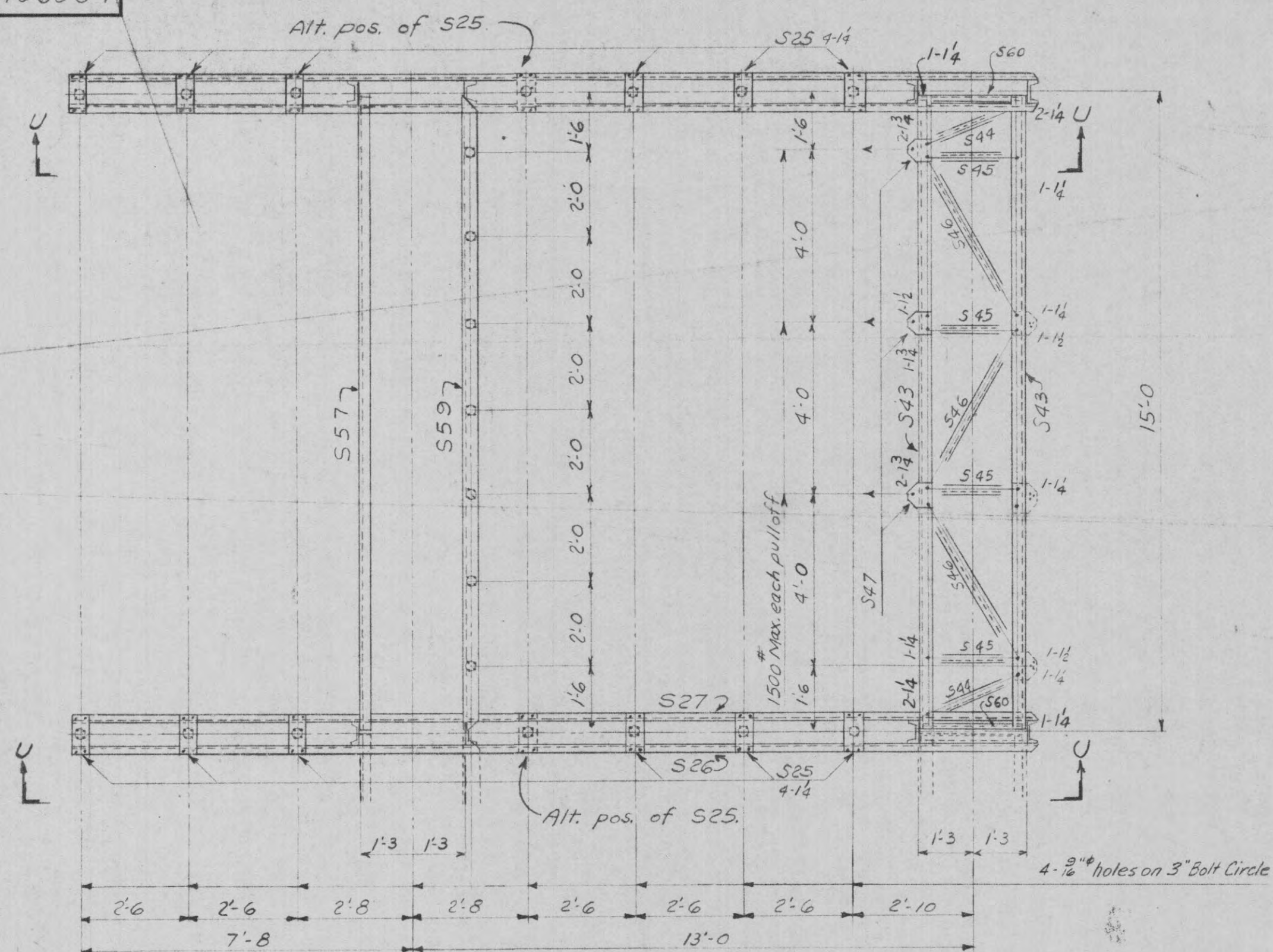
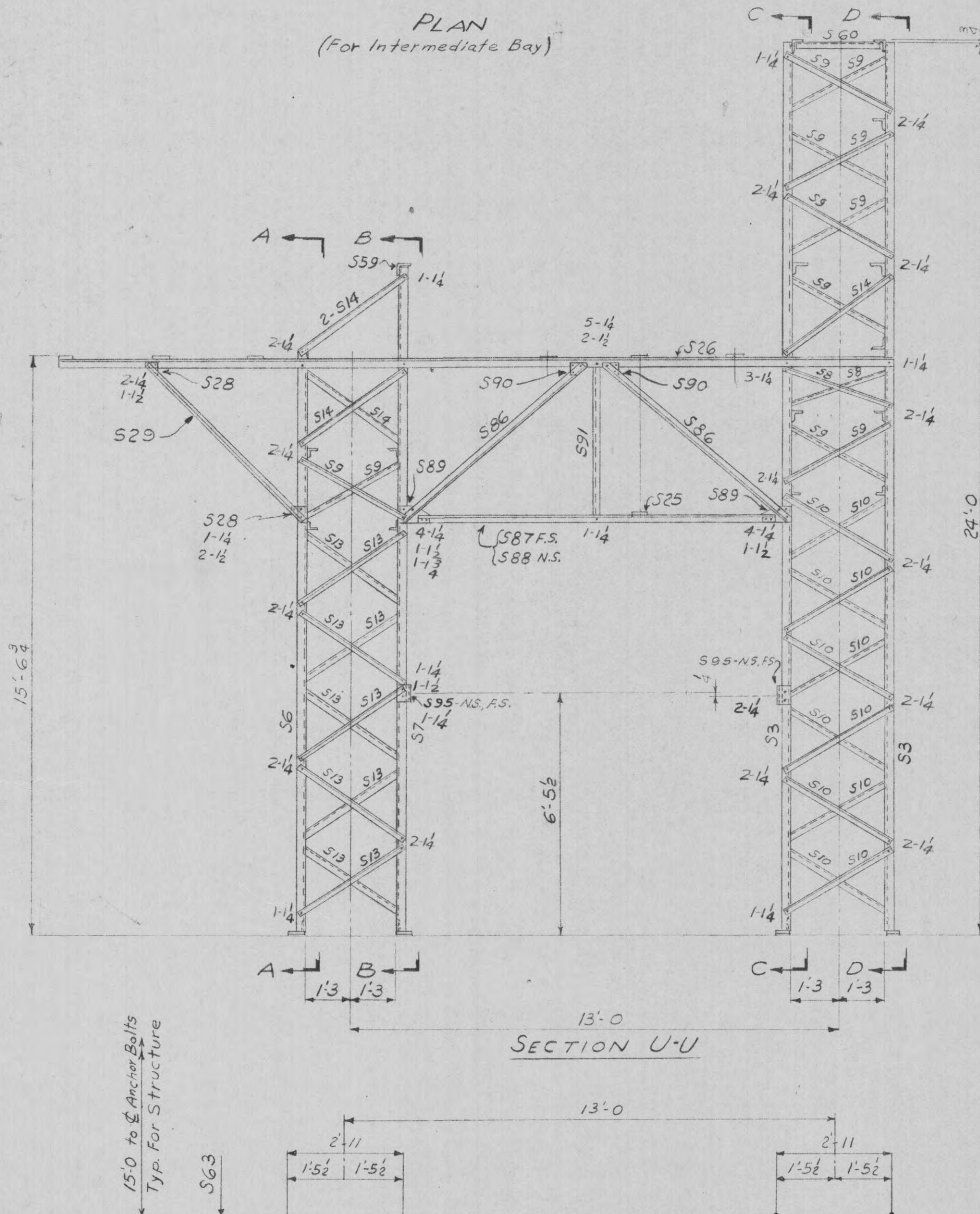


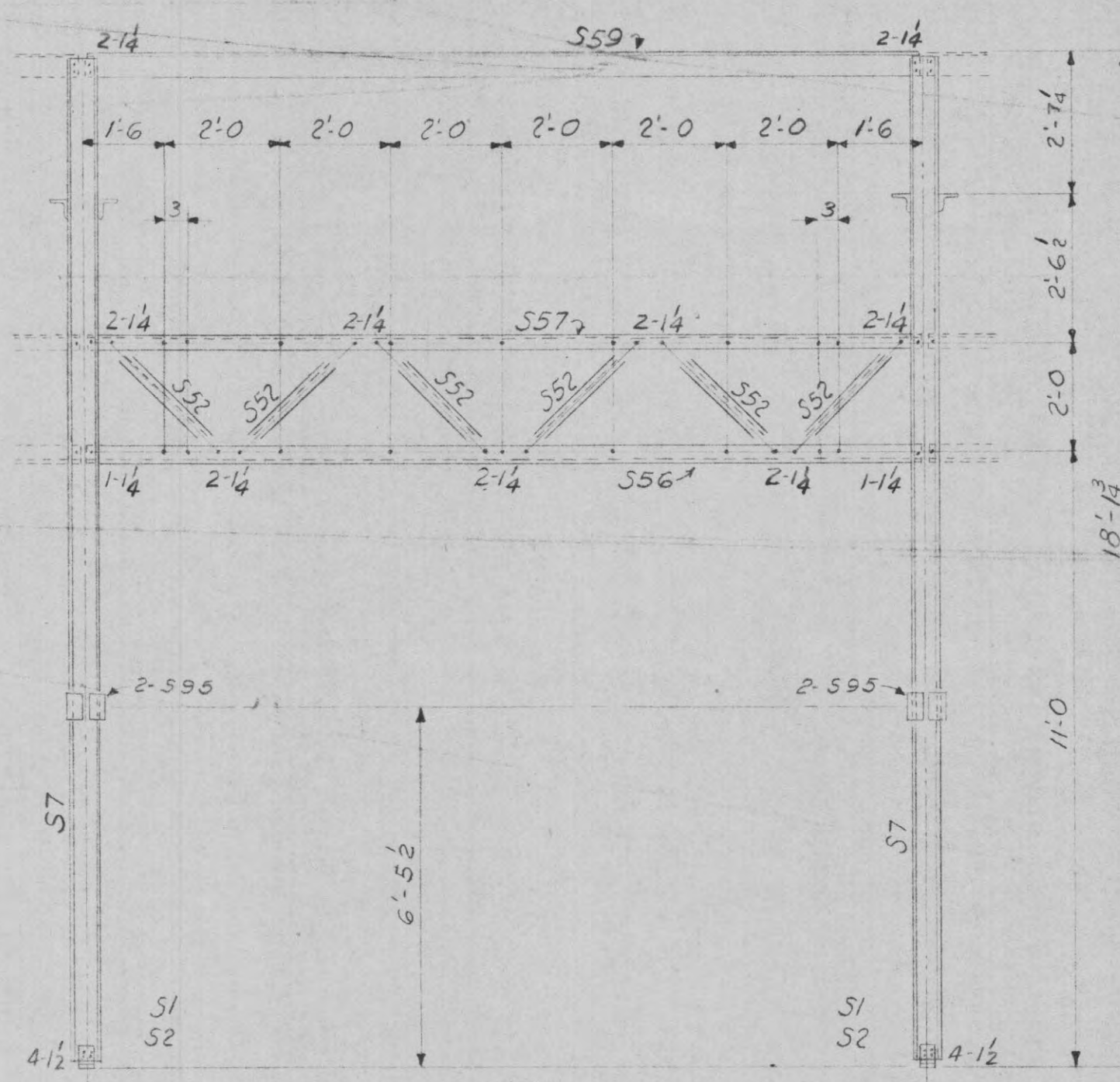
21082.27



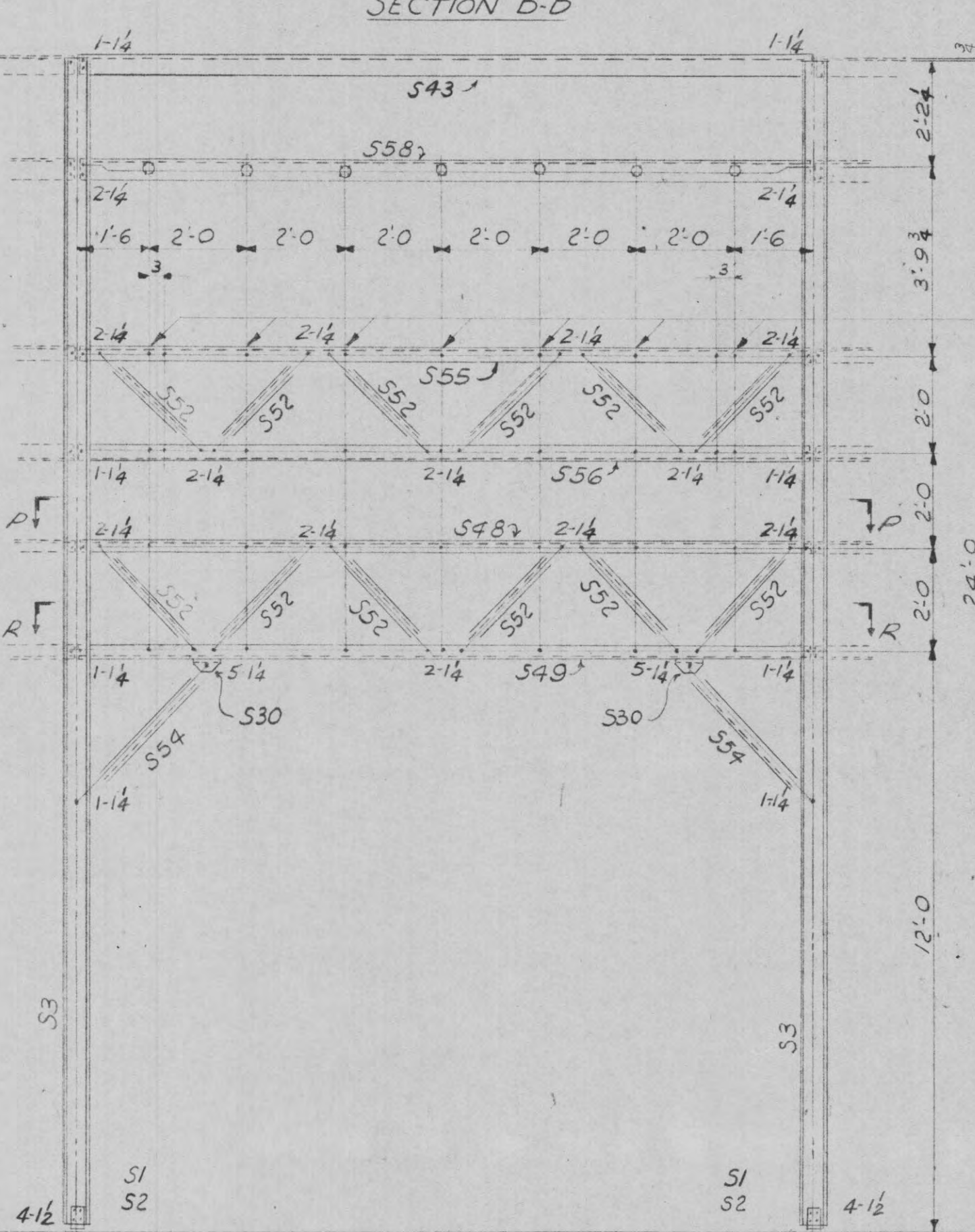
PLAN  
(For Intermediate Bay)



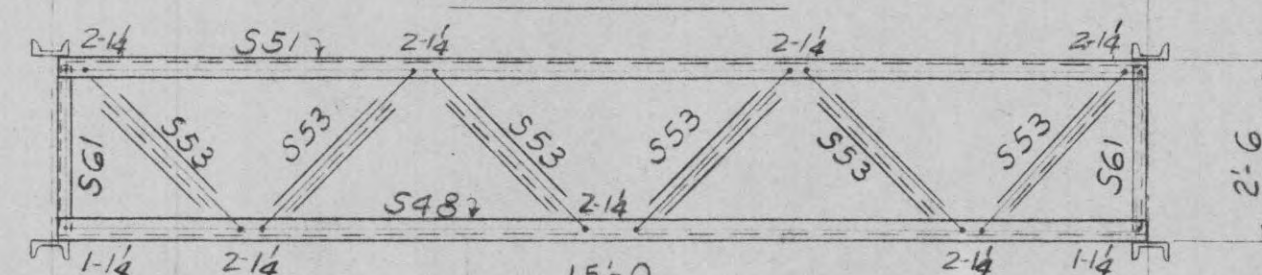
ANCHOR BOLT PLAN



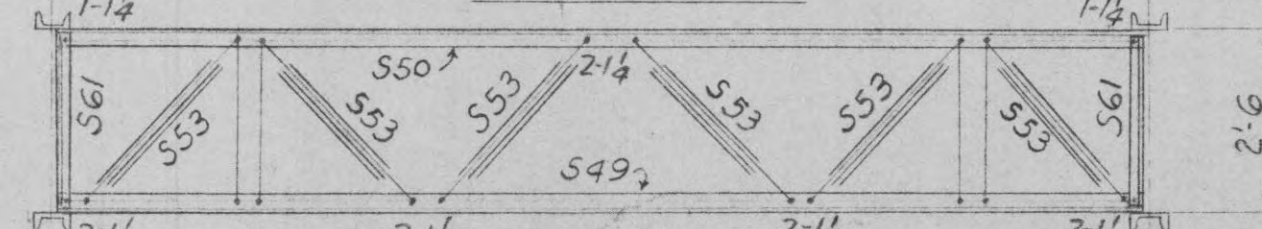
SECTION B-B



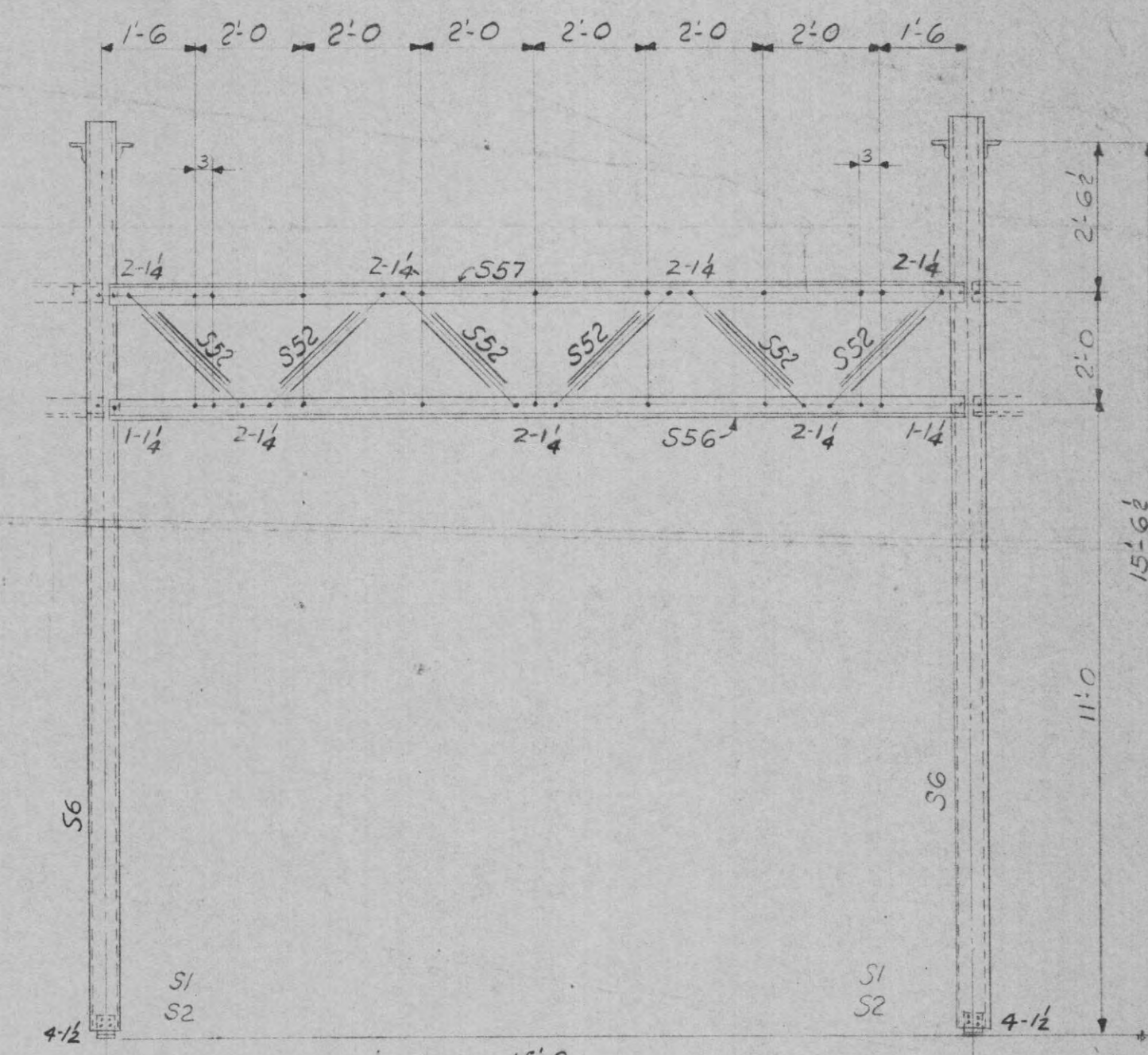
SECTION D-D



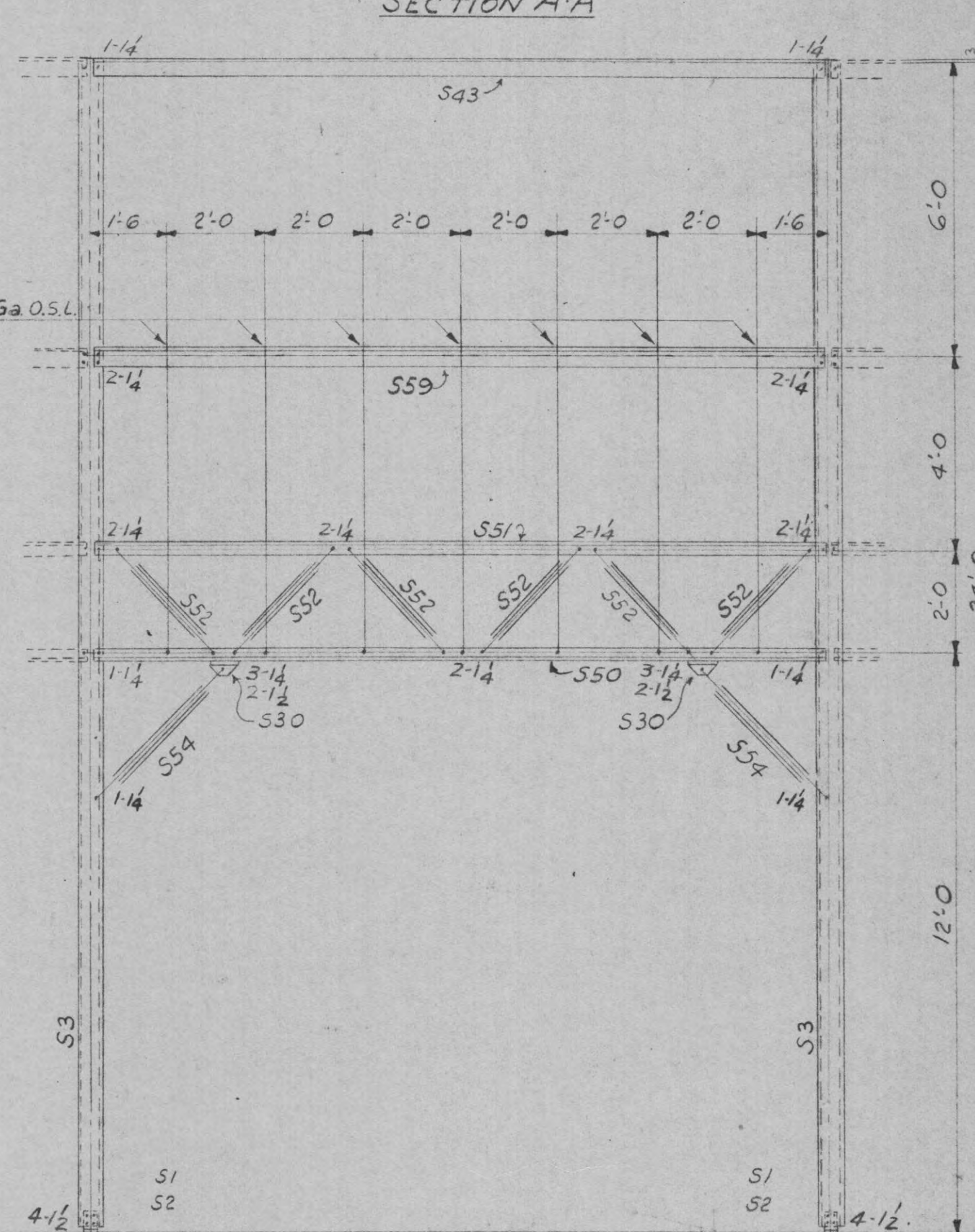
SECTION P-P



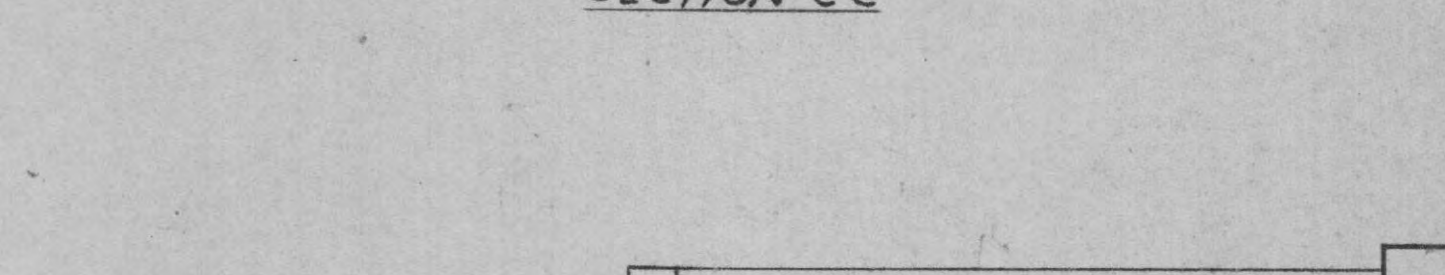
SECTION R-R



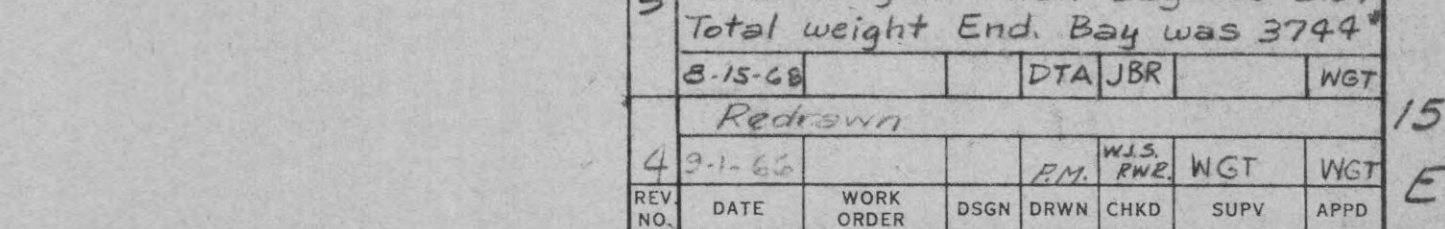
SECTION A-A



SECTION C-C



|   |              |
|---|--------------|
|   | Revised      |
| F | Total weight |



**DSGN** DESIGN

| BILL OF MATERIAL |                            |                   |                                                    |        |                  |            |
|------------------|----------------------------|-------------------|----------------------------------------------------|--------|------------------|------------|
| MARK             | NO. REQUIRED               |                   | DESCRIPTION                                        | LENGTH |                  | WT.<br>EA. |
|                  | ONE<br>INTERMEDIATE<br>BAY | ONE<br>END<br>BAY |                                                    | FT.    | IN.              |            |
| 51               | 8                          | 4                 | L 6 x 4 x $\frac{1}{2}$                            | 0      | 4 $\frac{1}{2}$  | 6          |
| 52               | 8                          | 4                 | R - 4 x $\frac{1}{2}$                              | 0      | 3 $\frac{3}{4}$  | 2          |
| 53               | 4                          | 2                 | 6" L - 8.2 #                                       | 23     | 11 $\frac{1}{2}$ | 202        |
| 56               | 2                          | 1                 | 6" L - 8.2 #                                       | 15     | 9 $\frac{3}{4}$  | 134        |
| 57               | 2                          | 1                 | Do                                                 | 18     | 0 $\frac{1}{2}$  | 153        |
| 58               | 4                          | 2                 | L $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 2      | 11 $\frac{1}{8}$ | 6          |
| 59               | 22                         | 11                | Do                                                 | 3      | 2 $\frac{1}{8}$  | 6          |
| 510              | 24                         | 12                | Do                                                 | 3      | 3 $\frac{3}{8}$  | 6          |
| 513              | 20                         | 10                | L $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 3      | 4 $\frac{1}{2}$  | 6          |
| 514              | 10                         | 5                 | Do                                                 | 3      | 5 $\frac{1}{2}$  | 6          |
| 525              | 14                         | 7                 | R - 5 x $\frac{1}{4}$                              | 0      | 10               | 4          |
| 526              | 2                          | 1                 | L $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{16}$ | 22     | 3 $\frac{1}{2}$  | 63         |
| 527              | 2                          | 1                 | Do                                                 | 22     | 3 $\frac{1}{2}$  | 63         |
| 528              | 8                          | 4                 | R - 5 x $\frac{1}{4}$                              | 0      | 5                | 2          |
| 529              | 4                          | 2                 | L 2 x $2\frac{1}{2}$ x $\frac{3}{16}$              | 6      | 1                | 15         |
| 530              | 4                          | 4                 | L $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{16}$ | 0      | 5                | 1          |
| 543              | 2                          | 2                 | L 5 x $3\frac{1}{2}$ x $\frac{5}{16}$              | 14     | 11 $\frac{1}{4}$ | 134        |
| 544              | 2                          | 2                 | L $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 2      | 6 $\frac{1}{2}$  | 6          |
| 545              | 4                          | 4                 | L 2 x $2\frac{1}{2}$ x $\frac{3}{16}$              | 2      | 4                | 6          |
| 546              | 3                          | 3                 | L $1\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 4      | 5 $\frac{3}{8}$  | 10         |
| 547              | 3                          | 3                 | R - 5 $\frac{1}{2}$ x $\frac{3}{8}$                | 0      | 5 $\frac{1}{2}$  | 3          |
| 548              | 1                          | 1                 | L 3 x 3 x $\frac{1}{4}$                            | 14     | 11 $\frac{1}{4}$ | 76         |
| 549              | 1                          | 1                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 76         |
| 550              | 1                          | 1                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 76         |
| 551              | 1                          | 1                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 76         |
| 552              | 30                         | 30                | L $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 2      | 11 $\frac{1}{4}$ | 6          |
| 553              | 12                         | 12                | Do                                                 | 3      | 2 $\frac{1}{2}$  | 6          |
| 554              | 4                          | 4                 | L 2 x $2\frac{1}{2}$ x $\frac{3}{16}$              | 3      | 11 $\frac{1}{4}$ | 10         |
| 555              | 1                          | 1                 | L 5 x $3\frac{1}{2}$ x $\frac{5}{16}$              | 14     | 11 $\frac{1}{4}$ | 134        |
| 556              | 3                          | 3                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 134        |
| 557              | 2                          | 2                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 134        |
| 558              | 1                          | 1                 | L 5 x $5\frac{1}{2}$ x $\frac{5}{16}$              | 14     | 11 $\frac{1}{4}$ | 159        |
| 559              | 2                          | 2                 | Do                                                 | 14     | 11 $\frac{1}{4}$ | 159        |
| 560              | 2                          | 2                 | L $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$ | 2      | 4                | 4          |
| 561              | 4                          | 4                 | Do                                                 | 2      | 4 $\frac{1}{2}$  | 4          |
| 563              | 3                          | 4                 | 1 $\frac{1}{2}$ " Anchor bolts, 2 hex. nuts.       | 3.     | 6.               | 14         |
| 586              | 8                          | 4                 | L 2 x $2\frac{1}{2}$ x $\frac{3}{16}$              | 6      | 7 $\frac{1}{8}$  | 16         |
| 587              | 2                          | 1                 | L $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{16}$ | 9      | 7 $\frac{1}{4}$  | 28         |
| 588              | 2                          | 1                 | Do                                                 | 9      | 7 $\frac{1}{4}$  | 28         |
| 589              | 8                          | 4                 | R - 5 x $\frac{1}{4}$                              | 0      | 9                | 4          |
| 590              | 8                          | 4                 | Do                                                 | 0      | 4 $\frac{1}{2}$  | 2          |
| 591              | 4                          | 2                 | L 2 x $2\frac{1}{2}$ x $\frac{3}{16}$              | 4      | 4                | 11         |
| 595              | 4                          | 2                 | L $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{16}$ | 0      | 6 $\frac{1}{2}$  | 2          |
| 478              | 316                        |                   | $\frac{3}{8}$ " Bolts                              | 0      | 14               | 274        |
| 73               | 40                         |                   | Do                                                 | 0      | 1 $\frac{1}{2}$  | 285        |
| 12               | 9                          |                   | Do                                                 | 0      | 1 $\frac{1}{4}$  | 304        |

NOTES:  
All holes  $\frac{11}{16}$ "  $\phi$  unless noted.  
All material to be hot dip galvanized after fabrication.  
Piece marks to be die-stamped before galvanizing.  
 $\frac{5}{8}$ "  $\phi$  Bolts.

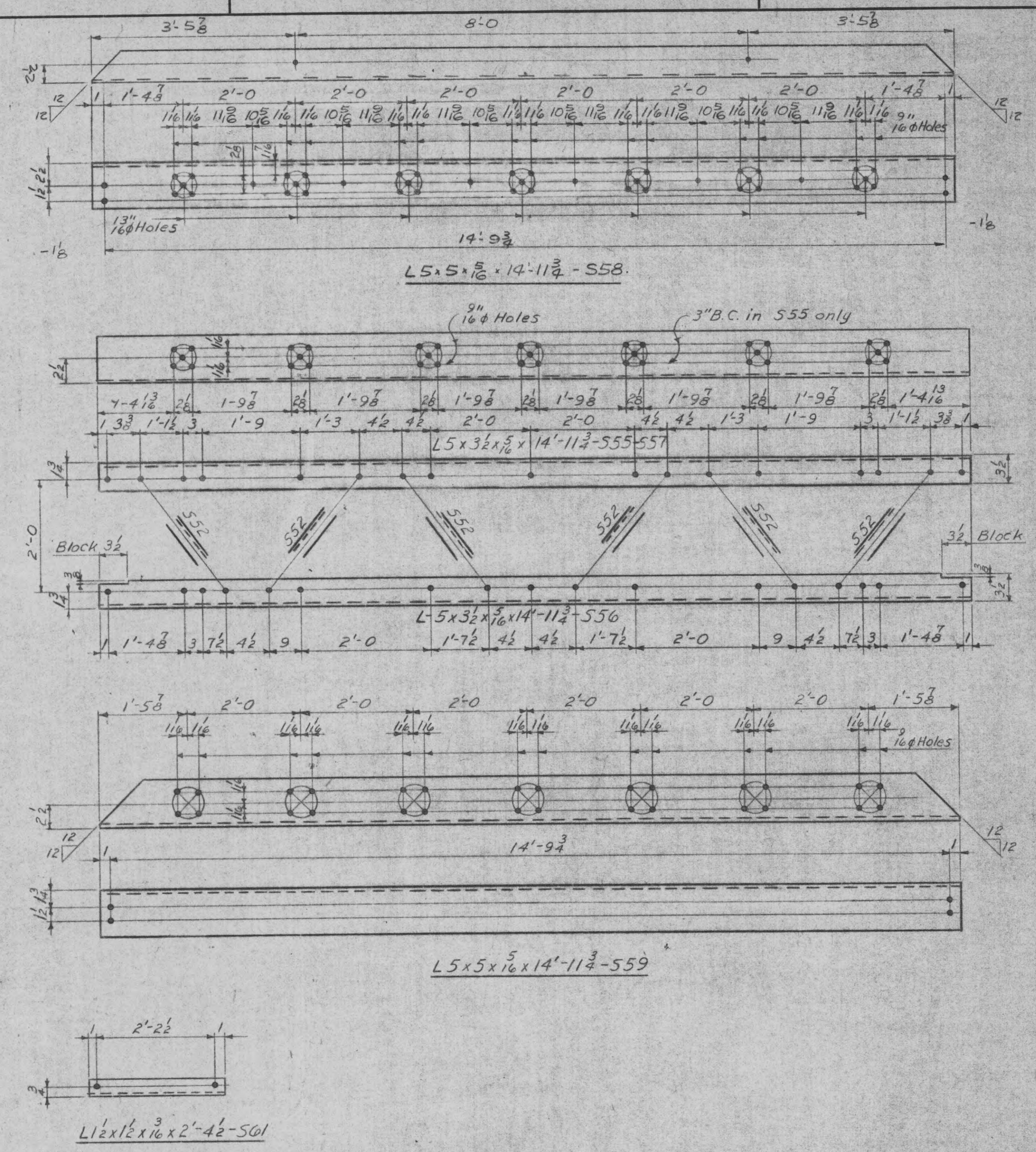
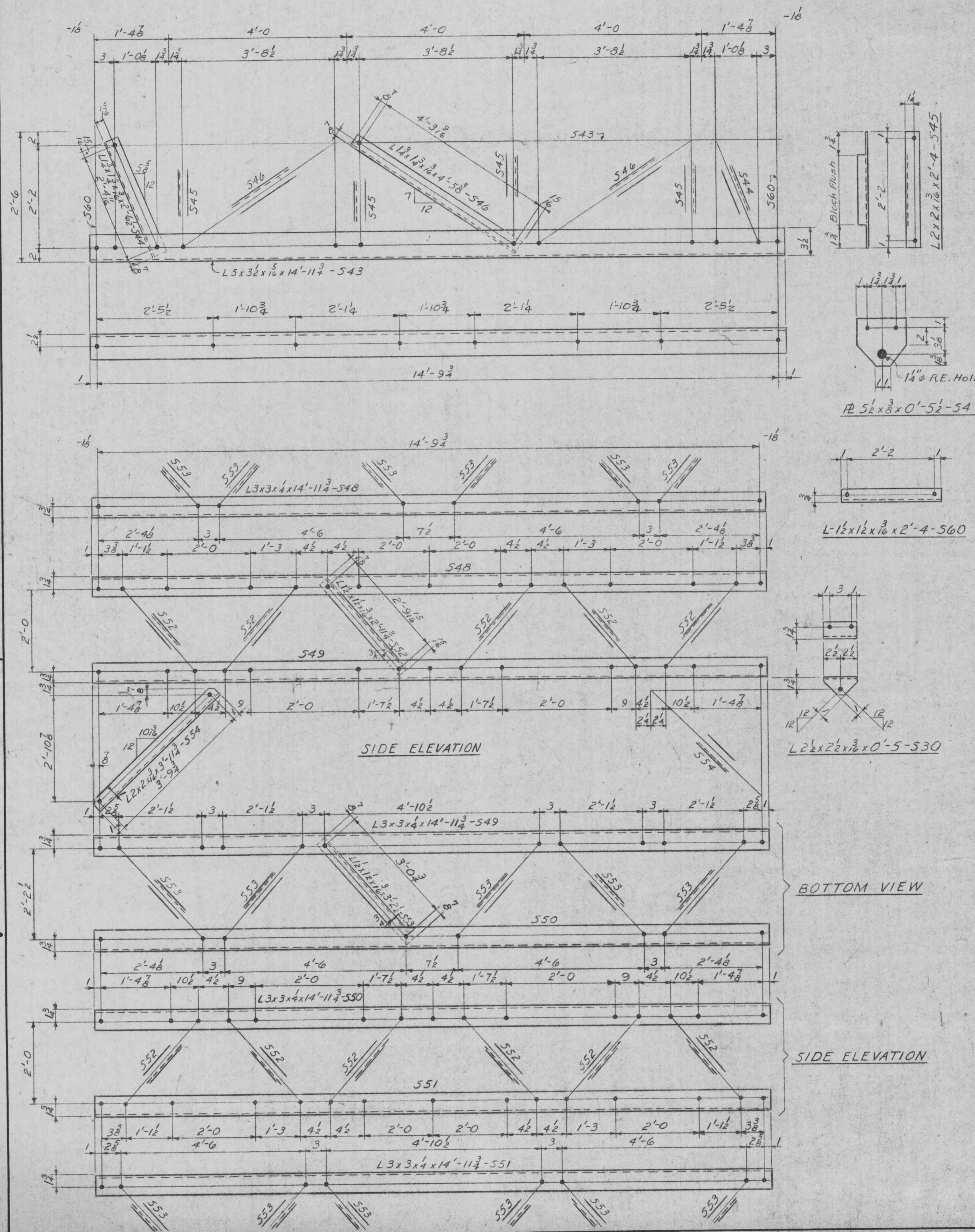
REFERENCES:  
Foundation-----MC-19168  
Regulator Extn. Details-----LC-22617  
Alternate Members-----SC-28813

TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING

SUBSTATIONS GENERAL  
15K.V. BUS & SWITCH STRUCTURE-TYPE D  
ERECTION DIAGRAM & STRUCTURAL DETAILS

|                                      |                                  |      |            |             |      |         |      |             |     |               |                                            |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------|----------------------------------|------|------------|-------------|------|---------|------|-------------|-----|---------------|--------------------------------------------|----------|--|--------------------------------------|--|--------|--|--|--|--|--|--|--|--|--|--|--|
| 5                                    | Revised bolt weights             |      |            |             |      |         |      |             |     |               | TENNESSEE VALLEY AUTHORITY                 |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
|                                      | Total weight inter. Bay was 5187 |      |            |             |      |         |      |             |     |               | DIVISION OF POWER PLANNING AND ENGINEERING |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
|                                      | Total weight End. Bay was 3744   |      |            |             |      |         |      |             |     |               |                                            |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
| 2-15-68                              |                                  |      |            | DTA         |      | JBR     |      |             |     | WGT           |                                            |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
| Redrawn                              |                                  |      |            |             |      |         |      |             |     |               |                                            |          |  | SUBSTATIONS GENERAL                  |  |        |  |  |  |  |  |  |  |  |  |  |  |
| 15K.V. BUS & SWITCH STRUCTURE-TYPE D |                                  |      |            |             |      |         |      |             |     |               |                                            |          |  | ERECION DIAGRAM & STRUCTURAL DETAILS |  |        |  |  |  |  |  |  |  |  |  |  |  |
| 4                                    | 2-1-68                           |      |            |             | EM   |         | W.S. |             | WGT |               | WGT                                        |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
|                                      | REV. NO.                         | DATE | WORK ORDER | DSGN        | DRWN | CHKD    | SUPV | APPD        |     |               |                                            |          |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |
| DSGN                                 |                                  | SUPV |            | W.O.        |      | DATE    |      | SUBMITTED   |     | APPROVED      |                                            | SHEET    |  | OF                                   |  | SHEETS |  |  |  |  |  |  |  |  |  |  |  |
| DRWN                                 |                                  |      |            | PROJ. ENGR. |      | 7-23-51 |      | 4-16-68     |     | 29. Revisions |                                            | 1        |  | 3                                    |  | R-5    |  |  |  |  |  |  |  |  |  |  |  |
| CHKD                                 |                                  |      |            |             |      | None    |      | CLASS. CODE |     |               |                                            | LC-28012 |  |                                      |  |        |  |  |  |  |  |  |  |  |  |  |  |



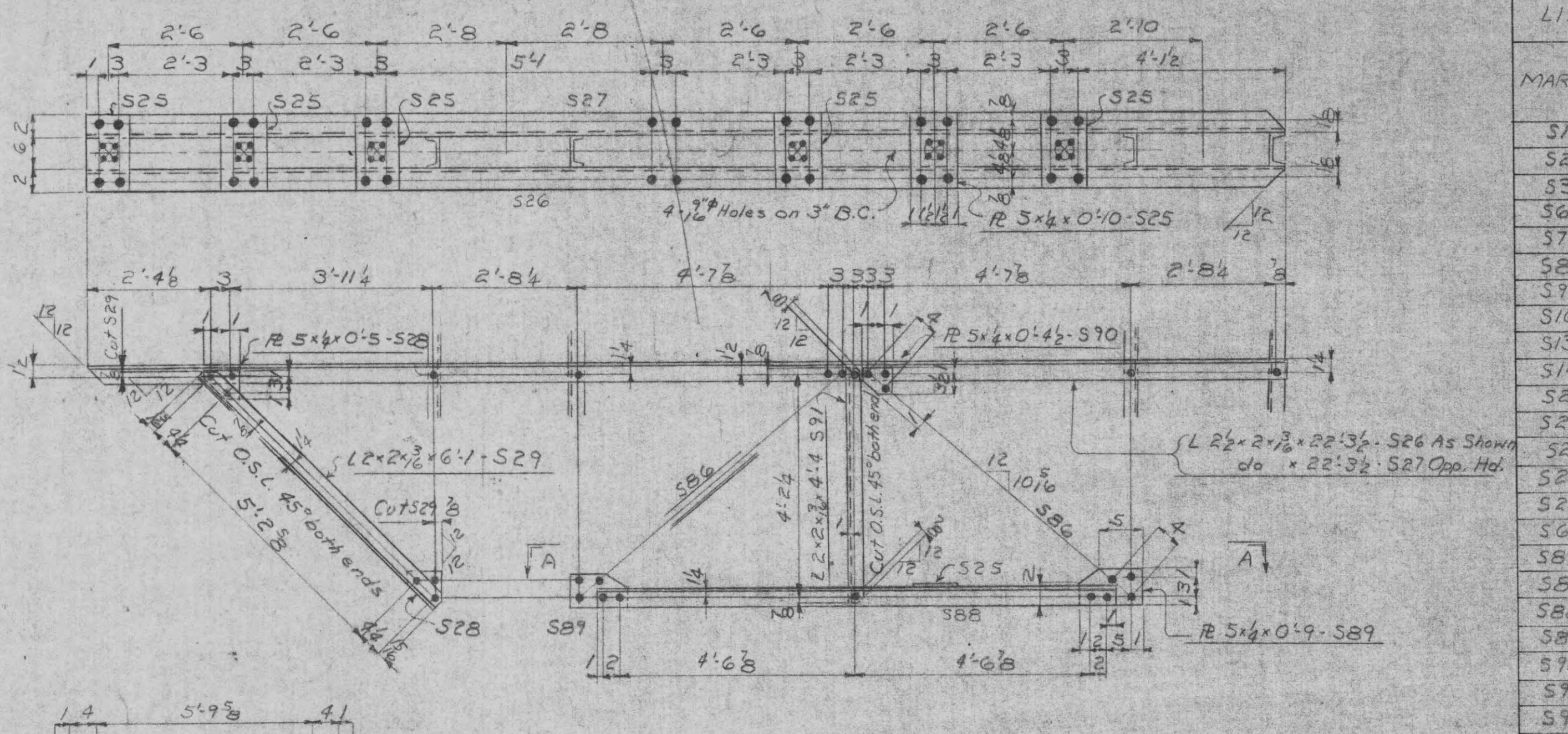
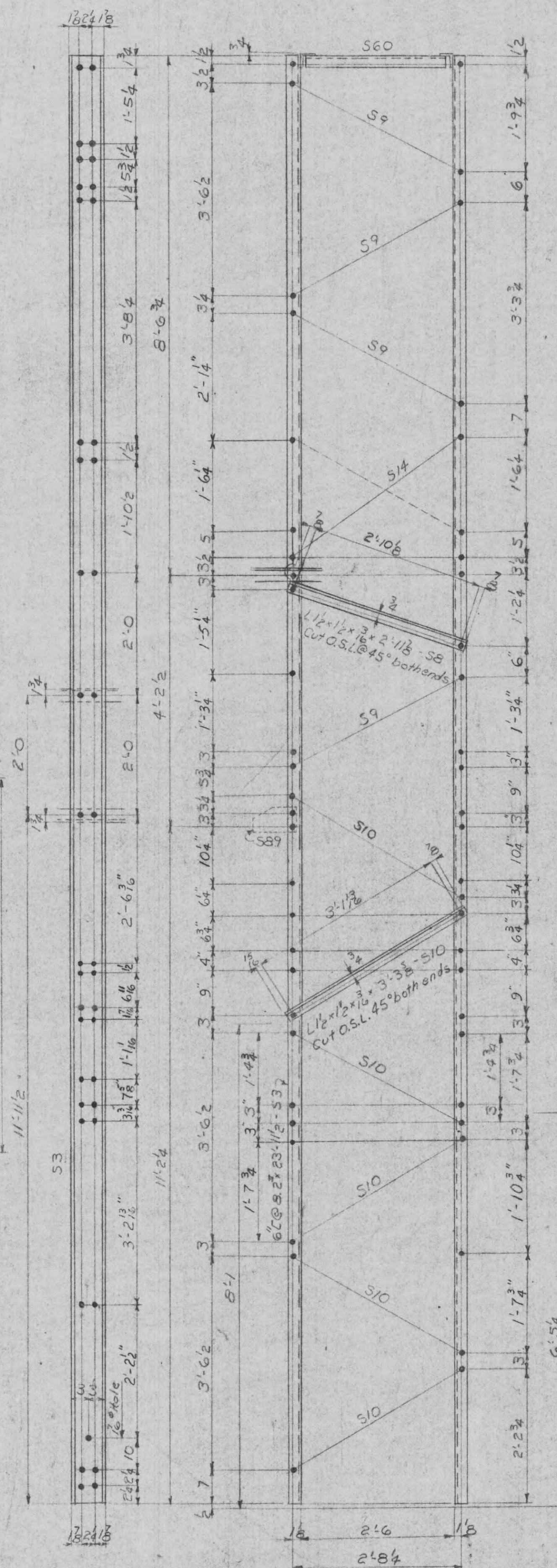
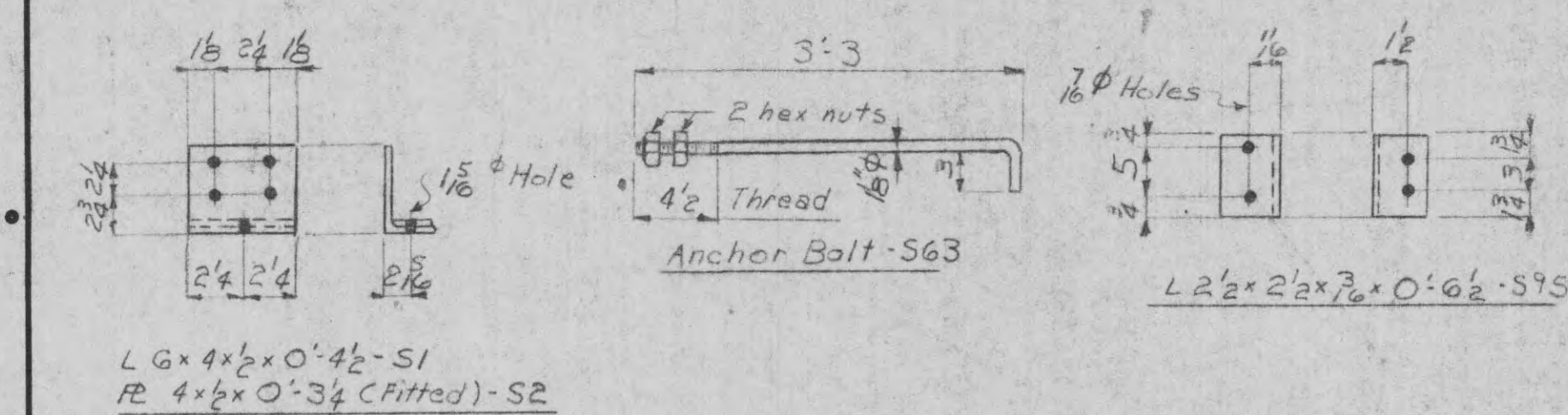
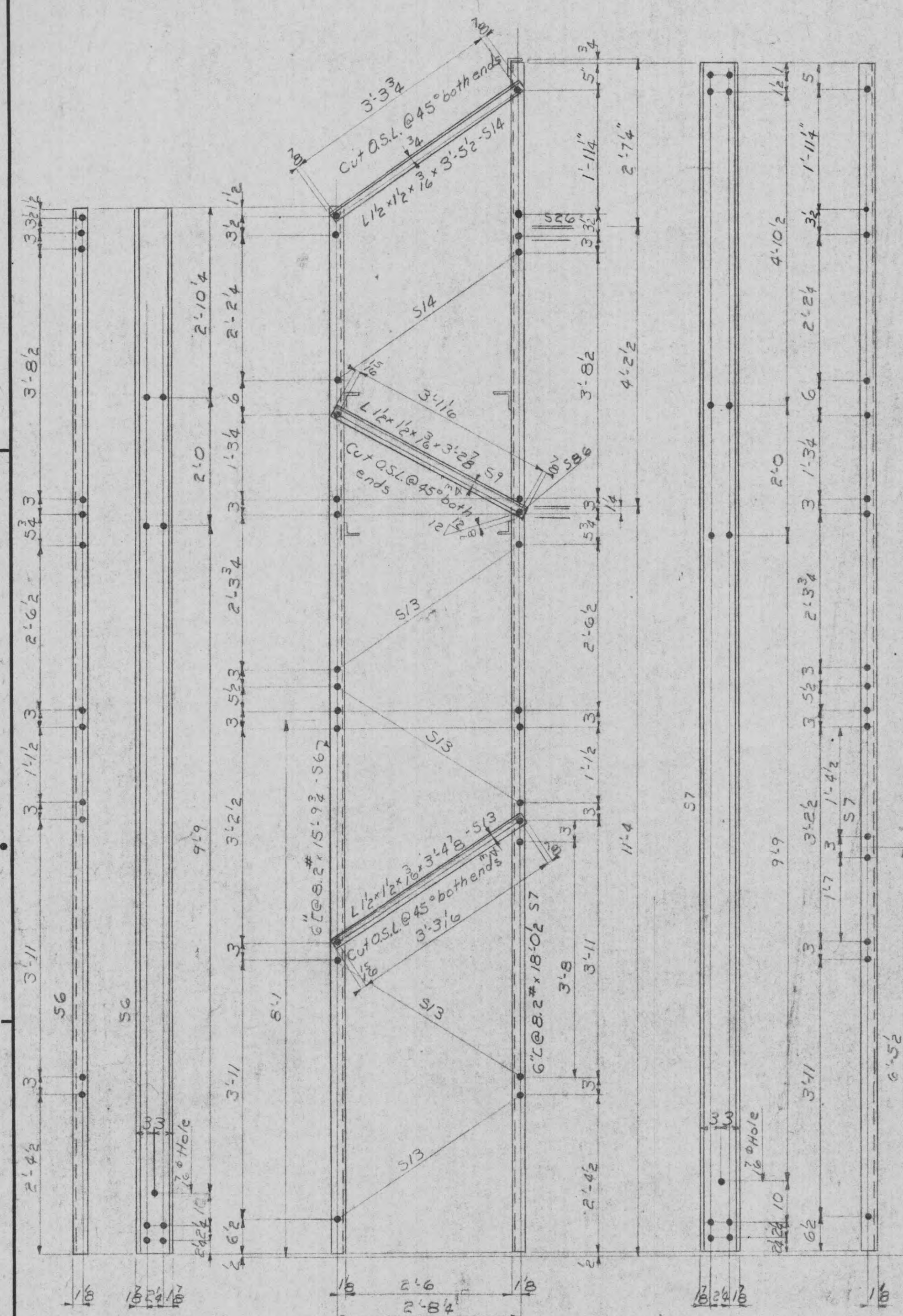


| LIST OF PIECES<br>FOR ONE INTER-<br>MEDIATE BAY<br>OR ONE END BAY |              |
|-------------------------------------------------------------------|--------------|
| MARK                                                              | NO.<br>REQ'D |
| 530                                                               | 4            |
| 543                                                               |              |
| 544                                                               | 2            |
| 545                                                               | 4            |
| 546                                                               | 3            |
| 547                                                               | 3            |
| 548                                                               | 1            |
| 549                                                               | 1            |
| 550                                                               | 1            |
| 551                                                               | 1            |
| 552                                                               | 30           |
| 553                                                               | 12           |
| 554                                                               | 4            |
| 555                                                               | 1            |
| 556                                                               | 3            |
| 557                                                               | 2            |
| 558                                                               | 1            |
| 559                                                               | 2            |
| 560                                                               | 2            |
| 561                                                               | 4            |

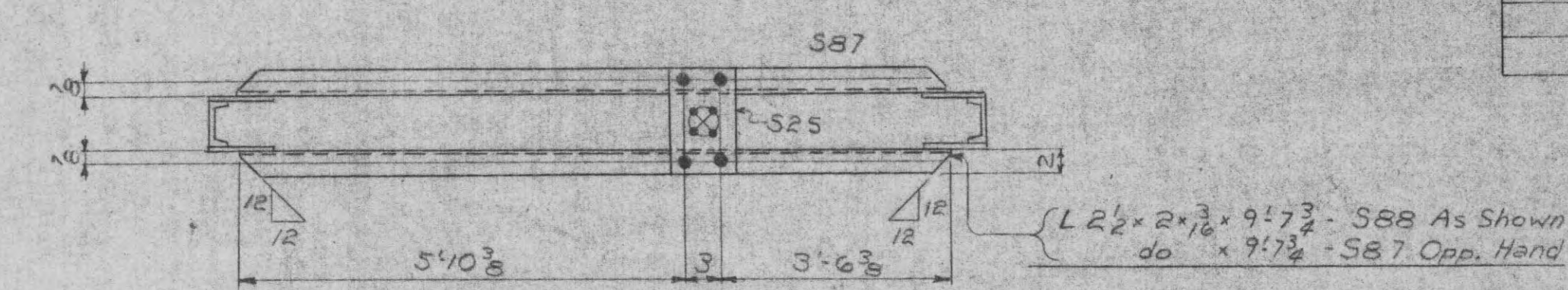
NOTES:  
All holes  $\frac{1}{16}$ "  $\phi$  unless noted.  
Material to be hot-dip galvanized after fabrication.  
Piece marks to be die-stamped before galvanizing.

|                                                                                                                                                                                                                                                                                                                                                                                                                 |     |         |             |       |       |             |       |          |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|-------------|-------|-------|-------------|-------|----------|--|
| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>3 Added holes in pgs. S43 &amp; S58</p> <p>2 Redrawn</p> </div> <div style="width: 65%; text-align: center;"> <p>TENNESSEE VALLEY AUTHORITY</p> <p>DIVISION OF POWER PLANNING AND ENGINEERING</p> <p>SUBSTATIONS GENERAL</p> <p>15 K.V. BUS &amp; SWITCH STRUCTURE-TYPE D</p> <p>STRUCTURAL DETAILS</p> </div> </div> |     |         |             |       |       |             |       |          |  |
| REV.                                                                                                                                                                                                                                                                                                                                                                                                            | NO. | DATE    | WORK ORDER  | DSGN. | DRWN. | CHKD.       | SUPV. | APPRD.   |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                               | 1   | 2-15-66 |             | DTA   | JBR   | RWR         | WGT   |          |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                               | 1   | 3-1-66  |             | DEA   | RWR   | WGT         | WGT   |          |  |
| DSGN.                                                                                                                                                                                                                                                                                                                                                                                                           |     |         | SUPV.       |       |       | W.O.        |       |          |  |
| DRWN.                                                                                                                                                                                                                                                                                                                                                                                                           |     |         | PROJ. ENGR. |       |       |             |       |          |  |
| CHKD.                                                                                                                                                                                                                                                                                                                                                                                                           |     |         |             |       |       |             |       |          |  |
| DATE                                                                                                                                                                                                                                                                                                                                                                                                            |     |         | 7-23-51     |       |       | SUBMITTED   |       | 11-16-63 |  |
| SCALE                                                                                                                                                                                                                                                                                                                                                                                                           |     |         | N.T.S.      |       |       | CLASS. CODE |       | 5001D    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                 |     |         |             |       |       | APPROVED    |       | JBR      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                 |     |         |             |       |       | SHEET       |       | 3 OF 3   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                 |     |         |             |       |       | LC28012     |       | R-3      |  |





SECTION A-A



| LIST OF PIECES |                       |             |
|----------------|-----------------------|-------------|
|                | No. REQUIRED          |             |
| MARK           | ONE INTER-MEDIATE BAY | ONE END BAY |
| S1             | 8                     | 4           |
| S2             | 8                     | 4           |
| S3             | 4                     | 2           |
| S6             | 2                     | 1           |
| S7             | 2                     | 1           |
| S8             | 4                     | 2           |
| S9             | 22                    | 11          |
| S10            | 24                    | 12          |
| S13            | 20                    | 10          |
| S14            | 10                    | 5           |
| S25            | 14                    | 7           |
| S26            | 2                     | 1           |
| S27            | 2                     | 1           |
| S28            | 8                     | 4           |
| S29            | 4                     | 2           |
| S63            | 8                     | 4           |
| S86            | 8                     | 4           |
| S87            | 2                     | 1           |
| S88            | 2                     | 1           |
| S89            | 8                     | 4           |
| S90            | 8                     | 4           |
| S91            | 4                     | 2           |
| S95            | 4                     | 2           |
|                |                       |             |
|                |                       |             |
|                |                       |             |
|                |                       |             |

NOTES:  
All holes  $1\frac{1}{16}$ " unless noted.  
Material to be hot-dip galvanized after fabrication.  
Piece marks to be die stamped before galvanizing.

|                                                      |       |            |             |                                                                          |                 |                          |       |
|------------------------------------------------------|-------|------------|-------------|--------------------------------------------------------------------------|-----------------|--------------------------|-------|
| 5 Added holes to piece S3<br>S 15-62 DTA JBR PWR WGT |       |            |             | TENNESSEE VALLEY AUTHORITY<br>DIVISION OF POWER PLANNING AND ENGINEERING |                 |                          |       |
| 4 Added holes to S3 & S7<br>S 23-61 WS ESS DL WGT    |       |            |             | SUBSTATIONS GENERAL<br>15KV BUS & SWITCH STRUCTURE - TYPE D              |                 |                          |       |
| 3 Redrawn<br>3-1-66 RWR <sup>PLN</sup> WGT WGT       |       |            |             | STRUCTURAL DETAILS                                                       |                 |                          |       |
| REV. NO.                                             | DATE  | WORK ORDER | DSGN        | DRWN                                                                     | CHKD.           | SUPV.                    | APPD. |
| DSGN.                                                | SUPV. |            | W.O.        |                                                                          | DATE 7-23-51    |                          |       |
| DRWN.                                                |       |            | PROJ. ENGR. |                                                                          | CLASS. CORR.    |                          |       |
| CHKD.                                                |       |            |             |                                                                          | SCALE 1/8" = 1" |                          |       |
|                                                      |       |            |             | SUBMITTED 1/16/66                                                        |                 | APPROVED                 |       |
|                                                      |       |            |             | 1/16/66<br>[Signature]<br>5010                                           |                 | SHEET 2 OF 3<br>LC 28012 |       |
|                                                      |       |            |             |                                                                          |                 | SHEETS                   |       |