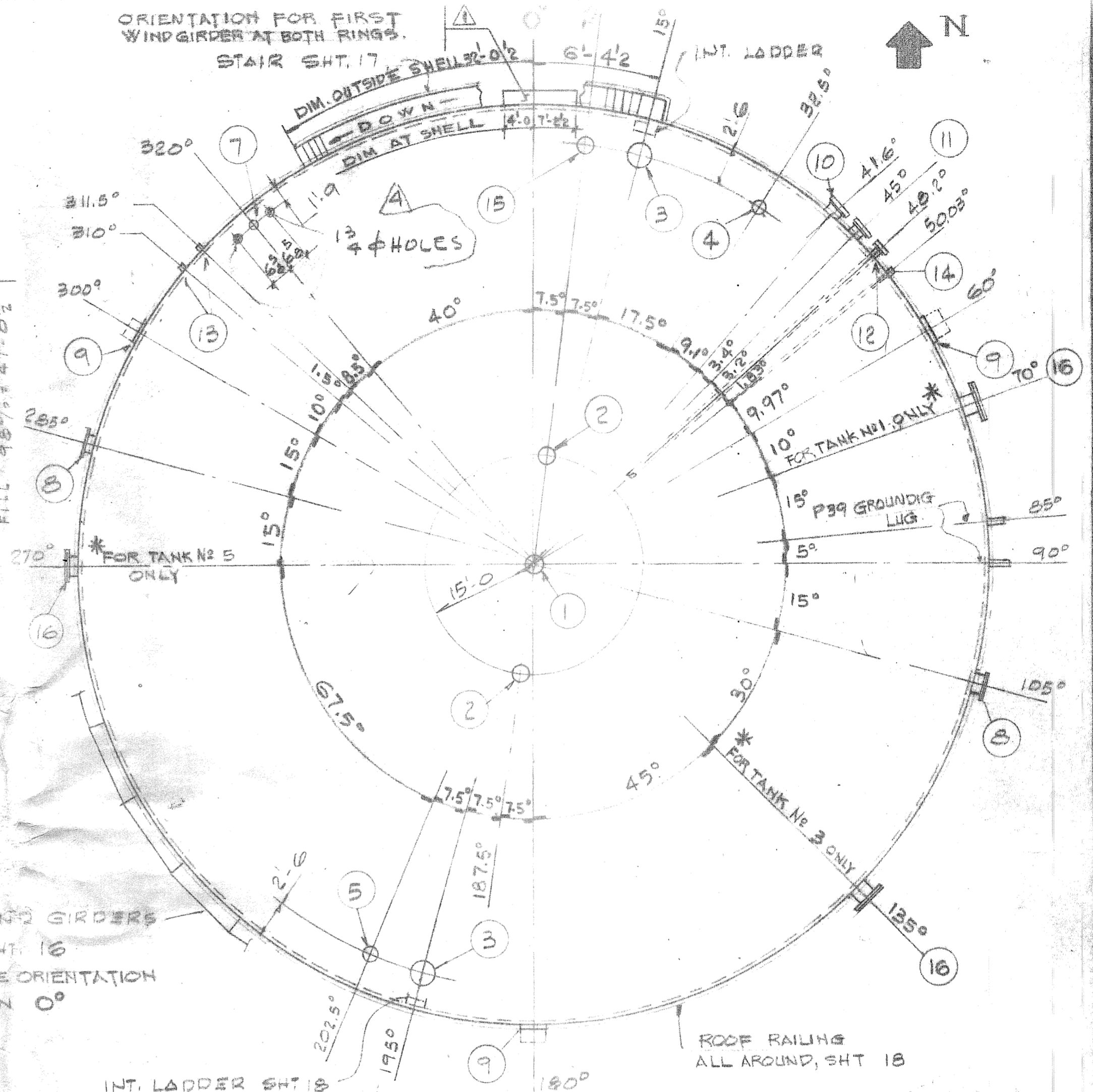


ELEVATION
SEE PLAN FOR ORIENTATION

FILL 95% = 45'-7.4"
FILL 95% = 47'-0.2"



ORIENTATION PLAN

- NOTES:**
1. SURFACES PREPARATION: GRIND OFF ROUGH SURFACES ON WELD SEAMS, SHARP EDGES, AND CORNERS TO A RADIUS OF NOT LESS THAN 1/8 INCH.
 2. INTERIOR COATING SYSTEM AS PER SECTION 09872
 3. EXTERIOR COATING SYSTEM AS PER SECTION 09873
 4. COMPLETE RADIOGRAPHIC INSPECTION OF ALL VERTICAL JOINTS ON THE TANK SHELL SHALL BE MADE. TEN PERCENT OF ALL HORIZONTAL JOINT ON THE TANK SHELL SHALL BE INSPECTED RADIOGRAPHICALLY.
 5. JOINTS IN THE TANK ROOF AND BOTTOM OF THE TANK SHALL BE TESTED BY VACUUM BY APPLYING SOAP SUDS OR LINSEED OIL AND SUBJECTING THE JOINT TO A VACUUM OF NOT LESS THAN 2 PSI OR 4.6 FEET OF WATER.
 6. THE SHELL SHALL BE TESTED BY FILLING THE TANK WITH WATER AND MAINTAINING IT FOR A PERIOD OF NOT LESS THAN 24 HOURS, AFTER WHICH THE SHELL SHALL BE INSPECTED FOR LEAKS.
 7. AUTOMATIC TANK GAGE S.J. 92020 KIT 1A
 8. GAGE HATCH S.J. 95010-03
 9. PRESS VAC VENT S.J. 94020

NOTE
* FOR "CLEANOUT" MKD 16 SEE ORIENTATION AT EACH ONE TANK

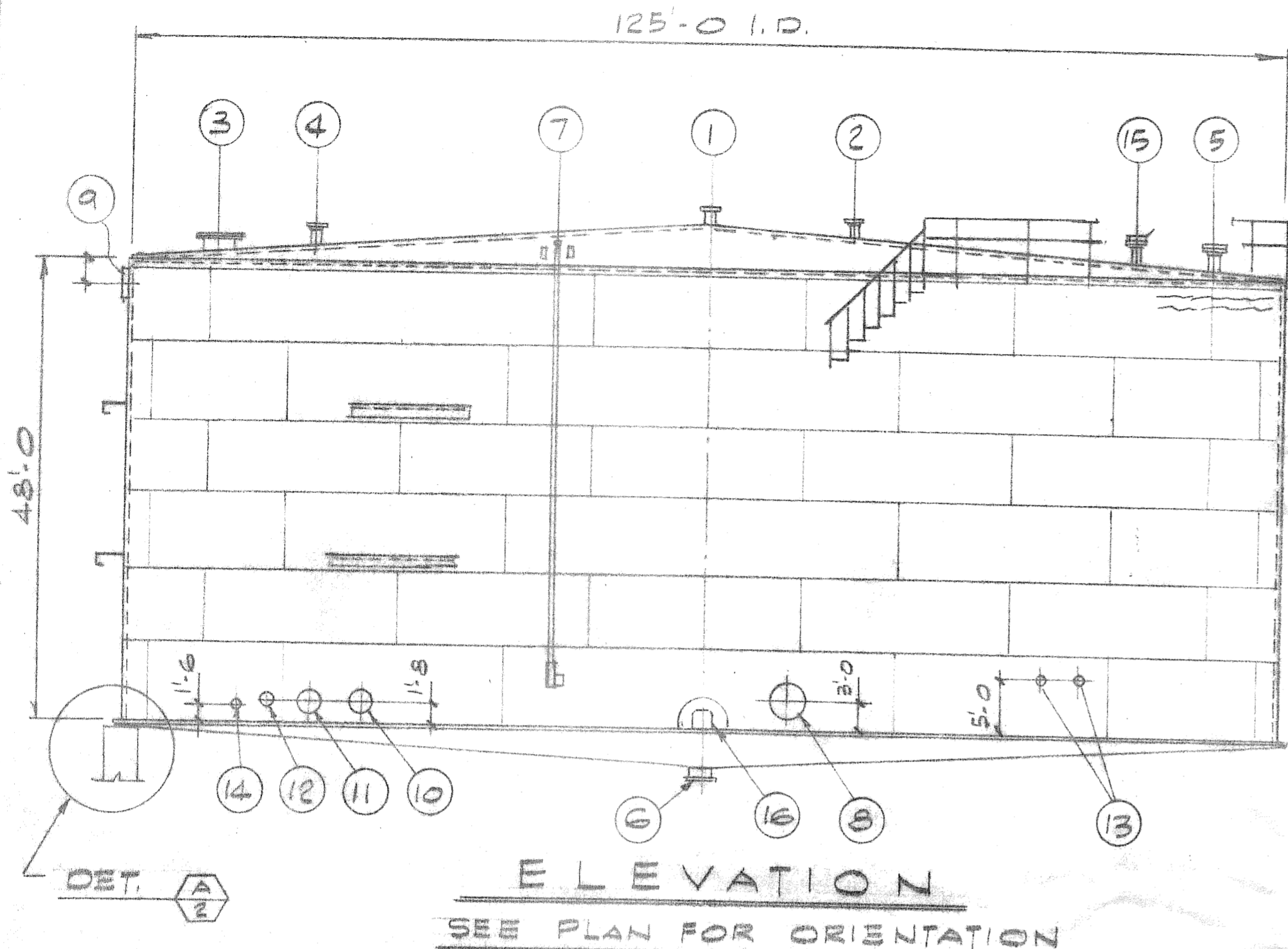
TANK No 1 JOB 8065-85
TANK 3 8067-85
TANK 5 8069-85

19 FEB 17 1988
RECEIVED
IRON WORKS, INC.

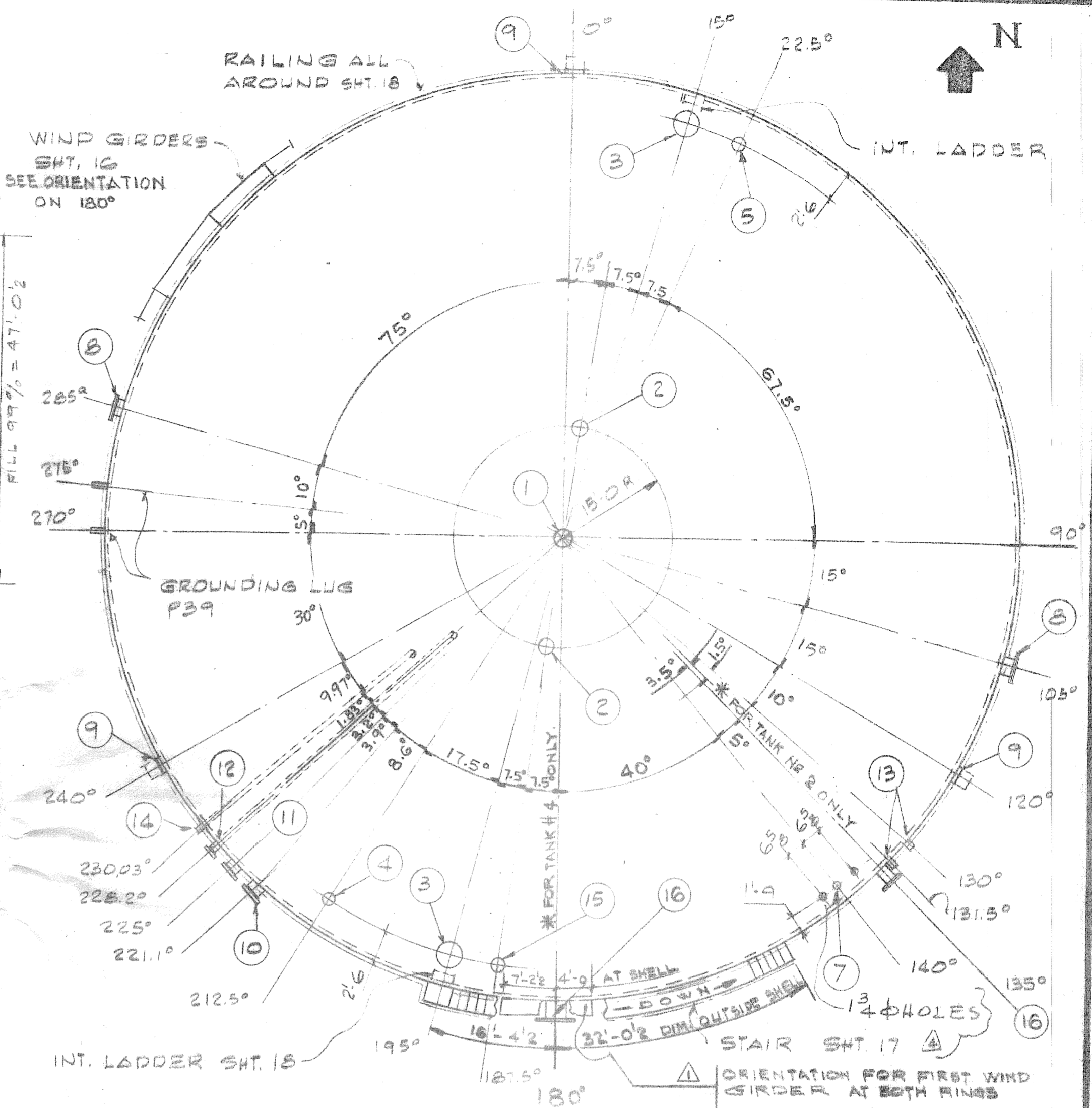
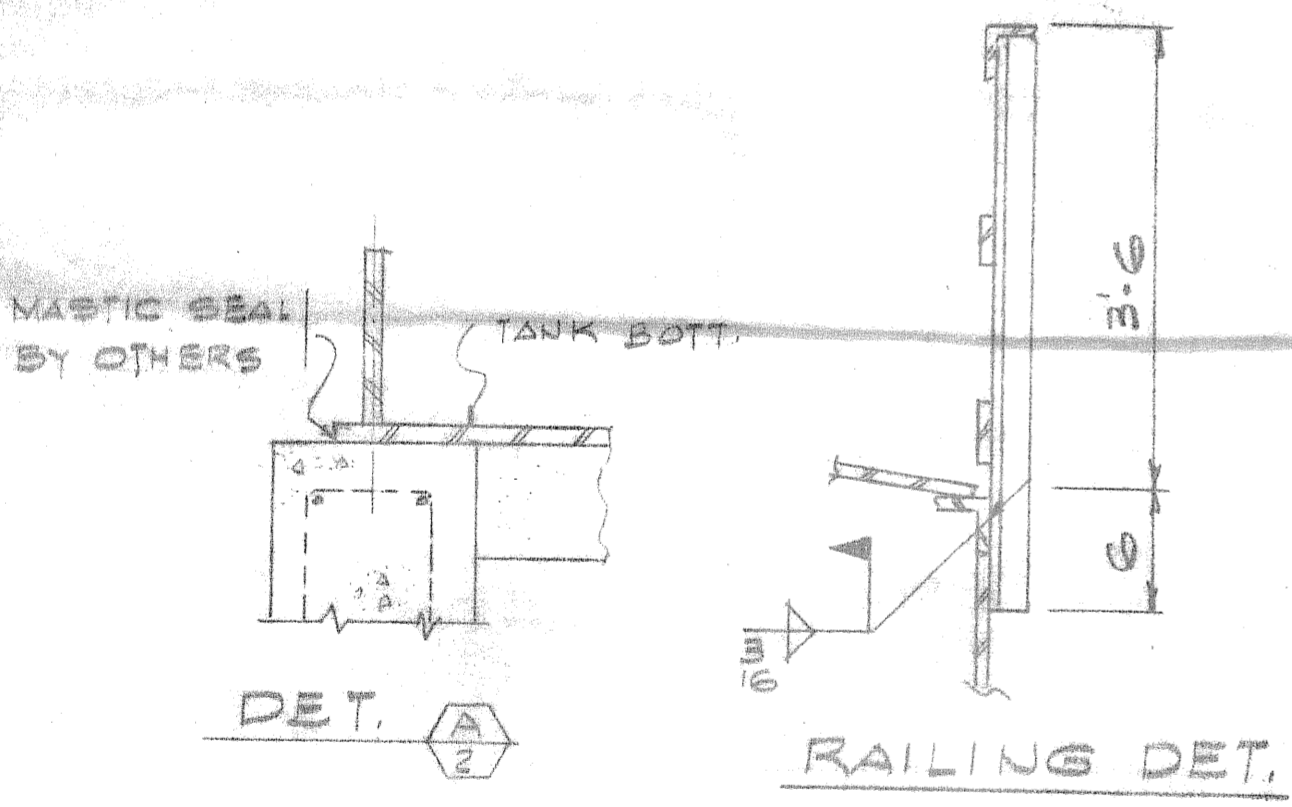
| MARK | SIZE | RATING | TYPE | SERVICE | QTY | SHT. | MATERIALS | ASTM | DESIGN |
|------|-------|-----------|-----------------------|------------------|-----|------|---------------------------------|--------------|---------------------------------------|
| 1 | 4 | MFR'S STD | SCAFFOLD | | 1 | 11 | SHOP PAINT. | | FIELD PAINT. SEE NOTES 2 & 3 |
| 2 | 6 | 150# | FFSD | PRESS VAC VENT | 2 | 15 | GASKETS. | | FIELD TEST. SEE NOTES 5 & 6 |
| 3 | 24 | MFR'S STD | MANHOLE | | 2 | 14 | BOLTING EXTERNAL. A-193 Gr. 7 | | CODE TEST. |
| 4 | 4 | 150# | RFSD | HIGH LEVEL ALARM | 1 | 15 | BOLTING INTERNAL. | | EXTERNAL PRESSURE. ATMOS. |
| 5 | 8 | 150# | RFSD | SPARE W/B FLG. | 1 | 15 | EXTERNAL PIPING. A-53 Gr A OR B | | RADIOGRAPHING SEE NOTE 4 |
| 6 | 24 | MFR'S STD | DRAIN SUMP | | 1 | 11 | INTERNAL PIPING. A-53 Gr A OR B | | STRESS RELIEVING. |
| 7 | 1 1/2 | 3000# | CPG | LEVEL GAGE CONN. | 1 | 15 | FORGINGS FLGS. A-105 | | JOINT EFFICIENCY. .85 |
| 8 | 30 | MFR'S STD | MANHOLE | | 2 | 14 | EXTERNAL CLIPS. | | Noz. and M.H. |
| 9 | | | 2" FOAM CHAMBER CONN. | | 3 | 15 | ANGLE LEGS. | | Head Wall. |
| 10 | 16 | 150# | RFWN | INLET | 1 | 13 | STRUCTURAL SHAPES. A-36 | | Vessel Wall. |
| 11 | 16 | 150# | RFWN | OUTLET | 1 | 13 | INTERNAL BAFFLES. | | CORROSION. (min.) |
| 12 | 6 | 150# | RFWN | LOW SUCTION | 1 | 13 | BOLTING BARS. | | Design. 75°F |
| 13 | 12 | 3000# | CPG | THERMOWELL | 2 | 11 | TRAYS. RINGS. | | Operating. AMBIENT |
| 14 | 1 | 3000# | CPG | WATER DRAW-OFF | 1 | 13 | TRAYS. | | Design. 20.8 PSI |
| 15 | 8 | 150# | RFSD | GAGE HATCH | 1 | 15 | LINING. | | INTERNAL PRESSURE. Operating. 208 PSI |
| 16 | 24x24 | MFR'S STD | CLEANOUT | | 1 | 12 | CLADDING. | | SPECIFICATIONS. 05-85-3354 |
| | | | | | | | SHELL | A-573 Gr. 70 | CODE. API 650 |

| REVISIONS | | REVISIONS | |
|-----------|------------|---|-------|
| No. | DATE. | DESCRIPTION. | NAME. |
| 1 | Aug 9.86 | NEW ORIENTATION FOR CLEANOUT MKD 16 | NUNEZ |
| 2 | JULY 30.86 | WIND GIRDER ORIENTATION EXT. LADDER REVISION. | NUNEZ |
| 3 | 6-1-87 | EQUIPMENT | S.S. |
| 4 | 3-12-87 | 6" VENT CONN. | NUNEZ |

| | |
|--|---|
| ALONSO E CARUS iron works, inc. | |
| P. O. Box 566, Cataño, Puerto Rico 00632 - Phone (809) 788-1065. | |
| Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. | |
| TELEX No. 3450186 | |
| CONTRACTOR OR OWNER. | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. |
| PROJECT. | FUEL STORAGE TANKS |
| DESCRIPTION. | PLAN & ELEVATION - TANKS No. 1, 3 & 5 |
| PROJ. NO. | H62470-83-B-3354 |
| DESIGNER. | J. M. C. JSS |
| JOB No. | 8065-85 & 8067-85 & 8069-85 |
| DRW. No. | Q-292-85-17-5/19 |
| Chk'd. by. | A.G. |
| Drw. by. | S.S. |
| Apr'd. by. | F.E.R. |
| Date. | 12-85 |



ELEVATION
SEE PLAN FOR ORIENTATION



ORIENTATION PLAN

NOTE
* FOR CLEANOUT MKD 16 SEE ORIENTATION AT EACH ONE TANK

TANK No. 2 JOB 8066-85
TANK No. 4 JOB 8068-85

19. AGO 1987

| MARK. | SIZE. | RATING. | TYPE. | SERVICE. | QTY. | SHT. | SHELL |
|-------|-------|---------|-------|-----------------------|------|------|---------------------------------|
| 1 | 4 | MFR'S | STD. | SCAFFOLD | 1 | 11 | SHOP PAINT. |
| 2 | 6 | 150# | RF50 | PRESS VAC VENT | 2 | 15 | GASKETS. |
| 3 | 24 | MFR'S | STD. | MANHOLE | 2 | 14 | BOLTING EXTERNAL. A-193 GR 7 |
| 4 | 4 | 150# | RF50 | HIGH LEVEL ALARM | 1 | 15 | BOLTING INTERNAL. |
| 5 | 8 | 150# | RF50 | SPARE W/B. PLG. | 1 | 15 | EXTERNAL PIPING. A-53 GR A OR B |
| 6 | 24 | MFR'S | STD. | DRAIN SUMP | 1 | 11 | INTERNAL PIPING. A-53 GR A OR B |
| 7 | 1 1/2 | 3000# | CRS. | LEVEL GAGE CONN. | 1 | 15 | FORGINGS FLGS. A-10B |
| 8 | 30 | MFR'S | STD. | MANHOLE | 2 | 14 | EXTERNAL CLIPS. |
| 9 | | | | 2" FOAM CHAMBER CONN. | 3 | 15 | ANGLE LEGS. |
| 10 | 16 | 150# | RFWN | INLET | 1 | 13 | STRUCTURAL SHAPES. A-36 |
| 11 | 16 | 150# | RFWN | OUTLET | 1 | 13 | INTERNAL BAFFLES. |
| 12 | 6 | 150# | RFWN | LOW SUCTION | 1 | 13 | BOLTING BARS. |
| 13 | 1 | 3000# | CRS. | THERMOWELL | 2 | 11 | TRAYS. RINGS. |
| 14 | 1 1/2 | 3000# | CRS. | WATER DRAW-OFF | 1 | 13 | TRAYS. |
| 15 | 8 | 150# | RF50 | GAGE HATCH | 1 | 15 | LINING. |
| 16 | 24 | MFR'S | STD. | CLEANOUT | 1 | 12 | CLADDING. |

| FIELD TEST. | SEE NOTES | DEGREE | FOOT INCHES | DEGREE | FOOT INCHES |
|--------------------|------------|--------|-------------|--------|-------------|
| CODE TEST. | 243 | 1.5 | 1'-7 5/8 | 17.5 | 19'-1 1/4 |
| EXTERNAL PRESSURE. | ATMOS | 1.83 | 2'-0 | 90 | 32'-9 |
| RADIOGRAPHING. | SEE NOTE 4 | 3.2 | 3'-6 | 40 | 43'-8 |
| STRESS RELIEVING. | | 3.5 | 3'-9 3/8 | 67.5 | 73'-8 3/8 |
| JOINT EFFICIENCY. | .85 | 3.9 | 4'-3 | 75 | 81'-10 3/8 |
| Noz. and M.H. | | 5 | 5'-5 1/2 | 90 | 98'-2 7/8 |
| Head Wall. | | 7.5 | 8'-2 1/4 | | |
| Vessel Wall. | | 8.6 | 9'-4 5/8 | 1 | 1'-1 1/8 |
| CORROSION. (min.) | | 9.97 | 10'-10 1/2 | 45 | 49'-1 1/8 |
| Design. | 75° F | 10 | 10'-11 | | |
| Operating. | AMBIENT | 15 | 16'-4 1/2 | | |
| INTERNAL PRESSURE. | 20.8 PSI | | | | |
| Design. | 20.8 PSI | | | | |
| Operating. | 20.8 PSI | | | | |
| SPECIFICATIONS. | 05-33-3354 | | | | |
| CODE. | API-650 | | | | |

| NO. | DATE. | DESCRIPTION. | NAME. | NO. | DATE. | DESCRIPTION. | NAME. |
|-----|------------|--|-------|-----|---------|----------------|-------|
| 2 | AVG. 9.86 | NEW ORIENTATION FOR CLEANOUT MKD 16 | NUÑEZ | 4 | 6-2-87 | LEVEL | S.S. |
| 3 | JULY 30.86 | WIND GIRDER ORIENTATION EXT LADDER REVISED | NUÑEZ | 3 | 3.12.87 | 6" VENT. CONN. | NUÑEZ |

REVISIONS

ALONSO & CARUS iron works, inc.
P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065.
Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico.
TELEX No. 3460186

CONTRACTOR OR OWNER: U.S. NAVAL STATION - ROOSEVELT ROAD, P.R.

PROJECT: FUEL STORAGE TANKS

DESCRIPTION: PLAN & ELEVATION - TANKS NO 2 & 4

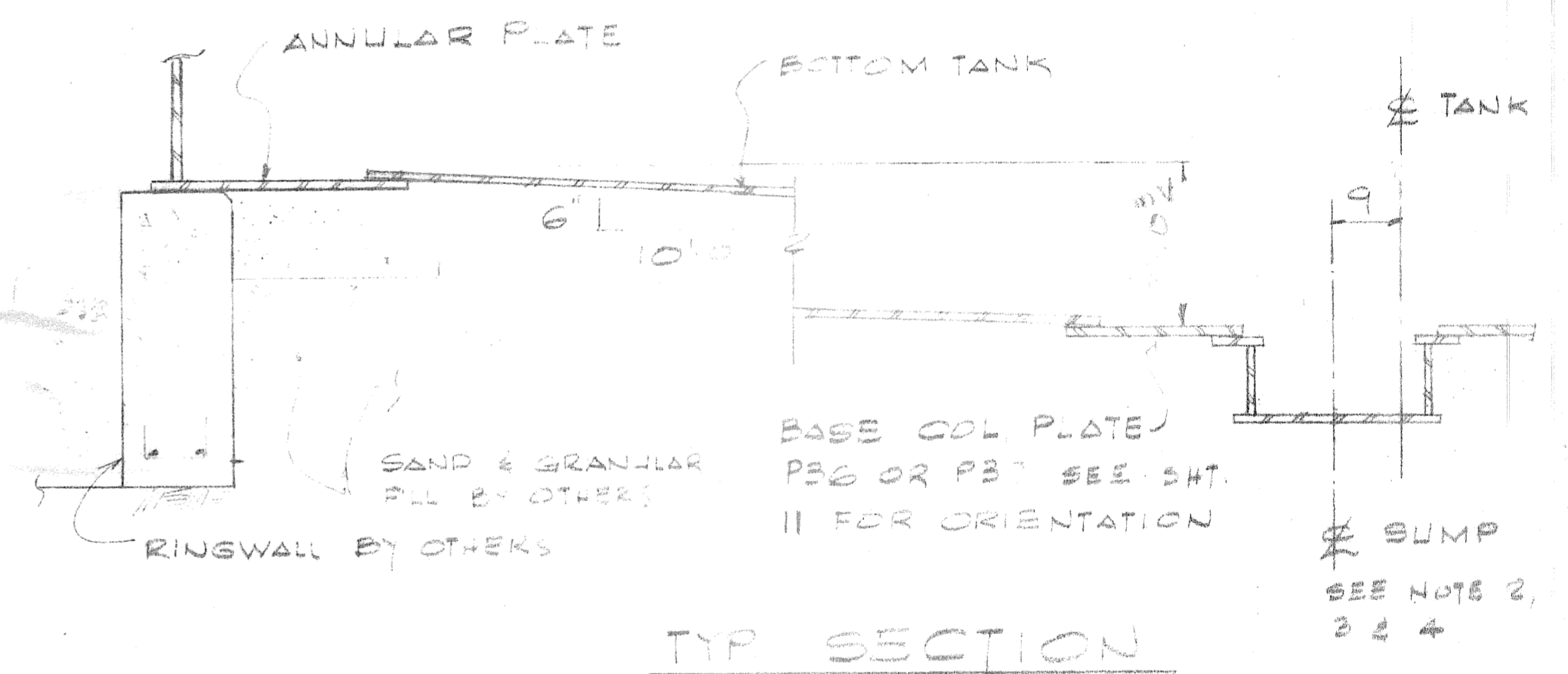
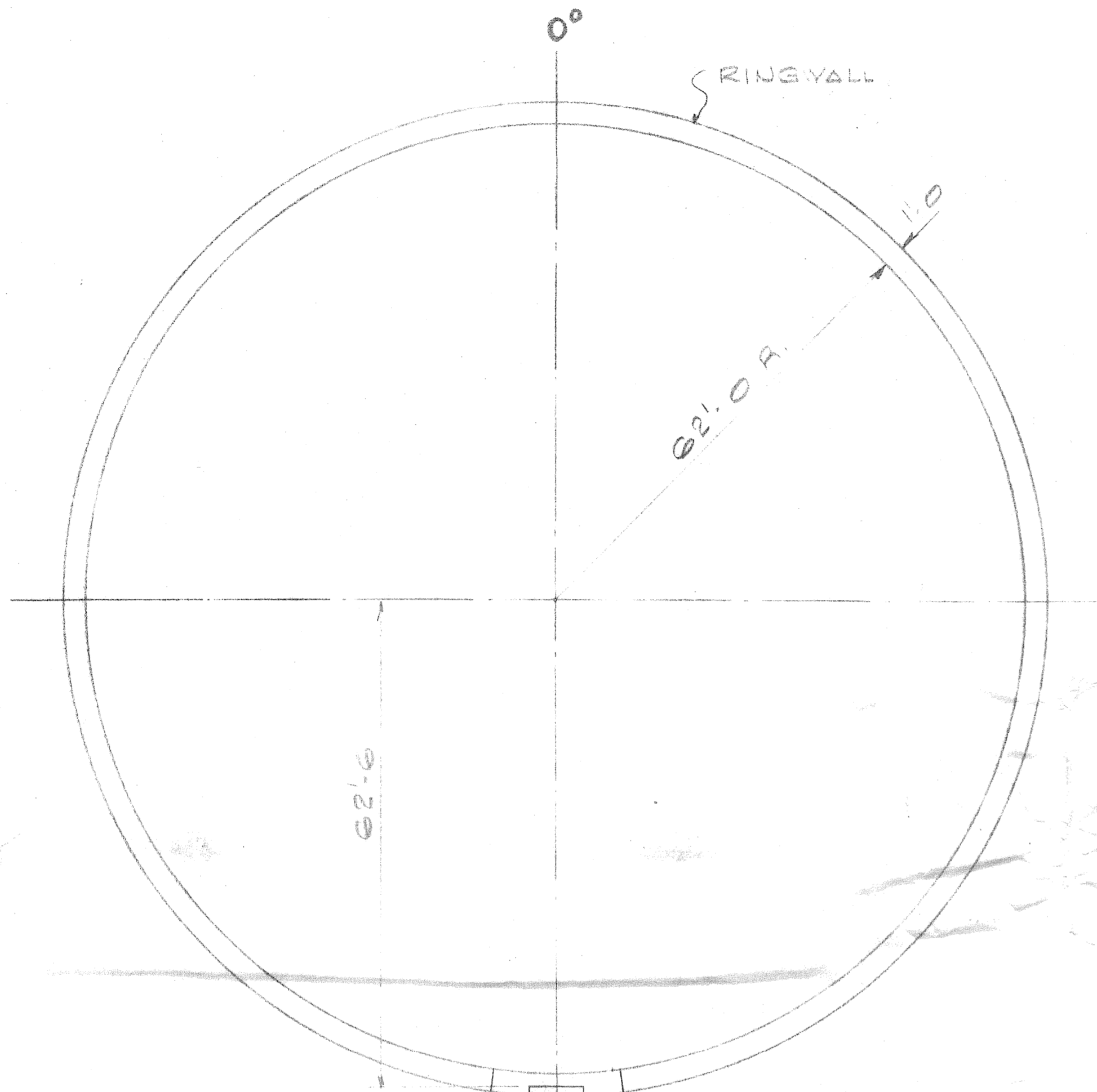
PROJ. NO. N62470-83-B-3354

DESIGNER: J. M. C. ASS.

DRW. No. 0-292-85-17-K/2

NOTES:

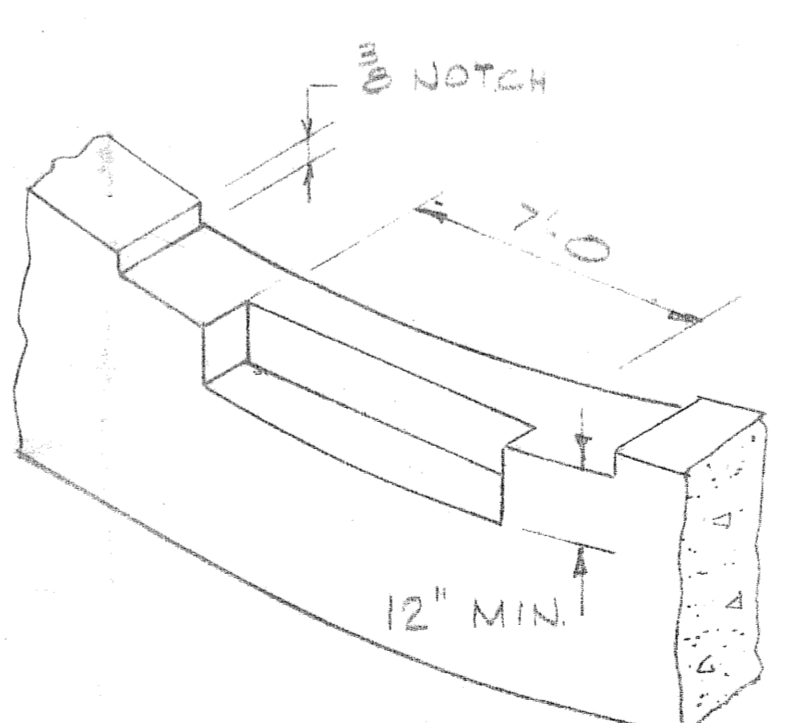
- 1- THE TOP OF RINGWALL SHALL BE SMOOTH AND LEVEL WITHIN PLUS OR MINUS $\frac{1}{8}$ " IN ANY 30 FEET CIRCUMFERENTIAL LENGTHS. NO POINT IN THE CIRCUMFERENCE OF THE RINGWALL SHOULD VARY MORE THAN PLUS OR MINUS $\frac{1}{4}$ " FROM ESTABLISHED ELEVATION.
- 2- MAKE EXCAVATION TO CONFORM TO SHAPE OF SUMP. PUT IN PLACE AND COMPACT AROUND SUMP AFTER PLACEMENT.
- 3- PUT BASE PLATE IN PLACE AND WELD TO SUMP.
- 4- PLACE SAND CUSHION FLUSH WITH TOP OF ANNULAR PLATE AND BASE COLUMN PLATE AND ATTACHMENT BOTTOM PLATE.



SEE DET. A FOR RESTING ON CONCRETE RINGWALL FOR CLEANOUT (6)

CLEANOUT SEE SCHEDULE FOR TRUE ORIENT.


| CLEANOUT. | |
|-----------|---------|
| TK. NO. | DEGREES |
| 1 | 70° |
| 2 | 135° |
| 3 | 135° |
| 4 | 180° |
| 5 | 270° |



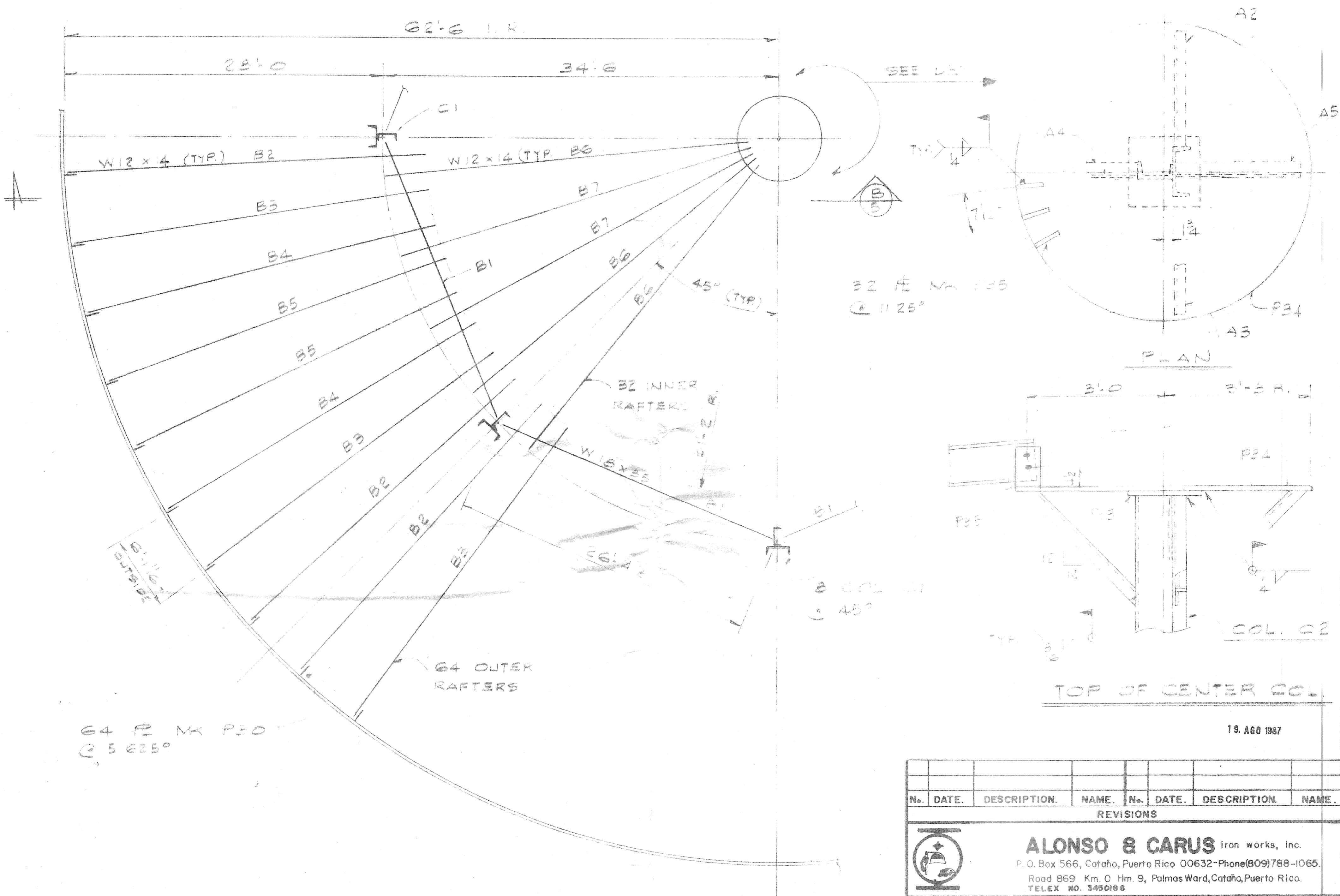
RINGWALL ORIENTATION PLAN
(NORTH = 0° SEE DWG. 225065)

DETAIL A

19. A60 1987


| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|----------------|-----------------|-------|
| REVISIONS | | | | | | | |
|  ALONSO & CARUS iron works, inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | FOUNDATIONS DETAIL | | | | | |
| PROJ. No. | | N62470-83-B-3354 | | | JOB No 8065-66 | | |
| DESIGNER. | | J. M. O. & ASS. | | | 67-6848069-88 | | |
| Chk'd. by. | | A. G. | | Drw. by. | | S. S. | |
| Apr'd. by. | | F. R. | | Date. | | JAN. 86 | |
| | | | | DRW. No. | | 0.292-85-17-K/3 | |

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------------------|-------|---------|-------|------|--------------------|---------|------|----------|------|------------------|-------|---------|-------|------|--------------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | BILL OF MATERIALS. | | | | | STOCK MATERIALS. | | | | | BILL OF MATERIALS. | | | | |

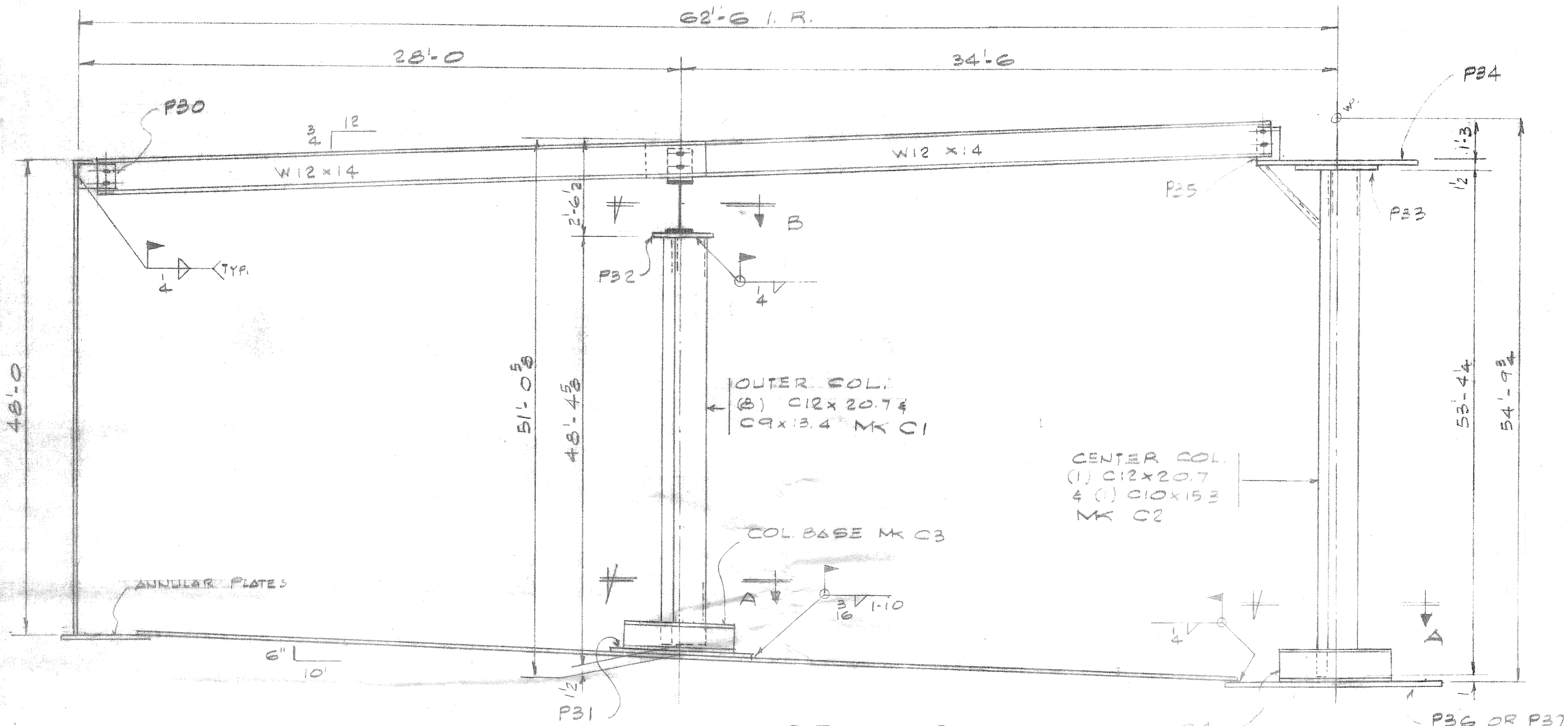


COL. & RAFTERS ORIENTATION PLAN

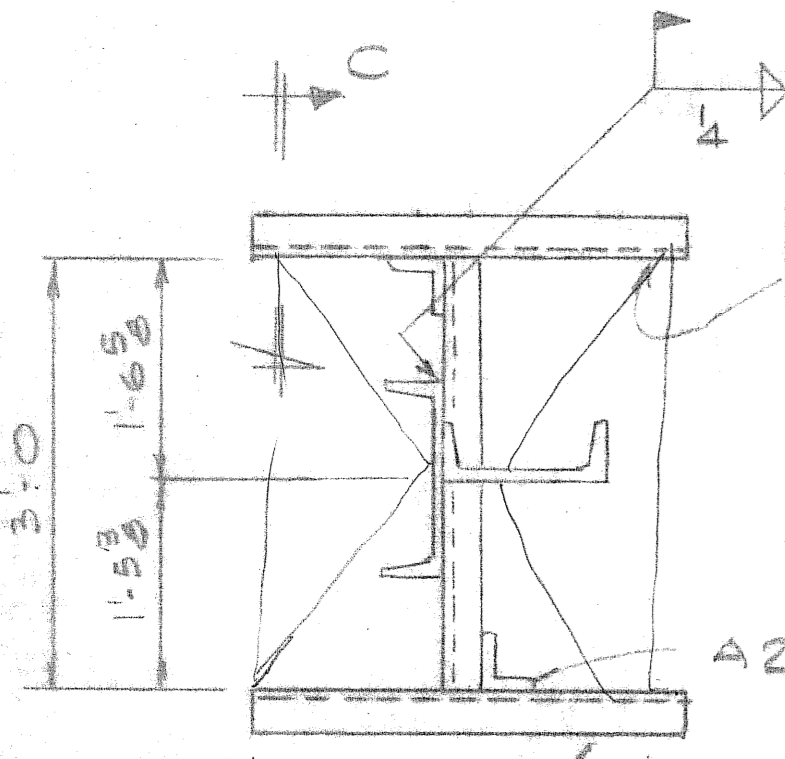
19. AGO 1987

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|-------|---------------------------|-------|
| REVISIONS | | | | | | | |
|  ALONSO & CARUS Iron works, Inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | COL. & RAFTERS - ORIENTATION PLAN | | | | | |
| PROJ. No. | | NG2470-83-B-3354 | | | | JOB No 8065-66 | |
| DESIGNER. | | J. M. C. & ASS. | | | | 67-684809-28 | |
| Chk'd. by. | | A.G. | | Drw. by. | | S.S. | |
| Apr'd. by. | | F. E. R. | | Date. | | PEC. 85 | |
| | | | | | | DRW. No. 0-292-85-17-K/19 | |

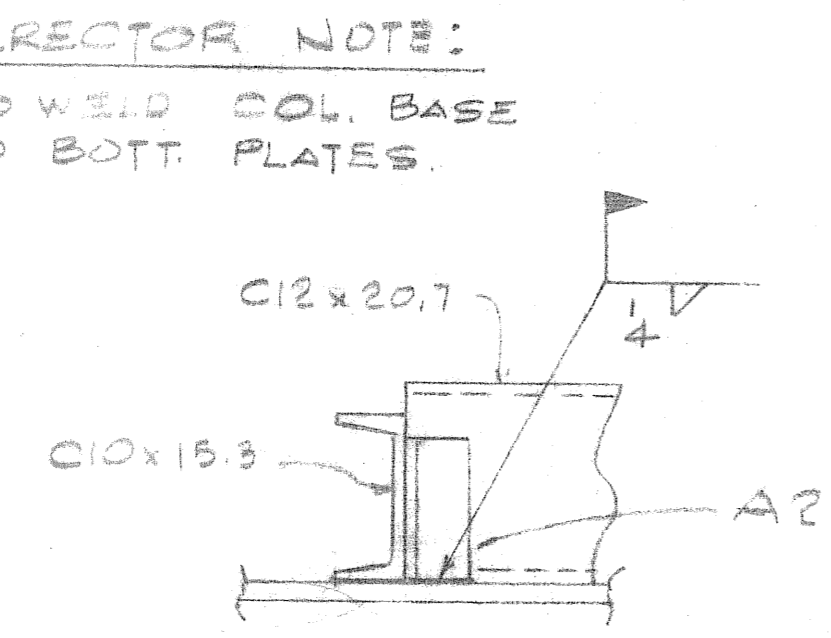
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|------------------|-------|---------|-------|------|--------------|---------|------|----------|------|--------------------|-------|---------|-------|------|--------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |



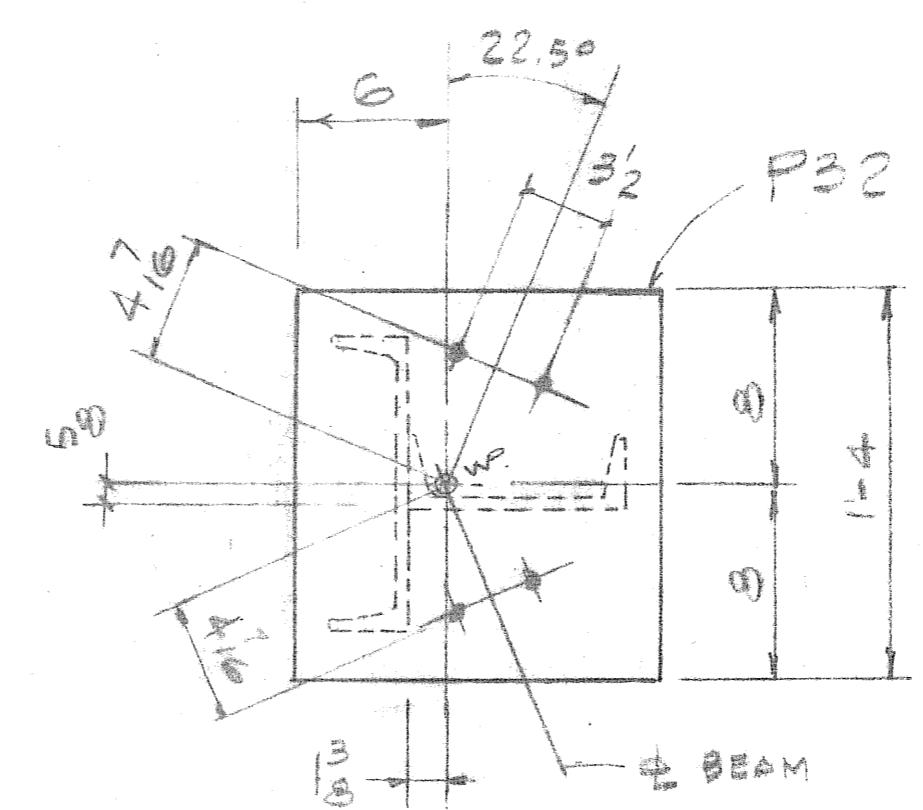
SECT. **B**
4



SECT. A



SECT. C

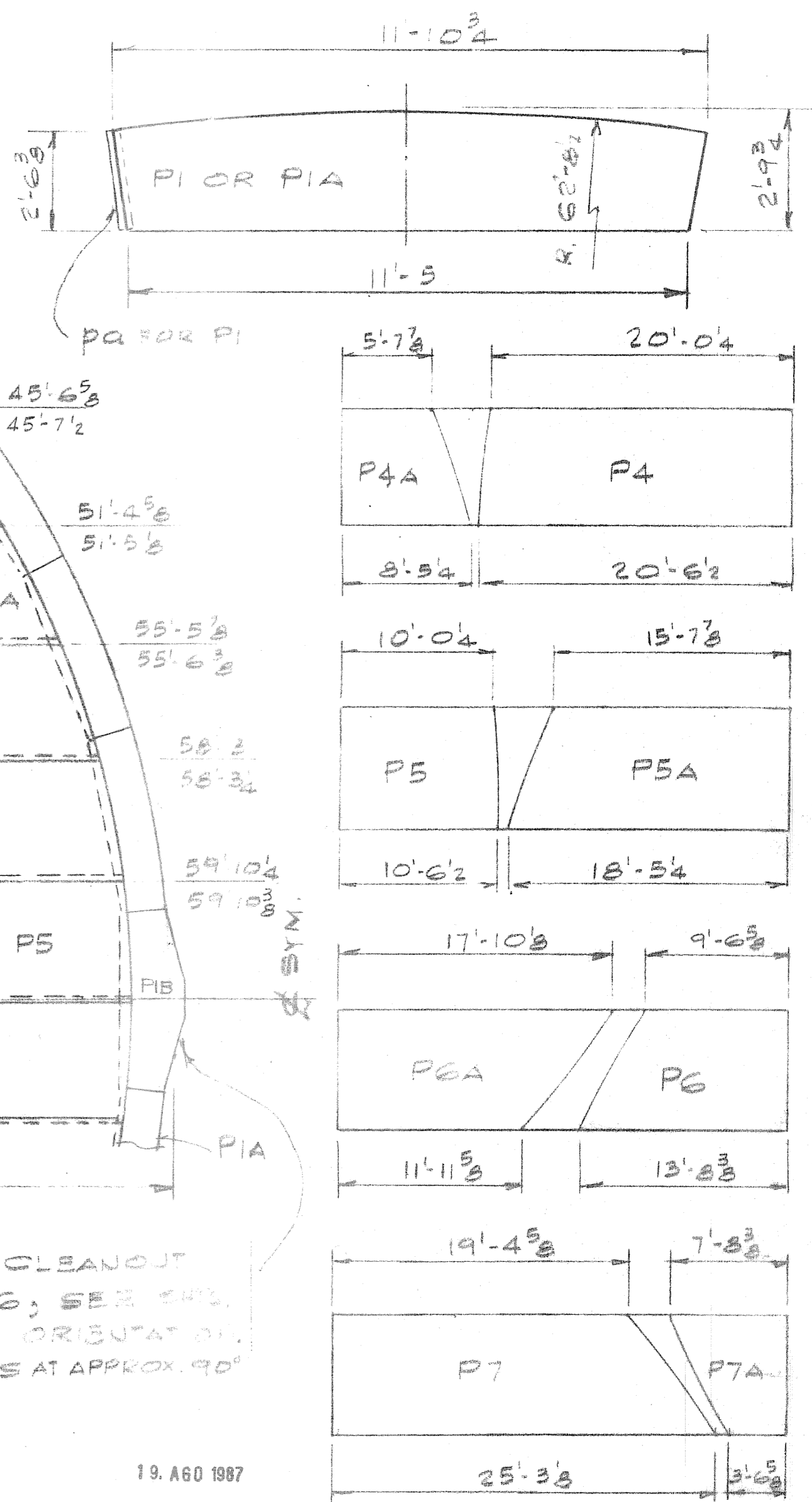
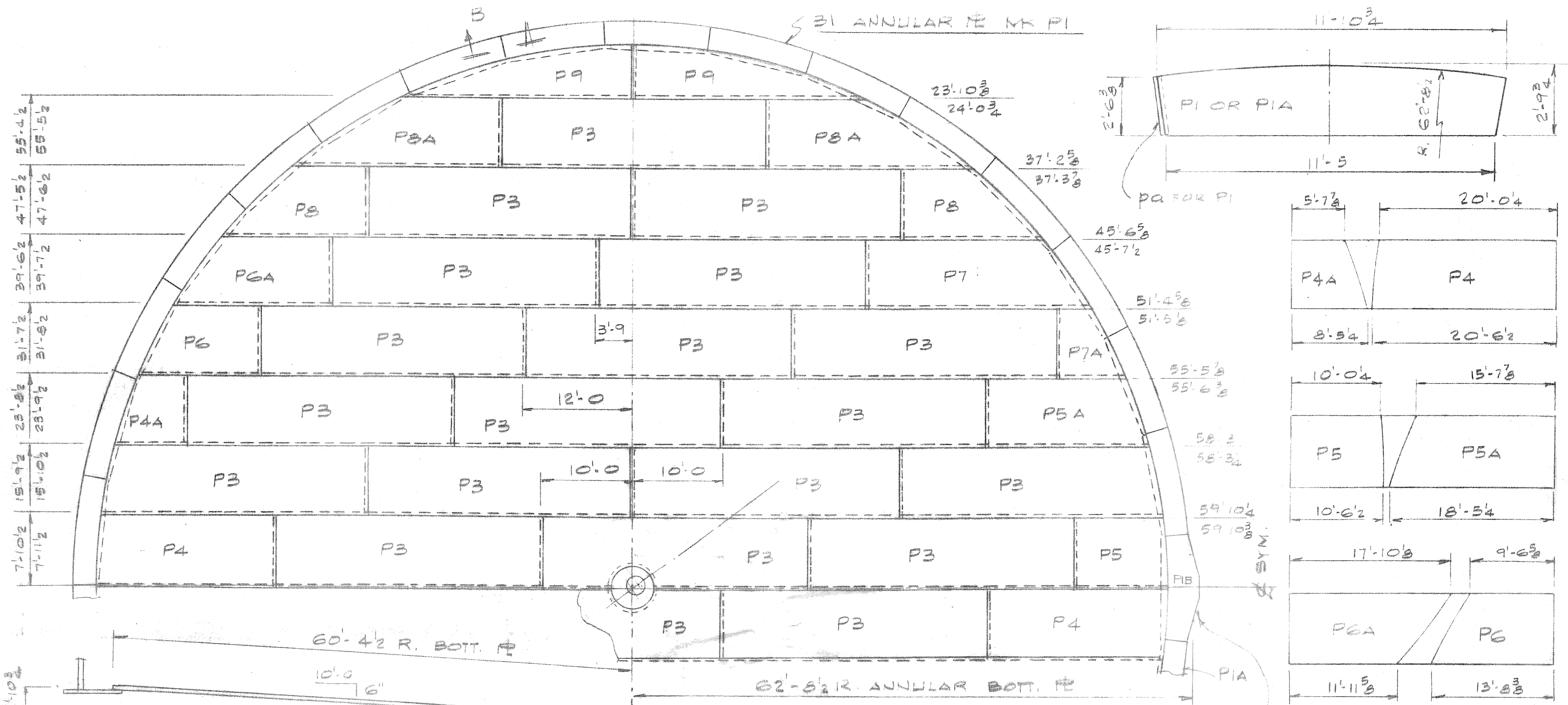


SECT. B

19. A60 1987

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|----------------------|-------|--|-------|----------|----------------|--------------------------|-------|
| REVISIONS | | | | | | | |
| | | ALONSO & CARUS Iron works, Inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450166 | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | COLUMN & RAFTERS - CROSS SECT. | | | | | |
| PROJ. No. | | H62470-23-B-3354 | | | JOB No 8065.66 | | |
| DESIGNER. | | J. M. C. & ASS. | | | 67-6843069-35 | | |
| Chk'd. by. | | A. S. | | Drw. by. | | S. S. | |
| Apr'd. by. | | F. E. R. | | Date. | | NOV. 85 | |
| | | | | | | DRW. No. 0-292-35-17-K/5 | |

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------------------|-------|---------|-------|------|--------------|---------|------|----------|------|--------------------|-------|---------|-------|------|--------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |



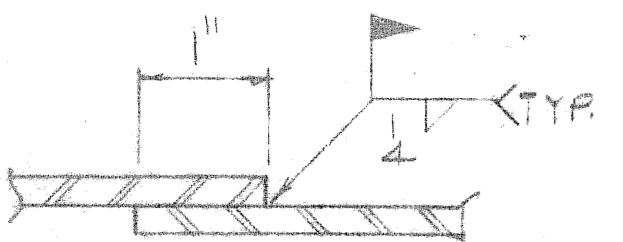
ERECTOR NOTES:

OPEN ON BOTT. PLATES 4'-9"

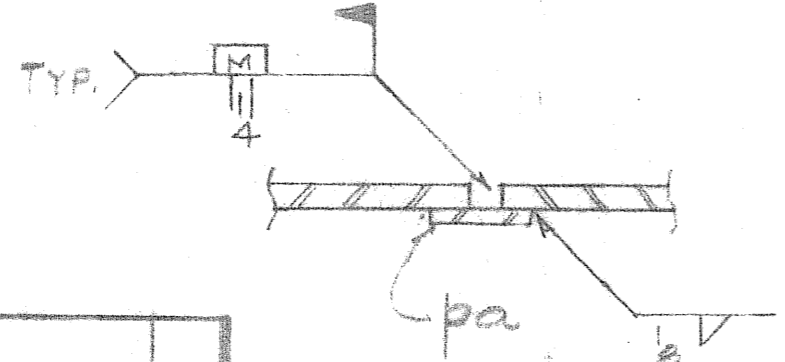
SEE SHIT #11 FOR ORIENTATION R P36 P37 & SUMP

START WITH CLEANOUT ASSY. MK 16; SEE SHIT #1 & #2 FOR ORIENTATION. BOTT IR SEAMS AT APPROX. 90°

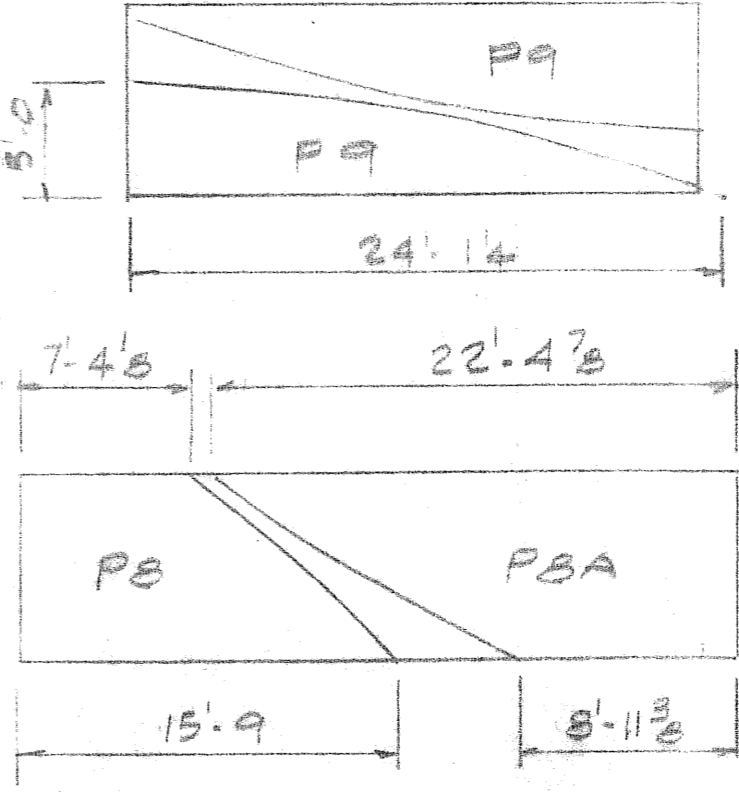
BOTTOM PLATE LAYOUT



SECT. TROUGH LAP



SECT. B



19. A60 1987

| | | | | | | | | |
|---|--------------|-------|----------|----|------------------|------------|--------|--|
| 8 | R. 2' x 6'-0 | 24'-0 | P1 | 31 | R. 2' x 2'-9 3/4 | 11'-10 3/4 | | |
| | | | P2 | 31 | R. 2' x 1'-4 | 2'-6 | | |
| | | | P1A | 1 | R. 2' x 2'-9 3/4 | 11'-10 3/4 | | |
| | | | P4 & P4A | 2 | R. 2' x 5'-0 | 30'-0 | | |
| | | | P5 & P5A | 2 | | | | |
| | | | P6 & P6A | 2 | | | | |
| | | | P7 & P7A | 2 | | | | |
| | | | P8 & P8A | 4 | | | | |
| | | | P3 | 36 | R. 2' x 5'-0 | 30'-0 | | |
| | | | P9 | 2 | R. 2' x 5'-0 | 24'-0 | | |
| | | | | | | | 175000 | |

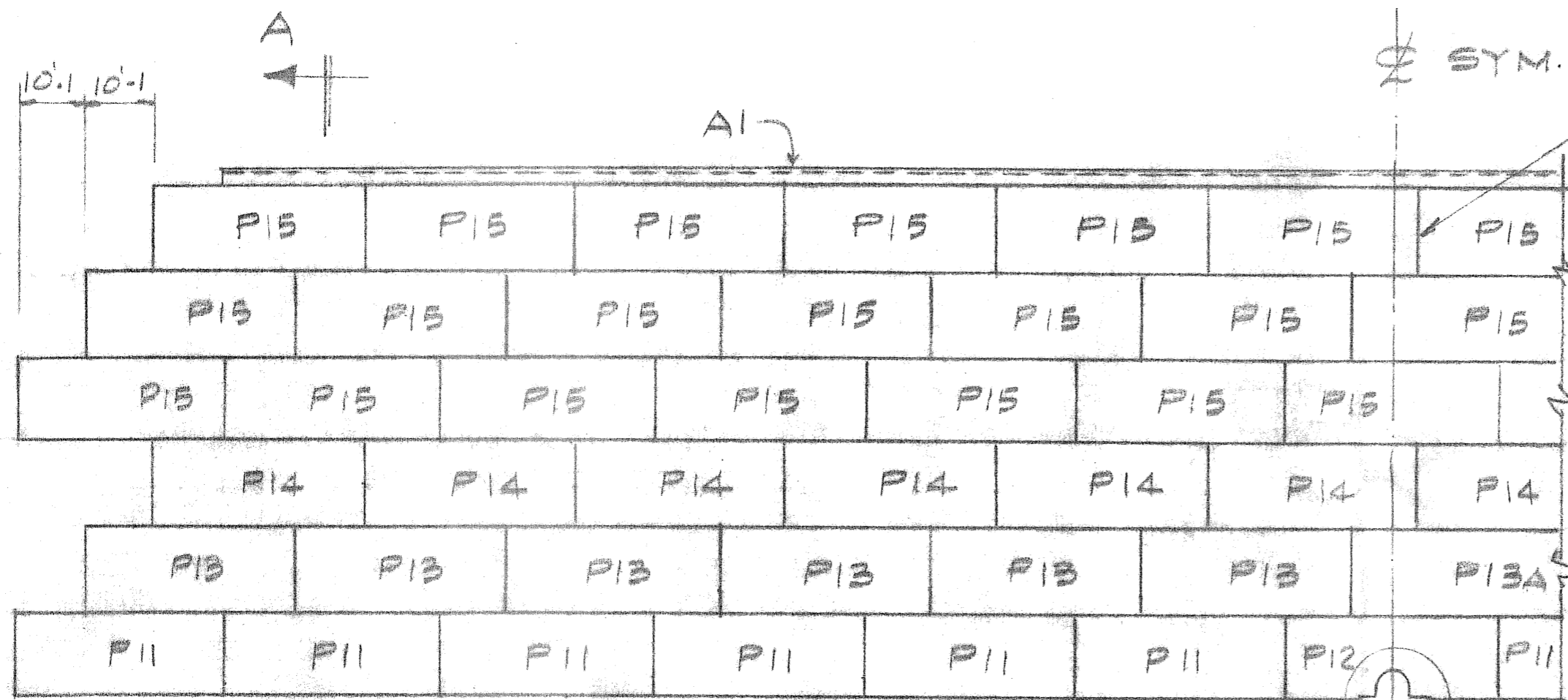
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------|-------|---------|-------|------|--------------|---------|------|----------|------|
| | | | | | | | | | |

BILL OF MATERIALS. ONE TANK

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------|-------|---------|-------|------|--------------|---------|------|----------|------|
| | | | | | | | | | |

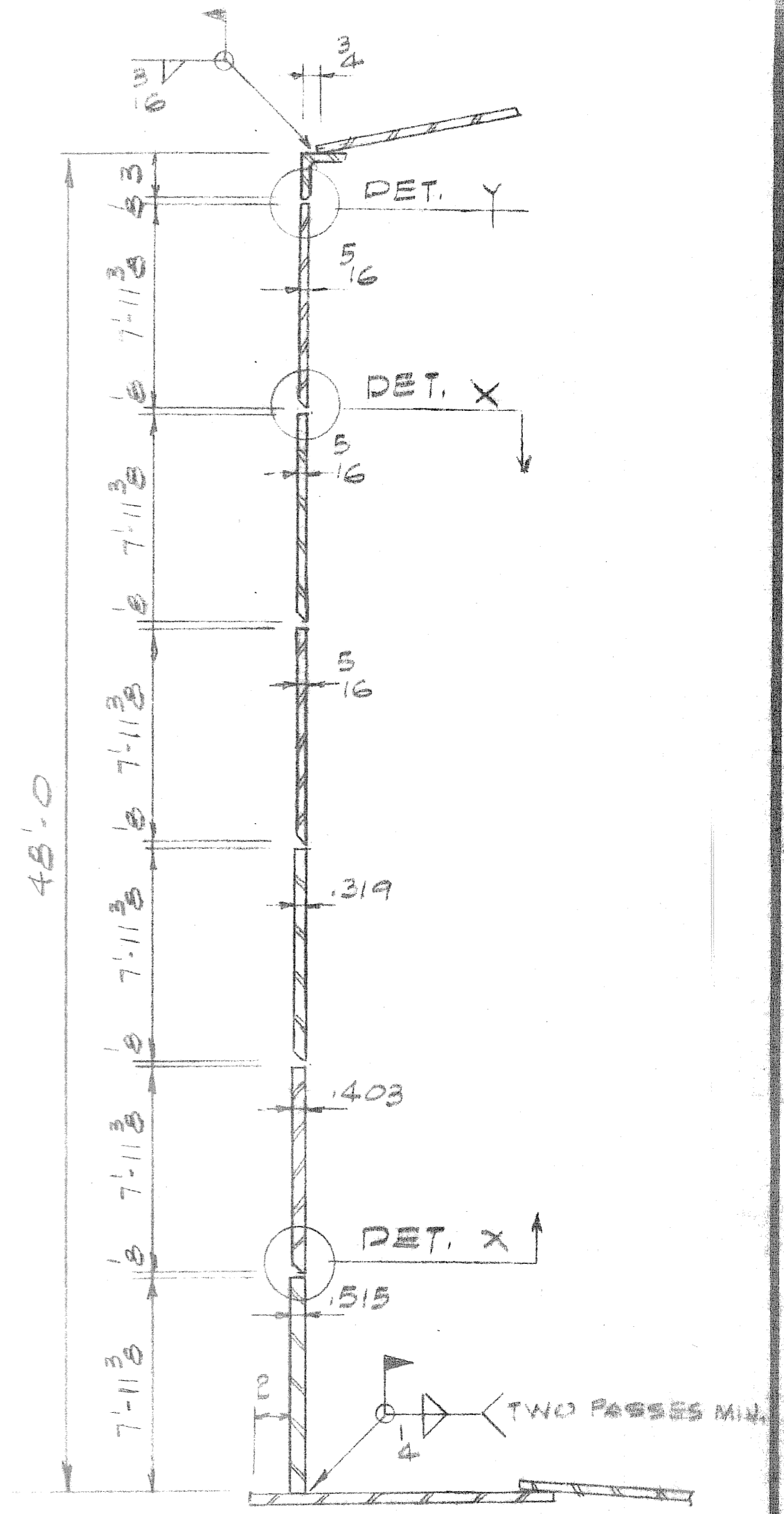
BILL OF MATERIALS.

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|-----------------|-------|--------------|-------|
| REVISIONS | | | | | | | |
| ALONSO & CARUS Iron works, inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. O Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION-ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | BOTTOM PLATE LAYOUT | | | | | |
| PROJ. No. | | N62470-83-B-3354 | | JOB No | | 8065-66 | |
| DESIGNER. | | J. M. C. ASS. | | 67-68 & 8069-85 | | | |
| Chk'd. by. | | A. G. | | Drw. by. | | S. S. | |
| Apr'd. by. | | E. R. | | Date. | | 11-85 | |

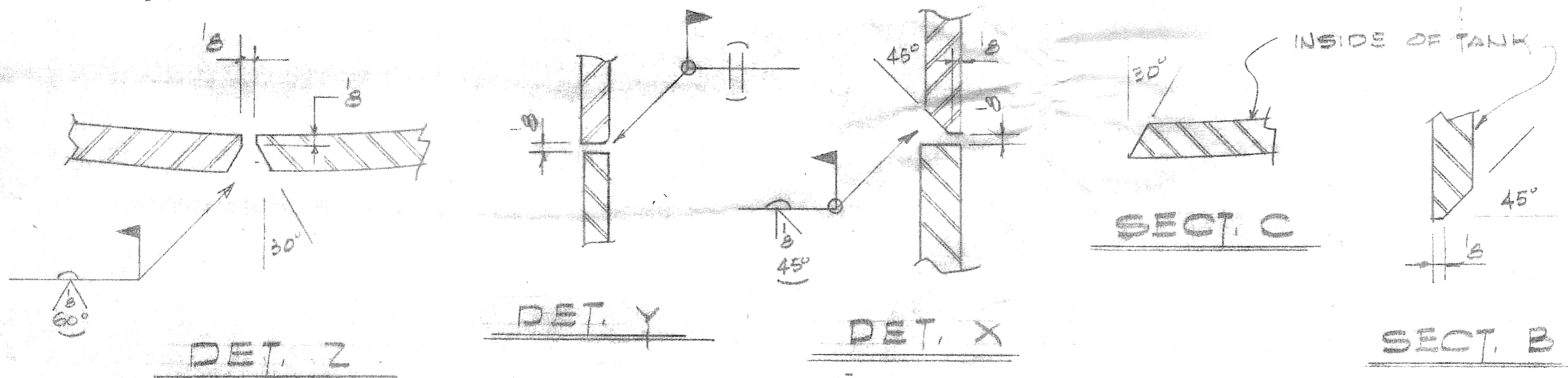


SHELL PLATE DEVELOPMENT

START WITH # P12, FOR CLEANOUT SEE ORIENTATION PLAN

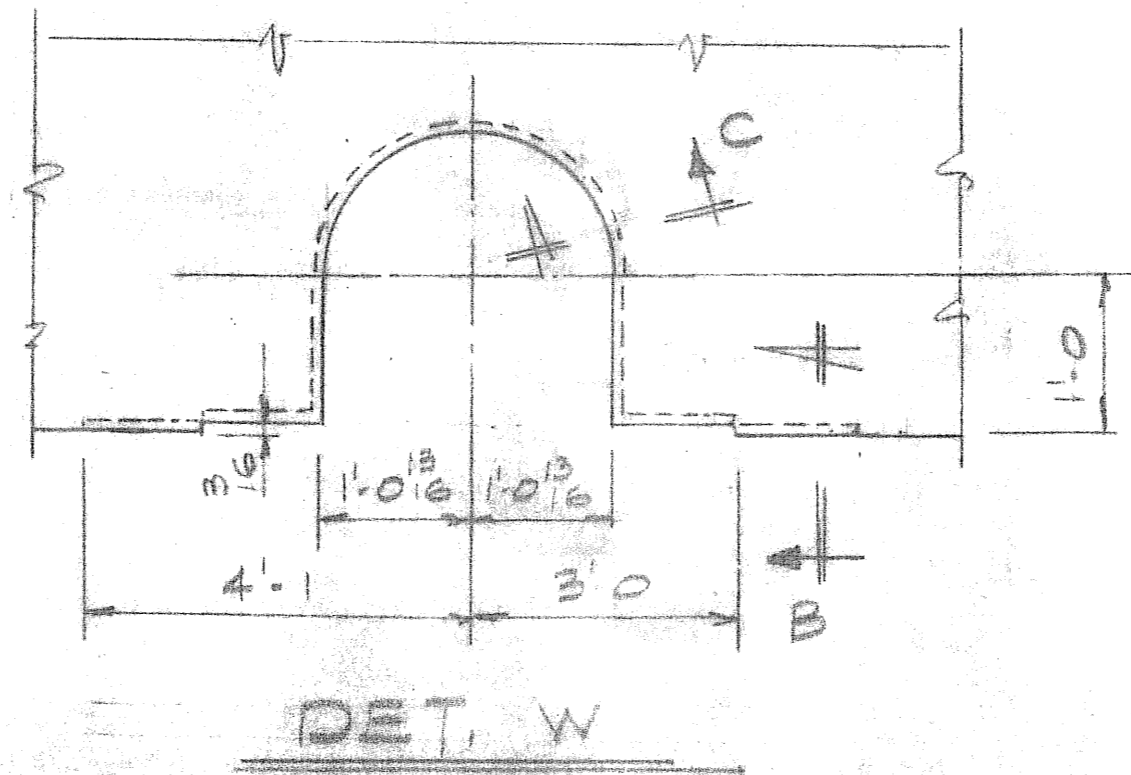


SECT. A 18. AGO 1987



TYP. VERTICAL JOINTS

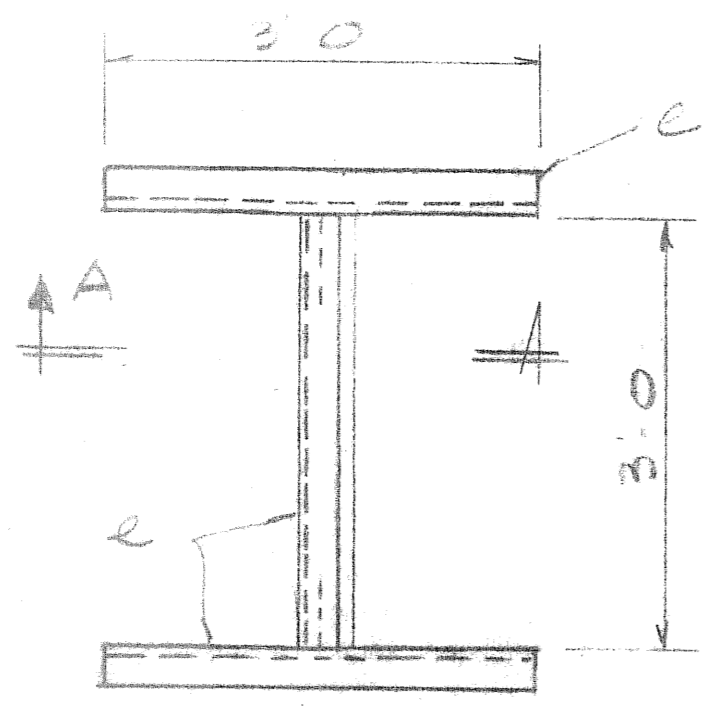
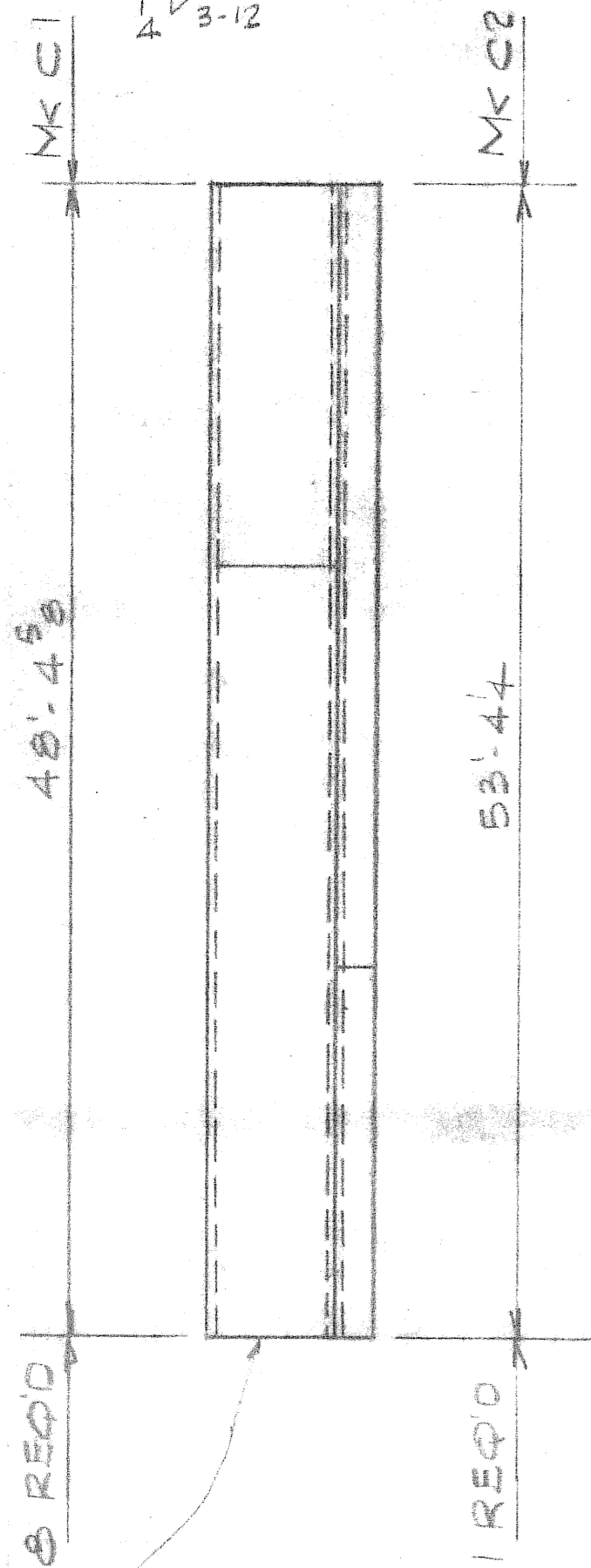
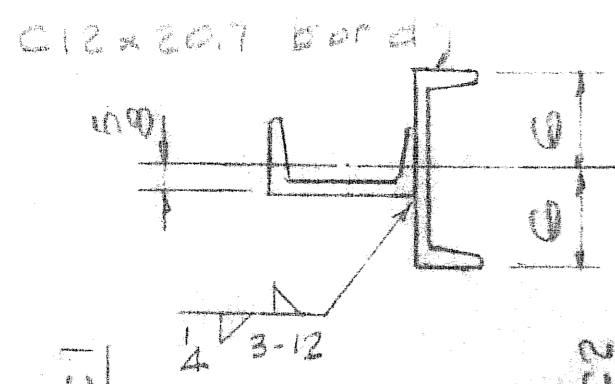
| QTY. | SIZE | LENGTH | MARK. | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|------|------|--------|-------|------|-------------------|------------|-------|-------------|------|
| | | | | 12 | R. 515 x 7-11 3/8 | 30'-3" | 60620 | | |
| | | | | 1 | R. 5 x 7-11 3/8 | 29'-8 3/8 | 5009 | | |
| | | | | 12 | R. 403 x 7-11 3/8 | 30'-2 1/2" | 47450 | | |
| | | | | 1 | R. 403 x 7-11 3/8 | 30'-2" | 3927 | | |
| | | | | 13 | R. 319 x 7-11 3/8 | 30'-2 1/8" | 40653 | | |
| | | | | 39 | R. 5 x 7-11 3/8 | 30'-2 1/8" | 19990 | | |
| | | | | 10 | L. 3 x 3 x 3/8 | 39'-3 3/8" | 2825 | NET OUTSIDE | |



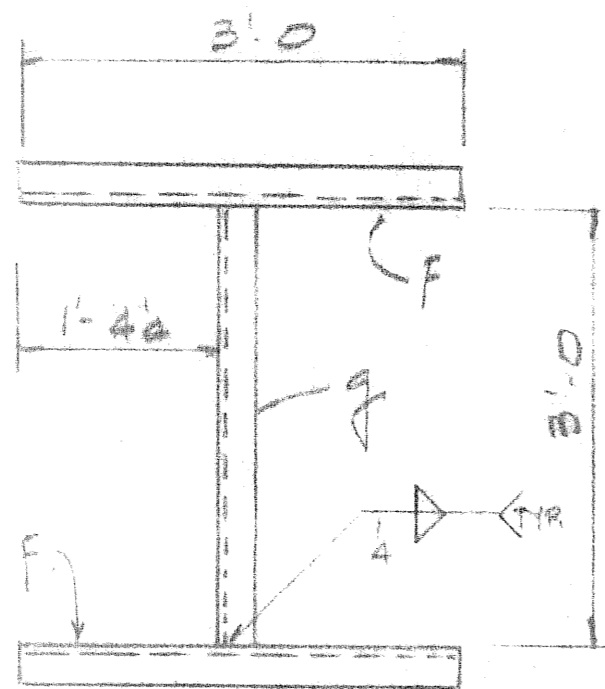
DET. W

| QTY. | SIZE | LENGTH | MARK. | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|------------------|------|--------|-------|------|-----------------------------|--------|------|---------|------|
| STOCK MATERIALS. | | | | | BILL OF MATERIALS. ONE TANK | | | | |
| STOCK MATERIALS. | | | | | BILL OF MATERIALS. | | | | |

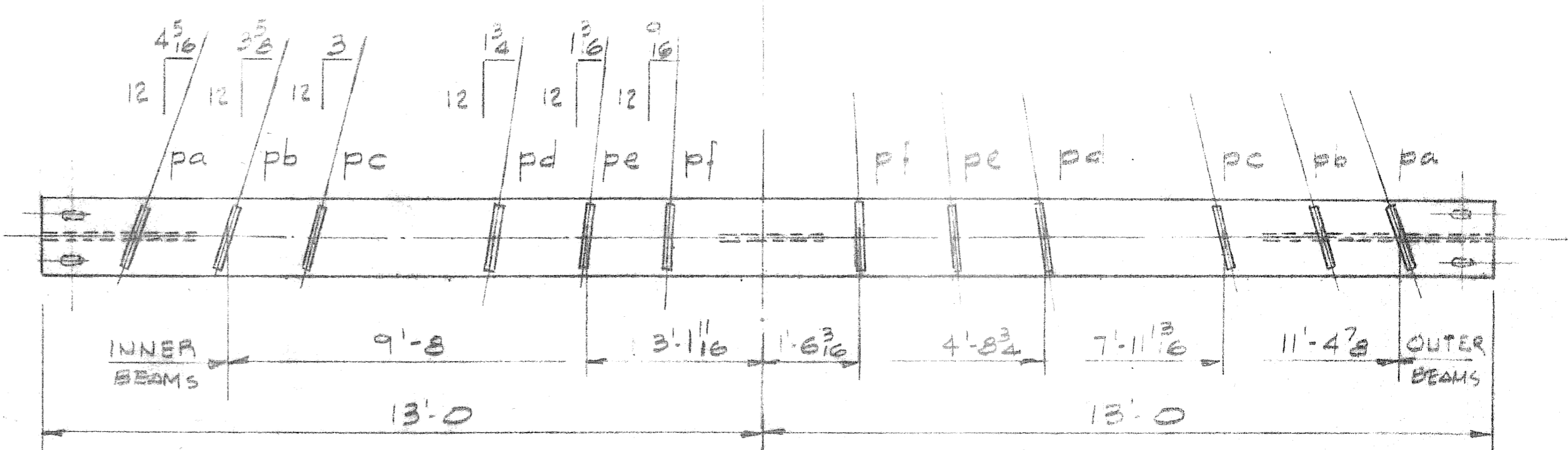
| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|----------------|-------------------|-------|
| REVISIONS | | | | | | | |
| ALONSO & CARUS iron works, inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3490186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | SHELL PLATE | | | | | |
| PROJ. No. | | N62470-83-B-3354 | | | JOB No 8063-66 | | |
| DESIGNER. | | J.M.C. & ASS. | | | 67-68 23069-55 | | |
| Chk'd. by. | | A.S. | | Drw. by. | | S.S. | |
| Apr'd. by. | | F.R. | | Date. | | 11-85 | |
| | | | | DRW. No. | | Q.290-85-17-A 7/9 | |



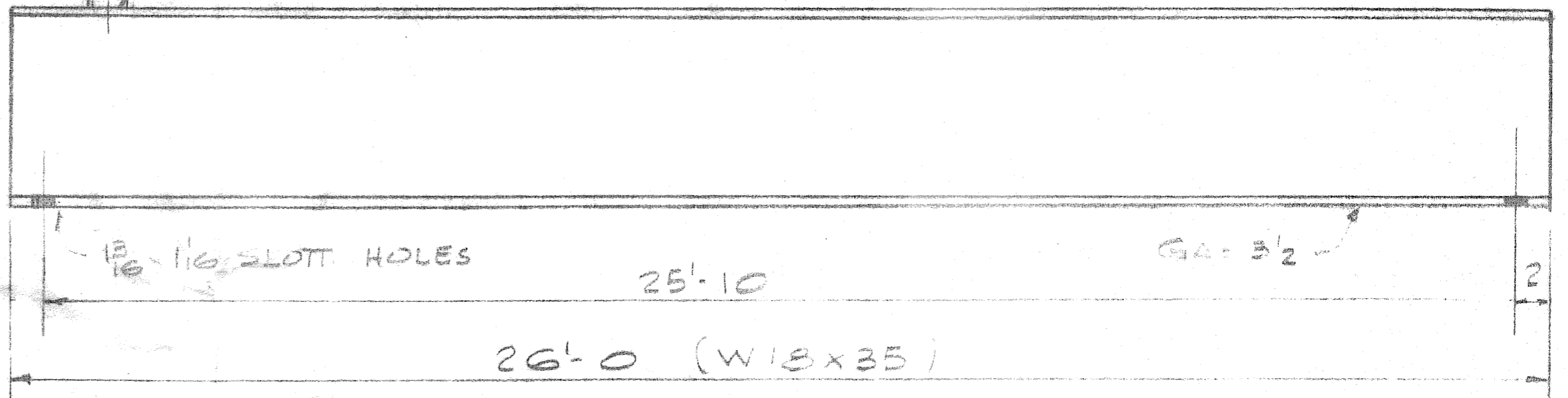
8 REQ'D MK C3



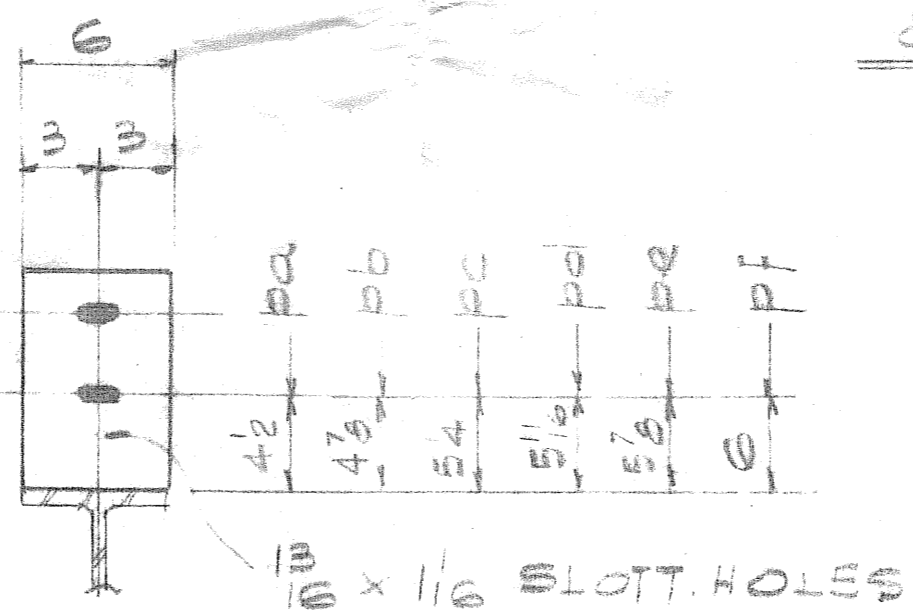
1 REQ'D MK C4



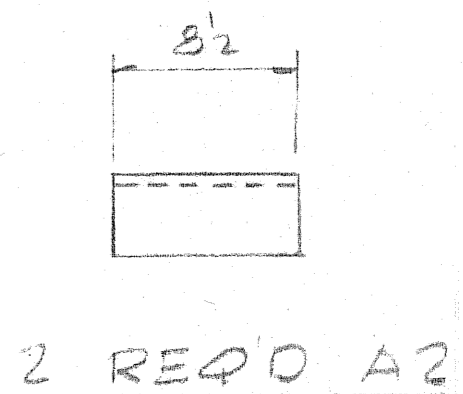
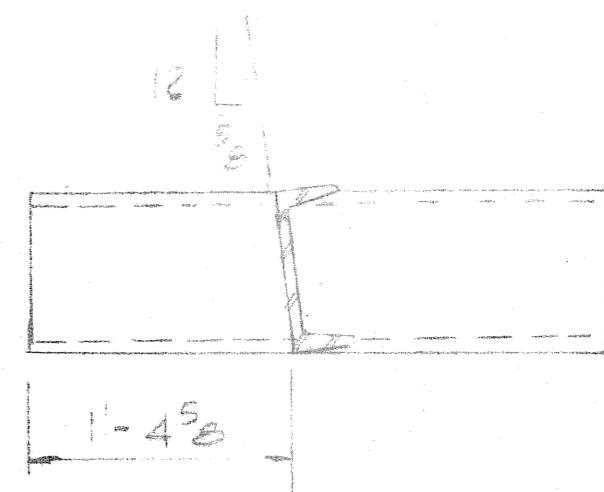
SYM.



8 REQ'D MK B1



1/8 x 1/16 SLOTT. HOLES



2 REQ'D A2

SECT. A

19. A60 1987

C9x13.4 FOR C1
C10x15.3 FOR C2

pa, pb & pc
pd, pe & pf

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------|-------|----------|-----------|------|--------------|---------|------|----------|------|------|---------------|-----------|-------|------|--------------|---------|------|----------|------|
| 8 | COL | C1 | | | | | | | | | | | | | | | | | |
| a | 8 | C9x13.4 | 48'-4 5/8 | 5187 | | | | | | pa | 16 | 10'-10" | | | | | | | |
| b | 8 | C12x20.7 | 48'-4 1/8 | 8026 | | | | | | pb | 16 | | | | | | | | |
| 1 | COL | C2 | | | | | | | | pc | 16 | | | | | | | | |
| c | 1 | C10x15.3 | 53'-4 1/4 | 226 | | | | | | pd | 16 | 0'-11 1/4 | | | | | | | |
| d | 1 | C12x20.7 | 53'-4 1/4 | 1106 | | | | | | pe | 16 | | | | | | | | |
| | | | | | | | | | | pf | 16 | | | | | | | | |
| | | | | | | | | | | A2 | 2 | 0'-8 1/2 | | | | | | | |
| 8 | BASE | C3 | | | | | | | | 34 | 3/4" x 2 1/4" | A-325 | | | | | | BOLTS | |
| 1 | BASE | C4 | | | | | | | | 34 | 3/4" | | | | | | | NUTS | |
| f | 2 | C10x15.3 | 3'-0 | 50 | | | | | | | | | | | | | | | |
| g | 1 | C12x20.7 | 3'-0 | 62 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

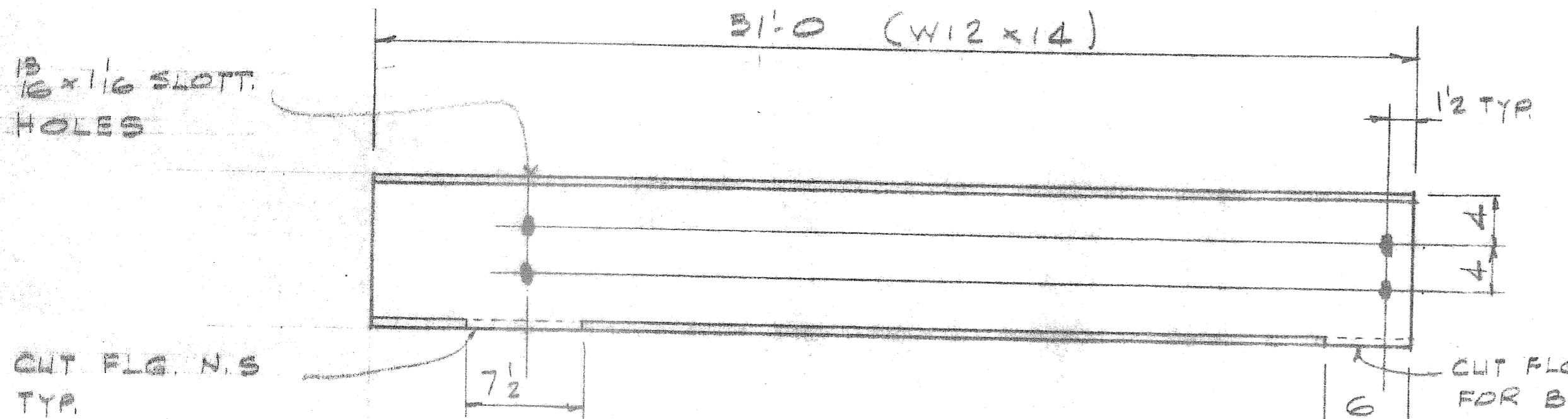
| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|---|-------|---|-------|----------|-------|---------------------------|-------|
| REVISIONS | | | | | | | |
| | | | | | | | |
| ALONSO & CARUS iron works, inc. P.O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | COL. & BEAM DET. | | | | | |
| PROJ. No. | | N62470-83-B-3354 | | | | JOB No 8065-66 | |
| DESIGNER. | | J.M.C. & ASS | | | | 67-68 & 8067-85 | |
| Chk'd. by. | | A.G. | | Drw. by. | | S.S. | |
| App'd. by. | | F.R. | | Date. | | PIC-85 | |
| | | | | | | DRW No. Q-292-85-17-K/8/9 | |

STOCK MATERIALS.

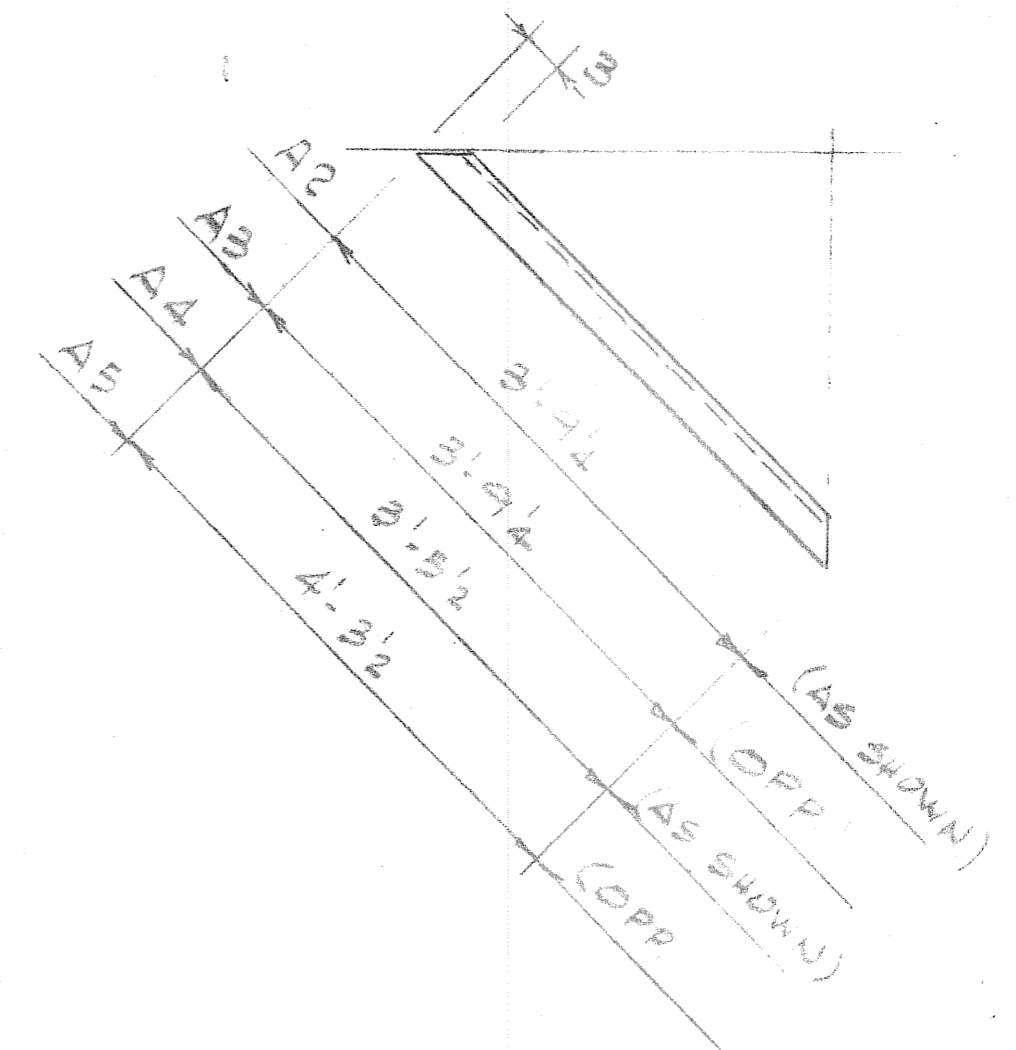
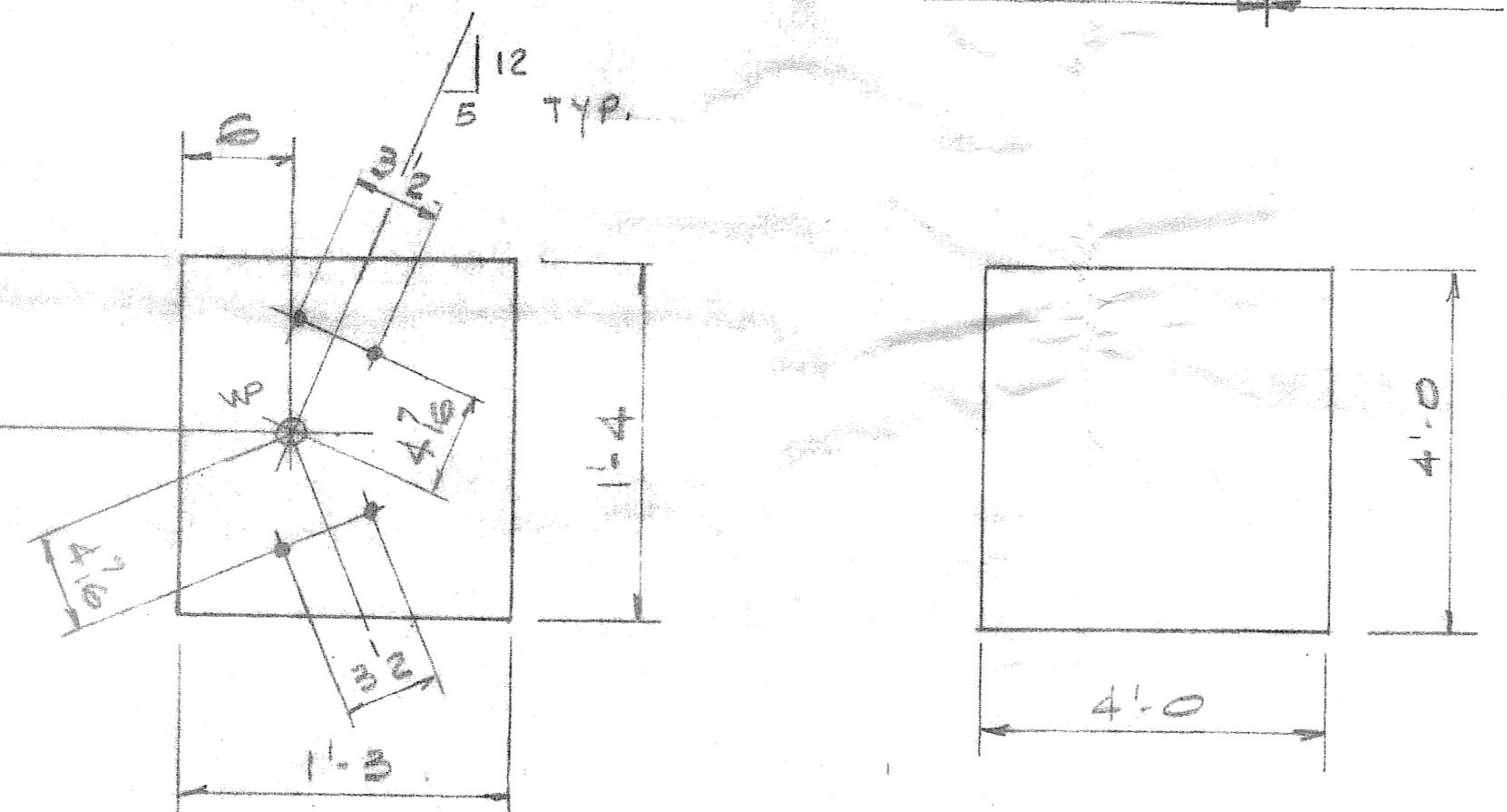
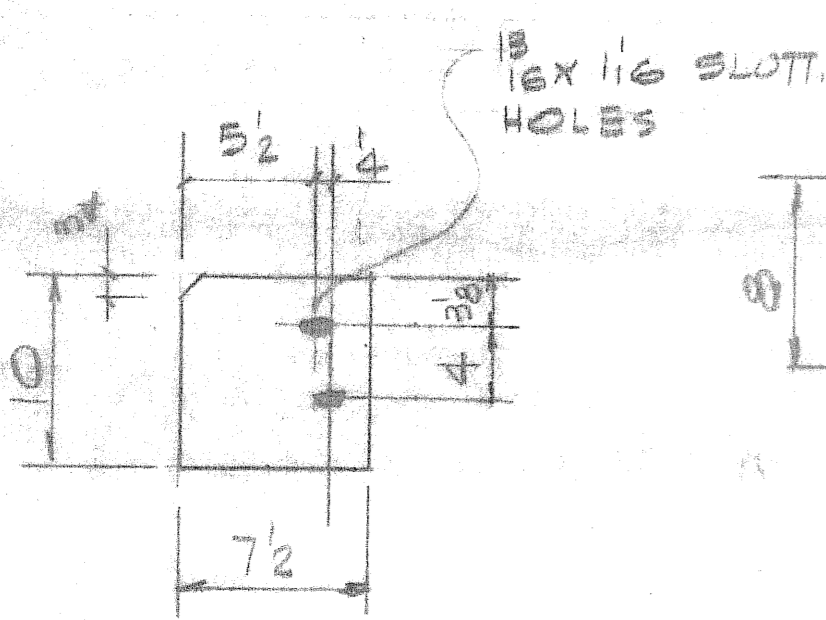
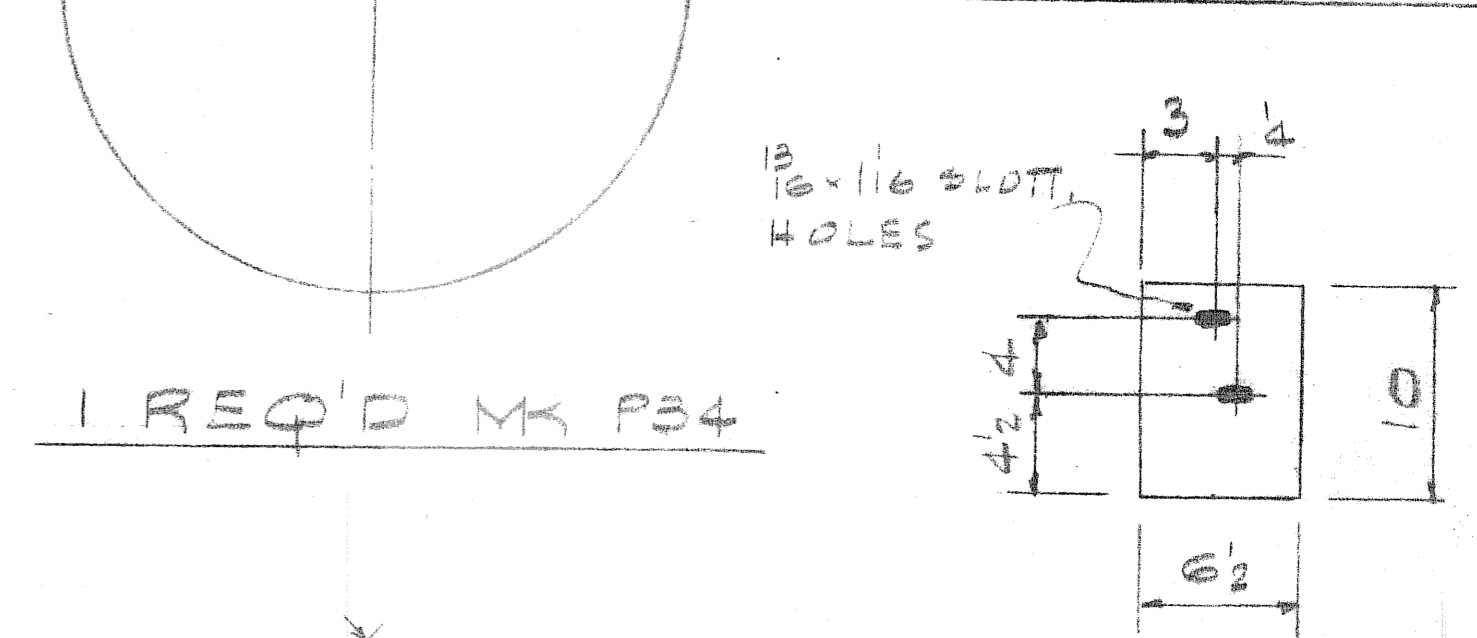
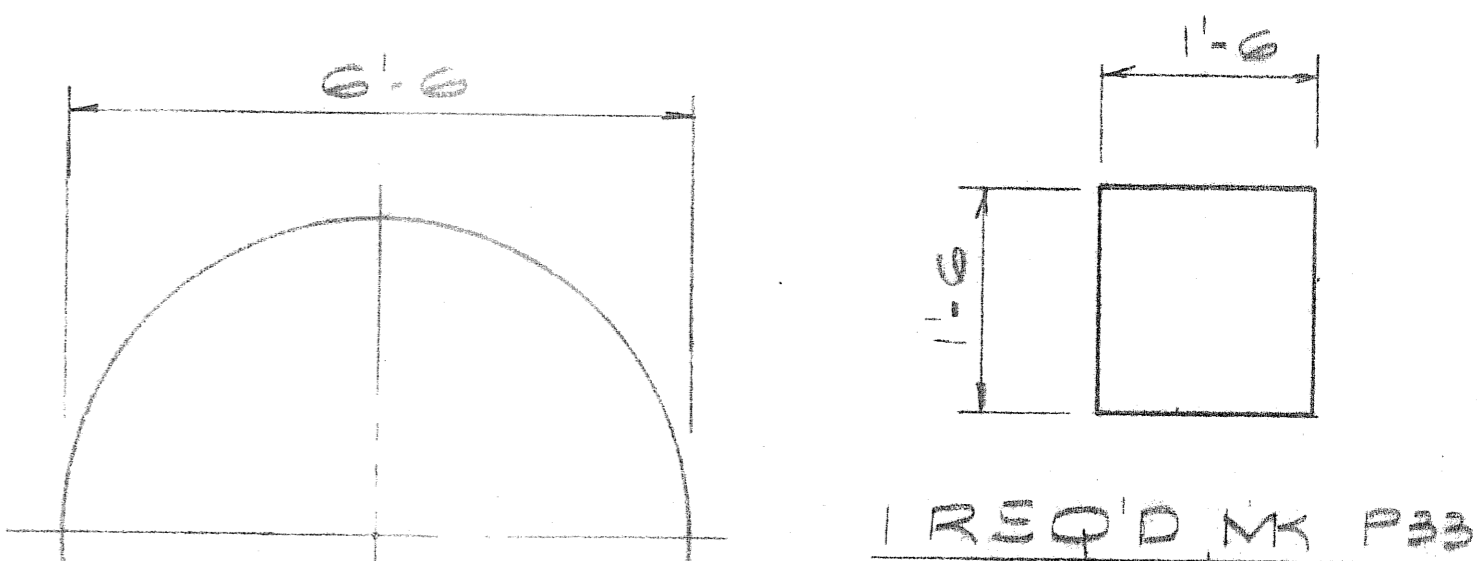
BILL OF MATERIALS. ONE TANK

STOCK MATERIALS.

BILL OF MATERIALS. ONE TANK



| | | |
|----------|-----------|---------|
| 16 REQ'D | 28'-4 1/2 | MARK B2 |
| 16 | 29'-4 3/8 | B3 |
| 16 | 30'-0 | B4 |
| 16 | 30'-3 3/4 | B5 |
| 16 | 30'-5 7/8 | B6 |
| 16 | 29'-2 1/2 | B7 |



32 REQ'D MK P35

64 REQ'D MK P30

8 REQ'D MK P32

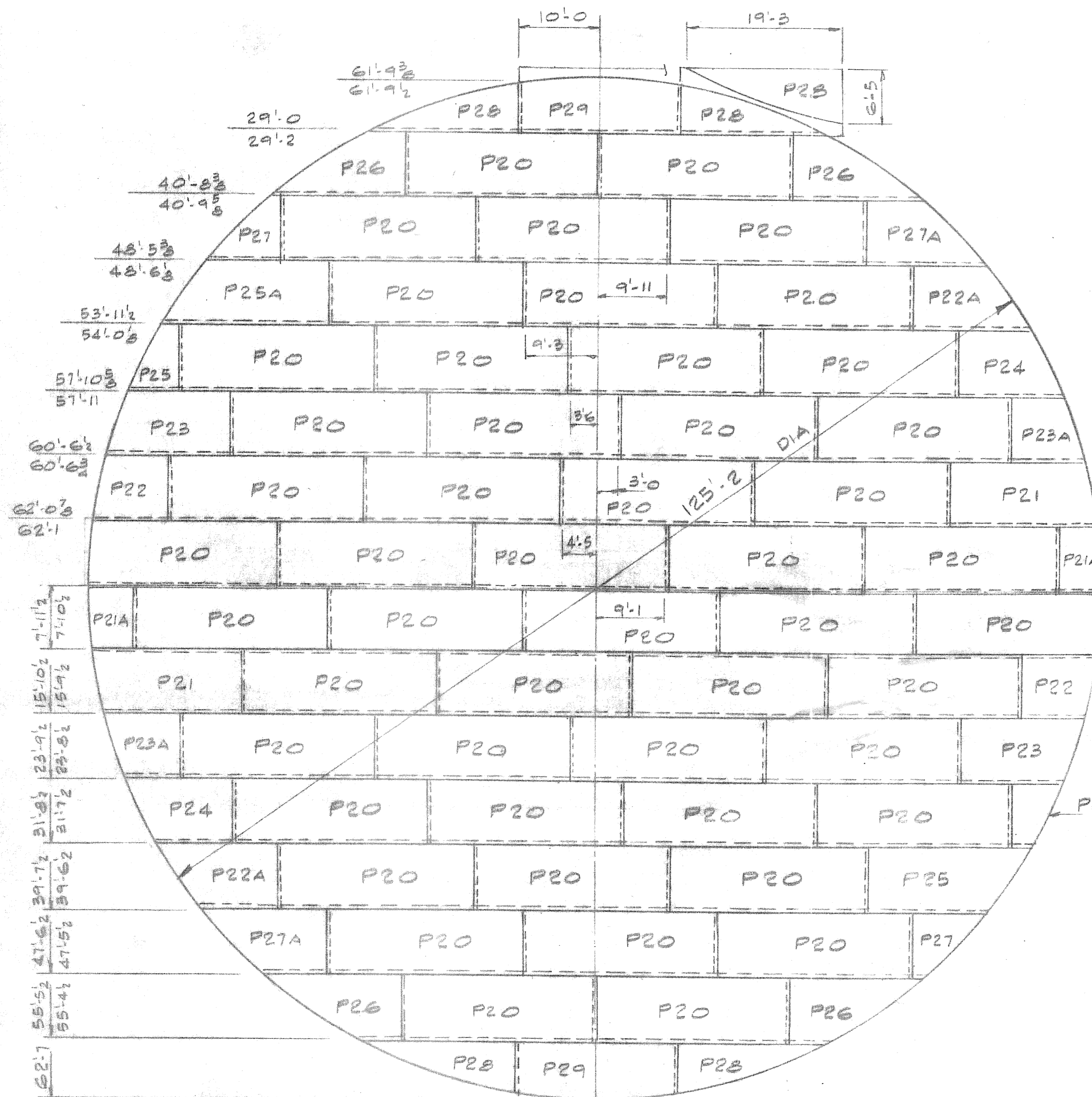
8 REQ'D MK P31

HOLES 1/16" DIA U.N.
19. A60 1987

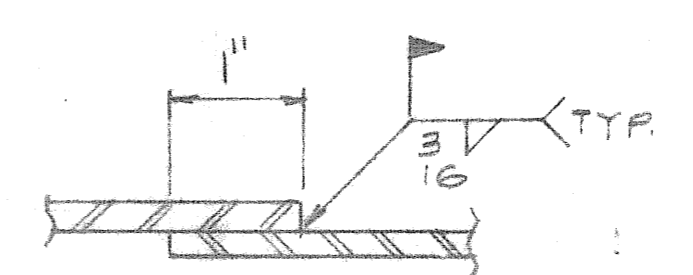
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------|-------|---------|-------|------|-----------------------|---------|------|----------|------|------|-------|---------|-------|------|--------------|---------|------|----------|------|
| | | | | 16 | W12x14 | 31'-0 | | | | | | | | | | | | | |
| | | | | 16 | | 31'-0 | | | | | | | | | | | | | |
| | | | | 16 | | 31'-0 | | | | | | | | | | | | | |
| | | | | 16 | | 31'-0 | | | | | | | | | | | | | |
| | | | | 16 | | 31'-0 | | | | | | | | | | | | | |
| | | | | 16 | | 31'-0 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | 400 | 3/4" x 1 1/4" BOLTS | | | A-307 | | | | | | | | | | | |
| | | | | 400 | 3/4" x 1 1/4" HEX NUT | | | A-307 | | | | | | | | | | | |

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|-------|-----------------|-------|
| REVISIONS | | | | | | | |
| ALONSO & CARUS Iron works, Inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450188 | | | | | | | |
| CONTRACTOR OR OWNER. | | U. S. NAVAL STATION - ROOSEVELT ROAD, PR. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | RAFTERS & PLATES DET. | | | | | |
| PROJ. No. | | NG2470-83-B-3354 | | | | JOB No 8065-66 | |
| DESIGNER. | | J. M. C. & ASS. | | | | 67-68 & 8069-85 | |
| Chk'd. by. | | A. G. | | Drw. by. | | S. S. | |
| Apr'd. by. | | F. R. | | Date. | | 1-5-85 | |
| | | | | DRW. No. | | Q.292-85-17-K/9 | |

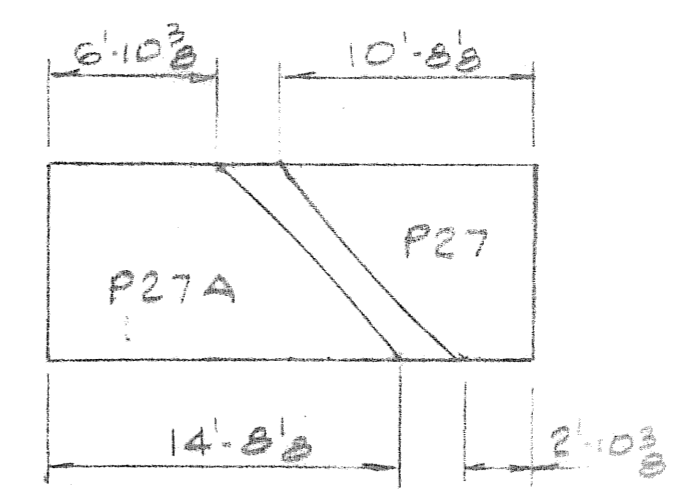
STOCK MATERIALS. BILL OF MATERIALS. ONE TANK. STOCK MATERIALS. BILL OF MATERIALS. ONE TANK.



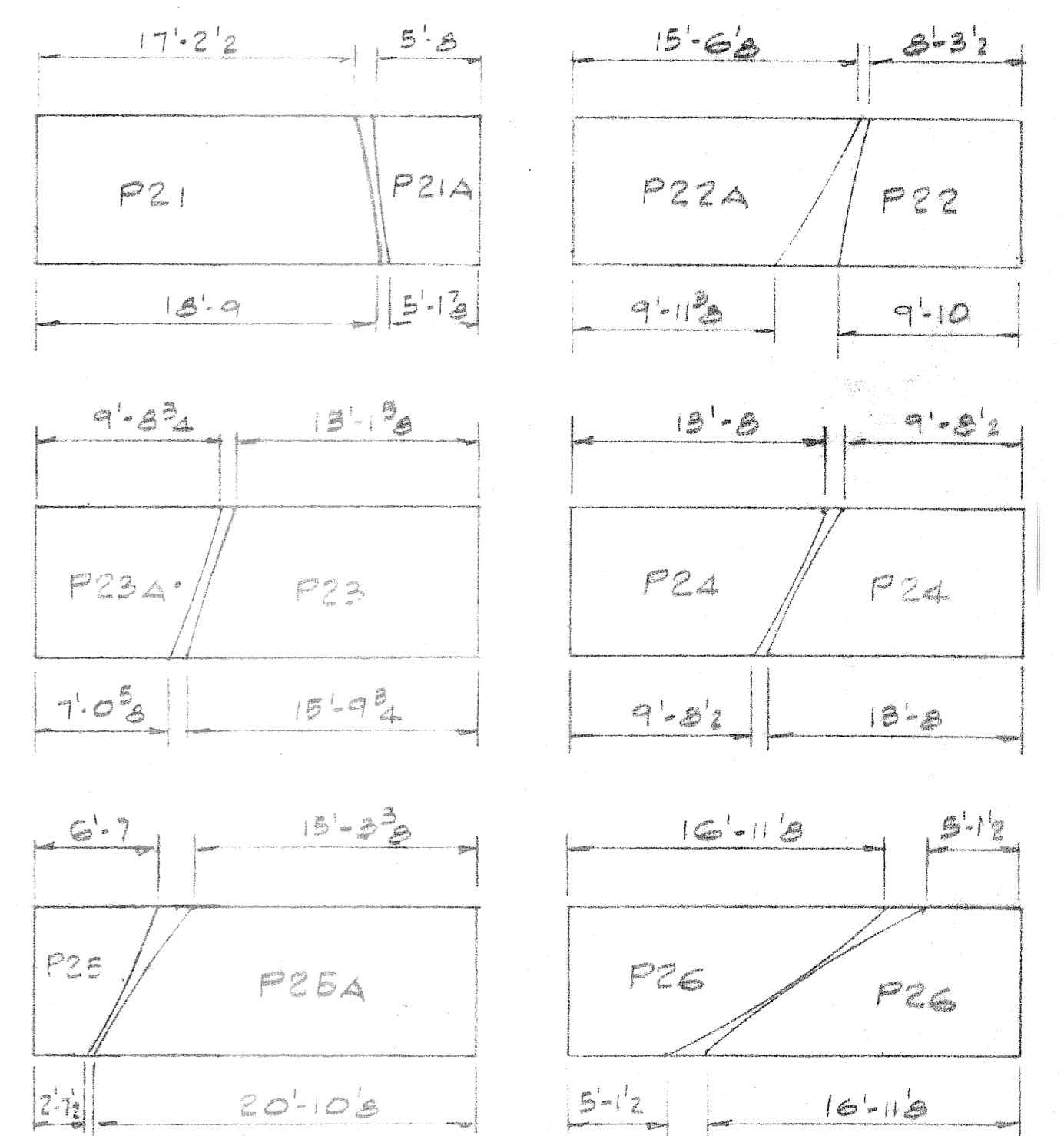
ROOF PLATE LAYOUT



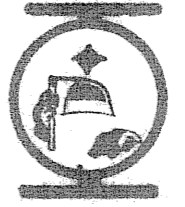
SECT. TROUGH LAP



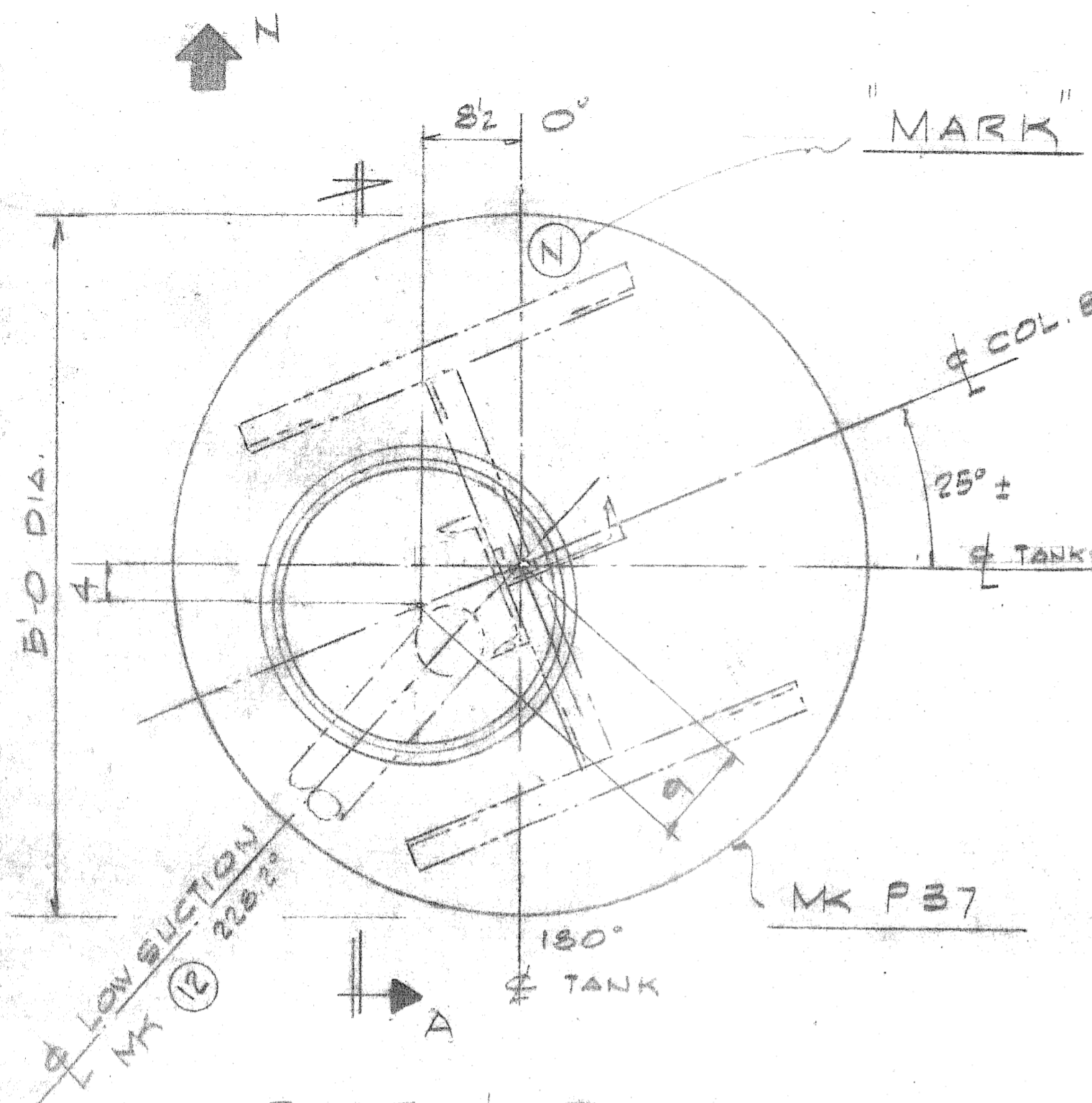
| BILL OF MATERIALS. | | | | | |
|--------------------|------|--------------|--------|------|---------------|
| MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS. |
| P20 | 50 | P-3/8 x 8'0" | 24'0" | | |
| P21 & P21A | 2 | | | | |
| P22 - P22A | 2 | | | | |
| P23 - P23A | 2 | | | | |
| P24 | 1 | | | | |
| P25 - P25A | 2 | | | | |
| P26 | 2 | | | | |
| P27 - P27A | 2 | P-3/8 x 8'0" | 20'0" | | |
| P28 | 2 | | | | |
| P29 | 2 | | | | |
| | | | | | 98000 # TOTAL |



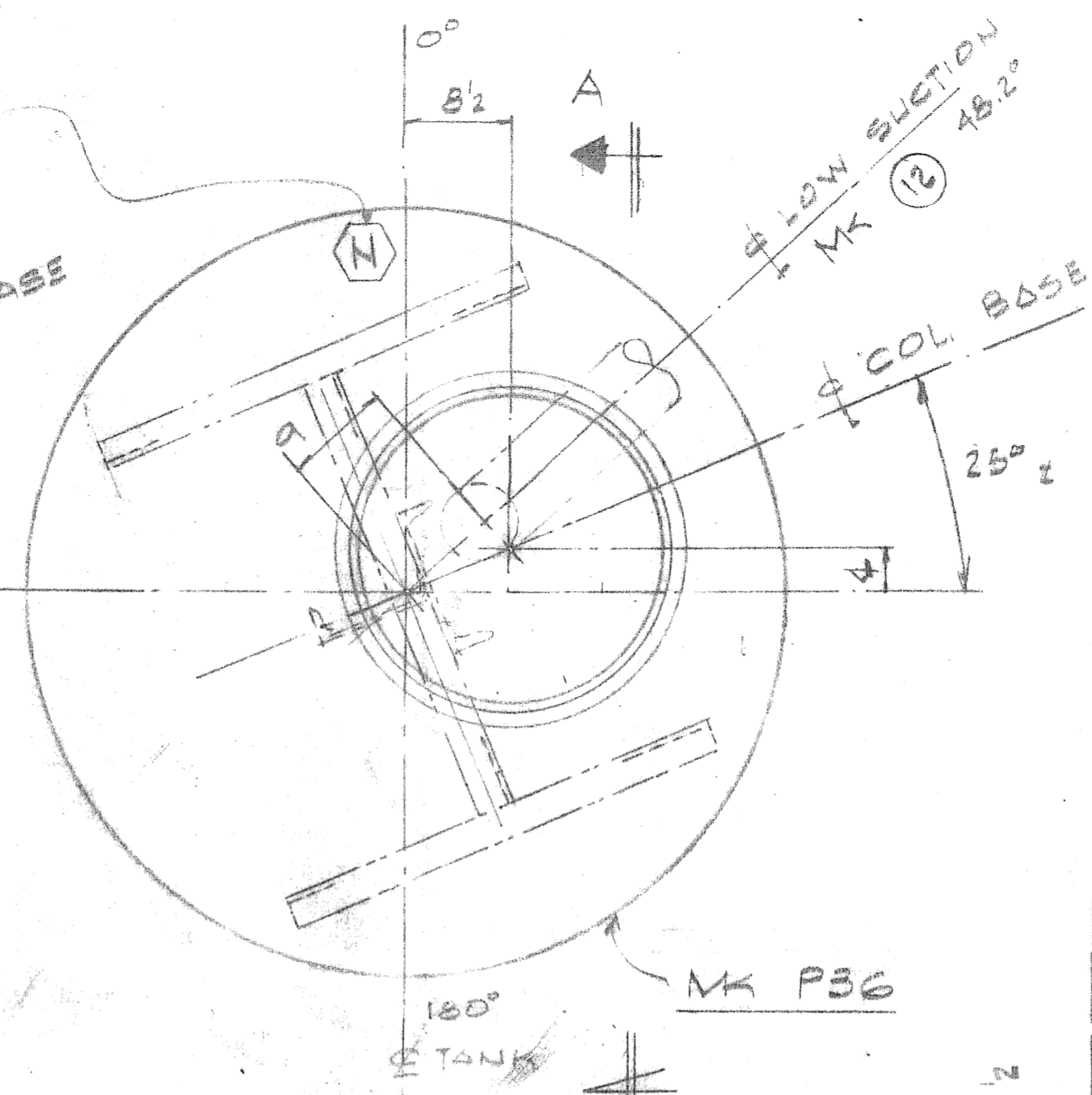
19. AGO 1987

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|-------|-----------------|-------|
| REVISIONS | | | | | | | |
|  ALONSO & CARUS Iron works, inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | ROOF PLATE LAYOUT | | | | | |
| PROJ. No. | | H62470-BB-B-3354 | | | | JOB No 8066-66 | |
| DESIGNER. | | J. C. M. AESS. | | | | 67-68 & 8069-05 | |
| Chk'd. by. | | A. E. | | Drw. by. | | S. S. | |
| Aprd. by. | | F. R. | | Date. | | 11.20.85 | |
| | | | | DRW. No. | | 10/19 | |
| | | | | | | Q-292.85-17.15 | |

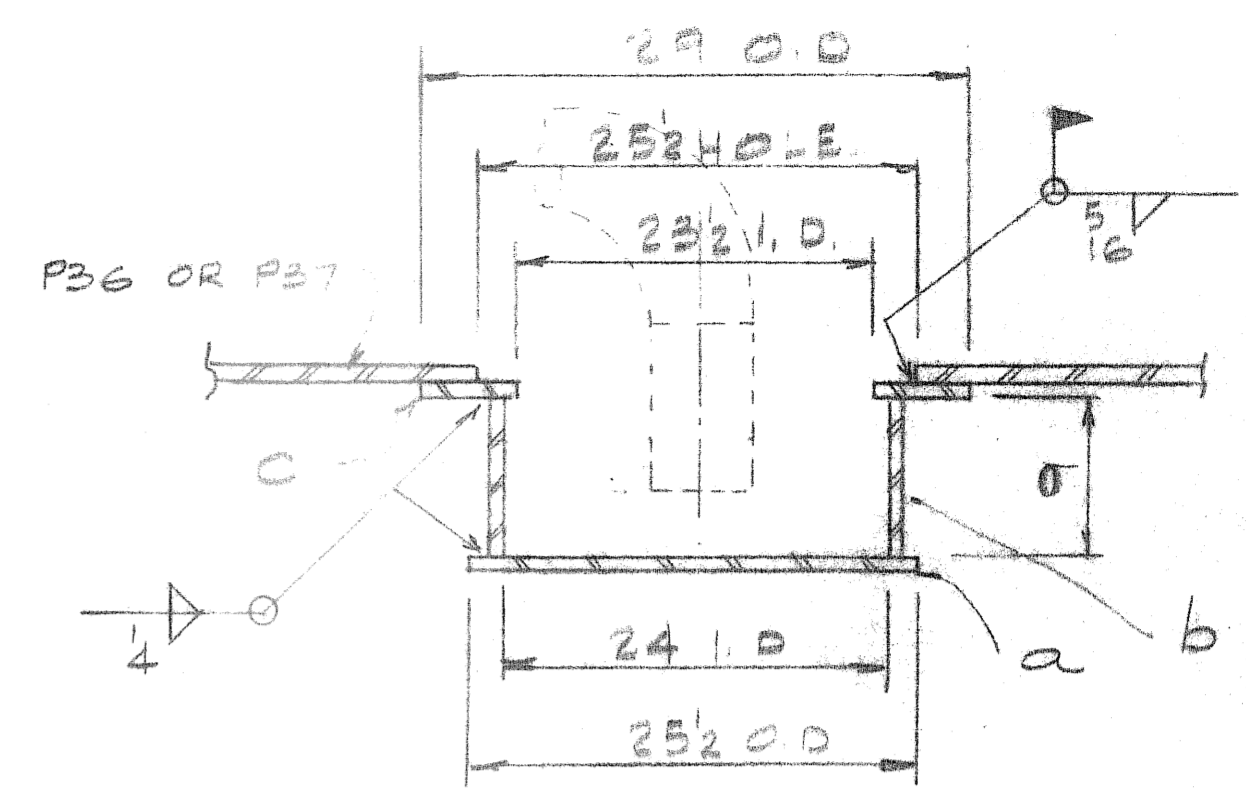
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|------------------|-------|---------|-------|------|--------------|---------|------|----------|------|--------------------|-------|---------|-------|------|--------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |



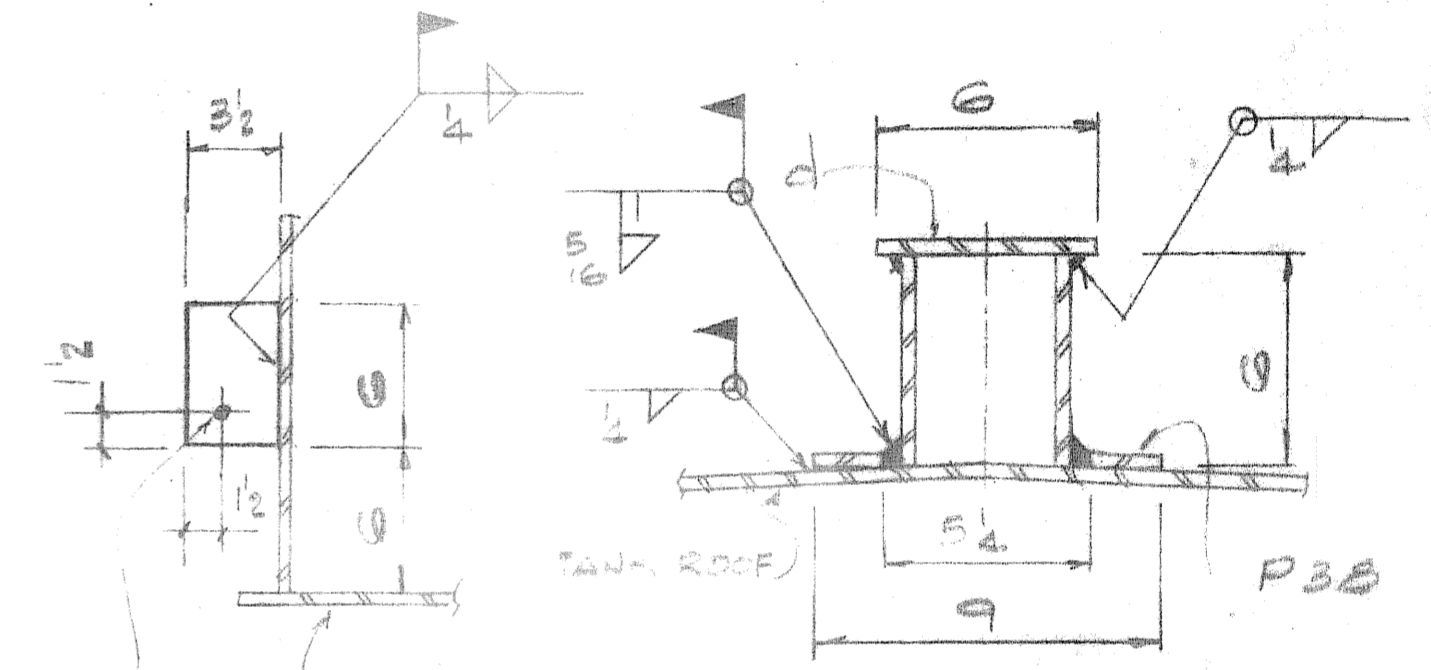
BASE & SUMP FOR TANKS #2 & 4



BASE & SUMP FOR TANKS #1, 3 & 5

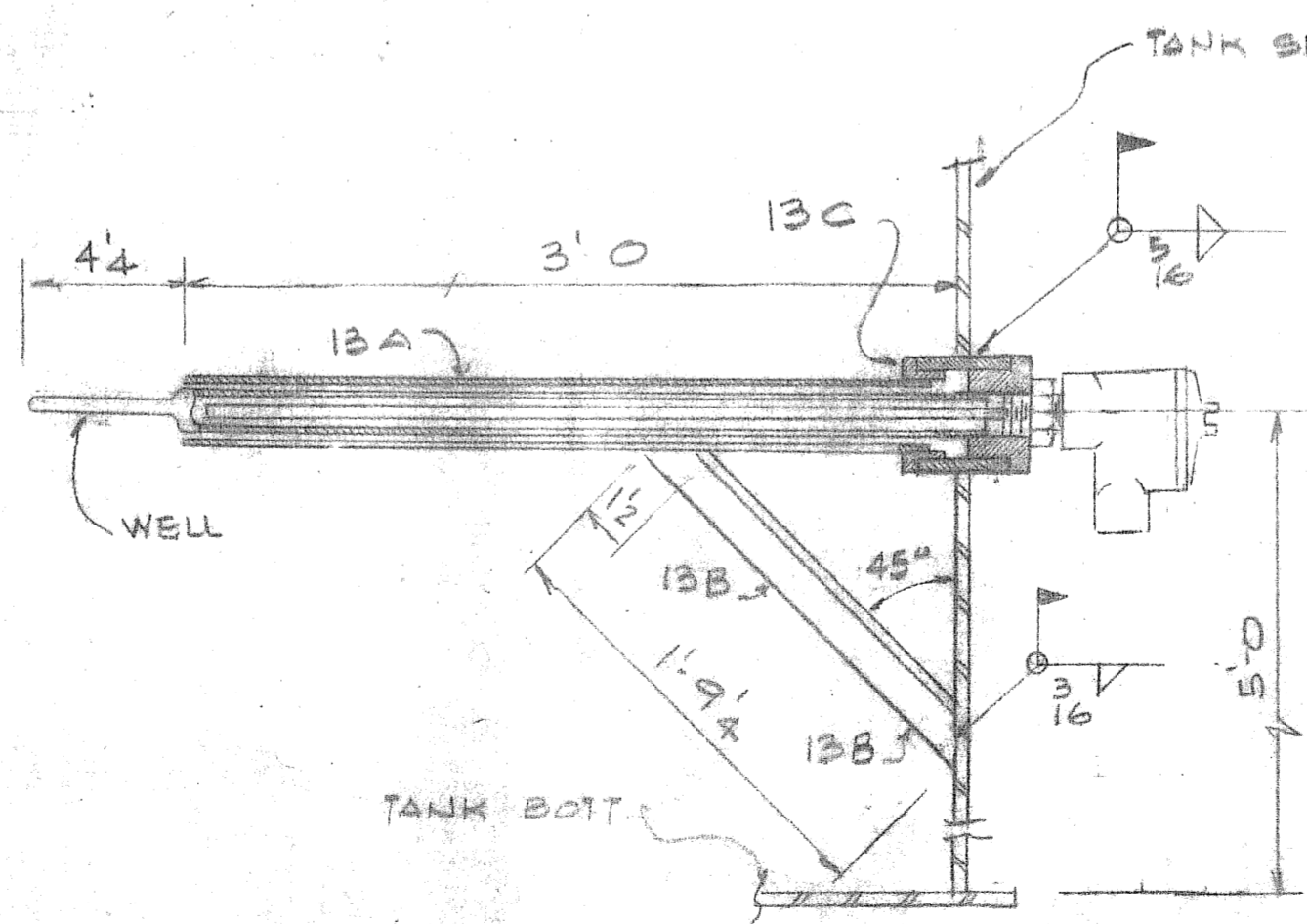


SECT. A SUMP DET. (6)



SCAFFOLD (1) GROUNDING LUG DET. P39

| | | | | | | | | |
|--|--|--|-----|---|----------------------|--------|----|------------|
| | | | P36 | 3 | R 3/4 x 5'-0 DIA | | | FOR ALL |
| | | | P37 | 2 | R 3/4 x 5'-0 DIA | 600 | | TANKS |
| | | | ONE | | SUMP | ASSY. | | (6) |
| | | | A | 1 | R 3/4 x 25 1/2 O.D. | 45 | | |
| | | | B | 1 | R 3/4 x 9 5/8 O.D. | 61 | | |
| | | | C | 1 | R 3/4 x 23 1/2 O.D. | 20 | | |
| | | | | 1 | 4" PIPE | 0'6 | 5 | SCH. 40 |
| | | | | 1 | R 3/4 x 6" O.D. | | 2 | |
| | | | P38 | 1 | R 3/4 x 54 O.D. | | 2 | |
| | | | P39 | 2 | R 2 x 3/2 | 0'6 | 6 | GROUNDING |
| | | | | 2 | 1/2" x 3/4" C.P.L.G. | | | |
| | | | | 2 | 1" PIPE | 3'0 | | SCH. 80 |
| | | | | 2 | 1-1/2 x 1-1/2 | 1-9/16 | 25 | |
| | | | | 2 | 1 1/2 x 1 REDUCER | | | BUSHING |
| | | | | 2 | 70210 TERMOWELL | | | GPE |
| | | | | | | | | 766# TOTAL |

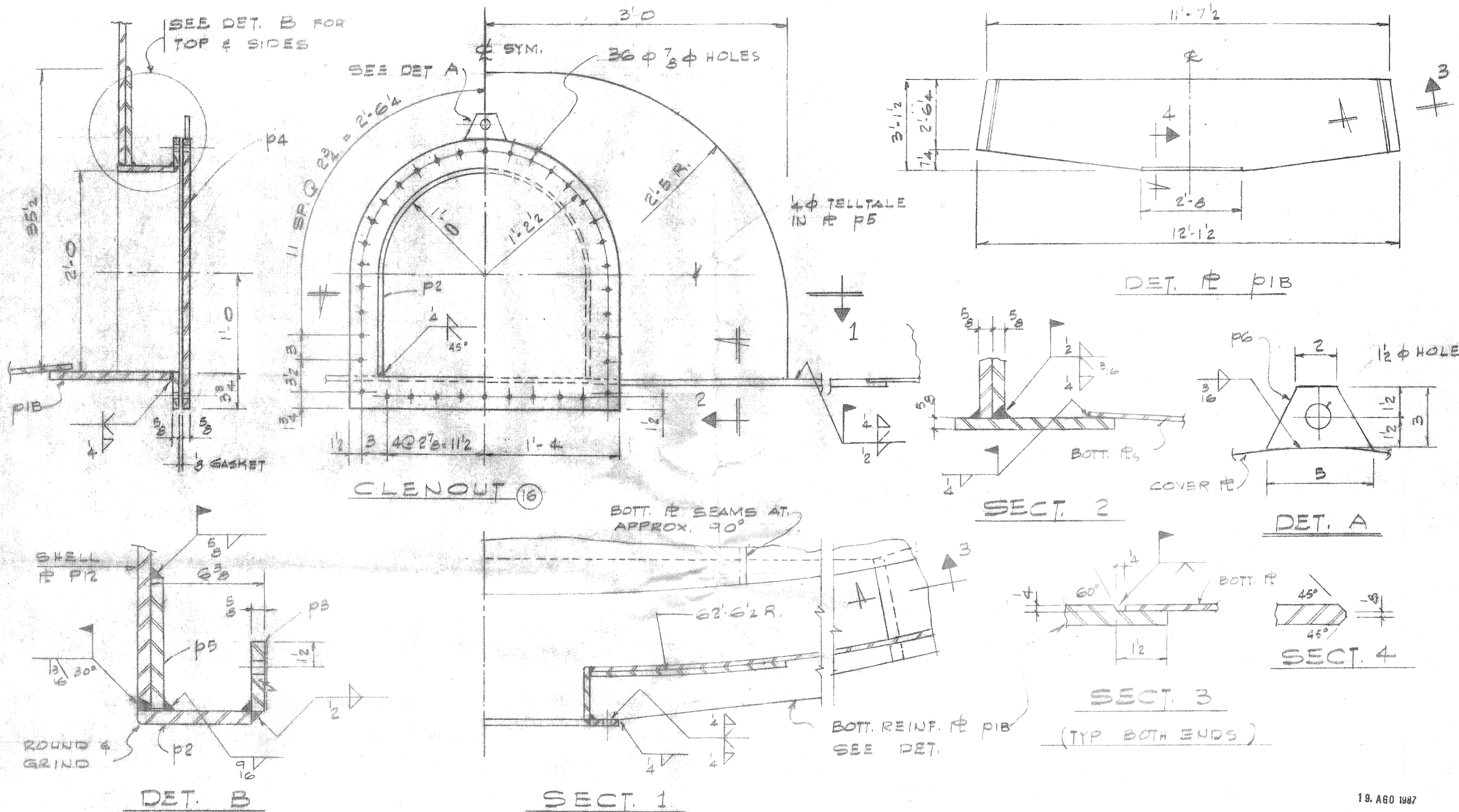


△ THERMOWELL DET. (13)

19. AGO 1987

| | | | | | | |
|--|---------|---|-------|-------|-----------------|--------------|
| 1 | 6-12-87 | TERMOWELL | S.S. | | | |
| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. |
| REVISIONS | | | | | | |
| | | | | | | |
| ALONSO & CARUS Iron works, Inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450186 | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | |
| DESCRIPTION. | | MISCELLANEOUS DET. | | | | |
| PROJ. No. | | NG2470-83-B-3354 | | | JOB No 2065-86 | |
| DESIGNER. | | J. M. C. & ASS | | | 67.65 (2069-83) | |
| Chk'd. by. | | A. G. | | Date. | | |
| App'd. by. | | F. R. | | Date. | | |
| | | Date. | | Date. | | |
| | | Date. | | Date. | | |

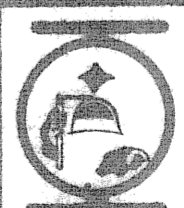
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------------------|-------|---------|-------|------|--------------|---------|------|----------|------|-----------------------------|-------|---------|-------|------|--------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. ONE TANK | | | | | | | | | |
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |

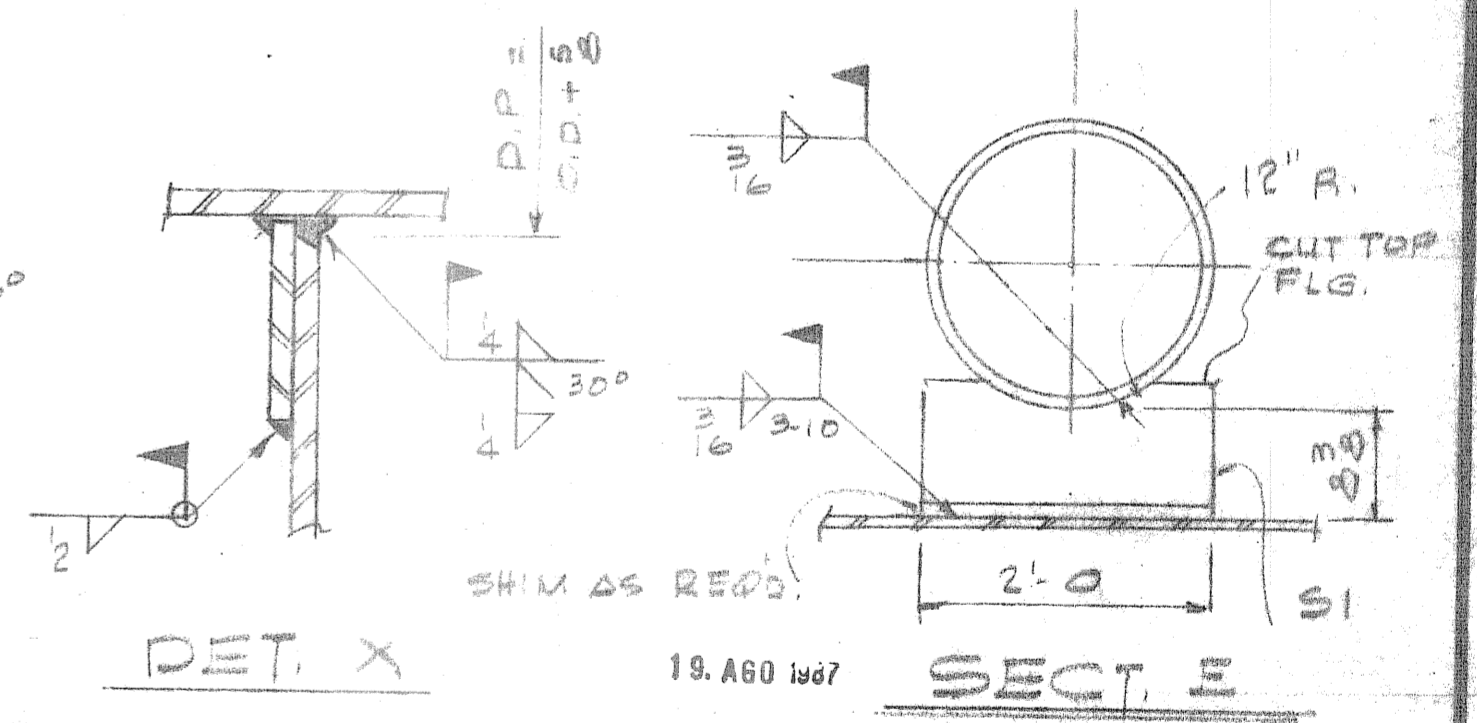
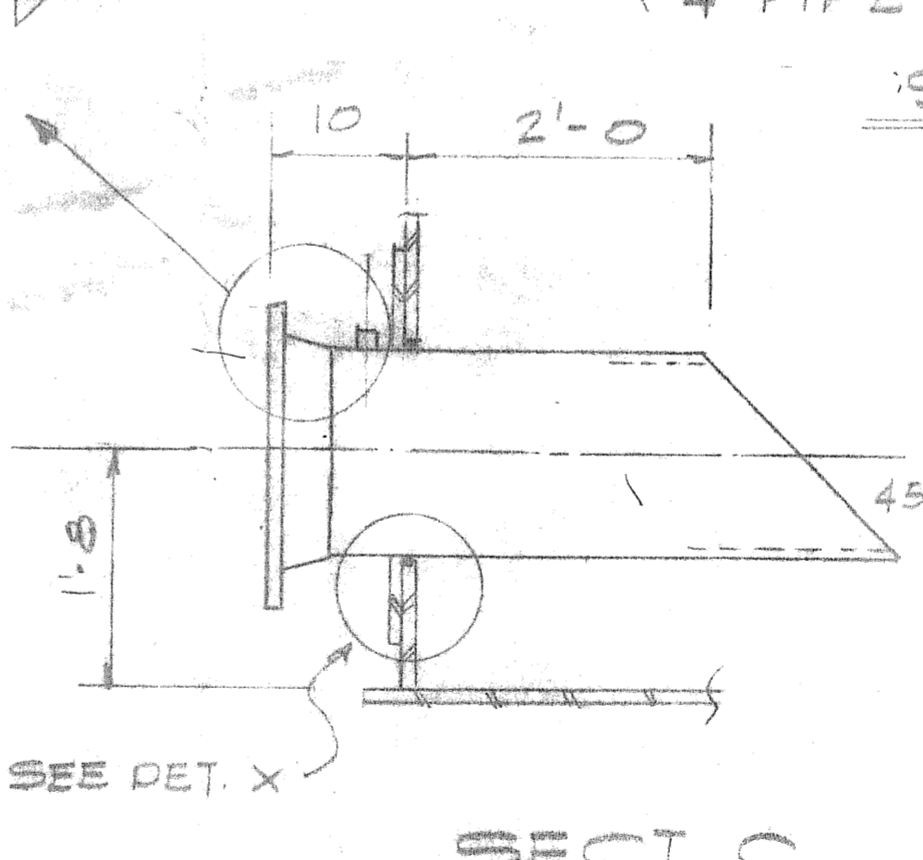
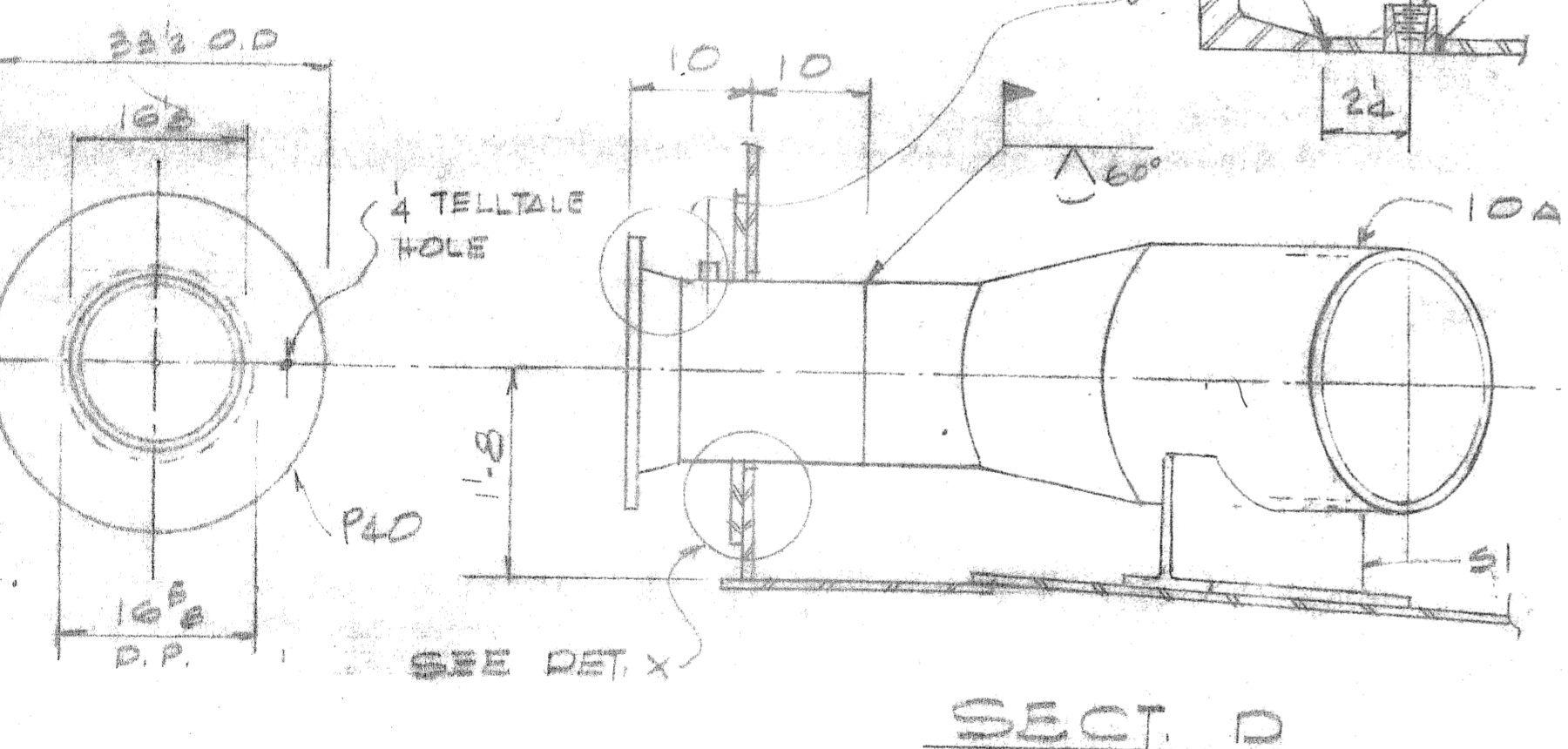
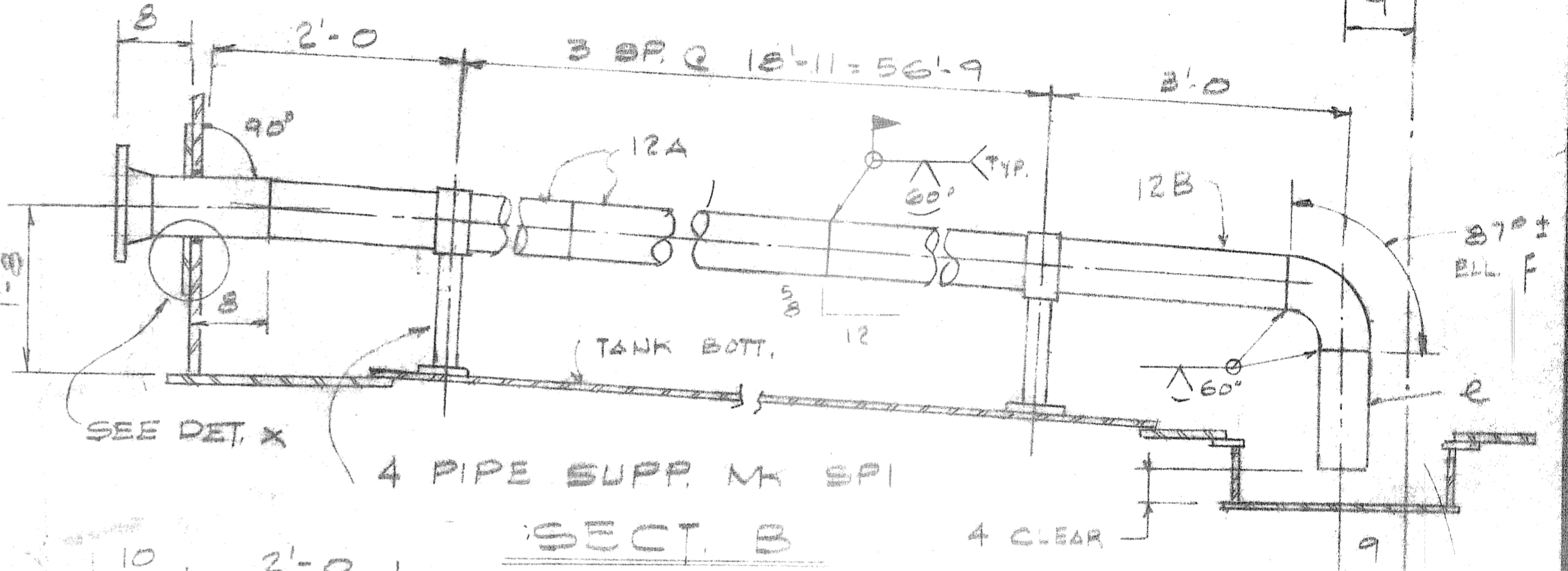
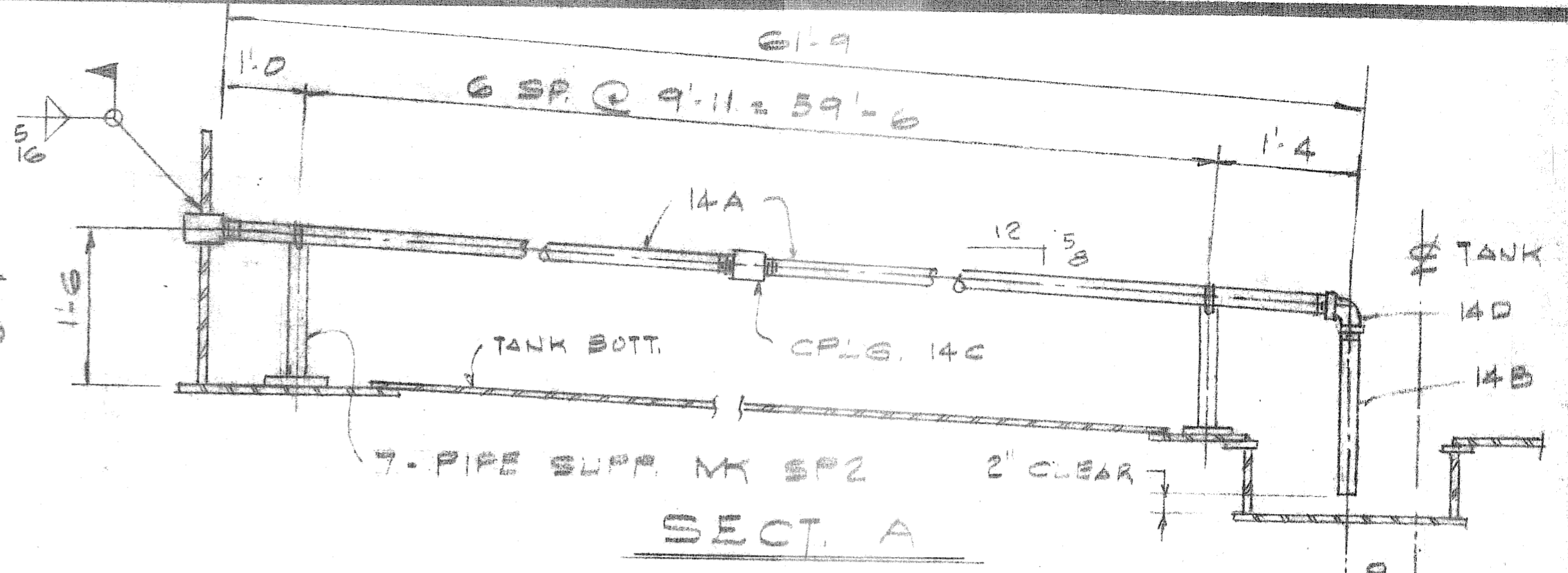
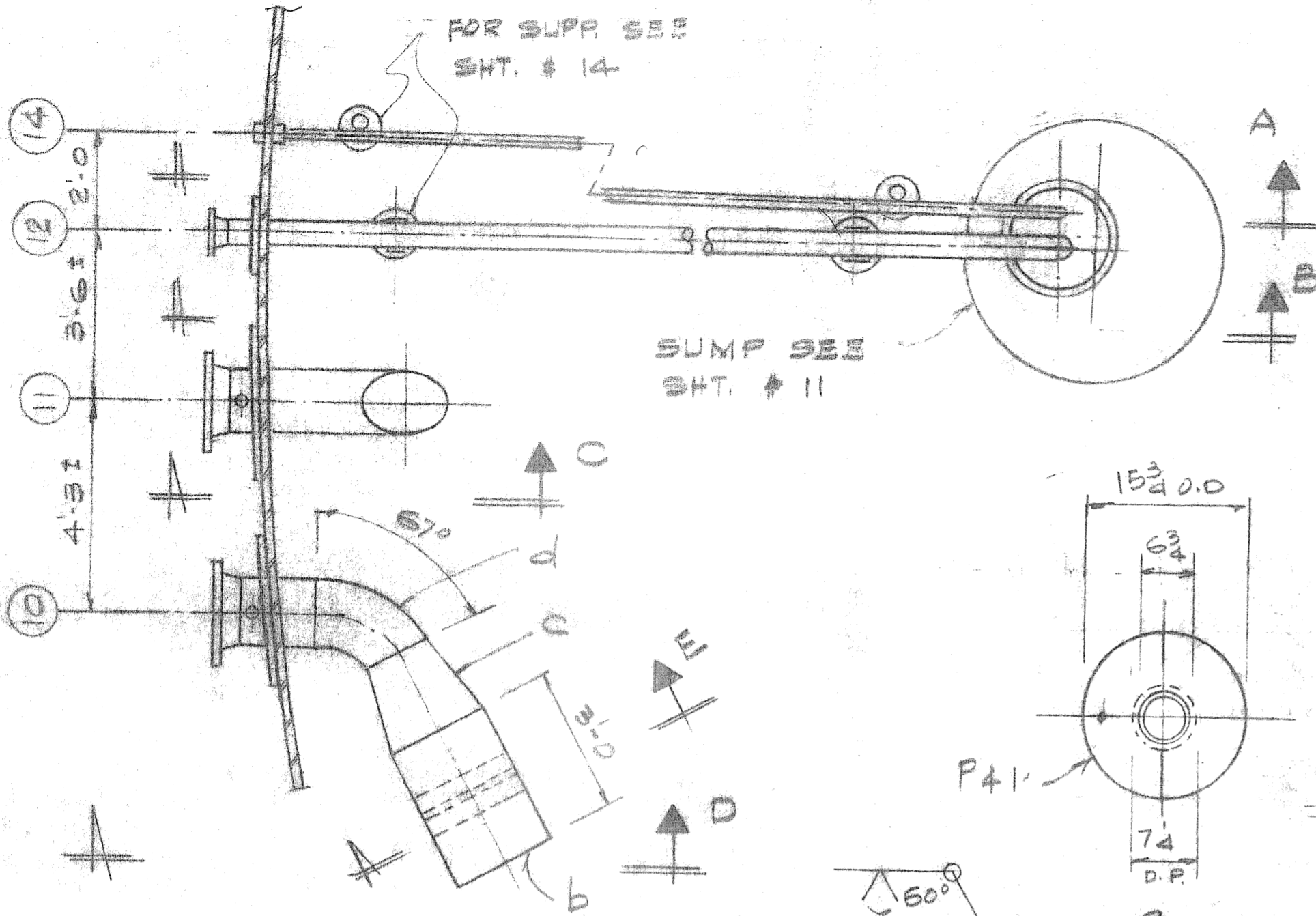


19. AGO 1987

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|--------------------|-------|------------|-------|------|--------------|------------|-------|----------|------|
| ONE CLEANOUT MK 16 | | | | | | | | | |
| 1 | P1B | 12'-1 1/2" | | 1 | R. 5 x 3-1/2 | 12'-1 1/2" | 978 | | |
| 1 | P2 | 5'-2 1/2" | | 1 | R. 5 x 6'-2" | 5'-2 1/2" | 72 | | |
| 1 | P3 | 2'-8" | | 1 | R. 3 x 2-7/8 | 2'-8" | 65 | FLG. | |
| 1 | P4 | 2'-8" | | 1 | R. 3 x 2-7/8 | 2'-8" | 160 | COVER | |
| 1 | P5 | 6'-0" | | 1 | R. 5 x 2-1/2 | 6'-0" | 274 | ROLLED | |
| 1 | P6 | 0'-5" | | 1 | R. 3 x 3 | 0'-5" | 1 | | |
| 36 | 3/8" | 2 1/2" | | | BOLTS | | A-193 | | |
| 36 | 3/4" | | | | HEX NUT | | A-194 | | |
| 72 | 3/8" | | | | FLAT WASHER | | F-436 | | |
| 1 | 1/2" | | | | GASKET | | 3 | | |
| 1521 # TOTAL | | | | | | | | | |


| STOCK MATERIALS. | BILL OF MATERIALS. ONE TANK | STOCK MATERIALS. | BILL OF MATERIALS. | | | | | | |
|------------------|-----------------------------|------------------|--------------------|------|--------------|---------|------|----------|------|
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|--|-------|---|-------|----------|-------|------------------------------|-------|
| REVISIONS | | | | | | | |
|  ALONSO & CARUS Iron works, inc. P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065. Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico. TELEX NO. 3450106 | | | | | | | |
| CONTRACTOR OR OWNER. | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT. | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION. | | CLEANOUT DETAIL | | | | | |
| PROJ. No. | | HG2470-83-B-3354 | | | | JOB No. 8065-66 | |
| DESIGNER. | | J. M. C. ASS. | | | | GT. 63-8064-85 | |
| Chk'd. by. | | A. G. | | Drw. by. | | S. S. | |
| Apr'd. by. | | P. R. | | Date. | | 12-85 | |
| | | | | | | DRW. No. Q-290-85-17-K 12/89 | |

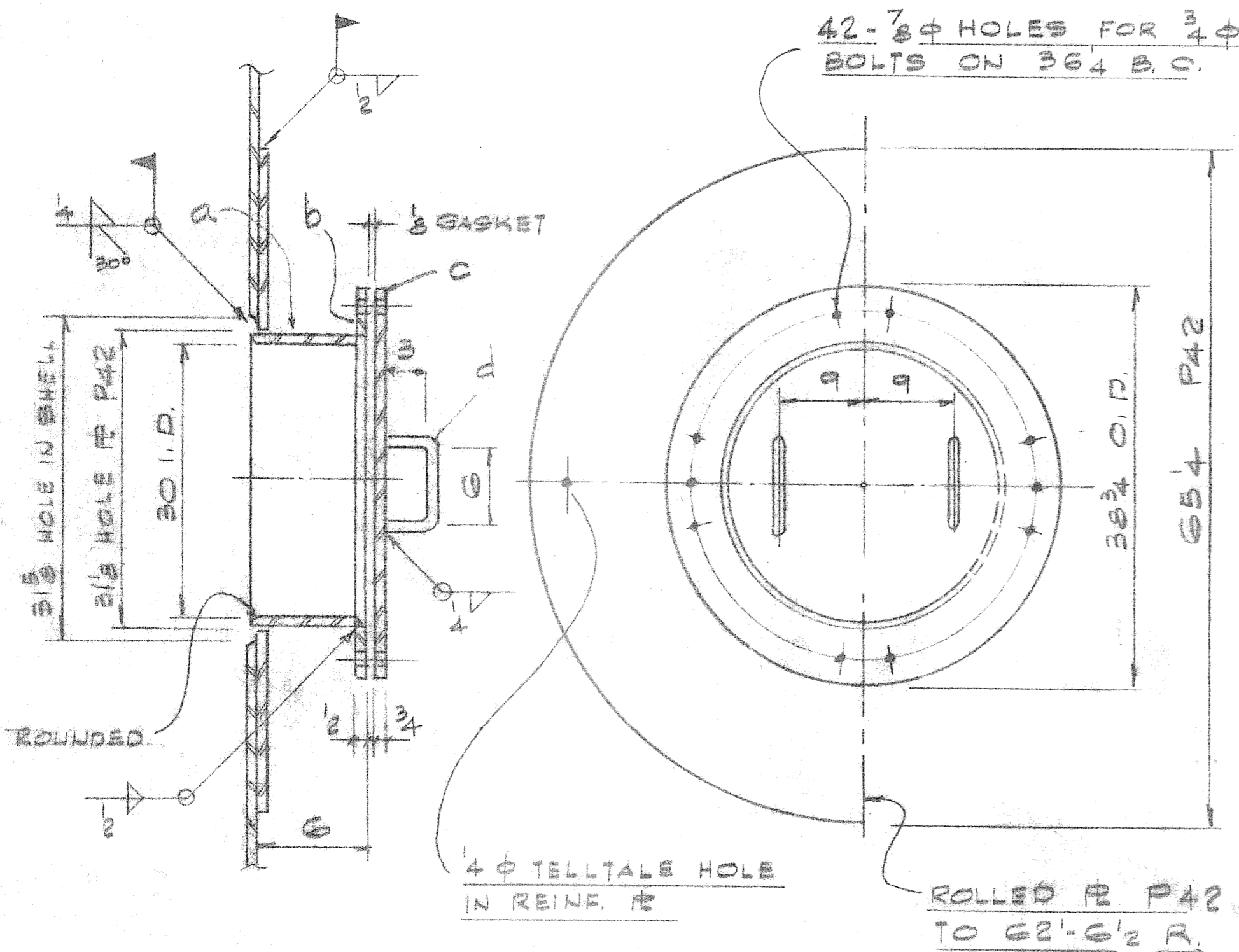


| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|--------------|-------|---------|-------|------|-----------------|-----------|------|--------------|------|
| | | | | 10 | 16 PIPE W/FLG | 1'-3" | 225 | STD & REWN. | |
| | | | | 2 | 3/4 3000# | | | HALF CPLG. | |
| | | | | 10A | INLET ASSY | | | | |
| | | | | b | 24 PIPE 3'-0" | | 285 | STD. | |
| | | | | c | 24x16 CONC. RED | | 162 | | |
| | | | | d | 16 ELL. 67° | | 160 | | |
| | | | | 11 | 16 PIPE W/FLG | 3'-9" | 377 | STD & REWN. | |
| | | | | 2 | 3/4 3000# | | | HALF CPLG. | |
| | | | | 12 | 6 PIPE W/FLG | 1'-0 1/2" | 30 | STD. & REWN. | |
| | | | | 12A | 6 PIPE | 21'-0" | 600 | | |
| | | | | 12B | 6 " | 21'-0" | 600 | | |
| | | | | e | 6 " | 1'-3 1/8" | 36 | | |
| | | | | f | 6 ELL. 87° | | 35 | | |
| 2930 # TOTAL | | | | | | | | | |

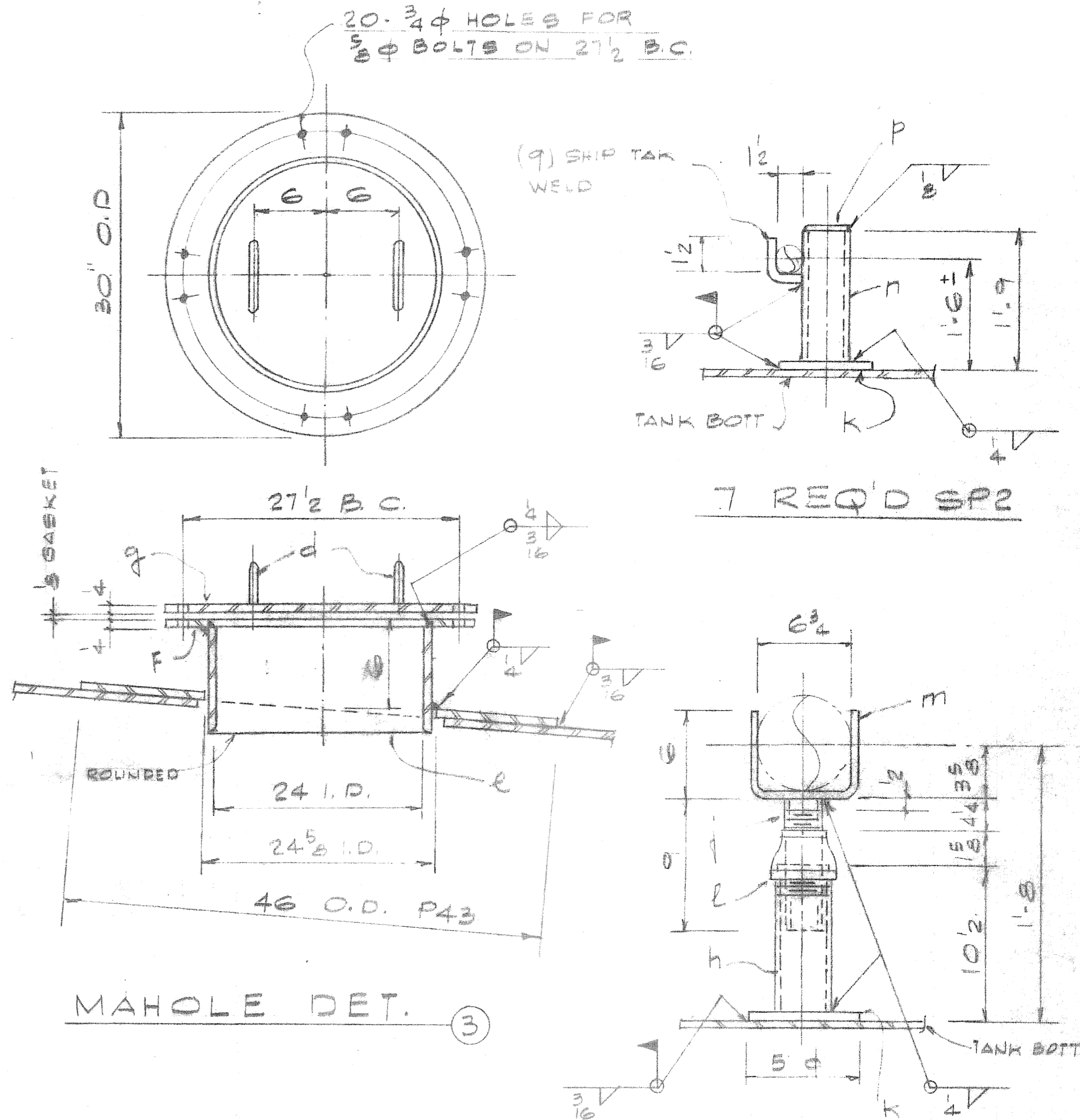
| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|-----|-------|--------------|-------|-----|-------|--------------|-------|
| | | | | | | | |
| | | | | | | | |


ALONSO & CARUS iron works, Inc.
 P. O. Box 566, Cataño, Puerto Rico 00632-Phone (809) 788-1065.
 Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico.
 TELEX No. 3450186

| | | | |
|----------------------|---|----------|------------------------------|
| CONTRACTOR OR OWNER: | U.S. NAVAL STATION-ROOSEVELT ROAD, P.R. | | |
| PROJECT: | FUEL STORAGE TANKS | | |
| DESCRIPTION: | NOZZLES DETAIL | | |
| PROJ. No. | NGR470-85-B-3554 | JOB No | 8065-66 |
| DESIGNER: | J. M. C. & ASS. | | 87-6848069-85 |
| Chk'd. by: | A.G. | Drw. by: | S.S. |
| App'd. by: | P.R. | Date: | 1-86 |
| | | | DRW. No. 0-292-85-17-K 13/19 |



MANHOLE DET. (2)



MANHOLE DET. (3)

4 REQ'D SP1

YEAR 1956

NOMINAL DIAMETER 125.0 NOMINAL CAPACITY 100000 GAGE

CONTRACT NO. SERIAL NO.

NOMINAL HEIGHT 28.0 DESIGN SP. GR. 1.0

FABRICATED BY **ALONSO & CARUS** IRON WORKS, INC.

ROAD 869 KM. 9, PALMAS WARD, CATAÑO, P.R.

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION | LENGTH. | WGT. | REMARKS. | SHT. |
|-----------------|-----------------------|---------|-------|------|--------------------------------|---------|------|----------|------|------|------------------------------------|----------|-------|------|------------------------------|----------|------|-----------|------|
| TWO MANHOLE (2) | | | | | | | | | | | | | | | | | | | |
| 2 | P. 1/2 x 6 1/2 | 74 1/2 | | 2 | P. 5/8 x 31 I.D. x 38 3/4 O.D. | | 116 | | | 4 | SUPPORT | SP1 | | 4 | 1/2 phi | 0'10 1/4 | 9 | STD. PIPE | |
| 2 | P. 3/4 x 33 3/4 O.D. | | | 2 | 5/8 phi BAR | 1'0 | 2 | | | 4 | 1 phi | 0'10 | | 4 | 1/2 x 1 REDUCER | | 3 | 150 # | |
| 2 | 3/4 phi x 2 3/4 BOLTS | | | 65 | W/ NUT & TWO WASHER | | 65 | | | 4 | P. 1/2 x 5 DIA | | | 4 | P. 1/2 x 5 DIA | | 12 | | |
| 2 | 1/8 THK. | | | 5 | GASKET | | 5 | | | 4 | P. 1/2 x 2 1/2 | 1'-6 1/4 | | 4 | P. 1/2 x 2 1/2 | 1'-6 1/4 | 12 | | |
| TWO MANHOLE (3) | | | | | | | | | | | | | | | | | | | |
| 2 | P. 4 x 7 | 6'-4 | | 2 | P. 4 x 24 1/2 I.D. x 30 O.D. | | 34 | | | 7 | SUPPORT | SP2 | | 7 | 1/2 phi | 1'-8 1/2 | 32 | STD. PIPE | |
| 2 | P. 4 x 30 O.D. | | | 2 | 5/8 phi BAR | 1'0 | 2 | | | 7 | P. 3/8 x 1 3/4 DIA | | | 7 | 1/2 phi BAR | 0'-3 | 1 | | |
| 2 | 5/8 phi BAR | 1'0 | | 2 | 5/8 phi BAR | 1'0 | 2 | | | 7 | P. 1/2 x 5 DIA | | | 7 | P. 1/2 x 5 DIA | | 20 | | |
| 40 | 5/8 x 1 3/4 BOLTS | | | 17 | W/ NUT & TWO WASHER | | 17 | | | P42 | P. 5/8 x 31 3/4 I.D. x 38 3/4 O.D. | 740 | | P43 | P. 4 x 24 1/2 I.D. x 30 O.D. | 170 | | | |
| 2 | 1/8 THK. | | | 4 | GASKET | | 4 | | | P43 | P. 4 x 24 1/2 I.D. x 30 O.D. | 170 | | | | | | | |
| | | | | | | | | | | | | | | | 1956 # TOTAL | | | | |

STOCK MATERIALS.

BILL OF MATERIALS.

STOCK MATERIALS.

BILL OF MATERIALS.

| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
|-----------|-------|--------------|-------|-----|-------|--------------|-------|
| REVISIONS | | | | | | | |

19. A60 1957

ALONSO & CARUS Iron works, Inc.
 P. O. Box 566, Cataño, Puerto Rico 00632-Phone (809) 788-1065.
 Road 869 Km. 9, Palmas Ward, Cataño, Puerto Rico.
 TELEX NO. 3450186

CONTRACTOR OR OWNER: U.S. NAVAL STATION - ROOSEVELT ROAD, R

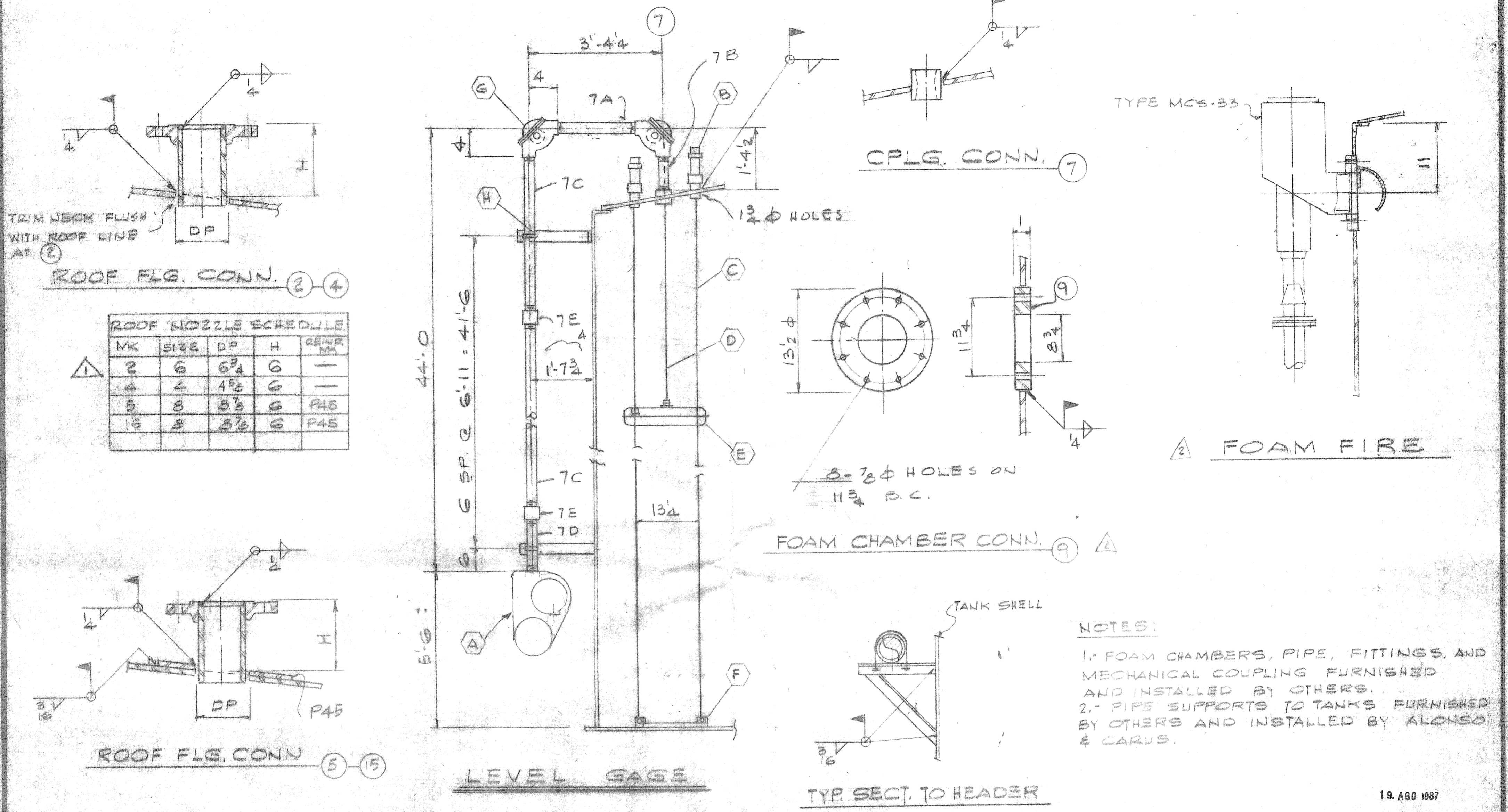
PROJECT: FUEL STORAGE TANKS

DESCRIPTION: MANHOLE & SUPP. DETAIL

PROJ. No. NG2470-83-B-3354 JOB No 8065-1
67-684806R

DESIGNER: J. M. C. & ASS. DRW. No. Q-292-85-17-K

Chk'd. by: A. S. Drw. by: S. S.
 Apr'd. by: F. R. Date: JAN 56



NOTES:
 1.- FOAM CHAMBERS, PIPE, FITTINGS, AND MECHANICAL COUPLING FURNISHED AND INSTALLED BY OTHERS.
 2.- PIPE SUPPORTS TO TANKS FURNISHED BY OTHERS AND INSTALLED BY ALONSO & CARUS.

19. AGO 1987

| QTY. | SIZE | LENGTH | MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. | QTY. | SIZE | LENGTH | MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|------|------|--------|------|--------|---|--------------------|------|----------------|------|------|------|--------|------|------|-------------|--------|------|---------|------|
| | | | | 2 | 6" PIPE W/FLG | 0'-6 1/2 | | STD. & FF. SO. | | | | | | | | | | | |
| | | | | 2 | 6" S.J. BREATHER VALVE | MODEL 94020 | | | | | | | | | | | | | |
| | | | | 2 | 1/2" THK X 11" O.D. X 6 1/2" I.D. FULL FACE GASKET. | | | | | | | | | | | | | | |
| | | | | 8 | 3/4" x 3 1/2" A-307 | | | BOLTS W/ NUT. | | | | | | | | | | | |
| | | | | 4 | 1/4" PIPE W/FLG | 0'-6 1/2 | | STD. & RFSO | | | | | | | | | | | |
| | | | | 5 & 15 | 2" PIPE W/FLG | 0'-6 1/2 | | STD. & RFSO | | | | | | | | | | | |
| | | | | 1 | 8" 180° BL'D FLG | | | | | | | | | | | | | | |
| | | | | 1 | 8" GAGE HATCH | | | 95010 S.W. | | | | | | | | | | | |
| | | | | 2 | 1" THK X 10" O.D. X 6 1/2" I.D. | | | SCKET | | | | | | | | | | | |
| | | | | 16 | 3/4" x 3 1/2" A307 | | | BOLTS W/ NUTS | | | | | | | | | | | |
| | | | | P45 | 2 | 1/4" x 3 1/2" A307 | | | | | | | | | | | | | |

| No. | DATE | DESCRIPTION | NAME | No. | DATE | DESCRIPTION | NAME |
|-----|---------|----------------|-------|-----|--------|-------------|------|
| 2 | 4-3-87 | FOAM FIRE | S.S. | 1 | 6-7-87 | BRK. H NEW | S.S. |
| 1 | 3-12-87 | 6" VENT. CONN. | HUMER | 1 | 6-2-87 | LEVEL GAGE | S.S. |

REVISIONS

ALONSO & CARUS Iron works, inc.
 P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065.
 Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico.
 TELEX NO. 3450186

CONTRACTOR OR OWNER: U.S. NAVAL STATION - ROOSEVELT ROAD, P.R.

PROJECT: FUEL STORAGE TANKS

DESCRIPTION: CONNECTION & LEVEL GAGE DET.

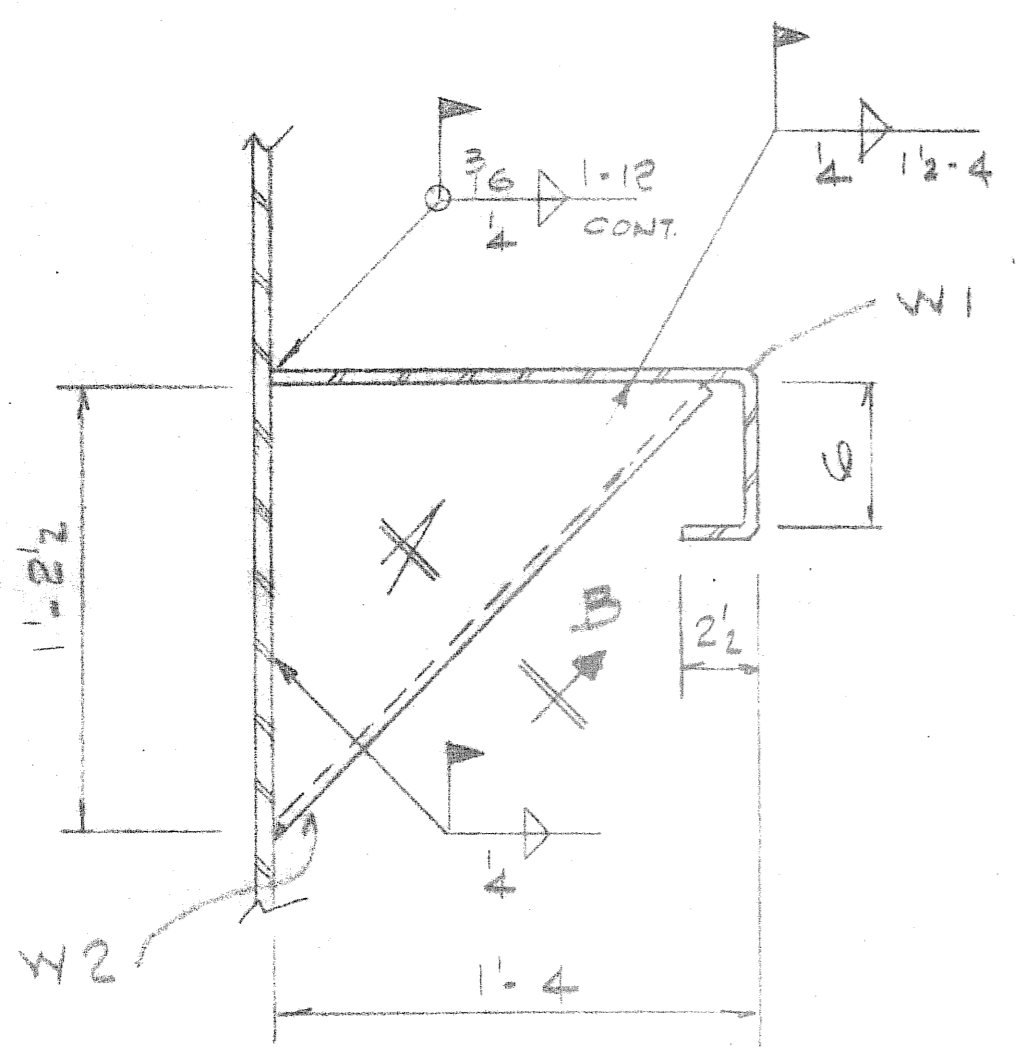
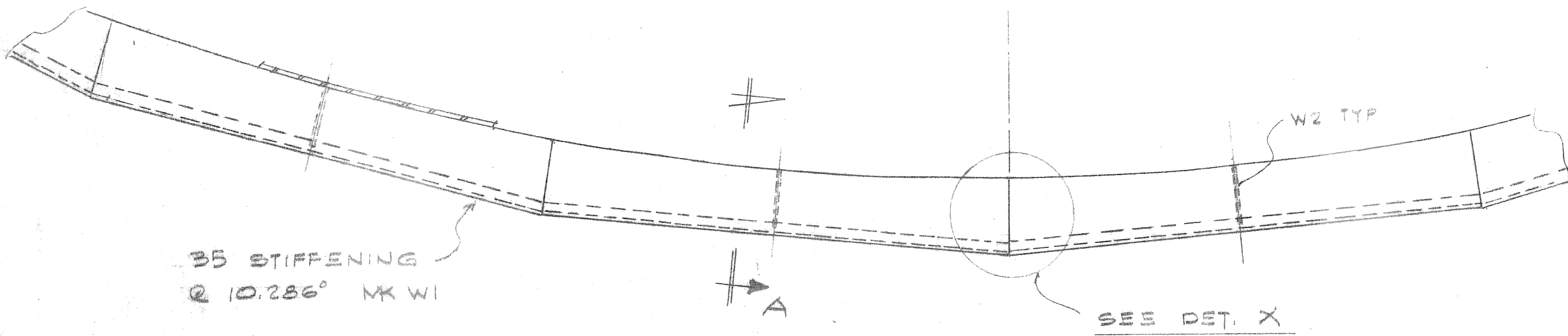
PROJ. No. NS2470-83-B-3354

DESIGNER: J. M. C. & ASS.

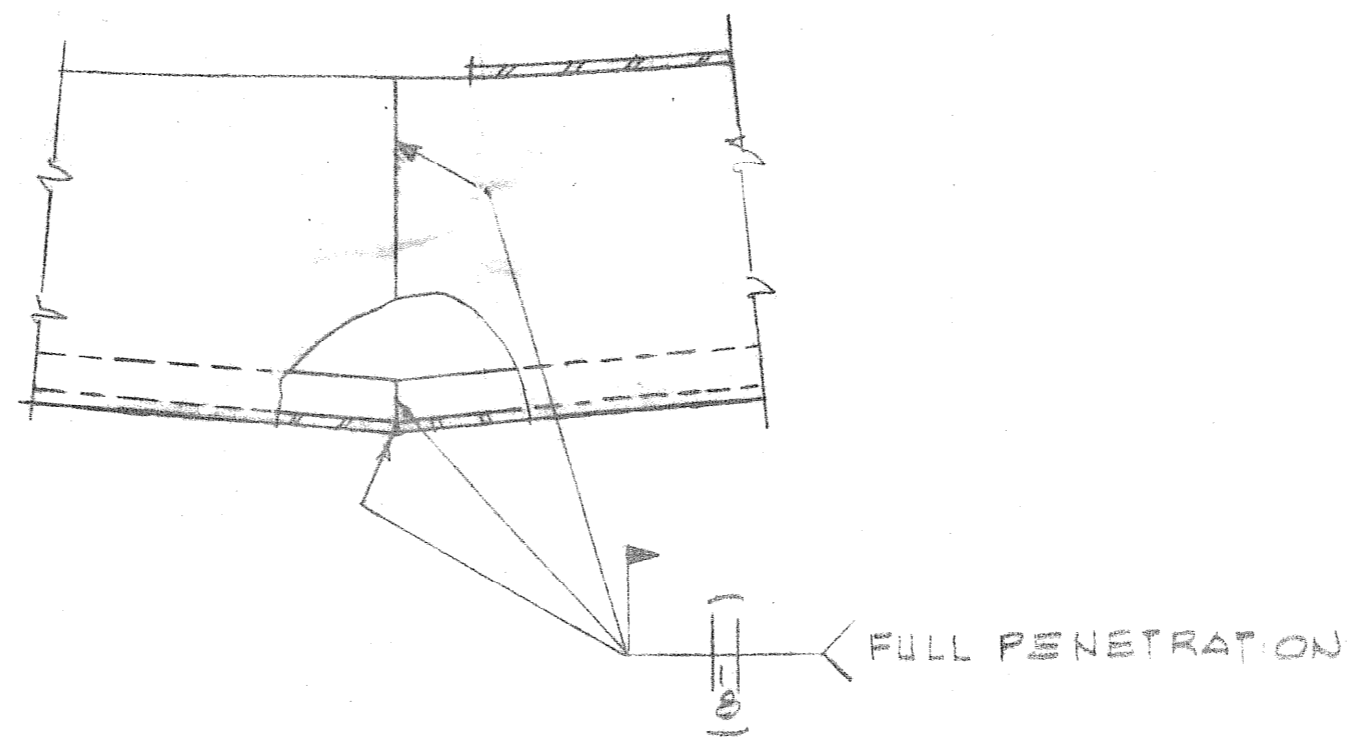
Chk'd by: A. G. Drw. by: S.S.

Apr'd. by: F. R. Date: JAN. 88

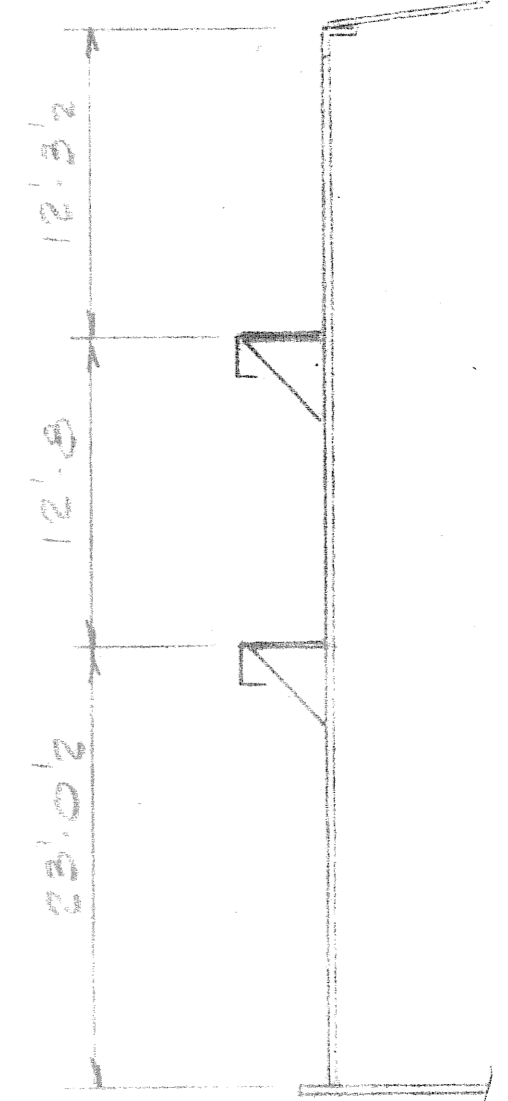
JOB No 3065, 66
67, 68 & 3069, 85
DRW. No. 0-292-85-17-K/19



SECT. A



DETAIL X



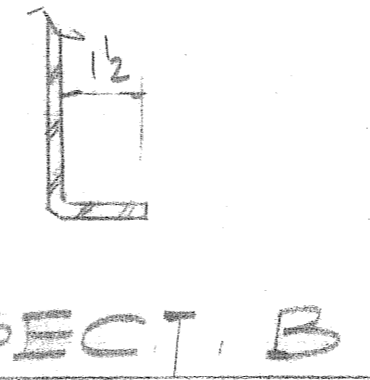
ELEVATION OF WIND GIRDER

▲ FOR TRUE ORIENTATION SEE SH. # 1 & 2 19. AGO 1967

| REVISIONS | | | | | | | |
|-----------|-------------|-----------------------------|-------|-----|-------|--------------|-------|
| No. | DATE. | DESCRIPTION. | NAME. | No. | DATE. | DESCRIPTION. | NAME. |
| 1 | JULY 30. 86 | ORIENTATION OF WIND GIRDERS | NUÑEZ | | | | |

ALONSO & CARUS Iron works, inc.
 P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065.
 Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico.
 TELEX NO. 3450186

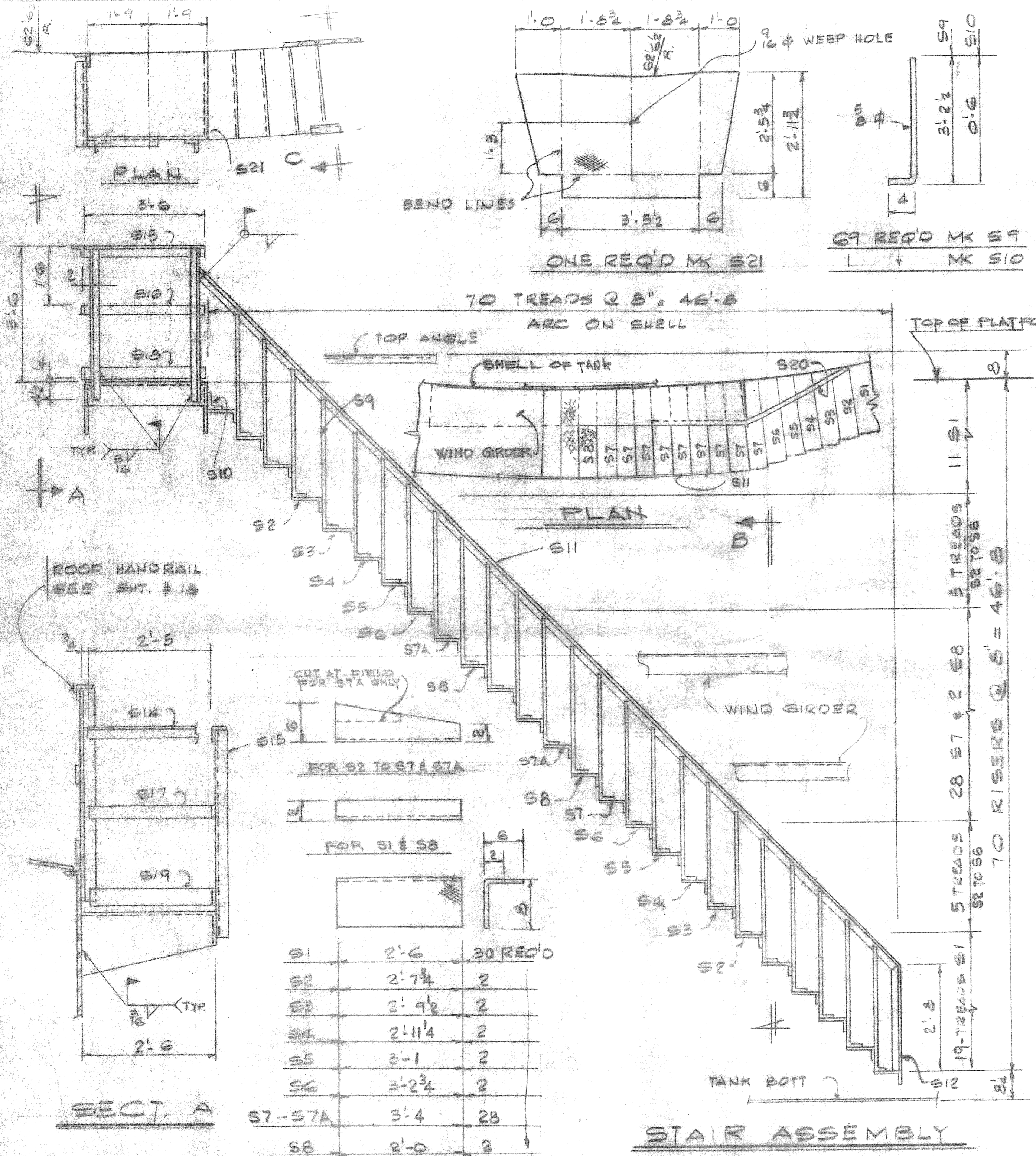
| | | | |
|----------------------|--|----------|-----------------------------|
| CONTRACTOR OR OWNER. | U.S. NAVAL STATION - ROOSEVELT ROAD P.R. | | |
| PROJECT. | FUEL STORAGE TANKS | | |
| DESCRIPTION. | WIND GIRDER DETAIL | | |
| PROJ. No. | NG2470-B3-B-3354 | JOB No. | 8065-66 |
| DESIGNER. | J. M. C & ASS. | | 67-68 & 8069-85 |
| Chk'd. by. | A.S. | Drw. by. | S.S. |
| App'd. by. | F.R. | Date. | JAN. 86 |
| | | | DRW No. 0-292-85-17-K 16/19 |



SECT. B

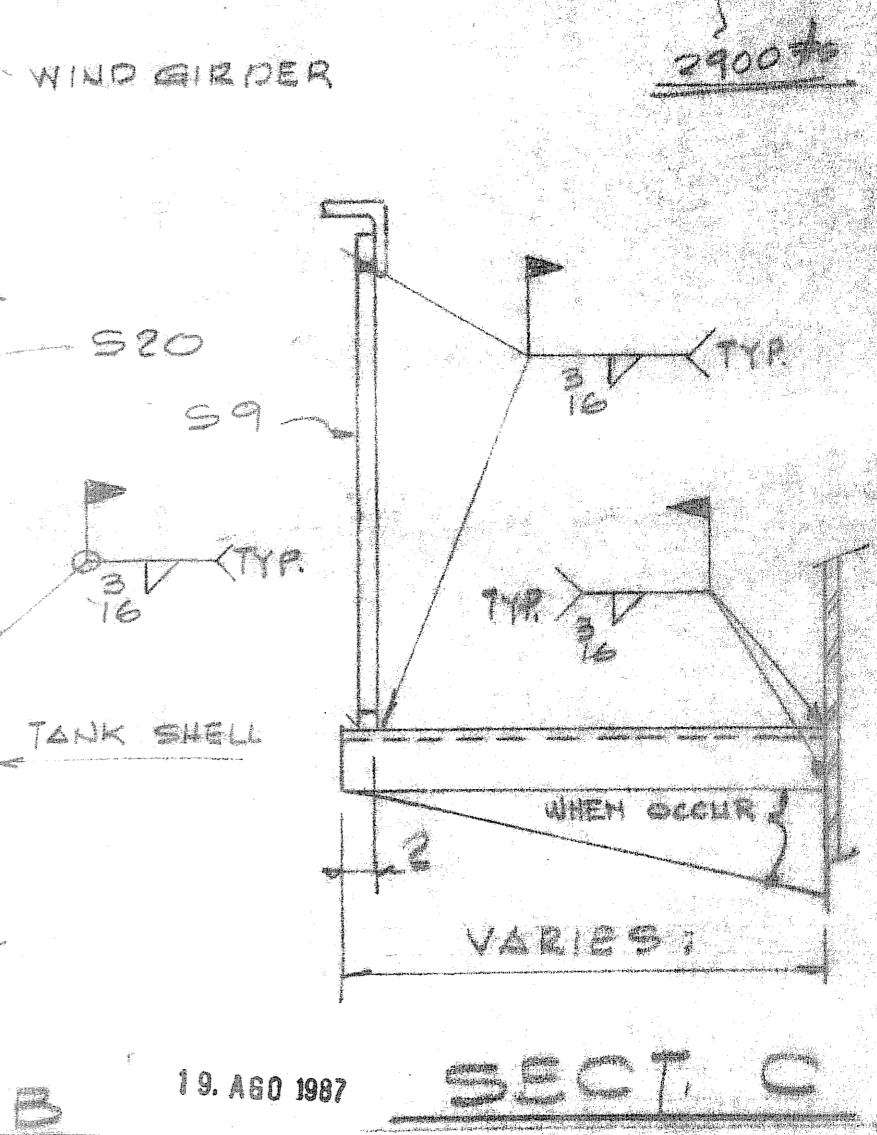
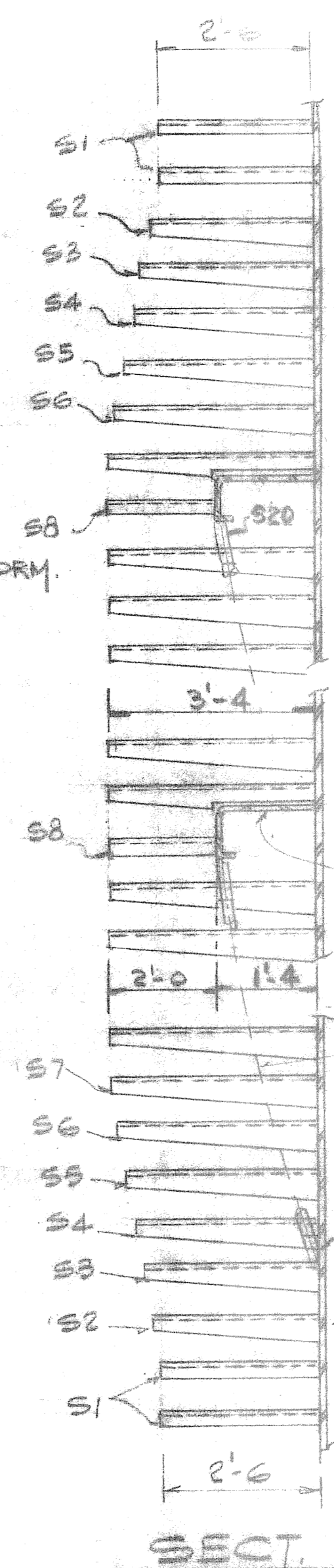
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------|-------|---------|---------|-----------|--------------|---------|------|----------|------|
| | W1 | 70 | 4x2 1/2 | 11'-5 3/8 | 18400 | | | | |
| | W2 | 70 | 4x1 1/4 | 1'-4 5/8 | 680 | | | | |
| | | | | | | | | 19000 # | |

| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------------------|-------|---------|-------|------|-----------------------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | BILL OF MATERIALS. ONE TANK | | | | |
| STOCK MATERIALS. | | | | | BILL OF MATERIALS. | | | | |



ONE TANK BILL OF MATERIALS.

| MARK | QTY | DESCRIPTION | LENGTH | WGT. | REMARKS |
|--------|-----|-------------|-----------|------|--------------------|
| S1 | 30 | #4 x 9/2 | 2'-6 | 668 | FLOOR PL |
| S2 | 2 | #4 x 1-1/2 | 2'-7 1/2 | 57 | |
| S3 | 2 | #4 x 1 | 2'-9 1/2 | 60 | |
| S4 | 2 | #4 x 1 | 2'-11 1/4 | 64 | |
| S5 | 2 | #4 x 1 | 3'-1 | 67 | |
| S6 | 2 | #4 x 1 | 3'-2 3/4 | 70 | |
| S7-S7A | 28 | #4 x 1-1/2 | 3'-4 | 1006 | |
| S8 | 2 | #4 x 9/2 | 2'-0 | 36 | |
| S9 | 69 | 2x5/8 x 4 | 3'-5 1/2 | 321 | 2x3 |
| S10 | 1 | | 0'-8 3/4 | 1 | |
| S11 | 1 | L-2x2x2 | 70'-0 | 223 | ROLLED TO 25'-0 R |
| S12 | 1 | | 2'-8 | 9 | |
| S13 | 1 | | 3'-6 | 11 | |
| S14 | 1 | | 2'-7 | 8 | |
| S15 | 2 | | 3'-10 1/2 | 25 | |
| S16 | 1 | #4 x 2 | 3'-6 | 6 | |
| S17 | 1 | | 2'-5 | 4 | |
| S18 | 1 | #4 x 4 | 3'-6 | 12 | |
| S19 | 1 | | 2'-5 | 8 | |
| S20 | 2 | 1/2" PIPE | 11'-6 | 23 | ROLLED TO 5'-4 1/2 |
| S21 | 1 | #4 x 2 1/2 | 5'-5 1/2 | 123 | |



| | | |
|--------|-----------|----------|
| S1 | 2'-6 | 30 REQ'D |
| S2 | 2'-7 1/2 | 2 |
| S3 | 2'-9 1/2 | 2 |
| S4 | 2'-11 1/4 | 2 |
| S5 | 3'-1 | 2 |
| S6 | 3'-2 3/4 | 2 |
| S7-S7A | 3'-4 | 28 |
| S8 | 2'-0 | 2 |

STAIR ASSEMBLY

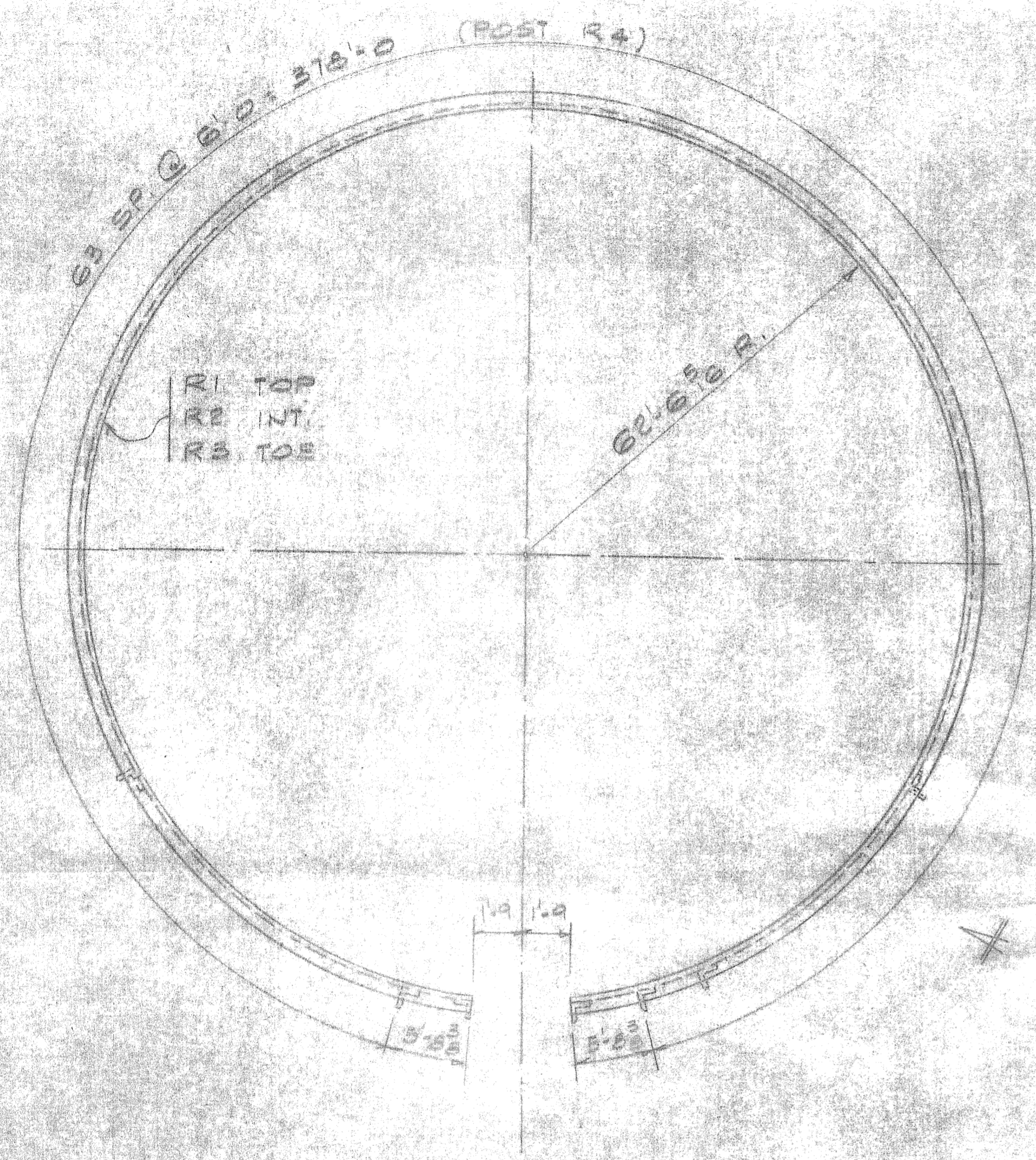
REVISIONS

| No. | DATE | DESCRIPTION | NAME | No. | DATE | DESCRIPTION | NAME |
|-----|-------------|-----------------|-------|-----|------|-------------|------|
| 1 | JULY 30, 86 | TREADS REVISION | NINEZ | | | | |

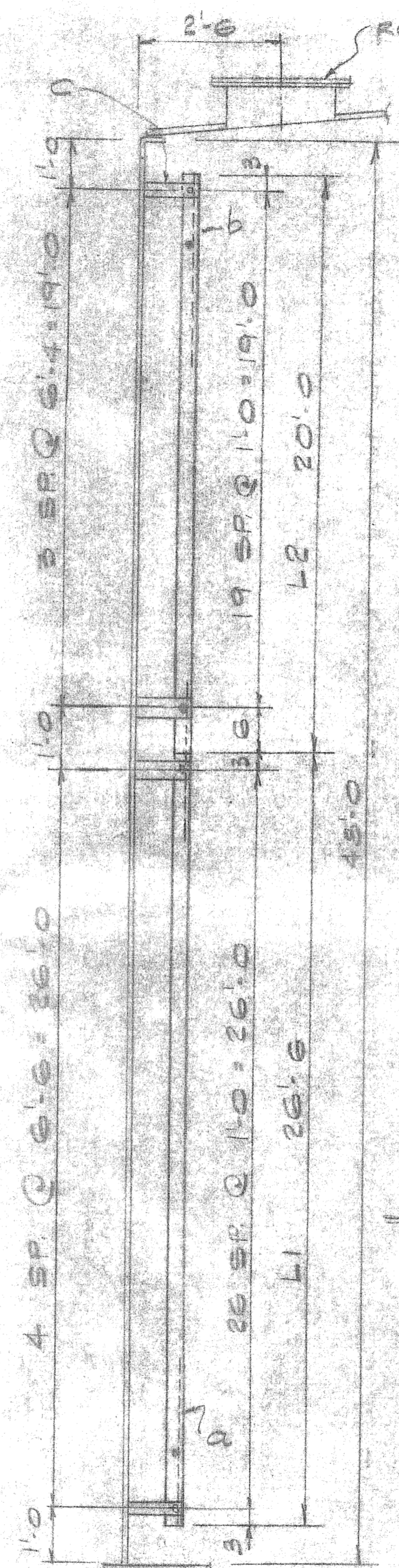
ALONSO & CARUS Iron works, Inc.
P. O. Box 566, Cataño, Puerto Rico 00632-Phone(809)788-1065.
Road 869 Km. 0 Hm. 9, Palmas Ward, Cataño, Puerto Rico.
TELEX NO. 3450188

CONTRACTOR OR OWNER: U.S. NAVAL STATION-ROOSEVELT ROAD PR
PROJECT: FUEL STORAGE TANKS
DESCRIPTION: STAIR & PLATFORM
PROJ. No. N62470-83-B-3354
DESIGNER: J. M. C. & ASS.
JOB No. 2065, 66
67, 68 & 8067, 83
Chk'd. by: A. G. Drw. by: S. S. DRW No. 17
Apr'd. by: F. R. Date: JAN. 86 Q-292-85-17-K/19

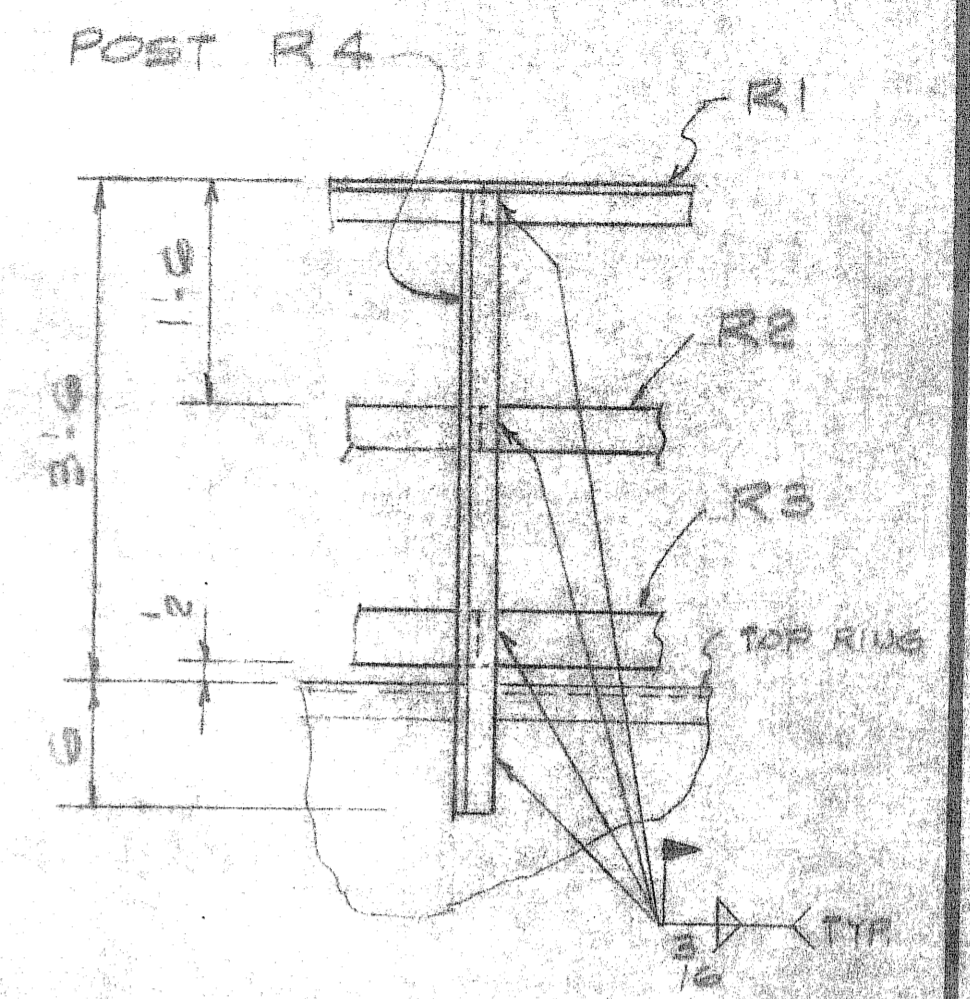
| QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. | QTY. | SIZE. | LENGTH. | MARK. | QTY. | DESCRIPTION. | LENGTH. | WGT. | REMARKS. | SHT. |
|------------------|-------|---------|-------|------|--------------|---------|------|----------|------|--------------------|-------|---------|-------|------|--------------|---------|------|----------|------|
| STOCK MATERIALS. | | | | | | | | | | BILL OF MATERIALS. | | | | | | | | | |



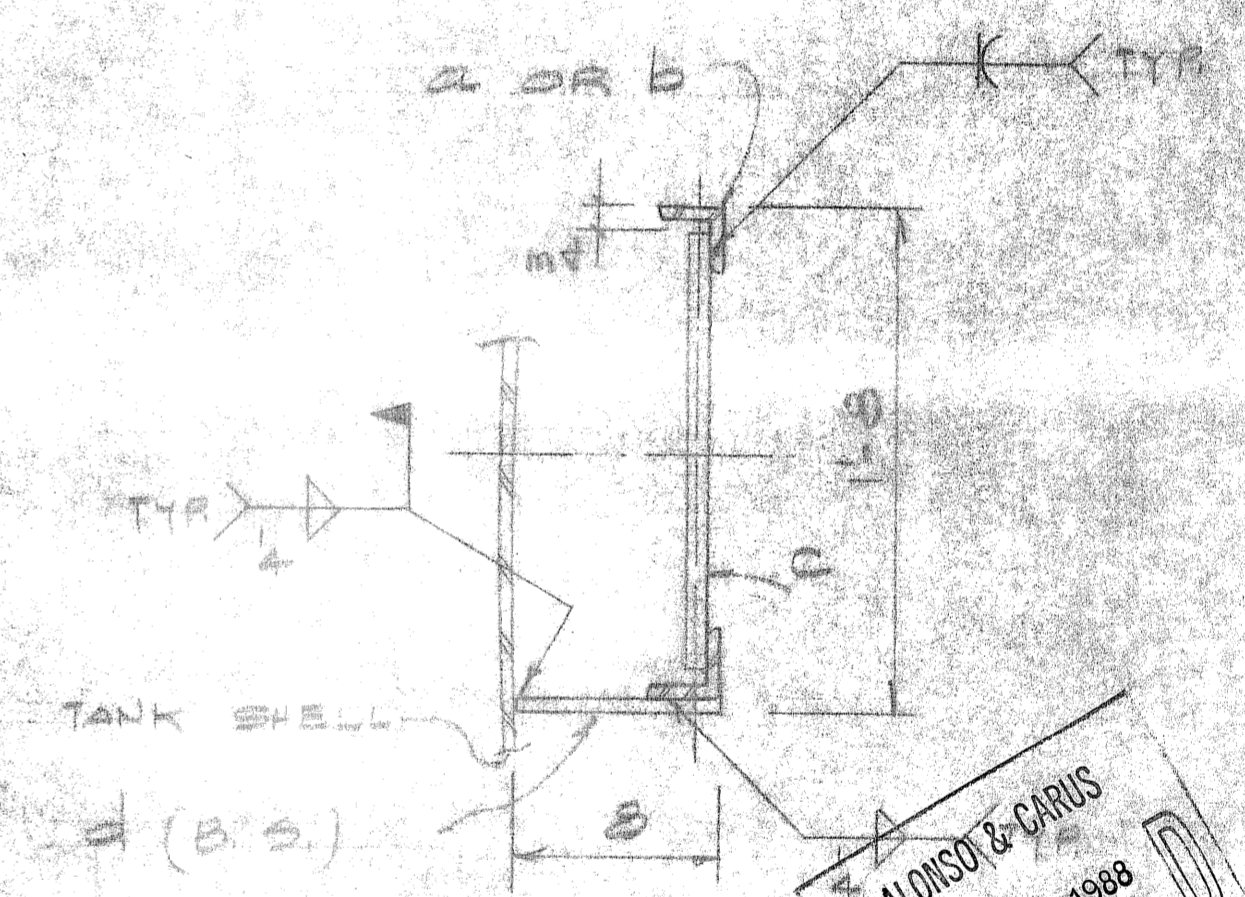
ROOF RAILING



VERTICAL LADDER



SECT. A



SECT. B

ALONSO & CARUS
 FEB 17 1988
 RECEIVE
 IRON WORKS, INC.
 1987

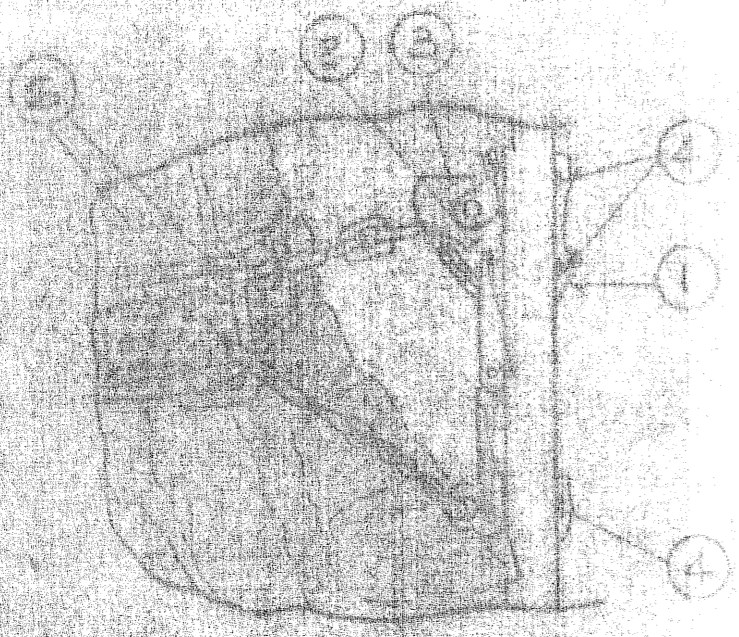
| MARK | QTY | SIZE | LENGTH | WGT | REMARKS |
|------|-----|----------|----------|------|---------|
| R1 | 10 | L. 2x2x4 | 40'0" | 1226 | ROLLED |
| R2 | 20 | R. 4x2 | 20'0" | 680 | |
| R3 | 30 | R. 4x4 | 20'0" | 1360 | |
| R4 | 66 | L. 2x2x2 | 3'5 3/4" | 732 | |
| L1 | 4 | L. 2x2x4 | 26'6" | 338 | |
| L2 | 2 | L. 2x2x4 | 20'0" | 255 | |
| B | 54 | 3/4" B&K | 1'6 1/2" | 125 | |
| D | 20 | R. 4x3 | 0'8" | 34 | |
| | | | | 4369 | # TOTAL |

| QTY | SIZE | LENGTH | MARK | QTY | DESCRIPTION | LENGTH | WGT | REMARKS | SHT. |
|--|------|--------|------|-----|-------------|--------|-----|---------|------|
| STOCK MATERIALS. BILL OF MATERIALS. ONE TANK | | | | | | | | | |
| STOCK MATERIALS. BILL OF MATERIALS. | | | | | | | | | |

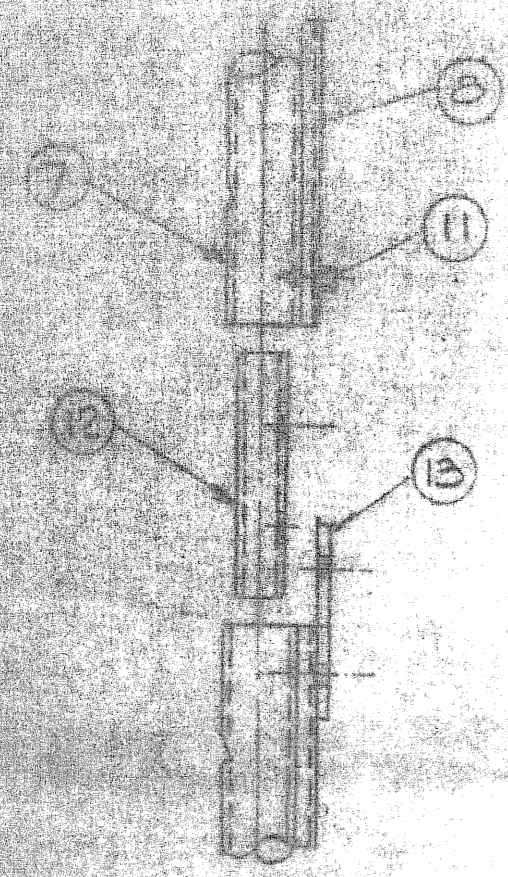
| No. | DATE | DESCRIPTION | NAME | No. | DATE | DESCRIPTION | NAME |
|---------------------|------|---|------|---------|----------------|---------------|------|
| REVISIONS | | | | | | | |
| CONTRACTOR OR OWNER | | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT | | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION | | VERTICAL LADDER & RAILING | | | | | |
| PROJ. No. | | N2247D-83-B-3354 | | | JOB No 2065-66 | | |
| DESIGNER | | J.M.C. & A.S. | | | 67-684500R-55 | | |
| Chk'd. by | | A.G. | | Drw. by | | S.S. | |
| Apr'd. by | | F.R. | | Date | | JAN-86 | |
| | | | | DRW No. | | Q.292-85-17-K | |
| | | | | | | 18/19 | |

19. AGO 1967

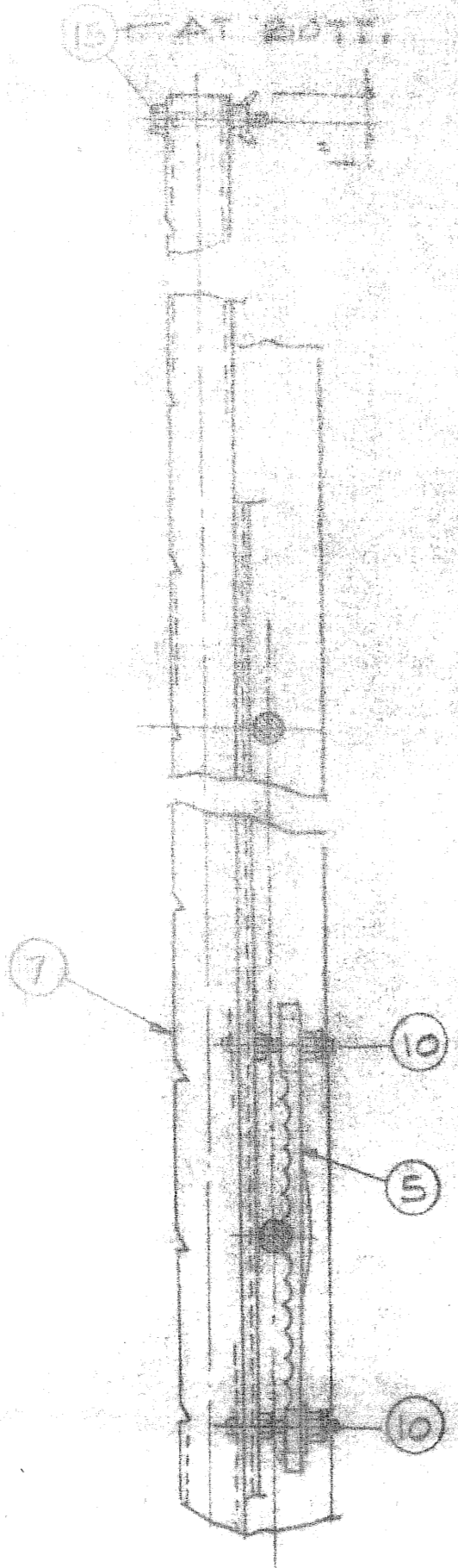
1. SHEET PILE STEEL: UPPER AND LOWER SHEETS CUT FROM HANGAR SHEETS WITH TENSILE STRENGTH OF 110,000 P.S.I.
2. LOWER RAIL: TENSILE STRENGTH OF 110,000 P.S.I. CUT FROM UPPER SHEET AND APPROX. 1/2" OF STRENGTH FOR TENSILE STRENGTH OF 110,000 P.S.I.
3. SHEET PILE: SAME SPECIFIC TO LOWER SHEET MANUFACTURED BY HANSON STEELWORKS CO. WITH A MINIMUM QUANTITY OF 400 SHEETS. SPECIFICATION NO. 4-1154, TYPE 1, CLASS 10, 6.000 INCHES MIN. GAUGE PLATED BASES AT 5.5 DEGREES AND THREE HOURS.
4. RUBBER WASHERS: 1/2" HIGH RUBBER WASHERS SPEC. TYPE 22-120-0000 OF SUPPLYMENT 22-120-0000 WITH CONCRETE TYPED IN PANEL. THE LOWER END OF SHEET PILE SHALL BE WITH STEEL LINES CONNECTED TO 1/4" RIGID COIL, CHAIN.
5. TUBING: ASTM-A-100 1" I.D. GALVANIZED STEEL TUBING MADE TO SPEC. 151204 STEEL 21 LB. WEIGHT PER 10' X 7/8" X 1/8" WALL THICKNESS. TUBING OPPOSITE STAYS 3' APART. THIS DETAIL SHALL BE APPROX. 1/2" WIDE CHANNEL. METAL STEEL CHANNELS 3 1/2" X 1 1/8" X 1/8" ATTACHED TO SHEET PILE BY WELDING NOTCH. TUBING END DETAIL GALVANIZED TO ASTM-A-100.
6. WELDING FRAMES: CARBON DUCTILE IRON PER ASTM-A-119 1 1/2" THICK 1/2" STRENGTH MIN. 30,000 P.S.I.
7. ATTACHING STEEL: 100% STEEL HEAT TREATED TENSILE STRENGTH APPROX. 120,000 PER AREA. WELDING SHOULDER NUT - WASHERS: 1/2" PLAT WASHER TYPE A. NUTS: 1/2" 16-NC-2 UNF-2A (1/2") 1/4" GAL LOCK NUT - GAL GALVANIZED.
8. GAL SCREW: 1/2" 16-NC-2 UNF-2A 1" 1010 STEEL.
9. ALIGNMENT GUIDE: 1" O.D. GALD ROLLER ELECTRIC WELD WITH 1/2" CHANNEL STEEL TUBING (1/2")
10. CONNECTING STRAP: 100% HOT ROLLED STEEL BAR 4" X 1/2" X 1" GALVANIZED.
11. SAFETY BELT: (STD) IT IS DESIGNED TO WITHSTAND WEIGHT LOADS UP TO 500 LBS. A FULL BUCKLE AND IN "AS USED POSITION" IS PLACED AROUND SHOULDERS HAVING APPROXIMATELY 12" DIA. BELT CONFORMS TO MIL-STD-1088A - BODY PART - THREE PART 1 PCY. MATERIAL: LEATHER. BELT LENGTH MIN. STRENGTH 1,050 LBS. HARNESS LEATHER TUBES, BODY BELT: TYPE BELL WITH BELT WITH LEATHER WRAP STRAPPING IS 3/8" DIA. UNF. 16-NC-2 UNF-2A (1/2") 1/4" GALVANIZED. BELT SHALL BE 100% GALD ROLLER MILD STEEL (1/2" X 1/2" X 1/2") WITH 1/2" RIGID TUBING AND STEEL BELT SHALL BE 1/54" MAXIMUM DEFORMATION AT 1,000 LBS. - WEIGHT: 2-1/2 LBS.



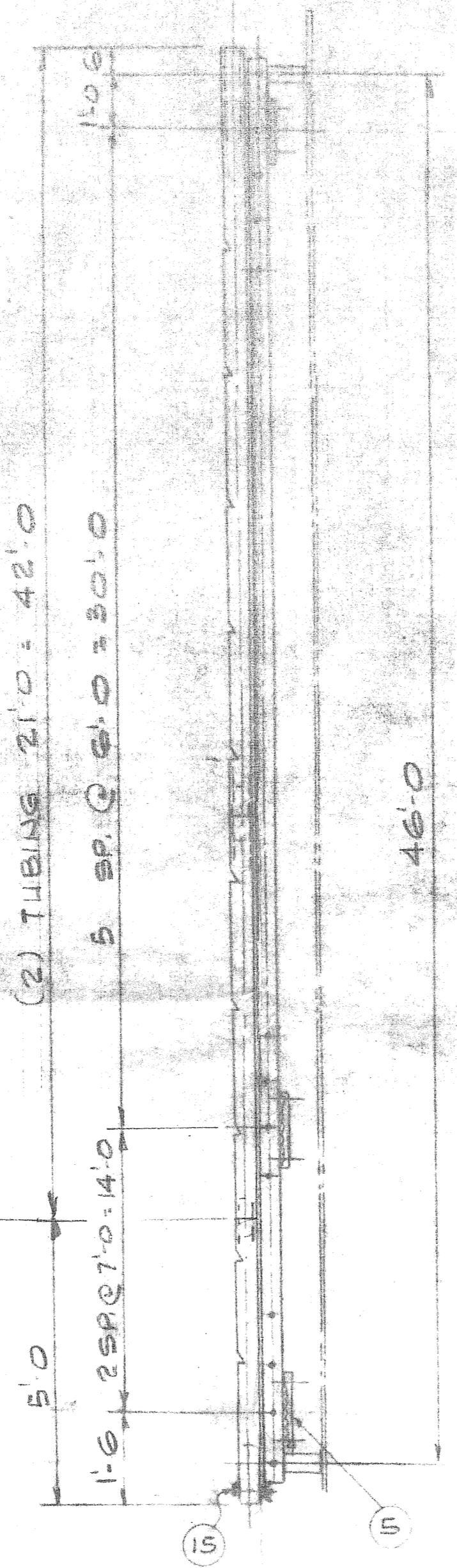
VIEW AS WORKER CLIMBS



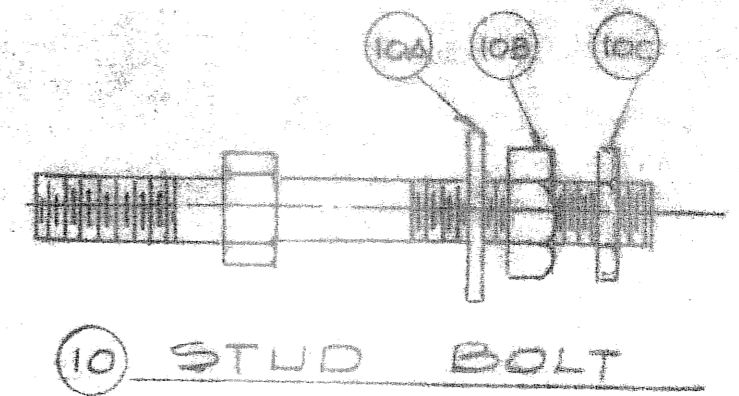
SPLICE DET.



CLAMP OVER LADDER RUNG



SAF-T CLIMB FOR VERTICAL LADDERS



10 STUD BOLT

| QTY. | SIZE | LENGTH | MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|------------|------|--------|------|------|------------------|--------|------|-------------------|------|
| | | | | 1 | 50P-T. LOCK | | | ASSEMBLY | |
| | | | | 4 | 1" φ TUBING | 21'-0" | | CARRIER RAIL ASS. | |
| | | | | 2 | 1" φ TUBING | 5'-0" | | | |
| | | | | 32 | 3/8" φ x 3" | | | STUD | |
| | | | | 32 | 3/8" φ | | | F WASHER | |
| | | | | 32 | 3/8" φ 16NC | | | SQ NUT | |
| | | | | 32 | 3/8" φ | | | LOCK NUT | |
| | | | | 4 | 3/4" φ TUBING | 0'-5" | | ALIGNMENT GUIDE | |
| | | | | 1 | SAFETY BELTS | | | | |
| | | | | 2 | 3/8" φ x 2" BOLT | | | W/WIND NUT | |
| | | | | 16 | 14x11 SERRATED | | | RUNG CLAMP | |
| 50 # TOTAL | | | | | | | | | |

| QTY. | SIZE | LENGTH | MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|--|------|--------|------|------|-------------|--------|------|---------|------|
| STOCK MATERIALS. BILL OF MATERIALS. ONE TANK | | | | | | | | | |

| QTY. | SIZE | LENGTH | MARK | QTY. | DESCRIPTION | LENGTH | WGT. | REMARKS | SHT. |
|-------------------------------------|------|--------|------|------|-------------|--------|------|---------|------|
| STOCK MATERIALS. BILL OF MATERIALS. | | | | | | | | | |

| REVISIONS. | | | | | | | |
|------------|------|-------------|------|-----|------|-------------|------|
| No. | DATE | DESCRIPTION | NAME | No. | DATE | DESCRIPTION | NAME |
| | | | | | | | |

ALONSO & CARUS iron works, inc.
 P.O. Box 566, Cataña, Puerto Rico 00632-Phone(809)788-1065.
 Road 869 Km. 0 Hm. 9, Palmas Ward, Cataña, Puerto Rico.

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|----------------------|---|--|----------|------------------|---------|---------------|
| CONTRACTOR OR OWNER: | U.S. NAVAL STATION - ROOSEVELT ROAD, P.R. | | | | | |
| PROJECT: | FUEL STORAGE TANKS | | | | | |
| DESCRIPTION: | SAF-T CLIMB DETAIL | | | | | |
| PROJ. No. | N62470-83-B-3354 | | | JOB No 8065, 66 | | |
| DESIGNER: | J.M.C & ASS. | | | 67, 68 & 8069-85 | | |
| Chk'd. by: | A.G. | | Drw. by: | | S.S. | |
| App'd. by: | F.R. | | Date: | | JAN. 68 | |
| | | | | DRW. No. | | 0.292-85-17-K |
| | | | | | | 19 |