

General Notes

1. Petroleum Contractor shall furnish all items with the exception of the items "Furnished by Wawa".

2. Contractor shall complete and furnish all documentation as required by the Wawa representative at the time of the punch list inspection.

3. Operation is to be 24 hours, 7 days a week, attended in accordance with NFPA 30A, Chapter 4 & Chapter 5.

4. Interior E-stops at cashier positions are detailed on Building Electrical plans, in addition to exterior E-stops shown on these plans.

5. Wawa to provide the required labels & warnings detailed in NFPA 309-5.2 & 9-5.5.

6. Contractor must use only manufacturer approved tools for installation of all piping & dispenser pumps. No use of box saws, hand saws, Sawzall, utility knives, etc. will be allowed.

7. The Petroleum Contractor will furnish and install seal off fittings for the conduit at the canopy columns for connection by the General Contractor. The Petroleum Contractor will spray plug all seal off fittings as required in the electrical room, at the dispensers, and canopy columns.

8. Petroleum Contractor will receive all Wawa supplied equipment & will be responsible for any damage not identified to Wawa upon delivery. Petroleum Contractor to notify Wawa Project Manager within 72 hours of receiving equipment.

9. The Petroleum Contractor will be contracted to complete all tank installation, petroleum underground piping, backfill, stone subbase, line grading & all electrical conduit rough in associated with the pump and tank within time period determined by the Wawa Project Manager. Concrete pour (for the tank area, pump islands, and canopy area), dispenser installation & wiring will be scheduled during project with Wawa Project Manager.

10. The General Contractor will layout tank pad, canopy pad & footer locations, excavate, form & pour footings for steel canopy, install canopy drain laterals from canopy columns to storm sewer laterals, install hose bibs at canopy area.

11. All manhole openings on the tank slab shall be installed with a 2" x 18" run crown of concrete to prevent water intrusion into the manhole.

12. All curbing surrounding tank slab shall be poured monolithic in conjunction with tank slab.

Installation: All work to be coordinated with Wawa Project Manager, General Contractor & Sub-contractors (including coordination of electrical conduit runs to the canopy & tank pads with the General Contractor).

All installation activities to be performed in strict accordance with PEI Recommended Practices for Installation of Underground Liquid Storage Systems, PEI/RF100-05, PEI Recommended Practices for Installations & Testing of Vapor Systems, PEI-RP300-04.

Contractor is responsible for all local permits. Contact Wawa representative to verify that all required permits have been obtained. Contractor portions of regulations for state agencies shall be completed & given to Wawa's representative upon completion.

Excavation: All excavation to be sized to provide minimum bedding clearance & depth of burials as shown. (54" minimum from finish grade to top of tank)

Contractor to adhere to all OSHA standards for excavations. All excavations greater than 4 feet in depth are to be shored in accordance with OSHA standard (29CFR 1926.650-652). Fall Protection to be provided around tank excavation at all times in accordance w/applicable OSHA regulations.

Prior to backfill & tank installation, filter fabric shall be installed in accordance with applicable methods. Filter fabric is determined by site specific requirements & use shall be determined by Wawa Petroleum Dept.

Tanks: Tanks will be provided by Wawa & delivered to the site by the manufacturer. Contractor is responsible for scheduling delivery via Wawa's representative, unloading & inspection of tanks. Any problems encountered should immediately be disclosed to the Wawa representative & Wawa Fuel Equipment Department before activity is performed for resolution.

All tank handling & installation is to be in strict accordance with manufacturer's "Installation Manual & Operating Guidelines". All checklists including shipping documents are to be completed & provided to Wawa's representative. Wawa requires the use of a crane for all tank handling activities.

Tanks shall be installed with zero slope, dead level, with fills towards curb side or as directed by Wawa's representative.

All manway bolts to be securely fastened prior to sump installation.

All brine levels to be adjusted to 7 1/2" after tanks have been secured with hold down water.

Tanks shall be installed, backfilled to top of tank & filled with water ballast the day they are delivered. Deviation from this process must be authorized by Wawa's representative. Scheduling is imperative to meet the process.

Tanks shall be U.L. listed (UL-1316) called for on the specific drawing & shall be fiberglass reinforced plastic (FRP) double wall tanks as manufactured by the Corzan Company. Installation of tanks & piping shall be in accordance with the latest edition of the installation manual provided by the manufacturer. Prior to testing, the gasoline contractor shall verify manway bolt tightness & that all manway torque manufacturer's torque settings & that as necessary.

Backfill

Wawa recommends that all back fill is to be Pea Gravel, naturally rounded aggregate nominal 1/4" (1/8" min., 3/4" max.) in size. Pea Gravel is to be washed, free flowing, free of ice, snow and debris & conform to ASTM C-33 par. 9.1, size numbers 6 through 8 of Table 2.

When Pea Gravel is not readily available crushed stone may be used. The material is to be a mix of angular particles, sizes between 1/8" and 1/2", and no more than 5% (by weight) of the material may pass through a #8 sieve.

The Contractor will provide Wawa's representative certification from the supplier that the material conforms to ASTM C-33 & any other applicable specification.

Excavation: Excavated material is to be treated as clean back fill, removed & disposed by contractor.

Wawa's representative must be notified immediately if any contaminated materials are encountered or suspected.

In the event contaminated material is encountered, such material is to be segregated by contractor & will be transported & disposed by third party.

Contractor will provide loading & credit given to Wawa for transportation & disposal.

Excavation Dewatering: Wawa will provide soils & groundwater data for site to determine if dewatering is necessary.

Contractor shall be responsible for installation of all dewatering equipment, if necessary, & shall furnish pumps with appropriate dewatering rates for use in & around the excavation to maintain as dry an excavation as possible.

Contractor shall be responsible for any required permits to discharge water to the closest available source.

In the event that these measures are not sufficient to control the dewatering, Wawa's representative shall be notified & Wawa shall secure third party services to assist in dewatering.

Contractor is responsible for continuous monitoring of ground water until facility is open.

Testing: Final precision testing of tanks, lines will be performed for Wawa by third party. All other testing is to be performed by contractor & witnessed by Wawa's on site representative.

All testing shall be performed in accordance with manufacturer instructions.

Contractor shall perform air test on tanks at time of delivery. Use 3 - 5 psi for a minimum of 60 minutes.

Primary piping to be air tested at 80 psi for a minimum of 60 minutes while soaping joints. (Do not exceed 60psi max)

Secondary testing to be performed at no more than 5 psi for a minimum of 60 minutes.

Air testing must remain in place on all piping (primary & secondary) with appropriate gauges until dispensers are set in place. Gauge reading needs to be documented that air test is good prior to dispenser set process. Upon completion of dispenser set process, an additional air test must be performed again on all piping until product is delivered & purge process begins.

All sumps, including tank, spill bucket and dispenser to be hydrostatically tested in accordance with Federal, state & local regulations. At a minimum all sumps should be tested with water to a level 6" above highest joint or penetration for a minimum of 8 hours and verified liquid tight by the installing contractor. Initial & ending water level measurements to be observed by a Wawa representative. Failure to perform this test will result in a retest & subsequent repairs at contractor's expense.

All tests shall be recorded and given to Wawa's representative and included in the closeout documentation.

Hold Down Products: Water is to be used as hold down. Water is to be clean, free of debris & particles.

Contractor is responsible for securing and disposing of water. Tanks are to be filled to min. 90% capacity.

Water should remain in tanks until all petroleum work is completed & tank mat is installed.

Conduit Requirements: See E 1 to E 5. Verify with building/canopy drawing & architect. NOTE: Conduits to be stubbed to edge of canopy and tank pads by general contractor; Petroleum contractor is responsible for balance.

(1) 1" GRC to each canopy column for splicing (column closest to store)

(1) 1" GRC to each canopy column for splicing (column furthest from store)

(1) 1" GRC to each dispenser (Sump sensor)

(1) 1" GRC to each interstitial relief (Sump sensor)

(2) 1" GRC to each SIP tank containment unit.

(1) 1" GRC to each SIP tank containment unit. (Sump sensor/interstitial relief)

(1) 1" GRC to each multi-part containment unit. (Sump sensor)

(2) 1" GRC to vent stack for overflow alarm & pressure device power.

Anchoring

All tanks are to be anchored as shown on drawings. Deadman may be field constructed or prefab as available from tank manufacturer.

Contractor to use reinforced precast concrete deadman, length typically equal to the length of the tank, with anchor bolts to correspond with straps.

All tank straps must be provided by tank manufacturer & installed in strict accordance with manufacturer instructions & spaced as directed.

Connect anchor to straps with 3/4" forged steel turnbuckles. All exposed turnbuckles & anchor bolts must be wrapped & coated with Pliofilmastic & protected with 16 lb. anodes per tank side.

Wire rope may not be used.

Piping: Product piping is to be 2" dia. APT XP Series in ducting. All runs are to be continuous, all joints are to be made in dispenser containment units & tank sumps only. A separate ball valve is required for each piping run. Piping connections to submersible pump to be 2" galvanized or approved stainless steel flex line.

All entry bolts & fittings are to be APT product only. Risers & fitting to shear valves are to be UL listed stainless steel flexible connectors.

Testing of the secondary containment piping is required. The containment termination fitting in the sump is to be installed with the valve turned down. After testing, the valve is to be opened to allow drainage of the secondary piping to the sump monitor probe.

Tank Levelling Requirement: Installation and programming required for all compartmentalized UST sites. Wiring to be added to all sites regardless of tank style and layout. Contractor will install one (1) 3-conductor "loop" data shielded cable from ATG console communication box (RS-485) to the corresponding MAG-VC's TPI ports as shown.

Sump Penetrations: Sensors to be mounted at side of tank where product penetration into sump is made & below lowest penetration fitting within sump area. Mount sensor flush to lowest point in sump bottom. All tank sump sensors shall be discriminating for the presence of hydrocarbons.

Dispenser DATA/Fuel Loop shall be wired in a manner that will allow for dispensers to be split equally on each distribution board in the Fuel Loop D-Box.

The dispenser communication CRIND loop shall be wired in a manner that will allow for dispensers to be on one (1) distribution board in the CRIND loop D-Box.

Dispenser power wiring shall be run in separate conduit and shall be 12 AWG with home runs from the dispenser to the breaker panel or isolation relay. Two (2) Spare wires of different color than main, also, terminating in J-box & trough in electrical room.

Contractor shall install all dispensers in accordance with most current manufacturer installation practices. Strict adherence to installation guidelines should be followed at all times.

Dispenser DATA communication wiring shall be installed in separate conduit & shall be twisted pair, minimum 18 gauge, color coded for data & CRIND wiring, ISO rated 600 volts, oil & gas resistant. Wiring shall be home run from dispenser to universal distribution box (D-Box) with no splicing. (See chart below)

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Incon Tank Gauge Installation

All Automatic Tank Gauge (ATG) installation & wiring to be performed in full accordance manufacturer's installation manuals. Contractor & electrical contractor performing ATG installation must have manufacturer installation certification. All probe and sensor wiring splices shall use manufacturer supplied splice kits & contained in a Class I electrical junction box.

All probe and sensor wiring must be 18AWG min shielded "Belden" cable or equivalent.

Specific attention must be given to Manufacturer grounding requirements (#12 AWG conductor, buried ground to earth ground bus at power distribution panel).

Installation includes Overfill Alarm and acknowledgements switch on vent riser. Overfill should be wired to Relay Output 1 located the Power Supply Module.

Positive shut down of submersible controllers must be wired into the automatic tank gauge (ATG) Turbine Pump Interface (TPI) port. It is the petroleum installation contractor's responsibility to run appropriate data cabling to properly shut off all SIP's in an individual manner as controlled by the ATG. Except for the Unleaded SIP's, each SIP should have a home run wiring from the specified STP controller isolation relay box (STP-DIH) to the appropriate STP controller (MAG). Unleaded SIP's should have a home run wiring from the isolation relay box to the ATG's AC Input Module (Channel 1). Programming of the ATG will be the responsibility of the local programming/start up contractor selected to service the location. Coordination should be taken between the installation contractor and the programming / start up contractor to insure that proper wiring and programming corresponds to the requirements for positive shutdown process.

Wawa Petroleum Closeout Documentation Needed: The following items are required at the completion of all gasoline installation contractors:

1. Xerox Tank Installation Checklist & associated copy bill of loadings.

2. Product Piping Warranty Sheet - completed and signed.

3. Tank Registration Application or Permit (If applicable) Please forward to Wawa Environmental Department two (2) weeks after the installation of USTs.

4. Flammable Liquid Permit (If applicable) If PA, must have signature of final inspection.

5. Tank and Line Test Results (if Crampco)

6. EVO Warranty Registration Form (Provided by Start-up contractor)

7. Gilbarco Commissioning Checklist (Provided by Start-up contractor)

8. Pictures of the entire installation process (tanks, piping and completed fuel court)

9. As-built drawings for underground tanks, piping, conduits, and any utilities.

10. Pea gravel certification of ASTM C-33 from store supplier.

Two (2) of each of these items need to be delivered by the petroleum contractor at the time of the gasoline punch list walk. Failure to provide the proper documentation will delay and/or forfeit final payment.

Equipment Start-Up/Purging & Calibration: Contractor shall notify Wawa representative 72 hours prior to equipment startup. Dispenser, tank monitor & submersible pump commissioning to be performed by service vendor as selected by Wawa. Permanent electrical service to store must be installed prior to equipment startup. EVO to be operational upon gas entering the tanks.

Upon completion of equipment commissioning by service vendor, Contractor shall purge all dispensing equipment, in accordance with manufacturer's standard practices. Wawa requires a minimum of 150 gallons be purged from each meter after it is removed from product lines.

Purging of air from the product lines shall be accomplished using the product piping shear valve. Product shall be purged until no air is observed; a minimum of 50 gallons per shear valve. Initial purging of air shall NOT be done using the nozzle. Severe damage may occur to dispensing equipment. If damage occurs, Contractor is responsible for all repairs. Refer to manufacturer's instructions for proper purging procedures. Failure to purge from the shear valve will result in forfeiture of final payment.

Petroleum Contractor shall return to the site to purge & calibrate pumps, & shall return to the site for start up by a third party, as scheduled by the Wawa Project Manager.

Petroleum Contractor to be onsite during all third party testing activities.

The brine level in the tanks shall be verified & adjusted to 6" at greater than one tank capacity prior to store opening.

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Wawa Supplied Material

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like UNDERGROUND STORAGE TANKS, DISPENSER TRIM, TANK TRIM, GRADE LEVEL TRIM, TANK AND LINE MONITORING, SUBMERSIBLE PUMP TRIM, HANGING HARDWARE, DISPENSER PACKAGE.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like APT entry boot (Product), APT entry boot (Blank), TANK TRIM, OPW shut off hose, Fibrelite multiport sump, Fibrelite turbine anemometer, Fibrelite multiport canopy, Fibrelite swivel fill cap, OPW low profile fill, OPW 4" NPT x 3" fill adapter, OPW Diesel fill cap, OPW 2" x 12" x 12" fitting, OPW 2" x 12" x 12" fitting, OPW swivel fill cap - Gas Only, OPW low profile fill cap - Gas Only, Risk pool bucket, APT 4" vapor, APT 4" vapor, APT entry boot, Zinc bag anode, Turnbuckle, EBW site well kit.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like PRODUCT PIPING TRIM, APT 4" piping, APT 4" conduit, APT diamhelit coupling, APT by-pass tube, APT secondary test boat, APT test kit.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like GRADE LEVEL TRIM, APT 4" entry for risers & DWs, Fibrelite monitoring sump, 3" x 5" x 13" 2/3 Island, OPW pressure vacuum vent, OPW rain cap - Diesel, Excel Air Machine.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like TANK AND LINE MONITORING, TS-550 EVO with DISPLAY, PRINTER, TRAC SW, 8 output relay module, 12 input AC input module, 12 input probe module, 8 input 3-wire sensor module, Discriminating Dispenser Sump Sensor 12", Discriminating Tank Sump Sensor 24", Sensor Mounting Kit, Mag Probe 131" (0.1 gph), Hydrostatic Interstitial Sensor, Tank Probe Diesel Float Kit, Tank Probe Gasoline Phase Separation Float Kit, Probe Installation Kit, High Intensity Remote Overfill Alarm, Remote Acknowledge Switch.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like FIBRELITE MANWAY, Fibrelite manway, Fibrelite liftstair, Fibrelite ID plates.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like SUBMERSIBLE PUMP TRIM, FE Petro isolation box, FE Petro 2HP sub pump, FE Petro controller, FE Petro tank detector, Diesel leak detector.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like HANGING HARDWARE, IRPCO 10" x 3/4" MSMS curb hose, IRPCO 8" x 3/4" M X MS whip hose, Husky 14XS pressure activated auto nozzle, Husky 3/4" safe-T-break, Husky nozzle Diesel.

Table with columns: DESCRIPTION, PART NUMBER, QUANTITY. Includes items like DISPENSER PACKAGE, Encore 500S 3+0 blender dispenser, Gasoline 3 grade, 2 hose outlets, 2 sides w/ site specific options, Encore 500S 3+1 blender dispenser, Diesel 4 grade, 4 hose outlets, 2 sides w/ site specific options, Encore 500S Diesel Only 1 grade, 1 hose outlet, 2 sides w/ site specific options, Distribution box (2 board).

BOHLER ENGINEERING logo and contact information for various regional offices including Tampa, Orlando, Jacksonville, etc.

REVISIONS table with columns: REV, DATE, COMMENT, BY.

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG. Website: www.calsunshine.com

PERMIT SET. PROJECT No.: FL1906978. DRAWN BY: SKK. CHECKED BY: JKL. DATE: 10/01/2018. SCALE: 1/8"=1'-0".

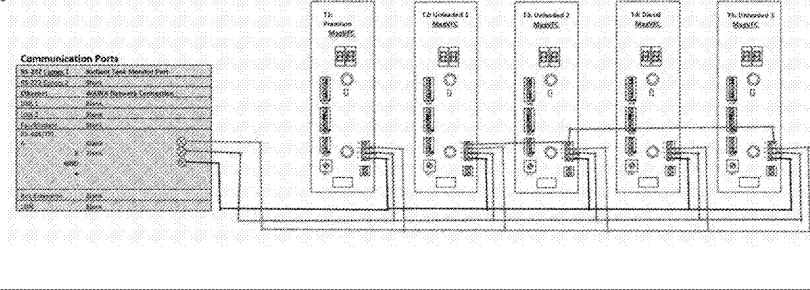
WAWA U.S.T. DRAWINGS FOR Wawa. LOCATION OF SITE: 9021 STATE ROAD 52 HUDSON, FL 34669 PASCO COUNTY.

BOHLER ENGINEERING logo and address: 3820 NORTHALE BLVD., SUITE 3008 TAMPA, FLORIDA 33624. Phone: (813) 812-4100. Fax: (813) 812-4101.

Professional Engineer Seal for John B. Lapointe, No. 64211, State of Florida, License No. 101/2018.

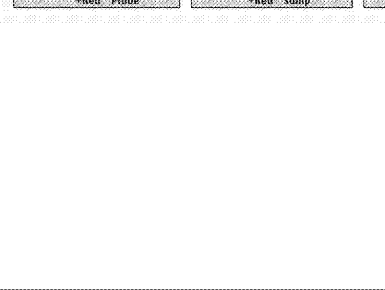
FLORIDA GENERAL NOTES & LEGEND. SHEET NUMBER: 5.

Order Plans



NON-I.S. MODULES table with columns: AC Input Module, Alarm Module. Lists channels 1-12 and their corresponding components.

I.S. MODULES table with columns: Probe Module, 3-Wire Sensor Module. Lists channels 1-12 and their corresponding sensor types.



Communication Ports diagram showing connections for 15, 12, 13, 14, and 15 Dispenser Modules.