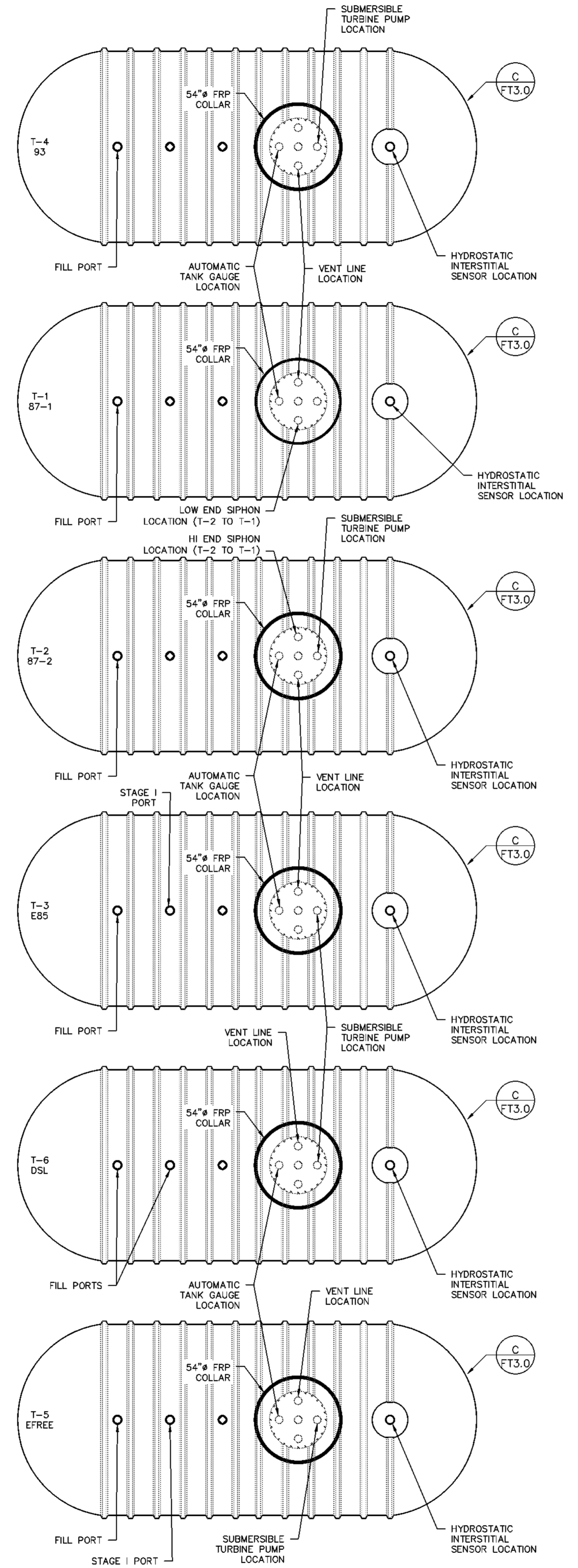


FLOW RINGS OCCUR AT ALL SPILL BUCKETS (TYP. 10 PLACES)

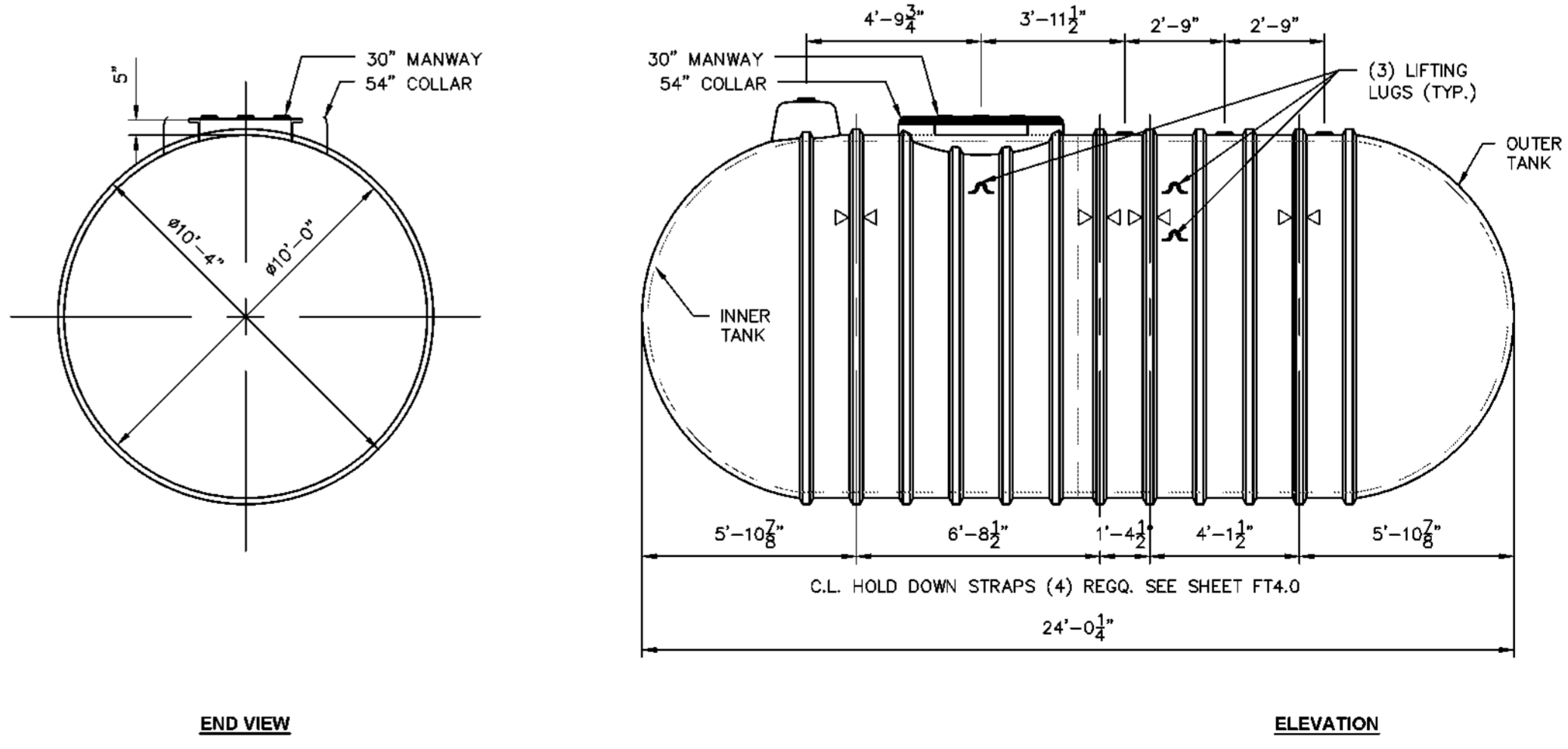
7/8" x 12" SMOOTH DOVELS AT 36" O.C. (AT ADJACENT CONCRETE ONLY)

NOTE: CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR DURING TANK PAD CONSTRUCTION

**A** TYPICAL TANK CONCRETE PAD LAYOUT PLAN  
SCALE: 3/8" = 1'-0"



**B** TANK FIELD PLAN  
SCALE: 1/2" = 1'-0"



**C** 12,000 GALLON XERXES DOUBLE-WALL BRINE FILLED TANK  
SCALE: 1/2" = 1'-0"

TANK BUOYANCY CALCULATIONS WERE COMPLETED UNDER PEIRP 100-17 MANUAL. BUOYANCY CALCULATIONS WERE COMPLETED WITH THE FOLLOWING FACTORS: EMPTY TANK, 4 FEET BURIAL DEPTH, TANK ANCHORING WITH XERXES SUPPLIED CONCRETE DEADMAN, 10" CONCRETE TANK PAD, AND A WATER TABLE AT FINISHED GRADE.  
TANK BUOYANCY CALCULATIONS WERE PROVIDED BY XERXES

| XERXES® DEADMAN BURIAL WATER AT GRADE        |                   | Sheet Number 8xx - Statesville NC          |                |
|--|-------------------|--|----------------|
|  |                   | 05/23/23                                   |                |
| <b>TANK DATA</b>                             |                   | <b>INSTALLATION</b>                        |                |
| NOM. CAP. (GAL.)                             | 12000             | TOTAL COVER INCLUDING SOIL & TOP SLAB (FT) | 4.06           |
| TYPE (SINGLEWALL=1;DW=3)                     | 3                 | TOP SLAB THICKNESS (IN)                    | 10.00          |
| DRY=1; WET=2                                 | 2                 | NOM. TANK DIA. (FT.)                       | 26.02          |
|  | 10                | TOP SLAB WIDTH (FT)                        | 12.00          |
| PROD. STORED (GAL.)                          | 0                 | DEADMAN LMG (FT)                           | 22.00          |
| SPEC. GRAV. USED                             | 1.00              | DEADMAN WID (IN)                           | 18.00          |
|  | 0                 | DEADMAN THK (IN)                           | 8.75           |
|  |                   | # OF 54" DIAMETER SUMPS                    | 1              |
| <b>SAFETY FACTOR</b>                         |                   |  |                |
| DOWN FORCE/UP FORCE =                        | <b>1.54 : 1</b>   |  |                |
| <b>TOTAL WEIGHTS</b>                         |                   |  |                |
| <b>DOWN FORCES</b>                           |                   | <b>TOTAL DOWN FORCE</b> -----              |                |
| CONCRETE WEIGHT                              | 27133.33 LBS.     | 162434.33 LBS.                             |                |
| BACKFILL WEIGHT                              | 128101.00 LBS.    |  |                |
| TANK WEIGHT                                  | 7200.00 LBS.      |  |                |
| PRODUCT WEIGHT                               | 0.00 LBS.         |  |                |
| <b>UP FORCES</b>                             |                   | <b>TOTAL UP FORCE</b> -----                |                |
| TANK DISP. FORCE                             | 105641.55 LBS.    | 105641.55 LBS.                             |                |
| <b>WORKSHEET</b>                             |                   |  |                |
| <b>TANK DATA</b>                             |                   | <b>ACTUAL CAP (GAL)</b> 11905.00           |                |
| SHELL DIAMETER-----                          | 10.00 FT. *       | TANK WT. (LBS.)                            | 7200.00        |
| SHELL LENGTH-----                            | 14.02 FT. *       | O.A.L. (FT.)                               | 24.02          |
| DOME PROJECTION-----                         | 5.00 FT. *        | NUMBER OF RIBS                             | 12.00          |
| MID POINT HEIGHT-----                        | 8.17 FT. *        | DOME A. (SQ FT)                            | 78.54          |
| COLUMN HEIGHT-----                           | 13.17 FT. *       | DOME VOL. (CU FT)                          | 523.60         |
| RIB VOLUME-----                              | 2631.00 CU. IN.   |  |                |
| <b>REINFORCED CONCRETE VOLUMES (CU. FT.)</b> |                   |  |                |
| TOP SLAB-----                                | 260.21            | DEADMEN                                    | 48.13          |
| FORCE = VOL. X 88 LBS/CF                     | 22898.33          | FORCE (LBS) = VOL. X 88 LBS/CF             | 4235.00        |
| <b>TOP SLAB &amp; DEADMEN FORCE</b>          |                   | 27133.33 LBS.                              |                |
| <b>BACKFILL VOLUMES (CU. FT.)</b>            |                   |  |                |
| OVER TANK SHELL-----                         | 544.07            | OVER DEADMEN                               | 869.00         |
| OVER TANK DOMES-----                         | 379.61            | END WEDGE                                  | 342.33         |
| TOTAL WET VOLUME                             | 2155.02           | FORCE (LBS) = VOL. X 88 LBS/CF             | 128101.00 LBS. |
| <b>BUOYANCY</b>                              |                   |  |                |
| SHELL VOLUME-----                            | 1151.56 CUBIC FT. |  |                |
| DOMES VOLUME-----                            | 523.60 CUBIC FT.  |  |                |
| RIB VOLUME-----                              | 18.27 CUBIC FT.   |  |                |
| TOTAL VOLUME                                 | 1693.43 CUBIC FT. |  |                |
| VOL X 7.48 GAL/CU.FT.                        | 12666.85 GALLONS  |  |                |
| <b>FORCE = GAL X 8.34 (LBS./GAL.)</b>        |                   | 105641.55 LBS.                             |                |

PERMIT SET R111C  
 CONCRETE CONTROL JOINT LAYOUT AND TANK LAYOUT DETAILS  
 SHEETZ INC. #8xx "BOONE (NEW MARKET)"  
 INTERSECTION OF NEW MARKERT BLVD & CHESTNUT DR  
 BOONE, NC 28607  
 WATAUGA COUNTY  
 SCALE: NOTED  
 DATE: 8/11/2023  
 DESIGNED BY: ZJD  
 DRAWN BY: ZJD  
 CHECKED BY: RWW  
 JOB NUMBER: 230710  
 FT3.0

SHEETZ INCORPORATED  
 5700 SIXTH AVENUE  
 ALTOONA,  
 PENNSYLVANIA 16602  
 (814) 946-3611

CONVENIENCE ARCHITECTURE  
 AND DESIGN P.C.  
 351 SHEETZ WAY, CLAYSBURG, PA 16825  
 (814) 238-0613

ENGINEERS - PLANNERS - SURVEYORS  
 WATAUGA COUNTY, NORTH CAROLINA  
 5198 Beach Road • Mocksville, NC 27055  
 T: 336.259.2666 • F: 336.259.0272

| ISSUED FOR | DESCRIPTION             | DATE     | BY  | ZJD | ZJD |
|------------|-------------------------|----------|-----|-----|-----|
|            | ISSUED FOR OWNER REVIEW | 08-07-23 | ZJD |     |     |
|            | ISSUED FOR PERMIT       | 08-11-23 | ZJD |     |     |