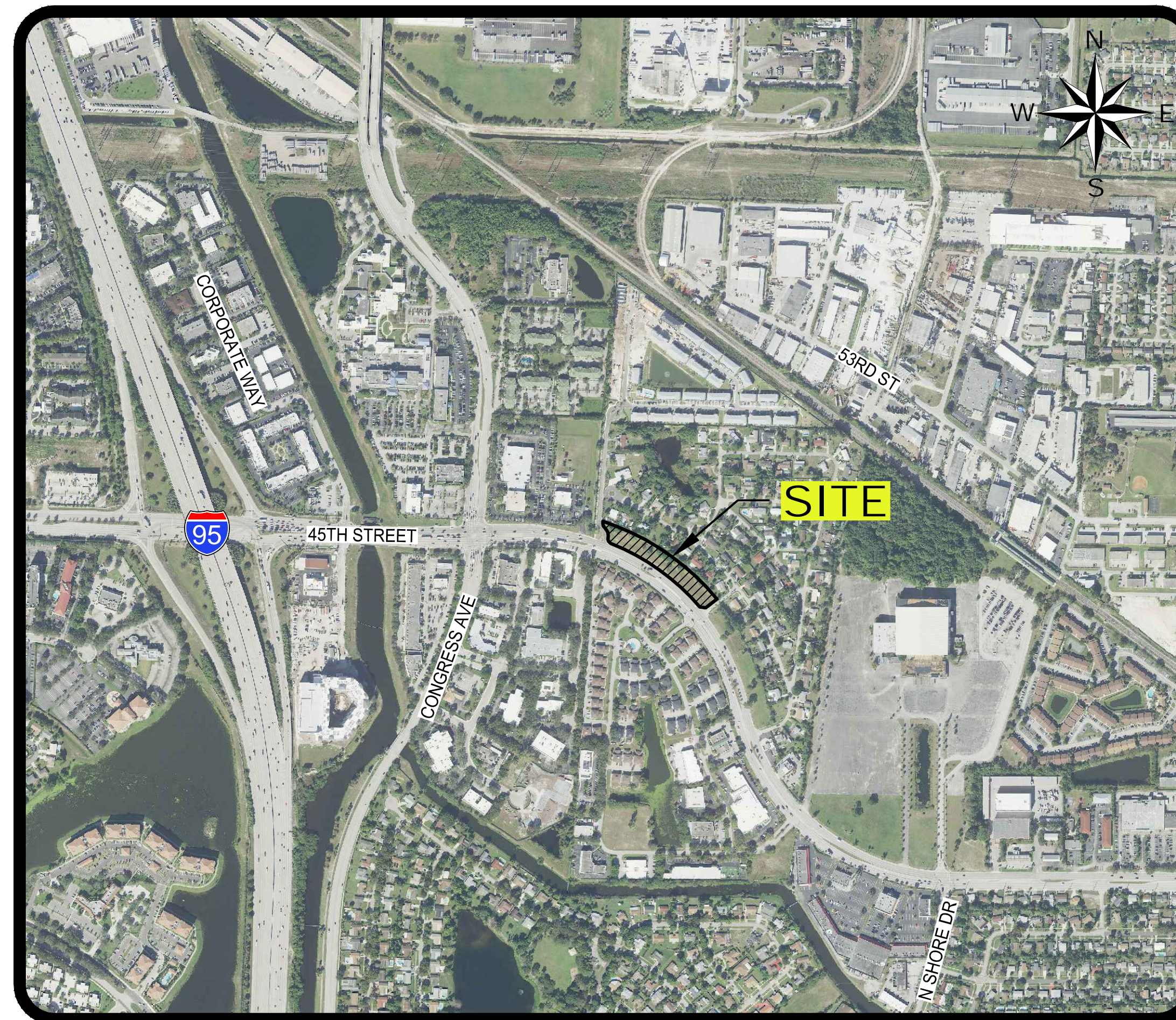
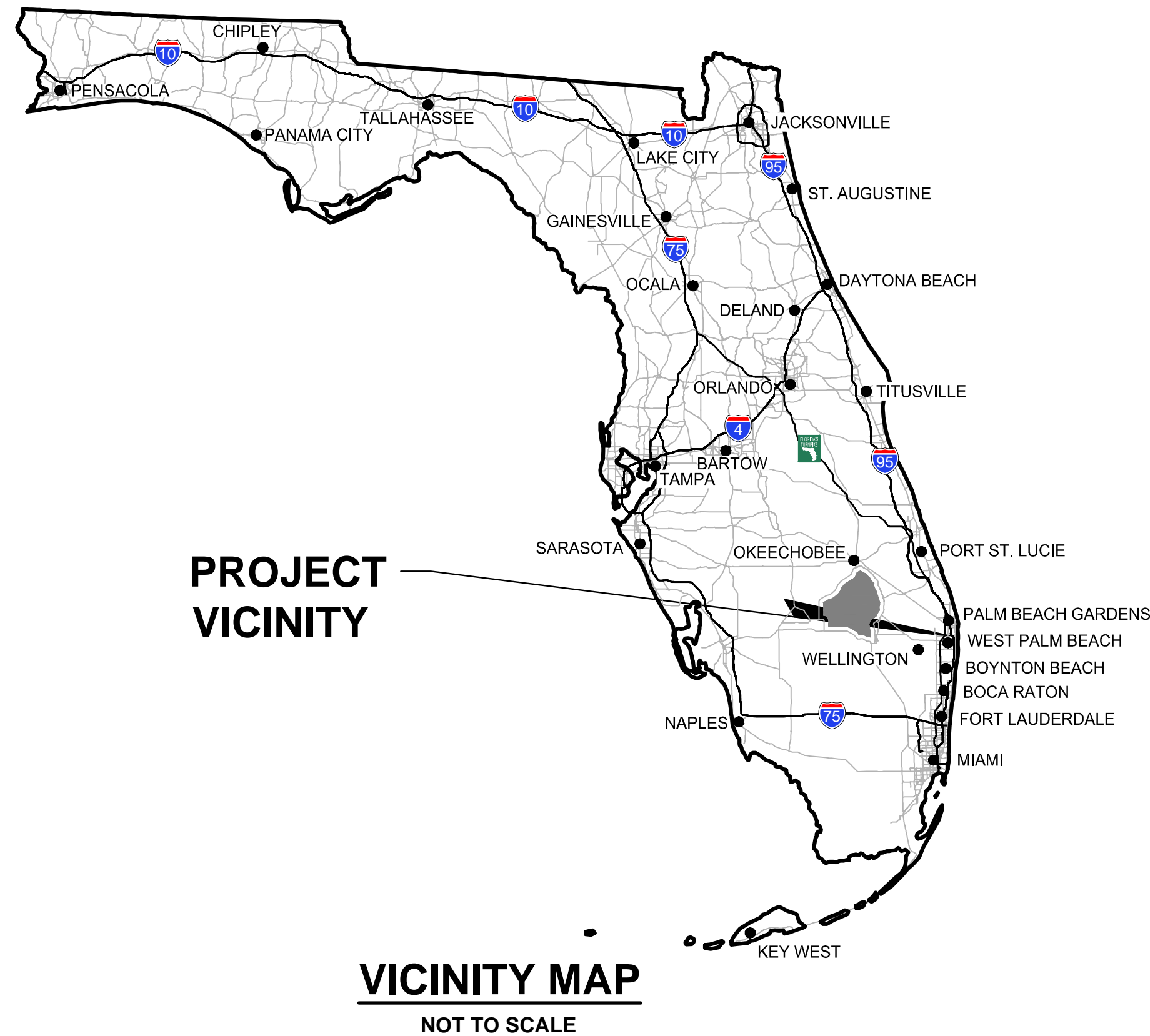


SITE DEVELOPMENT PLANS

45TH STREET S.R.O.A.

SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA

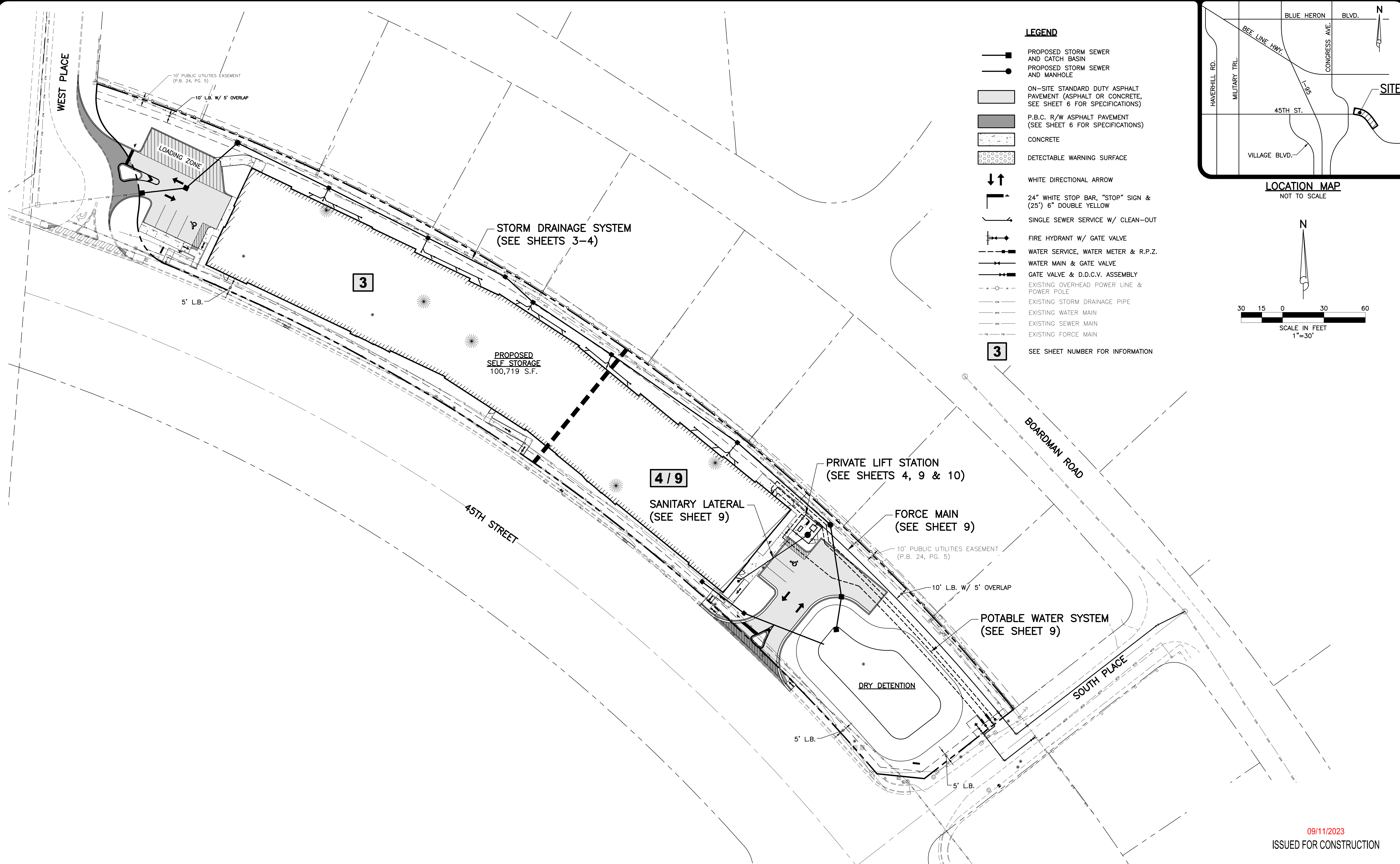


INDEX OF SHEETS

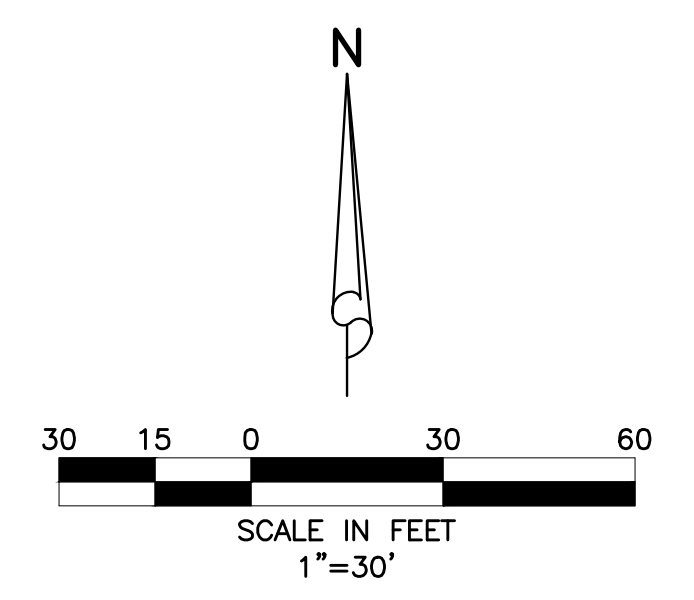
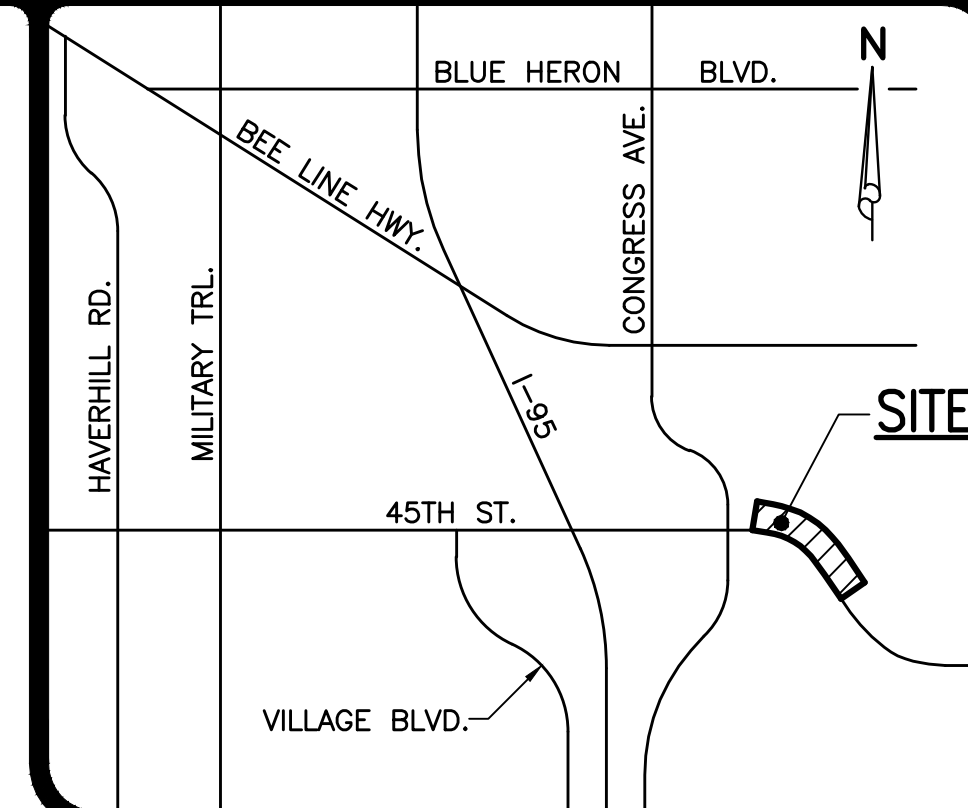
SHEET NO.:	DESCRIPTION:
1	TITLE SHEET
2	MASTER PLAN
3-4	PAVING AND DRAINAGE PLAN
5-7	PAVING AND DRAINAGE DETAILS
8	POLLUTION PREVENTION PLAN
9	WATER AND WASTEWATER PLAN
10	LIFT STATION PLAN & DETAILS
11-15	WATER AND WASTEWATER DETAILS

09/11/2023
ISSUED FOR CONSTRUCTION

		 <small>ENGINEERING PLANNING CONSULTING SINCE 1982</small> <small>2581 Metrocentre Blvd West • Suite 3 • West Palm Beach, Florida 33407 • (561) 478-7848</small>		45TH STREET S.R.O.A. SECTION 06, TOWNSHIP 43S., RANGE 43E. TOWN OF MANGONIA PARK, FLORIDA TITLE SHEET	
REVISIONS	DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE
	JOB NO. 21-017	DRAWING NO. 21017S01	SHEET 1	OF 15	



- LEGEND**
- PROPOSED STORM SEWER AND CATCH BASIN
 - PROPOSED STORM SEWER AND MANHOLE
 - ▭ ON-SITE STANDARD DUTY ASPHALT PAVEMENT (ASPHALT OR CONCRETE, SEE SHEET 6 FOR SPECIFICATIONS)
 - ▭ P.B.C. R/W ASPHALT PAVEMENT (SEE SHEET 6 FOR SPECIFICATIONS)
 - ▭ CONCRETE
 - ▭ DETECTABLE WARNING SURFACE
 - ↕ WHITE DIRECTIONAL ARROW
 - ⊥ 24" WHITE STOP BAR, "STOP" SIGN & (25') 6" DOUBLE YELLOW
 - SINGLE SEWER SERVICE W/ CLEAN-OUT
 - FIRE HYDRANT W/ GATE VALVE
 - WATER SERVICE, WATER METER & R.P.Z.
 - WATER MAIN & GATE VALVE
 - GATE VALVE & D.D.C.V. ASSEMBLY
 - EXISTING OVERHEAD POWER LINE & POWER POLE
 - EXISTING STORM DRAINAGE PIPE
 - EXISTING WATER MAIN
 - EXISTING SEWER MAIN
 - EXISTING FORCE MAIN
 - 3 SEE SHEET NUMBER FOR INFORMATION



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 NOTIFICATION CENTER

NOTE: ALL ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988 BASED ON A SURVEY PREPARED BY BROWN & PHILLIPS, INC. (561) 615-3988.

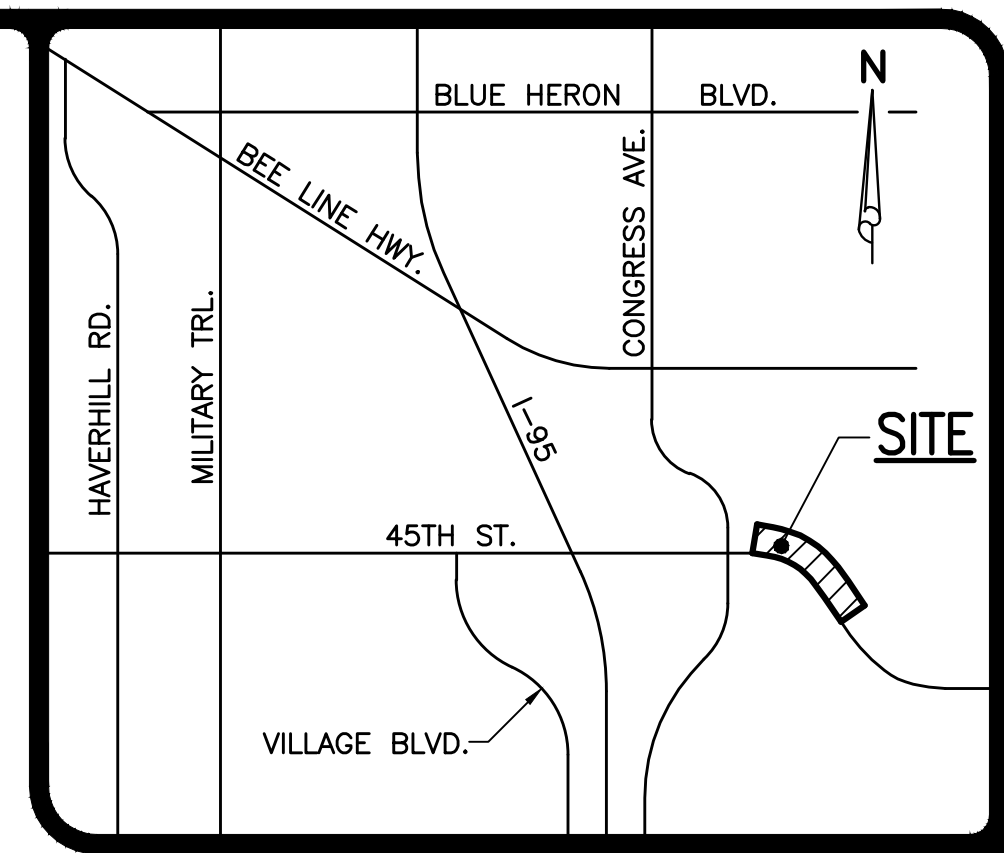
- 3.) REMOVED DUMPSTER ENCLOSURE & SHIFTED MONUMENT SIGN PER SITE PLANNER, 06/28/23 R.W.
- 2.) ADDED DUMPSTER ENCLOSURE PER SITE PLAN, 05/24/23 R.W.
- 1.) REVISED FIRE LINE, LIFT STATION RIM & SEWER SERVICE PER M.E.P. COMMENTS, 01/21/23 R.W.



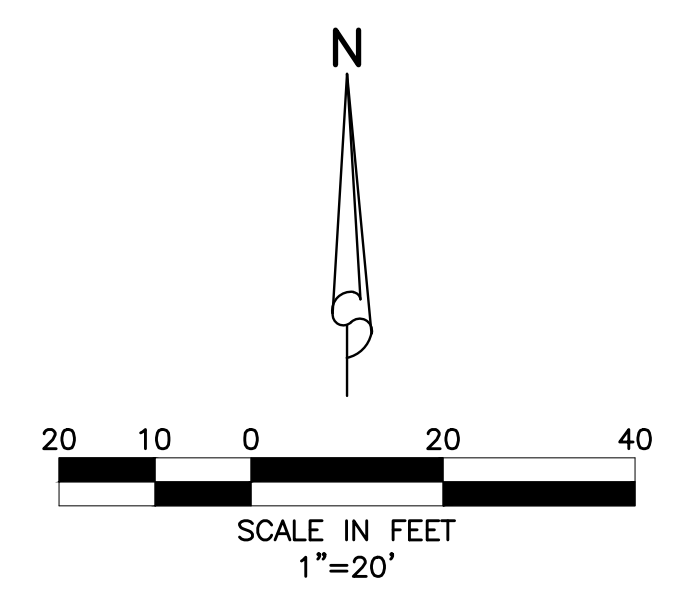
45TH STREET S.R.O.A.
 SECTION 06, TOWNSHIP 43S., RANGE 43E.
 TOWN OF MANGONIA PARK, FLORIDA
MASTER PLAN

REVISIONS		DESIGN	DRAWN	CHECKED	APPROVED	DATE	JOB NO.	DRAWING NO.	SHEET	OF
E.V.	R.W.						21-017	21017S02	2	15

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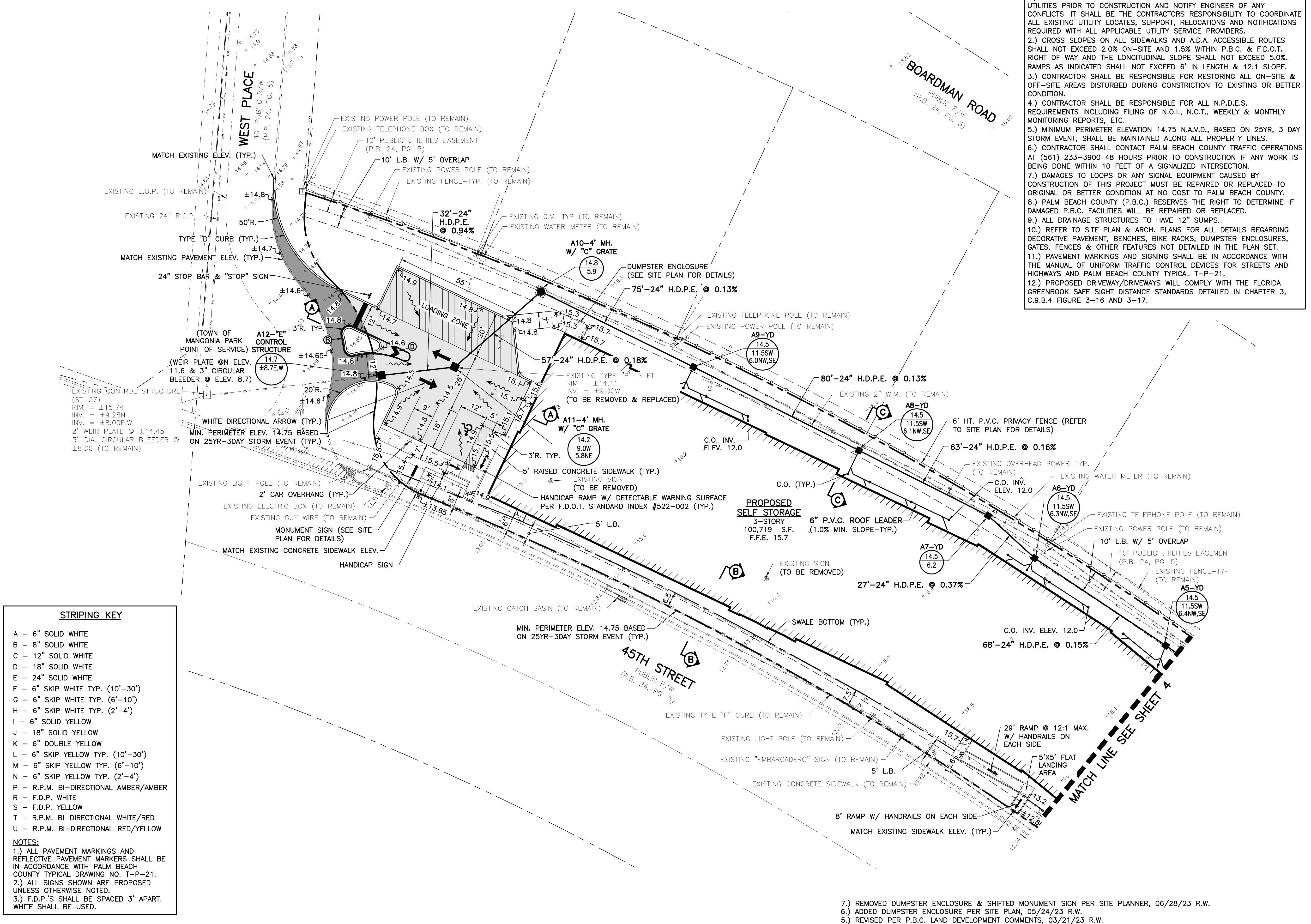
LOCATION MAP
NOT TO SCALE



LEGEND

- A3-"C" INLET NUMBER AND TYPE
- (19.5) INLET TOP ELEVATION
- (16.0) INVERT ELEVATION
- PROPOSED STORM SEWER AND CATCH BASIN
- PROPOSED STORM SEWER AND MANHOLE
- DIRECTION OF FLOW
- DIRECTION OF SWALE
- PROPOSED GRADE ELEVATION
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- SAWCUT, REMOVE, & REPLACE EXISTING PAVEMENT, CONCRETE, CURB, ETC.
- LIGHT POLE (BY OTHERS)
- WHITE DIRECTIONAL ARROW
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- EXISTING STORM DRAINAGE PIPE
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
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- NOTES:
- CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE ALL EXISTING UTILITY LOCATES, SUPPORT, RELOCATIONS AND NOTIFICATIONS REQUIRED WITH ALL APPLICABLE UTILITY SERVICE PROVIDERS.
 - CROSS SLOPES ON ALL SIDEWALKS AND A.D.A. ACCESSIBLE ROUTES SHALL NOT EXCEED 2.0% ON-SITE AND 1.5% WITHIN P.B.C. & F.D.O.T. RIGHT OF WAY AND THE LONGITUDINAL SLOPE SHALL NOT EXCEED 5.0%. RAMP AS INDICATED SHALL NOT EXCEED 6' IN LENGTH & 12:1 SLOPE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL ON-SITE & OFF-SITE AREAS DISTURBED DURING CONSTRUCTION TO EXISTING OR BETTER CONDITION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL N.P.D.E.S. REQUIREMENTS INCLUDING FILING OF N.O.I., N.O.T., WEEKLY & MONTHLY MONITORING REPORTS, ETC.
 - MINIMUM PERIMETER ELEVATION 14.75 N.A.V.D., BASED ON 25YR, 3 DAY STORM EVENT, SHALL BE MAINTAINED ALONG ALL PROPERTY LINES.
 - CONTRACTOR SHALL CONTACT PALM BEACH COUNTY TRAFFIC OPERATIONS AT (561) 233-3900 48 HOURS PRIOR TO CONSTRUCTION IF ANY WORK IS BEING DONE WITHIN 10 FEET OF A SIGNALIZED INTERSECTION.
 - DAMAGES TO LOOPS OR ANY SIGNAL EQUIPMENT CAUSED BY CONSTRUCTION OF THIS PROJECT MUST BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION AT NO COST TO PALM BEACH COUNTY.
 - PALM BEACH COUNTY (P.B.C.) RESERVES THE RIGHT TO DETERMINE IF DAMAGED P.B.C. FACILITIES WILL BE REPAIRED OR REPLACED.
 - ALL DRAINAGE STRUCTURES TO HAVE 12" SUMPS.
 - REFER TO SITE PLAN & ARCH. PLANS FOR ALL DETAILS REGARDING DECORATIVE PAVEMENT, BENCHES, BIKE RACKS, DUMPSTER ENCLOSURES, GATES, FENCES & OTHER FEATURES NOT DETAILED IN THE PLAN SET.
 - PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND PALM BEACH COUNTY TYPICAL T-P-21.
 - PROPOSED DRIVEWAY/DRIVEWAYS WILL COMPLY WITH THE FLORIDA GREENBOOK SAFE SIGHT DISTANCE STANDARDS DETAILED IN CHAPTER 3, C.9.B.4 FIGURE 3-16 AND 3-17.



- STRIPING KEY**
- A - 6" SOLID WHITE
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- REVISED PER P.B.C. LAND DEVELOPMENT COMMENTS, 03/21/23 R.W.
- REVISED PER P.B.C. LAND DEVELOPMENT COMMENTS, 02/23/23 R.W.
- REVISED F.F.E., UPDATED GRADING PER S.F.W.M.D. COMMENTS, 01/23/23 R.W.
- REVISED PER P.B.C. LAND DEVELOPMENT & REVISED SITE PLAN, 01/20/23 C.O.
- REVISED PLANS PER S.F.W.M.D. COMMENTS, 12/09/22 R.W.

09/11/2023
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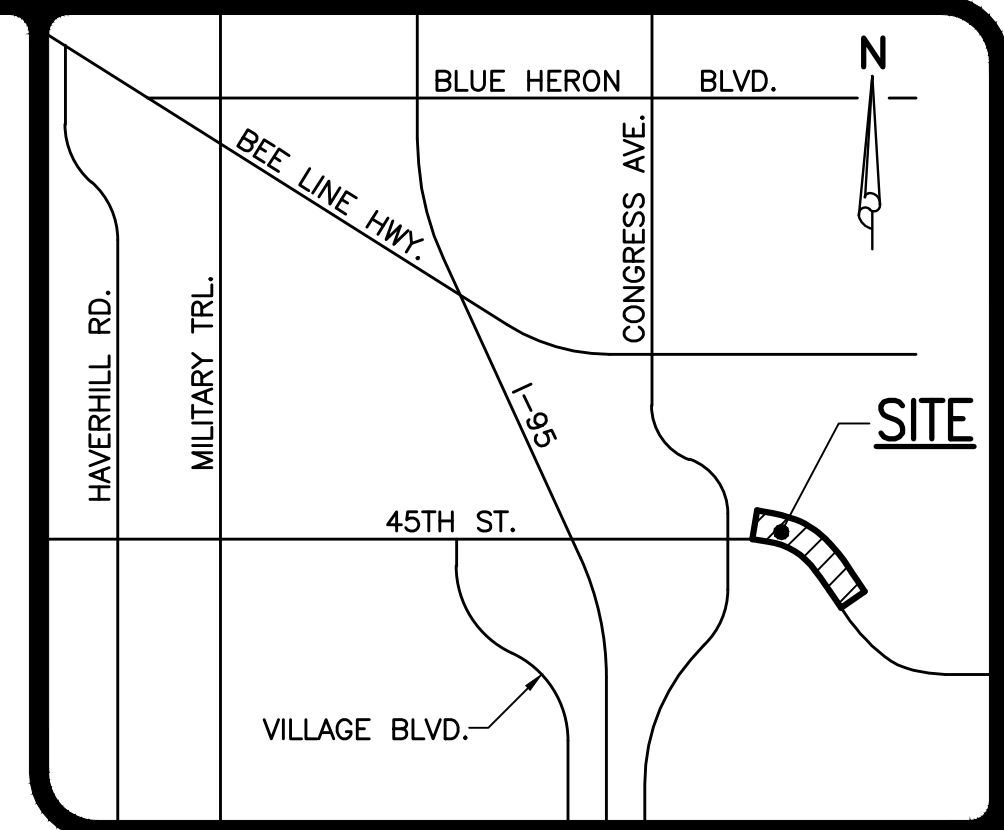
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45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
PAVING AND DRAINAGE PLAN

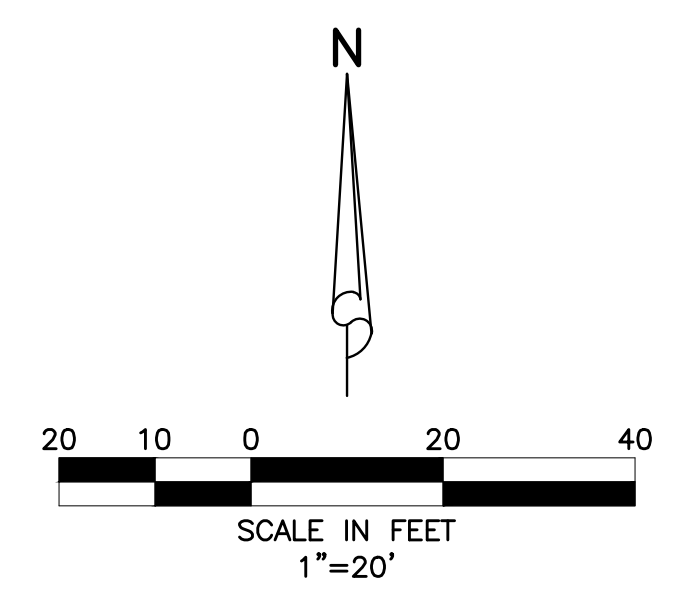
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DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE

JOB NO.	DRAWING NO.	SHEET	OF
21-017	21017S03	3	15



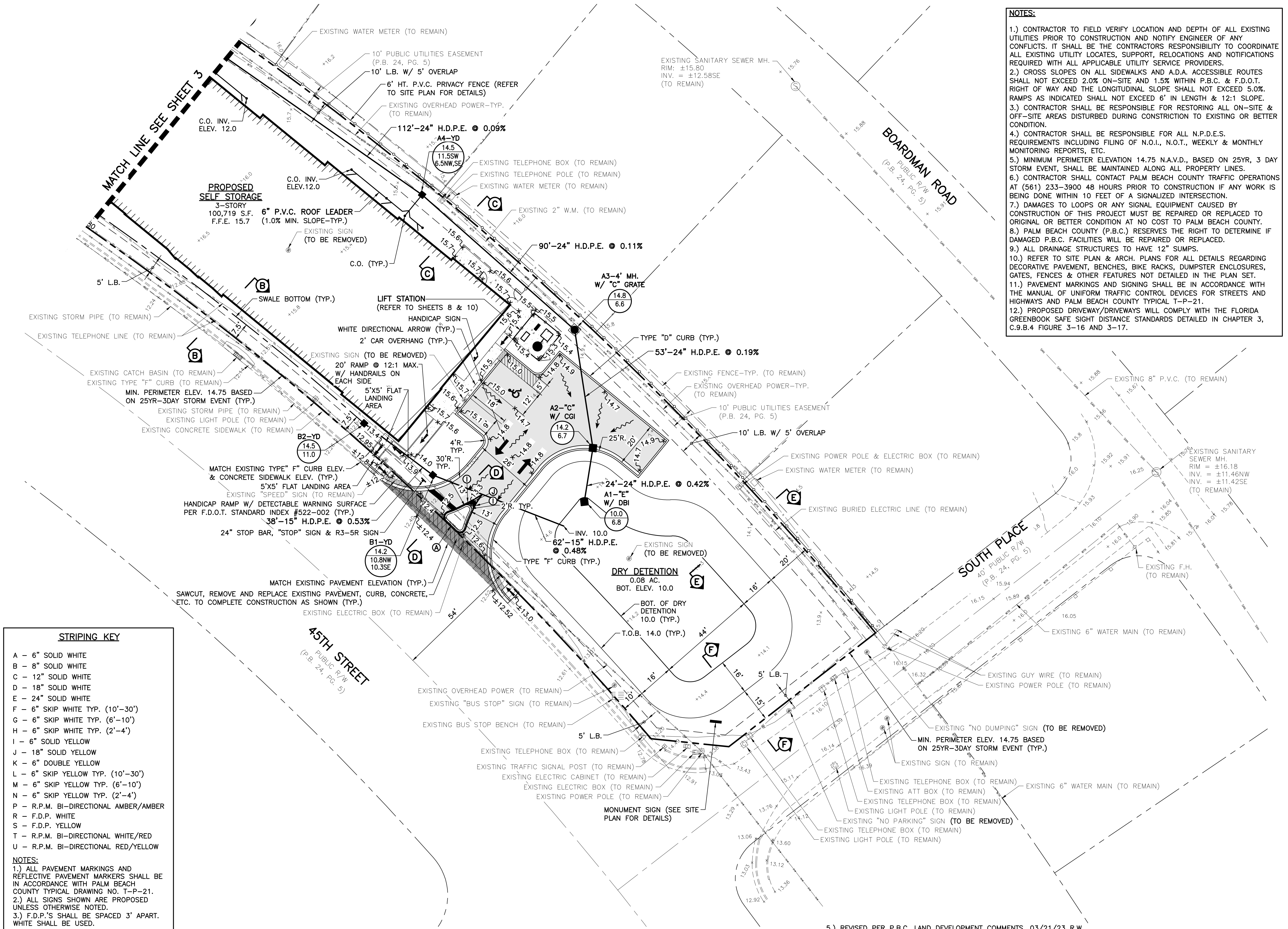
LOCATION MAP
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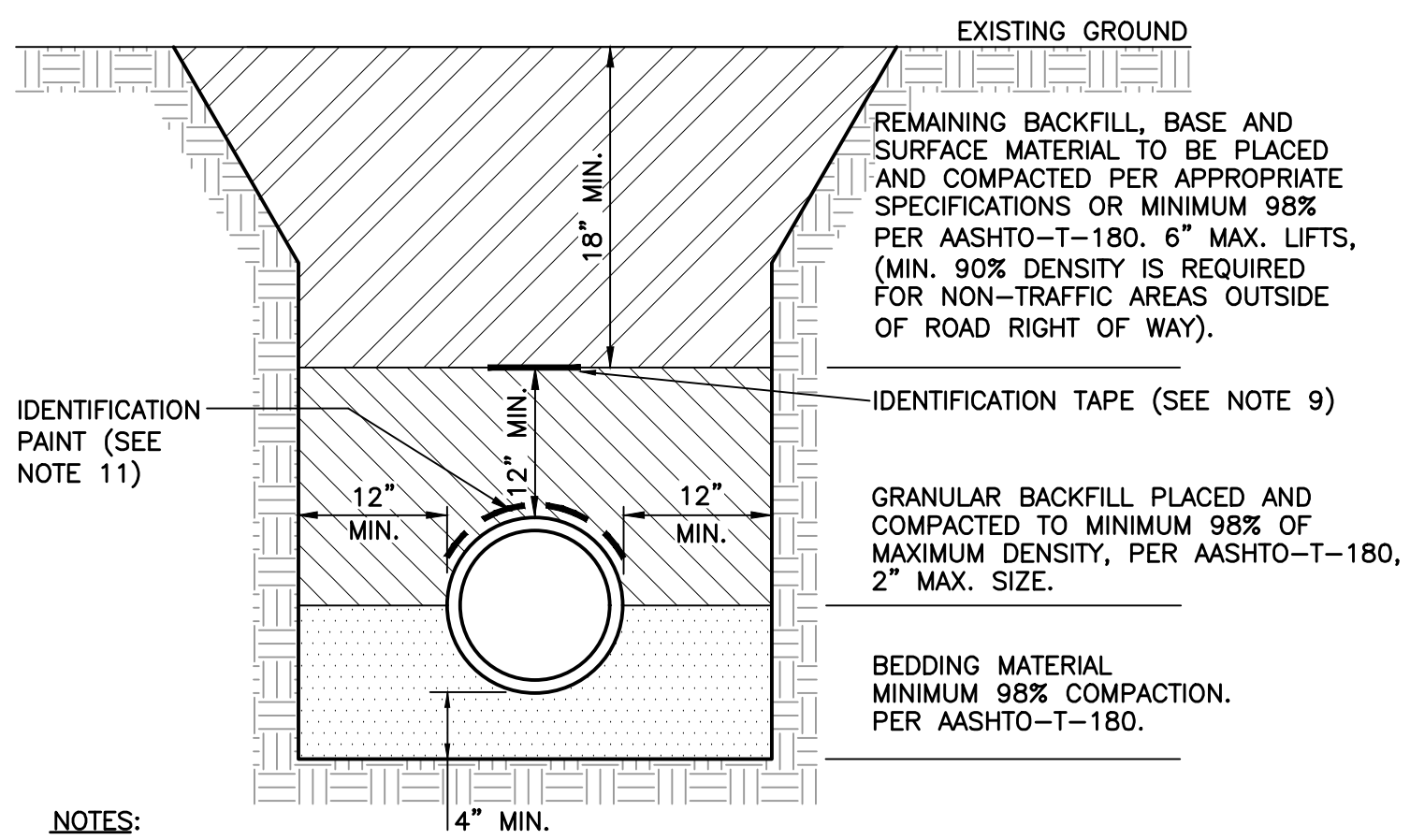
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- 4.) REVISED PER P.B.C. LAND DEVELOPMENT COMMENTS, 02/23/23 R.W.

- 3.) REVISED F.F.E., UPDATED GRADING PER S.F.W.M.D. COMMENTS, 01/23/23 R.W.
- 2.) REVISED PER P.B.C. LAND DEVELOPMENT & REVISED SITE PLAN, 01/20/23 C.O.
- 1.) REVISED PLANS PER P.B.C. LAND DEVELOPMENT & S.F.W.M.D. COMMENTS, 12/09/22 R.W.



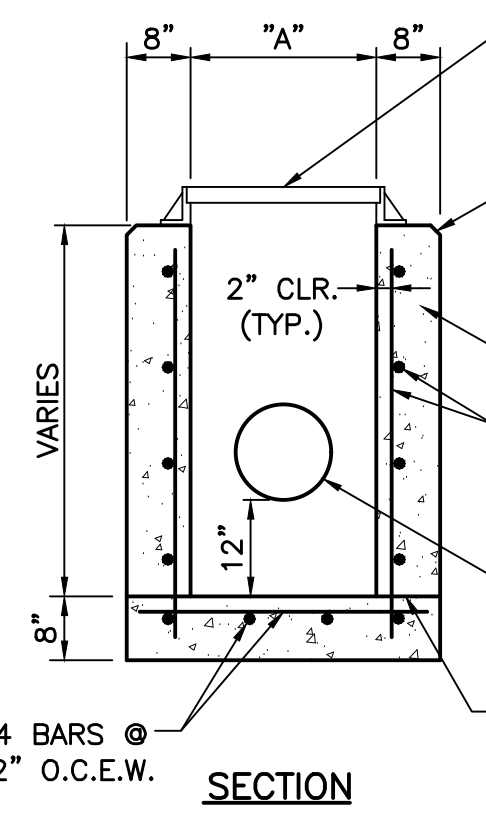
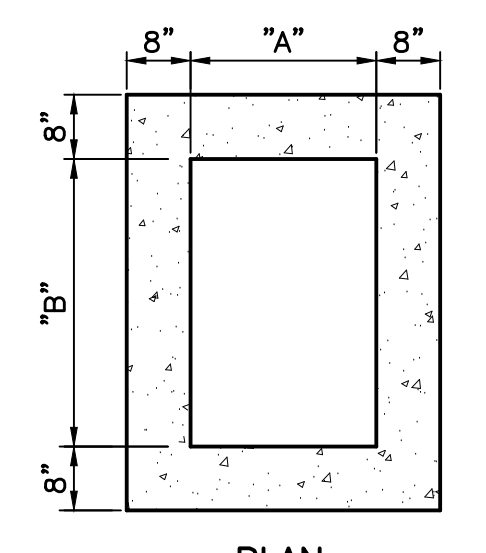
45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
PAVING AND DRAINAGE PLAN

DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE
JOB NO. 21-017	DRAWING NO. 21017S04	SHEET 4	OF 15	



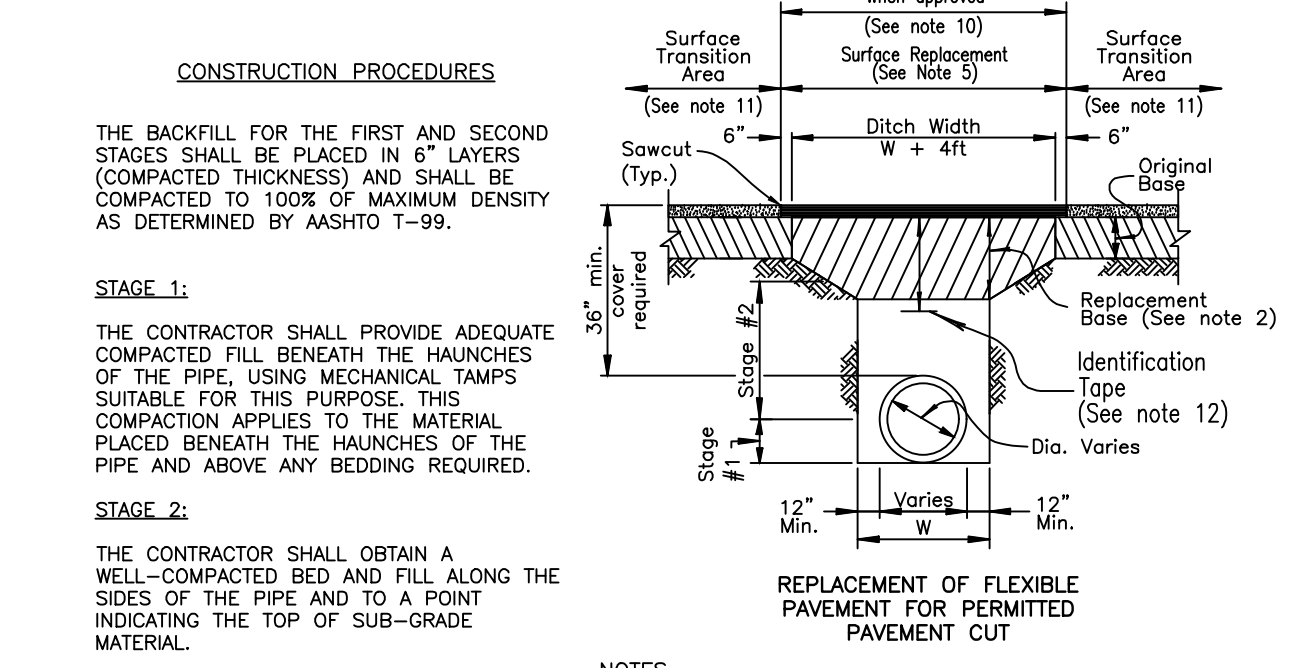
- NOTES:**
- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING WITH EQUAL OR GREATER STRUCTURAL ADEQUACY AS EXISTING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
 - THE PIPE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
 - THE PIPE SHALL BE PLACED IN A DRY TRENCH.
 - BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK AND DEBRIS.
 - DENSITY TESTS ARE TAKEN IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAXIMUM, (MINIMUM 1 SET) OR AS DIRECTED BY THE CONSTRUCTION COORDINATION DIVISION. RESULTS SHALL BE SUBMITTED TO CONSTRUCTION COORDINATION AS PART OF THEIR FIELD REVIEW.
 - THE PERMITTEE/DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL TRENCH SAFETY LAWS AND REGULATIONS.
 - SEE SEPARATE DETAIL FOR PAVED AREAS (OPEN CUT FOR THOROUGHFARE AND NON-THOROUGHFARE ROADS).
 - THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT/CONTRACT DOCUMENTS.
 - APPROVED MAGNETIC TAPE IS REQUIRED FOR ALL MAIN PRESSURE PIPES AND CONDUIT IN THE COUNTY'S RIGHT-OF-WAY. INSTALL TAPE 18" BELOW FINISHED GRADE.
 - ROOT BARRIER IS REQUIRED FOR APPROVED PIPE INSTALLATION CLOSER THAN 10 FEET FROM AN EXISTING TREE. SEE SEPARATE DETAIL FOR ROOT BARRIER.
 - CONTINUOUS 4" WIDE PAINT STRIPING IS REQUIRED FOR DIP/PCCP WATER MAINS (BLUE), DIP SANITARY FORCE MAINS (GREEN), DIP RECLAIMED WATER MAINS (PURPLE), GAS MAINS (YELLOW), OR AS REQUIRED BY THE APWA.
 - PERMANENT ABOVE GROUND UTILITY MARKER SHALL BE INSTALLED IF REQUIRED.

TYPICAL TRENCH DETAIL (NON-PAVED AREAS)
NOT TO SCALE



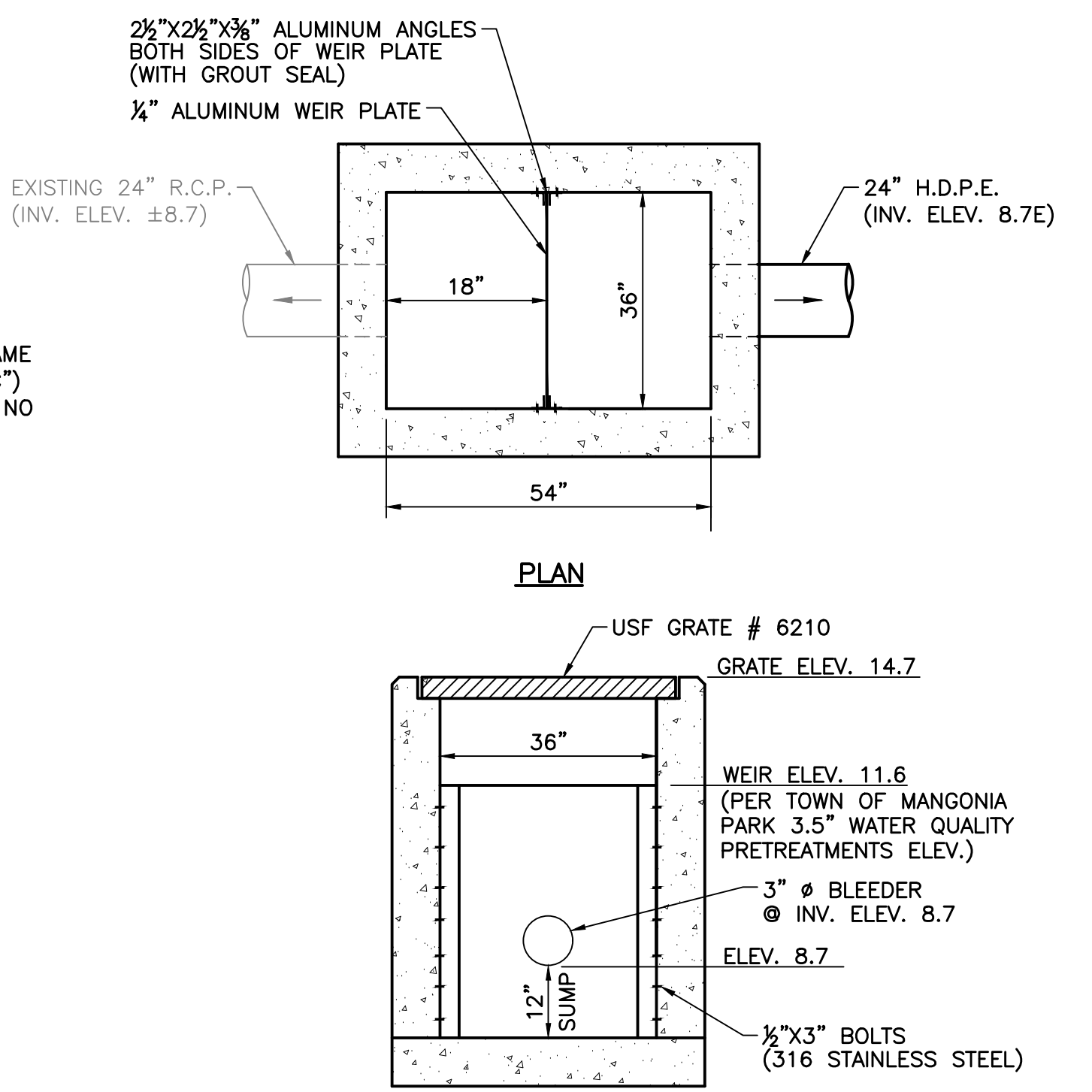
TYPE	DIMENSIONS	
	"A"	"B"
C	2'-0"	3'-1"
E	3'-0"	4'-6"

STANDARD TYPE "C" & "E" INLET
NOT TO SCALE

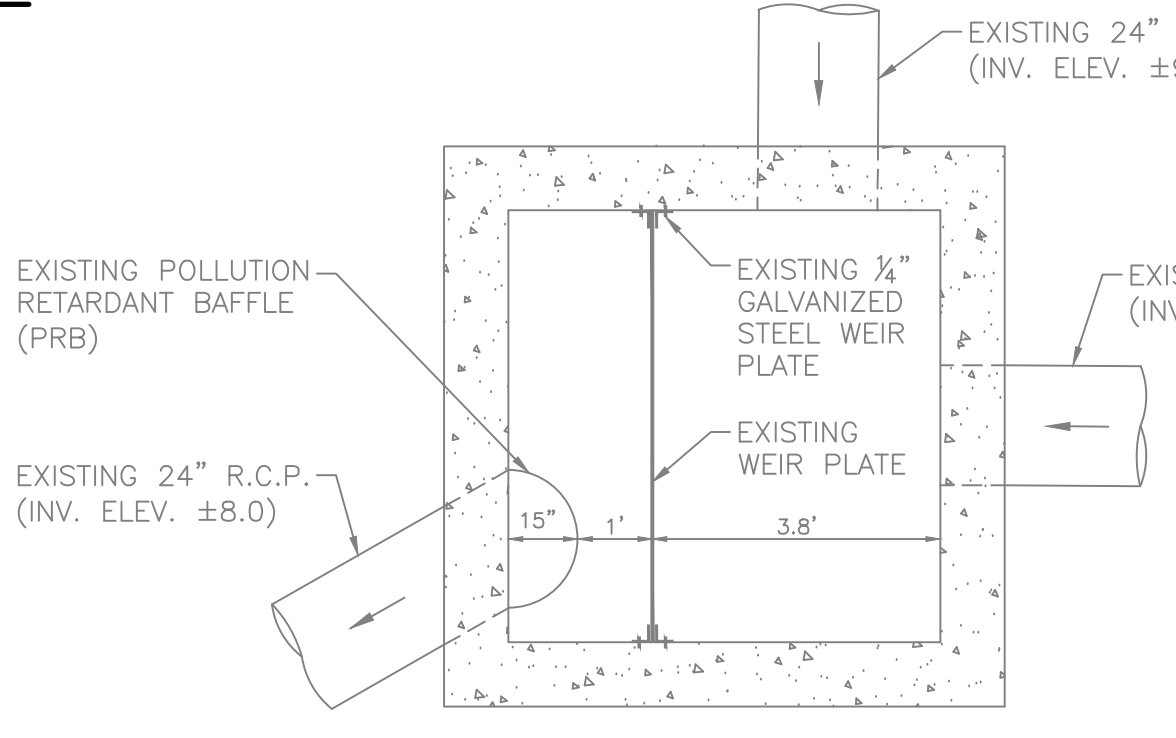


- CONSTRUCTION PROCEDURES**
- THE BACKFILL FOR THE FIRST AND SECOND STAGES SHALL BE PLACED IN 6" LAYERS (COMPACTED THICKNESS) AND SHALL BE COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
- STAGE 1:**
THE CONTRACTOR SHALL PROVIDE ADEQUATE COMPACTED FILL BENEATH THE HAUNCHES OF THE PIPE, USING MECHANICAL TAMPS SUITABLE FOR THIS PURPOSE. THIS COMPACTION APPLIES TO THE MATERIAL PLACED BENEATH THE HAUNCHES OF THE PIPE AND ABOVE ANY BEDDING REQUIRED.
- STAGE 2:**
THE CONTRACTOR SHALL OBTAIN A WELL-COMPACTED BED AND FILL ALONG THE SIDES OF THE PIPE AND TO A POINT INDICATING THE TOP OF SUB-GRADE MATERIAL.
- NOTES:**
- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING WITH EQUAL OR GREATER STRUCTURAL ADEQUACY AS EXISTING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
 - REPLACED BASE MATERIAL OVER DITCH SHALL BE 16" LIMEROCK (LBR100) MINIMUM FOR THOROUGHFARE PLAN ROADS. ANY ALTERNATE BASE MATERIAL REQUESTED BY THE ENGINEER OF RECORD REQUIRES APPROVAL BY THE ROADWAY PRODUCTION DIVISION.
 - ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
 - BASE MATERIAL (PER ROADWAY PRODUCTION DESIGN STANDARDS) SHALL BE PLACED IN TWO OR THREE LAYERS (6" MAX. PER LAYER) AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO THE SPECIFIED DENSITY. (MINIMUM 98% AASHTO T-180).
 - 1" FRICTION COURSE FC-9.5 OVER 1-1/2" TYPE SP STRUCTURAL COURSE (TRAFFIC LEVEL C) WITH TACK COAT AT 0.05 GAL/SY AND 10-20 PRIME COAT AT 0.10 GAL/SY FOR LIMEROCK BASE. FOLLOW THE LATEST FDOT SPECIFICATIONS FOR APPLICATION RATES OF PRIME AND TACK COATS. CONTRACTOR TO SUBMIT MATERIALS AND RATES TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.
 - PIPE SHALL BE PLACED IN A DRY TRENCH.
 - ALL ROADWAY REPAIR WORK SHALL BE PERFORMED IN CONFORMANCE WITH APPLICABLE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND COUNTY PPM# EL-0-3605.
 - DENSITY TESTS SHALL BE TAKEN IN 1 FT LIFTS ABOVE THE PIPE AT INTERVALS OF 400 FT MAXIMUM (1 SET MINIMUM) OR AS DIRECTED BY THE CONSTRUCTION COORDINATION DIVISION. RESULTS SHALL BE SUBMITTED TO CONSTRUCTION COORDINATION DIVISION AS PART OF THEIR FIELD REVIEW.
 - ENGINEER-OF-RECORD SHALL PROVIDE FULL-TIME INSPECTION DURING THE ENTIRETY OF THE OPEN-CUT OPERATION, BEGINNING WITH THE EXCAVATION AND CONTINUING THROUGH THE COMPLETION OF THE PAVING.
 - IF THE PAVEMENT IS NOT COMPLETELY RESTORED IMMEDIATELY FOLLOWING THE OPEN CUT, A SMOOTH TEMPORARY PATCH (MINIMUM 1.5" SP 12.5 STRUCTURAL COURSE ASPHALT) SHALL BE INSTALLED, PROPERLY MATCHING THE EXISTING GRADING OF THE ROADWAY. THE TEMPORARY PATCH SHALL BE ALLOWED TO REMAIN IN PLACE AND BE MAINTAINED FOR A PERIOD NO LONGER THAN 45 DAYS. THE COUNTY RETAINS THE RIGHT TO USE POSTED SURFURY TO COMPLETE ANY RESTORATION WORK THAT HAS NOT BEEN COMPLETED IN THE 45 DAY PERIOD. ALTERNATIVE TEMPORARY TRENCH PROTECTION (STEEL PLATES OR OTHERS) MAY BE APPROVED BY THE CONSTRUCTION COORDINATION DIVISION.
 - FOR FINAL RESTORATION (INCLUDES THE PATCHED/SURFACE REPLACEMENT AREA OVER THE TRENCH), THE ROAD SHALL BE MILLED/RESURFACED PER NOTE 5 ABOVE FOR A FULL LANE WIDTH OF THE TRAVEL LANES ENCLOSED BY THE TRENCH AREA, INCLUDING A TRANSITION AREA OF 50 FT ON EACH SIDE MEASURED FROM TOP OF TRENCH.
 - APPROVED MAGNETIC TAPE IS REQUIRED FOR ALL MAIN PRESSURE PIPES AND CONDUIT IN THE COUNTY'S RIGHT-OF-WAY. INSTALL TAPE 24" BELOW FINISHED GRADE.
 - CONTINUOUS 4" WIDE PAINT STRIPING IS REQUIRED FOR DIP/PCCP WATER MAINS (BLUE), SANITARY MAINS (GREEN), DIP RECLAIMED WATER MAINS (PURPLE), GAS MAINS (YELLOW), OR AS REQUIRED BY THE APWA.

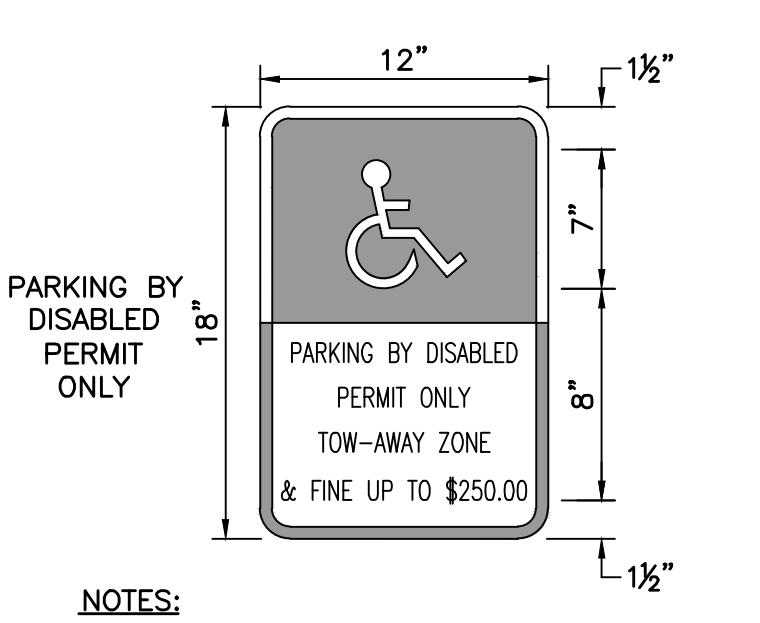
OPEN CUT DETAIL FOR THOROUGHFARE ROADS (PAVED AREAS)



A12-"E" C.S. (ON-SITE)
NOT TO SCALE

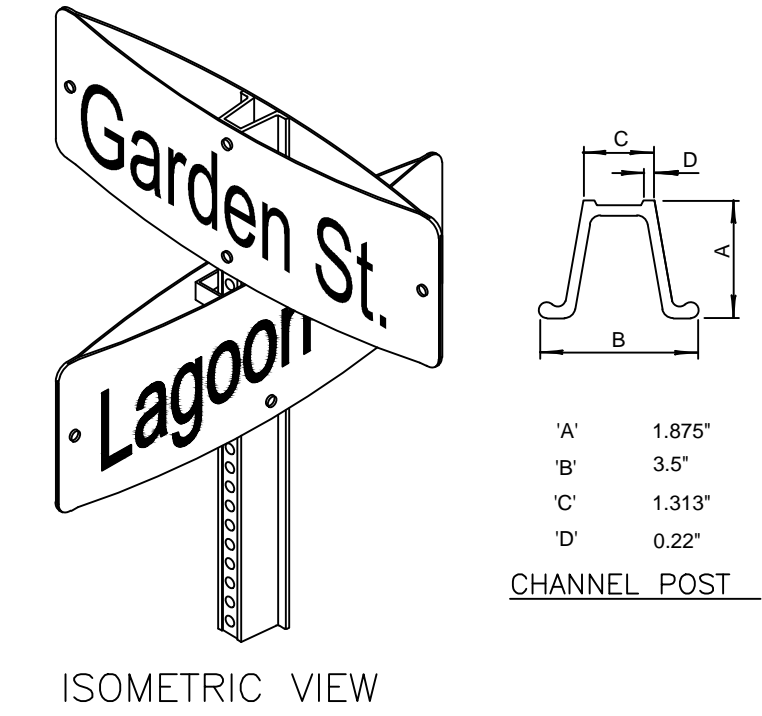


TYPICAL SIDEWALK DETAIL
NOT TO SCALE

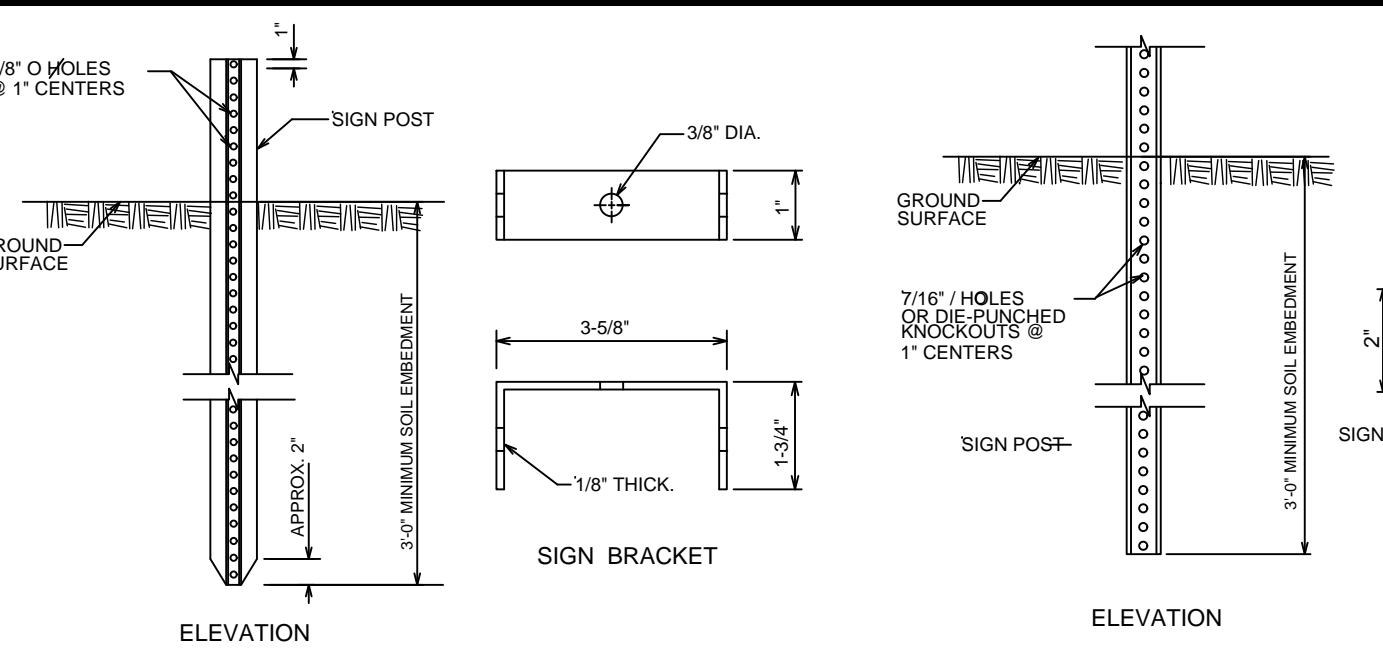


- NOTES:**
- ALL LETTERS ARE 1" SERIES 'C'.
 - TOP PORTION TO BE REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
 - BOTTOM PORTION TO BE REFLECTORIZED WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
- HANDI-CAP SIGN DETAIL**
NOT TO SCALE

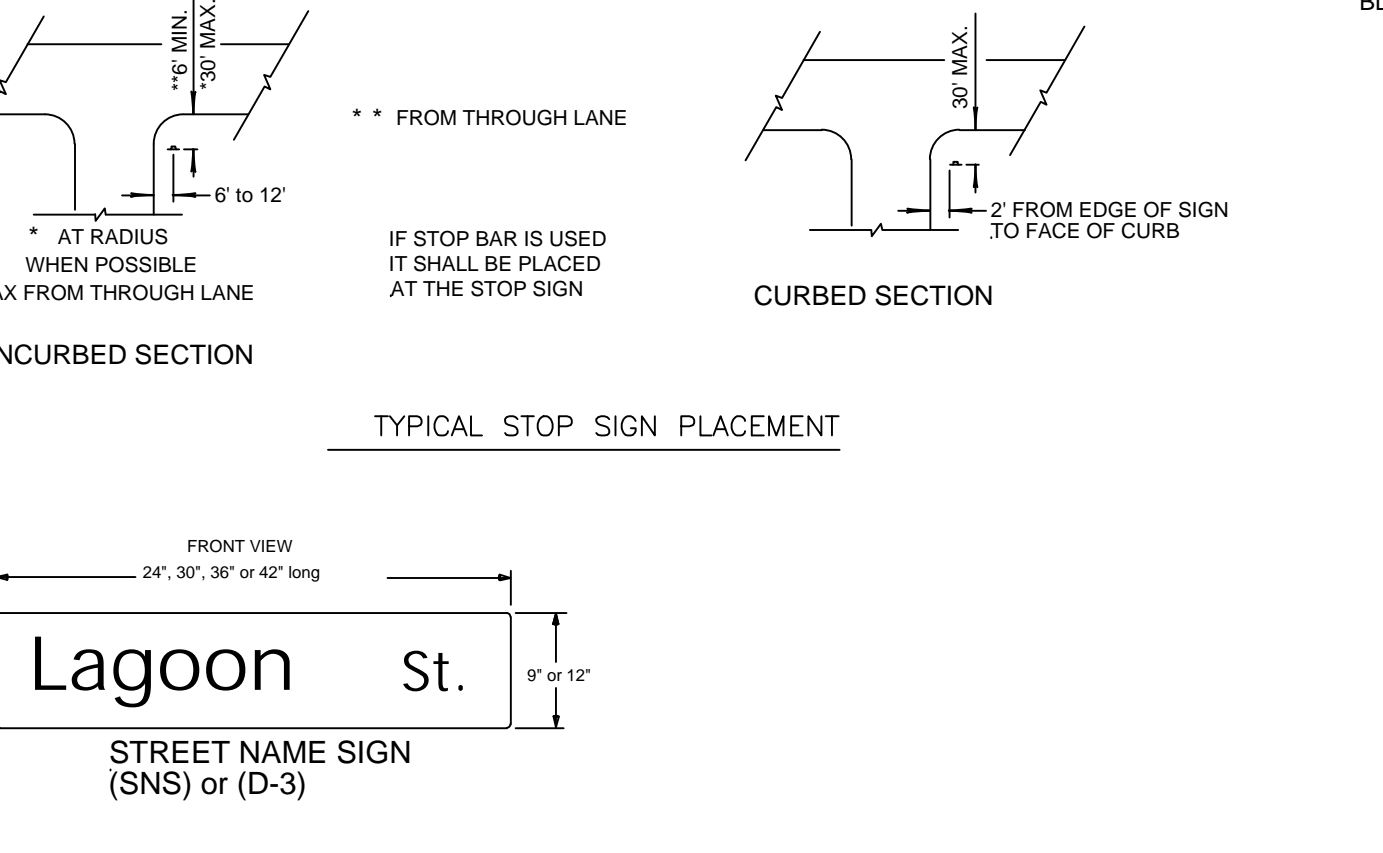
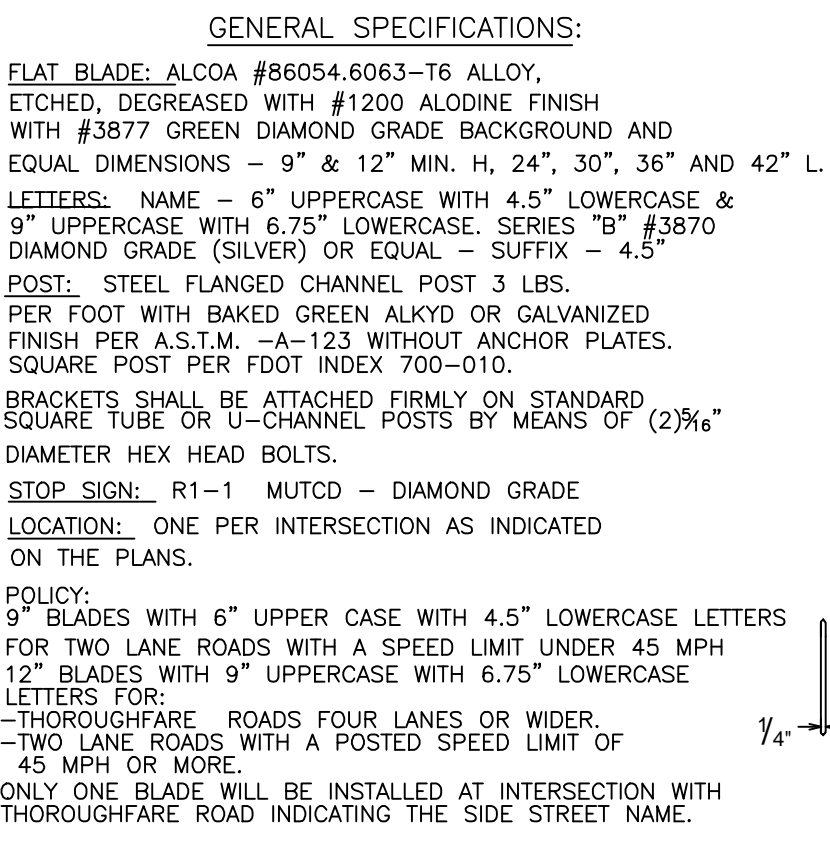
HANDI-CAP SIGN DETAIL
NOT TO SCALE



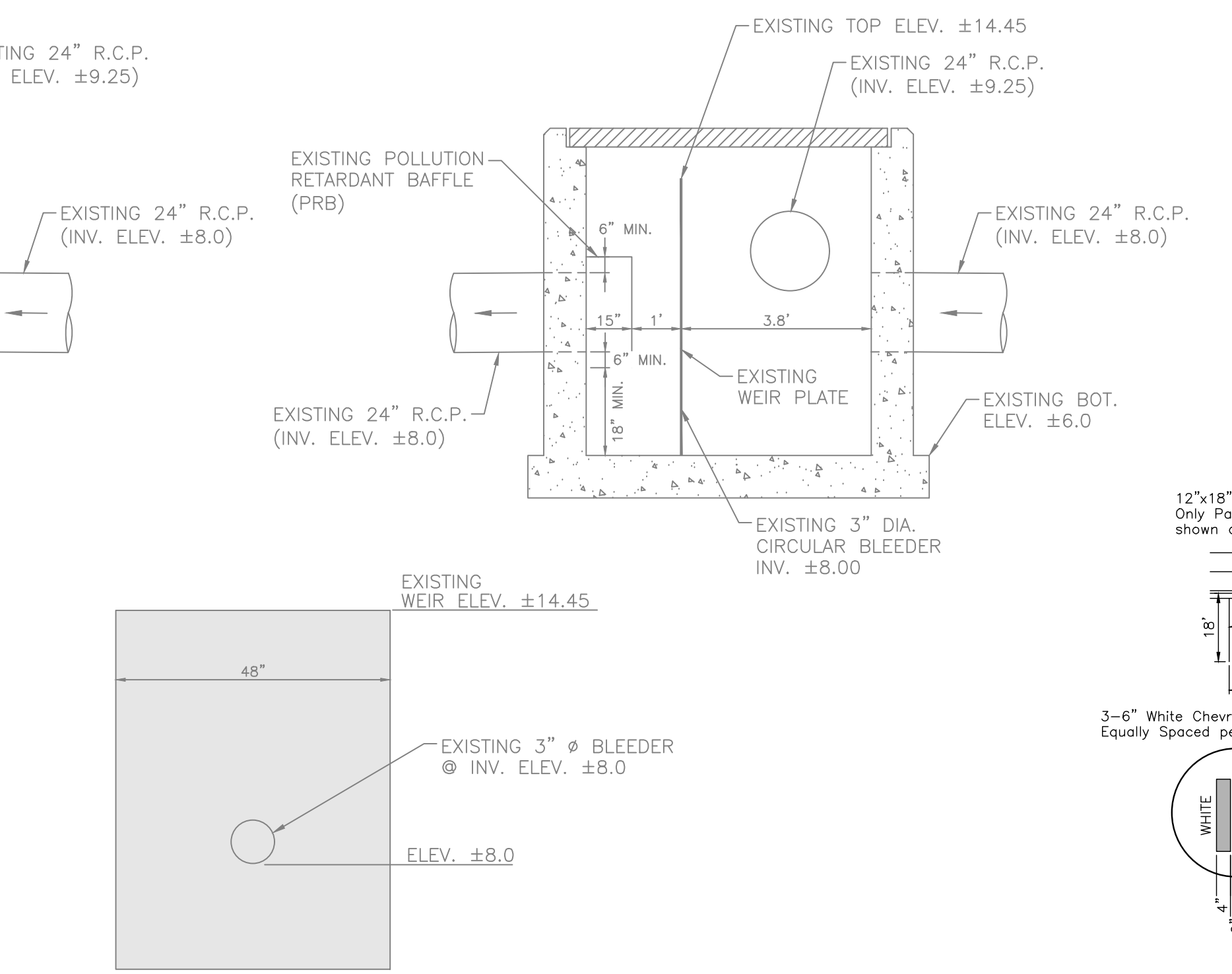
ISOMETRIC VIEW



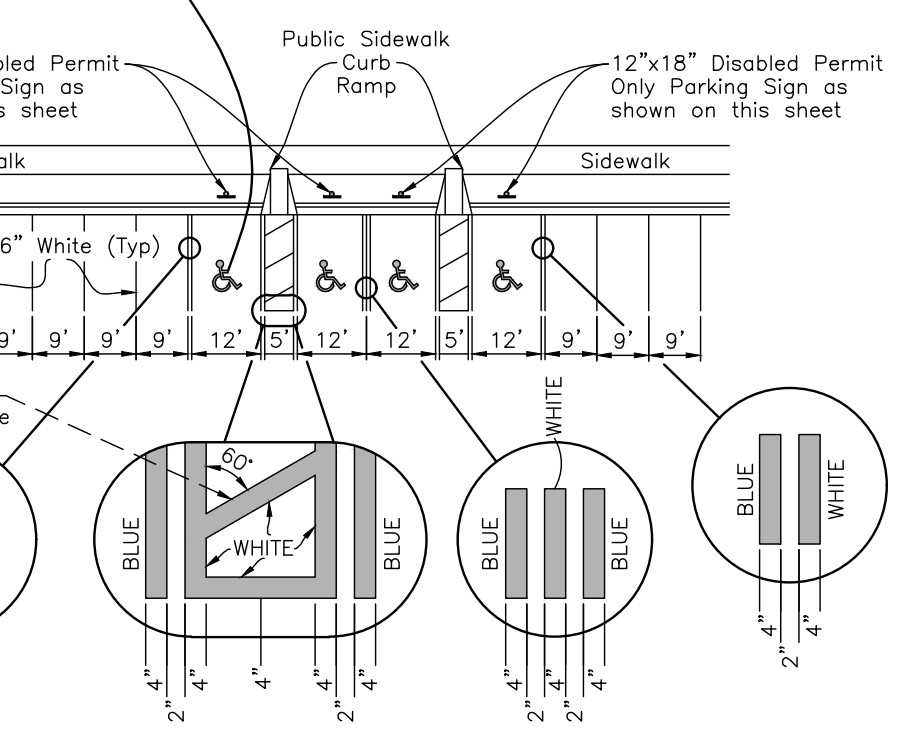
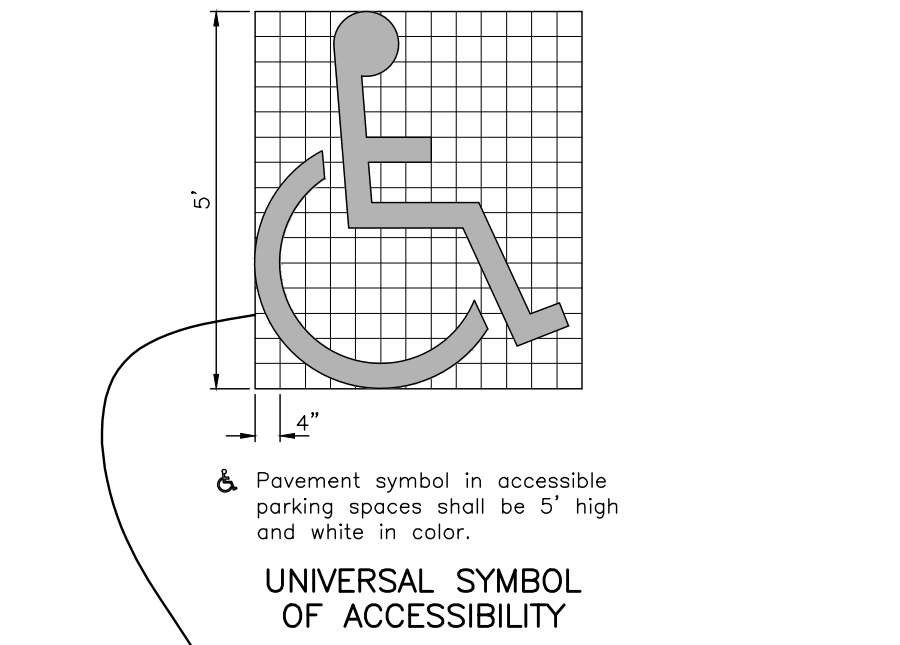
STEEL FLANGED CHANNEL POST DETAILS
STEEL SQUARE TUBE POST DETAILS



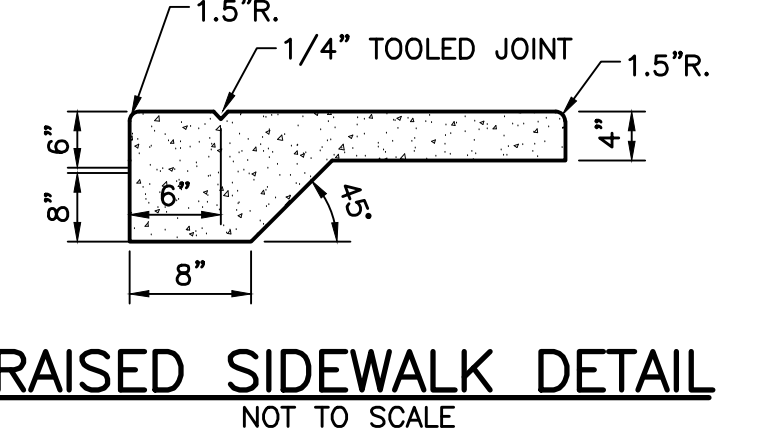
STREET NAME SIGN WITH STOP SIGN
NOT TO SCALE



EXISTING C.S. (ST-37)
(PREVIOUSLY PERMITTED UNDER S.F.W.M.D. E.R.P. APPLICATION NO. 200225-2883)
NOT TO SCALE



PAVEMENT MARKING FOR PUBLIC SIDEWALK CURB RAMPS
TYPICAL PARKING SPACES
NOT TO SCALE



RAISED SIDEWALK DETAIL
NOT TO SCALE

09/11/2023
ISSUED FOR CONSTRUCTION

- REVISED A12 DETAIL PER S.F.W.M.D. COMMENTS, 01/23/23 C.O.
- REVISED PER S.F.W.M.D. COMMENTS, 12/09/22 R.W.

SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982
2581 Metrocentre Blvd West • Suite 3 • West Palm Beach, Florida 33407 • (561) 478-7848

45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
PAVING AND DRAINAGE DETAILS

REVISIONS	DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE	JOB NO.	DRAWING NO.	SHEET	OF
						21-017	21017S05	5	15

GENERAL NOTES:

- NOTIFY ENGINEER OF IN-FIELD CONFLICTS OR DESIGN DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
- EXISTING WATER, SEWER AND DRAINAGE SYSTEMS ARE REPRESENTED AS DASHED LINES AND SHALL BE VERIFIED BY CONTRACTOR.
- CONTRACTOR SHALL PROTECT ALL UTILITIES AND PUBLIC IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED DURING CONSTRUCTION AND SHALL REPAIR SAID DAMAGES AT HIS EXPENSE. CONTRACTOR TO RESTORE ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL OR BETTER CONDITION.
- SUPPORT OR THE RELOCATION OF EXISTING STREET LIGHT POLES, POWER OR TELEPHONE POLES, EXISTING UTILITIES, IRRIGATION SYSTEMS, SIDEWALKS, WALLS, ETC. NECESSARY FOR COMPLETION OF THIS WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
- INFORMATION SHOWN ON THESE DRAWINGS AS TO THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE DATA AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT BE GUARANTEED, HOWEVER, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION, CHARACTER AND DEPTH OF ANY EXISTING UTILITIES. ALL "AS-BUILT" INFORMATION INCLUDING LOCATION AND ELEVATION OF UTILITY STUB-OUTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION OR ORDERING OF STRUCTURES. NOTIFY ENGINEER OF DISCREPANCIES/CONFLICTS.
- REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS CONCERNING SIDEWALKS, RAMPS, STRIPING AND SIGNAGE, LIGHTING AND ELECTRICAL CONDUIT, ETC.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS AND NOTIFY THE ENGINEER OF ANY DEVIATIONS PRIOR TO COMMENCING CONSTRUCTION.
- SIDEWALKS TO BE FLUSH WITH YARD AREAS UNLESS OTHERWISE NOTED.
- ALL DRAINAGE CONSTRUCTION SHALL CONFORM TO FLORIDA DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AND TOWN OF MANGONIA REQUIREMENTS.
- GRADE ALL PAVEMENT AREAS TO CATCH BASINS. CONTRACTOR TO NOTIFY ENGINEER IF IN-FIELD CONDITIONS CHANGE, ARCHITECTURAL DETAILS WILL CREATE CONFLICTS WITH DRAINAGE DESIGN SHOWN, POTENTIAL EROSION PROBLEMS ARISE OR STANDING WATER OCCURS.
- ALL ELEVATIONS SHOWN HEREON REFER TO N.A.V.D. 1988 TOPOGRAPHIC AND BOUNDARY SURVEY PROVIDED BY BROWN & PHILLIPS, INC. (561) 615-3988.
- ALL DRAINAGE PIPE SHOWN AS R.C.P. SHALL BE REINFORCED CONCRETE PIPE CLASS III, WALL "B" AND CONFORMING TO FLORIDA DEPT. OF TRANSPORTATION SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR THE REMOVAL OF STORM, SURFACE AND/OR SUBSURFACE WATER WHICH MAY ACCUMULATE IN THE EXCAVATION AREAS SO THAT IT WILL BE SUITABLY DRY FOR WORK REQUIRED.
- NO OFF-SITE DISCHARGE FROM DEWATERING OPERATIONS SHALL BE PERMITTED UNLESS THE CONTRACTOR SECURES WRITTEN PERMISSION FROM THE GOVERNING AUTHORITIES.
- ALL SUB-BASE UNDER ROADWAYS, PARKING LOTS, CURBS, ETC. SHALL BE COMPACTED TO NOT LESS THAN 98% OF MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180 PROCTOR.
- WHERE ENCOUNTERED (OR SPECIFIED IN THE GEOTECHNICAL REPORT), MUCK/UNSUITABLE MATERIALS SHALL BE COMPLETELY REMOVED FROM PROPOSED PAVING AND BUILDING AREAS 10 FEET BEYOND THE EDGE OF PAVEMENT/BUILDING PAD EACH SIDE.
- CONTRACTOR TO PROVIDE TEST REPORTS FROM AN INDEPENDENT LABORATORY FOR PROCTORS AND DENSITIES ON BASE, SUBGRADE AND PIPE BACKFILL.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE PAVING AND DRAINAGE, WATER AND SEWER CONSTRUCTION RECORD INFORMATION TO THE ENGINEER.
- CONTRACTOR SHALL ARRANGE FOR THE ENGINEER TO OBSERVE:
 - STORM SEWER AFTER GROUTING AND WHEN BACKFILL IS COMPLETED TO THE MIDPOINT OF THE PIPE.
 - STRINGLINING OF SUBGRADE.
 - STRINGLINING/BOARDING OF BASE.
- THE CONTRACTOR SHALL FILL AND FINE GRADE ALL PLANTING AREAS, LEAVING THE FINISHED GRADE SMOOTH AND READY TO RECEIVE SOD OR OTHER PLANTING MATERIAL. WHERE SOD IS DESIRED, THE FINISHED GRADES SHALL BE TWO (2) INCHES LOWER TO ALLOW FOR THICKNESS OF THE GRASS. SPECIAL ATTENTION SHALL BE GIVEN ALONG EDGE OF PAVEMENT AND SIDEWALKS SO AS NOT TO TRAP WATER.
- ANY SHELLROCK OR LIMEROCK PAVING BASE INSTALLED WITHIN PLANTING AREAS SHALL BE REMOVED IN ITS ENTIRETY PRIOR TO PLACING PLANTER AREA FILL.
- ALL SWALE, RIGHT OF WAY AREAS AND YARD AREAS SHALL BE GRADED AND SEEDED OR SODDED IN ACCORDANCE WITH GOVERNING AGENCY STANDARDS. NO AREAS SHALL BE LEFT BARREN OR SUBJECT TO EROSION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO ALL O.S.H.A. RULES AND FLORIDA LAWS RELATED TO TRENCH SAFETY.
- CONTRACTOR SHALL ENSURE NO SEDIMENT OR DEBRIS LEAVES THE SITE DURING CONSTRUCTION IN ACCORDANCE WITH N.P.D.E.S. REQUIREMENTS (SILT FENCE, HAY BALES OR SOD APRONS AT INLETS, WASH ROCK EXIT, ETC. MAY BE REQUIRED TO MEET SAID REQUIREMENTS). CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION, IMPLEMENTATION AND CERTIFICATION OF ALL N.P.D.E.S. POLLUTION PREVENTION RELATED MEASURES (I.E. FILING OF AN N.O.I. POLLUTION PREVENTION PLAN MONITORING REPORTS, ETC.)
- CONTRACTOR SHALL REFER TO LANDSCAPE PLANS FOR PLANTING AND BERMING REQUIREMENTS AND NOTIFY ENGINEER OF ANY CONFLICTS WITH THIS PLAN.
- CONTRACTOR SHALL CONTACT PALM BEACH COUNTY TRAFFIC OPERATIONS AT (561) 233-3900) 48 HOURS PRIOR TO CONSTRUCTION, IF ANY WORK IS BEING DONE WITHIN 10 FEET OF A SIGNALIZED INTERSECTION.
- ANY DAMAGE TO PBC-TRAFFIC I.T.S. FACILITIES CAUSED BY CONSTRUCTION OF THIS PROJECT MUST BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION BY THE PERMITEE AT NO COST TO PALM BEACH COUNTY.
- PALM BEACH COUNTY (PBC) RESERVES THE RIGHT TO DETERMINE IF DAMAGED PBC FACILITIES WILL BE REPAIRED OR REPLACED.

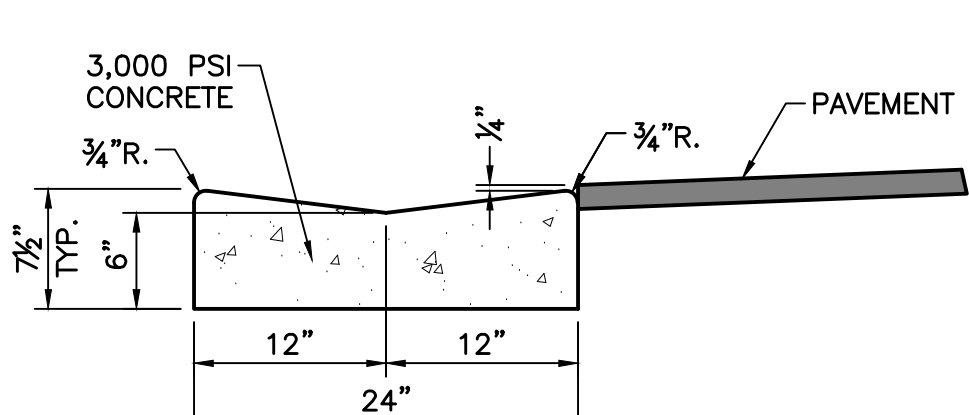
DENSITY TESTING REQUIREMENTS:

- PIPE TRENCHES SHALL BE TESTED AT RANDOMLY SELECTED LOCATIONS ALONG THE LENGTH OF EACH PIPE RUN WITHIN EACH 300' INTERVAL (MAXIMUM) AND BETWEEN EACH SET OF TWO STRUCTURES IF A PIPE RUN SEPARATING THE TWO IS LESS THAN 300' IN LENGTH.
- ALL PIPE AND STRUCTURE TRENCHES SHALL BE BACKFILLED USING A MAX. OF 12" LIFTS. ALL BACKFILL MATERIAL SHALL BE CLEAN, DRY STRUCTURAL FILL, WITH NO DELETERIOUS OR ORGANIC MATERIAL PRESENT.
- AT LEAST ONE TEST SHALL BE PERFORMED FOR EVERY 12" OF DEPTH, STARTING AT THE SPRINGLINE OF THE PIPE, COVERING THE 12" LAYER BELOW THE SPRINGLINE OF THE PIPE.
- TESTS SHALL BE PERFORMED AT EVERY STRUCTURE BEGINNING AT THE BASE OF THE STRUCTURE (COVERING THE 12" BELOW THE BASE OF THE STRUCTURE) WITH ONE TEST FOR EVERY 12" LIFT. TESTS SHALL ALTERNATE FROM CORNER TO CORNER OR FROM SIDE TO SIDE AROUND THE STRUCTURE WITH EACH 12" LIFT.
- ALL DENSITY TESTS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF FLORIDA.

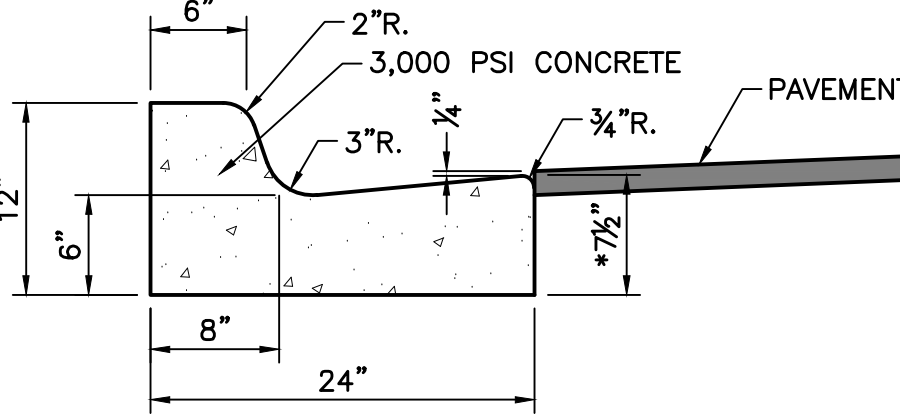
NOTE: ALL TESTS AND LOCATIONS ARE SUBJECT TO REVIEW BY REPRESENTATIVES OF OUR OFFICE AND ADDITIONAL TESTS MAY BE REQUIRED BASED ON FIELD OBSERVATIONS OF CONSTRUCTION TECHNIQUES OR MATERIALS USED ON SITE.

PALM BEACH COUNTY LAND DEVELOPMENT NOTES:

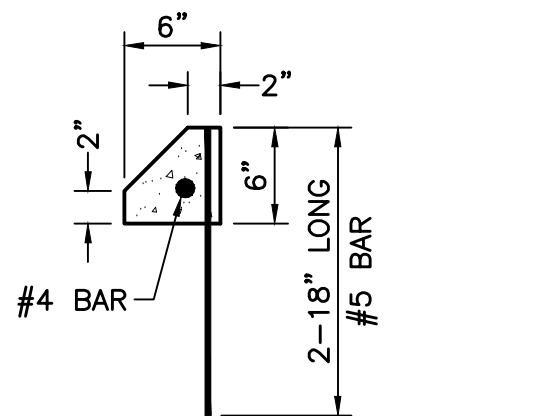
- CONTRACTOR SHALL CONTACT PALM BEACH COUNTY TRAFFIC OPERATIONS AT (561) 233-3900) 48 HOURS PRIOR TO CONSTRUCTION, IF ANY WORK IS BEING DONE WITHIN 10 FEET OF A SIGNALIZED INTERSECTION.
- ANY DAMAGE TO PBC-TRAFFIC I.T.S. FACILITIES CAUSED BY CONSTRUCTION OF THIS PROJECT MUST BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION BY THE PERMITEE AT NO COST TO PALM BEACH COUNTY.
- PALM BEACH COUNTY (PBC) RESERVES THE RIGHT TO DETERMINE IF DAMAGED PBC FACILITIES WILL BE REPAIRED OR REPLACED.
- CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE ALL EXISTING UTILITY LOCATES, SUPPORT, RELOCATIONS AND NOTIFICATIONS REQUIRED WITH ALL APPLICABLE UTILITY SERVICE PROVIDERS.
- ALL AFFECTED ROADWAYS ARE TO BE RESTORED FROM EOP TO EOP, LANE WIDTH MIN, AND 50' IN EITHER DIRECTION (THOROUGHFARE) AND 25' MIN. RESTORATION (NON-THOROUGHFARE).
- IF ANY ADDITIONAL LANES ARE AFFECTED FOR ANY REASON DURING CONSTRUCTION, PB COUNTY R&B WILL REQUIRE THE ADDITIONAL LANES BE RESTORED TO LIKE OR BETTER LIKE CONDITION AND TO EQUAL DIMENSIONS AS THE ADJACENT LANES.
- IF PB COUNTY SIDEWALK/PATHWAY/C&G/AND OR ADA FACILITIES ARE AFFECTED, PB COUNTY R&B WILL REQUIRE RESTORATION OF MINIMUM OF 10' AND TO BE LIKE OR BETTER THEN LIKE CONDITION PER FDOT/PB COUNTY STANDARDS.
- SIDEWALK WILL BE RESTORED BY REPLACING TWO FLAGS IF THE POINT OF CONSTRUCTION IS LOCATED BETWEEN CONTROL JOINTS. NO PARTIAL JOINTS ACCEPTED (PER SITUATION).
- ALL EXISTING STRIPING WITHIN AFFECTED AREA SHALL BE REMOVED WITH SILICA BLASTING OR APPROVED EQUAL & RE-STRIPED AS SHOWN. P.B.C. RESERVES THE RIGHT TO REJECT RE-STRIPING MODIFICATIONS IF FINISHED PRODUCT IS NOT SATISFACTORY.
- ALL ROADSIDE SWALE SLOPES AFFECTED BY SIDEWALK AND DRIVEWAY IMPROVEMENTS SHALL BE RE-GRADED AND STABILIZED TO MATCH EXISTING CONDITIONS.
- ALL CONSTRUCTION AND RESTORATION WORK WITHIN PALM BEACH COUNTY RIGHT-OF-WAY SHALL COMPLY WITH THE LATEST EDITION OF THE F.D.O.T. DESIGN STANDARDS AND THE F.D.O.T. STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
- IF EXISTING PALM BEACH COUNTY STORM DRAINAGE PIPES/STRUCTURE ARE AFFECTED IN ANYWAY DURING CONSTRUCTION, PALM BEACH COUNTY R&B WILL REQUIRE FULL RESTORATION OF AFFECTED SYSTEM TO EXISTING OR BETTER.
- MILL AND PAVE TRANSITION AREA IN PALM BEACH COUNTY RIGHT-OF-WAY, BYRON DRIVE AND W. INDUSTRIAL WAY WILL BE REQUIRED TO INCLUDE THE INTERSECTION IN ITS ENTIRETY, (25' IN ALL DIRECTIONS).
- FLOWABLE FILL IS NOT AN APPROVED WEAR COURSE IN PALM BEACH COUNTY. PALM BEACH COUNTY THOROUGHFARE ROAD RESTORATION DETAIL / LANE WIDTH NEEDS TO REFLECT A MINIMUM 50' OUTSIDE THE P.C. IN ALL DIRECTIONS.



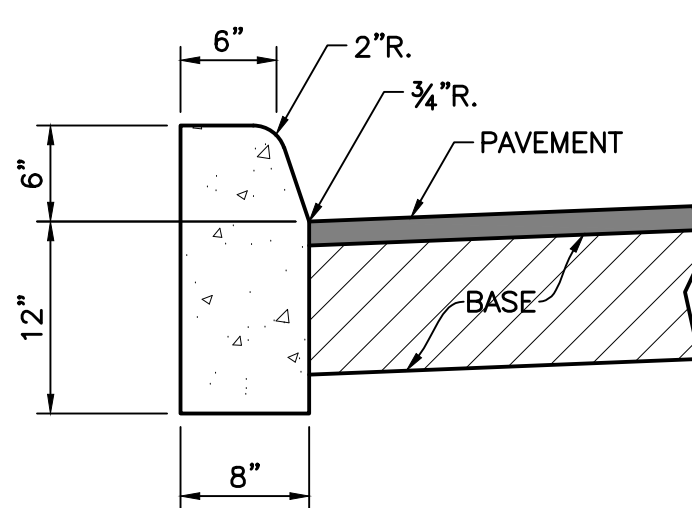
2' VALLEY GUTTER-SYMMETRICAL
NOT TO SCALE



TYPE "F" CURB
NOT TO SCALE



CONCRETE WHEEL STOP
NOT TO SCALE



TYPE "D" CURB
NOT TO SCALE

PAVEMENT SPECIFICATIONS:

ON-SITE STANDARD DUTY ASPHALT PAVEMENT:

SURFACE - 1 1/2" A.C.S.C. TYPE S-3 (TWO 3/4" LIFTS)

BASE - 8" BASEROCK, COMPACT TO 98% PER A.A.S.H.T.O. T-180 (LBR 100 MIN.)

SUBGRADE - 12" COMPACTED SUBGRADE, COMPACT TO 98% PER A.A.S.H.T.O. T-180

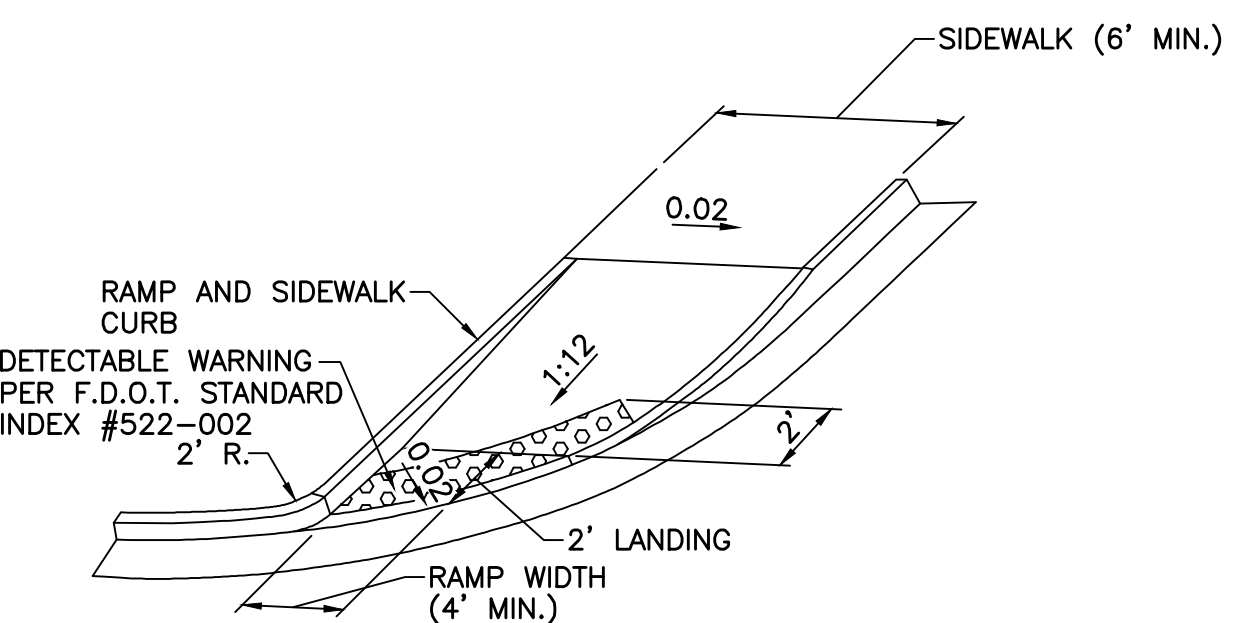
PALM BEACH COUNTY R/W ASPHALT PAVEMENT:

SURFACE - 1" FRICTION COURSE FC-9.5 OVER 1 1/2" TYPE SP STRUCTURAL COURSE (TRAFFIC LEVEL C) W/ TACK COAT

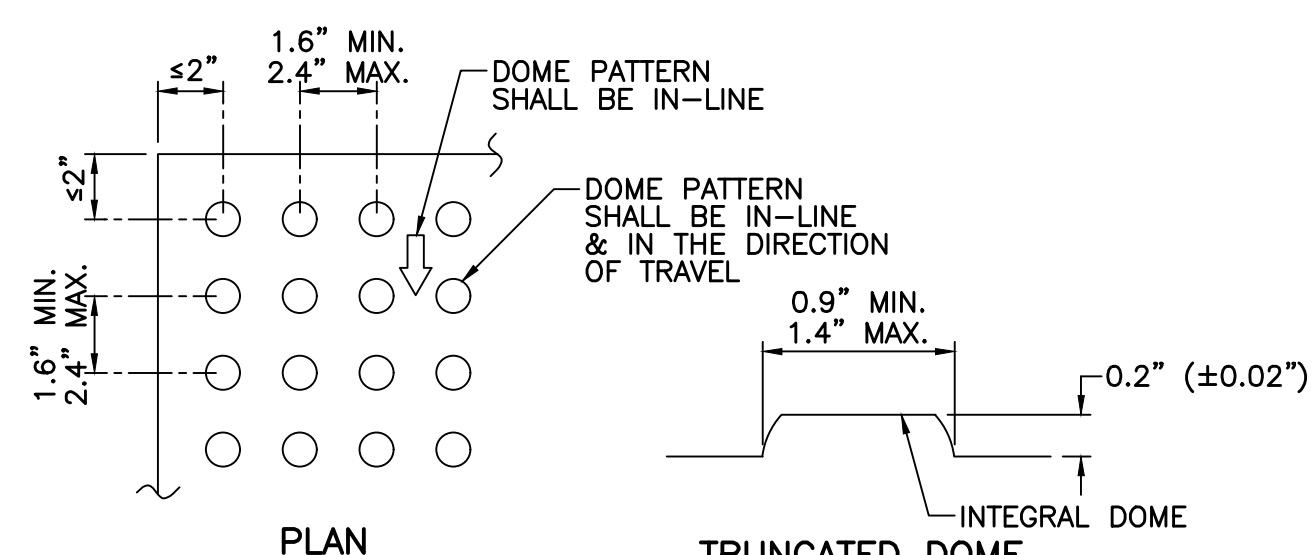
BASE - OPTIONAL BASE GROUP 13 W/ PRIME COAT, COMPACT TO 98% PER A.A.S.H.T.O. T-180

SUBBASE - 12" COMPACTED SUBGRADE, COMPACT TO 98% PER A.A.S.H.T.O. T-180

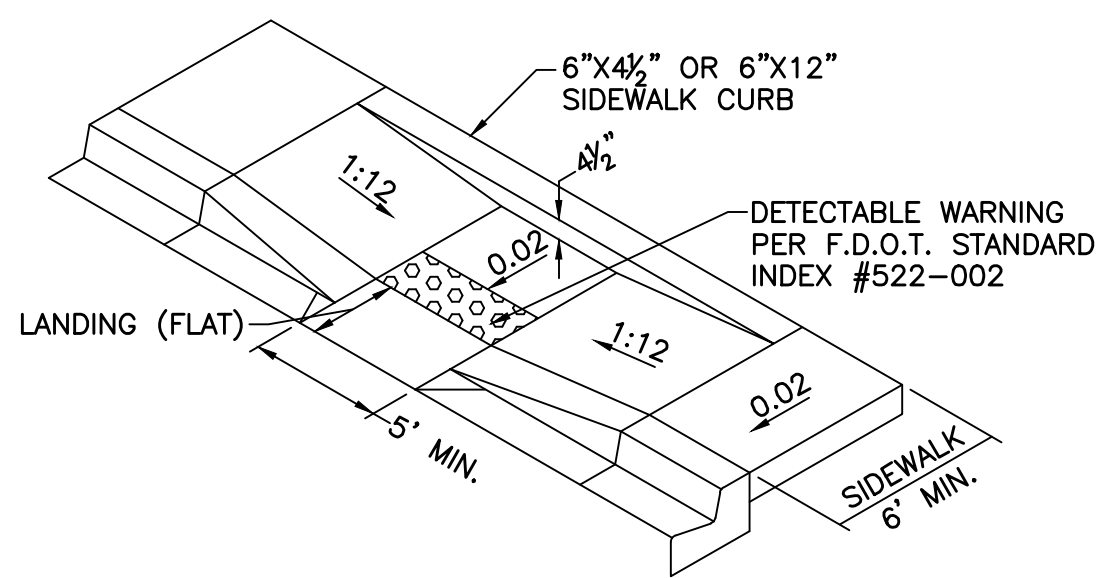
MILL & RESURFACE 1" FRICTION COURSE FC-9.5



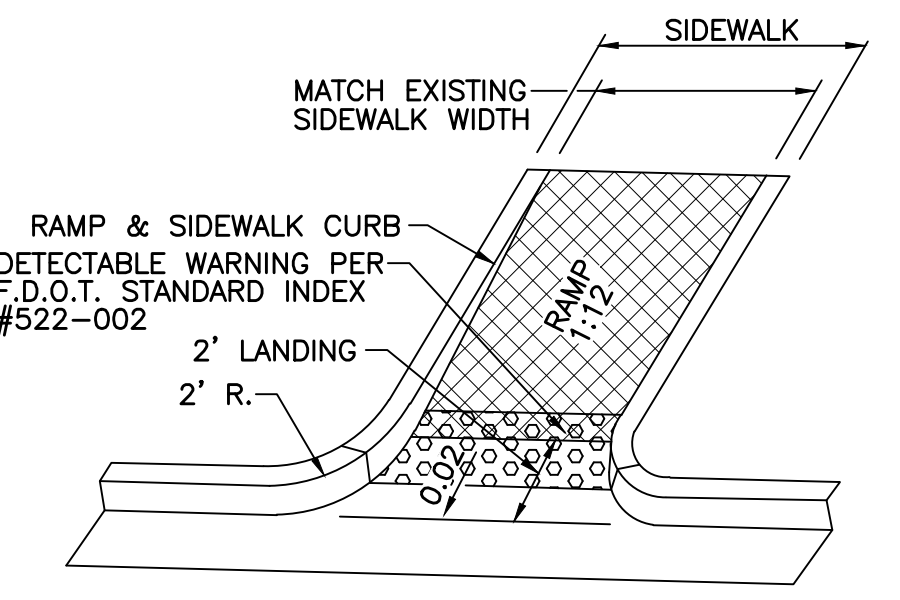
HANDICAP RAMP DETAIL (CR-G)
NOT TO SCALE



CURB RAMP DETECTABLE WARNING DETAIL
NOT TO SCALE



HANDICAP RAMP DETAIL (CR-C)
NOT TO SCALE

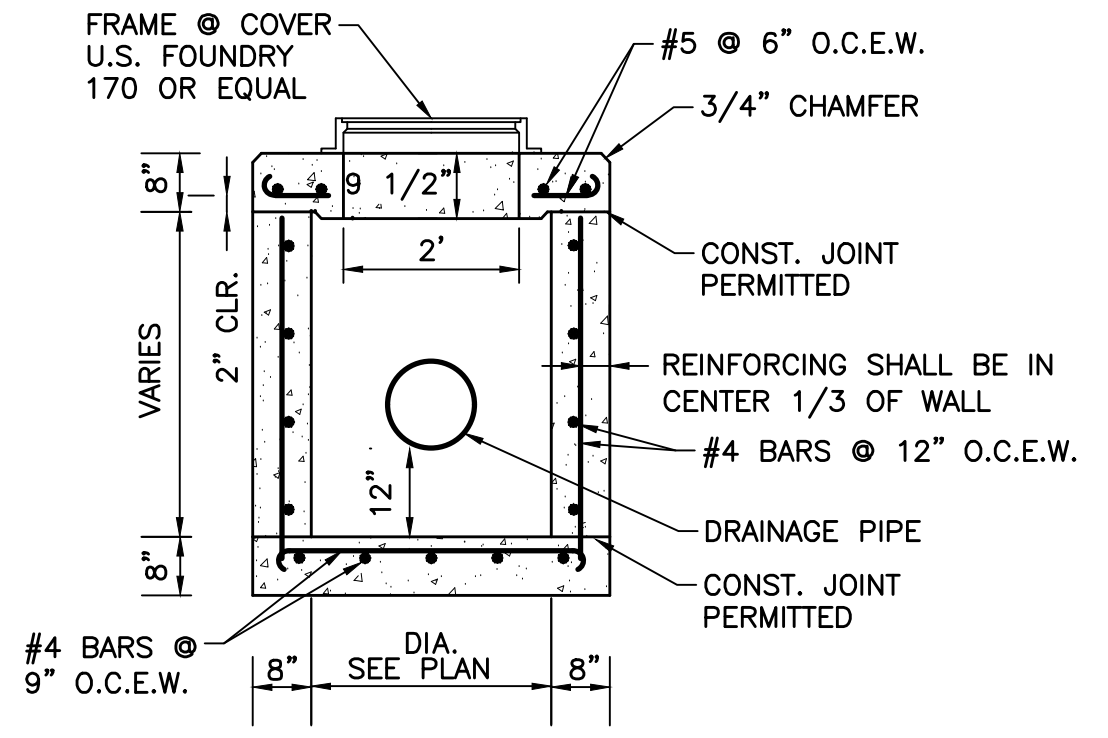


HANDICAP RAMP DETAIL (CR-E)
NOT TO SCALE

NOTES:

- THESE ARE THE MINIMUM GENERAL REQUIREMENTS FOR PEDESTRIAN RAMPS. SEE F.D.O.T. INDEX 522-002 FOR ADDITIONAL SIDEWALK CURB RAMP DETAILS.
- DETECTABLE WARNING SURFACE REQUIRED ON ALL H/C RAMP DETAILS. DETECTABLE WARNING SHALL BE CONTRASTING IN COLOR WITH TRUNCATED DOMES AND SHALL COMPLY WITH F.D.O.T. SPECS.
- THIS DETAIL MAY NOT ADDRESS ALL IN-FIELD CONDITIONS AND SCENARIOS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF CONFLICTS AND TO INSURE THAT ALL CONSTRUCTION IS A.D.A. COMPLIANT AND IN CONFORMANCE WITH F.B.C. AND LOCAL GOVERNING AGENCY REQUIREMENTS.

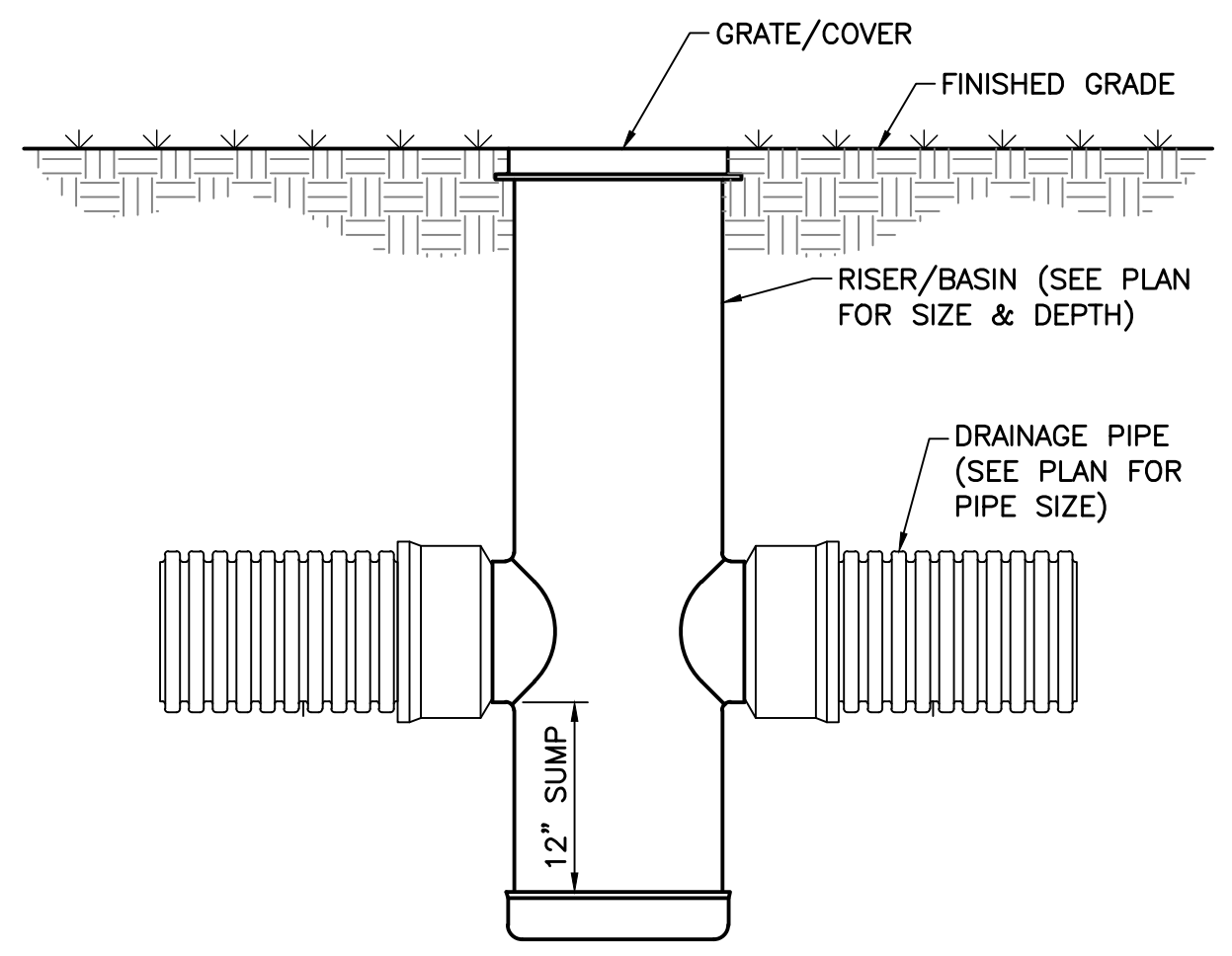
TYPICAL HANDICAP RAMP DETAILS
NOT TO SCALE



STANDARD MANHOLE
NOT TO SCALE

INLET AND MANHOLE NOTES

- ALL EXPOSED CORNERS AND EDGES SHALL BE CHAMFERED 3/4".
- INLETS AND MANHOLES SHALL BE PRECAST CLASS "A" 3000 P.S.I. CONCRETE.
- FRAMES AND GRATES SHALL BE CAST IRON AND IN ACCORDANCE WITH F.D.O.T. SPECIFICATIONS.
- REINFORCING STEEL SHALL CONFORM TO A.S.T.M. 615 GRADE 40.
- INLET GRATES SHALL BE U.S. FOUNDRY DWG. OR EQUAL. (USF 4155-6210 TYPE "C", USF 6290 TYPE "E") TYPE "E" GRATE CAST IN TWO SECTIONS.
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER.



YARD DRAIN DETAIL
NOT TO SCALE

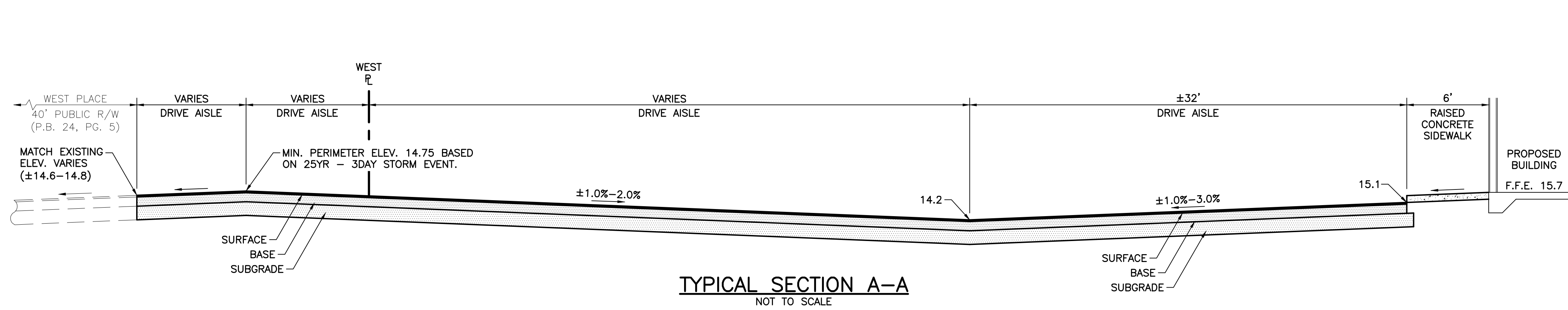
09/11/2023
ISSUED FOR CONSTRUCTION

1.) REVISED PER P.B.C. LAND DEVELOPMENT COMMENTS, 12/09/22 R.W.

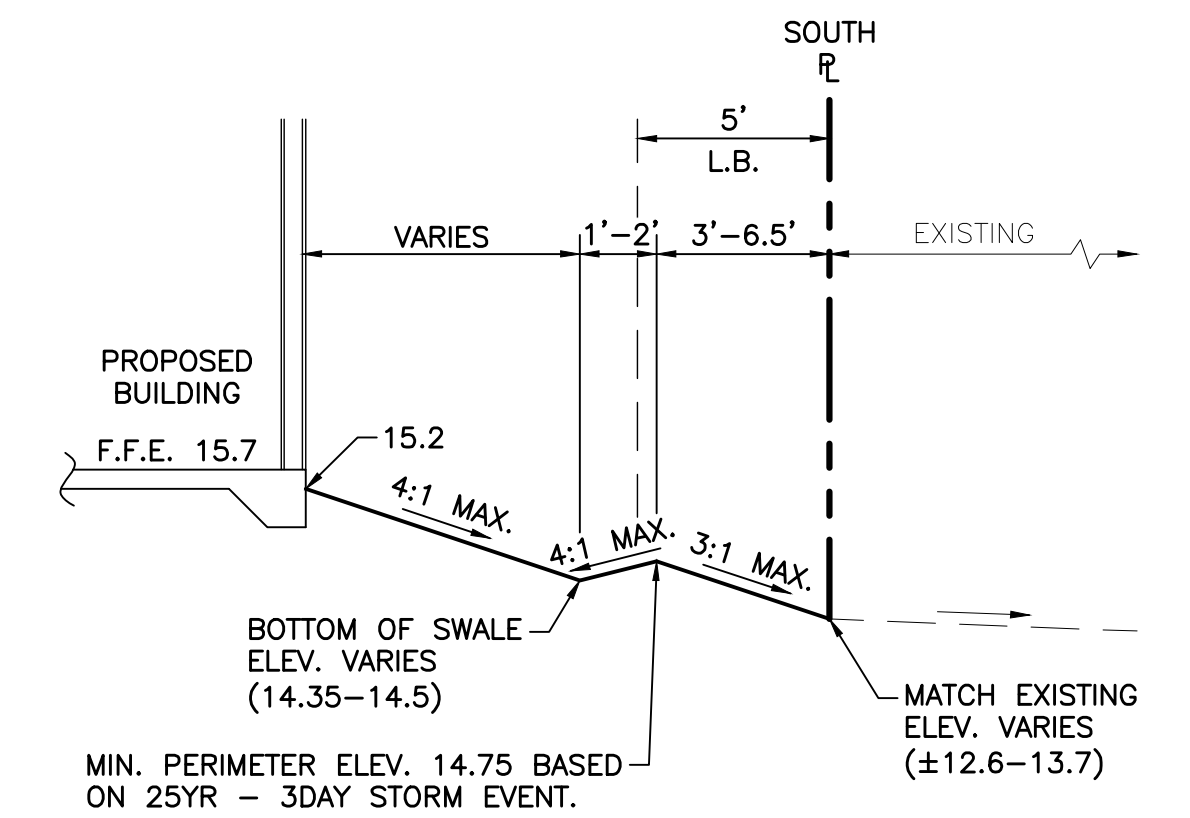


45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
PAVING AND DRAINAGE DETAILS

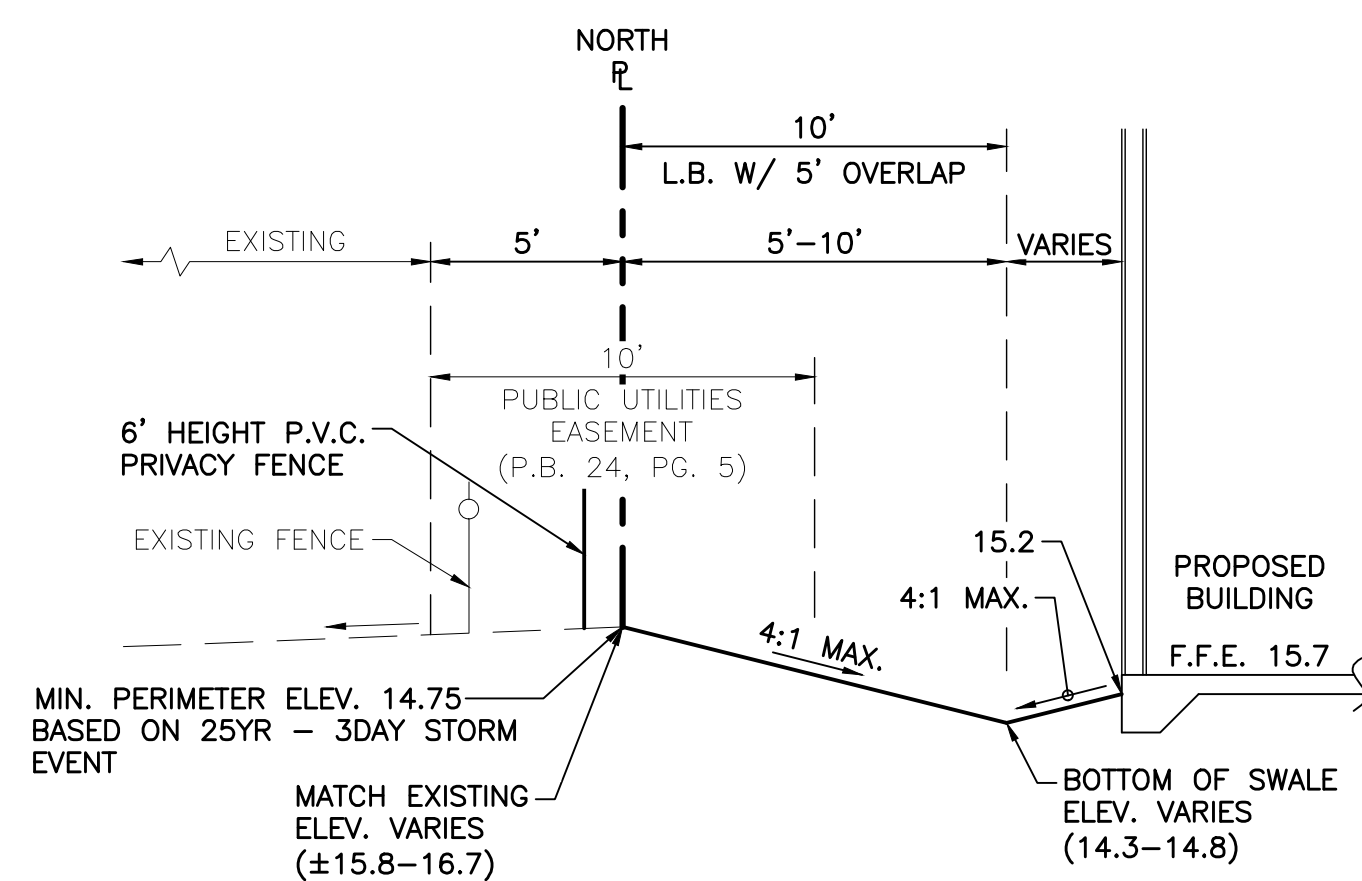
DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE	JOB NO. 21-017	DRAWING NO. 21017S06	SHEET 6 OF 15
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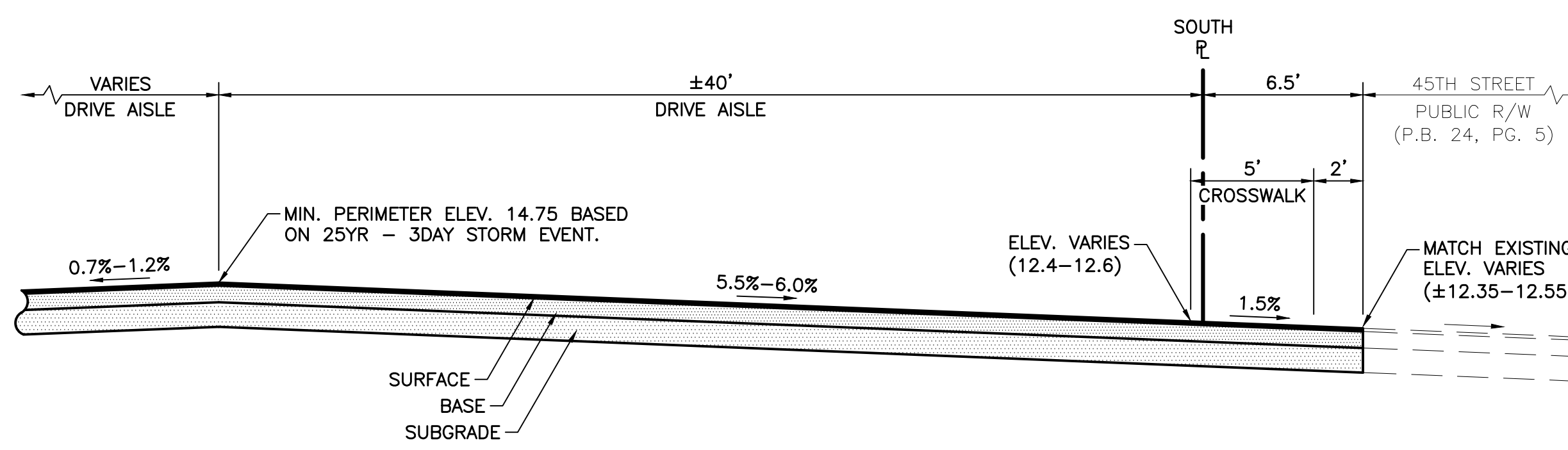
TYPICAL SECTION A-A
NOT TO SCALE



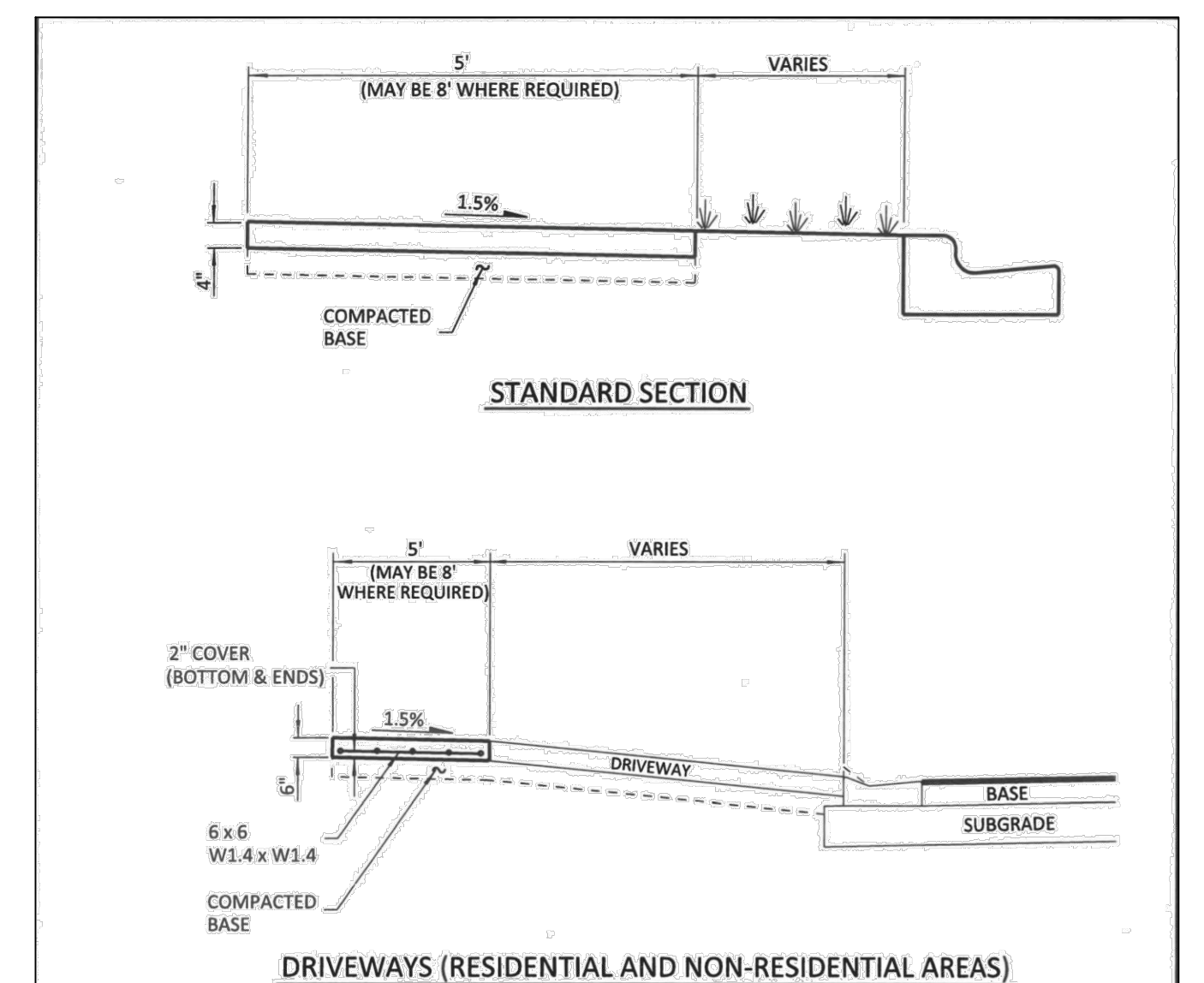
TYPICAL SECTION B-B
NOT TO SCALE



TYPICAL SECTION C-C
NOT TO SCALE



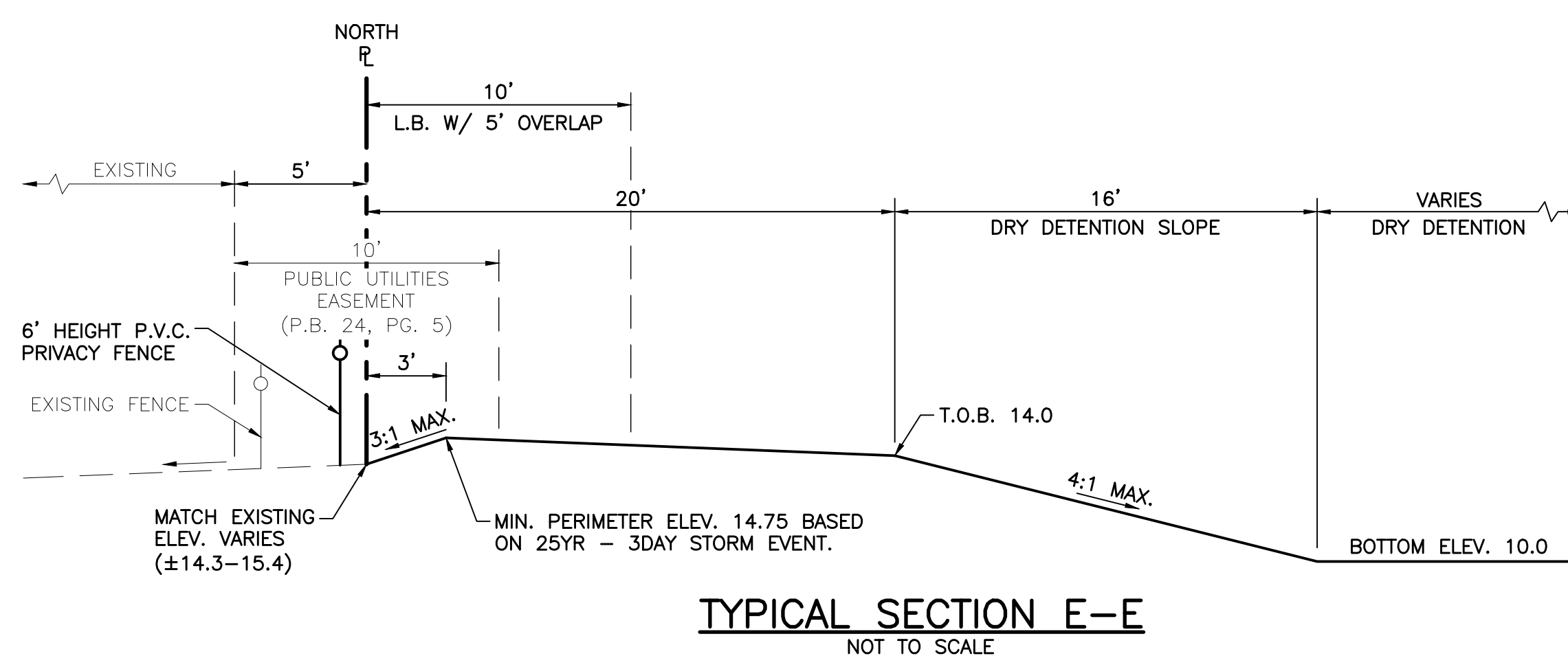
TYPICAL SECTION D-D
NOT TO SCALE



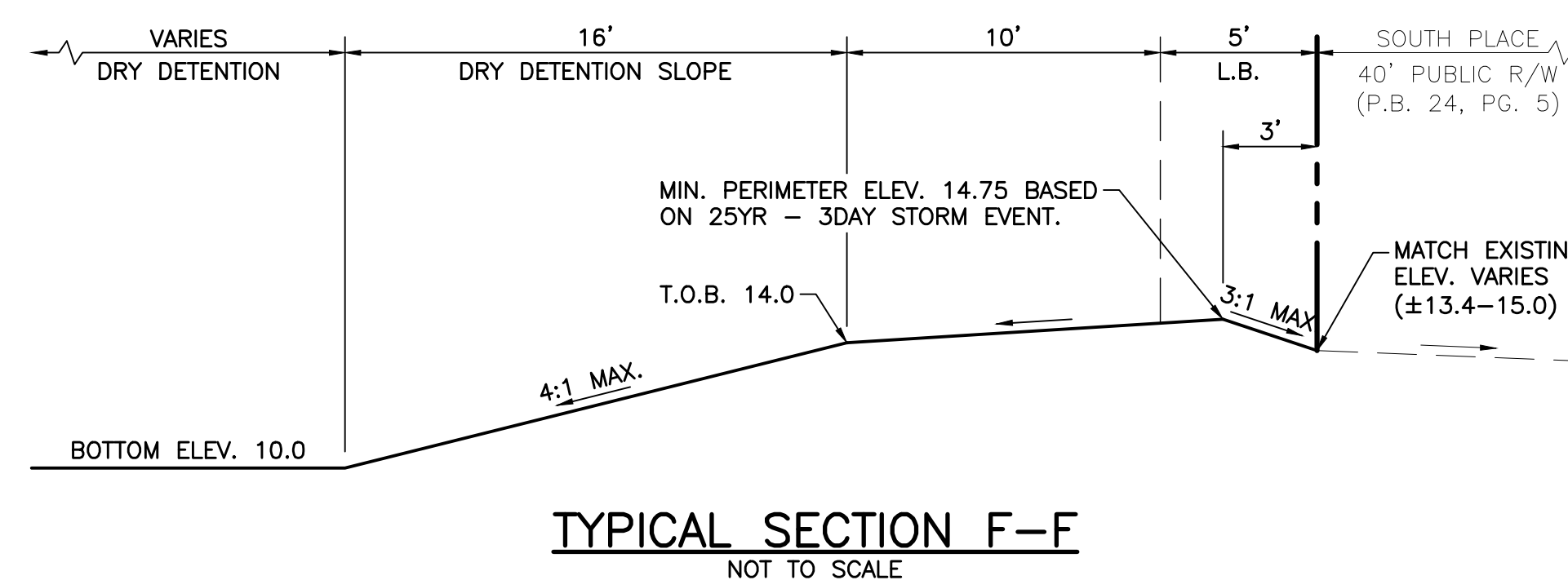
- NOTES:
1. SIDEWALKS TO BE PORTLAND CEMENT CONCRETE, MIN. 2500 P.S.I. @ 28 DAYS.
 2. BASE TO BE A MINIMUM 4 INCHES OF CLEAN SAND OR SANDY LOAM, FULLY COMPACTED, FULL WIDTH.
 3. SIDEWALKS TO BE BROOM FINISHED WITH EVEN, DUSTLESS SURFACE.
 4. MAXIMUM LONGITUDINAL SLOPE IS 1.0%.
 5. SIDEWALK THICKNESS TO BE 6 INCHES MINIMUM IN ALL AREAS SUBJECT TO VEHICULAR TRAFFIC.

FILEPATH: P:\DGN\ENG SER\LAND DEVELOPMENT STANDARDS\DWG\FORMAT\400.1A

PALM BEACH COUNTY DEPARTMENT OF ENGINEERING & PUBLIC WORKS		PATHWAY: CONCRETE SIDEWALK		DRAWING NO. 400.1
DRAWN BY: K.L.	DATE: 05/23/90	REVISED BY: J.M.K.	DATE: 02/03/2018	APPROVED: [Signature] EFFECTIVE: 2/9/18



TYPICAL SECTION E-E
NOT TO SCALE



TYPICAL SECTION F-F
NOT TO SCALE

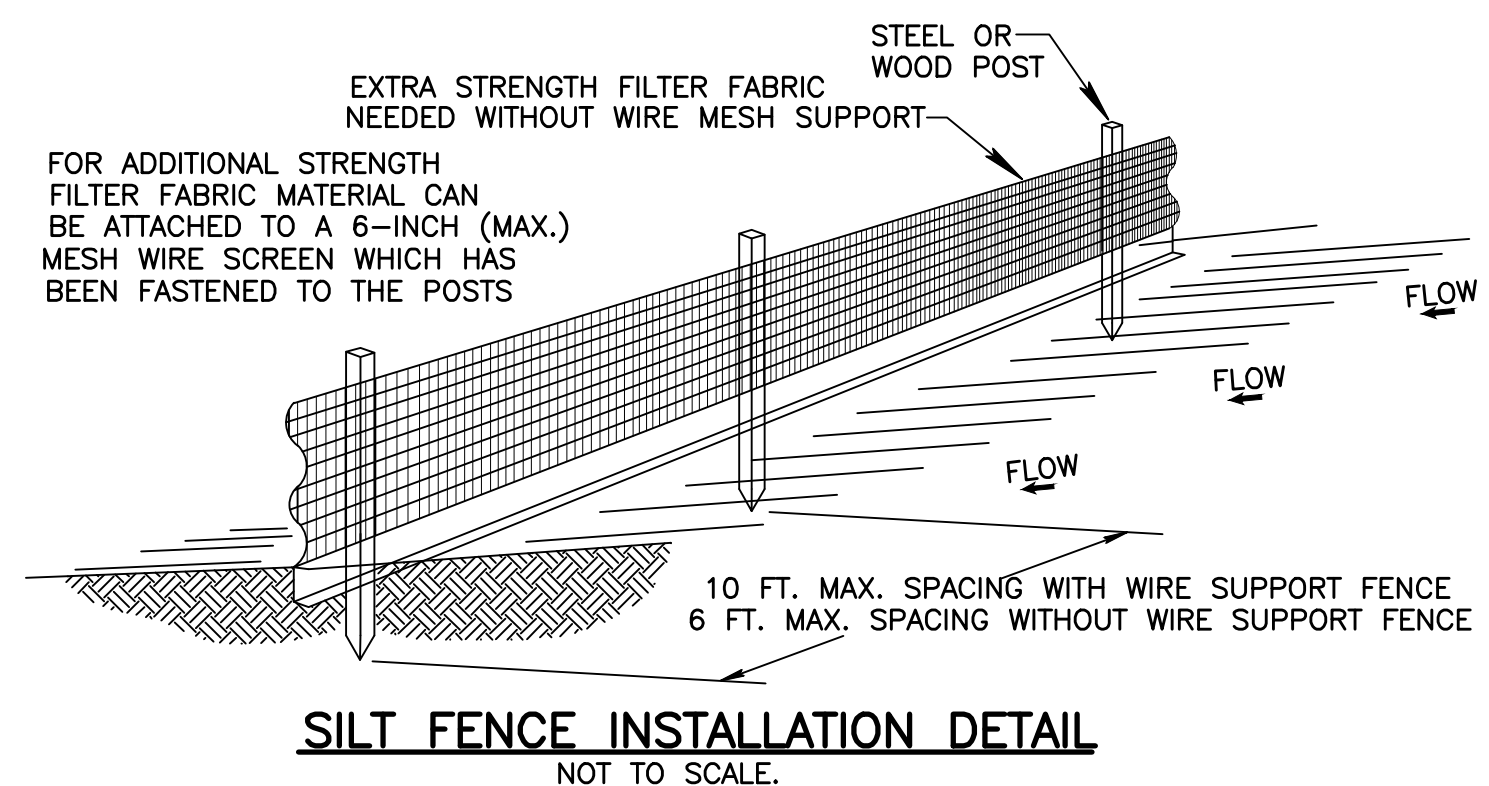
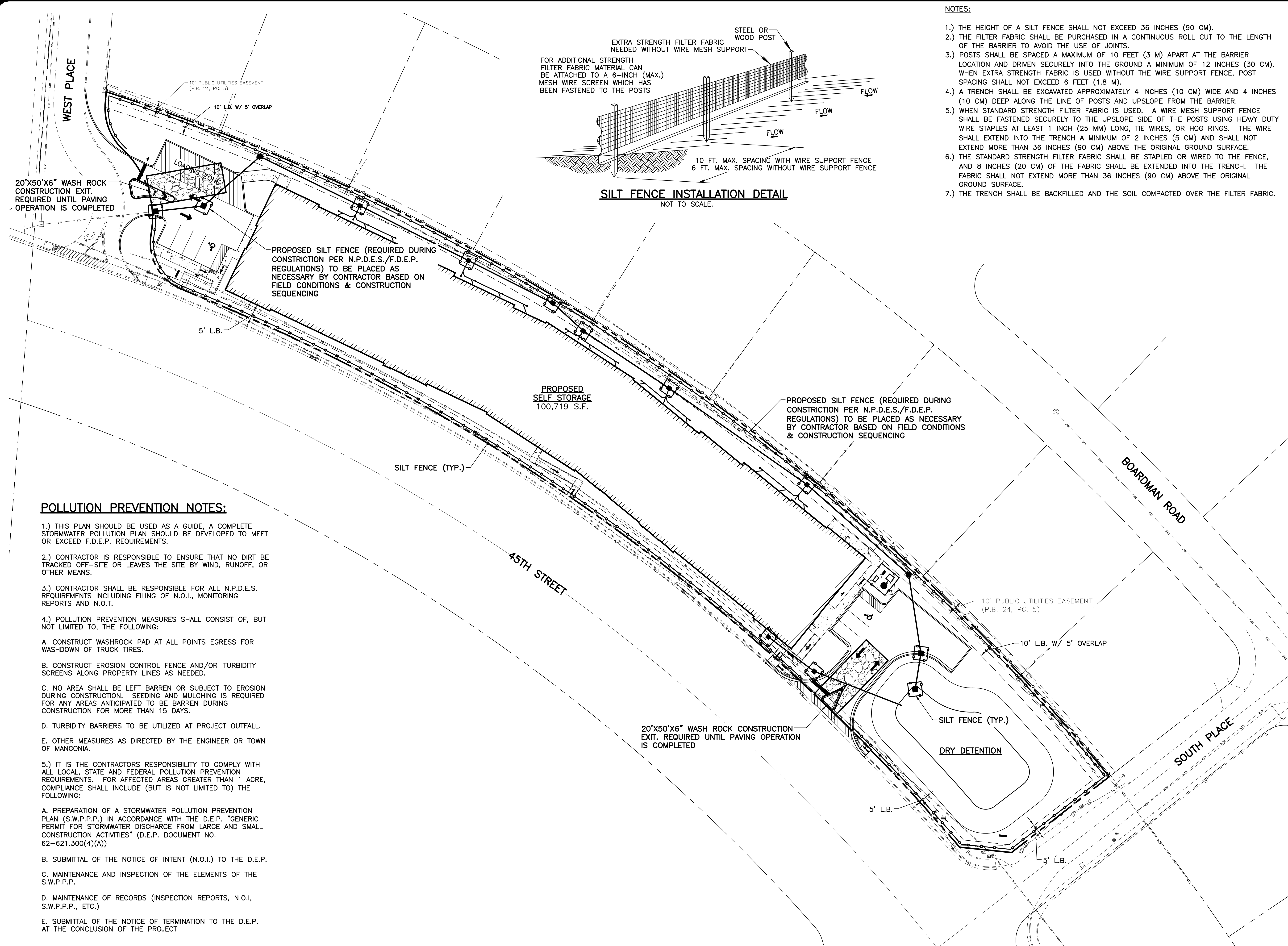
09/11/2023
ISSUED FOR CONSTRUCTION

- 3.) REVISED PER P.B.C. LAND DEVELOPMENT COMMENTS, 02/23/23 R.W.
- 2.) REVISED F.F.E., UPDATED GRADING PER S.F.W.M.D. COMMENTS, 01/23/23 R.W.
- 1.) REVISED PER P.B.C. LAND DEVELOPMENT & S.F.W.M.D. COMMENTS, 12/09/22 R.W.

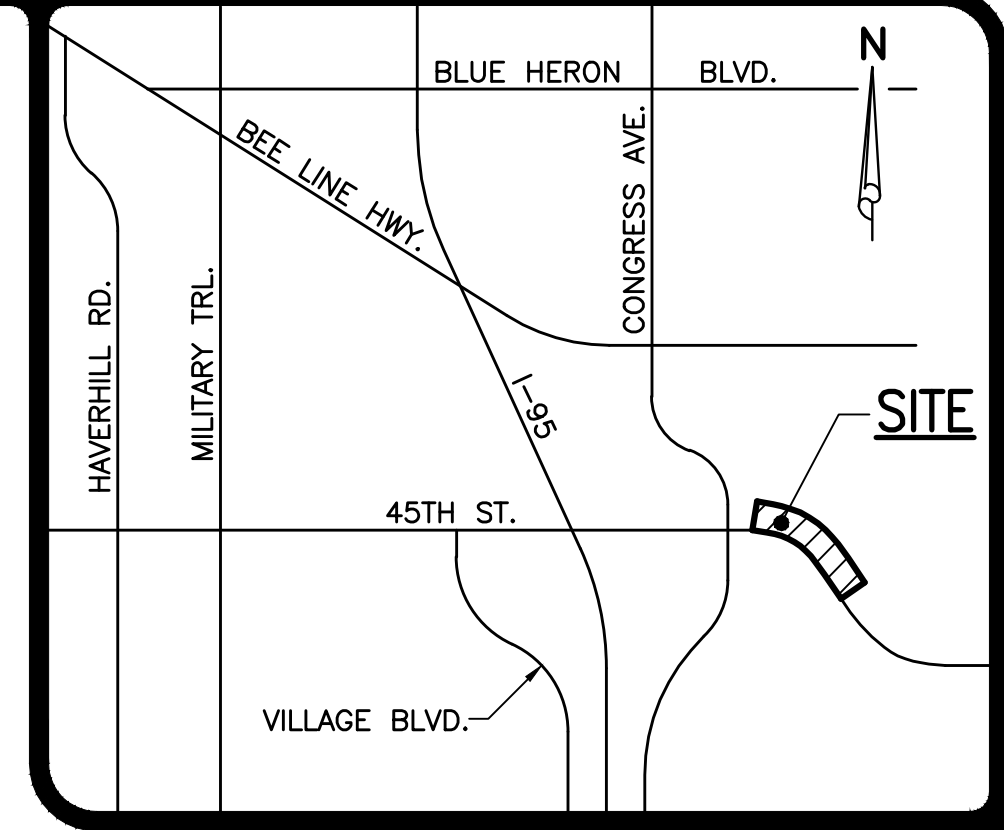


45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
PAVING AND DRAINAGE DETAILS

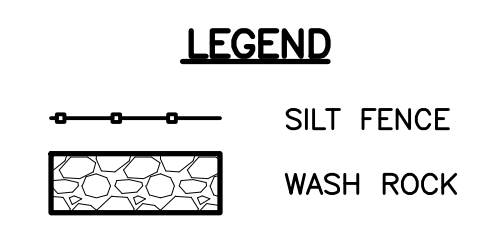
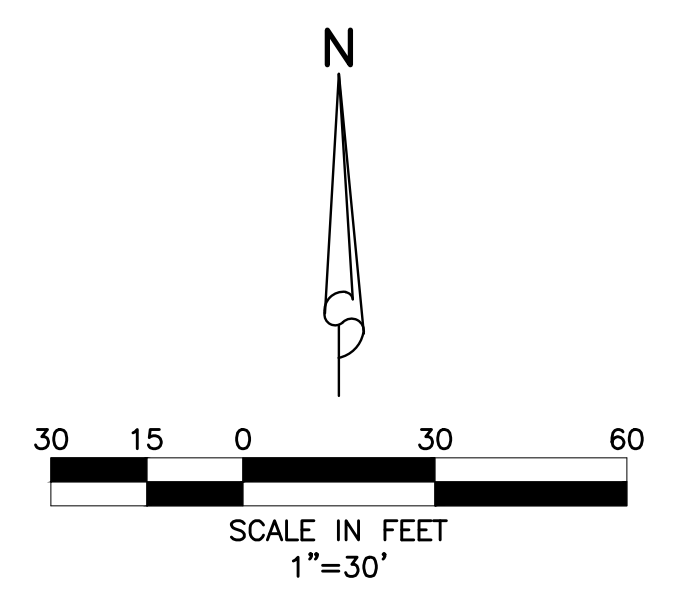
DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE	JOB NO. 21-017	DRAWING NO. 21017S07	SHEET 7 OF 15
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- NOTES:**
- 1.) THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
 - 2.) THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 - 3.) POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
 - 4.) A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 CM) WIDE AND 4 INCHES (10 CM) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 - 5.) WHEN STANDARD STRENGTH FILTER FABRIC IS USED. A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25 MM) LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 - 6.) THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 - 7.) THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.



LOCATION MAP
NOT TO SCALE



POLLUTION PREVENTION NOTES:

- 1.) THIS PLAN SHOULD BE USED AS A GUIDE, A COMPLETE STORMWATER POLLUTION PLAN SHOULD BE DEVELOPED TO MEET OR EXCEED F.D.E.P. REQUIREMENTS.
- 2.) CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO DIRT BE TRACKED OFF-SITE OR LEAVES THE SITE BY WIND, RUNOFF, OR OTHER MEANS.
- 3.) CONTRACTOR SHALL BE RESPONSIBLE FOR ALL N.P.D.E.S. REQUIREMENTS INCLUDING FILING OF N.O.I., MONITORING REPORTS AND N.O.T.
- 4.) POLLUTION PREVENTION MEASURES SHALL CONSIST OF, BUT NOT LIMITED TO, THE FOLLOWING:
 - A. CONSTRUCT WASHROCK PAD AT ALL POINTS EGRESS FOR WASHDOWN OF TRUCK TIRES.
 - B. CONSTRUCT EROSION CONTROL FENCE AND/OR TURBIDITY SCREENS ALONG PROPERTY LINES AS NEEDED.
 - C. NO AREA SHALL BE LEFT BARREN OR SUBJECT TO EROSION DURING CONSTRUCTION. SEEDING AND MULCHING IS REQUIRED FOR ANY AREAS ANTICIPATED TO BE BARREN DURING CONSTRUCTION FOR MORE THAN 15 DAYS.
 - D. TURBIDITY BARRIERS TO BE UTILIZED AT PROJECT OUTFALL.
 - E. OTHER MEASURES AS DIRECTED BY THE ENGINEER OR TOWN OF MANGONIA.
- 5.) IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL POLLUTION PREVENTION REQUIREMENTS. FOR AFFECTED AREAS GREATER THAN 1 ACRE, COMPLIANCE SHALL INCLUDE (BUT IS NOT LIMITED TO) THE FOLLOWING:
 - A. PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) IN ACCORDANCE WITH THE D.E.P. "GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES" (D.E.P. DOCUMENT NO. 62-621.300(4)(A))
 - B. SUBMITTAL OF THE NOTICE OF INTENT (N.O.I.) TO THE D.E.P.
 - C. MAINTENANCE AND INSPECTION OF THE ELEMENTS OF THE S.W.P.P.P.
 - D. MAINTENANCE OF RECORDS (INSPECTION REPORTS, N.O.I, S.W.P.P.P., ETC.)
 - E. SUBMITTAL OF THE NOTICE OF TERMINATION TO THE D.E.P. AT THE CONCLUSION OF THE PROJECT

09/11/2023
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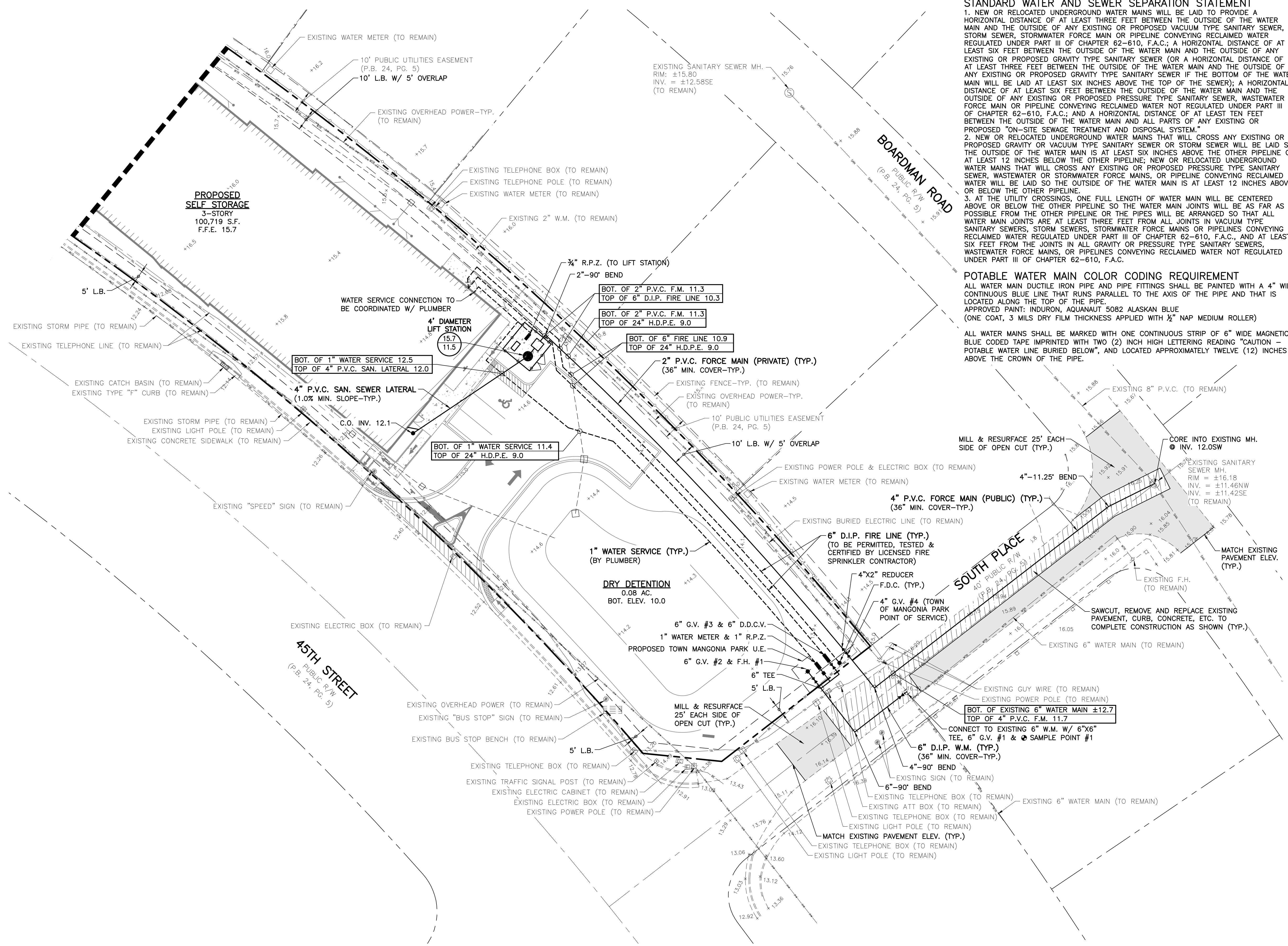
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NOTIFICATION CENTER

NOTE: ALL ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988 BASED ON A SURVEY PREPARED BY BROWN & PHILLIPS, INC. (561) 615-3988.



45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
POLLUTION PREVENTION PLAN

DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE	JOB NO. 21-017	DRAWING NO. 21017S08	SHEET 8	OF 15
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STANDARD WATER AND SEWER SEPARATION STATEMENT

1. NEW OR RELOCATED UNDERGROUND WATER MAINS WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY TYPE SANITARY SEWER OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

2. NEW OR RELOCATED UNDERGROUND WATER MAINS THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; NEW OR RELOCATED UNDERGROUND WATER MAINS THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.

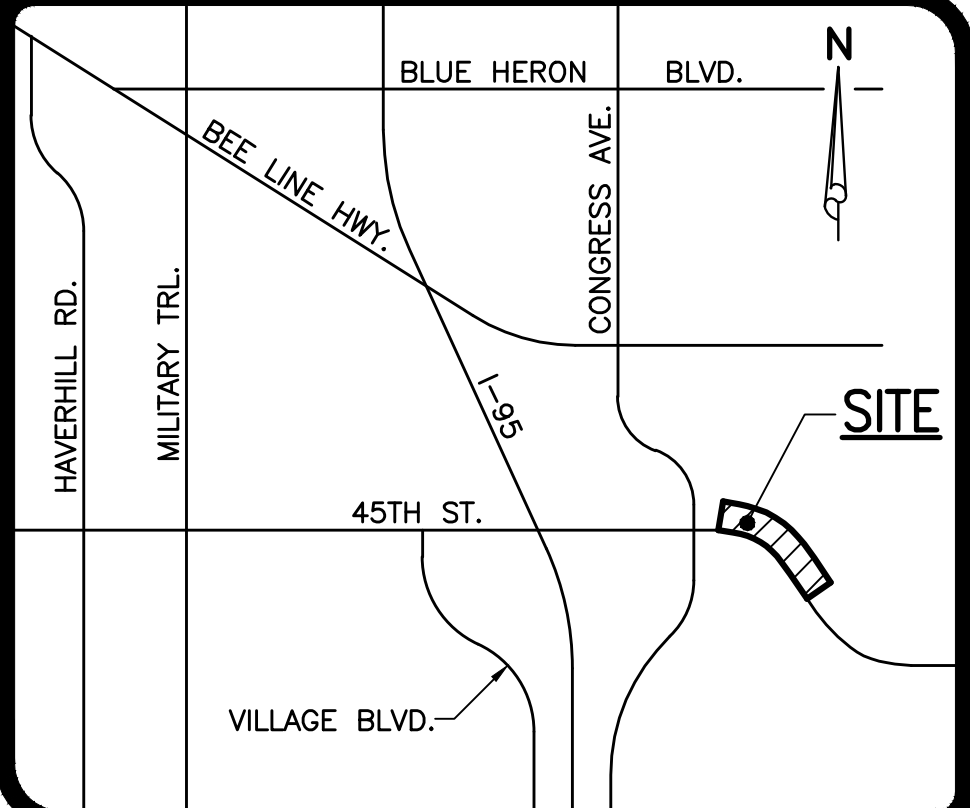
3. AT THE UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM THE JOINTS IN ALL GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

POTABLE WATER MAIN COLOR CODING REQUIREMENT

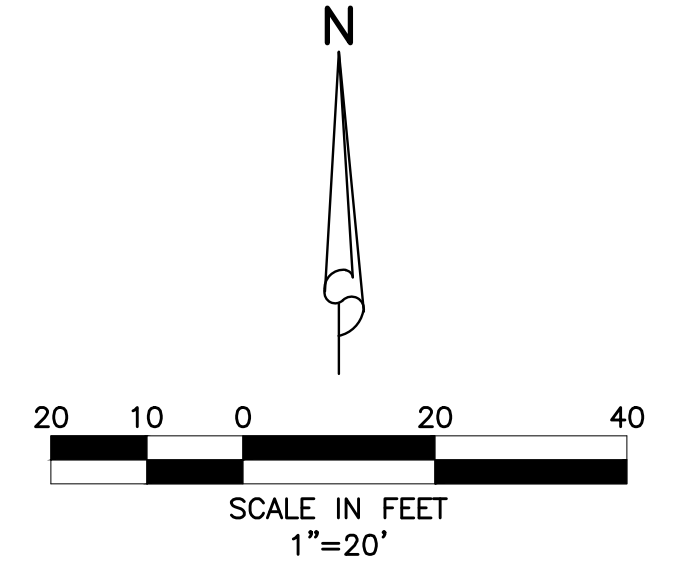
ALL WATER MAIN DUCTILE IRON PIPE AND PIPE FITTINGS SHALL BE PAINTED WITH A 4" WIDE CONTINUOUS BLUE LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE.

APPROVED PAINT: INDURON, AQUANAUT 5082 ALASKAN BLUE (ONE COAT, 3 MILS DRY FILM THICKNESS APPLIED WITH 1/2" NAP MEDIUM ROLLER)

ALL WATER MAINS SHALL BE MARKED WITH ONE CONTINUOUS STRIP OF 6" WIDE MAGNETIC BLUE CODED TAPE IMPRINTED WITH TWO (2) INCH HIGH LETTERING READING "CAUTION - POTABLE WATER LINE BURIED BELOW", AND LOCATED APPROXIMATELY TWELVE (12) INCHES ABOVE THE CROWN OF THE PIPE.



LOCATION MAP
NOT TO SCALE



LEGEND

- S1-4' MH. MANHOLE NUMBER AND TYPE
- 19.5 MANHOLE TOP ELEVATION
- 16.0 MANHOLE INVERT ELEVATION
- SINGLE SEWER SERVICE W/ CLEAN-OUT
- DOUBLE SEWER SERVICE W/ CLEAN-OUT
- SANITARY SEWER LINE, MANHOLE AND DIRECTION OF FLOW
- FIRE HYDRANT W/ GATE VALVE
- WATER SERVICE, WATER METER & R.P.Z.
- WATER MAIN & GATE VALVE
- GATE VALVE & D.D.C.V. ASSEMBLY
- SAWCUT, REMOVE, & REPLACE EXISTING CONCRETE, ASPHALT, CURB, ETC.
- MILL & RESURFACE

- NOTES:**
- 1.) ON-SITE SEWER LATERALS ARE PRIVATELY OWNED AND MAINTAINED.
 - 2.) CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL EXISTING UTILITY LOCATES, SUPPORT, RELOCATIONS AND NOTIFICATIONS REQUIRED WITH ALL APPLICABLE UTILITY SERVICE PROVIDERS.

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BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
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1-800-432-4770
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NOTE: ALL ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988 BASED ON A SURVEY PREPARED BY BROWN & PHILLIPS, INC. (561) 615-3988.

- 2.) REVISED PROPOSED U.E. PER TOWN OF MANGONIA PARK COMMENTS, 03/10/23 R.W.
- 1.) REVISED FIRE LINE, LIFT STATION RIM & SEWER SERVICE PER M.E.P. COMMENTS, 01/21/23 R.W.

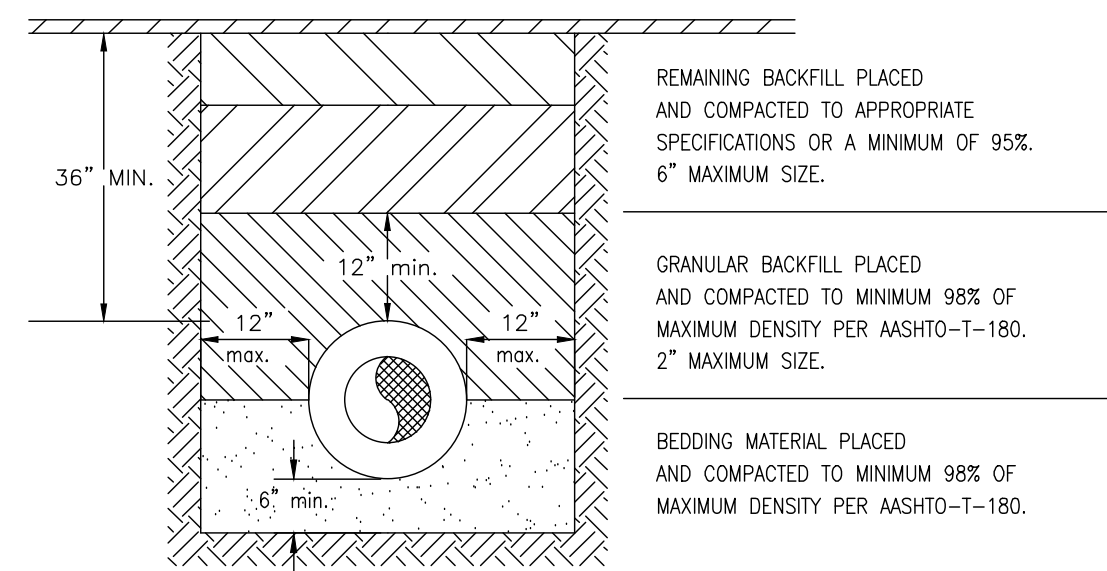
SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982
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DESIGN	DRAWN	CHECKED	APPROVED	DATE
E.V.	R.W.			

45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
WATER AND WASTEWATER PLAN

JOB NO.	DRAWING NO.	SHEET	OF
21-017	21017S09	9	15

09/11/2023
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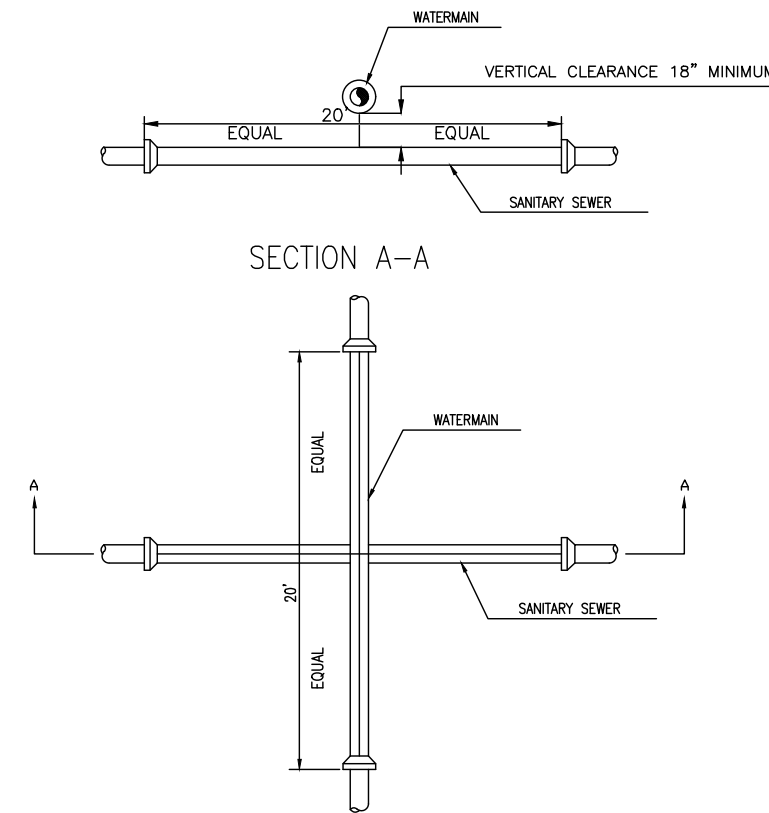


NOTES:

1. BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING.
2. THE PIPING SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGER ROCK, MUCK, AND DEBRIS.
5. DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAX., OR AS DIRECTED BY THE INSPECTOR.
6. STREET PAVEMENT 2" ASPHALT, BASE 8" LIMEROCK.

Pavement Replacement Detail

05/27/05

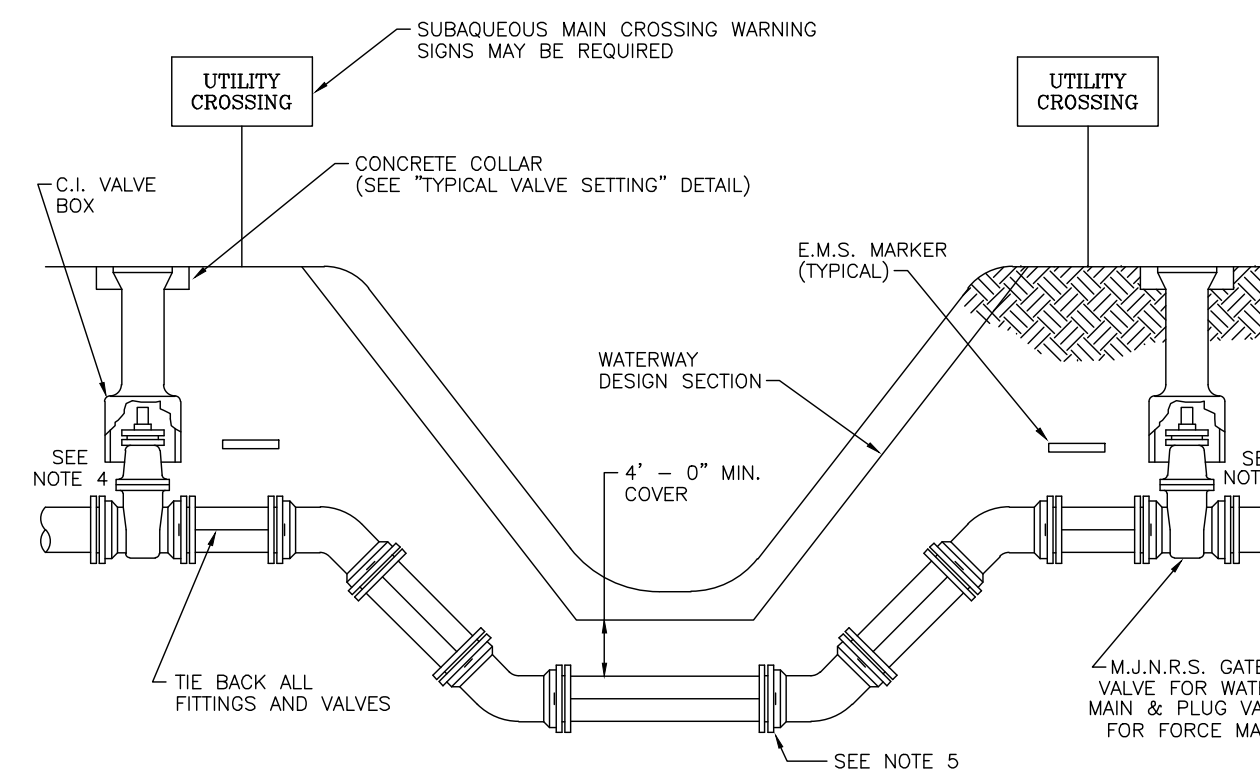


SEWER-WATER MAIN CROSSING DETAIL

STANDARD WATER AND SEWER SEPARATION STATEMENT

1. STORM AND SANITARY SEWER CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS AND BOTH PIPES SHALL BE D.I.P. WHERE THERE IS NOT ALTERNATIVE TO SEWER PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION BETWEEN LINES AND JOINTS IN THE ABOVE, SHALL BE REQUIRED AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION.
2. MAINTAIN TEN (10) FEET HORIZONTAL DISTANCE BETWEEN WATER MAIN AND STORM OR SANITARY SEWER MAIN, AS A MINIMUM.
3. FORCE MAIN CROSSING WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE WATER MAIN WITH WATER MAIN CROSSING OVER THE FORCE MAIN.

05/27/05



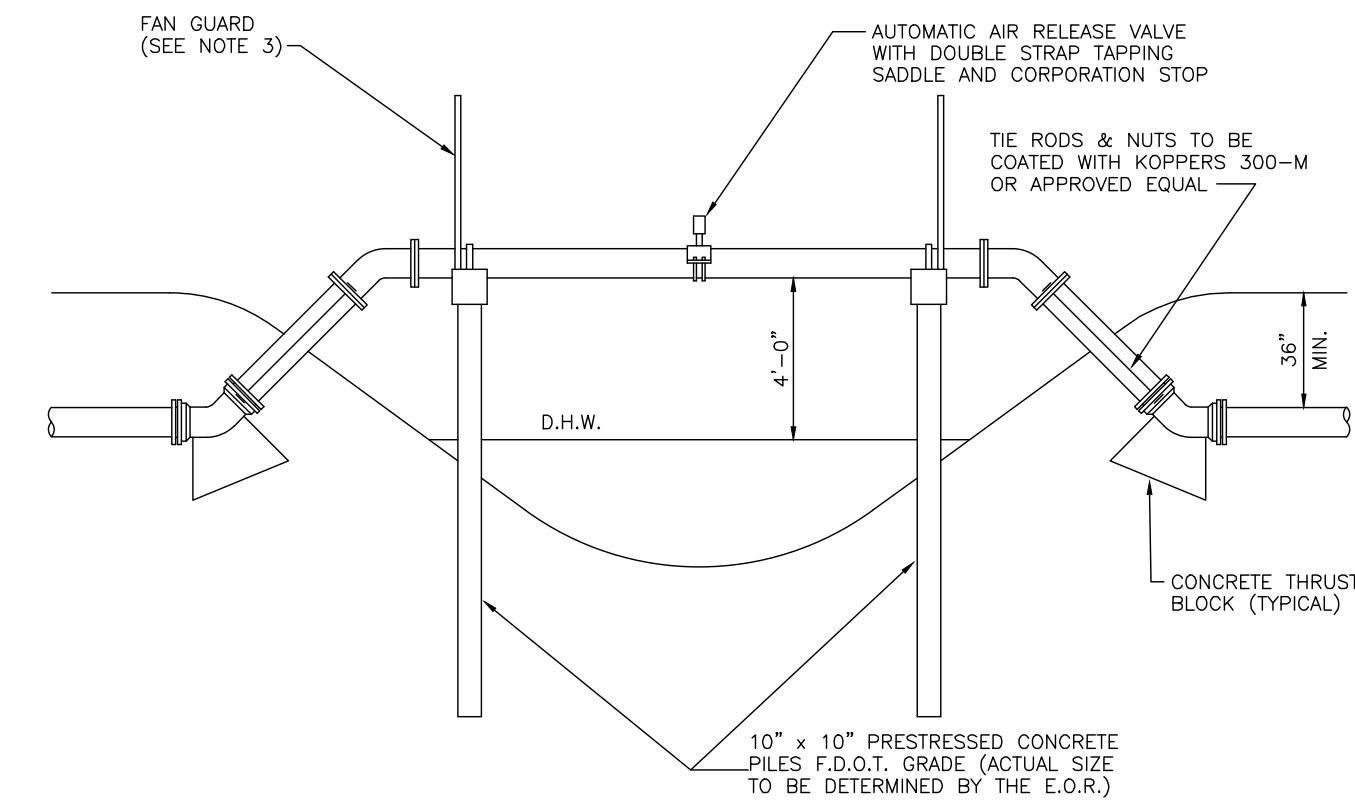
NOTES:

1. IN SOME CASES AIR RELEASE VALVES MAY BE REQUIRED.
2. EXACT LOCATION AND NUMBER BLOWOFFS, VALVES, SIGNS, AND E.M.S. MARKERS TO BE DETERMINED IN THE FIELD.
3. IF WATERWAY IS NOT CUT TO THE DESIGN CROSS SECTION, THE 4'-0" MINIMUM COVER SHALL APPLY TO THE DEEPER SECTION, WHETHER EXISTING OR DESIGN.
4. APPROVED SELF RESTRAINING GASKETS SHALL BE USED ON ALL PUSH ON PIPE FOR A DISTANCE OF SIXTY (60) FEET FROM EACH VALVE.
5. APPROVED RESTRAINED MECHANICAL JOINTS SHALL BE USED FROM VALVE TO VALVE.

SUB-AQUEOUS CROSSING

N.T.S.

05/27/05

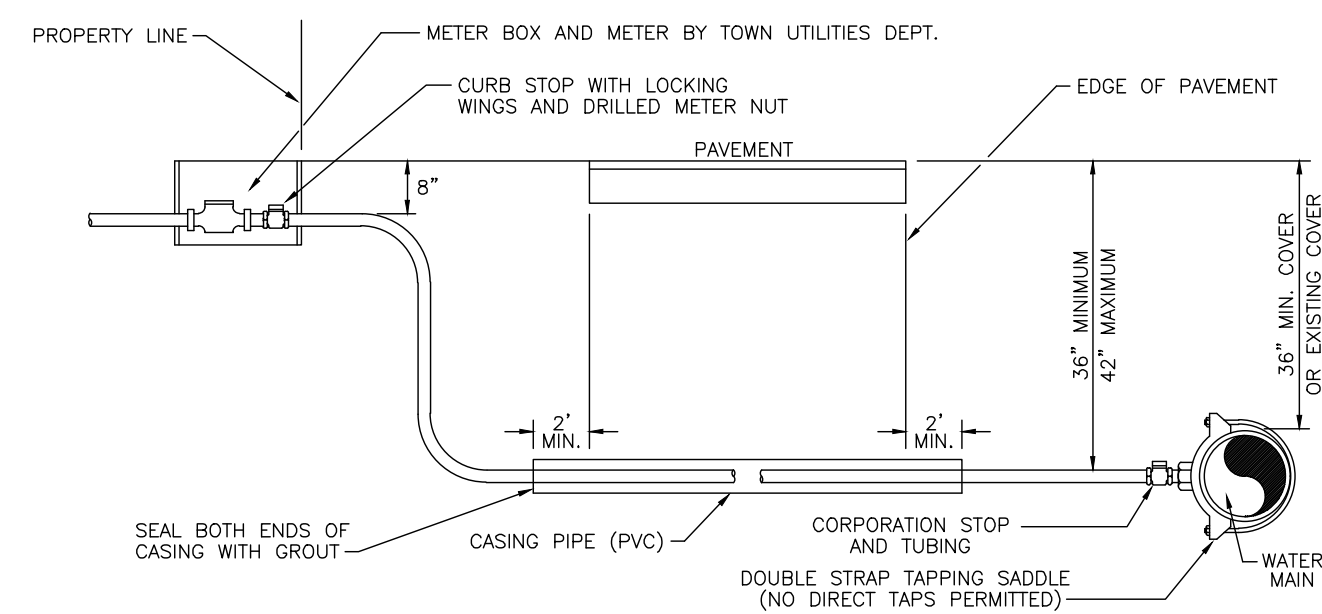


NOTES:

1. ALL EXPOSED PIPE SHALL BE DUCTILE IRON WITH FLANGED FITTINGS. RETAINER GLANDS AND UNIFLANGE TYPE FITTINGS ARE NOT TO BE SUBSTITUTED FOR FLANGED FITTINGS.
2. SPAN LENGTHS AS REQUIRED BY PERMITTING AGENCY.
3. FAN GUARDS ARE REQUIRED. SEE "TYPICAL FAN GUARD" DETAIL.
4. PIPE SHALL BE CRADLED ON NEOPRENE, 1/2" THICK MINIMUM.
5. TIE-DOWN STRAPS SHALL FIT PROPERLY AND SECURE PIPE IN CRADLE.
6. PIPE CRADLE IN CAP SHALL CONTACT 1/2 CIRCUMFERENCE OF PIPE.
7. SHOW ULTIMATE CANAL SECTION AND RELEVANT ELEVATIONS AND DISTANCES ON THIS DETAIL.
8. STAINLESS STEEL (316) REQUIRED FOR ALL STRAPS, SADDLES, FLANGE BOLTS, AND OTHER HARDWARE FOR INSTALLATIONS OVER BRACKISH OR MARINE WATERS (ANTI-GALL COMPOUND TO BE USED WHEN ASSEMBLING STAINLESS STEEL NUTS AND BOLTS).
9. LENGTH OF SPAN WILL DETERMINE NUMBER OF PILES REQUIRED.
10. AERIAL CROSSING TO BE FIELD COATED PER F.O.D.T. SPECIFICATIONS FOR PIPING ATTACHED TO BRIDGE STRUCTURES. COLOR SHALL BE LT GREY ANSI 70 TNECM.

AERIAL CANAL CROSSING

05/27/05

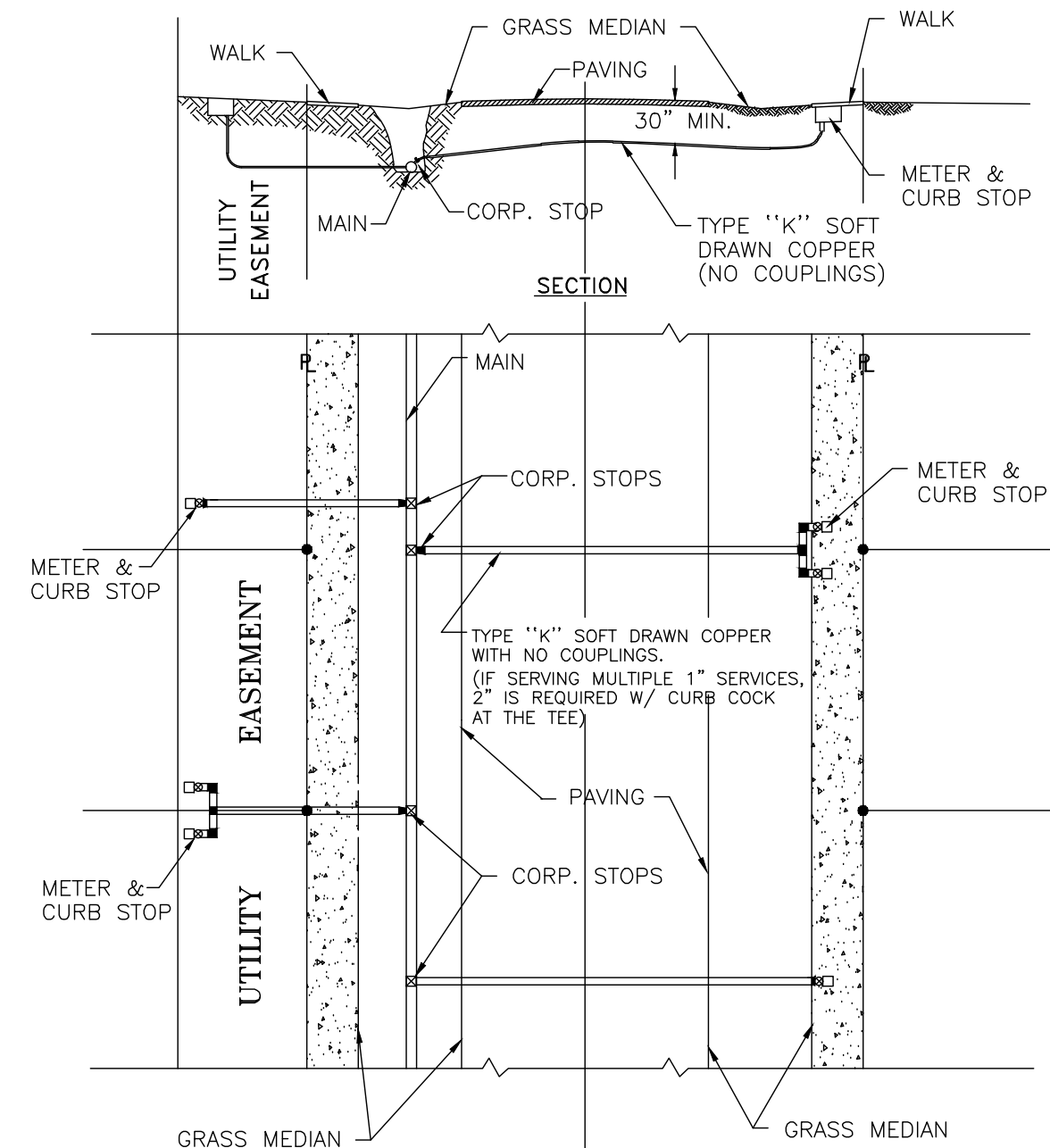


NOTES:

1. CASINGS SHALL BE REQUIRED FOR ALL LONG SIDE SERVICES.
2. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET.
3. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISH GRADE.
4. COPPER TUBING SHALL BE TYPE "K" WITH COMPRESSION FITTINGS.
5. USE EMS MARKER #1252 COLOR BLUE DIRECTLY OVER THE CORPORATION STOP.
6. ALL SERVICE LINES SHALL BE EQUIPPED WITH A CORPORATION STOP AT THE MAIN AND A CURB STOP (LOCKING CONNECTION TYPE) AT THE METER.
7. THE COPPER SERVICE LINE SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP WITH NO FITTINGS IN BETWEEN.
8. TAPPING SADDLES AND CORPORATION STOPS SHALL HAVE AWWA INLET THREADS.
9. ALL EXPOSED FITTINGS TO BE COATED WITH COLA TAR EPOXY.
10. GALVANIZED CASING REQUIRED FOR ANY INSTALLATION REQUIRING A JACK AND BORE, SCH. 40 PVC MAY BE USED FOR AN OPEN CUT INSTALLATION WITH THE APPROVAL OF THE TOWN UTILITIES DEPT. CASING SHOULD EXTEND TWO (2) FEET BEYOND EDGE OF PAVEMENT AND SIZED AS FOLLOWS:
 A.) 1" SERVICE USE 2" CASING
 B.) 1 1/2" SERVICE USE 3" CASING
 C.) 2" SERVICE USE 4" CASING

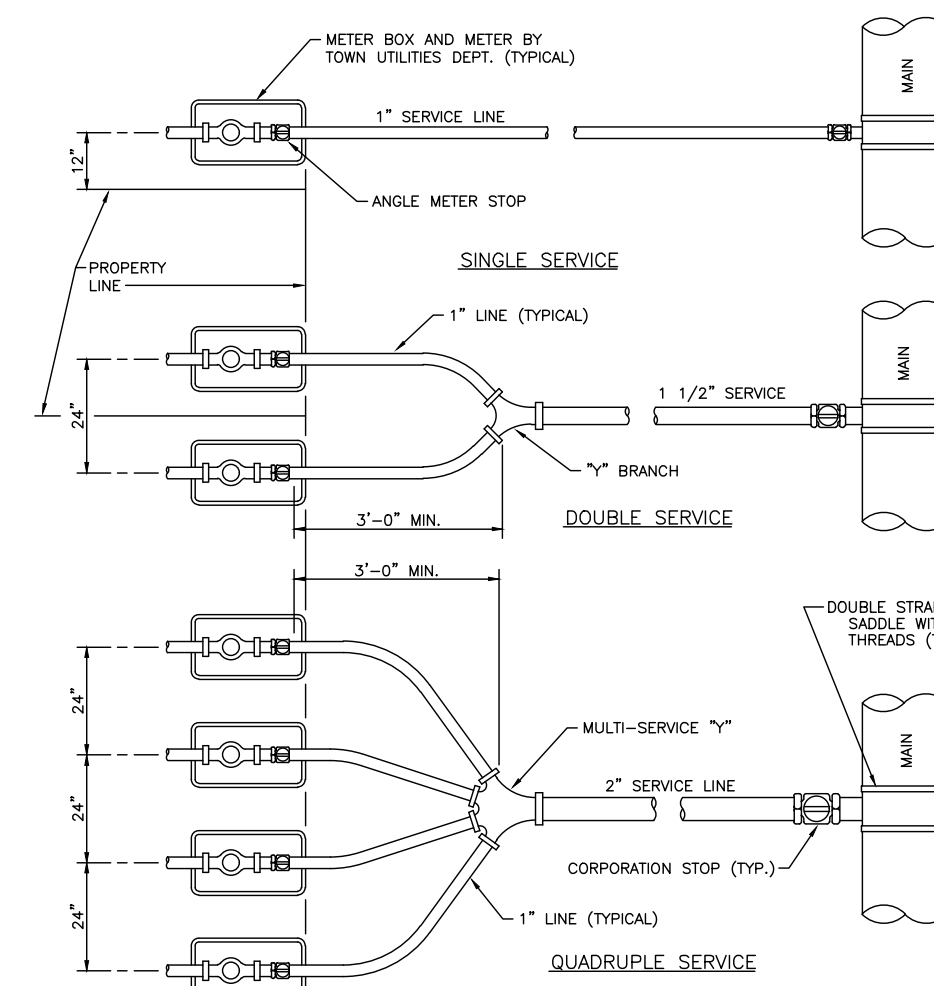
3/4" - 2" TYPICAL WATER SERVICE INSTALLATION

05/27/05



TYPICAL DOMESTIC SERVICE INSTALLATIONS

05/31/05

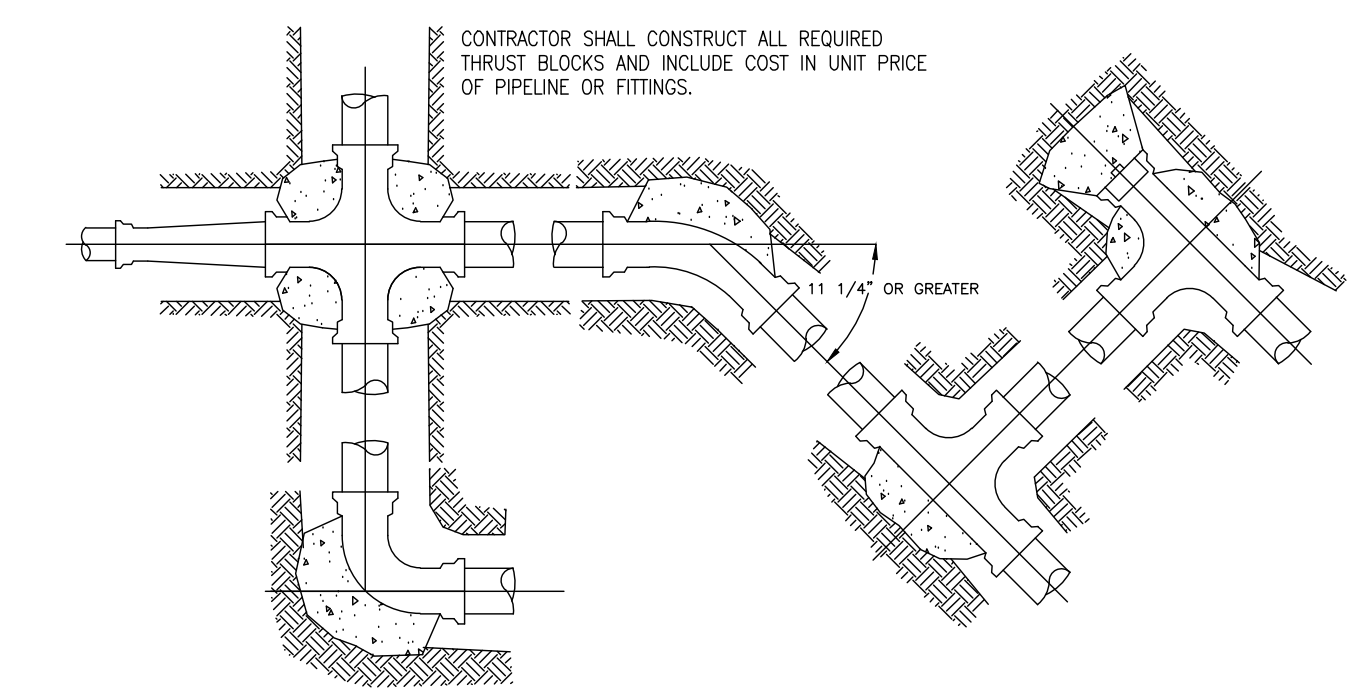


NOTES:

1. AUTHORIZED SERVICE LINE MATERIAL:
 A) TYPE "K" COPPER TUBING WITH COMPRESSION FITTINGS.
 B) POLYETHYLENE TUBING SUR 9, COPPER TUBE SIZE.
2. ANGLE METER STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE METER STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
5. ANGLE METER STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
6. NO FITTINGS BETWEEN CORP STOP AND ANGLE METER STOP ALLOWED WHEN USING POLYETHYLENE TUBING.

TYPICAL WATER SERVICES

05/27/05



PIPE	THRUST BLOCK AREA REQ'D	PIPE	THRUST BLOCK AREA REQ'D	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	VALUES ARE FOR 90° BEND BASED ON 2000 PSF SAFE BEARING LOAD AND PIPE PRESSURE OF 150 PSI PLUS 33% SAFETY FACTOR FOR OTHER SOILS & PRESSURES THE AREA REQUIRED IS IN DIRECT PROPORTION
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.6 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

NOTE: FOR OTHER FITTINGS USE FOLLOWING FACTORS

- TEE 100%
- 45° BEND 76%
- 22 1/2° BEND 39%
- 11 1/4° BEND 20%
- DEAD END 100%

CONCRETE THRUST BLOCKS

05/27/05

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED P.A.F. DATE JUNE 2011
 DRAWN L.C.R. DATE JUNE 2011
 CHECKED P.A.F. DATE JUNE 2011

TOWN OF MANGONIA PARK UTILITIES
 1755 East Tiffany Drive, Mangonia Park, Florida 33407
 Phone: 561.848.1235 Fax: 561.848.6940

APPROVED: _____
 DATE: _____

SCALE: AS NOTED
 PROJECT No: _____
 CAD FILE: 071333-M-001

SHEET: **PW-1**
 OF _____

09/11/2023
 ISSUED FOR CONSTRUCTION

REVISIONS

DESIGN E.V.	DRAWN R.W.	CHECKED	APPROVED	DATE

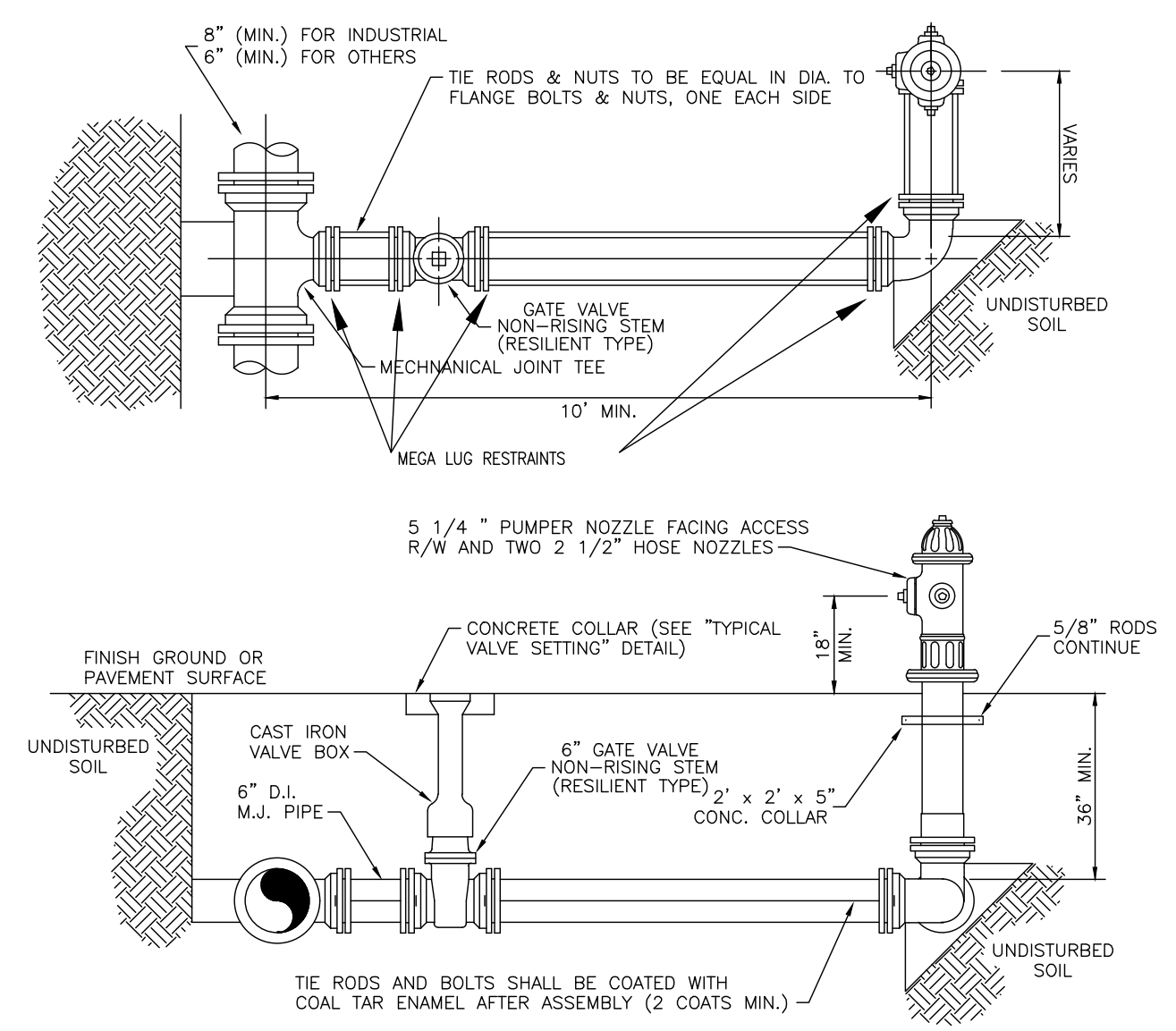
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45TH STREET S.R.O.A.
 SECTION 06, TOWNSHIP 43S., RANGE 43E.
 TOWN OF MANGONIA PARK,
 WASTER AND WASTEWATER DETAILS

JOB NO. 21-017

DRAWING NO. 21017S11

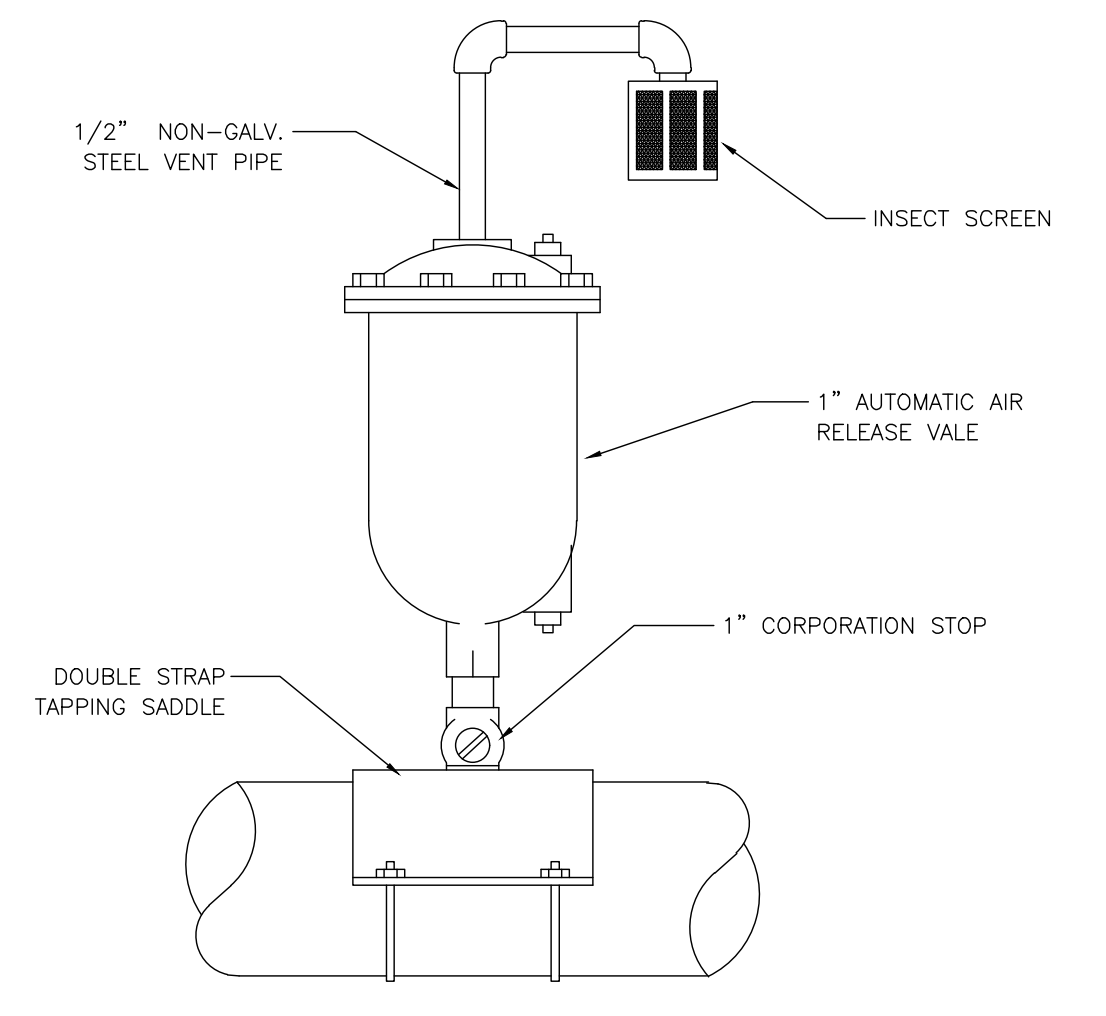
SHEET 11 OF 15



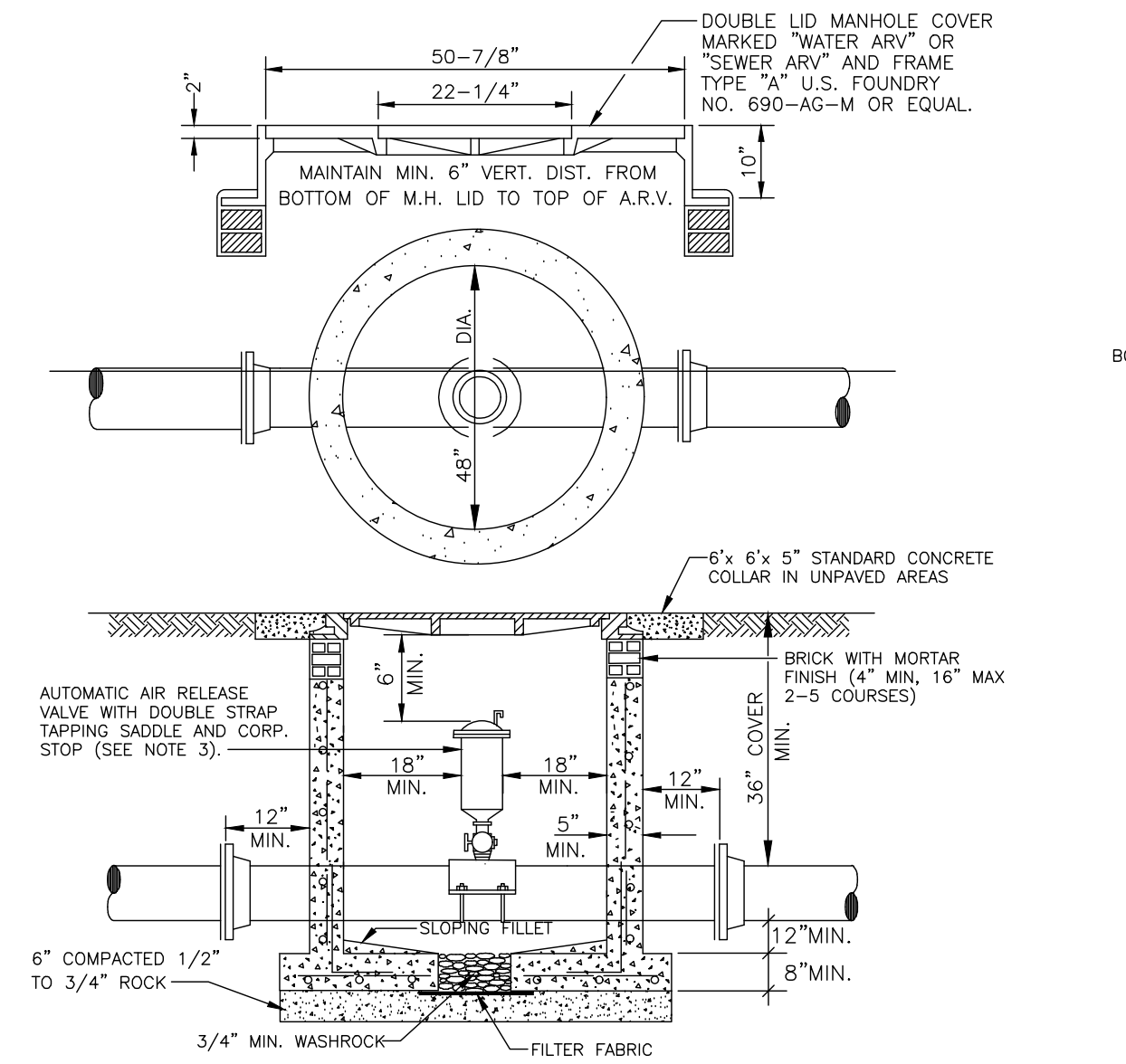
NOTES:

1. HYDRANTS SHALL BE INSTALLED PLUMB AND TRUE.
2. HYDRANTS SHALL BE PAINTED PER TOWN OF MANGONIA PARK STANDARDS: RED BODY REFLECTIVE AND WHITE CAP REFLECTIVE.
3. HEEL AND THRUST BLOCKS TO REST IN UNDISTURBED SOIL.
4. THE ONLY FIRE HYDRANTS ACCEPTABLE ARE:
 - A) KENNEDY
 - B) AMERICAN-BARLING
 - C) MUELLER BREAK-A-WAY
5. MUST USE MEGA LUG RESTRAINTS

FIRE HYDRANT INSTALLATION DETAIL
05/27/05



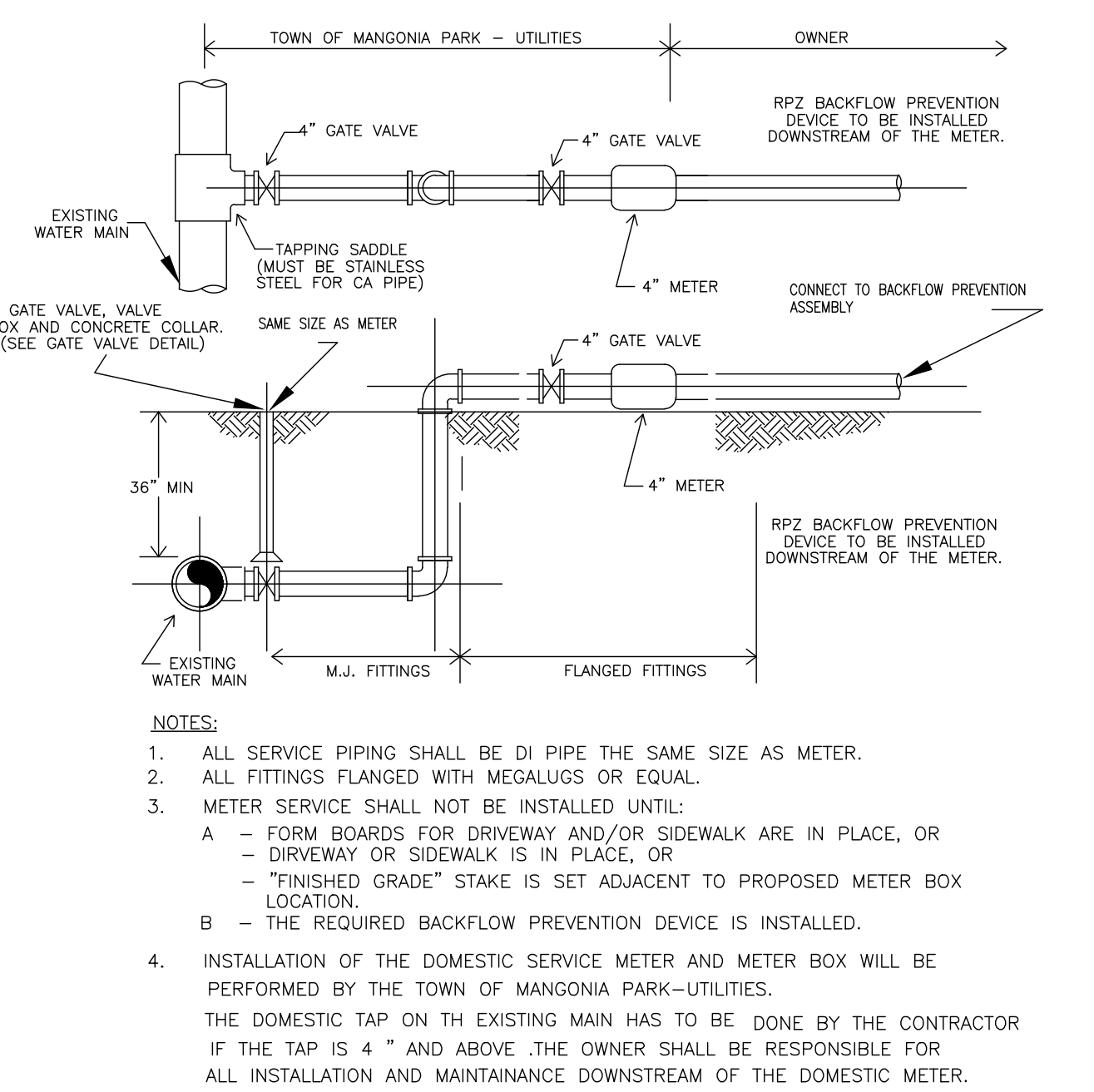
AERIAL AIR RELEASE VALVE
05/27/05



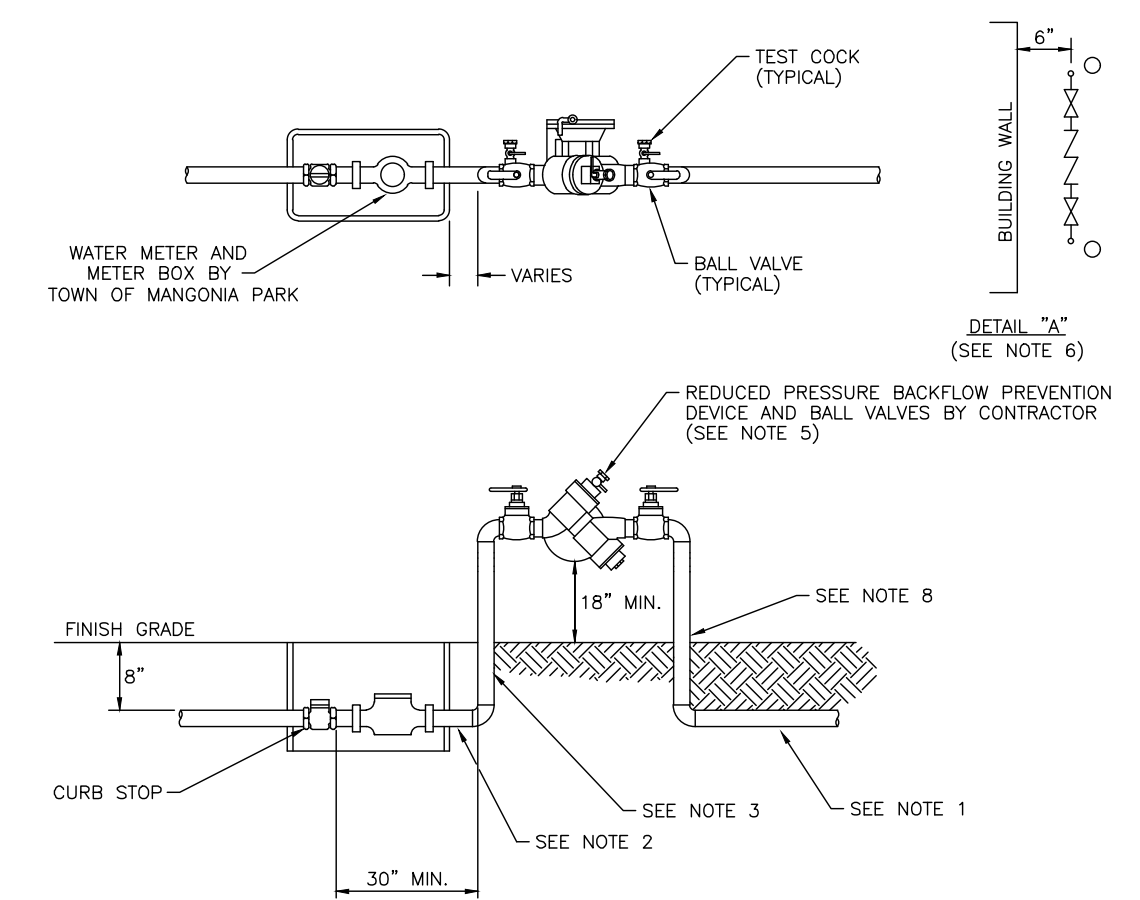
NOTES:

1. 4000 P.S.I. TYPE II CONCRETE
2. VAULT SHALL BE PRECAST, POURED IN PLACE CONCRETE OR CONCRETE BLOCK, ALL WITH STEEL REINFORCING.
3. AIR RELEASE VALVE SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED. FORCE MAINS SHALL BE 2" MIN.
4. ALL OPENINGS SHALL BE SEALED WITH WATERPROOF NON-SHRINKING GROUT.
5. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C-478 LATEST STANDARDS.
6. PAINT THE INSIDE AND OUTSIDE WITH TWO (2) COATS OF AN APPROVED PROTECTIVE COATING.
7. CONCRETE COLLAR REQUIRED WHEN MANHOLE IS OUTSIDE PAVEMENT.

AIR RELEASE VALVE & VAULT
05/27/05



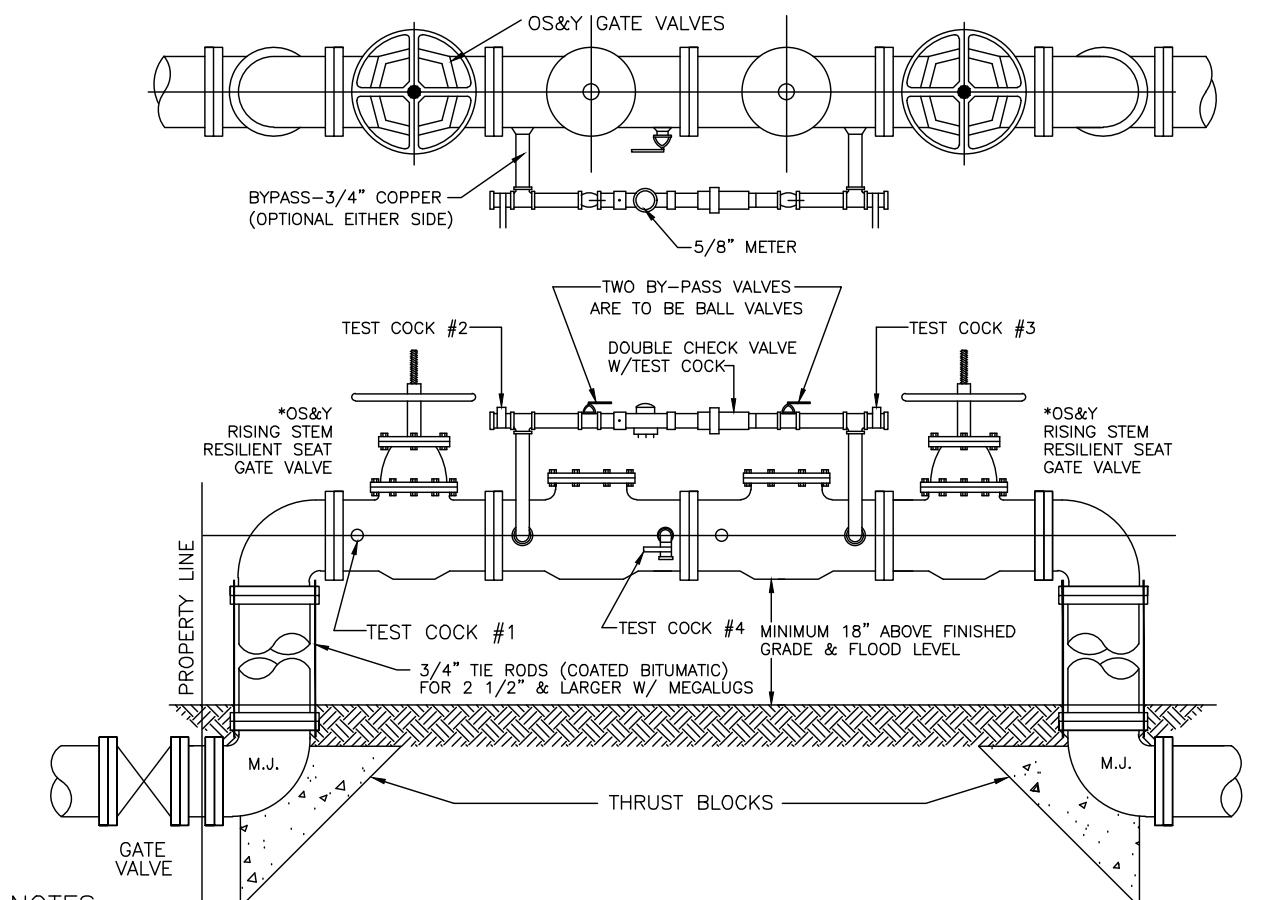
3", 4", 6", 8", 10" WATER METER DETAIL
5/26/05



NOTES:

1. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
2. IF THIS DISTANCE IS LESS THAN 3 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
3. 3/4" - 2" BOTH RISERS SHALL BE TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE SOLDER AND FLUX SHALL BE PERMITTED.
4. BOTH 1 1/2" AND 2" ANGLE METER STOPS SHALL BE EQUIPPED WITH LOCKING CAPS AND METER FLANGES.
5. ALL BACKFLOW PREVENTION DEVICES ASSEMBLY MUST BE USC APPROVED.
6. WHEN THE DEVICE IS INSTALLED PARALLEL TO A BUILDING WALL THERE SHALL BE A MIN. OF 6" BETWEEN THE EDGE OF THE DEVICE AND THE BUILDING WALL.
7. 1/2" - 10" THE RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE WATER SERVICE METER 18" - 24" ABOVE FINISHED GRADE ON NON-GALVANIZED METAL PIPE. WORK DONE ON THIS DEVICE MUST BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN AND TEST REPORTS MUST BE SUBMITTED TO THE TOWN OF MANGONIA PARK UTILITIES.

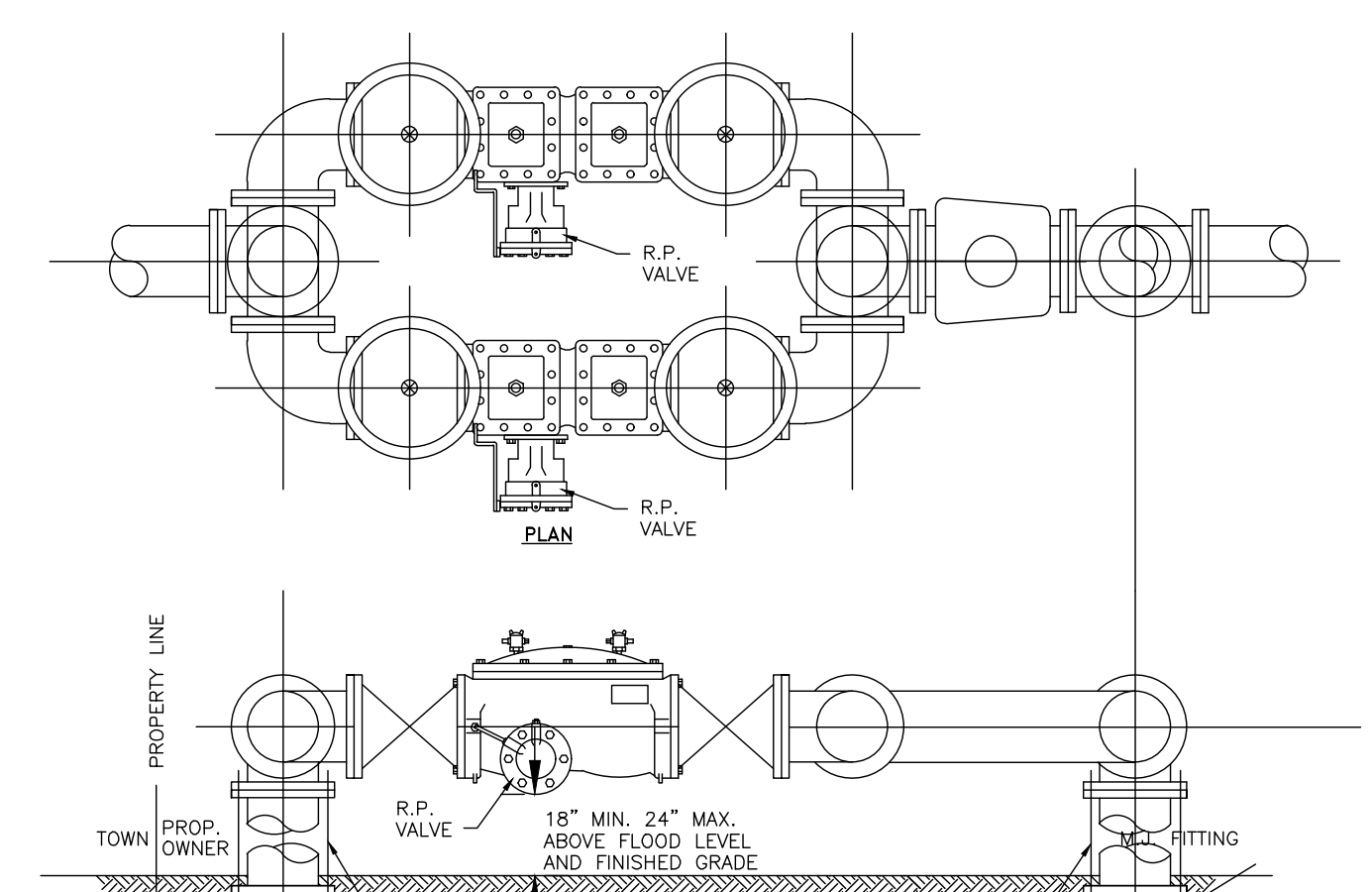
RPZ BACKFLOW PREVENTION DEVICE
05/27/05



NOTES:

1. ABOVE GROUND INSTALLATION OF 3" & ABOVE REQUIRE RISING STEM O.S. & Y. RESILIENT SEAT GATE VALVES WITH TEST COCKS.
2. INSTALLATION AND CERTIFICATION REQUIRED BY A CERTIFIED BACKFLOW TECHNICIAN PRIOR TO ACCEPTANCE.
3. AN RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE DOMESTIC AND IRRIGATION METER, 18" - 24" ABOVE FINISHED GRADE ON NON-GALVANIZED METALLIC PIPE. WORK DONE ON THIS DEVICE IS TO BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN AND TEST REPORTS MUST BE SUBMITTED TO THE TOWN OF MANGONIA PARK UTILITIES.

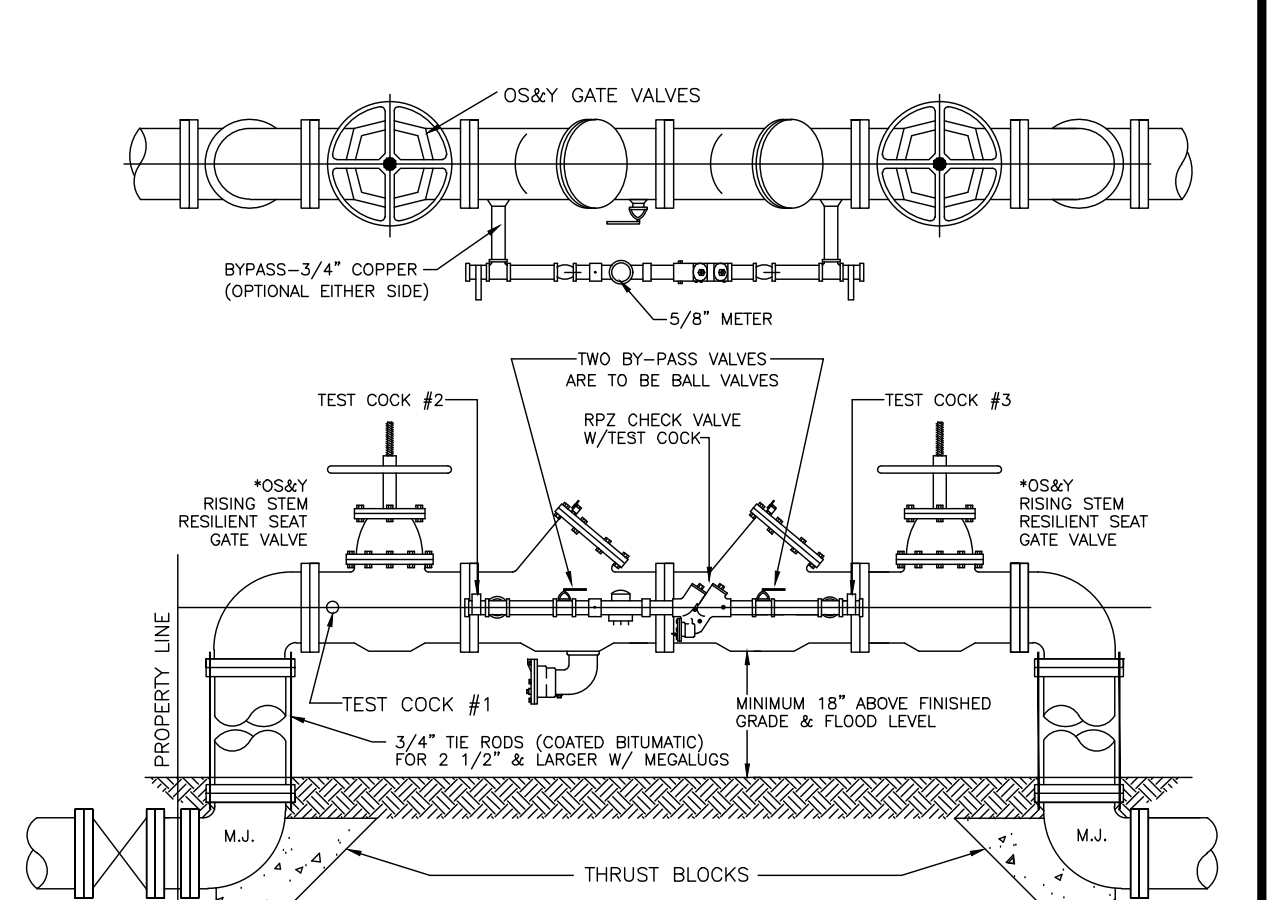
DOUBLE DETECTOR CHECK ASSEMBLY & METER INSTALLATION
SIZES: 3", 4", 6", 8", 10"
05/27/05



NOTES:

1. ABOVE GROUND INSTALLATION OF 3/4" TO 2" REQUIRE BALL VALVES WITH TEST COCKS.
2. ALL PIPING PRIOR TO BACKFLOW PREVENTION ASSEMBLIES SHALL BE EITHER CEMENT LINED DUCTILE IRON PIPE OR COPPER FOR THE SMALLER DEVICES. THIS INCLUDES DOMESTIC, IRRIGATION AND FIRE LINE DEVICES. ALL PIPING SHALL MEET THE TOWN OF MANGONIA PARK PLUMBING AND MECHANICAL CODES.
3. AN RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE DOMESTIC AND IRRIGATION METER, 18" - 24" ABOVE FINISHED GRADE ON NON-GALVANIZED METALLIC PIPE. WORK DONE ON THIS DEVICE MUST BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN AND TEST REPORTS MUST BE SUBMITTED TO THE TOWN OF MANGONIA PARK UTILITIES.

PARALLEL REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLIES
N.T.S.
05/27/05



NOTES:

1. ABOVE GROUND INSTALLATION OF 3" & ABOVE REQUIRE RISING STEM O.S. & Y. RESILIENT SEAT GATE VALVES WITH TEST COCKS.
2. INSTALLATION AND CERTIFICATION REQUIRED BY A CERTIFIED BACKFLOW TECHNICIAN PRIOR TO ACCEPTANCE.
3. AN RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE DOMESTIC AND IRRIGATION METER, 18" - 24" ABOVE FINISHED GRADE ON NON-GALVANIZED METALLIC PIPE. WORK DONE ON THIS DEVICE IS TO BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN.
4. TEST REPORTS MUST BE SUBMITTED TO THE TOWN OF MANGONIA PARK - UTILITIES AFTER INSTALLATION

REDUCED PRESSURE DETECTOR ASSEMBLY
SIZES - 3", 4", 6", 8", & 10"
5/26/05

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED P.A.F. DATE JUNE 2011
DRAWN L.C.R. DATE JUNE 2011
CHECKED P.A.F. DATE JUNE 2011

TOWN OF MANGONIA PARK UTILITIES
1755 East Tiffany Drive, Mangonia Park, Florida 33407
Phone: 561.848.1235 Fax: 561.848.6940

DETAILS

APPROVED DATE

SCALE AS NOTED
PROJECT No
CAD FILE
SHEET PW-2 OF

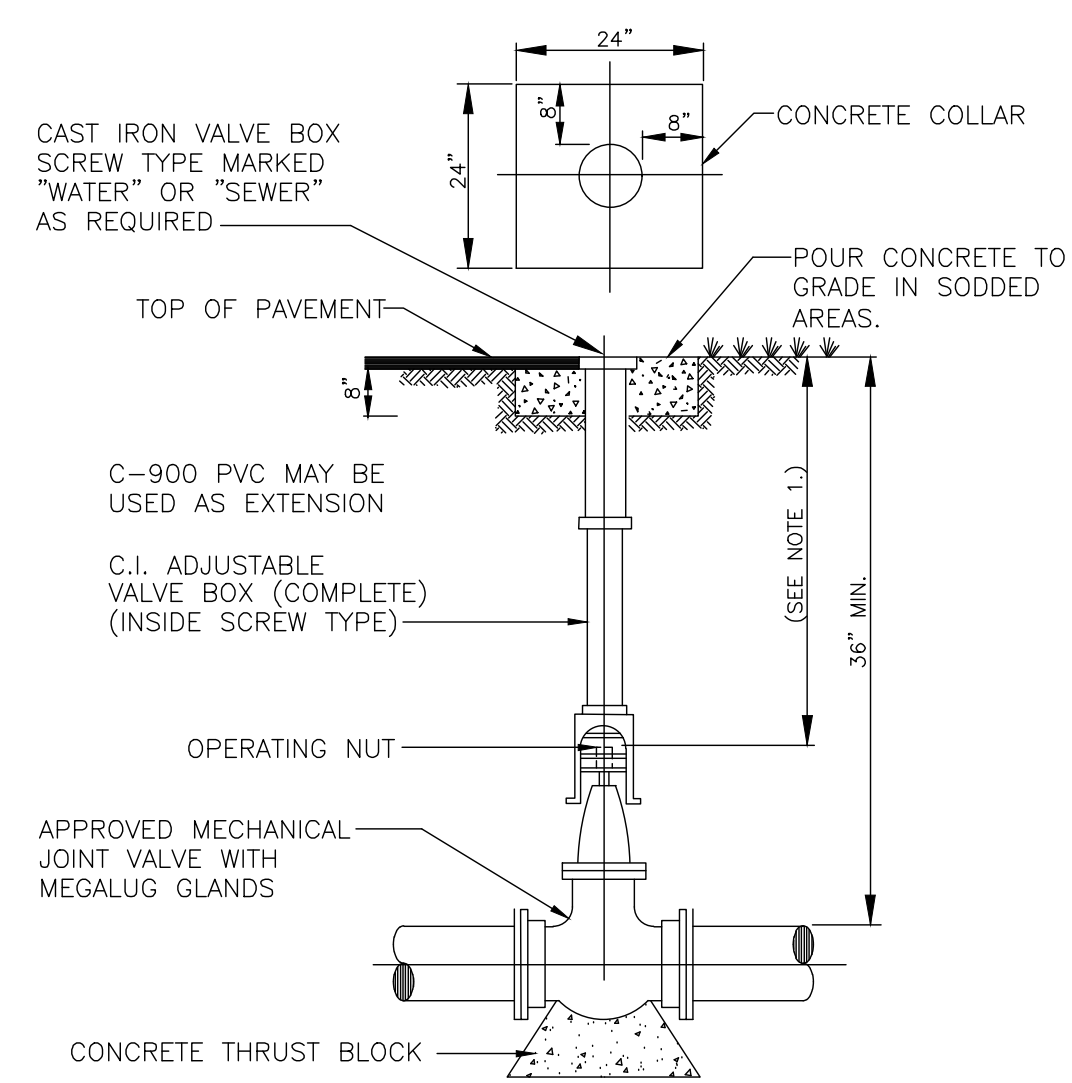
09/11/2023 ISSUED FOR CONSTRUCTION

DESIGN	DRAWN	CHECKED	APPROVED	DATE	JOB NO.	DRAWING NO.	SHEET
E.V.	R.W.				21-017	21017S12	12 OF 15

REVISIONS

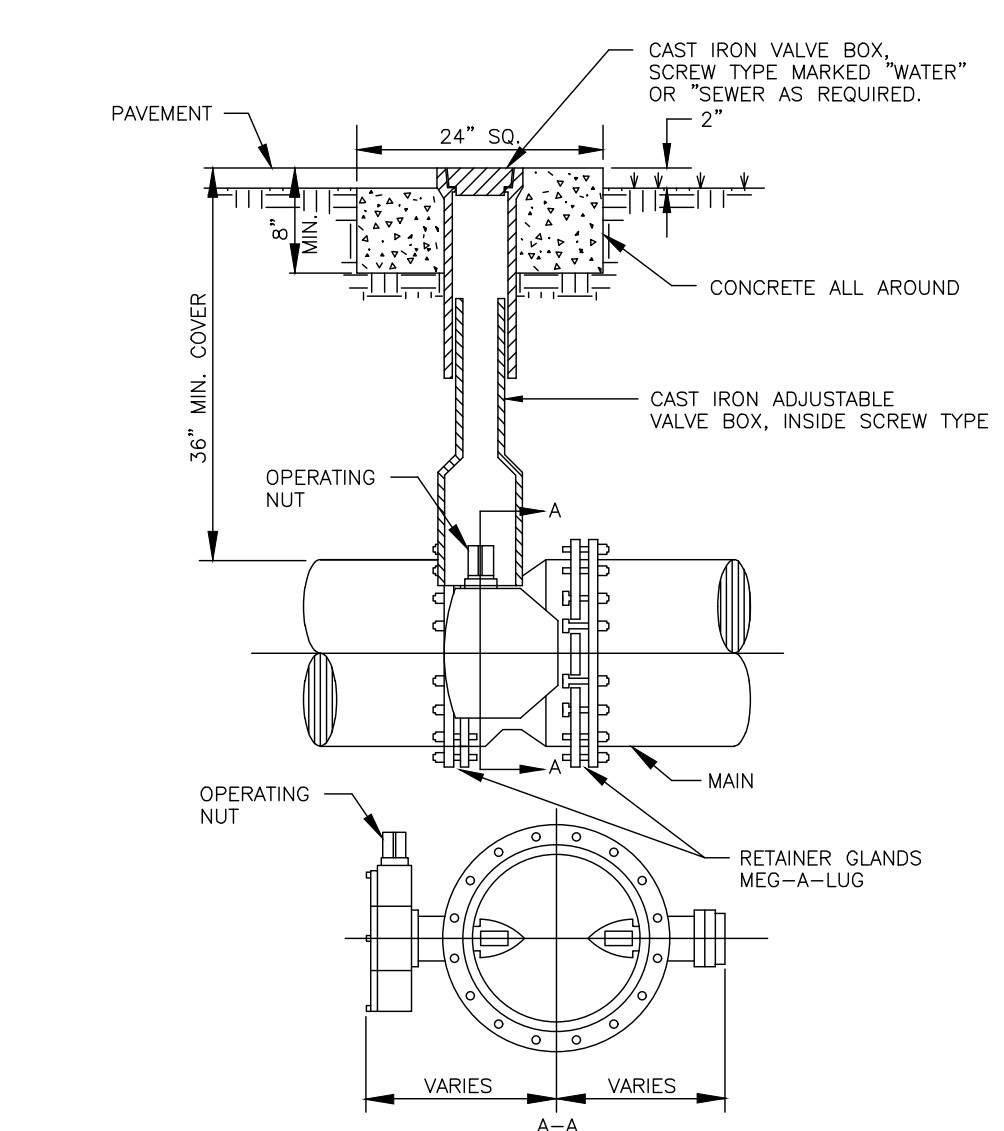
APPROVED DATE

45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
WASTER AND WASTEWATER DETAILS



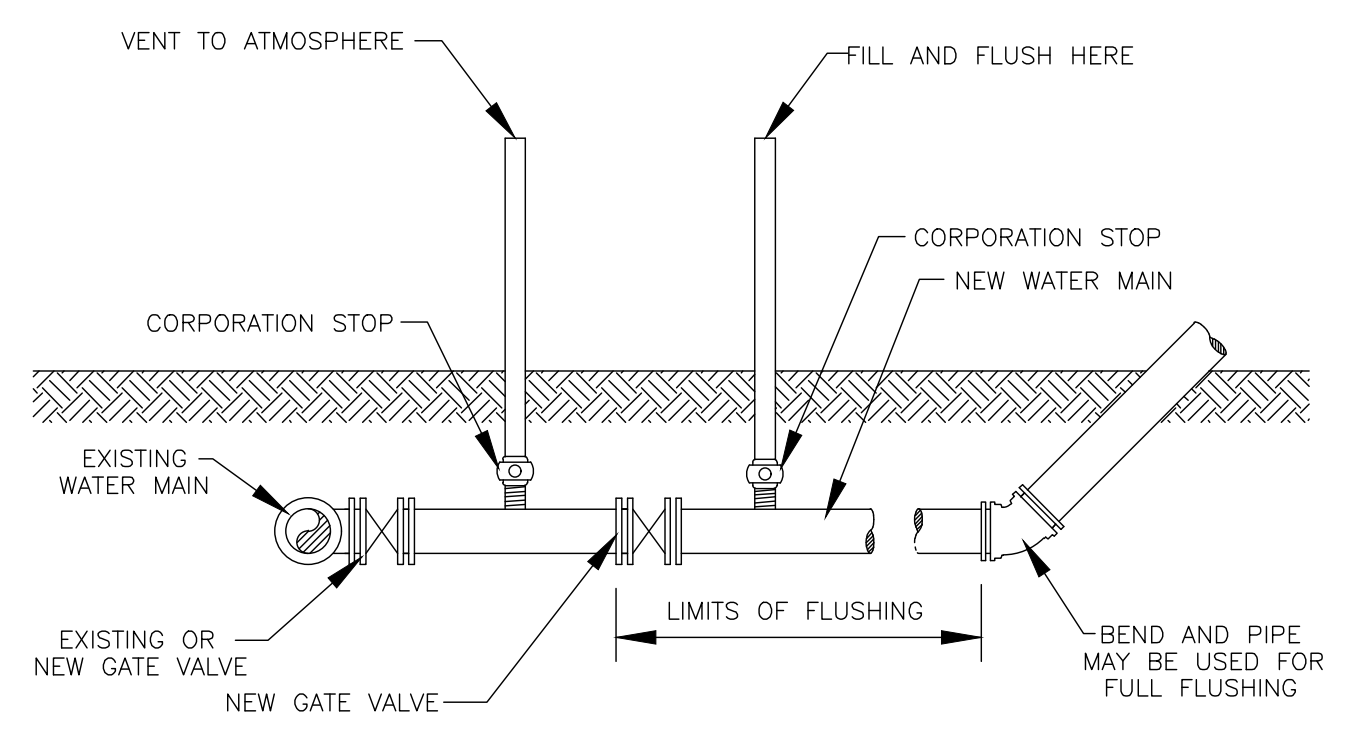
TYPICAL GATE VALVE SETTINGS
N.T.S. 05/31/05

NOTES:
1. WHEN OPERATING NUT IS DEEPER THAN 36" AN EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 24"-30" BELOW FINISHED GRADE. EXTENSION BOLTS & NUTS ARE TO BE STAINLESS STEEL. A STAINLESS STEEL CENTERING PLATE, WELDED TO THE EXTENSION, IS ALSO REQUIRED.
2. VALVE BOXES SHALL HAVE LOCKING COVERS IN HIGH TRAFFIC ROADWAY AREAS.



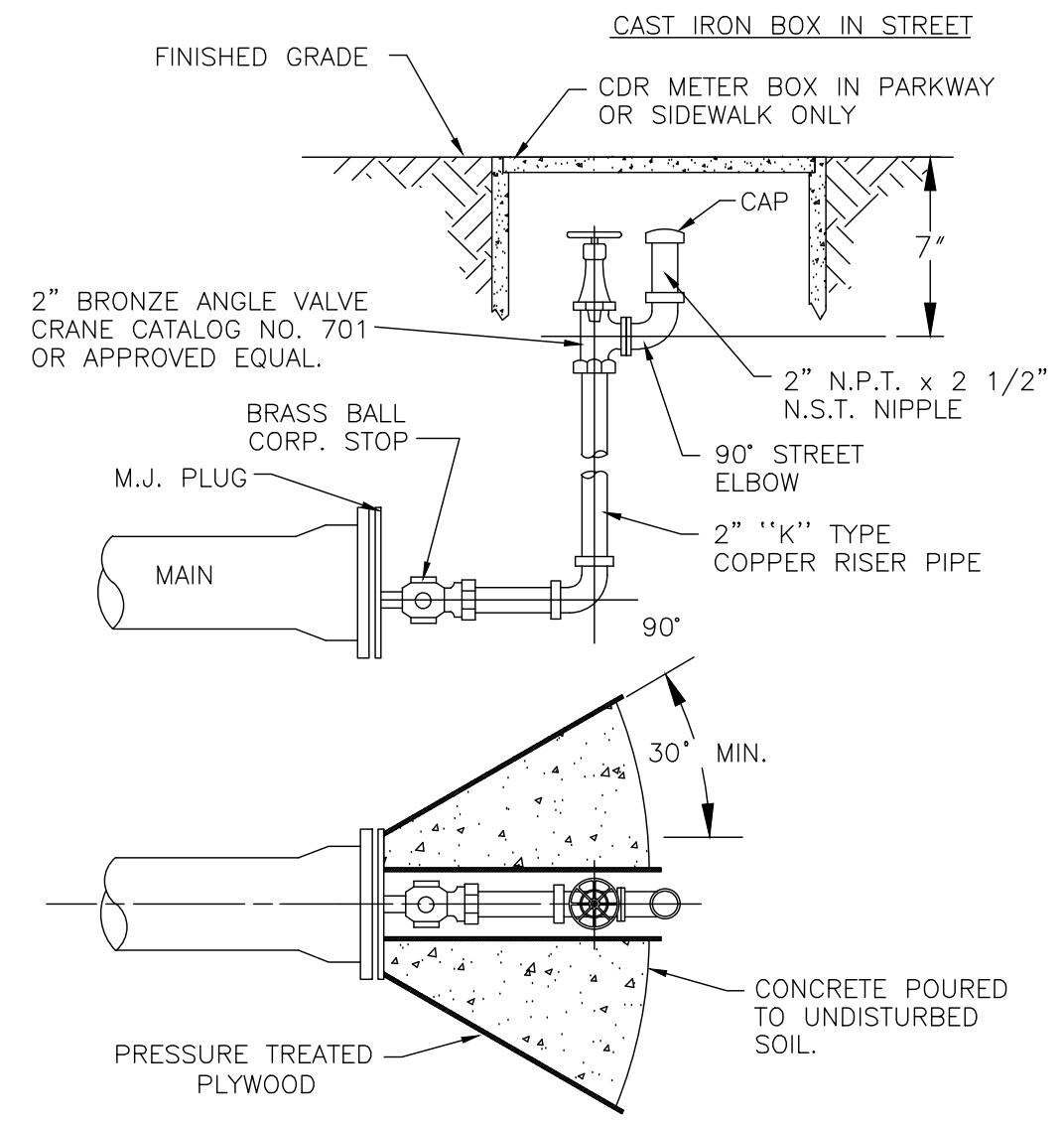
TYPICAL BUTTERFLY VALVE SETTING
N.T.S. 05/27/05

NOTES:
1. WHEN TOP OF OPERATING NUT IS DEEPER THAN 36" A HIGH STRENGTH STEEL EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 24"-30" BELOW FINISHED GRADE. EXTENSION BOLTS & NUTS ARE TO BE STAINLESS STEEL. A STEEL CENTERING PLATE WELDED TO THE EXTENSION, IS ALSO REQUIRED.
2. VALVE BOXES IN PAVEMENT SHALL HAVE LOCKING COVERS MARKED "WATER" OR "SEWER" AS REQUIRED.



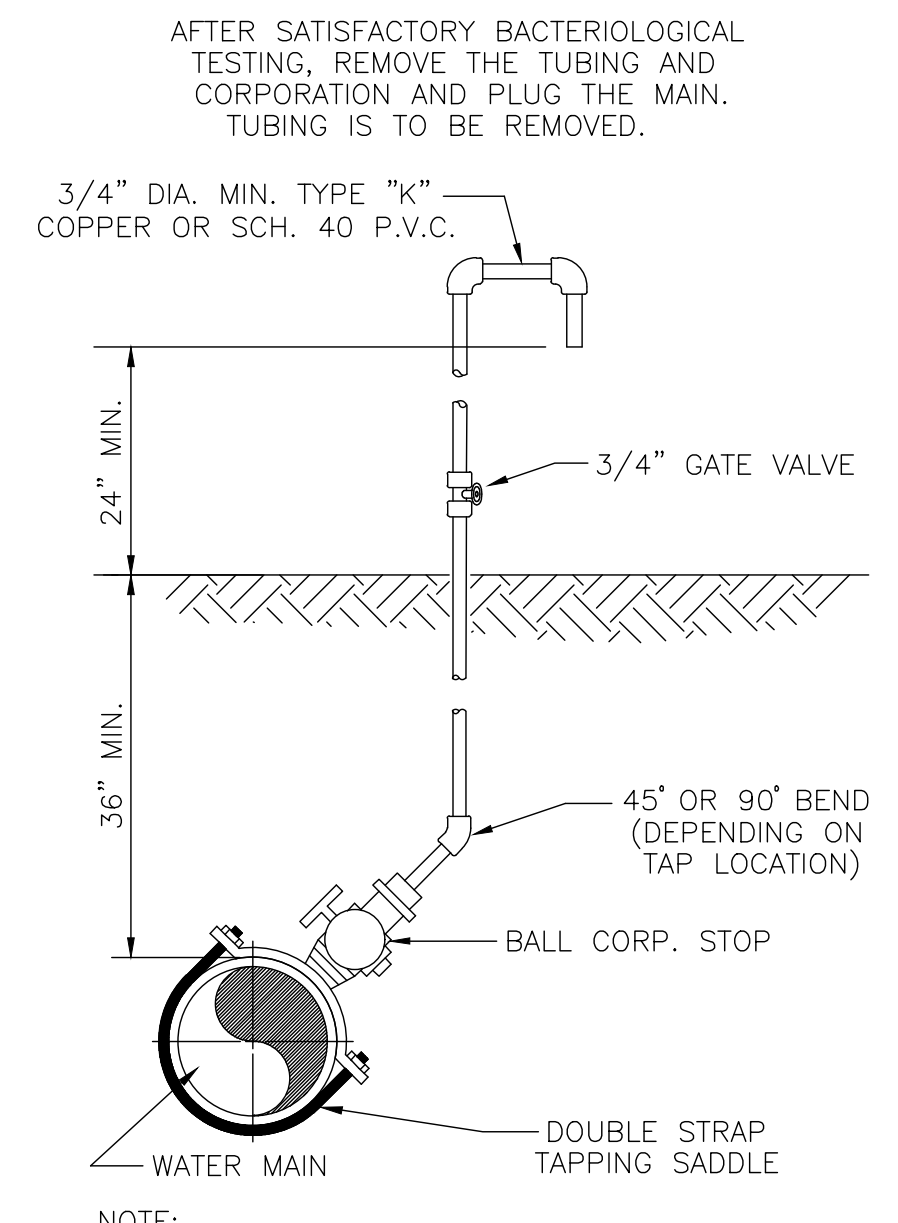
FILLING & FLUSHING DETAIL
N.T.S. 05/26/05

NOTES:
1. DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOPS ON NEW MAIN UNTIL FILLING AND FLUSHING AND TESTING HAS BEEN COMPLETED.
2. PLUG CORPORATION STOP WITH A P.V.C. PLUG WHEN ABANDONED.
3. PROVIDE ALL NECESSARY THRUST BLOCKS AND/OR OTHER RESTRAINTS.
4. THIS IS THE ONLY FLUSHING METHOD APPROVED BY THE TOWN OF MANGONIA PARK UTILITIES. SINCE OTHER METHODS DO NOT REMOVE LARGE OBJECTS SUCH AS ROCKS, CANS, BOTTLES AND OTHER DEBRIS FROM MAINS. ALL FIRE HYDRANTS AND DETECTOR CHECK VALVES MUST BE INSPECTED AND TESTED TO ASSURE NO SUCH FOREIGN OBJECTS ARE IN THE FIRE FLOW.
5. THE GENERAL CONTRACTOR MUST RENT A FIRE HYDRANT METER FROM THE TOWN OF MANGONIA PARK UTILITIES FOR USE OF POTABLE WATER FROM A TOWN OWNED SOURCE.



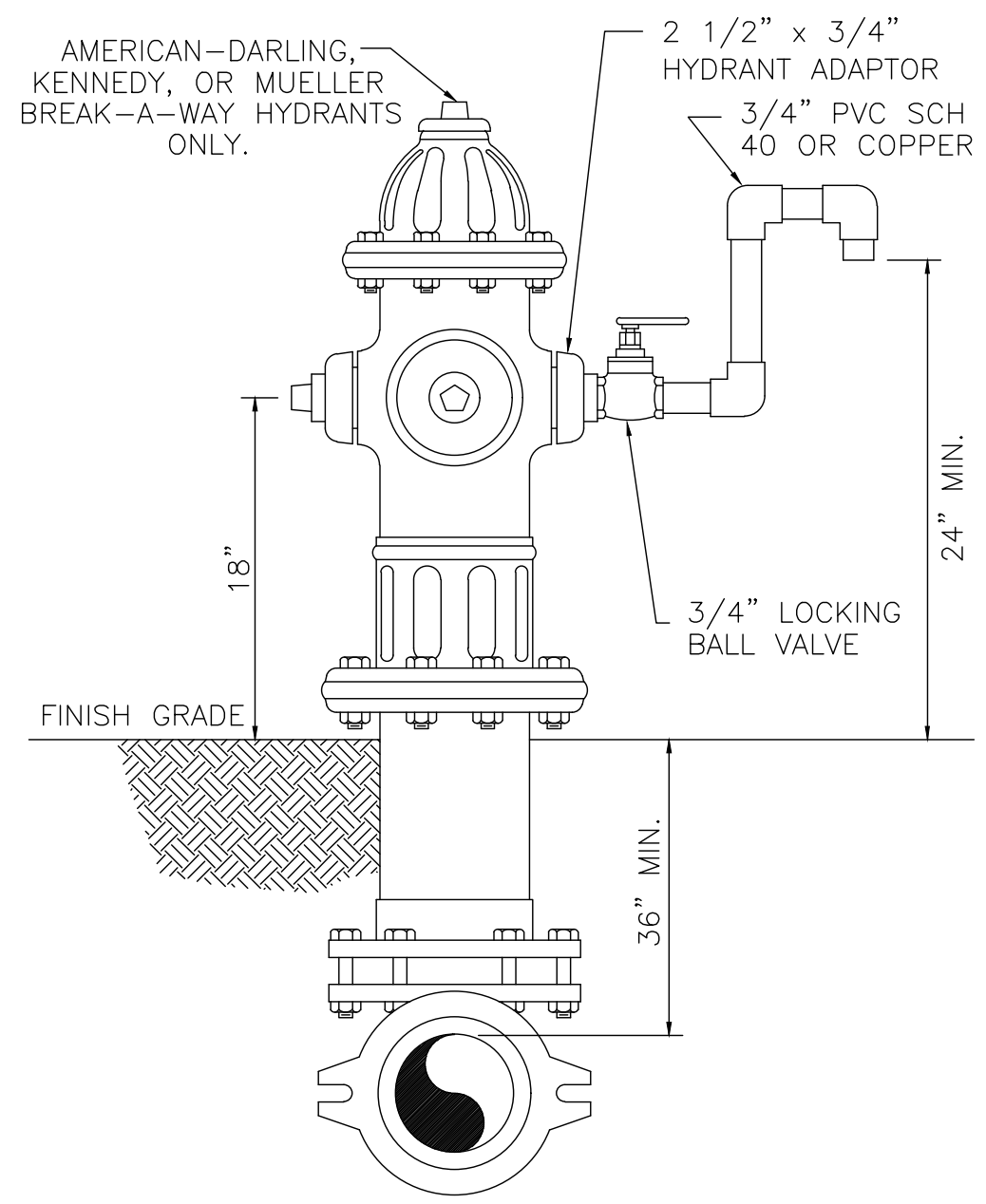
2" TERMINAL BLOWOFF
N.T.S. 05/27/05

NOTES:
1. PIPE JOINT COMPOUND SHALL BE APPLIED TO MALE THREADS ONLY.
2. COAT ALL EXPOSED THREADS WITH BITUMASTIC BEFORE BACKFILLING.
3. PLYWOOD AND CONCRETE TO HAVE A HEIGHT EQUAL TO THE DIAMETER OF THE PIPE.
4. CONCRETE STRENGTH - 4 KSI @ 28 DAYS.
5. GALVANIZED PIPING AND FITTINGS SHALL NOT BE USED ON TEMPORARY OR PERMANENT BLOWOFFS.

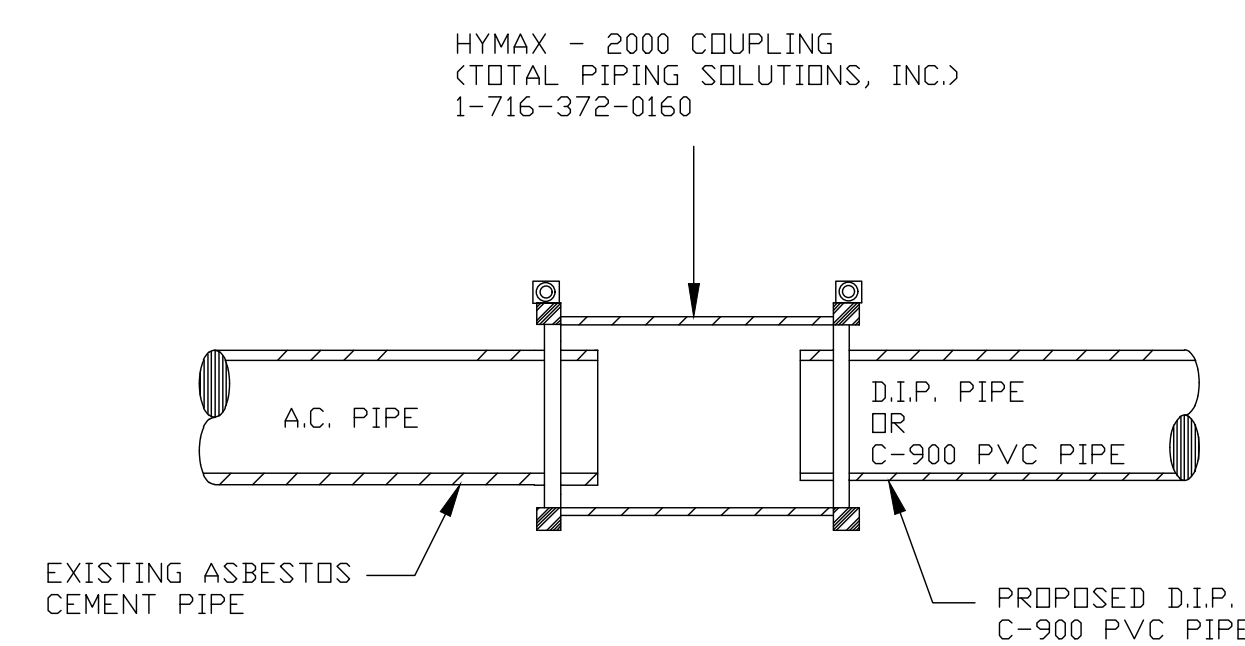


SAMPLE POINT (ON MAIN)
N.T.S. 05/31/05

NOTE:
WHENEVER POSSIBLE, SERVICE TAPS SHALL BE USED AS SAMPLE POINTS.



SAMPLE POINT (HYDRANT)
N.T.S. 05/27/05



PIPE TRANSITION DETAIL
N.T.S. 5/19/05

CARRIER PIPE SIZE	STEEL CASING	MIN. WALL THICKNESS
4"	12"	.188
6"	14"	.250
8"	20"	.250
10"	24"	.250
12"	24"	.250
14"	24"	.250
16"	30"	.250
18"	30"	.250
20"	36"	.250
24"	42"	.312
30"	48"	.375
36"	54"	.450
42"	60"	.500
48"	72"	.500

STANDARD JACK & BORE DETAIL
N.T.S.

NOTES:
1. APPROVED SELF RESTRAINING GASKETS SHALL BE USED FOR 4" THRU 12" DIAMETER PIPE.
2. RESTRAINED MECHANICAL JOINTS SHALL BE USED FOR PIPE 14" DIAMETER AND ABOVE AND SHALL HAVE FACTORY WELDED RETAINING RINGS. AMERICAN RESTRAINED JOINT PIPE OR APPROVED EQUAL MAY BE USED.
3. INSTALL STAINLESS STEEL PIPE CASING SPACERS PER MANUFACTURERS RECOMMENDATIONS (CASCADE MFG. CO. OR APPROVED EQUAL).
4. PIPE CASING SPACERS SHALL BE POSITIONED PER MANUFACTURERS RECOMMENDATIONS.

CASING DETAIL
N.T.S. 05/31/05

1" MINIMUM CLEARANCE BETWEEN PIPE JOINT AND STEEL CASING
SPACERS SHALL BE BOLT ON STYLE, TWO PIECE SHELL OF 1-304 STAINLESS STEEL OF A MINIMUM 14-GAUGE THICKNESS. SHELL SHALL BE LINED WITH RIBBED P.V.C. SHEET OF A 0.090" THICKNESS, OVERLAPS AT EDGES.

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED P.A.F. DATE JUNE 2011
DRAWN L.C.R. DATE JUNE 2011
CHECKED P.A.F. DATE JUNE 2011

TOWN OF MANGONIA PARK UTILITIES
1755 East Tiffany Drive, Mangonia Park, Florida 33407
Phone: 561.848.1235 Fax: 561.848.6940

DETAILS

APPROVED DATE

SCALE AS NOTED
PROJECT No. PW-3
CAD FILE 071033-04-003 OF

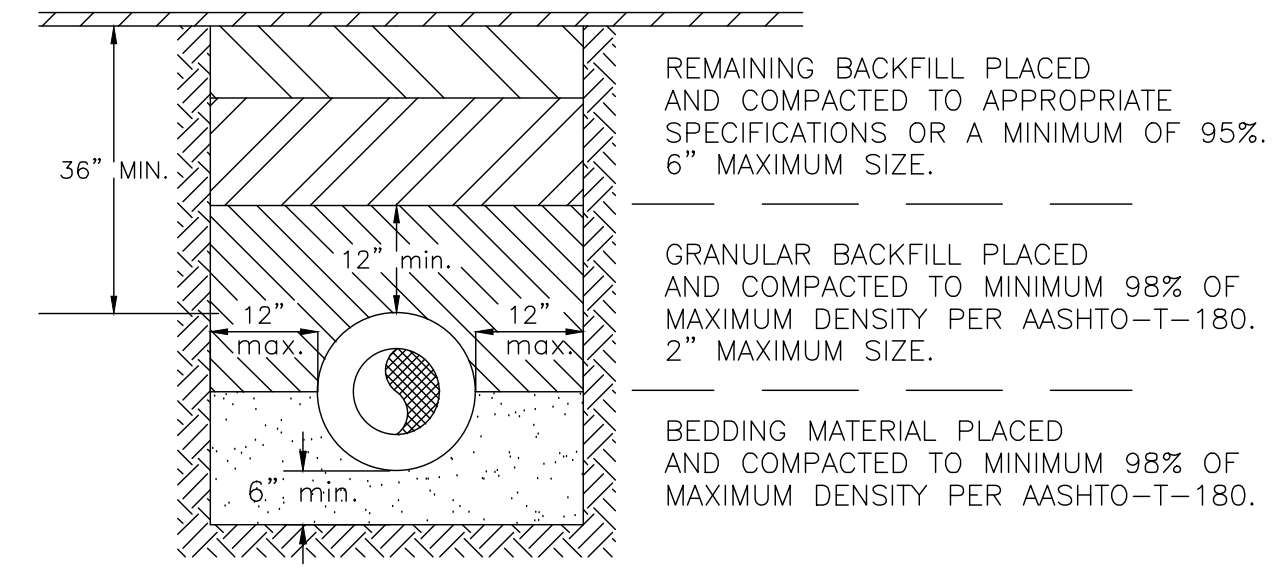
09/11/2023 ISSUED FOR CONSTRUCTION

REVISIONS

DESIGN E.V.
DRAWN R.W.
CHECKED
APPROVED
DATE

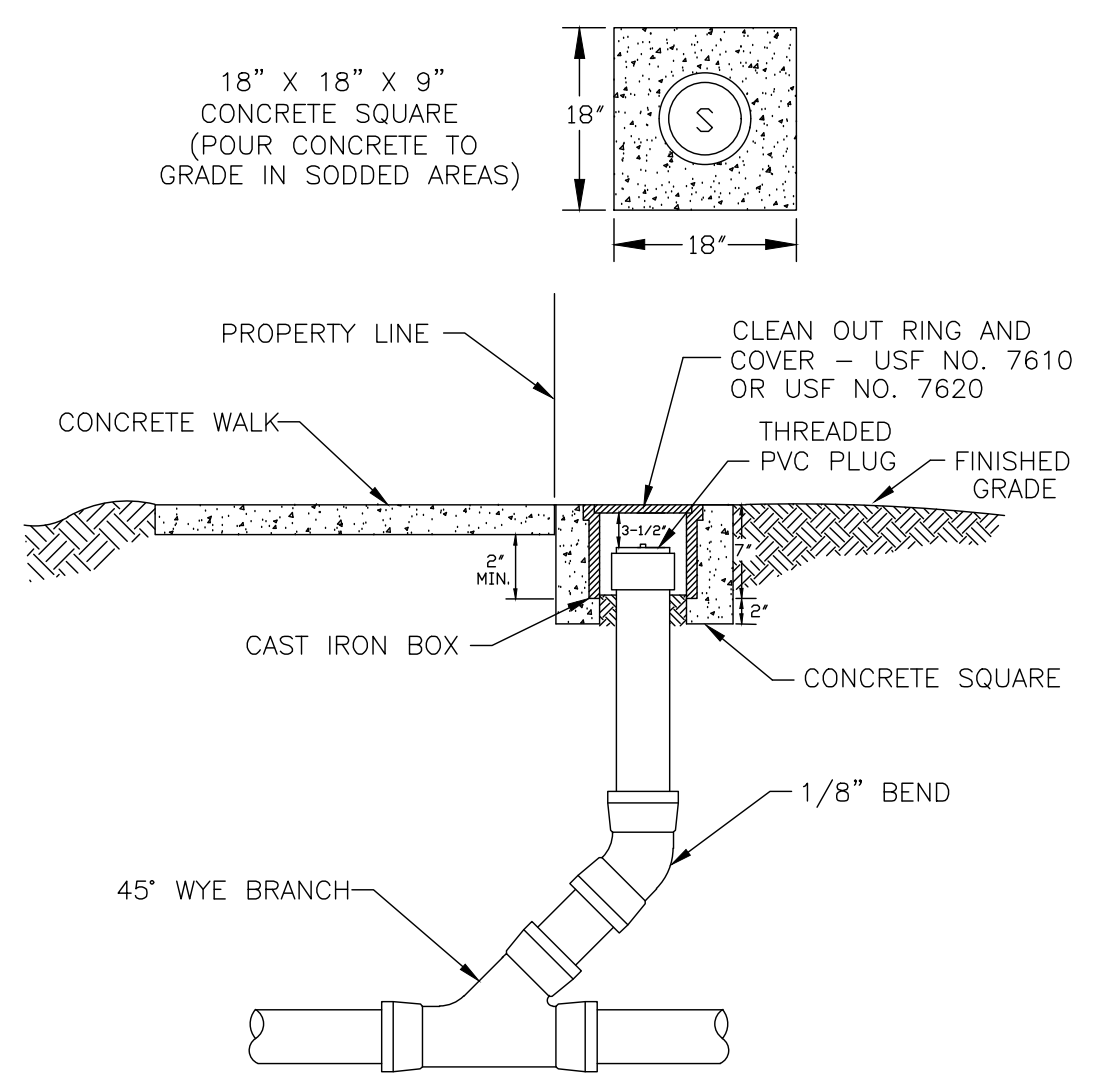
45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
WASTER AND WASTEWATER DETAILS

JOB NO. 21-017
DRAWING NO. 21017S13
SHEET 13 OF 15



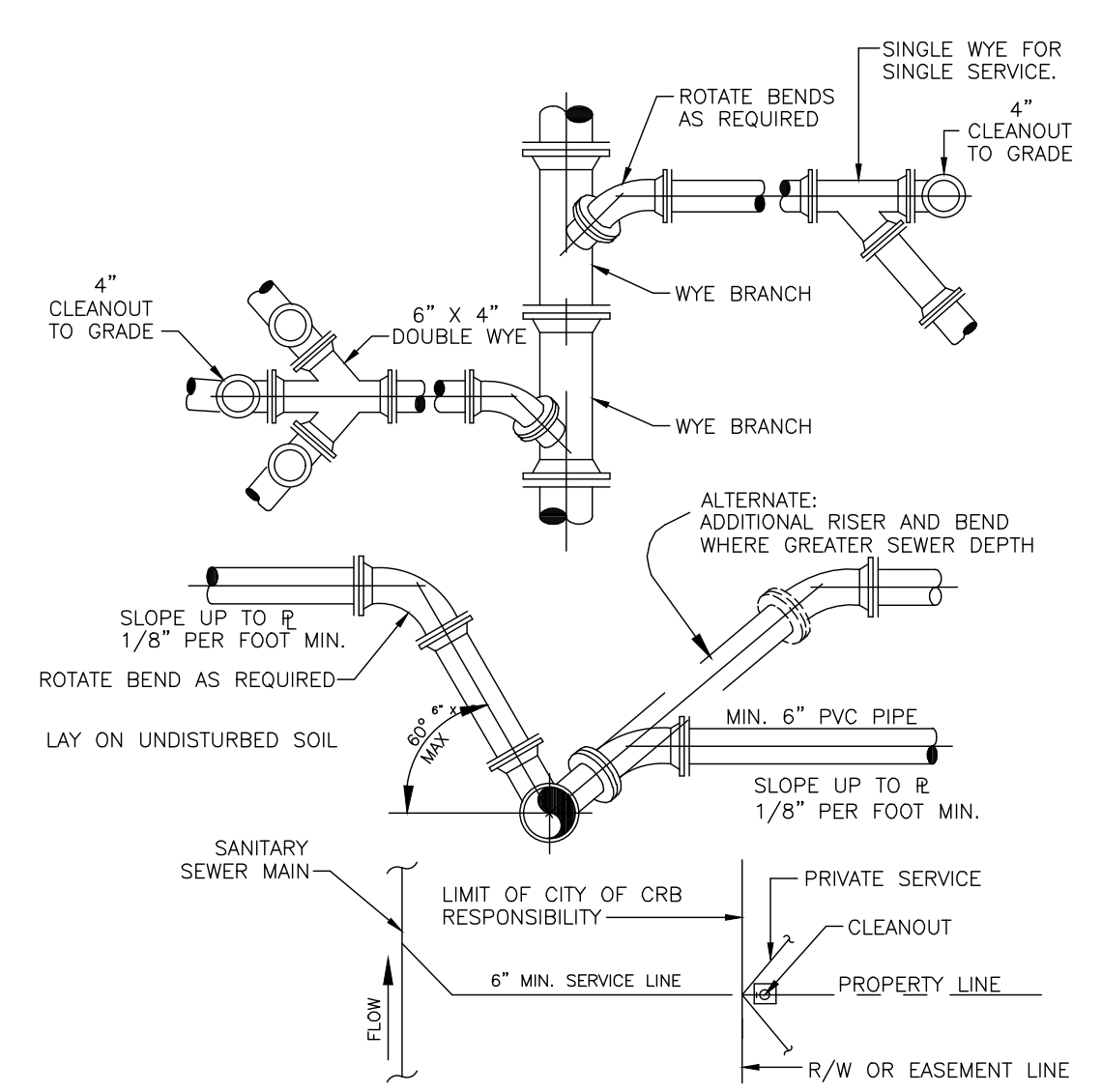
- NOTES:
1. BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/5" SIZING.
 2. THE PIPING SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
 3. THE PIPE SHALL BE PLACED IN A DRY TRENCH.
 4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGER ROCK, MUCK, AND DEBRIS.
 5. DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAX., OR AS DIRECTED BY THE INSPECTOR.
 6. STREET PAVEMENT 2" ASPHALT, BASE 8" LIMEROCK.

PAVEMENT REPLACEMENT DETAIL
N.T.S.



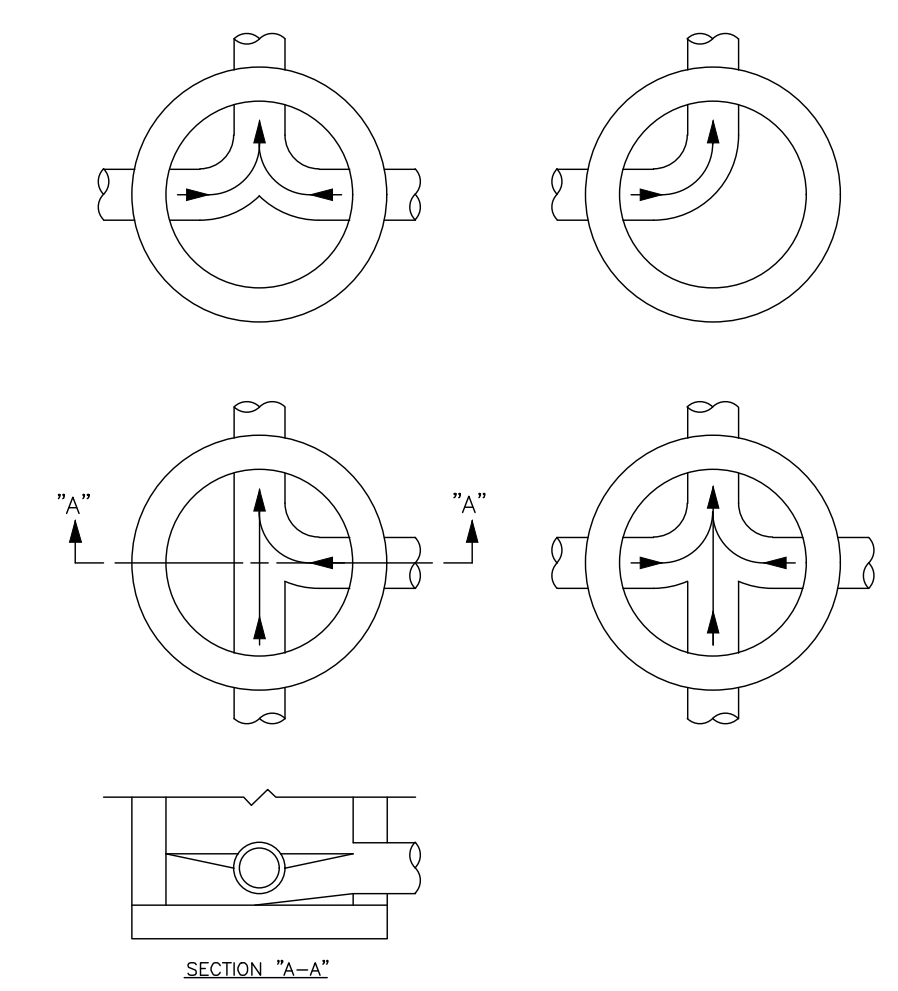
- NOTES:
1. CLEAN OUTS TO BE LOCATED IN GRASS WHENEVER POSSIBLE.
 2. CLEANOUTS SHALL NOT BE INSTALLED IN TRAFFIC LANES OR AREAS UNDER HEAVY TRAFFIC LOADS.
 3. THE COVER TO BE MARKED "S".
 4. CLEANOUTS TO BE INSTALLED PRIOR TO WATER METER RELEASE.
 5. NO 90° BENDS SHALL BE USED FOR CLEANOUT INSTALLATION.

CLEAN OUT AT PROPERTY LINE
N.T.S.



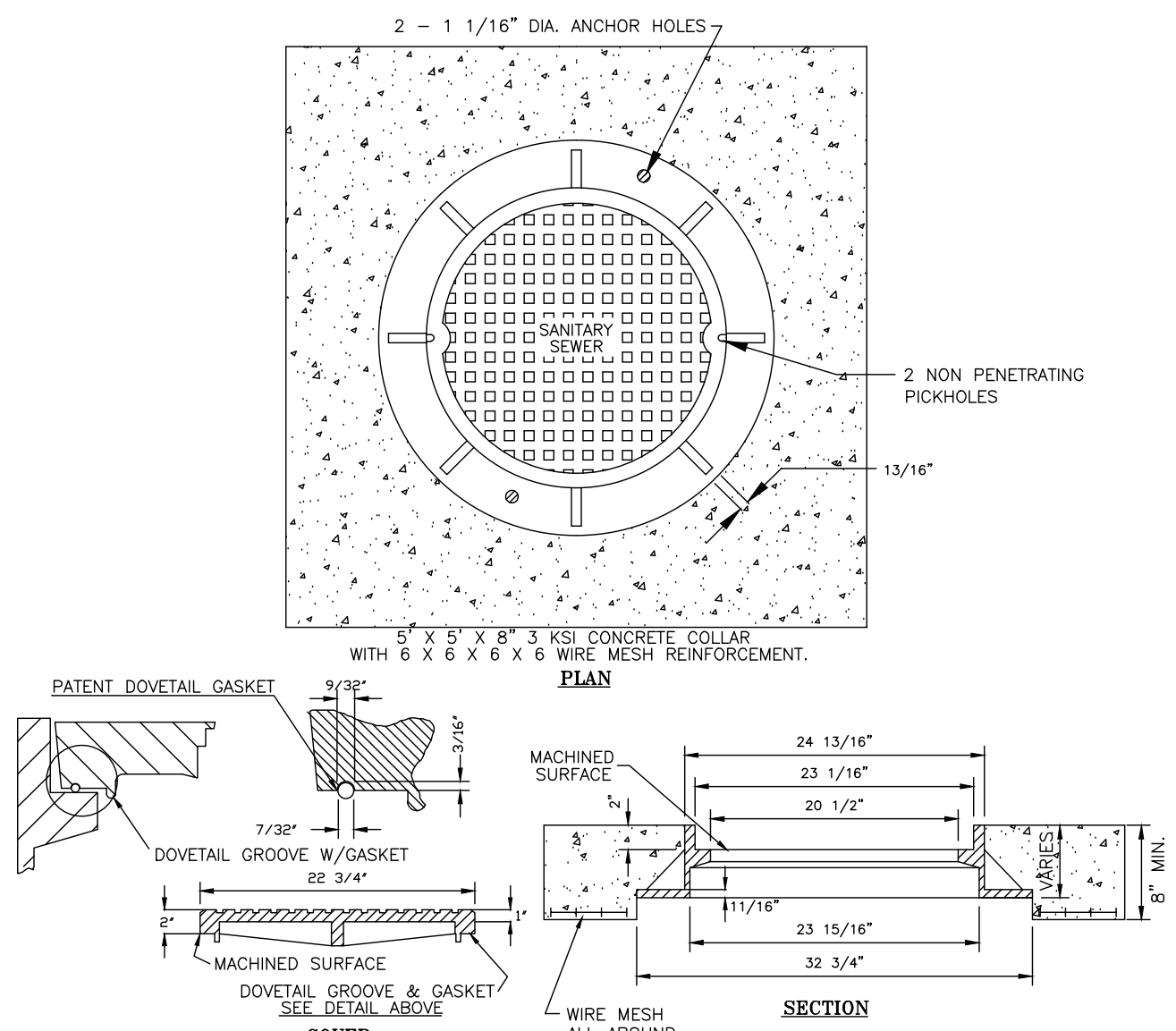
- NOTES:
1. SERVICE LATERALS SHALL TERMINATE AT PROPERTY LINE AT A DEPTH OF 3 FEET.
 2. CLEANOUT CONNECTION TO BE EXTENDED 3 FEET ABOVE GRADE PRIOR TO WATER METER INSTALLATION.
 3. CLEANOUTS ARE TO BE SET TO GRADE PRIOR TO WATER METER INSTALLATION.
 4. NO 90° BENDS SHALL BE PERMITTED FOR SEWER SERVICE AND CLEANOUT INSTALLATION.

TYPICAL LATERAL CONNECTIONS
N.T.S.



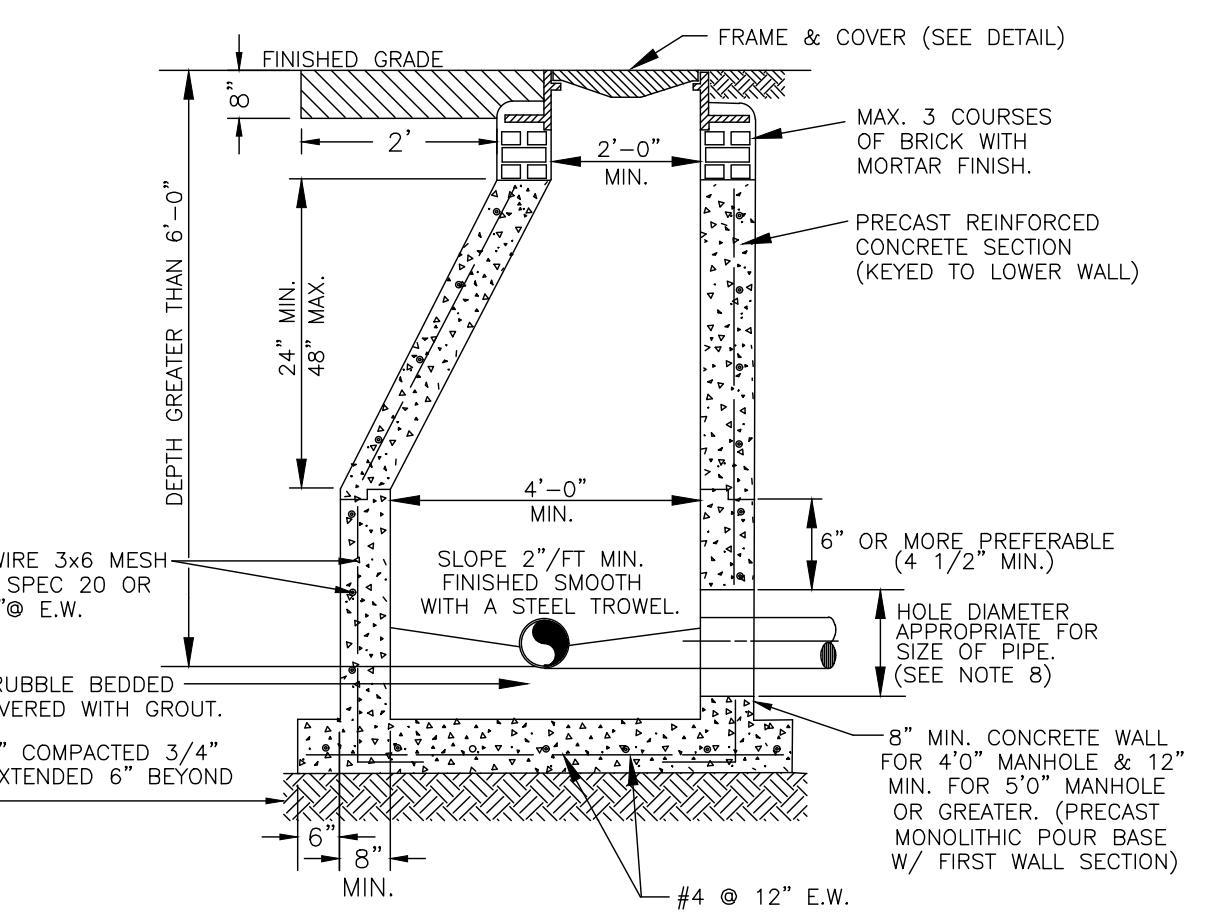
- NOTE:
1. ALL INVERT CHANNELS ARE TO BE CONSTRUCTED FOR SMOOTH FLOW WITHOUT OBSTRUCTION.
 2. PROPERLY SHAPED SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS TO PROVIDE FOR SMOOTH FLOWS.
 3. SERVICE LATERALS ENTERING MANHOLES SPECIFIED ON PLANS MUST HAVE FLOW CHANNELS.
 4. BRICKS AND CONCRETE RUBBLE PERMITTED FOR FLOW CHANNEL BUILDUP.
 5. SIDEWALLS OF FLOW CHANNEL SHALL BE AT LEAST HALF OF PIPE HEIGHT AT ALL POINTS.

TYPICAL INVERT FLOW CHANNELS
N.T.S.



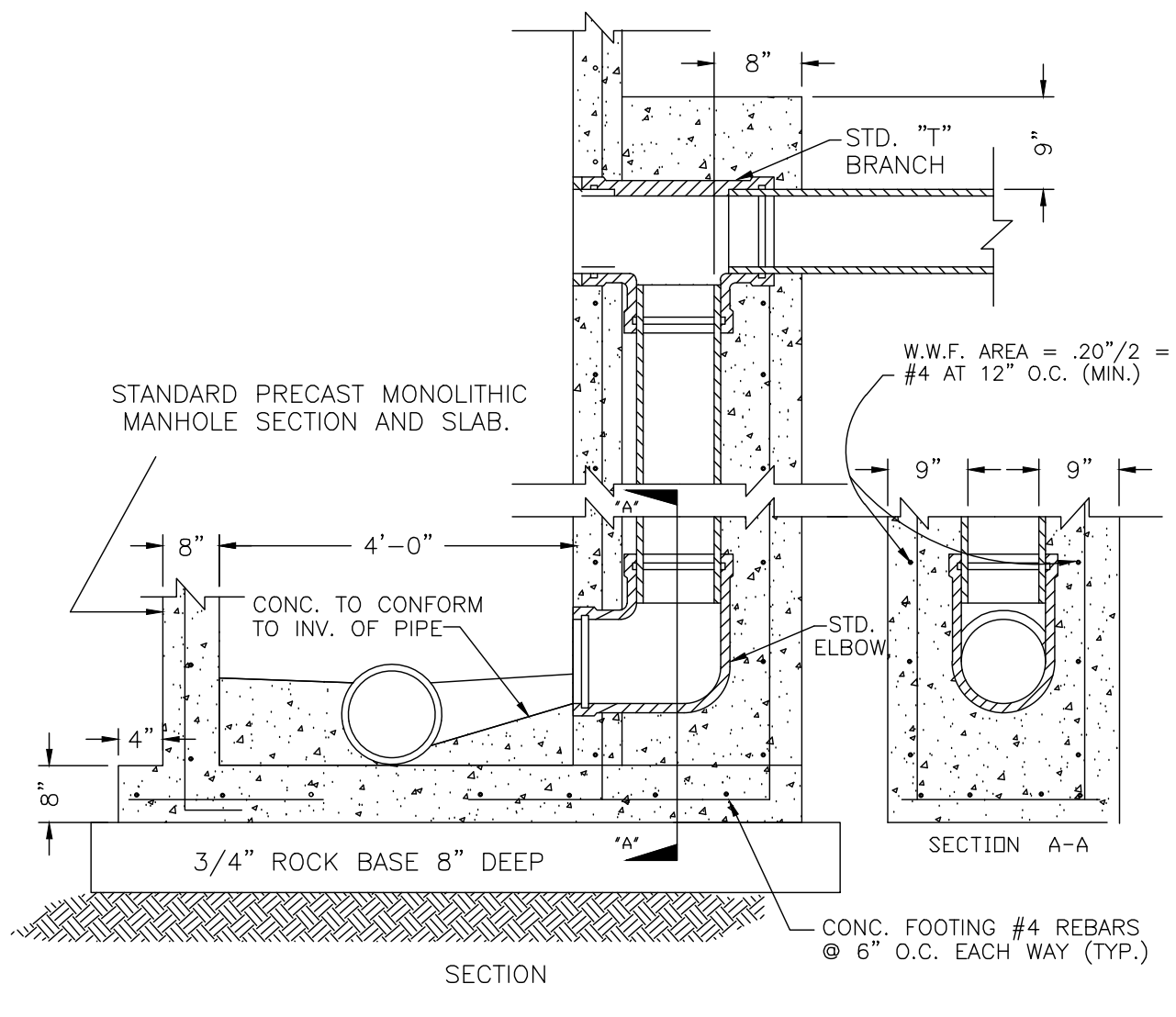
- NOTE:
1. FRAME AND COVER SHALL BE U.S. FOUNDRY NO. 402A-AK, VULCAN NO. 1344 OR APPROVED EQUAL FOR 1" DEPTH FRAME, OR U.S. FOUNDRY NO. 465A OR EQUAL FOR 4" DEPTH FRAME.
 2. A STEEL MANHOLE RISER (MANHOLE SYSTEMS MODEL MS101) SHALL BE USED TO ELEVATE EXISTING MANHOLE COVERS TO RESURFACE GRADE (MAX. 4" HEIGHT).
 3. MANHOLE CASTINGS SHALL BE WATER TIGHT.
 4. ALL BEARING SURFACES TO BE MACHINED (IRON TO IRON).
 5. FRAME WT.: MIN. 250 LBS. COVER WT.: MIN. 160 LBS.
 6. SPECIFY: SANITARY FOR SEWER OR WATER FOR POTABLE WATER

TYPICAL MANHOLE COVER
N.T.S.



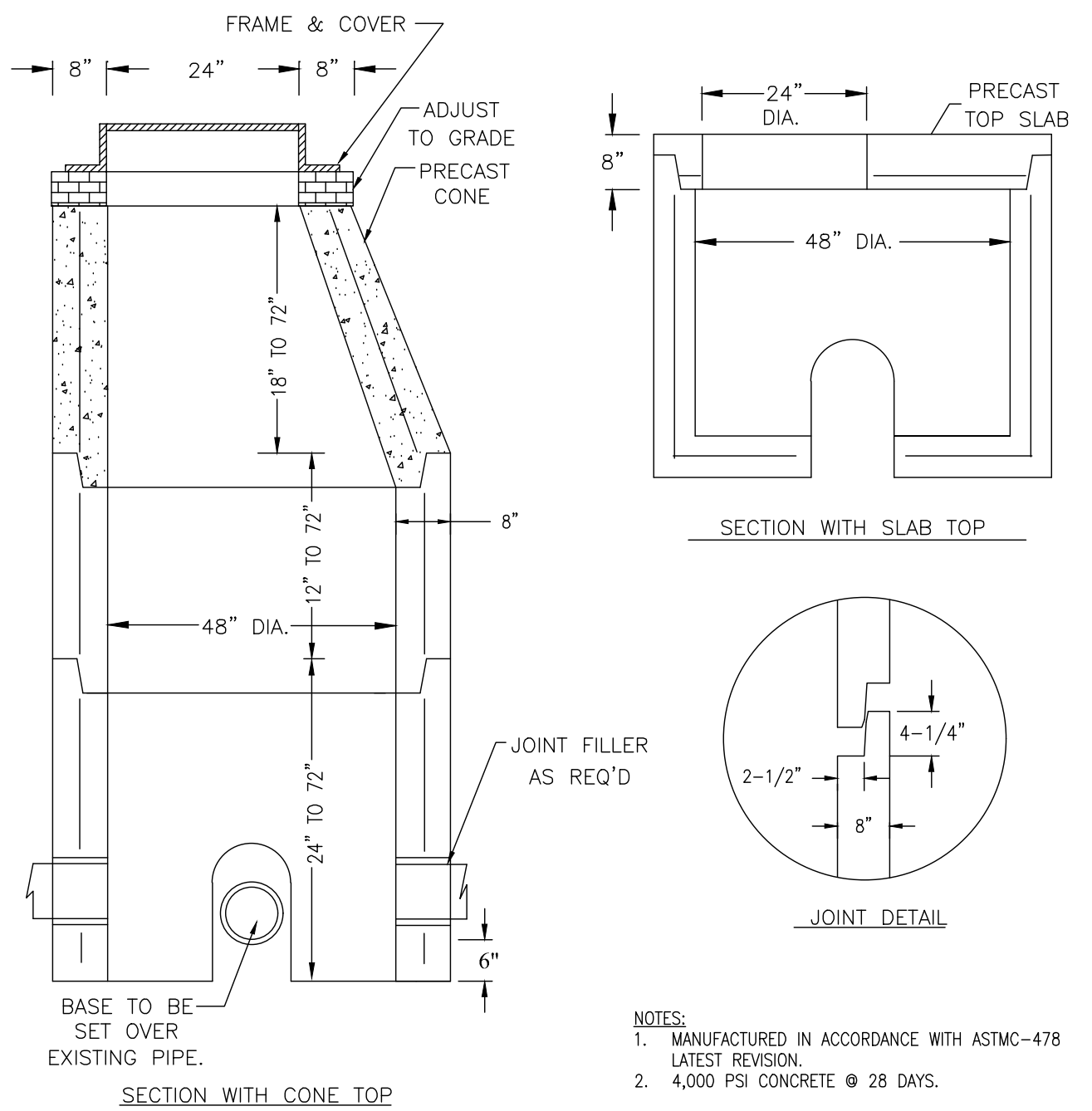
- NOTES:
1. PRECAST CONCRETE, TYPE II, ACID RESISTANT, 4000 P.S.I.
 2. RAMNEK FLEXIBLE PLASTIC GASKET OR EQUAL AT ALL RISER JOINTS (1/2" THICK, WIDTH AT LEAST HALF THE WALL THICKNESS) WITH NON-SHRINK WATERPROOF GROUT ON INSIDE AND OUTSIDE.
 3. ALL OPENINGS SHALL BE SEALED WITH EITHER RESILIENT CONNECTOR (BOOTS) OR P.V.C. MANHOLE ADAPTERS FOR P.V.C. PIPE PENETRATIONS. BOOTS AND ADAPTERS SHALL BE CEMENTED IN WITH NON-SHRINK WATERPROOF GROUT.
 4. FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT INFLUENT INTO FLOW STREAM, AND SHALL BE FORMED IN ALL MANHOLES TO ACCEPT A T.V. CAMERA.
 5. LIFT HOLES ARE PERMITTED, BUT SHALL BE SEALED.
 6. ALL PIPE HOLES SHALL BE PRECAST OR CORE-DRILLED, WITH NON-SHRINK, WATER PROOF GROUT.
 7. INSIDE DROPS SHALL NOT BE DESIGNED TO EXCEED 1.80 FT. AND NOT CONSTRUCTED TO EXCEED 2.0 FT.
 8. MIN. HOLE Ø EQUALS PIPE O.D. PLUS 8" FOR P.V.C. ADAPTERS OR PIPE O.D. PLUS 4" FOR BOOTS.
 9. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C-478, LATEST STANDARD.
 10. CONCRETE TO BE SEAL COATED WITH 2 COATS OF COAL EPOXY AND 2 COATS OUTSIDE.
 11. MANHOLE MUST BE INSPECTED BEFORE PAINTING AND INSTALLATION.

TYPICAL MANHOLE DETAILS
N.T.S.



- NOTE:
1. DROP M.H. MUST BE USED WHEN DIFFERENCE OF INVERTS IS 1'-6" USING A TEE AT THE TOP AND A 90° BEND AT THE BOTTOM AS SHOWN.
 2. DETAILS NOT SHOWN ARE TO BE THE SAME AS FOR THE "TYPICAL MANHOLE DETAIL".
 3. STANDARD PRECAST MANHOLE SECTION (4' Ø) AND SLAB TO BE CAST MONOLITHICALLY AND SHALL FULLY EXTEND UNDER THE DROP.
 4. INSIDE DROPS ALLOWED ONLY ON EXISTING MANHOLES.

TYPICAL DROP MANHOLE
N.T.S.



- NOTE:
1. MANUFACTURED IN ACCORDANCE WITH ASTM-C478 LATEST REVISION.
 2. 4,000 PSI CONCRETE @ 28 DAYS.

DOGHOUSE MANHOLE DETAILS
N.T.S.

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED P.A.F. DATE JUNE 2011
 DRAWN L.C.R. DATE JUNE 2011
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TOWN OF MANGONIA PARK UTILITIES
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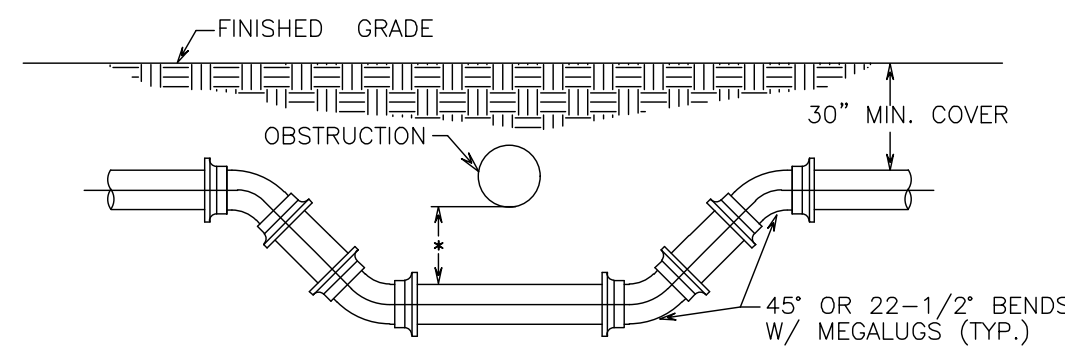
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SCALE AS NOTED	SHEET SS-1
PROJECT No	
CAD FILE 071933-05-003	OF

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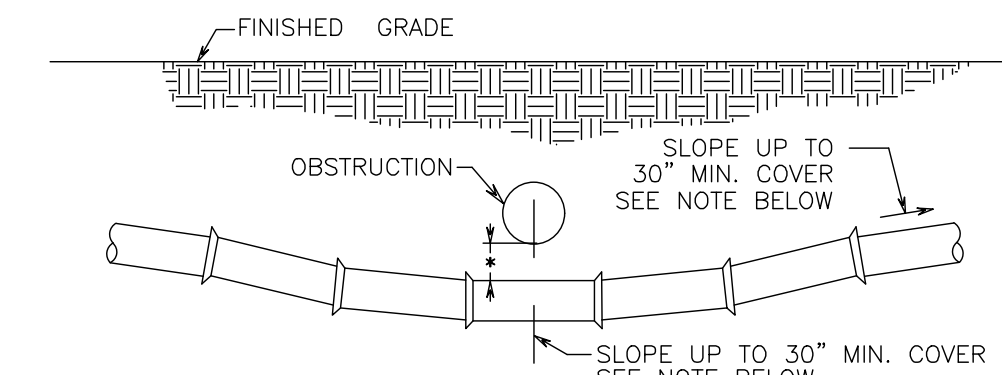
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45TH STREET S.R.O.A.
 SECTION 06, TOWNSHIP 43S., RANGE 43E.
 TOWN OF MANGONIA PARK, FLORIDA
 WASTER AND WASTEWATER DETAILS



SPECIAL UTILITY CROSSING - FITTING TYPE

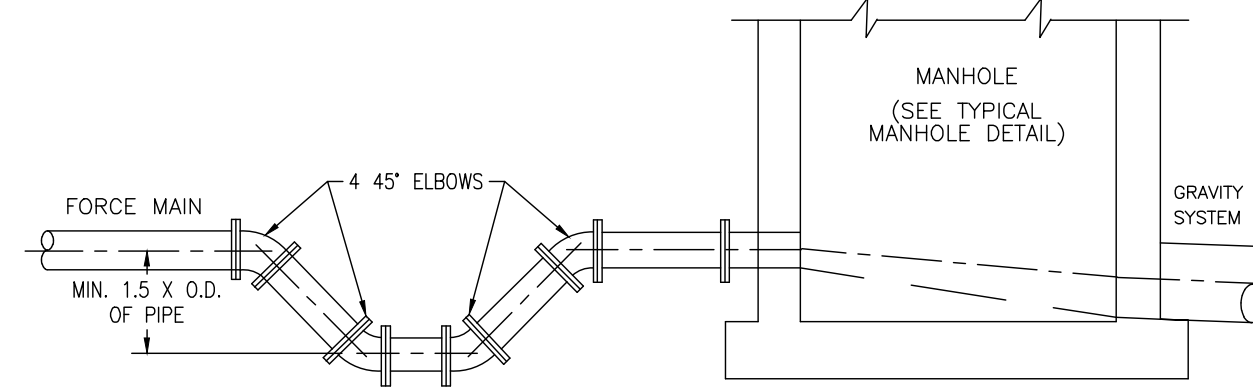
* UNLESS SHOWN OTHERWISE, 18" MIN. CLEARANCE WILL BE REQUIRED FOR WATER & SEWER MAIN CROSSING. 4" MIN. CLEARANCE WILL BE REQUIRED FOR OTHER TYPE OF UTILITIES CROSSING.



SPECIAL UTILITY CROSSING - DEFLECTION TYPE

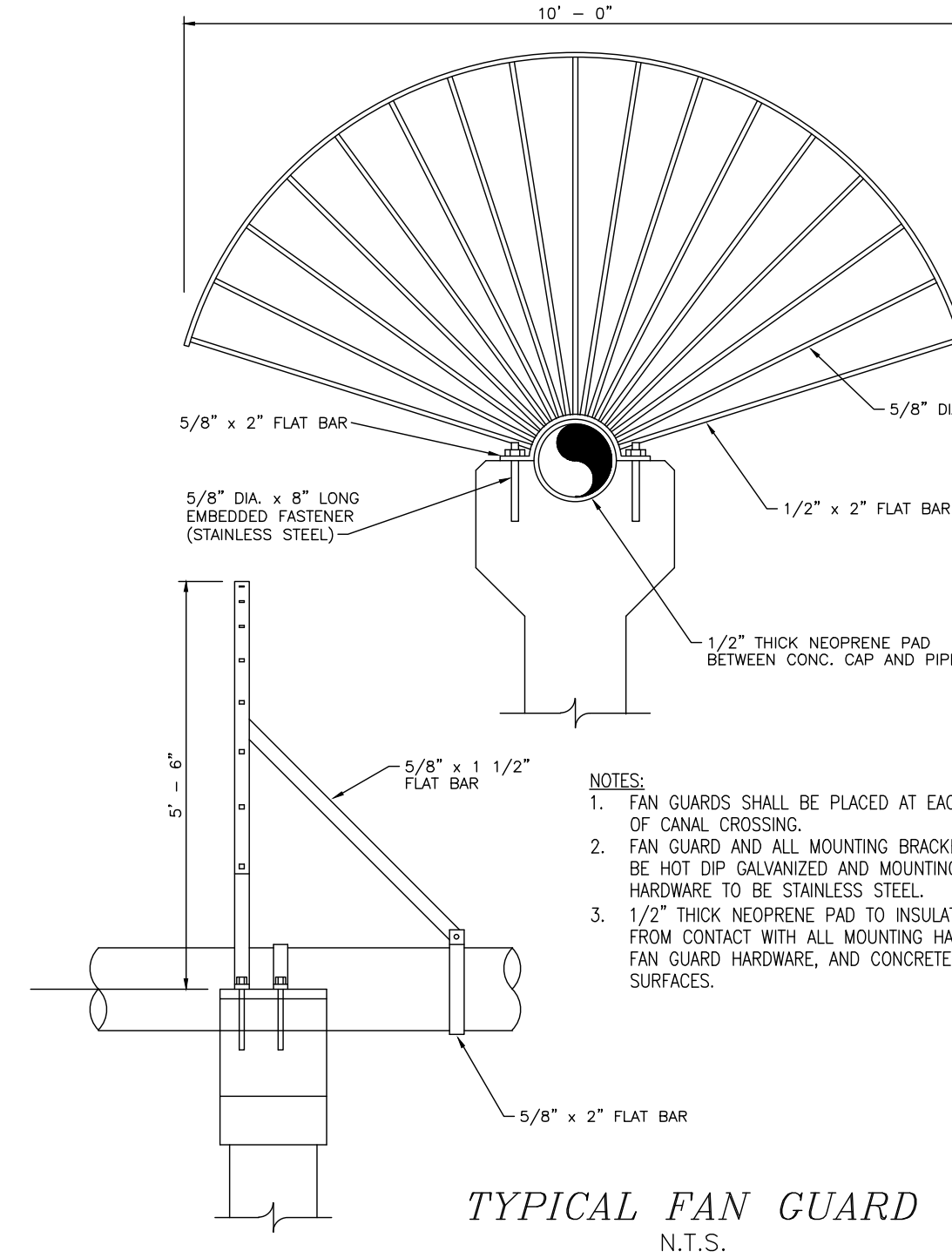
- NOTES:
1. THE DEFLECTION TYPE CROSSING SHALL BE USED WHERE EVER POSSIBLE.
 2. ONLY UNDER SPECIFIC ORDERS BY THE ENGINEER SHALL THE FITTING TYPE CROSSING BE ALLOWED.
 3. CONSTRUCT STANDARD CROSSING USING 75% OF MANUFACTURERS MAXIMUM JOINT DEFLECTION (MAX.).
 4. ALL MECHANICAL JOINTS MEGALUG.
 5. FITTINGS TO BE RESTRAINED WITH RETURN GLANDS AND EITHER THRUST BLOCKS OR TIE RODS.
 6. ALL EXPOSED TIE RODS SHALL BE COATED WITH COAL TAR EPOXY.

FORCE MAIN CROSSING
N.T.S.



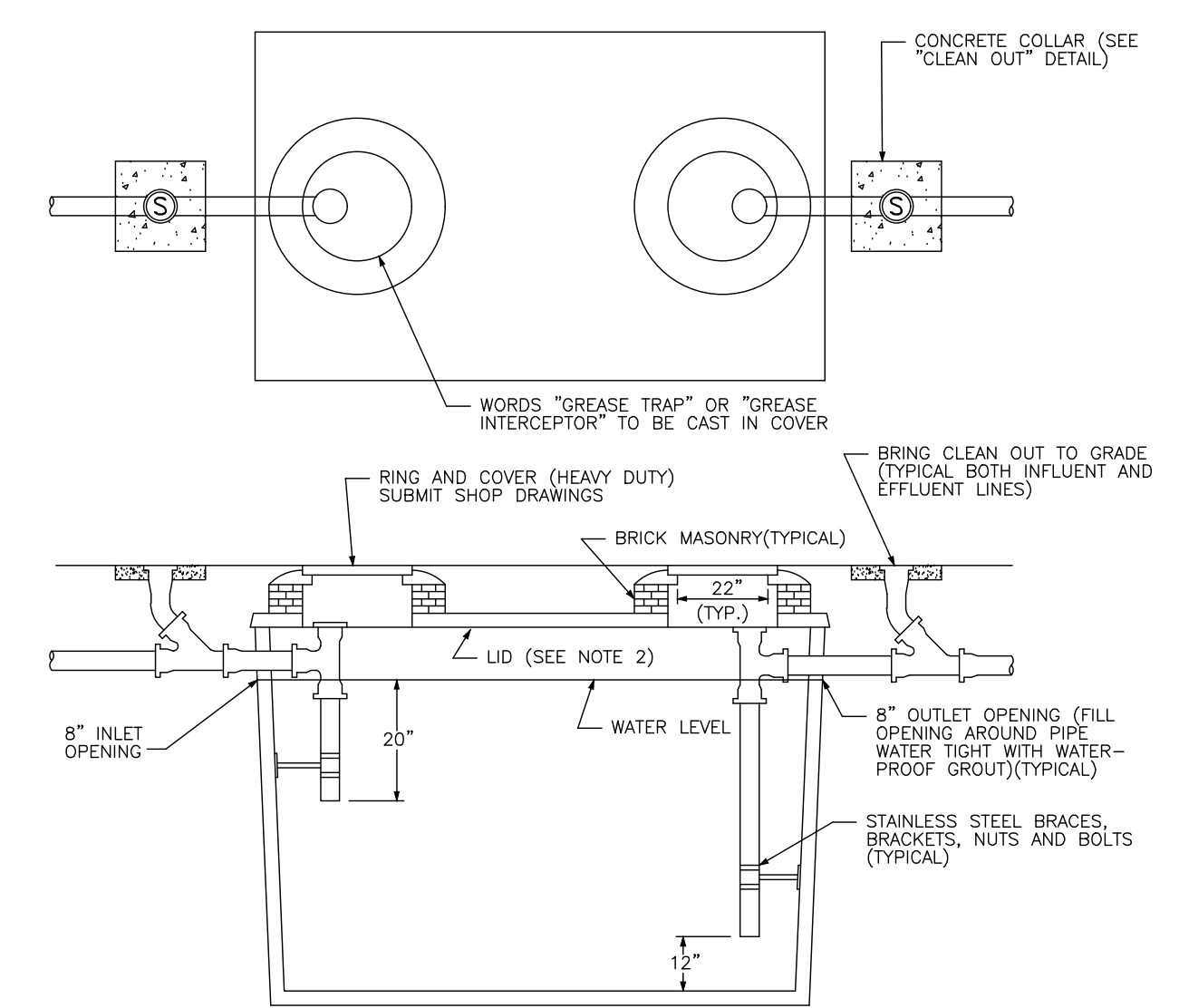
- NOTES:
1. FORCE MAIN TO ENTER MANHOLE AS CLOSE AS POSSIBLE TO 180° TO GRAVITY OUTLET.
 2. THE INVERT LEVEL OF FORCE MAIN AT POINT OF ENTRY SHALL BE NO MORE THAN 6" ABOVE INVERT OF MANHOLE.
 3. CORE ENTRY ONLY INTO EXISTING MANHOLES.
 4. TRAP TO BE LOCATED PRIOR TO DROP INTO MANHOLE AND OUTSIDE OF PAVED AREAS, IF POSSIBLE.
 5. USE TWO 45° ELBOWS PAST TRAP IF ELEVATION DROP IS REQUIRED TO ENTER MANHOLE. FLOW CHANNEL REQUIRED.
 6. MANHOLE AND FLOW CHANNEL TO HAVE TWO DIFFERENT COLORED COATS OF 100% SOLIDS EPOXY LINER.
 7. FORCE MAINS SHALL BE A MINIMUM OF 4" I.D. EPOXY-LINED D.I.P.
 8. ALL MECHANICAL JOINTS TO USE MEGALUG OR EQUAL.

FORCE MAIN ENTERING MANHOLE
N.T.S.



- NOTES:
1. FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
 2. FAN GUARD AND ALL MOUNTING BRACKETS TO BE HOT DIP GALVANIZED AND MOUNTING HARDWARE TO BE STAINLESS STEEL.
 3. 1/2" THICK NEOPRENE PAD TO INSULATE PIPE FROM CONTACT WITH ALL MOUNTING HARDWARE, FAN GUARD HARDWARE, AND CONCRETE SURFACES.

TYPICAL FAN GUARD
N.T.S.



- NOTES:
1. SHOP DRAWINGS REQUIRED TO BE SUBMITTED FOR TOWN OF MANGONIA PARK APPROVAL.
 2. LID TYPES:
A) 4" REGULAR LID
B) 8" TRAFFIC BEARING LID

GREASE TRAP DETAIL

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED	P.A.F.
DATE	JUNE 2011
DRAWN	L.C.R.
DATE	JUNE 2011
CHECKED	P.A.F.
DATE	JUNE 2011

TOWN OF MANGONIA PARK
UTILITIES
1755 East Tiffany Drive, Mangonia Park, Florida 33407
Phone: 561.848.1235 Fax: 561.848.6940

DETAILS

APPROVED
DATE

SCALE
AS NOTED
PROJECT No
CAD FILE
01121311-01-011

SHEET
SS-2
OF

09/11/2023
ISSUED FOR CONSTRUCTION



45TH STREET S.R.O.A.
SECTION 06, TOWNSHIP 43S., RANGE 43E.
TOWN OF MANGONIA PARK, FLORIDA
WASTER AND WASTEWATER DETAILS

REVISIONS

DESIGN E.V. DRAWN R.W. CHECKED APPROVED DATE

JOB NO. 21-017 DRAWING NO. 21017S15 SHEET 15 OF 15