

PROJECT CONTACTS				
CURRENT OWNER DELAND VENTURE LLC 1310 SOUTH TYRONE STREET, SUITE 104 CHARLOTTE, NC 28203 ATTN: JORGE RODRIGUEZ PHONE: (407) 362-6141	DEVELOPER PANDA EXPRESS, INC. 1683 WALNUT GROVE AVE. ROSEMead, CA 91770 PHONE: (626) 799-9898 FAX: (626) 372-8288	CIVIL ENGINEER CPH, INC. NICOLE P. LEBRON, P.E. 5601 MARINERS STREET TAMPA, FL 33609 PHONE: (813) 288-0233	ARCHITECT CPH, INC. JOHN A. BEAR A.I.A. 500 WEST FULTON STREET SANFORD, FLORIDA 32771 PHONE: (407) 322-6841	LAND SURVEYOR CPH, INC. PAUL J. KATREK, P.S.M. 500 W. FULTON STREET SANFORD, FL 32771 PHONE: (407) 322-6841
MEP CPH, INC. JEFFREY A. DEAL, P.E. 500 W. FULTON STREET SANFORD, FL 32771 PHONE: (407) 322-6841	SITE LIGHTING VILLA LIGHTING SUPPLY 2929 CHOUTEAU AVENUE ST. LOUIS, MO 63103 ATTN: MR. RYAN ZINSELMIEER PHONE: (314) 633-0423 ryan.zinselmeier@villalighting.com	MUNICIPAL SEWER AGENCY CITY OF DELAND UTILITIES 1101 SOUTH AMELIA AVENUE DELAND, FL 32724 ATTN: JIM AILES PHONE: (386) 626-7250 ailesj@deland.org	MUNICIPAL WATER AGENCY CITY OF DELAND UTILITIES 1101 SOUTH AMELIA AVENUE DELAND, FL 32724 ATTN: JIM AILES PHONE: (386) 626-7250 ailesj@deland.org	ELECTRIC DUKE ENERGY 400 N SPRING GARDEN AVE. DELAND, FL 32720 ATTN: JANICE GOODMAN PHONE: (386) 943-3908 janice.goodman@Duke-Energy.com
GAS CENTRAL FLORIDA GAS / FLORIDA UTILITIES CORPORATION 450 SOUTH HIGHWAY 17-82 DEBARY, FL 32713 ATTN: JOHNNY HILL PHONE: (352) 636-7057 jhill@pfuc.com	TELEPHONE COMPANY AT&T COMMUNICATIONS 2421 S. WOODLAND BLVD. DELAND, FL 32720 ATTN: JAMIE HARDEE (386) 281-6961 jh8074@att.com	LANDSCAPE ARCHITECT CPH, INC. JAMES K. WINTER, PLA 500 W. FULTON STREET SANFORD, FL 32771 (407) 322-6841	SIGNAGE ATLAS SIGN INDUSTRIES 1077 W. BLUE HERON BOULEVARD RIVERIA BEACH, FL 33404 ATTN: KAREN VANHOY (561) 863-6659 x3302 karen.v@atlasbw.com	FIRE DELAND FIRE DEPARTMENT 201 W. HOWRY AVE. STATION 81 DELAND, FL 32720 ATTN: TODD ALLEN PHONE: (386) 626-7326 allen@deland.org
GEOTECHNICAL REPORT TERRACON CONSULTANTS, INC. BRENDAN S. O'BRIEN, P.E. 1675 LEE ROAD WINTER PARK, FL 32780 PHONE: (407) 740-6110 TERRACON PROJECT NO. H1205226				

CRITERIA CIVIL PLANS:



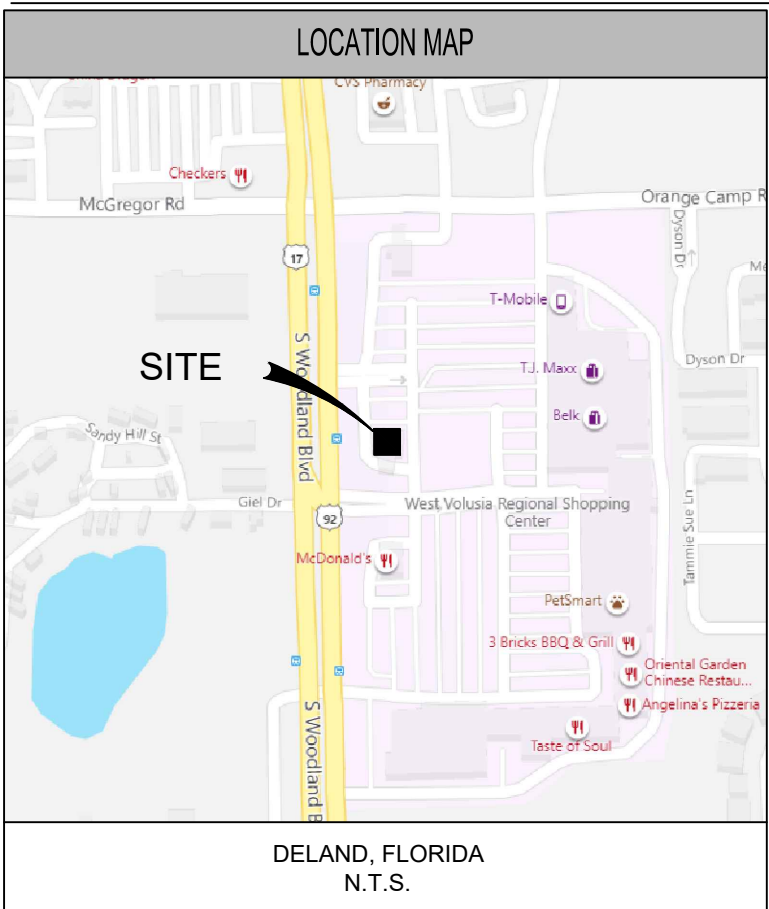
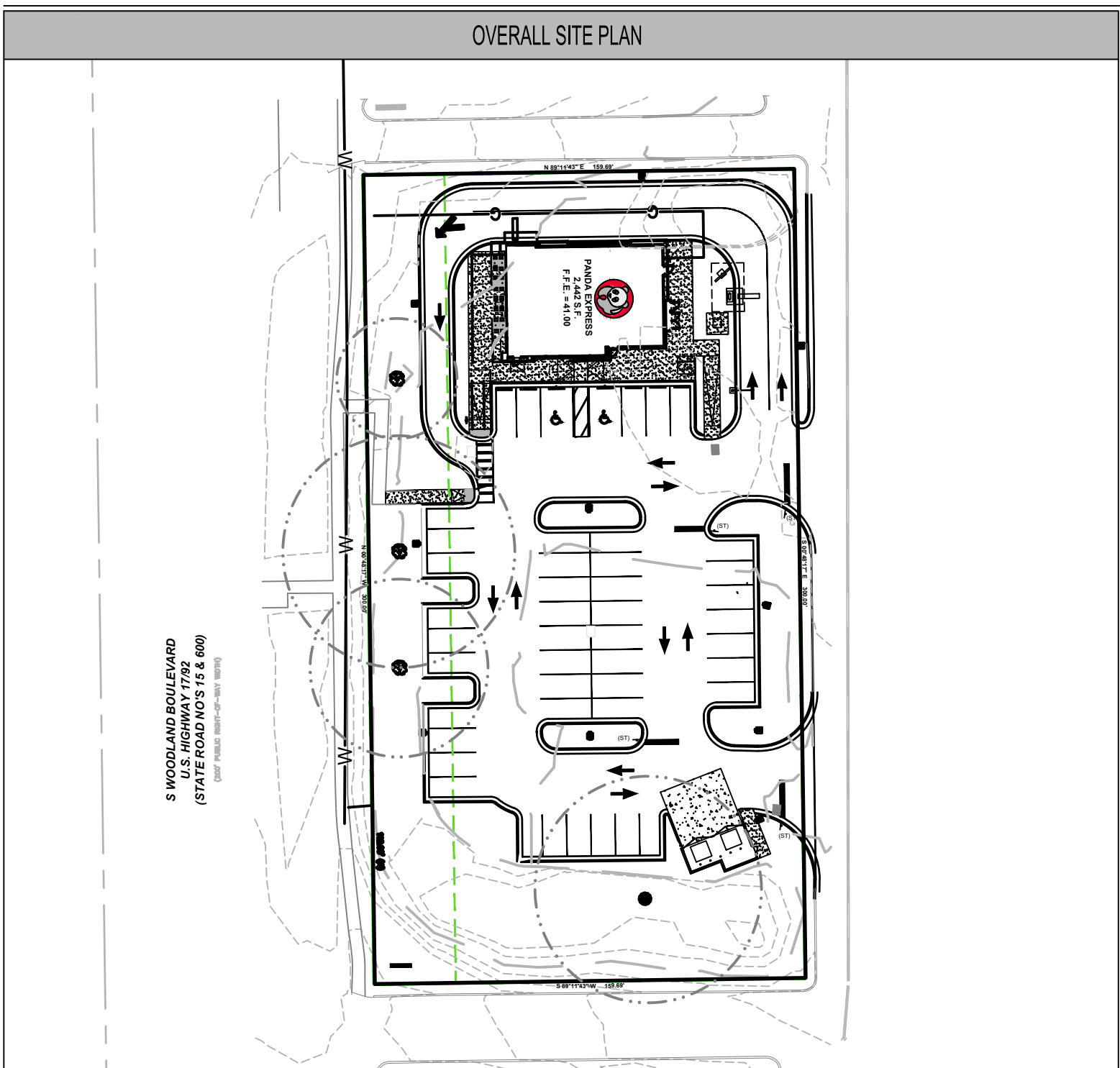
2599 S. WOODLAND BLVD. VOLUSIA COUNTY, DELAND, FLORIDA 32720 SECTION 33, TOWNSHIP 17 SOUTH, RANGE 30 EAST SR ROAD NO. 15 & 600 SECTION: 79040000 MILE POST: 10.210

PREPARED BY:



PLANS PREPARED FOR:

PANDA EXPRESS, INC.
1683 WALNUT GROVE AVE.
ROSEMead, CALIFORNIA 91770
PHONE: 626.799.9898
FAX: 626.372.8288



APPROVAL AGENCIES	GENERAL STATEMENT
WATER MANAGEMENT DISTRICT SJRWMCD 601 S. LAKE DESTINY DR. #200 MAITLAND, FLORIDA 32751 (407) 659-4800 APPLICATION ID: 22665-3 FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT FIVE 719 SOUTH WOODLAND BLVD. DELAND, FLORIDA 32720 ATTN: JARED PERDUE PHONE: (386) 943-5000 FDOT ACCESS CONNECTION PERMIT: 2020-A-591-00060 - NOT REQUIRED FDOT DRAINAGE PERMIT: 2020-D-591-00040 FDOT HIGHWAY SEGMENT NO.: 79 040 000 CITY OF DELAND 1102 SOUTH GARFIELD AVE. DELAND, FLORIDA 32724 ATTN: RAY BAHRAMI PHONE: (386) 626-7189 bahrami@deland.org APPROVAL: SP20-159	<ul style="list-style-type: none"> PROJECT PROPOSES REDEVELOPMENT OF AN EXISTING OUT PARCEL OF THE WEST VOLUSIA REGIONAL SHOPPING CENTER TO A RESTAURANT WITH A DRIVE-THRU. EXISTING INFRASTRUCTURE SHALL BE USED / MODIFIED AS NEEDED TO ACCOMPLISH DESIGN INTENT. SITE IS NOT LOCATED WITHIN A HISTORIC PRESERVATION DISTRICT. NO NEW DRIVEWAYS ARE PROPOSED. SITE WILL UTILIZE EXISTING SHOPPING CENTER DRIVEWAYS TO STATE ROAD 15 & 600. NO RIGHT-OF-WAY DEDICATION OR RIGHT-OF-WAY IMPROVEMENTS ARE PROPOSED. PER SECTION 33-93.05(6) OF THE CITY OF DELAND, LAND DEVELOPMENT CODES, THIS PROJECT IS EXEMPT FROM CITY STORMWATER REGULATIONS DUE TO IMPERVIOUS AREA INCREASE IS LESS THAN 1,000 SQUARE FEET. <p>Legal Description: (PER TITLE COMMITMENT ORDER NO. GLW2000804) LOT 2 OF WEST VOLUSIA REGIONAL SHOPPING CENTER, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 41, PAGE 191, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA. PARCEL CONTAINS 47,907 SQUARE FEET / 1.10 ACRES.</p>

FDOT NOTES

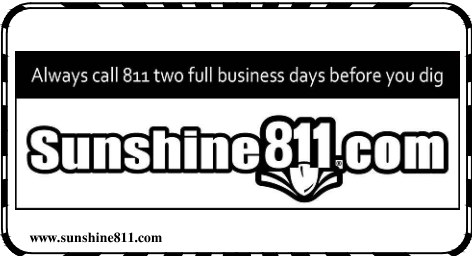
- ALL CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFIRM TO THE LATEST FDOT STANDARD PLANS AND FDOT STANDARD SPECIFICATIONS.
- ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY SHALL BE SODDED.
- DEVELOPER/CONTRACTOR WILL BE RESPONSIBLE TO ADD/REMOVE/MODIFY ANY EXISTING STRIPING OR SIGNAGE IN THE FDOT RIGHT-OF-WAY THAT MAY BE AFFECTED BY THE PROPOSED WORK.
- ALL NEWLY CONSTRUCTED OR MODIFIED SIDEWALKS, RAMPS AND CROSSWALKS SHALL COMPLY WITH CURRENT ADA STANDARDS.
- REFER TO SHEET C04.0 FOR LIMITS OF UTILITY WORK WITHIN THE FDOT RIGHT-OF-WAY.
- ALL CONSTRUCTION STAGING AND ACCESS FOR PROPOSED UTILITY WORK WILL BE FROM WITHIN THE PROJECT LIMITS. NO STAGING TO OCCUR IN THE FDOT RIGHT-OF-WAY.
- IT SHALL BE THE DEVELOPERS' RESPONSIBILITY TO PROTECT ALL FDOT OWNED AND COUNTY MAINTAINED FACILITIES. ANY/ALL COSTS ASSOCIATED WITH ALTERATIONS, RELOCATION OR REPAIRS MADE NECESSARY BY THIS DEVELOPMENT SHALL BE BORNE BY THE EITHER THE OWNER, DEVELOPER AND/OR CONTRACTOR. SPLICES IN THE ROADWAY LIGHTING CABLES OR THE ADDITION OF ADDITIONAL PULL/JUNCTION BOXES WILL NOT BE PERMITTED. IN THE EVENT A CABLE IS CUT, DAMAGED OR REQUIRES RELOCATION, THE CABLE(S) SHALL BE RESTORED BACK TO THE ORIGINAL CONFIGURATION. ORIGINAL CONFIGURATION IS DEFINED AS SYSTEM STATUS, LAYOUT AND DESIGN PRIOR TO ANY WORK COMMENCING. ALL WORK AND MATERIALS SHALL CONFORM TO LAKE COUNTY SUPPLEMENTAL SPECIFICATIONS FOR ROADWAY LIGHTING.
- A LIGHTING DISTRICT RIGHT-OF-WAY USE PERMIT WILL BE REQUIRED FOR ANY WORK ASSOCIATED WITH INSPECTION, RELOCATION OR THE REPAIR OF ANY EXISTING COUNTY MAINTAINED FACILITY WITHIN THE US 441 PUBLIC RIGHT-OF-WAY. SPECIFIC STIPULATIONS OR CONDITIONS WILL BE IMPOSED AT TIME OF PERMIT APPLICATION. IN THE EVENT COUNTY OWNED FACILITIES REQUIRE ALTERATIONS, RELOCATION AND/OR REPAIR, THAT WORK WILL BE PERFORMED BY LAKE COUNTY FORCES OR FORCES CONTRACTED BY OR APPROVED BY LAKE COUNTY TO MAKE THE NECESSARY CORRECTIONS. EITHER THE OWNER, DEVELOPER AND/OR CONTRACTOR WILL POST A CHECK IN AN AMOUNT SUFFICIENT TO COVER MENTIONED COSTS OR THE COSTS NEEDED TO INSPECT WORK TO ENSURE WORK PERFORMED WITHIN THE RIGHT-OF-WAY IS PERFORMED IN ACCORDANCE WITH AND ACCEPTABLE TO COUNTY AND FDOT STANDARDS. AN ESTIMATED AMOUNT WILL BE CALCULATED BASED UPON THE TYPE OF WORK REQUIRED. SHOULD THE COSTS TO ALTER, RELOCATE, REPAIR OR INSPECT EXCEED THE ESTIMATED AND POSTED AMOUNT, THE PERMIT HOLDER BY ACCEPTANCE OF THE PERMIT CONDITIONS, WILL BE CHARGED AND AGREE TO REIMBURSE LAKE COUNTY, ANY ADDITIONAL COSTS INCURRED. NO WORK SHALL COMMENCE UNTIL THIS CHECK IS POSTED.

PANDA EXPRESS STANDARD NOTES

- THE GEOTECHNICAL INVESTIGATION PREPARED BY TERRACON CONSULTANTS, INC. DATED AUGUST 04, 2020 AND ANY SUBSEQUENT ADDENDUMS IS CONSIDERED PART OF THE CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REPORT'S RECOMMENDATIONS AND FINDINGS WITH THE OWNER, ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION. IMPLEMENTATION OF THE REPORT'S RECOMMENDATIONS MAY REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK NOT SHOWN ON THE CIVIL PLANS INCLUDING BUT NOT LIMITED TO EXCAVATION, REMEDIATION, DEWATERING, COMPACTION ETC.
- CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION OF ALL SIGNAGE WITH OWNER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ENSURE 100% COVERAGE OF ALL LANDSCAPED AREAS WITHIN LIMITS OF WORK, INCLUDING POTENTIAL OFF-SITE AREAS. COVERAGE SHALL INCLUDE BOTH LANDSCAPING AND IRRIGATION.

24 HOUR CONTACT:
PANDA PM

JOE CELENTO
(912) 272-4811



NOTICE

THE SIZE OF THESE PLANS MAY HAVE BEEN SLIGHTLY ALTERED BY REPRODUCTION PROCESSES. THIS MUST BE CONSIDERED WHEN SCALING ANY REPRODUCED PLANS FOR THE PURPOSE OF COLLECTING DATA.

VERTICAL DATUM: NAVD 1929

SITE INFORMATION			
JURISDICTION:	CITY OF DELAND		
ZONING:	C-2, GENERAL COMMERCIAL		
OVERLAY DISTRICT:	REDEVELOPMENT GATEWAY		
ADJACENT ZONING:			
NORTH:	C-2		
EAST:	C-2		
SOUTH:	C-2		
WEST:	ROW		
REQUIRED BUILDING SETBACKS:			
(W) FRONT:	20'		
(N) SIDE:	10'		
(S) SIDE:	10'		
(E) REAR:	10'		
REQUIRED PARKING SETBACKS:			
(W) FRONT:	10'		
(N) SIDE:	10'		
(S) SIDE:	10'		
(E) REAR:	10'		
REQUIRED LANDSCAPE STRIP SETBACKS:			
(W) FRONT:	30'		
(N) SIDE:	10'		
(S) SIDE:	10'		
(E) REAR:	10'		
REQUIRED SIGN SETBACKS:			
(W) FRONT:	5'		
(N) SIDE:	10'		
(S) SIDE:	10'		
(E) REAR:	10'		
REQUIRED PARKING:			
1 SPACES PER 100 SQ FT NET FLOOR AREA			
2,442 / 100 = 24 SPACES REQUIRED			
PROPOSED PARKING:			
REGULAR	39	(DIM) = 19' x 9'	
REGULAR	5	(DIM) = 20' x 9'	
HANDICAP	2	(DIM) = 20' x 12'	
TOTAL =	46		
REQUIRED BICYCLE PARKING:	2		
PROPOSED 3	24 MIN. (2 WAY)		
DRIVE-RAISE WIDTH:			
SITE AREA CALCULATIONS:			
SITE	1.10 AC.	47,907 S.F.	
EXISTING PERVIOUS AREA:	41AC.	18,046 S.F.	
PROPOSED PERVIOUS AREA:	28AC.	12,265 S.F.	
EXISTING IMPERVIOUS AREA:	89 AC.	39,861 S.F.	
PROPOSED IMPERVIOUS AREA:	70 AC.	30,847 S.F.	
TOTAL AREA:	1.10 AC.	47,907 S.F.	
PROPOSED BUILDING:			
BUILDING AREA:	2,442 SF.		
BUILDING DIMENSIONS:	60'x43'4" (OVERALL)		
BUILDING HEIGHT:	22'-6"		
NUMBER OF STORES:	1		
NUMBER OF SEATS:	88		
BUILDING CONSTRUCTION:	V-8		
ROOF:	SINGLE-PLY PVC MEMBRANE		
OCCUPANCY TYPE:	A-2		
DUMPSTER ENCLOSURE:			
DIMENSIONS:	25'-4"x14'		
AREA:	307 S.F.		
HEIGHT:	7'-4"		
SITE & BUILDING ARE DESIGNED TO CURRENT ACCESSIBILITY CODES.			
FLOOD HAZARD: FLOOD ZONE "X"			
FURM. MAP NO.: 17222C(08)U	DATED 02/18/2014		
SITE LIGHTING:			
PHOTOMETRICS DESIGNED BY OTHERS. POLE LOCATIONS ARE SHOWN FOR REFERENCE			
ONLY CONTRACTOR SHALL VERIFY FINAL LOCATION OF POLES WITH PHOTOMETRIC			
PLAN ON SHEET 1 OF 1, AND OWNER PRIOR TO CONSTRUCTION.			

SHEET INDEX					
SHEET NUMBER	Sheet Title	ISSUE 01 - PERMIT SET - 10/19/2020	ISSUE 02 - CONST. SET - 04/30/2021	ISSUE 03 - CONST. SET - 04/30/2021	
C01.0	COVER	●	●		
C01.1	GENERAL NOTES	●	●		
C01.2	GENERAL NOTES	●	●		
1 OF 1	ALTA / ACSM LAND TITLE SURVEY	●	●		
C02.1	EXISTING CONDITIONS & DEMOLITION PLAN	●	●		
C03.0	SITE PLAN	●	●		
C03.1	HARDSCAPE DETAILS I	●	●		
C03.2	HARDSCAPE DETAILS II	●	●		
C03.3	HARDSCAPE DETAILS III	●	●		
C04.0	UTILITY PLAN	●	●		
C04.1	UTILITY - FDOT DETAILS		●		
C04.2	UTILITY DETAILS	●	●		
C05.0	GRADING & DRAINAGE PLAN	●	●		
C06.0	SWPP PLAN	●	●		
C06.1	SWPP DETAILS	●	●		
T01.0	TREE RETENTION PLAN	●	●		
L01.0	LANDSCAPE PLAN	●	●		
L05.0	LANDSCAPE NOTES AND DETAILS	●	●		
1 OF 1	PHOTOMETRIC PLAN	●	●		

CITY OF DELAND APPROVAL BLOCK
SECTION 33, TOWNSHIP 17 SOUTH, RANGE 30 EAST
PARCEL ID: 703307000020



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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REVISIONS:

▲	PER CITY COMMENTS	3/12/2021
▲	REV. HYDRANT LOCATION	3/25/2021

ISSUE DATE:

PERMIT SET	10/19/2020
BID	02/01/2021
CONSTRUCTION	07/08/2021

DRAWN BY: K. Patterson

PANDA PROJECT #: D8043 STORE 3477

CIVIL PROJECT #: P7356



Nicole P. Lebron, State of Florida, Professional Engineer, License No. 62552 This item has been digitally signed and sealed by Nicole P. Lebron, P.E. on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

PANDA EXPRESS

TRUE WARM & WELCOME 2300
2599 S. WOODLAND BLVD.
DELAND, FLORIDA 32720

COVER

C01.0

TRUE WARM & WELCOME 2300
D8043

GENERAL PROVISIONS

1. THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL AVAILABLE REGULATORY AGENCY PERMITS AND LOCAL AGENCY PERMITS.
2. CONTRACTOR, AS PART OF THE BASE BID, SHALL FIELD LOCATE ALL UNDERGROUND UTILITIES WITHIN THE PROJECT AREA WITHIN THE 30 DAYS OF PROJECT AWARD. CONTRACTOR SHALL REVIEW THE PLANS AND SHALL NOTE ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
3. CONTRACTORS, AS PART OF THE BASE BID, SHALL PROVIDE ALL COORDINATION WITH UTILITY PROVIDERS TO PROVIDE FOR THE MATERIALS AND WORK NEEDED TO PROVIDE SERVICES TO THE PROJECT.
4. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE FOR ALL DEMOLITION OF ABOVE GROUND AND UNDERGROUND IMPROVEMENTS IN ORDER TO CONSTRUCT THE PROPOSED IMPROVEMENTS NOTED ON THE PLANS. UNLESS APPROVED IN WRITING FROM THE OWNER, ALL MATERIALS SHALL BE REMOVED FROM THE SITE AS PART OF THE BASE BID.
4. ALL DETAILS AND REFERENCES TO FDOT REFER TO THE LATEST EDITION OF THE FDOT DESIGN STANDARDS.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER, LATERALS, DOMESTIC AND FIRE PROTECTION SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICT AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING FOR THE I-INS CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
7. CONTRACTOR AND HIS SURVEYOR SHALL NOTE THE PROJECT BENCHMARK INFORMATION PROVIDED IN THE PLANS AND VERIFY PRIOR TO CONSTRUCTION.
8. ALL CONSTRUCTION PROJECTS 1 OR MORE ACRES IN SIZE THAT DISCHARGE TO OFFSITE AREAS ARE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORMWATER DISCHARGE FROM SMALL AND LARGE CONSTRUCTION ACTIVITIES. IN ORDER TO MEET NPDES REQUIREMENTS, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING, INSPECTING, MAINTAINING, AND REPORTING ON ALL ELEMENTS OF THE SWPPP, COMPLETING AND SUBMITTING THE REQUIRED NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (NOT) FORMS AS THE OPERATOR, AND PAYING ALL ASSOCIATED FEES. FOR PROJECTS LESS THAN 1 ACRE IN SIZE THAT ARE NOT REQUIRED TO COMPLY WITH THE NPDES GENERAL PERMIT, THE CONTRACTOR IS STILL RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO AND DURING CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

9. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL USE THE GEOMETRY PROVIDED ON THE CONSTRUCTION PLANS. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNERS SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

10. BASE SURVEY INFORMATION INCLUDING BUT NOT LIMITED TO ELEVATIONS, EASEMENTS, RIGHTS OF WAY, AND OTHER TOPOGRAPHIC INFORMATION HAS BEEN PREPARED BY OTHER PROFESSIONALS. CH, INC. ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION.

11. THIS SET OF PLANS MAY CONTAIN DRAWINGS PREPARED BY OTHER PROFESSIONALS, WHICH CONTAIN THE NAME, ADDRESS, AND LOGO OF THE PROFESSIONAL. CH, INC. IS NOT RESPONSIBLE FOR DRAWINGS PREPARED BY OTHER PROFESSIONALS.

12. THE CONTRACTOR SHALL SUBMIT ONE ELECTRONIC COPY OF SHOP DRAWINGS TO THE ENGINEER TO KEEP FOR HIS RECORDS. THE ENGINEER WILL NOT PROVIDE FOR APPROVAL OF SHOP DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN APPROVAL FROM ALL AFFECTED AGENCIES AND TO OBTAIN ALL NECESSARY PERMITS. ANY DISCREPANCIES IDENTIFIED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

13. PROTECT BENCHMARKS, PROPERTY CORNERS, AND OTHER SURVEY MONUMENTS FROM DAMAGE OR DISPLACEMENT. IF MARKER NEEDS TO BE REMOVED IT SHALL BE REFERENCED BY LICENSED LAND SURVEYOR AND REPLACED, AS NECESSARY, BY SAME.

14. THE CONTRACTOR IS RESPONSIBLE FOR ALL QUALITY CONTROL TESTING. AS A MINIMUM, TESTING SHALL INCLUDE A) PIPING AND STRUCTURAL EXCAVATION, BEDDING AND BACKFILL MATERIALS AND DENSITY TESTS; B) DETERMINATION OF COMPACTIVE EFFORT NEEDED FOR COMPLIANCE WITH THE DENSITY REQUIREMENTS; C) PORTLAND CEMENT CONCRETE AND ASPHALT PAVING QUALITY CONTROL, INCLUDING DESIGN MIX REVIEW, MATERIALS, FIELD SLUMP AND AIR CONTENT, AND FIELD AND LAB CURED STRENGTH SAMPLES AND TESTING.

15. IN ADDITION TO QUALITY CONTROL TESTING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED TESTING OR APPROVALS FOR ANY WORK (OR ANY PART THEREOF) IF LAWS OR REGULATIONS OF ANY PUBLIC BODY HAVING JURISDICTION SPECIFICALLY REQUIRE TESTING, INSPECTIONS OR APPROVAL. THE CONTRACTOR SHALL PAY ALL COSTS IN CONNECTION THEREWITH AND SHALL FURNISH THE OWNER AND ENGINEER THE REQUIRED CERTIFICATES OF INSPECTION, TESTING OR APPROVAL.

16. ANY DESIGN OR TESTING LABORATORY UTILIZED BY THE CONTRACTOR SHALL BE AN INDEPENDENT LABORATORY ACCEPTABLE TO THE OWNER AND THE ENGINEER, APPROVED IN WRITING, AND COMPLYING WITH THE LATEST EDITION OF THE "RECOMMENDED REQUIREMENTS FOR INDEPENDENT LABORATORY QUALIFICATION", PUBLISHED BY THE AMERICAN COUNCIL OF INDEPENDENT LABORATORIES.

17. TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR AND THE ENGINEER. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS.

18. THE ENTIRE PROJECT SITE SHALL BE THOROUGHLY CLEANED AT THE COMPLETION OF THE WORK. CLEAN ALL INSTALLED PIPELINES, STRUCTURES, SIDEWALKS, PAVED AREAS, ACCUMULATED SILT IN PONDS, PLUS ALL ADJACENT AREAS AFFECTED BY CONSTRUCTION, AS DIRECTED BY THE OWNER OR JURISDICTIONAL AGENCY. EQUIPMENT TO CLEAN THESE SURFACES SHALL BE SUBJECT TO APPROVAL BY THE OWNER.

19. ALL DISTURBED AREAS WITHIN RIGHT OF WAYS SHALL BE SOODED.

20. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE PERFORMANCE SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT BE LIMITED, FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.

21. THE CONTRACTOR SHALL RECOGNIZE AND ABIDE BY ALL OSHA EXCAVATION SAFETY STANDARDS, INCLUDING THE FLORIDA TREND SAFETY ACT (90-96, LAWS OF FLORIDA). ANY MATERIAL, CONSTRUCTION METHODS, OR MATERIAL COST TO COMPLY WITH THESE LAWS SHALL BE INCIDENTAL TO THE CONTRACT.

22. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINATE IS ENCOUNTERED DURING EXCAVATION.

23. THE GENERAL CONTRACTOR TO COORDINATE WITH LOCAL MAIL CARRIER TO INQUIRE IF MAIL CAN BE DELIVERED TO STORE. IF NOT GENERAL CONTRACTOR TO COORDINATE LOCATION WITH LOCAL POST OFFICE AND PROVIDE AND INSTALL MAILBOX.

UTILITY GENERAL NOTES

1. THE UTILITY DATA SHOWN ON THESE PLANS WAS LOCATED BY THE RESPECTIVE UTILITY, OR IS BASED ON UTILITY DRAWINGS, MAPS, OR FIELD RECONNAISSANCE.
2. THE LOCATION, MATERIAL TYPE, AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ANY UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT, THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE ENGINEER AND THE RESPECTIVE UTILITY COMPANY FOR RELOCATION OR PROPER INTERSECTION.
3. A SINGLE POINT UTILITY IDENTIFICATION SERVICE HAS BEEN SET UP FOR EXISTING UTILITIES. THE CONTRACTOR IS TO CONTACT THE SUNSHINE STATE ONE CALL CENTER BY DIALING 811 AT LEAST TWO (2) AND NO MORE THAN FIVE (5) WORKING DAYS PRIOR TO THE SPECIFIC CONSTRUCTION ACTIVITY FOR FIELD LOCATION. NOTE THAT NOT ALL UTILITIES PARTICIPATE IN THIS PROGRAM. THE CONTRACTOR SHOULD CONTACT ALL NON-PARTICIPATING UTILITIES SEPARATELY FOR FIELD LOCATION OF THEIR FACILITIES AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
4. THE UTILITY PROVIDERS NOTED ON THE COVER SHEET HAVE PREVIOUSLY INDICATED THAT THEY MAY HAVE FACILITIES IN THE VICINITY OF THE CONSTRUCTION AREA.
5. THE CONTRACTOR SHALL KEEP LOCATE TICKETS UP TO DATE AT ALL TIMES.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH EACH UTILITY AND ALL COSTS ASSOCIATED WITH THE PROTECTION OF EXISTING FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO COORDINATE NECESSARY RELOCATIONS OR OTHER CONSTRUCTION RELATED MATTERS WITH EACH UTILITY.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING PIPING ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY PIPING WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDOE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE OWNER AND THE ENGINEER.
8. TYPICAL DETAILS AND PROPOSED CONSTRUCTION AS SHOWN ILLUSTRATE THE ENGINEER'S INTENT AND ARE NOT PRESENTED AS A SOLUTION TO ALL CONSTRUCTION PROBLEMS ENCOUNTERED IN THE FIELD. THE CONTRACTOR MAY ALTER THE PROPOSED CONSTRUCTION TO SUIT FIELD CONDITIONS, PROVIDED IT COMPLES WITH THE PROJECT SPECIFICATIONS OR APPROVAL IS RECEIVED FROM THE ENGINEER. WHERE SUCH PROPOSED REVISIONS DEViate FROM THE FDOT CONSTRUCTION PERMIT, THEN SUCH REVISIONS WILL ALSO REQUIRE APPROVAL FROM FDOT.
9. FOR EACH RESPECTIVE PIPELINE CONSTRUCTION REQUIRED, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, DEPTH, SIZE, MATERIAL TYPE, AND ALIGNMENT OF ALL EXISTING PIPES, CABLES, ETC. TO BE CROSSED OR CONNECTED TO. IF THE CONTRACTOR DEEMS NECESSARY (A) A CHANGE IN ALIGNMENT OR DEPTH, OR THE NEED FOR ADDITIONAL FITTINGS, BENDS, OR COUPLINGS, WHICH REPRESENT A DEPARTURE FROM THE CONTRACT DRAWING, OR (B) A NEED FOR RELOCATION OF EXISTING UTILITIES, THEN DETAILS OF SUCH DEPARTURES, RELOCATIONS, OR ADDITIONAL FITTINGS, INCLUDING CHANGES IN RELATED PORTIONS OF THE PROJECT AND THE REASONS THEREFORE, SHALL BE SUBMITTED WITH SHOP DRAWINGS. APPROVED DEPARTURES FOR THE CONTRACTOR'S CONVENIENCE SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GAUGES, AND OTHER EQUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC, LEAKAGE, AND PRESSURE TESTING. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND THE OWNER IN WRITTEN FORM, FORTY-EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

AS-BUILT DRAWING REQUIREMENTS

1. AS-BUILT DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER AT LEAST THREE WEEKS PRIOR TO FINAL INSPECTION. ALL AS-BUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED AND DATED BY THE RESPONSIBLE PARTY. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY ALL AS-BUILT SURVEY REQUIREMENTS BY THE GOVERNING AGENCIES, INCLUDING THE CITY OF DELAND AS-BUILT REQUIREMENTS CHECKLIST, PRIOR TO START OF CONSTRUCTION TO ENSURE THAT THE REQUIRED AS-BUILT INFORMATION IS PROVIDED FOR.
2. ALL RECORD DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR IN ACAD FORMAT USING CONSTRUCTION PLAN SHEETS PROVIDED BY THE ENGINEER. AS-BUILT INFORMATION SHALL BE FIELD VERIFIED, MEASURED, ADDED TO THE ACAD FILES OF THE CONSTRUCTION PLAN SHEETS PROVIDED BY THE ENGINEER, AND CERTIFIED, SIGNED AND SEALED BY THE CONTRACTOR'S LICENSED SURVEYOR WHO WILL BE RESPONSIBLE FOR THE ACCURACY OF ALL DIMENSIONS AND ELEVATIONS.
3. THE AS-BUILT INFORMATION IS TO INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - A. HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS FOR ALL UTILITY AND STORM STRUCTURES INCLUDING BUT NOT LIMITED TO MANHOLES, INLETS AND CLEANOUTS, INCLUDING STRUCTURE TOP AND INVERT ELEVATIONS.
 - B. DISTANCE ALONG PIPELINES BETWEEN STRUCTURES.
 - C. STORMWATER POND TOP OF BERM AND POND BOTTOM ELEVATIONS AND HORIZONTAL DIMENSIONS MEASURED AT A MINIMUM OF TEN LOCATIONS PER POND, AT LOCATIONS DESIGNATED BY THE ENGINEER. TOP OF POND HORIZONTAL DIMENSIONS ARE ALSO TO BE TIED TO PROPERTY CORNERS, EASEMENTS, AND RIGHTS-OF-WAY.
 - D. STORMWATER CONTROL STRUCTURE DIMENSIONS AND ELEVATIONS, INCLUDING ALL WEIRS, SLOTS, ORIFICES, GRATES, AND SKIMMERS.
 - E. STORMWATER CONVEYANCE SYSTEMS INCLUDING DIMENSIONS, ELEVATIONS, CONTOURS, AND CROSS SECTIONS.
 - F. HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS OF ALL UTILITY VALVES, FITTINGS, CONNECTION POINTS, ETC.
 - G. VERTICAL ELEVATIONS OF ALL PIPELINES AT CROSSINGS OF POTABLE WATER MAINS (WHETHER THE WATER MAIN IS EXISTING OR NEW) IN ORDER TO DOCUMENT THAT THE MINIMUM REQUIRED VERTICAL SEPARATION HAS BEEN MET.
 - H. UTILITY PIPELINE TIED HORIZONTALLY TO EDGE OF PAVEMENT AND RIGHT-OF-WAY LINES, LOCATED EVERY 200-FT PLUS ALL CHANGES IN HORIZONTAL OFFSET.
 - I. PAVEMENT WIDTH AND ELEVATIONS AT THE CENTERLINE AND EDGE OF PAVEMENT EVERY 200 FEET PLUS AT ALL CHANGES IN LONGITUDINAL SLOPE, CROSS SLOPE, INLET LOCATIONS, AND AT ALL DRIVEWAY AND STREET INTERSECTIONS. FOR PARKING LOTS, RECORD CENTERLINE AND EDGE OF PAVEMENT ELEVATIONS ALONG ALL DRIVE AISLES AND ISLANDS.
 - J. ALL PARKING AREAS AND SIDEWALK RAMPS DESIGNATED FOR HANDICAP ACCESS SHALL CONTAIN HORIZONTAL AND VERTICAL MEASUREMENTS IN ORDER TO VERIFY REQUIRED WIDTHS AND SLOPES HAVE BEEN MET.
 - K. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION THAT DEVIATES FROM THE APPROVED ENGINEERING DRAWINGS.
 - L. WHERE THE PLANS CONTAIN SPECIFIC HORIZONTAL LOCATION DATA, SUCH AS STATION AND OFFSET, THE AS-BUILT DRAWINGS ARE TO REFLECT THE ACTUAL HORIZONTAL LOCATION.
 - M. WHERE THE PLANS CONTAIN SPECIFIC VERTICAL ELEVATION DATA, THE AS-BUILT DRAWINGS ARE TO REFLECT THE ACTUAL MEASURED VERTICAL ELEVATION.
 - N. ANY ADDITIONAL INFORMATION REQUIRED BY GOVERNING AGENCIES.

4. IN CASES WHERE THE OWNER DETERMINES PARTIAL CLEARANCES FROM PERMITTING AGENCIES ARE BENEFICIAL TO THE OWNER FOR COMPLETED PORTIONS OF THE PROJECT, PROVIDE PRELIMINARY AS-BUILT DRAWINGS (ACAD FORMAT) TO THE ENGINEER FOR ITS USE IN PREPARING THE PARTIAL CLEARANCE APPLICATIONS FOR THE OWNER.

5. COMPLETE AS-BUILT DRAWINGS THAT ARE FOUND TO BE SATISFACTORY AS A RESULT OF THE ENGINEER'S REVIEW WILL BE USED AS THE BASIS FOR THE FINAL PROJECT RECORD DRAWINGS PREPARED BY THE ENGINEER USING THE CONTRACTOR PROVIDED AS-BUILT DRAWINGS PLUS ENGINEER ADDED INFORMATION.

TRAFFIC CONTROL

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A MAINTENANCE OF TRAFFIC (M.O.T.) PLAN PRIOR TO CONSTRUCTION. THE M.O.T. PLAN SHALL SHOW ALL TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS, AND BARRICADES, AND SHALL DETAIL ALL PROPOSED CONSTRUCTION SEQUENCING. THE M.O.T. PLAN AND INSTALLED TRAFFIC CONTROL MEASURES SHALL BE APPROVED BY THE ENGINEER, OWNER, AND ROADWAY JURISDICTIONAL AGENCY PRIOR TO CONSTRUCTION. IN GENERAL, ROADWAY AND DRIVEWAY LANE CLOSURES ARE PROHIBITED DURING CONSTRUCTION UNLESS SPECIFICALLY DETAILED ON THESE PLANS. IN THE EVENT IT IS DETERMINED THAT ROADWAY AND DRIVEWAY LANE CLOSURES WILL BE ALLOWED, THE CLOSURES SHALL BE RESTRICTED TO THE HOURS BETWEEN 9:00 A.M. AND 4:00 P.M. UNLESS OTHERWISE AUTHORIZED IN THE APPROVED M.O.T.
2. ALL TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH FDOT INDEX NO. 102-600 AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION.
3. INSPECT TRAFFIC CONTROL DEVICES ON A DAILY BASIS TO ENSURE PLACEMENT OF BARRICADES AND FUNCTION OF LIGHTS IS MAINTAINED THROUGHOUT CONSTRUCTION.
4. CONTACT PROPERTY OWNERS AFFECTED BY CONSTRUCTION. COORDINATE TEMPORARY DRIVEWAY CLOSURES AND SEQUENCING. MAINTAIN ACCESS FOR ALL PROPERTY OWNERS DURING CONSTRUCTION.
5. WET UNSTABILIZED AREAS AS NECESSARY TO CONTROL DUST.
6. ADJUST TRAFFIC CONTROL DEVICES AS REQUIRED UNDER EMERGENCY CONDITIONS.
7. THE CONTRACTOR IS EXPECTED TO COORDINATE ITS ACTIVITIES WITH OTHER CONTRACTORS WHO MAY BE WORKING IN THE IMMEDIATE VICINITY.
8. WHEN WORK OCCURS WITHIN 15-FT OF ACTIVE ROAD TRAVEL LANES BUT NO CLOSER THAN 2-FT FROM THE EDGE OF PAVEMENT, SIGNAGE AND WARNING DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 102-600 AND 102-602.
9. TYPE I OR TYPE II BARRICADES AT 20-FT CENTERS SHALL BE PLACED AND MAINTAINED ALONG THE EDGE OF THE ROAD WHEREVER DROP-OFFS OR OTHER HAZARDS EXIST AND TO BLOCK ENTRANCE INTO COMPLETED OR PARTIALLY COMPLETED PAVEMENTS UNTIL SUCH PAVEMENTS ARE OPEN TO PUBLIC USE.

SITE PREPARATION

1. UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER, THE CONTRACTOR IS EXPECTED TO CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THE PROPERTY, RIGHT-OF-WAY, AND EASEMENTS AS INDICATED ON THE DRAWINGS. AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. ANY REPAIR OR RECONSTRUCTION OF DAMAGED AREAS IN SURROUNDING PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.
2. STAKE OUT THE CONSTRUCTION, ESTABLISH LINES AND LEVELS. TEMPORARY BENCH MARKS, BATTER BOARDS, CENTERLINE AND REFERENCE POINTS FOR THE WORK, AND VERIFY ALL DIMENSIONS RELATING TO INTERCONNECTION WITH EXISTING FEATURES. REPORT ANY INCONSISTENCIES IN THE PROPOSED GRADINGS, LINES AND LEVELS, DIMENSIONS AND LOCATIONS TO THE ENGINEER BEFORE COMMENCING WORK.
3. PROTECT ALL TREES AND SHRUBS LOCATED OUTSIDE THE RIGHT-OF-WAY, EASEMENTS, AND OWNER SECURED PROPERTY, PARTICULARLY THOSE TREES AND SHRUBS LOCATED ADJACENT TO WORK AREAS.
4. WITHIN THE RIGHT-OF-WAY, EASEMENTS, AND OWNER SECURED PROPERTY, THE INTENT IS TO ALLOW TREES AND SHRUBS TO REMAIN IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: NEW ROADWAY CONSTRUCTION - TREES AND SHRUBS TO REMAIN WHERE LOCATED MORE THAN 15 FEET FROM THE BACK OF CURB, OR OUTSIDE THE LIMITS OF EXCAVATION OR FILL AREAS, WHICHEVER IS FURTHER. UTILITY PIPELINE CONSTRUCTION - TREES AND SHRUBS TO REMAIN OUTSIDE A 15 FOOT WIDE PATH, CENTERED ON THE PIPELINE.
5. TREES TO REMAIN IN THE CONSTRUCTION AREA SHALL BE BOXED, FENCED OR OTHERWISE PROTECTED IN ACCORDANCE WITH DETAILS ON THE DRAWINGS. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD.
6. AREAS TO RECEIVE CLEARING AND GRUBBING SHALL INCLUDE ALL AREAS TO BE OCCUPIED BY THE PROPOSED IMPROVEMENTS, AREAS FOR FILL AND SITE GRADING, AND BORROW SITES. REMOVE TREES OUTSIDE OF THESE AREAS ONLY AS INDICATED ON THE DRAWINGS OR AS APPROVED IN WRITING BY THE ENGINEER.
7. CLEARING SHALL CONSIST OF REMOVING TREES AND BRUSH AND DISPOSAL OF OTHER MATERIALS THAT ENCRoACH UPON OR OTHERWISE OBSTRUCT THE WORK.
8. EXERCISE EXTREME CARE DURING THE CLEARING AND GRUBBING OPERATIONS. DO NOT DAMAGE EXISTING STRUCTURES, PIPES OR UTILITIES.
9. GRUBBING SHALL CONSIST OF REMOVING AND DISPOSING OF STUMPS, ROOTS LARGER THAN 2" IN DIAMETER, AND MATTED ROOTS. REMOVE TO A DEPTH OF NOT LESS THAN 18" BELOW THE ORIGINAL SURFACE LEVEL OF THE GROUND.
10. ALL COMBUSTIBLE DEBRIS AND REFUSE FROM SITE PREPARATION OPERATIONS SHALL BE REMOVED TO LEGAL OFFSITE DISPOSAL AREAS.

DEWATERING

1. DESIGN AND PROVIDE A DEWATERING SYSTEM USING ACCEPTED AND PROFESSIONAL METHODS CONSISTENT WITH CURRENT INDUSTRY PRACTICE. PROVIDE A DEWATERING SYSTEM OF SUFFICIENT SIZE AND CAPACITY TO CONTROL GROUNDWATER IN A MANNER THAT PRESERVES STRENGTH OF FOUNDATION SOILS, DOES NOT CAUSE INSTABILITY OR RAVELING OF EXCAVATION SLOPES, AND DOES NOT RESULT IN DAMAGE TO EXISTING STRUCTURES. WHERE NECESSARY TO THESE PURPOSES, LOWER WATER LEVEL IN ADVANCE OF EXCAVATION, UTILIZING WELLS, WELLPOINTS, OR SIMILAR POSITIVE METHODS, MAINTAIN THE GROUNDWATER LEVEL TO A MINIMUM OF 2 FEET BELOW THE EXCAVATION. PROVIDE PIEZOMETERS IF DIRECTED BY THE ENGINEER TO DOCUMENT THE GROUNDWATER LEVEL IS BEING MAINTAINED.
2. CONTROL, BY ACCEPTABLE MEANS, ALL WATER REGARDLESS OF SOURCE AND BE FULLY RESPONSIBLE FOR DISPOSAL OF THE WATER. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY SUPPLEMENTAL MEASURES TO CONTROL SEEPAGE, GROUNDWATER, OR ARTESIAN HEAD.
3. DEWATERING DISCHARGE FROM THE SITE SHALL COMPLY WITH ALL NPDES GENERAL PERMIT REQUIREMENTS AND STATE WATER QUALITY STANDARDS. PROVIDE ALL TESTING AND PERMITTING REQUIRED AND COMPLY WITH ALL TREATMENT OR DISPOSAL METHODS REQUIRED TO MEET ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
4. OPEN PUMPING WITH SUMPS AND DITCHES SHALL BE ALLOWED, PROVIDED IT DOES NOT RESULT IN BOILS, LOSS OF FINE, SOFTENING OF THE GROUND, OR INSTABILITY OF SLOPES. PUMPS SHALL BE LOCATED OUTSIDE OF LOAD BEARING AREAS SO THE BEARING SURFACES WILL NOT BE DISTURBED. WATER CONTAINING SILT NOT BE PUMPED INTO SEWER LINES OR ADJACENT STREAMS. DURING NORMAL PUMPING, AND UPON DEVELOPMENT OF WELL(S), LEVELS OF FINE SAND OR SILT IN THE DISCHARGE WATER SHALL NOT EXCEED 5 PPM.
5. IF DEWATERING EQUIPMENT NEEDED EXCEEDS ANY OF THE FOLLOWING: 1) 6" PUMP VOLUME, 2) 100,000 GPD TOTAL 24 HOUR (1 DAY) DEWATERING, AND, 3) 1,000,000 GPD PUMP CAPACITY, THE CONTRACTOR SHALL BE REQUIRED TO PERMIT THE DEWATERING SYSTEM WITH THE WATER MANAGEMENT DISTRICT.

6. CONTINUOUSLY MAINTAIN EXCAVATIONS IN A DRY CONDITION WITH POSITIVE DEWATERING METHODS DURING PREPARATION OF SUBGRADE, INSTALLATION OF PIPE, AND CONSTRUCTION OF STRUCTURES UNTIL THE CRITICAL PERIOD OF CONSTRUCTION AND/OR BACKFILL IS COMPLETED. PROVIDE SUBGRADE PROTECTION, INCLUDING STRUCTURE, SIDE SLOPES, OR ADJACENT FACILITIES FROM FLOTATION OR OTHER HYDROSTATIC PRESSURE IMBALANCE.

7. WHEN CONSTRUCTION IS COMPLETE, REMOVE ALL DEWATERING EQUIPMENT FROM THE SITE, INCLUDING WELLS AND RELATED TEMPORARY ELECTRICAL SERVICE.

GRADING

1. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS TO ACCOMPLISH THE GRADING INTENT. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR SHALL ADVISE ENGINEER PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.
2. ALL PROPOSED ELEVATIONS ON THE PLANS WITHIN PAVED AREAS ARE SHOWN AT PAVEMENT, UNLESS OTHERWISE NOTED.
3. ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY AND TO PREVENT ANY SMOOTH TRANSITION DRIVINGS SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE, AND TO PREVENT UNUSUALLY STEEP OR REVERSE CROSS SLOPES. THE STANDARD CROWN MAY HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS TO ACCOMPLISH THE INTENT OF THE PLANS.
4. UNIFORMLY SMOOTH GRADE THE SITE. DEPRESSIONS FROM SETTLEMENT SHALL BE FILLED AND COMPACTED. TOPS OF EMBANKMENTS AND BREAKS IN GRADE SHALL BE ROUNDED. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, FREE FROM IRREGULAR SURFACE CHANGES AND COMPARABLE TO THE SMOOTHNESS OBTAINED BY BLADE-GRADER OPERATIONS.
5. NEWLY GRADED AREAS SHALL BE PROTECTED FROM TRAFFIC AND EROSION. ALL SETTLEMENT OR WASHING AWAY THAT MAY OCCUR FROM ANY CAUSE PRIOR TO SEEDING OR ACCEPTANCE SHALL BE REPAIRED AND GRADES RE-ESTABLISHED TO THE REQUIRED ELEVATIONS AND SLOPES AT NO ADDITIONAL COST TO THE OWNER.

EXCAVATION, TRENCHING, AND FILL

1. THE CONTRACTOR SHALL RECOGNIZE AND ABIDE BY ALL OSHA EXCAVATION SAFETY STANDARDS, INCLUDING THE FLORIDA TREND SAFETY ACT (FS 553.60-553.64). ANY MATERIAL, CONSTRUCTION METHODS, OR MATERIAL COST TO COMPLY WITH THESE LAWS SHALL BE INCIDENTAL TO THE CONTRACT.
2. ROUGH EXCAVATE AND GRADE ANY PROPOSED STORMWATER PONDS AT THE START OF SITE GRADING ACTIVITIES. DIRECT SITE RUNOFF TO THE PONDS TO MINIMIZE RUNOFF TO OFFSITE AREAS.
3. POND CONSTRUCTION SHALL RESULT IN THE FINISHED POND HAVING SIDE SLOPES AND DIMENSIONS THAT ARE IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT THESE REQUIREMENTS HAVE BEEN MET. IF THE CONSTRUCTED SIDE SLOPES ARE STEEPER THAN THE REQUIRED SIDE SLOPES, OR THE POND VOLUME IS NOT WITHIN THREE (3) PERCENT OF THE DESIGN VOLUME, THE CONTRACTOR SHALL BE REQUIRED TO MAKE CORRECTIONS TO THE POND AT NO ADDITIONAL COST TO THE OWNER.
4. FIELD DENSITY TESTING FREQUENCIES: A) ONE TEST FOR EACH 10,000 SQUARE FEET OR FRACTION THEREOF PER LIFT OF GENERAL BACKFILLING, MINIMUM 2 TESTS EACH LAYER; B) ONE TEST FOR EACH 100 SQUARE FEET OR FRACTION THEREOF OF BACKFILL AROUND AND UNDER STRUCTURES; C) ONE TEST FOR EACH 300 LINEAL FEET OR FRACTION THEREOF PER LIFT OF GENERAL BACKFILLING IN THE PIPELINE TRENCH; D) ONE TEST PER LIFT PER EACH CHANGE IN TYPE OF FILL; E) ONE TEST PER 1000 SQUARE FEET OF PAVEMENT SUBGRADE, MINIMUM OF 2 TESTS.
5. IT IS INTENDED THAT PREVIOUSLY EXCAVATED MATERIALS CONFORMING TO THE FOLLOWING REQUIREMENTS BE UTILIZED WHEREVER POSSIBLE:
 - A. ACCEPTABLE MATERIALS: AASHTO M145 CLASSIFICATION A-1, A-3, A-2-4, A-2-6, ASTM D2487 CLASSIFICATION GW, GP, GM, SW, SP, UNLESS OTHERWISE DISAPPROVED WITHIN THE SOIL AND SUBSURFACE INVESTIGATION REPORTS. NO MORE THAN 12% OF ACCEPTABLE MATERIALS SHALL PASS THE NUMBER 200 SIEVE.
 - B. UNACCEPTABLE MATERIALS: AASHTO M145 CLASSIFICATION A-2-5, A-2-7, A-4, A-5, A-6, A-7, A-8; ASTM D2487 CLASSIFICATION GC, SC, ML, MH, CL, CH, OL, OH, PT, UNLESS OTHERWISE APPROVED WITHIN THE SOIL AND SUBSURFACE INVESTIGATION REPORTS.
 - C. PROVIDE BARRIERS, WARNING LIGHTS AND OTHER PROTECTIVE DEVICES AT ALL EXCAVATIONS.

6. SIDEWALKS, ROADS, STREETS, AND PAVEMENTS SHALL NOT BE BLOCKED OR OBSTRUCTED BY EXCAVATED MATERIALS, EXCEPT AS AUTHORIZED BY THE ENGINEER, IN WHICH CASE ADEQUATE TEMPORARY PROVISIONS MUST BE MADE FOR SATISFACTORY TEMPORARY PASSAGE OF PEDESTRIANS, AND VEHICLES. MINIMIZE INCONVENIENCE TO PUBLIC TRAVEL OR TO TENANTS OCCUPYING ADJOINING PROPERTY.

8. FURNISH, INSTALL, AND MAINTAIN, WITHOUT ADDITIONAL COMPENSATION, SHEETING, BRACING, AND SHORING SUPPORT REQUIRED TO KEEP EXCAVATIONS WITHIN THE PROPERTY, RIGHT-OF-WAY, AND EASEMENTS TO SUPPORT THE SIDES OF THE EXCAVATION, AND TO PREVENT ANY MOVEMENT WHICH MAY DAMAGE ADJACENT PAVEMENTS OR STRUCTURES, DAMAGE OR DELAY THE WORK, OR ENDANGER LIFE AND HEALTH. VOIDS OUTSIDE THE SUPPORTS SHALL BE IMMEDIATELY FILLED AND COMPACTED.

9. SHEETING, SHORING, AND BRACING USED FOR THE SUPPORT OF EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF FLORIDA.

10. ALL EXCAVATIONS SHALL BE MADE BY OPEN CUT UNLESS OTHERWISE INDICATED. SLOPE SIDES OF TRENCHES IN ACCORDANCE WITH OSHA REQUIREMENTS AND THE RECOMMENDATIONS CONTAINED WITHIN THE PROJECT GEOTECHNICAL REPORT.

11. EXCAVATE TRENCHES TO DEPTH INDICATED OR REQUIRED FOR INDICATED FLOW LINES AND INVERT ELEVATIONS. OVER EXCAVATE TRENCHES A MINIMUM OF 2 FEET WHERE EXCAVATIONS OCCUR WITHIN UNSUITABLE SOILS, AND REPLACE OVER EXCAVATED MATERIAL WITH SUITABLE SOILS.

12. TRENCH BOTTOMS AND THE BOTTOMS OF ALL STRUCTURES SHALL BE KEPT DRY, COMPACTED, AND STABLE TO A DEPTH TWO FEET BELOW THE BOTTOM OF THE TRENCH OR STRUCTURE.

13. ALL BEDDING, FILL, AND BACKFILL MATERIAL SHALL BE SUITABLE SOILS OR FLOWABLE FILL. WHERE TRENCH OR EXCAVATION IS WITHIN THE INFLUENCE AREA OF ROADWAY OR STRUCTURES, FOUNDATIONS, OR SLABS, PLACE BACKFILL IN LAYERS OF 8 INCH LOOSE DEPTH. IN ALL OTHER AREAS, PLACE FILL AND BACKFILL IN LAYERS OF 12 INCH LOOSE DEPTH.

14. MINIMUM DENSITY REQUIREMENT (ASTM D1557 OR AASHTO T99): BACKFILL AND FILL UNDER AND WITHIN THE INFLUENCE AREA OF ROADWAYS, STRUCTURES, SLABS, FOUNDATIONS = 98 PERCENT; BACKFILL AND FILL PLACED WITHIN PUBLIC ROAD RIGHT-OF-WAY AND UTILITY EASEMENTS = 95 PERCENT; BACKFILL AND FILL PLACED WITHIN POND AND ROAD EMBAKMENT = 95 PERCENT; BACKFILL AND FILL PLACED IN ALL OTHER AREAS = 90 PERCENT.

RIPRAP

1. ALL RIPRAP CONSTRUCTION SHALL MEET THE REQUIREMENTS OF SECTION 830 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

UTILITY SEPARATION REQUIREMENTS

1. THE HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER, STORM SEWER, WASTEWATER FORCE MAINS, STORMWATER FORCE MAINS, RECLAIMED WATER MAINS AND ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - A. THE OUTSIDE OF WATER MAINS SHALL BE A MINIMUM OF FIVE FEET FROM THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, VACUUM TYPE SANITARY SEWER AND RECLAIMED WATER MAIN.
 - B. THE OUTSIDE OF WATER MAINS SHALL BE A MINIMUM OF TEN FEET FROM THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY SANITARY SEWER AND WASTEWATER FORCE MAIN. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN THE OUTSIDE OF WATER MAINS AND THE OUTSIDE OF GRAVITY SANITARY SEWERS CAN BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS AT LEAST EIGHTEEN INCHES ABOVE THE TOP OF THE SEWER.
 - C. THE OUTSIDE OF WATER MAINS SHALL BE A MINIMUM OF TEN FEET FROM ALL PARTS OF ANY EXISTING OR PROPOSED ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM SUCH AS SEPTIC TANKS, DRAINFIELDS, AND GREASE TRAPS. ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS DO NOT INCLUDE PACKAGE SEWAGE TREATMENT FACILITIES AND PUBLIC WASTEWATER TREATMENT FACILITIES.
 - D. THE VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY AND STORM SEWER, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER MAINS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - A. WHEREVER POSSIBLE, WATER MAINS SHALL CROSS OVER EXISTING OR PROPOSED GRAVITY SANITARY SEWER, VACUUM TYPE SANITARY SEWER, AND STORM SEWER, SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OUTSIDE OF THE SEWER. WHERE IT IS NOT POSSIBLE FOR THE WATER MAIN TO CROSS OVER EXISTING OR PROPOSED GRAVITY SANITARY SEWER, VACUUM TYPE SANITARY SEWER, AND STORM SEWER, THEN THE WATER MAIN CAN CROSS UNDER THESE TYPES OF PIPELINE SYSTEMS PROVIDED THE OUTSIDE OF THE WATER MAIN IS AT LEAST 18 INCHES BELOW THE OUTSIDE OF THE PIPELINE. AT THE CROSSING, THE PROPOSED PIPE JOINTS SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST FIVE FEET FROM VACUUM TYPE SANITARY SEWER OR STORM SEWER JOINTS, AND AT LEAST TEN FEET FROM GRAVITY SANITARY SEWER JOINTS.
 - B. WHEREVER POSSIBLE, WATER MAINS SHALL CROSS OVER EXISTING OR PROPOSED RECLAIMED WATER MAINS.
 - E. WHEREVER POSSIBLE, WATER MAINS SHALL CROSS UNDER EXISTING OR PROPOSED RECLAIMED WATER MAINS. WHERE THE WATER MAIN CROSSES OVER OR UNDER THESE TYPES OF PIPELINE SYSTEMS, THE OUTSIDE OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES FROM THE OUTSIDE OF THE EXISTING OR PROPOSED RECLAIMED WATER MAIN, WASTEWATER FORCE MAIN AND STORMWATER FORCE MAIN. AT THE CROSSING, THE PROPOSED PIPE JOINTS SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST FIVE FEET FROM RECLAIMED WATER MAIN JOINTS AND STORMWATER FORCE MAIN JOINTS, AND AT LEAST TEN FEET FROM THE JOINTS OF WASTEWATER FORCE MAINS.
 - F. NO WATER MAIN SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE.
2. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SUCH THAT THE UNDERGROUND DRAIN (WEEP HOLE) IS AT LEAST:
 - A. FIVE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER MAIN, OR VACUUM TYPE SANITARY SEWER.
 - B. TEN FEET FROM ANY EXISTING OR PROPOSED GRAVITY SANITARY SEWER AND WASTEWATER FORCE MAIN.
 - C. TEN FEET FROM ANY ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM SUCH AS SEPTIC TANKS, DRAINFIELDS, AND GREASE TRAPS. ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS DO NOT INCLUDE PACKAGE SEWAGE TREATMENT FACILITIES AND PUBLIC WASTEWATER TREATMENT FACILITIES.

WATER AND RECLAIMED WATER DISTRIBUTION SYSTEMS

1. THE ENTITY THAT WILL OPERATE AND MAINTAIN THE PUBLIC WATER SHOWN ON THESE PLANS IS THE CITY OF DELAND UTILITIES. WATER SYSTEM ON SITE OR WITHIN THE PRIVATE UTILITY EASEMENT WILL BE PRIVATELY MAINTAINED. THE CONTRACTOR SHALL MEET ALL THE REQUIREMENTS OF THE CITY OF DELAND UTILITIES.
2. INSTALL ALL WATER AND RECLAIMED MAINS AT A MINIMUM 36 INCHES OF COVER.
3. PVC PIPE SHALL BE NATIONAL SANITATION FEDERATION (NSF) APPROVED. PIPE SHALL HAVE MARKINGS ON EACH SECTION SHOWING CONFORMANCE TO THE ABOVE SPECIFICATION. JOINTS SHALL BE RUBBER GASKETED CONFORMING TO AWWA C900 OR C905. THE BELL SHALL BE INTEGRAL WITH THE PIPE AND OF EQUAL OR GREATER PRESSURE RATING. THE BELL OF PIPE AND FITTINGS USING PUSH-ON JOINTS SHALL HAVE AN INTEGRAL GROOVE TO RETAIN THE GASKET IN PLACE.
4. ALL FITTINGS SHALL BE MANUFACTURED OF DUCTILE IRON, CONFORMING TO ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53. ALL FULL BODY (C110/A21.10) FITTINGS SHALL BE PRESSURE RATED TO 250 PSI, MINIMUM. ALL COMPACT FITTINGS (C153/A21.53) SHALL BE PRESSURE RATED TO 350 PSI, MINIMUM.
5. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE LINED AND COATED. INTERIOR LINING SHALL BE STANDARD THICKNESS CEMENT MORTAR LINING PER ANSI/AWWA C104/A21.4. EXTERIOR COATING FOR BURIED PIPE AND FITTINGS SHALL BE A PETROLEUM ASPHALTIC COATING IN ACCORDANCE WITH ANSI/AWWA C110/A21.10. EXTERIOR COATING OF EXPOSED PIPE AND FITTINGS SHALL BE FACTORY APPLIED RUST INHIBITING EPOXY PRIMER, MINIMUM 3 MILS DRY FILM THICKNESS. AFTER INSTALLATION, EXTERIOR SURFACES SHALL BE PAINTED WITH A TWO COAT SYSTEM. THE FIRST COAT (INTERMEDIATE COAT) SHALL BE 4.0-10.0 MIL DFT TNEMC COLOR H-BUILD EPOXOLINE I SERIES N69 OR APPROVED EQUAL. THE FINAL COAT SHALL BE 2.0-3.0 MIL DFT TNEMC ENDURASHIELD SERIES 73 OR APPROVED EQUAL. THE FINAL COAT PAINT COLOR SHALL BE AS SELECTED BY THE LOCAL UTILITY.
6. MECHANICAL AND PUSH ON JOINTS FOR DUCTILE IRON PIPE AND FITTINGS SHALL BE RUBBER GASKETED, CONFORMING TO ANSI/AWWA C11/A21.11. LUBRICANTS OTHER THAN THAT FURNISHED BY THE PIPE MANUFACTURER WITH THE PIPE SHALL NOT BE USED.
7. POLYETHYLENE PIPE AND TUBING SHALL BE COLOR CODED BLUE (POTABLE WATER) OR PURPLE (RECLAIMED WATER). PIPE AND FITTINGS SHALL BE NSF APPROVED FOR THE USAGE TO WHICH THEY ARE TO BE APPLIED. JOINTS IN SDR-PR PE PIPE SHALL BE BUTT JOINT HEAT FUSED OR SOCKET HEAT FUSED. THE JOINTS OF THE SAME MATERIAL AS THE PIPE AND SHALL BE OF THE SAME SDR OR LESS. PROVIDE ADAPTERS AS REQUIRED TO JOIN PE PIPE TO PIPE, FITTINGS AND EQUIPMENT OF OTHER MATERIALS.
8. SERVICE SADDLES SHALL MEET THE REQUIREMENTS OF AWWA C800 AND SHALL CONSIST OF EPOXY COATED DUCTILE IRON BODIES IN ACCORDANCE WITH ASTM A536, WITH DOUBLE STAINLESS STEEL STRAPS, BOLTS, WASHERS AND NUTS. STAINLESS STEEL SHALL BE TYPE 304, AND NUTS ARE TO BE TEFLON COATED. THE DUCTILE IRON BODY IS TO BE FUSION BONDED NYLON COLOR COATED. THE PIPE SHALL BE 20" MINIMUM. THE ORIFICE OF SADDLE IS TO HAVE NPT THREDS. SERVICE SADDLES SHALL BE MANUFACTURED BY FORD, MUELLER, OR SMITH-BALL.
9. ALL SERVICES SHALL INCLUDE THE FOLLOWING: CURB STOPS, UNIONS AS REQUIRED, CORPORATION STOPS, CONFORMANCE WITH AWWA C800 AND C901 IS REQUIRED. THE CONTRACTOR SHALL CUT "W" IN THE TOP CURB OF EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND Y'S SHALL BE HIGHLIGHTED WITH BLUE PAINT.
10. UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS AND RECLAIMED WATER METERS 2" AND UNDER, ANYTHING OVER 2" WILL BE INSTALLED BY THE CONTRACTOR. CONTRACTOR SHALL CONSTRUCT WATER SERVICE AND RECLAIMED WATER SERVICE TO THE CORPORATION STOP.
11. UNLESS OTHERWISE INDICATED OR SPECIFIED, ALL VALVES TWO INCHES AND SMALLER SHALL BE ALL BRASS OR BRONZE; VALVES OVER TWO INCHES SHALL BE IRON BODY, FULLY BRONZE OR BRONZE MOUNTED.
12. VALVES 4 INCHES AND LARGER SHALL BE LINED AND COATED. BURIED AND EXPOSED VALVES SHALL BE COATED INSIDE AND OUT WITH A RUST INHIBITING EPOXY PRIMER, FOLLOWED BY AN EPOXY COATING MEETING THE REQUIREMENTS OF AWWA C550, APPLIED AT THE FACTORY. THE INTERIOR OF VALVE BOXES LOCATED IN UNPAVED AREAS SHALL BE COATED WITH AN EPOXY PROTECTIVE COATING MEETING NSF INTERNATIONAL STANDARD 61 AND AWWA C550. AFTER INSTALLATION, EXTERIOR SURFACES SHALL BE PAINTED WITH A TWO COAT SYSTEM. THE FIRST COAT (INTERMEDIATE COAT) SHALL BE 4.0-10.0 MIL DFT TNEMC COLOR H-BUILD EPOXOLINE I SERIES N69 OR APPROVED EQUAL, AND THE FINAL COAT SHALL BE 2.0-3.0 MIL D

SANITARY SEWER SYSTEMS

1. THE ENTITY THAT WILL OPERATE AND MAINTAIN THE PUBLIC SEWER SYSTEM SHOWN ON THESE PLANS IS THE CITY OF DELAND UTILITIES. SEWER SYSTEM ON SITE OR WITHIN THE PRIVATE UTILITY EASEMENT WILL BE PRIVATELY MAINTAINED. THE CONTRACTOR SHALL MEET ALL THE REQUIREMENTS OF THE CITY OF DELAND UTILITIES.
2. INSTALL ALL SEWER MAINS AT A MINIMUM 36 INCHES OF COVER.
3. JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3212 USING RUBBER GASKETS CONFORMING TO ASTM F477.
4. FITTINGS SHALL CONFORM TO THE SAME REQUIREMENTS AS THE PIPE. PROVIDE ADAPTERS AS REQUIRED TO JOIN PVC PIPE TO PIPE, FITTINGS AND EQUIPMENT OF OTHER MATERIALS. SOLVENT CEMENT SHALL BE AS RECOMMENDED BY THE PIPE MANUFACTURER.
5. SEWER PIPE SHALL BE COLOR CODED GREEN, STENCILED "SEWER LINE" (2" LETTERING ON TWO SIDES OF THE PIPE IN AT LEAST THREE AREAS PER PIPE SECTION).
6. INSTALL WARNING TAPE ALONG ALL SEWER PIPELINES. TAPE SHALL BE 6-INCH WIDE VINYL, CONTINUOUS TAPE, COLORED GREEN WITH BLACK LETTERING CODED AND WORDED "CAUTION: SEWER BURIED BELOW". INSTALL ALONG PIPELINE, 2 FEET ABOVE PIPE, MINIMUM OF 1 FOOT BELOW GRADE.
7. CONNECTIONS TO EXISTING SEWER SHALL BE CONDUCTED IN SUCH A MANNER THAT THE EXISTING SEWER REMAINS IN OPERATION. PROVIDE BY PASS PUMPING OF EXISTING FLOWS OR COLLECT AND LEGALLY DISPOSE OF EXISTING SEWER FLOW AS NEEDED TO ACCOMMODATE CONSTRUCTION WHILE KEEPING EXISTING SEWER IN SERVICE.
8. PRIOR TO INSPECTIONS AND TESTING, CLEAN ALL INSTALLED LINES AND MANHOLES. TEST PROCEDURES SHALL BE APPROVED BY THE ENGINEER. ALL TESTS SHALL BE MADE IN THE PRESENCE OF THE ENGINEER AND UTILITY. NOTIFY THE ENGINEER AND THE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY WORK IS TO BE INSPECTED OR TESTED.
9. PROVIDE ALL EQUIPMENT FOR TESTING. INCREMENTS ON GAGES USED FOR LOW PRESSURE AIR TESTING SHALL BE OF SCALED TO THE NEAREST 0.1 PSI. GAGES, PUMPS, AND HOSES SHALL BE IN GOOD WORKING ORDER WITH NO NOTICEABLE LEAKS.
10. ALL SERVICE LATERALS SHALL BE COMPLETED PRIOR TO TESTING, AND ARE SUBJECT TO THE SAME TESTING REQUIREMENTS AS THE MAIN LINE.
11. PROVIDE LIGHT SOURCE AND MIRRORS FOR LAMPING OF SEWER. ANY SEWER IN WHICH THE DIRECT LIGHT OF A LAMP CANNOT BE VIEWED IN EITHER DIRECTION, FULL CIRCLE, BETWEEN ADJACENT MANHOLES SHALL BE CONSIDERED UNSATISFACTORY, UNLESS THE LINE IS DESIGNED WITH HORIZONTAL DEFLECTIONS, AND SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.
12. CONDUCT LOW PRESSURE AIR TESTING (4.0 PSI INITIAL PRESSURE) OF INSTALLED SEWER PIPING IN ACCORDANCE WITH ASTM F1417. MAXIMUM ALLOWABLE LEAKAGE IS 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE AREA BEING TESTED. ALLOWABLE AIR PRESSURE DROP DURING THE TEST IS 0.5 PSIG. MINIMUM REQUIRED TEST TIME (DURATION) IS: A) 4" PIPE = 1 MIN 53 SEC, B) 6" PIPE = 2 MIN 50 SEC, OR 0.427 X LENGTH OF PIPE TESTED, WHICHEVER IS GREATER; C) 8" PIPE = 3 MIN 47 SEC, OR 0.760 X LENGTH OF PIPE TESTED, WHICHEVER IS GREATER; D) 10" PIPE = 4 MIN 43 SEC, OR 1.187 X LENGTH OF PIPE TESTED, WHICHEVER IS GREATER; E) 12" PIPE = 5 MIN 40 SEC, OR 1.709 X LENGTH OF PIPE TESTED, WHICHEVER IS GREATER.
13. CONDUCT DEFLECTION TESTING OF PIPELINE AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. MAXIMUM ALLOWABLE PIPE DEFLECTION IS 0.5%. MEASURE DEFLECTION BY MANUALLY PULLING A MANDREL THROUGH THE PIPE. THE MINIMUM MANDREL OUTER DIAMETER SHALL BE IN ACCORDANCE WITH THE FOLLOWING: 6" SEWER = 5.45" MANDREL; 8" SEWER = 7.28" MANDREL; 10" SEWER = 9.08" MANDREL; 12" SEWER = 10.79" MANDREL; 15" SEWER = 13.20" MANDREL; 18" SEWER = 16.13" MANDREL; 21" SEWER = 19.00" MANDREL; 24" SEWER = 21.36" MANDREL; 27" SEWER = 24.06" MANDREL.
15. DEFLECTION TESTING IS CONSIDERED SATISFACTORY IF THE MANDREL CAN BE PULLED BY HAND THROUGH THE PIPE BEING TESTED. IF THE MANDREL CANNOT BE PULLED THROUGH THE PIPE, REPLACE OR CORRECT THE PIPE AND RETEST UNTIL TESTING IS SATISFACTORY. ANY PIPE REMOVED OR CORRECTED DUE TO FAILING DEFLECTION TESTING SHALL ALSO BE RE-TESTED FOR LEAKAGE.

PAVING, SIDEWALKS, AND CURBING

1. MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY AND PAVING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. ROADWAY PAVING, BASE, AND SUBGRADE THICKNESSES SHALL BE IN ACCORDANCE WITH DETAILS ON THESE DRAWINGS AND IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREAS AS SHOWN ON THE CONSTRUCTION PLANS. HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND SHALL BE IN ACCORDANCE WITH THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
4. CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10' ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.
5. FIELD COMPACTION DENSITY, STABILITY, AND THICKNESS TESTING FREQUENCIES OF SUB-BASE, BASE, AND ASPHALT SHALL BE TESTED ONCE EVERY 300 LINEAR FEET OF PAVING PER 24-FT WIDE STRIP, STAGGERED LEFT, CENTER AND RIGHT OF CENTERLINE. WHERE LESS THAN 300 LINEAR FEET OF SUB-BASE, BASE, AND ASPHALT IS PLACED IN ONE DAY, PROVIDE MIN. OF ONE TEST FOR EACH PER DAY'S CONSTRUCTION AT A LOCATION DESIGNATED BY THE ENGINEER. ASPHALT EXTRACTION GRADATION SHALL BE TESTED FROM GRAB SAMPLES COLLECTED ONCE EVERY 1800 SQUARE YARDS OF ASPHALT DELIVERED TO THE SITE (OR A MINIMUM OF ONCE PER DAY).

PRECAST STRUCTURES AND APPURTENANCES

1. ALL MANHOLES SHALL BE PRECAST CONSTRUCTION. THE MINIMUM SIZE DIAMETER OF MANHOLES SHALL BE 48" FOR SEWER LINES 21" IN DIAMETER OR LESS. INTEGRALLY CAST STOPS WITHIN PRECAST STRUCTURES ARE NOT ALLOWED.
2. BASES SHALL BE ONE-PIECE PRECAST BASE SECTIONS CONSISTING OF INTEGRALLY CAST SLAB, BOTTOM RING SECTION AND CONCRETE FLOW CHAMBER. BASE SECTIONS SHALL HAVE INTEGRAL INVERTS WITH GASKETS TO MATCH THE PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL INVERT ANGLES. PROVIDE OUTLET STUBS WITH JOINTS TO MATCH THE PIPE.
3. RISERS SHALL BE PRECAST REINFORCED CONCRETE PER ASTM C478, MANUFACTURED USING SULFATE RESISTANT CEMENT (ASTM C150, TYPE II). RISERS SHALL BE 48-INCH DIAMETER UNLESS OTHERWISE INDICATED AND SHALL HAVE A MINIMUM WALL THICKNESS OF 5 INCHES.
4. GASKETS FOR SEATING PRECAST SECTIONS SHALL BE COLD ADHESIVE PREFORMED PLASTIC GASKETS CONFORMING TO FDOT SPECIFICATION 942-2, UNLESS OTHERWISE INDICATED.
5. UNLESS OTHERWISE INDICATED, CONE TOP SECTIONS SHALL BE PRECAST, ECCENTRIC TYPE WITH 24-INCH DIAMETER TOP OPENING CONFORMING TO ASTM C478. PROVIDE 8-INCH MINIMUM THICKNESS FLAT SLAB TOPS WITH ECCENTRIC 24 INCH DIAMETER OPENING, UNLESS OTHERWISE INDICATED.
6. PROVIDE A FLEXIBLE WATERTIGHT SEAL OF THE PIPE TO THE MANHOLE. CONNECTION OF CONCRETE PIPE TO THE MANHOLE SHALL BE MADE WITH NON-SHRINK METALLIC GROUT. CONNECTION OF DUCTILE IRON OR PVC PIPE TO THE MANHOLE SHALL PROVIDE A WATERTIGHT CONNECTION PER ASTM C923. WHERE CONNECTORS ARE USED, THEY SHALL BE INSTALLED IN THE MANHOLE WALL BY ACTIVATING THE EXPANDING MECHANISM IN STRICT ACCORDANCE WITH THE RECOMMENDATION OF THE CONNECTOR MANUFACTURER. THE USE OF ADHESIVES OR LUBRICANTS FOR INSTALLATION OF RUBBER CONNECTORS IS PROHIBITED.
7. FRAMES AND COVERS SHALL BE GREY IRON PER ASTM A48, CLASS 30B AND SHALL BE U.S. FOUNDRY TYPE 227AS, TRAFFIC BEARING (ASHTO H-20 LOADING), UNLESS OTHERWISE NOTED IN THE DRAWINGS. CASTINGS SHALL BE SMOOTH, CLEAN, FREE FROM BUSTERS, BLOWHOLES, AND SHRINKAGE. RAISED LETTERING ON COVERS SHALL BE "STORM", "SEWER", OR AS DETAILED ON THE DRAWINGS.
8. PROVIDE INLETS, FRAMES, AND GRATES IN ACCORDANCE WITH DETAILS ON THE DRAWINGS. ALL FRAMES AND INLET GRATES SHALL BE PRODUCTS OF U.S. FOUNDRY & MANUFACTURING CORPORATION, OR EQUAL.
9. ALL INLET GRATES SHALL BE SECURED BY CHAIN AND EYEBOLT TO THE TOP OF THE STRUCTURE.
10. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED GRADE. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN GRASSED AREAS SHALL BE 4" ABOVE FINISHED GRADE (UNLESS NOTED OTHERWISE).
11. ALL MANHOLES AND CLEAN OUTS CONSTRUCTED WITHIN PAVED AREAS SHALL BE INSTALLED WITH TRAFFIC BEARING RINGS AND COVERS.
12. MANHOLE COATINGS AND FINISHES SHALL BE:
 - A. SANITARY SEWER MANHOLE INTERIOR - BITUMINOUS EPOXY COATING, MINIMUM DRY FILM THICKNESS = 16 MILS.
 - B. INTERIOR OF MANHOLES WHICH RECEIVE FORCE MAIN DISCHARGE - INTEGRALLY ATTACHED INTERIOR LINER, FULL HEIGHT, FIBERGLASS LINER. LINER THICKNESS TO BE IN ACCORDANCE WITH THE DRAWINGS.
 - C. EXTERIOR - BITUMINOUS EPOXY COATING, MINIMUM DRY FILM THICKNESS = 16 MILS.

STORM SEWER SYSTEMS

1. REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL COMPLY WITH ASTM C443 AND FDOT SPECIFICATION SECTION 430, AND RUBBER GASKETS SHALL COMPLY WITH FDOT SPECIFICATION SECTION 942. MINIMUM COVER OVER THE PIPE, INCLUDING COVER OVER THE BELL OF THE PIPE WHERE APPLICABLE, SHALL BE 30 INCHES.
2. RCP PIPE SHALL NOT BE SHIPPED FROM MANUFACTURER UNTIL THE COMPRESSIVE STRENGTH OF THE PIPE HAS REACHED 4000 PSI AND A MINIMUM OF 5 DAYS HAVE PASSED SINCE THE MANUFACTURING OR REPAIR OF THE PIPE HAS BEEN COMPLETED.
3. UNDERDRAIN PIPE SHALL BE PERFORATED POLYVINYL CHLORIDE PIPE IN ACCORDANCE WITH ASTM F758. FILTER FABRIC UNDERDRAIN SOCK SHALL BE TYPE D-3 IN ACCORDANCE WITH FDOT INDEX NO. 440-001.
4. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC. FILTER FABRIC SHALL BE IN ACCORDANCE WITH FDOT INDEX NO. 199, TYPE D-3, A.O.S. 70-100. INSTALL IN ACCORDANCE WITH FDOT INDEX NO. 430-001, PROVIDE MINIMUM 12" OVERLAP.
5. INSTALL POLYETHYLENE PIPE IN ACCORDANCE WITH ASTM D2321. BACKFILL AND COMPACT EVENLY ON EACH SIDE TO PREVENT DISPLACEMENT. MINIMUM COVER OVER POLYETHYLENE PIPE SHALL BE AS FOLLOWS: A) PIPE UNDER FLEXIBLE PAVEMENT, RIGID PAVEMENT, OR UNPAVED AREAS WHERE BEDDING IS SUITABLE SOILS AS DEFINED IN THE GENERAL NOTES. MINIMUM COVER SHALL BE 36 INCHES OR ONE PIPE DIAMETER, WHICHEVER IS GREATER; B) PIPE UNDER FLEXIBLE PAVEMENT, RIGID PAVEMENT, OR UNPAVED AREAS WHERE BEDDING IS MANUFACTURED AGGREGATES CLASS 1A OR 1B AS DEFINED IN ASTM D2321. MINIMUM COVER SHALL BE 30 INCHES OR ONE PIPE DIAMETER, WHICHEVER IS GREATER.
6. INSTALL UNDERDRAINS IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 440. INSTALL CLEANOUTS AS SHOWN ON THE DRAWINGS.
7. PRIOR TO INSPECTIONS AND TESTING, CLEAN ALL INSTALLED LINES AND STRUCTURES.

SIGNS AND PAVEMENT MARKINGS

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST IMPLEMENTED EDITION OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC WITH RAISED PAVEMENT MARKERS (TYPE 911 - 4" x 4"). RAISED PAVEMENT MARKERS ARE TO BE INSTALLED IN ACCORDANCE WITH THESE PLANS AND FDOT INDEX NO. 706-001.
3. PARKING STALL PAVEMENT MARKINGS SHALL BE PAINTED. PAINT SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 971, NON-REFLECTIVE WHITE TRAFFIC PAINT, TWO COATS.
4. ALL ROADWAY TRAFFIC SIGNS SHALL BE MANUFACTURED USING HIGH INTENSITY RETROREFLECTIVE MATERIALS. THE BACK OF ALL FINISHED PANELS SHALL BE STENCILED WITH THE DATE OF FABRICATION, THE FABRICATOR'S INITIALS, AND THE NAME OF THE SHEETING IN THREE-INCH LETTERS.
5. INTERNAL SITE TRAFFIC SIGNS ARE NOT REQUIRED TO BE RETROREFLECTIVE.
6. THE CONTRACTOR SHALL VERIFY THE REQUIRED LENGTH OF THE SIGN COLUMN SUPPORTS IN THE FIELD PRIOR TO FABRICATION.
7. CONTRACTOR SHALL PROVIDE AND INSTALL ALL SIGNS, BASES, ANCHOR BOLTS, CONDUITS, WIRING, ETC.
8. ALL PAVEMENT MARKINGS REQUIRE LAYOUT APPROVAL IN THE FIELD BY THE ENGINEER PRIOR TO INSTALLATION.
9. PRIOR TO FINAL PAVEMENT MARKING INSTALLATION, A TWO WEEK CURE TIME OF THE ASPHALT IS REQUIRED.

PANDA EXPRESS PROTO NOTES

1. CONTRACTOR SHALL ENSURE 100% COVERAGE OF ALL LANDSCAPED AREA WITHIN LIMITS OF WORK, INCLUDING POTENTIAL OFFSITE AREAS. COVERAGE SHALL INCLUDE BOTH LANDSCAPING AND IRRIGATION.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES (LOCATIONS ELEVATIONS) PRIOR TO STARTING CONSTRUCTION AND ALERT ENGINEER TO ANY DISCREPANCIES IMMEDIATELY.
3. CONTRACTOR SHALL INSTALL GENERAL UTILITY CONDUITS TO PLANTERS AROUND BUILDING AND PATIO. SEE ARCHITECTURAL / MEP PLANS FOR CONTINUATION.
4. CONTRACTOR SHALL PROTECT ALL ITEMS OUTSIDE LIMITS OF CONSTRUCTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTION PLANS OR SPECIFICATIONS.
5. CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION OF ALL SIGNAGE WITH OWNER PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS DURING CONSTRUCTION.
7. THE GEOTECHNICAL INVESTIGATION PREPARED BY TERRACON CONSULTANTS, INC. DATED: AUGUST 04, 2020 AND ANY SUBSEQUENT ADDENDUMS IS CONSIDERED PART OF THE CONTRACT DOCUMENTS; IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REPORT'S RECOMMENDATIONS AND FINDINGS WITH THE OWNER, ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION. IMPLEMENTATION OF THE REPORT'S RECOMMENDATIONS MAY REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK NOT SHOWN ON THE CIVIL PLANS INCLUDING BUT NOT LIMITED TO: EXCAVATION, REMEDIATION, DEWATERING, COMPACTION, ETC.
8. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND FEDERAL CERTIFICATION AND LICENSING REQUIREMENTS FOR CONSTRUCTION, INCLUDING BUT NOT LIMITED TO: LAND DISTURBANCE PERMITS, BUILDING PERMITS, DEMOLITION PERMITS, NPDES PERMITS, DEWATERING PERMITS, ETC.
9. 24-HOUR CONTACT: JOE CELENTO, PHONE: (912) 272-4811

LANDSCAPE ISLAND CONSTRUCTION WITHIN CRITICAL ROOT ZONE OF HISTORIC TREES

1. IN AN EFFORT TO DISCOVER TREE ROOTS UNDER THE PAVEMENT, THE CONTRACTOR, UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST, SHALL SAW CUT AND REMOVE A MINIMUM 18" WIDE STRIP OF ASPHALT. THE WIDTH OF THE PROPOSED LANDSCAPE ISLAND AT THE HISTORIC TREE END OF THE ISLAND, EXAMINE THE UNDERNEATH SIDE OF THE ASPHALT FOR ATTACHED FEEDER ROOTS, OR ANY LARGER ROOTS WITHIN THE BASE MATERIAL BELOW THE ASPHALT.
2. IF FEEDER ROOTS OR OTHER ROOTS ARE ENCOUNTERED, PROCEED WITH EXCAVATING THROUGH THE BASE MATERIAL, CAREFULLY WATCHING FOR ADDITIONAL ROOTS USING AN AIR OR HYDRO EXCAVATOR OR VACUUM TO A DEPTH OF 3' TO DETERMINE THE EXTENT OF THE ROOT SYSTEM, AND TO REMOVE THE COMPACTED SOIL. MAINTAIN SOIL MOISTURE AROUND ANY ROOTS THAT EXIST THROUGHOUT THE EXCAVATION AND BACKFILLING WORK. BACKFILL WITH A MIX OF CLEAN TOPSOIL AND 25% COMPOST, UNLESS OTHERWISE DIRECTED BY THE SITE ARBORIST AND AGREED TO BY THE CITY FORESTER.
3. IF FEEDER ROOTS OR OTHER ROOTS ARE NOT ENCOUNTERED, PROCEED WITH EXCAVATING THE BASE WITH A SPADE A MAXIMUM DEPTH OF 3' PER DIG. CONTINUE EXCAVATING UNTIL ROOTS ARE ENCOUNTERED OR TO A 3' DEPTH. IF ROOTS ARE ENCOUNTERED PROCEED WITH SOIL REMOVAL PER PARAGRAPH 2 ABOVE. IF ROOTS ARE NOT ENCOUNTERED, THEN THE REMAINING EXCAVATION CAN BE BY HAND SPADE OR SHOVEL, TAKING CARE TO SEARCH FOR ROOTS ENTERING THE ISLAND AREA FROM THE SIDES. A PERIMETER HAND EXCAVATION MAY BE DONE USING THE SAME METHOD DESCRIBED ABOVE, TO SEARCH FOR ANY SIDE ENTERING ROOTS. IF NONE EXIST, THEN MECHANICAL EXCAVATION MAY BE USED TO REMOVE THE SOIL TO A DEPTH OF 3'. BACKFILL WITH A MIX OF CLEAN TOPSOIL AND 25% COMPOST. COMPACT THE SOIL TO BETWEEN 75 AND 85% STANDARD LABORATORY TESTING. DO NOT EXCEED 85%!
4. IF ROOTS ARE ENCOUNTERED PER NOTE NUMBER 2, THEN THE EXCAVATION OF THE LANDSCAPE ISLANDS SHALL BE BY AN AIR OR HYDRO EXCAVATOR OR VACUUM TO A DEPTH TO REMOVE ALL OF THE BASE MATERIAL AND THE COMPACTED SOIL, BUT NOT LESS THEN 18 INCHES, UNLESS OTHERWISE DIRECTED IN THE FIELD BY THE SITE ARBORIST DUE TO FIELD CONDITIONS AND AGREED TO BY THE CITY FORESTER. MAINTAIN SOIL MOISTURE AROUND ANY ROOTS THAT EXIST THROUGHOUT THE EXCAVATION AND BACKFILLING WORK. BACKFILL WITH A MIX OF CLEAN TOPSOIL AND 25% COMPOST. USE WATER TO WASH THE FILL IN BETWEEN THE ROOTS AND TO HYDRAULICALLY COMPACT THE SOIL TO BETWEEN 75 AND 85% STANDARD LABORATORY TESTING. DO NOT EXCEED 85%!
5. WHILE ROOTS ARE UNCOVERED, NOTE THEIR LOCATION AND DEPTH, AS THEY RELATE TO THE PLANTING OF THE JAPANESE BLUEBERRY TREES. ADJUST THE LOCATION OF THESE TREES ACCORDINGLY, BUT ATTEMPT TO MAINTAIN AN EQUAL DISTANCE FROM THE END OF THE LANDSCAPE ISLANDS IF FEASIBLE, FROM THE LANE SIDE. THE FIRST PRIORITY HOWEVER, IS TO AVOID HAVING TO REMOVE ROOTS TO PLANT THE TREES.
6. SHOULD ROOT PRUNING BECOME NECESSARY, REFER TO THE TREE ROOT PRUNING NOTES ON SHEET T01.0.

DIRECTION OF FLOW

SLOPE OF FLOW

RIP RAP - GROUTED

CLEAN OUT

DOWN SPOUT

STORM / SANITARY MANHOLE

DITCH BOTTOM INLET

MITERED END SECTION

FLARED END SECTION

"U" TYPE END WALL

FLUME

CURB INLET

CURB INLET

NYLOPLAST DRAIN BASIN

RETAINING WALL

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION

WATER LINE FITTINGS

GATE VALVE

REDUCER

PIPE CROSSING

UTILITY POLE

SITE LIGHTING

FLAG POLE

TRANSFORMER

CROSS SECTION (SEE CONSTRUCTION DETAILS SHEET)

PC1

PC2

PC3

PC4

PC5

PC6

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PC8

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PC61

PC62

A/C

APPROX

ASPH

AVG

BFP

BLK

BLDG

BOC

BOW

C & G

CE

CL

CMP

CO

CONC

DEPT

DS

ELEC

EM

ELEV

EOP

FDC

FDOT

FF

FG

FH

FM

FOC

FP&L

GOVT

HB

HC

HDPE

INV

IRR

ME

MES

MH

PVC

PVMT

R

RCP

REV

R/W

SF

S/W

TOB

TOE

TW

TYP

UNK

UTL

W

WV

- AIR CONDITIONER

- APPROXIMATE

- ASPHALT

- AVERAGE

- BACK FLOW PREVENTER

- BLOCK

- BUILDING

- BACK OF CURB

- BACK OF WALL

- CURB & GUTTER

- CONSTRUCTION ENTRANCE

- CENTERLINE

- CORRUGATED METAL PIPE

- CLEAN OUT

- CONCRETE

- DEPARTMENT

- DOWN SPOUT

- ELECTRIC

- ELECTRICAL METER

- ELEVATION

- EDGE OF PAVEMENT

- FIRE DEPARTMENT CONNECTION

- FLORIDA DEPARTMENT OF TRANSPORTATION

- FINISH FLOOR

- FINISH GRADE

- FIRE HYDRANT

- FORCE MAIN

- FACE OF CURB

- FLORIDA POWER AND LIGHT

- GOVERNMENT

- HOSE BIB

- ADA ACCESSIBLE

- HIGH DENSITY POLYETHYLENE PIPE

- INVERT

- MATCH EXISTING ELEVATION

- MITERED END SECTION

- MANHOLE

- POLYVINYL CHLORIDE PIPE

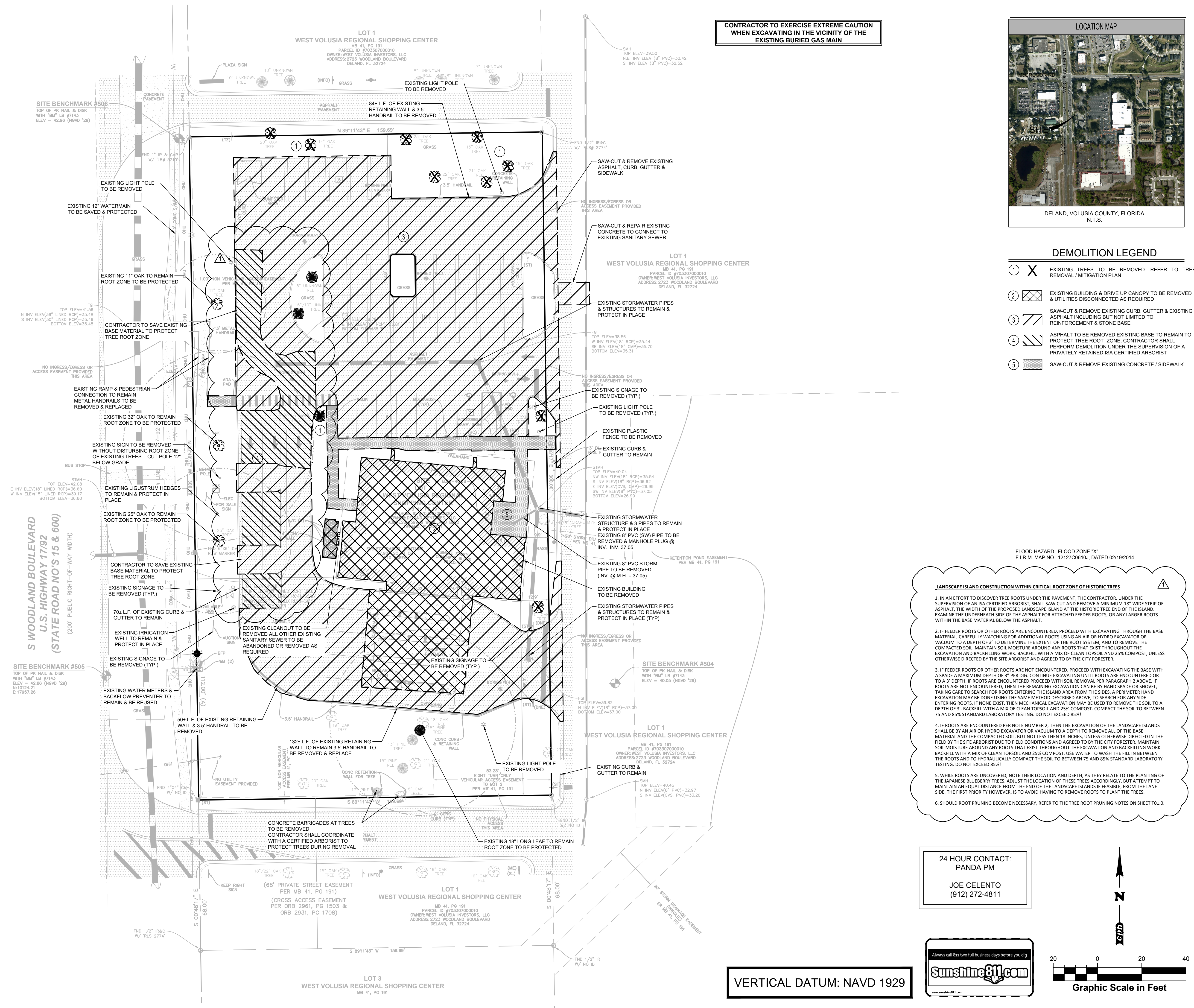
- PAVEMENT

- RADIUS

- REINFORCED CONCRETE PIPE

- REVISION

- RIGHT-OF-WAY



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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PER CITY COMMENTS	3/12/2021
REV. HYDRANT LOCATION	3/25/2021

ISSUE DATE:	
PERMIT SET	10/19/2020
BID	02/01/2021
CONSTRUCTION	07/08/2021

DRAWN BY: K. Patterson

PANDA PROJECT #: D8043 STORE 3477
CIVIL PROJECT #: P7356



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Plans Prepared By
CPH, INC.
5601 Mariner St., Suite 105
Tampa, FL 33609
Ph: 813.288.9233
Licenses:
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Survey L.S. No. 7143
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PANDA EXPRESS
TRUE WARM & WELCOME 2300
2599 S. WOODLAND BLVD.
DELAND, FLORIDA 32720

EXISTING CONDITIONS
& DEMOLITION PLAN

C02.1

TRUE WARM & WELCOME 2300
D8043



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PANDA EXPRESS

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DELAND, FLORIDA 32720

SITE PLAN

C03.0

TRUE WARM & WELCOME 2300
D8043

LEGEND

	CONCRETE PAVEMENT
	CONCRETE SIDEWALK
	HEAVY DUTY ASPHALT
	LIGHT DUTY ASPHALT
	NEW LIGHT DUTY ASPHALT
	PARKING 2' OVERHANG
	STOP SIGN
	HANDICAP PARKING SPACE

PANDA EXPRESS STANDARD NOTES

- THE GEOTECHNICAL INVESTIGATION PREPARED BY TERRACON CONSULTANTS, INC. DATED AUGUST 04, 2020 AND ANY SUBSEQUENT ADDENDUMS IS CONSIDERED PART OF THE CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REPORT'S RECOMMENDATIONS AND FINDINGS WITH THE OWNER, ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION. IMPLEMENTATION OF THE REPORT'S RECOMMENDATIONS MAY REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK NOT SHOWN ON THE CIVIL PLANS INCLUDING BUT NOT LIMITED TO EXCAVATION, REMEDIATION, DEWATERING, COMPACTION ETC.
- CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION OF ALL SIGNAGE WITH OWNER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ENSURE 100% COVERAGE OF ALL LANDSCAPED AREAS WITHIN LIMITS OF WORK, INCLUDING POTENTIAL OFFSITE AREAS. COVERAGE SHALL INCLUDE BOTH LANDSCAPING AND IRRIGATION.
- DIRECTIONAL ARROWS ARE ONLY FOR CLARIFICATION PURPOSES. DO NOT STRIPE.
- DIMENSIONS ARE FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED
- THIS SITE IS NOT LOCATED IN A HISTORIC PRESERVATION DISTRICT
- REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS

- CONTRACTOR SHALL PERFORM CONSTRUCTION NEAR OR AROUND CRITICAL ROOT ZONE FOR HISTORIC TREES UNDER THE SUPERVISION OF A PRIVATELY RETAINED ISA CERTIFIED ARBORIST
- EXISTING SUB-BASE TO REMAIN & COMPACTED PER GEOTECHNICAL REPORT.

JURISDICTION:	CITY OF DELAND
ZONING:	C-2-GENERAL COMMERCIAL
OVERLAY DISTRICT:	REDEVELOPMENT GATEWAY
ADJACENT ZONING:	
NORTH:	C-2
EAST:	C-2
SOUTH:	C-2
WEST:	ROW

REQUIRED BUILDING SETBACKS:	
(W) FRONT:	20'
(N) SIDE:	10'
(S) SIDE:	10'
(E) REAR:	10'

REQUIRED PARKING SETBACKS:	
(W) FRONT:	10'
(N) SIDE:	5'
(S) SIDE:	5'
(E) REAR:	10'

REQUIRED LANDSCAPE STRIP SETBACKS:	
(W) FRONT:	30'
(N) SIDE:	10'
(S) SIDE:	10'
(E) REAR:	10'

REQUIRED SIGN SETBACKS:	
(W) FRONT:	5'
(N) SIDE:	10'
(S) SIDE:	10'
(E) REAR:	10'

REQUIRED PARKING:	
SPACES PER 100 SQ. FT. NET FLOOR AREA	2.442 / 100 = 24 SPACES REQUIRED

PROPOSED PARKING:	
REGULAR	39 (OWS) = 19' X 9'
REGULAR	5 (OWS) = 20' X 9'
HANDICAP	2 (OWS) = 20' X 12'
TOTAL =	46

REQUIRED BICYCLE PARKING:	2
PROVIDED:	3

DRIVE ABLE WIDTH: 24' MIN. (2 WAY)

SITE AREA CALCULATIONS:	
SITE:	1.10 AC. 47,807 S.F.
EXISTING PERVIOUS AREA:	.41AC. 18,046 S.F.
PROPOSED PERVIOUS AREA:	.38AC. 17,280 S.F.
EXISTING IMPERVIOUS AREA:	.69AC. 30,867 S.F.
PROPOSED IMPERVIOUS AREA:	.70AC. 31,647 S.F.
TOTAL AREA:	1.10 AC. 47,807 S.F.

PROPOSED BUILDING:	
BUILDING AREA:	2,442 SF.
BUILDING DIMENSIONS:	63'X43'-4" (OVERALL)
BUILDING HEIGHT:	22'-4"
NUMBER OF STORIES:	1
NUMBER OF SEATS:	68
BUILDING CONSTRUCTION:	V-8
ROOF:	SINGLY PLY PVC MEMBRANE
OCCUPANCY TYPE:	A-2

DUMPSTER ENCLOSURE:	
DIMENSIONS:	25'-4"X14'
AREA:	307 S.F.
HEIGHT:	7'-4"

SITE & BUILDING ARE DESIGNED TO CURRENT ACCESSIBILITY CODES.

FLOOD HAZARD: FLOOD ZONE "X"

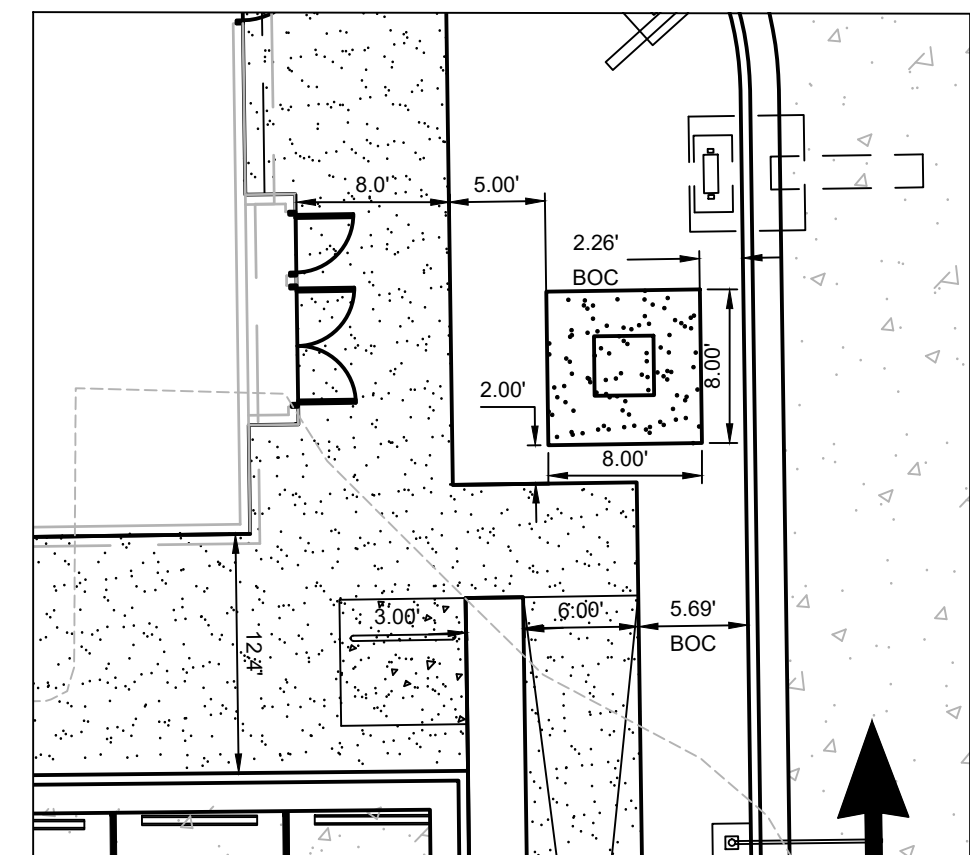
FURIAL MAP NO. 12-270360-D DATED 02/19/2014

SITE LIGHTING: PHOTO METRICS DESIGNED BY OTHERS. POLE LOCATIONS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY FINAL LOCATION OF POLES WITH PHOTO METRIC PLAN ON SHEET 1 OF 1 AND OWNER PRIOR TO CONSTRUCTION.

CONTRACTOR TO EXERCISE EXTREME CAUTION
WHEN EXCAVATING IN THE VICINITY OF THE
EXISTING BURIED GAS MAIN

24 HOUR CONTACT:
PANDA PM

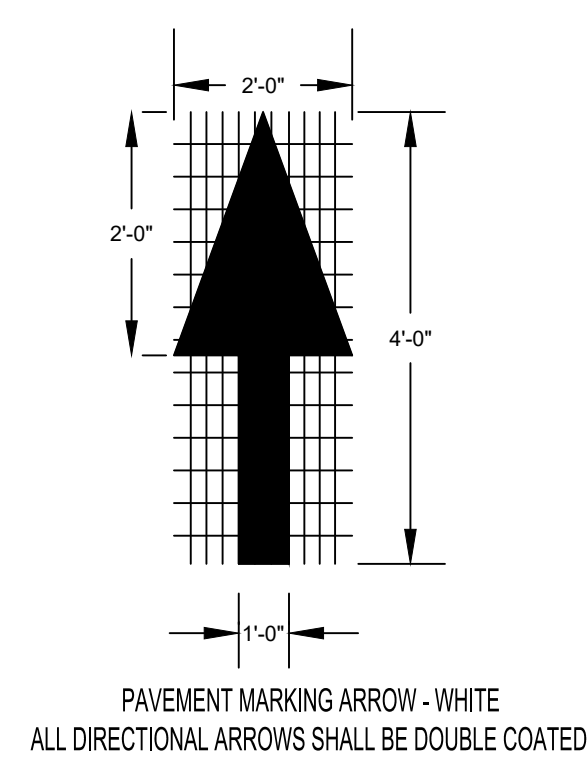
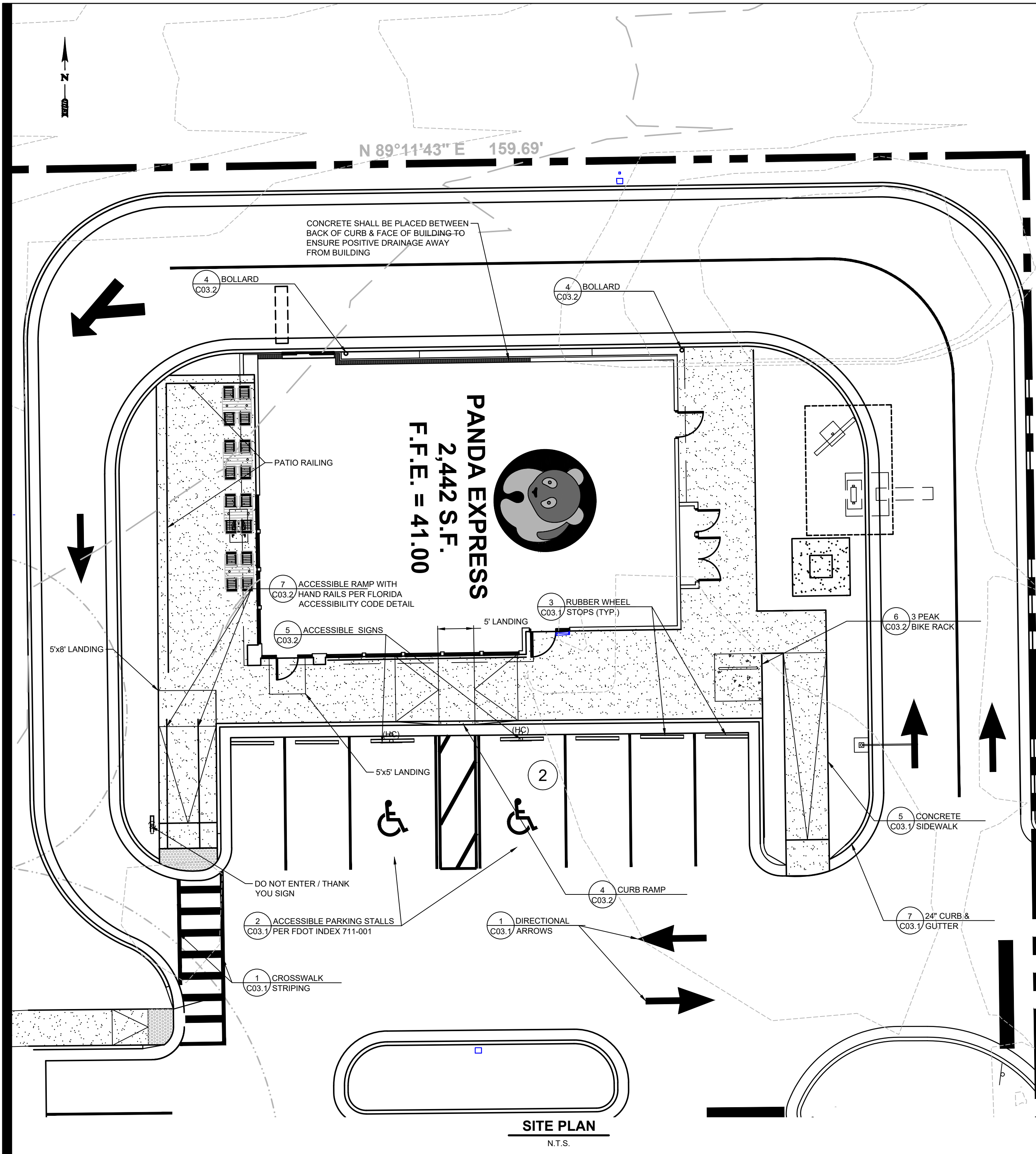
JOE CELENTO
(912) 272-4811



TRANSFORMER DIMENSIONS

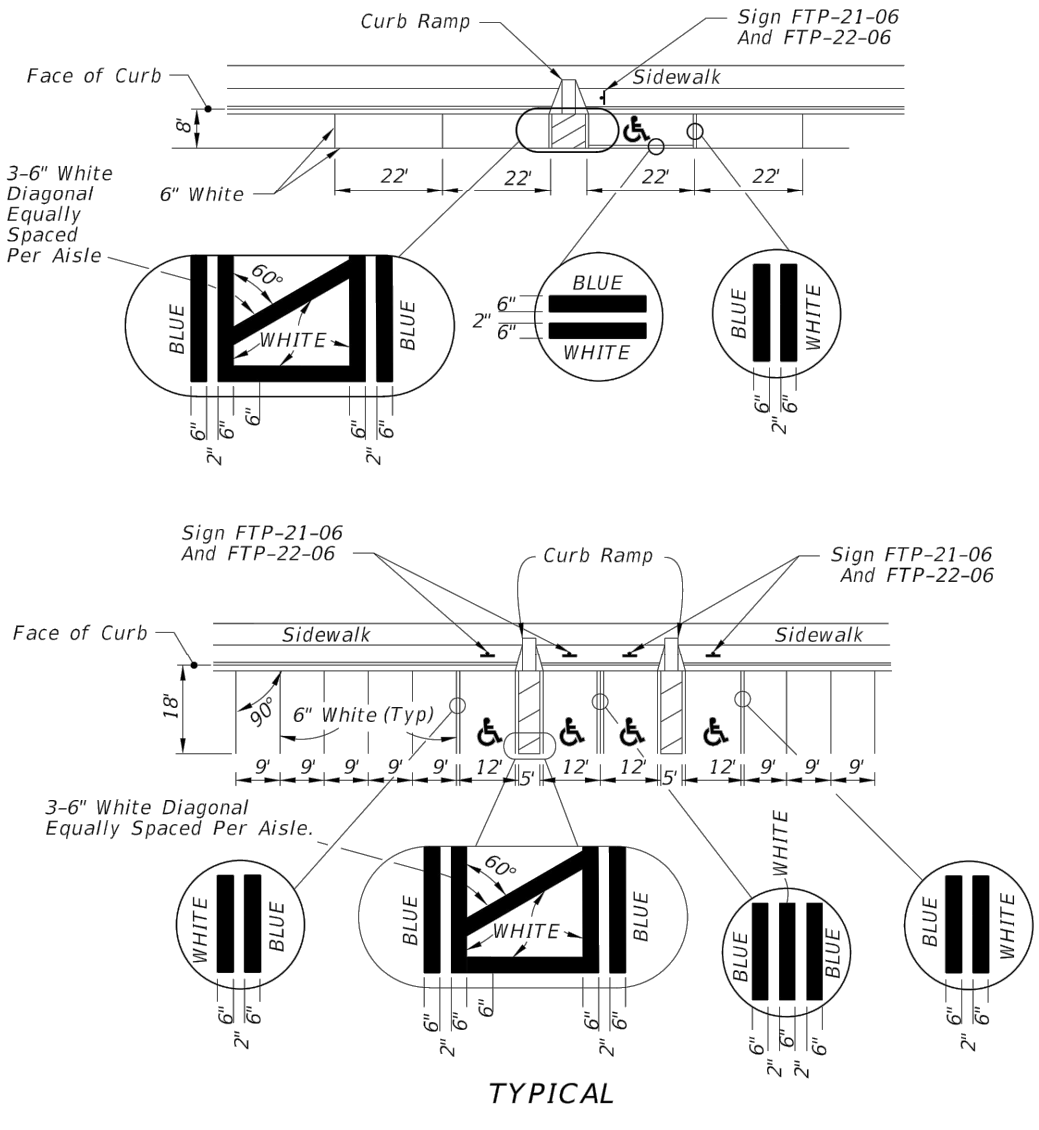
SCALE: 1" = 10'



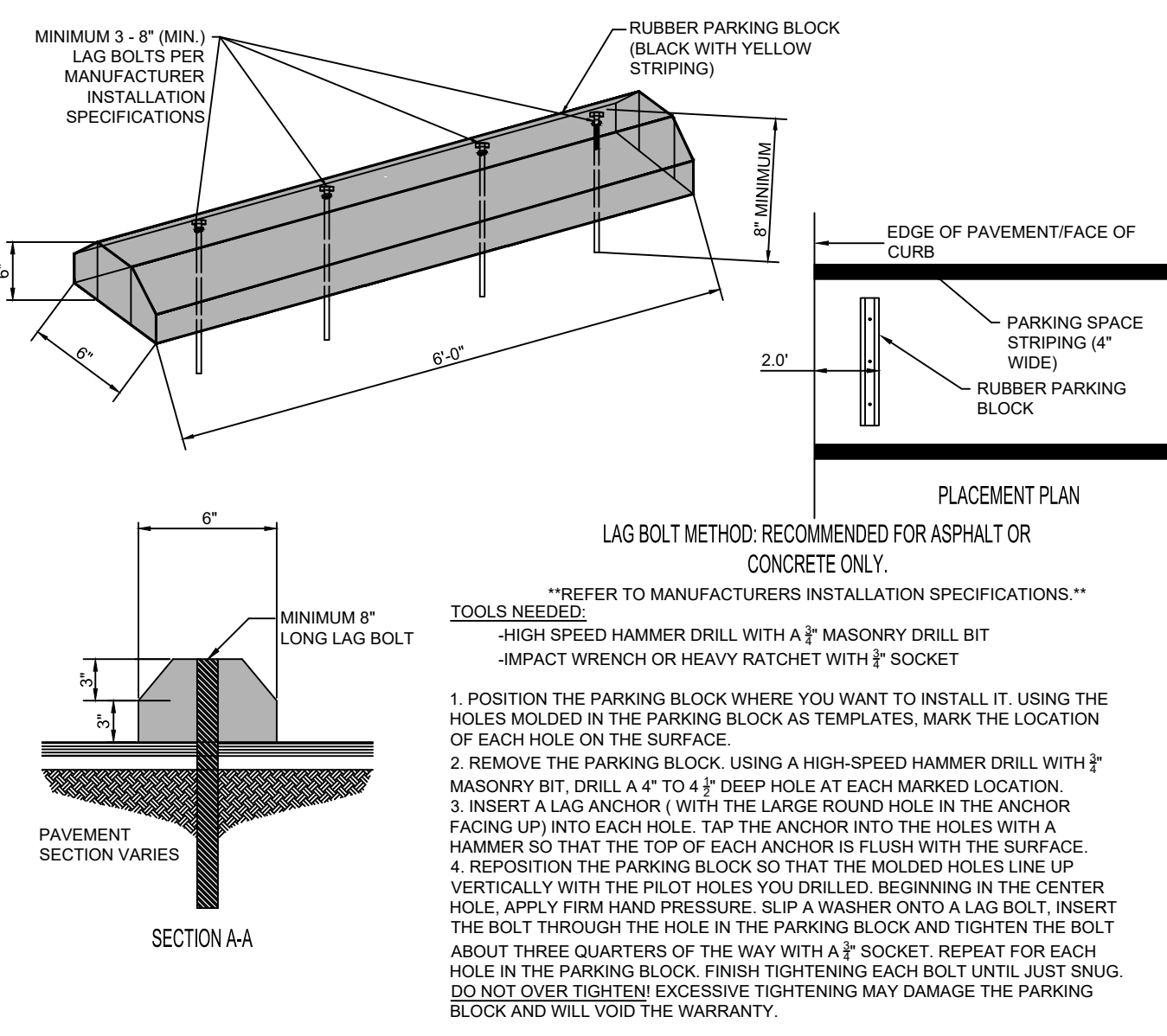


1 DIRECTIONAL ARROWS
N.T.S.

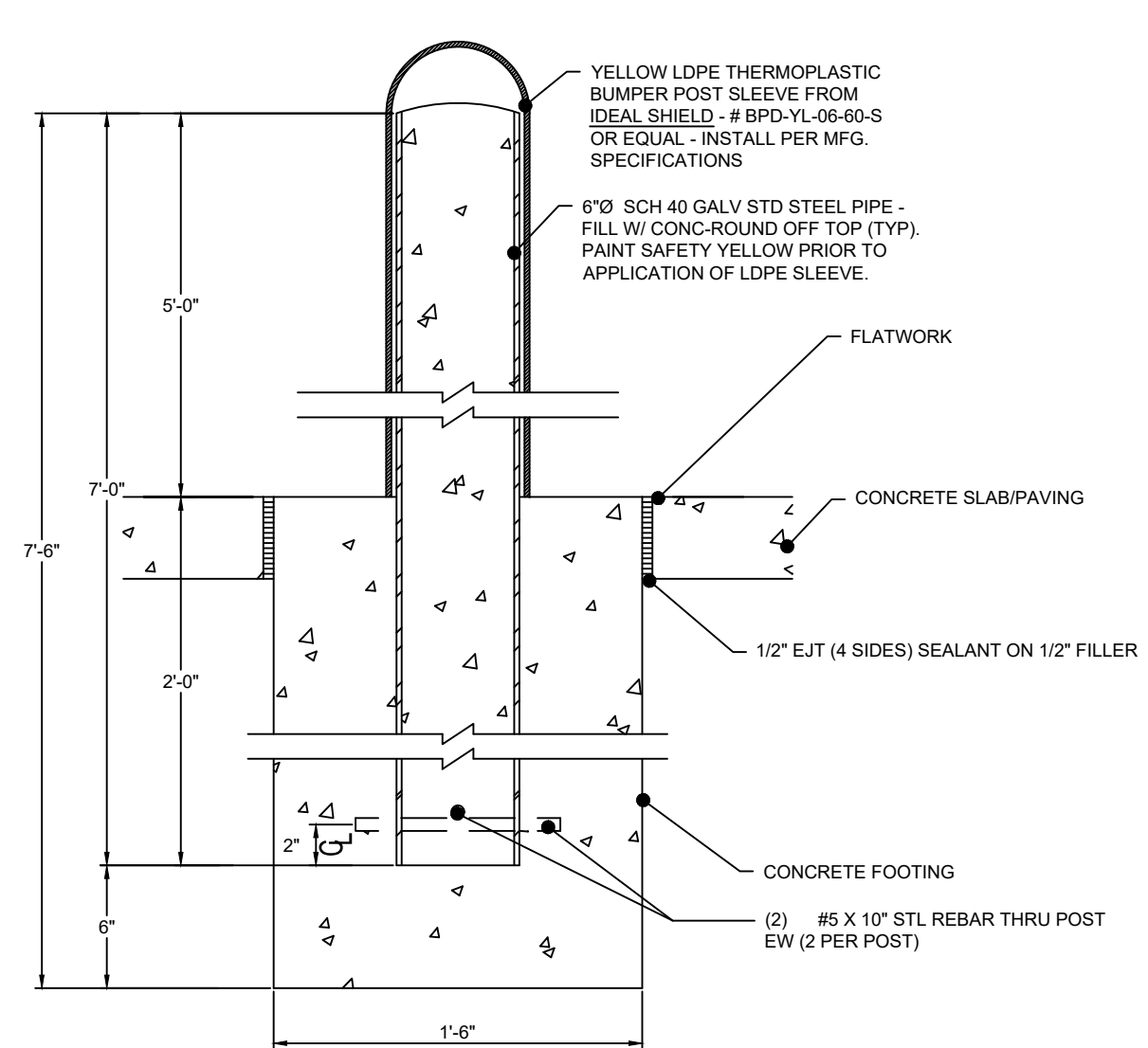
- NOTES:
1. Dimensions are to the centerline of markings.
 2. An Access Aisle is required for each accessible space when angle parking is used.
 3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
 4. Tint blue pavement markings to match color 15180 of Federal Standard 595a.
 5. Mount FTP-22-06 sign below the FTP-21-06 sign.
 6. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.



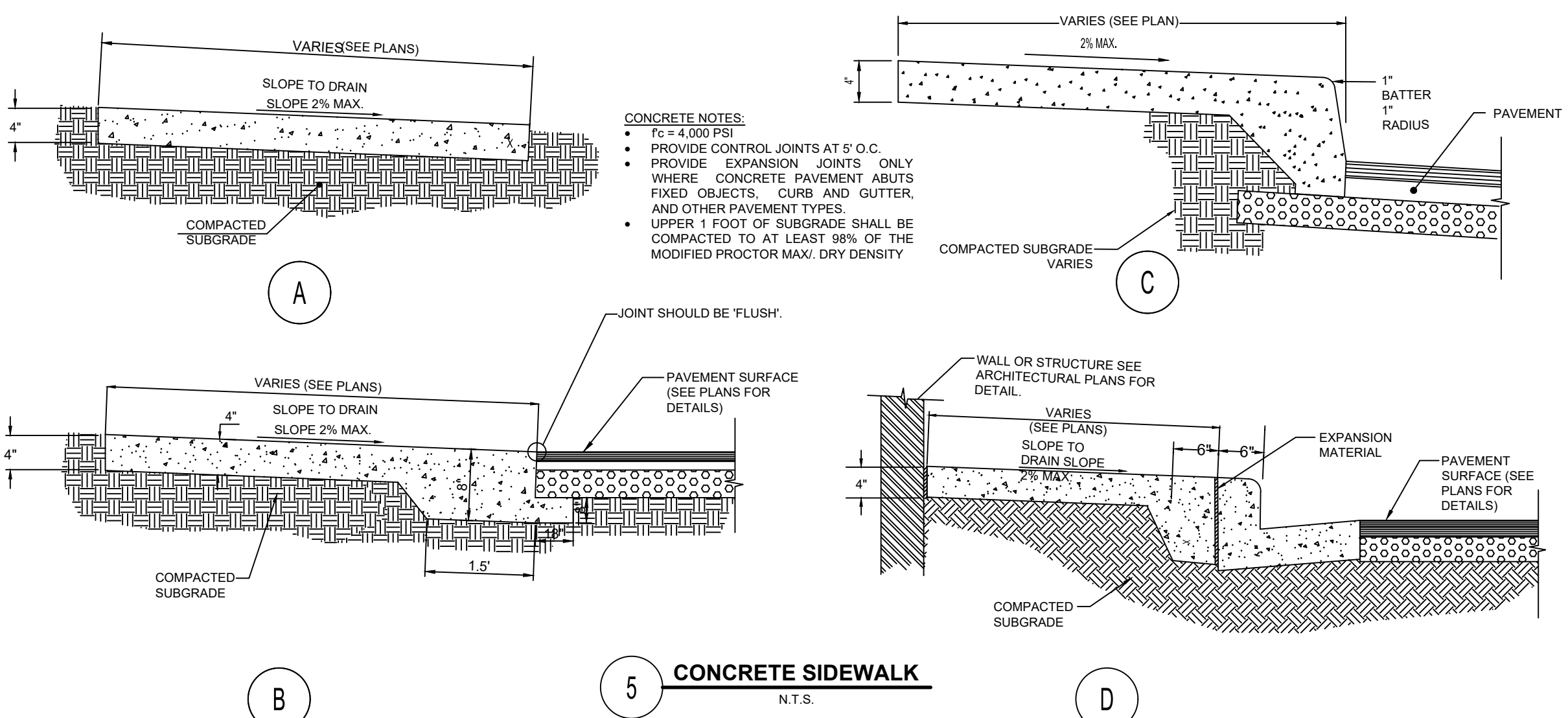
2 ACCESSIBLE AREA
PER FDOT INDEX 711-001
N.T.S.



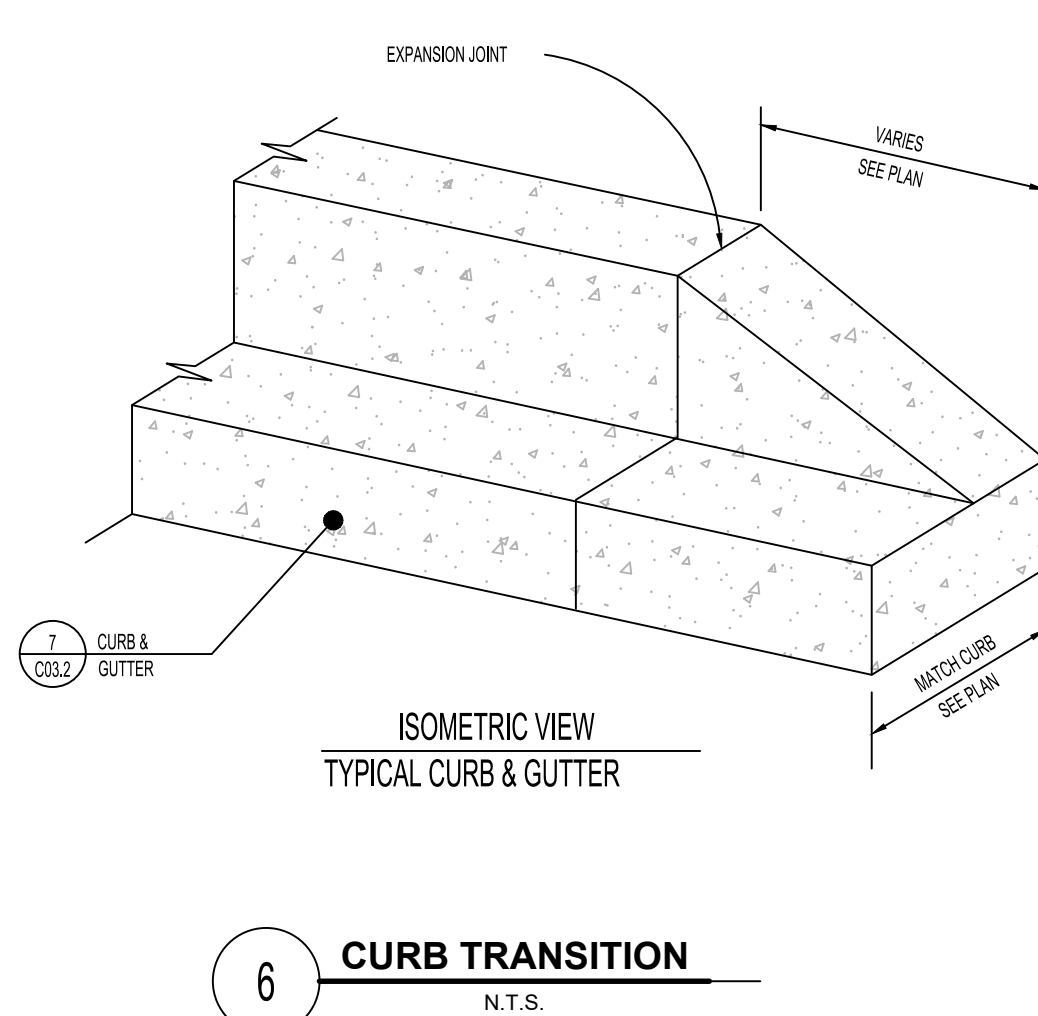
3 RUBBER WHEELSTOP
N.T.S.



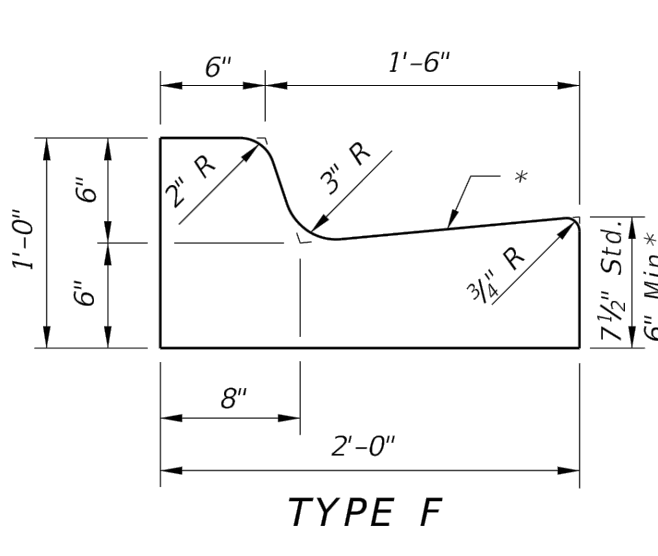
4 BOLLARD
N.T.S.



5 CONCRETE SIDEWALK
N.T.S.



6 CURB TRANSITION
N.T.S.



7 FDOT TYPE F CURB & GUTTER
PER FDOT INDEX 520-001
N.T.S.

* When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The thickness of the lip shall be 6", unless otherwise shown on plans.



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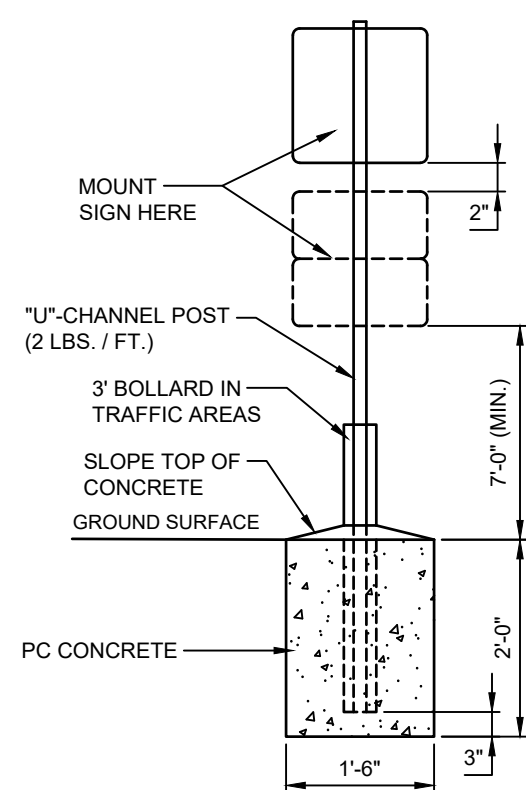
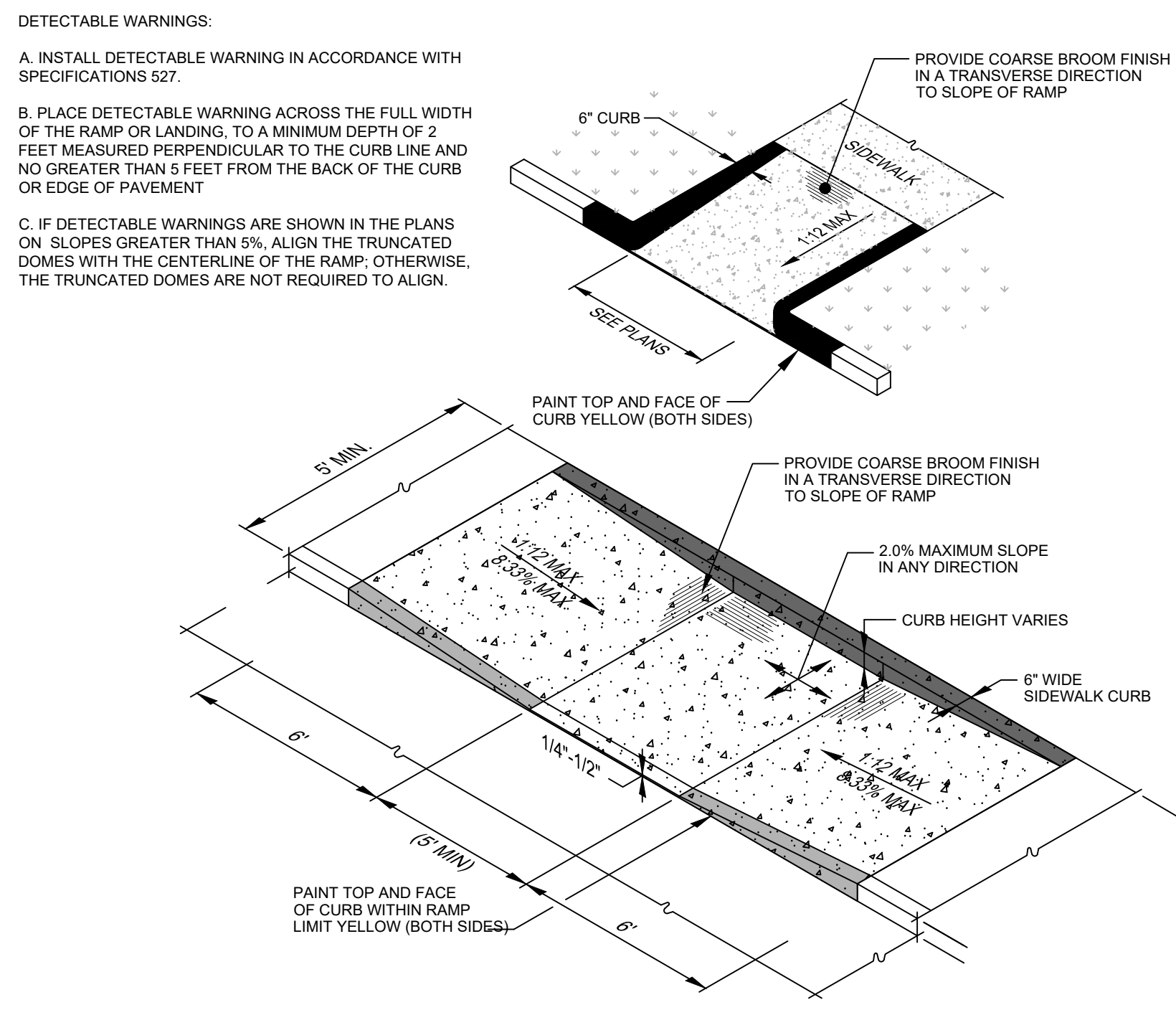
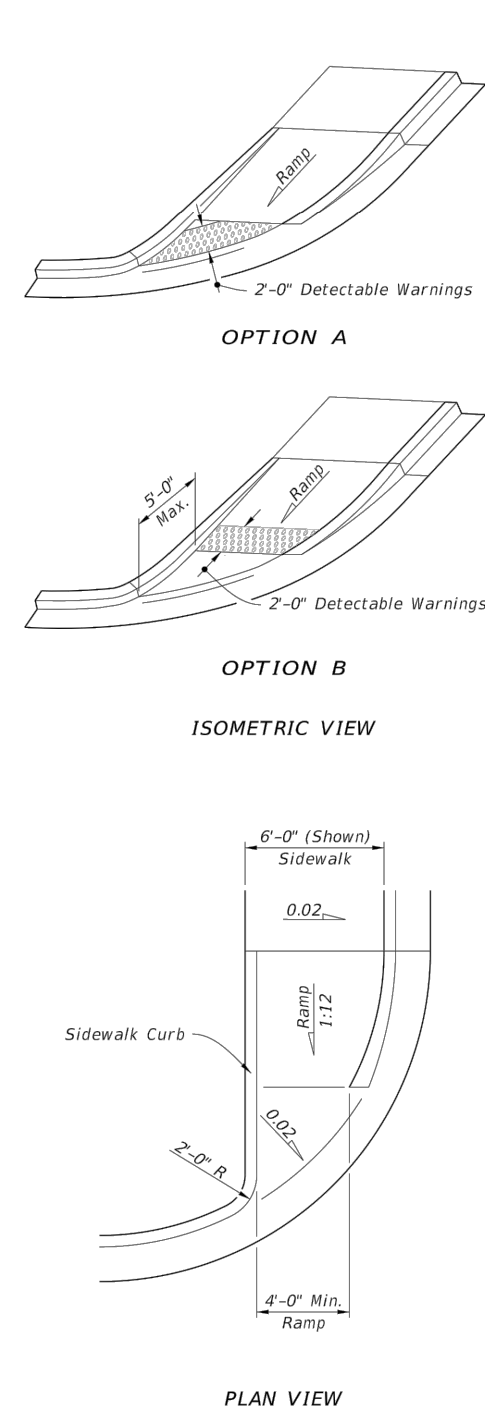
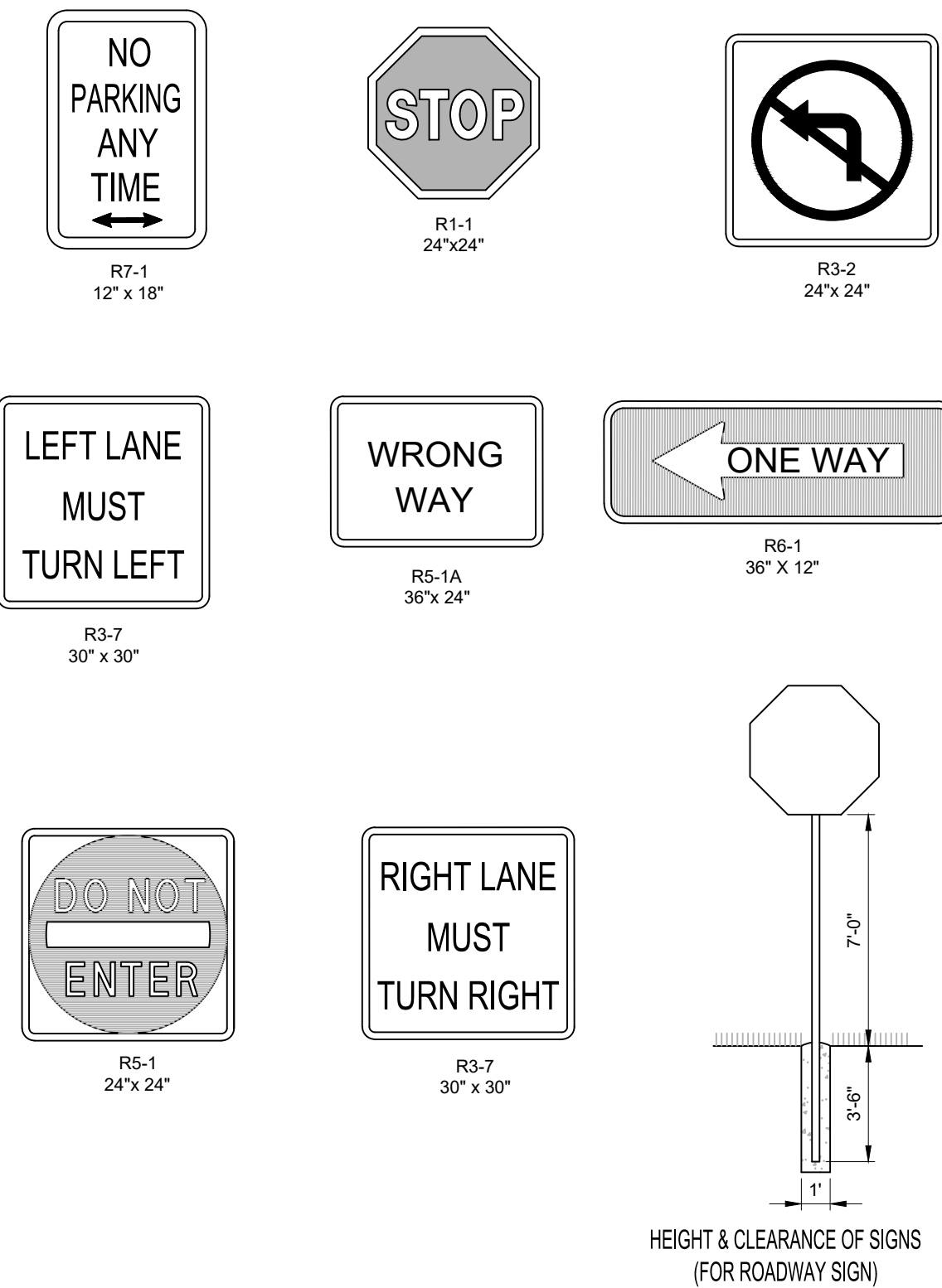
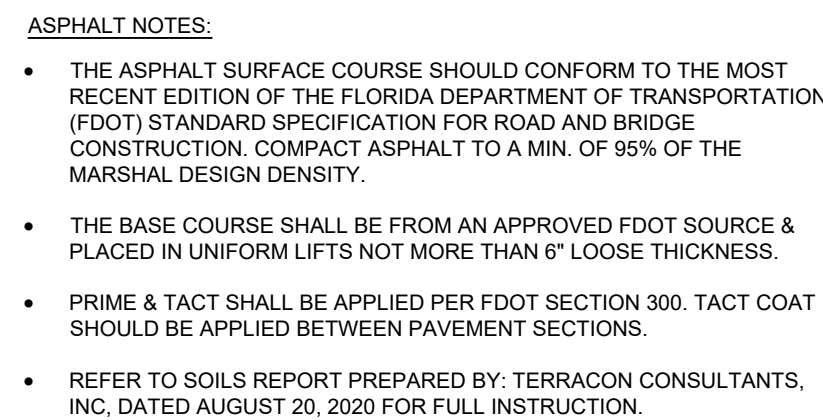
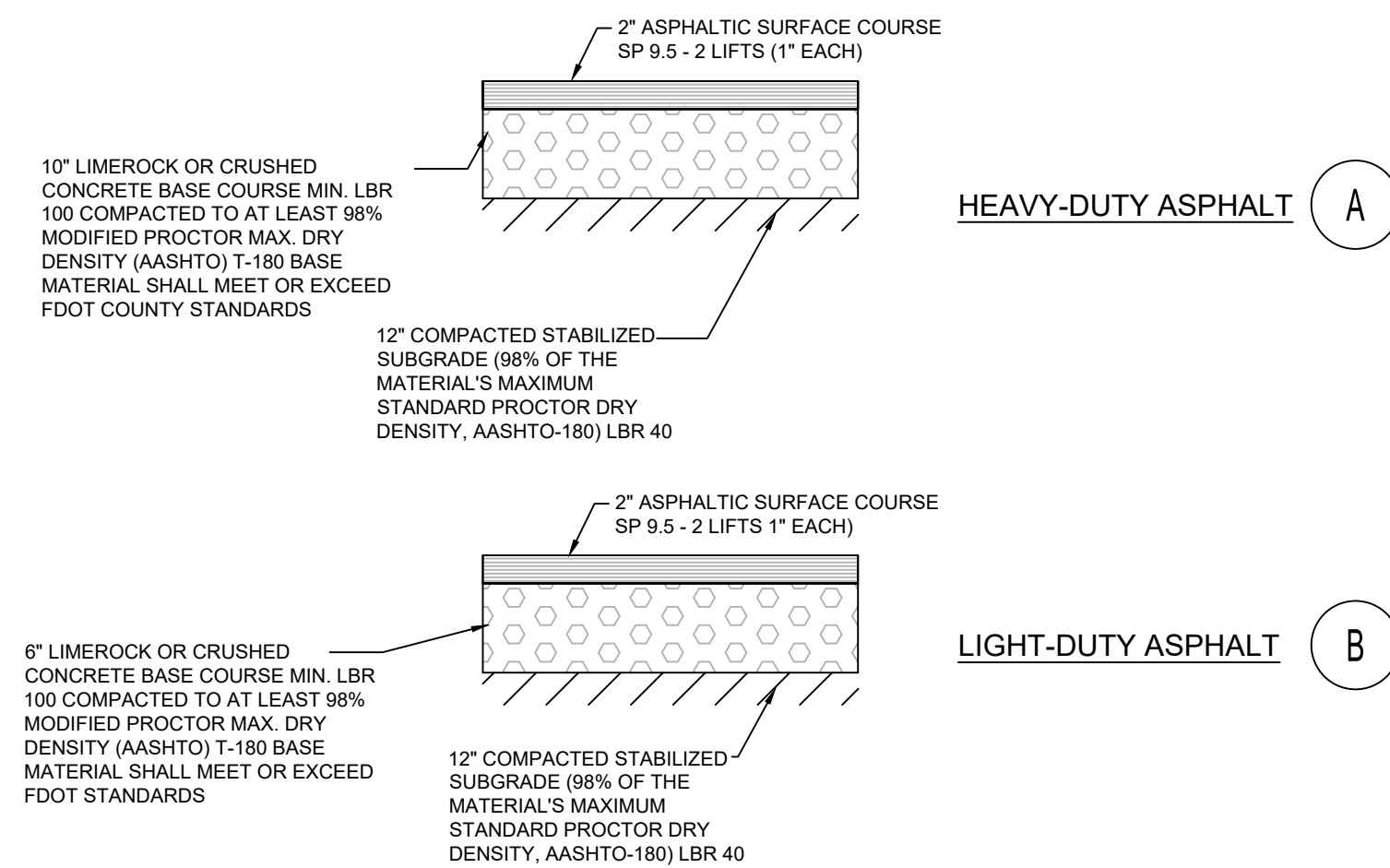
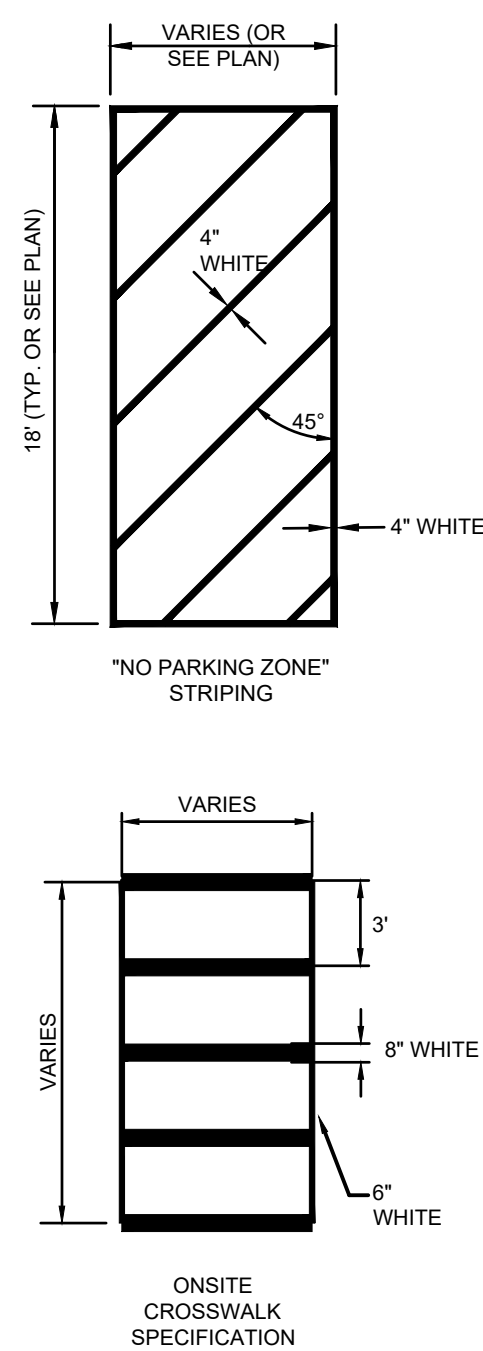
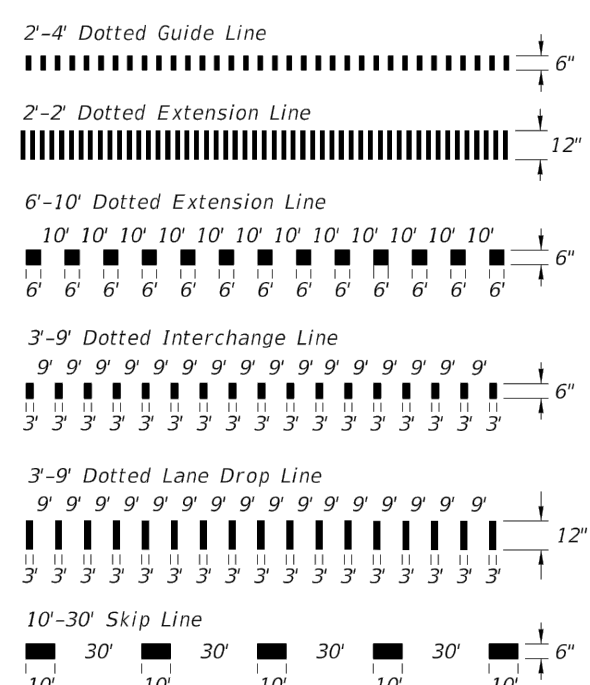
Plans Prepared By
CPIH, INC.
5601 Mariner St., Suite 105
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Licenses:
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DELAND, FLORIDA 32720

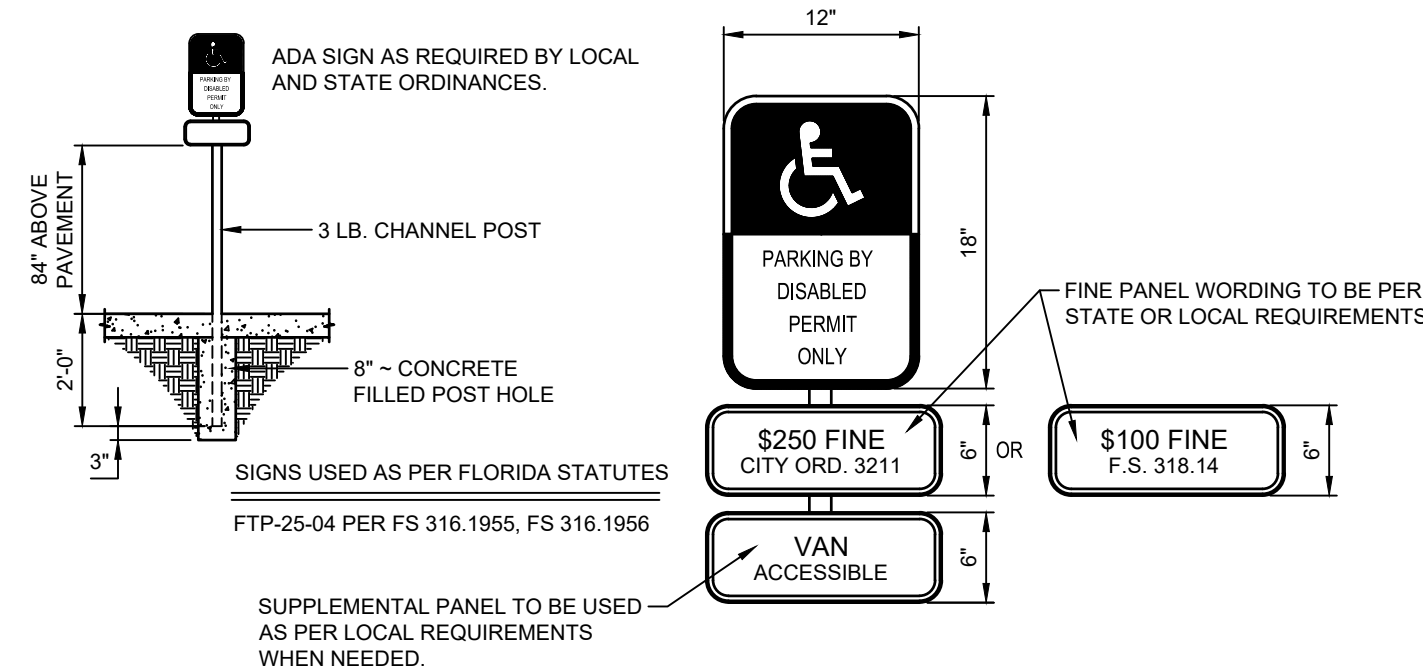
HARDSCAPE
DETAILS I
C03.1

TRUE WARM & WELCOME 2300
D8043

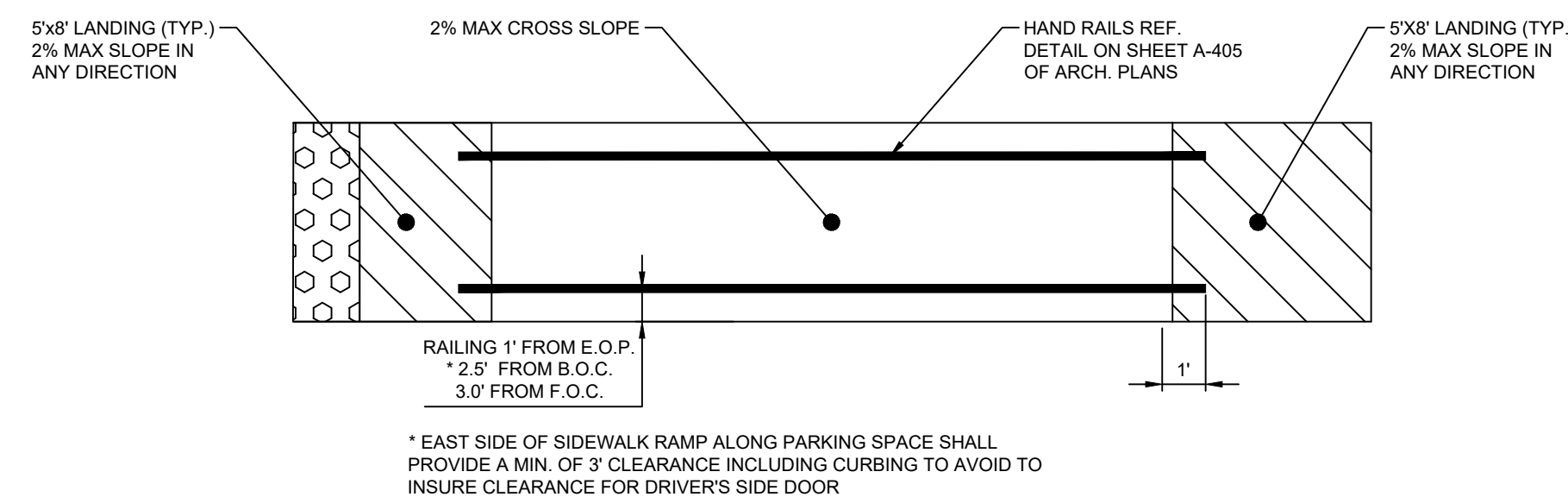
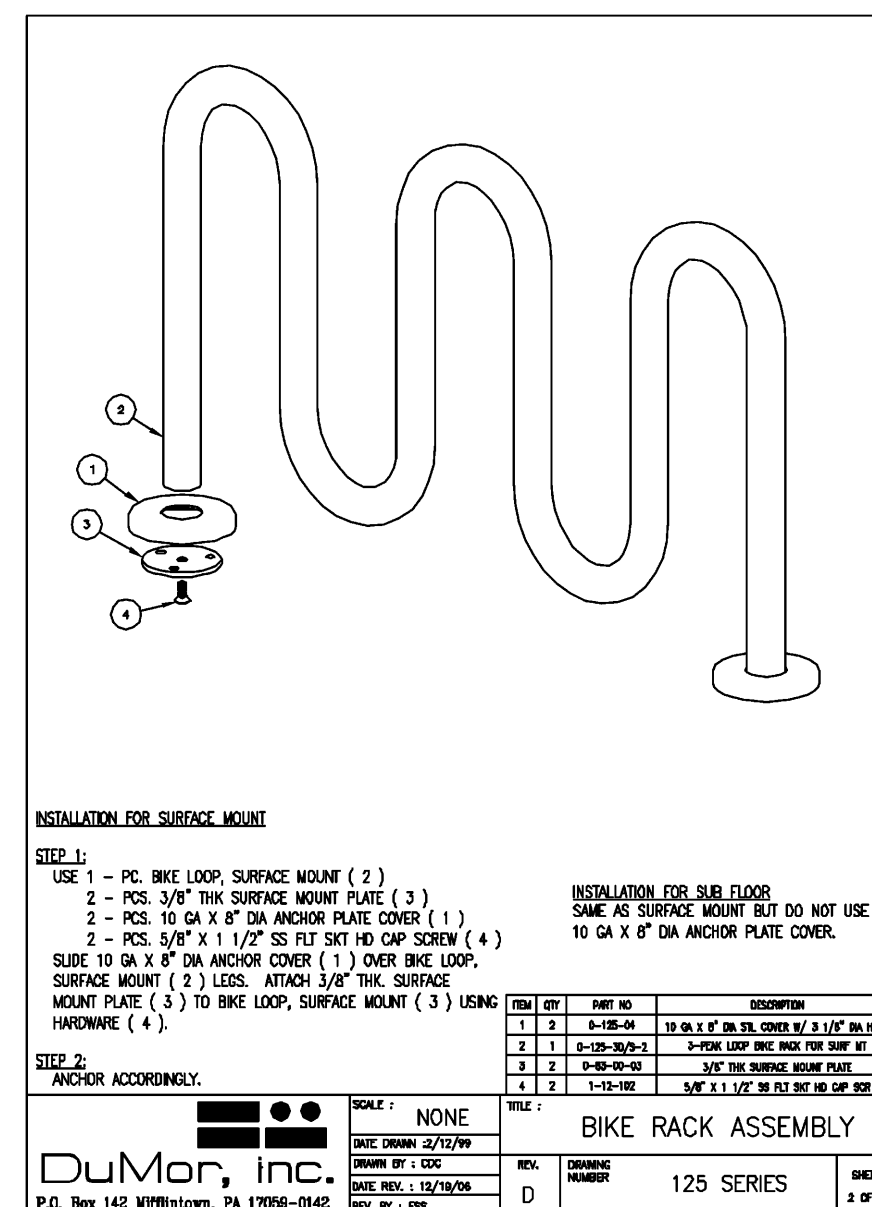
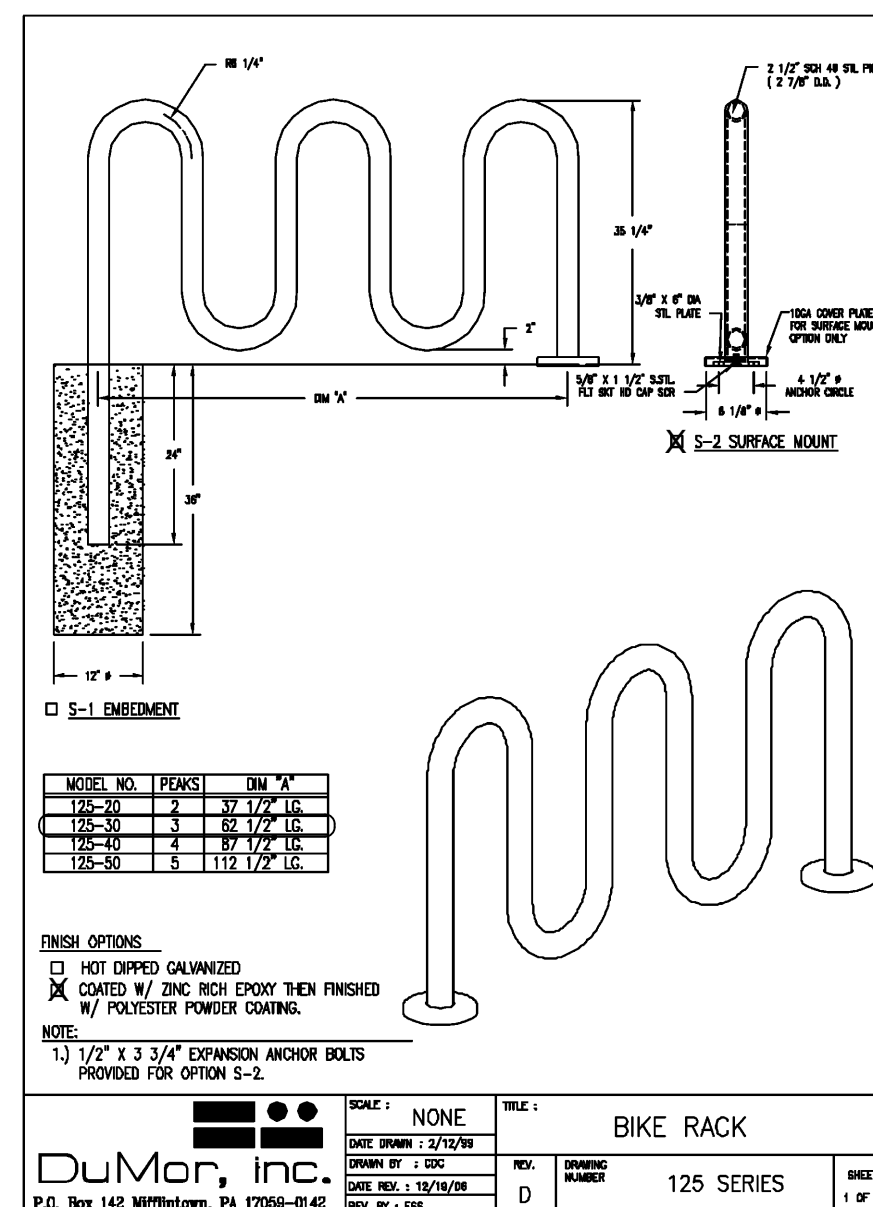


NOTE:

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



1. THE SIGN'S FACE SHALL BE OF AN ENGINEERING GRADE REFLECTORIZED MATERIAL.
2. ALL LETTERS ARE 1 INCH SERIES "C" PER THE MUTCD.
3. THE TOP PORTION OF THE SIGN SHALL HAVE A BLUE BACKGROUND WITH A WHITE LEGEND AND BORDER.
4. THE BOTTOM PORTION OF THE SIGN SHALL HAVE A WHITE BACKGROUND WITH A BLACK OPAQUE LEGEND AND BORDER.
5. THE FINE NOTIFICATION SIGN SHALL HAVE A WHITE BACKGROUND WITH A BLACK OPAQUE LEGEND AND BORDER.
6. ONE SIGN SHALL BE REQUIRED FOR EACH PARKING SPACE.
7. EACH SIGN SHALL HAVE A CLEARANCE OF 7 FEET FROM THE BOTTOM OF THE SIGN TO FINAL GRADE OR THE TOP OF CURB, WHICHEVER IS GREATER. SIGNS SHALL NOT BE FARTHER THAN 5 FEET FROM THE FRONT OF THE PARKING SPACE.
8. ALL SIGNS SHALL BE MOUNTED ON 3 POUND CHANNEL POSTS. SIGNS MAY BE MOUNTED ON BUILDINGS WITH CITY APPROVAL.



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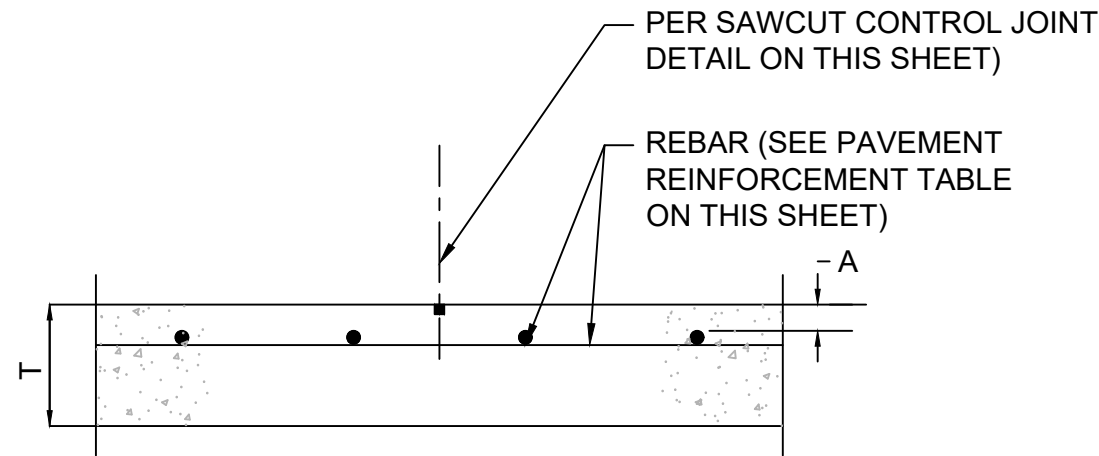
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DELAND, FLORIDA 32720

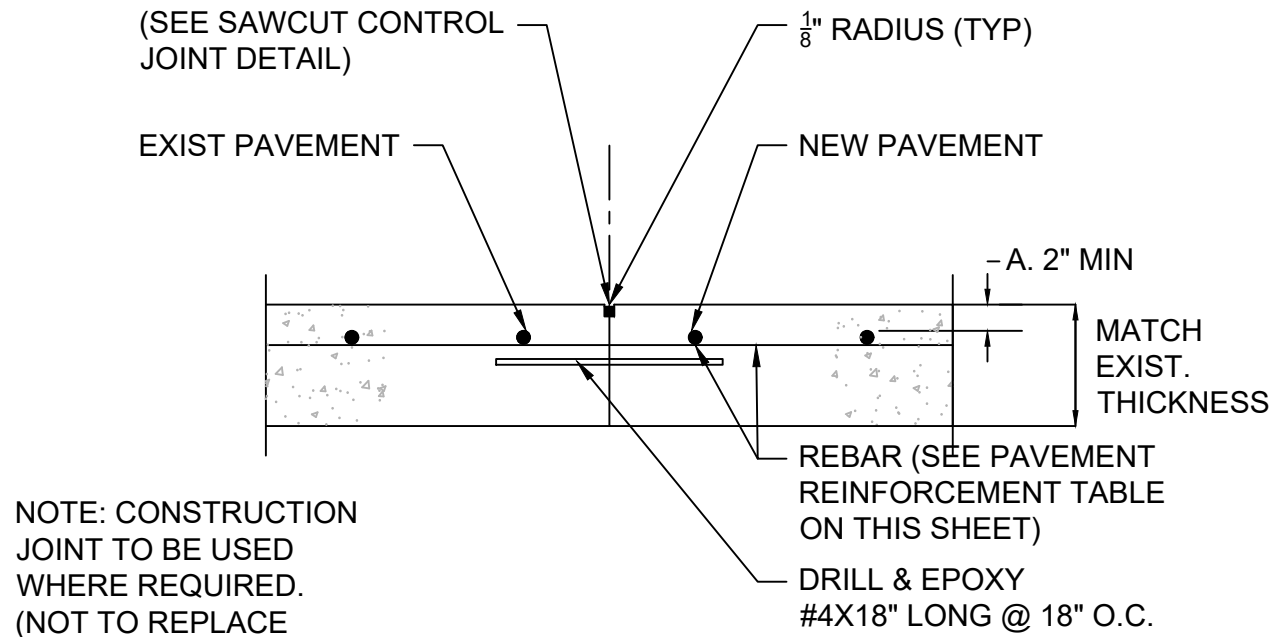
HARDSCAPE DETAILS II

C03.2

TRUE WARM & WELCOME 2300
D8043

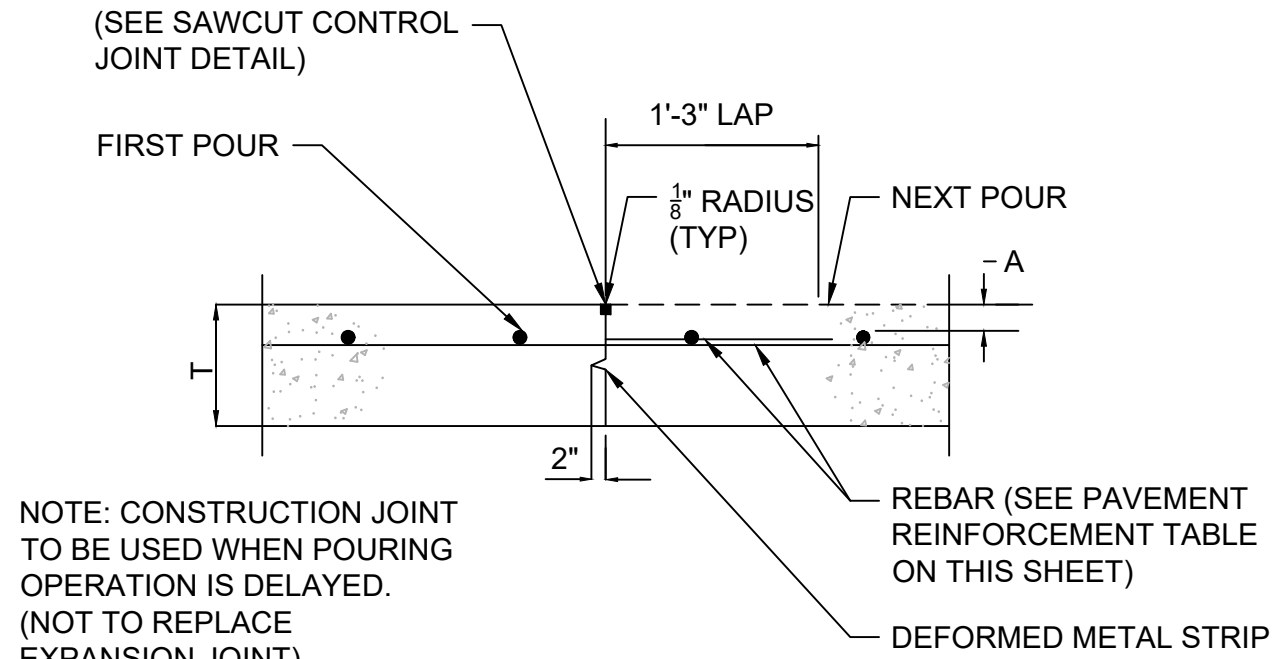


SAWCUT JOINT
N.T.S.



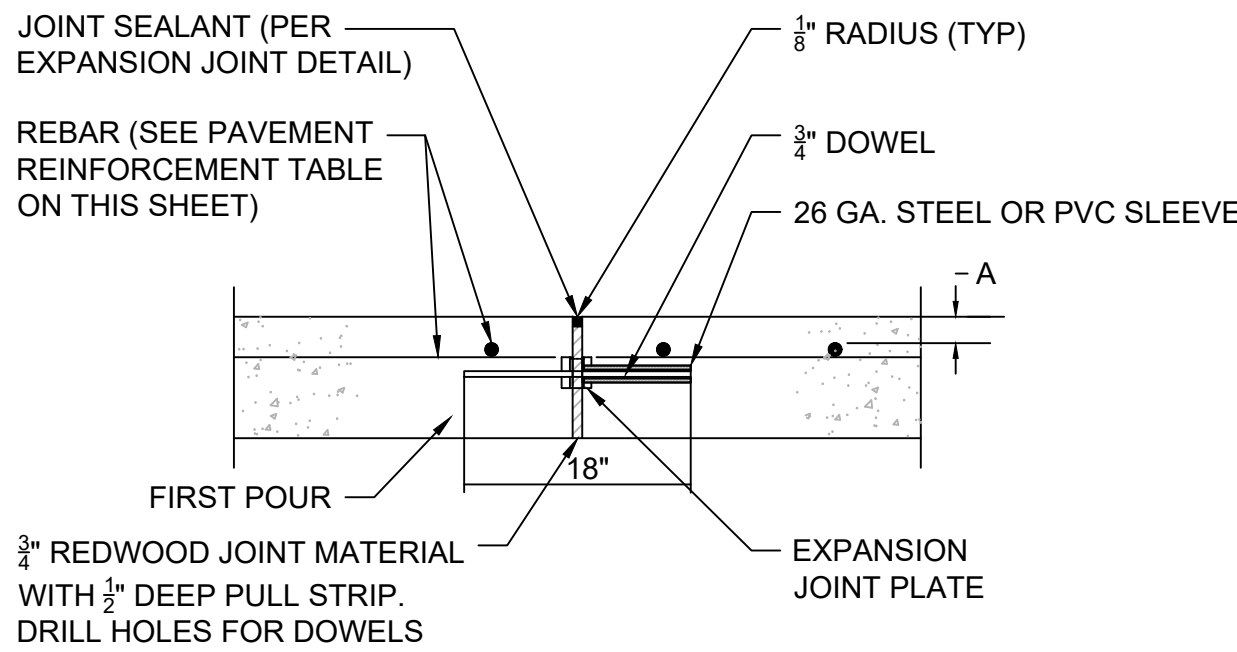
NOTE: CONSTRUCTION JOINT TO BE USED WHERE REQUIRED. (NOT TO REPLACE EXPANSION JOINT)

CONCRETE TO CONCRETE TIE IN
N.T.S.

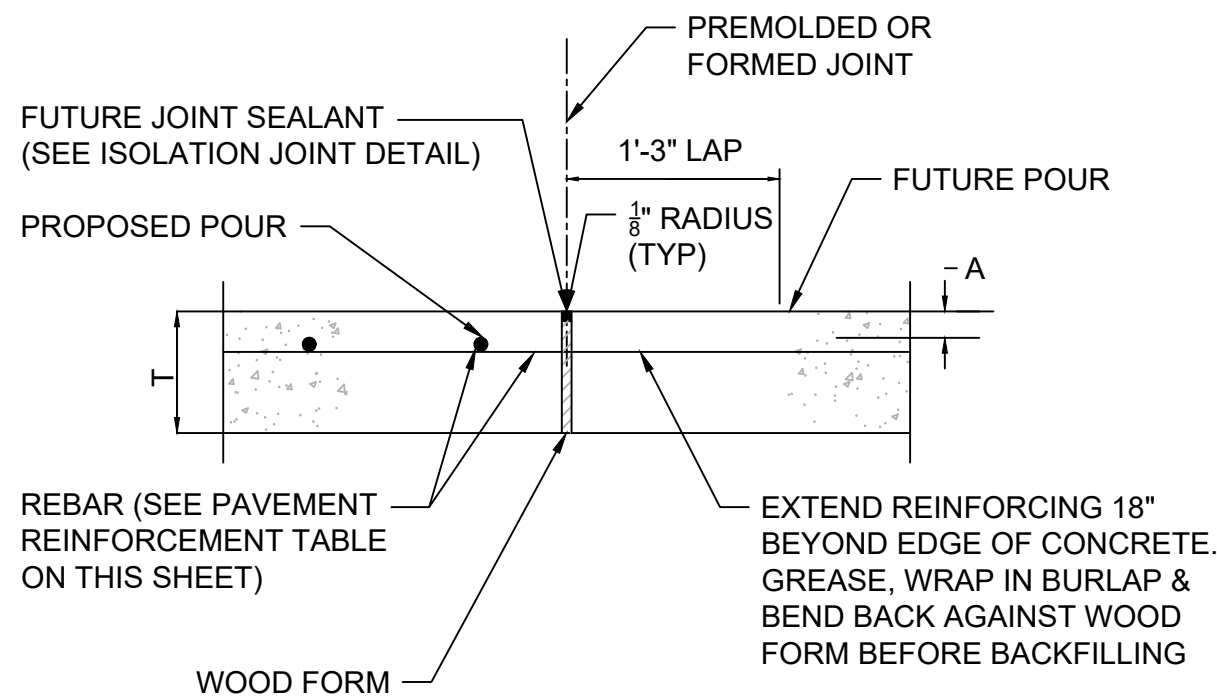


NOTE: CONSTRUCTION JOINT TO BE USED WHEN POURING OPERATION IS DELAYED. (NOT TO REPLACE EXPANSION JOINT)

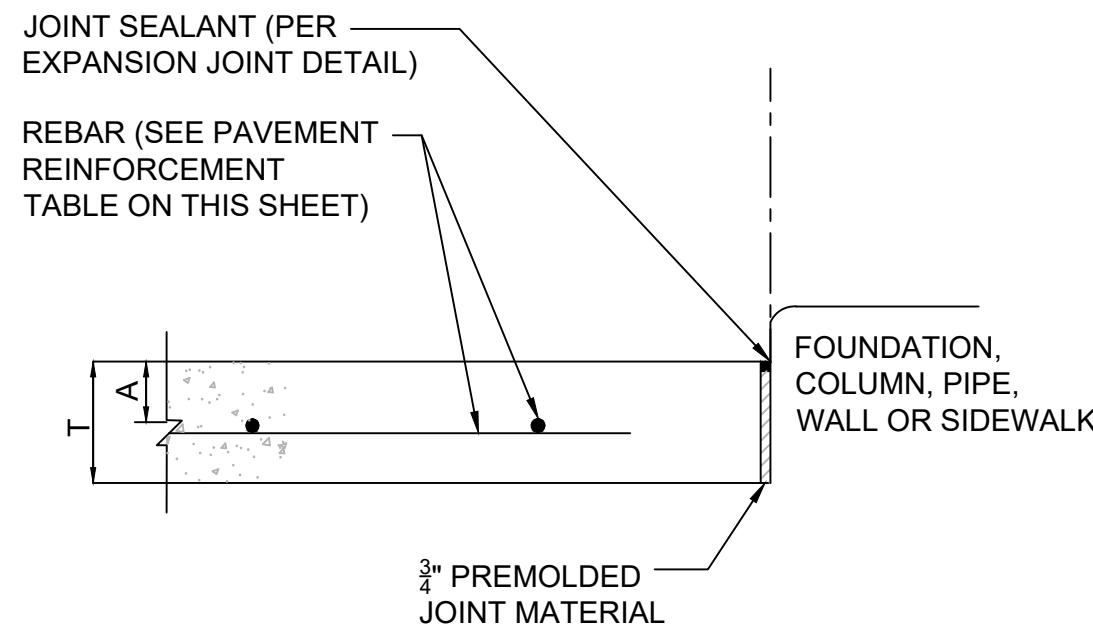
CONSTRUCTION JOINT
N.T.S.



SAWCUT JOINT
N.T.S.



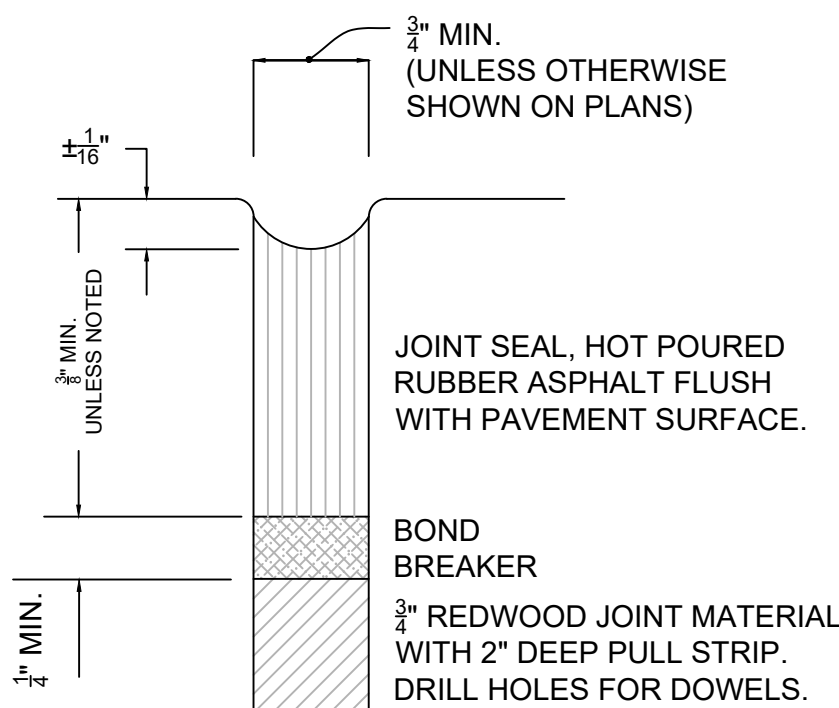
CONCRETE TO CONCRETE TIE IN
N.T.S.



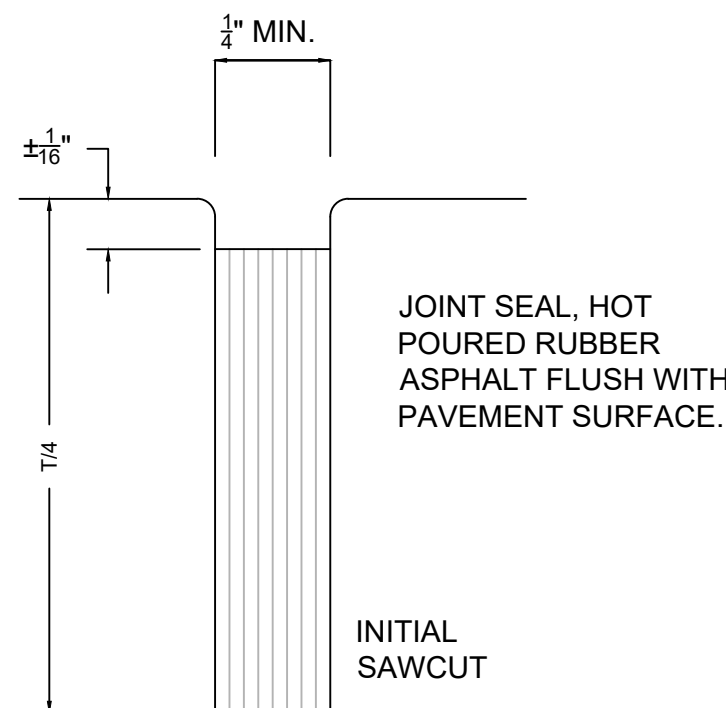
CONSTRUCTION JOINT
N.T.S.

NOTES:

1. REINFORCING STEEL BAR SIZE/SPACING SPECIFICATIONS IN GEOTECH REPORT SHALL SUPERSEDE ABOVE TABLE.
2. REINFORCING STEEL SIZE/SPACING IS BASED ON MIN. 60,000 PSI TENSILE STRENGTH REINFORCING STEEL AS SHOWN.
3. CONCRETE PAVING MIX DESIGN SHALL HAVE MINIMUM 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. GEOTECHNICAL REPORT CONCRETE PAVING MIX DESIGN SHALL SUPERSEDE VALUES HEREIN.
4. MAXIMUM JOINT SPACING SHALL BE PER JOINT LAYOUT PLAN (IF PROVIDED) BUT SHALL NOT EXCEED VALUES IN TABLE.
5. MAXIMUM JOINT SPACING IN GEOTECHNICAL REPORT SHALL SUPERSEDE VALUES IN ABOVE TABLE.
6. USE STATE DOT SUBBASE UNLESS OTHERWISE SPECIFIED BY GEOTECHNICAL REPORT.
7. ALL JOINTS IN PAVING SHALL BE REFLECTED IN CURBING AND SHALL HAVE ALL THEIR RESPECTIVE JOINTING MATERIALS PRESENT (I.E. EXPANSION JOINTS SHALL HAVE THEIR RESPECTIVE FILLER BOARD AND CAULK REPLACED).
8. CURB EXPANSION JOINTS: - IF THERE IS AN EXPANSION JOINT IN THE PAVING, THE EXPANSION JOINT MUST FOLLOW THROUGH THE CURB. THE REINFORCING STEEL MUST ALSO BE CUT AT THE EXPANSION JOINT AND NOT ALLOWED TO RUN THROUGH THE JOINT CONTINUOUSLY. A SAW CUT EXPANSION JOINT IS NOT ACCEPTABLE BECAUSE NORMAL EXPANSION AND CONTRACTION WILL CAUSED THE CONCRETE TO PUSH AGAINST THE TWO SECTIONS AND ONE SIDE WILL EVENTUALLY FAIL. IF AN EXPANSION JOINT IS LEFT OUT AND MUST BE SAW CUT IN, THE CURB SHOULD BE CUT TWICE AND A 3/4" PIECE OF CONCRETE IS REMOVED. IN ALL CASES THE JOINT SHOULD BE CAULKED WITH NP1.
9. CONCRETE TOUCHING THE BACK OF CURBS:- ANY CONCRETE THAT TOUCHES THE BACK OF A CURB INCLUDING SIDEWALKS, ISLAND NOSINGS AND PAYPHONE PADS SHALL BE ISOLATED FROM THE CURB USING 1/2" BLACK ASPHALT IMPREGNATED FIBERBOARD. CONTRACTOR SHALL USE A REMOVABLE STRIP OR A ZIP-STRIP AND SEAL THE JOINT WITH SL1. THE ONLY EXCEPTION IS IF THE ISLAND NOSINGS ARE POURED MONOLITHICALLY WITH THE CURB AND PARKING LOT.
10. CURBS AT THE BUILDING FOUNDATION:- IF A CURB TOUCHES THE BUILDING FOUNDATION, IT NEEDS TO BE ISOLATED WITH EXPANSION JOINT MATERIAL JUST LIKE THE PAVING. IF AN EXPANSION JOINT IS LEFT OUT AND MUST BE SAW CUT IN, A 3/4" PIECE OF CONCRETE SHOULD BE REMOVED. THE JOINT SHOULD BE CAULKED WITH NP1.
11. EXPANSION JOINTS AT ISLAND NOSINGS:- IF THE ISLAND NOSINGS ARE POURED MONOLITHICALLY WITH THE CUB AND PARKING LOT, THEN PAVING EXPANSION JOINTS SHOULD CONTINUE THROUGH THE NOSINGS.



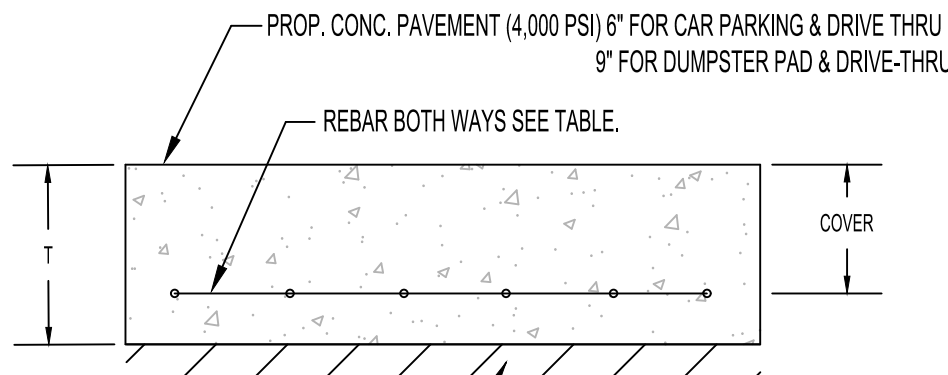
EXPANSION JOINT
N.T.S.



SAW CUT CONTROL JOINT
N.T.S.

REINFORCEMENT TABLE

CONCRETE SECTION DESIGNATION	(T) SLAB THICKNESS (IN.)	(COVER) COVER (IN.) (2" MIN)	MAX. EXPANSION JOINT SPACING (FT.)	60,000 PSI STEEL
				REINFORCING STEEL BAR SIZE & SPACING*
TYPE "A"	6	2	15	#3 @ 24" C-C
TYPE "B"	8	2	15	#3 @ 24" C-C
TYPE "C"	12	2	15	#3 @ 24" C-C



18" FREE DRAINING MATERIAL (LESS THAN 5% PASSING THE NO. 200 SIEVE) UPPER 12" SHALL BE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR DENSITY (AASHTO T-180 OR ASTM D-1557)

1

CONCRETE SECTION

NTS



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91770
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REVISIONS:

PER CITY COMMENTS	3/12/2021
REV. HYDRANT LOCATION	3/25/2021

ISSUE DATE:

PERMIT SET	10/19/2020
BID	02/01/2021
CONSTRUCTION	07/08/2021

DRAWN BY: K. Patterson

PANDA PROJECT #: D8043 STORE 3477

CIVIL PROJECT #: P7356



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HARDSCAPE DETAILS III

C03.3

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DRAWN BY: K. Patterson

PANDA PROJECT #: D8043 STORE 347
CIVIL PROJECT #: P7356



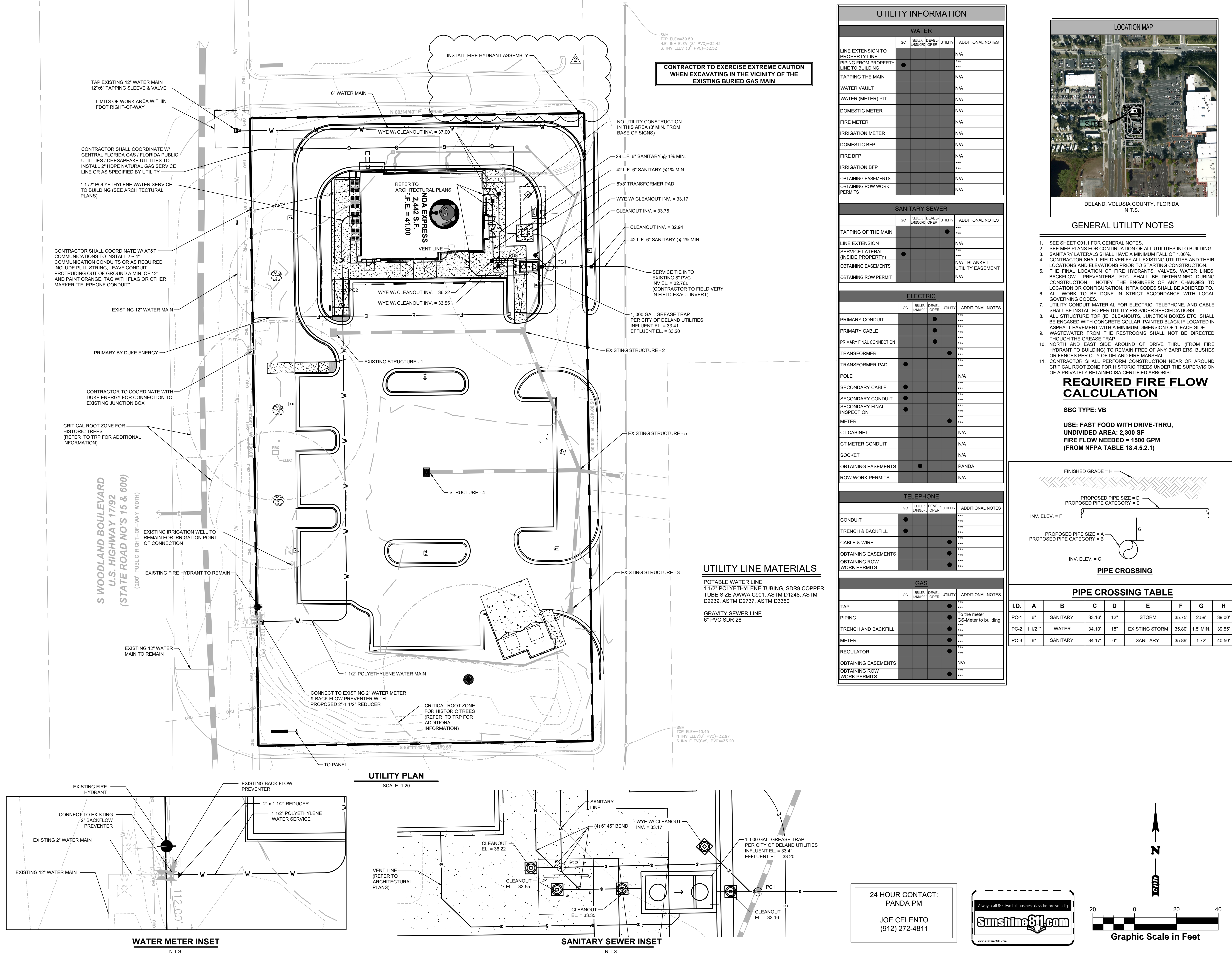
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UTILITY PLAN

C04.0

TRUE WARM & WELCOME 2300
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CIVIL PROJECT #: P7356

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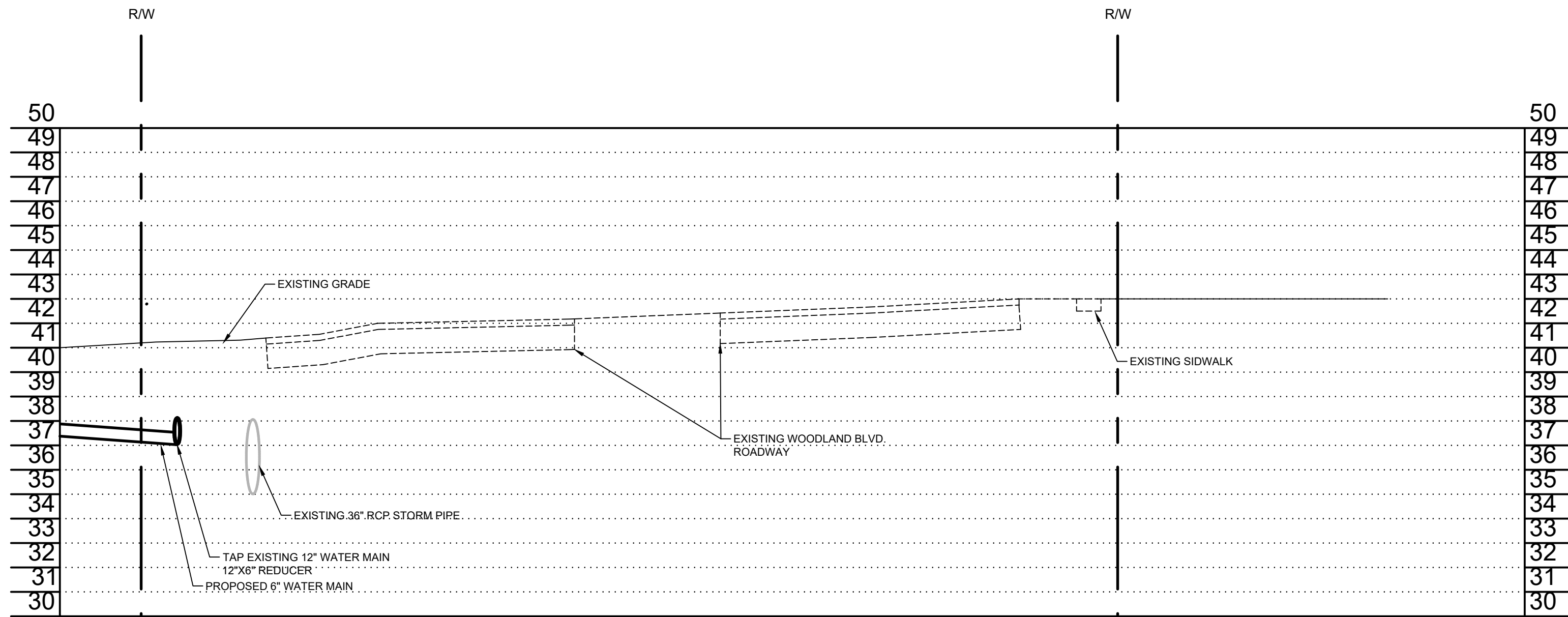
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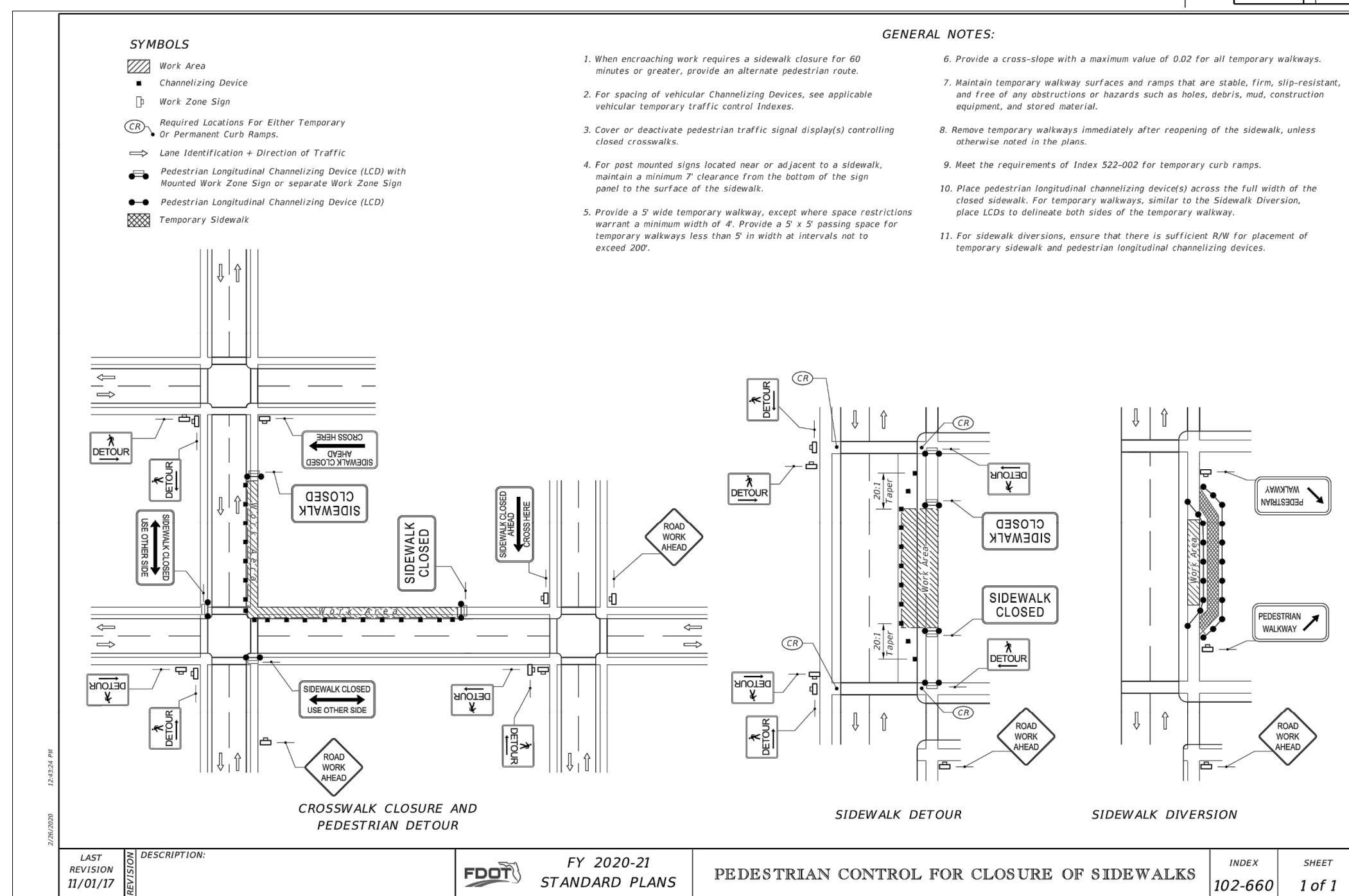
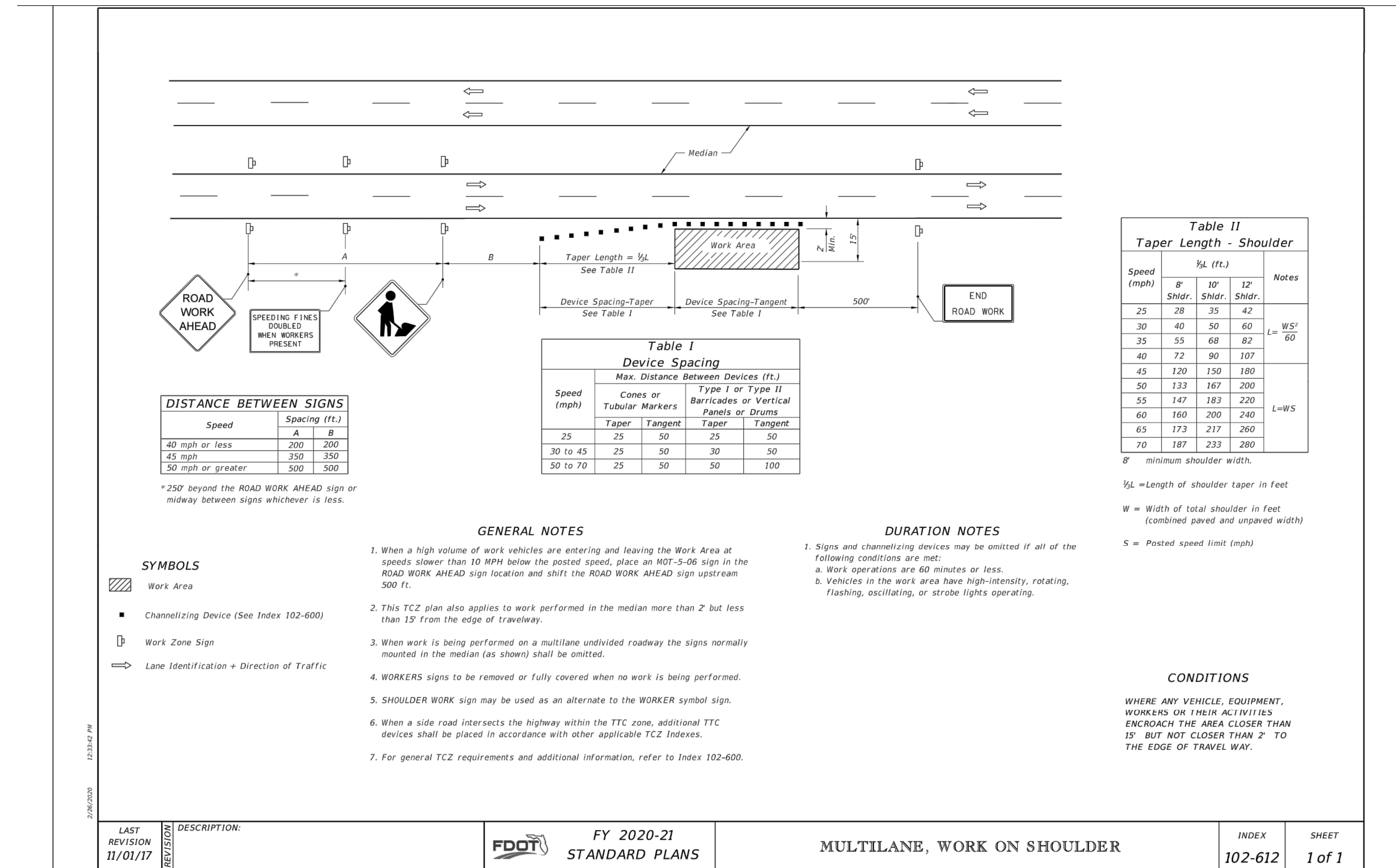
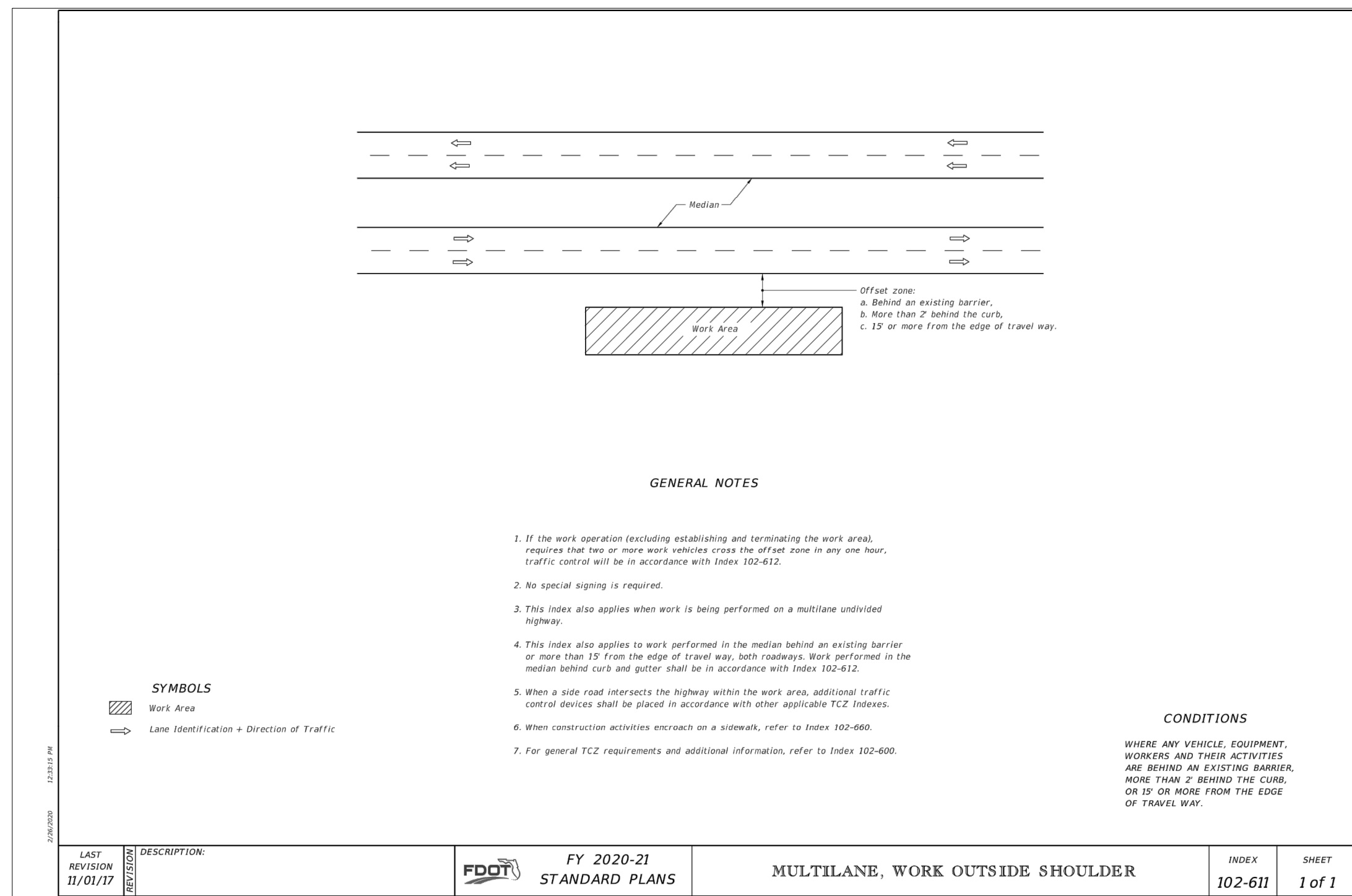
UTILITY - FDOT DETAILS

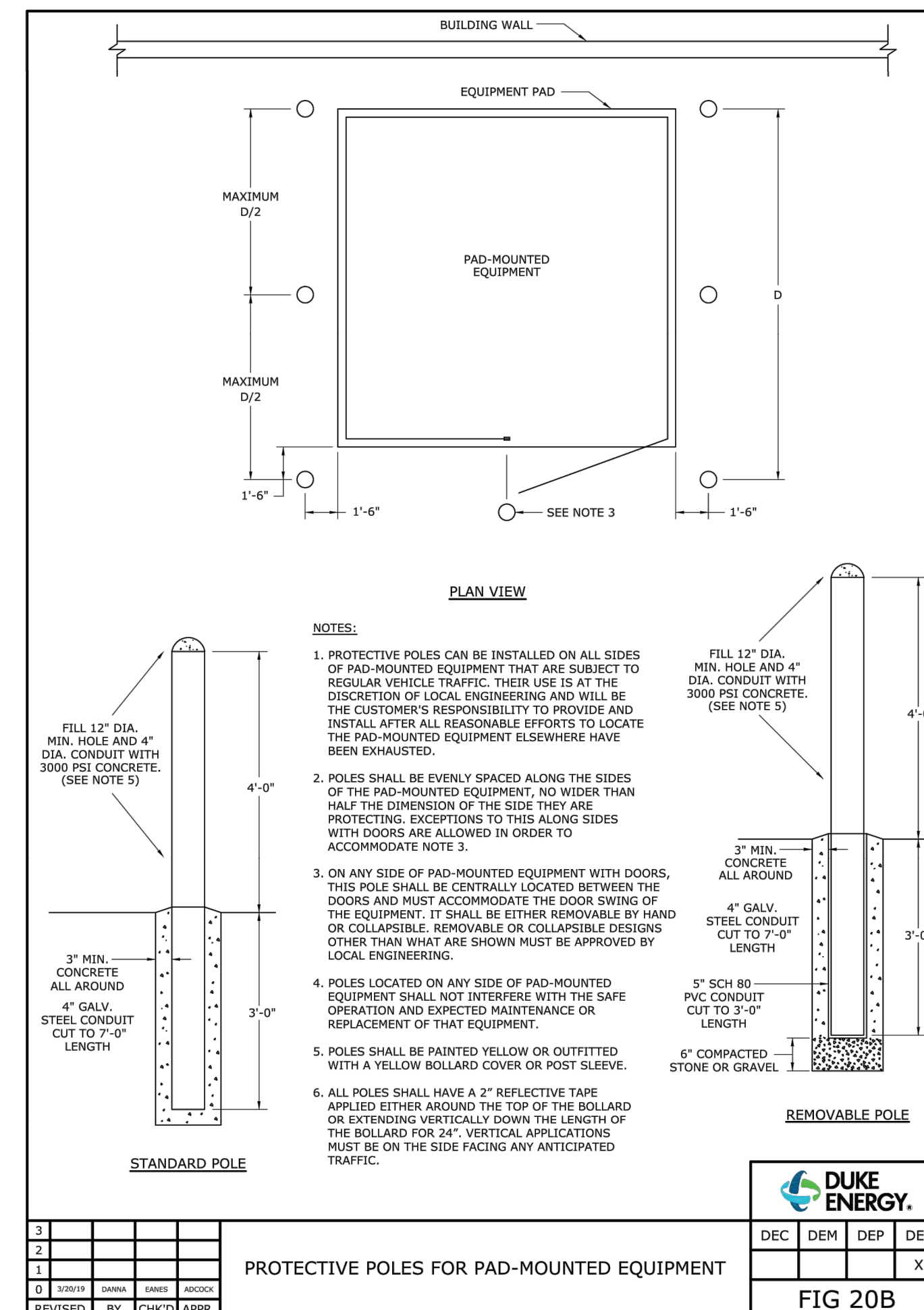
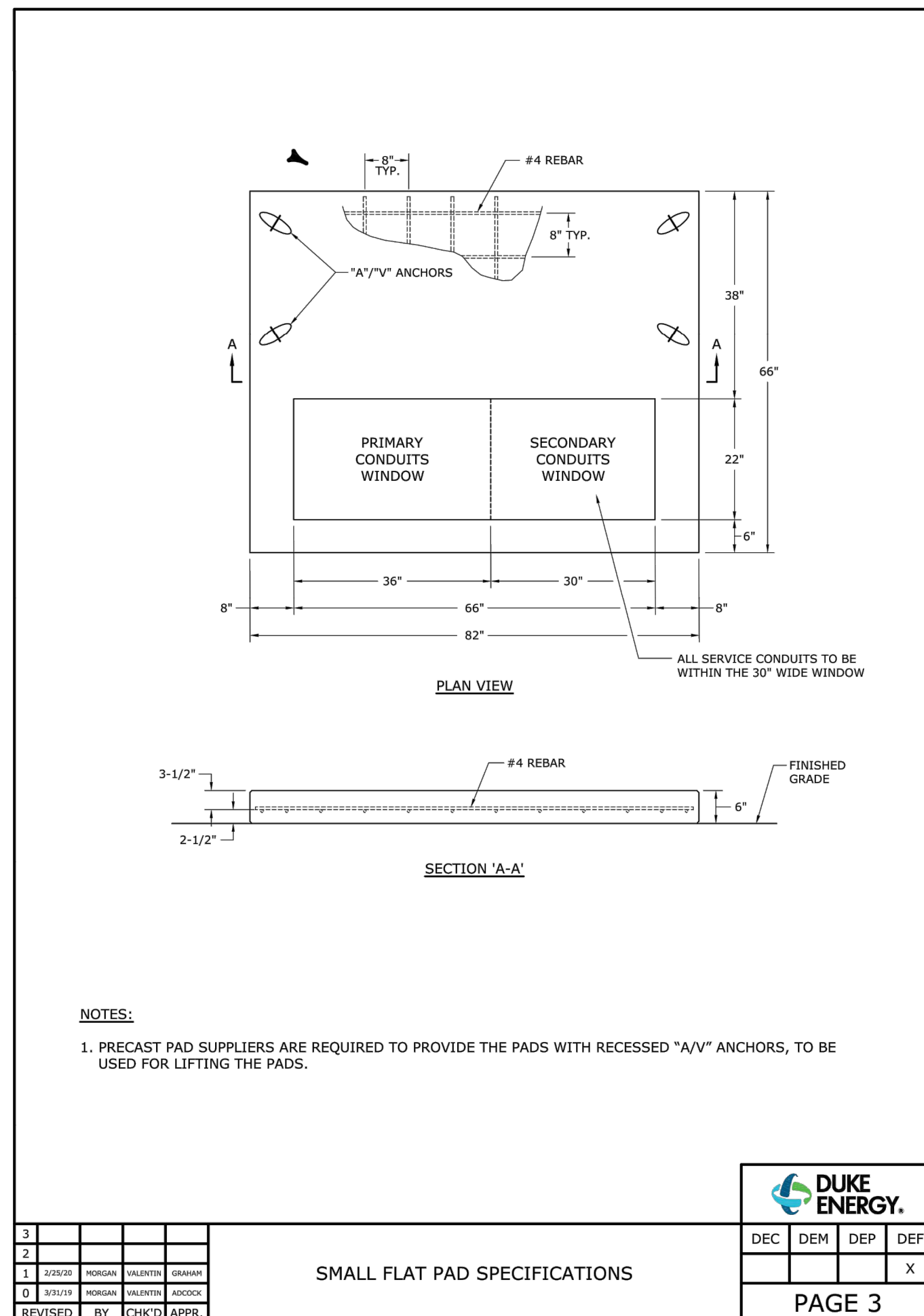
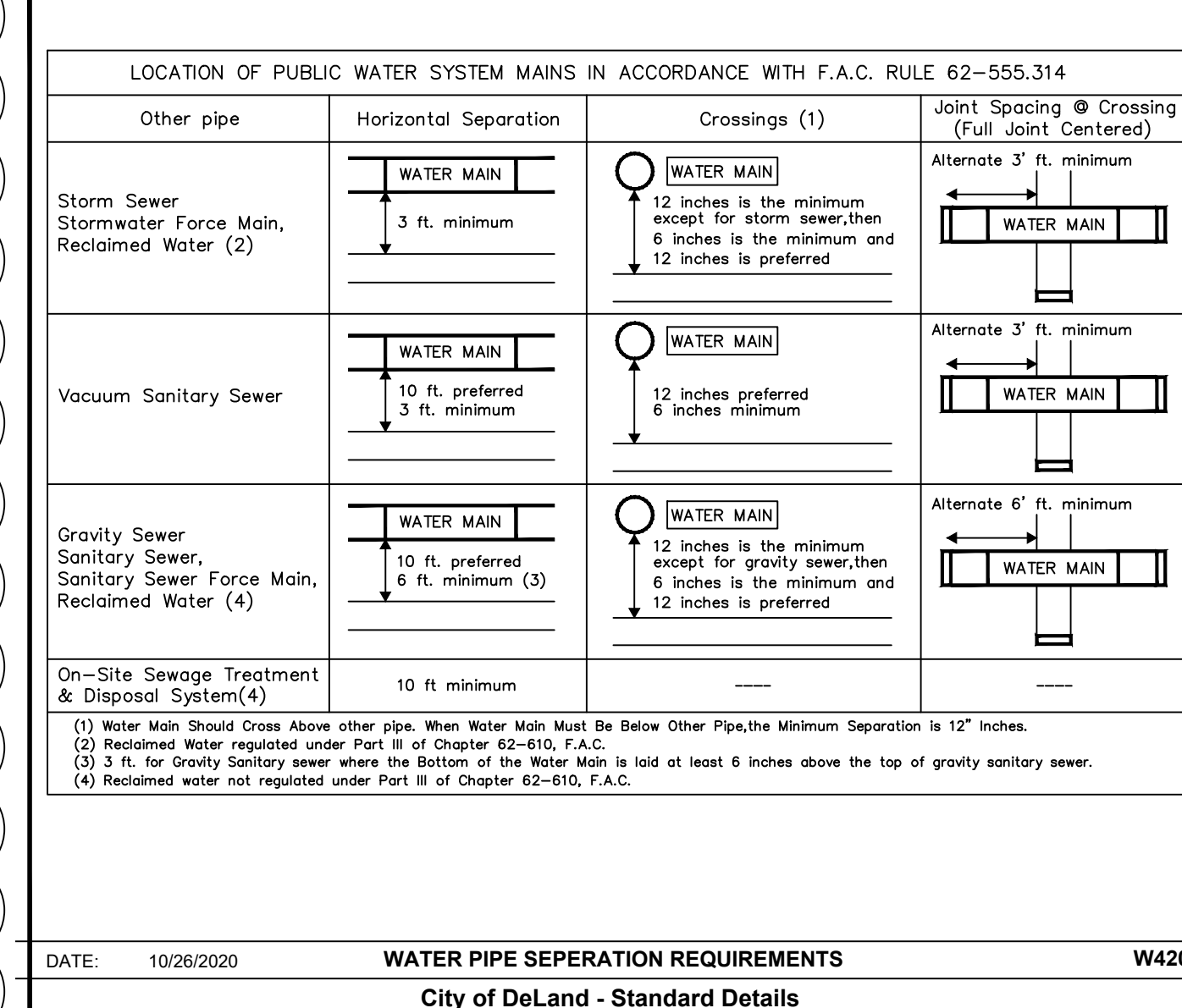
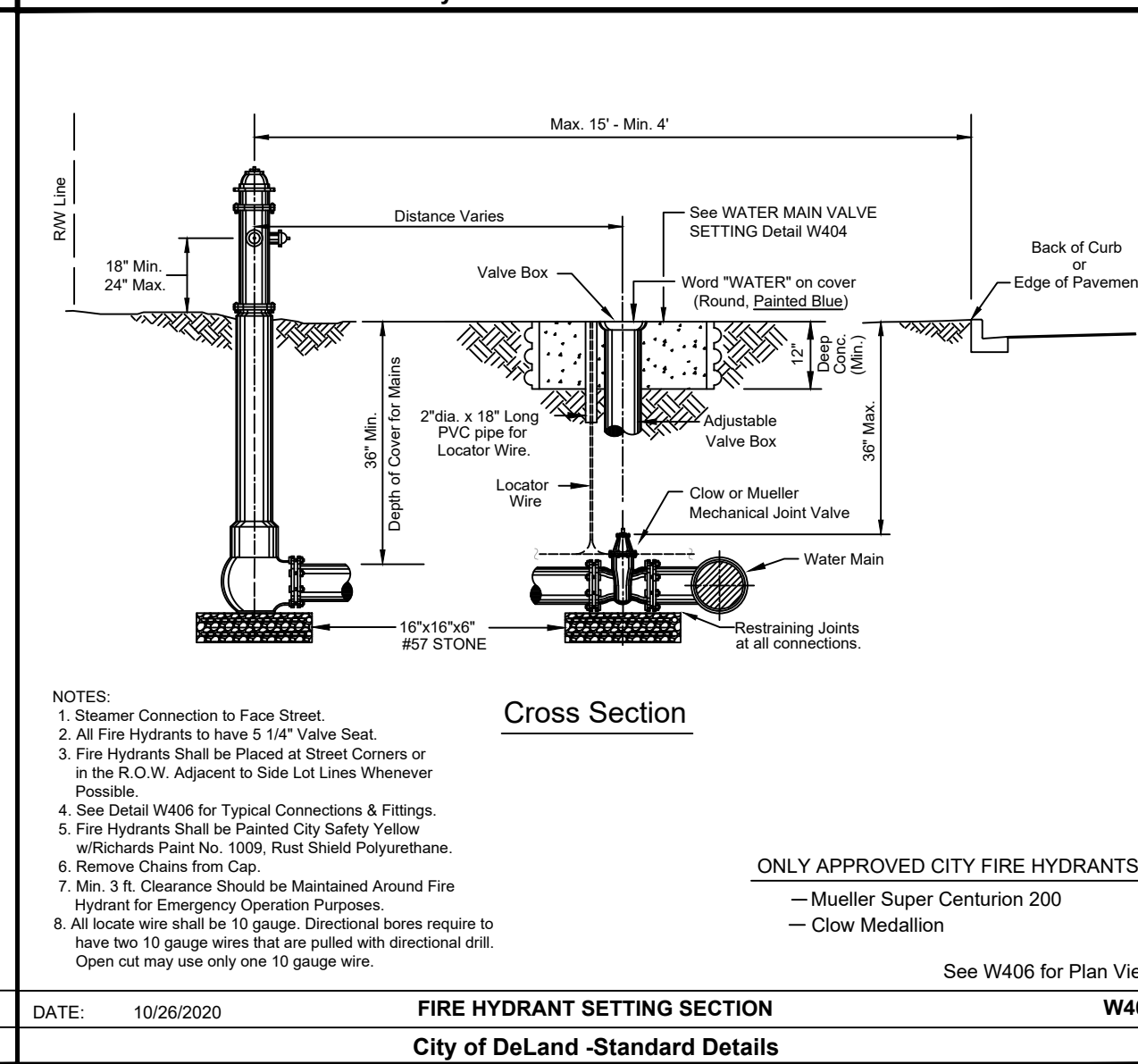
C04.1

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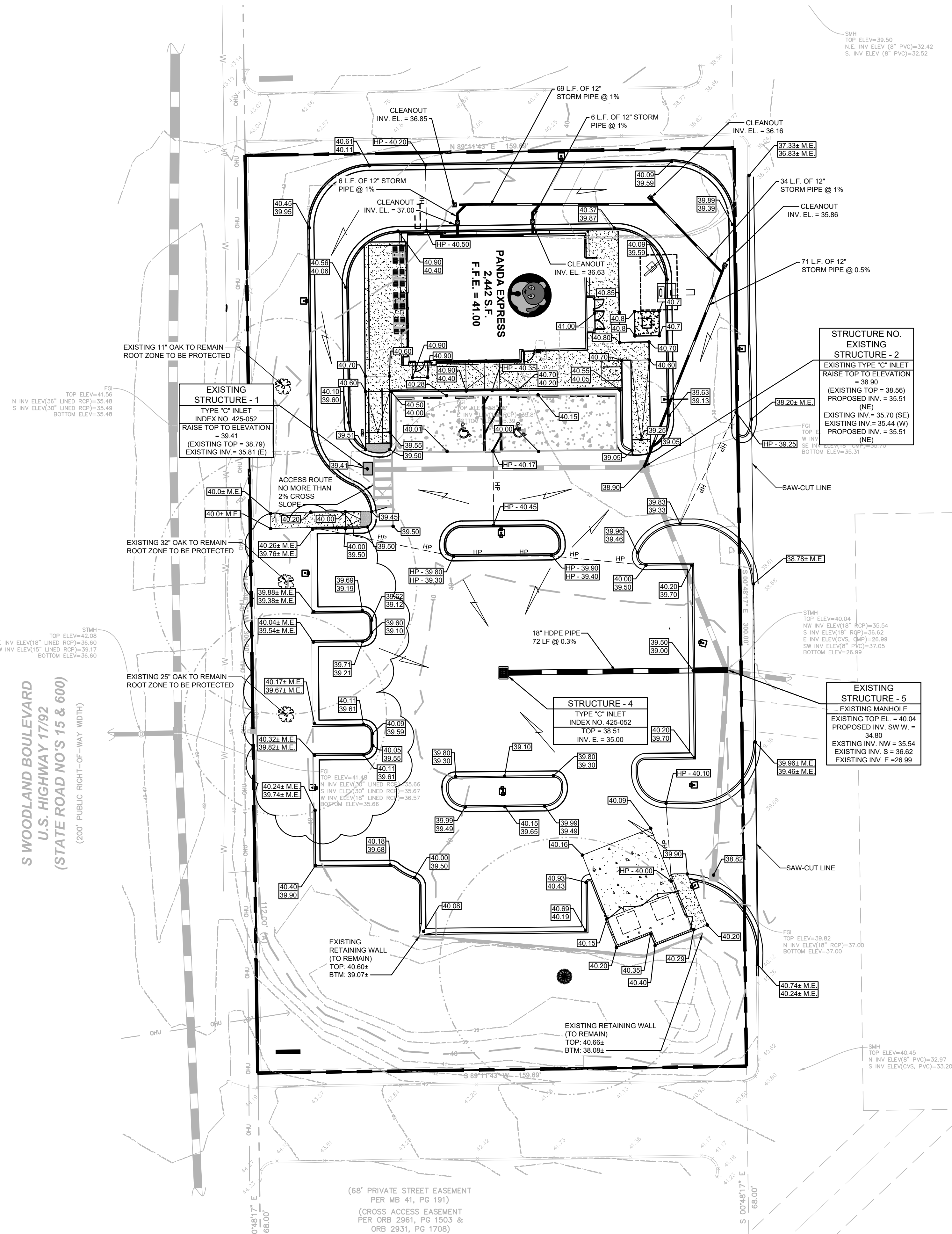


SCALE: 1" = 20' HORZ
1" = 4' VERT





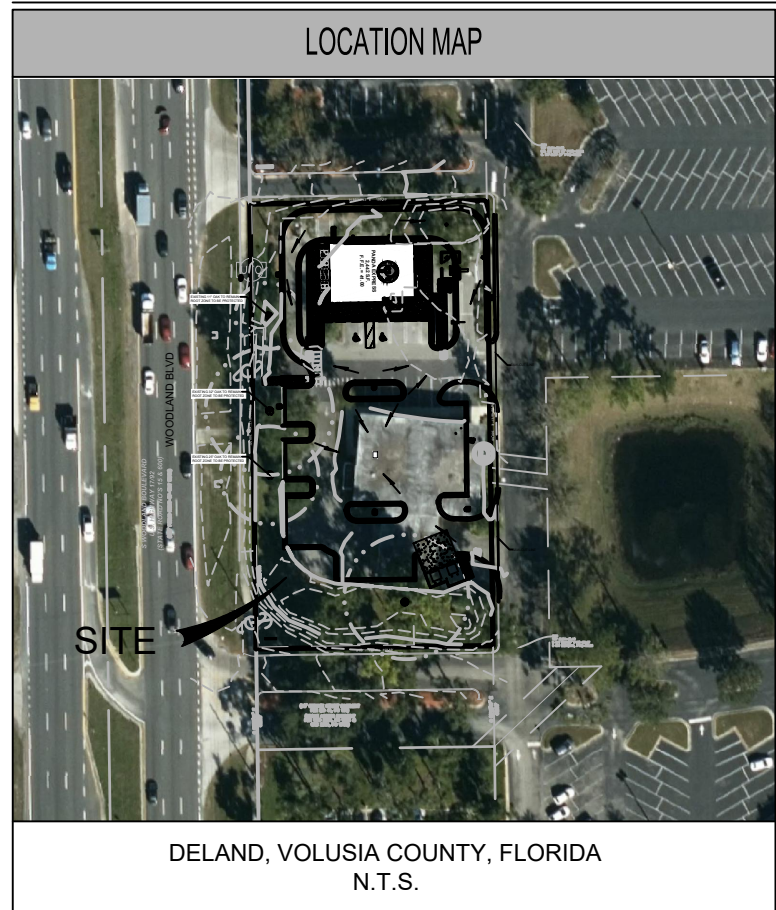
S WOODLAND BOULEVARD
U.S. HIGHWAY 17/92
(STATE ROAD NO'S 15 & 600)
(200' PUBLIC RIGHT-OF-WAY WIDTH)



GRADING & DRAINAGE NOTES

1. SEE LANDSCAPE PLAN FOR REQUIRED TREES AND GROUND COVER
2. SLOPE OF SURFACE GRADE SHALL BE A MINIMUM OF 1.00%
3. MAXIMUM CUT OF FILL SLOPES IS 4H:1V
4. THE CONTRACTOR SHALL PROVIDE CLEAN, SUITABLE MATERIAL FOR REQUIRED FILL. SHOULD A SUFFICIENT QUANTITY OF SUITABLE MATERIAL NOT BE AVAILABLE FROM THE REQUIRED EXCAVATION ON THE SITE
5. DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE FULLY CONSTRUCTED AND OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED
6. LENGTH OF RIP-RAP PADS AT PIPE OUTLET STRUCTURES TO BE A MINIMUM LENGTH OF (6) SIX TIMES THE DIAMETER OF THE PIPE
7. SEE SHEET C01.1 FOR GENERAL NOTES.

LOCATION MAP



HYDROLOGY STATEMENT

ONSITE STORMWATER RUN-OFF WILL BE COLLECTED VIA EXISTING & PROPOSED INLETS & PIPES & CONVEYED TO EXISTING MASTER STORMWATER POND.

UTILITY LINE MATERIALS

STORMWATER PIPE
12" & 18" ADS - HP-STORM POLYPROPYLENE OR HDPE PIPE

PANDA EXPRESS NOTES

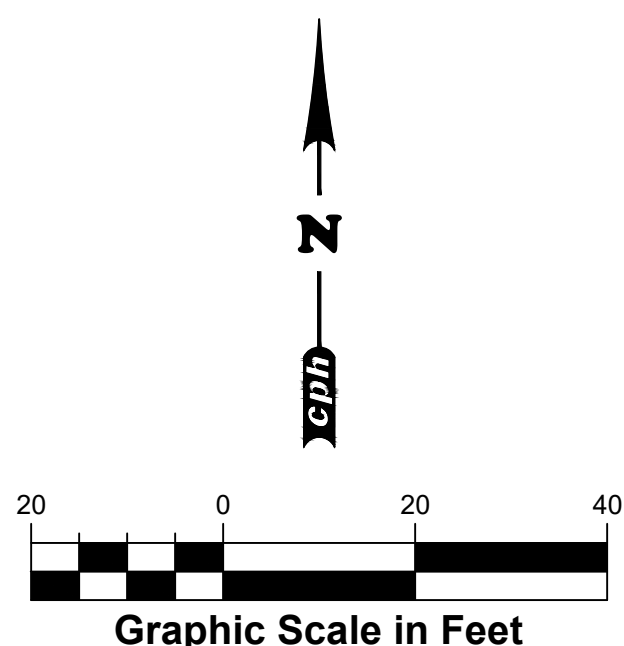
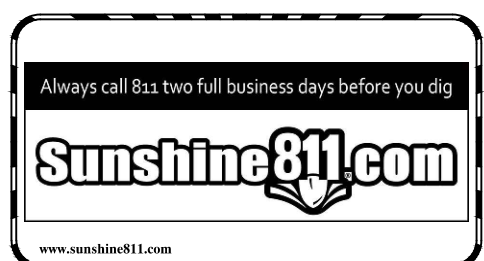
- CONTRACTOR SHALL COORDINATE FINAL LOCATION WITH SIGN COMPANY AND PANDA EXPRESS PM FOR FINAL LOCATION OF DRIVE THRU ELEMENTS (MENU BOARD, ORDER CANOPY, CLEARANCE BAR, AND DIRECTIONAL SIGNAGE) PRIOR TO INSTALLATION.
- CONTRACTOR SHALL ENSURE THAT PROPOSED UTILITIES, INCLUDING SITE LIGHTING CONDUIT ARE NOT INSTALLED SO THAT THEY WOULD CONFLICT WITH THE PLACEMENT OF THE DRIVE THRU ELEMENTS AND FOOTINGS.
- CONTRACTOR SHALL PROVIDE CONCRETE PAVING BETWEEN FACE OF BUILDING AND BACK OF CURB ALONG DRIVE-THRU LANE AND ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING.
- CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION OF ALL SIGNAGE WITH OWNER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL INSTALL GENERAL UTILITY CONDUITS TO PLANTERS AROUND BUILDING AND PATIO. SEE ARCHITECTURAL / MEP PLANS FOR CONTINUATION.
- CONTRACTOR SHALL PROTECT ALL ITEMS OUTSIDE LIMITS OF CONSTRUCTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTION PLANS OR SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES (LOCATIONS AND ELEVATIONS) PRIOR TO STARTING CONSTRUCTION AND ALERT ENGINEER TO ANY DISCREPANCIES IMMEDIATELY.

GRADING & DRAINAGE LEGEND

- HP
- PROPOSED STORM LINE
- PROPOSED HIGH POINT
- MATCH EXISTING PAVEMENT ELEV.
- PROPOSED SPOT ELEV.
- EXISTING ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- PROPOSED FLOW LINE
- PROPOSED DRAINAGE FLOW DIRECTION
- ADA PARKING MAXIMUM OF 2% IN ALL DIRECTIONS

24 HOUR CONTACT:
PANDA PM

JOE CELENTO
(912) 272-4811



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Rosemead, California
91770
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GRADING & DRAINAGE PLAN

C05.0

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D8043

S WOODLAND BOULEVARD
U.S. HIGHWAY 17/92
(STATE ROAD NO'S 15 & 600)
(200' PUBLIC RIGHT-OF-WAY WIDTH)

FG
TOP ELEV=41.56
N INV ELEV(36" LINED RCP)=35.48
S INV ELEV(30" LINED RCP)=35.49
BOTTOM ELEV=35.48

STMH
TOP ELEV=42.08
E INV ELEV(18" LINED RCP)=36.60
W INV ELEV(15" LINED RCP)=39.17
BOTTOM ELEV=36.60

FG
TOP ELEV=41.60
N INV ELEV(30" LINED RCP)=35.66
S INV ELEV(30" LINED RCP)=35.67
W INV ELEV(18" LINED RCP)=35.67
BOTTOM ELEV=35.66

SILT FENCE PER STATE OF FLORIDA
EROSION AND SEDIMENT CONTROL MANUAL
(LATEST EDITION)

FG
TOP ELEV=38.56
W INV ELEV(18" RCP)=35.44
SE INV ELEV(18" CMP)=35.70
BOTTOM ELEV=35.31

STMH
TOP ELEV=40.04
NW INV ELEV(18" RCP)=35.54
S INV ELEV(18" RCP)=36.62
E INV ELEV(CVS, CMP)=26.99
SW INV ELEV(18" PVC)=37.05
BOTTOM ELEV=26.99

PROPOSED 21'x24' TRACK OUT PLATE
AT CONSTRUCTION ENTRANCE/EXIT.
CONTRACTOR TO ROUTINELY REMOVE
SEDIMENT AS NEEDED TO MINIMIZE THE
POTENTIAL FOR OFF-SITE VEHICULAR TRACKING. (TYP)

FG
TOP ELEV=39.82
N INV ELEV(18" RCP)=37.00
BOTTOM ELEV=37.00

STMH
TOP ELEV=40.45
N INV ELEV(18" PVC)=32.97
S INV ELEV(CVS, PVC)=33.20

SITE NOTES

- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING IMPROVEMENTS AND TREES AND OTHER DEBRIS WITHIN THE LIMITS OF WORK FROM THE SITE. BURIAL OF TREES AND OTHER DEBRIS SHALL NOT BE ALLOWED UNLESS OTHERWISE SPECIFIED ON PLANS.
- ALL MATERIAL SHALL BE NEW, UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER PRIOR TO USE.
- CONTRACTOR TO PROVIDE CONCRETE PAVING BETWEEN CASE OF BUILDING AND BACK OF CURB ALONG DRIVE-THRU LANE AND ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING.

NOTE:

NO CONTAMINATION ON THIS SITE,
NOR WITHIN 500' OF SITE.



LEGEND

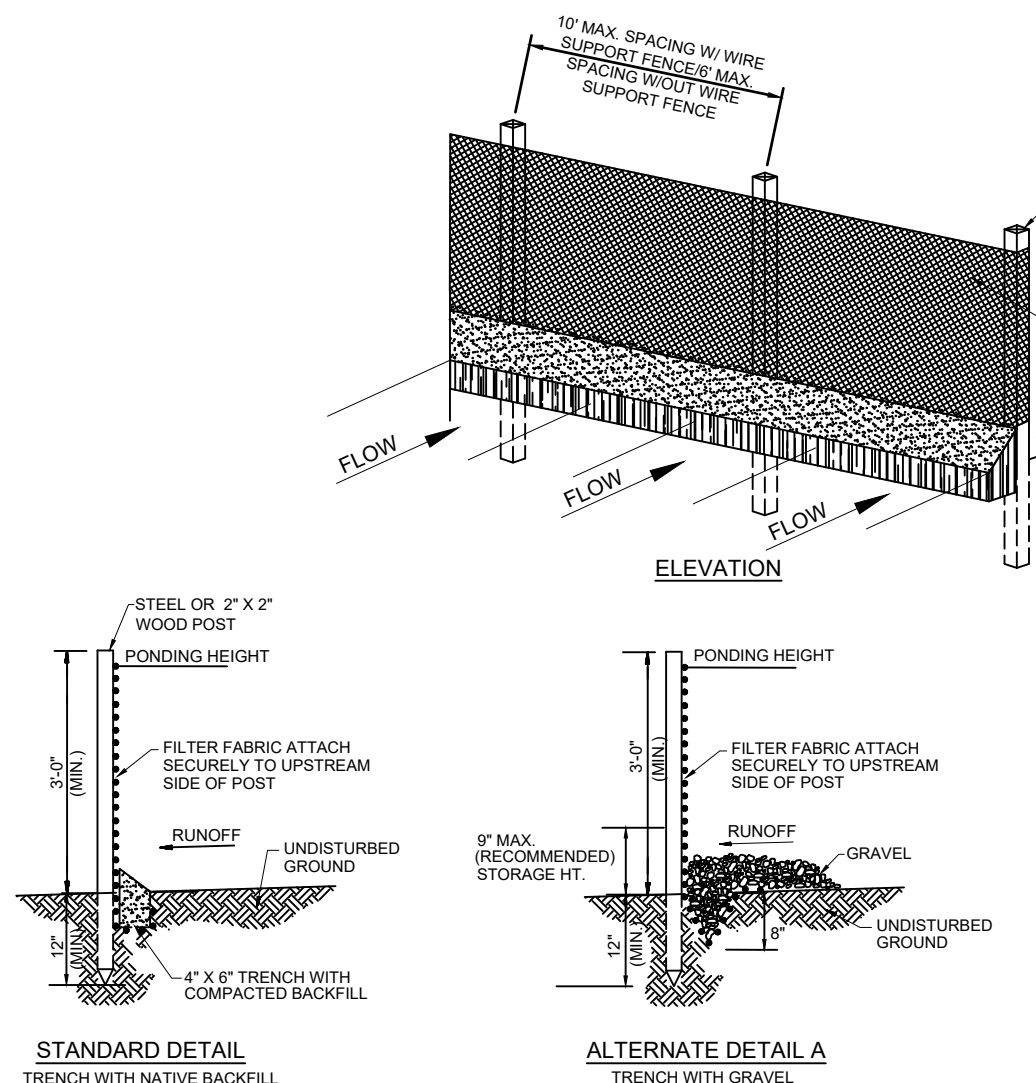
- LOD LIMITS OF DISTURBANCE
- SF SILT FENCE PER STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL (LATEST EDITION)
- X-X CONSTRUCTION FENCE
- SOIL BOUNDARY
- BARRICADE (AT ALL ENTRANCE LOCATIONS W/O TEMPORARY CONSTRUCTION ACCESS)
- INLET PROTECTION
- CE CONSTRUCTION ENTRANCE PER STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL (LATEST EDITION)
- PERMANENT SEEDING/VEGETATION
- 4 SOIL TYPE: ASTATULA FINE SAND, 0 TO 8 PERCENT SLOPES

ACREAGE SUMMARY

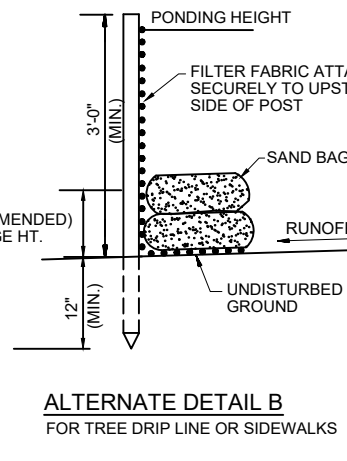
TOTAL SITE AREA:	1.10 AC.
TOTAL DISTURBED AREA:	1.15 AC.

PANDA EXPRESS STANDARD NOTES

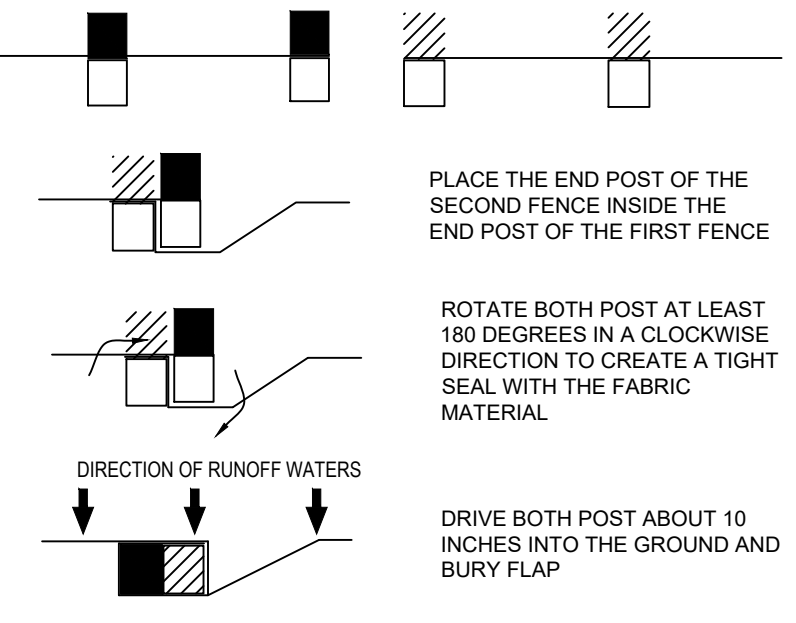
- THE GEOTECHNICAL INVESTIGATION PREPARED BY N. TERRACON CONSULTANTS, INC. DATED AUGUST 4, 2020 ANY SUBSEQUENT ADDENDUMS IS CONSIDERED PART OF THE CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REPORT'S RECOMMENDATIONS AND FINDINGS WITH THE OWNER, ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION. IMPLEMENTATION OF THE REPORT'S RECOMMENDATIONS MAY REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK NOT SHOWN ON THE CIVIL PLANS INCLUDING BUT NOT LIMITED TO EXCAVATION, REMEDIATION, DEWATERING, COMPACTION ETC.
- CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION OF ALL SIGNAGE WITH OWNER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ENSURE 100% COVERAGE OF ALL LANDSCAPED AREAS WITHIN LIMITS OF WORK, INCLUDING POTENTIAL OFF-SITE AREAS. COVERAGE SHALL INCLUDE BOTH LANDSCAPING AND IRRIGATION.



SEDIMENTATION / SILT FENCE
N.T.S.



ALTERNATE DETAIL A
TRENCH WITH GRAVEL



ATTACHING TWO SILT FENCES
N.T.S.

NOTE:
USE SANDBAGS, SILT FENCE, OR
OTHER APPROVED METHODS TO
CHANNELIZE RUNOFF TO BASIN AS
REQUIRED. USE APPROVED METHODS
TO PREVENT DOWNSTREAM EROSION
AT CHANNELIZED RUNOFF POINT(S)
OF DISCHARGE.

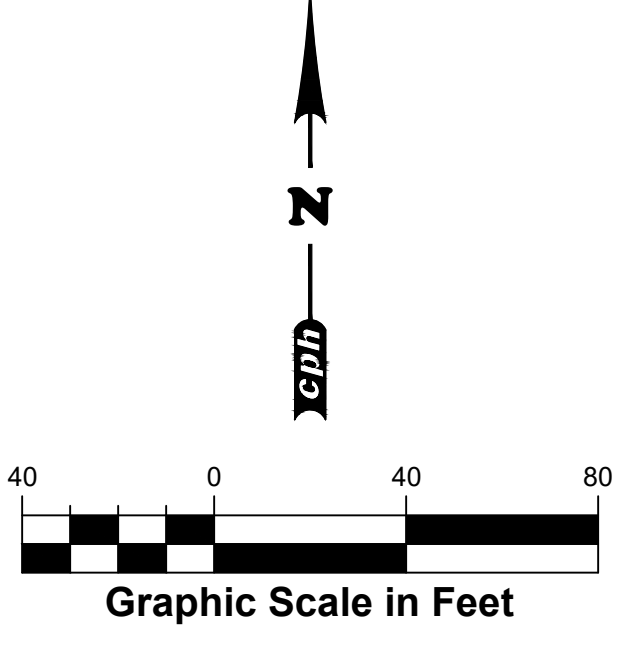
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (Operator and/or Responsible Authority) _____ Date _____

Project Name and location information: _____

24 HOUR CONTACT:
PANDA PM

JOE CELENTO
(912) 272-4811



PANDA EXPRESS CHINESE KITCHEN

PANDA EXPRESS, INC.
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SWPP PLAN

C06.0

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EROSION AND SEDIMENTATION CONTROL NOTES

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH RULES OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, SECTION 403.085 AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

SITE DESCRIPTION

SITE LOCATION
2999 S. WOODLAND BLVD. DELAND
VOLUSIA COUNTY, FLORIDA
SECTION 33, TOWNSHIP 17 SOUTH, RANGE 30 EAST
LATITUDE: 28° 58' 56.69" N LONGITUDE: 81° 17' 56.25" W

SITE CONDITIONS & ACTIVITIES NARRATIVE:
THE EXISTING CONDITION OF THE SITE IS A BANK. THE SITE WILL REMAIN AT APPROXIMATELY THE SAME GRADE AND HAVE NO MAJOR EFFECT ON ADJUTING PROPERTIES.

WETLANDS/BUFFERS
NO WETLANDS OR BUFFERS ARE ASSOCIATED WITH THIS PROJECT.

SWPPP INTENT

THE INTENT OF THIS SWPPP IS TO COMPLY WITH THE INTENT OF THE GENERIC PERMIT AND TO PREVENT THE RELEASE OF SOILS, TRASH, CHEMICALS, TOXINS AND OTHER POLLUTANTS BY WATER, AIR, VEHICLE TRANSPORT OR OTHER MEANS THAT CAN IMPACT STORM WATER QUALITY. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GENERIC PERMIT AND RETAIN ON SITE FOR FUTURE REFERENCE. THE CONTRACTOR SHALL READ AND UNDERSTAND THE PERMIT, AND ENSURE THAT THE BMPs ARE INSTALLED AND THE EXECUTION OF THE WORK IS PERFORMED TO MEET THE INTENT OF THE GENERIC PERMIT AND THE SWPPP.

POTENTIAL SOURCES OF POLLUTION

THE POTENTIAL SOURCES OF POLLUTION THAT MAY REASONABLY BE EXPECTED TO AFFECT THE QUALITY OF STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY INCLUDE: SEDIMENT, PESTICIDES, FERTILIZER, PLASTER, CLEANING SOLVENTS, ASPHALT, CONCRETE, GLUE, ADHESIVES, PAINTS, CURING COMPOUNDS, WOOD PRESERVATIVES, HYDRAULIC OIL FLUIDS, GASOLINE, DIESEL FUEL AND KEROSENE.

GENERAL NOTES

A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE "NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITY" WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AT THE FOLLOWING ADDRESS OR THROUGH THE FDEP ONLINE SYSTEM AT LEAST TWO (2) DAYS BEFORE COMMENCEMENT OF CONSTRUCTION:

NPDES STORMWATER SERVICES CENTER, MS #3585 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, 2600 BLAIR STONE ROAD, TALLAHASSEE, FLORIDA 32399-2400

THE CONTRACTOR SHALL SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 14 CALENDAR DAYS AFTER THE SITE HAS ACHIEVED FINAL STABILIZATION (I.E. ALL DISTURBED SOILS AT THE SITE HAVE BEEN FINAL STABILIZED). TEMPORARY BMPs HAVE BEEN REMOVED, AND STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE SITE AUTHORIZED BY THE PERMIT HAVE BEEN ELIMINATED.

NO RECORD OF AN ENVIRONMENTAL RESOURCE PERMIT FROM ST. JOHNS RIVER WATER MANAGEMENT DISTRICT WILL BE AVAILABLE FOR REVIEW.

B. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES. SWALES SHALL BE CONSTRUCTED AS SHOWN ON PLANS.

C. EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:

- I. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
- II. NEW AND EXISTING STORMWATER INLETS AND OUTFALL STRUCTURES SHALL BE PROTECTED DURING CONSTRUCTION. PROTECTION MEASURES SHALL BE EMPLOYED IMMEDIATELY AS REQUIRED DURING THE VARIOUS STAGES OF CONSTRUCTION.
- III. PERIMETER EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION HAS BEEN ESTABLISHED.

D. CLEARING AND GRUBBING OPERATIONS SHALL BE CONTROLLED SO AS TO MINIMIZE UNPROTECTED ERODIBLE AREAS EXPOSED TO WEATHER. GENERAL EROSION CONTROL BMPs SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND OFF-SITE SEDIMENTATION. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED PRIOR TO ANY CONSTRUCTION ACTIVITY.

E. THE CONTRACTOR SHALL FURNISH, INSTALL PER THE SEQUENCE OF CONSTRUCTION, MAINTAIN AND SUBSEQUENTLY REMOVE ALL NECESSARY TEMPORARY BMPs. THE CONTRACTOR WILL FURNISH AND INSTALL ALL NECESSARY PERMANENT BMPs.

F. THE CONTRACTOR SHALL ADJUST, ADD OR MODIFY BMPs AS NECESSARY TO COMPLY WITH THE INTENT OF THE GENERIC NPDES PERMIT AND THE SWPPP FOR NO ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL CONSULT WITH THE CEC PRIOR TO ADJUSTING, ADDING OR MODIFYING BMPs THAT AFFECT THE HYDRAULICS OF THE SITE OR BEFORE ADDING BMPs NOT DETAILED IN THE SWPPP.

G. THE CONTRACTOR IS ADVISED THAT THE CONTRACT DRAWINGS ONLY INDICATE EROSION, SEDIMENT, AND TURBIDITY CONTROLS AT LOCATIONS DETERMINED IN THE DESIGN PROCESS. HOWEVER, THE CONTRACTOR IS REQUIRED TO PROVIDE ANY ADDITIONAL CONTROLS NECESSARY TO PREVENT THE POSSIBILITY OF SILTING ANY ADJACENT LOWLAND PARCEL OR RECEIVING WATER.

H. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. THE EROSION CONTROL SYSTEM DESCRIBED WITHIN THE CONSTRUCTION DOCUMENTS SHOULD BE CONSIDERED TO REPRESENT THE MINIMUM ACCEPTABLE STANDARDS FOR THIS PROJECT. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDENT UPON THE STAGE OF CONSTRUCTION, THE SEVERITY OF THE RAINFALL EVENT AND/OR AS DEEMED NECESSARY AS A RESULT OF ON-SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES, OR THE APPLICABLE JURISDICTIONAL AUTHORITIES. THESE ADDITIONAL MEASURES (IF NEEDED) SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BEST MANAGEMENT PRACTICES (BMPs). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT CHAPTER #10 THROUGH #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION. IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO ASSURE THAT THE STORMWATER DISCHARGE FROM THE SITE DOES NOT EXCEED THE TOLERANCES ESTABLISHED BY ANY OF THE APPLICABLE JURISDICTIONAL AUTHORITIES.

I. THE CONTRACTOR SHALL KEEP THE SWPPP CURRENT AT ALL TIMES. THE CONTRACTOR SHALL SIGN AND DATE ANY CHANGES TO THE SWPPP AND KEEP THEM AS ATTACHMENTS TO THE ORIGINAL PLAN. WHENEVER ANY OF THE FOLLOWING EVENTS OCCUR, THE CONTRACTOR SHALL UPDATE THE SWPPP WITHIN 7 DAYS:

- I. THERE IS A CHANGE IN DESIGN, CONSTRUCTION OPERATION OR MAINTENANCE THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE FROM THE PROJECT
- II. THERE IS A NEW DISCHARGE POINT OR OUTFALL
- III. THERE IS A CHANGE IN THE LOCATION OF A DISCHARGE POINT OR OUTFALL
- IV. AN INSPECTION REVEALS THAT BMPs ARE INEFFECTIVE AT ELIMINATING OR MINIMIZING POLLUTANTS IN THE STORMWATER DISCHARGED FROM THE SITE
- V. THERE IS A NEW SUBCONTRACTOR IMPLEMENTING ANY PORTION OF THE SWPPP
- VI. A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR GREATER THAN A REPORTABLE QUANTITY OCCURS DURING A 24-HOUR PERIOD

J. THE CONTRACTOR SHALL ENSURE THAT THE CONTRACTOR AND ALL SUBCONTRACTORS RESPONSIBLE FOR IMPLEMENTING SWPPP CONTROL MEASURES FILL OUT THE CONTRACTOR / SUBCONTRACTOR CERTIFICATION TABLE INCLUDED IN THIS SWPPP.

K. THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION SEQUENCE TABLE INCLUDING IN THIS SWPPP PRIOR TO PROCEEDING WITH THE INSTALLATION OF BMPs AND PRIOR TO GRUBBING/DISTURBING ACTIVITIES. THE CONTRACTOR SHALL COMPLETE THE TABLE WITH ANTICIPATED DATES IN WHICH THE BMP WILL BE UTILIZED OR THE ACTIVITY WILL OCCUR.

STABILIZATION

A. STABILIZATION MEASURES SHALL BE INITIATED IMMEDIATELY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED AND WILL REMAIN UNDISTURBED FOR 7 DAYS OR MORE. STABILIZE BY COVERING WITH ADEQUATE AMOUNTS OF MULCH OVER SEED AND PERIODICALLY WATER TO PROMOTE AND MAINTAIN GROWTH OF THE TEMPORARY GROUND COVER, OR BY THE USE OF AN APPROPRIATE ALTERNATIVE BMP.

B. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREAS SHALL BE COMPLETED IMMEDIATELY AFTER FINAL GRADING, WHEN IT IS NOT POSSIBLE TO PERMANENTLY PROTECT A DISTURBED AREA IMMEDIATELY AFTER GRADING OPERATIONS, TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED. ALL TEMPORARY PROTECTION SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.

C. ALL GRASS SLOPES CONSTRUCTED STEEPER THAN 4H:1V SHALL BE SOODED IMMEDIATELY AFTER FINAL GRADE IS ESTABLISHED.

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AS DESCRIBED BELOW. IF THE CONTRACTOR FINDS THAT THE SEQUENCE NEEDS TO BE MODIFIED, THE CONTRACTOR SHALL CONTACT THE CEC FOR FURTHER DIRECTION. THE INSTALLATION OR REMOVAL OF BMPs, BARRY DISTURBANCE, GRADING, TEMPORARY STABILIZATION AND PERMANENT STABILIZATION SHALL BE IMMEDIATELY NOTED IN THE SWPPP IMPLEMENTATION LOG AND ON THE SITE MAP. THE CONTRACTOR SHALL DISTURB ONLY THOSE AREAS NECESSARY TO INSTALL THE BMPs UNTIL DIRECTED IN THE SEQUENCE TO BEGIN CLEARING AND GRUBBING OPERATIONS. ALL TEMPORARY BMPs SHALL BE REPAIRED AND MAINTAINED UNTIL STABILIZATION HAS OCCURRED AND THERE IS NO RISK OF DISCHARGE, THEN THEY SHALL BE REMOVED.

1. POST A COPY OF THE NOI OR LETTER FROM FDEP CONFIRMING COVERAGE UNDER THE GENERIC PERMIT, AND THE NAME AND PHONE NUMBER OF THE CONTRACTOR'S REPRESENTATIVE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL, INSTALLATION AND MAINTENANCE ON A 24 HOUR BASIS.
2. INSTALL PERIMETER CONTROLS IMMEDIATELY DOWNSTREAM OF THE PLANNED LOCATION OF THE CONSTRUCTION EXIT.
3. INSTALL STABILIZED CONSTRUCTION EXIT.
4. INSTALL REMAINING PERIMETER CONTROLS.
5. INSTALL TEMPORARY PARKING AND STORAGE AREAS (TRAILER, PARKING, LAY DOWN, SANITARY FACILITIES, WHEEL WASH, CONCRETE WASHOUT, MASONS AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC.)
6. CONSTRUCT AND STABILIZE THE SEDIMENT BASINS AND SEDIMENT TRAPS WITH APPROPRIATE OUTFALL STRUCTURES
7. CONSTRUCT AND STABILIZE HYDRAULIC CONTROLS (DITCHES, SWALES, DIKES, CHECK DAMS, ETC.)
8. BEGIN DEMOLITION, CLEARING AND GRUBBING OPERATIONS AS APPLICABLE.
9. BEGIN CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
10. TEMPORARILY SEED, IMMEDIATELY AND THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE.
11. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
12. INSTALL RIP RAP AROUND OUTLET STRUCTURES AS EACH OUTLET STRUCTURE IS INSTALLED.
13. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS INSTALLED.
14. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
15. PREPARE SITE FOR PAVING.
16. PAVE SITE.
17. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
18. COMPLETE GRADING AND INSTALL PERMANENT STABILIZATION OVER ALL AREAS.
19. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).
20. SUBMIT NOTICE OF TERMINATION (NOT) ONCE ALL CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED PER PLAN. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AS DESCRIBED BELOW. IF THE CONTRACTOR FINDS THAT THE SEQUENCE NEEDS TO BE MODIFIED, THE CONTRACTOR SHALL CONTACT THE CEC FOR FURTHER DIRECTION. THE INSTALLATION OR REMOVAL OF BMPs, EARTH DISTURBANCE, GRADING, TEMPORARY STABILIZATION AND PERMANENT STABILIZATION SHALL BE IMMEDIATELY NOTED IN THE SWPPP IMPLEMENTATION LOG AND ON THE SITE MAP. THE CONTRACTOR SHALL DISTURB ONLY THOSE AREAS NECESSARY TO INSTALL THE BMPs UNTIL DIRECTED IN THE SEQUENCE TO BEGIN CLEARING AND GRUBBING OPERATIONS. ALL TEMPORARY BMPs SHALL BE REPAIRED AND MAINTAINED UNTIL STABILIZATION HAS OCCURRED AND THERE IS NO RISK OF DISCHARGE, THEN THEY SHALL BE REMOVED.

DUST CONTROL

A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

B. AS REQUIRED AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

WASTE MANAGEMENT

A. THE CONTRACTOR SHALL ENSURE THAT ALL WASTE AND DEBRIS ARE MANAGED DAILY SUCH THAT THEY WILL NOT IMPACT STORMWATER OR LEAVE THE PERMITTED AREA, AND DISPOSED OF PROPERLY IN ACCORDANCE WITH APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS.

B. THE CONTRACTOR SHALL ENSURE THAT ALL CHEMICALS, OILS, FUELS, HAZARDOUS WASTE, UNIVERSAL WASTE AND TOXIC SUBSTANCES ARE PROPERLY MANAGED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL ENSURE THAT WASTE IS NOT DISCHARGED FROM THE SITE, AND DOES NOT IMPACT STORMWATER OR GROUNDWATER.

C. THE CONTRACTOR SHALL PROVIDE APPROPRIATE AND ADEQUATE WASHOUT FACILITIES TO ENSURE THAT CHEMICALS AND WASTE IS NOT DISCHARGED FROM THE SITE, AND DO NOT IMPACT STORMWATER OR GROUNDWATER. (E.G. CONCRETE/MASONRY WASHOUT, PAINT WASHOUT, EIFS, ETC.) THE CONTRACTOR SHALL CLEAN UP SPILLS PROMPTLY AND ENSURE THAT WASHOUT AREAS ARE PROPERLY MAINTAINED TO PROVIDE ADEQUATE VOLUME TO PREVENT OVERFLOW.

D. THE CONTRACTOR SHALL PROVIDE ADEQUATE SANITARY FACILITIES FOR SITE PERSONNEL, MAINTAIN THROUGHOUT CONSTRUCTION, AND PROVIDE FOR PROPER DISPOSAL IN ACCORDANCE WITH APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. SANITARY FACILITIES SHALL BE PROPERLY SECURED TO PREVENT TIPPING.

E. A SPILL CONTROL AND CONTAINMENT KIT (CONTAINING FOR EXAMPLE, ABSORBENT MATERIAL SUCH AS KITTY LITTER OR SAND/DUST, ACID, ALKALI, BROMINE, DUST PANS, RAGS, GLOVES, GOGGLES, PLASTIC AND METAL TRASH CONTAINERS, ETC.) SHALL BE PROVIDED AT THE CONSTRUCTION SITE AND ITS LOCATION(S) SHALL BE IDENTIFIED WITH LEGIBLE SIGNGAGE SHOWN ON THE SITE MAPS.

A. THE SPILL CONTROL KIT SHALL BE OF SUFFICIENT QUANTITIES AND APPROPRIATE CONTENT TO CONTAIN A SPILL FROM THE LARGEST ANTICIPATED PIECE OF EQUIPMENT AND FROM THE LARGEST ANTICIPATED QUANTITIES OF PRODUCTS STORED ON THE SITE AT ANY GIVEN TIME.

B. CONTENTS SHALL BE INSPECTED DURING THE STORMWATER INSPECTION.

F. WHEN A SPILL OF REPORTABLE QUANTITIES IS DISCOVERED ON THE SITE, THE CONTRACTOR SHALL CLEAN UP ALL SPILLED MATERIALS AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AUTHORITIES IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS, THE CONTRACTOR OWNER AND PROJECT ENGINEER. THE CONTRACTOR SHALL RETAIN CLEANUP INFORMATION AS WELL AS DISPOSAL MANIFESTS WITH THEIR SWPPP.

MATERIALS MANAGEMENT, AND EQUIPMENT STAGING AND MAINTENANCE

A. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN LOCATIONS WHERE IT COULD BE WASHED AWAY BY HIGH WATER OR STORM WATER RUNOFF. STOCKPILED MATERIAL SHALL BE COVERED OR ENCIRCLED WITH SEDIMENT CONTAINMENT DEVICES.

B. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OR OIL, GREASE, LUBRICANTS, OR OTHER CONTAMINANTS. CONTRACTOR SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS IMMEDIATELY AFTER ANY OCCURRENCE.

C. THE CONTRACTOR SHALL ENSURE THAT ALL TOXIC / HAZARDOUS SUBSTANCES AND CHEMICALS ARE PROPERLY STORED, OUT OF THE WEATHER, AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL ENSURE THAT THESE PRODUCTS ARE STORED AND USED IN SUCH A MANNER THAT WILL NOT NEGATIVELY IMPACT STORMWATER, GROUNDWATER OR PROTECTED SPECIES.

D. THE CONTRACTOR SHALL ENSURE THAT ALL MATERIALS, EQUIPMENT, DEBRIS, WASTE, TRAILERS, AND OTHER SUPPORT RELATED ITEMS ARE CONTAINED WITHIN THE PERMITTED LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL ENSURE THAT THE STORAGE AND USE OF SUCH ITEMS DOES NOT NEGATIVELY IMPACT STORMWATER OR GROUNDWATER.

OFFSITE VEHICLE TRACKING

A. THE CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION EXIT IS USED BY ALL VEHICLES AND EQUIPMENT ENTERING OR LEAVING THE JOBSITE. THE CONTRACTOR SHALL MONITOR AND MAINTAIN THE CONSTRUCTION EXIT TO ENSURE THAT NO SOILS ARE TRACKED OFFSITE BY TIRES OR TRACKS, AND THAT NO SOILS ARE SPILLED BY TRUCKS OR EQUIPMENT LEAVING THE SITE. ALL TRACKED OR SPILLED SOILS SHALL BE SHOVELLED OR SWEEP FROM THE ROADWAY AND RETURNED TO THE SITE. WATER SHALL NOT BE USED TO CLEAN THE SOILS FROM THE ROADWAY UNLESS THE WATER AND SOILS ARE RECOVERED BY THE USE OF A VACUUM TRUCK OR SIMILAR DEVICE.

FERTILIZERS, HERBICIDES AND PESTICIDES

A. THE CONTRACTOR SHALL ENSURE THAT ALL FERTILIZERS, HERBICIDES, PESTICIDES AND SIMILAR PRODUCTS ARE PROPERLY STORED, OUT OF THE WEATHER, AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL ENSURE THAT THESE PRODUCTS ARE USED IN SUCH A MANNER THAT WILL NOT NEGATIVELY IMPACT STORMWATER, GROUNDWATER OR PROTECTED SPECIES.

B. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION.

INSPECTIONS AND MAINTENANCE

A. THE CONTRACTOR SHALL INSPECT BMPs (I.E. DISCHARGE LOCATIONS, CONSTRUCTION EXIT, PERIMETER CONTROLS, THEIR REPRESENTATIVES, OR THE APPLICABLE JURISDICTIONAL AUTHORITIES. THESE ADDITIONAL MEASURES (IF NEEDED) SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BEST MANAGEMENT PRACTICES (BMPs). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT CHAPTER #10 THROUGH #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION. IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO ASSURE THAT THE STORMWATER DISCHARGE FROM THE SITE DOES NOT EXCEED THE TOLERANCES ESTABLISHED BY ANY OF THE APPLICABLE JURISDICTIONAL AUTHORITIES.

B. THE CONTRACTOR SHALL REPORT ALL INSPECTION FINDINGS AND CORRECTIVE ACTIONS TAKEN AS A RESULT OF THE INSPECTION USING THE STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORM PROVIDED BY FDEP OR AN EQUIVALENT FORM. INSPECTION REPORTS SHALL BE SIGNED BY THE INSPECTOR AND A RESPONSIBLE AUTHORITY AS DEFINED BY THE PERMIT. INSPECTION REPORTS SHALL BE MAINTAINED WITH THE SWPPP. THE INSPECTOR MUST BE A QUALIFIED EROSION AND SEDIMENT CONTROL INSPECTOR AS DEFINED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

C. ANY MAINTENANCE, REPAIR AND NECESSARY REVISIONS TO BMP ITEMS SHALL BE ADDRESSED IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION OR IDENTIFICATION OF THE ISSUE. UNLESS OTHERWISE SPECIFIED, ACCUMULATED SEDIMENTS SHOULD BE REMOVED BEFORE THEY REACH ONE-HALF OF THE CAPACITY OF THE CONTROL DEVICE.

ALLOWABLE NON-STORMWATER DISCHARGES
THE GENERIC PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES PROHIBIT MOST NON-STORMWATER DISCHARGES DURING THE CONSTRUCTION PHASE. CERTAIN DISCHARGES ARE ALLOWED BY THE PERMIT, PROVIDED APPROPRIATE BMPs ARE UTILIZED AND THE DISCHARGE DOES NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS OR CONTROLLABLE DISCHARGES THAT OCCUR DURING CONSTRUCTION ON THIS PROJECT PER PART 3.2 OF THE GENERIC PERMIT ARE:

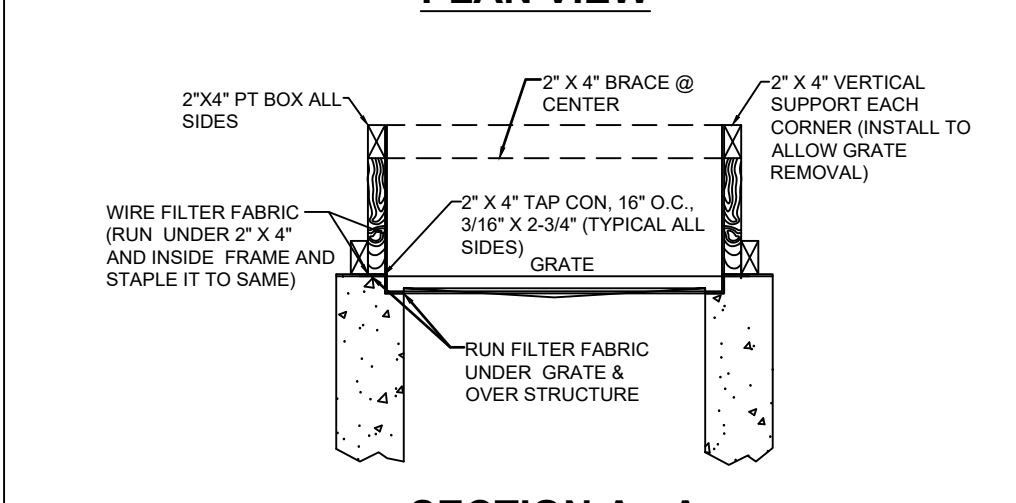
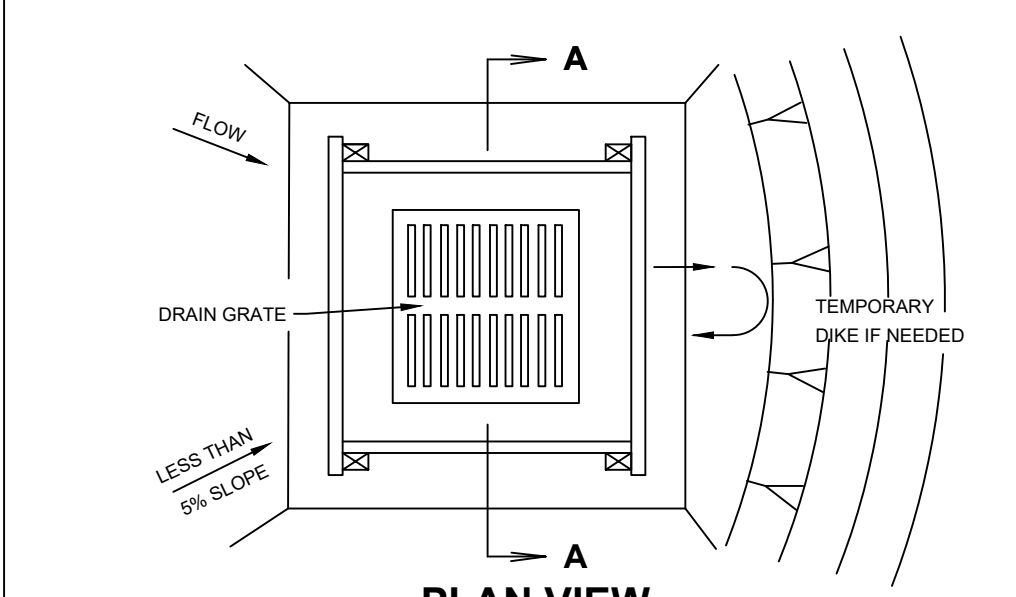
- FIRE HYDRANT FLUSHINGS
- WATERS WITHOUT DETERGENTS USED TO SPRAY OFF LOOSE SOLIDS FROM VEHICLES.
- WATERS USED TO CONTROL DUST.
- POTABLE WATER SOURCES SUCH AS WATERLINE FLUSHINGS.
- LANDSCAPE IRRIGATION AND DRAINAGE.
- ROUTINE EXTERIOR BUILDING MAINTENANCE PROVIDED NO DETERGENTS ARE USED.
- PAVEMENT WASHWATERS THAT DO NOT CONTAIN DETERGENTS, LEAKS, SPILLS OF TOXIC OR HAZARDOUS MATERIALS.
- AIR CONDITIONING CONDENSATE.
- SPRING WATER.
- FOUNDATION OR FOOTING DRAIN FLOWS THAT ARE NOT CONTAMINATED WITH PROCESS MATERIAL SUCH AS SOLVENTS.
- NONCONTAMINATED GROUND WATER ASSOCIATED WITH DEWATERING ACTIVITIES AS DESCRIBED IN PART 3.4 OF THE GENERIC PERMIT.

RETENTION OF RECORDS

THE PERMITTEE SHALL RETAIN COPIES OF STORMWATER POLLUTION PREVENTION PLANS AND ALL REPORTS REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION (NOT) IS SUBMITTED.

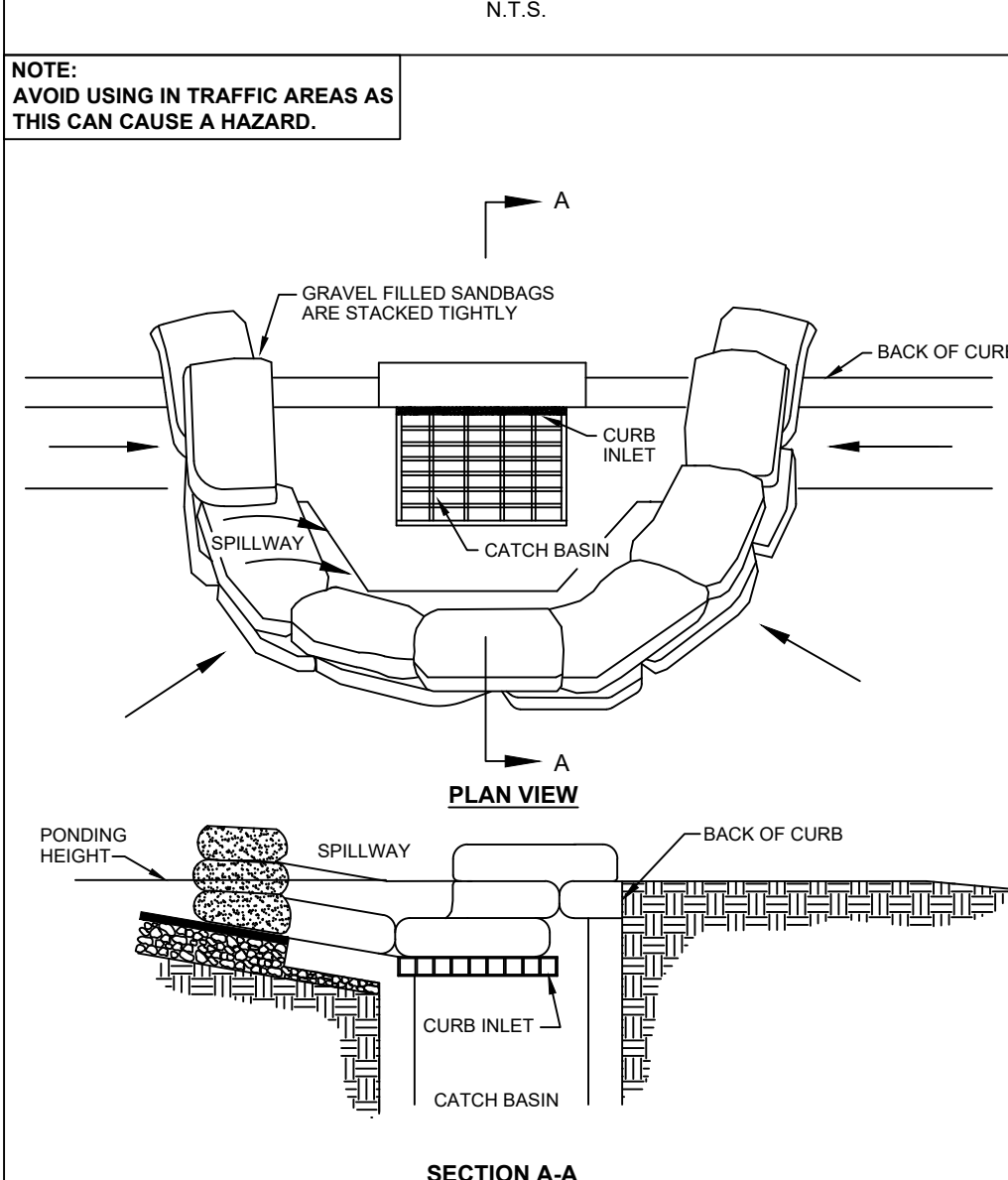
REFERENCES

THE CONSTRUCTION PLANS AND SPECIFICATIONS FOR JOB #P7366 AS PREPARED BY CPH, INC. ON OCTOBER 15, 2020 ARE HEREBY REFERENCED AND MADE A PART OF THIS PLAN.



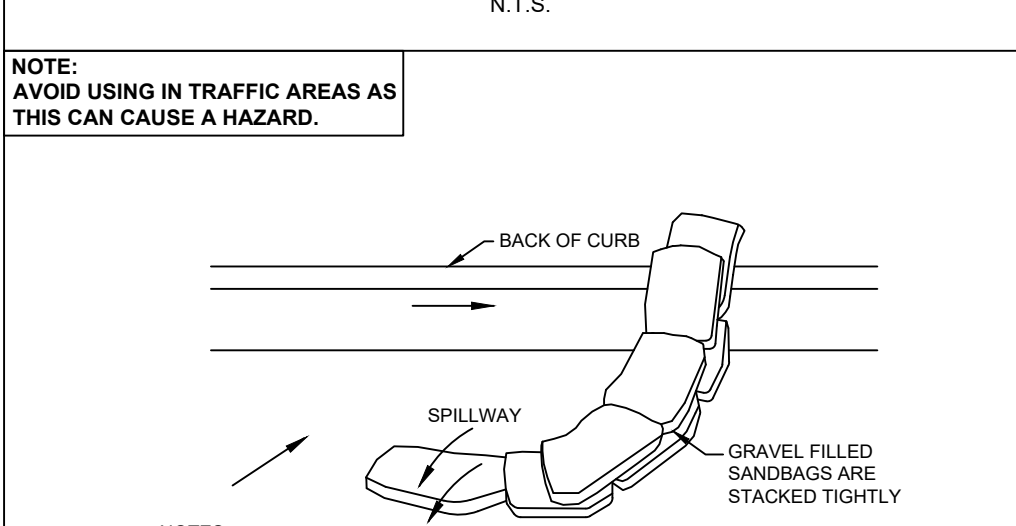
- NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%).
 2. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
 3. FASTEN FRAMING TO STRUCTURE TO ALLOW GRADE REMOVAL.
 4. LEAVE EXPOSED EDGE TO ALLOW FOR PAVING TO GRADE.

FILTER FABRIC INLET PROTECTION DETAIL



- NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. SANDBAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
 3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AS NECESSARY. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET PROTECTION DETAIL



- NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. SANDBAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
 3. TAPER TO ONE SANDBAG TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AS NECESSARY. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB LINE PROTECTION DETAIL

N.T.S.

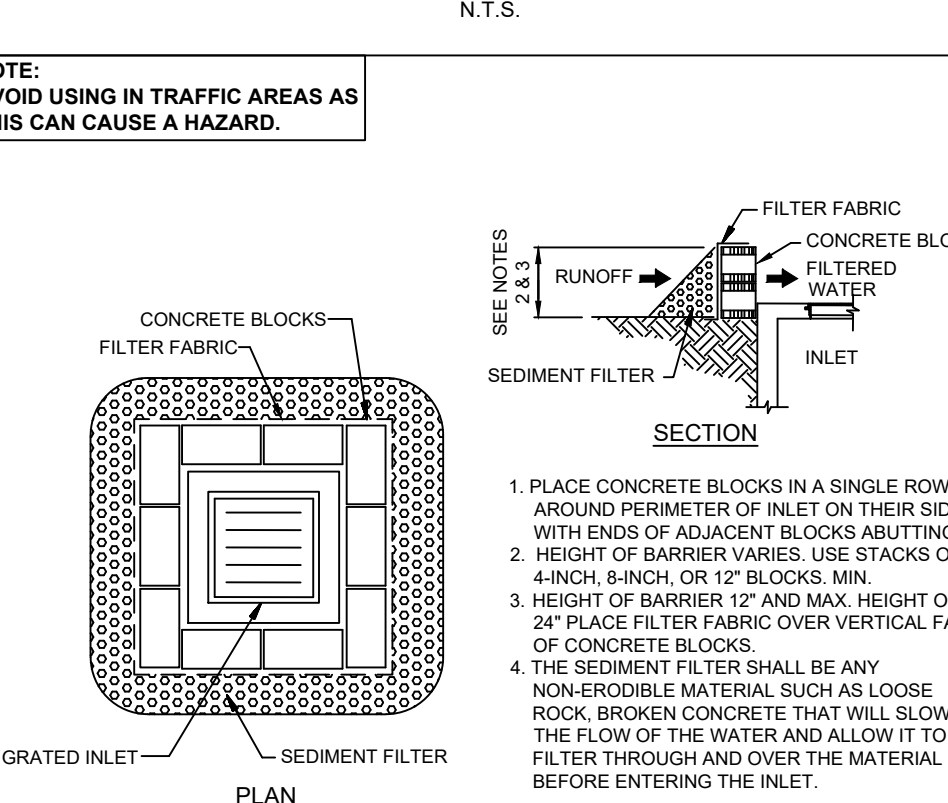
1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
3. PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
4. INSPECT PER REGULATORY REQUIREMENTS.
5. THE WIDTH "W" OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
6. THE DEPTH "D" OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
7. THE LENGTH "L" OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.
8. EXTRA CARE SHALL BE TAKEN TO ENSURE REGULAR MAINTENANCE OF FILTER SACKS USED IN RIGHT OF WAY TO ENSURE ADEQUATE DRAINAGE CAPACITY.

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	20 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE	ASTM D-4832	50 LBS
MILLEN BURST	ASTM D-3785	800 PSI
TRAPEZOID TEAR	ASTM D-4832	100 LBS
UP RESISTANCE	ASTM D-4835	80 %
APPEARANT OPENING SIZE	ASTM D-4835	20 US SIEVE
FLOW RATE	ASTM D-4461	20 GPM/INQ2 FT
PERMEABILITY	ASTM D-4461	1.5 SEC.-1

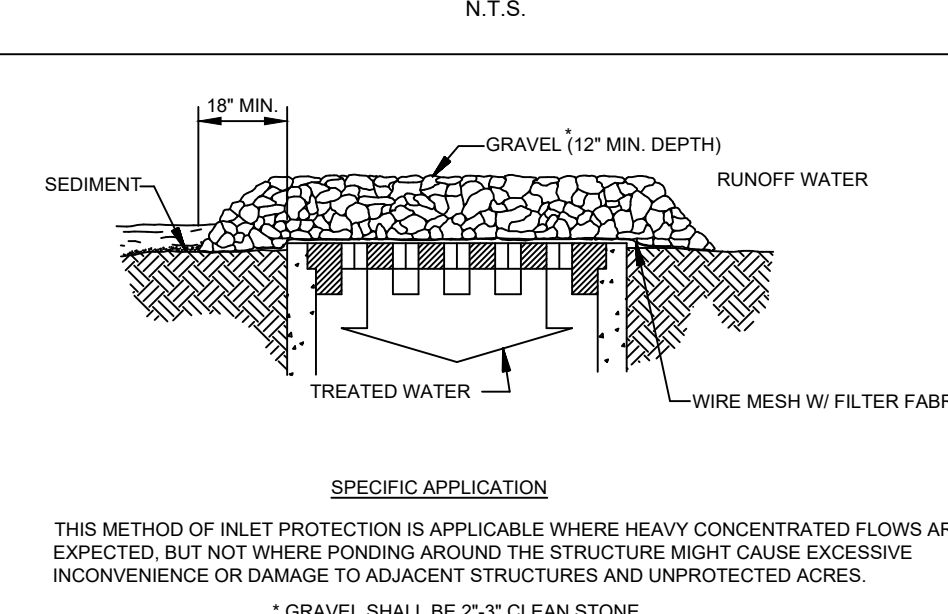
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	260 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE	ASTM D-4832	135 LBS
MILLEN BURST	ASTM D-3785	450 PSI
TRAPEZOID TEAR	ASTM D-4832	45 LBS
UP RESISTANCE	ASTM D-4835	80 %
APPEARANT OPENING SIZE	ASTM D-4835	20 US SIEVE
FLOW RATE	ASTM D-4461	20 GPM/INQ2 FT
PERMEABILITY	ASTM D-4461	1.5 SEC.-1

- NOTE:
- AVOID USING IN TRAFFIC AREAS AS THIS CAN CAUSE A HAZARD.

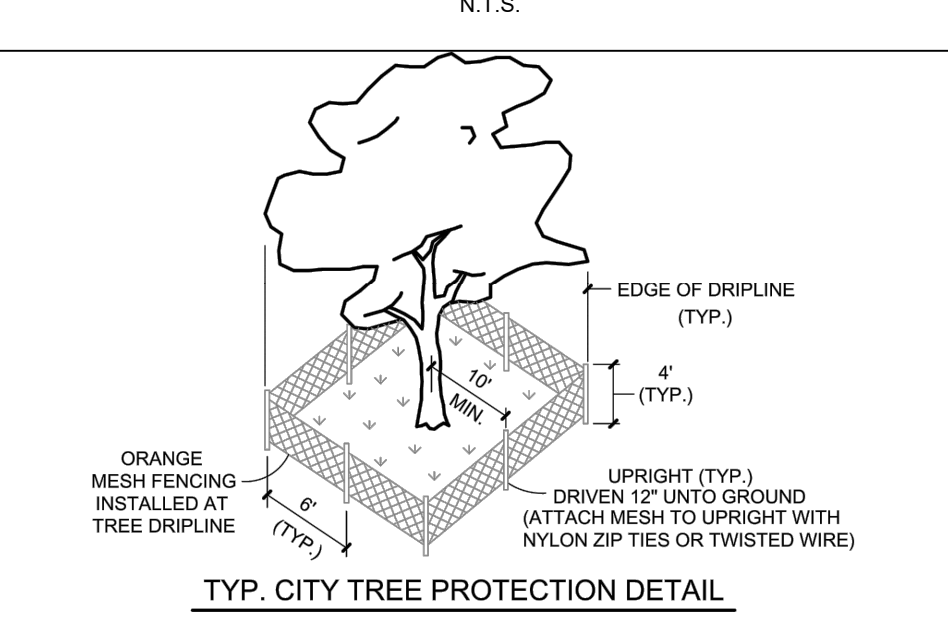
GEOTEXTILE BAG INLET PROTECTION DETAIL



BLOCK AND AGGREGATE INLET SEDIMENT FILTER



GRAVEL & WIRE MESH INLET SEDIMENT FILTER

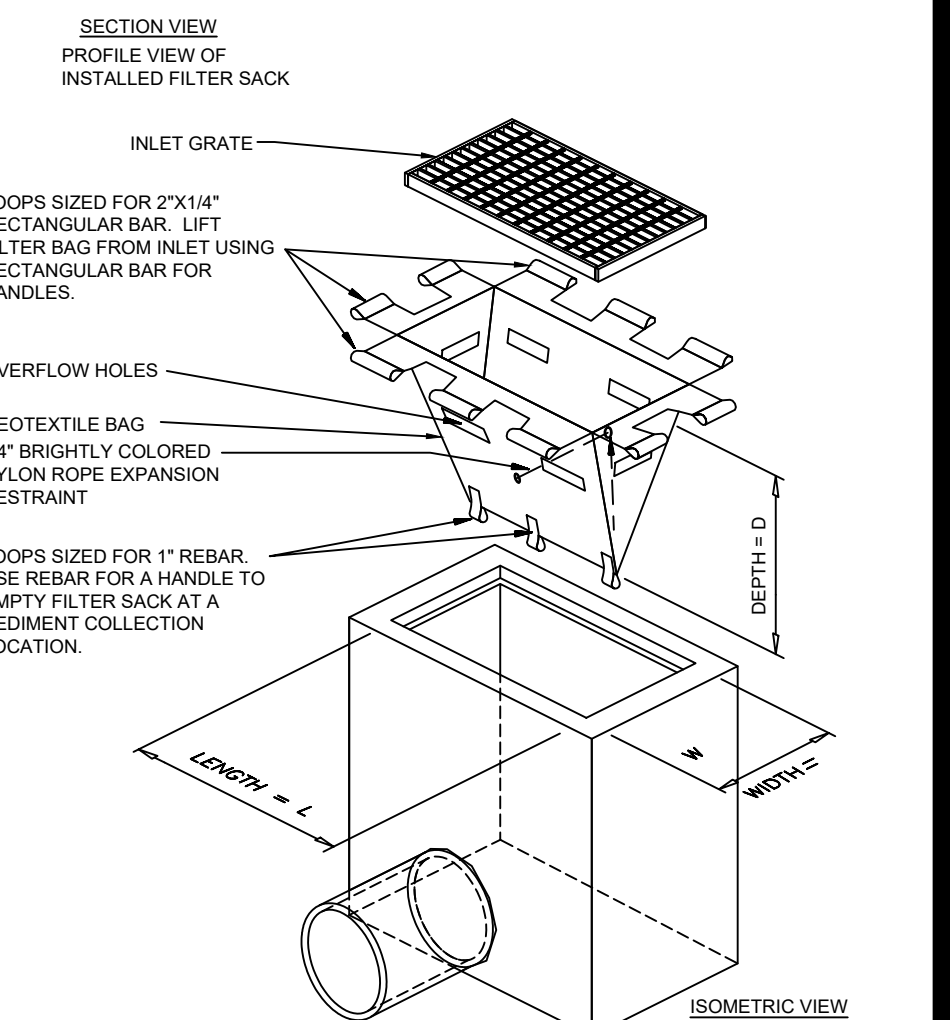
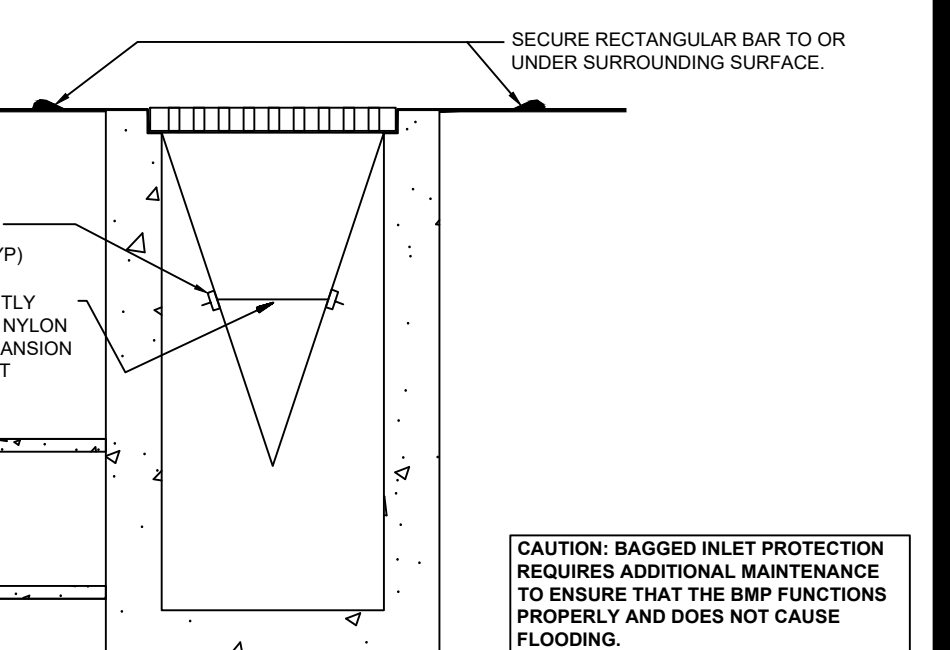


- NOTE:
- THE BARRIER THE CITY RECOMMENDS SAFETY BARRICADE FENCING.
- NOTE: EXISTING TREES IN LANDSCAPE BUFFER SHALL ALSO BE PROTECTED.

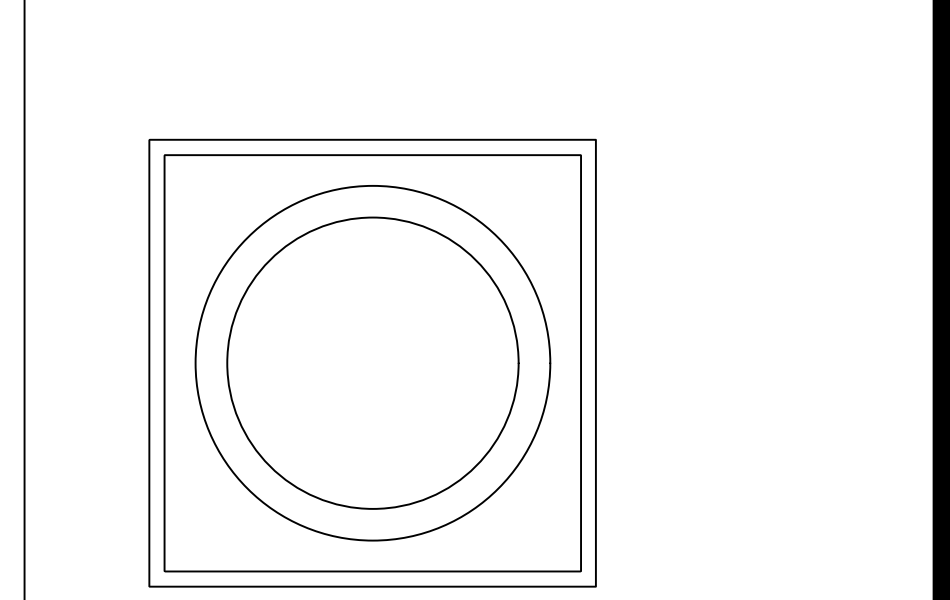
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November 20, 2017	City of Deland Standard Details	
	TREE PROTECTION DETAIL	

CURB LINE PROTECTION DETAIL

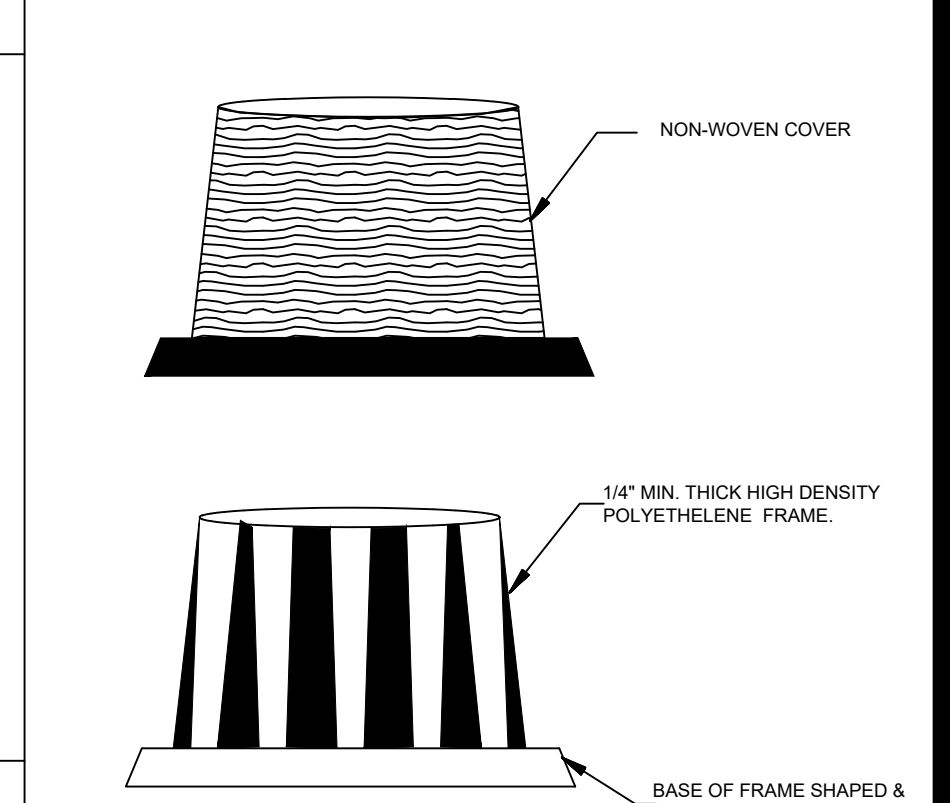
N.T.S.



- NOTE:
- AVOID USING IN TRAFFIC AREAS AS THIS CAN CAUSE A HAZARD.



TOP VIEW



- TYPICAL CONSTRUCTION SEQUENCE FOR DOME FRAME & COVER
1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
 2. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
 3. SLIDE THE COVER OVER THE FRAME.
 4. FILL THE COVER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE COVER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
 5. BACK FILL AROUND THE FRAME AND COVER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACKFILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.

DOMED INLET PROTECTION (PREFABRICATED)

N.T.S.



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REVISIONS:

PER CITY COMMENTS	3/12/2021
REV. HYDRANT LOCATION	3/25/2021

ISSUE DATE:

PERMIT SET	10/19/2020
BID	02/01/2021
CONSTRUCTION	07/08/2021

DRAWN BY: K. Patterson

PANDA PROJECT #: D8043 STORE 3477

CIVIL PROJECT #: P7356



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SWPP DETAILS