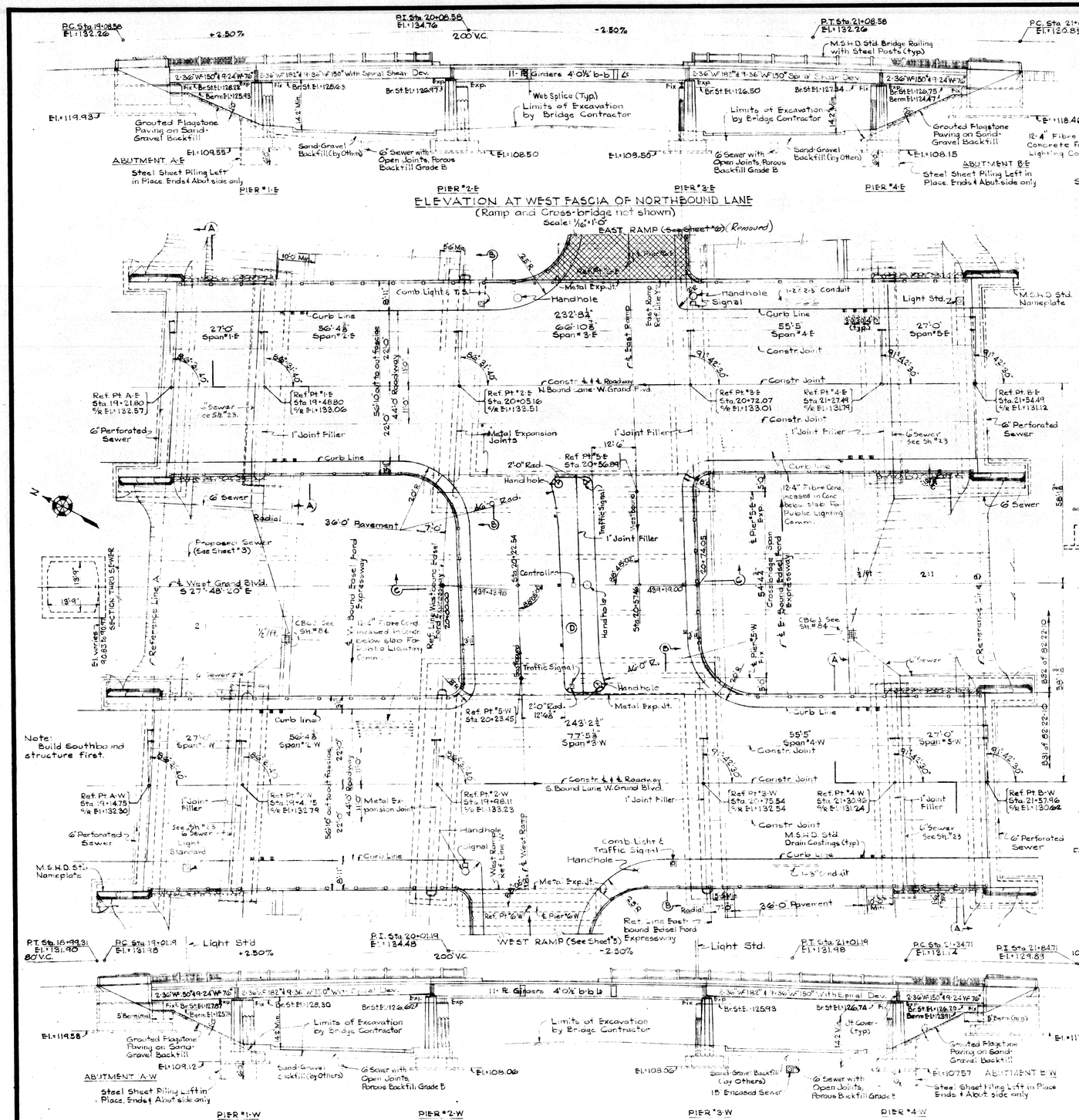


MICHIGAN STATE HIGHWAY DEPARTMENT

CHARLES M. ZIEGLER
STATE HIGHWAY COMMISSIONER
EDSEL FORD EXPRESSWAY CROSSING WEST
GRAND BLVD. IN THE CITY OF DETROIT

GENERAL PLAN OF STRUCTURE

HAZELET & ERDAL - CONSULTING ENGINEERS FILE No. 719

APPROVED _____ 11-24-51 — CHIEF BRIDGE DRAFTSMAN
APPROVED _____ 11-24-51 — ENGINEER OF BRIDGE DESIGN
APPROVED _____ 11-24-51 — BRIDGE ENGINEER

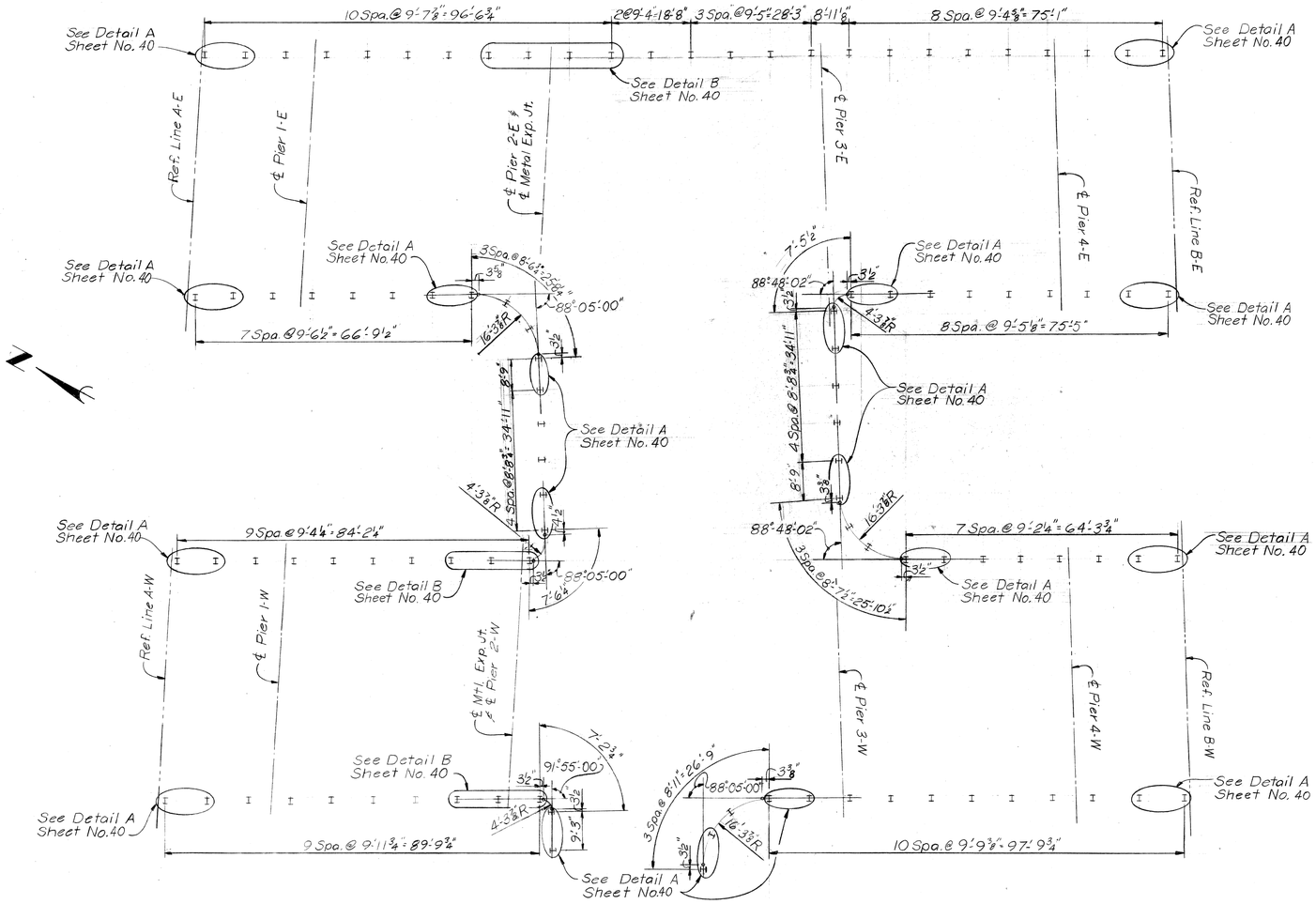
SQUARE DRAWN	DWJ	9-7-51
DRAWN BY	CPW	6-16-50
TRACED BY		
CHECKED BY	AHE	6-16-50
SHEET 7 OF 40		

B318, B32 or B22-10

NO.	DESCRIPTION	DATE	BY
D	Revised Channelization Island	7-18-52	R.R.K.

REVISIONS

S13 & S14 of 82023



PLAN

120" Chain Link Fence and Framing 904 Lin. Ft. Estimated

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

APPROVED T. E. McGowan
STRUCTURAL ENGINEER

JOB No.
05166
05166

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

N B W. GRAND BOULEVARD OVER FORD FREEWAY
S B W. GRAND BOULEVARD OVER FORD FREEWAY

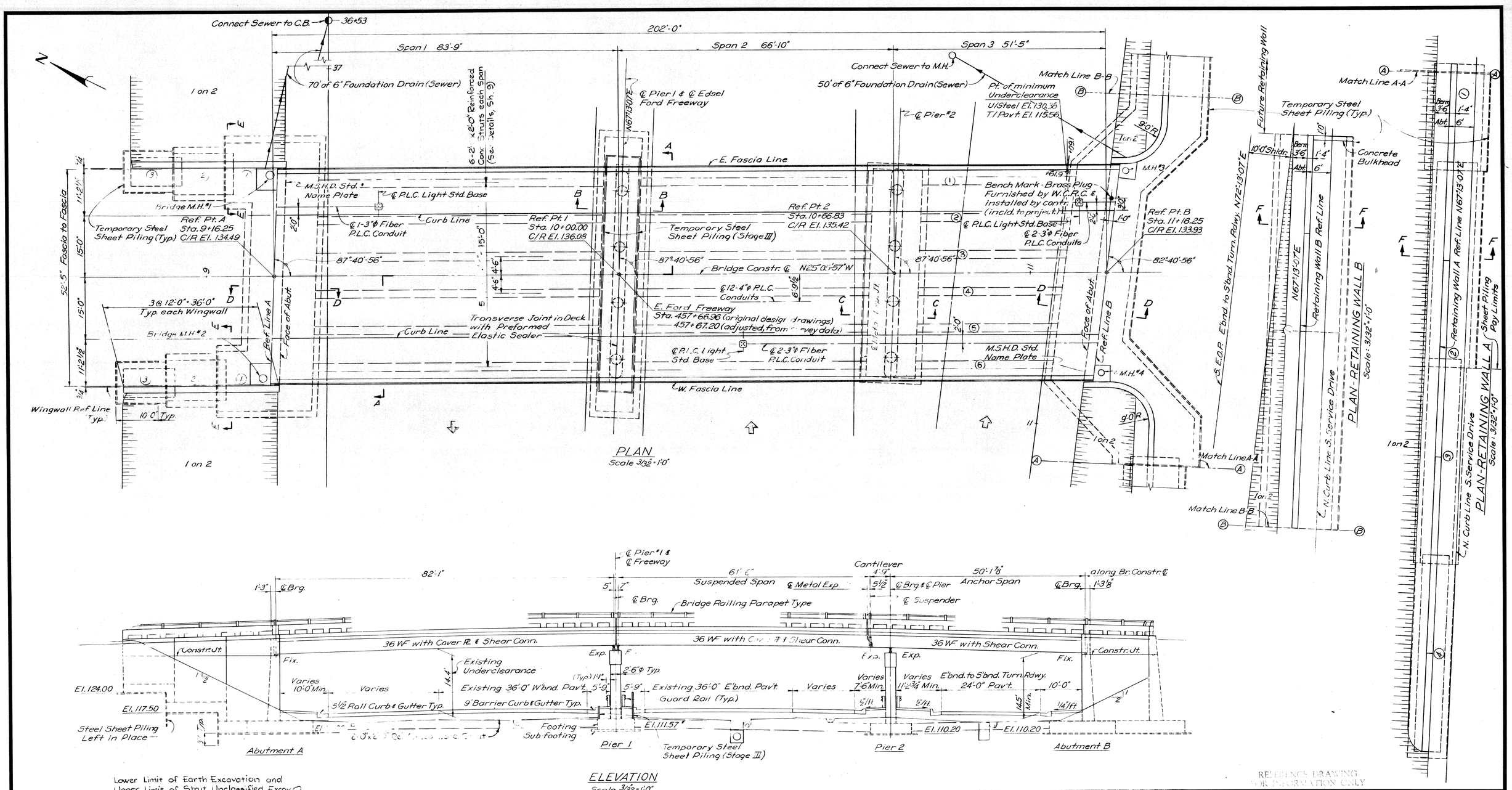
REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	McGuire	5-73
DRAWN BY	E.G.	4-73
TRACED BY		
CHECKED BY		4-73

SHEET 8 OF 40

S13 of 82023
S14 of 82023



(16)

REVISIONS

NO	DESCRIPTION	DATE	BY

MICHIGAN STATE HIGHWAY DEPARTMENT

JEFFERIES FREEWAY
RE-ALIGNMENT 24TH STREET
CROSSING THE FORD FREEWAY IN DETROIT

GENERAL PLAN OF STRUCTURE

APPROVED _____ DESIGN SUPERVISING ENGINEER

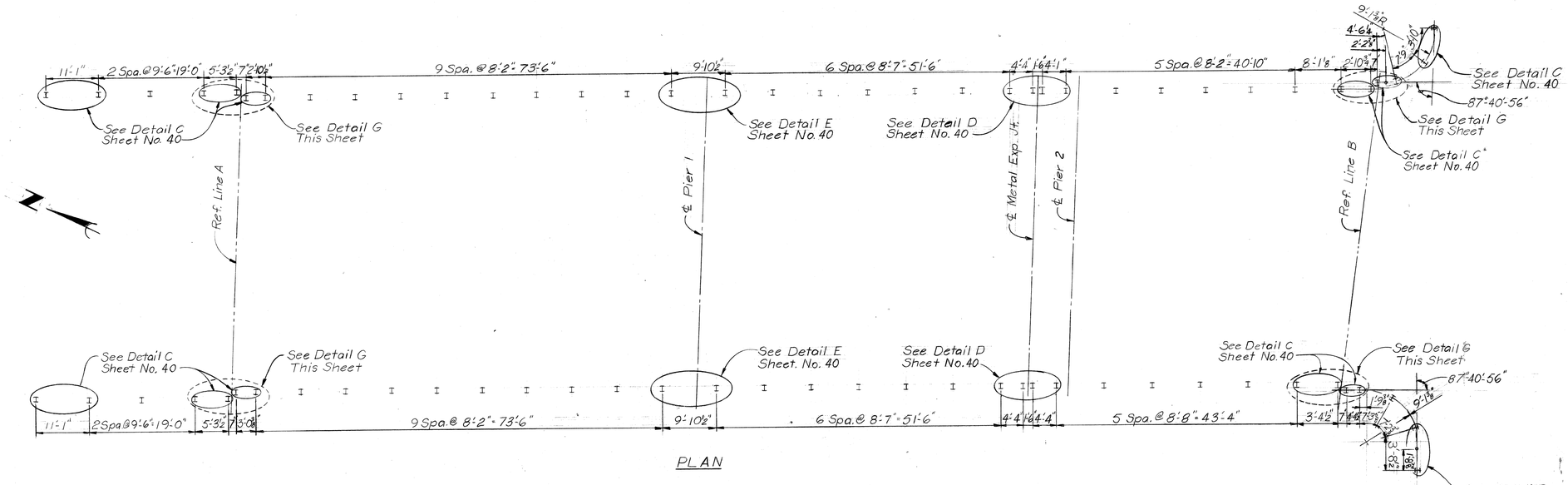
APPROVED _____ ENGINEER OF DESIGN - CONSULTANTS

CITY OF DETROIT

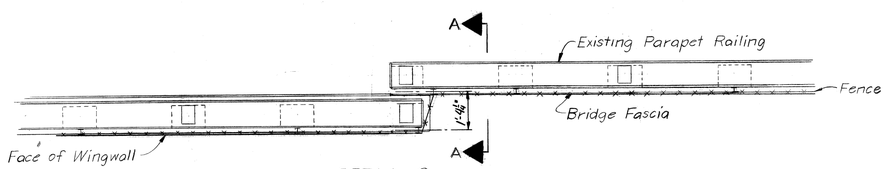
SQUAD BOSS	STURM	2-66
DRAWN BY	K.V.H.	2-66
TRACED BY	—	—
CHECKED BY	STURM	2-66

SHEET 9 OF 40

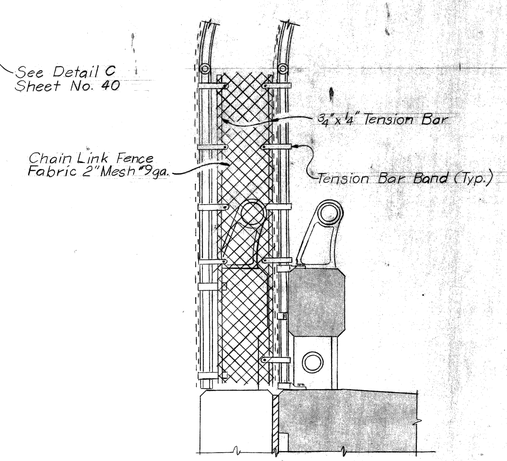
S15 of 82023A



PLAN



DETAIL G



SECTION A-A

120" Chain Link Fence and Framing 511 Lin. Ft. Estimated

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

APPROVED T. E. McGowan
STRUCTURAL ENGINEER

JOB No.
05166 H

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

TWENTY-FOURTH STREET OVER EDSEL FORD FREEWAY

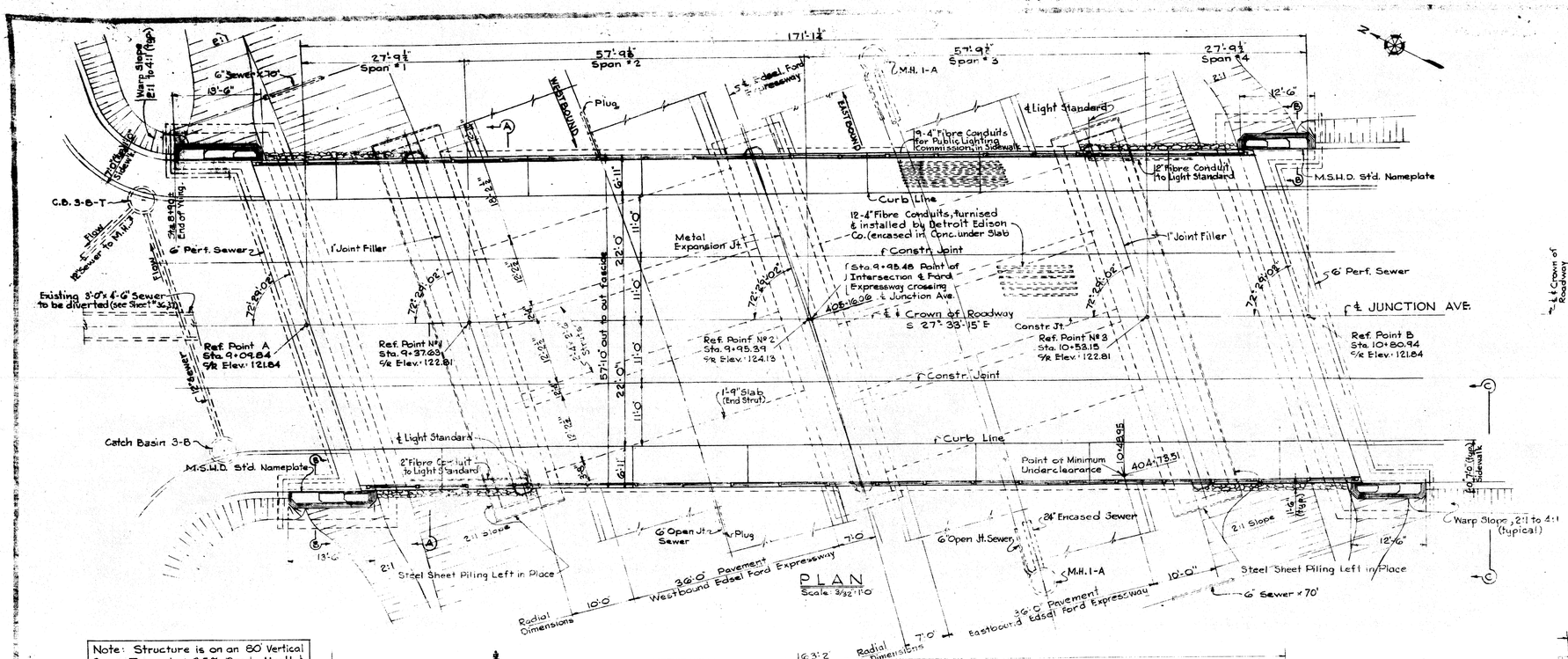
REVISIONS

NO.	DESCRIPTION	DATE	BY

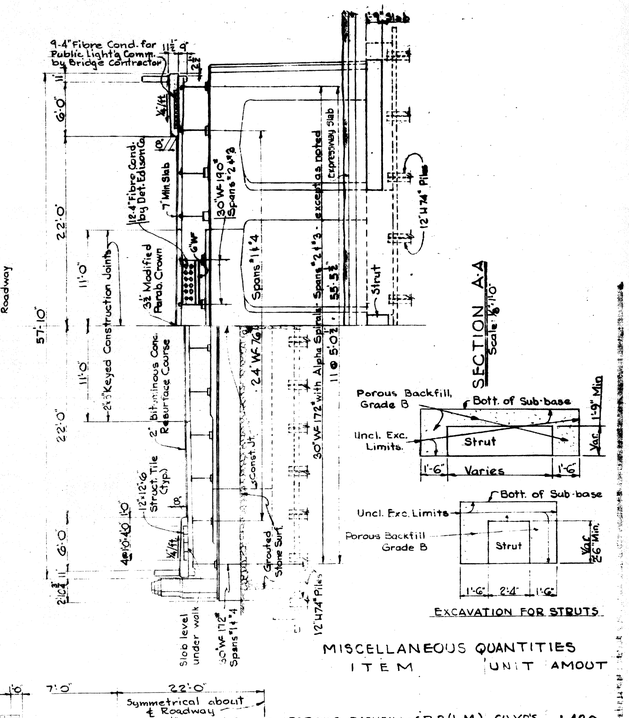
SQUAD BOSS	McGuire	5-73
DRAWN BY	L.G.	4-73
TRACED BY		
CHECKED BY	JM	4-73

SHEET 10 OF 40

S15 of S2023

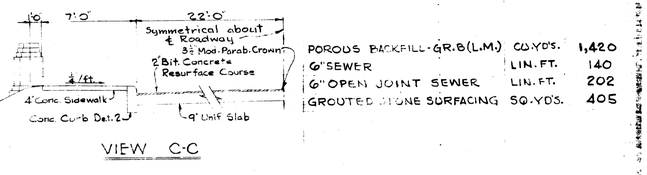


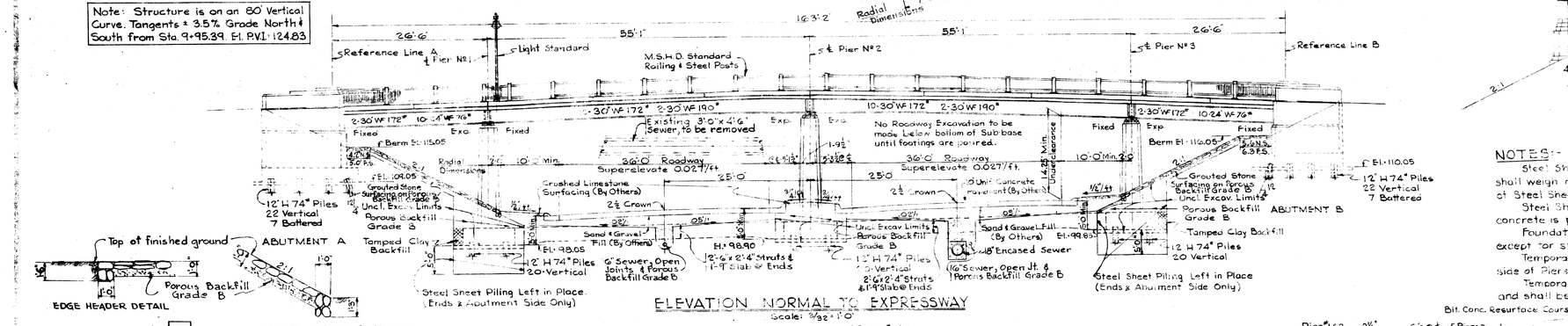
Note: Structure is on an 80' Vertical Curve. Tangents = 3.5% Grade North & South from Sta. 9+95.39 El. P.V.I. 124.83

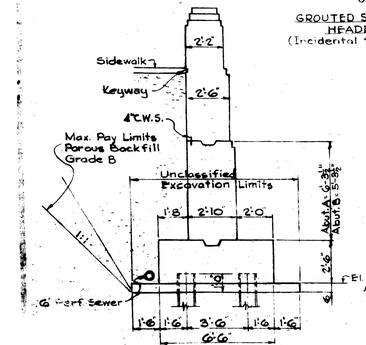


MISCELLANEOUS QUANTITIES

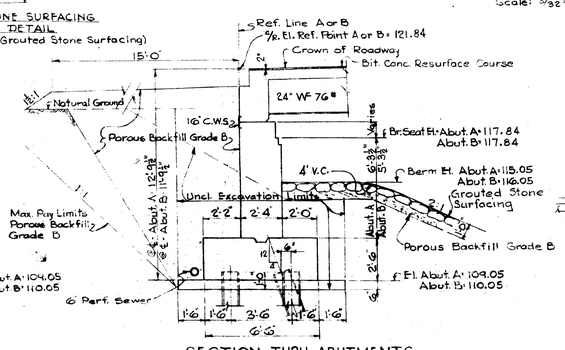
ITEM	UNIT	AMOUT
POROUS BACKFILL-GR.B(L.M.)	CU.YD'S.	1,420
6" SEWER	LIN. FT.	140
6" OPEN JOINT SEWER	LIN. FT.	202
GROUTED STONE SURFACING	SQ.YD'S.	405

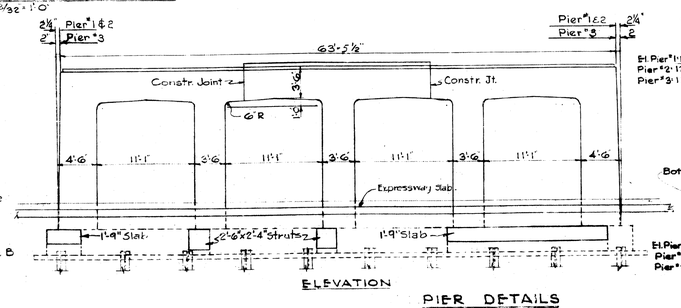


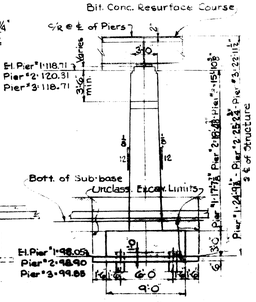




GROUTED STONE SURFACING HEADER DETAIL
(Incidental to Grouted Stone Surfacing)







PIER DETAILS

NOTES:-

Steel Sheet Piling Left in Place shall be of the continuous interlock type. It shall weigh not less than 22 lbs per sq. ft. See supplemental specifications regarding furnishing of Steel Sheet Piling.

Steel Sheet Piling left in Place shall be driven to its final position before adjacent concrete is poured.

Foundation excavation below the lower limits of roadway excavation (Bott. of Sub-base), except for struts, must be made in cofferdams.

Temporary Sheet Piling shall be used entirely around Pier #2 and along the roadway side of Piers #1 & #3.

Temporary Sheet Piling shall be driven not to exceed 1 foot below bottoms of sub-footings and shall be left in place until ready to construct concrete struts.

Only one span is to be opened at a time for pouring Struts.

18" Encased Sewer shall not be placed until after all Struts have been compacted & backfilled.

REFERENCE DRAWING FOR INFORMATION ONLY

STATE HIGHWAY DEPARTMENT
ALEX. G. SEDER
STATE HIGHWAY COMMISSIONER

EDSEL FORD EXPRESSWAY
CROSSING JUNCTION AVE. IN THE CITY OF DETROIT

GENERAL PLAN OF STRUCTURE

HAZELET & ERDAL - CONSULTING ENGINEERS FILE No 712

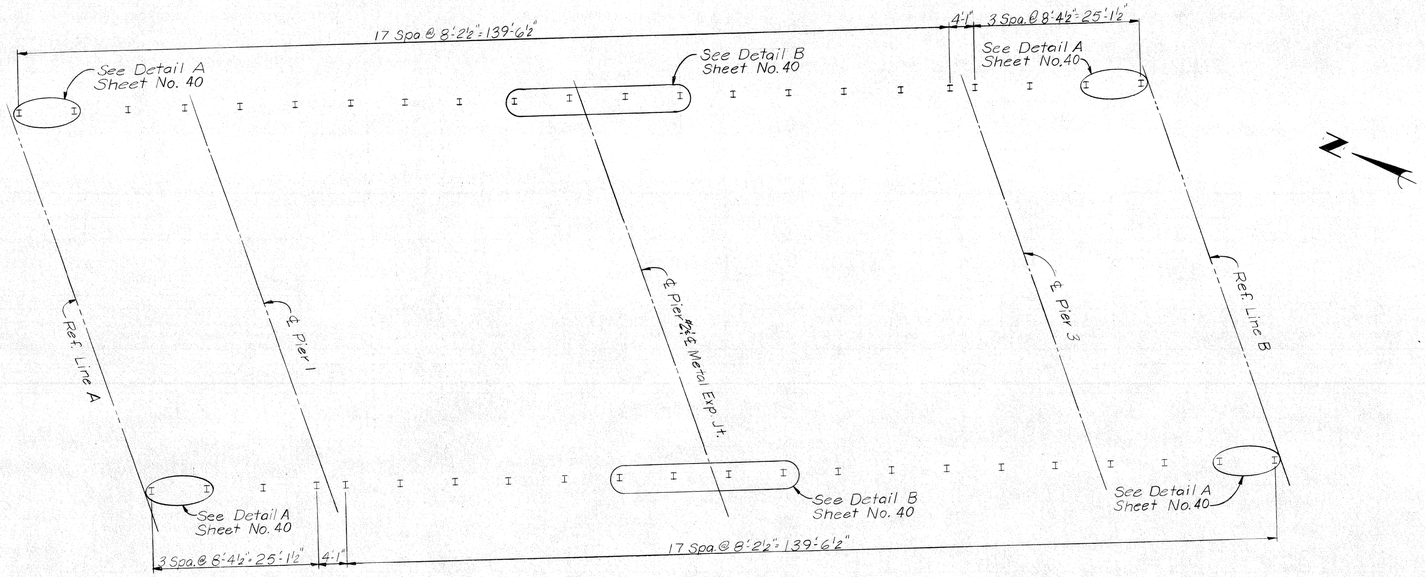
APPROVED

CHKD. 8-15
CPL 8-19
ANK 6-2
DATE 40

B-43 of 82

M 509 of 820.23

PRM PD3 5-72 5129A•



PLAN

120" Chain Link Fence and Framing 338 Lin. Ft. Estimated

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

APPROVED T. E. McElroran
STRUCTURAL ENGINEER

JOB No.
05166

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

JUNCTION STREET OVER EDSEL FORD FREEWAY

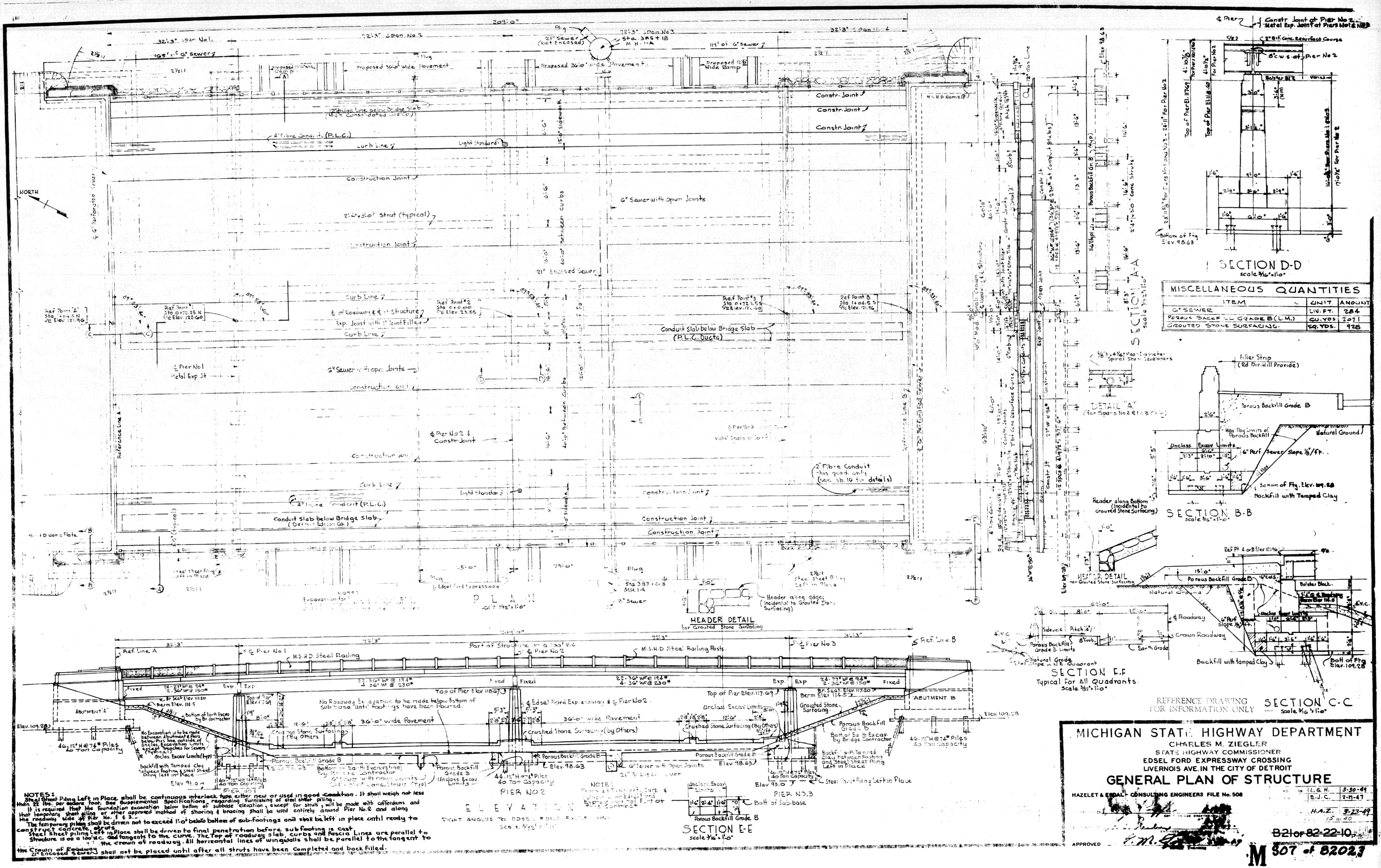
REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	McGuire	5-73
DRAWN BY	L.G.	4-73
TRACED BY		
CHECKED BY	JM	4-73

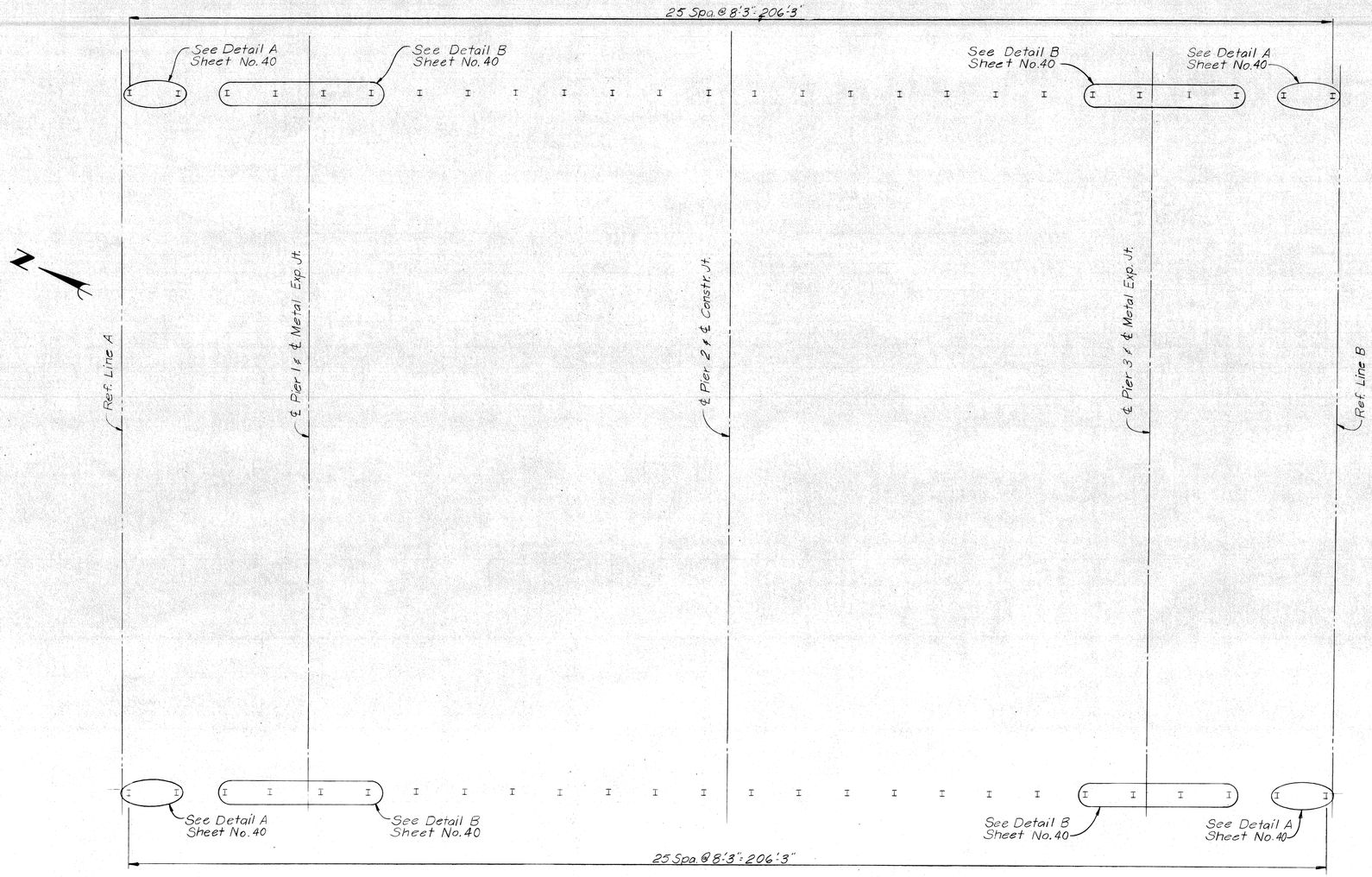
SHEET 12 OF 40

S09 of 82023



NOTES:
Steel Sheet Piling Left in Place shall be continuous interlock type, either new or used in good condition. It shall weigh not less than 22 lbs. per square foot. See Supplemental Specifications, regarding Furnishing of steel sheet piling.
It is required that the foundation excavation below bottom of subbase elevation, except for struts, will be made with cofferdams and that temporary sheet piling or other approved method of shoring & bracing shall be used entirely around Pier No. 2 and along the roadway side of Pier No. 1 & 3.
The temporary piling shall be driven not to exceed 1'-0" below bottom of sub-footings and shall be left in place until ready to construct concrete struts.
Steel Sheet piling Left in Place shall be driven to final penetration before sub footing is cast.
Structure is on a 100' V.C. and tangents to the curve. The Top of roadway slab, curbs and Fascia Lines are parallel to the crown of roadway. All horizontal lines of wingwalls shall be parallel to the tangent to the Crown of Roadway.
21" Encased Sewer shall not be placed until after all struts have been completed and back filled.

PRM PD3 5-72 51129A-



PLAN

120" Chain Link Fence and Framing 413 Lin. Ft. Estimated

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

APPROVED T. E. McGowan
STRUCTURAL ENGINEER

JOB No.
05166

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

LIVERNOIS AVENUE OVER EDSEL FORD FREEWAY

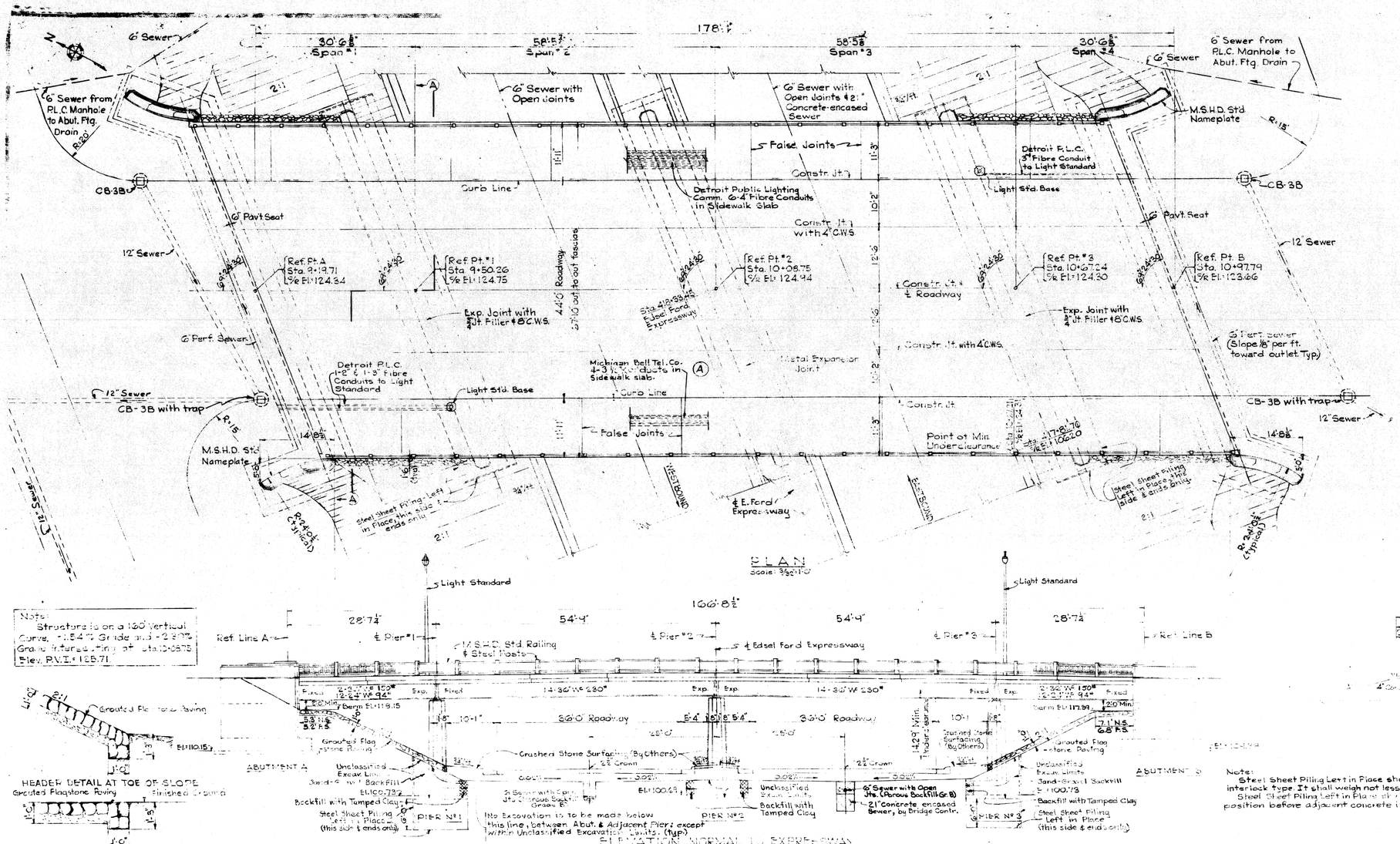
REVISIONS

NO.	DESCRIPTION	DATE	BY

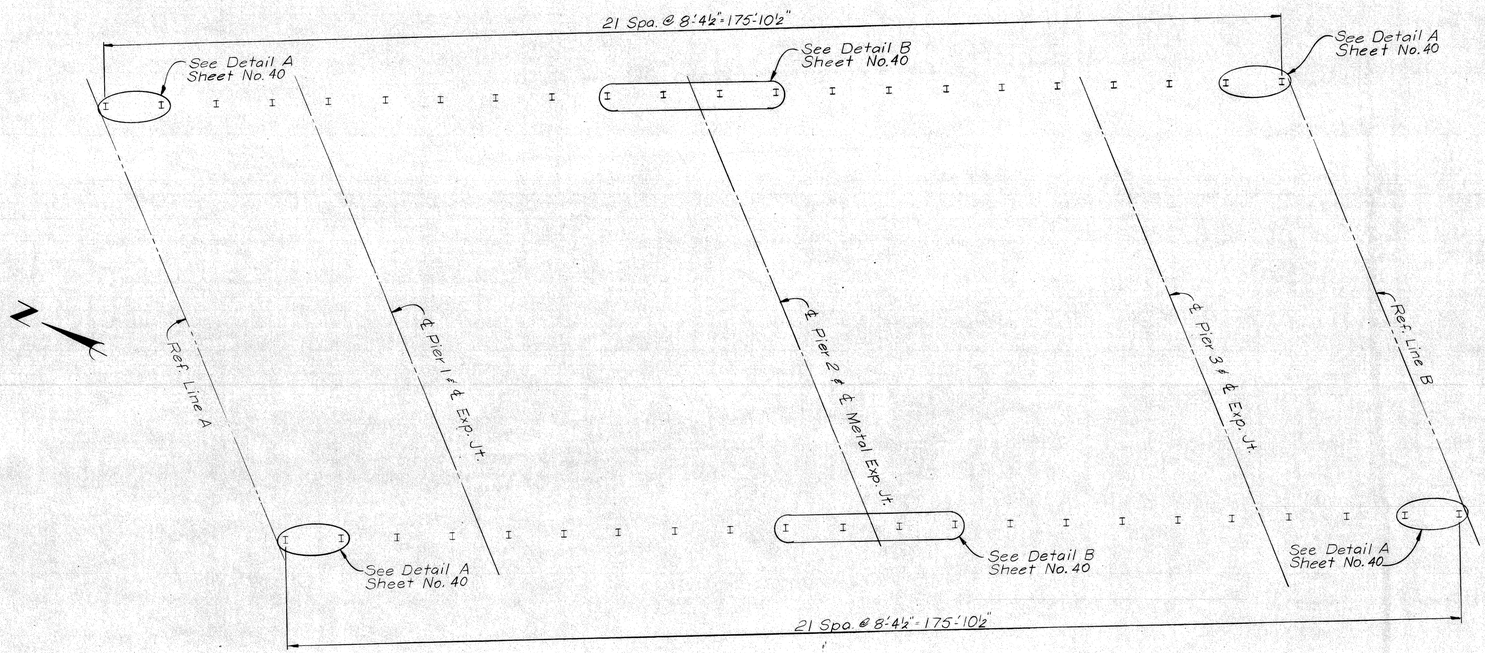
SQUAD BOSS	McGuire	5-73
DRAWN BY	L.G.	4-73
TRACED BY		
CHECKED BY	J.M.	4-73

SHEET 16 OF 40

S07 of 82023


PLAN
Scale: 3/32"=1'-0"
178'-1"
30'-6 5/8" Span #1
58'-5 7/8" Span #2
58'-5 7/8" Span #3
30'-6 5/8" Span #4
6" Sewer from P.L.C. Manhole to Abut. Ftg. Drain
6" Sewer with Open Joints
6" Sewer with Open Joints & 2" Concrete-encased Sewer
M.S.H.D. Std. Nameplate
False Joints
Constr. Jt.
Detroit P.L.C. 3" Fibre Conduit to Light Standard
Curb Line
Detroit Public Lighting Comm. 6-4" Fibre Conduits in Sidewalk Slab
Light Std. Base
CB-3B
6" Pavt. Seat
12" Sewer
Constr. Jt. with 4" C.W.S.
Ref. Pt. A Sta. 9+19.71 5/8 El. 124.34
Ref. Pt. #1 Sta. 9+50.26 5/8 El. 124.75
Ref. Pt. #2 Sta. 10+06.75 5/8 El. 124.94
Ref. Pt. #3 Sta. 10+67.24 5/8 El. 124.30
Ref. Pt. B Sta. 10+97.79 5/8 El. 123.66
Exp. Joint with 3/4" Jt. Filler & 8" C.W.S.
Sta. 10+99.94 ℄ Edsel Ford Expressway
6" Perf. Sewer
Constr. Jt. with 4" C.W.S.
Metal Expansion Joint
6" Sewer (Slope 1/8" per ft. toward outlet. Typ.)
Detroit P.L.C. 1-2" & 1-3" Fibre Conduits to Light Standard
Michigan Bell Tel. Co. 4-3" Ducts in Sidewalk slab.
CB-3B with trap
Point of Min. Undercleurance
Steel Sheet Piling Left in Place Side & ends only
Steel Sheet Piling Left in Place
WESTBOUND
EASTBOUND
℄ E. Ford Expressway
Light Standard
166'-8 1/2"
28'-7 1/2"
54'-9"
54'-9"
28'-7 1/2"
℄ Pier #1
℄ Pier #2
℄ Pier #3
Ref. Line A
Ref. Line B
M.S.H.D. Std. Railing & Steel Posts
℄ Edsel Ford Expressway
14-36" W.F. 230#
56'-0" Roadway
33'-0" Roadway
Crushed Stone Surfacing (By Others)
Grouted Flagstone Paving
Unclassified Excav. Limits
Sand-Gravel Backfill
Backfill with Tamped Clay
Steel Sheet Piling Left in Place (this side & ends only)
ABUTMENT A
PIER No. 1
PIER No. 2
PIER No. 3
ABUTMENT B
6" Sewer with Open Jts. (Porous Backfill Gr. B)
21" Concrete encased Sewer, by Bridge Contr.
Note Excavation is to be made below this line, between Abut. & Adjacent Pier; except within Unclassified Excavation Limits. (typ.)
ELEVATION NORMAL TO EXPRESSWAY
Scale: 3/32"=1'-0"
HEADER DETAIL AT TOE OF SLOPE
HEADER DETAIL AT ENDS OF SLOPE
Finished Ground
TYPICAL SECTION THRU WINGWALLS
Scale: 3/4"=1'-0"
Keyway
Sand Gravel Backfill
4" C.W.S.
Unclassified Excav. Limits
Max. Pay Limits Sand-Gravel Backfill
6" Perf. Sewer
Porous-Backfill Grade-B, 1'-0" min. Coverage
TYPICAL SECTION THRU ABUTMENTS
Scale: 3/32"=1'-0"
Crown of Roadway
Unclassified Excavation Limits
Sand-Gravel Backfill
TYPICAL SECTION THRU PIERS
Scale: 1/8"=1'-0"
TYPICAL PIER ELEVATION
Scale: 3/32"=1'-0"
Pier #2
Piers #1 & 3
DETAIL AT CONDUIT
(@ West side of structure for details of East side, see sh. #10)
Level
12"x12"x8" Str. Tile
TYPICAL APPROACH CROSS-SECTION
Scale: 3/32"=1'-0"
Existing R.O.W.
Bituminous Conc. Wearing Course
Conc. Base Course 4" Unit. Reinforced
Embankment to be made with sand-gravel back-fill
SECTION A-A
Scale: 3/8"=1'-0"
℄ El. 100.72
Roadway
Constr. Jt.
Bituminous Conc. Wearing Course
Min. Slab
Grouted Flagstone Paving
Spans #1 & 4
Spans #2 & 3
Spans #1 & 4
Spans #2 & 3
Abut. wall
Parab. Crown
Constr. Jt.
Grouted Flagstone Paving
Max. Pay Limits Sand-Gravel Backfill
Sand Gravel Backfill
Max. Pay Limits Sand Gravel Backfill
6" Perf. Sewer
Porous-Backfill Grade-B, 1'-0" min. Coverage
Constr. Joints with Tar Paper Surface
Level
12"x12"x8" Str. Tile
TYPICAL SECTION THRU PIERS
Scale: 1/8"=1'-0"
Pier #2
Piers #1 & 3
Pier #2
Piers #1 & 3
Pier #2
Piers #1 & 3
Pier #2
Piers #1 & 3
Pier #2
Piers #1 & 3
Pier #2
Piers #1 & 3
Piers #2 & 3
Piers #1 & 4
Piers #1 & 3
Pier 2
Piers #1 & 3
Piers #2 & 3
Piers #1 & 4
Pier #1: 100.73
Pier #2: 100.64
Pier #3: 100.73
Pier #1: 120.32
Pier #2: 120.59
Pier #3: 119.78
Pier #1: 119.93
Pier #2: 119.93
Pier #3: 119.93

PRM PD3 5-72 51129A



PLAN

120" Chain Link Fence and Framing 352 Lin. Ft. Estimated

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

APPROVED T. E. McGowan
STRUCTURAL ENGINEER

JOB No.
05166

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

THIRTIETH STREET OVER EDSEL FORD FREEWAY

REVISIONS

NO.	DESCRIPTION	DATE	BY

SQUAD BOSS	McGuire	5-73
DRAWN BY	L.G.	4-73
TRACED BY		
CHECKED BY	JM	4-73

SHEET 19 OF 40

S10 of 82023