

MICHIGAN STATE HIGHWAY DEPARTMENT

CHRYSLER-FISHER INTERCHANGE
 NORTH BND. TO WEST BND. TURNING EXPRESSWAY IN DETROIT
 WALTER P. CHRYSLER EXPRESSWAY CROSSING THE

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

REVISIONS

NO.	DATE	DESCRIPTION

RECOMMENDED FOR APPROVAL
 ST. Assoc. Engr. - Design
 JOB NO. PW897B(2)

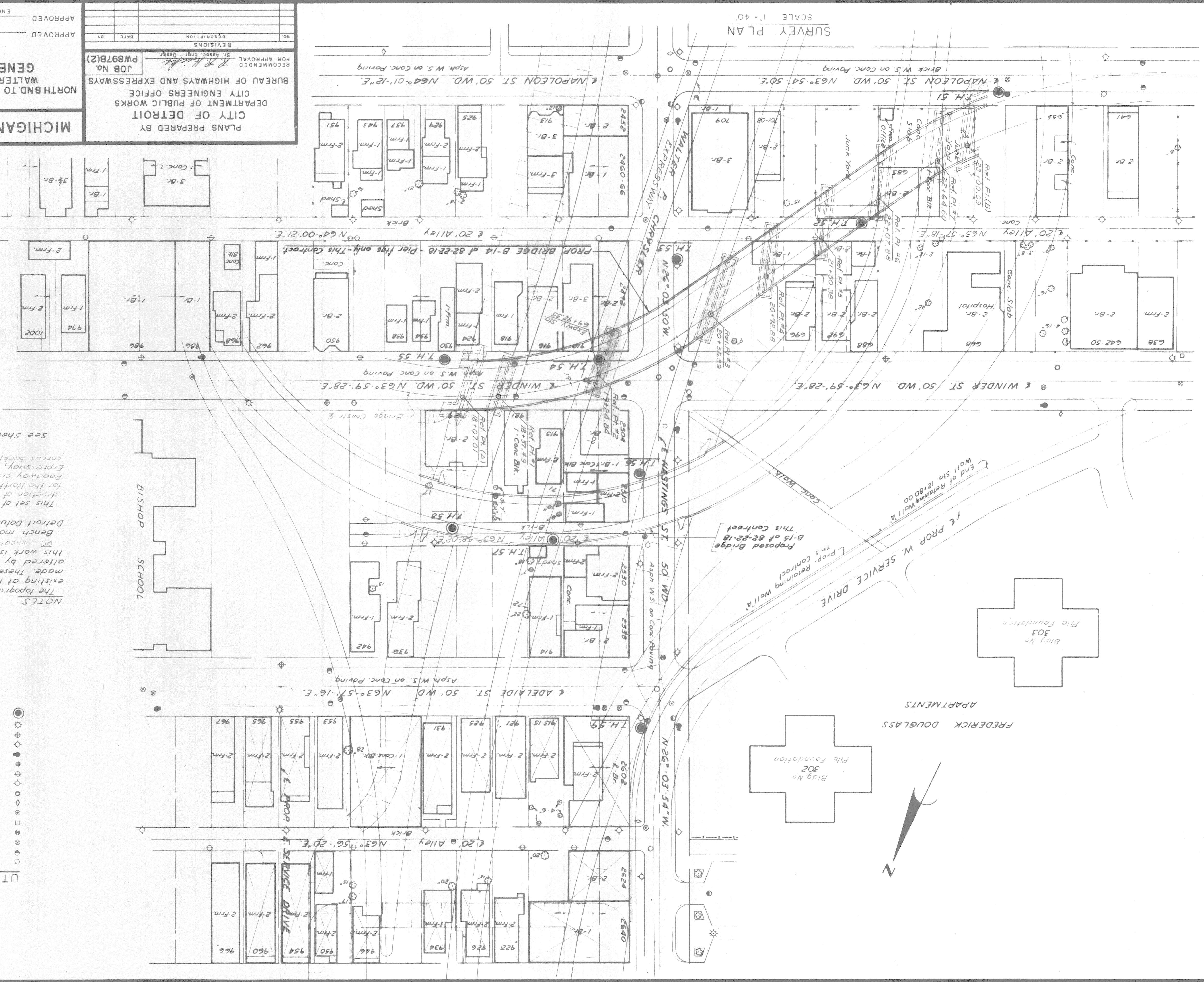
APPROVED
 COORDINATING ENGINEER

APPROVED
 ENGINEER OF DESIGN - CONSULTANTS

B14 OF 82-22-18

CONTROL SECTION 82251-30202

SURVEY PLAN
 SCALE 1" = 40'



NOTES:

The topography shown represents conditions existing at the time the field survey was made. These conditions may have been altered by the operations of others before this work is started.

☒ indicates removal under prior contract.

Bench marks are referenced to City of Detroit Datum.

This set of drawings covers the construction of the pier footings of the bridge for the North End to the West End Turning Expressway, including the Walter P. Chrysler Expressway, including incidental drainage, porous backfill, and incidental work.

See sheet No. 232 for Log of Borings.

- UTILITY LEGEND**
- Sewer Manhole
 - Sewer Inlet or Catchbasin
 - Water Gate & Box
 - Water Service Shut-off
 - Detroit Edison Co. Manhole
 - Gas Valve
 - D.F.D. Manhole
 - D.S.R. Pole
 - M.B.T. Pole
 - D.F.D. Alarm Box
 - Fire Hydrant
 - D.E. Pole
 - P.L.C. Pole (Without Light)
 - P.L.C. Lightpole
 - F.L.C. Lightpole
 - Test Hole for Soil Profile

MICHIGAN STATE HIGHWAY DEPARTMENT
GENERAL DRAWING
 CHRYSLER-FISHER INTERCHANGE
 NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
 WALTER P. CHRYSLER EXPRESSWAY IN DETROIT
 CITY OF DETROIT
 SPECIALS (Contract 9-59)
 DRAWN BY W. M. L. S.
 CHECKED BY C. G. L. S.
 SHEET 23 OF 414
 B14 OF 82-22-18

PLANS PREPARED BY
 CITY ENGINEERS OFFICE
 DEPARTMENT OF PUBLIC WORKS
 CITY OF DETROIT

RECOMMENDED FOR APPROVAL
 St. Assoc. Eng. Design
 JOB NO. PW897B(2)

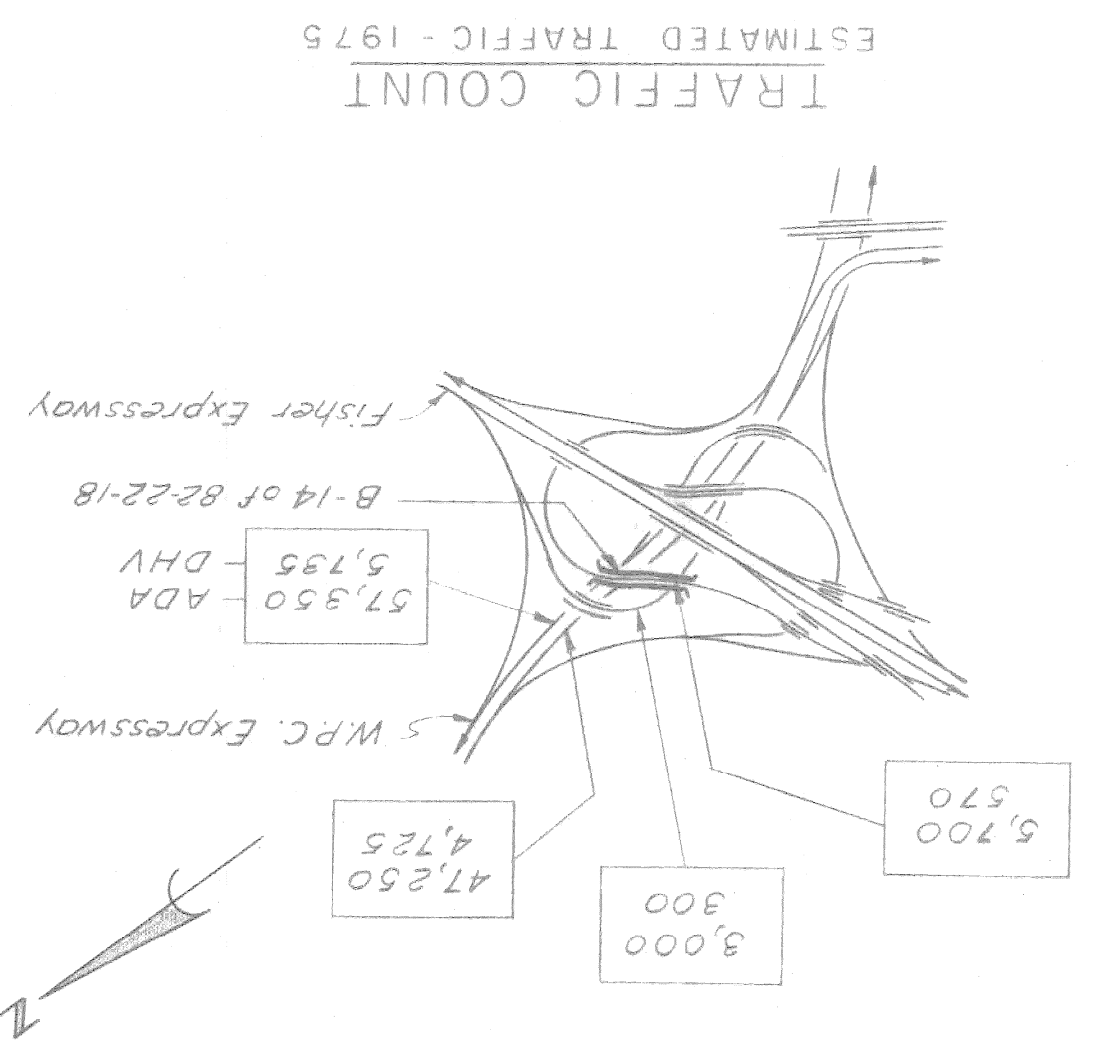
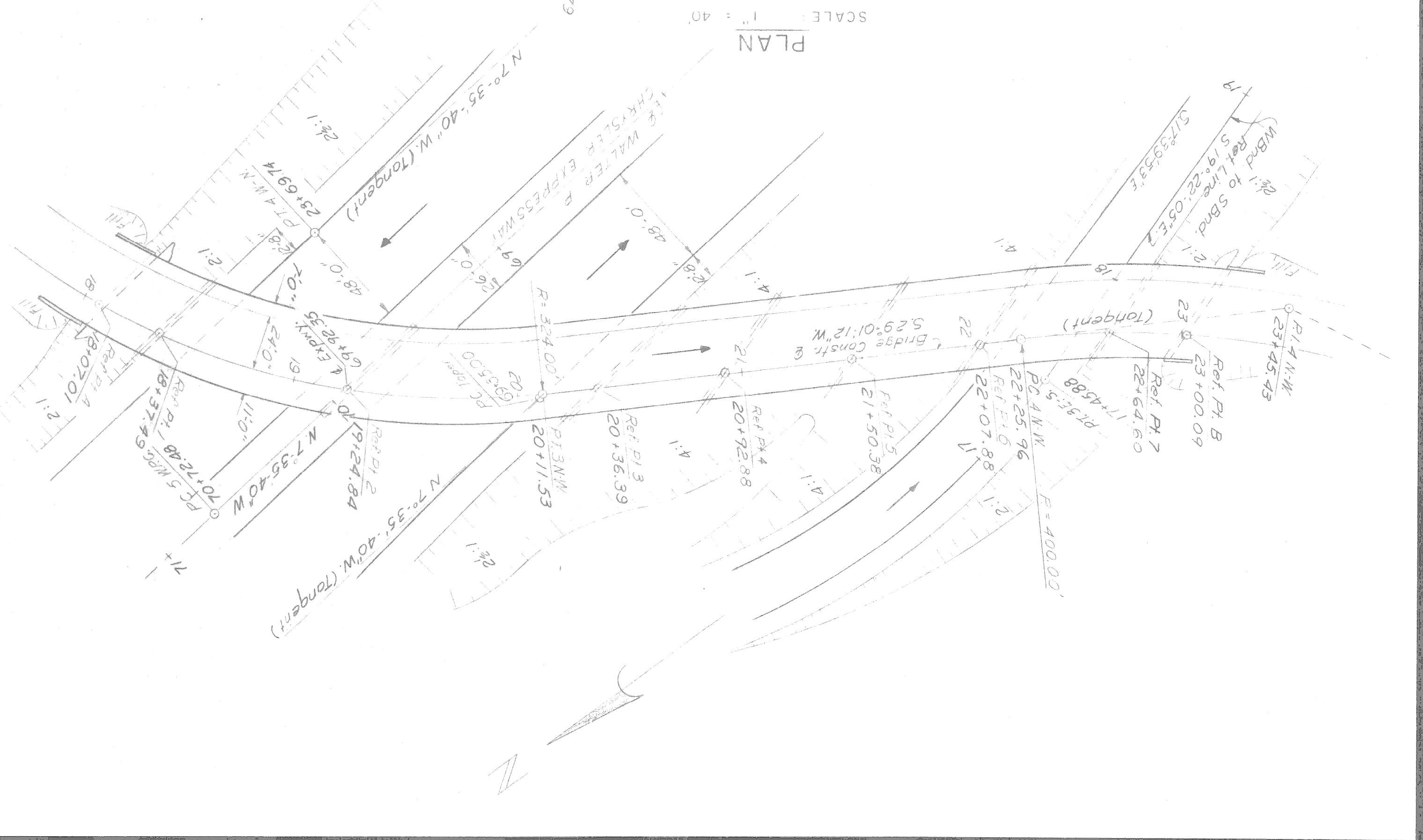
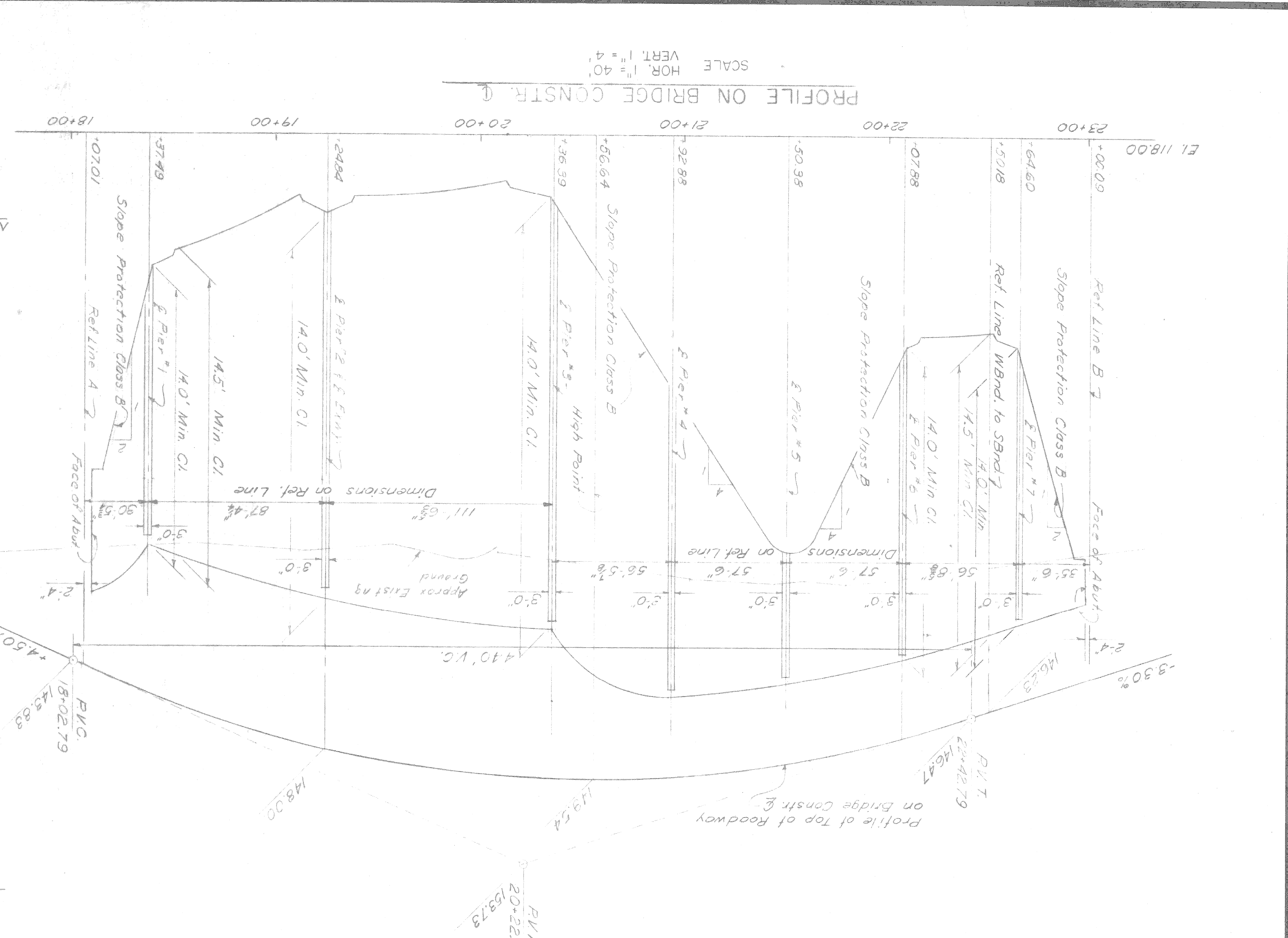
NO.	DESCRIPTION	DATE	BY

APPROVED
 COORDINATING ENGINEER

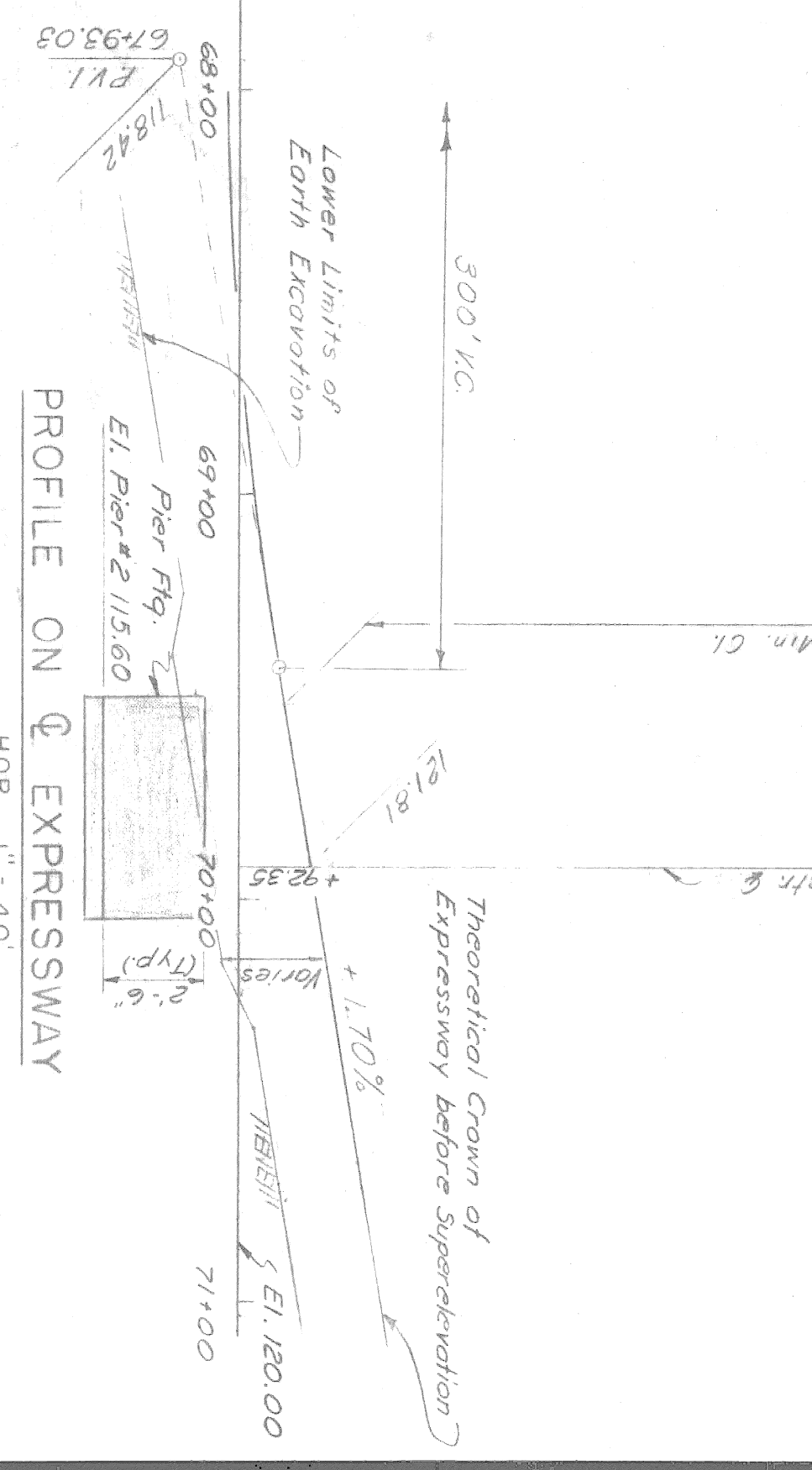
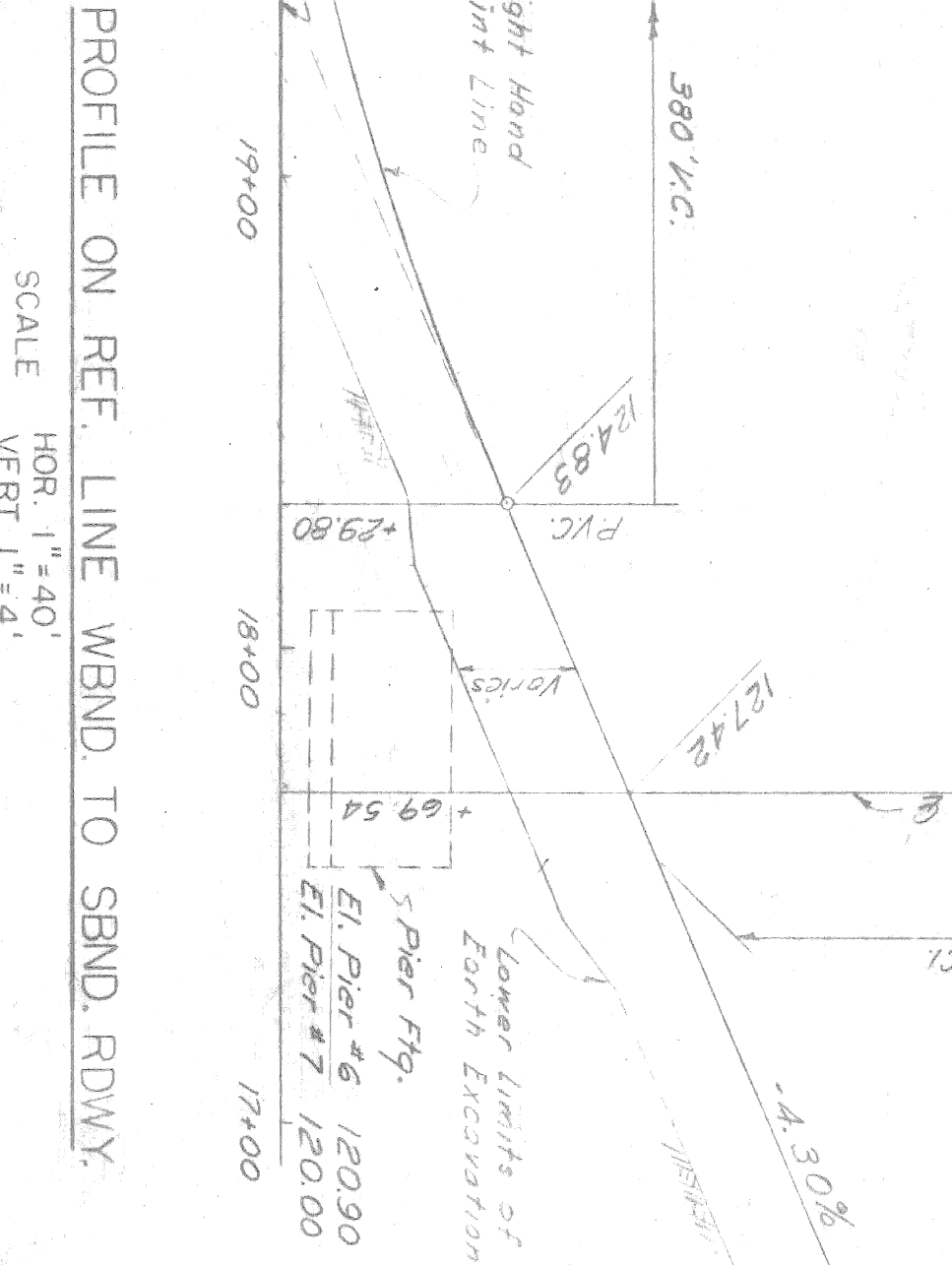
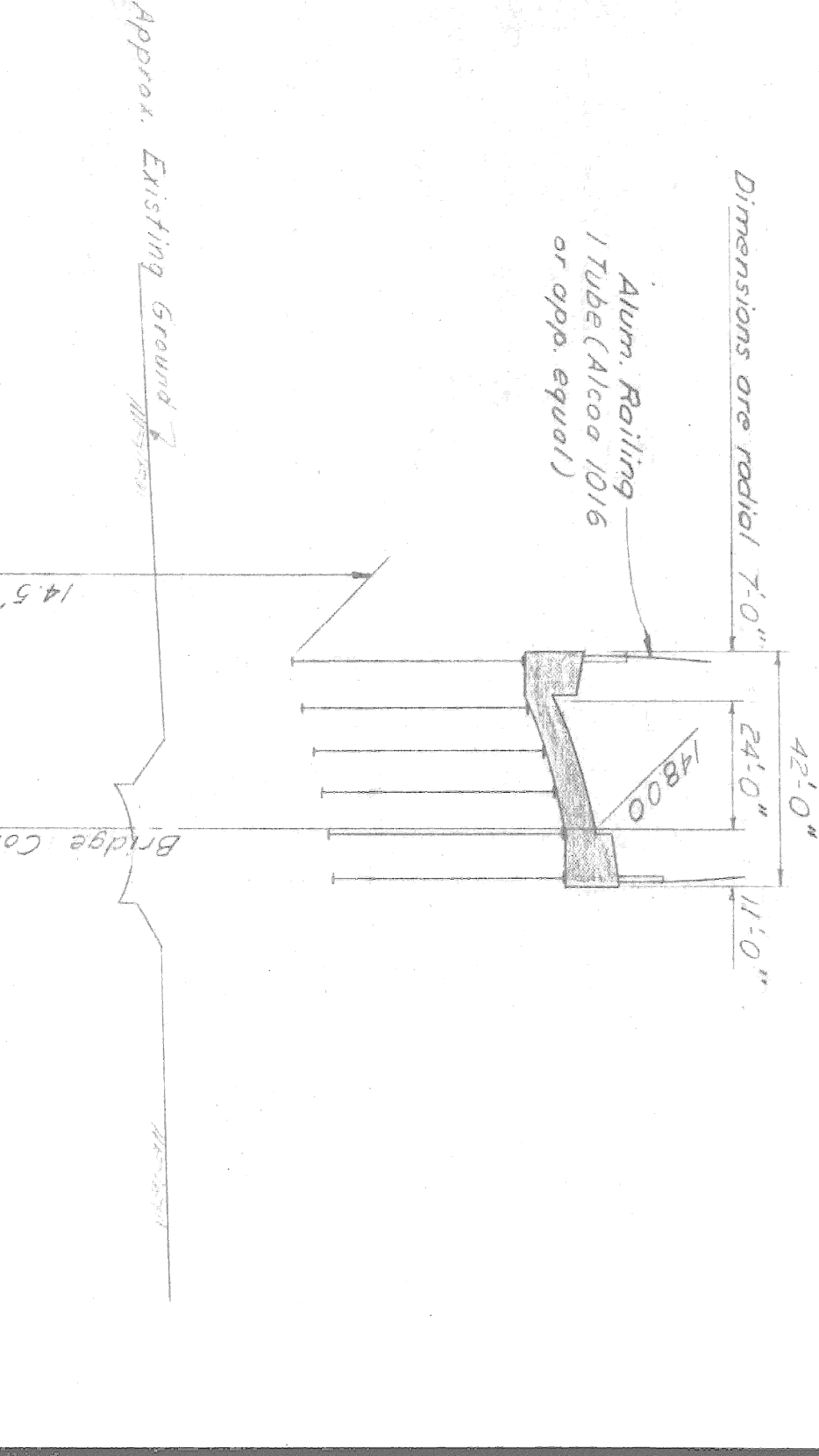
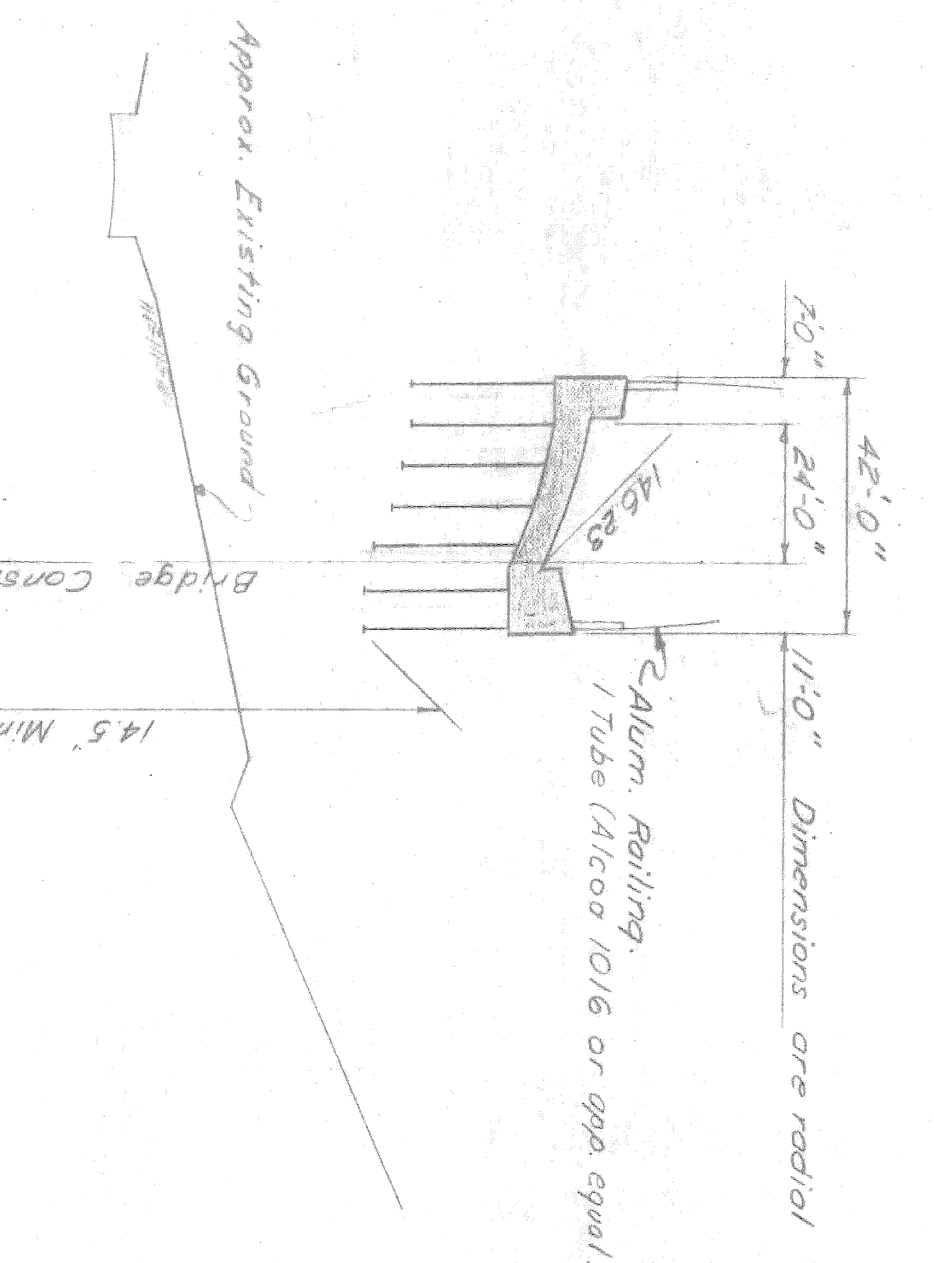
APPROVED
 ENGINEER OF DESIGN - CONSULTANTS

Work this sheet with sheet #254

Note:
 The indicated slopes are normal to roadway shoulder line.
 Substructure dimensions are perpendicular to the substructure of Pier footings only.
 This contract covers the construction of Pier footings only.



Note:
 The stationing as shown on these plans for the intersection of the Bridge centerline of the Wnd. Turning Roadway and the centerline of the Walter P. Chrysler Expressway as the control. It shall, however, be checked at the time of starting construction. Bridge centerline of the Wnd. Turning Roadway and the centerline of the Wnd. Turning Roadway and the centerline of the Walter P. Chrysler Expressway as the control. It shall be staked out using the actual intersection of the Bridge centerline of the Wnd. Turning Roadway and the centerline of the Walter P. Chrysler Expressway as the control.



CONTROL SECTION 82251-30202

PROFILE ON REF. LINE WEND. TO SBND. RDWY.
 SCALE: HOR. 1" = 40', VERT. 1" = 4'

PROFILE ON CENTERLINE EXPRESSWAY
 SCALE: HOR. 1" = 40', VERT. 1" = 4'

MICHIGAN STATE HIGHWAY DEPARTMENT

CHRYSLER-FISHER INTERCHANGE
 NORTH WALTER P. CHRYSLER EXPRESSWAY CROSSING THE
 CITY OF DETROIT

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

RECOMMENDED FOR APPROVAL
A. R. Williams
 Sr. Assoc. Engr., Design
JOB No. PW978(2)

NO. _____
 DATE _____
 DESCRIPTION _____

APPROVED _____
 COORDINATING ENGINEER

APPROVED _____
 ENGINEER OF DESIGN - CONSULTANTS

B14 OF 82-22-18

CONTROL SECTION 82251-30202

ALIGNMENT DIAGRAM
 Not to Scale
 Work this sheet with sheet # 253

NOTE:
 This contract covers the construction of Pier footings only.

NOTE
 Indicates reference points of points of intersection
 CBM denotes construction bench mark
 PBM denotes permanent bench mark

CBM-44
 Arrow on hydrant NW corner St Antoine and Winder
 Elev 140.751

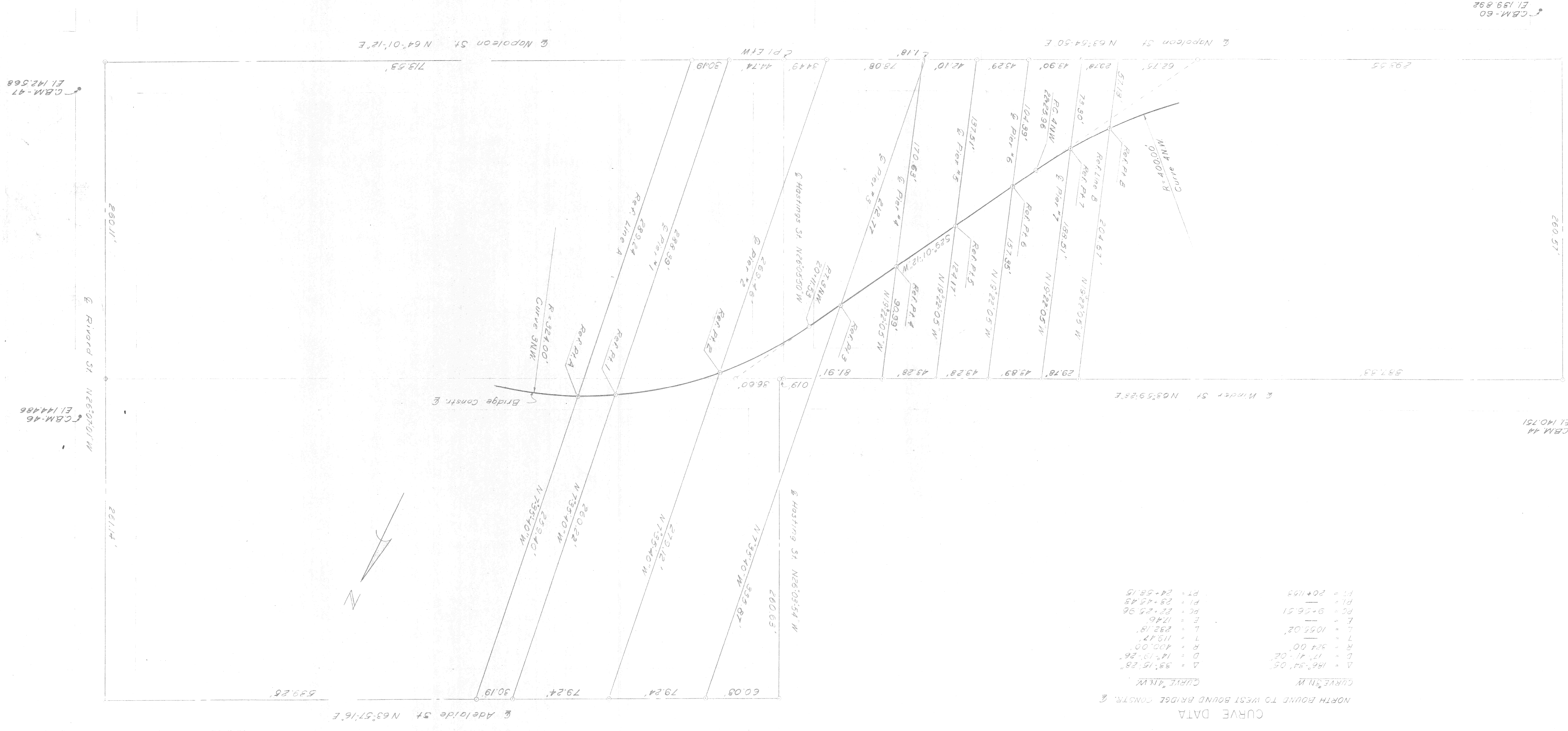
CBM-46
 Arrow on hydrant NE corner Rivard and Winder
 Elev 144.486

CBM-47
 Arrow on hydrant NE corner Rivard and Napoleon
 Elev 142.568

CBM-60
 Arrow on hydrant SE corner St Antoine and Napoleon
 Elev 139.892

PBM-39-250
 City of Detroit monument NE corner Hastings and Elizabeth
 Elev 129.450

PBM-39-251A
 City of Detroit monument NW corner Rivard and Wilkins
 Elev 140.842



CURVE DATA
 NORTH BOUND TO WEST BOUND BRIDGE CONSTR. &
 CURVE 4NM

Δ	=	186°34'05"
D	=	17°41'02"
R	=	324.00'
L	=	119.47'
E	=	292.18'
F	=	174.6'
PC	=	82°25'36"
PI	=	28°45'45"
PT	=	24°58'15"
Δ	=	59°15'28"
D	=	14°19'26"
R	=	400.00'
L	=	119.47'
E	=	292.18'
F	=	174.6'
PC	=	82°25'36"
PI	=	28°45'45"
PT	=	24°58'15"

CBM-60
 El. 139.892

St Antoine St N26°40'01"W
 260.57'

CBM 44
 El. 140.751

CBM-47
 El. 142.568

CBM-46
 El. 144.486

Adelaide St N63°57'16"E
 539.25'

MICHIGAN STATE HIGHWAY DEPARTMENT

CHRYSLER-FISHER INTERCHANGE
 NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
 WALTER B CHRYSLER EXPRESSWAY IN DETROIT

GENERAL PLAN OF STRUCTURE

CITY OF DETROIT

RECOMMENDED FOR APPROVAL
 S. J. H. M.
 JOB NO. PM897B(2)

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE

BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED
 COORDINATING ENGINEER
 ENGINEER OF DESIGN-CONSULTANTS

B14 OF 82-22-18

CONTROL SECTION 82251-3022

Work this sheet with sheets 256 & 257

Note-
 This contract covers the construction of Pier Footings only

Allowable Max. DL + LL R. 15	Allowable Max. DL + LL R. 10
4400	3820
3000	3150
2720	2700
3630	5700
4400	3580
3400	3300

Wingwalls 2720 3630 4400

Piers 3000 3580 4400

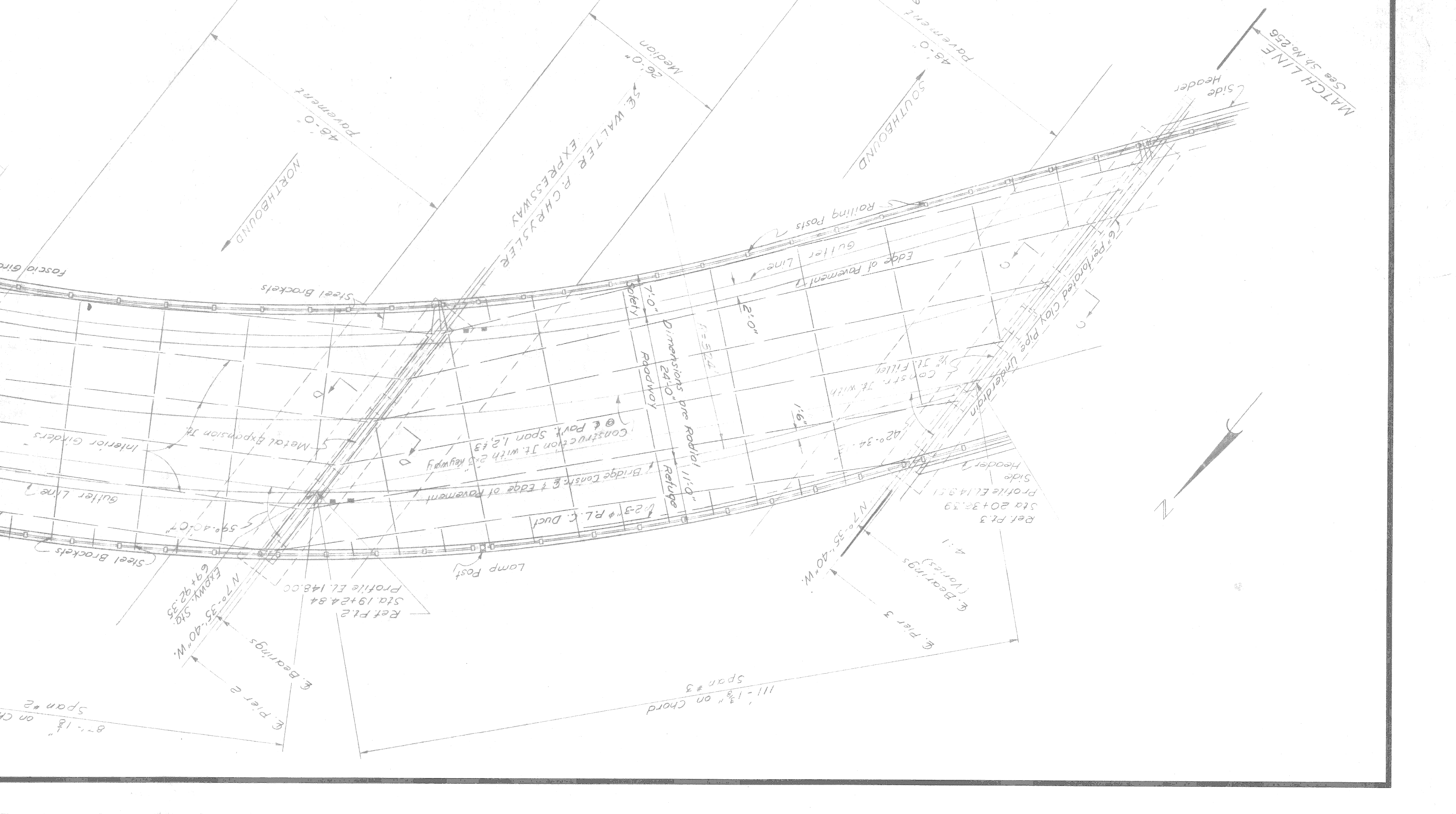
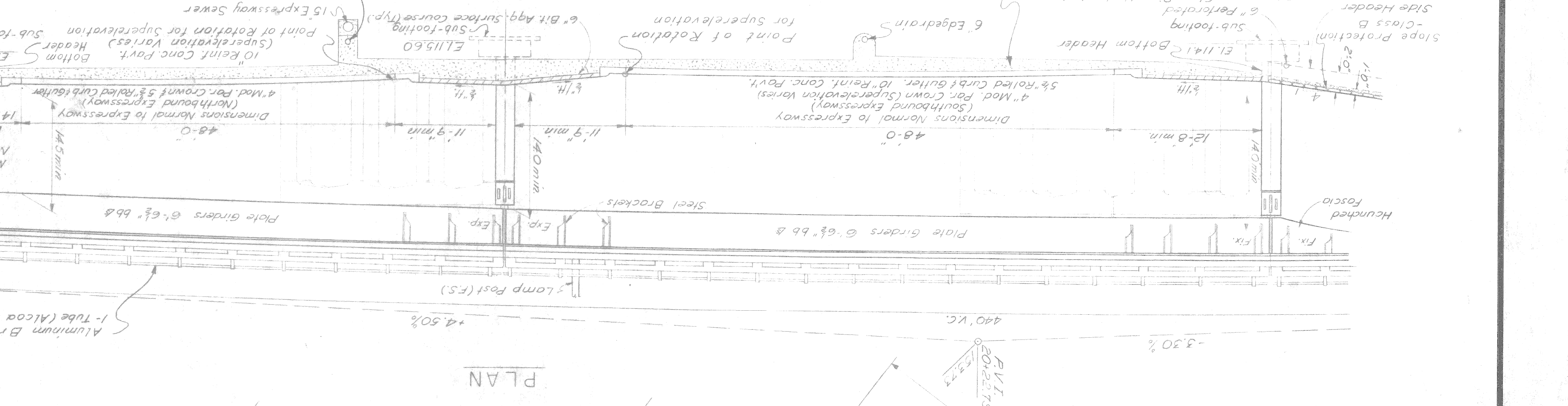
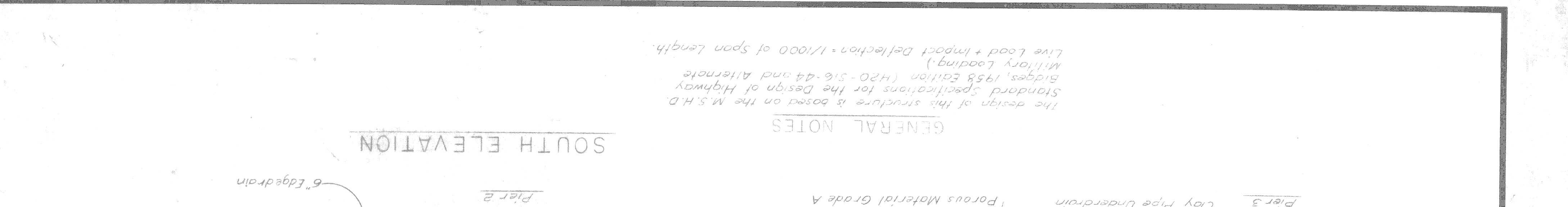
Abutments 2830 5700 3820 4400

Max. D.L. Allowable DL + LL R. 15

GENERAL NOTES

The design of this structure is based on the M.S.H.D. Standard Specifications for the Design of Highway Bridges, 1958 Edition (H20-S16-44 and Alternate Military Loading).

Live Load + Impact Deflection = 1/1000 of span length.



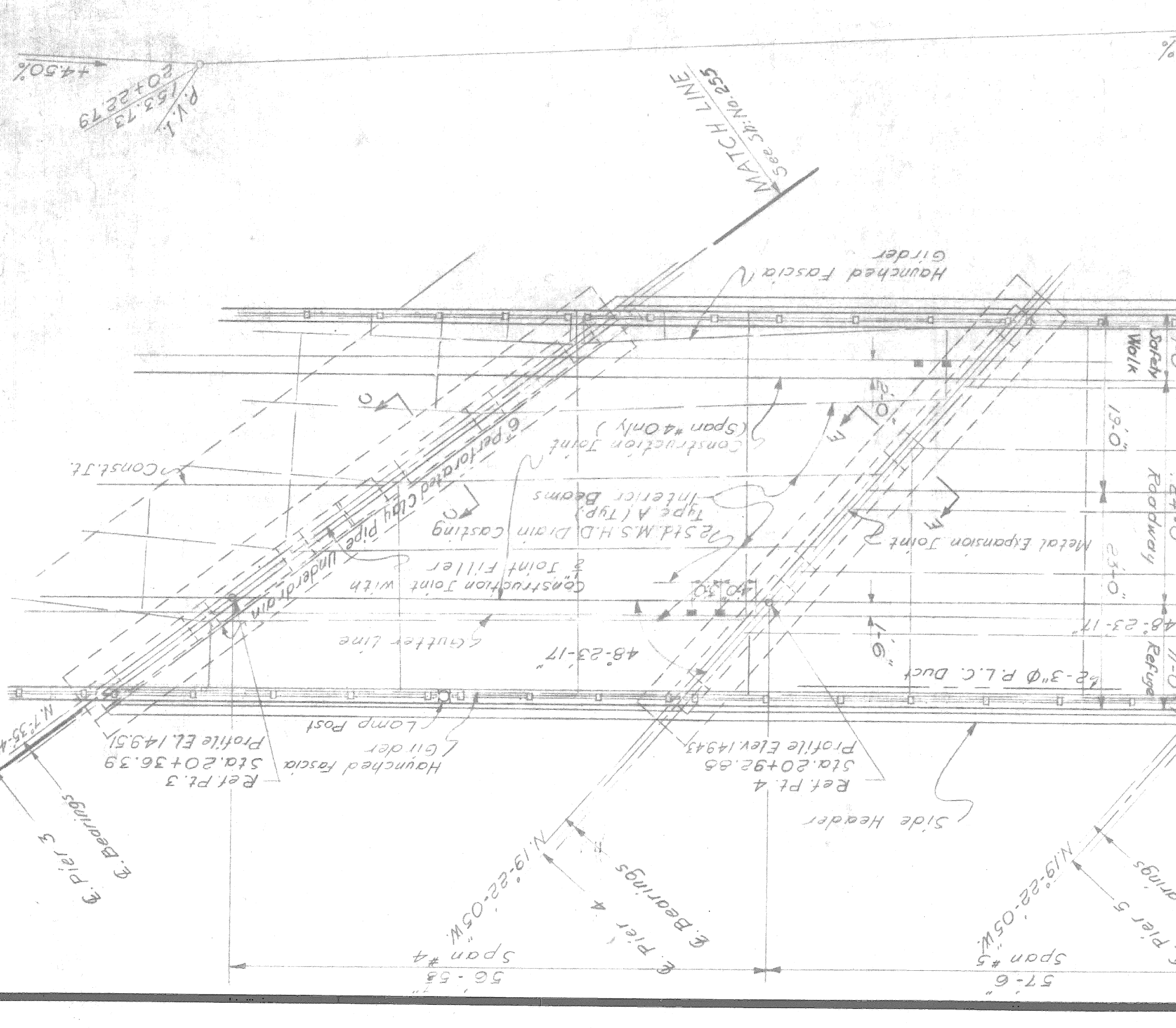
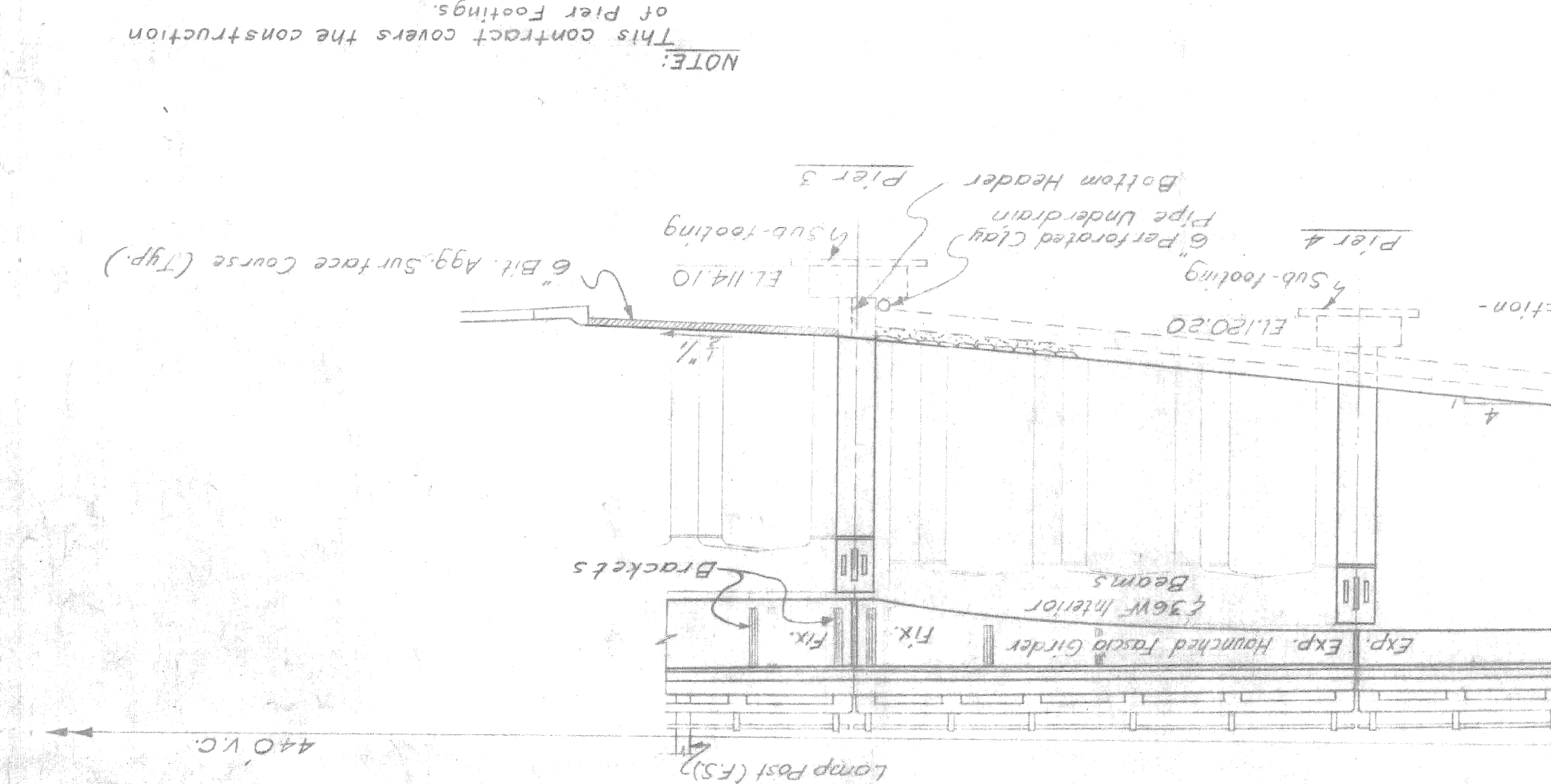
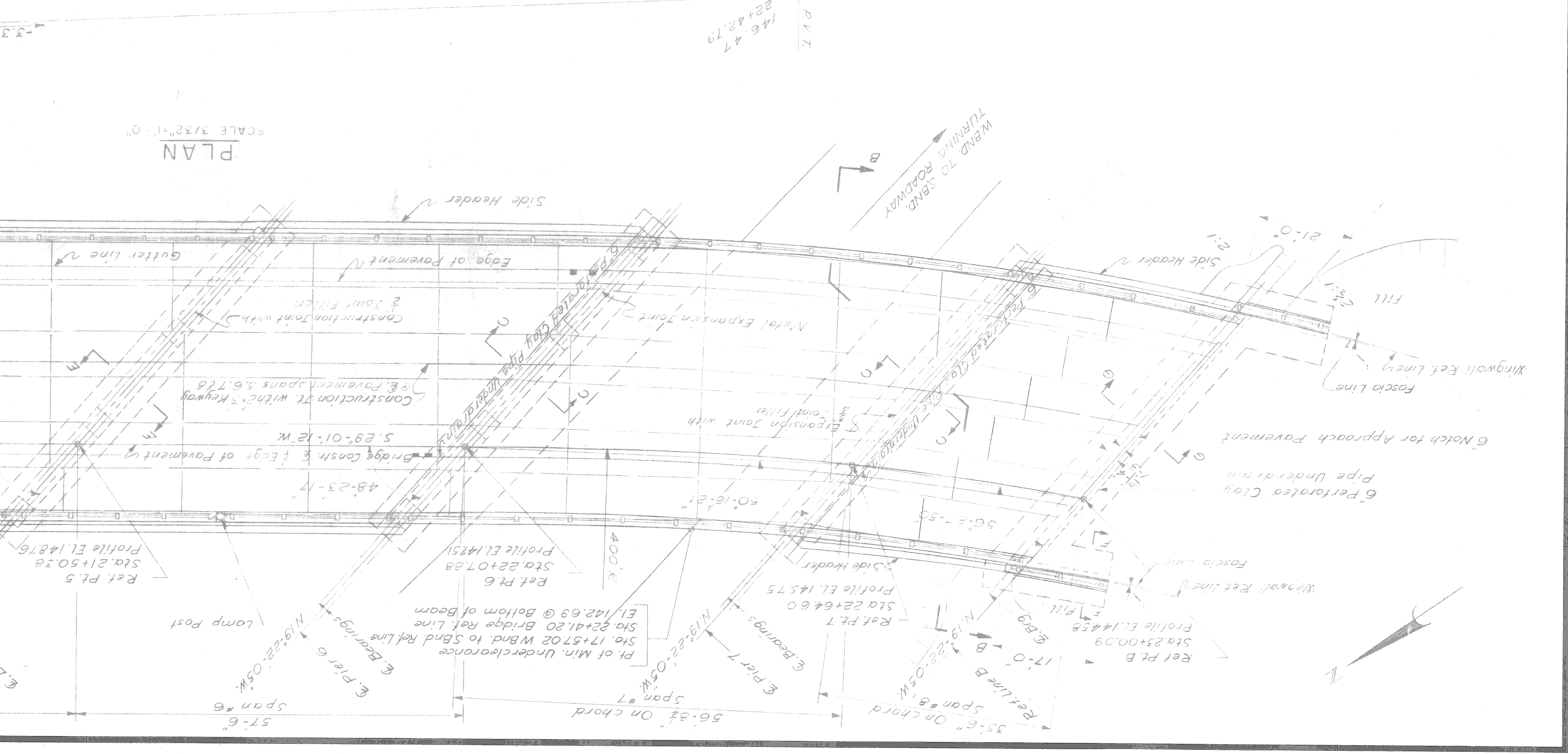
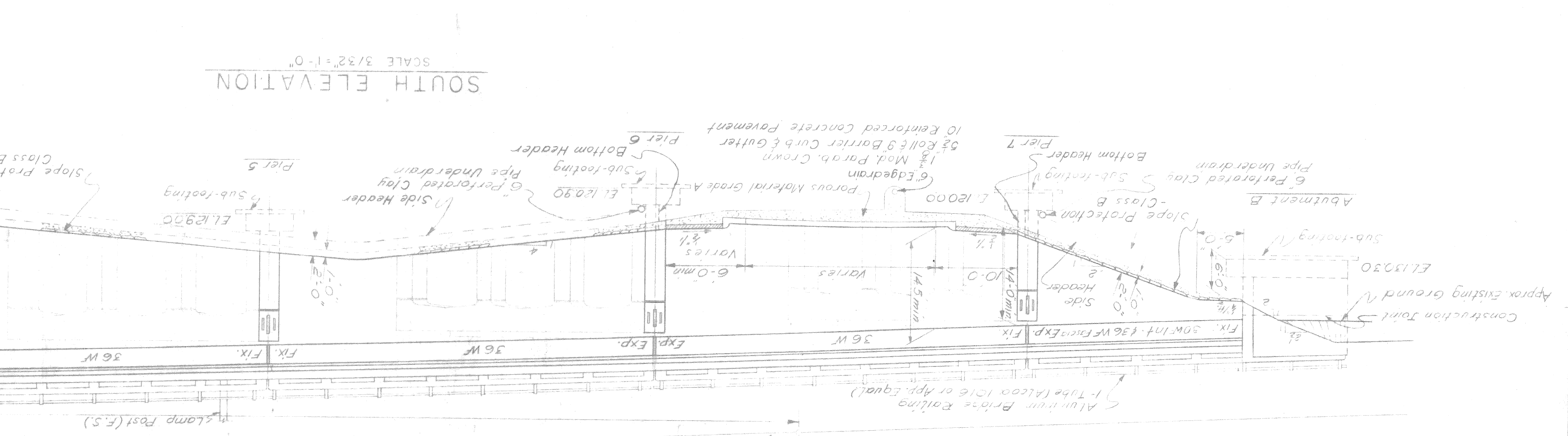
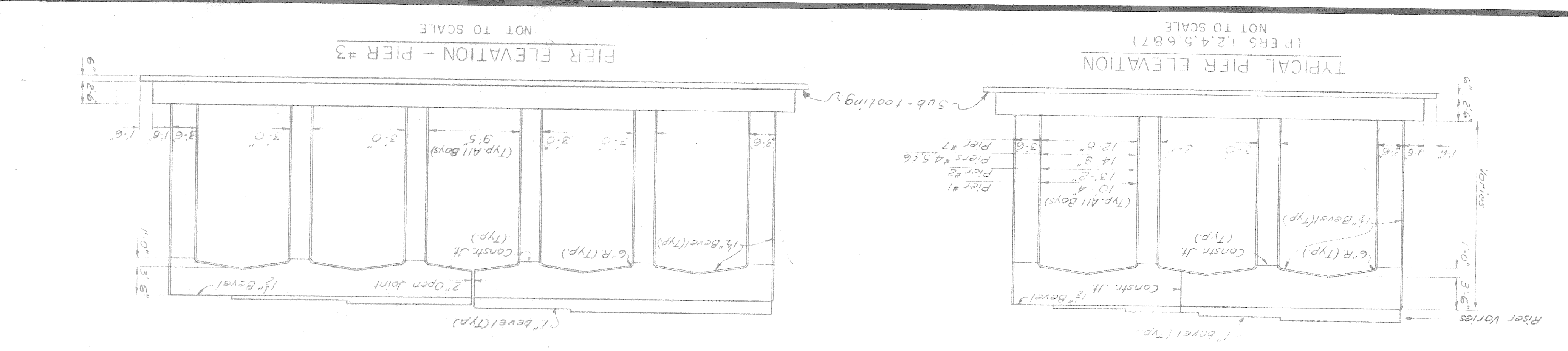
APPROVED	ENGINEER OF DESIGN - CONSULTANTS
APPROVED	COORDINATING ENGINEER
CHECKED BY	DATE
TRACED BY	DATE
DRAWN BY	DATE
SCALE	DATE

GENERAL PLAN OF STRUCTURE
 CHRYSLER-FISHER INTERCHANGE
 NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
 WALTER P. CHRYSLER EXPRESSWAY IN DETROIT
 CITY OF DETROIT

MICHIGAN STATE HIGHWAY DEPARTMENT
 CONTROL SECTION 82251-30202

NO.	DESCRIPTION	DATE	BY
REVISIONS			
FOR APPROVAL	RECOMMENDED		
JOB NO.	PM978(2)		
PLANS PREPARED BY CITY ENGINEERS OFFICE DEPARTMENT OF PUBLIC WORKS CITY OF DETROIT			

Work this sheet with sheets 255 & 257



NOTE: This contract covers the construction of Pier Footings.

SHEET 25 of 14
 CHECKED BY: J.B.M. 12-59
 DRAWN BY: J.B.M. 12-59
 SQUAD BOSS: J. L. ...
 CITY OF DETROIT

BILL OF MATERIAL

CHRYSLER - FISHER INTERCHANGE
 NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
 WALTER P CHRYSLER EXPRESSWAY IN DETROIT

MICHIGAN STATE HIGHWAY DEPARTMENT

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS
 JOB NO. PW897B(2)

CONTROL SECTION 82251-30202
 This contract covers the construction
 of Pier Footings only.

ITEM	UNIT	QUANTITY	DATE
Grade "X" Concrete	cu. yds	30	
Unclassified Excavation	cu. yds	1,412	
Grade A(6A) Concrete - substructure	cu. yds	450	
Steel Reinforcement	Lbs.	42,410	

PLAN EXTRAS
 DATE
 DESCRIPTION
 UNIT
 QUANTITY
 ESTIMATE
 FINAL

MICHIGAN STATE HIGHWAY DEPARTMENT

FOOTING PLAN - PIERS

CHRYSLER - FISHER INTERCHANGE
 WALTER P CHRYSLER EXPRESSWAY CROSSING THE
 NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
 CITY OF DETROIT

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

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	AS SHOWN		

CHECKED BY J.B.M. 12-59
 DRAWN BY J.B.M. 12-59
 SHEET 259 OF 414

B14 of 82-22-18

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

JOB NO. PW897B(2)

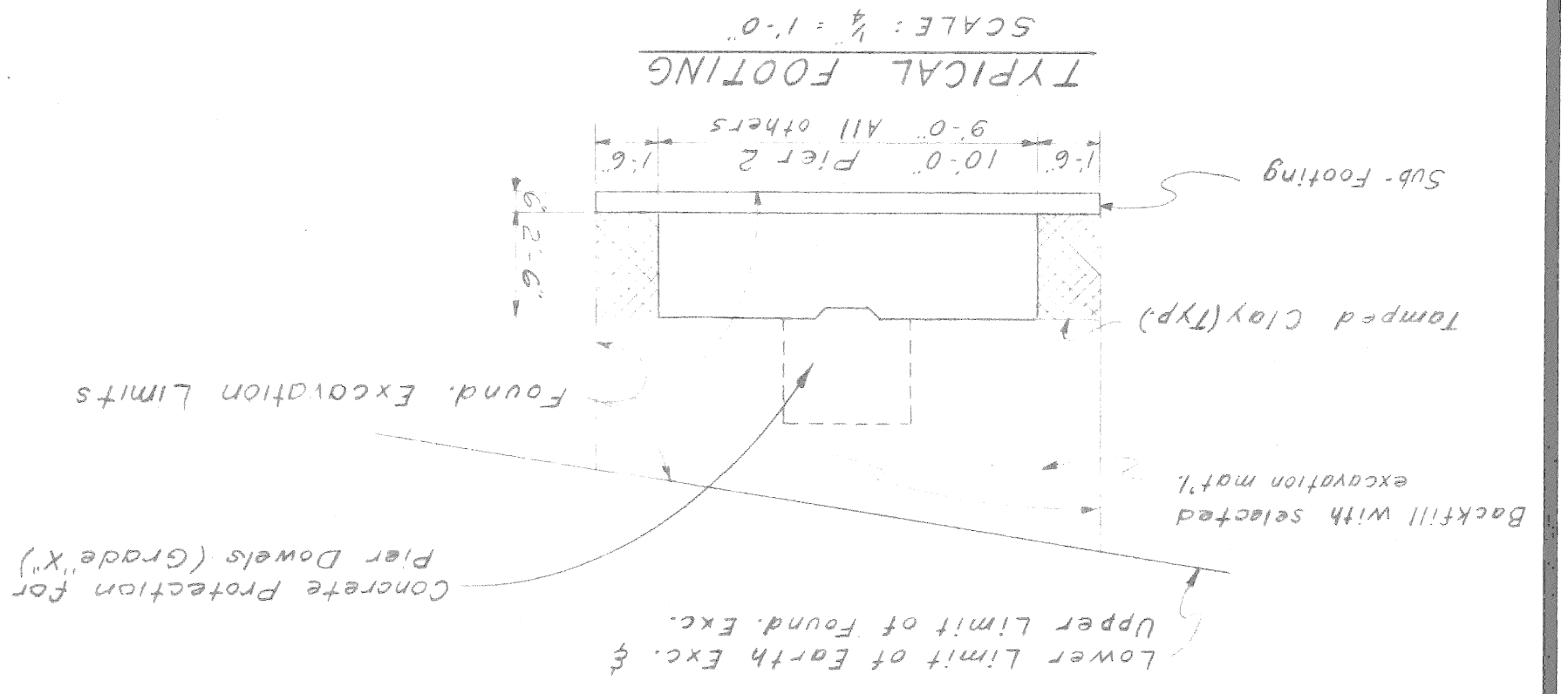
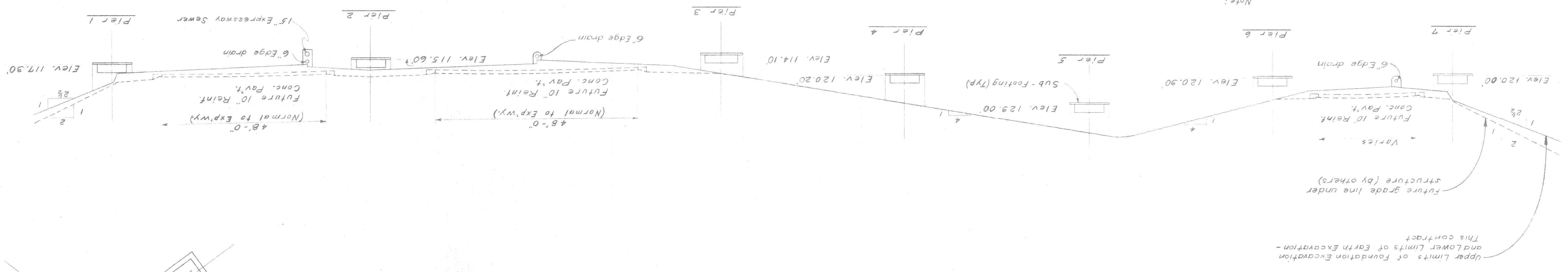
RECOMMENDED FOR APPROVAL
 Sr. Assoc. Engr. - Design

Work this sheet with sheet No. 260.
 CONTROL SECTION 82251-30202

NOTE:
 This contract covers the construction
 of Pier Footings only.

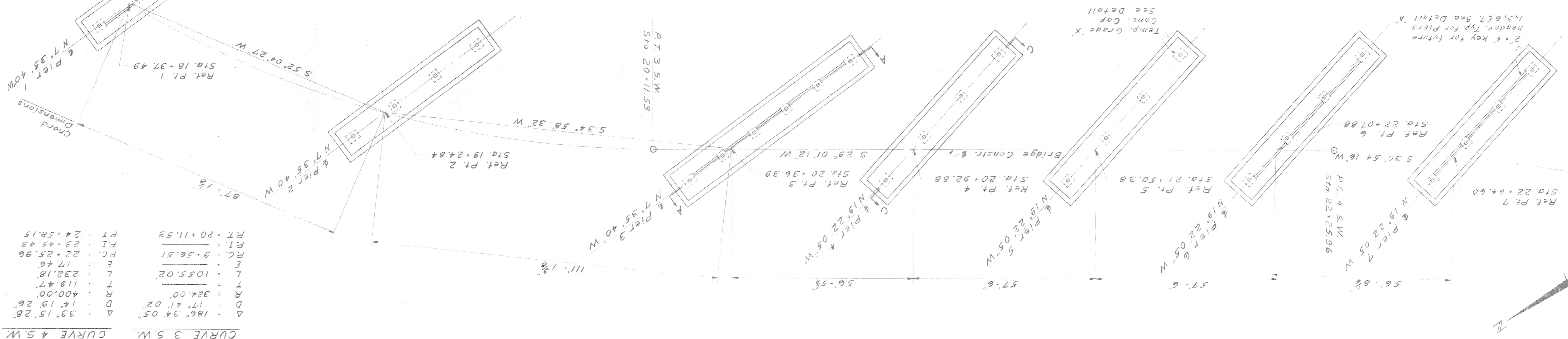
PROFILE ON BRIDGE CONSTRUCTION

SCALE: 1/8" = 1'-0"



PLAN

SCALE: 1/8" = 1'-0"



CURVE DATA

N. BOUND TO W. BOUND BRIDGE CONSTR. & CURVE 3 S.W. CURVE 4 S.W.

Δ	= 186° 34' 05"	PT	= 20+11.53
D	= 17' 41' 02"	PI	= 23+45.45
R	= 324.00'	P.C.	= 22+25.96
T	= 119.47'	E	= 17.46'
L	= 232.18'	L	= 1055.02'
W	= 400.00'	W	= 17.46'
Δ	= 33° 15' 26"	Δ	= 24+58.15

Note:
 The indicated slopes are normal
 to Roadway Shoulder line.

Upper Limits of Foundation Excavation
 and Lower Limits of Earth Excavation -
 This contract

Future grade line under
 structure (by others)

Varies

Future 10" Reinf.
 Conc. Pavt.

Elev. 120.00

Pier 7

6" Edge drain

Lower Limit of Earth Exc. &
 Concrete Protection for
 Pier Dowels (Grade 'X')

Backfill with selected
 excavation mat'l.

Found. Excavation Limits

Tamped Clay (Typ)

Sub-Footing

TYPICAL FOOTING

SCALE: 1/4" = 1'-0"

JOB No. PW 897B(2)		RECOMMENDED FOR APPROVAL
BY: <i>[Signature]</i>		BY: <i>[Signature]</i>
TITLE: PW 897B(2)		DATE: _____
PROJECT: CHRYSLER-FISHER INTERCHANGE		DATE: _____
DRAWN BY: _____		DATE: _____
CHECKED BY: _____		DATE: _____
SHEET 20 OF 41		DATE: _____

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

CHRYSLER-FISHER INTERCHANGE
NORTH BND. TURNING ROADWAY CROSSING THE
WALTER R CHRYSLER EXPRESSWAY IN DETROIT
CITY OF DETROIT

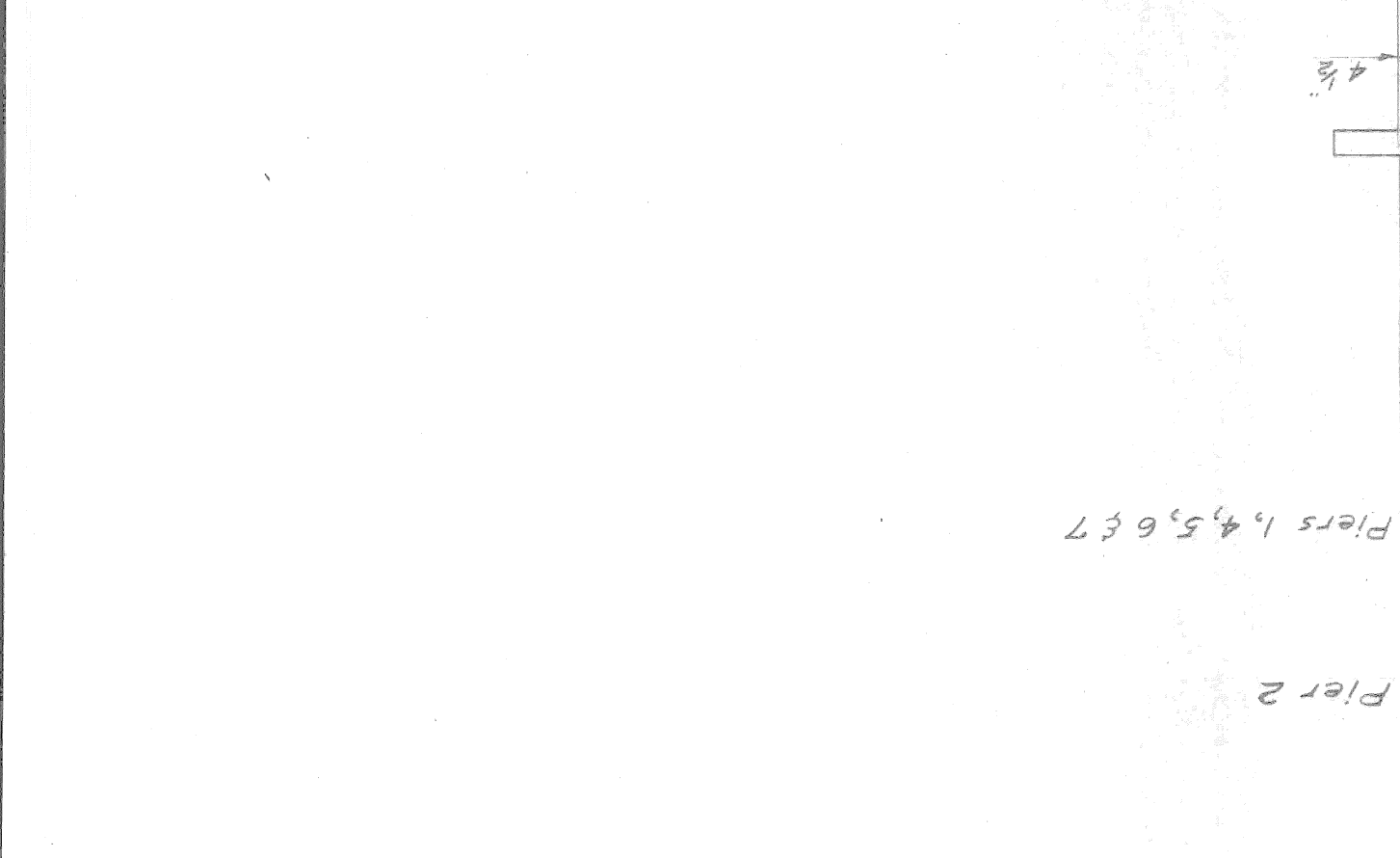
SECTION A-A PIER 3
SCALE: 1/8" = 1'-0"



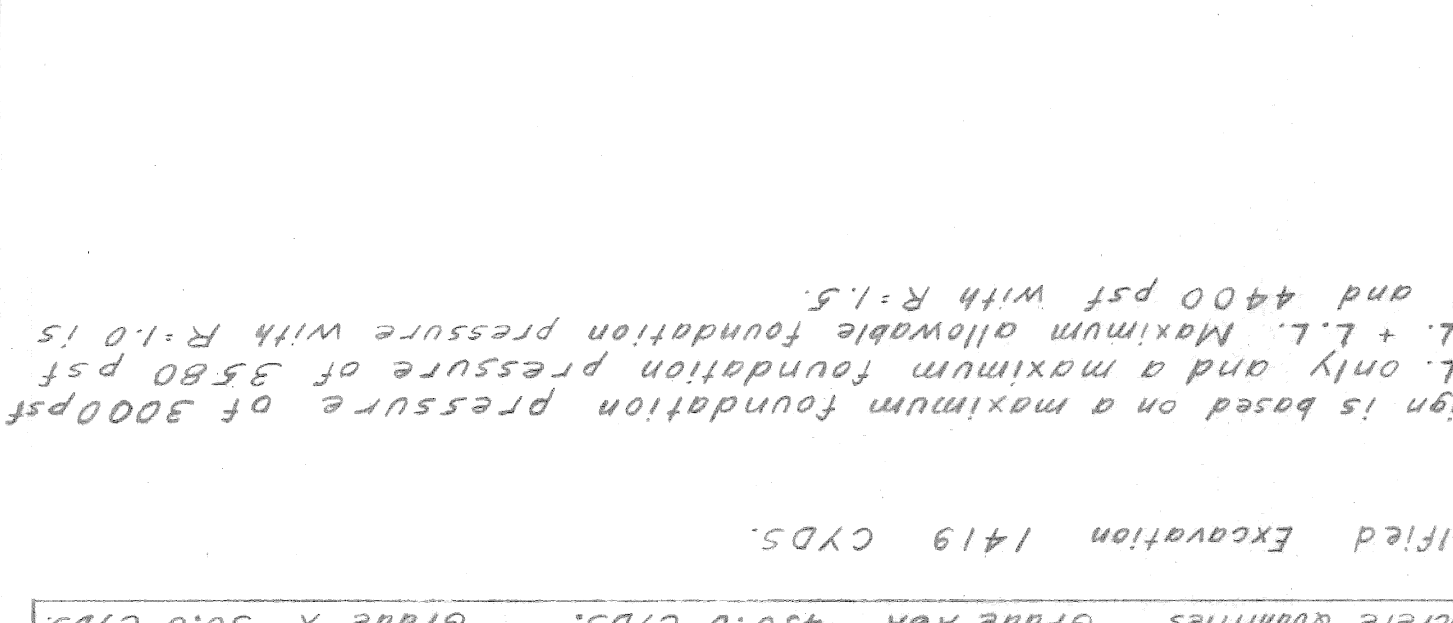
SECTION B-B
SCALE: 1/8" = 1'-0"



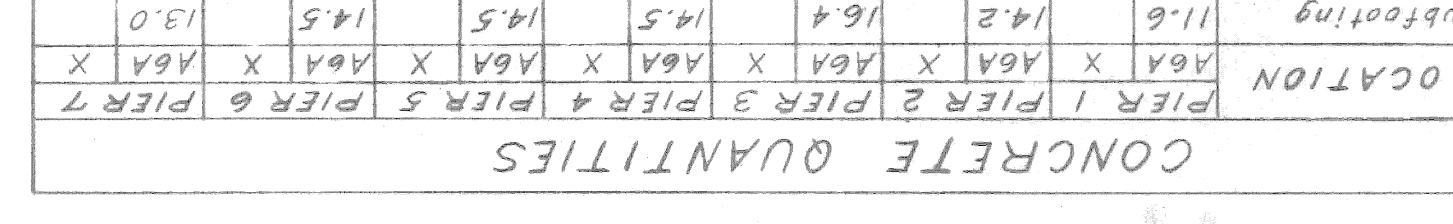
FOOTING ELEVATION -- PIERS 1, 2, 4, 5, 6 & 7



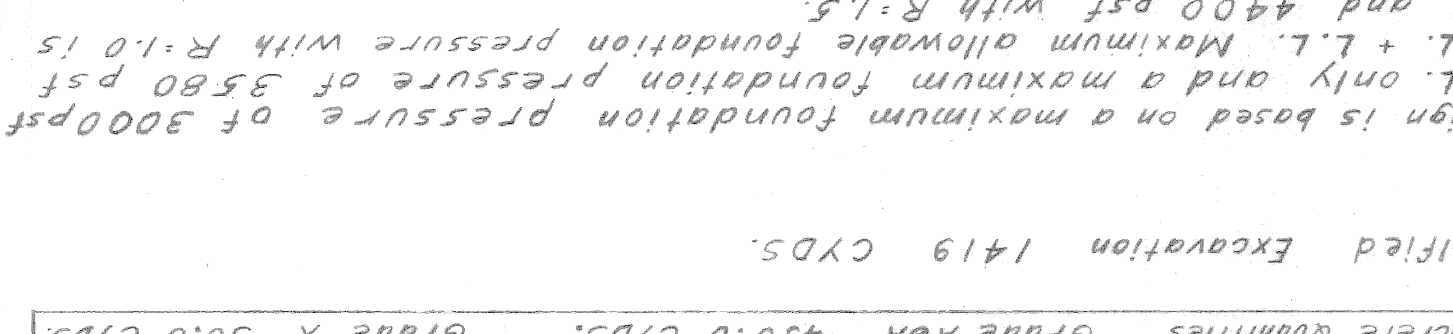
SECTION C-C PIERS 1, 2, 4, 5, 6 & 7



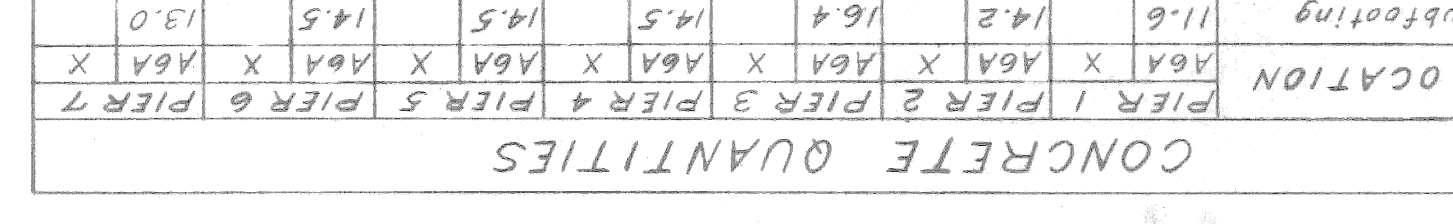
SECTION D-D



NO SCALE
DOWEL DETAIL -- INTERIOR COL'S.



NO SCALE
DOWEL DETAIL -- EXTERIOR COL'S.



NO SCALE
DOWEL CAP FOR FUTURE PIER



CONCRETE QUANTITIES

POUR LOCATION	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7
A6A X A6A X A6A X A6A X A6A X A6A X A6A X	11.6	14.2	14.5	14.5	14.5	14.5	13.0
A Subfooting	40.4	51.8	58.6	51.5	51.5	51.5	46.0
B Footing	4.0	4.0	4.0	4.0	4.0	4.0	4.0
X Dowel Caps	52.0	40.6	40.75	6.0	6.0	6.0	4.0
TOTAL CU. YDS.	104.6	124.7	129.75	129.75	129.75	129.75	100.4
Total Concrete Quantities	Grade A6A	Grade A6A	Grade A6A	Grade X	Grade X	Grade X	Grade X
	450.0	450.0	450.0	30.0	30.0	30.0	30.0
	CYDS.	CYDS.	CYDS.	CYDS.	CYDS.	CYDS.	CYDS.

UNCLASSIFIED EXCAVATION 1419 CYDS.

This design is based on a maximum foundation pressure of 3000psf under D.L. only and a maximum foundation pressure of 5580 psf under D.L. + L.L. Maximum allowable foundation pressure with R=1.0 is 5150 psf and 4400 psf with R=1.5.

NOTE: This contract covers the construction of Pier Footings only.

Work this sheet with Sheet No. 259 CONTROL SECTION 82251-30202

MICHIGAN STATE HIGHWAY DEPARTMENT

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

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

RECOMMENDED FOR APPROVAL
BY: *[Signature]*
DATE: _____

TITLE: PW 897B(2)

PROJECT: CHRYSLER-FISHER INTERCHANGE
NORTH BND. TURNING ROADWAY CROSSING THE
WALTER R CHRYSLER EXPRESSWAY IN DETROIT
CITY OF DETROIT

SHEET 20 OF 41

CHECKED BY: _____

DRAWN BY: _____

DATE: _____

DATE: _____

DATE: _____

DATE: _____

DATE: _____

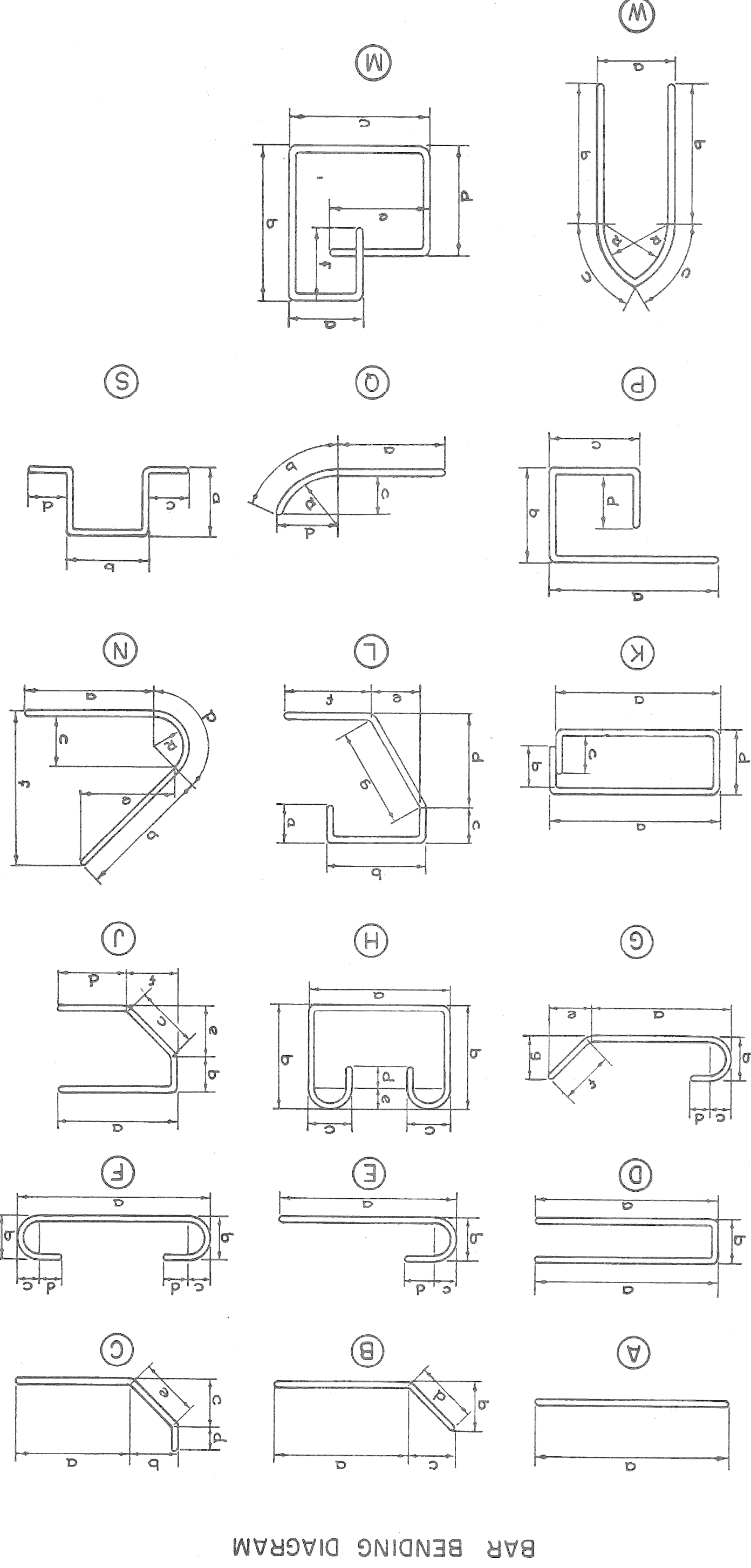
DATE: _____

DATE: _____

BAR	a	b	DIMENSIONS					SIZE	LENGTH	NO.	TOTAL
			c	d	e	f	g				
TOTAL											

BAR	a	b	DIMENSIONS					SIZE	LENGTH	NO.	TOTAL
			c	d	e	f	g				
TOTAL											

BAR	1	2	3	4	5	6	7	NO.	LENGTH	NO.	TOTAL
A-1				100	82	82	74	66	8'-6"	486	6205
A-2								99	9'-6"	99	1413
A-3								48	13'-5"	48	1349
A-4								56	16'-0"	56	3046
A-5			44	44	44			99	17'-3"	132	7742
A-6					32			32	15'-6"	32	1686
A-7	24							77	24'-4"	24	1194
A-8			28					99	29'-2"	44	4363
A-9				22	22	22		99	31'-1"	66	7162
A-10							44	77	26'-6"	44	2363
A-11	44	44	44	44	44	44	44	99	4'-5"	328	4926
A-12							22	77	20'-11"	22	941



BAR BENDING DIAGRAM

CONTROL SECTION 82251-30202

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

RECOMMENDED FOR APPROVAL
[Signature]
By Assoc. Engr. - Design
JOB NO. PW 897B(2)

MICHIGAN STATE HIGHWAY DEPARTMENT

CHRYSLER-FISHER INTERCHANGE
NORTH BND. TO WEST BND. TURNING ROADWAY CROSSING THE
WALTER P CHRYSLER EXPRESSWAY IN DETROIT

STEEL REINFORCEMENT DETAILS

APPROVED BY *[Signature]* ENGINEER OF BRIDGE DESIGN
APPROVED BY *[Signature]* BRIDGE ENGINEER

DESIGNED BY J.B.W. 12-59
CHECKED BY J.B.W. 12-59
DRAWN BY J.B.W. 12-59
SCALE 1/8"=1'-0"
SHEET 261 OF 414
B14 of 82-22-18

Note:—
All right angle bends in
Reinforcing Steel to be made
about a pin of the minimum
diameter allowed by the Standard
Specifications.
All bar numbers shown on this
Sheet to be prefixed B14
This contract covers the
construction of Pier
Footings only.

NO.	DESCRIPTION	DATE	BY
	Grand Total Steel Reinforcement 42,410 #		

B14 OF 82-22-18

DATE	2-22-82
BY	4/14
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
NO.	
DESCRIPTION	
DATE	
BY	
NO.	
DESCRIPTION	

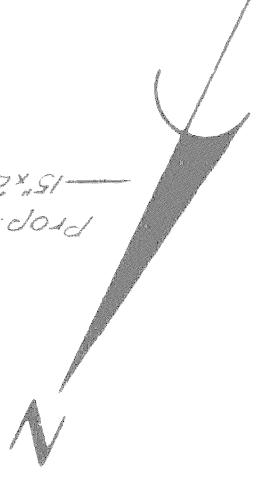
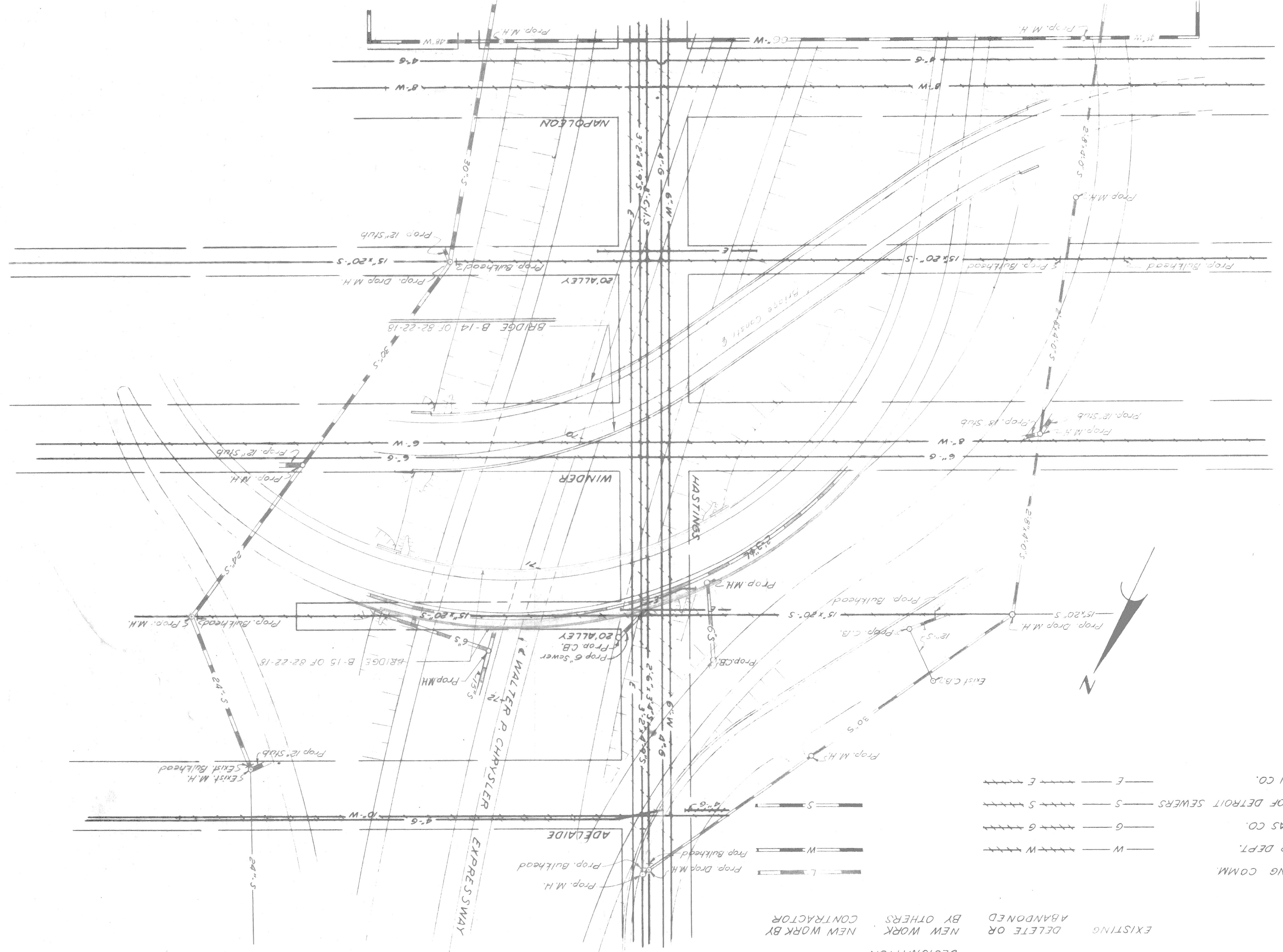
CHRYSLER-FISHER INTERCHANGE
 NORTHBOUND TO WEST BND TURNING ROADWAY CROSSING THE
 WALTER P. CHRYSLER EXPRESSWAY IN DETROIT
 CITY OF DETROIT
 9/59
 4/13
 5/78

MICHIGAN STATE HIGHWAY DEPARTMENT

CONTROL SECTION 82251-30202

PLANS PREPARED BY
 CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 CITY ENGINEERS OFFICE
 BUREAU OF HIGHWAYS AND EXPRESSWAYS
 RECOMMENDED
 FOR APPROVAL
 BY ASSE. ENGR. DESIGN
 R. N. H. [Signature]
 JOB No.
 PW897B(2)

SITUATION PLAN
 SCALE: 1"=40'



UTILITY

LEGEND

DESIGNATION	UTILITY
EXISTING	PUBLIC LIGHTING COMM.
DELETE OR ABANDONED	DETROIT WATER DEPT.
NEW WORK	MICH. CONS. GAS CO.
NEW WORK BY OTHERS	EXPWY & CITY OF DETROIT SEWERS
CONTRACTOR	DETROIT EDISON CO.

NOTE
 Bridge Pier footings and utility alterations
 are included in package contract for Control
 Section 82251-30202
 This contract covers the construction
 of Pier Footings only.