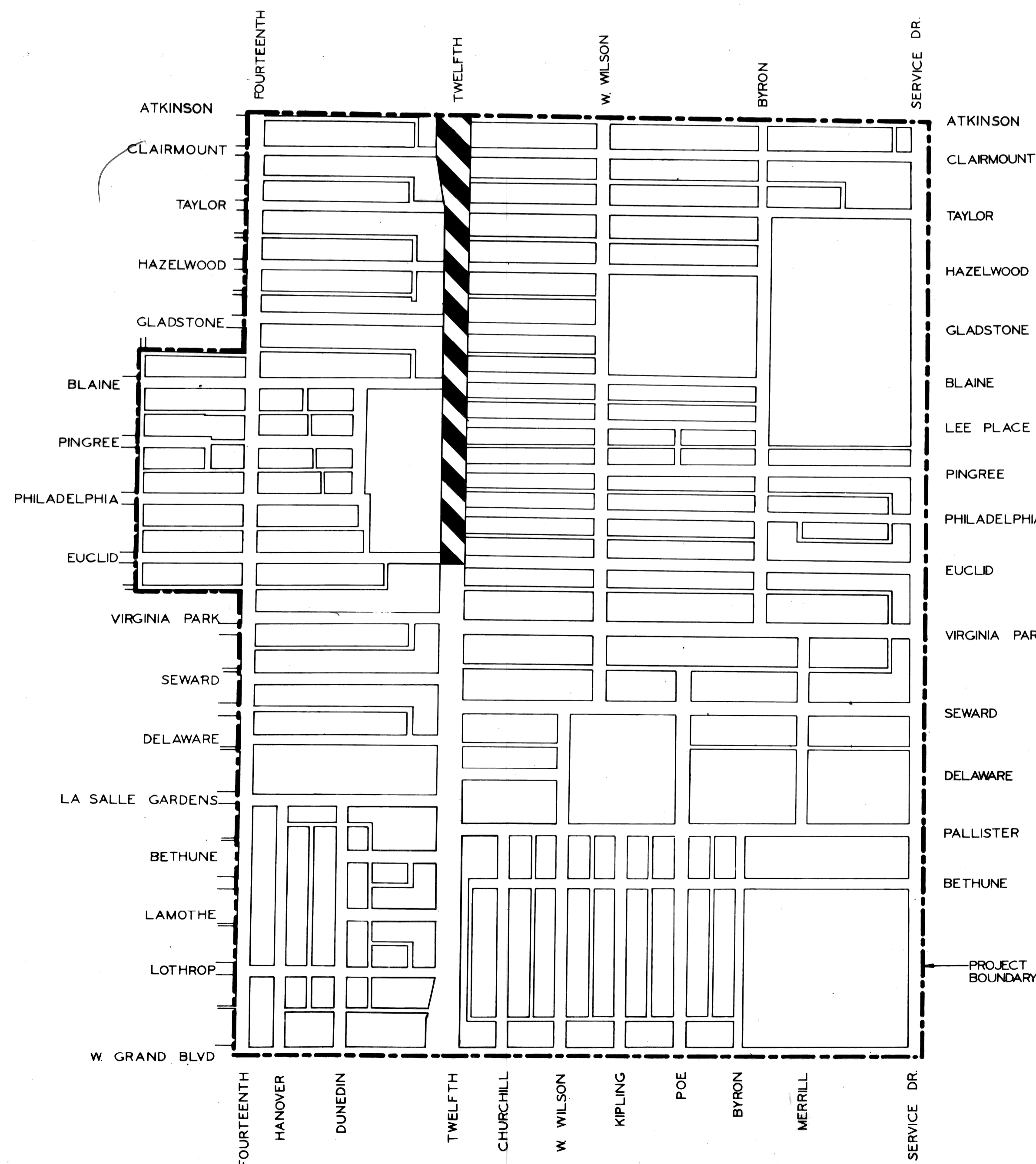



CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE

PLANS FOR PROPOSED

TWELFTH STREET WIDENING  
EUCLID TO ATKINSON

VIRGINIA PARK N.D.P. MICH. A-4-2  
FOR  
COMMUNITY DEVELOPMENT COMMISSION



TWELFTH  CONSTRUCTION AREA

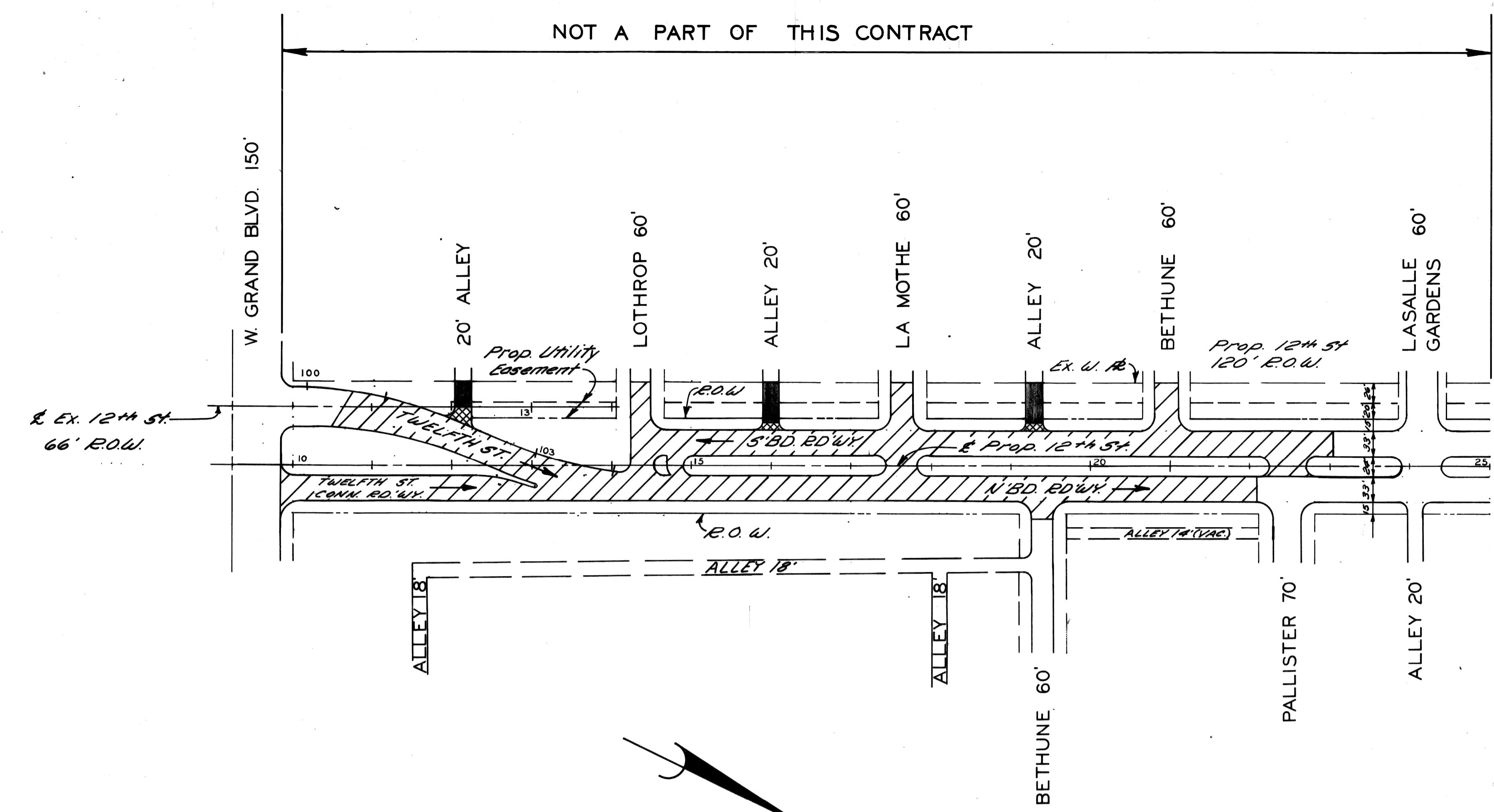
INDEX OF SHEETS

1. TITLE SHEET
2. GENERAL PLAN
3. TYPICAL CROSS SECTIONS
4. ALIGNMENT
- 5-6. CONSTRUCTION SEQUENCE
- 7-8. REMOVALS
- 9-14. PLAN AND PROFILES
- 15-16. DETAILED GRADES
- 17-18. UTILITIES
19. SPECIAL AND MISCELLANEOUS DETAILS
20. LAWN WATERING SYSTEM
- 21-23. LANDSCAPE CONSTRUCTION
- 24-62. P.L.C. ALTERATIONS
63. P.L.C. QUANTITIES
- 64-73. WATER ALTERATIONS
74. QUANTITY SHEET

A.O. 2091

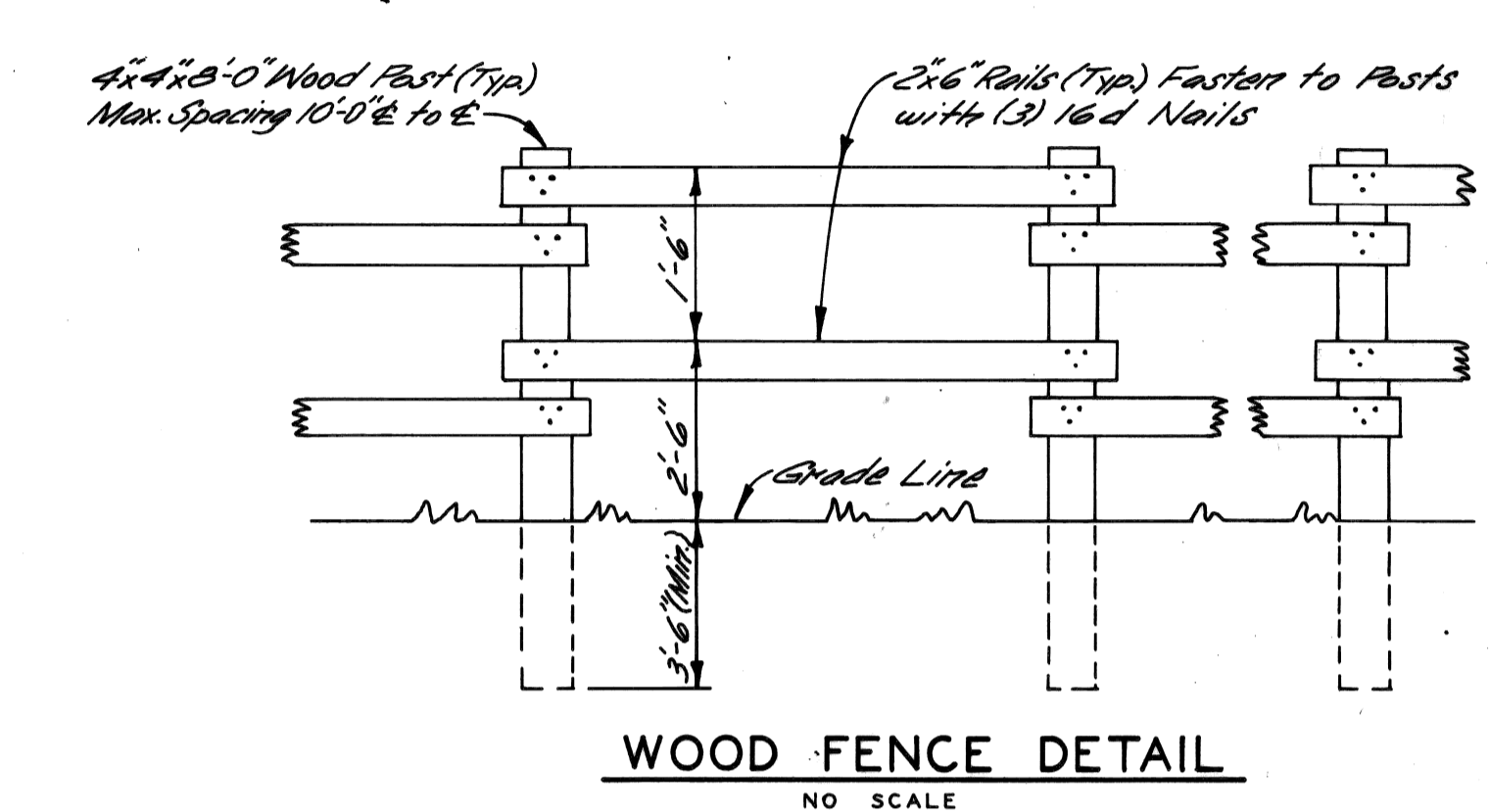
PROJECT TWELFTH ST. WIDENING EUCLID TO ATKINSON		CONTRACT NO. P.W. 6549
PLANS PREPARED BY DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE		
RECOMMENDED FOR APPROVAL	<i>R.C. Monahan</i> ENGINEER OF INSPECTION	3-26-74 DATE
RECOMMENDED FOR APPROVAL	<i>Allen E. Prager</i> HIGHWAY ENGINEER	3-25-74 DATE
APPROVED	<i>[Signature]</i> ASSOCIATE CITY ENGINEER	3-25-74 DATE
APPROVED	<i>[Signature]</i> CITY ENGINEER	3-26-74 DATE
DATE FEB. 18, 1974		SHEET NO. 1 OF 74

NOT A PART OF THIS CONTRACT

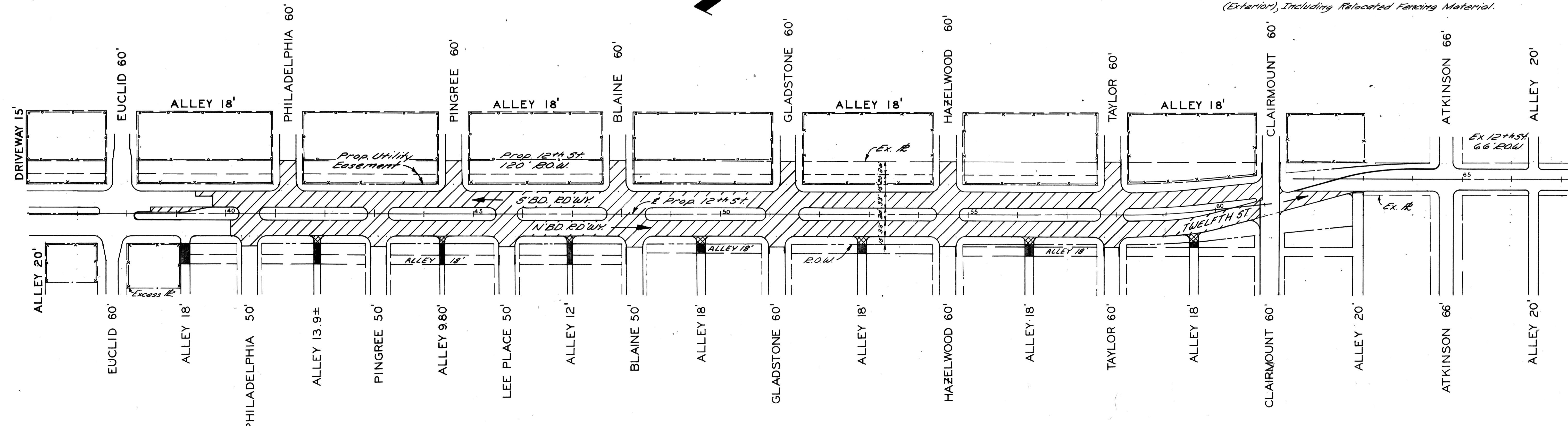


**LEGEND**

Concrete Pav't 9" Uniform (Reint.)	
Concrete Pav't 9" Uniform (Non Reint.)	
Prop. Concrete Curb	
Concrete Pav't 8" Uniform	
Prop. "Wood Fence"	
Exist. "Wood Fence"	

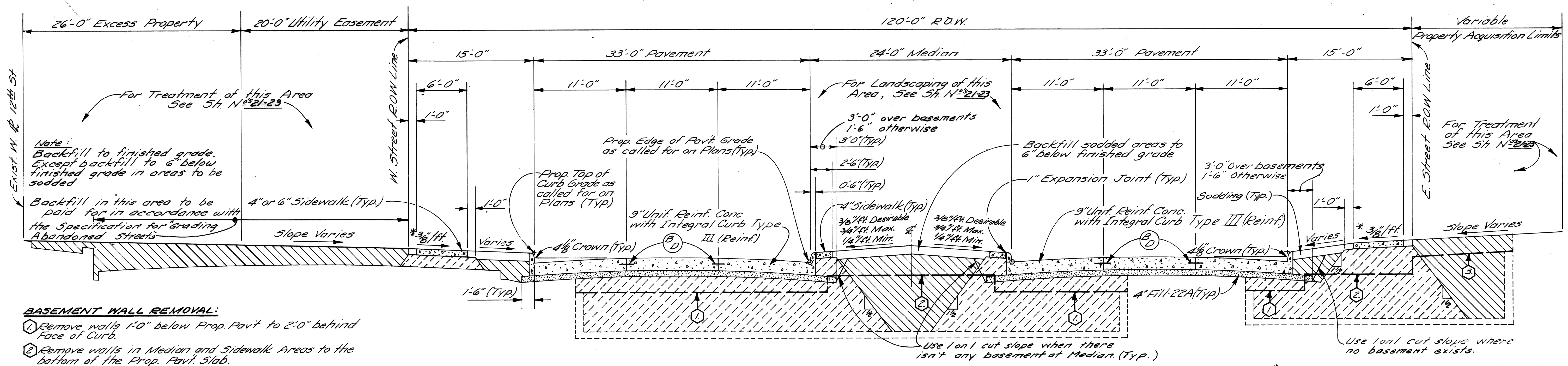


- Wood Fence Notes:**
1. Wood Rails and Posts to be either New No. 2 Grade Lumber, or, Relocated Existing Fencing in good condition.
  2. All Fence Material to be Painted one coat Latex White Paint (Exterior), Including Relocated Fencing Material.



**PLAN**  
Scale: 1" = 100'

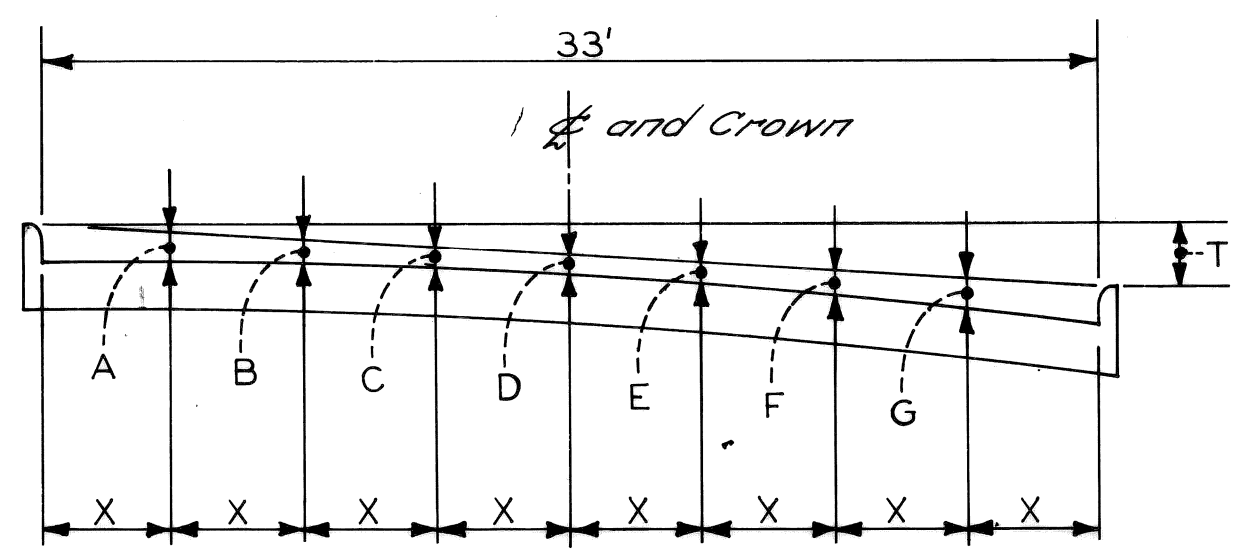
REVISIONS LOCATED BY COORDINATES ON SHEET COORD. DESCRIPTION 18-110 Added 5' Bd 12th St, Refer to Clairmont MB Z.R. 3/82		DESIGNED BY DRAWN BY <i>M. Sweet</i> TRACED BY CHECKED BY <i>R.B.P.</i>	APPROVED:  ENGINEER OF EXPRESSWAYS	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON GENERAL PLAN	SHEET <u>2</u> OF <u>74</u> SHEETS CONTRACT No. P.W. 6549 ASSIGNMENT No. AO.2091 DATE FEB 18 - 74
--	--	--	--	---	--	--



- BASEMENT WALL REMOVAL:**
- Remove walls 1'-0" below Prop. Pavt. to 2'-0" behind Face of Curb.
  - Remove walls in Median and Sidewalk Areas to the bottom of the Prop. Pavt. Slab.
  - Remove walls in areas outside the 120' R.O.W. to 1'-0" below the Prop. Surface Elevations.

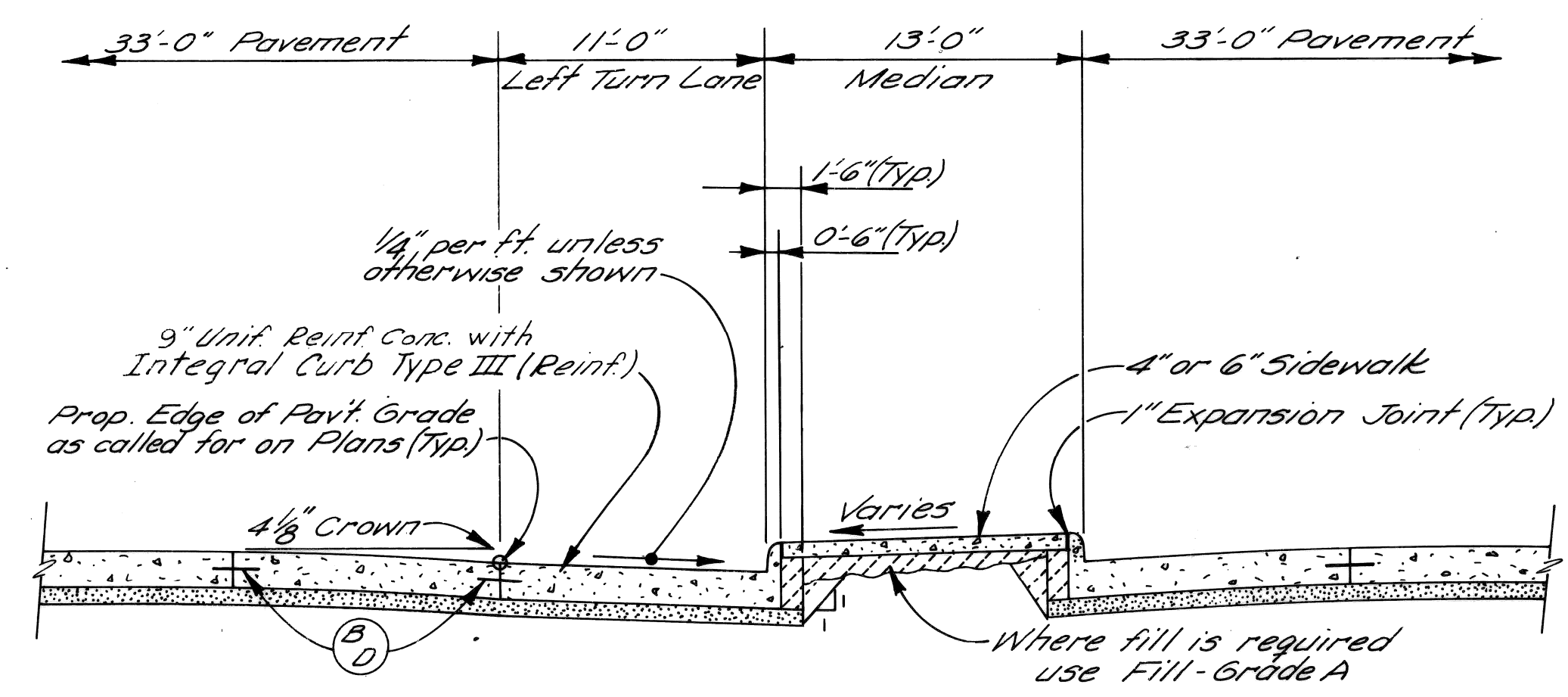
TYPICAL CROSS-SECTION OF TWELFTH ST. RELOCATION  
EUCLID AVE. TO ATKINSON  
NO SCALE

\* Sidewalk slopes are to be 3/8" unless the engineer determines that a minimum slope of 1/4" or a maximum slope of 3/4" must be used to meet existing conditions



PAV'T WIDTH	CURB HEIGHT	X	T	A	B	C	D	E	F	G
33'	7"	4-1/2"	0.0	5 1/4"	3 7/8"	3 1/2"	2 7/8"	3 1/2"	3 7/8"	5 1/4"

ELEMENTS OF 33' PAVEMENT



TYPICAL CROSS-SECTION OF LEFT TURN LANE  
NO SCALE

**EARTHWORK LEGEND**

- Fill - Grade A
- Fill - 22A
- Selected Excavated Materials (See Note Below)

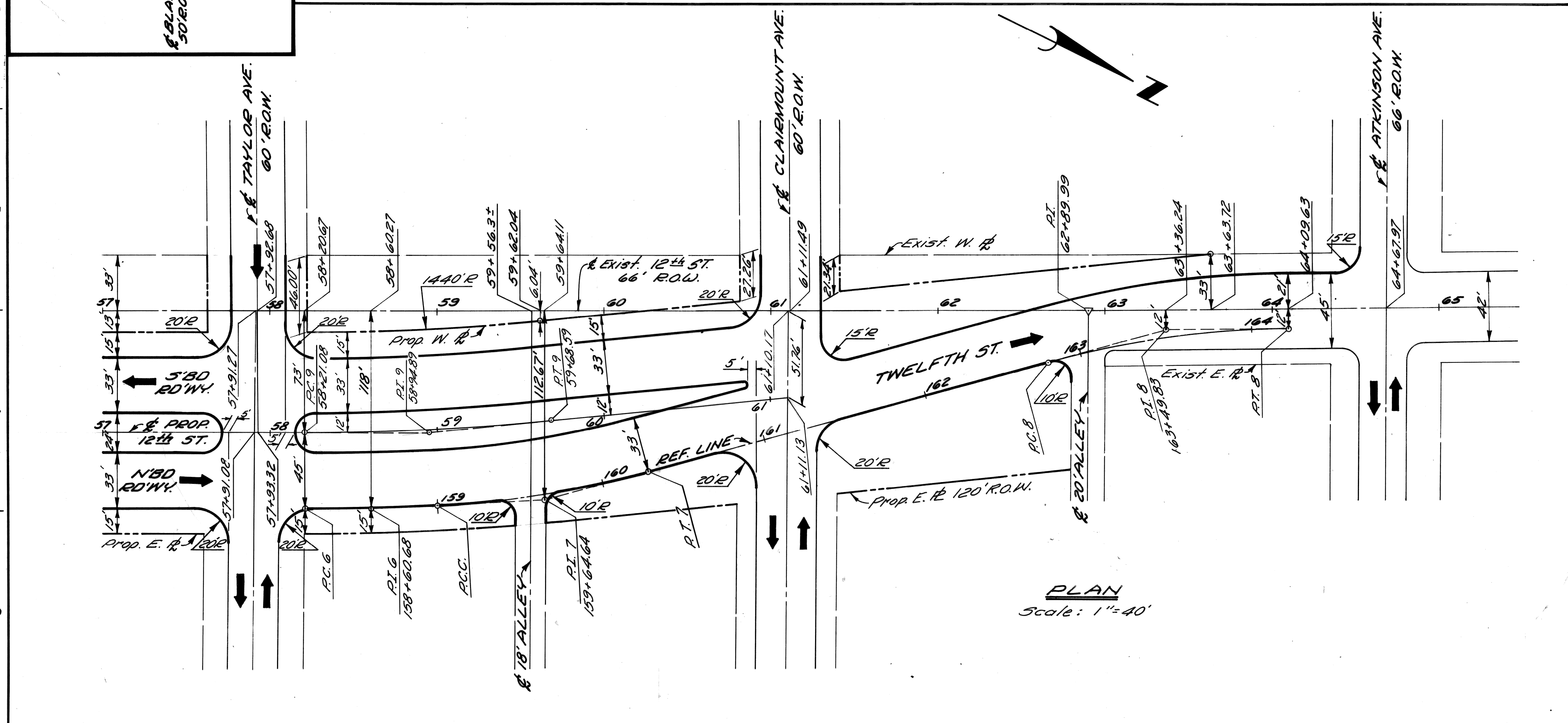
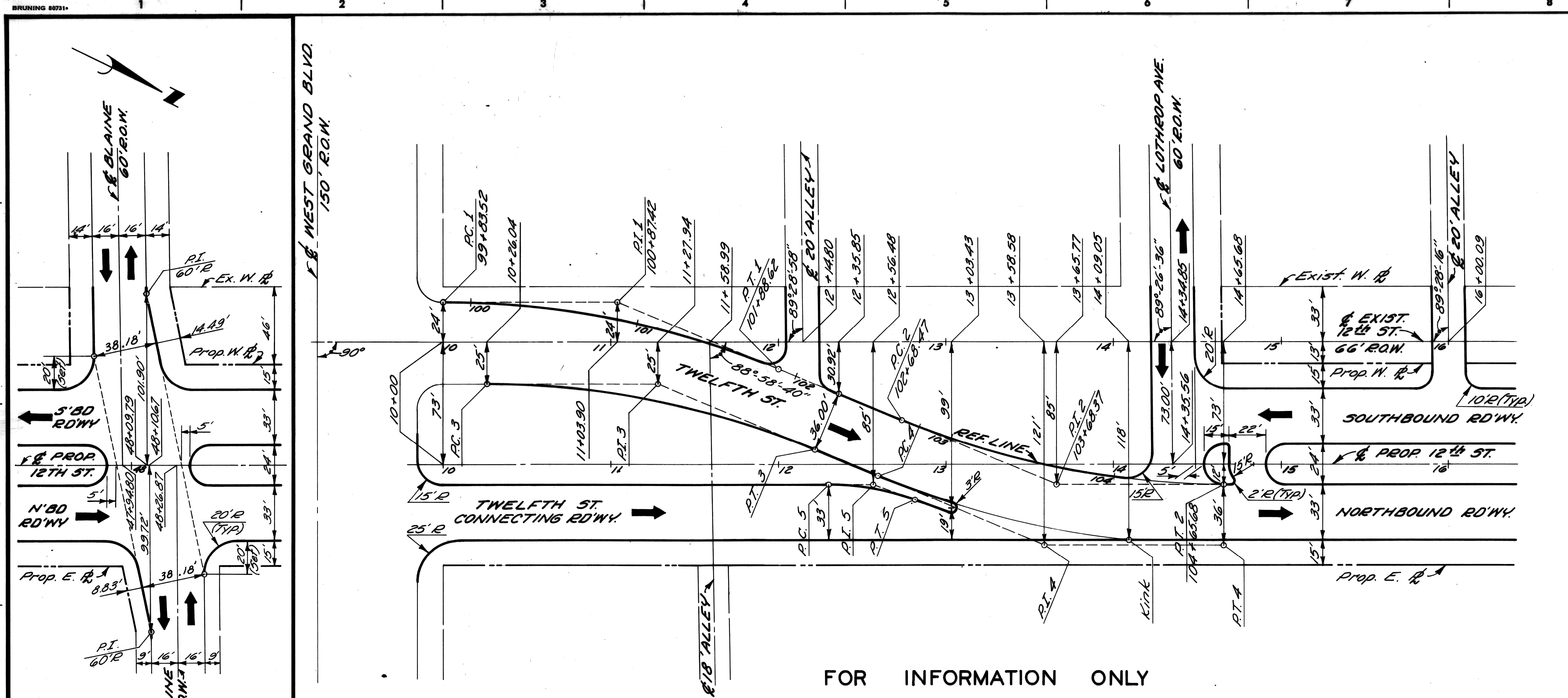
**JOINT LEGEND**

- B - Longitudinal Bulkhead Construction Joint
- D - Longitudinal Lane Tie Joint

**NOTES:**

- If the excavated material is in insufficient quantities for backfilling basements, or does not meet the specified requirements, suitable fill material shall be furnished at no additional cost.
- Approximately 5300 cu. yds. of Selected Excavated Material will be required for this contract.

	DESIGNED BY		APPROVED:	CITY OF DETROIT	SHEET 3 OF 74 SHEETS
	DRAWN BY	M. P.		DEPARTMENT OF PUBLIC WORKS	CONTRACT No. P.W. 6549
	CHECKED BY	R. B. P.	ENGINEER OF EXPRESSWAYS	CITY ENGINEERS OFFICE	ASSIGNMENT No. A.O. 2091
	FINAL REVIEW			FOR	DATE 2-18-74
REVISIONS				COMMUNITY DEVELOPMENT COMMISSION	TYPICAL CROSS - SECTIONS
				TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON	



PLAN  
Scale: 1"=40'

**TWELFTH ST. CURVE DATA**

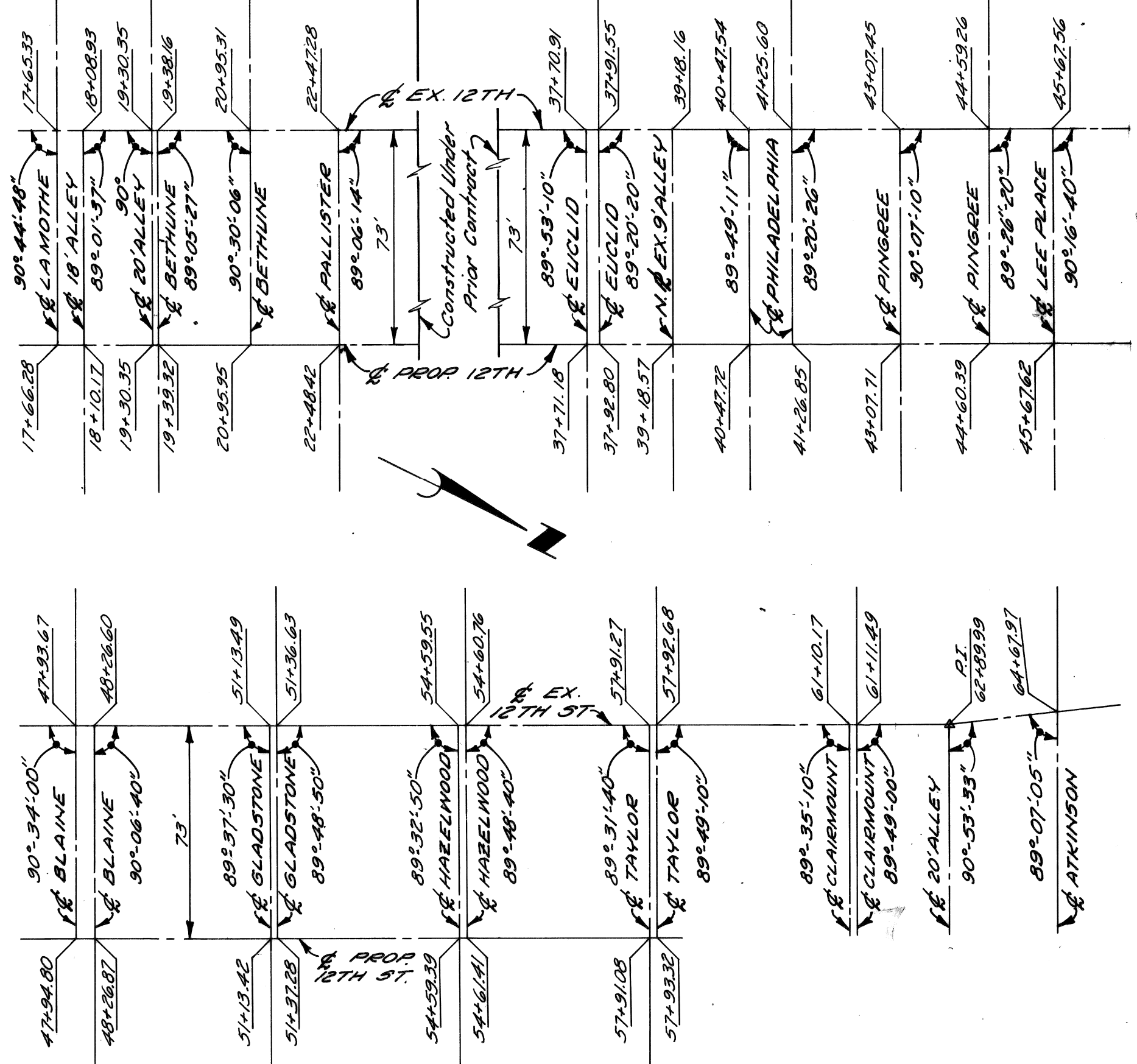
CURVE 1	CURVE 2
$\Delta = 22^\circ 35' 54.4''$	$\Delta = 22^\circ 35' 54.4''$
$D = 11^\circ 01' 06.3''$	$D = 11^\circ 27' 32.9''$
$R = 520'$	$R = 500'$
$T = 103.90'$	$T = 93.90'$
$L = 205.10'$	$L = 197.21'$
$E = 10.28'$	$E = 9.88'$
$PC = 99 + 83.52$	$PC = 102 + 68.47$
$PI = 100 + 87.42$	$PI = 103 + 68.37$
$PT = 101 + 88.62$	$PT = 104 + 65.68$

CURVE 3	CURVE 4	CURVE 5
$\Delta = 22^\circ 35' 54.4''$	$\Delta = 22^\circ 35' 54.4''$	$\Delta = 20^\circ 06' 41.4''$
$D = 11^\circ 01' 06.3''$	$D = 10^\circ 41' 22.2''$	$D = 38^\circ 11' 49.8''$
$R = 510'$	$R = 536'$	$R = 150'$
$T = 101.90'$	$T = 107.10'$	$T = 26.60'$
$L = 201.15'$	$L = 211.41'$	$L = 52.65'$
$E = 10.08'$	$E = 10.53'$	$E = 2.34'$

CURVE 6	CURVE 7	CURVE 8
$\Delta = 2^\circ 56' 11.3''$	$\Delta = 12^\circ 14' 55.3''$	$\Delta = 14^\circ 45' 01.6''$
$D = 3^\circ 42' 30.5''$	$D = 9^\circ 32' 57.5''$	$D = 10^\circ 06' 18.3''$
$R = 1545'$	$R = 600'$	$R = 567'$
$T = 39.60'$	$T = 64.38'$	$T = 73.39'$
$L = 79.18'$	$L = 123.27'$	$L = 145.97'$
$E = 0.51'$	$E = 3.44'$	$E = 4.73'$
$PC = 158 + 21.08$	$PC = 159 + 00.26$	$PC = 162 + 76.44$
$PI = 158 + 60.63$	$PI = 159 + 64.64$	$PI = 163 + 49.83$
$PCC = 159 + 00.26$	$PT = 160 + 28.53$	$PT = 164 + 22.41$

CURVE 9
$\Delta = 5^\circ 38' 03.2''$
$D = 3^\circ 49' 10.99''$
$R = 1500'$
$T = 73.81'$
$L = 147.50'$
$E = 1.81'$
$PC = 58 + 21.08$
$PI = 58 + 94.89$
$PT = 59 + 68.59$

FOR INFORMATION ONLY



ALIGNMENT DIAGRAM  
No Scale

NO.	DATE	DESCRIPTION
12-74	12/18/74	Added 5'bd. 12th St. Taylor to Clairmount

DESIGNED BY	M.A.P.
DRAWN BY	
TRACED BY	
CHECKED BY	R.A.C.

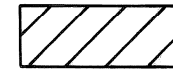



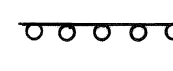
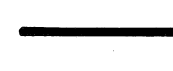
APPROVED:  
*Allen E. Prager*  
ENGINEER OF EXPRESSWAYS

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

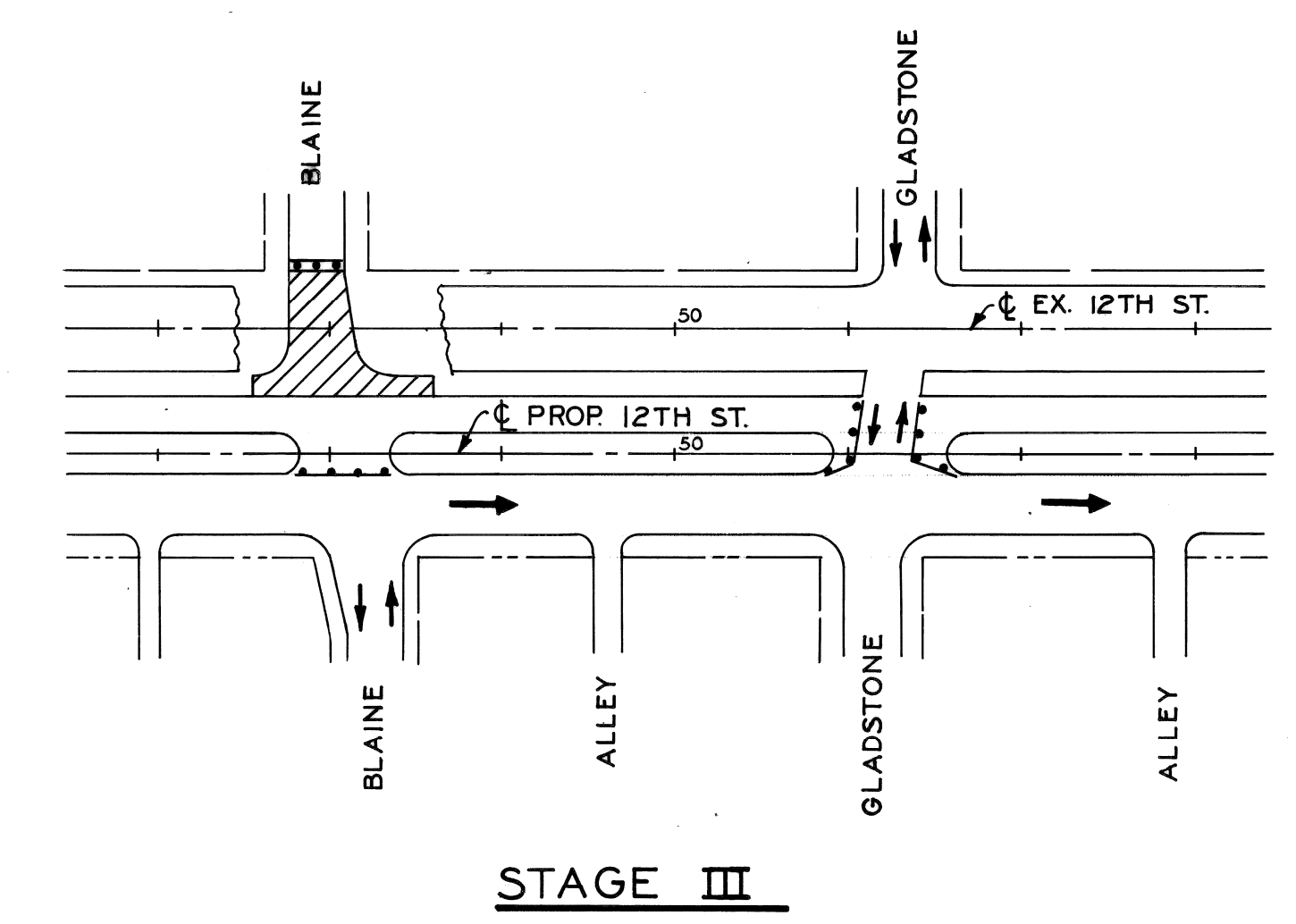
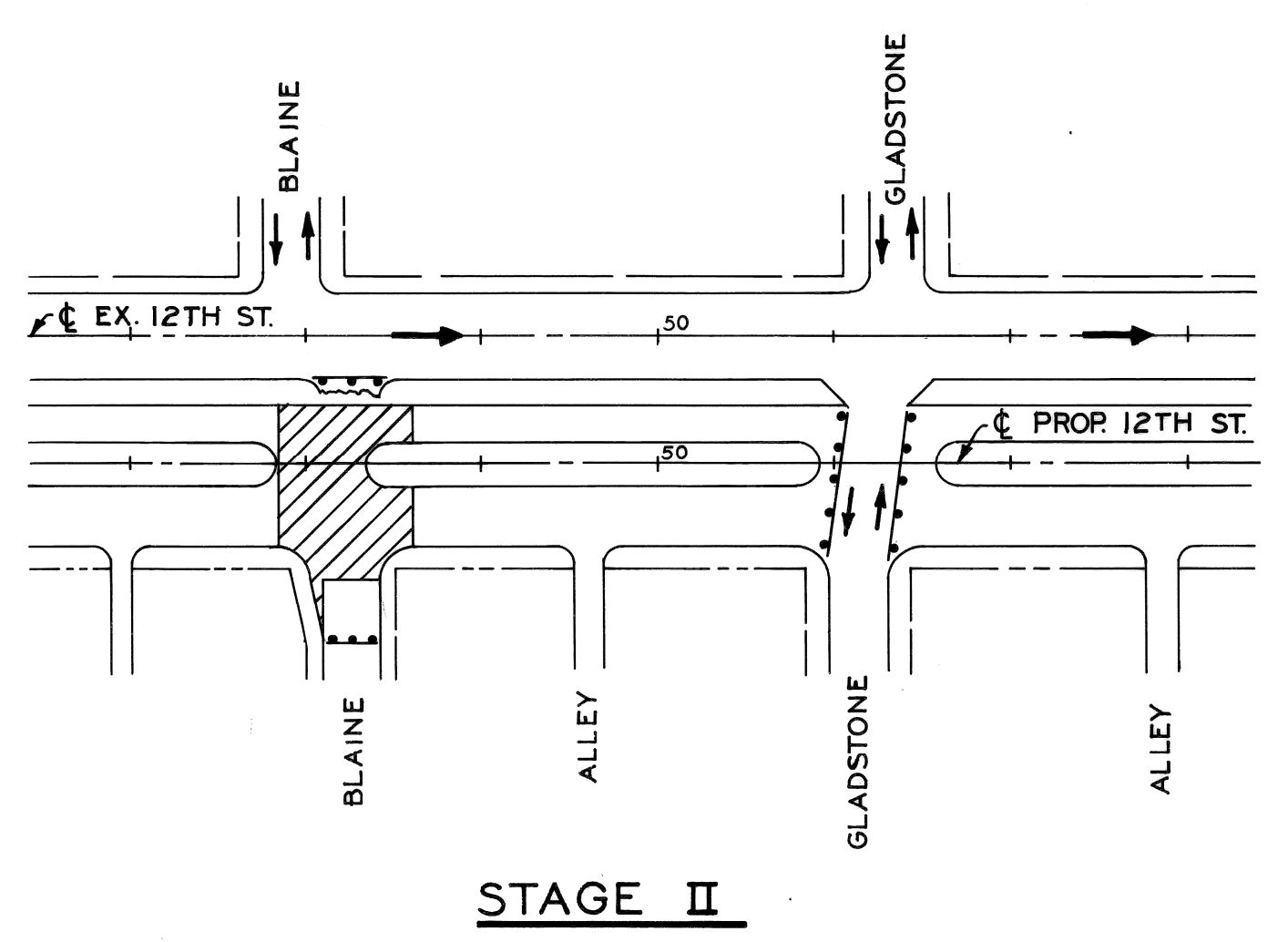
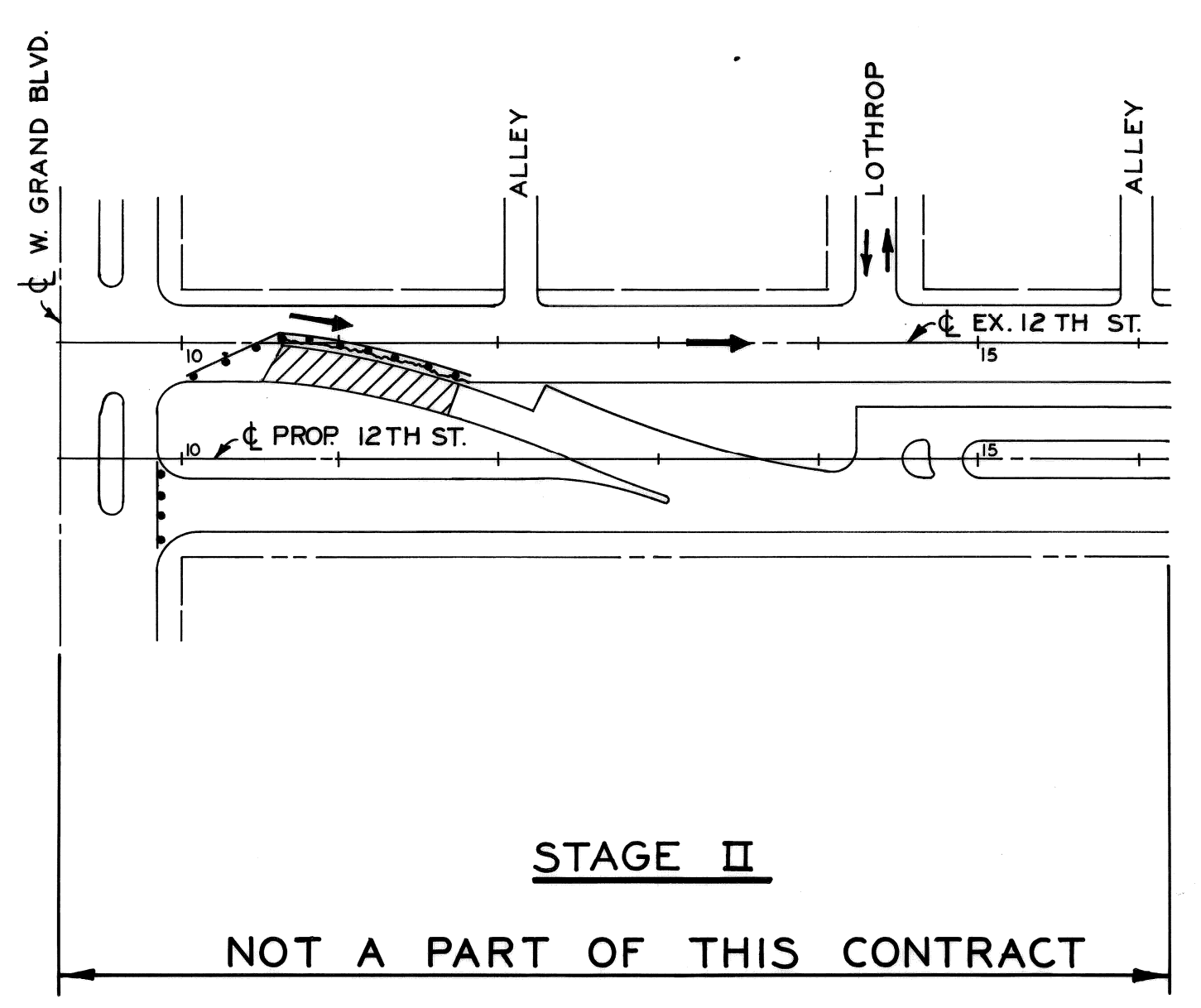
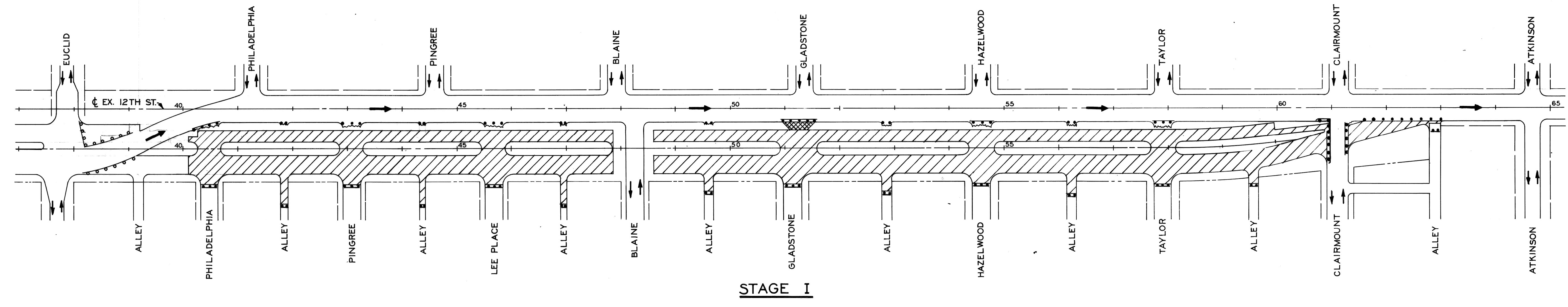
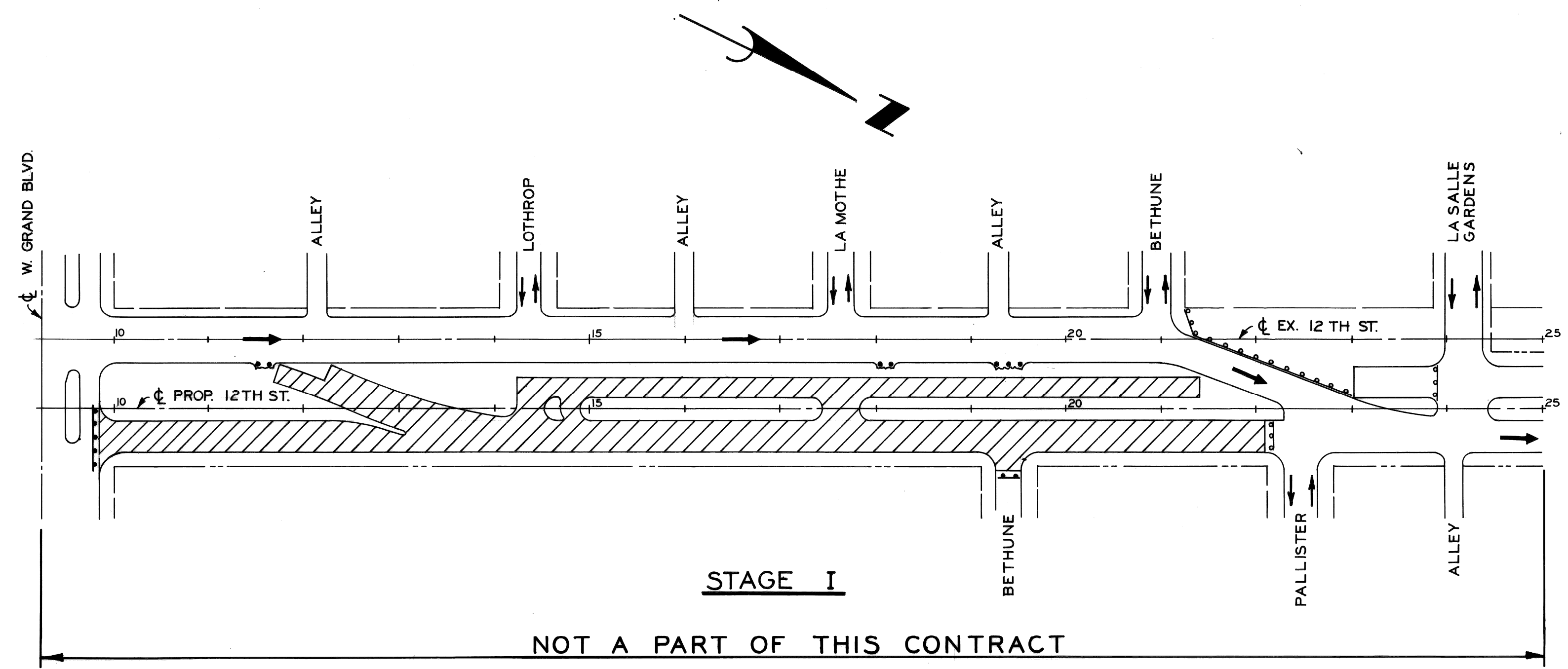
TWELFTH STREET WIDENING  
EUCLID AVE. TO ATKINSON  
ALIGNMENT

SHEET 4 OF 74 SHEETS
CONTRACT NO. P.W.6549
ASSIGNMENT No. A.O.2091
DATE 2-18-74


**LEGEND**

-  PERMANENT PAVEMENT
-  TEMPORARY PAVEMENT (8" UNIF. - NON REINF.)
-  TEMP. SINGLE BEAM BARREL BARRICADE (INCIDENTAL)
-  BARREL BARRICADE (INCIDENTAL)
-  SINGLE BEAM BARREL BARRICADE (EXISTING)
-  PROPOSED CONCRETE CURB

**NOTE:**  
 Approximately 16 Test Cores will be needed for this contract.



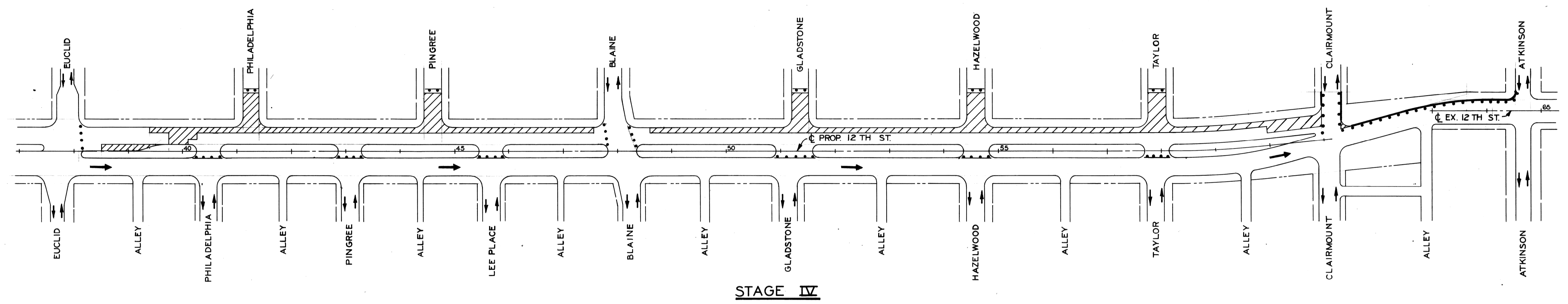
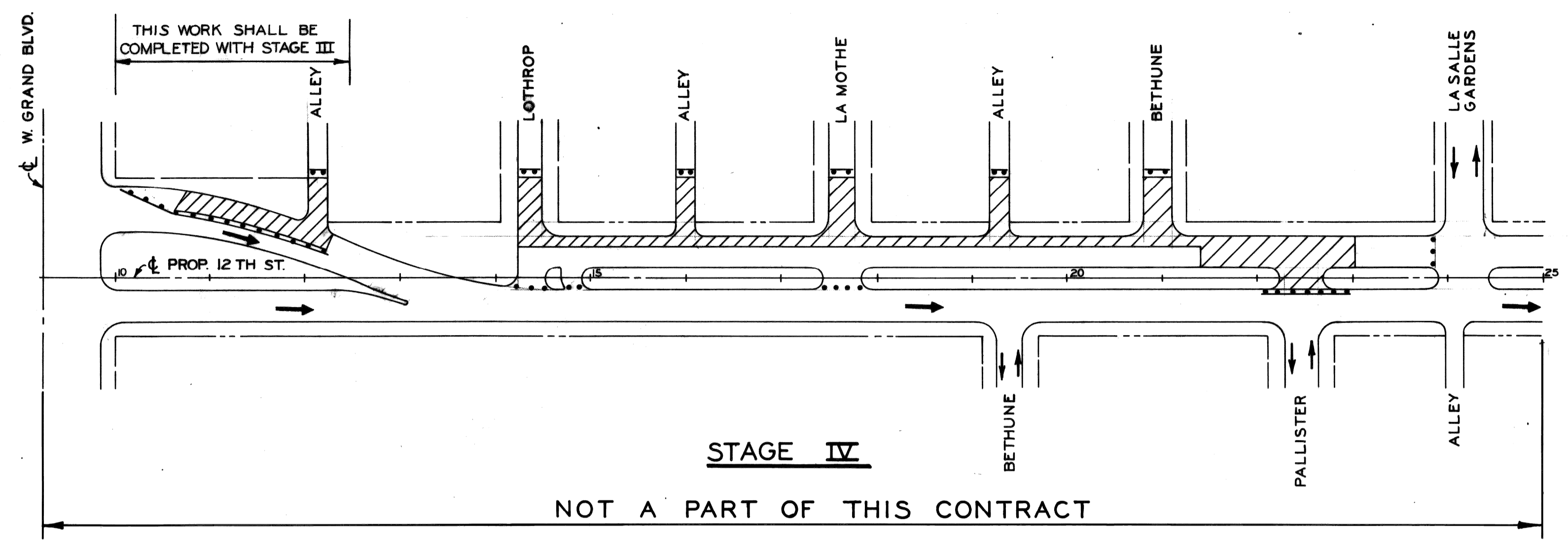
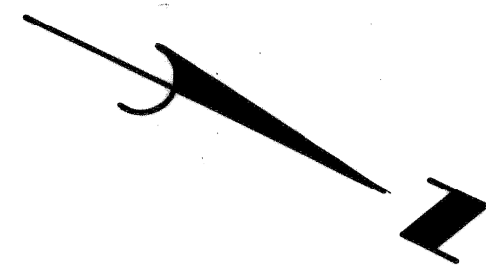
DESIGNED BY	M. A. P.
DRAWN BY	
TRACED BY	
CHECKED BY	R. A. C.

APPROVED:  
  
 ENGINEER OF EXPRESSWAYS

**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 FOR  
**COMMUNITY DEVELOPMENT COMMISSION**

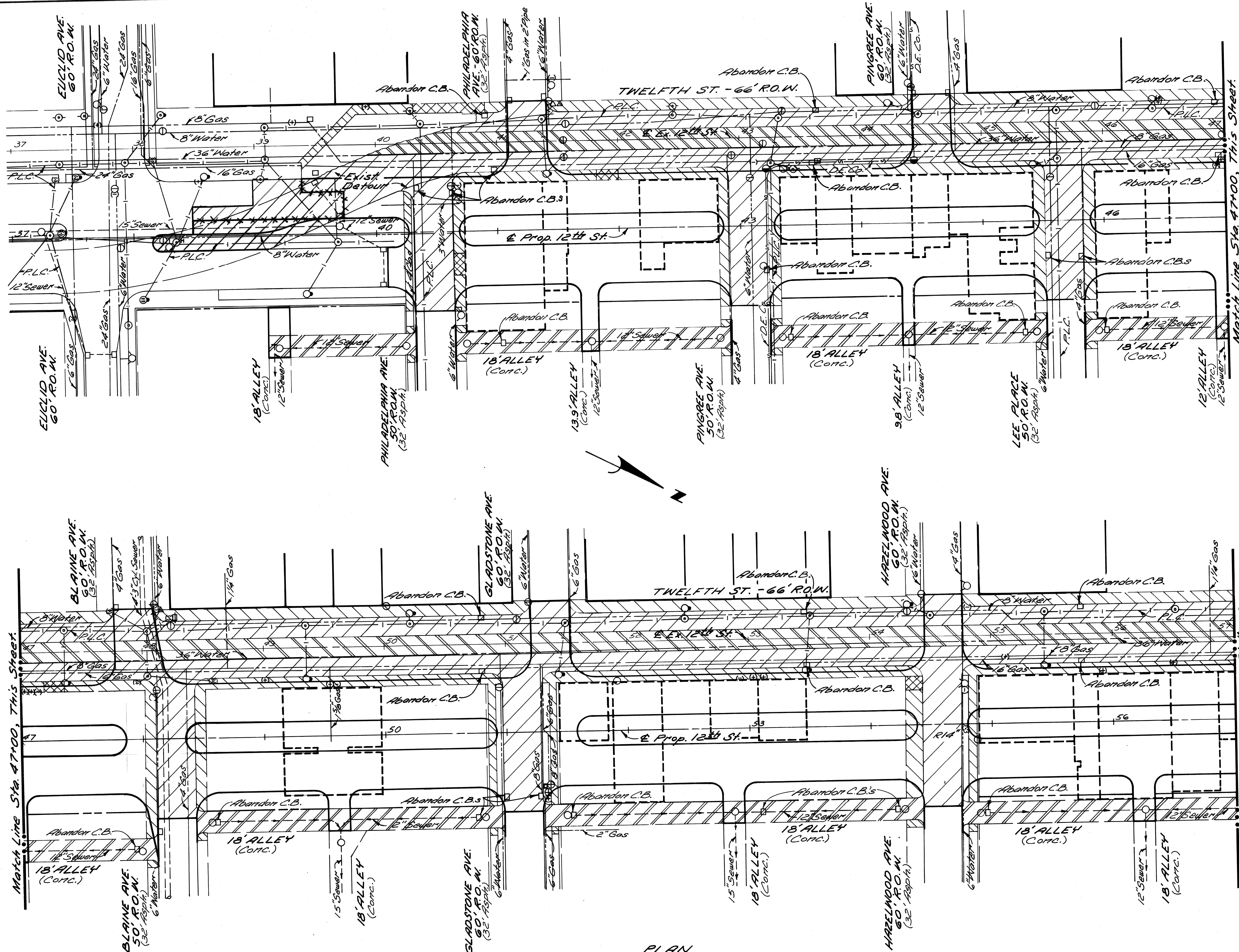
**TWELFTH STREET WIDENING**  
 EUCLID AVE. TO ATKINSON  
 CONSTRUCTION SEQUENCE

SHEET	5	OF	74	SHEETS
CONTRACT No.	P.W. 6549			
ASSIGNMENT No.	A.O. 2091			
DATE	2-18-74			



NOTE:  
For Legend, See Sh. #5.

DESIGNED BY M.A.P.		APPROVED:  ENGINEER OF EXPRESSWAYS		CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION				TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON				SHEET <u>6</u> OF <u>74</u> SHEETS	
DRAWN BY M.A.P.		CHECKED BY R.A.C.						CONSTRUCTION SEQUENCE				CONTRACT No. P.W.6549 ASSIGNMENT No. A.O.2091 DATE 2-18-74	
REVISIONS LOCATED BY COORDINATES ON SHEET													



**REMOVAL LEGEND**

Streetcar Rail and Track Base Removal	
Street Pavement Removal (Unrepaired)	
Driveway Removal	
Sidewalk Removal	
Alley Pavement Removal	
Existing Basement	
Existing Building to Remain	
Tree Removal	

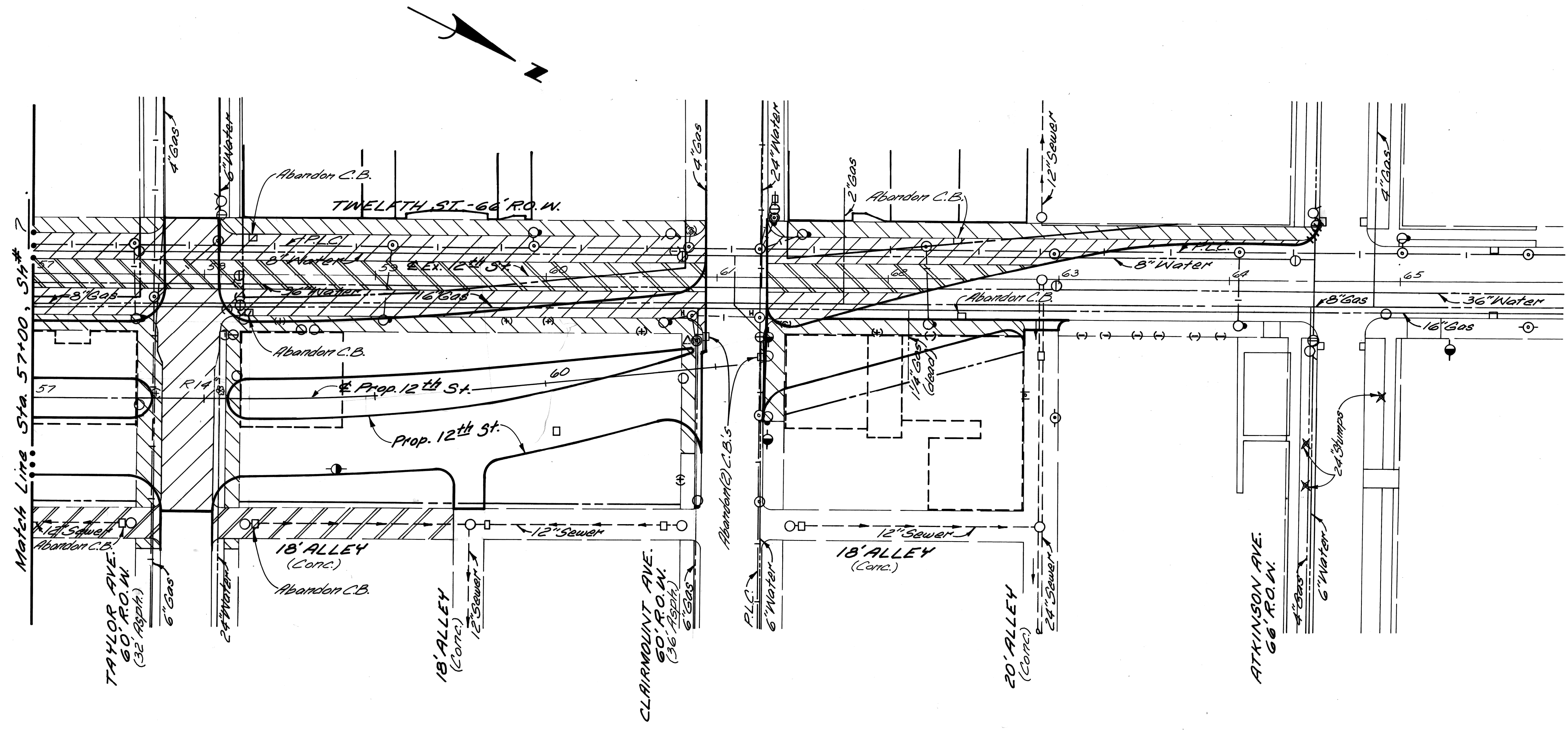
**NOTES:**

1. For Utility Legend, See Sh. No. 17.
2. The removal of trees less than 4" in dia. is incidental to the contract.

**PLAN**  
Scale: 1"=40'

REVISIONS LOCATED BY COORDINATES ON SHEET CORR'D. DESCRIPTION 38+50 to 39+75 (Additional Pav + Removal) W.B.C. 8/9/74	DESIGNED BY	APPROVED:	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON REMOVALS, EUCLID AVE. TO STA. 57 + 00	SHEET 7 OF 74 SHEETS
	DRAWN BY	Allen E. Pagen ENGINEER OF EXPRESSWAYS			CONTRACT NO. P.W. 6549 ASSIGNMENT No. A.O. 2091 DATE 2-18-74
	TRACED BY				
	CHECKED BY				

A  
B  
C  
D  
E  
F  
G



**LEGEND**

Streetcar Rail and Track Base Removal	
Street Pavement Removal (Unreinf.)	
Sidewalk Removal	
Alley Pavement Removal	
Existing Basement	
Existing Building to Remain	
Separate Type Curb Removal	

**PLAN**  
Scale: 1" = 40'

- NOTES:**
1. For Utility Legend, See St. No. 18.
  2. The removal of trees less than 4" in dia. is incidental to the contract.

REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY		J.R.D.    I.H.K.	APPROVED:  ENGINEER OF EXPRESSWAYS	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON REMOVALS, STA. 57+00 TO ATKINSON AVE.	SHEET 8 OF 74 SHEETS CONTRACT NO. PW. 6549 ASSIGNMENT NO. AO. 2091 DATE 2-18-74
REVISIONS LOCATED BY COORDINATES ON SHEET						



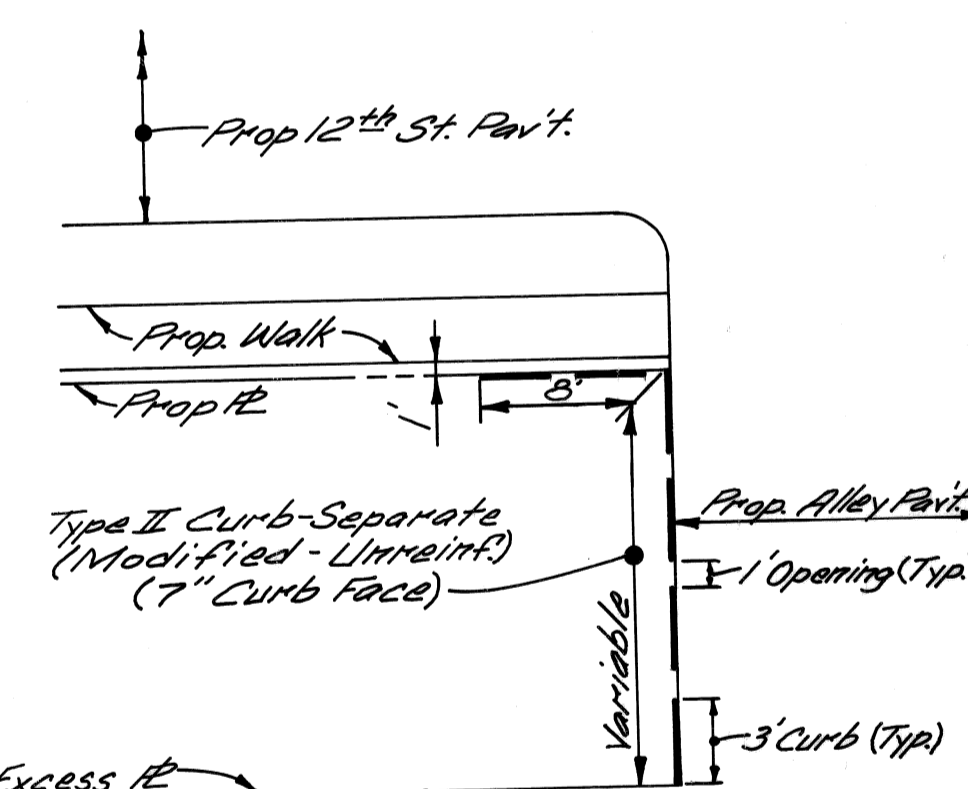
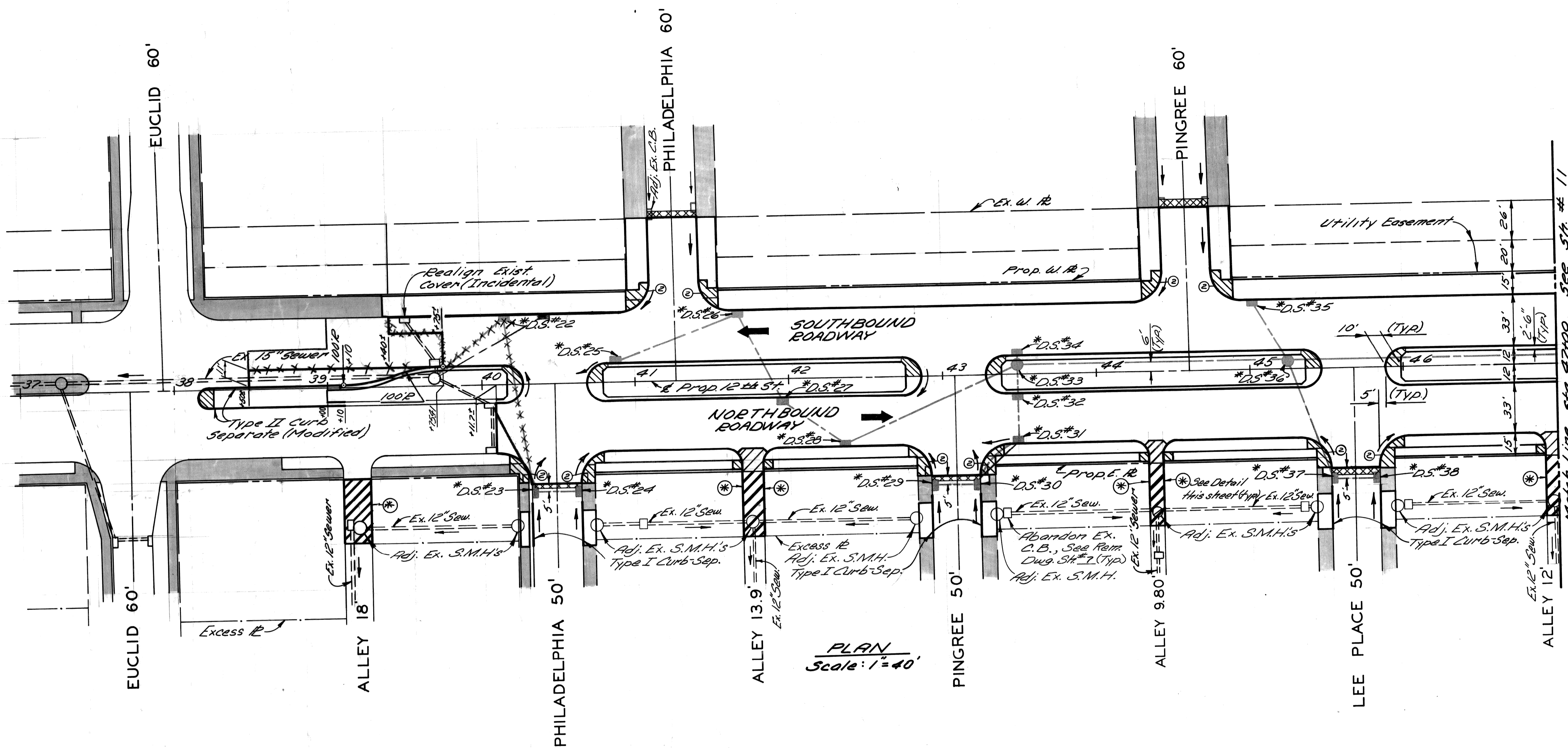
P.B.M. # 32-250 Elev. 152.80 N.E.  
Corner 12th St. at Euclid Ave.

C.B.M. Elev. 156.14 Arrow on Hydrant  
N.W. Corner 12th St. at Philadelphia.

C.B.M. Elev. 157.65 Arrow on Hydrant  
S.W. Corner 12th St. at Pingree.

**NOTES**

1. All street return radii are 20'.
2. For utility adjustments or reconstruction, See Sh. # 17.
3. For Alignment, See Sh. # 4.



PLAN  
Scale: 1" = 40'

\* D.S. refers to Drainage Structure with Sewer as shown in the table below.

DRAINAGE STRUCTURE NUMBER	TYPE OF STRUCTURE	WITH OR WITHOUT TRAP	SEW. LENGTH & TYPE LEAVING D.S.			COMMENTS
			LENGTH (F.T.)	SIZE (IN)	CLASS	
22	C.B.'B"	With	56	12	C-76/III	Sew. length includes 3' of "Sew. under Pav't."
23	C.B.'A"	Without	111	12	"	All Sewer is "Sewer under Pav't."
24	C.B.'A"	"	27	12	"	"
25	C.B.'A"	"	83	12	"	"
26	C.B.'B"	"	61	12	"	"
27	C.B.'B"	"	44	12	"	"
28	C.B.'B"	With	120	12	"	All Sewer is "Sewer under Pav't."
29	C.B.'A"	Without	27	12	"	Sew. length includes 3' of Sewer under Pav't."
30	C.B.'B"	"	34	12	"	"
31	C.B.'B"	"	27	12	"	"
32	C.B.'B"	With	15	12	"	"
33	M.H.-Drop	Without	122	18	"	"
34	C.B.'B"	With	3	12	"	"
35	C.B.'B"	"	41	12	"	"
36	M.H.-Drop	Without	123	18	"	Sew. length includes 3' of Sewer under Pav't."
37	C.B.'B"	With	79	12	"	All Sewer is "Sewer under Pav't."
38	C.B.'A"	Without	27	12	"	"

⊕ Consists of 18" Sewer to Match Line only.

**LEGEND**

- Strip & Adjust Asphalt Surface.
- Conc. Pav't - 9" Unif. (Non. Reinf.).
- Sidewalk - 6" (Sloak Ramp areas are paid for Separately)
- Exist. Sidewalk or Driveway to Remain.
- Conc. Pav't - 9" Unif. (Reinf.) with Type III Curb. Integral (Reinf.).
- Conc. Pav't - 8" Unif. (Non. Reinf.).
- Sidewalk Ramps - 6", Types 1, 2 or 3

**DETAIL OF CURB ALONG ALLEYS**  
NO SCALE

As Built	D.S. #23 Drains to Ex. C.B.	M.S.W.B.	8/17/77
As Built	D.S. #22 Moves 27' North	M.S.W.B.	8/17/77
As Built	Extra Paving - Southbound Roadway	W.B.C.	8/17/77
	Sta. 39+50 to 39+75		

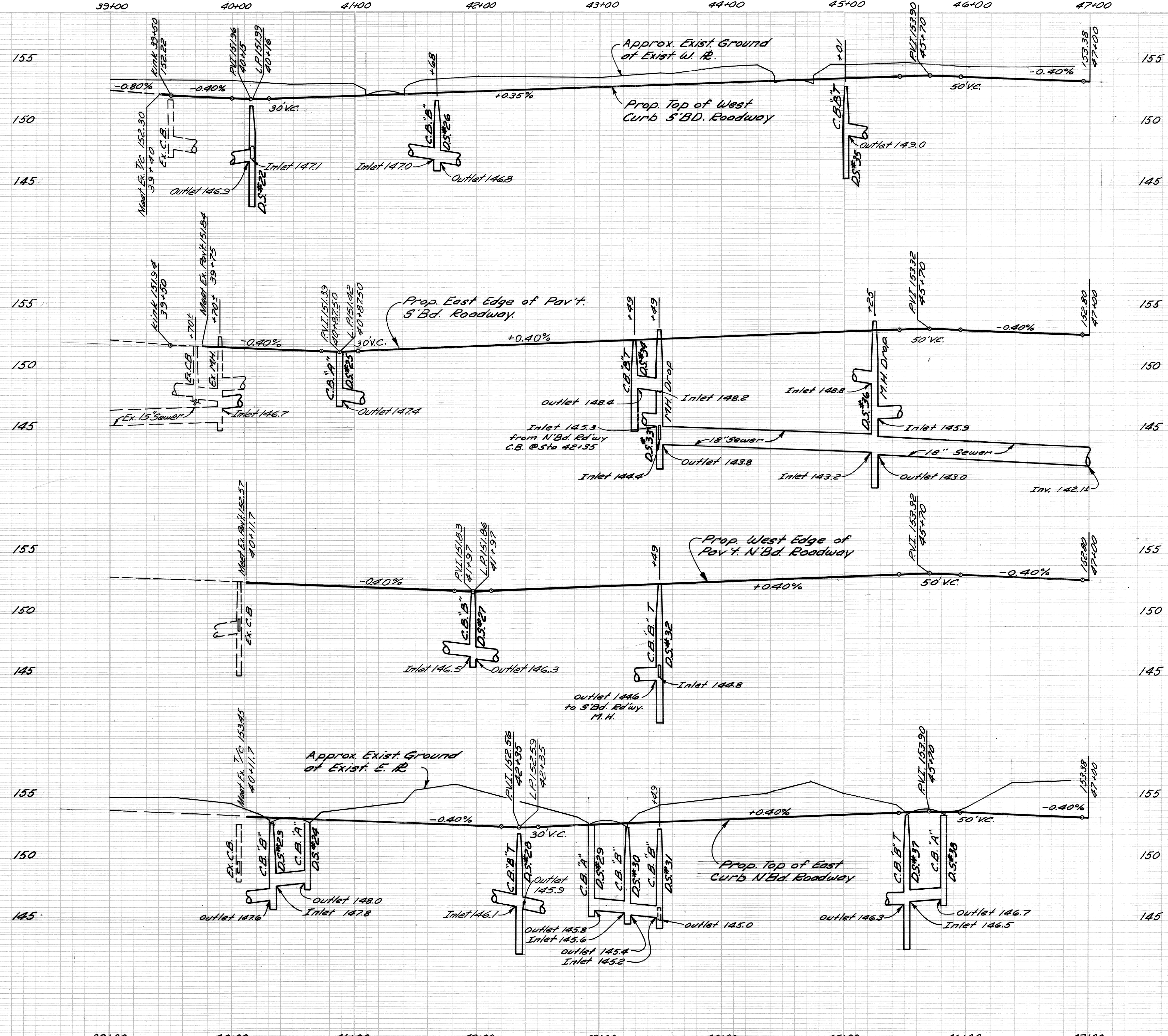
DESIGNED BY	M.S.	APPROVED	<i>Alan E. Proger</i> ENGINEER OF EXPRESSWAYS
DRAWN BY	M.S.	CHECKED BY	R.A.C.
TRACED BY			

**CITY OF DETROIT**  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
EUCLID AVE. TO ATKINSON  
PLAN, EUCLID AVE. TO STA. 47+00

SHEET	9	OF	14	SHEETS
CONTRACT No.	P.W. 6549			
ASSIGNMENT No.	A.O. 2091			
DATE	2-18-74			

FINAL R.O.W.



DESIGNED BY	
DRAWN BY	M.S.
TRACED BY	
CHECKED BY	R.B.P.

APPROVED:  
*Allen E. Rogan*  
 ENGINEER OF EXPRESSWAYS

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 FOR  
 COMMUNITY DEVELOPMENT COMMISSION

TWELETH STREET WIDENING  
 EUCLID AVE. TO ATKINSON  
 PROFILES EUCLID AVE. TO STA. 47+00

SHEET	10	OF	74	SHEETS
CONTRACT NO.	P.W. 6549			
ASSIGNMENT NO.	A.O. 2091			
DATE	2-18-74			

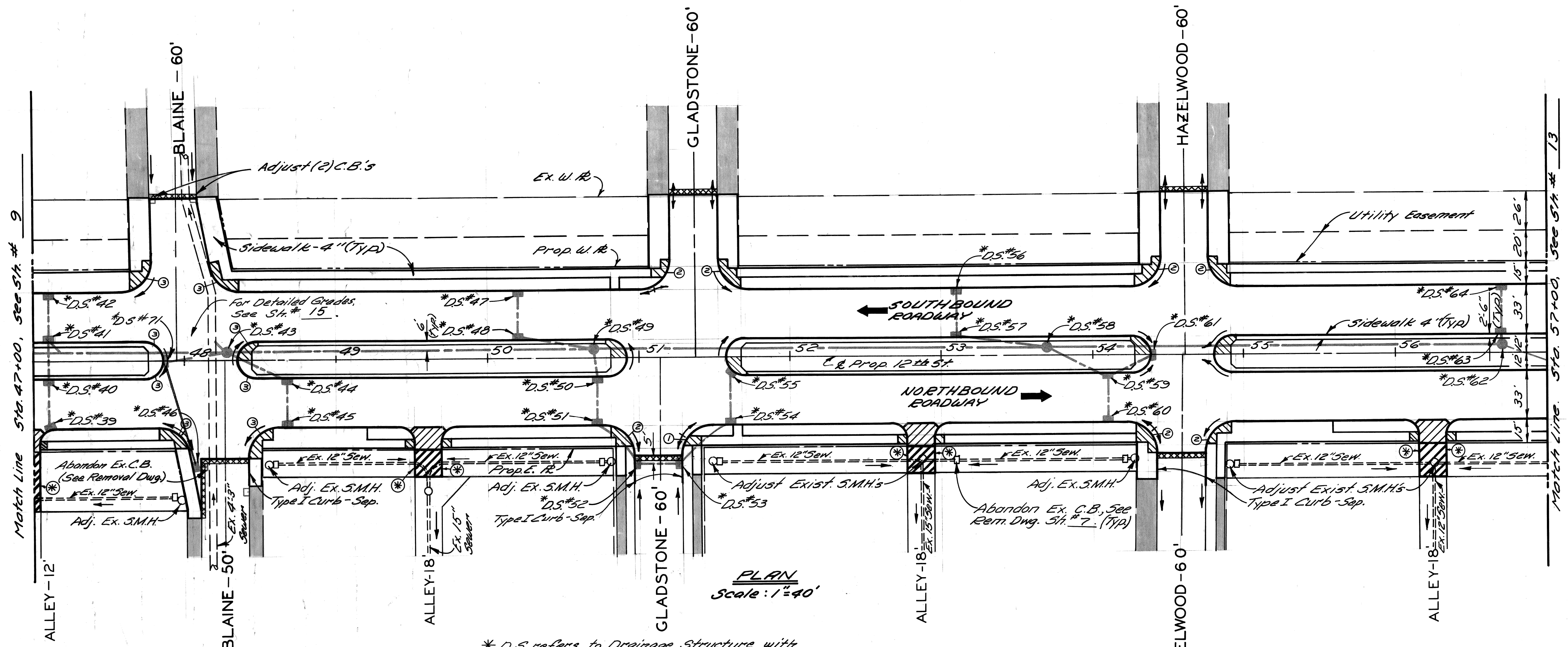
C.B.M. #12 Elev. 157.35 Arrow on Hydrant  
N.W. Corner Twelfth St. at Blaine Ave.

C.B.M. #13 Elev. 156.92 Arrow on Hydrant  
S.W. Corner Twelfth St. at Gladstone Ave.

C.B.M. #14 Elev. 156.88 Arrow on Hydrant  
N.W. Corner Twelfth St. at Hazelwood Ave.

NOTES

1. All Street Return Radii are 20'
2. For Utility adjustments or reconstructions, see Sh.# 17
3. For Alignment, see Sh.# 4.



PLAN  
Scale: 1"=40'

\* D.S. refers to Drainage Structure with Sewer as shown in the table below.

⊗ See Curb Detail, Sh.# 9.

DRAINAGE STRUCTURE NUMBER	TYPE OF STRUCTURE	WITH OR WITHOUT TRAP	SEW. LENGTH & TYPE LEAVING D.S.			COMMENTS
			LENGTH (FT.)	SIZE (IN.)	CLASS	
39	CB'A"	Without	28	12	C-76-III	
40	CB'B"	"	22	12	"	
41	CB'B"	With	10	12	"	
42	CB'A"	Without	28	12	"	
43	M.H.-Drop	"	126	10	18/24 C-76-III	126' of 18" Sewer from match line to D.S.#43.
44	CB'B"	With	40	12	C-76-III	
45	CB'A"	Without	28	12	"	
46	CB'A"	With	3	12	"	
47	CB'A"	Without	28	12	"	
48	CB'B"	With	46	12	"	
49	M.H.-Drop	Without	238	21	C-76-III	
50	CB'B"	With	15	12	C-76-III	
51	CB'B"	Without	27	12	"	
52	CB'B"	"	34	12	"	Sew. length includes 3' of Sew. Under Pav't
53	CB'B"	"	26	12	"	All Sewer is Sewer-Under Pav't
54	CB'B"	"	38	12	"	
55	CB'A"	"	31	12	"	
56	CB'A"	"	28	12	"	
57	CB'B"	With	56	12	"	
58	M.H.-Drop	Without	296	18	"	
59	CB'B"	With	39	12	"	
60	CB'A"	Without	28	12	"	
61	CB'A"	"	28	12	"	
62	M.H.-Drop	"	296	29	15/12	29' of 12" Sewer from match line to D.S.#62.
63	CB'B"	With	3	12	"	
64	CB'A"	Without	28	12	"	
71	CB'B"	With	38	12	"	

LEGEND

- Strip & Adjust Asphalt Surface
- Conc. Pav't - 9" Unif. (Non-Reinf.)
- Sidewalk - 6" (Sloak Ramp areas are paid for Separately)
- Exist. Sidewalk or Driveway to Remain.
- Conc. Pav't - 9" Unif. (Reinf.) with Type III curb. Integral (Reinf.)
- Conc. Pav't - 8" Unif. (Non-Reinf.)
- Sidewalk Ramps (4' or 6') - Types 1, 2 or 3.

<p>As Built D.S.#16 Drains to D.S.#71 MS, WP, 8/1/77</p>	<p>DESIGNED BY <b>M. S.</b></p> <p>TRACED BY</p> <p>CHECKED BY <b>R.A.C.</b></p>	<p>APPROVED: <i>Allen E. Progan</i> ENGINEER OF EXPRESSWAYS</p>	<p><b>CITY OF DETROIT</b> DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR <b>COMMUNITY DEVELOPMENT COMMISSION</b></p>	<p><b>TWELFTH STREET WIDENING</b> EULID AVE. TO ATKINSON PLAN, STA. 47+00 TO STA. 57+00</p>	<p>SHEET <b>11</b> OF <b>74</b> SHEETS</p> <p>CONTRACT No. <b>P.W. 6549</b></p> <p>ASSIGNMENT No. <b>A.O. 2091</b></p> <p>DATE <b>2-18-74</b></p>
--	--	---	--	---	---



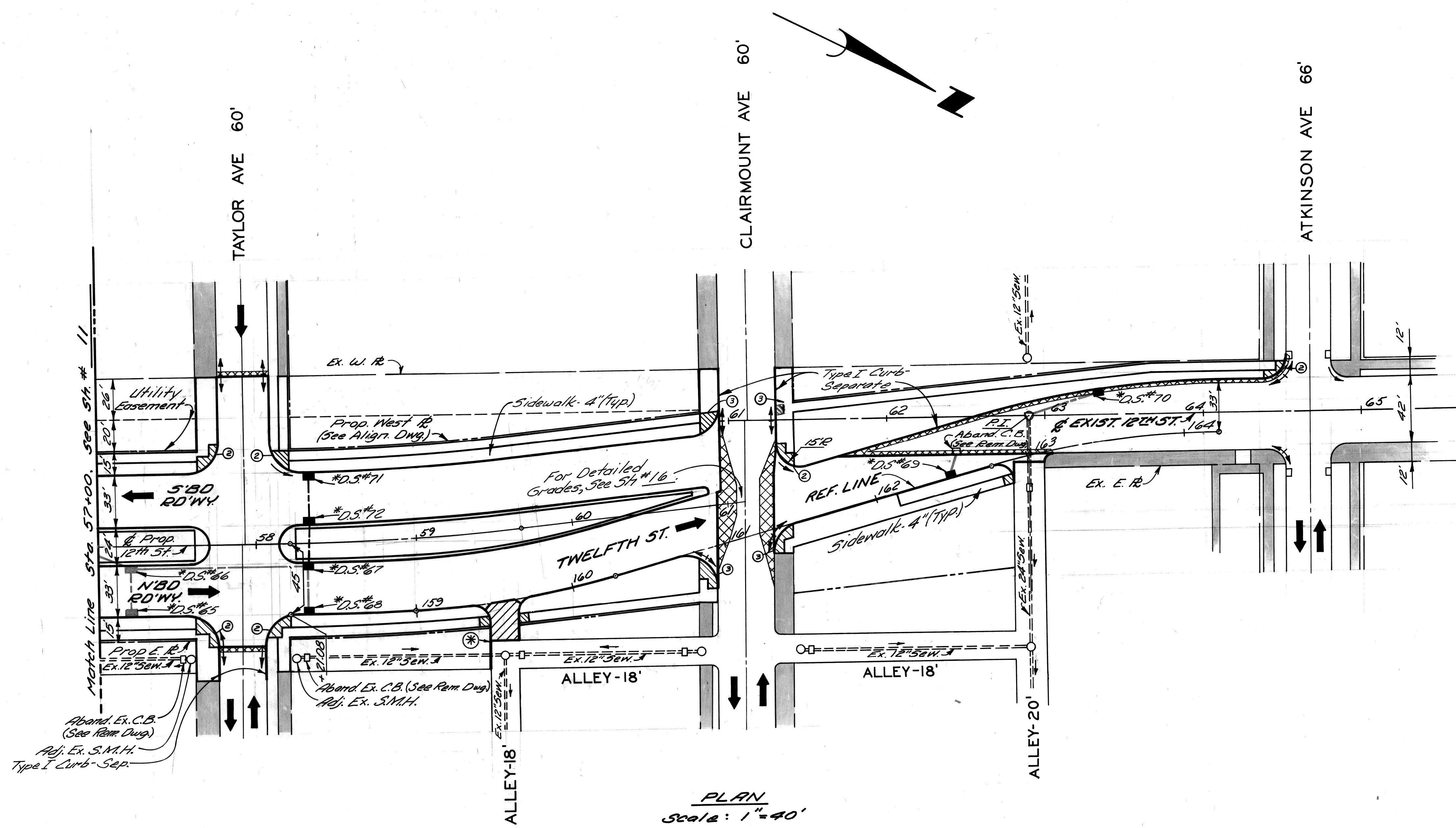
C.B.M. #15 Elev. 156.48 Arrow on Hydrant  
N.W. Corner Twelfth St. at Taylor Ave.

C.B.M. #16 Elev. 157.50 Arrow on Hydrant  
S.W. Corner Twelfth St. at Clairmount Ave.

P.B.M. #32-251, Elev. 154.99 N.E.  
Corner Twelfth St. at Atkinson Ave.

**LEGEND**

- Strip and Adjust Asphalt Surface
- Concrete Pavement, 9" Uniform (Non-Reinforced)
- Sidewalk - 6" (Slovak Ramp areas are paid for Separately)
- Existing Sidewalk or Driveway to Remain
- Concrete Pavement, 9" Uniform (Reinforced) with Type III Curb Integral (Reinforced)
- ① ② ③ Sidewalk Ramps (4" or 6") - Types 1, 2 or 3.



PLAN  
Scale: 1"=40'

**NOTES:**

1. All proposed street return radii are 20' unless otherwise noted.
2. For utility adjustments or reconstruction, see Sh. #18.
3. For Alignment, see Sh. #4.

\* See Detail, Sh. #9.

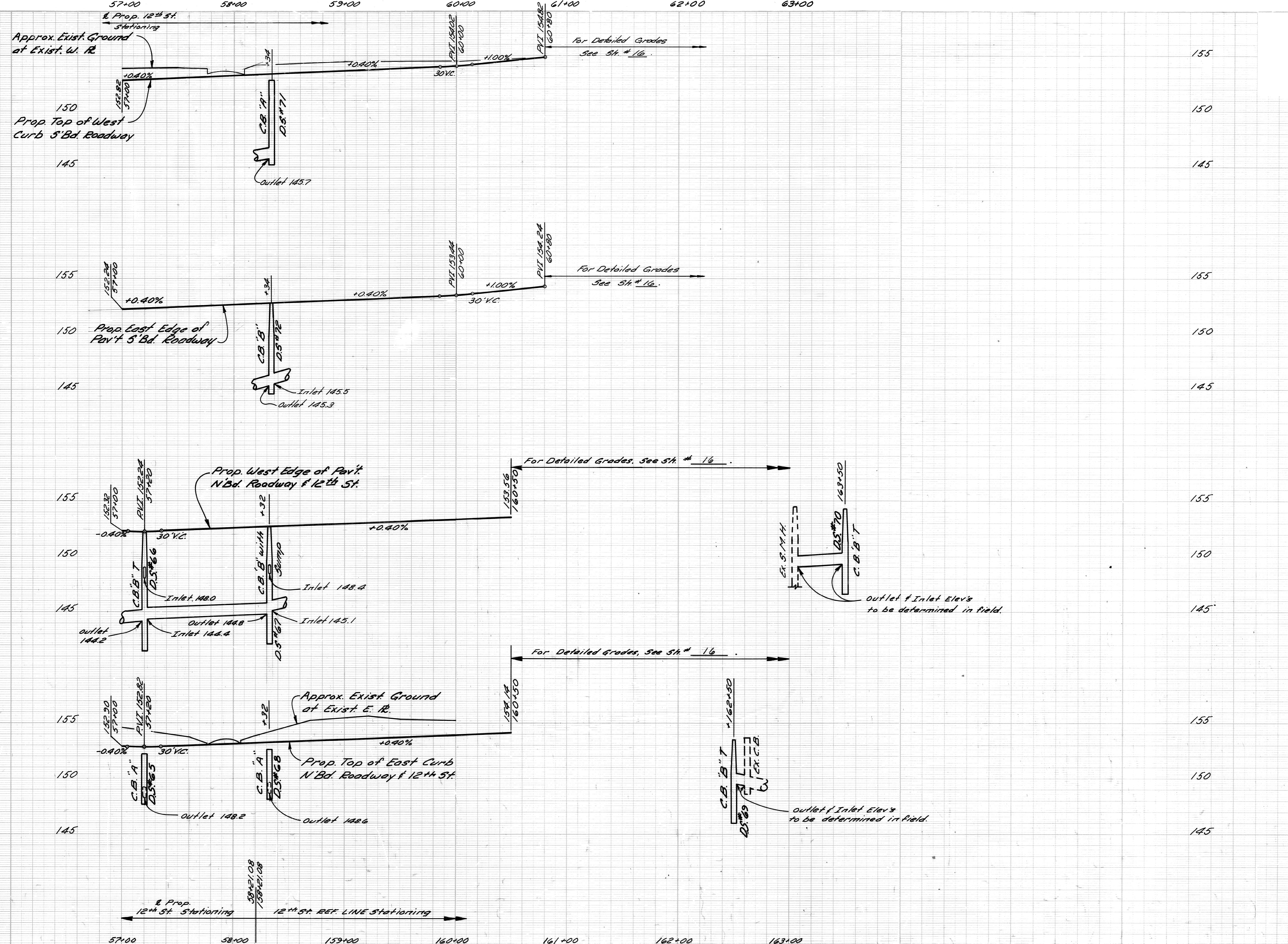
\* D.S. refers to Drainage Structure with Sewer as shown in the table below.

DRAINAGE STRUCTURE NUMBER	TYPE OF STRUCTURE	WITH OR WITHOUT TRAP	SEW. LENGTH & TYPE LEAVING D.S.			COMMENTS
			LENGTH (F.T.)	SIZE (IN)	CLASS	
65	C.B.'A"	Without	28	12	C-76-III	
66	C.B.'B"	With	20	12	"	
67	C.B.'B"	Without	108	12	"	With Sump
68	C.B.'A"	"	28	12	"	
69	C.B.'B"	With	12	12	"	
70	C.B.'B"	"	43	12	"	All Sewer is Sewer Under Pav't.
71	C.B.'A"	Without	28	12	"	
72	C.B.'B"	"	22	12	"	

⊕ Consists of 12" Sewer to Match Line only

<p>03.05 Add 5'bd 12th Edwy between Taylor &amp; Clairmount</p> <p>DESIGNER: M.S. (M.S. 5/22/74)</p> <p>DATE: 5/22/74</p>	<p>DESIGNED BY: M.S.</p> <p>DRAWN BY: M.S.</p> <p>TRACED BY:</p> <p>CHECKED BY: R.A.C.</p>	<p>APPROVED: <i>Allen J. Prosser</i></p> <p>ENGINEER OF EXPRESSWAYS</p>	<p><b>CITY OF DETROIT</b></p> <p>DEPARTMENT OF PUBLIC WORKS</p> <p>CITY ENGINEERS OFFICE</p> <p>FOR</p> <p><b>COMMUNITY DEVELOPMENT COMMISSION</b></p>	<p><b>TWELFTH STREET WIDENING</b></p> <p>EUCLID AVE. TO ATKINSON</p> <p>PLAN, STA. 57+00 TO ATKINSON</p>	<p>SHEET 13 OF 74 SHEETS</p> <p>CONTRACT No. P.W.6549</p> <p>ASSIGNMENT No. A.O.2091</p> <p>DATE 2-18-74</p>
---	--	---	--	--	--

FINAL R.O.W.



DESIGNED BY	
DRAWN BY	M.S.
TRACED BY	
CHECKED BY	R.A.C.

APPROVED  
*Allen E. Propp*  
 ENGINEER OF EXPRESSWAYS

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 FOR  
 COMMUNITY DEVELOPMENT COMMISSION

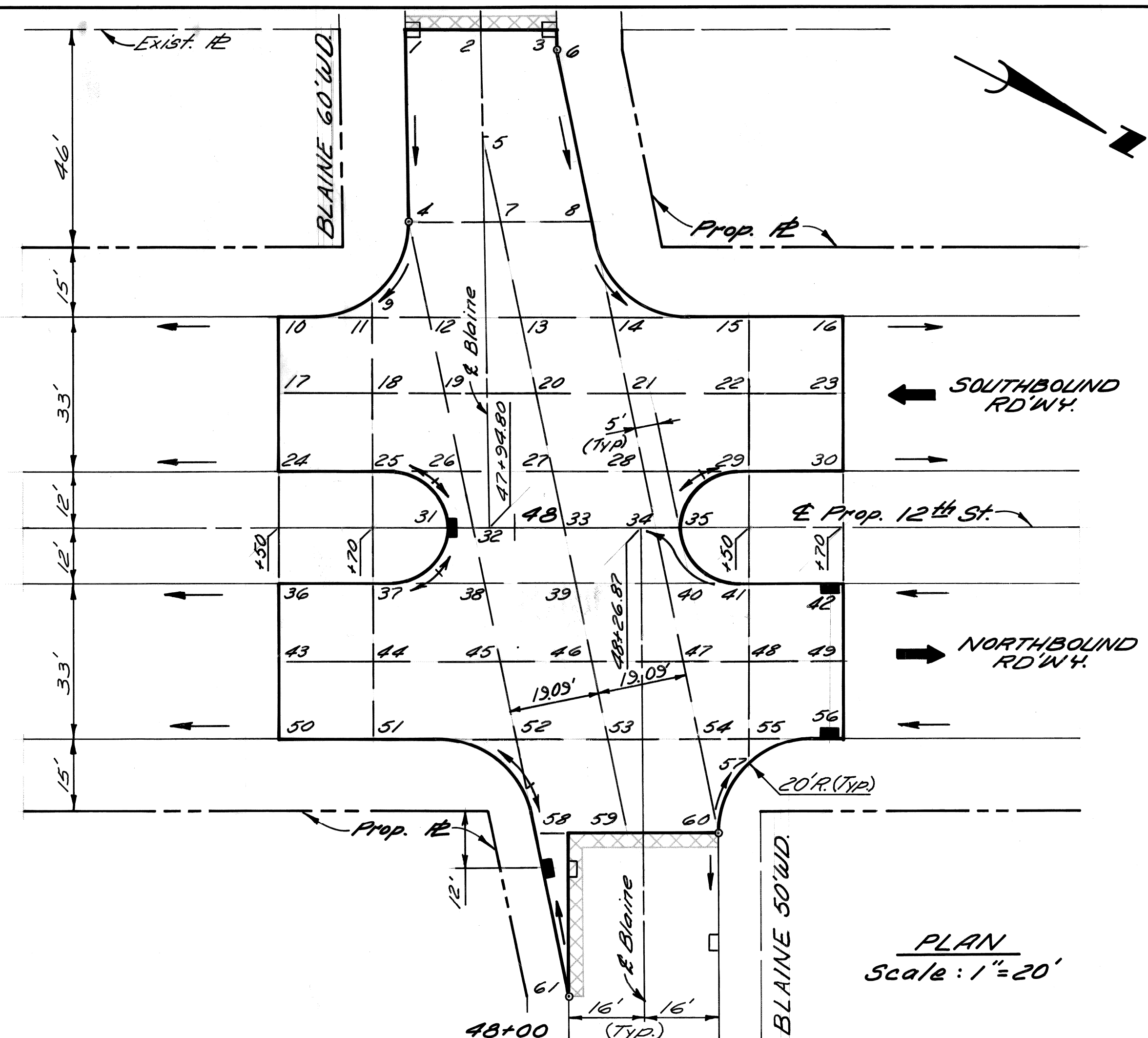
TWELTH STREET WIDENING  
 EUCLID AVE TO ATKINSON  
 PROFILES STA. 57+00 TO ATKINSON

SHEET 14 OF 74 SHEETS
CONTRACT No. PW. 6549
ASSIGNMENT NO. A.O. 2091
DATE 2-18-74

SCALE	HORIZONTAL	BOOK NO.	LEVEL	REMARKS: BEFORE STARTING CONSTRUCTION, CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.
	VERTICAL	PG.	DATE	

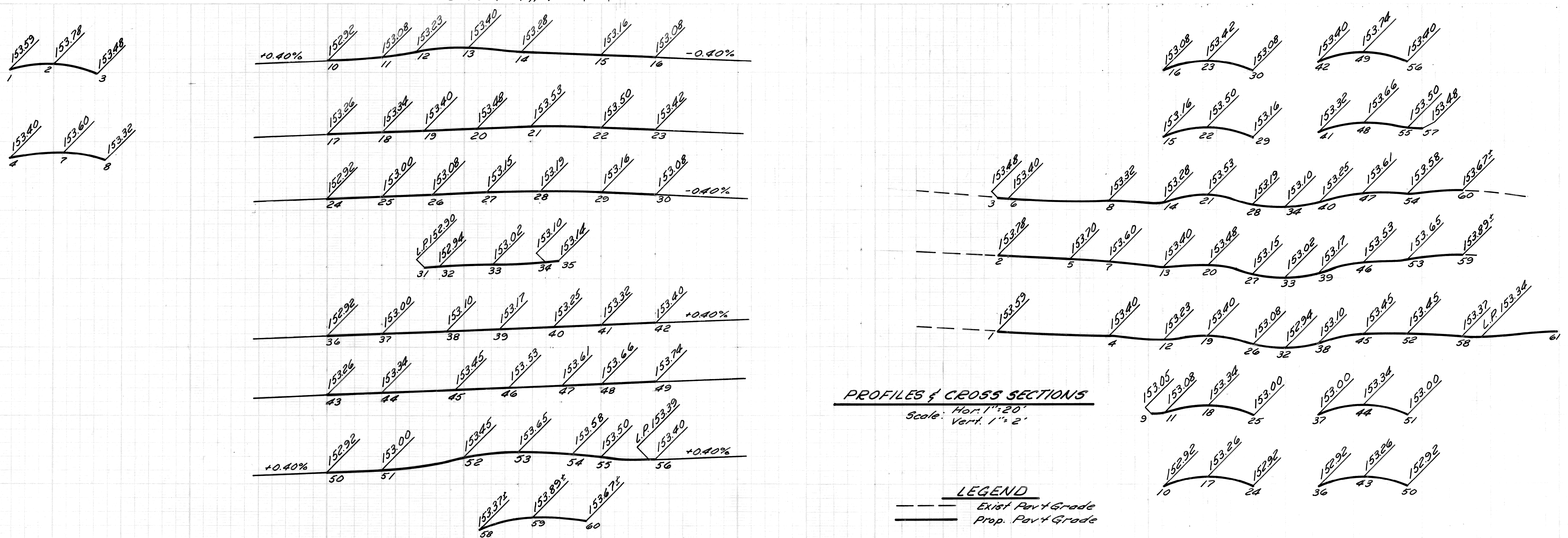
NOTE - FOR SYMBOLS (A) ETC. SEE STANDARD DETAIL DRAWING NO. C-437E

BENCH MARKS ELEV.



**LEGEND**  
Strip & Adjust Asphalt Surface

**PLAN**  
Scale: 1" = 20'



**PROFILES & CROSS SECTIONS**  
Scale: Hor. 1" = 20'  
Vert. 1" = 2'

**LEGEND**  
--- Exist. Pavt. Grade  
— Prop. Pavt. Grade

PLAN	BY M.S.	CHECKED BY R.A.C.	APPROVED: <i>Allen E. Payne</i>
GRADE	BY M.S.	CHECKED BY R.A.C.	ENGINEER OF EXPRESSWAYS
ESTIMATE			
REVISIONS	DR	CK	AP

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

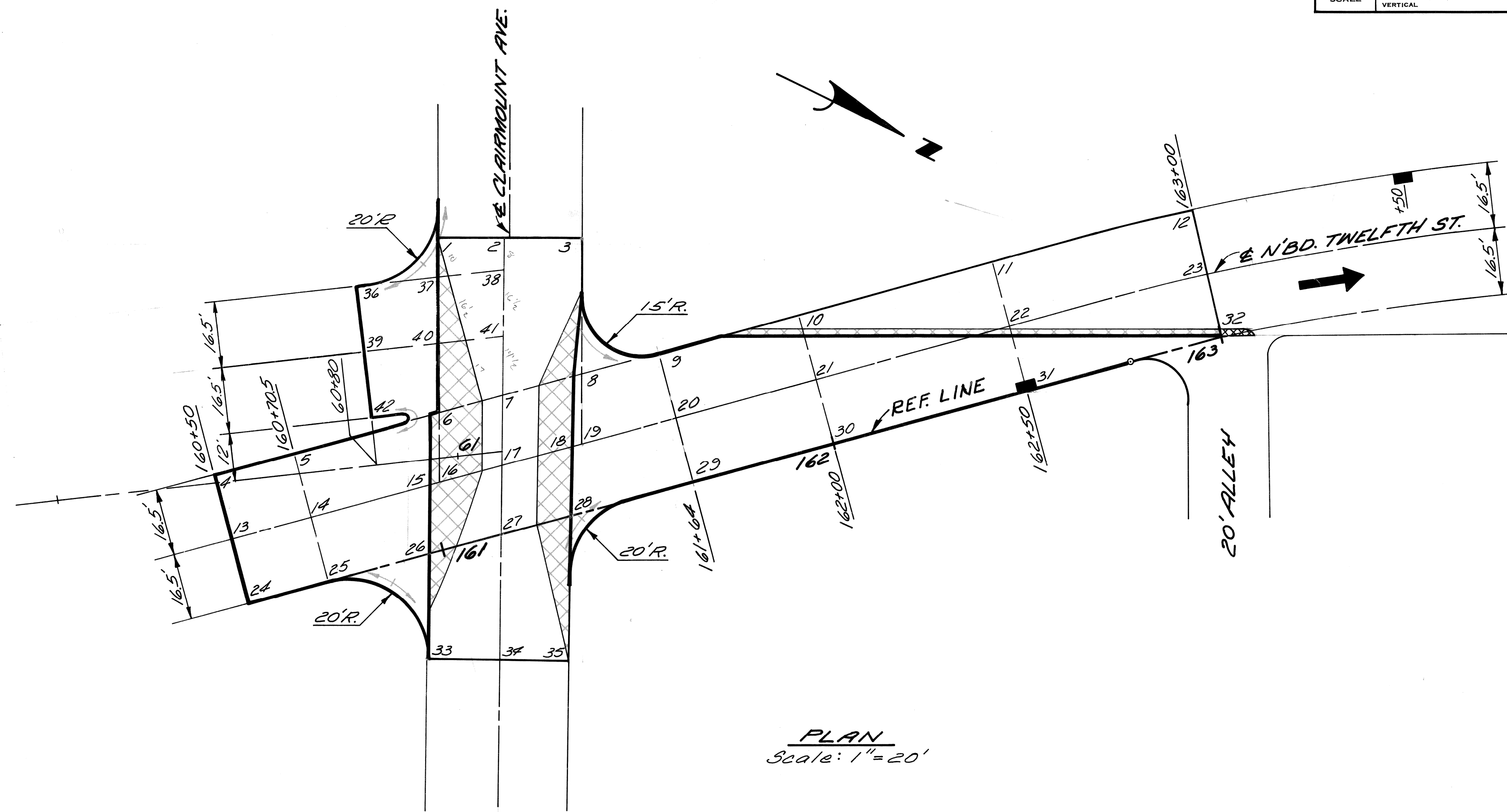
TWELFTH STREET WIDENING  
EUCLID AVE TO ATKINSON  
DETAILED GRADES FOR TWELFTH ST. AT BLAINE AVE.

INDEX NO.	SHEET 15 OF 74 SHEETS
CONTRACT NO.	P.W. 6549
ASSIGNMENT NO.	AO. 2091
DATE	2-18-74

SCALE	HORIZONTAL	VERTICAL	BOOK NO.	PG.	LEVEL	DATE	BEFORE STARTING CONSTRUCTION... CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.
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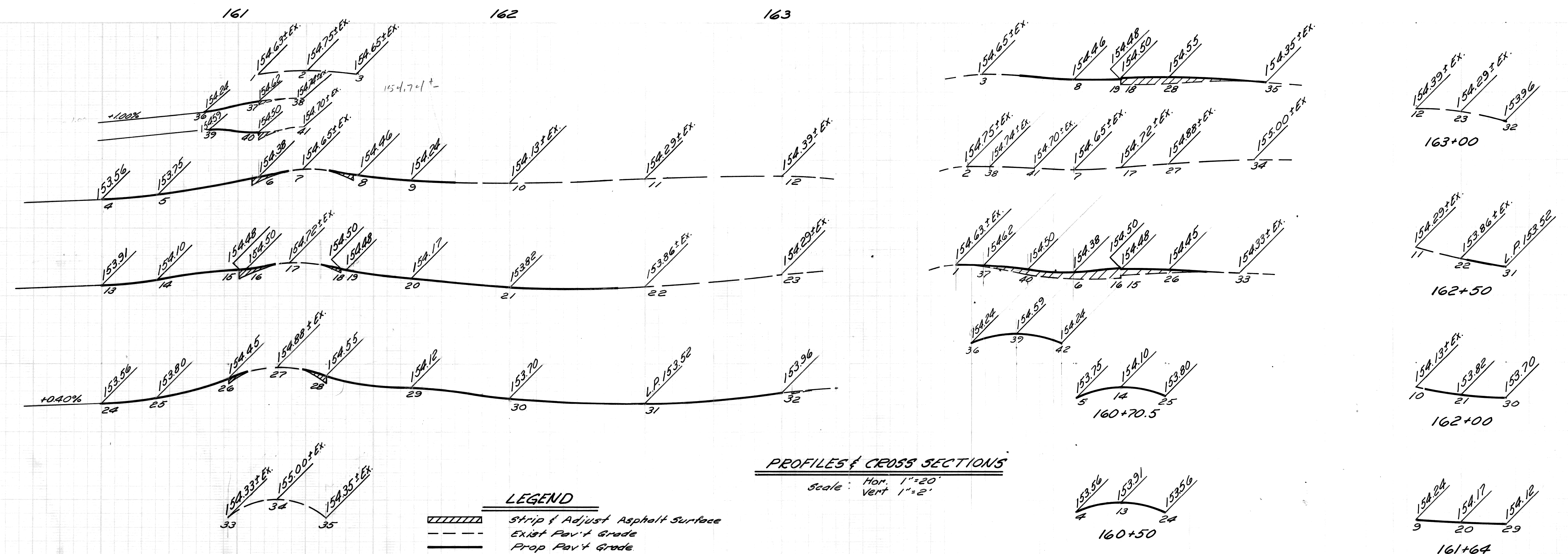
NOTE - FOR SYMBOLS (A) ETC. SEE STANDARD DETAIL DRAWING NO. C-437E

BENCH MARKS ELEV.



PLAN  
Scale: 1"=20'

LEGEND  
Strip & Adjust Asphalt Surface . . . . .



PROFILES & CROSS SECTIONS  
Scale: Hor. 1"=20'  
Vert 1"=2'

LEGEND  
Strip & Adjust Asphalt Surface  
Exist Pav't Grade  
Prop Pav't Grade

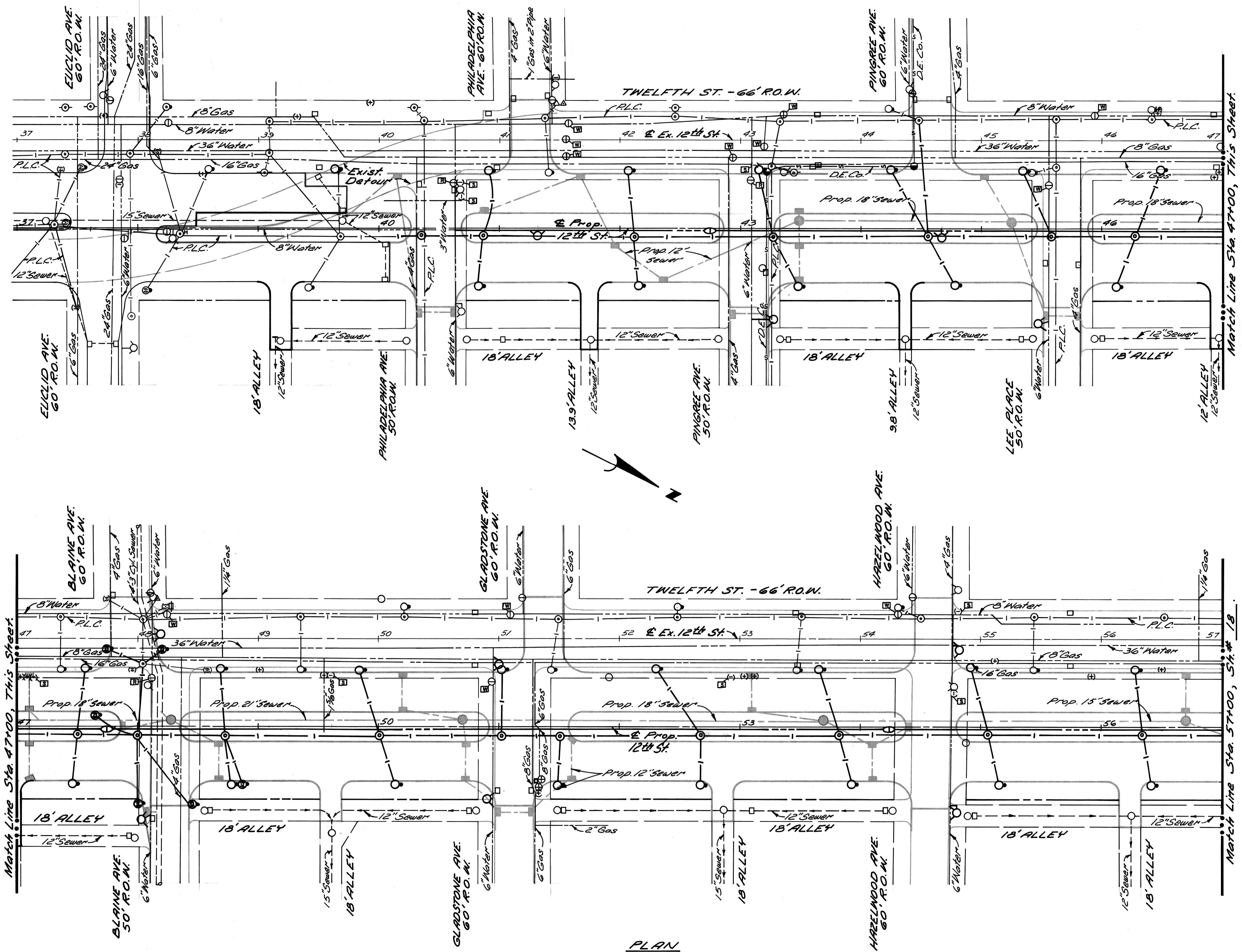
BY	CHECKED BY	APPROVED:
J.D.	R.A.C.	<i>Allen E. Progen</i>
GRADE	M.S.	R.A.C.
ESTIMATE	REVIEW	
DESCRIPTION	DATE	
REVISIONS		

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
EUCUID AVE TO ATKINSON  
DETAILED GRADES FOR TWELFTH ST. AT CLAIRMOUNT AVE.

INDEX NO.	SHEET 16 OF 74 SHEETS
CONTRACT NO.	P.W. 6549
ASSIGNMENT NO.	A.O. 2091
DATE	2-18-74





**LEGEND**  
 Stop Box - Adjustment . . . . . [S]  
 Manhole (Water) - Adjustment . . . . . [W]  
 Manhole (Water) - Reconstruct Core . . . . . [R]

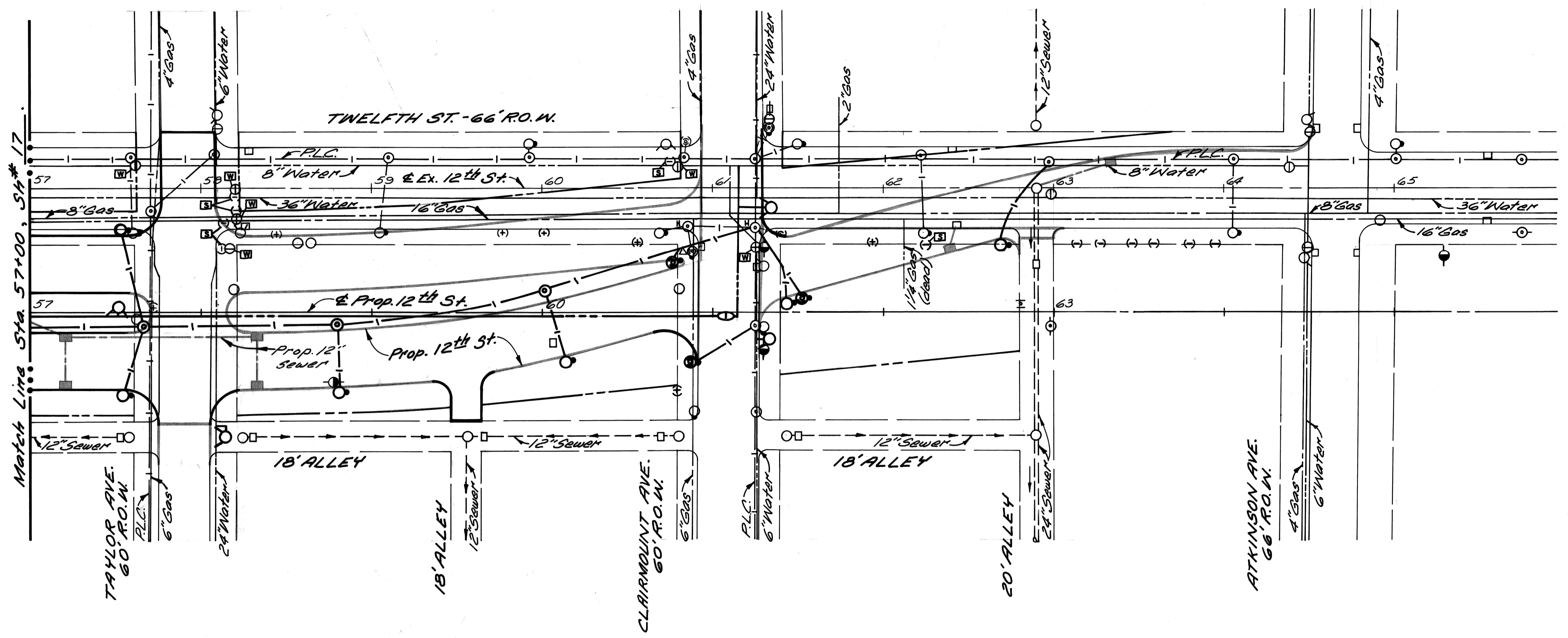
**NOTES:**  
 1. For Utility Legend, See St.# 19.

**As-Built Notes:**  
 All S.M.H. Adjusted - 20  
 Catch Basins Abandoned - 40  
 Catch Basins Adjusted - 1  
 W.G. Well Abandoned - 5  
 W.G. Well Adjusted - 9  
 W.G. Well Reconned - 5

**PLAN**  
 Scale: 1" = 40'

F-10 (Note Regarding As-Built Utility Adjustments, Etc. Added)	W.B. BC	8/77	REFERENCE DRAWINGS	DESIGNED BY	APPROVED: <i>Allen J. Rogers</i> ENGINEER OF EXPRESSWAYS	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING EUCLID AVE TO ATKINSON UTILITY, EUCLID AVE. TO STA. 57 + 00	SHEET 17 OF 74 SHEETS
	DRAWN BY J.R.D.	TRACED BY	CHECKED BY I.H.K.	REVISIONS LOCATED BY COORDINATES ON SHEET	CONTRACT No. PW. 6549 ASSIGNMENT No. AO. 2091 DATE 2-18-74			

A  
B  
C  
D  
E  
F  
G



**LEGEND**  
 Stop Box - Adjustment . . . . . [S]  
 Manhole (Water) - Adjustment . . . . . [W]

**NOTES:**  
 1. For Utility Legend, See Sh.# 19.

PLAN  
 Scale: 1" = 40'

REVISIONS LOCATED BY COORDINATES ON SHEET COORD DESCRIPTION 1 2 3 4 5 6 7 8 9 10 11		REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY	J.R.D. I.H.K.	APPROVED:  ENGINEER OF EXPRESSWAYS	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING EUCLID AVE. TO ATKINSON UTILITY, STA. 57+00 TO ATKINSON AVE.	SHEET 18 OF 74 SHEETS CONTRACT No. PW. 6549 ASSIGNMENT No. A.O. 2091 DATE 2-18-74
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COLOR	SYMBOL	DESCRIPTION
BLACK	---	PROPERTY AND LOT LINES
"	---	PROPOSED CURB LINES AND HEADERS AT RETURNS
"	---	EXISTING CURB LINES OR EDGE OF PAVEMENT
"	---	PROPOSED CURB OR PAVING ON INTERSECTING STREET
"	---	PROPOSED SEWER TO CATCH BASINS
"	---	EXISTING LATERAL SEWERS
"	---	EXISTING PUBLIC SEWERS
"	---	EXISTING GAS LINES
"	---	EXISTING WATER LINES
BLACK	---	ELEV. OF SEWER INVERT. PROPOSED C.B. M.H. & INLET SEWER
"	---	ELEV. EXISTING C.B. M.H. & INLET SEWERS
"	---	PROPOSED C.B. M.H. & INLET SEWERS ON INTERSECTING STREETS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
○	SEWER MANHOLE	#	STREET SIGN POST
○	P.L.C. HANDHOLE. ⊙ P.L.C. MANHOLE	□	CATCH BASIN
⊖	WATER MANHOLE OR GRATE	(W)	WATER METER
⊕	GAS MANHOLE OR GRATE	(-)	WATER STOP BOX
⊙	WESTERN UNION MANHOLE	(+)	GAS SHUT-OFF
⊙	MICHIGAN BELL MANHOLE	⊞	GAS DRIP
⊙	EDISON STEAM MANHOLE	□	DRAIN OR VENT
⊙	EDISON ELECTRIC MANHOLE		GUY POLE
⊙	FIRE DEPT. MANHOLE	+	MAIL BOX
⊙	POLICE DEPT. MANHOLE	⊞	AREAWAY OR COAL CHUTE
III	D.S.R. MANHOLE	⊙	FLAG POLE
○	FIRE DEPT. STANDARD HYDRANT	□	SPRINKLER BOX
○	FIRE DEPT. HIGH PRESSURE HYDRANT	⊞	DEAD MANHOLE
△	FIRE DEPT. CALL BOX	⊙	TREE
⊞	FIRE DEPT. HIGH PRESSURE MANHOLE	⊞	PLC & FD. MANHOLE FILLED WITH SAND
△	POLICE DEPT. CALL BOX		TRACK DRAIN
○	P.L.C. LIGHT POLE	+	TRAFFIC SIGN POST
○	P.L.C. POLE	⊙	TRAFFIC SIGNAL LIGHT
○	TELEPHONE POLE	⊙	TRAFFIC SIGNAL ON LIGHT POST
⊙	EDISON POLE	II	D.S.R. DANGER PLATE

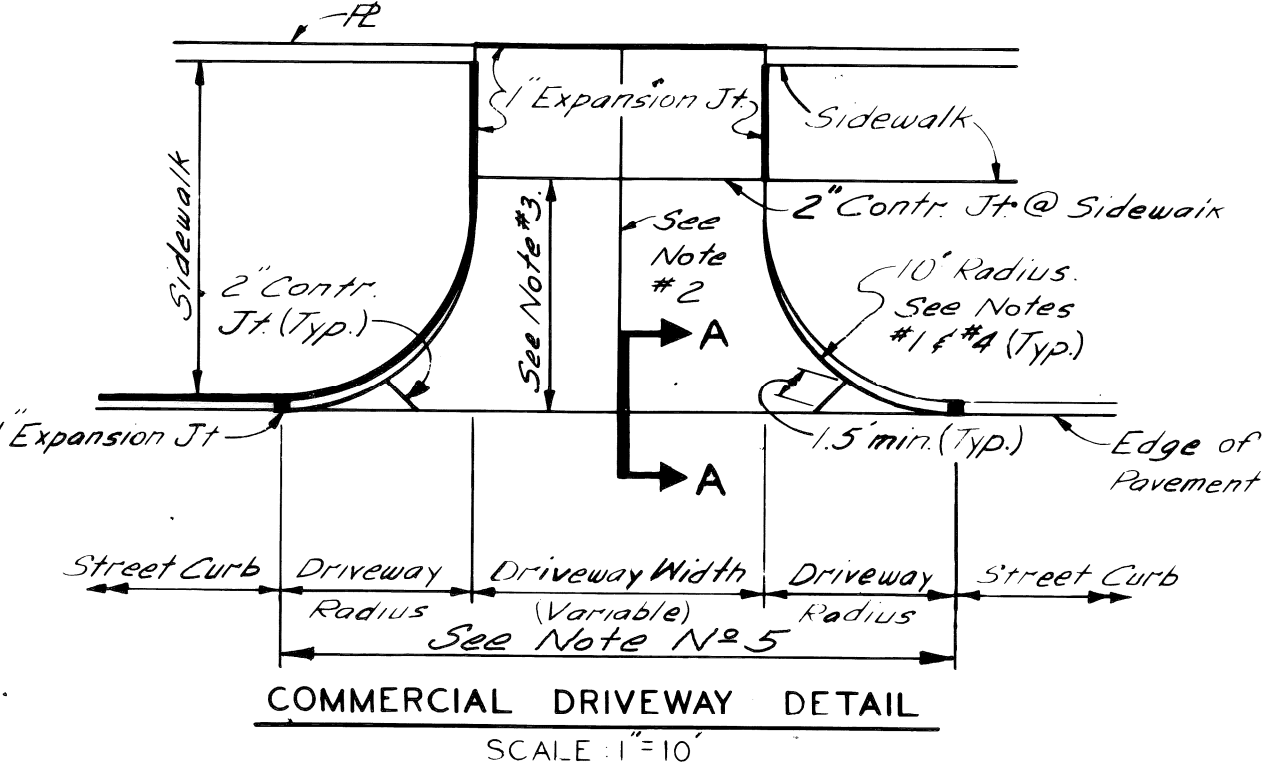
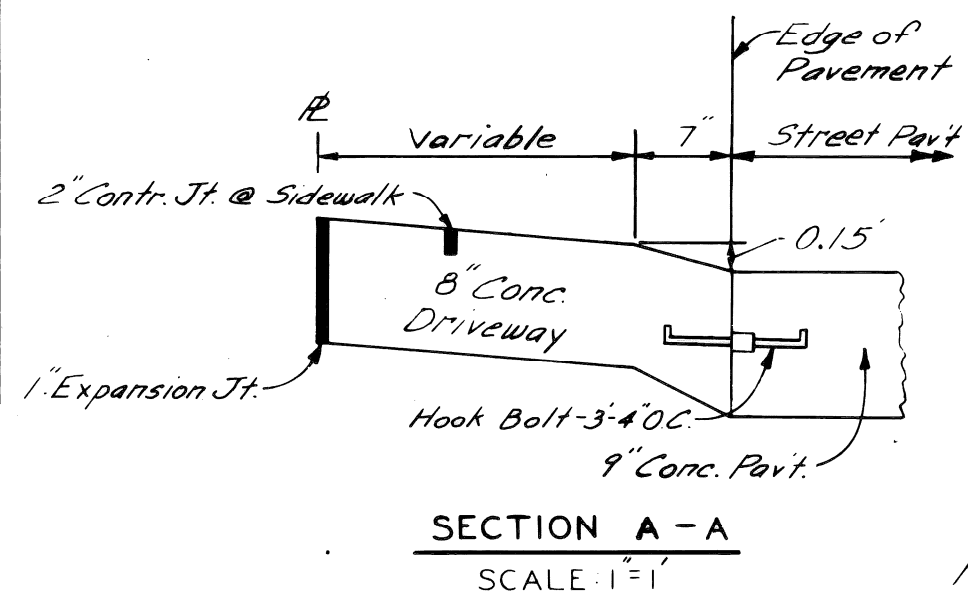
DESIGNED BY	APPROVED
T. KANDY	J. P. HICKS
TRACED BY T.K.	CITY ENGINEER
CHECKED BY M. KAWAS	CITY ENGINEER

CITY OF DETROIT  
**DEPARTMENT OF PUBLIC WORKS**  
 CITY ENGINEER'S OFFICE  
 BUREAU OF DESIGN

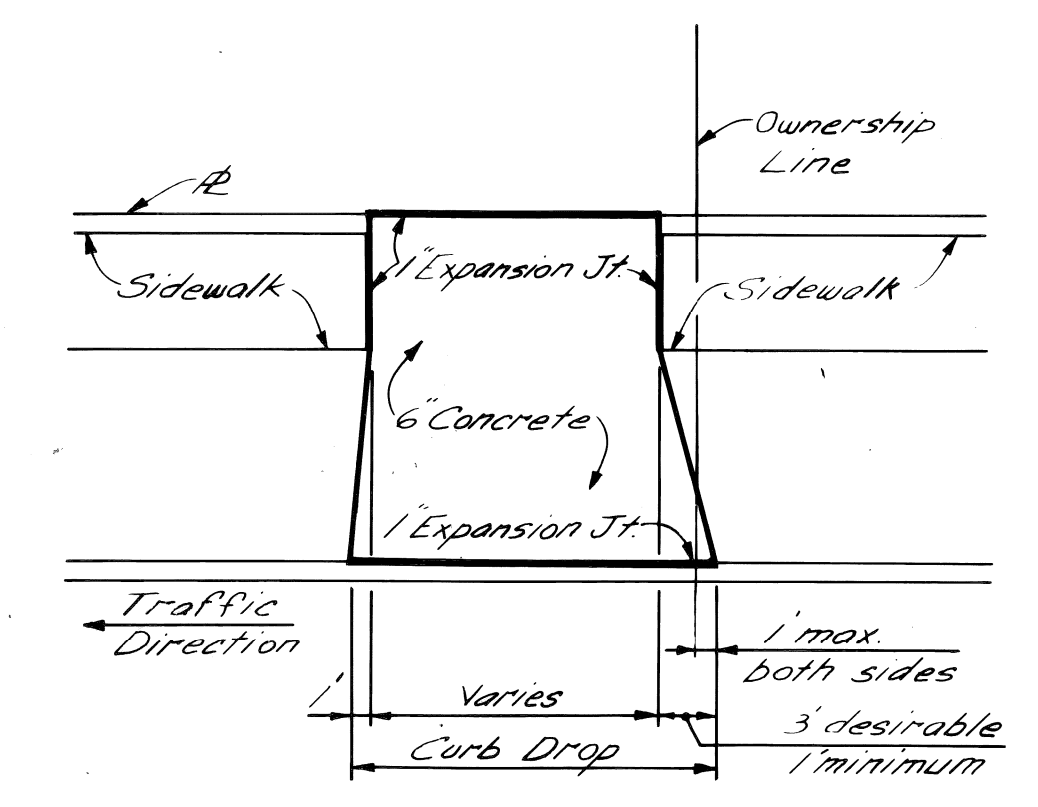
**STANDARD SYMBOLS FOR UTILITIES**

PAVING  
 DETAIL NO. 25

BOOK NO. \_\_\_\_\_ SCALE NO. SCALE \_\_\_\_\_ DWG. NO. C-902-A  
 PAGE NO. \_\_\_\_\_ DATE 10-11-59



- NOTES - COMMERCIAL DRIVEWAY**
1. Transition edge of driveway from curb at the street to no curb at the end of the driveway radius.
  2. Where driveway exceeds 15' in width, a contraction joint shall be placed longitudinally along  $\mathcal{C}$ .
  3. When distance exceeds 15', a transverse contraction joint will be required.
  4. Radius 10' unless otherwise directed by the Engineer or as shown on plans.
  5. All work and materials required to construct the driveway between the end of returns will be paid for as "Driveway" of the specified thickness.



DESCRIPTION	DATE
REVISIONS LOCATED BY COORDINATES ON SHEET	

DESIGNED BY	APPROVED
J.R.D.	Wm. Wagon
TRACED BY	ENGINEER OF EXPRESSWAYS
CHECKED BY	
RBP	

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 FOR  
 COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
 EUCLID AVE. TO ATKINSON  
 SPECIAL STANDARDS & SPECIAL DETAILS

SHEET 19 OF 74 SHEETS
CONTRACT No. PW. 6549
ASSIGNMENT No. A.O. 2091
DATE 2-18-74

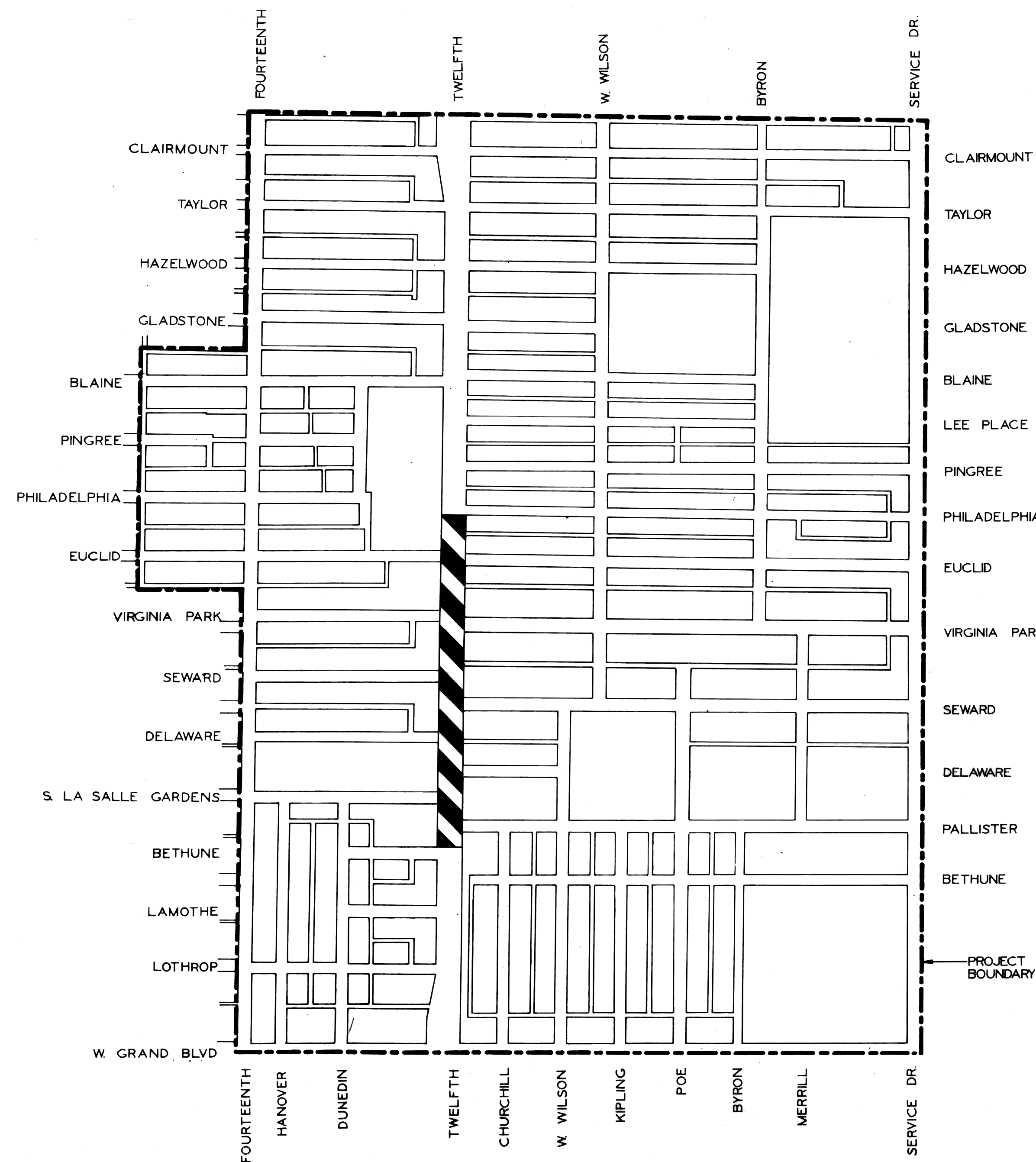


CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE

PLANS FOR PROPOSED

TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA

VIRGINIA PARK N.D.P. MICH. A-4-2  
FOR  
COMMUNITY DEVELOPMENT COMMISSION



TWELFTH

CONSTRUCTION AREA

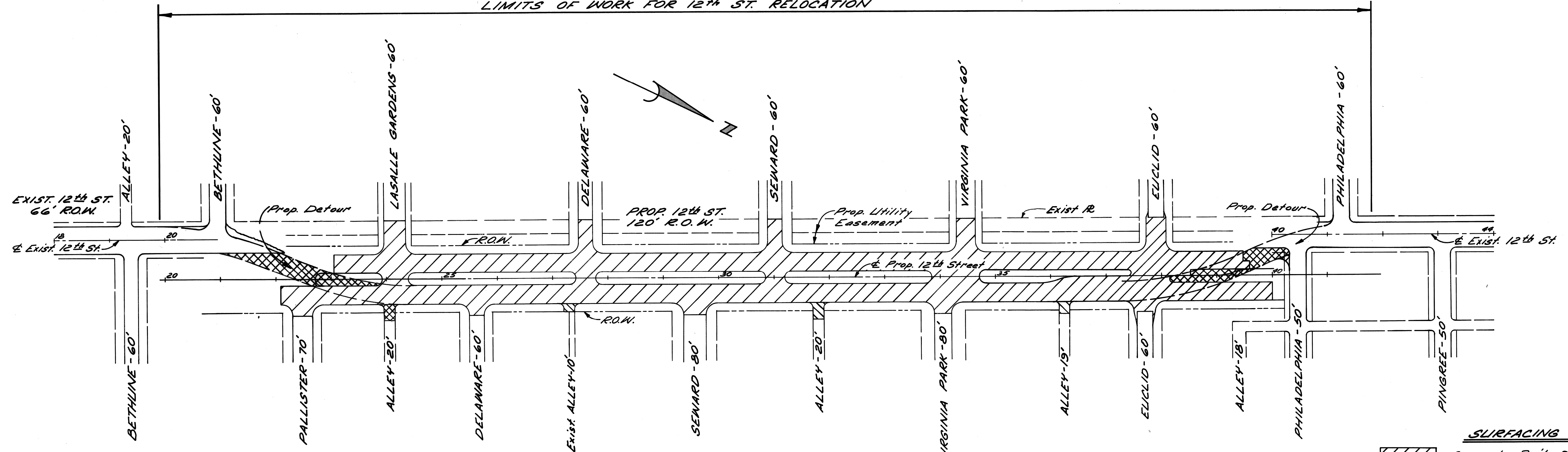
INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL PLAN
3	TYPICAL CROSS SECTIONS
4	CONSTRUCTION SEQUENCE
5	REMOVALS
6-11	PLAN AND PROFILES
12-13	DETOURS
14-15	DETAILED GRADES
16	UTILITIES
17	SPECIAL AND MISCELLANEOUS DETAILS
18	LAWN WATERING SYSTEM
19-21	LANDSCAPE DEVELOPMENT PLANS
22-23	P.L.C. ALTERATION PLANS
24-31	P.L.C. STANDARDS
32-44	WATER ALTERATIONS
45	SEWER ALTERATIONS
46	QUANTITY SHEET

<b>PROJECT</b> TWELFTH STREET WIDENING PALLISTER TO PHILADELPHIA	<b>CONTRACT NO.</b> P.W. 6519	
<b>PLANS PREPARED BY DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE</b>		
RECOMMENDED FOR APPROVAL	<i>R.C. Monahan</i> ENGINEER OF INSPECTION	11-20 DATE
RECOMMENDED FOR APPROVAL	<i>Allen E. Pogue</i> HIGHWAY ENGINEER	DATE
APPROVED	<i>R.P.H. [Signature]</i> ASSOCIATE CITY ENGINEER	12-21-72 DATE
APPROVED	<i>[Signature]</i> CITY ENGINEER	12-21-72 DATE
<b>DATE</b> JAN 31 1973	<b>DRWG. NO.</b> 1-46	

C-5257

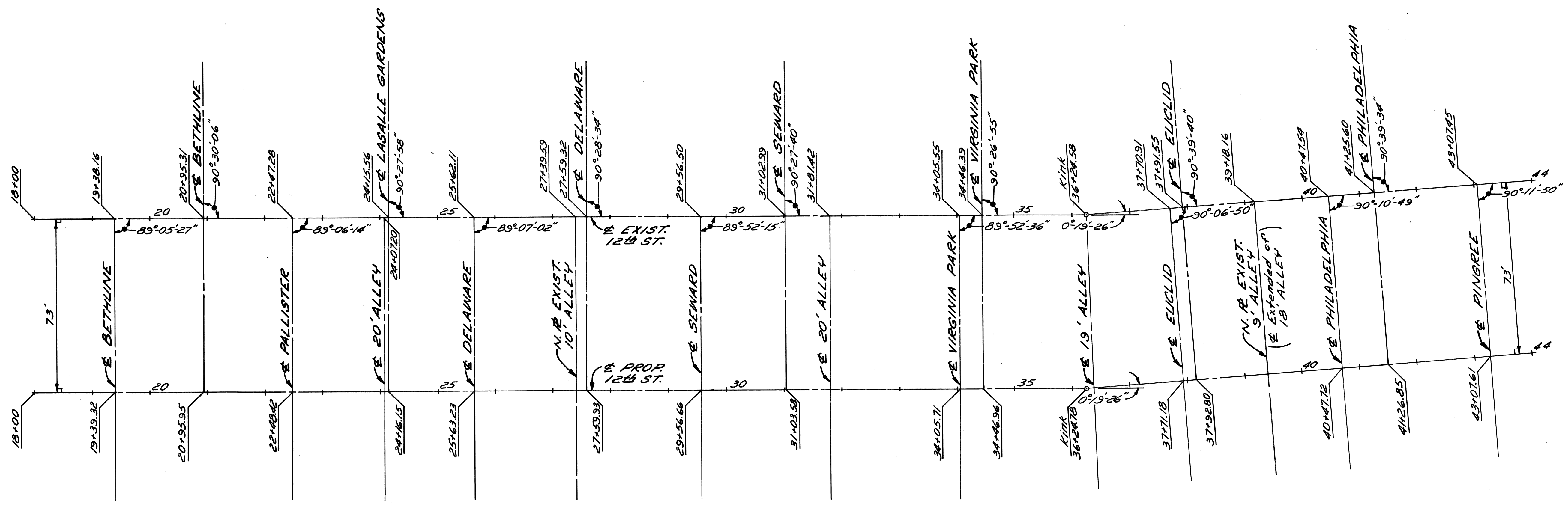
LIMITS OF WORK FOR 12th ST. RELOCATION



GENERAL PLAN  
Scale: 1" = 100'

**SURFACING LEGEND**

	Concrete Pavt. - 9" Uniform (Reint.)
	Concrete Pavt. - 8" Uniform (Non-Reint.) Temp.
	Conc. Pavt. - 9" Uniform (Non-Reint.)



ALIGNMENT DIAGRAM  
No Scale

COORD.	DESCRIPTION	DRK	CKD	APVD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

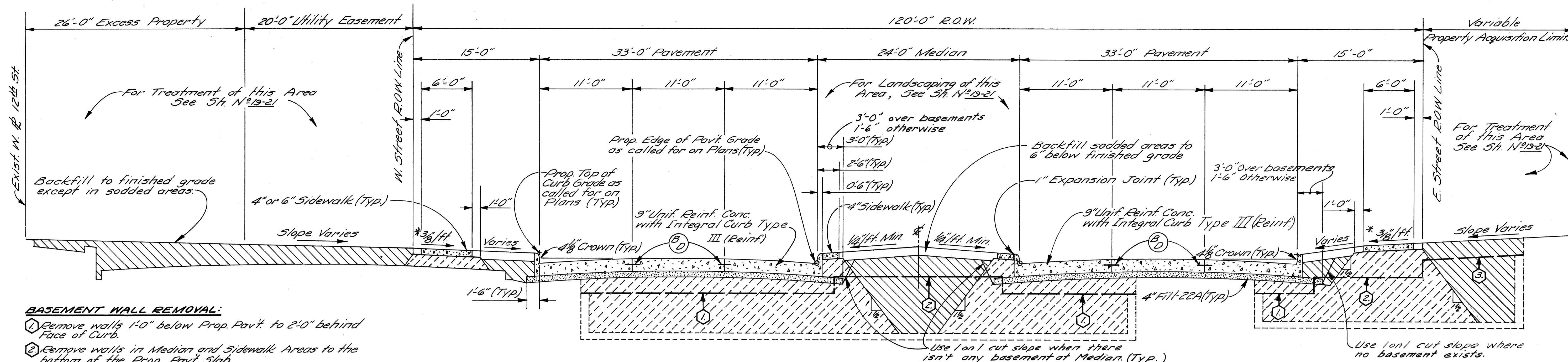
DESIGNED BY	J. D.
DRAWN BY	J. D.
TRACED BY	
CHECKED BY	R. B. P.

APPROVED:  
*[Signature]*  
ENGINEER OF EXPRESSWAYS

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
GENERAL PLAN

SHEET 2 OF 46 SHEETS
CONTRACT No. P.W. 6519
ASSIGNMENT No. A.O. 2091
DATE JAN 31 1973



- BASEMENT WALL REMOVAL:**
1. Remove walls 1'-0" below Prop. Pavt. to 2'-0" behind Face of Curb.
  2. Remove walls in Median and Sidewalk Areas to the bottom of the Prop. Pavt. Slab.
  3. Remove walls in areas outside the 120' R.O.W. to 1'-0" below the Prop. Surface Elevations.

TYPICAL CROSS-SECTION OF TWELFTH ST. RELOCATION  
PALLISTER TO PHILADELPHIA

NO SCALE

\* Sidewalk slopes are to be 3/4" ft unless the engineer determines that a minimum slope of 1/4" ft, or a maximum slope of 3/4" ft, must be used to meet existing conditions

**EARTHWORK LEGEND**

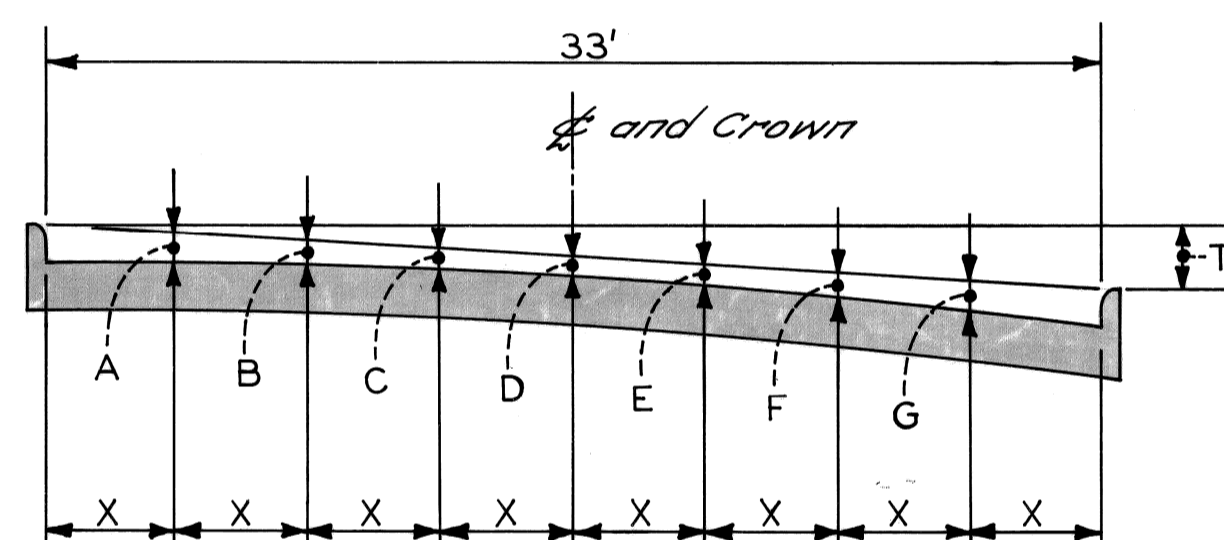
- Fill - Grade A
- Fill - 22A
- Selected Excavated Materials

**JOINT LEGEND**

- B - Longitudinal Bulkhead Construction Joint
- D - Longitudinal Lane Tie Joint

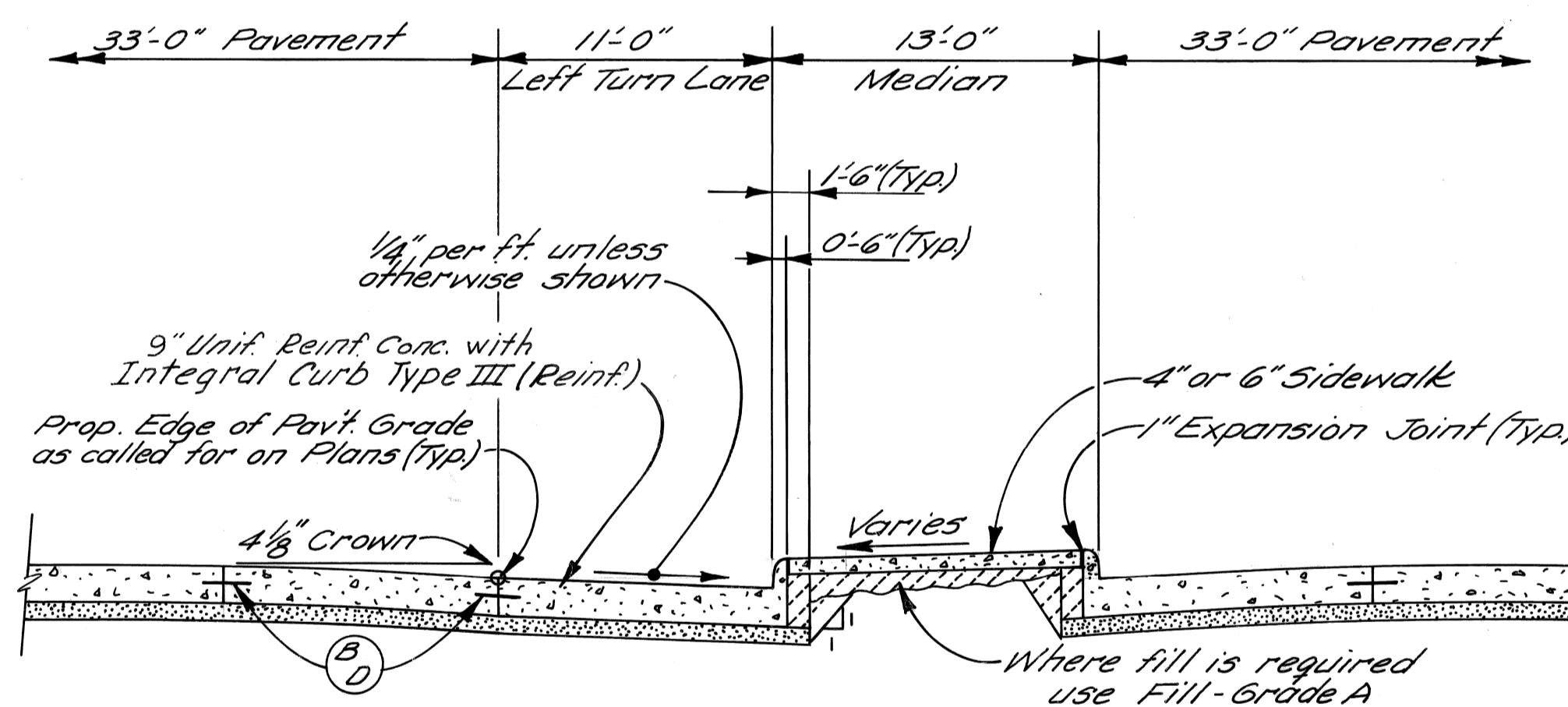
**NOTE**

1. Both the N'd & the S'd roadways are tilted throughout the length of the project so that the east edge of pavt of each roadway is 0.3' higher than its west edge of pavt.



PAV'T. WIDTH	CURB HEIGHT	X	T	A	B	C	D	E	F	G
33'	7"	4 1/2"	0.0	5 1/4"	3 7/8"	3 1/2"	2 7/8"	3 3/8"	3 7/8"	5 1/4"
			0.3	5 1/2"	4 3/8"	3 1/2"	2 7/8"	2 3/4"	3 1/2"	4 7/8"

ELEMENTS OF 33' PAVEMENT



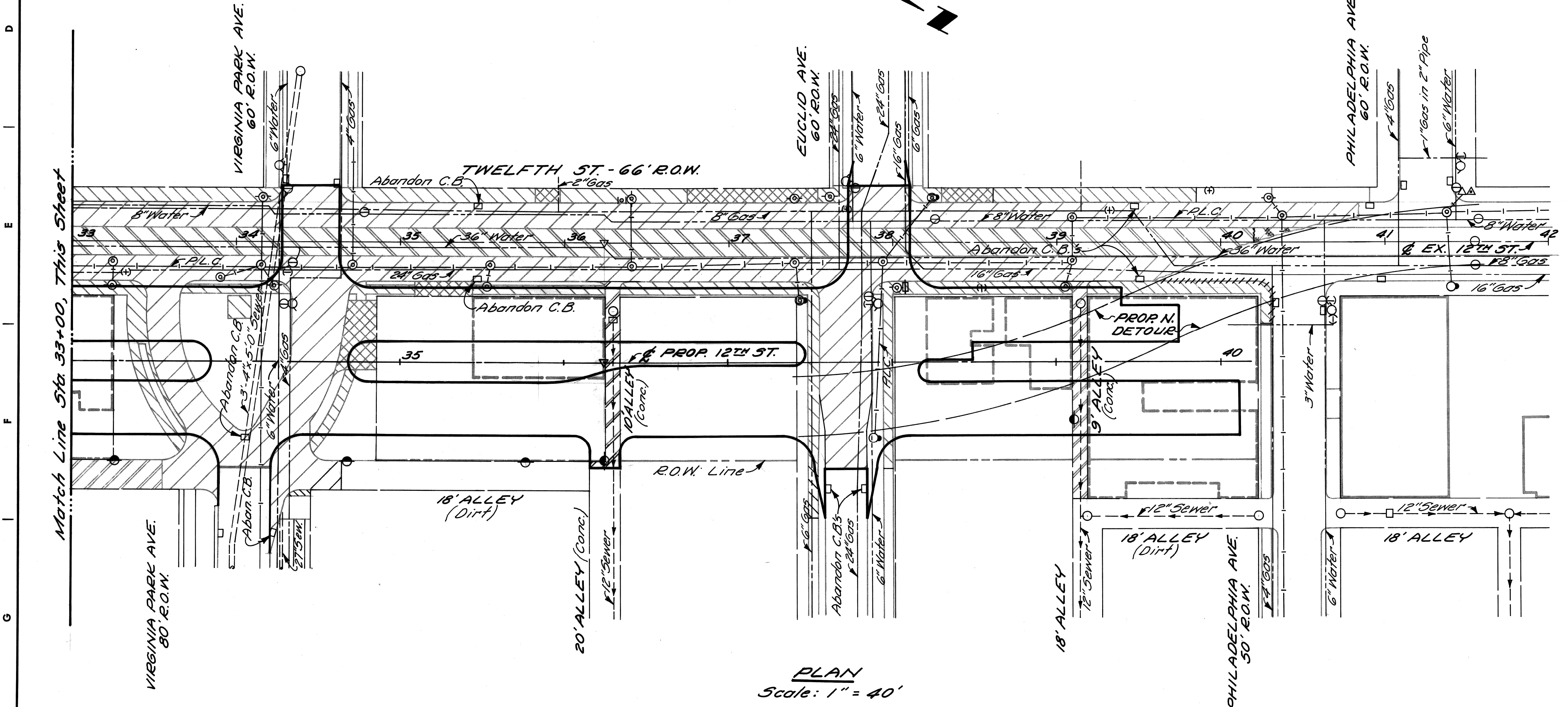
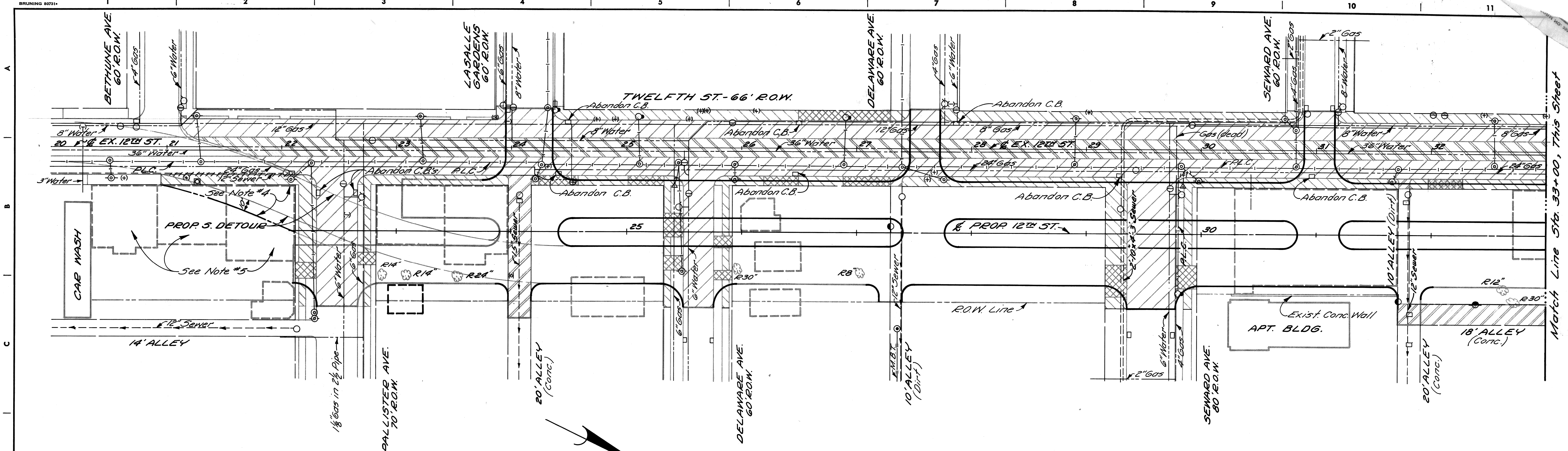
TYPICAL CROSS-SECTION OF LEFT TURN LANE

NO SCALE

DESIGNED BY		APPROVED:		CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION		TWELFTH STREET WIDENING PALLISTER TO PHILADELPHIA TYPICAL CROSS-SECTIONS		SHEET 3 OF 46 SHEETS	
DRAWN BY M. P.		 ENGINEER OF EXPRESSWAYS						CONTRACT No. P.W.6519	
CHECKED BY R. B. P.								ASSIGNMENT No. A.O.2091	
DESCRIPTION		FINAL REVIEW				DATE JAN 31 1973			
REVISIONS									







**PLAN**  
Scale: 1" = 40'

**REMOVAL LEGEND**

- Tree Removal.....R(Size) 63
- Separate Type Curb Removal.....HHHH
- Streetcar Rail and Track Base Removal.....
- Street Pavement Removal Unreinforced.....
- Driveway Removal.....
- Sidewalk Removal.....
- Alley Pavement Removal.....
- Existing Basement.....
- Existing Building to Remain.....

**NOTES:**

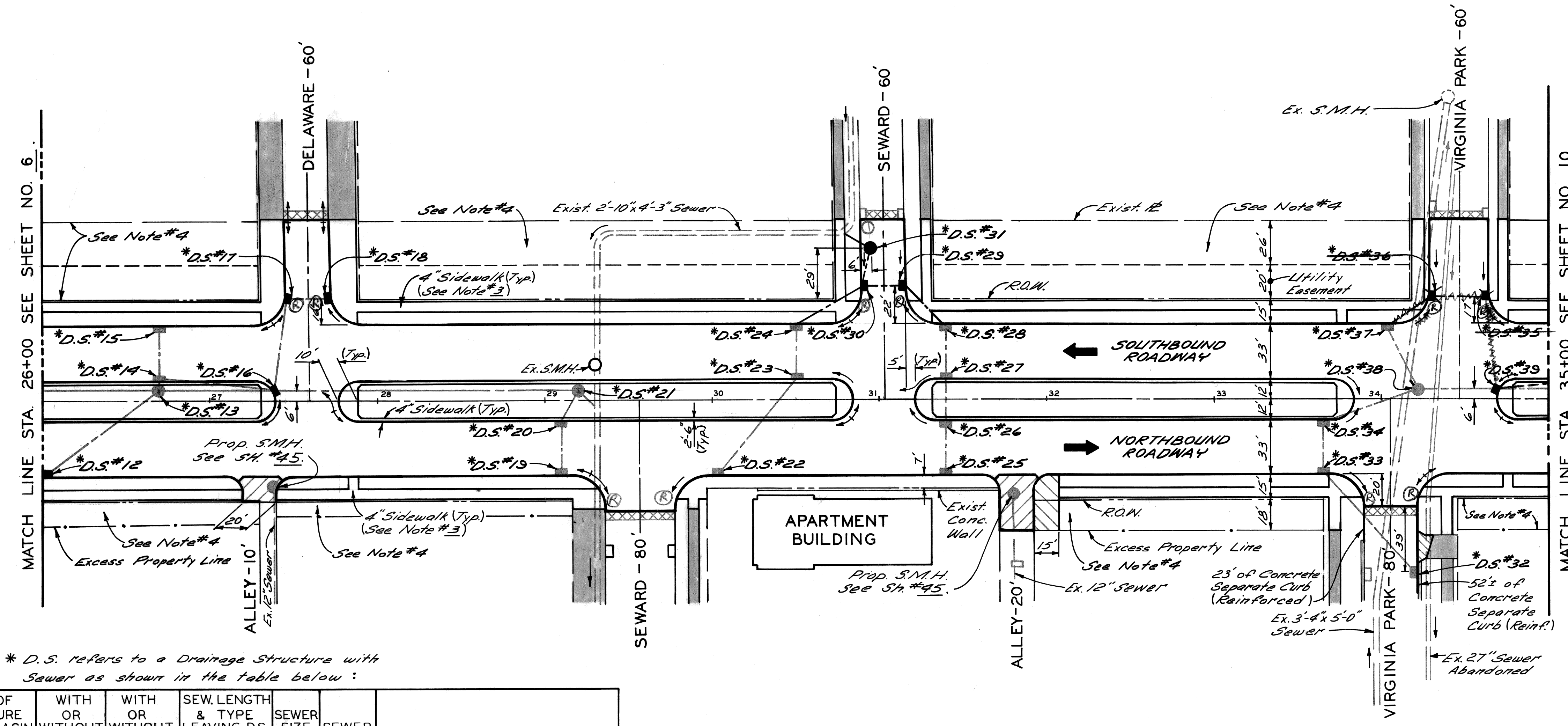
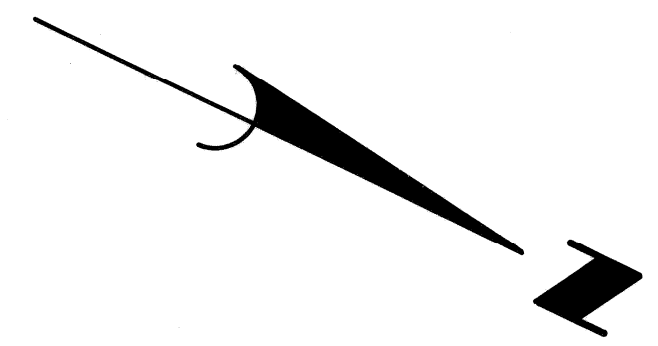
1. For Utility Legend, See Sht. N° 17.
2. The removal of trees less than 4" in diameter is incidental to the contract.
3. The existing fill material in all basement areas (except as noted) within the limits of work shall be excavated. This work will be paid for as Excavation. These basement areas are then to be backfilled with materials as shown on the typical cross-section sheet.
4. Remove existing fill material within these limits and backfill with "Fill Grade A."
5. These basement areas are not to be excavated in this contract except where called for in Note #4.
6. Removal of curb backing, if any exists, will not be paid for separately but will be considered incidental to and part of the pay item for "Separate Type Curb Removal."

REFERENCE DRAWINGS		DESIGNED BY	APPROVED:	CITY OF DETROIT		TWELFTH STREET WIDENING		SHEET 5 OF 46 SHEETS	
		DRAWN BY	M. P.	DEPARTMENT OF PUBLIC WORKS		PALLISTER TO PHILADELPHIA		CONTRACT No. P.W.6519	
		TRACED BY		CITY ENGINEERS OFFICE		REMOVALS		ASSIGNMENT No. A.O.2091	
		CHECKED BY	I. K.	FOR				DATE JAN 31 1973	
				COMMUNITY DEVELOPMENT COMMISSION					





- NOTES:**
1. All Street Return Radii are 20'.
  2. For Utility adjustments or reconstructions, See St. # 16.
  3. For areas where 6" Sidewalk is required, see the supplementary specifications in the proposal.
  4. Backfill and/or grade area as req'd. to accommodate surface drainage. For Landscaping, See St. # 19-21.
  5. For typical driveway details, See St. # 17.



\* D.S. refers to a Drainage Structure with Sewer as shown in the table below :

DRAINAGE STRUCTURE NUMBER	TYPE OF STRUCTURE CATCH BASIN "A" OR "B" NEW	WITH OR WITHOUT TRAP	WITH OR WITHOUT SUMP	SEW. LENGTH & TYPE LEAVING D.S. SEWER (FT.)	SEWER SIZE IN.	SEWER CLASS	COMMENTS
12.	Catch Basin B	With	Without	80	12	C-76-III	
13.	Manhole-Drop	Without	"	68 <sup>0</sup> 246	15 <sup>9</sup> 18	"	
14.	Catch Basin B	With	"	3	12	"	
15.	"	A	Without	28	12	"	
16.	"	B	"	66	12	"	
17.	"	B	"	51	12	"	
18.	"	A	"	21	12	"	
19.	"	A	"	28	12	"	
20.	"	B	With	17	12	"	
21.	Manhole-Drop	Without	"	13	18	C-76-II	
22.	Catch Basin A	"	"	70	12	C-76-III	
23.	"	A	"	27	12	"	
24.	"	B	"	44	12	"	
25.	"	A	"	28	12	"	
26.	"	B	"	22	12	"	
27.	"	B	"	27	12	"	
28.	"	B	"	31	12	"	
29.	"	B	"	20	12	"	
30.	"	B	With	20	12	"	Limit depth of sump to 4'-0"
31.	Manhole-Drop	Without	"	15	12	"	
32.	Catch Basin A	"	"	80	12	"	
33.	"	B	"	27	12	"	
34.	"	B	With	57	12	"	
35.	"	A	Without	31	12	"	D.S. #35 & D.S. #36 Eliminated.
36.	"	B	"	27	12	"	
37.	"	B	With	38	12	"	
38.	Manhole-Drop	Without	"	76 <sup>0</sup> 6	15 <sup>9</sup> 18	C-76-III	
39.	Catch Basin A	"	"	52	12	C-76-III	D.S. #39 runs to D.S. #42

0 Consists of 15" Sewer (Entering) from Match Line.

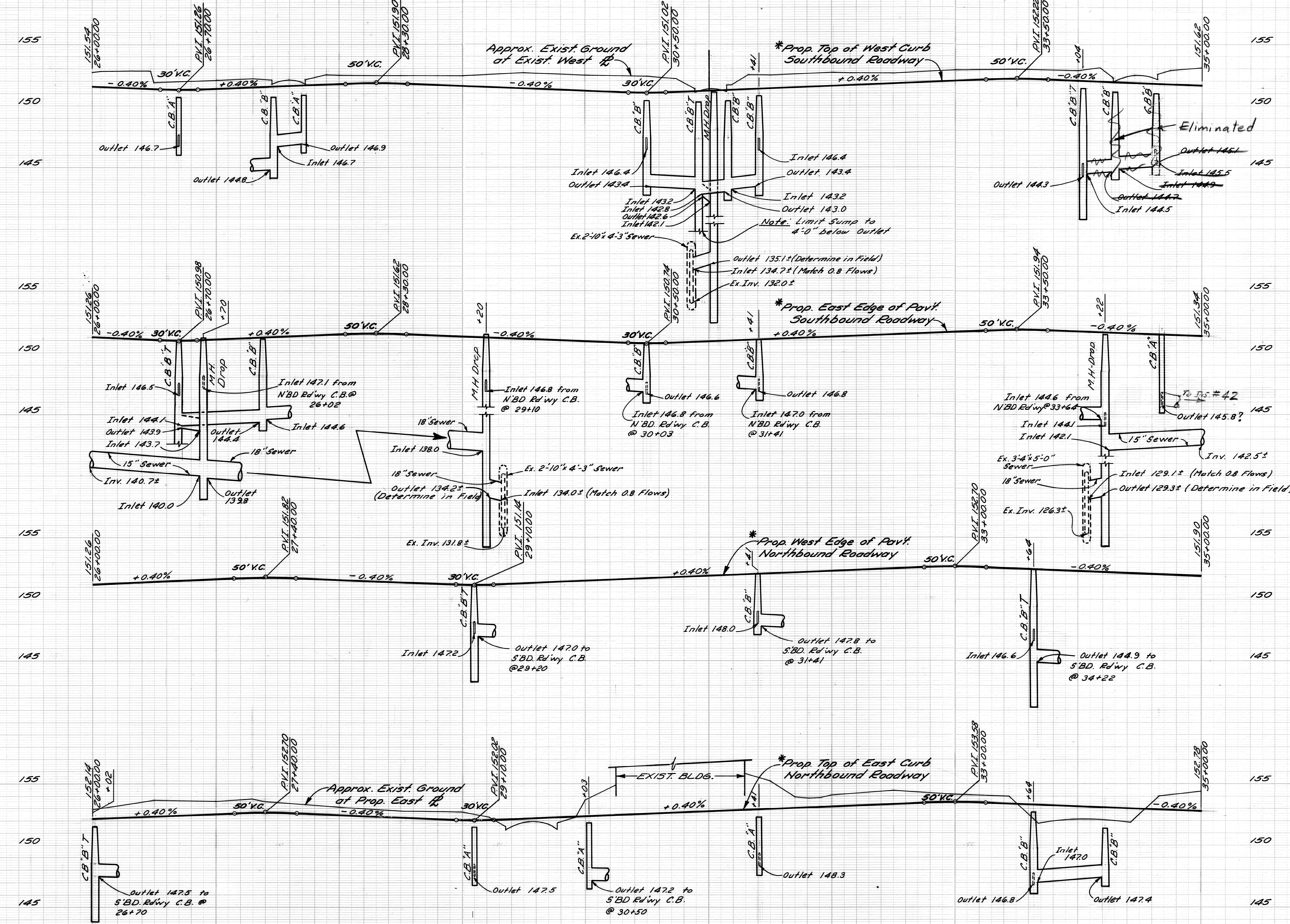
PLAN  
SCALE: 1" = 40'

- LEGEND**
- Strip & Resurface
  - Conc. Pavt. - 9" Limit. (Non-Reinf.), with Type III Curb - Integral (Reinf.)
  - Driveways - 6" Limit. (Residential)
  - Exist. Sidewalk or Driveway to Remain
  - Conc. Pavt. - 9" Limit. (Reinf.)

DESIGNED BY	M.S. / J.D.	APPROVED:		CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION				TWELFTH STREET WIDENING PALLISTER TO PHILADELPHIA	SHEET 8 OF 46 SHEETS
DRAWN BY		CHECKED BY	R.A.C.	PLAN, STA. 26+00 TO STA. 35+00				CONTRACT No. P.W. 6519	ASSIGNMENT No. A.O. 2091
TRACED BY								DATE JAN 31 1973	
COORD. DESCRIPTION	DNW	CKD	APVD	DATE					
REVISIONS LOCATED BY COORDINATES ON SHEET									

26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00

FINAL R.O.W.

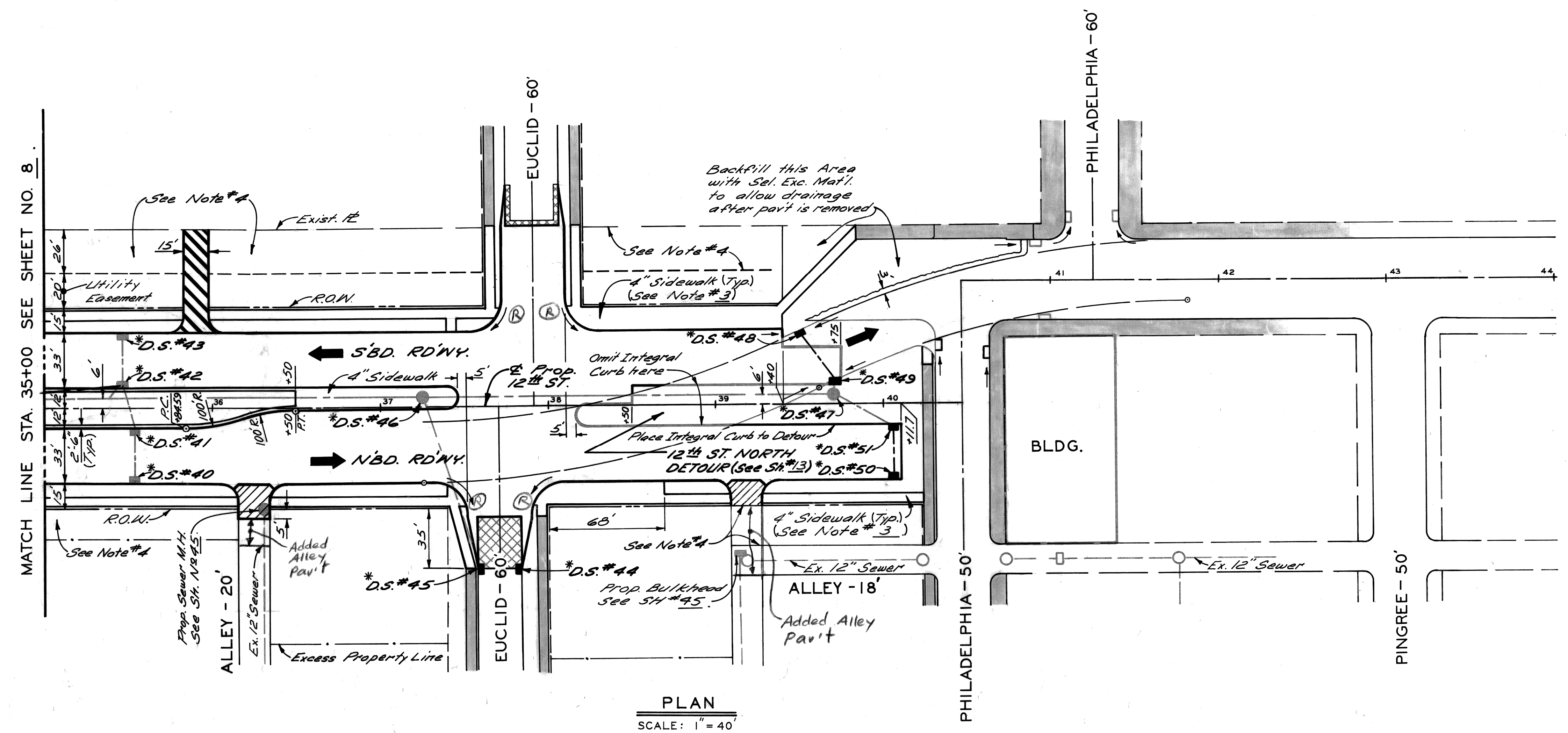
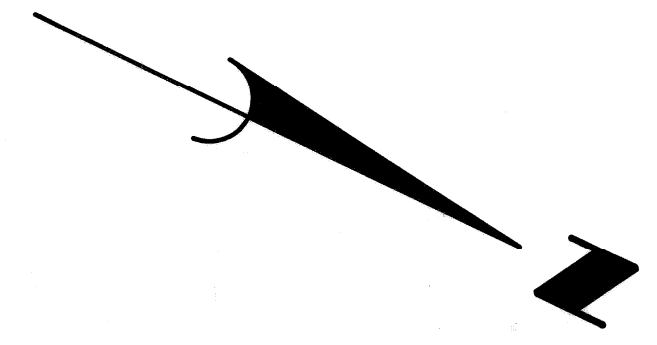


\* See Note N<sup>o</sup> 1, Typical Cross-section Street, Sh. N<sup>o</sup> 3.

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

TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
PROFILES, STA. 26+00 TO STA. 35+00

- NOTES:**
1. All Street Return Radii are 20'.
  2. For Utility adjustments or reconstructions, See Sh.# 16.
  3. For areas where 6" Sidewalk is required, see the supplementary specifications in the proposal.
  4. Backfill and/or grade area as req'd. to accommodate Surface drainage. For Landscaping, See Sheet No 19-21.
  5. For typical driveway details, See Sheet No 17.



Ⓡ Sidewalk Ramp Constructed.

**PLAN**  
SCALE: 1" = 40'

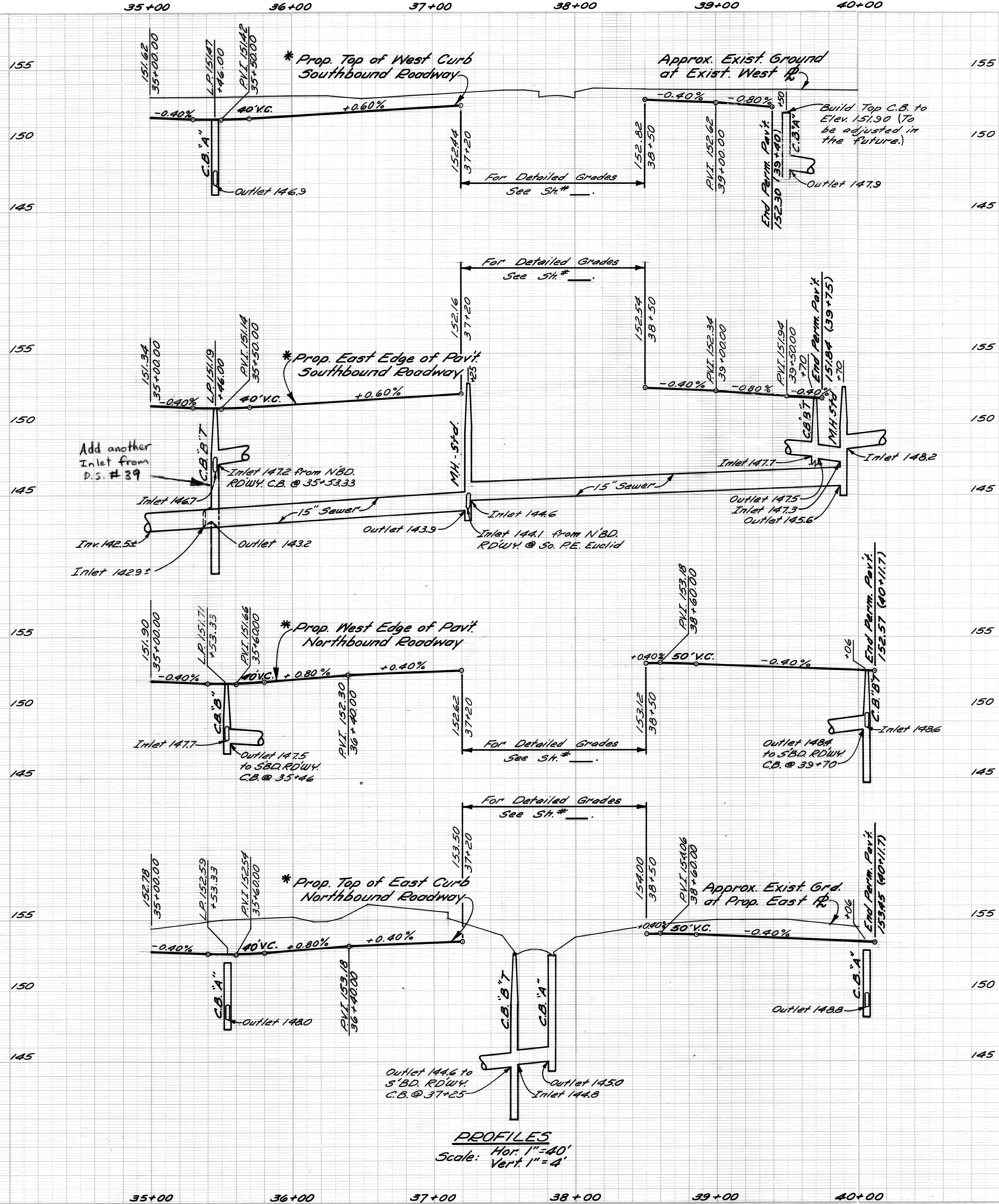
\* D.S. refers to a Drainage Structure with Sewer as shown in the table below:

DRAINAGE STRUCTURE NUMBER	TYPE OF STRUCTURE	WITH OR WITHOUT TRAP	SEW. LENGTH & TYPE LEAVING D.S. SEWER (FT.)	SEWER SIZE IN.	SEWER CLASS	COMMENTS
40.	Catch Basin A	Without	28	12	C-76-III	
41.	" B	"	24	12	"	
42.	" B	With	10	12	"	
43.	" A	Without	28	12	"	
44.	" A	"	21	12	"	
45.	" B	With	103	12	"	
46.	Manhole-Standard	Without	22.3 <sup>Ⓢ</sup>	15	"	
47.	Manhole-Standard	"	241	15	"	
48.	Catch Basin A	"	30	12	"	Align Cover with Detour Re'wy
49.	" B	With	3	12	"	
50.	" A	Without	28	12	"	
51.	" B	With	38	12	"	

<sup>Ⓢ</sup> Consists of Sewer to match line only

- LEGEND**
- Strip & Resurface
  - Conc. Pav't - 9" Unif. (Non-Reinf.)
  - Exist. Sidewalk or Driveway to Remain
  - Driveways - 8" Unif. (Commercial)
  - Conc. Pav't - 9" Unif. (Reinf.), with Type III Curb - Integral (Reinf.)

DESIGNED BY	M.S. / J.D.	APPROVED	<i>Man Rogers</i> ENGINEER OF EXPRESSWAYS	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE		TWELFTH STREET WIDENING PALLISTER TO PHILADELPHIA	
DRAWN BY				FOR COMMUNITY DEVELOPMENT COMMISSION		PLAN, STA. 35+00 TO PHILADELPHIA	
TRACED BY						SHEET 10 OF 46 SHEETS	
CHECKED BY	R.A.C.					CONTRACT No. P.W. 6519	
REVISIONS LOCATED BY COORDINATES ON SHEET						ASSIGNMENT No. A.O. 2091	
						DATE JAN 31 1973	



\* See Note No. 1, 5th No. 3.

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





TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
PROFILES, STA. 35+00 TO PHILADELPHIA

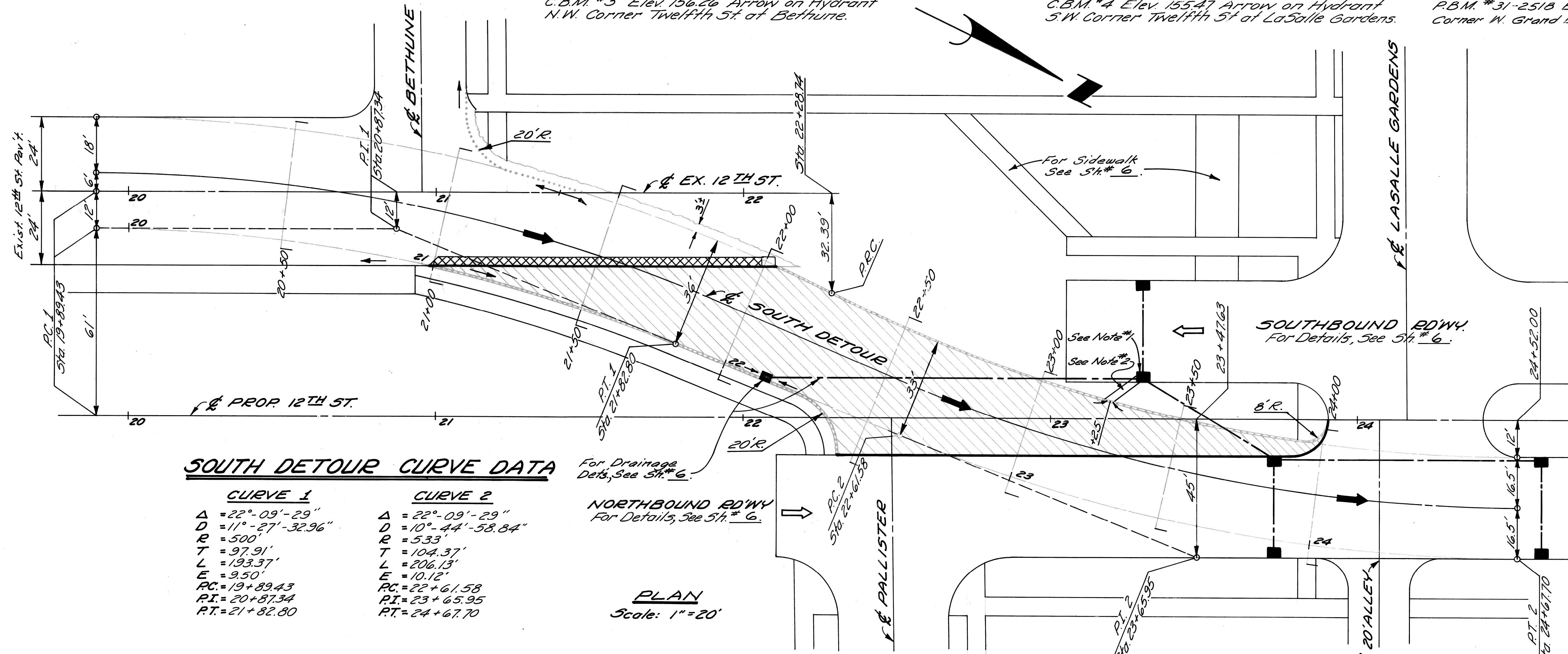
C.B.M. #3 Elev 156.26 Arrow on Hydrant  
N.W. Corner Twelfth St. of Bethune.

C.B.M. #4 Elev 155.47 Arrow on Hydrant  
S.W. Corner Twelfth St. of LaSalle Gardens.

P.B.M. #31-2518 Elev. 151.063 NE.  
Corner N. Grand Blvd. @ 12th St.

**LEGEND**

-  Conc. Pavt - 8" Unif. (Non-Reinf.) - Temp.
-  Striping and Resurfacing
-  Integral Curb, Type III (Non-Reinf.)
-  Bituminous Curb



**SOUTH DETOUR CURVE DATA**

CURVE 1	CURVE 2
$\Delta = 22^\circ - 09' - 29''$	$\Delta = 22^\circ - 09' - 29''$
$D = 11^\circ - 27' - 32.96''$	$D = 10^\circ - 44' - 58.84''$
$R = 500'$	$R = 533'$
$T = 97.91'$	$T = 104.37'$
$L = 193.37'$	$L = 206.13'$
$E = 9.50'$	$E = 10.12'$
$PC = 19+89.43$	$PC = 22+61.58$
$PI = 20+87.34$	$PI = 23+65.95$
$PT = 21+82.80$	$PT = 24+67.70$

For Drainage Detls, See Sh. # 6.

NORTHBOUND RDWY.  
For Details, See Sh. # 6.

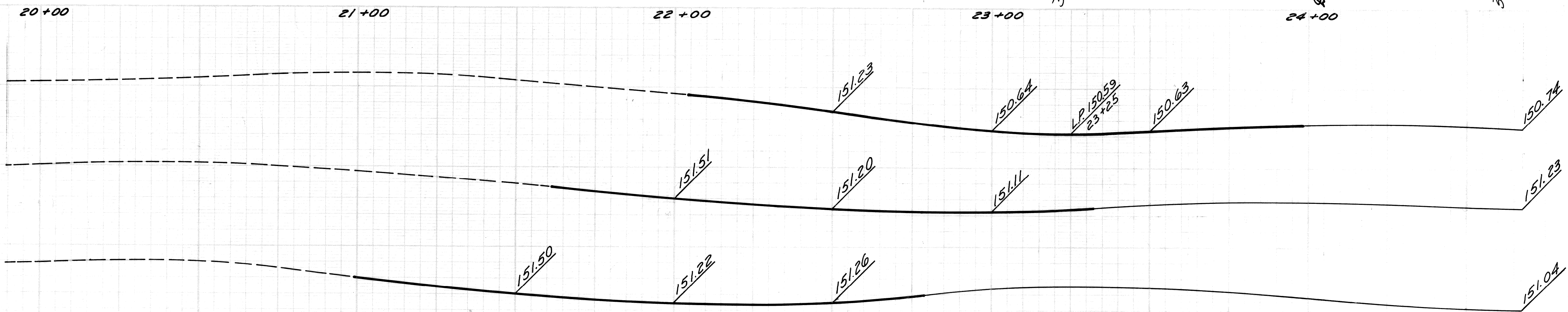
**PLAN**  
Scale: 1" = 20'

**NOTES:**

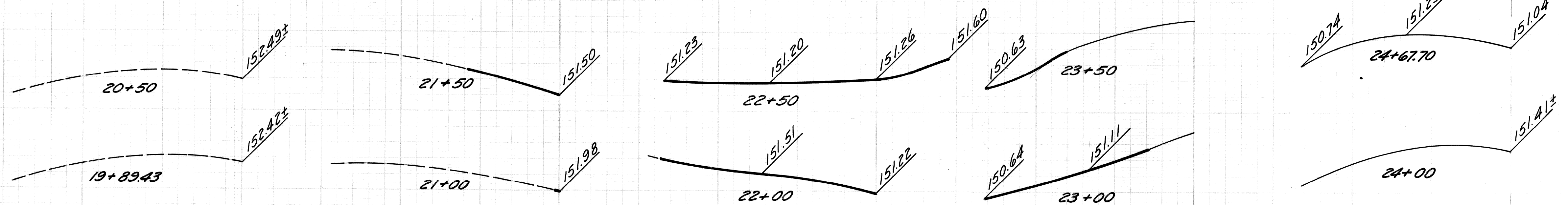
1. This C.B. is to be adjusted in the future & retained as a permanent C.B. for Southbound Roadway.
2. Provide 3' opening in the curbs of the detour and permanent roadways for drainage. Also place 3' bituminous ditch connection. (Incidental)

**PROFILE & CROSS-SECTION LEGEND**


-  Exist. Pavement Grades
-  Prop. Temporary Pavement Grades
-  Prop. Permanent Pavement Grades



**PROFILES**  
Scale: Hor. 1" = 20'  
Vert. 1" = 2'



**CROSS-SECTIONS**  
Scale: Hor. 1" = 10'  
Vert. 1" = 1'

BY	M.P.	CHECKED BY	R.A.C.	APPROVED:	
PLAN	M.P.	R.A.C.		ENGINEER OF EXPRESSWAYS	
GRADE	M.P.	R.A.C.			
ESTIMATE					
DESCRIPTION	DRN	CK'D	AP'VD	DATE	
REVISIONS	FINAL	CHECK	REVIEW		

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
SOUTH DETOUR

INDEX NO.	SHEET 12 OF 46 SHEETS
CONTRACT NO.	P.W. 6519
ASSIGNMENT NO.	A.O. 2091
DATE	JAN 31 1973



C.B.M. #9 Elev. 156.43 Arrow on Hydrant  
S.W. Corner Twelfth St. at Euclid.  
P.B.M. #32-250 Elev. 152.804 N.E.  
Corner Twelfth St. at Euclid.

C.B.M. #10 Elev. 156.14 Arrow on Hydrant  
N.W. Corner Twelfth St. at Philadelphia

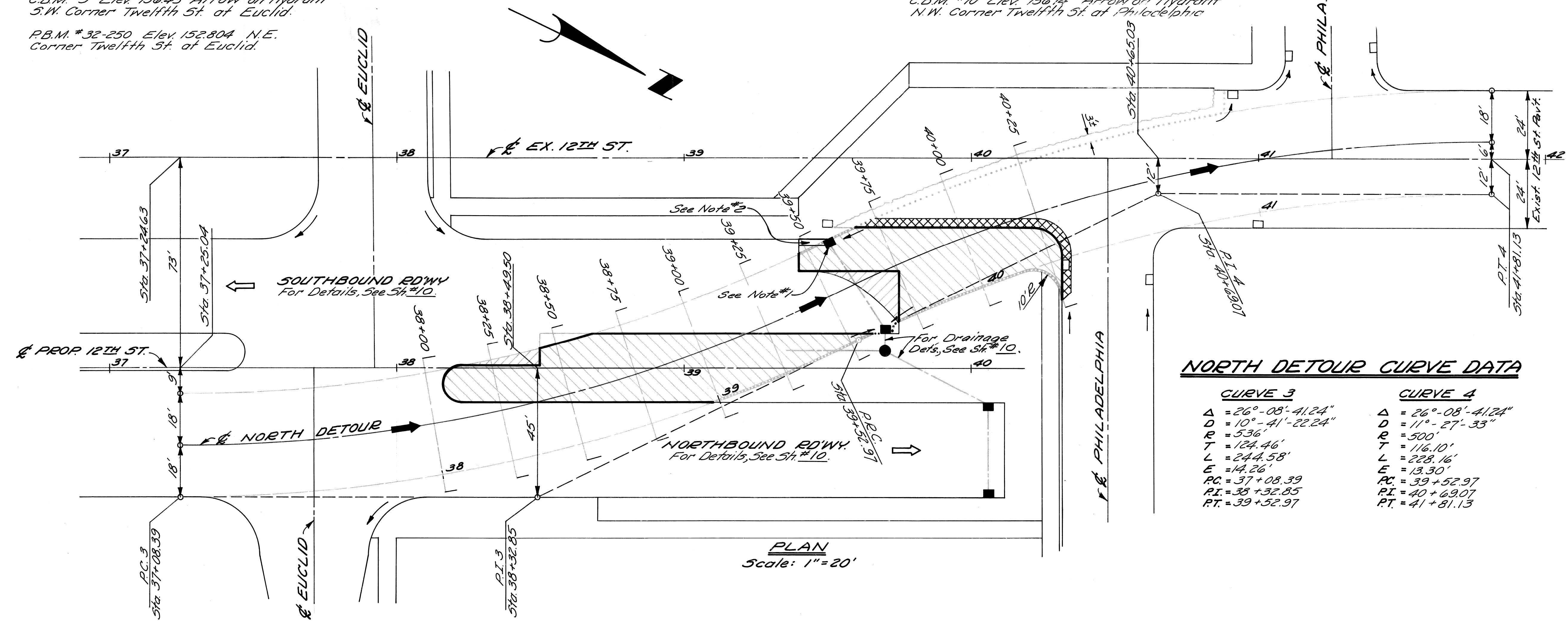
**LEGEND**

- Conc. Pavt. - 8" Unif. (Non-Reinf.) - Temp.
- Bituminous Surface on Prop Pavt.
- Stripping and Resurfacing
- Integral Curb, Type III (Non-Reinf.)
- Bituminous Curb

- NOTES:**
- This Catch Basin is to be adjusted in the future & retained as a permanent C.B. for the S'bd. Rdwy.
  - Provide a 2' bituminous ditch for drainage. (Incidental)

**NORTH DETOUR CURVE DATA**

CURVE 3		CURVE 4	
$\Delta$	$= 26^{\circ}-08'-41.24"$	$\Delta$	$= 26^{\circ}-08'-41.24"$
$D$	$= 10^{\circ}-41'-22.24"$	$D$	$= 11^{\circ}-27'-33"$
$R$	$= 536'$	$R$	$= 500'$
$T$	$= 124.46'$	$T$	$= 116.10'$
$L$	$= 244.58'$	$L$	$= 228.16'$
$E$	$= 14.26'$	$E$	$= 13.30'$
$PC$	$= 37+08.39$	$PC$	$= 39+52.97$
$PI$	$= 38+32.85$	$PI$	$= 40+69.07$
$PT$	$= 39+52.97$	$PT$	$= 41+81.13$

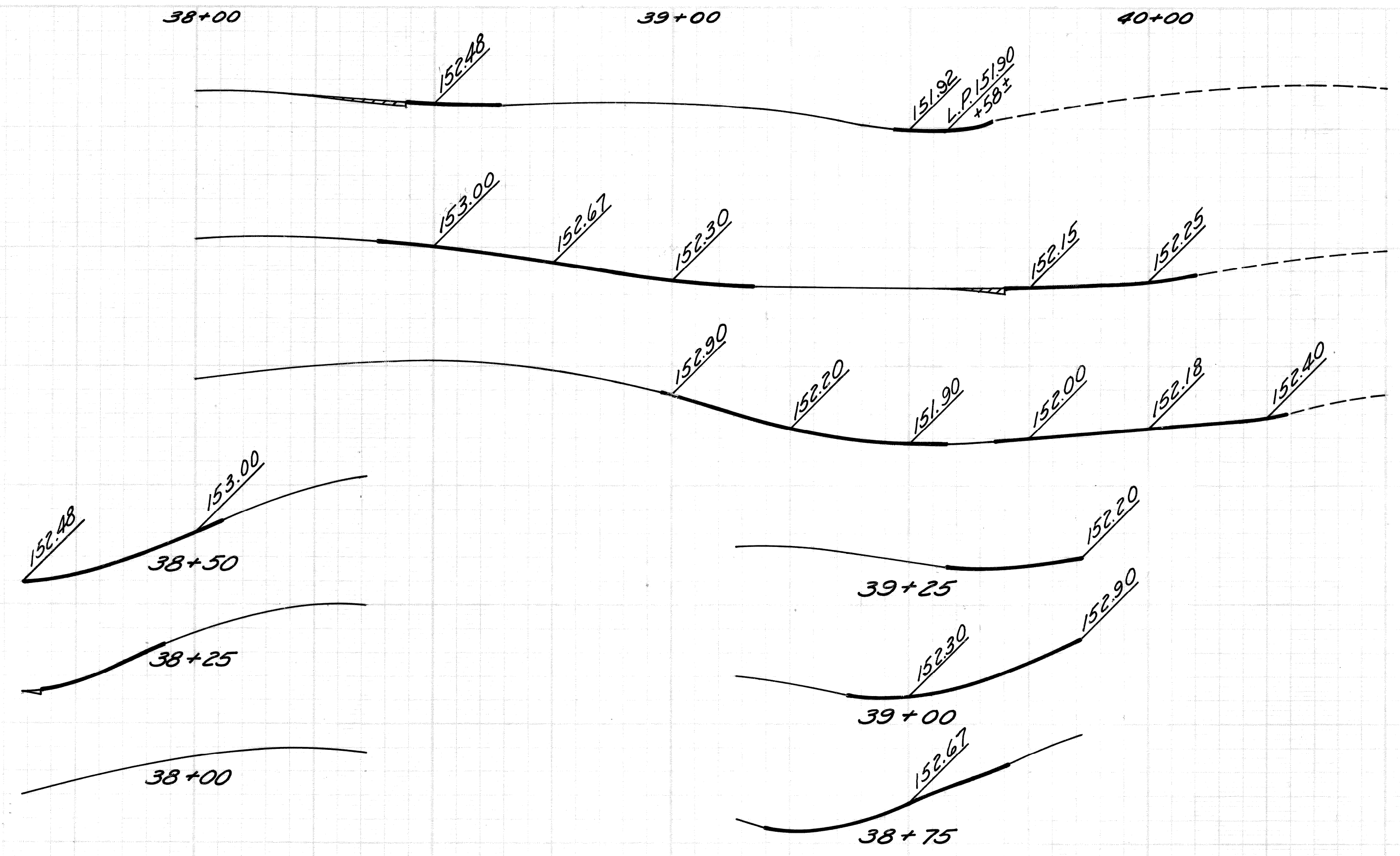


**PLAN**  
Scale: 1" = 20'

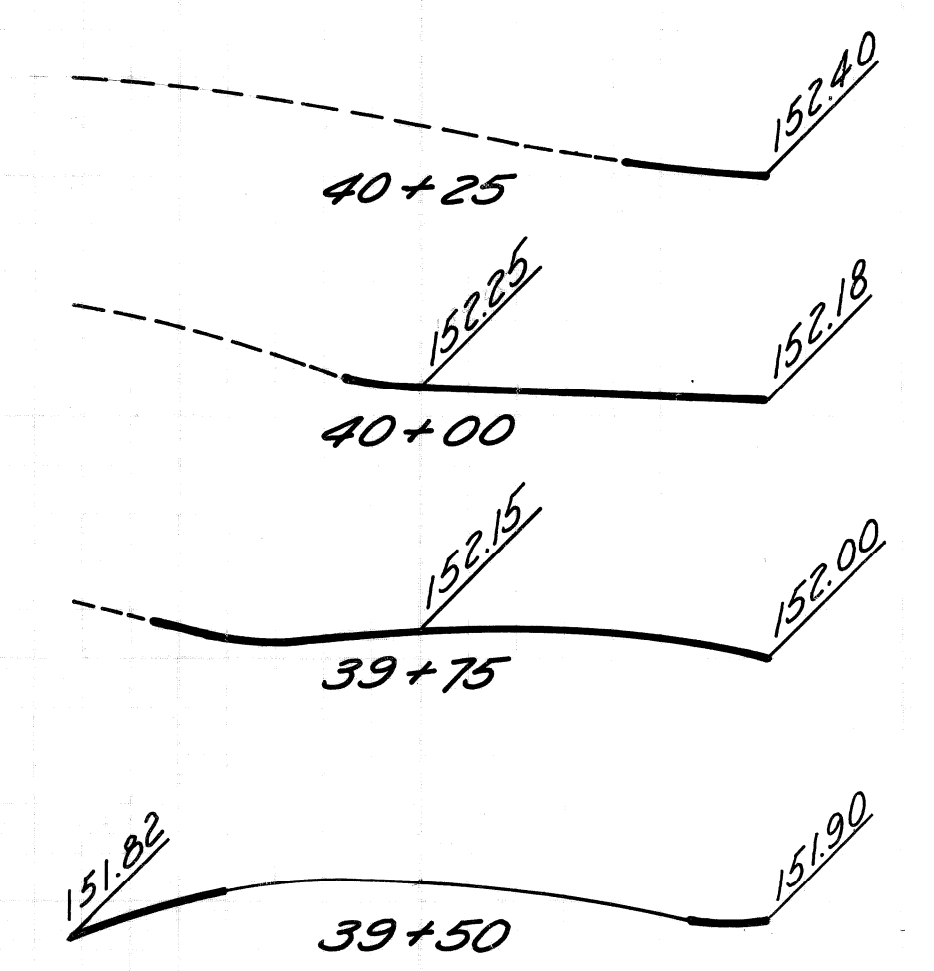
**PROFILE & CROSS-SECTION LEGEND**

- Exist. Pavement Grades
- Prop. Temporary Pavt. Grades
- Prop. Permanent Pavt. Grades
- Temp. Asph. on Perm. Pavt.

**PROFILES**  
Hor. 1" = 20'  
Vert. 1" = 2'



**CROSS-SECTIONS**  
Hor. 1" = 10'  
Vert. 1" = 1'

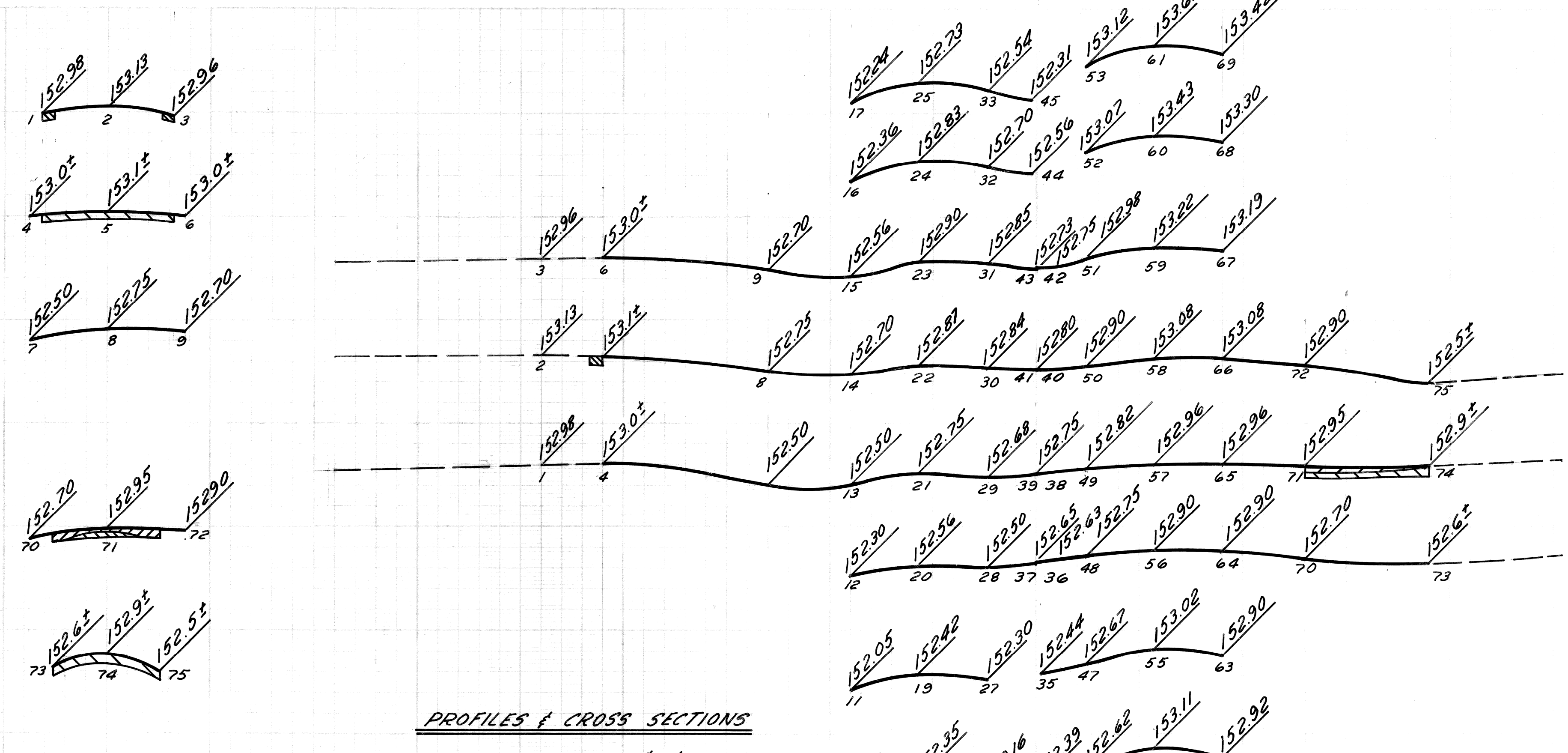
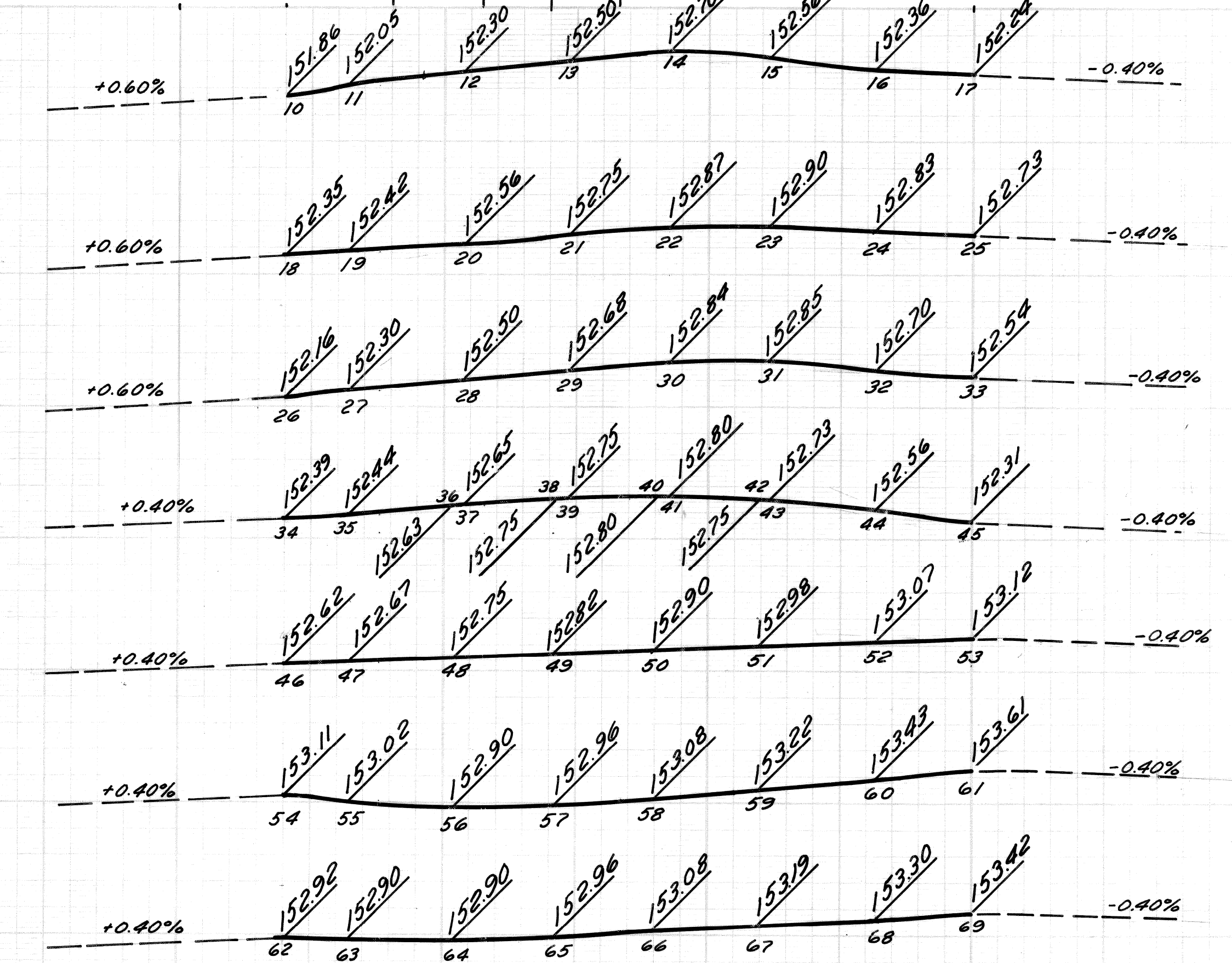
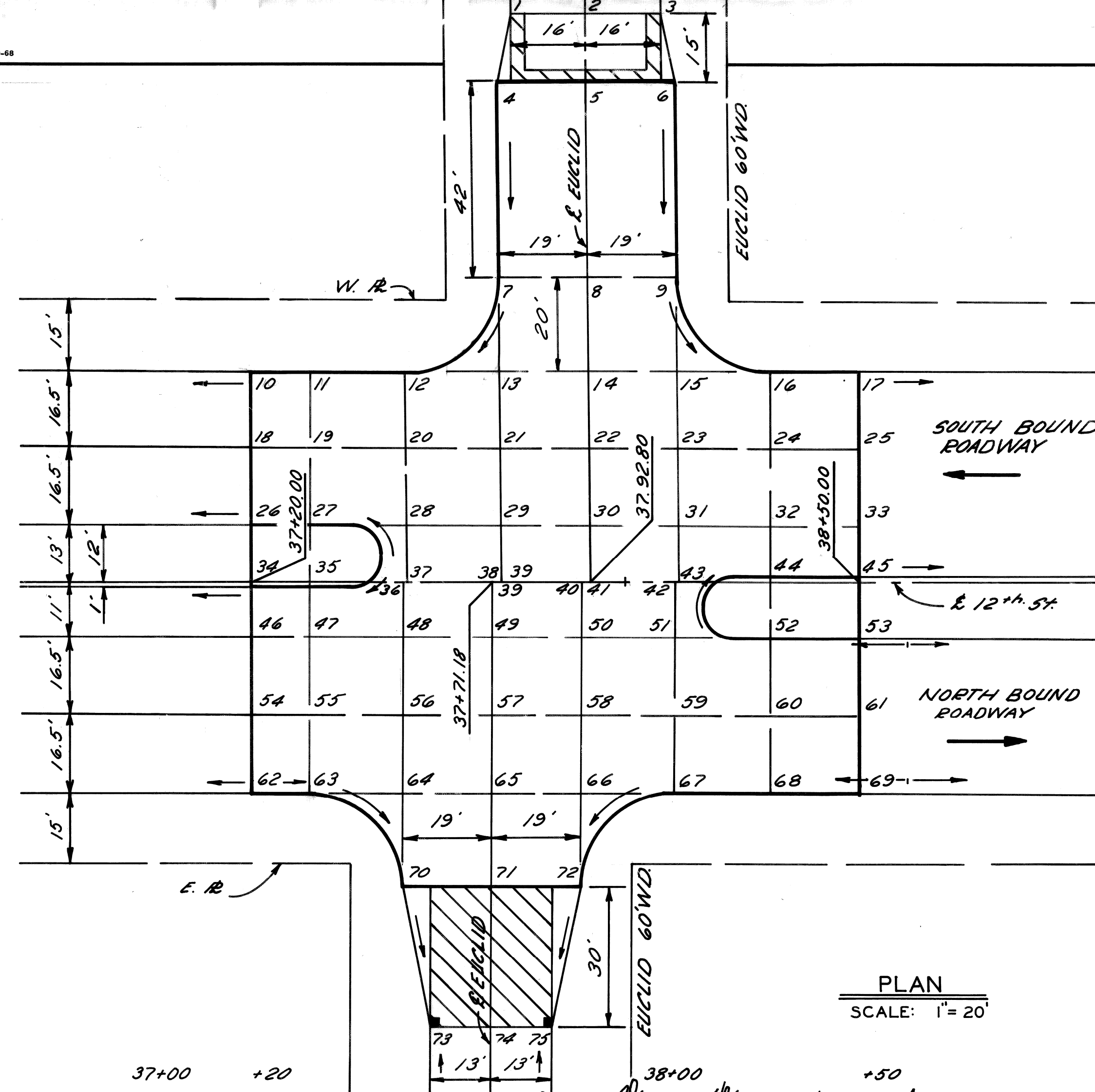


DESCRIPTION		DRN	CK'D	AP'VD	DATE	BY	CHECKED BY	APPROVED:	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE FOR COMMUNITY DEVELOPMENT COMMISSION	TWELFTH STREET WIDENING PALLISTER TO PHILADELPHIA NORTH DETOUR	INDEX NO.	SHEET 13 OF 46 SHEETS	
REVISIONS						M.P.	R.B.P.				CONTRACT NO.	P.W. 6519	TOPO NO.
												DATE	JAN 31 1973

SCALE	HORIZONTAL	BOOK NO.	LEVEL DATE	BEFORE STARTING CONSTRUCTION, CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.
	VERTICAL	PG. PAVING COMPLETED		

NOTE - FOR SYMBOLS (A) ETC., SEE STANDARD DETAIL DRAWING NO. C-4375

BENCH MARKS ELEV.



DESCRIPTION	BY	CHECKED BY	APPROVED:
	PLAN	M.S.	I.K.
REVISIONS	GRADE	M.S.	I.K.
DR N	CK D	AP V	DATE
FINAL	CHECK	REVIEW	

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
DETAILED GRADES FOR TWELFTH ST. AT EUCLID AVE.

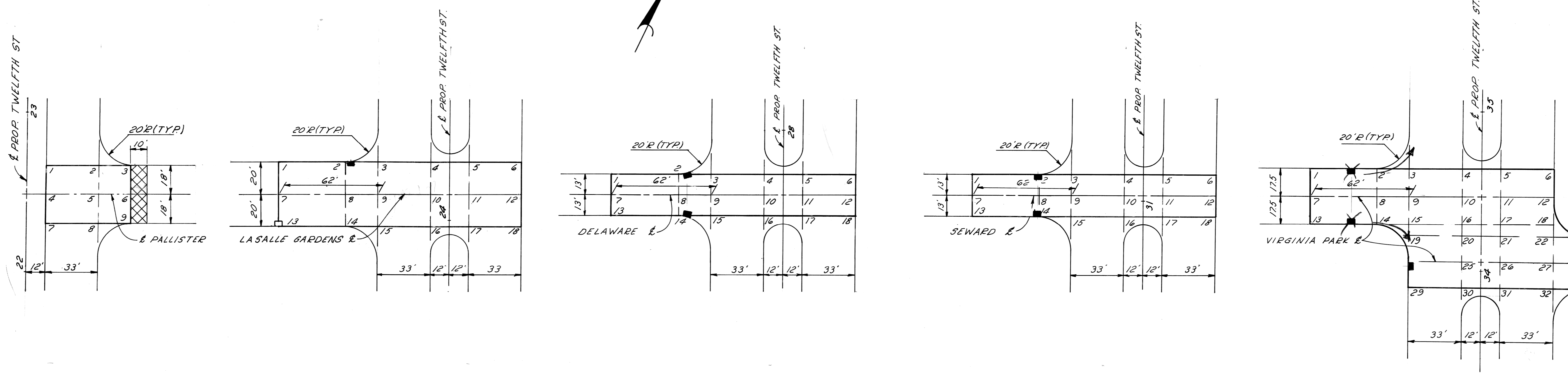
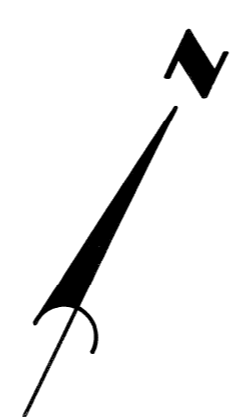
INDEX NO.	SHEET 14 OF 46 SHEETS
CONTRACT NO.	P.W. 6519
ASSIGNMENT NO.	A.O. 2091
DATE	JAN 31 1973

SCALE	HORIZONTAL	BOOK NO.	PG.	LEVEL	DATE
	VERTICAL		PAVING COMPLETED		

BEFORE STARTING CONSTRUCTION CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.

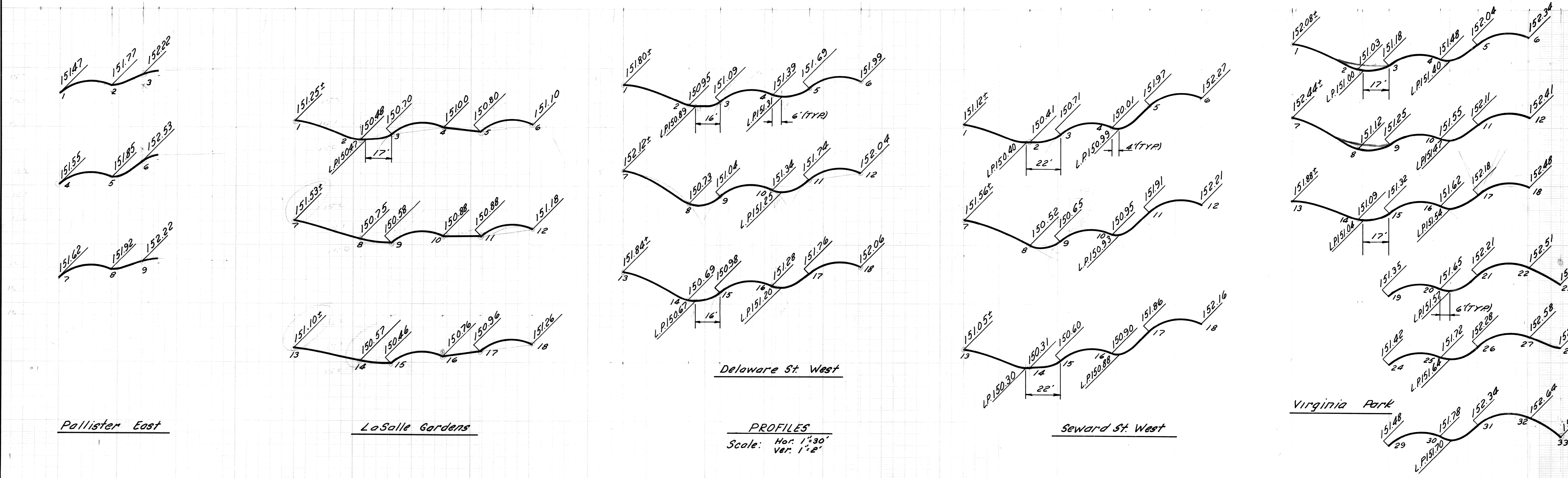
NOTE - FOR SYMBOLS (A) ETC., SEE STANDARD DETAIL DRAWING NO. C-473

BENCH MARKS ELEV.



PLAN  
Scale 1"=30'

LEGEND  
 Strip & Resurface Existing Pav't.



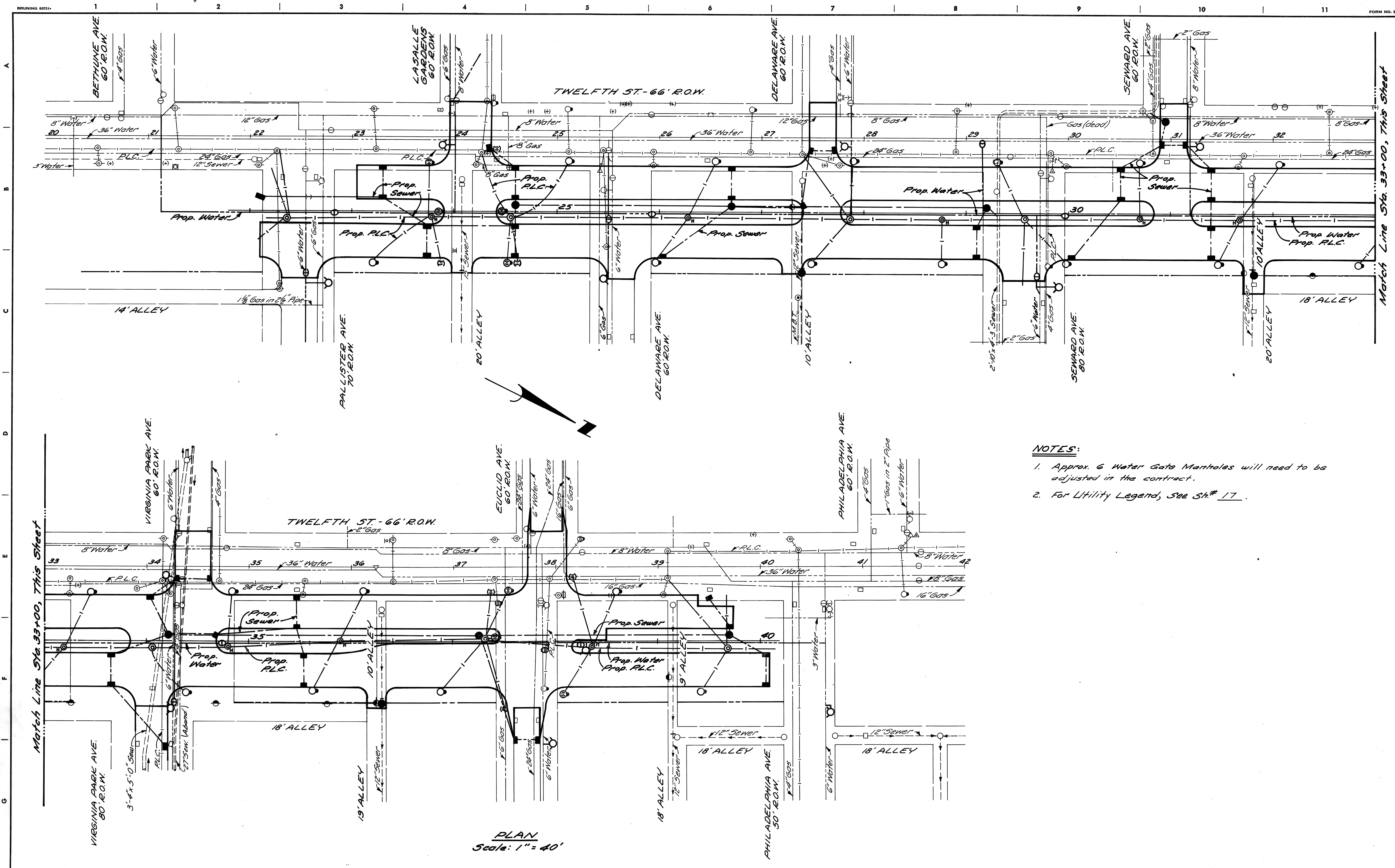
PROFILES  
Scale: Hor. 1"=30' Ver. 1"=2'

BY	CHECKED BY	APPROVED:
PLAN		<i>Alan E. Pagan</i>
GRADE		ENGINEER OF PUBLIC WORKS
ESTIMATE		ADMINISTRATIVE ENGINEER
DESCRIPTION	DR'N	CK'D
REVISIONS	AP'VD	DATE
FINAL	CHECK	REVIEW
		HEAD CIVIL ENGINEER

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 FOR  
 COMMUNITY DEVELOPMENT COMMISSION

TWELFTH STREET WIDENING  
 PALLISTER TO PHILADELPHIA  
 DETAILED GRADES 12<sup>TH</sup> ST. AT PALLISTER, LASALLE GARDENS, DELEWARE, SEWARD AND VIRGINIA PARK.

INDEX NO.	SHEET 15 OF 46 SHEETS
CONTRACT NO.	PW 6519
ASSIGNMENT NO.	A.O. 2091
DATE	JAN 31 1973



PLAN  
Scale: 1" = 40'

**NOTES:**

1. Approx. 6 Water Gate Manholes will need to be adjusted in the contract.
2. For Utility Legend, see Sh.# 17.

DESIGNED BY	M. P.
DRAWN BY	
TRACED BY	
CHECKED BY	R.A.C. / I.K.

APPROVED:  
*Allen Spitzer*  
ENGINEER OF EXPRESSWAYS

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE  
FOR  
COMMUNITY DEVELOPMENT COMMISSION

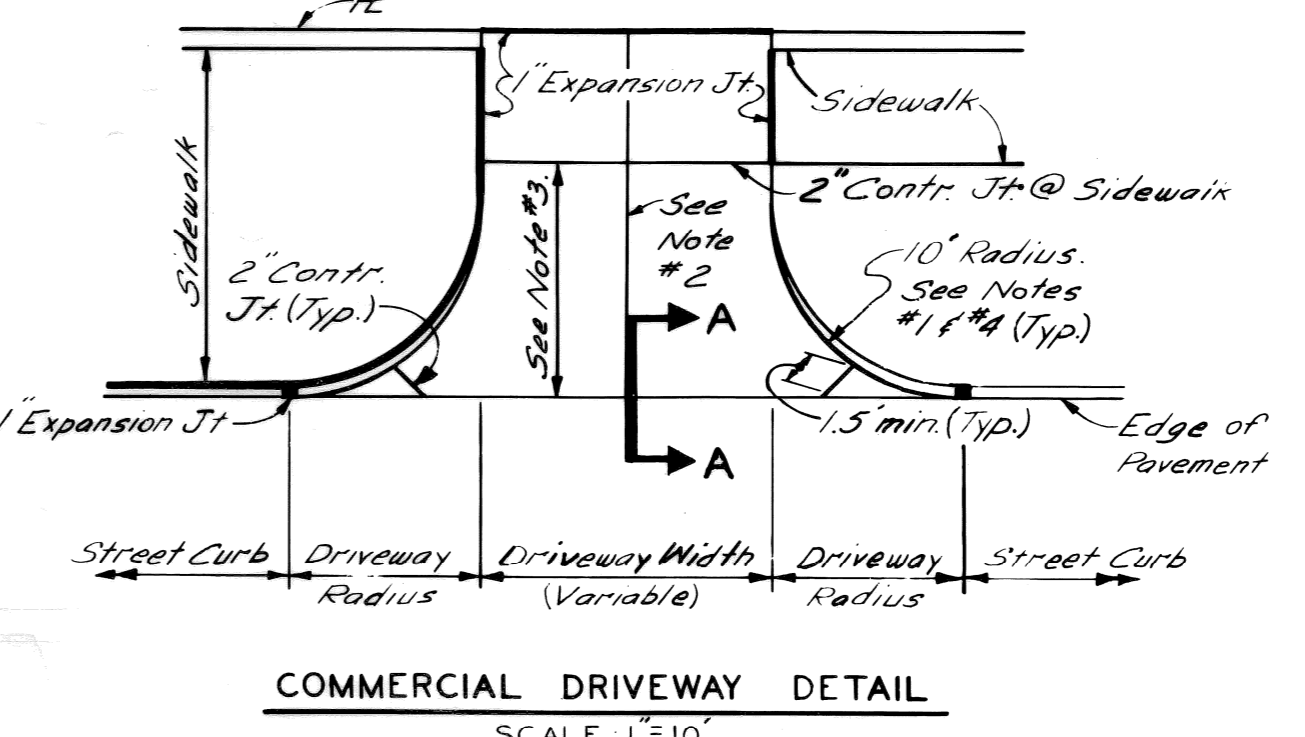
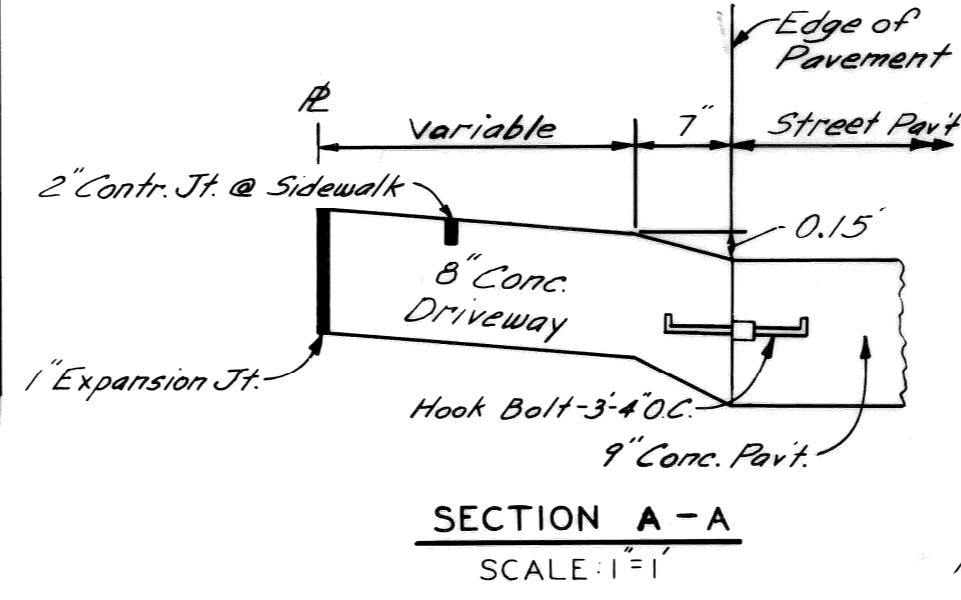
TWELFTH STREET WIDENING  
PALLISTER TO PHILADELPHIA  
UTILITIES

SHEET	16	OF	46	SHEETS
CONTRACT No.	P.W. 6519			
ASSIGNMENT No.	A.O. 2091			
DATE	JAN 31 1973			

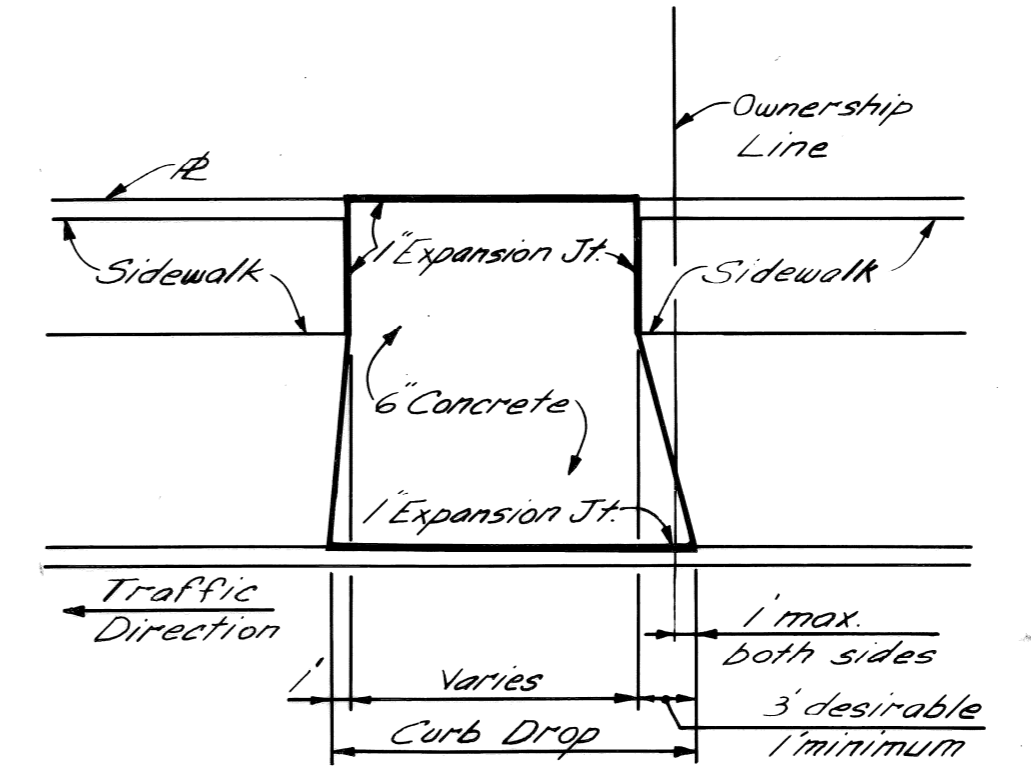
COLOR	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BLACK	---	PROPERTY AND LOT LINES	○	SEWER MANHOLE	#	STREET SIGN POST
"	---	PROPOSED CURB LINES AND HEADERS AT RETURNS	⊙	P.L.C. HANDHOLE	□	CATCH BASIN
"	---	EXISTING CURB LINES OR EDGE OF PAVEMENT	⊖	WATER MANHOLE OR GRATE	(W)	WATER METER
"	---	PROPOSED CURB OR PAVING ON INTERSECTING STREET	⊕	GAS MANHOLE OR GRATE	(-)	WATER SHUT-OFF
"	---	PROPOSED SEWER TO CATCH BASINS	⊗	WESTERN UNION MANHOLE	(+)	GAS SHUT-OFF
	---	EXISTING LATERAL SEWERS	⊙	MICHIGAN BELL MANHOLE	⊠	GAS DRIP
	---	EXISTING PUBLIC SEWERS	⊕	EDISON STEAM MANHOLE	□	DRAIN OR VENT
	---	EXISTING GAS LINES	⊖	EDISON ELECTRIC MANHOLE		GUY POLE
	---	EXISTING WATER LINES	⊕	FIRE DEPT. MANHOLE	+	MAIL BOX
	---	PROPOSED C.B. M.H. & INLET SEWER	⊖	POLICE DEPT. MANHOLE	⊠	AREAWAY OR COAL CHUTE
	---	EXISTING C.B., M.H. & INLET SEWERS	III	D.S.R. MANHOLE	○	FLAG POLE
	---	PROPOSED C.B. M.H. & INLET SEWERS ON INTERSECTING STREETS	⊙	FIRE DEPT. STANDARD HYDRANT	⊠	SPRINKLER BOX
	---		⊖	FIRE DEPT. HIGH PRESSURE HYDRANT	⊠	DEAD MANHOLE
	---		⊕	FIRE DEPT. CALL BOX	⊗	TREE
	---		⊖	FIRE DEPT. HIGH PRESSURE MANHOLE	⊕	PLC & FD MANHOLE FILLED WITH SAND
	---		⊕	POLICE DEPT. CALL BOX		TRACK DRAIN
	---		⊙	P.L.C. LIGHT POLE	+	TRAFFIC SIGN POST
	---		⊙	P.L.C. POLE	(2)	TRAFFIC SIGNAL LIGHT
	---		⊙	TELEPHONE POLE	⊙	TRAFFIC SIGNAL ON LIGHT POST
	---		⊕	EDISON POLE	II	D.S.R. DANGER PLATE

SYMBOL	DESCRIPTION
---	DETROIT EDISON ELECTRIC CONDUIT
---	DETROIT EDISON STEAM CONDUIT
---	WESTERN UNION DUCTS
---	MICHIGAN BELL TELEPHONE DUCTS
---	P.L.C. CONDUITS
---	DETROIT FIRE OR POLICE DEPT CONDUITS (PLC COMMUNICATIONS)

DESIGNED BY	APPROVED	<b>CITY OF DETROIT</b> <b>DEPARTMENT OF PUBLIC WORKS</b> <b>CITY ENGINEER'S OFFICE</b> <b>BUREAU OF DESIGN</b> <b>PAVING</b> <b>DETAIL NO. 25</b>	<b>STANDARD SYMBOLS FOR UTILITIES</b>
DRAWN BY T. KANOW	<i>J. H. Hicke</i>		
TRACED BY T.K.	<i>Paul R. Adams</i>	BOX NO.	SCALE NO SCALE
CHECKED BY N. KAWAUSKI	CITY ENGINEER	PAGE NO.	DATE 10.11.58
		DWG. NO.	C-902-A



- NOTES - COMMERCIAL DRIVEWAY**
1. Transition edge of driveway from curb at the street to no curb at the end of the driveway radius.
  2. Where driveway exceeds 15' in width, a contraction joint shall be placed longitudinally along  $\mathcal{C}$ .
  3. When distance exceeds 15', a transverse contraction joint will be required.
  4. Radius 10' unless otherwise directed by the Engineer.



DESIGNED BY	J.R.D.	APPROVED	<i>Wm. W. ...</i> ENGINEER OF EXPRESSWAYS
DRAWN BY			
TRACED BY			
CHECKED BY	RBP		

**CITY OF DETROIT**  
**DEPARTMENT OF PUBLIC WORKS**  
**CITY ENGINEERS OFFICE**  
 FOR  
**COMMUNITY DEVELOPMENT COMMISSION**

**TWELFTH STREET WIDENING**  
**PALLISTER TO PHILADELPHIA**  
**SPECIAL STANDARDS & SPECIAL DETAILS**

SHEET	17	OF	46	SHEETS
CONTRACT No.	P.W. 6519			
ASSIGNMENT No.	A.O. 2091			
DATE	JAN 31 1973			