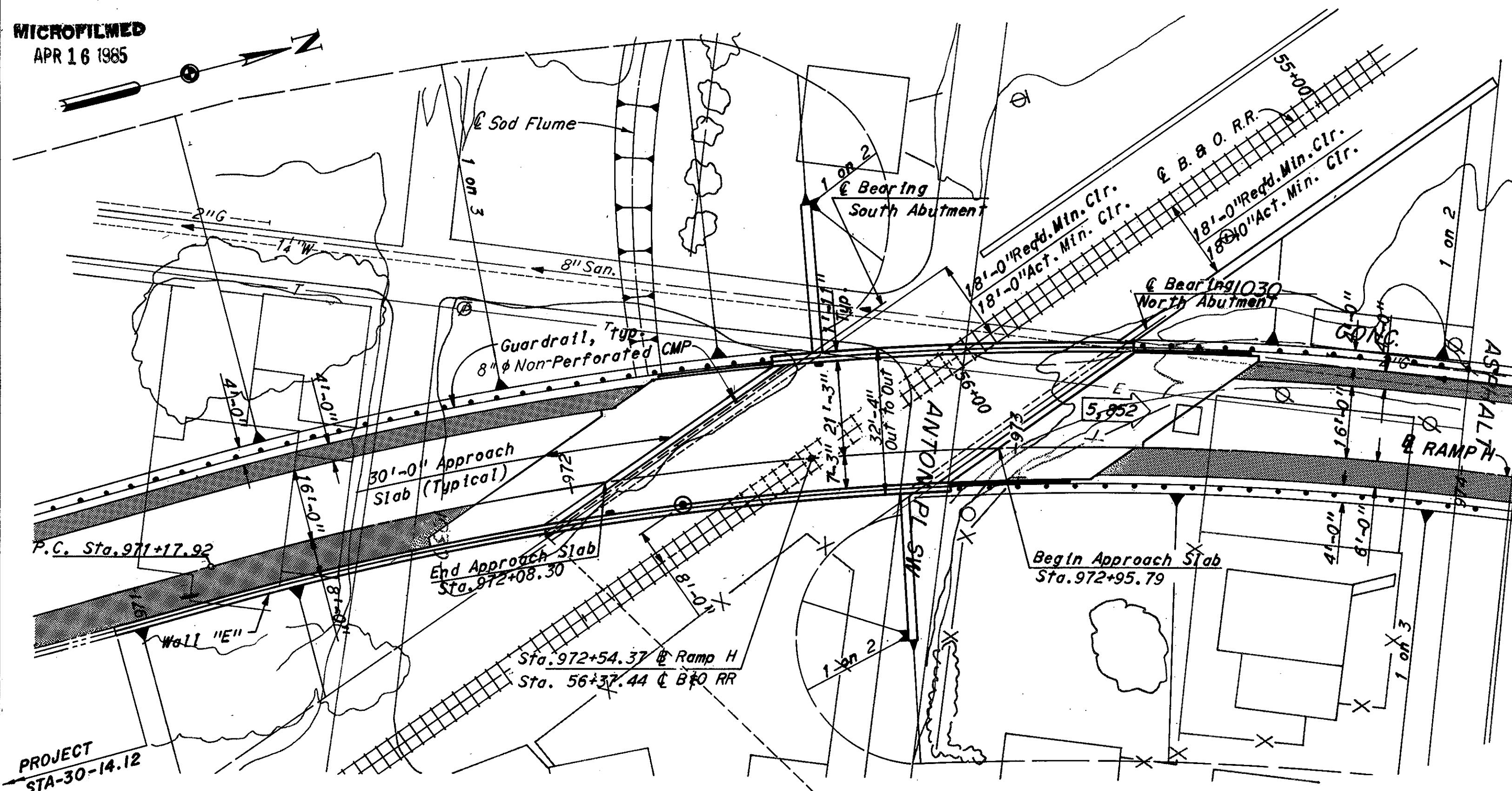


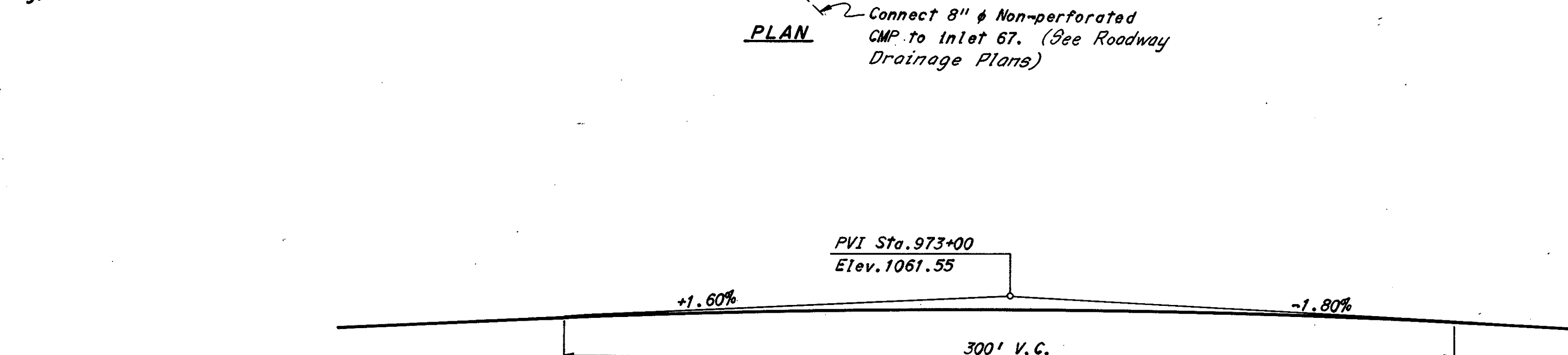
MICROFILMED  
APR 16 1985



CURVE DATA - RAMP H  
D = 8°00'00.0"  
Δ = 70°46'21.1"  
R = 716.20'  
T = 508.72'  
L = 884.66'

| FED. ROAD DIV. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS | 242<br>299 |
|--------------------|-------|-------------------------|------------|------------|
| 2                  | OHIO  |                         |            |            |

STARK COUNTY  
STA-30-15.04  
STA-77-9.22



UTILITY LEGEND

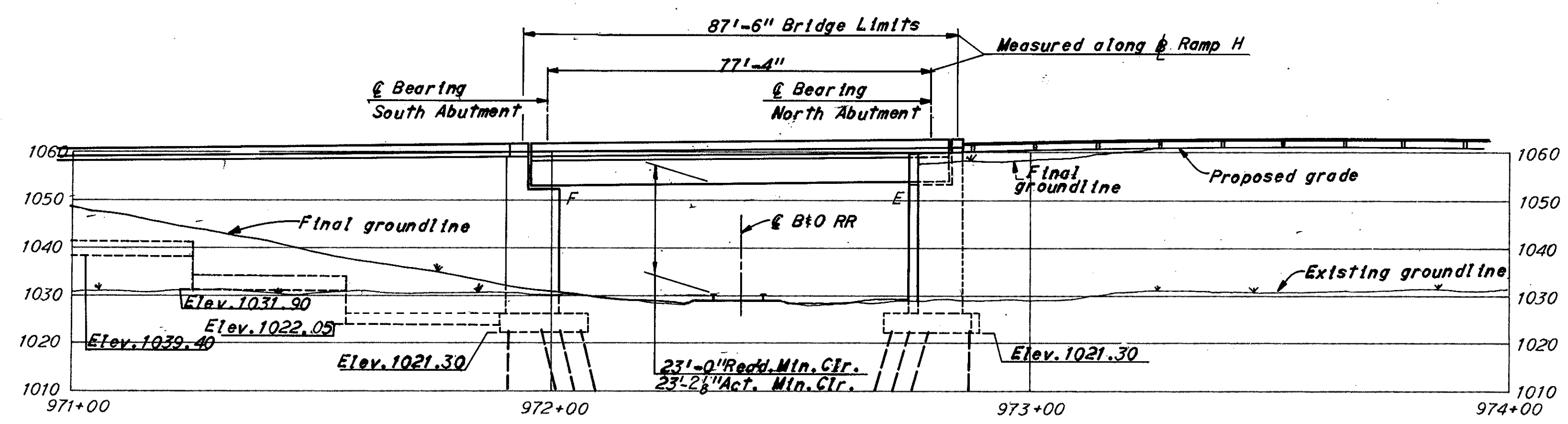
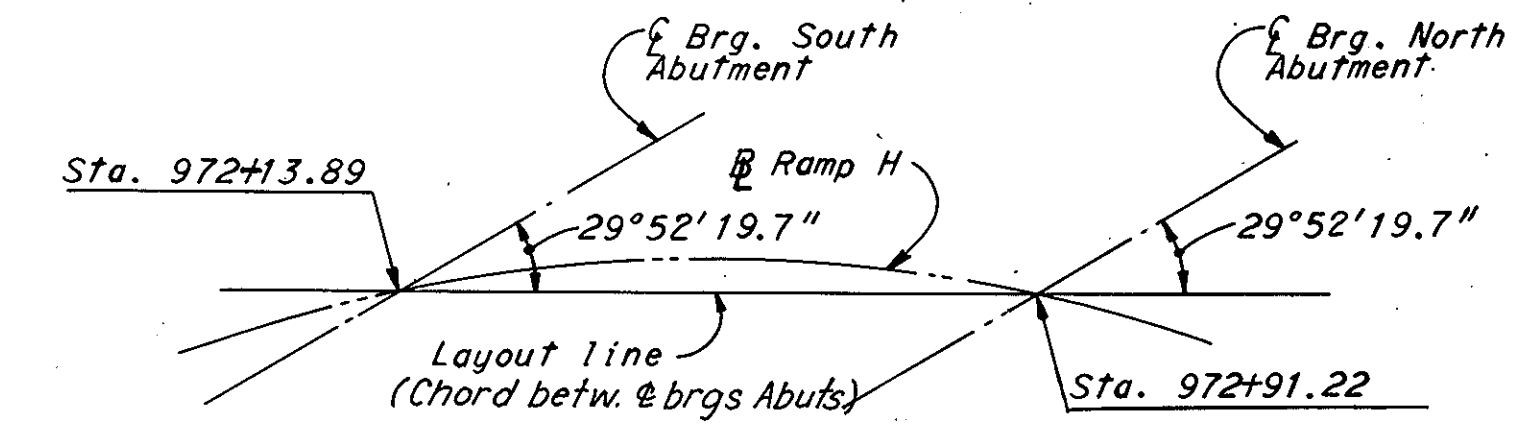
- G --- Gas
- W --- Water
- SS --- Storm Sewer
- San --- Sanitary Sewer
- T --- Telephone
- E --- Power Lines
- 4W-E4KW 4 Wire, Primary 4 Kilovolt
- 3W-ES 3 Wire, Secondary
- Manhole
- Catch Basin
- ⊕ Pole, Telephone
- ⊕ Pole, Electric

\* Modify Standard Drawing AS-1-72 by providing 3" clear over the top reinforcing bars instead of the 2" shown on the Standard Drawing. The jacking holes as called for on Standard Drawing AS-1-72 are not required.

PROPOSED STRUCTURE

Type: Simple Span Welded Girders with Reinforced Concrete Slab.  
Span: 77'-4" ctr. to ctr. End Bearings measured along @ Ramp H.  
Roadway: 30'-0" face to face of parapets.  
Loading: HS20-44, Case I and the Alternate Military Loading  
Skew to Layout Line: 60° 07' 40.3"  
Wearing Surface: 2 1/2" Asphalt Concrete  
Approach Slab: AS-1-72 (30'-0" Long) (Modified)  
Alignment: 8°00'00" Curve (Right)

Notes:  
For Estimated Quantities, see Sheet 201A.  
The following items are not included in the bridge plans. See roadway plans for details.  
1. Relocation or removal of existing utilities.  
2. Approach grading, pavement and slabs.  
3. Guardrails  
5,852 Denotes one way average daily traffic.  
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross sections.  
⊙ Denotes point of minimum vertical clearance.  
■ Denotes standard scupper.  
All piles shall be 12" cast-in-place concrete with an estimated average pay length of 80'-0" for abutments and all retaining walls except the estimated pile length for retaining wall E shall be 90'-0". These estimates are based on boring data and are approximate only. The Contractor shall assume full responsibility for the length of piling selected for driving.  
For lighting details see lighting plans.



ELEVATION

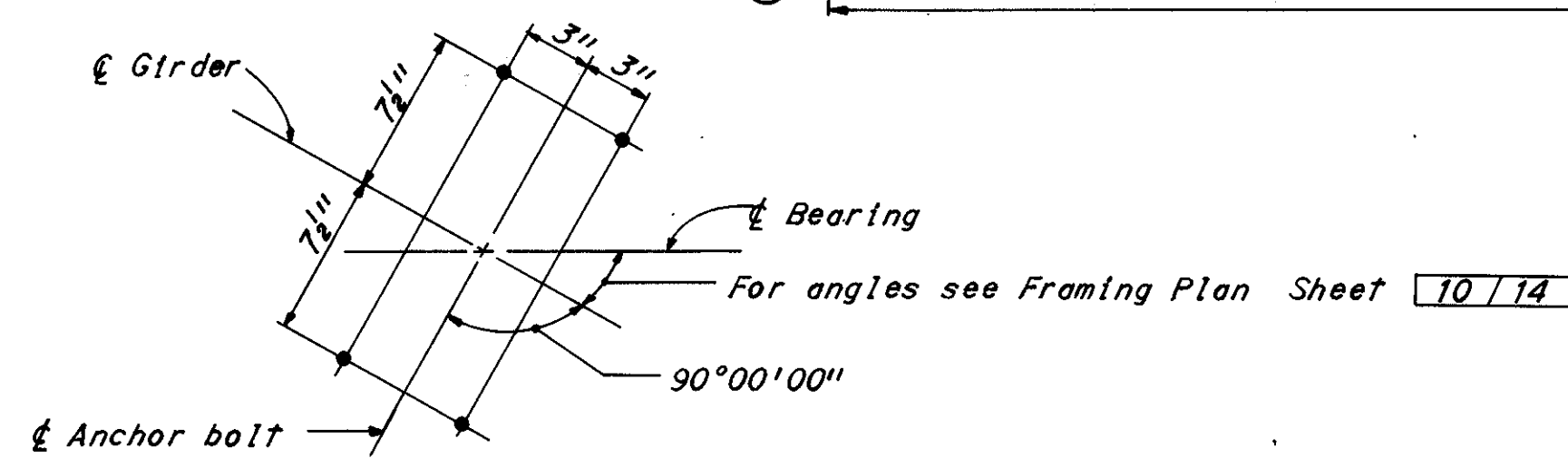
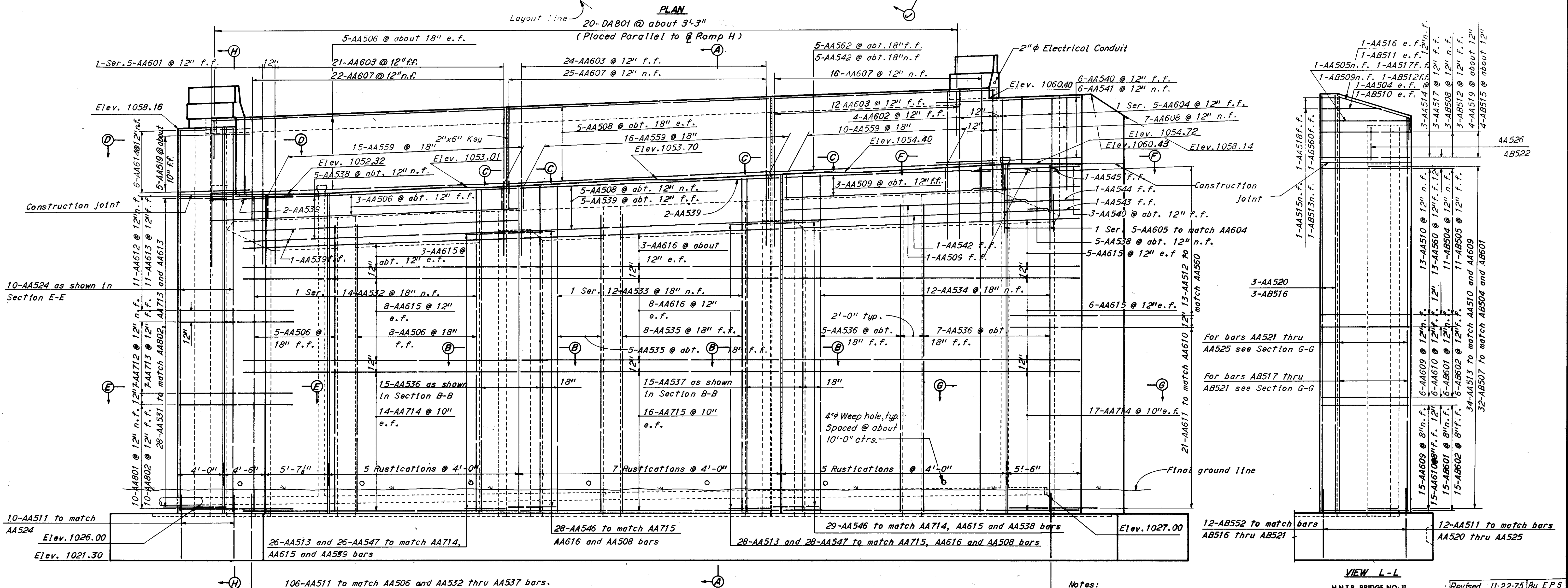
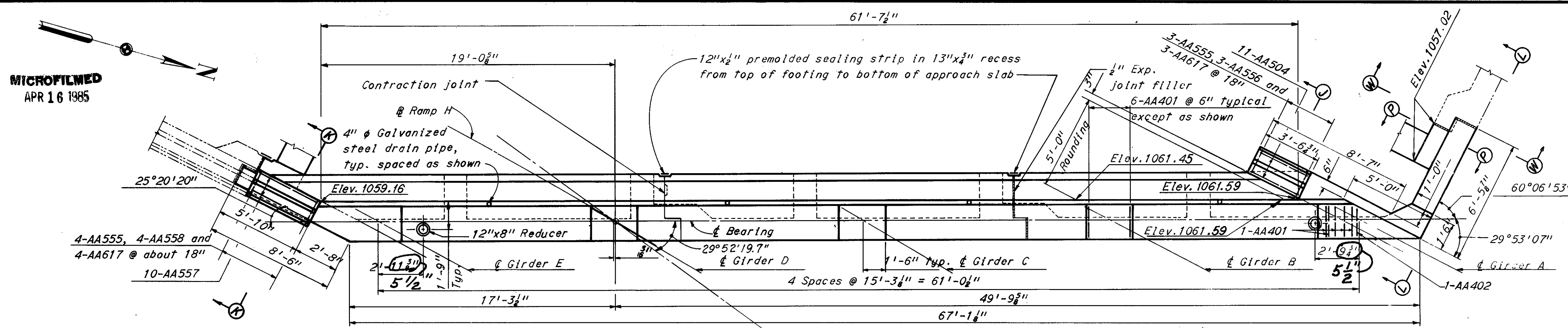
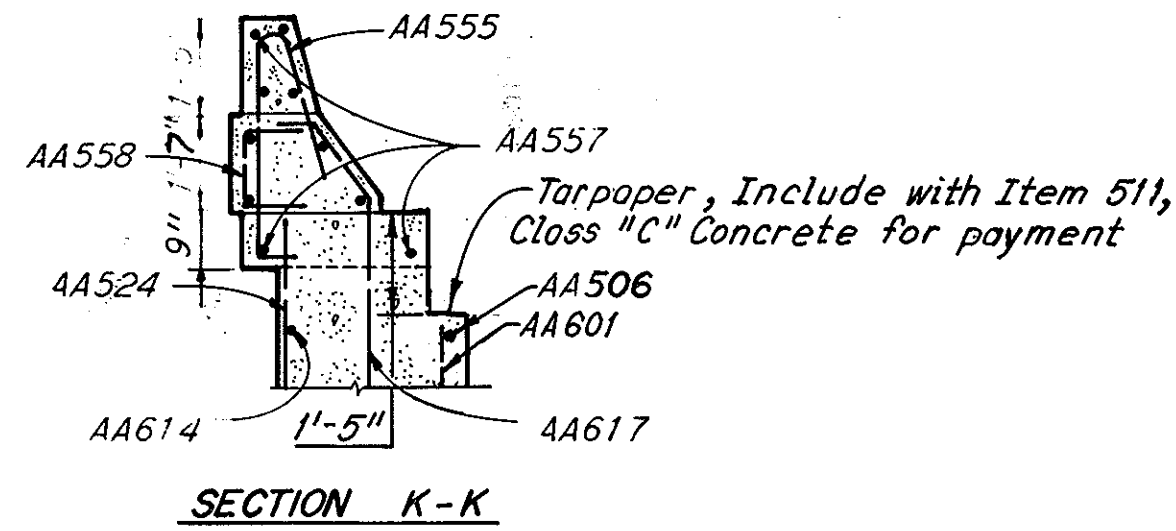
|                                      |        |                  |          |                                |  |
|--------------------------------------|--------|------------------|----------|--------------------------------|--|
| H.N.T.B. BRIDGE NO. 11               |        | Revised 11-21-75 |          | By EPS                         |  |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF |        |                  |          | 1 / 14                         |  |
| CONSULTING ENGINEERS                 |        |                  |          | KANSAS CITY CLEVELAND NEW YORK |  |
| SITE PLAN                            |        |                  |          |                                |  |
| RAMP H OVER B. & O. RR.              |        |                  |          |                                |  |
| BR. NO. STA-30-1510                  |        | STA. 972+08.30   |          | STA. 972+95.79                 |  |
| SCALE: 1" = 20'-0"                   |        |                  |          |                                |  |
| RELOCATED U.S. 30                    |        |                  |          |                                |  |
| CANTON                               |        | STARK COUNTY     |          | OHIO                           |  |
| DRAWN ZLH                            | TRACED | CHECKED BM       | REVIEWED | REVISED                        |  |
| DATE 11-5-69                         | DATE   | DATE 8/16/70     | DATE     | 1668                           |  |

**MICROFILME**  
**APR 16 1985**

| FED ROAD<br>DIV NO | STATE | FEDERAL AID<br>PROJECT NO | TYPE<br>FUNDS |
|--------------------|-------|---------------------------|---------------|
| 2                  | OHIO  |                           |               |



STARK COUNTY  
STA-30-15.04  
STA-77-9.22



ANCHOR BOLT PLAN

**Notes:**

For notes not shown see Sheet 4 / 14

- For Sections not shown see Sheets 3 / 14

and 5 / 14

Special care shall be taken when placing reinforcing steel so as not to interfere with anchor bolt setting.

"AA" and "AB" bars denotes South and North Abutment respectively.

VIEW L-L  
H.N.T.B. BRIDGE NO. 11  
Revised 11-22-75 By EPS  
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK  
2/14

***SOUTH ABUTMENT***

RAMP H OVER B. & O. R.R.  
BR. NO. STA-30-1510 STA. 972+08.30  
SCALE: 1/4" = 1'-0" STA. 972+95.79

**RELOCATED U.S. 30**

CANTON STARK COUNTY OHIO

|                 |        |                   |                 |                    |
|-----------------|--------|-------------------|-----------------|--------------------|
| DRAWN<br>C.K.K. | TRACED | CHECKED<br>K.S.S. | REVIEWED<br>MJK | REVISED<br>5.11.78 |
|-----------------|--------|-------------------|-----------------|--------------------|

|                                |      |                               |               |      |
|--------------------------------|------|-------------------------------|---------------|------|
| DATE <sup>C9A</sup><br>6-16-70 | DATE | DATE <sup>A33</sup><br>8-6-70 | DATE 11-24-71 | 1668 |
|--------------------------------|------|-------------------------------|---------------|------|



**MICROFILMED**  
APR 16 1985

3-AB524, 3-AB526 and 3-AB528 @ abt. 18"

11-AB510  
1-AB402

35°35'37"

4'-2 1/2"

Elev. 1061.63

6-AB401 @ 6" typical except as shown

Elev. 1061.62

1-AB401

Elev. 1061.55

40'-8"

58'-10 1/4"

1'-6" typical

12"x 1/2" premolded sealing strip in 13"x 3/4" recess from top of footing to bottom of approach slab

1/2" Expansion joint filler

4" Galvanized steel pipe, typ. spaced as shown

Ramp H

Elev. 1059.69

29°52'19.7"

18'-2 1/4"

3-AB524, 3-AB525 and 3-AB526 @ abt. 18"

11-AB523

7'-9"

4'-9"

11'-0"

7'-5 1/2"

57°56'56"

32°03'04"

Girder E

**PLAN**

20-DB 801 @ 2'-8" (Place Parallel to Ramp H)

5-AB528 @ 12" e.f.

5-AB528 @ abt. 18" f.f.

5-AB529 @ abt. 18" n.f.

5-AB530 @ abt. 18" n.f.

32-AB607 @ 12" f.f.

33-AB 610 @ 12" n.f.

21-AB607 @ 12" f.f.

17-AB610 @ 12" n.f.

5-AB532 @ abt. 18" f.f.

5-AB501 @ abt. 18" n.f.

1 Ser. 4-AB608 @ 12" f.f.

10-AB611 @ abt. 12" n.f.

6-AB535 @ 12" f.f.

6-AB536 @ 12" n.f.

Elev. 1058.46

Elev. 1058.45

Elev. 1055.69

2" Electrical Conduit

1-AB541 f.f.

4-AB549 to match AB528

5-AB550 to match AB529

Constructing joint

Elev. 1054.75

Elev. 1054.53

21-AB551 @ 18"

Elev. 1053.94

14-AB551 @ 18"

3-AB532 @ abt. 12" f.f.

Elev. 1053.36

1-AB544

Elev. 1052.78

Construction joint

1-AB543 f.f.

1-AB545 f.f.

3-AB535 @ abt. 12" f.f.

1 Ser. 4-AB616 to match AB608

8-AB538 @ about 18" f.f.

12-AB614 @ 12" n.f.

12-AB615 @ 12" f.f.

15-AB537 as shown in Sect. B-B

8-AB530 @ about 18" f.f.

4-AB530 @ 18" f.f.

7-AB530 @ abt. 18" f.f.

2'-0" typ.

1 Ser. 19-AB539 @ about 18" n.f.

8-Rustications @ 4'-0"

7 Rustications @ 4'-0"

1 Ser. 16-AB540 @ 18" n.f.

4" Weep hole, typ. spaced at abt. 10'-0" ctrs.

8-AB713 @ 12" n.f.

8-AB714 @ 12" f.f.

5-AB713 @ 10" n.f.

5-AB714 @ 10" f.f.

Final ground line

10-AB552 to match AB527

Elev. 1021.30

27-AB546 to match AB528, AB612 and AB711

26-AB507 and 26-AB547 to match AB530, AB614 and AB713

85-AB552 to match AB530 and AB537 thru AB540 bars

Key 6" x 12" x 7'-0" typ.

STARK COUNTY  
STA-30-15.04  
STA-77-9.22

Notes:

Bearings shall be set in line with girders.  
See Sheet 10/14 for intersection angles between centerline of abutment and girders.

For reinforcement schedule see Sheet 12/14.  
AA401, AA402, AB401 and AB402 bars shall be placed  $2\frac{1}{2}"$  below top of bridge seat.

For roadway end dam details see Ohio Standard Drawing SD-1-69, Sheets 1 and 2 of 4, and Sheet 203.  
n.f. denotes near face, f.f. denotes far face, and e.f. denotes each face.

(S) denotes South Abutment, and (N) denotes North Abutment.

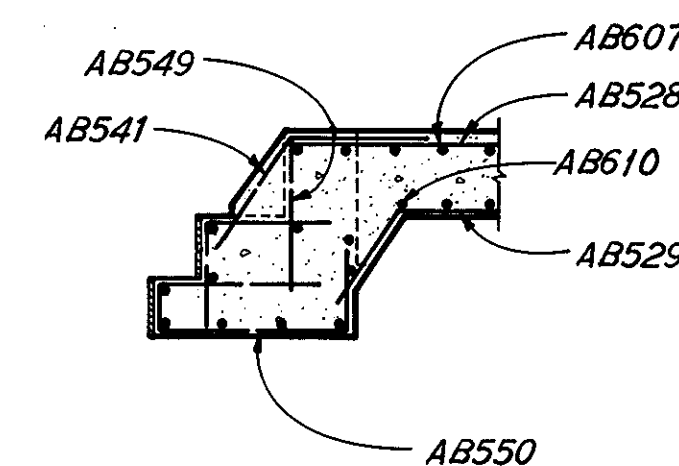
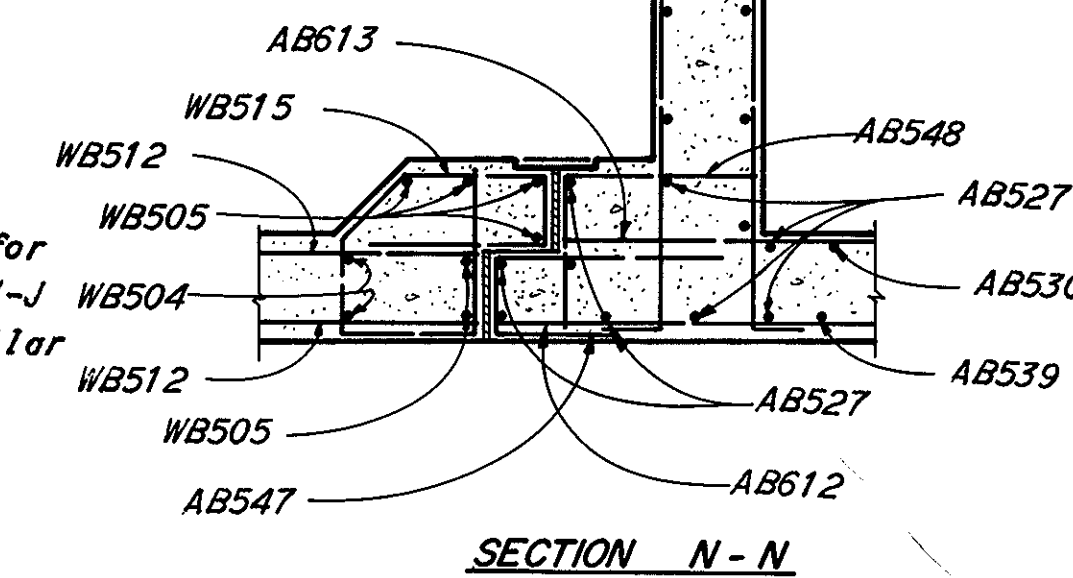
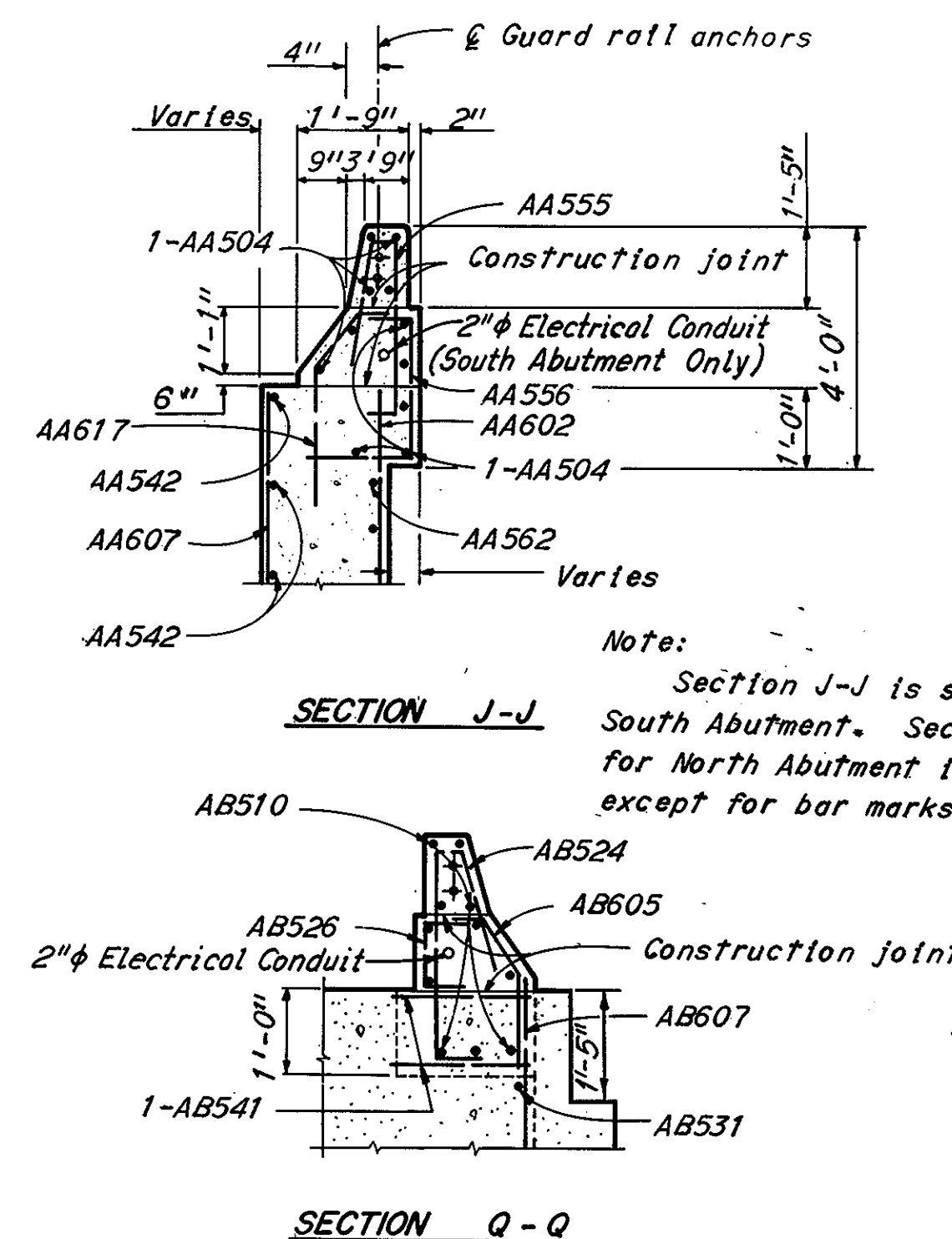
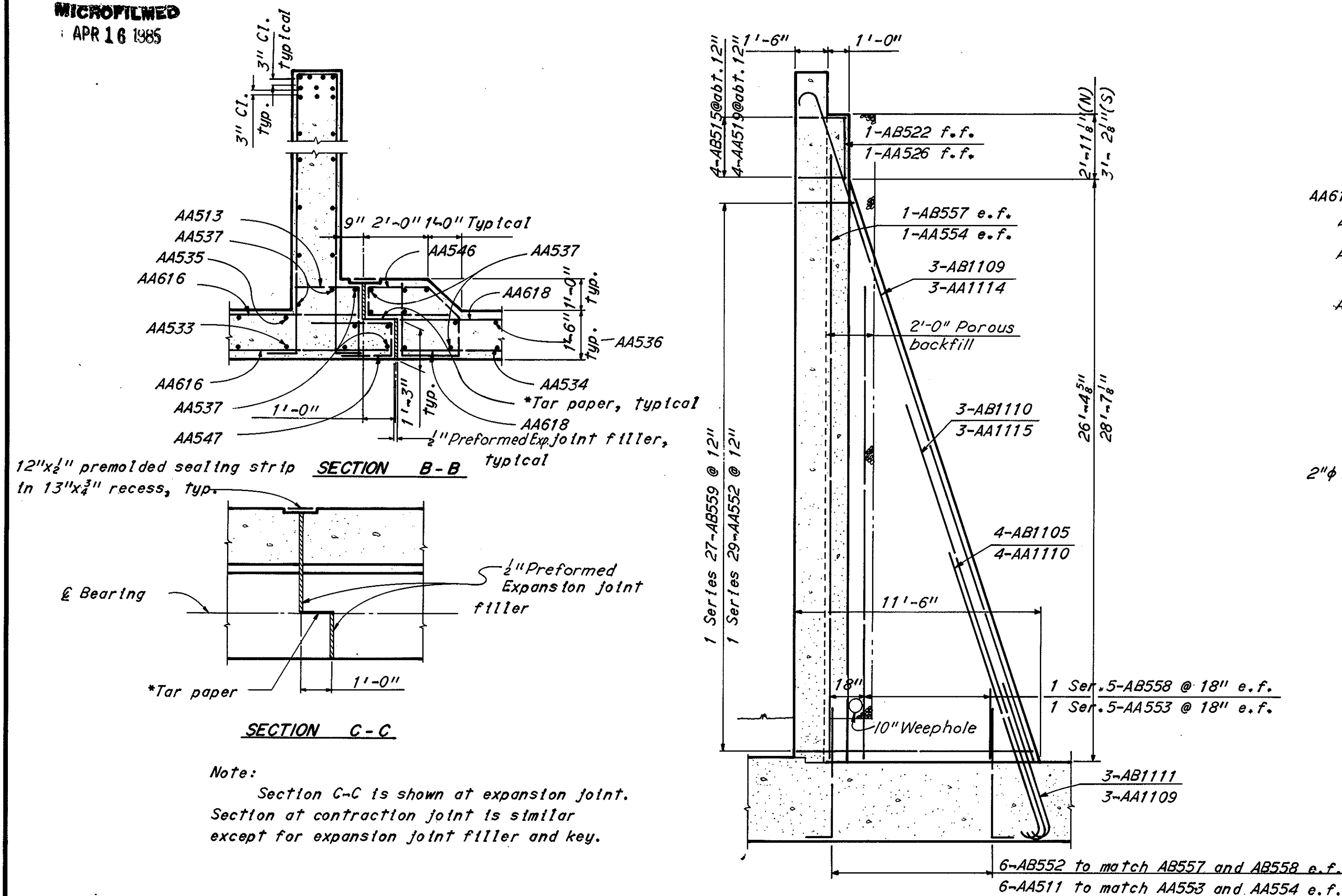
Pile dimensions are measured along bottom of footing.

All piles are 12"  $\phi$  cast-in-place concrete.  
All battered piles are battered 4 in 12.  
○ ➔ Denotes battered piles.

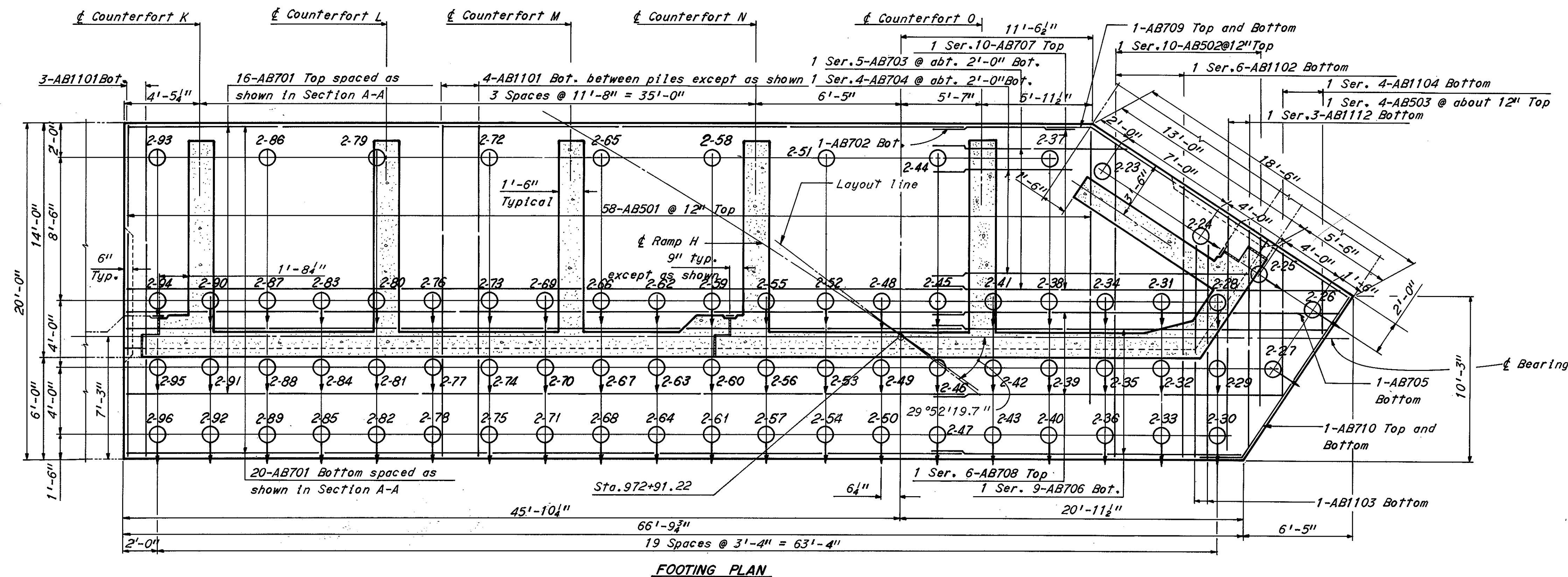
Weep hole shall be sloped  $\frac{1}{4}"$  per foot.  
For Section W-W see Sheet 6/14  
For Sections not shown see Sheets 3/14 and 5/14  
For rustication detail see Sheet 203.  
For layout sketch see Sheet 1/14

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                    |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|----------------------|
| H.N.T.B. BRIDGE NO. 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | Revised 11-24-75   | By <u>EPS</u>        |
| <b>HOWARD, NEEDLES, TAMMEN &amp; BERGENDOFF</b><br>CONSULTING ENGINEERS<br>KANSAS CITY    CLEVELAND    NEW YORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                    | 4 / 14               |
| <h2 style="margin: 0;">NORTH ABUTMENT</h2> <p style="margin: 10px 0 0 0;">RAMP H OVER B. &amp; O. R.R.</p> <div style="display: flex; justify-content: space-between;"> <span>BR. NO. STA. 30-1510</span> <span>STA. 972+08.30</span> </div> <div style="display: flex; justify-content: space-between;"> <span>SCALE: 1/4"=1'-0"</span> <span>STA. 972+95.79</span> </div> <h1 style="margin: 20px 0 0 0; text-align: center;">RELOCATED U.S. 30</h1> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>CANTON</span> <span>STARK COUNTY</span> <span>OHIO</span> </div> |        |                    |                      |
| DRAWN <u>CYK</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TRACED | CHECKED <u>KSS</u> | REVIEWED <u>MJK</u>  |
| DATE <u>7-1-70</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE   | DATE <u>8-6-70</u> | DATE <u>11-24-71</u> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                    | 1668                 |

STARK COUNTY  
STA-30-14.12  
STA-77-9.22



**SECTION P-P** Note: "AA" and "AB" bars denote South and North Abutment respectively.



Notes:  
For notes not shown see Sheet 4/14  
Section B-B is shown at expansion joint. Section at contraction joint is similar except for expansion joint filler and bar marks. Section B-B is shown for South Abutment. Section B-B for North Abutment is similar except for bar marks.  
\*Tar paper is to be included with "Item 511, Class C concrete, abutments above footing" for payment.

|                                      |        |                                |               |
|--------------------------------------|--------|--------------------------------|---------------|
| H.N.T.B. BRIDGE NO. 11               |        | Revised 11-24-75 By EP5        |               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF |        | 5/14                           |               |
| CONSULTING ENGINEERS                 |        | KANSAS CITY CLEVELAND NEW YORK |               |
| <b>NORTH ABUTMENT</b>                |        |                                |               |
| RAMP H OVER B. & O. R.R.             |        |                                |               |
| BR. NO. STA-30-1510                  |        | STA. 972+08.30                 |               |
| SCALE: 1/4"=1'-0"                    |        | STA. 972+95.79                 |               |
| <b>RELOCATED U.S. 30</b>             |        |                                |               |
| CANTON                               |        | STARK COUNTY OHIO              |               |
| DRAWN CYK                            | TRACED | CHECKED KSS                    | REVIEWED JJK  |
| DATE 7-1-70                          | DATE   | DATE 8-6-70                    | DATE 11-24-71 |
|                                      |        |                                | 1668          |



|                                                                         |                         |                                                                                     |
|-------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|
| <b>H.N.T.B. BRIDGE NO. 11</b>                                           | <i>Revised 11-24-75</i> | <i>By EPS</i>                                                                       |
| <b>HOWARD, NEEDLES, TAMMEN &amp; BERGENDOFF</b><br>CONSULTING ENGINEERS |                         | <b>6 / 14</b>                                                                       |
| KANSAS CITY    CLEVELAND    NEW YORK                                    |                         |                                                                                     |
| <b><i>SOUTHWEST, NORTHWEST AND<br/>NORTHEAST RETAINING WALLS</i></b>    |                         |                                                                                     |
| RAMP H OVER B. & O. R.R.                                                |                         |                                                                                     |
| BR. NO. STA. 30-1510                                                    | STA. 972+08.30          |                                                                                     |
| SCALE: 3/16" = 1'-0"                                                    | STA. 972+95.79          |                                                                                     |
| <b>RELOCATED U.S. 30</b>                                                |                         |                                                                                     |
| CANTON                                                                  | STARK COUNTY            | OHIO                                                                                |
| DRAWN <i>C.Y.K.</i><br>DATE <i>7-20-70</i>                              | TRACED<br>DATE          | CHECKED <i>K.S.S.</i><br>DATE <i>8-12-70</i>                                        |
| REVIEWED <i>M.J.K.</i><br>DATE <i>11-24-71</i>                          |                         | REVISION<br><div style="border: 1px solid black; height: 20px; width: 100%;"></div> |
| 1668                                                                    |                         |                                                                                     |

| FED. ROAD<br>DIV. NO | STATE | FEDERAL AID<br>PROJECT NO | TYPE<br>FUNDS |
|----------------------|-------|---------------------------|---------------|
| 2                    | OHIO  |                           |               |



1'-6"

1'-0"

1'-5 1/2"

2'-8 1/2"

1-WB519

1-WB522n.f.

Cfft. F \*\*12'-3 1/2"

Cfft. C \*\*22'-3 1/2"

Note:  
\*\* To top of footing



H.N.T.B. BRIDGE NO. 11 Revised 11-24-75 By EPS  
**HOWARD, NEEDLES, TAMMEN & BERGENDOFF** 7 / 14  
 CONSULTING ENGINEERS  
 KANSAS CITY CLEVELAND NEW YORK

|                              |                |                                |                                  |                 |
|------------------------------|----------------|--------------------------------|----------------------------------|-----------------|
| DRAWN<br>CYK<br>DATE 7-20-70 | TRACED<br>DATE | CHECKED<br>KSS<br>DATE 8-12-70 | REVIEWED<br>MJK<br>DATE 11-24-71 | REVISED<br>1668 |
|------------------------------|----------------|--------------------------------|----------------------------------|-----------------|



H.N.T.B. BRIDGE NO. 11 Revised 11-24-75 By EPS  
**HOWARD, NEEDLES, TAMMEN & BERGENDOFF** 7/14  
 CONSULTING ENGINEERS  
 KANSAS CITY CLEVELAND NEW YORK

| FED. ROAD<br>DIV. NO | STATE | FEDERAL AID<br>PROJECT NO | TYPE<br>FUNDS |
|----------------------|-------|---------------------------|---------------|
| 2                    | OHIO  |                           |               |



[illegible]

**SECTION A-A**

[illegible]

**SECTION D-D**

H.N.T.B. BRIDGE NO. 11 Revised 11-24-75 By EPS

---

**HOWARD, NEEDLES, TAMMEN & BERGENDOFF** 8 / 14

CONSULTING ENGINEERS

KANSAS CITY CLEVELAND NEW YORK

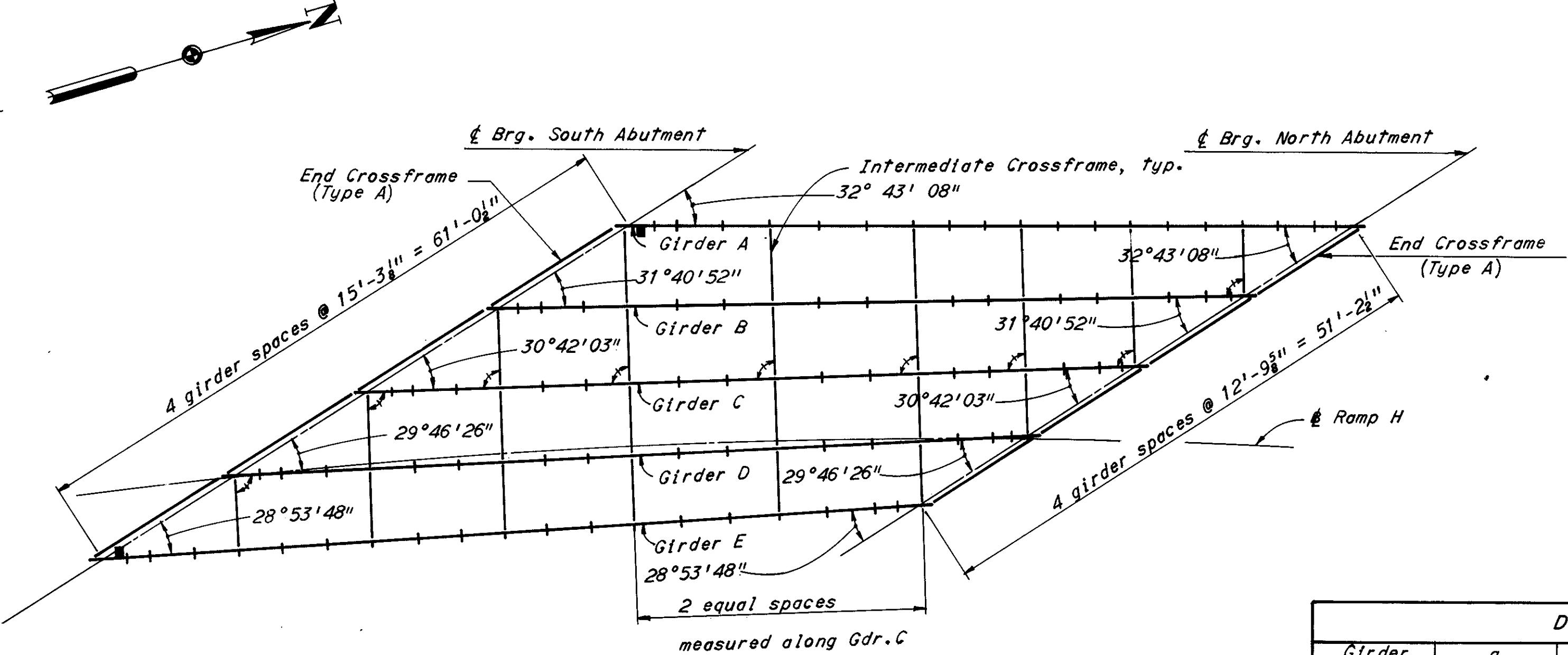
RAMP H OVER B. & O. R.R.  
BR. NO. STA-30-1510 STA. 972+08.30  
SCALE: 1/8" = 1'-0" STA. 972+95.79

**CANTON STARK COUNTY OHIO**

|              |        |             |               |         |
|--------------|--------|-------------|---------------|---------|
| DRAWN T.P.S. | TRACED | CHECKED LL  | REVIEWED MJK  | REVISED |
| DATE 6-9-70  | DATE   | DATE 8-5-70 | DATE 11-24-71 | 1668    |

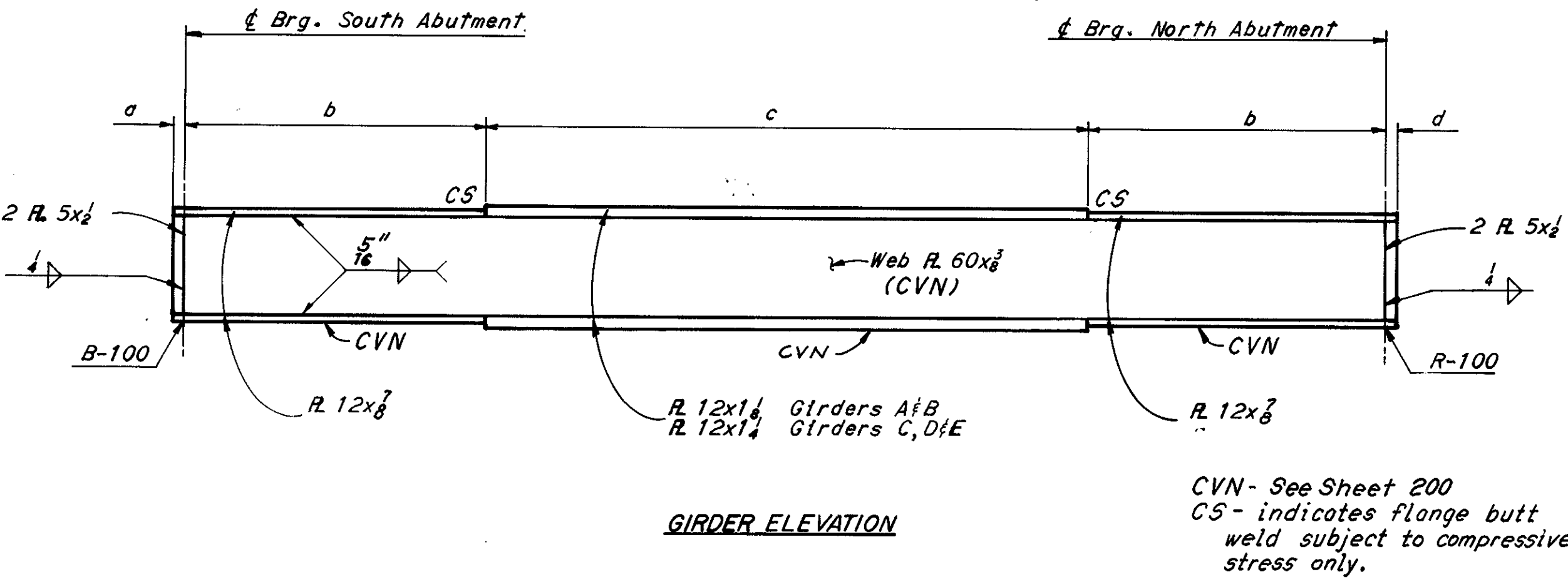


STARK COUNTY  
STA-30-15.04  
STA-77-9.22



FRAMING PLAN

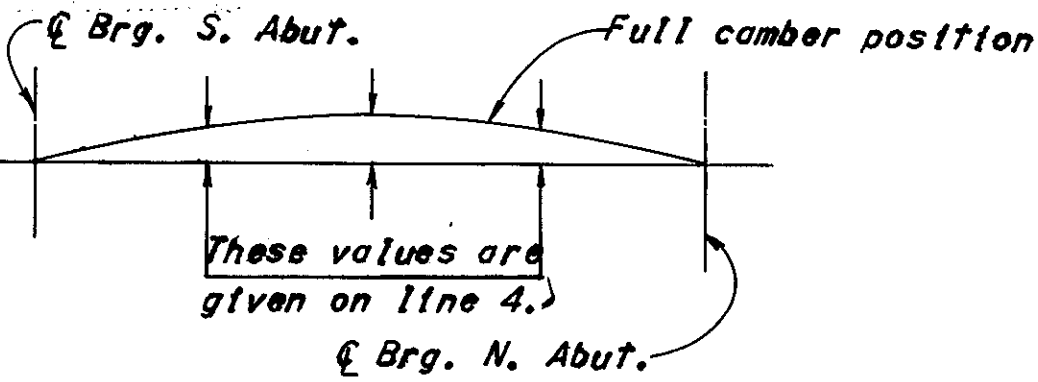
| DIMENSIONS |            |             |             |            |
|------------|------------|-------------|-------------|------------|
| Girder     | a          | b           | c           | d          |
| A          | 1'-9 1/8"  | 17'-9 1/8"  | 35'-7 3/8"  | 1'-9 1/8"  |
| B          | 1'-9 5/8"  | 18'-3 5/8"  | 36'-7 1/8"  | 1'-9 5/8"  |
| C          | 1'-10 1/4" | 18'-10 1/4" | 37'-8 1/8"  | 1'-10 1/4" |
| D          | 1'-10 7/8" | 19'-4 7/8"  | 38'-9 3/8"  | 1'-10 7/8" |
| E          | 1'-11 3/8" | 19'-11"     | 39'-10 1/8" | 1'-11 3/8" |



GIRDER ELEVATION

Note:  
There are no restrictions  
for welded attachments to  
the exterior girders.

| DEFLECTION AND CAMBER |   |          |      |      |              |
|-----------------------|---|----------|------|------|--------------|
|                       |   | S. Abut. | .25  | .50  | .75 W. Abut. |
| Girder A              | 1 | 0        | 1/16 | 1/8  | 0            |
|                       | 2 | 0        | 1/8  | 1/4  | 0            |
|                       | 3 | 0        | 1/16 | 1/8  | 0            |
|                       | 4 | 0        | 1/8  | 1/4  | 0            |
| Girder B              | 1 | 0        | 1/16 | 1/8  | 0            |
|                       | 2 | 0        | 1/8  | 1/4  | 0            |
|                       | 3 | 0        | 0    | 1/16 | 0            |
|                       | 4 | 0        | 1/8  | 1/4  | 0            |
| Girder C              | 1 | 0        | 1/16 | 1/8  | 0            |
|                       | 2 | 0        | 1/8  | 1/4  | 0            |
|                       | 3 | 0        | 0    | 1/16 | 0            |
|                       | 4 | 0        | 1/8  | 1/4  | 0            |
| Girder D              | 1 | 0        | 1/16 | 1/8  | 0            |
|                       | 2 | 0        | 1/8  | 1/4  | 0            |
|                       | 3 | 0        | 0    | 1/16 | 0            |
|                       | 4 | 0        | 1/8  | 1/4  | 0            |
| Girder E              | 1 | 0        | 1/16 | 1/8  | 0            |
|                       | 2 | 0        | 1/8  | 1/4  | 0            |
|                       | 3 | 0        | 1/16 | 1/8  | 0            |
|                       | 4 | 0        | 1/8  | 1/4  | 0            |



SCHEMATIC DETAIL

- Notes:
- Line 1. Deflection due to weight of steel.
  - Line 2. Deflection due to remaining dead load.
  - Line 3. Adjustment required for vertical curve and superelevation.
  - Line 4. Required shop camber.
- Values given in table are to nearest 1/16 inch.

Notes:

Top and bottom flanges are identical in size.  
All stiffeners shall be placed normal to girder flanges.  
All intermediate stiffener to web welds shall be 1/4" continuous fillets on both sides of stiffeners.

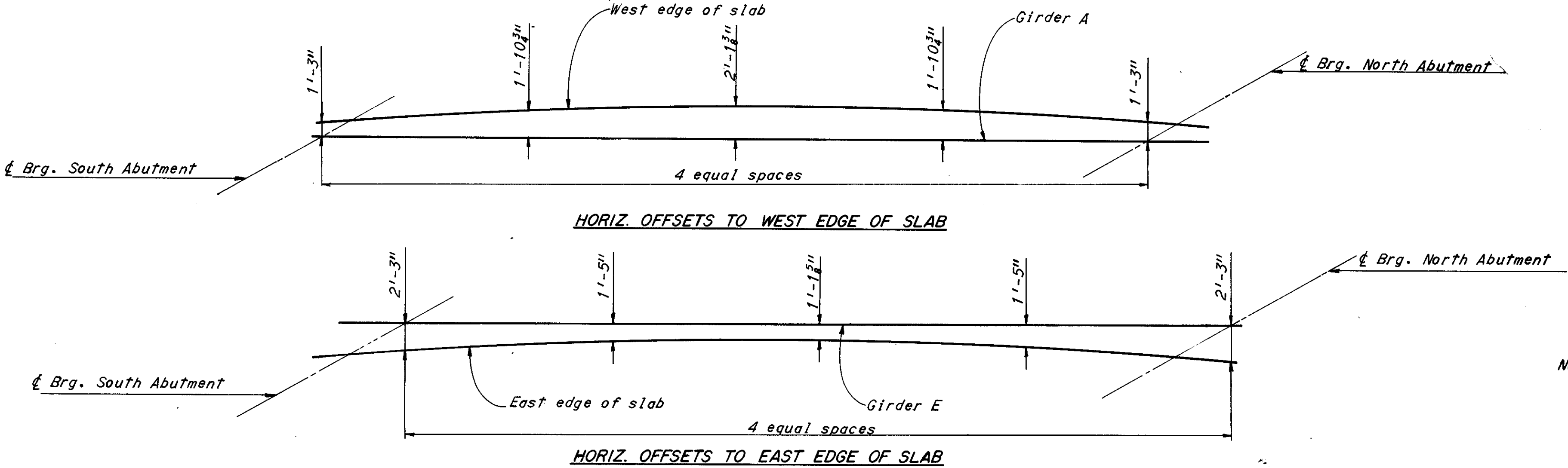
Intermediate stiffeners shall be placed as shown on framing plan, equally spaced between crossframes or crossframes and bearing stiffeners. See Note, Sheet 200.  
For details of Standard scupper see Ohio Standard Drawing SD-1-69, Sheet 3 of 4.  
End crossframe details shall be same as shown on Sheet 202.  
For intermediate crossframe details see Sheet 202.  
All crossframes are intermediate crossframes unless shown otherwise.  
For details of roadway end dam, see Ohio Standard Drawing SD-1-69, Sheet 1 of 4, and Sheet 203.  
For drainage details see Sheet 204.

For details of rockers and bolsters see Ohio Standard Drawing RB-1-55.  
The girders shall be fabricated to lines parallel to profiles formed by top of pavement elevations directly over girders, plus the camber required to compensate for dead load deflection.  
The allowance to be made in screed settings to compensate for dead load deflections due to concrete and wearing course are to be made above or below the top of the pavement elevations as required. Screeds may require further adjustment due to irregularities in fabricated steel.  
For details of curb plates at concrete bridge railing see Ohio Standard Drawing SD-1-69, Sheet 2 of 4 and Sheet 203.  
■ Denotes standard scupper.

Dimensions to scuppers are measured along centerline of girder.

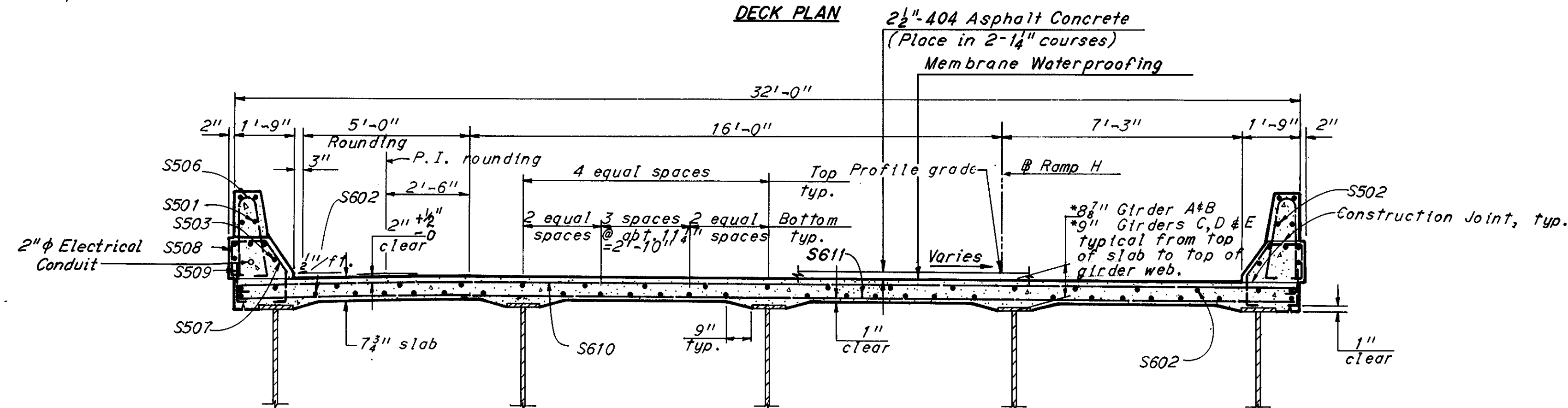
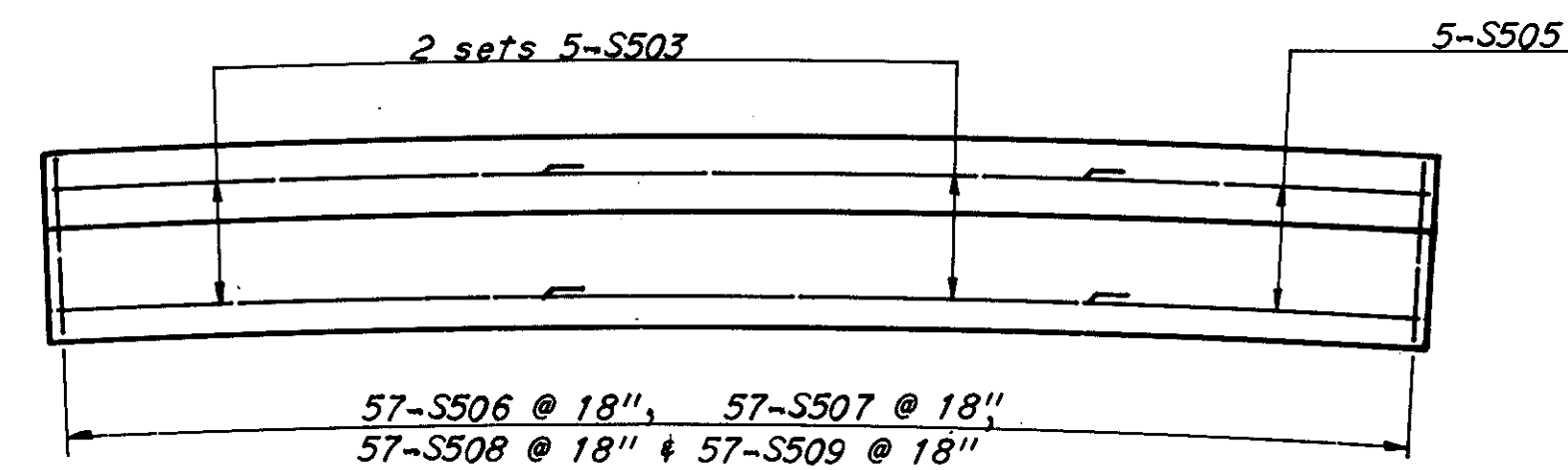
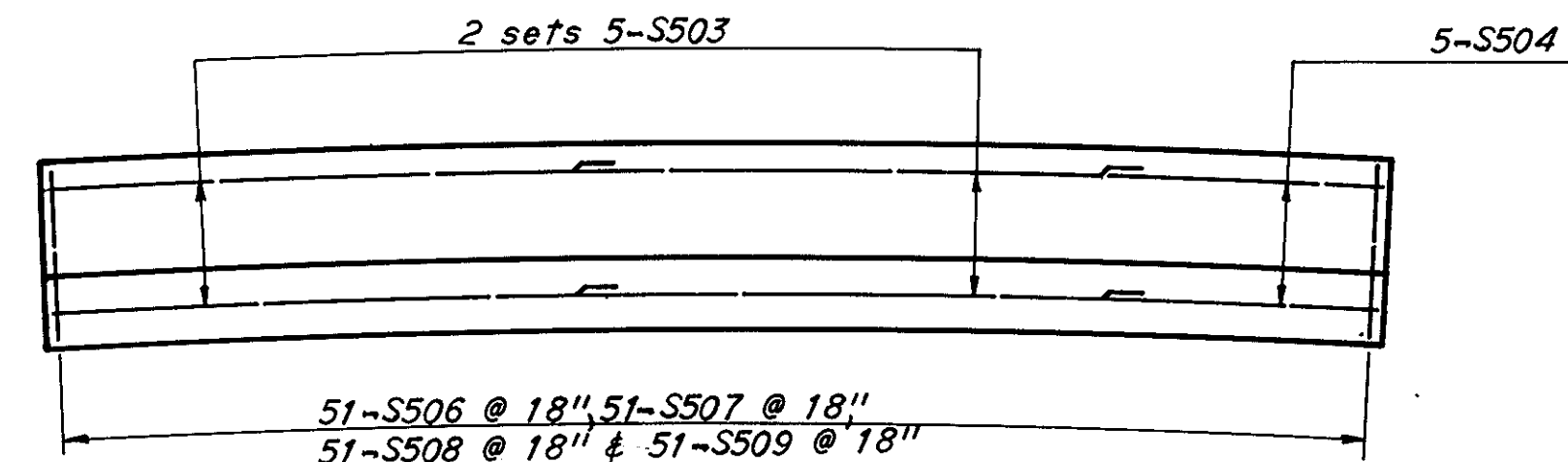
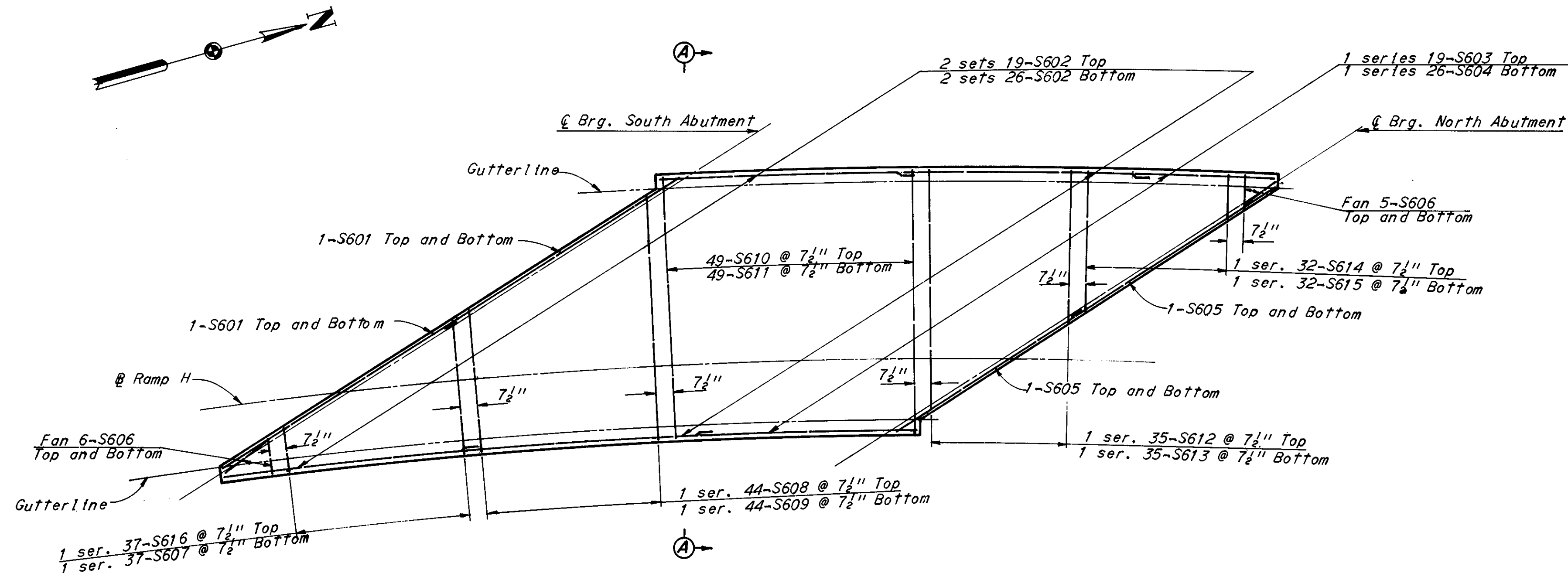
Denotes 90°00'00"  
All structural steel shall be A-36.

All intermediate stiffeners shall be P/s. 4 x 1/2 except at intermediate crossframes where P/s. 5 x 1/2 shall be used.



|                                      |        |                                |               |
|--------------------------------------|--------|--------------------------------|---------------|
| H.N.T.B. BRIDGE NO. 11               |        | Revised 11-24-75 By EPS        |               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF |        | 10/14                          |               |
| CONSULTING ENGINEERS                 |        | KANSAS CITY CLEVELAND NEW YORK |               |
| FRAMING PLAN                         |        |                                |               |
| RAMP H OVER B. & O. R.R.             |        |                                |               |
| BR. NO. STA-30-1510                  |        | STA. 972+08.30                 |               |
| SCALE: 1"=10'-0"                     |        | STA. 972+95.79                 |               |
| RELOCATED U.S. 30                    |        |                                |               |
| CANTON                               |        | STARK COUNTY OHIO              |               |
| DRAWN BY                             | TRACED | CHECKED BY                     | REVIEWED BY   |
| DATE 7/15/70                         | DATE   | DATE 8/12/70                   | DATE 11-24-71 |
| 1668                                 |        |                                |               |

STARK COUNTY  
STA-30-15.04  
STA-77-9.22



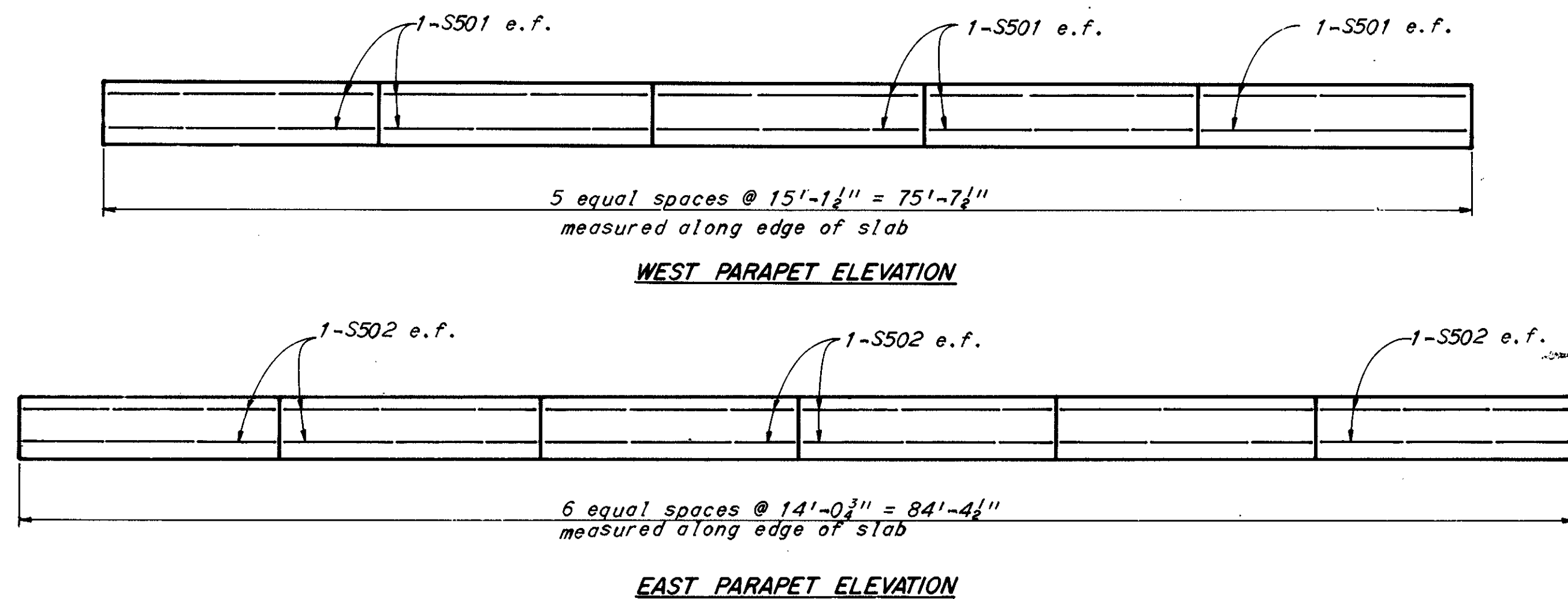
| TOP OF PORTLAND CEMENT CONCRETE<br>ELEVATIONS |                    |         |         |         |                    |
|-----------------------------------------------|--------------------|---------|---------|---------|--------------------|
| Girder                                        | ℄ Brg.<br>S. Abut. | .25     | .50     | .75     | ℄ Brg.<br>N. Abut. |
| A                                             | 1061.43            | 1061.42 | 1061.51 | 1061.49 | 1061.45            |
| B                                             | 1061.11            | 1061.14 | 1061.17 | 1061.20 | 1061.24            |
| C                                             | 1060.42            | 1060.48 | 1060.54 | 1060.60 | 1060.66            |
| D                                             | 1059.73            | 1059.82 | 1059.90 | 1059.99 | 1060.08            |
| E                                             | 1059.04            | 1059.21 | 1059.37 | 1059.44 | 1059.50            |

| TOP OF PORTLAND CEMENT CONCRETE<br>ELEVATIONS AT GUTTERLINE |                    |         |         |         |                    |
|-------------------------------------------------------------|--------------------|---------|---------|---------|--------------------|
|                                                             | ℄ Brg.<br>S. Abut. | .25     | .50     | .75     | ℄ Brg.<br>N. Abut. |
| West Gutterline                                             | 1061.41            | 1061.50 | 1061.53 | 1061.51 | 1061.44            |
| East Gutterline                                             | 1058.99            | 1059.22 | 1059.38 | 1059.46 | 1059.46            |

Note:  
The gutterline elevations shown have been adjusted for the dead load deflections caused by the weight of concrete and wearing course and are the elevations required before the concrete deck is placed.

Notes:  
Reinforcing steel shall be adjusted as required to clear scuppers.  
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.  
For concrete railing details see Sheet 203.  
For deflection joint details see Sheet 203.  
For curb and parapet dimensions see Sheet 203.  
Transverse reinforcing steel shall be placed radially.  
\*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.18 of the Construction and Materials Specifications.

For reinforcement schedule see Sheet 14/14  
For subdrainage details see Sheet 204A



|                                                                                                |                |                            |                              |         |  |
|------------------------------------------------------------------------------------------------|----------------|----------------------------|------------------------------|---------|--|
| H.N.T.B. BRIDGE NO. 11                                                                         |                | Revised 11-24-75           |                              | By EPS  |  |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |                |                            |                              | 11/14   |  |
| <b>DECK PLAN</b>                                                                               |                |                            |                              |         |  |
| RAMP H OVER B. & O. R.R.                                                                       |                |                            |                              |         |  |
| BR. NO. STA-30-1510                                                                            |                | STA. 972+08.30             |                              |         |  |
| SCALE: 1"=10'-0"                                                                               |                | STA. 972+95.79             |                              |         |  |
| <b>RELOCATED U.S. 30</b>                                                                       |                |                            |                              |         |  |
| CANTON                                                                                         |                | STARK COUNTY               |                              | OHIO    |  |
| DRAWN BY<br>DATE 7/16/70                                                                       | TRACED<br>DATE | CHECKED BY<br>DATE 8/23/70 | REVIEWED BY<br>DATE 11-24-71 | REVISED |  |
|                                                                                                |                |                            |                              | 1668    |  |

| MARK           | NUMBER    | LENGTH            | TYPE | DIMENSIONS      |           |        | SERIES INCR. | WEIGHT POUNDS |
|----------------|-----------|-------------------|------|-----------------|-----------|--------|--------------|---------------|
|                |           |                   |      | A               | B         | C      |              |               |
| SOUTH ABUTMENT |           |                   |      |                 |           |        |              |               |
| AA401          | 29        | 3'-6"             | 105  | 1'-0"           | 1'-9"     |        |              | 68            |
| AA402          | 1         | 3'-2"             | 105  | 1'-0"           | 1'-5"     |        |              | 2             |
|                |           |                   |      |                 |           |        |              |               |
|                |           |                   |      |                 |           |        |              |               |
|                |           |                   |      |                 |           |        |              |               |
| AA501          | 66        | 14'-6"            | Str. |                 |           |        |              | 995           |
| AA502          | 1 Ser. 6  | 14'-6" to 2'-6"   | Str. |                 |           |        | 2'-4 3/4"    | 53            |
| AA503          | 1 Ser. 12 | 14'-0" to 8'-0"   | Str. |                 |           |        | 6 3/4"       | 138           |
| AA504          | 14        | 3'-3"             | Str. |                 |           |        |              | 48            |
| AA505          | 1         | 7'-7"             | 104  | 6'-1 1/2"       | 1'-7"     |        |              | 8             |
| AA506          | 26        | 25'-3"            | Str. |                 |           |        |              | 685           |
|                |           |                   |      |                 |           |        |              |               |
| AA508          | 15        | 23'-6"            | Str. |                 |           |        |              | 368           |
| AA509          | 5         | 16'-6"            | Str. |                 |           |        |              | 86            |
| AA510          | 13        | 11'-1"            | 138  | 1'-7"           | 6'-1"     | 10"    |              | 150           |
| AA511          | 220       | 6'-2"             | 104  | 5'-3 1/2"       | 1'-0"     |        |              | 1,416         |
| AA512          | 13        | 8'-7"             | 108  | 7'-0"           | 1'-7"     | 6"     |              | 117           |
| AA513          | 88        | 3'-10"            | 104  | 2'-0 1/2"       | 1'-11"    |        |              | 352           |
| AA514          | 3         | 11'-0"            | 152  | 1'-7"           | 6'-1 1/2" | 2'-9"  |              | 34            |
| AA515          | 2         | 2'-9"             | 104  | 1'-3 1/2"       | 1'-7"     |        |              | 6             |
| AA516          | 2         | 7'-2"             | 108  | 1'-7"           | 5'-7"     | 4'-11" |              | 15            |
| AA517          | 4         | 6'-10"            | 108  | 4'-10"          | 2'-0"     | 1'-5"  |              | 28            |
| AA518          | 2         | 2'-6"             | Str. |                 |           |        |              | 5             |
| AA519          | 9         | 5'-11"            | 105  | 2'-1"           | 2'-0"     |        |              | 61            |
| AA520          | 3         | 34'-10"           | Str. |                 |           |        |              | 110           |
| AA521          | 1 Ser. 4  | 34'-5" to 32'-3"  | Str. |                 |           |        | 8 1/8"       | 140           |
| AA522          | 1         | 33'-11"           | Str. |                 |           |        |              | 36            |
| AA523          | 1         | 33'-7"            | Str. |                 |           |        |              | 35            |
| AA524          | 12        | 32'-8"            | Str. |                 |           |        |              | 410           |
| AA525          | 1         | 32'-3"            | Str. |                 |           |        |              | 34            |
| AA526          | 1         | 3'-0"             | Str. |                 |           |        |              | 3             |
| AA527          | 2 Ser. 5  | 29'-0" to 6'-0"   | Str. |                 |           |        | 5'-9"        | 183           |
| AA528          | 1         | 3'-3"             | Str. |                 |           |        |              | 5             |
| AA529          | 1 Ser. 7  | 22'-2" to 20'-2"  | 121  | 9'-6" to 8'-6"  | 1'-8"     |        | 4"           | 154           |
| AA530          | 1 Ser. 23 | 19'-2" to 7'-8"   | 121  | 8'-0" to 2'-3"  | 1'-8"     |        | 6 1/2"       | 322           |
| AA531          | 28        | 4'-4"             | 104  | 2'-6 1/2"       | 1'-11"    |        |              | 126           |
| AA532          | 1 Ser. 14 | 26'-6" to 27'-3"  | Str. |                 |           |        | 1 1/16"      | 392           |
| AA533          | 1 Ser. 12 | 27'-6" to 28'-3"  | Str. |                 |           |        | 2 1/8"       | 350           |
| AA534          | 12        | 28'-9"            | Str. |                 |           |        |              | 360           |
| AA535          | 13        | 24'-9"            | Str. |                 |           |        |              | 336           |
| AA536          | 27        | 27'-3"            | Str. |                 |           |        |              | 766           |
| AA537          | 15        | 28'-6"            | Str. |                 |           |        |              | 445           |
| AA538          | 10        | 21'-3"            | Str. |                 |           |        |              | 221           |
| AA539          | 11        | 22'-6"            | Str. |                 |           |        |              | 259           |
| AA540          | 9         | 7'-7"             | 108  | 6'-0"           | 1'-7"     | 11"    |              | 71            |
| AA541          | 6         | 6'-7"             | 108  | 5'-0"           | 1'-7"     | 11"    |              | 41            |
| AA542          | 5         | 17'-9"            | Str. |                 |           |        |              | 93            |
| AA543          | 1         | 5'-1"             | 108  | 3'-6"           | 1'-7"     | 11"    |              | 5             |
| AA544          | 1         | 6'-1"             | 108  | 4'-6"           | 1'-7"     | 11"    |              | 6             |
| AA545          | 1         | 19'-6"            | Str. |                 |           |        |              | 21            |
| AA546          | 57        | 10'-1"            | 133  |                 |           |        |              | 600           |
| AA547          | 54        | 5'-1"             | 106  | 11"             | 2'-10"    | 1'-7"  |              | 286           |
| AA548          | 4 Ser. 6  | 29'-0" to 3'-9"   | Str. |                 |           |        | 5'-0 5/8"    | 410           |
| AA549          | 6 Ser. 6  | 30'-6" to 3'-9"   | Str. |                 |           |        | 5'-4 3/8"    | 644           |
| AA550          | 2 Ser. 24 | 25'-8" to 11'-8"  | 121  | 11'-6" to 4'-6" | 1'-2"     |        | 7 3/4"       | 934           |
| AA551          | 3 Ser. 25 | 25'-8" to 12'-2"  | 121  | 11'-6" to 4'-9" | 1'-2"     |        | 6 3/4"       | 1,480         |
| AA552          | 1 Ser. 29 | 24'-8" to 7'-2"   | 121  | 11'-0" to 2'-3" | 1'-2"     |        | 7 1/2"       | 481           |
| AA553          | 2 Ser. 5  | 26'-0" to 6'-0"   | Str. |                 |           |        | 5'-0"        | 167           |
| AA554          | 2         | 30'-0"            | Str. |                 |           |        |              | 63            |
| AA555          | 7         | 7'-1"             | 114  | 3'-7"           |           |        |              | 52            |
| AA556          | 3         | 4'-3"             | 106  | 2'-3"           | 1'-7"     | 7 1/2" |              | 18            |
| AA557          | 10        | 3'-6"             | Str. |                 |           |        |              | 37            |
| AA558          | 4         | 2'-3"             | 105  | 7 1/2"          | 1'-3"     |        |              | 9             |
| AA559          | 41        | 5'-6"             | 105  | 1'-0"           | 3'-9"     |        |              | 236           |
| AA560          | 13        | 5'-6"             | Str. |                 |           |        |              | 74            |
| AA561          | 1         | 6'-3"             | Str. |                 |           |        |              | 6             |
| AA562          | 6         | 15'-0"            | Str. |                 |           |        |              | 94            |
| AA563          | 10        | 26'-6"            | Str. |                 |           |        |              | 276           |
|                |           |                   |      |                 |           |        |              |               |
|                |           |                   |      |                 |           |        |              |               |
|                |           |                   |      |                 |           |        |              |               |
|                |           |                   |      |                 |           |        |              |               |
| AA601          | 1 Ser. 5  | 9'-10" to 11'-10" | 151  | 2'-0" to 4'-0"  | 6'-10"    |        | 6"           | 81            |
| AA602          | 4         | 13'-6"            | 108  | 8'-3"           | 5'-3"     | 3'-9"  |              | 81            |
| AA603          | 57        | 12'-5"            | 108  | 7'-0"           | 5'-3"     | 3'-9"  |              | 1063          |
| AA604          | 1 Ser. 5  | 7'-3" to 10'-0"   | Str. |                 |           |        | 8 1/4"       | 66            |
| AA605          | 1 Ser. 5  | 7'-0" to 4'-0"    | 151  | 5'-0" to 2'-0"  | 2'-0"     |        | 9"           | 41            |
|                |           |                   |      |                 |           |        |              |               |
| AA607          | 63        | 11'-7"            | 106  | 11"             | 8'-6"     | 2'-6"  |              | 1098          |

| MARK           | NUMBER    | LENGTH           | TYPE | DIMENSIONS       |        |       | SERIES INCR. | WEIGHT POUNDS |
|----------------|-----------|------------------|------|------------------|--------|-------|--------------|---------------|
|                |           |                  |      | A                | B      | C     |              |               |
| AA608          | 7         | 7'-8"            | Str  |                  |        |       |              | 87            |
| AA609          | 21        | 11'-4"           | 138  | 1'-11"           | 6'-1"  | 1'-0" |              | 358           |
| AA610          | 21        | 5'-6"            | Str  |                  |        |       |              | 173           |
| AA611          | 21        | 8'-11"           | 108  | 7'-0"            | 1'-11" | 6"    |              | 281           |
| AA612          | 11        | 13'-6"           | 138  | 1'-11"           | 8'-3"  | 1'-9" |              | 224           |
| AA613          | 11        | 8'-3"            | Str  |                  |        |       |              | 137           |
| AA614          | 6         | 11'-2"           | 152  | 2'-6"            | 5'-6"  | 2'-9" |              | 101           |
| AA615          | 44        | 21'-0"           | Str  |                  |        |       |              | 139           |
| AA616          | 22        | 23'-6"           | Str  |                  |        |       |              | 776           |
| AA617          | 7         | 5'-4"            | 115  | 3'-6"            | 9"     |       |              | 56            |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
| AA701          | 34        | 40'-0"           | Str  |                  |        |       |              | 2,780         |
| AA702          | 2 Ser. 6  | 22'-3" to 31'-6" | Str  |                  |        |       | 1'-10 1/2"   | 660           |
| AA703          | 2         | 32'-6"           | Str  |                  |        |       |              | 133           |
| AA704          | 2         | 34'-6"           | Str  |                  |        |       |              | 141           |
| AA705          | 2         | 35'-0"           | Str  |                  |        |       |              | 143           |
| AA706          | 2 Ser. 6  | 38'-6" to 37'-6" | Str  |                  |        |       | 2 1/2"       | 935           |
| AA707          | 1         | 35'-6"           | Str  |                  |        |       |              | 74            |
| AA708          | 1 Ser. 3  | 34'-3" to 32'-6" | Str  |                  |        |       | 10 1/2"      | 204           |
| AA709          | 3         | 5'-0"            | Str  |                  |        |       |              | 31            |
| AA710          | 2         | 20'-3"           | 108  | 18'-0"           | 2'-3"  | 1'-2" |              | 84            |
| AA711          | 2         | 12'-6"           | 108  | 10'-3"           | 2'-3"  | 2'-0" |              | 51            |
| AA712          | 7         | 13'-10"          | 138  | 2'-3"            | 8'-3"  | 2'-1" |              | 198           |
| AA713          | 7         | 8'-3"            | Str  |                  |        |       |              | 119           |
| AA714          | 62        | 20'-6"           | Str  |                  |        |       |              | 2,600         |
| AA715          | 32        | 23'-6"           | Str  |                  |        |       |              | 1,540         |
| AA716          | 2 Ser. 9  | 6'-0" to 8'-0"   | 108  | 3'-9" to 5'-9"   | 2'-3"  | 11"   | 3"           | 258           |
| AA717          | 2 Ser. 6  | 8'-3" to 9'-3"   | 108  | 6'-0" to 7'-0"   | 2'-3"  | 11"   | 2 1/2"       | 215           |
| AA718          | 2         | 14'-0"           | 108  | 11'-9"           | 2'-3"  | 11"   |              | 57            |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
| AA801          | 10        | 14'-1"           | 138  | 2'-6"            | 8'-3"  | 2'-4" |              | 376           |
| AA802          | 10        | 8'-3"            | Str  |                  |        |       |              | 220           |
| DA 801         | 20        | 7'-11"           | 141  | 5'-8"            |        |       |              | 422           |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
| AA1101         | 68        | 21'-2"           | 100  | 18'-0"           |        |       |              | 7,650         |
| AA1102         | 1 Ser. 8  | 20'-8" to 17'-8" | 100  | 17'-6" to 14'-6" |        |       | 5 1/2"       | 814           |
| AA1103         | 1 Ser. 3  | 16'-8" to 15'-8" | 100  | 13'-6" to 12'-6" |        |       | 6"           | 255           |
| AA1104         | 1 Ser. 4  | 14'-2" to 6'-5"  | 100  | 11'-0" to 3'-3"  |        |       | 2'-7"        | 218           |
| AA1105         | 1         | 11'-1"           | 101  | 9'-6"            |        |       |              | 58            |
| AA1106         | 1         | 13'-1"           | 101  | 11'-6"           |        |       |              | 69            |
| AA1107         | 2         | 6'-7"            | 101  | 5'-0"            |        |       |              | 69            |
| AA1108         | 12        | 34'-1"           | 101  | 32'-6"           |        |       |              | 2,175         |
| AA1109         | 15        | 8'-7"            | 101  | 7'-0"            |        |       |              | 686           |
| AA1110         | 19        | 15'-1"           | 101  | 13'-6"           |        |       |              | 1,520         |
| AA1111         | 15        | 25'-7"           | 101  | 24'-0"           |        |       |              | 2,040         |
| AA1112         | 8         | 35'-4"           | 139  | 29'-6"           | 6"     |       |              | 1,505         |
| AA1113         | 12        | 36'-7"           | 139  | 30'-9"           | 6"     |       |              | 2,330         |
| AA1114         | 3         | 34'-4"           | 101  | 32'-9"           |        |       |              | 548           |
| AA1115         | 3         | 22'-7"           | 101  | 21'-0"           |        |       |              | 362           |
| AA1116         | 6         | 19'-2"           | 100  | 16'-0"           |        |       |              | 611           |
| AA1117         | 1 Ser. 6  | 16'-4" to 5'-1"  | 101  | 14'-9" to 3'-6"  |        |       | 2'-3"        | 340           |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       | Total        | 53,156        |
|                |           |                  |      |                  |        |       |              |               |
| NORTH ABUTMENT |           |                  |      |                  |        |       |              |               |
| AB401          | 29        | 3'-6"            | 105  | 1'-0"            | 1'-9"  |       |              | 68            |
| AB402          | 1         | 3'-0"            | 105  | 1'-0"            | 1'-3"  |       |              | 2             |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
| AB501          | 63        | 15'-6"           | Str  |                  |        |       |              | 1,018         |
| AB502          | 1 Ser. 10 | 15'-3" to 9'-9"  | Str  |                  |        |       | 7 1/2"       | 131           |
| AB503          | 1 Ser. 4  | 8'-6" to 3'-6"   | Str  |                  |        |       | 1'-8"        | 25            |
| AB504          | 11        | 12'-1"           | 138  | 1'-7"            | 7'-2"  | 10"   |              | 139           |
| AB505          | 11        | 6'-5"            | Str  |                  |        |       |              | 74            |
| AB506          | 11        | 10'-3"           | 108  | 8'-8"            | 1'-7"  | 6"    |              | 118           |
| AB507          | 58        | 3'-10"           | 104  | 2'-0 1/2"        | 1'-11" |       |              | 232           |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                |           |                  |      |                  |        |       |              |               |
|                | </        |                  |      |                  |        |       |              |               |

| MARK                   | NUMBER    | LENGTH             | TYPE | DIMENSIONS     |       |           | SERIES INCR. | WEIGHT POUNDS |
|------------------------|-----------|--------------------|------|----------------|-------|-----------|--------------|---------------|
|                        |           |                    |      | A              | B     | C         |              |               |
| NORTH ABUTMENT(CON'T.) |           |                    |      |                |       |           |              |               |
| AB701                  | 36        | 50'-0"             | Str. |                |       |           |              | 3,690         |
| AB702                  | 1         | 9'-6"              | Str. |                |       |           |              | 20            |
| AB703                  | 1 Ser. 5  | 11'-0"to24'-0"     | Str. |                |       |           | 3'-3"        | 180           |
| AB704                  | 1 Ser. 4  | 10'-0"to19'-0"     | Str. |                |       |           | 3'-0"        | 119           |
| AB705                  | 1         | 22'-0"             | Str. |                |       |           |              | 45            |
| AB706                  | 1 Ser. 9  | 23'-0"to19'-0"     | Str. |                |       |           | 6"           | 387           |
| AB707                  | 1 Ser. 10 | 9'-6"to25'-0"      | Str. |                |       |           | 1'-8 1/8"    | 352           |
| AB708                  | 1 Ser. 6  | 25'-0"to21'-0"     | Str. |                |       |           | 9 3/8"       | 283           |
| AB709                  | 2         | 20'-2"             | 108  | 18'-0"         | 2'-2" | 1'-1"     |              | 82            |
| AB710                  | 2         | 13'-8"             | 108  | 11'-6"         | 2'-2" | 1'-1 1/4" |              | 55            |
| AB711                  | 13        | 35'-5"             | Str. |                |       |           |              | 942           |
| AB712                  | 13        | 34'-5"             | Str. |                |       |           |              | 915           |
| AB713                  | 13        | 27'-0"             | Str. |                |       |           |              | 720           |
| AB714                  | 13        | 26'-0"             | Str. |                |       |           |              | 692           |
| DB801                  | 20        | 7'-2"              | 141  | 4'-11"         |       |           |              | 383           |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
| AB1101                 | 71        | 22'-8"             | 100  | 19'-6"         |       |           |              | 8,560         |
| AB1102                 | 1 Ser. 6  | 19'-2"to21'-4 1/2" | 100  | 16'-0"to18'-9" |       |           | 6 3/8"       | 655           |
| AB1103                 | 2         | 14'-1"             | 101  | 12'-6"         |       |           |              | 149           |
| AB1104                 | 1 Ser. 4  | 9'-4"to4'-10"      | 101  | 7'-9"to3'-3"   |       |           | 1'-6"        | 149           |
| AB1105                 | 24        | 15'-1"             | 101  | 13'-6"         |       |           |              | 1,920         |
| AB1106                 | 20        | 25'-7"             | 101  | 24'-0"         |       |           |              | 2,720         |
| AB1107                 | 16        | 37'-4"             | 139  | 31'-6"         | 6"    |           |              | 3,170         |
| AB1108                 | 4         | 36'-7"             | 139  | 30'-9"         | 6"    |           |              | 777           |
| AB1109                 | 3         | 32'-7"             | 101  | 31'-0"         |       |           |              | 520           |
| AB1110                 | 3         | 22'-7"             | 101  | 21'-0"         |       |           |              | 362           |
| AB1111                 | 3         | 8'-7"              | 101  | 7'-0"          |       |           |              | 138           |
| AB1112                 | 1 Ser. 3  | 14'-4"to15'-0"     | 101  | 12'-9"to14'-3" |       |           | 9"           | 239           |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |
|                        |           |                    |      |                |       |           |              |               |

| MARK             | NUMBER    | LENGTH         | TYPE | DIMENSIONS           |           |   | SERIES INCR. | WEIGHT POUNDS |
|------------------|-----------|----------------|------|----------------------|-----------|---|--------------|---------------|
|                  |           |                |      | A                    | B         | C |              |               |
|                  |           |                |      |                      |           |   |              |               |
| RETAINING WALL E |           |                |      |                      |           |   |              |               |
| RA501            | 1 Ser. 20 | 15'-6"to16'-0" | Str. |                      |           |   | 3 11/16"     | 329           |
| RA502            | 20        | 5'-7"          | 147  | 4'-1"                | 1'-7 1/2" |   |              | 116           |
| RA503            | 67        | 3'-10"         | 115  | 1'-11"               | 9"        |   |              | 268           |
| RA504            | 67        | 2'-6"          | 105  | 9"                   | 1'-3"     |   |              | 175           |
| RA505            | 67        | 6'-11"         | 114  | 3'-5"                |           |   |              | 484           |
| RA506            | 1 Ser. 18 | 23'-0"to23'-5" | Str. |                      |           |   | 3 11/16"     | 437           |
| RA507            | 82        | 5'-6"          | 104  | 4'-7"                | 1'-0 1/2" |   |              | 471           |
| RA508            | 1 Ser. 18 | 23'-3"to23'-8" | Str. |                      |           |   | 3 11/16"     | 440           |
| RA509            | 1 Ser. 18 | 33'-2"to33'-6" | Str. |                      |           |   | 4 1/4"       | 628           |
| RA510            | 17        | 5'-0"          | 105  | 1'-7"                | 2'-1"     |   |              | 89            |
| RA511            | 1 Ser. 18 | 33'-5"to33'-9" | Str. |                      |           |   | 4 1/4"       | 631           |
| RA512            | 2         | 13'-1"         | 104  | 12'-3"               | 1'-0"     |   |              | 272           |
| RA513            | 2         | 10'-4"         | 104  | 9'-6"                | 1'-0"     |   |              | 22            |
| RA514            | 1         | 3'-9"          | Str. |                      |           |   |              | 4             |
| RA515            | 1         | 4'-0"          | Str. |                      |           |   |              | 4             |
| RA516            | 20        | 31'-6"         | Str. |                      |           |   |              | 658           |
| RA517            | 32        | 32'-6"         | Str. |                      |           |   |              | 1,087         |
| RA518            | 8         | 15'-6"         | Str. |                      |           |   |              | 129           |
| RA519            | 3 Ser. 20 | 6'-3"to17'-8"  | 121  | 1'-9 1/2"to7'-6"     | 1'-2"     |   | 7 3/8"       | 749           |
| RA520            | 3 Ser. 30 | 6'-7"to22'-3"  | 121  | 1'-8 1/2"to9'-6 1/2" | 1'-8"     |   | 6 1/2"       | 1,359         |
| RA521            | 6 Ser. 3  | 5'-0"to14'-11" | Str. |                      |           |   | 7'-5"        | 187           |
| RA522            | 6 Ser. 5  | 3'-8"to25'-11" | Str. |                      |           |   | 5'-6 3/4"    | 462           |
| RA523            | 48        | 5'-3"          | 104  | 4'-4"                | 1'-0 1/2" |   |              | 263           |
| RA524            | 8         | 23'-0"         | Str. |                      |           |   |              | 192           |
| RA525            | 8         | 33'-0"         | Str. |                      |           |   |              | 276           |
| RA526            | 5         | 22'-6"         | Str. |                      |           |   |              | 117           |
| RA527            | 5         | 32'-9"         | Str. |                      |           |   |              | 171           |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |
|                  |           |                |      |                      |           |   |              |               |

| MARK                        | NUMBER    | LENGTH          | TYPE | DIMENSIONS    |        |       | SERIES WEIGHT INCR. POUNDS |
|-----------------------------|-----------|-----------------|------|---------------|--------|-------|----------------------------|
|                             |           |                 |      | A             | B      | C     |                            |
| RA901                       | 24        | 31'-6"          | Str. |               |        |       | 2,565                      |
| RA902                       | 31        | 16'-6"          | 147  | 13'-8"        | 2'-10" |       | 1,740                      |
| RA1001                      | 29        | 31'-6"          | Str. |               |        |       | 3,940                      |
| RA1101                      | 3         | 24'-5"          | 101  | 22'-10"       |        |       | 388                        |
| RA1102                      | 3         | 23'-4"          | 101  | 21'-9"        |        |       | 372                        |
| RA1103                      | 2         | 22'-4"          | 101  | 20'-9"        |        |       | 240                        |
| RA1104                      | 20        | 7'-9"           | 101  | 6'-2"         |        |       | 825                        |
| RA1105                      | 4         | 33'-11"         | 101  | 32'-4"        |        |       | 724                        |
| RA1106                      | 4         | 32'-9"          | 101  | 31'-2"        |        |       | 697                        |
| RA1107                      | 4         | 31'-8"          | 101  | 30'-1"        |        |       | 675                        |
| Total 36,262                |           |                 |      |               |        |       |                            |
| NORTHWEST RETAINING WALL    |           |                 |      |               |        |       |                            |
| WB501                       | 33        | 15'-0"          | Str. |               |        |       | 516                        |
| WB502                       | 33        | 10'-6"          | Str. |               |        |       | 362                        |
| WB503                       | 15        | 36'-10"         | Str. |               |        |       | 576                        |
| WB504                       | 2 Ser. 21 | 26'-2"to35'-8"  | Str. |               |        |       | 5 1/8" 1,354               |
| WB505                       | 12        | 35'-11"         | Str. |               |        |       | 450                        |
| WB506                       | 25        | 4'-9"           | 147  | 3'-10 1/2"    | 1'-0"  |       | 124                        |
| WB507                       | 82        | 9'-8"           | 104  | 8'-9 1/2"     | 1'-0"  |       | 826                        |
| WB508                       | 2 Ser. 22 | 15'-11"to26'-2" | Str. |               |        |       | 5 7/8" 966                 |
| WB509                       | 1 Ser. 25 | 3'-11"to15'-11" | Str. |               |        |       | 6" 259                     |
| WB510                       | 2 Ser. 7  | 33'-0"to6'-0"   | Str. |               |        |       | 4'-6" 285                  |
| WB511                       | 9         | 10'-0"          | Str. |               |        |       | 94                         |
| WB512                       | 30        | 30'-6"          | Str. |               |        |       | 955                        |
| WB513                       | 2 Ser. 10 | 30'-9"to2'-6"   | Str. |               |        |       | 3'-1 3/8" 348              |
| WB514                       | 2 Ser. 9  | 30'-6"to4'-6"   | Str. |               |        |       | 3'-3" 329                  |
| WB515                       | 63        | 10'-1"          | 133  |               |        |       | 663                        |
| WB516                       | 10        | 5'-2"           | 106  | 11"           | 2'-11" | 1'-7" | 54                         |
| WB517                       | 45        | 3'-10"          | 104  | 2'-1"         | 1'-11" |       | 180                        |
| WB518                       | 41        | 5'-8"           | 105  | 2'-6"         | 11"    |       | 242                        |
| WB519                       | 6         | 5'-7"           | 105  | 2'-0"         | 1'-11" |       | 34                         |
| WB520                       | 4         | 32'-6"          | Str. |               |        |       | 136                        |
| WB521                       | 2         | 37'-6"          | Str. |               |        |       | 78                         |
| WB522                       | 2         | 2'-3"           | Str. |               |        |       | 4                          |
| WB523                       | 2 Ser. 6  | 30'-0"to6'-5"   | Str. |               |        |       | 4'-8 5/8" 228              |
| WB524                       | 2 Ser. 6  | 27'-0"to6'-0"   | Str. |               |        |       | 4'-2 3/8" 207              |
| WB525                       | 2 Ser. 6  | 24'-0"to5'-0"   | Str. |               |        |       | 3'-9 5/8" 181              |
| WB526                       | 1 Ser. 29 | 24'-8"to7'-2"   | 121  | 11'-0"to2'-3" | 1'-2"  |       | 7 1/2" 481                 |
| WB527                       | 1 Ser. 25 | 24'-8"to8'-2"   | 121  | 11'-0"to2'-9" | 1'-2"  |       | 8 1/4" 428                 |
| WB528                       | 1 Ser. 22 | 24'-8"to8'-2"   | 121  | 11'-0"to2'-9" | 1'-2"  |       | 9 7/8" 375                 |
| WB529                       | 2 Ser. 4  | 20'-6"to4'-0"   | Str. |               |        |       | 5'-6" 102                  |
| WB530                       | 2 Ser. 4  | 17'-0"to3'-0"   | Str. |               |        |       | 4'-8" 84                   |
| WB531                       | 2 Ser. 4  | 13'-6"to3'-0"   | Str. |               |        |       | 3'-6" 69                   |
| WB532                       | 1 Ser. 18 | 7'-2"to16'-8"   | 121  | 2'-3"to7'-0"  | 1'-2"  |       | 6 1/8" 225                 |
| WB533                       | 1 Ser. 15 | 7'-2"to16'-8"   | 121  | 2'-3"to7'-0"  | 1'-2"  |       | 8 1/8" 187                 |
| WB534                       | 1 Ser. 12 | 8'-8"to16'-8"   | 121  | 3'-0"to7'-0"  | 1'-2"  |       | 8 3/4" 159                 |
| WB535                       | 41        | 6'-3"           | 104  | 5'-4 1/2"     | 1'-0"  |       | 268                        |
| WB536                       | 4         | 14'-6"          | Str. |               |        |       | 61                         |
| WB537                       | 5         | 24'-9"          | Str. |               |        |       | 130                        |
| (Continuation on Sheet 255) |           |                 |      |               |        |       |                            |

MICROFILMED  
1 APR 16 1985

|                    |       |                         |            |
|--------------------|-------|-------------------------|------------|
| FED. ROAD DIV. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS |
| 2                  | OHIO  |                         |            |

STARK COUNTY  
STA-30-15.04  
STA-77-9.22

For bending diagrams see Sheet 12/14

|                                                                                                      |                |                             |                               |
|------------------------------------------------------------------------------------------------------|----------------|-----------------------------|-------------------------------|
| H.N.T.B. BRIDGE NO. 11                                                                               |                | Revised 11-24-75 By EPS     |                               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF 13/14<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |                |                             |                               |
| REINFORCEMENT SCHEDULE                                                                               |                |                             |                               |
| RAMP H OVER B. & O. R.R.                                                                             |                |                             |                               |
| BR. NO. STA-30-1510                                                                                  |                | STA. 972+08.30              |                               |
| SCALE:                                                                                               |                | STA. 972+95.79              |                               |
| RELOCATED U.S. 30                                                                                    |                |                             |                               |
| CANTON                                                                                               |                | STARK COUNTY OHIO           |                               |
| DRAWN BDB<br>DATE 11-2-70                                                                            | TRACED<br>DATE | CHECKED CYK<br>DATE 11-2-70 | REVIEWED JJK<br>DATE 11-24-71 |
|                                                                                                      |                | 1668                        |                               |

