City of Tarpon Springs, Florida 324 East Pine Street Tarpon Springs, Florida 34688-5004

THE BOARD OF CITY COMMISSIONERS

CHRIS ALAHOUZOS JACOB KARR TOWNSEND TARAPANI CONNOR DONOVAN COSTA VATIKIOTIS

VICE MAYOR COMMISSIONER COMMISSIONER

PLANS PREPARED BY:



COLLABORATE. INNOVATE. CREATE.

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CITY OF TARPON SPRINGS ENGINEERING SER VICES & UTILITIES

SEABREEZE DRIVE SANITARY SEWER PROJECT

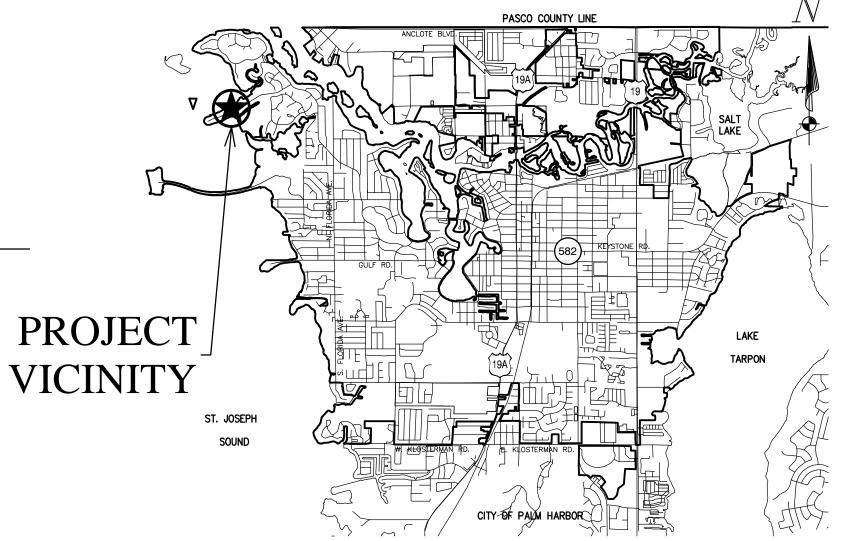
SECTIONS 3, TOWNSHIP 27 S, RANGE 15 E CITY PROJECT NO: WS1720



LOCATION MAP

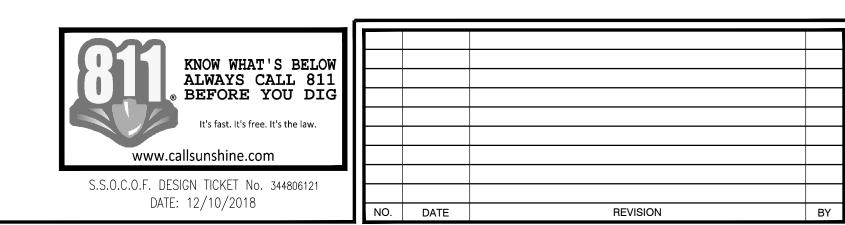
CITY OF TARPON SPRINGS

ENGINEERING SERVICES & UTILITIES 324 EAST PINE STREET P.O. BOX 5004 TARPON SPRINGS, FLORIDA 34688-5004



CITY OF TARPON SPRINGS VICINITY MAP

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ABBREVIATIONS APPARENT PO APPROX APPROXIMATE ASPH ASPHALT RWM ASSY **ASSEMBLY** RCW AVE **AVENUE** B OR BL BASELINE RED BAV BALL VALVE REINF BURIED ELECTRIC RCP BLIND FLANGE REQD BACK FLOW PREVENTOR DEVICE BFD R/W BFV BUTTERFLY VALVE BITUMINOUS BIT SAN OR SSWR BLDG BUILIDING BLK BLOCK SHT BLVD BOULEVARD SIR BENCH MARK SIRC ВМ BURIED TELEPHONE S/W CALCULATED CÁT CATALOG SPECS CB CATCH BASIN STD CF CUBIC FEET CHKD CHECKERED STA CI CAST IRON STM CL2 CHLORINE SQ TEL TEMP CL OR C L CENTER LINE CAULKING CLKG CLR CLEAR OR CLEARANCE THD THK TOC CM CONCRETE MONUMENT CORRUGATED METAL PIPE CMP CMU CONCRETE MASONRY UNIT TRV CO CLEANOUT TS CONC TS&V CONCRETE CONN CONNECTION TYP CONST CONSTRUCTION CONT CONTINUOUS CORP CORPORATION CORR CORRUGATED CPLG COUPLING CHECK VALVE CV CUBIC YARDS DBL DOUBLE DEPT DEPARTMENT DUCTILE IRON DIA DIAMETER DIM DIMENSION DIP DUCTILE IRON PIPE DWG DRAWING EAST OR EASTING ECC ECCENTRIC ED EQUIPMENT DRAIN ELEC ELECTRIC OR ELECTRICAL EL OR ELEV ELEVATION EOP EDGE OF PAVEMENT EQUIP EQUIPMENT EX OR EXIST EXISTING **EXPANSION** FLOOR DRAIN FD FLORIDA DEPT. OF TRANSPORTATION FDOT FHA FIRE HYDRANT ASSEMBLY FIN FOUND IRON ROD FIRC FOUND IRON ROD WITH CAP FLEX FLEXIBLE FLANGE FLG FLR FLOOR FΜ FORCE MAIN FND, FN&D FOUND NAIL & DISK FOC FIBER ELECTRIC CABL FRP FIBERGLASS REINFORCED PIPE FITTING OR FOOTING FTG GAUGE OR GAGE GALLON GALV GALVANIZED GDP GALLONS PER DAY GRATE ELEVATION GPM GRD GALLONS PER MINUTE GRADE GRT'G GRATING **GROUND SHOT** GS GSP GALVANIZED STEEL PIPE GV GATE VALVE HIGH DENSITY POLYETHYLENE HDPE HDWL HEADWALL HORIZ HORIZONTAL HIGH POINT OR HORSEPOWER HP HIGH WATER LEVEL HWL HWY HIGHWAY INSIDE DIAMETER ID INVERT (ELEVATION) INV OR IE IRON ROD IRRIGATION VALVE KNOLOGY BURIED FOC KBF LB# LICENSED BUSINESS NUMBER MANHOLF MH MFR MANUFACTURER MAX MAXIMUM MECHANICAL MECH MECHANICAL JOINT MIN MINIMUM MOD MODIFIED NORTH OR NORTHING NIC NOT IN CONTRACT NOT TO SCALE NTS NO OR # NUMBER OFFSET O/S OUTSIDE DIAMETER OD O R BOOK OFFICIAL RECORD BOOK

PAVEMENT

PLAIN END

PLUG VALVE

POWER POLE

PROPOSED PUMP STATION

POINT OF CURVATURE POINT OF INTERSECTION

POINT OF TANGENCY

POLYVINYL CHLORIDE

POUNDS PER SQUARE INCH

PLATE OR PLACE OR PROPERTY LINE

PROFESSIONAL SURVEYOR & MAPPER POINT OF VERTICAL INTERSECTION

PVMT PΕ

PLV

PSM

PVI

PVC

PSI

PROP

LB. OR #

PNT OR PT

LEGEND

PUSH-ON

REDUCER

REQUIRED

SCHEDULE

SIDEWALK

STANDARD

TELEPHONE

TEMPORARY

THREADED

TOP OF CONCRETE

TRAFFIC SIGN

UNDER GROUND

SURVEY TRAVERSE POINT

TAPPING SLEEVE AND VALVE

STATION

STORM

SQUARE

THICK

SHEET

RAW WATER MAIN

RECLAIMED WATER

REINFORCE(ING)

RIGHT-OF-WAY

SET IRON ROD

SPECIFICATIONS

STAINLESS STEEL

SET IRON ROD AND CAP

SANITARY MAN HOLE

SANITARY SEWER

RADIUS POINT OR ROOT PRUNNING

REINFORCED CONCRETE PIPE

RADIUS

T.U.B. T = TELEPHONE UTILITY BOX F.H. - = FIRE HYDRANT F.D.C.

FIRE DEPARTMENT CONNECTION U.P. or \Rightarrow = UTILITY POLE L.P. 🖄 = LIGHT POLE U.L.P. & LIGHT POLE G.P. \emptyset = GUY POLE ← = GUY WIRE H.H.O = ELECTRIC HAND-HOLE U.G.G. = UNDERGROUND GAS LINE MARKER T.S.B.

= TRAFFIC SIGNAL UTILITY BOX T.S.P. = TRAFFIC SIGNAL POLE CONC. = CONCRETE \boxtimes ST = SEPTIC TANK LOCATION **=** GRATE INLET D.C.O. STM SEWER CLEAN OUT, PIPE & MANHOLE F.I.R. • = FOUND IRON ROD (SIZE AND IDENTIFICATION IF SHOWN) F.I.R.C. ● = FOUND IRON ROD WITH CAP (SIZE AND IDENTIFICATION IF SHOWN) F.N.&D. = FOUND NAIL & DISK (TYPE AND IDENTIFICATION IF SHOWN) F.I.P. ● = FOUND IRON PIPE (SIZE AND IDENTIFICATION IF SHOWN) S.I.R. ● = SET 1/2" IRON ROD & CAP L.B.#2610 SL=##.## ● = TOP OF SANITARY LATERALS ST=##.## \top of SEPTIC TANK = PROPERTY ADDRESS = SPT/HAND AUGER BORING MB = EXISTING MAIL BOX **WM** = EXISTING WATER METER - - - - RIGHT OF WAY LINE = EDGE OF PAVEMENT = EXISTING WATER MAIN = EXISTING WATER SERVICE = EXISTING FORCE MAIN = EXISTING RECLAIMED WATER = EXISTING BURIED TELEPHONE - = EXISTING BURIED FIBER OPTIC CABLE = EXISTING BURIED ELECTRIC ----- -- CTV ----- = EXISTING BURIED CABLE TV ----- --- IRR ----- = EXISTING IRRIGATION LINE

——— — GAS ——— **EXISTING GAS MAIN**

----- OHW ----- = EXISTING OVERHEAD UTILITY LINE

= PROPOSED SAN MAIN & MANHOLE

= PROPOSED SAN FORCE MAIN

SECTION DESIGNATION SECTION IS DRAWN SECTION & DETAIL TARGET SHEET ON WHICH SECTION IS CUT SECTION TITLE TARGET

DETAIL TITLE TARGET

SHEET ON WHICH WHICH DETAIL IS

TREE LEGEND

~ ← = 12" CHERRY LAUREL ~~◆ = 12" WILLOW TREE

~♥ = 12" DEAD TREE

~ () = 12" OAK TREE ~ () = 12" JACARANDA TREE

⟨→⟨→⟩ = 12" CITRUS TREE

⟨→ ♠ = 12" SYCAMORE TREE

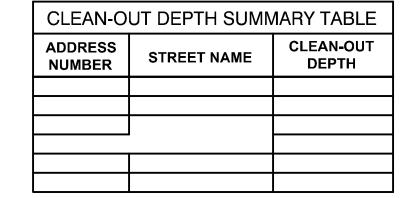
マッ♥ = 12" AUSTRALIAN PINE ⟨→ ✓ = 12" CEDAR TREE ~ ✓ = 12" ELM TREE

マッ◀ = 12" PUNK TREE ⟨→ ⟨ = 12" CYPRESS TREE ~ **∅** = 12" EAR TREE

~� = 12" BIRCH ~**○** = 12" HICKORY

TRUNKS AT BREAST HE

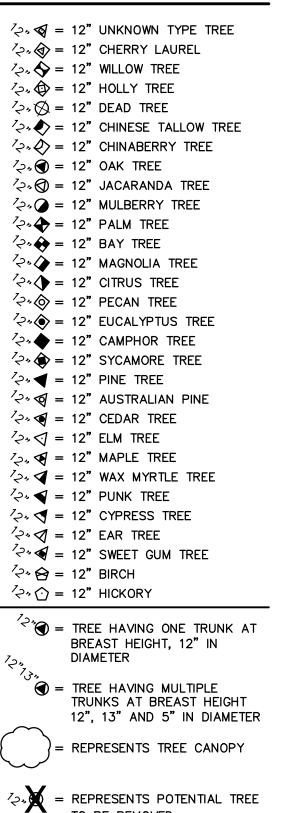
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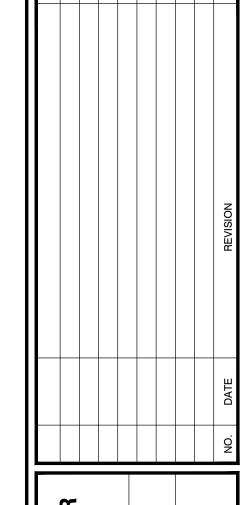


NOTE:

ALL CLEAN-OUTS WITHIN THE PROJECT SHALL BE 4'-0" DEEP UNLESS SHOWN OTHERWISE ON THE "CLEAN-OUT DEPTH SUMMARY TABLE"

	S.U.E. T	ABLE		
TEST HOLE #	DESCRIPTION	GRADE EL.	COVER	T.O.P.
			_	





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ENGINEERING SERVICES & UTILITIES

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License #2610

JOB NO: 0517-00102-2018-1740 12/12/2018 SCALE: AS SHOWN

G1.01

GENERAL NOTES

- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE
- THE CONTRACTOR SHALL NOTIFY THE CITY'S REPRESENTATIVE IMMEDIATELY TO REPORT ANY CONFLICTS BETWEEN WHAT IS SHOWN HEREIN AND ACTUAL CONDITIONS DISCOVERED DURING CONSTRUCTION.
- 3. THE CONTRACTOR, WORKING WITH THE CITY, SHALL COORDINATE THE SHUTDOWN, STARTUP AND/OR PARTIAL INTERFERENCE WITH ONGOING SYSTEM OPERATIONS. SEE THE CONTRACT SPECIAL PROJECT PROCEDURES FOR SPECIFIC REQUIREMENTS.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL SAFETY PROCEDURES AND REQUIREMENTS. SPECIAL ATTENTION SHALL BE PAID TO OSHA CONFINED SPACE ENTRY REQUIREMENTS.
- 5. ALL PRACTICABLE EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIALS TO INLETS, SURFACE DRAINS, WETLANDS AND LAKE AREAS, PER SWFWMD "BEST MANAGEMENT PRACTICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
- THE CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST ORIGINATING FROM THE PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE DRAWINGS HAVE BEEN ESTABLISHED BASED ON BEST AVAILABLE INFORMATION AT THE TIME OF THE PREPARATION OF THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT SIZE, LOCATION, DEPTH AND HEIGHT OF ALL UNDERGROUND AND OVERHEAD UTILITIES WHICH MAY BE WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
- THE MINIMUM HORIZONTAL SEPARATION BETWEEN POTABLE WATER MAINS AND SANITARY SEWERS SHALL BE 6-FEET FACE-TO-FACE UNLESS OTHERWISE SPECIFICALLY CALLED OUT ON THE DRAWINGS OR ALLOWED BY THE PROJECT PERMITS. ALTERNATE PIPE MATERIAL OR CONCRETE ENCASEMENT SHALL BE UTILIZED AS SHOWN ON THE DRAWINGS OR DIRECTED BY
- THE MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED MAINS AND ALL OTHER UTILITY CROSSINGS SHALL BE 12 INCHES FACE-TO-FACE UNLESS OTHERWISE SPECIFICALLY CALLED OUT ON THE DRAWINGS.
- 10. WHERE THE MINIMUM REQUIRED VERTICAL SEPARATION CANNOT BE MAINTAINED BETWEEN WATER AND SEWER UTILITIES, THE CROSSING SHALL BE ARRANGED SUCH THAT THE NEW MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS.
- 11. A 36" MINIMUM DEPTH OF COVER SHALL BE PROVIDED UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
- 12. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR UTILITY POLES WHERE CONSTRUCTION MAY CAUSE THE POLE TO LOSE ITS SUPPORT. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY TO SUPPORT POLES AS NECESSARY FOR CONSTRUCTION
- 13. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED SHEETING AND TRENCH SHORING REQUIRED TO PROTECT PRIVATE PROPERTY EXISTING UTILITIES AND OTHER FACILITIES INTENDED TO REMAIN IN SERVICE.
- 14. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO ESTABLISH THE PROPOSED PIPELINE, RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEVATION), CENTER LINES AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.
- 15. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS, CITY OF TARPON SPRINGS AND PINELLAS COUNTY LANDMARKS/BENCHMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION, KNOWN CORNER LOCATIONS ARE SHOWN ON THE DRAWINGS. OTHER CORNERS AND LANDMARKS DISCOVERED DURING CONSTRUCTION WILL ALSO BE RESTORED.
- 16. THE CONTRACTOR SHALL COMPLY WITH THE "TRENCH SAFETY ACT", CHAPTER 90-96, FLORIDA STATUTES. THE CONTRACTOR SHALL INSTALL BARRIER WALLS, SHEETING, SHORING, ETC. THAT COMPLIES WITH THE LATEST FDOT STANDARDS AND OSHA REQUIREMENTS AROUND ALL EXCAVATION PITS
- 17. THE CONTRACTOR SHALL NOTIFY AND CALL "SUNSHINE STATE ONE CALL" AT 1-800-432-4770 PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL FURTHER COORDINATE WITH UTILITY COMPANIES TO RESOLVE CONFLICTS WHICH MAY ARISE IN THE FIELD DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST 72 HOURS PRIOR TO EXCAVATION.
- 18. CONFLICTS ARISING FROM EXISTING UTILITIES SHALL BE BROUGHT TO THE CITY REPRESENTATIVE'S ATTENTION IMMEDIATELY.
- 19. ALL DISTURBED GRASS AREAS SHALL BE RESTORED WITH SOLID SOD UNLESS OTHERWISE NOTED OR DIRECTED BY THE XTY'S REPRESENTATIVE. ALL TREES, SHRUBS AND LANDSCAPING REQUIRED TO BE REMOVED FOR THE INSTALLATION OF THE NEW UTILITIES SHALL BE RESTORED BY THE CONTRACTOR.
- 20. SPECIAL PIPE FOUNDATIONS, IF REQUIRED, SHALL BE DETERMINED IN THE FIELD AND THE TYPE REQUIRED WILL BE AS DIRECTED BY THE CITY'S REPRESENTATIVE.
- 21. FINISHED GRADE FOR GROUND ELEVATIONS ON DRAWINGS REFER TO GRADE AFTER SODDING.
- 22. ALL WORK SHOWN ON THESE DRAWINGS IS TO BE CONSTRUCTED WITHIN PUBLIC RIGHTS-OF-WAY, EASEMENTS OF RECORD OR CITY OF TARPON SPRINGS OWNED PROPERTY. ANY CONFLICT BETWEEN PUBLIC RIGHT-OF-WAY. EASEMENTS OF RECORD OR CITY OF TARPON SPRINGS OWNED PROPERTY AS SHOWN ON THE DRAWINGS AND THOSE ESTABLISHED IN THE FIELD SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CITY'S REPRESENTATIVE FOR RESOLUTION.
- SIDEWALKS. DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH THE CITY OF TARPON SPRINGS STANDARDS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT-OF-WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF THE STREET.
- 24. ALL SIDEWALK RECONSTRUCTION SHALL BE HANDICAP ACCESSIBLE AND SHALL MEET OR EXCEED THE MOST RECENT ADA STANDARDS.
- 25. CONTRACTOR SHALL PROVIDE "AS-BUILT" ELEVATIONS AND LOCATIONS FOR THE FOLLOWING, WHICH INCLUDE. BUT IS NOT LIMITED TO: AT MINIMUM, EVERY 100 FEET AND AT ANY GRADE CHANGES OR DIRECTION CHANGES OF THE PROPOSED UTILITIES; ALL PIPE INVERTS INTO EXISTING STRUCTURES; BOTTOM OF ALL MANHOLES AND; ELEVATIONS AND LOCATIONS OF EACH EXISTING UTILITY CROSSING ANY PROPOSED UTILITY.
- 26. THE ELEVATIONS SHOWN FOR CLEANOUTS AT THE RIGHT-OF-WAY SHALL BE TAKEN AS APPROXIMATE ELEVATIONS ONLY. THE CONTRACTOR SHALL ADJUST THE ELEVATION OF THE CLEANOUT AS NECESSARY TO ALLOW FOR CONNECTION OF THE SERVICE LATERAL AT THE MINIMUM SLOPE AS SHOWN ON THE DRAWINGS.
- 27. RIM ELEVATIONS SHOWN ON THE MANHOLES SHALL BE FIELD ADJUSTED BY THE CONTRACTOR IN ORDER TO BE INSTALLED FLUSH WITH THE RESTORED ASPHALT ROADWAY.
- 28. ALL WORK WITHIN THE CITY RIGHT OF WAY SHALL ADHERE TO CITY OF TARPON SPRINGS STANDARD SPECIFICATIONS AND DETAILS. IN CASES WHEN A CITY DETAIL OR STANDARD SPECIFICATION IS NOT AVAILABLE, THE CONTRACTOR SHALL DEFER TO PINELLAS COUNTY STANDARD SPECIFICATIONS AND DETAILS.

TREE PROTECTION NOTES

THE FOLLOWING ARE MINIMUM GUIDELINES FOR THE PROTECTION OF EXISTING TREES TO BE PRESERVED ON OR ADJACENT CITY PROJECT SITES.

- 1. ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO REMAIN SHALL ONLY BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE CITY'S ARBORIST. TO CLARIFY, THE CITY'S ARBORIST SHALL BE ONSITE DURING ALL TREE TRIMMING, ROOT PRUNING, TREE REMOVAL, OR OTHER TREE WORK. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A-300.
- WHERE CALLED FOR ON THE PLANS, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY STANDARD DETAIL. WHERE APPLICABLE PROTECTIVE BARRIERS SHALL BE PLACED IN ROOT PRUNE TRÊNCHES.
- 3. CONSTRUCTION MATERIALS, VEHICLES, EQUIPMENT, SOILS, DEBRIS AND SUPPLIES SHALL NOT BE STORED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA UNDER ANY TREE TO REMAIN.
- 4. VEHICLES UNDER ANY TREE SHALL NOT BE PARKED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA OF THE TREE.
- 5. WOODCHIPS, MULCH OR ANOTHER CUSHIONING SURFACE MATERIAL APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE PLACED TO A MINIMUM DEPTH OF 10" OVER AREAS WHERE ROOTS ARE PRESENT AND CONSTRUCTION TRAFFIC OCCURS.
- 6. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL THE CITY'S REPRESENTATIVE AUTHORIZES REMOVAL.

ROOT PRUNING NOTES

THE FOLLOWING ARE MINIMUM GUIDELINES FOR THE ROOT PRUNING ADJACENT TO EXISTING TREES TO BE PRESERVED ON OR ADJACENT CITY PROJECT SITES.

ROOT PRUNING SCOPE: WHERE PROPOSED CONSTRUCTION IMPROVEMENTS INVOLVE EXCAVATION AND/OR IMPACTS TO THE CRITICAL ROOT ZONE OF PROTECTED TREES, THE CONTRACTOR SHALL PERFORM ROOT PRUNING WORK UNDER THE DIRECT SUPERVISION OF THE CITY'S ARBORIST TO REDUCE THE IMPACTS OF CONSTRUCTION. THE CRITICAL ROOT ZONE IS EQUIVALENT TO THE TREE'S DRIPLINE. PRIOR TO ANY CLEARING, GRUBBING OR EXCAVATION ACTIVITIES, THE AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE GRUBBING OR EXCAVATION IMPACTS THE ROOT SYSTEM. ROOTS CAN BE PRUNED UTILIZING SPECIFIED ROOT PRUNING EQUIPMENT DESIGNED FOR THAT PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A PRUNING SAW, CHAIN SAW OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOT PRUNING BY TRENCHING EQUIPMENT OR EXCAVATION EQUIPMENT IS STRICTLY PROHIBITED. ROOTS LOCATED IN THE CRITICAL ROOT ZONE THAT WILL BE IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE PRUNED TO A MINIMUM DEPTH OF 18 INCHES BELOW EXISTING GRADE OR TO THE DEPTH OF THE PROPOSED IMPACT IF LESS THAN 18 INCHES FROM EXISTING GRADE.

- 1. ROOT PRUNING SHALL ONLY BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE CITY'S ARBORIST.
- 2. ANY PROPOSED ROOT PRUNING TRENCHES SHALL BE IDENTIFIED (I.E. STAKED OR PAINTED) ON SITE, INSPECTED AND APPROVED BY THE CITY'S ARBORIST PRIOR TO ACTUAL ROOT PRUNING.
- 3. ROOT PRUNING SHALL BE PERFORMED AS FAR IN ADVANCE OF OTHER CONSTRUCTION ACTIVITIES AS IS FEASIBLE, BUT AT A MINIMUM SHALL BE PERFORMED PRIOR TO ANY IMPACTS TO THE SOIL. ASSOCIATED TREE PROTECTION MEASURES SHOULD BE IMPLEMENTED UPON COMPLETION OF SAID ROOT PRUNING.
- 4. IF THERE IS A LIKELIHOOD OF EXCESSIVE WIND AND/OR RAIN EXCEPTIONAL CARE SHALL BE TAKEN ON ANY ROOT PRUNING
- 5. ROOT PRUNING SHALL BE LIMITED TO A MINIMUM OF TEN INCHES PER ONE INCH OF THE TRUNK DIAMETER FROM THE TREE BASE. ANY EXCEPTION MUST BE APPROVED BY THE CITY'S REPRESENTATIVE PRIOR TO SAID ROOT PRUNING.
- ROOTS SHALL BE CUT CLEANLY, AS FAR FROM THE TRUNK OF THE TREE AS POSSIBLE. ROOT PRUNING SHALL BE DONE TO A MINIMUM DEPTH OF 18" FROM EXISTING GRADE, OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN 18".
- 7. ROOT PRUNING SHALL BE PERFORMED USING A DOSCOCIL ROOT CUTTING MACHINE OR EQUIVALENT. ALTERNATE EQUIPMENT OR TECHNIQUES MUST BE APPROVED BY THE CITY'S REPRESENTATIVE, PRIOR TO ANY WORK ADJACENT TO TREES TO BE PRESERVED.
- 8. ROOT PRUNING SHALL BE COMPLETED, INSPECTED AND ACCEPTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR OTHER IMPACTS TO THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.
- EXCAVATIONS IN AN AREA WHERE ROOT ARE PRESENT SHALL NOT CAUSE THE TEARING OR RIPPING OF TREE ROOTS. ROOTS MUST FIRST BE CLEANLY SEVERED PRIOR TO CONTINUING WITH THE EXCAVATION, OR TUNNELED AROUND TO
- 10. TREE ROOTS SHALL NOT BE EXPOSED TO DRYING OUT. ROOT ENDS SHALL BE COVERED WITH NATIVE SOIL OR BURLAP AND KEPT MOIST UNTIL FINAL BACKFILL OR FINAL GRADES HAS BEEN ESTABLISHED.
- 11. WHEN DEEMED APPROPRIATE (E.G., DURING PERIODS OF DROUGHT) THE CITY REPRESENTATIVE MAY REQUIRE A TEMPORARY IRRIGATION SYSTEM BE UTILIZÈD IN THE REMAINING CRITICAL ROOT ZONES OF ROOT PRUNED TREES.

CITY OF TARPON SPRINGS RIGHT OF WAY CONSTRUCTION NOTES

- 1. THE FOLLOWING NOTES SHALL APPLY TO ALL CONSTRUCTION WITHIN THE CITY OF TARPON SPRINGS RIGHT-OF-WAY:
 - ALL RIGHT-OF-WAY INSTALLATIONS SHALL BE IN ACCORDANCE WITH PRACTICES REFERENCED IN THE STATE OF FLORIDA UTILITIES ACCOMMODATIONS MANUAL.
 - B. ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE MINIMUM STANDARDS SET DOWN IN CITY OF TARPON SPRINGS LAND DEVELOPMENT, ZONING AND/OR RELATED ORDINANCES, AND MINIMUM TESTING FREQUENCY
 - C. SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH THE U.S. DEPARTMENT OF TRANSPORTATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S "ROADWAY AND TRAFFIC DESIGN STANDARDS" INDEXES 600 THROUGH 670 (LATEST EDITIONS)
 - D. SAFE PEDESTRIAN TRAFFIC IS TO BE MAINTAINED AT ALL TIMES.
 - ANY SIDEWALK WHICH BECOMES UNDERMINED SHALL BE REMOVED AND REPLACED, SIDEWALKS ARE TO BE RECONSTRUCTED WITHIN THREE (3) DAYS AFTER REMOVAL. WHEN EXISTING SIDEWALK IS REMOVED, IT IS TO BE REMOVED TO THE NEAREST JOINT.
 - F. PLACE EXPANSION JOINTS WHERE 4" AND 6" CONCRETE ABUT.
- G. PLACE EXPANSION JOINT BETWEEN BACK-OF-CURB AND CONCRETE DRIVEWAY.
- H. COMPACTION FOR PIPE BACKFILL SHALL COMPLY WITH AASHTO T-180 (98%).
- DISTURBED AREA WITHIN THE RIGHT OF WAY SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 AND SODDED OR PAVED AS APPROPRIATE.
- THE CONTRACTOR'S AND PERMITTEE'S ATTENTION IS DIRECTED TO THE PROVISIONS OF THE TRENCH SAFETY ACT (FLORIDA STATUTES, SECTION 553,60 EL. SEQ.) AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS (29 CFR SECTION 1926.650, SUBPART 8) WHICH SHALL APPLY TO CONSTRUCTION, OPERATION AND MAINTENANCE PURSUANT TO THIS PERMIT.

- K. OPEN-CUT STREETS HAVING CURB SHALL HAVE MINIMUM 4' SECTIONS OF CURB REMOVED ON EACH SIDE; THE CURB SHALL BE SAW CUT, REMOVED, AFTER PIPE LAID, THE AREA BENEATH THE CURB SHALL BE TREATED AS A CURB PAD WITH APPROVED STABILIZED MATERIAL USED AS BACKFILL AND COMPACTED AND TESTED FOR DENSITY AND NEW CURB
- L. COORDINATE THE CUTTING OF DRIVEWAYS WITH OWNER PRIOR TO CUT. ALL DRIVEWAYS SHALL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY.
- M. CONCRETE DRIVEWAYS PERMITTED TO BE CUT ARE TO BE RESTORED WITH 5" OF 3000 PSI CONCRETE WITH 6" X 6" 10GA. WWF. PLACE 1/2" EXPANSION JOINT BETWEEN BACK OF CURB AND NEW DRIVE. ANY PORTION OF DRIVEWAY AT OR NEAR CUT THAT BECOMES UNDERMINED SHALL BE REMOVED PRIOR TO CONCRETE BEING PLACED. EXISTING CRACKS IN DRIVEWAYS ARE TO BE DOCUMENTED AS PRE-EXISTING OR THAT SECTION REPLACED AT CITY OF TARPON SPRINGS OPERATIONS DEPARTMENT'S OPTION. AREA BENEATH PATCH TO BE MECHANICALLY TAMPED PRIOR TO PLACING CONCRETE. MINIMUM REPAIR WIDTH TO BE 5' WITH NO SECTION LEFT SMALLER THAN 5'.
- N. ASPHALT DRIVES PERMITTED TO BE CUT ARE TO BE RESTORED UTILIZING THE SAME MATERIAL AS EXISTING BASE WITH MINIMUM 6" THICKNESS. ASPHALT TO BE PC-3 OR ALTERNATE APPROVED BY CITY OF TARPON SPRINGS OPERATIONS DEPARTMENT PRIOR TO USE. ASPHALT IS TO BE COMPACTED TO ACHIEVE DENSITY REQUIREMENTS FOR PC-3. RECEIPTS AND DELIVERY TICKETS SHALL REFLECT SUPPLIER AND HIS CERTIFICATION AS TO TYPE OF ASPHALT
- O. RESTORATION OF CURB, STREET, DRIVEWAYS AND PLACEMENT OF SOD SHALL BE COMPLETED PRIOR TO EXCAVATION STARTING IN ANOTHER AREA BY SAME CONTRACTOR.
- P. TYPE OF SOD USED TO RESTORE OWNER-MAINTAINED AREA IN RIGHT OF WAY SHALL BE COORDINATED WITH OWNER.
- Q. NO STOCKPILING OF MATERIAL IN ROADWAY OR ON SIDEWALK; ALL DIRT AND DEBRIS SHALL BE REMOVED FROM JOB SITE DAILY. ROADS AND SIDEWALK TO BE SWEPT DAILY AS PART OF DAILY CLEAN-UP.
- R. AT LEAST ONE LANE OF TRAFFIC SHALL BE OPEN AT ALL TIMES. WHENEVER TRAFFIC IS REDUCED TO ONE LANE, "FLAGMAN" AND "FLAGMAN AHEAD" SIGNS SHALL BE UTILIZED. APPROPRIATE BARRICADES AND "CONSTRUCTION AHEAD" SIGNS SHALL BE UTILIZED PER FDOT MANUAL TRAFFIC CONTROL THROUGH WORK ZONE.
- S. NO STREET SHALL BE CLOSED WITHOUT THE WRITTEN PERMISSION OF THE CITY OF TARPON SPRINGS TRAFFIC DIVISION. AT LEAST 48 HOUR ADVANCE COORDINATION IS REQUIRED.
- T. ANY PORTION OF THE ROADWAY THAT SUSTAINS EXCESSIVE CONSTRUCTION RELATED DAMAGE, IN THE OPINION OF CITY OF TARPON SPRINGS OPERATIONS DEPARTMENT, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN A MANNER SPECIFIED BY CITY OF TARPON SPRINGS OPERATIONS DEPARTMENT.
- U. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION AGAINST OBJECTIONABLE NOISE LEVELS CAUSED BY THE OPERATION OF CONSTRUCTION EQUIPMENT AND SHALL FOLLOW THE REQUIREMENTS OF THE LATEST CITY OF TARPON SPRINGS NOISE ORDINANCE.

EROSION AND SEDIMENTATION CONTROL NOTES

- ALL PRACTICABLE AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS, SURFACE DRAINS, MARSH AND SUMP AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
- 2. PROVIDE ALL DISTURBED AREAS WITHIN THE LIMITS OF THE WORK WITH TEMPORARY SOIL EROSION CONTROL AND SEDIMENT CONTROL, UTILIZING EARTH DAMS & PONDS, GRADE TO DRAIN SWALES, SETTLING BASINS, SILT FENCES, STONE FILTERS, HAY BALE FILTERS, ETC., TREATING ALL SOIL SURFACES WITH SEEDED TOPSOIL AND/OR MULCH AFTER GRADING.
- 3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS SHALL BE COMPLIED WITH AT ALL TIMES.
- 5. MINIMIZE THE AMOUNT OF BARE SOIL EXPOSED AT ONE TIME AND INSTALL SOIL EROSION CONTROL FENCES AS SHOWN AND IN SUCH A MANNER AS TO CAPTURE AND FILTER SURFACE WATER DURING CONSTRUCTION.
- PERMANENT STABILIZATION SHALL BE BY SODDING ALL EXPOSED AREAS WITHIN THREE DAYS AFTER FINAL GRADING. MULCH SHALL BE USED FOR PROTECTION UNTIL 75% GROWTH IS ESTABLISHED. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL WHICH WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY AS TO PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.
- ALL NEW EROSION AND SILT CONTROL METHODS AND LOCATIONS INDICATED ON THIS DRAWING ARE FOR START-UP AND GENERAL REFERENCE AND SHALL BE ADJUSTED, AS REQUIRED, TO SUIT THE PROCESS OF THE CONSTRUCTION.
- 8. HAYBALES SHALL BE PLACED ON THE UPLAND SIDE AND ADJACENT TO ALL SILT FENCE WHICH IS ADJACENT TO WETLAND AREAS TO PROVIDE ADDED SILTATION PROTECTION AT THE COMMENCEMENT OF CONSTRUCTION. THE HAYBALES SHALL BE REMOVED AT SUCH TIME AS THEIR PRESENCE IMPEDES CONSTRUCTION.
- 9. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE CONSTRUCTION PHASE.
- 10. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM THE CONSTRUCTION AREA. THE WATER SHALL BE TREATED TO REDUCE TURBIDITY TO STATE WATER QUALITY STANDARDS PRIOR TO DISCHARGE.
- 11. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOIL STABILIZED. SILTATION ACCUMULATIONS SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.
- 12. WATER REMAINING IN THE EXCAVATIONS AFTER CONSTRUCTION MUST BE KEPT CONFINED WITHIN THE EXCAVATIONS PRIOR TO DISCHARGE (IF APPLICABLE). UNTIL THE TURBIDITY LEVEL OF THE WATER MEETS STATE WATER QUALITY STANDARDS.
- 13. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 14. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER THE EXISTING SURFACE WATER AREAS THAT MAY BE ONSITE EXCEPT AS DIRECTED BY THESE PLANS AND ALLOWED BY THE PROJECT PERMITS. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR MARSH IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE MAINTAIN A MINIMUM 25 FEET SETBACK FROM WETLAND/SURFACE WATERS (JD LINE) AT ALL TIMES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINE RESULTING FROM HIS VIOLATION OF PERMIT CONDITIONS.
- 15. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING.
 - A. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DEVELOPMENT OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH ALL FEDERAL REQUIREMENTS. THE SWPPP SHALL BE PREPARED PRIOR TO CONTRACTOR'S SUBMITTAL OF A NOTICE OF INTENT (NOI) TO THE EPA.
 - B. THE NOI SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REFERENCE THE CONTRACTOR AS THE PARTY RESPONSIBLE FOR IMPLEMENTING THE SWPPP.
- C. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO EPA A NOTICE OF TERMINATION (NOT) WHEN ALL REQUIREMENTS FOR WORK SUBMITTAL HAVE BEEN MEET.
- 16. DEWATERING SHALL BE ACCOMPLISHED UTILIZING THE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS TO ADJACENT WETLANDS, OR A RECEIVING WATER BODY. DISCHARGE FROM DEWATERING FOR EXCAVATION OF THE UTILITIES BEING INSTALLED SHALL BE TREATED (FILTERED) BEFORE IT ENTERS OTHER WATER BODIES, AND SHALL MEET STATE WATER QUALITY STANDARDS FOR TURBIDITY.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE FDEP'S "GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON-CONTAMINATED SITE ACTIVITY", 62-621.300 FAC, INCLUDING ALL REQUIRED SAMPLING.

Dity of Yarpon Springs, Florio ENGINEERING SERVICES & UTILITIE 324 EAST PINE STREET

TARPON SPRINGS, FLORIDA 34688 COLLABORATE, INNOVATE, CREAT

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12/12/2018 SCALE: AS SHOWN

G1.02

JOB NO: 0517-00102-2018-1740

OWNER'S NAME: CITY OF TARPON SPRINGS, FL ROBERT R. ROBERTSON, P.E.

OWNER'S ADDRESS: 324 E. PINE ST.
TARPON SPRINGS, FL. 34689

DESCRIPTION OF NATURE OF CONSTRUCTION ACTIVITY: ACTIVITIES INCLUDE:

EXCAVATION AND BACKFILL ASSOCITAED WITH INSTALLATION / MODIFICATION OF GRAVITY SANITARY SEWER AND ASSOCIATED

PROJECT AREA = 5.52 AC.

LONG. = -82.793338°

SEQUENCE OF MAJOR ACTIVITIES:

- I. PRIOR TO COMMENCEMENT OF CLEARING FOR THE CONSTRUCTION OF THE PROJECT, SITE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES CALLED FOR ON PLANS AND/OR BY THE CONTRACTOR'S FDEP NPDES PERMIT.
- EROSION CONTROL DEVICES CALLED FOR ON PLANS AND/OR BY THE CONTRACTOR'S FDEP NPDES PERMIT.

 2. AFTER INSTALLATION OF THE EROSION CONTROL DEVICES, THE SITE CONTRACTOR MAY BEGIN NECESSARY CLEARING AND GRUBBING OF THE AREAS OF THE PROPOSED WORK
- 3. UPON COMPLETION, THE SITE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS WITHIN FIVE DAYS OF THE COMPLETION OF GRADING ACTIVITIES OF THE DISTURBED AREA.
- . THE SITE CONTRACTOR SHALL REMOVE ALL EROSION PROTECTION DEVICES FOLLOWING PERMANENT STABILIZATION OF ALL

NAME OF RECEIVING WATERS; LAKE TARPON

CONTROLS

EROSION AND SEDIMENT CONTROLS

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. ANY TREES REQUIRING ROOT PRUNING FOR INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL OCCUR PRIOR TO INSTALLATION OR AS OTHERWISE DIRECTED ON THE PLANS.

THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.

ALL EROSION AND SILT CONTROL METHODS AND LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS ARE FOR START-UF AND GENERAL REFERENCE AND SHALL BE ADJUSTED, AS REQUIRED, TO SUIT THE PROCESS OF THE CONSTRUCTION.

THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHOULD BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES, AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.

ALL PRACTICABLE AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS AND SURFACE DRAINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.

WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM THE CONSTRUCTION AREA, THE WATER SHALL BE TREATED TO REDUCE TURBIDITY TO STATE WATER QUALITY STANDARDS PRIOR TO DISCHARGE. TREATMENT METHODS INCLUDE, FOR EXAMPLE, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS (OTHER THAN UPLAND PRESERVATION AREAS AND WETLAND BUFFERS), SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.

THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOIL STABILIZED. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN

WATER REMAINING IN THE EXCAVATIONS AFTER CONSTRUCTION MUST BE KEPT CONFINED WITHIN THE EXCAVATIONS PRIOR TO DISCHARGE (IF APPLICABLE), UNTIL THE TURBIDITY LEVEL OF THE POND WATER MEETS STATE WATER QUALITY STANDARDS.

NO CLAY MATERIAL SHALL BE LEFT EXPOSED IN THE EXCAVATIONS. IF CLAY OR SANDY CLAYS ARE LEFT EXPOSED AT THE PERMITTED DEPTH, THE CONTRACTOR SHALL OVER EXCAVATE THE POND'S BOTTOM AND SIDE SLOPES BY A MINIMUM OF 12 INCHES AND BACKFILL WITH CLEAN SANDS.

PROVIDE ALL DISTURBED AREAS WITHIN THE LIMITS OF THE WORK WITH TEMPORARY SOIL EROSION CONTROL AND SEDIMENT CONTROL, UTILIZING EARTH DAMS & PONDS, GRADE TO DRAIN SWALES, SETTLING BASINS, SILT FENCES, STONE FILTERS, HAY BALE FILTERS, ETC., TREATING ALL SOIL SURFACES WITH SEEDED TOPSOIL AND / OR MULCH AFTER GRADING.

CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS SHALL BE COMPLIED WITH AT ALL TIMES.

MINIMIZE THE AMOUNT OF BARE SOIL EXPOSED AT ONE TIME AND INSTALL SOIL EROSION CONTROL FENCES AS SHOWN AND II SUCH A MANNER AS TO CAPTURE AND FILTER SURFACE WATER DURING CONSTRUCTION.

PERMANENT VEGETATION SHALL BE BY SEEDING OR SODDING ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCH SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL 75% GROWTH IS ESTABLISHED.

AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL WHICH WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY AS TO PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.

STABILIZATION PRACTICES

WIND EROSION STABILIZATION: THE CONTRACTOR SHALL DENUDE ONLY AREAS WHERE IT IS EXPECTED TO BE GRADED OR ALTERED WITHIN A TWO (2) WEEK TIME—FRAME. FINAL GRADES SHALL BE PERFORMED AND TEMPORARY OR PERMANENT SOIL STABILIZATION SHALL BE APPLIED. AREAS WHERE CONSTRUCTION OPERATIONS WILL BE CONTINUOUS, FUGITIVE DUST SHALL BE MANAGED BY APPLYING A WATER SPRAY TO SATURATE THE SURFACE SOILS ON A DAILY BASIS, OR AS NEEDED TO MAINTAIN MINIMAL DUST TRANSPORT. FUGITIVE DUST SHALL BE MONITORED CONTINUOUSLY AND ADDITIONAL MEASURES MAY NEED TO BE TAKEN TO CONTROL OFF—SITE TRANSPORT OF UNACCEPTABLE LEVELS OF DUST.

TEMPORARY STABILIZATION: TOP OF SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS WILL BE STABILIZED WITH TEMPORARY GRASS AND HYDROSEEDING NO LATER THAN 5 DAYS FROM THE LAST CONSTRUCTION ACTIVITY. GRASS SEED SHALL BE A MIXTURE OF 50 PARTS OF ANNUAL RYE SEED AND 50 PARTS OF LOVE GRASS. THE SEPARATE TYPES OF SEED USED SHALL BE THOROUGHLY DRY MIXED IMMEDIATELY BEFORE SOWING. SEED WHICH HAS BECOME WET SHALL NOT BE USED. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING STABILIZATION AND BASE.

PERMANENT STABILIZATION: DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH SOD NO LATER THAN 5 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. ALL DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE VEGETATIVE TREATMENT AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS. DISTURBED AREAS NOT SPECIFICALLY DESIGNATED WITH A VEGETATIVE COVER SHALL BE VEGETATED AS FOLLOWS: POND SIDE SLOPES SHALL BE SODDED WITH ARGENTINE BAHIA UNLESS OTHERWISE NOTED ON LANDSCAPE PLANS.

STRUCTURAL PRACTICES

STAKED SILT FENCES: THE STAKED SILT FENCES WILL BE CONSTRUCTED ALONG THE PROJECT AS PREVIOUSLY EXPLAINED. THESE DEVICES WILL STOP THE TRANSPORT OF SEDIMENT FROM THE PROJECT. THE STAKED SILT FENCE WILL BE INSTALLED PRIOR TO EARTHWORK OPERATIONS COMMENCING AND IS TO BE MAINTAINED THROUGH PROJECT COMPLETION.

STORM WATER MANAGEMENT

STORMWATER DRAINAGE WILL CONTINUE AS IT CURRENTLY DRAINS WHILE THE PROPOSED PIPES ARE INSTALLED. WHEN STORM PIPING CONSTRUCTION IS COMPLETE DRAINAGE MAY BE DIRECTED TO THE PIPES AS DIRECTED ON THE PLANS. EXISTING OUTFALL PROVIDES REGIONAL STORAGE, AND CONSTRUCTION PER DETAILS SHOWN IN THE PLANS IS IMPERATIVE.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS: ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN DUMPSTERS PER CITY OF TARPON SPRINGS SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTERS. THE DUMPSTERS WILL BE EMPTIED A MINIMUM OF ONCE A WEEK OR MORE OFTEN IF NECESSARY, AND THE TRASH WILL BE HAULED TO A REGISTERED LANDFILL FOR DISPOSAL. NO CONSTRUCTION MATERIALS WILL BE BURIED ON—SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE ON—SITE OFFICE TRAILER AND THE CONSTRUCTION MANGER RESPONSIBLE FOR THE DAY—TO—DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS, IF ENCOUNTERED, WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

OFFSITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED AS REQUIRED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREETS WILL BE CLEANED AS NEEDED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM OR TO THE SITE WILL BE COVERED WITH A TARPAULIN AT ALL TIMES.

TIMING OF CONTROL MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, STAKED SILT BARRIERS AND STABILIZED CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 21 DAYS WILL BE STABILIZED WITH A TEMPORARY GRASS AND HYDROSEEDING WITHIN 5 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN THAT AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SOD. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE TRAPS AND THE STAKED SILT BARRIERS WILL BE REMOVED.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

THE STORM WATER POLLUTION PREVENTION PLAN REFLECTS THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) REQUIREMENTS FOR STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL, AS ESTABLISHED BY THE FLORIDA ADMINISTRATIVE CODE, CHAPTER 62-4. THIS PLAN REFLECTS THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

MAINTENANCE INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT SHALL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROL.

ALL CONTROL MEASURES IN DISTURBED AREAS WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS OF THE END OF ANY STORM EVENT OF 0.25 INCHES OR GREATER BY A CONTRACTORS REPRESENTATIVE. (WHERE SITES HAVE BEEN FINALLY STABILIZED SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE—THIRD THE HEIGHT OF THE FENCE. SILT FENCE WILL BE INSPECTED REGULARLY FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND. THE SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB. TEMPORARY AND PERMANENT GRASSING AND SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH. A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION BY THE CONTRACTOR AND SHALL BE KEPT IN AN ACTIVE LOG READILY AVAILABLE AT THE JOB SITE CONSTRUCTION TRAILER. THE SITE SUPERINTENDENT WILL SELECT INDIVIDUALS WHO WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES. FILLING OUT THE INSPECTION AND MAINTENANCE REPORT WILL BE BY THE CONTRACTOR. PERSONNEL SELECTED FOR MAINTENANCE RESPONSIBILITIES WILL RECEIVE CERTIFIED TRAINING FROM AN APPROVED FDEP EROSION AND CONTROL INSPECTION COURSE AND OBTAIN A CERTIFICATION.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION

WATER FROM FIRE FIGHTING ACTIVITIES, FIRE HYDRANT FLUSHING, WATER LINE FLUSHING, WATER USED TO SPRAY OFF LOOSE SOILS FROM VEHICLES, DUST CONTROL, PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED). ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE APPROPRIATE TEMPORARY EROSION CONTROL MEASURES PRIOR TO DISCHARGE.

GROUNDWATER DEWATERING ACTIVITIES ARE NOT COVERED BY THIS PERMIT. THE CONTRACTOR MUST APPLY FOR COVERAGE UNDER THE GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON-CONTAMINATED SITE ACTIVITY PURSUANT TO 62-621.300 (2), F.A.C.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED, BUT NOT LIMITED, TO BE PRESENT ON—SITE DURING CONSTRUCTION:

CONCRETE
DETERGENTS
TAR
PAINTS (ENAMEL AND LATEX)

SAND
CLEANING SOLVENTS

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

METAL STUDS

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES SHALL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT.

AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB. ALL MATERIALS STORED ON—SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER CONTAINED ENCLOSURE. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL MANUFACTURER'S LABELED CONTAINERS. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS

HAZARDOUS PRODUCTS:

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

PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS OF PROPER DISPOSAL SHALL BE FOLLOWED.

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE:

FERTILIZERS

TROLEUM PRODUCTS:

ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS:

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS. PAINTS:

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS:

CONTRACTOR SHALL DESIGNATE AN AREA FOR DISCHARGE OF SURPLUS CONCRETE OR DRUM WASH WATER AND SHALL INSTALL A CONTAINMENT BERM AROUND THIS AREA TO PREVENT RUNOFF TO THE REMAINDER OF THE SITE. HARD DEBRIS SHALL BE DISPOSED OF BY CONTRACTOR UPON COMPLETION OF THE PROJECT.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- 1. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- 2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- 3. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

- 4. THE SPILL AREAS WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- 5. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- 6. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED
- 7. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE MATERIAL STORAGE AREA AND IN THE OFFICE

NOTICE OF INTENT AND NOTICE OF TERMINATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING A NOTICE OF INTENT (NOI) IN COMPLIANCE WITH FDEP 62-621.300 F.A.C.

A NOTICE OF TERMINATION WILL BE SUBMITTED TO FDEP AFTER THE CONSTRUCTION HAS BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERIC STORM WATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, F.S., THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNA TURE	FOR	RESPONSIBLE FOR
NAME: TITLE:	COMPANY: ADDRESS: PHONE:	GENERAL CONTRACTOR
NAME:	COMPANY: ADDRESS: PHONE:	TEMPORARY AND PERMANENT STABILIZATION
NAME: TITLE: DATE:	COMPANY:	STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SEDIMENT BASIN



ENGINEERING SERVICES & UTILITIES

324 EAST PINE STREET

TARPON SPRINGS, FLORIDA 34688



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E DRIVE SANITARY SEWER
PROJECT

OF TARPON SPRINGS
PINELLAS, FLORIDA

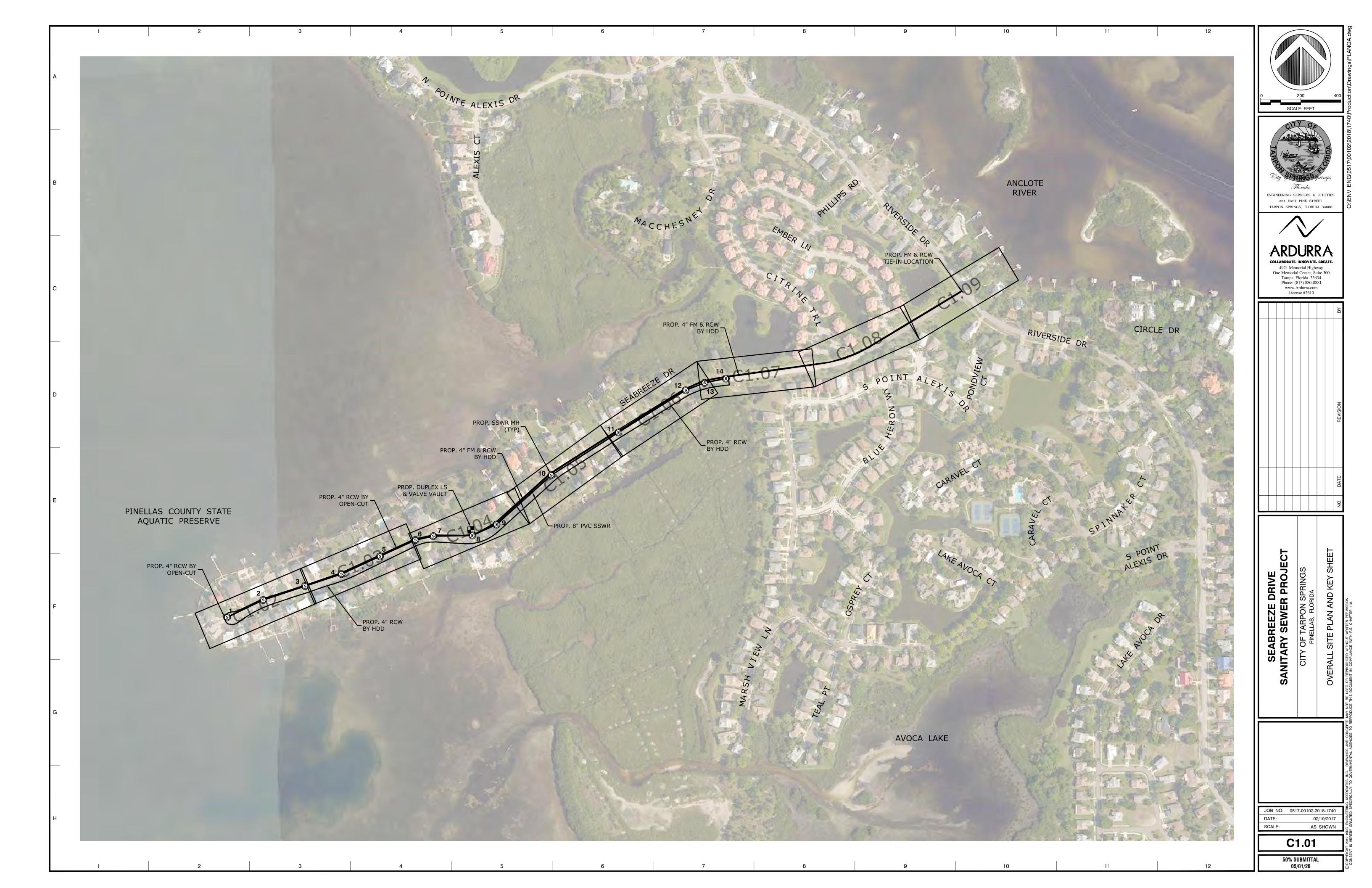
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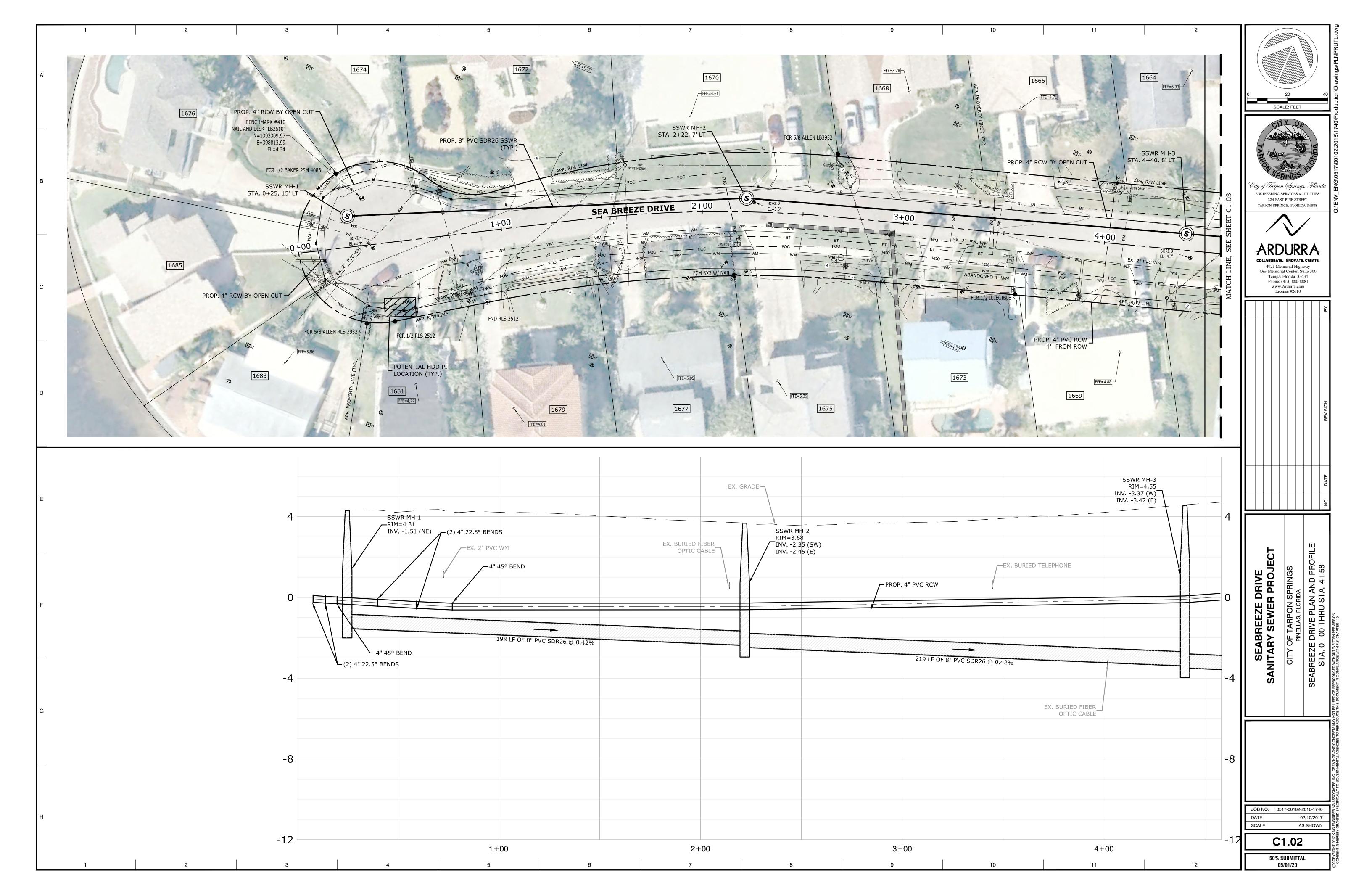
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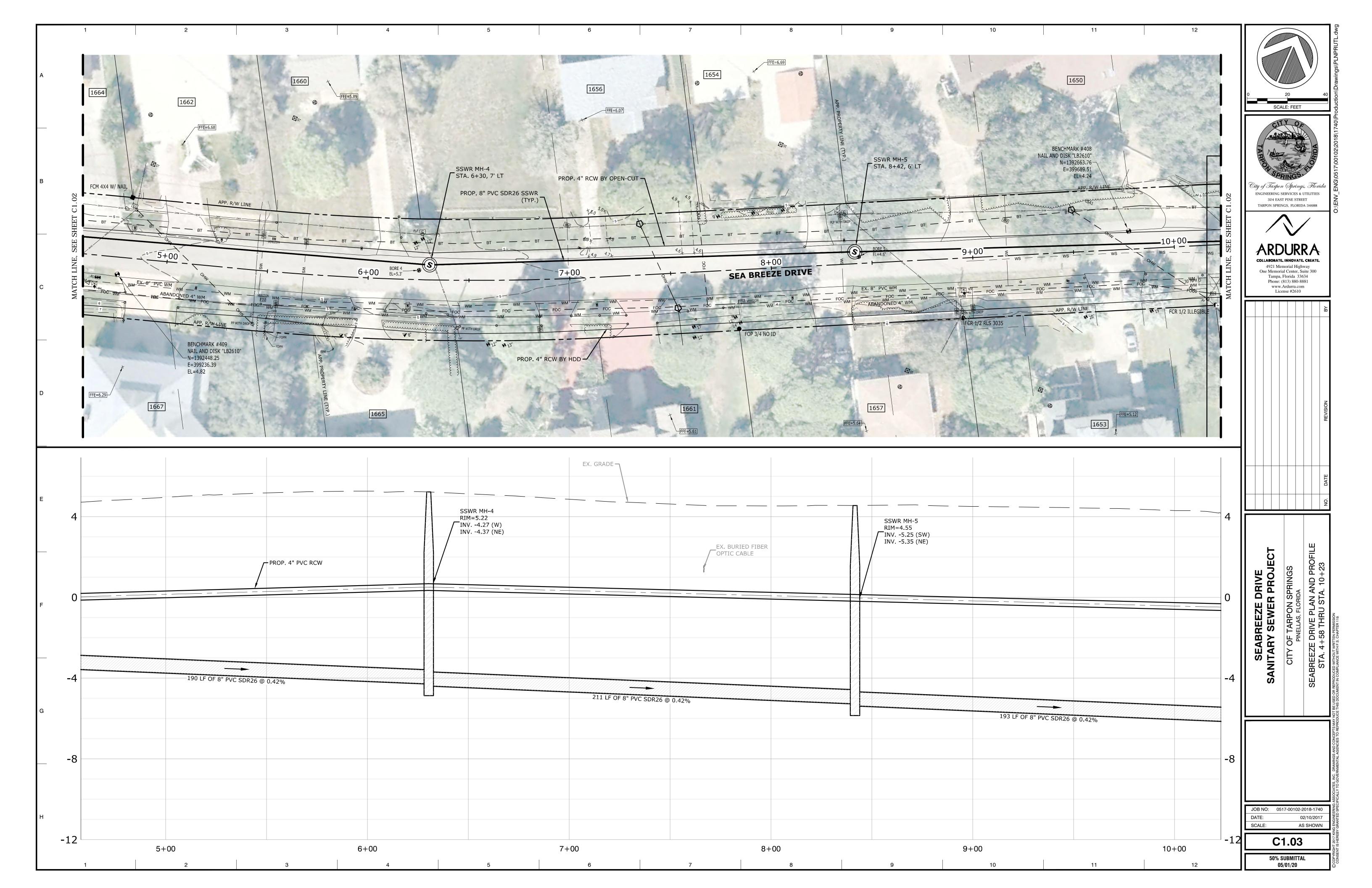
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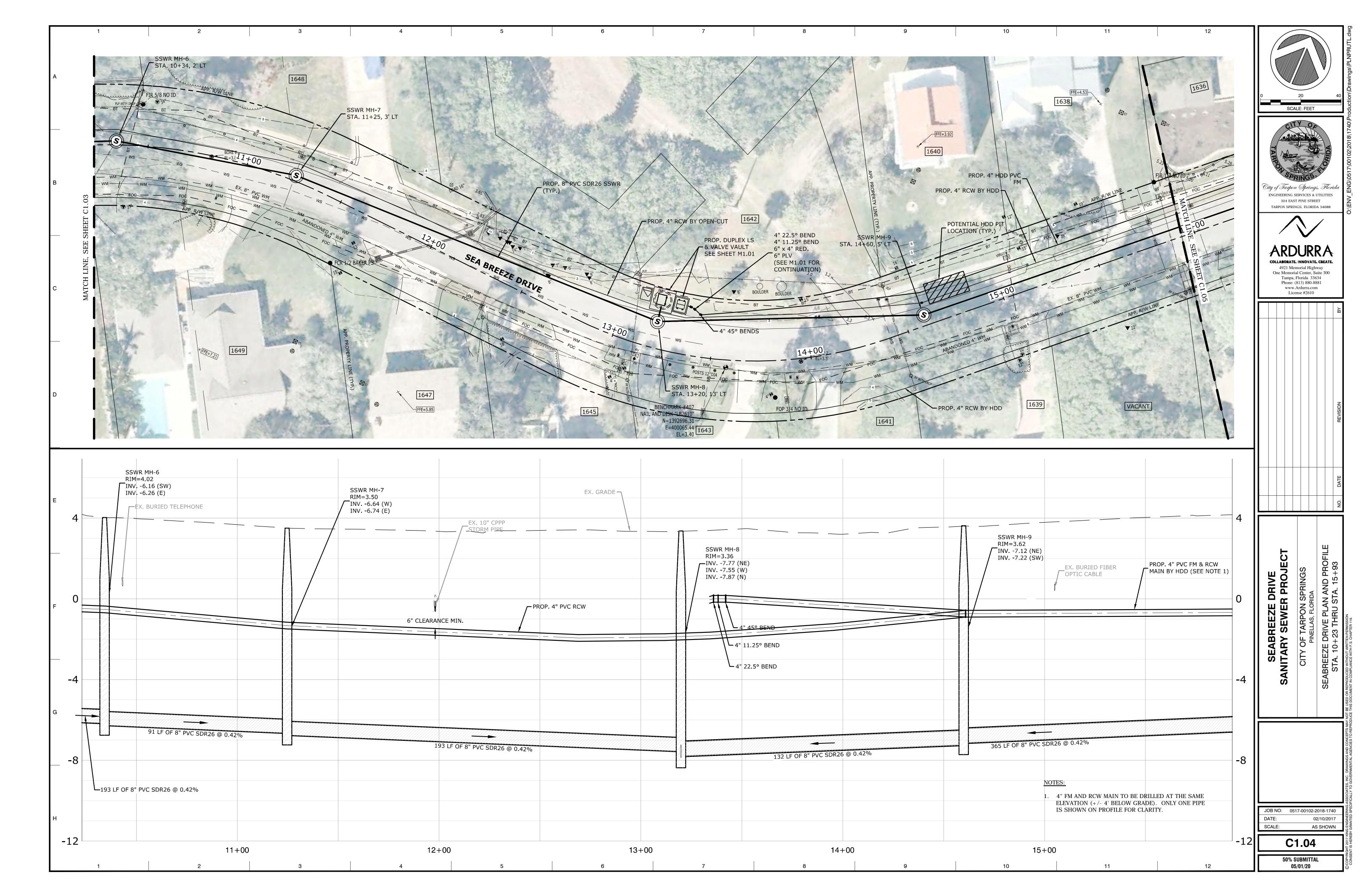
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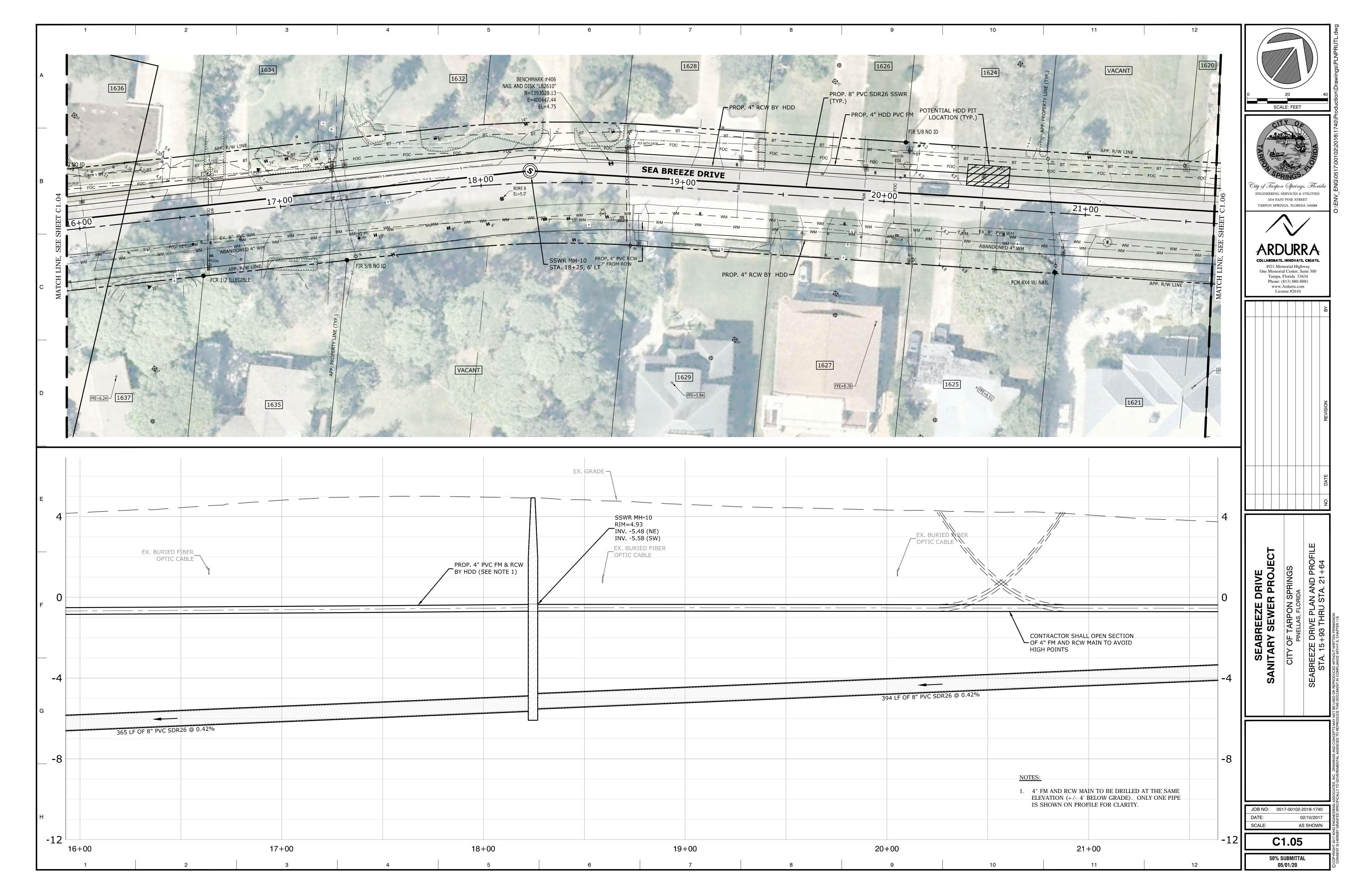
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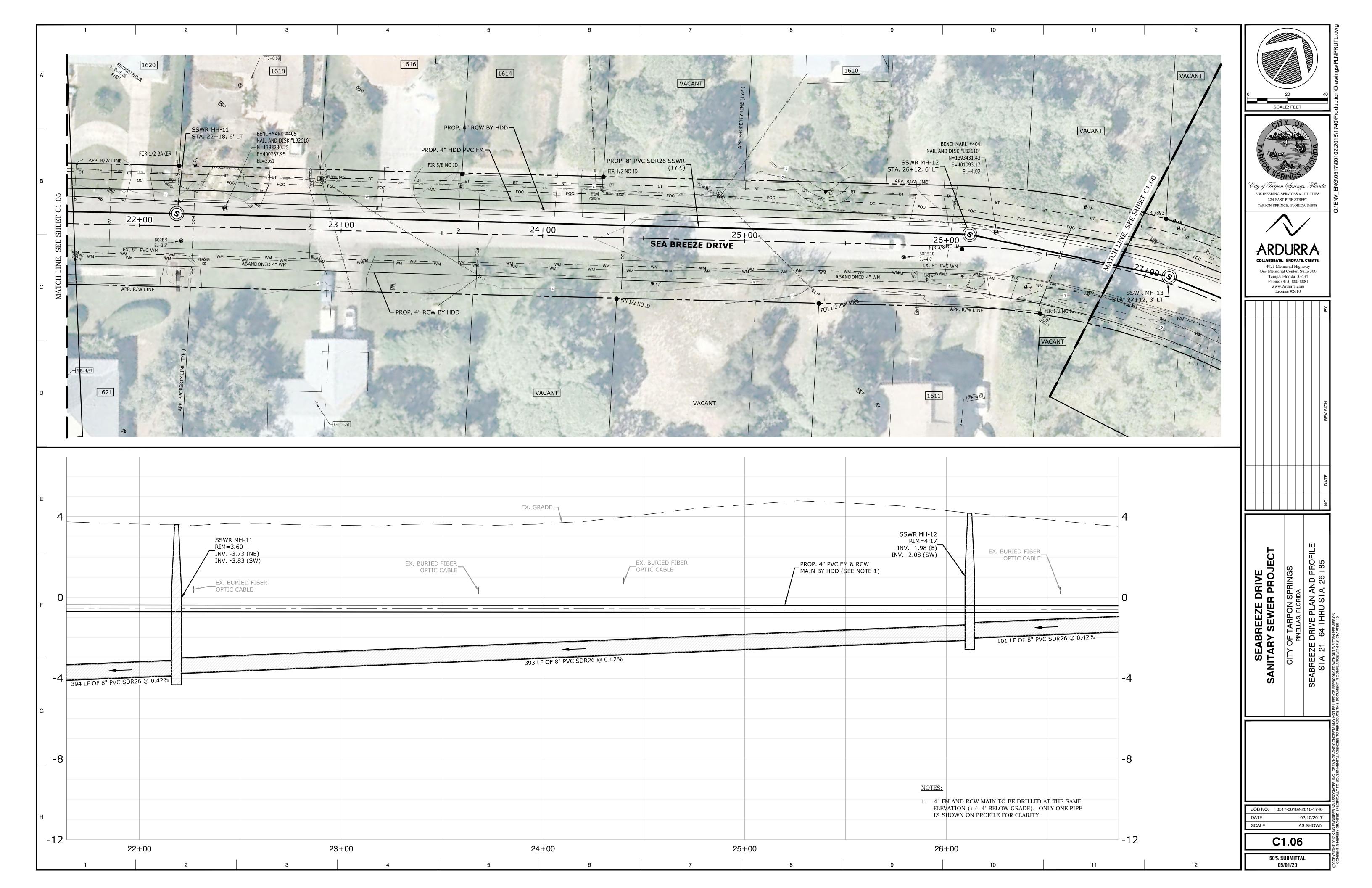


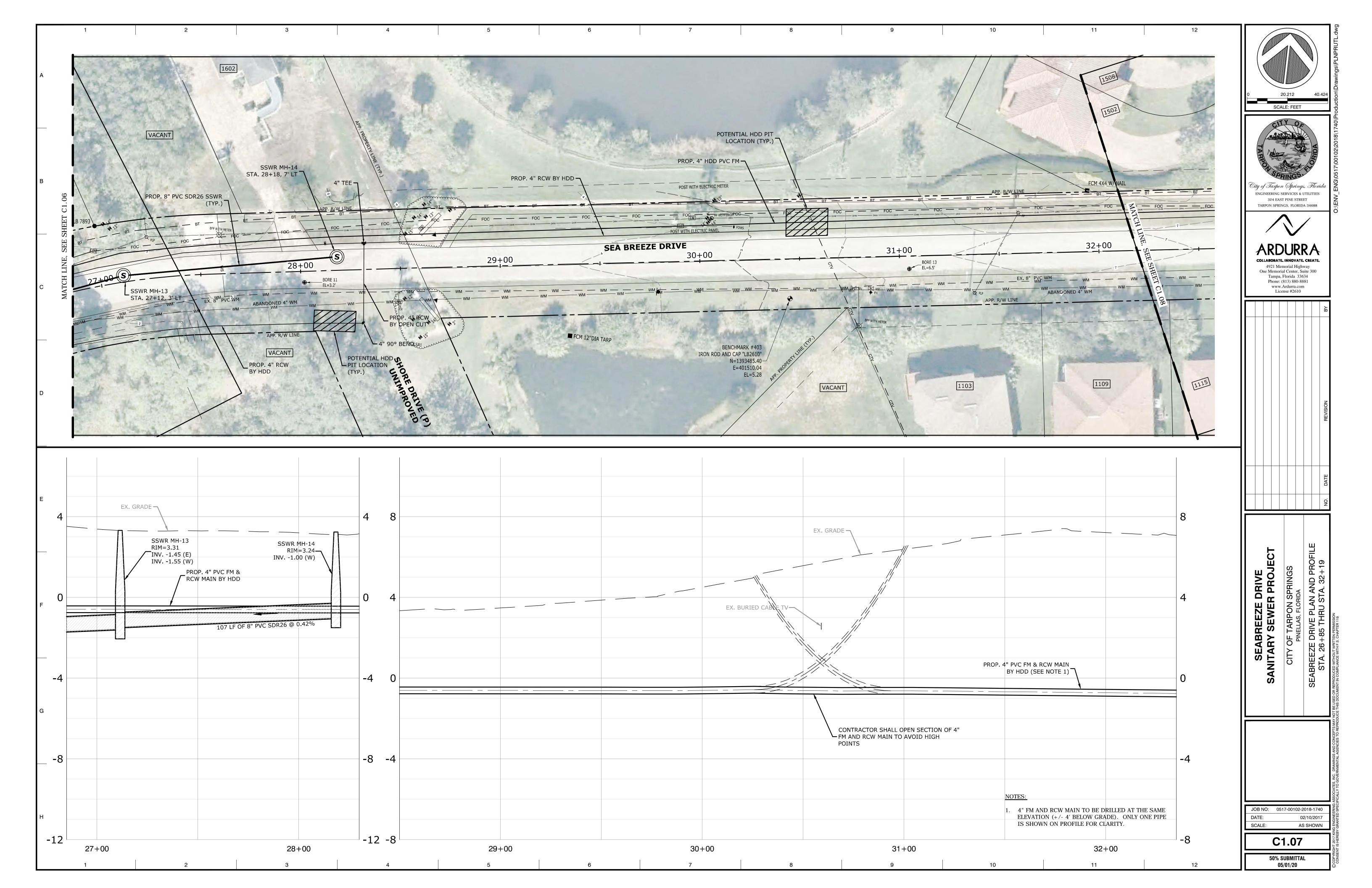


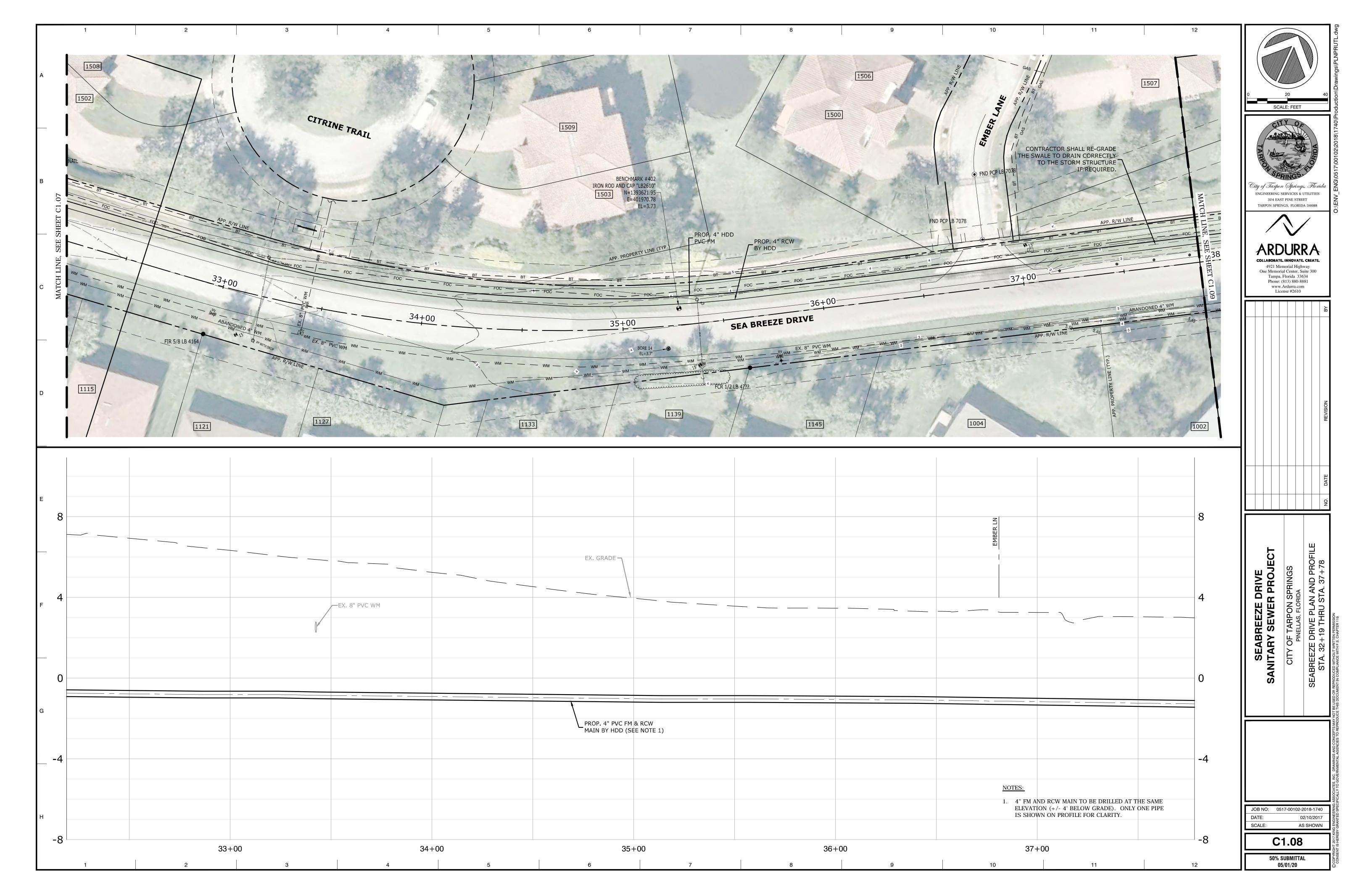


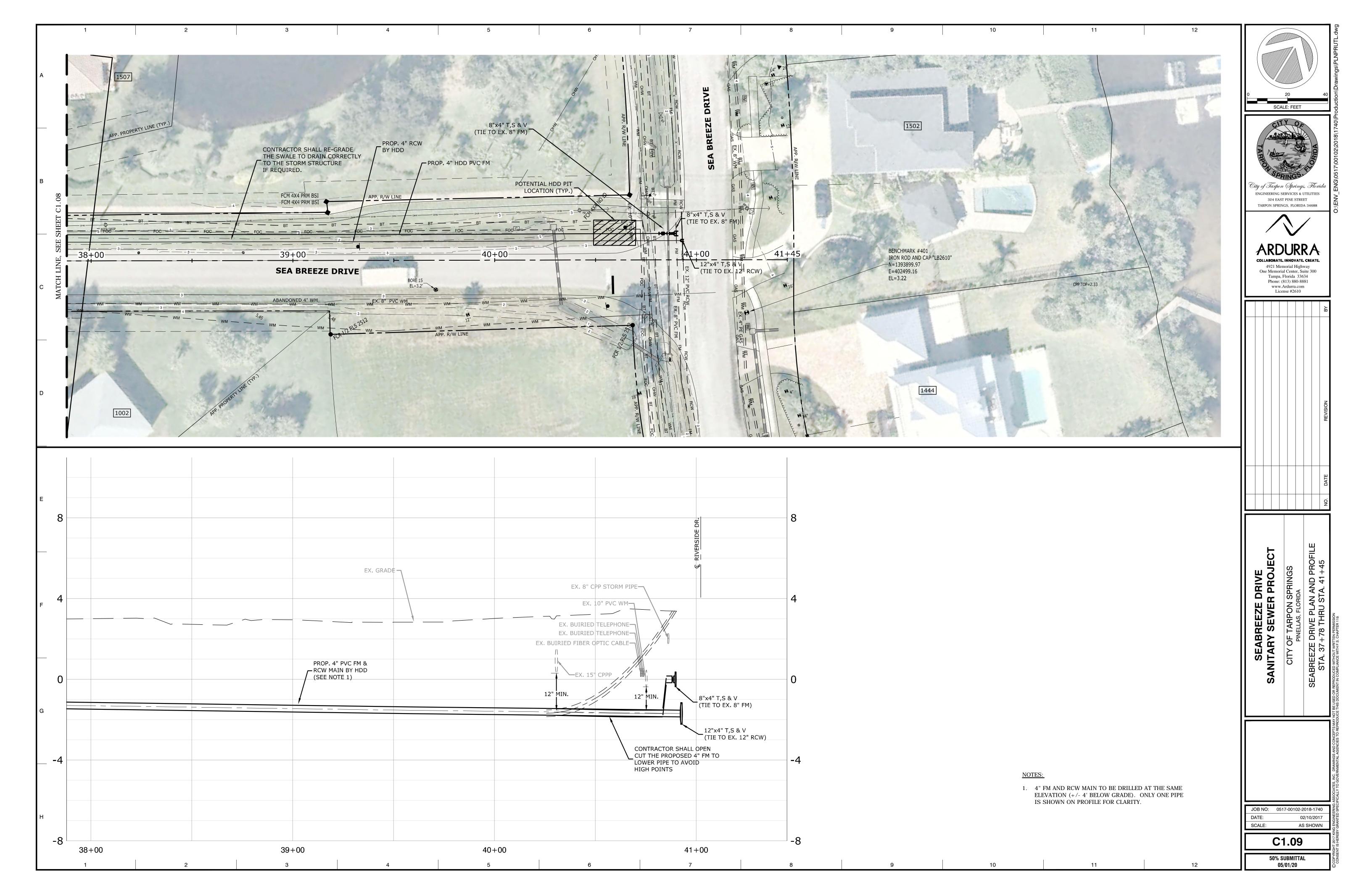


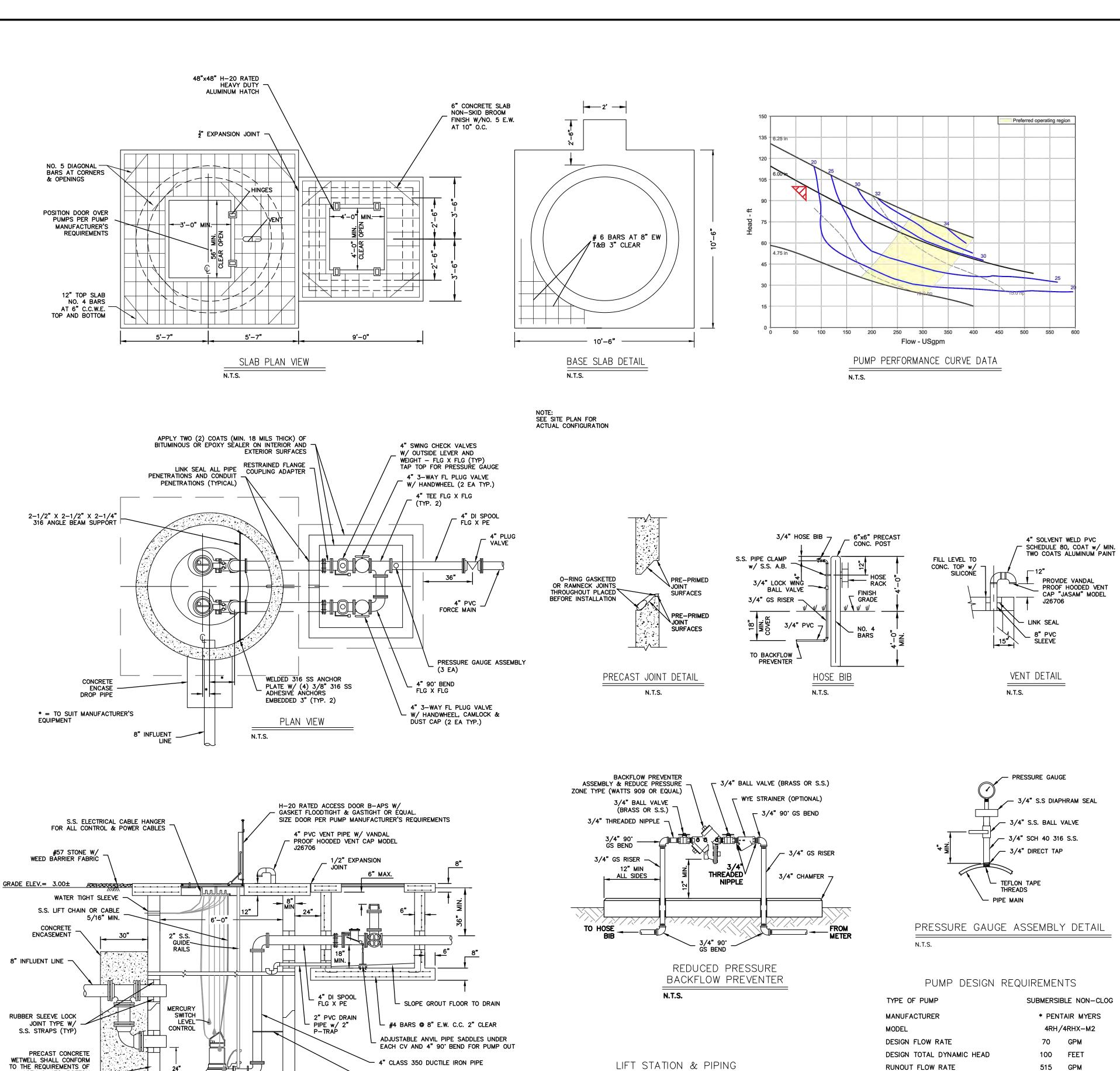












ELEVATION TYPICAL

3.00

-7.94

-8.44

-8.94

-9.44

-9.79

-11.79

TOP SLAB ELEV. =

HIGH LEVEL ALARM ELEV. =

LAG PUMP "ON" ELEV. =

LEAD PUMP "ON" ELEV. =

BOTH PUMPS "OFF" ELEV. =

INVERT ELEV. =

BOTTOM ELEV. =

PROVIDE SS U-BOLTS AND GUIDES AT

-NO. 5 BARS T&B AT 12" O.C./E.W.

304 S.S. ANCHOR AS

REQUIRED BY PUMP

MANUFACTURER

SECTION VIEW

N.T.S.

10' CENTERS EPOXY INTO WETWELL WALL

ASTM C-478. BOTTOM

W/ THE BASE SLAB.

1:1 GROUT FILLET, MAX

24" TO SUIT PUMP LAYOUT

SECTION OF WETWELL SHALL

BE INTEGRALLY PRECAST

- 1. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW 240V/3PA TRANSFORMER, APPROPRIATELY SIZED PER PUMP MANUFACTURER'S POWER REQUIREMENTS, TO BE INSTALLED BY ELECTRIC COMPANY. LOCATION OF TRANSFORMER TO BE DETERMINED INFIELD. CONTRACTOR SHALL PROVIDE APPROPRIATELY-SIZED LATERAL, CONDUIT AND FUSED DISCONNECT TO NEW PUMP STATION.
- 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES, ORIENTATIONS, AND LOCATIONS OF ALL EQUIPMENT WITH THE RESPECTIVE
- 4. EXCAVATIONS SHALL REMAIN FULLY DEWATERED UNTIL BACKFILLING IS COMPLETED.
- 5. CONTRACTOR IS RESPONSIBLE FOR ALL BALLAST REQUIRED DURING CONSTRUCTION. CONTRACTOR TO PROVIDE CALCULATIONS TO SHOW THAT BUOYANCY IS OVERCOME FOR THE SYSTEM SHOWN ON SHOP DRAWINGS SUBMITTED FOR APPROVAL.
- 6. SEE SITE PLAN FOR ORIENTATION OF PUMP STATION COMPONENTS.
- 7. A 3/4" WATER SERVICE WITH INTEGRAL REDUCED PRESSURE ZONE BACKFLOW PREVENTOR SHALL BE INSTALLED AT THE PUMP STATION
- 8. THE CONTRACTOR SHALL INSTALL THE CONTROL PANEL, COVERS, PUMPS, GUIDE RAIL AND ASSOCIATED EQUIPMENT TO PUMP MANUFACTURERS RECOMMENDATIONS AND APPROVED SHOP DRAWINGS.
- 9. ALL HARDWARE (INCLUDING FLANGE BOLTS & NUTS) SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE SHOWN.
- 10. COAT THE EMBEDDED AREAS OF ALL ALUMINUM PRODUCTS IN CONTACT WITH CONCRETE, WITH 1 COAT OF CARBOLINE BITUMASTIC 300 M.
- 11. INDIVIDUAL WALL PENETRATION SLEEVES SHALL BE PROVIDED FOR EACH PUMP CABLE.
- 12. IF LIFT CABLES ARE USED IN LIEU OF CHAINS, LIFTING RINGS MUST BE PROVIDED EVERY 4 FT. LIFT CABLES AND RINGS SHALL BE 316 STAINLESS STEEL.
- 13. ALL LIFT STATION PIPING SHALL BE D.I.P. PRESSURE CLASS 350 FLANGED UNLESS OTHERWISE INDICATED.
- 14. ALL UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT DUCTILE IRON AND SHALL BE PROVIDED WITH PROTECTO 401 INTERIOR
- 15. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE PROVIDED WITH CERAMIC EPOXY INTERIOR LINING (PROTECTO 401).
- 16. BURIED DISCHARGE FORCE MAIN SHALL BE C900 PVC, DR 18, COLORED GREEN. PROVIDE MINIMUM 36" COVER IN ALL LOCATIONS. INSTALL GREEN METALLIC IDENTIFICATION TAPE MARKED "FORCE MAIN BURIED BELOW" AT 12-18 INCHES BELOW GRADE ABOVE THE PIPE.
- 17. ELECTRICAL AND CONTROLS: THE FOLLOWING SHALL BE MINIMUM ELECTRICAL/CONTROLS REQUIREMENTS. ADDITIONAL ITEMS SHALL BE AS SHOWN ON PUMP STATION ELECTRICAL PLAN IF ANY. ALL PANELS SHALL BE SS, NEMA 4/4X. A 110-VOLT GFI POWER RECEPTACLE SHALL BE PROVIDED INSIDE THE PANEL DEAD FRONT, OR IN A SEPARATE OUT-DOOR RATED BOX WIRED TO THE PANEL. A SS NEMA 4/4X JUNCTION BOX SHALL BE PROVIDED BETWEEN THE WETWELL AND CONTROL PANEL PER THE ELECTRICAL SHEET. SEAL-OFFS SHALL BE PROVIDED AT ALL PENETRATIONS INTO THE WETWELL AND AT THE JUNCTION BOX UPSTREAM OF THE WET WELL. ALL PUMP MOTOR POWER CORDS SHALL BE HEAVY-DUTY FOR WASTEWATER APPLICATIONS, WITH CORROSION-RESISTANT TERMINAL FITTINGS. ALL PANELS SHALL BE MOUNTED ONTO TWO 6 INCH CONCRETE POSTS WITH SS UNI-STRUTS. THE PUMP STATION CONTROL SHALL BE PROVIDED WITH THE FOLLOWING FEATURES/OPTIONS,
- FDEP REQUIREMENTS, AT MINIMUM, INCLUDING:
- PUMP FAIL INDICATOR LIGHTS AND MOMENTARY TEST SWITCHES. FAIL CONDITION SHALL INCLUDE PUMP SEAL FAIL/LEAK.
- EXTERNALLY MOUNTED LIGHTNING ARRESTOR. RECEPTACLE FOR PORTABLE GENERATOR, PROTECTED FROM DAMAGE IN THE EVENT OF RESTORATION OF POWER. ALARM LIGHT AND HORN, WITH EMERGENCY BATTERY BACKUP UPON LOSS OF MAIN POWER.
- ELAPSED TIME METER FOR EACH PUMP
- ALTERNATION OF LEAD/LAG PUMP AFTER EACH OFF CYCLE.
- HOA SWITCH, EACH PUMP. PUMP RUN/FAIL/STDBY/LIGHTS
- ALARM BATTERY BACKUP (1 HR)

RUNOUT FLOW RATE

SHUT-OFF HEAD

HORSEPOWER

PUMP SPEED

IMPELLER SIZE

DISCHARGE DIAMETER

MINIMUM SOLIDS SIZE

RUNOUT TOTAL DYNAMIC HEAD

*OR ENGINEER APPROVED EQUAL

515

11

GPM

INCHES

3500 RPM, MAX.

3.0 INCHES

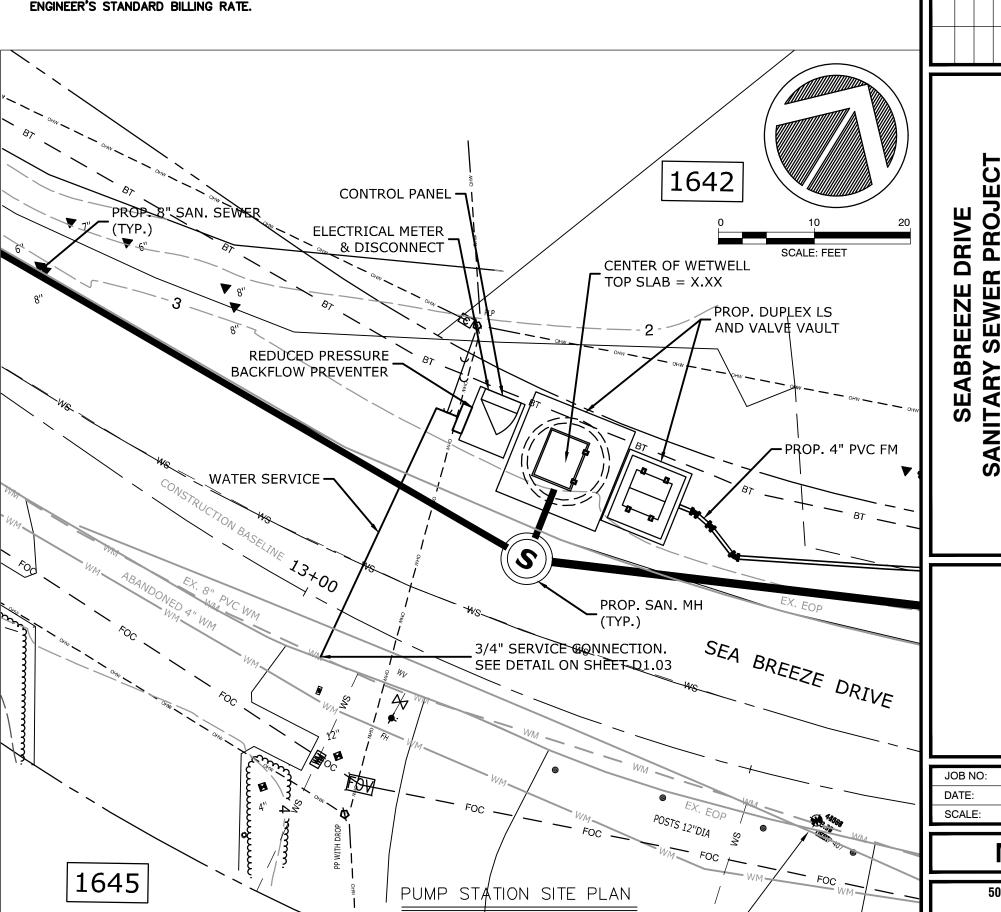
6.0 INCHES

MAXIMUM

40 FEET

115 FEET

- 18. POST AN UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL MIN. 2" BLACK LETTERING ON REFLECTIVE BACKGROUND AT A LOCATION VISIBLE TO THE PUBLIC WITH A TELEPHONE NUMBER FOR A POINT OF CONTACT IN CASE OF EMERGENCY.
- 19. ALL DISCHARGE PIPING SHALL BE SUBJECT TO HYDROSTATIC PRESSURE TESTING TO 100 PSI FOR 2 HOURS. LEAKAGE EXCEEDING 0 GAL.
- 20. ACCEPTANCE OF THE FORCE MAIN SHALL NOT BE PRIOR TO SUCCESSFUL COMPLETION, IN THE PRESENCE OF THE ENGINEER'S REPRESENTATIVE, OF A 2-HR PRESSURE TEST TO 100 PSI IN ACCORDANCE WITH AWWA C605
- 21. ALL VALVES AND PIPING SHALL BE PAINTED WITH TWO COATS OF CARBOLINE BITUMASTIC 300 M OR EQUAL AFTER INSTALLATION.
- 22. THE WET WELL AND VALVE VAULT INTERIORS SHALL BE COATED WITH 16 MILS MINIMUM OF CARBOLINE BITUMASTIC 300 M.
- 23. PUMP MOTORS SHALL NOT BE OVERLOADED ON ANY POINT OF THE OPERATING CURVE.
- 24. CONTRACTOR SHALL PERFORM A "PRELIMINARY PUMP STATION START-UP", PRIOR TO SCHEDULING A FINAL PUMP STATION START-UP WITH THE ENGINEER OF RECORD, CLIENT AND GOVERNING AGENCIES. ENGINEER'S TIME AT ADDITIONAL PUMP STATION START-UPS REQUIRED DUE TO THE CONTRACTOR'S FAILURE TO COMPLETE A SUCCESSFUL PRELIMINARY START-UP WILL BE PAID FOR BY THE CONTRACTOR AT THE ENGINEER'S STANDARD BILLING RATE.





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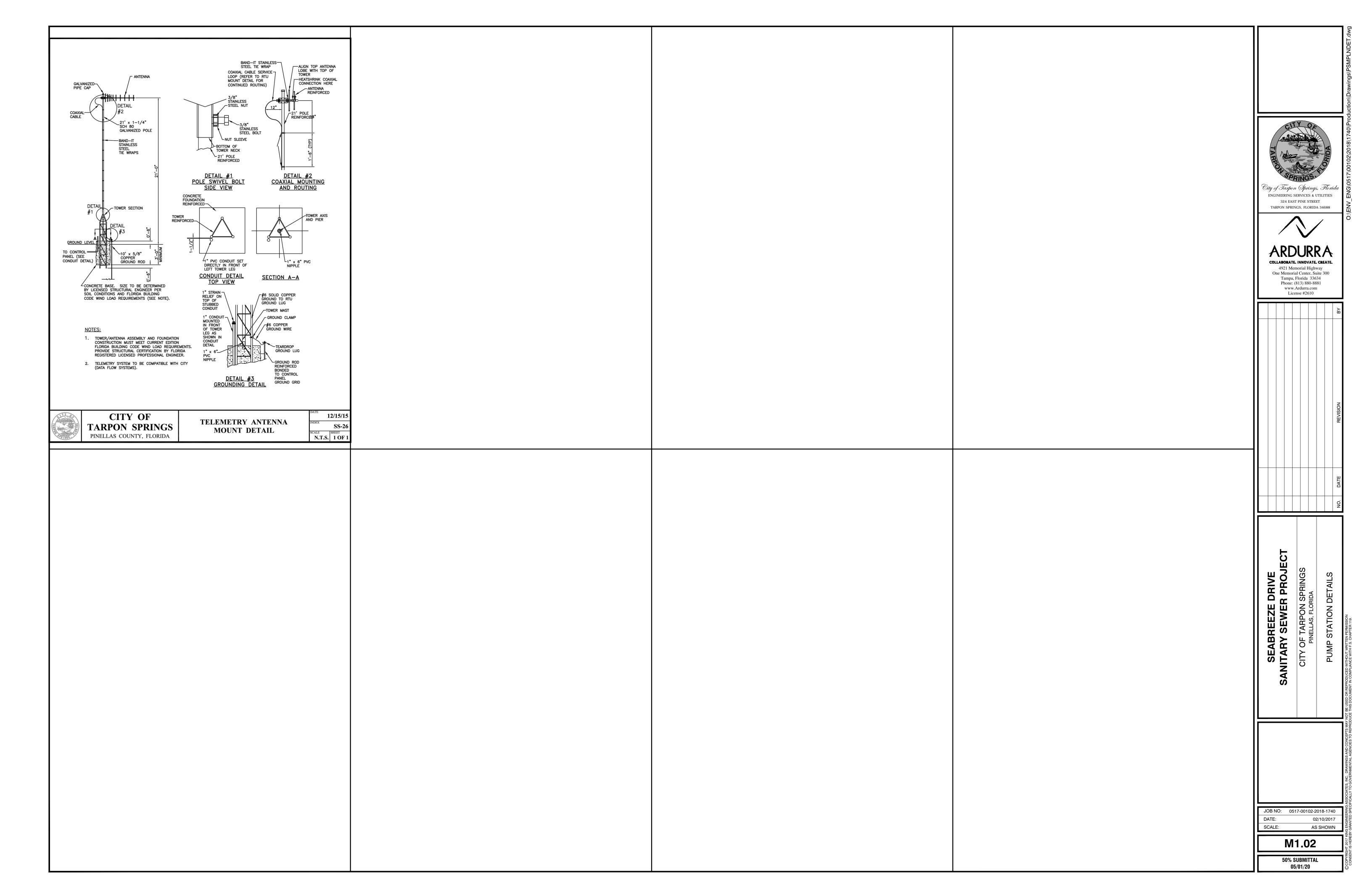
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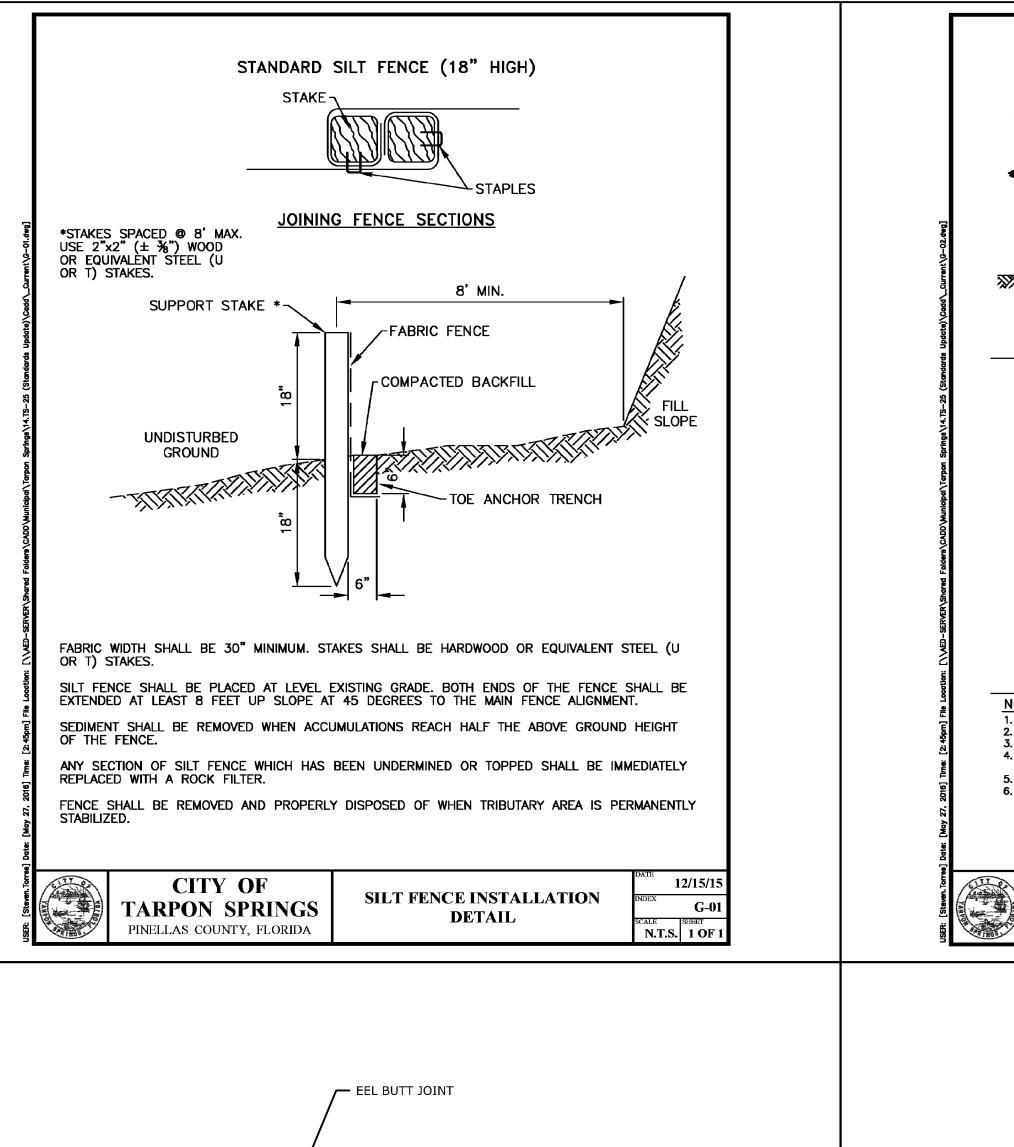
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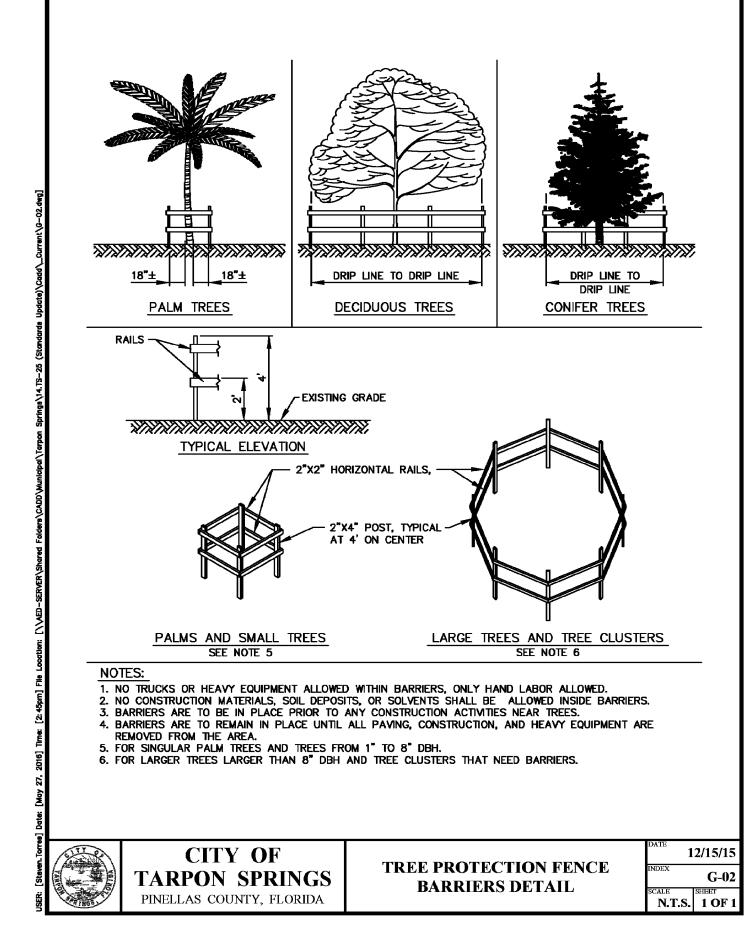
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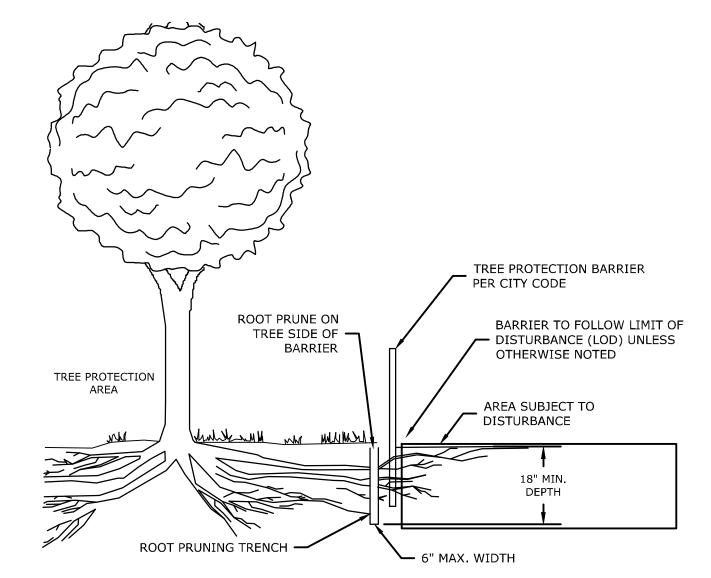
REEZE DRIVE

JOB NO: 0517-00102-2018-1740 AS SHOWN



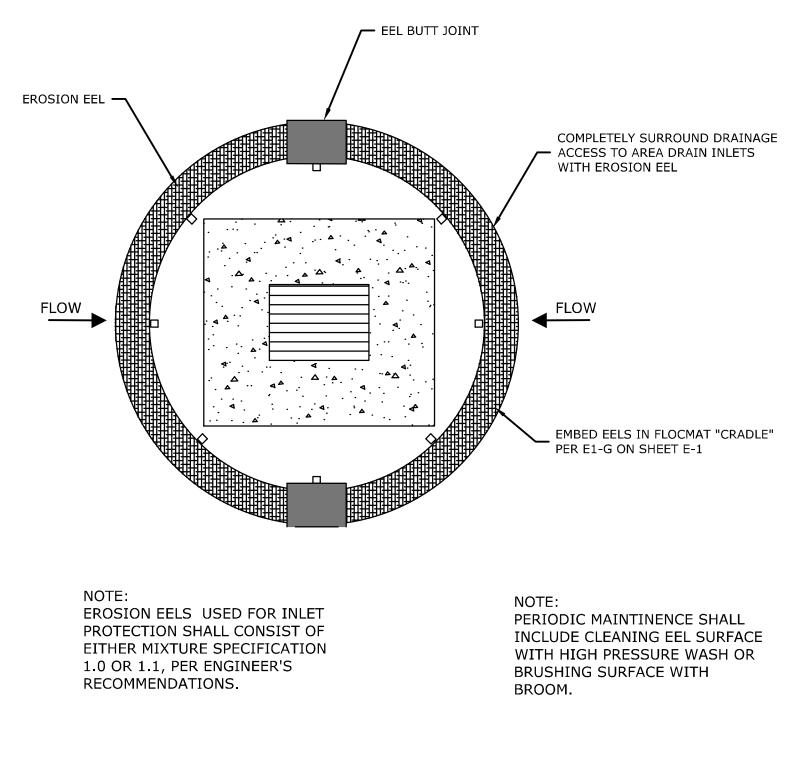




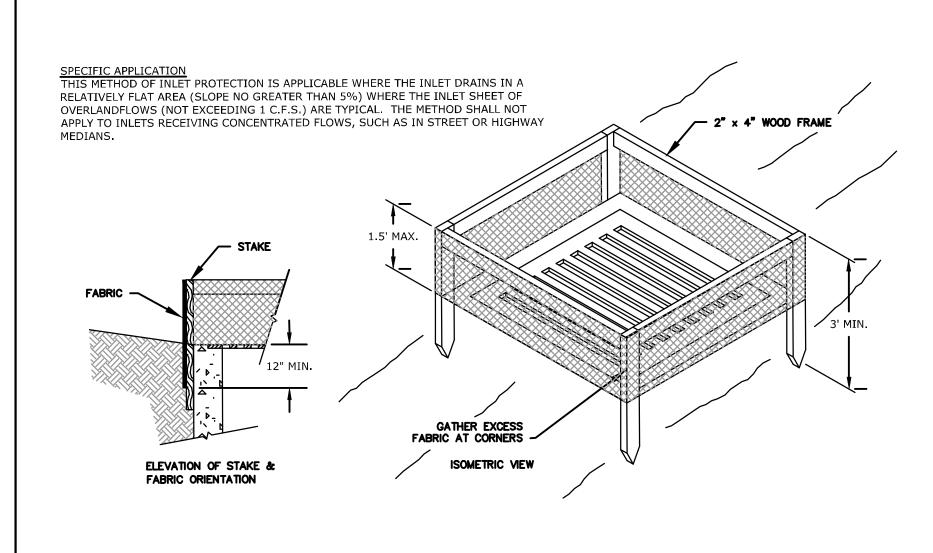


- 1. CRITICAL ROOT ZONE (CRZ) IS EQUAL TO 10" PER INCH OF TRUCK DIAMETER MEASURED 4.5 INCHES HIGH OFF OF GRADE, IE 30" DIAMETER = 25' (CRZ).
- 2. TREE PROTECTION ZONE (TPZ) IS AREA AS DEFINED IN CLEARWATER INDEX NO. 909.
- 3. ROOT PRUNING TO BE PERFORMED BY AN ISA CERTIFIED ARBORIST ONLY USING A SPECIALIZED ROOT PRUNING MACHINE.
- 4. ALL ROOTS TO BE CUT CLEAN AND AN APPROVED FUNGICIDE APPLIED TO ALL CUTS UNDER 30 MINUTES FROM TIME OF CUTTING.
- 5. NO CUTTING OF ROOTS SHALL BE PERMITTED WITHIN THE CRZ.
- 6. TPZ BARRIER TO BE ERECTED PRIOR TO ANY WORK ON SITE.
- 7. BACKFILL TENCH WITH NATIVE SOIL AFTER CUTTING IS APPROVED BY CITY ARBORIST.

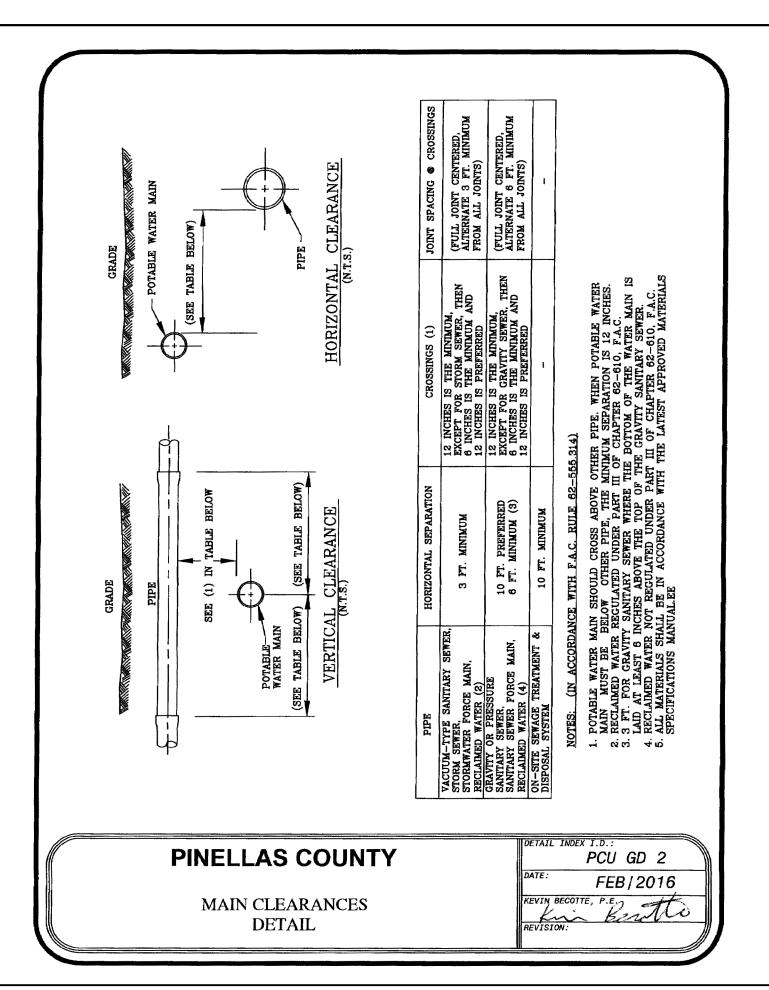
ROOT PRUNING DETAIL

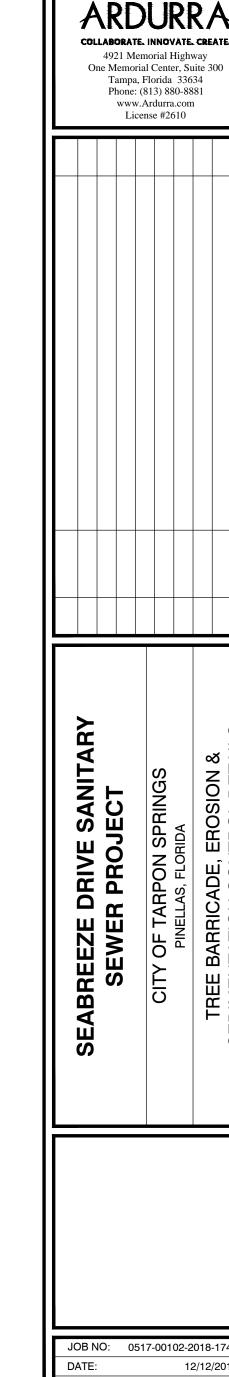


INLET SEDIMENT TRAP DETAIL



TEMPORARY SEDIMENT BARRIER AT DROP INLET N.T.S.





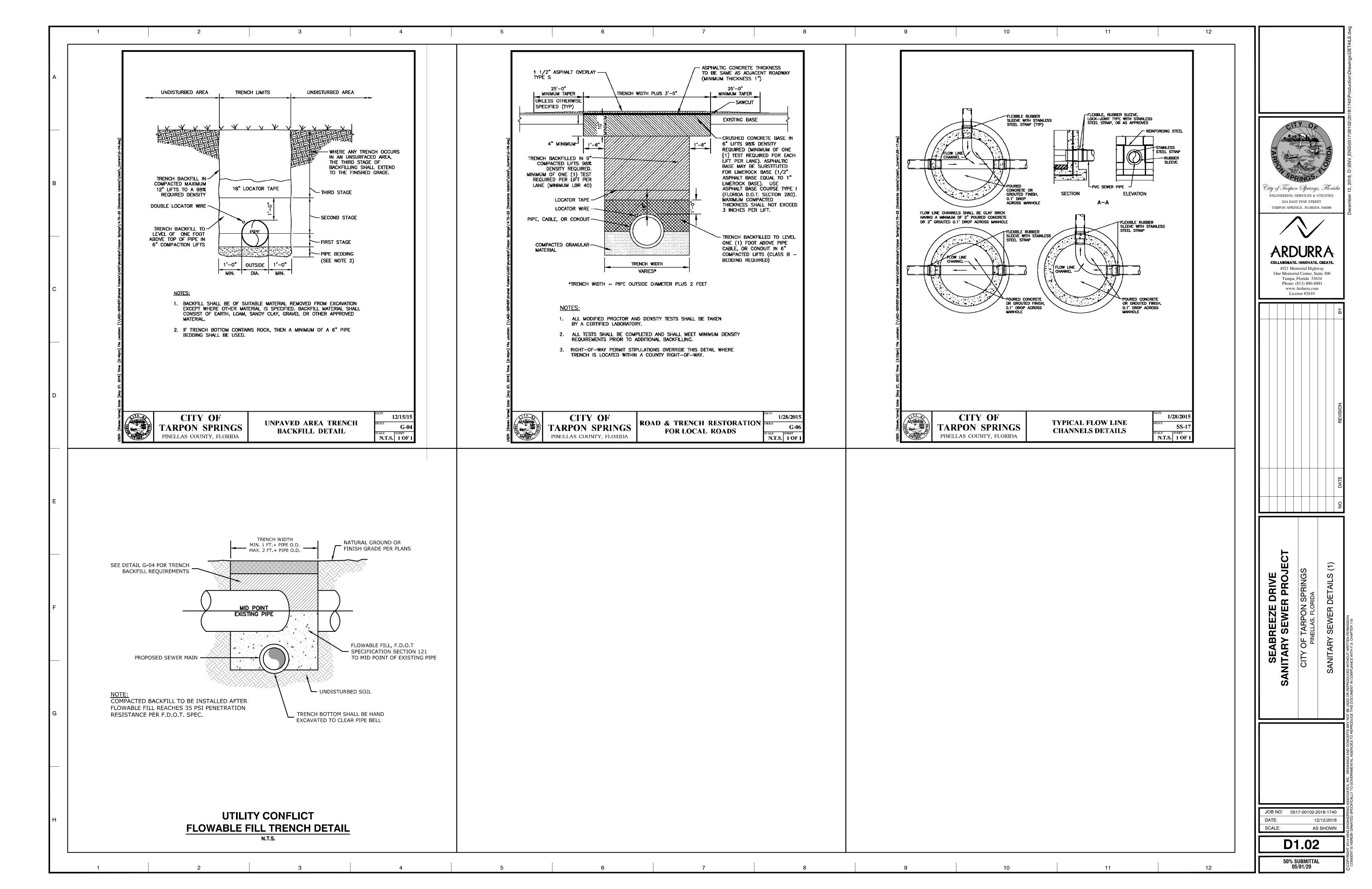
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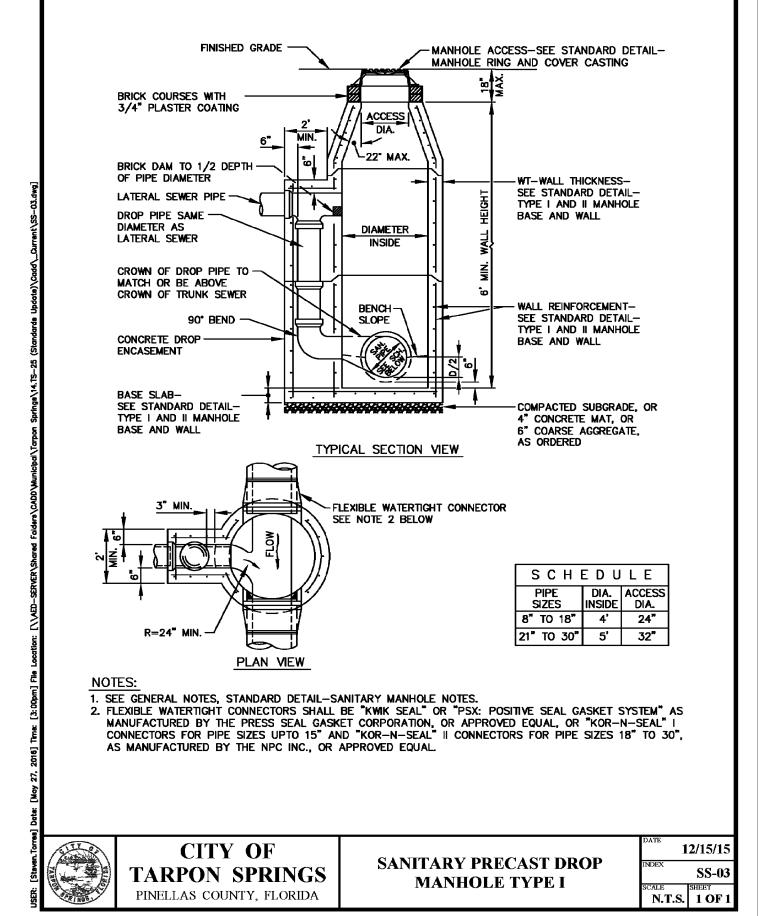
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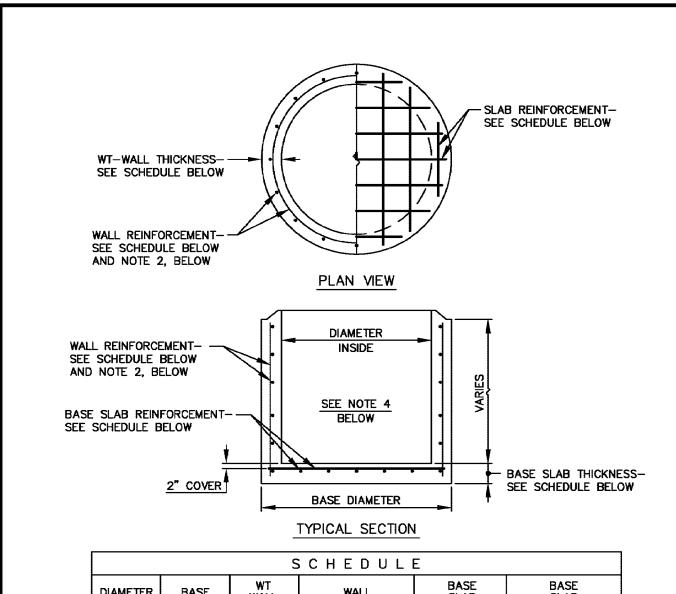
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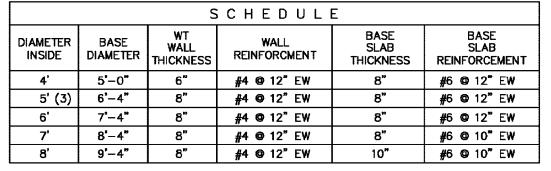


NOTES FOR SANITARY STRUCTURES 1. ALL MANHOLES SHALL BE PRECAST CONCRETE OR FIBERGLASS REINFORCED POLYESTER (FRP), UNLESS -MANHOLE ACCESS-SEE STANDARD DETAIL-FINISHED GRADE -OTHERWISE SHOWN OR APPROVED BY THE ENGINEER. MANHOLE RING AND COVER CASTING 2. ALL PIPE STUBS FROM PRECAST MANHOLES, FOR FUTURE CONNECTIONS, SHALL BE INSTALLED WITH REMOVABLE WATERTIGHT PLUGS, PLACED FROM WITHIN THE MANHOLE. BRICK COURSES WITH 3/4" PLASTER COATING 3. ALL TYPE I CONE SECTIONS SHALL BE CONCENTRIC WITH RING CASTING CENTERED IN STRUCTURE, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. 4. THE CONE SECTION OF TYPE I PRECAST MANHOLE SHALL BE PRECAST. **1**22° MAX. 5. NO PIPE SHALL BE IN THE MANHOLE CONE SECTION. 6. ALL MANHOLES WITH SLAB TOP SHALL BE TYPE II, SEE STANDARD DETAIL-TYPE II MANHOLE TOP SLAB. WALL REINFORCEMENT-- WT-WALL THICKNESS-SEE STANDARD DETAIL-SEE STANDARD DETAIL-7. A DROP MANHOLE SHALL BE REQUIRED WHEN THE INVERT OF ANY INCOMING PIPE IS 24" OR MORE TYPE I AND II MANHOLE TYPE I AND II MANHOLE ABOVE THE INVERT OF THE MANHOLE, ALL DROP PIPE SHALL BE ON THE OUTSIDE OF THE MANHOLE. BASE AND WALL BASE AND WALL DIAMETER 8. PRIOR TO PRECASTING STRUCTURES THE PRECASTER SHALL SUBMIT SITE SPECIFIC INDIVIDUAL SHOP DRAWINGS FOR APPROVAL. SHOP DRAWINGS SUBMITTED FOR NONSTANDARD STRUCTURES OR STRUCTURES INSIDE CROWN OF LATERAL SEWER -THAT DEVIATE FROM THE STANDARD DETAILS MUST BE DESIGNED AND CERTIFIED BY A REGISTERED TO MATCH OR BE ABOVE FLORIDA PROFESSIONAL ENGINEER. CROWN OF TRUNK SEWER 9. PRECAST MANHOLES SHALL CONSIST OF A MINIMUM NUMBER OF SECTIONS, AS APPROVED BY THE FLEXIBLE WATERTIGHT CONNECTOR-10. ALL PRECAST STRUCTURES SHALL HAVE AN INTEGRAL FLOOR AND BASE RISER SECTION, SEE STANDARD SEE NOTE 2 BELOW - BENCH SLOPE DETAIL-TYPE I AND II MANHOLE BASE AND WALL. LATERAL SEWER PIPE-11. FOR PRECAST STRUCTURE JOINT, SEE STANDARD DETAIL-PRECAST STRUCTURE JOINT ASSEMBLY. 12. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER. 13. FOR THE APPLICABLE RING AND COVER, SEE STANDARD DETAIL-MANHOLE RING AND COVER CASTING. BASE SLAB-14. PRECAST BASE SECTION SHALL BE INSTALLED ON A CONCRETE MAT WITHIN 2 HOURS OF PLACEMENT OF SEE STANDARD DETAIL-COMPACTED SUBGRADE, OR TYPE I AND II MANHOLE 4" CONCRETE MAT, OR BASE AND WALL 6" COARSE AGGREGATE, 15. ALL BRICK SHALL BE CLAY BRICK AND SHALL HAVE A MINIMUM 3/4" CEMENT PLASTER ON ALL SURFACES. TYPICAL SECTION VIEW 16. BENCH SHALL SLOPE @ 1:12 MINIMUM. 17. A PROTECTIVE COATING SHALL BE APPLIED TO THE INSIDE AND OUTSIDE SURFACES OF STRUCTURES, EXCEPT FRP'S. THE PROTECTIVE COATING SHALL COVER THE COMPLETE EXTERIOR AND INTERIOR SURFACE FLEXIBLE WATERTIGHT CONNECTOR OF THE STRUCTURE, (INCLUDING CONE SECTIONS, RISERS, AND INVERT) FROM THE BOTTOM SLAB TO THE SEE NOTE 2 BELOW GROUND SURFACE EXCLUDING THE COVER CASTING, LID, AND THE HORIZONTAL PLANE OF THE PIPE PENTRATIONS OR CUT OPENINGS. THE UNDERSIDE OF THE BOTTOM SLAB MAY ALSO BE EXCLUDED AT THE CONTRACTORS OPTION. 2 COATS OF THE PROTECTIVE COATING SHALL BE APPLIED TO THE INSIDE, AND 1 SHALL BE APPLIED TO THE OUTSIDE. THE COATING SHALL BE OF TAR EPOXY, KOP-COAT BITUMASTIC 300-M OR APPROVED EQUAL. EACH COATING SHALL YIELD A FINAL DRY FILM 9 mils IN THICKNESS. SCHEDULE 18. PRIOR TO MANUFACTURING OF FRP MANHOLE, MANUFACTURER SHALL SUBMIT SIGNED AND SEALED PIPE DIA. ACCESS SIZES INSIDE DIA. SHOP DRAWINGS FOR THE DESIGN OF INVERT AND BENCH AREA, PIPE CONNECTIONS, FABRICATION 8" TO 18" | 4' | 24" DETAILS AND INSTALLATION METHODS FOR APPROVAL R=24" MIN 19. FOR FRP MANHOLES A FIBERGLASS ENCLOSED INVERT AND BENCH MAY BE INSTALLED BY THE MANUFACTURER OR CONCRETE MAY BE USED FOR THE BENCH AREA AND INVERT, AS DIRECTED PLAN VIEW BY THE ENGINEER. 20. FRP STIFFENING RIBS ARE REQUIRED AT 10' DEPTH OR MORE. 1. SEE GENERAL NOTES, STANDARD DETAIL—SANITARY MANHOLE NOTES. 2. FLEXIBLE WATERTIGHT CONNECTORS SHALL BE "KWIK SEAL" OR "PSX: POSITIVE SEAL GASKET SYSTEM" AS MANUFACTURED BY THE PRESS SEAL GASKET CORPORATION, OR APPROVED EQUAL, OR "KOR-N-SEAL" I CONNECTORS FOR PIPE SIZES UPTO 15" AND "KOR-N-SEAL" II CONNECTORS FOR PIPE SIZES 18" TO 30", AS MANUFACTURED BY THE NPC INC., OR APPROVED EQUAL. CITY OF 12/15/1 CITY OF 12/15/1 **SANITARY PRECAST** SS-02 TARPON SPRINGS SANITARY STRUCTURE NOTES SS-0 CARPON SPRINGS

N.T.S. 1 OF 1







1. FOR GENERAL NOTES, SEE STANDARD DETAIL—SANITARY STRUCTURE NOTES. 2. OPTIONAL WALL REINFORCEMENT MAY BE WELDED WIRE AS PER ASTM C-478 OR ASTM C-76, CLASS III, B WALL, WITH WHERE THE REINFORCEMENT CAGE IN THE CENTER 1/3 OF THE WALL. 3. MAXIMUM SIZE ALLOWED FOR TYPE I MANHOLE. 6', 7', AND 8' DIÁMETER SHALL BE TYPE II MANHOLE. 4. ADD 2 #4 REINFORCING BARS AT 3" CENTERS AT THE TOP AND SIDES OF ALL WALL OPENINGS.

CITY OF TARPON SPRINGS PINELLAS COUNTY, FLORIDA

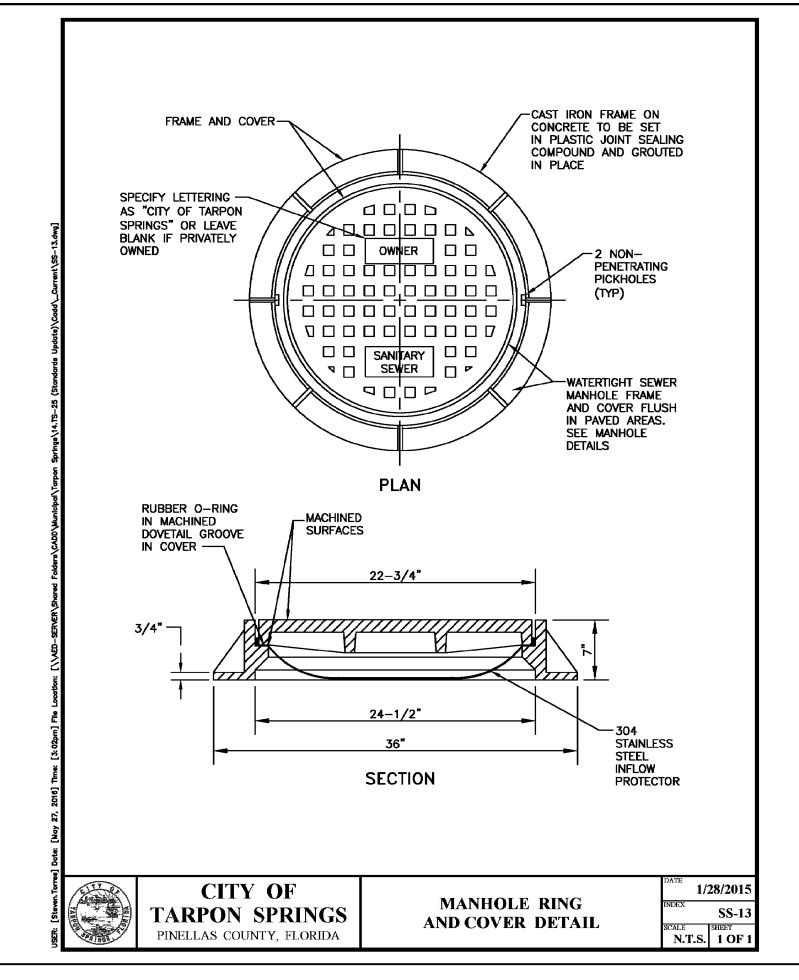
ENGINEER.

PINELLAS COUNTY, FLORIDA

TYPE I AND II MANHOLE **BASE AND WALL** N.T.S. 1 OF

12/15/1

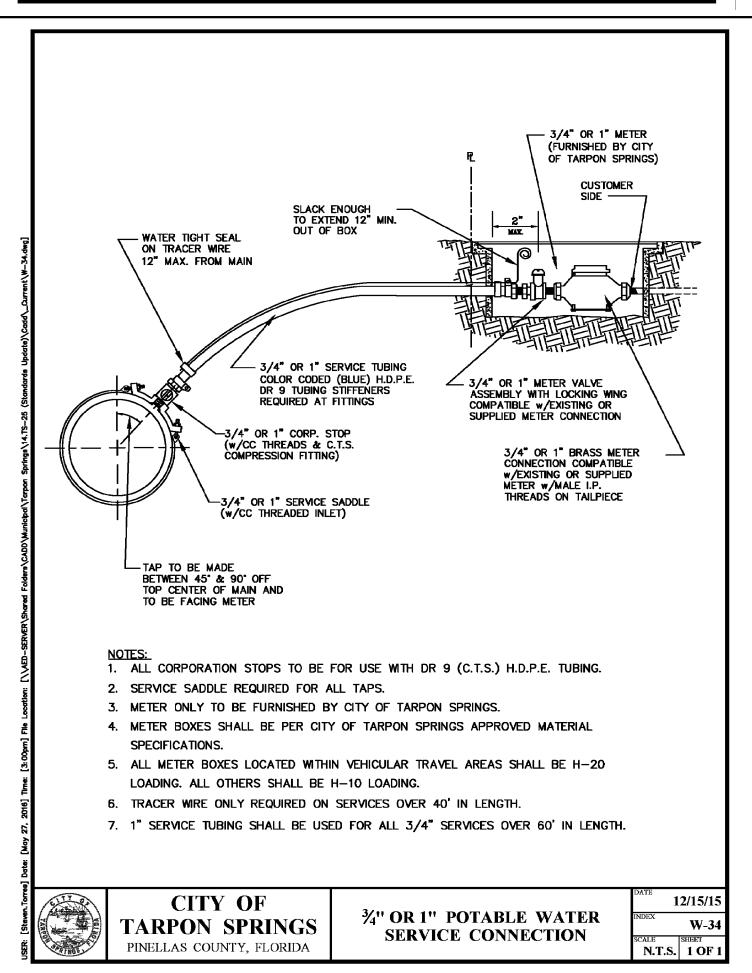
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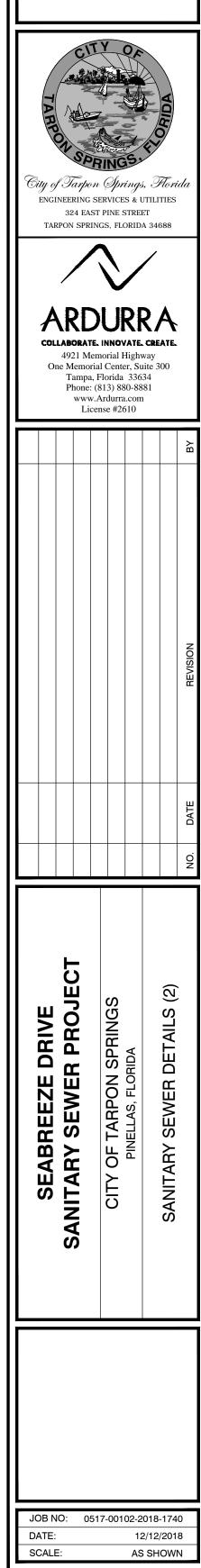


PINELLAS COUNTY, FLORIDA

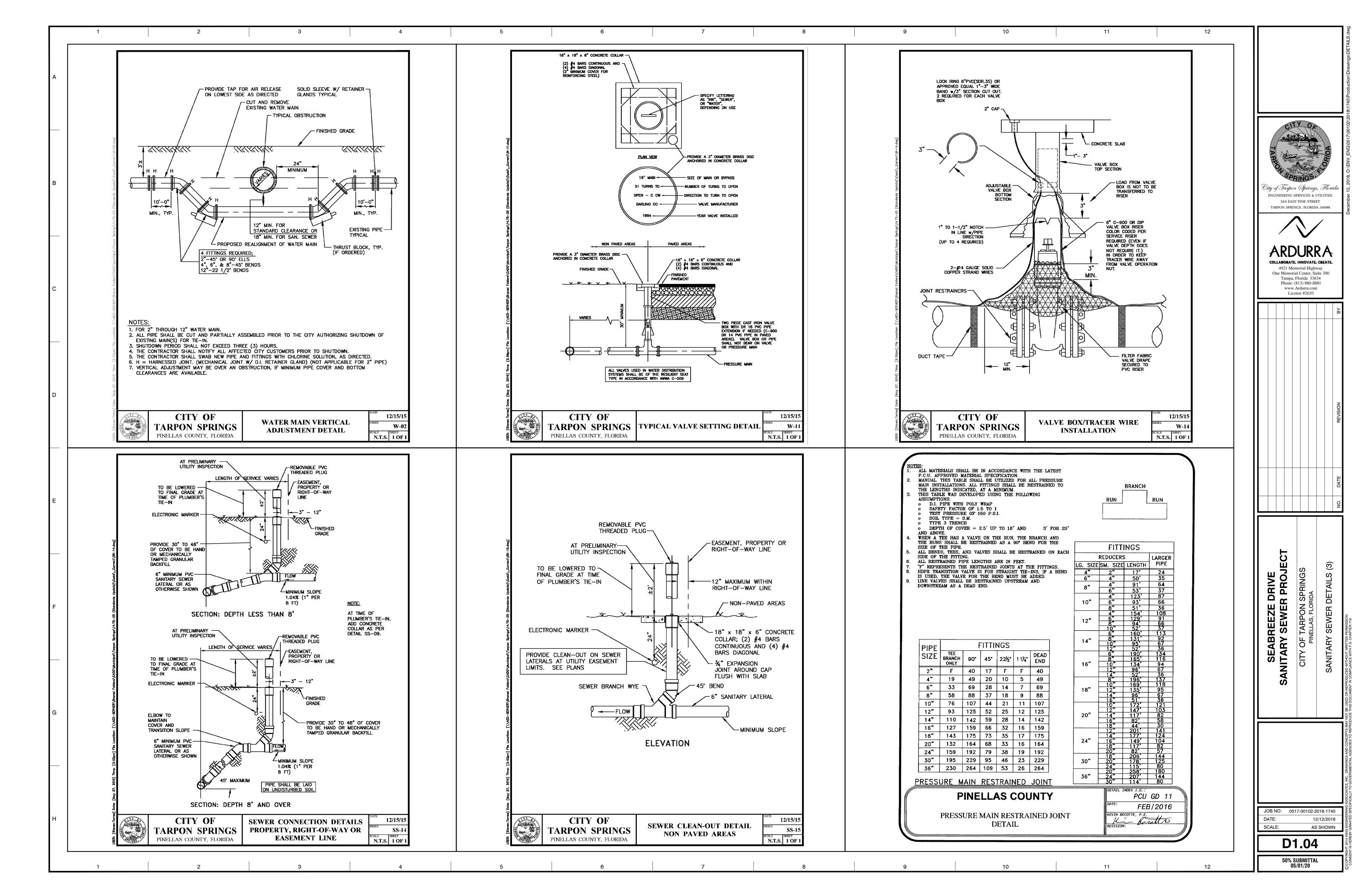
MANHOLE TYPE I

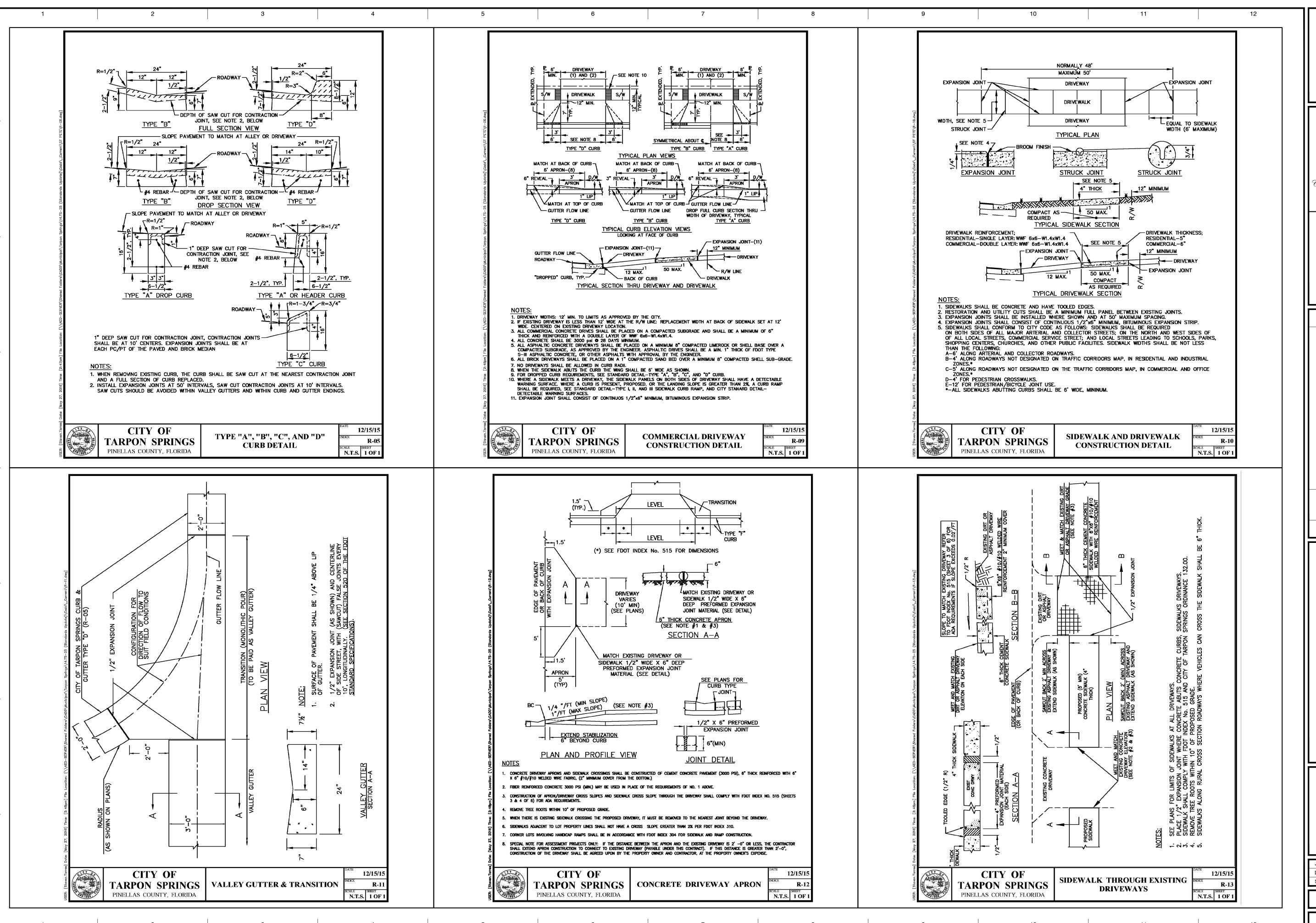
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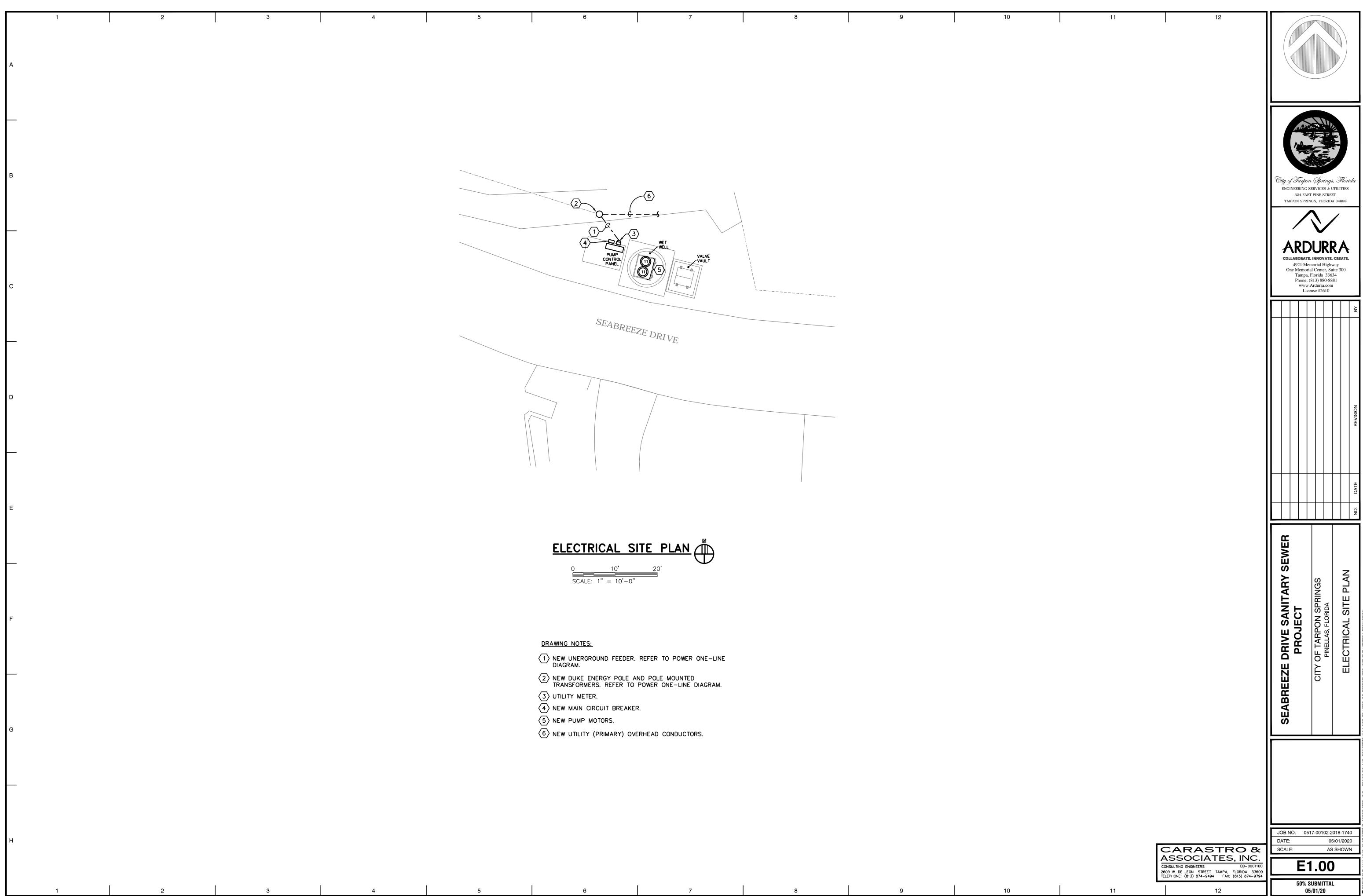


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DETAIL BREEZE DRIVE SANIT SEWER PROJECT

SIDEWALK RESTORATION AND

JOB NO: 0517-00102-2018-1740 12/12/2018 SCALE: AS SHOWN



ELECTRICAL GENERAL NOTES:

- 1. ALL ELECTRICAL WIRING SHALL BE COPPER. NO SPLICES IN WET WELL.
- 2. A REMOVABLE GAS SEAL SHALL BE INSTALLED IN WIRING CONDUIT AT WET WELL, AND TERMINAL STRIP JUNCTION BOX. CONDUIT FROM JUNCTION BOX TO CONTROL PANEL SHALL BE COMPLETELY SEALED.
- 3. ALL WIRING SIZES AND EQUIPMENT SHALL BE IN ACCORDANCE WITH N.E.C. AND MANUFACTURERS RECOMMENDATIONS.
- 4. PHASE MONITOR REQUIRED IN CONTROL CIRCUIT.
- 5. PANEL BOX TO BE LOCATED TO ALLOW UNOBSTRUCTED ACCESS TO WET WELL FROM SEABREEZE DRIVE.
- 6. GENERATOR RECEPTACLE TO MATCH CITY GENERATOR (CROUSE-HINDS AR1042).
- 7. CONTROL PANEL SHALL INCLUDE A TELEMETRY CONTROL UNIT (TCU) FROM DATA FLOW SYSTEMS PROGRAMMED TO THE SPECIFIC FREQUENCY ASSIGNED TO THE CITY OF TARPON SPRINGS TO INCLUDE ALL FCC LICENSING REQUIREMENTS.
- 8. ALL PANELS SHALL BE LOCKABLE WITH PADLOCK.
- 9. CONTROL PANEL SHALL BE FDEP COMPLIANT PER FAC 62-604.
- 10. SEE TECHNICAL SPECIFICATIONS FOR DETAILS.
- 11. BREAKER, MODULAR CONTROL UNIT & RESETS MOUNTED FOR OPERATION THROUGH INNER SAFETY DOOR.

MAIN SERVICE -DISCONNECT SWITCH.

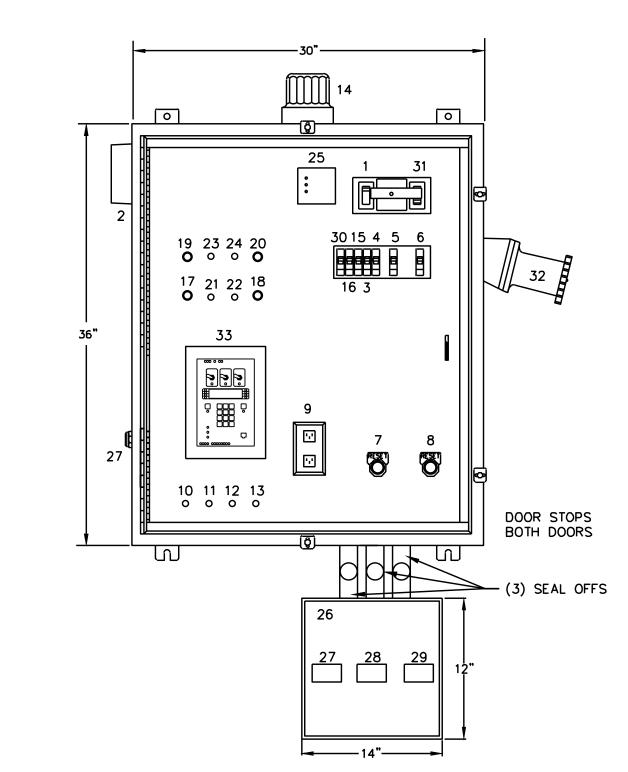
CONC. POSTS — PRE-STRESSED 6"x6"X 9'-0"

NEMA 6P (IP-68) —

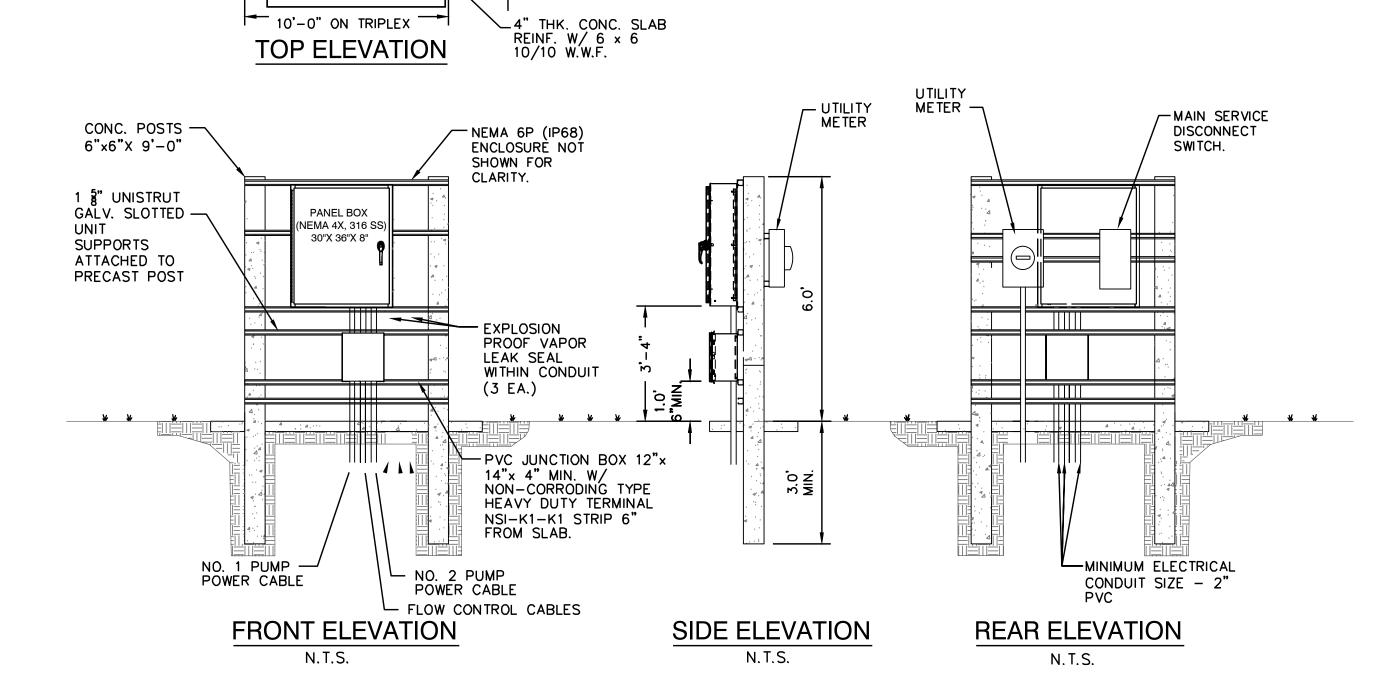
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__NEMA 6P (IP-68) ENCLOSURÉ

- 12. G.F.I. RECEPTACLE TO BE MOUNTED ON INNER SAFETY DOOR.
- 13. OUTER DOOR HAS BEEN REMOVED FOR CLARITY.



PANEL BOX COMPONENT LAY-OUT



1 - MAIN BREAKER (MCB)

2 – ALARM HORN

3 - RECEPTACLE BREAKER (RCB)

4 - CONTROL BREAKER (CCB) 5 - MOTOR BREAKER 1 (MB1

6 - MOTOR BREAKER 2 (MB2) 7 - OVERLOAD 1 RESET

8 - OVERLOAD 2 RESET 9 - DUPLEX RECEPTACLE BREAKER (DRB)

10 - FTS1 FLOAT TEST SWITCH 1 11 - FTS2 FLOAT TEST SWITCH 2

12 - FTS3 FLOAT TEST SWITCH 3 13 - FTS4 FLOAT TEST SWITCH 4

14 – ALARM LIGHT 15 - ALARM BREAKER (ACB)

16 - SPARE BREAKER (SCB)

17 - PL1 OVERTEMP 1 18 - PL2 OVERTEMP 2

19 - PL3 MOISTURE 1

20 - PL4 MOISTURE 2 21 - OVERTEMP 1 TEST BUTTON

22 - OVERTEMP 2 TEST BUTTON 23 - MOISTURE 1 TEST BUTTON

24 - MOISTURE 2 TEST BUTTON

25 - SURGE PROTECTION DEVICE 26 - JUNCTION BOX

27 - PUMP 1 POWER TERMINAL BLOCK 28 - PUMP 2 POWER TERMINAL BLOCK

29 - FLOAT TERMINAL STRIP 30 - LIGHTING BREAKER (LCB)

31 - EMERGENCY CIRCUIT BREAKER (ECB)

32 - GENERATOR RECEPTACLE

33 - DFS TELEMETRY CONTROL UNIT

City of Tarpon Springs, Floride ENGINEERING SERVICES & UTILITIES 324 EAST PINE STREET TARPON SPRINGS, FLORIDA 34688



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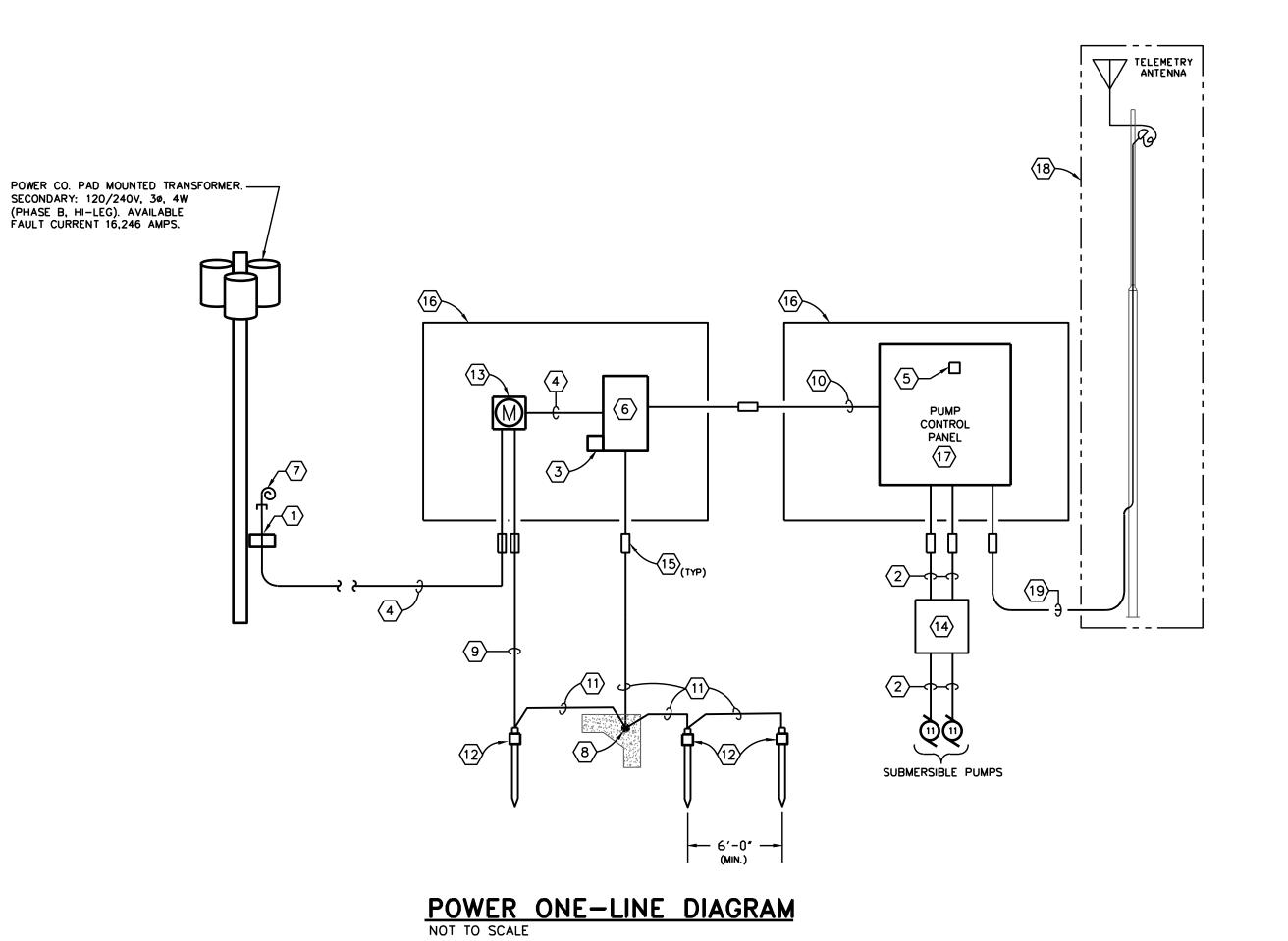
SEABREEZE DRIVE SANITARY PROJECT

JOB NO: 0517-00102-2018-1740 05/01/2020

CARASTRO & SCALE: AS SHOWN ASSOCIATES, INC. CONSULTING ENGINEERS

2609 W. DE LEON STREET TAMPA, FLORIDA 33609 TELEPHONE: (813) 874-9494 FAX: (813) 874-9794

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- POWER DISTRUBUTION DIAGRAM NOTES:

 1 CONTRACTOR TO PROVIDE POWER COMPANY APPROVED HAND HOLE
 ASSEMBLY
- ② 3 NO. 8 AND 1 NO. 8 E.G. 2"C.
- SQUARE D, LIGHTNING ARRESTER #1G2403YEH (120/240V, 3 PHASE, 5 WIRE) OR PRE-APPROVED EQUAL. CONNECT TO LOAD SIDE OF DISCONNECT SWITCH. CONNECTED LEAD LENGTH SHALL BE KEPT AS SHORT AND STRAIGHT AS POSSIBLE AND SHALL MEET MANUFACTURER'S RECOMMENDATION. MAKE APPROVED WP WIRING CONNECTION PER MANUFACTURER RECOMMENDATIONS (TYPICAL).
- 4 UNDERGROUND SECONDARY SERVICE: 4 NO. 1 2"C (SCHEDULE 80 PVC CONDUIT) UNDERGROUND AND STUB-UP AT TRANSFORMER FOR CONNECTION TO SERVICE BY DUKE ENERGY. MAINTAIN 36" MINIMUM COVER AND CALL FOR INSPECTION AND ACCEPTANCE PRIOR TO BACKFILLING OF TRENCH. CONTACT DUKE ENERGY TO COORDINATE PROVISION OF NEW SERVICE. COORDINATE EXACT LOCATION OF TRANSFORMER WITH DUKE ENERGY FOR DISTANCE OF RUN TO SERVICE MAIN. SERVICE RUN DESIGNED FOR DISTANCE NO GREATER THAN 300', CONTRACTOR TO PROVIDE LARGER CONDUIT AND CONDUCTORS TO LIMIT VOLTAGE DROP TO 3% MAXIMUM.
- 5 THREE-PHASE, 240 VOLT SURGE PROTECTION DEVICE, SQUARE D NO. SDSA3650 (LOCATED WITHIN CONTROL PANEL). PROVIDE FUSING, 22K AIC MIN., AND CONNECT TO LOAD SIDE OF MAIN CIRCUIT BREAKER WITH MINIMUM LENGTH OF CONDUCTORS, IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

- 6 PROVIDE "MAIN SERVICE ENTRANCE RATED" NEMA 4X (STAINLESS STEEL) HEAVY DUTY DISCONNECT SWITCH: 200 AMP, 240V, 3 POLE, 4W. RATED 22,000 A.I.C. INSTALL AT MINIMUM/PRACTICAL HEIGHT ALLOWED BY LOCAL BUILDING DEPARTMENT.
- 7 CONTRACTOR TO LEAVE 6'-0" SLACK CONDUCTOR FOR CONNECTION TO TRANSFORMER BY DUKE ENERGY.
- (8) BOND TO CONCRETE SLAB REBAR.
- 9 NO. 6 GROUND CONDUCTOR.
- (10) 4 NO. 1 AND 1 NO. 6 E.G. 2"C.
- (11) 1 NO. 6 AWG GROUND CONDUCTOR.
- $\langle 12 \rangle$ 5/8" x 20'-0" COPPERWELD GROUND ROD.
- (13) UTILITY METER.
- 14 TERMINAL BOX. SEE PANEL BOX COMPONENT LAYOUT.
- 15 FURNISH AND INSTALL NEW SEAL-OFF FITTINGS.
- 16 FURNISH AND INSTALL NEW NEMA 7P (IP68) ENCLOSURE.
- 17) ALL CIRCUIT BREAKERS TO BE RATED 22,000 A.I.C.
- PROVIDE ANTENNA AND ANTENNA POLE/MAST AND MAKE APPROVED CABLING CONNECTION TO DFS TCU AND RADIO CONTROL PANEL (WITHIN PUMP CONTROL PANEL) AS SHOWN. PROVIDE APPROVED CADWELD GROUNDING AND BONDING CONNECTIONS TO THE MAIN GROUNDING SYSTEM. SEE MECHANICAL DRAWINGS FOR DFS TCU ANTENNA DETAIL.
- (19) 3/4"C WITH COAX CABLE. SEE MECHANICAL DRAWINGS FOR DFS TCU ANTENNA DETAIL.

ON 11 HP 480VAC 11 HP 480VAC MOTOR SUB TO 75% OF LARGEST MO	TAL: 56 AMP
11 HP 480VAC 3	3-φ 28 AMP: TAL: 56 AMP:
MOTOR SUB TO	TAL: 56 AMP
75% OF LARGEST MO	ΓOR∙ 21 ΔΜΡ
	21 /11/11
TOTAL MOTOR LO)AD: 77 AMP:
7.5KVA 480VAC	3-ф 9 АМР
AXIMUM PHASE AMPER	RES: 86 AMP
	7.5KVA 480VAC 3 AXIMUM PHASE AMPER

City of Tarpon Oprings, Thorida
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324 EAST PINE STREET
TARPON SPRINGS, FLORIDA 34688

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PROJECT
CITY OF TARPON SPRINGS
PINELLAS, FLORIDA

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JOB NO: 0517-00102-2018-1740

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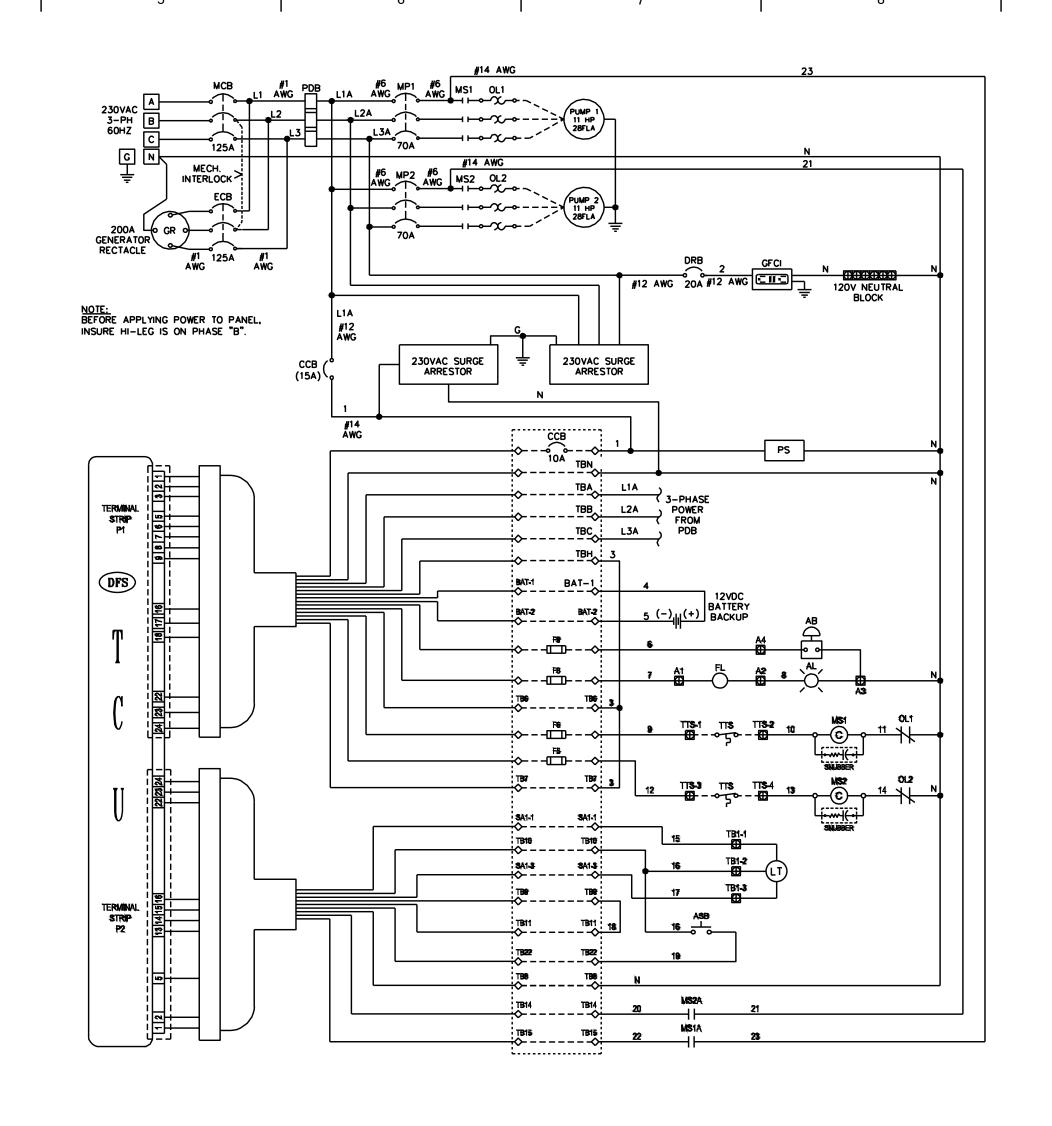
SCALE: AS SHOWN

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CARASTRO & ASSOCIATES, INC.

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PUMP CONTROL PANEL INSTRUMENTATION DIAGRAM NOT TO SCALE

OPERATIONS:

- 1. THE FUNCTION OF CONTROL CIRCUIT PROVIDES FOR ALTERNATING OPERATION OF THE LEAD PUMP UNDER NORMAL CONDITIONS. SHOULD INCOMING FLOW EXCEED THE PUMPING CAPACITY OF THE LEAD PUMP, THE LAG PUMP SHALL AUTOMATICALLY BE ACTIVATED, AND BOTH PUMPS SHALL OPERATE SIMULTANEOUSLY UNTIL
 DISENGAGED BY THE SHUT-OFF FLOAT. IN THE EVENT OF
 MALFUNCTION OR AN INCOMING FLOW THAT EXCEEDS THE PUMPING
 CAPACITY OF BOTH PUMPS, AN AUDIBLE ALARM AND VISUAL LIGHT SHALL BE ENERGIZED TO INDICATE ALARM CONDITIONS. A SILENCING SWITCH SHALL DISCONTINUE THE AUDIBLE ALARM, BUT THE ALARM LIGHT SHALL REMAIN ACTIVATED UNTIL THE HIGH LEVEL CONDITION IS CORRECTED.
- 2. IF ONE PUMP SHOULD FAIL FOR ANY REASON, THE SECOND PUMP SHALL BE ACTIVATED AT THE "LAG-PUMP-ON" ELEVATION. IF THE "TURN OFF" LEVEL CONTROL SHOULD FAIL FOR ANY REASON, THE CONTROL CIRCUIT SHALL HAVE THE CAPABILITY OF STARTING THE PUMPS AND KEEPING THE STATION IN OPERATION. IN ADDITION, A LIGHT SHALL GIVE VISUAL INDICATION OF THE FAILURE.
- 3. OPERATION SHALL BE AS FOLLOWS:
- A. AT THE "LEAD ON" LEVEL, THE FIRST PUMP IN SEQUENCE SHALL OPERATE. SHOULD THE LEVEL IN THE WET WELL CONTINUE TO RISE WITH ONE PUMP ACTIVE, THE "LAG ON" FLOAT SHALL ACTIVATE THE SECOND PUMP IN SEQUENCE.
- B. FOR ALL CASES, ALL ACTIVATED PUMPS SHALL REMAIN ENERGIZED UNTIL THE LEVEL IN THE WET WELL REACHES THAT OF THE "ALL PUMPS OFF" FLOAT.
- C. THE SYSTEM SHALL ALTERNATE THE LEAD AND LAG PUMPS. D. IN THE EVENT OF PUMP FAILURE, AN ALARM SHALL BE
- INDICATED AND THE NEXT PUMP IN SEQUENCE SHALL ASSUME THE OPERATIVE FUNCTION OF THE FAILED PUMP.

	CONTROL & SINGLE LINE DIAGRAM SYMBOLS
5	ELECTRIC A.C. MOTOR, NUMBER INDICATES HORSEPOWER
	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3P UNLESS OTHERWISE INDICATED, WITH REMOTE CONTROL STATION AS REQUIRED BY ELEMENTARY DIAGRAMS OR SPECS
	MOLDED CASE CIRCUIT BREAKER
: →	3-POSITION SELECTOR SWITCH
—⊗—	REMOTE TERMINAL BLOCK POINT
-	NORMALLY OPEN CONTACT
\downarrow	NORMALLY OPEN, TIMED TO CLOSE CONTACT
A	ALARM INDICATING LIGHT
\	NORMALLY CLOSED CONTACT
丁	NORMALLY CLOSED, TIMED TO OPEN CONTACT
R	RUN INDICATING LIGHT
TR	TIMING RELAY

	ABBREVIATION LEGEND
ABBR.	DESCRIPTION
ENC	ENCLOSURE, 316SS, NEMA 4X
MCB	MAIN CIRCUIT BREAKER
ECB	EMERGENCY CIRCUIT BREAKER
MP1,2	MOTOR CIRCUIT PROTECTOR
CCB	CONTROL CIRCUIT BREAKER
DRB	DUPLEX RECEPTACLE CIRCUIT BREAKER
MS1,2	MOTOR STARTER
OL	OVERLOAD HEATER
GR	GENERATOR RECEPTACLE (200A, 4P, 3-PHASE)
PM	PHASE MONITOR
F1-3	FUSE, 1A
LP	LIGHT POLE
DR	DUPLEX RECEPTACLE, GFI (20A, 125V)
PS	POWER SUPPLY, 12VDC
BAT	BATTERY, 12VDC, 7.0 AH
AL	ALARM LIGHT, 12VDC
AB	ALARM HORN, 12VDC
FL	FLASHER
ASB	ALARM SILENCE BUTTON
DFS	DATA FLOW SYSTEMS
TCU	TELEMETRY CONTROL UNIT
G	GROUND
TB1,2	PUMP POWER TERMINAL BLOCK
CTB1,2	CONTROLS TERMINAL BLOCK
JB	JUNCTION BOX

SCALE:

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