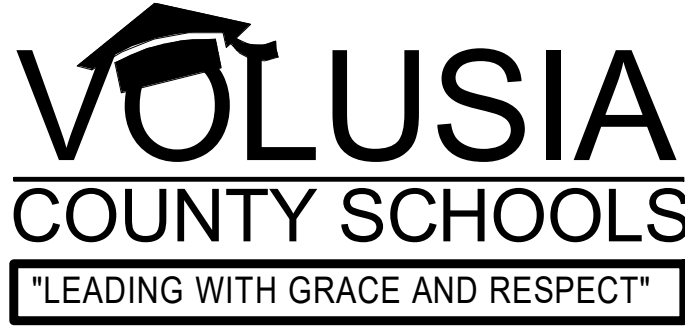




THE SCHOOL BOARD OF VOLUSIA
COUNTY FLORIDA
200 North Clara Avenue
DeLand, Florida 32720

TRANSPORTATION / MAINTENANCE - DELTONA

REPLACE FUEL ISLAND AND TANKS

VCS Project NO. 2648210

2101 EUSTACE AVE DELTONA, FL 32725

SCHOOL BOARD MEMBERS

RUBEN COLON	BOARD CHAIR
KRISTA GOODRICH	VICE BOARD CHAIR
DONNA BROSEMER	MEMBER
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DESCRIPTION OF WORK

REPLACE AND RELOCATE EXISTING 6,000 GALLON UNLEADED AND 12,500 GALLON DIESEL UNDERGROUND STORAGE TANKS WITH 12,000 GALLON UNLEADED AND 12,500 GALLON DIESEL ABOVEGROUND STORAGE TANKS FOR THE BASE BID, ALSO REPLACE EXISTING 20,000 GALLON DIESEL ABOVEGROUND STORAGE TANK WITH NEW 20,000 GALLON DIESEL ABOVEGROUND STORAGE TANK AS AN ADD ALTERNATE. ALL PIPING WILL BE REPLACED AND ROUTED ABOVEGROUND WITH CARBON STEEL PIPE AND EXTERIOR COATINGS FOR THE BASE BID AND STAINLESS STEEL PIPE AS AN ADD ALTERNATE. THE EXISTING CANOPY WILL BE REPLACED AND RELOCATED. THE FUELING MANAGEMENT SYSTEM WILL BE REPLACED AND RELOCATED. THE 2 DISPENSERS (4 TOTAL HOSES) WILL BE REPLACED WITH 3 DISPENSERS (6 TOTAL HOSES).

Architect's Statement of Compliance
To the best of my knowledge, these drawings and the project manual are complete and comply with the Florida Building Code.

LOCATION MAP



NOT TO SCALE

ENGINEERS & CONSULTANTS

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PROJECT SHEET INDEX

SHEET NUMBER	SHEET NAME
GENERAL	
G000	COVER SHEET
PLUMBING	
P000	FUEL OIL SYMBOLS, ABBREVIATIONS, SHEET SPECS AND NOTES
P001	FUEL OIL EQUIPMENT LIST
P101	FUEL OIL NEW PLAN
PD102	FUEL OIL DEMO PLAN
P201	FUEL OIL ISOMETRIC PLANS
P300	FUEL OIL DETAILS
P301	FUEL OIL DETAILS
P302	FUEL OIL SCHEMATIC DIAGRAMS
P303	FUEL OIL SITE SCHEMATIC PLAN
CIVIL	
C100	GENERAL NOTES
C200	STORMWATER POLLUTION PREVENTION PLAN
C300	OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN
C310	EXISTING CONDITIONS AND DEMOLITION PLAN
C400	SITE PLAN
C500	PAVING AND GRADING PLAN
C600	GENERAL CONSTRUCTION DETAILS
ELECTRICAL	
E000	ELECTRICAL SYMBOLS, ABBREVIATIONS, AND NOTES
E001	ELECTRICAL SPECIFICATIONS
ED101	ELECTRICAL DEMO POWER PLAN
E101	OVERALL POWER PLAN
E102	ENLARGED POWER PLAN FUEL CANOPY
E201	ELECTRICAL LIGHTING PLAN
E500	ELECTRICAL RISR DIAGRAM
E600	ELECTRICAL DETAILS
E601	HAZARD CLASSIFICATIONS
STRUCTURAL	
S100	STRUCTURAL GENERAL NOTES
S200	CANOPY DETAILS
S201	FUEL TANK SLAB DETAILS 1 OF 2
S202	FUEL TANK SLAB DETAILS 2 OF 2

CONSTRUCTION DOCUMENTS - 03/23/2026

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

ARCHENGR OF RECORD
JEREMY DEMBOSKI

DESIGNED BY JTD	DRAWN BY SRM
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003

SHEET TITLE
COVER SHEET

DRAWING NO.
G000

SYMBOL	ABBREVIATION	DESCRIPTION
	BV	BALL VALVE
	CS	CIRCUIT SETTER OR FLOW CONTROL VALVE
	BFV	BUTTERFLY VALVE
	GV	GATE VALVE
	CHV	CHECK VALVE
	GLV	GLOBE VALVE
	ANV	ANGLE VALVE
	TDV	TRIPLE DUTY VALVE
	HB	HOSE BIB
	HV	3/4" HOSE END DRAIN VALVE
	BP	BACKFLOW PREVENTOR
	GPR	GAS PRESSURE REGULATOR
	STR	STRAINER
	STR	STRAINER WITH 3/4" HOSE END DRAIN VALVE
	PTR	PRESSURE - TEMPERATURE RELIEF VALVE
	RV	PRESSURE RELIEF VALVE
		2-WAY CONTROL VALVE
		3-WAY CONTROL VALVE
		UNION
		REDUCER
	WHA	WATER HAMMER ARRESTOR
	PG	PRESSURE GAGE WITH GAUGE COCK
	TH	THERMOMETER
	FCO/GCO	FLOOR OR GRADE CLEANOUT
	WCO	WALL CLEANOUT
	PD	PIPING TEE DOWN
	PU	PIPING TEE UP
	PU	PIPING ELBOW UP
	PD	PIPING ELBOW DOWN
		BRANCH - TOP CONNECTION
		BRANCH - BOTTOM CONNECTION
	COP	CAP ON END OF PIPE
		ARROW INDICATES DIRECTION OF EACH FLOW
	FLS	FLOOR SINK
	FD	FLOOR DRAIN
	VTR	PLUMBING VENT THRU ROOF

EQ-352	MODERN WELDING, FIREGUARD DOUBLE-WALL ABOVEGROUND TANK
EQ-527	MORRISON 918 AST LOCK GAUGE WITH AN ALARM SYSTEM
EQ-356	MORRISON 9095A OVERFILL PROTECTION VALVE
EQ-535	MORRISON 515 REMOTE FILL SPILL CONTAINMENT
EQ-628	VEEDER-ROOT MAG SENSOR HYDROSTATIC TEST AND SECONDARY CONTAINMENT VACUUM SENSING SYSTEM
EQ-876	VEEDER-ROOT TLS4 CONSOLE

FUEL OIL SHEET LIST	
SHEET #	SHEET NAME
P000	FUEL OIL SYMBOLS, ABBREVIATIONS, SHEET SPECS AND NOTES
P001	FUEL OIL EQUIPMENT LIST
P101	FUEL OIL NEW PLAN
P201	FUEL OIL ISOMETRIC PLANS
P300	FUEL OIL DETAILS
P301	FUEL OIL DETAILS
P302	FUEL OIL SCHEMATIC DIAGRAMS
P303	FUEL OIL SITE SCHEMATIC PLAN
PD102	FUEL OIL DEMO PLAN

SYMBOL	ABBREVIATION	DESCRIPTION
— — — — —	CW	COLD WATER
— — — — —	HWS	HOT WATER SUPPLY
— — — — —	HWR	HOT WATER RETURN
— — — — —	W	SANITARY WASTE
— — — — —	W	SANITARY WASTE (ABOVE GRADE)
— — — — —	GLW	GREASE LADEN WASTE
— — — — —	V	VENT PIPING
— — ST — —	ST	STORM OR ROOF DRAIN PIPING
— ST — —	ST	STORM OR ROOF DRAIN PIPING (ABOVE GRADE)
— ODL — —	ODL	OVERFLOW ROOF DRAIN PIPING
— ODL — —	ODL	OVERFLOW ROOF DRAIN PIPING (ABOVE GRADE)
— CD — —	CD	CONDENSATE DRAIN PIPING
— TW — —	TW	TEMPERED WATER (105° F)
— — TP — —	TP	TRAP PRIMER WATER PIPING
— — G — —	G	GAS - LOW PRESSURE (7"-14" WC)
— MPG — —	MPG	GAS - MEDIUM PRESSURE (2-3 PSI)
— HPG — —	HPG	GAS - HIGH PRESSURE (5 PSI AND ABOVE)
— LPG — —	LPG	GAS - LIQUIFIED PETROLEUM
— CA — —	CA	COMPRESSED AIR PIPING

SYMBOL	ABBREVIATION	DESCRIPTION
		MECHANICAL EQUIPMENT - (SEE MECHANICAL SCHEDULE)
		DETAIL REFERENCE CALLOUT, DETAIL NUMBER AND SHEET
		SECTION VIEW CALLOUT, DETAIL NUMBER AND SHEET
	POC	POINT OF CONNECTION - NEW ITEMS TO EXISTING ITEMS
		PLUMBING FIXTURE SCHEDULE - (SEE SCHEDULE)
		SHEET KEYNOTES
	AP	ACCESS PANEL

1. 2023 FLORIDA BUILDING CODE
 - 2023 FLORIDA BUILDING CODE: PLUMBING
 - 2023 FLORIDA BUILDING CODE: MECHANICAL
 - 2023 FLORIDA BUILDING CODE: FUEL GAS
 - 2023 FLORIDA BUILDING CODE: ENERGY CONSERVATION
2. FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 - 62-762 F.A.C. ABOVEGROUND FUEL TANK INSTALLATIONS.
3. NATIONAL FIRE PROTECTION ASSOCIATION:
 - 30: FLAMMABLE AND COMBUSTIBLE LIQUID CODE
 - 30A: AUTOMOTIVE SERVICE STATION CODE
 - 70: NATIONAL ELECTRIC CODE
4. AMERICAN PETROLEUM INSTITUTE
 - 1604: CLOSURE OF UNDERGROUND PETROLEUM STORAGE TANKS
 - 334: GUIDE TO LEAK DETECTION FOR ABOVEGROUND STORAGE TANKS
 - 340: LIQUID RELEASE PREVENTION AND DETECTION MEASURES FOR ABOVEGROUND STORAGE FACILITIES
5. PETROLEUM EQUIPMENT INSTITUTE:
 - RP 200 INSTALLATION OF ABOVEGROUND STORAGE SYSTEMS
 - RP 500 DISPENSING & MAINTENANCE OF MOTOR FUEL DISPENSING EQUIPMENT
 - RP 600 OVERTILL PREVENTION FOR ASTS
6. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:
 - CONSTRUCTION SAFETY AND HEALTH REGULATIONS SUBPART P, 1902.50 THRU 1926.653
7. MANUFACTURER'S STANDARDIZATION SOCIETY
 - MSS SP-58: PIPE HANGERS AND SUPPORTS

1. DISPENSERS MUST BE INSTALLED IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
2. THE FOLLOWING REGULATION IS APPLICABLE TO THE UNLEADED FUEL DISPENSING SYSTEM AND MUST TAKE PRECEDENCE OVER ALL INDICATED DATA ON THIS DRAWING:
 - A. 16 CFR PART 306 - AUTOMOTIVE FUEL RATINGS, CERTIFICATION, AND POSTING
3. ALL LABELS MUST BE RESISTANT TO FUEL, GREASE, OIL, SOLVENTS, AND DETERGENTS AND MUST BE ABLE TO WITHSTAND EXTREME WEATHER CONDITIONS FOR AT LEAST ONE YEAR.
4. ACCEPTABLE LABELS MUST INCLUDE LABELS APPROVED BY THE CONTRACTING OFFICER AND STANDARD TO THE INDUSTRY

ABBREVIATION	DESCRIPTION
@	AT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
API	AMERICAN PETROLEUM INSTITUTE
APPROX.	APPROXIMATELY
AST	ABOVEGROUND STORAGE TANK
ATG	AUTOMATIC TANK GAUGE
AUX.	AUXILIARY
AV	ACID VENT
AW	ACID WASTE
BHP	BRAKE HORSE POWER
BOP	BOTTOM OF PIPE
BTU/H	BRITISH THERMAL UNIT PER HOUR
COMB.	COMBINATION
CONN.	CONNECTION
CS	CARBON STEEL
CSDL	CONTINUOUS STATISTICAL LEAK DETECTION
DBL	DOUBLE
D.C.	DIRECT CURRENT
DIA	DIAMETER
DIM.	DIMENSION
DSL	DIESEL FUEL
(E)	EXISTING
EFF	EFFICIENCY
ELECT.	ELECTRICAL
ELD	ENHANCED LEAK DETECTION
ELL	ELBOW
EMT	ELECTRICAL METALLIC TUBING
E.S.O.	EMERGENCY SHUT OFF
F	FILL
F2	JET FUEL
F.G.	FIBERGLASS
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FNPT	FEMALE NATIONAL PIPE THREAD
FO-D	FUEL OIL - DIESEL
FO-LUL	FUEL OIL - UNLEADED
FFM	FEET PER MINUTE
FRP	FIBERGLASS REINFORCED PLASTIC
FSP	FUEL SAMPLE POINT
GA	GAZE OR GAUGE
GAL	GALLON
GPM	GALLONS PER MINUTE
HD	HEAD PRESSURE
H.P.	HORSEPOWER
I.D.	INSIDE DIAMETER
KW	KILOWATT
LBS.	POUNDS
MBH	ONE THOUSAND BTUH
MAX.	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MFRS	MANUFACTURER'S
MGs	MOGAS FUEL
MIN.	MINIMUM
MNPT	MALE NATIONAL PIPE THREAD
MCOCP	MAXIMUM OVER CURRENT PROTECTION
MW	MONITOR WELL
(N)	NEW
N/A	NOT APPLICABLE
N/C	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NPT	NATIONAL PIPE THREAD
N/O	NORMALLY OPEN
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.D.	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
P	PRODUCT LINE
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
Q	QUANTITY
RD	ROOF DRAIN
REF.	REFERENCE
REQ'D.	REQUIRED
RPM	REVOLUTIONS PER MINUTE
RSg.	RIGID STEEL GALVANIZED
SEC.	SECTION
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
S.T.P.	SUBMERGED TURBINE PUMP
T.L.M.	TANK LEVEL MONITOR
TYP.	TYPICAL
U.B.C.	UNIFORM BUILDING CODE
U.F.C.	UNIFORM FIRE CODE
U.G.	UNDER GROUND
U.L.	UNDERWRITER'S LABORATORY
U.M.C.	UNIFORM MECHANICAL CODE
UNL	UNLEADED
U.P.C.	UNIFORM PLUMBING CODE
U.S.T.	UNDERGROUND STORAGE TANK
V	VAPOR LINE
VPR	VAPOR FUEL
VAC.	VOLT AMP CURRENT
VFD	VARIABLE FREQUENCY DRIVE
V.R.	VAPOR RECOVERY
W/	WITH
W.C.	WATER COLUMN
WVS	WASTE VENT STACK

GENERAL:

A. CONTRACTOR SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE INSTALLING FLEET FUEL SYSTEMS AND MUST HAVE THE FOLLOWING CERTIFICATIONS IN ORDER TO BID ON THIS PROJECT OR BE INVOLVED ON ANY CONSTRUCTION

OPW FUEL MANAGEMENT CERTIFICATION

a. GLBARCO / VEEDER-ROOT CERTIFICATION

B. ALL PIPING WILL BE PRIMARY PIPING WITHIN SECONDARY PIPING. SIZES TO BE SPECIFIED ON DRAWINGS. PIPING TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

C. ALL ABOVEGROUND PIPING WILL BE LISTED IN ACCORDANCE WITH ULULC 1369.

D. THE INFORMATION INDICATED ON THESE DRAWINGS AS EXISTING IS BASED UPON INFORMATION FROM EXISTING RECORDS AND FIELD INVESTIGATION. INFORMATION OBTAINED FROM EXISTING SUBMITTAL DATA, ETC. THE PLANS DO NOT GUARANTEE ACCURACY BUT ARE ONLY AN INDICATION OF EXISTING CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT CONDITIONS SUCH AS EQUIPMENT PLACEMENT, PIPING (SIZE, ROUTING, AND ELEVATION), ETC. THE DRAWINGS ARE INTENDED TO PROVIDE THE CONTRACTOR AN INDICATION OF THE SYSTEM INSTALLED IN THE FACILITY TO DATE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ADJUSTMENTS TO THE DRAWING INFORMATION AS REQUIRED TO MATCH EXISTING CONDITIONS. THE CONTRACTOR'S RESPONSIBILITY IS TO PROVIDE THE CONTRACTOR RESPONSIBILITY FOR PROPER HANDLING AND INSTALLATION OF PIPING SYSTEM. THE GENERAL CONTRACTOR SHALL ENSURE THAT GOOD WORKMANSHIP AND CONSTRUCTION PROCEDURES ARE FOLLOWED THROUGHOUT THE INSTALLATION, REGARDLESS OF INCLUSION OR OMISSION OF ANY APPLICABLE SUGGESTION IN THESE INSTRUCTIONS OR ON THE DRAWINGS.

A. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL POWER WIRING, EQUIPMENT DISCONNECTS, LOW VOLTAGE WIRING, ATG SENSOR, AND PROBE WIRING TO MAKE SYSTEM OPERATIONAL

B. FUEL OIL CONTRACTOR TO PROVIDE, CALIBRATE, AND INSTALL DISPENSERS, TANKS, PUMPS, AND PIPING.

C. FUEL OIL CONTRACTOR, ELECTRICAL CONTRACTOR, CONSTRUCTION MANAGER, AND NETWORK SUPPLIER MUST BE ON SITE ON DAY OF SYSTEM STARTUP.

THE USE OF SPECIFIED MATERIALS AND SPECIFIED PROCEDURES WILL ENSURE THAT TANK SETTLEMENT, TANK DISTORTION, MOVEMENT IN CONCRETE SLAB, OR INSTALLATION FAILURE DO NOT OCCUR. SHOULD SUCH A FAILURE OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE AND WILL ASSUME RESPONSIBILITY FOR NOT FOLLOWING THE SPECIFIED PROCEDURES AND WILL INCUR ANY ADDITIONAL COSTS ASSOCIATED WITH THE CORRECTIVE MEASURES, INCLUDING COMPLETE REMOVAL AND REINSTALLATION OF THE TANK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TANK MOVEMENT, SETTLEMENT, OR DISTORTION HAS BEEN CAUSED BY FACTORS BEYOND THE CONTRACTOR'S CONTROL, THE COST OF REMEDIAL MEASURES WILL BE BORNE BY OTHERS. THE FUEL OIL INSTALLATION CONTRACTOR DOES HEREBY AGREE TO GUARANTEE THE TANK MOVEMENT, SETTLEMENT, OR DISTORTION AS OUTLINED HEREIN ABOVE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

A. THE DRAWINGS AND SPECIFICATIONS WILL DETERMINE THE EXACT LOCATION, NUMBER, SIZE, AND TYPE OF EQUIPMENT TO BE INSTALLED AND INSTALLATION TO BE FOLLOWED.

B. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S, FEDERAL, STATE, AND ALL OTHER APPLICABLE CODES, STANDARDS, AND LOCAL REQUIREMENTS.

C. CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL NECESSARY PERMITS, INSPECTIONS, AND TESTS AND SHALL INCLUDE THE COST OF THESE REQUIREMENTS IN THEIR BID.

D. CONTRACTOR TO INSTALL AND TEST ALL ALL TANKS, PIPING, DISPENSERS, AND MONITORING EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS, INCLUDING THE INSTALLATION OF STAGE I VAPOR RECOVERY.

E. CONTRACTOR SHALL INSTALL ALL ABOVEGROUND PIPING SHOWN ON THE DRAWINGS, WITH A MINIMUM NUMBER OF BENDS/FLOWS.

F. NEW ABOVEGROUND FUEL PIPING MUST BE SINGLE WALL CARBON STEEL MATERIAL WITH EXTERIOR COATINGS.

G. ABOVEGROUND TANKS AND PIPES MUST USE COLOR CODING, BANDING, PRODUCT NAMES, AND DIRECTION OF FLOW TO IDENTIFY PRODUCT SERVICE.

H. PROVIDE LOW POINT DRAINS AT ALL LOW POINTS AND HIGH POINT VENTS AT ALL HIGH POINTS. INSTALL FUEL PIPING WITH A MINIMUM SLOPE OF 0.2% DOWN FROM THE HIGH POINTS TO THE LOW POINTS. USE FLOW SERVICE IDENTIFICATION.

I. PIPE SUPPORTS WELDED TO CARBON STEEL MUST BE EXTERIOR COATED CARBON STEEL. ALL OTHER PIPE SUPPORTS AND OTHER MISCELLANEOUS METAL SHAPES MUST BE HOT DIPPED GALVANIZED CARBON STEEL, UNLESS OTHERWISE INDICATED.

ALL PRODUCTS TO BE SHERWIN-WILLIAMS. BOLLARDS AND ISLAND FORMS (IF REQUIRED BY AHJ)
TO MATCH EXISTING.

CANOPY IS A PREFAB STEEL STRUCTURE, REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.

A. CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT SCOPE AND WILL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO THE INITIATION OF CONSTRUCTION. IF A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE DRAWINGS IS IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

B. THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR PROPER HANDLING AND INSTALLATION OF THE ASTS, DISCHARGES AND VALVES AND SHALL ENSURE THAT GOOD WORKMANSHIP PRACTICES AND CONSTRUCTION PROCEDURES ARE FOLLOWED REGARDLESS OF THE INCLUSION OR OMISSION OF ANY INSTRUCTION.

C. UNKNOWN SITUATIONS OR CONDITIONS NOT COVERED IN THESE AND THE MANUFACTURER'S INSTRUCTIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR, REGARDLESS OF THE TYPE OF TANK. THE CONTRACTOR, ENGINEER, AND QUALITY CONTROL SHALL BE RESPONSIBLE FOR ABOVEGROUND TANKS SHALL BE INSTALLED PER THESE SPECIFICATIONS, DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND NFPA 30 AND 30A. ANY LOCAL CODES THAT APPLY MUST BE FOLLOWED. FAILURE TO FOLLOW THESE INSTALLATION INSTRUCTIONS WILL VOID THE WARRANTY AND WILL RESULT IN TANK FAILURE. PROPER INSTALLATION OF ASTS HELP PREVENT TANK DAMAGE AND TANK FAILURE.

D. THE INSTALLATION PROCEDURE SHALL COMPLY WITH BOTH THESE SPECIFICATIONS AND THE RESPECTIVE TANK MANUFACTURER'S SPECIFICATIONS. IF THE CONTRACTOR FINDS A CONFLICT IN BETWEEN THESE TWO SPECIFICATIONS, IT IS THEIR RESPONSIBILITY TO CONTACT THE ENGINEER OF RECORD FOR CLARIFICATION AND GUIDANCE.

E. AN INSTANTANEOUSLY ACTING SHUT OFF VALVE BE INSTALLED ON EACH DOUBLE-WALLED STORAGE TANK WITH A CLOSED INTERSTICE AFTER IT IS DELIVERED AND PLACED AT ITS FINAL LOCATION AT THE FACILITY, AND BEFORE THE STORAGE TANK IS PLACED INTO SERVICE. TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURERS TESTING SPECIFICATIONS. TEST RESULTS SHALL BE PROVIDED TO EOR, CLIENT, AND ENVIRONMENTAL.

F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE TIGHTNESS OF THE TANKS. TEST RESULTS SHALL BE MAINTAINED AND AVAILABLE FOR INSPECTION BY THE DEPARTMENT OR COUNTY IN ACCORDANCE WITH RULE 62-762.711, F.A.C.

G. PRESSURIZED SMALL DIAMETER INTERNAL PIPING SYSTEMS CONNECTED TO DISPENSERS SHALL BE INSTALLED WITH SHEAR VALVES OR EMERGENCY SHUTOFF VALVES IN ACCORDANCE WITH SECTION 8.3 OF A.P.C. CODE NFPA MOTOR FUEL DISPENSING FACES AND REPAIR. GASES, REQUIREMENTS FOR DISPENSING DEVICES, 2011 EDITION. THESE VALVES SHALL BE DESIGNED TO CLOSE AUTOMATICALLY IF A DISPENSER IS DISPLACED FROM ITS NORMAL POSITION. THE VALVES SHALL BE RIGIDLY ANCHORED INDEPENDENTLY OF THE DISPENSER. THE VALVES SHALL BE TESTED IN ACCORDANCE WITH SECTION 1200-1.9, 2019 EDITION. INFORMATION BY REFERENCE TO PARAGRAPH 62-762.501(1)(B)8, F.A.C. FOR THE TIME OF INSTALLATION BY A CERTIFIED CONTRACTOR TO CONFIRM THAT THE AUTOMATIC CLOSING FUNCTION OF THE VALVE OPERATES PROPERLY, AND THAT THE VALVE IS PROPERLY ANCHORED.

H. RELEASE DETECTION DEVICES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH 62-762.702(4) F.A.C.

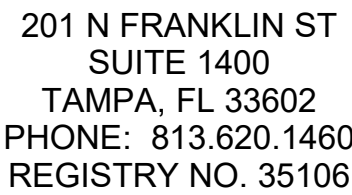
I. CONTRACTOR SHALL PROVIDE TANK EXCAVATION HOLE PROTECTION WHEN REMOVING EXISTING FUEL TANKS UNTIL PAVING IS IN PLACE PER OSHA STANDARD 1910. COVERS AND / OR GUARDRAILS SHALL BE PROVIDED TO PROTECT PERSONNEL FROM THE HAZARDS OF OPEN PITS, TANK WATS, DITCHES, ETC.

J. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO FDEP BETWEEN 30-45 DAYS BEFORE INSTALLATION OF THE ABOVE GROUND STORAGE TANKS TO COMPLY WITH FAC 62-762. NOTIFICATION SHALL BE RECEIVED BY THE COUNTY IN WRITING OR ELECTRONIC FORMAT BETWEEN 30 AND 45 DAYS BEFORE THE INITIATION OF THE WORK RELATED TO THE CLOSURE OF THE EXISTING UNDERGROUND STORAGE TANKS.

K. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE DEPARTMENT IN PAPER OR ELECTRONIC FORMAT TO THE DEPARTMENT WITHIN 10 DAYS AFTER COMPLETION OF THE DEMOLITION OF THE TWO UNDERGROUND FUEL STORAGE TANKS PER 62-762.802(3)(B)8, F.A.C. FOR CLOSURE OF FUEL TANKS.

L. A CLOSURE INTEGRITY EVALUATION REPORT FORM FOR ASTS 62-762.901(7), MUST BE PROVIDED TO THE COUNTY WITHIN THE NOTIFICATION CLOSURE FORM.

M. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY OF THE ABOVE GROUND STORAGE TANKS. PROVIDE CERTIFICATE OF LIABILITY FOR THE TANKS UNTIL VCS TAKES OWNERSHIP.



This document is an instrument of service prepared solely for Kimley-Horn's client and for a particular purpose. Any other use or reliance is without liability to Kimley-Horn.

[illegible]

REPLACE FUEL ISLAND AND TANKS

2101 Eustace Ave

DeLoria, FL 32123

DeMott, FL 32123

ARCHIENGR OF RECOR

JEREMY DEMBOSK

DESIGNED BY

STD

DRAWN BY

CRIM

ISSUE DATE
3/23/2

FUEL OIL SYMBOLS, ABBREVIATIONS, SHEET SPECS AND NOTES

DRAWING N

P000

EQUIPMENT LIST

TAG	PART DESCRIPTION	MANUFACTURER	MODEL NUMBER	QUANTITY
TANK EQUIPMENT				
(N)AST-2	ABOVEGROUND STORAGE TANK, U.L. 2085 LABELED - BASE BID	MODERN WELDING	FIREGUARD, 12,000 GALLON CAPACITY	1
(N)AST-3	ABOVEGROUND STORAGE TANK, U.L. 2085 LABELED - BASE BID	MODERN WELDING	FIREGUARD, 12,500 GALLON CAPACITY	1
(N)AST-1	ABOVEGROUND STORAGE TANK, U.L. 2085 LABELED - ADD ALTERNATE	MODERN WELDING	FIREGUARD, 20,000 GALLON CAPACITY	1
TANK SUMP EQUIPMENT				
STP-1	2 HP FIXED SPEED STP - STPM200-VL2-00	FE PETRO	402520901	3
	FACTORY INCLUDED THREADED RISER PIPE - ONE PER STP	FE PETRO		3
	2"x18" MxMS FIRESHILED FLEX CONNECTOR	HOSE MASTER	FSMS180200	3
	2" FULL PORT BALL VALVE	MORRISON	691---0800 1V	3
	3" FULL PORT BALL VALVE	MORRISON	691---1000 1V	2
SPILL CONTAINMENT				
	4" VAPOR SWIVEL ADAPTOR	OPW	61VSA-1020-EVR	1
	DURATUFF STAGE VAPOR RECOVER CAP	OPW	1711T-7085-EVR	1
AST VALVES AND FITTINGS				
	AST PEDESTAL & 1 STABILIZER BAR: W/27.5" Lx 15" W OPENING	MORRISON	434X--17001 AK	3
	AST OVERFILL VALVE 3" FILL 6" INSTALLATION PIPE	MORRISON	9095AA3300AVEVR	3
	SOLENOID VALVE 2" VITON WITH 120 VOLT COIL	MORRISON	710---0200 1V	3
RF-1	15 GALLON REMOTE SPILL CONTAINER WITH (2) 3" OPENING	MORRISON	515---2300 AC	1
RF-2	15 GALLON REMOTE SPILL CONTAINER WITH (1) 3" OPENING	MORRISON	515---0300 AC	1
	3" DUCTILE IRON SWING CHECK VALVE	MORRISON	246ADI0600 AV	3
	3" DRY BREAKS 927	MORRISON	927---0300AAEVR	3
	DUST CAP	MORRISON	735DC-4000ACEVR	3
	2" DUCTILE IRON EXTERNAL EMERGENCY VALVE	MORRISON	346DI-0500 AV	3
	CLOCK GAUGE WITH BATTERY OPERATED OVERFILL ALARM & 2" FLOAT	MORRISON	918---0100 AG	3
VC-1	2" ATMOSPHERIC VENT CAP	OPW	23-0033	2
VC-2	2" PRESSURE/VAC VENT CAP	OPW	623V-2203	1
TANK MONITORING EQUIPMENT - VEEDER ROOT TLS 4B SYSTEM				
TLS	TLS4B CONSOLE, COLOR TOUCH SCREEN DISPLAY, EDIM, UL	VEEDER ROOT	860196-020	1
	TLS4B APPLICATION SOFTWARE, 6 UNIVERSAL INPUTS	VEEDER ROOT	333435-001	1
	EXTERNAL PRINTER FOR TLS4 SERIES CONSOLES (EPSON MODEL: TM-T88V)	VEEDER ROOT	330020-832	1
	WALL MOUNTING BRACKET FOR EXTERNAL PRINTER FOR TLS4 SERIES CONSOLES	VEEDER ROOT	330020-839	1
	SS PROBE, 0.2 MAG PLUS HGP CANISTER, WATER DETECTION, UL, ANY STD LENGTH	VEEDER ROOT	846397-2xx	3
	INSTALL. KIT, MAG PLUS, PHAST-TWO WATER DETECTOR, 4" FLOAT, 5' CABLE	VEEDER ROOT	886100-000	1
	INSTALL. KIT, MAG PLUS, DIESEL, 4" FLOAT, 5 CABLE	VEEDER ROOT	846400-001	2
	4" NPT RISER CAP AND RING KIT FOR IN-TANK PROBES	VEEDER ROOT	312020-952	3
	MAG PROBE INSTALLATION KIT FOR ABOVEGROUND STORAGE TANK	VEEDER ROOT	312020-984	3
ISENS	INTERSTITIAL SENSOR FOR STEEL TANKS (4'-12" TANK I.D.) WITH 16' CABLE	VEEDER ROOT	794390-420	3
INT-CAP	2" INTERSTITIAL SENSOR RISER CAP AND ADAPTOR KIT	VEEDER ROOT	312020-928	3
	OVERFILL ALARM BOX	VEEDER ROOT	790091-001	1
	OVERFILL ALARM ACKNOWLEDGEMENT SWITCH/RESET	VEEDER ROOT	790095-001	1
ISLAND EQUIPMENT				
	1-1/2" EMERGENCY VALVE	OPW	10BF-5725	3
DISP	GASBOY ATLAS X COMMERCIAL DISPENSER - TWIN - ONE PRODUCT, FRONT LOAD	GASBOY	9853GXTW1 DFZ	3
	STAINLESS STEEL-ALL PANELS	GASBOY	Z-AT0-ISSA00	3
	PULSE OUTPUT, SINGLE OR DUAL	GASBOY	Z-AT0-APULID	3
DISPENSING ACCESSORIES				
	3/4" DIESEL DISPENSING NOZZLE, GREEN	OPW	11B-0100	4
	1" MNPT TO 3/4" FNPT BUSHING	OPW	28R-2404	4
	1" CAMTWIST MAGNETIC RECONNECTABLE BREAKAWAY	CATLOW	CTM-100	4
	KIT, GAS - 3/4" BLACK, ERGO, C720, CTM75, 9' X 8"	CATLOW	HAER0002	2
	1" x 20' CURB HOSE	FLEXHOSE	FLX HW302000	4
	1" x 9' WHIP HOSE	FLEXHOSE	FLXHW300009	4
	360 HEAVY DUTY HIGH HOSE RETRIEVER	PEMCO		4
	360 HB HOSE BUN	PEMCO		4
	BASE FOR HOSE RETRIEVER	PEMCO		4
FUEL MANAGEMENT SYSTEMS				
FM	FM LIVE, CELLULAR, PROKEE/PROX. CARD READER	FUELMASTER	FMU5720-F2	1
	TANK MONITORING INTERFACE WIRELESS KIT (RS-232)	FUELMASTER	191F0223	1
	PROKEE ENCODER; USB	FUELMASTER	941D0120	1
	FMLIVE ANNUAL SUBSCRIPTION SERVICES	FUELMASTER	FMLIVEBA/2+B1	1
	FMLIVE SETUP AND ACTIVATION	FUELMASTER	CLOUDBA/2	1
	FMLIVE PROJECT MANAGEMENT	FUELMASTER	PMLIVEBA/2+B1+CELL	1
	FMLIVE DATABASE CONSTRUCTION AND OR CONVERSION	FUELMASTER	FMLIVE-DB-CONSTRUCT	1
	PROKEES	FUELMASTER	172405	300
MISCELLANEOUS				
FE	FIRE EXTINGUISHER AND CABINET (PURPLE-K)			1
	AST DECAL PACKAGE			1
	DECAL PACKAGE (PUMP NUMBERS, MAY CONTAIN 10% ETHANOL, ULSD)			3



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REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

ARCH/ENGR OF RECORD

JEREMY DEMBOSK

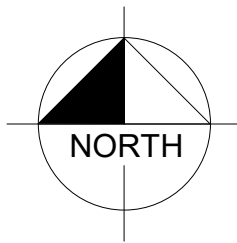
DESIGNED BY JTD	DRAWN BY SRM
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003

SHEET TITLE

FUEL OIL EQUIPMENT LIST

DRAWING NO.

P001


$$1/8" = 1'-0"$$

1. ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION WITH OTHER TRADES BEFORE INSTALLATION OF ALL PLUMBING AND FUEL SYSTEMS. CONTRACTOR TO VERIFY ALL DRAWINGS IS FOR GENERAL ARRANGEMENT ONLY. ALL WORK TO BE COORDINATED WITH FIELD CONDITIONS AND OTHER TRADES INVOLVED AS REQUIRED. DO NOT SCALE DIMENSIONS FROM THIS DRAWING. ALL DIMENSIONS TO BE VERIFIED IN FIELD AS REQUIRED.
2. CONTRACTOR SHALL PROVIDE ALL SUPPORTING AND HANGING FITTINGS AND CLIPPING FOR ALL EQUIP. INSTALLATION OF ALL PLUMBING AND FUEL OIL SYSTEMS.
3. CONTRACTOR TO COORDINATE AND VERIFY ALL CLEARANCES BEFORE START OF ANY WORK.

1. A PHASING PLAN MUST BE DEVELOPED SO THAT THE EXISTING FUELING FACILITY REMAINS OPERATIONAL UNTIL THE NEW FUELING FACILITY HAS BEEN CONSTRUCTED, COMMISSIONED, AND IS FULLY OPERATIONAL.
2. COORDINATE WITH THE CLIENT PRIOR TO DEMOLISHING ANY FUEL TANK, PIPING, OR RELATED EQUIPMENT. COORDINATE WITH THE CLIENT ON THE REMOVAL AND DISPOSAL OF THE EXISTING GAUGING SYSTEMS AND OTHER AUTOMATING EQUIPMENT WITHIN 30 DAYS OF REMOVAL/DEMOLITION.
3. DEFINITIONS:
 - A. DEMOLISH: REMOVE IN ITS ENTIRETY
 - B. SALVAGE: REMOVE AS INDICATED AND PROVIDE TO THE CLIENT. DOCUMENT THAT THE ITEM HAS BEEN REMOVED.
4. CONTRACTOR MUST PROVIDE EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY DEMOLITION WORK.
5. A HAZARDOUS MATERIALS SURVEY HAS NOT BEEN CONDUCTED AS PART OF THIS DESIGN.
6. ASSUME EXISTING TANKS AND PIPING ARE PARTIALLY FULL OF PRODUCT AND RESIDUAL PETROLEUM WASTE. THE CONTRACTOR MUST BE RESPONSIBLE FOR THE REMOVAL, STORAGE, TRANSPORTATION, AND PROPER DISPOSAL OF REMAINING PRODUCT IN THE TANKS AND PIPING ONCE THEY ARE READY FOR DEMOLITION AND REMOVAL. GOOD PRODUCT REMAINING IN THE TANK MUST BE RETURNED TO THE CLIENT FOR REUSE. CONTRACTOR MUST ASSUME RESPONSIBILITY FOR REMOVAL OF RESIDUAL OIL, WASTE, SLUDGE, OR UNACCEPTABLE PRODUCT AND MUST REMOVE, STORE, TRANSPORT, AND DISPOSED OF THIS WASTE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.

#	KEYNOTES
1	EXISTING 12,500 GALLON DIESEL UST TO BE REMOVED. DIMENSIONS ARE APPROXIMATE.
2	EXISTING 6,000 GALLON UNLEADED UST TO BE REMOVED. DIMENSIONS ARE APPROXIMATE.
3	EXISTING PUMP SUMP TO BE DEMOLISHED WITH UST.
4	EXISTING SPILL BUCKET TO BE DEMOLISHED WITH UST.
5	EXISTING DISPENSER TO BE DEMOLISHED.
6	CANOPY COLUMN, REFER TO STRUCTURAL DRAWINGS.
7	EXISTING DEF SYSTEM TO BE RELOCATED TO NEW FUEL ISLAND.
8	EXISTING EMERGENCY FUEL SHUT OFF TO BE DEMOLISHED, REPLACED, AND RELOCATED. REFER TO NEW PLAN
9	STORAGE TANKS SHALL BE REMOVED ACCORDING TO NFPA 30.21 INCLUDING ALL LIQUIDS AND RESIDUES SHALL BE REMOVED; THE TANK, APPURTENANCES, AND PIPING SHALL BE PURGED OF FLAMMABLE VAPORS AND SHALL BE TESTED BY A COMBUSTIBLE GAS INDICATOR, ALL EXPOSED PIPING, GAUGING, AND TANK FITTINGS (OTHER THAN THE VENT) SHALL BE DISCONNECTED AND REMOVED; AND THE TANK SHALL BE COMPLETELY FILLED WITH AN INERT SOLID MATERIAL.
10	ALL UNDERGROUND PIPING IS TO BE REMOVED AND DISPOSED OF.
11	EXISTING 20,000 GALLON ABOVEGROUND STORAGE TANK TO BE REPLACED AS AN ADD-ALTERNATE.
12	EXISTING VEEDER-ROD CONTROL CONSOLE MODEL TLS-350 TO BE DEMOLISHED AND REPLACED WITH NEW SYSTEM.
13	EXISTING FUELMASTER FUEL MANAGEMENT SYSTEM TO BE DEMOLISHED.
14	EXISTING DOMESTIC WATER AND COMPRESSED AIR PIPING TO BE DEMOLISHED.

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DRAWING NO.

PD102



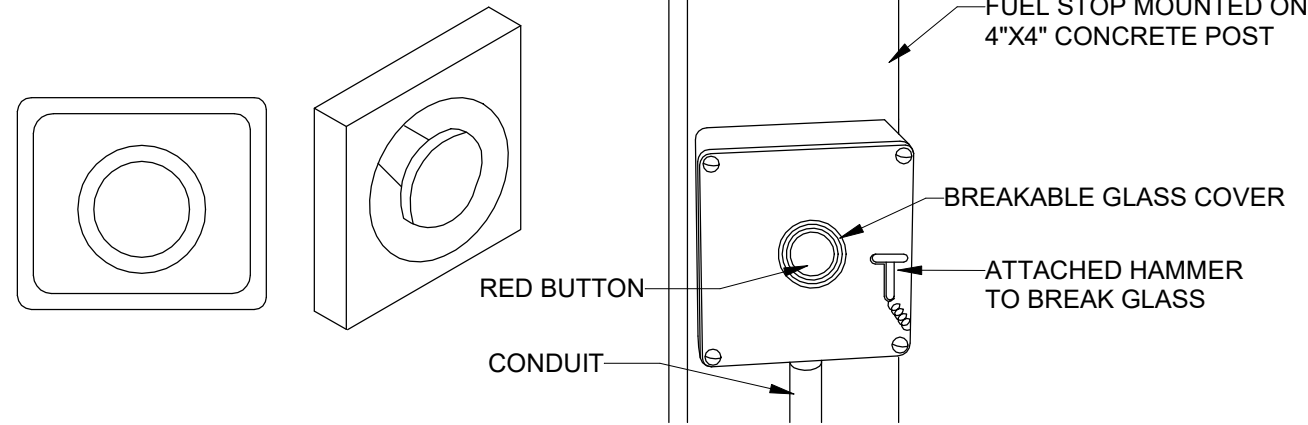
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ARCHENGR OF RECORD	
JEREMY DEMBOSKI	
DESIGNED BY JTD	DRAWN BY SRM
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003
SHEET TITLE FUEL OIL ISOMETRIC PLANS	
DRAWING NO. P201	

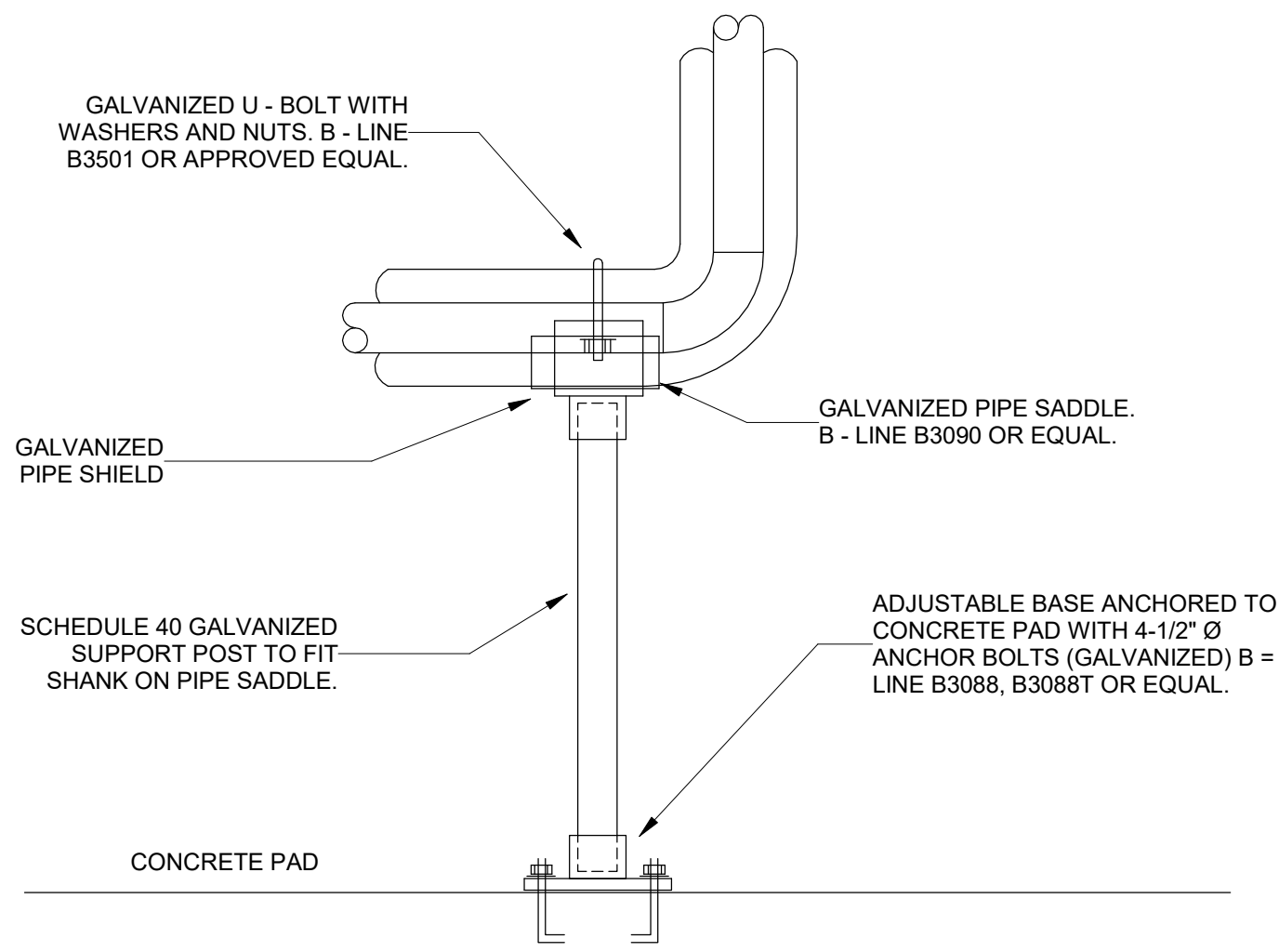
EMERGENCY FUEL SHUT OFF



- NOTES:
1. SIGN SHALL HAVE RED LETTERS ON WHITE BACKGROUND. MINIMUM OF 1" HEIGHT OF LETTERS
 2. SHUT OFF TO BE LOCATED 20'-100' AWAY FROM ALL DISPENSING EQUIPMENT
 3. SHUT OFF TO BE LOCATED 42"-48" ABOVE GROUND.

1 EMERGENCY FUEL SHUT OFF DETAIL

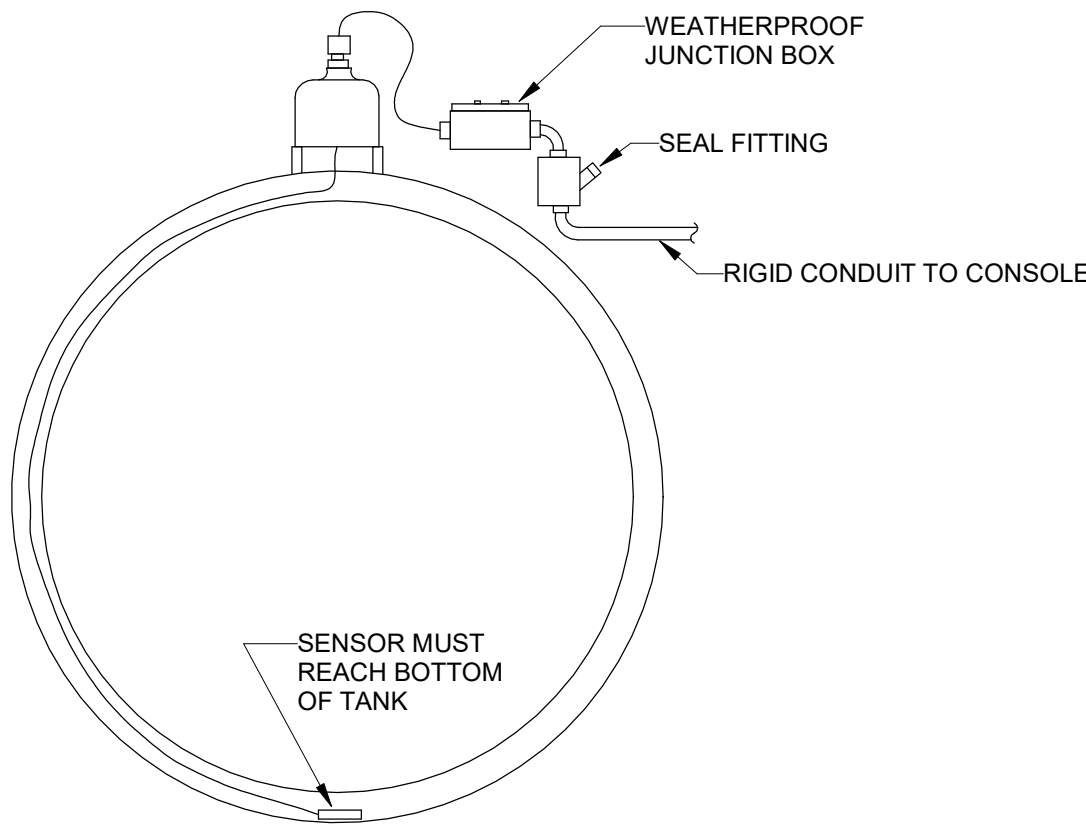
N.T.S



- NOTE:
1. FOR SUPPORT OR PIPING OVER EXISTING CONCRETE PAD, ANCHOR ADJUSTABLE BASE TO EXISTING CONCRETE WITH EXPANSION ANCHORS.
 2. CONTRACTOR TO PAINT ALL PIPE SUPPORTS WITH PROTECTIVE WHITE COATING TO MATCH CANOPY

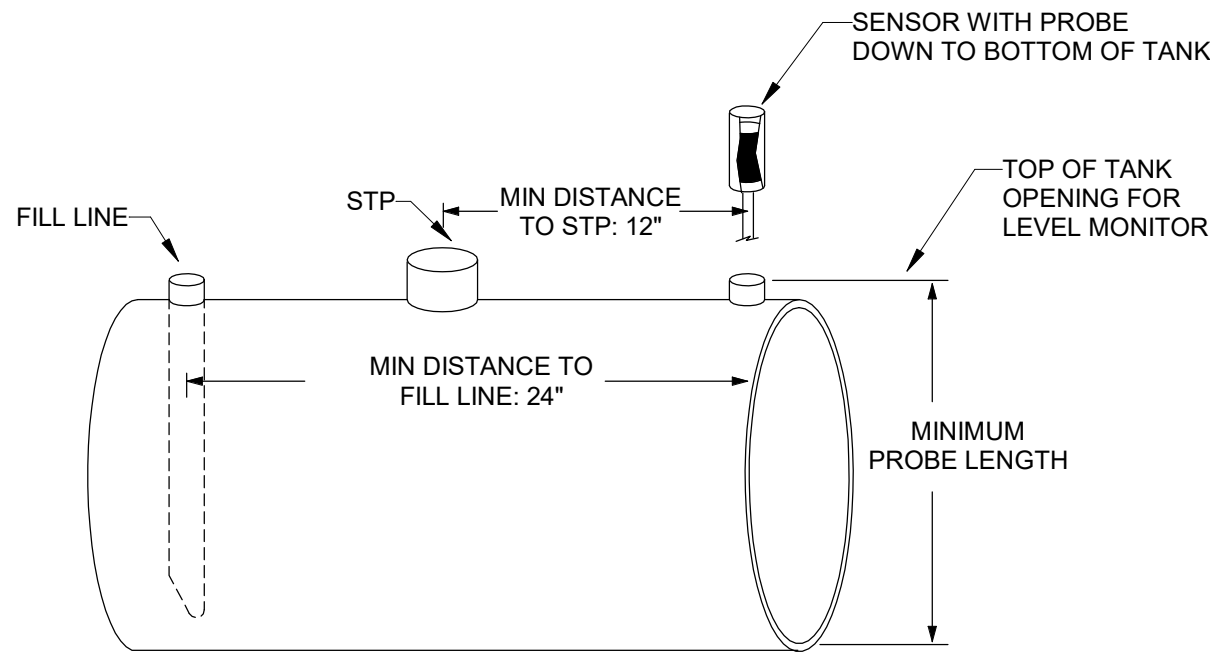
2 PIPING SUPPORT

N.T.S



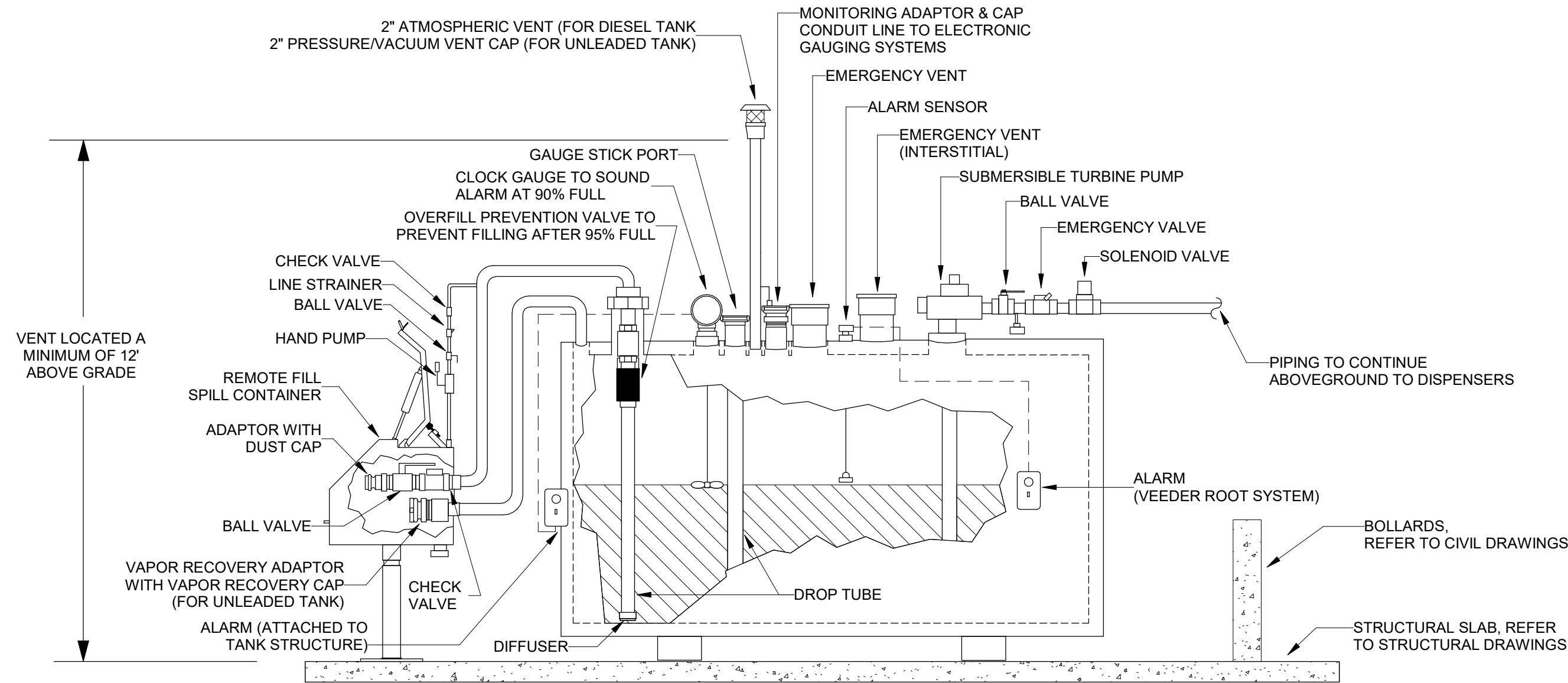
3 INTERSTITIAL MONITOR DETAIL

N.T.S



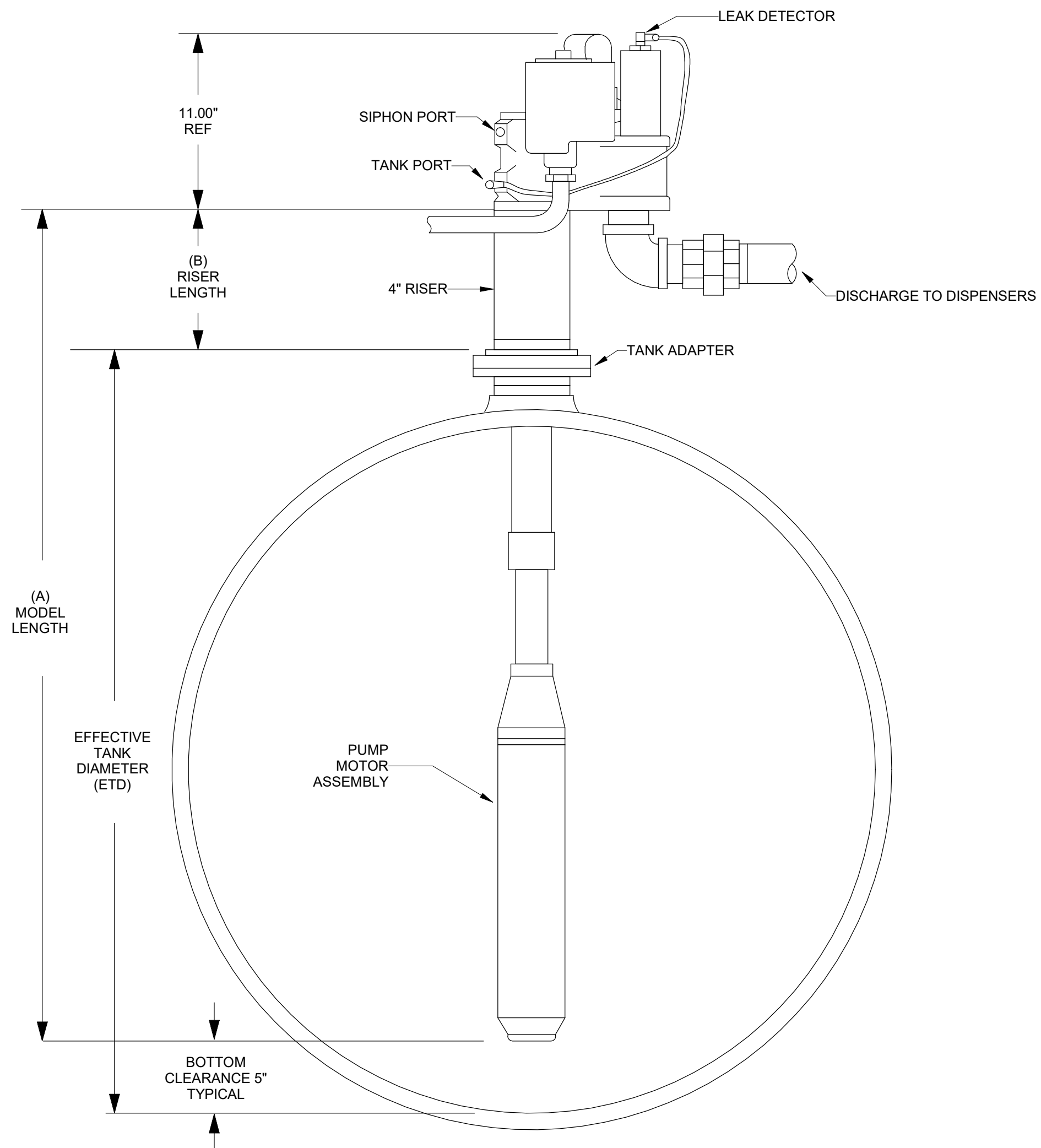
4 LEVEL MONITOR DETAIL

N.T.S



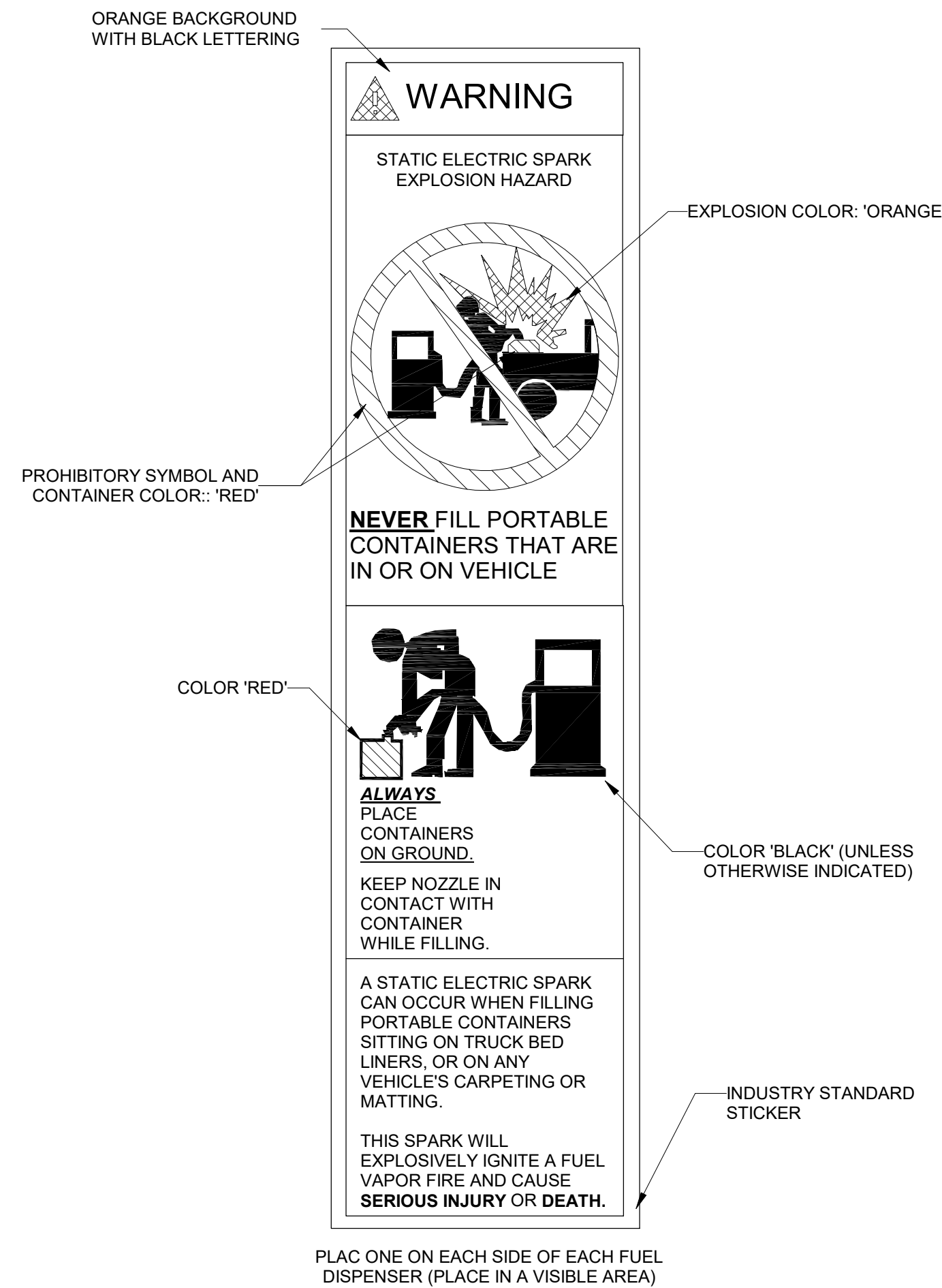
6 ABOVEGROUND STORAGE TANK DETAIL

N.T.S



5 SUBMERSIBLE TURBINE PUMP DETAIL

N.T.S



7 STATIC ELECTRICITY WARNING

N.T.S

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JEREMY DEMBOSKI

DESIGNED BY

JTD

DRAWN BY

SRM

ISSUE DATE

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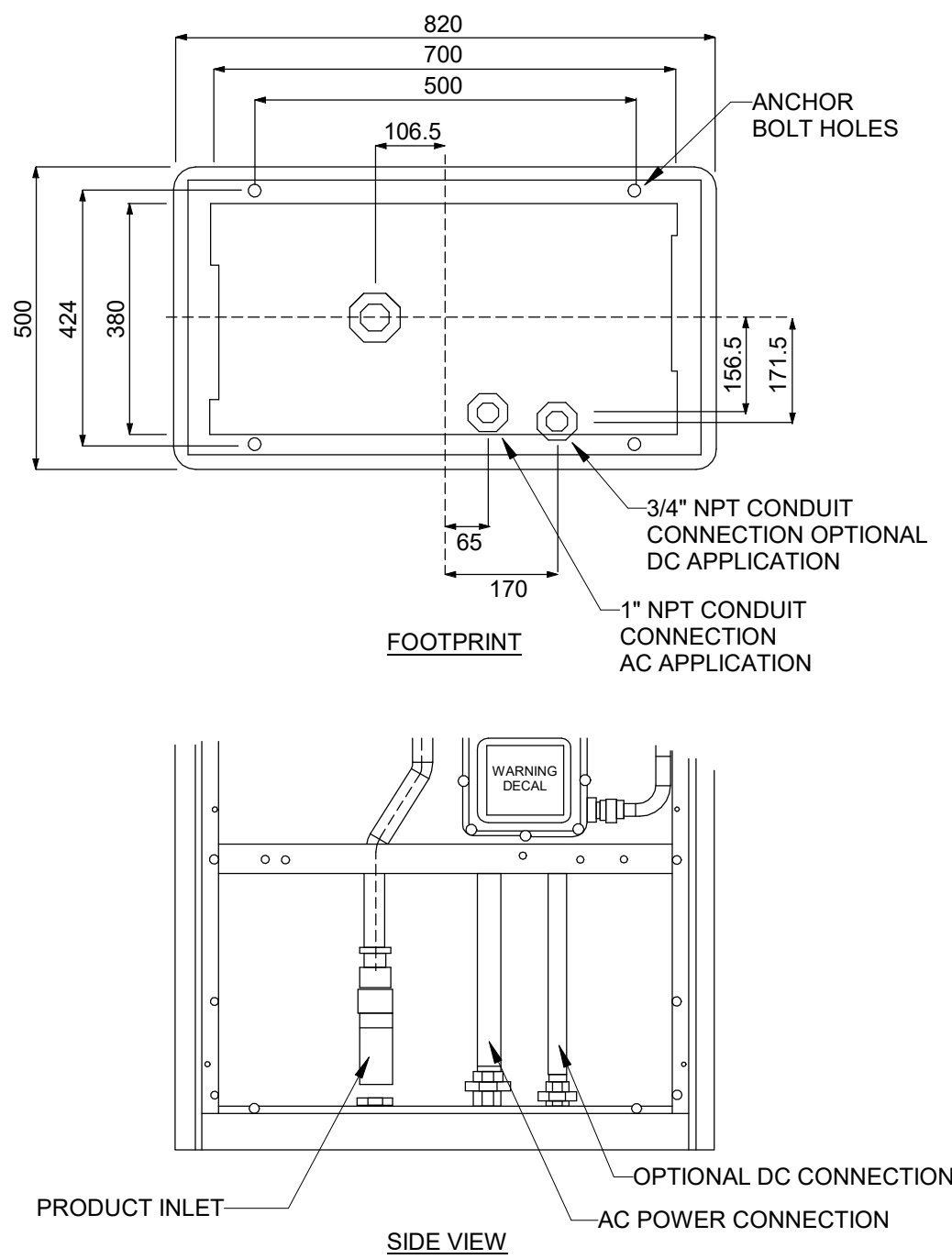
145642003

SHEET TITLE

FUEL OIL DETAILS

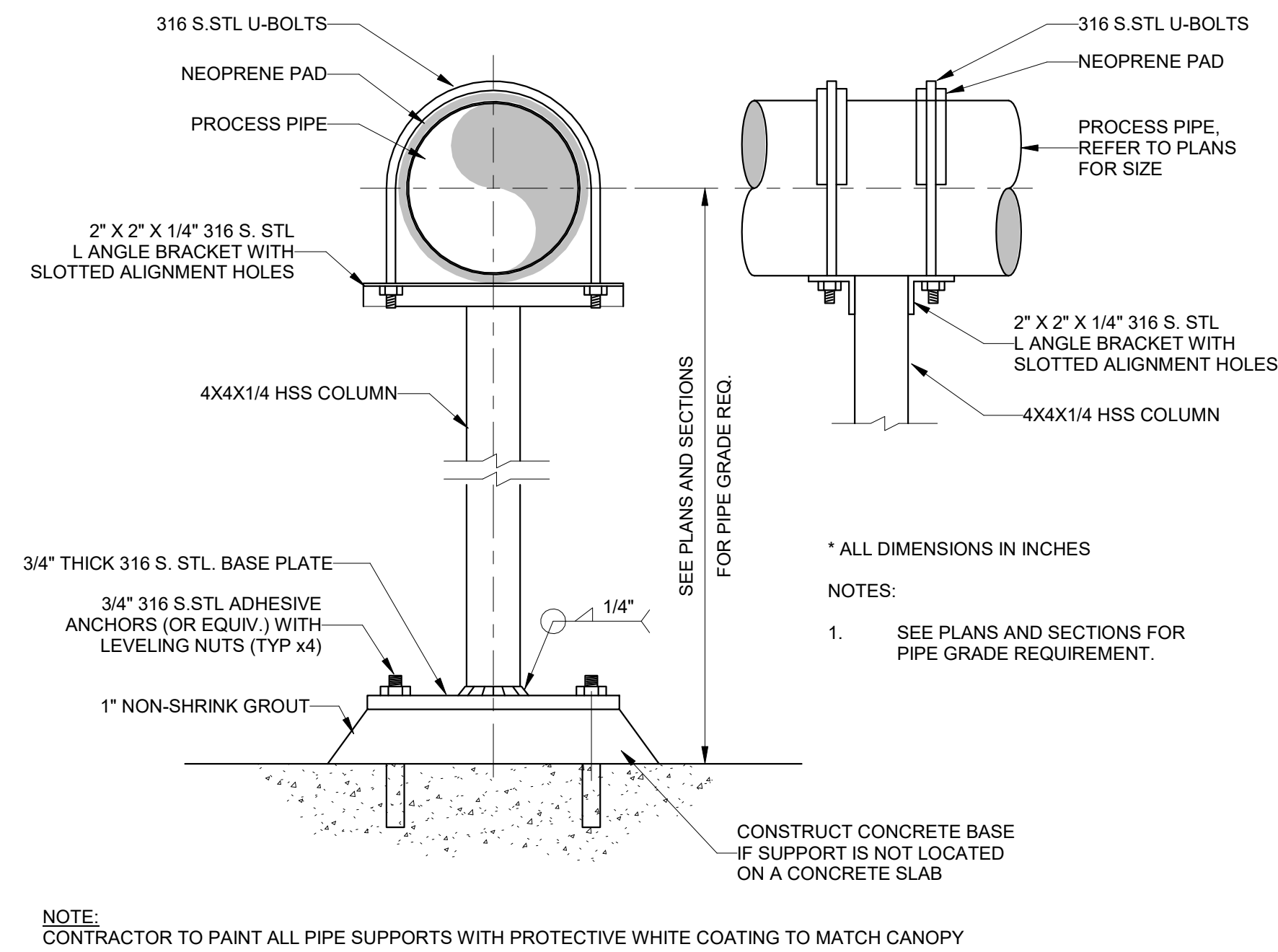
DRAWING NO.

P300

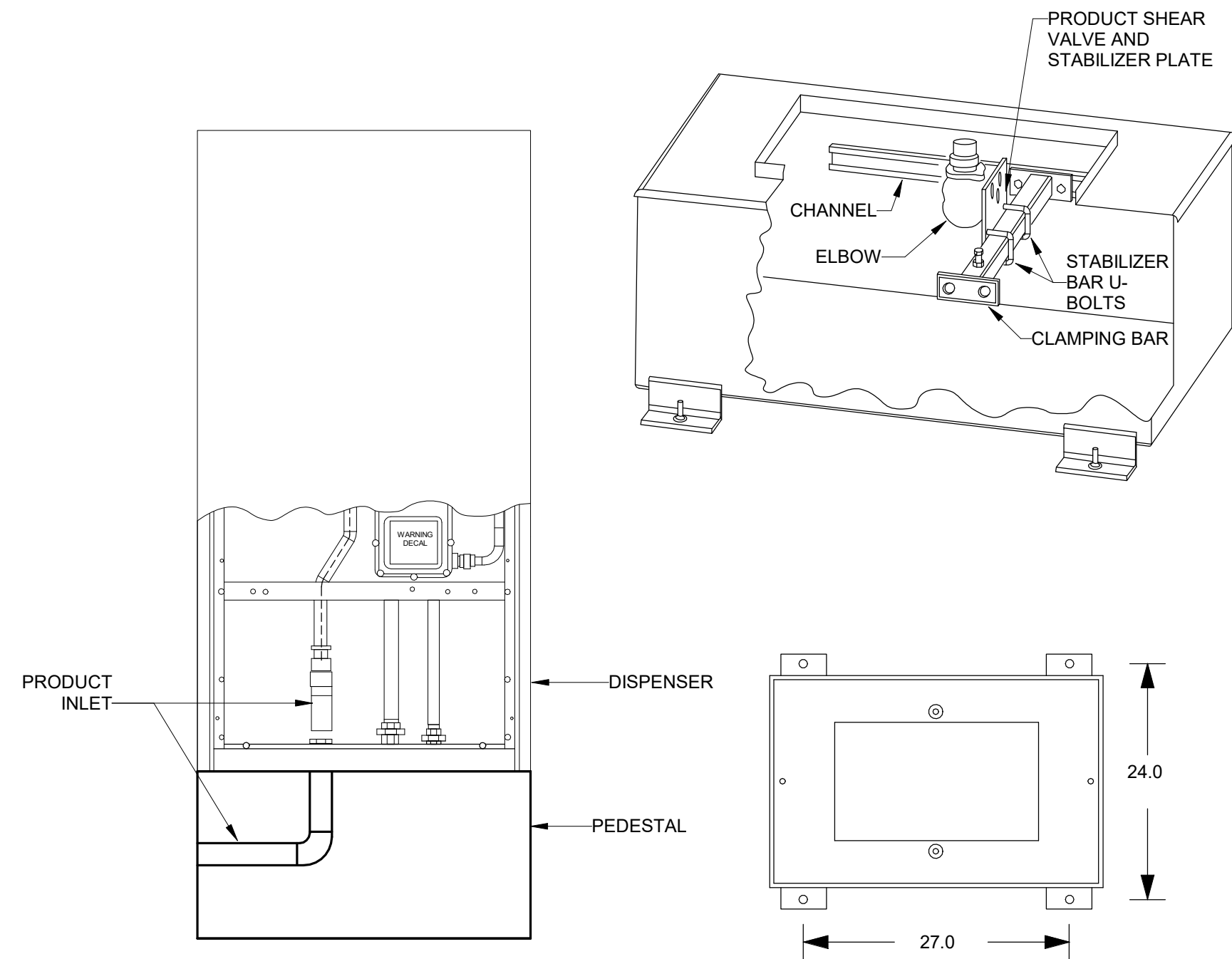


SINGLE PRODUCT

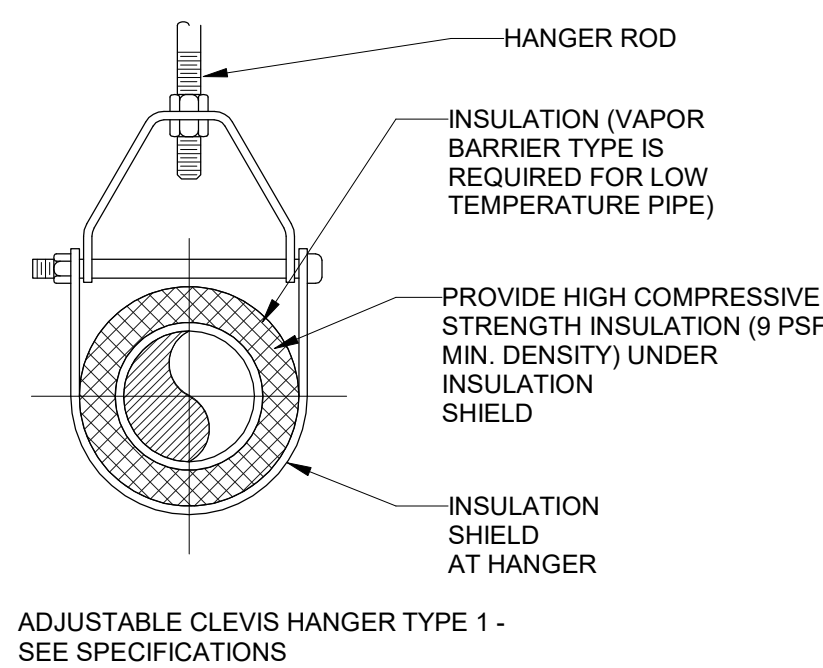
1 PRODUCT/POWER CONNECTION TO DISPENSER DETAIL
N.T.S



4 PIPE SUPPORT - DOUBLE U-BOLT SADDLE
N.T.S

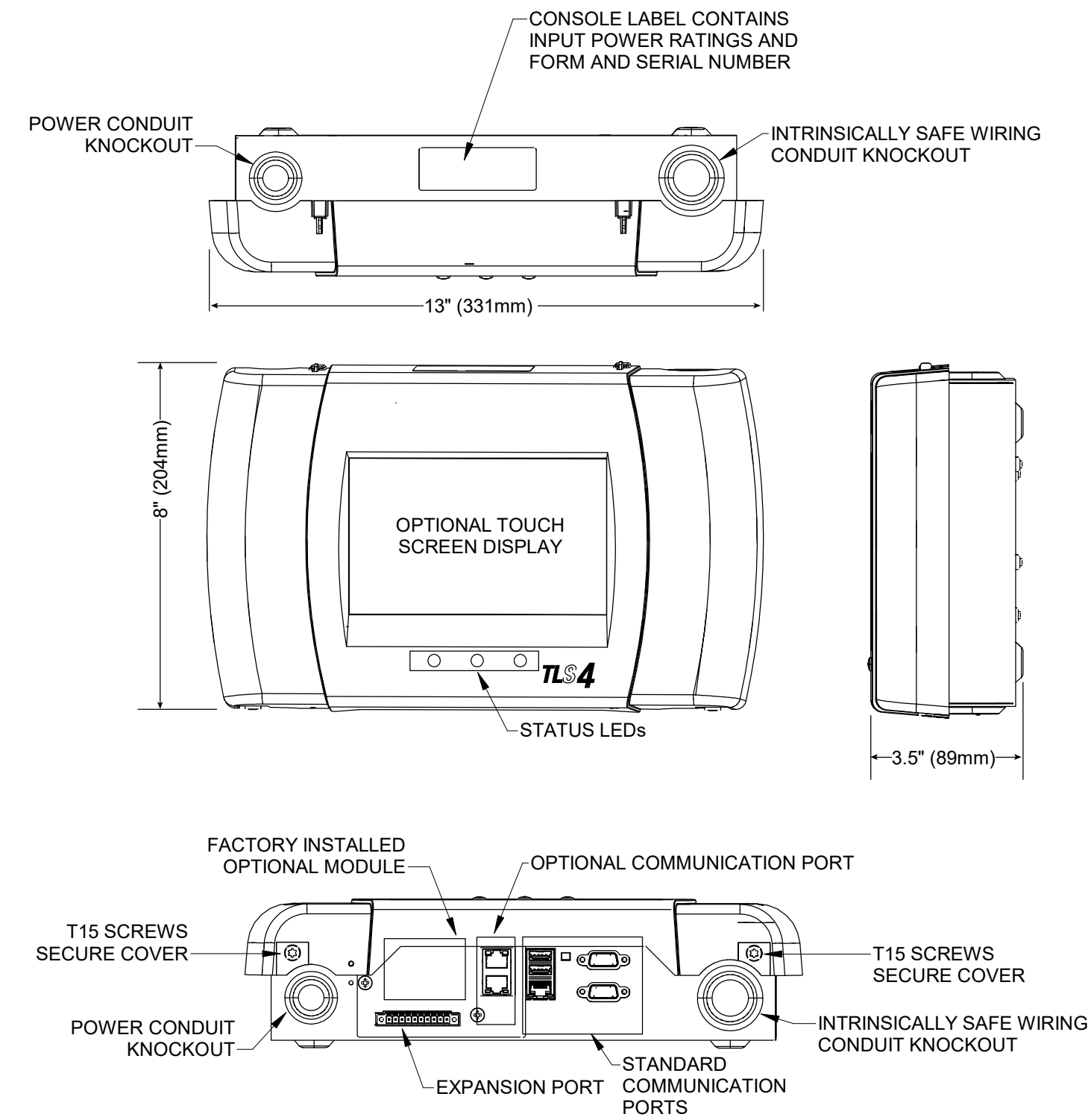


2 PEDESTAL DETAIL
N.T.S

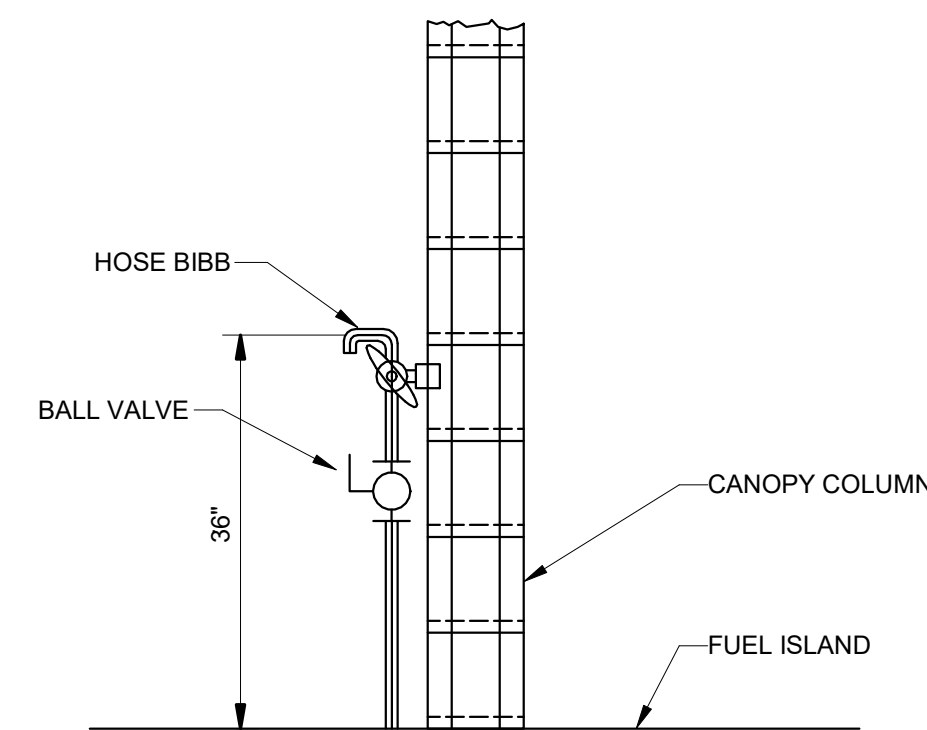


MAXIMUM PIPE/TUBING SUPPORT SPACING																					
NOM. SIZE	mm [IN]	THRU 20 [THRU 3/4]	25 [1]	32 [1-1/4]	40 [1-1/2]	50 [2]	65 [2-1/2]	75 [3]	100 [4]	125 [5]	150 [6]	200 [8]	250 [10]	300 [12]	350 [14]	400 [16]	450 [18]	500 [20]	600 [24]	800 [30]	
PIPE	mm [FT]	2100 [7]	2100 [7]	2100 [7]	2700 [9]	3000 [10]	3400 [11]	3700 [12]	4100 [14]	4900 [16]	5200 [17]	5800 [19]	6700 [22]	7000 [23]	7600 [25]	8200 [27]	8500 [28]	9100 [30]	9600 [32]		
TUBING	mm [FT]	1500 [5]	1800 [6]	2100 [7]	2400 [8]	2400 [8]	2700 [9]	3000 [10]	3700 [12]	4000 [13]	4100 [14]	4900 [16]	-	-	-	-	-	-	-		
NOTE: FOR TRAPEZE HANGER TAPE SPACING OF SMALLEST SIZE ON TRAPEZE.																					

5 PIPING HANGERS
N.T.S



3 VEEDER-ROOT CONSOLE DETAIL
N.T.S



6 HOSE BIBB DETAIL
N.T.S

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FUEL OIL DETAILS

DRAWING NO.

P301

The diagram illustrates the electrical wiring for a CBS (Control Box System) remote control unit. It is divided into two main sections: the internal components of the 240V remote control box and the external power switch assembly.

Internal Components (Left Side):

- 240 VOLT REMOTE CONTROL BOX MODEL STP-CBS (120 VOLT COIL):** The main control unit.
- LINE STARTER 120 COIL:** Connected to the power supply.
- LOCKOUT SWITCH:** A safety switch for the line starter.
- NEON PILOT LIGHT:** A light indicator for the line starter.
- DISPENSER:** The component being controlled.
- DISPENSER LIGHTS (OPTIONAL):** A switch for the dispenser lights.
- 30 V MAX:** The voltage rating for the dispenser lights.
- NOTE:** INTERNALLY SUPPLIED 120V CONNECTION TO ENERGIZE COIL. IF 120 VOLTS ARE NOT DISPENSER SUPPLIED, SEE DISPENSER MANUFACTURER FOR WIRING.
- OPTIONAL - USE ONLY IF POWER IS REQUIRED TO DISPENSER:** A note regarding the optional dispenser lights.
- 120/208 OR 240 V SINGLE PHASE POWER SUPPLY:** The input power source.
- NEUTRAL:** The neutral line of the power supply.
- MOTOR:** The motor being controlled.

External Components (Right Side):

- POWER SWITCH:** A manual switch for the system.
- POWER SWITCH BRACKET:** The mounting bracket for the power switch.
- RELAY, 30A, 120 VOLT COIL:** A relay that controls the motor.
- LIGHT ASSEMBLY, 120 VOLT:** A light assembly for the system.
- SIX POSITION TERMINAL STRIP:** A terminal strip for the power supply.
- CBS TERMINAL STRIP LABEL:** A label for the CBS terminal strip.
- COVER AND ENCLOSURE:** The protective cover for the system.

Wiring Diagrams:

- CBS WIRING DIAGRAM:** A diagram showing the internal wiring of the CBS unit.
- POWER SWITCH BRACKET:** A diagram showing the wiring for the power switch bracket.

1 SINGLE PHASE CONTROL BOX
N.T.S



P302



P303

GENERAL	CONTRACTOR'S AS-BUILT	DEWATERING NOTES
1. IT IS THE CONTRACTOR’S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, SUCH AS DEWATERING PERMITS, RIGHT OF WAY PERMIT(S), EXCAVATION/FILL PERMIT(S), FIRE PROTECTION PERMIT(S), OR UNDERGROUND UTILITY PERMIT(S), PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA OF APPLICABLE AGENCIES, SCHEDULING OF INSPECTIONS, AND OBTAINING REQUIRED INSPECTIONS FROM AGENCY. 2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE EXISTING UTILITY INFORMATION SHOWN IS BASED ON THE TOPOGRAPHIC SURVEY PROVIDED BY CPH CONSULTING, LLC. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS AREA PRIOR TO CONSTRUCTION WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY OF THE SURVEY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE OWNER, ENGINEER, AND APPLICABLE GOVERNING AGENCY IMMEDIATELY. 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES (DURING STANDARD BUSINESS HOURS) TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. THE CONTRACTOR SHALL COOPERATE WITH UTILITY COMPANY (DURING STANDARD BUSINESS HOURS) DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. CONTRACTOR SHALL CALL "SUNSHINE ONE" AT 811 TO HAVE EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. 4. ALL DISTURBED AREAS (ON–SITE AND/OR OFF–SITE) NOT DESIGNED OR NOTED TO BE LANDSCAPED OR SODDED, SHALL BE SODDED. 5. THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE, OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE, OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES, OR GRADING SECTIONS ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATION OR REMOVAL IS PROVIDED FOR IN THE CONTRACT, PLANS, OR SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB–CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS. 6. ALL WORK AND MATERIALS FURNISHED SHALL BE IN CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT PLANS OR SPECIFICATIONS. 7. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION, AS APPLICABLE AT THE TIME ALL PERMITS HAVE BEEN OBTAINED. 8. ALL UNDERGROUND UTILITIES MUST BE IN–PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION. 9. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES. 10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE OWNER’S ENGINEER FOR REVIEW. SHOP DRAWINGS OF ALL DRAINAGE STRUCTURES, MATERIALS, AND COMPONENTS TO BE INSTALLED WITHIN COUNTY PUBLIC RIGHTS–OF–WAY, SHALL BE SUBMITTED TO VOLUSIA COUNTY FOR REVIEW AND APPROVAL. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO VOLUSIA COUNTY FOLLOWING ENGINEER’S REVIEW OF SHOP DRAWINGS. ENGINEER IS NOT RESPONSIBLE FOR COORDINATION AND/OR APPROVAL OF SHOP DRAWINGS WITH VOLUSIA COUNTY. 11. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATION(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES. 12. THE CONTRACTOR SHALL RESTORE OFF–SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION. 13. THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR THE DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT. 14. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA. 15. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT. 16. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE THE LATEST EDITION OF F.D.O.T. "DESIGN STANDARD PLANS FOR ROAD CONSTRUCTION" (ED. 2025–26) FOR DETAILS AND SPECIFICATIONS OF ALL CURB AND GUTTERS CALLED FOR IN THESE PLANS WITHIN PUBLIC RIGHTS OF WAY. 17. WHERE ASPHALT PAVING MEETS CONCRETE PAVING SUCH AS AT CONCRETE CURBING, THE ASPHALT SHOULD BE FINISHED ¼" TO ½" ABOVE THE CONCRETE SURFACE TO ALLOW FOR FURTHER TRAFFIC COMPACTION OF THE ASPHALT. 18. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE SOIL AND/OR PAVEMENT TESTING WITH THE GEOTECHNICAL ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE GEOTECHNICAL SOILS REPORT. UPON COMPLETION OF WORK, THE GEOTECHNICAL ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER’S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET. 19. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN OUT MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT. 20. ALL CONCRETE SIDEWALKS SHALL BE CONSTRUCTED PER FDOT DESIGN INDEX (ED. 2025/2026) #522–001. 21. SITEWORK SHALL COMPLY WITH 2026 FLORIDA BUILDING CODE AND FLORIDA ACCESSIBILITY CODE. 22. ANY EXISTING WELLS (I.E. ARTESIAN, IRRIGATION, DRINKING, ETC.) DISCOVERED ON–SITE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL APPLICABLE JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED. ANY WELL DISCOVERED DURING EARTHWORK OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES, OWNER, AND OWNER’S ENGINEER WITHIN 24 HOURS AFTER DISCOVERY IS MADE.	1. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER’S ENGINEER WITH COMPLETE “AS–BUILT” INFORMATION, CERTIFIED BY A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA. AT A MINIMUM, THIS “AS–BUILT” INFORMATION SHALL INCLUDE: TOP OF PIPE/INVERT ELEVATIONS AND HORIZONTAL LOCATIONS OF ALL WATER, SANITARY SEWER, AND RECLAIM WATER UTILITIES INSTALLED (AS APPLICABLE); PAVEMENT GRADE BREAK LOCATIONS AND SUFFICIENT ELEVATIONS OF FINISHED GRADE SURFACES WHICH ALLOW THE ENGINEER TO DETERMINE COMPLIANCE WITH THE PROPOSED DESIGN; TOP, GRATE, & INVERT ELEVATIONS OF THE STORMWATER COLLECTION SYSTEM, INCLUDING THE POND GRADES (TOP, BANK, BOTTOM), POND CONTROL STRUCTURE, & SWALES; ANY IMPROVEMENTS WITHIN FDOT OR COUNTY RIGHT–OF–WAYS. 2. THE DIGITAL “AS–BUILT” FILE, PROVIDED IN AUTOCAD FORMAT, SHALL ALSO BE PROVIDED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM. NO ENGINEER’S CERTIFICATIONS OF COMPLETION OR REQUESTS FOR FINAL ACCEPTANCE WILL BE SUBMITTED UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER’S ENGINEER. 3. SURVEYOR AS–BUILT SHALL CONTAIN COMPLETED ASSET TABLE IN ACCORDANCE WITH VOLUSIA COUNTY UTILITIES STANDARDS AND SPECIFICATIONS.	1. DURING THE EXCAVATION OF THE STORMWATER FACILITIES, AND IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON–SITE POND PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY. 2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE ON–SITE DEWATERING BE DIRECTLY DISCHARGED OFFSITE. 3. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSES THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS ALUM IN ORDER TO PROMOTE THE COAGULATION OF THE PARTICLES WHICH ALLOW THE TO SETTLE AND THE WATER TO BECOME LESS TURBID. IF TURBID WATER ENCOUNTERED DURING EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBIDITY AND ALLOW DISCHARGE THAT MEETS WATER QUALITY STANDARDS. 4. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER PONDS SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY SUBJECT TO THE WATER WITHIN THE SEDIMENT BASIN BEING NON–TURBID AND ACCEPTABLE FOR DISCHARGE OFF–SITE.
	SAFETY	
	1. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS. 2. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL PROVIDE FOR THE SAFETY AND CONTROL OF LOCAL TRAFFIC DURING CONSTRUCTION. ADDITIONAL INFORMATION MAY BE REQUIRED IF LANE CLOSURE DURATIONS ARE LONGER THAN DAYTIME OPERATIONS.	
	PAVING, GRADING AND DRAINAGE	
	1. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE GEOTECHNICAL ENGINEER OF RECORD OR THE OWNERS ENGINEERS. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER OR OWNER’S ENGINEER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS AND PER THE GEOTECHNICAL REPORT. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. 3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER’S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS. 4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED. 5. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER’S ENGINEER PRIOR TO ANY ELEVATION CHANGES. 6. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT. 7. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE 2025–26 EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.D.O.T. TYPE CURB AND GUTTERS CALLED FOR IN THESE PLANS. 8. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL. 9. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER POURED) 10. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEX #711–001. 11. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS. 12. THE CONTRACTOR SHALL RESTORE OFF–SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION. 13. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES. 14. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A REGISTERED LAND SURVEYOR AT CONTRACTORS EXPENSE. 15. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS. 16. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND JURISDICTIONAL PERMITTING AGENCIES. 17. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN–OUTS, MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT. 18. ALL AFFECTED SIDEWALKS, RAMPS, AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.	
	DEMOLITION	
	1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES. 2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS. 3. CONTRACTOR SHALL CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. 4. CONTRACTOR SHALL PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN". 5. CONTRACTOR SHALL RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION. 6. CONTRACTOR SHALL REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF–SITE IN A LEGAL MANNER. 7. CONTRACTOR SHALL DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED". 8. CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.	
		EARTHWORK / GRADING / DEMUCKING PROCEDURES
		1. A GEOTECHNICAL ENGINEERING INVESTIGATION REPORT HAS BEEN PREPARED, OF WHICH COPIES ARE AVAILABLE THROUGH THE OWNER OR THEIR SOIL TESTING COMPANY. A GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE CONTRACTOR TO PROVIDE ON–SITE INSPECTIONS DURING EXCAVATION/FILL OPERATIONS AND TESTING OF THE COMPACTED FILL SO THAT PROPER DOCUMENTATION OF THE REQUIRED COMPACTING CRITERIA CAN BE PROVIDED. 2. CONTRACTOR TO FOLLOW THE GUIDANCE OF THE REFERENCED GEOTECHNICAL ENGINEERING INVESTIGATION REPORT OR INDICATE WHETHER ON–SITE GEOTECHNICAL ENGINEER SHALL DETERMINE DEPTH OF DEMUCKING AND/OR REMOVAL OF UNSUITABLE FILL. 3. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF–SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS IN A LEGAL MANNER. 4. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER’S ENGINEER PRIOR TO ANY ELEVATION CHANGES. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS. 5. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER OR THEIR SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. 7. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER’S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS. 8. THE CONTRACTOR SHALL INSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, RETAINING WALL FOOTINGS, AND IN GENERAL, ANY FOOTING SUPPORT DESCRIBED ON THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SUFFICIENT SOILS TESTING HAS BEEN PERFORMED PRIOR TO FINAL INSTALLATION OF IMPROVEMENTS. 9. ANY UNSUITABLE ORGANIC SOIL SHALL BE EXCAVATED TO A MINIMUM MARGIN OF 6 FEET BEYOND ITS PERIPHERY EXCAVATED TO EXPOSE THE UNDERLYING NON–ORGANIC FINE SAND. 10. IF DETERMINED NECESSARY, DEWATERING DURING EXCAVATING/BACKFILLING OPERATIONS MAY BE ACCOMPLISHED BY DITCHING AND THE USE OF SUMP PUMPS AND/OR OTHER METHODS (WELL POINTS), AS NECESSARY. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS FOR DEWATERING ACTIVITIES THAT MAY BE REQUIRED. 11. UPON APPROVAL OF THE GEOTECHNICAL ENGINEER, THE EXCAVATED AREAS MAY BE BACKFILLED WITH CLEAN FINE SAND FREE OF UNSUITABLE OR DELETERIOUS MATERIAL. HOWEVER, THE FILL SHOULD NOT BE PLACED IN MORE THAN 6 INCHES OF STANDING WATER. ONCE THE FILL IS AT LEAST 2 FEET ABOVE THE DEWATERED LEVEL, BACKFILLING MAY PROCEED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. 12. SEDIMENT CONTROL MEASURES SHOULD BE EMPLOYED DURING THE CONSTRUCTION PROCESS TO KEEP THE POND FROM RECEIVING SIGNIFICANT AMOUNTS OF STORMWATER RUNOFF FROM THE SURROUNDING CONSTRUCTION SITE. THIS RUNOFF IS LIKELY TO CONTAIN SUSPENDED FINE–GRAINED SOIL PARTICLES THAT CAN IMPEDE THE INFILTRATION CAPACITY OF THE PONDS IF ALLOWED TO SETTLE OUT ON THE POND BOTTOMS. IF DEWATERING EFFLUENT OR STORMWATER RUNOFF FROM THE ACTIVE CONSTRUCTION SITE IS DISCHARGED TO THE POND, CONTRACTOR SHALL SCRAPE AND REMOVE FINE–GRAINED SEDIMENTS THAT HAVE ACCUMULATED ON THE POND BOTTOM, AND REPLACE WITH SUITABLE SOIL TO THE PLAN SPECIFIED GRADE ELEVATIONS. REQUIRED DEPTH OF SCRAPE AND REMOVAL SHALL BE DETERMINED BY GEOTECHNICAL ENGINEER.
TREES AND VEGETATION		
1. THE CONTRACTOR IS TO MINIMIZE THE REMOVAL OF VEGETATION TO THE GREATEST EXTENT PRACTICAL. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT OWNER’S APPROVAL. TREES IN CLOSE PROXIMITY TO CONSTRUCTION SHALL BE PROTECTED BY ORANGE FENCING. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS AND RETENTION AND DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE OWNER. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. 3. REFER TO LANDSCAPE PLANS FOR DETAILS REGARDING TREE REMOVAL AND TREE PRESERVATION.		
PAVING/GRADING TESTING AND INSPECTION		
1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER’S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET. 2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN–PLACE MATERIALS AS REQUIRED BY THESE PLANS AND GEOTECHNICAL REPORT, THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THESE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.		
SIGNAGE AND MARKING		
1. THE INSTALLATION, SHAPE, AND SIZE OF ALL SIGNS AND THEIR LETTERING SHALL COMPLY WITH THE LATEST EDITIONS OF THE U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ED. 2023" (MUTCD), AND THE F.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ED. 2025–26", AND THE F.D.O.T. "DESIGN STANDARDS, ED. 2025–26". WHERE CONFLICTS EXIST BETWEEN THE PLANS AND THE ABOVE MENTIONED SPECIFICATIONS, THE MORE STRINGENT CRITERIA SHALL PREVAIL. 2. STOP BARS AND STOP SIGNS ARE TO BE PROVIDED AT ALL INTERNAL, ONSITE INTERSECTIONS, WITH THE EXCEPTION OF SIGNALIZED INTERSECTIONS (UNLESS OTHERWISE NOTED). 3. ALL PAVEMENT MARKINGS SHALL COMPLY WITH F.D.O.T. STANDARD INDEX #711–001 (ED. 2025–26).		
		Always call 811 two full business days before you dig to have underground utilities located and marked. Sunshine811.com



6876 MARWICK LANE
SUITE 350
ORLANDO, FL 32827
PHONE: (407) 602-0423
REGISTRY No. 35106

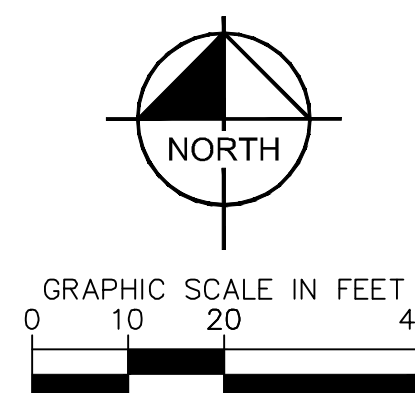
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CHICAGO

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

ARCHENGR OF RECORD	
DESIGNED BY BJW	DRAWN BY NDF
ISSUE DATE 03/23/2026	AE PROJECT NUMBER 145642003
SHEET TITLE	
GENERAL NOTES	
DRAWING NO.	
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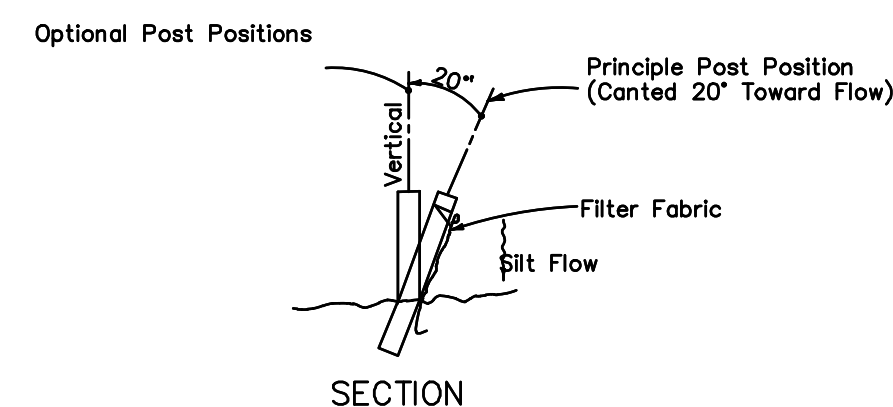
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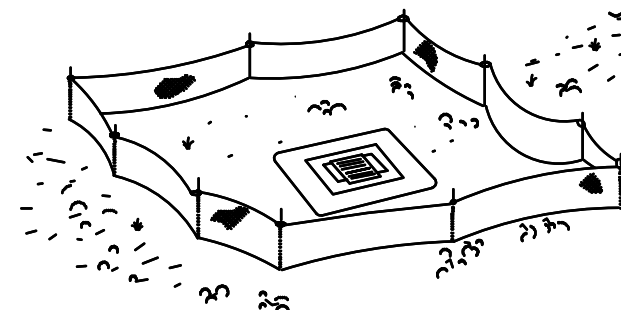
SURVEY BOUNDARY
EXISTING FENCE
EXISTING OVERHEAD ELECTRIC LINE
EXISTING BURIED ELECTRIC LINE
EXISTING FIBER OPTIC CABLE
EXISTING GAS LINE
EXISTING UNKNOWN UTILITY LINE
EXISTING CONTOUR
EXISTING SPOT ELEVATION
EXISTING CONCRETE
EXISTING TREES
EXISTING WATER LINE
EXISTING WATER VALVE
EXISTING FIRE HYDRANT
EXISTING LIGHT POLE
EXISTING SITE BENCHMARK
EXISTING SIGN
EXISTING POWER POLE

NOTES

1. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR DEMOLITION REQUIREMENTS OF ELECTRICAL SYSTEMS.
2. CONTRACTOR SHALL UTILIZE BEST MANAGEMENT PRACTICES AS NEEDED TO PREVENT SYSTEM POLLUTION, EROSION, AND MANAGEMENT OF OFF-SITE DRAINAGE DURING TIME OF CONSTRUCTION.
3. REFER TO SWPPP SHEET C200 FOR ADDITIONAL NOTES AND DETAILS.
4. INSTALL AND MAINTAIN SILT FENCE AT LIMITS OF CONSTRUCTION. WIRE MESH REINFORCED SILT FENCE SHALL BE USED AT ALL POINTS ALONG PROPERTY BOUNDARY WITH OFF-SITE STORMWATER FLOWS. SEE DETAIL THIS SHEET.
5. CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
6. CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
7. ELEVATIONS SHOWN REFERENCE NORTH AMERICAN VERTICAL DATUM 88 (NAVD 88).
8. ANY EXISTING WELLS TO BE REMOVED (I.E. ARTESIAN, IRRIGATION, DRINKING, MONITORING, ETC.) ON-SITE MUST BE CLOSED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL APPLICABLE JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED. ANY WELL DISCOVERED DURING EARTHWORK OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES, OWNER, AND OWNER'S ENGINEER WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
9. THERE MAY BE ON-SITE UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO IRRIGATION, SANITARY SEWER, POTABLE WATER LINES, NATURAL GAS LINES, ELECTRIC, TELEPHONE AND CABLE LINES) THAT WERE NOT LOCATED OR IDENTIFIED BY THE PROJECT SURVEYOR. PRIOR TO CONSTRUCTION START, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING ON-SITE UTILITIES AND RIGHT-OF-WAY UTILITIES.
10. IF EXISTING UTILITIES ARE DISCOVERED THAT ARE NOT IDENTIFIED BY THE CONSTRUCTION DOCUMENTS AND WILL BE IMPACTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY PRIOR TO PROCEEDING WITH CONSTRUCTION.
11. CONTRACTOR TO MAINTAIN EXISTING OFF-SITE AND ON-SITE DRAINAGE PATTERNS THROUGHOUT CONSTRUCTION.
12. ALL EXISTING ON-SITE EASEMENTS (I.E., UTILITY, ACCESS, ETC.) TO BE VACATED PRIOR TO CONSTRUCTION.



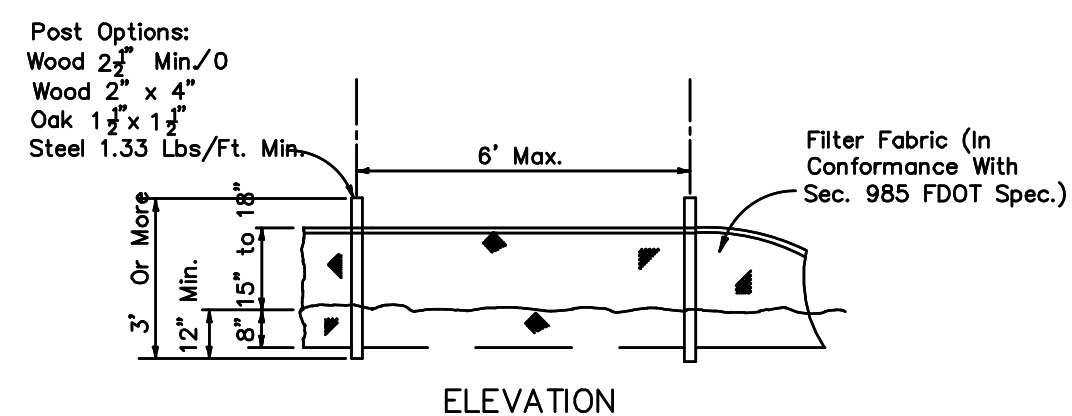
CONTRACTOR TO PLACE FILTER FABRIC UNDER
GRATE DURING CONSTRUCTION.

Type III Silt Fence Protection
Around Ditch Bottom Inlets.

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS

NTS

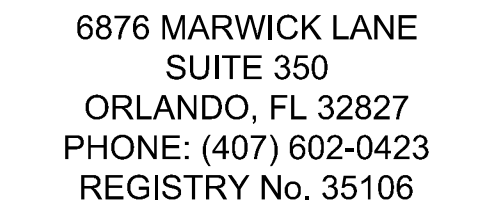


TYPE III SILT FENCE

NT:

Always call 811 two full business days before you dig to have underground utilities located and marked.

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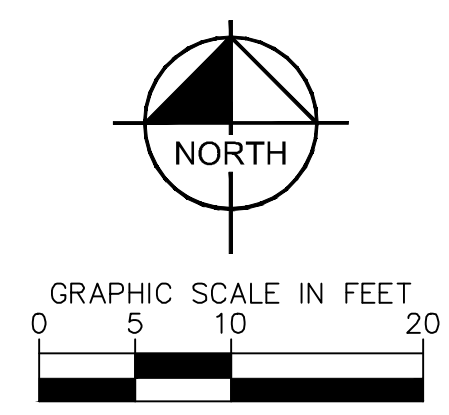


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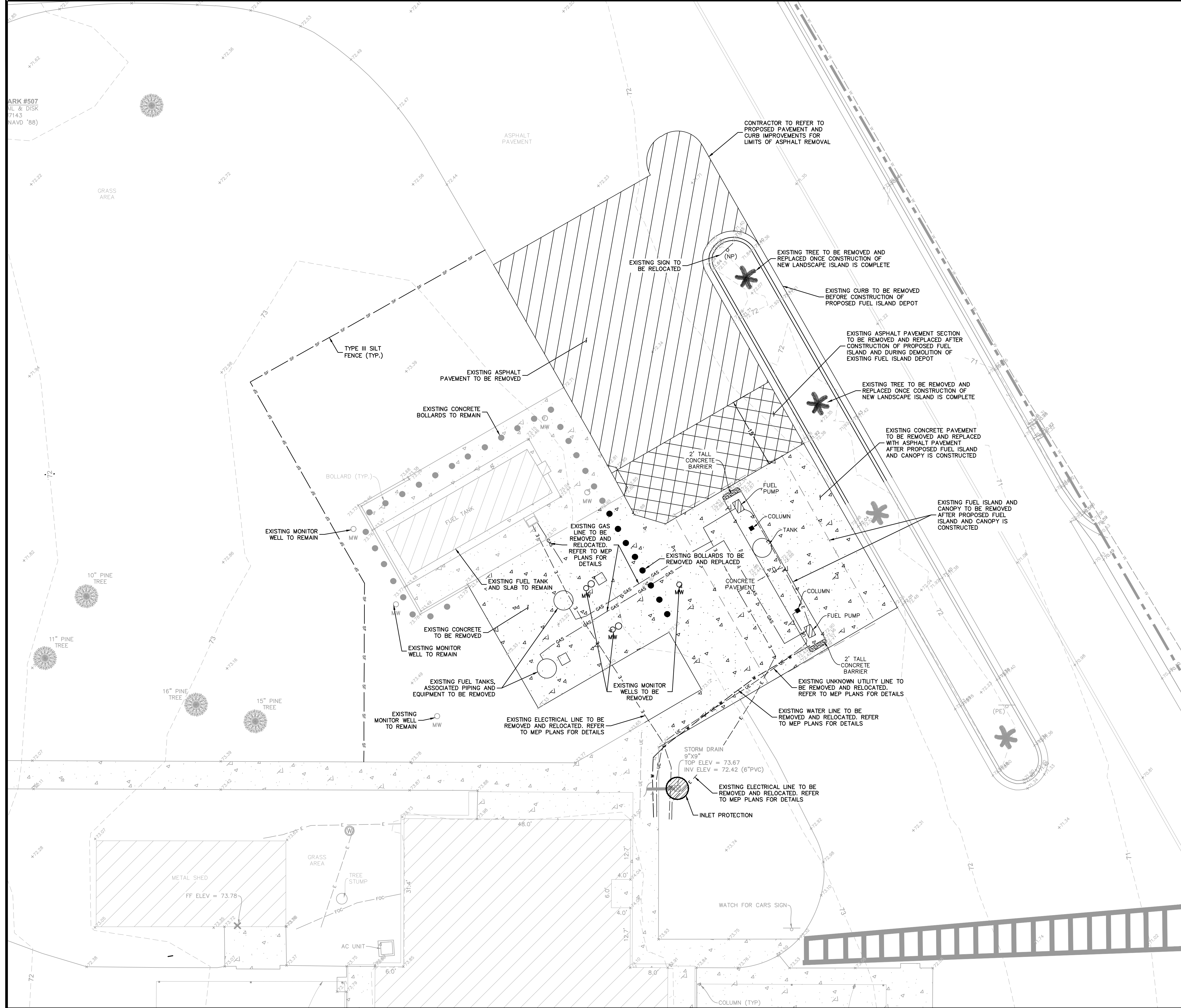
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TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

DESIGNED BY JW		DRAWN BY NDF
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003	
SET TITLE EXISTING CONDITIONS AND DEMOLITION PLAN		
DRAWING NO. C310		

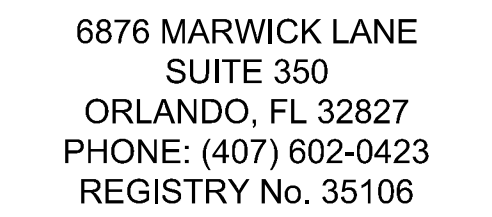


	SURVEY BOUNDARY
	EXISTING FENCE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING FIBER OPTIC CABLE
	EXISTING GAS LINE
	EXISTING UNKNOWN UTILITY LINE
	TYPE III SILT FENCE (SEE SHEET C300 FOR DETAIL)
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	INLET PROTECTION
	EXISTING CONCRETE
	EXISTING TREES
	EXISTING WATER LINE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING LIGHT POLE
	EXISTING SITE BENCHMARK
	EXISTING SIGN
	EXISTING POWER POLE



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CHIEF OF RECORD

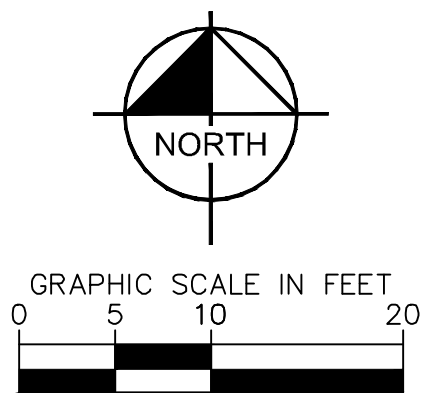
DESIGNED BY JW	DRAWN BY NDF
EXPIRATION DATE 3/23/2026	AE PROJECT NUMBER 145642003

SUBJECT TITLE

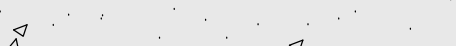
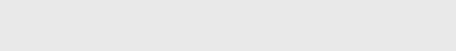
ITE PLAN

DRAWING NO.

C400

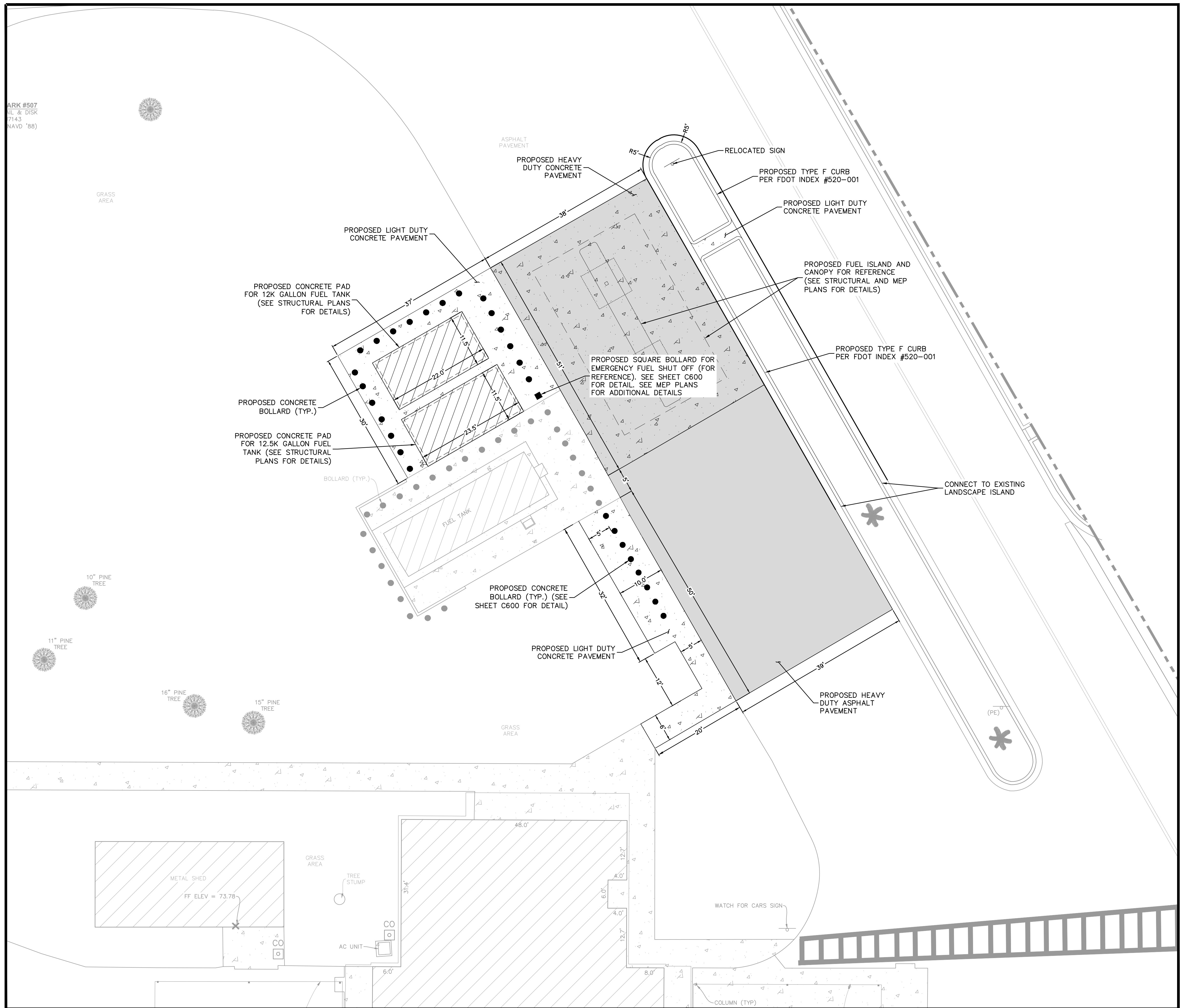


LEGEND

	SURVEY BOUNDARY
	LIGHT DUTY CONCRETE PAVEMENT (SEE SHEET C600 FOR DETAIL)
	HEAVY DUTY CONCRETE PAVEMENT (SEE SHEET C600 FOR DETAIL)
	HEAVY DUTY ASPHALT PAVEMENT (SEE SHEET C600 FOR DETAIL)
	PROPOSED CONCRETE PAD (SEE STRUCTURAL PLANS FOR DETAIL)

NOTE:

1. ALL MEASUREMENTS TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL AFFECTED SIDEWALKS, RAMPS, AND CROSSWALKS, WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.
3. HANDICAP (HC) RAMPS MUST BE CONSTRUCTED AT THE STREET INTERSECTION AND DRIVEWAY CONSTRUCTION(S) TO COMPLY WITH THE AMERICAN WITH DISABILITY ACT (ADA) AND WILL MEET FOOT DESIGN STANDARDS.
4. DETECTABLE WARNING SURFACE WILL BE REQUIRED AT ALL PLACES WHERE PEDESTRIAN PATH MEETS VEHICULAR PATH.
5. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.
6. ALL CONSTRUCTION IN THE FDOT ROW SHALL CONFORM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARD PLANS (INDEXED), THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FDOT UTILITY ACCOMMODATION MANUAL.
7. CONCRETE-CONCRETE JOINTS TO BE CONSTRUCTED PER FDOT INDEX 350-001.



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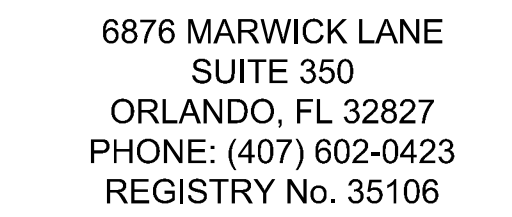


Diagram illustrating the cross-section of a concrete curb and gutter. The curb height is 6 inches, and the top width is 3'-0 inches. The top surface is labeled "TOP OF CURB" and the bottom surface is labeled "TOP OF PAVEMENT".

NTS

4" BASE COMPACTED TO MIN 95% OF MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180) MAXIMUM DRY DENSITY VALUE.

6" CONCRETE PAVEMENT, 28 DAY MIN COMPRESSION STRENGTH OF 4000 PSI

MEDIUM BROOM FINISH

12" BASE COMPACTED TO MIN 98% OF MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180) MAXIMUM DRY DENSITY VALUE.

NTS

4" BASE COMPACTED TO MIN 95% OF MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180) MAXIMUM DRY DENSITY VALUE.

8" CONCRETE PAVEMENT, 28 DAY MIN COMPRESSION STRENGTH OF 4000 PSI

MEDIUM BROOM FINISH

12" SUBGRADE COMPACTED TO MIN 98% OF MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180) MAXIMUM DRY DENSITY VALUE.

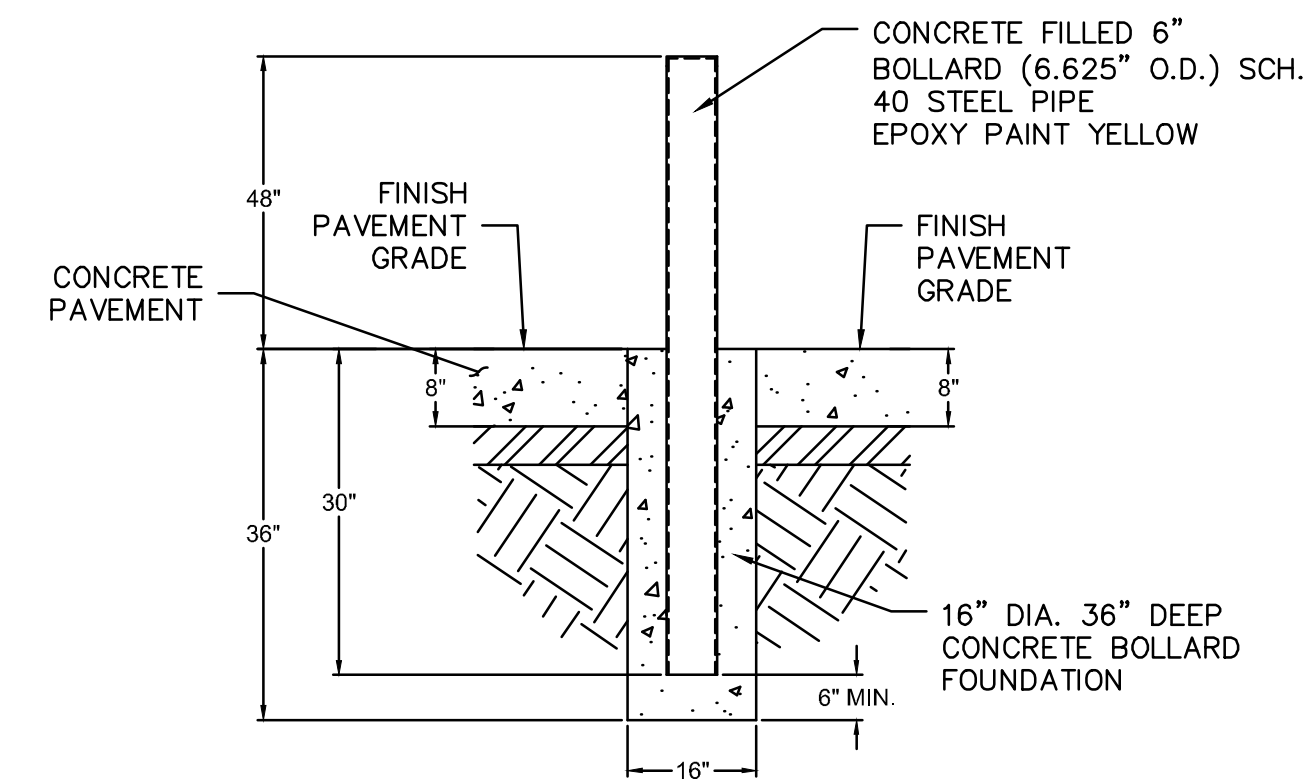
NTS

The diagram shows a three-layered structure. The top layer is thin and has horizontal hatching. The middle layer has diagonal hatching. The bottom layer has horizontal hatching. Arrows indicate incident, reflected, and transmitted waves at the interfaces.

NTS

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NTS



NTS

DOCUMENT HISTORY		DESCRIPTION
NO.	DATE	

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ARCHIVE OF RECORD

DESIGNED BY
BJW

DRAWN BY
NDF

ISSUE DATE
03/23/2026

AE PROJECT NUMBER
145642003

SHEET TITLE

GENERAL CONSTRUCTION DETAILS

DRAWING NO.

C600

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PART ONE - GENERAL

1.1. **THE WORK:** ALL WORK SHALL BE NEW UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR ITS INDIVIDUAL SECTIONS OF WORK. THE DEFINED WORK IS DEFINED AS ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED BY THIS CONTRACTOR WHETHER OR NOT SPECIFICALLY INDICATED OR NOTED.

1.2. **RESPONSIBILITY:** THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ACTIONS OF ITS PERSONNEL, SUPPLIERS, AND SUB-CONTRACTORS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ALL WORK AS MAY BE REQUIRED TO ACCOMMODATE OR SUPPORT THE ELECTRICAL WORK. EXAMPLES: PAINTING, STRUCTURAL SUPPORTS, CUTTING AND PATCHING, EXCAVATION AND BACKFILL, CONCRETE PADS, ROOF JACKS, ETC. REPAIRS TO EXISTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM SUCH WORK FOR THE PROPER INSTALLATION AND OPERATION OF COMPLETE ELECTRICAL SYSTEMS.

1.3. **MINIMUM REQUIREMENTS:** THESE SPECIFICATIONS ESTABLISH THE MINIMUM REQUIREMENTS FOR THE WORK AND MATERIALS, EQUIPMENT AND METHODS TO BE PROVIDED. THE DRAWINGS MAY BE USED TO DETERMINE THE REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND ALL OTHER ADOPTED APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

1.4. **GENERAL CONDITIONS:** ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS ARE MADE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF COMPLETELY REPRODUCED.

1.5. **DEFINITIONS:**
AND AUTHORITY HAVING JURISDICTION
ASSEMBLY: AN INSTALLATION OR SYSTEM OF MULTIPLE COMPONENTS REQUIRING MULTIPLE CONNECTIONS. (EXAMPLES: TRASH COMPACTOR, MOTORIZED DROD, HVAC SPLIT SYSTEM, ETC.).
EQUAL: ACCEPTED BY THE ENGINEER AS EQUAL.
FURNISH: FURNISHING WORK, THE EQUIPMENT AND MATERIALS. PROVIDED BY OTHERS AT JOBSITE.
RECEIVE, PROTECT, STORE, ASSEMBLE, INSTALL AND CONNECT. PROVIDE MINIMUM 5X STRUCTURAL BACKING. (EXAMPLES: CHANDELIERS, PROJECTORS, ETC.).
PROVIDE: FURNISH, INSTALL, ACTIVATE, AND COMMISSION.
CODES: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), THE 2018 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND ALL OTHER ADOPTED APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

1.7. **PERMITS:** PAY ALL FEES AND OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.

1.8. **DRAWINGS:** DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE, AND INDICATE THE TYPE, SIZE, ARRANGEMENT AND LOCATIONS OF MATERIALS AND EQUIPMENT. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES, AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN. PROVIDE ALL NECESSARY ITEMS TO COMPLETE THE WORK ACCORDING TO INDUSTRY STANDARDS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO COMPLETE THE FINISHED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DRAWINGS, ARRANGEMENT OF EQUIPMENT AND ROUTING OF FEEDERS AND BRANCH CIRCUITING SHALL BE PLUMB AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION, AND MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS REQUIRING ONSITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING").

1.9. **COORDINATION:** THE CONTRACTOR REQUIRES A HIGH LEVEL OF COORDINATION AND COOPERATION WITH OWNER, ARCHITECT, OTHER TRADES, VENDORS, AND SPECIALTY CONTRACTORS. CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SPECIALTY CONTRACTOR WORK. PRIOR TO BEGINNING COORDINATION AND COMMENCEMENT OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED WITHOUT INTERFERENCE WITH OTHER WORK. ESTABLISH AND VERIFY LOCATIONS, HEIGHTS, CONNECTION METHODS, ETC. WITH EQUIPMENT INSTALLER (AND OWNER, ARCHITECT, AND/OR INTERIOR DESIGNER FOR FF&E ITEMS), AND MAKE REASONABLE MODIFICATIONS IN THE LAYOUTS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES IN ORDER TO PROVIDE ACCESS FOR THE PROPER EXECUTION OF THE WORK.

1.10. **IDENTICAL:** ALL WORK REQUIRED FOR IDENTICAL ITEMS AND ASSEMBLIES OF THE PROJECT SHALL BE PROVIDED, ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL.

1.11. **VERIFICATION:** CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATION(S) OR PROBLEM(S) SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.

1.12. **CONNECTIONS:** CONNECT ALL EQUIPMENT, SYSTEMS, AND ASSEMBLIES PROVIDED BY OTHERS INCLUDING CONTROLS, SAFETY DEVICES AND INTERCONNECTIONS. EXCEPTION: DO NOT INTERCONNECT WITH EQUIPMENT OR SYSTEMS PROVIDED BY OTHERS UNLESS THE SYSTEMS WHICH ARE SPECIFICALLY NOTED TO BE THE RESPONSIBILITY OF THOSE TRADES. PROVIDE FUSIBLE DISCONNECT SWITCHES AND MOTOR STARTERS FOR ALL EQUIPMENT EXCEPT THOSE ITEMS WHICH ARE SPECIFICALLY LISTED WITH INTEGRAL STARTERS/DISCONNECT SWITCHES. WHERE STARTERS AND/OR DISCONNECT SWITCHES ARE REQUIRED TOGETHER WITH COMMENCEMENT OF WORK, THE ENGINEER'S FAILURE TO CORRECT ERRORS IN THE SUBMITTAL SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK AS SHOWN AND/OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING FEES NECESSARY TO CHANGE PROJECT DOCUMENTS BASED ON ALTERNATE SUBMITTAL PACKAGES/EQUIPMENT SUBSTITUTIONS.

1.14. **SUBSTITUTIONS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSTITUTIONS. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION PRIOR TO BIDDING AND AFTER ALL REQUIREMENTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT AND/OR MATERIALS HAVE BEEN COORDINATED WITH OTHER BUILDING TRADES, INCLUDING ALL MECHANICAL, STRUCTURAL, AND/OR ARCHITECTURAL ELEMENTS. THE OWNER'S REPRESENTATIVE SHALL PRE-APPROVE ANY PROPOSED SUBSTITUTIONS PRIOR TO BIDDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING BUILDING TRADE ON THE SHOP DRAWINGS. ALSO IDENTIFY ALL COST DEBITS OR CREDITS IN WRITING FOR THE PROPOSED CHANGES PER BUILDING TRADE AND SUMMARIZE THESE AS A TOTAL NET-TO-OWNER CHARGE OR CREDIT FOR CONSIDERATION.

1.15. **AS-BUILT:** UPON COMPLETION OF CONSTRUCTION, SUPPLY THE ENGINEER WITH AS-BUILT DOCUMENTS INCLUDING THE FOLLOWING THE MATERIALS AND EQUIPMENT AS INSTALLED. PROVIDE OPERATION AND MAINTENANCE MANUAL(S) CONTAINING APPROVED SHOP DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTION FOR SWITCHGEAR, LIGHTING FIXTURES, CONTROLS, AND SPECIALTY EQUIPMENT.

GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM THE DATE OF COMPLETION BY OWNER (LONGER IF REQUIRED BY GENERAL AND/OR SPECIAL CONDITIONS). IN ADDITION, THE INSTALLATION SHALL BE GUARANTEED TO PERFORM AS SPECIFIED AND FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS. SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR SHALL, WITHOUT DELAY, REPAIR IMMEDIATELY THE DEFECTIVE WORK, AND PROVIDE ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO CORRECT THE DEFICIENCY AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. WHERE SPECIFIED EQUIPMENT HAS A LONGER GUARANTEE PERIOD, THE TERMS OF THAT GUARANTEE SHALL GOVERN (EXAMPLE: LED SYSTEM WITH 5 YEAR GUARANTEE). INCANDESCENT LAMPS ARE EXCEPTED BUT SHALL BE REPLACED IMMEDIATELY UPON FAILURE.

1.18. **IECC COMPLIANCE:** COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE IECC COMPLIANCE CERTIFICATE INCLUDED IN THESE DOCUMENTS. HIRE A COMMISSIONING AGENT TO COMPLY WITH AND PERFORM ALL ASPECTS OF SECTION C408 OF THE 2018 IECC.

BIDDING:

1.19. **SITE VISIT:** CONTRACT DOCUMENTS INDICATE NEW WORK TO BE PERFORMED AND DO NOT PURPORT TO SHOW ALL EXISTING CONDITIONS. VISIT THE SITE PRIOR TO SUBMITTING A BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS. COMPARE THE WORK SPECIFIED IN THE CONTRACT DOCUMENTS AGAINST EXISTING CONDITIONS, AND IDENTIFY AND ANNOTATE ALL WORK OR CONDITIONS THAT ARE DIFFERENT FROM THE CONTRACT DOCUMENTS OR THEIR SUPPLEMENT. UPON ADOPTION OF THE BID, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DISCREPANCIES TO THE ENGINEER. NO EXTRAS OR CHANGE ORDERS WILL BE ALLOWED FOR FAILURE TO PERFORM THE PRE-BID SITE VISIT.

- 2.0. **BASIS OF PROPOSAL:** PROPOSAL SHALL BE BASED ON MANUFACTURERS AND MODELS AS LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION. IF PROPOSED ALTERNATE AND SUBSEQUENT NOTIFICATION TO ALL OTHER BIDDERS IN THE EVENT SUBSTITUTION IS DEEMED ACCEPTABLE. DETERMINATION OF SUBSTITUTION EQUALITY RESTS SOLELY WITH THE ENGINEER.
- 2.1. **VALUE ENGINEERING (V.E.) INITIATIVES:** IN ADDITION TO THE "AS SPECIFIED/OR EQUAL" BASE BID, A COST REDUCTION INITIATIVE(S) MAY BE PROPOSED BASED ON SUBSTITUTIONS OF EQUIPMENT, MATERIALS, METHODS, AND/OR CONSTRUCTION. EACH SUCH INITIATIVE MUST INCLUDE A DATA SHEET(S) ON THE SPECIFIED ITEM(S), THE PROPOSED SUBSTITUTE(S), AND THE NET CREDIT TO THE OWNER, INCLUDING ALL CREDITS AND CHARGES FROM ALL MEMBERS OF THE CONSTRUCTION TEAM. THE ENGINEER WILL REVIEW AND RENDER AN OPINION TO THE OWNER. IF THE V.E. INITIATIVE IS DECLINED, PROVIDE THE SPECIFIED EQUIPMENT/MATERIALS/METHOD. IF THE INITIATIVE IS ACCEPTED, AND IF SUCH ACCEPTANCE RESULTS IN A REQUIREMENT TO REVISE ANY DESIGN DOCUMENTS, THE CHARGES FOR THESE REVISIONS SHALL BE BILLED TO THE CONTRACTOR AND THE INVOICING SHALL BE SETTLED BEFORE THE PROJECT IS SIGNED OFF FOR FINAL ACCEPTANCE.
- 2.2. **BIDDING:** THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN, AND/OR INTERIOR DRAWINGS AND CONDITIONS SHALL BE THE BASIS FOR BIDDING. BIDDING SHALL BE FOR THOSE ITEMS WHICH ARE PART OF THIS CONTRACTOR'S RESPONSIBILITIES. DO NOT SUBMIT BIDS ON THIS PROJECT PRIOR TO REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS, AND ADDENDA.
- 2.2.3. **SPECIFICATIONS BOOK:** THE SPECIFICATIONS CONTAIN SIGNIFICANT INFORMATION, CONDITIONS, AND PROCEDURES WHICH MAY HAVE A SUBSTANTIAL IMPACT IN THIS CONTRACTOR'S OBLIGATIONS. DO NOT SUBMIT A BID ON THIS PROJECT UNLESS YOU HAVE GRADUALLY BEEN THOROUGHLY REVIEWED. THE GENERAL NOTES CONTAINED HEREIN ARE COMPLEMENTARY TO THE SPECIFICATIONS BOOK, AND IN COMPARISON THE MORE STRINGENT REQUIREMENT(S) SHALL GOVERN.
- PART TWO - PRODUCTS**
- 2.1. **EQUIPMENT STANDARDS:** ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). EQUIPMENT SHALL BE CONSTRUCTED TO NEMA STANDARDS AND SHALL BE LABELED FOR THEIR INTENDED PURPOSE BY A RECOGNIZED TESTING AGENCY ACCEPTABLE TO THE AHJ (UL, CSA, ETC. ETC.).
- 2.2. **ACCEPTED MATERIALS:** UNLESS OTHERWISE SPECIFIED, ALL MATERIALS ARE NOT SPECIFIED BY NAME THEY ARE DEEMED TO BE GENERIC, SUBJECT TO THE REQUIREMENTS LISTED HEREIN. THESE MANUFACTURERS ARE CONSIDERED CAPABLE OF OFFERING EQUIVALENT PRODUCTS. MINIMUM STANDARD IN ALL INSTANCES IS COMMERCIAL GRADE:
- SWITCHGEAR:** EATON, GENERAL ELECTRIC, SIEMENS, SQUARE D
LIGHT FIXTURES: ACUTY, COOPER, HUBBELL, THOMAS
WIRING DEVICES: HUBBELL, LEVITON, LEGRAND, WIREMOLD
- 2.3. **CIRCUITING:** ALL WIRING SHALL BE IN CONDUIT, CONCEALED WHERE POSSIBLE EXCEPT FOR BRANCH CIRCUITS WITHIN EASEL RESIDENCE. ALL WIRING SHALL BE STEEL INSULATED THROAT SET SCREW FITTINGS. ALL WIRING TO BE PROTECTED IN INTERIOR LOCATIONS PER SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM 24" WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE TRANSITIONS AND STUB-UPS. RGS OR IMC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. IMC OR RIGID CONDUIT BELOW GRADE SHALL BE HALF-FILL FILLED WITH SAMPLE PVC FILLER. WHERE MOTORIZED AND/OR VIBRATING EQUIPMENT WITH STEEL FLEX OR SEALTITE CONDUIT, ALL CONDUIT SHALL HAVE PULL CORD IF OTHERWISE EMPTY.
- 2.4. **CABLE:** CABLE MAY BE USED ONLY WITH SPECIFIC PERMISSION FROM THE ENGINEER. MC CABLE USE SHALL BE LIMITED TO CIRCUITING SOLUTIONS IN TIGHT CONDITIONS WHERE CONDUIT AND WIRE CIRCUITING CANNOT FIT. HOMERUNS AND FEEDERS SHALL BE CONDUIT AND WIRE.
- 2.5. **WIRING:** ALL WIRE SHALL BE COPPER UNLESS OTHERWISE NOTED. ALL WIRE SHALL BE STRANDED IN SIZES #6 AWG AND LARGER. SINGLE PHASE BRANCH CIRCUIT SHALL INCLUDE SEPARATE NEUTRAL WIRE WITH EACH PHASE WIRE. NEUTRAL SHALL BE WHITE WITH COLOR STRIPE MATCHING COLOR OF PHASE WIRE. HOMERUNS TO PANELBOARDS SHALL BE MINIMUM #12 AWG CU IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
- 2.6. **FUSES AND CIRCUIT BREAKERS:** FUSES AND CIRCUIT BREAKERS SHALL BE SIZED PER ACTUAL LOADS (i.e., MOTOR CIRCUIT PROTECTOR, GROUND FAULT CIRCUIT INTERRUPTER, ARC FAULT CIRCUIT INTERRUPTER, ETC.). FUSES SHALL BE DUAL ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. PROVIDE LOCKABLE PULSE FUSE CABINET WITH (3) SPARE FUSES OF EACH SIZE USED.
- 2.7. **SWITCHGEAR:** SWITCHGEAR SHALL HAVE COPPER BUS AND HEAVY GAUGE HOUSINGS. SWITCHGEAR IN LOCATIONS OTHER THAN LOCKED ELECTRIC ROOMS SHALL HAVE LOCKABLE COVERS. SWITCHGEAR SHALL HAVE NO LESS THAN 20% SPARE BUSSED AND USABLE SPACE, MEASURED AS A PERCENTAGE OF THE SPACE OCCUPIED BY SPECIFIED CIRCUIT BREAKERS, SWITCHES, ETC.
- 2.8. **SERVICE SWITCHGEAR:** SERVICE SWITCHGEAR SHALL MEET THE REQUIREMENTS OF THE SERVING UTILITY.
- 2.9. **PANELBOARDS:** PANELS SHALL HAVE COPPER BUS AND HARDWARE, BOLT-ON CIRCUIT BREAKERS, FLUSH MONO-FLAT TRIM, PIANO HINGED DOORS AND COVER (DOOR-IN-DOOR) WITH LOCKABLE MASTER-KEYED FLUSH LATCHES. FLUSH-MOUNTED PANELS SHALL HAVE FLUSH CONDUIT ENTRY TO ACCESSIBLE ATTIC SPACE (1) 3/4" CONDUIT FOR EACH THREE (3) SPARE/SPACE CIRCUITS.
- 2.10. **SAFETY SWITCHES:** SWITCHES SHALL BE GENERAL DUTY UP TO 250 VOLTS, HEAVY DUTY ABOVE 250 VOLTS. FUSIBLE SWITCHES SHALL BE FUSED PER THE NAMEPLATE REQUIREMENTS OF THE EQUIPMENT BEING CONNECTED.
- 2.11. **STOP/START SWITCHES:** STOP/START SHALL BE MINIMUM 20AMP WITH INTEGRAL CONTROL TRANSFORMER, RED NEON "RUN" PILOT LIGHT AND "ON-OFF-AUTO" SELECTOR SWITCH ON COVER. OVERLOAD DEVICES SHALL BE SIZED PER THE NAMEPLATE AMPERAGE OF THE EQUIPMENT BEING CONTROLLED.
- 2.12. **CONTACTORS:** CONTACTORS SHALL BE ELECTRICALLY HEAVY WITH "ON-OFF-AUTO" SELECTOR SWITCH ON COVER.
- 2.13. **RATINGS:** ALL ELECTRICAL EQUIPMENT SHALL BE FULLY RATED FOR BRACING IN EXCESS OF THE MAXIMUM AVAILABLE FAULT CURRENT CALCULATED AND SHOWN AT THE EQUIPMENT CONNECTION POINT WITHIN THE DISTRIBUTION SYSTEM. MINIMUM RATING SHALL BE 10K AIC.
- 2.14. **WIRING DEVICES:** WIRING DEVICES (SWITCHES, RECEPTACLES, ETC.) SHALL BE SPECIFICATION GRADE. ALL WIRING DEVICES SHALL BE SPECIFIED BY NAME, TYPE, AND MODEL. DEVICE AND PLATE COLOR(S) SHALL BE AS SPECIFIED BY ARCHITECT OR INTERIOR DESIGNER. VERIFY PRIOR TO COMMENCEMENT OF WORK. WIRING DEVICES EXPOSED TO THE ELEMENTS SHALL HAVE WEATHERPROOF-IN-USE LOCKABLE COVERS. RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS. REFER TO FOOD SERVICE NOTES (IF APPLICABLE) TO THE PROJECT FOR ADDITIONAL REQUIREMENTS.
- 2.15. **TRANSFORMERS:** TRANSFORMERS SHALL BE TYPE TP-1 MINIMUM, WITH ALUMINUM WINDINGS, RATED FOR 150°C RISE (UNLESS OTHERWISE NOTED), MOUNTED ON RUBBER-IN-SHEAR VIBRATION ISOLATORS, CONNECTED WITH FLEXIBLE CONDUIT. PUBLISHED AND MEASURED NOISE RATING SHALL NOT EXCEED NEMA TP-20 MAXIMUM.
- 2.16. **SEISMIC FIXTURES:** ALL SEISMICALLY SENSITIVE EQUIPMENT SHALL BE PROVIDED WITH ALL ASSOCIATED HARDWARE (HANGER BARS, PENDANTS, STEMS, RESTRAINTS, CHAINS, CORDS, LAMPS, ETC.). LENSES SHALL BE ACRYLIC, REFLECTORS SHALL BE ANODIZED, FLUORESCENT BALLASTS SHALL BE ELECTRONIC, PROGRAM RAPID START, THIN LESS THAN 10%. FLUORESCENT LAMPS SHALL HAVE MINIMUM CRI OF 80%. INCANDESCENT LAMPS SHALL BE 120 VOLT, INSIDE FROST, 2000 HOUR 2000 HOUR LIFE, 100 WATT, E26 BASE, 100 WATT, E26 BASE, 100 WATT, E26 BASE, MINIMUM 3000 HOUR LIFE. EXTERIOR LIGHTING FIXTURES SHALL BE INSTALLED TO PREVENT WATER, DUST AND INSECT INTRUSION, WITH GASKETING FOR DOOR/BACKPLATE AND SEALANT AT THE WIRING ENTRY POINT. REFER TO LIGHTING FIXTURE SCHEDULE WITHIN PLAN SET FOR ADDITIONAL REQUIREMENTS (LED , CRITERIA, ETC.).
- 2.17. **TAMPER-RESISTANT:** ALL ELECTRICAL EQUIPMENT ACCESSIBLE BY THE PUBLIC SHALL BE DEMONSTRATED TO BE TAMPERPROOF AND VANDAL RESISTANT. OPENABLE DEVICES AND EQUIPMENT SHALL BE PAD LOCKABLE.

3.1. GROUNDING: GROUND ALL EQUIPMENT AND SYSTEM NEUTRAL IN ACCORDANCE WITH THE REQUIREMENTS OF NEC ARTICLE 250. PROVIDE CODE-SIZED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUIT RACEWAYS. WHERE ISOLATED GROUNDS ARE INDICATED, PROVIDE INSULATED CONDUCTOR (GREEN WITH YELLOW STRIPE).

2. **UTILITY SERVICE:** PROVIDE POWER AND COMMUNICATIONS SYSTEM SERVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. CONTRACTOR TO PROVIDE ARC FLASH STUDY AND LABELING ON ALL NEW EQUIPMENT IN ACCORDANCE WITH NEC. PROVIDE ELECTRICAL SERVICE TO ALL BUILDING AREAS. ALL SERVICE TO BE DIRECTED, POWER SERVICES AND DISTRIBUTION SYSTEM AC RATING SHALL EXCEED MAXIMUM AVAILABLE FAULT CURRENT THROUGH UTILITY SERVICE TRANSFORMER. CONTACT SERVING UTILITIES AND OBTAIN THEIR REQUIREMENTS PRIOR TO BID. (UTILITY SERVICE AND LINE EXTENSION CHARGES PAID BY OTHERS)
- 3.2. **TEMPORARY CONSTRUCTION POWER:** PROVIDE TEMPORARY ELECTRICAL POWER DISTRIBUTION AND LIGHTING AS REQUIRED FOR ALL TRADES THAT REQUIRE SERVICE DURING THE COURSE OF THIS PROJECT IN COMPLIANCE WITH ALL NEC AND OSHA REQUIREMENTS. OWNER SHALL NOT BE RESPONSIBLE FOR TEMPORARY POWER CHARGES.
- 3.3. **LOCATIONS:** INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIRT TAIL CABLES OR CONDUIT TO SUPPORT EQUIPMENT OR CONNECTION POINT TO 10' AS DIRECTED BY ENGINEER AT NO ADDED COST.
- 3.5. **WORKMANSHIP:** THE WORK SHALL BE INSTALLED PARALLEL AND AT RIGHT ANGLES TO THE BUILDING LINES, LEVEL AND PLUMB. THE WORK SHALL BE WELL SUPPORTED AND SOLIDLY MOUNTED. DRESS AND THE WIRING IN PANELBOARDS AND SWITCHGEAR. THE WORK SHALL BE LEFT CLEAN WITH NO DIRT, DENTS, ABRASIONS, PAINT SPLATTERS, OR OTHER IRREGULARITIES.
- 3.6. **FIRE STOPPING:** ALL PENETRATED FIRE RATED SURFACES SHALL BE FIRE SEALED WITH APPROVED U.L. LISTED SEALANTS AS LISTED WITHIN ARCHITECTURAL SPECIFICATIONS. DO NOT EXCEED MAXIMUM ALLOWABLE SURFACE PENETRATIONS DEPENDENT ON RATINGS OF SURFACES. REFERENCE TO ARCHITECTURAL DRAWINGS FOR DETERMINATION OF PENETRATION LOCATIONS THROUGH FIRE RATED ASSEMBLIES.
- 3.7. **SUPPORTS AND HANGERS:** PROVIDE 3" HIGH HOUSEKEEPING CONCRETE PAD BENEATH FLOOR MOUNTED EQUIPMENT, EXTENDING 3' BEYOND EQUIPMENT FOOTPRINT. SUPPORT AND ALIGN ALL FIREWAYS, CABINETS, BOARDS, BACK BOXES, FIXTURES, AND EQUIPMENT FROM STRUCTURE. SCATTERED SUPPORTS SHALL BE ACCEPTED FOR ALL LOGS BOLTS IN HOLLOW MASONRY. EXPANSION BOLTS IN SOLID MASONRY. CONCRETE PRESET INSERTS OR EXPANSION BOLTS IN CONCRETE. MACHINE SCREWS OR BOLTS IN METAL, AND WOOD SCREWS IN WOOD CONSTRUCTION. ALL SUPPORTING SYSTEMS AND COMPONENTS SHALL BE RATED FOR A MINIMUM OF FIVE (5) TIMES THE ACTUAL LOAD.
- 3.8. **SEALING AND PROTECTION:** PENETRATIONS OF ALL SURFACES SHALL BE PROVIDED WITH SLEEVES THAT SHALL BE SEALED WITH LIKE MATERIALS AND SHALL BE FINISHED WITH ESCUTCHEON PLATES. PENETRATIONS BELOW GRADE LEVEL SHALL BE WATERTIGHT. PENETRATIONS AT EXTERIOR WALLS SHALL BE WEATHERPROOF. ROOF PENETRATIONS SHALL BE FLASHED AND COUNTER FLASHED.
- 3.9. **EXPANSION AND CONTRACTION:** RACEWAYS PASSING THROUGH BUILDING EXPANSION JOINTS, ON ROOF, AND IN AREAS OF TEMPERATURE VARIATIONS GREATER THAN 30°F SHALL BE INSTALLED WITH EXPANSION FITTINGS.
- 3.10. **IDENTIFICATION:** IDENTIFY ALL EQUIPMENT, SWITCHBOARD CIRCUITS AND ELECTRICALLY-CONNECTED EQUIPMENT WITH ENGRAVED NAMEPLATES. BOXES SHALL BE MARKED WITH PANEL AND CIRCUIT NUMBER. PERMANENT PEN ACCEPTED FOR ALL LOGS BOLTS TO NAMEPLATES SHALL BE FASTENED WITH A MINIMUM OF TWO (2) SCREWS. PANEL DIRECTORIES SHALL BE TYPED. CONDUCTORS SHALL BE TAGGED WITH CIRCUIT NUMBERS AT SOURCE, JUNCTION BOXES, AND ALL OUTLET BOXES WITH PERMANENT ADHESIVE MARKER STRIPS. PANEL DIRECTORIES SHALL BE TYPED. IDENTIFY WIRING DEVICES WITH SELF EXPLANATORY CLEAR LABELS WITH SOURCE AND CIRCUIT NUMBER.
- 3.11. **ELECTRIC ROOM CODE COMPLIANCE:** DUE TO THE DIAGRAMMATIC NATURE OF THE DESIGN DOCUMENTS (ELECTRICAL, MECHANICAL, PLUMBING, FIRE SPRINKLER, ETC.), COORDINATE WITH ALL OTHER SUBCONTRACTORS AT THE START OF THIS PROJECT TO INFORM AND VERIFY THAT NO FOREIGN SYSTEMS OR EQUIPMENT ARE MOUNTED ABOVE ELECTRICAL EQUIPMENT OR RACEWAYS THROUGH DESIGNATED ELECTRIC ROOMS. THAT A MINIMUM OF 7'-0" IS PROVIDED AS CLEAR HEADROOM ALONG ACCESS PATHS TO ELECTRIC ROOMS. ANY REROUTING OR RELOCATION OF SYSTEMS THAT A SUBCONTRACTOR FEELS WILL COMPROMISE THE DESIGN INTENT SHALL BE DESCRIBED IN WRITING AND FORWARDED TO THE DESIGN ENGINEER FOR REVIEW. ALL PIPING TO HYDRAVINTS THAT COOL ELECTRIC ROOMS SHALL BE LOCATED ABOVE ENTRY DOOR TO THE SPRINKLER PIPING TO PROVIDE PROTECTION FOR THE ELECTRIC ROOM IS PREFERRED TO ENTER THE ROOM ABOVE THE ENTRY DOOR AND RUN DOWN THE AISLE SPACES OF THE ROOM. ALL INSTALLATIONS SHALL BE FULLY COORDINATED AMONGST ALL TRADES.
- 3.12. **ELECTRICAL CODE COMPLIANCE:** ALL ELECTRICAL AND SUBSTITUTION, FEEDERS AND OVER-CURRENT DEVICES (INCLUDING STARTERS, DISCONNECTS, ETC.) HAVE BEEN DESIGNED BASED ON INFORMATION PROVIDED BY THE RESPONSIBLE CONSULTANT AND/OR DESIGNATED SUPPLIER. PRIOR TO ROUGH-IN, COORDINATE WITH THE APPROPRIATE TRADE AND/OR INSTALLER TO DETERMINE THAT THE ACTUAL NAMEPLATE ELECTRICAL REQUIREMENTS MATCH THIS DESIGN. ANY DEVIATION FROM THE ELECTRICAL CODE OR THE COLLECTION OF EQUIPMENT WHICH VARIES FROM THE ORIGINAL SPECIFICATIONS SHALL BE RESOLVED WITHIN THE CONSTRUCTION TEAM AT NO ADDITIONAL COST TO THE OWNER.
- 3.13. **ADDITIONAL SYSTEMS AND EQUIPMENT CONNECTIONS:** IN ADDITION TO EQUIPMENT POWER FEEDERS AND CONNECTIONS INDICATED ON THE ELECTRICAL DRAWINGS, PROVIDE 120V CONTROL POWER ONLY TO SUCH EQUIPMENT AS DIRECTED BY THE OWNER OR DESIGN ENGINEER. OUTAGES SHALL BE MOMENTARY IN NATURE, EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.
- 3.15. **COMMUNICATIONS SYSTEMS:** THE ELECTRICAL CONTRACTOR SHALL PROVIDE OUTLETS AND RACEWAYS FOR COMMUNICATIONS SYSTEMS AS INSTALLED BY THE OWNER, INCLUDING TELEPHONE DATA, POINT-OF-SALE, SOUND, SECURITY, AUDIOVISUAL, CTV, MATV, ETC. CABLEING AND DEVICES SHALL BE INSTALLED AND TERMINATED BY OTHERS.
- | ITEM | POWER SOURCE | MAX NO. PER 20A CIRCUIT | PROVIDE SMOKE DETECTORS |
|-------------------------------|--------------------|-------------------------|-------------------------|
| FIRE/SMOKE DAMPER | EMERGENCY | 1 | YES |
| VAV TERMINAL (NO FAN) | NORMAL (VERIFY) | 10 | NO |
| TEMPERATURE CONTROL PANEL | EMERGENCY (VERIFY) | 1 | NO |
| FIRE ALARM PANEL | EMERGENCY | 1 | NO |
| DOOR HOLDING/LATCHING DEVICES | EMERGENCY | 1 | NO |
- 3.14. **HOURS OF OPERATION:** CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING BUSINESS OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT, AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF, AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS, AND/OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY THE OWNER OR DESIGN ENGINEER. OUTAGES SHALL BE MOMENTARY IN NATURE, EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.
- 3.15. **COMMUNICATIONS SYSTEMS:** THE ELECTRICAL CONTRACTOR SHALL PROVIDE OUTLETS AND RACEWAYS FOR COMMUNICATIONS SYSTEMS AS INSTALLED BY THE OWNER, INCLUDING TELEPHONE DATA, POINT-OF-SALE, SOUND, SECURITY, AUDIOVISUAL, CTV, MATV, ETC. CABLEING AND DEVICES SHALL BE INSTALLED AND TERMINATED BY OTHERS.

4.1. THIRD PARTY TESTING: PROVIDE ALL ASSOCIATED COSTS FOR THIRD PARTY TESTING OF ALL EQUIPMENT, CONDUCTORS, GROUND FAULT, GROUND FAULT COORDINATION STUDY WITH REPORT PREPARATION, ETC. AS REQUIRED BY THE NEC, AHJ, AND ALL OTHER GOVERNING AUTHORITIES.

<u>POWER SOURCE</u>	<u>MAX NO. PER 20A CIRCUIT</u>	<u>PROVIDE SMOKE DETECTORS</u>
EMERGENCY	10	YES
NORMAL (VERIFY)	10	NO
EMERGENCY (VERIFY)	1	NO
EMERGENCY	1	NO
ES EMERGENCY	10	NO

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[illegible]

REPLACE FUEL ISLAND AND TANKS

VCS Project NO. 2648210

2101 Eustace Ave
Dalton, FL 32725

Deltona, FL 32725

ARCH/ENGR OF RECORD

DESIGNED BY JLRB	DRAWN BY JNJ
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003

SHEET TITLE

ELECTRICAL SPECIFICATIONS

DRAWING NO.

E001



- A. REFER TO SHEET E000 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
- B. WHERE CONDUIT AND CABLE PENETRATE FIRE RATED FLOORS AND WALLS, PROVIDE U.L. LISTED FIRE STOPPING SYSTEM FOR EACH PENETRATION. GROUP CABLES/CONDUITS TOGETHER TO REDUCE QUANTITY OF PENETRATIONS WHEREVER POSSIBLE.
- C. EXCEPT FOR ELECTRIC PANEL, CLOSET AND MECHANICAL EQUIPMENT ROOMS, ALL CONDUIT/RACEWAYS, CABLES, AND JUNCTION BOXES SHALL BE CONCEALED. DO NOT SURFACE MOUNT ANY CONDUIT/RACEWAY, CABLE, ETC. WITHOUT PRIOR WRITTEN PERMISSION FROM THE ARCHITECT OR OWNER'S REPRESENTATIVES.
- D. ALL EQUIPMENT SHALL BE NEW AND BEAR THE APPROPRIATE U.L. LISTING OR CLASSIFICATION MARK. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE U.L. LISTING OR CLASSIFICATION.
- E. THE CONTRACTORS' PERFORMANCE INCLUDES FULL COORDINATION WITH ALL ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS. SUCH COORDINATION SHALL OCCUR PRIOR TO ANY ROUGH-IN AND PRIOR TO PROCUREMENT OF ANY MATERIAL(S).
- F. ELECTRICAL FIXTURES AND EQUIPMENT LOCATIONS ARE DIAGRAMATIC REPRESENTATIONS AND NOT DIMENSIONED LOCATIONS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION.
- G. COORDINATE WITH DOOR HARDWARE SUPPLIER AND FIRE ALARM VENDOR TO INSTALL CONDUIT AND WIRING AS NEEDED FOR A FUNCTIONING, CODE COMPLIANT INSTALLATION.
- H. LIMIT VOLTAGE DROP TO 3% ON ALL BRANCH CIRCUITS.
- I. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
- J. VERIFY EXACT LOCATION OF ALL MECHANICAL AND PLUMBING EQUIPMENT PROVIDED BY OTHER TRADES PRIOR TO ROUGH IN.
- K. COORDINATE INSTALLATION AND WIRING REQUIREMENTS, INCLUDING EXACT LOCATION OF POINT OF CONNECTION, WITH THE EQUIPMENT SUPPLIER SHOP DRAWINGS PRIOR TO ROUGH IN.
- L. PROVIDE 3/4" C.F. FROM EACH EQUIPMENT CONTROL PANEL TO INTERIOR CABLE TRAY OR ACCESSIBLE INTERIOR LOCATION FOR BAS INTEGRATION.
- M. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR SIZE OF DISCONNECT SWITCHES, FUSES, CONDUITS, AND CONDUCTORS. SIZE FUSES FOR MECHANICAL EQUIPMENT PROVIDED BY OTHERS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.

#	KEYNOTES
1	CONTRACTOR SHALL DEMOLISH WIREWAY BRANCH CIRCUITS AND OTHER ELECTRICAL PERTINENCES, IF AND ONLY IF THE NEW FUEL ISLAND AND FUEL TANKS ARE FULLY COMMISSIONED AND IN WORKING CONDITION. CONTRACTOR SHALL SEAL ALL EXTERIOR PENETRATIONS USING APPROVED MATERIALS AND METHODS. CONTRACTOR SHALL PROVIDE 1" C RACEWAY WITH PULL STRING ROUTED TO TOP OF COLUMN FOR OFCI CCTV EQUIPMENT.

REVISIONS

[illegible]

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

ARCHENGR OF RECORD	
JN	
DESIGNED BY JLRB	DRAWN BY JNJ
ISSUE DATE 3/23/2026	AC PROJECT NUMBER 145642003
SHEET TITLE ELECTRICAL DEMO POWER PLAN	
DRAWING NO. ED101	



- #

KEYNOTES

1

CONTRACTOR SHALL PROVIDE 100A 208V/120V, 3PH, 4W PANEL 'G'. CONTRACTOR SHALL ROUTE ALL PROPOSED BRANCH CKTS TO NEW NEMA 3R SURFACE MOUNTED WIREWAY AT NORTH EXTERIOR WALL. CONDUITS SHALL UTILIZE SEAL-TIGHT FITTINGS BEFORE BRANCHING BELOW GRADE TO FUEL TANK AND FUEL ISLAND.

2

REFER TO RISER DIAGRAM ON E500 FOR FEEDER AND CONDUIT INFORMATION.

3

CONTRACTOR SHALL PROVIDE 3-1"CM FROM TLS TO FM FOR CONDUIT WIRING OF EACH DISPENSER. CONTRACTOR SHALL REFER TO SHEET P003 FOR THE SYSTEM SCHEMATIC WIRING PLAN.

[illegible]

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
Deltona, FL 32725

ARCHENGSR OF RECORD	
JUN	
DESIGNED BY JLRB	DRAWN BY JUNJ
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003
SHEET TITLE OVERALL POWER PLAN	
DRAWING NO. E101	



- A. REFER TO SHEET E000 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
- B. WHERE CONDUIT AND CABLE PENETRATE FIRE RATED FLOORS AND CEILINGS, PROVIDE U.L. LISTED FIRE STOPPING SYSTEM FOR EACH PENETRATION. GROUP CABLES/CONDUITS TOGETHER TO REDUCE QUANTITY OF PENETRATIONS WHEREVER POSSIBLE.
- C. EXCEPT FOR ELECTRIC PANEL CLOSET AND MECHANICAL EQUIPMENT ROOMS, ALL CONDUITS/RACEWAYS, CABLES, AND JUNCTION BOXES SHALL BE CONCEALED. DO NOT SURFACE MOUNT ANY CONDUIT/RACEWAY, CABLE, ETC. WITHOUT PRIOR WRITTEN PERMISSION FROM THE ARCHITECT OR OWNER'S REPRESENTATIVES.
- D. ALL EQUIPMENT SHALL BE NEW AND BEAR THE APPROPRIATE U.L. LISTING OR CLASSIFICATION MARK. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE U.L. LISTING OR CLASSIFICATION.
- E. THE CONTRACTORS' PERFORMANCE INCLUDES FULL COORDINATION WITH ALL ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS. SUCH COORDINATION SHALL OCCUR PRIOR TO ANY ROUGH-IN AND PRIOR TO PROCUREMENT OF ANY MATERIAL(S).
- F. ELECTRICAL FIXTURES AND EQUIPMENT LOCATIONS ARE DIAGRAMATIC REPRESENTATIONS AND NOT DIMENSIONED LOCATIONS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION.
- G. COORDINATE WITH DOOR HARDWARE SUPPLIER AND FIRE ALARM VENDOR TO INSTALL CONDUIT AND WIRING AS NEEDED FOR A FUNCTIONING, CODE COMPLIANT INSTALLATION.
- H. LIMIT VOLTAGE DROP TO 3% ON ALL BRANCH CIRCUITS.
- I. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
- J. VERIFY EXACT LOCATION OF ALL MECHANICAL AND PLUMBING EQUIPMENT PROVIDED BY OTHER TRADES PRIOR TO ROUGH IN.
- K. COORDINATE INSTALLATION AND WIRING REQUIREMENTS, INCLUDING EXACT LOCATION OF POINT OF CONNECTION, WITH THE EQUIPMENT SUPPLIER SHOP DRAWINGS PRIOR TO ROUGH IN.
- L. PROVIDE 3/4" C. FROM EACH EQUIPMENT CONTROL PANEL TO INTERIOR CABLE TRAY OR ACCESSIBLE INTERIOR LOCATION FOR BAS INTEGRATION.
- M. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR SIZE OF DISCONNECT SWITCHES, FUSES, CONDUITS, AND CONDUCTORS. SIZE FUSES FOR MECHANICAL EQUIPMENT PROVIDED BY OTHERS PER EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
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JN	
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ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003
SHEET TITLE ENLARGED POWER PLAN FUEL CANOPY	
DRAWING NO. E102	

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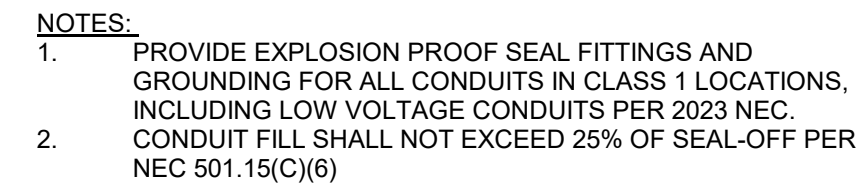
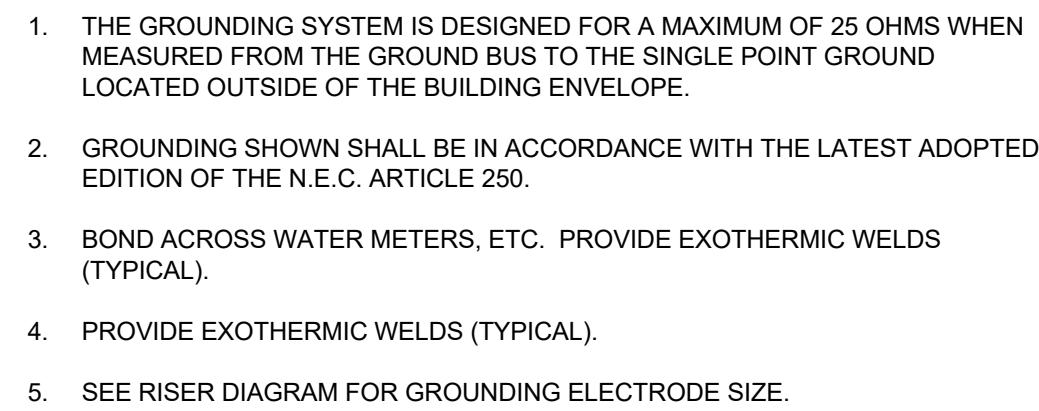
KEYNOTES

ELECTRICAL - MECHANICAL EQUIPMENT SCHEDULE								NOTES
MARK	DESCRIPTION	VOLTAGE	PHASE	FLA	HP	DISCONNECTING MEANS	WIRE SIZE	
(N) TLS	TLS4B CONSOLE	120	1	2	-	240V/2P/30A/NEMA 1	2-#12, #12 G, 1" C	
(N) DISP-1	COMMERCIAL DISPENSER	120	1	16	1	240V/2P/30A/NEMA 1	2-#12, #12 G, 1" C	
(N) DISP-2	COMMERCIAL DISPENSER	120	1	16	1	240V/2P/30A/NEMA 1	2-#12, #12 G, 1" C	
(N) DISP-3	COMMERCIAL DISPENSER	120	1	16	1	240V/2P/30A/NEMA 1	2-#12, #12 G, 1" C	
(N) STP-1	SUBMERSIBLE TURBINE PUMPS	208	2	5.9	2	MOTER RATED SWITCH,NEMA 3R	2-#12, #12 G, 1" C	
(N) STP-2	SUBMERSIBLE TURBINE PUMPS	208	2	5.9	2	MOTER RATED SWITCH,NEMA 3R	2-#12, #12 G, 1" C	
(N) STP-3	SUBMERSIBLE TURBINE PUMPS	208	2	5.9	2	MOTER RATED SWITCH,NEMA 3R	2-#12, #12 G, 1" C	
(N) FMS	FUEL MANAGEMENT SYSTEM	120	1	4	-	240V/2P/30A/NEMA 1	2-#12, #12 G, 1" C	

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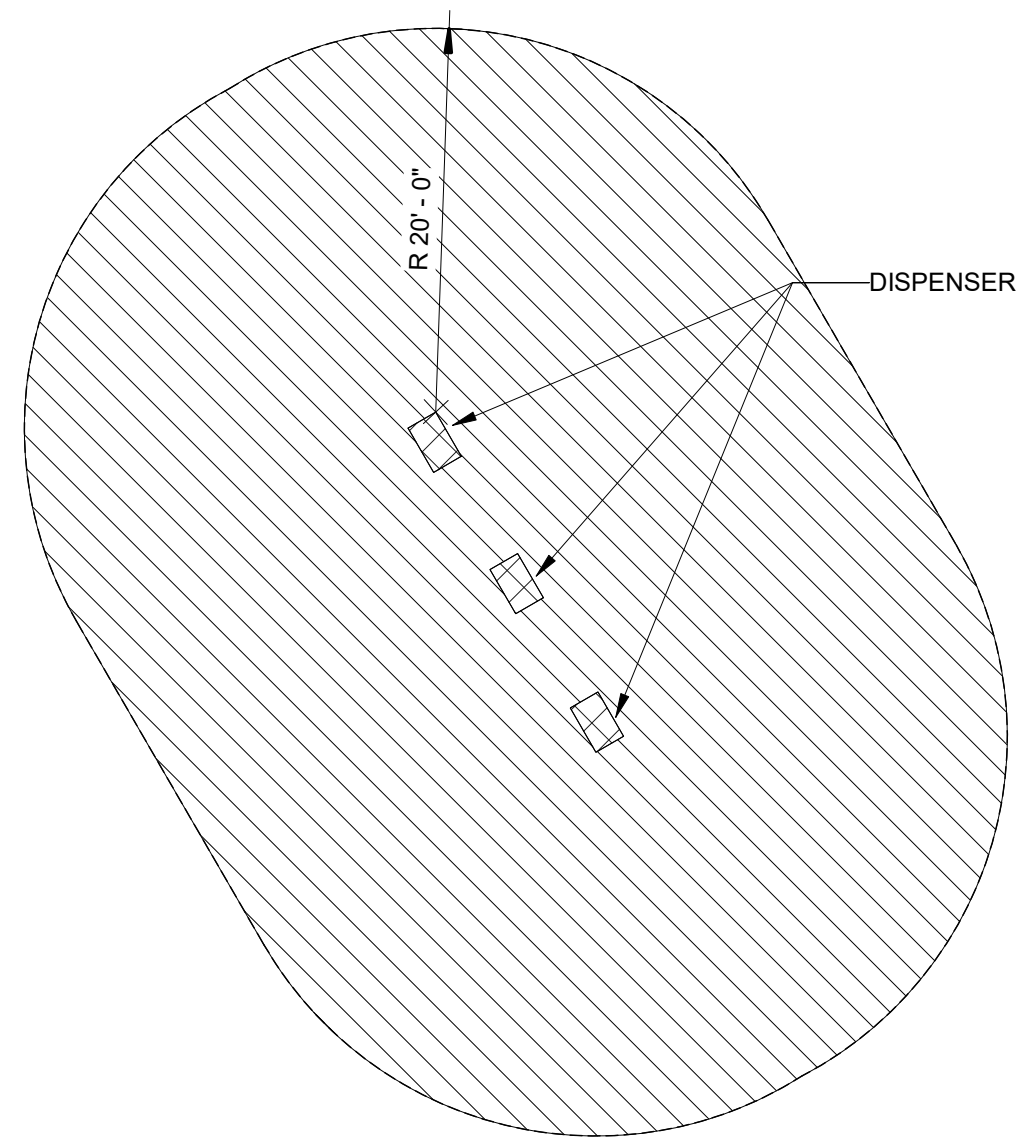
2101 Eustace Ave
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E500

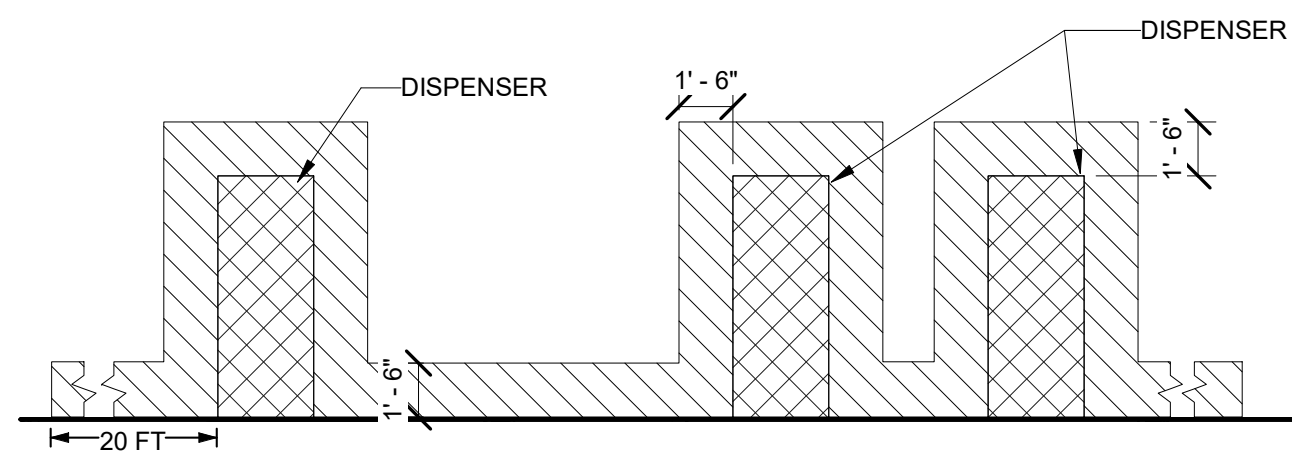


ARCHITECT OF RECORD	
JN	
DESIGNED BY JLRB	DRAWN BY JNJ
ISSUE DATE 3/23/2026	AE PROJECT NUMBER 145642003
SHEET TITLE ELECTRICAL DETAILS	
DRAWING NO. E600	

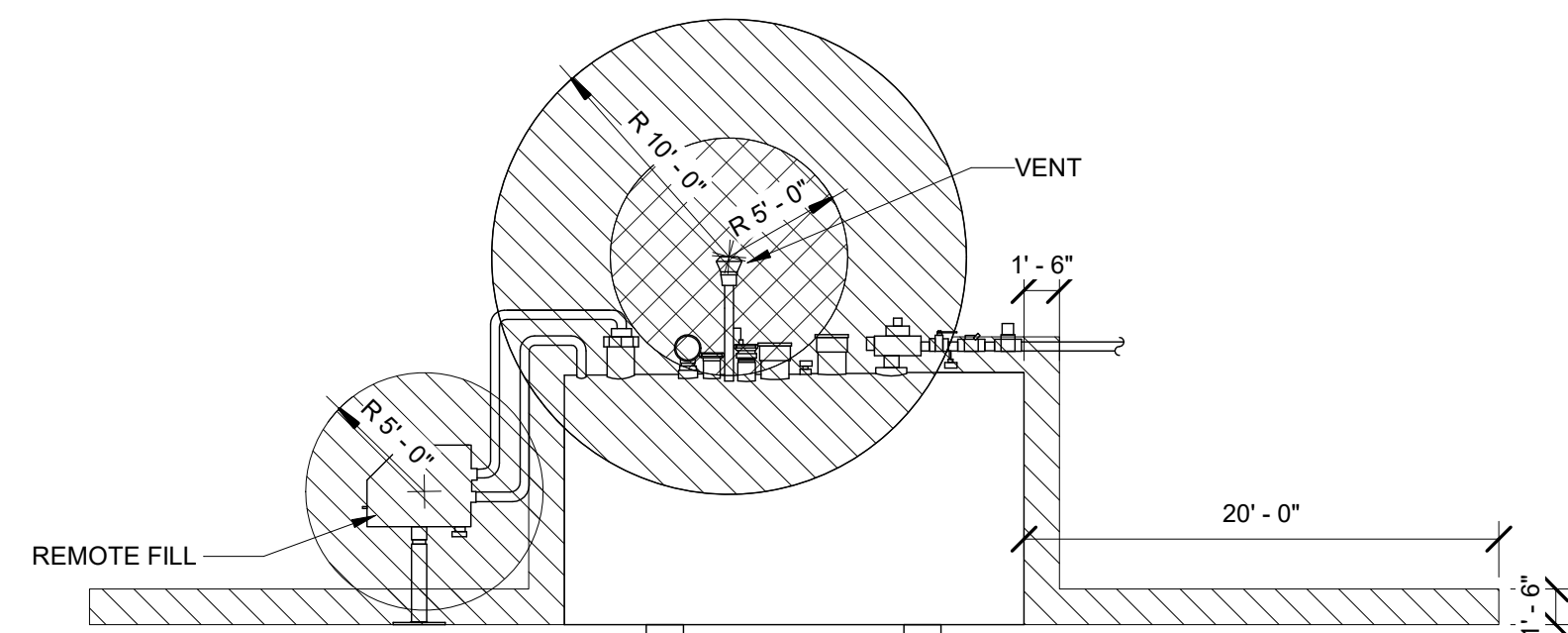
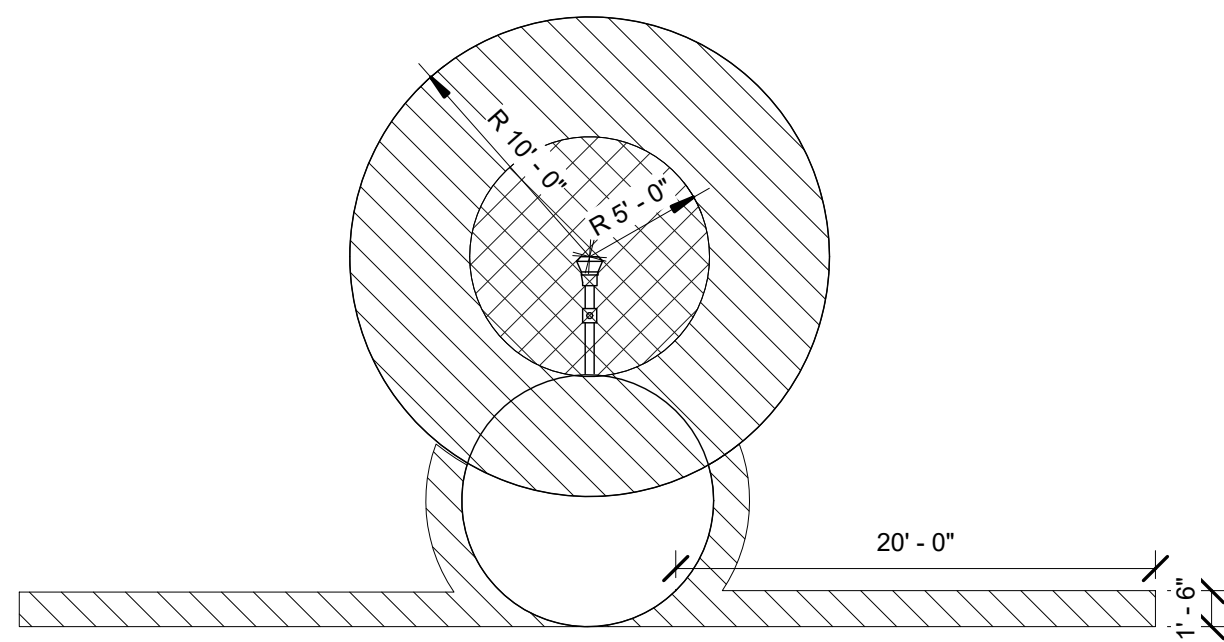
ALL ELECTRICAL WIRING IN CLASS I LOCATIONS MUST COMPLY WITH NFPA 70 501: CLASS 1 LOCATIONS



N.T.S



N.T.S



N.T.S

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REVISIONS

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TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
2101 Eustace Ave
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VCS Project NO. 2648210

2101 Eustace Ave
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JN

ARCH/ENGR OF RECORD

DESIGNED BY
JLRB

NJ

ISSUE DATE
3/23/2026

PROJECT NUMBER
45642003

SHEET TITLE

HAZARD CLASSIFICATIONS

DRAWING NO.

E601

1.0 GENERAL NOTES

1. THE GOVERNING CODE FOR THIS PROJECT IS THE 2023 FLORIDA BUILDING CODE.
2. COMPLY WITH THE REQUIREMENTS OF THE GOVERNING BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.
3. CONTRACTOR SHALL SUITABLY DOCUMENT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK AND SHALL RESTORE ALL DAMAGED OR DISTURBED AREAS TO MEET OR EXCEED ORIGINAL SITE CONDITIONS TO THE OWNER'S SATISFACTION.
4. ASSEMBLE AND INSTALL MATERIALS AND PRODUCTS IN STRICT ACCEPTANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND WITH INDUSTRY/ASSOCIATION STANDARDS. MATERIALS OR WORK DESCRIBED IN WORDS WHICH HAVE A WELL-KNOWN TECHNICAL TRADE MEANING SHALL BE HELD TO THE RECOGNIZED STANDARD. ALL MATERIALS SHALL BE NEW U.O.N.
5. DIMENSIONS SHOWN ARE APPROXIMATE AND SHOULD BE VERIFIED PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
6. REFER TO CIVIL DRAWINGS FOR ELEVATIONS.
7. A CONTROL JOINT PLAN SHALL BE SUBMITTED, AS APPLICABLE, TO THE ENGINEER FOR REVIEW AND COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS PRIOR TO FABRICATION, INSTALLATION, OR COMMENCEMENT OF THE WORK:

2.0 REINFORCED CONCRETE NOTES

3. ALL CONCRETE MATERIALS, PLACING AND HANDLING SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE PUBLICATIONS ACI 301 AND ACI 318.
2. CURING OF CONCRETE SHALL BE IN STRICT ACCORDANCE WITH ACI 301 PROVISIONS.
3. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
4. USE NORMAL WEIGHT CONCRETE (135 PCF MIN.) FOR ALL STRUCTURAL MEMBERS. DO NOT USE CALCIUM CHLORIDE IN ANY CONCRETE. ALL STRUCTURAL CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45.
5. PROVIDE A 4 INCH SLUMP WITH A TOLERANCE OF +/- 1 INCH. FOR WALLS 8 INCHES OR LESS IN THICKNESS, PROVIDE 5 INCH SLUMP WITH A TOLERANCE OF 1+1/2 INCH AND -1 INCH.
6. IF CONCRETE IS PUMPED, SLUMP MAY BE INCREASED TO 6 INCHES AT THE TRUCK, PROVIDED THE SLUMP SPECIFIED ABOVE IS MAINTAINED AT THE DISCHARGE END. USE A MINIMUM 4 INCH PUMP. FOR PUMPED CONCRETE, TAKE CONCRETE SAMPLES FOR SLUMP TEST AT END OF TRUCK CHUTE AND AT DISCHARGE END OF HOSE, AND TAKE SAMPLES FOR CYLINDER TESTING AT DISCHARGE END OF HOSE.
7. WATER SHALL NOT BE ADDED TO CONCRETE AT THE JOBSITE UNLESS SPECIFIC AUTHORIZATION IS INDICATED ON THE DELIVERY TICKET. NOTIFY ENGINEER OF TOTAL QUANTITY OF WATER ADDED TO ANY TRUCK. REPEAT NECESSARY TESTING IF WATER IS ADDED AFTER INITIAL SAMPLING.
8. COARSE AGGREGATE SHALL CONFORM TO ASTM C33. PEAROCK AGGREGATE SHALL NOT BE USED.
9. ALL CONCRETE SHALL BE PLACED IN THE DRY. ALL FORMS SHALL BE FREE OF STANDING WATER.
10. ALL CONCRETE SHALL BE VIBRATED IN PLACE IN ACCORDANCE WITH ACI RECOMMENDED PRACTICES. NO PLACING OF CONCRETE WILL BE COMMENCED UNLESS THERE ARE TWO OPERABLE CONCRETE VIBRATORS ON THE JOB SITE.
11. CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS, U.O.N.:
 - A. CONCRETE CAST AGAINST EARTH: 3 IN.
 - B. ALL OTHER CONCRETE: 2 IN.
12. PROVIDE CHAMFERS ON ALL EXPOSED EDGES IN KIND WITH THE EXISTING CONDITION.
13. FORM TIES AND REINFORCING BAR SUPPORTS SHALL BE OF NON-CORROSIVE MATERIAL INCLUDING, BUT NOT LIMITED TO, FIBERGLASS, PLASTIC, AND CONCRETE BLOCK. BAR SUPPORTS PLACED ATOP VAPOR BARRIERS SHALL BE CONCRETE BLOCK.
14. ANY TIES, STRAPS OR OTHER METALLIC FORMWORK ITEMS SHALL BE REMOVED TO A DEPTH OF 1-1/2 INCHES MINIMUM BELOW FINISHED CONCRETE SURFACE. CONCRETE SHALL BE REPAIRED IN ACCORDANCE WITH ACI 301.
15. CONCRETE FINISHES:
 - A. FORMED SURFACES SHALL RECEIVE A SMOOTH-FORM FINISH IN ACCORDANCE WITH ACI 301. OFFSET BETWEEN ADJACENT PIECES OF FORMWORK FINISH MATERIAL SHALL NOT EXCEED "CLASS A" TOLERANCE REQUIREMENTS OF ACI 117 (I.E. 1/8 INCH MAX. OFFSET).
 - B. SLAB SURFACES SHALL RECEIVE A TROWELED FINISH IN ACCORDANCE WITH ACI 301. FINISH TOLERANCES SHALL BE IN ACCORDANCE WITH "VERY FLAT" CLASSIFICATION REQUIREMENTS OF ACI 117 (I.E. 1/8 INCH MAX. IN 10 FEET).
 - C. WHERE A NONSLIP FINISH IS REQUIRED, GIVE THE SURFACE A BROOM FINISH OR DRY-SHAKE APPLICATION OF FINELY CRUSHED ABRASIVE PARTICLES.
 - D. IN GENERAL, FINISHES TO REPAIR AREAS ARE TO MATCH EXISTING/ADJACENT CONDITIONS.

3.0 DEMO AND CLEAN-UP NOTES

1. ALL EXISTING COMPONENTS ADJACENT TO CONSTRUCTION LOCATIONS ARE TO BE PROTECTED DURING CONSTRUCTION. PROPERLY DISPOSE OF ALL MATERIALS TO BE REMOVED. CLEAN UP THE WORK SITE DAILY AND MAINTAIN A SAFE, CLEAN, AND ORDERLY WORK SITE. DO NOT ALLOW WASTE OR DEBRIS TO ACCUMULATE AT THE PROJECT SITE.

4.0 SLAB DESIGN CRITERIA

1. CODE REFERENCES:
 - 1.1. 2023 FLORIDA BUILDING CODE
 - 1.2. ACI 318-19
 - 1.3. ASCE 7-22
2. DEAD LOAD:
 - 2.1. 12 KGAL FUEL TANK: 29,000 LBS
 - 2.2. 12.5 KGAL FUEL TANK: 30,000 LBS
 - 2.3. 20 KGAL FUEL TANK: 45,506 LBS
3. WIND LOAD:
 - 3.1. ULTIMATE WIND SPEED: $V_{ULT} = 155$ MPH
 - 3.2. ALLOWABLE WIND SPEED: $V_{ASD} = 120$ MPH
 - 3.3. RISK CATEGORY: III
 - 3.4. DIRECTIONALITY FACTOR: $K_d = 0.85$
 - 3.5. EXPOSURE: B
 - 3.6. GUST-EFFECT FACTOR: $G = 0.85$

5.0 FOUNDATIONS

1. THE SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR DRY DENSITY (ASTM D1557) TO A DEPTH OF AT LEAST ONE FOOT BELOW FOUNDATION BEARING LEVELS AND BROUGHT TO A UNIFORM GRADE PRIOR TO PLACEMENT OF FOUNDATION. ALL FOOTINGS SHALL BEAR ON COMPACTED FILL, NATURAL SOIL, OR ROCK PREPARED PER THE GEOTECHNICAL REPORT.
2. FOUNDATIONS HAVE BEEN DESIGNED REFERENCE VALUES FROM A GEOTECHNICAL REPORT PREPARED BY ECS FLORIDA, LLC DATED 1/6/2026 AND NUMBERED 56:2125, WHICH REFERENCES A NET ALLOWABLE BEARING PRESSURE OF 2500 PSF.
3. CONTRACTOR TO USE DEWATERING METHODS TO CONTROL GROUNDWATER WHERE THE GROUNDWATER IS WITHIN TWO FEET BELOW THE EXCAVATED GROUND SURFACE AT THE TIME OF CONSTRUCTION.

6.0 SUBMITTALS REQUIRING ENGINEER INPUT BY DELEGATED (SPECIALTY) ENGINEER

1. DEFINITION – A FLORIDA PROFESSIONAL ENGINEER WHO UNDERTAKES A SPECIALTY SERVICE AND PROVIDES SUPPORTS OR CREATIVE WORK (DELEGATED ENGINEERING DOCUMENT) REGARDING A PORTION OF THE ENGINEERING PROJECT. THE DELEGATED ENGINEER IS THE ENGINEER OF RECORD FOR THAT PORTION OF THE ENGINEERING PROJECT.
2. SHALL BE: (1) AN INDEPENDENT CONSULTANT, (2) AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR OR CONTRACTOR, SO LONG AS THE ENGINEER ACTS AS AN INDEPENDENT CONSULTANT OR THROUGH A DULY QUALIFIED ENGINEERING CORPORATION, OR (3) AN EMPLOYEE OR OFFICER OF A FABRICATOR OR CONTRACTOR, SO LONG AS THE ENGINEER ACTS AS AN INDEPENDENT CONSULTANT OR THROUGH A DULY QUALIFIED ENGINEERING CORPORATION.
3. SUBMITTALS FOR CUSTOM DESIGNED, MANUFACTURED OR FABRICATED LOAD-CARRYING ITEMS AND CUSTOM FABRICATED ITEMS WHICH ARE REQUIRED BY CODES OR STANDARDS TO RESIST FORCES AND STRESSES, INCLUDING THEIR CONNECTIONS, ANCHORAGES AND ATTACHMENTS REQUIRE A DELEGATED ENGINEER.
4. AS A MINIMUM, THE FOLLOWING SYSTEMS AND COMPONENTS REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A DELEGATED ENGINEER:
 - 3.1. FUEL ISLAND CANOPY – MANUFACTURER TO BE NEW IMAGE CANOPY OR OWNER APPROVED EQUAL
5. SUBMITTALS:
 - 4.1. INDICATE PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE, OPENINGS, SIZE AND TYPES OF FASTENERS, AND ACCESSORIES.
 - 4.2. INCLUDE ERECTION DRAWINGS, ELEVATIONS, AND DETAILS WHERE APPLICABLE.
 - 4.3. INDICATE WELDED CONNECTIONS USING STANDARD AWS WELDING SYMBOLS. INDICATE NET WELD LENGTHS.
 - 4.4. PREPARE SHOP DRAWINGS UNDER DIGITAL SIGNATURE AND SEAL OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
6. FOR EACH CATEGORY OF SUBMITTALS REQUIRING INPUT FROM A DELEGATED ENGINEER, THE CONTRACTOR SHALL ATTACH TO THE FIRST SUBMITTAL A SIGNED AND SEALED LETTER FROM THE RESPONSIBLE DELEGATED ENGINEER STATING I CERTIFY THAT THE DESIGN AND DRAFTING OF THE SHOP DRAWINGS WHICH ARE SIGNED AND SEALED BY ME WERE PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE, THE SHOP DRAWINGS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE CONTRACT DOCUMENTS."
7. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
8. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE DIGITAL SEAL, DATE AND DIGITAL SIGNATURE OF THE DELEGATED ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE SEAL AND SIGNATURE OF THE DELEGATED ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE ENGINEER WILL RETAIN 2 SIGNED AND SEALED PRINTS FOR HIS RECORDS.
9. CALCULATIONS ARE THE SOLE RESPONSIBILITY OF THE DELEGATED ENGINEER. CALCULATIONS ARE SUBMITTED TO THE ENGINEER FOR HIS RECORDS.
10. CATALOG INFORMATION ON STANDARD PRODUCTS (I.E. "CUT SHEETS") DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
11. REVIEW BY THE PROJECT ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
 - 10.1. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
 - 10.2. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
 - 10.3. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)
 - 10.4. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
12. SUBMITTALS NOT MEETING THE ABOVE CRITERIA, OR SUBMITTED AFTER FABRICATION, WILL NOT BE REVIEWED.

7.0 FUEL ISLAND CANOPY DESIGN CRITERIA

1. CODE REFERENCES:
 - 1.1. 2023 FLORIDA BUILDING CODE
 - 1.2. ACI 318-19
 - 1.3. ASCE 7-22
 - 1.4. AISC 360-16
 - 1.5. AISI S100-16
2. DEAD LOAD:
 - 2.1. SELF WEIGHT AND ADDED ACCESSORIES
 - 2.2. 2" STAINLESS STEEL PIPE CARRYING UNLEADED FUEL AND DIESEL FUEL. UNSUPPORTED LENGTH OF PIPE TO BE NOT MORE THAN 12 FEET.
 - 2.3. 3.65 LB/FT UNLOADED PIPE WEIGHT. 5 LB/FT LOADED PIPE WEIGHT.
3. ROOF LIVE LOAD: 20 PSF
3. WIND LOAD:
 - 3.1. ULTIMATE WIND SPEED: $V_{ULT} = 155$ MPH
 - 3.2. ALLOWABLE WIND SPEED: $V_{ASD} = 120$ MPH
 - 3.3. RISK CATEGORY: III
 - 3.4. DIRECTIONALITY FACTOR: $K_d = 0.85$
 - 3.5. EXPOSURE: B

- 3.6. GUST-EFFECT FACTOR: $G = 0.85$
 3.7. ENCLOSURE CLASSIFICATION: OPEN BUILDINGS
 3.8. INTERNAL PRESSURE COEFFICIENT: $GC_{PI} = \pm 0.0$
 4. DEFLECTION: ROOF MEMBERS AND COLUMNS NOT TO EXCEED $L/360$ FOR LIVE OR WIND LOADS AND $L/240$ FOR DEAD PLUS LIVE LOADS.

8.0 FUEL ISLAND CANOPY DESIGN SPECIFICATIONS

- # REFERENCES
- 1.1. AISC 360-16
 - 1.2. AWS D1.1 — STRUCTURAL WELDING CODE.
 - 1.3. AISI S100-16
 2. MATERIALS
 - 2.1. PLATES, SHAPES, BARS: ASTM A36.
 - 2.2. W SHAPES: ASTM A992
 - 2.3. PIPES: ASTM A53 GR. B
 - 2.4. HSS-SHAPES: ASTM A500, GRADE C
(ROUND — $F_y = 46$ KSI)
(RECTANGULAR — $F_y = 50$ KSI)
 - 2.5. ANCHOR & ALL THREAD RODS: ASTM F1554 GR 55 ($F_y = 55$ KSI)
 - 2.6. STRUCTURAL BOLTS $\frac{1}{2}" \phi$ AND LARGER: ASTM F3125 GR A325
 - 2.7. STRUCTURAL BOLTS SMALLER THAN $\frac{1}{2}" \phi$:
DIMENSIONS: ASME B18.2.1
MATERIAL: SAE J429 GRADE 5
THREADING: ASME B1.1, UNC, CLASS 2A
 - 2.8. NUTS FOR BOLTS/ALL-THREAD: ASTM A563
 - 2.9. WASHERS FOR BOLTS/ALL THREADS: ASTM F436
 - 2.10. WELDING MATERIALS: AWS D1.1; TYPE REQUIRED FOR MATERIALS BEING WELDED.
 3. FABRICATION — GENERAL
 - 3.1. VERIFY DIMENSIONS ON-SITE PRIOR TO SHOP FABRICATIONS.
 - 3.2. FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED AND SECURED.
 - 3.3. FIT AND SHOP ASSEMBLE SECTIONS IN LARGEST PRACTICAL SIZES, FOR HANDLING THROUGH BUILDING OPENINGS.
 - 3.4. GRIND EXPOSED WELDS FLUSH AND SMOOTH WITH ADJACENT FINISHED SURFACE. EXPOSED EDGES TO SMALL UNIFORM RADIUS. AT EXPOSED TO VIEW LOCATIONS, PLACE PLASTIC FILTER BETWEEN BELTS; SAND FLUSH.
 - 3.5. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE.
 - 3.6. ACCURATELY FORM COMPONENTS REQUIRED FOR ANCHORAGE OF STAIRS, LANDINGS AND RAILINGS TO EACH OTHER AND TO BUILDING STRUCTURE.
 - 3.7. FABRICATION AND ERECTION TOLERANCES TO BE IN CONFORMANCE WITH AISC 303-22 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
 - 3.8. FABRICATOR, PAINTER, AND GALVANIZER SHALL COMMUNICATE AND COORDINATE PRIOR TO FABRICATION TO FACILITATE THE GALVANIZATION AND PAINTING PROCESS.
 4. FINISH
 - 4.1. COORDINATE WITH OWNER ON PREFERRED STEEL FINISH. FOR BIDDING PURPOSES, ASSUME STEEL TO BE HOT DIP GALVANIZED.
 - 4.2. CLEAN SURFACES OF RUST, SCALE, GREASE, AND FOREIGN MATTER PRIOR TO FINISHING AS NOTED.
 5. ERECTION
 - 5.1. ERECT COLUMNS LEVEL AND PLUMB, FREE FROM DISTORTION OR DEFECTS DETRIMENTAL TO APPEARANCE OR PERFORMANCE.
 - 5.2. PROVIDE ANCHORS, PLATES, ANGLES, HANGERS, AND STRUTS WHERE NECESSARY.
 - 5.3. VERIFY ALIGNMENT WITH ADJACENT CONSTRUCTION. COORDINATE RELATED WORK.
 - 5.4. DO NOT FIELD CUT OR ALTER MEMBERS.
 - 5.5. FIELD BOLT AND WELD TO MATCH STANDARD OF SHOP BOLTING AND WELDING. HIDE BOLTS AND SCREWS WHENEVER POSSIBLE. WHERE NOT HIDDEN, USE FLUSH COUNTERSUNK FASTENINGS.
 - 5.6. MECHANICALLY FASTEN JOINTS BUTTED TIGHT, FLUSH, AND HAIRLINE. GRIND WELDS SMOOTH AND FLUSH.
 - 5.7. INSTALL WORK IN ACCORDANCE WITH 2023 FLORIDA BUILDING CODE.
 6. STRUCTURAL BOLTS SHALL CONFORM TO THIS NOTE. ALL BOLT HOLES SHALL BE STANDARD SIZE BOLT HOLES PER AISC 360, UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE SHOP DRILLED OR SUB-PUNCHED AND REAMED. BURNING OF HOLES IS NOT PERMITTED, WHERE SLOTTED OR OVERSIZE HOLES ARE SPECIFIED ON THE DRAWINGS, EXTRA-THICK ASTM F436 PLATE WASHERS SHALL BE USED ($\frac{1}{16}"$ MINIMUM THICKNESS) WITH A DIAMETER SUITABLE TO COVER THE EXTENTS OF THE SLOT OF HOLE. BOLTS SHALL BE HEAVY-HEX WHERE AVAILABLE IN THE SIZE AND GRADE SPECIFIED. ALL BOLT ASSEMBLIES SHALL BE TIGHTENED PER AISC "TURN-OF-THE-NUT" METHOD. SEE BOLT TIGHTENING PROCEDURE.
 7. ALL STEEL HARDWARE, INCLUDING ADHESIVE OR EMBEDDED ANCHOR BOLTS AND THEIR ACCESSORIES, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 (EXCEPT A490 SPECIFICATIONS WHICH SHALL CONFORM TO ASTM F2833, AND BOLTS SMALLER THAN $\frac{1}{2}"$ WHICH SHALL CONFORM TO FE/ZN 3 AS PER ASTM F1941, AND HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123). REPAIR ALL DAMAGE DUE TO TRANSPORTATION, CUTTING, OR WELDING WITH GALVANIZED COATINGS USING ASTM A780 PROCEDURES WITH ZINC RICH PAINT (SUCH AS ZRC GALVILITE). CALL OUT HOLES REQUIRED FOR HOT-DIP GALVANIZING ON SHOP DRAWINGS.
 8. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE — STEEL", UNLESS NOTED OTHERWISE, WELD ELECTRODES SHALL BE 70 KSI UNLESS NOTED OTHERWISE, PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE OF $\frac{3}{16}"$ OR OF A SIZE EQUAL TO THE THICKNESS OF THE THINNER MATERIAL. WELD LEG SIZE SHALL BE ADJUSTED AS REQUIRED TO MAINTAIN THE EFFECTIVE THROAT OF A $\frac{3}{16}"$ FILLET WELD IN A 90° JOINT. ALL WELD SIZES SHOWN IN INCHES.
 9. PRIOR TO WELDING, THE CONTRACTOR SHALL SUBMIT CERTIFICATION FOR EACH WELDER STATING THE TYPE OF WELDING AND POSITIONS QUALIFIED FOR, THE CODE AND PROCEDURE QUALIFIED UNDER, STATE QUALIFIED, AND THE FIRM AND INDIVIDUAL CERTIFYING THE QUALIFICATION TESTS. THIS INFORMATION SHALL BE SUBMITTED TO THE ENGINEER.
 10. ALL PROPOSED PARTS AND MEMBERS SHALL BE SHOP-FABRICATED AND WELDED TO THE EXTENT PRACTICABLE IN ORDER TO REDUCE FIELD INSTALLATION COSTS.

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
C.J.	CONSTRUCTION JOINT
C.L.	CENTER LINE
CLR.	CLEAR
CONT.	CONTINUOUS
CONC.	CONCRETE
DIAG.	DIAGONAL
E.A.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
E.O.R	ENGINEER OF RECORD
E.W.	EACH WAY
HSS	HOLLOW STRUCTURAL SECTION
HORIZ.	HORIZONTAL
JUNCT.	JUNCTION
MAX.	MAXIMUM
MIN.	MINIMUM
MOT.	MAINTENANCE OF TRAFFIC
M.P.	MILE POST
N/A	NOT APPLICABLE
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.C.E.W	ON CENTER EACH WAY
PL	PLATE
REBAR	REINFORCEMENT BAR
S.I.P.	STAY IN PLACE
SS	STAINLESS STEEL
STD.	STANDARD
TS	TUB STEEL (HSS)
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W.P.	WORK POINT
W/	WITH

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DOCUMENT HISTORY

TRANSPORTATION/MAINTENANCE DELTONA

REPLACE FUEL ISLAND AND TANKS

VCS Project NO. 2648210

2101 Eustace Ave
Deltona, FL 32725

ARCH/ENGR OF RECORD

SHEILA PREBLE, P.E.

DESIGNED BY JMG	DRAWN BY JCS
ISSUE DATE 03/23/2026	AE PROJECT NUMBER 145642003

SHEET TITLE

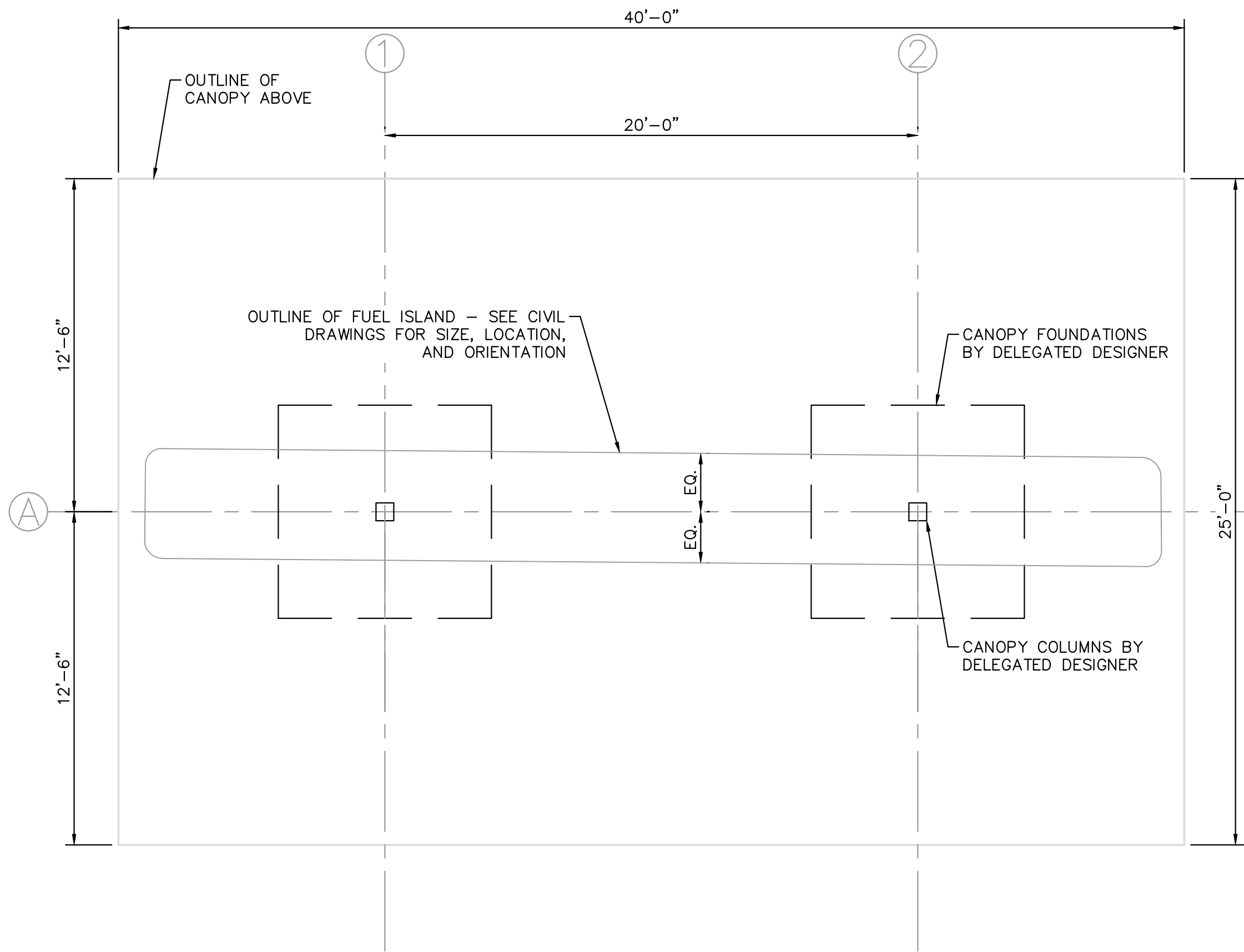
STRUCTURAL GENERAL NOTES

DRAWING NO.

S100

FUEL ISLAND CANOPY NOTES:

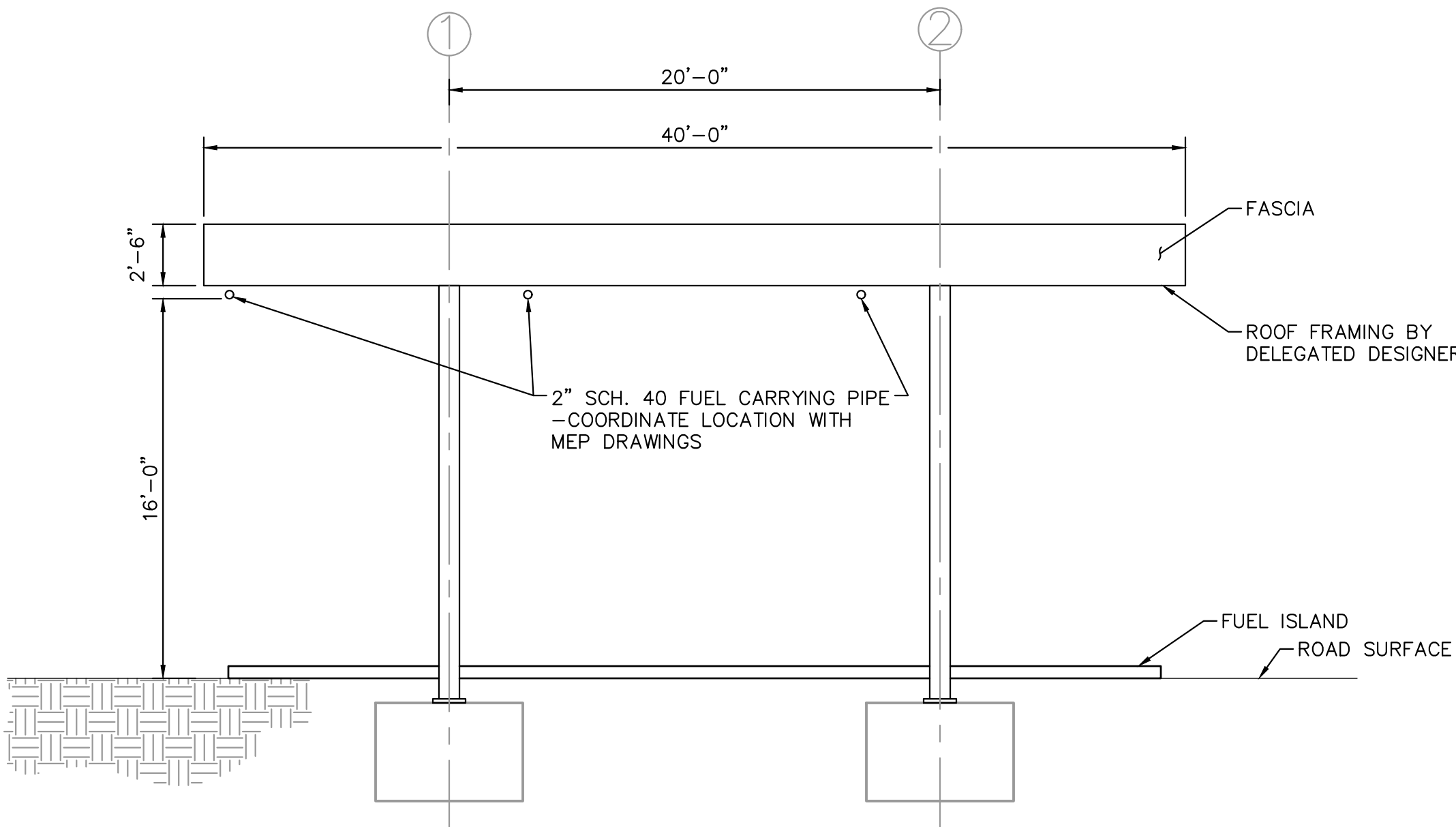
1. CONTRACTOR TO USE NEW IMAGE CANOPY OR OWNER APPROVED EQUAL FOR FUEL ISLAND DELEGATED DESIGN.
2. CONTRACTOR TO COORDINATE WITH OWNER ABOUT PREFERRED COLOR, FINISHES, SIGN TYPE, AND SIGN LOCATION PRIOR TO CANOPY DESIGN BY DELEGATED DESIGNER.
3. SEE ELECTRICAL DRAWINGS FOR CANOPY INTEGRATED LED LIGHTING REQUIREMENTS.



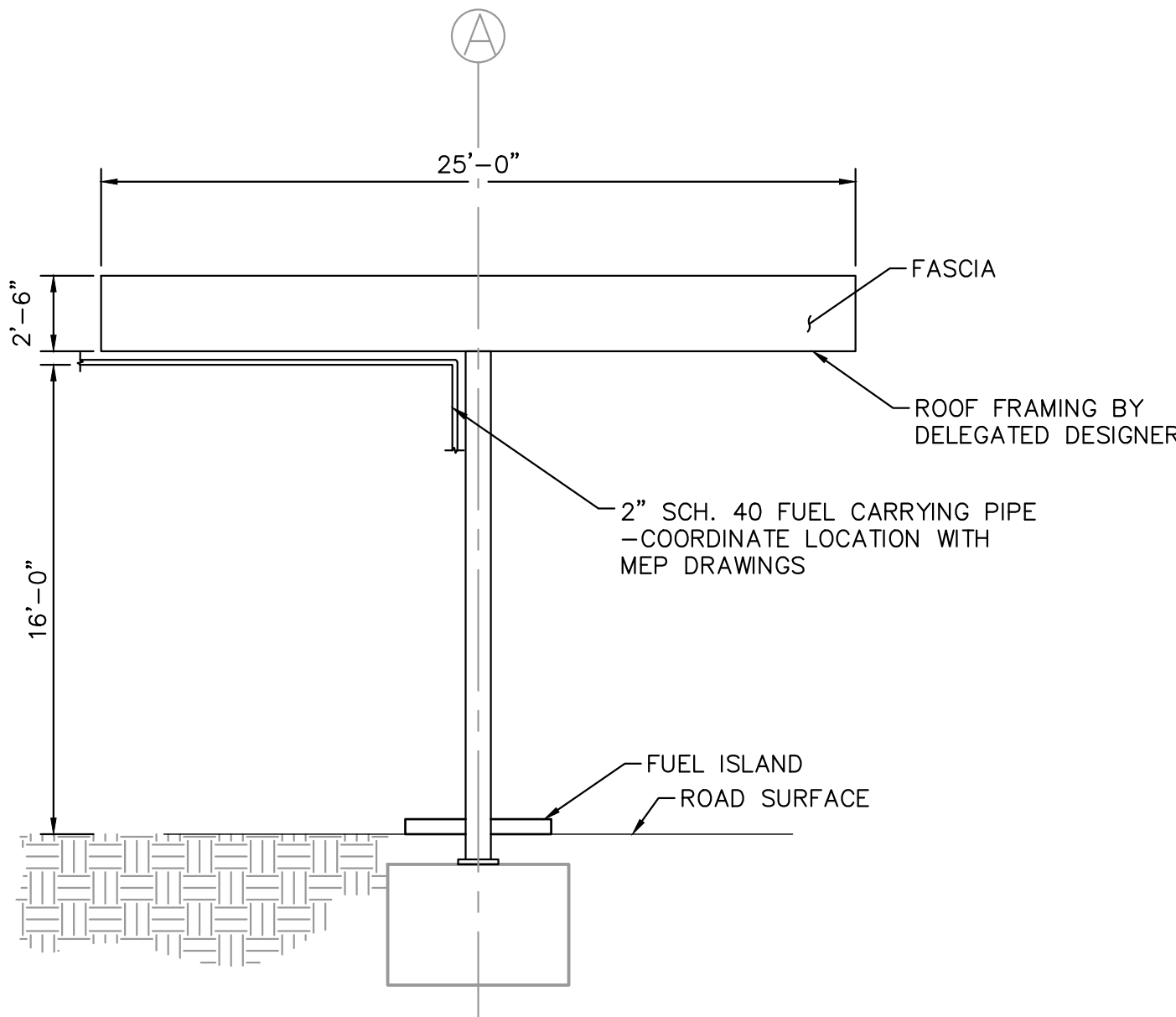
1 CANOPY FOUNDATION PLAN
S-200 SCALE: N.T.S.

FUEL CARRYING PIPE NOTES:

1. FUEL CARRYING PIPE TO BE CONNECTED TO CANOPY FRAMING USING STAINLESS STEEL CLEVIS HANGER OR APPROVED EQUAL HANGER TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. UNSUPPORTED LENGTH OF PIPE TO BE NOT MORE THAN 12 FEET.
3. DELEGATED DESIGNER TO DESIGN ROOF FRAMING FOR PIPE LOADS SPECIFIED IN SECTION 7 OF THE STRUCTURAL GENERAL NOTES.
4. PROVIDE MINIMUM 3/8"Ø THREADED & BOLTED ROD TO CONNECT HANGER TO THE STRUCTURAL ROOF FRAME.



2 WEST ELEVATION
S-200 SCALE: N.T.S.



3 SOUTH ELEVATION
S-200 SCALE: N.T.S.

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ENGINEER
PE NO. DATE

REVISIONS

DOCUMENT HISTORY
NO. DATE DESCRIPTION

TRANSPORTATION/MAINTENANCE DELTONA
REPLACE FUEL ISLAND AND TANKS
VCS Project NO. 2648210
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ARCHITECT OF RECORD
SHEILA PREBLE, P.E.

DESIGNED BY
JMG

DRAWN BY
ECA

ISSUE DATE
03/23/2026

AE PROJECT NUMBER
145642003

SHEET TITLE

CANOPY DETAILS

DRAWING NO.

S200



- | | |
|-----------|---|
| 7
S201 | TYPICAL SLAB CONTROL JOINT DETAIL
N.T.S. |
|-----------|---|



S201

20,000 GALLON DIESEL STORAGE TANK AND
SLAB UNDER THE BASE BID IS EXISTING TO
REMAIN. AS AN ADD ALTERNATE, THE TANK
WILL BE REPLACED IN KIND ALONG WITH
STRUCTURAL SLAB. REPLACEMENT TO
OCCUR AFTER NEW UNLEADED AND DIESEL
TANKS ARE OPERATIONAL. REFER TO FUEL
OIL DESIGN FOR MORE INFORMATION

SHEET PILES OR EQUIVALENT-
SOIL STABILIZATION METHOD
BY CONTRACTOR

NOTES:

1. CONTRACTOR TO STABILIZE SOIL ADJACENT TO BELOW-GRADE FUEL OIL TANKS WHEN EXCAVATING AND REMOVING TANKS TO PREVENT DAMAGE TO ADJACENT STRUCTURES INCLUDING EXISTING TO REMAIN ABOVE-GRADE FUEL OIL TANKS, SUPPORT FOUNDATIONS, UTILITIES, SOILS, AND PAVEMENTS.
2. SHEET PILES AND PLACEMENT SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO COORDINATE TYPE AND LOCATION OF SOIL STABILIZATION METHOD.
3. 20,000 GALLON DIESEL STORAGE TANK IS BEING REPLACED AS AN ADD ALTERNATE.

3 SOIL STABILIZATION PLAN
S202 N.T.S.

BELOW-GRADE FUEL OIL
TANKS TO BE REMOVED AFTER
NEW FUEL ISLAND & FUEL
SYSTEMS INSTALLED AND
COMPLETELY OPERATIONAL
- SEE MEP DRAWINGS

The plan view shows a rectangular concrete pad with overall dimensions of 35'-6" by 14'-6". The width is divided into three equal vertical sections, each measuring 11'-6". The height is divided into two equal horizontal sections, each measuring 14'-6".

- Top Section:** Contains a "20K GALLON FUEL TANK CONCRETE PAD" labeled S201. It has a width of 6" and a length of 6". An arrow points from the top edge to the text "SEE CIVIL DRAWINGS FOR PAD LOCATION AND ORIENTATION".
- Middle Section:** A large central area with a width of 11'-6".
- Bottom Section:** Labeled "PROVIDED GRADE BEAM CENTERED UNDER FUEL TANK SADDLE".
- Annotations:**
 - "THICKENED EDGE" points to the left edge of the pad.
 - A circular marker labeled "2 S202" is located on the left side.
 - Section lines are indicated by dashed lines and labels "C" at various points.

1
S202

20K GALLON FUEL TANK CONCRETE PAD PLAN VIEW
N.T.S.

3/4" CHAMFER ON ALL EXPOSED EDGES

2" CLR.

#6 BARS @ 12" O.C. EACH WAY

APPLY SIKACEM-100 CLEAR GUARD

CONCRETE SLAB-ON-GRADE TO BE CONSTRUCTED FOR 400KW GENERATOR AND 20,000 GALLON FUEL TANK IF REQUIRED

SLAB-ON-GRADE

COORDINATE WITH CIVIL DRAWINGS

6"

6"

6"

3" CLR.

3"

GRADE BEAM BEYOND

20K GALLON FUEL TANK CONCRETE PAD CROSS SECTION

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ARCHENGR OF RECORD
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SHEET TITLE

FUEL TANK SLAB DETAILS

2 OF 2

DRAWING NO.

S202