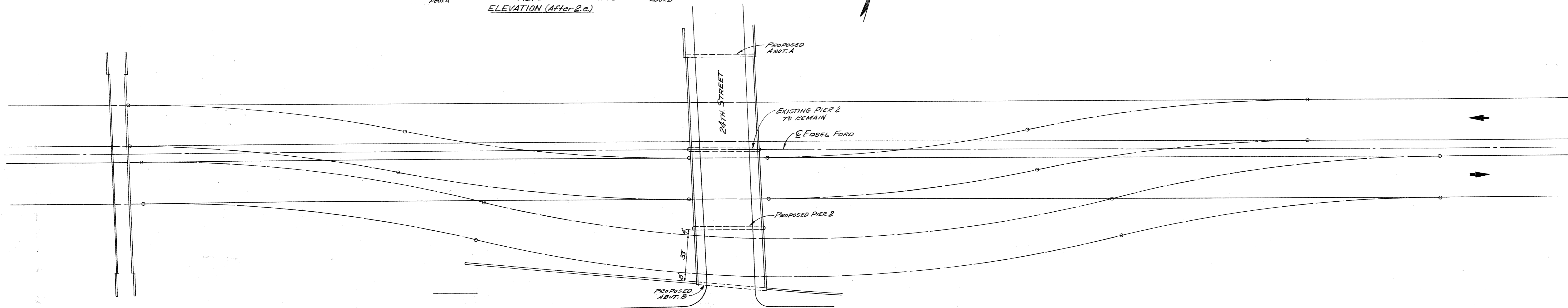
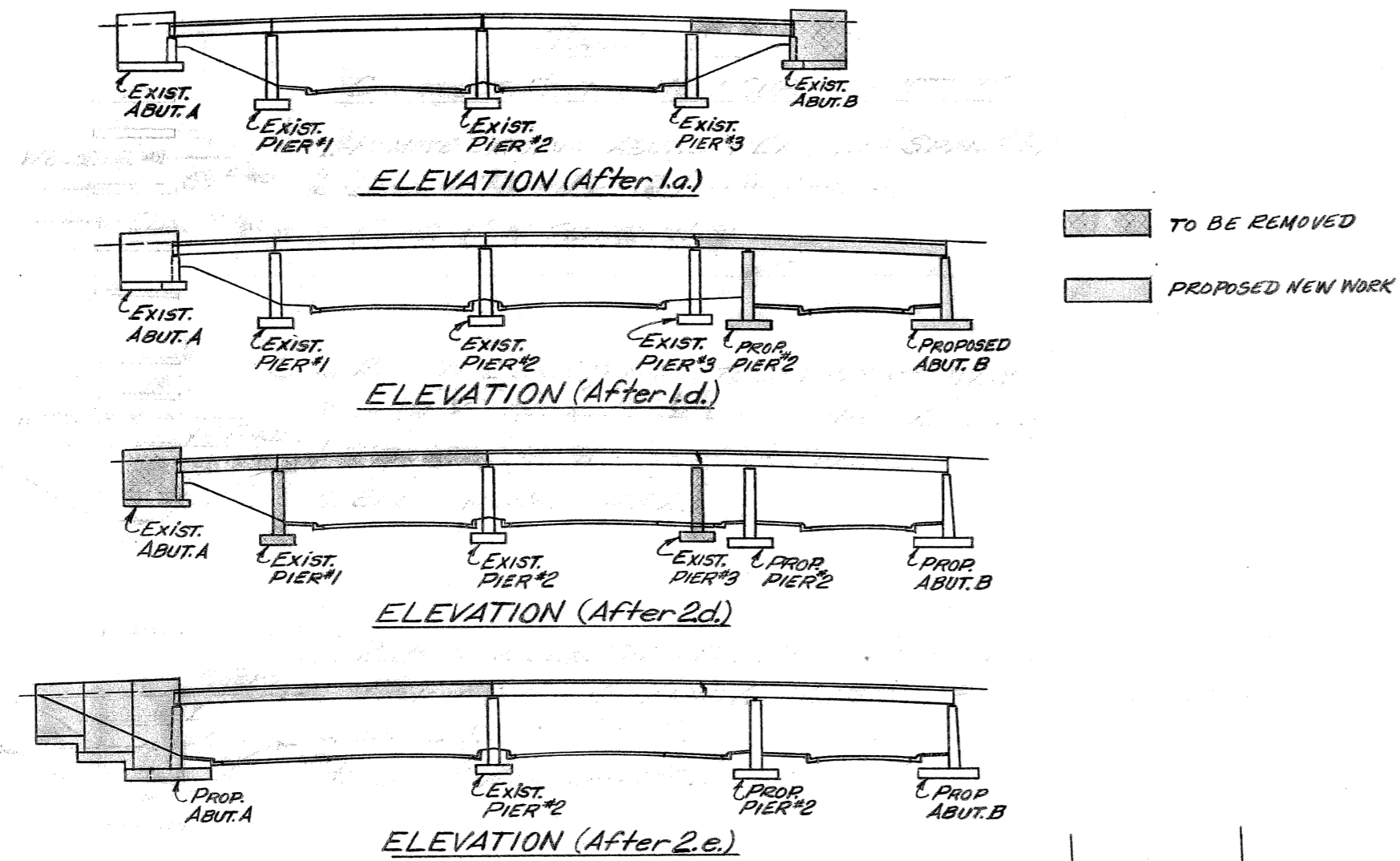


**CONSTRUCTION SEQUENCE**

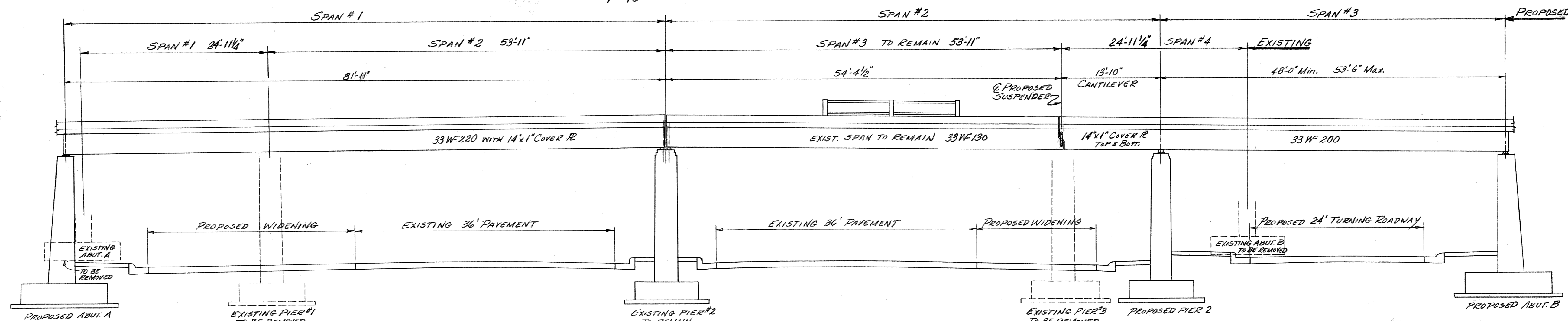
*SAVING SPAN #3 OF EXISTING BRIDGE*

- ①
- a. REMOVE EXISTING ABUT. B & EXISTING SPAN #4
  - b. BUILD NEW PIER #2 AND NEW ABUT. B.
  - c. ERECT NEW SIDESPAN.
  - d. SUPPORT EXISTING SPAN #3 & CONNECT SUSPENDER.

- ②
- a. REROUTE E'BOUND TRAFFIC TO DETOUR ROADWAY BETWEEN THE NEW PIER & NEW ABUT. B.
  - b. REMOVE EXISTING PIER #3.
  - c. REROUTE W'BOUND TRAFFIC TO THEIR E'BOUND ROADWAY.
  - d. REMOVE EXISTING ABUT. A & EXISTING PIER #1 & SPANS 1 & 2.
  - e. BUILD NEW ABUT. A & NEW SPAN #1



PLAN  
1" = 40'



ELEVATION  
1/8" = 1'-0"

STUDY PLAN "A" DATED 11-23-65

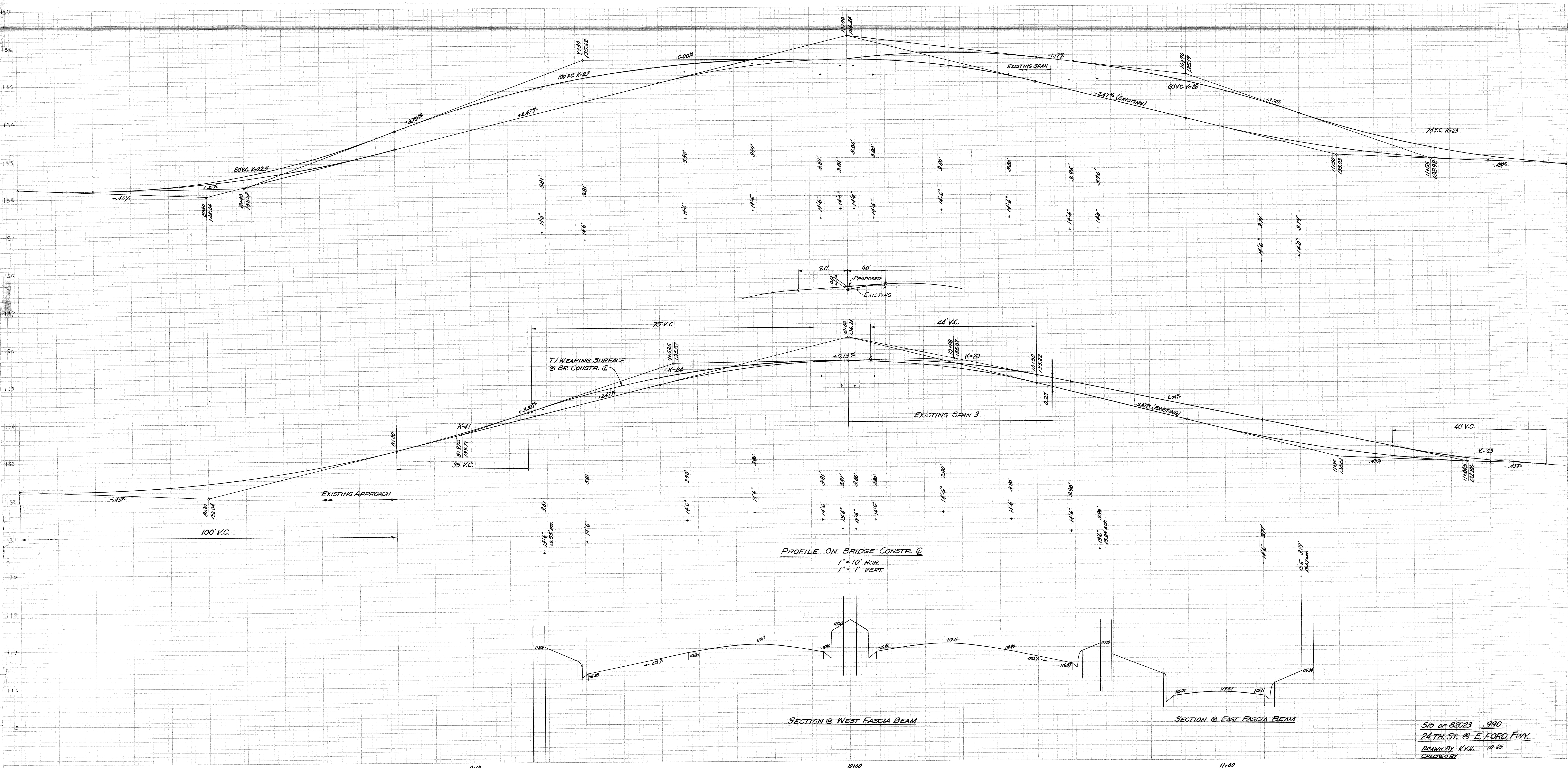
JEFFRIES' FREEWAY  
REVISIONS TO 24TH ST. BRIDGE  
CROSSING THE FORD FREEWAY IN DETROIT

CONSTRUCTION SEQUENCE

Job No.  
PW 990

Drawn by: KKH, 10-65  
Checked by: SPDM, 10-65  
Sheet 2 of 3

515 of 82023



PROFILE ON BRIDGE CONSTR. @  
 1" = 10' HOR.  
 1" = 1' VERT.

SECTION @ WEST FASCIA BEAM

SECTION @ EAST FASCIA BEAM

S15 of B2023 990  
 24 TH. ST. @ E. FORD FWY.  
 DRAWN BY K.V.H. 10-65  
 CHECKED BY

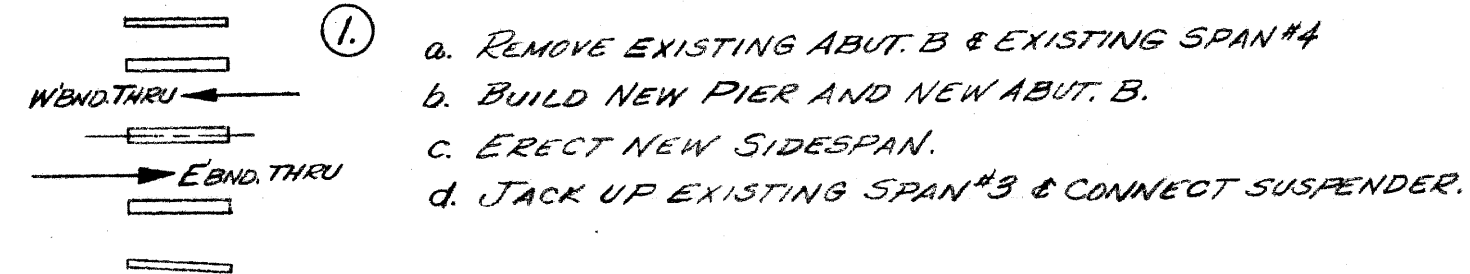
8+00

9+00

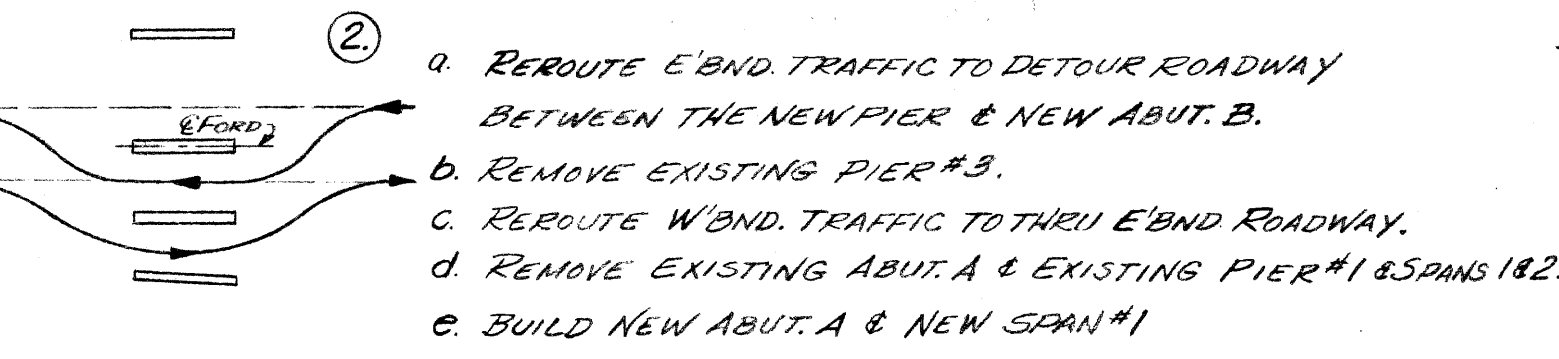
10+00

11+00

**SCHEME I**  
SAVING SPAN #3 OF EXISTING BRIDGE

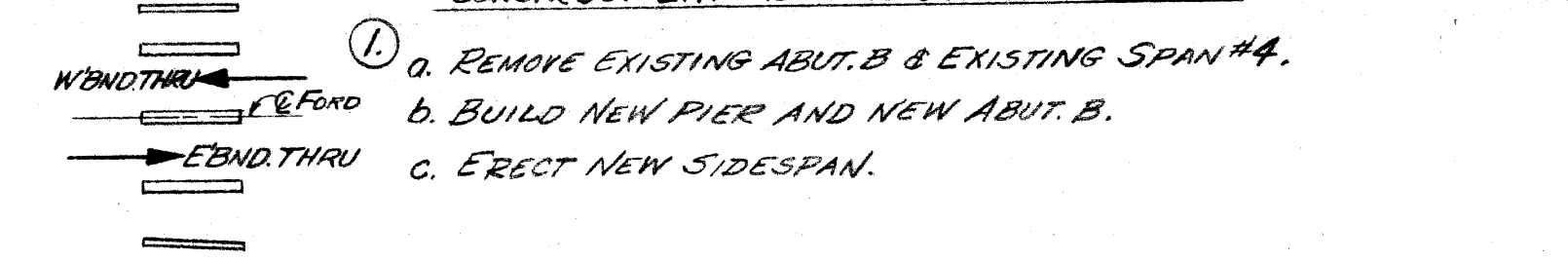


- a. REMOVE EXISTING ABUT. B & EXISTING SPAN #4
- b. BUILD NEW PIER AND NEW ABUT. B.
- c. ERECT NEW SIDESPAN.
- d. JACK UP EXISTING SPAN #3 & CONNECT SUSPENDER.

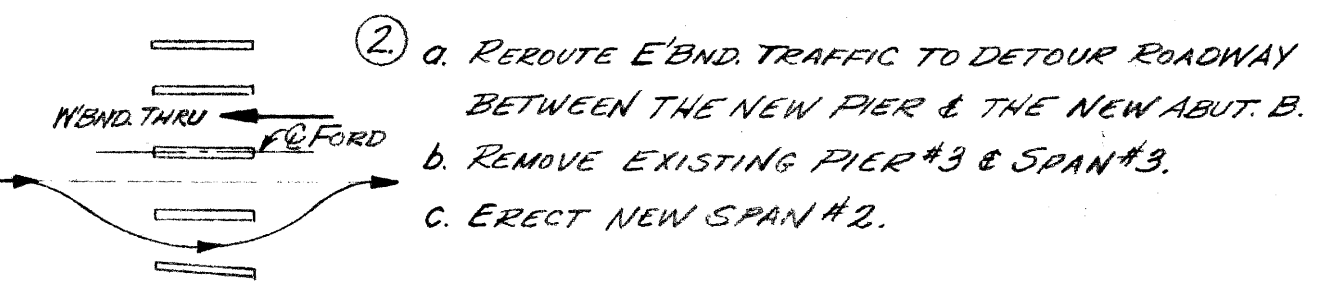


- a. REROUTE E'BOUND TRAFFIC TO DETOUR ROADWAY BETWEEN THE NEW PIER & NEW ABUT. B.
- b. REMOVE EXISTING PIER #3.
- c. REROUTE W'BOUND TRAFFIC TO THEIR E'BOUND ROADWAY.
- d. REMOVE EXISTING ABUT. A & EXISTING PIER #1 & SPANS 1 & 2.
- e. BUILD NEW ABUT. A & NEW SPAN #1

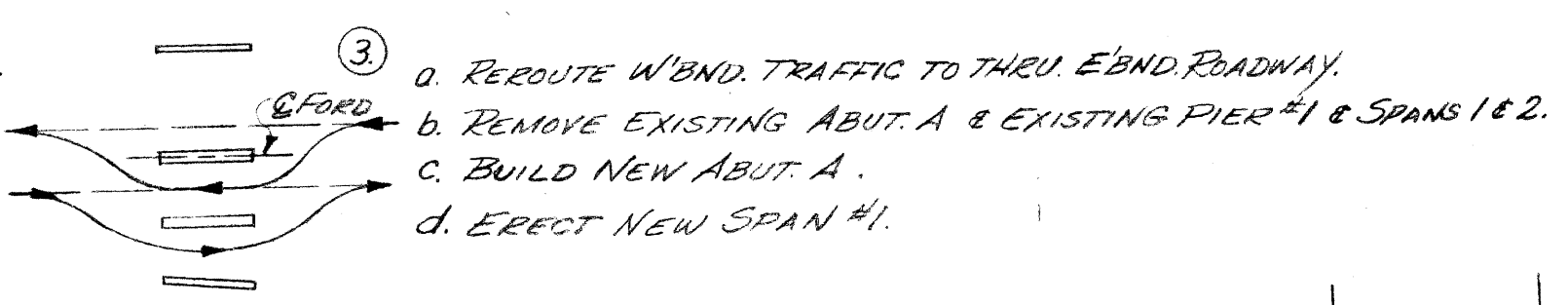
**SCHEME II**  
CONSTRUCT ENTIRE NEW SUPERSTRUCTURE



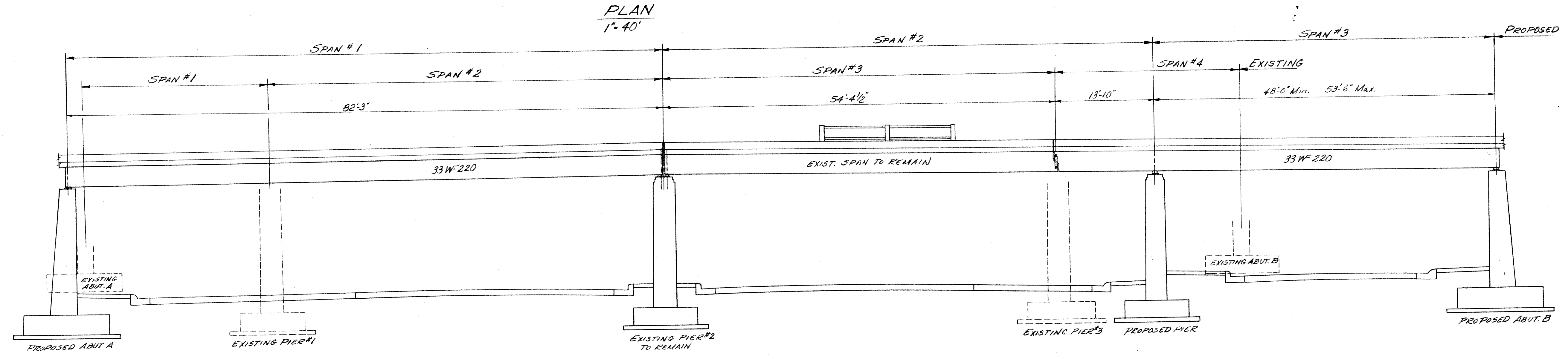
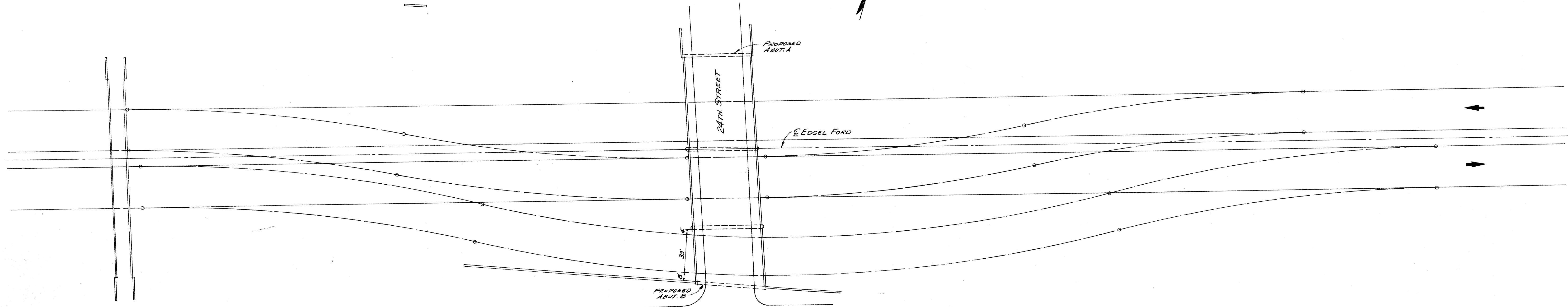
- a. REMOVE EXISTING ABUT. B & EXISTING SPAN #4.
- b. BUILD NEW PIER AND NEW ABUT. B.
- c. ERECT NEW SIDESPAN.



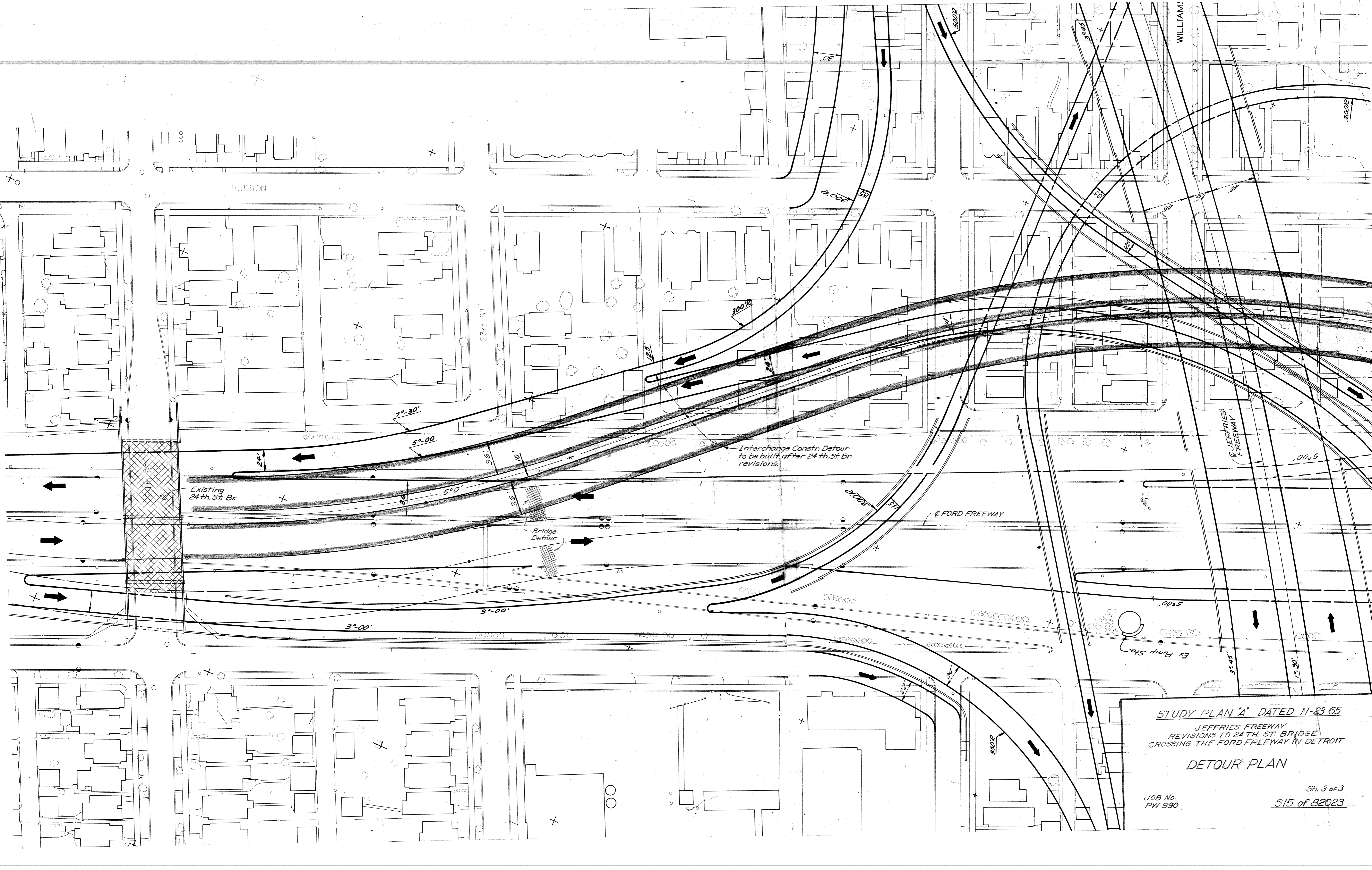
- a. REROUTE E'BOUND TRAFFIC TO DETOUR ROADWAY BETWEEN THE NEW PIER & THE NEW ABUT. B.
- b. REMOVE EXISTING PIER #3 & SPAN #3.
- c. ERECT NEW SPAN #2.



- a. REROUTE W'BOUND TRAFFIC TO THEIR E'BOUND ROADWAY.
- b. REMOVE EXISTING ABUT. A & EXISTING PIER #1 & SPANS 1 & 2.
- c. BUILD NEW ABUT. A.
- d. ERECT NEW SPAN #1.



990  
515 of 82023  
24TH ST. @ FORD  
DRAWN K.V.H.  
CHK'D.



HUDSON

23rd ST

WILLIAMS

Existing 24th St. Br.

Bridge Detour

Interchange Constr. Detour to be built after 24th St. Br. revisions.

FORD FREEWAY

JEFFRIES FREEWAY

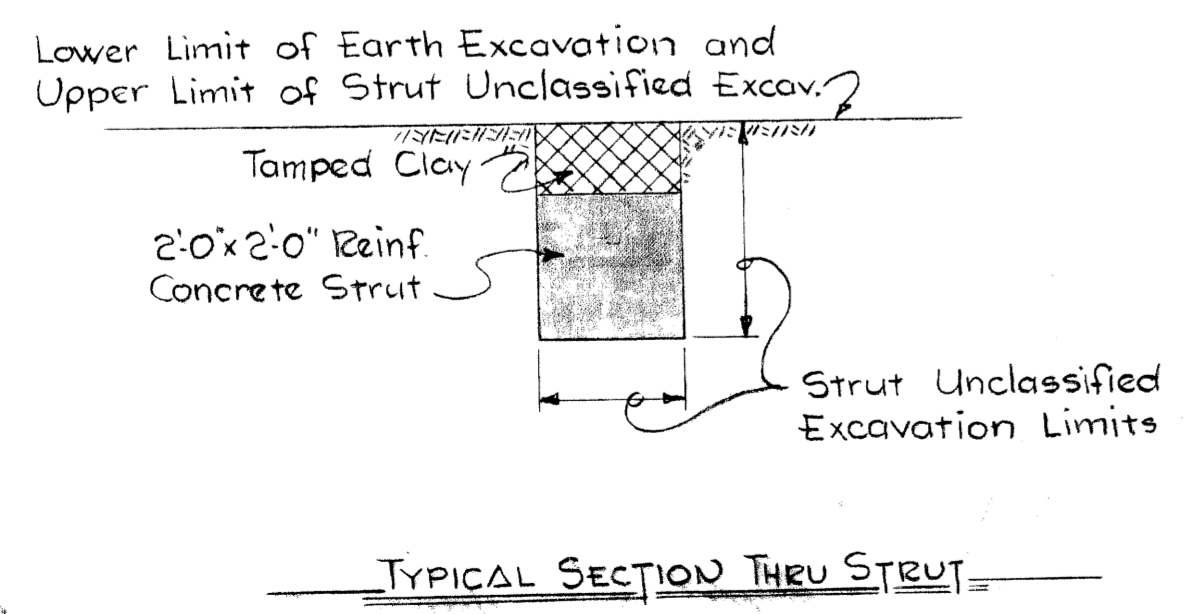
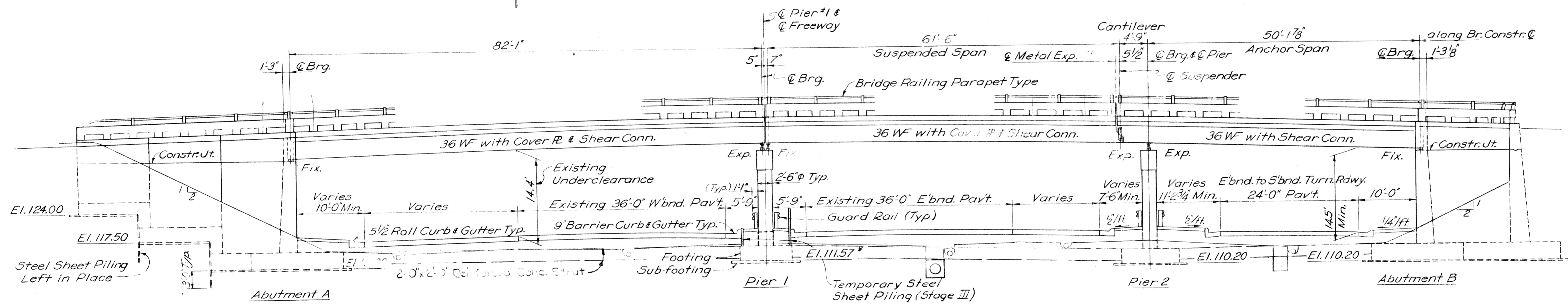
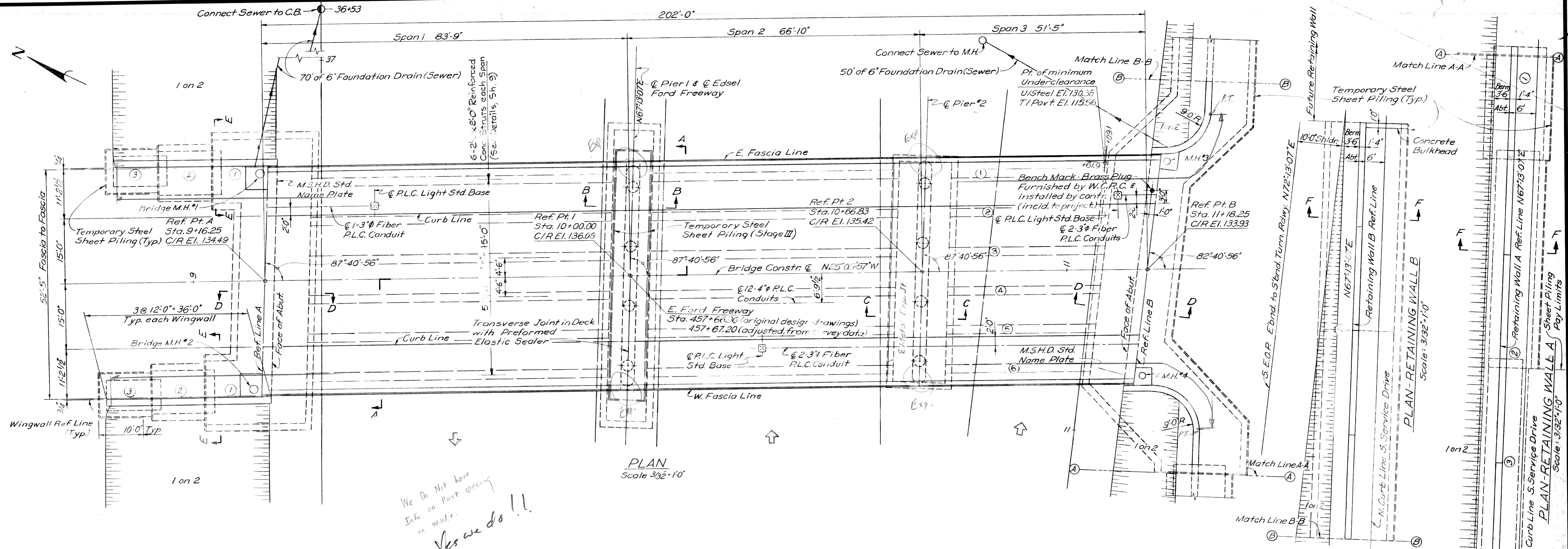
Ex. Pump Sta.

STUDY PLAN 'A' DATED 11-23-65  
JEFFRIES FREEWAY  
REVISIONS TO 24 TH. ST. BRIDGE  
CROSSING THE FORD FREEWAY IN DETROIT

DETOUR PLAN

JOB No.  
PW 990

Sh. 3 of 3  
515 of 82023



\*Taken from design drawings verify in field

CITY OF DETROIT

*C.C. Sidman*

PW 490(16)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

**MICHIGAN STATE HIGHWAY DEPARTMENT**

11<sup>TH</sup> AVENUE FREEWAY  
REVISIONS TO 24<sup>TH</sup> ST. BRIDGE  
CROSSING THE FORD FREEWAY IN DETROIT

**GENERAL PLAN OF STRUCTURE**

APPROVED \_\_\_\_\_  
DESIGN SUPERVISING ENGINEER

APPROVED \_\_\_\_\_  
ENGINEER OF DESIGN - CONSULTANTS

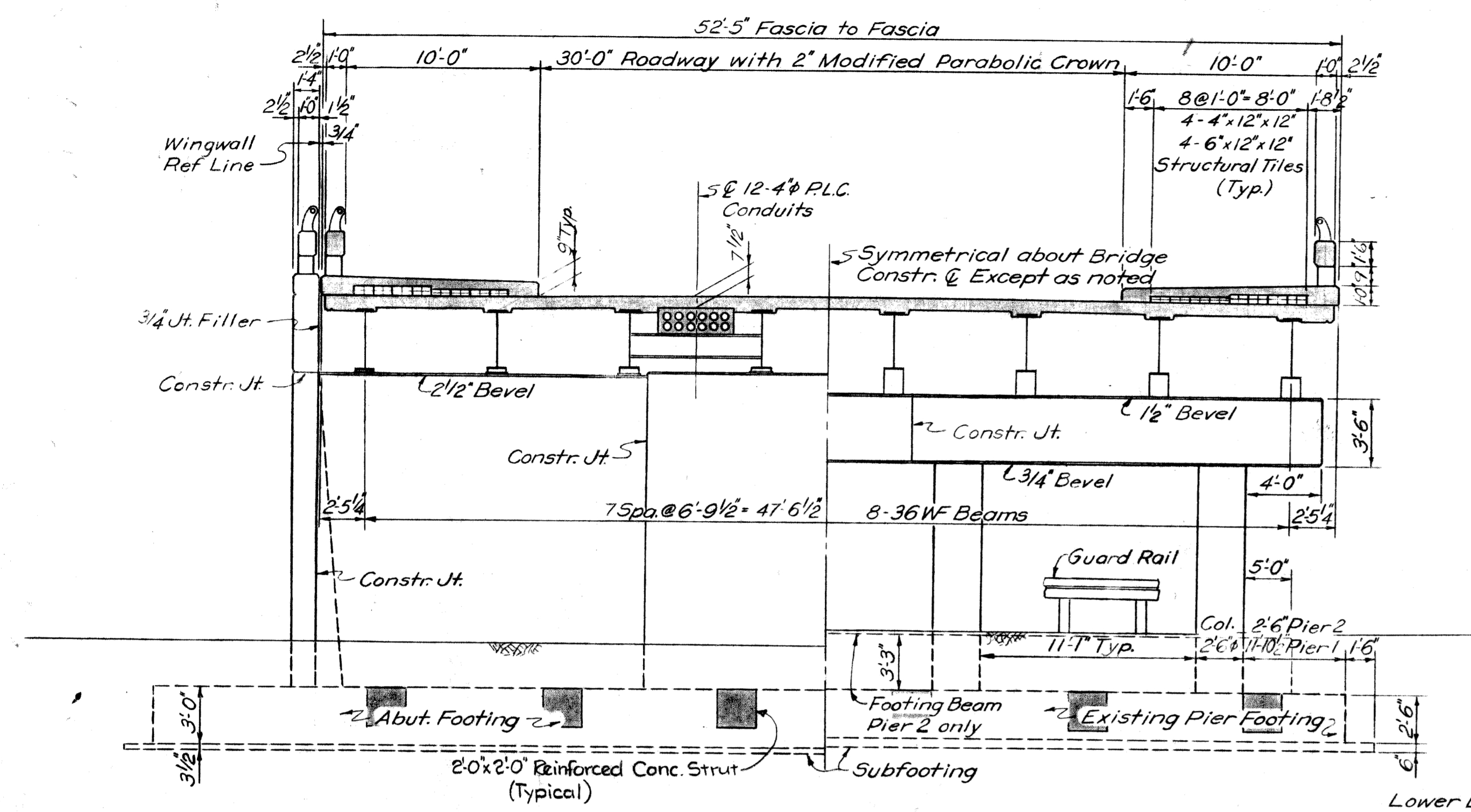
CITY OF DETROIT

SQUAD BOSS	<i>STVEN</i>	<i>300</i>
DRAWN BY	<i>K.V.H.</i>	<i>2-66</i>
CHECKED BY	<i>STVEN</i>	<i>4/15</i>

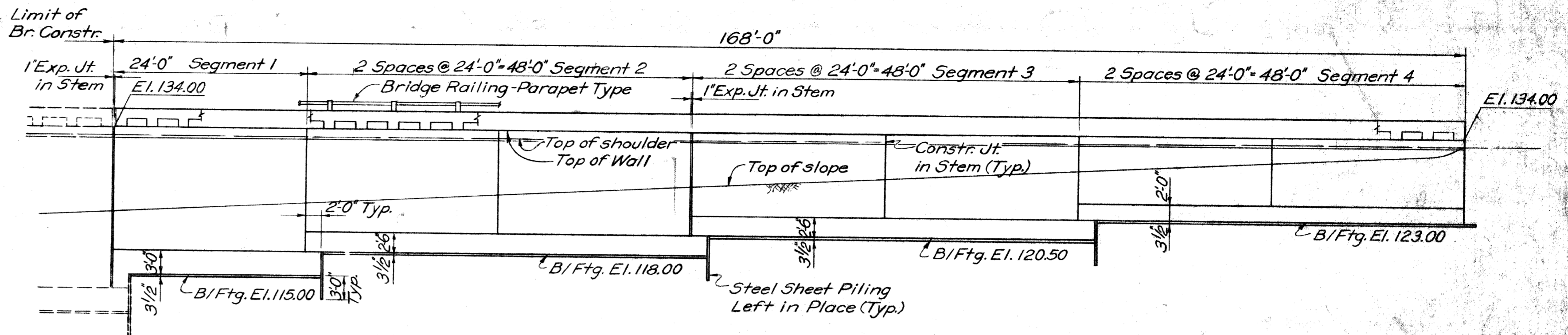
SHEET 7 OF 15

S15 of 82023A

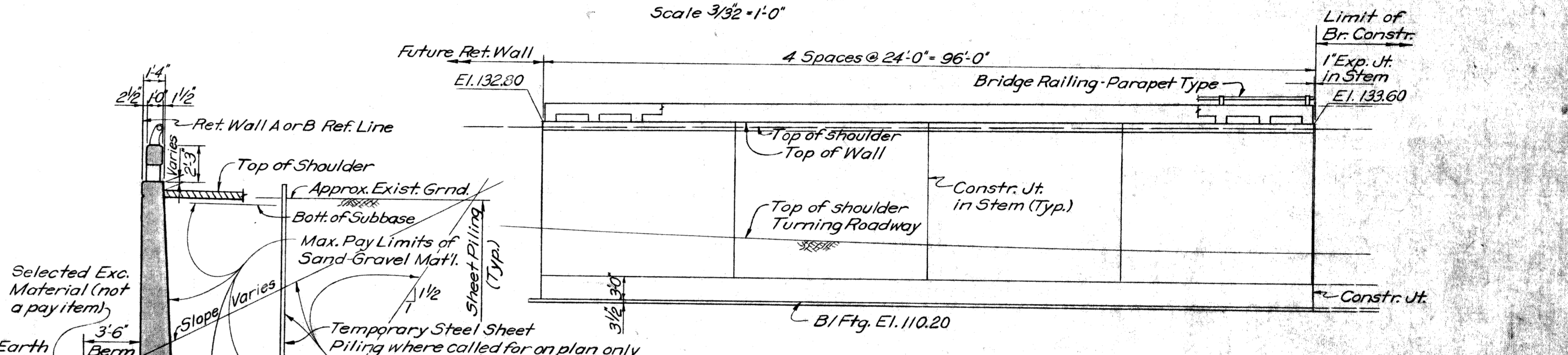
MICROFILMED



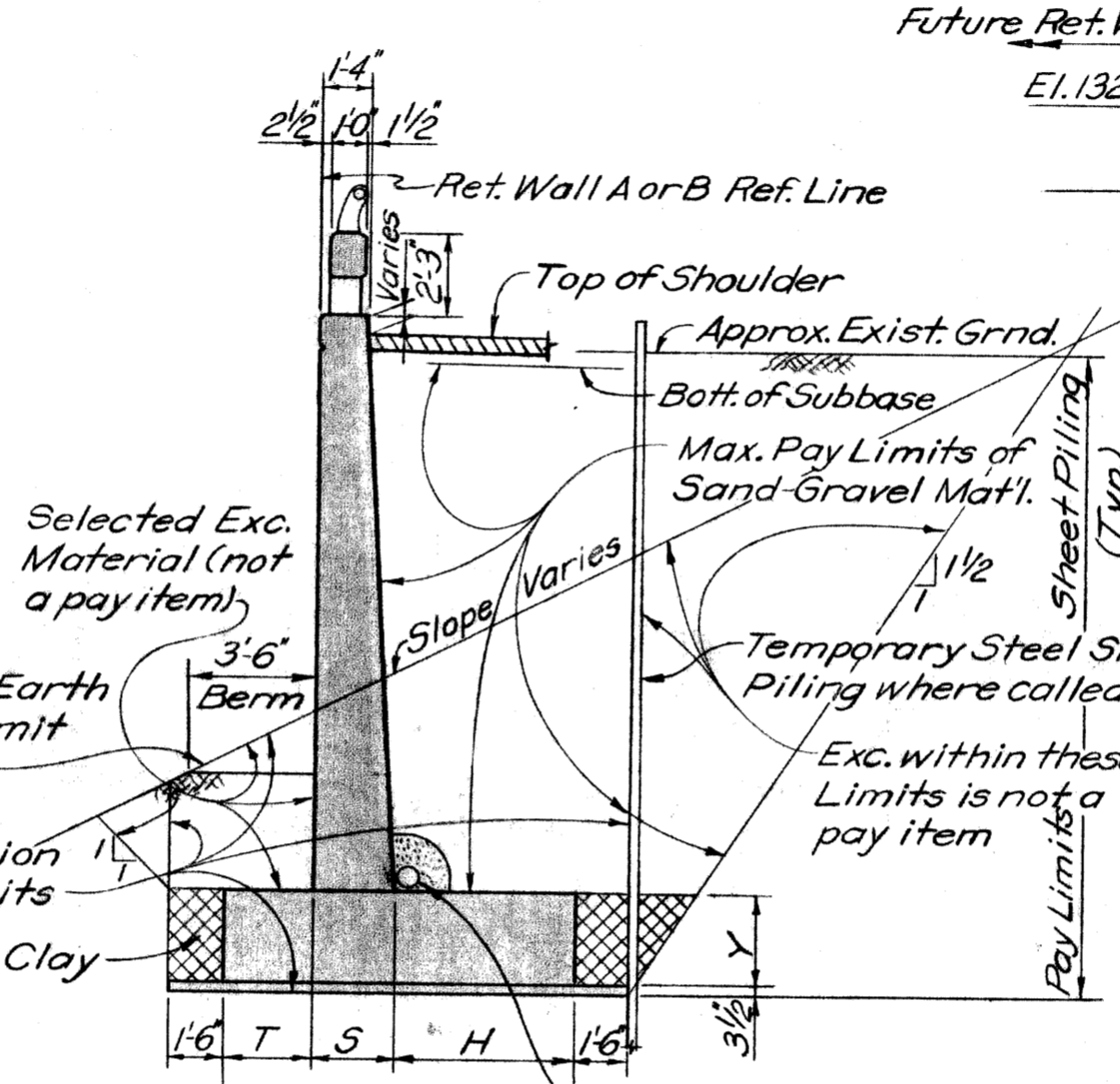
**SECTION A-A**  
Scale 3/16"=1'-0"



**ELEVATION WALL A**  
Scale 3/32"=1'-0"



**ELEVATION WALL B**  
Scale 3/32"=1'-0"



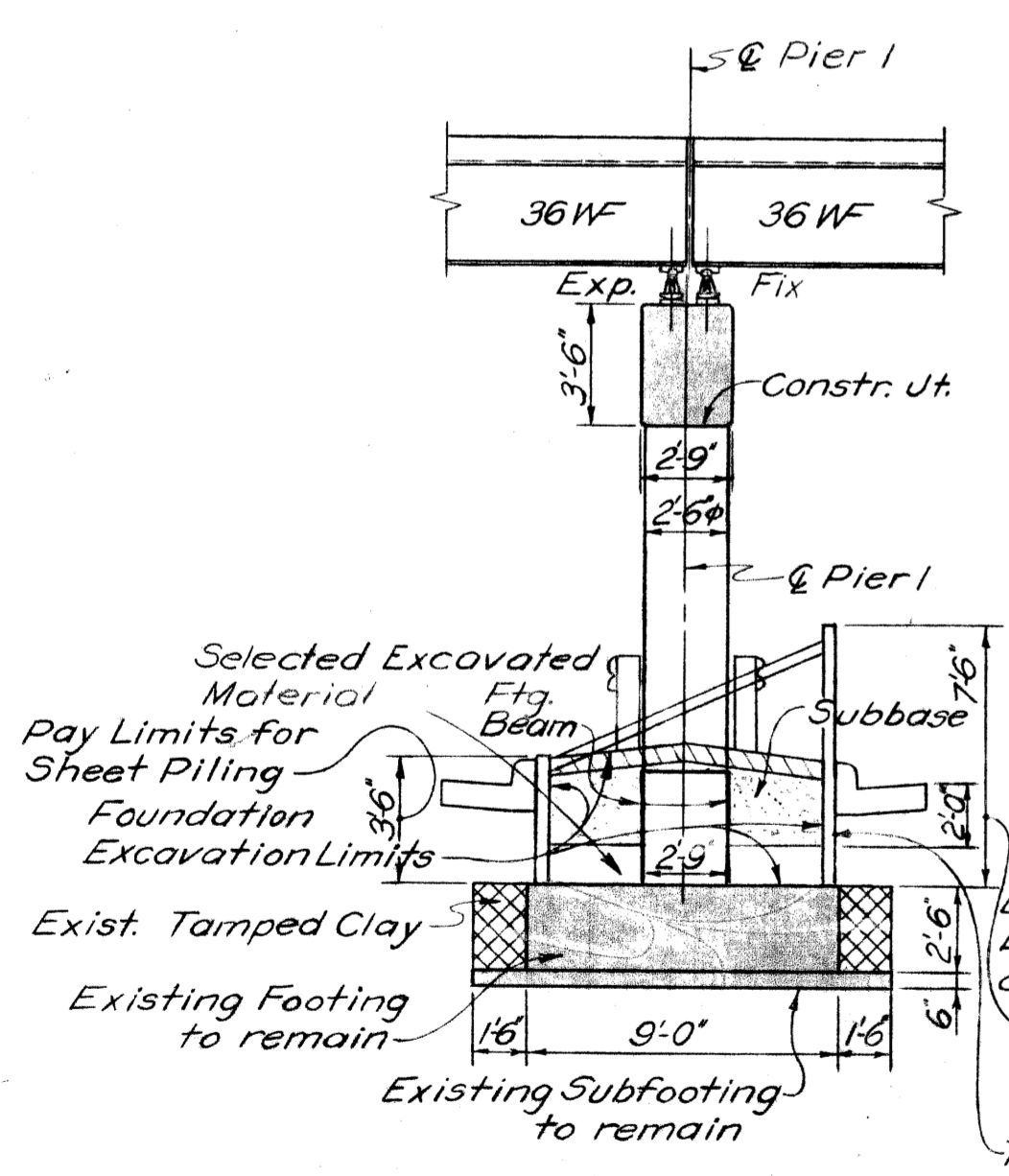
**SECTION F-F**  
Scale 3/16"=1'-0"

WALL DIMENSIONS						
Segment	Y	B	T	S	H	
Wall A	1	3'-0"	12'-0"	4'-0"	2'-9"	5'-3"
	2	2'-6"	9'-9"	2'-6"	2'-6"	4'-9"
	3	2'-6"	8'-0"	1'-9"	2'-3"	4'-0"
	4	2'-0"	7'-0"	1'-9"	2'-0"	3'-3"
Wall B	1	3'-0"	16'-0"	6'-6"	3'-0"	6'-6"
	2	2'-6"	10'-0"	3'-6"	2'-3"	8'-3"
	3	2'-0"	6'-6"	2'-3"	1'-9"	2'-6"

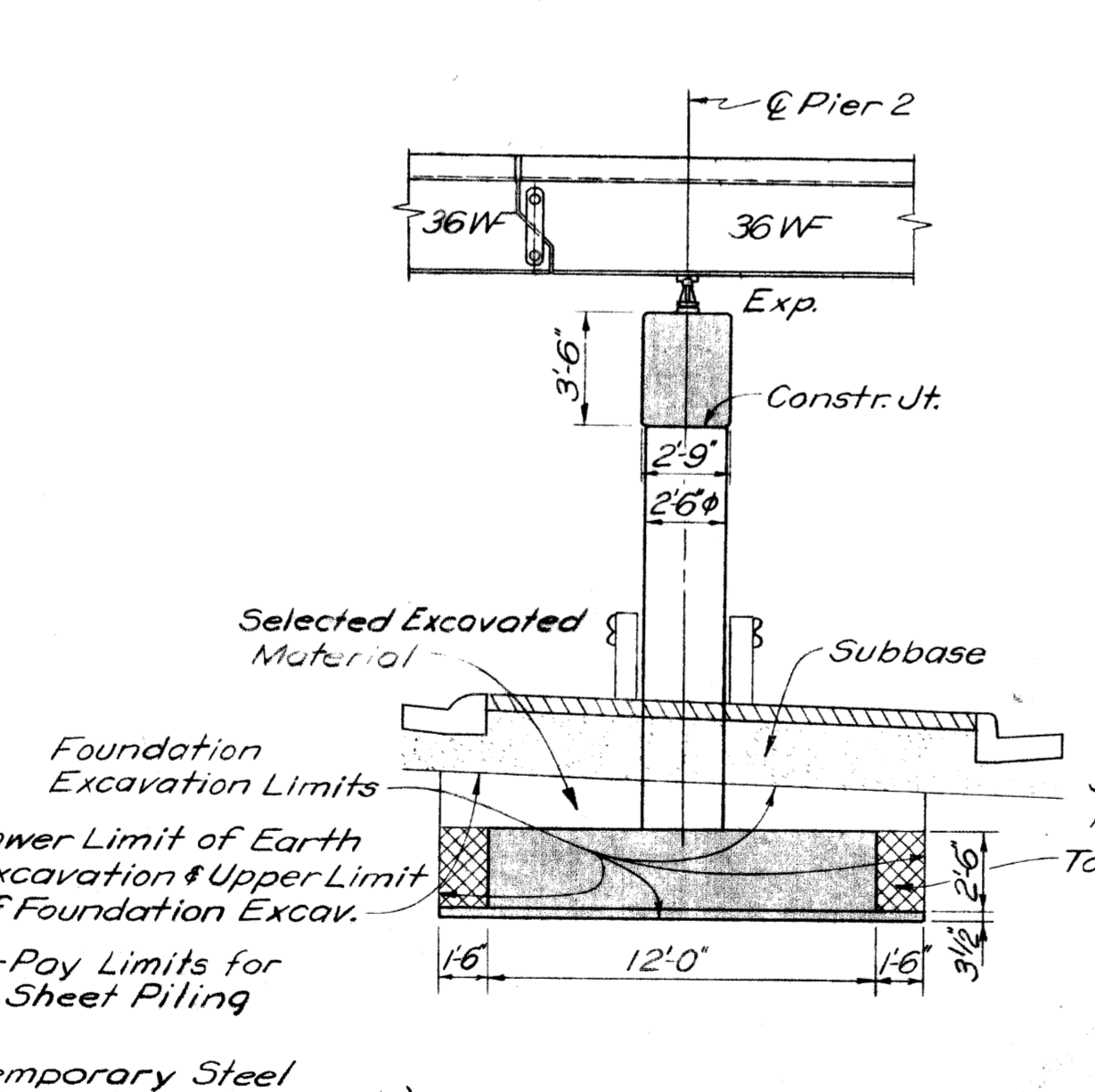
**GENERAL NOTES:**  
 The design of this structure is based on M.S.H.D. Specifications for the Design of Highway Bridges, 1958 edition (HS20-44) Loading. Live Load plus impact deflection = 1/1000 of span length and 1/350 of the cantilever arm.  
 The top of roadway slab and tops of sidewalks are parallel to the vertical curve and tangents.  
 Traffic on 24th St. will be detoured.  
 Traffic on the Ford Freeway will be maintained (See Construction Staging).

C/R denotes: crown of roadway.  
 Tamped Clay and Selected Excavated Material are incidental to Un-classified Excavation.  
 Porous Material Grade B is incidental to Foundation Drains

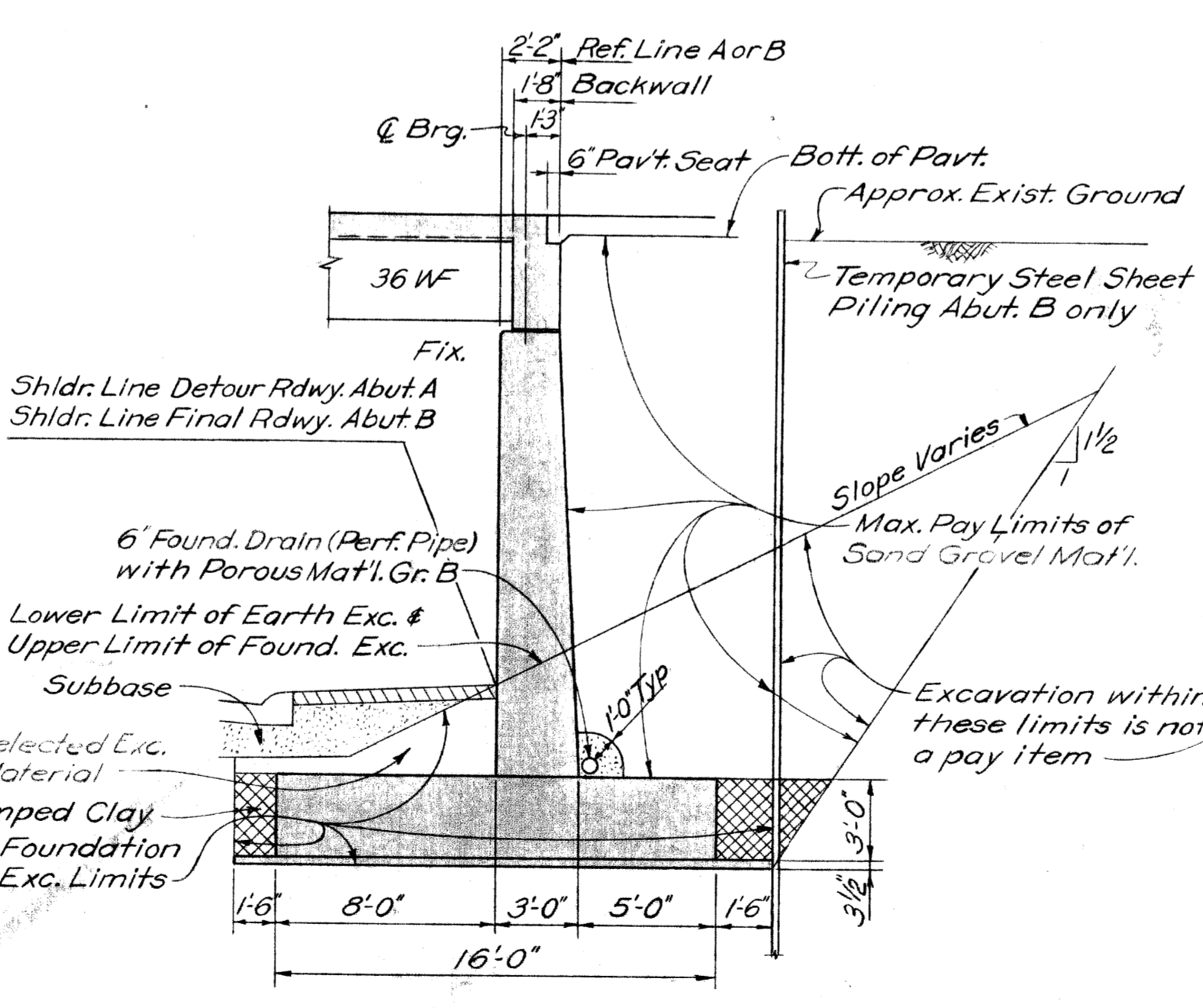
**MISCELLANEOUS QUANTITIES:**  
 Temporary Steel Sheet Piling 3785 Sq. Ft.  
 6" Foundation Drains 120 Lin. Ft.  
 Removing Portions of Existing Structure - Lump Sum



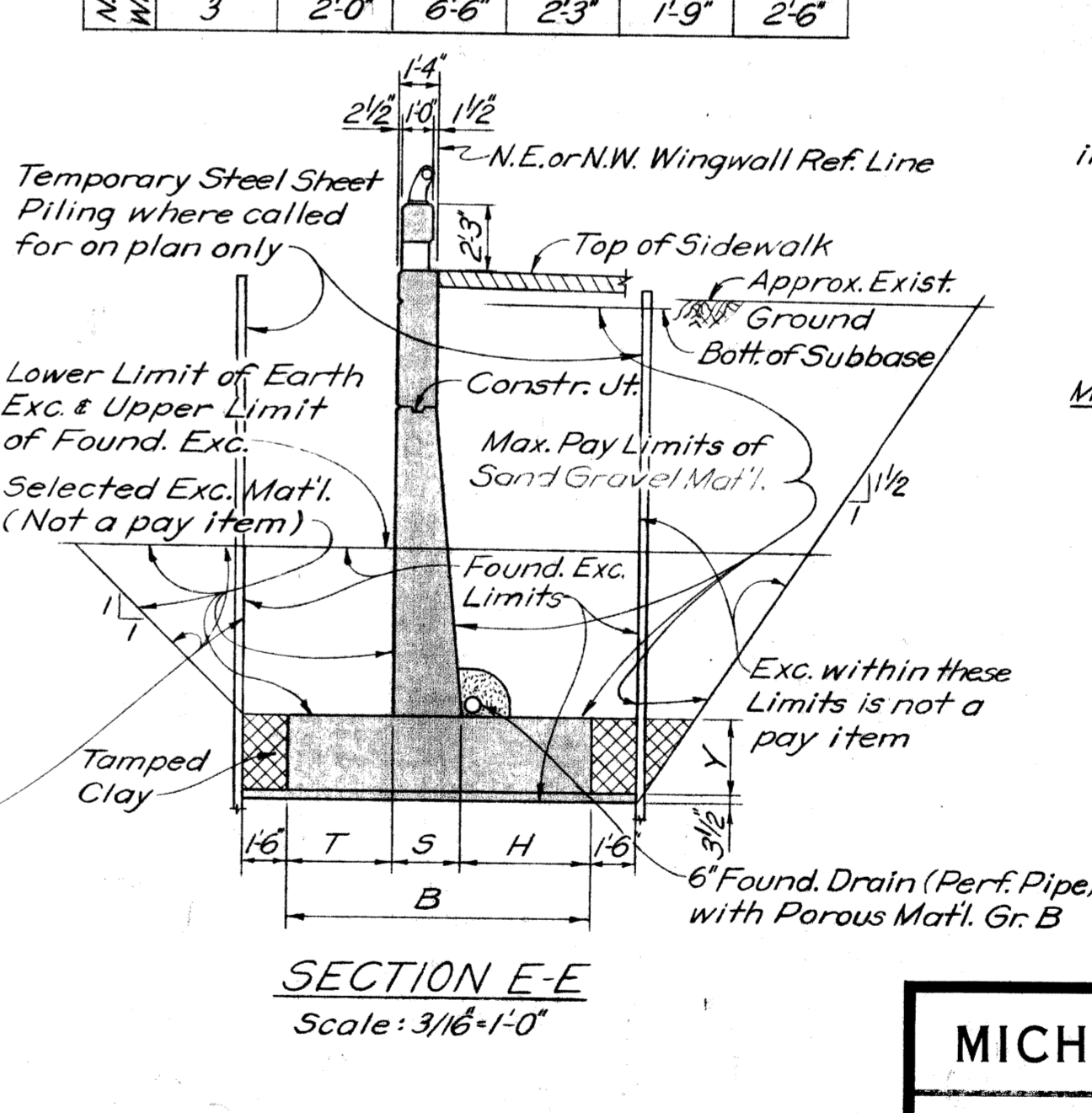
**SECTION B-B**  
Scale 3/16"=1'-0"



**SECTION C-C**  
Scale 3/16"=1'-0"



**SECTION D-D**  
Scale 3/16"=1'-0"



**SECTION E-E**  
Scale 3/16"=1'-0"

**Note:**  
 Do not damage nor disturb exist. Curbs & Footing when driving Sheet Piling.  
 The contractor shall be responsible for bracing the sheet piling to protect the work.  
 Bracing is incidental to Temp. St. Sheet Piling

PLANS PREPARED BY  
**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 BUREAU OF HIGHWAYS AND EXPRESSWAYS  
 APPROVED: *[Signature]*  
 STRUCTURAL ENGINEER  
 JOB NO. PW 990(16)

**MICHIGAN STATE HIGHWAY DEPARTMENT**  
 JEFFRIES FREEWAY  
 REVISIONS TO 24TH ST. BRIDGE  
 CROSSING THE FORD FREEWAY IN DETROIT

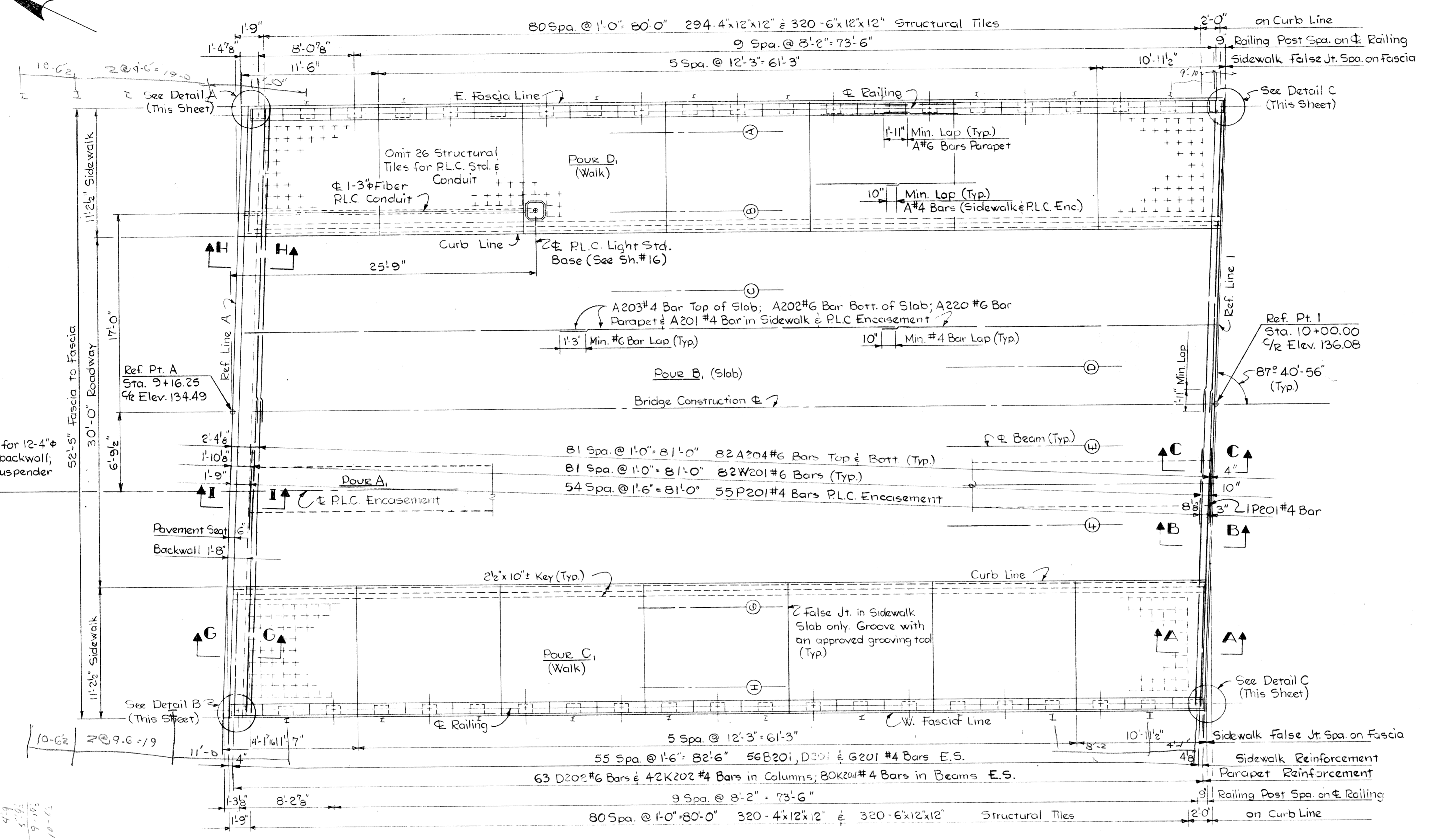
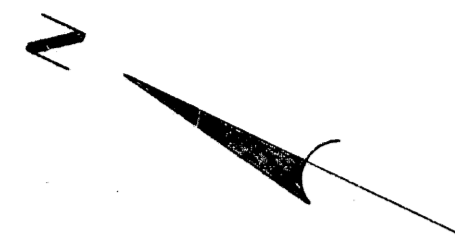
**GENERAL PLAN OF STRUCTURE**

NO.	REVISIONS	DATE	BY

APPROVED: \_\_\_\_\_ DESIGN SUPERVISING ENGINEER  
 APPROVED: \_\_\_\_\_ ENGINEER OF DESIGN - CONSULTANTS

SQUAD NO. *STUM* P. 66  
 DRAWN BY *ALVH* P. 66  
 CHECKED BY *STUM* P. 66  
 SHEET 5 OF 15

**S15 of 82023A**

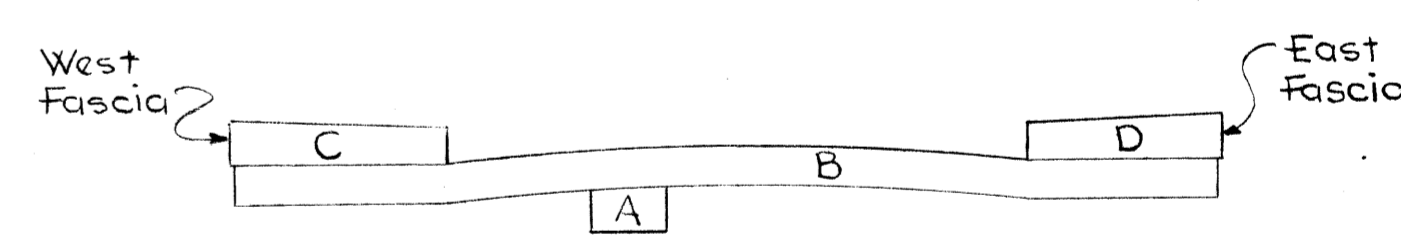
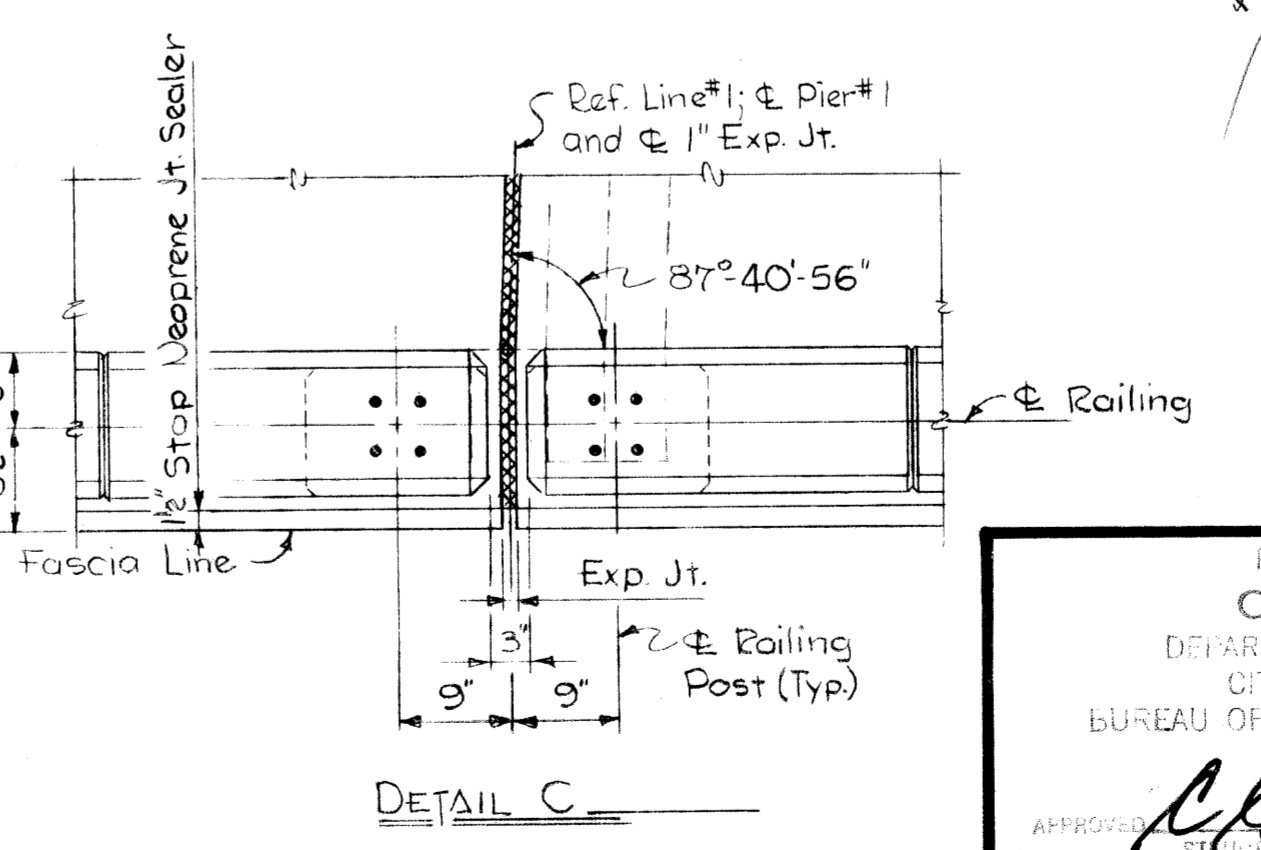
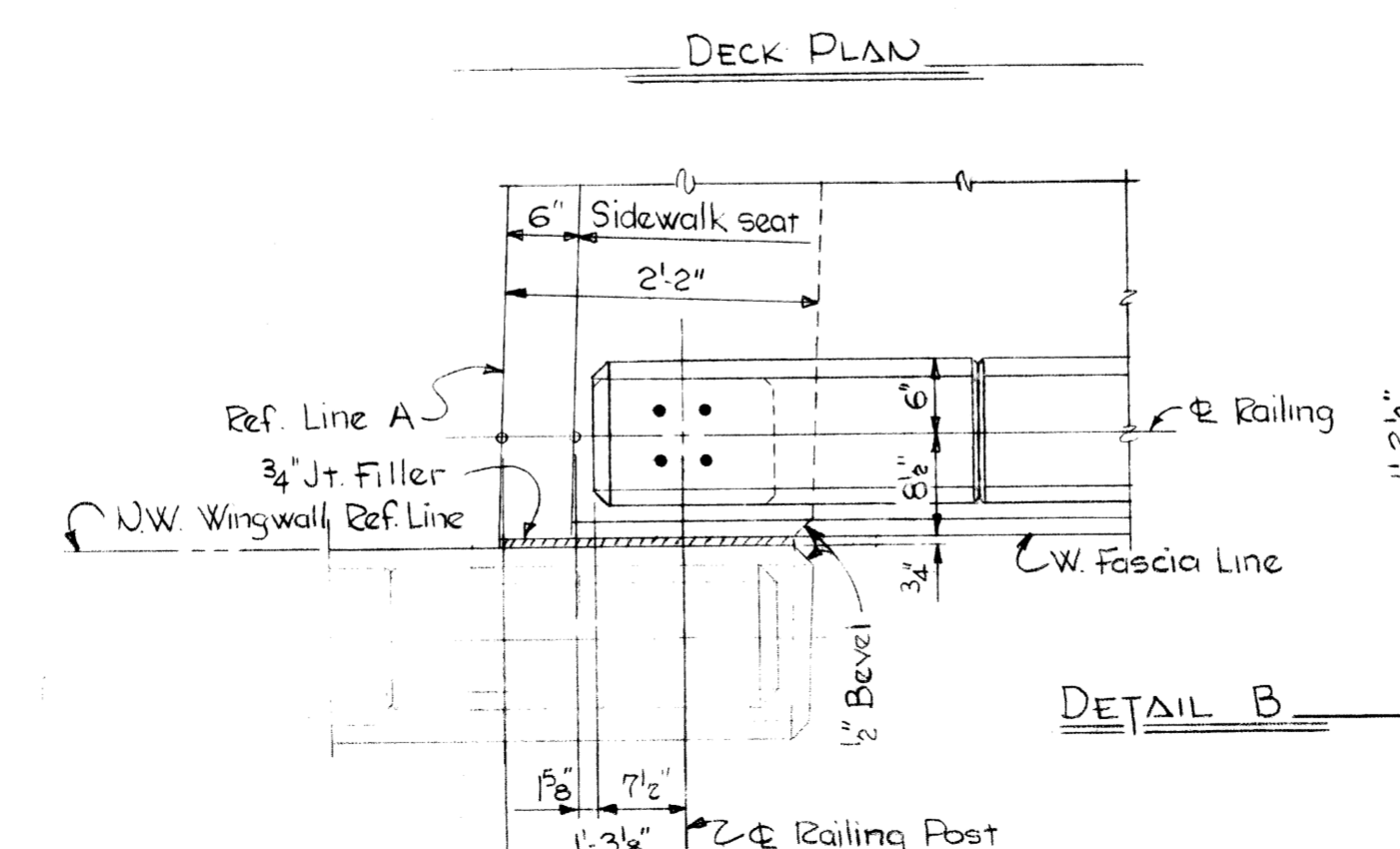
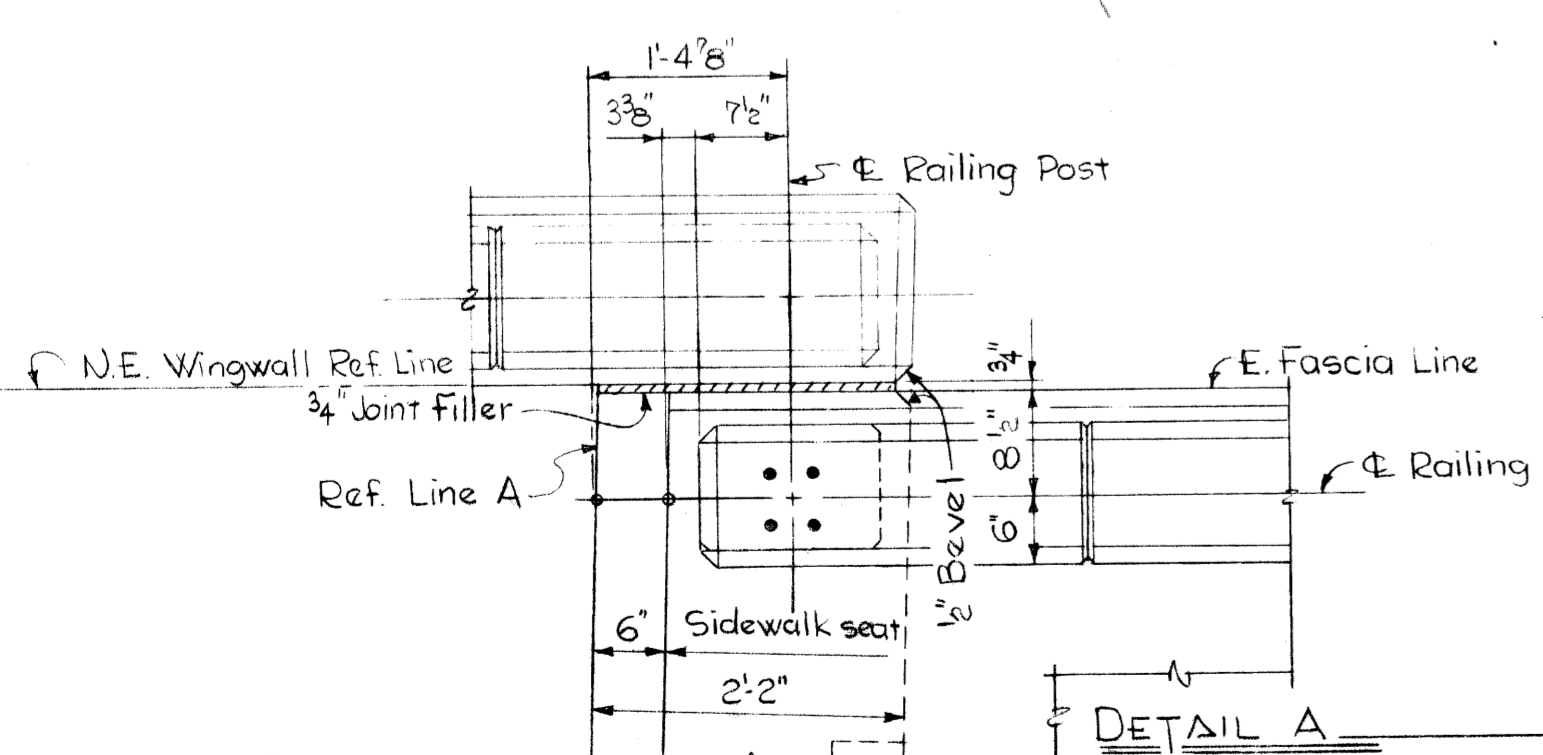


4 12-5# fiber sleeves for 12-4# PLC, conduits in each backwall; 12-5# Exp. sleeves at suspender & expansion joint

49  
5-1/2  
9-1/2  
10-6

4'-1/2"  
1-3/4"  
9'-10"  
9'-23"  
9'-12"  
11'-0-1/2"

4'-1/2"  
9'-1/2"  
9'-10"  
9'-12"  
11'-0-1/2"



CONCRETE QUANTITIES				
Pour	Description	Span	Grade XX (Cu. Yds.)	Grade A(GAA) (Cu. Yds.)
A <sub>1</sub>	PLC Encasement	1	11.5	-
A <sub>2</sub>	do	2	8.6	-
A <sub>3</sub>	do	3	7.4	-
B <sub>1</sub>	Slab	1	-	118.3
B <sub>2</sub>	do	2	-	79.3
B <sub>3</sub>	do	3	-	83.1
C <sub>1</sub>	W. Sidewalk	1	-	19.9
C <sub>2</sub>	do	2	-	15.1
C <sub>3</sub>	do	3	-	13.4
D <sub>1</sub>	E Sidewalk	1	-	20.0
D <sub>2</sub>	do	2	-	14.9
D <sub>3</sub>	do	3	-	14.1
TOTAL CONCRETE SUPERSTRUCTURE ...			27.5	378.1

Grade XX Concrete designates light weight concrete  
Parapet Concrete = 22.6 Cu. Yds. Gr. A(GAA) incidental to Bridge Railing Parapet Type and not a pay item.

MISCELLANEOUS QUANTITIES		
Item	Unit	Amount
Water Reducing Retarding Admixture	Gals.	40
Structural Tile 4x12x12"	Each	1,405
Structural Tile 6x12x12"	Each	1,524
2 1/2 x 2 1/2" Preformed Neoprene Joint Sealer	Lin. Ft.	54
Hot-Poured Rubber-Asphalt Type Filler	Lin. Ft.	52
Joint Waterproofing	Sq. Ft.	141
Bridge Railing - Parapet Type	Lin. Ft.	400.3
3" Fiber Conduits	Lin. Ft.	214
4" Fiber Conduits	Lin. Ft.	2,376

**General Notes:**  
 Sidewalk pours shall not be cast until slab concrete has attained at least 50% of its design strength as determined in Section 5.01.03 of the Standard Specifications.  
 Concrete pours need not be placed in alphabetical order. Railing is to be either aluminum or steel tubular railing on concrete parapet.  
 For Railing, Bevel and Molding Details, see Standard Sheets R11 and R12.  
 E.S. denotes Each Side.  
 PLC denotes Public Lighting Commission.  
 J.W.P. denotes Joint Water Proofing.  
 H.P.R.A.T.F. denotes Hot-poured rubber-asphalt type filler.  
 For railing details see standard sheets DR11 or DR12 except the end sections of the tubular railing at reference lines A & B shall be constructed straight.

Work this sheet with sheets 14 thru 17.

**MICHIGAN DEPARTMENT OF STATE HIGHWAYS**

JEFFRIES FREEWAY  
 REVISIONS TO 24TH ST. BRIDGE  
 CROSSING THE FORD FREEWAY IN DETROIT

**SUPERSTRUCTURE DETAILS**

REVISIONS			
NO.	DESCRIPTION	DATE	BY

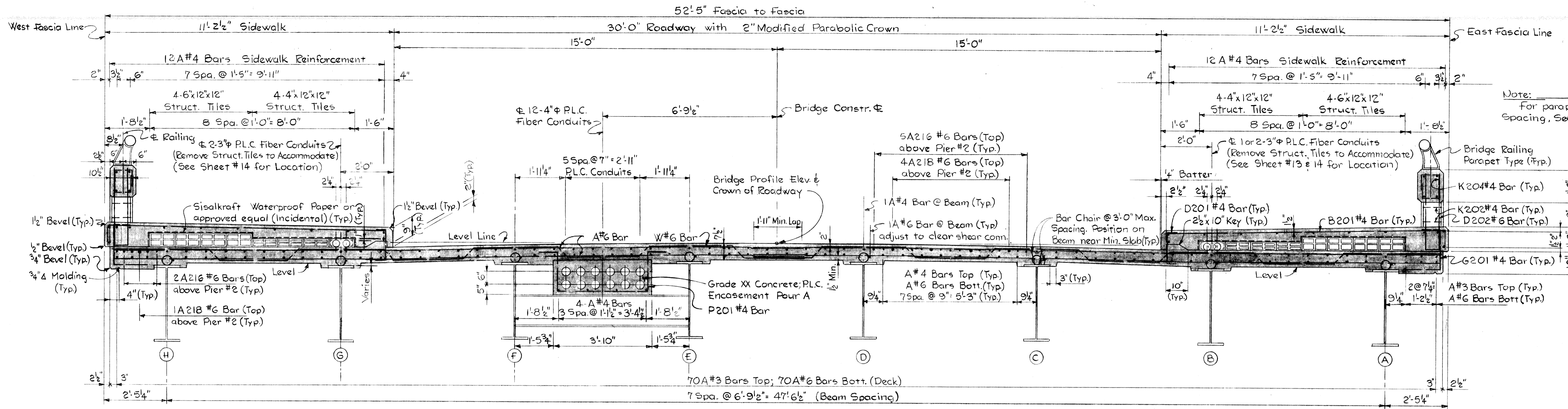
CITY OF DETROIT  
 SQUAD BOSS: *STJ* 10-66  
 DRAWN BY: *...* 7-66  
 CHECKED BY: *T. Baker* 10-66  
 SHEET 13 OF 45  
**S15 of 82023A**

PLANS PREPARED BY  
 CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 BUREAU OF HIGHWAYS AND EXPRESSWAYS

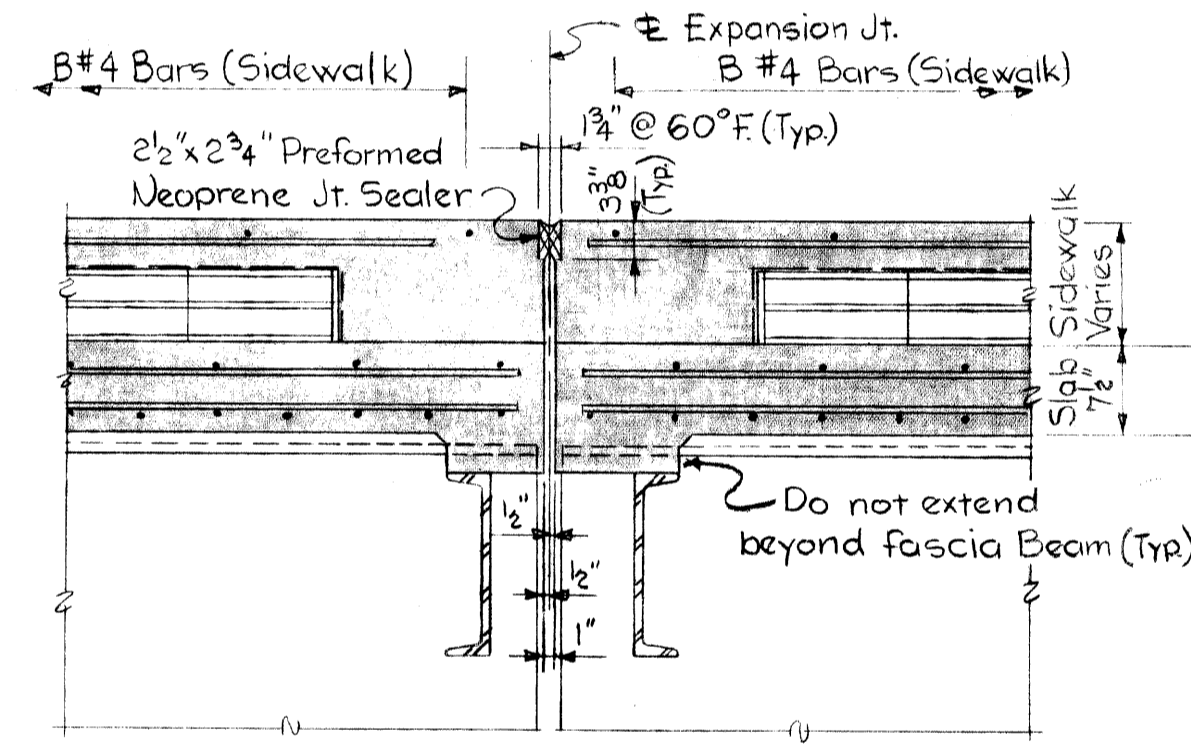
APPROVED: *A.C. Sider*  
 STRUCTURAL ENGINEER  
 JOB No. PW 990 (16)



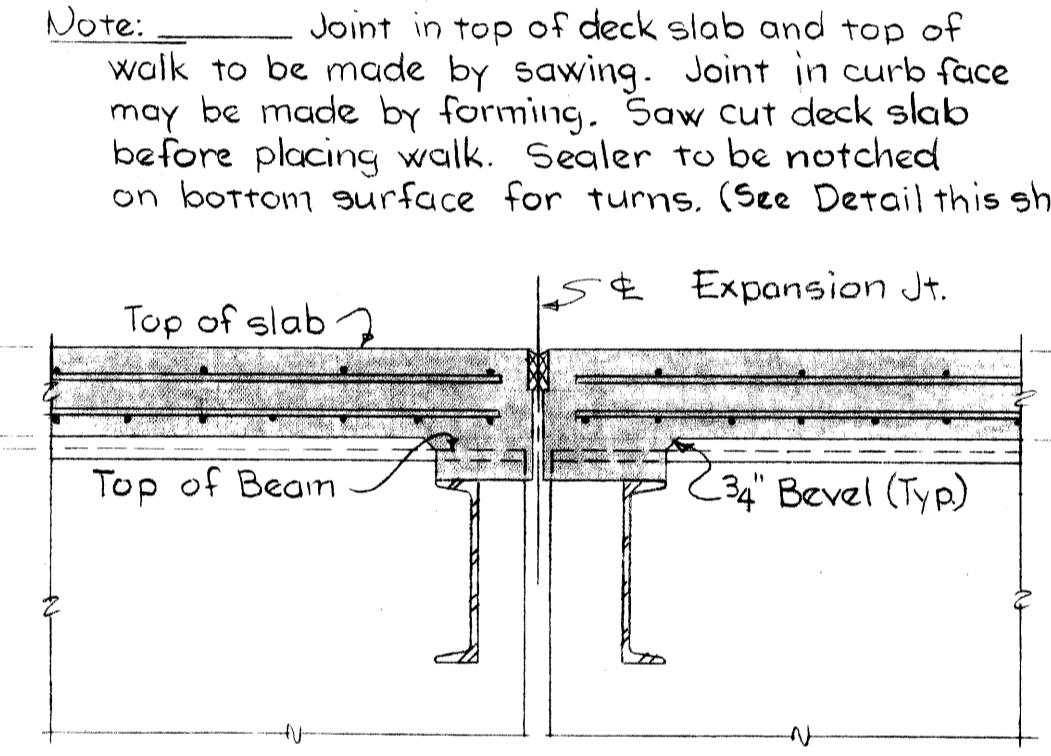




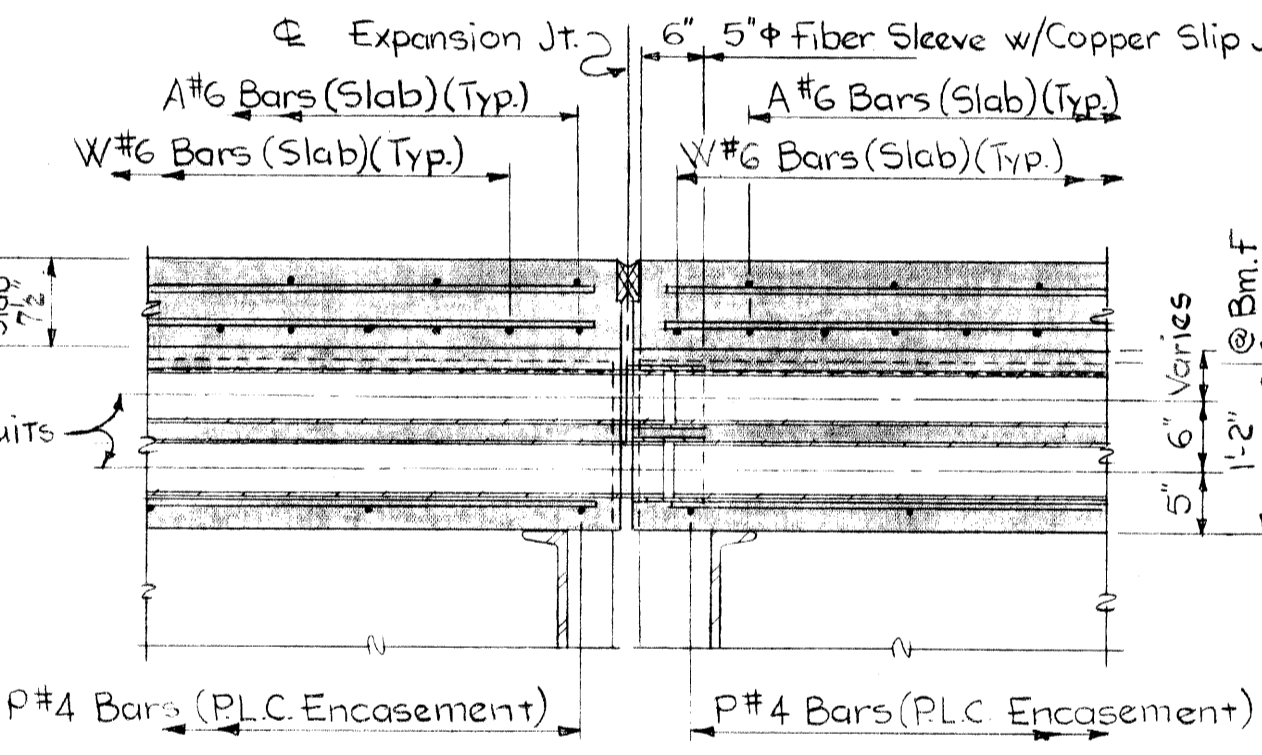
TYPICAL SECTION



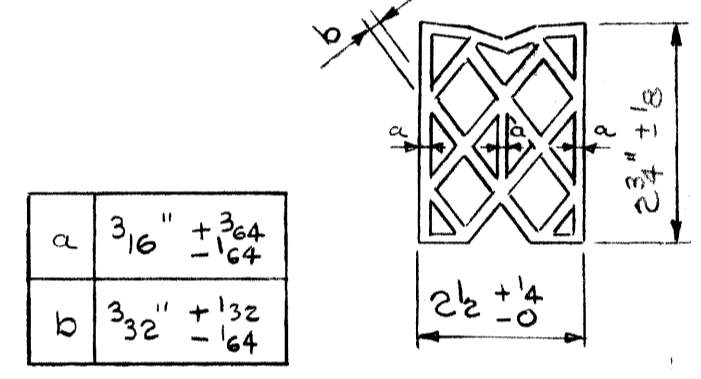
SECTION A-A



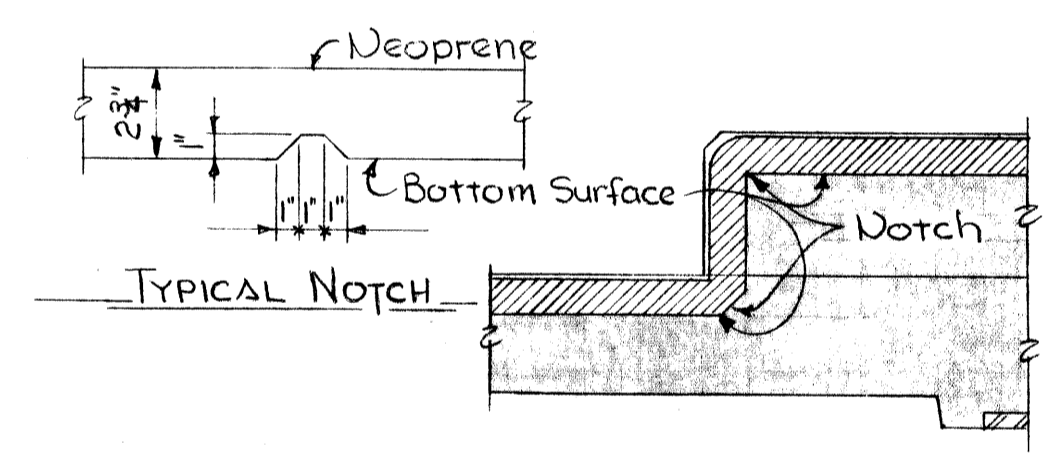
SECTION B-B



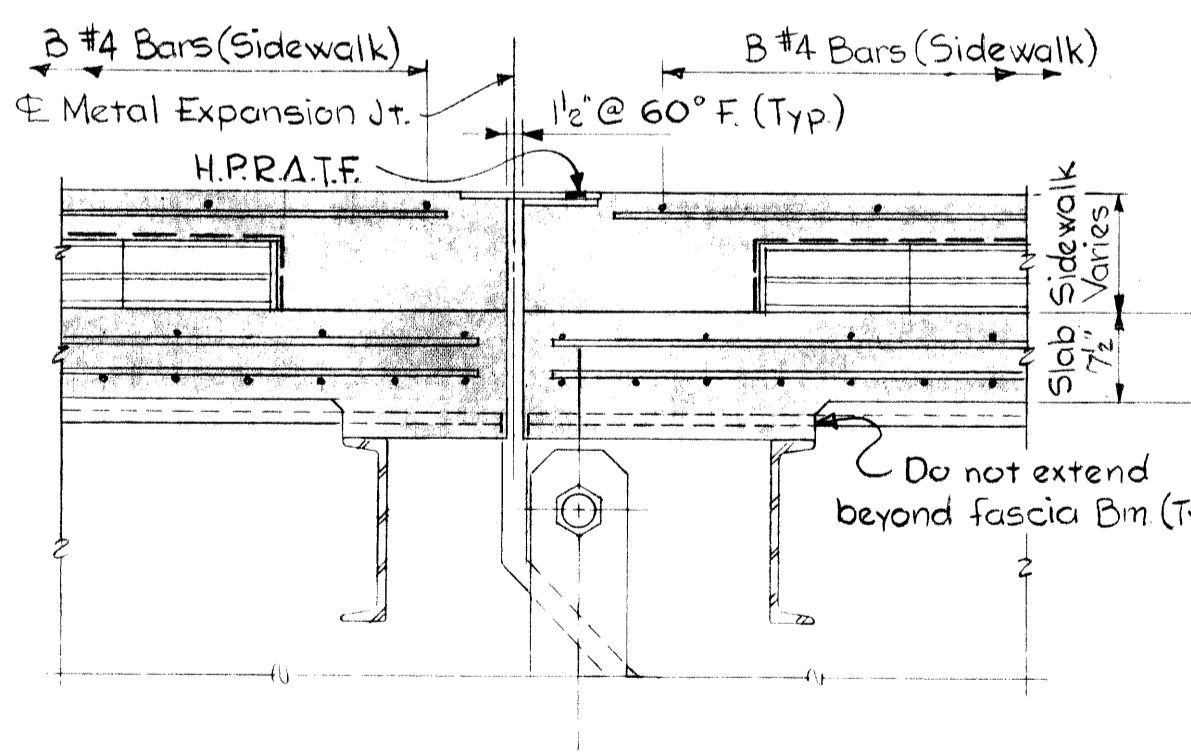
SECTION C-C



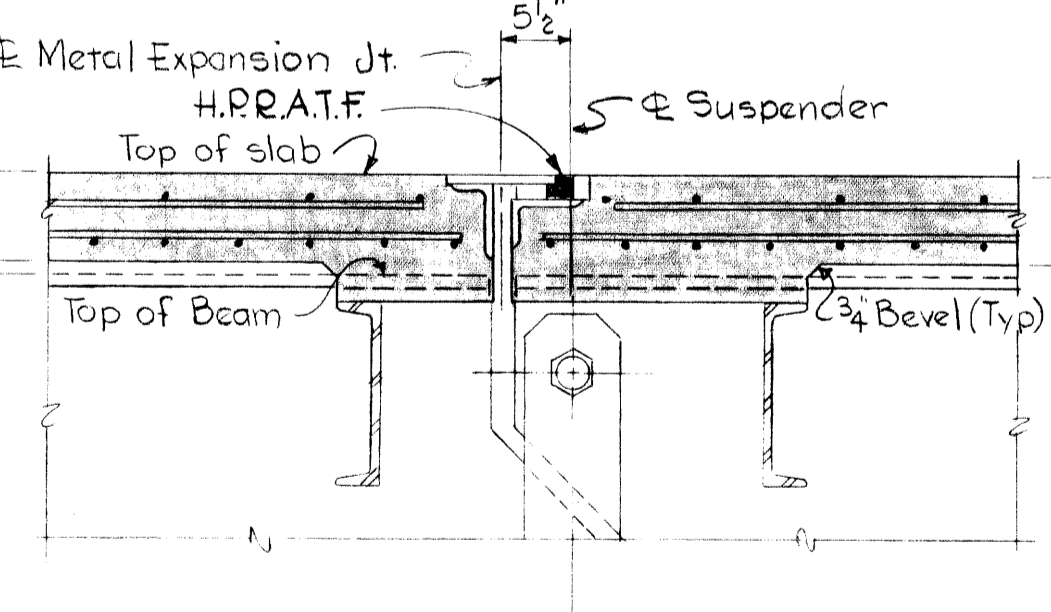
TYPICAL SECTION



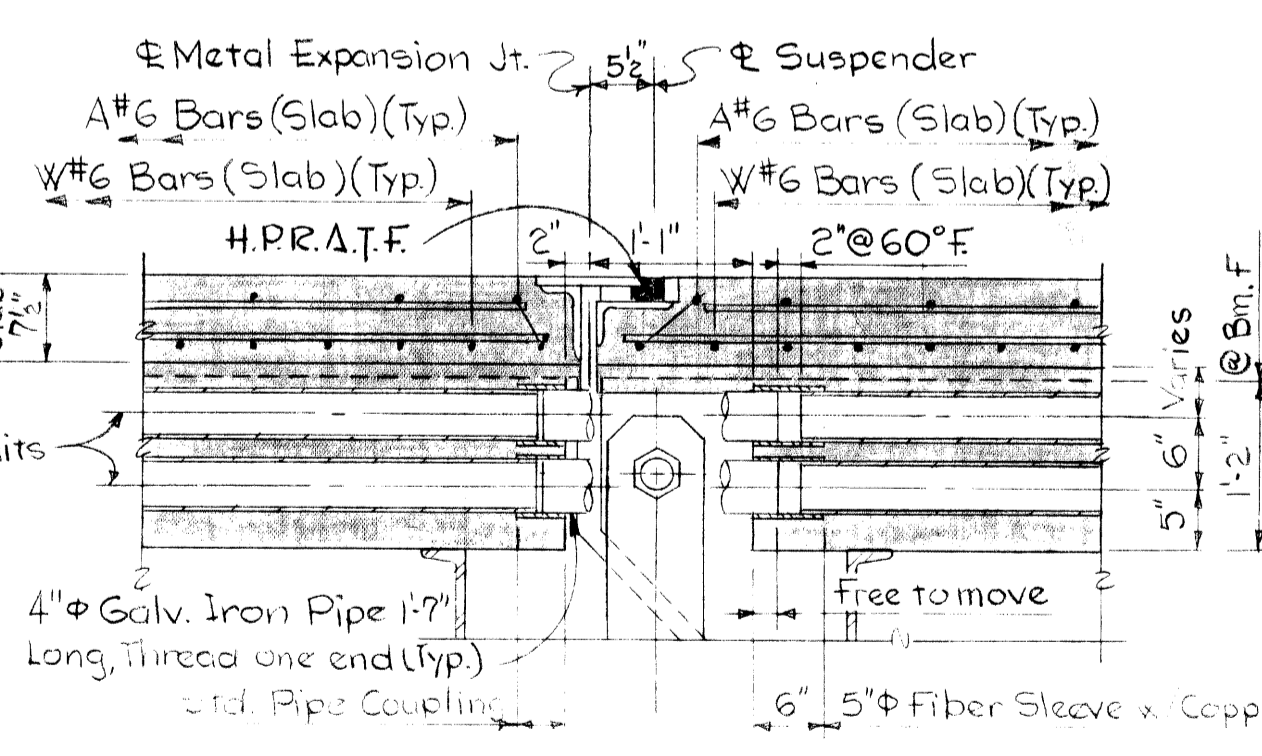
ELEVATION AT CURB LINE



SECTION D-D



SECTION E-E



SECTION F-F

DETAILS OF 2 1/2 x 2 3/4 PREFORMED NEOPRENE JOINT SEALER

Note: Fiber Sleeves, Copper Slip Joints, Couplings & 4" Galv. Iron Pipe are incidental to 4" Fiber Conduits.

Work this sheet with sheets 13, 14, 16 & 17.

CLYDE DETROIT  
 SUPERSTRUCTURE DETAILS  
 PW 990 (16)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS  
 JEFFERSON FREEWAY  
 RICHMOND SOUTH ST. BRIDGE  
 CROSSING THE FORD FREEWAY IN DETROIT

**SUPERSTRUCTURE DETAILS**

REVISIONS			
NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	STUBBS	10/66
DRAWN BY	STUBBS	7/66
CHECKED BY	STUBBS	10/66
SHEET 15 OF 45		

A