

| ITEM | QUANTITY | MATERIAL | DESCRIPTION | NORMALIZED | IMPACT TEST | PWHT |
|------|----------|------------|--|------------|-------------|------|
| 1 | 6 | SA-516 70N | CYLINDER - 7'-6" ID x 1 1/8" WALL x 10'-0" LG | YES | ND | ND |
| 2 | 2 | SA-516 70N | 2:1 HEAD - 7'-6" ID x 1.0900 MIN THICK, 2" SF | YES | ND | ND |
| 3 | 1 | SA-105 | FLANGE - 24" RFHB 300# x 18" LG WITH BLIND FLANGE/GASKET AND BOLTING | NO | ND | ND |
| 4 | 1 | SA-105 | FLANGE - 4" RFHB 300# x 12" LG | NO | ND | ND |
| 5 | 1 | SA-105 | FLANGE - 8" RFHB 300# x 12" LG | NO | ND | ND |
| 6 | 1 | SA-105 | FLANGE - 6" RFHB 300# x 12" LG | NO | ND | ND |
| 7 | 1 | SA-105 | FLANGE - 3" RFLWN 300# x 12" LG | NO | ND | ND |
| 8 | 1 | SA-105 | FLANGE - 2" RFLWN 300# x 12" LG | NO | ND | ND |
| 9 | 1 | SA-105 | FLANGE - 8" RFHB 300# x 14" LG | NO | ND | ND |
| 10 | 1 | SA-105 | FLANGE - 3" RFLWN 300# x 14" LG | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |

MAJOR COMPONENT DESIGN DATA

VESSEL DESIGNED PER THE 2007 EDITION OF THE ASME CODE SECTION VIII DIVISION 1
 CODE STAMP: REQ'D SERIAL NO: LATER NATIONAL BOARD NO: REQ'D

DESIGN PRESSURE INTERNAL: 450 PSI @ 300 DEG F
 DESIGN PRESSURE EXTERNAL: N/A

HYDRD TEST: 585 PSI @ 70 DEG F

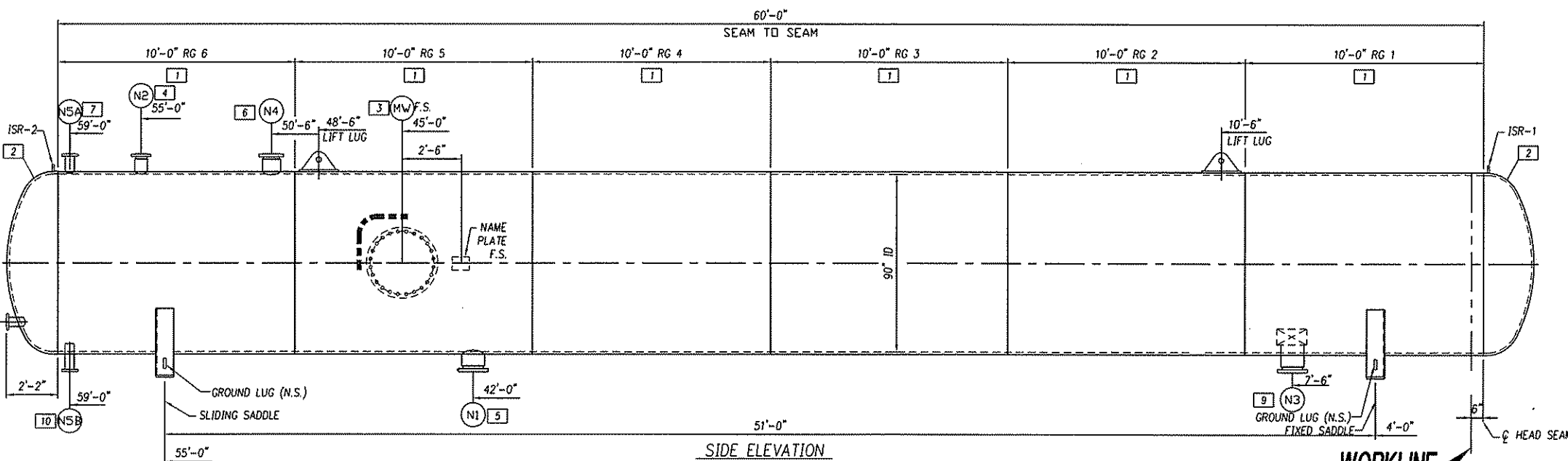
MAWP: 450 PSI
 MAP: 450 PSI
 MDMT: -20 DEG F PWHT: ND

CDRR. ALLOW: 1/16"

RADIOGRAPH: HEAD/SHELL: FULL UV-II(A) JOINT EFFICIENCY: HEAD/SHELL: 1
 SHELL CIRC: FULL UV-II(A) SHELL CIRC: 1
 SHELL LONG: FULL UV-II(A) SHELL LONG: 1

ESTIMATED WEIGHT: FABRICATION: 79236 LBS
 EMPTY: 79236 LBS
 TEST: 252529 LBS
 OPERATING: 239406 LBS

INSULATION: 2" INSPECTION BY:



NATIONAL BOARD No. LATER

CERTIFIED BY SPITZER INDUSTRIES, INC. HOUSTON, TEXAS USA

W MAX ALLOWABLE WORKING PRESSURE 450 PSI AT 300 DEG F

RT-1 MIN DESIGN METAL TEMPERATURE -20 DEG F AT 450 PSI

MAX EXTERNAL PRESSURE --- PSI AT --- DEG F

JOB No. J2999 YEAR BUILT 2008

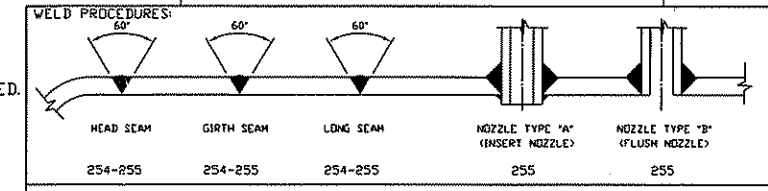
ITEM NUMBER V-225 HYDRD-TEST AT 585 PSI

CDRR ALLOW 1/16" EST EMPTY WEIGHT 79336 LBS

SERIAL NUMBER XX XX

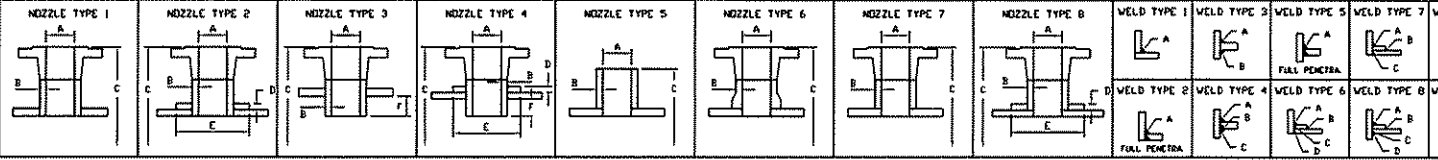
MATERIAL

| | | | |
|-----------|---|----------|------------------|
| HEADS | SA-516-70N | SHELL | SA-516-70N |
| REIN. PAD | N/A | SUPPORTS | SA-516-70 |
| FLANGES | SA-105 | CPLGS. | SA-105 |
| PIPE | SA-106-B | FITTINGS | SA-234-WPB |
| STUDS | SA-193-B7 CAD PL | NUTS | SA-194-2H CAD PL |
| GASKETS | FLEXITALIC "CG" 316SS WOUND, NON-ASB FILLED | | |



| NOZZLE TYPE | TI | CLASS | TYPE | A | B | C | D | E | F | WELD | A | B | C | D | E |
|-------------|---------------|-------|------|------|---|------|-------|--------|---|------|-------|---|------|-------|------|
| N6 | TI | 2 | LWN | 300# | 3 | 2 | .65 | ELEV. | - | - | .25 | 2 | .500 | - | - |
| NSB | LEVEL BRIDLE | 3 | LWN | 300# | 3 | 3 | .81 | 55.125 | - | - | 3.875 | 2 | .75 | - | - |
| NSA | LEVEL BRIDLE | 3 | LWN | 300# | 1 | 3 | .81 | 55.125 | - | - | - | 2 | .75 | - | - |
| N4 | MIN. FLOW | 6 | HB | 300# | 1 | 5.76 | 1.81 | 55.125 | - | - | - | 2 | .375 | - | - |
| N3 | LIQUID OUTLET | 8 | HB | 300# | 3 | 7.62 | 1.97 | 55.125 | - | - | 3.875 | 2 | .375 | - | - |
| N2 | VAPOR OUTLET | 4 | HB | 300# | 1 | 3.83 | 1.395 | 55.125 | - | - | - | 2 | .375 | - | - |
| N1 | INLET | 8 | HB | 300# | 1 | 7.62 | 1.97 | 55.125 | - | - | - | 2 | .375 | - | - |
| MW | MANWAY | 24 | HB | 300# | 3 | 24 | 2.81 | 58.125 | - | - | 2 | 4 | .625 | 1.125 | .625 |

- GENERAL NOTES:**
- FLANGE BOLT HOLES SHALL STRADDLE NORMAL VESSEL CENTERLINES UNLESS NOTED. OTHERWISE NOTED.
 - WELDS SHALL BE NEAT IN APPEARANCE, FREE OF SLAG, UNDERCUTS AND OTHER DEFECTS.
 - NOZZLE AND TAIL DIMENSION TOLERANCES SHALL BE +/- 1/8 INCH UNLESS OTHERWISE NOTED.
 - REINFORCING PADS AND PAD SECTIONS SHALL HAVE 1/4 INCH NPT WEEP HOLE LOCATED AS LOW AS POSSIBLE IN THE PAD WHEN THE VESSEL IS IN OPERATING POSITION. PLUG WEEP HOLE WITH HEAVY GREASE.
 - VESSEL SHALL BE CLEANED OF SCALE, OIL, WELD SPATTER AND ALL OTHER FOREIGN MATTER BEFORE HYDROSTATIC TESTING.
 - COAT ALL NOZZLE GASKET SURFACES WITH PROTECTIVE LUBRICANT BEFORE BLANKING FOR SHIPMENT.
 - PROTECT ALL MACHINED SURFACES AND THREADED CONNECTIONS WITH WOOD OR PLASTIC PROTECTORS BEFORE SHIPMENT.



TOLERANCES (EXCEPT AS NOTED):
 FRACTIONAL ± 1/16"
 DECIMAL ± 0.0625"
 ANGULAR SMALLER OF ± 1/2° OR 3/0°

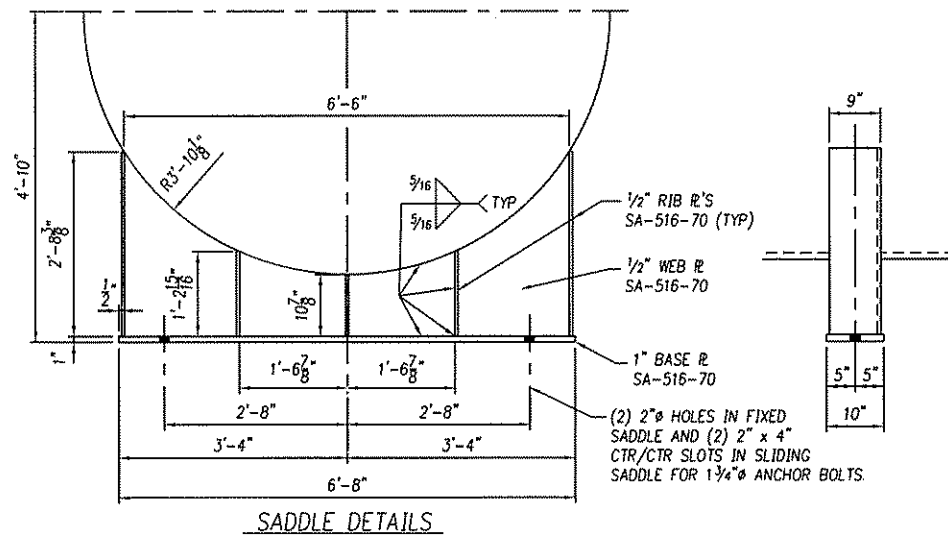
PROPRIETARY INFORMATION
 THIS DRAWING IS THE PROPERTY OF SPITZER INDUSTRIES, INC. AND SHALL NOT BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT IS SPECIFICALLY FURNISHED WITHOUT WRITTEN APPROVAL.

SPITZER INDUSTRIES, INC. HOUSTON, TEXAS USA

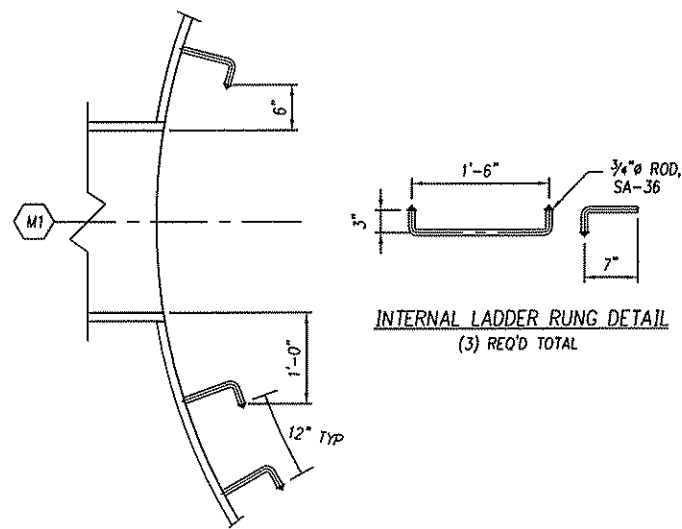
PROJECT: WILLIAMS FIELD SERVICES MARKHAM GAS PLANT EXPANSION
 P/D NUMBER: V-225
 TITLE: PRODUCT SURGE TANK 90" ID x 60'-0" S/S

| | | | |
|-------------------------|----------|----|-----|
| REVISION | DATE | BY | CHK |
| ISSUED FOR APPROVAL | 6/17/08 | HD | MMK |
| ISSUED FOR CONSTRUCTION | 8/19/08 | HD | MMK |
| REVISION AS NOTED | 10/6/08 | HD | MMK |
| REVISION AS NOTED | 11/10/08 | HD | MMK |

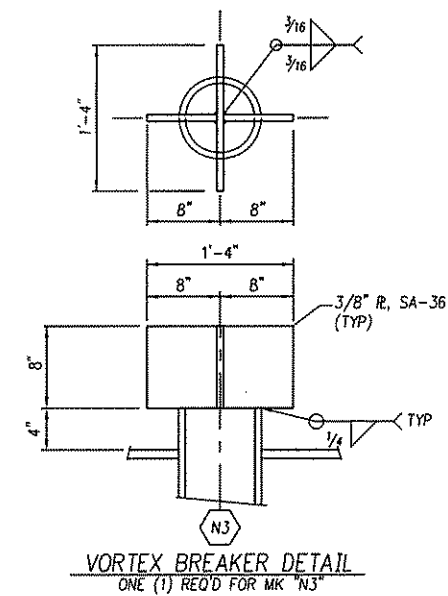
DRAWN: 6/17/08
 CHECKED: 6/17/08
 SCALE: 1 OF 4
 SHEET NO: J2999-601-1
 REV: 3



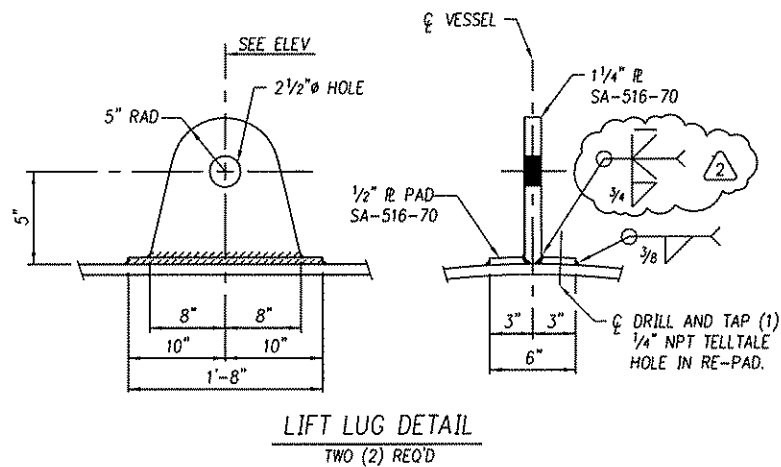
SADDLE DETAILS



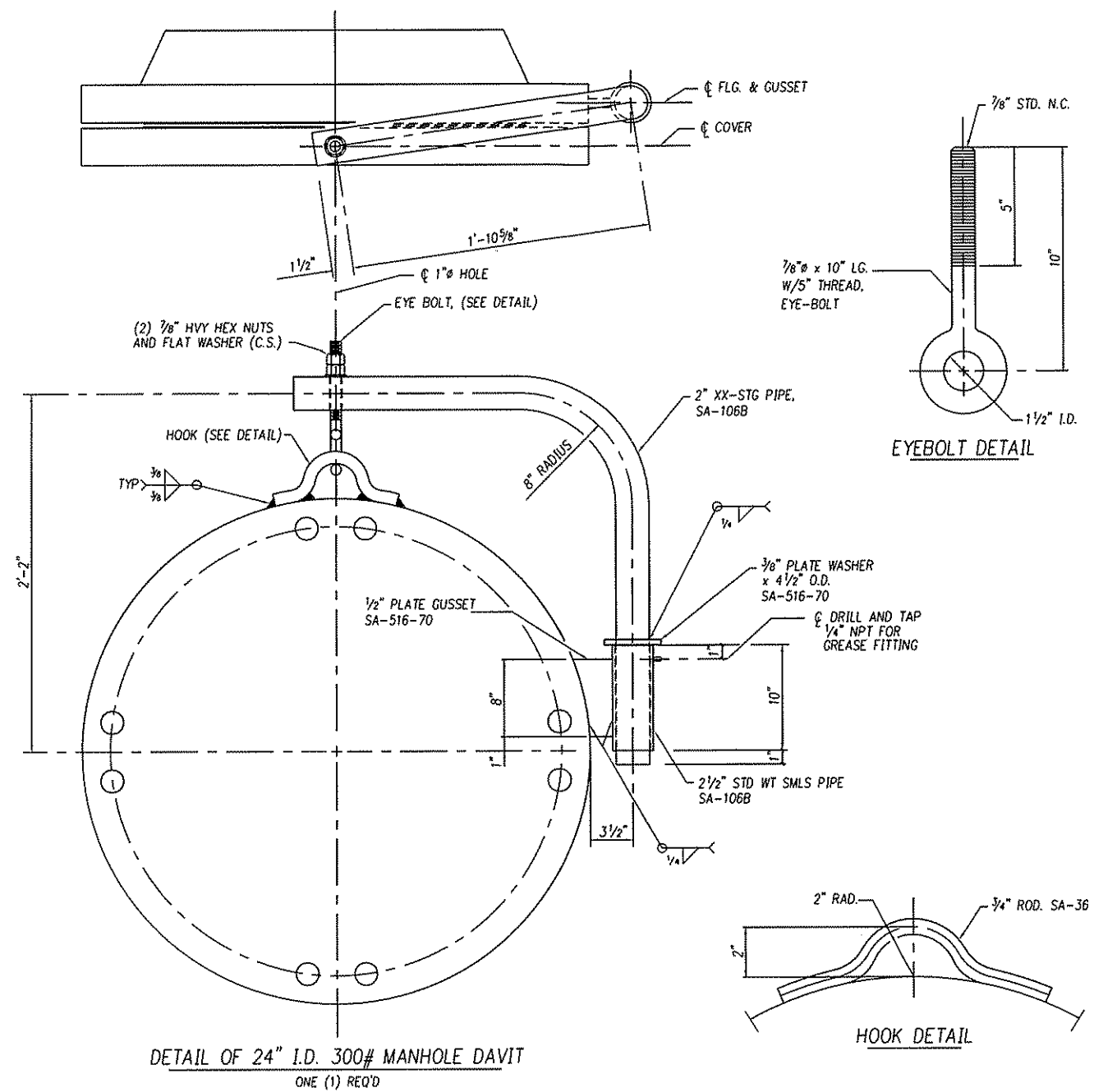
INTERNAL LADDER RUNG DETAIL
(3) REQ'D TOTAL



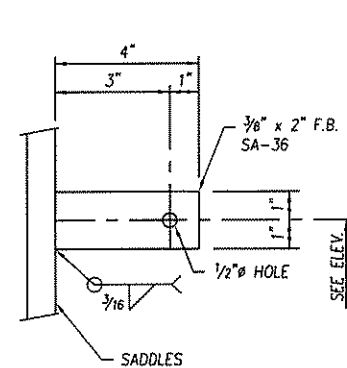
VORTEX BREAKER DETAIL
ONE (1) REQ'D FOR MK "N3"



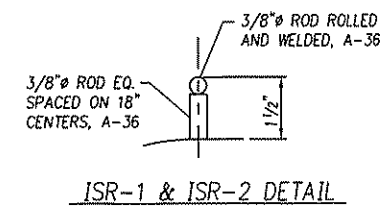
LIFT LUG DETAIL
TWO (2) REQ'D



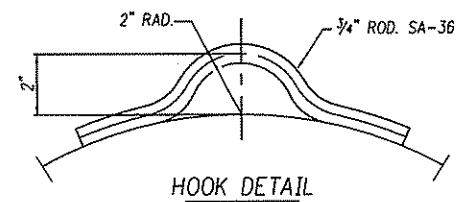
DETAIL OF 24" I.D. 300# MANHOLE DAVIT
ONE (1) REQ'D



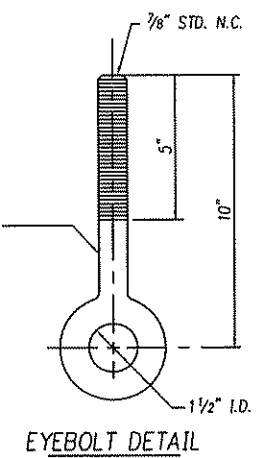
GROUNDING LUG DETAIL
TWO (2) REQ'D



ISR-1 & ISR-2 DETAIL

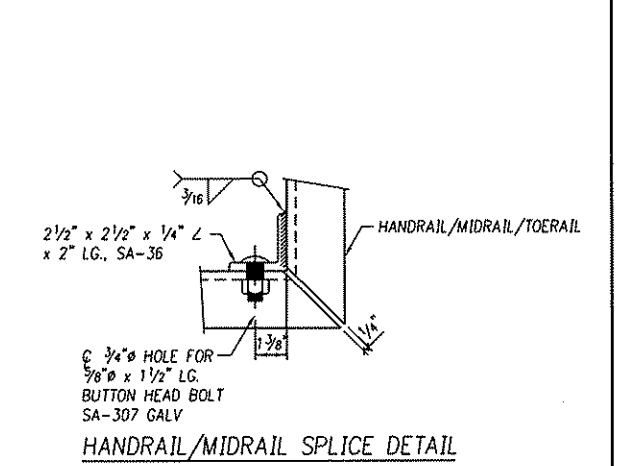
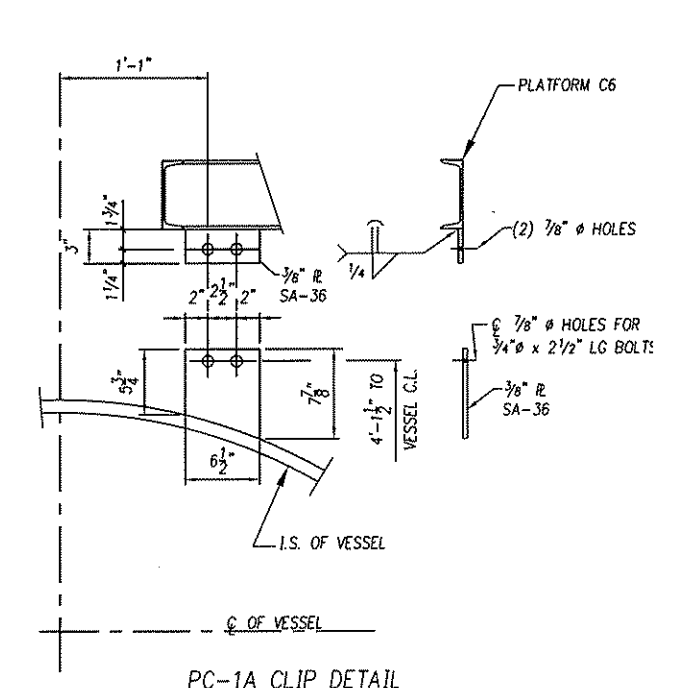
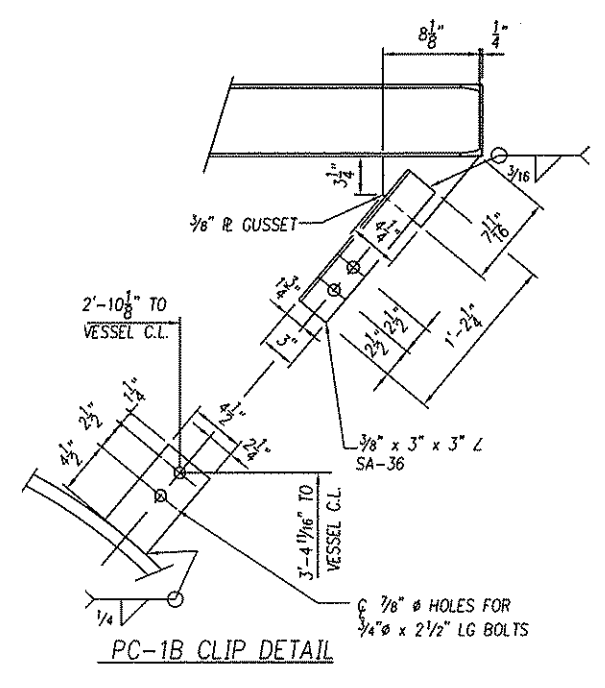
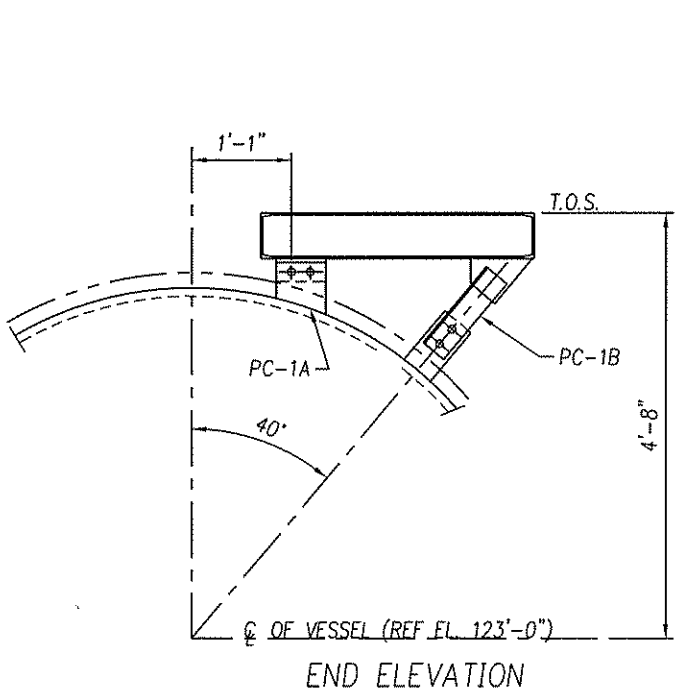
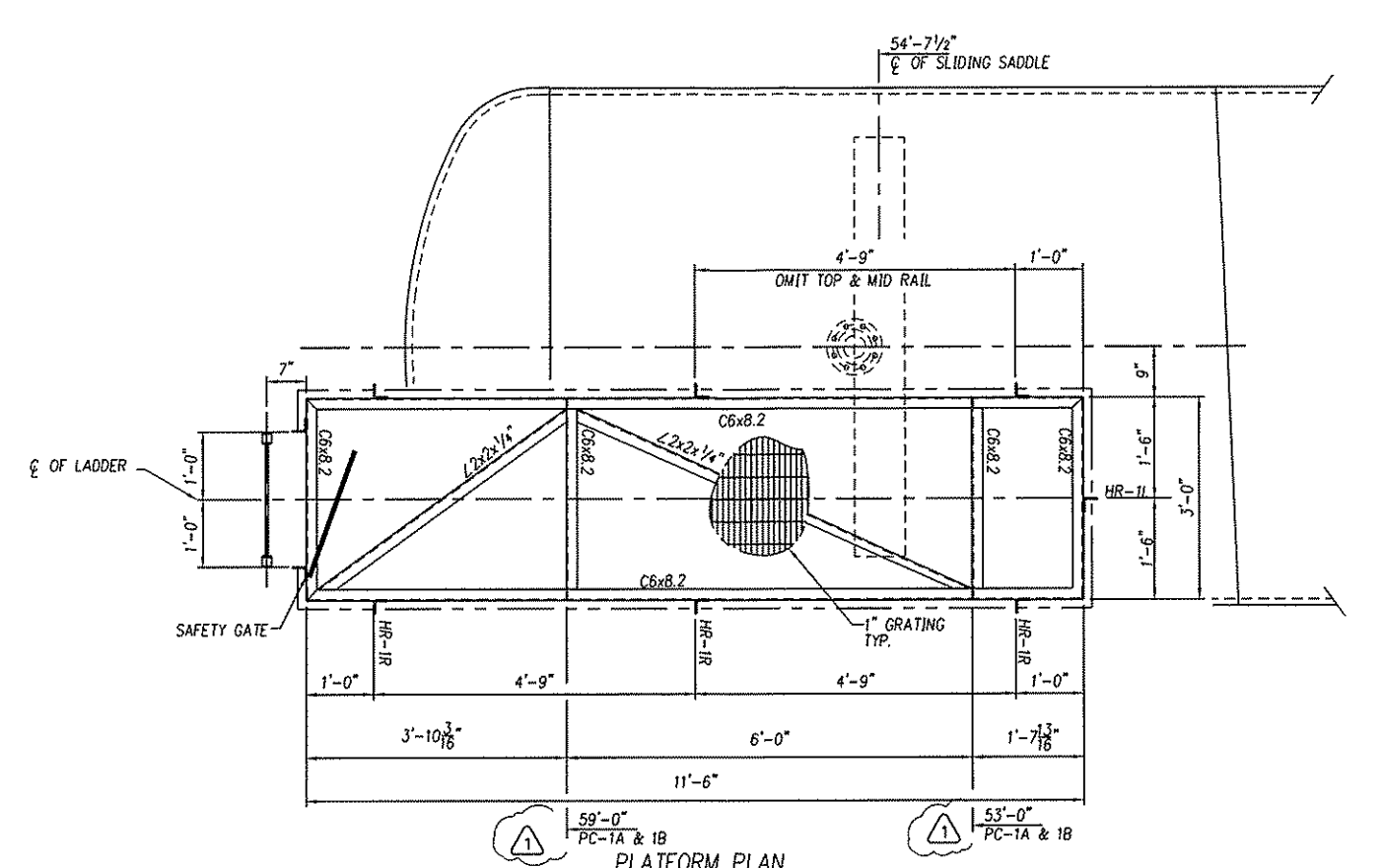
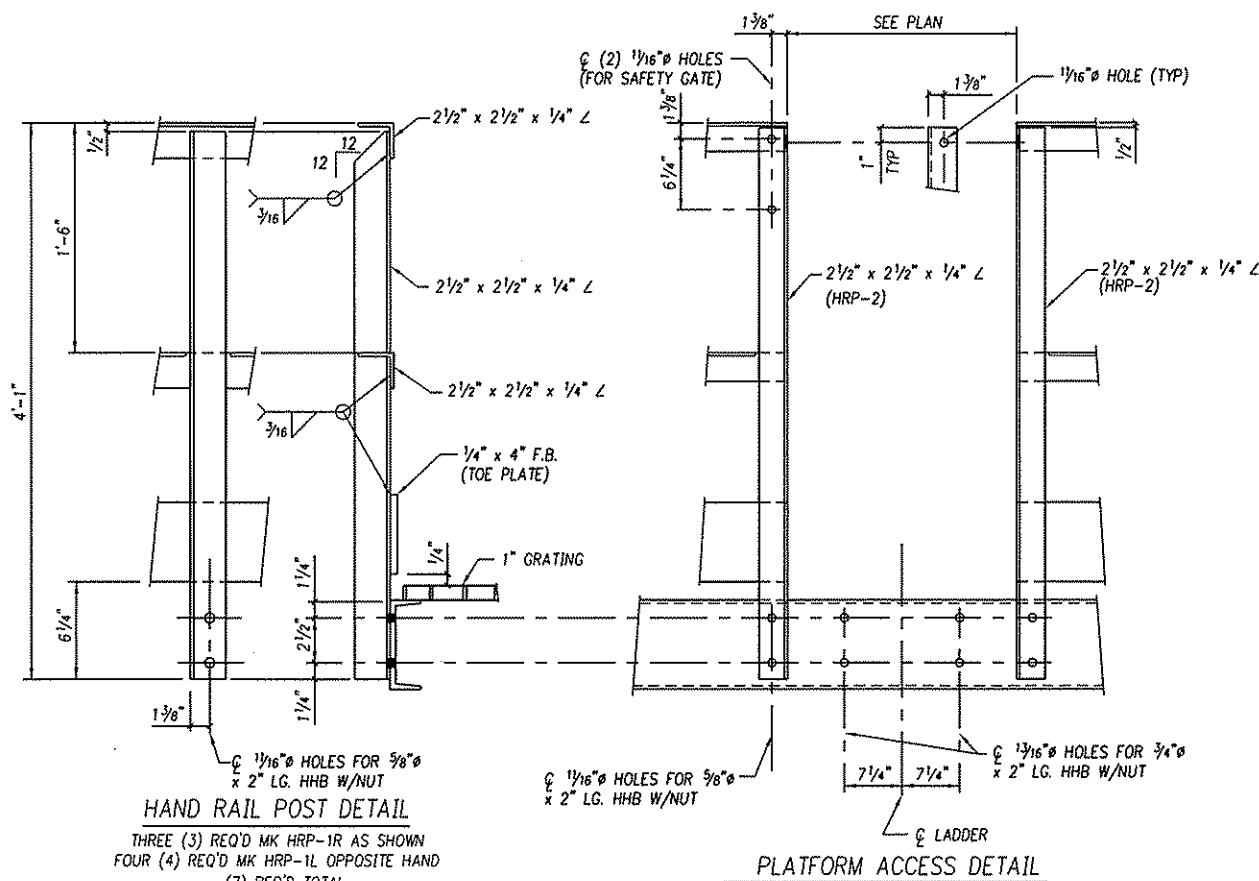



HOOK DETAIL

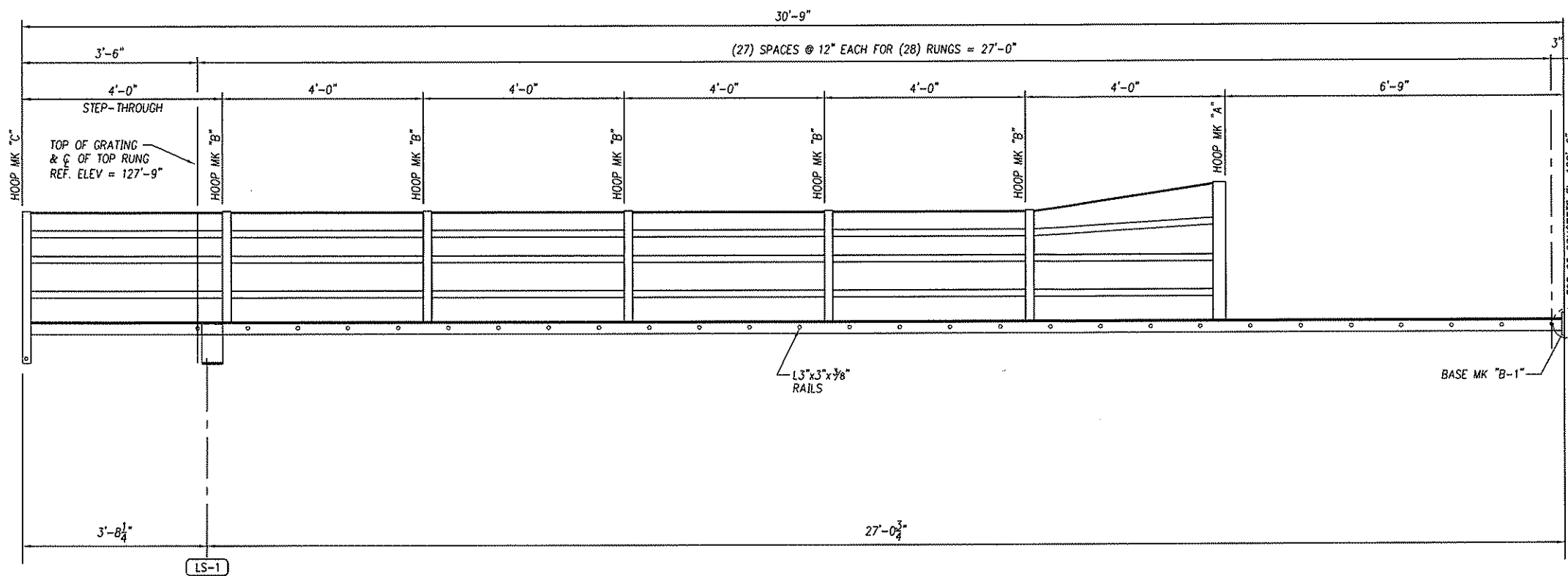


EYEBOLT DETAIL

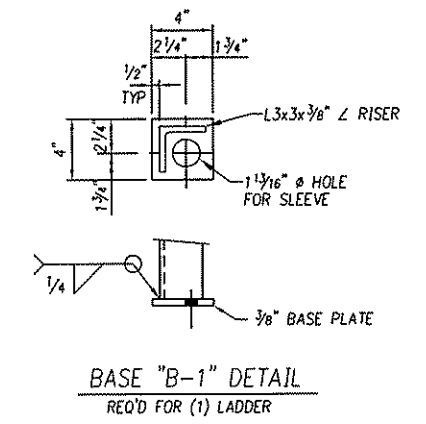
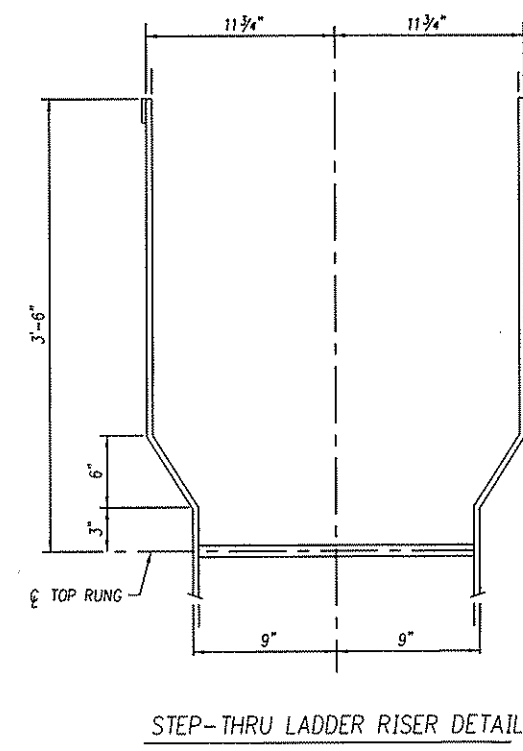
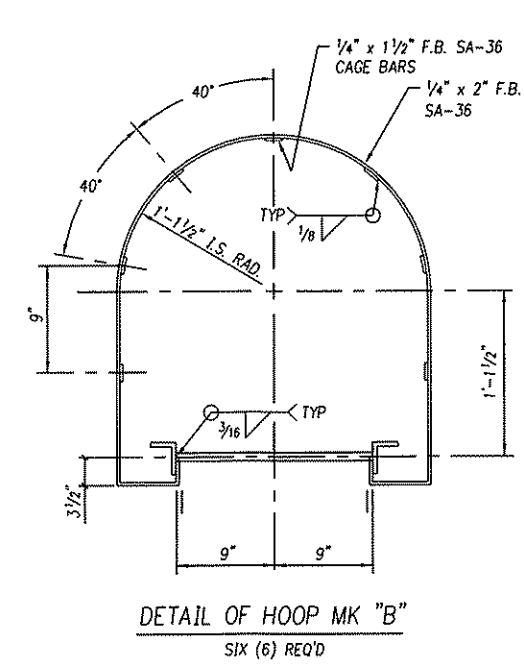
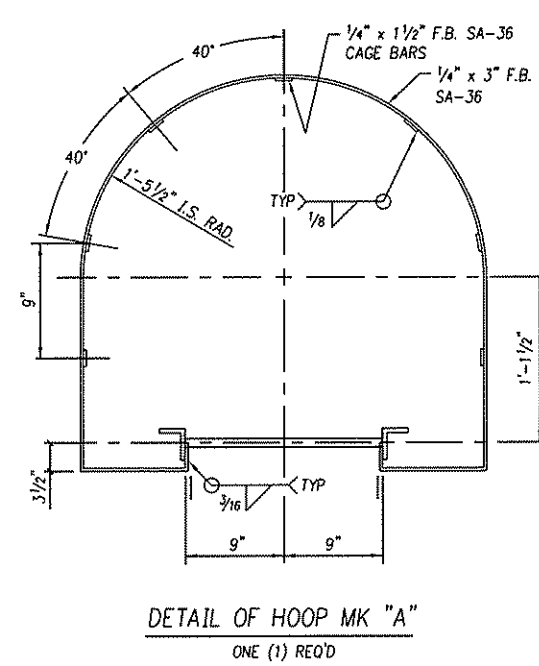
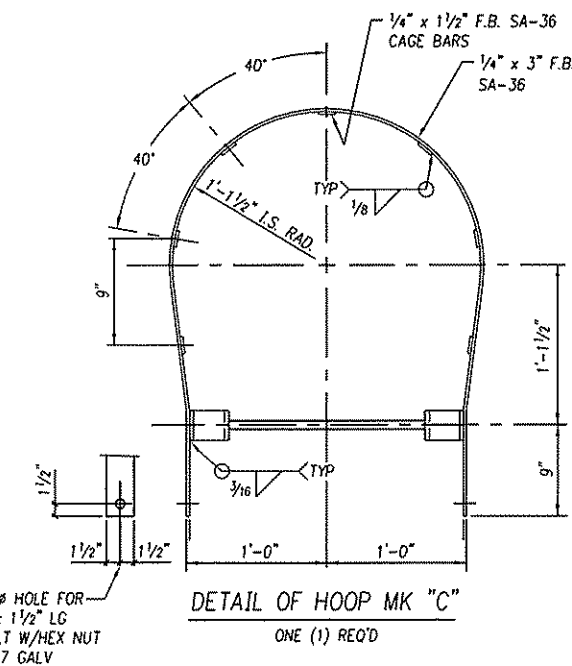
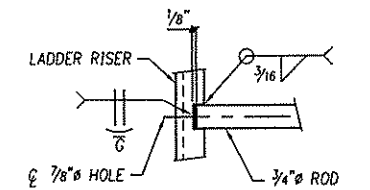
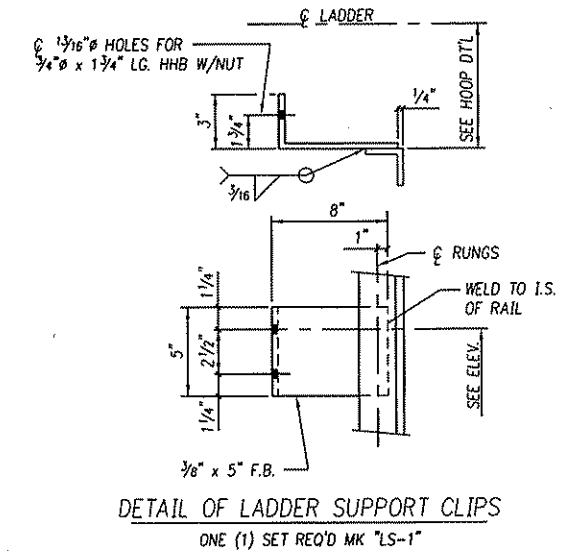
| | | | | | |
|-------------------------|--|-----------------------------|--|-------------------------|--|
| | | PROJECT | | WILLIAMS FIELD SERVICES | |
| | | MARKHAM GAS PLANT EXPANSION | | TITER NO. V-225 | |
| TITLE | | DATE | | SCALE | |
| 90" ID x 60'-0" S/S | | 6/17/08 | | 6/17/08 | |
| DRAWN | | CHECKED | | DATE | |
| HD | | MAK | | 6/17/08 | |
| ISSUED FOR CONSTRUCTION | | ISSUED FOR APPROVAL | | DATE | |
| 6/17/08 | | 6/17/08 | | DATE | |
| JOB NO. | | SHEET NO. | | DRAWING NO. | |
| J-2999 | | 2 OF 4 | | J2999-601-2 | |
| REVISION | | DATE | | BY | |
| | | | | | |



| | | | | | |
|--|---------|------------------|---------|-------------------------|-----|
|  SPITZER INDUSTRIES, INC. HOUSTON, TEXAS USA | | | | | |
| PROJECT WILLIAMS FIELD SERVICES MARKHAM GAS PLANT EXPANSION | | | | | |
| P.I.L. NUMBER: | | ITEM NO. V-225 | | | |
| TITLE PRODUCT SURGE TANK 90" ID x 60'-0" S/S | | | | | |
| DRAWN | DATE | CHECKED | DATE | SCALE | |
| HD | 6/17/08 | MAK | 6/17/08 | | |
| JOB NO. J-2999 | | SHEET NO. 3 OF 4 | | DRAWING NO. J2999-601-3 | |
| REVISION | | DATE | BY | CHK | REV |



LADDER ELEVATION



| | | | | | | |
|-------------------------|----------|--|---------|---|-------------|---|
| | | PROJECT | | WILLIAMS FIELD SERVICES MARKHAM GAS PLANT EXPANSION | | |
| | | P.O. NUMBER: | | TITER NO. V-225 | | |
| TITLE | | PRODUCT SURGE TANK 90" ID x 60'-0" S/S | | | | |
| DRAWN | DATE | CHECKED | DATE | SCALE | | |
| HD | 6/17/08 | MAK | 6/17/08 | | | |
| ISSUED FOR CONSTRUCTION | 9/9/08 | HD | JOB NO. | SHEET NO. | DRAWING NO. | |
| ND | REVISION | DATE | BY | CK | REV | |
| | | | J-2999 | 4 OF 4 | J2999-601-4 | 0 |