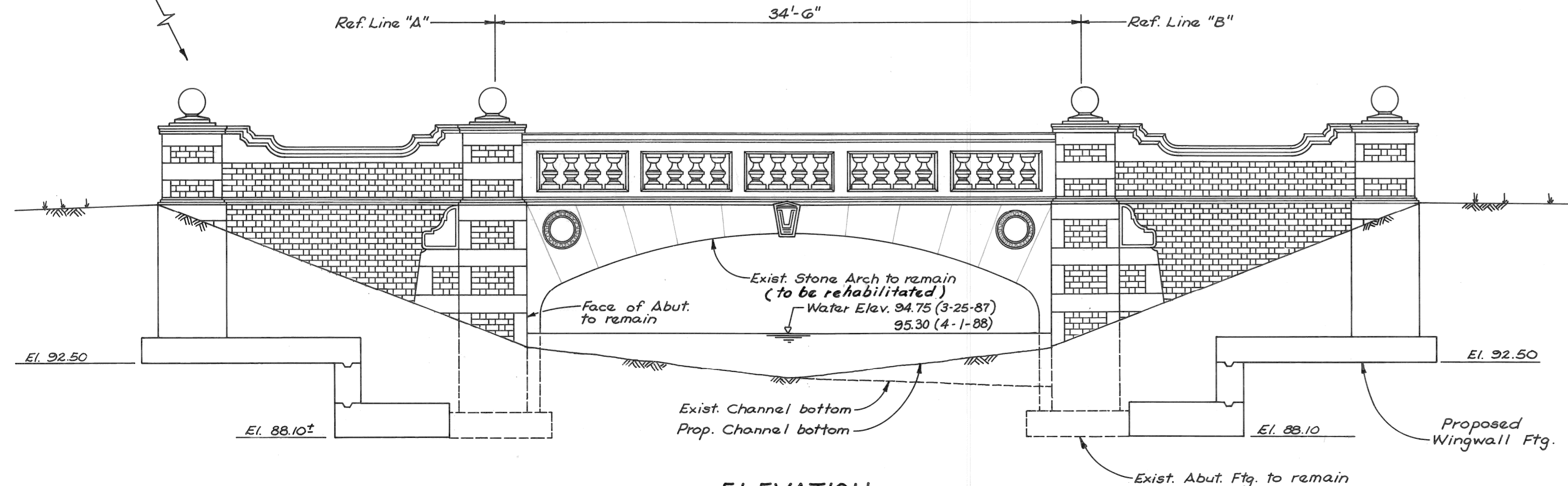


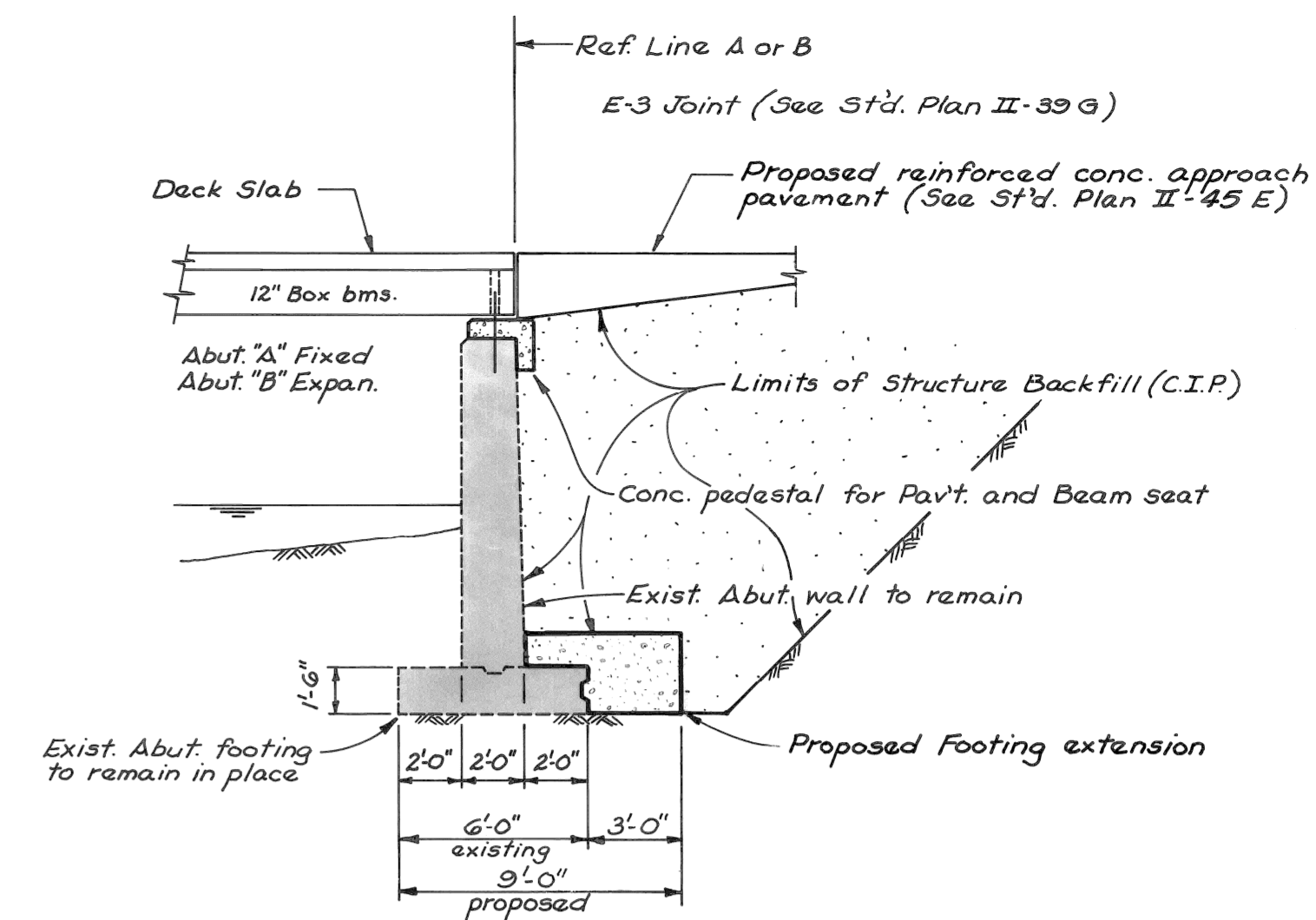
PLAN

Scale: 3/16" = 1'-0"



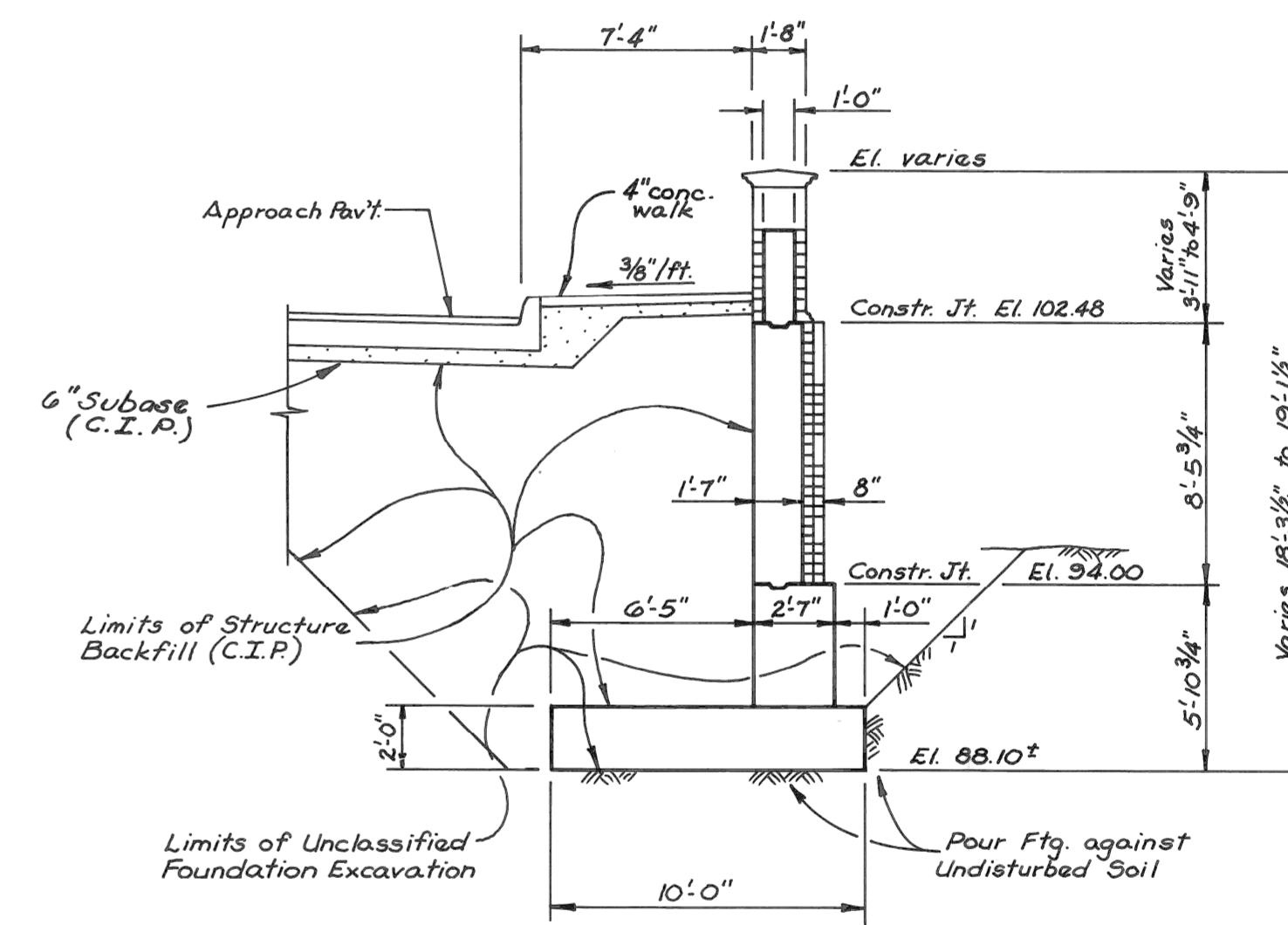
ELEVATION

Scale: 3/16" = 1'-0"



TYPICAL ABUTMENT SECTION

Abut. "B" shown... Abut. "A" reverse
Scale: 3/16" = 1'-0"



TYPICAL WINGWALL SECTION

Scale: 3/16" = 1'-0"

General Notes:

1. The design of this structure is based on current AASHTO Standard Specifications for Highway Bridges, HS-20 Loading.
2. Except where otherwise indicated on these structure sheets or in the proposal and supplemental specifications contained herein, all materials and workmanship for the bridge shall be in accordance with the Michigan Department of Transportation Standard Specifications for construction (1984 Edition.) Roadways, curbs, sidewalks and site restoration shall conform to City of Detroit standards.
3. Live Load plus impact deflection does not exceed 1/1000 of the Span length.
4. The Load Factor Method of design was used for this structure.
5. The superstructure is designed to allow for a future wearing surface dead load of 25 p.s.f. on the roadway surface.
6. The design of the structural members is based on material of the following grades and stresses:
Concrete: Grade 45 D — $f'_c = 4,000$ p.s.i.
Steel Reinforcement — $f_y = 60,000$ p.s.i.

Sheet Title

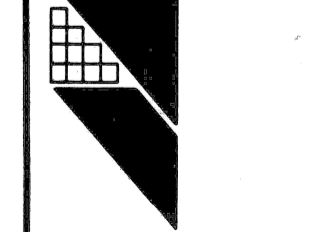
GENERAL PLAN OF STRUCTURE

1/1/84 J. DIMMERS REVIEW

**CITY OF DETROIT
PICNIC WAY BRIDGE
RECONSTRUCTION**

Project

MADISON MADISON
INTERNATIONAL OF MICHIGAN
Engineers, Architects, Planners
Detroit, Michigan 48226



DESIGN BY
K.C.H./S.O.

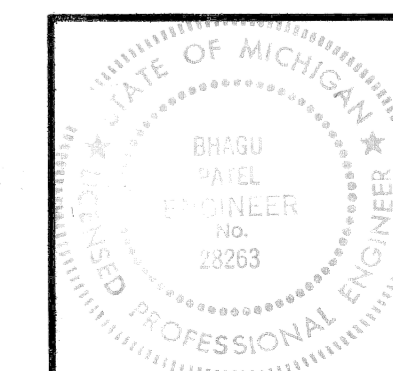
DRAWN BY
K.C.H.

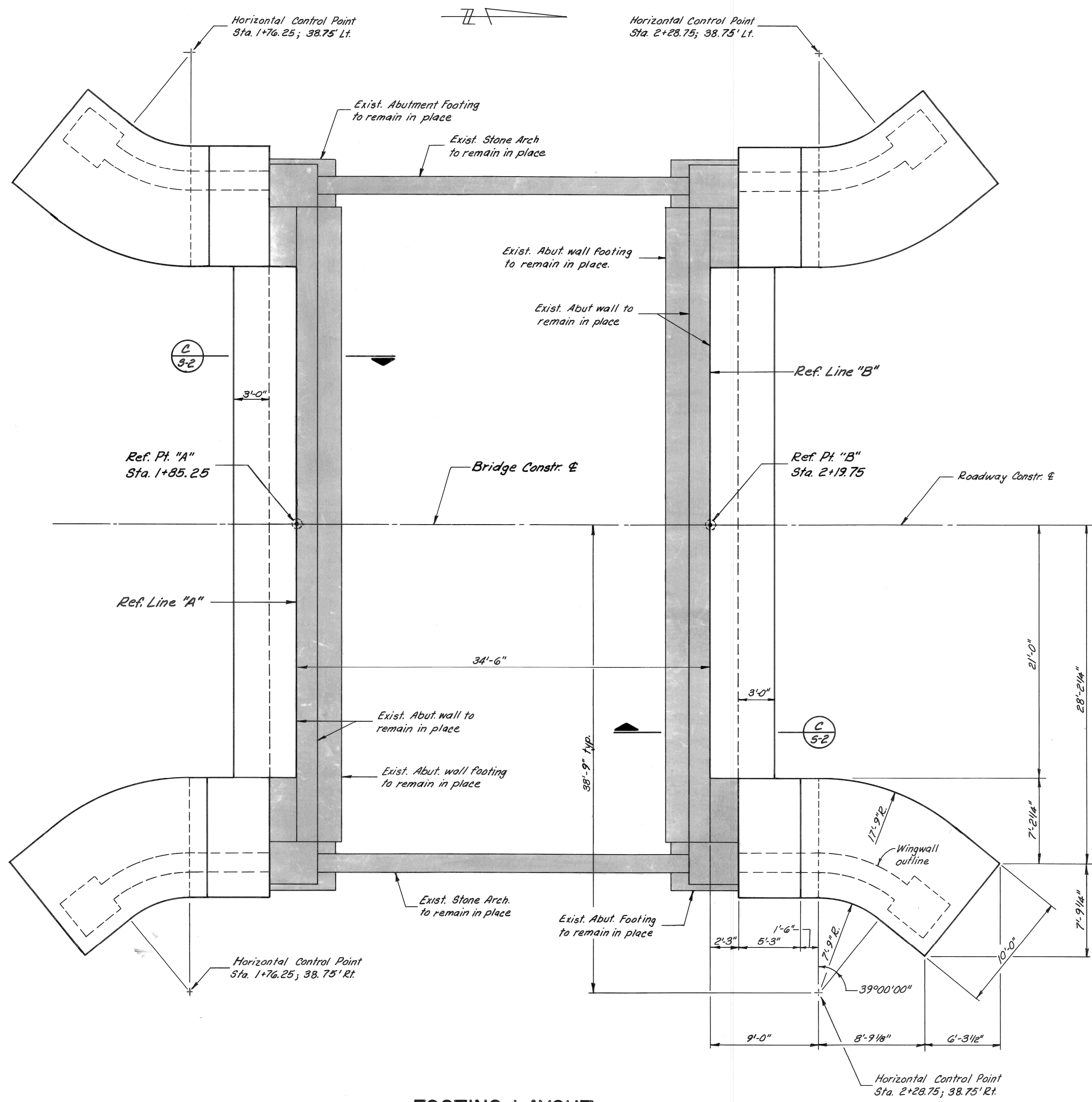
CHECKED BY
K.C.H./S.O.

DATE

PROJECT NO.
8005

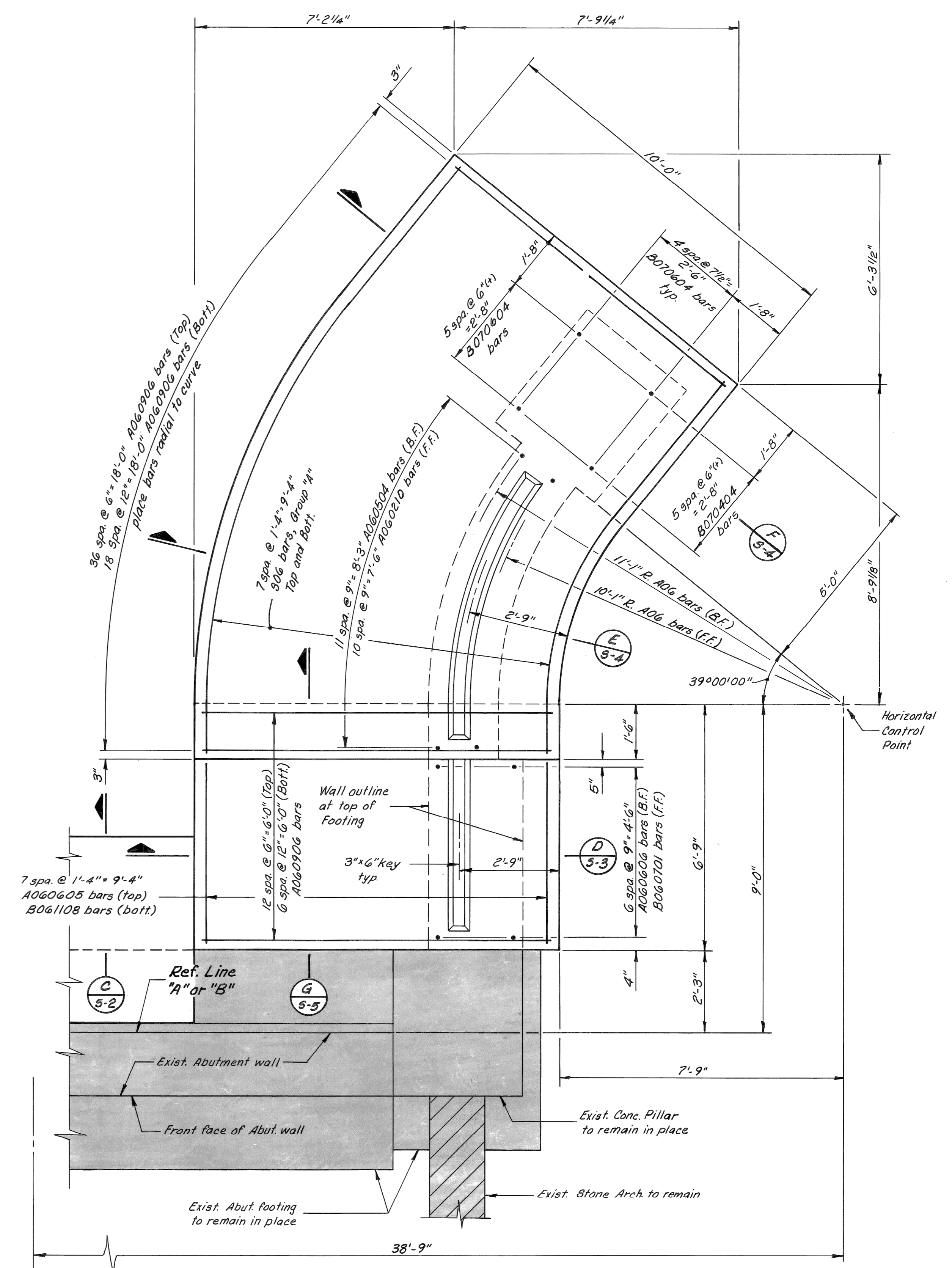
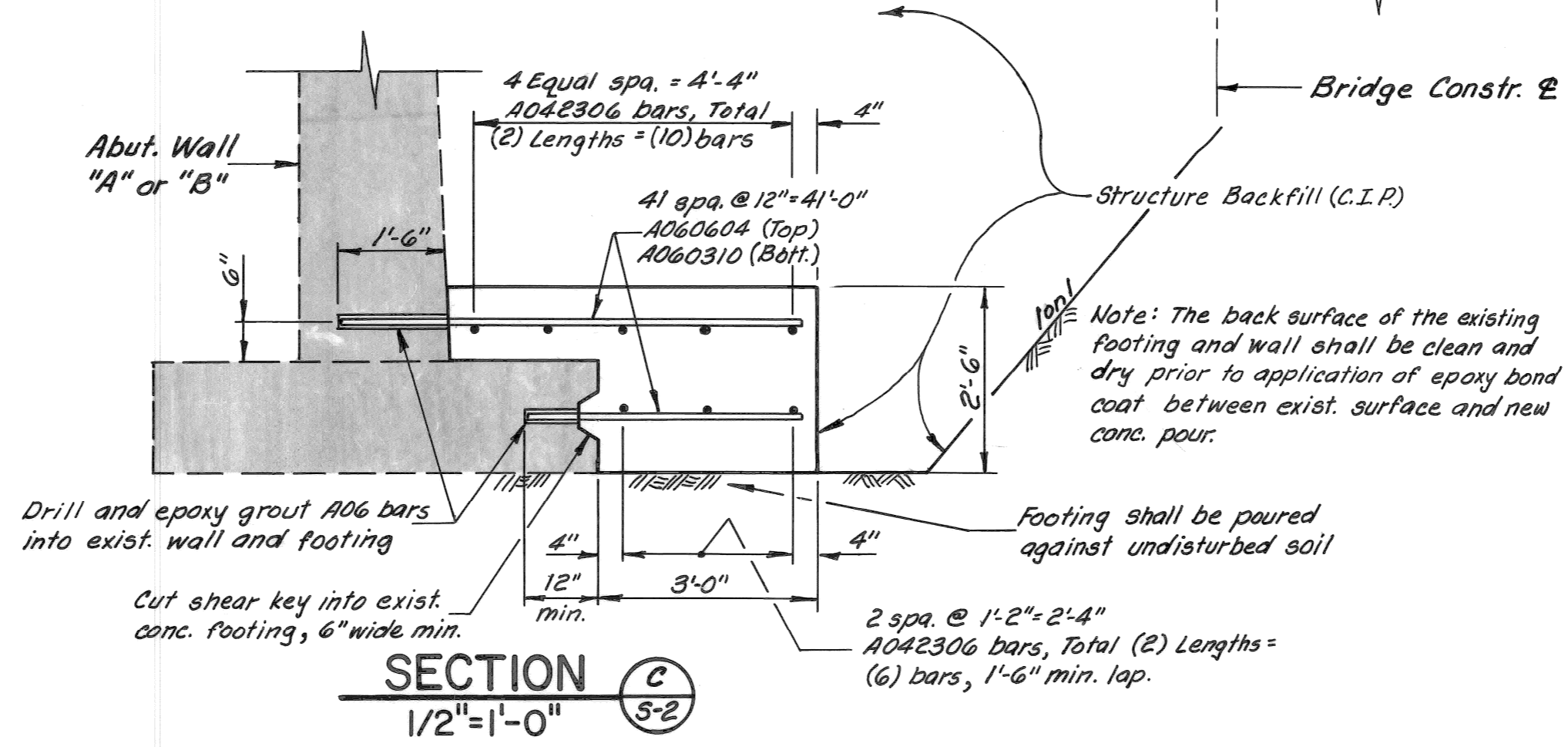
SHEET NO.
S-1





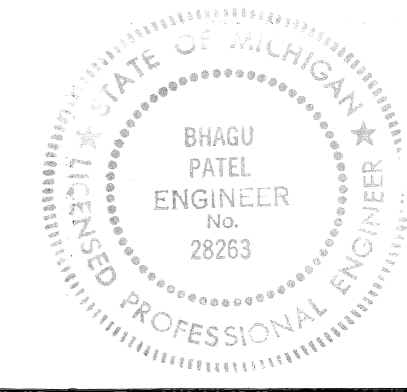
FOOTING LAYOUT
3/16"=1'-0"

- Notes:**
- The footings for all four wingwalls are exactly identical.
 - Footings are designed for 2,480 p.s.f. dead load and 2,960 p.s.f. dead load and live load.
 - Footings are to be placed against undisturbed soil.
 - The elevation given for the bottom of the existing abutment footings is approximate based on available record information. Any deviation from the elevation shown on the plans shall be brought to the Project Engineer's attention prior to final excavation for the proposed wingwall footings.
 - (F.F.) denotes front face (exposed face). (B.F.) denotes back face.



TYPICAL FOOTING PLAN
1/2"=1'-0"

- 3 bars, Group "A"
- 3061004
 - 3061103
 - 3061202
 - 3061301
 - 3061400
 - 3061411
 - 3061510
 - 3061608
- (2) EA. REQ'D.



Sheet Title

WINGWALL FOOTING DETAILS

Project

CITY OF DETROIT
PICNIC WAY BRIDGE RECONSTRUCTION

DESIGN BY
K.C.H. / S.O.

DRAWN BY
K.C.H./L.S.

CHECKED BY
S.O.

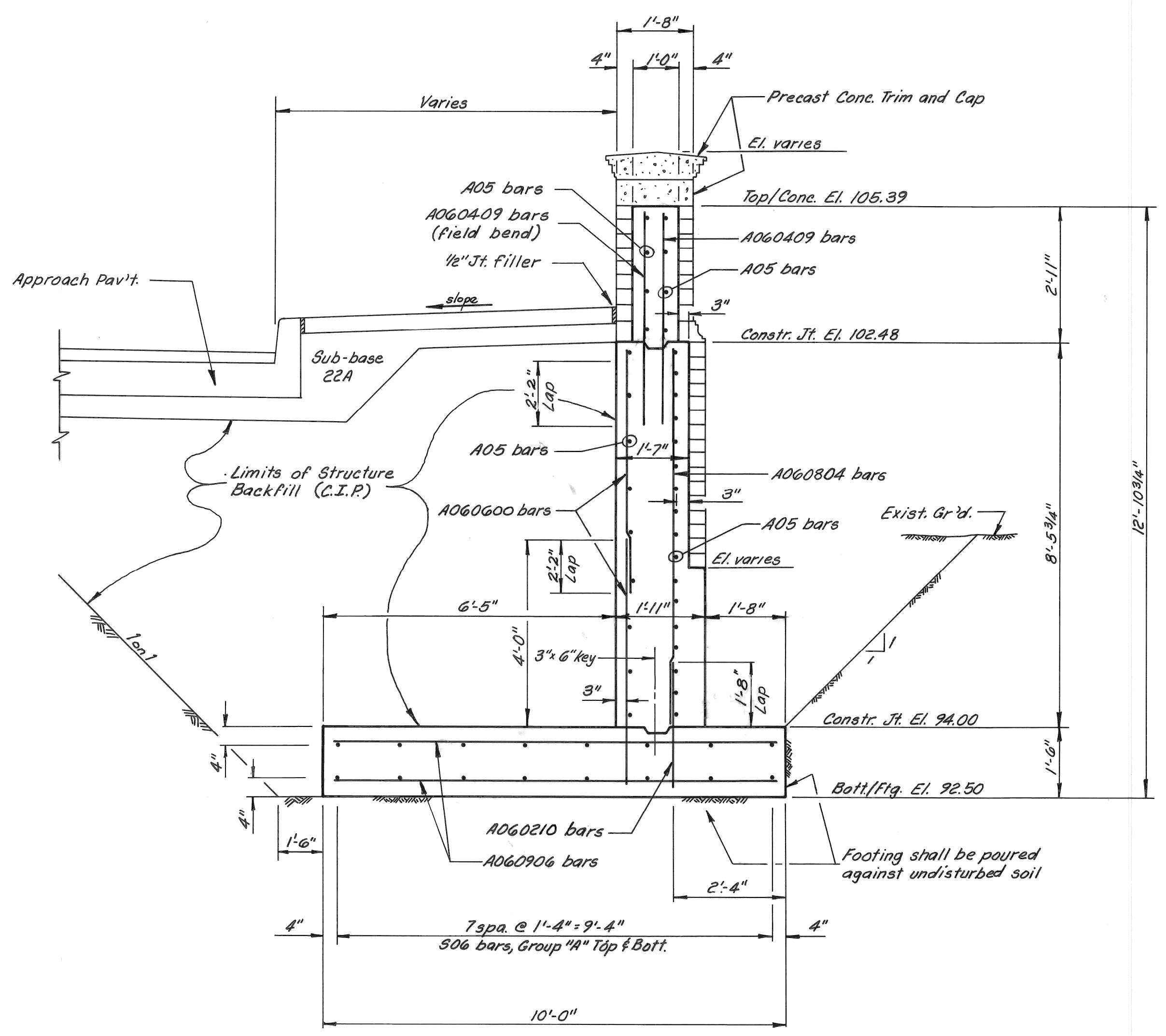
DATE

PROJECT NO.
8605

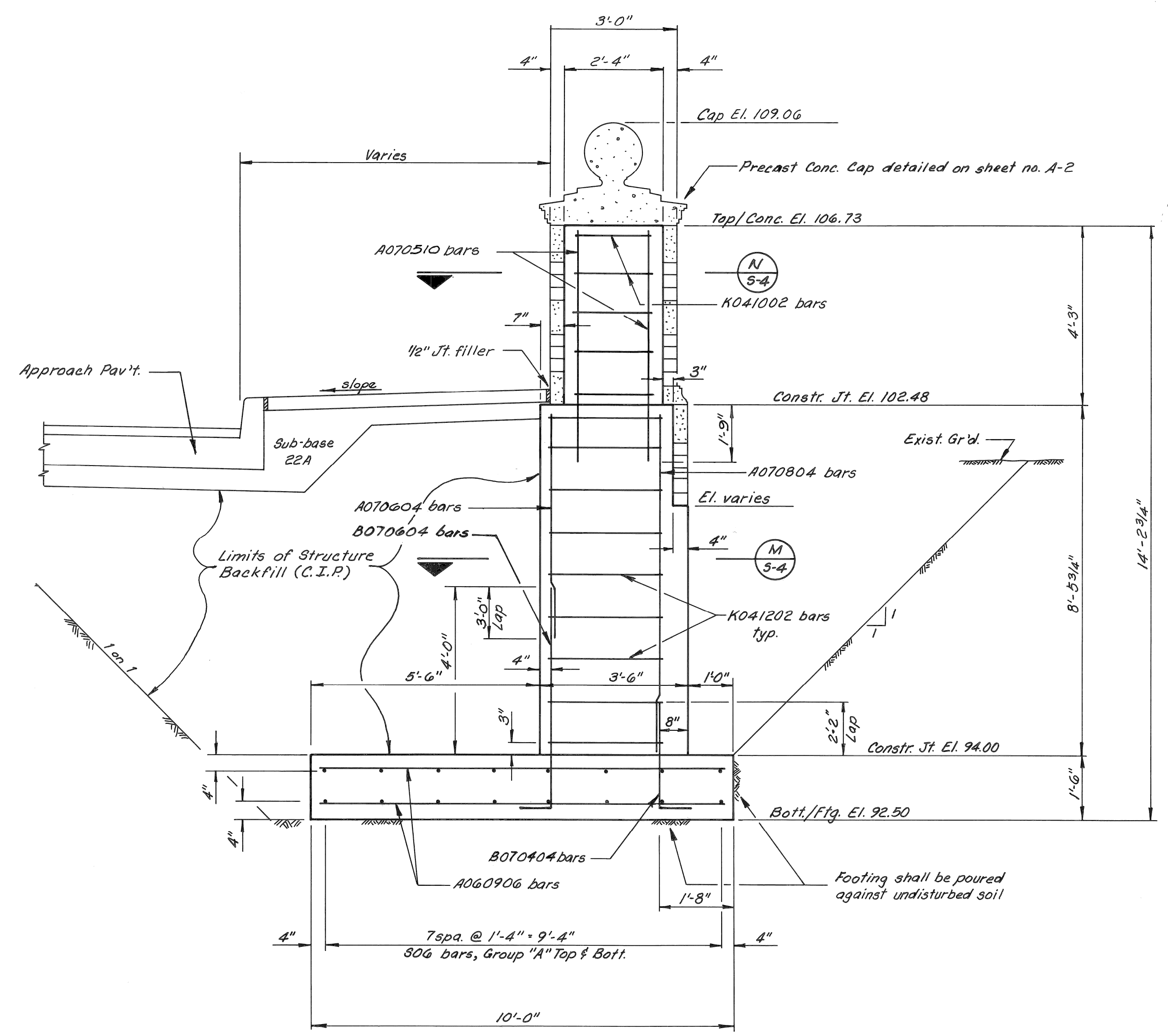
SHEET NO.
8-2

1/11/1988 OWNERS REVIEW

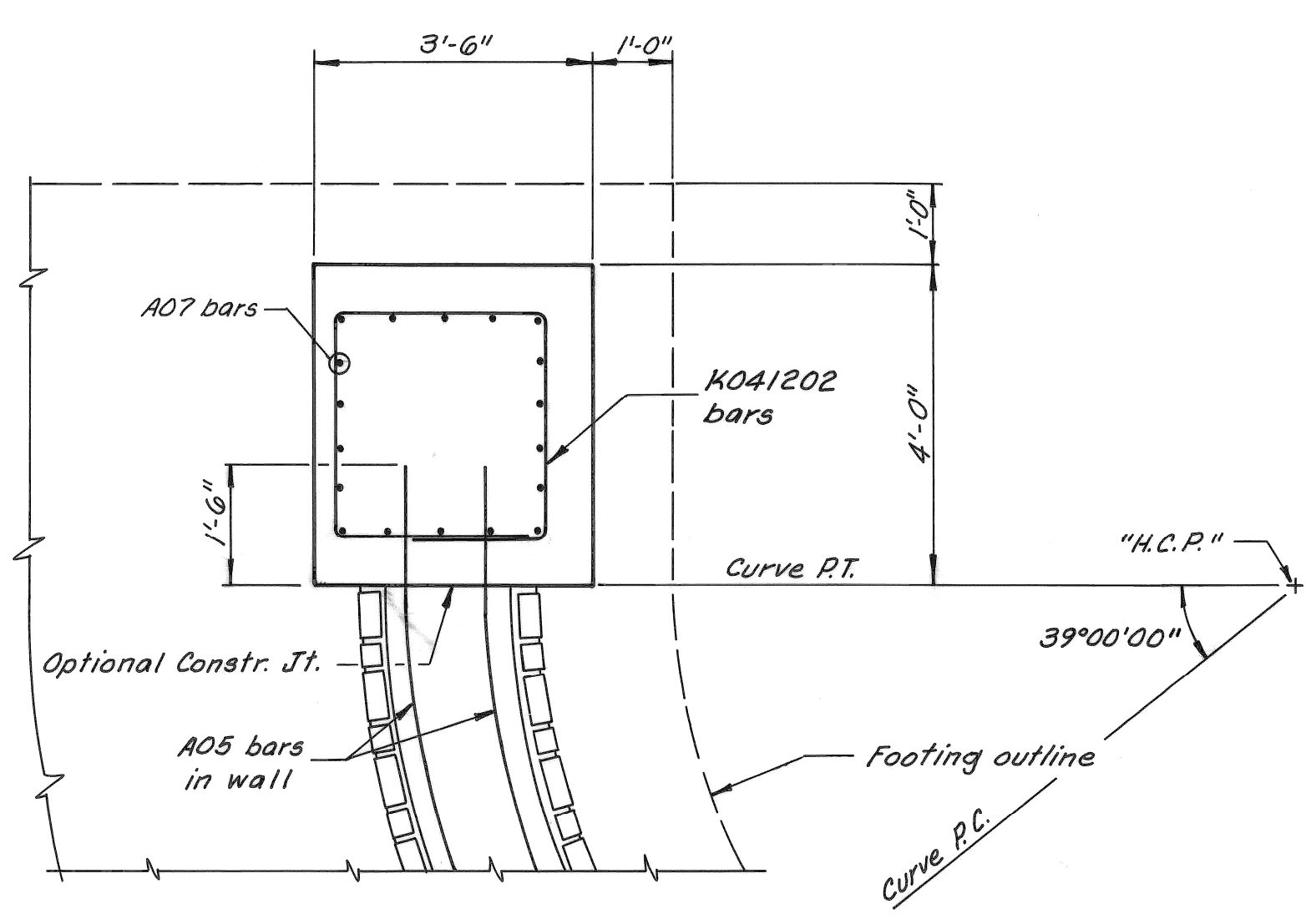
MADISON MADISON INTERNATIONAL OF MICHIGAN
Engineers, Architects, Planners
1420 Washington Blvd.
Detroit, Michigan 48226



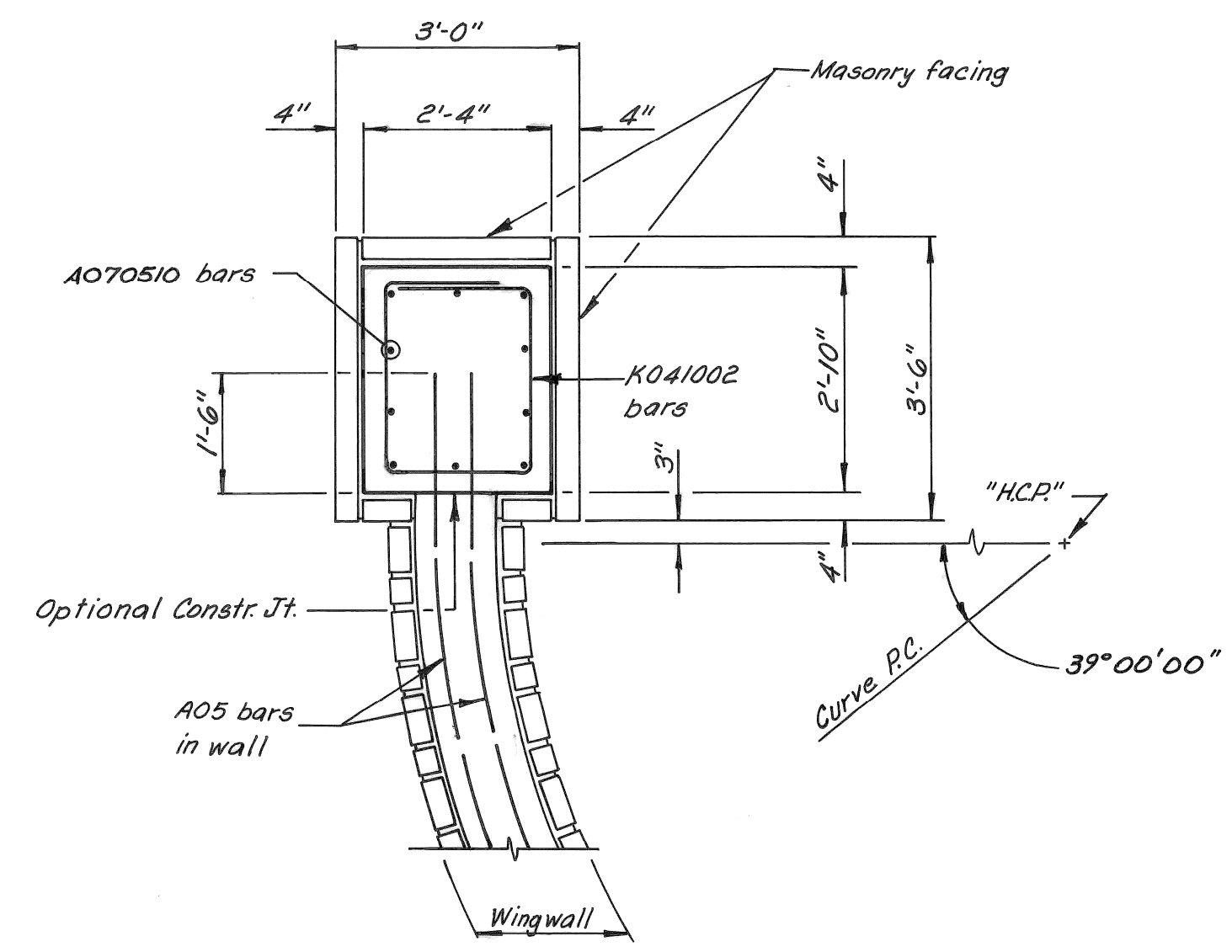
SECTION E
1/2"=1'-0" (5-5)



SECTION F
1/2"=1'-0" (5-5)

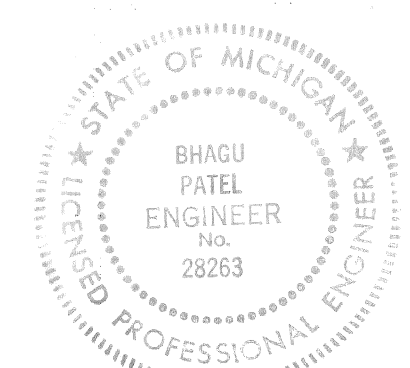


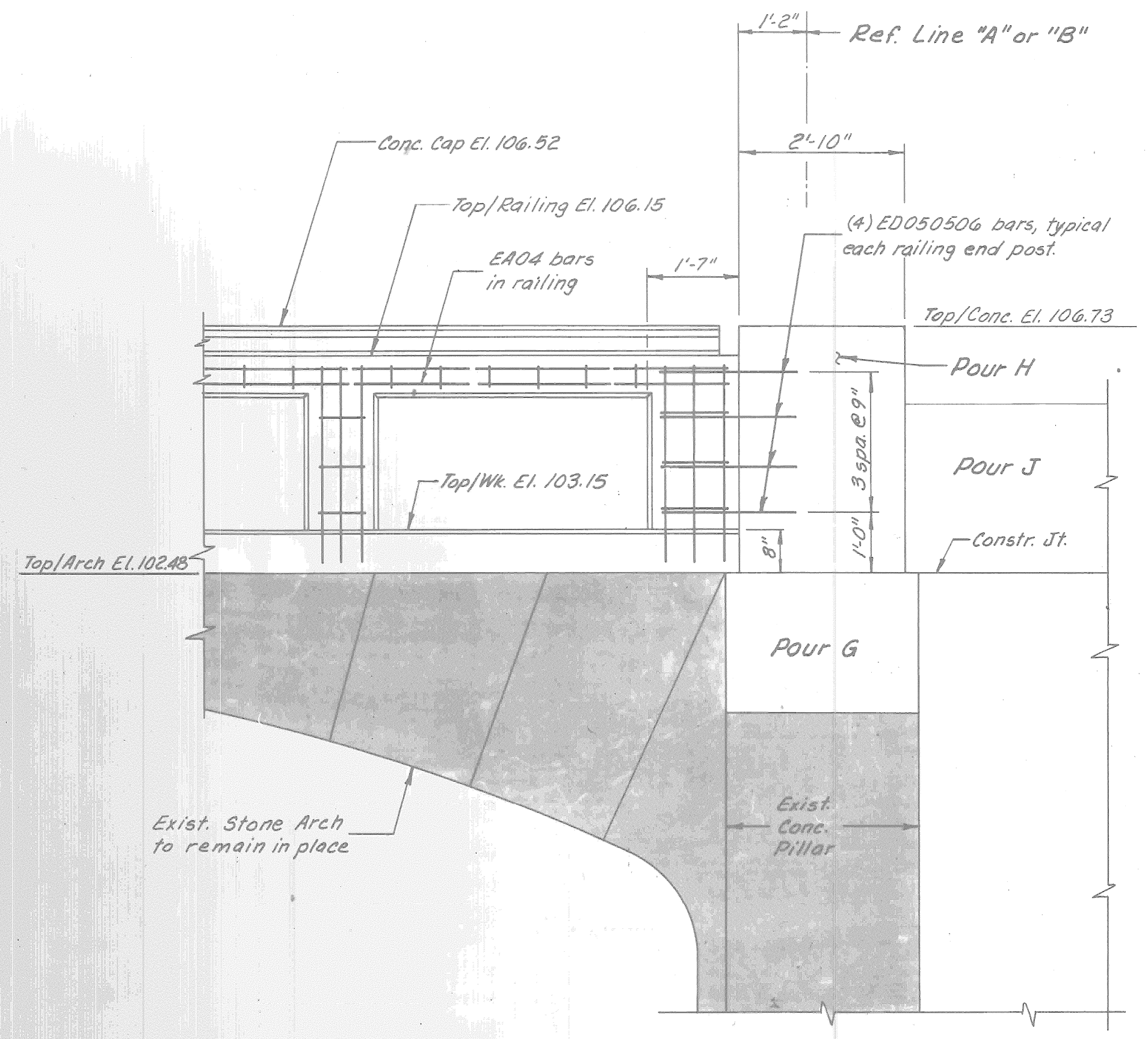
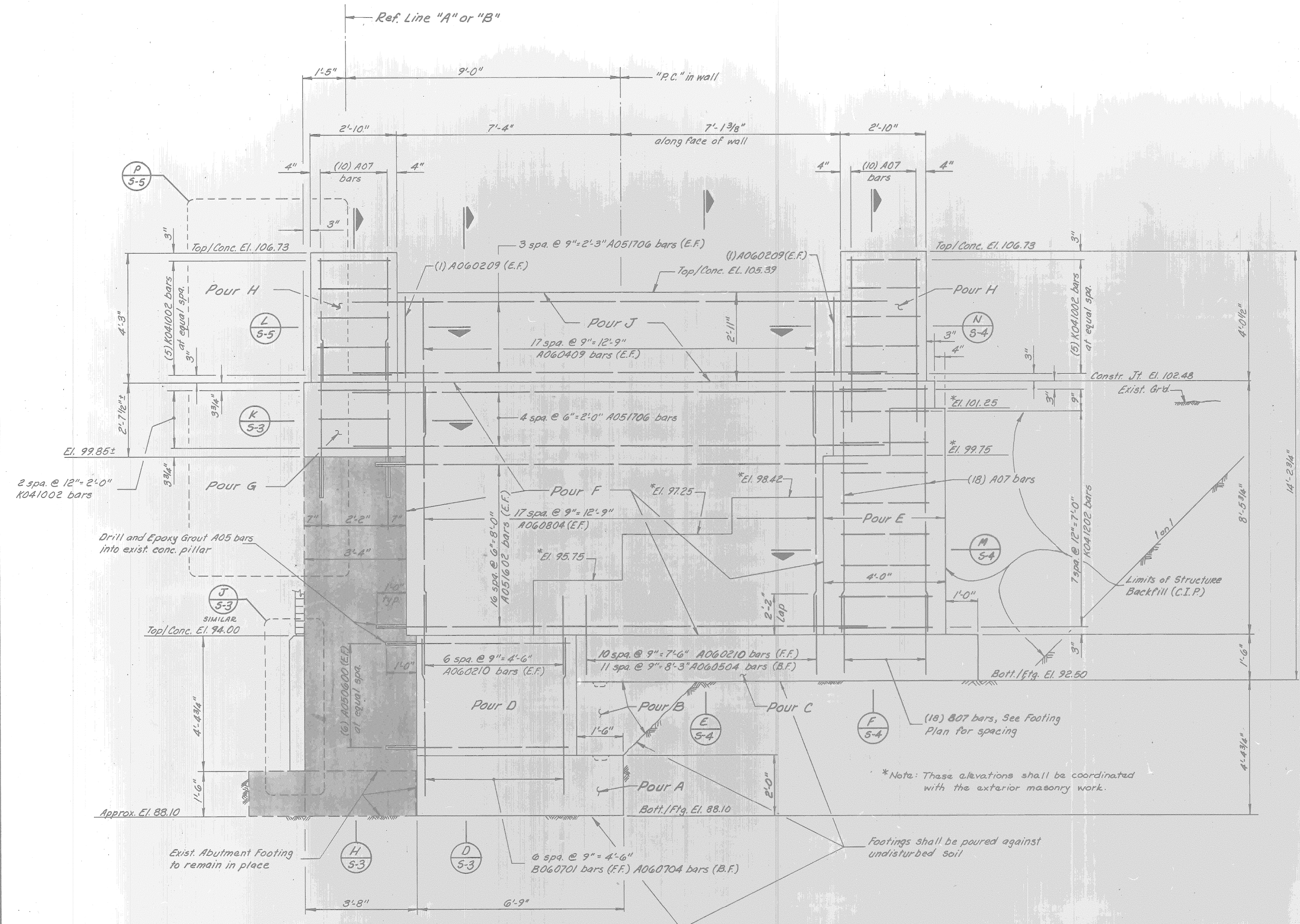
SECTION M
1/2"=1'-0" (5-4)



SECTION N
1/2"=1'-0" (5-4)

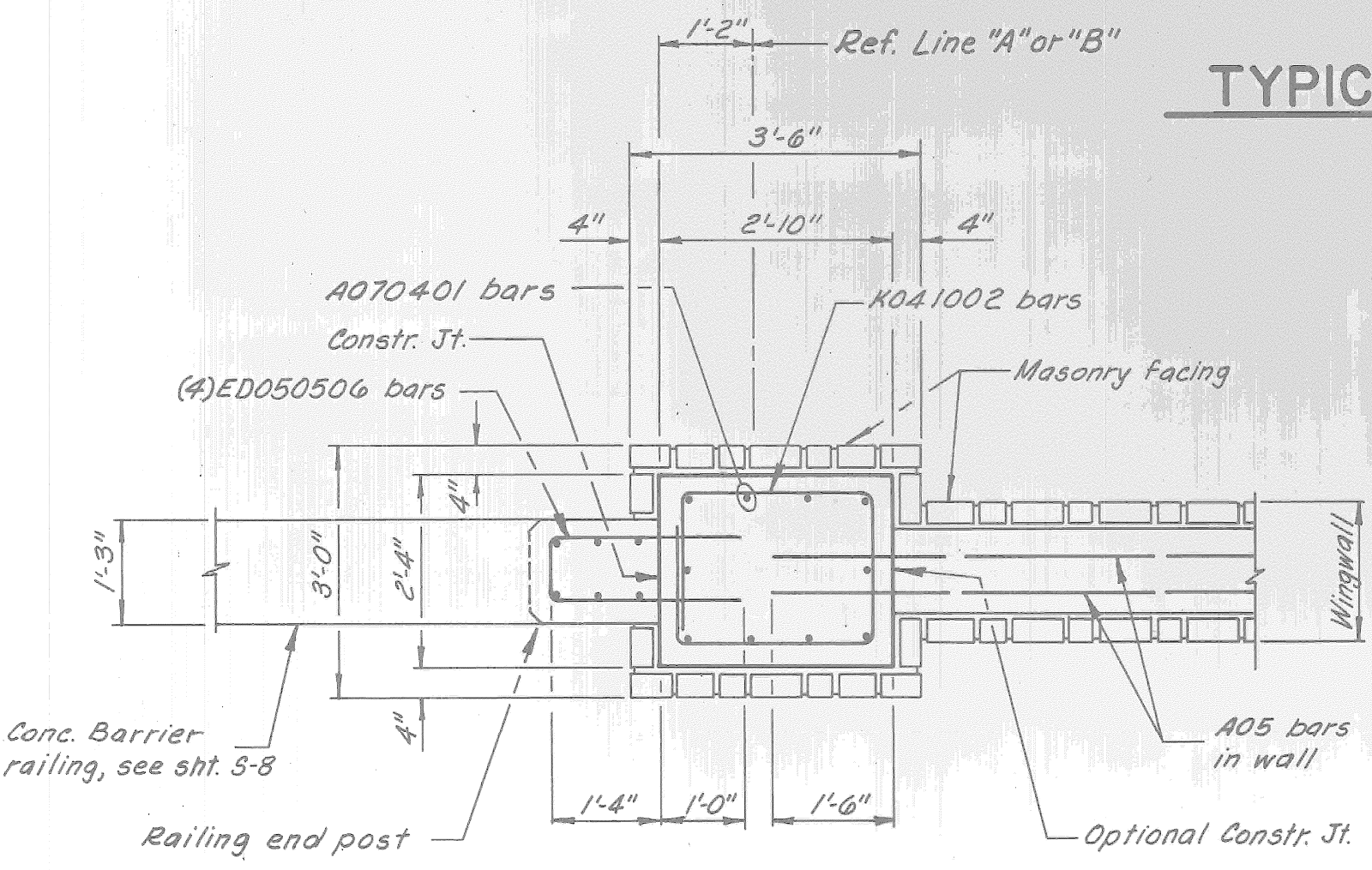
Sheet Title
WINGWALL DETAILS
CITY OF DETROIT
PICNIC WAY BRIDGE RECONSTRUCTION
Project
MADISON MADISON INTERNATIONAL OF MICHIGAN Engineers, Architects, Planners 1420 Washington Blvd. Detroit, Michigan 48226
DESIGN BY K.C.H./S.O.
DRAWN BY K.C.H./L.S./E.M.
CHECKED BY S.O.
DATE
PROJECT NO. 8605
SHEET NO. 5-4



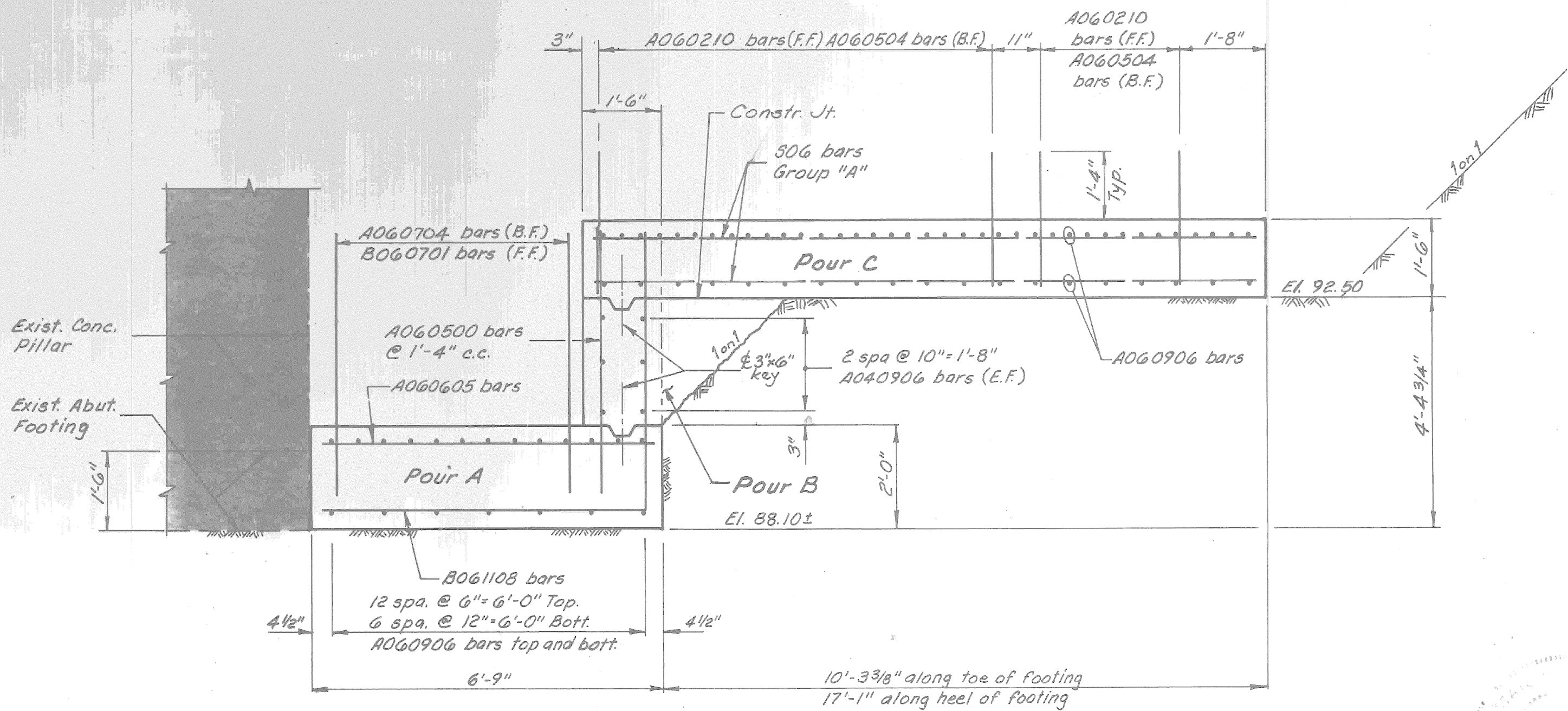


DETAIL P
1/2"=1'-0" 5-5

TYPICAL WINGWALL ELEVATION
1/2"=1'-0"

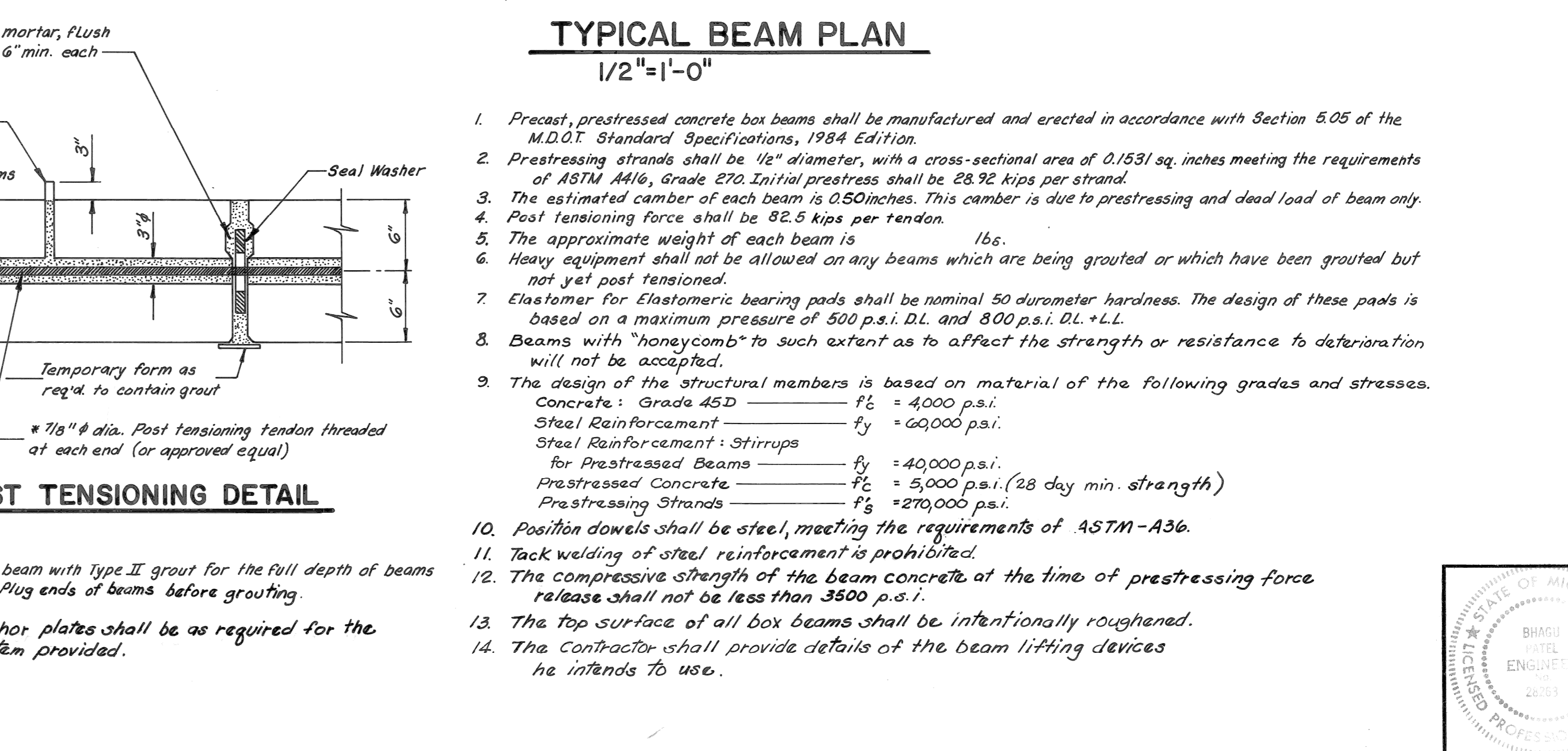
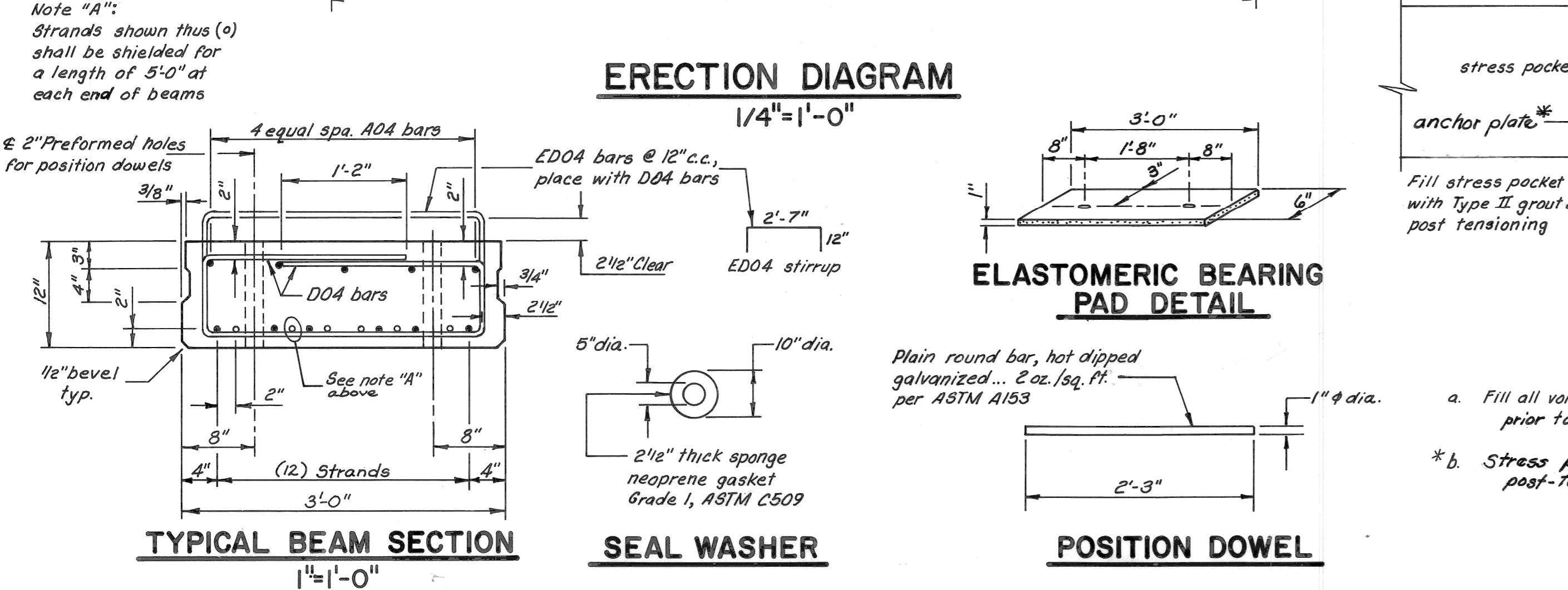
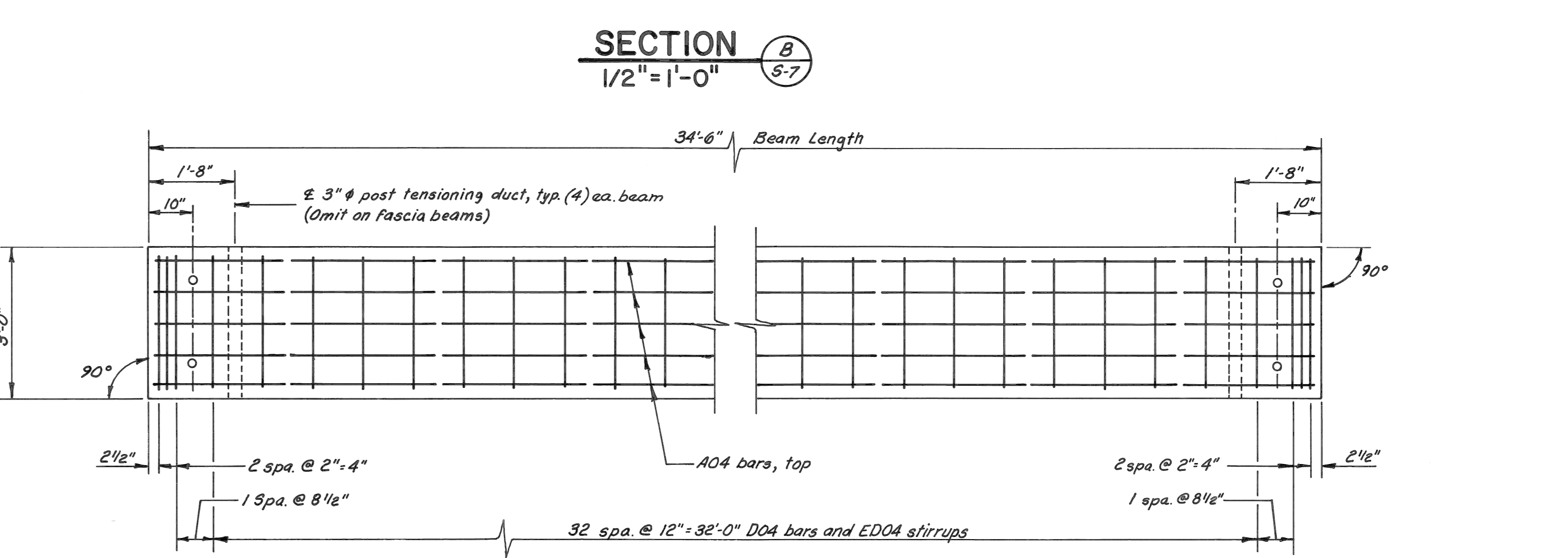
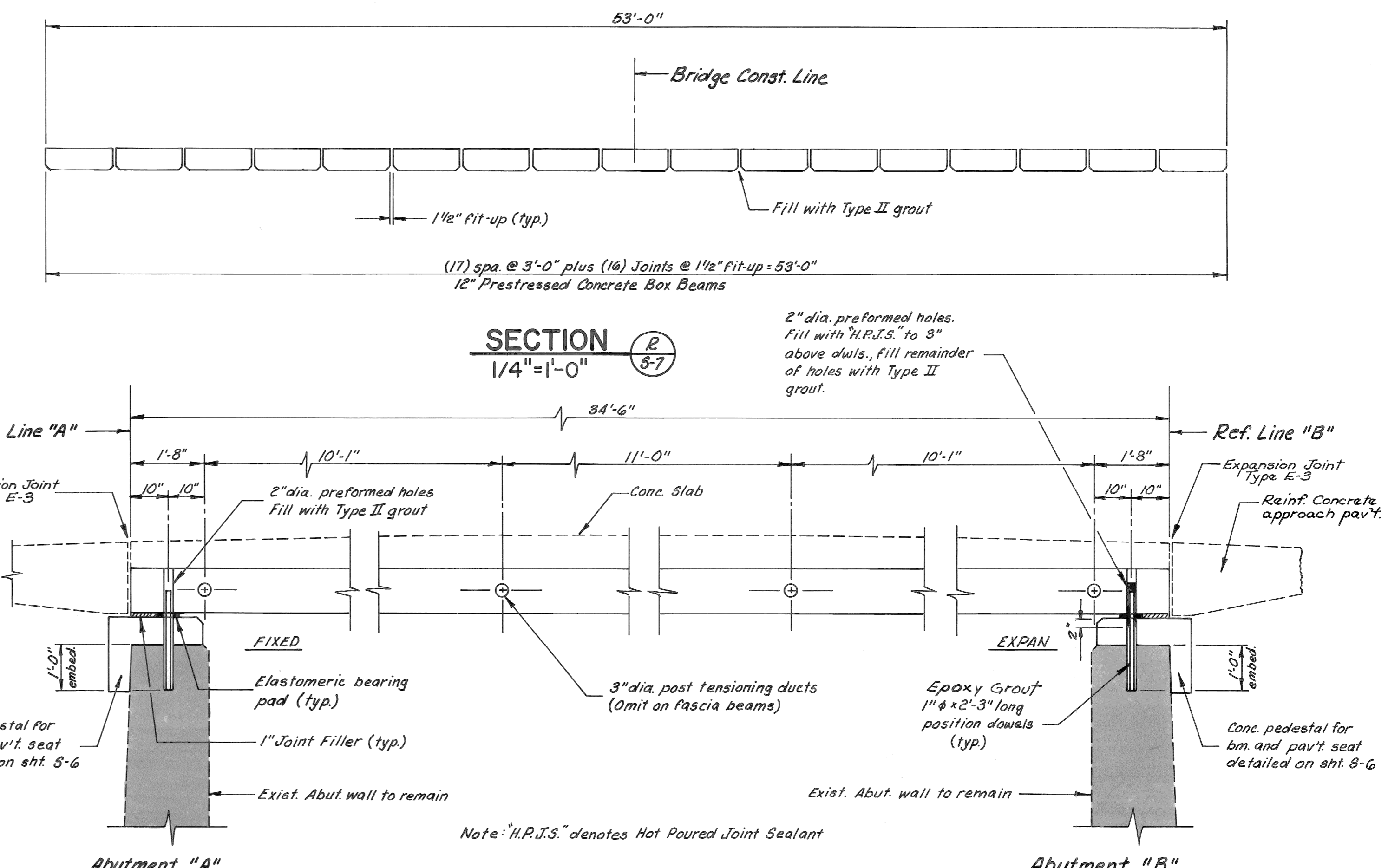
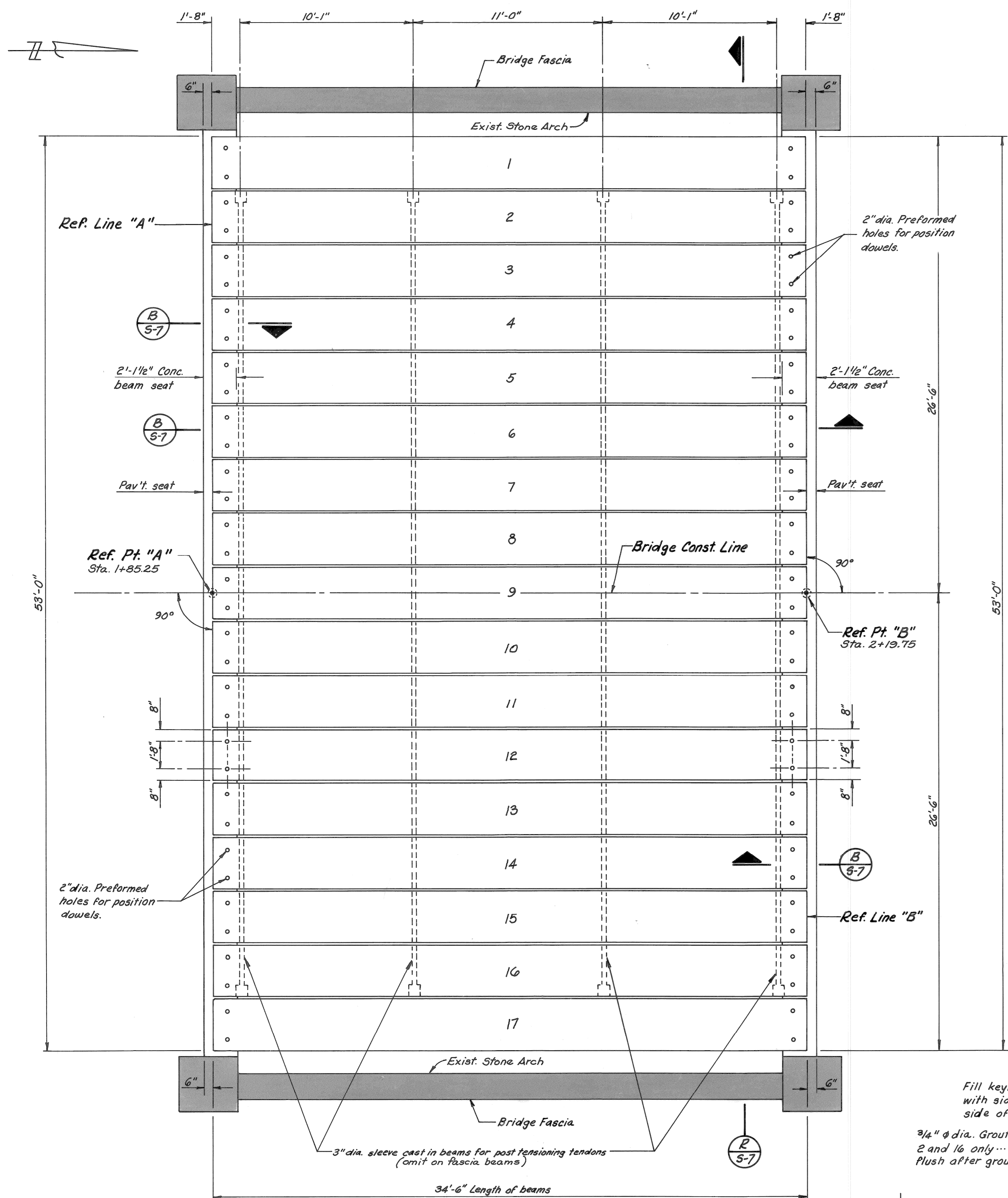


SECTION L
1/2"=1'-0" 5-5



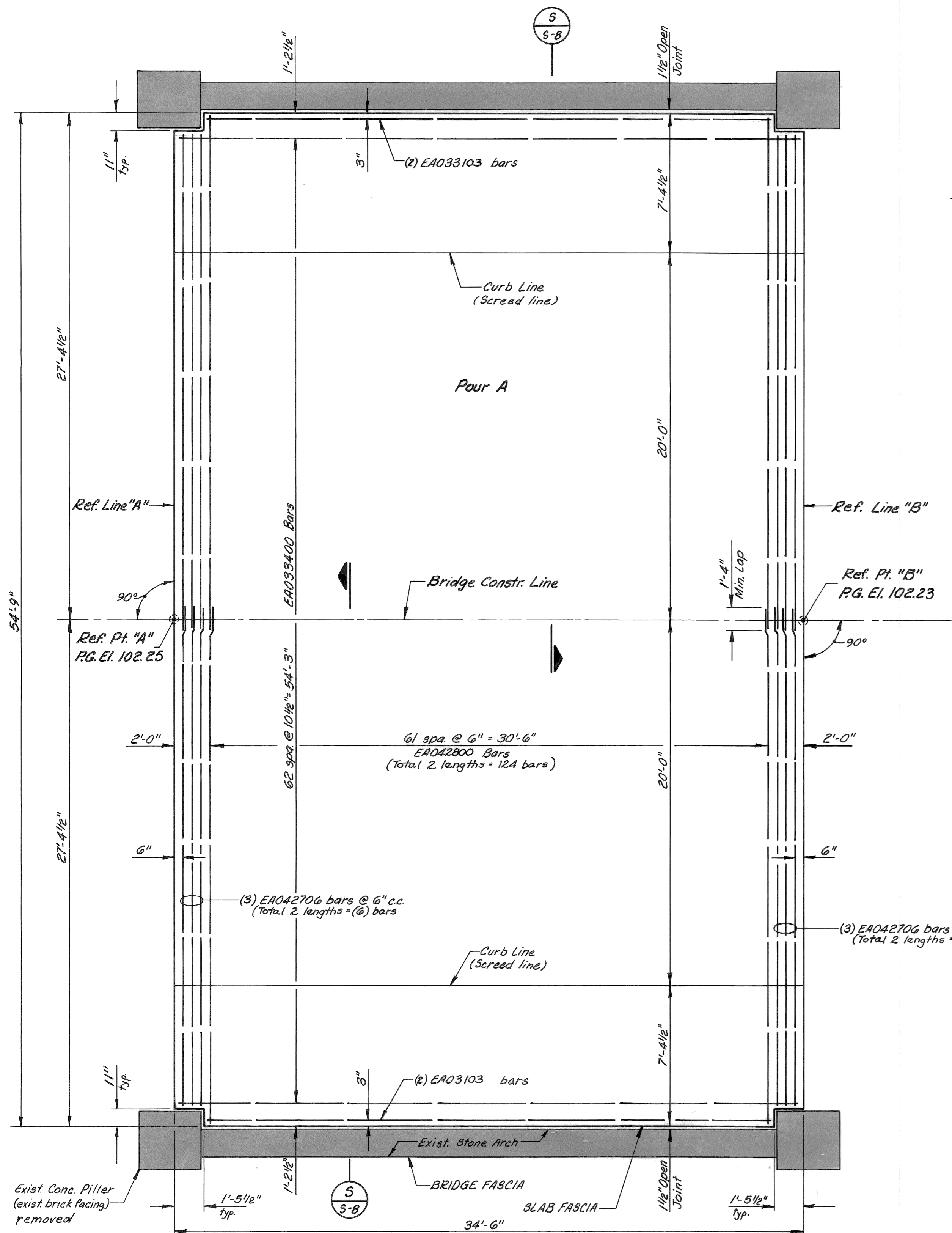
SECTION G
1/2"=1'-0" 5-2

Sheet Title: **WINGWALL DETAILS**
 Project: **CITY OF DETROIT PICNIC WAY BRIDGE RECONSTRUCTION**
 Designer: **MADISON MADISON INTERNATIONAL OF MICHIGAN**
 Engineers, Architects, Planners
 1420 Washington Blvd.
 Detroit, Michigan 48226
 Design By: **K.C.H./S.O.**
 Drawn By: **K.C.H./L.S./R.M.**
 Checked By: **S.O.**
 Date: _____
 Project: **8605**
 Sheet No: **5-5**

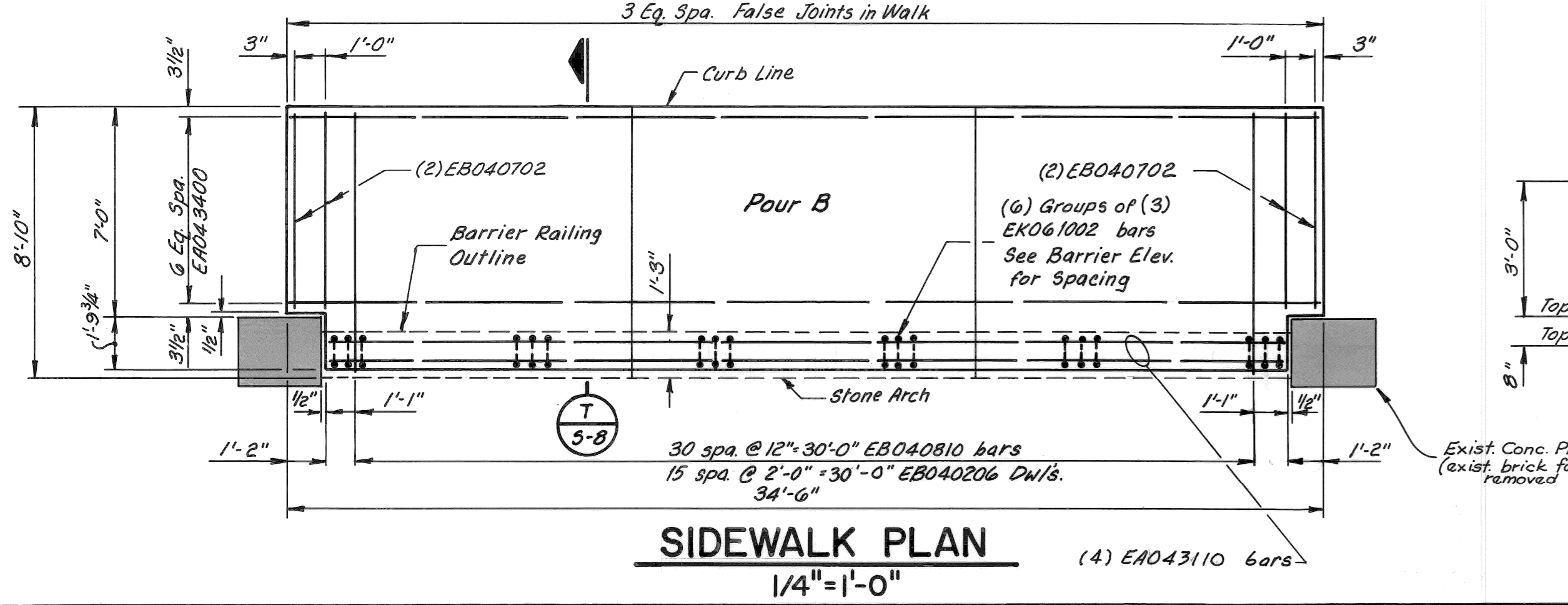


- Precast, prestressed concrete box beams shall be manufactured and erected in accordance with Section 5.05 of the M.D.O.T. Standard Specifications, 1984 Edition.
- Prestressing strands shall be 1/2" diameter, with a cross-sectional area of 0.1531 sq. inches meeting the requirements of ASTM A416, Grade 270. Initial prestress shall be 28.92 kips per strand.
- The estimated camber of each beam is 0.50 inches. This camber is due to prestressing and dead load of beam only.
- Post tensioning force shall be 82.5 kips per tendon.
- The approximate weight of each beam is 165 lbs.
- Heavy equipment shall not be allowed on any beams which are being grouted or which have been grouted but not yet post tensioned.
- Elastomer for Elastomeric bearing pads shall be nominal 50 durometer hardness. The design of these pads is based on a maximum pressure of 500 p.s.i. D.L. and 800 p.s.i. D.L. + L.L.
- Beams with "honeycomb" to such extent as to affect the strength or resistance to deterioration will not be accepted.
- The design of the structural members is based on material of the following grades and stresses.
 Concrete: Grade 45D $f'_c = 4,000$ p.s.i.
 Steel Reinforcement $f_y = 60,000$ p.s.i.
 Steel Reinforcement: Stirrups $f_y = 40,000$ p.s.i.
 Prestressed Concrete $f'_c = 5,000$ p.s.i. (28 day min. strength)
 Prestressing Strands $f'_s = 270,000$ p.s.i.
- Position dowels shall be steel, meeting the requirements of ASTM-A36.
- Tack welding of steel reinforcement is prohibited.
- The compressive strength of the beam concrete at the time of prestressing force release shall not be less than 3500 p.s.i.
- The top surface of all box beams shall be intentionally roughened.
- The contractor shall provide details of the beam lifting devices he intends to use.

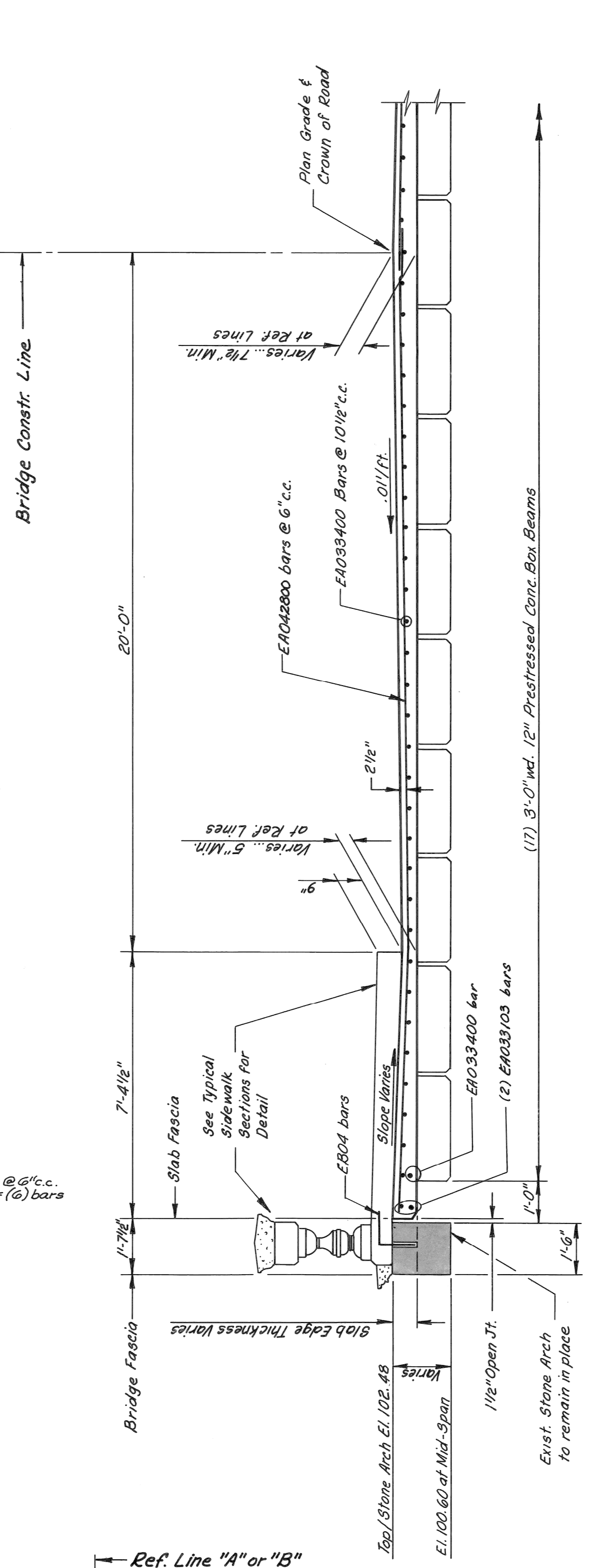
SHEET TITLE: SUPERSTRUCTURE DETAILS
 PROJECT: CITY OF DETROIT, PICNIC WAY BRIDGE RECONSTRUCTION
 DESIGN BY: K.C.H./S.O.
 DRAWN BY: K.C.H./L.S.
 CHECKED BY: S.O.
 DATE: 8-6-05
 PROJECT NO.: 8605
 SHEET NO.: 5-7
 MADISON MADISON INTERNATIONAL OF MICHIGAN
 Engineers, Architects, Planners
 1420 Washington Blvd.
 Detroit, Michigan 48226



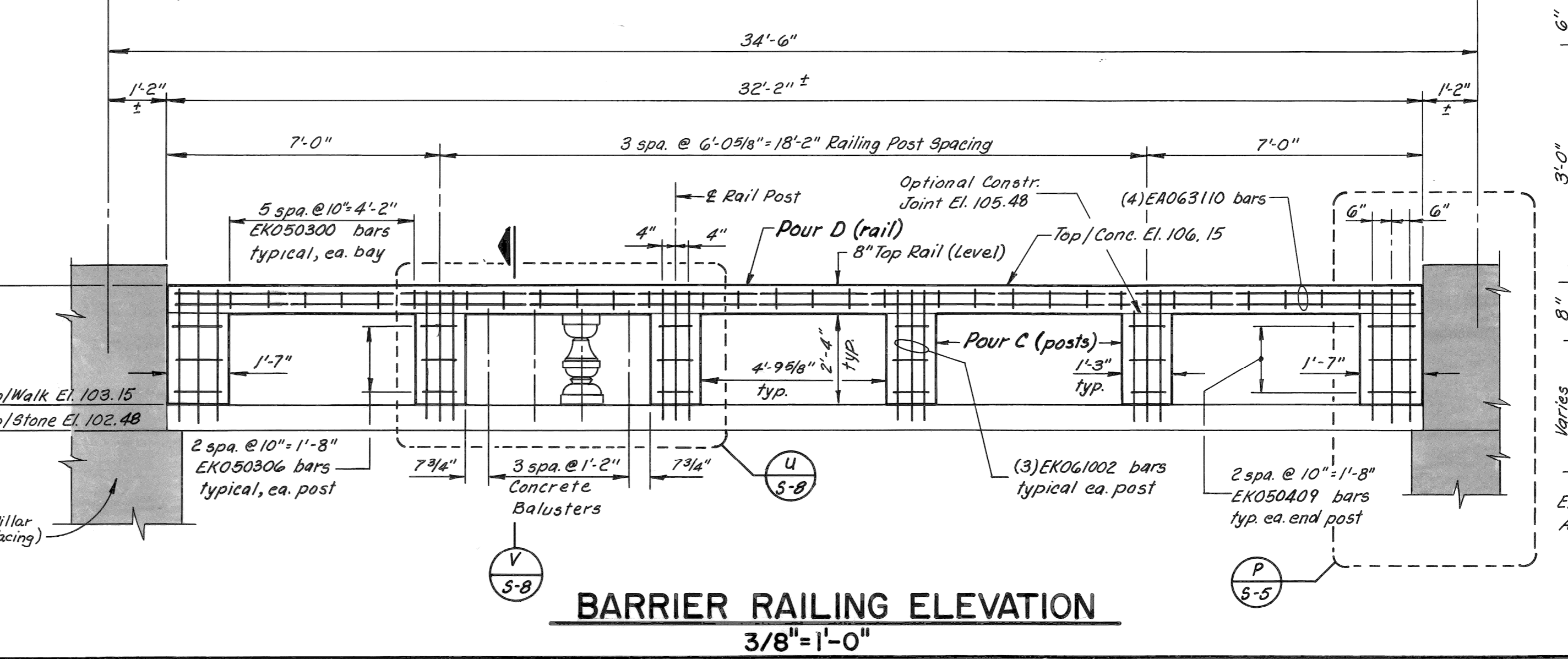
PLAN OF SLAB
1/4"=1'-0"



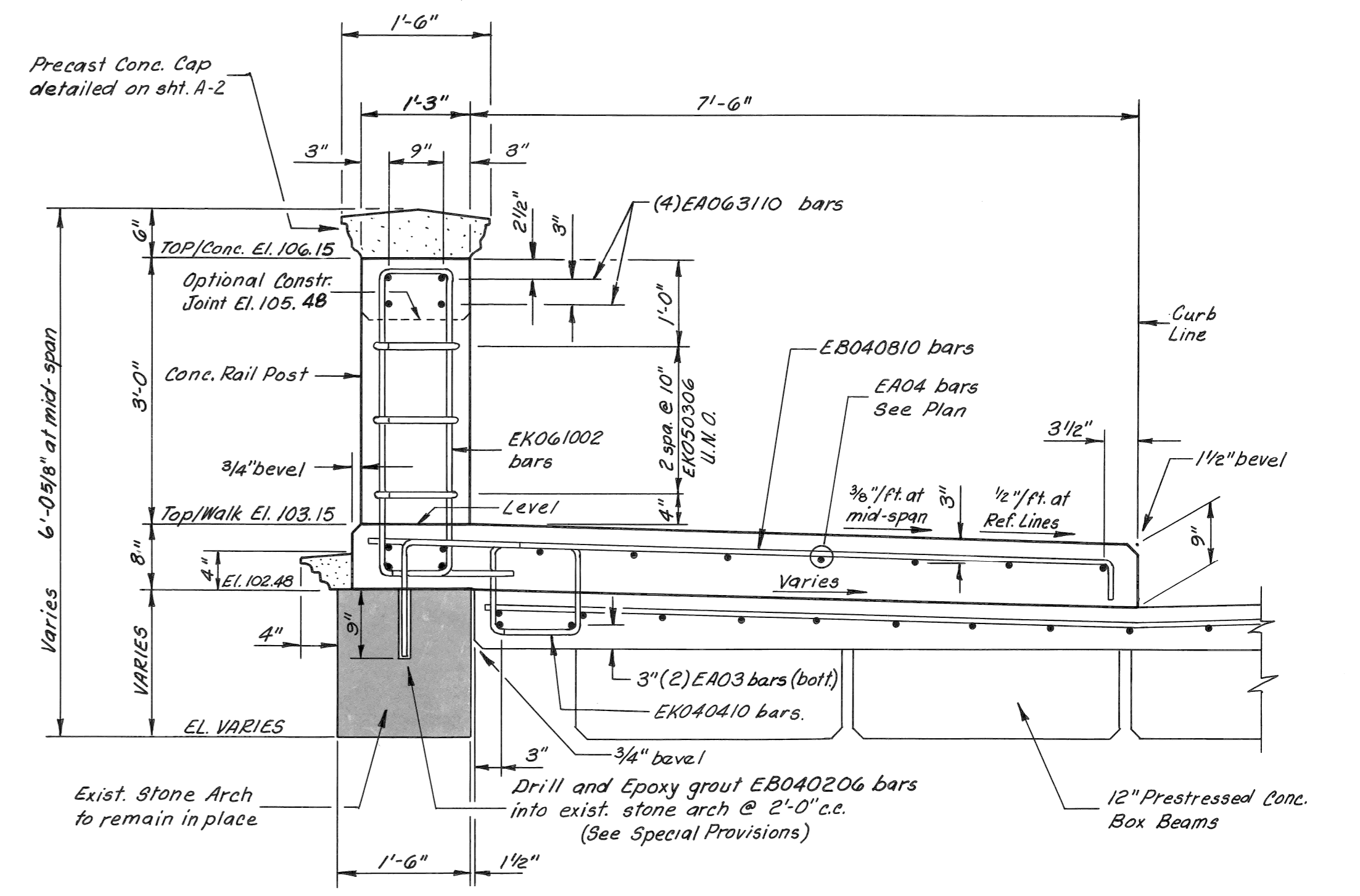
SIDEWALK PLAN
1/4"=1'-0"



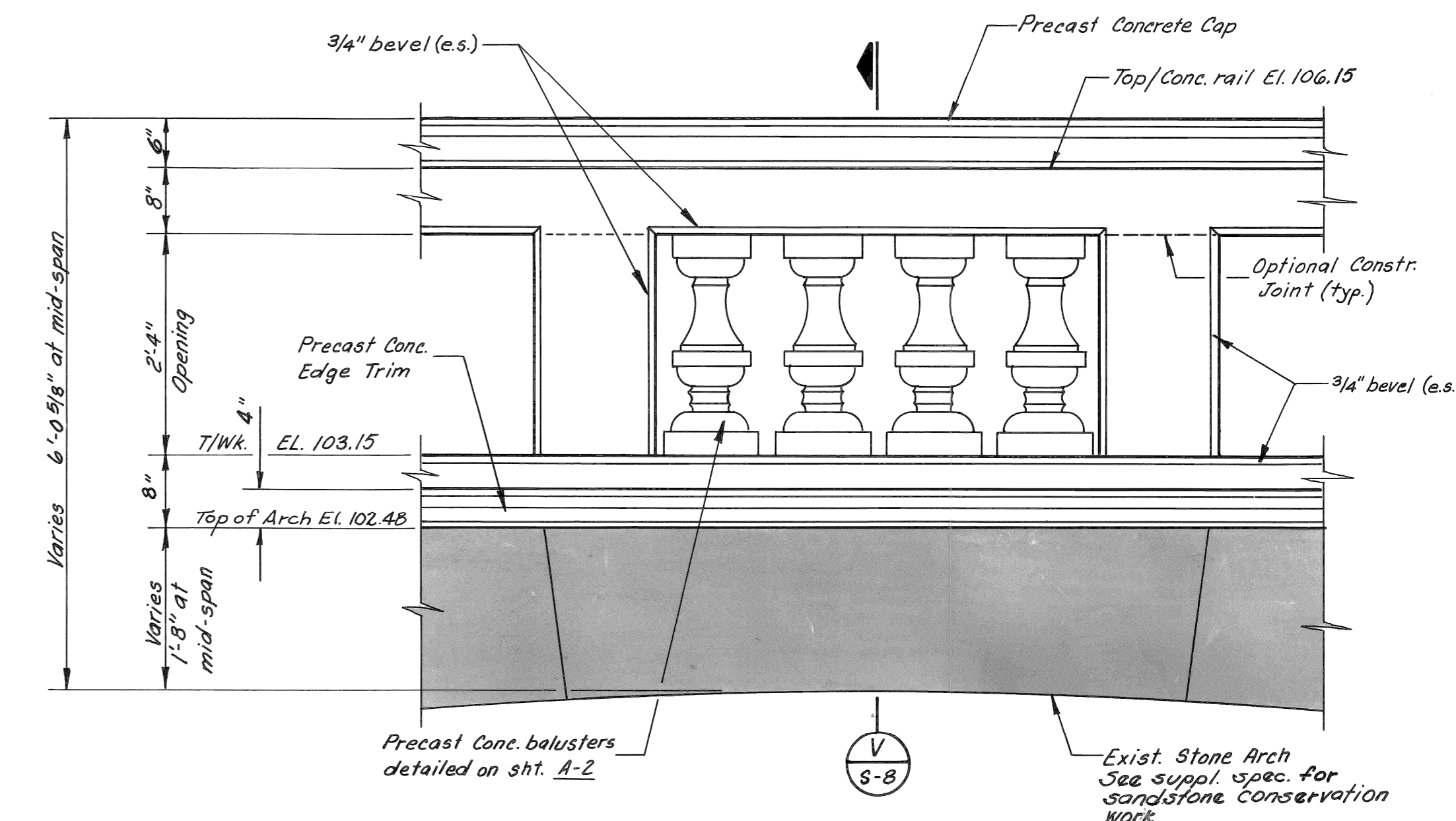
TYPICAL DECK HALF-SECTION
3/8"=1'-0"



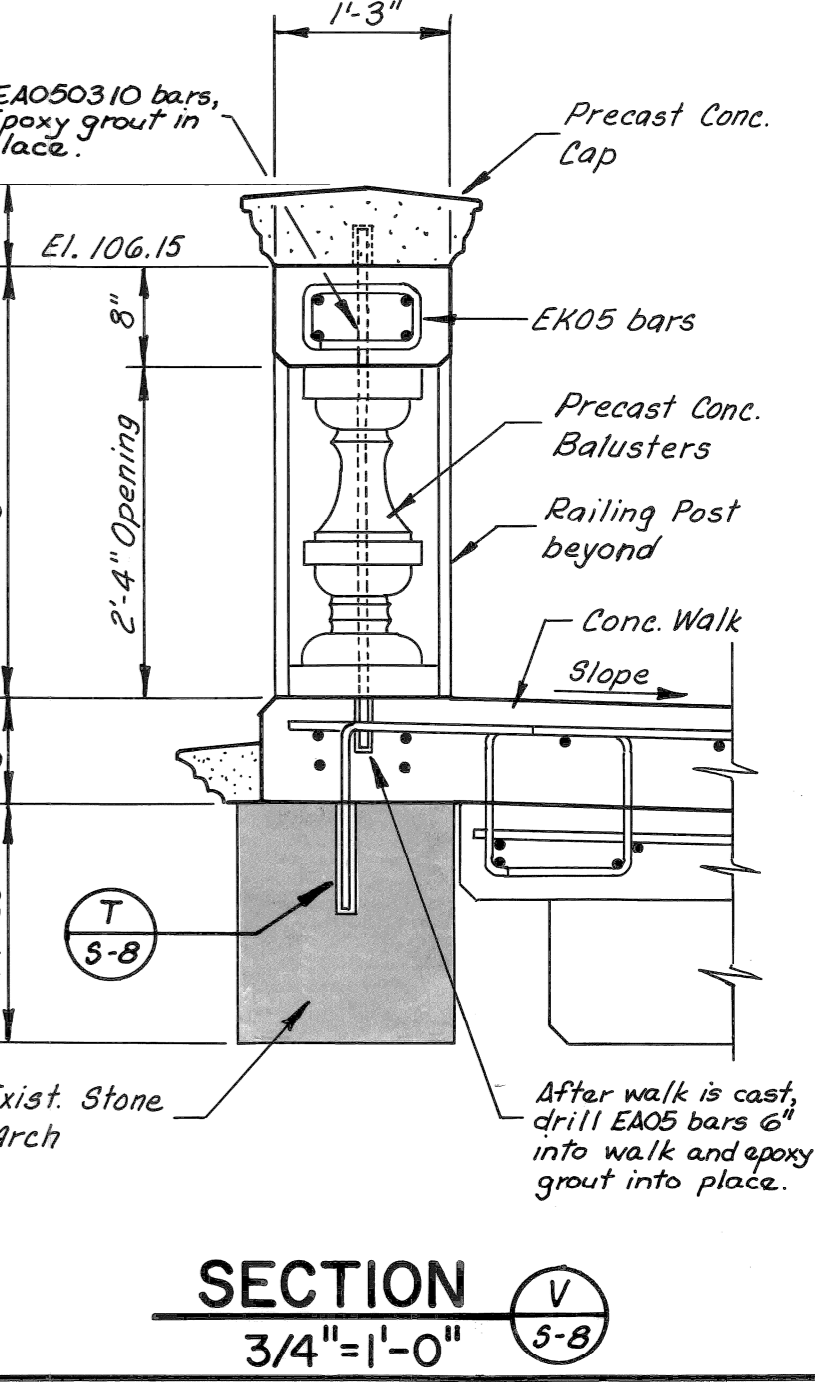
BARRIER RAILING ELEVATION
3/8"=1'-0"



TYPICAL SIDEWALK SECTION
3/4"=1'-0"



DETAIL
3/4"=1'-0"



SECTION
3/4"=1'-0"

Sheet Title

SUPERSTRUCTURE DETAILS

CITY OF DETROIT

PICNIC WAY BRIDGE RECONSTRUCTION

Project: CITY OF DETROIT, STATE OF MICHIGAN

Professional Engineer: B. J. PATEL, No. 38283

Design: MADISON INTERNATIONAL OF MICHIGAN, Engineers, Architects, Planners, 1420 Washington Blvd., Detroit, Michigan 48226

DESIGN BY: K.C.H.

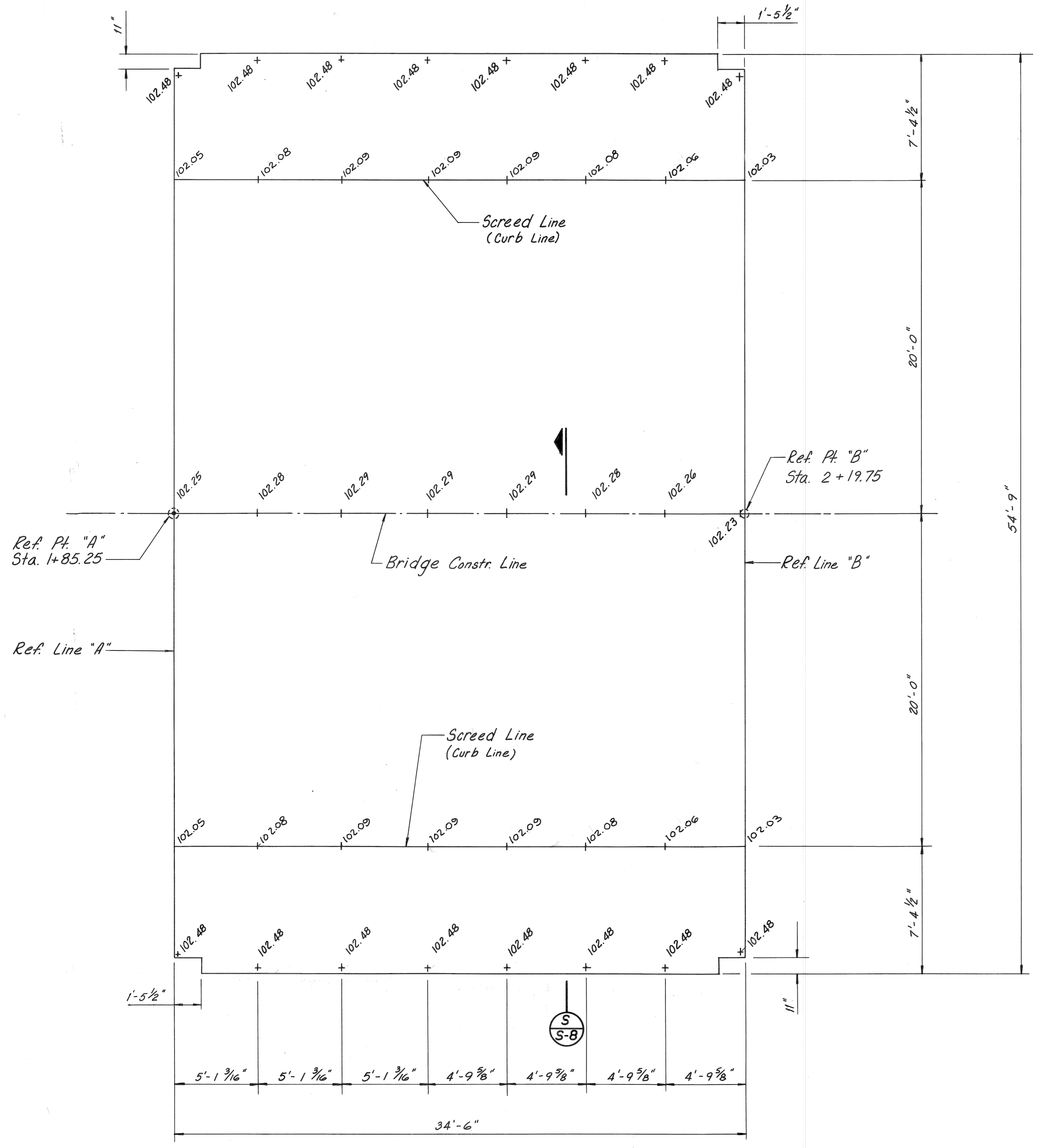
DRAWN BY: K.C.H./L.S.

CHECKED BY: S.O.

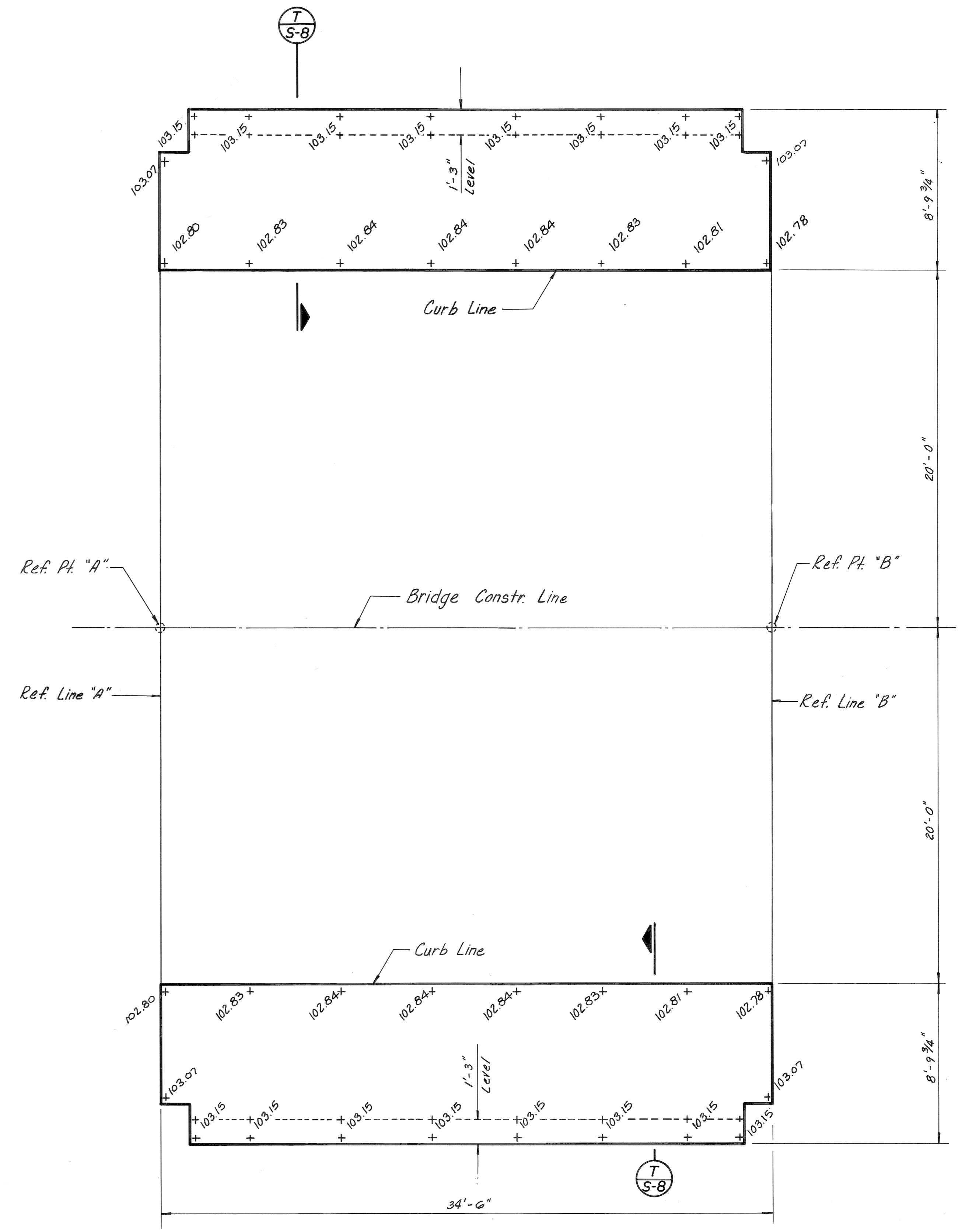
DATE:

PROJECT NO.: 8605

SHEET NO.: S-8



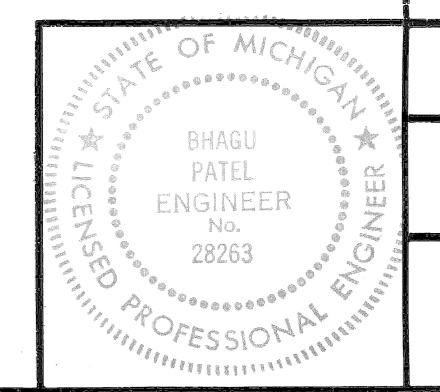
SLAB AND SCREED DETAILS
1/4" = 1'-0"



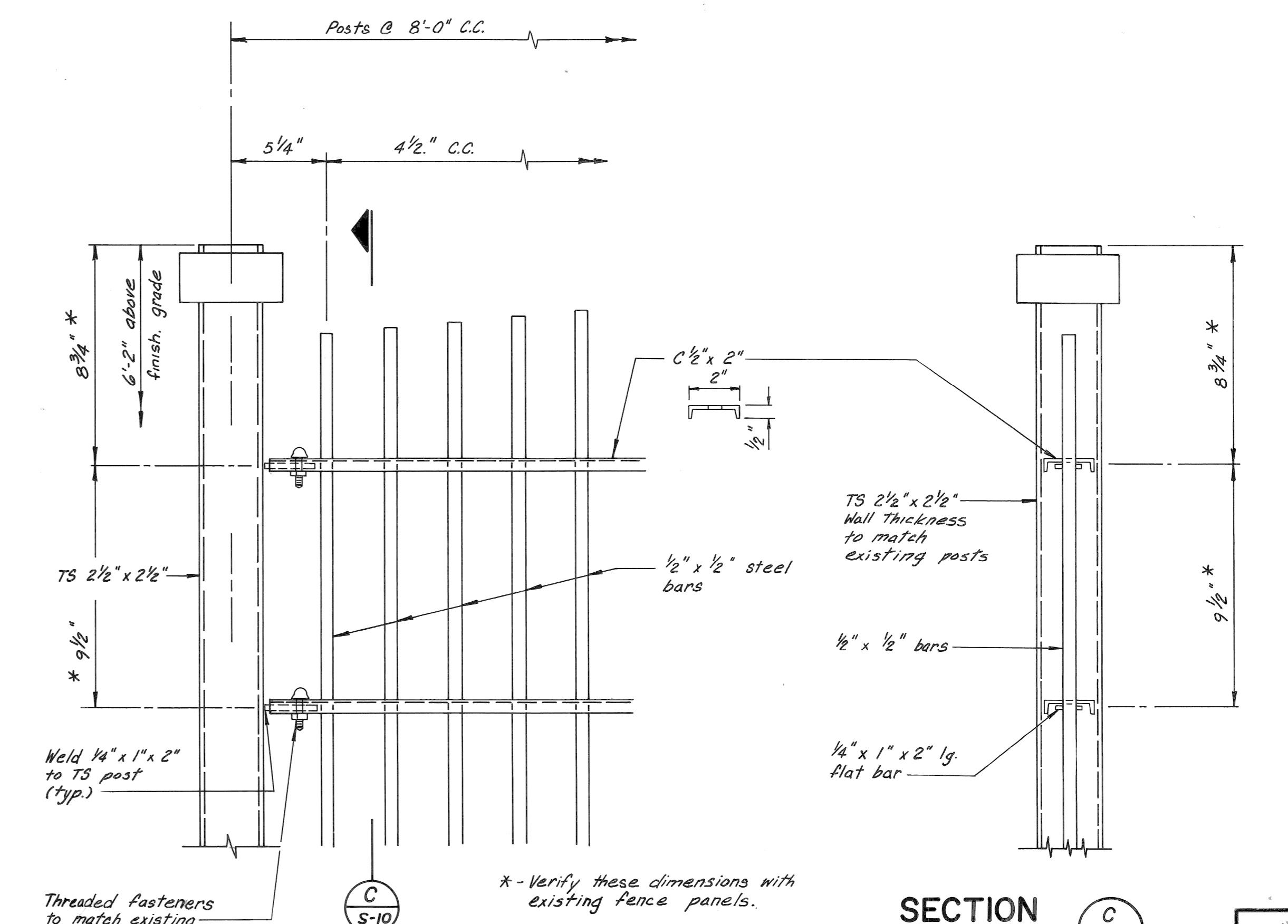
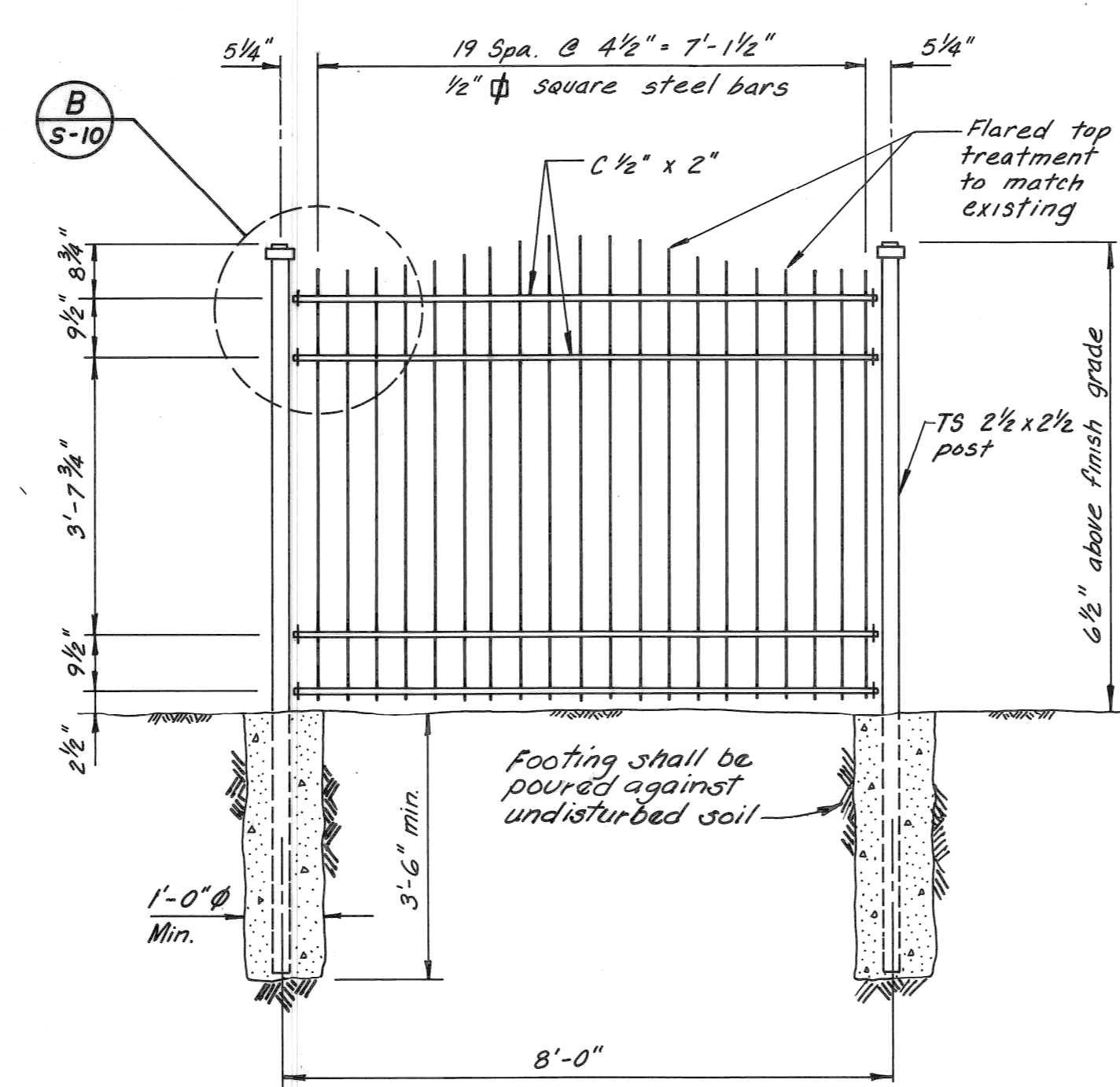
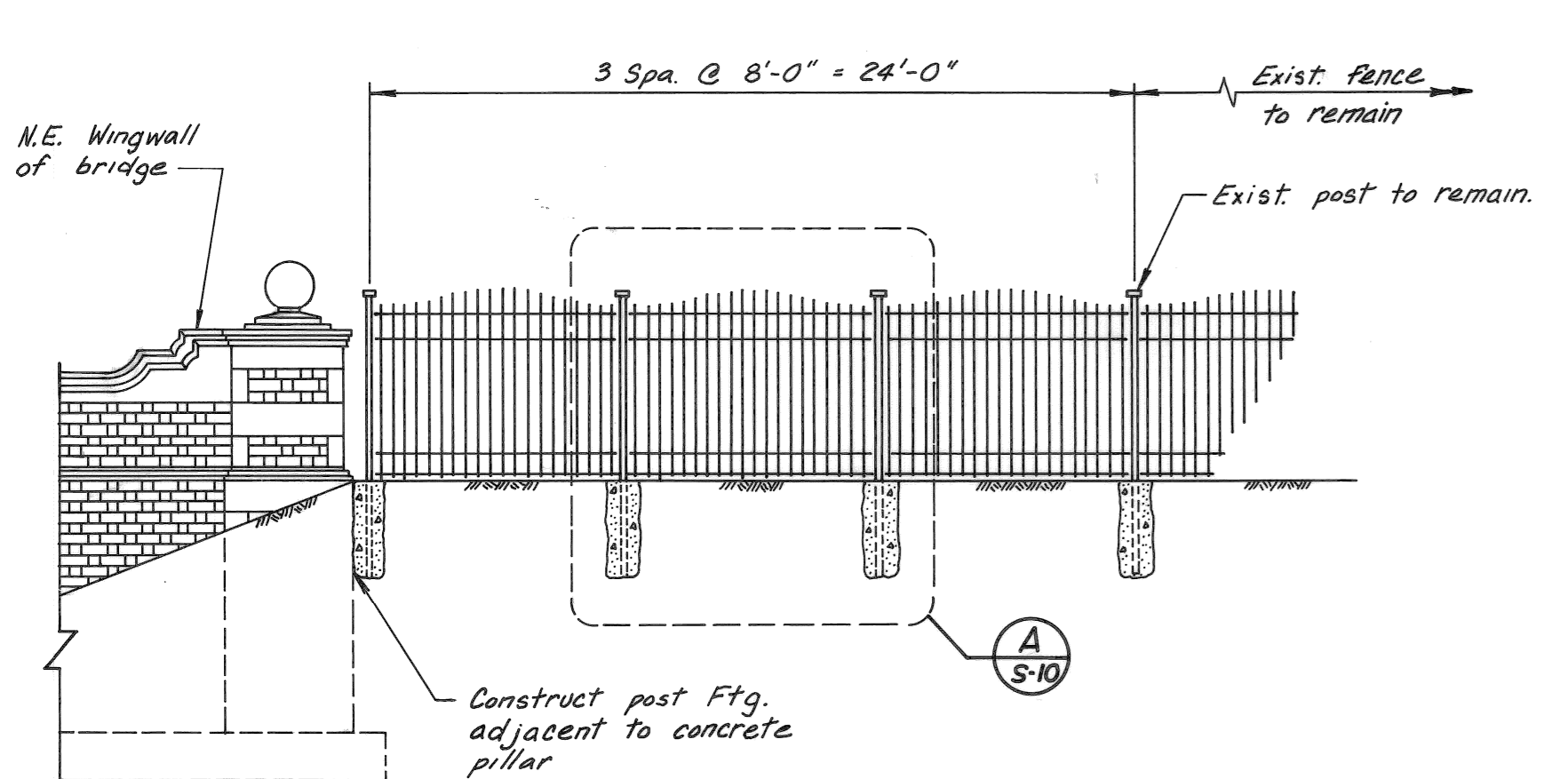
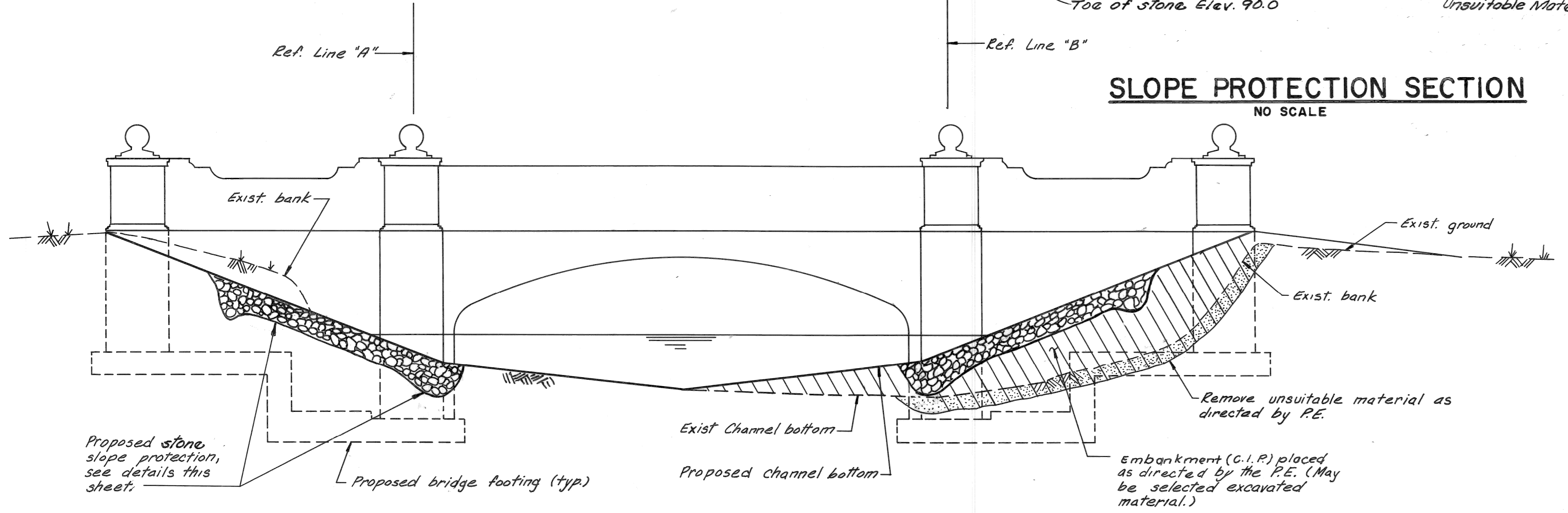
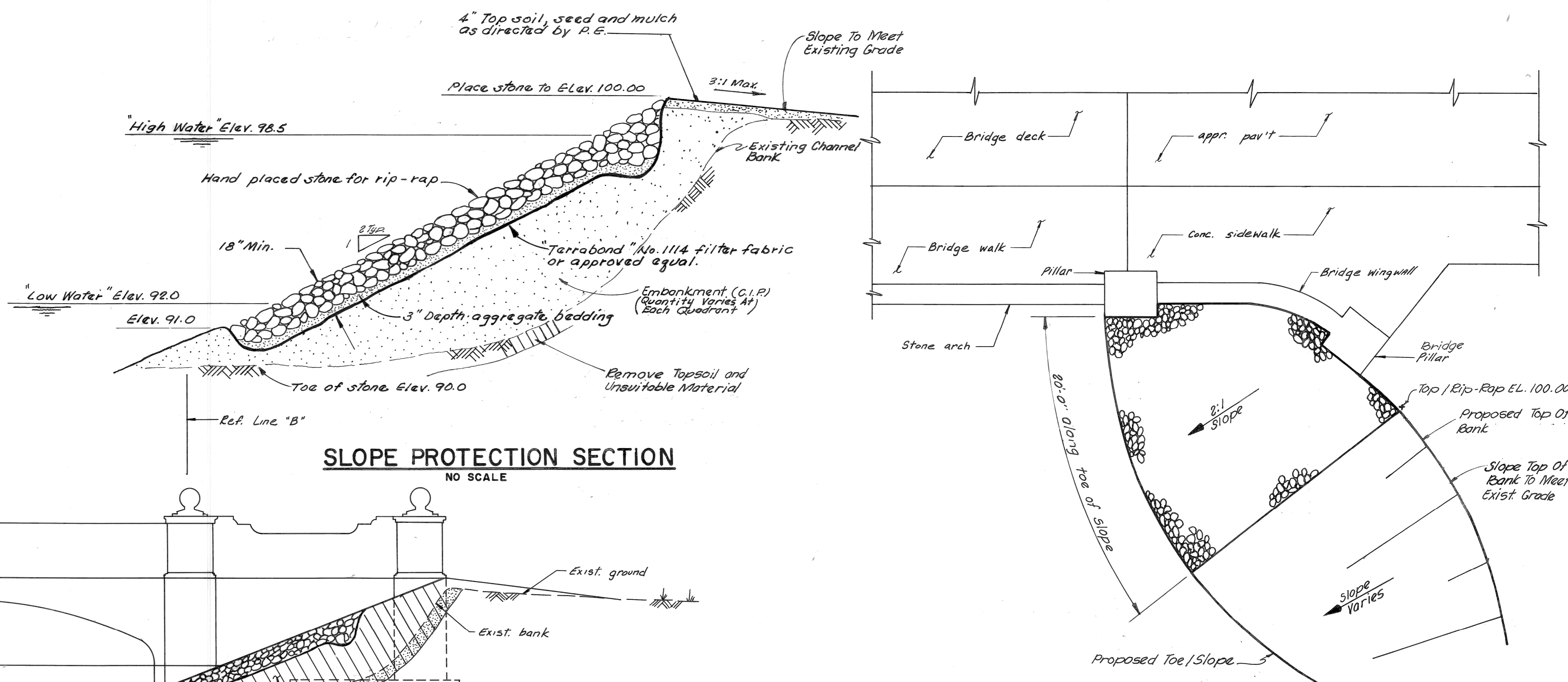
SIDEWALK ELEVATIONS
1/4" = 1'-0"

NOTES:

1. For slab and sidewalk steel reinforcement details, see sheet S-8.
2. The bridge construction line is along a vertical curve. For profile data, see sheet R-5.
3. All elevations are based on City of Detroit datum.
4. Sidewalk pours shall not be cast until the slab concrete has attained at least 75% of its design strength as determined by Table 7.01-4 of the standard specifications.



Sheet Title	SLAB AND SCREED DETAILS AND SIDE-WALK ELEVATIONS
Project	CITY OF DETROIT PICNIC WAY BRIDGE RECONSTRUCTION
Design Firm	MADISON MADISON INTERNATIONAL OF MICHIGAN Engineers, Architects, Planners 1420 Washington Blvd. Detroit, Michigan 48226
DESIGN BY	KCH
DRAWN BY	K.M.
CHECKED BY	SO
DATE	
PROJECT NO.	8609
SHEET NO.	S-9



NOTE:
Contractor shall submit shop drawings to the engineer for approval, prior to fabrication of fence.

STEEL FENCE DETAILS

Sheet Title	MISCELLANEOUS DETAILS
Project	CITY OF DETROIT PICNIC WAY BRIDGE RECONSTRUCTION
DESIGN BY	K. C. H.
DRAWN BY	K.C.H. / K.M.
CHECKED BY	S.O.
DATE	
PROJECT NO.	8605
SHEET NO.	S-10

