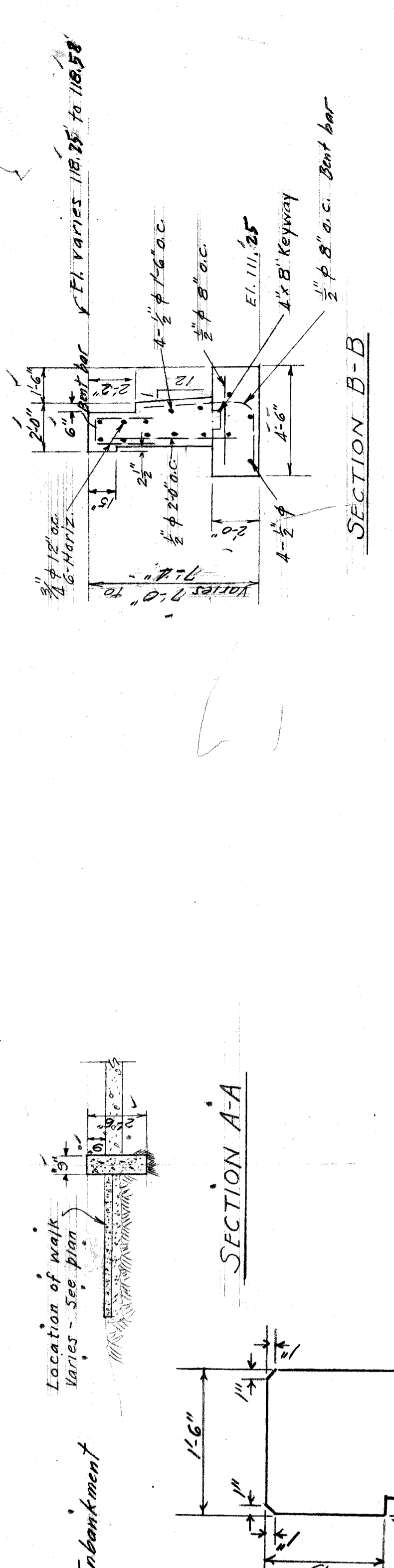
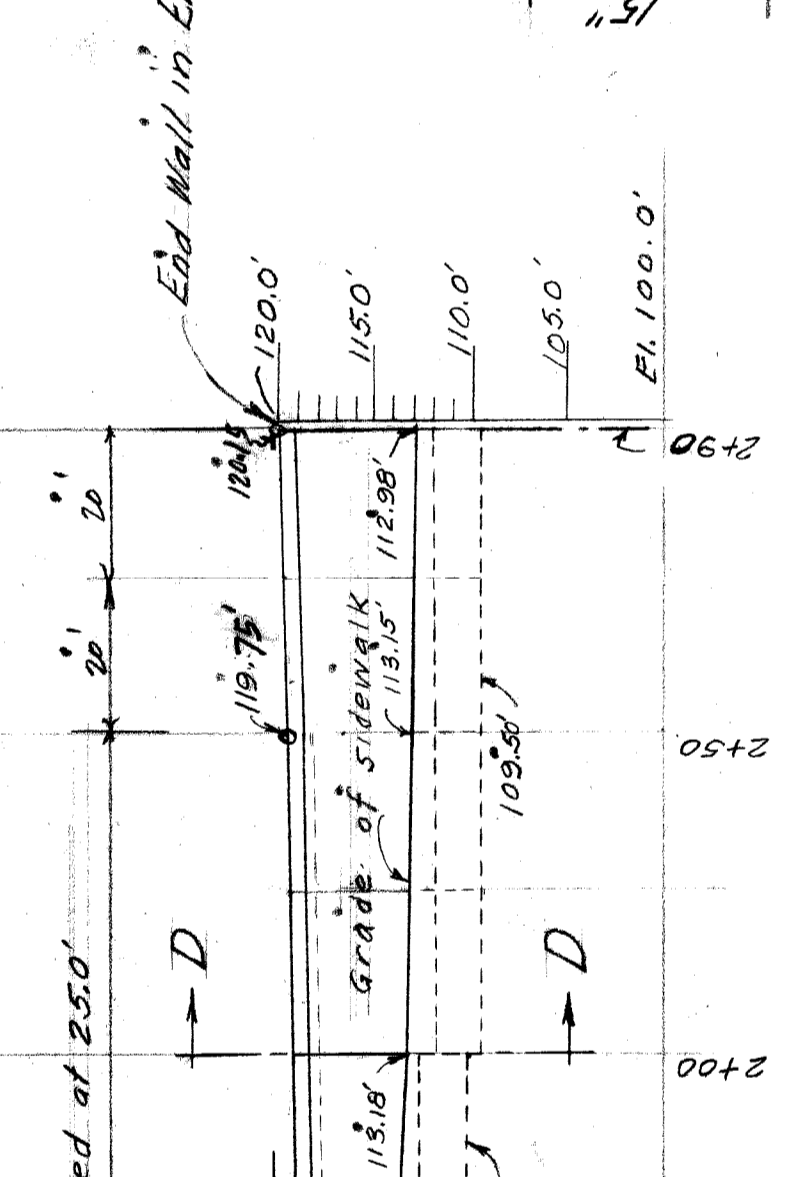


PLAN
Scale 1" = 30'

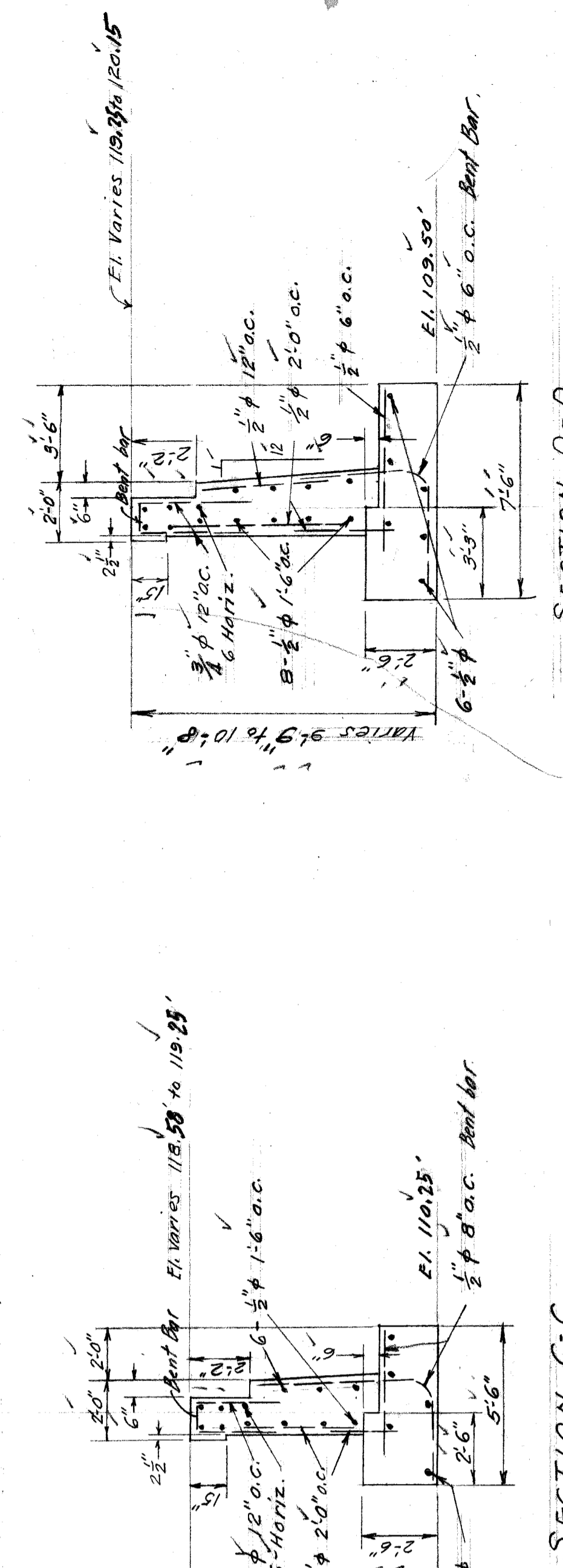


TYPICAL SECTION
Scale 1/2" = 1'-0'



SECTION A-A
Scale 1/2" = 1'-0'

COPING DETAIL
Scale 1/2" = 1'-0'



SECTION B-B
Scale 1/2" = 1'-0'

SECTION C-C
Scale 1/2" = 1'-0'

SECTION D-D
Scale 1/2" = 1'-0'

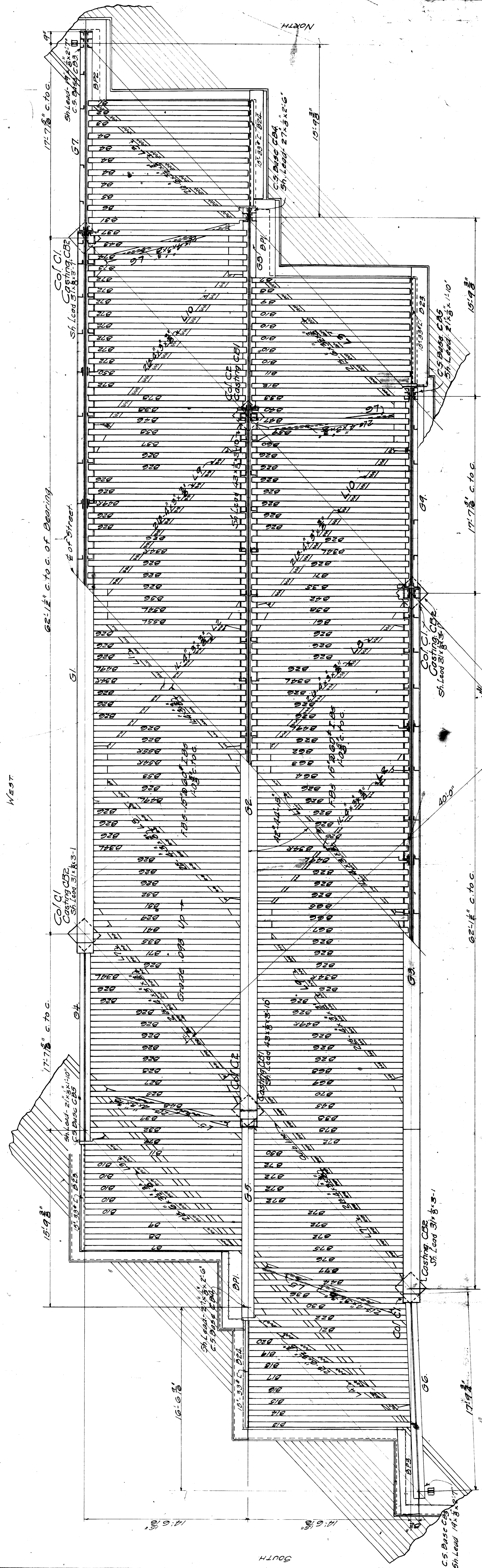
ESTIMATE OF QUANTITIES

| | |
|----------------------------|--------------|
| Excavation | 600 cu. yds. |
| Concrete in Retaining Wall | 240 cu. yds. |
| Reinforcing Steel | 11000 lbs. |
| Paving (6" to 5th 2+50) | 375 sq. yds. |
| Backfill | 145 cu. yds. |
| Waterproofing | 1600 sq. ft. |
| 4" Drain Tile | 215 lin. ft. |
| New sidewalk | 260 sq. ft. |

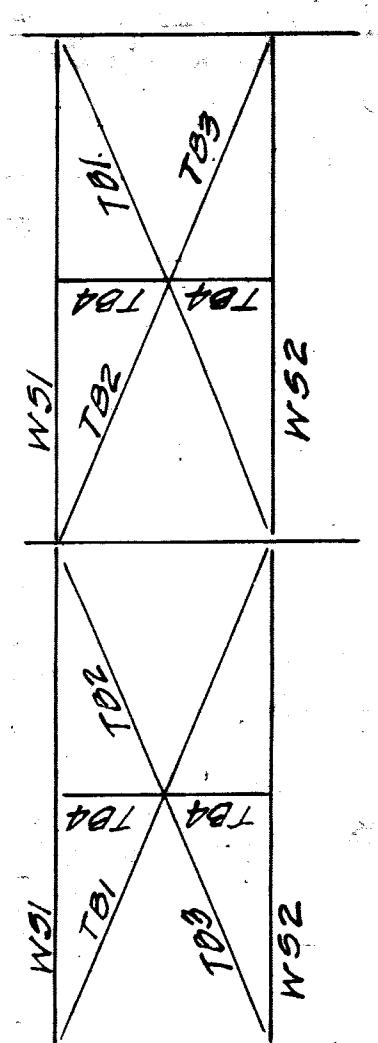
NOTE:
Exposed faces of concrete shall be rubbed smooth immediately after forms have been removed.
All concrete shall class 30*
Mix 1, 2, 3. - Back of walls and vertical construction joints to receive two brush coats of Asphalt Waterproofing. 4" Drain tile joints to be covered with tar paper and connected with nearest sewer outlet.

ELEVATION
Scale Vert. 1" = 10' Horiz. 1" = 30'

| | | | |
|---|----------------|----------------------------|--------------------------|
| SHEET / OF / SHEETS | | CITY OF DETROIT | |
| CONTRACT | | DEPARTMENT OF PUBLIC WORKS | |
| DRWG NO C-381 | | CITY ENGINEERS OFFICE | |
| RETAINING WALL | | | |
| FOR WIDENED DRIVEWAY OF WALL CHEMICAL AND CARBOLOY CO. | | | |
| ON W. SIDE OF W. GRD. BLVD. BETWEEN MYRTLE AND M.C.R.R. | | | |
| Scale 1/2" = 1'-0", except as noted. | | | |
| APPROVED: | J. L. Barton | DESIGNED BY | R.F.M. for Stok for G.S. |
| | W. J. Wilson | DRAWN BY | R.M. Etkin |
| | G. P. Thompson | TRACED BY | |
| | | CHECKED BY | J. L. Barton |
| NO. BY | DESCRIPTION | DATE | |
| | REVISIONS | | |



NOTE - See Sh #13 for rivets that must be driven before girders are put in place.

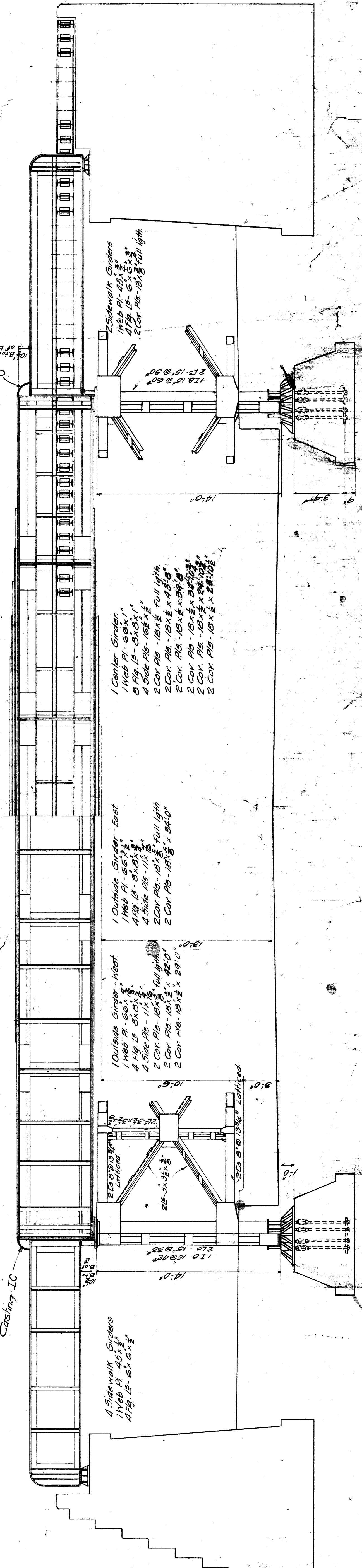


Marking Diagram for Bracing

Gen Notes -
 Material - Structural A.H. Steel Abs.
 Paint - 1 coat of pure linseed oil, parts inaccessible after erection 2 coats of the following mixture - 60 lbs of dry red lead, 12 1/2 lbs of graphite paste and 24 gals of raw linseed oil without dryer

M.C.R.R. Bay City Div
 Bridge 288, W. Grand Blvd., Detroit, M.
 General Diagram.
 Scale 3/8" = 1'-0"

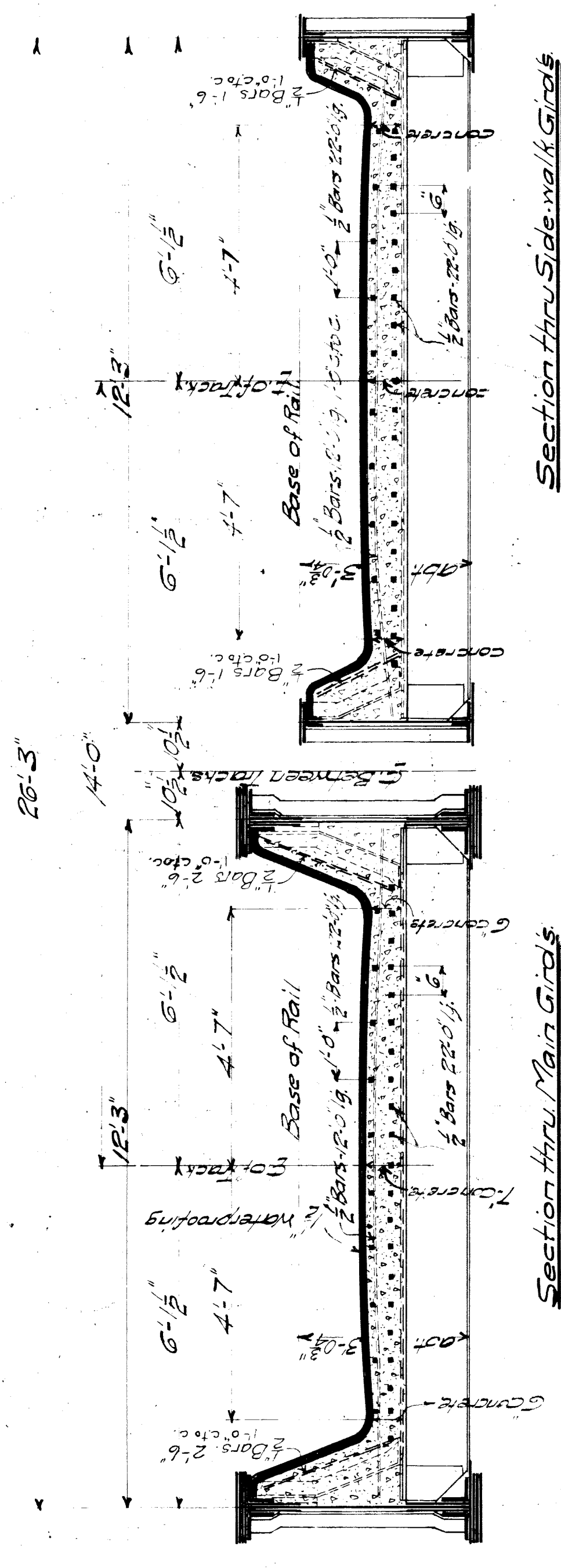
AMERICAN BRIDGE COMPANY
 ORDER ASSIGNED TO: Detroit
 WORK FABRICATED AT: Detroit
 MADE BY: Detroit
 DRAWN BY: G.C.A.
 CHECKED BY: G.P.H.
 DATE: 7-26-28
 SHEET NO. 13



Half Vertical Section - North End of Center Girder

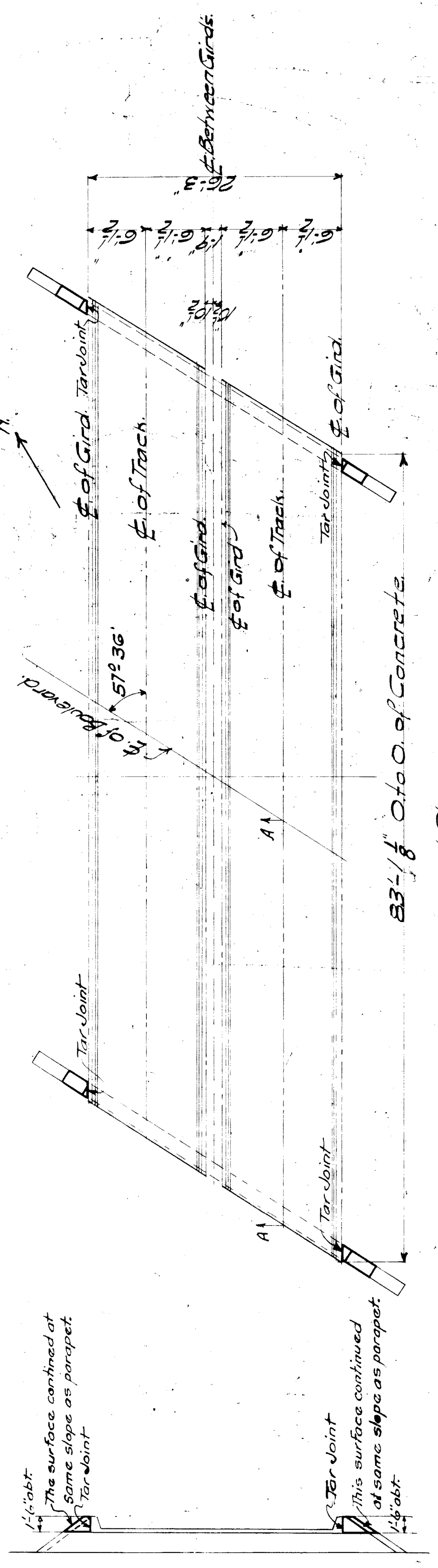
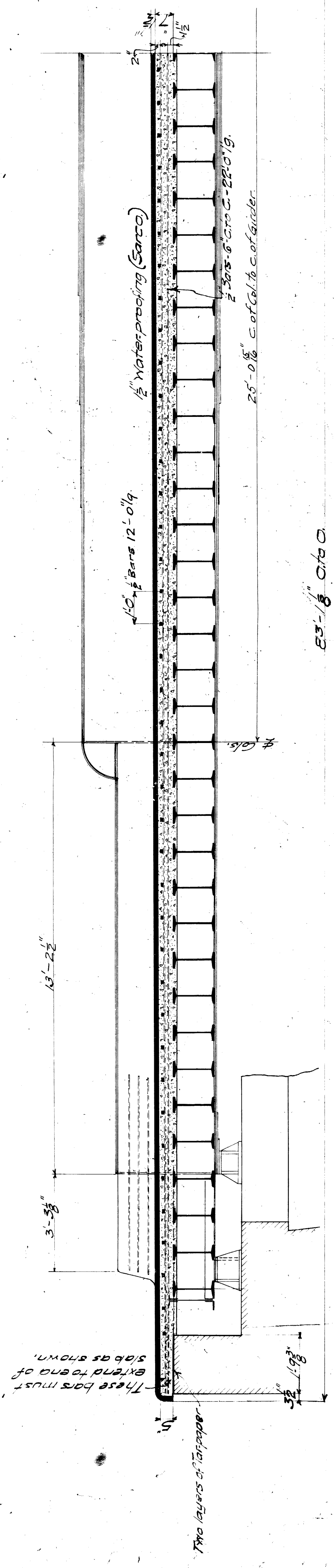
Half Elevation - South End of East Side

File 10-276



Section thru Side Walk Girders

Section thru Main Girders



Section on top of Track at A-A

General Plan Scale 1/8" = 1'-0"

Bill of Material for Wing Walls on Parapet Walls

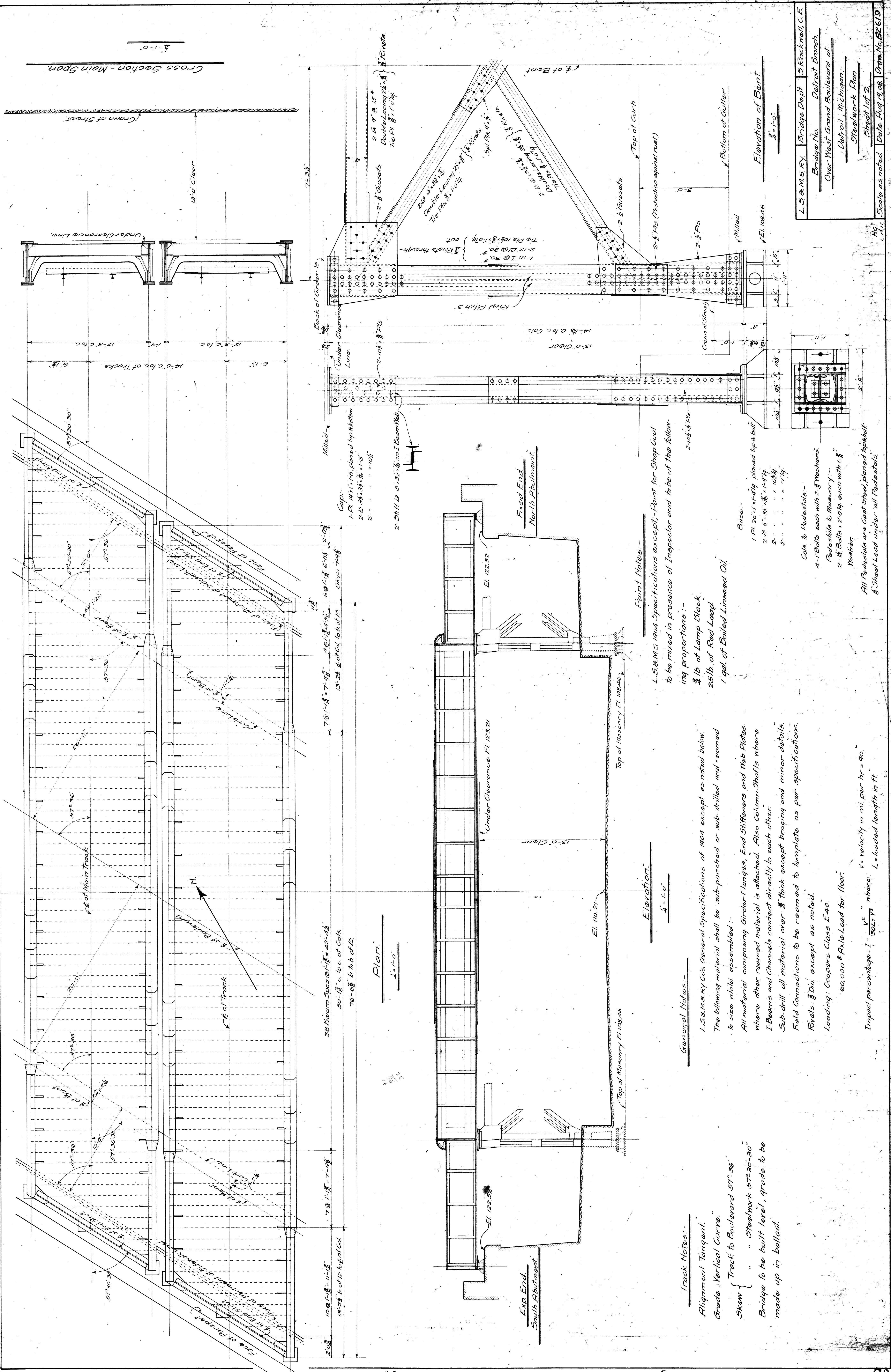
- 1 1/2 - cu. yds. concrete 1:3:6 mix.
- 7 - sacks cement
- 3/4 - cu. yd. sand
- 1 1/2 - cu. yds. stone.

Bill of Material for 2 Tracks

- 55 - cu. yds. concrete
 - 1:2-4 Mixture
 - 248 - Bars 1/2" - 23'-0" g. 484#
 - 164 - " " - 12'-0" " 1673#
 - 200 - " " - 2'-6" " 425#
 - 130 - " " - 1'-6" " 165#
 - Total = 7110#
- Place transverse bars parallel to supports and longitudinal bars parallel to tracks. Bars to be corrugated. 2350 Sq. ft. Sarco. 1/2" thick. 24" Bars - 6'-0" long.

L.S. + M.S. Ry. Bridge Dept. St. Joseph, Mo.
 Bridge No. Detroit Branch
 Over West Grand Boulevard
 Detroit, Michigan
 Concrete Shop
 Chief
 Scale 1/8" = 1'-0"
 Revised, Aug. 12, 1912.

BR 133 F.A. 80. # XU-27-7



Cross Section - Main Span

Plan

Elevation

Track Notes:-

- Alignment Tangent.
- Grade Vertical Curve.
- Skew { Track to Boulevard 57° 30'
- Bridge to be built level, grade to be made up in ballast.

General Notes:-

- L.S. & M.S. Ry. Co's General Specifications of 1904 except as noted below.
- The following material shall be sub-punched or sub-drilled and reamed to size while assembled:-
- All material composing Girder-Flanges, End Stiffeners and Web Plates where other reamed material is attached. Also Column-Staffs where I-Beams and Channels connect directly to each other.
- Sub-drill all material over 3/8" thick except bracing and minor details.
- Field Connections to be reamed to template as per specifications.
- Rivets 3/8" Dia except as noted.
- Loading: Coopers Class E 40.
- 60,000 # Axle Load for floor.
- Impact percentage = $I = \frac{V^2}{30L + V}$ where: V = velocity in mi. per hr = 90.
- L = loaded length in ft.

Paint Notes:-

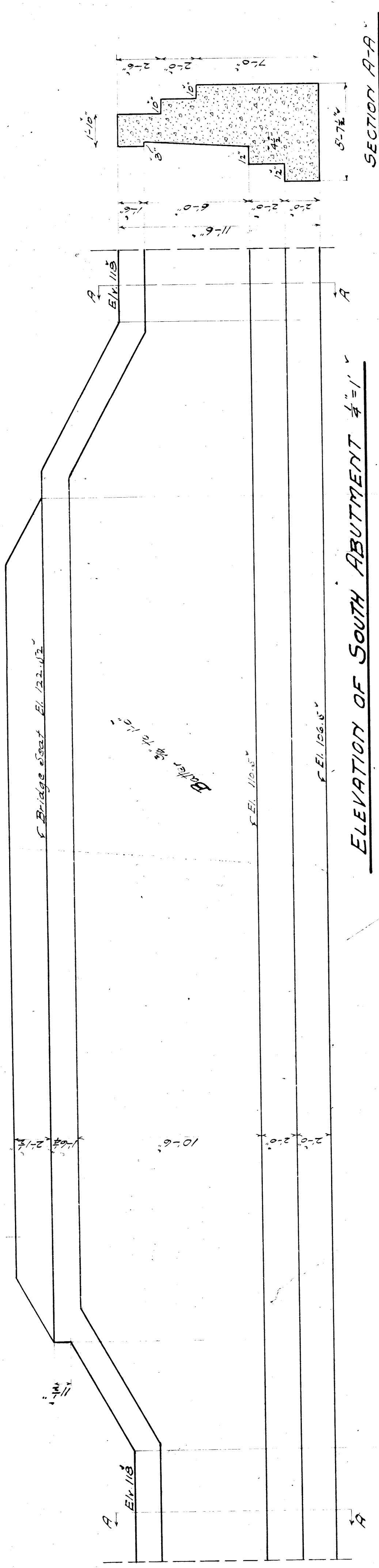
- L.S. & M.S. 1904 Specifications except. Paint for Shop Coat to be mixed in presence of Inspector and to be of the following proportions:-
- 3 lb of Lamp Black.
- 25 lb of Red Lead.
- 1 gal of Boiled Linseed Oil.

Base:-

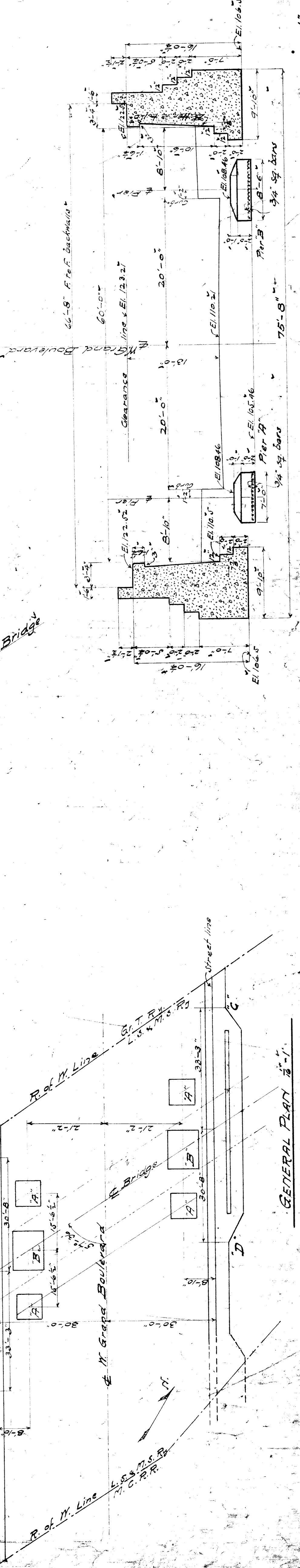
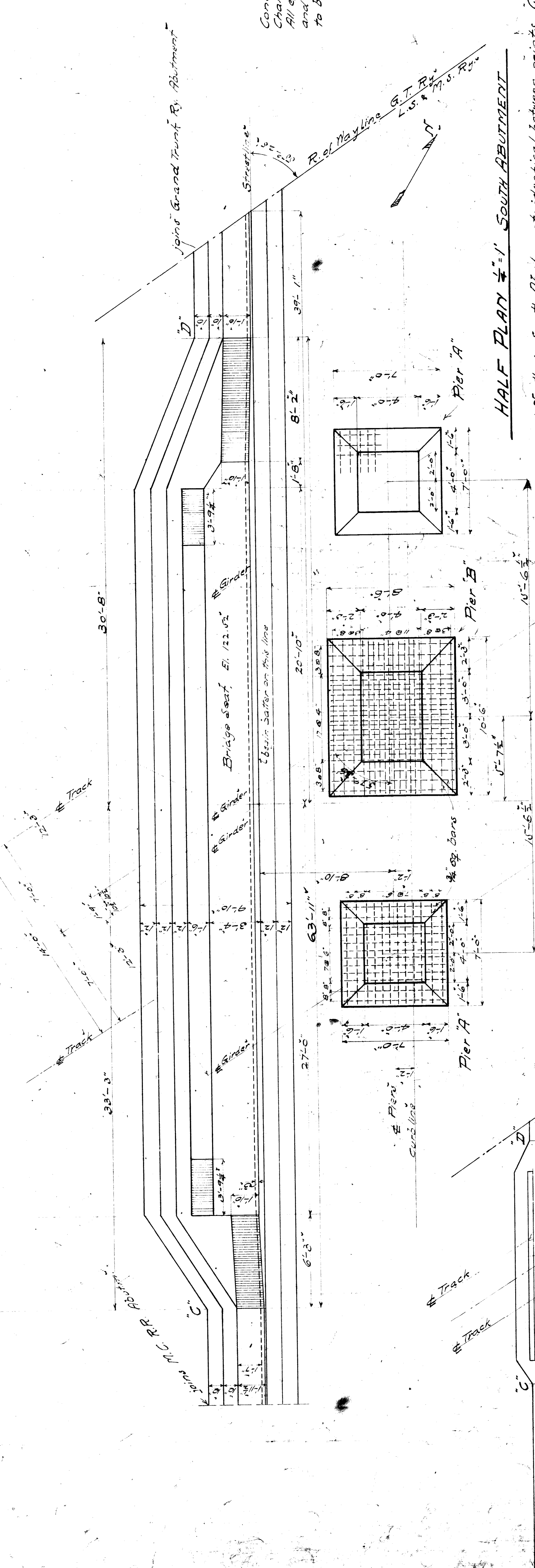
- 1-Pl 20 x 1 1/2 x 1/4 planed top & bottom.
 - 2-Pl 6 x 3 x 3/8 x 1-1/4.
 - 2-Pl 2 x 2 x 1/4 x 7-1/4.
 - 2-Pl 2 x 2 x 1/4 x 7-1/4.
- Cols to Pedestals:-
- 4-1 Bolts each with 2 Washers.
 - Pedestals to Masonry:-
 - 2-1/2 Bolts x 2-1/4 each with 1/8" Washer.
- All Pedestals are Cast Steel, planed top & bottom.
- 8 Sheet Lead under all Pedestals.

| | | |
|------------------------------|----------------|-------------------|
| L.S. & M.S. Ry. | Bridge Dept. | S. Rockwell, C.E. |
| Bridge No. | Detroit Branch | |
| Over West Grand Boulevard at | | |
| Detroit, Michigan. | | |
| Steelwork Plan | | |
| Sheet of 2 | | |
| Scale as noted | Date Aug 19 09 | Draw No. B22619 |

Pr 1335 Rev 2 XU 27-8



SECTION A-A

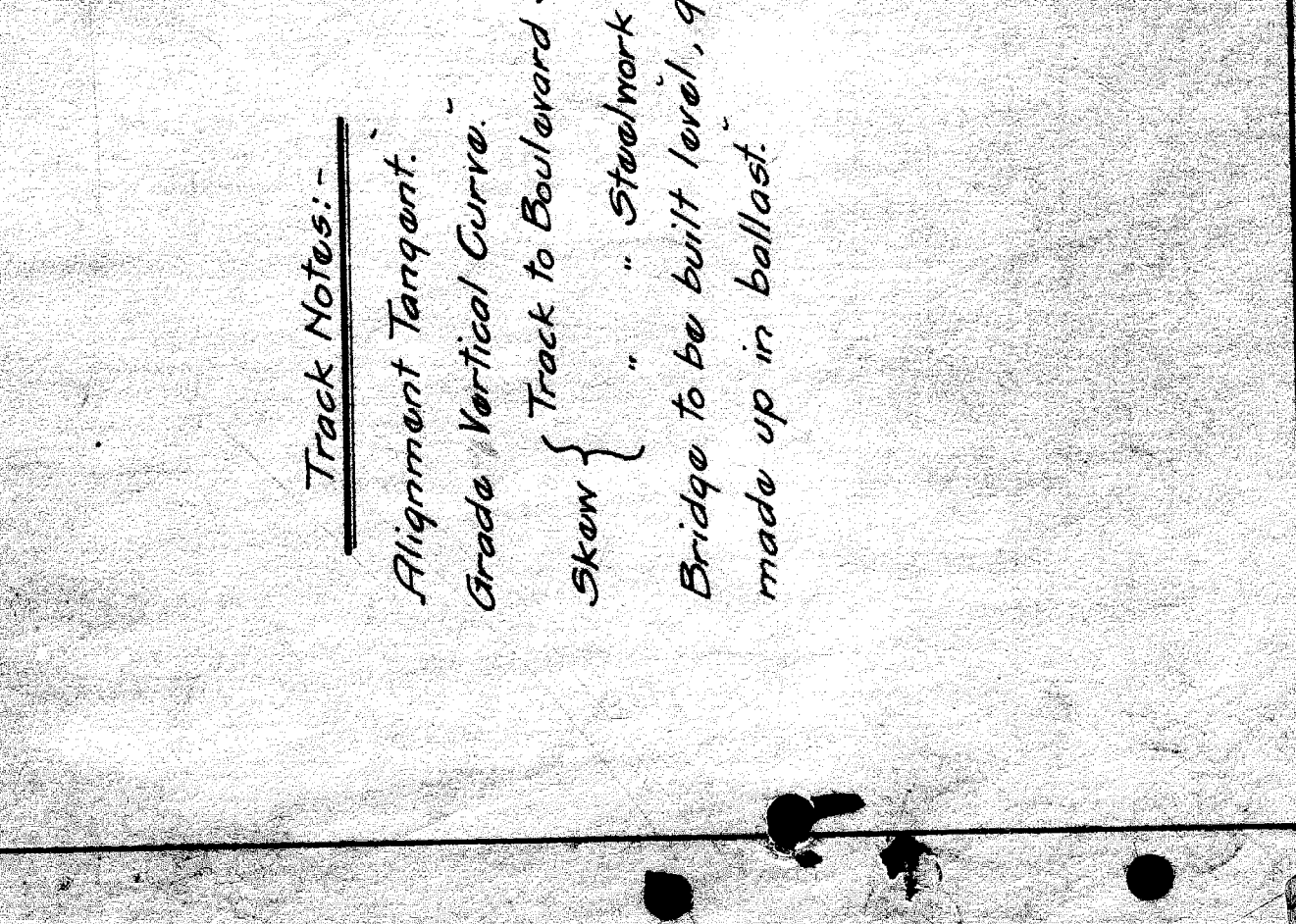
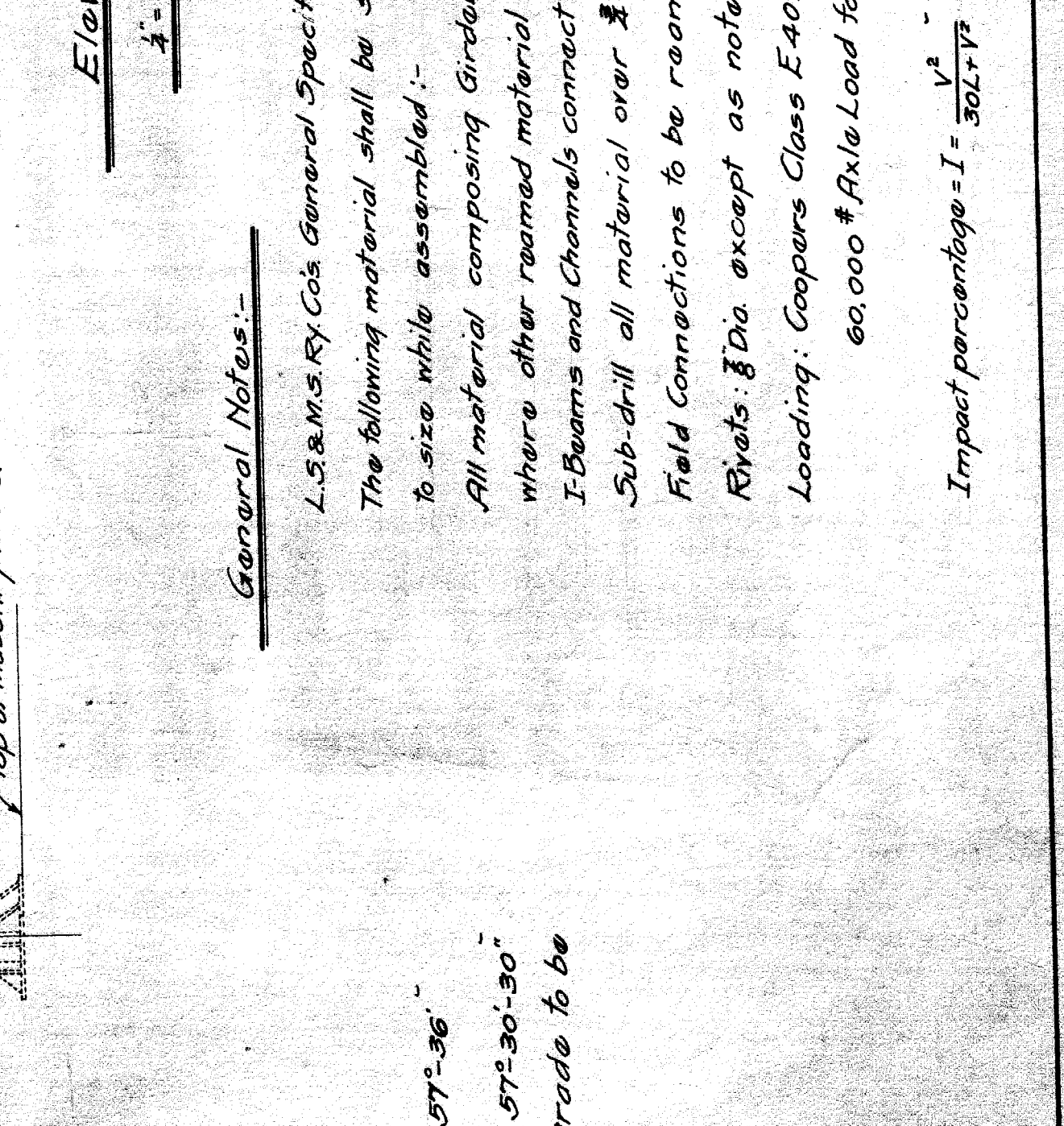
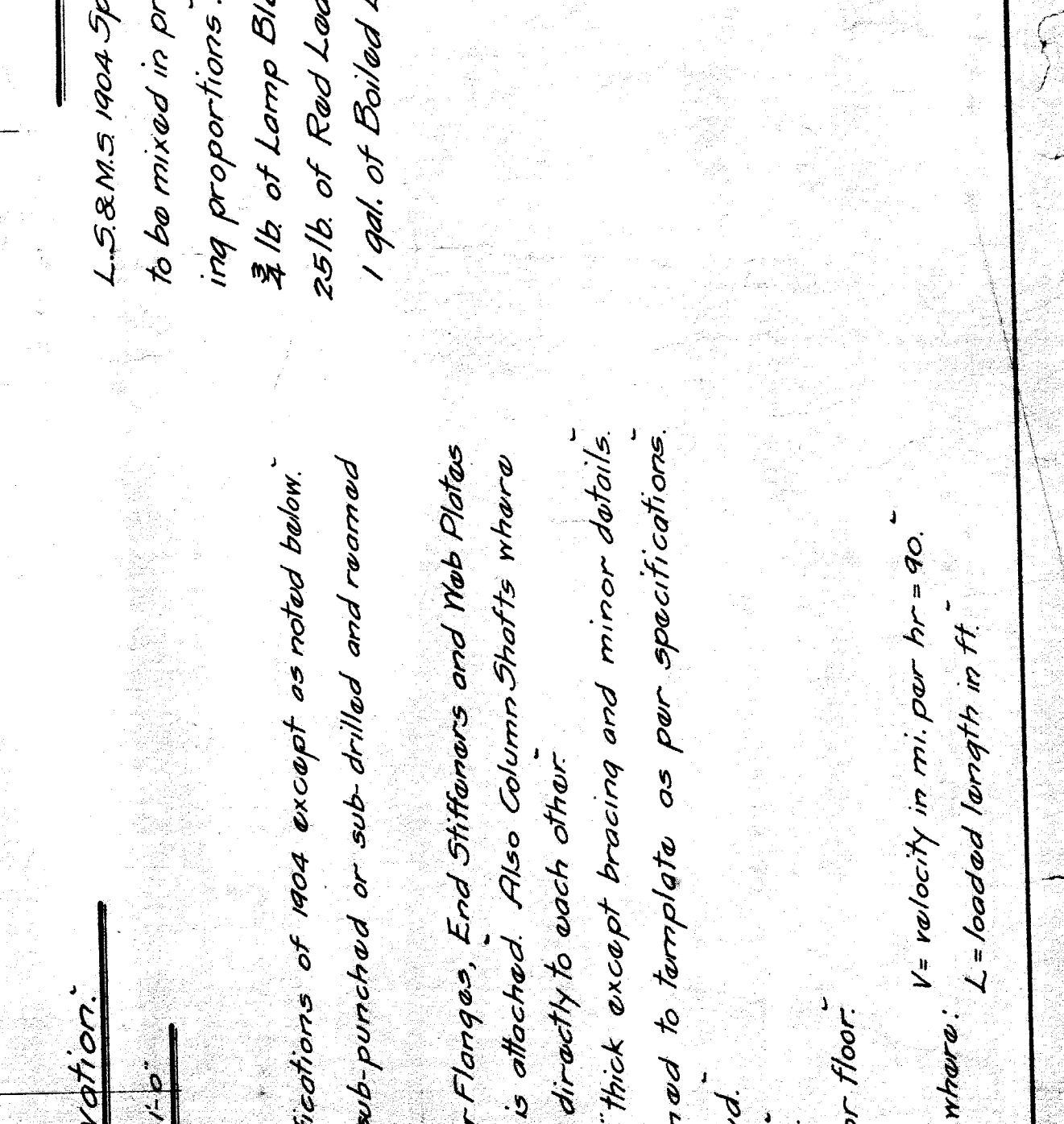
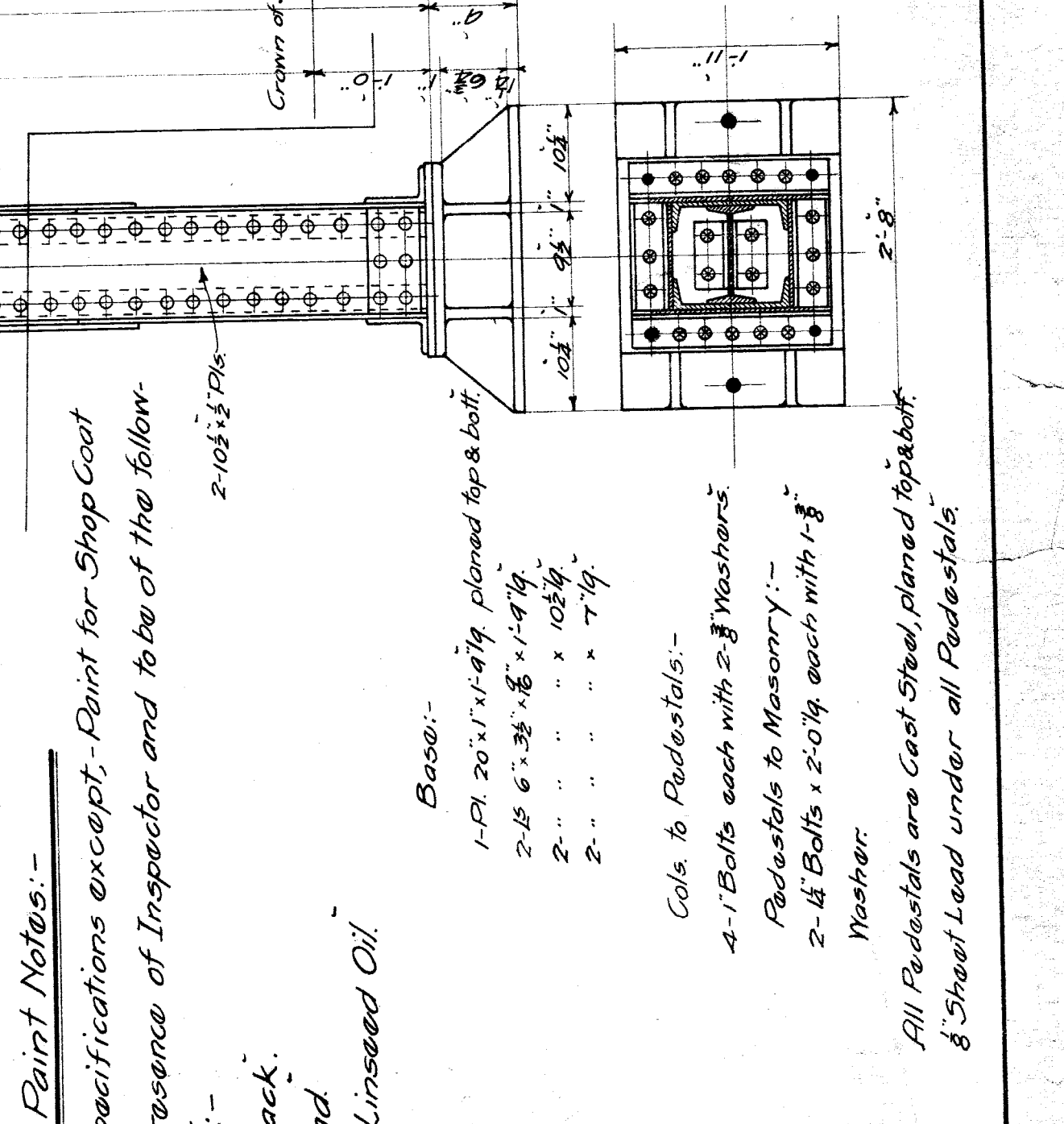
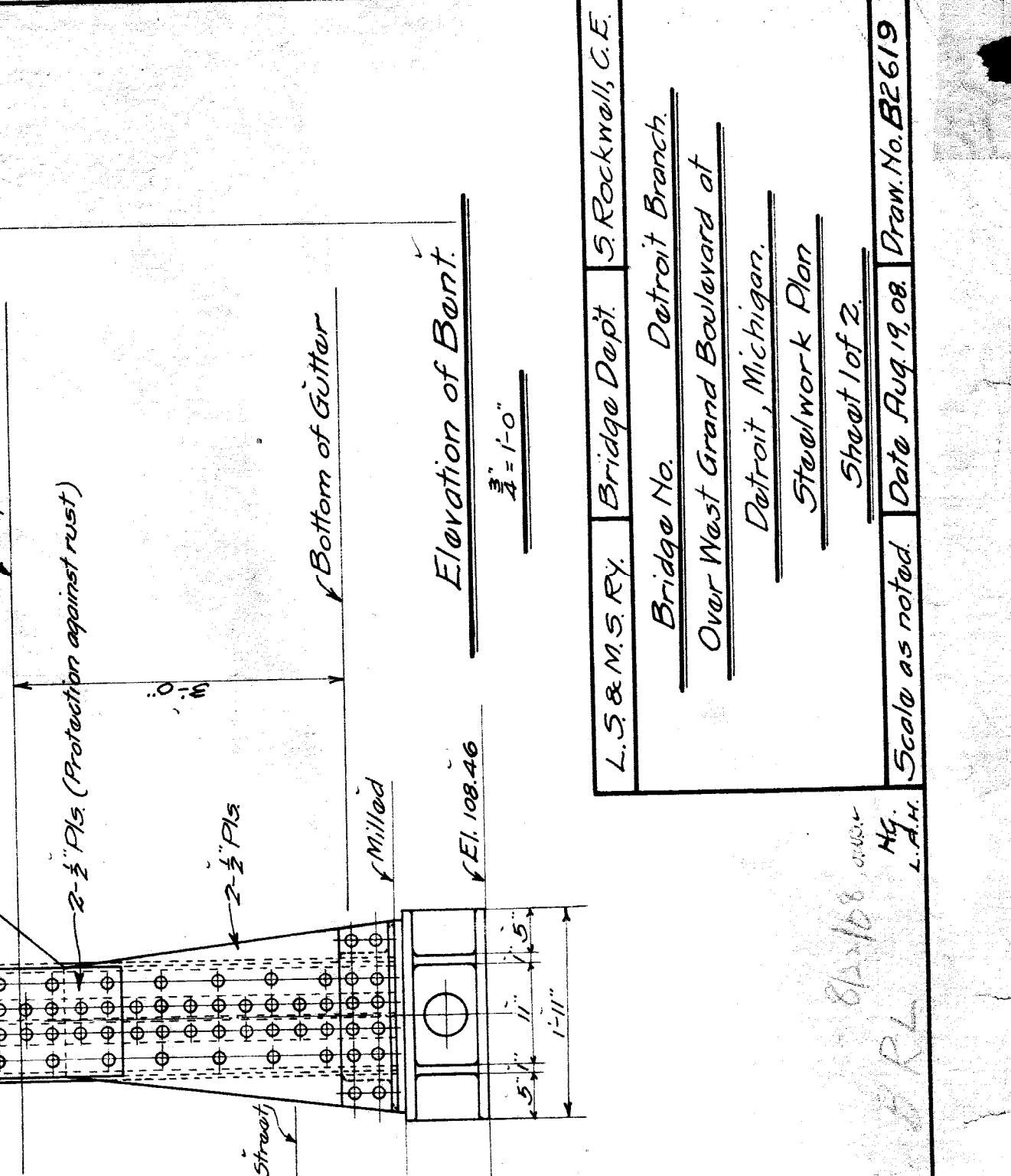
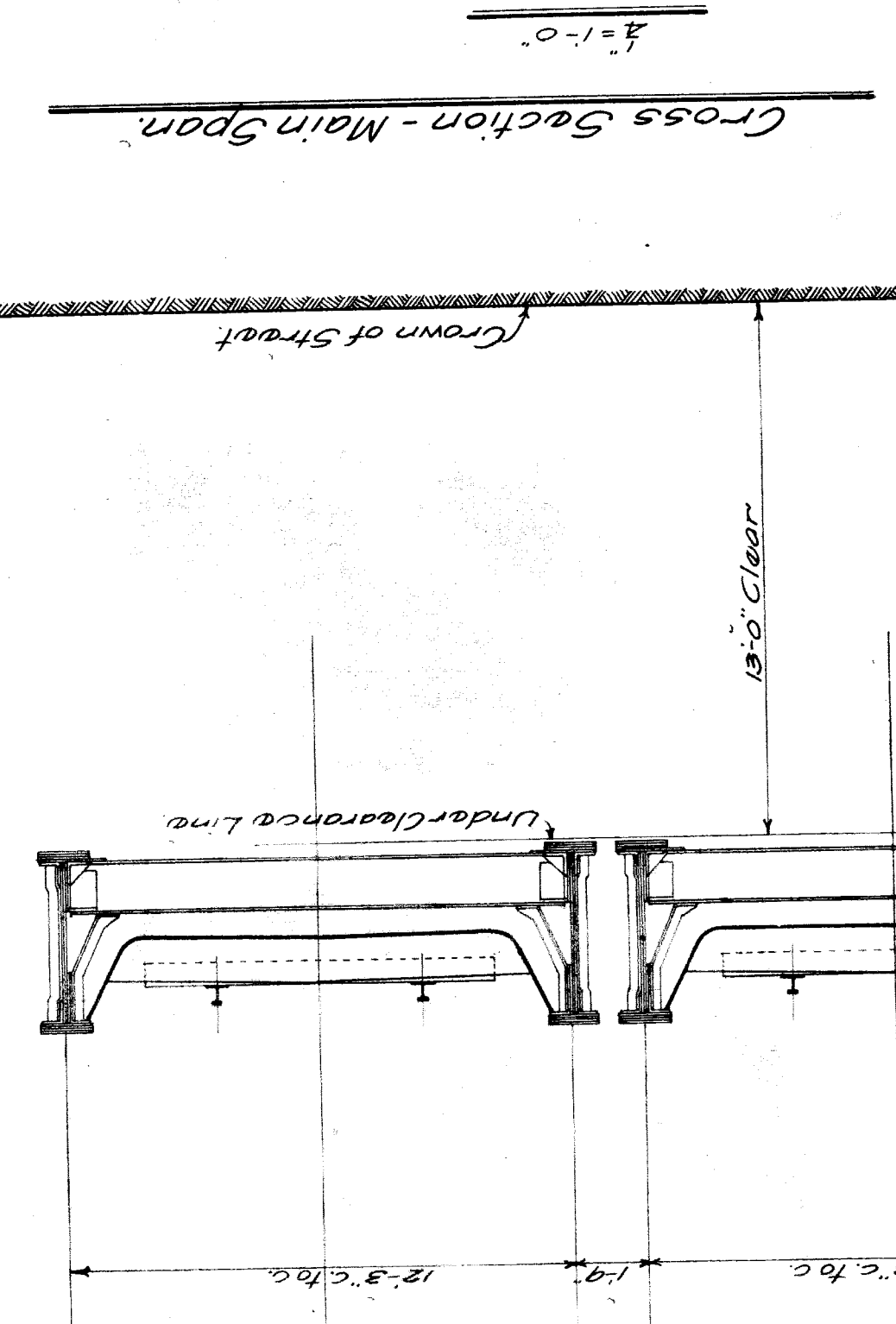
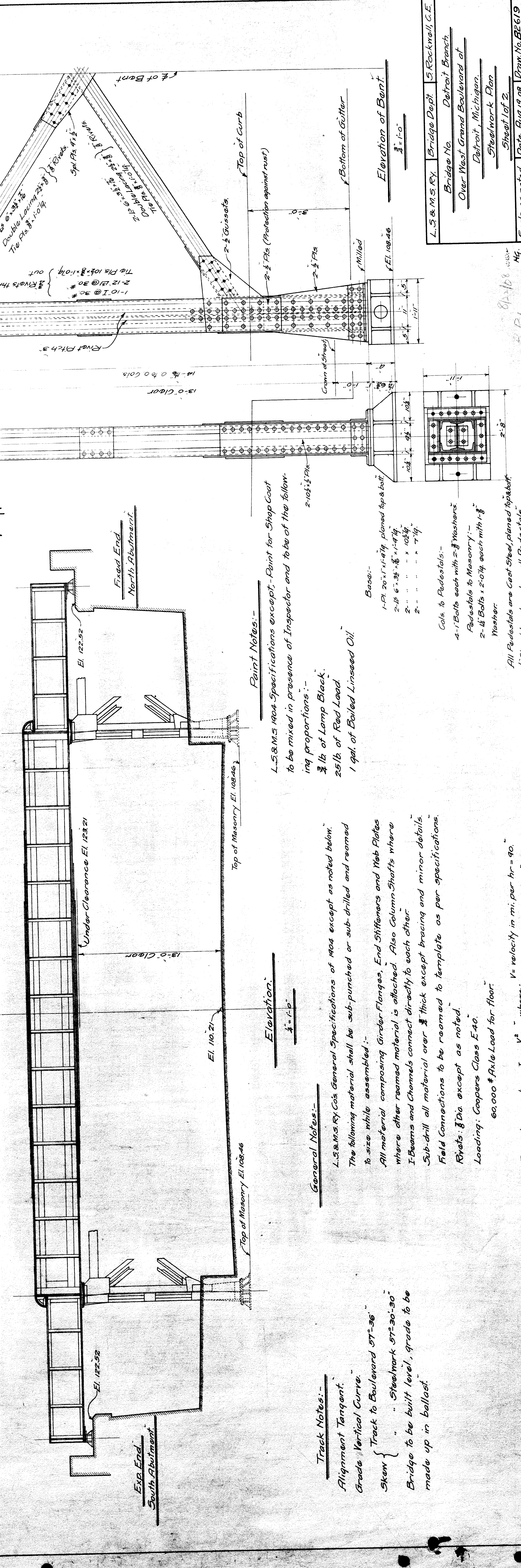
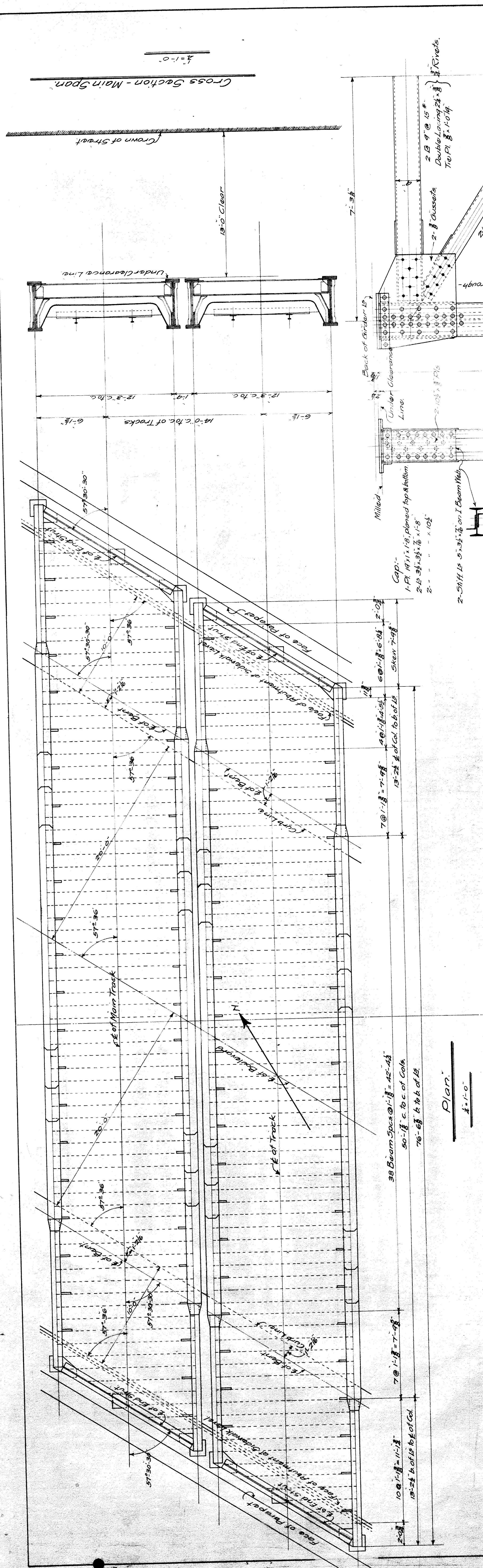


Concrete Mixture 1:2 1/2:5
 Champlet all exposed edges
 All exposed surfaces to have a smooth, hard
 and dense finish, non exposed surfaces
 to be free from a honey-combed appearance

| | |
|-----------------------|-----------|
| 720 Cu. yds. Concrete | |
| 936 bbls. Cement | |
| 830 cu. yds. sand | |
| 600 " | stone |
| 96-3/4" corr. bars | 6'-6 1/2" |
| 58 " | 8'-0" |
| 36 " | 10'-0" |

Revised 8-19-08
 L.S. & M.S. Ry. Bridge Dept. E. Rockwell, C.E.
 Bridge No. Detroit Branch
 Over W. Grand Boulevard
 Detroit Mich.
 Masonry Plant
 Sheet of 4
 No. 133 B. Det. Br. #4
 Draw. No. B2618

File XU 27-10
 Br. 133 B. Det. Br. #4



Plan Notes:
 L.S. & M.S. Ry. Co's General Specifications of 1904 except as noted below.
 The following material shall be sub-punched or sub-drilled and reamed to size while assembled:
 All material composing Girder Flanges, End Stiffeners and Web Plates where other reamed material is attached. Also Column Shafts where I-Beams and Channels connect directly to each other.
 Sub-drill all material over 3/4" thick except bracing and minor details.
 Field Connections to be reamed to template as per specifications.
 Rivets: 3/8" Dia. except as noted.
 Loading: Coopers Class E 40.
 60,000 # Axle Load for floor.

Track Notes:
 Alignment Tangent.
 Grade Vertical Curve.
 Skew { Track to Boulevard 57° 36'
 " " " Steelwork 57° 30'-30"
 Bridge to be built level, grade to be made up in ballast.

Paint Notes:
 L.S. & M.S. 1904 Specifications except, Paint for Shop Coat to be mixed in presence of Inspector and to be of the following proportions:
 2/3 lb of Lamp Black.
 25 lb of Red Lead.
 1 gal. of Boiled Linseed Oil.

General Notes:
 L.S. & M.S. Ry. Co's General Specifications of 1904 except as noted below.
 The following material shall be sub-punched or sub-drilled and reamed to size while assembled:
 All material composing Girder Flanges, End Stiffeners and Web Plates where other reamed material is attached. Also Column Shafts where I-Beams and Channels connect directly to each other.
 Sub-drill all material over 3/4" thick except bracing and minor details.
 Field Connections to be reamed to template as per specifications.
 Rivets: 3/8" Dia. except as noted.
 Loading: Coopers Class E 40.
 60,000 # Axle Load for floor.

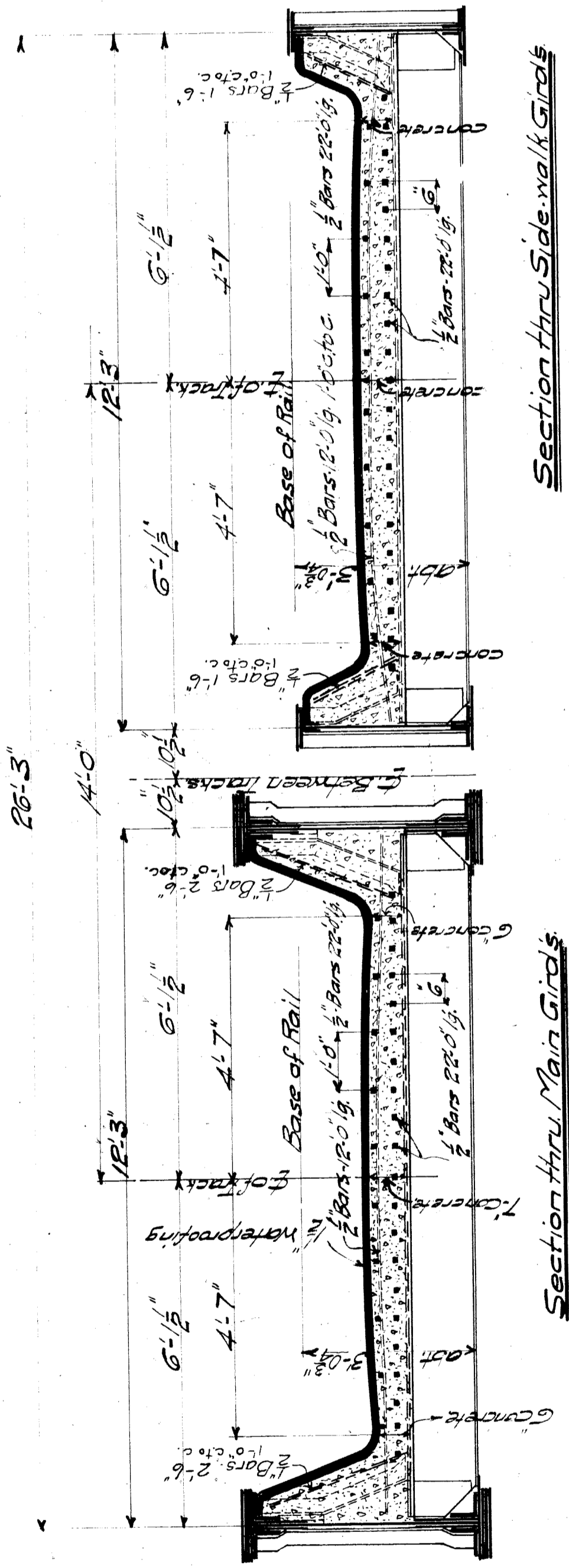
Beam:
 1-Pl. 20" x 1'-4 1/4" planed top & bottom
 2-Pl. 6" x 3 1/2" x 1'-4 1/4"
 2" " " " x 10 3/4"
 2" " " " x 7-1/4"

Cols to Pedestals:
 4-1" Bolts each with 2-3 Washers
Pedestals to Masonry:
 2-4" Bolts x 2'-0" each with 1-3" Washer

All Pedestals are Cast Steel, planed top & bottom
 8" Sheet Lead under all Pedestals

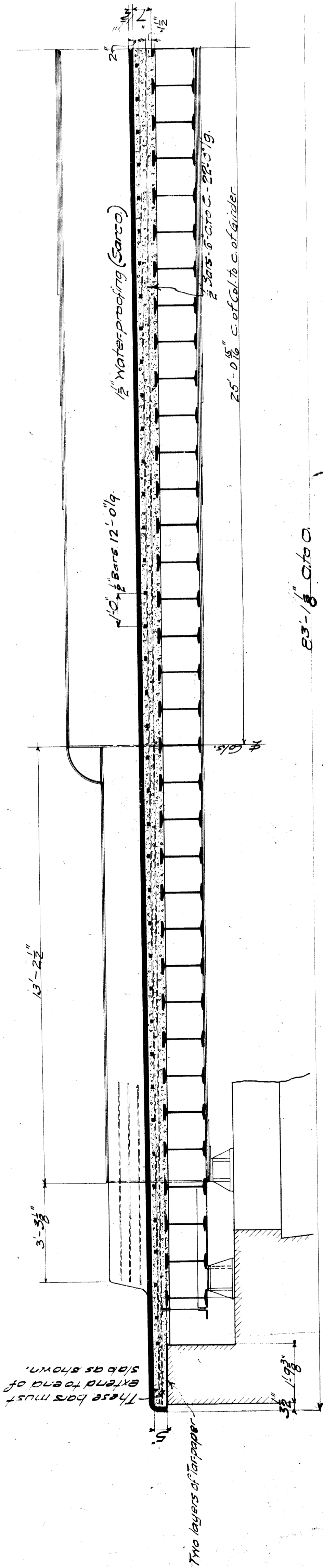
L.S. & M.S. Ry. Bridge Dept. S. Reeknell, C.E.
 Bridge No. Detroit Branch
 Over West Grand Boulevard of
 Detroit, Michigan.
 Steelwork Plan
 Sheet of 2
 Date Aug. 19, 08. Draw. No. BE 619

Scale as noted
 Date Aug. 19, 08. Draw. No. BE 619

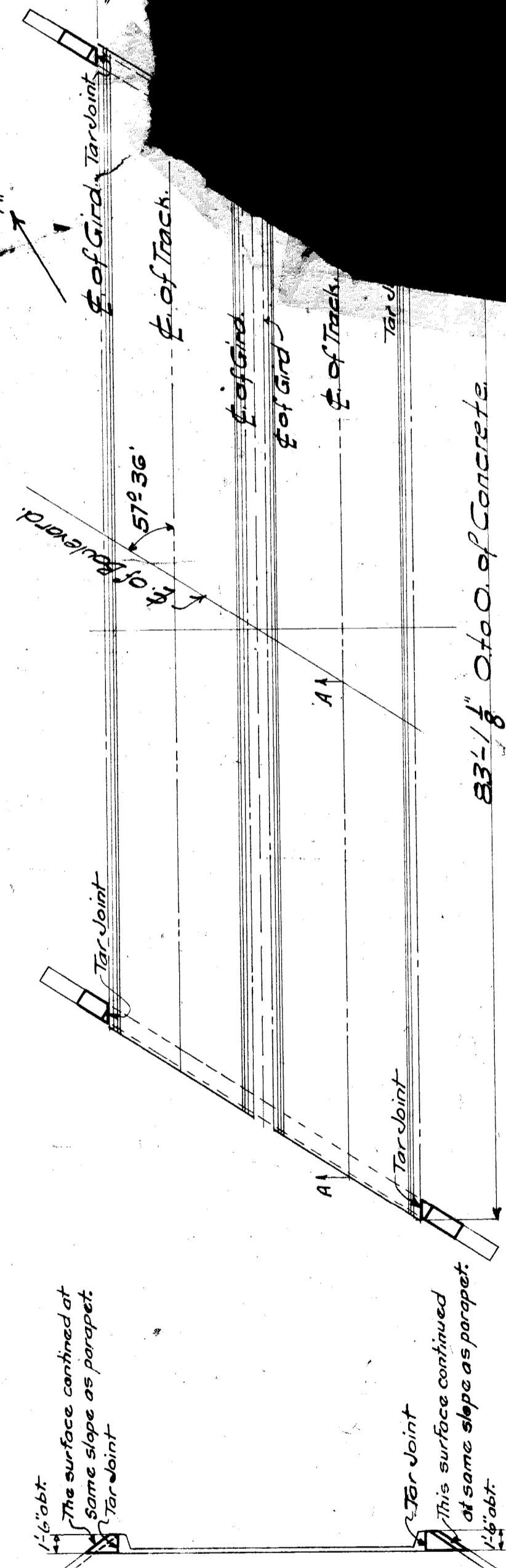


Section thru Main Girders

Section thru Side-walk Girders



Section on C.C. of Track A-A



End Elevation Showing Wing Walls on Parapet Wall.

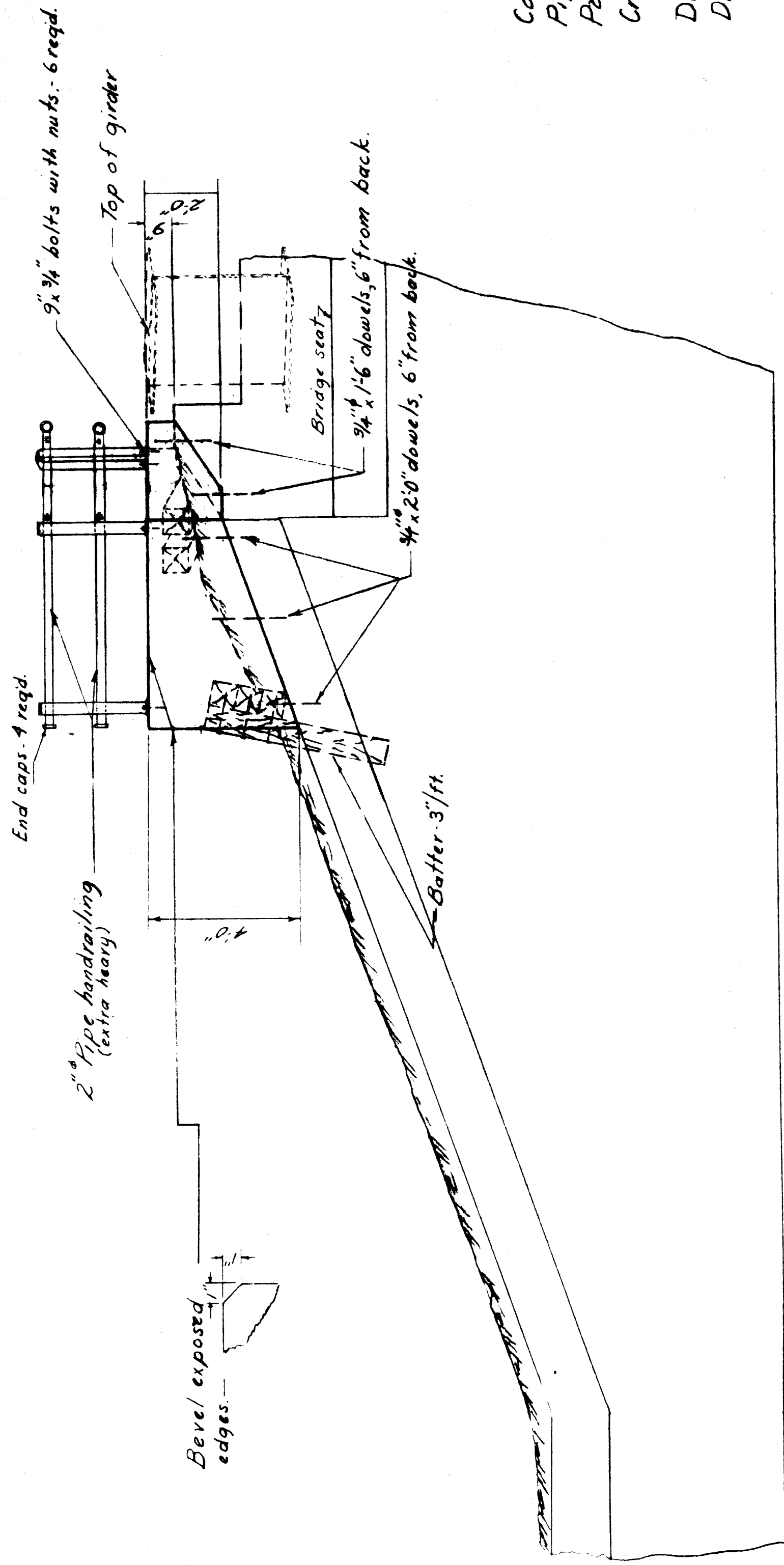
Bill of Material for Wing Walls on Parapet Walls.

- 1 1/2 - cu. yds. concrete 1:3:6 mix.
- 7 - sacks cement
- 3/4 - cu. yd. sand.
- 1 1/2 - cu. yds. stone.

Bill of Material for 2 Tracks.

- 55 - cu. yds. concrete
 - 1 - 2-4 Mixture
 - 248 - Bars 2" x 23'-0" g.
 - 164 - " " " - 12'-0" " "
 - 200 - " " " - 2'-0" " "
 - 130 - " " " - 1'-6" " "
- Weight
4847
1673
425
165
- Total = 7110*
- *90% all bars at least 40 times their least dia. and longitudinal bars parallel to abutments. Bars to be concrete.
- 2350 Sq. ft. Sarco. 1/2" thick.
24 1/2" Bars - 6'-0" long.

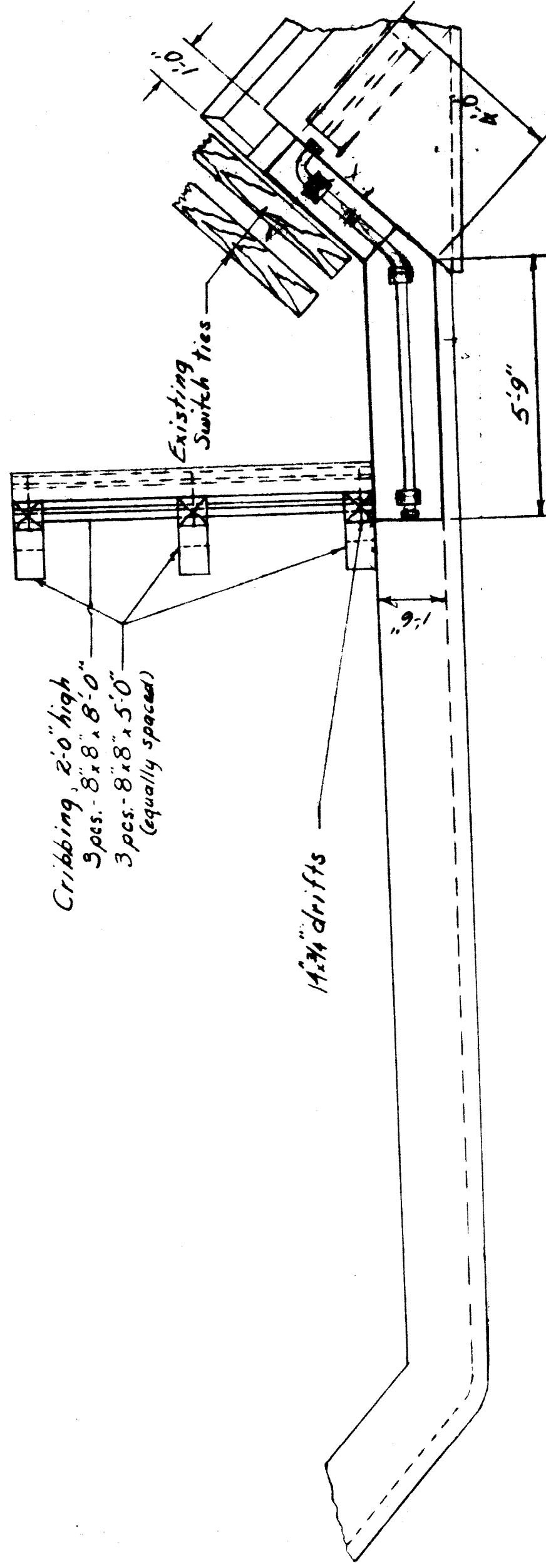
LS + MS. Ry. Bridge Dept. Sibley & Co.
Bridge No. Detroit Branch
Over West Grand Boulevard
Detroit, Michigan
Concrete Slab
Shiomi
Scale 1/8" = 1'-0"
No. 25-19-19
Rev. No. B-2726-B
Revised Aug. 12, 1912



MATERIAL

- Concrete - 1/2 yds.
- Pipe 2" (extra heavy) - 20 lin. ft.
- Posts - 3 pcs.
- Cribbing 8" x 8" x 8" 0" - 3 pcs.
- 8" x 8" x 5" 0" - 3 pcs.
- Dowels 3/4" - 9 lin. ft.
- Drifts 1 1/4" x 3/4" - 19 pcs.

ELEVATION
Scale 3/8" = 1'-0"



PLAN
Scale 3/8" = 1'-0"

NOTE

Solid heavy lines indicate new concrete work.
Concrete to be Class "A" according to N.Y.C. Specs
for Concrete Masonry, No. B-2, Issue, March 30, 1936.
Bolts to be set in concrete before hardening.

Drawn by: R.J.A. Checked by:

REVISIONS

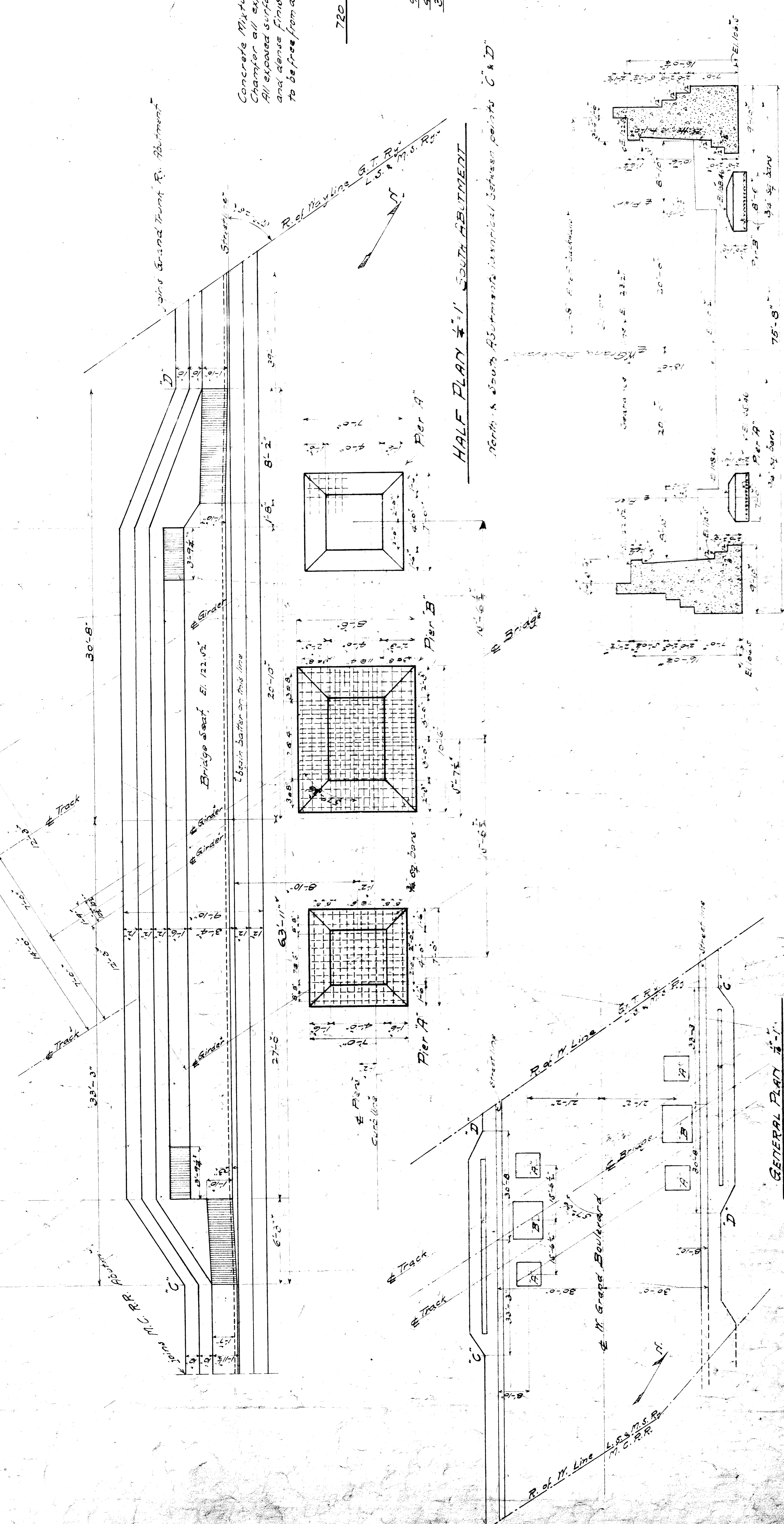
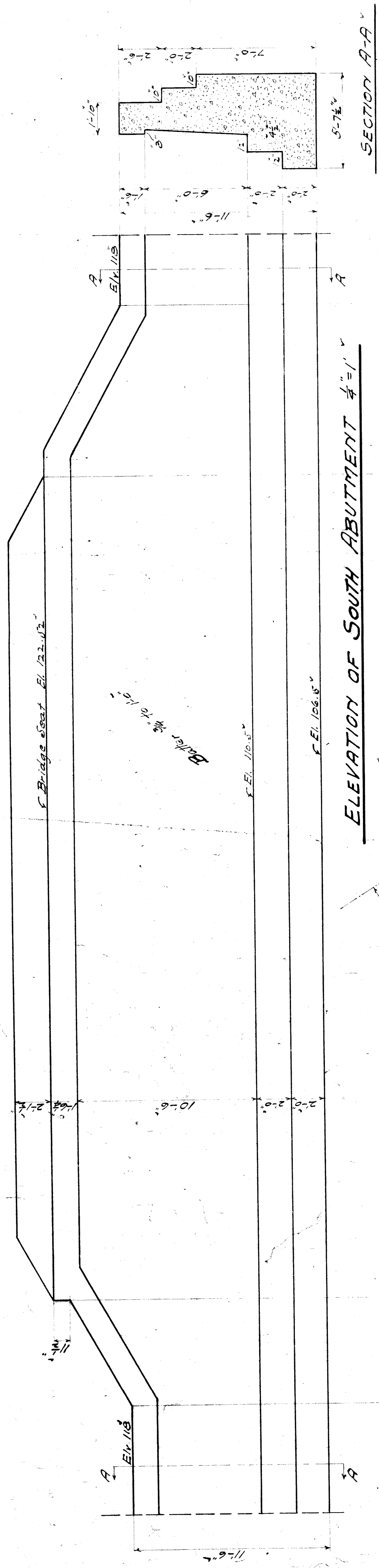
Date By

M.C. SYSTEM OFFICE OF DIST. ENGINEER, DETROIT
BR. 289 - W. GRAND BLVD. - BAY CITY DIV.
DETROIT, MICHIGAN

NEW RETAINING WALL & HANDRAILING ON SOUTH
ABUTMENT AT EAST FACIA GIRDER

M.C. DISTRICT SCALE FILE # 1336
JULY 13, 1950 AS SHOWN PLAN # 615

Bay City Br. Br. 289 # 20

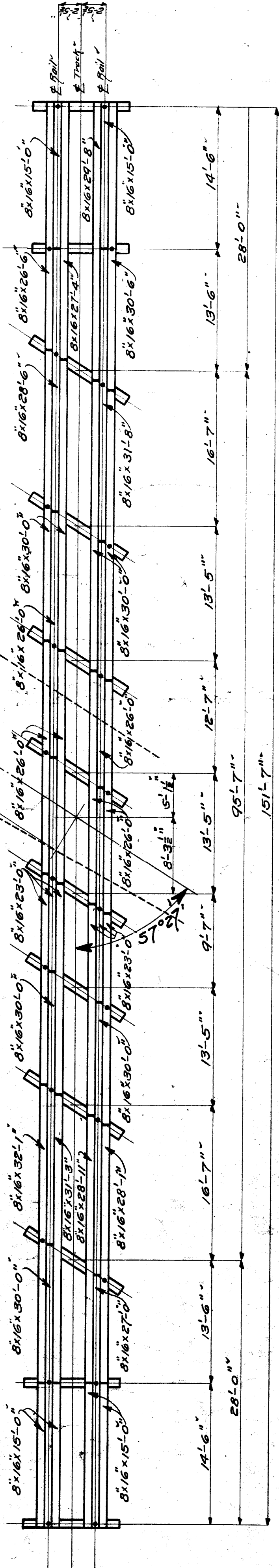


Revised 8-19-08
 L.S. & M.S. Ry. Bridge Dept. 15 Rockwell St. E.
 Bridge No. Detroit Branch.
 Over W. Grand Boulevard -
 Detroit, Mich.
 Masonry Plan.
 Sheet 1 of 1.
 Scale 1/2" = 1'. Date 8-17-08. Drawn by B.C. 18

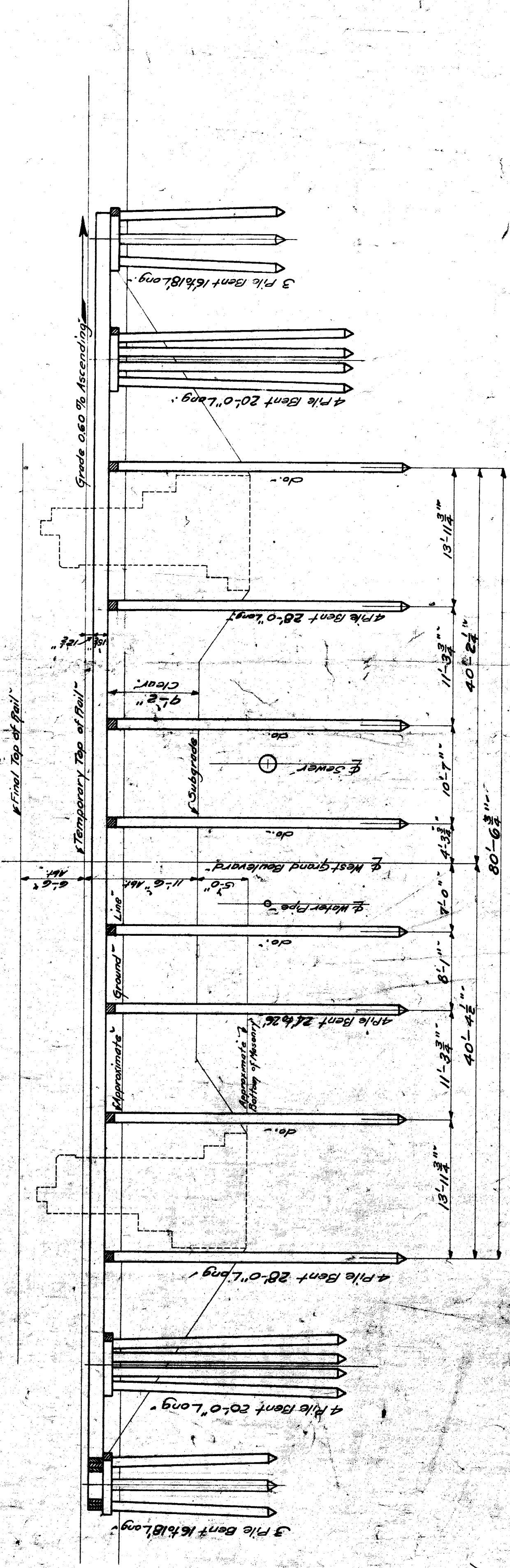
CROSS SECTION AT RIGHT L' TO BOULEVARD 1/2" = 1'

Bill of Steel One Track Only

| No. | Description | Location |
|-----|-------------------------|------------------|
| 48 | 3/8" x 3" Drift Bolts | Caps to Piles |
| 24 | 3/8" Bolts 20" u.h. | Stos. to Caps |
| 132 | 3/8" " 27" u.h. | Stringers |
| 76 | 3/8" " 13 1/2" u.h. | Ribbon to Ties |
| 240 | C.I. O.G. Washers | For 3/8" Bolts |
| 240 | C.I. O.G. " " | For 3/8" " " |
| 76 | W.Y. Washers | For 3/8" " " |
| 10 | 60 cl. Wire Spikes | Grade Plank |
| 32 | 3/8" Bolts 17 1/2" u.h. | Diagonal Bracing |



Plan



Elevation at R.R. 15 to E. of Boulevard

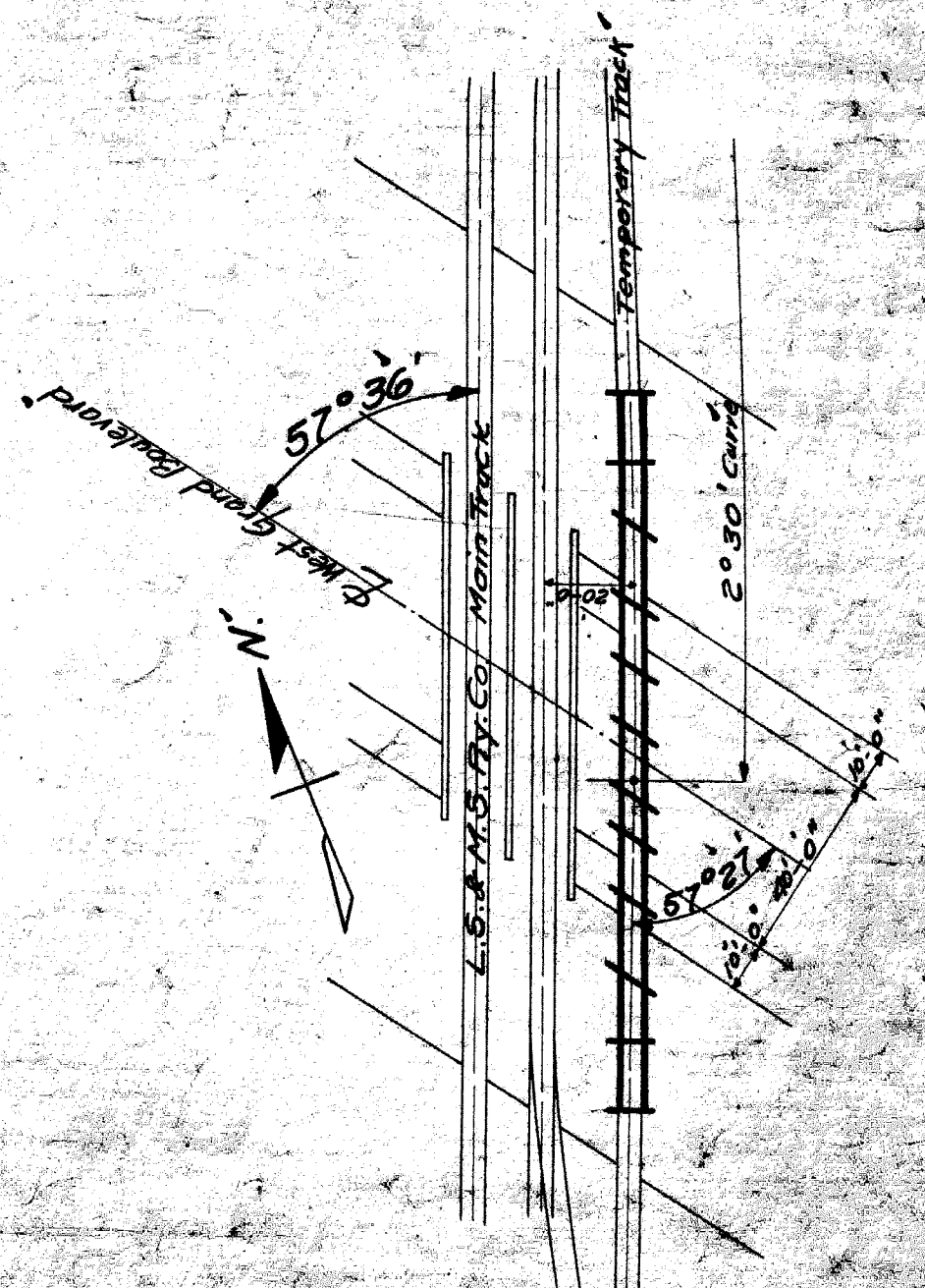
Bill of Timber One Track Only

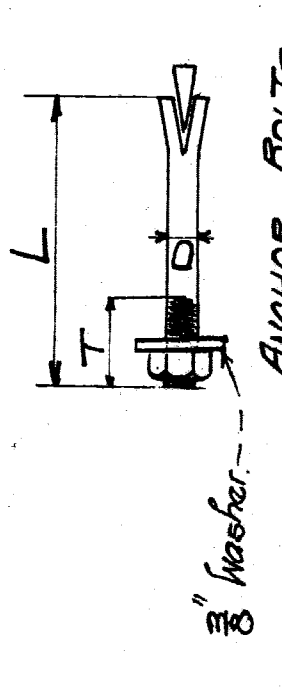
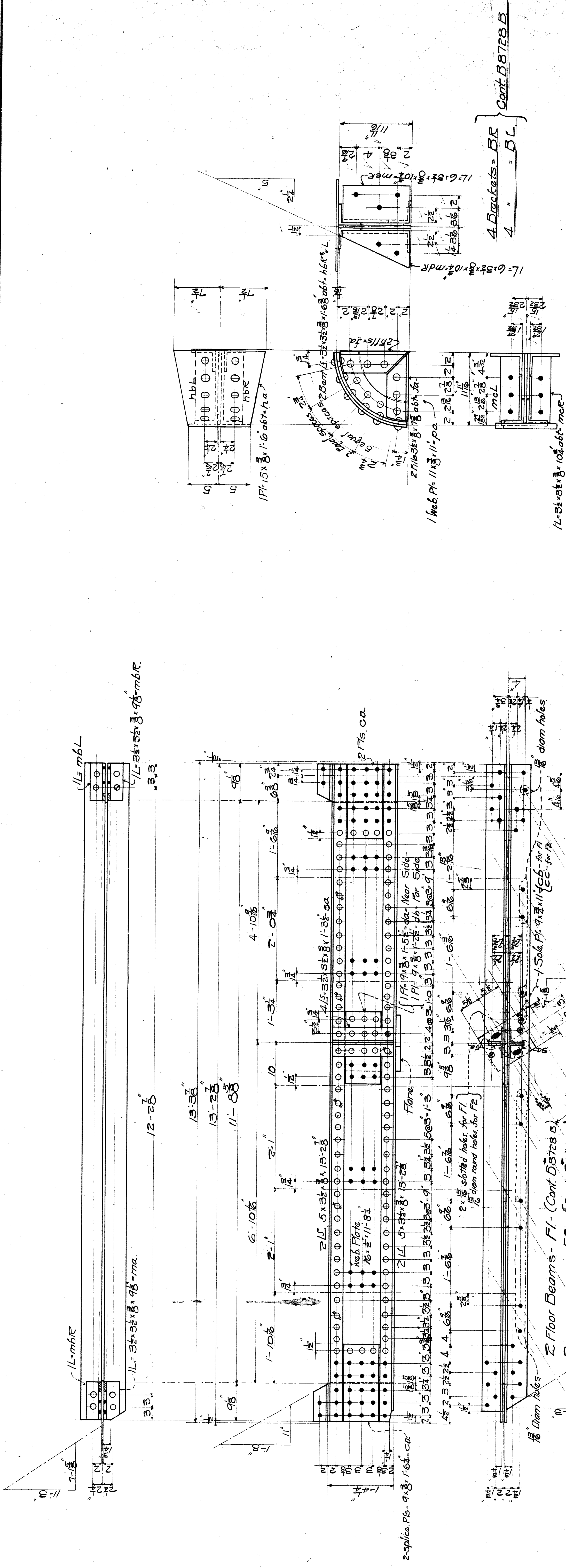
| No. | Size | Length | Kind | Describing |
|-----|--------|--------|------|------------------|
| 16 | 20'-0" | 20'-0" | S.W. | Piles |
| 8 | 16'-0" | 16'-0" | S.W. | " |
| 6 | 10'-0" | 10'-0" | S.W. | Caps |
| 4 | 10'-0" | 10'-0" | S.W. | " |
| 1 | 31'-8" | 31'-8" | Fir | Stringer |
| 1 | 32'-1" | 32'-1" | " | " |
| 1 | 31'-3" | 31'-3" | " | " |
| 1 | 30'-6" | 30'-6" | " | " |
| 7 | 30'-0" | 30'-0" | " | Stringers |
| 1 | 29'-8" | 29'-8" | " | " |
| 1 | 28'-6" | 28'-6" | " | " |
| 1 | 28'-1" | 28'-1" | " | " |
| 1 | 27'-4" | 27'-4" | " | " |
| 1 | 27'-0" | 27'-0" | " | " |
| 1 | 26'-6" | 26'-6" | " | " |
| 6 | 8'-0" | 8'-0" | " | Stringers |
| 6 | 8'-0" | 8'-0" | " | " |
| 6 | 8'-0" | 8'-0" | " | " |
| 152 | 8'-8" | 10'-0" | X.P. | Bridge Ties |
| 20 | 6'-8" | 16'-0" | Fir | Ribbon |
| 6 | 3'-12" | 14'-0" | " | Grade Plank |
| 16 | 24'-0" | 24'-0" | S.W. | Piles |
| 8 | 14'-0" | 14'-0" | Fir | Diagonal Bracing |
| 8 | 16'-0" | 16'-0" | " | " |

Revised 8-7-08

L.S. & M.S. Ry. Bridge Dept. C. Beckwith, C.E.
 Bridge No. Detroit Branch,
 Over West Grand Boulevard,
 Detroit, Mich.
 Falsework for Temporary Track
 Sheet No. 1 of 1
 Scale 1" = 1'-0" (July 8, 1908) Draw. No. 244

Location Plan
 Scale 1" = 40'





| NO | D | L | T | Location | Notes |
|----|-------|-----|-------|-------------------|-------|
| 76 | 1 1/2 | 1-6 | 2 1/2 | CB 3-5 to Masonry | |
| 77 | 1 1/2 | 2-0 | 2 1/2 | CB 1 to Masonry | |
| 78 | 1 1/2 | 1-6 | 2 1/2 | CB 4 to Masonry | |

Rough Bolts

| | | |
|----|---|--------------------------------|
| 16 | Bolts 3/4" Diam x 4" Long with 2 3/8" Washers | Circle 4 to 5 to Casting |
| 8 | " | Floor Beams F1 & F2 to Casting |
| 16 | " | G1 to Cols |
| 32 | " | G2-3-4-5 to Cols |
| | " | Cols to Bases |

General Note
 Rivets: 3/8" Diam.
 Holes: 1/8" Diam. Except as noted in bottom view of F1 & F2
 3/4" at lower end of Braces M1 & M2.
 Punch all holes in Floor Beams F1 & F2, except those in stiff-ends, to 1/8" diam.
 ream after assembling.
 Punch all other holes 1/8" diam. (except holes at lower end of M1 & M2)
 Ream all holes in F1 & F2 for field connections, to an iron template, except 1/8" diam holes in bottom view.
 Paint: see sheet 1.

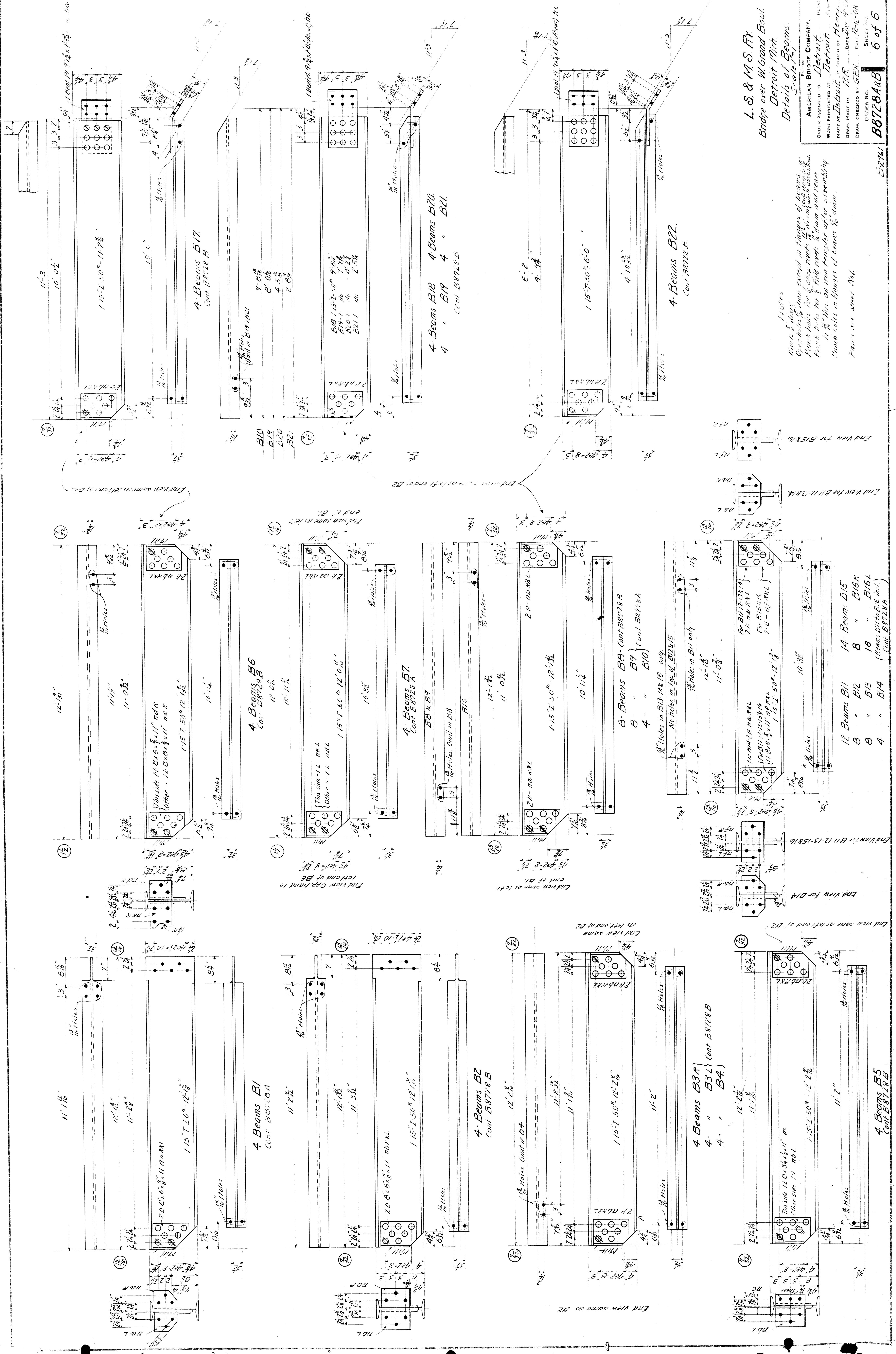
28 BRACES - K1E
 28 BRACES - K2L
 Cont. B 8728A

12 BRACES - K1E
 12 BRACES - K1L
 Cont. B 8728B

4 BRACES - BR
 4 " - DL
 Cont. B 8728 B

LS & MS-RY
 Ditcher over Grand Boul
 Detroit Mich
 Details of Floor Beams, Braces & Deck
 Scales 1/4" = 1'-0"

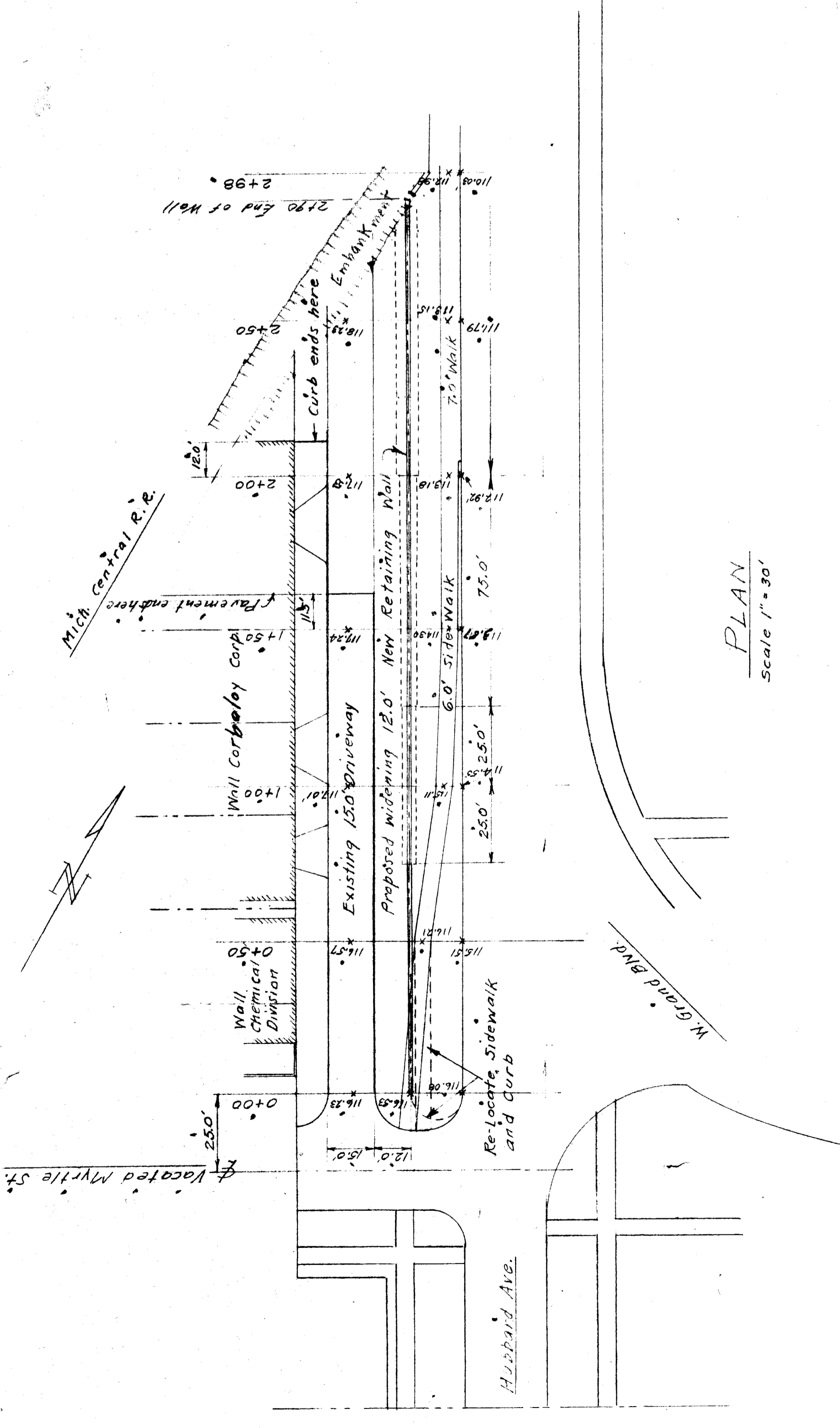
AMERICAN BRIDGE COMPANY
 ORDER ASSIGNED TO: 12770-1
 WORK FABRICATED AT: Detroit
 MADE AT: Detroit
 DRAWN BY: G.P.V. DATE: 1/1/22
 CHECKED BY: G.P.V.
 ORDER NO. 8728 B
 SHEET 5



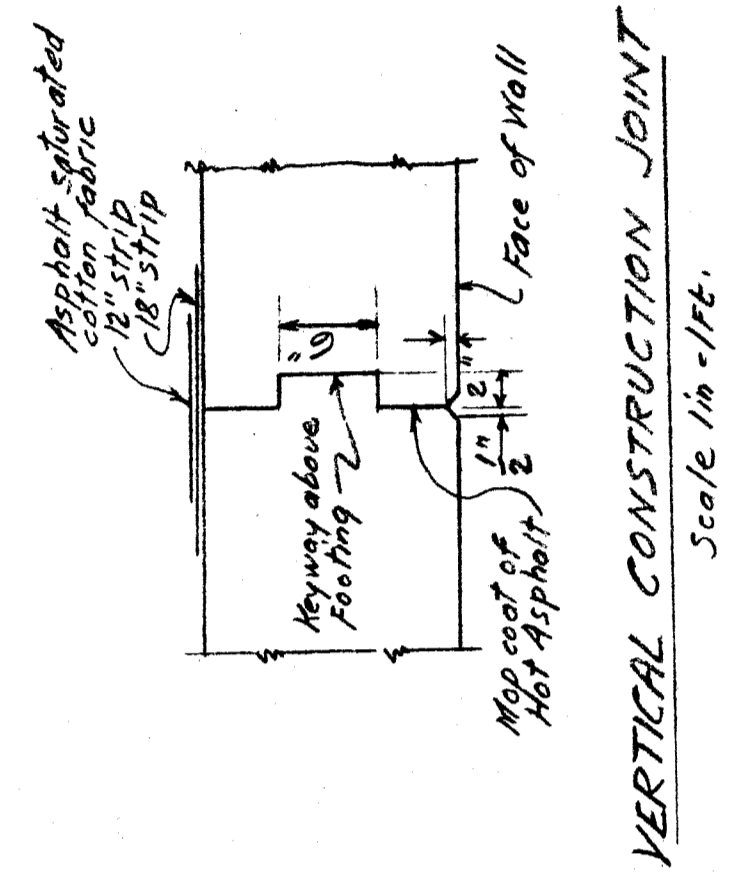
L. S. & M. S. Fry
 Bridge over W. Grand Boulev.
 Details of Beams
 Detroit Mich.
 Scale 1/4" = 1'-0"

Notes
 Rivets & angles
 Open holes to be filled with concrete in flanges of beams.
 Open holes for 8" wide rivets to be filled with concrete.
 Punch holes for 8" wide rivets to be filled with concrete.
 Punch holes for 8" wide rivets to be filled with concrete.
 Punch holes in flanges of beams to diam.

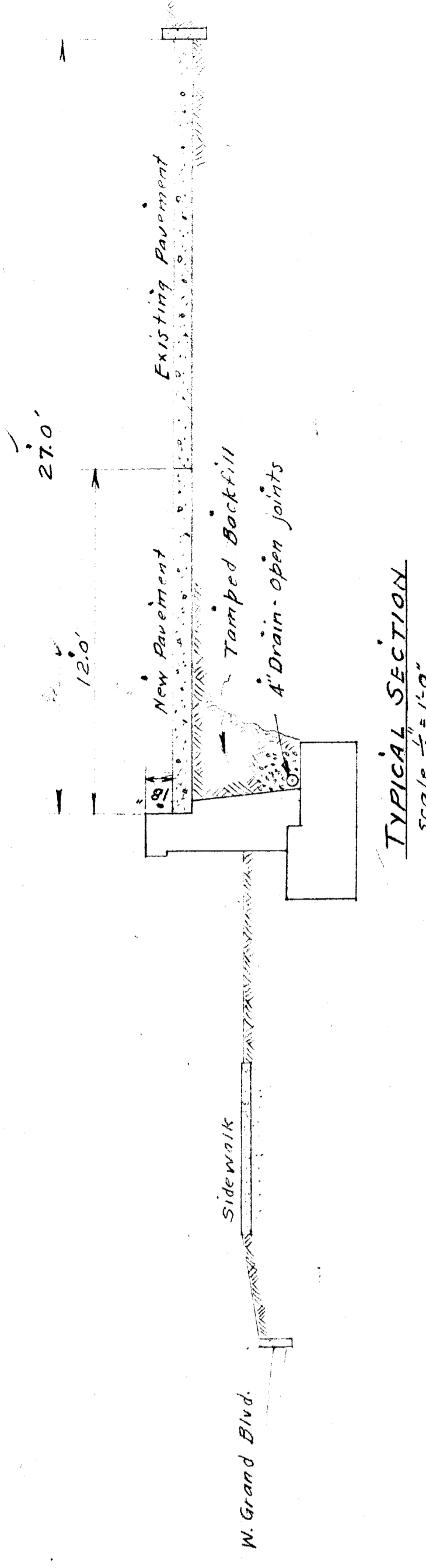
AMERICAN BRIDGE COMPANY
 WORK FABRICATED AT
 DETROIT, MICH.
 DRAWN BY
 R. F. HENRY
 CHECKED BY
 G. F. HENRY
 DATE
 DEC 12 1908
 SHEET NO.
 B8728A & B
 6 of 6



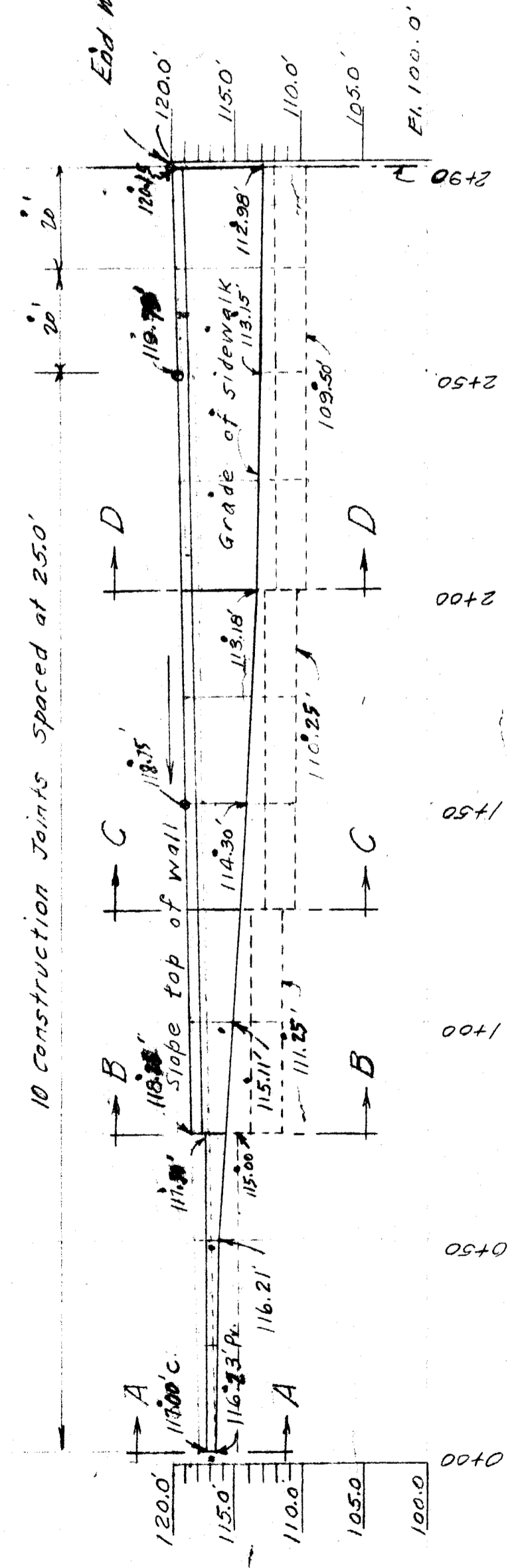
PLAN
Scale 1" = 30'



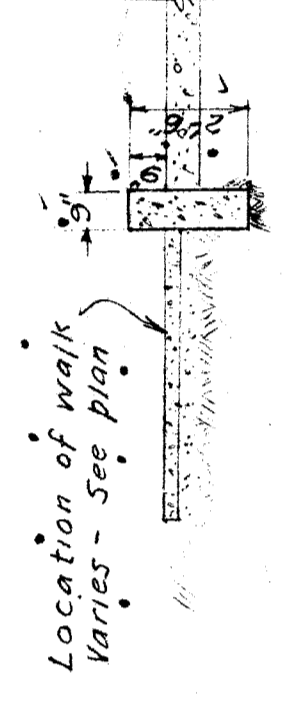
VERTICAL CONSTRUCTION JOINT
Scale 1/4" = 1'-0"



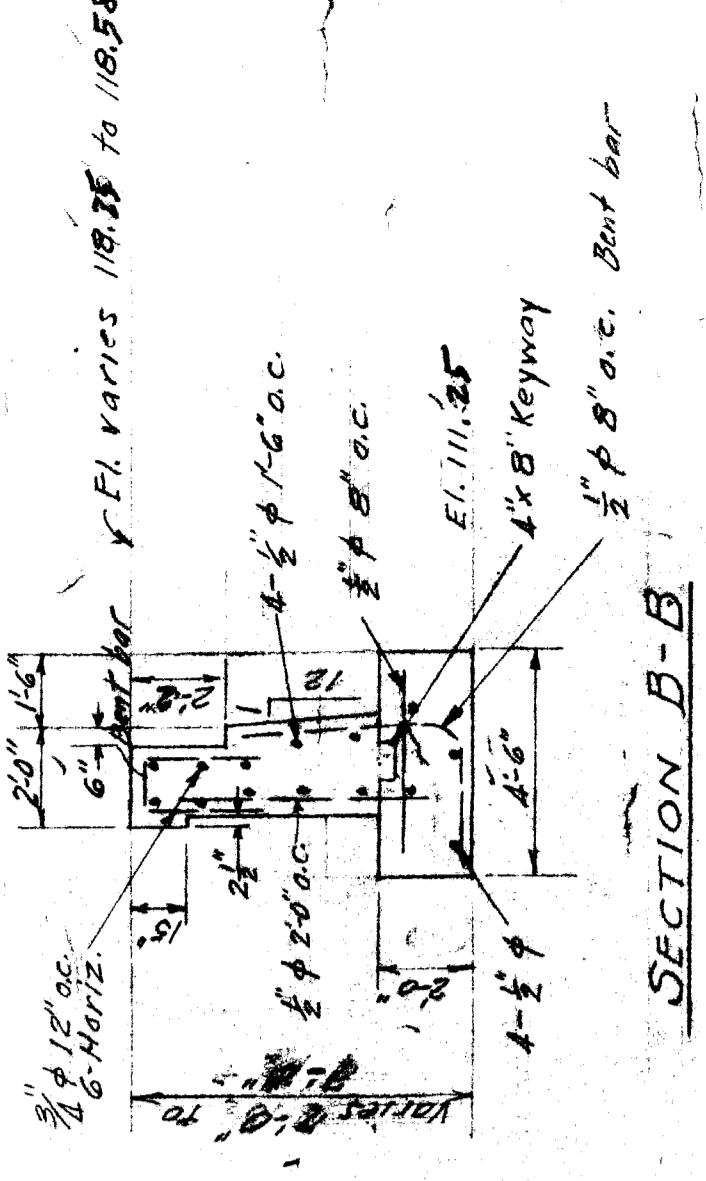
TYPICAL SECTION
Scale 1/4" = 1'-0"



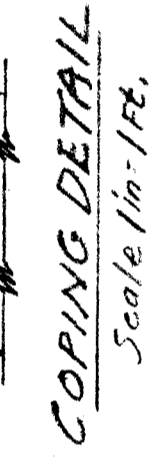
ELEVATION
Scale 1/4" = 1'-0"



SECTION A-A



SECTION B-B

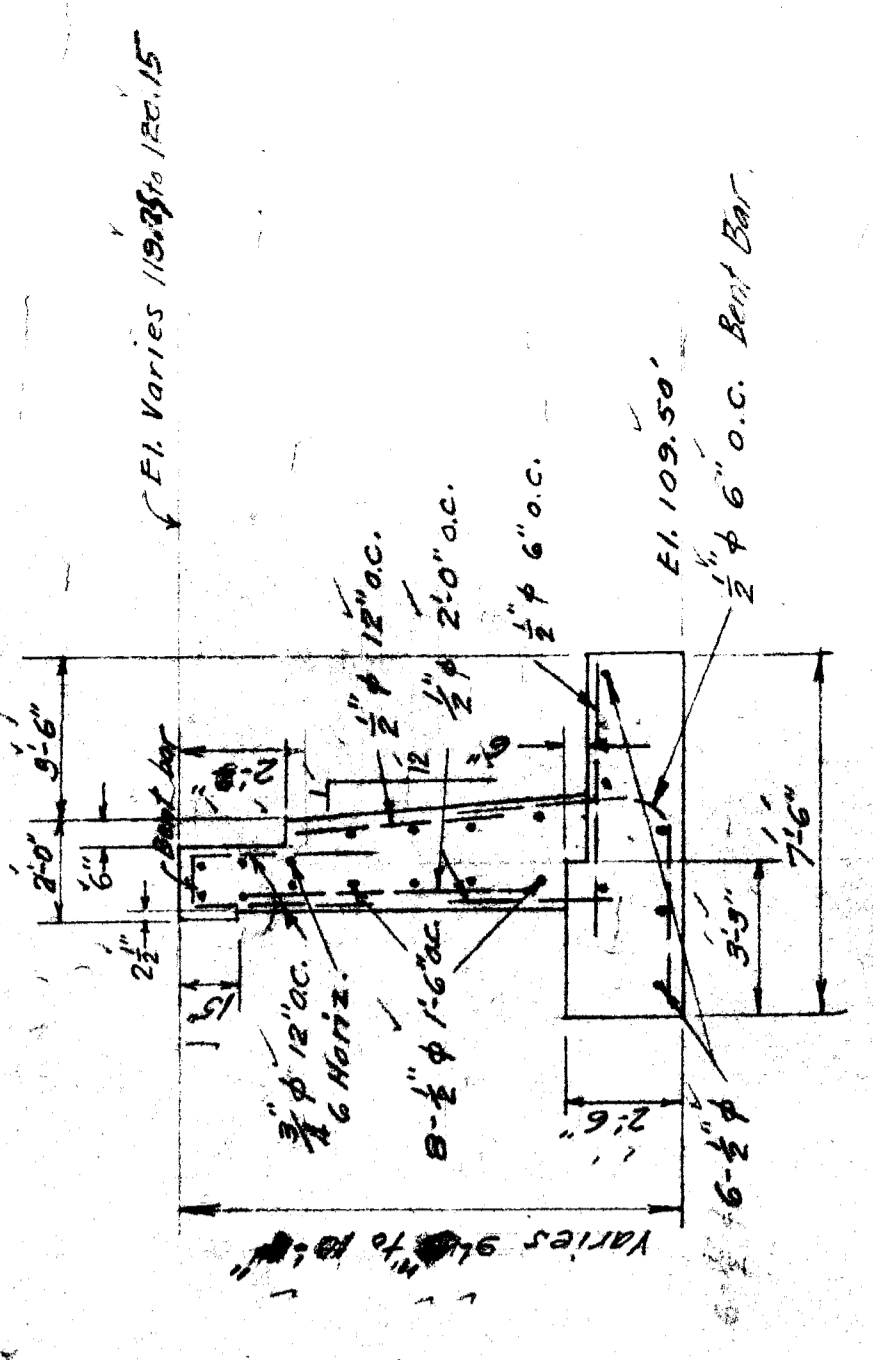


COPING DETAIL
Scale 1/4" = 1'-0"

ESTIMATE OF QUANTITIES

| | |
|----------------------------|--------------|
| Excavation | 600 cu. yds. |
| Concrete in Retaining wall | 240 cu. yds. |
| Reinforcing Steel | 11000 lbs. |
| Brick | 5000 |
| Backfill | 145 cu. yds. |
| Waterproofing | 1000 sq. ft. |
| 4" Drain Tile | 218 lin. ft. |
| New sidewalk | 360 sq. ft. |

NOTE: Exposed faces of concrete shall be 1:2:4 and smooth immediately after forms have been removed. All concrete shall class 40 mix 1, 2, 3. Back of walls and vertical construction joints to receive two brush coats of Asphalt Waterproofing. 4" Drain tile joints to be covered with tar paper and connected with nearest sewer outlet.



SECTION D-D

| | | | |
|---|----------------------------|--|---------------|
| CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE | | SHEET 2 OF 2 SHEETS CONTRACT DRWG NO C-381 | |
| RETAINING WALL | | FOR WIDENED DRIVEWAY OF WALL CHEMICAL AND CARBOLEY CO. | |
| ON W. SIDE OF W. GRD. BLVD. BETWEEN MYRTLE AND M.C.R.R. | | Scale 1/4" = 1'-0", except as noted. | |
| DESIGNED BY | R.F.M. for S.H.K. for G.S. | APPROVED | J.L. Barton |
| DRAWN BY | P.M. Beckus | ENGINEER | W. Wallace |
| TRACED BY | | ENGINEER | J.C. Thompson |
| CHECKED BY | J.L. Barton | CITY ENGINEER | |
| REFERENCE DRAWINGS | | NO. BY DATE | |
| DESCRIPTION | | REV. NO. | |
| REVISIONS | | | |

