

Southington Maintenance Facility Renovation

<u>Category:</u>	Government - Misc. Bldgs.	<u>Project ID #:</u>	1002431928
<u>Street Address:</u>	To Be Announced Southington CT 06489	<u>Confirmed Value</u>	\$7,499,999.00
<u>County:</u>	Hartford	<u>Stage:</u>	Biddate Set
<u>Bid Date:</u>	11/23/2016 , 02:00PM		
<u>Architect:</u>			
<u>Documents Available:</u>	Plans, Specs available in Insight		Plans available from Connecticut Department of Transportation (ConnDOT) - Contract Administration
<u>Last Update:</u>	10/27/2016		Plans,Specs were Added/Updated

Personal Notes

User	Note	Update Date	Private?
Adam Sweet	14K GAL AST FUEL STORAGE TANK; FUEL ISLAND CANOPY; 1K GAL FRP O/W/S	10/28/2016	False

Notes

Scope Renovation of a municipal facility in Southington, Connecticut. Completed plans call for the renovation of a fleet services garage. Project Scope Code: F State Project Number(s) & Description: Project No. 131-205 Southington Maintenance Facility Renovation. Federal-aid Project Number(s) & Funding Source: FAP # N/A State Funds Pre-Bid Conference and/or Site Visit Information: N/A District Number(s): 1, Rocky Hill Contract DBE % Goal or SBE % Set-Aside: 25% SBE

Notes Bid Date: 11/23/2016 02:00PM Bids Received at Department of Transportation, 2800 Berlin Turnpike, Newington, Connecticut 06111 Development include(s): Renovation

Details [Division 2]: Building Demolition, Clearing, Dewatering, Cofferdams, Grading, Slope Protection & Erosion Control, Paving & Surfacing, Water Systems, Wells, Sewerage & Drainage, Landscaping. [Division 3]: Architectural Concrete, Structural Precast Concrete. [Division 4]: Clay Unit Masonry, Concrete Unit Masonry, Marble. [Division 5]: Structural Steel, Metal Joists, Metal Decking, Metal Fabrications, Expansion Joints. [Division 6]: Rough Carpentry, Architectural Woodwork. [Division 7]: Dampproofing, Insulation, Firestopping, Manufactured Roofing & Siding, Membrane Roofing. [Division 8]: Metal Doors, Sectional Overhead Doors, Metal Windows, Wood Windows, Hardware, Glass & Glazing. [Division 9]: Ceiling Suspension Systems, Stucco, Drywall/Gypsum, Tile, Terrazzo, Acoustical Ceilings, Resilient Flooring, Carpet, Painting. [Division 10]: Visual Display Boards, Compartments & Cubicles, Louvers & Vents, Interior Signs, Lockers, Protective Covers, Storage Shelving, Toilet & Bath Accessories. [Division 11]: Audio-Visual Equipment, Fluid Waste Treatment/Disposal Equipment, Food Service Equipment. [Division 12]: Manufactured Casework, Window Treatment. [Division 14]: Elevators, Material Handling Systems, Hoists & Cranes. [Division 15]: Mechanical Insulation, Fire Protection Systems, Plumbing Piping, Plumbing Fixtures, Water Heaters, Hydronic Piping, HVAC Pumps, Boilers, Packaged A/C Units, Air Handling, Ductwork, Testing & Balancing. [Division 16]: Service/Distribution, Interior Lighting, Exterior Lighting, Emergency Lighting, Standby Power Generator Systems, Lightning Protection Systems, Alarm & Detection Systems, Public Address Systems, Television Systems.

Additional Details

<u>Listed On:</u>	1/8/2016	<u>Floor Area:</u>	
<u>Contract Type:</u>		<u>Work Type:</u>	Alteration
<u>Stage Comments 1:</u>		<u>Floors Below Grade:</u>	
<u>Stage Comments 2:</u>		<u>Owner Type:</u>	State/Provincial
<u>Bid Date:</u>	11/23/2016	<u>Mandatory Pre Bid Conference:</u>	
<u>Invitation #:</u>	0131-0205	<u>Commence Date:</u>	12/23/2016
<u>Structures:</u>		<u>Completion Date:</u>	
<u>Single Trade Project:</u>		<u>Site Area:</u>	
<u>Floors:</u>		<u>LEED Certification Intent:</u>	
<u>Parent Project ID:</u>		<u>Units:</u>	
<u>Parking Spaces:</u>			









Project Participants

Company Role	Company Name	Contact Name	Address	Phone	Email	Fax
Owner	Connecticut Department of		2800 Berlin Turnpike, Newington. CT 06131	(860) 594-3390		(860) 594-3378

Buyer Activity Report






Status	Activity Level	Contact	Company Name	Source	Phone	Email	Business Type	Trades	Last Active
New		Maudel Kirnon	K & M Fire Protection Service Inc			mkirnon@kandmfire.com	Subcontractor	Fire Suppression, Water-Based Fire-Suppression Systems, Fire-Extinguishing Systems, Fire Pumps, Fire...	10/27/2016
New		Luann Maraglio	Triad Construction Services LLC		(203) 584-9450	Bidding@triad-serv.com	Subcontractor	Plumbing, Plumbing Piping and Pumps, Plumbing Equipment, Plumbing Fixtures, Gas and Vacuum Systems f...	10/27/2016
New		Carl Reiser	New England Glass & Mirror Co.		(860) 887-1649	estimating@neglassmirror.com	Subcontractor	Doors and Frames, Entrances, Storefronts, and Curtain Walls, Windows, Roof Windows and Skylights, Ha...	10/27/2016
New		Brian Jones	Gold Seal Roofing & Sheet Metal		(860) 484-8430	BJONES@GSRROOFS.COM	Subcontractor	Thermal and Moisture Protection, Dampproofing and Waterproofing, Thermal Protection, Exterior Insula...	10/27/2016
New		Dan DuPuis	Accurate Fire Sprinkler		(860) 426-1169	afsillc@sbcglobal.net	Subcontractor	Fire Suppression, Water-Based Fire-Suppression Systems, Fire-Extinguishing Systems, Fire Pumps, Fire...	10/27/2016
New		Dean Martin	Martin Surveying Associates, LLC		(860) 832-9328	martinsurveying148@yahoo.com	Subcontractor	Existing Conditions, Assessment, Subsurface Investigation, Demolition and Structure Moving, Site Rem...	10/26/2016
New		Jim Kinch	SRS Petroleum Services Llc		(781) 589-7434	jkinch@srspetroleum.com	Subcontractor	Assessment, Subsurface Investigation, Site Remediation, Contaminated Site Material Removal, Facility...	10/26/2016
New		Debbie	AIRE DEB		(716)	airedebcorp	Owner	Heating,	9/13/2016

		Anstett	CORP		812-3429	@verizon.net		Ventilating, and Air-Conditioning (HVAC), Facility Fuel Systems, HVAC Piping and Pumps, HVA...	
New		Pete Marcotte	Maine Drilling and Blasting		(207) 582-2338	pmarcotte@mdandb.com	Subcontractor	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/28/2016
New		Victor Alberca	Alberca Construction Co Llc		(860) 783-5292	victor_alberca2005@hotmail.com	Subcontractor	Facility Remediation	10/27/2016
New		Doug Farmer	Insul Flow Inc		626571-8023	doug_farmer@sbcglobal.net	Subcontractor	Concrete, Concrete Forming and Accessories, Concrete Reinforcing, Cast-in-Place Concrete, Concrete P...	10/27/2016
New		Aqil Unia	Visual Citi Inc		631-482-3030	aqil@visualciti.com	Subcontractor	Utilities, Water Utilities, Wells, Sanitary Sewerage Utilities, Storm Drainage Utilities, Ponds and ...	10/27/2016
New		Tom Crowe	Door And Security Solutions, LLC			tom@doorandsecuritysolutions.com	Supplier	Product Requirements, Assessment, Doors and Frames, Specialty Doors and Frames, Access Doors and Pan...	10/27/2016
New		jason neri	DEF services group		(860) 334-5765	jneri@defservicesgroup.com	Subcontractor	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/27/2016
New		Phil Coraccio	CSI Pipe LLC		(860) 564-9000	pcoraccio@csipipe.com	Supplier	Earthwork, Site Clearing, Earth Moving, Earthwork Methods, Shoring and Underpinning, Excavation Supp...	10/27/2016
New		Kimberly Colapietro	EDI Landscape LLC		(860) 216-6871	KIM@EDILANDSCAPE.COM	Subcontractor	Concrete, Concrete Reinforcing, Masonry, Unit Masonry, Stone Assemblies, Metals.	10/27/2016

									Structural Metal Fr...		
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pam Gaspar	R & R Window Contr.		(413) 527-7500	pgaspar@rrwindow.com	Subcontractor	Thermal and Moisture Protection, Thermal Protection, Roofing and Siding Panels, Siding, Roof and Wal...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glenn Korner	Midstate Site Development		(860) 693-6899	rmatejek@msdct.com	Subcontractor	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Denise Cance	Windsor Sanitation Inc.		(203) 688-3955	windsorsanitation@sbcglobal.net	Subcontractor	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	chris hilgert	Summit Masonry & Building Restoration		(203) 937-6666	CHILGERT@SUMMIT-MASONRY.COM	Subcontractor	Concrete, Precast Concrete, Masonry, Unit Masonry, Stone Assemblies, Refractory Masonry, Corrosion-R...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brian Maher	Ibew Local Union # 90		(203) 265-9538	seandaly@ibewlocal90.org	Other	Specialties, Chalkboards, Markerboards and Tackboards, Display Cases, Directories and Plaques, Traff...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ben rosenfield	Eastern Metal Works		(203) 878-6995	BROSENFIELD@EASTERNMETALWORKS.COM	Subcontractor	Metals, Metal Restoration and Cleaning, Structural Metal Framing, Metal Joists, Metal Decking, Metal...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mike Giliberto	Advanced Caulking & Restoration, LLC.		(860) 296-2388	MIKE@ADVANCED-CT.COM	Subcontractor	Concrete, Concrete Forming and Accessories, Concrete Reinforcing, Cast-in-Place Concrete, Concrete P...	10/27/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chris McCormack	Gmc Mason Contractors		(860) 727-9181	chris@gmc-mason.com	Subcontractor	Masonry, Unit Masonry, Stone Assemblies, Refractory Masonry, Corrosion-Resistant	10/27/2016

New		vaughn butler	Scholar Painting		(203) 927-7806	SCHOLARP AINTING@GMAIL.COM	Subcontractor	Masonry, Manufacturing, Thermal and Moisture Protection, Dampproofing and Waterproofing, Thermal Protection, Exterior Insula...	10/26/2016
New		Joe Squillacote	GDS Contracting Corp.		(860) 828-6654	JVS@GDSCONTRACTING.COM	Subcontractor	Metal Decking, Cold-Formed Metal Framing, Thermal and Moisture Protection, Firestopping, Wall and Do...	10/26/2016
New		Slawomir Olchanowski	Ct Masons Llc		(860) 628-3136	slawek@ctmasonsllc.com	Subcontractor	Masonry, Unit Masonry, Stone Assemblies, Refractory Masonry, Corrosion-Resistant Masonry, Manufactur...	10/26/2016
New		Chaim Lesser	Innoconn		(203) 578-7226	chaim@innconn.com	Subcontractor	Assessment, Contaminated Site Material Removal, Facility Remediation, Thermal and Moisture Protectio...	10/26/2016
New		Adam Jawitz	Door And Security Solutions, LLC		(860) 404-2838	adam@doorandsecuritysolutions.com	Subcontractor	Doors and Frames, Specialty Doors and Frames, Hardware, Play Field Equipment and Structures, Theater...	10/26/2016
New		Dennis K	Fairfield Testing Laboratories		(203) 336-5900	DENNIS@FAIRFIELDTESTING.COM	Other	General Requirements, Quality Requirements, Existing Conditions, Assessment, Subsurface Investigatio...	10/26/2016
New		Jim Dinapoli	Concord Glass		(860) 663-2743	cdinapoli@bcglobal.net	Subcontractor	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/26/2016
New		Dave Mackenzie	Stamford Wrecking Co		(203) 324-9537	DMACKENZIE@DEMOLITIONSERVICES.COM	Subcontractor	Existing Conditions, Demolition and Structure Moving, Site Remediation, Contaminate	10/26/2016

New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Daryle Dunlap	Elite Environmental Solutions		(860) 992-8781	daryledunlap@comcast.net	Subcontractor	d Site Material R... General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Priscilla Lasky	Donnegan Systems		(508) 393-5700	plasky@donnegan.com	Supplier	Equipment, Special Construction	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Katie Burke	Stone Harbour Construction, Llc			kburke@stoneharbour.com	Subcontractor	Existing Conditions, Assessment, Subsurface Investigation, Demolition and Structure Moving, Site Rem...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elizabeth Kelly	Boston Carpenters Local 107		(508) 881-1885	ekelly@neclmp.org	Other	Contaminated Site Material Removal, Concrete, Concrete Forming and Accessories, Concrete Reinforcing...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shaun Robinson	Accurate Door & Window			accurateshaun@comcast.net	Subcontractor	Openings, Doors and Frames, Specialty Doors and Frames, Entrances, Storefronts, and Curtain Walls, W...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Louise Mansolf	Air Temp Mechanical Svcs.			louise@ctairtemp.com	Service Provider	General Requirements, Existing Conditions, Assessment, Facility Remediation, Equipment, Commercial E...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Estimating Department	HD Supply Waterworks		(413) 732-8400	kristen.wagner@hdsupply.com	Supplier	Utilities, Water Utilities, Wells, Sanitary Sewerage Utilities, Storm Drainage Utilities, Ponds and ...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dave Goral	Ibew Local Union # 90		(203) 265-9267	daveg@ibewlocal90.org	Other	Electrical Utilities	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ron Jodice	Pds Engineering & Construction			RONJ@PDS-EC.COM	Design / Builder	Special Construction	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Karen Timbrell	Silktown Roofing Inc		(860) 647-0198	karenTimbrell@silktownroofing.com	Subcontractor	Thermal and Moisture Protection, Dampproofing and Waterproofing, Thermal Protection.	10/26/2016

New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demo Ververis	Fire Rated LLC		(860) 578-3284	demo.firerated@gmail.com	Service Provider	Exterior Insulation, Fire Suppression, Water-Based Fire-Suppression Systems, Fire-Extinguishing Systems, Fire Pumps, Fire...	10/26/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nabin Bhattari	Riccelli Enterprises Inc		(315) 433-5115	nabinb@riccellienterprises.com	Service Provider	Contaminated Site Material Removal, Concrete	10/12/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lou Indomenco	Armani Restoration Inc		(860) 296-6811	estimating@armanirestoration.com	Subcontractor	Thermal and Moisture Protection, Dampproofing and Waterproofing, Thermal Protection, Exterior Insulation	10/12/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Kyle Evans	K & M Fire Protection Service Inc			kyle.evans@kandmfire.com	Subcontractor	Fire Suppression, Water-Based Fire-Suppression Systems, Fire-Extinguishing Systems, Fire Pumps, Fire...	10/3/2016
New	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	John Atwood	Atwood Consulting Group		(508) 654-6244	john@atwoodconsultinggroup.com	Other	General Requirements, Summary, Price and Payment Procedures, Administrative Requirements, Survey and...	9/24/2016

Contracts

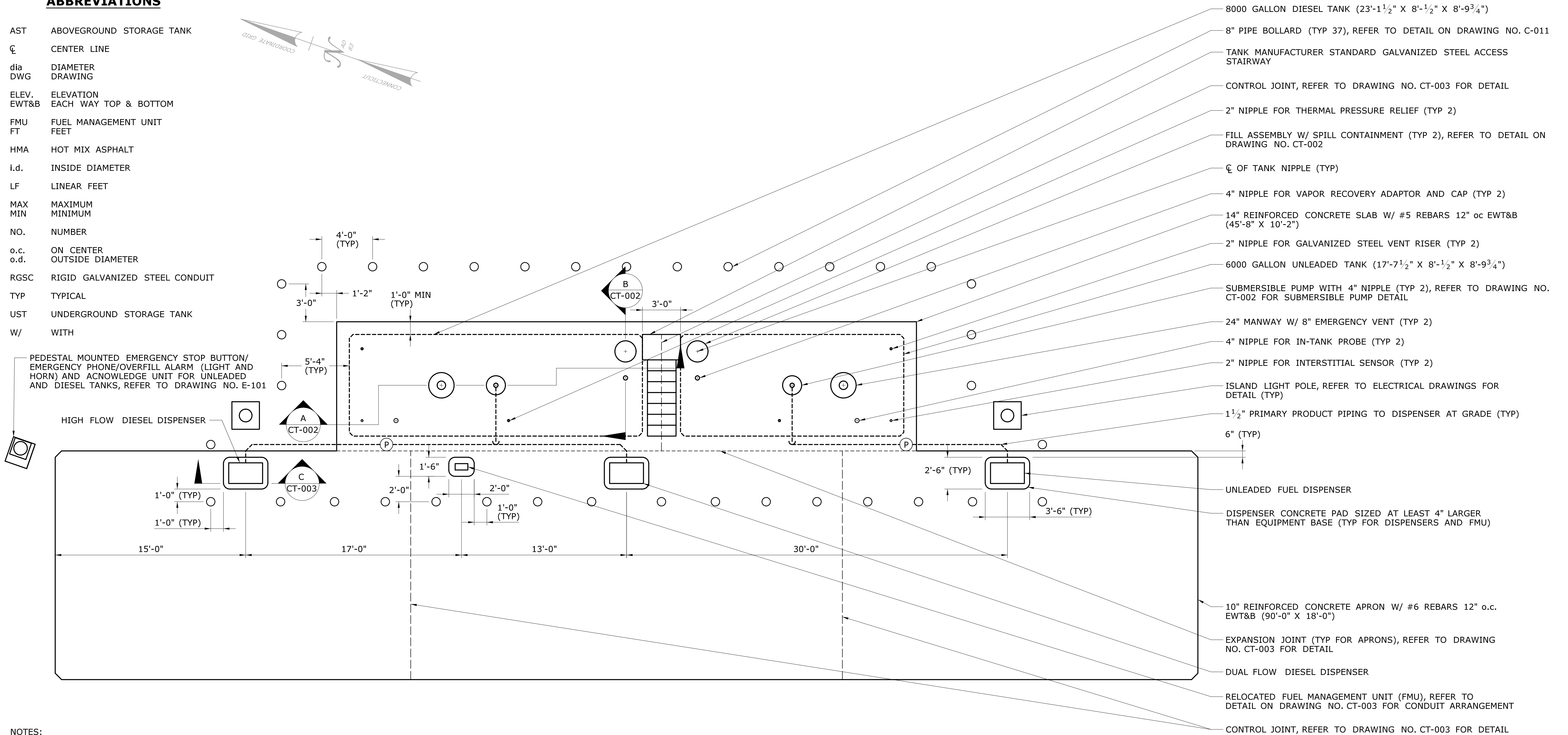
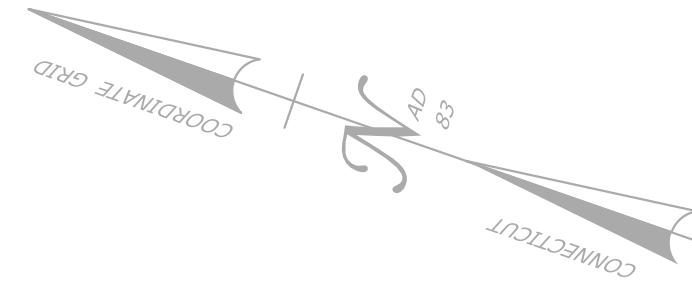
Classification	Conditions	Bonding	Bid Date	Bids To	Bid Type
General Contractor			11/23/2016	Owner	Open Bidding

History

User	Viewed	First Viewed Date	Currently Tracked?	Date Tracked
Adam Sweet	True	10/28/2016	False	

ABBREVIATIONS

AST	ABOVEGROUND STORAGE TANK
☉	CENTER LINE
dia	DIAMETER
DWG	DRAWING
ELEV.	ELEVATION
EWT&B	EACH WAY TOP & BOTTOM
FMU	FUEL MANAGEMENT UNIT
FT	FEET
HMA	HOT MIX ASPHALT
i.d.	INSIDE DIAMETER
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
NO.	NUMBER
o.c.	ON CENTER
o.d.	OUTSIDE DIAMETER
RGSC	RIGID GALVANIZED STEEL CONDUIT
TYP	TYPICAL
UST	UNDERGROUND STORAGE TANK
W/	WITH



NOTES:

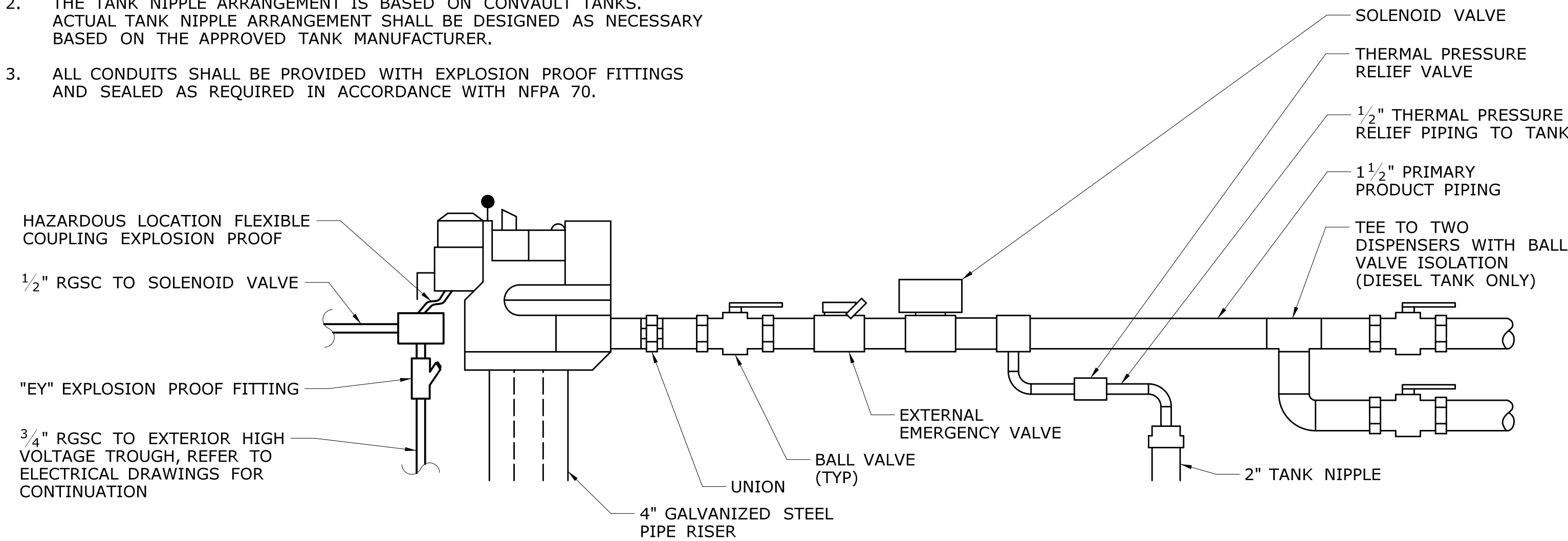
- (P) PRIMARY PRODUCT PIPING
- 1. THE DESIGNED TANK DIMENSIONS AND SUPPORT LEG LOCATIONS ARE BASED ON CONVAULT. ACTUAL SLAB DIMENSIONS SHALL BE SIZED ON THE APPROVED TANK DIMENSIONS AND SUPPORT LEG LOCATIONS.
- 2. THE TANK NIPPLE ARRANGEMENT IS BASED ON CONVAULT TANKS. ACTUAL TANK NIPPLE ARRANGEMENT SHALL BE DESIGNED AS NECESSARY BASED ON THE APPROVED TANK MANUFACTURER.
- 3. REFER TO DRAWING NO. CT-002 FOR MOTOR FUEL TANK DETAILS AND DRAWING NO. CT-003 FOR MOTOR FUEL ISLAND DETAILS.
- 4. INSTALL SALVAGED "FUEL SYSTEM INFORMATION" SIGN FROM EXISTING FUEL ISLAND AS DIRECTED BY ENGINEER.
- 5. SUPPORT PRODUCT PIPING WITH GALVANIZED STRUT MAST AND PIPE CLAMP MOUNTED TO THE TANK, TANK PAD AND APRON.
- 6. LOCATE FIRE EXTINGUISHER IN FIRE-PROTECTION CABINET AS DIRECTED BY ENGINEER.

- 8000 GALLON DIESEL TANK (23'-1 1/2" X 8'-1/2" X 8'-9 3/4")
- 8" PIPE BOLLARD (TYP 37), REFER TO DETAIL ON DRAWING NO. C-011
- TANK MANUFACTURER STANDARD GALVANIZED STEEL ACCESS STAIRWAY
- CONTROL JOINT, REFER TO DRAWING NO. CT-003 FOR DETAIL
- 2" NIPPLE FOR THERMAL PRESSURE RELIEF (TYP 2)
- FILL ASSEMBLY W/ SPILL CONTAINMENT (TYP 2), REFER TO DETAIL ON DRAWING NO. CT-002
- ☉ OF TANK NIPPLE (TYP)
- 4" NIPPLE FOR VAPOR RECOVERY ADAPTOR AND CAP (TYP 2)
- 14" REINFORCED CONCRETE SLAB W/ #5 REBARS 12" oc EWT&B (45'-8" X 10'-2")
- 2" NIPPLE FOR GALVANIZED STEEL VENT RISER (TYP 2)
- 6000 GALLON UNLEADED TANK (17'-7 1/2" X 8'-1/2" X 8'-9 3/4")
- SUBMERSIBLE PUMP WITH 4" NIPPLE (TYP 2), REFER TO DRAWING NO. CT-002 FOR SUBMERSIBLE PUMP DETAIL
- 24" MANWAY W/ 8" EMERGENCY VENT (TYP 2)
- 4" NIPPLE FOR IN-TANK PROBE (TYP 2)
- 2" NIPPLE FOR INTERSTITIAL SENSOR (TYP 2)
- ISLAND LIGHT POLE, REFER TO ELECTRICAL DRAWINGS FOR DETAIL (TYP)
- 1 1/2" PRIMARY PRODUCT PIPING TO DISPENSER AT GRADE (TYP)
- 6" (TYP)
- UNLEADED FUEL DISPENSER
- DISPENSER CONCRETE PAD SIZED AT LEAST 4" LARGER THAN EQUIPMENT BASE (TYP FOR DISPENSERS AND FMU)
- 10" REINFORCED CONCRETE APRON W/ #6 REBARS 12" o.c. EWT&B (90'-0" X 18'-0")
- EXPANSION JOINT (TYP FOR APRONS), REFER TO DRAWING NO. CT-003 FOR DETAIL
- DUAL FLOW DIESEL DISPENSER
- RELOCATED FUEL MANAGEMENT UNIT (FMU), REFER TO DETAIL ON DRAWING NO. CT-003 FOR CONDUIT ARRANGEMENT
- CONTROL JOINT, REFER TO DRAWING NO. CT-003 FOR DETAIL

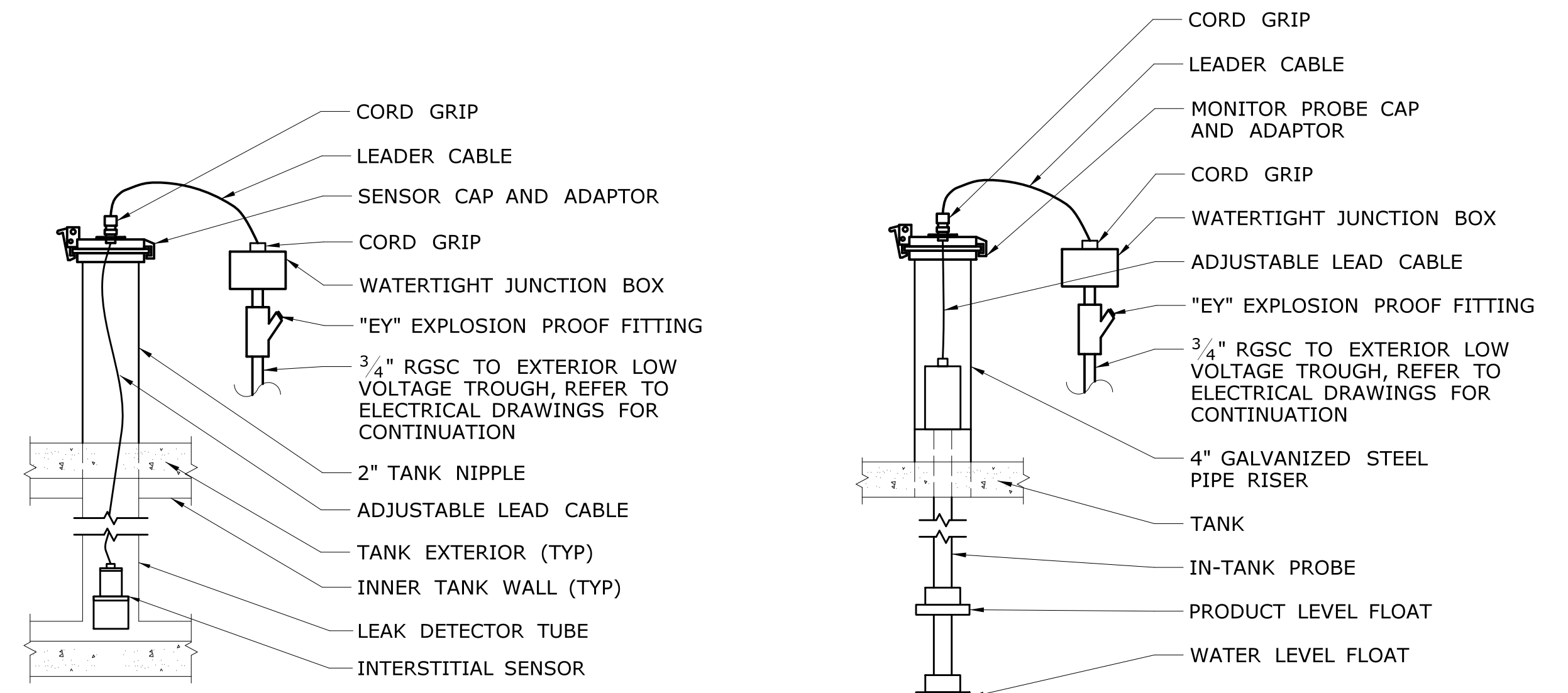
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.				DESIGNER/DRAFTER: JJT CHECKED BY: JAB SCALE: 1/4" = 1'-0"		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 		PROJECT TITLE: SOUTHWINGTON MAINTENANCE FACILITY RENOVATION		TOWN: SOUTHWINGTON		PROJECT NO. 131-205	
										DRAWING TITLE: MOTOR FUEL ISLAND PLAN		DRAWING NO. CT-001		SHEET NO. 05.17	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/13/2016		Filename: ...FD_MSH_CIV_0131_0205_CT001 (Motor Fuel Island Plan).dgn									

NOTES:

1. THE DESIGNED TANK DIMENSIONS AND SUPPORT LEG LOCATIONS ARE BASED ON CONVAULT. ACTUAL SLAB DIMENSIONS SHALL BE SIZED BASED ON THE APPROVED TANK DIMENSIONS AND SUPPORT LEG LOCATIONS.
2. THE TANK NIPPLE ARRANGEMENT IS BASED ON CONVAULT TANKS. ACTUAL TANK NIPPLE ARRANGEMENT SHALL BE DESIGNED AS NECESSARY BASED ON THE APPROVED TANK MANUFACTURER.
3. ALL CONDUITS SHALL BE PROVIDED WITH EXPLOSION PROOF FITTINGS AND SEALED AS REQUIRED IN ACCORDANCE WITH NFPA 70.

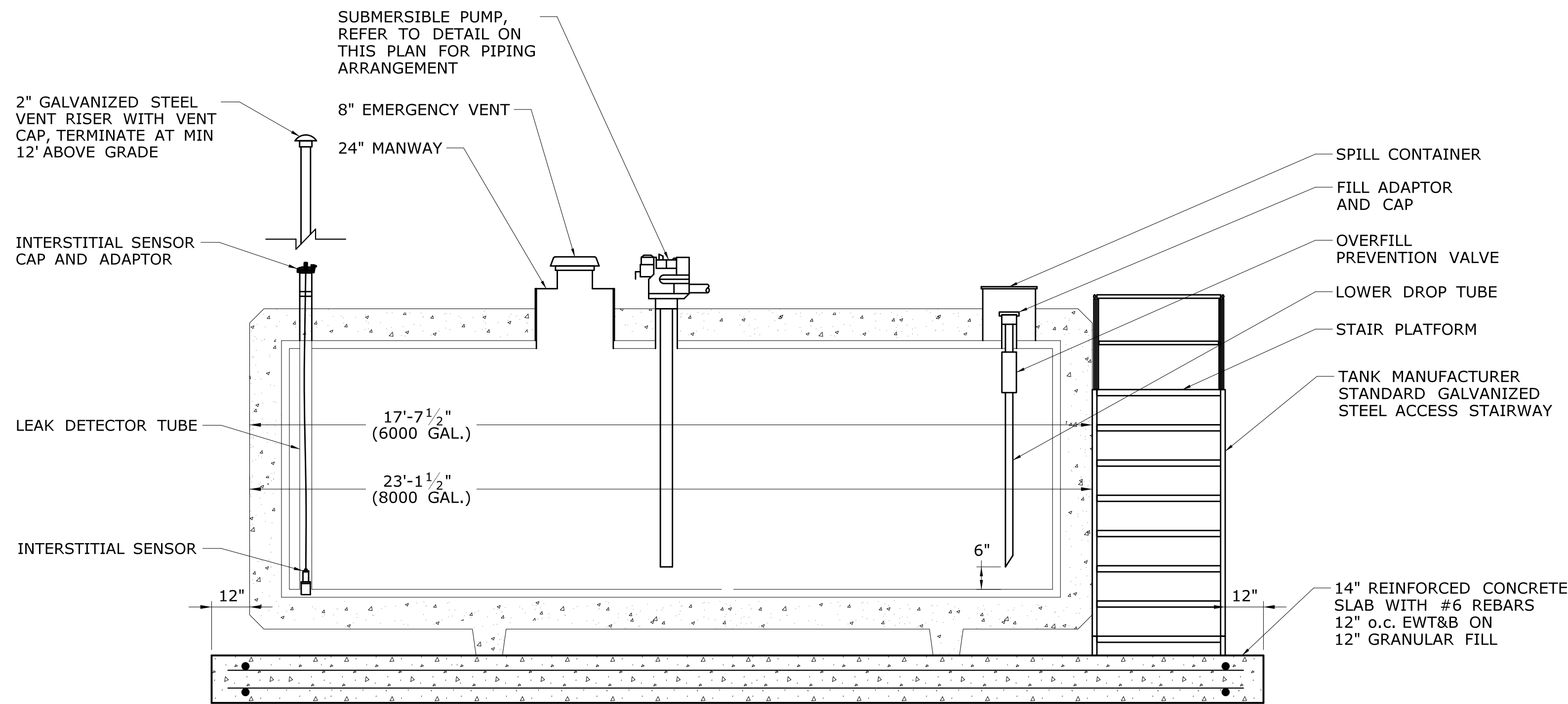


SUBMERSIBLE PUMP DETAIL

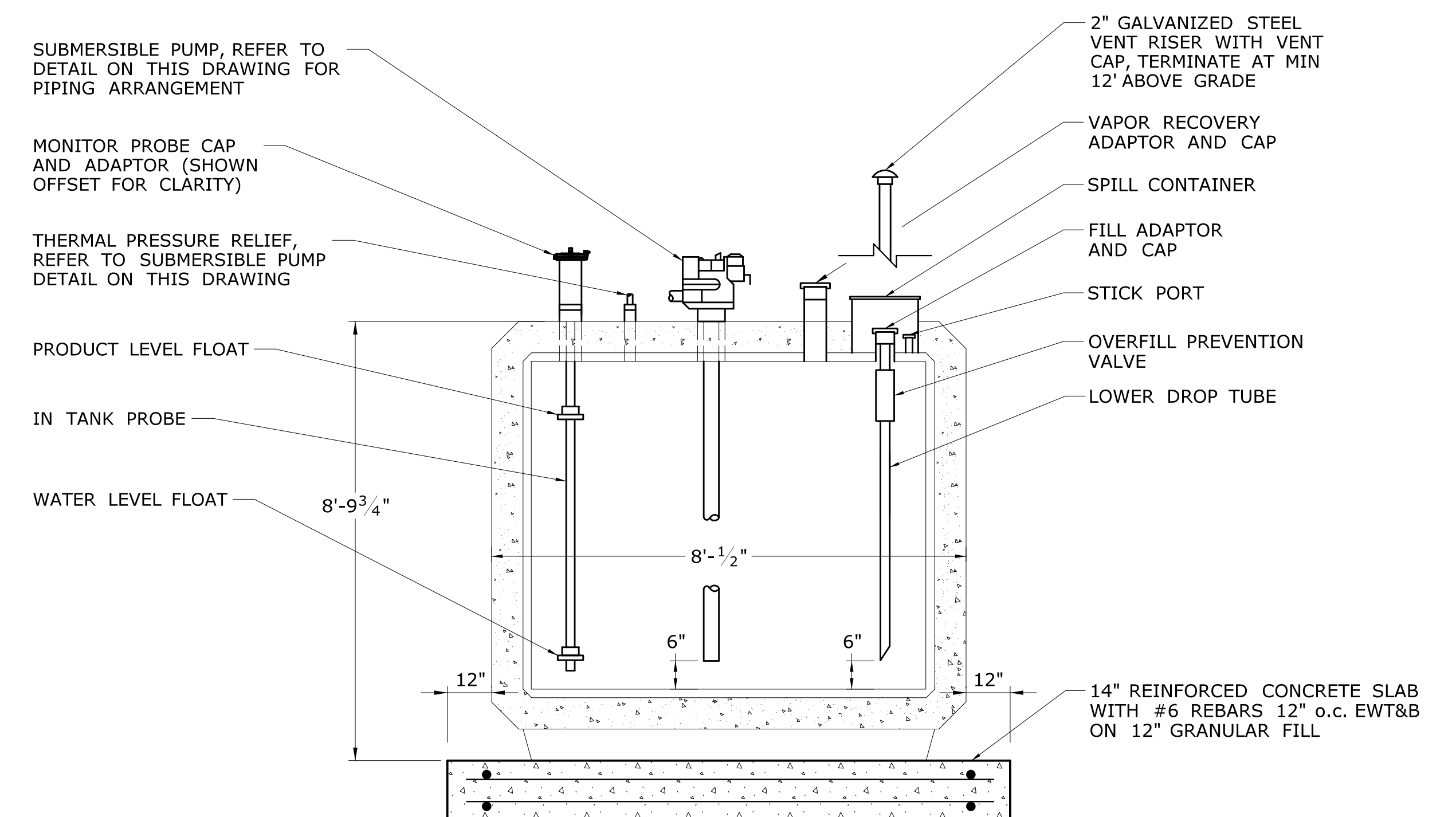


INTERSTITIAL SENSOR DETAIL

IN-TANK PROBE DETAIL



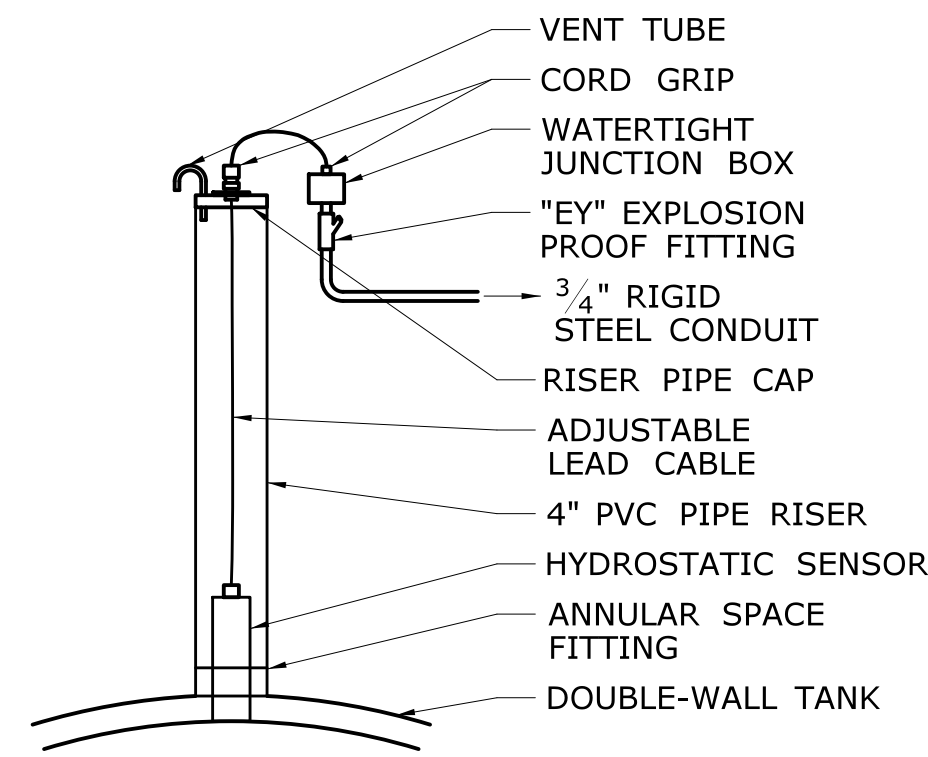
SECTION A CT-001



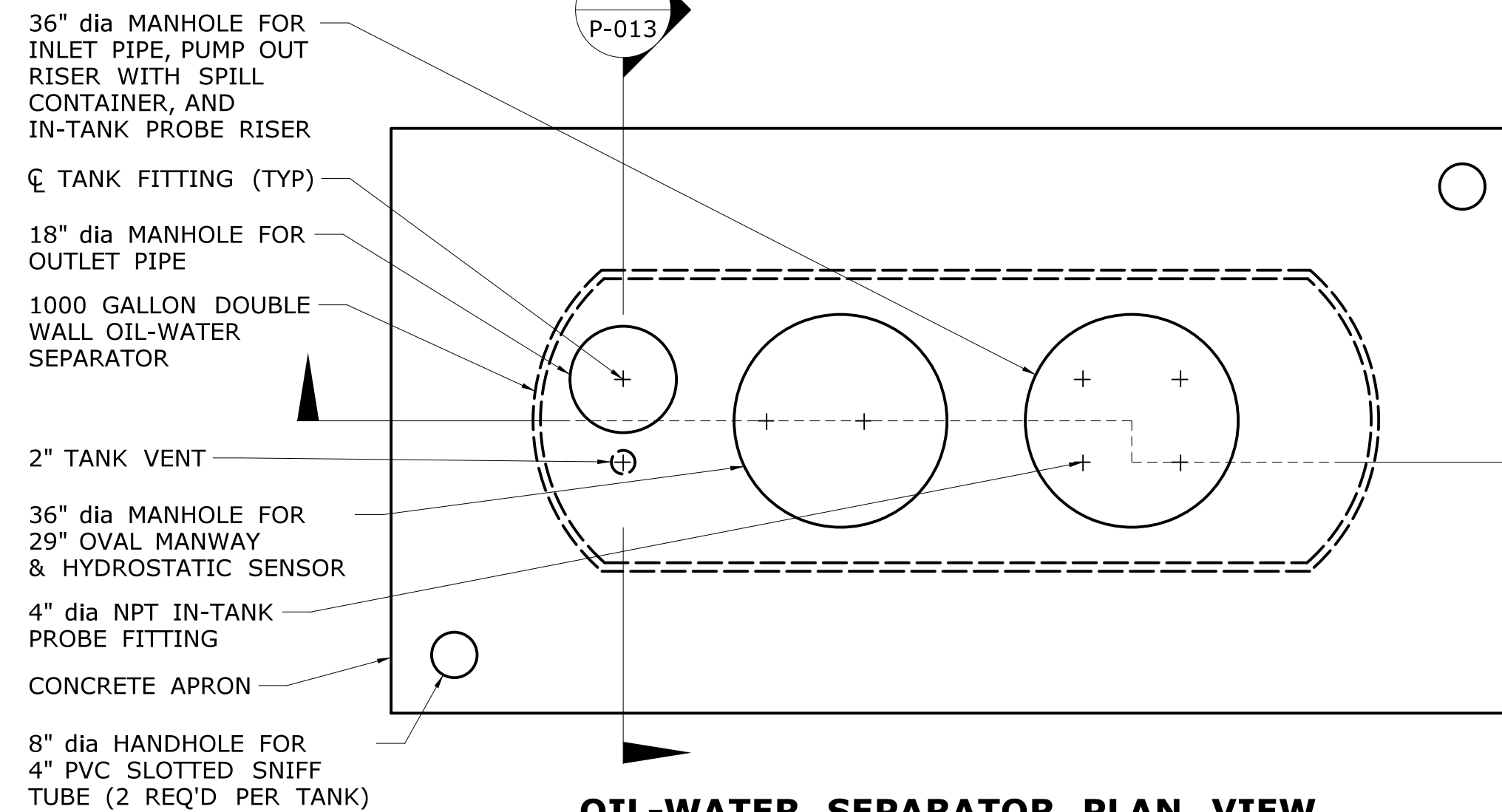
SECTION B CT-001

MOTOR FUEL ABOVEGROUND STORAGE TANK DETAIL

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JJT CHECKED BY: JAB	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: <i>[Signature]</i>	PROJECT TITLE: SOUTHINGTON MAINTENANCE FACILITY RENOVATION	TOWN: SOUTHINGTON	PROJECT NO. 131-205 DRAWING NO. CT-002 SHEET NO. 05.18
REV. DATE REVISION DESCRIPTION SHEET NO. Plotted Date: 7/13/2016	NOT TO SCALE	Filename: ...FD_MSH_CIV_0131_0205_CT002 (Motor Fuel Tank Details).dgn		DRAWING TITLE: MOTOR FUEL TANK DETAILS			

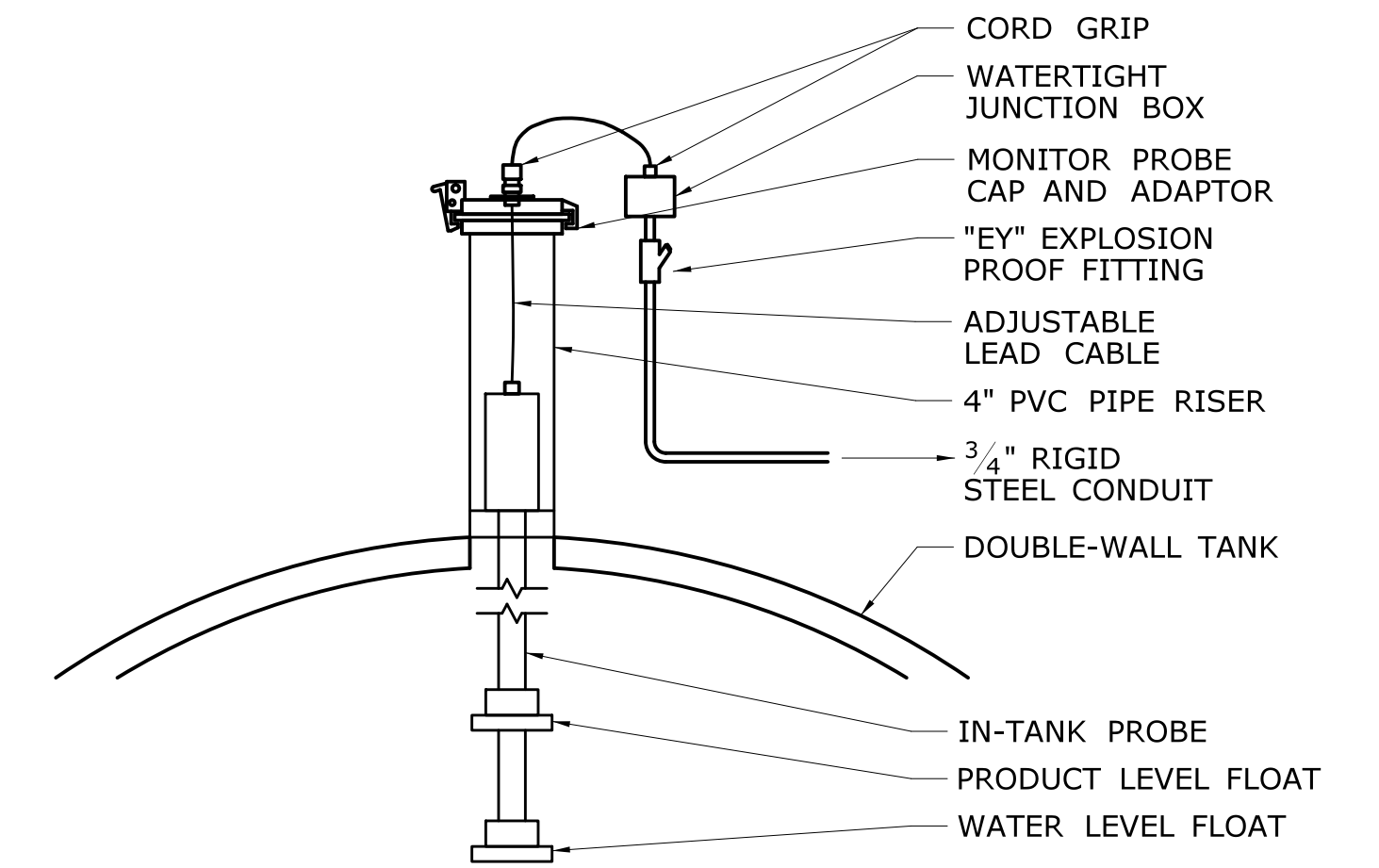


HYDROSTATIC SENSOR DETAIL
NOT TO SCALE



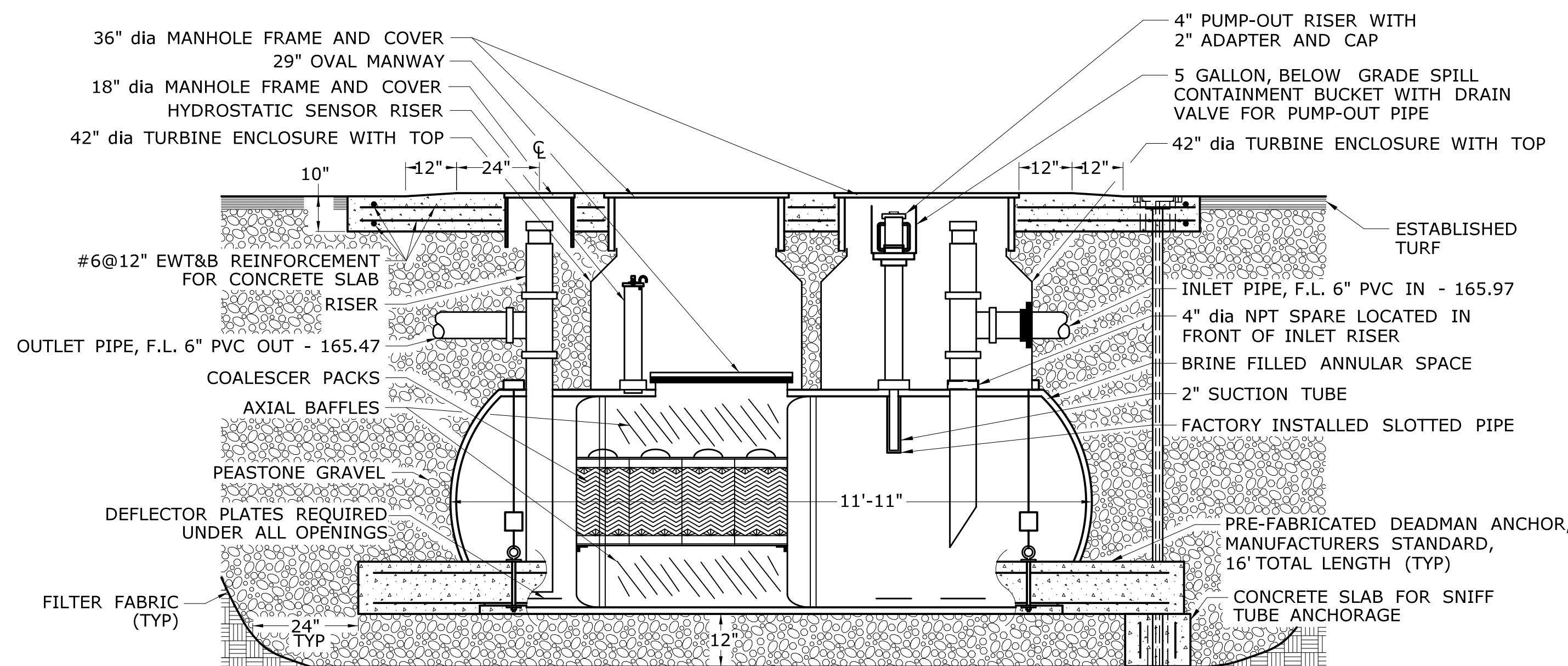
OIL-WATER SEPARATOR PLAN VIEW

SCALE: 1/2" = 1'-0"

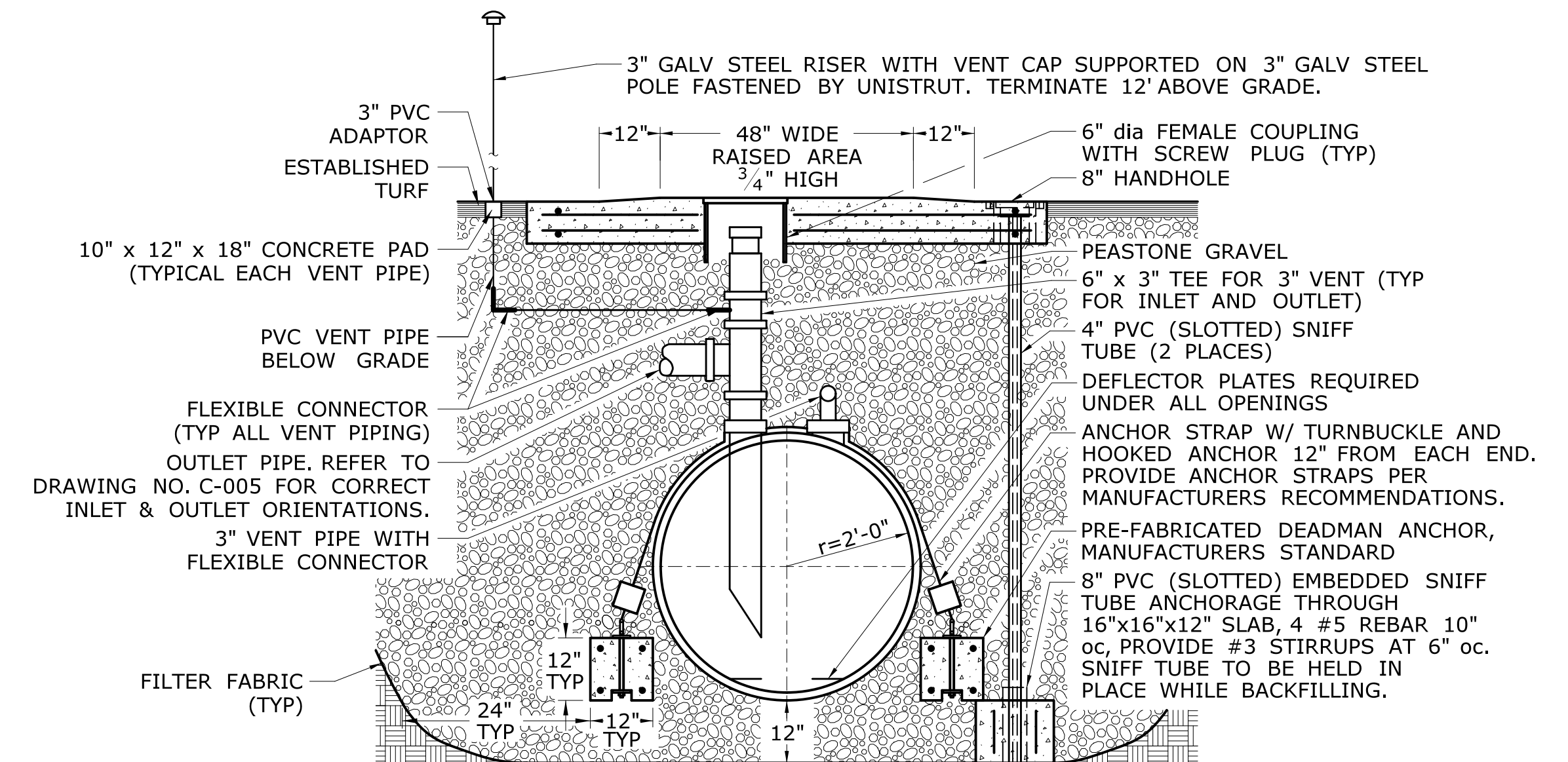


IN-TANK PROBE DETAIL

NOT TO SCALE



SECTION A
NOT TO SCALE **P-013**



SECTION B
NOT TO SCALE **P-013**

1000 GALLON DOUBLE WALL OIL-WATER SEPARATOR DETAIL

NOTES:

1. THE DESIGNED TANK DIMENSIONS ARE BASED ON CONTAINMENT SOLUTIONS. ACTUAL PAD DIMENSIONS SHALL BE SIZED BASED ON THE APPROVED TANK DIMENSIONS.
2. THE MANHOLE ARRANGEMENT IS BASED ON CONTAINMENT SOLUTIONS TANKS. ACTUAL MANHOLE ARRANGEMENT SHALL BE REDESIGNED AS NECESSARY BASED ON THE APPROVED TANK MANUFACTURER.
3. ALL CONDUITS SHALL BE PROVIDED WITH EXPLOSIONPROOF FITTINGS AND SEALED AS REQUIRED IN ACCORDANCE WITH NFPA 70.
4. ALLOW SLACK AT TANK IN ALL PIPING FOR SETTLING OF TANK.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JJT CHECKED BY: JAB	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY: <i>[Signature]</i>	PROJECT TITLE: SOUTHINGTON MAINTENANCE FACILITY RENOVATION	TOWN: SOUTHINGTON	PROJECT NO. 131-205 DRAWING NO. P-013 SHEET NO. 09.13
REV. DATE REVISION DESCRIPTION SHEET NO. Plotted Date: 7/13/2016	NOT TO SCALE	Filename: ...FD_MSH_MEC.0131_0205.P013.dgn		DRAWING TITLE: OIL-WATER SEPARATOR			

SECTION 221325 – OIL-WATER SEPARATOR

PART 1 - GENERAL

1.1 SUMMARY:

- A. The Contractor shall install the complete oil-water separator system, except as otherwise noted, in conformity with the lines, grades, dimensions and details shown on the Plans and as described herein.
- B. The manhole arrangement described herein and shown on the plans is based upon the oil-water separator identified herein. “Or Equal” submissions will address the need for an alternative manhole arrangement, if necessary, that is acceptable to the Designer. Alternative manhole arrangements will also be at no additional cost to the Engineer.
- C. Related CSI Sections include the following:
 - 1. Division 13 Section 132180, "Tank Monitoring System" for underground storage tank monitoring system.

1.2 DEFINITIONS:

- A. FRP: Glass-fiber-reinforced plastic.

1.3 SUBMITTALS:

- A. Submit the following in accordance with Form 816 Article 1.20-1.05.02 and NOTICE TO CONTRACTOR – SUBMITTALS.
- B. Product Data: For each type of product indicated. Include construction details, material descriptions, and dimensions of individual components and profiles. Also include, where applicable, rated capacities, operating characteristics, and furnished specialties and accessories.
 - 1. Spare Parts: Include name, address, and telephone number of in-state supplier of spare parts. No out-of-state suppliers shall be permitted.
- C. Shop Drawings: Indicate all critical dimensions, locations of all fittings, accessories, manholes, etc.
- D. Quality Assurance Submittals:
 - 1. Installer Certificates.
 - 2. Field quality control test reports.

E. Maintenance Data: For oil-water separators to include in the operation and maintenance manuals specified in Form 816 Article 1.20-1.08.14 subsection 2 and described in NOTICE TO CONTRACTOR – CLOSEOUT DOCUMENTS.

F. Warranty: Special warranties specified in Part 1.6, “WARRANTY.”

1.4 QUALITY ASSURANCE:

A. The Oil-Water Separator Installer shall be a certified installer for the manufacturer of the oil-water separator to be installed.

B. UL Listing: The Oil-Water Separator shall comply with the construction requirements of UL 1316 and the performance testing requirements of UL 2215.

1.5 DELIVERY, STORAGE, AND HANDLING:

A. Lift oil-water separators by lifting lugs and with the proper equipment. Do not use chain or cables around oil-water separators at any time. Chock and tie-down oil-water separators in accordance with manufacturer’s instructions until ready for installation. If oil-water separators have to be moved, set on smooth ground free of rocks and foreign objects, and rechock. Do not drop or roll oil-water separators. Do not allow oil-water separators to be impacted.

B. Store other material in a clean dry area protected from damage. Materials may be stored outside only with the written approval of the Engineer.

1.6 WARRANTY:

A. Refer to Form 816 Article 1.20-1.06.08 and NOTICE TO CONTRACTOR – CLOSEOUT DOCUMENTS for additional information.

B. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace oil-water separators that fail in materials or workmanship within specified warranty period.

1. Oil-Water Separators:

a. Failures include, but are not limited to, the following when used for storage of fuel oil at temperatures not exceeding 150 deg F:

- 1) Structural failures including cracking, breakup, and collapse.
- 2) Corrosion failure including external and internal corrosion of tanks.

b. Warranty Period: 30 years from the issuance of the Certificate of Compliance.

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS:

- A. Steel Pipe: Schedule 40, galvanized, conforming to ASTM A53 with zinc-coated malleable iron fittings conforming to ANSI B16.3.
- B. PVC Pipe: Schedule 40, conforming to ASTM D1785 with flush, threaded joints.
- C. Drainage Piping and Fittings: As specified in CSI Division 30 Section 307000, "Drainage."

2.2 PIPING SPECIALTIES:

- A. Flexible Connectors: Comply with UL 567.

1. Metallic Connectors:

- a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Flexicraft Industries.
 - 2) FLEX-ING, Inc.; Model Fireflex with 346 swivel.
 - 3) Hose Master, Inc.
- b. Listed and labeled for aboveground and underground applications by an NRTL acceptable to authorities having jurisdiction.
- c. Stainless-steel bellows with woven, flexible, bronze or stainless-steel, wire-reinforcing protective jacket.
- d. Minimum Operating Pressure: 150 psig.
- e. End Connections: Socket, flanged, or threaded end to match connected piping.
- f. Maximum Length: 30 inches.
- g. Swivel end, 50-psig maximum operating pressure.

2.3 JOINING MATERIALS:

- A. Per manufacturer requirements unless otherwise noted.

2.4 FRP OIL-WATER SEPARATOR:

- A. Basis-of-Design Product: Subject to compliance with requirements, double-wall, brine-filled FRP underground oil-water separators Model No. DWT (4')-1000 OWS ULCSI-10 as manufactured by Containment Solutions, Inc., or an approved equal:

- B. The oil-water separators shall be designed and constructed in accordance with Stokes Law and shall meet the following:
1. Designed for gravity separation of free-floating oils from rainwater runoff or from secondary wash-down. The oil-water separators shall remove settable solids.
 - a. Specific Gravity Range for Separation of Oil: 0.68-0.90.
 - b. Maximum Continuous Inlet Concentration: 400 ppm.
 - c. Maximum Continuous Flowrate: 100 gpm.
 - d. Maximum Effluent Concentration: 10 ppm.
 - e. Oil Spill Capacity: 800 gallons.
 2. Have stationary under and overflow baffles to force all oil-water mixtures through the coalescing plates. There shall be two (2) sand/sludge walls separated by polypropylene coalescing plated to create a cross-flow pattern to trap settable solids.
 3. The effluent downcomer shall be positioned to prevent the discharge of free oil that has been separated from the carrier liquid.
 4. Separator plates shall be removable for maintenance and inspection.
- C. The oil-water separators shall be inspected and tested for leakage by the manufacturer prior to shipment from the factory. The oil-water separators shall be shipped as completely assembled vessel ready for installation. Inspection, installation, and testing procedures shall be recorded on the manufacturer's letterhead and submitted to the Engineer upon delivery.
- D. The oil-water separator shall be fabricated with fiberglass-reinforced polyester resins; suitable for operation at atmospheric pressure; fabricated for the following loads:
1. External Hydrostatic Pressure: To withstand general buckling with safety factor of 5:1 if hole is fully flooded and 7-feet of overburden.
 2. Surface Loads: AASHTO's "Specifications for Highway Bridges," H-20 axle loads of 32,000 lb.
 3. Internal Loads on Primary and Secondary Tanks: Withstand 5-psi air pressure test with a 5:1 safety factor and an operating range of 1.5-psig pressure and 3-ounces of vacuum with backfill in place. Test prior to installation to test for leakage.

2.5 OIL-WATER SEPARATOR ACCESSORIES:

- A. Tank Manholes: 22-inch by 29-inch minimum (oval); bolted, flanged, and gasketed, with extension collar; for access to inside of tank.
- B. Threaded pipe connection fittings on top of tank for fill, supply, return, vent, sounding, and gaging, in locations and of sizes indicated. Include cast-iron plugs for shipping.

- C. Striker Plates: Inside tank, on bottom below fill, vent, sounding, gage, and other tube openings.
- D. Lifting Lugs: For handling and installation.
- E. Secondary Containment Collars: 42-inch diameter fiberglass collar integrally attached to the tank top to provide watertight seal in locations as indicated.
- F. Containment Sumps (Turbine Enclosure): 42-inch diameter fiberglass, with sump base, add-on extension pieces as required to provide access to the manway from grade, 40-inch sump top, lid, and gasket-seal joints. Include sump entry boots for pipe penetrations through sidewalls.
- G. Sump Entry Boots: Two-part pipe fitting for field assembly and of size required to fit over pipe. Include gaskets shaped to fit sump sidewall, sleeves, seals, and clamps as required for liquid-tight pipe penetrations.
- H. Deadman Anchor: Storage tank manufacturer's standard pre-fabricated deadman anchor, sized and reinforced for specific tank installation.
- I. Anchor Straps: Storage tank manufacturer's standard anchoring system, with straps, strap-insulating material, cables and turnbuckles, of strength at least one and one-half times maximum uplift force of empty tank without backfill in place. Furnish anchors to be attached to deadman anchors.
- J. Tank Charts: Provide (3) copies. Mount 1 copy in a glass frame secured to the wall with 4 screws adjacent to the Tank Monitoring System, or as directed by the Engineer. Charts shall be calibrated to show tank capacity in gallons from feet and inches, graduated by eighths.
- K. Gauge Stick: Wooden, manufacturer's recommended length, treated after graduating to prevent swelling and damage from fuel. Gauge stick shall be graduated in feet, inches, and eighths.

2.6 OIL-WATER SEPARATOR INSTALLATION MATERIALS:

- A. Filter Mat: Geotextile woven or spun filter fabric, in 1 or more layers, for minimum total weight of 3 oz./sq. yd. Filter fabric shall be provided to prevent the migration of peastone gravel backfill into the native soil and to maintain the integrity and stability of the backfill materials, Model No. Typar 3401 as manufactured by Reemay, Inc., or an approved equal.
- B. Peastone Gravel Backfill: Composed entirely of uncrushed stone-sized rounded particles conforming to Section M.01.01 of the Form 816, Grading No. 6, unless otherwise specified by the tank manufacturer for compliance with the tank warranty.

2.7 OIL-WATER SEPARTOR PIPING SPECIALTIES:

- A. Tank Manway Assembly and Manhole for Inlet, Pump-Out, and In-Tank Probe Assemblies:
 - 1. Manhole Frame and Cover: Composite frame with water-tight, fiberglass reinforced composite cover 36-inch diameter, Model No. FL90 as manufactured by Fiberlite, or an approved equal. Manhole frame and cover shall be black. Include one (1) lifting tool.
- B. Tank Pump-Out Assembly:
 - 1. Cap, Adapter, Suction Tube, and Slotted Pipe: 2-inch, per manufacturer's recommendations.
- C. Vent Assembly:
 - 1. Vent Cap: Open atmospheric type, corrosion-resistant, internal wire screen, designed to protect vent lines from water, debris, and insects, Model No. 23 as manufactured by OPW, or an approved equal.
- D. Tank Monitoring Assemblies:
 - 1. Probe Cap and Adaptor: Bronze, side-sealing adaptor, side sealing cap (tapped), wire grommet to secure cables, Model No. 62M as manufactured by OPW, or an approved equal.
- E. Sniff Tube Assemblies:
 - 1. Sniff Tubes: 4-inch inside diameter, Schedule 40 PVC, with flush threaded joints, Model No. 61SPVC as manufactured by OPW, or an approved equal. Sniff tubes shall be slotted 0.020-inch on center to within 2-feet of finished grade. Remaining pipe shall be solid. Wrap perforated portion of pipe with filter fabric as manufactured by Dupont Typar, or an approved equal.
 - 2. Sniff tubes shall terminate in handholes, with Well Cap Kit Model No. 634TTM as manufactured by OPW, or an approved equal.
 - 3. Sniff Tube Handholes: Watertight, cast iron cover with stainless steel bolts, steel skirt, 8-inch diameter, Model No. 104AOW as manufactured by OPW, or an approved equal.
- F. Inlet and Outlet Assemblies:
 - 1. Female coupling with Screw Plug: 6-inch, per manufacturer's recommendations.
 - 2. Manhole Frames and Covers (Outlet): Composite frame with water-tight, fiberglass reinforced composite cover 18-inch diameter, with manufacturer's standard locking system, and rated for H-20 loading requirements, Model No.

FL180 as manufactured by Fibrelite, or an approved equal. Include the following accessories: a 6-inch diameter identification plate labeled "OUTLET".

2.8 LABELING AND IDENTIFYING:

- A. Detectable Warning Tape: Acid- and alkali-resistant, PE film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored yellow.

2.9 SOURCE QUALITY CONTROL:

- A. Pressure test and inspect oil-water separators, after fabrication and before shipment, according to manufacturer's requirements and governing standards.
- B. Affix standards organization's code stamp.

PART 3 - EXECUTION

3.1 EXCAVATION AND BACKFILL:

- A. Refer to 816 Section 2.02, "Roadway Excavation, Formation of Embankment and Disposal of Surplus Material" and Section 2.05, "Trench Excavation" for excavating, trenching, and backfilling requirements.
- B. Peastone Gravel Backfill: Peastone Gravel shall be clean, dry and free from ice and snow, and shall be installed in accordance with the tank manufacturer's recommendations and as indicated on the Plans.
 - 1. Oil-water separators: Provide a minimum of 12-inches of peastone gravel bed for the oil-water separators. At start of backfilling, care must be taken to work material completely beneath the bottom of the oil-water separators and underneath the end caps to provide adequate support. Backfill completely over the top of the oil-water separators, up to bottom of the concrete apron. Peastone gravel should be added and compacted in 12-inch lifts.
 - 2. Piping: Piping in trenches shall have the minimum burial depth as indicated on the plans with a 6-inch bed of peastone gravel under and over the pipe, compacted to support the pipe installation.
- C. No backfilling over any underground piping or electrical connections may take place until the work is inspected by the Engineer and the authorities having jurisdiction. Failure to have work inspected will result in the Contractor uncovering work to allow for inspection.

3.2 OUTDOOR PIPING INSTALLATION:

- A. Install underground piping buried at least 24 inches below finished grade.
- B. Install drainage pipe as specified in CSI Division 22 Section 221316, "Sanitary Waste and Vent Piping" or as indicated on the Plans.
- C. Install vent pipe at a minimum slope of 2 percent (1/4 inch per foot) downward towards the oil-water separators unless otherwise noted.
- D. Assemble and install entry boots for pipe penetrations through sump sidewalls for liquid-tight joints.
- E. Install flexible connectors as shown on the Plans. Heat shrink-wrap flexible connectors with a minimum of 2-inches overlap on each end.
- F. Install fittings for changes in direction in rigid pipe.

3.3 PIPING JOINT CONSTRUCTION:

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. Fiberglass-Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to pipe manufacturer's written instructions.

3.4 OIL-WATER SEPARATOR INSTALLATION:

- A. Excavate as described in Part 3.1 and as shown on the Plans. Allow for cast-in-place, concrete-ballast base plus peastone gravel between ballast base and tank. Extend excavation around perimeter of oil-water separator.
- B. Install filter mat.
- C. Set tie-down eyelets for hold-down straps in concrete-ballast base and tie to reinforcing steel.

- D. Place peastone gravel on top of concrete-ballast base.
- E. Set oil-water separator on fill materials and install hold-down straps.
 - 1. Prior to setting oil-water separator, soap tank and pressurize primary and secondary tanks to a minimum of 3 psig and a maximum of 5 psig. Test for 1 hour. Do not install oil-water separator until the tank successfully passes this pressure test for leaks.
- F. Each component of the oil-water separator system shall be installed as shown on the plans and in accordance with manufacturer recommendations. Additional installation requirements of the storage tank system are described in subsequent portions of this Section where applicable.
- G. Connect piping.
- H. Backfill excavation with peastone gravel in 12-inch lifts and tamp backfill lift to consolidate.
- I. Install filter mat between top of backfill material and earth fill.
- J. Install FRP oil-water separators with FRP hold-down straps, manhole extensions, and manhole risers.
- K. Pressure Testing of Oil-Water Separator and Piping: Refer to Part 3.6, "Field Quality Control."
 - 1. Underground piping shall not be backfilled until the piping has successfully passed the pressure test for leaks described in this Section.

3.5 LABELING AND IDENTIFYING:

- A. Install detectable warning tape directly above drainage piping, 6 inches below subgrade under pavements and slabs. Terminate tracer wire in an accessible area, and identify as "tracer wire" for future use with plastic-laminate sign.
 - 1. Piping: Over underground piping.
 - 2. Oil-Water Separators: Over edges of each.

3.6 FIELD QUALITY CONTROL:

- A. Perform tests and inspections:
 - 1. Oil-Water Separators: Minimum hydrostatic or compressed-air test pressures for oil-water separators for Double-Wall Tanks. Soap tanks. Isolate drainage piping from the oil-water separators during testing. In-tank probes shall not be installed in the tanks during testing.
 - a. Inner Tanks: Minimum 3 psig and maximum 5 psig.
 - b. Interstitial Space: Minimum 3 psig and maximum 5 psig.
 - c. Maintain the test pressure for one hour.
 - 2. Piping: Test for leaks and defects in piping.
 - a. Leave drainage and vent piping uncovered until it has been tested and approved. Expose work that was covered before it was tested.
 - b. Drainage Piping: Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water. From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.
 - c. Isolate storage tanks if test pressure in piping will cause pressure in storage tanks to exceed 10 psig.
- B. Piping and equipment will be considered defective if it does not pass tests and inspections. Defective piping and equipment shall be repaired or replaced, and then retested.
- C. Prepare test and inspection reports.

3.7 PIPING SCHEDULE:

- A. Drainage Piping and Fittings: As specified in CSI Division 30 Section 307000, "Drainage."
- B. Oil-Water Separator piping shall be the following:
 - 1. Pipe Risers: 4-inch Schedule 40 PVC pipe and fittings.
 - 2. Vent Pipe and Fittings, Underground: 3-inch Schedule 40 PVC pipe and fittings.
 - 3. Vent Pipe and Fittings, Aboveground: 3-inch galvanized steel pipe and pipe fittings.

END OF SECTION 221325