ANY TREE THAT IS TO REMAIN IN ITS ORIGINAL LOCATION. (F) PRIOR TO CONSTRUCTION, THE PERMIT APPLICANT IS REQUIRED TO HAVE THE FOLLOWING PROTECTIVE BARRIERS AND MEASURES PUT IN PLACE:

(1) ALL PROTECTIVE BARRIERS SHALL BE INSTALLED AND MAINTAINED FOR THE PERIOD OF TIME BEGINNING WITH THE COMMENCEMENT OF ANY LAND CLEARING OR BUILDING OPERATIONS AND ENDING WITH THE COMPLETION OF THE PERMITTED CLEARING OR BUILDING CONSTRUCTION WORK ON THE SITE.

(2) THE APPLICANTS FOR A TREE REMOVAL PERMIT SHALL, AT THE TIME OF APPLICATION, DESIGNATE AN ON-SITE REPRESENTATIVE FOR THE INSTALLATION AND MAINTENANCE OF ALL TREE AND SHRUB PROTECTIVE BARRIERS.

(3) THE CIRCUMFERENCE OF AN AREA TO BE PRESERVED SHALL BE PROTECTED DURING LAND DEVELOPMENT AND CONSTRUCTION BY PLACING TWO-INCH BY TWO-INCH WOOD STAKES A MAXIMUM OF 20 FEET APART AROUND THE TREE PROTECTION ZONE AND BY TYING FLUORESCENT RIBBON, SURVEY FLAGGING, ETC., FROM STAKE TO STAKE ALONG THE PERIMETER OF THE AREAS TO BE PRESERVED.

(4) WHEN PROTECTION OF INDIVIDUAL TREES IS REQUIRED, A PROTECTIVE BARRIER SHALL BE PLACED AROUND THE PERIMETER OF THE BASE AT A DISTANCE NOT LESS THAN THE DRIP LINE.

(5) A TREE PROTECTION SIGN SHALL BE A MINIMUM OF TWO FEET WIDE BY THREE FEET HIGH CONSISTING OF DURABLE RIGID, PLASTIC OR METAL MATERIAL WITH NON FADING LETTERING, LEGIBLY PRINTED IN CHARACTERS A MINIMUM OF ONE AND ONE-HALF INCHES HIGH ON ITS FACE. TREE PROTECTION SIGNS AND BARRIERS ARE TO BE MAINTAINED THROUGH JOB COMPLETION OR AS OTHERWISE REQUIRED BY THE TOWN MANAGER OR HIS DESIGNEE. A MINIMUM OF ONE SIGN IS REQUIRED PER BARRIER. SIGN TEXT SHALL BE INCLUDE IN ENGLISH AND SPANISH AND SHALL READ:

TREE PROTECTION AREA

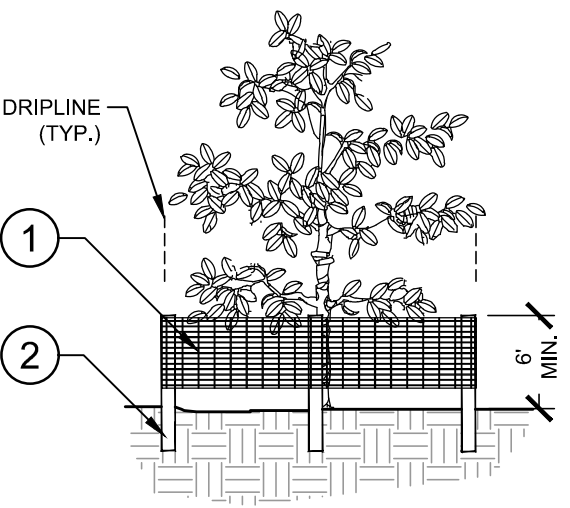
PROHIBITED WITHIN THIS AREA:

1. PARKING OF USE OF VEHICLES, EQUIPMENT OR MACHINERY.
2. STORAGE OR DUMPING OF ANY MATERIALS OR LIQUIDS.
3. CONSTRUCTION, EXCAVATION OR TRENCHING.

AREA DE PROTECTION DE ÁRBOLES

PROHIBIDO DENTRO DE ESTA AREA:

1. APARCAR O USO DE VEHICULO, EQUIPAMIENTO, O MAQUINARIA.
2. ALMACENAR O TIRAR DE LIQUIDOS O MATERIALES.
3. CONSTRUCCIÓN, EXCAVACIÓN O ZANJAS.
- (6) UNLESS PRIOR APPROVAL IS GRANTED BY THE TOWN MANAGER OR HIS DESIGNEE, THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN THE DRIP-LINE OF A PROTECTED TREE OR WITHIN TEN FEET OF ITS TRUNK, WHICHEVER IS GREATER: (I) PARKING OR USE OF VEHICLES, EQUIPMENT OR MACHINERY, OR (II) STORING OR DUMPING ANY MATERIAL OF LIQUIDS, OR (III) CONSTRUCTION, EXCAVATION OR TRENCHING.

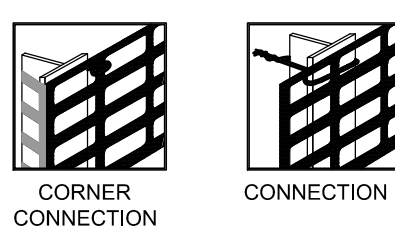
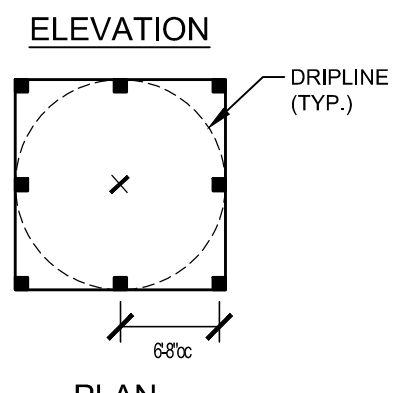


1. 6" "PERIMETER PLUS" CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
2. 8" TALL METAL "T" POSTS OR 2" x 2" x 8' PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.

INSTALLATION NOTES:

- A. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL. INSTALLATIONS METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
- B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 6' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.
- C. SPACE POSTS EVERY 6' (MIN.) TO 8' (MAX.).
- D. SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONWED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.



1 TREE PROTECTION FENCING ELEVATION / PLAN

Kimley»Horn

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-896-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

KHA PROJECT 149973004

LICENSED PROFESSIONAL
 DATE 02/09/2023
 SCALE AS SHOWN
 DESIGNED BY AKP
 DRAWN BY AKP
 CHECKED BY AKP

DATE

WINDERMERE DOWNTOWN PROPERTY

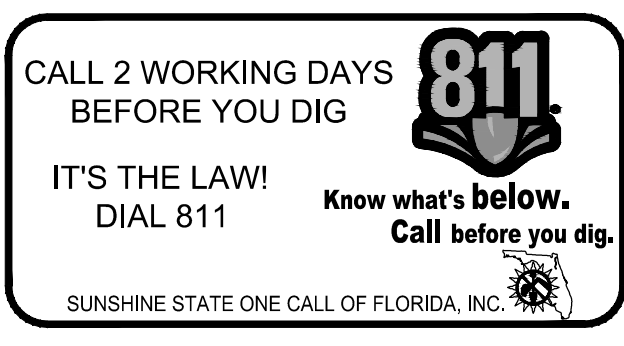
TREE MITIGATION CHART

TOWN OF WINDERMERE

SHEET NUMBER

L0.51

DATE



TREE MITIGATION SPECIFICATIONS

A. GENERAL

1. CONTRACTOR SHALL ADHERE TO ALL TREE PROTECTION REQUIREMENTS LISTED IN THESE SPECIFICATIONS AND/OR THOSE LISTED IN THE CITY OR COUNTY ZONING CODE, TREE PROTECTION (LATEST EDITION), WHICHEVER IS MORE STRINGENT SHALL APPLY.
2. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PROCEDURES WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
3. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATION MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE.
4. NO SIGNS, BUILDING PERMITS, WIRES OR OTHER ATTACHMENTS OF ANY KIND SHALL BE ATTACHED TO ANY TREE OR PALM. GUY WIRES DESIGNED TO PROTECT TREES ARE EXCLUDED FROM THIS PROHIBITION.
5. EXISTING TREE LOCATIONS AND SIZES ARE ESTIMATES AND ARE BASED ON A SURVEY PROVIDED BY THE OWNER SELECTED SURVEYOR.
6. CONTRACTOR SHALL COORDINATE TREE REMOVAL WITH PERMITTING AGENCY AND PROJECT ARBORIST PRIOR TO CONSTRUCTION. NO PERSON MAY REMOVE OR CAUSE TO BE REMOVED ANY PROTECTED TREE OR PALM WITHOUT FIRST HAVING PROCURED A PERMIT AS PROVIDED BY THE APPROPRIATE PERMITTING AGENCY.
7. FOR PROTECTED TREES OR PALMS BEING REMOVED, THE CONTRACTOR MUST GIVE THE PERMITTING AGENCY REASONABLE OPPORTUNITY TO RELOCATE TREES DESIGNATED FOR REMOVAL TO ANOTHER SITE AT THE PERMITTING AGENCY'S EXPENSE.
8. CONTRACTOR IS RESPONSIBLE FOR POSSESSING ALL REQUIRED APPLICATOR LICENSES, BUSINESS REGISTRATIONS AND INSURANCE, PESTICIDE LABELS, AND MATERIAL DATA SAFETY SHEETS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR HAVING ALL SPILL CONTAINMENT MATERIALS AND REQUIRED PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE APPLICATIONS AND ACCIDENTAL SPILLS ON SITE AT ALL TIMES. THE OWNER RESERVES THE RIGHT TO INSPECT EACH APPLICATOR AND HAVE THESE MATERIALS PRESENTED BEFORE AND DURING ANY PESTICIDE TREATMENT.
9. WHERE TRAFFIC AREAS ARE PROPOSED WITHIN THE DRIP LINE OF PROTECTED TREES AND LESS THAN FOUR (4) INCHES OF GRADE CHANGE ARE PROPOSED, PERMEABLE SURFACES THAT ALLOW AIR AND WATER INTO THE SOIL SHOULD BE USED IN LIEU OF ASPHALT OR OTHER SUCH IMPERVIOUS SURFACES.
10. TREE WELLS OF AN APPROVED DESIGN SHALL BE CONSTRUCTED AROUND ALL TREES TO BE PRESERVED WHEN MORE THAN FOUR INCHES OF FILL IS TO BE DEPOSITED WITHIN THE DRIP LINE AREA OF THOSE TREES. COORDINATE WITH PROJECT ARBORIST.
11. THE SEQUENCE OF TREE MITIGATION AND PRESERVATION MEASURES IS IMPERATIVE TO THE HEALTH AND SURVIVABILITY OF THE SUBJECT TREES AND SHALL BE COORDINATED WITH THE OWNER SELECTED PROJECT ARBORIST. THE DESIRED SEQUENCE IS OUTLINED BELOW:
 - a. TREE PROTECTION FENCING.
 - b. ROOT PRUNING AND ROOT BARRIERS.
 - c. CLEARING.
 - d. TREE CANOPY PRUNING.
 - e. FERTILIZATION.
 - f. INSECTICIDE.
 - g. IRRIGATION.

B. TREE PROTECTION FENCING

1. PRIOR TO THE ERECTION OF ANY TREE PROTECTION FENCING, ALL FOREIGN SURFACE MATERIAL, TRASH OR DEBRIS SHALL BE REMOVED FROM THE AREA TO BE ENCLOSED BY THE FENCING. AFTER ERECTION OF THE FENCING NO SUCH MATERIAL OR LITTER SHALL BE PERMITTED TO REMAIN WITHIN THE PROTECTED AREA.
2. TREE PROTECTION FENCING SHALL BE PLACED AROUND ALL PROTECTED TREES TO CREATE A PROTECTIVE ROOT ZONE AND SHALL REMAIN IN PLACE UNTIL SITE CLEARING, LAND ALTERATION, AND CONSTRUCTION ACTIVITIES ARE COMPLETE.
3. NATIVE GROUND COVER AND UNDERSTORY VEGETATION EXISTING WITHIN THE PROTECTED AREA SHALL REMAIN THROUGHOUT CONSTRUCTION. OTHER DESIGNATED VEGETATION AND INVASIVE PLANT SPECIES SHALL BE REMOVED ONLY BY MANUAL LABOR UTILIZING HAND TOOLS, OR BY OTHER METHODS APPROVED BY THE PROJECT ARBORIST.
4. TREE PROTECTION FENCING TYPES AND LOCATIONS SHALL BE ERECTED AS SHOWN ON THE TREE MITIGATION PLANS AND DETAILS, OR AS REQUESTED BY LOCAL AGENCY.
5. FINAL LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE PROJECT ARBORIST.
6. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN 20 FEET OF THE TREE PROTECTION ZONE.
7. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.
8. CONSTRUCTION ACTIVITY SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.
9. DO NOT INSTALL CONDUIT, DRAIN OR IRRIGATION LINES, OR ANY UTILITY LINE WITHIN THE TREE PROTECTION ZONE WITHOUT THE APPROVAL OF THE PROJECT ARBORIST. IF LINES MUST TRAVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE.
10. CONTRACTOR'S ACCESS TO FENCED TREE PROTECTION AREAS WILL BE PERMITTED ONLY WITH APPROVAL OF THE PROJECT ARBORIST.
11. EXCAVATION OR GRADING REQUIRED WITHIN THE PROTECTED AREA SHALL BE LIMITED TO THREE (3) INCHES OF CUT OR FILL. COORDINATE WITH PROJECT ARBORIST.
12. STRUCTURES AND UNDERGROUND FEATURES TO BE REMOVED WITHIN THE TREE PROTECTION ZONE SHALL BE COORDINATED WITH THE PROJECT ARBORIST.
13. TREE PROTECTION FENCING AROUND TREES TO BE RELOCATED SHALL BE ERECTED UNTIL THE TREE IS READY TO BE RELOCATED AND NEW FENCING SHALL BE ERECTED AT THE TREES NEW LOCATION AND WILL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.
14. IF ANY DAMAGE TO TREE PROTECTION FENCING SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE REPAIRS.
15. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE PROTECTED AREA OF TREES TO BE PRESERVED, A ROAD BED OF SIX (6) INCHES OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A SIX (6) INCH ROAD BED AT ALL TIMES. CONTRACTOR SHALL REMOVE ALL SUCH MATERIALS FROM THE SITE AS SOON AS TEMPORARY ACCESS IS NO LONGER NECESSARY.
16. CONTRACTOR SHALL COORDINATE WITH THE PROJECT ARBORIST PRIOR TO THE REMOVAL OF ALL TREE PROTECTION FENCING.

C. ROOT PRUNING/TRENCHING

1. TRENCHING LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE PROJECT ARBORIST.
2. TRENCHING EQUIPMENT THAT WILL TURN AT HIGH RPM'S IS PREFERRED, AND SHALL BE APPROVED BY THE PROJECT ARBORIST. APPROVED EQUIPMENT WILL BE USED TO PERFORM ALL ROOT PRUNING OPERATIONS. A MINIMUM DEPTH OF THREE FEET IS REQUIRED.
3. INSTALL ROOT BARRIER WHERE DESIGNATED. SEE TREE MITIGATION PLAN AND DETAIL SHEETS.
4. THE TRENCH SHALL BE BACKFILLED WITH PREVIOUSLY EXCAVATED SOIL AND COMPACTED IMMEDIATELY.
5. TREES TO BE RELOCATED SHALL BE ROOT PRUNED A MINIMUM OF TWELVE (12) WEEKS PRIOR TO TREE RELOCATION.
6. WHEN THE TREE ROOT ZONE WILL BE DISTURBED, AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE CONSTRUCTION IMPACTS THE ROOTS.

D. CLEARING

1. ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND-OPERATED EQUIPMENT.
2. CONTRACTOR SHALL CLEAR ALL TREE PROTECTION AREAS OF VINES, SHRUBS, GROUND COVERS, WEEDS, SAPLINGS, AND INVASIVES LISTED ON THE LATEST EDITION OF THE FLORIDA EXOTIC PEST PLANT COUNCIL'S LIST OF INVASIVE SPECIES.
3. PROJECT ARBORIST MUST APPROVE METHODS OTHER THAN HAND CLEARING.

4. A TWO (2) INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES DURING THE SITE CLEARING PHASE.

E. TREE CANOPY PRUNING

1. TREE PRUNING SPECIFICATIONS SHALL BE DEFINED BASED ON SPECIFIC RECOMMENDATIONS OF THE PROJECT ARBORIST. INFORMATION PRESENTED BELOW SHOULD BE USED AS A GUIDELINE.
2. CONTRACTOR SHALL VISIT THE SITE WITH THE PROJECT ARBORIST TO VERIFY THE EXTENT OF REQUIRED PRUNING.
3. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A QUALIFIED INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST OR AN AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA) REGISTERED CONSULTING ARBORIST (RCA).
4. AT LEAST ONE MEMBER OF THE PRUNING CREW SHALL BE AN ISA CERTIFIED ARBORIST.
5. WHILE IN THE TREE, THE ARBORIST SHALL PERFORM AN AERIAL INSPECTION TO IDENTIFY DEFECTS THAT REQUIRE TREATMENT. ANY ADDITIONAL WORK NEEDED SHALL BE REPORTED TO THE OWNER.
6. PRUNING CUTS SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI A300 PRUNING STANDARD (AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS) AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI Z133.1 SAFETY STANDARD. PRUNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ISA'S 'BEST MANAGEMENT PRACTICES: TREE PRUNING'.
7. WHERE TEMPORARY CLEARANCE IS NEEDED FOR ACCESS, BRANCHES SHALL BE TIED BACK TO HOLD THEM OUT OF THE CLEARANCE ZONE.
8. NO MORE THAN 20 PERCENT OF LIVE FOLIAGE SHALL BE REMOVED WITHIN ANY TREE.
9. ALL TREES WITHIN THE PROJECT AREA SHALL BE PRUNED AS FOLLOWS:
 - a. LIVE BRANCH PRUNING SHOULD BE PERFORMED ONLY WHEN THE DANGER OF INSECT OR DISEASE INFESTATION IS NOT PRESENT.
 - b. REMOVE STUBS, CUTTING OUTSIDE THE WOUND WOOD TISSUE THAT HAS FORMED AROUND THE BRANCH.
 - c. CLEANING OF THE SELECTIVE REMOVAL OF DEAD, DISEASED, BROKEN, OR CROSSING BRANCHES DOWN TO ONE INCH IN DIAMETER OR AS DIRECTED BY THE PROJECT ARBORIST.
 - d. PRUNING CUTS LARGER THAN 4 INCHES IN DIAMETER, EXCEPT FOR DEAD WOOD, SHALL BE AVOIDED.
 - e. PRUNING CUTS THAT EXPOSE HEARTWOOD SHALL BE AVOIDED WHENEVER POSSIBLE.
 - f. ALL TREES WITH CROWNS THAT PROJECT INTO PARKING LOT/ROADWAY AREAS SHALL BE RAISED TO 14 FEET ABOVE FINISHED GRADE.
 - g. ALL TREES WITH CROWNS THAT PROJECT INTO SIDEWALK AREAS SHALL BE RAISED TO A HEIGHT OF 8 FEET ABOVE FINISHED GRADE.
9. TREES, WHO'S ROOT SYSTEMS WILL BE IMPACTED SHALL RECEIVE THE FOLLOWING PRUNING TO COMPENSATE FOR ROOT LOSS:
 - a. THE LOCATION AND SIZE OF BRANCHES FOR REDUCTION SHALL BE DEFINED BY THE PROJECT ARBORIST.
 - b. REDUCTION, OR THE SELECTIVE PRUNING TO REDUCE TREE HEIGHT OR SPREAD.
 - c. REDUCE END WEIGHT ON HEAVY, HORIZONTAL BRANCHES BY SELECTIVELY REMOVING SMALL DIAMETER BRANCHES, NO GREATER THAN 2 TO 3 INCHES, NEAR THE ENDS OF SCAFFOLD BRANCHES.
 - d. RAISING SHALL CONSIST OF SELECTIVE PRUNING TO PROVIDE VERTICAL CLEARANCE.
10. PROPOSED/REPLACEMENT TREES
 - a. PRUNING SHALL BE LIMITED TO CLEANING.
11. BRUSH SHALL BE CHIPPED AND SPREAD (ONLY WHEN DISEASE OR INSECT INFESTATION IS NOT PRESENT) UNDERNEATH TREES WITHIN THE TREE PROTECTION ZONE TO A MAXIMUM DEPTH OF THREE (3) INCHES, LEAVING THE TRUNK CLEAR OF MULCH.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXCESS DEBRIS ON A DAILY BASIS.

F. FERTILIZATION

1. CONTRACTOR SHALL COORDINATE FERTILIZATION PLAN, FOLLOWING BEST MANAGEMENT PRACTICES WITH THE PROJECT ARBORIST PRIOR TO COMMENCEMENT OF WORK.
2. EVERY EFFORT SHALL BE MADE TO UTILIZE CHEMICALS OF AN ORGANIC OR BIODEGRADABLE NATURE IN ORDER TO OFFER THE LEAST IMPACT TO THE NATURAL ENVIRONMENT. CONTRACTOR IS RESPONSIBLE FOR MIXING, APPLYING, AND DISPOSAL OF ALL CHEMICALS IN ACCORDANCE WITH STRICT ADHERENCE TO MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH PROJECT ARBORIST FOR FURTHER INSTRUCTION.
3. ONLY TREES AFFECTED BY CONSTRUCTION OR AS SHOWN ON THE TREE MITIGATION PLAN AND TREE INVENTORY SCHEDULE SHALL BE TREATED.
4. TREES SPECIFIED TO RECEIVE FERTILIZER SHALL BE TREATED AS FOLLOWS:
 - a. MIX FERTILIZER ACCORDING TO MANUFACTURER'S SPECIFICATIONS INTO A TANK WITH AGITATION CAPABILITY.
 - b. MIX WETTING AGENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS INTO SAME TANK WITH FERTILIZER. AGITATE MIX.
 - c. INJECT THE MIXTURE WITH A HYDRAULIC INJECTION SYSTEM INTO THE UPPER 6-12 INCHES OF SOIL WITH A SOIL PROBE. INJECT AT THE RATE OF ONE THIRD (1/3) GALLON AT EACH INJECTION SITE.
 - d. THE CRITICAL ROOT ZONE AREA PLUS 2' BEYOND THE CRITICAL ROOT ZONE SHALL BE INJECTED, BUT NOT BEYOND ROOT PRUNING LOCATIONS.
 - e. FERTILIZER SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF ANY AERATION SYSTEMS.
 - f. EMPTY PRODUCT CONTAINERS SHALL BE STOCKPILED FOR INSPECTION BY THE PROJECT ARBORIST PRIOR TO DISPOSAL.
7. NOTIFY PROJECT ARBORIST IF ANY INFESTATION IS NOTICED.
8. FOLLOW PROJECT ARBORIST'S RECOMMENDED PROCEDURES.
9. FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS CONCERNING APPLICATION. READ ALL WARNING LABELS.
10. ANY PETS, AS WELL AS, THE PETS FOOD AND WATER BOWLS SHOULD BE REMOVED FROM THE AREA AND ANY SWIMMING POOLS SHOULD BE COVERED. COORDINATE WITH PROJECT ARBORIST FOR FURTHER INSTRUCTION.
11. ENSURE COMPLETE COVERAGE AND REAPPLY 2-3 MONTHS AFTER INITIAL APPLICATION UTILIZING SAME PROCEDURE.

I. TREE REMOVALS

1. PRIOR TO AND DURING LAND CLEARING, INCLUDING GRUBBING, ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED BY PROJECT ARBORIST WITH RED SURVEY RIBBONS AT 36 INCHES MINIMUM ABOVE GRADE.
2. CONTRACTOR SHALL REMOVE ALL TREES AS SHOWN ON THE TREE MITIGATION PLANS AFTER THE TREE PROTECTION FENCING IS INSTALLED.
3. ALL TREES SHOWN TO BE REMOVED SHALL BE FELLED WITH A CHAIN SAW AND STUMP GROUND 6" BELOW SURFACE. ANY TREE SHOWN TO BE REMOVED THAT IS IN AN AREA WHERE COMPACTION IS CRITICAL SHALL BE FELLED WITH A CHAIN SAW AND STUMP REMOVED BY CONTRACTOR.
4. ALL WOOD AND STUMPS FROM REMOVALS SHALL BE HAULED FROM THE SITE THE SAME DAY, EXCEPT FOR TOPS. ALL TOPS ARE TO BE MULCHED AND STOCKPILED OR HAULED DIRECTLY TO MULCHED AREAS FOR RELOCATED TREES IF SCHEDULING PERMITS. TOPS

SHALL BE CHIPPED AND PLACED IN THE TREE PROTECTION ZONE TO A DEPTH OF THREE (3) INCHES. ALL EXCESS WOOD CHIPS SHOULD BE HAULED OFF SITE AFTER TRANSPLANTING IS COMPLETE.

ALL BURN PITS IF APPLICABLE MUST BE APPROVED BY THE PROJECT ARBORIST AND OWNER.

6. TREES TO BE REMOVED THAT HAVE BRANCHES EXTENDING INTO THE CANOPY OF TREES TO REMAIN MUST BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST AND NOT BY DEMOLITION OR CONSTRUCTION CONTRACTORS. THE QUALIFIED ARBORIST SHALL REMOVE THE TREE IN A MANNER THAT CAUSES NO DAMAGE TO THE TREES AND UNDERSTORY VEGETATION TO REMAIN.
7. TREES TO BE REMOVED LOCATED WITHIN THE TREE PROTECTION ZONE SHALL BE REMOVED BY A QUALIFIED ISA CERTIFIED ARBORIST. THE TREES SHALL BE CUT NEAR GROUND LEVEL AND THE STUMP GROUND OUT.

L. TOPSOIL

10. CONTRACTOR SHALL COORDINATE ALL EARTHWORK OPERATIONS WITHIN TREE PROTECTION AREAS WITH THE PROJECT ARBORIST PRIOR TO BEGINNING WORK.
11. ALL TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH.
12. TOPSOIL PH RANGE OF 5.5 TO 7.0. 3-5 PERCENT ORGANIC MATERIAL MINIMUM. FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, SODS, STIFF CLAY, STONES LARGER THAN ONE (1) INCH IN DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH.
13. VERIFY AMOUNT STOCKPILED IF ANY, AND SUPPLY ADDITIONAL AS NEEDED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST FOUR (4) INCHES DEEP. DO NOT OBTAIN TOPSOIL FROM BOGS OR MARSHES.
14. PROJECT ARBORIST SHALL APPROVE ALL TOPSOIL PRIOR TO PLACEMENT.

M. REPAIR OF DAMAGED TREES

1. IF DAMAGE TO ANY TREE SHOULD OCCUR BY ACCIDENT OR NEGLIGENCE DURING THE CONSTRUCTION PERIOD, THE PROJECT ARBORIST SHALL APPRAISE THE DAMAGE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPAIR BY THE CONTRACTOR.
2. IF ANY TREE DESIGNATED TO BE SAVED IS REMOVED FROM THE SITE WITHOUT PERMISSION OF THE OWNER'S REPRESENTATIVE, THE PROJECT ARBORIST SHALL APPRAISE THE TREE AND MAKE RECOMMENDATIONS TO THE OWNER FOR REPLACEMENT BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE TREE AND ANY FEES THAT MAY BE ASSESSED TO THE OWNER BY THE GOVERNING AGENCY.

NO.	REVISIONS	DATE	BY

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-898-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

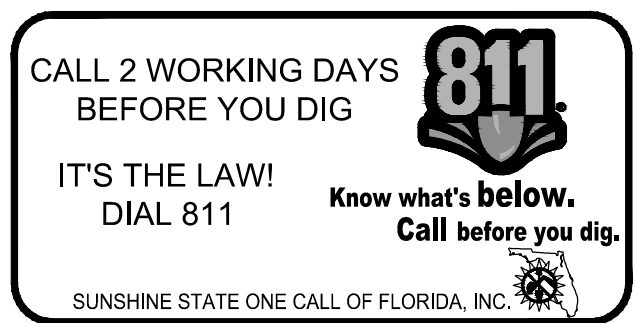
LICENSED PROFESSIONAL	
KHA PROJECT 149973004	DATE 02/09/2023
SCALE AS SHOWN	DESIGNED BY AKP
DRAWN BY AKP	CHECKED BY AKP
	DATE:

TREE MITIGATION NOTES

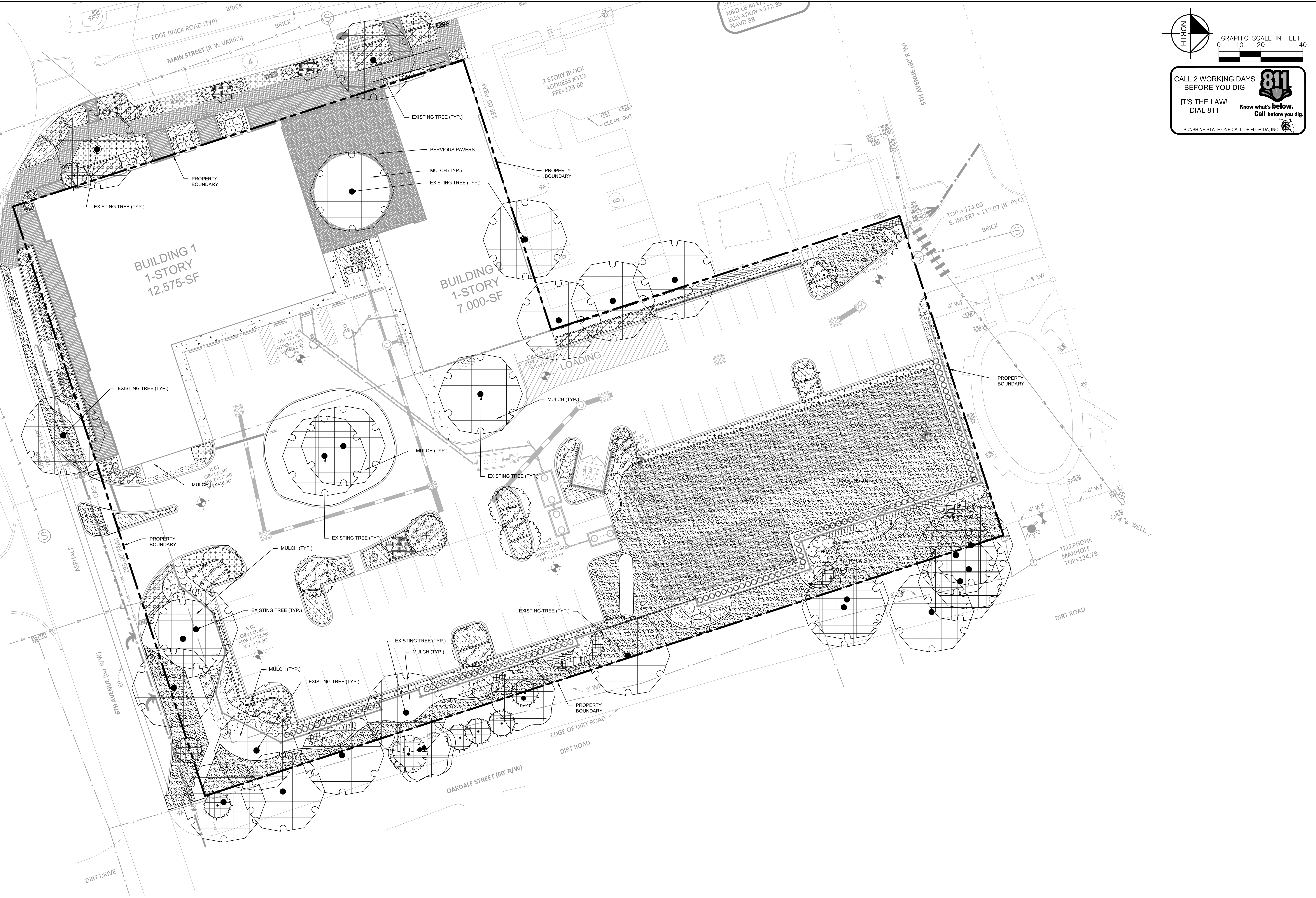
WINDERMERE DOWNTOWN PROPERTY

TOWN OF WINDERMERE

FL



Plotted By: Ceiler, Marcus. Sheet: Sit: Windermere Downtown Property. Layout: L1.00 OVERALL LANDSCAPE PLAN. February 10, 2023 02:19:15pm. K:\ORL_E\W\49973004-Windermere Downtown Property\CADD\CONSTR\PlanSheets\L1.00 - LANDSCAPE PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Release of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

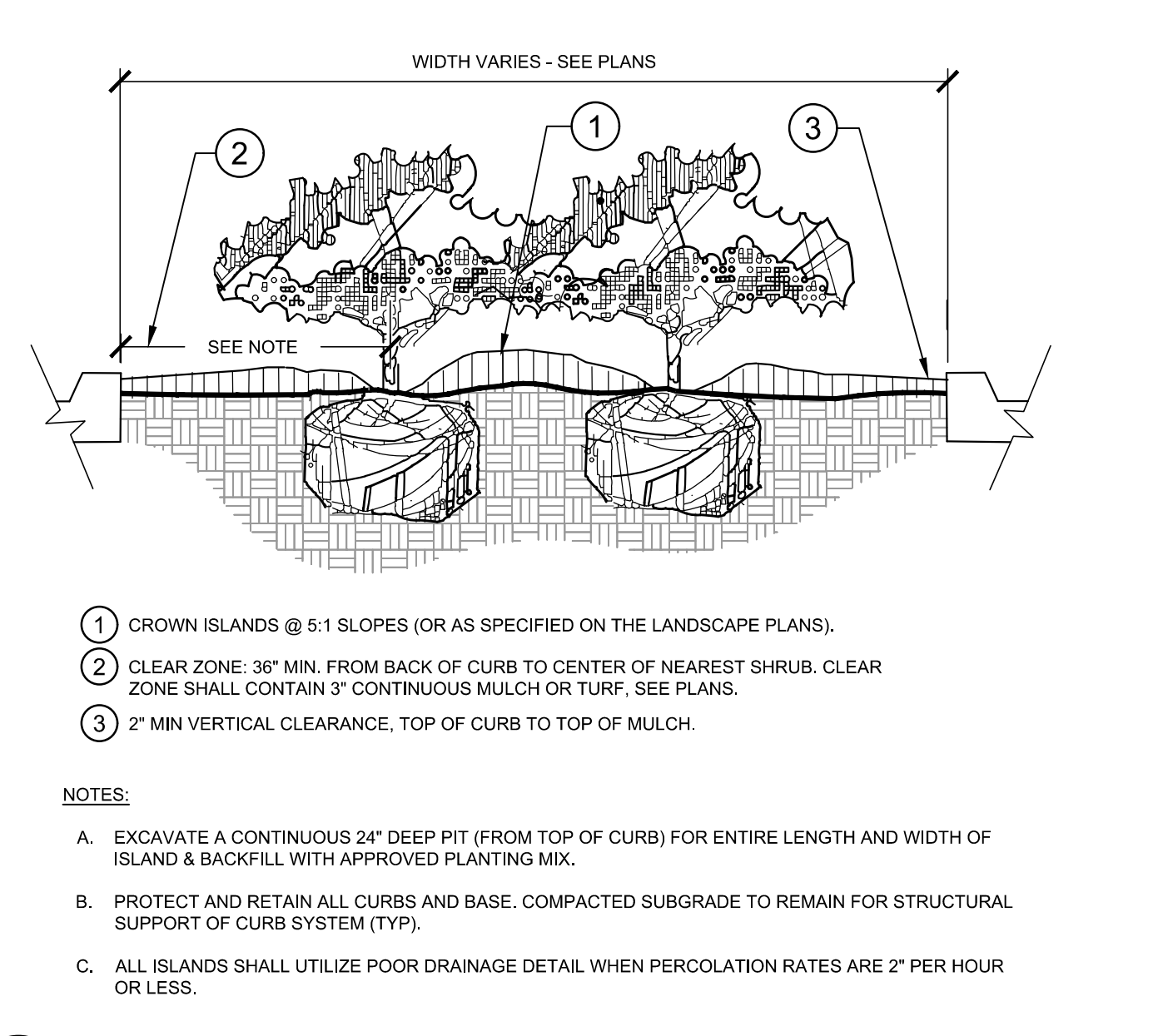
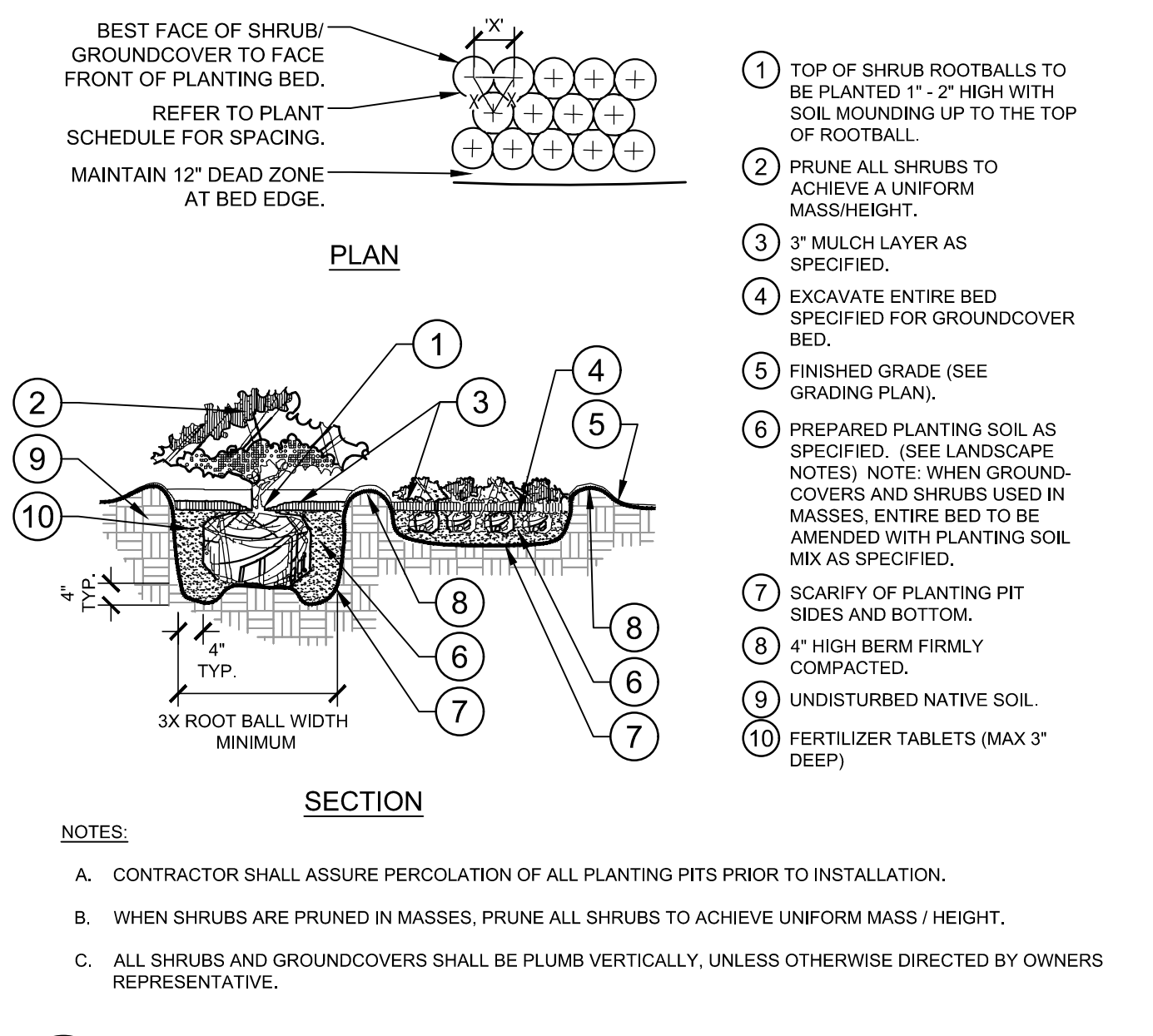
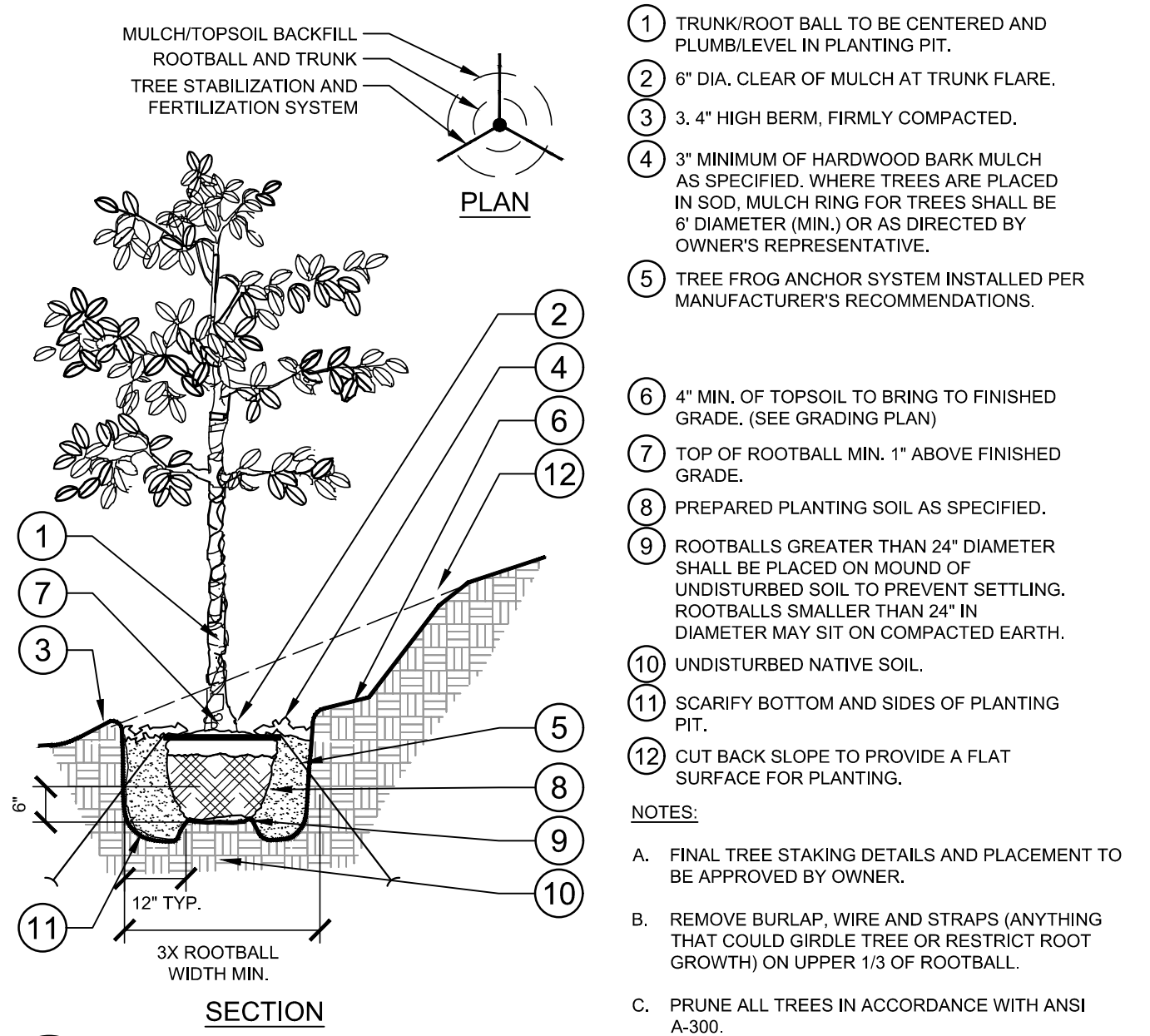
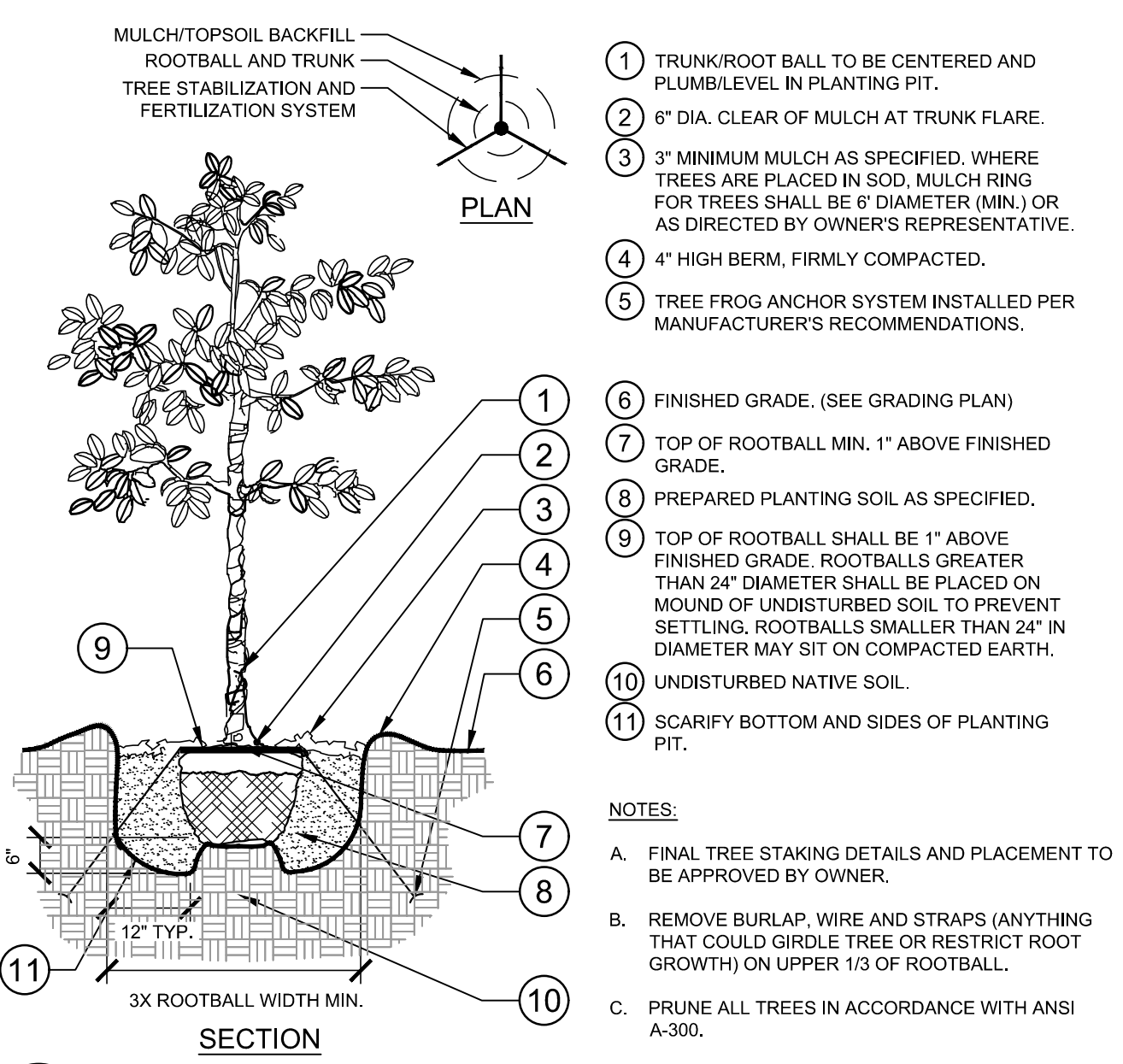


NORTH
 GRAPHIC SCALE IN FEET
 0 10 20 40
CALL 2 WORKING DAYS BEFORE YOU DIG
811
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.
 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

A
 LANDSCAPE PLAN
 L1.00

WINDERMERE DOWNTOWN PROPERTY TOWN OF WINDERMERE, FL		LANDSCAPE PLAN		LICENSED PROFESSIONAL		Kimley»Horn © 2022 KIMLEY-HORN AND ASSOCIATES, INC. 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 PHONE: 407-896-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106	
SHEET NUMBER L1.00		KHA PROJECT 149973004		DATE 02/09/2023		REVISIONS No. BY DATE	
SCALE AS SHOWN		DESIGNED BY AKP		DRAWN BY AKP		CHECKED BY AKP	

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

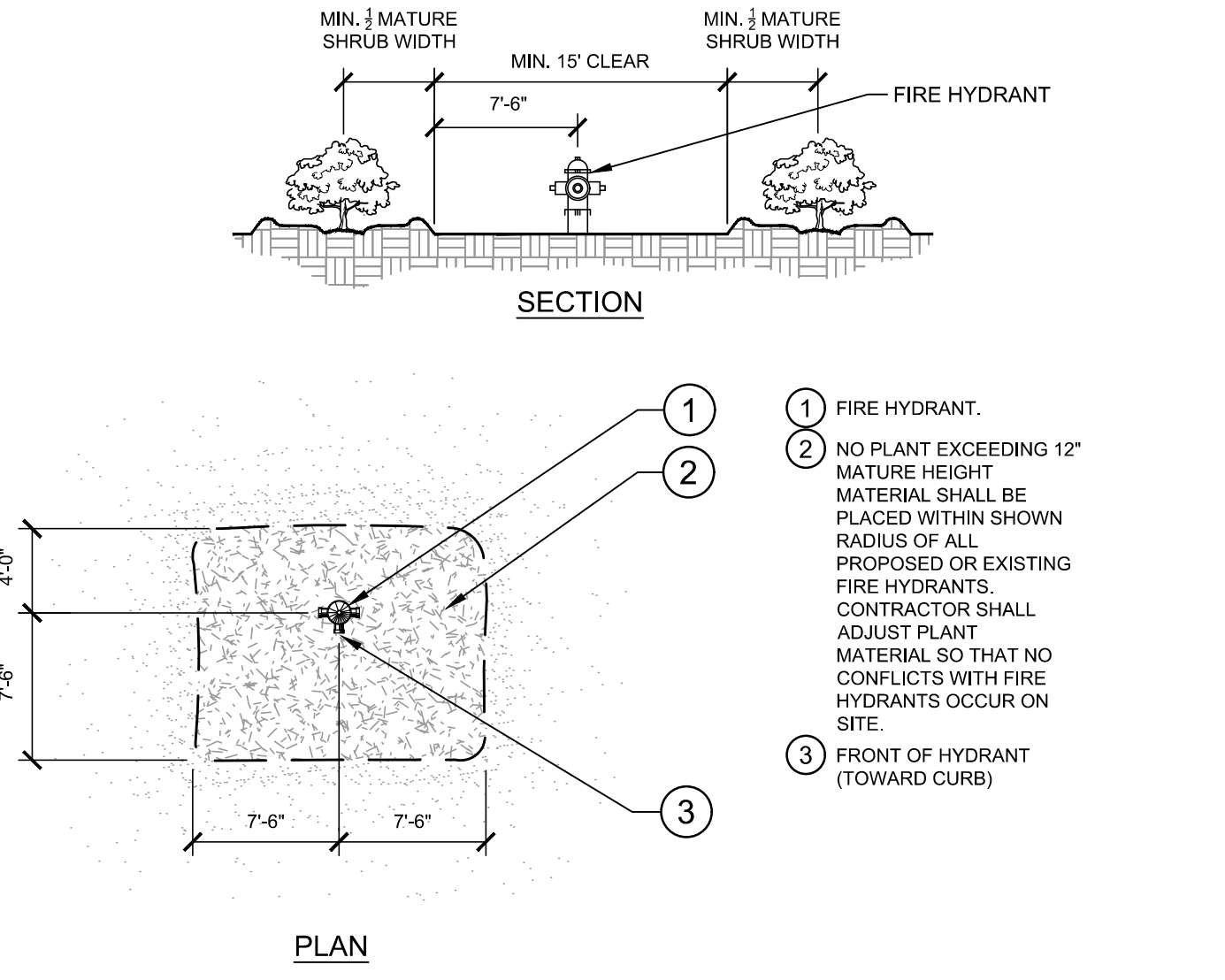
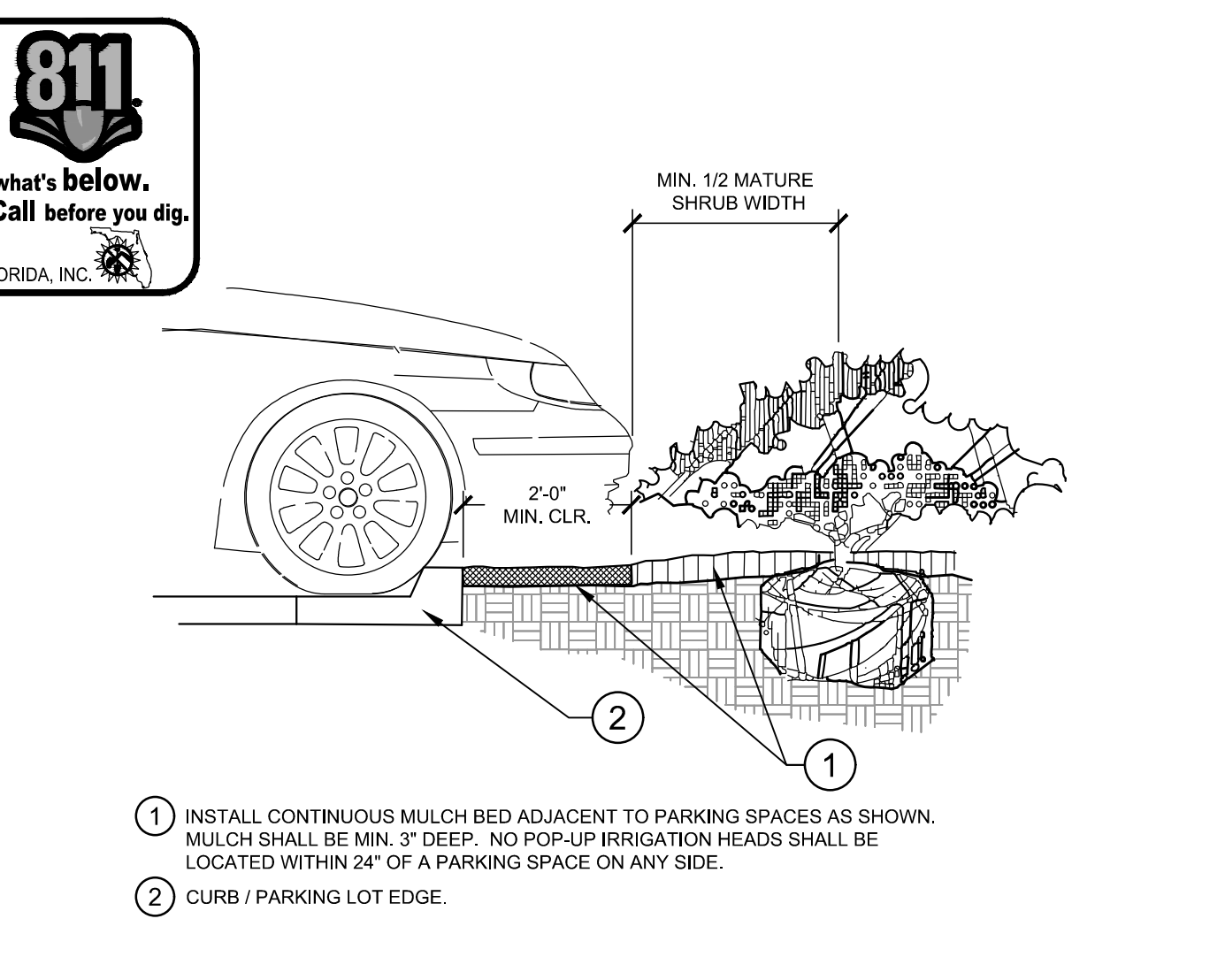
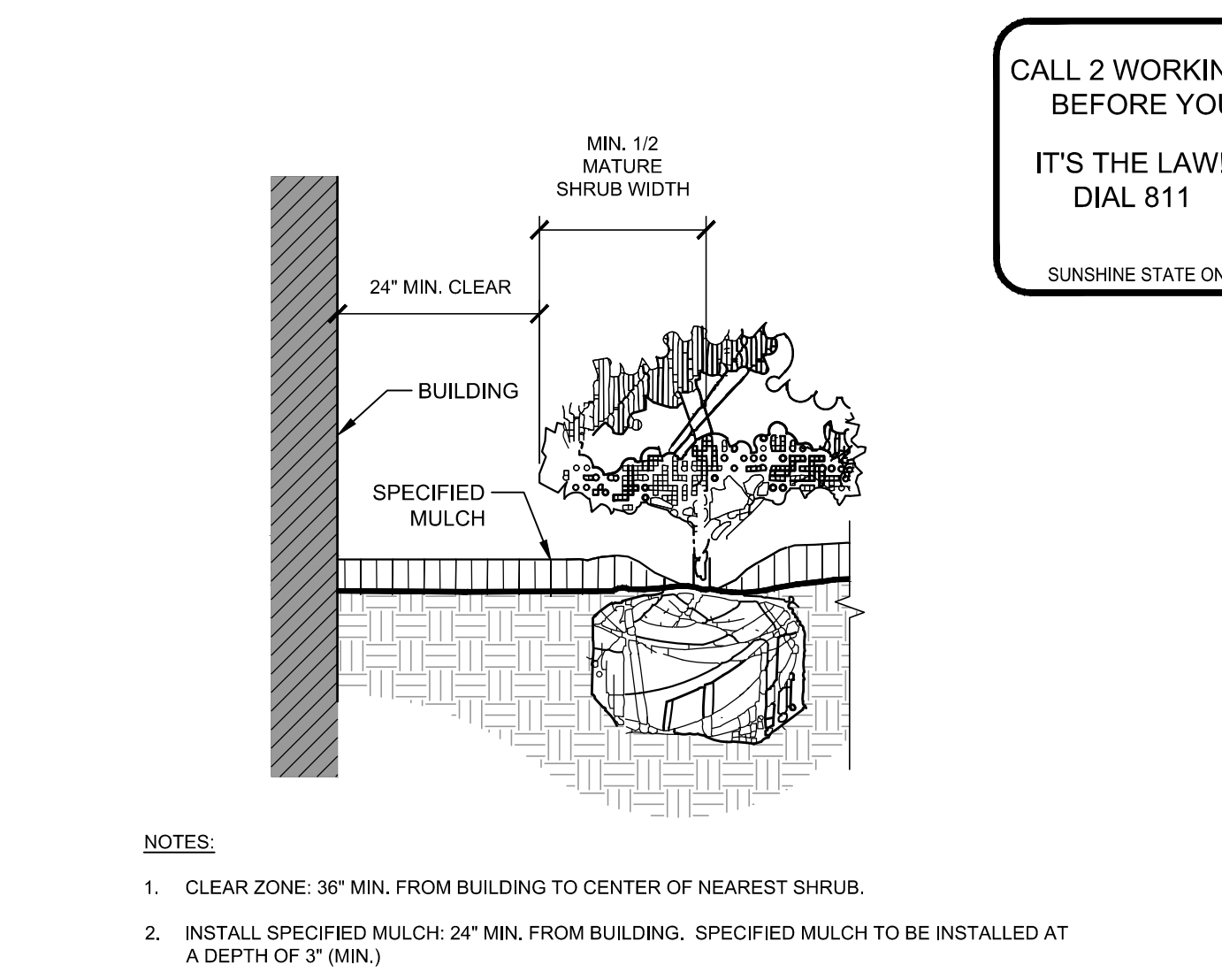
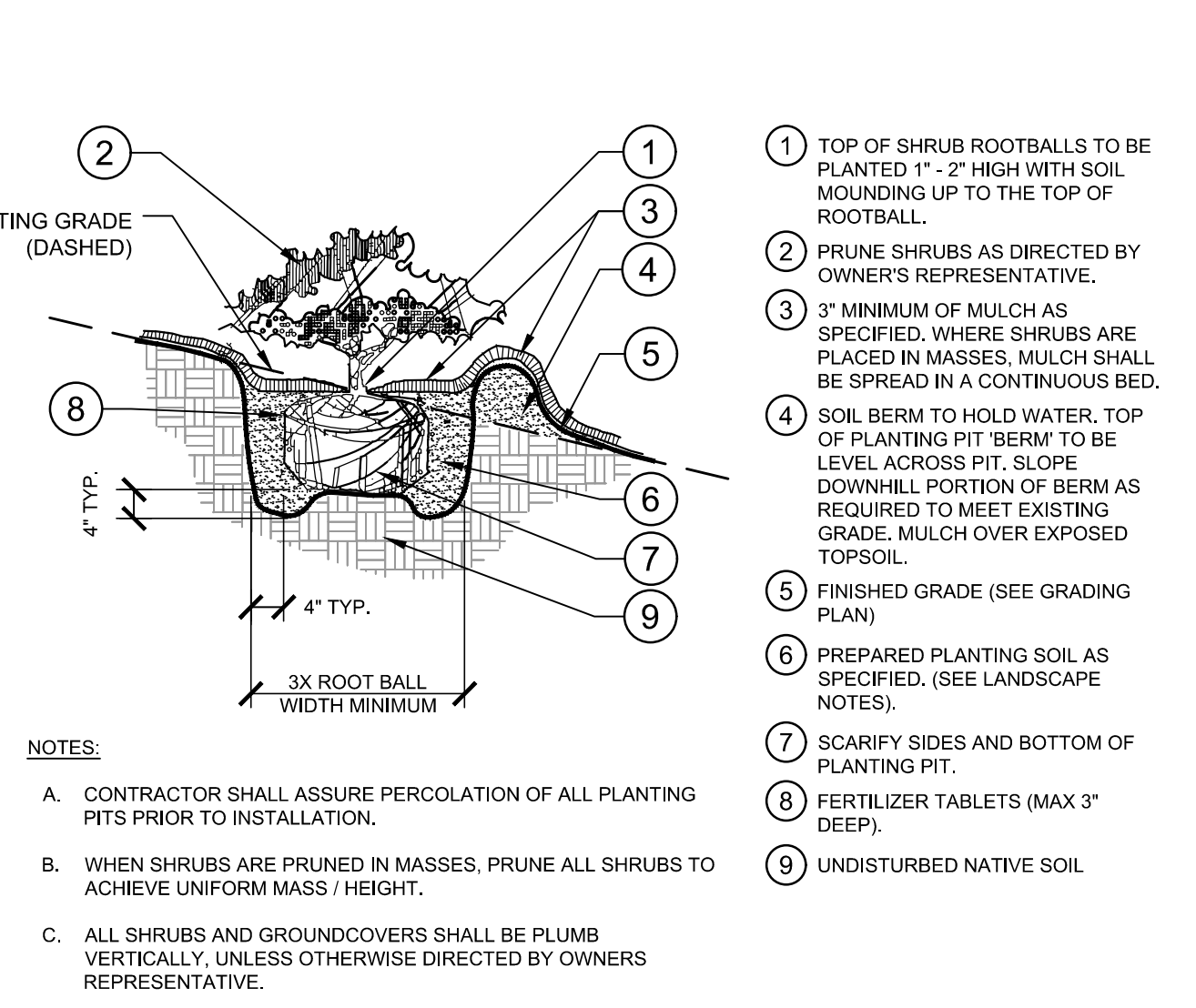


1 TREE PLANTING SECTION / PLAN L1.50 NTS

2 TREE PLANTING ON A SLOPE SECTION / PLAN L1.50 NTS

3 SHRUB/GROUNDCOVER PLANTING SECTION / PLAN L1.50 NTS

4 PLANTED PARKING LOT ISLANDS/MEDIANS SECTION L1.50 NTS

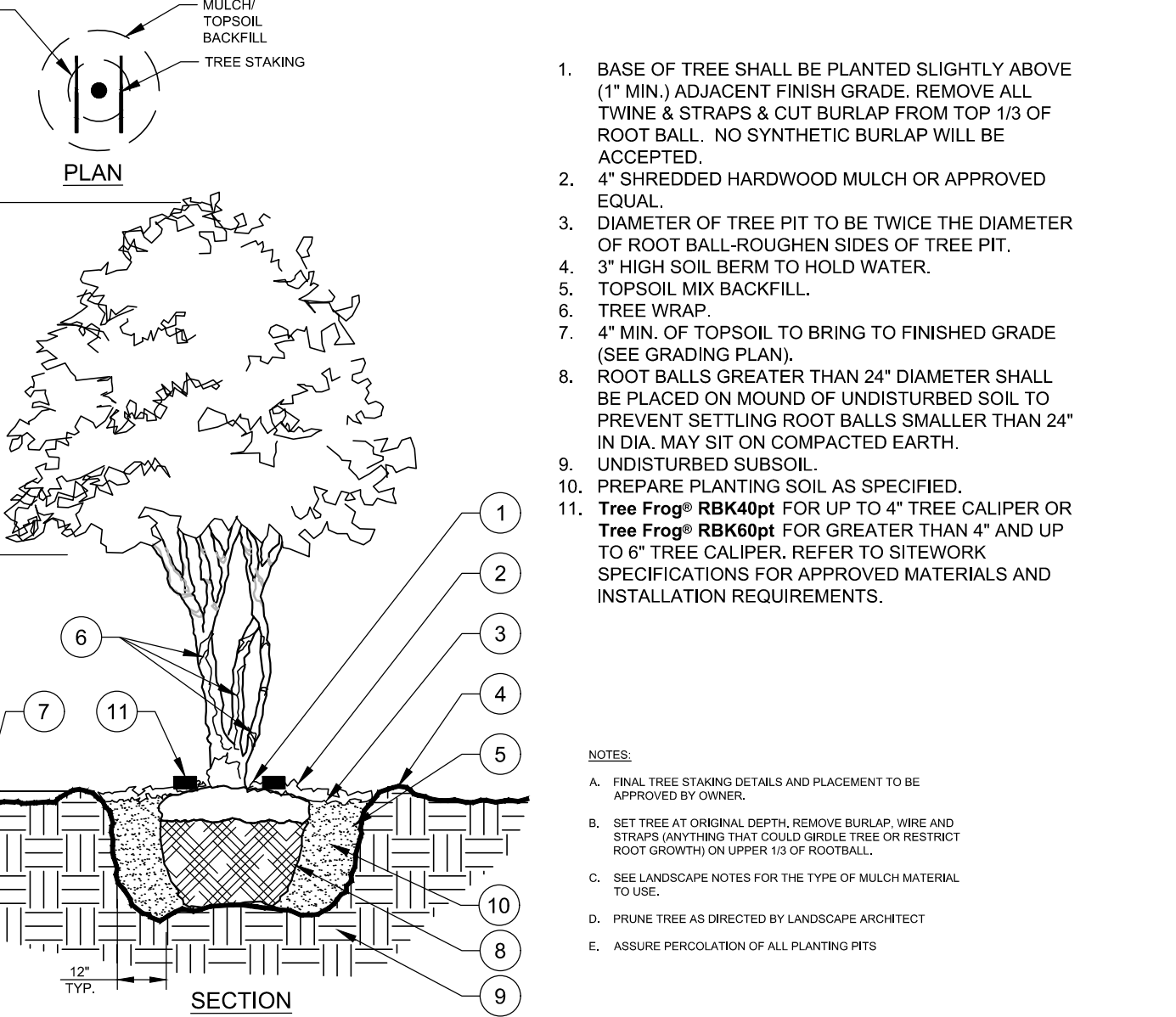
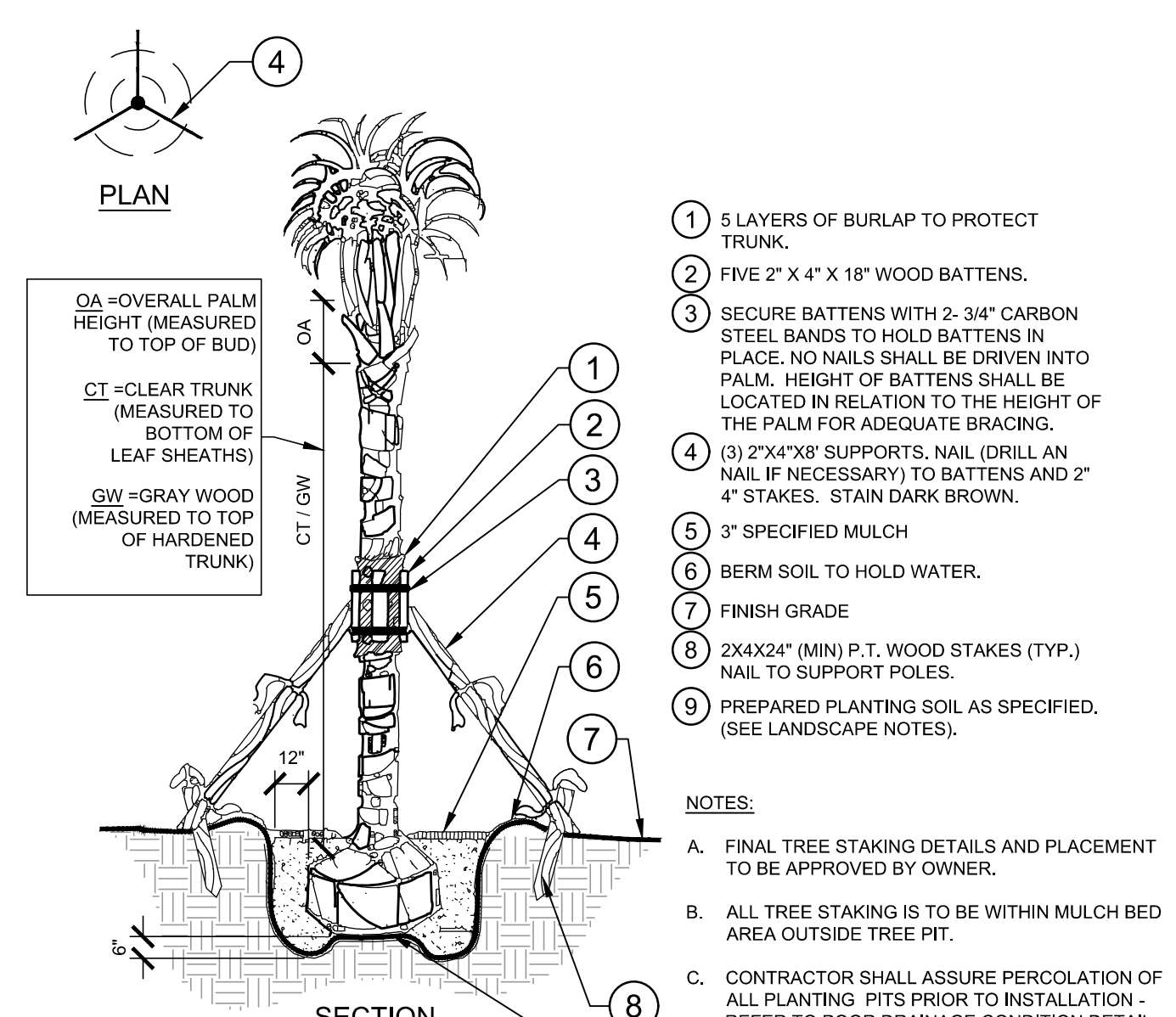
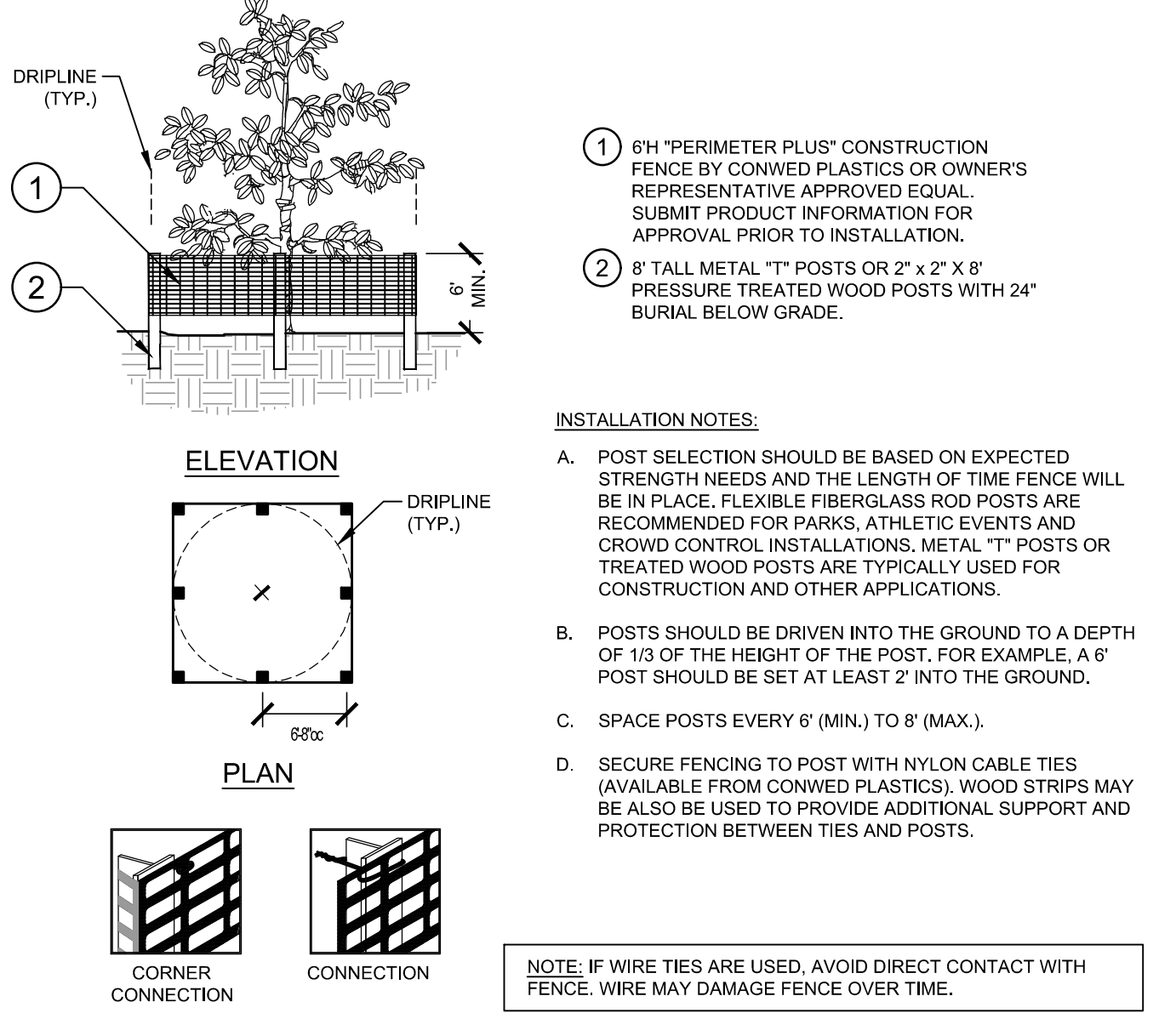
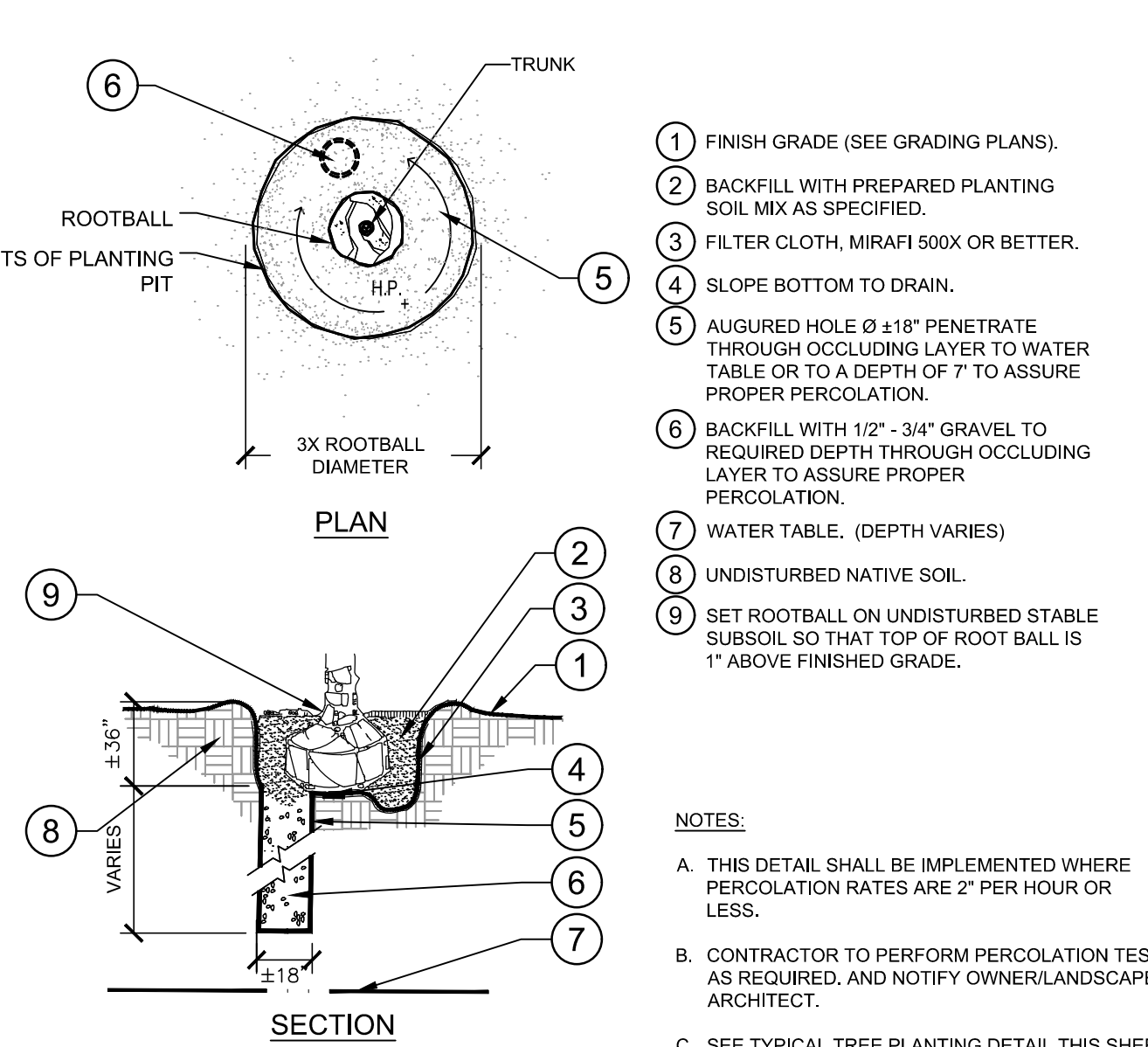


5 SHRUB/GROUNDCOVER PLANTING ON A SLOPE SECTION L1.50 NTS

6 PLANTINGS ADJACENT TO BUILDINGS SECTION L1.50 NTS

7 PARKING SPACE/CURB PLANTING SECTION L1.50 NTS

8 SHRUB PLANTING AT FIRE HYDRANT SECTION / PLAN L1.50 NTS



9 POOR DRAINAGE CONDITION SECTION / PLAN L1.50 NTS

10 TREE PROTECTION FENCING ELEVATION / PLAN L1.50 NTS

11 PALM PLANTING SECTION / PLAN L1.50 NTS

12 MULTI-TRUNK TREE PLANTING SECTION/PLAN L1.50 NTS

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	REVISIONS	DATE	BY

Kimley-Horn
© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
PHONE: 407-898-1511
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

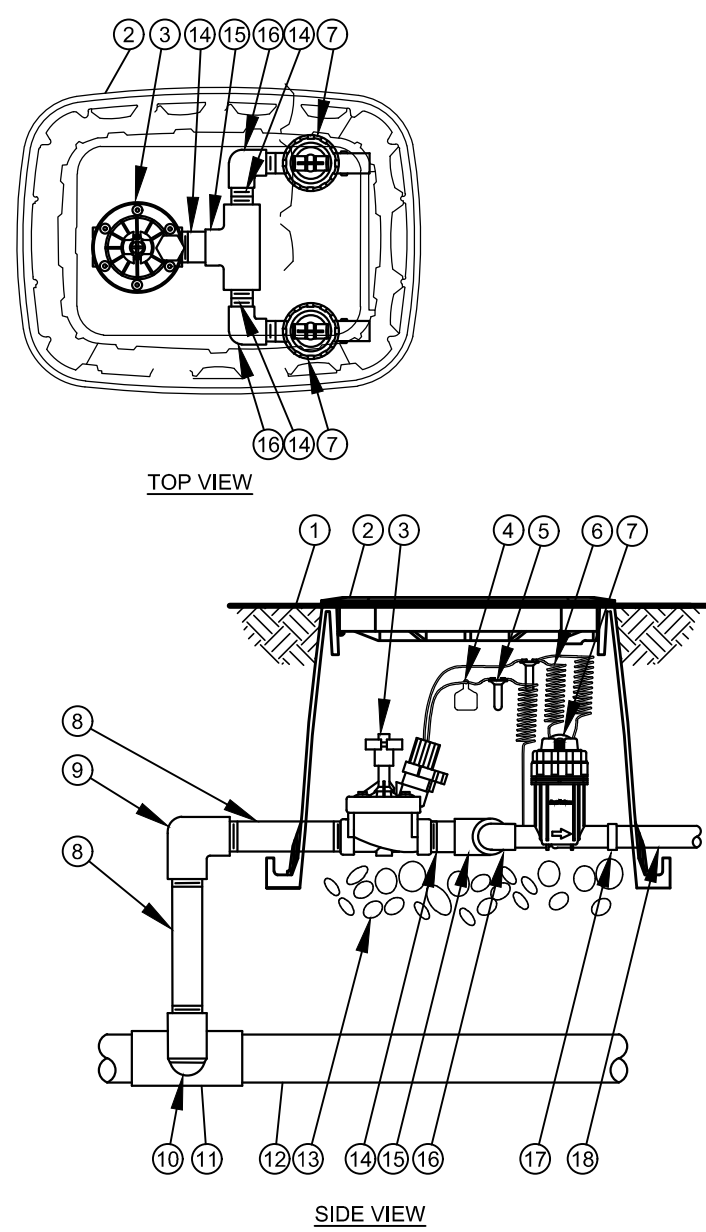
LICENSED PROFESSIONAL

KHA PROJECT 149973004	DATE 02/09/2023
SCALE AS SHOWN	DESIGNED BY AKP
DRAWN BY AKP	CHECKED BY AKP

LANDSCAPE DETAILS

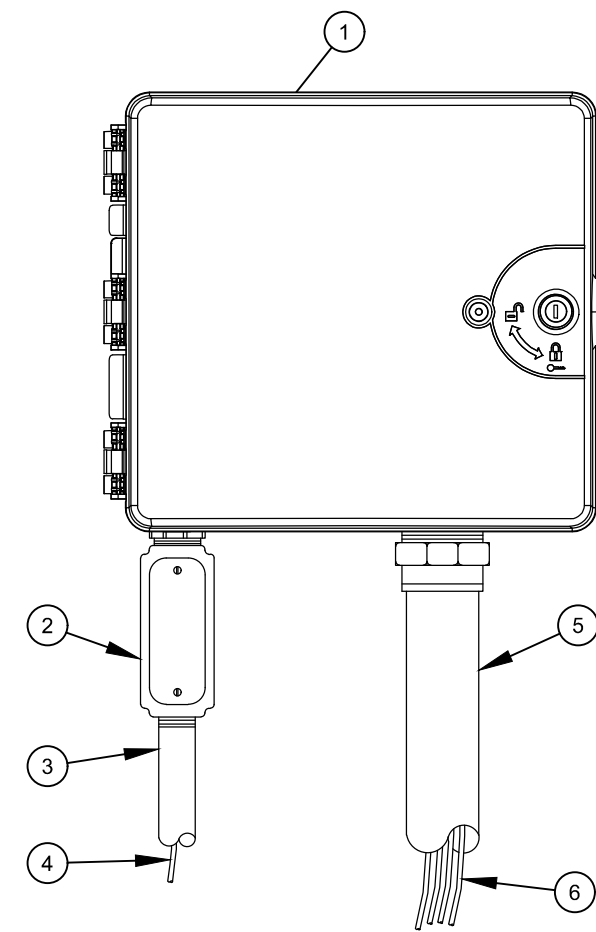
WINDERMERE DOWNTOWN PROPERTY
SHEET NUMBER **L1.50**
TOWN OF WINDERMERE

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 REMOTE CONTROL VALVE:
- 4 ID TAG
- 5 WATERPROOF CONNECTION:
- 6 30-INCH LINEAR LENGTH OF WIRE, COILED
- 7 PRESSURE REGULATING QUICK CHECK BASKET FILTER:
- 8 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 9 PVC SCH 40 ELL
- 10 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 11 PVC SCH 40 TEE OR ELL
- 12 MAINLINE PIPE
- 13 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 14 PVC SCH 80 NIPPLE, CLOSE
- 15 PVC SCH 40 TEE
- 16 PVC SCH 40 ELL
- 17 PVC SCH 40 FEMALE ADAPTOR
- 18 LATERAL PIPE

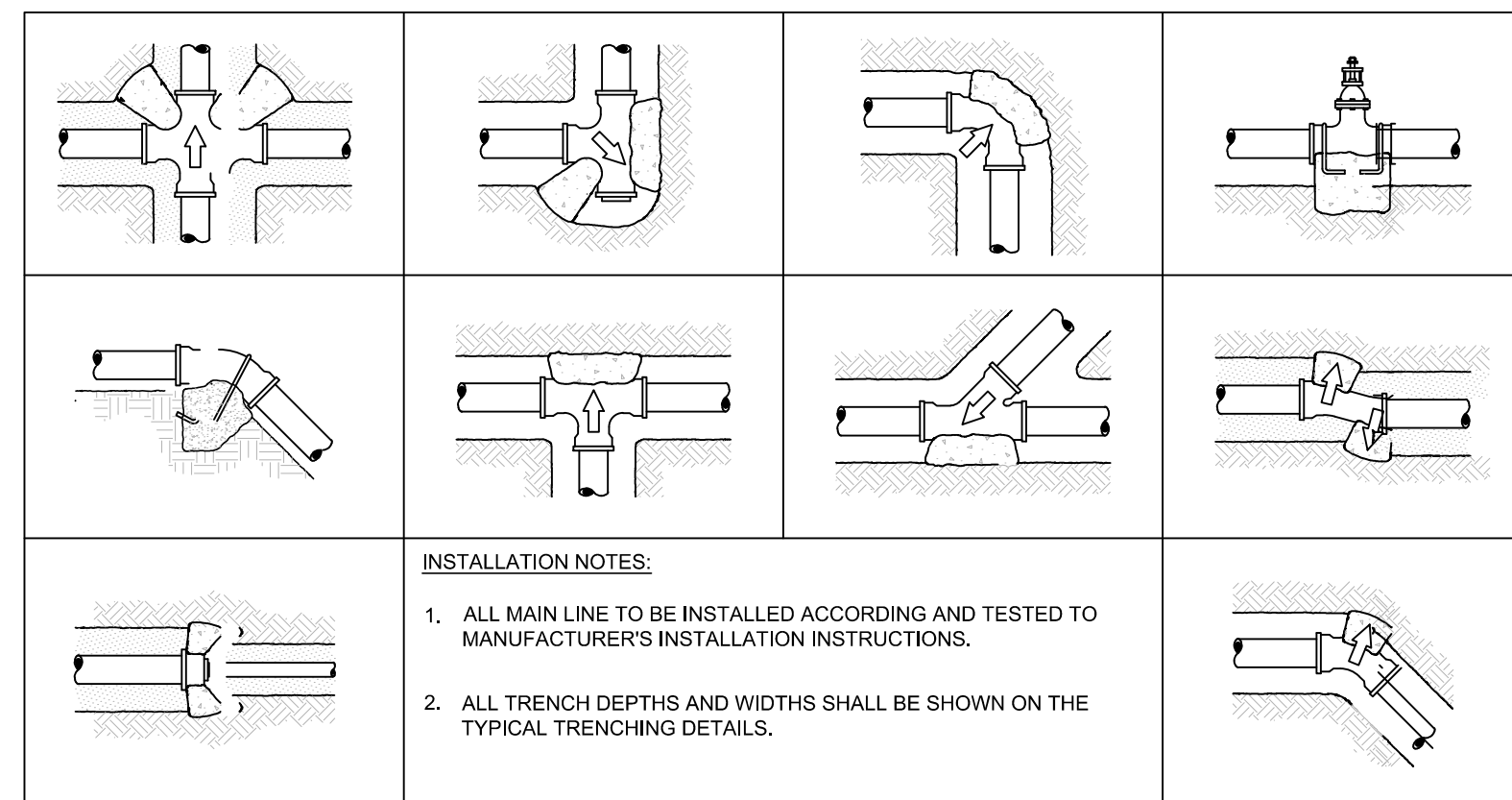
1 COMMERCIAL CONTROL DRIP ZONE VALVE KIT
SECTION / PLAN NTS



- 1 IRRIGATION CONTROLLER: CONTROLLER (OWNER TO SPECIFY WALL MOUNT OR STAINLESS STEEL PEDESTAL MOUNT). INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 2 JUNCTION BOX
- 3 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
- 4 POWER SUPPLY WIRE
- 5 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
- 6 WIRES TO REMOTE CONTROL VALVES

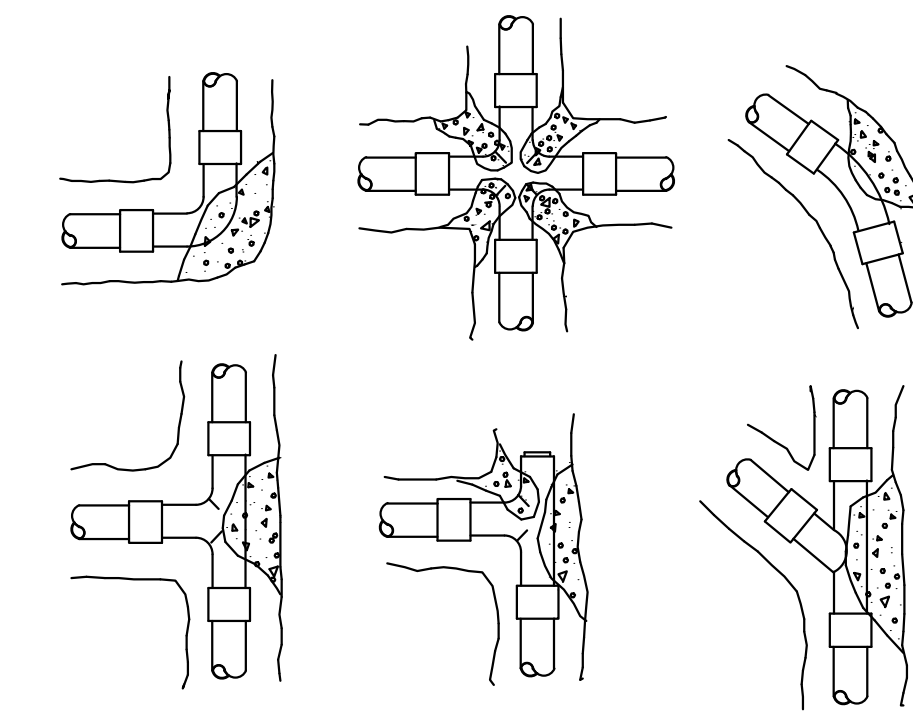
- NOTES:
1. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
 2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
 3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

2 TYPICAL CONTROLLER
ELEVATION NTS



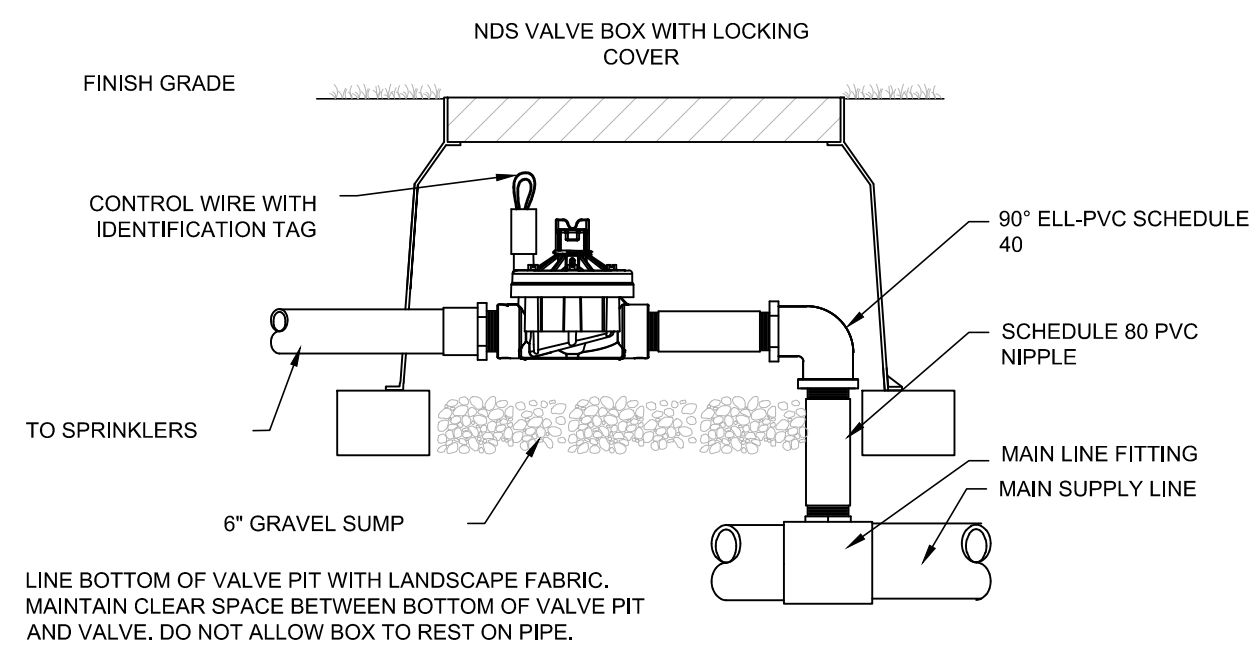
- INSTALLATION NOTES:
1. ALL MAIN LINE TO BE INSTALLED ACCORDING AND TESTED TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 2. ALL TRENCH DEPTHS AND WIDTHS SHALL BE SHOWN ON THE TYPICAL TRENCHING DETAILS.

3 TYPICAL THRUST BLOCK
SECTION NTS

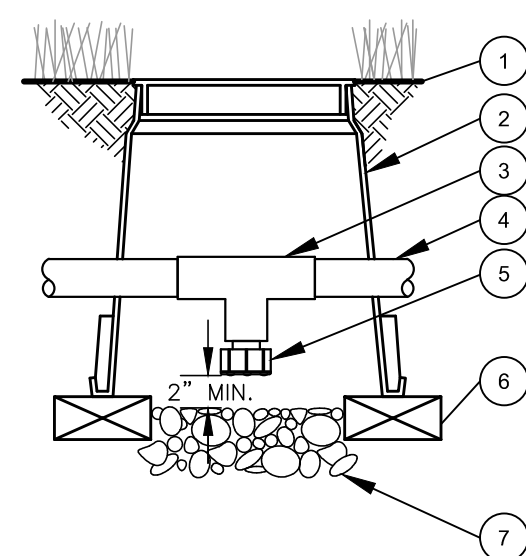


- INSTALLATION NOTES:
1. 3000 PSI CONCRETE OR BETTER IS TO BE USED FOR THRUST BLOCKS.
 2. FOR 45°/90° FITTINGS, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED.
 3. FOR 22-1/2" FITTINGS, MINIMUM OF 0.5 CUBIC FEET OF CONCRETE TO BE USED.
 4. FOR TEES, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED. THRUST
- BLOCKS REQUIRED FOR IRRIGATION MAINLINE 2 1/2" AND LARGER.

4 THRUST BLOCK REINFORCEMENT
SECTION NTS

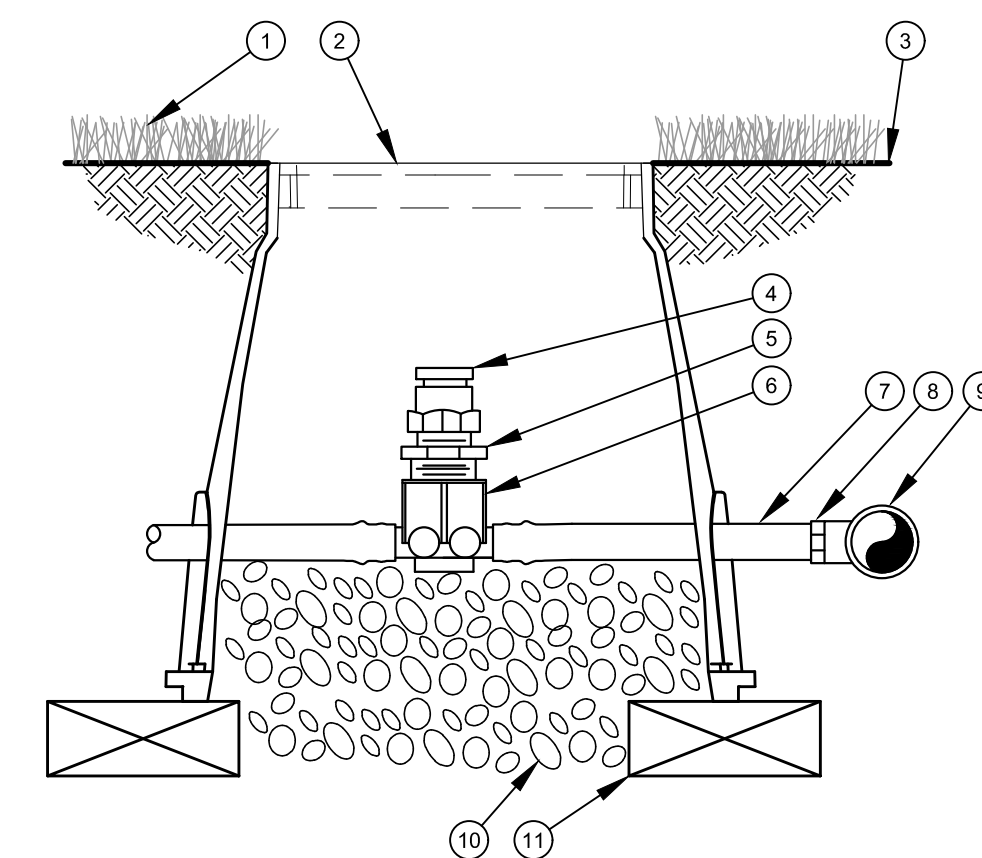


5 TYPICAL CONTROL VALVE
SECTION NTS



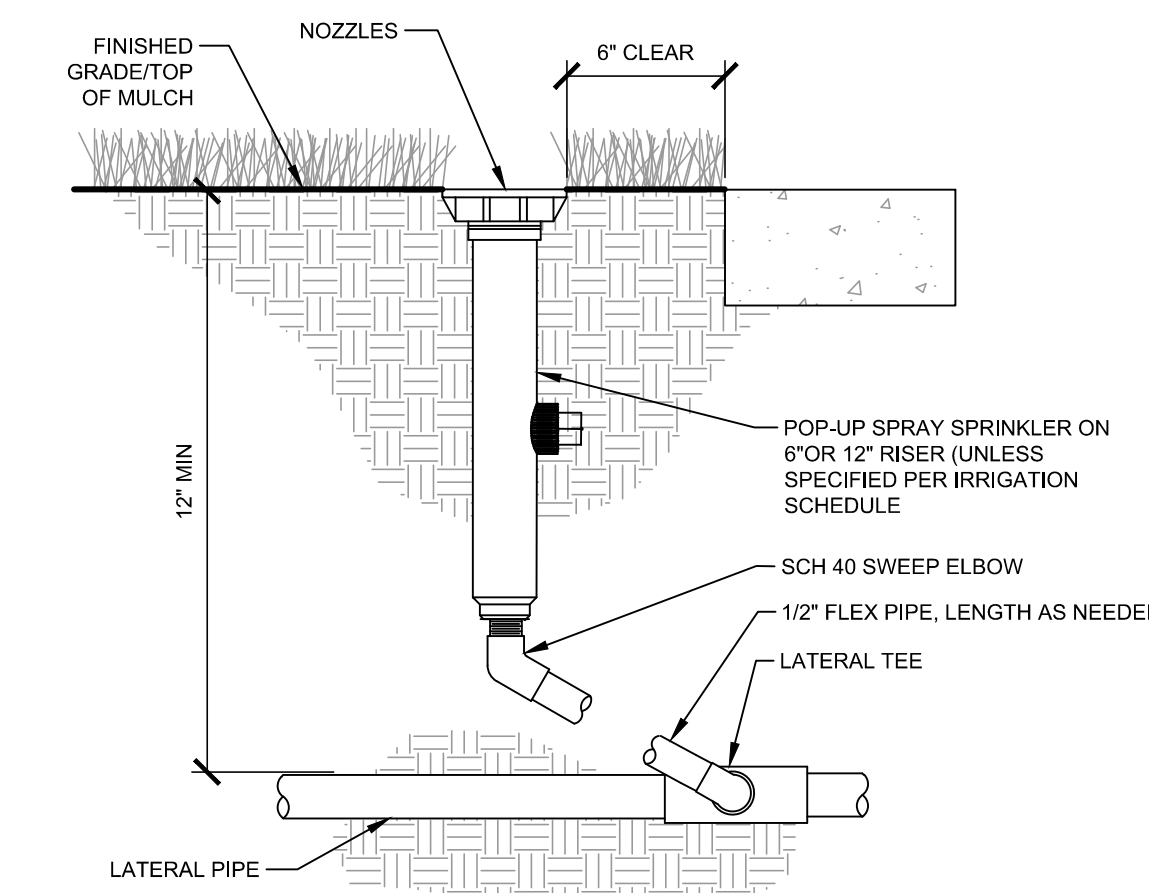
- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 PVC SCH 40 TEE
- 4 PVC LATERAL PIPE
- 5 FILTERED DRAIN VALVE:
- 6 BRICK (1 OF 2)
- 7 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

6 DRAIN VALVE
SECTION NTS

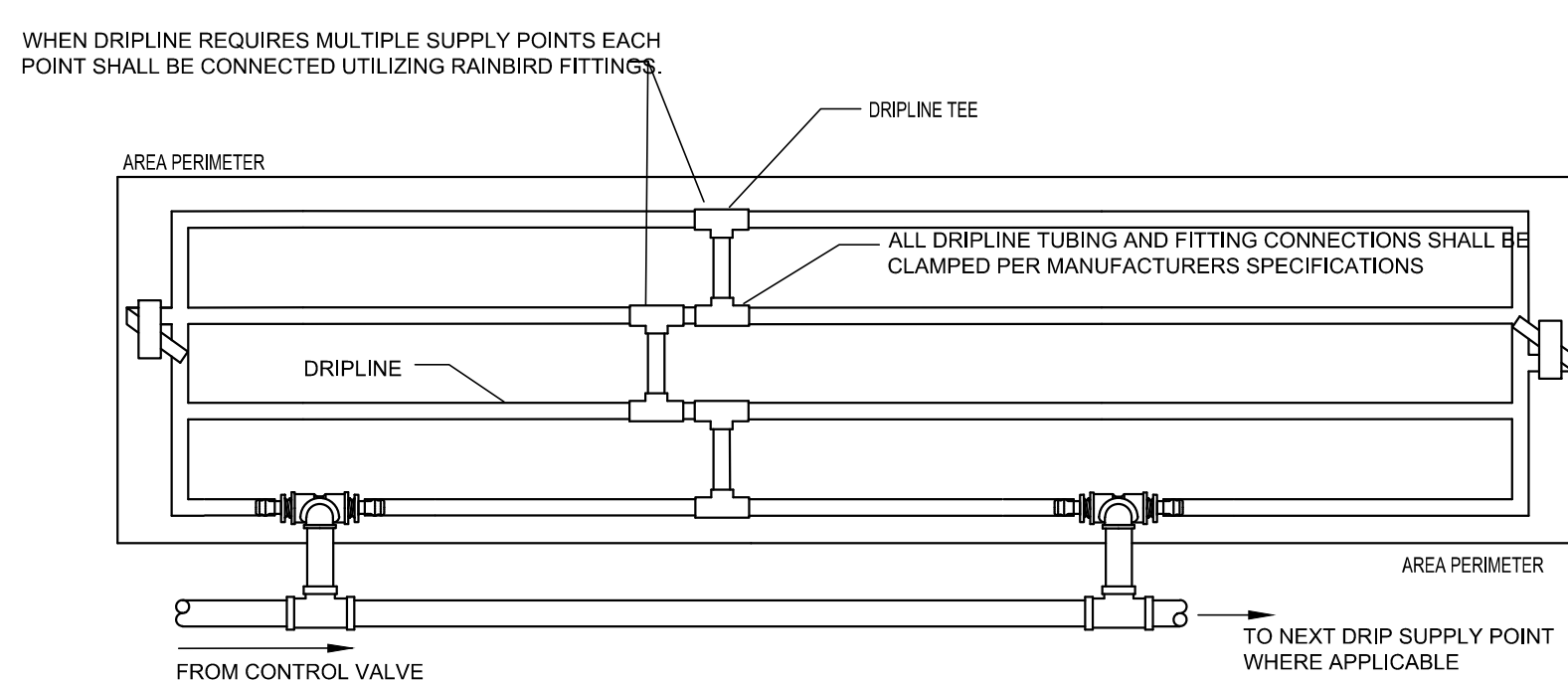


- 1 TURF GRASS
- 2 VALVE BOX LID
- 3 FINISH GRADE
- 4 1/2" AIR RELIEF VALVE: TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
- 5 1/2" x 3/4" PVC REDUCER BUSHING
- 6 BARB X FEMALE THREAD CONNECTOR:
- 7 1/2" BLANK DRIPLINE TUBING:
- 8 BARB X MALE THREAD CONNECTOR:
- 9 PVC TEE CONNECTED TO PVC HEADER PIPE
- 10 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
- 11 BRICK (1 OF 2)

7 AIR RELIEF VALVE IN XFS DRIP LINE
SECTION NTS

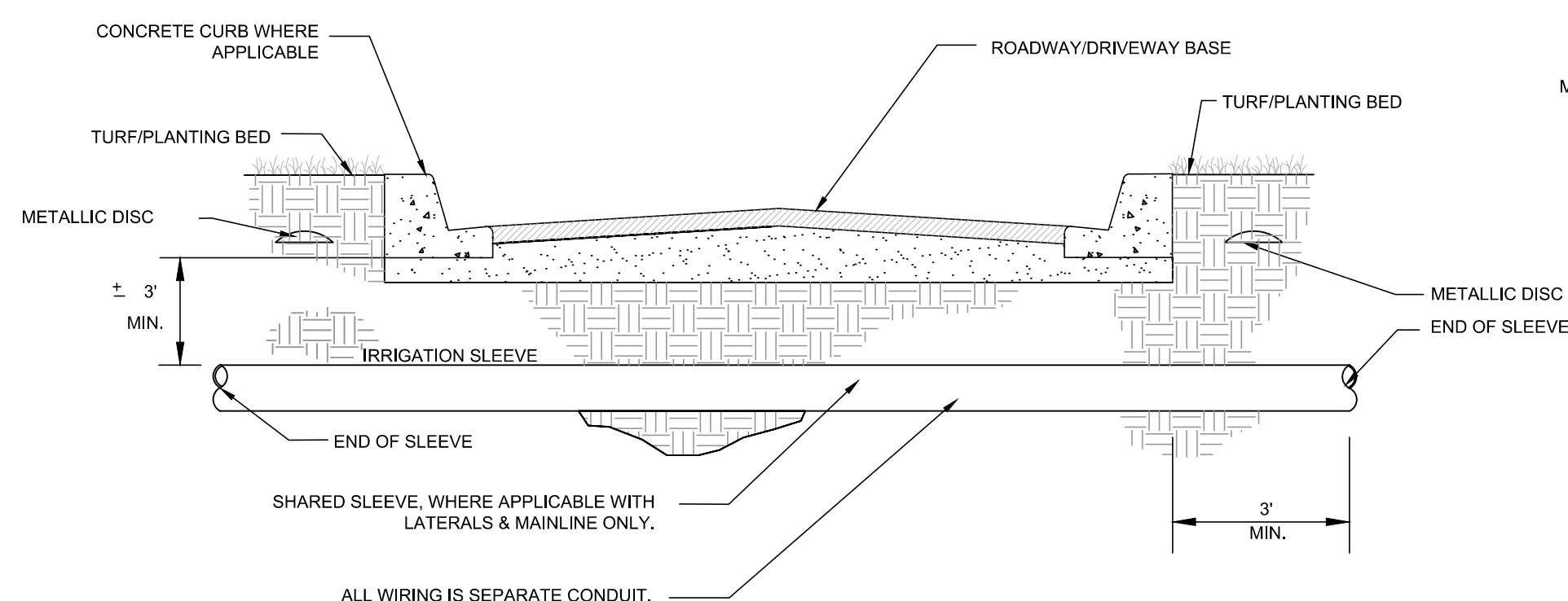


8 TYPICAL SPRAY / ROTAR HEAD
SECTION NTS

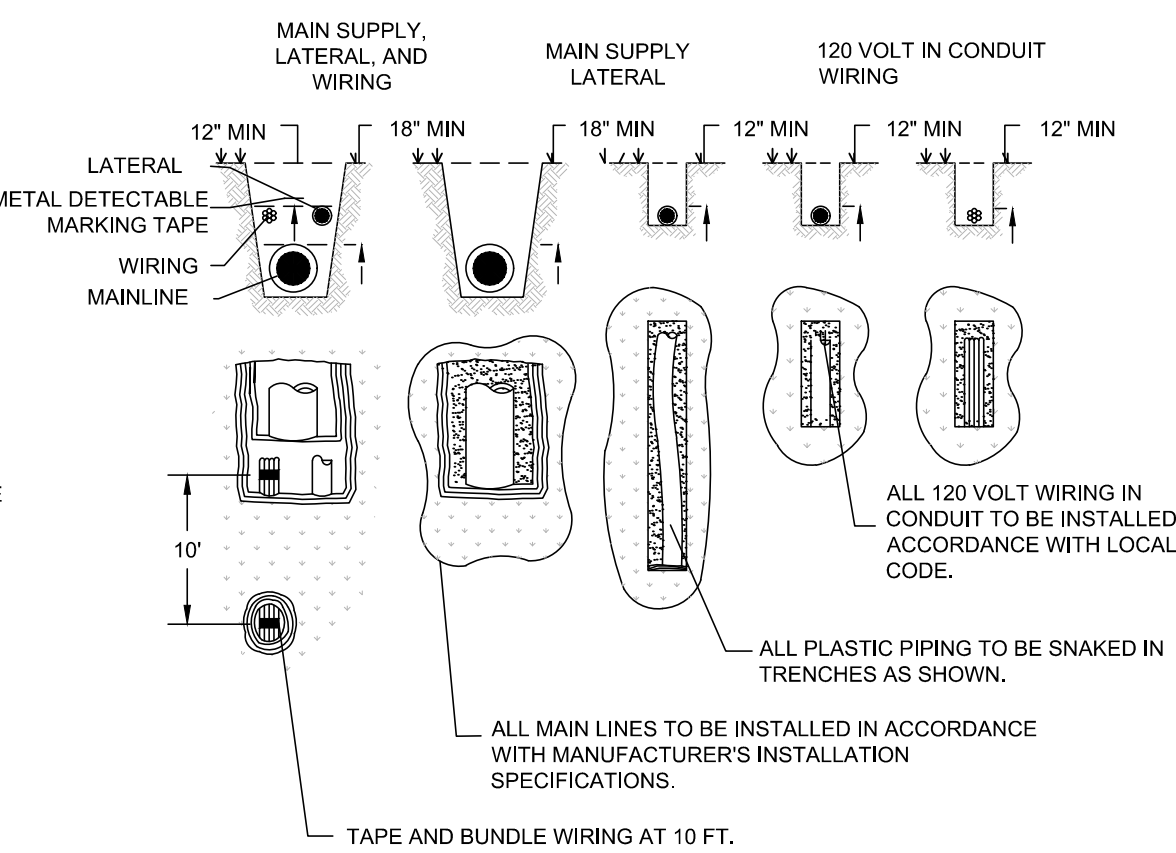


- WHEN DRIPLINE REQUIRES MULTIPLE SUPPLY POINTS EACH POINT SHALL BE CONNECTED UTILIZING RAINBIRD FITTINGS.
- ALL DRIPLINE TUBING AND FITTING CONNECTIONS SHALL BE CLAMPED PER MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS. IF NOT SHOWN, INSTALL WITHIN ADJACENT GREEN AREA NOT IN A HIGHLY VISIBLE AREA.
- NOTE:
1. DRIP TUBING TO BE ROUTED IN THE PLANT MATERIAL BED WITH AT MAXIMUM LATERAL SPACING OF 16 INCHES.
 2. DRIP TUBING TO BE INSTALLED IN A GRID PATTERN. DRIP TUBING SHALL NOT BE INSTALLED IN A LONG CONTINUOUS RUN.
 3. CONTRACTOR TO REFER TO IRRIGATION PLAN FOR LOCATION OF CONTROL VALVES THAT UTILIZE MULTIPLE DRIPLINE SUPPLY CONNECTIONS (IF SHOWN).

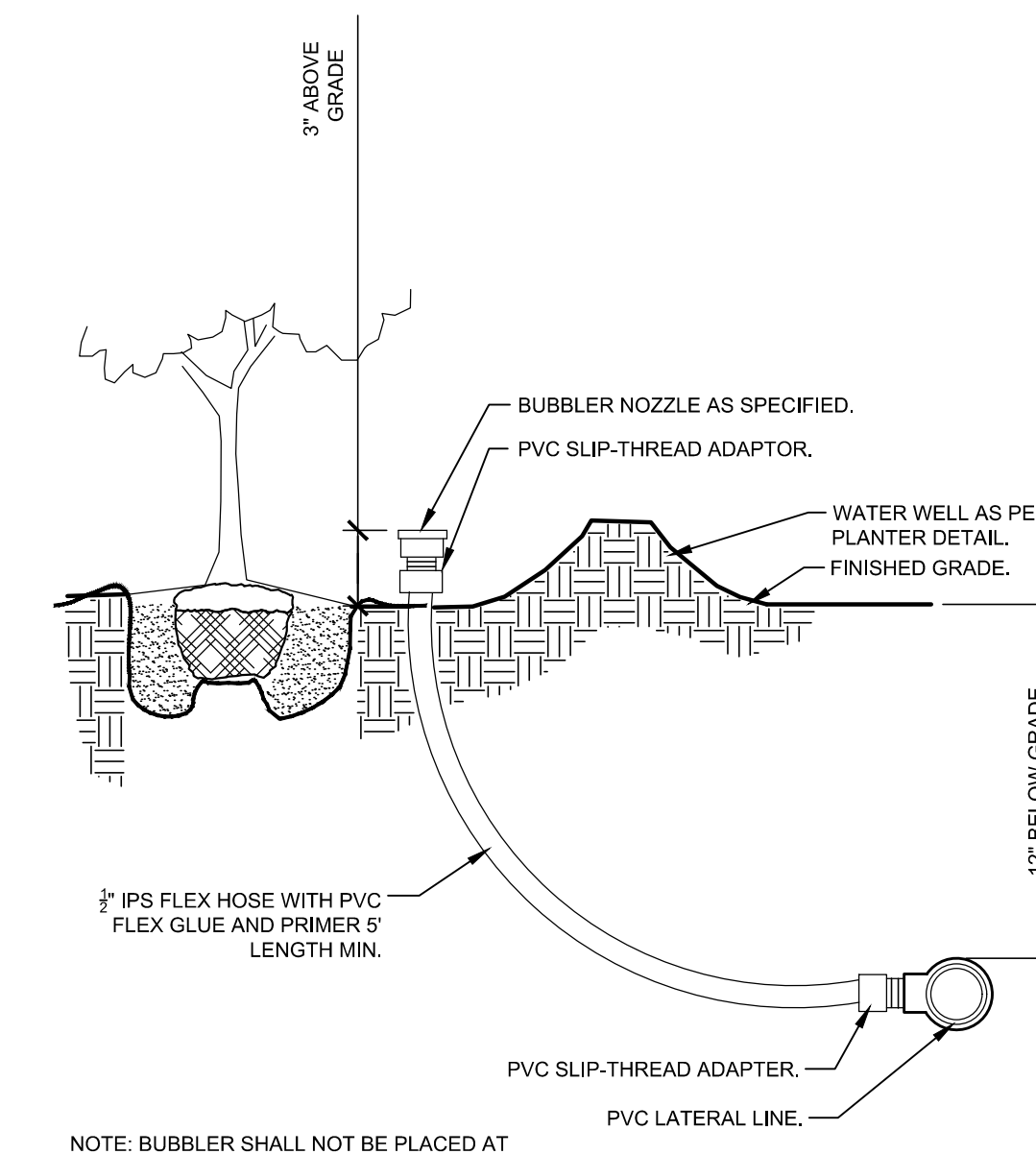
9 TYPICAL DRIP LINE
PLAN NTS



10 TYPICAL SLEEVING
SECTION NTS



11 TYPICAL TRENCHING
SECTION / PLAN NTS



12 TYPICAL BUBBLER
SECTION NTS

NO.	REVISIONS	DATE	BY

Kimley»Horn
 © 2022 KIMLEY-HORN AND ASSOCIATES, INC.
 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801
 PHONE: 407-896-1511
 WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL
 KHA PROJECT 149973004
 DATE 02/09/2023
 SCALE AS SHOWN
 DESIGNED BY AKP
 DRAWN BY AKP
 CHECKED BY AKP

IRRIGATION DETAILS

WINDERMERE DOWNTOWN PROPERTY
 TOWN OF WINDERMERE

SHEET NUMBER
L2.50

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

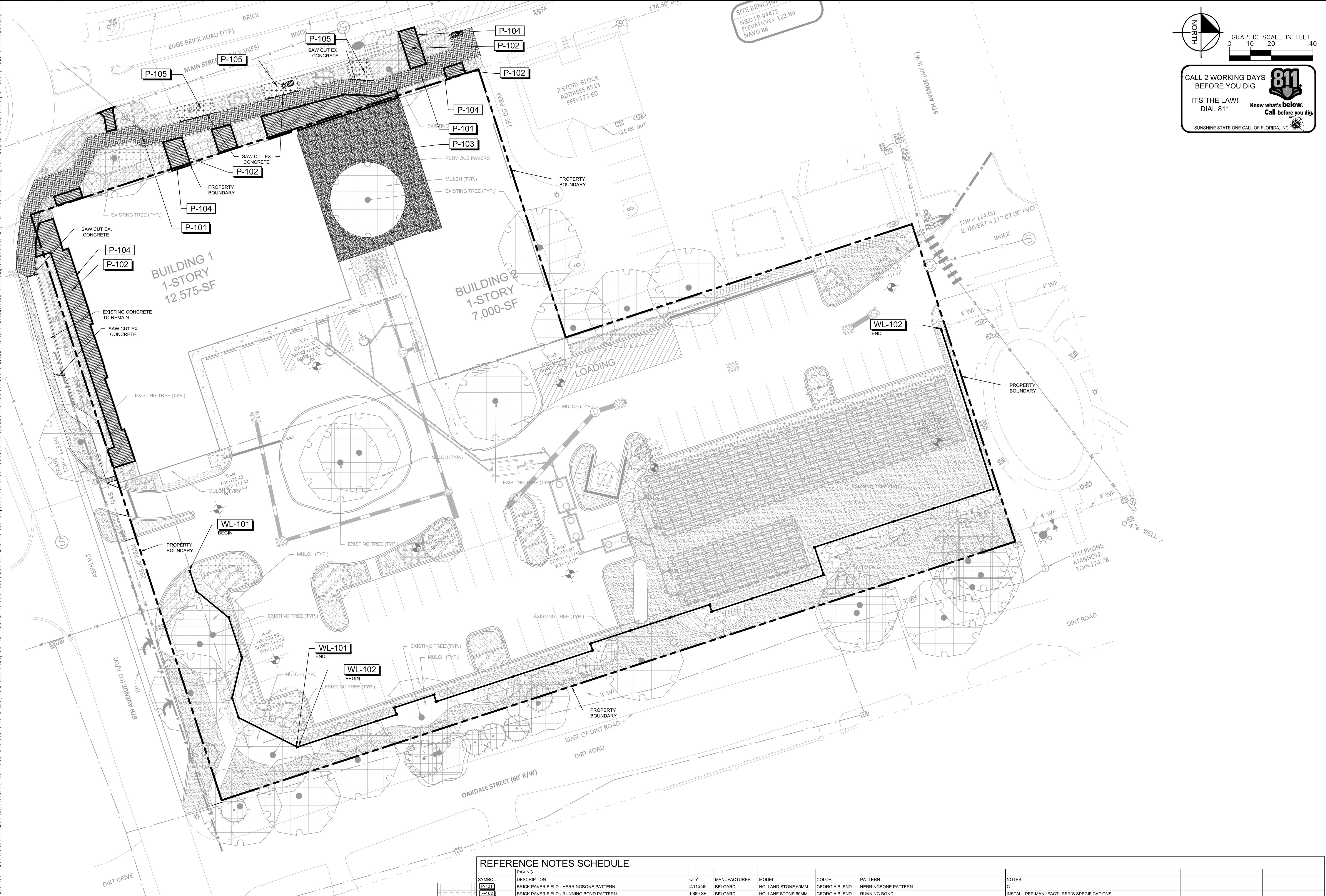
1
L2.51 TYPICAL SCHEMATIC IRRIGATION NOTES

IRRIGATION SYSTEM NOTES:

1. THE IRRIGATION MAINLINE LAYOUT IS DIAGRAMMATIC. ANY CHANGES MADE IN THE IRRIGATION MAINLINE DUE TO FIELD CONDITIONS OR CONTRACTOR'S SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
 2. SET SPRAY HEADS 6" AND ROTORS 12" IN FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
 3. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY MODIFICATIONS REQUIRED TO MEET THE SCHEMATIC INTENT OF THESE PLANS PRIOR TO SUBMITTING PROPOSAL. THESE PLANS OUTLINE THE OVERALL LAYOUT THE SYSTEM AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ZONE THE SYSTEM ACCORDINGLY BASED ON FLOW AND PRESSURE AVAILABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOLLOWING BUT NOT LIMITED TO AVAILABLE FLOW, AVAILABLE PRESSURE, CONNECTION ASSEMBLY, CAPACITY OF THE SYSTEM.
 4. CONTRACTOR TO PROVIDE NEW AUTOMATIC CONTROLLER FOR PROPOSED SYSTEM (NO BATTERY OPERATED CONTROLLERS ALLOWED), COORDINATE LOCATION WITH OWNER.
 5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AUTOMATIC RAIN SENSOR, COORDINATE LOCATION W/ OWNER.
 6. IRRIGATION SHALL NOT BE COMBINED ON A SINGLE ZONE AND SHALL BE ZONED ACCORDING TO IRRIGATION TYPE, PRECIPITATION RATE, AND THE SYSTEM'S AVAILABLE WATER / PRESSURE. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OWNER FOR REVIEW PRIOR TO INSTALLATION.
 7. VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS-CONTRACTOR SHALL FIELD VERIFY.
 8. CONTRACTOR TO FIELD VERIFY ALL POINT OF CONNECTION SOURCE INFORMATION INCLUDING PSI AND GPM PRIOR TO CONSTRUCTION.
 9. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON-SITE.
 10. CONTRACTOR SHALL COORDINATE WITH THE PLANTING PLAN FOR PLANTER BED AND TREE LOCATIONS TO ENSURE ALL PLANT MATERIAL IS COVERED BY 100% HEAD-TO-HEAD IRRIGATION.
 11. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
 12. PRODUCTS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
- PRE-APPROVED MANUFACTURERS:
1. TORO
 2. HUNTER
 3. RAINBIRD
13. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTION.
 14. LOCATE ALL IRRIGATION LINES WITHIN LANDSCAPED AREAS WHENEVER POSSIBLE. ALL LINES UNDER PAVEMENT MUST BE SLEEVED WITHIN SCH. 40 PVC 2x SIZE OF PIPE AND FREE OF STONES/DEBRIS. ALL VALVES SHALL BE LOCATED WITHIN LANDSCAPED AREAS.
 15. MAINLINE SHALL NOT BE LOCATED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
 16. THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR SLEEVING AND DIRECTIONAL BORES.
 17. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF THE SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES ON PLAN FOR WALL PENETRATIONS AND UNDER SIDEWALKS SHALL BE SIZED TWO PIPE SIZES GREATER THAN THE PIPE IT CARRIES.
 18. ALL PRESSURIZED MAINLINES AND LATERALS UNDER PAVEMENT SHALL BE WITHIN SCH. 40 PVC SLEEVES. WHERE ELECTRIC OR HYDRAULIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
 19. NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HB". LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
 20. THE IRRIGATION CONTRACTOR SHALL INSTALL A COLOR CODED METAL DETECTABLE MARKING TAPE WHICH CLEARLY NOTES: "CAUTION: IRRIGATION LINE BURIED BELOW." THE TAPE SHALL BE INSTALLED THE FULL LENGTH OF THE IRRIGATION MAINLINE.
 21. ELECTRIC SERVICE TO THE CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
 22. ALL 24 VAC WIRING FROM DECODER TO VALVE SHALL BE OF DIRECT BURIAL COPPER WIRE. MAXIMUM LENGTH OF WIRE FROM DECODER TO VALVE SHALL NOT EXCEED 400 FEET. AS FOLLOWS:
CONTROL WIRES - #14
COMMON WIRES - #14
 23. ALL VALVES, SPLICES WITHIN CONTROL LINES, AND QUICK COUPLERS SHALL BE LOCATED WITHIN NDS VALVE BOXES AS FOLLOWS:
-RECTANGULAR 12"x17" HEAVY DUTY BOX. (PURPLE COVER FOR REUSE TO BE PROVIDED WHERE APPROPRIATE).
 24. ALL IRRIGATION HEADS/DRIP TUBING SHALL BE LOCATED ONE (1) FOOT FROM BACK OF CURB WHEN NEXT TO A ROADWAY. (THIS SHALL NOT INCLUDE PARKING AREAS OR DRIVE AISLES).
 25. HEADS, LATERALS, EMITTERS, AND VALVES ARE NOT SHOWN, BUT ARE NECESSARY FOR A FULLY FUNCTIONING IRRIGATION SYSTEM.
 26. LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE. WHERE MAINLINES RUN PARALLEL TO PAVEMENT OR CURBING, THE MAINLINE SHALL BE OFFSET 2'-0" FROM THE EDGE OF PAVEMENT OR CURB.
 27. IRRIGATION ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER USE REQUIREMENTS AND OPERATED ON DIFFERENT WATERING CYCLES. BUBBLERS, DRIPLINE, AND SPRAY HEADS SHALL BE SEPARATED ON DIFFERENT VALVES. AT NO TIME SHALL MULTIPLE IRRIGATION HEAD TYPES BE LOCATED ON THE SAME VALVE.
 28. ALL DRIP ZONES SHALL BE INSTALLED WITH A FLUSH VALVE AND AIR RELIEF VALVE. IN THE EVENT THAT A DRIP ZONE HAS MORE THAN ONE HIGH OR LOW POINT, MORE THAN ONE AIR RELIEF VALVE OR FLUSH VALVE WILL BE REQUIRED FOR THAT ZONE. DRIPLINE SHALL PROVIDE 0.9 GPH EMITTERS, 12" O.C. WITH 12" LINE SPACING AT A MINIMUM.
 29. ALL WIRING FOR CONNECTION OF THE VALVES TO THE CONTROLLER SHALL FOLLOW MANUFACTURERS SPECIFICATIONS. IF REQUIRED, ALL WIRING FOR A TWO WIRE PATH SHALL BE WITH RED/BLUE TWISTED PAIR 14 AWG. ELECTRIC CONTROL LINES FROM THE DECODER TO THE SOLENOID VALVES SHALL BE TWISTED PAIR 18 AWG. ALL DECODERS SHALL BE GROUNDED EVERY 1,000 L.F. OR EVERY 10 DEVICES. ALL WIRE SHALL BE FURNISHED IN MINIMUM 2,500' REELS AND SPLICING SHALL BE MINIMIZED. BURY SPLICE KIT. ALL 24 VOLT WIRING SHALL BE DONE IN ACCORDANCE WITH EXISTING CODES. SPLICING SHALL BE IN VALVE BOXES OR CONTROLLERS ONLY. IRRIGATION SYSTEM CONTROL SHALL BE TWO WIRE PATH. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S REQUIREMENTS FOR THIS INSTALLATION. TWO WIRE SYSTEM SHALL HAVE 2-WAY COMMUNICATIONS FIELD PROGRAMMABILITY, STATION SPECIFICATIONS AND INTEGRATED SURGE PROTECTION.
 30. ALL CONTROL WIRE SHALL BE INSTALLED IN A 1 1/2" ELECTRICAL CONDUIT.
 31. SMALLEST DIAMETER LATERAL PIPE SHALL BE 3/4".
 32. IRRIGATION SYSTEM SHALL BE CAPABLE OF SUPPLYING AN AVERAGE OF 1.05" OF WATER PER WEEK WITHIN WATERING RESTRICTIONS AS APPLICABLE.
 33. IRRIGATION SYSTEM SHALL NOT BE INSTALLED THROUGH EXISTING, OR PRESERVED PLANT COMMUNITIES. DO NOT TRENCH THROUGH EXISTING ROOT SYSTEMS OF ANY VEGETATION INTENDED TO BE PRESERVED.
 34. CONTRACTOR TO MINIMIZE IRRIGATION OVERTHROW TO IMPERVIOUS AND NATURAL AREAS THROUGH FIELD ADJUSTMENTS TO INDIVIDUAL HEADS.
 35. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION DENOTED ON THE LANDSCAPE PLAN.
 36. IRRIGATION PIPING INSTALLED UNDER ROADS AND SIDEWALKS SHALL BE IN SCHEDULE 40 PVC SLEEVING AT 2X THE PIPE SIZE. ALL SLEEVING SHALL BE FREE OF STONES AND DEBRIS.
 37. IRRIGATION SOURCE TO BE EITHER WELL, POTABLE, OR NON-POTABLE WATER. IRRIGATION CONTRACTOR TO VERIFY SOURCE PRIOR TO DESIGN.
 38. POINT OF CONNECTION TO BE DETERMINED BY OWNER. IRRIGATION SYSTEM CONNECTIONS TO THE LOCAL JURISDICTION SERVICE SHALL COMPLY WITH ALL APPLICABLE CODES.
 39. IRRIGATION CONNECTION MAY REQUIRE BACKFLOW PREVENTION, VERIFY WITH LOCAL JURISDICTION.
 40. IRRIGATION SYSTEM SHALL COMPLY WITH THE LOCAL JURISDICTION LAND DEVELOPMENT CODE.

<h1 style="margin: 0;">WINDERMERE DOWNTOWN PROPERTY</h1> <p style="font-size: small; margin: 0;">TOWN OF WINDERMERE</p>	<h1 style="margin: 0;">IRRIGATION SPECIFICATIONS</h1>	KHA PROJECT 149973004 DATE 02/09/2023 SCALE AS SHOWN DESIGNED BY AKP DRAWN BY AKP CHECKED BY AKP	LICENSED PROFESSIONAL MARCUS J. GEIGER, P.E. FL LICENSE NUMBER 89199 DATE: 2/10/2023
<p style="font-size: x-small; margin: 0;">© 2022 KIMLEY-HORN AND ASSOCIATES, INC. 189 S. ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 PHONE: 407-898-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106</p>			
SHEET NUMBER L2.51			
		REVISIONS	DATE BY

Plotted By: Ceiler, Marcus Sheet: Sit: Windermere Downtown Property Layout: L3.01 February 10, 2023 02:20:53pm K:\DRG_Civil\19972004-Windermere Downtown Property\CADD\CONST\PlanSheets\L3.00 - HARDSCAPE PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and consent by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



NORTH
 GRAPHIC SCALE IN FEET
 0 10 20 40
CALL 2 WORKING DAYS BEFORE YOU DIG
811
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.
 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	MANUFACTURER	MODEL	COLOR	PATTERN	NOTES		
[Symbol]	PAVING								
[Symbol]	BRICK PAVER FIELD - HERRINGBONE PATTERN	2,115 SF	BELGARD	HOLLAND STONE 60MM	GEORGIA BLEND	HERRINGBONE PATTERN			
[Symbol]	BRICK PAVER FIELD - RUNNING BOND PATTERN	1,889 SF	BELGARD	HOLLAND STONE 60MM	GEORGIA BLEND	RUNNING BOND	INSTALL PER MANUFACTURER'S SPECIFICATIONS		
[Symbol]	PERMEABLE PAVER - INTERLOCKING GRID	2,379 SF	BELGARD	TURFSTONE	GRAY	VOIDS TO BE FILLED WITH PEA GRAVEL, GRAY AND WHITE BLEND	INSTALL PER MANUFACTURER'S SPECIFICATIONS; SEE DETAIL ON CIVIL PLANS		
[Symbol]	PAVER BANDING 1	448 SF	BELGARD	HOLLAND STONE 60MM	GEORGIA BLEND	SAILOR COURSE	INSTALL PER MANUFACTURER'S SPECIFICATIONS		
[Symbol]	EXISTING CONCRETE SIDEWALK TO REMAIN; CONTRACTOR TO SAW CUT TO LAYOUT SHOWN	335 SF							
SYMBOL	DESCRIPTION	QTY	MANUFACTURER	MODEL	WALL HEIGHT	WALL PANEL FINISH	WALL PANEL COLOR	COLUMN VENEER MANUFACTURER	COLUMN VENEER MODEL
[Symbol]	6' PERMACAST WALL	112 LF	PERMACAST	PERMACAST 2.0	6' HEIGHT	SAND FINISH	TO BE PROVIDED FROM OWNER	EL DORADO	EL DORADO
[Symbol]	3' PERMACAST WALL	464 LF	PERMACAST	PERMACAST 2.0	3' HEIGHT	SAND FINISH	TO BE PROVIDED FROM OWNER	EL DORADO	HARTFORD

Kimley»Horn
 LICENSED PROFESSIONAL
 KHA PROJECT 149973004
 DATE 02/09/2023
 SCALE AS SHOWN
 DESIGNED BY AKP
 DRAWN BY AKP
 CHECKED BY AKP
 DATE: _____
 REVISIONS: _____
 BY: _____
 DATE: _____
WINDERMERE DOWNTOWN PROPERTY
HARDSCAPE PLAN
 SHEET NUMBER **L3.01**
 TOWN OF WINDERMERE, FL

