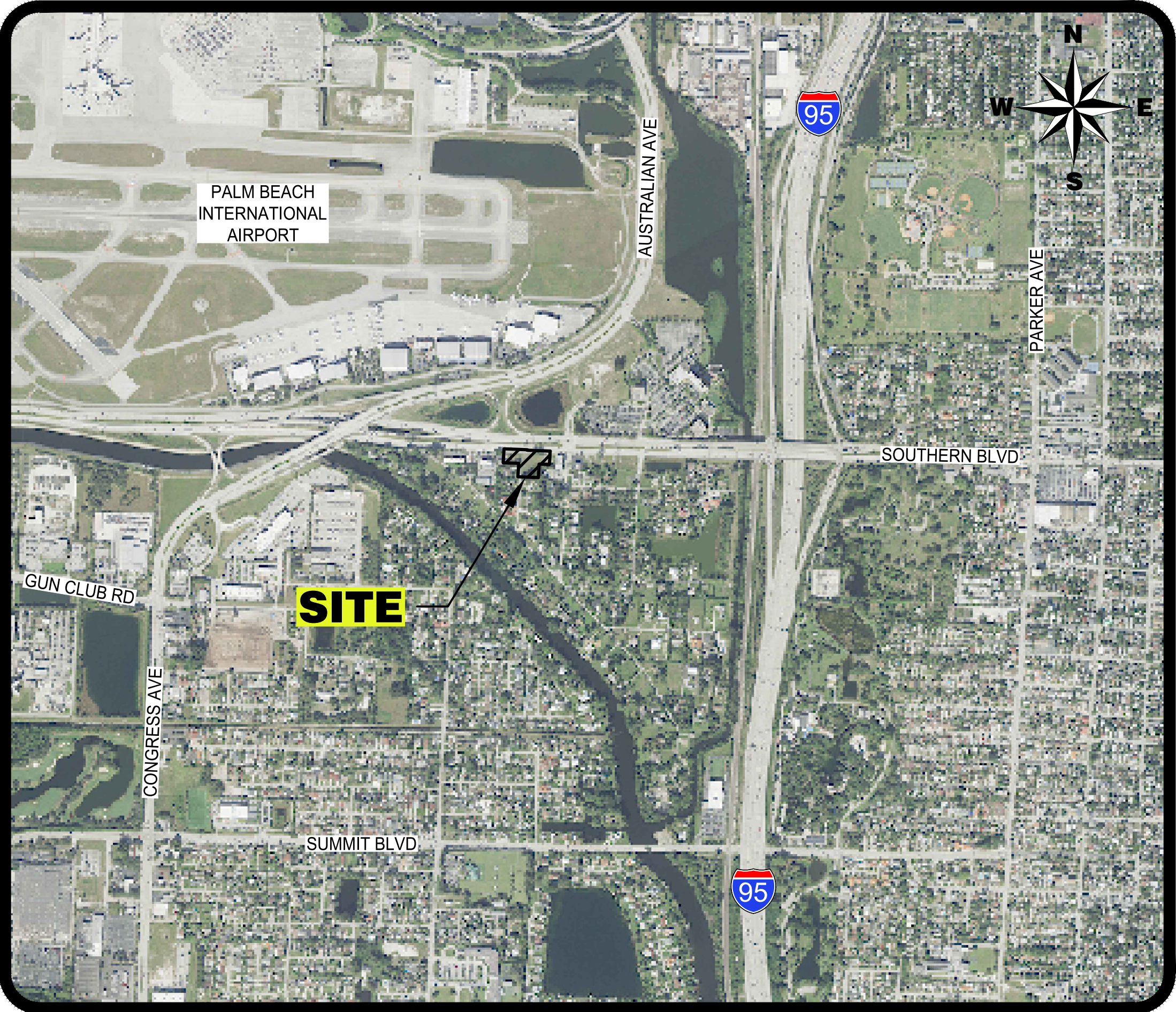
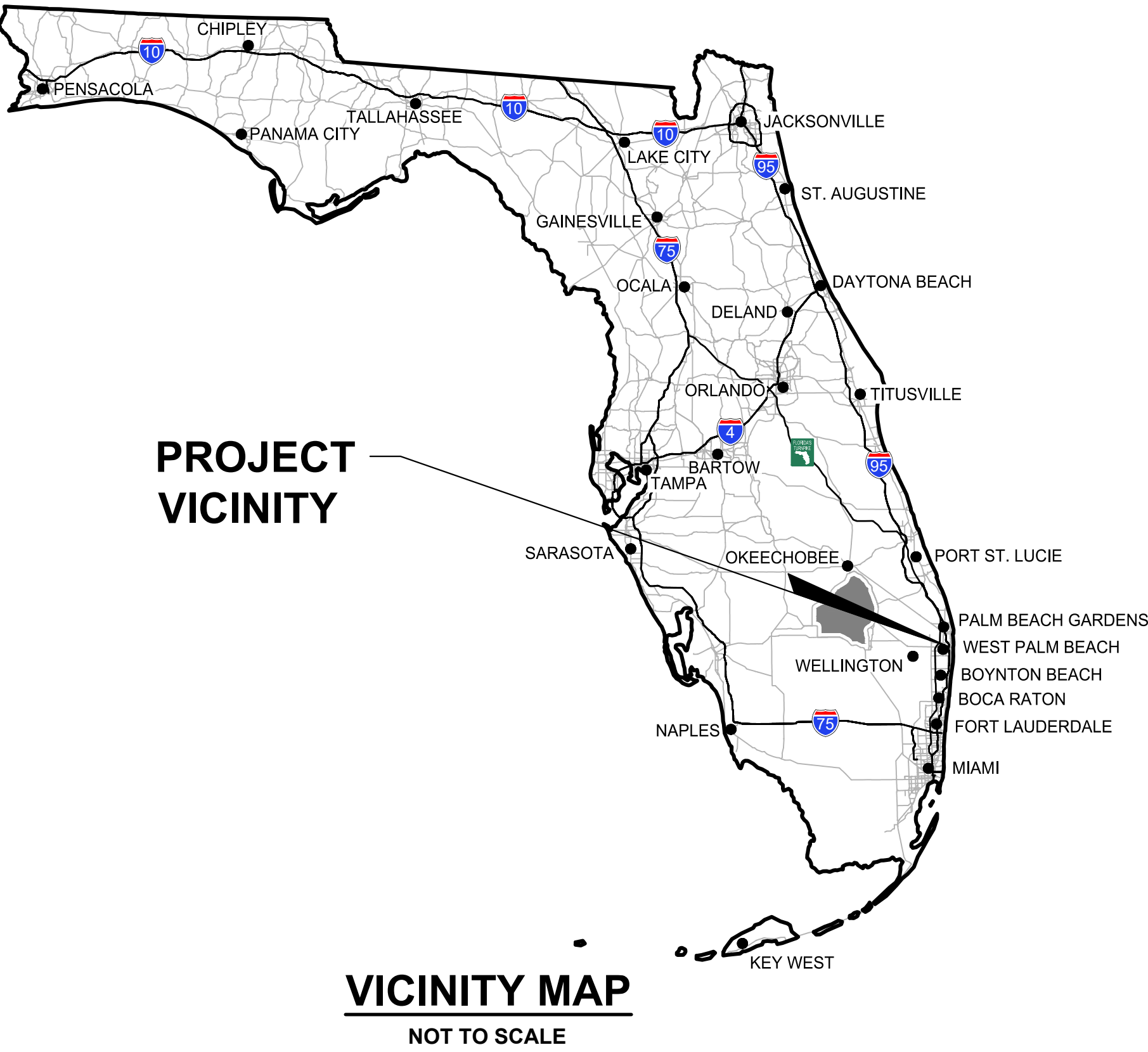


SITE DEVELOPMENT PLANS

GLEN RIDGE SELF STORAGGE

SECTION 05, TOWNSHIP 44S., RANGE 43E.

TOWN OF GLEN RIDGE, FLORIDA

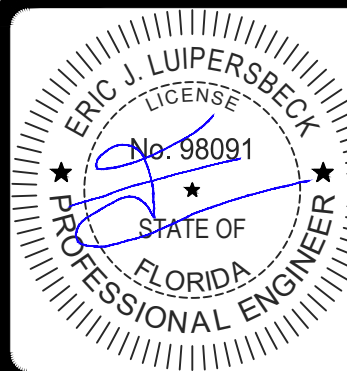


INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
1	TITLE SHEET
2	DEMOLITION PLAN
3	PAVING AND DRAINAGE PLAN
4-6	PAVING AND DRAINAGE DETAILS
7	POLLUTION PREVENTION PLAN
8	WATER AND WASTEWATER PLAN
9	LIFT STATION DETAILS
10-21	WATER AND WASTEWATER DETAILS

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024
APPLICANT: 1550 SOUTHERN LP
W.U.D. #24-579



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.

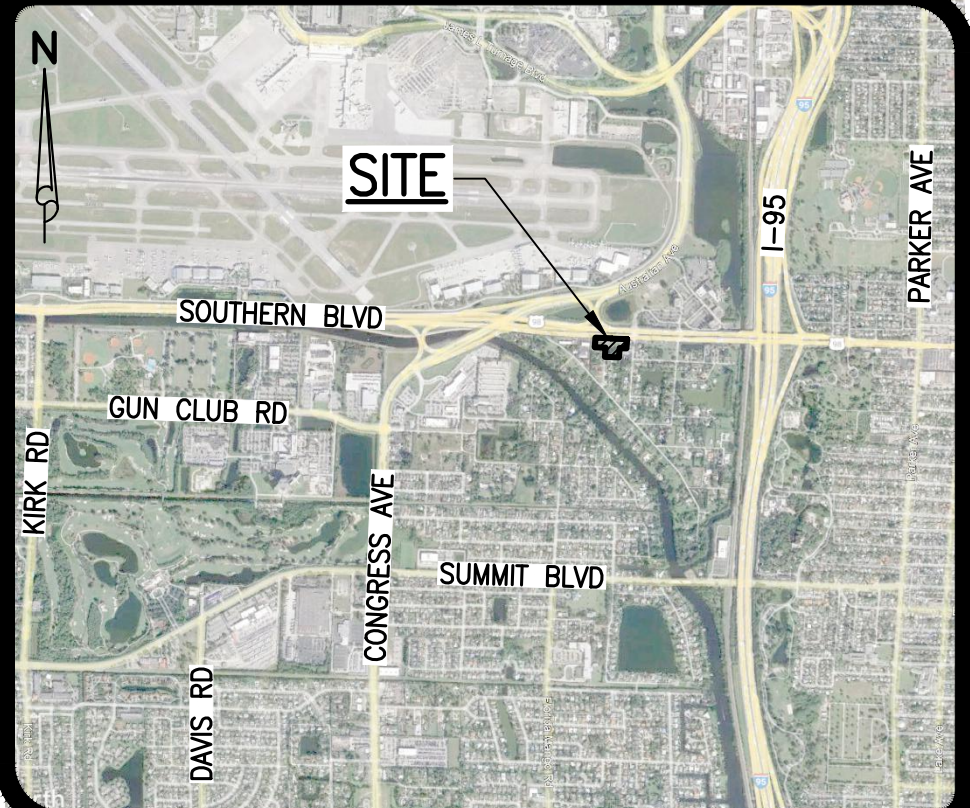
PRINTED COPIES OF THIS
DOCUMENT ARE NOT
CONSIDERED SIGNED AND
SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.



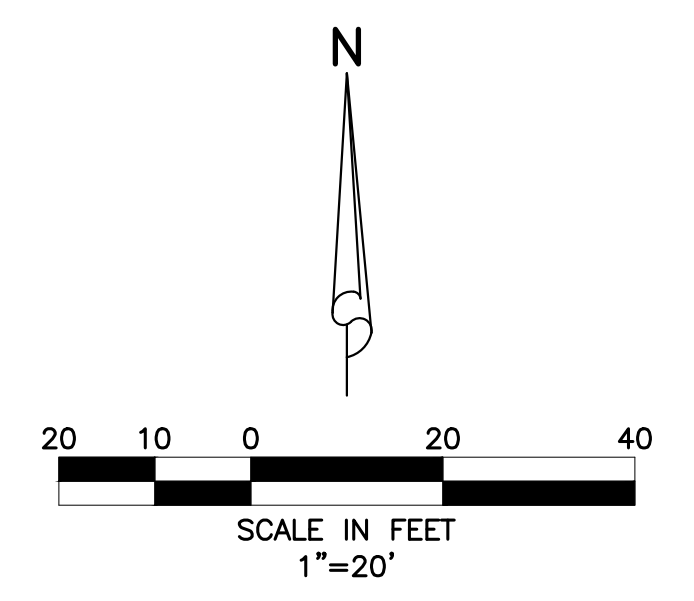
GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
TITLE SHEET

DESIGN G.B.	DRAWN D.B.	CHECKED	APPROVED	DATE
----------------	---------------	---------	----------	------

JOB NO. 23-142	DRAWING NO. 23142S01	SHEET 1 OF 21
-------------------	-------------------------	---------------------



LOCATION MAP
NOT TO SCALE



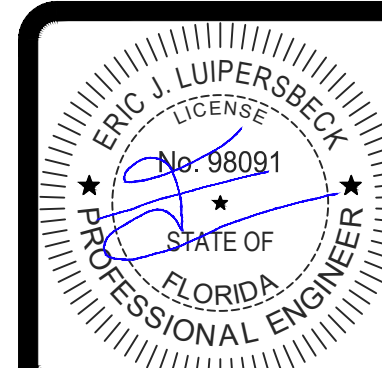
- LEGEND**
- EXISTING GRADE ELEVATION
 - SAWCUT & REMOVE EXISTING ASPHALT, CONCRETE, CURB, ETC.
 - EXISTING EASEMENT (TO BE ABANDONED)
 - EXISTING FENCE
 - EXISTING OVERHEAD POWER LINE & UTILITY POLE
 - EXISTING WATER MAIN
 - EXISTING SEWER MAIN
 - EXISTING FORCE MAIN
 - EXISTING WATER MAIN (TO BE REMOVED)
 - EXISTING OVERHEAD POWER LINE & UTILITY POLE (TO BE REMOVED)
 - EXISTING FENCE (TO BE REMOVED)

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024

48 HOURS BEFORE DIGGING
BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
1-800-432-4770
SUNSHINE STATE 1 CALL
UNDERGROUND UTILITIES
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 ASSOCIATED LAND SURVEYORS, INC. (561) 848-2102.

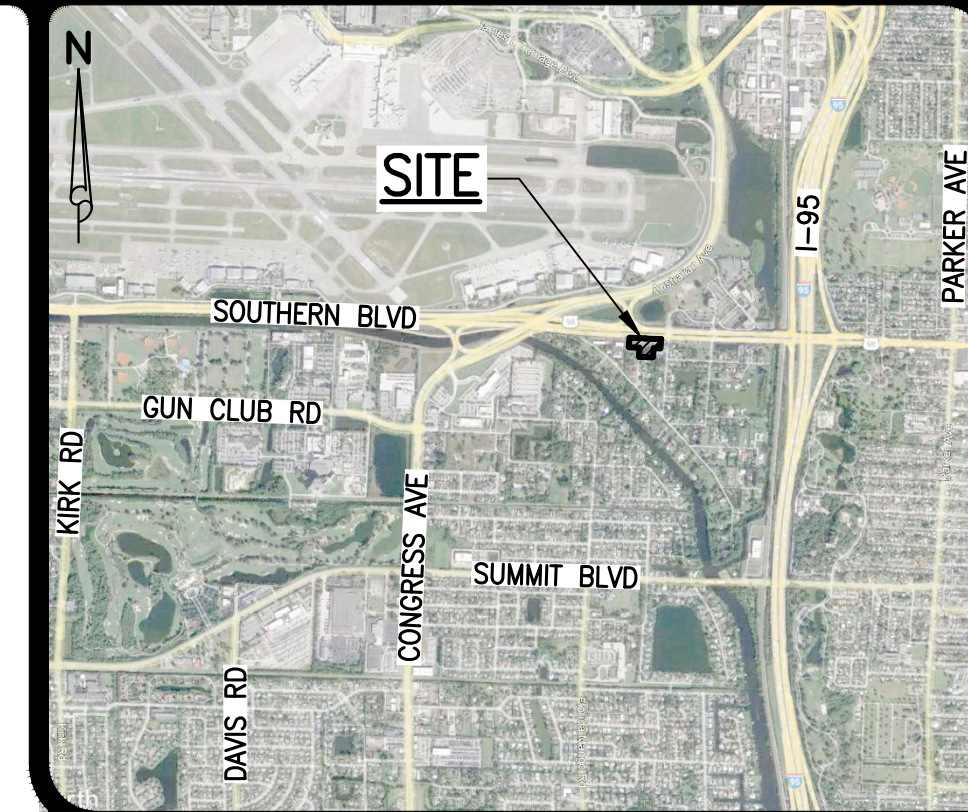


THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ERIC J. LUIPERSBECK, P.E. ON 10/17/2024.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

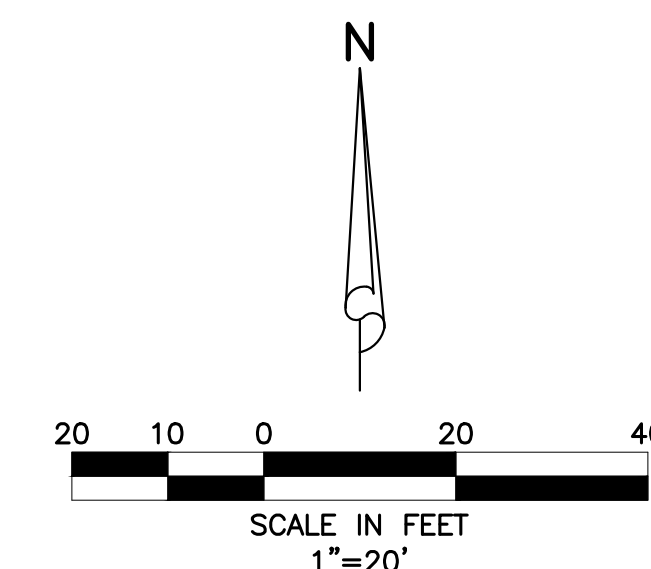


GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
DEMOLITION PLAN

DESIGN	DRAWN	CHECKED	APPROVED	DATE	JOB NO.	DRAWING NO.	SHEET	OF
G.B.	D.B.				23-142	23142S02	2	21



NOT TO SCALE



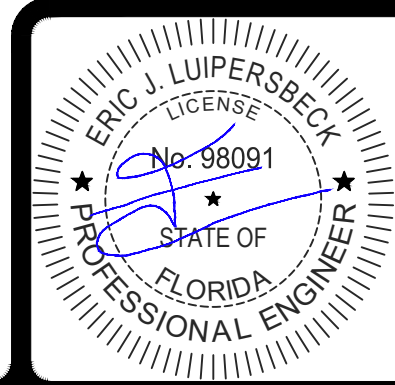
LEGEND

- A3—"C"
-  INLET TOP ELEVATION
-  INVERT ELEVATION
-  PROPOSED STORM SEWER AND CATCH BASIN
-  PROPOSED STORM SEWER AND MANHOLE
-  DIRECTION OF FLOW
-  DIRECTION OF SCALE
-  PROPOSED GRADE ELEVATION
-  EXISTING GRADE ELEVATION
-  ONSITE ASPHALT PAVEMENT (SEE SHEET 5 FOR SPECIFICATIONS)
-  F.D.O.T. RIGHT-OF-WAY ASPHALT PAVEMENT (SEE SHEET 5 FOR SPECIFICATIONS)
-  CONCRETE
-  DETECTABLE WARNING SURFACE
-  24" WHITE STOP BAR, "STOP" SIGN & (25') 6" DOUBLE YELLOW STRIPING W/ BI-DIRECTIONAL AMBER R.P.M.'S
-  EXISTING OVERHEAD POWER LINE & POWER POLE
-  EXISTING STORM DRAINAGE PIPE (TO REMAIN)
-  EXISTING WATER MAIN (TO REMAIN)
-  EXISTING SEWER MAIN (TO REMAIN)
-  EXISTING FORCE MAIN (TO REMAIN)
-  EXISTING WATER MAIN (TO BE REMOVED. SEE SHEET 2 FOR INFORMATION)
-  EXISTING UTILITY POLE (TO BE REMOVED. SEE SHEET 2 FOR INFORMATION)

1.) 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.

48 HOURS BEFORE DIGGING
BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
CALL TOLL FREE
1-800-432-4770
SUNSHINE STATE 1 CALL
UNDERGROUND UTILITIES
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 ASSOCIATED LAND SURVEYORS, INC. (561) 848-2102.



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.

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

- 1.) ADDED DRIVEWAY THROAT DEPTH DIMENSION, 08/21/24
- 2.) ADDED ADA RAMP NEC OF BLDG, 09/09/24

REVISIONS

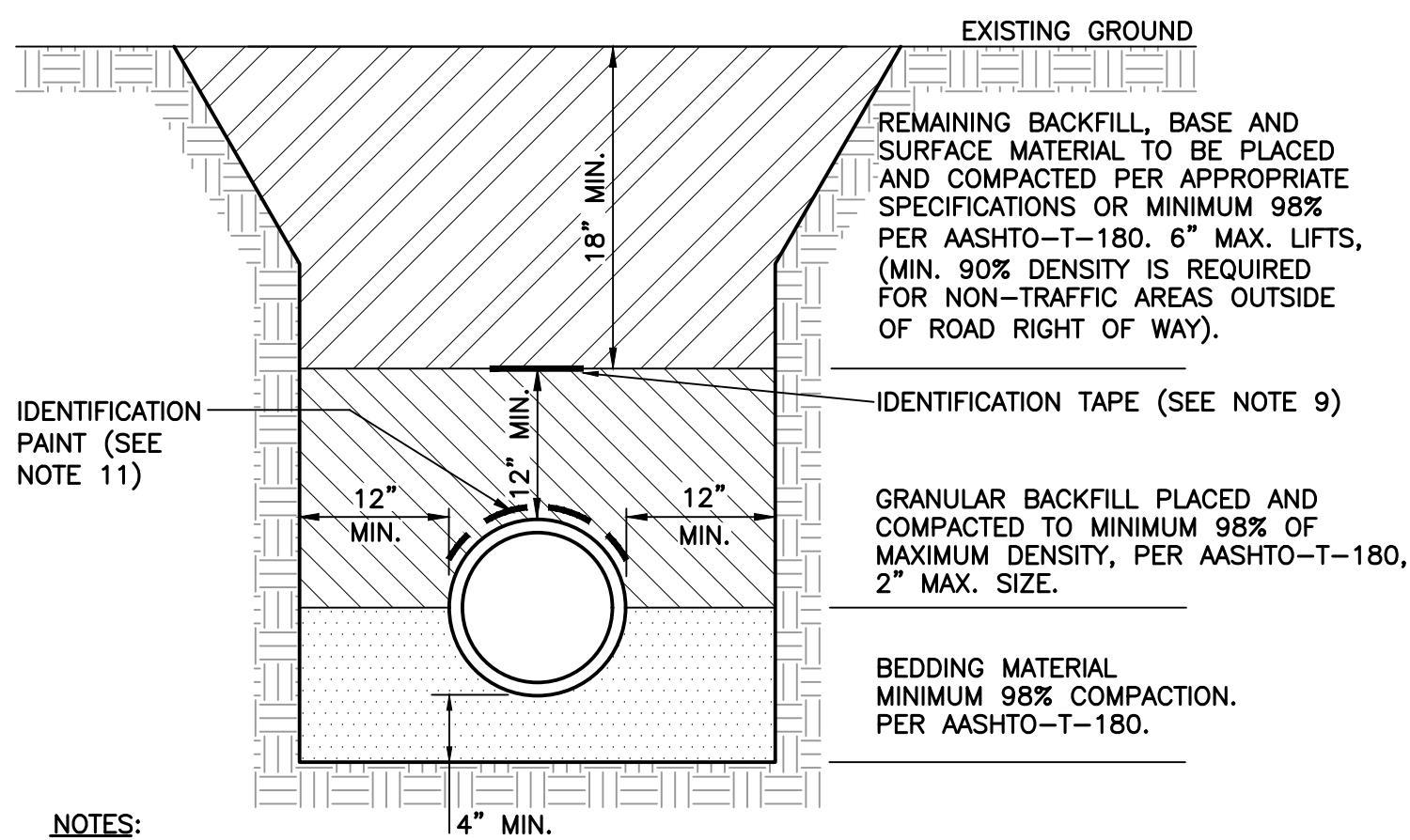


2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33409
Authorization # 3452 | 561.478.7848

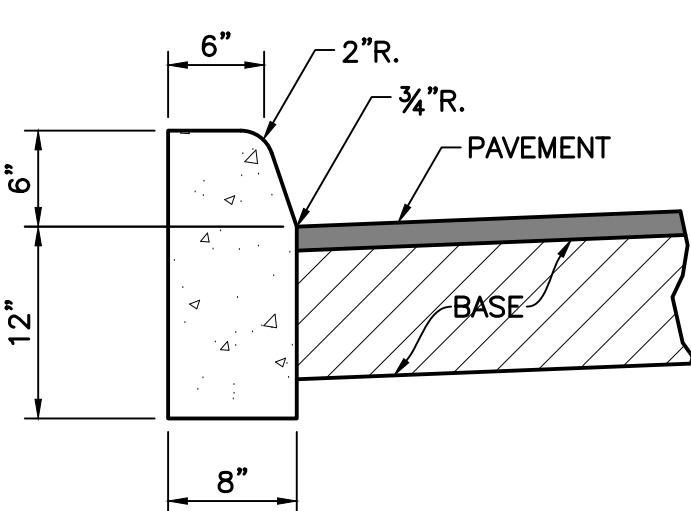
DESIGN	DRAWN	CHECKED	APPROVED	
C.B.	D.B.			

GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
PAVING AND DRAINAGE PLAN

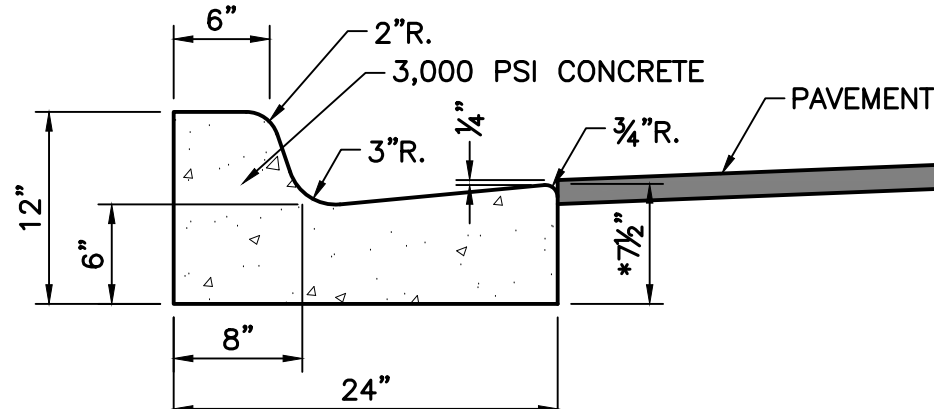
JOB NO. 23-142	DRAWING NO. 23142S03	SHEET 3 OF 21
-------------------	-------------------------	---------------



TYPICAL TRENCH DETAIL (NON-PAVED AREAS)

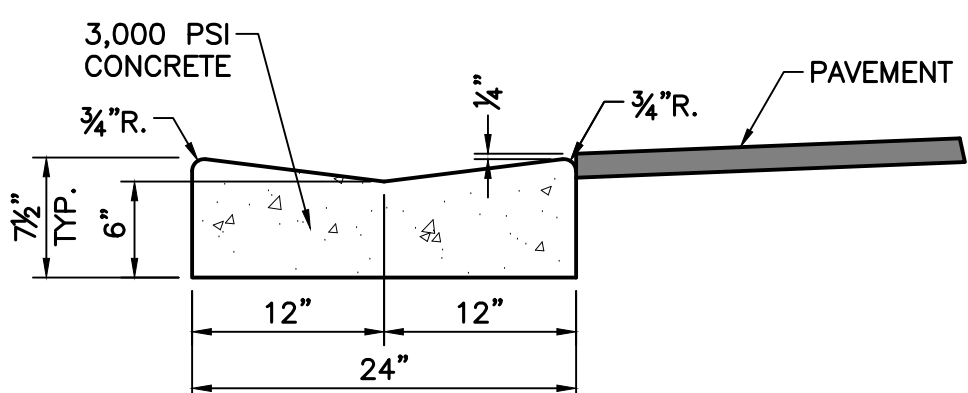


TYPE "D" CURB
NOT TO SCALE



***NOTE:** WHEN USED ON HIGH SIDE OF ROADWAY, THE CROSS-SLOPE OF THE GUTTER SHALL MATCH THE CROSS-SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS

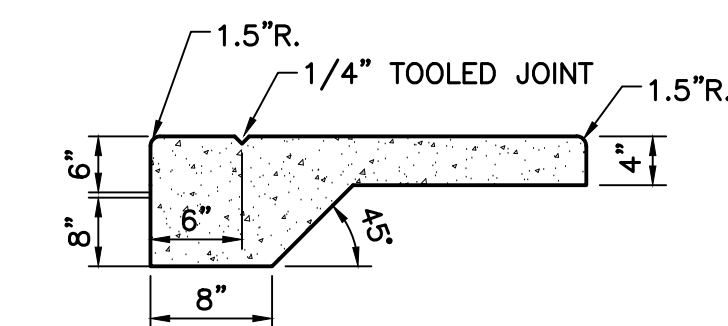
TYPE "F" CURB
NOT TO SCALE



CURB AND GUTTER NOTES:

- CONCRETE SHALL BE MINIMUM OF 3,000 PSI
- TYPE "A" CONTRACTION JOINTS SHALL BE @ 10' O.C.
- TYPE "B" EXPANSION JOINTS SHALL BE @ P.C./P.T. AND 100' O.C.

2' VALLEY GUTTER-SYMMETRICAL
NOT TO SCALE



RAISED SIDEWALK DETAIL
NOT TO SCALE

PAVEMENT SPECIFICATIONS:

ON-SITE 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

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

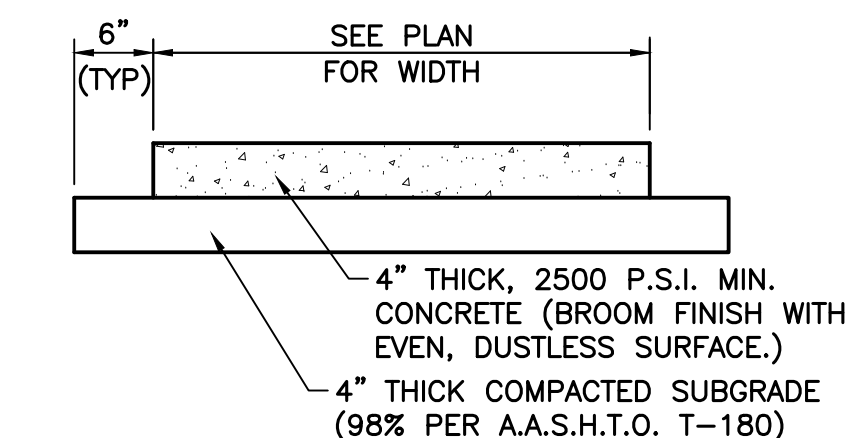
NOTE: OVERLAY TO BE 1" OF A.C.S.C. TYPE S-3

F.D.O.T. R/W PAVEMENT:

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

BASE - 15" LIMEROCK, COMPACT TO 98% PER A.A.S.H.T.O. T-180

SUBGRADE - 12" COMPACTED SUBGRADE, COMPACT TO 98% PER A.A.S.H.T.O. T-180 (LBR 40 MIN.)



TYPICAL SIDEWALK DETAIL
NOT TO SCALE

CONSTRUCTION PROCEDURES

THE BACKFILL FOR THE FIRST AND SECOND STAGES SHALL BE PLACED IN 6" LAYERS (AND COMPACTED PER APPROPRIATE SPECIFICATIONS) 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.

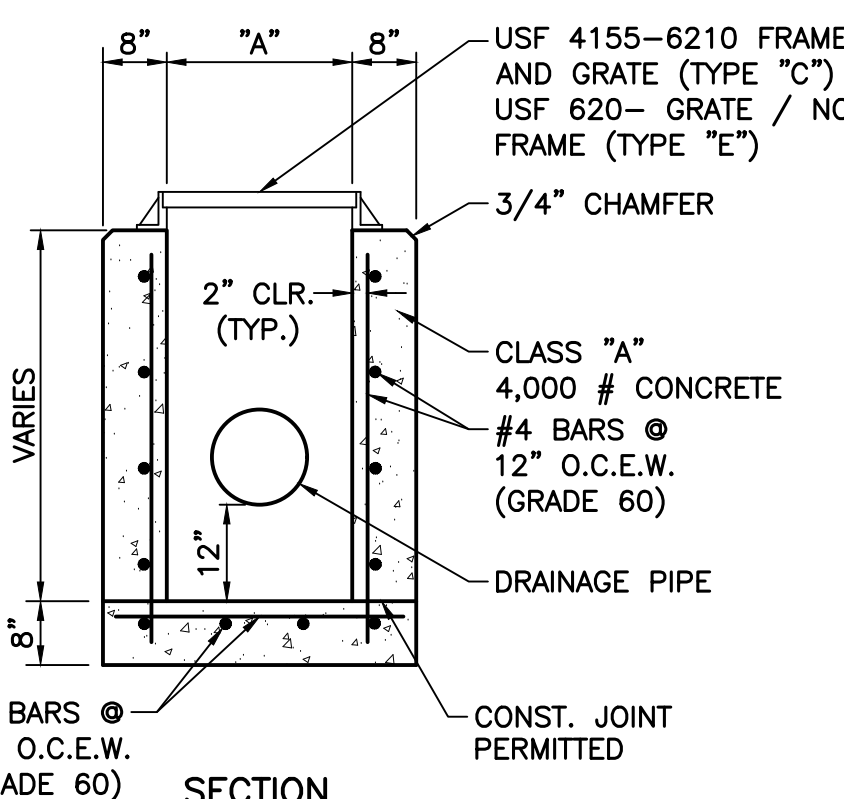
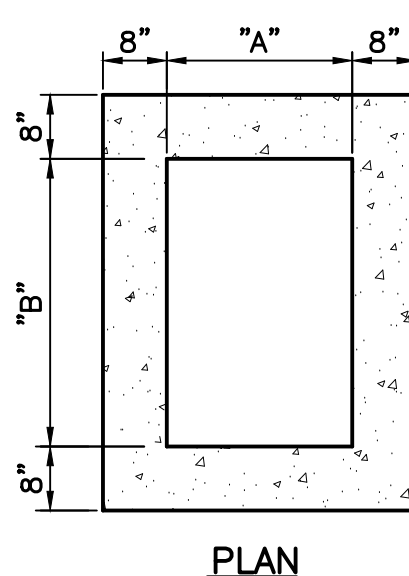
STAGE 2:

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

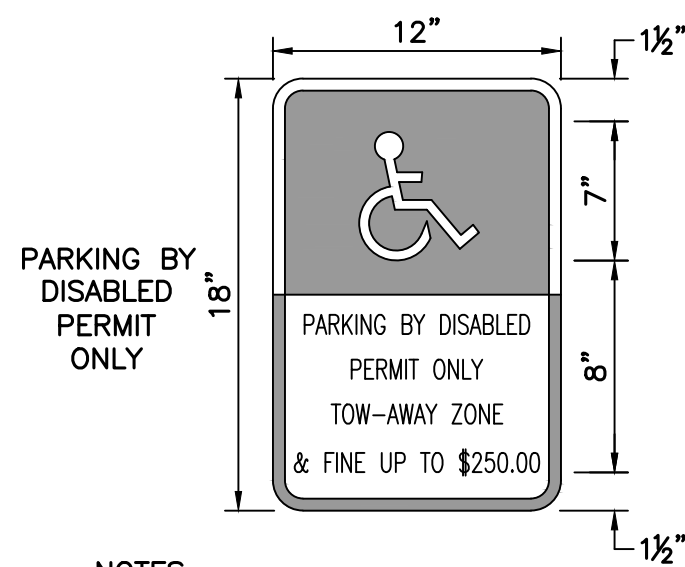
- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING WITH EQUAL OR GREATER STRUCTURAL ADEQUACY AS EXISTING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
- REPLACED BASE MATERIAL OVER DITCH SHALL BE 16" LIMEROCK (LBR100) 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 RC-70 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-0-5605.
- 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 SURETY 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/PCOP 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)



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

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



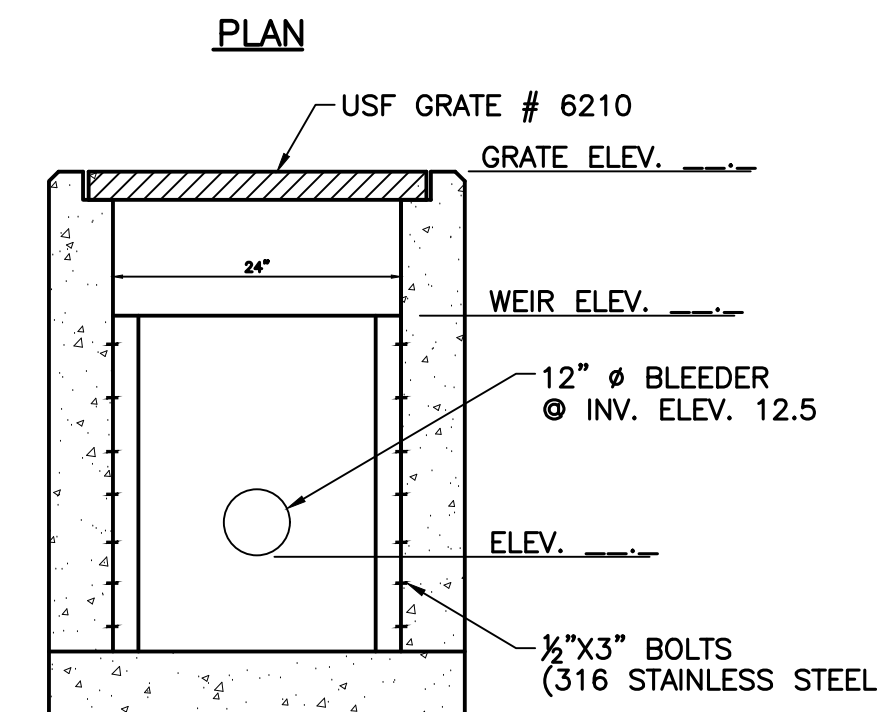
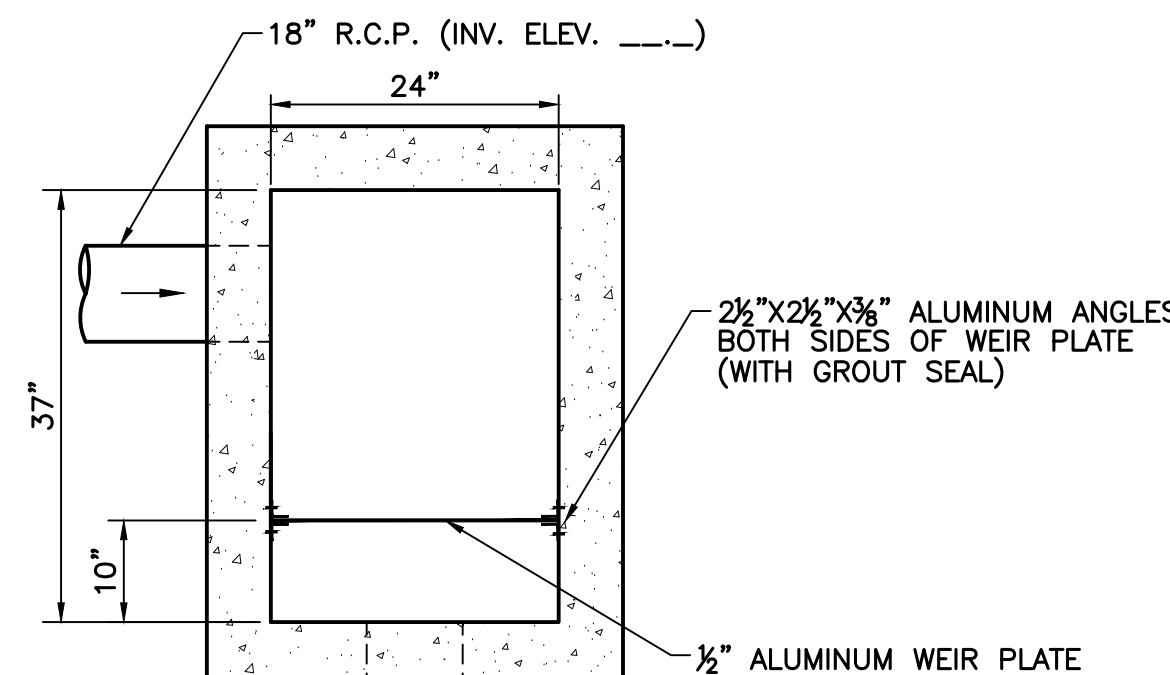
NOTES:

- 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

NOTES:
SIGNAGE AND STRIPING TO BE CONSTRUCTED IN ACCORDANCE WITH PALM BEACH COUNTY ORDINANCE NO. 85-42



B1-C.S. TYPE "C" INLET
NOT TO SCALE



ISOMETRIC VIEW

GENERAL SPECIFICATIONS:

FLAT BLADE: ALCOA #86054.6063-16 ALLOY, ETCHED, DEGREASED WITH #1200 ALUMINE FINISH WITH #3877 GREEN DIAMOND GRADE BACKGROUND AND EQUAL DIMENSIONS - 9" & 12" MIN. H. 24", 30", 36" AND 42" L.

LETTERS: NAME - 6" UPPERCASE WITH 4.5" LOWERCASE & 9" UPPERCASE WITH 6.75" LOWERCASE. SERIES "B" #3870 DIAMOND GRADE (SILVER) OR EQUAL - SUFFIX - 4.5"

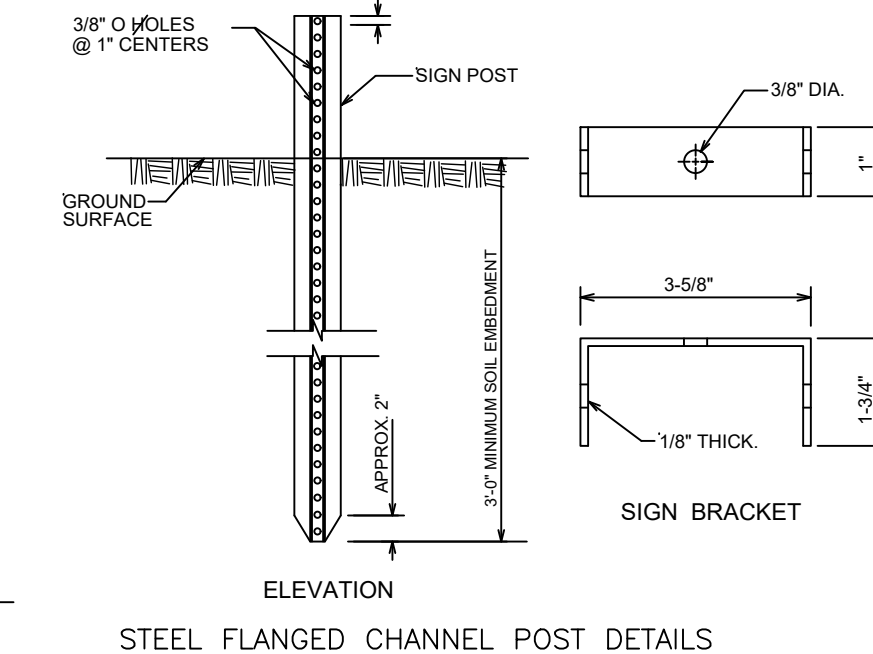
POST: STEEL FLANGED CHANNEL POST 3 LBS. PER FOOT WITH BAKED GREEN ALKYL OR GALVANIZED FINISH PER A.S.T.M. -A-123 WITHOUT ANCHOR PLATES. SQUARE POST PER FDOT INDEX 700-010.

BRACKETS SHALL BE ATTACHED FIRMLY ON STANDARD SQUARE TUBE OR U-CHANNEL POSTS BY MEANS OF (2) 3/8" DIAMETER HEX HEAD BOLTS.

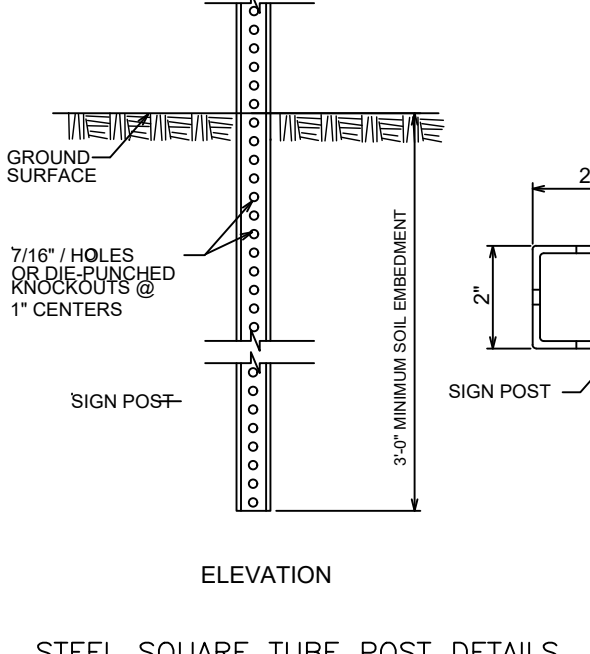
STOP SIGN: R1-1 MUTCO - DIAMOND GRADE

LOCATION: ONE PER INTERSECTION AS INDICATED ON THE PLANS.

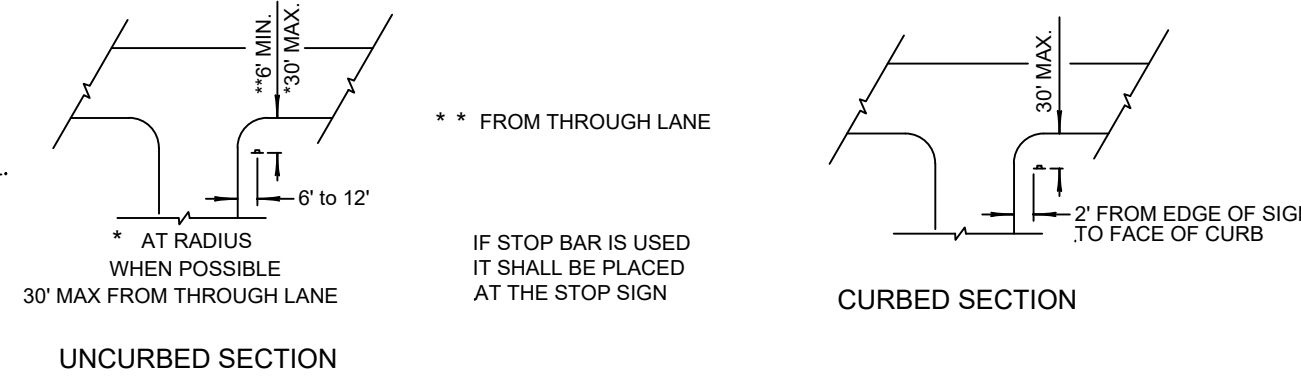
POLICY: 9" BLADES WITH 6" UPPER CASE WITH 4.5" LOWERCASE LETTERS FOR TWO LANE ROADS WITH A SPEED LIMIT UNDER 45 MPH 12" BLADES WITH 9" UPPERCASE WITH 6.75" LOWERCASE LETTERS FOR: -THOROUGHFARE- ROADS FOUR LANES OR WIDER. -TWO LANE ROADS WITH A POSTED SPEED LIMIT OF 45 MPH OR MORE. ONLY ONE BLADE WILL BE INSTALLED AT INTERSECTION WITH THOROUGHFARE ROAD INDICATING THE SIDE STREET NAME.



STEEL FLANGED CHANNEL POST DETAILS

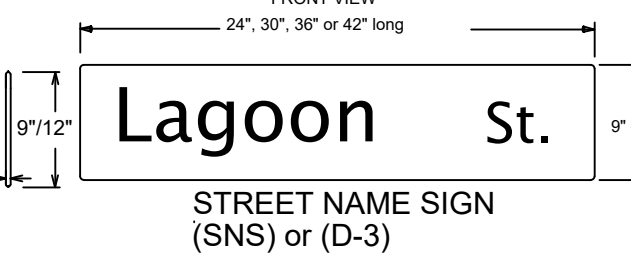


STEEL SQUARE TUBE POST DETAILS

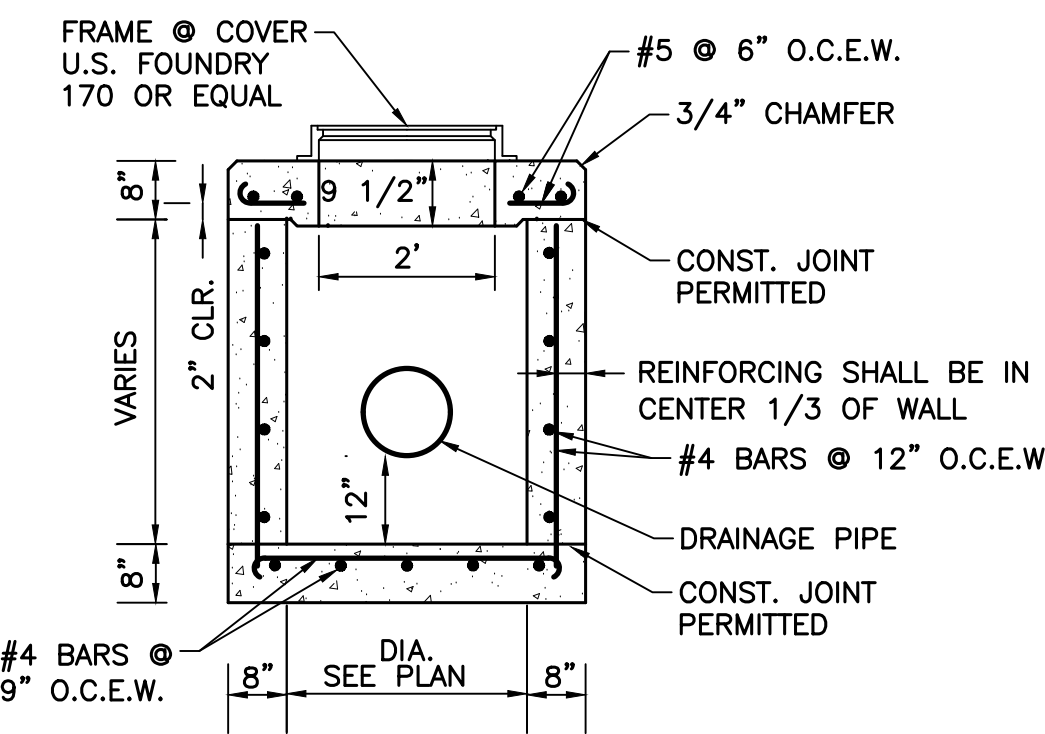


UNCURBED SECTION

TYPICAL STOP SIGN PLACEMENT



STREET NAME SIGN WITH STOP SIGN
NOT TO SCALE



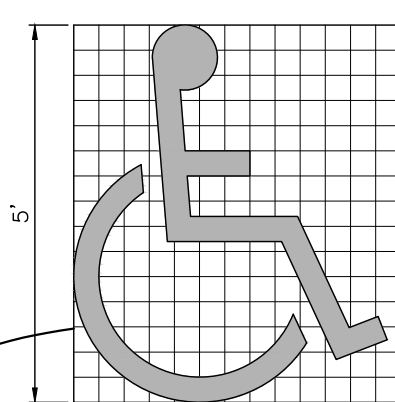
SECTION

STANDARD MANHOLE

NOT TO SCALE

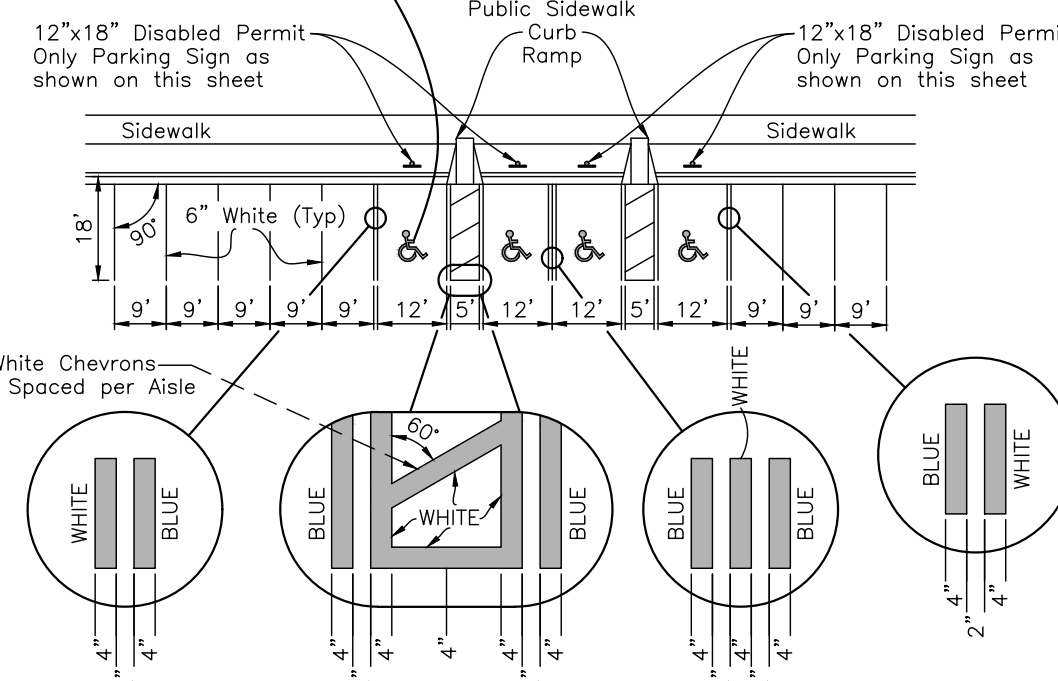
INLET AND MANHOLE NOTES

- ALL EXPOSED CORNERS AND EDGES SHALL BE CHAMFERED 3/4".
- INLETS AND MANHOLES SHALL BE PRECAST CLASS "A" 4,000 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 60.
- 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.



Pavement symbol in accessible parking spaces shall be 5' high and white in color.

UNIVERSAL SYMBOL OF ACCESSIBILITY



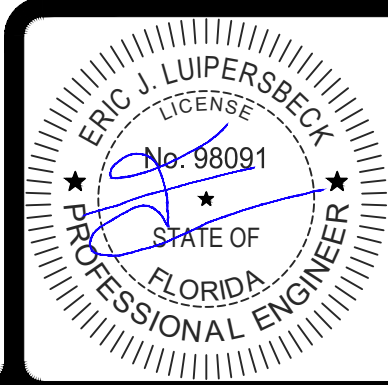
NOTES:
1. Dimensions are to the centerline of markings.
2. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
3. Blue pavement markings shall be tinted to match shade 15180 of Federal Standards 595a.

PAVEMENT MARKING FOR PUBLIC SIDEWALK CURB RAMPS

TYPICAL PARKING SPACES
NOT TO SCALE

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ERIC J. LUIPERSBECK, P.E. ON 10/17/2024.

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



GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
PAVING AND DRAINAGE DETAILS

REVISIONS

DESIGN G.B. DRAWN D.B. CHECKED APPROVED DATE

JOB NO. 23-142 DRAWING NO. 23142S04 SHEET 4 OF 21

GENERAL NOTES:

1. NOTIFY ENGINEER OF IN-FIELD CONFLICTS OR DESIGN DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
2. EXISTING WATER, SEWER AND DRAINAGE SYSTEMS ARE REPRESENTED AS DASHED LINES AND SHALL BE VERIFIED BY CONTRACTOR.
3. 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.
4. 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.
5. 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.
6. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS CONCERNING SIDEWALKS, RAMPS, STRIPING AND SIGNAGE, LIGHTING AND ELECTRICAL CONDUIT, ETC.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS AND NOTIFY THE ENGINEER OF ANY DEVIATIONS PRIOR TO COMMENCING CONSTRUCTION.
8. SIDEWALKS TO BE FLUSH WITH YARD AREAS UNLESS OTHERWISE NOTED.
9. ALL DRAINAGE CONSTRUCTION SHALL CONFORM TO FLORIDA DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AND TOWN OF GLEN RIDGE REQUIREMENTS.
10. 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.
11. ALL ELEVATIONS SHOWN HEREON REFER TO N.A.V.D. 1988 TOPOGRAPHIC AND BOUNDARY SURVEY PROVIDED BY ASSOCIATED LAND SURVEYORS, INC. (561) 878-2102.
12. 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.
13. 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.
14. NO OFF-SITE DISCHARGE FROM DEWATERING OPERATIONS SHALL BE PERMITTED UNLESS THE CONTRACTOR SECURES WRITTEN PERMISSION FROM THE GOVERNING AUTHORITIES.
15. 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.
16. 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.
17. CONTRACTOR TO PROVIDE TEST REPORTS FROM AN INDEPENDENT LABORATORY FOR PROCTORS AND DENSITIES ON BASE, SUBGRADE AND PIPE BACKFILL.
18. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE PAVING AND DRAINAGE, WATER AND SEWER CONSTRUCTION RECORD INFORMATION TO THE ENGINEER.
19. CONTRACTOR SHALL ARRANGE FOR THE ENGINEER TO OBSERVE:
 - A. STORM SEWER AFTER GROUTING AND WHEN BACKFILL IS COMPLETED TO THE MIDPOINT OF THE PIPE.
 - B. STRINGLINING OF SUBGRADE.
 - C. STRINGLINING/BOARDING OF BASE.
20. 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.
21. ANY SHELLROCK OR LIMEROCK PAVING BASE INSTALLED WITHIN PLANTING AREAS SHALL BE REMOVED IN ITS ENTIRETY PRIOR TO PLACING PLANTER AREA FILL.
22. 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.
23. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO ALL O.S.H.A. RULES AND FLORIDA LAWS RELATED TO TRENCH SAFETY.
24. 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.)
25. CONTRACTOR SHALL REFER TO LANDSCAPE PLANS FOR PLANTING AND BERMING REQUIREMENTS AND NOTIFY ENGINEER OF ANY CONFLICTS WITH THIS PLAN.
26. 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.
27. 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.
28. PALM BEACH COUNTY (PBC) RESERVES THE RIGHT TO DETERMINE IF DAMAGED PBC FACILITIES WILL BE REPAIRED OR REPLACED.
29. CONSTRUCTION TESTING REQUIREMENTS:
 1. DENSITY, THICKNESS AND F.B.V./L.B.R. FOR BASE AND SUBGRADE
 - a. ROADS - MAXIMUM SPACING = 500 L.F.
 - b. PARKING LOT - MAXIMUM SPACING = 6,000 S.F.
 2. ASPHALT THICKNESS
 - a. ROADS - MAXIMUM SPACING = 600 L.F.
 - b. PARKING LOT - MAXIMUM SPACING = 2,000 S.Y.

- TESTING SHALL BE TAKEN IN A STAGGERED PATTERN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THERE SHALL BE A MINIMUM OF 4 EACH OF THE ABOVE TESTS FOR A PROJECT OR PORTION THEREOF.
3. BASE - CHEMICAL AND SIEVE ANALYSIS, FROM SUPPLIER/PIT (DOT CERTIFICATION)
 4. ASPHALT - DESIGN MIX. IF REQUESTED BY THE ENGINEER, STABILITY TESTS WILL BE REQUIRED.
 5. PIPELINE BACKFILL DENSITY TESTS
 - 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.
 - 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.
 - 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.
 - WHERE OUTSIDE PAVED AREAS BY 10' OR MORE, ALL TESTS SHALL BE TAKEN WITHIN THE BOTTOM 3' OF TRENCH AND ONLY 1 TEST PER 300 L.F. IS REQUIRED.

MINIMUM SPACING REQUIREMENTS:	
DEPTH OF CUT	SPACING OF TESTS
0 - 6'	1 PER 300 L.F.
6 - 9'	2 PER 300 L.F.
9 - 12'	3 PER 300 L.F.
12 - 15'	4 PER 300 L.F.
15 - 18'	5 PER 300 L.F.

THE ABOVE REQUIREMENTS ARE THE MINIMUM AND ARE SUBJECT TO INCREASE BY THE GOVERNING AGENCIES. ALL TESTS AND LOCATIONS ARE SUBJECT TO REVIEW BY ENGINEER AND/OR GOVERNING AGENCIES, ADDITIONAL TESTS MAY BE REQUIRED BASED ON FIELD OBSERVATIONS OF CONSTRUCTION TECHNIQUES OR MATERIALS USED ON SITE.

PBCWUD NOTES:

RECORD DRAWING NOTES:

- 1.) RECORD DRAWINGS SHALL BE PREPARED IN THE STATE PLAN COORDINATE SYSTEM.
- 2.) ALL UTILITY FEATURES SHALL BE SHOWN IN THEIR AS-BUILT LOCATION.
- 3.) STATE PLANE COORDINATES SHALL BE DISPLAYED ON RECORD DRAWINGS FOR ALL FEATURES SPECIFIED IN PBCWUD STANDARDS.
- 4.) STATE PLANE COORDINATES SHALL BE SHOWN ON PROPERTY CORNERS AS REQUIRED BY PBCWUD.

HYDRANT & HYDRANT SECURITY EQUIPMENT NOTES:

- 1.) THE EXISTING FIRE HYDRANT CAN BE RELOCATED PROVIDED IT IS IN ACCEPTABLE WORKING ORDER BASED ON THE PROJECT'S WUD INSPECTOR'S INSPECTION. IF NOT IN PROPER WORKING CONDITION A NEW FIRE HYDRANT WILL BE REQUIRED, IN EITHER CASE CAPTIVATOR CAPS ARE REQUIRED PER NOTE 2 BELOW.
- 2.) FIRE HYDRANT SHALL BE EQUIPPED WITH A SET OF AFC "CAPTIVATOR" SECURITY CAPS. THE CAPS SHALL BE CHAINED TO THE HYDRANT BODY AND INSTALLED PRIOR TO ISSUANCE OF "CONSTRUCTION WATER RELEASE" CERTIFICATION. A SCHEDULED INSPECTION BY PBCWUD IS REQUIRED TO VERIFY THE INSTALLATION AND OPERATION OF THE CAPS.
- 3.) PLEASE NOTE THAT THE SECURITY CAPS CAN ONLY BE REMOVED USING SPECIAL WRENCHES. THE CONTRACTOR SHALL CONTACT THE PBCWUD INSPECTOR FOR ASSISTANCE IF ACCESS TO THE HYDRANT IS REQUIRED FOR FLUSHING OR TESTING PURPOSES.
- 4.) ALL NEW FIRE HYDRANTS ARE TO BE INSTALLED SO THE PUMPER NOZZLE IS 5.0' MIN WITH RAISED CURB OR 6.0' MIN WITHOUT RAISED CURB AND 12.0' MAX. FROM THE EDGE OF PAVEMENT.

GENERAL WATER NOTES:

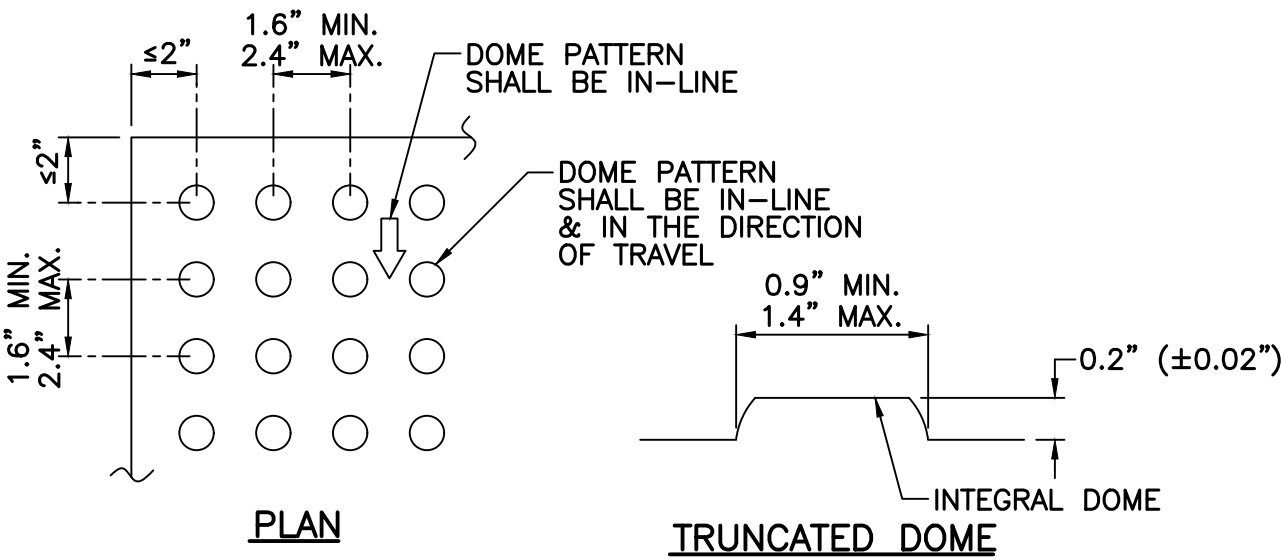
- 1.) ALL WATER MAIN DUCTILE IRON PIPE AND PIPE FITTINGS SHALL BE PAINTED WITH A 4" WIDE CONTINUOUS BLUE LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND IS LOCATED ALONG THE TOP OF THE PIPE.
- 2.) ALL WATER MAINS SHALL BE MARKED WITH ONE CONTINUOUS STRIP OF 6" WIDE MAGNETIC BLUE CODED TAPE IMPRINTED 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. THE WORDING SHALL OCCUR EVERY THREE (3) FEET.
- 3.) ALL WATER SERVICE BRASS FITTINGS ARE REQUIRED TO BE LEAD FREE.
- 4.) ALL EXISTING PBCWUD FACILITIES (IE. VALVES) TO BE OPERATED BY PBCWUD PERSONNEL ONLY.

GENERAL SEWER NOTE:

- 1.) ON-SITE SEWER LATERALS AND LIFT STATION ARE PRIVATELY OWNED AND MAINTAINED.
- 2.) SEWER CLEANOUT MINI-MANHOLES ARE REQUIRED ON ALL CLEANOUTS WITHIN PAVEMENT AREAS.

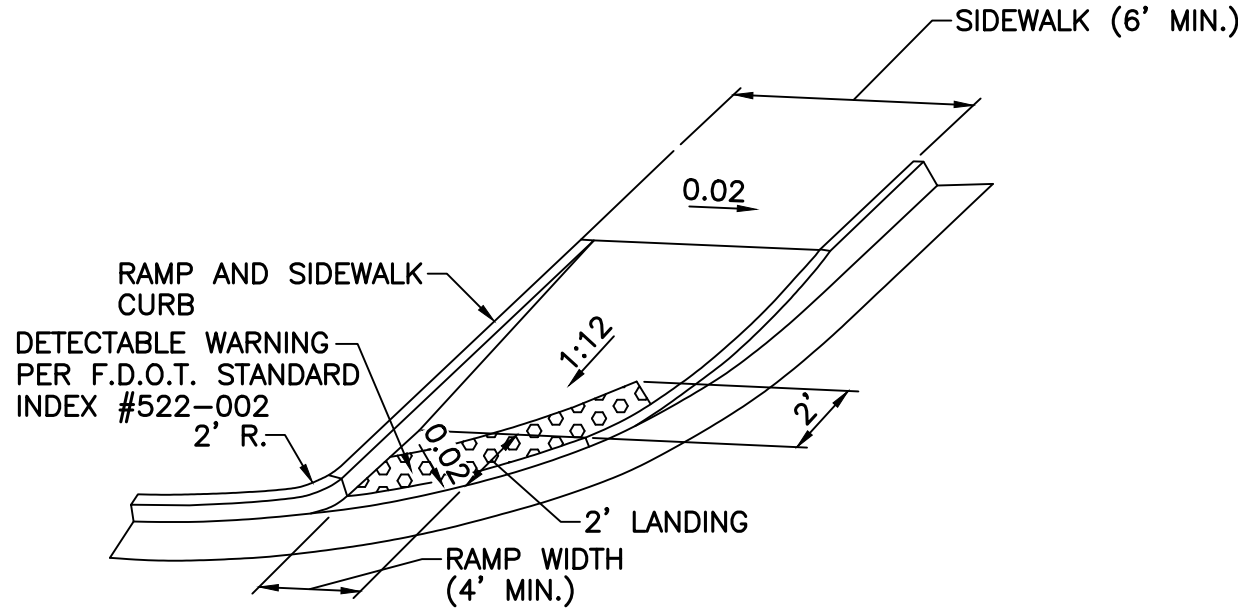
GENERAL LANDSCAPE NOTE:

IF ANY NEW LANDSCAPE MATERIALS ARE INSTALLED AS PART OF THIS PROJECT THEN SOD ONLY WITH NO SHRUBS AND/OR TREES ARE TO BE INSTALLED WITHIN 5' OF ANY WATER METER AND WITHIN 7.5' OF ANY FIRE HYDRANT. TREES CANNOT BE INSTALLED WITHIN 10' OF A WUD WATER OR FORCE MAIN WITHOUT PRIOR PBCWUD APPROVAL AND THE INSTALLATION OF A ROOT BARRIER. ALSO IF ANY EXISTING TREES ARE LESS THAN 10' MINIMUM OF ANY NEW WATER OR FORCE MAIN A ROOT BARRIER IS REQUIRED TO BE INSTALLED OR TREE RELOCATED/REMOVED.

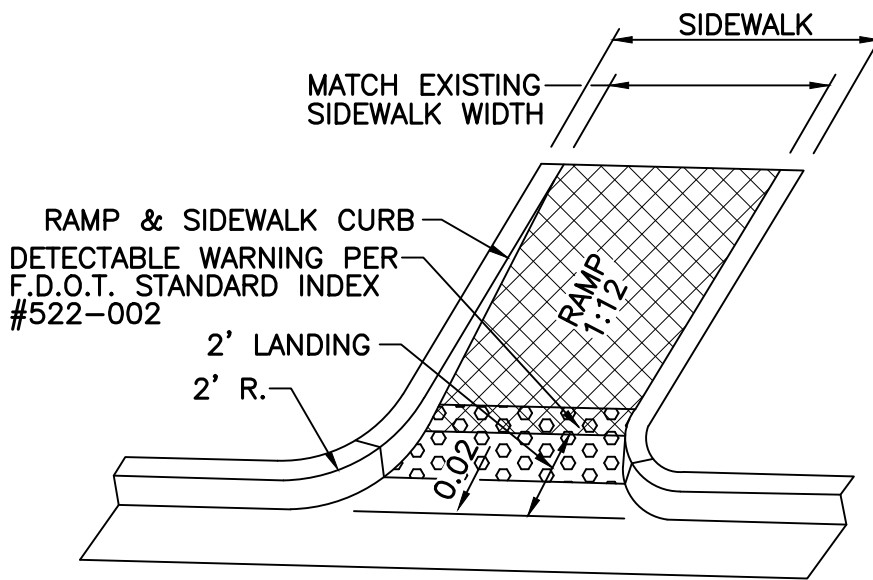


NOTE: ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" IN PUBLIC R/W, 36" ON-SITE FROM THE BACK OF CURB. CONTRACTOR SHALL VERIFY W/ INSTALLATION. THE DETECTABLE WARNING SURFACE SHALL HAVE A CONTRASTING COLOR (YELLOW OR APPROVED ALTERNATE)

CURB RAMP DETECTABLE WARNING DETAIL
NOT TO SCALE



HANDICAP RAMP DETAIL (CR-G)
NOT TO SCALE



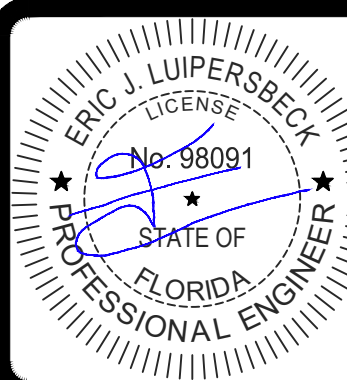
HANDICAP RAMP DETAIL (CR-F)
NOT TO SCALE

- NOTES:
1. THESE ARE THE MINIMUM GENERAL REQUIREMENTS FOR PEDESTRIAN RAMPS. SEE F.D.O.T. INDEX 522-002 FOR ADDITIONAL SIDEWALK CURB RAMP DETAILS.
 2. DETECTABLE WARNING SURFACE REQUIRED ON ALL H/C RAMPS. DETECTABLE WARNING SHALL BE CONTRASTING IN COLOR WITH TRUNCATED DOMES AND SHALL COMPLY WITH F.D.O.T. SPECS
 3. 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

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.

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

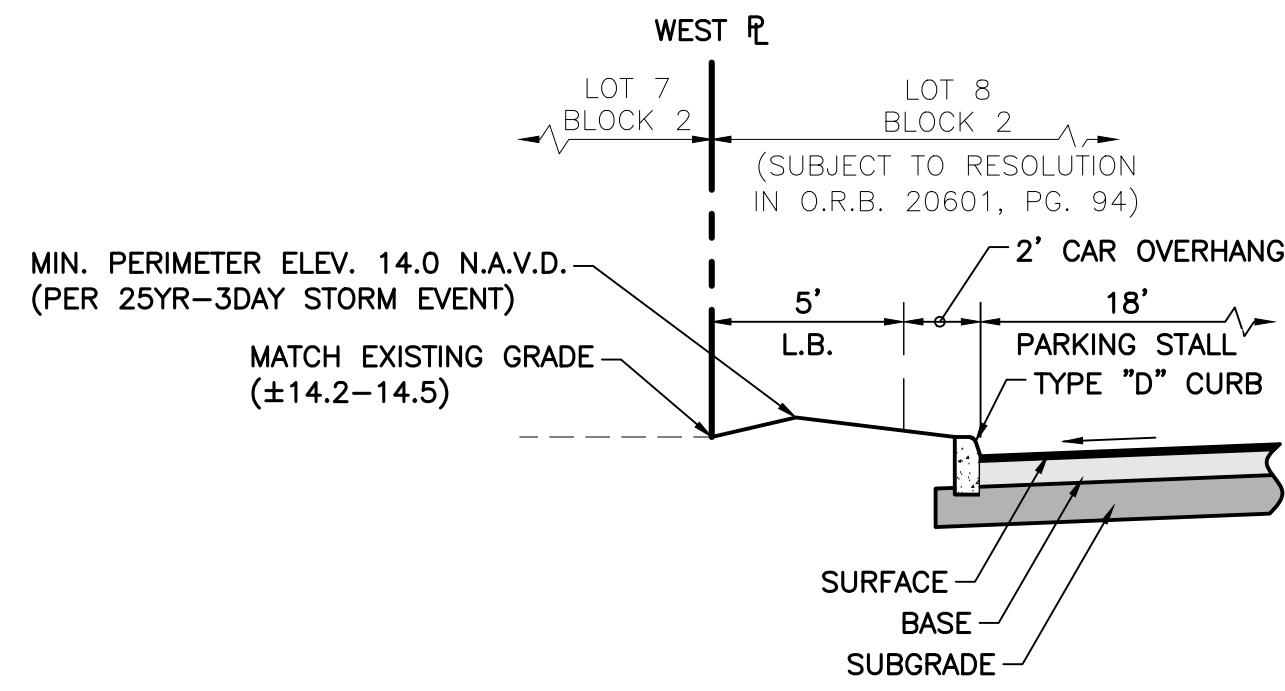
REVISIONS



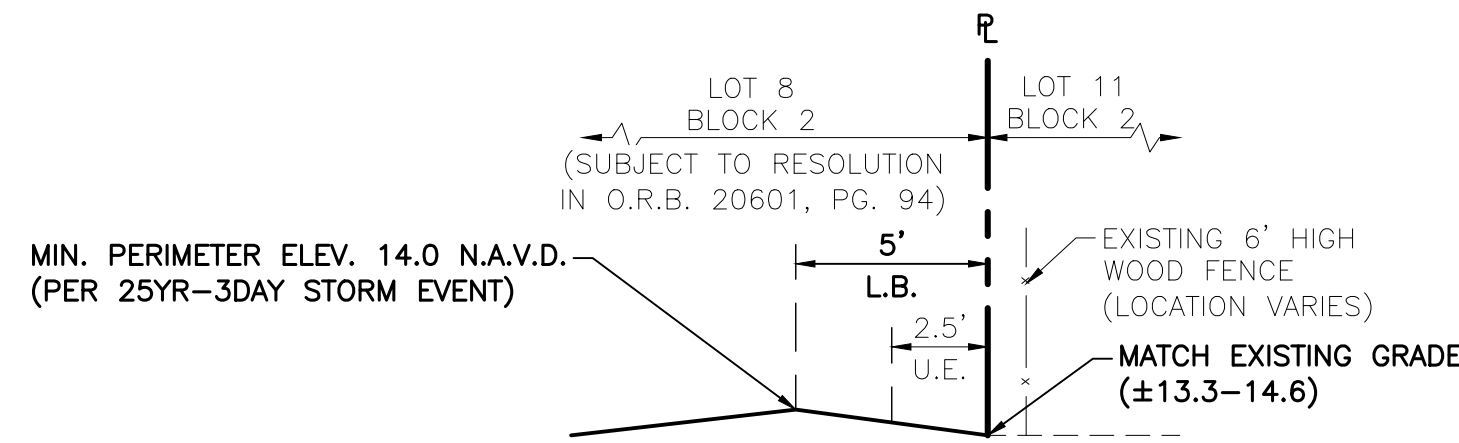
DESIGN	DRAWN	CHECKED	APPROVED	DATE
G.B.	D.B.			

GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
PAVING AND DRAINAGE DETAILS

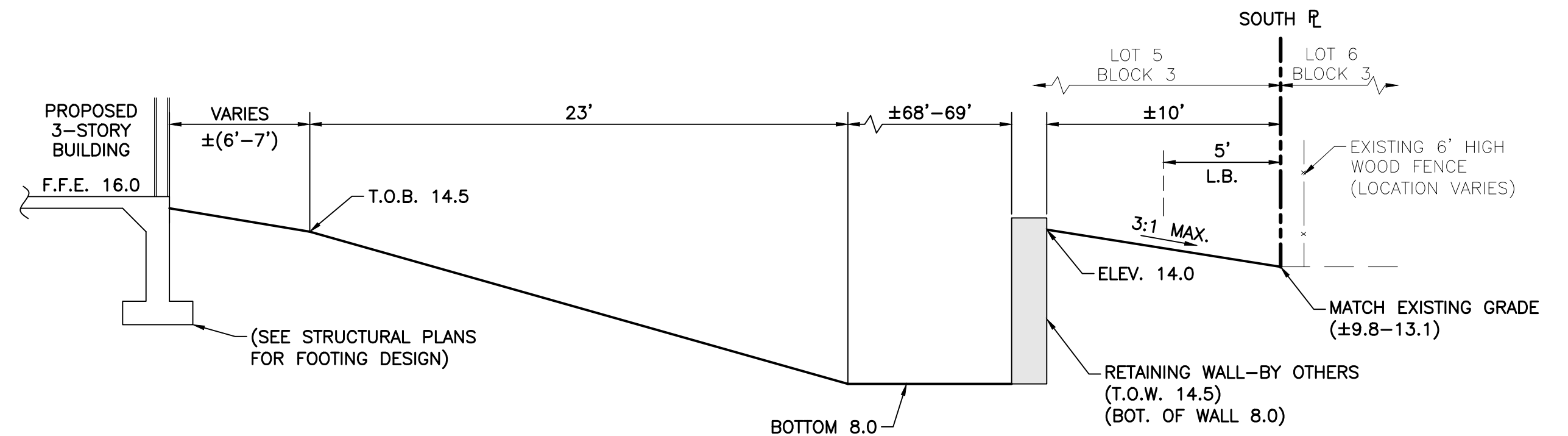
JOB NO.	DRAWING NO.	SHEET	OF
23-142	23142S05	5	21



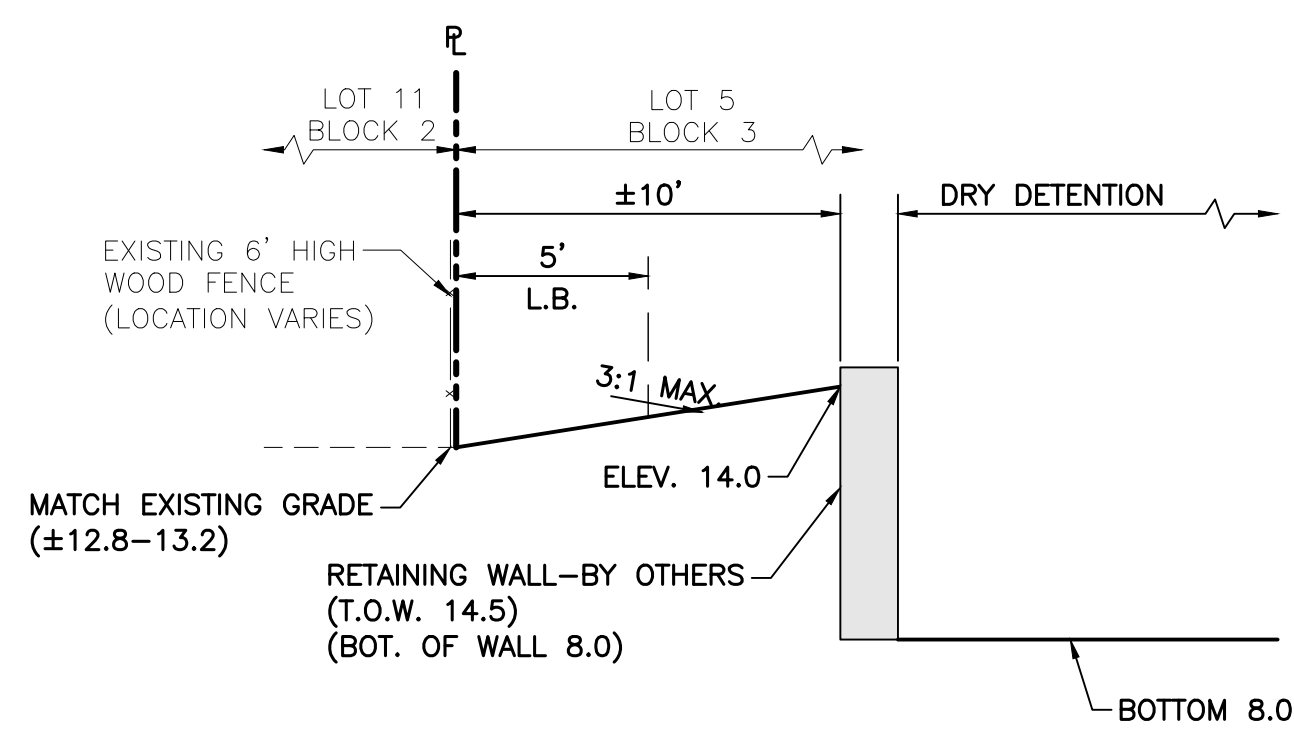
TYPICAL SECTION A-A
NOT TO SCALE



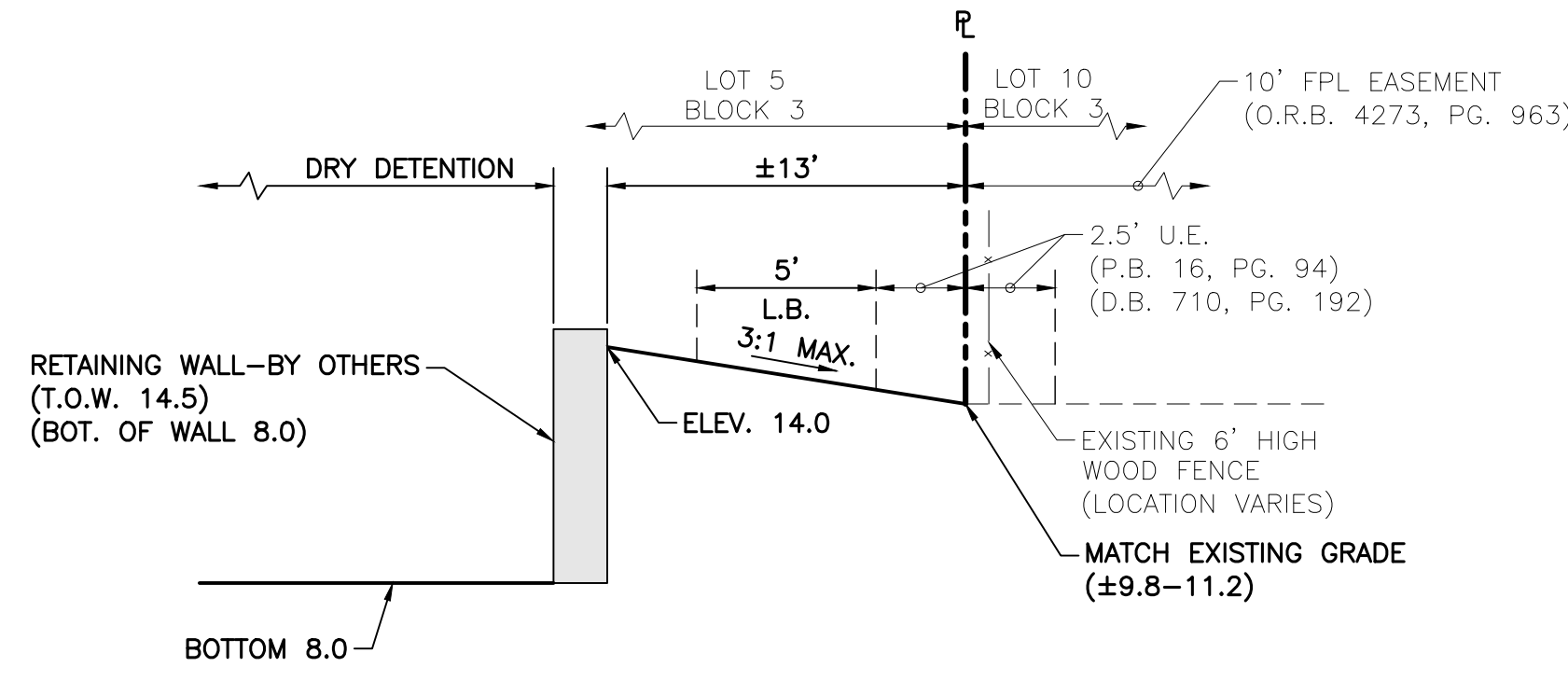
TYPICAL SECTION B-B
NOT TO SCALE



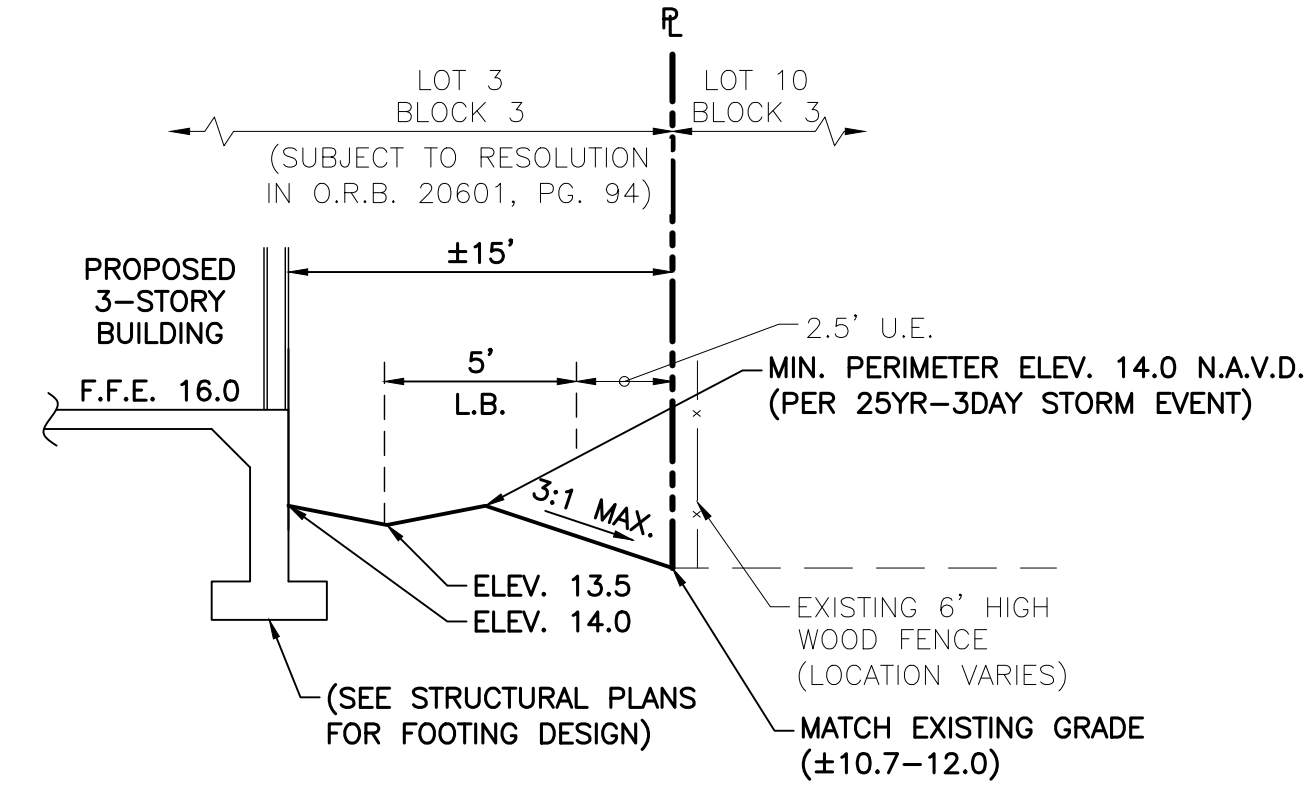
TYPICAL SECTION C-C
NOT TO SCALE



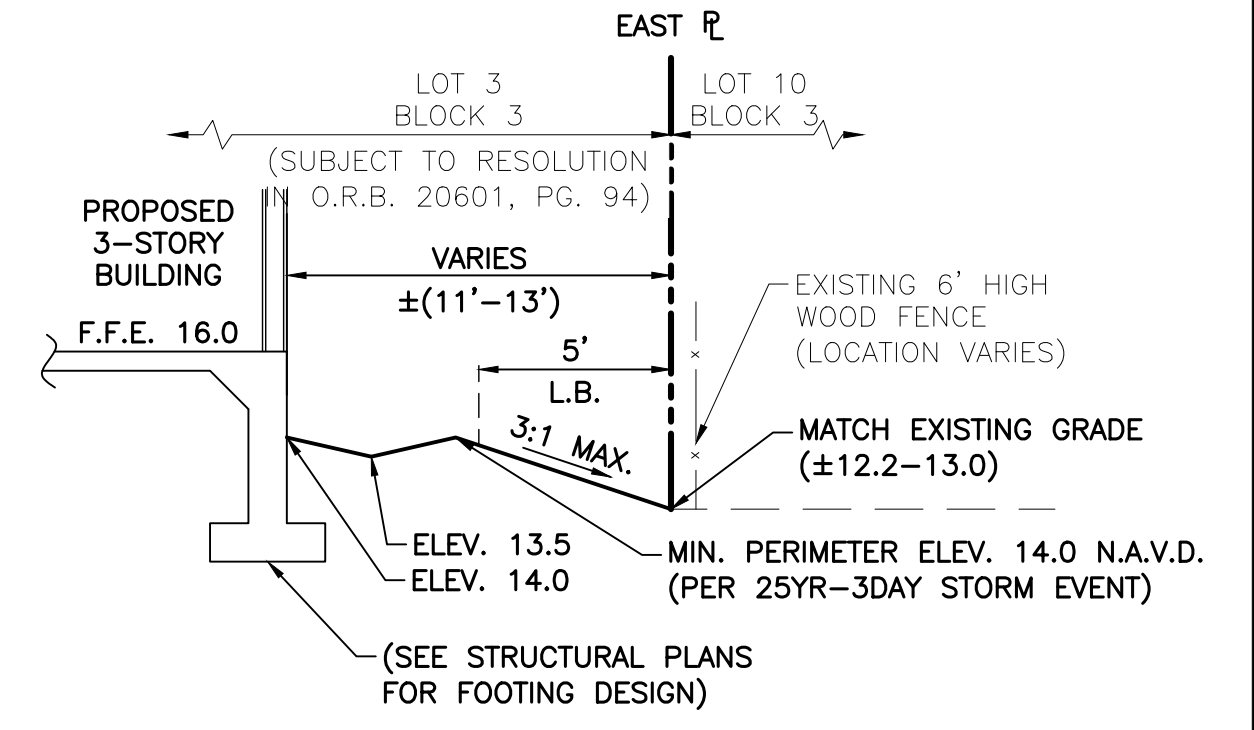
TYPICAL SECTION D-D
NOT TO SCALE



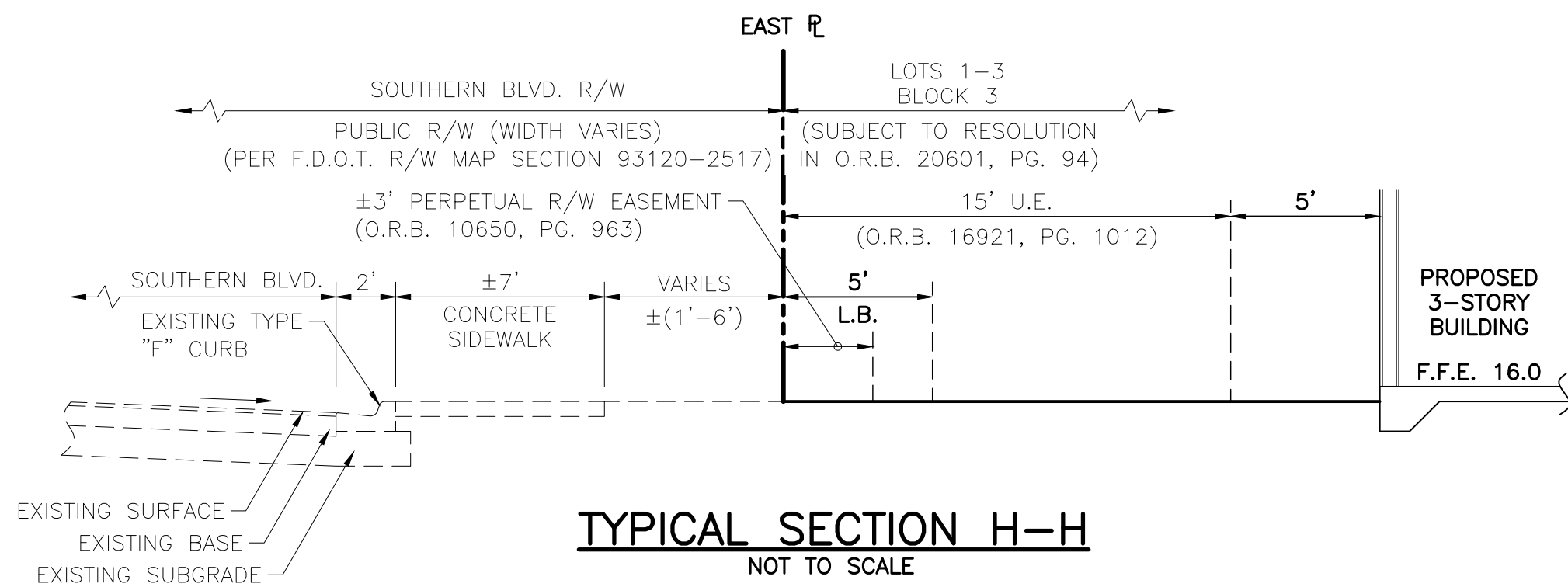
TYPICAL SECTION E-E
NOT TO SCALE



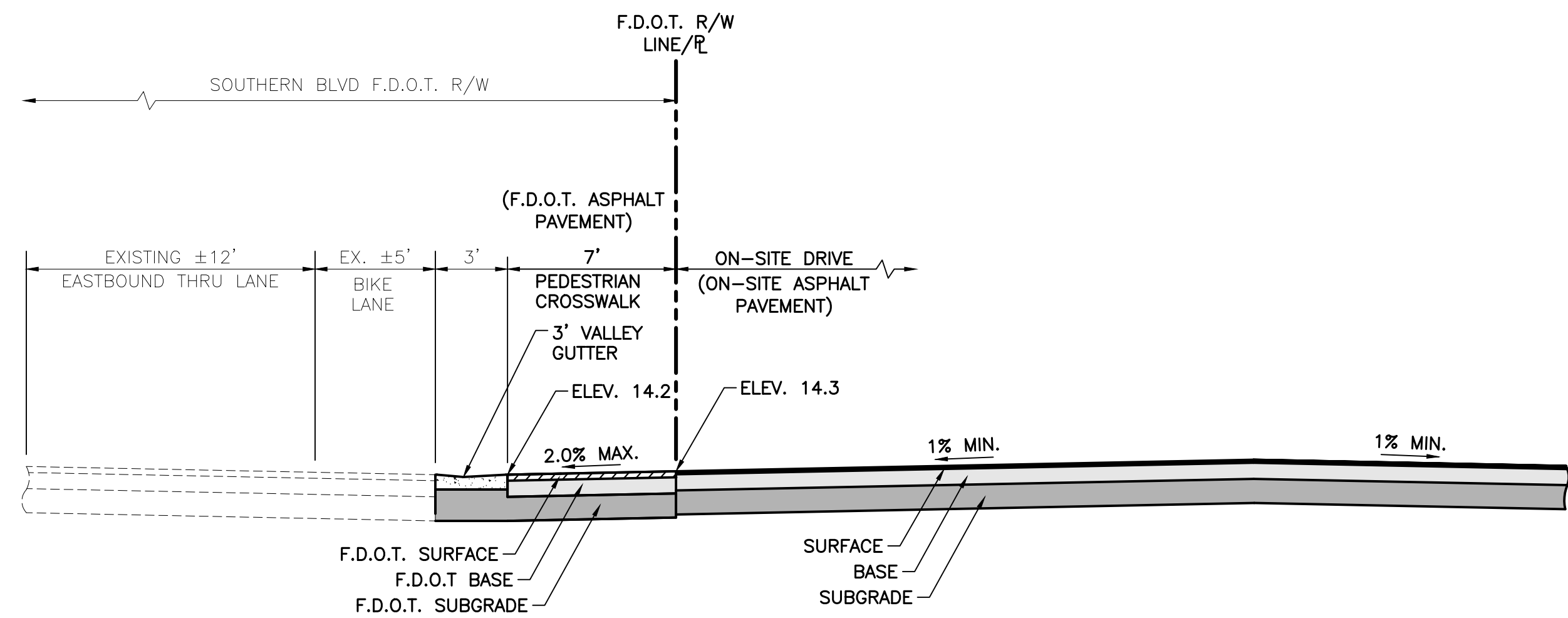
TYPICAL SECTION F-F
NOT TO SCALE



TYPICAL SECTION G-G
NOT TO SCALE



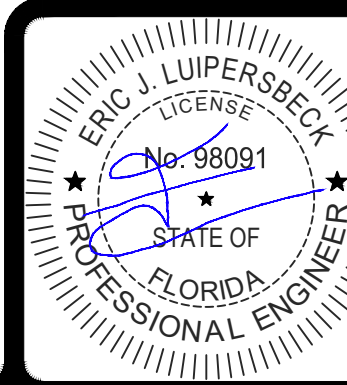
TYPICAL SECTION H-H
NOT TO SCALE



TYPICAL SECTION I-I
NOT TO SCALE

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.
PRINTED COPIES OF THIS
DOCUMENT ARE NOT
CONSIDERED SIGNED AND
SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.

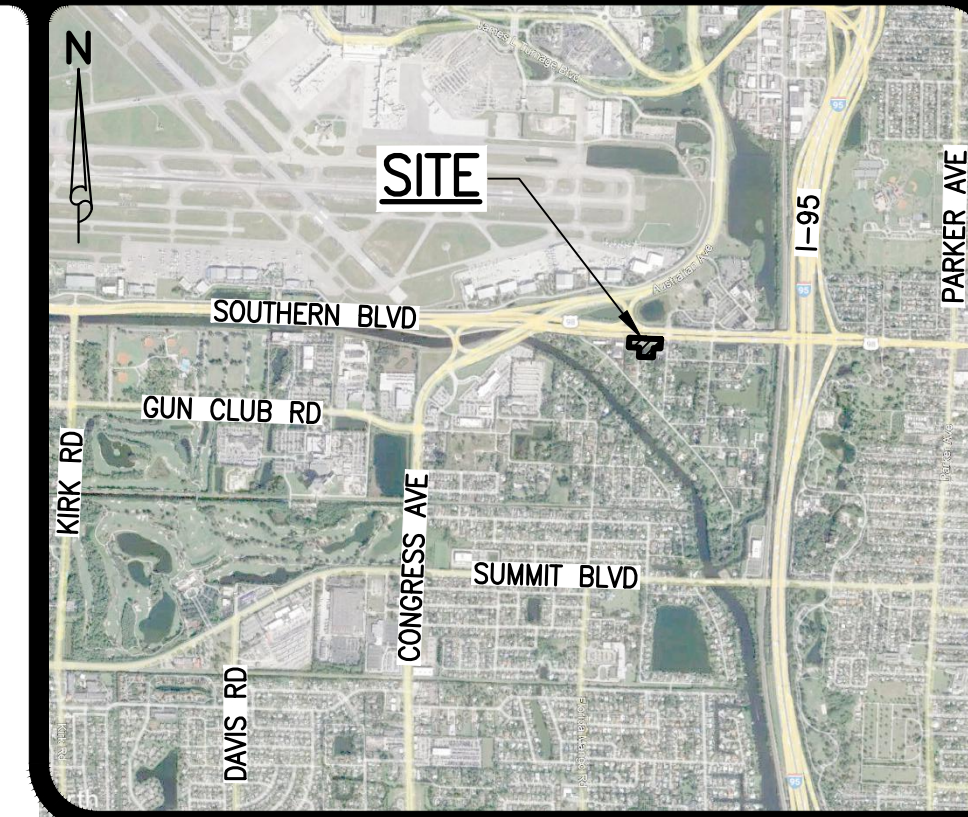


GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
PAVING AND DRAINAGE DETAILS

REVISIONS

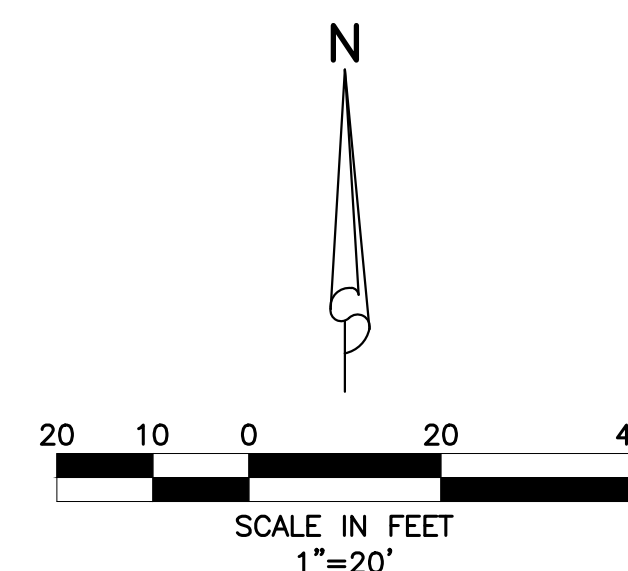
DESIGN G.B. DRAWN D.B. CHECKED APPROVED DATE

JOB NO. 23-142 DRAWING NO. 23142S06 SHEET 6 OF 21

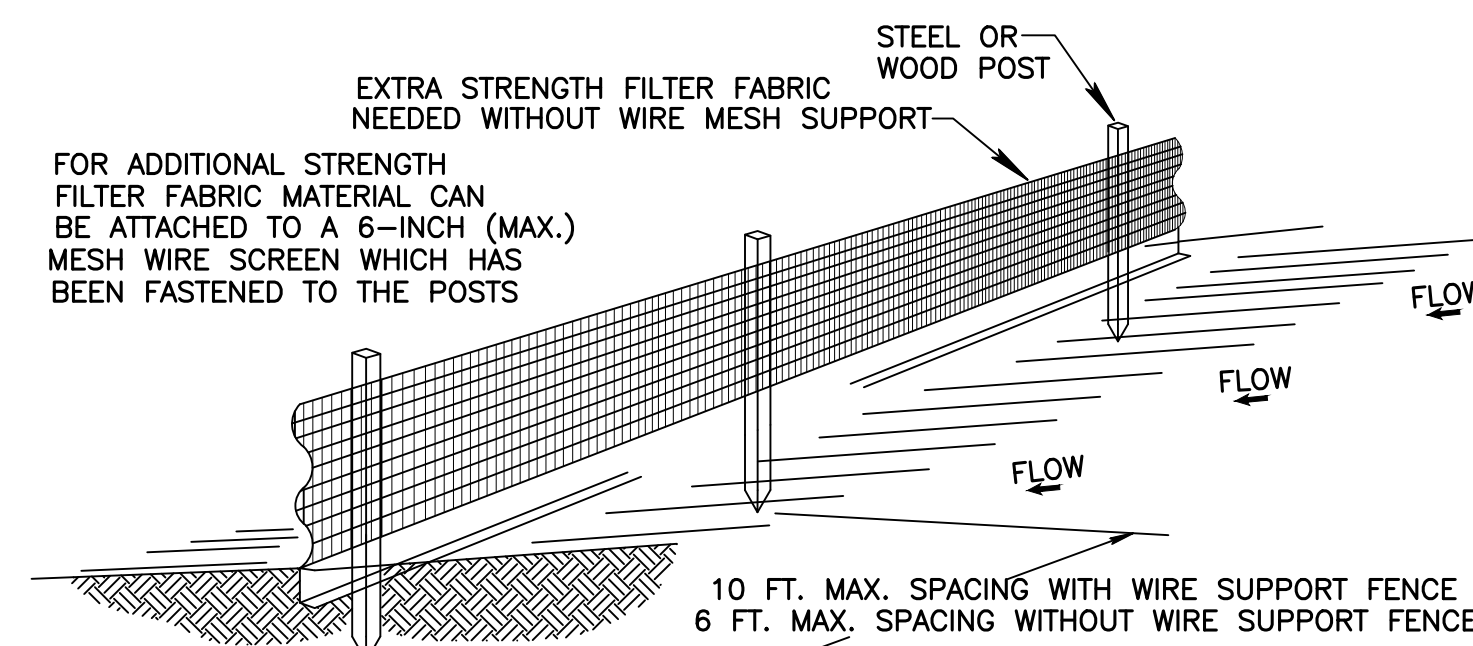
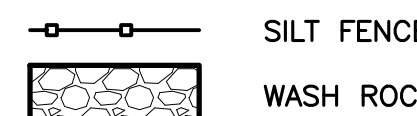


LOCATION MAP

NOT TO SCALE



LEGEND



SILT FENCE INSTALLATION DETAIL

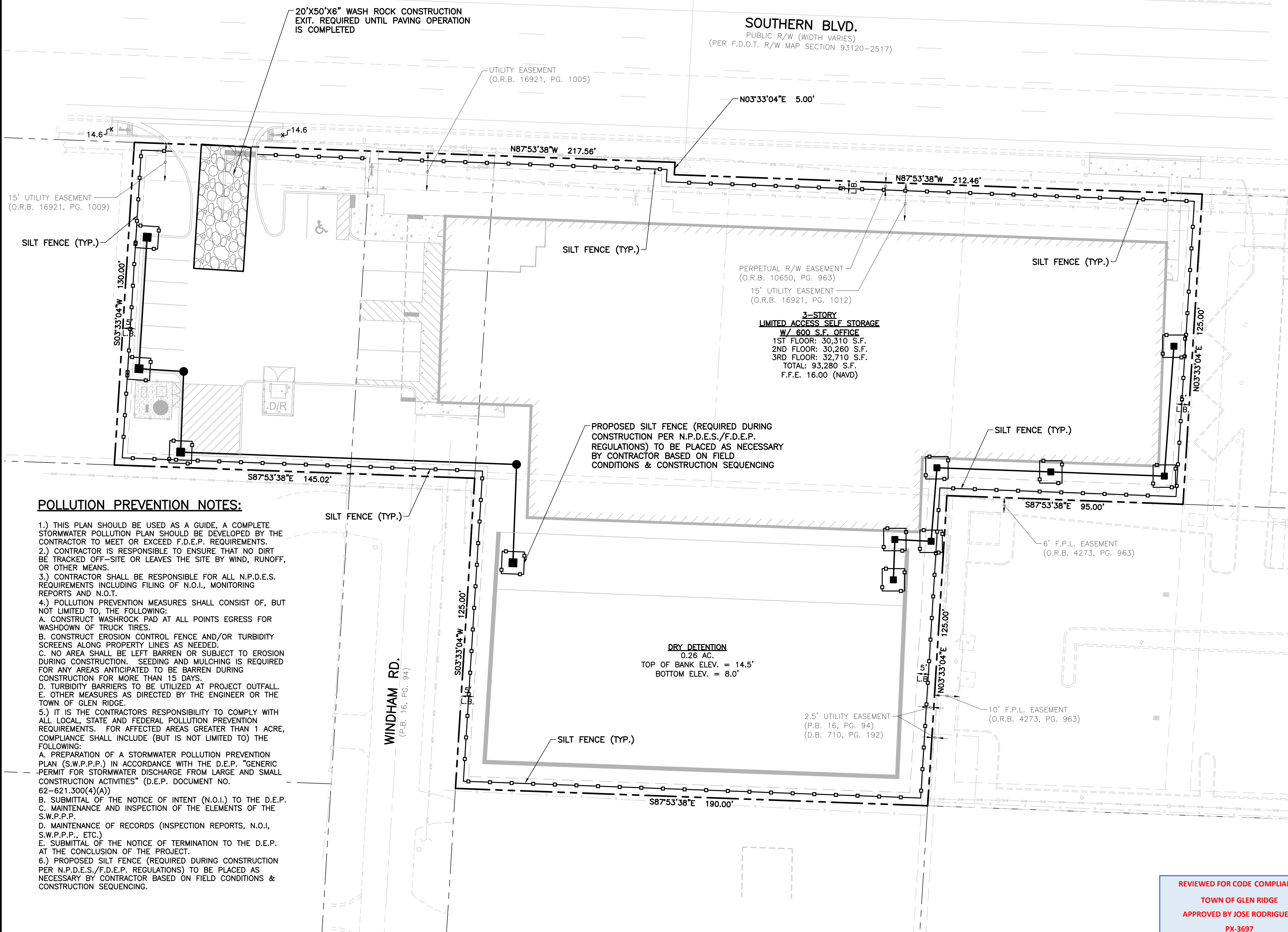
NOT TO SCALE.

SILT FENCE 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.
- 8.) PROPOSED SILT FENCE (REQUIRED DURING CONSTRUCTION PER N.P.D.E.S./F.D.E.P. REGULATIONS) TO BE PLACED AS NECESSARY BY CONTRACTOR BASED ON FIELD CONDITIONS AND CONSTRUCTION SEQUENCING.

10/17/2024

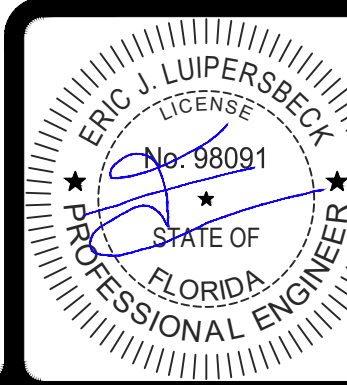
REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697



POLLUTION PREVENTION NOTES:

- 1.) THIS PLAN SHOULD BE USED AS A GUIDE, A COMPLETE STORMWATER POLLUTION PLAN SHOULD BE DEVELOPED BY THE CONTRACTOR 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 THE TOWN OF GLEN RIDGE.
- 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.
- 6.) PROPOSED SILT FENCE (REQUIRED DURING CONSTRUCTION PER N.P.D.E.S./F.D.E.P. REGULATIONS) TO BE PLACED AS NECESSARY BY CONTRACTOR BASED ON FIELD CONDITIONS & CONSTRUCTION SEQUENCING.

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 ASSOCIATED LAND SURVEYORS, INC. (561) 848-2102.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ERIC J. LUIPERSBECK, P.E. ON 10/17/2024.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

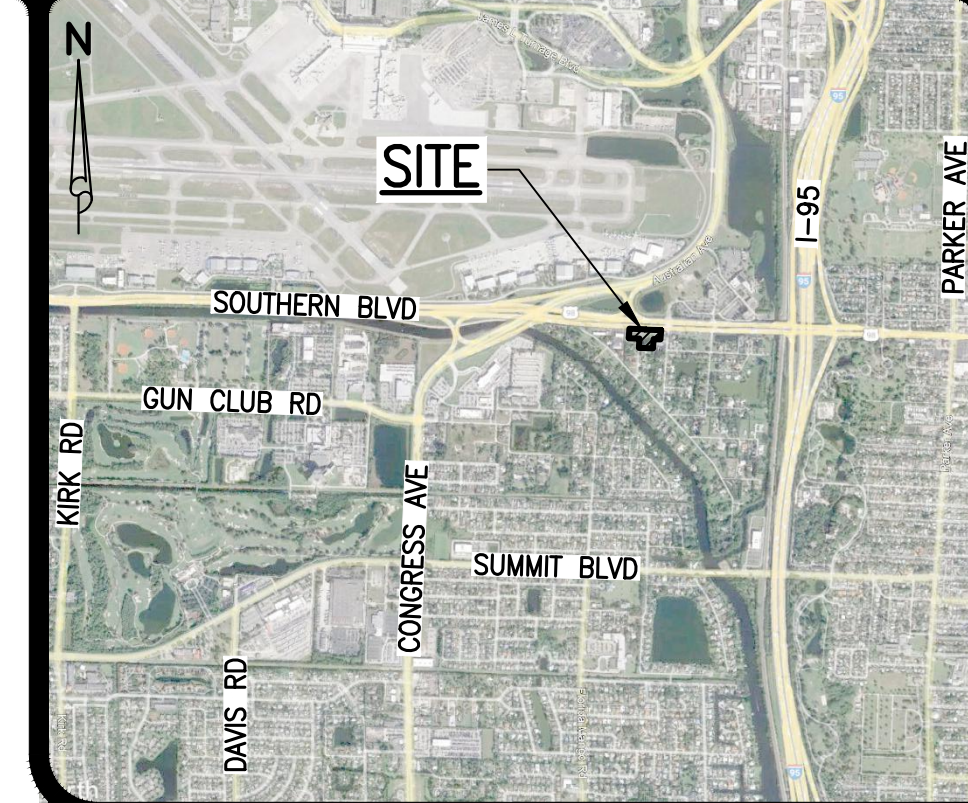
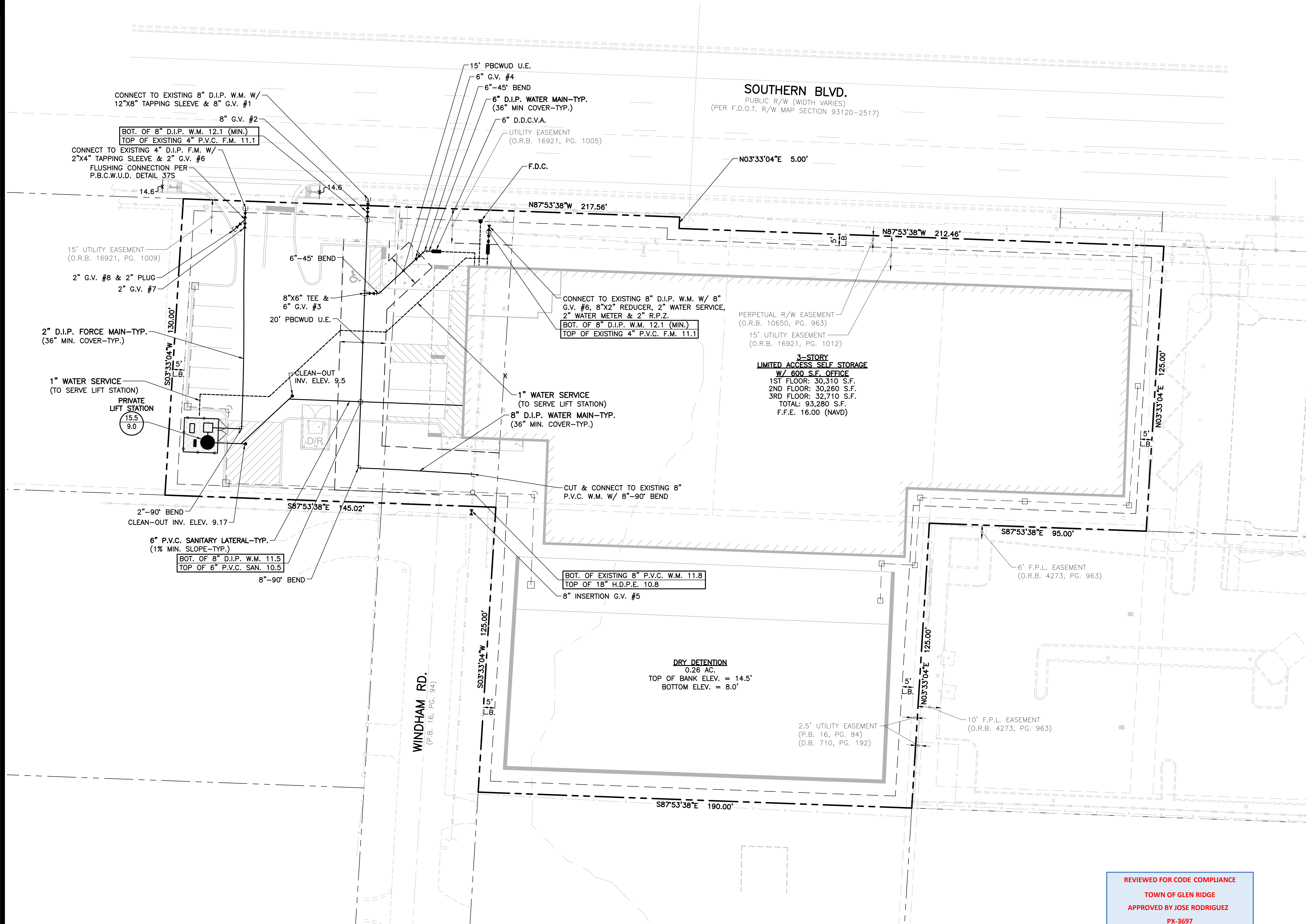
REVISIONS

DESIGN G.B. DRAWN D.B. CHECKED APPROVED DATE

GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
POLLUTION PREVENTION PLAN

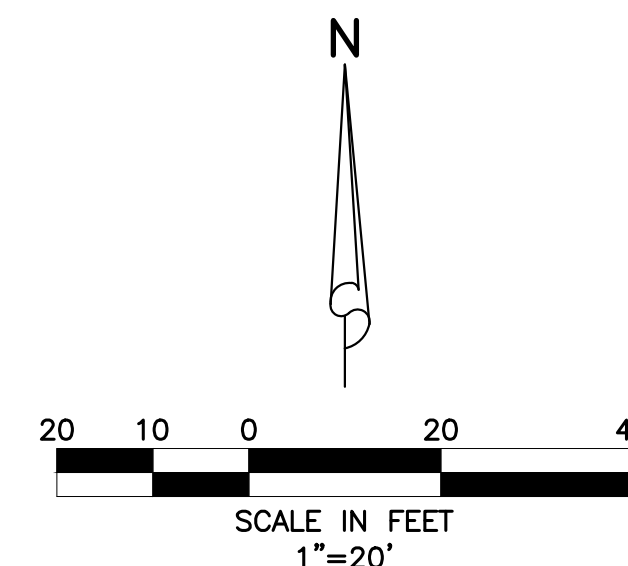
JOB NO. 23-142 DRAWING NO. 23142S07 SHEET 7 OF 21

48 HOURS BEFORE DIGGING
BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
1-800-432-4770
SUNSHINE STATE 1 CALL
UNDERGROUND UTILITIES
NOTIFICATION CENTER



LOCATION MAP

NOT TO SCALE



LEGEND

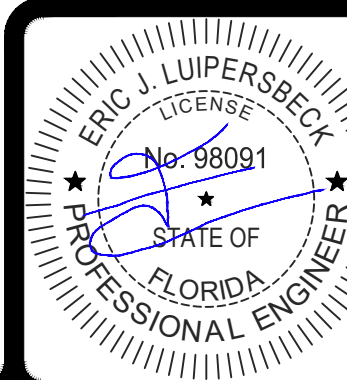
- S1-4' MH. MANHOLE NUMBER AND TYPE
- MANHOLE TOP ELEVATION
MANHOLE INVERT ELEVATION
- SINGLE SEWER SERVICE W/ CLEAN-OUT
DOUBLE SEWER SERVICE W/ CLEAN-OUT
- SANITARY SEWER LINE, MANHOLE
AND DIRECTION OF FLOW
- FIRE HYDRANT W/ GATE VALVE
- WATER SERVICE, WATER METER & R.P.Z.
WATER MAIN & GATE VALVE
GATE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

NOTES:

- ON-SITE SEWER LATERALS ARE PRIVATELY OWNED AND MAINTAINED.
- 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.
- SEE PBCWUD NOTES, SHEET 5

48 HOURS BEFORE DIGGING
BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
1-800-432-4770
SUNSHINE STATE 1 CALL
UNDERGROUND UTILITIES
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 ASSOCIATED LAND SURVEYORS, INC. (561) 848-2102.



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.

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

REVISIONS

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

10/17/2024

APPLICANT: 1550 SOUTHERN LP
W.U.D. #24-579



GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
WATER AND WASTEWATER PLAN

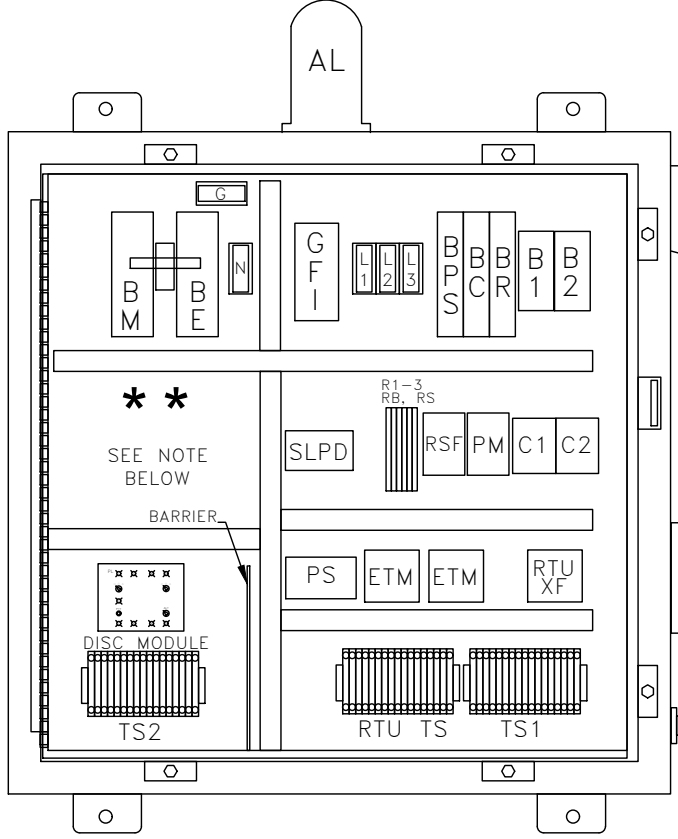
DESIGN G.B. DRAWN D.B. CHECKED APPROVED DATE

JOB NO. 23-142 DRAWING NO. 23142S08 SHEET 8 OF 21

CONTROL CENTER DESIGNED
& MANUFACTURED TO MEET
ALL D.E.P. REQUIREMENTS

MOPS CONTROL CENTER

SEE SCHEDULE FOR
ELECTRICAL SERVICE REQUIREMENTS



INTERIOR LAYOUT
(DOOR NOT SHOWN FOR CLARITY)

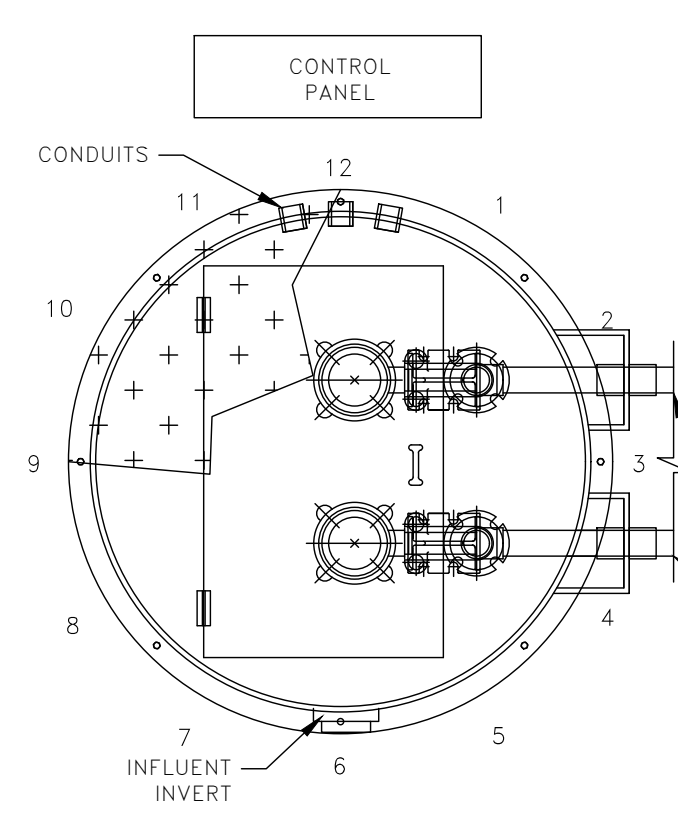
TERMINAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
NEU	120V	RTU	PUMP	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR
RTU	120V	RTU	PUMP	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR

TS1 TERMINAL SCHEDULE

TERMINAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
RTU	120V	RTU	PUMP	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR
RTU	120V	RTU	PUMP	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR	MT	G	MOTOR

TS2 TERMINAL SCHEDULE

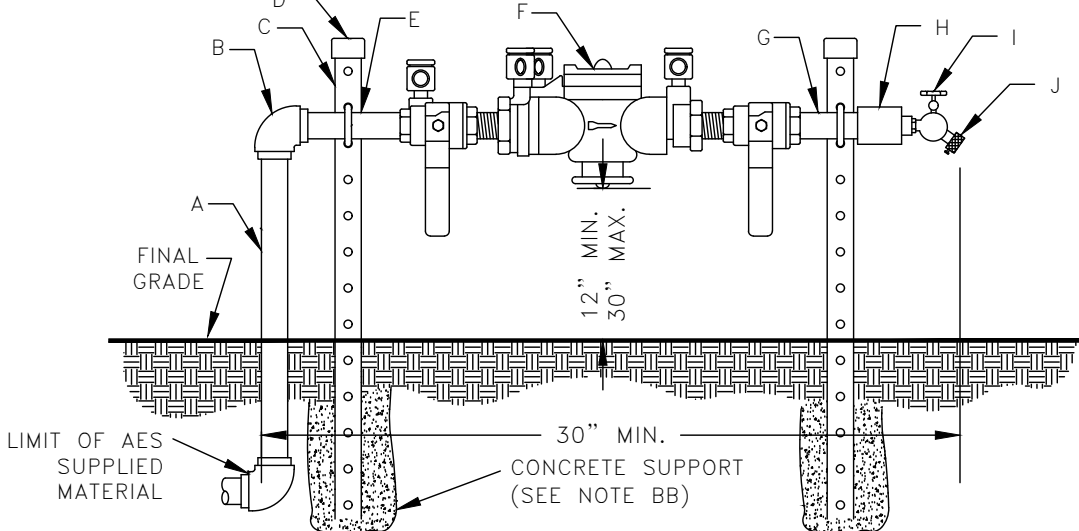
THIS SPACE AVAILABLE FOR CAPACITORS FOR SINGLE PHASE OR TRANSFORMER FOR 460V.



HUB AND INVERT LOCATION

ITEMS	CLOCK POSITION
DISCHARGE LINES	3:00
PRIMARY INVERT	6:00
SECONDARY INVERT	N/A
LOCATION OF CONTROL PANEL	12:00

NOTE: BACKFILL AROUND LIFT STATION FROM ANTI-FLOATATION RING UP TO FINISHED GRADE SHALL BE COMMON FILL COMPACTED IN 12-INCH MAX. LIFTS TO 98% DENSITY PER AASHTO T-180. CONTRACTOR SHALL EXERCISE CARE NOT TO DAMAGE WETWELL DURING COMPACTION.

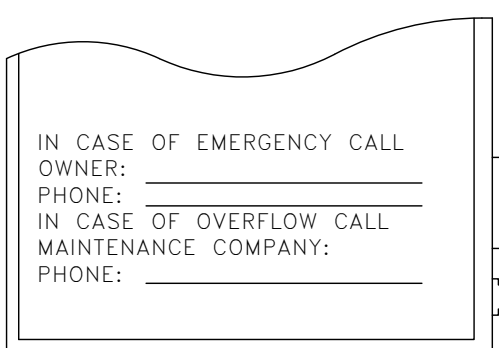


DETAIL B

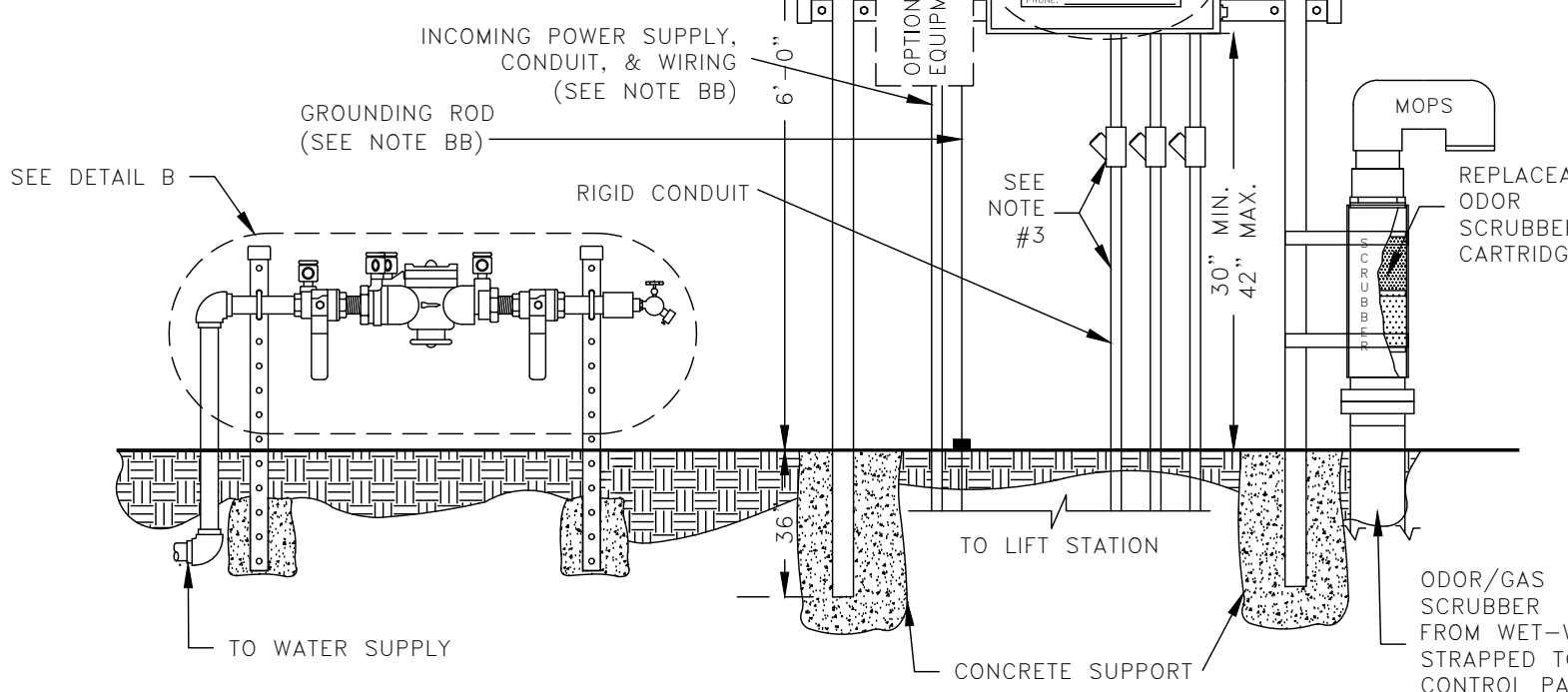
R.P.Z. BACKFLOW PREVENTER ASSEMBLY DETAIL

U.S.C. AND A.S.S.E. APPROVED

N.T.S.

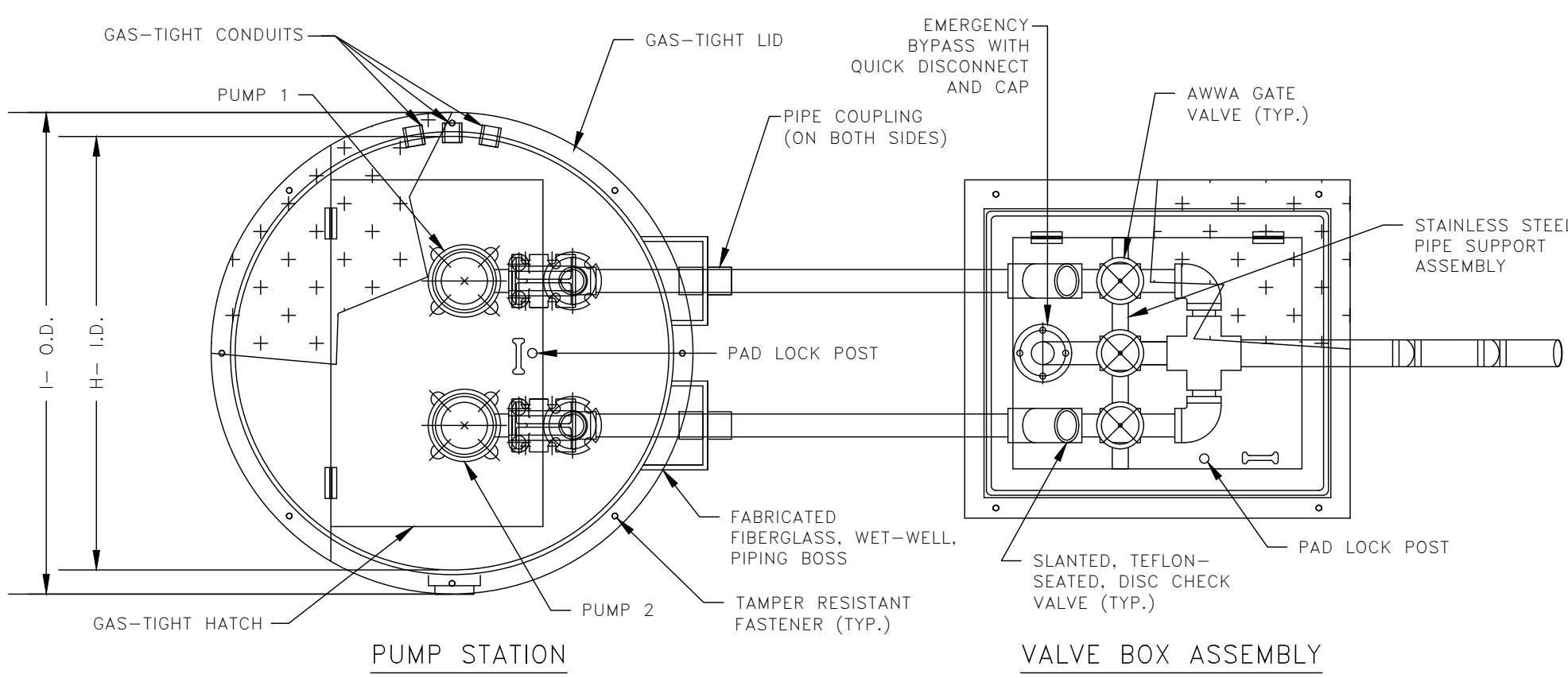


DETAIL C
(SUPPLIED BY MAINT. COMPANY)



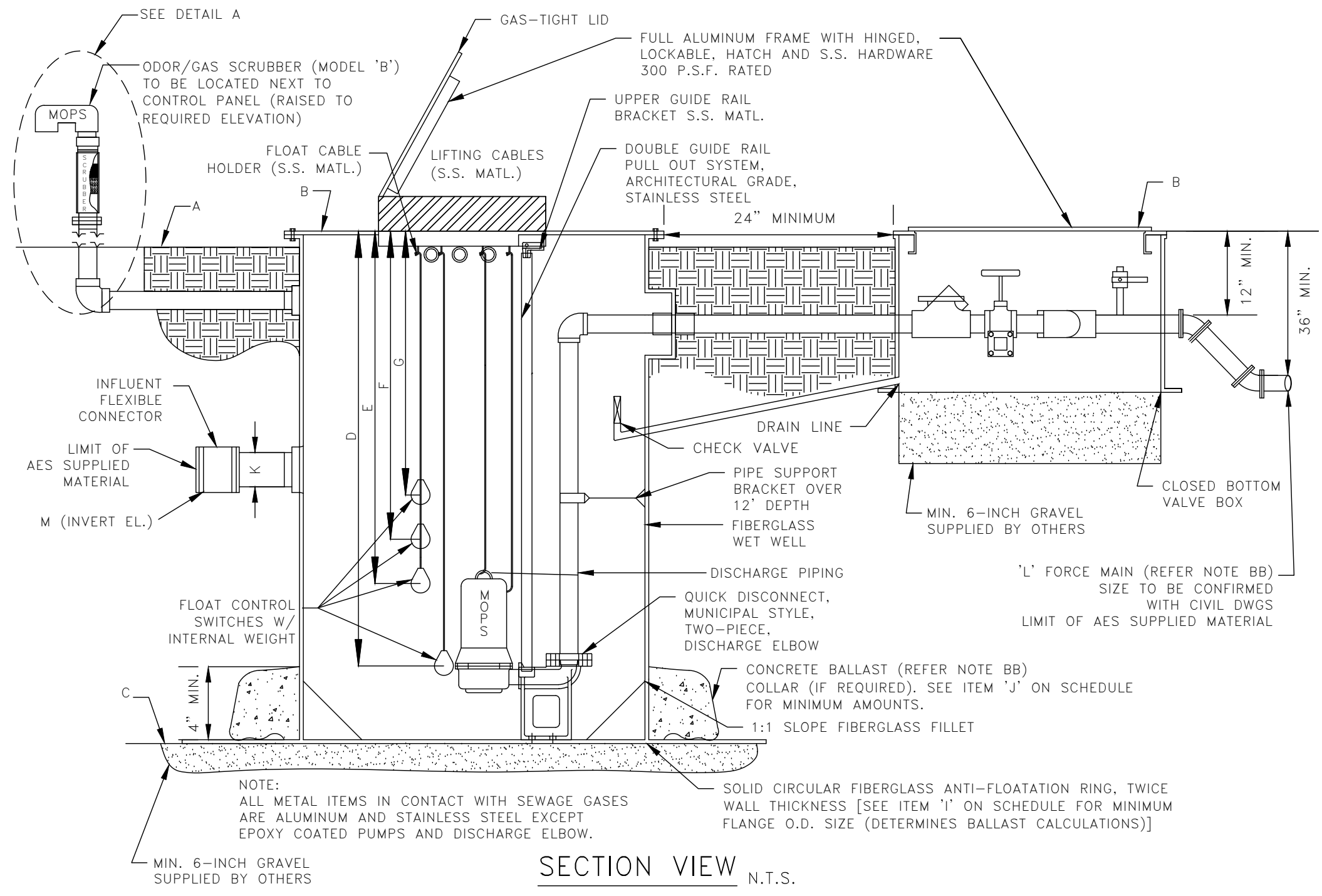
CONTROL CENTER ASSEMBLY AND INSTALLATION

N.T.S.



TOP VIEW

N.T.S.



SECTION VIEW

N.T.S.

MOPS

PRIVATE SERIES

MANUFACTURED ODORLESS PUMP STATION
ATLANTIC ENVIRONMENTAL SYSTEMS, INC.
LAKE WORTH, FL 33461
PH: (561) 547-8080 FAX: (561) 547-3999 © 2000

THIS DRAWING AND THE DESIGN CONTAINED HEREIN IS PROPRIETARY AND IS AND SHALL REMAIN THE PROPERTY OF ATLANTIC ENVIRONMENTAL SYSTEMS, INC. THIS DRAWING AND DESIGN SHOULD BE USED ONLY FOR THE PURPOSE FOR WHICH IT IS INTENDED, AND ONLY WITH WRITTEN AUTHORIZATION FROM ATLANTIC ENVIRONMENTAL SYSTEMS, INC. ANY REPRODUCTION, IN WHOLE OR IN PART, MUST CLEARLY SHOW THE ATLANTIC ENVIRONMENTAL NAME AND ADDRESS IN THE REPRODUCTION.

MOPS PUMP STATION SCHEDULE

MOPS SERIES	ITEM DESCRIPTION
INITIAL DESIGN FLOW (G.P.M.)	24
INITIAL DESIGN HEAD (T.D.H.)	70'
SECONDARY DESIGN FLOW (G.P.M.)	39
SECONDARY DESIGN HEAD (T.D.H.)	30'
RATED PERFORMANCE SPEED	3450 RPM
RATED MOTOR HORSEPOWER	4.0
SUBMERSIBLE PUMP TYPE (P-1,P-2)	GRINDER
PUMP MODEL NUMBER	MOPS
SERVICE ENTRANCE VOLTAGE	208
SERVICE ENTRANCE PHASE	3
CONTROL CENTER FULL LOAD AMPS	34
NEMA 3R PAINTED STEEL DISCONNECT SWITCH, RATED AMPS	60
WET WELL SCOURER SYSTEM	N/A
REMOTE STATION MONITOR (TELEMETRY)	W/SA
ON-SITE GENERATOR SYSTEM	N/A

MOPS EQUIPMENT IDENTIFICATION	QTY.	MODEL DESIGNATION
MOPS PUMP STATION	1	B22-48144-C-4.0
MOPS VALVE BOX ASSEMBLY (VBA)	1	VBA-22
MOPS ODOR/GAS SCRUBBER (OGS)	1	OGS-B
MOPS R.P.Z. ASSEMBLY	1	75
MOPS CONTROL CENTER	1	PSC-222-4.0
MOPS DISCONNECT SWITCH	1	FDS-60-3-2-PS
MOPS CONTROL CENTER MOUNTING ASSEMBLY	1	CCMA-32AL
MOPS WET WELL SCOURER SYSTEM	0	N/A
MOPS REMOTE STATION MONITOR	1	PROVIDED WITH SERVICE AGREEMENT
1st YEAR SERVICE/MAINTENANCE CONTRACT	1	LEVEL 1 WITH REMOTE MONITOR
MOPS ON-SITE GENERATOR SYSTEM	0	N/A
MOPS FIELD SERVICE WORK	1	CONTROL INSTALLATION & START-UP

MOPS PUMP STATION COMPLIANCE NOTES:

- THIS PUMP STATION DESIGN COMPLIES WITH THE FOLLOWING REQUIRED STANDARDS:
- STATE OF FLORIDA ENVIRONMENTAL PROTECTION STANDARDS
- FLORIDA ADMINISTRATIVE CODE (F.A.C.): 62-640.400- COLLECTION AND TRANSMISSION SYSTEMS
- NATIONAL ELECTRIC CODE (NEC) CLASS 1, DIVISION 1, GROUP D- HAZARDOUS LOCATIONS
- UNDERWRITER'S LABORATORIES (U.L.) 508A-MOTOR CONTROL CENTERS AND U.L. 698A-INTRINSICALLY SAFE CONTROL CENTERS
- RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (2014 EDITION).

- PUMPS ARE RATED BY FACTORY MUTUAL FOR CLASS 1, DIVISION 1, GROUP D ATMOSPHERES AS REQUIRED BY NEC.
- THE CONTROL CENTER INCORPORATES INTRINSICALLY SAFE RELAYS AND IS LISTED TO UL 698A INTRINSICALLY SAFE FOR CLASS 1, DIVISION 1 ATMOSPHERES.
- THE CONDUIT PROVIDED, ALONG WITH CONDUIT GAS-SEAL-OFFS, ARE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.
- THE WASTEWATER PUMPS AND THE CONTROL CENTER INCORPORATE A MECHANICAL SEAL FAILURE DETECTION AND NOTIFICATION SYSTEM.
- THE CONTROL CENTER INCLUDES EITHER A REMOTE TELEMETRY UNIT (RTU) OR A SELF-CHARGING, BACK-UP ALARM SYSTEM TO OPERATE ON POWER FAILURE.
- THE PUMP STATION INCORPORATES AN ODORLESS DESIGN WITH A SCRUBBER SYSTEM TO CONTROL TOXIC GASES AND ODORS FOR COMPLIANCE TO F.A.C. 62-604.400.
- THE BOTTOM OF THE TOP RM ELEVATION OF PUMP STATION MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 25 YEAR FLOOD ELEVATION. THE LISTED 25 YEAR FLOOD ELEVATION PROVIDED BY SITE CIVIL ENGINEER.
- THE BOTTOM ELEVATION OF THE MOPS CONTROL CENTER MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 100 YEAR FLOOD ELEVATION. THE LISTED 100 YEAR FLOOD ELEVATION PROVIDED BY THE SITE CIVIL ENGINEER.

MOPS ENGINEERING NOTES:

- AA. THE HORSEPOWER SHOWN ON THE SCHEDULE IS A MINIMUM HORSEPOWER REQUIREMENT BASED ON THE STATION'S DESIGN CRITERIA AND THE REQUIRE TORQUE. (LOWER RATED HORSEPOWER EQUIPMENT WILL NOT BE ACCEPTABLE.)
 - BB. THESE ITEMS ARE NOT SUPPLIED BY A.E.S. WITH THE MOPS STATION.
 - CC. INVERT ELEVATIONS BASED ON INSIDE BOTTOM OF PIPE.
 - DD. THE MOPS CONTROL ASSEMBLY CONSISTS OF THE FOLLOWING: CONTROL CENTER DISCONNECT SWITCH, MOUNTING ASSEMBLY, ELECTRICAL CONDUITS, AND SEAL-OFF. THESE ITEMS MUST BE SUPPLIED AND INSTALLED BY THE MOPS PUMP STATION MANUFACTURER TO VALIDATE MOPS WARRANTY PROGRAM.
 - EE. FOR STATIONS IN MIAMI-DADE COUNTY, THE MOPS PUMP STATION IS SUPPLIED WITH A REMOTE TELEMETRY MONITORING UNIT AND A.E.S. MAINTENANCE SERVICE. THE R.T.U. ALLOWS FOR MONITORING OF LAG ALARM, HIGH ALARM, AND POWER FAILURE PER CHAPTER 24.42.2(5). THE R.T.U. IS EQUIPPED WITH A BATTERY BACK UP AND IS INSTALLED ABOVE THE 100 YEAR FLOOD ELEVATION.
- THE MOPS WASTEWATER PUMP STATION DESIGN AND EQUIPMENT SHOWN ON THIS DRAWING HAS BEEN REVIEWED, PERMITTED, AND CERTIFIED AS COMPLYING WITH ALL THE STATE OF FLORIDA D.E.P. AND LOCAL REQUIREMENTS. ANY SUBSTITUTION FROM THIS DESIGN MAY REQUIRE NEW PERMITS, APPLICATION FEES, AND ENGINEERING SERVICES FOR RE-CERTIFICATION AND DESIGN REVIEW.

P.E. CERTIFICATION:

Bonnie McLeod, P.E., Lic # 70797 V.P. of Engineering
Atlantic Environmental Systems, Inc., Certificate # 26398
2244 4th Ave. North, Lake Worth, Florida 33461
Ph: 561-547-8080 Fax: 561-547-3999

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

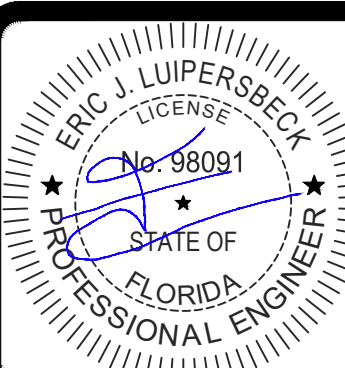
DATE	--/--/--
REVISION	--/--/--

GLEN RIDGE SELF STORAGE
SIMMONS AND WHITE
2581 METROCENTRE BLVD. WEST, SUITE 3, WEST PALM BEACH, FL 33411

2231	10/11/2024
------	------------

LS-1	10/17/2024
------	------------

APPLICANT: 1550 SOUTHERN LP
W.U.D. #24-579



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY
ERIC J. LUIPERSBECK, P.E. ON
10/17/2024.
PRINTED COPIES OF THIS
DOCUMENT ARE NOT
CONSIDERED SIGNED
AND SEALED AND THE SIGNATURE
MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.

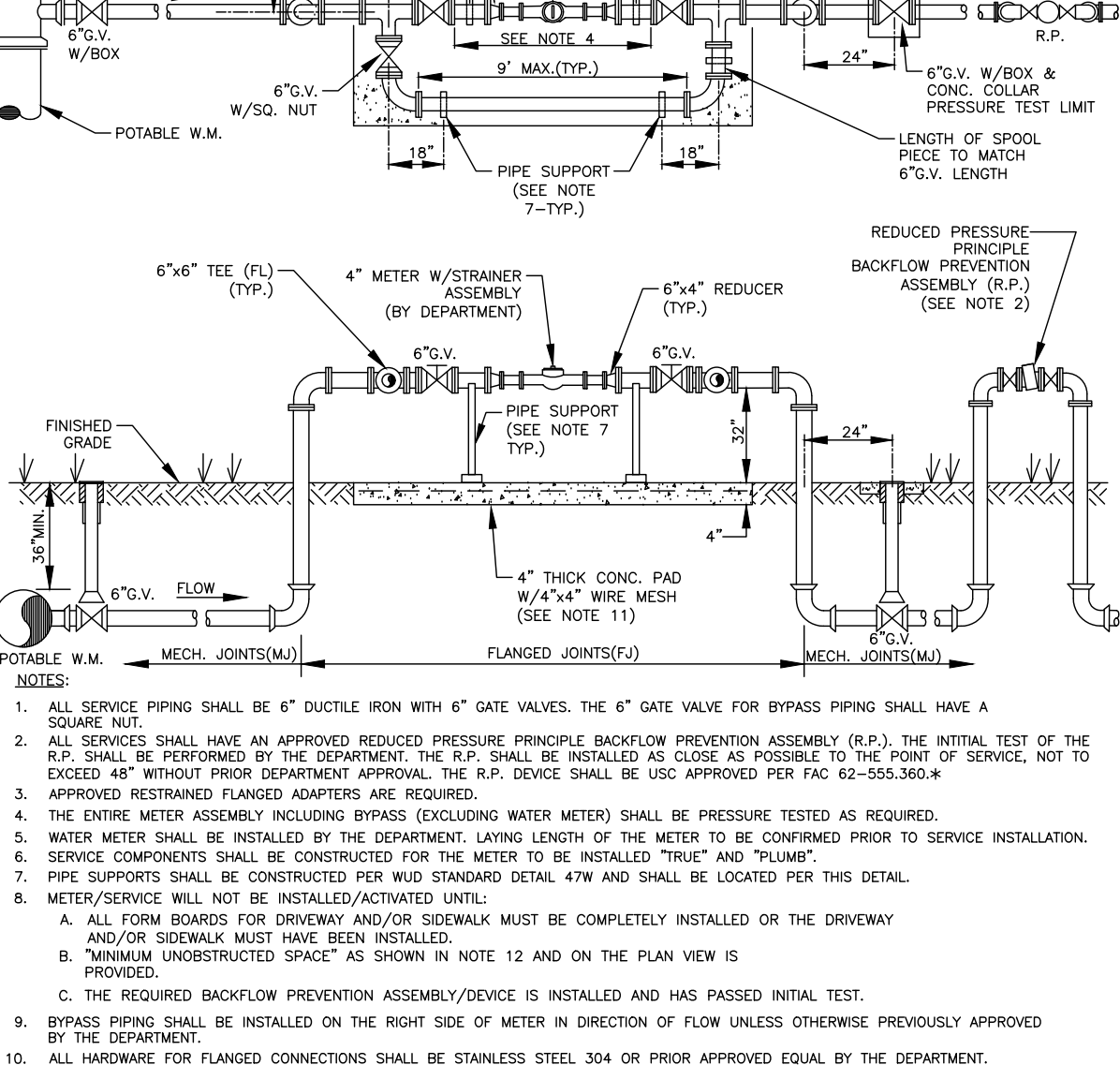
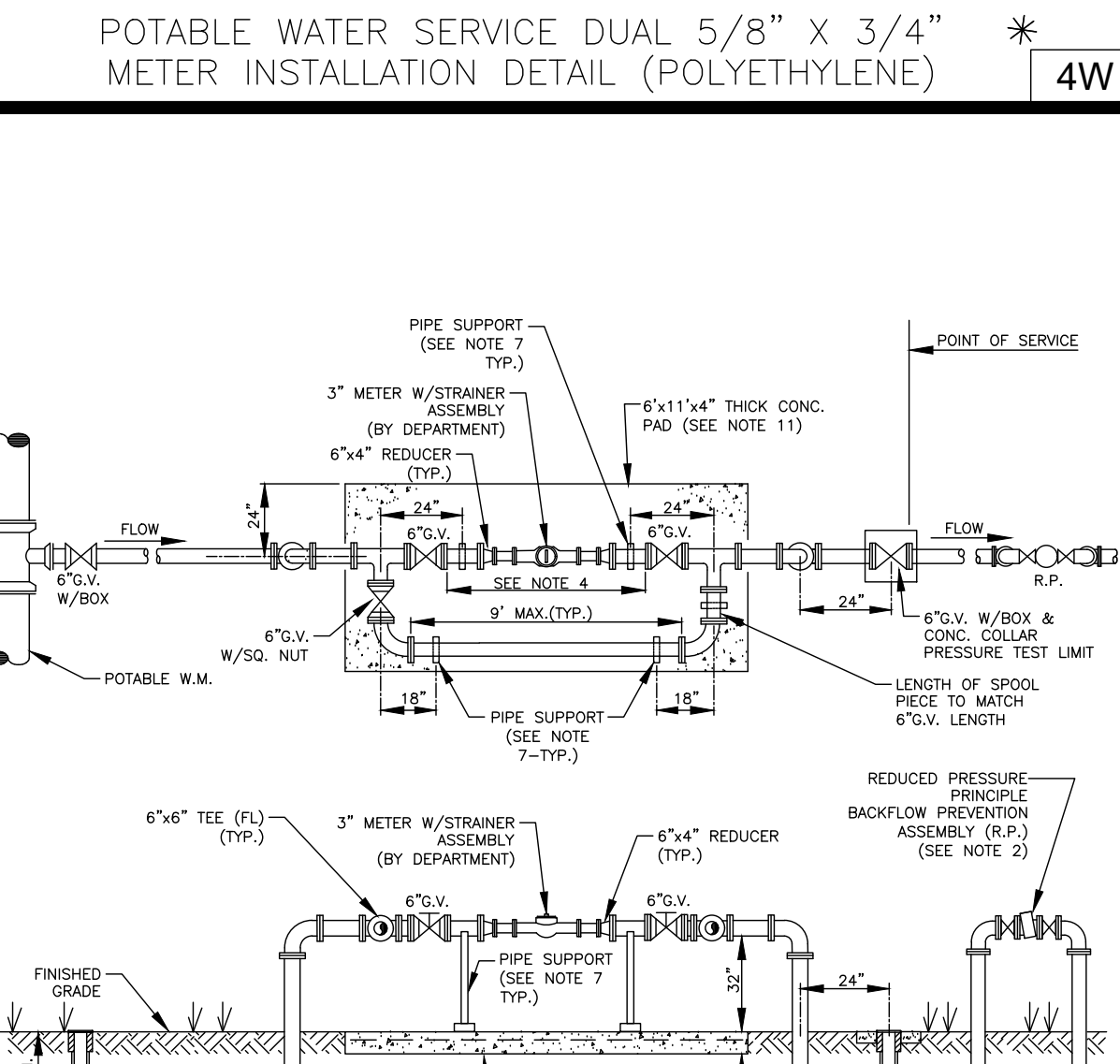
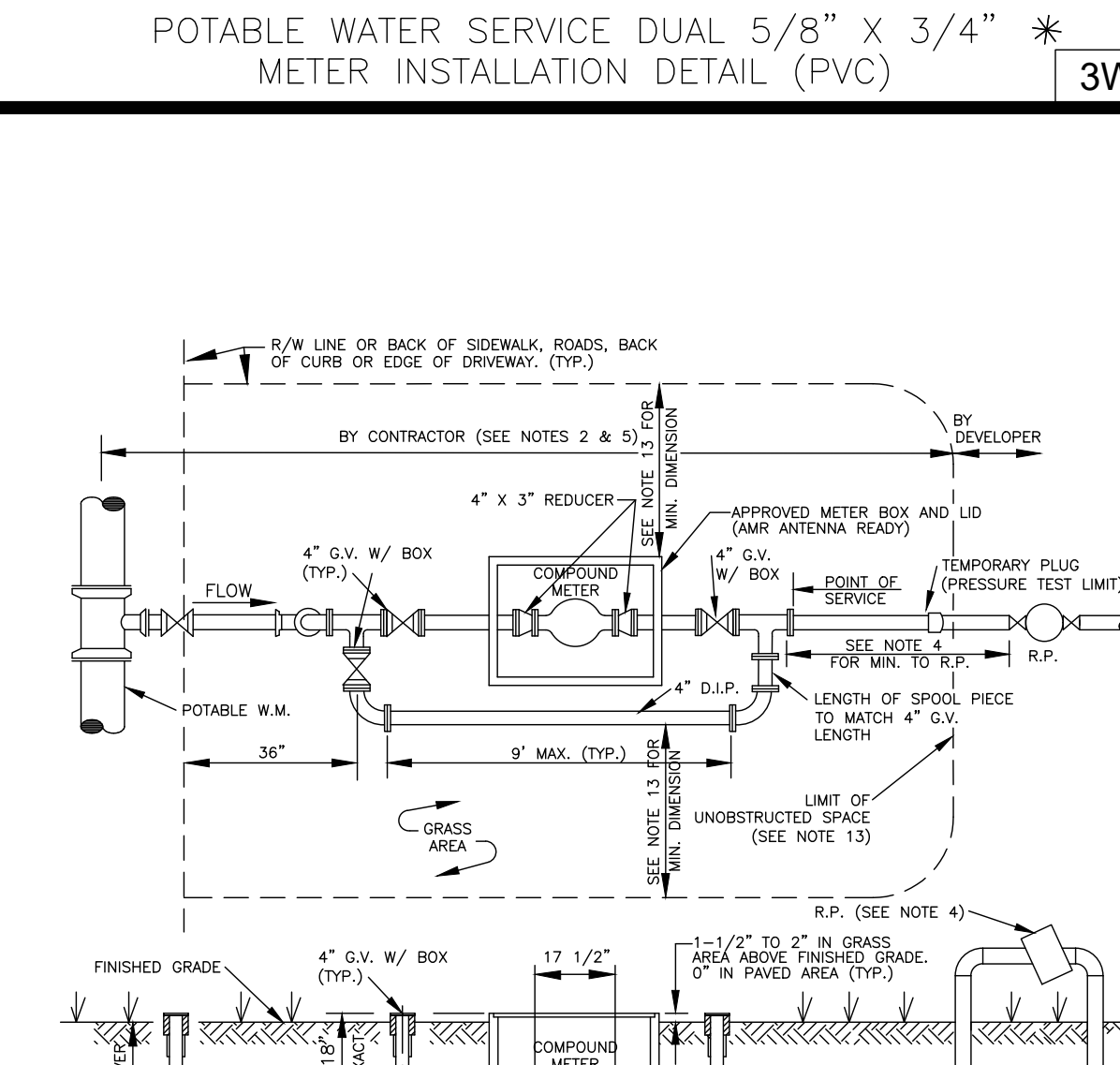
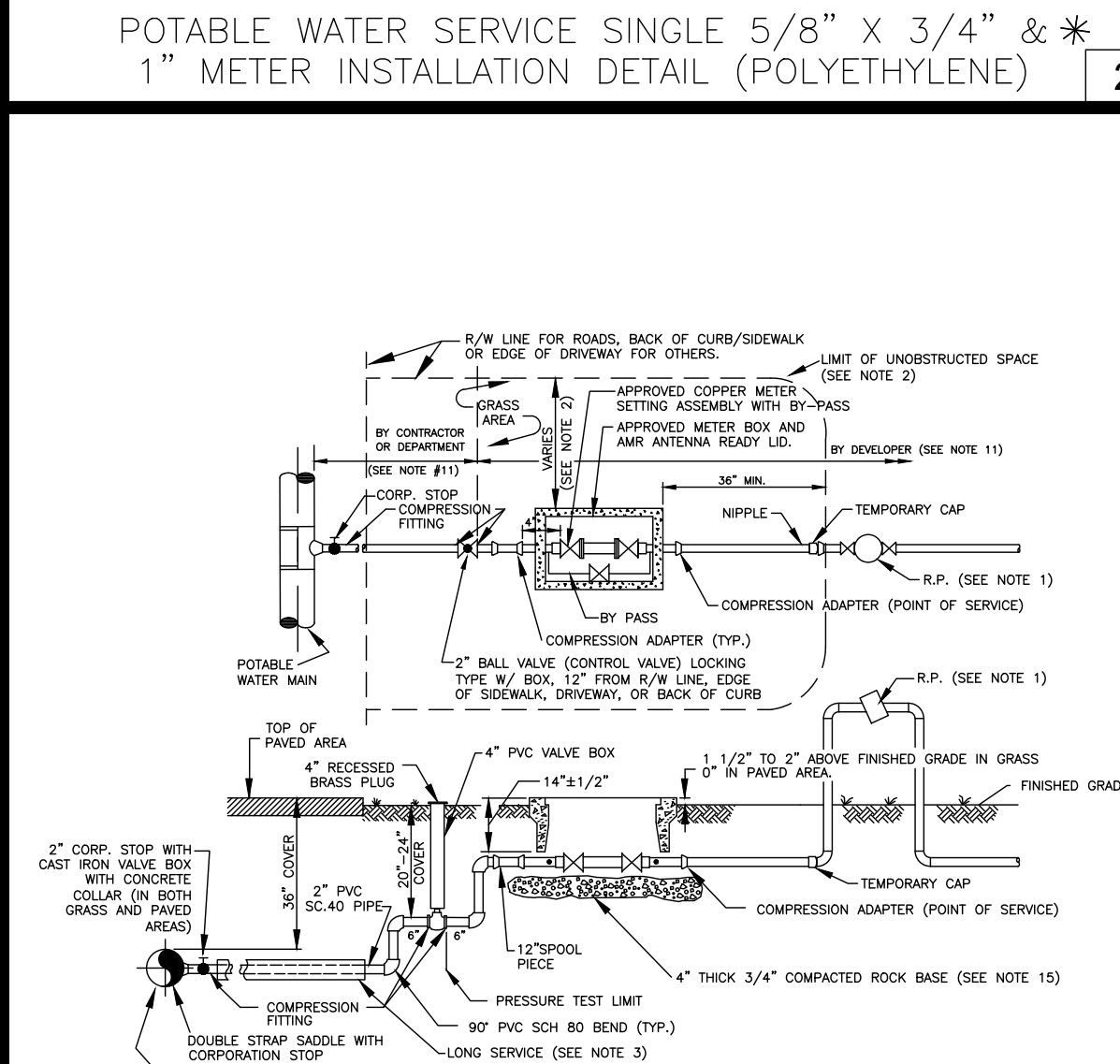
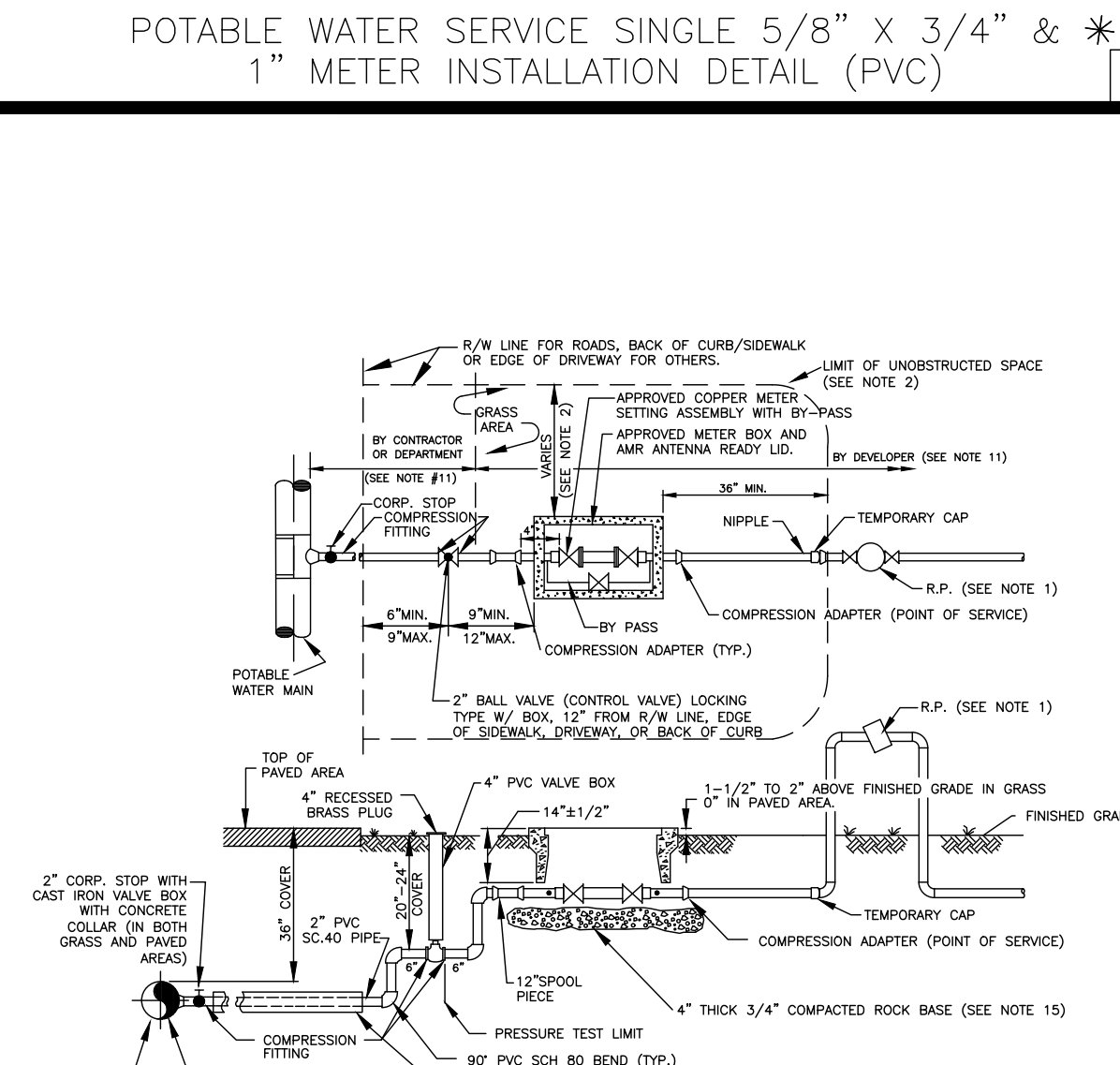
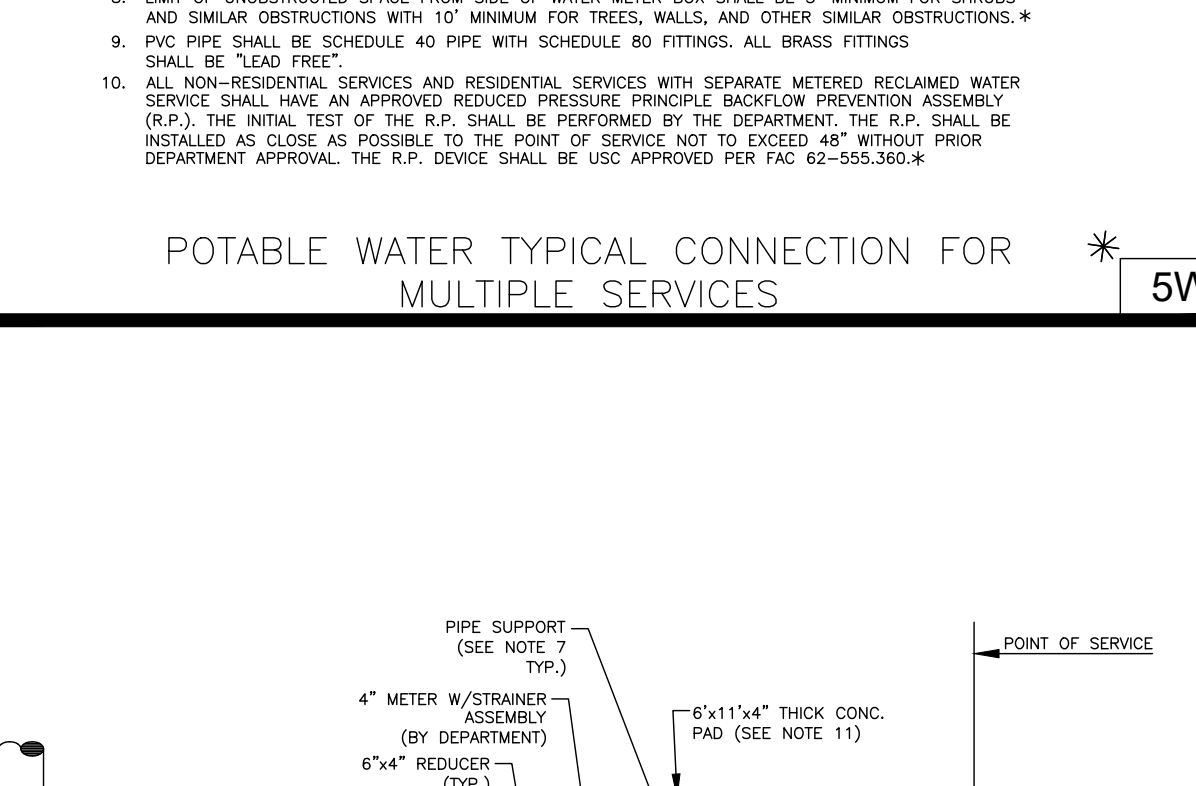
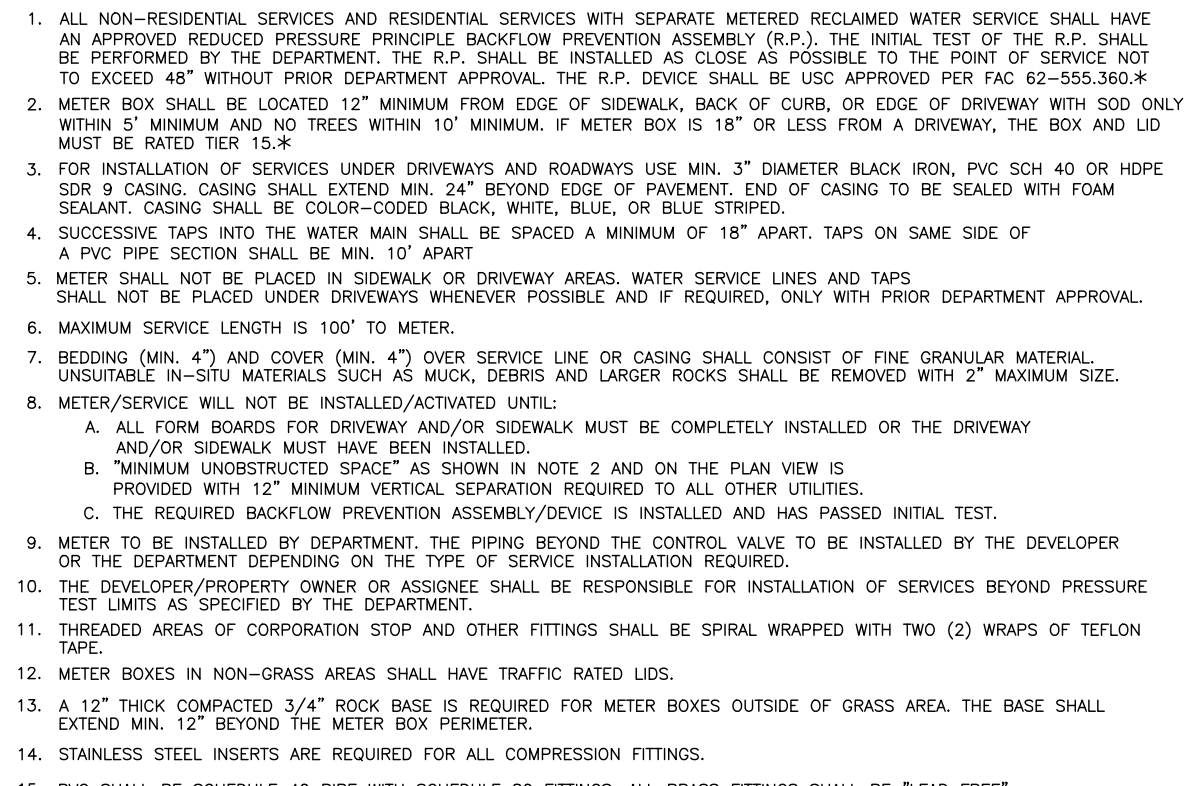
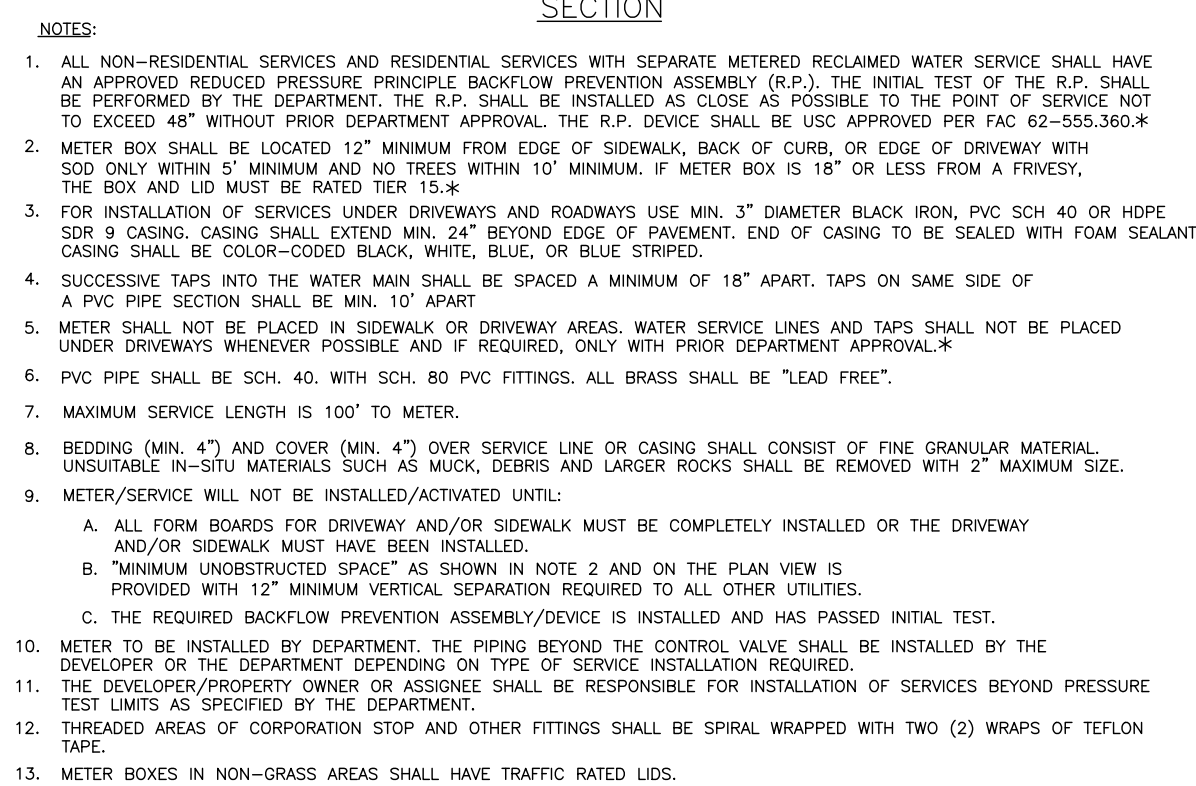
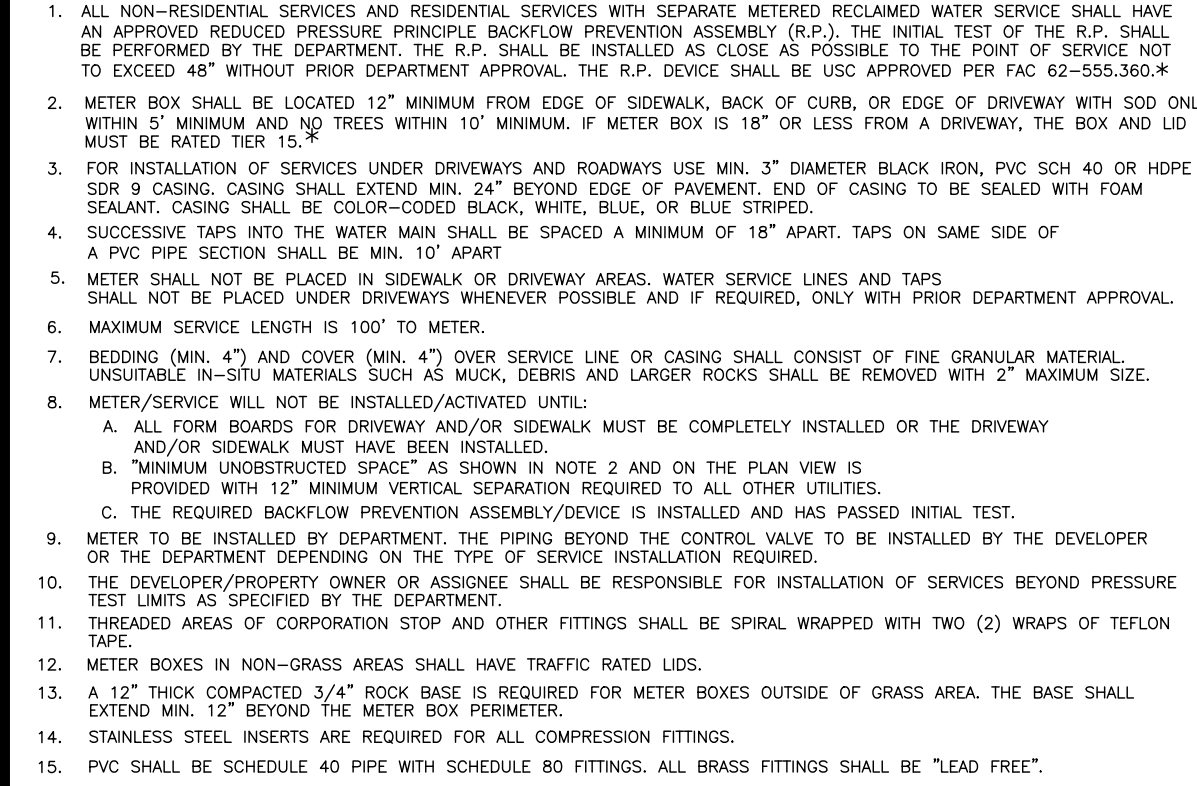
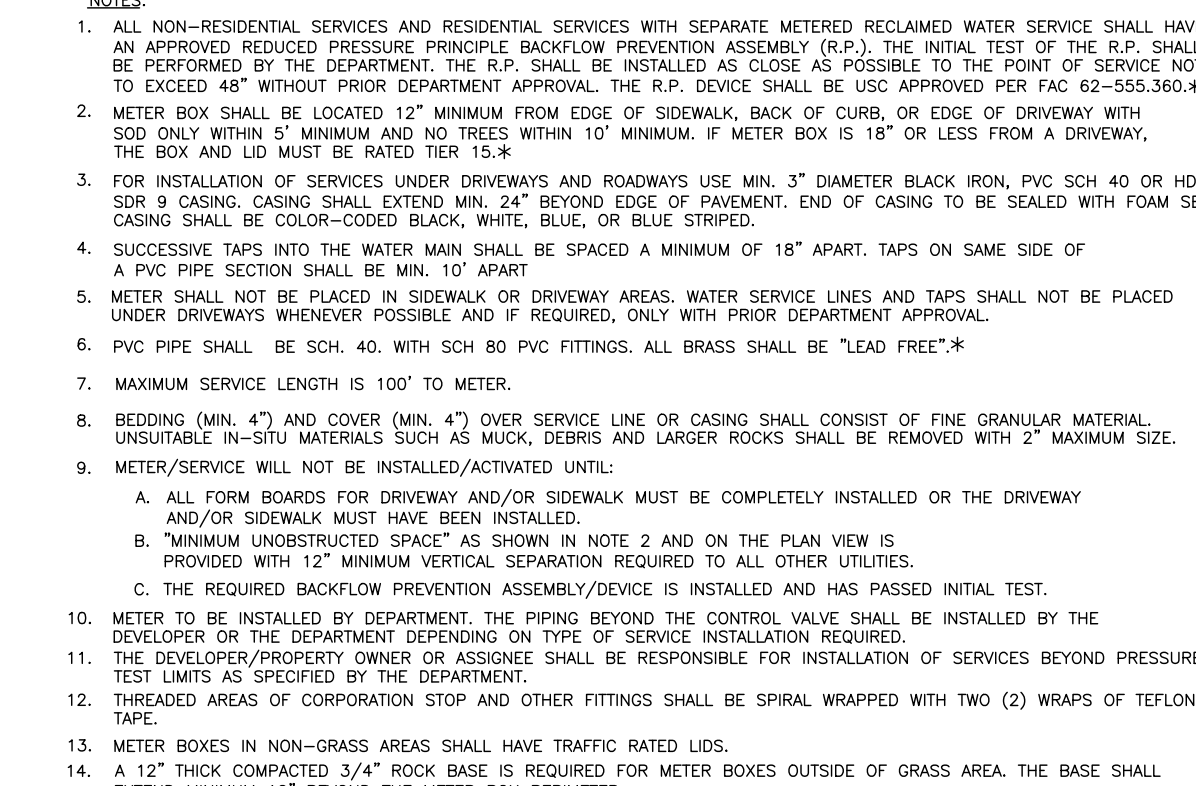
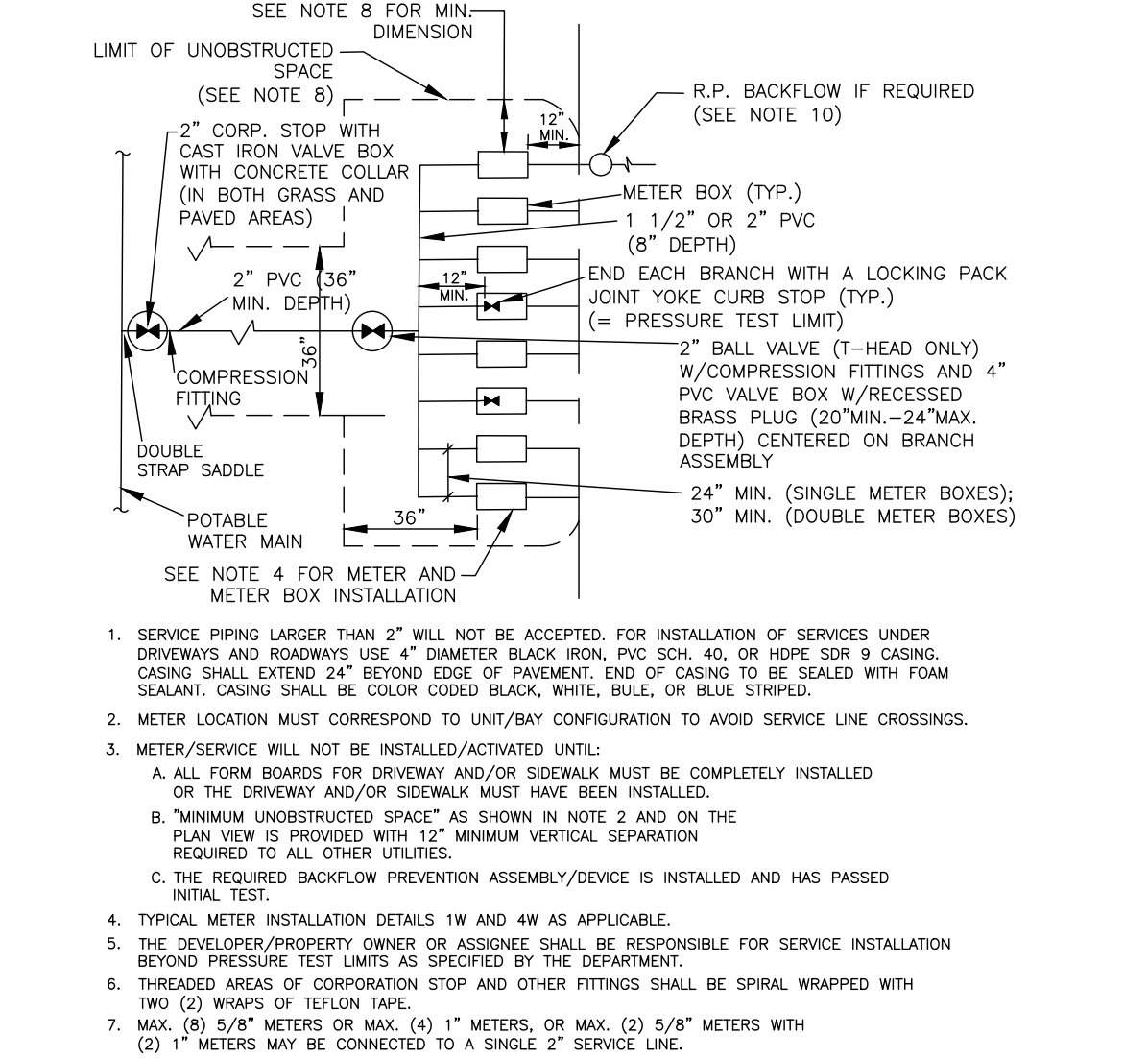
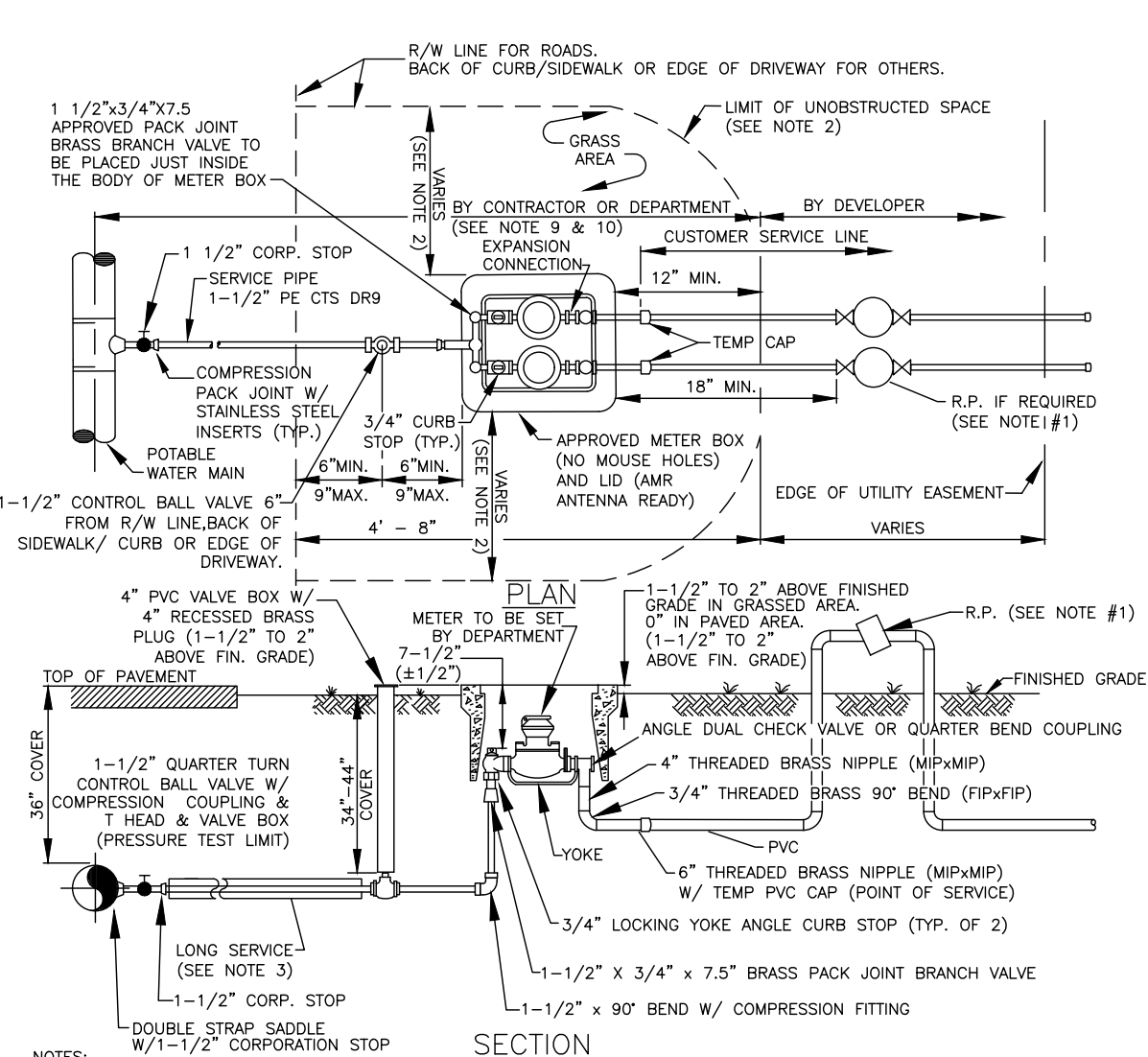
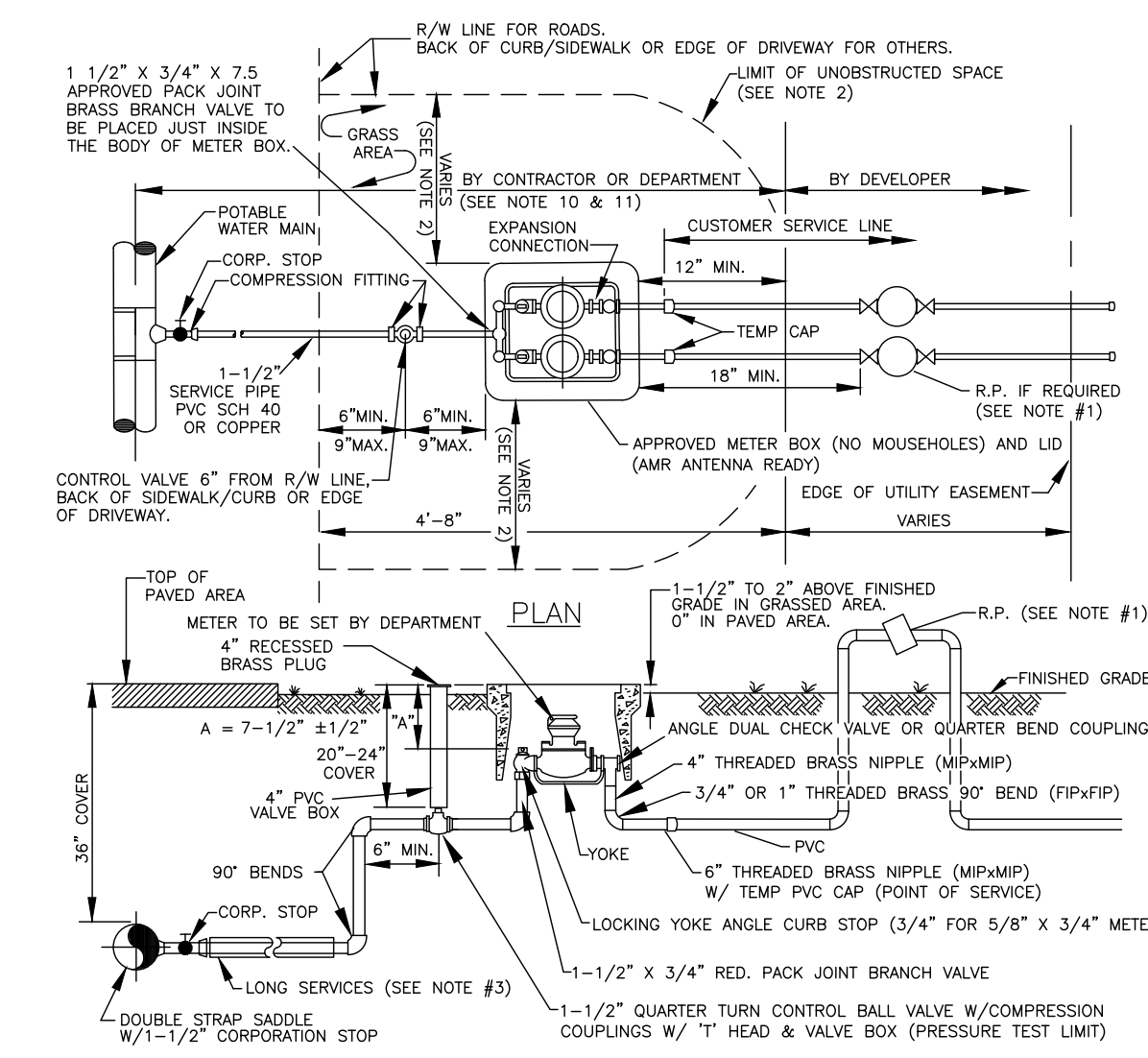
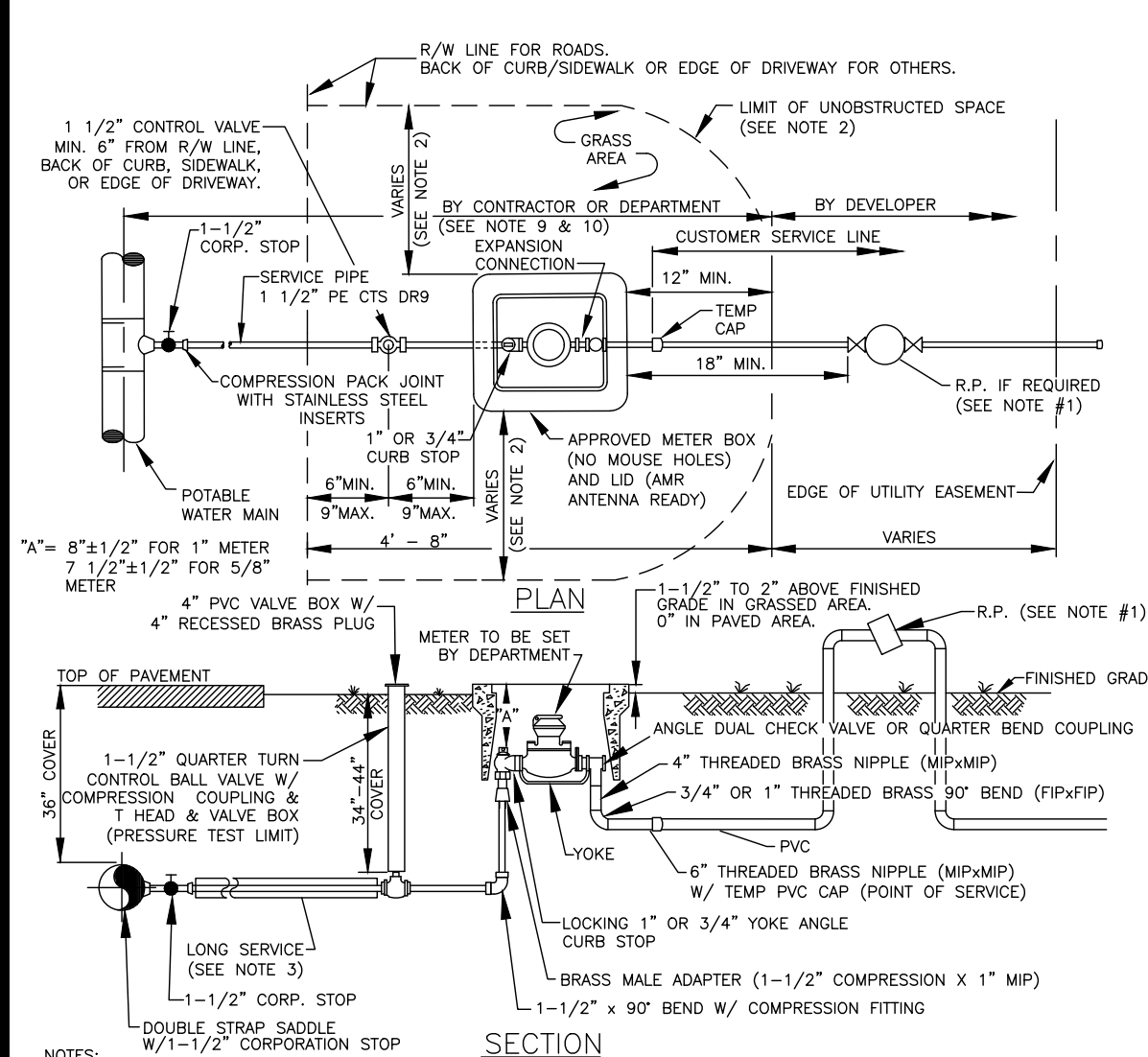
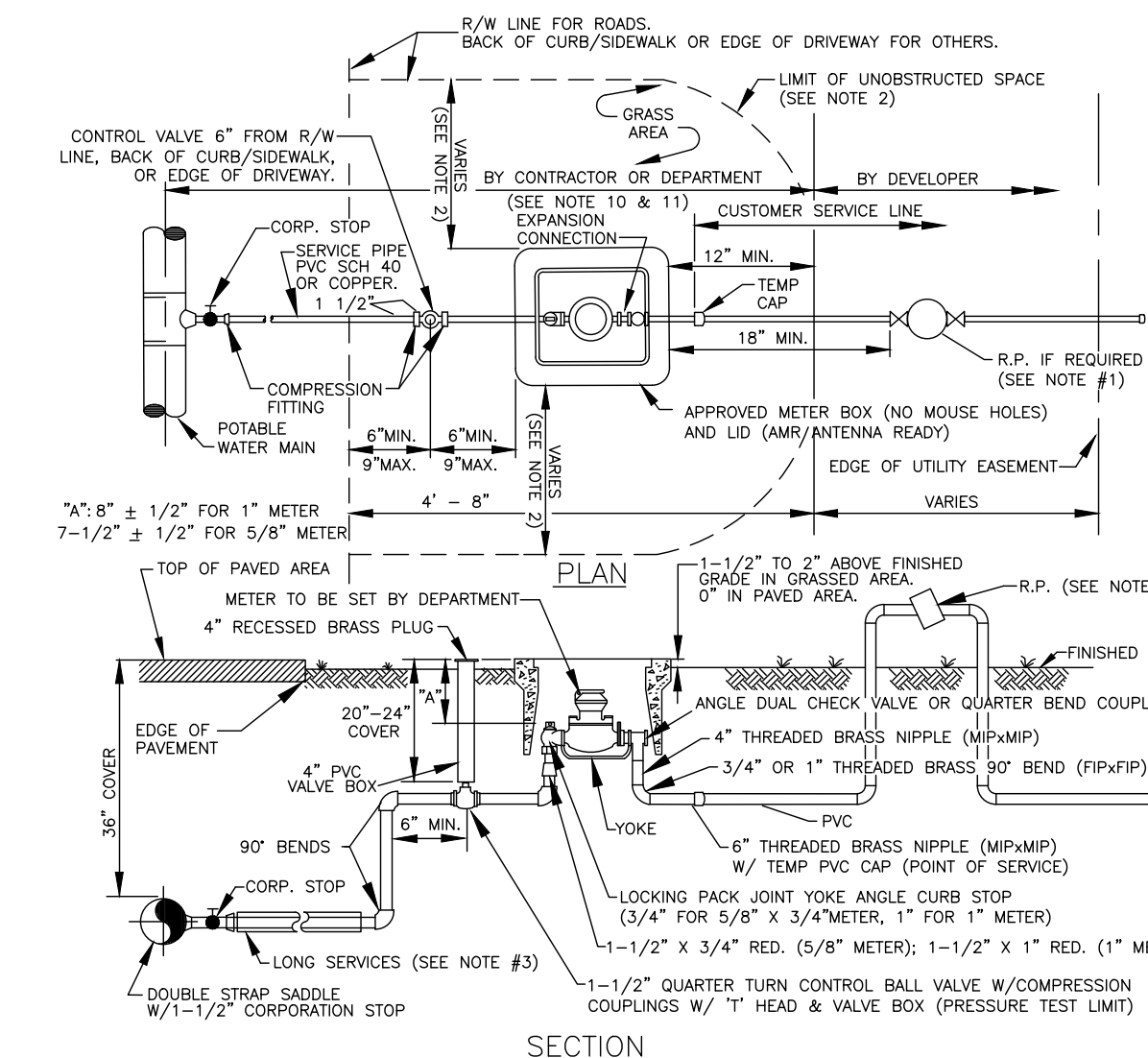


GLEN RIDGE SELF STORAGE
SECTION 05, TOWNSHIP 44S., RANGE 43E.
TOWN OF GLEN RIDGE, FLORIDA
LIFT STATION DETAIL

REVISIONS

DESIGN	DRAWN	CHECKED	APPROVED	DATE
G.B.	D.B.			

JOB NO.	DRAWING NO.	SHEET	OF
23-142	23142S09	9	21



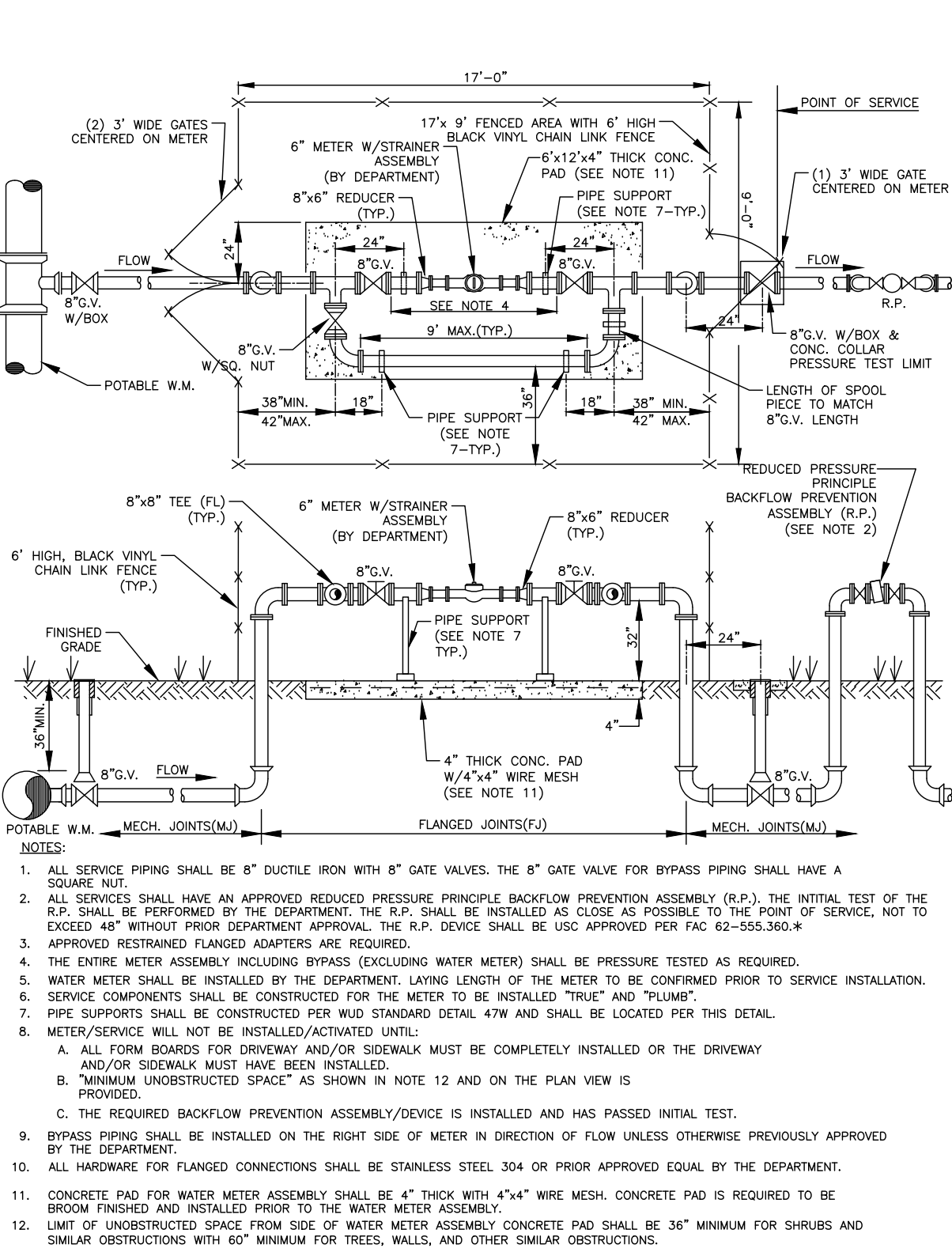


NO.	DATE	REVISION / REMARKS
J.L.	JUNE 2019	GENERAL REVISION
J.L.	JAN 2023	GENERAL REVISION

STD
DETAILS

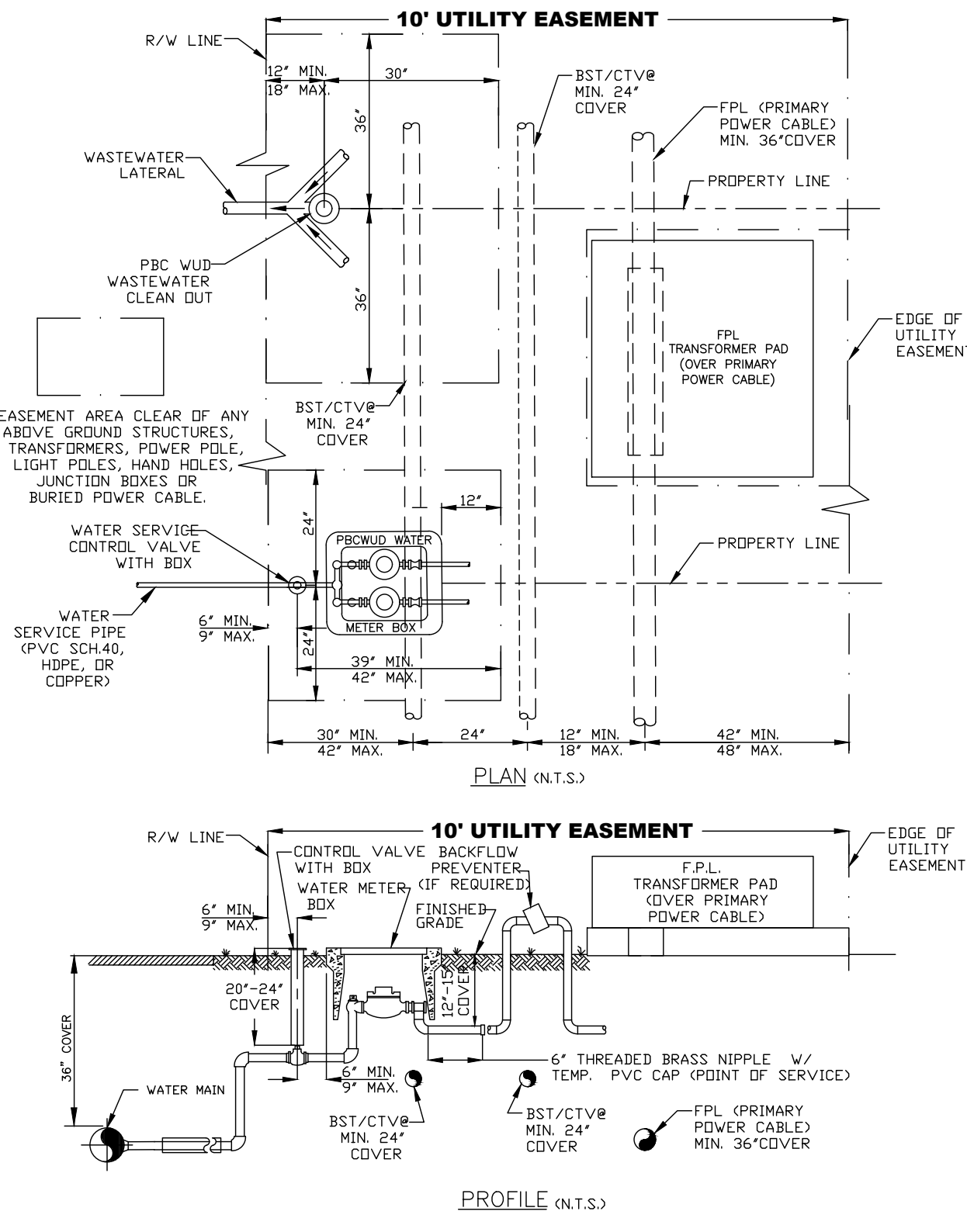
SHEET
NUMBER
11
OF
21

SEAL



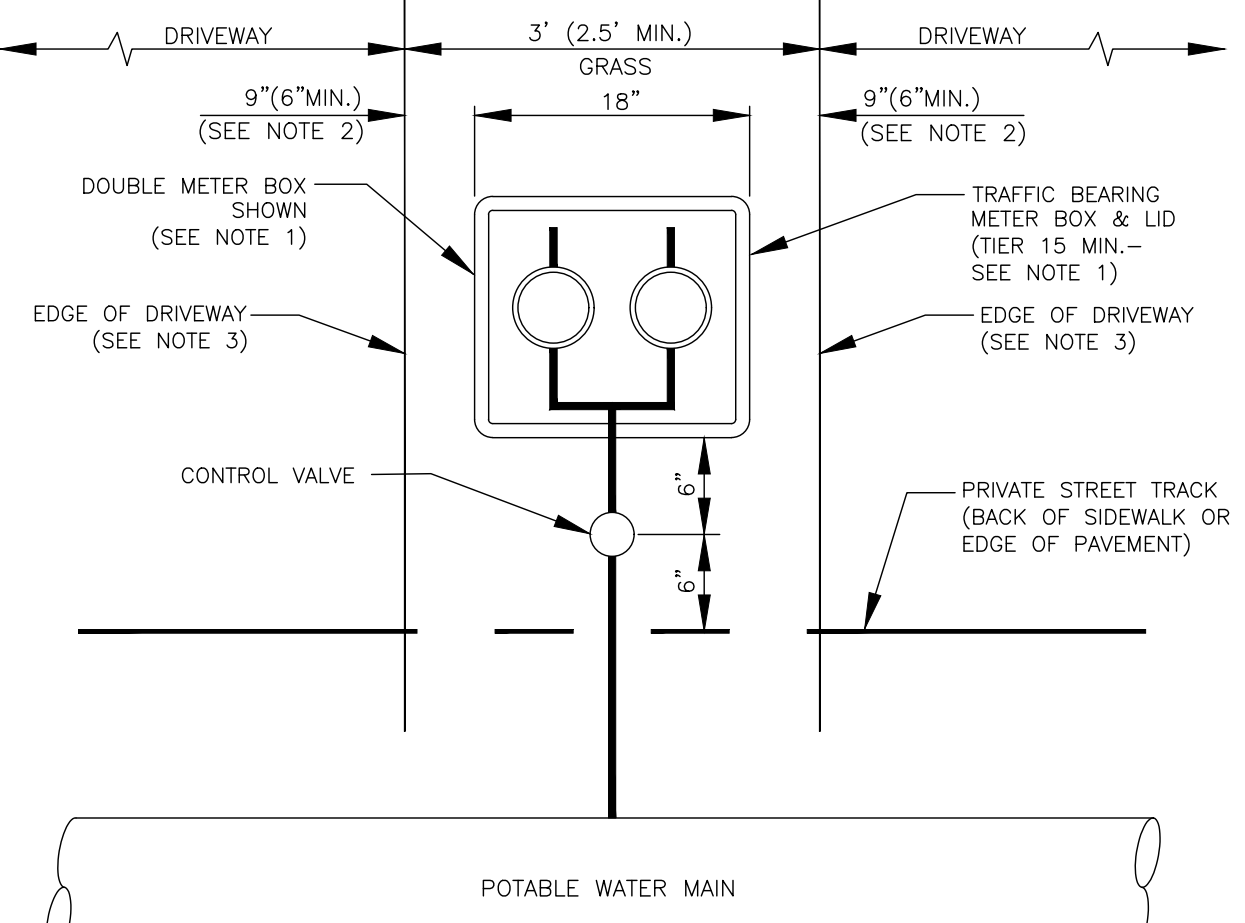
POTABLE WATER
6" METER INSTALLATION

10W



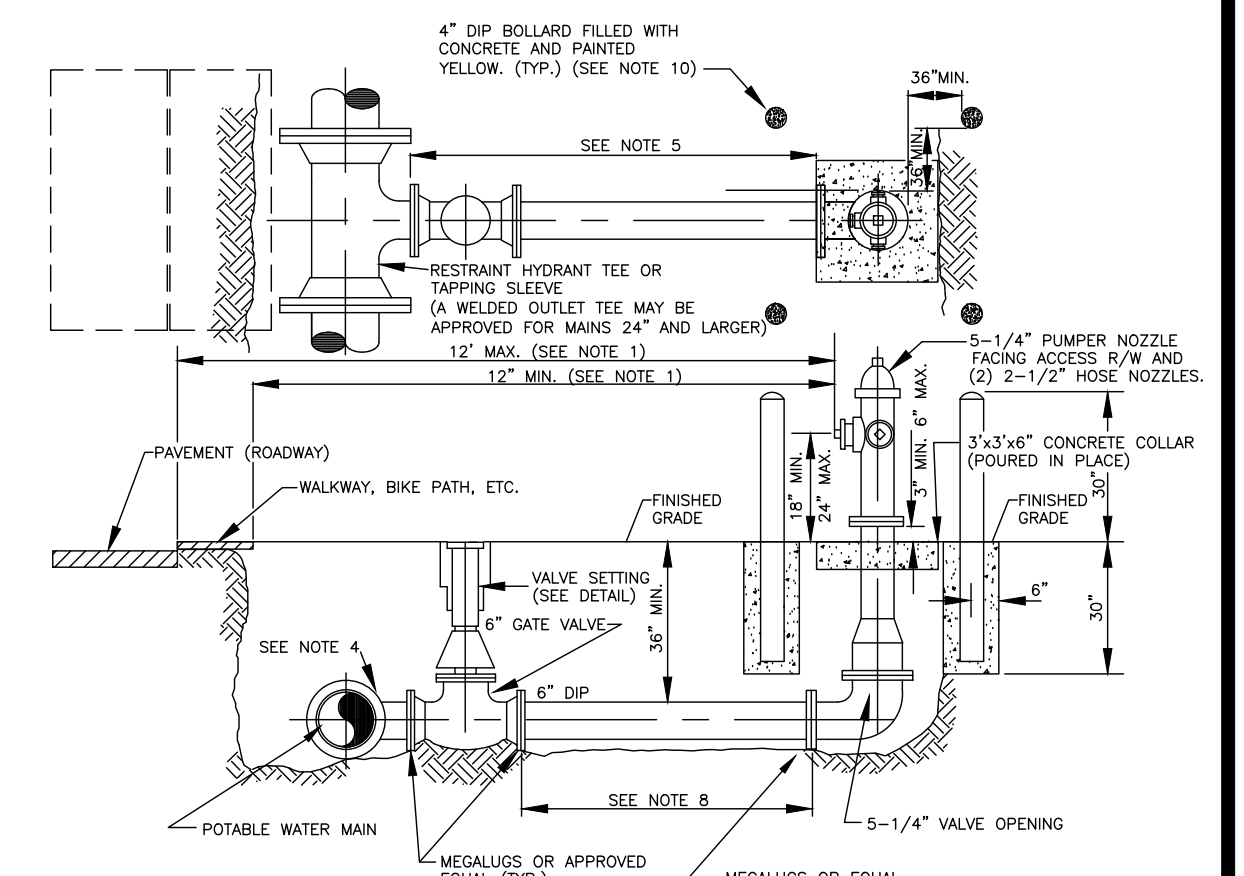
TYPICAL UTILITY INSTALLATION DETAIL IN A
10' UTILITY EASEMENT ADJACENT TO R/W

11WA



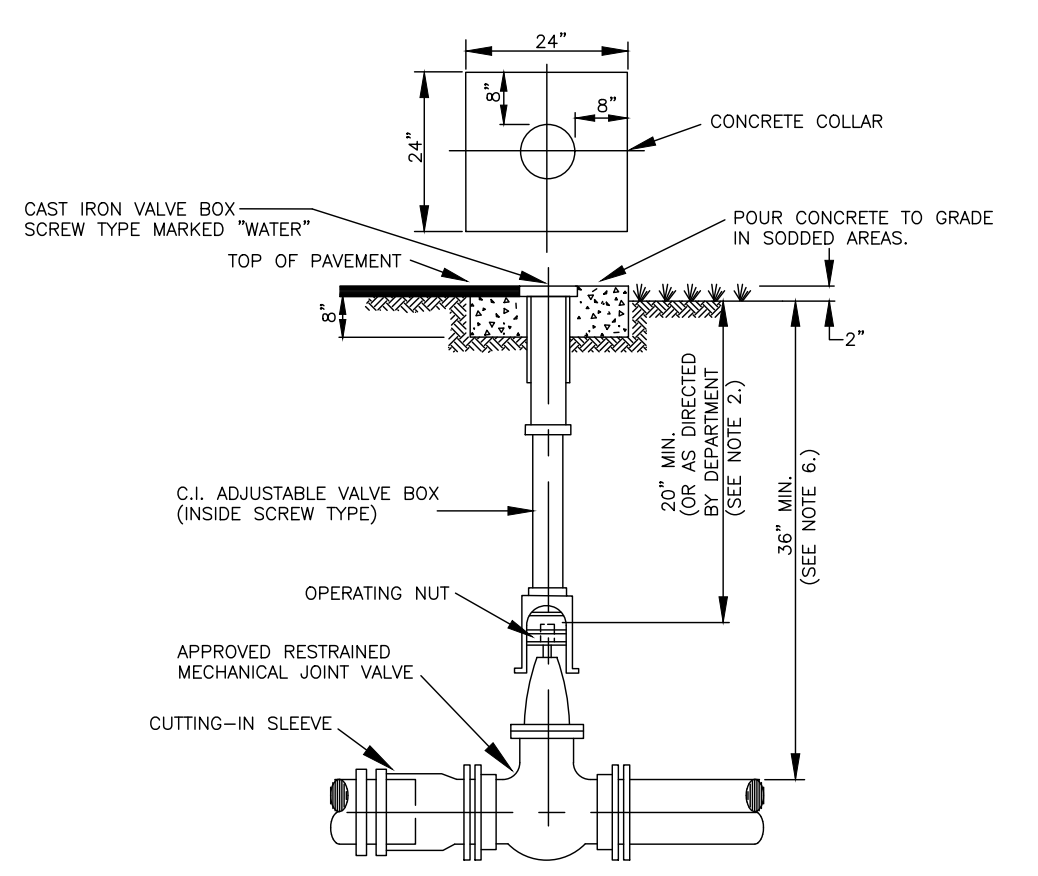
WATER METER BOX
BETWEEN TOWNHOME DRIVEWAYS DETAIL

11WB



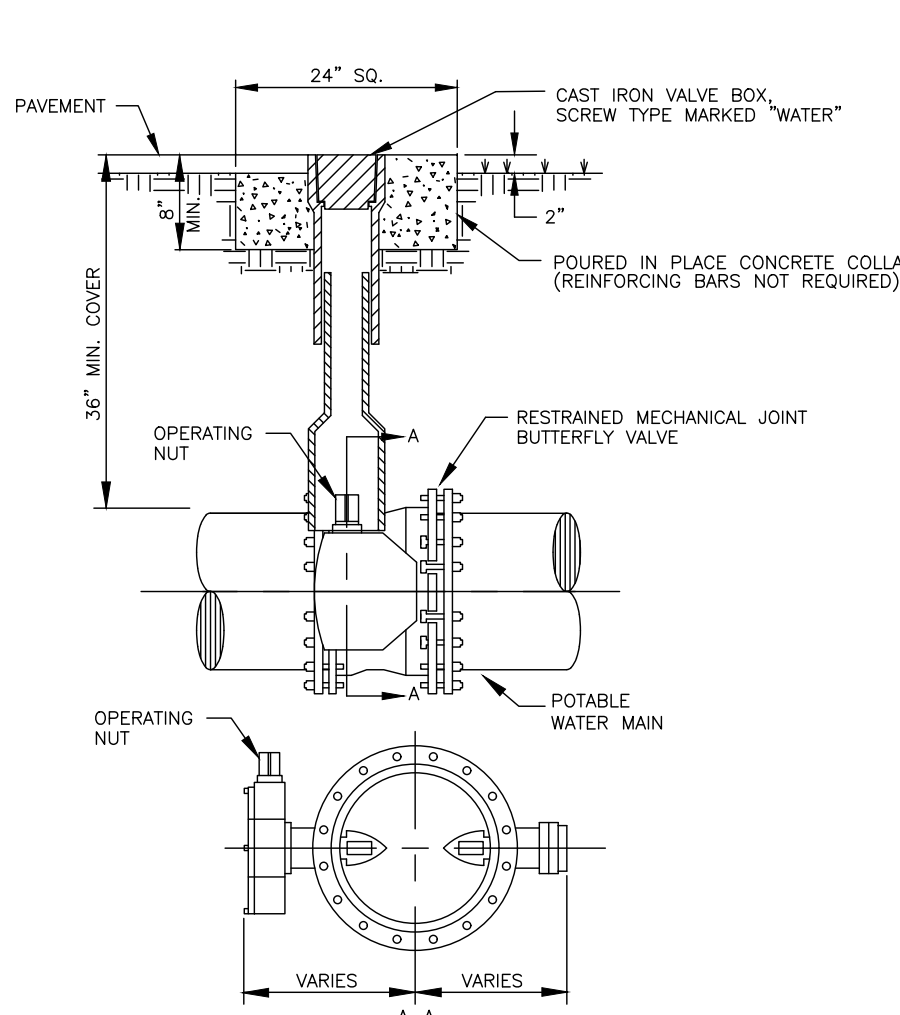
TYPICAL FIRE HYDRANT INSTALLATION WITH
BOLLARDS DETAIL

12W



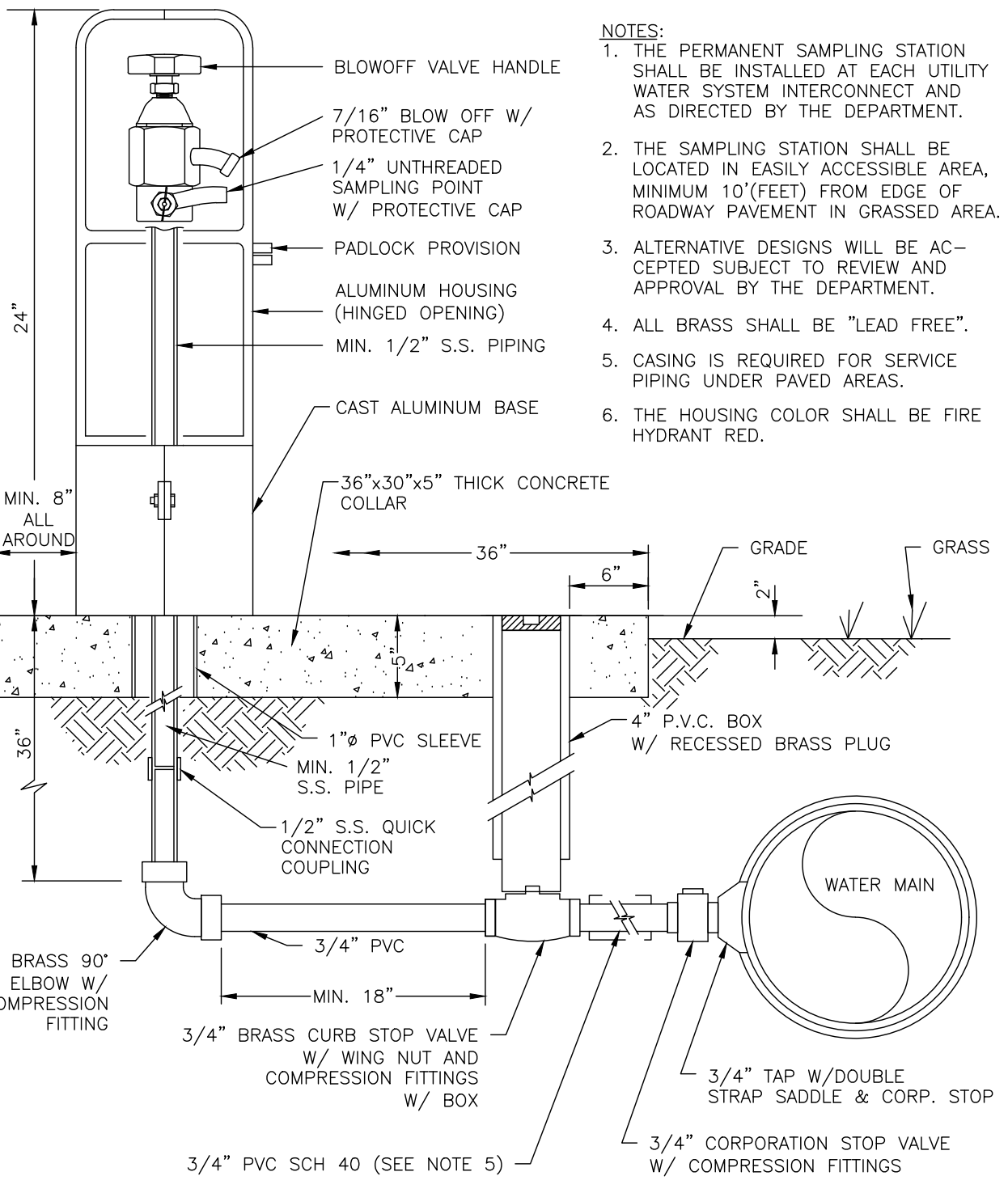
POTABLE WATER MAIN TYPICAL GATE VALVE
SETTING AND MAIN CUT-IN DETAIL

13W



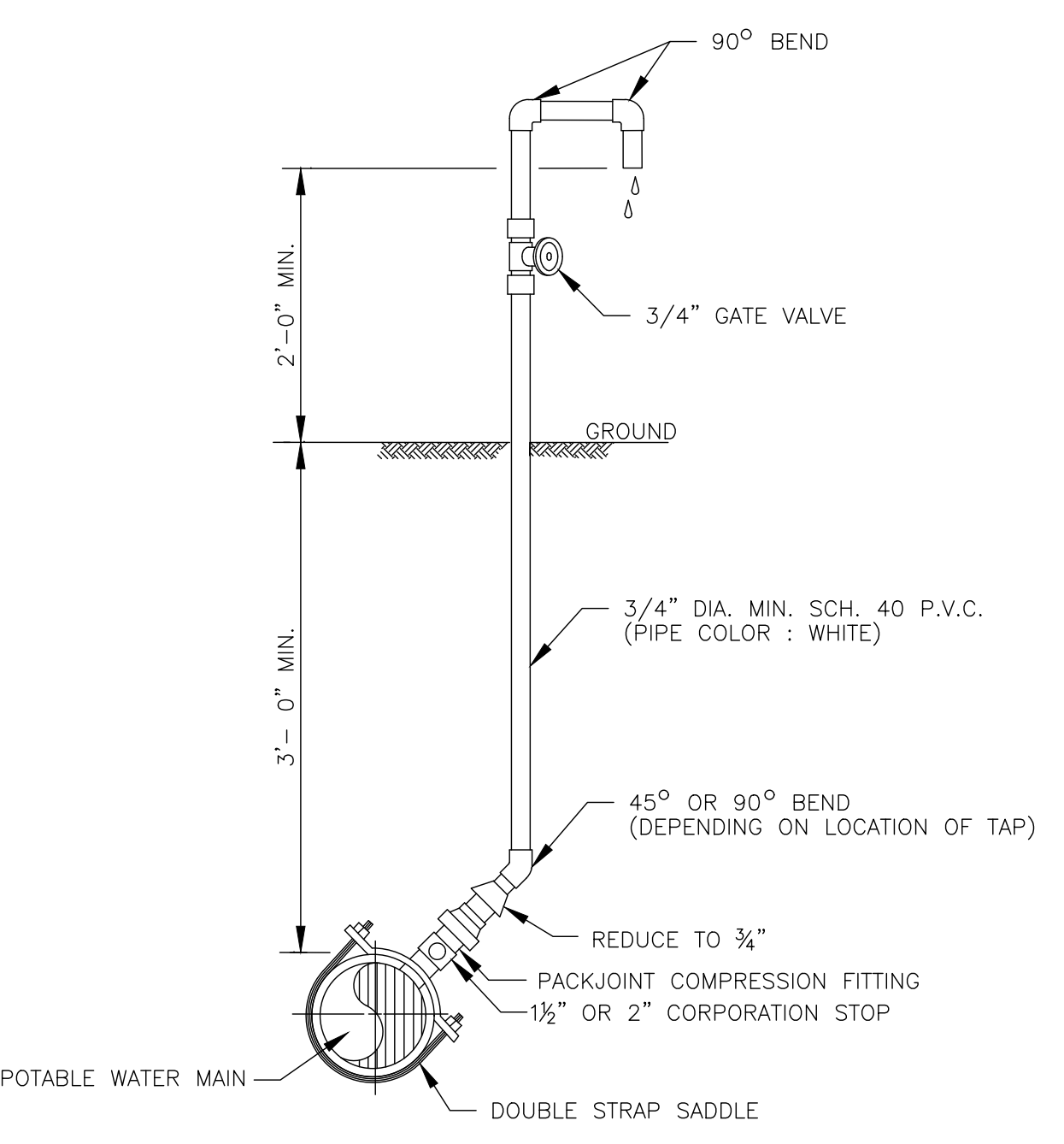
POTABLE WATER MAIN
TYPICAL BUTTERFLY VALVE SETTING

14W



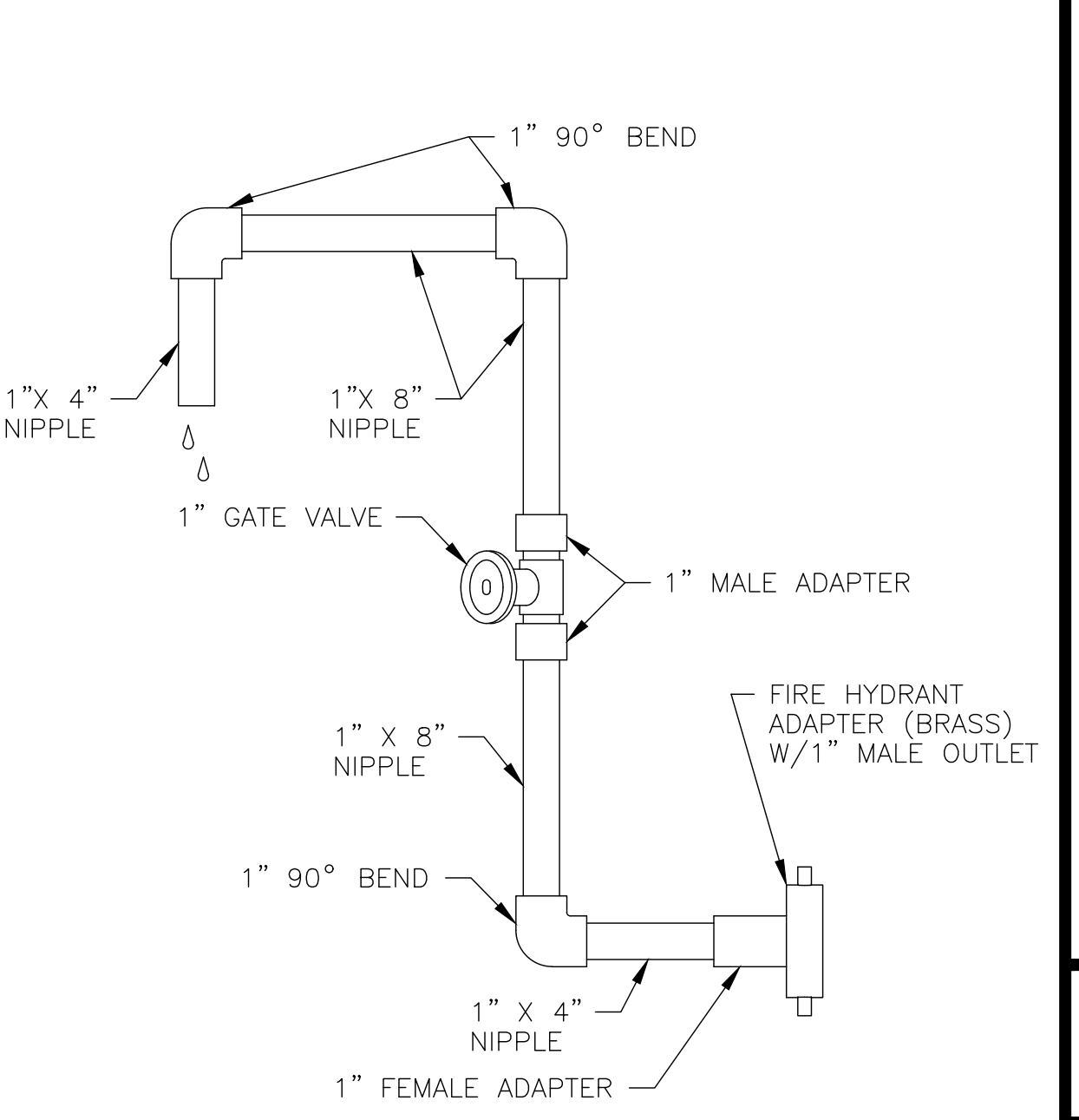
PERMANENT SAMPLING POINT

15W



POTABLE WATER MAIN TEMPORARY SAMPLING POINT

16W



POTABLE WATER MAIN FIRE HYDRANT SAMPLING POINT

17W

THIS SPACE
INTENTIONALLY LEFT
BLANK

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

POTABLE WATER #2
STANDARD DETAILS

CONSULTANT:
SW SIMMONS & WHITE
3581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 34521 | 561-478-7848

IT'S THE LAW!
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO.
23-142

DRAWING NO.
23142S11

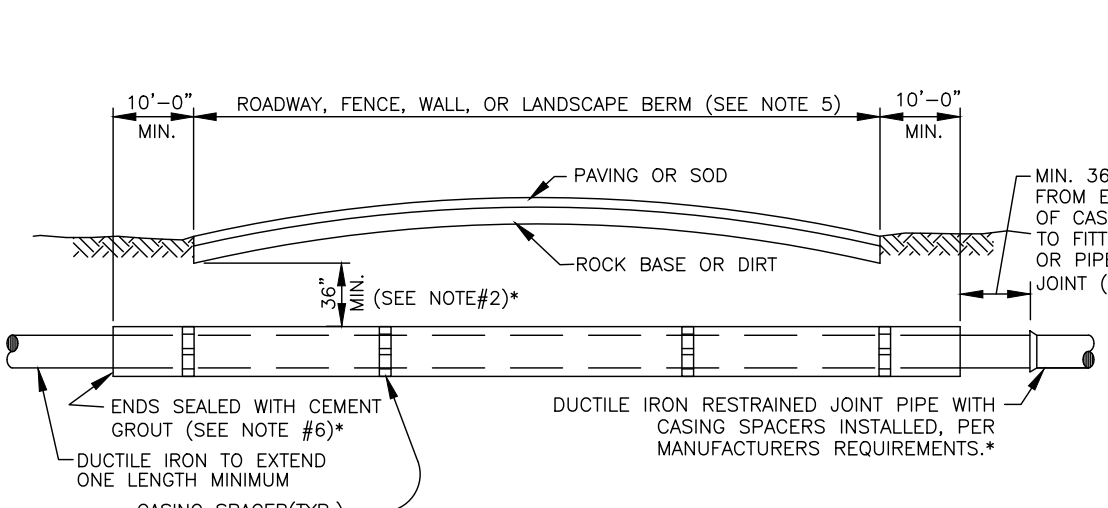
DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMMERT
APPROVED BY: WUD
Palm Beach County
Water Utilities Department
P.O. Box 16097
West Palm Beach, FL 33416-6097

NO.	DATE	REVISION / REMARKS
J.L.	JUNE 2019	GENERAL REVISION
J.L.	JAN 2023	GENERAL REVISION
*		

STD
DETAILS

SHEET
NUMBER
12
OF
21

SEAL

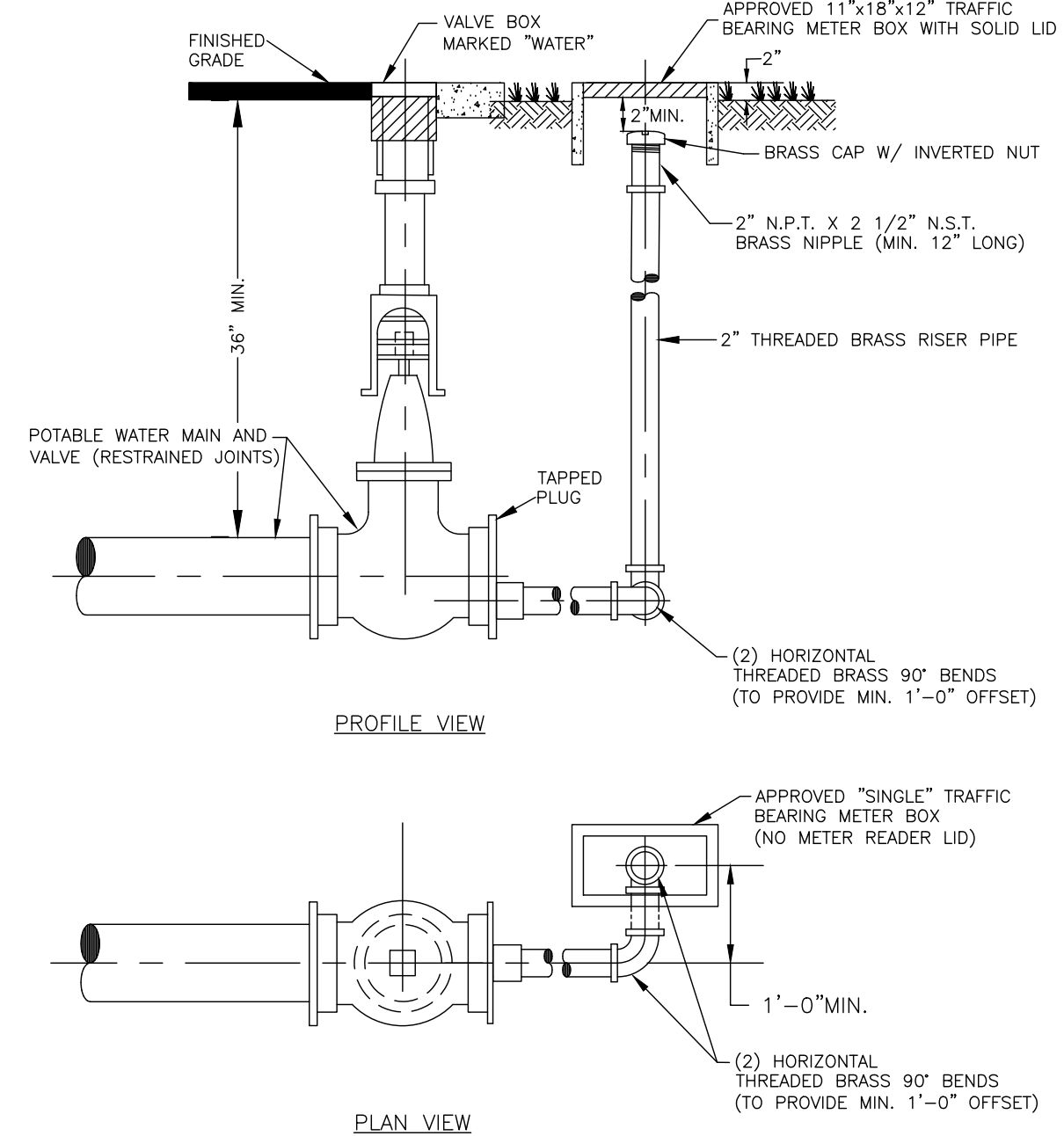


CARRIER PIPE SIZE	STEEL CASING INSIDE DIAMETER (MIN)	MINIMUM WALL THICKNESS (SEE NOTE 2)
4"	12"	.188
6"	14"	.250
8"	20"	.250
10"	20"	.250
12"	24"	.250
14"	24"	.250
16"	30"	.312
18"	30"	.312
20"	36"	.372
24"	42"	.500
30"	48"	.500
36"	54"	.625
42"	60"	.625
48"	72"	.625

- NOTES*
- A PROFILE DRAWING TO SCALE FOR EACH JACK AND BORE, DIRECTIONAL DRILL, OR DIRECT BURIED INSTALLATION IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO INSTALLATION. IF A SPLIT CASING IS REQUIRED SEE WUD DETAIL 22WB.*
 - THE RIGHT-OF-WAY OWNER MAY REQUIRE THICKER WALL CASING AND LARGER COVER OVER CASING.*
 - STEEL CASING SHALL BE COATED OUTSIDE WITH COAL TAR EPOXY (MIN. 16 MILS DFT) AND BE PAINTED WITH A 4" MINIMUM CONTINUOUS STRIPE, ALASKA BLUE IN COLOR, ALONG THE TOP SIDE OF THE CASING.*
 - PIPE IN CASING SHALL BE PULLED TO FULLY ENGAGE RESTRAINT.
 - STEEL CASING IS REQUIRED FOR ALL POTABLE WATER MAIN INSTALLATIONS UTILIZING JACK AND BORE OR WHEN MAINS ARE INSTALLED UNDER FENCES, WALLS, OR LANDSCAPE BERMS, WHEN A CASING IS INSTALLED UNDER A FENCE, WALL, OR BERM SEE WUD STANDARD DETAIL 48W FOR INSTALLATION REQUIREMENTS.*
 - NON-SHRINKABLE CEMENT GROUT TO BE INSTALLED TO OBTAIN WATERTIGHT SEAL AT EACH END OF CASING.*

POTABLE WATER MAIN SOLID CASING
INSTALLATION DETAIL

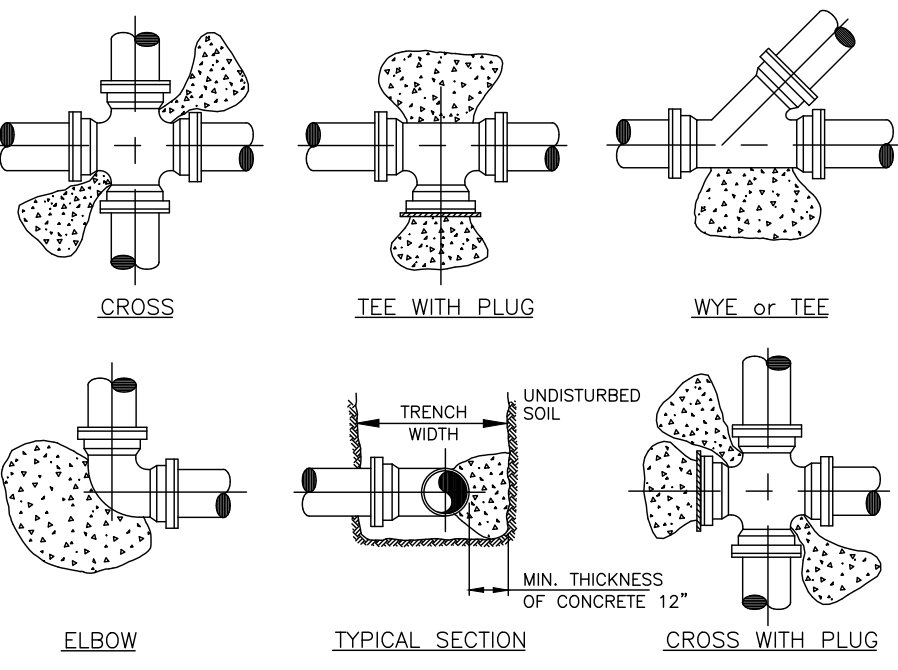
* 22WA



- NOTES:
- TEMPORARY DEAD END BLOWOFF ONLY ALLOWED WITH PRIOR DEPARTMENT APPROVAL.
 - BLOWOFF BOX TO BE LOCATED IN GRASS AREA, MIN. 2' FROM SIDEWALK OR PAVEMENT.
 - PERMANENT DEAD ENDS REQUIRE THE INSTALLATION OF AN APPROVED AUTOMATIC FLUSHING ASSEMBLY.
 - ALL BRASS SHALL BE 'LEAD FREE'.

TYPICAL 2" TERMINAL BLOWOFF
POTABLE WATER DISTRIBUTION MAINS

21W

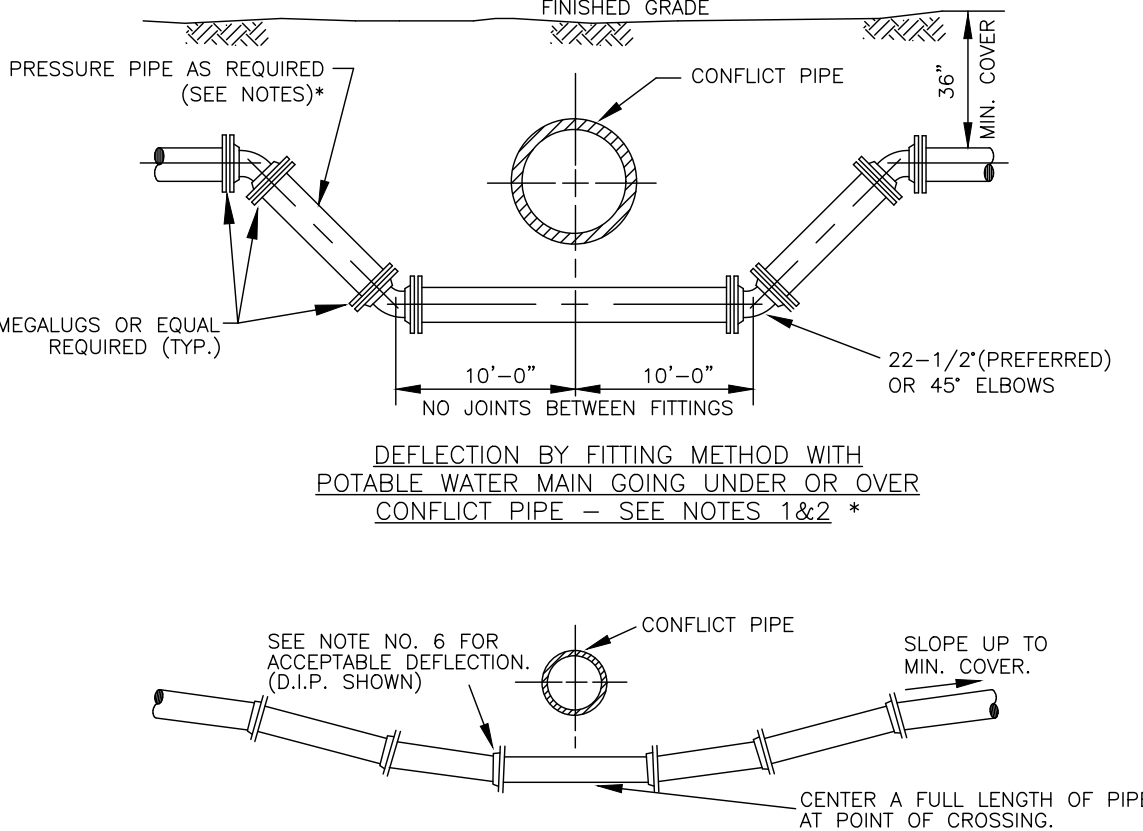


PIPE	THRUST BLOCK AREA REQ'D	REMARKS	NOTE: FOR OTHER FITTINGS USE THE FOLLOWING FACTORS:
4"	2.0 SQ. FT.	VALUES ARE FOR 90° BEND, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I.	TEE 100%
6"	4.0 SQ. FT.	FOR OTHER SOILS & PRESSURES THE AREA REQUIRED IS IN DIRECT PROPORTION	45° BEND 71%
8"	6.6 SQ. FT.		22 1/2° BEND 34%
10"	10.0 SQ. FT.		11 1/4° BEND 20%
12"	14.0 SQ. FT.		DEAD END 100%
14"	18.6 SQ. FT.		

- NOTES:
- CONCRETE THRUST BLOCKS OR THRUST COLLARS MAY BE UTILIZED ONLY IF NECESSARY FOR CONNECTIONS TO AN EXISTING PIPE SYSTEM, OTHERWISE MECHANICAL RESTRAINTS SHALL BE USED. KEEP "T" BOLTS CLEAR OF CONCRETE, WRAPPED IN VISQUEEN FOR FUTURE ACCESS, WITH A MINIMUM OF 1" THICKNESS BETWEEN THE FITTING AND SOIL.
 - BEFORE POURING CONCRETE, PLUGS SHALL BE WRAPPED WITH VISQUEEN AND A BOARD PLACED IN FRONT.
 - CONCRETE SHALL BE 2500 P.S.I. MINIMUM.
 - THE ENGINEER OF RECORD SHALL SUBMIT A THRUST BLOCK SIZE CALCULATION FOR TEE CONNECTIONS INTO UNRESTRAINED EXISTING MAINS LARGER THAN 14".
 - THE ENGINEER OF RECORD SHALL SUBMIT A PIPE RESTRAINT DESIGN FOR INLINE EXTENSIONS OF A EXISTING UNRESTRAINED MAIN IF MECHANICAL JOINT RESTRAINT CAN NOT BE INSTALLED ON THE EXISTING MAIN.

TYPICAL THRUST BLOCKS
FOR PRESSURE PIPE

20W

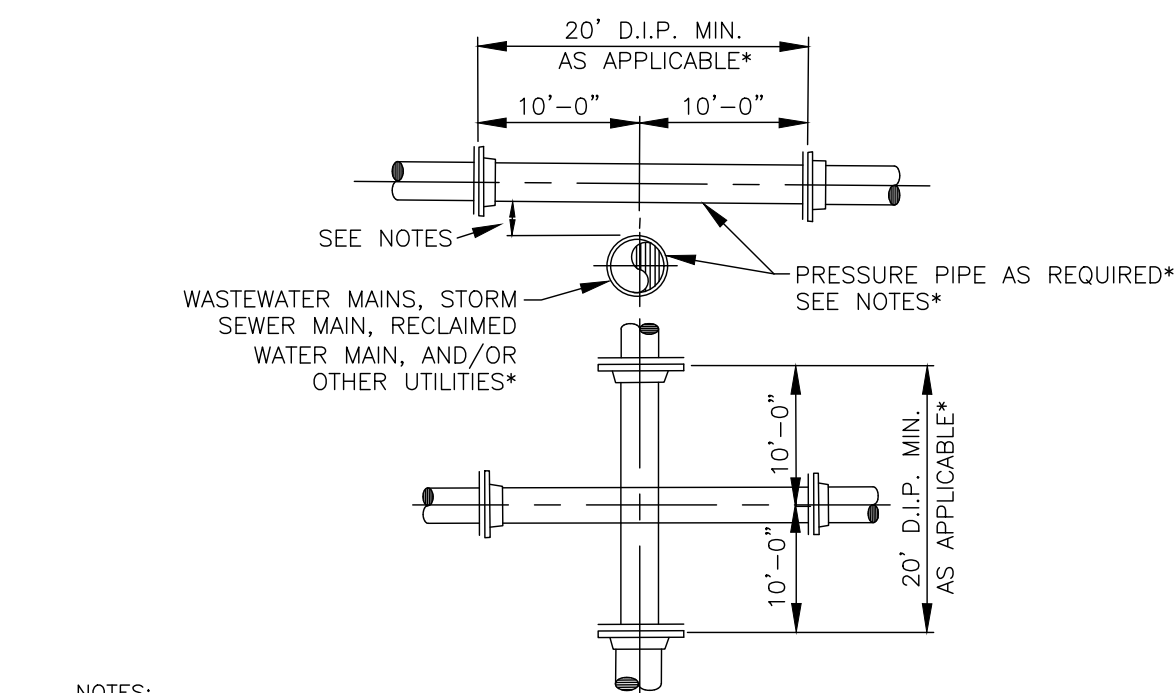


DEFLECTION BY PIPE JOINT METHOD WITH
POTABLE WATER MAIN GOING UNDER OR OVER
CONFLICT PIPE - SEE NOTES 1,3,&4 *

- NOTES:
- DEFLECTIONS BY FITTINGS AND/OR PIPE JOINT METHODS APPLIES TO POTABLE WATER MAIN CROSSING OVER OR UNDER CONFLICT PIPE WITH CROSSING OVER CONFLICT PIPE PREFERRED. WHEN A POTABLE WATER MAIN CROSSES OVER A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER FORCE MAIN, AND/OR RECLAIMED WATER MAIN THE POTABLE WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED, A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED ON CROSSING WITH THE LOWER PIPE BEING A PRESSURE CLASS PIPE HAVING A TWENTY (20) FOOT SECTION CENTERED ON THE CROSSING PER DEP REGULATIONS. WHEN THE POTABLE WATER MAIN CROSSES UNDER ANY STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, WASTEWATER FORCE MAIN, AND/OR A RECLAIMED WATER MAIN A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION IS REQUIRED WITH NO EXCEPTIONS AND ONLY WITH PRIOR DEPARTMENT APPROVAL. *
 - A TEN (10) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS REQUIRED BETWEEN A POTABLE WATER MAIN AND A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, WASTEWATER FORCE MAIN, AND/OR A RECLAIMED WATER MAIN. A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE POTABLE WATER MAIN. A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) BETWEEN A POTABLE WATER MAIN AND A RECLAIMED WATER MAIN IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSALLATION OF THE POTABLE WATER MAIN. *
 - WHEN A POTABLE WATER MAIN CROSSES ANY ELECTRICAL CONDUIT(S), COMMUNICATION CONDUIT(S), AND/OR GAS MAIN, A MINIMUM OF EIGHTEEN (18) INCH VERTICAL SEPARATION IS REQUIRED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. THE POTABLE WATER MAIN SHALL ALWAYS CROSS OVER THE OTHER UTILITY MAIN(S) UNLESS THE DEPARTMENT APPROVED. OTHERWISE BEFORE THE INSTALLATION OF THE POTABLE WATER MAIN, WHEN THE POTABLE WATER MAIN IS D.I.P. AND THE GAS MAIN IS STEEL PIPE, THE POTABLE WATER MAIN SHALL BE POLYWRAPPED PER DEPARTMENT STANDARDS.*
 - WASTEWATER LATERALS SHALL CROSS UNDER POTABLE WATER MAINS WITH A MINIMUM OF TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED OVER THE WASTEWATER LATERAL AND THE LATERAL IS PVC C-900 PIPE. WHEN A WASTEWATER LATERAL MUST CROSS OVER A POTABLE WATER MAIN A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION IS REQUIRED WITH THE LATERAL BEING PVC C-900 PIPE AND THE POTABLE WATER MAIN HAVING A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE POTABLE WATER MAIN CENTERED ON THE CROSSING. *
 - POTABLE WATER SERVICE LINES SHALL ALWAYS CROSS OVER WASTEWATER MAINS WITH MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. IF THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE MAINTAINED THE WATER SERVICE LINE SHALL BE ENCASED IN A TEN (10) FOOT MINIMUM LONG CASING CENTERED OVER THE CROSSING WITH SIX (6) INCH MINIMUM VERTICAL SEPARATION. *
 - POTABLE WATER MAINS SHALL CROSS PERPENDICULAR TO ALL WASTEWATER MAINS, STORM SEWER MAINS, RECLAIMED WATER MAINS, AND/OR OTHER UTILITIES WHENEVER POSSIBLE. *

POTABLE WATER MAIN / FORCE MAIN
PRESSURE PIPE CONFLICT DETAIL

* 19W

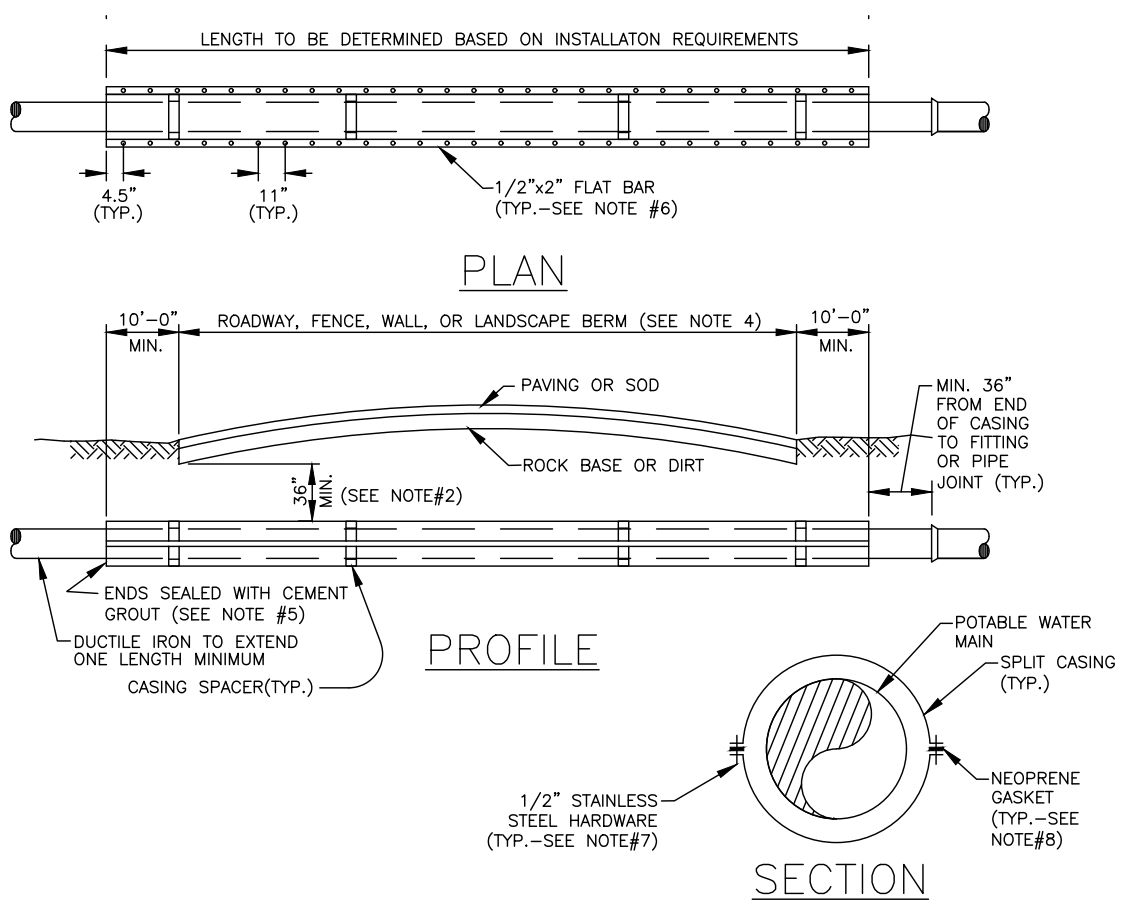


NOTES:

- WHEN A POTABLE WATER MAIN CROSSES OVER A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, WASTEWATER FORCE MAIN, AND/OR A RECLAIMED WATER MAIN THE POTABLE WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM OF TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED, A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED ON CROSSING WITH THE LOWER PIPE BEING A PRESSURE CLASS PIPE HAVING A TWENTY (20) FOOT SECTION CENTERED ON THE CROSSING PER DEP REGULATIONS. WHEN THE POTABLE WATER MAIN CROSSES UNDER ANY STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, WASTEWATER FORCE MAIN, AND/OR A RECLAIMED WATER MAIN A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION IS REQUIRED WITH NO EXCEPTIONS AND ONLY WITH PRIOR DEPARTMENT APPROVAL. *
- A TEN (10) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS REQUIRED BETWEEN A POTABLE WATER MAIN AND A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, WASTEWATER FORCE MAIN, AND/OR A RECLAIMED WATER MAIN. A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE POTABLE WATER MAIN. A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) BETWEEN A POTABLE WATER MAIN AND A RECLAIMED WATER MAIN IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSALLATION OF THE POTABLE WATER MAIN. *
- WHEN A POTABLE WATER MAIN CROSSES ANY ELECTRICAL CONDUIT(S), COMMUNICATION CONDUIT(S), AND/OR GAS MAIN, A MINIMUM OF EIGHTEEN (18) INCH VERTICAL SEPARATION IS REQUIRED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. THE POTABLE WATER MAIN SHALL ALWAYS CROSS OVER THE OTHER UTILITY MAIN(S) UNLESS THE DEPARTMENT APPROVED. OTHERWISE BEFORE THE INSTALLATION OF THE POTABLE WATER MAIN, WHEN THE POTABLE WATER MAIN IS D.I.P. AND THE GAS MAIN IS STEEL PIPE, THE POTABLE WATER MAIN SHALL BE POLYWRAPPED PER DEPARTMENT STANDARDS.*
- WASTEWATER LATERALS SHALL CROSS UNDER POTABLE WATER MAINS WITH A MINIMUM OF TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED OVER THE WASTEWATER LATERAL AND THE LATERAL IS PVC C-900 PIPE. WHEN A WASTEWATER LATERAL MUST CROSS OVER A POTABLE WATER MAIN A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION IS REQUIRED WITH THE LATERAL BEING PVC C-900 PIPE AND THE POTABLE WATER MAIN HAVING A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE POTABLE WATER MAIN CENTERED ON THE CROSSING. *
- POTABLE WATER SERVICE LINES SHALL ALWAYS CROSS OVER WASTEWATER MAINS WITH MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. IF THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE MAINTAINED THE WATER SERVICE LINE SHALL BE ENCASED IN A TEN (10) FOOT MINIMUM LONG CASING CENTERED OVER THE CROSSING WITH SIX (6) INCH MINIMUM VERTICAL SEPARATION. *
- POTABLE WATER MAINS SHALL CROSS PERPENDICULAR TO ALL WASTEWATER MAINS, STORM SEWER MAINS, RECLAIMED WATER MAINS, AND/OR OTHER UTILITIES WHENEVER POSSIBLE. *

POTABLE WATER, WASTEWATER MAIN
AND STORM SEWER CONFLICT

* 18W



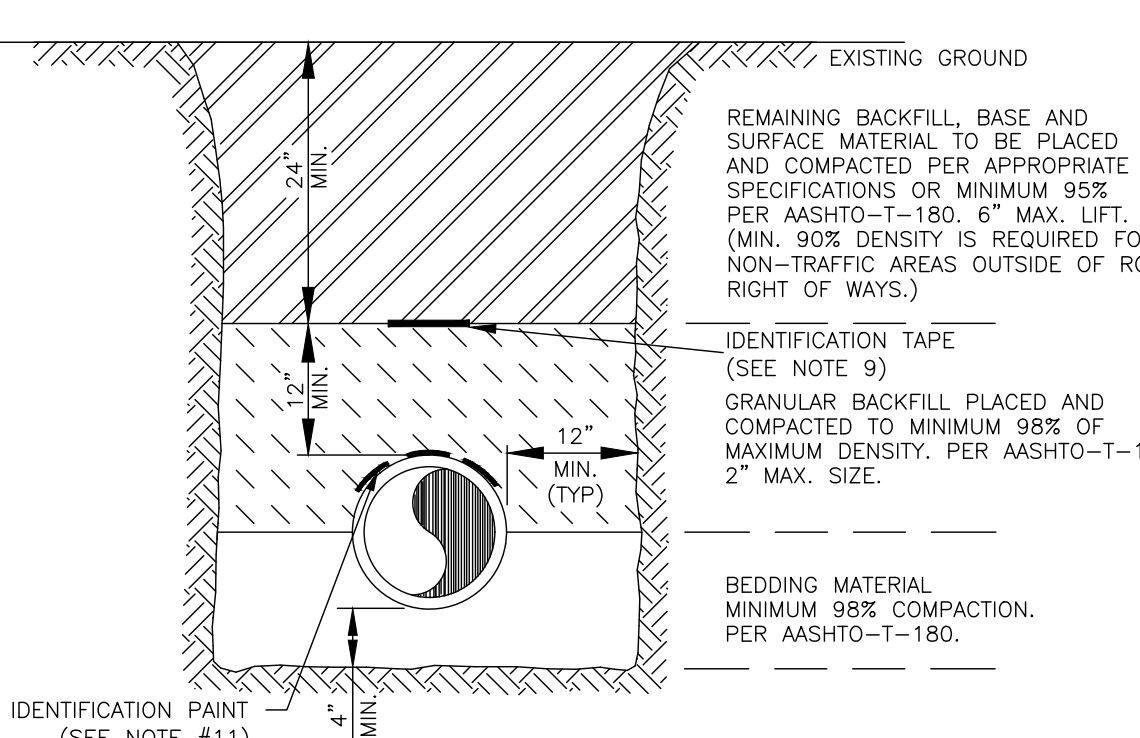
CARRIER PIPE SIZE	STEEL CASING INSIDE DIAMETER (MIN)	MINIMUM WALL THICKNESS (SEE NOTE 2)
4"	12"	.188
6"	14"	.250
8"	20"	.250
10"	20"	.250
12"	24"	.250

NOTES:

- A SHOP DRAWING TO SCALE FOR EACH SPLIT CASING INSTALLATION IS REQUIRED AND TO BE APPROVED BY THE DEPARTMENT PRIOR TO INSTALLATION.
- THE RIGHT-OF-WAY OWNER MAY REQUIRE THICKER WALL CASING AND LARGER COVER OVER CASING.
- STEEL CASING SHALL BE COATED OUTSIDE WITH COAL TAR EPOXY (MIN. 16 MILS DFT) AND BE PAINTED WITH A 4" MINIMUM CONTINUOUS STRIPE, ALASKA BLUE IN COLOR, ALONG THE TOP SIDE OF THE CASING.
- REQUIRE STEEL CASING FOR POTABLE WATER INSTALLATIONS WHEN A NEW STORM DRAINAGE OR OTHER UTILITY PIPE IS INSTALLED AND CANNOT ACHIEVE THE PROPER VERTICAL SEPARATION PER WUD STANDARDS ALONG WITH A NEW FENCE, WALL, OR LANDSCAPE BERM IS INSTALLED OVER AN EXISTING POTABLE WATER MAIN, WHEN A SPLIT CASING IS INSTALLED UNDER A FENCE, WALL, OR LANDSCAPE BERM SEE WUD STANDARD DETAIL 48W FOR INSTALLATION REQUIREMENTS.
- NON-SHRINKABLE CEMENT GROUT TO BE INSTALLED TO OBTAIN WATERTIGHT SEAL AT EACH END OF CASING.
- FLAT BARS TO BE STITCH WELDED AT 6" LENGTHS TO EDGE OF CASING ON EACH SIDE.
- CASING TO BE ASSEMBLED IN FIELD WITH 1/2" STAINLESS STEEL BOLTS, WASHERS, AND NUTS ON EACH SIDE.
- 1/4" NEOPRENE GASKET MATERIAL EXTENDING PAST CASING JOINT FOR POSITIVE SEAL ON EACH SIDE.

POTABLE WATER MAIN SPLIT CASING
INSTALLATION DETAIL

* 22WB

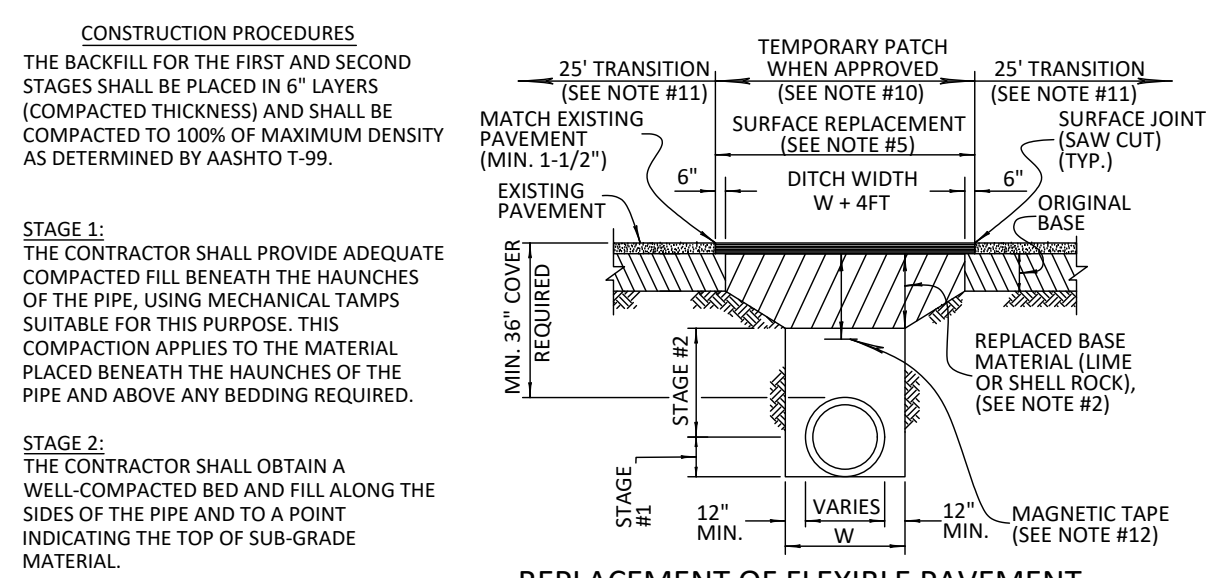


NOTES:

- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING, 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 REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAXIMUM. MINIMUM 1 SET OF TESTS FOR EACH WASTEWATER GRAVITY MAIN RUN, OR AS DIRECTED BY THE INSPECTOR.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL TRENCH SAFETY LAWS AND REGULATIONS.
- SEE SEPARATE DETAILS FOR "PIPE INSTALLATION UNDER EXISTING PAVEMENT - OPEN CUT."
- THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT/CONTRACT DOCUMENTS.
- APPROVED 6" WIDE MAGNETIC TAPE IS REQUIRED ON ALL POTABLE WATER MAINS.*
- CONTINUOUS 4" WIDE BLUE PAINT STRIPPING IS REQUIRED FOR POTABLE WATER MAIN DUCTILE IRON PIPE (D.I.P.) INSTALLED BELOW GRADE ONLY.*
- A CONTINUOUS 4" WIDE PAINTED STRIP (BLUE) IS REQUIRED FOR ALL DIP/PCCP POTABLE WATER MAINS.*
- POTABLE WATER MAIN INSTALLATIONS WITH PUBLIC ROAD RIGHT-OF-WAYS SHALL BE BY THE SPECIFICATIONS OF THE JURISDICTION GRANTING THE RIGHT-OF-WAY UTILITY PERMIT.*
- FOR PIPE INSTALLATIONS IN ROAD RIGHTS-OF-WAY, ROAD OWNER'S PERMIT SPECIFICATIONS SHALL APPLY.

POTABLE WATER TRENCH DETAIL

* 23W



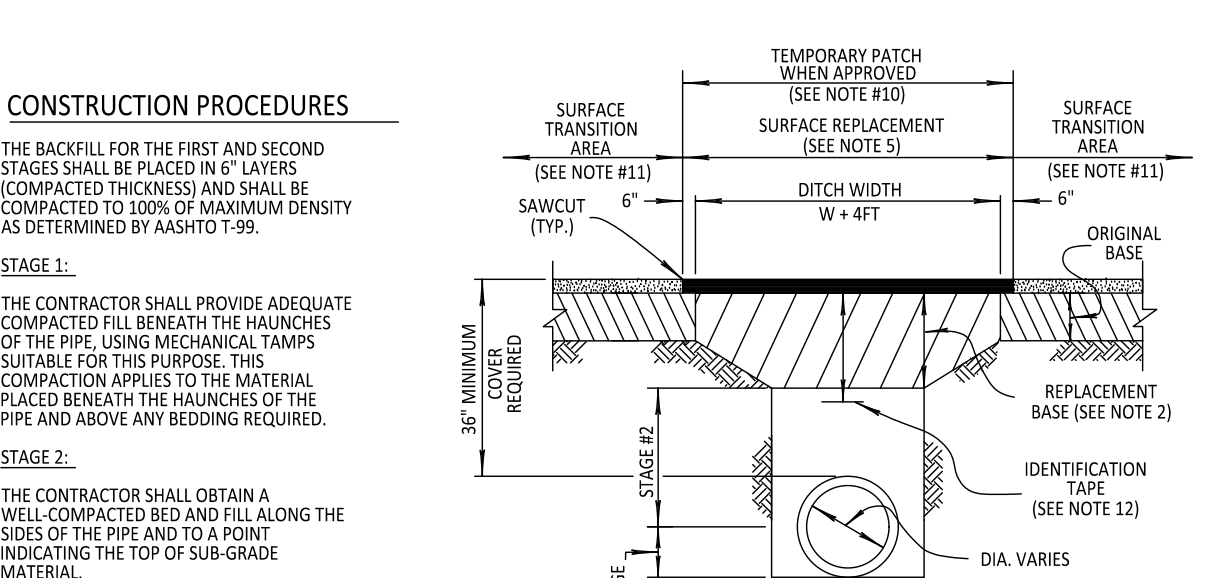
NOTES

- 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 (PER LAND DEVELOPMENT DESIGN STANDARDS) OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE AND MATCH THE TYPE OF MATERIAL OF THE ORIGINAL BASE OR 12" MINIMUM, WHICHEVER IS GREATER.
- ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
- BASE MATERIAL 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).
- SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE OR 1-1/2" SP 12.5 STRUCTURAL COURSE (TRAFFIC LEVEL A) ASPHALTIC CONCRETE, WITH RC-70 PRIME COAT AT 0.10 GAL/SQ. YD. FOR LIMEROCK BASE AND TACK COAT AT 0.05 GAL/SQ. YD. FOLLOW THE LATEST FOOT SPECIFICATION NOTES 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 PMPA EL-0-3606.
- 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 SURETY 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 THE FINAL RESTORATION (INCLUDES THE PATCHED/SURFACE REPLACEMENT AREA OVER THE TRENCH), THE ROAD SHALL BE MILLED 1" MILLING DEPTH/RESURFACED PER NOTE 4 ABOVE FOR A FULL LANE WIDTH OF THE TRAVEL LANES ENCOMPASSED 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 2" BELOW FINISHED GRADE.
- 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.

WUD ONLY UTILITY NOTE:
THE CONTINUOUS PAINTED STRIPE REFERENCED IN NOTE #13 ABOVE SHALL BE ALASKA BLUE IN COLOR PER WUD STANDARDS.

OPEN CUT PIPE INSTALLATION
NON-THOROUGHFARE ROAD

* 24W



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 (LBRI00) 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/SQ. YD. AND RC-70 PRIME COAT AT 0.10 GAL/SQ. YD. FOLLOW THE LATEST FOOT 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 PMPA EL-0-3606.
- 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 2.5" 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 SURETY 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 1" MILLING DEPTH/RESURFACED PER NOTE 4 ABOVE FOR A FULL LANE WIDTH OF THE TRAVEL LANES ENCOMPASSED 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 2" 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.

WUD ONLY UTILITY NOTE:
THE CONTINUOUS PAINTED STRIPE REFERENCED IN NOTE #13 ABOVE SHALL BE ALASKA BLUE IN COLOR PER WUD STANDARDS.

OPEN CUT PIPE INSTALLATION
THOROUGHFARE ROAD

* 25W

THIS SPACE
INTENTIONALLY LEFT
BLANK

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

POTABLE WATER #3
STANDARD DETAILS

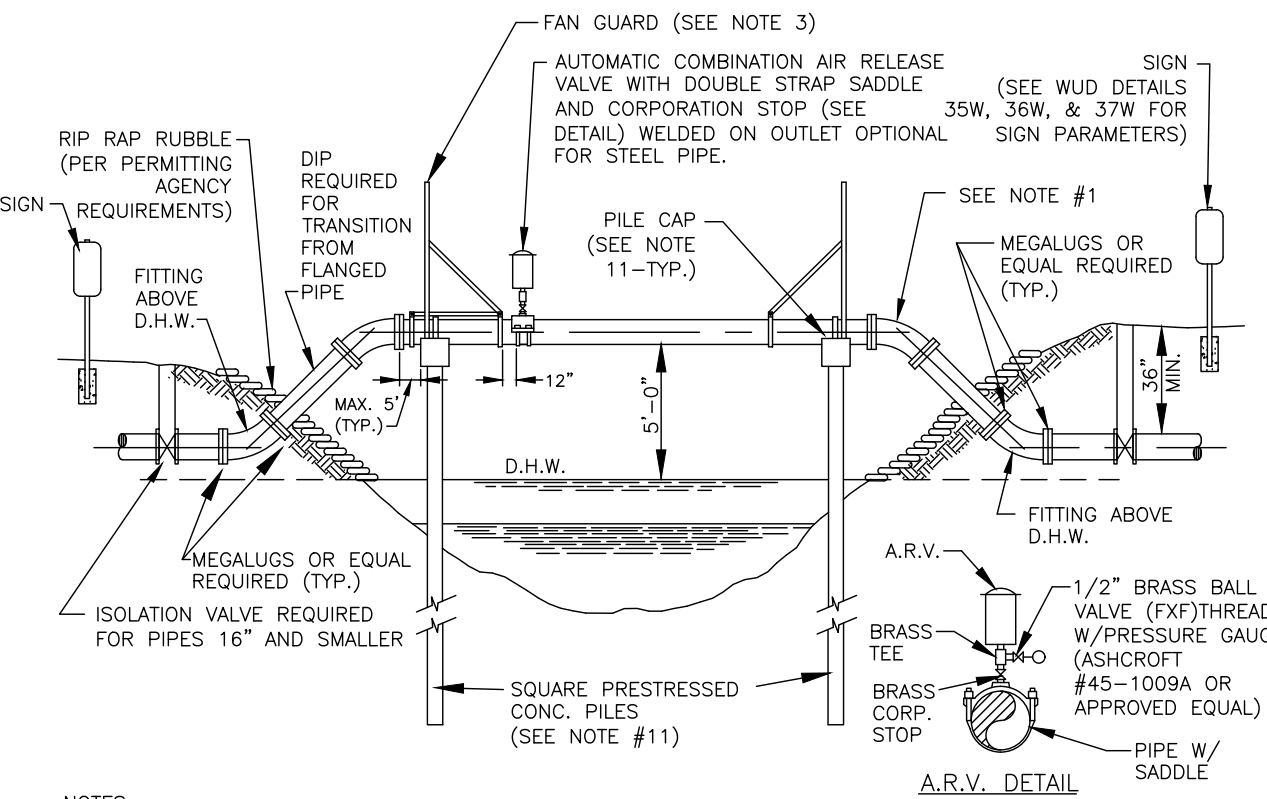
CONSULTANT:

SIMMONS & WHITE
2584 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3453 | 561.428.7848

IT'S THE LAW!
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO.	DRAWING NO.
23-142	23142S12

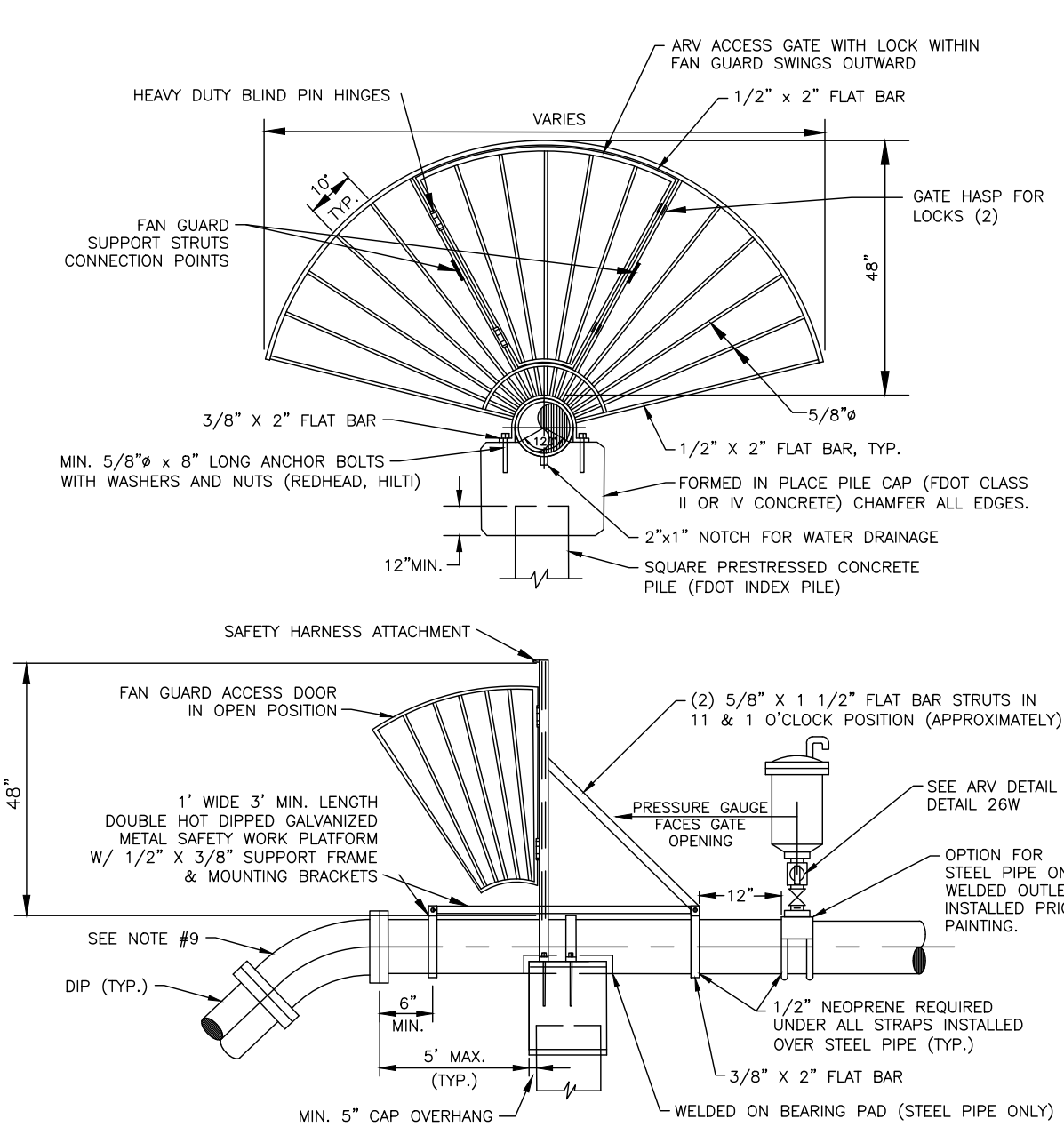
DESIGNED BY: _____ WUD	
DRAWN BY: _____ M. BUCKNER	Palm Beach County
CHECKED BY: _____ J. LAMMERT	Water Utilities Department
APPROVED BY: _____ WUD	P.O. Box 16097 West Palm Beach, FL 33416-6097



- NOTES:
- ALL EXPOSED PIPE SHALL BE DUCTILE IRON OR PREFABRICATED STEEL WITH FLANGED FITTINGS AND PROFILED GASKETS. RETAINER GLANDS AND UNIFLANGE TYPE FITTINGS ARE NOT TO BE SUBSTITUTED FOR FLANGED FITTINGS. PREFABRICATED STEEL PIPE MAY INCORPORATE WELDED ON LONG RADIUS UPPER BENDS. PREFABRICATED FLANGED PIPE SHALL BE FACTORY TESTED.
 - SPAN LENGTHS AS REQUIRED BY PERMITTING AGENCY
 - FAN GUARDS ARE REQUIRED. SEE FAN GUARD/PILE CAP DESIGN DETAIL 27W FOR ADDITIONAL REQUIREMENTS. ACCESS PLATFORM AND GATE REQUIRED ON ARV SIDE ONLY.
 - ALL STEEL PIPE SHALL HAVE WELDED ON BEARING PADS EXTENDED 1\"/>

POTABLE WATER MAIN TYPICAL AERIAL CANAL CROSSING - SINGLE PIPE (SINGLE PILES)

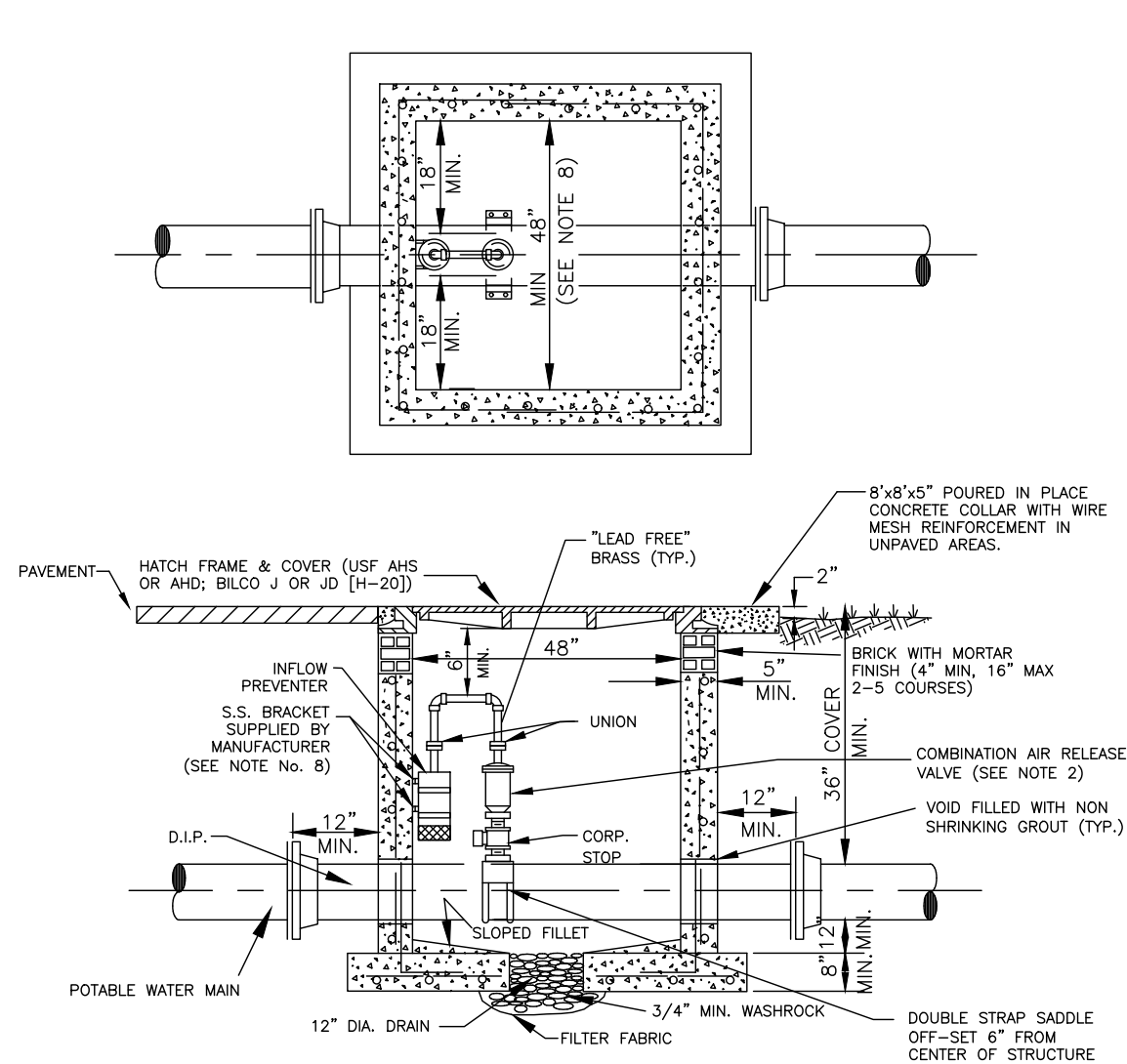
26W



- NOTES:
- FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
 - FANGUARD WITH HARDWARE SHALL BE FABRICATED FROM DOUBLE HOT DIPPED GALVANIZED STEEL.
 - SHOP DRAWINGS FOR FANGUARDS, CAPS, AND PILES MUST BE SUBMITTED TO PRECONSTRUCTION MEETING.
 - REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60, MIN. 2\"/>

FAN GUARD/ PILE CAP DESIGN SINGLE PIPE (SINGLE PILES)

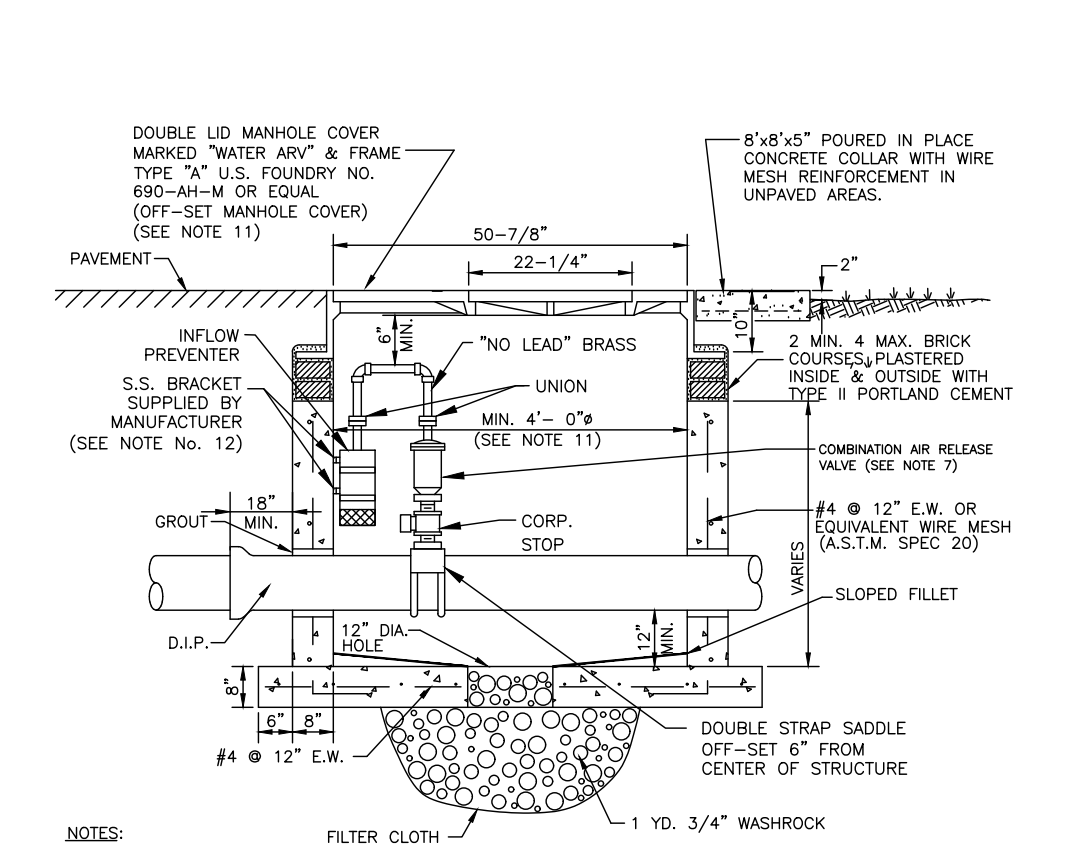
27W



- NOTES:
- PRECAST 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
 - COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED ALTHOUGH A 1\"/>

POTABLE WATER MAIN UNDERGROUND AIR RELEASE VALVE AND VAULT IN NON-TRAFFIC AREAS OUTSIDE OF ROAD R/W

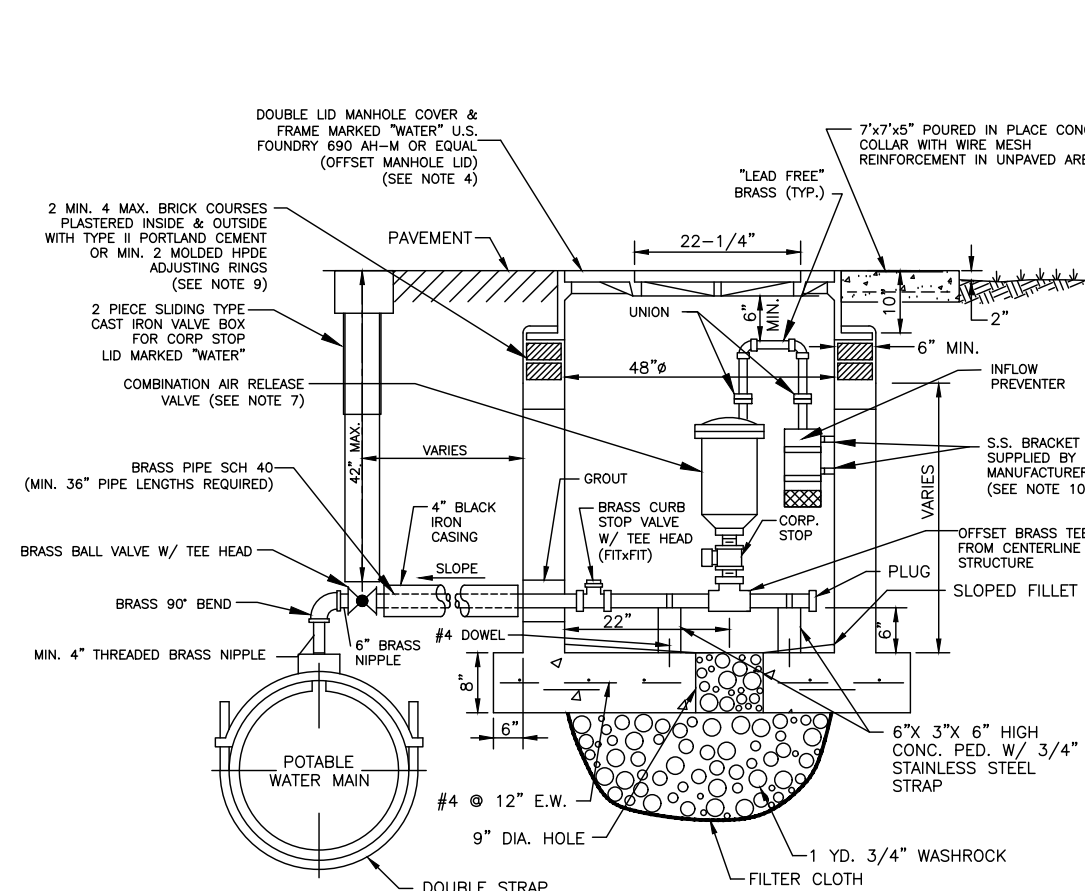
28W



- NOTES:
- PRECAST 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
 - ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
 - LIFT HOLES ARE PERMITTED.
 - ALL PIPE HOLES SHALL BE PRECAST.
 - MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478 LATEST STANDARD.
 - CONCRETE CURTAIN REQUIRED WHEN MANHOLE IS OUTSIDE OF PAVEMENT. SEE DETAIL.
 - COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE TO SERVICE INTENDED ALTHOUGH A 1\"/>

POTABLE WATER MAIN AIR RELEASE MANHOLE IN PAVED AREAS AND ROAD R/W

29W



- NOTES:
- PRECAST MONOLITHIC POURED 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
 - ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
 - ALL PIPE HOLES SHALL BE PRECAST.
 - ALTERNATIVE VAULT DESIGN MAY BE USED WITH AN APPROVED 32\"/>

POTABLE WATER MAIN OFF-SET UNDERGROUND AIR RELEASE VALVE

30W

MAXIMUM QUANTITY OF WATER (GALLONS PER HOUR) THAT MAY BE SUPPLIED TO MAINTAIN PRESSURE WITHIN 5 P.S.I. OF THE SPECIFIED TEST PRESSURE (MECHANICAL OR PUSH-ON JOINT, 18 FT. NOMINAL LENGTHS, PER 1000 FT. OF PIPE)

TEST PRESSURE	PIPE DIAMETER (INCHES)															
SI	2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
0	0.10	0.14	0.18	0.27	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.10	1.38	1.65	1.93	2.20
0	0.10	0.15	0.21	0.31	0.42	0.53	0.63	0.74	0.84	0.95	1.06	1.27	1.59	1.91	2.22	2.54

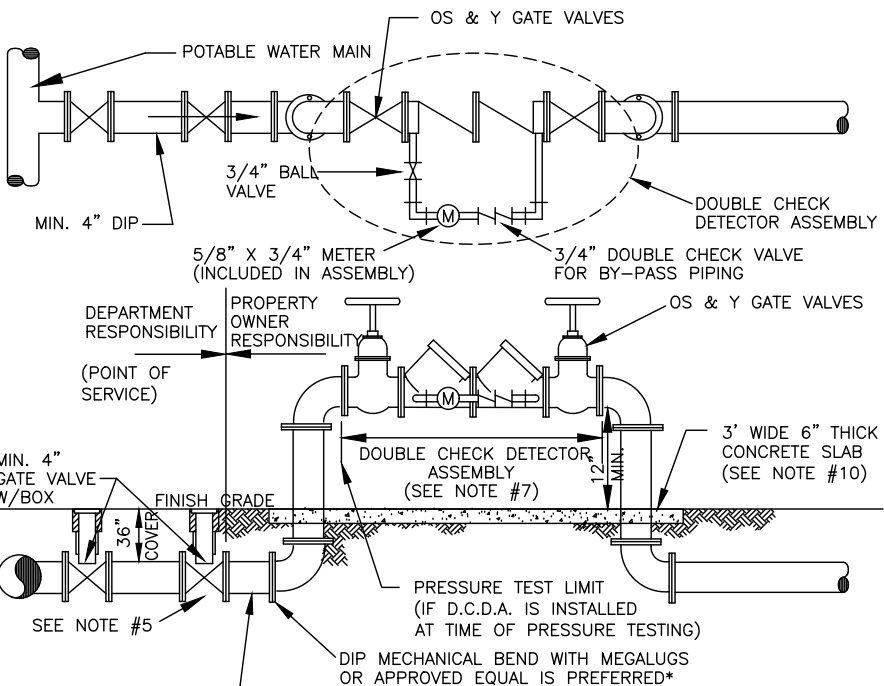
FORMULA BASIS: $L = \frac{[S] \times [D] \times [D]^{1/2}}{143,000} \times \frac{1}{P}$

L = MAXIMUM QUANTITY OF WATER TO BE ADDED (GALLONS PER HOUR)
S = LENGTH OF PIPE TESTED (FEET)
D = DIAMETER OF PIPE (INCHES)
P = TEST PRESSURE (P.S.I.)

- NOTES:
- TO OBTAIN THE MAXIMUM QUANTITY OF WATER FOR PIPE WITH 20 FT. NOMINAL LENGTHS, MULTIPLY THE QUANTITY CALCULATED FROM THE TABLE BY 0.9
 - THE MAXIMUM QUANTITY OF ADDED WATER FOR A PIPELINE IS CALCULATED BY MULTIPLYING THE QUANTITY PER HOUR AS OBTAINED FROM THE ABOVE TABLE, BY THE DURATION OF THE TEST IN HOURS AND BY THE TOTAL LENGTH OF THE LINE BEING TESTED DIVIDED BY 1,000. IF THE LINE UNDER TEST CONTAINS SECTIONS OF VARIOUS DIAMETERS, THE MAXIMUM QUANTITY ADDED WILL BE THE SUM OF THE COMPUTED QUANTITIES FOR EACH SIZE.
 - MAXIMUM TEST LENGTH = 2,500 FEET PER SECTION.
 - THIS STANDARD SHALL REFLECT ANY REVISION OF A.W.W.A. C-600. HOWEVER, THE MAXIMUM QUANTITY OF WATER ADDED SHALL NOT EXCEED 50% OF THE RECOMMENDED LIMIT PER APPLICABLE A.W.W.A. C-600 STANDARD.
 - STANDARD TEST PRESSURE = 150 P.S.I.; 200 P.S.I. FOR MAINS LARGER THAN 24"
 - PRESSURE TEST DURATION TO BE MIN. 2 HOURS.

POTABLE WATER MAIN PRESSURE TEST CRITERIA

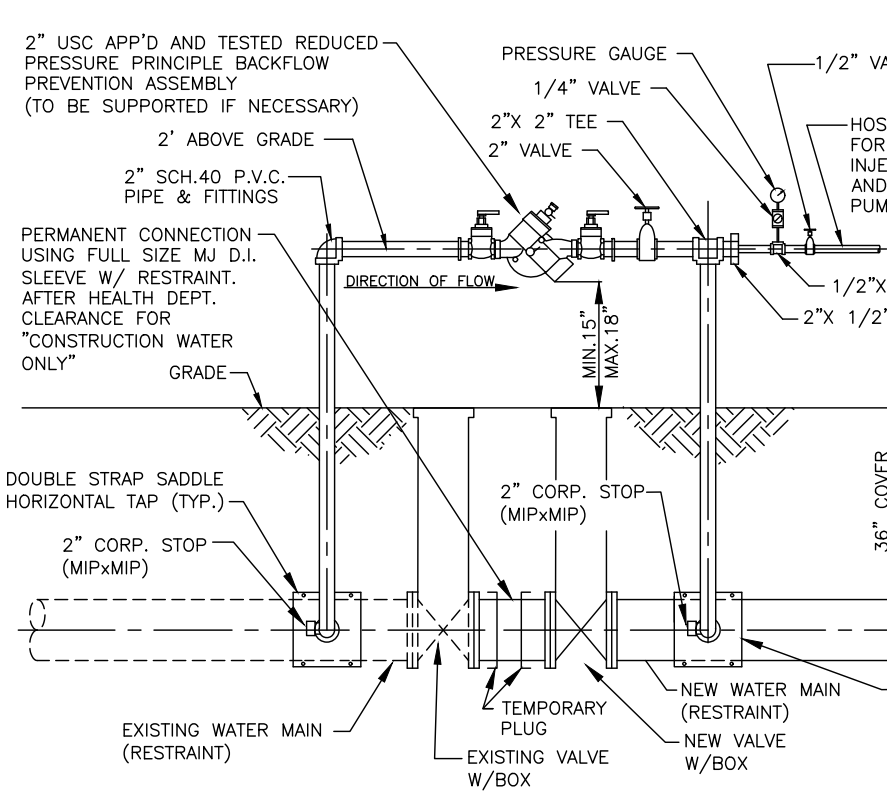
31W



- NOTES:
- ALL PIPE AND FITTINGS UP TO THE BACKFLOW PREVENTION ASSEMBLY (I.E. D.C.D.A.) POINT OF SERVICE VALVE SHALL BE DUCTILE IRON PER WUD STANDARDS.*
 - THE INITIAL TEST OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE PERFORMED BY THE DEPARTMENT PRIOR TO SERVICE ACTIVATION.
 - THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA (U.S.C.) OR THE A.S.S.E. (WITH ONE YEAR FIELD TESTING).
 - THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PROPER OPERATION, MAINTENANCE AND SUBSEQUENT TESTING OF THE DOUBLE CHECK DETECTOR ASSEMBLY BY A CERTIFIED BACKFLOW TECHNICIAN.
 - WHEN FIRE LINE LENGTH IS OVER ONE PIPE LENGTH, LINE SHALL BE TERMINATED WITH A GATE VALVE (=POINT OF SERVICE). NO PIPE JOINTS / CONNECTIONS ARE PERMITTED BETWEEN POINT OF SERVICE AND VERTICAL 90° BEND
 - THE DESIGN SHALL MINIMIZE ANY POTENTIAL FOR WATER MAIN WITH NO FLOW. A FIRE HYDRANT LOCATED NEAR THE DOUBLE CHECK DETECTOR ASSEMBLY MAY BE REQUIRED FOR LONG, DEAD ENDING DEDICATED FIRE LINES.
 - AN APPROVED REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY SHALL BE REQUIRED FOR ALL FIRE SYSTEMS WITH STORAGE TANKS AND/OR AUXILIARY WATER SUPPLY.
 - TAMPER SWITCHES MAY BE REQUIRED BY THE FIRE MARSHAL.*
 - PIPE MATERIAL ON THE CUSTOMER SIDE OF POINT OF SERVICE VALVE SHALL COMPLY WITH FIRE MARSHAL REQUIREMENTS.*
 - 3\"/>

DOUBLE CHECK DETECTOR ASSEMBLY

32W



- ENSURE PROPER RESTRAINT OF EXISTING VALVE AND EXISTING PIPE PRIOR TO NEW PIPE CONNECTION.
- ENSURE PROPER OPERATION OF EXISTING VALVE.
- INSTALL BY-PASS PIPING AS SHOWN. A NEARBY HYDRANT OR SERVICE TAP MAY BE USED AS A WATER SOURCE.
- USING BY-PASS AND CHLORINE INJECTOR PUMP, DISINFECT NEW WATER MAIN (MIN. 50 CHLORINE PPM IS REQUIRED FOR DISINFECTION).
- COMPLETE FILLING OF THE NEW WATER MAIN AND PERFORM BACTERIOLOGICAL TESTING.
- REMOVE EXISTING BLOW OFF (IF APPLICABLE) AND EXISTING PLUG, CONNECT NEW MAIN TO EXISTING VALVE.
- CRACK OPEN EXISTING VALVE AFTER INITIAL DISINFECTION AND FLUSH THE NEW WATER MAIN (BLOWBACK PRESENCE IS REQUIRED).
- REMOVE BY-PASS PIPING. CAP CORPORATION STOPS WITH BRASS CAPS.
- PRESSURE TESTING IS REQUIRED AFTER SUCCESSFUL COMPLETION OF BACTERIOLOGICAL TESTING AND HEALTH DEPARTMENT RELEASE FOR 'CONSTRUCTION WATER' APPLICATION. PRESSURE TESTING TO BE PERFORMED AFTER BLOWOFF, ROAD BASE AND ROAD ROCK BASE INSTALLATION, COMPLETION.
- AN ALTERNATIVE TIE-IN PROCEDURE (PRESSURE TESTING PRIOR TO BACTERIOLOGICAL TESTING) MAY BE CONSIDERED WITH PRIOR APPROVAL (SEE SEPARATE DETAIL).
- RECORD DRAWINGS TO SHOW DATA FOR ALL TEST TAPS.
- ALL BRASS SHALL BE 'LEAD FREE'.

STANDARD POTABLE WATER MAIN TIE-IN

33W

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED														
(SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1, AND DIPRA THRUST RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)														
FITTING TYPE	PIPE SIZE													
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"		
90° HORIZ. BEND	14	20	25	30	35	45	54	62	98	112	124	135		
45° HORIZ. BEND	6	8	11	13	15	19	22	26	41	46	51	56		
22.5° HORIZ. BEND	3	4	5	6	7	9	11	12	19	22	25	27		
11.25° HORIZ. BEND	1	2	3	3	4	4	5	6	10	11	12	13		
90° VERT. OFFSET	UPPER BEND	29	41	53	64	74	95	115	134	214	246	276	304	
	LOWER BEND	7	10	13	16	19	25	30	35	57	66	74	83	
45° VERT. OFFSET	UPPER BEND	12	19	24	29	34	39	48	56	89	102	114	126	
	LOWER BEND	3	4	6	7	8	10	12	15	23	27	31	34	
22.5° VERT. OFFSET	UPPER BEND	6	9	12	14	17	19	23	27	43	49	55	60	
	LOWER BEND	1	2	4	4	4	5	6	7	11	13	15	16	
11.25° VERT. OFFSET	UPPER BEND	3	4	6	7	8	9	11	13	21	24	27	30	
	LOWER BEND	1	1	1	2	2	2	3	3	6	6	7	8	
PLUG (DEAD END)		32	45	59	70	83	107	129	151	214	246	276	304	
IN-LINE VALVE		32	45	45	45	45	55	65	80	110	125	140	155	
4" x 6"	23	-	-	-	-	-	-	-	-	-	-	-	-	
6" x 8"	21	35	-	-	-	-	-	-	-	-	-	-	-	
8" x 10"	19	34	47	-	-	-	-	-	-	-	-	-	-	
10" x 16"	16	32	46	58	-	-	-	-	-	-	-	-	-	
12" x 13	30	44	57	69	-	-	-	-	-	-	-	-	-	
16" x 7	7	26	41	55	67	98	-	-	-	-	-	-	-	
20" x 2	1	21	38	52	65	80	109	-	-	-	-	-	-	
24" x 2	1	16	34	47	59	76	108	129	-	-	-	-	-	
30" x 1	1	8	28	44	58	83	106	127	208	-	-	-	-	
36" x 2	1	1	22	39	54	80	103	124	206	240	-	-	-	
42" x 1	1	1	15	33	49	77	100	122	205	239	270	-	-	
48" x 1	1	1	7	27	44	73	97	120	203	238	269	298	-	
6" x 23	-	-	-	-	-	-	-	-	-	-	-	-	-	
8" x 38	25	-	-	-	-	-	-	-	-	-	-	-	-	
10" x 57	43	24	-	-	-	-	-	-	-	-	-	-	-	
12" x 72	60	44	11	-	-	-	-	-	-	-	-	-	-	
16" x 90	90	78	105	145	-	-	-	-	-	-	-	-	-	
20" x 123	116	107	131	181	81	45	-	-	-	-	-	-	-	
24" x 146	140	132	131	111	82	45	-	-	-	-	-	-	-	
30" x 209	204	197	188	177	153	116	75	-	-	-	-	-	-	
36" x 243	236	225	218	202	171	168	136	72	-	-	-	-	-	
42" x 273	270	265	259	252	234	211	183	133	72	-	-	-	-	
48" x 301	298	294	289	283	268	249	226	183	131	71	-	-	-	
200psi														

- NOTES:
- THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS: SOIL TYPE-SAND TEST PRESSURE-150 PSI/200 PSI DEPTH OF BURY-3' TRENCH TYPE-3 SAFETY FACTOR-1.5 MINIMUM PIPE LENGTH ALONG TEE-RUN-5'
 - THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON AND PVC PIPE.
 - ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
 - RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.
 - MULTIPLY PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.
 - RESTRAINED PIPE LENGTHS EQUAL TO AN 'INLINE VALVE' CONDITION ARE REQUIRED AT EACH END OF A TRANSITION FROM HOPE PIPE TO OTHER PIPE MATERIALS.
 - DESIGN ENGINEER IS RESPONSIBLE TO PROPERLY SIZE THE RESTRAINT PIPE LENGTHS FOR THE PROJECT

MECHANICAL THRUST RESTRAINT MINIMUM PIPE LENGTHS

34W

DEFINITIONS

GENERAL NOTES

- DEPARTMENT - THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
- CONTRACTOR - UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
- ENGINEER - ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.

PROCEDURE

- A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INSTALLATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
- ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.
- FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
- ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. (DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
- THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
- ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
- THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
- NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
- FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
- UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

PRESSURE PIPE NOTES

- THERE SHALL BE 36\"/>

CONSULTANT:

3581 Metrocenter Blvd West, Ste 3 West Palm Beach, FL 33407
Authorizations #3452 / 561.678.7848

IT'S THE LAW!
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

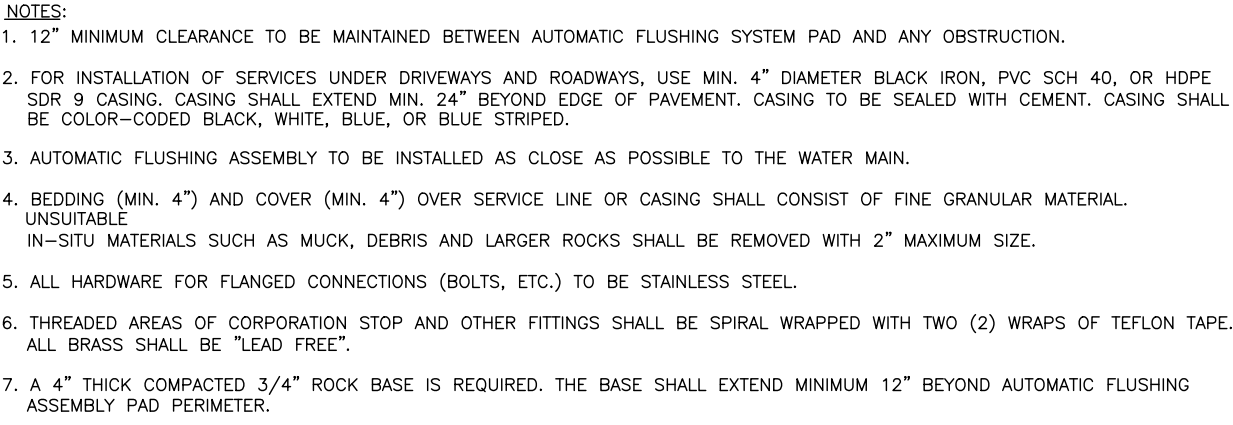
JOB NO. 23-142
DRAWING NO. 23142S13
DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD
Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

Oct 17, 2024

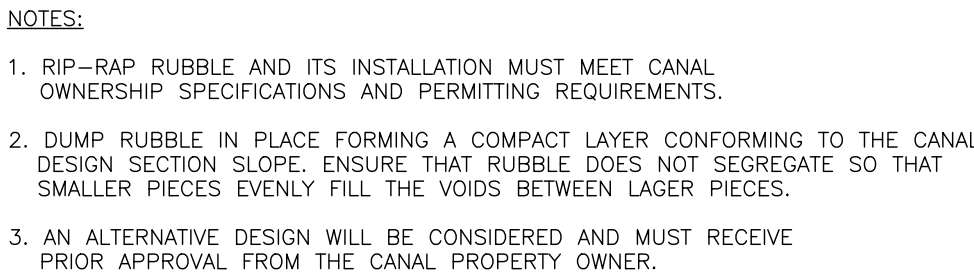
DATE	NO.	REVISION / REMARKS
JUL 2019		GENERAL REVISION
JAN 2023		GENERAL REVISION

STD DETAILS
SHEET NUMBER 13 OF 21

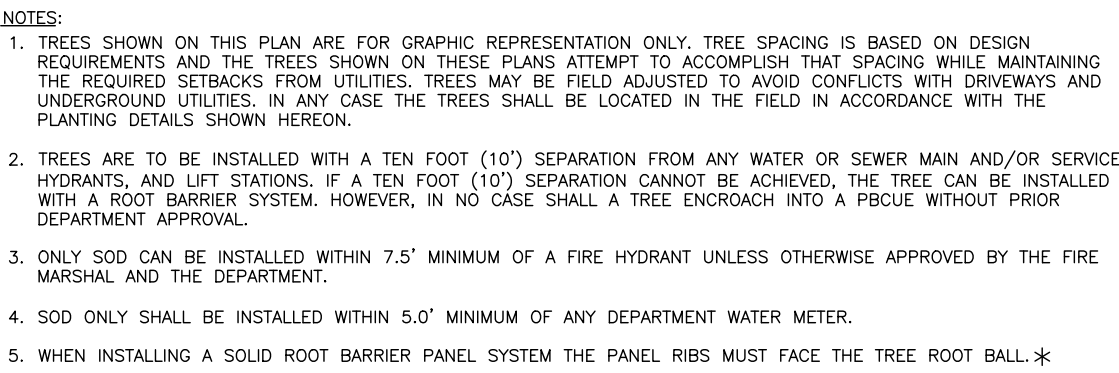
SEAL



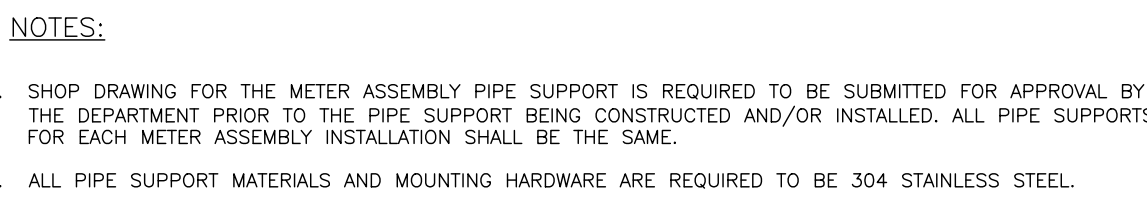
44W



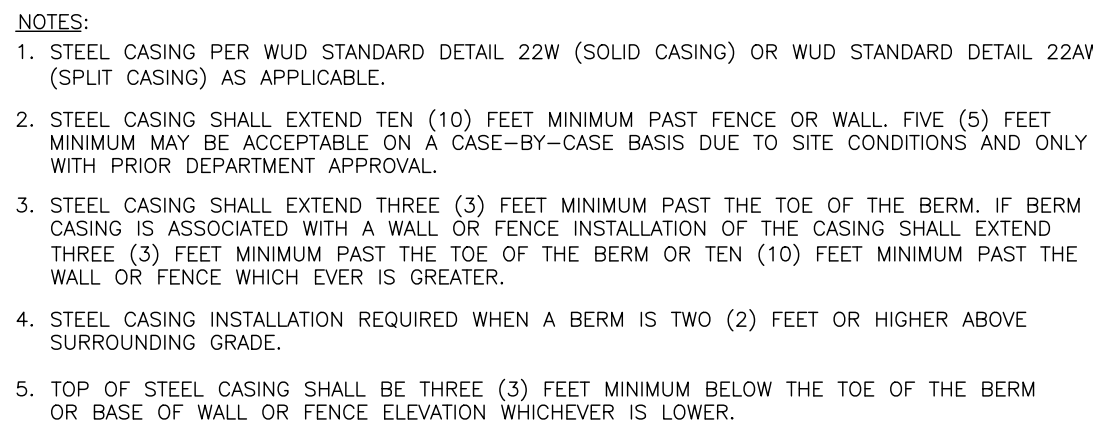
45W



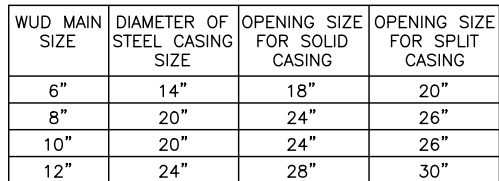
46W



47W



48W



49W



REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

CONSULTANT:

 **SIMMONS
& WHITE**

2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

IT'S THE LAW! 
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

DRAWING NO.
23142S15

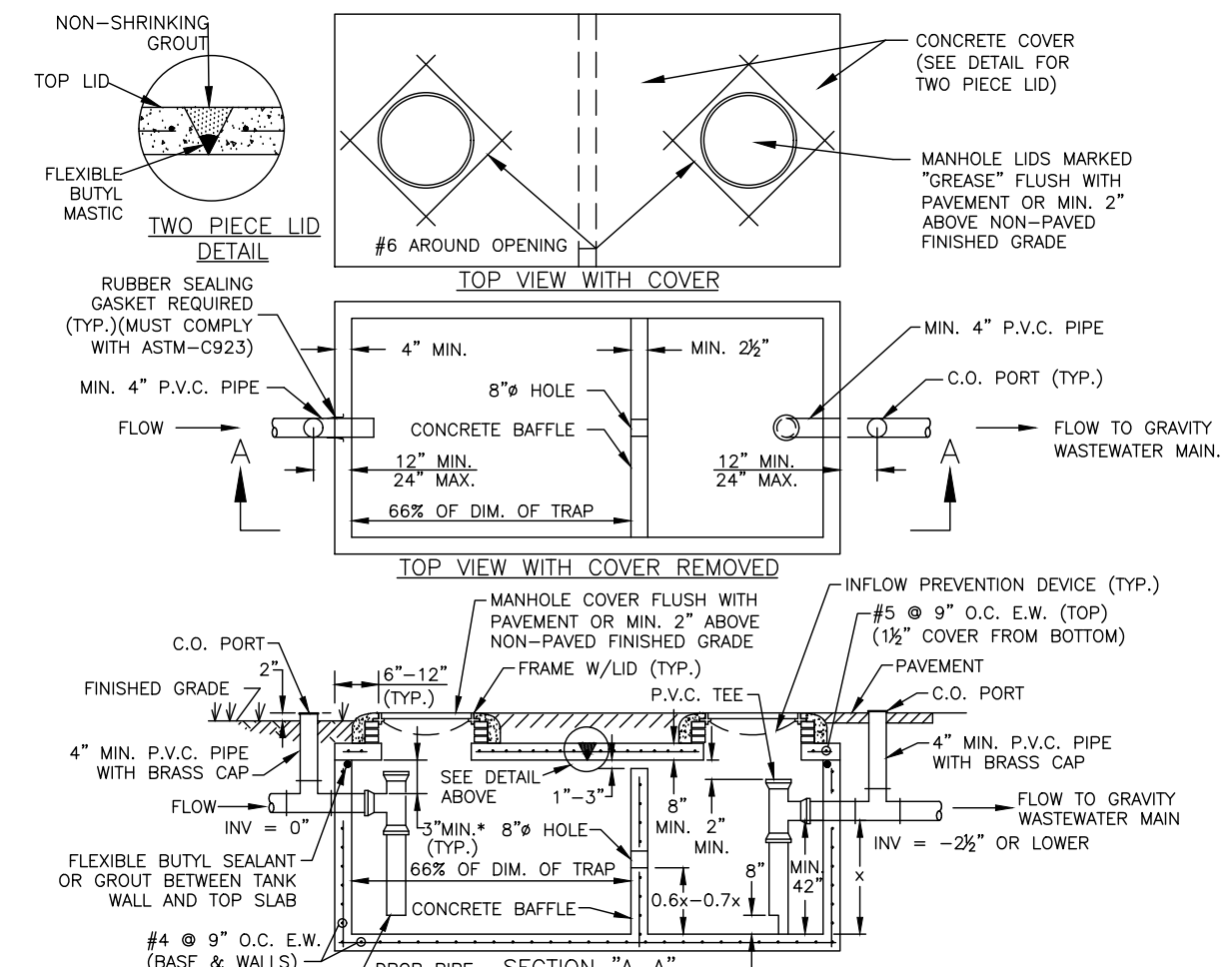
Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

NO.	DATE	GENERAL REVISION	REVISION / REMARKS	BY
*	JUNE 2019			J.L
	JAN 2023	GENERAL REVISION		J.L

STD DETAILS

SHEET
NUMBER
15
OF
21

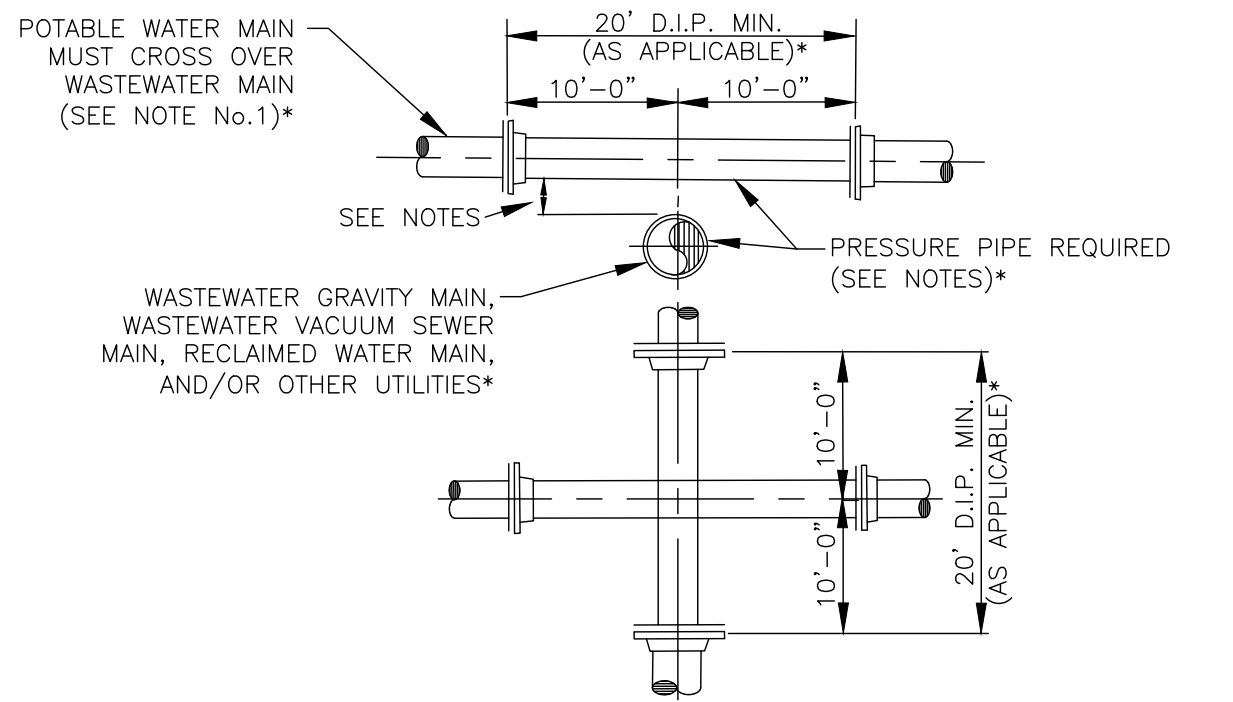
SEAL



- NOTES:**
1. OIL/GREASE INTERCEPTORS SHALL BE WATER TIGHT AND SHALL BE BUILT OF PRECAST CONCRETE WHICH HAVE A DESIGN COMPRESSIVE STRENGTH OF MINIMUM 3000 PSI AFTER 28 DAYS OF CURE. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL.
 2. THE OIL/GREASE INTERCEPTOR SHALL BE BUILT OF PRECAST CONCRETE WHICH HAVE A DESIGN COMPRESSIVE STRENGTH OF MINIMUM 3000 PSI AFTER 28 DAYS OF CURE. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL. THE DESIGN SHALL BE SUBMITTED TO THE PALM BEACH COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL.
 3. INSPECTION PORTS (CLEAN OUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN EASILY ACCESSIBLE FOR UTILITY INSPECTION AND SAMPLING.
 4. THE INTERCEPTOR SHALL BE LOCATED OUTSIDE AND IN A NON-TRAFFIC AREA WHEREVER POSSIBLE. IF INSTALLED IN A TRAFFIC AREA, MIN MANHOLES ARE REQUIRED TO BE INSTALLED ON ALL PORTS (CLEANOUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
 5. THE CAPACITY DETERMINATION FOR THE INTERCEPTOR IS THE RESPONSIBILITY OF THE OWNER/CUSTOMER. THE MINIMUM VOLUME OF ANY GREASE INTERCEPTOR SHALL BE 750 GALLONS AND THE MINIMUM VOLUME OF ANY SAND/OIL INTERCEPTOR SHALL BE 100 GALLONS. WHEN THE REQUIRED EFFECTIVE CAPACITY OF THE GREASE INTERCEPTOR IS GREATER THAN 750 GALLONS, INSTALLATION OF SINGLE COMPARTMENT SAND/OIL INTERCEPTOR IN SERIES IS REQUIRED.
 6. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE INTERCEPTOR.
 7. EACH FACILITY WITH AN OIL/GREASE INTERCEPTOR SHALL HAVE A DEDICATED (NOT SHARED) INTERCEPTOR WITH THEIR POTABLE WATER SERVICE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 8. THE GREASE INTERCEPTOR SHALL BE INSTALLED IN A NON-TRAFFIC AREA WHEREVER POSSIBLE. IF INSTALLED IN A TRAFFIC AREA, MIN MANHOLES ARE REQUIRED TO BE INSTALLED ON ALL PORTS (CLEANOUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
 9. EACH FACILITY WITH AN OIL/GREASE INTERCEPTOR SHALL HAVE A SEPARATE (NOT SHARED) INTERCEPTOR WITH THEIR POTABLE WATER SERVICE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 10. A "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE LOCATED AS CLOSE AS PRACTICALLY POSSIBLE TO THE FIXTURES AND EQUIPMENT GENERATING GREASE.
 11. THE "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE LOCATED AS CLOSE AS PRACTICALLY POSSIBLE TO THE FIXTURES AND EQUIPMENT GENERATING GREASE.
 12. A "SOLIDS INTERCEPTOR" SHALL BE CONSIDERED TO BE INSTALLED UPSTREAM OF A "GREASE TRAP" WHERE SUBSTANTIAL AMOUNT OF SOLIDS FROM FOOD GRINDERS, DISPOSALS MAY BE PRESENT.
 13. A "SOLIDS INTERCEPTOR" SHALL BE CONSIDERED TO BE INSTALLED UPSTREAM OF A "GREASE TRAP" WHERE SUBSTANTIAL AMOUNT OF SOLIDS FROM FOOD GRINDERS, DISPOSALS MAY BE PRESENT.
 14. SEE WUD STANDARD DETAIL 15B FOR FIBERGLASS TYPE OIL/GREASE INTERCEPTOR INSTALLATIONS.

OIL/ GREASE INTERCEPTOR
CONCRETE STRUCTURE

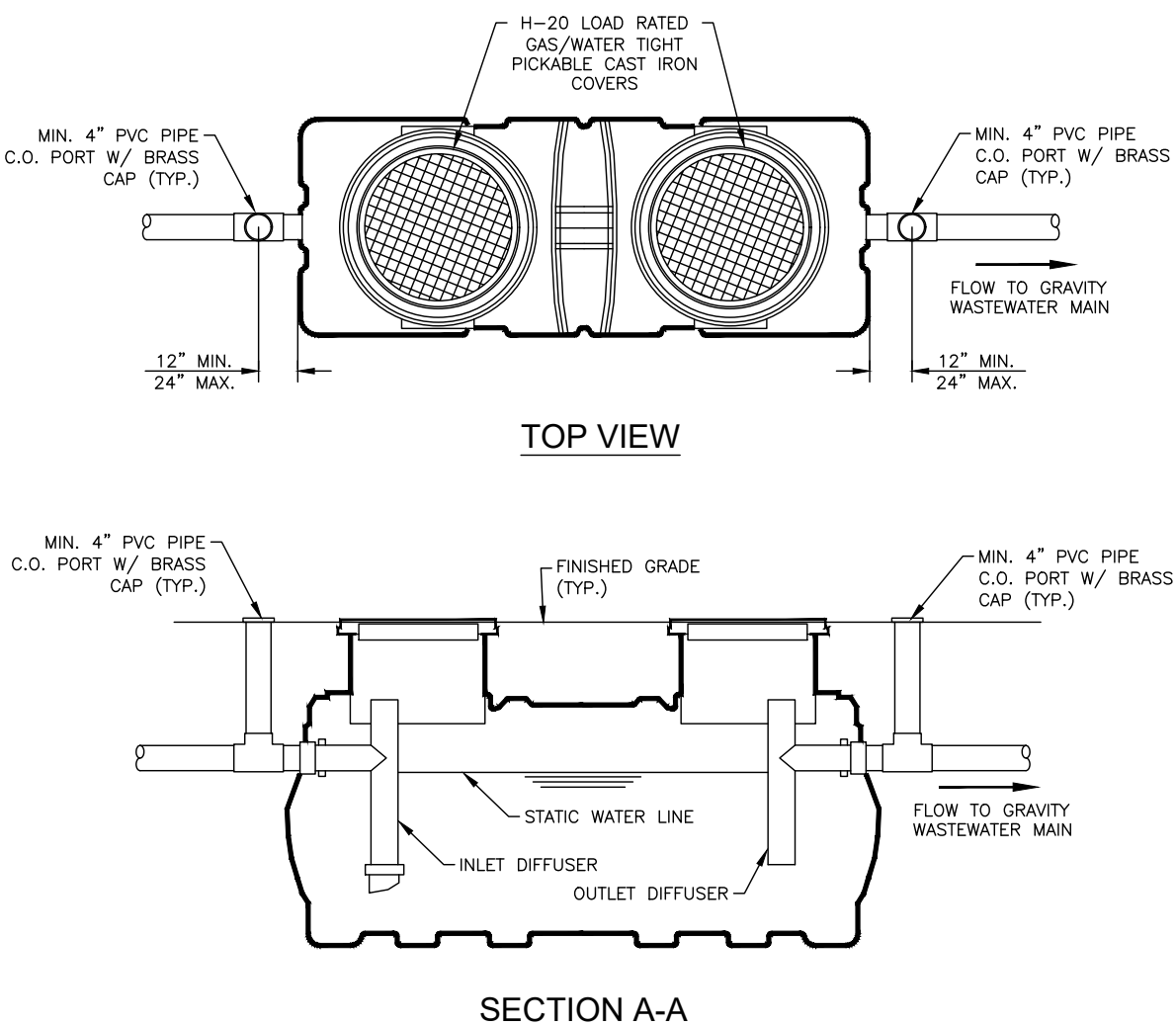
1SA



- NOTES:**
1. WHEN A WASTEWATER FORCE MAIN CROSSES OVER AND/OR UNDER A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY WASTEWATER, RECLAIMED WATER MAIN, A STORM SEWER, AND/OR RECLAIMED WATER MAIN, A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS REQUIRED BETWEEN A WASTEWATER MAIN AND POTABLE WATER MAIN, A STORM SEWER, AND/OR RECLAIMED WATER MAIN. A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE WASTEWATER MAIN. A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) BETWEEN A WASTEWATER MAIN AND A RECLAIMED WATER MAIN IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE WASTEWATER MAIN.
 2. TEN (10) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS REQUIRED BETWEEN A WASTEWATER MAIN AND POTABLE WATER MAIN, A STORM SEWER, AND/OR RECLAIMED WATER MAIN. A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE WASTEWATER MAIN. A THREE (3) FOOT MINIMUM HORIZONTAL SEPARATION (OUTSIDE WALL TO OUTSIDE WALL) BETWEEN A WASTEWATER MAIN AND A RECLAIMED WATER MAIN IS ACCEPTABLE WITH PRIOR DEPARTMENT APPROVAL BEFORE THE INSTALLATION OF THE WASTEWATER MAIN.
 3. WHEN A WASTEWATER MAIN CROSSES ANY ELECTRICAL CONDUIT(S), COMMUNICATION CONDUIT(S), AND/OR GAS MAIN, A MINIMUM OF EIGHTEEN (18) INCH VERTICAL SEPARATION IS REQUIRED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. A WASTEWATER PIPE SHALL ALWAYS CROSS OVER THE OTHER UTILITY MAINS UNLESS APPROVED BY THE DEPARTMENT BEFORE THE INSTALLATION OF THE WASTEWATER MAIN. WHEN THE WASTEWATER MAIN IS D.I.P., AND THE GAS MAIN IS STEEL PIPE, THE WASTEWATER MAIN SHALL BE POLY-WRAPPED PER DEPARTMENT STANDARDS.
 4. WASTEWATER LATERALS SHALL CROSS UNDER POTABLE WATER MAINS WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED ON THE CROSSING WITH THE WASTEWATER FORCE MAIN HAVING A TWENTY (20) FOOT SECTION OF POTABLE WATER MAIN WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION REQUIRED. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED ON THE CROSSING WITH THE WASTEWATER FORCE MAIN HAVING A TWENTY (20) FOOT SECTION OF POTABLE WATER MAIN WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION REQUIRED.
 5. WASTEWATER MAINS SHALL ALWAYS CROSS UNDER POTABLE WATER SERVICE LINES WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. IF THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE MAINTAINED THE WATER SERVICE LINE SHALL BE ENCASED IN A TEN (10) FOOT MINIMUM LONG CASING CENTERED OVER THE CROSSING WITH SIX (6) INCH MINIMUM VERTICAL SEPARATION.
 6. WASTEWATER MAINS SHALL CROSS PERPENDICULAR TO ALL POTABLE WATER MAINS, STORM MAINS, STORM SEWER MAINS, RECLAIMED WATER MAINS, AND/OR OTHER UTILITIES WHENEVER POSSIBLE.

WASTEWATER MAIN CROSSING OTHER MAINS
AND UTILITIES

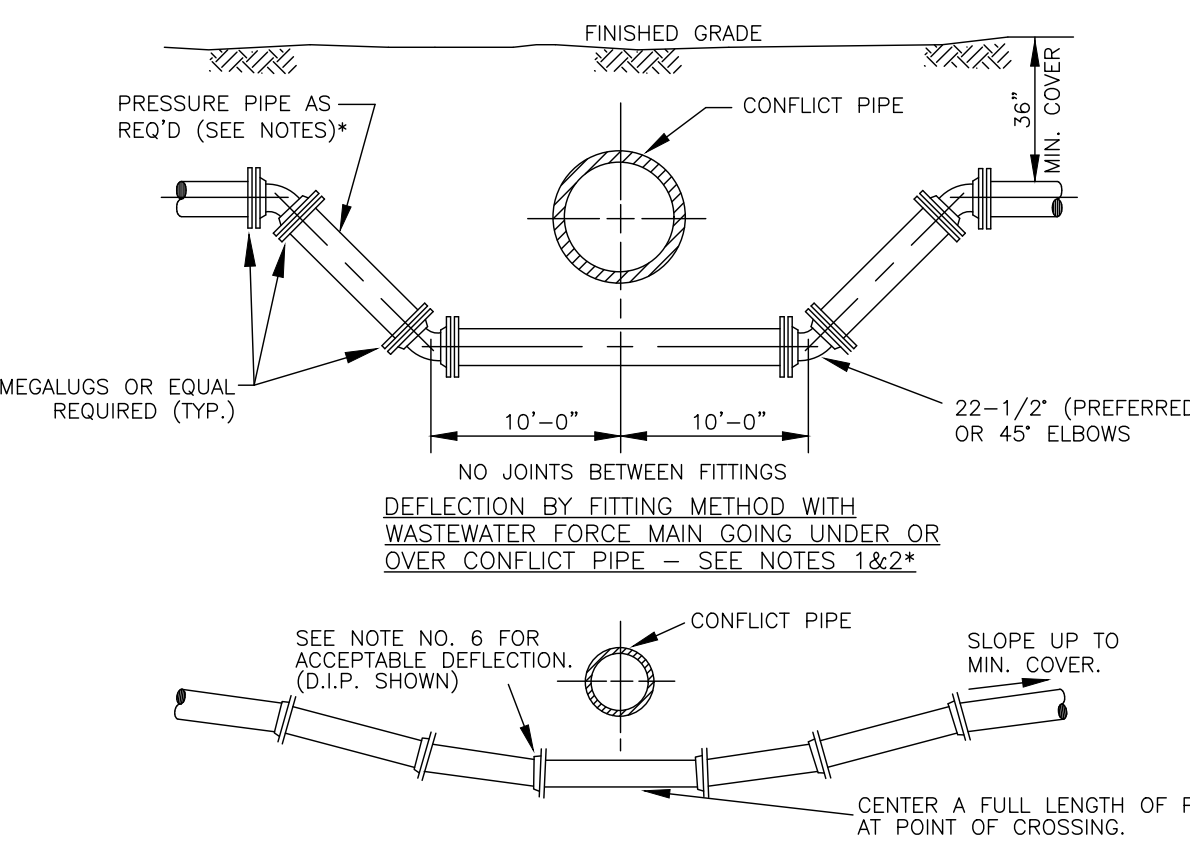
4S



- NOTES:**
1. INSPECTION PORTS (CLEANOUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN ACCESSIBLE TO FOR UTILITY INSPECTION AND SAMPLING.
 2. THE INTERCEPTOR PORTS (CLEANOUTS) SHALL BE LOCATED OUTSIDE AND IN A NON-TRAFFIC AREA WHEREVER POSSIBLE. IF INSTALLED IN A TRAFFIC AREA, MIN MANHOLES ARE REQUIRED TO BE INSTALLED ON ALL PORTS (CLEANOUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
 3. IF AN INTERCEPTOR NEEDS TO BE INSTALLED IN DOORS DUE TO EXISTING SITE CONDITIONS, PRIOR DEPARTMENT APPROVAL IS REQUIRED WITH IN DOOR INSTALLATIONS APPROVED ON A CASE BY CASE BASIS.
 4. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE INTERCEPTOR.
 5. EACH FACILITY WITH AN OIL/GREASE INTERCEPTOR SHALL HAVE A DEDICATED (NOT SHARED) INTERCEPTOR WITH THEIR POTABLE WATER SERVICE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 6. SEE WUD STANDARD DETAIL 15A FOR CONCRETE STRUCTURE TYPE OIL/GREASE INTERCEPTOR INSTALLATIONS.

OIL/ GREASE INTERCEPTOR
FIBERGLASS STRUCTURE ONLY

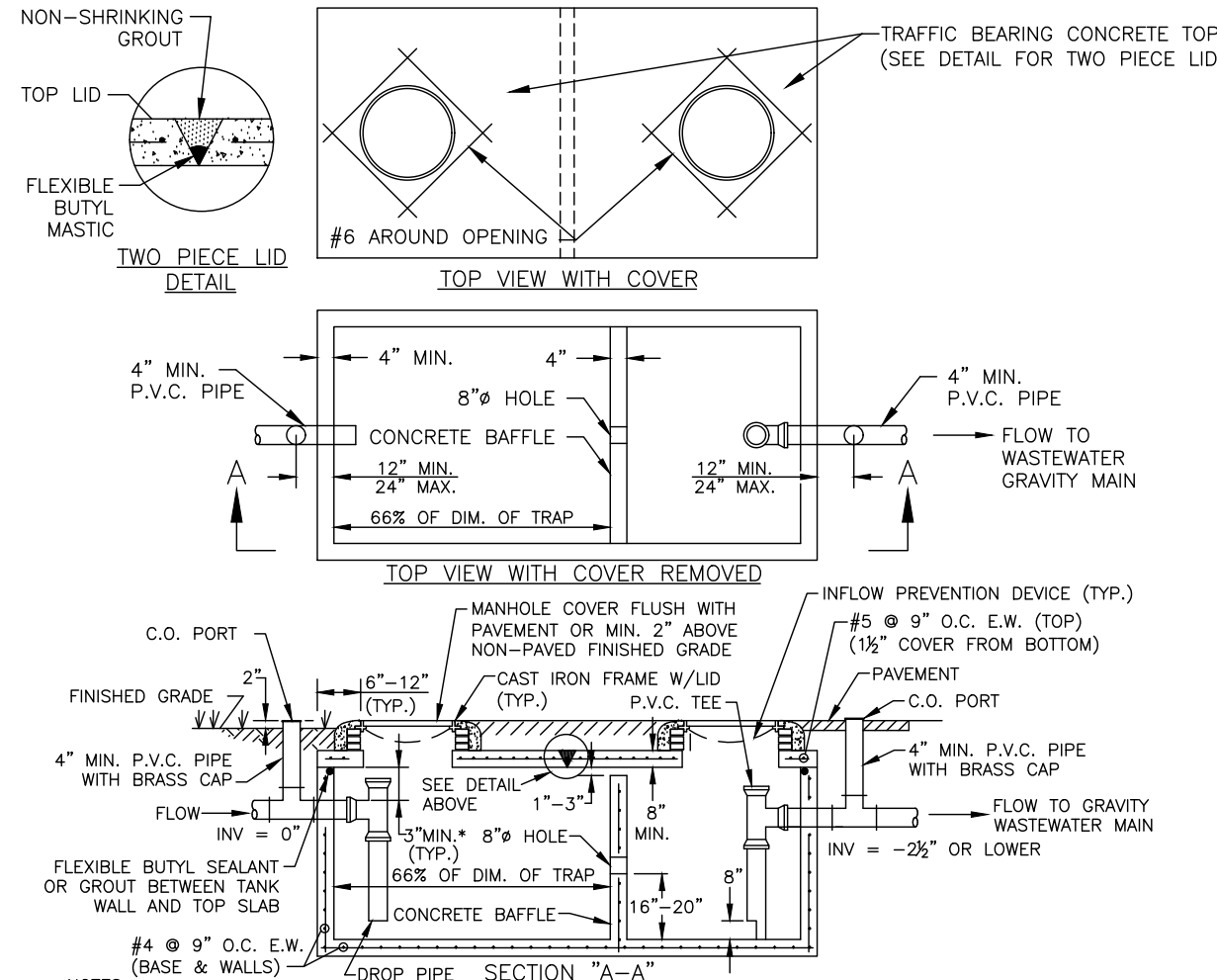
1SB



- NOTES:**
1. DEFLECTION BY FITTINGS AND/OR PIPE JOINT METHODS APPLIES TO WASTEWATER FORCE MAIN CROSSING OVER OR UNDER CONFLICT PIPE WITH CROSSING OVER CONFLICT PIPE PREFERRED. WHEN A WASTEWATER FORCE MAIN CROSSES OVER A STORM SEWER, GRAVITY WASTEWATER, VACUUM GRAVITY AND/OR RECLAIMED WATER MAIN THE WASTEWATER FORCE MAIN SHALL BE LAID TO PROVIDE A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHEN THE MINIMUM OF TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF WASTEWATER DUCTILE IRON PIPE FORCE MAIN IS CENTERED ON THE CROSSING WITH THE LOWER PIPE HAVING A TWENTY (20) FOOT SECTION CENTERED ON THE CROSSING. A WASTEWATER FORCE MAIN MUST CROSS UNDER ANY POTABLE WATER MAIN WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION REQUIRED. WHEN THE MINIMUM TWELVE (12) INCH VERTICAL SEPARATION CANNOT BE OBTAINED A MINIMUM SIX (6) INCH VERTICAL SEPARATION IS PERMITTED PROVIDED THAT A TWENTY (20) FOOT SECTION OF POTABLE WATER DUCTILE IRON PIPE MAIN IS CENTERED ON THE CROSSING WITH THE WASTEWATER FORCE MAIN HAVING A TWENTY (20) FOOT SECTION OF POTABLE WATER MAIN WITH A MINIMUM TWELVE (12) INCH VERTICAL SEPARATION REQUIRED.
 2. THE PREFERRED PIPE DEFLECTION METHOD IS BY USING MECHANICAL RESTRAINT FITTINGS.*
 3. WASTEWATER FORCE MAIN DEFLECTION BY PIPE JOINT METHOD REQUIRES DEPARTMENT APPROVAL PRIOR TO THE INSTALLATION OF THE FORCE MAIN.*
 4. DEFLECTION BY PIPE JOINT SHALL NOT EXCEED SEVENTY-FIVE PERCENT (75%) OF MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION FOR DUCTILE IRON PIPE AND PVC PIPE DEFLECTION CAN ONLY BE ALLOWED BY INSTALLING THE APPROPRIATE FITTINGS - NO EXCEPTIONS.*

WASTEWATER MAIN CONFLICT
DEFLECTION DETAIL

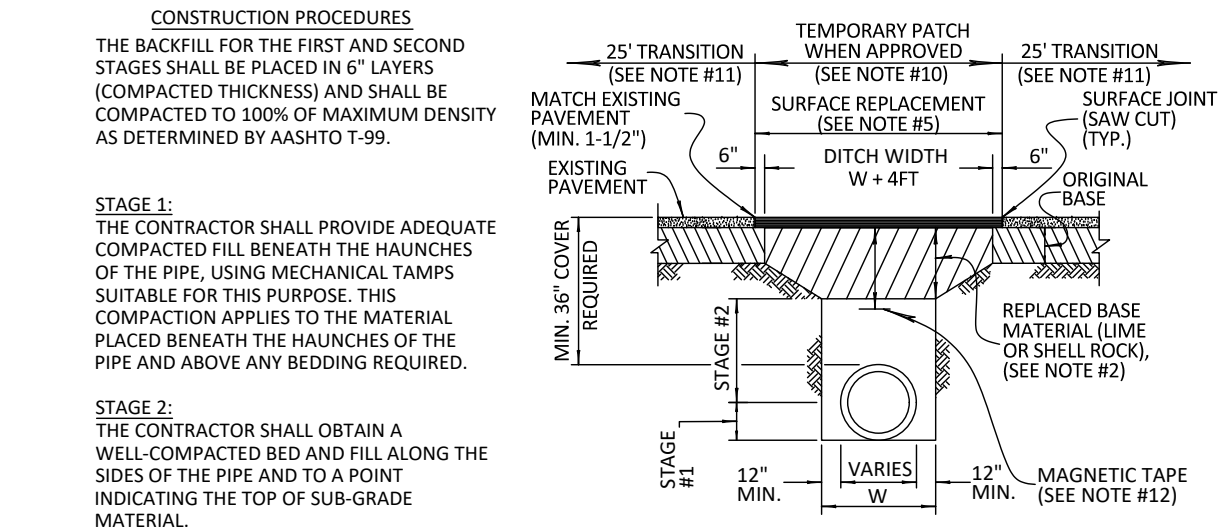
5S



- NOTES:**
1. SAND/OIL INTERCEPTORS SHALL BE WATER TIGHT AND SHALL BE BUILT OF PRECAST CONCRETE WHICH HAVE A DESIGN COMPRESSIVE STRENGTH OF MINIMUM 3000 PSI AFTER 28 DAYS CURE. THE DESIGN, SIZING AND CONSTRUCTION MUST CONFORM TO THIS STANDARD AND TO ALL APPLICABLE BUILDING CODES, HEALTH DEPARTMENT REQUIREMENTS AND ORDINANCES, INCLUDING, BUT NOT LIMITED TO CHAPTER 646-6, FLORIDA ADMINISTRATIVE CODE. WALL AND SLAB THICKNESS SHOWN ARE MINIMUMS, AND SHALL BE DETERMINED BY THE OWNER'S ENGINEER. THE CONCRETE COVER SHALL BE MONITORING POINTS AND SHALL HAVE A PRECAST HOLE ON EACH END ONLY FOR LATERAL. THE PRECAST HOLES SHALL HAVE CAST-IN BOOTS WHENEVER POSSIBLE. AN ALTERNATIVE TYPE OF INTERCEPTOR OTHER THAN A PRECAST CONCRETE STRUCTURE MAY BE INSTALLED ONLY WITH PRIOR DEPARTMENT APPROVAL. SHOP DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING FOR ALL INTERCEPTORS.
 2. AN ALTERNATIVE TYPE OF INTERCEPTOR STRUCTURE MAY BE INSTALLED ONLY WITH PRIOR DEPARTMENT APPROVAL. SHOP DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING FOR ALL INTERCEPTORS.
 3. INSPECTION PORTS (CLEAN OUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN EASILY ACCESSIBLE FOR UTILITY INSPECTION AND SAMPLING.
 4. THE INTERCEPTOR SHALL BE LOCATED OUTSIDE AND IN A NON-TRAFFIC AREA WHEREVER POSSIBLE. IF INSTALLED IN A TRAFFIC AREA, MIN MANHOLES ARE REQUIRED TO BE INSTALLED ON ALL PORTS (CLEANOUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
 5. THE CAPACITY DETERMINATION FOR THE INTERCEPTOR IS THE RESPONSIBILITY OF THE OWNER/CUSTOMER. THE MINIMUM VOLUME OF A SAND/OIL INTERCEPTOR SHALL BE 750 GALLONS. WHEN THE REQUIRED EFFECTIVE CAPACITY OF THE SAND/OIL INTERCEPTOR IS GREATER THAN 750 GALLONS, INSTALLATION OF SINGLE COMPARTMENT SAND/OIL INTERCEPTOR IN SERIES IS REQUIRED.
 6. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE INTERCEPTOR.
 7. SAND/OIL INTERCEPTOR SHALL NOT BE USED FOR THE PURPOSE OF INTERCEPTION OF GREASE FROM FOOD HANDLING ESTABLISHMENTS.
 8. EACH FACILITY REQUIRED TO HAVE A SAND/OIL INTERCEPTOR SHALL HAVE A SEPARATE INTERCEPTOR AND SHALL BE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 9. MANHOLE LIDS SHALL BE ADORNED TO ACCEPT INFLOW PREVENTER.
 10. SEE WUD STANDARD DETAIL 25B FOR FIBERGLASS TYPE SAND/OIL INTERCEPTOR INSTALLATIONS.*

SAND/ OIL INTERCEPTOR
CONCRETE STRUCTURE

2SA

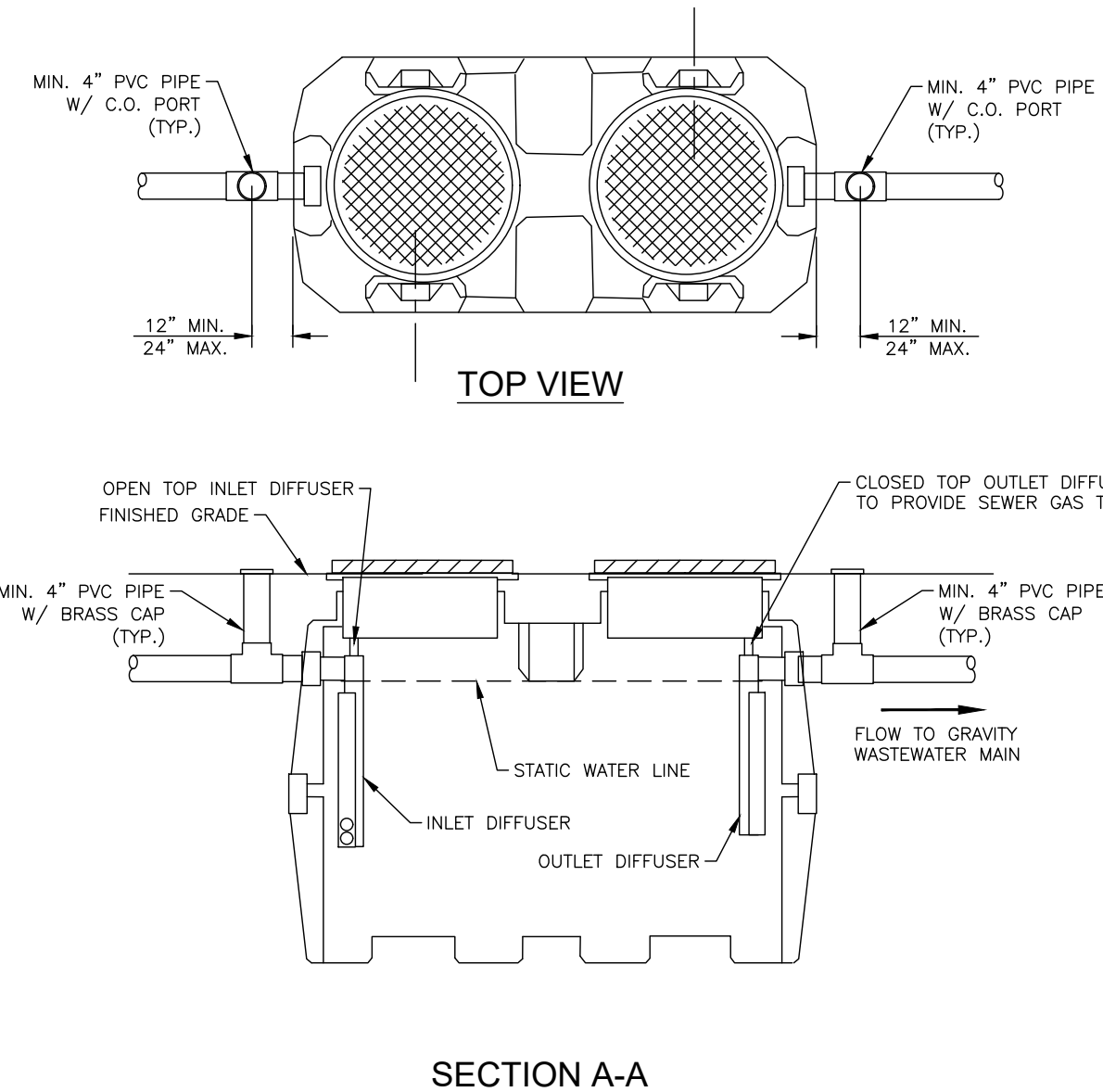


- NOTES:**
1. BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING WITH EQUAL OR GREATER STRUCTURAL ADEQUACY AS EXISTING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
 2. REPLACED BASE MATERIAL OVER DITCH SHALL BE 12" LIMEROCK (LBX100) MINIMUM FOR THROUGHFARE PLAN ROADS. ANY ALTERNATE BASE MATERIAL REQUESTED BY THE ENGINEER OF RECORD REQUIRES APPROVAL BY THE ROADWAY PRODUCTION DIVISION.
 3. ASPHALT CONCRETE PAYMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
 4. BASE MATERIAL 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% ASHTO - T-180).
 5. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE OR 1-1/2" SP 12.5 STRUCTURAL COURSE (TRAFFIC LEVEL A) OR 0.05 GAL/SY FOLLOW LIMEROCK BASE. FOLLOW THE LATEST FOOT SPECIFICATIONS FOR APPLICATION RATES OF PRIME AND TACK COATS. CONTRACTOR TO SUBMIT MATERIALS AND RATES TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.
 6. PIPE SHALL BE PLACED IN A DRY TRENCH.
 7. ALL ROADWAY REPAIR WORK SHALL BE PERFORMED IN CONFORMANCE WITH APPLICABLE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND COUNTY PMW EL-0-3066.
 8. 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 REPORT.
 9. ENGINEER-OF-RECORD SHALL PROVIDE FULL-TIME INSPECTION DURING THE ENTIRETY OF THE OPEN-CUT OPERATION, BEGINNING WITH THE EXCAVATION AND CONTINUING THROUGH THE CONSTRUCTION COORDINATION DIVISION.
 10. IF THE PAYMENT IS NOT COMPLETELY RESTORED IMMEDIATELY FOLLOWING THE OPEN CUT, A SMOOTH TEMPORARY PATCH (MINIMUM 12" SP 12.5 STRUCTURAL COURSE ASPHALT) SHALL BE INSTALLED PROPERLY MATCHING THE EXISTING GRADING OF THE ROADWAY. THE TEMPORARY PATCH SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN 45 DAYS. THE COUNTY RETAINS THE RIGHT TO USE POSTED SURETY 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.
 11. FOR THE FINAL RESTORATION (INCLUDES THE PATCHED SURFACE REPLACEMENT AREA OVER THE TRENCH), THE ROAD SHALL BE MAILED AND RECONSTRUCTED WITH 1-1/2" (ONE AND A HALF INCH) OF SP 12.5 STRUCTURAL COURSE (TRAFFIC LEVEL A) WITH TACK COAT AT 0.05 GAL/SY AND RC-70 PRIME COAT AT 0.10 GAL/SY FOR A FULL LANE WIDTH ENCLOSED BY THE TRENCH INCLUDING A TRANSITION AREA OF 25 FT EACH SIDE MEASURED FROM TOP OF TRENCH.
 12. 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.
 13. CONTINUOUS 4" WIDE PAINT STRIPING IS REQUIRED FOR DIP/POCP WATER MAINS (BLUE), DIP SANITARY FORCE MAINS (GREEN), DIP RECLAIMED WATER MAINS (PURPLE), DIP POTABLE WATER MAINS (YELLOW), GAS MAINS (YELLOW), OR AS REQUIRED BY THE APWA.

- WUD ONLY UTILITY NOTE:**
THE CONTINUOUS PAINTED STRIPE REFERENCED IN NOTE #13 ABOVE SHALL BE EUCLID GREEN IN COLOR PER WUD STANDARDS.

OPEN CUT PIPE INSTALLATION
NON-THOROUGHFARE ROAD

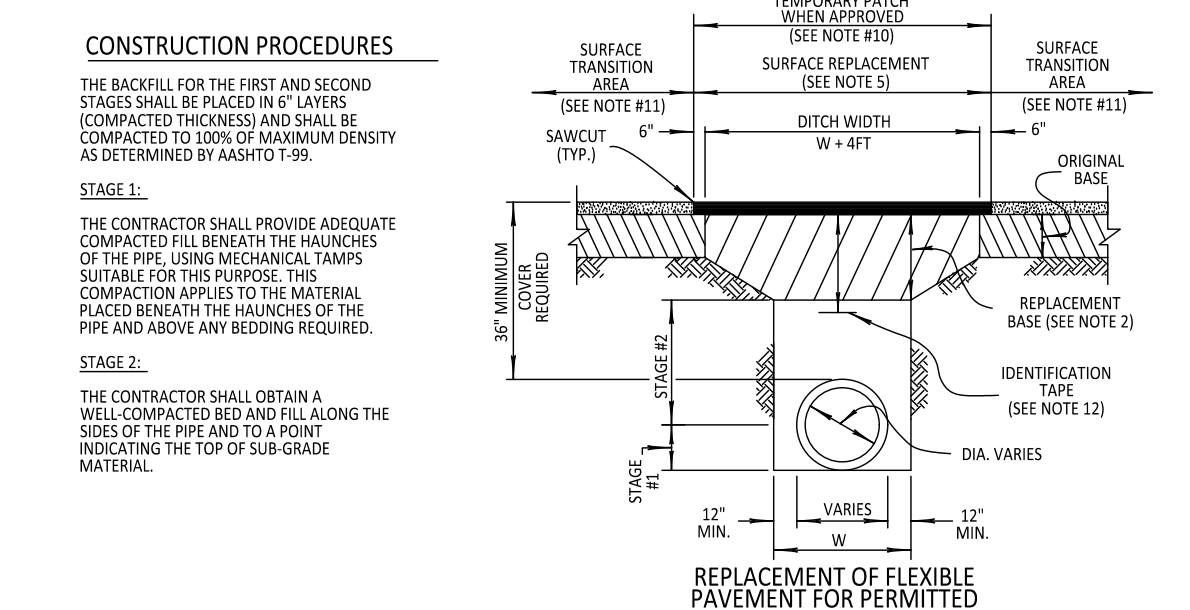
6S



- NOTES:**
1. INSPECTION PORTS (CLEANOUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN ACCESSIBLE TO FOR UTILITY INSPECTION AND SAMPLING.
 2. THE INTERCEPTOR PORTS (CLEANOUTS) SHALL BE LOCATED OUTSIDE AND IN A NON-TRAFFIC AREA WHEREVER POSSIBLE. IF INSTALLED IN A TRAFFIC AREA, MIN MANHOLES ARE REQUIRED TO BE INSTALLED ON ALL PORTS (CLEANOUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
 3. IF AN INTERCEPTOR NEEDS TO BE INSTALLED IN DOORS DUE TO EXISTING SITE CONDITIONS, PRIOR DEPARTMENT APPROVAL IS REQUIRED WITH IN DOOR INSTALLATIONS APPROVED ON A CASE BY CASE BASIS.
 4. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE INTERCEPTOR.
 5. EACH FACILITY WITH AN SAND/OIL INTERCEPTOR SHALL HAVE A DEDICATED (NOT SHARED) INTERCEPTOR WITH THEIR POTABLE WATER SERVICE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 6. SEE WUD STANDARD DETAIL 25A FOR CONCRETE STRUCTURE TYPE SAND/OIL INTERCEPTOR INSTALLATIONS.

SAND/ OIL INTERCEPTOR
POLYETHYLENE/FIBERGLASS STRUCTURE ONLY

2SB



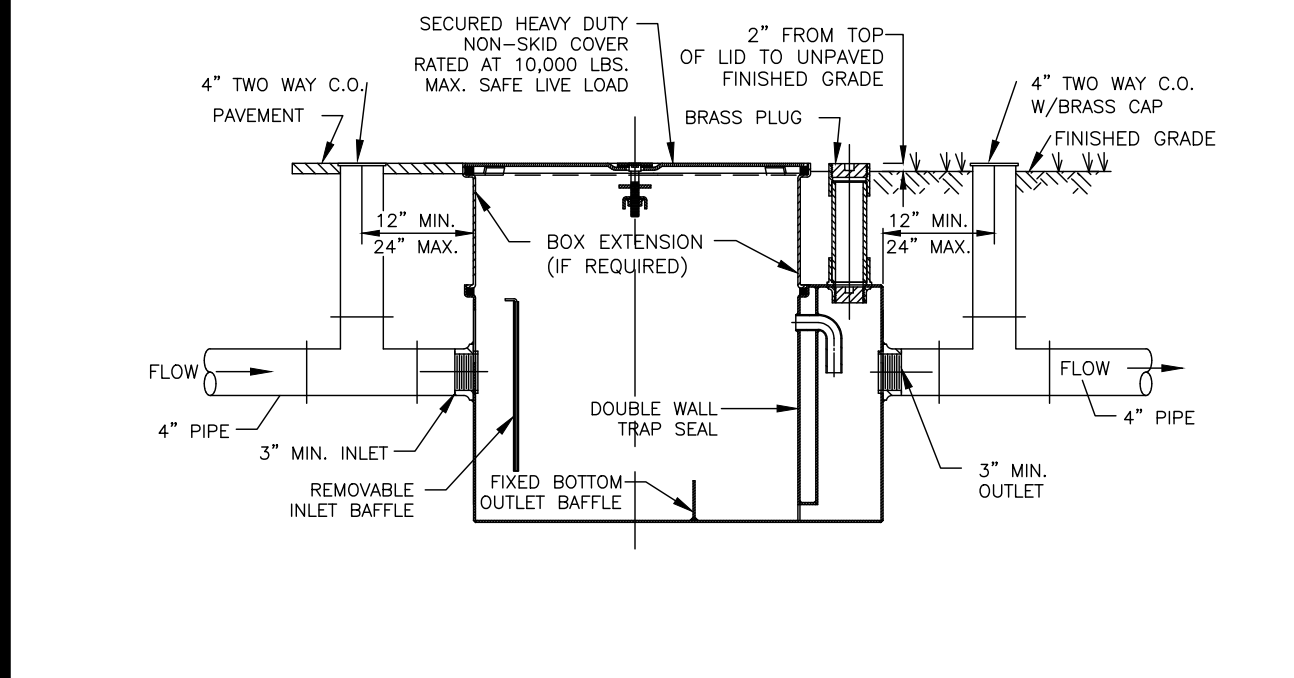
- NOTES:**
1. BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING WITH EQUAL OR GREATER STRUCTURAL ADEQUACY AS EXISTING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
 2. REPLACED BASE MATERIAL OVER DITCH SHALL BE 12" LIMEROCK (LBX100) MINIMUM FOR THROUGHFARE PLAN ROADS. ANY ALTERNATE BASE MATERIAL REQUESTED BY THE ENGINEER OF RECORD REQUIRES APPROVAL BY THE ROADWAY PRODUCTION DIVISION.
 3. ASPHALT CONCRETE PAYMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
 4. BASE MATERIAL 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% ASHTO - T-180).
 5. 1" FRACTION COURSE FC-8.5 OVER 1-1/2" TYPE SP STRUCTURAL COURSE (TRAFFIC LEVEL C) WITH TACK COAT AT 0.05 GAL/SY AND RC-70 PRIME COAT AT 0.10 GAL/SY FOR LIMEROCK BASE. FOLLOW THE LATEST FOOT SPECIFICATIONS FOR APPLICATION RATES OF PRIME AND TACK COATS. CONTRACTOR TO SUBMIT MATERIALS AND RATES TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.
 6. PIPE SHALL BE PLACED IN A DRY TRENCH.
 7. ALL ROADWAY REPAIR WORK SHALL BE PERFORMED IN CONFORMANCE WITH APPLICABLE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND COUNTY PMW EL-0-3066.
 8. 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 REPORT.
 9. ENGINEER-OF-RECORD SHALL PROVIDE FULL-TIME INSPECTION DURING THE ENTIRETY OF THE OPEN-CUT OPERATION, BEGINNING WITH THE EXCAVATION AND CONTINUING THROUGH THE CONSTRUCTION COORDINATION DIVISION.
 10. IF THE PAYMENT IS NOT COMPLETELY RESTORED IMMEDIATELY FOLLOWING THE OPEN CUT, A SMOOTH TEMPORARY PATCH (MINIMUM 2' SP 13.5 STRUCTURAL COURSE ASPHALT) SHALL BE INSTALLED PROPERLY MATCHING THE EXISTING GRADING OF THE ROADWAY. THE TEMPORARY PATCH SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN 45 DAYS. THE COUNTY RETAINS THE RIGHT TO USE POSTED SURETY 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.
 11. FOR FINAL RESTORATION (INCLUDES THE PATCHED SURFACE REPLACEMENT AREA OVER THE TRENCH), THE ROAD SHALL BE MAILED 1" MILLING DEPTH/RESURFACED PER NOTE 4 ABOVE FOR A FULL LANE WIDTH OF THE TRAVEL LANES ENCLOSED BY THE TRENCH AREA, INCLUDING A TRANSITION AREA OF 25 FT EACH SIDE MEASURED FROM TOP OF TRENCH.
 12. 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.
 13. CONTINUOUS 4" WIDE PAINT STRIPING IS REQUIRED FOR DIP/POCP WATER MAINS (BLUE), SANITARY MAINS (GREEN), DIP RECLAIMED WATER MAINS (PURPLE), DIP POTABLE WATER MAINS (YELLOW), GAS MAINS (YELLOW), OR AS REQUIRED BY THE APWA.

- WUD ONLY UTILITY NOTE:**
THE CONTINUOUS PAINTED STRIPE REFERENCED IN NOTE #13 ABOVE SHALL BE EUCLID GREEN IN COLOR PER WUD STANDARDS.

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

OPEN CUT PIPE INSTALLATION
THOROUGHFARE ROAD

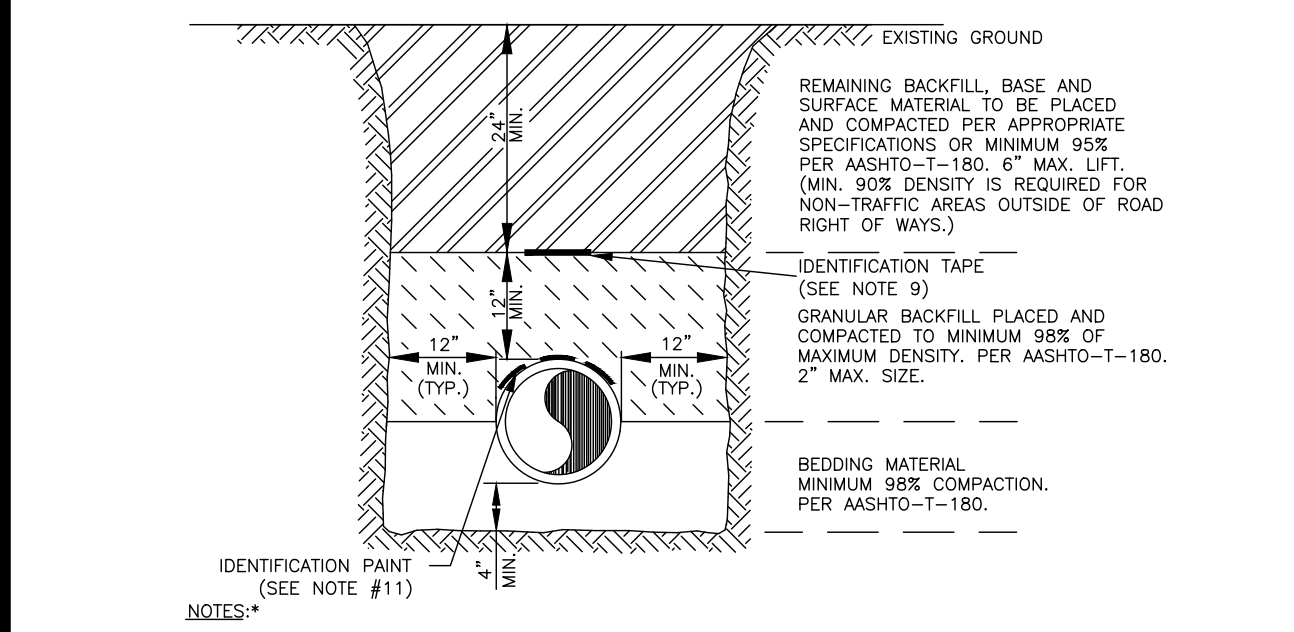
7S



- NOTES:**
1. THE GREASE TRAP SHALL BE WATER TIGHT AND GAS TIGHT AND SHALL BE FABRICATED FROM STEEL, ACID RESISTANT COATED INTERIOR AND EXTERIOR.
 2. THE GREASE TRAP SHALL BE CERTIFIED AND TAGGED BY THE SEAL OF THE PLUMBING AND DRAINAGE INSTITUTE (PDI), AND PDI RATED AT 50 GPM FLOW RATE AND 100 LBS. GREASE CAPACITY. THE GREASE TRAP SIZE, DESIGN AND INSTALLATION MUST COMPLY OR EXCEED THE APPLICABLE BUILDING CODES AND REGULATIONS.
 3. THE GREASE TRAP MAY BE USED IF AN OIL/GREASE INTERCEPTOR IS NOT REQUIRED AND ONLY FOR APPLICATIONS UP TO 25 GPM FLOW RATE (ONE MINUTE FLOW) OR 50 GPM (TWO MINUTE FLOW), DETERMINED USING THE PDI G-101 STANDARD. FOR HIGHER FLOW RATES OR GREASE CAPACITY GREATER THAN 50 LBS., AN APPROVED "OIL/GREASE INTERCEPTOR" WILL BE REQUIRED. A DESIGN CALCULATION SHALL BE SUBMITTED FOR APPROVAL BY THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. THE SHOP DRAWING SHALL BE SIGNED BY THE DESIGNING ENGINEER AND BY THE CONTRACTOR. THE PROJECT NAME AND STREET ADDRESS OF THE FACILITY (IF AVAILABLE) SHALL BE SHOWN ON THE SHOP DRAWING. OTHER DESIGNS MAY BE USED UPON APPROVAL OF SHOP DRAWINGS.
 4. THE GREASE TRAP SHALL BE LOCATED OUTDOORS, EASY ACCESSIBLE FOR MAINTENANCE AND SAMPLING, PREFERABLY IN GRASS AREA, NOT IN TRAFFIC AREA, PARKING SPACES OR SIDEWALKS. THE SURFACE SURROUNDING THE GREASE TRAP SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE GREASE TRAP.
 5. THE GREASE TRAP SHALL NOT BE USED FOR THE PURPOSE OF INTERCEPTING SAND AND OIL FROM NON-FOOD HANDLING ESTABLISHMENTS.
 6. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE GREASE TRAP.
 7. EACH FACILITY WITH A GREASE TRAP SHALL BE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
 8. EACH FACILITY WHICH IS REQUIRED TO INSTALL A GREASE TRAP SHALL HAVE A SEPARATE (NOT SHARED) GREASE TRAP.
 9. INSPECTION PORTS (CLEAN OUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN EASILY ACCESSIBLE FOR UTILITY INSPECTION AND SAMPLING.
 10. A "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE REQUIRED TO RECEIVE THE DRAINAGE FROM FIXTURES AND EQUIPMENT (SINKS, DISHWASHERS, FLOOR DRAINS, CUP WASH AREA, ETC.) WITH GREASE LOADED WASTE LOCATED IN COMMERCIAL FOOD PREPARATION AREAS SUCH AS RESTAURANTS, HOTEL KITCHENS, HOSPITALS, SCHOOL KITCHENS, BARS, FACTORY CAFETERIAS, CLUBS, ETC.
 11. THE "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE LOCATED AS CLOSE AS PRACTICALLY POSSIBLE TO THE FIXTURES AND EQUIPMENT GENERATING GREASE.
 12. GREASE TRAPS SHALL BE EQUIPPED WITH DEVICES TO CONTROL THE RATE OF FLOW, SO THE RATE OF THE FLOW DO NOT EXCEED 25 GPM. THE FLOW CONTROL DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE CODE AND MANUFACTURER'S INSTRUCTIONS.
 13. A "SOLIDS INTERCEPTOR" SHALL BE CONSIDERED TO BE INSTALLED UPSTREAM OF A "GREASE TRAP" WHERE SUBSTANTIAL AMOUNT OF SOLIDS FROM FOOD GRINDERS, DISPOSALS MAY BE PRESENT.

GREASE TRAP

3S



- NOTES:**
1. 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.
 2. THE PIPE 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 LARGE ROCK, MUCK AND DEBRIS.
 5. DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAXIMUM, MINIMUM 1 SET OF TESTS FOR EACH WASTEWATER GRAVITY MAIN RUN, OR AS DIRECTED BY THE INSPECTOR.
 6. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL TRENT SURETY LAWS AND REGULATIONS.
 7. SEE SEPARATE DETAILS FOR "PIPE" INSTALLATION UNDER EXISTING PAVEMENT - OPEN CUT."
 8. THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT/CONTRACT DOCUMENTS.
 9. APPROVED 6" WIDE MAGNETIC TAPE IS REQUIRED ON ALL FORCE MAINS.*
 10. CONTINUOUS FOUR (4) INCH WIDE GREEN PAINT STRIPING IS REQUIRED FOR FORCE MAIN DUCTILE IRON PIPE (D.I.P.) INSTALLED BELOW GRADE ONLY.*
 11. A CONTINUOUS 4" WIDE PAINTED STRIP (GREEN) IS REQUIRED FOR ALL DIP SEWER (FORCE OR GRAVITY) MAINS.*
 12. WASTEWATER MAIN INSTALLATIONS WITHIN PUBLIC ROAD RIGHT-OF-WAYS SHALL BE BY THE SPECIFICATIONS OF THE JURISDICTION GRANTING THE RIGHT-OF-WAY UTILITY PERMIT.*
 13. FOR PIPE INSTALLATIONS IN ROAD RIGHTS-OF-WAY, ROAD OWNER'S PERMIT SPECIFICATIONS SHALL APPLY.

FORCE MAIN TRENCH DETAIL

8S

WASTEWATER #1
STANDARD DETAILS

CONSULTANT:
SIMMONS & WHITE
2581 Metcreek Blvd West, Ste 3 West Palm Beach, FL 33407
Authorization # 3452 / 561.678.7848

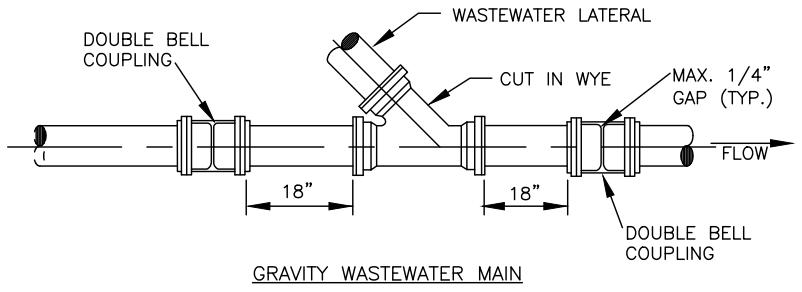
IT'S THE LAW!
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO. 23-142
DRAWING NO. 23142S16

DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMMERT
APPROVED BY: WUD

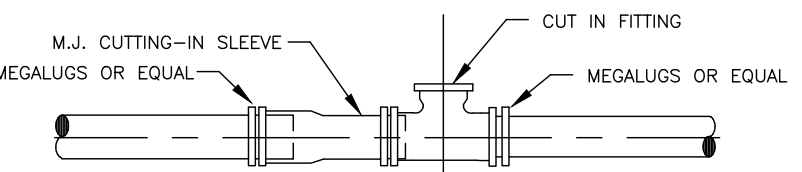
Palm Beach County
Water Utilities Department
P.O. Box 16097
West Palm Beach, FL 33416-6097

Oct 17, 2024



NOTE:

DUCTILE IRON FITTINGS (WYE, TEE, SLEEVES) ARE REQUIRED FOR DUCTILE IRON AND/OR C-900 PVC MAIN.



NOTE:

MEGALUGS OR EQUAL ARE REQUIRED THROUGHOUT ASSEMBLY.

WASTEWATER SYSTEM STANDARD CUT-IN DETAILS

9S

I. FORCE MAINS AND GRAVITY WASTEWATER MAINS WITHIN WELLFIELD PROTECTION ZONE

PRESSURE TEST PROCEDURE TO FOLLOW THE CURRENT AWWA C-600 STANDARD (150psi, (2) HOUR DURATION).

THERE SHALL BE NO PRESSURE DROP IN THE PIPE DURING THE TEST ("ZERO" FILL-UP TOLERANCE).

II. FORCE MAINS OUTSIDE OF WELLFIELD PROTECTION ZONE

MAXIMUM QUANTITY OF WATER (GALLONS PER HOUR) THAT MAY BE SUPPLIED TO MAINTAIN PRESSURE WITHIN 5 P.S.I. OF THE SPECIFIED TEST PRESSURE

(MECHANICAL OR PUSH-ON JOINT, 18 FT. NOMINAL LENGTHS, PER 1000 FT. OF PIPE)

AVG. TEST PRESSURE PSI	2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
150	0.10	0.14	0.18	0.27	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.10	1.38	1.65	1.93	2.20

FORMULA BASIS: $L = \frac{(S) \times (D) \times (P)^{1/2}}{148,000} \times 1/2$

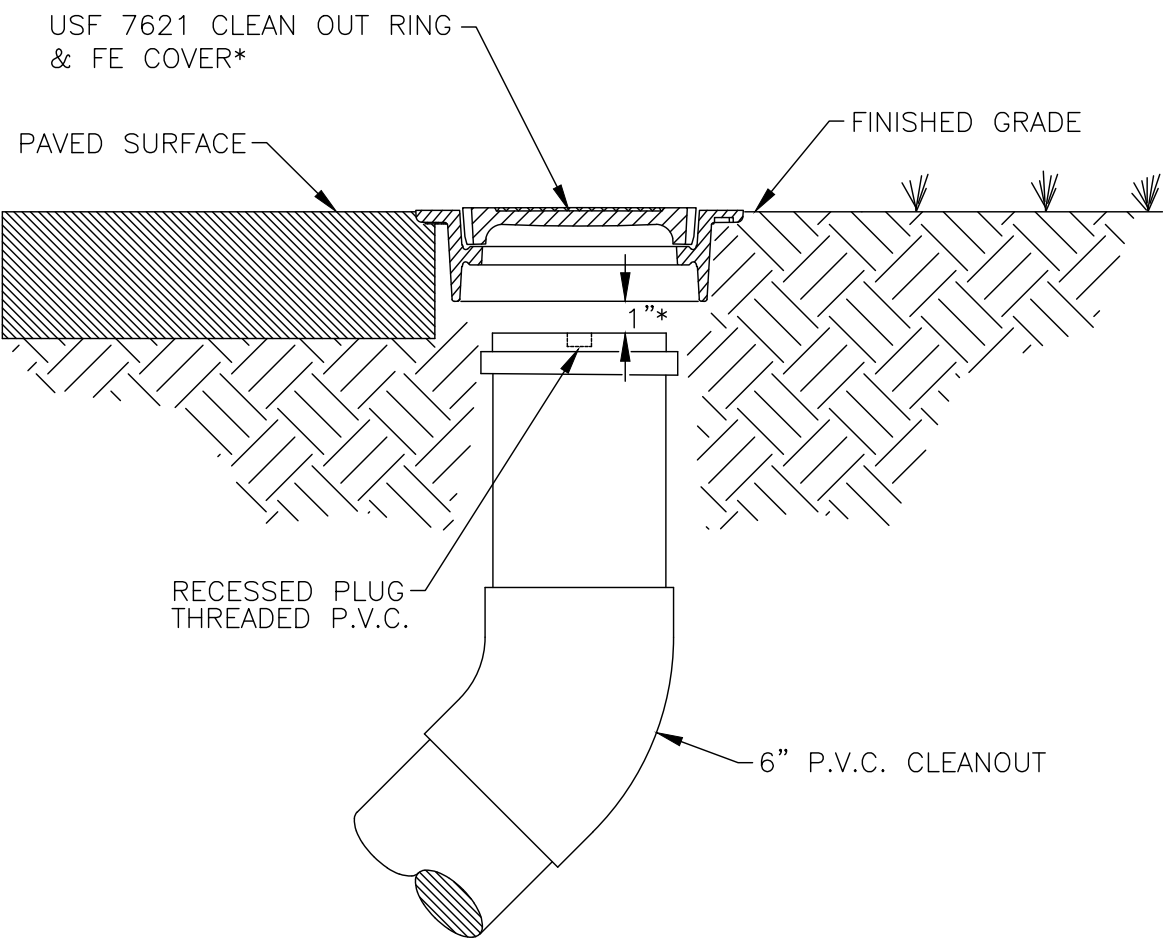
L = MAXIMUM QUANTITY OF WATER TO BE ADDED (GALLONS PER HOUR)
S = LENGTH OF PIPE TESTED (FEET)
D = DIAMETER OF PIPE (INCHES)
P = TEST PRESSURE (P.S.I.)

NOTES:

- TO OBTAIN THE MAXIMUM QUANTITY OF WATER FOR PIPE WITH 20 FT. NOMINAL LENGTHS, MULTIPLY THE QUANTITY CALCULATED FROM THE TABLE BY 0.9
- THE MAXIMUM QUANTITY OF ADDED WATER FOR A PIPELINE IS CALCULATED BY MULTIPLYING THE QUANTITY PER HOUR AS OBTAINED FROM THE ABOVE TABLE, BY THE DURATION OF THE TEST IN HOURS AND BY THE TOTAL LENGTH OF THE LINE BEING TESTED DIVIDED BY 1,000. IF THE LINE UNDER TEST CONTAINS SECTIONS OF VARIOUS DIAMETERS, THE MAXIMUM QUANTITY ADDED WILL BE THE SUM OF THE COMPUTED QUANTITIES FOR EACH SIZE.
- MAXIMUM TEST LENGTH = 2,500 FEET PER SECTION.
- THIS STANDARD SHALL REFLECT ANY REVISION OF A.W.W.A. C-600, HOWEVER, THE MAXIMUM QUANTITY OF WATER ADDED SHALL NOT EXCEED 50% OF THE RECOMMENDED LIMIT PER APPLICABLE AWWA C-600 STANDARD.
- STANDARD TEST PRESSURE = 150 P.S.I.
- PRESSURE TEST DURATION TO BE MIN. 2 HOURS.

PRESSURE TEST CRITERIA FOR GRAVITY WASTEWATER MAIN IN WELL FIELD & FORCE MAIN

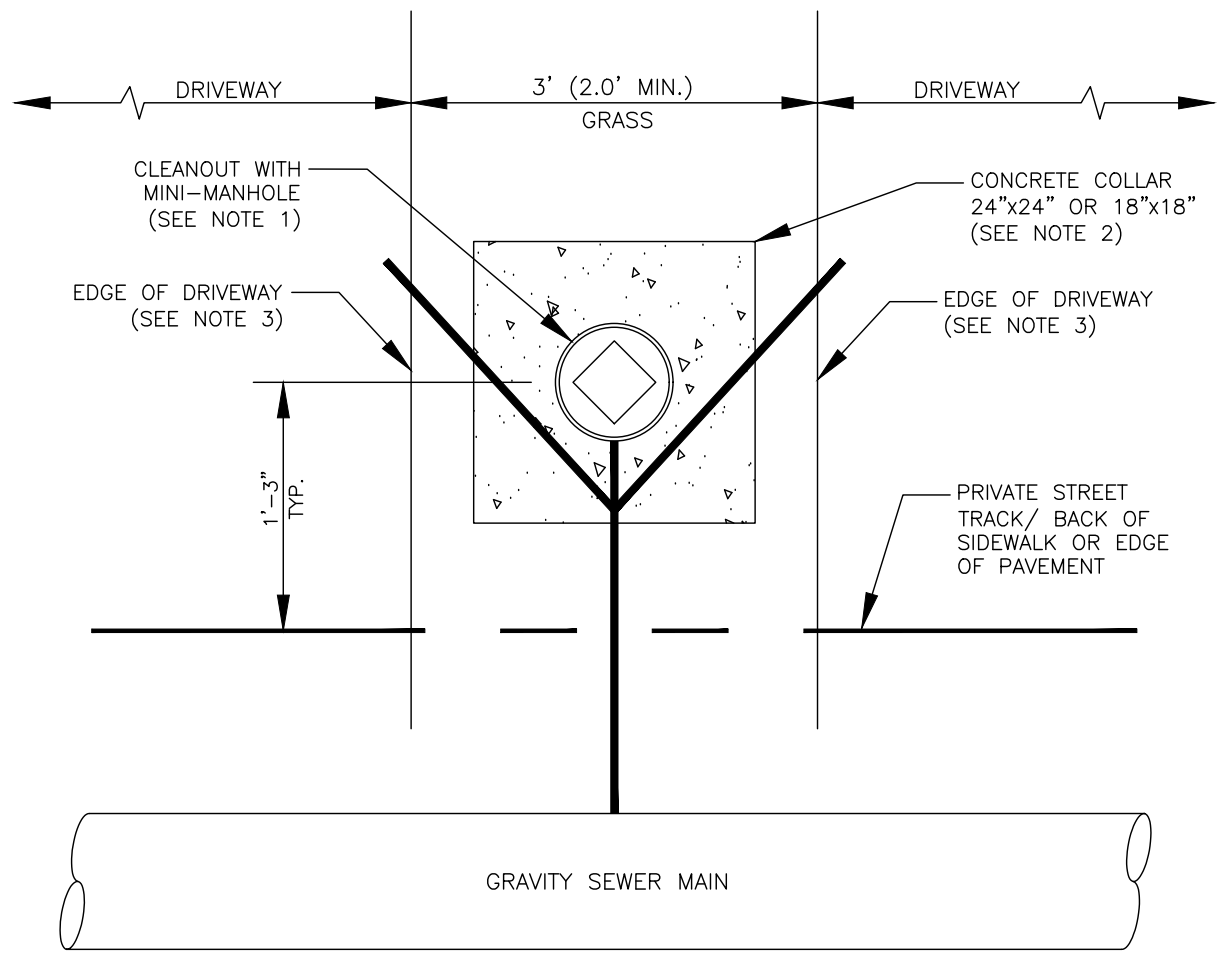
10S



- CLEANOUTS TO BE LOCATED IN GRASS AREA WHENEVER POSSIBLE WITH A MINIMUM OF THREE (3) FEET FROM EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, AND TRANSFORMERS ON RESIDENTIAL AND NON-RESIDENTIAL LOTS UNLESS LOTS ARE ASSOCIATED WITH TOWNHOME OR ZERO LOT LINE LOTS. ON ZERO LOT LINE LOTS THE MINIMUM DIMENSION SHALL BE ONE (1) FOOT INSTEAD OF THREE (3) FOOT MINIMUM UNLESS OTHERWISE APPROVED BY THE DEPARTMENT.*
- CLEANOUTS SHALL NOT BE INSTALLED IN TRAFFIC LANES OR AREAS UNDER HEAVY TRAFFIC LOADS.
- THE COVER TO BE MARKED "S".
- CLEANOUTS TO BE INSTALLED PRIOR TO WATER METER RELEASE.
- THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEANOUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
- A CONCRETE COLLAR MAY BE REQUIRED IF CLEANOUT IS LOCATED BETWEEN DRIVEWAYS. SPECIAL CONSTRUCTION DETAIL WILL BE REQUIRED.
- ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENT, THE CLEANOUTS ENDING PCBWD MAINTENANCE RESPONSIBILITY SHALL BE INSTALLED MIN. 12", MAX. 18" INTO THE EASEMENT.

TYPICAL CLEANOUT INSTALLATION

11SA



NOTES:

- CLEANOUT WITH MINI-MANHOLE MUST BE CENTERED BETWEEN DRIVEWAYS IN GRASS AREA.
- DRIVEWAYS THAT ARE SEPARATED BY (3)THREE FEET INSTALL A 24"x24" CONCRETE COLLAR. WHEN THERE IS LESS THAN (3)THREE FEET SEPARATION BETWEEN DRIVEWAYS INSTALL A 18"x18" CONCRETE COLLAR.
- THE EDGE OF THE DRIVEWAY IS EITHER THE ASPHALT/CONCRETE PAVEMENT AREA AND/OR PAVER BRICK AREA WHICH MAY INCLUDE ANY CONCRETE EDGING.

CLEANOUT INSTALLATION DETAIL BETWEEN TOWNHOME DRIVEWAYS

11SB

DEFINITIONS

- DEPARTMENT – THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
- CONTRACTOR – UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
- ENGINEER – ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.

PROCEDURE

- A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
- ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.
- FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL, PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
- ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. (DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
- THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
- ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
- THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
- NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
- FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
- UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

PRESSURE PIPE NOTES

- THERE SHALL BE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
- DUCTILE IRON PIPE (DIP) THICKNESS SHALL CONFORM TO THE DEPARTMENT'S APPROVED MATERIAL LIST. POTABLE WATER AND RECLAIMED WATER MAINS DIP SHALL BE CEMENT LINED. FORCE MAIN DIP SHALL BE CERAMIC EPOXY LINED.
- PVC PRESSURE PIPE SHALL BE C-900, SDR-18, 150 PSI.
- ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS AND CEMENT OR APPROVED EPOXY LINING.
- POTABLE WATER, RECLAIMED WATER AND WASTEWATER FORCE MAIN VALVES 10 INCHES AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. TWELVE-INCH (12") OR LARGER FORCE MAIN VALVES SHALL BE RESILIENT SEAT GATE VALVES OR ECCENTRIC PLUG VALVES (IF APPROVED IN ADVANCE BY DEPARTMENT). POTABLE WATER AND RECLAIMED WATER MAIN VALVES LARGER THAN 10 INCHES SHALL BE BUTTERFLY VALVES.
- ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND HEALTH DEPARTMENT STANDARDS AND REGULATIONS.

GRAVITY SEWER NOTES

- MANHOLES AND OTHER CASTINGS SHALL BE INSPECTED BY THE DEPARTMENT BEFORE PLACEMENT AND BEFORE APPLICATION OF THE CORROSION BARRIER SYSTEM (IF APPLICABLE).
- ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT TIME OF MANUFACTURE OR CURED IN FIELD.
- ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE, AND SHALL REST ON A FIRM, CAREFULLY GRADED SUBGRADE, WHICH SHALL PROVIDE UNIFORM BEARING UNDER BASE.
- PVC WASTEWATER GRAVITY PIPE SHALL CONFORM TO ASTM D-3034, SDR 26 WITH PVC SDR 35 FITTINGS, OR PVC C-900 SDR 18, PIPE AND FITTINGS, WITH PUSH-ON RUBBER GASKET JOINTS.
- D.I.P. GRAVITY SEWER PIPE SHALL BE PRESSURE CLASS 350, EPOXY LINED.
- THE COMPLETED GRAVITY WASTEWATER SYSTEM SHALL BE INSPECTED BY THE DEPARTMENT TO VERIFY ALIGNMENT AND INTEGRITY. THERE SHALL BE NO LEAKAGE. ALL MAINS SHALL BE LAMPED, SHOWING A FULL CIRCLE OF LIGHT, DURING THESE INSPECTIONS, THE MAIN SHALL BE CLEAN AND DRY.

THIS SPACE
INTENTIONALLY LEFT
BLANK

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

WASTEWATER #2
STANDARD DETAILS

CONSULTANT:



IT'S THE LAW !

CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO.
23-142

DRAWING NO.
23142S17

DESIGNED BY: WUD

DRAWN BY: M. BUCKNER

CHECKED BY: J. LAMBERT

APPROVED BY: WUD

Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

WUD PROJECT No.
24-579

GLEN RIDGE SELF STORAGE



PALM BEACH COUNTY
WATER UTILITIES DEPARTMENT
P.O. BOX 16097
WEST PALM BEACH, FL 33416
(561)493-6000

NO.	DATE	REVISION / REMARKS
	DEC 2021	J.L. GENERAL REVISION
	JAN 2023	J.L. GENERAL REVISION
*		

STD
DETAILS

SHEET
NUMBER
17
OF
21

SEAL

TYPICAL WASTEWATER SERVICE CONNECTION

12S

STANDARD MANHOLE

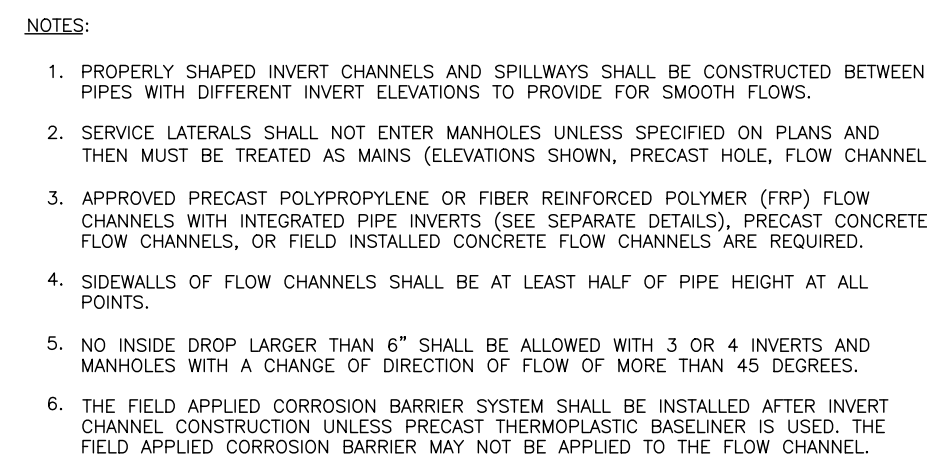
13S

SHALLOW MANHOLE

14S

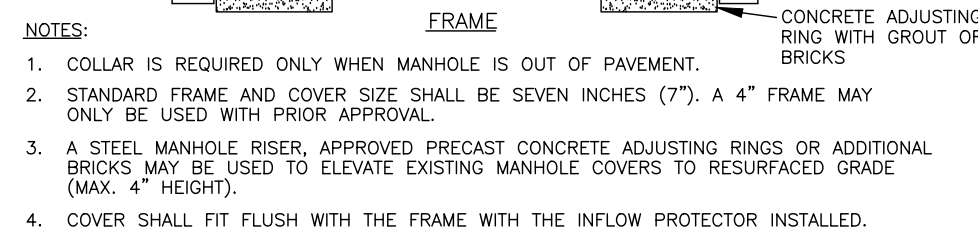
DROP CONNECTION PRECAST MANHOLE

15S



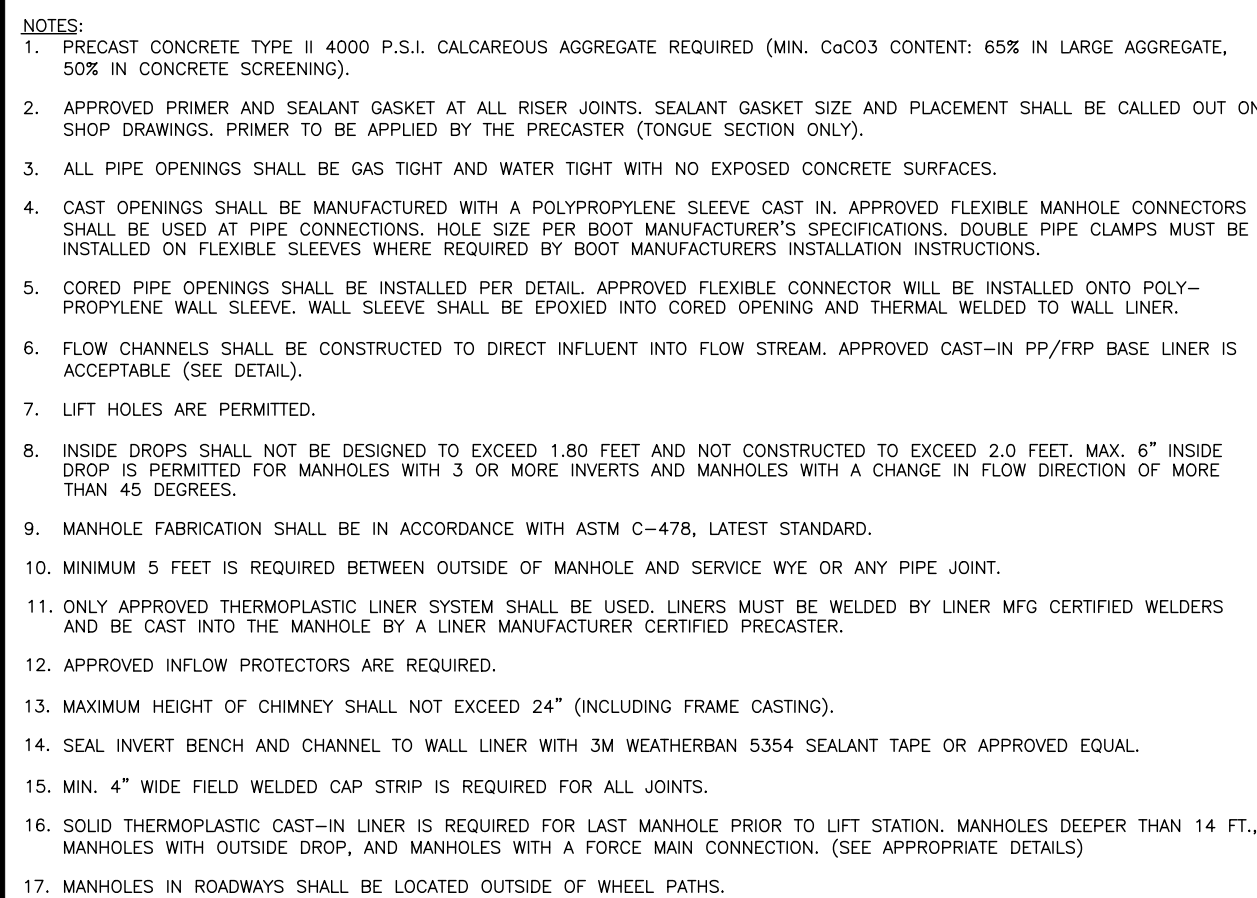
INVERT FLOW CHANNELS

16S



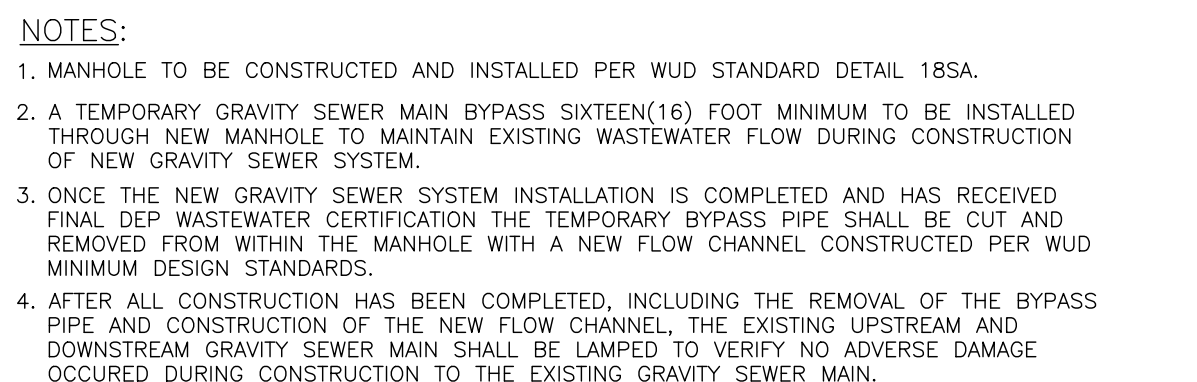
GRAVITY SEWER MANHOLE FRAME & COVER

17S



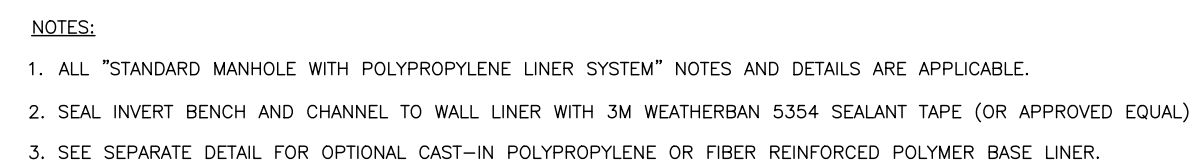
STANDARD MANHOLE WITH CAST-IN LINER

* 18SA



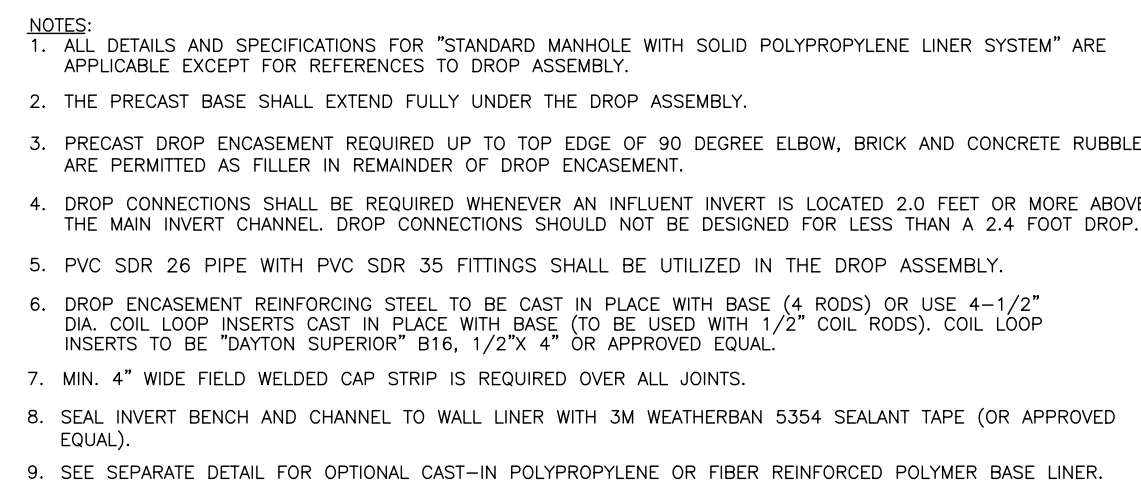
NEW MANHOLE CUT INTO EXISTING
GRAVITY SEWER MAIN

18SB



SHALLOW MANHOLE WITH CAST-IN LINER

19S

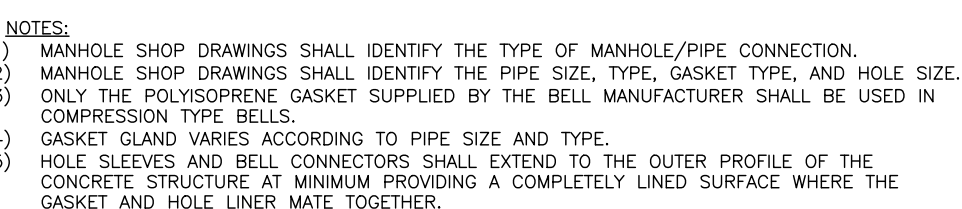


OUTSIDE DROP MANHOLE WITH CAST-IN LINER

20S

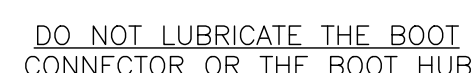


21S



CAST-IN BELL WITH COMPRESSION SEAL GASKET

22S



PIPE TO MANHOLE CONNECTION - TYPE "C"

23S

THIS SPACE
INTENTIONALLY LEFT
BLANK

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

WASTEWATER #3 STANDARD DETAILS

CONSULTANT:

 **SIMMONS
& WHITE**

2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

IT'S THE LAW ! 
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO.
23-142

DRAWING NO
23142S18

DESIGNED BY: WUD

DRAWN BY: M. BUCKNER

Palm Beach County

CHECKED BY: J. LAMMERT

Water Utilities Department
P.O. Box 16097

WUD PROJECT No
24-579

GLEN RIDGE SELF STORAGE



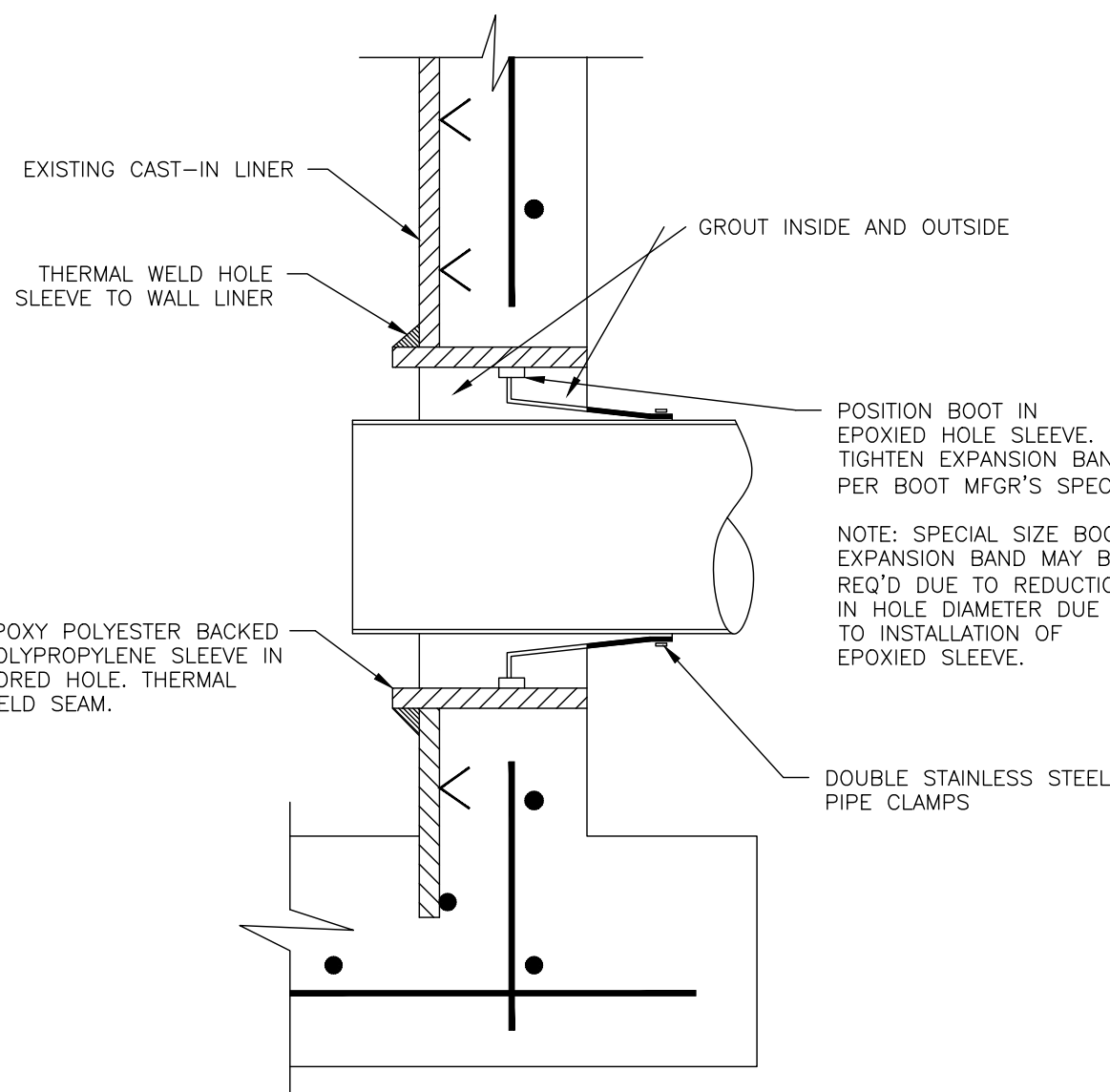
**PALM BEACH COUNTY
WATER UTILITIES DEPARTMENT**
P.O. BOX 16097
WEST PALM BEACH, FL 33416
(561)493-6000

NO.	DATE	REVISION /	BY
	DEC 2021	GENERAL REVISION	J.L.
*	JAN 2023	GENERAL REVISION	J.L.

STD DETAILS

SHEET
NUMBER
18
OF
21

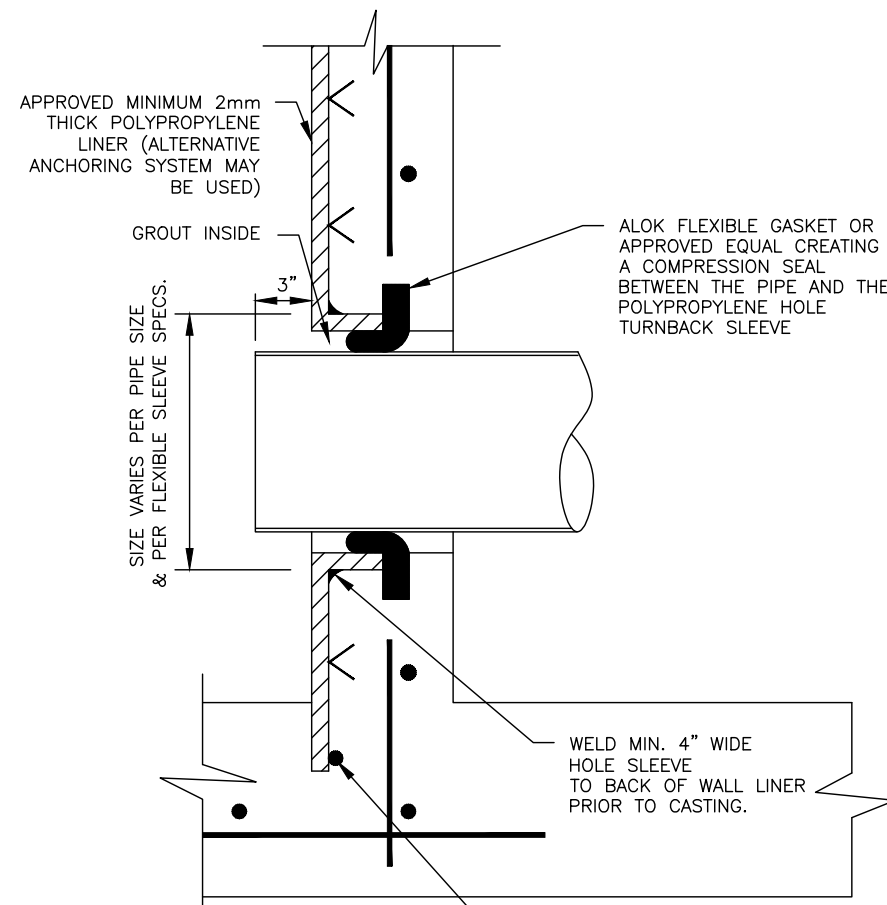
SEAL



NOTE:
THERMAL WELDING AND EPOXY OF THE SLEEVE TO BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE LINER MANUFACTURER

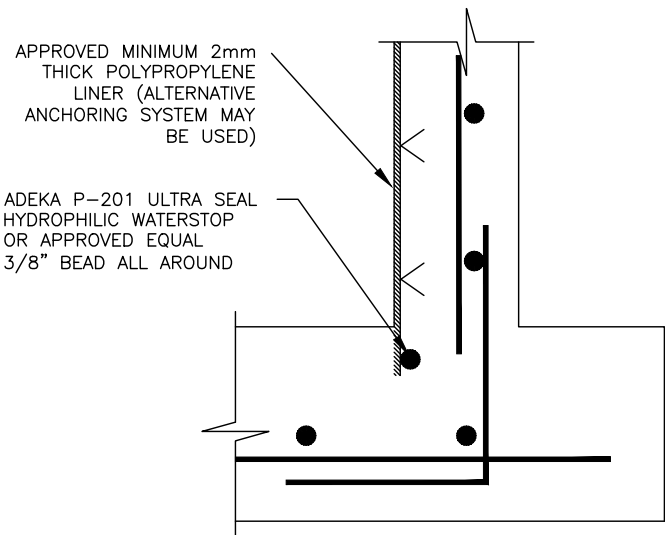
CORED HOLE W/FLEX. CONNECTOR & TURNBACK SLEEVE POLYPROPYLENE LINER SYSTEM CAST-IN

24S



PIPE TO DROP MANHOLE CONNECTION LOWER INVERT

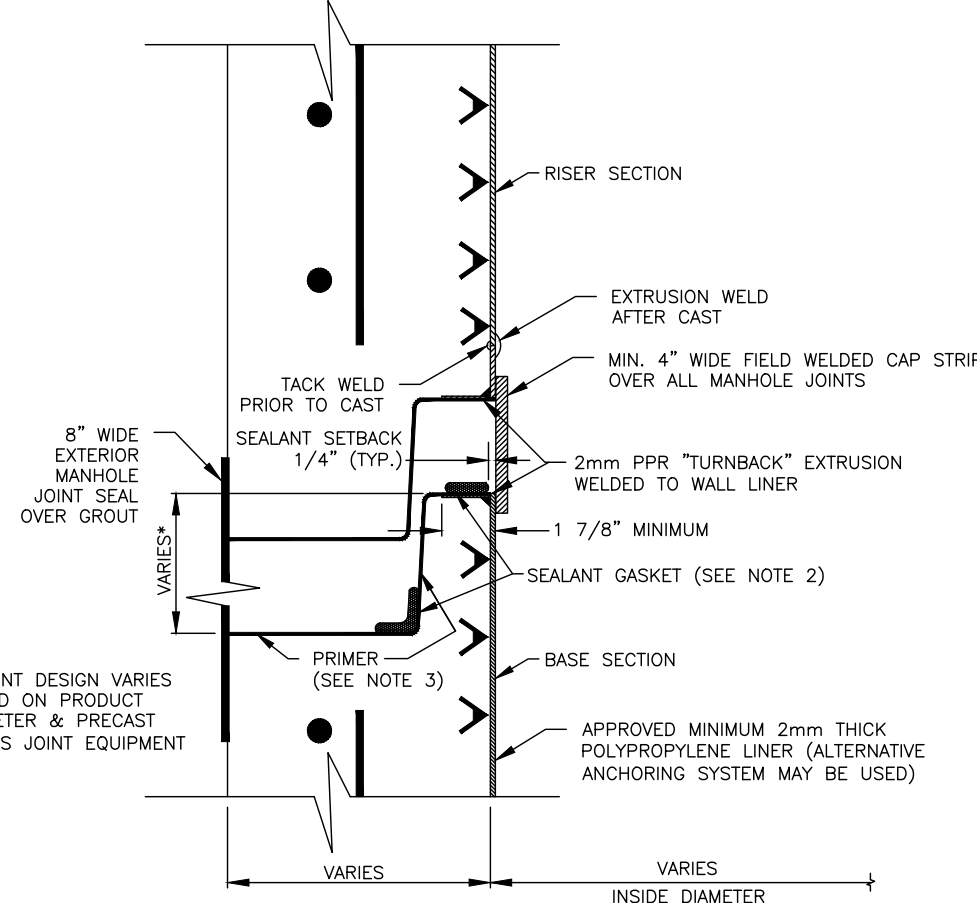
25S



NOTE:
THIS STYLE WATERSTOP IS USED ON STRUCTURES CAST WITH A MONOLITHICALLY POURED BOTTOM SLAB.

BASE MANHOLE SECTION WATERSTOP DETAIL

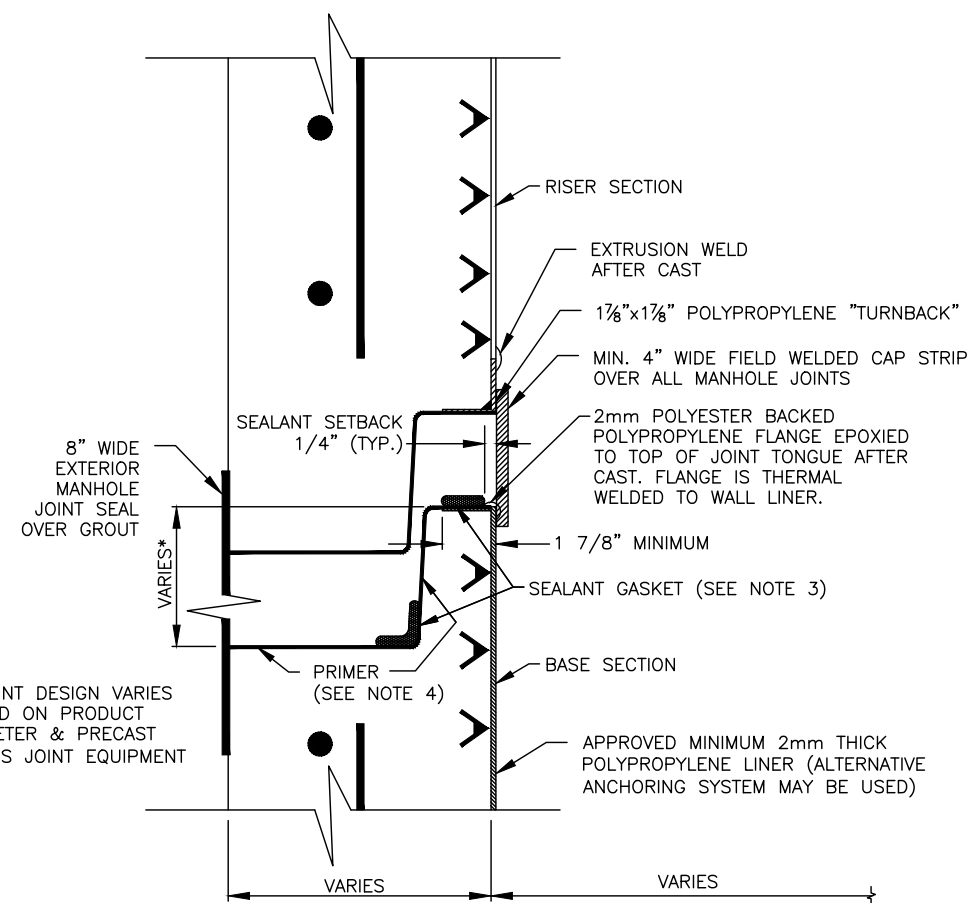
26S



NOTES:
1. LINER WELDING SHALL BE PERFORMED EXCLUSIVELY BY LICENSED, CERTIFIED WELDERS.
2. STRUCTURE SHOP DRAWINGS SHALL CALL OUT THE SIZE, TYPE AND PLACEMENT OF THE JOINT SEALANT.
3. JOINT PRIMER TO BE APPLIED BY THE PRECASTER (TONGUE SECTION ONLY).

TURN BACK JOINT INSTALLED PRIOR TO CAST

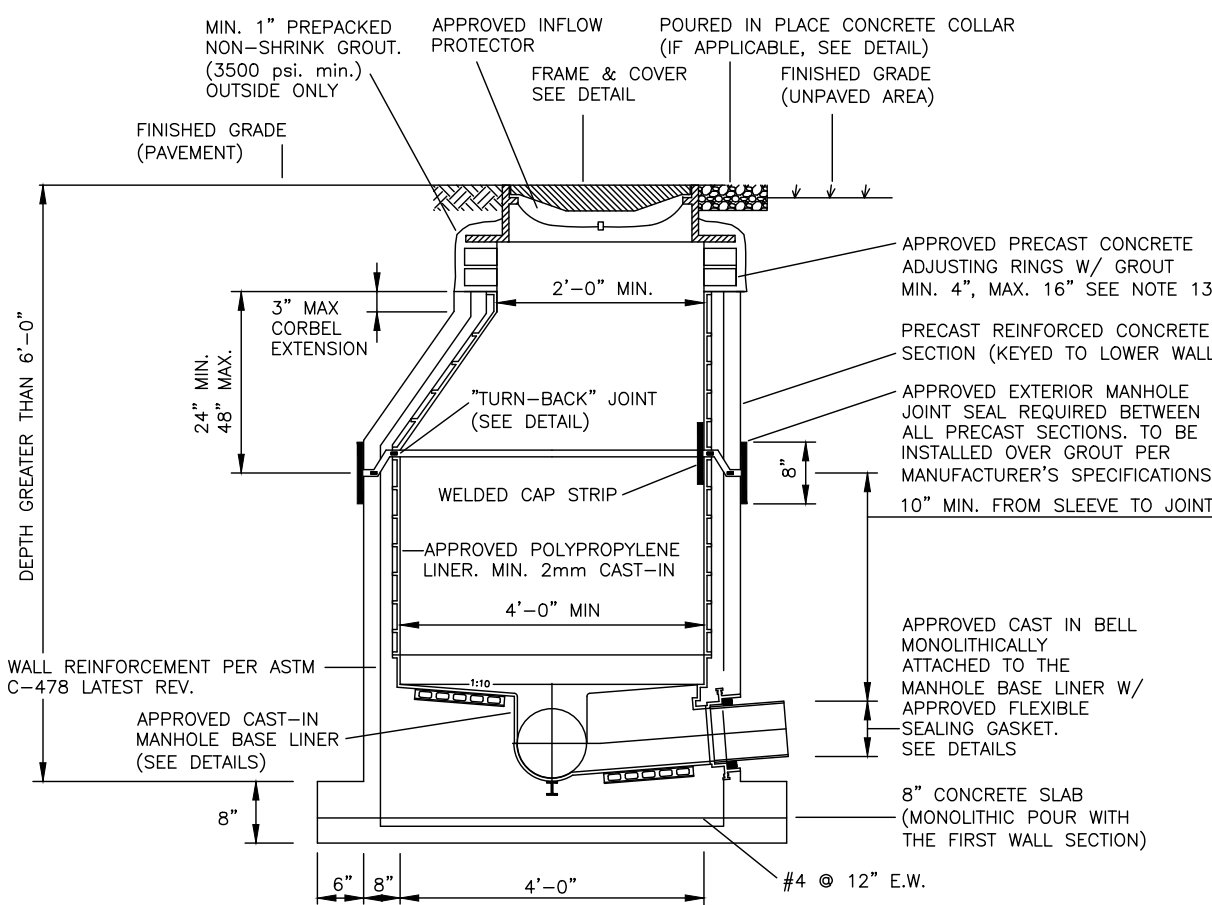
27S



NOTES:
1. THE "AFTER CAST" TURNBACK JOINT IS USED WHEN THE "PRIOR TO CAST" TURNBACK JOINT IS NOT FEASIBLE.
2. LINER WELDING SHALL BE PERFORMED EXCLUSIVELY BY LICENSED, CERTIFIED WELDERS.
3. STRUCTURE SHOP DRAWINGS SHALL CALL OUT THE SIZE, TYPE AND PLACEMENT OF THE JOINT SEALANT.
4. JOINT PRIMER TO BE APPLIED BY THE PRECASTER (TONGUE SECTION ONLY).

TURN BACK JOINT INSTALLED AFTER CAST

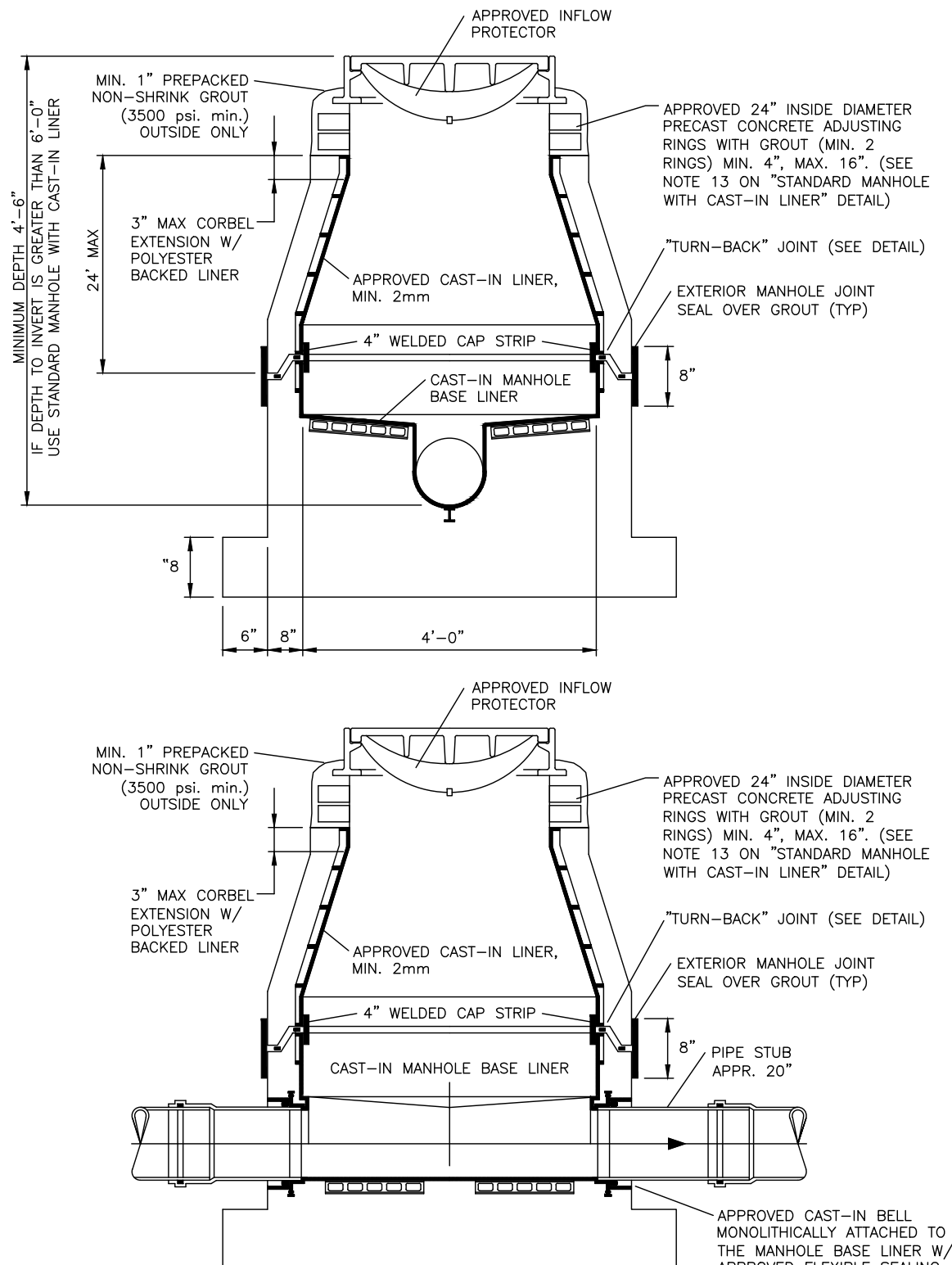
28S



NOTES:
1. PRECAST CONCRETE TYPE II 4000 P.S.I. CALCEAREOUS AGGREGATE REQUIRED (MIN. CcO3 CONTENT: 65% IN LARGE AGGREGATE, 50% IN CONCRETE SCREENING).
2. RUB'R NEK (RU 106) OR APPROVED EQUAL AT ALL RISER JOINTS. SIZES TO BE SPECIFIED ON SHOP DRAWINGS.
3. ALL PIPE OPENINGS SHALL BE GAS TIGHT AND WATER TIGHT WITH NO EXPOSED CONCRETE SURFACES.
4. CAST OPENINGS SHALL BE MANUFACTURED WITH A POLYPROPYLENE SLEEVE CAST IN. APPROVED FLEXIBLE MANHOLE CONNECTORS SHALL BE USED AT PIPE CONNECTIONS. HOLE SIZE PER BOOT MANUFACTURER'S SPECIFICATIONS. DOUBLE PIPE CLAMPS MUST BE INSTALLED ON FLEXIBLE SLEEVES WHERE REQUIRED BY BOOT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. CORED PIPE OPENINGS SHALL BE INSTALLED PER DETAIL. APPROVED FLEXIBLE CONNECTOR WILL BE INSTALLED ONTO POLYPROPYLENE WALL SLEEVE. WALL SLEEVE SHALL BE EPOXIED INTO CORED OPENING AND THERMAL WELDED TO WALL LINER BY LICENSED CONTRACTOR.
6. FLOW CHANNELS SHALL DIRECT INFLUENT INTO FLOW STREAM. (SEE DETAIL).
7. LIFT HOLES ARE PERMITTED.
8. INSIDE DROPS SHALL NOT BE DESIGNED TO EXCEED 1.80 FEET AND NOT CONSTRUCTED TO EXCEED 2.0 FEET. MAX. 6" INSIDE DROP IS PERMITTED FOR MANHOLES WITH 3 OR MORE INVERTS AND MANHOLES WITH A CHANGE IN FLOW DIRECTION OF MORE THAN 45 DEGREES.
9. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C-478, LATEST STANDARD.
10. MINIMUM 5 FEET IS REQUIRED BETWEEN OUTSIDE OF MANHOLE AND SERVICE WYE.
11. MANHOLES SHALL BE LINED INSIDE WITH AN APPROVED POLYPROPYLENE LINER SYSTEM. LINERS MUST BE WELDED BY LINER MFG CERTIFIED WELDERS AND BE CAST INTO THE MANHOLE BY A LINER MANUFACTURER CERTIFIED PRECASTER.
12. APPROVED INFLOW PROTECTORS ARE REQUIRED.
13. MAXIMUM HEIGHT OF CHIMNEY SHALL NOT EXCEED 24" (INCLUDING FRAME CASTING).
14. APPROVED THERMO-PLASTIC CHIMNEY LINER SHALL COMPLETELY COVER THE PRECAST CONCRETE GRADE RINGS AND SHALL BE SEALED TO THE CORBEL LINER BY MEANS OF AN APPROVED POLYISOPRENE LIP SEAL GASKET AND SEALED TO THE RING USING APPROVED BUTYL STRIPS. SEE DETAILS.
15. SOLID THERMO-PLASTIC CAST-IN LINER SYSTEM IS REQUIRED FOR LAST MANHOLE PRIOR TO A LIFT STATION. MANHOLES DEEPER THAN 14 FEET, MANHOLES WITH AN OUTSIDE DROP, AND MANHOLES WITH A FORCE MAIN CONNECTION, SEE APPROPRIATE DETAILS.
16. MANHOLES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS.

STANDARD MANHOLE WITH CAST-IN LINER AND BASE LINER

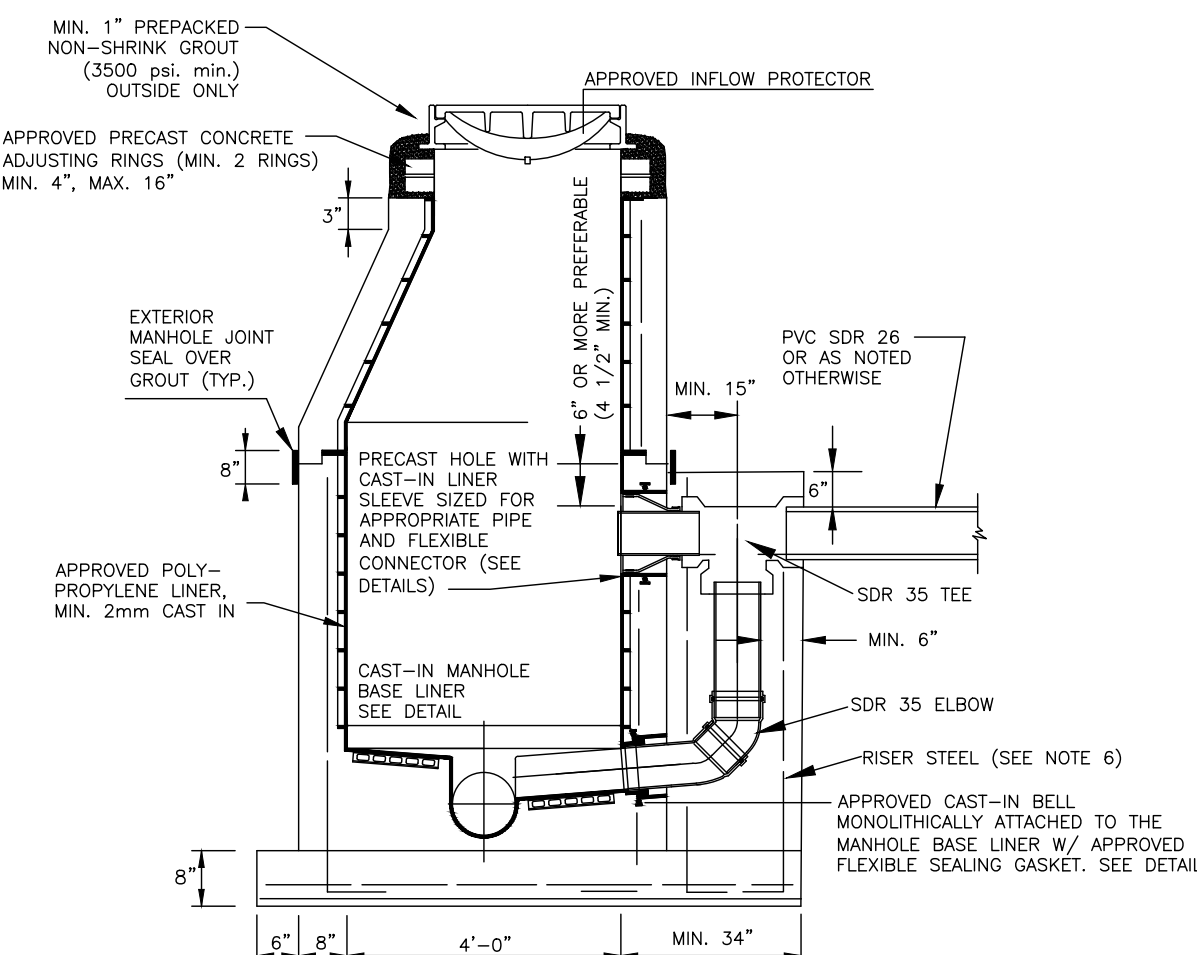
29S



NOTE: ALL CORRESPONDING STANDARD MANHOLE NOTES AND DETAILS SHALL APPLY.

SHALLOW MANHOLE WITH CAST-IN LINER AND BASE LINER

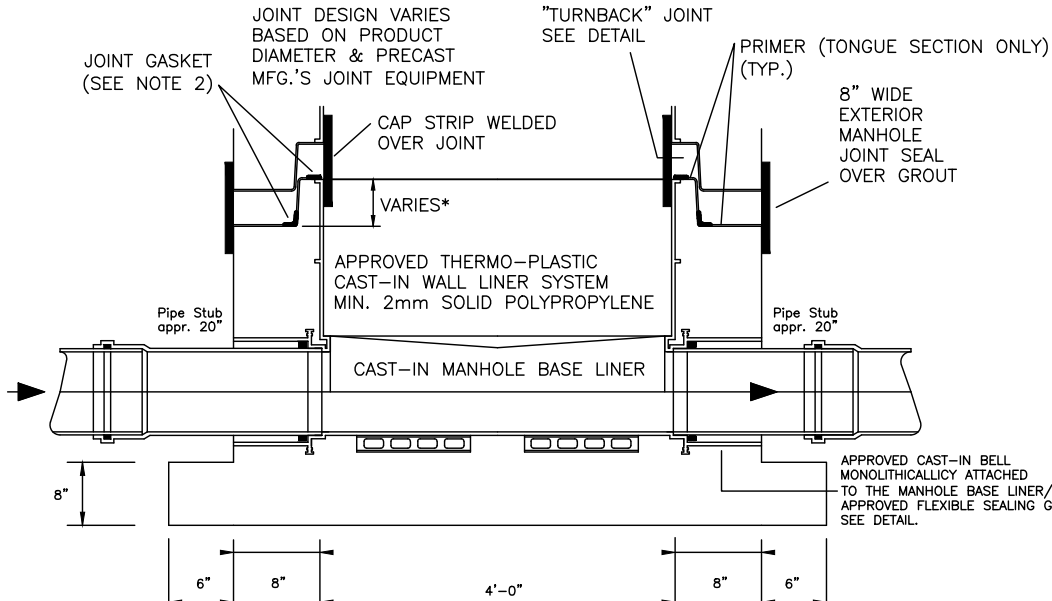
30S



NOTES:
1. ALL DETAILS AND SPECIFICATIONS FOR "STANDARD MANHOLE WITH SOLID POLYPROPYLENE LINER SYSTEM" ARE APPLICABLE EXCEPT FOR REFERENCES TO DROP ASSEMBLY.
2. THE PRECAST BASE SHALL EXTEND FULLY UNDER THE DROP ASSEMBLY.
3. PRECAST DROP ENCASEMENT REQUIRED UP TO TOP EDGE OF 90 DEGREE ELBOW, BRICK AND CONCRETE RUBBLE ARE PERMITTED AS FILLER IN REMAINDER OF DROP ENCASEMENT.
4. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT INVERT IS LOCATED 2.0 FEET OR MORE ABOVE THE MAIN INVERT CHANNEL. DROP CONNECTIONS SHOULD NOT BE DESIGNED FOR LESS THAN A 2.4 FOOT DROP.
5. PVC SDR 26 PIPE WITH PVC SDR 35 FITTINGS SHALL BE UTILIZED IN THE DROP ASSEMBLY.
6. DROP ENCASEMENT REINFORCING STEEL TO BE CAST IN PLACE WITH BASE (4 RODS) OR USE 4-1/2" DIA. COIL LOOP INSERTS CAST IN PLACE WITH BASE (TO BE USED WITH 1/2" COIL RODS). COIL LOOP INSERTS TO BE "DAYTON SUPERIOR" B16, 1/2"X 4" OR APPROVED EQUAL.

OUTSIDE DROP MANHOLE WITH CAST-IN LINER AND BASE LINER

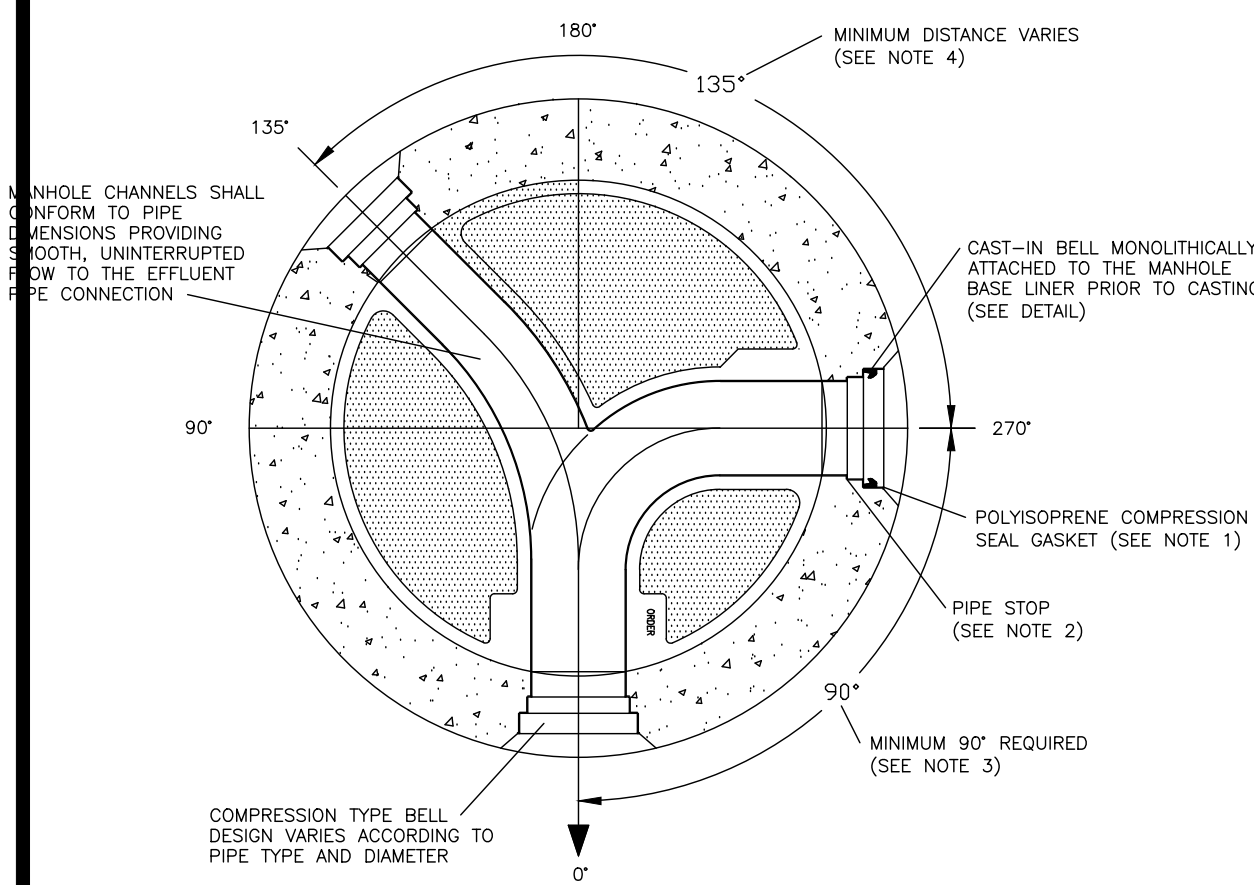
31S



NOTES:
1. LINER WELDING SHALL BE PERFORMED EXCLUSIVELY BY LICENSED, CERTIFIED WELDERS.
2. SHOP DRAWINGS SHALL CALL OUT THE SIZE, TYPE AND POSITIONING OF THE APPROVED JOINT SEALANT.
3. PRIMER TO BE APPLIED BY THE PRECASTER (TONGUE SECTION ONLY).

MANHOLE BASE SECTION

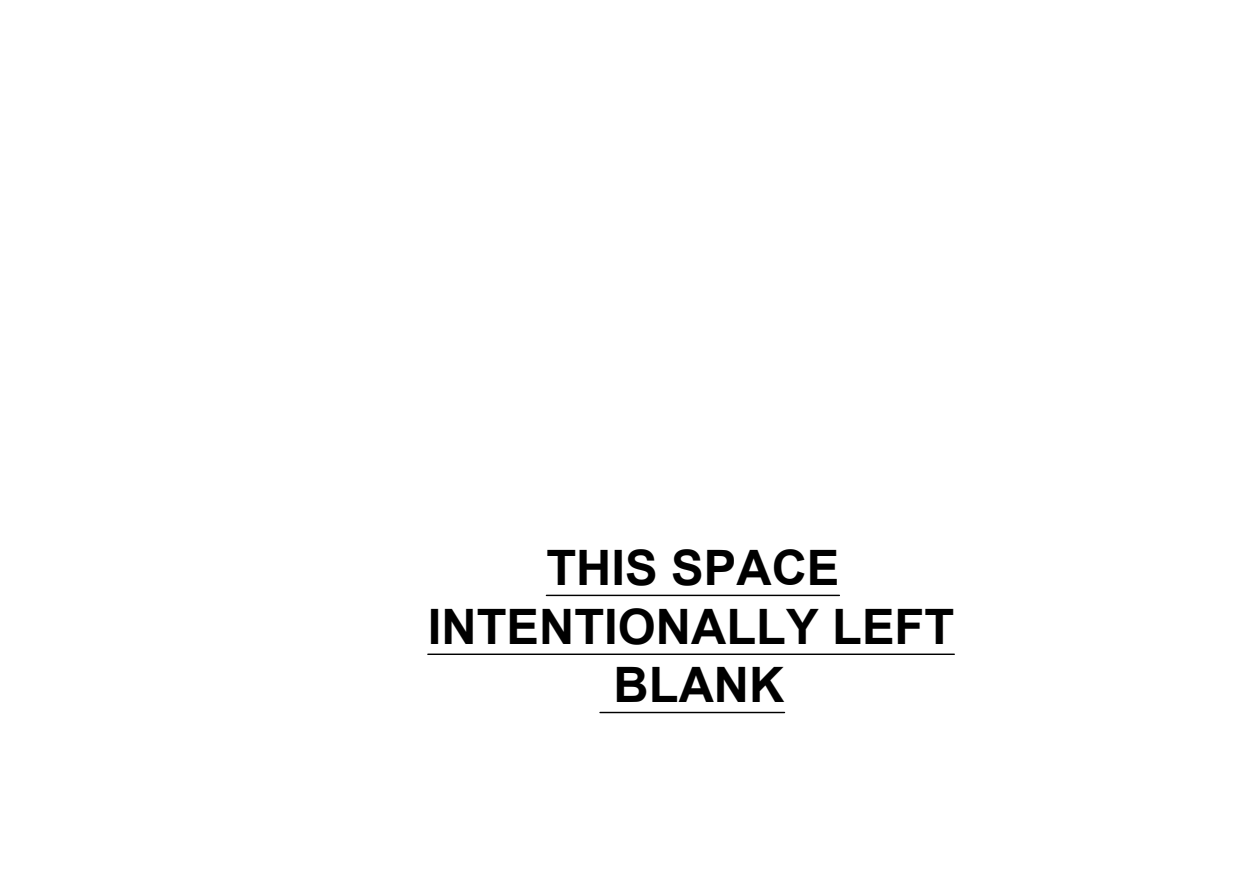
32S



NOTES:
1. ONLY THE POLYISOPRENE GASKET PROVIDED BY THE MANHOLE BASE LINER MANUFACTURER SHALL BE USED IN COMPRESSION TYPE BELLS.
2. CONNECTION PIPES SHALL BE INSERTED COMPLETELY INTO THE BELL CONNECTOR FLUSH WITH THE PIPE STOP PROVIDING A SMOOTH TRANSITION FROM PIPE TO MANHOLE BASE LINER CHANNEL.
3. MINIMUM OF 90 DEGREES BETWEEN INCOMING, LEFT OR RIGHT OF OUTGOING PIPE. DISTANCE BETWEEN CONNECTIONS MAY VARY ACCORDING TO MANHOLE DIAMETER, PIPE SIZE AND TYPE.
4. MINIMUM DISTANCE BETWEEN INFLUENT PIPE CONNECTIONS MAY VARY AND SHALL BE SPECIFIED BY THE LINER MANUFACTURER ACCORDING TO MANHOLE AND/OR PIPE DIAMETER AND TYPE.

FLOW CHANNEL/PIPE CONNECTION TO NEW CAST-IN BASE LINER

33S



THIS SPACE INTENTIONALLY LEFT BLANK

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

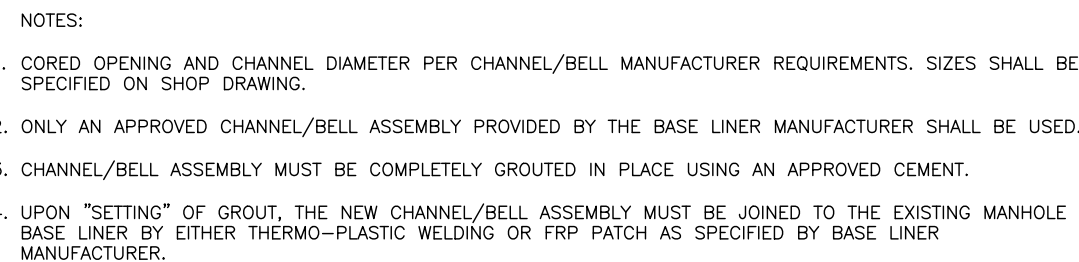
WASTEWATER #4 STANDARD DETAILS

CONSULTANT:
SIMMONS & WHITE
258A Metcotteville Blvd West, Ste 3 West Palm Beach, FL 33407
Authorization # 3452 / 561.428.7848

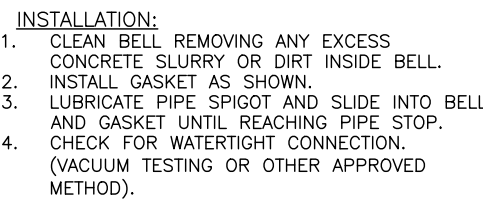
IT'S THE LAW!
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

JOB NO. 23-142
DRAWING NO. 23142S19
DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD
Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

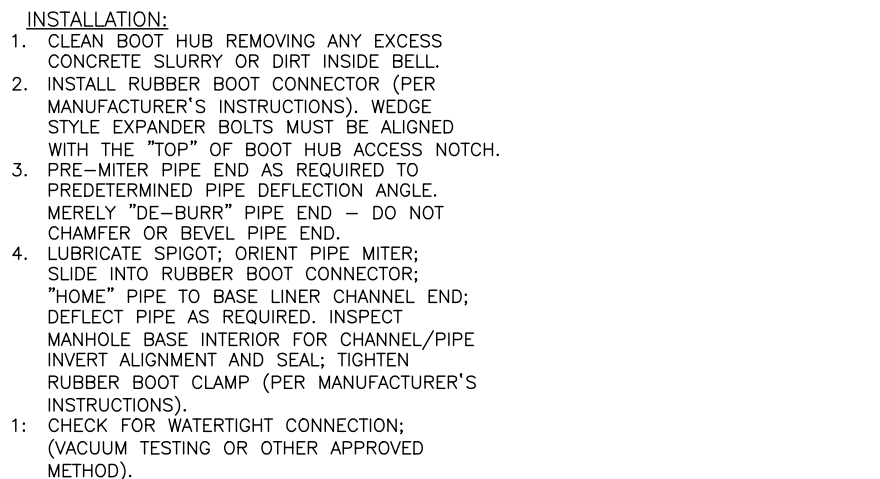
Oct 17, 2024



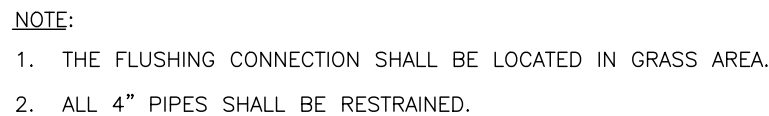
34S



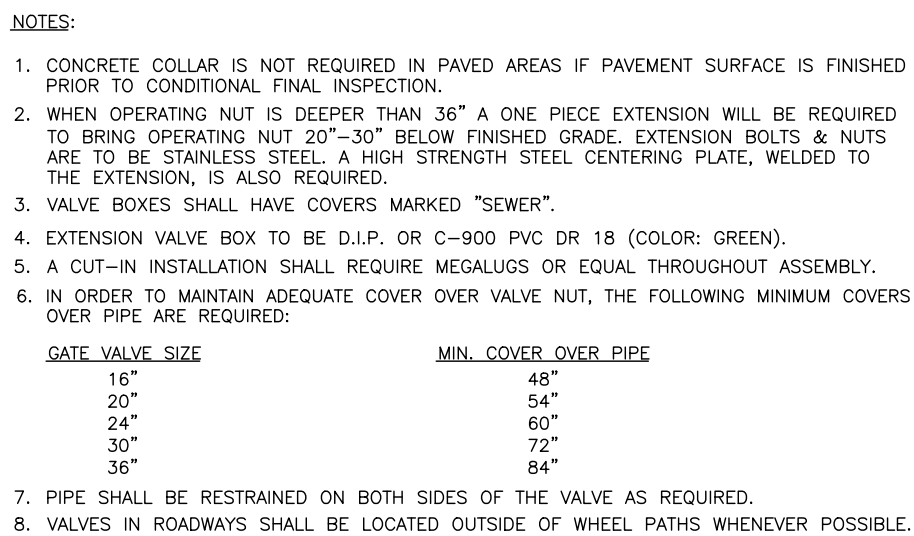
35S



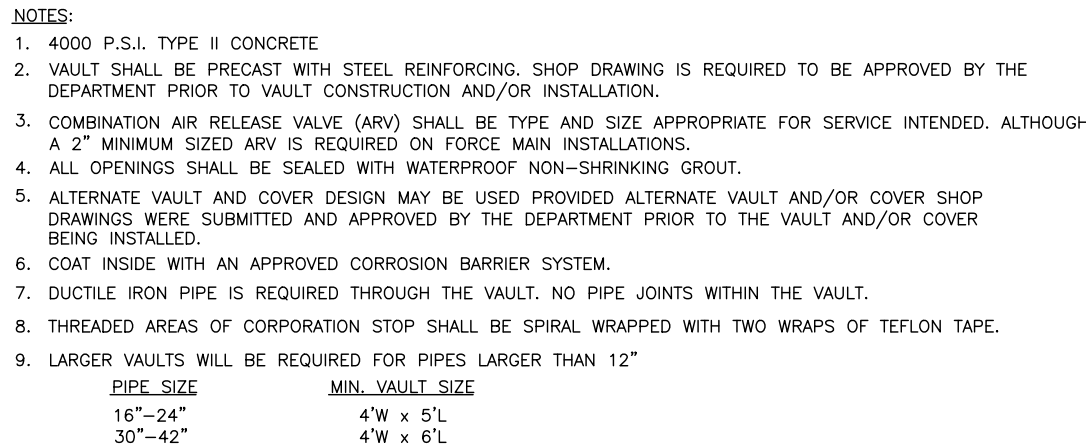
36S



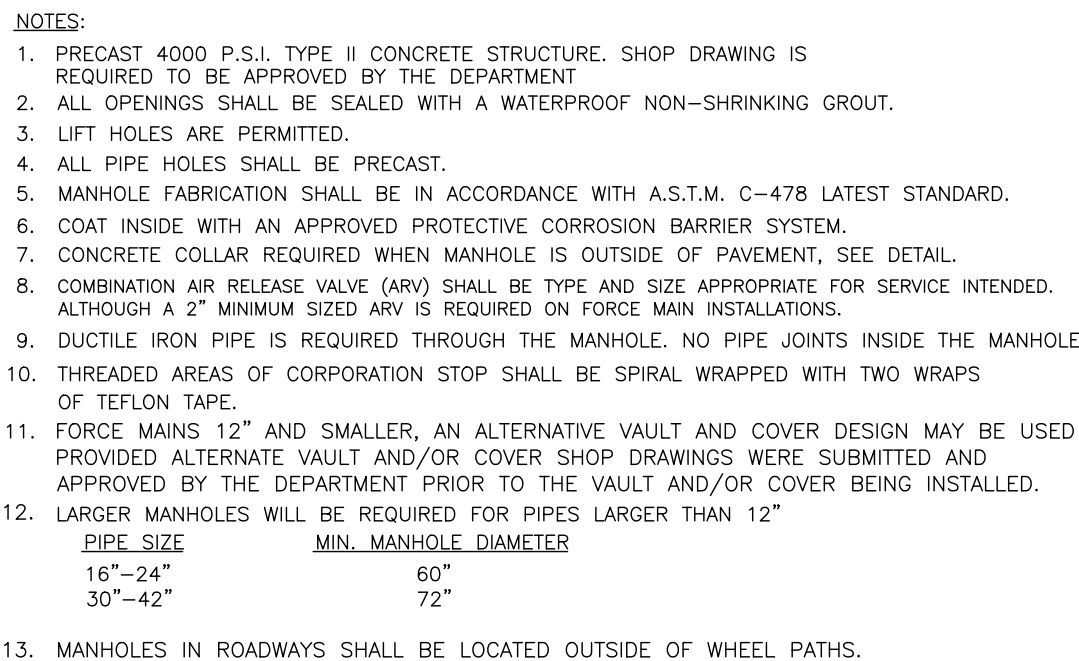
37S



38S



39S



40S

NOTES:

1.	THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
	SOIL TYPE—SAND TEST PRESSURE—150 PSI DEPTH OF BURY—3'
	TRINITY TYPE—3 SAFETY FACTOR—1.5 VERTICAL OFFSET—3"
	MINIMUM PIPE LENGTH ALONG TRENCH RUN—5'

2. THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON AND PVC PIPE.

3. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.

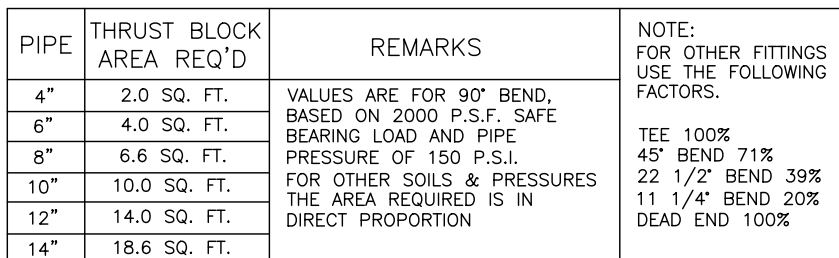
4. RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.

5. MULTIPLY PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.

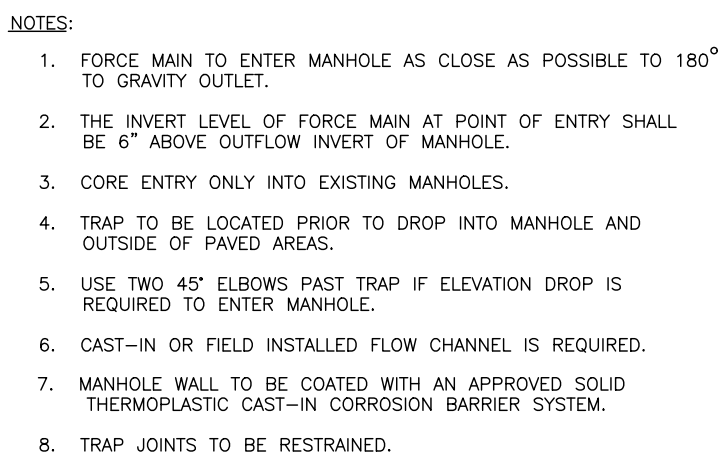
6. RESTRAINED PIPE LENGTHS EQUAL TO AN "MILNE VALVE" CONDITION ARE REQUIRED AT EACH END OF A TRANSITION FROM HDPE PIPE TO OTHER PIPE MATERIALS.

7. DESIGN ENGINEER IS RESPONSIBLE FOR PROPER RESTRAINT PIPE LENGTH SIZING FOR

41S



42S



43S

STD
DETAILS

SHEET
NUMBER
20
OF
21

IT'S THE LAW ! 
CALL 48 HOURS BEFORE YOU DIG
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.
UTILITIES NOTIFICATION CENTER

DRAWING NO.
23142S20

Palm Beach County
Water Utilities Department
P.O.Box 16097
West Palm Beach, FL 33416-6097

WUD PROJECT No.
24-579

GLEN RIDGE SELF STORAGE



**PALM BEACH COUNTY
P.U.T. UTILITIES DEPARTMENT
P.O. BOX 16097
WEST PALM BEACH, FL 33416
(561)493-6000**

NO.	DATE	REVISION / REMARKS	BY
-----	------	--------------------	----

STD
DETAILS

SHEET
NUMBER
20
OF
21

SEA

Oct 17, 2024

