

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES

IN CO-OPERATION WITH

MICHIGAN DEPARTMENT OF TRANSPORTATION

AND

FEDERAL HIGHWAY ADMINISTRATION

CONSTRUCTION PLANS FOR PROPOSED

FEDERAL AID URBAN PROJECT

FEDERAL NO. MR2057(241)

ITEM NO. UF 1821

MICHIGAN PROJECT MUR 82457

JOB NO. 30947A

FED. PROJ. NO.	COUNTY	CITY	SHEET NO.	TOTAL SHEETS
MR 2057(241)	WAYNE	GROSSE POINTE	1	25

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 1984 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS.

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 TYPICAL CROSS SECTIONS
- 3-6 PLAN
- 7-10 PERMANENT SIGNING, LANE LINE MARKING AND CADIEUX RD. STAGE CONSTRUCTION
- 11 QUANTITY SHEET
- 12-15 SIGN LEGENDS - CITY OF DETROIT

COUNTY STANDARD PLANS

- CD1-89
- CD2-89
- CM2-89
- CP1-89
- CP2-89
- CP3-89
- CP4-89
- CP5-89
- CR1-89
- CS1-89

M.D.O.T. STANDARD PLANS

- II - 29E
- II - 40G
- VI - 125G

TRAFFIC DATA

	1990	2010
A.D.T. (Two Way)	19,000	21,000
D.H.V. (One Way)	1,200	1,500
DESIGN SPEED	40 M.P.H.	
POSTED SPEED	30 M.P.H.	
COMMERCIAL	3 %	

P.O.E. (S.B.) STA. 68+26

P.O.E. (N.B.) STA. 50+70

P.O.B. STA. 0-15

1.30 MILES



MACK AVE.
CADIEUX RD. TO FISHER RD. (N.B.D.)
AND WARREN RD. (S.B.D.)
ITEM No. UF 1821

CONTRACT FOR BITUMINOUS AGGREGATE RESURFACING

WAYNE COUNTY APPROVAL

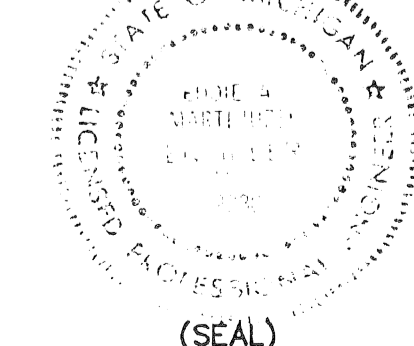
_____ DIRECTOR OF ENGINEERING COUNTY HIGHWAY ENGINEER	7-27-1990 DATE
_____ DIVISION DESIGN ENGINEER ENGINEERING DIVISION	7-27-1990 DATE

PREPARED UNDER SUPERVISION OF

ASSISTANT DIVISION DESIGN ENGINEER REGISTRATION NO.

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

415 CLIFFORD DETROIT, MICHIGAN, 48226



CITY OF GROSSE POINTE

APPROVED *[Signature]* DATE 8-6-1990

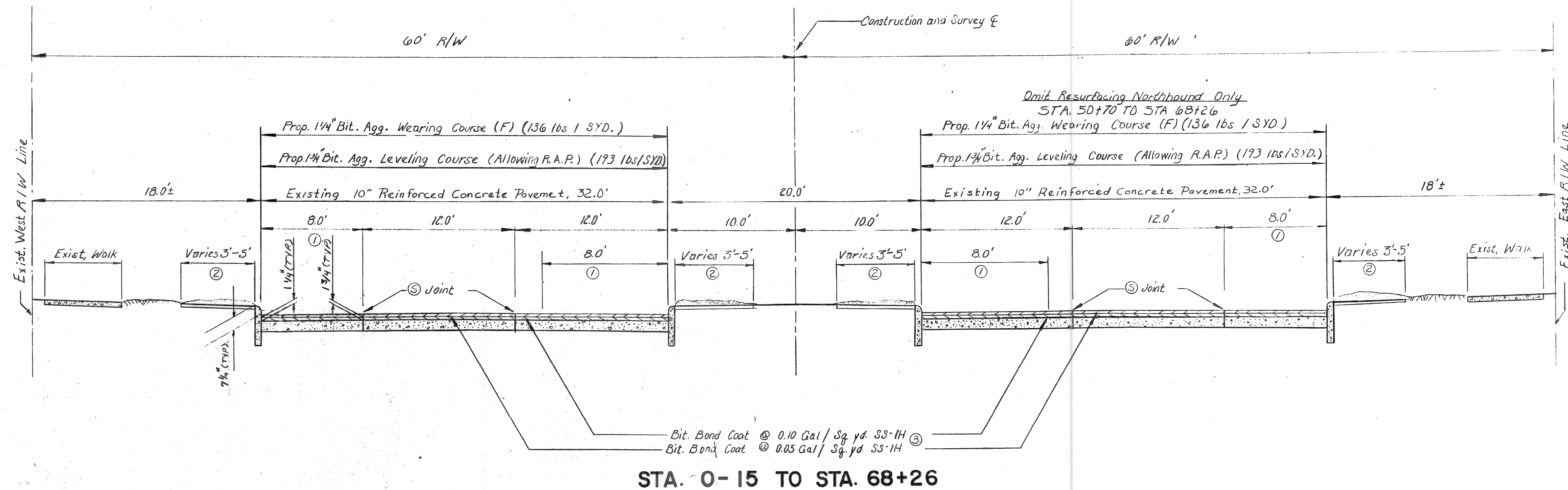
APPROVED _____ DATE _____

MACK-CADIEUX TO WARREN

© MR 2057 (241) ITEM NO. UF 1821 MUR 82457 JOB NO. 30947A

TYPICAL CROSS-SECTIONS

SCALE 1" = 4'



STA. 0-15 TO STA. 68+26

GENERAL NOTES

The Location of all Utilities Shown on these plans is taken from the best available data. The Wayne County Department of Public Service will not be responsible for any omissions or Variation from the Locations Shown. The contractor shall contact the Utility owners regarding their facilities including service connections prior to starting the Work. Utility service connections are not shown on the plans and are not the responsibility of Wayne County Department of Public Services. Existing castings damaged by the contractor shall be replaced by the contractor at his own expense.

Moving hydrants and adjusting to grade all private utility structures will be done by owner (Michigan Bell Telephone Co., City of Grosse Pointe - Water Dept., Michigan Consolidated Gas Co., Detroit Edison Co.) All sewer shall be placed as required within the particular trench type noted on the plans. Where the particular trench type has not been called for, the requirements for trench "B" shall Govern.

The edge of existing pavement shall be cleaned of earth or other foreign material with a wire broom before adjacent pours are placed.

Street or road name signs and stop signs, in the way of construction, will be removed and reset immediately in a temporary location. Street name signs shall be finally set by the contractor in a location designated by the Engineer, upon completion of fine grading in the section involved. This work shall be included in the pay item "Sign, Type B, Permanent".

Where detail "A" is required as shown by County Standard Plan CPI-89, this work will not be paid for separately but shall be included in concrete pavement or concrete base course.

NOTES

- ① The leveling course shall be tapered down in the last 8' adjacent to the curb from 1 3/4" to 1 1/4" to maintain a min. of 4 1/2" curb face.
- ② 333 SYD of Class A Sodding have been provided for placement as directed by the Engineer. Removal of the Overburden is included with "Class A Sodding". The quantity of Overburden is estimated to be 47CYD. Top of Sod to be flush with Top of Curb, or as directed by the Engineer.
- ③ Bituminous Bond Coat SS-1H will not be paid for separately and shall be considered included in the bituminous aggregate course being applied.

LEGEND

- Removing Pavement
- Removing Sidewalk
- Concrete Pavement, Non-Reinforced, 8"
- Meet Exist Asphalt Grade

REVISIONS	DRAWN BY	CHECKED BY	DATE	CORRECT
	JAR/HLE	DJA	8-3-90	Edwin A. Martinuzzi
	TRACED BY	CHECKED BY	DATE	
	CORRECT			APPROVED
	Alfred J. Hoffman			
	SQUAD LEADER			DIVISION DESIGN ENGINEER

WAYNE COUNTY OFFICE OF PUBLIC SERVICES
ENGINEERING DIVISION

MACK AVENUE
CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT	COUNTY JOB
46243	
ISSUE NO. 1	SHEET NO. 2
DATE 8-3-90	

City of Detroit PBM 69-255
N.W. Cor. Mack Ave. and Cadieux Road
Elev. 583.585

P.O.B.
STA. 0+15

From STA 0+68 to STA 2+72 (Median):
Removing Curb 360 LFT.
Concrete Base Course, Non-Reinf., 9" w/I.S.C., Type 4 185 SYD.
Expansion-Anchored Lane-Ties 108 EA.
Earth Excavation 100 CYD.

Close Drive:
The following items and quantities are provided for the entire project for closing drives

Removing Pavement 206 SYD
Concrete Curb Cap (Patching) 186 LFT
Borrow Excavation (C.I.P.) 39 CYD
Topsoil Surface, 3" 257 SYD
Class A Sodding 257 SYD
Earth Excavation 4 CYD

PROPOSED CADIEUX RADIUS DETAIL

At S.E. Cor. Cadieux Road:

Removing Pavement 379 SYD.
Removing Curb 32 LFT.
Removing Sidewalk 39 SYD.
Concrete Pavement, Non-Reinforced, 8" 64 SYD.
Expansion-Anchored Lane-Ties 72 EA.
Concrete Base Course, Non-Reinforced, 9" w/I.S.C. Type 4 108 SYD.
Concrete Curb, Straight 109 LFT.
4" Concrete Sidewalk 777 SFT.
Class A Sodding 305 SYD.
Topsoil Surface, 3" 305 SYD.
Earth Excavation 54 CYD.
Borrow Excavation (C.I.P.) 120 CYD.

* INTERSECTION :	CADIEUX	LORAIN	NOTRE DAME	BLUEHILL	GUILFORD	ST. CLAIR	WOODHALL	G.P. COURT	NEFF	LAKELAND
Removing Sidewalk (SYD.)	0	0	16	10	12	0	15	10	13	11
Concrete Curb Cap (Patching) (LFT.)	0	0	0	14	14	0	14	14	14	0
4" Concrete Sidewalk (SFT.)	0	0	0	13	29	0	60	32	56	0
4" Concrete Sidewalk Ramps (SFT.)	72	0	59	75	82	0	78	52	63	66
Removing Pavement (SYD)	0	0	23	0	0	0	0	0	0	25
Conc. Base Course, Non-Reinf. 9" w/I.S.C. Type 4	0	0	41	0	0	0	0	0	0	45

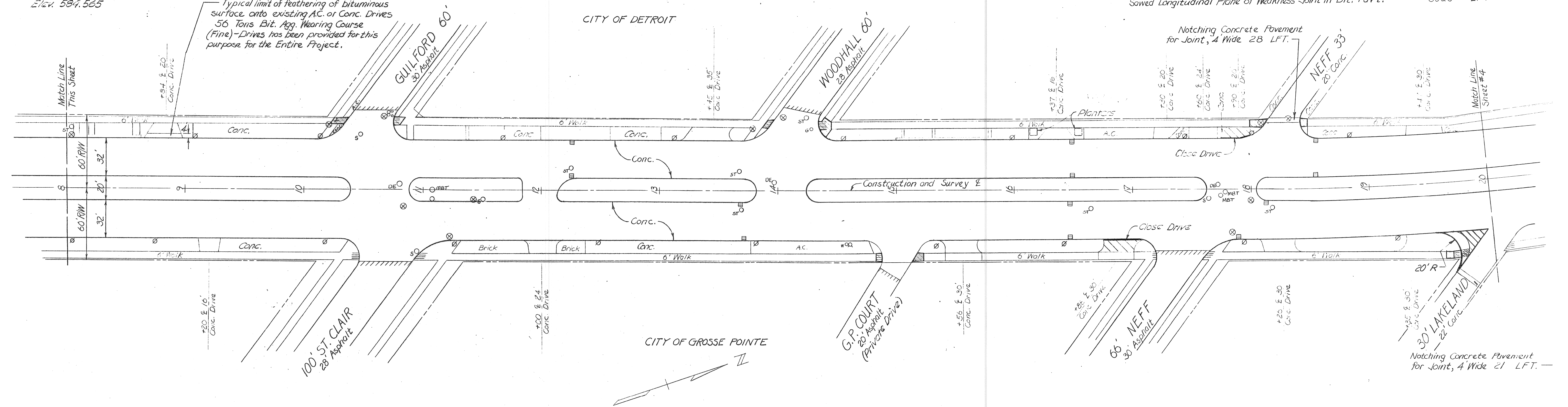
* See Sheet 6 for additional Quantities

City of Detroit PBM 69-255A
S.W. Cor. Mack Ave. and Guilford Rd.
Elev. 584.565

Typical limit of feathering of bituminous surface onto existing AC or Conc. Drives 56 Tons Bit. Agg. Wearing Course (Fine)-Drives has been provided for this purpose for the Entire Project.

PLAN
SCALE 1"=40'

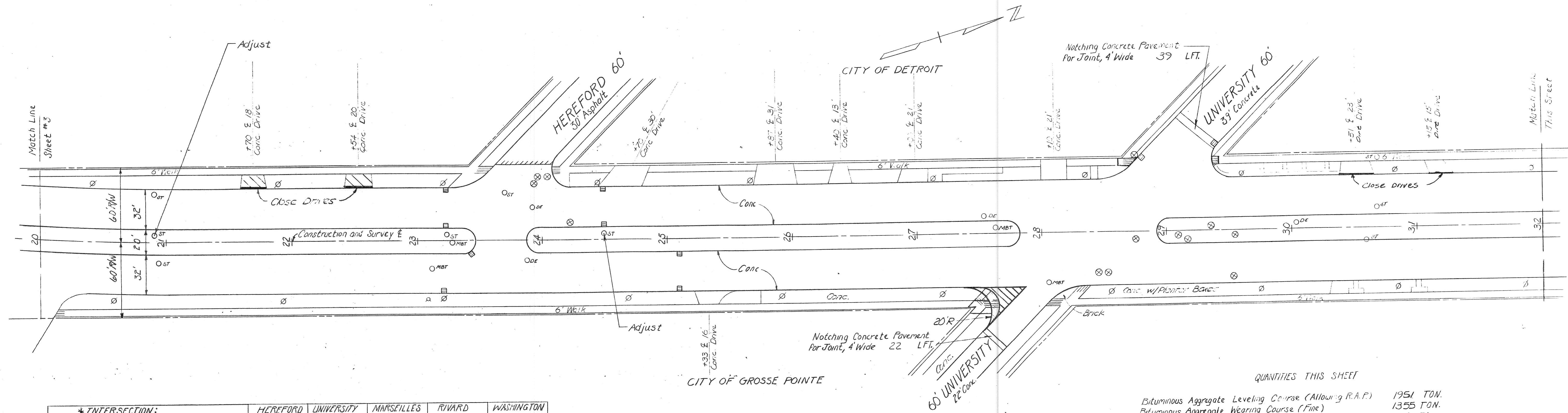
QUANTITIES THIS SHEET
Removing Bituminous Surface (Milling Method) - Full Depth 1421 SYD.
Bituminous Aggregate Leveling Course (Allowing R.A.P.) 1733 TON
Bituminous Aggregate Wearing Course (Fine) 1228 TON
Adjusting Water Gate Riser Boxes 1 EA.
Adjusting Structures 52 EA.
Sawed Longitudinal Plane of Weakness Joint in Bit. Pav't. 8020 LFT.



REVISIONS	DRAWN BY	CHECKED BY	DATE	CORRECT
	S. Van Der Meulen	D. JA	8-3-90	Correct
				APPROVED

WAYNE COUNTY OFFICE OF PUBLIC SERVICES
ENGINEERING DIVISION

MACK AVENUE
CADIEUX RD. TO WARREN AVE.
COUNTY PROJECT 46243
ISSUE NO. 1
DATE 8-3-90
COUNTY JOB
SHEET NO. 3



* INTERSECTION:

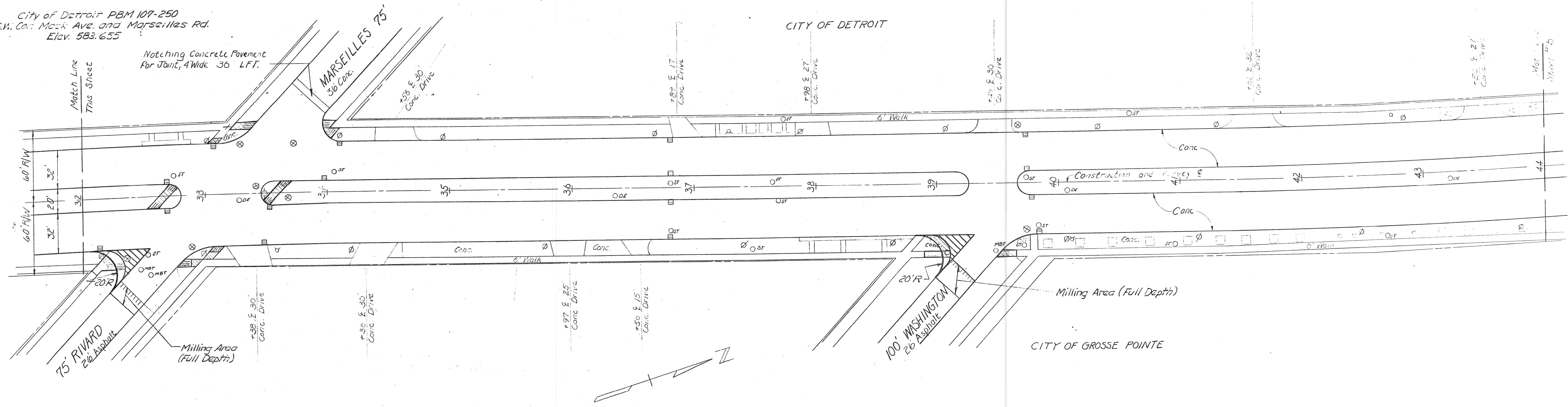
	HEREFORD	UNIVERSITY	MARSEILLES	RIVARD	WASHINGTON
Removing Sidewalk (SYD)	0	42	44	62	19
Concrete Curb Cap (Patching) (LFT.)	0	14	42	28	7
4" Concrete Sidewalk (SFT)	0	167	225	133	0
4" Concrete Sidewalk Ramp (SFT)	0	189	170	284	114
Removing Pavement (SYD)	0	30	0	31	27
Conc. Base Course Non-Rain 9" W.L.S.C. Type 4	0	53	0	55	49

* see Sheet 6 for additional quantities

PLAN
SCALE: 1" = 40'

QUANTITIES THIS SHEET
 Bituminous Aggregate Leveling Course (Allowing R.A.F.) 1951 TON.
 Bituminous Aggregate Wearing Course (Fine) 1355 TON.
 Adjusting Structures 53 EA.
 Sawed Longitudinal Plane of Weakness Joint in Bit Pavt. 9600 LFT.

City of Detroit PBM 107-250
 S.W. Cor. Mack Ave. and Marseilles Rd.
 Elev. 583.655



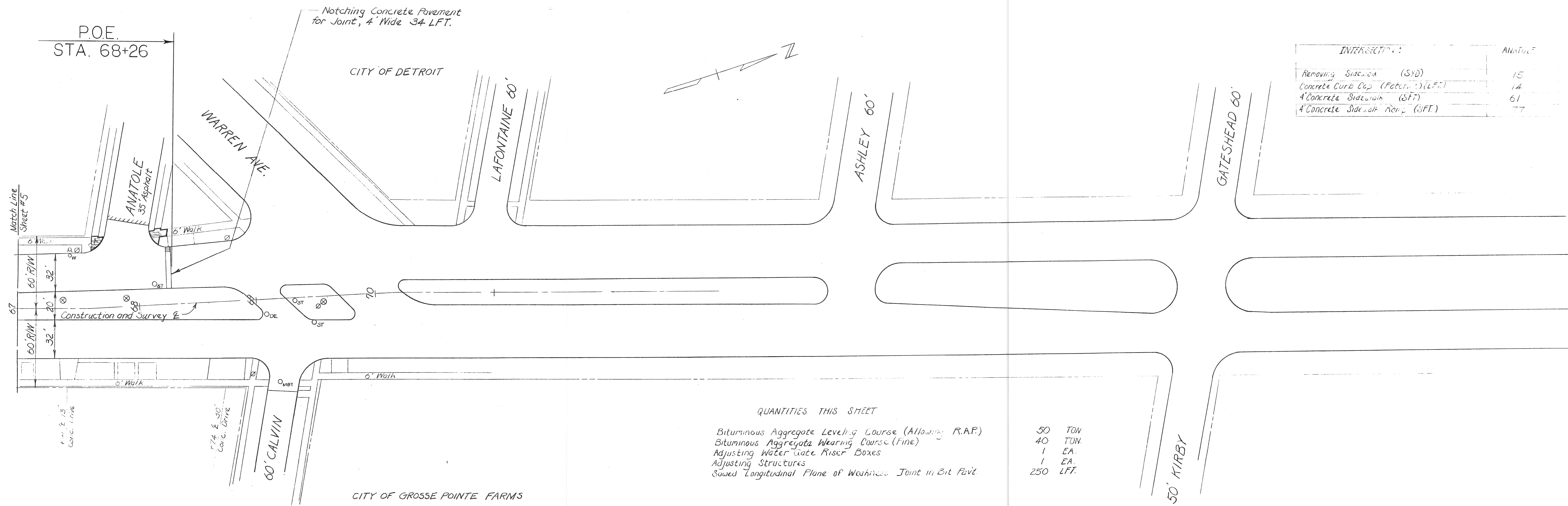
REVISIONS	DRAWN BY	CHECKED BY	DATE	CORRECT
	SGV/J.A.R.	DJA	8-3-90	Edde d. Martignetti
	TRACED BY	CHECKED BY	DATE	APPROVED
		Walter L. Hark		1375000 DESIGN ENGINEER

WAYNE COUNTY OFFICE OF PUBLIC SERVICES
 ENGINEERING DIVISION

MACK AVENUE
 CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT	COUNTY JOB
46243	
ISSUE NO. 1	SHEET NO. 4
DATE 8-3-90	

F-8-5



INTERJECT	ANALYZE
Removing Sidewalk (SYD)	15
Concrete Curb Cap (Fabric) (L.F.T.)	14
4" Concrete Sidewalk (SFT)	61
4" Concrete Sidewalk Rein. (SFT)	77

QUANTITIES THIS SHEET

Bituminous Aggregate Leveling Course (Allowing R.A.P.)	50 TON
Bituminous Aggregate Wearing Course (Fine)	40 TON
Adjusting Water Gate Riser Boxes	1 EA.
Adjusting Structures	1 EA.
Sawed Longitudinal Plane of Weakness Joint in Bit Pavt.	250 LFT.

PLAN
 SCALE: 1" = 40'

MISC. QUANTITIES ENTIRE PROJECT

Subgrade Undercutting	50	CYD.
Borrow Excavation (C.I.P.)	50	CYD.
Preparing Existing Pavement	117	STA.
Bituminous Aggregate Base Course (Allowing R.A.P.)	100	TON
Concrete Pavement Repair (Patching)	75	SYD
Adjusting Structures, Furnishing Covers A	4	EA.
Adjusting Structures, Furnishing Covers S	8	EA.
Reconstructing Structures	10	LFT.
Concrete Curb Cap (Patching)	270	LFT.
Cold Patching Mixture	10	TON
Cold Weather Protection	589	SYD
Calcium Chloride for Cold Weather Protection	1	TON

MISC. QUANTITIES FOR RADIUS CHANGES

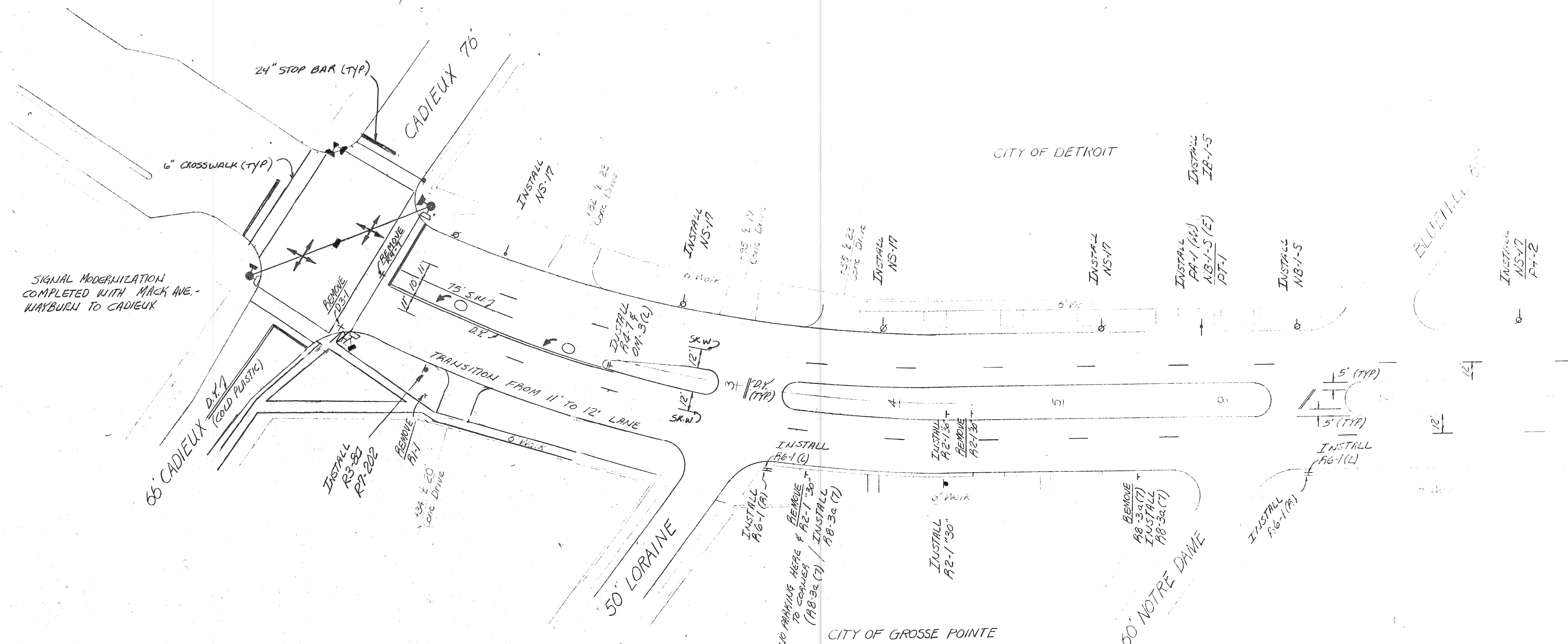
Expansion Anchored Lane Ties	138	EA.
Earth Excavation	66	CYD
Class A Sodding	42	SYD
Topsoil Surface, "3"	42	SYD

REVISIONS	DRAWN BY	CHECKED BY	DATE	CORRECT
	SGV/J.A.R.	DJA	8-3-90	<i>Eddie A. Martyn</i> ASSIST. DIVISION DESIGN ENGINEER
				<i>[Signature]</i> DIVISION DESIGN ENGINEER

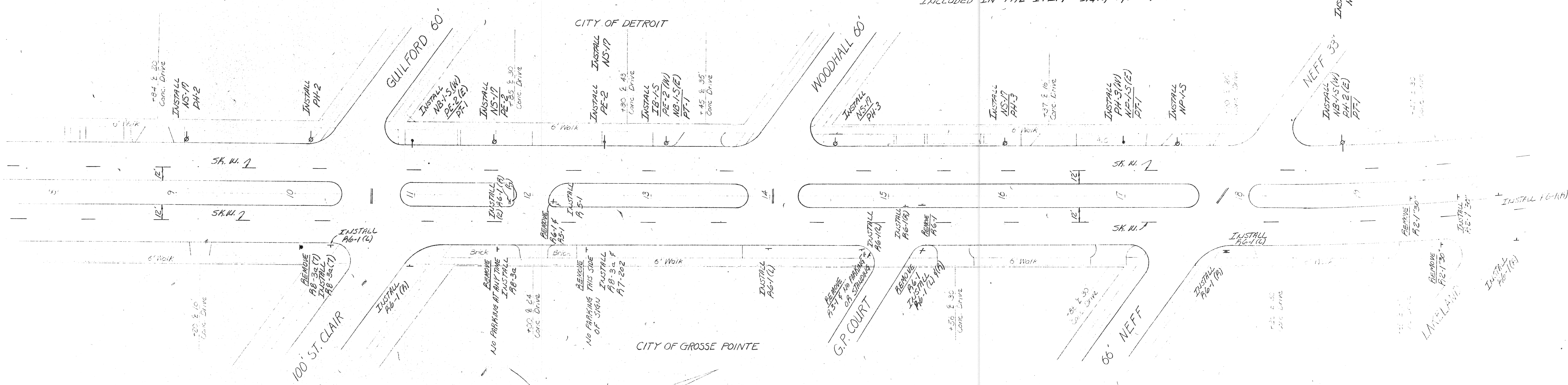
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
 ENGINEERING DIVISION

MACK AVENUE
 CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT	46243	COUNTY JOB	
ISSUE NO.	1	SHEET NO.	6
DATE	8-3-90		



PLAN
SCALE: 1"=40'

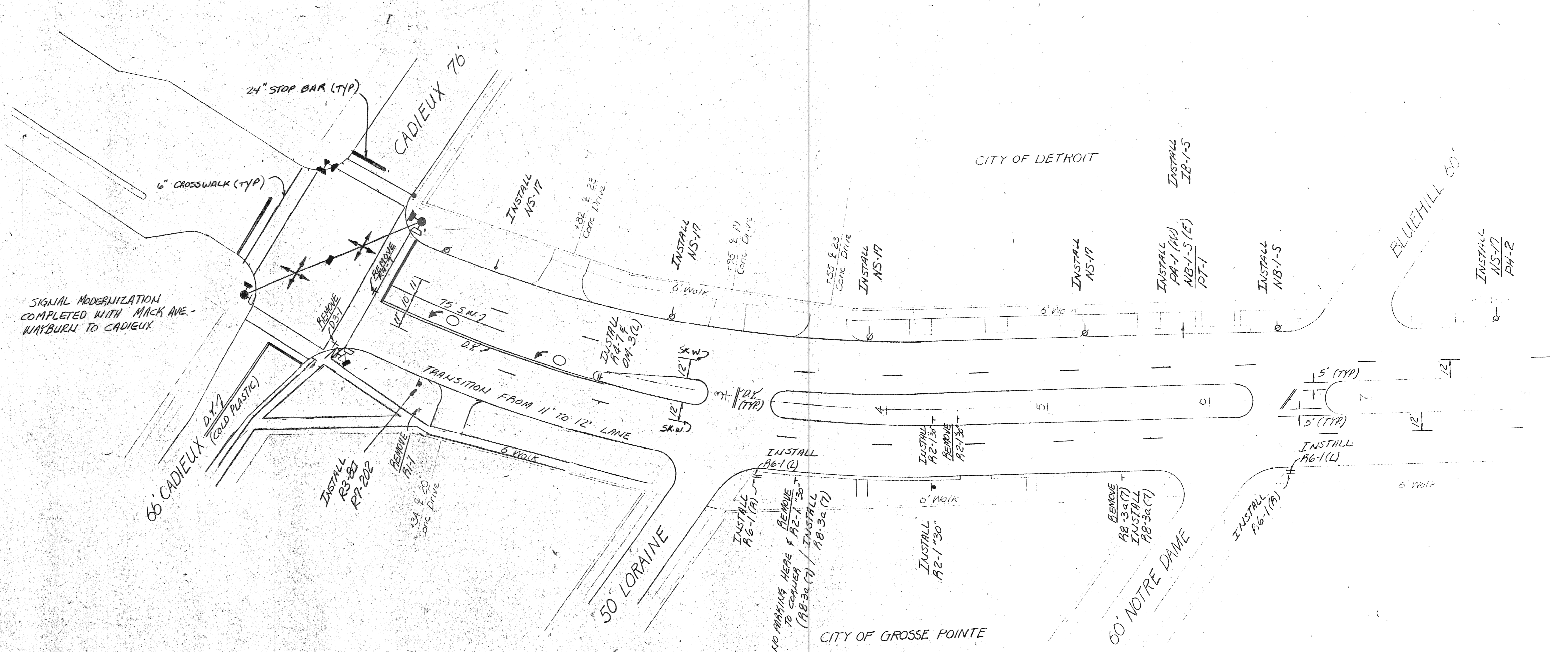


REVISIONS		DRAWN BY	CHECKED BY	DATE	CORRECT
		GG	DJA	8-3-90	Calde A. Martyn
		TRACED BY	CHECKED BY	DATE	

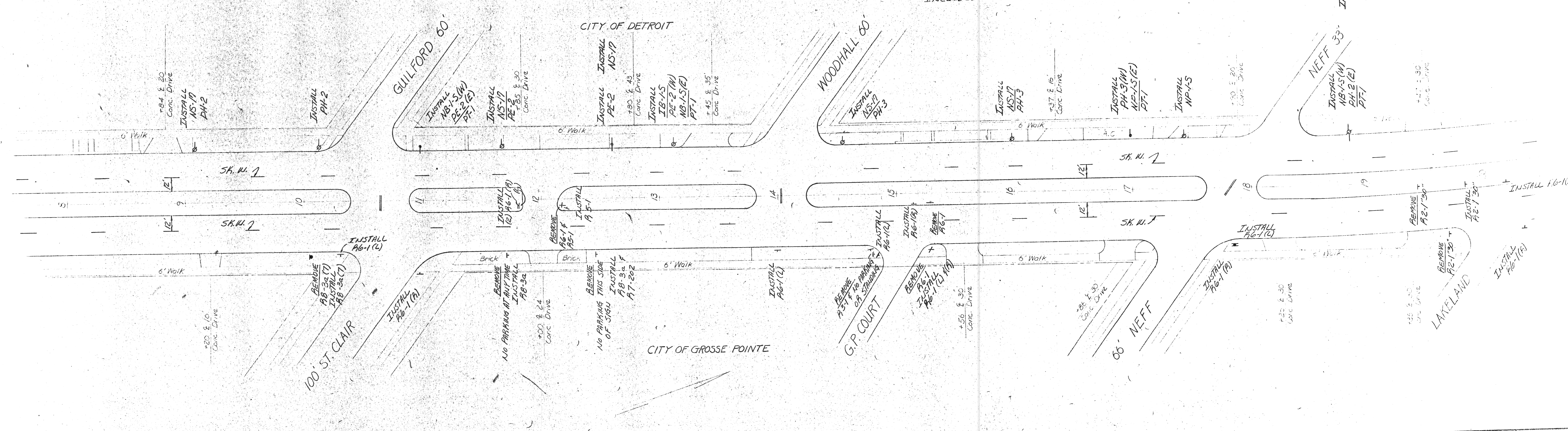
WAYNE COUNTY OFFICE OF PUBLIC SERVICES
ENGINEERING DIVISION

MACK AVENUE		COUNTY PROJECT	COUNTY JOB
CADIEUX RD. TO WARREN AVE.		46243	
LANE LINE MARKING & PERMANENT SIGNING		ISSUE NO	7
		DATE	8-3-90

F-8-5



PLAN
SCALE: 1"=40'



REVISIONS		DATE	CORRECT
		8-3-90	Edna A. Martonuzzi

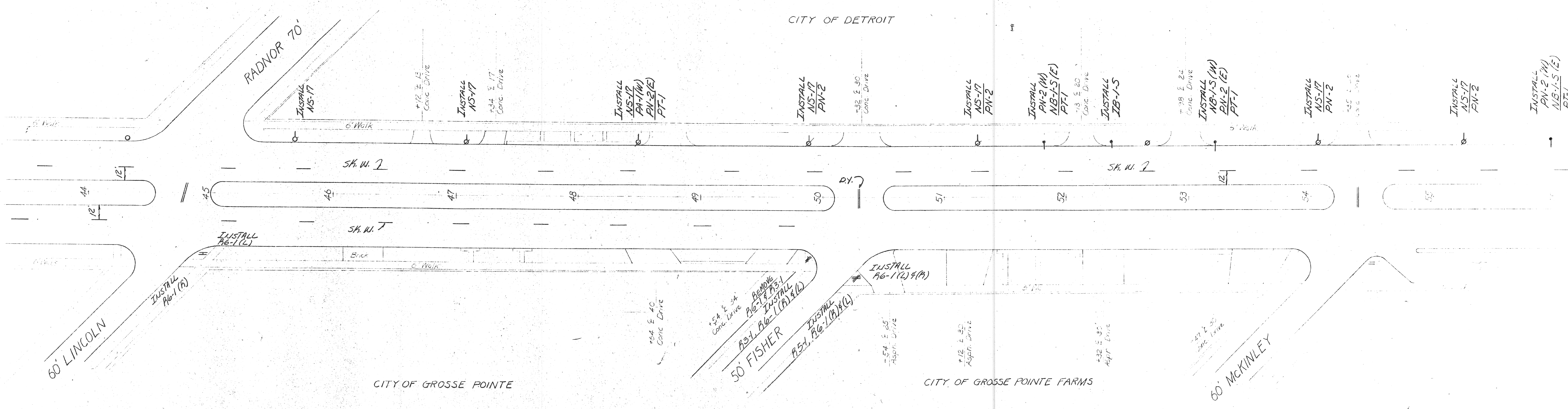
WAYNE COUNTY OFFICE OF PUBLIC SERVICES
ENGINEERING DIVISION

MACK AVENUE
CADIEUX RD. TO WARREN AVE.
LANE LINE MARKING & PERMANENT SIGNING

COUNTY PROJECT	COUNTY JOB
46243	
ISSUE NO.	SHEET NO.
1	7
DATE	
8-3-90	

F-8-5

CITY OF DETROIT



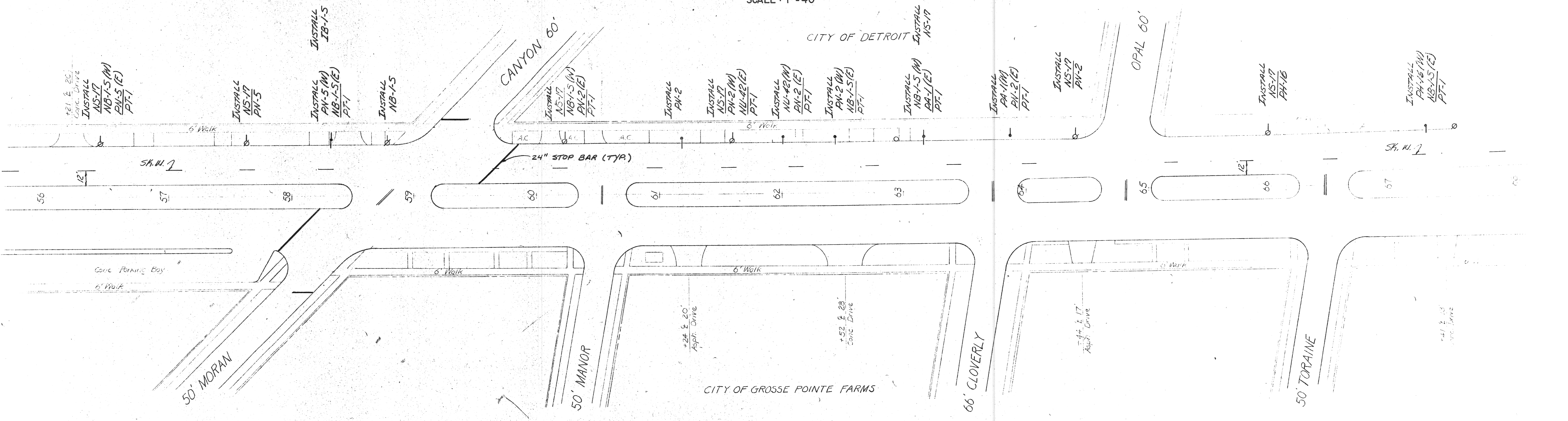
CITY OF GROSSE POINTE

CITY OF GROSSE POINTE FARMS

PLAN

SCALE: 1"=40'

REMOVAL OF EXISTING SIGNS AND POSTS TO BE INCLUDED IN THE PAY ITEM "SIGN, TYPE B, PERMANENT".



CITY OF DETROIT

CITY OF GROSSE POINTE FARMS

REVISIONS

DRAWN BY 99	CHECKED BY DJA	DATE 8-3-90
TRACED BY	CHECKED BY	DATE
CORRECT		
SQUAD LEADER		

CORRECT	APPROVED
ENGINEER	

WAYNE COUNTY OFFICE OF PUBLIC SERVICES
ENGINEERING DIVISION

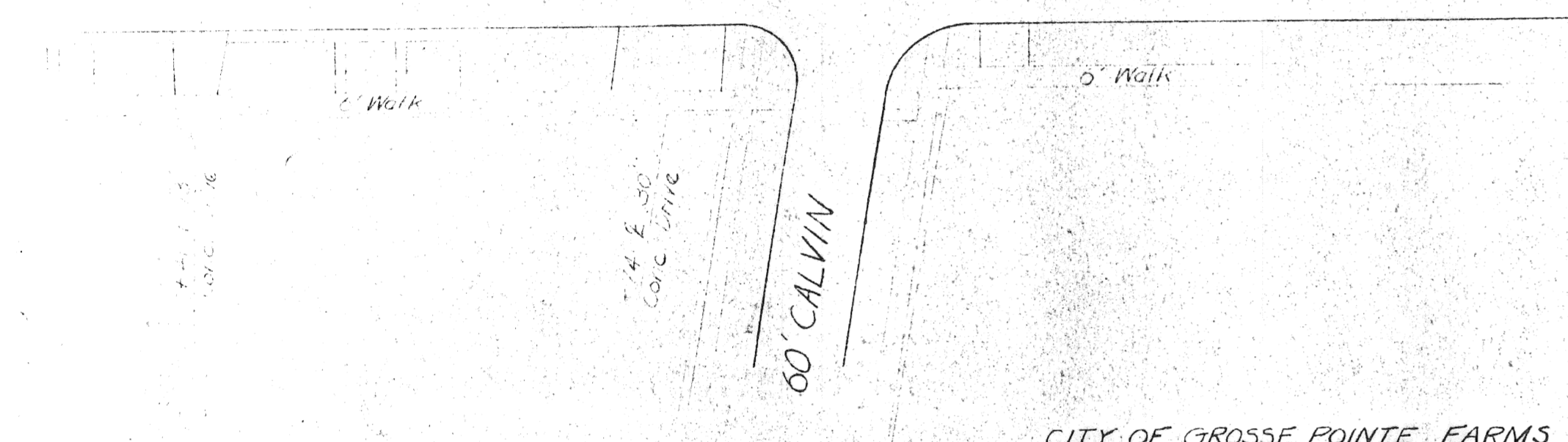
MACK AVENUE
CADIEUX RD. TO WARREN AVE.
LANE LINE MARKING & PERMANENT SIGNING

COUNTY PROJECT 46243	COUNTY JOB
ISSUE NO. /	DATE 8-3-90
DATE	S

F-8-5

SIGNS, TYPE B, PERMANENT
(CITY OF DETROIT)

SIGN CODE	QUANT.	SIZE	SQ. FT.	POSTS
IB-1-5	8	12"x18"	24	1
NB-1-5	6	12"x18"	18	2
NP-1-5	2	12"x18"	6	1
NS-17	39	12"x18"	117	5
PA-1, NP-1-5	1	12"x18"	3	
PA-1, PE-2	1	12"x18"	3	
PA-1, PN-2	2	12"x18"	6	1
PA-1, NB-1-5	2	12"x18"	6	3
PE-2	2	12"x18"	6	
PE-2, NB-1-5	4	12"x18"	12	1
PH-2	10	12"x18"	30	
PH-2, NB-1-5	5	12"x18"	15	5
PH-3	2	12"x18"	6	
PH-3, NP-1-5	1	12"x18"	3	1
PH-16	1	12"x18"	3	
PN-2	7	12"x18"	21	1
PN-2, NB-1-5	11	12"x18"	33	4
PN-2, NU-42	2	12"x18"	6	1
PN-5	1	12"x18"	3	
PN-5, NB-1-5	2	12"x18"	6	1
PT-1	31	12"x6"	31	
IB-167	1	12"x18"	3	
PH-16, NB-1-5	1	12"x18"	3	
TOTALS	142		364	27



PLAN
SCALE 1" = 40'

SIGNS, TYPE B, TEMPORARY

SIGN LEGEND	QUAN.	SIZE	SQ. FT.
G20-2 END CONSTRUCTION	2	60"x24"	20
PA-1a KEEP RIGHT (WORD LEGEND)	1	24"x30"	5
W4-2 PAVEMENT WIDTH TRANSITION	3	48"x48"	48
W20-1 CONSTRUCTION AHEAD	6	48"x48"	96
W20-5 RIGHT, LEFT LANE CLOSED AHEAD	5	48"x48"	80
W21-1a MEN WORKING	2	48"x48"	32
TOTALS			281

LIGHTED ARROW (FURNISHED)	3	EACH	
LIGHTED ARROW (OPERATED)	2	EACH	
TYPE II BARRICADE - LIGHTED (FURNISHED)	75	EACH	
TYPE II BARRICADE LIGHTED (OPERATED)	50	EACH	
TYPE III BARRICADE, LIGHTED, 12' WIDE (FURNISHED)	11	EACH	
TYPE III BARRICADE, LIGHTED 12' WIDE (OPERATED)	7	EACH	

TAPE	QUAN.	SIZE	LN. FT.
TEMP. PAVEMENT MARKING TYPE 'R', 4" WHITE	175	LN. FT.	
TEMP. PAVEMENT MARKING TYPE 'R', 4" YELLOW	200	LN. FT.	
TEMP. PAVEMENT MARKING TYPE 'NR', 4" WHITE	1193	LN. FT.	

TEMP. PAINT MKG., TYPE 'NR', (FAST DRY), 4" WHITE	523	LN. FT.	
TEMP. PAINT MKG., TYPE 'NR', (FAST DRY), 4" YELLOW	280	LN. FT.	

COLD PLASTIC QUANTITIES

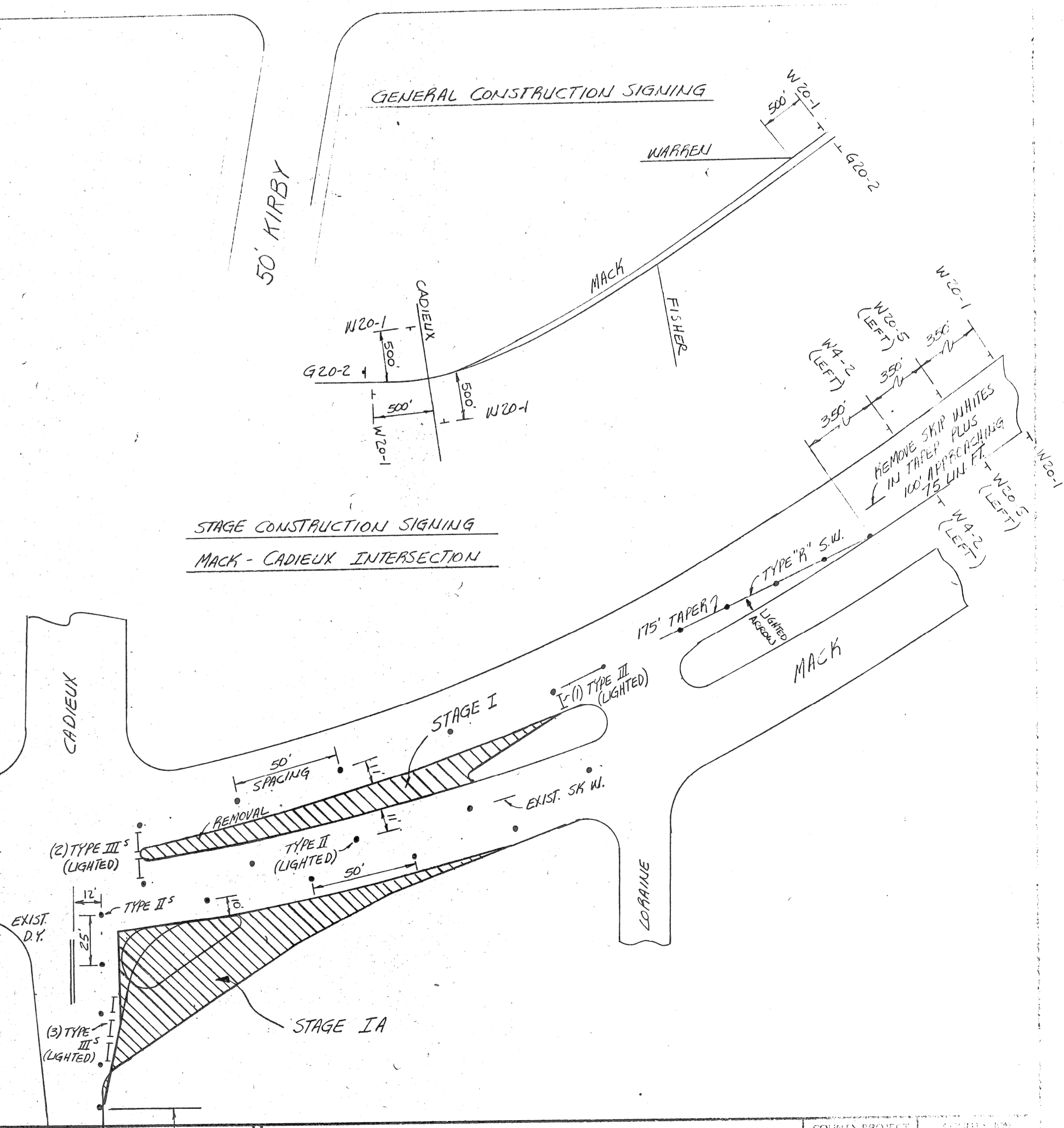
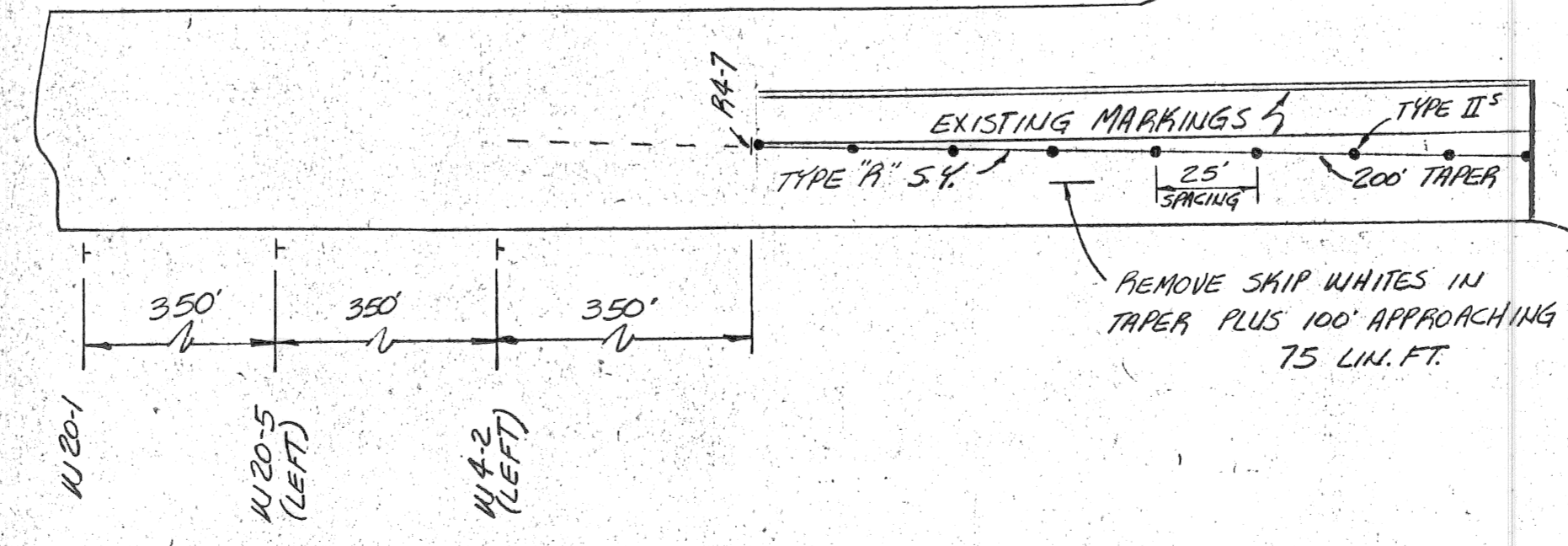
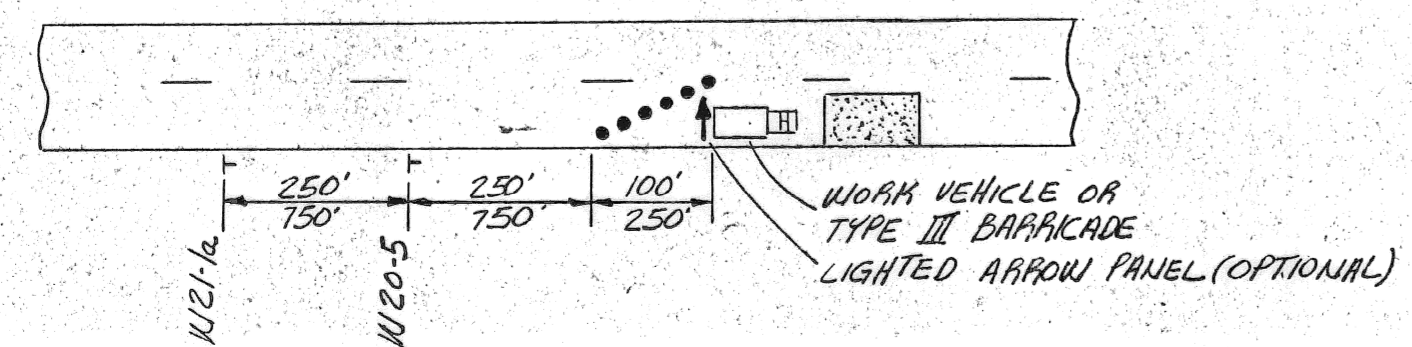
MARKING TYPE	QUAN.
COLD PLASTIC PAVEMENT MARKING 24" STOP BAR	379 LFT
COLD PLASTIC PAVEMENT MARKING 6" CROSSWALK	847 LFT
COLD PLASTIC PAVEMENT MARKING 4" YELLOW (EMBOSSSED)	672 LFT
COLD PLASTIC PAVEMENT MARKING 4" WHITE (EMBOSSSED)	2650 LFT
COLD PLASTIC MARKING SYMBOL LEFT TURN ARROW	2 EA.
COLD PLASTIC PAVEMENT MARKING LEGEND ONLY	2 EA.

SIGNS, TYPE B, PERMANENT

SIGN LEGEND	QUAN.	SIZE	SQ. FT.	POSTS PER LOCATION
R2-1 "30" SPEED LIMIT	6	24"x30"	30	1
R3-1 NO RIGHT TURN	1	24"x24"	4	1
R5-1 DO NOT ENTER	2	30"x30"	12.5	1
R6-1 ONE WAY (LEFT ARROW)	16	36"x12"	48	1
R6-1 ONE WAY (RIGHT ARROW)	15	36"x12"	45	1
R7-202 THIS SIDE OF SIGN "PANEL"	2	12"x7"	1	1
R8-3a NO PARKING (SYMBOL)	6	12"x12"	6	1
R8-3a(7) NO PARKING HERE TO CORNER	3	12"x18"	4.5	1
S1-1 SCHOOL ADVANCE SIGN	2	36"x36"	18	1
PA-7 KEEP RIGHT (SYMBOL)	1	24"x30"	5	1
OM-3 OBJECT MARKER (LEFT)	1	12"x36"	3	1
TOTALS	55		177	

* SIGNS TO BE FABRICATED WITH TYPE III ENCAPSULATED LENS REFLECTIVE SHEETING

SUGGESTED APPLICATION OF TRAFFIC CONTROL DEVICES FOR SHORT TERM ACTIVITIES

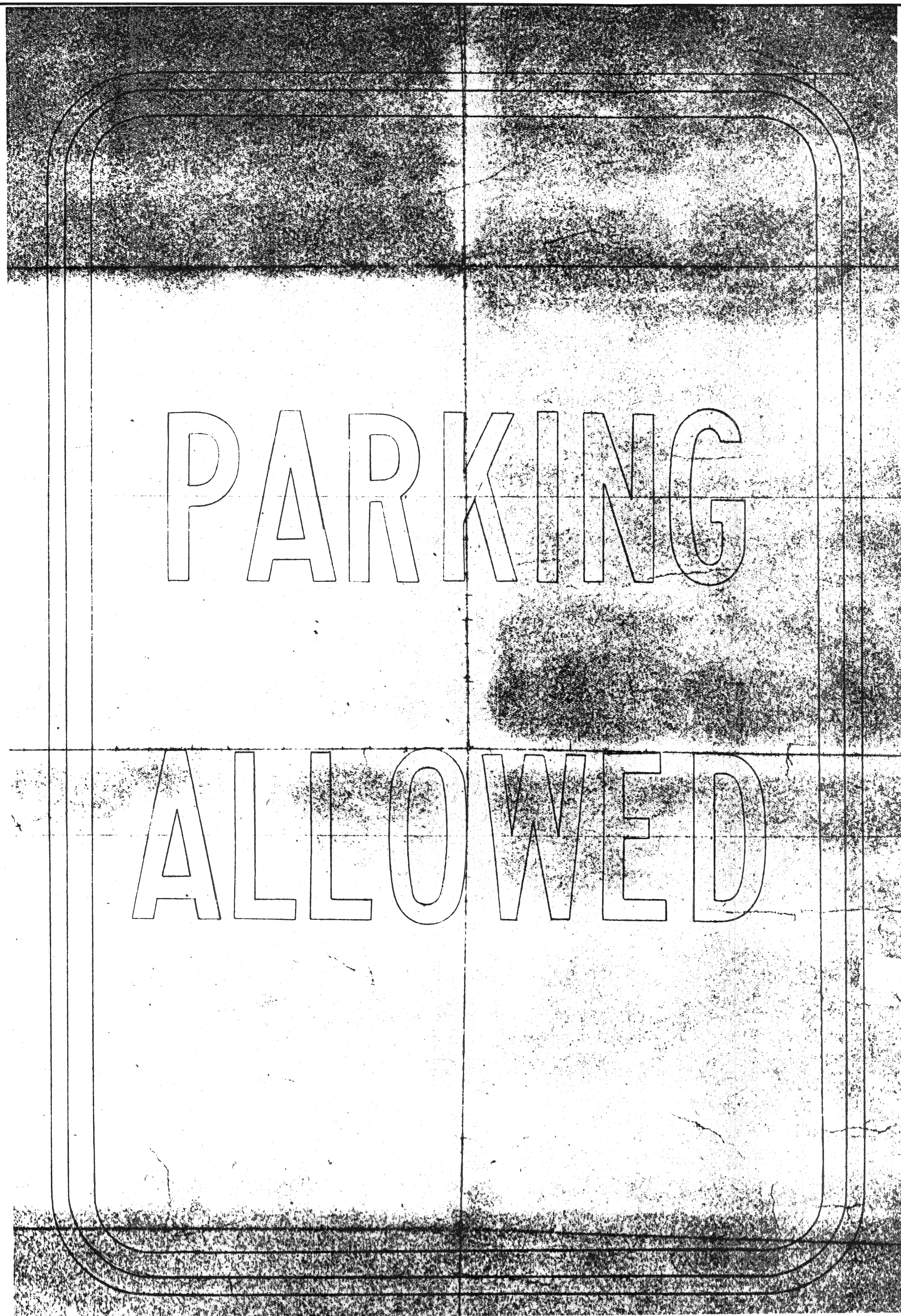


REVISIONS	DATE	BY	APPROVED
	8-3-90	Correct	Edith J. Martyniak
		APPROVED	William J. Attkin

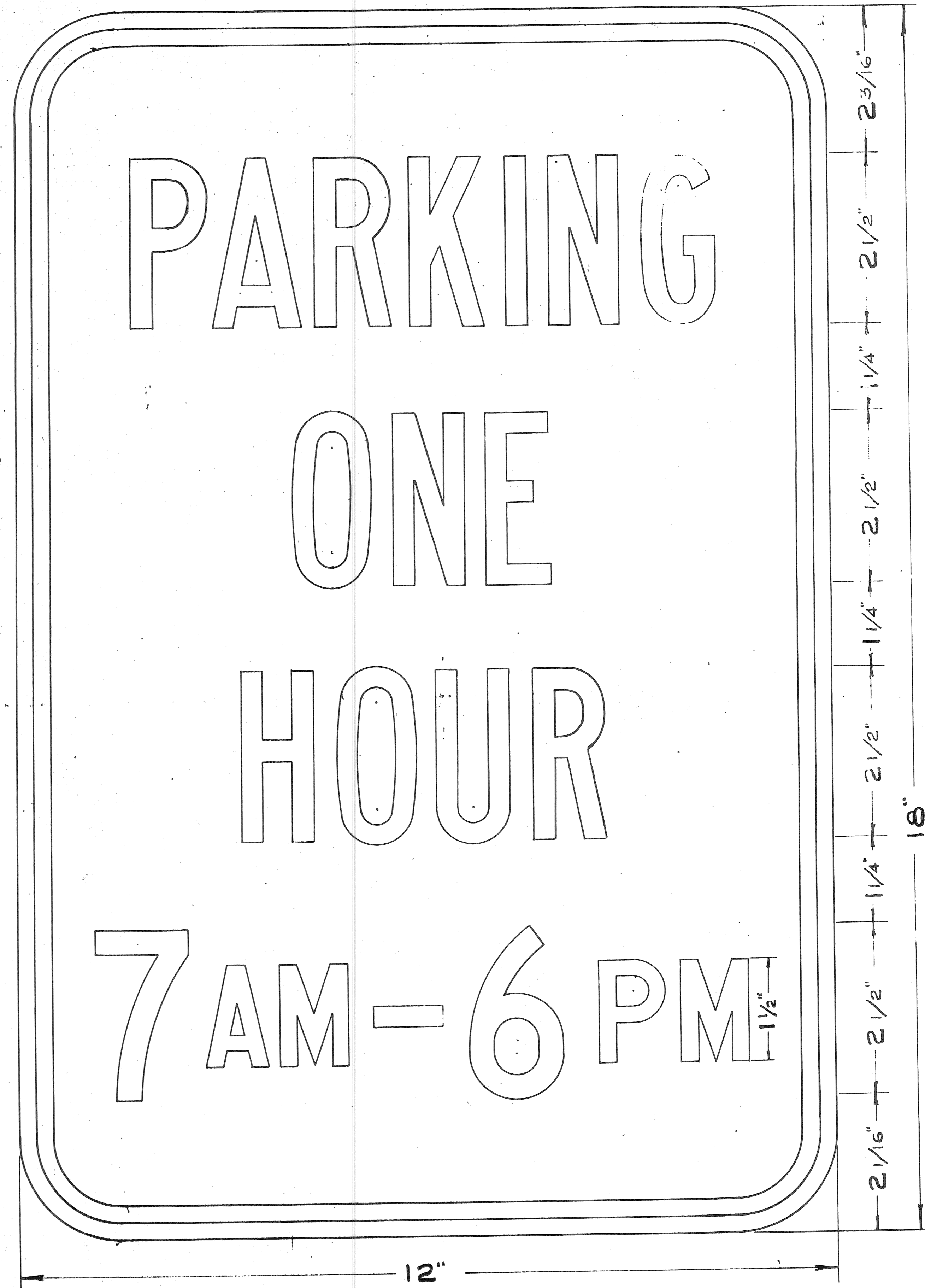
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

MACK AVENUE
CADIEUX RD. TO WARREN AVE.
LANE LINE MARKING & PERMANENT SIGNING

COURT'S PROJECT	46243
ISSUE NO	1
DATE	8-3-90
DATE	10



PA-1



PB-8

Note: Typical layout for NL, PA, PH & PV Series Sign Legends

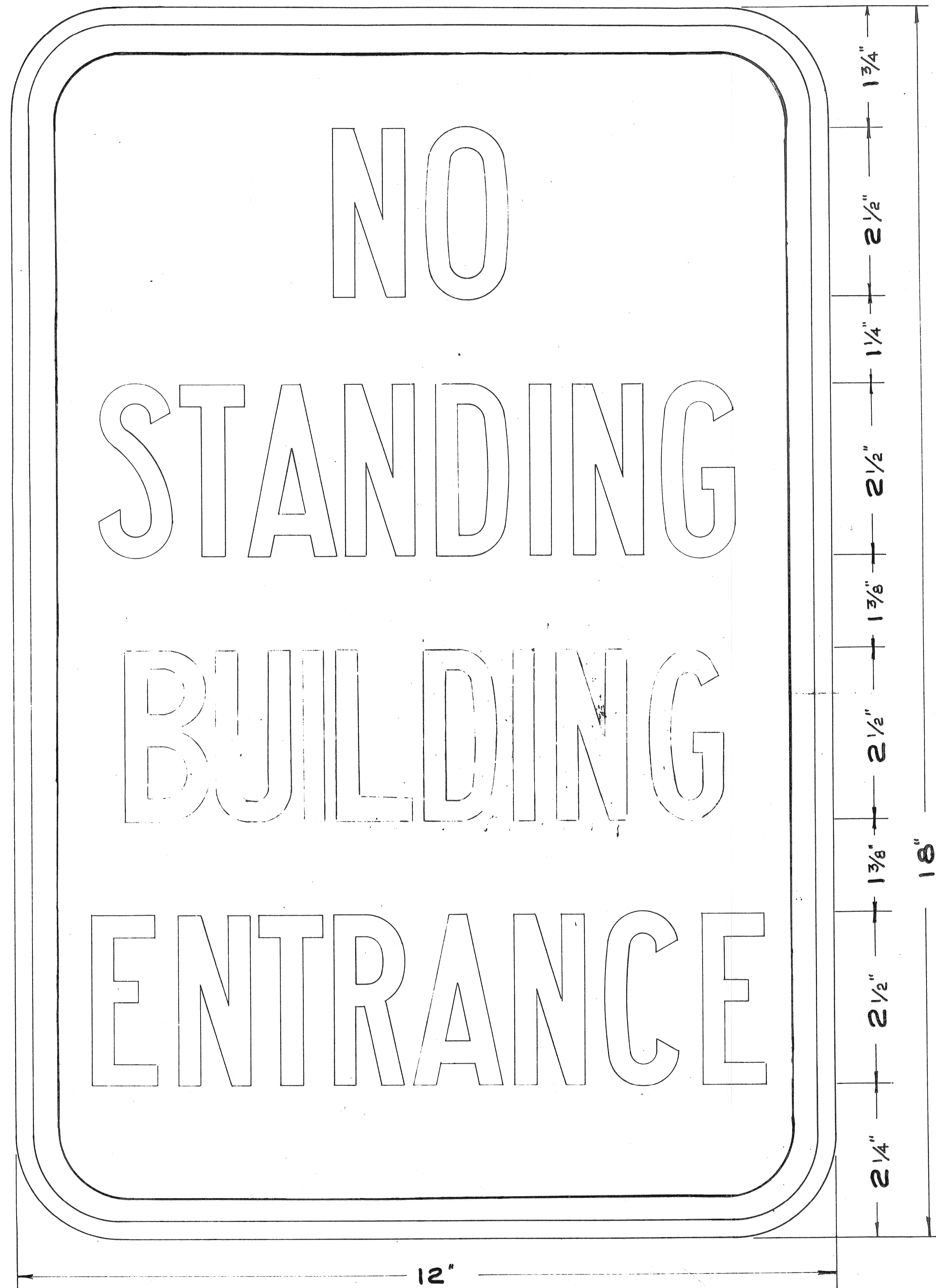
REVISIONS

DRAWN BY <i>GR</i>	DESIGNED BY <i>KJ</i>	DATE 5-16-87	CORRECT <i>[Signature]</i> ASSISTANT DIVISION DESIGN ENGINEER
CORRECT <i>[Signature]</i> SQUAD LEADER	APPROVED <i>[Signature]</i> DIVISION DESIGN ENGINEER		

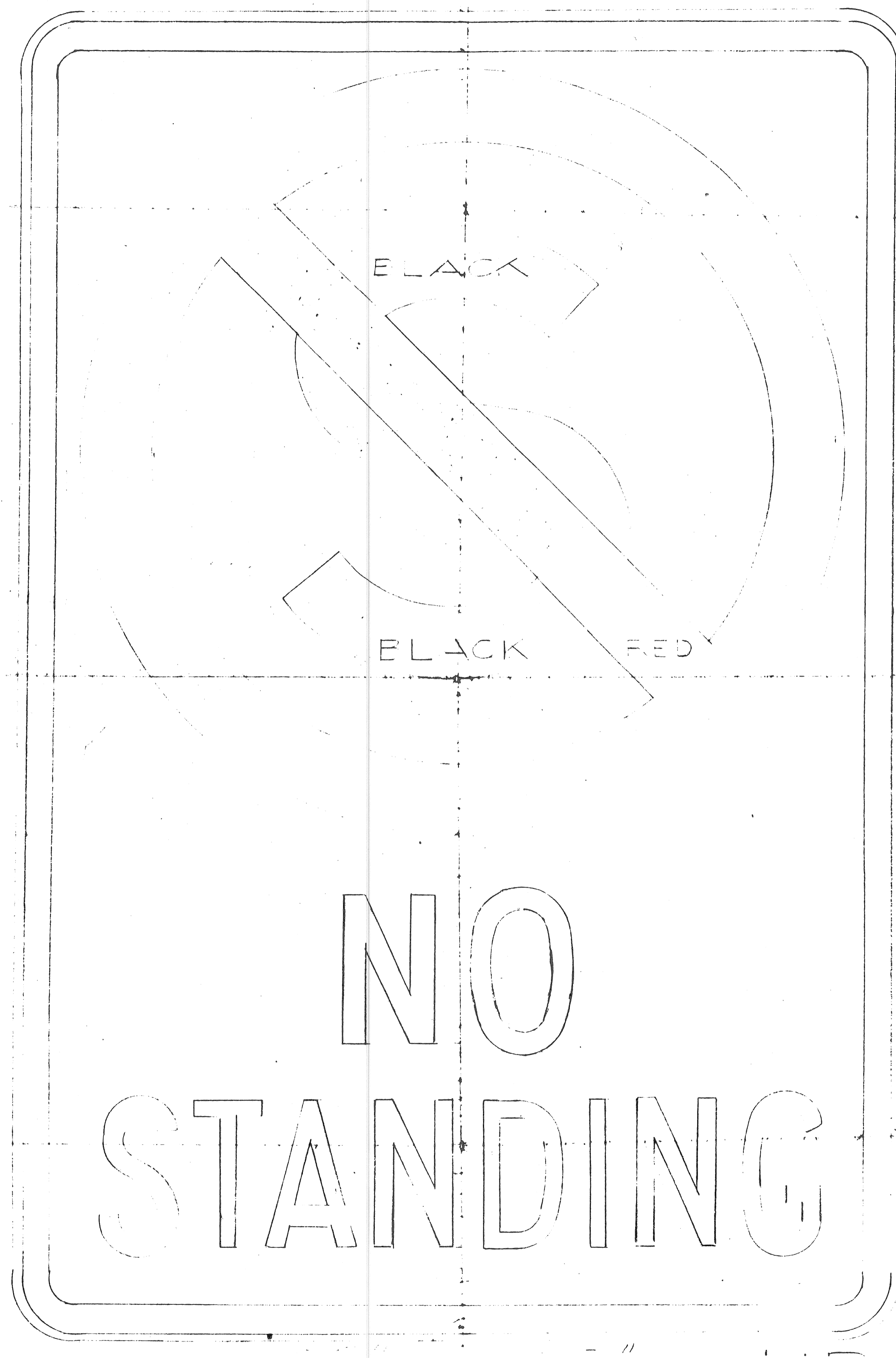
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

SIGN LEGENDS—CITY OF DETROIT
MACK AVE.
CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT 46243	
ISSUE NO. 1	12
DATE 8-3-90	



NB-7



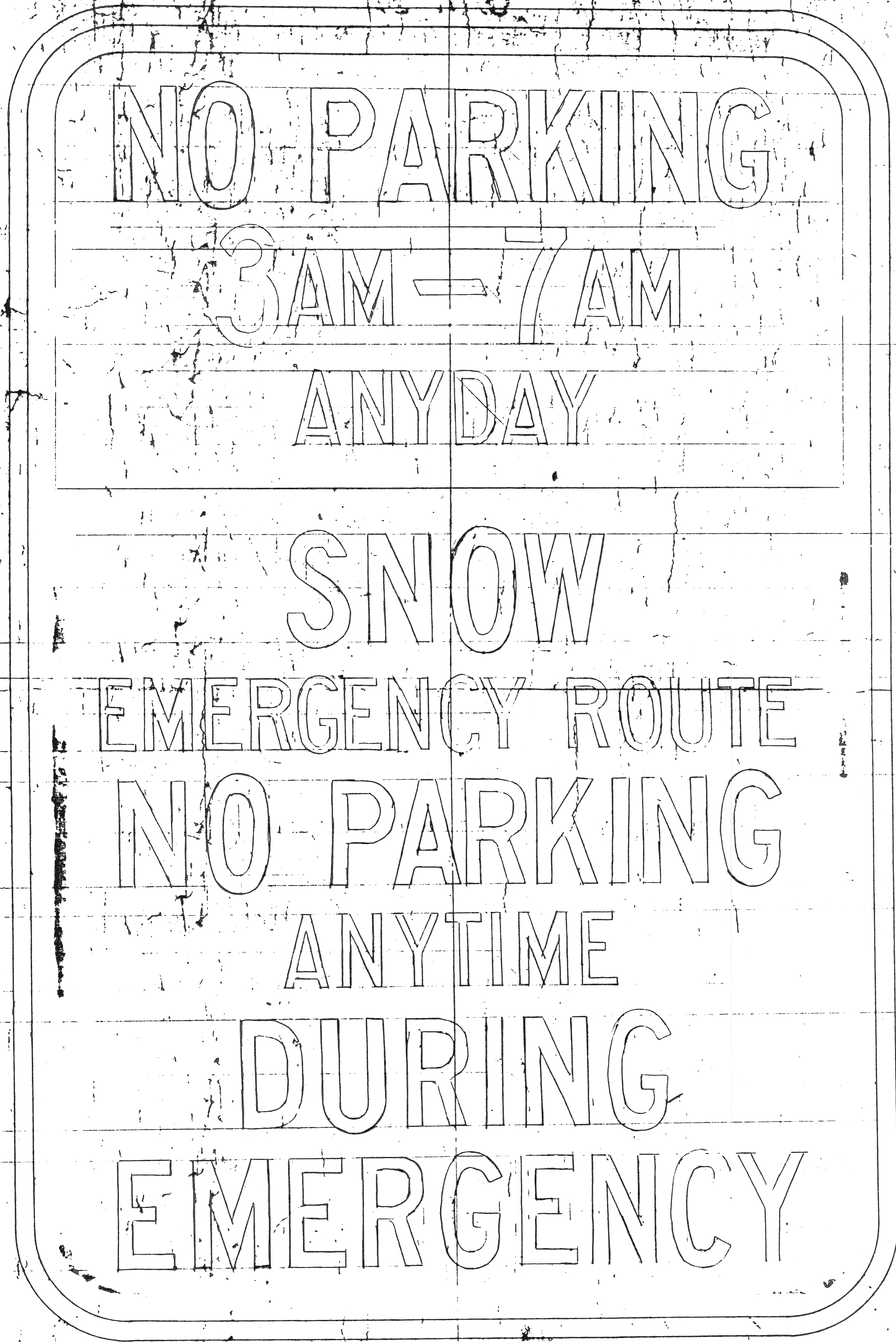
NB-7-S

REVISIONS	DRAWN BY J.A.	CREATED BY G.E.	DATE 5-16-87	CORRECT
				ASSISTANT DIVISION DESIGN ENGINEER
				APPROVED
				DIVISION DESIGN ENGINEER

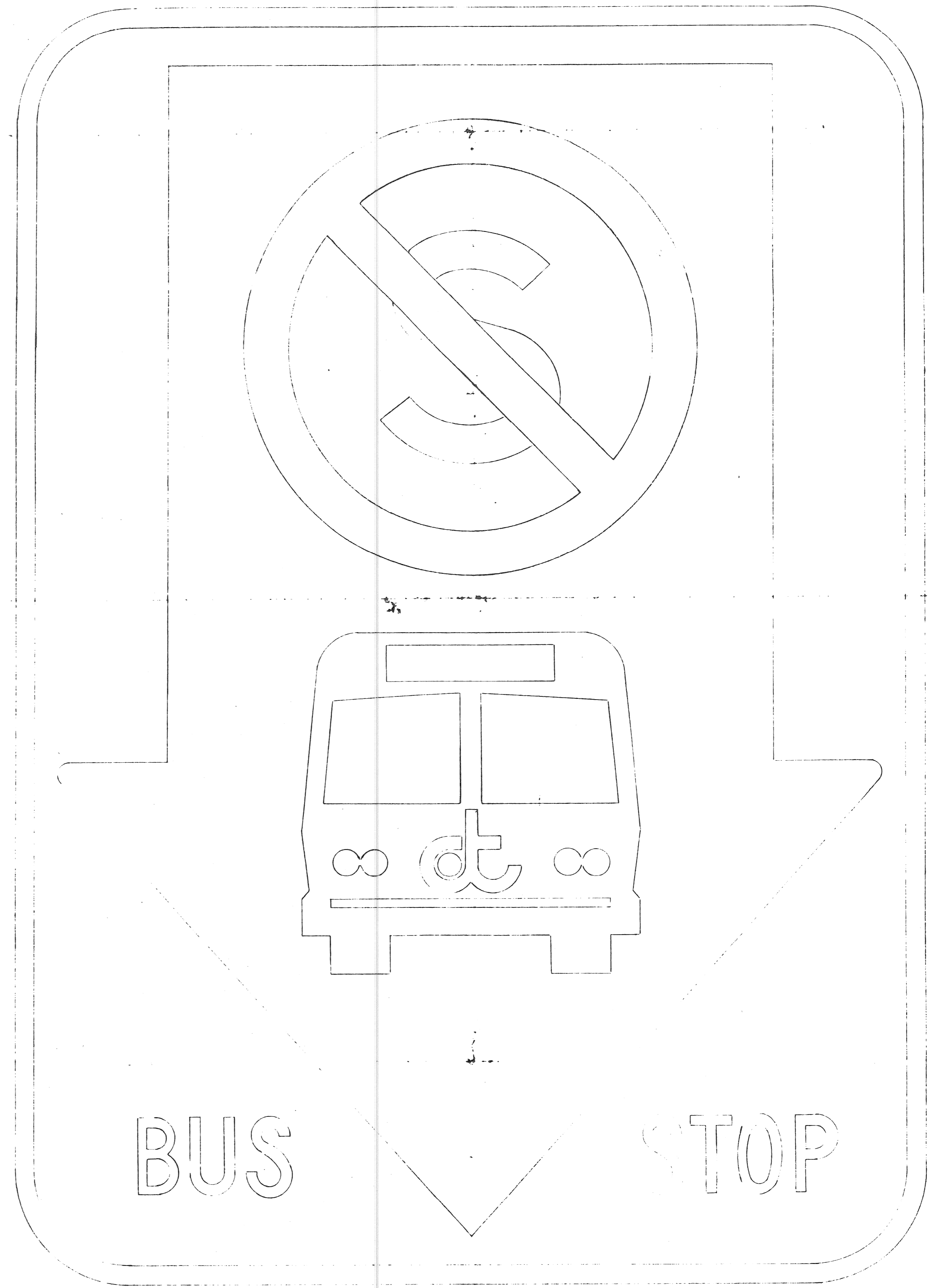
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

SIGN LEGENDS—CITY OF DETROIT
MACK AVE.
CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT 46243	
ISSUE NO. 1	13
DATE 8-3-90	



NS-17



IB-1-S

REVISIONS	DRAWN BY J.A.	CHECKED BY J.P.	DATE 5-16-81	CORRECT
				ASSISTANT DIVISION DESIGN ENGINEER
				APPROVED
				DIVISION DESIGN ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

SIGN LEGENDS-CITY OF DETROIT
MACK AVE.
CADIEUX RD. TO WARREN AVE.

COUNTY PROJECT 46243	ISSUE NO. 1
DATE 8-3-90	14

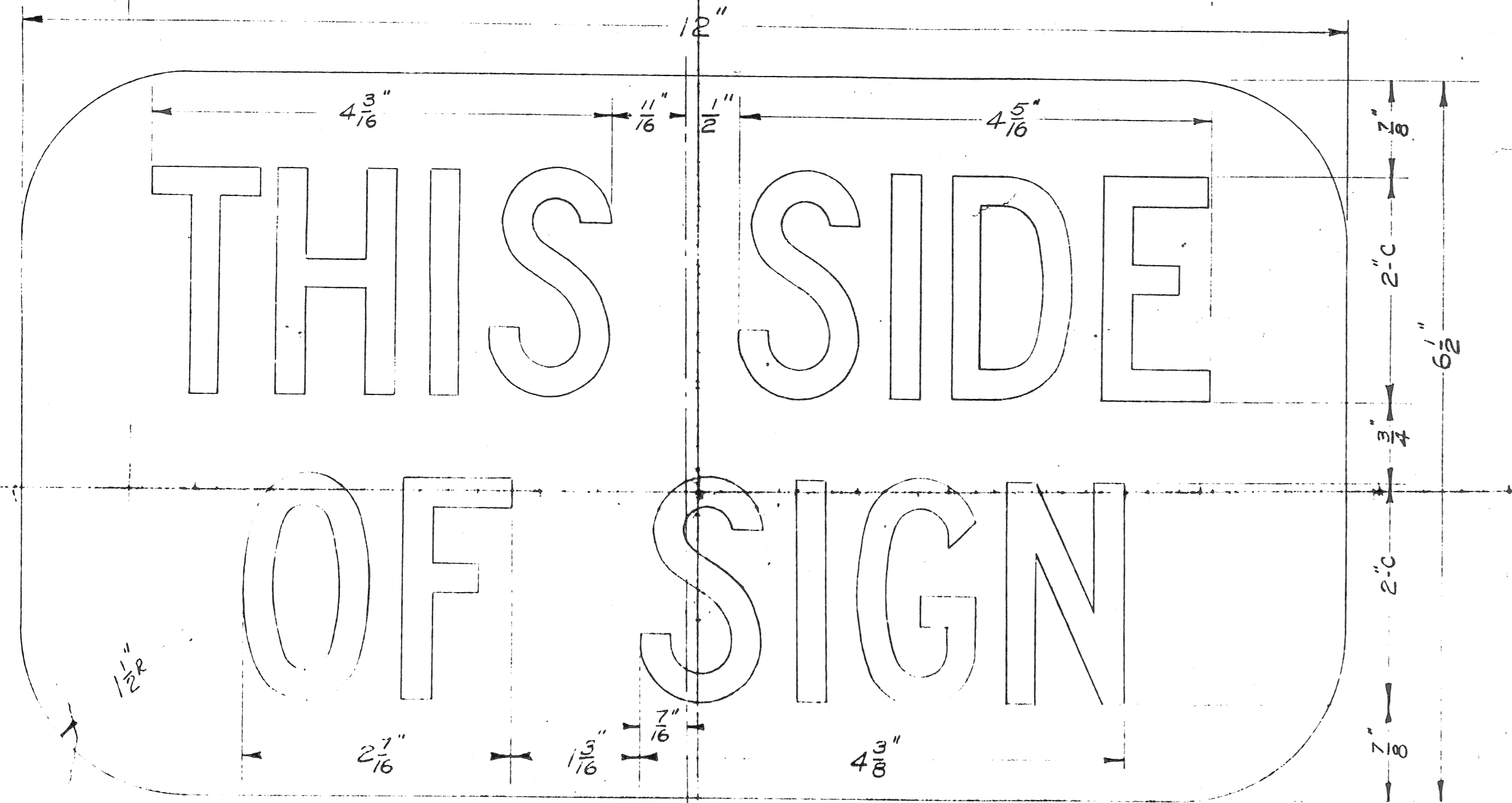
F-8-5

GENERAL NOTES
CITY OF DETROIT SIGNS

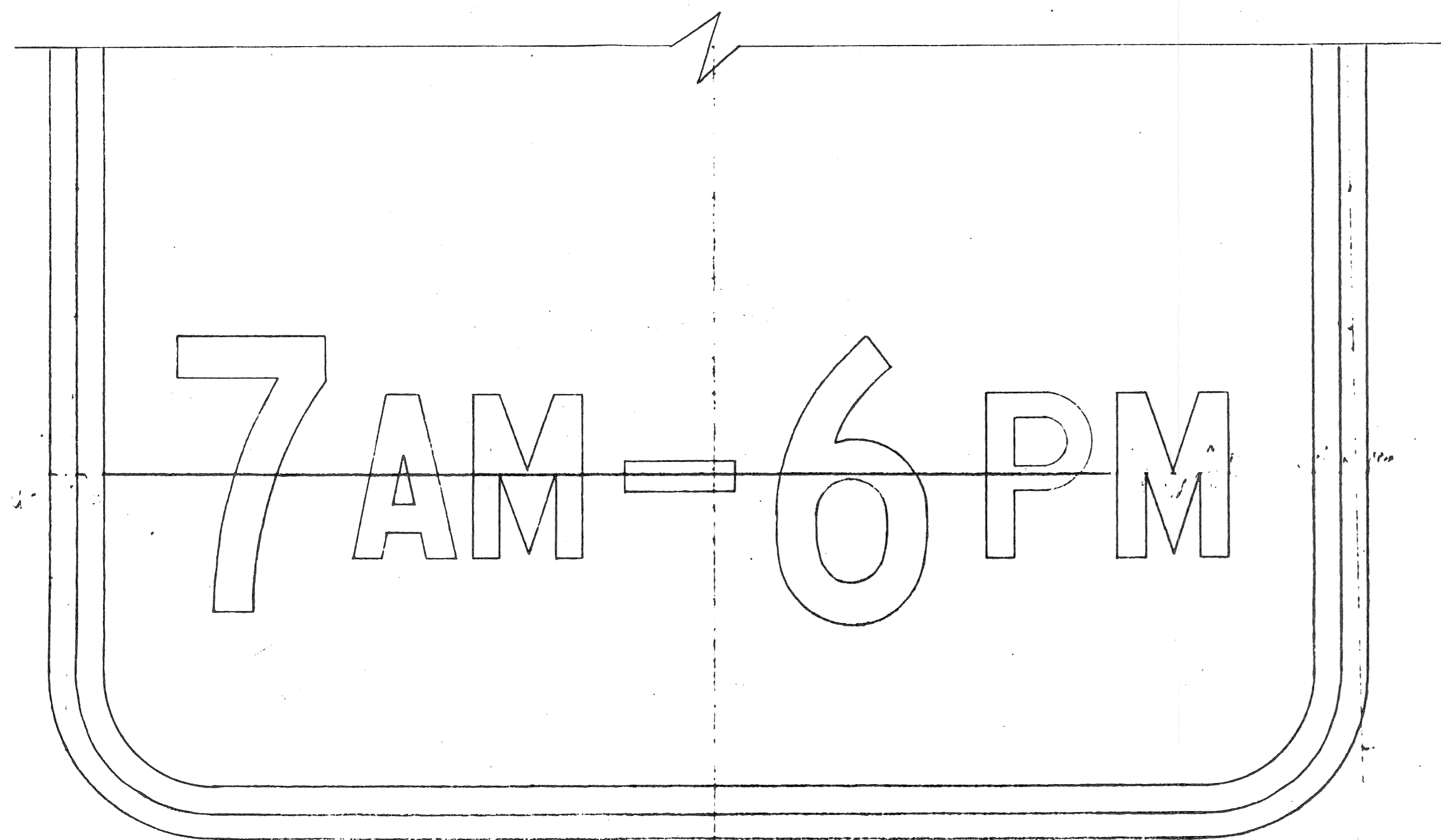
All sign legends shown on these plans are full scale.

All City of Detroit Signs are 12" x 18" except as noted.

Sign Colors shall conform to the MMUTCD standards for restrictive and permissive parking regulations. Sign Code IB-1-5 shall be Red, Black & Yellow on White. For Sign Code NS-17, the top 3 lines shall have a Red on White legend with the remainder of the sign having a White on Red legend.



PT-1



TYPICAL TIME
LEGEND

Note: To be used with Sign Codes
NU-46, PH-2 & PN-2.

REVISIONS	DESIGNED BY J.A.	CHECKED BY C.P.	DATE 5/2/89	CORRECT	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION	SIGN LEGENDS—CITY OF DETROIT MACK AVE. CADIEUX RD. TO WARREN AVE.	COUNTY PROJECT 46243	ISSUE NO. 1 DATE 8-3-90	15
	CORRECT	APPROVED	DIVISION DESIGN ENGINEER						