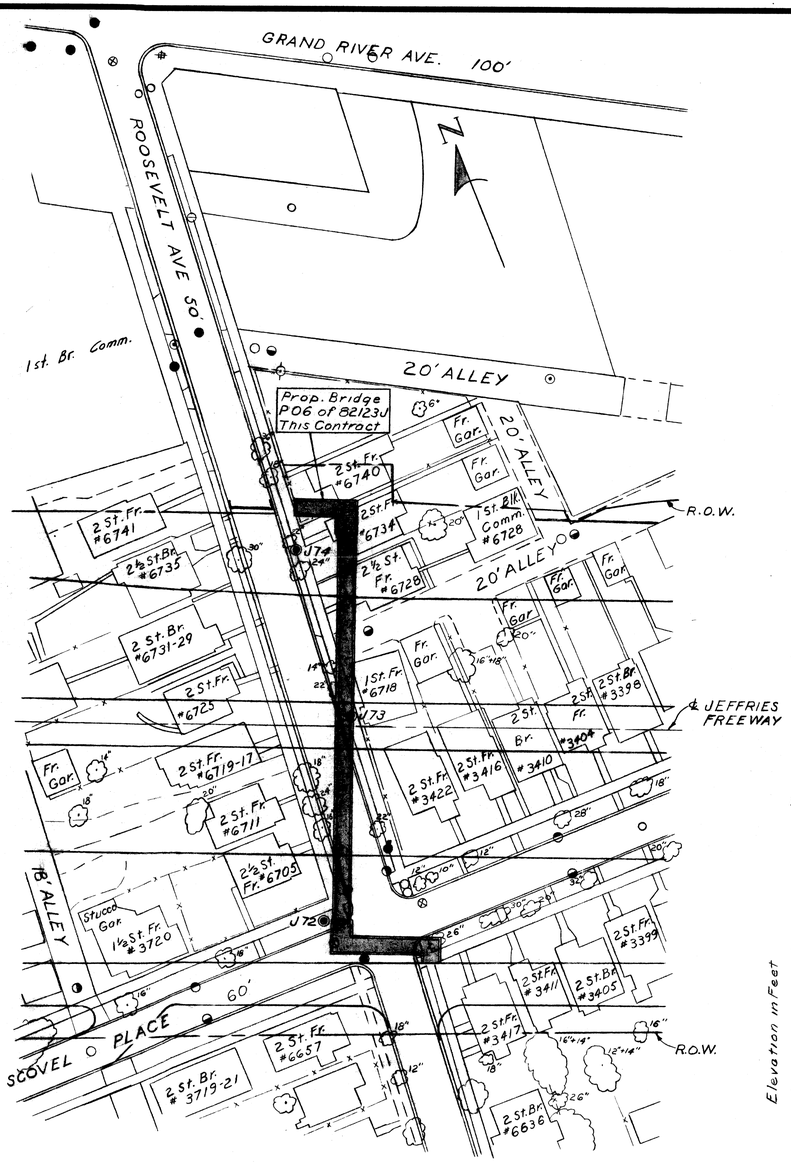


SURVEY PLAN

Scale 1"=40'

UTILITY LEGEND

- Sewer Inlet or Catchbasin
- Sewer Manhole
- P.L.C. Manhole
- M.B.T. Manhole
- D.E. Manhole
- Water Gate Well and Valve
- Fire Hydrant
- Detroit Edison Co. Pole
- Test Hole for Soil Profile
- D.F.D. Alarm Box
- Tree (Size)
- Fence

LOG OF SOIL BORINGS

T.H. J72

Bott. Abut. A Ftg. El. 130.50

133.5

P	130	Compact Moist Black Sandy Topsoil Medium Vegetation, Pebbles, Fill.
P		Firm Moist Oxidized Variegated Silty Clay, Some Sand and Pebbles
P S=2088		
P S=706	120	Firm Moist Oxidized Brown Silty Clay, some Sand and Pebbles.
P S=274		
P S=403	110	Firm Moist Blue Silty Clay some Sand and Pebbles, Occasional Streaks of Oxidation and Rouge Markings.
P S=277		
P S=209	100	Soft Very Moist Blue Silty Clay, Some Sand and Pebbles, Occasional Rouge Markings.
P S=209		
P S=187	90	

No Noticeable Ground Water

T.H. J73

Bott. Pier Ftg. El. 125.00

140.1

P	140	Brick
P S=3240		Firm Moist Sandy Topsoil Medium Vegetation.
P N=20-28	130	Stiff Moist Oxidized Variegated Clay, Sand and Pebbles Light Vegetation.
P S=648		Extremely Stiff Moist Oxidized Variegated Clay, Sand and Pebbles.
P S=461	120	Extremely Stiff Moist Oxidized Brown Clay Sand and Pebbles
P S=418		Very Stiff Moist Blue Clay, Sand and Pebbles
P S=245	110	Stiff Moist Blue Clay, Sand and Pebbles Silt Content.
P S=274		
P S=187	100	
P S=195		
P S=346	90	Firm Moist Blue Silty Clay, High Sand and Pebble Content, Rouge Markings
N=4-5 *		Firm Moist Blue Silty Clay, Slight Sand and Pebble Content
P S=202	80	
N=5-5 *		
P S=173	70	Firm Moist Blue Silty Clay, High Sand and Pebble Content.
N=5-5 *		
P *	60	
N=5-5 *		
P S=403	50	Stiff Moist Blue Silty Clay, Sand and Pebbles.
N=4-5 *		
P *	40	
N=5-7 *		
P S=433	30	Stiff Moist Blue Silty Clay, Layers of Sand and Gravel, Very Stoney.
N=5-6 *		Extremely Stiff Moist Blue Clay, Hardpan.
P *	20	End of Boring - Refusal (Possible Stone or Boulder).

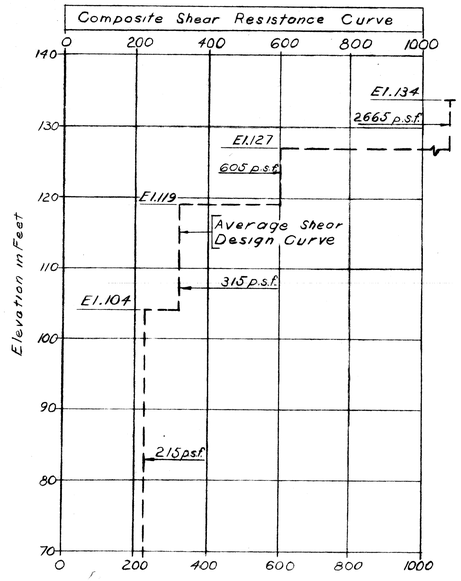
T.H. J74

Bott. Abut. B Ftg. El. 130.50

140.6

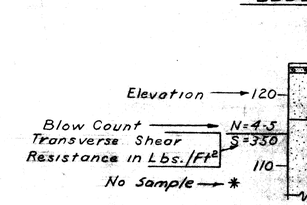
N=9-16	140	Medium Compact Moist Sandy Black Topsoil, Medium Vegetation and Stones.
N=25-34 *		Firm Moist Silty Oxidized Variegated Clay Some Sand and Pebbles.
N=8-8	130	Very Stiff Moist Silty Oxidized, Variegated Clay, Some Sand and Pebbles.
N=6-8		Stiff Moist Silty Blue Clay, Some Sand and Pebbles, Rouge Markings, Traces of Oxidation.
N=4-6	120	
N=5-6		
N=3-5	110	Stiff moist silty blue clay, some sand & pebbles, rouge markings, traces of oxidation.
N=5-5		
N=4-6	100	
N=4-5		
	90	End of Boring

Composite Shear Resistance Curve



Transverse Shearing Resistance
Lbs. per Sq. Ft.

LEGEND



NOTES:

Blow Count - Indicates number of blows required to drive a sampler 6" (unless otherwise noted) using a 140 lb. hammer falling 30".

P - Indicates sampler was pushed.

S - Indicates Transverse Shear Resistance in lbs./sq. ft. as determined by M.S.H.D. Standard Test.

GENERAL NOTES:

The work covered by these plans includes construction of the proposed bridge and placing slope protection to the limits shown. All other work is included in the Road Plans which are part of this contract.

Removal of fences and buildings is not part of this contract.

The contractor shall locate all active underground utilities prior to starting work, and shall conduct his operation in such a manner as to insure that those utilities not requiring relocation will not be disturbed.

Topography shown hereon represents conditions existing at the time the field survey was made. However, these conditions may have been materially altered by the operations of others before the work has been started.

Unsuitable material under Abutments A & B shall be removed and backfilled with Granular Material Class III compacted to 100% of its maximum unit weight.

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

APPROVED J.J. Card
STRUCTURAL ENGINEER

JOB No. PW 990(3)

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

GENERAL PLAN OF SITE

SQUAD BOSS	R.J.	3-68
DRAWN BY	SPAULDING	2-68
TRACED BY		
CHECKED BY	T.A.B.	4-68

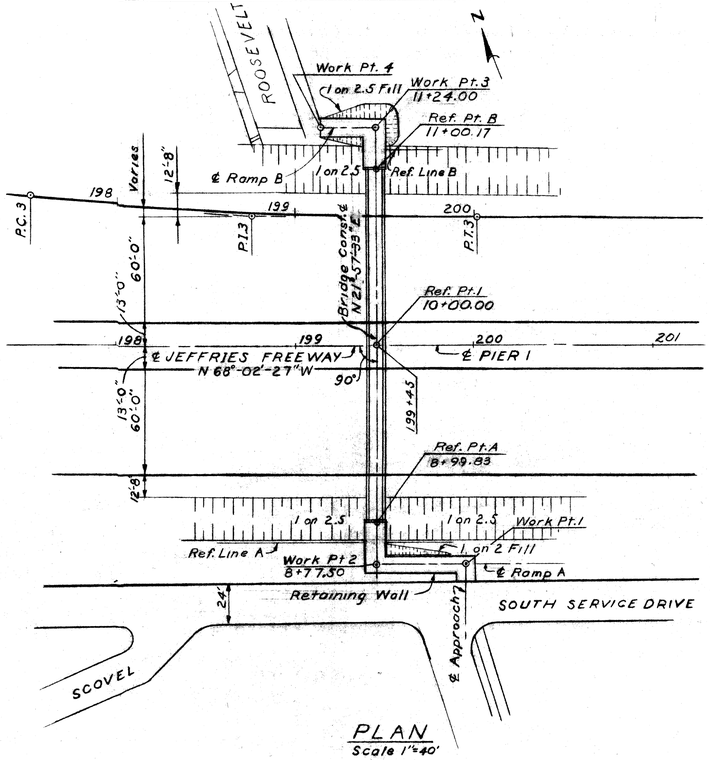
SHEET 2 OF 16

APPROVED _____ DESIGN SUPERVISING ENGINEER

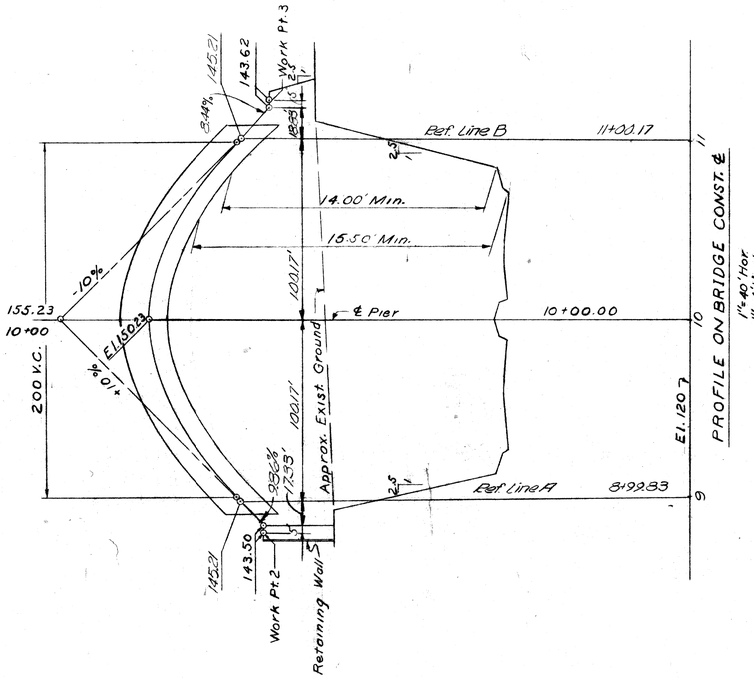
APPROVED _____ DESIGN ENGINEER

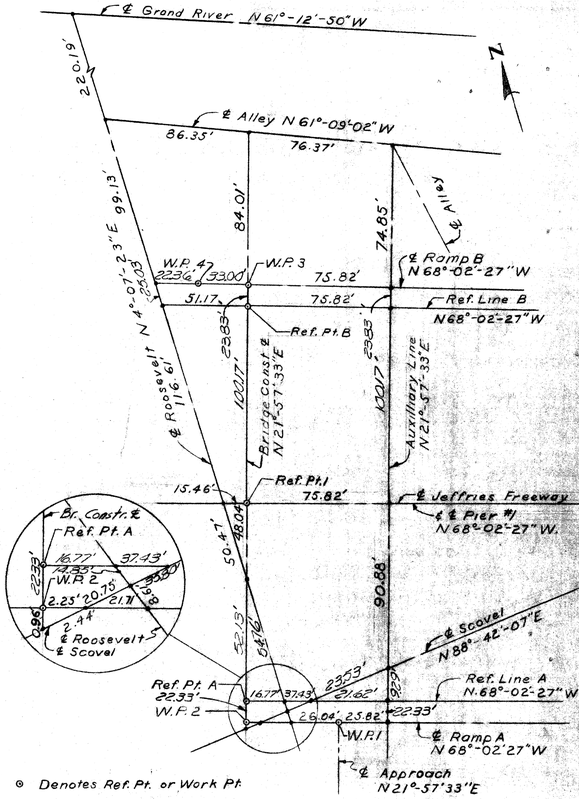
P06 of 82123J

P06 General Plan of Site 990(3)



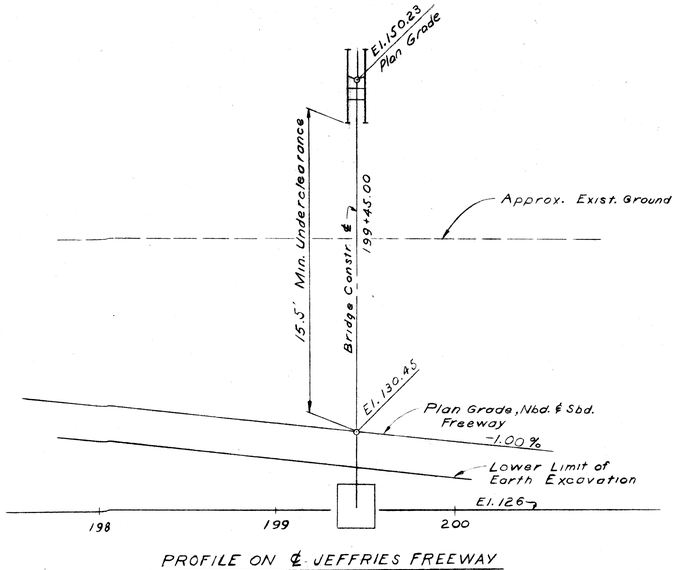
PLAN
Scale 1"=40'





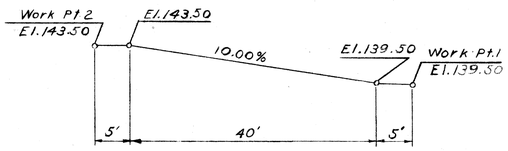
- ⊙ Denotes Ref. Pt. or Work Pt.
- • Denotes intersection

ALIGNMENT DIAGRAM
No Scale

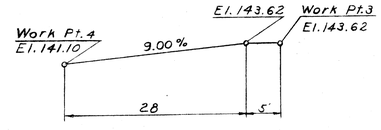


PROFILE ON ℄ JEFFRIES FREEWAY

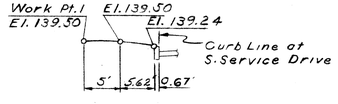
Scale 1"=40' Hor.
1"=4' Vert.



PROFILE ON ℄ RAMP A
Not to Scale



PROFILE ON ℄ RAMP B
Not to Scale



PROFILE ON ℄ APPROACH A
Not to Scale

Note:
For Approach B Details
See Road Plans

Construction Bench Marks:

C.B.M. 70 El. 141.18 Arrow on Hydrant N.E. Corner Eastern and Roosevelt.
C.B.M. 71 El. 144.94 Arrow on Hydrant N.W. Corner Roosevelt and Grand River.
C.B.M. 72 El. 143.21 Arrow on Hydrant N.W. Corner Scovel and Taft.
Elevations refer to City of Detroit Datum, 479.755 Feet above sea level.

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

APPROVED J.J. Conrad
STRUCTURAL ENGINEER

JOB No.
PW 990(3)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT

ROOSEVELT AVE. PEDESTRIAN BRIDGE CROSSING THE JEFFRIES FREEWAY IN DETROIT

GENERAL DRAWING

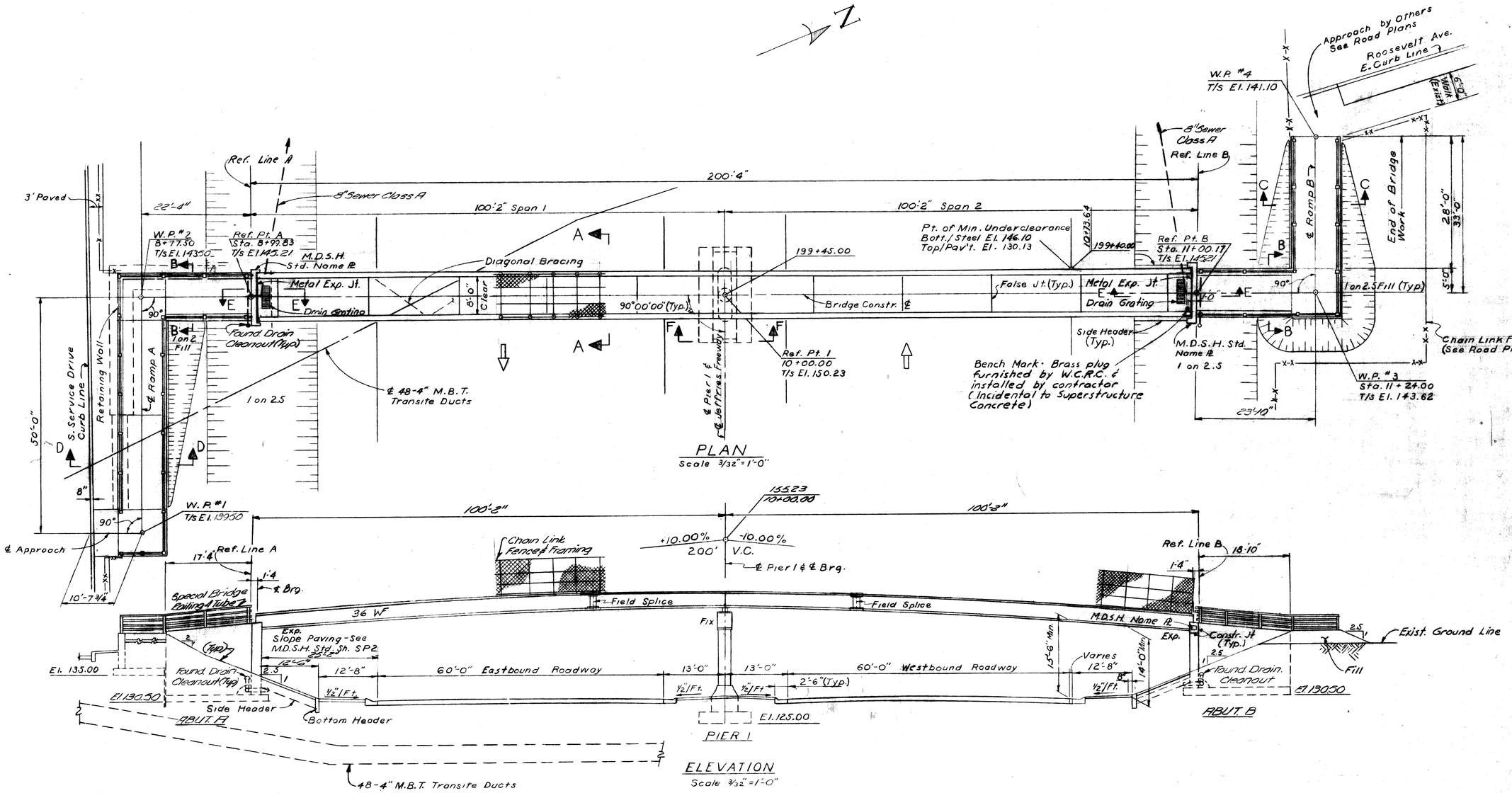
SQUAD BOSS	R.J.	7-68
DRAWN BY	SPURGEON	2-68
TRACED BY		
CHECKED BY	T.A.B.	4-68

SHEET 3 OF 16

APPROVED _____ DESIGN SUPERVISING ENGINEER

APPROVED _____ DESIGN ENGINEER

P06 of 82123J



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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE CROSSING THE JEFFRIES FREEWAY IN DETROIT

GENERAL PLAN OF STRUCTURE

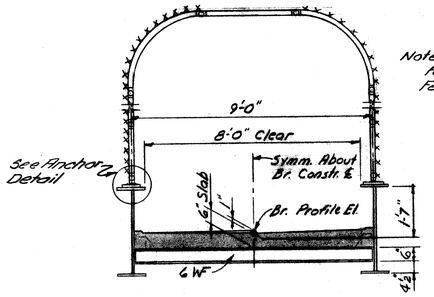
SQUAD BOSS	R.J.	8-68
DRAWN BY	[illegible]	2-68
TRACED BY		
CHECKED BY	T.A.A.	4-68

SHEET 1 OF 16

APPROVED _____ DESIGN SUPERVISING ENGINEER

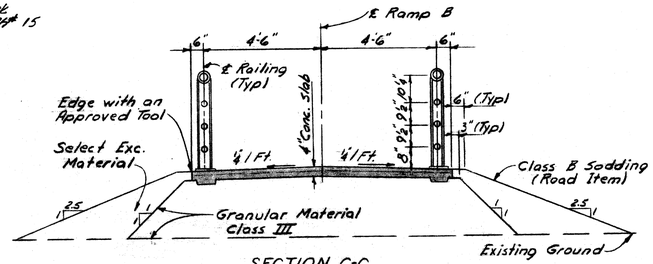
APPROVED _____ DESIGN ENGINEER

P06 of 82123J

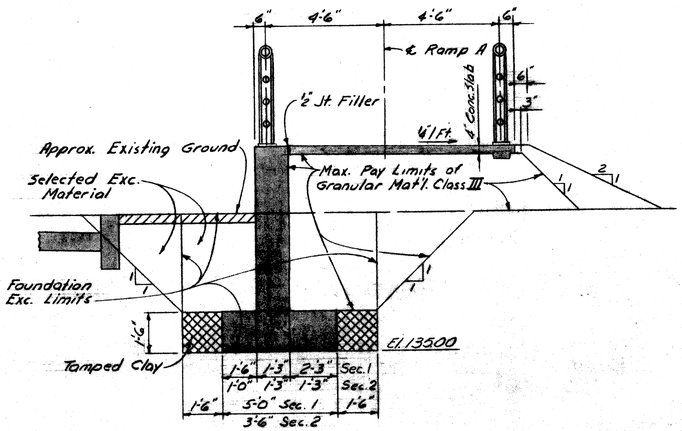


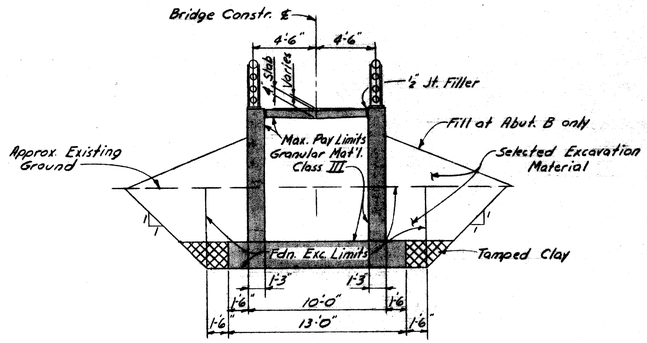
Note: For Detail of Chain Link Fence & Framing, See Sht. # 15

SECTION A-A
Scale, ⅜"=1'-0"

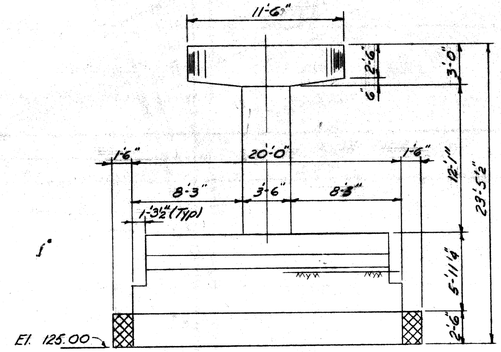


SECTION C-C
Scale, ⅜"=1'-0"

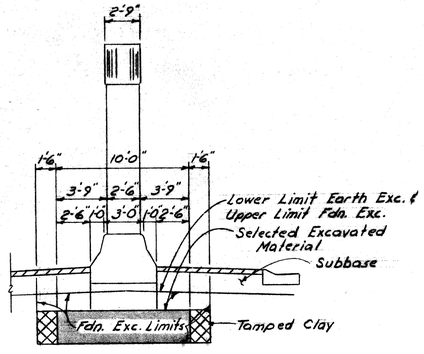




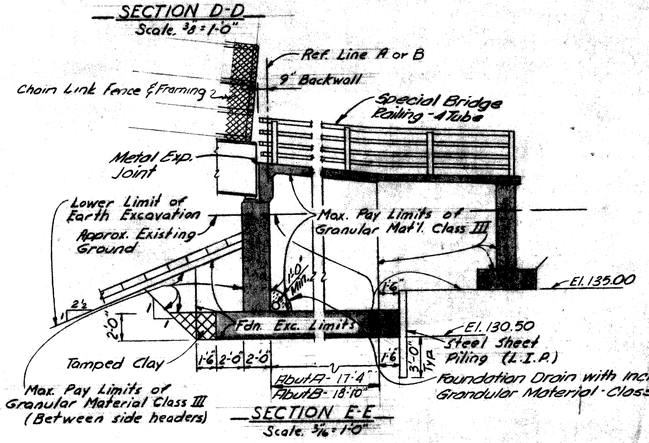
SECTION B-B
Scale, ⅜"=1'-0"



PIER ELEVATION
Scale, ⅜"=1'-0"



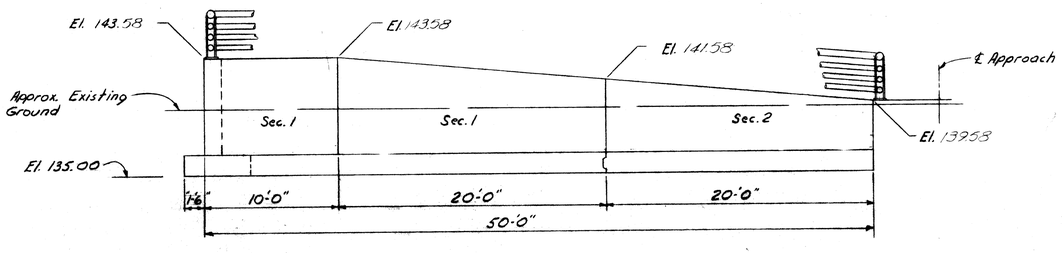
SECTION F-F
Scale, ⅜"=1'-0"



SECTION E-E
Scale, ⅜"=1'-0"

MISCELLANEOUS QUANTITIES

Item	Unit	Abut A	Abut B	Total
8" Sewer Class A	Lin. Ft.	55	50	105
Slope Protection Class A	Sq. Yds.	14	14	28
Slope Protection Header	Lin. Ft.	39	39	78



ELEVATION AT RAMP 'A' RETAINING WALL
Scale ⅜"=1'-0"

GENERAL NOTES:

The design of this structure is based on the M.D.S.H. Specifications for the design of Highway Bridges, 1958 edition and current A.A.S.H.O. Standard Specifications for Highway Bridges.

Live Load
Concrete Slab & Floor Beams ___ 85 p.s.f.
Stringers ___ 85 p.s.f.
Alternate Live Loading ___ One 5 ton truck plus impact.

The top of slab is parallel to the vertical curve and tangents.

For details of Slope Protection, see Standard Sheet SP2.

Tamped Clay and Selected Excavated Material are incidental to Unclassified Excavation.
Granular Material - Class I is incidental to Foundation Drain.
Granular Material - Class III is included with Road Plans and = 210 Cu. Yds.

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

APPROVED H Cexed
STRUCTURAL ENGINEER

JOB No.
PW 9901(3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT
GENERAL PLAN OF STRUCTURE

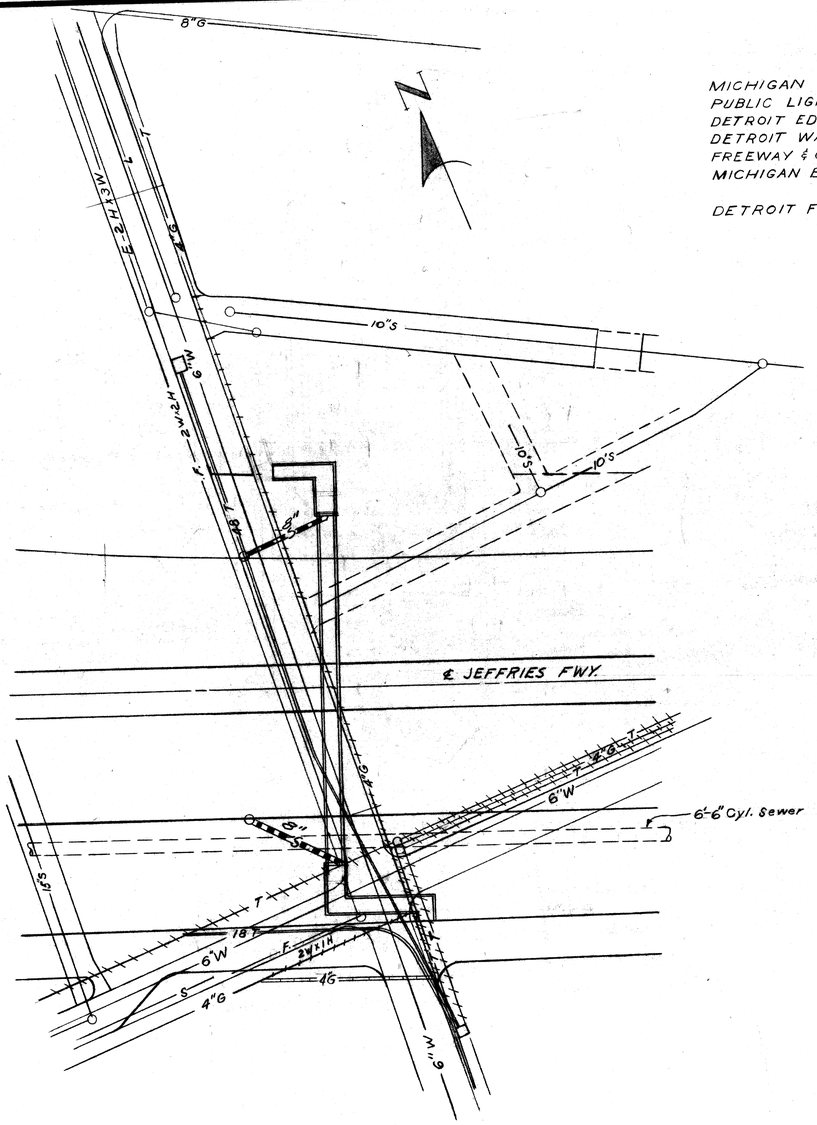
SQUAD BOSS	R.J.	3-66
DRAWN BY	Cavanaugh	2-66
TRACED BY	—	—
CHECKED BY	R.V.H.	4-66
SHEET 5 OF 14		

APPROVED ___ DESIGN SUPERVISING ENGINEER

APPROVED ___ DESIGN ENGINEER

P06 of 82123J

P06



SITUATION PLAN

Scale 1"=40'

-LEGEND-

UTILITY	EXISTING	DELETED OR ABANDONED	NEW WORK BY OTHERS	NEW WORK BY CONTRACTOR
MICHIGAN CONSOLIDATED GAS	—G—	+++G+++	═══G═══	
PUBLIC LIGHTING COMMISSION	—L—			
DETROIT EDISON COMPANY	—E—			
DETROIT WATER DEPARTMENT	—W—			
FREEWAY & CITY OF DETROIT SEWERS	—S—			═══S═══
MICHIGAN BELL TELEPHONE COMPANY	—T—	+++T+++		
M.B.T. DUCT TUNNEL	═T═			
DETROIT FIRE DEPARTMENT	—F—			

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

APPROVED H Grant STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

EXISTING UTILITIES AND PROPOSED ALTERATIONS

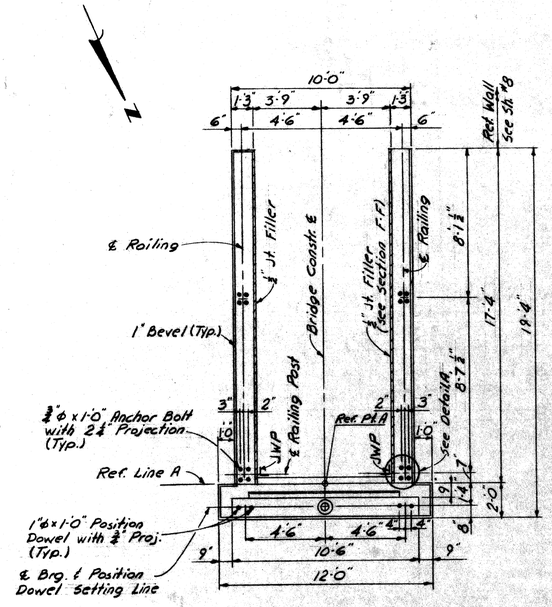
REVISIONS			
NO.	DESCRIPTION	DATE	BY

ROAD BOSS	E.J. SPURGEON	3-65
DRAWN BY		3-65
TRACED BY	T.A.B.	4-65
CHECKED BY		

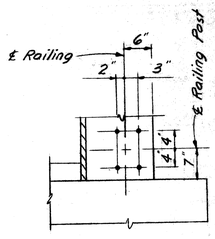
SHEET 6 OF 16

P06 of 82123J

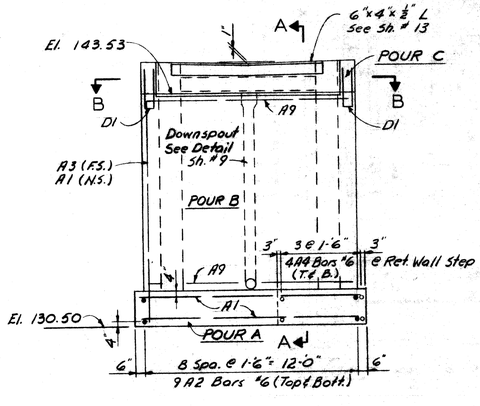
EXISTING UTILITIES P06 990(3)



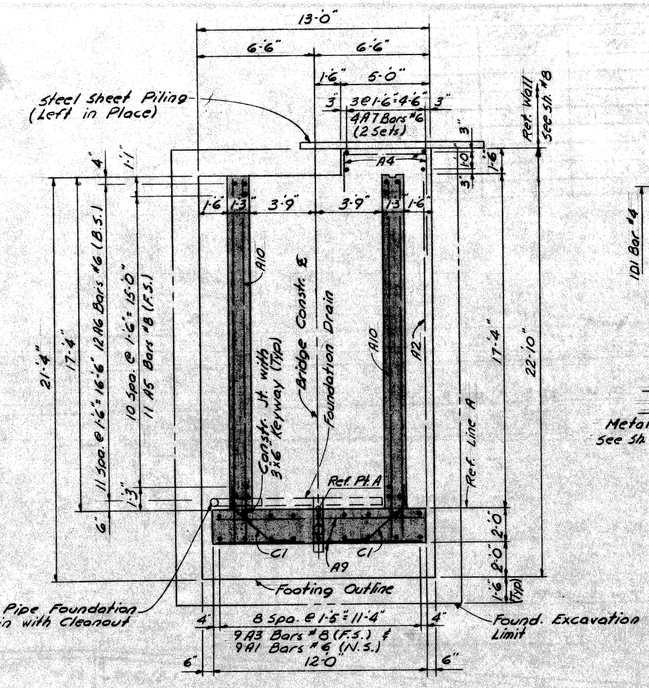
PLAN OF TOP



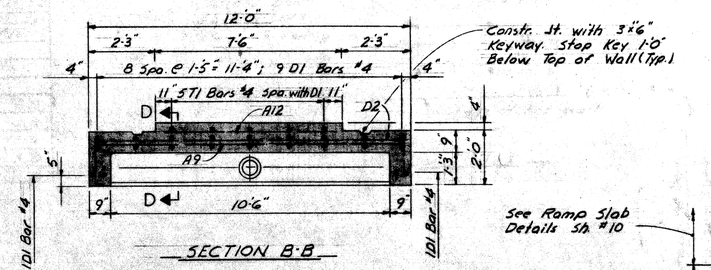
DETAIL A



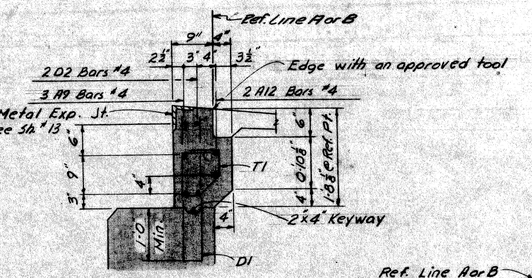
ELEVATION



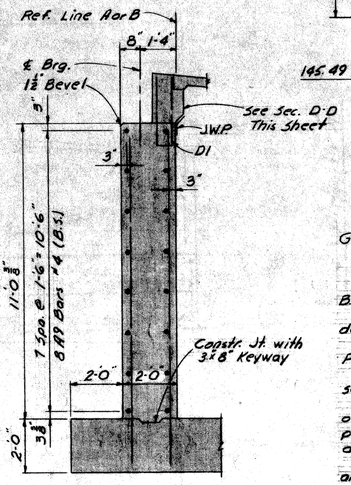
FOUNDATION PLAN



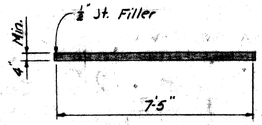
SECTION B-B



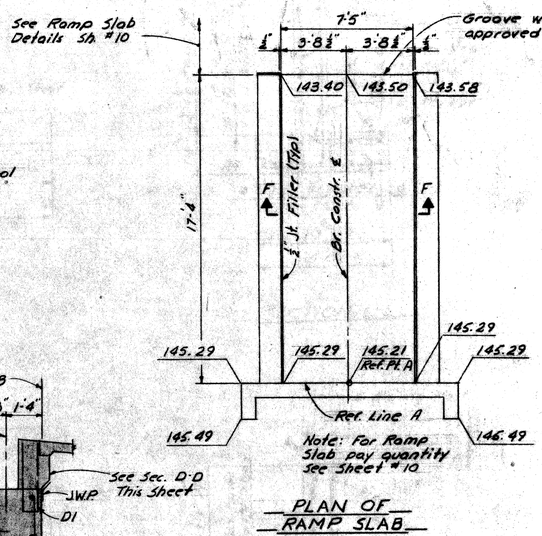
SECTION D-D



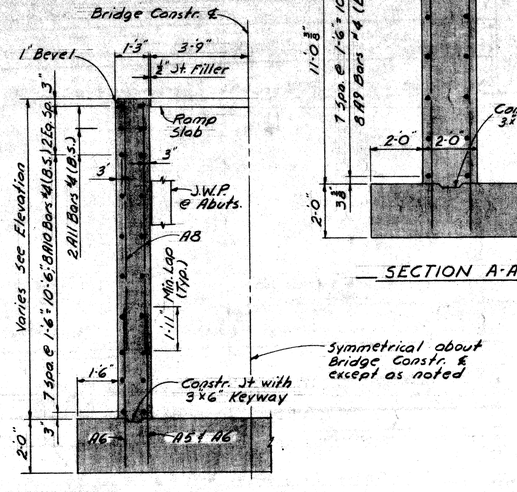
SECTION A-A



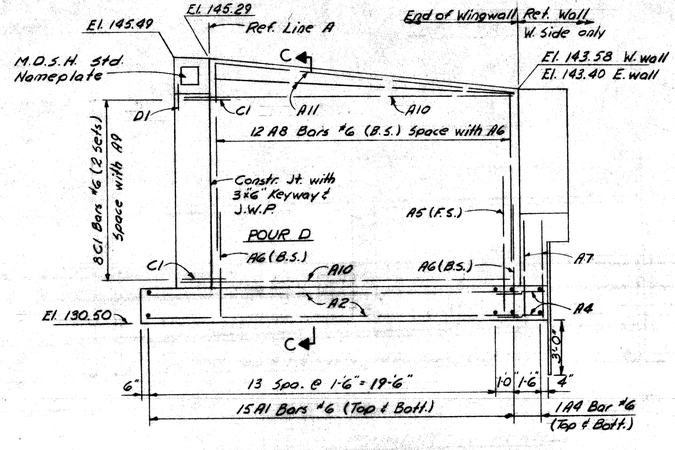
SECTION F-F



PLAN OF RAMP SLAB



SECTION C-C



WINGWALL ELEVATION

GENERAL NOTES:

J.W.P. denotes Joint Waterproofing.
N.S. denotes Near Side, F.S. denotes Far Side, B.S. denotes Both Sides.
For bevel, molding and name plate mounting details see Std. sheet R11 or R12.
For location of name plate see General Plan of Structure sheet.
Anchor Bolts and Position Dowels shall be set accurately to a template.
The Project Engineer shall adjust the spacing of reinforcing steel as required to permit placing of anchor bolts, position dowels and downspout.
The tops of Abutments A and B shall be given an application of protective sealant coating for concrete prior to placing masonry plates.
Maximum average foundation pressure D.L. only = 1750 Lbs/sq. ft.
Maximum foundation pressure D.L. and L.L. = 2600 Lbs./sq. ft.
Cover face of Abut. with clear Protective Coating for Substructure concrete to 6" below Finished grade.

Work this sheet with sheets # 8, 9 & 10

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE CROSSING THE JEFFRIES FREEWAY IN DETROIT

ABUTMENT DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

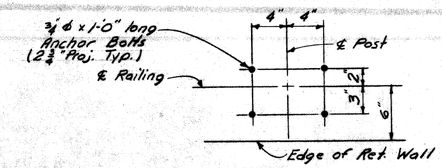
CITY OF DETROIT

SQUAD BOSS	Lacher	2-65
DRAWN BY	Carnegie	1-69
TRACED BY		
CHECKED BY	P.H.B.	2-69

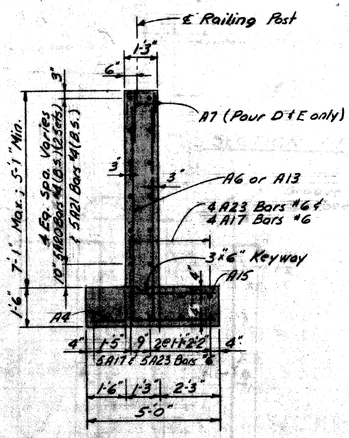
SHEET 7 OF 16

P06 of 82123J

CONCRETE QUANTITIES		
Pour	Gr. A(GA) Cu. Yds.	Gr. A(GAA) cu. Yds.
A1	11.3	
A2	3.9	
B		2.9
C		3.3
D		5.6
E		3.8
Total	15.2	15.6

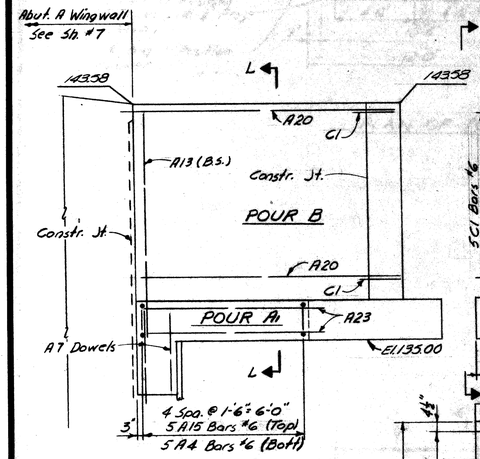


DETAIL B

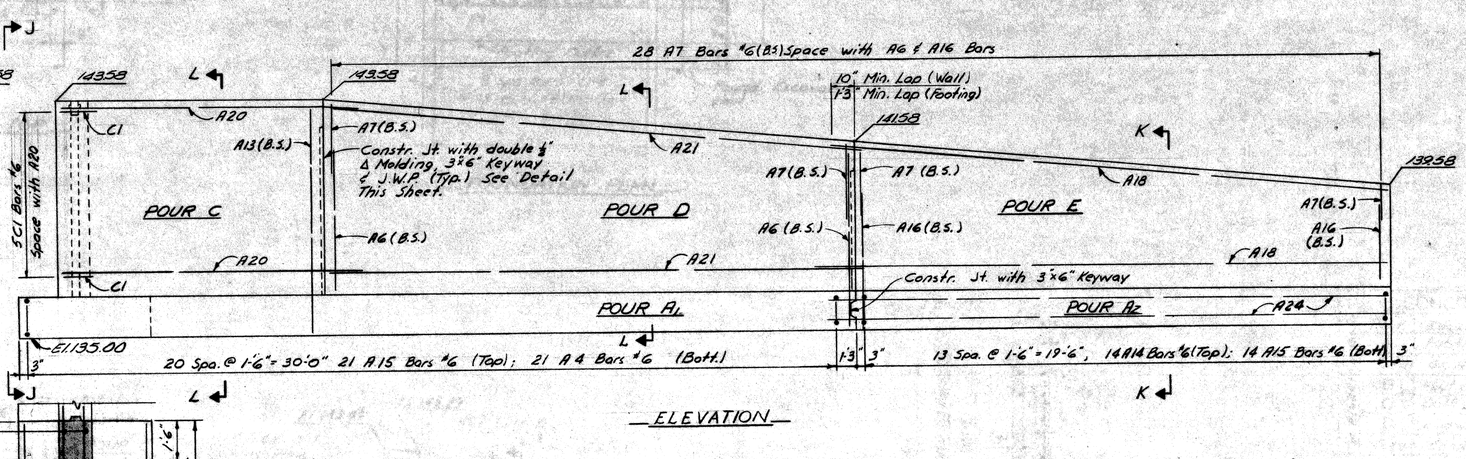


SECTION L-L

PLAN



VIEW J-J



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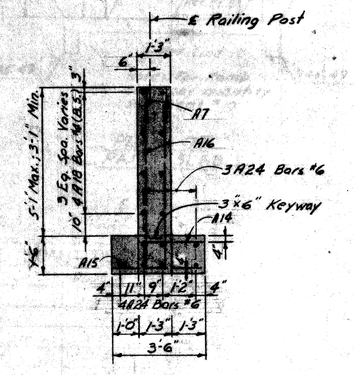
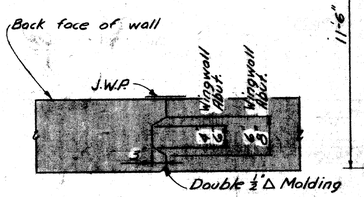
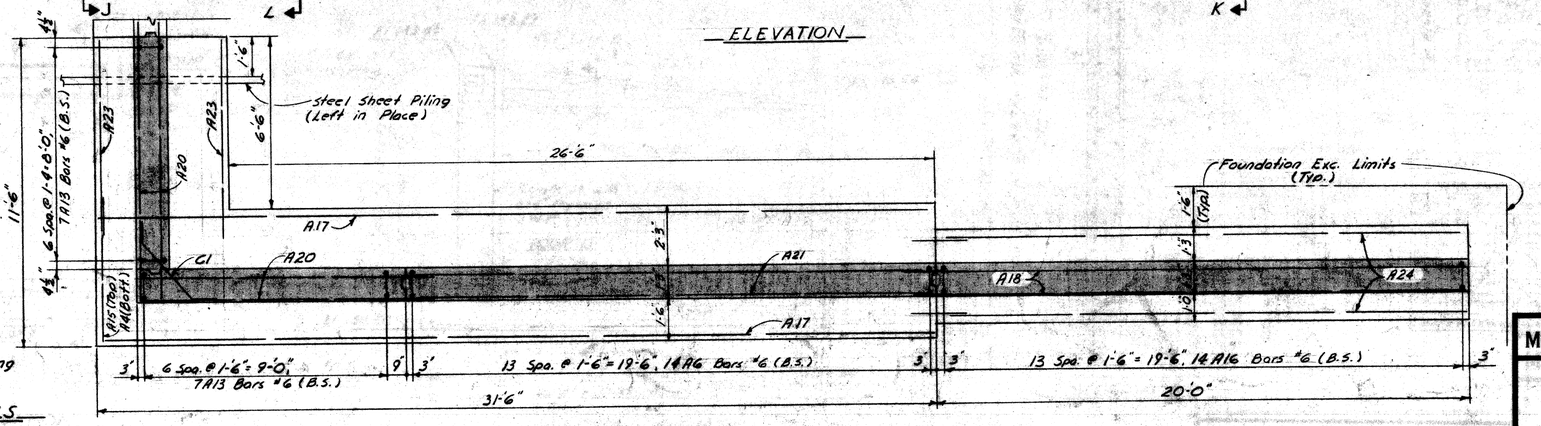


SECTION K-K



VERT. CONSTR. JOINT DETAILS



FOUNDATION PLAN

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 9901(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

ABUTMENT DETAILS

CITY OF DETROIT

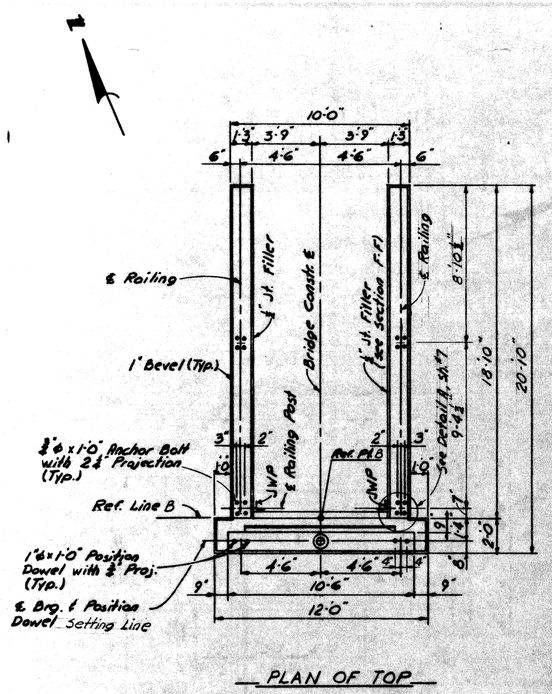
SQUAD BOSS	Locher	2-69
DRAWN BY	Gavanaugh	3-69
TRACED BY		
CHECKED BY	P.B.U.	3-69
SHEET	8 OF	16

REVISIONS

NO.	DESCRIPTION	DATE	BY

P06 of 82123J

Abut A



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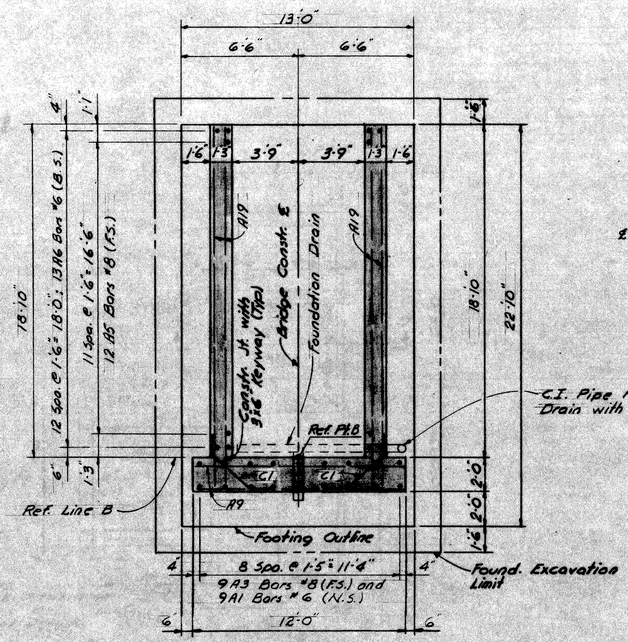
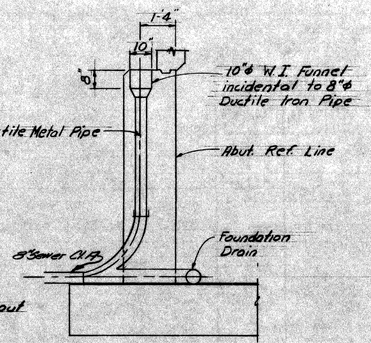
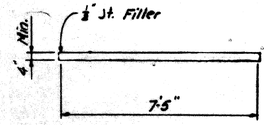


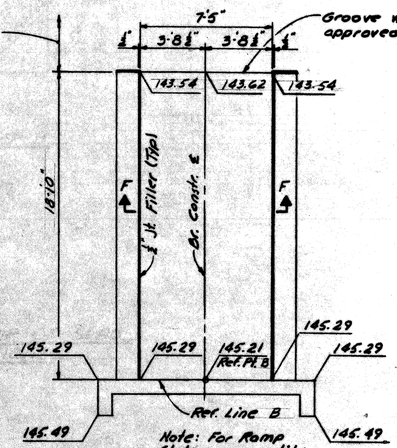
FOUNDATION PLAN



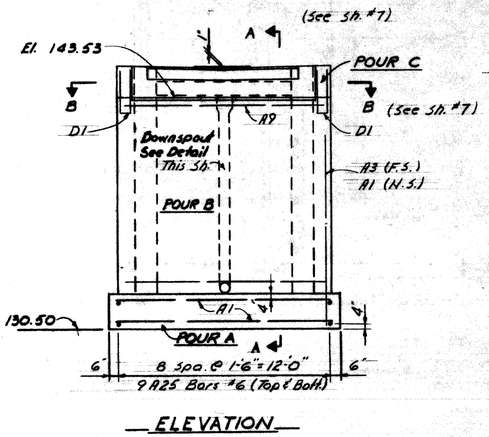
DOWNSPOUT DETAIL



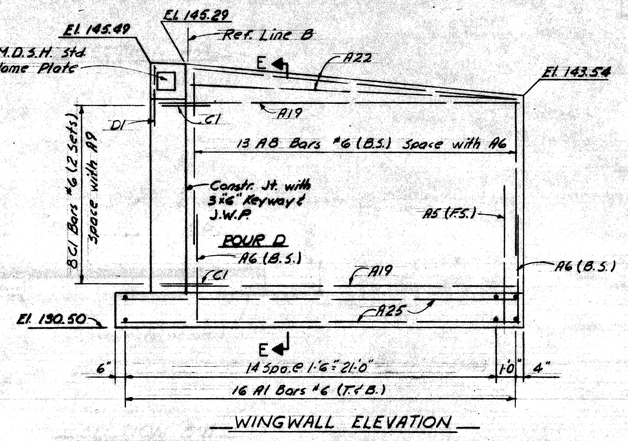
SECTION F-F



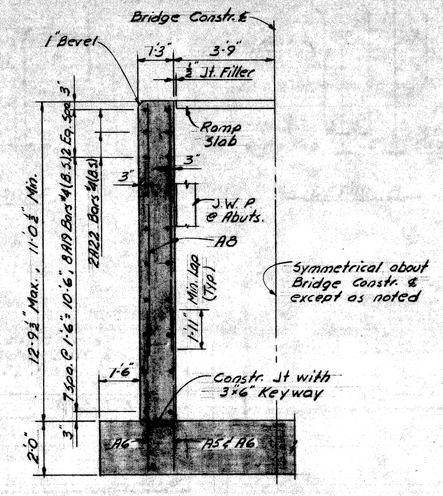
PLAN OF RAMP SLAB



ELEVATION



WINGWALL ELEVATION



SECTION E-E

CONCRETE QUANTITIES

Gr. A(6A)	Pour	Location	Abut. A	Abut. B
	A	Footing	21.1	22.0
	Total Gr. A(6A)		43.1	Cu. Yds.
Gr. A(6AA)	B	Abutment Stem	9.8	9.8
	C	Backwalls	0.8	0.8
	D	Wingwalls	19.0	20.8
	Total Gr. A(6AA)		61.0	Cu. Yds.

MISCELLANEOUS QUANTITIES

Item	Unit	Abut. A	Abut. B	Total
Unclassified Excavation	Cu. Yds.	198	125	323
Protective Sealant Coating	Sq. Ft.	13	13	26
Low Temperature Protection	Cu. Yds.	81	54	135
½" Joint Filler	Sq. Ft.	32	14	46
Joint Waterproofing	Sq. Ft.	95	52	147
Foundation Drain	Lin. Ft.	13	13	26
8" Ductile Metal Pipe	Lin. Ft.	12	12	24
Steel Sheet Piling Left-in-Place	Sq. Ft.	79	—	79
Clear Prot. Coating for Substr. Concrete	Sq. Ft.	10.5	10.5	21

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

APPROVED _____ Structural Engineer

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ABUTMENT DETAILS

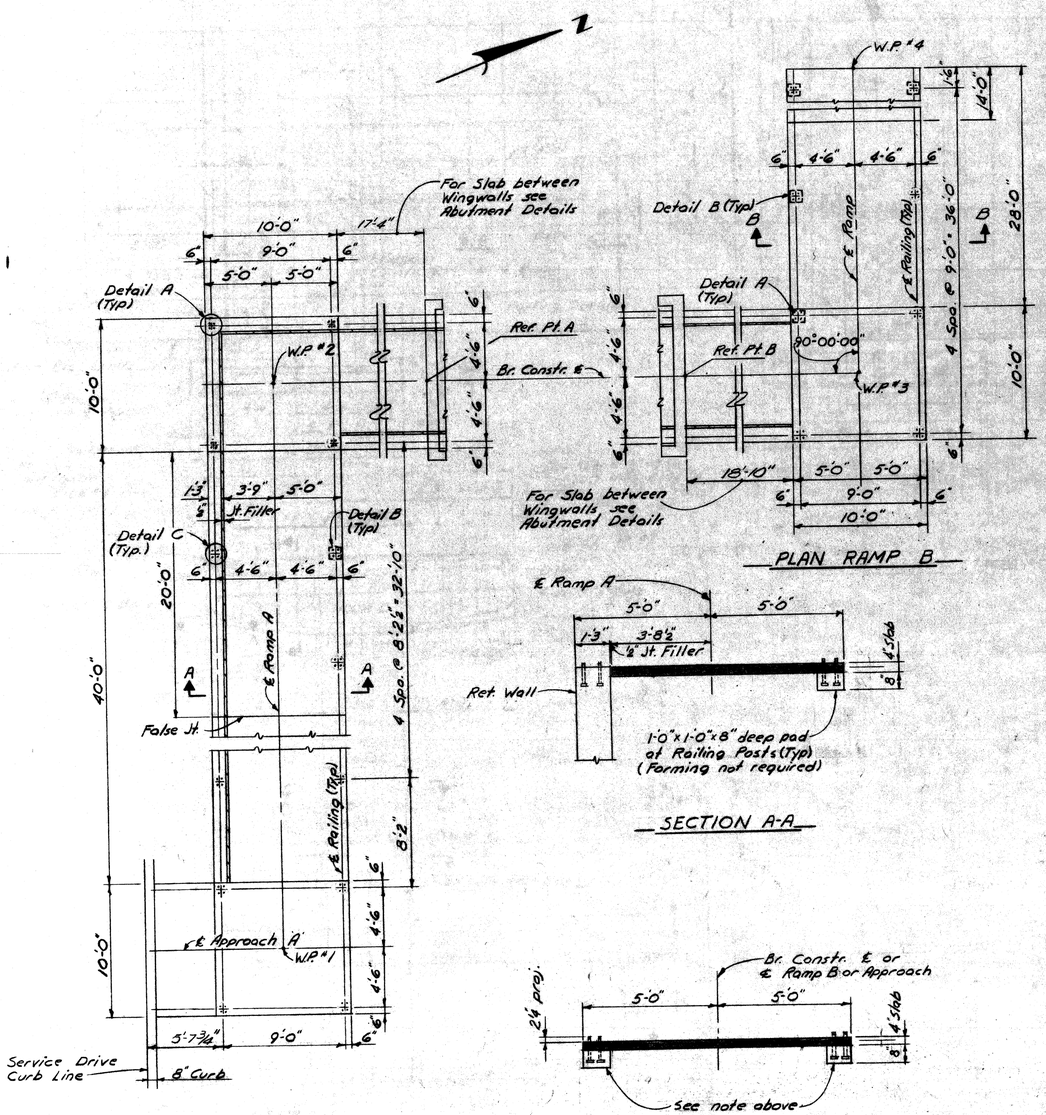
CITY OF DETROIT

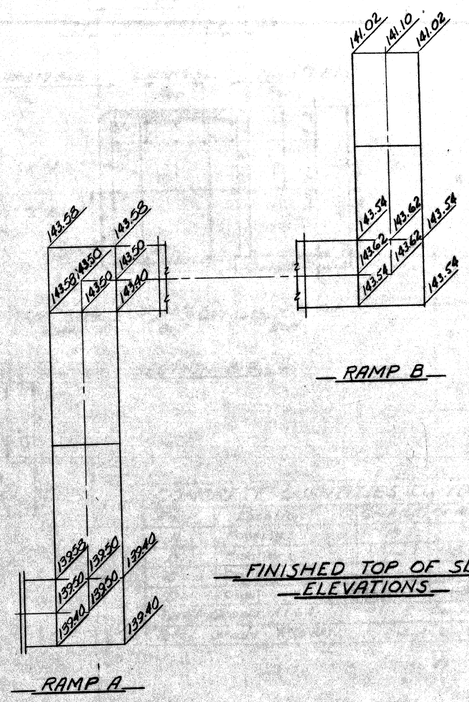
Design Data	Lochner 2-69
Drawn By	George K 1-69
Traced By	
Checked By	P.S.O. 2-69
Sheet	9 of 16

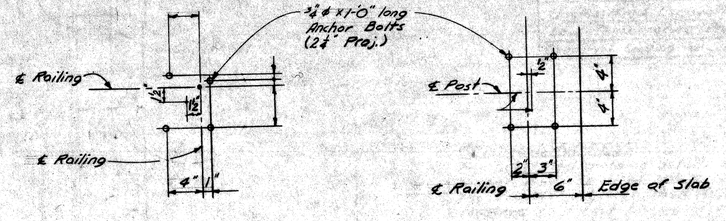
REVISIONS

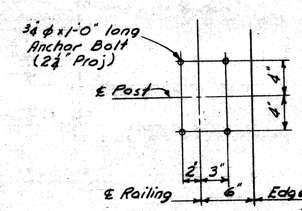
No.	Description	Date	By

P06 of 82123J









Notes:
N.S. & F.S. denotes near side and far side.
Form false joints by grooving with an approved tool.
Excavation for railing post foundations is incidental.

Grade A (6AA) Conc. - Substr. (Cu. Yds.)			
Location	Ramp A	Ramp B	Total
Ramp Slabs	9.2	6.9	16.1

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

APPROVED J.J. Cerard STRUCTURAL ENGINEER

JOB No. PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

RAMP DETAILS

REVISIONS

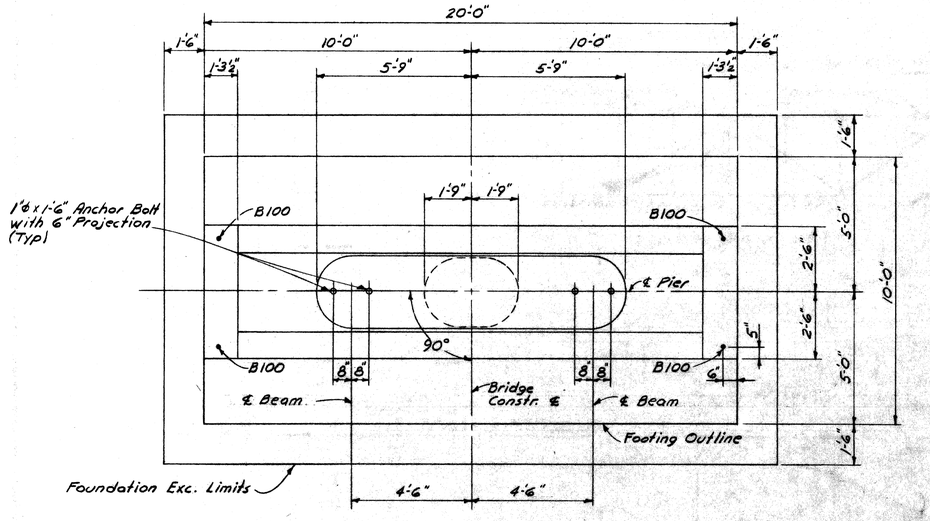
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

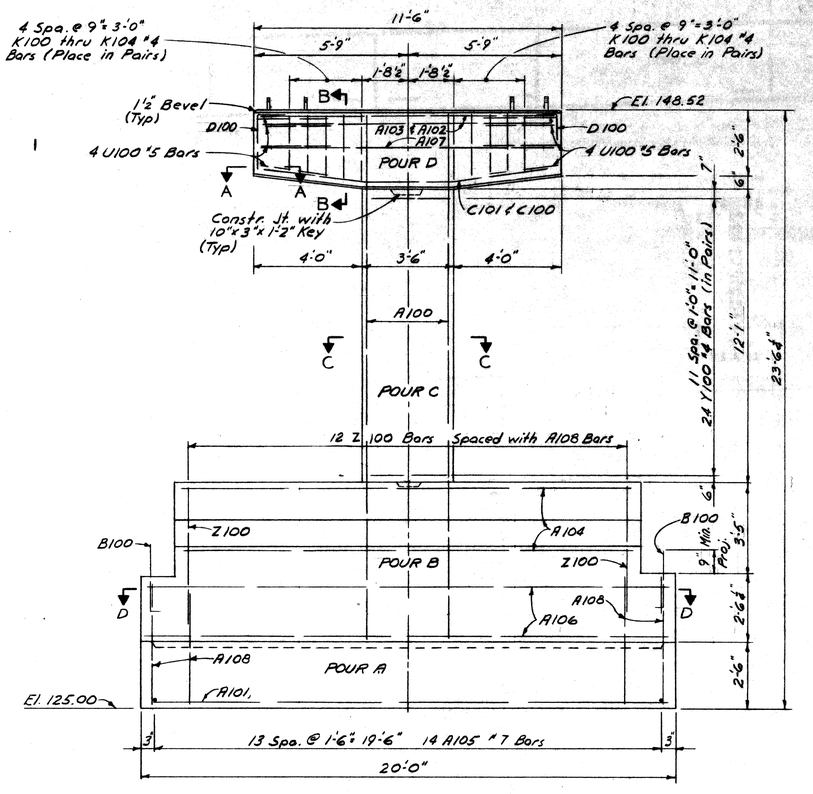
SQUAD BOSS	Locher	2-69
DRAWN BY	Spangler	4-68
TRACED BY		
CHECKED BY	P.D.D.	3-69
SHEET	10 OF	16

P06 of 82123)

P06



PLAN



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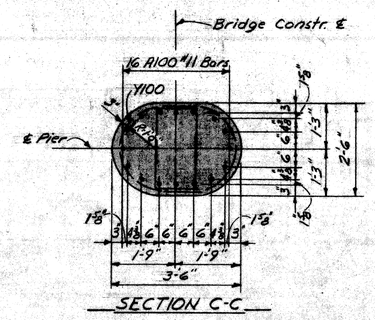
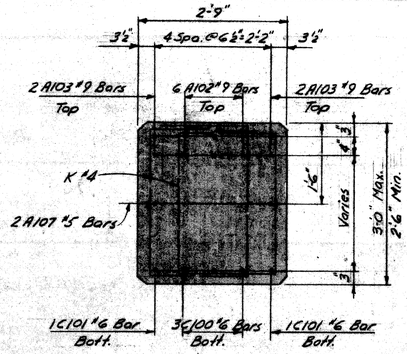
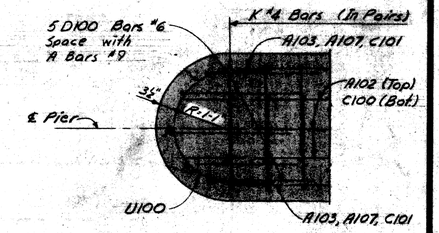


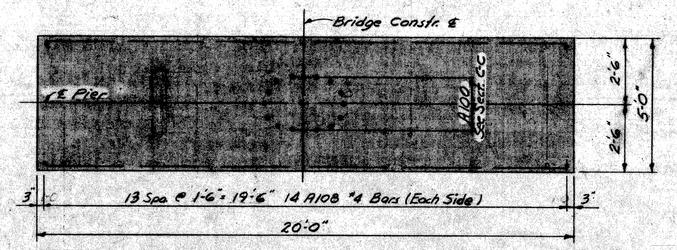
SECTION C-C



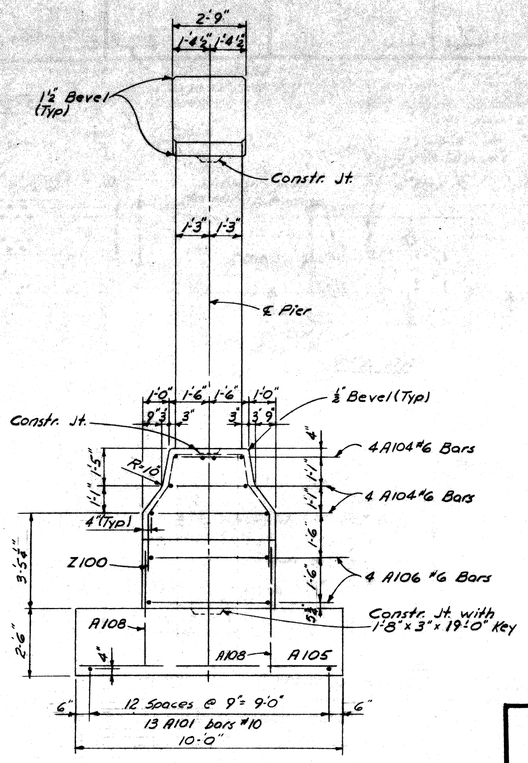
SECTION B-B



SECTION A-A



SECTION D-D



END VIEW

CONCRETE QUANTITIES CU. YDS.

Pour	Location	Gr. A (GA)	Gr. A (GAA)
A	Footing	18.5	
B	Barrier		18.3
C	Column		3.3
D	Cap		3.2
Total Grade A (GA)		18.5 Cu. Yds.	
Total Grade A (GAA)		24.8 Cu. Yds.	

MISCELLANEOUS QUANTITIES

Item	Unit	Amount
Unclassified Excavation	Cu. Yds.	36
Low Temperature Protection	Cu. Yds.	43
Clear Prot. Coating for Substr. Conc.	Sq. Yds	44

GENERAL NOTES

For bevel and molding details see Std. Sheet R11 and R12.
Anchor Bolts shall be set accurately to a template.
The Project Engineer shall adjust the spacing of the reinforcing steel as required to permit placing of anchor bolts.
Maximum average foundation pressure D.L. only = 1800 Lbs./Sq. Ft.
Maximum foundation pressure D.L. and L.L. = 2250 Lbs./Sq. Ft.
Cover entire pier with clear protective coating for substructure concrete to 6" below finished grade.

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEER'S OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRAIN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

PIER DETAILS

CITY OF DETROIT

SQUAD BOSS	Locher	2-69
DRAWN BY	Garavaglia	4-68
TRACED BY		
CHECKED BY	WAL	2-69

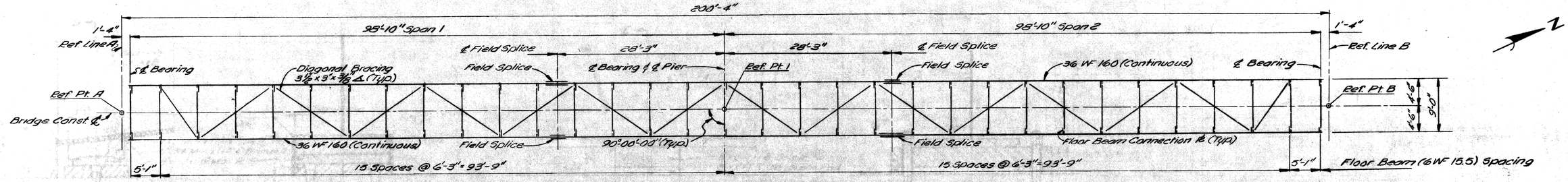
SHEET 11 OF 16

REVISIONS

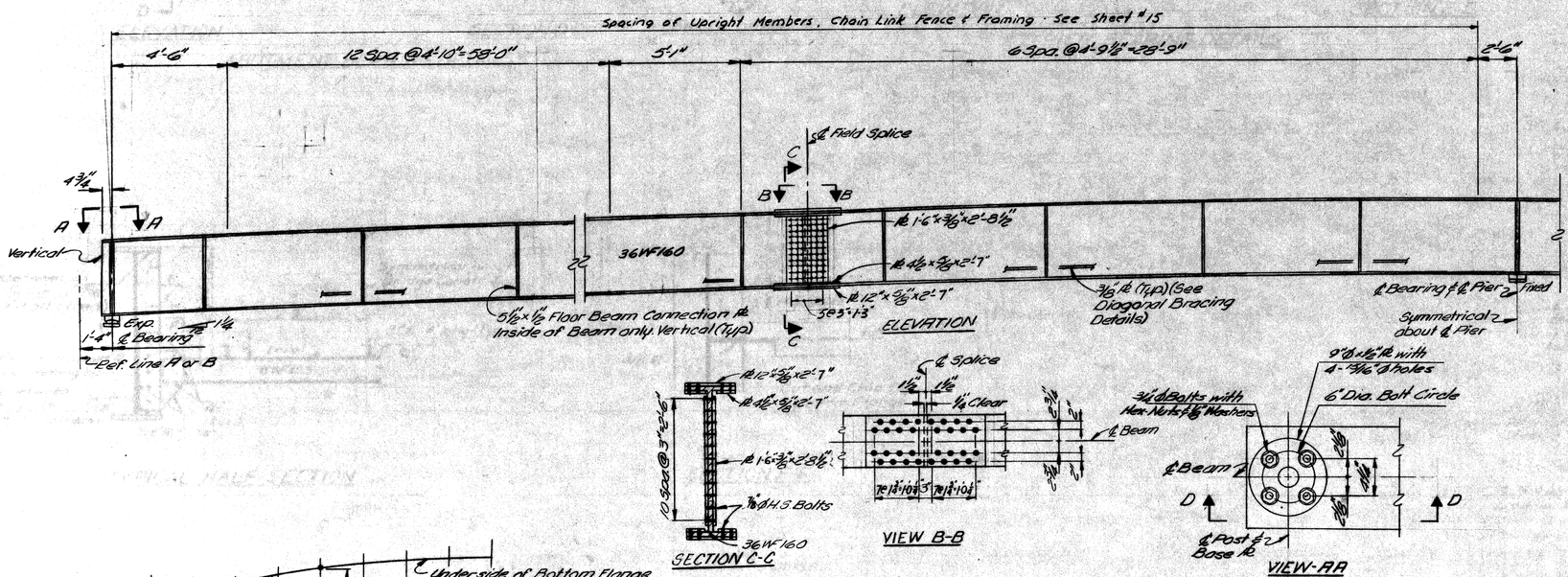
NO.	DESCRIPTION	DATE	BY

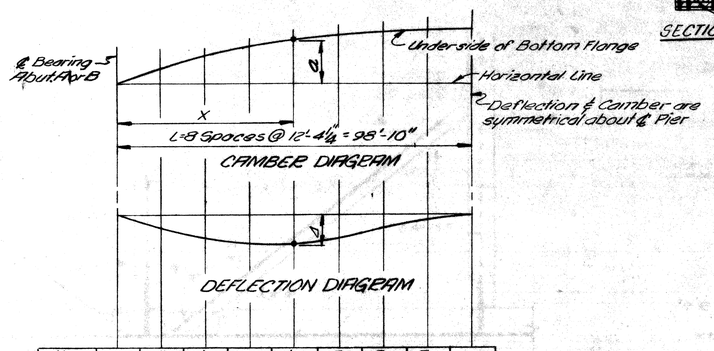
P06 of 82123J

P06



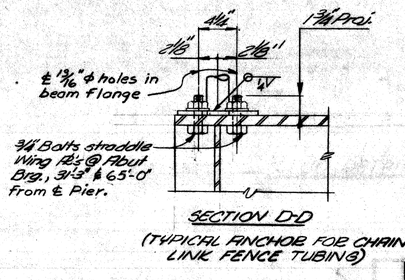
EREECTION PLAN





X/L	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1
a	0	1'-2 1/8"	2'-3 3/8"	3'-1 1/8"	3'-9 3/8"	4'-3 3/8"	4'-7 3/8"	4'-10"	4'-10 3/8"
ΔBm Wt.	0	1/4"	3/8"	1/2"	1/2"	3/8"	1/4"	1/8"	0
ΔD.L.	0	7/8"	1 1/2"	1 3/4"	1 7/8"	1 7/8"	1 3/8"	3/4"	0

NOTE:
Camber ordinate "a" includes allowance for vertical curve and ΔDL.
ΔBm Wt = Deflection due to weight of steel Beam only.
ΔDL = Deflection due to weight of Structural Steel, Slab and Railing



SECTION D-D
(TYPICAL ANCHOR FOR CHAIN LINK FENCE TUBING)

GENERAL NOTES:

DESIGN: Michigan Department of State Highways Specifications for the Design of Highway Bridges - 1958 edition and current AASHO Standard Specifications for Highway Bridges. (Live Load is 85 psf with Alternate Live Load of one five ton truck plus impact)

FABRICATION: Michigan Department of State Highways Standard Specifications for Road and Bridge Construction - 1967 edition

SHOP CONNECTION: Shop connections shall be welded as shown on the Plans.

FIELD CONNECTION: Field Connections shall be bolted with ¾" high strength bolts, except as noted. Field Splices shall be bolted with ⅞" high strength bolts.

CAMBER: The beams are to be cambered as shown. Camber is to be measured with the beam lying on its side. Allowable camber tolerance for rolled beams is ± 1/4. Heating is to be used, if necessary, to assure camber permanency within the above tolerance.

WELDING: Welding on tension flanges of beams will not be permitted unless such welding is shown on the plans or specified. Welding at other locations on the beams, except where shown on the plans, may be permitted by written authorization providing the welding is to be performed in strict accordance with all specification requirements for structural welding.

MATERIAL: Structural Steel shall conform to the requirements of the current specifications for Structural Steel. Unpainted, A.S.T.M. Designation A588
Steel, in anchor bolts, may be A.S.T.M. A 307.
Position Dowels and Anchor Bolts (including nuts and washers) shall be galvanized in accordance with A.S.T.M. Designation A153
All steel material used for bearings with exception of portion welded to beams, shall be galvanized in accordance with A.S.T.M. Designation A123. Galvanizing shall be applied after fabrication of bearing. Mill scale and foreign material shall be removed prior to galvanizing.

QUANTITIES

Elastomeric Bearing Pad	2	3 cu. ft.
Structural Steel - Furnishing and Fabricating*	75,900	Lbs.
Structural Steel - Erection*	75,900	Lbs.

* The quantity "Structural Steel" includes metal parts of Armored Neoprene Joints, Drain Frames and Gates consists of:

Steel	75,800 lbs.
Bronze	100 lbs.
Total	75,900 Lbs.

Work This Sheet with Sheet 13 of 15

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

APPROVED J. J. Cervenak
STRUCTURAL ENGINEER

JOB No. PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

CITY OF DETROIT

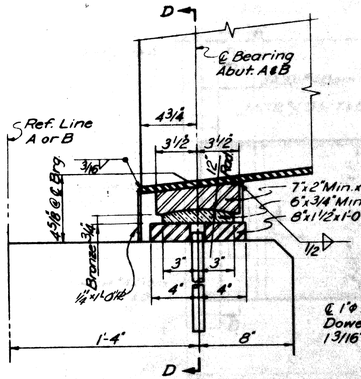
SQUAD BOSS	Locher 2-63
DRAWN BY	L.B.Hart 2-63
TRACED BY	
CHECKED BY	W.A.L. 2-63

SHEET 12 OF 16

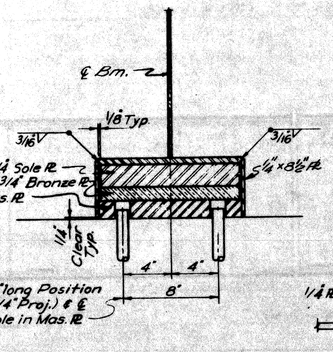
REVISIONS

NO.	DESCRIPTION	DATE	BY

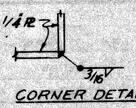
P06 of 82123J



ELEVATION

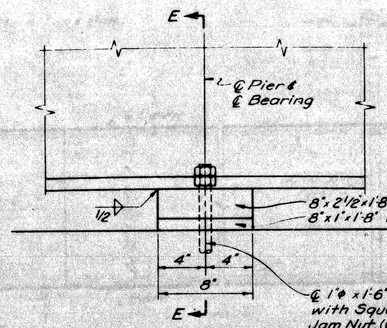


SECTION D-D



CORNER DETAIL

ABUTMENT BEARING DETAILS



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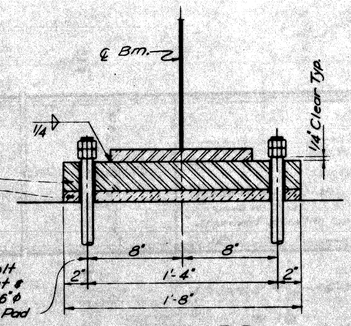
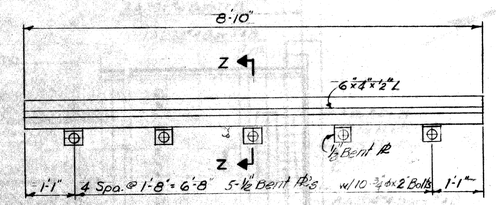


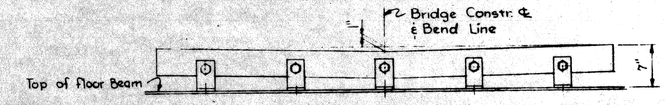
SECTION E-E

PIER BEARING DETAILS



METAL EXPANSION JOINT - PLAN

2 Required



ELEVATION

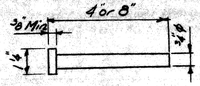
TYPICAL HALF SECTION

SECTION F-F

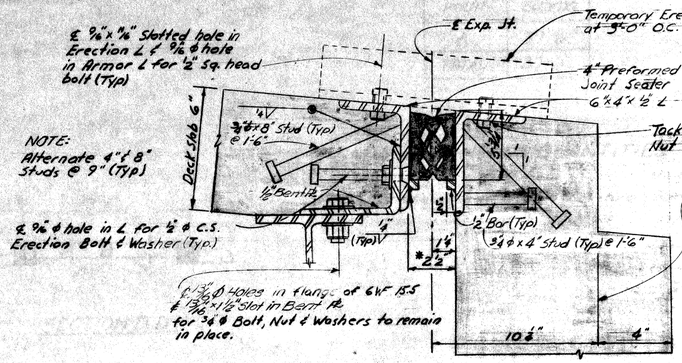
LATERAL BRACING DETAILS

SECTION G-G

SECTION H-H



STUD DETAIL



℄ 5/8" ø hole in ∠ for 1/2" ø C.S. Erection Bolt & Washer (Typ.)

SECTION Z-Z

* Increase by 1/16" for each 10° of beam temperature below 60° F. for each 70' of slab length or decrease by 1/16" for each 10° of beam temperature above 60° F. for each 70' of slab length. (Slab length is measured at right angles to joint.)

Work this Sheet with Sheet #12

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE CROSSING THE JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

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

APPROVED J. J. Conrad
STRUCTURAL ENGINEER

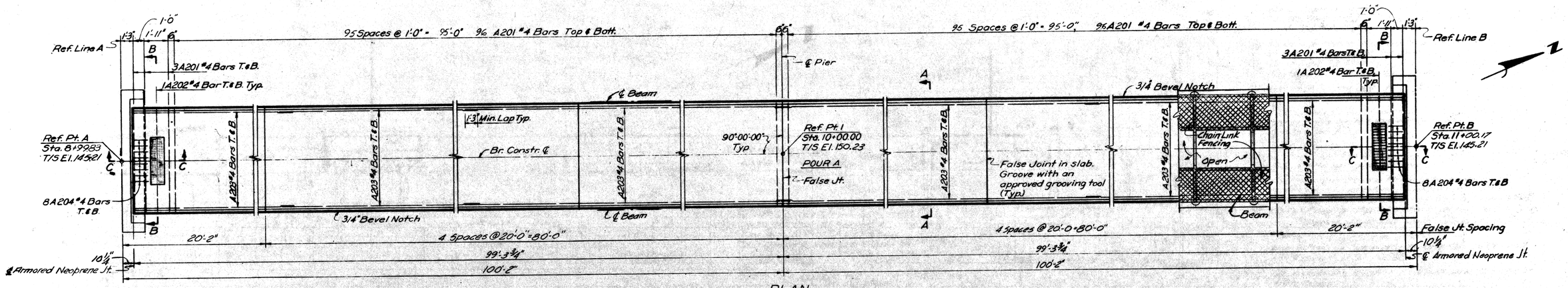
JOB No. PW 990(3)

CITY OF DETROIT

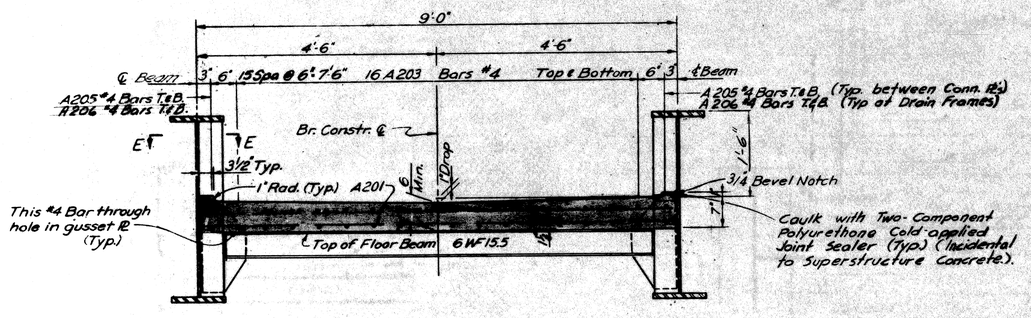
SQUAD BOSS	Locke	2-69
DRAWN BY	KRMS A.G.	2-69
TRACED BY	—	—
CHECKED BY	W.A.L.	2-69

SHEET 13 OF 16

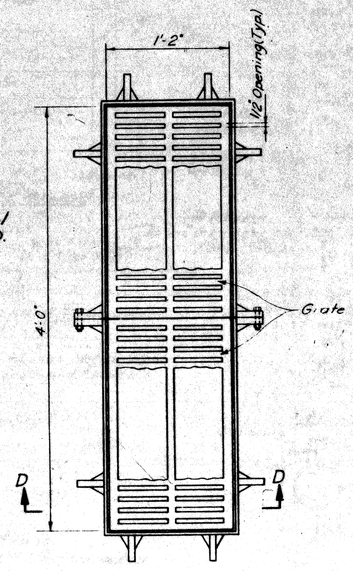
P06 of 82123J



PLAN



SECTION A-A



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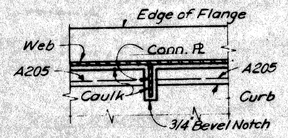
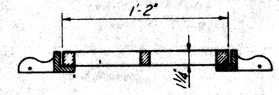


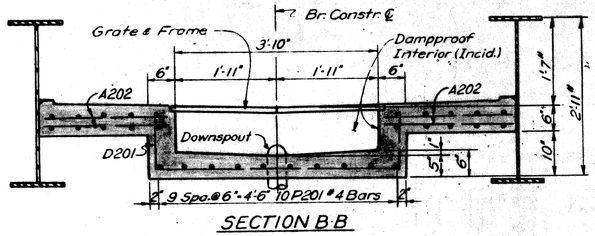
SECTION E-E



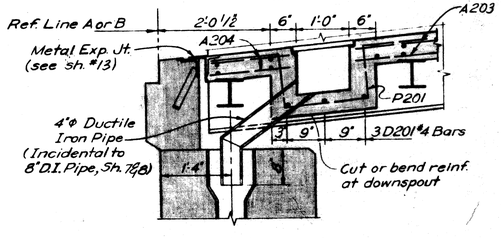
SECTION D-D

CONCRETE QUANTITIES GRADE A (6AA)	
POUR	CU. YDS.
A	37.0
TOTAL	37.0

MISCELLANEOUS QUANTITIES		
Item	Unit	Amount
Water Reducing-Retarding Admixture	Gals.	5
4" Preformed Neoprene Joint Sealer	Lin. Ft.	18



SECTION B-B



SECTION C-C

4 Frames with anchors and 4 Gratings are required. Material is to be Gray Iron conforming to A.S.T.M. Spec A48-56 or Ductile Iron conforming to A.S.T.M. Spec A339-55. Weight of Grates and Frames is included in Structural Steel Weight. Grates shall be bolted to Frames.

DRAIN FRAME & GRATING DETAILS

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

SUPERSTRUCTURE DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	Lo Cher	7-69
DRAWN BY	R.V.H.	7-68
TRACED BY	—	—
CHECKED BY	W.A.L.	7-69
SHEET	14 of 16	

P06 of 82123J

NOTES
Enclosure Posts are to be normal to the deck slab.

Ramp Railing maybe either aluminum alloy 6061-T6 (ASTM B 235) or steel galvinized in accordance with A.S.T.M. A123.

Chain Link Fence shall be No. 6 gage, 2" Mesh and shall conform to the M.D.S.H. Standard Specifications Sect. 7.22.03. The Fence material is to be adequately fastened to all tubing in the frame.

Nominal 2" Tubing shall be 2" outside diam. steel pipe or tubing weighing 2.72 lbs. per Ft., Galvanized.

Nominal 1 5/8" Tubing shall be 1 5/8" outside diam. steel pipe or tubing weighing 2.27 lbs per Ft. Galvanized.

All tubing shall be furnished with suitable connections and its min. weight shall be within 5% of the weight specified.

All components are to be galvanized. (Anchor Bolts, Nuts & Washers galvanized in accordance with A.S.T.M. designation A153). Galvanizing on Ramp Railing shall be done after fabrication.

Anchor Bolts, Nuts & Washers are to be A.S.T.M. A307 steel.

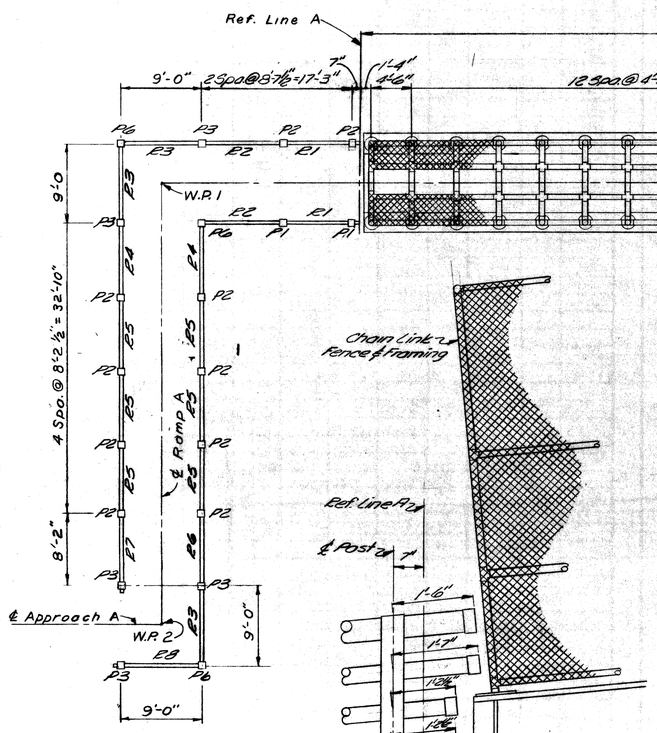
Ramp Railing Tube diam. are OD and wall thickness shall be 3/16 for all Tubes.

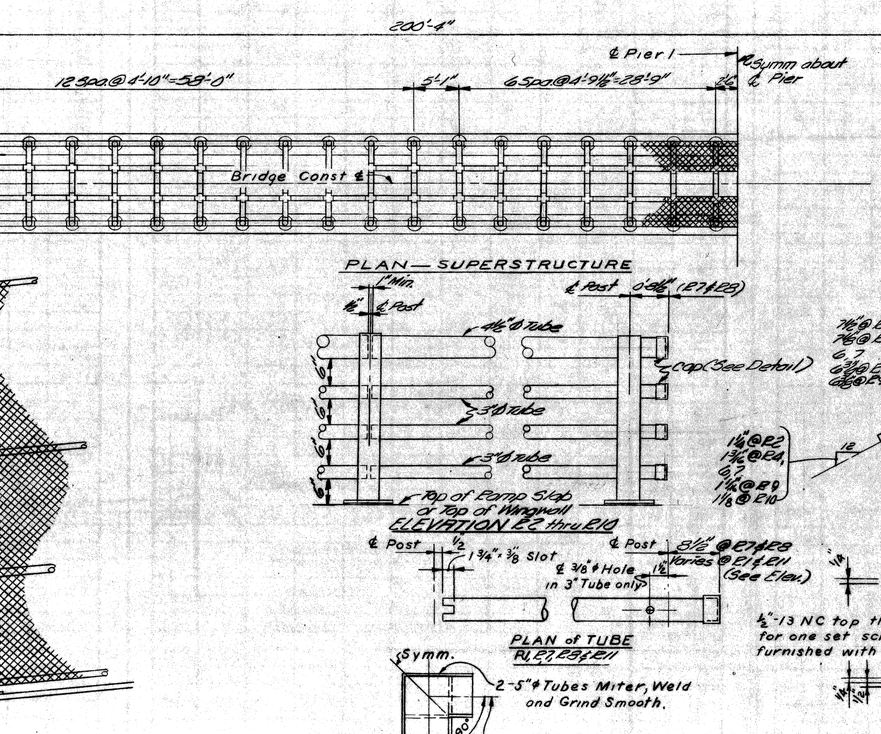
All distances shown on Plan are horizontal distances.

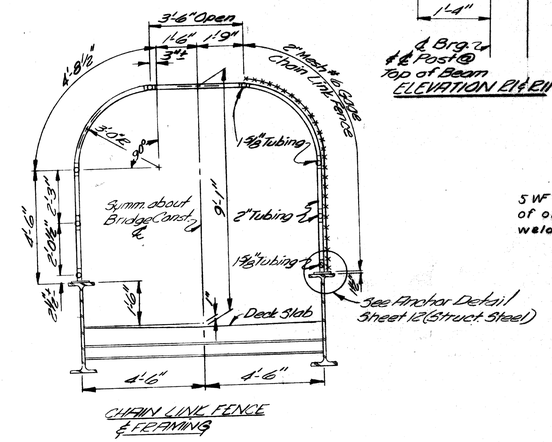
Pay length is measured out to out of metal.

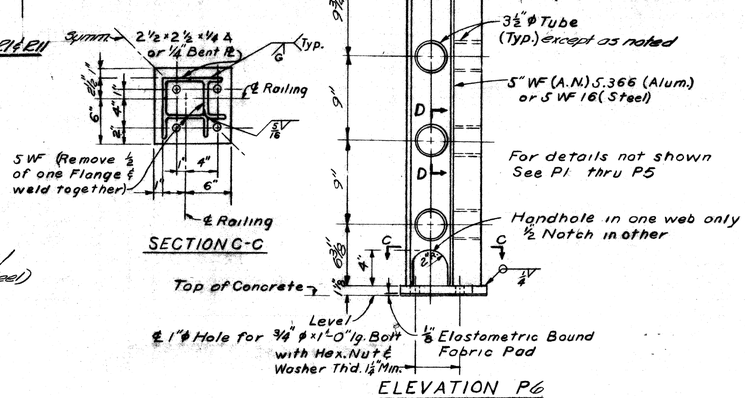
QUANTITIES
Chain Link Fence & Framing 197.8 Lin Ft.
Special Bridge Railing-Fabrication & Erection & Tube 271 Lin Ft

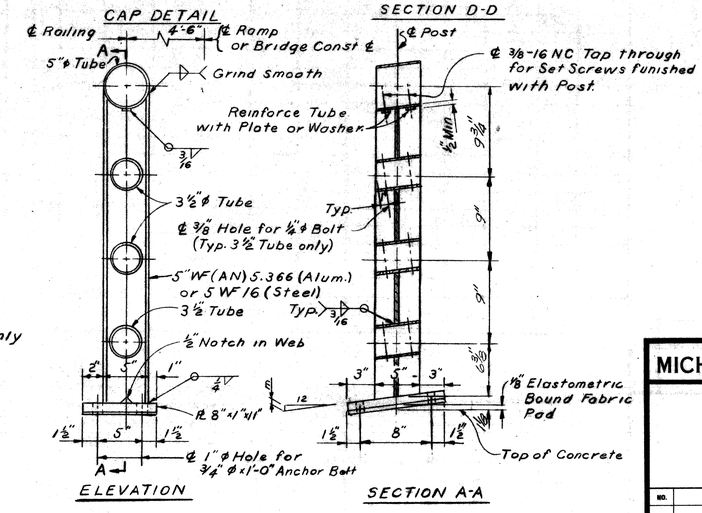
POST BEVEL DIMENSIONS						
Post Mark P	1	2	3	4	5	6
m	1 3/16	1 3/16	0	1 1/16	1 1/8	0











POST DETAILS P1 thru P5

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEER'S OFFICE
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

RAILING DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

SQUAD BOSS	Locher	2-69
DRAWN BY	D.S.	CBM
TRACED BY		
CHECKED BY	W.A.L.	2-69
SHEET	15 OF	16

P06 of 82123J

P06 RAILING DETAILS

ABUTMENTS

BAR	DIMENSIONS a	b	c	d	e	f	g	SIZE	LENGTH	NO. REQ'D.	TOTAL WT.
A1								#6	12'-6"	80	1502
A2								#6	20'-9"	18	561
A3								#8	12'-6"	18	601
A4								#6	4'-6"	36	243
A5								#8	7'-9"	46	952
A6								#6	6'-0"	128	1154
A7								#6	5'-6"	64	529
A8								#6	10'-3"	100	1540
A9								#4	11'-6"	38	292
A10								#4	18'-9"	32	401
A11								#4	16'-9"	8	90
A12								#4	7'-0"	4	19
A13								#6	8'-0"	28	336
A14								#6	2'-0"	14	42
A15								#6	3'-0"	40	180
A16								#6	4'-0"	28	168
A17								#6	31'-0"	9	419
A18								#4	21'-0"	8	112
A19								#4	20'-3"	32	433
A20								#4	11'-0"	20	147
A21								#4	19'-6"	10	130
A22								#4	18'-3"	8	98
A23								#6	7'-6"	9	101
A24								#6	21'-6"	7	226
A25								#6	22'-3"	18	602
C1	0'-7"	2'-10"	0'-7"	0'-7"	0'-10"	0'-7"	0'-10"	#6	4'-6"	37	250
D1	2'-5 3/4"	0'-4 1/2"						#4	5'-3"	22	77
D2	1'-6"	11'-6"						#4	14'-5"	4	39
T1	0'-7"	0'-7"	0'-10 1/2"	0'-3 1/4"	0'-5 1/2"	0'-5 3/4"		#4	3'-3"	10	22
								Total Abutments -			11,266 #

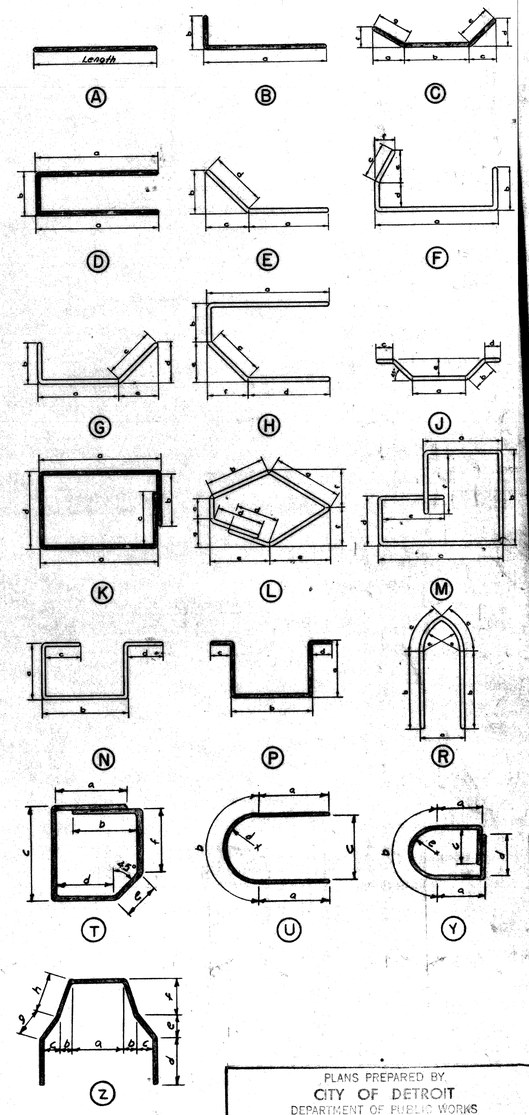
PIER

BAR	DIMENSIONS a	b	c	d	e	f	g	SIZE	LENGTH	NO. REQ'D.	TOTAL WT.
A100								#11	20'-9"	16	1764
A101								#10	19'-6"	13	1091
A102								#9	10'-9"	6	219
A103								#9	8'-9"	4	119
A104								#6	17'-0"	8	204
A105								#7	9'-6"	14	272
A106								#6	19'-6"	4	117
A107								#5	8'-9"	2	18
A108								#4	4'-6"	28	84
B100	2'-6"	0'-9 3/4"						#6	3'-3"	4	20
C100	3'-7 1/8"	3'-6"	3'-7 1/8"	0'-5 3/8"	3'-7 1/2"	0'-5 3/8"	3'-7 1/2"	#6	10'-9"	3	48
C101	2'-7 1/4"	3'-6"	2'-7 1/4"	0'-4"	2'-7 1/2"	0'-4"	2'-7 1/2"	#6	8'-9"	2	26
D100	3'-0 1/2"	2'-0"						#6	8'-0"	10	120
K100	2'-7 3/8"	1'-5 1/4"	1'-5 3/8"	1'-9 5/8"				#4	9'-11"	4	27
K101	2'-6 3/4"	1'-5 1/4"	1'-5 3/8"	1'-9 5/8"				#4	9'-9"	4	26
K102	2'-5 1/8"	1'-5 1/4"	1'-5 3/8"	1'-9 3/8"				#4	9'-7"	4	26
K103	2'-4 1/2"	1'-5 1/4"	1'-5 3/8"	1'-9 3/8"				#4	9'-4"	4	25
K104	2'-3 3/8"	1'-5 1/4"	1'-5 3/8"	1'-9 3/8"				#4	9'-2"	4	24
U100	1'-7"	3'-5"	2'-1 3/8"	1'-0 3/4"				#5	6'-7"	8	55
Y100	1'-1 6"	3'-4 3/8"	1'-5 1/4"	1'-5 5/8"	1'-0 7/8"			#4	8'-6"	24	136
Z100	2'-4 3/4"	0'-3"	0'-9"	2'-8 1/4"	1'-1"	1'-1 7/8"	g 1'-3 1/4" h 1'-2 5/8"	#4	12'-9"	12	102
								Total Pier -			4523 #

SUPERSTRUCTURE

BAR	DIMENSIONS a	b	c	d	e	f	g	SIZE	LENGTH	NO. REQ'D.	TOTAL WT.
A201								#4	8'-6"	396	2249
A202								#4	2'-3"	8	12
A203								#4	34'-0"	192	4361
A204								#4	1'-3"	32	27
A205								#4	6'-0"	120	481
A206								#4	4'-9"	8	25
D201	1'-1 4"	4'-7 1/2"						#4	6'-9"	6	27
P201	1'-0"	1'-7 1/2"	0'-11 3/4"	0'-11 3/4"				#4	5'-6"	20	73
								Total Superstructure -			7255 #

BAR BENDING DIAGRAM



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 P06.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

Grand Total Steel Reinforcement 23,044 #

**

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

APPROVED H.V. Covert STRUCTURAL ENGINEER

JOB No. PW 990(3)

MICHIGAN STATE HIGHWAY DEPARTMENT

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

STEEL REINFORCEMENT DETAILS

CITY OF DETROIT

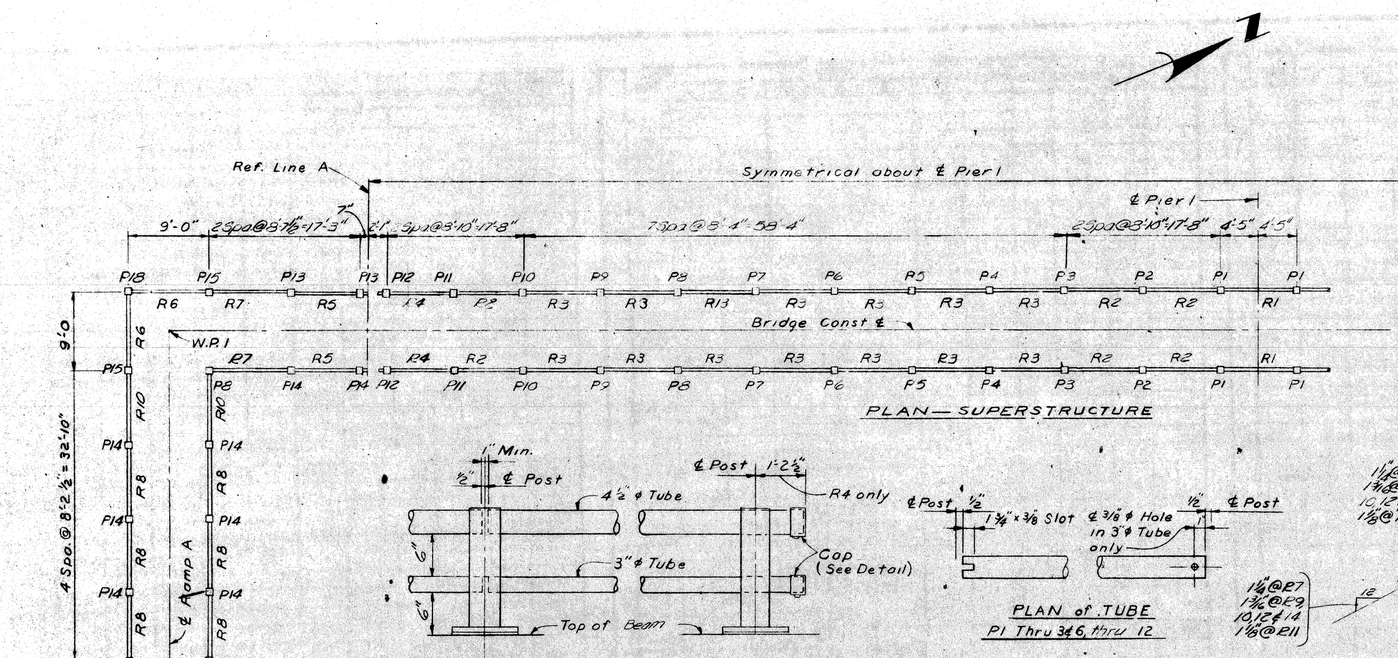
SQUAD BOSS	Locher	2-69
DRAWN BY	Saravaglia	5-68
TRACED BY		
CHECKED BY	D.J.R.	3-69

SHEET 16 OF 16

P06 of 82123J

REVISIONS

NO.	DESCRIPTION	DATE	BY



NOTE:

Railing may be either aluminum alloy 6061 T6 (A.S.T.M.B235) or steel galvanized in accordance with A.S.T.M. A123

Bolts, Nuts and Washers shall be steel galvanized in accordance with A.S.T.M. A153 and are incidental to the pay quantity.

Galvanizing shall be done after fabrication.

Dimensions are horizontal along ℄ railing.

Pay length is measured out to out of metal with no deductions for expansion openings.

Tube diameters are O.D. and wall thickness shall be 3/16 for all tubes.

QUANTITIES

Special Bridge Railing - Fabrication & Erection 2 Tube 397.2 Lin. Ft.
Special Bridge Railing - Fabrication & Erection 4 Tube 271.7 Lin. Ft.

	POST BEVEL DIMENSIONS																
Post Mark P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
m	1/16	3/16	1/4	3/16	1/16	3/16	1/16	3/4	7/16	13/16	1/16	3/16	3/16	3/4	0	1/16	1/16	0

PLANS PREPARED BY CITY OF DETROIT
SPECIFICATIONS
BUREAU OF HIGHWAYS
APPROVED STRUCTURAL ENGINEER
JOB NO. PW 00031

VOID

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

RAILING DETAILS

REVISIONS

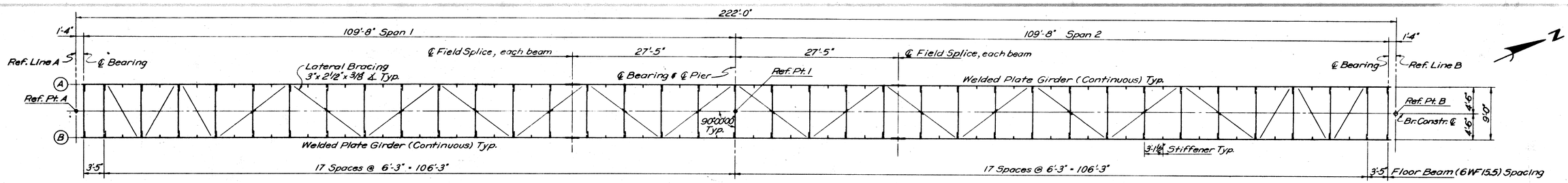
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

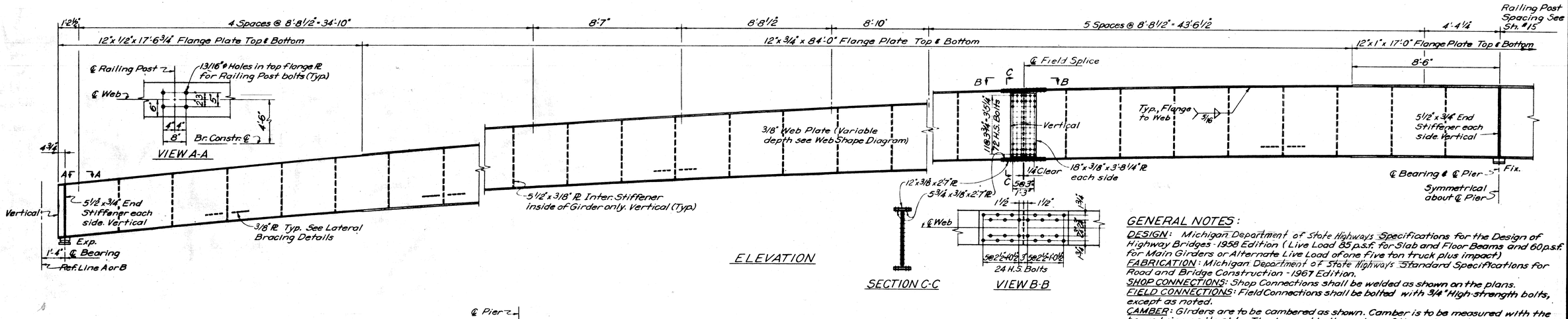
SQUAD BOSS			
DRAWN BY			
TRACED BY			
CHECKED BY			

SHEET 15 OF 16

P06 of 5.7.1231



ERECTION PLAN



ELEVATION

SECTION C-C

VIEW B-B

GENERAL NOTES:

DESIGN: Michigan Department of State Highways Specifications for the Design of Highway Bridges - 1958 Edition (Live Load 85 p.s.f. for Slab and Floor Beams and 60 p.s.f. for Main Girders or Alternate Live Load of one five ton truck plus impact)

FABRICATION: Michigan Department of State Highways Standard Specifications for Road and Bridge Construction - 1967 Edition.

SHOP CONNECTIONS: Shop Connections shall be welded as shown on the plans.

FIELD CONNECTIONS: Field Connections shall be bolted with ¾" High-strength bolts, except as noted.

CAMBER: Girders are to be cambered as shown. Camber is to be measured with the beam lying on its side. The top and bottom edges of the web are to be cut simultaneously, to the cambered shape shown, to minimize distortion.

SHOP PAINT: The bottom surfaces of sole plates and top surfaces of masonry ℞s shall be coated in accordance with the requirements for machine finished surfaces.

MATERIAL: Steel in anchor bolts may be ASTM A307

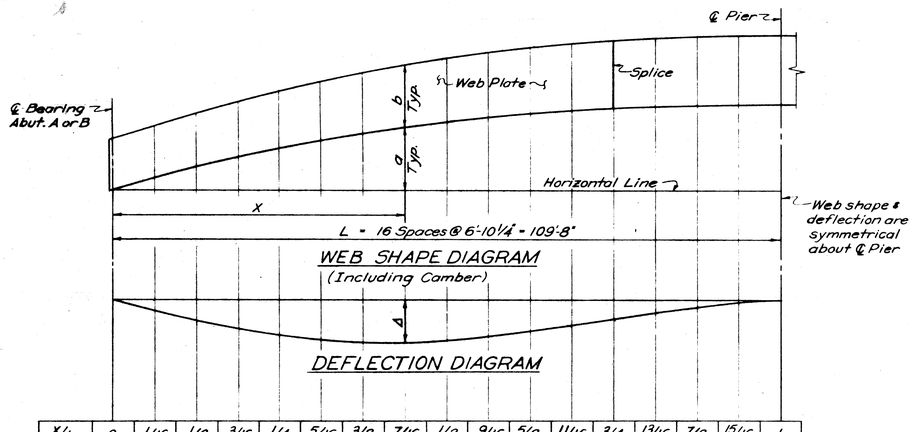
REAMING: Where reaming of holes for field connections is required, such holes shall be sub-punched or sub-drilled 1/4" smaller than the finished hole.

WELDING: Welding on tension flanges of girders will not be permitted unless such welding is shown on the plans or specified. Welding at other locations on the beams and girders, except where shown on the plans, may be permitted by written authorization providing the welding is to be performed in strict accordance with all specification requirements for structural welding.

QUANTITIES: Elastomeric Bearing Pad — 2 Sq. Ft.

The quantity "Structural Steel - Furnishing & Fabricating" includes:

~~Steel Modif.~~ (includes Metal Exp. Jts., Drain Frame & Grates)	65,900 lbs.
Bronze Plates	100 lbs.
Structural Steel - Furnishing & Fabricating (Total)	66,000 lbs.
Structural Steel Erection	66,000 lbs.

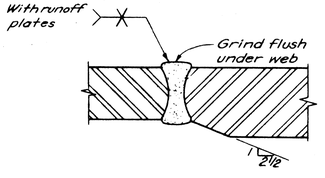


WEB SHAPE DIAGRAM
(Including Camber)

DEFLECTION DIAGRAM

X/L	0	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1
a	0"	8 13/16"	1'-4 11/16"	1'-11 3/16"	2'-5 9/16"	2'-10 5/8"	3'-3 1/2"	3'-7 3/4"	3'-11 1/2"	4'-2 5/8"	4'-5 1/4"	4'-7 7/16"	4'-9 1/8"	4'-10 5/16"	4'-11 1/8"	4'-11 1/2"	4'-11 5/8"
b	3'-0"	3'-0"	3'-0 15/16"	3'-2 1/2"	3'-3 7/8"	3'-5 3/16"	3'-6 3/8"	3'-7 7/16"	3'-8 3/8"	3'-9 1/4"	3'-10"	3'-10 9/16"	3'-11 1/8"	3'-11 1/2"	3'-11 3/4"	3'-11 15/16"	4'-0"
ΔBm.Wt.	0"	1/8"	1/4"	3/8"	1/2"	1/2"	9/16"	9/16"	1/2"	1/2"	7/16"	5/16"	1/4"	3/16"	1/8"	1/16"	0"
Δ D.L.	0"	5/8"	1 1/4"	1 5/8"	2 1/16"	2 5/16"	2 7/16"	2 7/16"	2 5/16"	2 1/16"	1 13/16"	1 7/16"	1 1/8"	3/4"	7/16"	3/16"	0"

Note:
Web Shape Diagram includes camber for vertical curve offset and summation of dead load deflections. (ΔBm.Wt. + Δ slab & railing - Δ D.L.)



FLANGE SPLICE

Work this Sheet with Sheet #11

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

REVISIONS

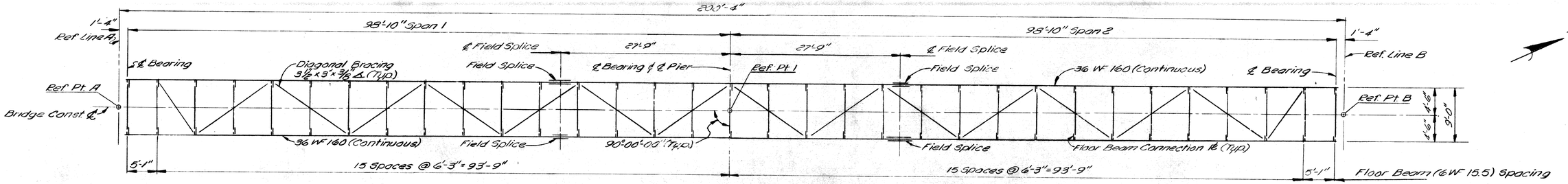
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

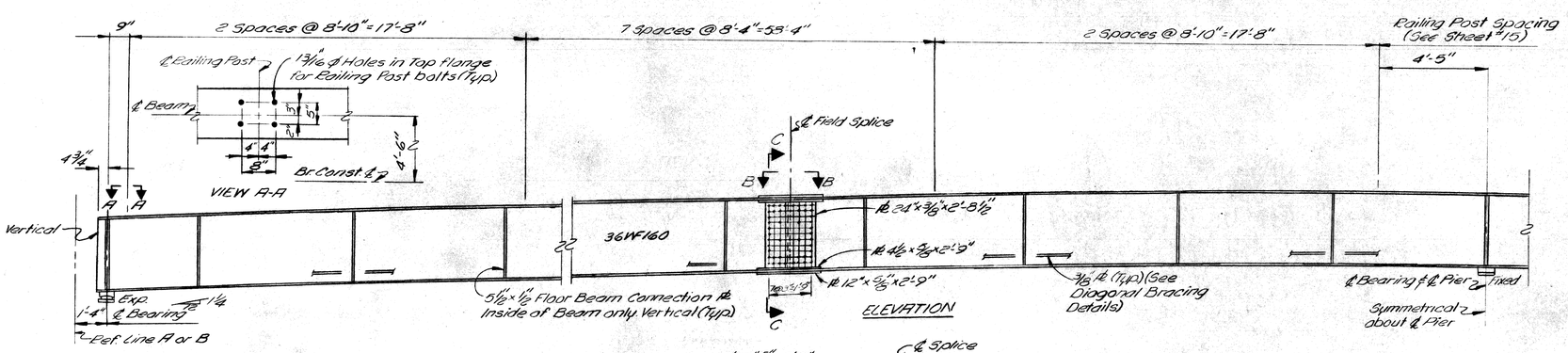
SQUAD BOSS		
DRAWN BY	K.K.K.	6-66
TRACED BY	—	—
CHECKED BY		
SHEET	12 OF 16	

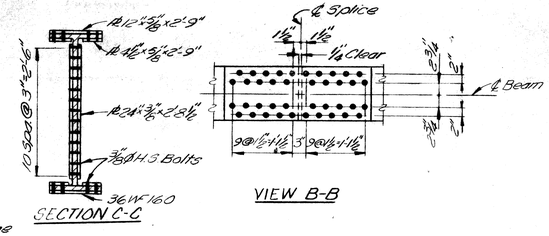
P06 of 82123J

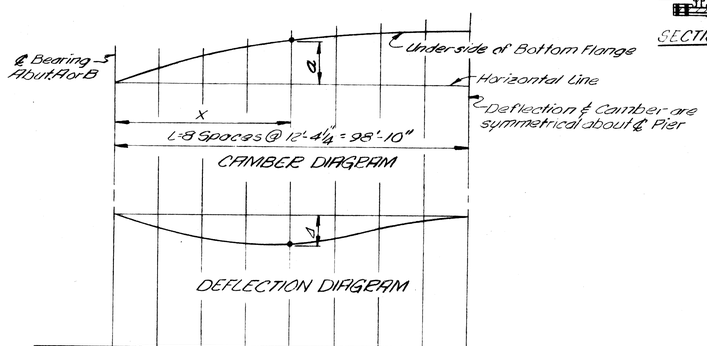
Str'l Stl Details VOID



ERECTION PLAN







x/L	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1
a	0	1'-3 5/8"	2'-3 5/8"	3'-1 1/2"	3'-9 5/8"	4'-3 3/8"	4'-7 1/8"	4'-10"	4'-10 5/8"
ΔBm.Wt.	0	1/4"	3/8"	1/2"	1/2"	3/8"	1/4"	1/8"	0
ΔD.L.	0	3/8"	1 1/2"	1 3/4"	1 3/4"	1 3/8"	3/4"	1/4"	0

NOTE:
Camber ordinate "a" includes allowance for vertical curve and ΔD.L.
ΔBm Wt = Deflection due to weight of steel Beam only.
ΔD.L. = Deflection due to weight of Structural Steel, Slab and Railing

GENERAL NOTES:

DESIGN: Michigan Department of State Highways Specifications for the Design of Highway Bridges - 1958 edition and current AASHO Standard Specifications for Highway Bridges. (Live Load is 85 psf with Alternate live load of one five ton truck plus impact)

FABRICATION: Michigan Department of State Highways Standard Specifications for Road and Bridge Construction - 1967 edition

SHOP CONNECTION: Shop connections shall be welded as shown on the Plans.

FIELD CONNECTION: Field Connections shall be bolted with ¾ high strength bolts, except as noted.

CAMBER: The beams are to be cambered as shown. Camber is to be measured with the beam lying on its side. Allowable camber tolerance for rolled beams is ¼. Heating is to be used, if necessary, to assure camber permanency within the above tolerance.

WELDING: Welding on tension flanges of beams will not be permitted un unless such welding is shown on the plans or specified. Welding at other locations on the beams, except where shown on the plans, may be permitted by written authorization providing the welding is to be performed in strict accordance with all specification requirements for structural welding.

MATERIAL: Structural Steel shall comform to the requirements of the current specifications for Structural Steel, Unpainted, A.S.T.M. Designation A-7 M Modified.

Steel, main anchor bolts, may be A.S.T.M. A 307.

Position Dowels and Anchor Bolts (including nuts and washers) shall be galvanized in accordance with A.S.T.M. Designation A153

All steel material used for bearings with exception of portion welded to beams, shall be galvanized in accordance with A.S.T.M. Designation A123. Galvanizing shall be applied after fabrication of bearing. Mill scale and foreign material shall be removed prior to galvanizing.

QUANTITIES

Elastomeric Bearing Pad	_____ Sq Ft.
Structural Steel - Furnishing and Fabricating *	_____ Lbs.
Structural Steel - Erection *	_____ Lbs.

* The quantity "Structural Steel" includes metal parts of Armored Neoprene Joints, Drain Frames and Gates consists of:

Steel	lbs.
Bronze	lbs.
Total	Lbs.

Work This Sheet with Sheet 13 & 15

PLANS PREPARED BY
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERING UNIT
BUREAU OF HIGHWAYS AND EXPRESSWAYS

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 9003

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

CITY OF DETROIT

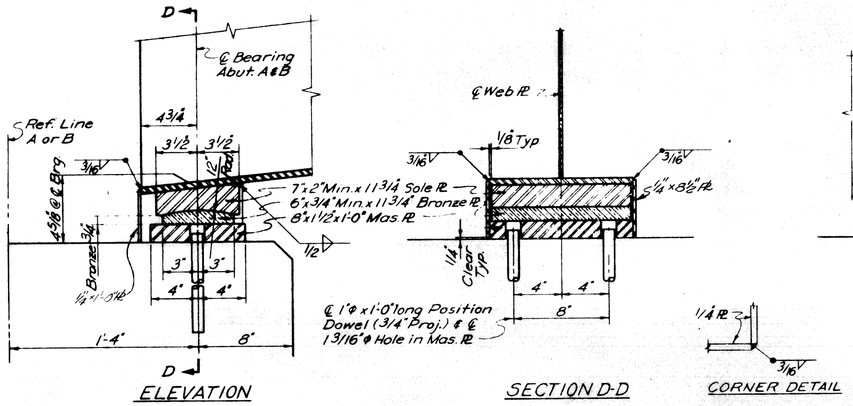
REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	
DRAWN BY	
TRACED BY	
CHECKED BY	

SHEET 12 OF 16

P06 of 82123J

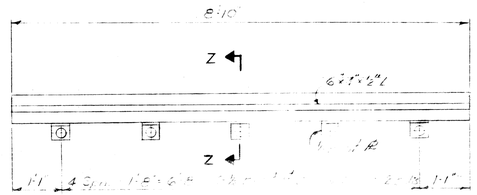


ELEVATION — SECTION D-D — CORNER DETAIL

ABUTMENT BEARING DETAILS

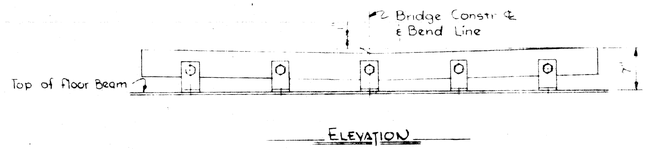
ELEVATION — SECTION E-E

PIER BEARING DETAILS

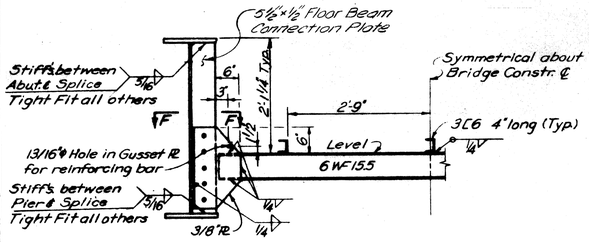


METAL EXPANSION JOINT - PLAN

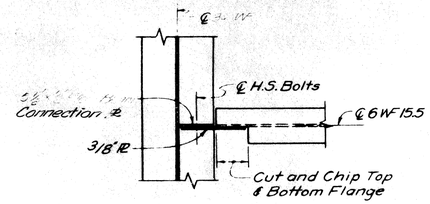
2 Required



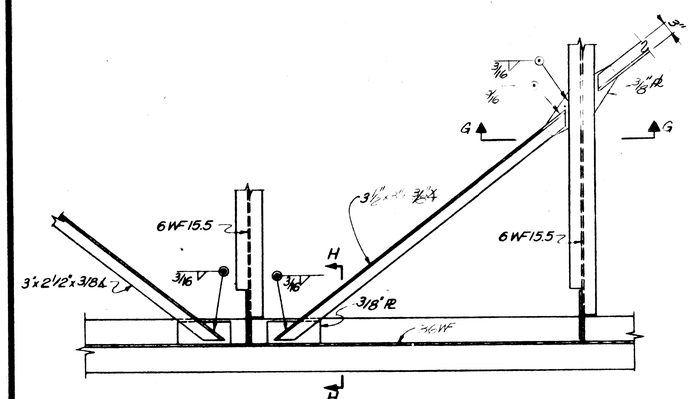
ELEVATION



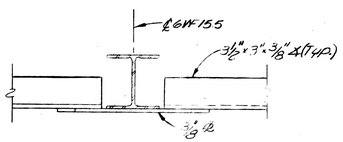
TYPICAL HALF SECTION



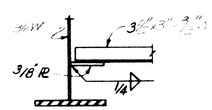
SECTION F-F



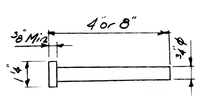
LATERAL BRACING DETAILS



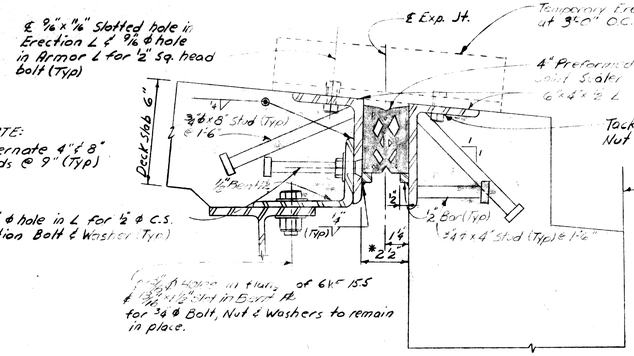
SECTION G-G



SECTION H-H



STUD DETAIL



SECTION Z-Z

* Increase by 1/16 for each 10° of beam temperature below 60°F for each 70' of slab length or decrease by 1/16 for each 10° of beam temperature above 60°F for each 70' of slab length. (Slab length is measured at right angles to joint.)

Work this Sheet with Sheet #12

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 990(3)

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT AVE. PEDESTRIAN BRIDGE
CROSSING THE JEFFRIES FREEWAY IN DETROIT

STRUCTURAL STEEL DETAILS

REVISIONS

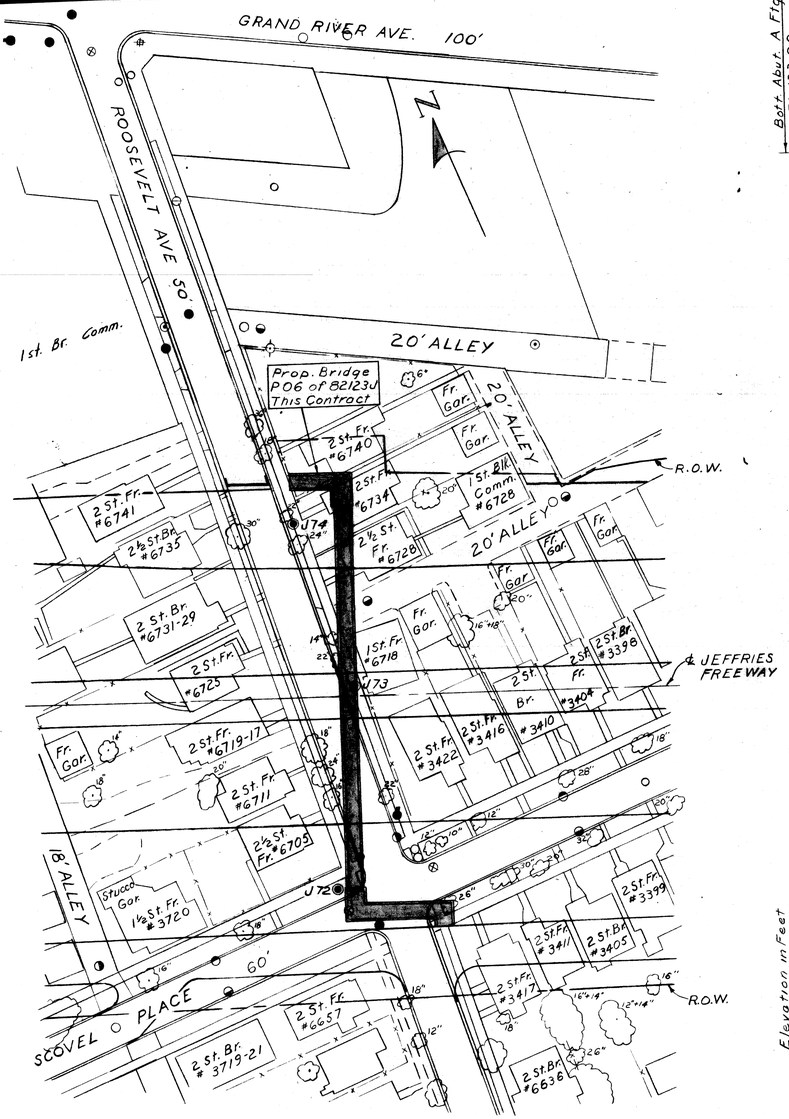
NO.	DESCRIPTION	DATE	BY

CITY OF DETROIT

ROAD BOSS		
DRAWN BY	K.K.K.	A.G. 6-62
TRACED BY	—	—
CHECKED BY		

SHEET 13 OF 16

P06 of 82123J



SURVEY PLAN

Scale 1"=40'

UTILITY LEGEND

- Sewer Inlet or Catchbasin
- Sewer Manhole
- R.L.C. Manhole
- M.B.T. Manhole
- D.E. Manhole
- Water Gate Well and Valve
- Fire Hydrant
- Detroit Edison Co. Pole
- Test Hole for Soil Profile
- D.F.D. Alarm Box
- Tree (Size)
- —x— Fence

Bott. Abut. A Fig. El. 133.00

T.H. J72

133.5

P

P — 130

P, S = 2088

P, S = 706 — 120

P, S = 274

P, S = 403 — 110

P, S = 277

P, S = 209 — 100

P, S = 209

P, S = 187 — 90

Compact Moist Black Sandy Topsoil Medium Vegetation, Pebbles, Fill.

Firm Moist Oxidized Variegated Silty Clay, Some Sand and Pebbles

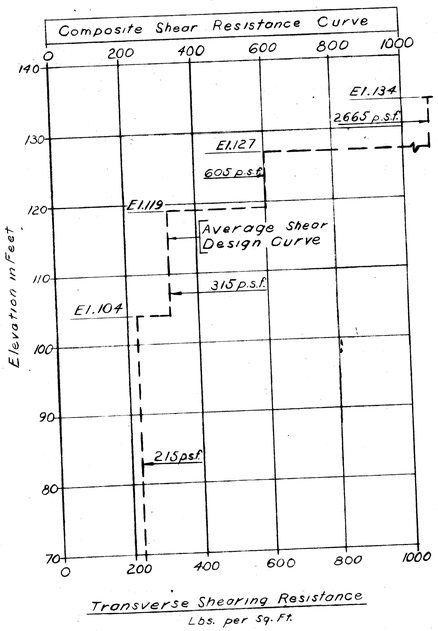
Firm Moist Oxidized Brown Silty Clay, some Sand and Pebbles.

Firm Moist Blue Silty Clay some Sand and Pebbles, Occasional Streaks of Oxidation and Rouge Markings.

Soft Very Moist Blue Silty Clay, Some Sand and Pebbles, Occasional Rouge Markings.

No Noticeable Ground Water

Composite Shear Resistance Curve



Transverse Shearing Resistance

Lbs. per Sq. Ft.

LOG OF SOIL BORINGS

Bott. Pier Fig. El. 125.00

T.H. J73

140.1

P, S = 3240

P, N = 20-28 — 130

P, S = 648

P, S = 461 — 120

P, S = 418

P, S = 245 — 110

P, S = 274

P, S = 187 — 100

P, S = 195

P, S = 346 — 90

N = 4-5 *

P, S = 202 — 80

N = 5-5 *

P, S = 173 — 70

N = 5-5 *

P — 60

N = 5-5 *

P, S = 403 — 50

N = 4-5 *

P — 40

N = 5-7 *

P, S = 433 — 30

N = 5-6 *

P — 20

Brick

Firm Moist Sandy Topsoil Medium Vegetation.

Stiff Moist Oxidized Variegated Clay, Sand and Pebbles Light Vegetation.

Extremely Stiff Moist Oxidized Variegated Clay, Sand and Pebbles.

Extremely Stiff Moist Oxidized Brown Clay Sand and Pebbles

Very Stiff Moist Blue Clay, Sand and Pebbles

Stiff Moist Blue Clay, Sand and Pebbles Silt Content.

Firm Moist Blue Silty Clay, High Sand and Pebble Content, Rouge Markings

Firm Moist Blue Silty Clay, Slight Sand and Pebble Content

Firm Moist Blue Silty Clay, High Sand and Pebble Content.

Stiff Moist Blue Silty Clay, Sand and Pebbles.

Stiff Moist Blue Silty Clay, Layers of Sand and Gravel, Very Stoney.

Extremely Stiff Moist Blue Clay, Hardpan.

End of Boring - Refusal (Possible Stone or Boulder).

Bott. Abut. B Fig. El. 133.00

T.H. J74

140.6

N = 9-16 — 140

N = 25-34 * — 130

N = 8-8

N = 6-8 — 120

N = 4-6

N = 5-6 — 110

N = 3-5

N = 5-5 — 100

N = 4-6

N = 4-5 — 90

Medium Compact Moist Sandy Black Topsoil, Medium Vegetation and Stones.

Firm Moist Silty Oxidized Variegated Clay Some Sand and Pebbles.

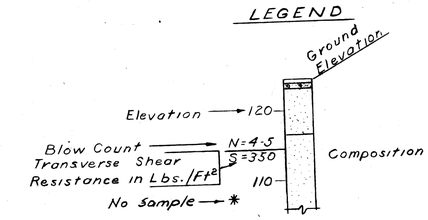
Very Stiff Moist Silty Oxidized, Variegated Clay, Some Sand and Pebbles.

Stiff Moist Silty Blue Clay, Some Sand & Pebbles, Rouge Markings, Traces of Oxidation.

Stiff moist silty blue clay, some sand & pebbles, rouge markings, traces of oxidation.

End of Boring

LEGEND



NOTES:

Blow Count - Indicates number of blows required to drive a sampler 6" (unless otherwise noted) using a 140# hamner falling 30".

P - Indicates sampler was pushed.

S - Indicates Transverse Shear Resistance in lbs./sq.ft. as determined by M.S.H.D. Standard Test.

GENERAL NOTES:

The work covered by these plans includes construction of the proposed bridge and placing slope protection to the limits shown. All other work is included in the Road Plans which are part of this contract.

Removal of fences and buildings is not part of this contract.

The contractor shall locate all active underground utilities prior to starting work, and shall conduct his operation in such a manner as to insure that those utilities not requiring relocation will not be disturbed.

Topography shown hereon represents conditions existing at the time the field survey was made. However, these conditions may have been materially altered by the operations of others before the work has been started.

Unsuitable material under Abutments A & B shall be removed and backfilled with Granular Material Class III compacted to 100% of its maximum unit weight.

SAME REVIEW COMMENTS AS ON P04

PRELIMINARY PLAN 'A' DATED 4-29-68
BID LETTING DATE, MAY 13, 1969

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

NO.	DESCRIPTION	DATE	BY
REVISIONS			

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

ROOSEVELT PEDESTRIAN BRIDGE

GENERAL PLAN OF SITE

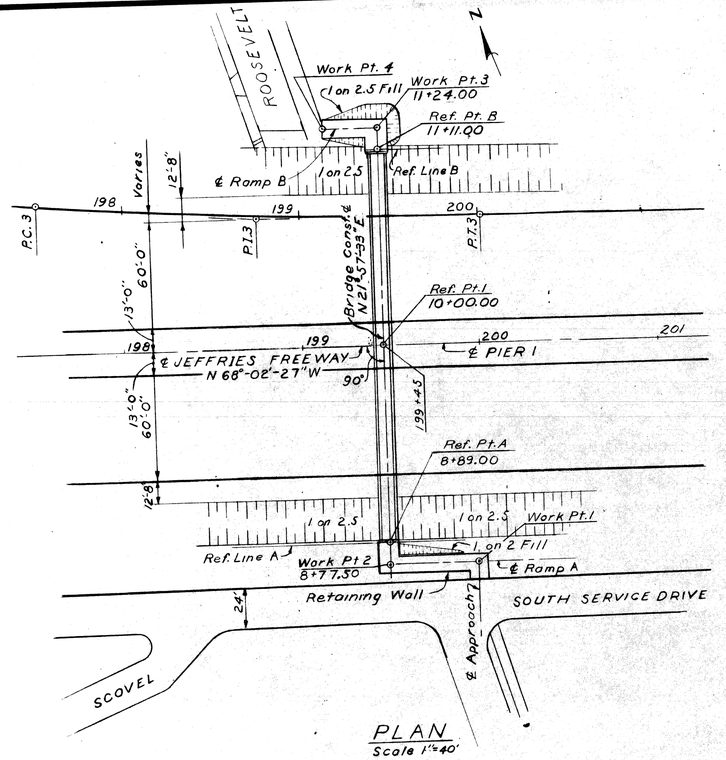
SQUAD BOSS	R.J.	3-68
DRAWN BY	SPURGEON	
TRACED BY		
CHECKED BY	T.A.B.	4-68
SHEET	1 OF 5	

APPROVED _____ DESIGN SUPERVISING ENGINEER

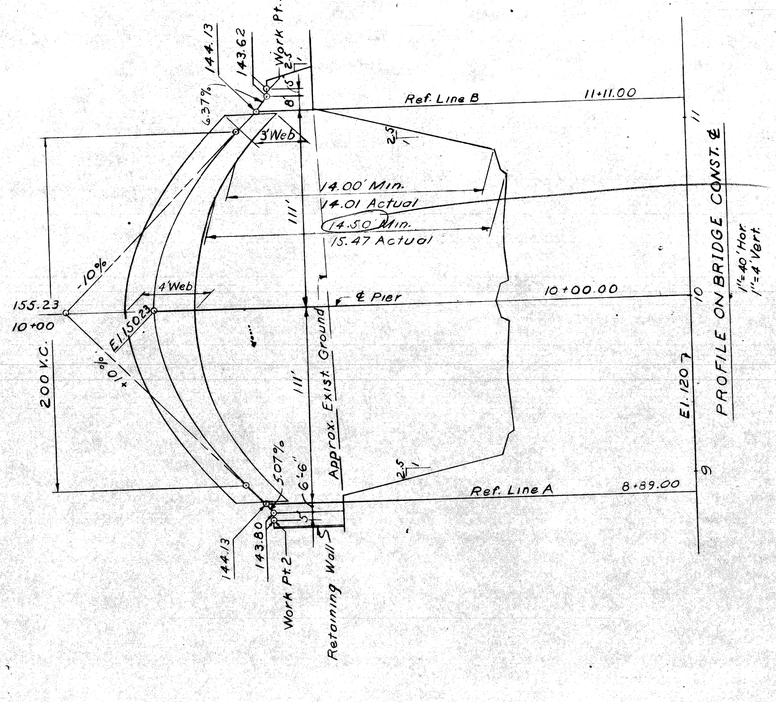
APPROVED _____ ENGINEER OF DESIGN CONSULTANTS

P06 of 82123J

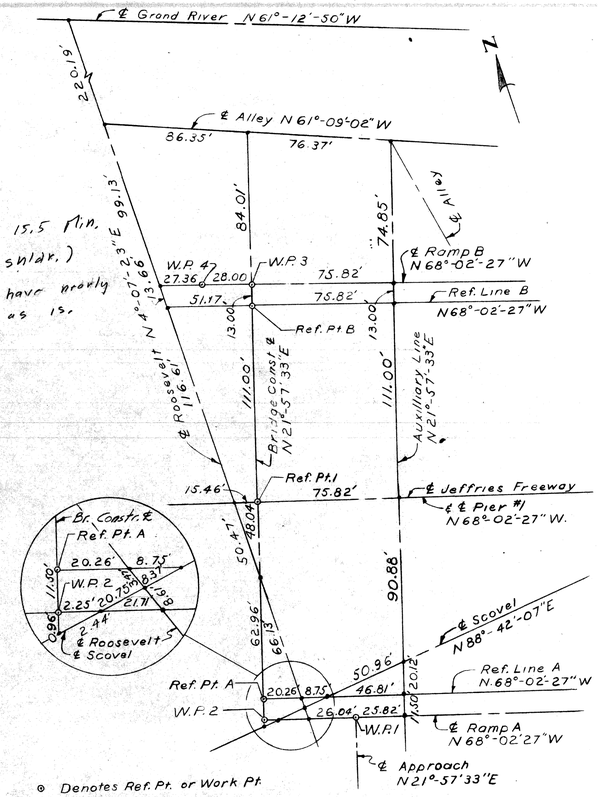
P06 General Plan of Site 990(3)



PLAN
Scale 1"=40'

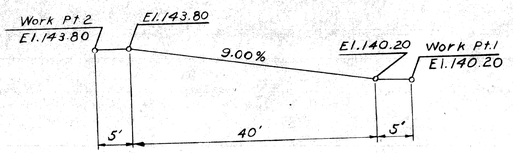


Should be 15.5 Min.
(and 15 @ sklwk.)
since we have heavily
15.5 loaded as is.

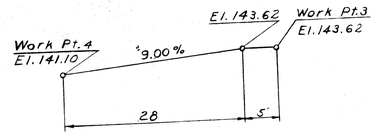


⊙ Denotes Ref. Pt. or Work Pt.
• Denotes intersection

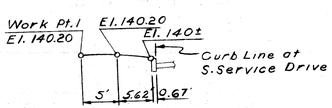
ALIGNMENT DIAGRAM
No Scale



PROFILE ON ℄ RAMP A
Not to Scale

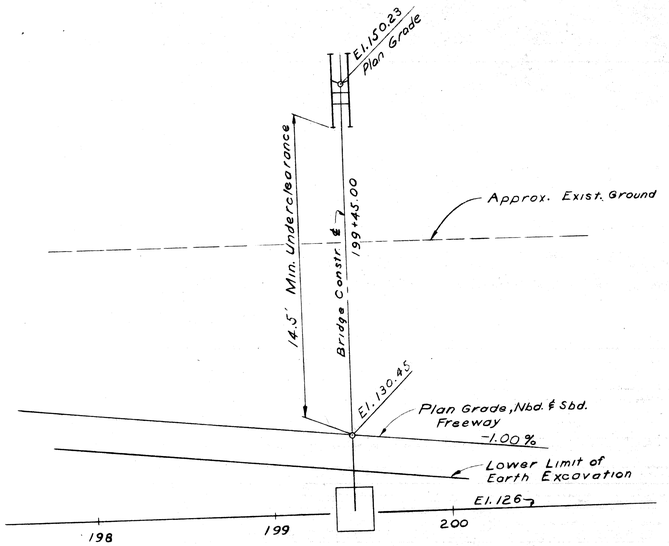


PROFILE ON ℄ RAMP B
Not to Scale



PROFILE ON ℄ APPROACH A
Not to Scale

Note:
For Approach B Details
See Road Plans



PROFILE ON ℄ JEFFRIES FREEWAY
Scale 1"=40' Hor.
1"=4' Vert.

Construction Bench Marks:

C.B.M. 70 El. 141.18 Arrow on Hydrant N.E. Corner Eastern and Roosevelt.
C.B.M. 71 El. 144.94 Arrow on Hydrant N.W. Corner Roosevelt and Grand River.
C.B.M. 72 El. 143.21 Arrow on Hydrant N.W. Corner Scovel and Toft.
Elevations refer to City of Detroit Datum, 479.755 Feet above sea level.

PRELIMINARY PLAN 'A' DATED 4-29-68

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 99013

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT

GENERAL DRAWING

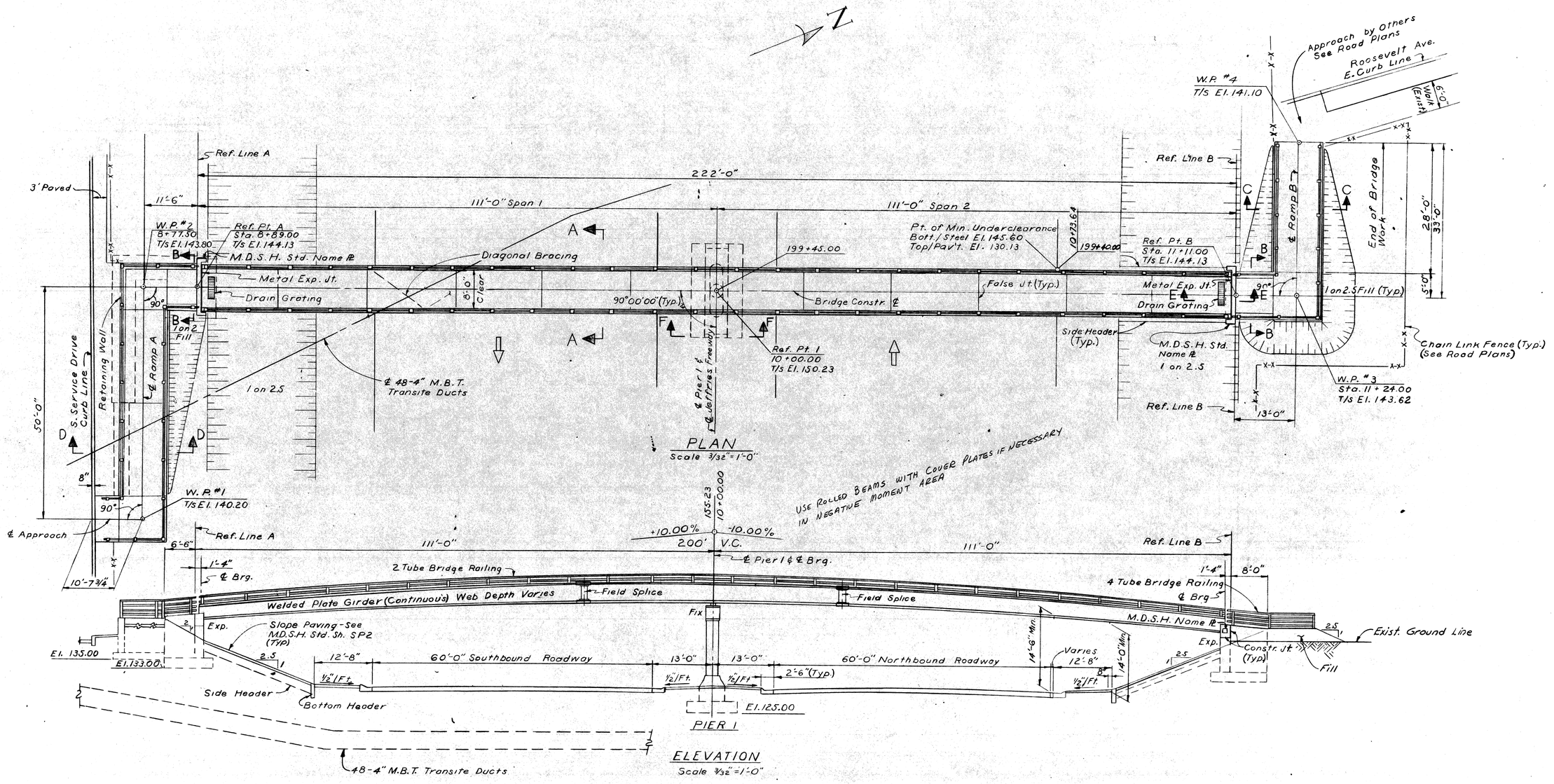
APPROVED _____ DESIGN SUPERVISING ENGINEER

APPROVED _____ ENGINEER OF DESIGN CONSULTANTS

SQUAD BOSS	RJ	7-68
DRAWN BY	SPURGEON	
TRACED BY		
CHECKED BY	TAB	4-68
SHEET	2 OF	5

P06 of 82123J

P06 of 82123J 99013 GENERAL DRAWING 99(-)



PRELIMINARY PLAN 'A'
DATED, 4-29-68

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

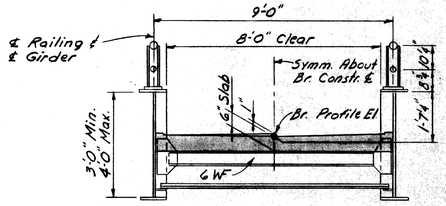
GENERAL PLAN OF STRUCTURE

SQUAD BOSS	C.J.	F. 66
DRAWN BY	SPANGLER	
TRACED BY		
CHECKED BY	T.A.B.	4-68
SHEET 3 OF 5		

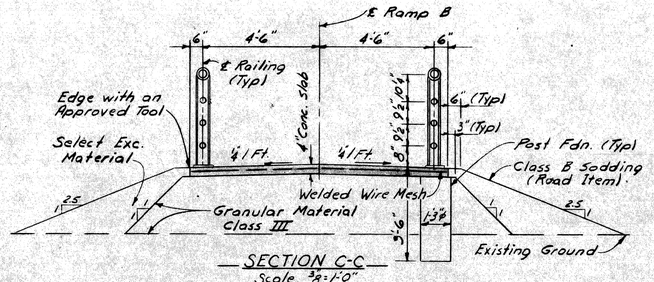
APPROVED _____ DESIGN SUPERVISING ENGINEER

APPROVED _____ ENGINEER OF DESIGN CONSULTANTS

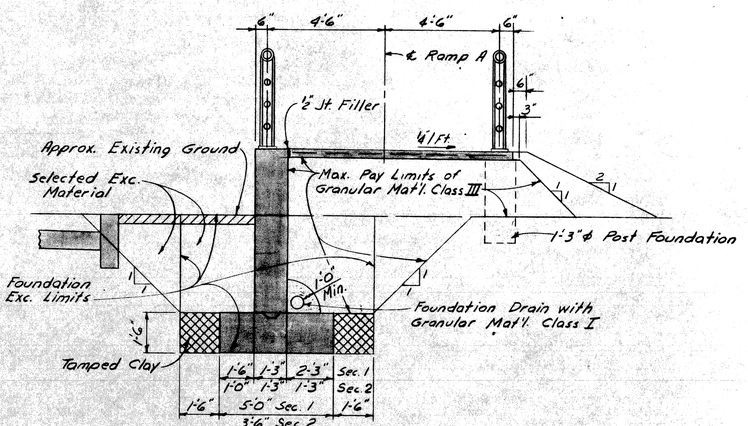
P06 of 82123J



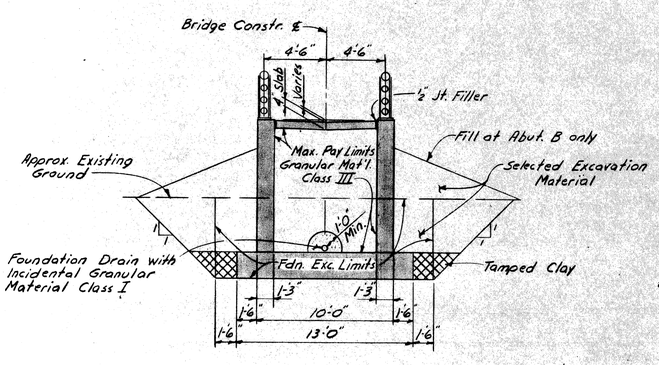
SECTION A-A
Scale, 3/8" = 1'-0"



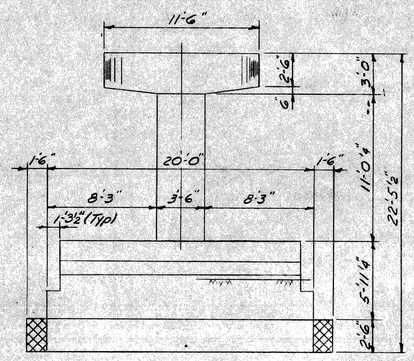
SECTION C-C
Scale, 3/8" = 1'-0"



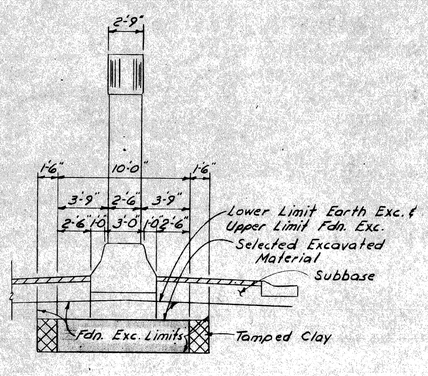
SECTION D-D
Scale, 3/8" = 1'-0"



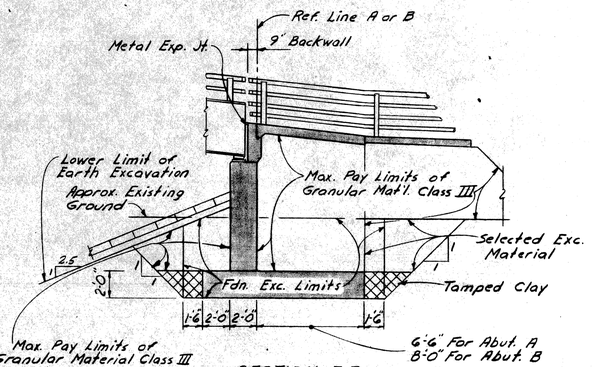
SECTION B-B
Scale, 3/16" = 1'-0"



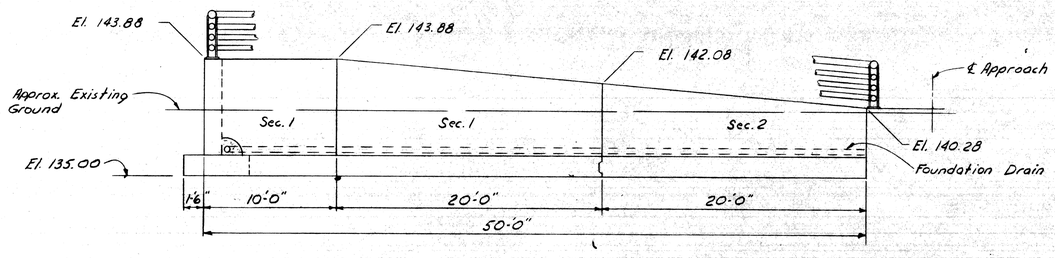
PIER ELEVATION
Scale, 3/16" = 1'-0"



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



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



ELEVATION AT RAMP 'A' RETAINING WALL
Scale 3/16" = 1'-0"

GENERAL NOTES:

The design of this structure is based on the M.D.S.H. Specifications for the design of Highway Bridges, 1958 edition and current A.A.S.H.O. Standard Specifications for Highway Bridges.

Live Load

Concrete Slab & Floor Beams ... 85 p.s.f.
Stringers ... 60 p.s.f.
Alternate Live Loading ... One 5 ton truck plus impact.

The top of slab is parallel to the vertical curve and tangents.

For details of Slope Protection, see Standard Sheet SP2.

Tamped Clay and Selected Excavated Material are incidental to Unclassified Excavation. Granular Material-Class I is incidental to Foundation Drain.

The design is based on a maximum average foundation pressure of 1650 p.s.f. at Abuts. & 1850 p.s.f. at Pier based on D.L. only and a maximum foundation pressure of 2600 p.s.f. at Abuts. & 2200 p.s.f. at Pier based on D.L. and L.L.

PRELIMINARY PLAN 'A' DATED 4-29-68

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No. PW 990(3)

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

GENERAL PLAN OF STRUCTURE

EXISTING STRUCTURE
PROPOSED STRUCTURE

SQUAD BOSS	C.J.	3-68
DRAWN BY	Garavaglia	2-68
TRACED BY		
CHECKED BY	K.V.H.	4-68
SHEET 4 OF 5		

APPROVED _____ DESIGN SUPERVISING ENGINEER

APPROVED _____ ENGINEER OF DESIGN CONSULTANTS

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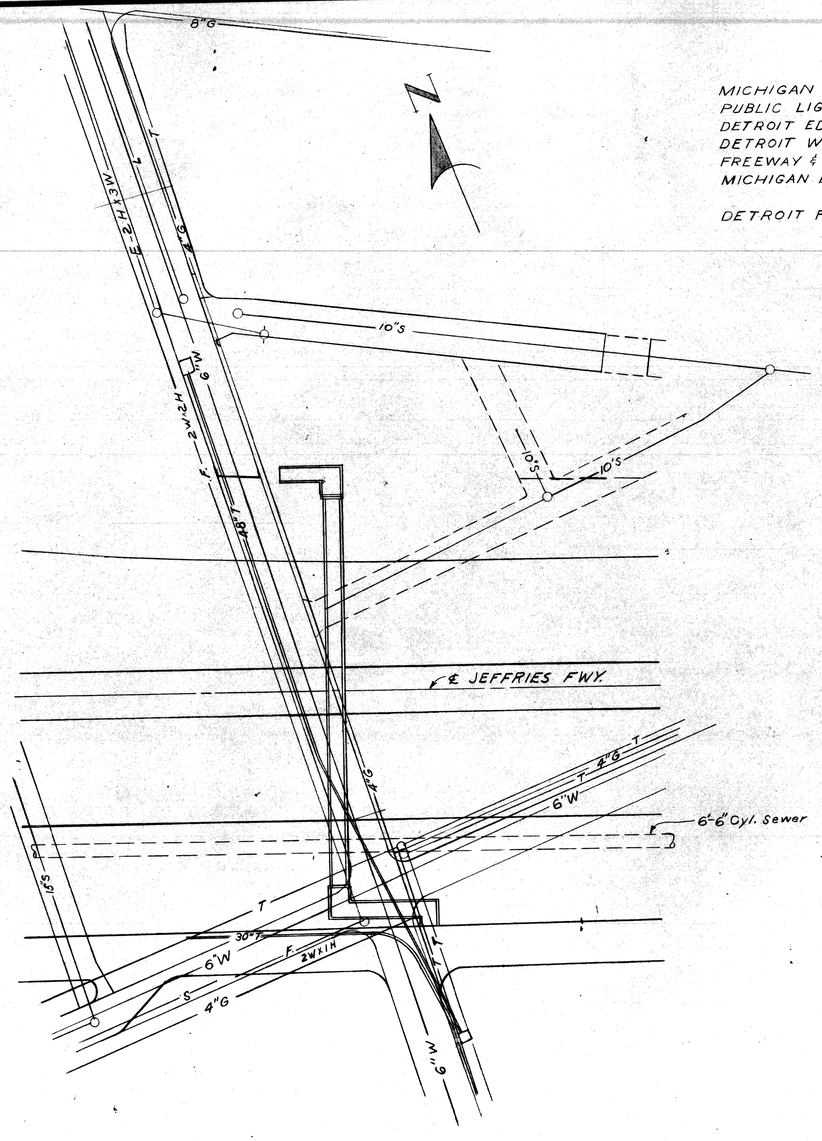
P06



SITUATION PLAN

Scale 1"=40'

LEGEND

UTILITY	EXISTING	DELETED OR ABANDONED	NEW WORK BY OTHERS	NEW WORK BY CONTRACTOR
MICHIGAN CONSOLIDATED GAS	G			
PUBLIC LIGHTING COMMISSION	L			
DETROIT EDISON COMPANY	E			
DETROIT WATER DEPARTMENT	W			
FREEWAY & CITY OF DETROIT SEWERS	S			
MICHIGAN BELL TELEPHONE COMPANY	T			
M.B.T. DUCT TUNNEL	T			
DETROIT FIRE DEPARTMENT	F			

PRELIMINARY PLAN 'A'
DATED 4-29-68

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

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

APPROVED _____ STRUCTURAL ENGINEER

JOB No.
PW 990(3)

EXISTING UTILITIES AND PROPOSED ALTERATIONS

REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	R.J. SPURGEON	3-68
DRAWN BY		
TRACED BY		
CHECKED BY	T.A.B.	4-68

SHEET 5 OF 5

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