

A. GENERAL

- 1.0 Reference to General Contractor and/or Subcontractor is denoted by Contractor.
2.0 Contractor shall be responsible to completely familiarize itself with existing site conditions and all applicable federal, state and local laws, codes and regulations.
3.0 Contractor shall handle and install all items per manufacturers instructions, these drawings, and all laws, codes and regulations.
4.0 Contractor shall not deviate from materials or products specified unless through mutual agreement with Circle K Construction Manager.
5.0 Contractor shall secure all required permits prior to commencing work.
6.0 All existing items, except those that are to be removed and junked, shall be protected by the Contractor.
7.0 Contractor is responsible for blue staking the excavation areas and locating all underground utilities.
8.0 These plans are schematic only. General scope is defined, however Circle K reserves the right to alter or expand the scope of work.
9.0 Contractor to warranty all workmanship and Contractor supplied material for 1 year with the underground storage tank installation.
10.0 Contractor shall keep the site free of waste and rubbish at all times.
11.0 When an installation is made at an existing store, the Contractor is to schedule and perform his work so as not to interfere with the normal C-store operations.
12.0 Contractor to keep on site Safety Data sheets (SDS) for chemical compounds regulated through USEPA that will be used on-site or has the potential for human contact.
13.0 Contractor shall place the highest priority on safety and health during the progress of work performed at Circle K store locations.
14.0 While on site and during working hours, Contractor's personnel must wear shirts, long pants, hard hats when required, and acceptable foot wear per OSHA, regulations.
15.0 Contractor must provide adequate provisions to mitigate rain damage and delays (i.e. pumps, tarps, etc.).
16.0 Contractor is responsible for coordinating, receiving and unloading all Circle K supplied equipment delivered to Contractor's warehouse, or job site.
17.0 Contractor to provide all materials not listed on the equipment list on page 4 of these drawings, but required for a complete job.
18.0 Contractor is to schedule all subcontractors, including those contracted directly with Circle K.
19.0 A copy of the specifications and drawings, along with approved site plan, (w/as-built notations) shall be on site at all times.
20.0 Contractor is responsible for all product in tanks and in lines until location opens or reopens for gasoline business.
21.0 The Contractor shall indemnify, defend and hold harmless Circle K from any and all claims for damages, loss, or injury of any nature received from or sustained by the general contractor, subcontractor, their employees or agent resulting from the performance of his work under this contract.

B. REMOVAL & DISPOSAL OF EXISTING TANKS (when required)

- Circle K will coordinate the removal of gasoline product remaining in or to the start of this project to within 3'-7' from the bottom of each tank.
Only tank manufacturer's trained and certified personnel using equipment and procedures specified by the tank manufacturer and following all governing rules and regulations shall be permitted to enter a tank.
1.0 Disconnect all power to dispensers and tank equipment.
2.0 Evacuate product from tanks and lines:
2.1 For Submersible Turbine Pump (STP) system, drain the product lines into tank by removing STP check valve and install safety valve test parts.
2.2 For suction system, disconnect the product lines from tank or low point and drain into an approved container.
Product removed from lines becomes property of Contractor and may be used as motor fuel.

- 2.3 Contractor is responsible for the removal of the liquid residue at the tank bottoms and/or "Cleaning/Rinsing" of the tanks, where required.
2.4 Contractor is responsible for the proper transportation and disposal of all old tanks that are removed as part of this project.
3.0 When determined safe by the Circle K Construction Manager and local inspector, if present, degas tank to less than 10% of the Lower Explosion Limit (LEL) by inserting vapors by adding a minimum of 1.5 lbs of dry ice per 100 gallons of tank capacity or other approved method allowed by local code with written approval from the Circle K Construction Manager.
4.0 Excavate to tank top, remove all tank appurtenances, plug all openings, remove tanks and place in a secure location.
5.0 Remove remaining product and vent piping from site at earliest time possible, if required.
6.0 For in-ground heating and used oil tanks, follow B-2.3 through B-5.0, as applicable.
7.0 A separate contract will be executed with an environmental consultant to perform an environmental site assessment.

C. EXCAVATION

- 1.0 Contractor shall follow all OSHA specifications and regulations, all Federal, State and Local codes and regulations and the tank manufacturer's installation manual regarding excavation.
2.0 Excavation shall be sized per tank manufacturer's guidelines. Pipeline trenching shall be per pipeline manufacturer's guidelines.
3.0 Contractor shall provide and install tank excavation shoring (sheet piling) Contractor shall submit shoring design to Circle K construction manager for approval prior to shoring installation.
4.0 Minimize surface water entering excavations by constructing diversion dams around tankfield excavation and piping trenches.
5.0 A contingency plan shall be developed with Circle K Construction Manager outlining emergency procedures for obtaining the necessary equipment and/or personnel to handle unexpected water entry into the tank field excavation or piping trenches.

D. TANK INSTALLATION

- 1.0 Contractor shall coordinate delivery date of tanks with the manufacturer, Circle K Construction Manager, and the project schedule.
2.0 Tank manufacturer's installation procedure shall be followed, and the installation checklist shall be initiated/signed by Contractor and Circle K Construction Manager, as appropriate, as each step is completed.
3.0 An underground equipment installation affidavit shall be filled out by Contractor and submitted to the Circle K Construction Manager in bound project close out folder (see section K).
4.0 Lifting equipment shall be adequate to handle tank without dragging. Use all lifting lugs and guidelines when lifting tanks.
5.0 Tank shall be placed according to the tank manufacturer's installation manual and the Circle K tank drawings.
5.1 Tanks shall be continuously vented, by Contractor, at all times throughout construction.
6.0 PRE-INSTALLATION TANK TESTING

- 6.1 Circle K Construction Manager shall witness pre-installation tank testing.
6.2 Contractor shall notify Circle K Construction Manager two working days prior to testing of tank installation.
6.3 Tanks shall be set level and backfilled to top of tank the same day as testing.
6.4 Contractor shall provide tank test manifold per manufacturer's instructions and specifications.
6.5 Testing the Primary (Internal) Tank
6.6 Testing the Secondary (External) Tank

- d) Pressurize to 5 psig. Add or remove air via the supply valve as needed and allow pressure to stabilize.
e) Monitor the pressure for 1 hour, soap the entire exterior of the tank and watch for active air bubbles which indicate a leak.
f) When the test is complete, slowly release air pressure from the tank by disconnecting the supply line and opening the supply valve on the test manifold.

7.0 INSTALLATION

- 7.1 Installing contractor shall be certified by tank manufacturer on proper tank installation procedures.
7.2 Bedding and backfill material shall be well washed and free of ice and snow and meet ASTM D-448, ASTM C-33 and AASHTO M-43 for quality and soundness.

- 7.2.1 Pea gravel with particle size not less than 1/8" or more than 3/4" diameter with no more than 5% passing a No. 8 sieve.
7.2.2 Crushed stone with particle size not less than 1/8" or more than 1/2" diameter with no more than 5% passing a No. 8 sieve.

7.3 STANDARD INSTALLATION: PROCEDURE - DRY HOLE:

- 7.3.1 Place minimum 12" bedding material smooth and level over excavation floor. TANKS ARE TO BE SET LEVEL.
7.3.2 Set tanks level on bedding material. Use all lifting lugs provided and guide ropes at each tank end.
7.3.3 Place 12" backfill material evenly around tanks.
7.3.4 Repeat D-7.3.3 for next 12", probing to fill all voids at the critical 5 to 7 g.c. support areas of the tank.
7.3.5 Freely add additional bedding to tank tops.
7.3.6 Tanks must be anchored with deadman on all wet hole installations.

7.4 INSTALLATION PROCEDURE - WET HOLE

- 7.4.1 The following procedure shall apply where high water table is evident or where a future water condition is anticipated.
7.4.2 Water level should be maintained at the lowest practical level during installation.
7.4.3 Provide a minimum 12" thick pea gravel bed at bottom of hole.
7.4.4 BALLASTING:
7.4.4.1 If water is required to sink tanks in high water table condition, the manufacturer's tank installation instructions must be adhered to exactly.
7.4.4.2 Water within the tank cannot be at a higher level than the outside ground water.
7.4.4.3 Ballast tanks using potable water.
7.4.5 While leveling tanks, insure that minimum distance of 2'-0" between tanks is maintained.
7.4.6 Tanks must be anchored with deadman on all wet hole installations.

- 7.4.7 Use preformed fiberglass straps (furnished by tank fabricator) or 6" nylon hold down straps top of designated ribs.
7.5 Riser Coating and Wrapping: Prior to completion of backfill and after pressure testing tank coat all corrodeable components exposed to backfill with coal tar epoxy "Koppers" bitumastic, and wrap with 3M Tape.

- 7.6 The Contractor accepts full responsibility for proper handling and installation of the underground storage tanks and shall ensure that good workmanship practices and construction procedures are followed regardless of the inclusion or omissions of any applicable suggestions in these instructions.

- 7.7 Unknown situations or conditions not covered in these and the manufacturer's instructions are the responsibility of the Contractor.
7.8 Underground fuel tanks and piping must be installed according to these instructions, the manufacturer's instructions, N.F.P.A. 30, NEC and all state and local applicable codes.
7.9 Tank settlement, tank distortion, or movement in concrete cover slab cannot be tolerated and if specified materials are used and specified procedures are followed, no installation failure should occur.

E. PIPING

- 1.0 Pipe manufacturer's installation checklist shall be initiated and signed by Contractor and Circle K Construction Manager, as appropriate.
2.0 All material workmanship and installation practices shall be in accordance with NFPA 30 & 30A and all other applicable codes.
3.0 MATERIALS:
3.1 All vent and vapor return primary product and secondary containment lines shall be Ameron International "Ameron LGX" Double wall for product piping & single wall for vent piping.
3.2 Tank risers shall be Schedule 40 (ASTM-5-120) galvanized iron pipe (U.O.N.).
3.3 All NPT threaded connections shall be treated with "Seals Pipe" as manufactured by Permadyne.
3.4 Contractor shall demonstrate to Circle K Construction Manager that all installed materials are new and conform to above specifications.

4.0 INSTALLATIONS:

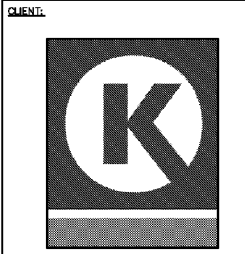
- 4.1 Installing contractor shall be certified by piping manufacturer.
4.2 Bedding and backfill material shall be same as the tankfield.
4.3 Product lines shall slope continuously upward from STP sump a minimum of 1/8" per ft.
5.0 CONNECTIONS:

- 5.1 NPT THREADED CONNECTIONS:
5.1.1 Threads shall be clean of all sand and thread cutting oil prior to joining.
5.1.2 Apply thread sealant per E-3.3.
5.1.3 Do not overtighten.
5.2 FRP BONDED CONNECTIONS:
5.2.1 Taper/scarf pipe ends per pipe manufacturer's instructions.
5.2.2 Mix and apply adhesives per manufacturer's instructions.
5.2.3 Join components per manufacturer's instructions.
5.3 FLEX LINE CONNECTIONS:
5.3.1 INSTALL FLEXIBLE LINE CONNECTORS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5.3.2 IMMEDIATELY AFTER INSTALLING FLEX LINE COUPLING, PLACE CAP OR PLUG ON COUPLINGS TO PREVENT DEBRIS FROM ENTERING LINES.

6.0 LINE TESTING (prior to backfill)

- 6.1 Circle K Construction Manager shall witness line testing.
6.2 Caution: Nitrogen from a grounded source shall be used in lieu of air for testing the piping system if a motor fuel has been used to ballast a tank.
6.3 Product lines shall be tested from STP to shear valve.
6.4 Vent/vapor system shall be tested from top of vent, through manifold, extractor base and riser, stage I adapters, caps, and containment manholes.
6.5 Slowly pressurize product lines and vent/vapor lines to 50 psi.
6.6 Immediately relieve pressure from stage II vr/vent system and remove extractor plugs.
6.7 Assemble secondary system and pressurize to 5 psi.

PIPING NOTES CONTINUED ON NEXT PAGE



CIRCLE K STORES, INC. SOUTH ATLANTIC DIVISION 215 PENDLETON ST WAYCROSS, GA 31501 PHONE: (912) 285-4011

DESIGN TEAM: MDM SERVICES, INC. engineering • environmental • construction 1855 KATHLEEN ROAD, LAKELAND, FLORIDA 33605 (813) 646-9130 EB #004657

TANK & PIPING PLANS & SPECIFICATIONS

Table with 3 columns: NO., DATE, REVISION DESCRIPTION

Richard R. Morris, P.E. GA REG. # 013994

CIRCLE K 1717 E 16th AVE. CORDELE, CRISP COUNTY GEORGIA

SCALE: MDM JOB # 20183 DATE: 9/01/2020 DESIGNED BY: DRAWN BY: FILE NAME: CHECKED BY: DRAWING TITLE:

GENERAL NOTES

SHEET NO. TA-1