

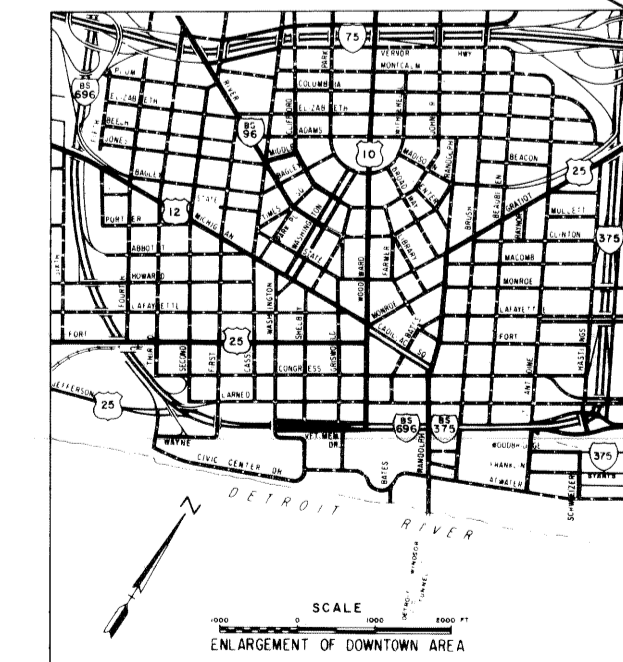
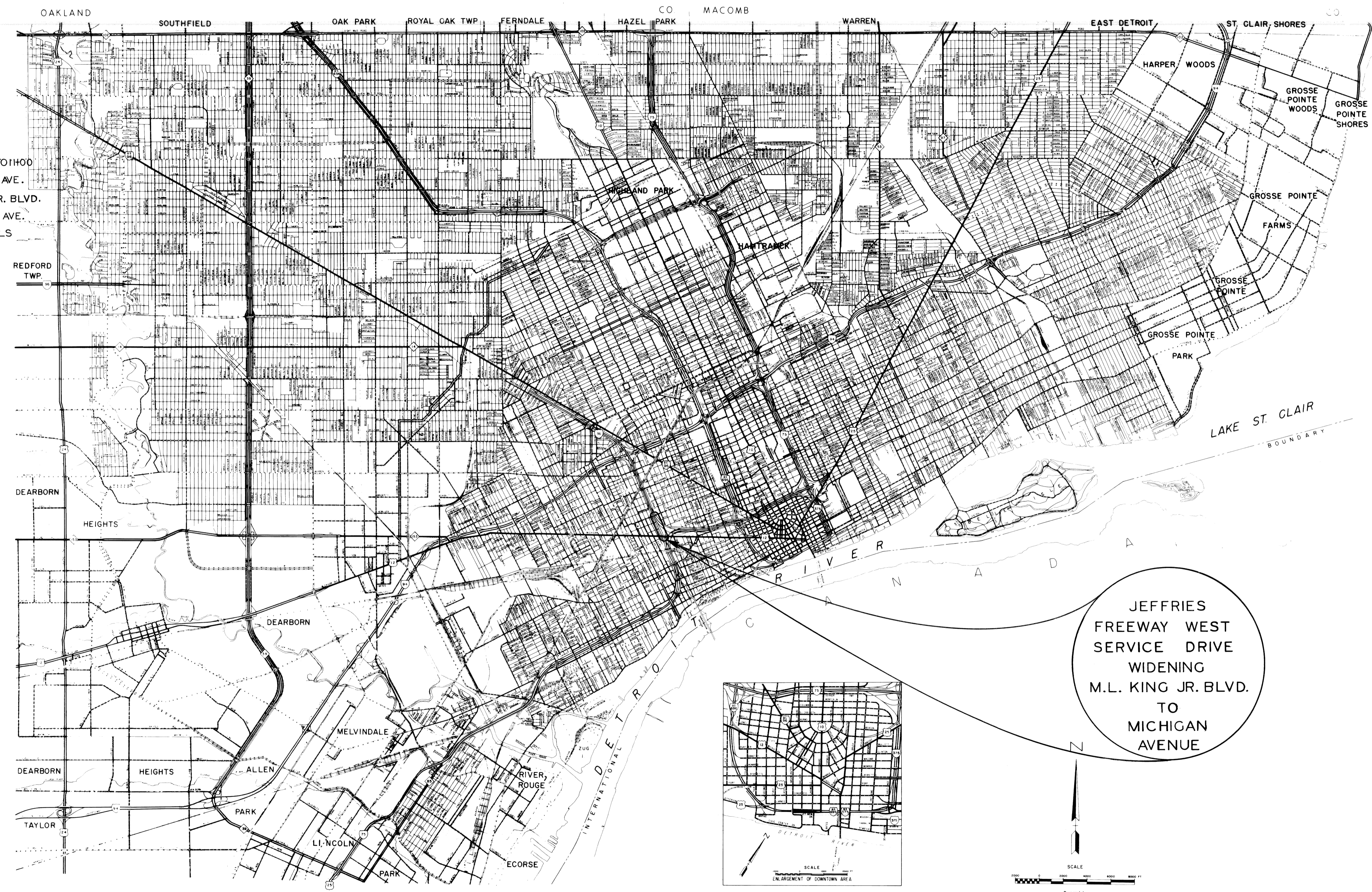
CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS

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

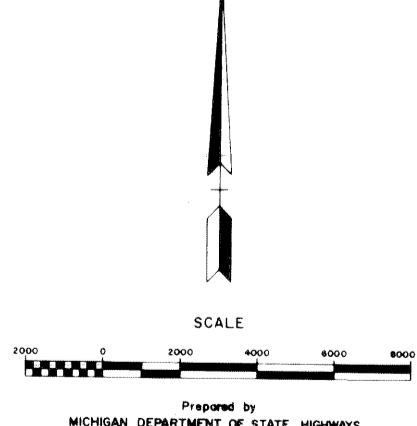
IN CO-OPERATION WITH MICHIGAN DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION FEDERAL AID URBAN PROJECT NO. MICHIGAN M 2000 () CONTROL SECTION JOB NO.

F H W A REGION	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MICH.				
STREET	CITY	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS
	DETROIT	WAYNE			

- INDEX OF SHEETS
- 1 TITLE SHEET
 - 2 TYPICAL CROSS-SECTIONS
 - 3 ALIGNMENT
 - 4 REMOVAL - UTILITIES
 - 5 PLAN - PROFILE, M.L. KING JR. BLVD. TO I100
 - 6 PLAN - PROFILE, I1+00 TO MICHIGAN AVE.
 - 7 DETAILED GRADES AT M.L. KING JR. BLVD.
 - 8 DETAILED GRADES AT MICHIGAN AVE.
 - 9-11 SPECIAL STANDARDS AND DETAILS
 - 12 QUANTITY SHEET
- STANDARD PLANS
- II-28 G
 - II-29 C
 - II-39 G
 - II-40 D
 - II-41 D
 - II-42 C
 - II-43 C
 - II-45 C
 - III-60 E
 - IV-84 B
 - V-96 C
 - V-98 C
 - V-100 A
 - VI-124 C
 - VI-124 E



JEFFRIES
FREEWAY WEST
SERVICE DRIVE
WIDENING
M.L. KING JR. BLVD.
TO
MICHIGAN
AVENUE



ITEM NO. _____

CONTRACT FOR G, DS, P, & UTILITIES

LOCAL AUTHORITY APPROVAL
CITY OF DETROIT
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

APPROVED BY _____ ASSISTANT CITY ENGINEER _____ DATE _____

APPROVED BY _____ CITY ENGINEER _____ DATE _____

PREPARED UNDER SUPERVISION OF _____

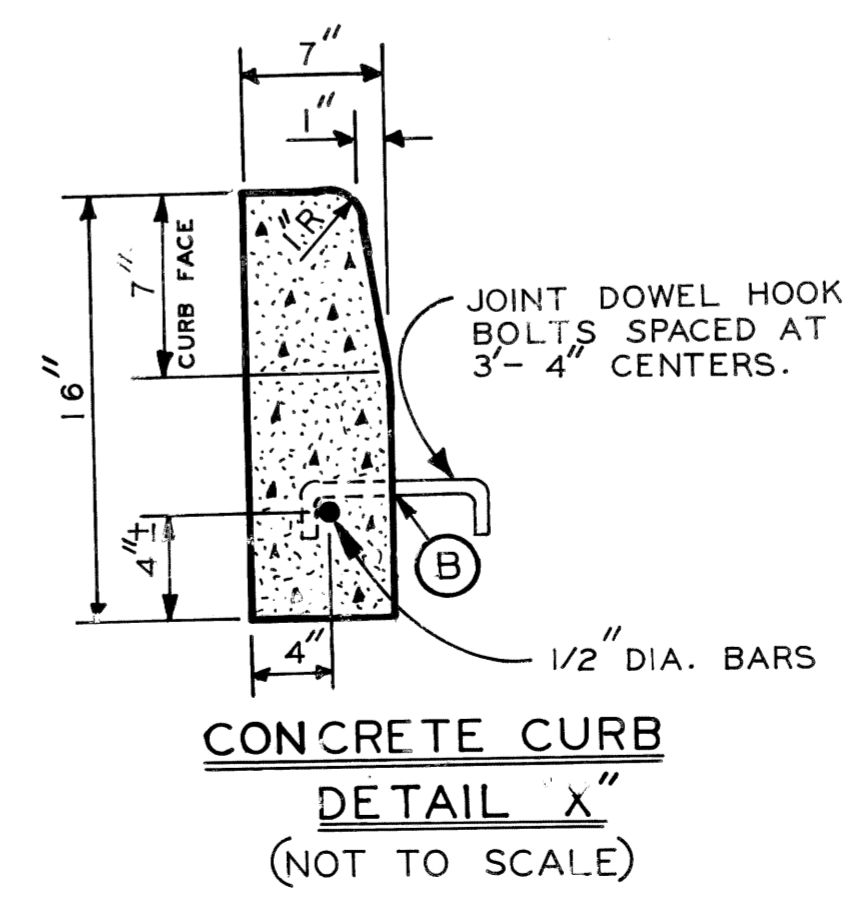
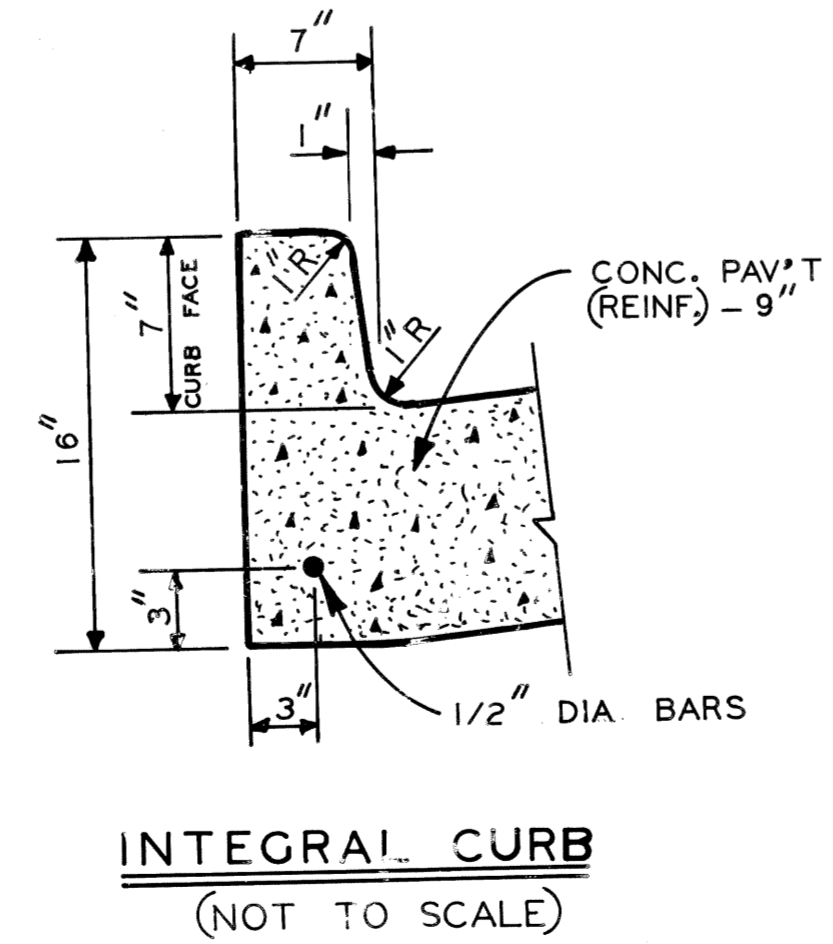
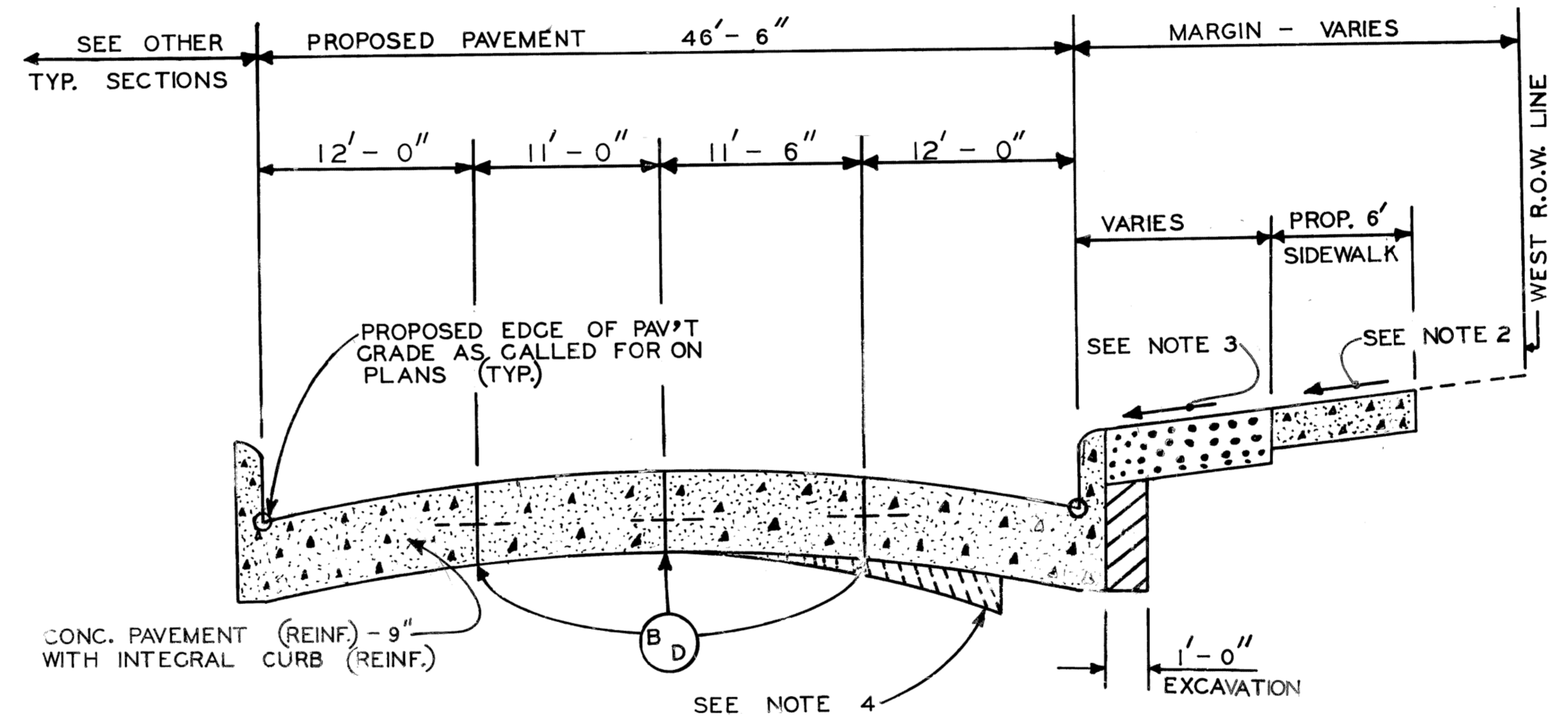
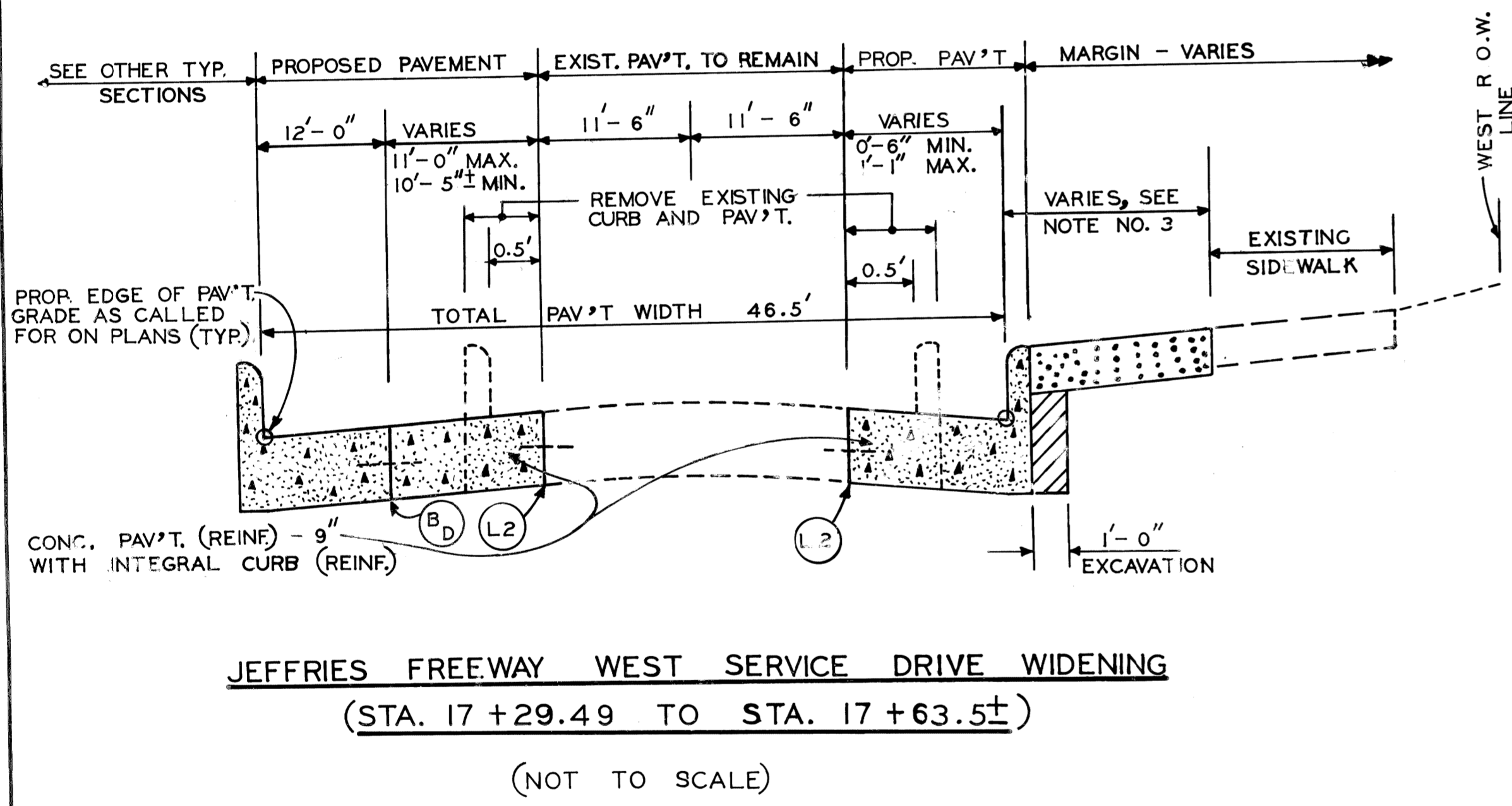
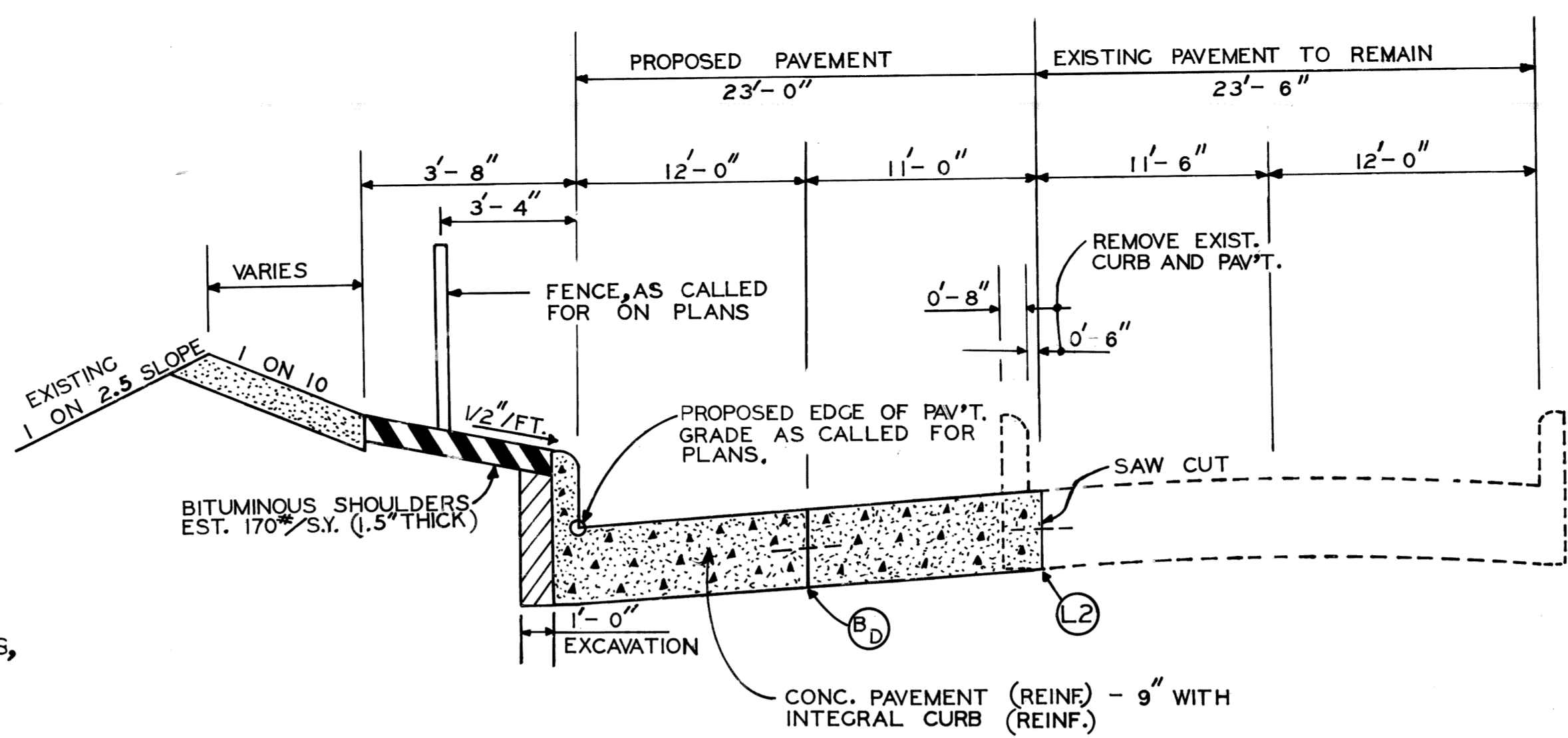
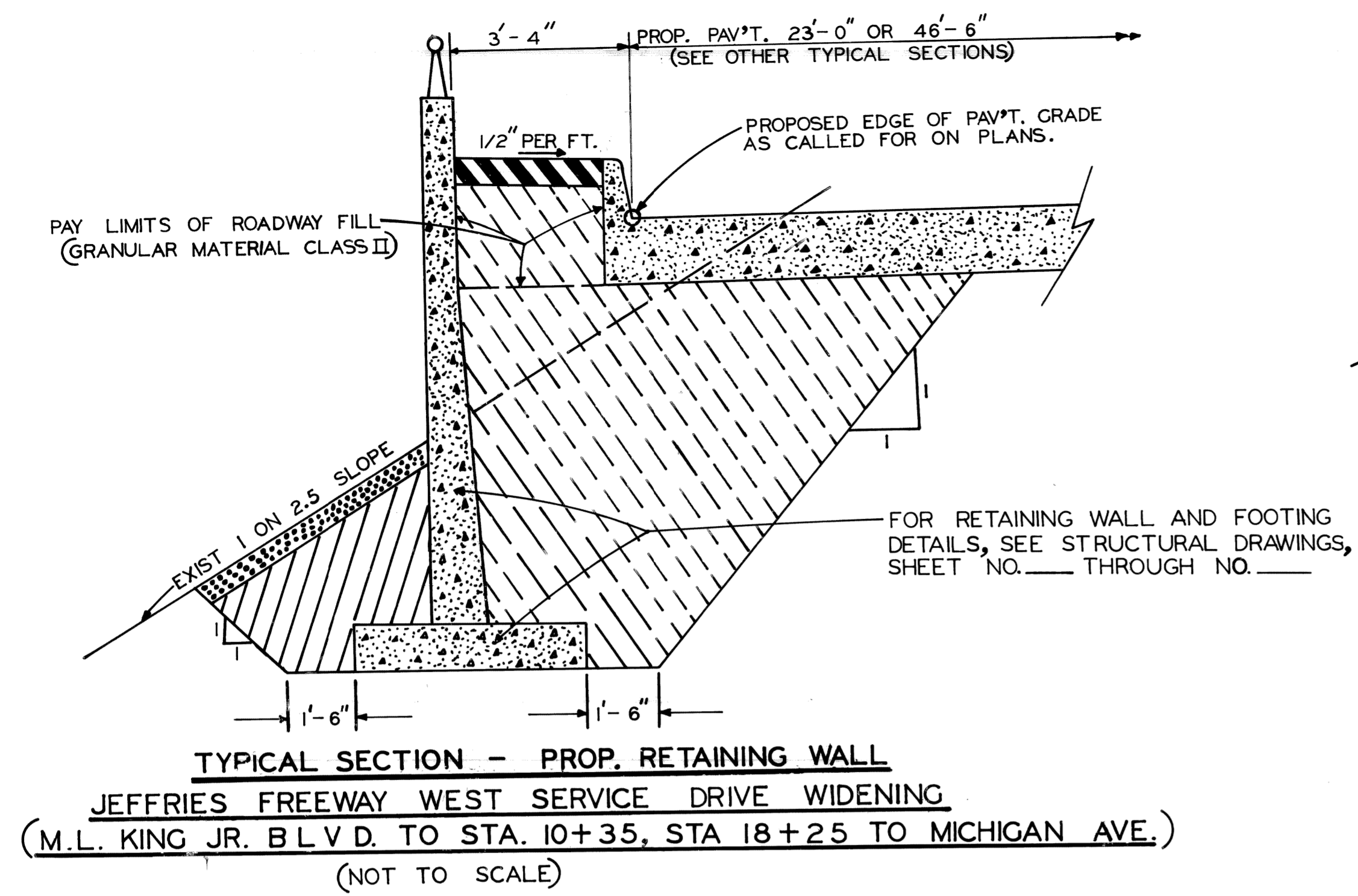
REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO. _____

CITY OF DETROIT
ORGANIZATION

DETROIT, MICHIGAN
ADDRESS

(SEAL)

FILE NO.	STATE PROJECT	FEDERAL PROJECT	SHEET NO.
NO. 350			7



EARTHWORK LEGEND

- GRANULAR MATERIAL CLASS II.
- SELECTED EXCAVATED MATERIAL (INCIDENTAL TO PAVING COSTS).
- CLASS "B" SODDING WITH 3" TOPSOIL SURFACE.
- CLASS A SEEDING, 3" TOPSOIL SURFACE, CHEMICAL FERTILIZER NUTRIENT, AND EXCELSIOR MULCH BLANKETS.
- BITUMINOUS SHOULDERS (1/2" THICK).

JOINT LEGEND

- LONGITUDINAL BULKHEAD JOINT, ACCORDING TO M.D.O.T. STANDARD DRAWING II-41D.
- LONGITUDINAL LANE TIE JOINT WITH TIE BAR, ACCORDING TO M.D.O.T. STANDARD DRAWING II-41D.
- OPTIONAL, B OR D.
- LONGITUDINAL BULKHEAD JOINT, ACCORDING TO M.D.O.T. STANDARD DRAWING II-41D.

ESTIMATED QUANTITIES FOR USE AT THE DISCRETION OF THE ENGINEER

REMOVING OLD PAVEMENT (PATCHING)	5 SQ. YARDS.
CONC. PAVEMENT PATCHING TYPE FS, 9" NONREINF.	5 SQ. YARDS.
SUBGRADE UNDERCUTTING, TYPE II	10 CU. YARDS.
4" CONC. SIDEWALK	180 SQ. FEET.
REMOVING SIDEWALK	20 SQ. YARDS
CLEANING EXISTING STORM DRAINAGE STRUCTURES	5 EACH
SEWER CLEANOUT	150 LIN. FEET.
CEMENT	3 TONS
CONC. CURB, DETAIL "X"	35 LIN. FEET.
CLASS "B" SODDING	25 SQ. YARDS.
TOPSOIL SURFACE - 3"	25 SQ. YARDS.
WATER	1 UNIT
12" SEWER (C-76-III) TRENCH DETAIL 8	25 LIN. FEET
CATCH BASIN "L"	1 EACH
12" SEWER TRAP	1 EACH
REMOVING DRAINAGE STRUCTURES	1 EACH

MISCELLANEOUS QUANTITIES

MOBILIZATION	1 LUMP SUM
ON THE JOB TRAINING	1 EACH
MINOR TRAFFIC DEVICES	1 LUMP SUM

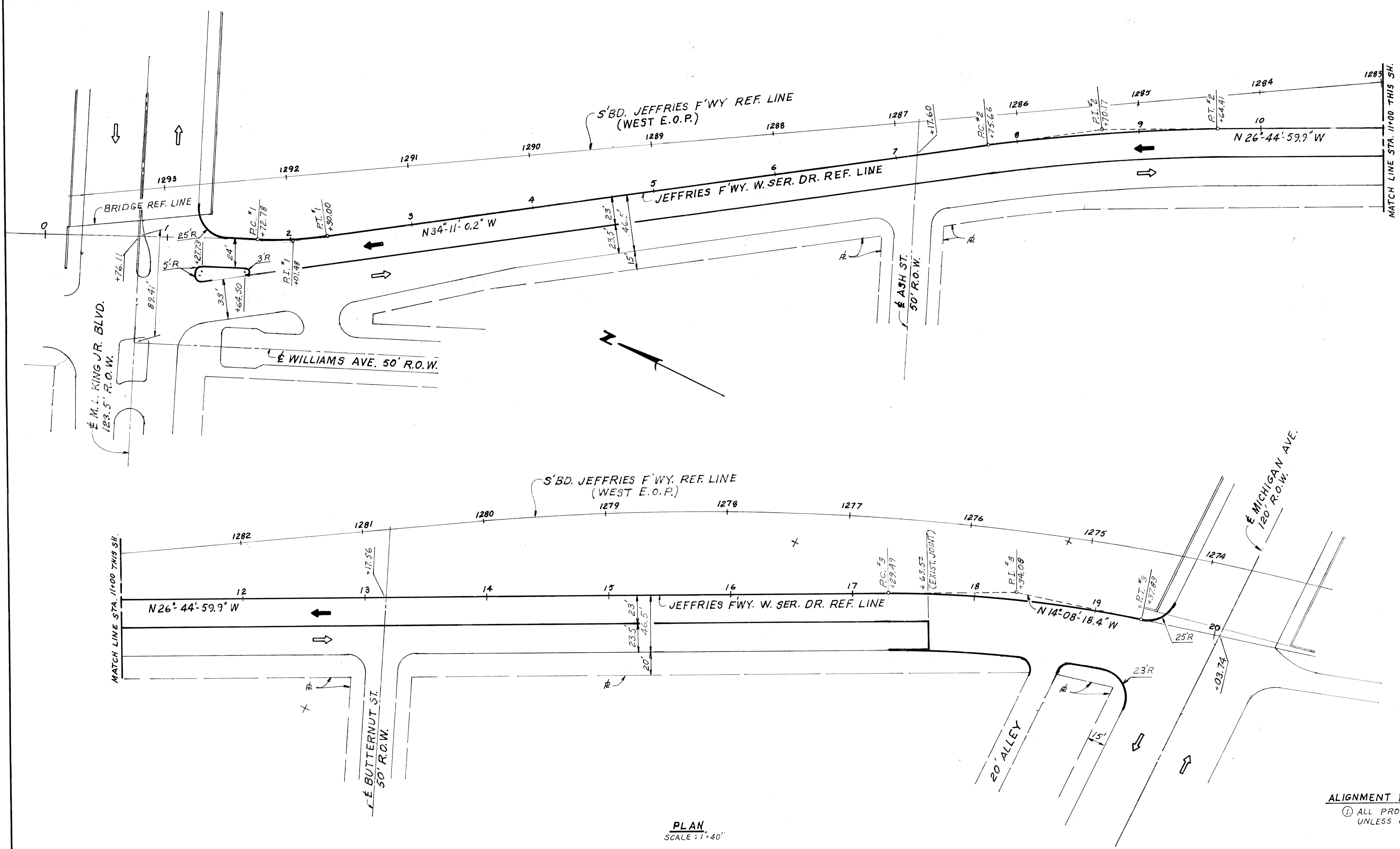
- GENERAL NOTES**
- THE PROPOSED CURB SHALL BE INTEGRAL CURB (SEE DETAIL THIS SHEET) WITH CONC. CURB DETAIL "X" AS AN ALTERNATE. REGARDLESS OF CONSTRUCTION METHOD, THE PROP. CURB SHALL BE PAID FOR AS "CONC. PAVEMENT (REINF.) - 9" WITH INTEGRAL CURB (REINF.)"
 - SIDEWALK SHALL SLOPE AT 3/8" PER FOOT UNLESS THE ENGINEER DETERMINES OTHERWISE TO MEET EXISTING CONDITIONS. THE ENGINEER WILL CHOOSE WITHIN THESE LIMITS: 1/4" PER FOOT MIN. TO 3/4" PER FOOT MAX..
 - SODDED AREAS SHALL SLOPE FROM 1/4" PER FOOT MIN. TO 1" PER FOOT MAX..
 - BACKFILL, IF REQUIRED, UNDER PROP. PAVEMENT AND SIDEWALK SHALL BE GRANULAR MATERIAL CLASS II.

DESIGNED BY	RBP/WB	APPROVED:		CITY OF DETROIT CITY ENGINEERING BUREAU OF STREETS AND HIGHWAYS	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING M.L. KING JR. BLVD. TO MICHIGAN AVENUE	SHEET 2 OF 2 SHEETS
DRAWN BY	EO	ENGINEER OF STREETS				
TRACED BY		HIGHWAY ENGINEER				
CHECKED BY						
COORD.						
DESCRIPTION						
REVISIONS LOCATED BY COORDINATES ON SHEET						

CURVE #1
 $\Delta = 10^{\circ}55'40.0''$
 $D = 19^{\circ}05'55.0''$
 $R = 300'$
 $T = 28.70'$
 $L = 57.22'$
 $E = 1.37'$
 $P.C. = 1+72.78$
 $P.I. = 2+01.48$
 $P.T. = 2+30.00$

CURVE #2
 $\Delta = 7^{\circ}26'0.0''$
 $D = 3^{\circ}56'17.3''$
 $R = 1454.89'$
 $T = 94.51'$
 $L = 188.75'$
 $E = 3.07'$
 $P.C. = 7+75.66$
 $P.I. = 8+70.17$
 $P.T. = 9+64.41$

CURVE #3
 $\Delta = 12^{\circ}36'41.5''$
 $D = 6^{\circ}03'12.4''$
 $R = 946.50'$
 $T = 104.59'$
 $L = 208.34'$
 $E = 5.76'$
 $P.C. = 17+29.49$
 $P.I. = 18+34.08$
 $P.T. = 19+37.83$

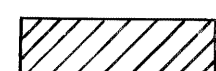
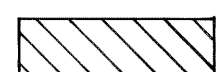
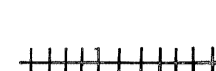





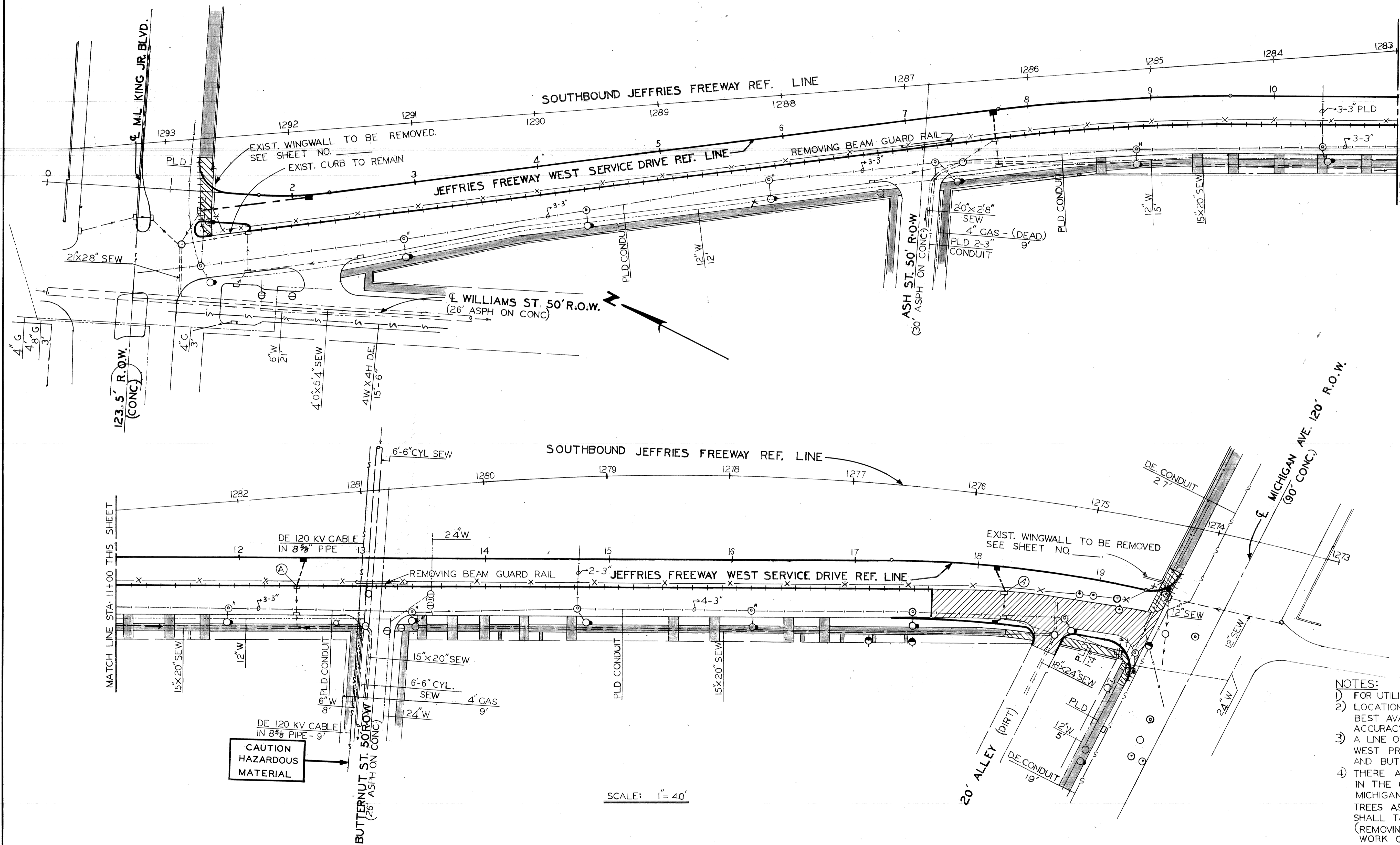
PLAN
 SCALE: 1"=40'

ALIGNMENT NOTES:
 ① ALL PROP. ALLEY RETURN RADII SHALL BE 10' UNLESS OTHERWISE NOTED

REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY		APPROVED: ENGINEER OF STREETS HIGHWAY ENGINEER		CITY OF DETROIT CITY ENGINEERING BUREAUS OF STREETS AND HIGHWAYS			JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING M.L. KING JR. BLVD. TO MICHIGAN AVE. ALIGNMENT			SHEET 3 OF SHEETS CONTRACT NO. ASSIGNMENT NO. DATE	
COORD	DESCRIPTION	DRN	CK'D	AP'VD	DATE						

REMOVAL LEGEND

-  REMOVING PAVEMENT
-  REMOVING SIDEWALK
-  REMOVING CURB
-  MOVING FENCE
-  ABANDONING DRAINAGE STRUCTURE
-  EXIST. SIDEWALK AND DRIVEWAY TO REMAIN



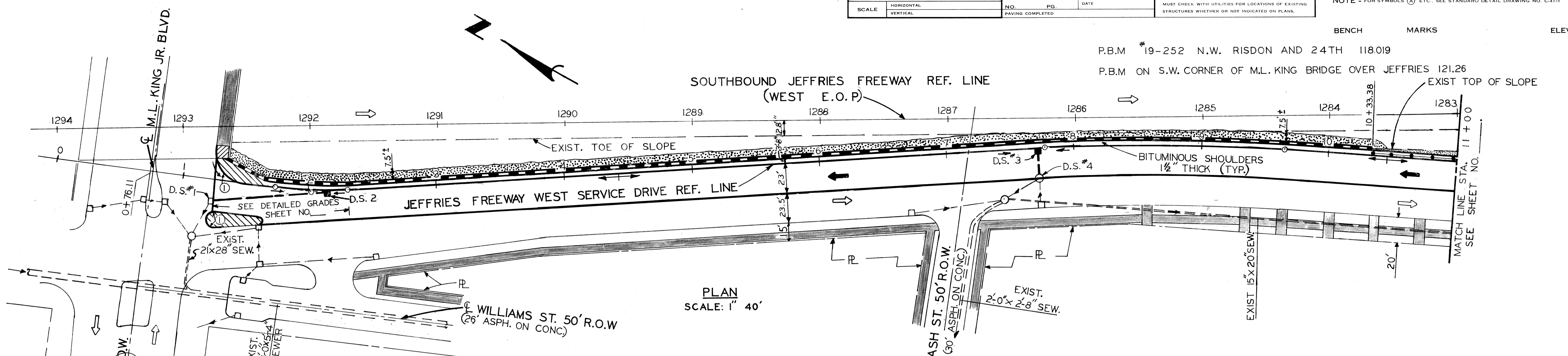
CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

- NOTES:
- 1) FOR UTILITY LEGEND, SEE SHEET NO. _____
 - 2) LOCATIONS OF EXISTING UTILITY LINES ARE BASED ON THE BEST AVAILABLE RECORDS AND ARE NOT GUARANTEED FOR ACCURACY.
 - 3) A LINE OF DETROIT EDISON WOOD POLES EXISTS ALONG THE WEST PROPERTY LINE OF THE SERVICE DRIVE BETWEEN ASH AND BUTTERNUT STREETS.
 - 4) THERE ARE APPROX. 40 TREES (6" DIA. OR LESS) GROWING IN THE GRASSY FREEWAY SLOPE BETWEEN M.L. KING AND MICHIGAN. THE CONTRACTOR SHALL REMOVE ONLY AS MANY TREES AS NECESSARY TO PERFORM THE CONTRACT WORK AND SHALL TAKE CARE NOT TO DAMAGE THE REMAINING TREES. (REMOVING TREES LESS THAN 8" DIA. IS INCLUDED IN THE WORK OF "EARTH EXCAVATION.")

SCALE: 1" = 40'

CAUTION
HAZARDOUS
MATERIAL

<table border="1"> <tr><td>COORD</td><td>DESCRIPTION</td><td>DRN</td><td>CHK'D</td><td>AP'VD</td><td>DATE</td></tr> <tr><td colspan="6">REVISIONS LOCATED BY COORDINATES ON SHEET</td></tr> <tr><td>1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	COORD	DESCRIPTION	DRN	CHK'D	AP'VD	DATE	REVISIONS LOCATED BY COORDINATES ON SHEET						1						2						REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY	E.O. W.B.	APPROVED: ENGINEER OF STREETS HIGHWAY ENGINEER	CITY OF DETROIT CITY ENGINEERING BUREAU OF STREETS AND HIGHWAYS	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING M.L. KING JR. BLVD. TO MICHIGAN AVE. UTILITIES AND REMOVALS	SHEET 4 OF 4 SHEETS CONTRACT NO. ASSIGNMENT NO. DATE
	COORD	DESCRIPTION	DRN	CHK'D	AP'VD	DATE																								
	REVISIONS LOCATED BY COORDINATES ON SHEET																													
	1																													
2																														



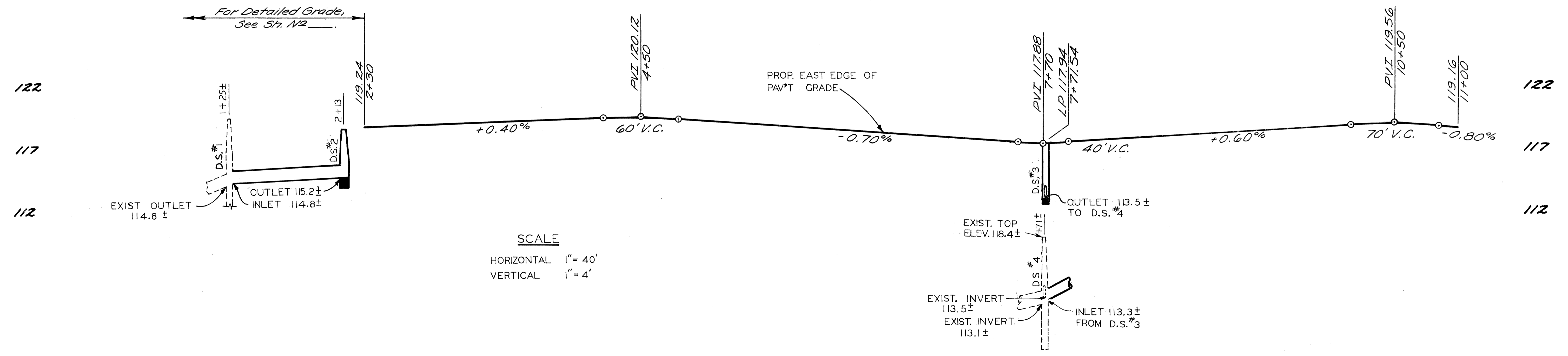
D.S. NO.	TYPE OF STRUCTURE	LENGTH (FEET) OF SEWER LEAVING D.S.	DIAM. / CLASS OF SEWER LEAVING D.S.	TRENCH DETAIL	SEWER TAP SIZE	NOTES
1	EXIST. C.B. (TRAPPED)	EXIST.	EXIST. 12"	EXIST.		REMOVE EXIST. FRAME AND COVER* REPLACE WITH MANHOLE FRAME AND COVER
2	C.B. "B"	86	12" C-76-III	9	12"	
3	C.B. "A"	23	12" C-76-III	9	12"	
4	EXIST. C.B. (TRAPPED)	EXIST.	EXIST. 12"	EXIST.		REMOVE EXIST. FRAME AND COVER* REPLACE WITH MANHOLE FRAME AND COVER

*REMOVAL OF EXIST. FRAME AND COVER INCIDENTAL TO MANHOLE FRAME AND COVER

- PLAN LEGEND**
- CONCRETE PAV'T. (REINF.) - 9" WITH INTEGRAL CURB (REINF.)
 - 4" CONCRETE SIDEWALK
 - 6" CONCRETE SIDEWALK (RAMP AREAS ARE PAID FOR SEPARATELY)
 - EXISTING SIDEWALK OR DRIVEWAY TO REMAIN
 - SIDEWALK RAMP, TYPE 1
 - DRAINAGE FLOW ARROWS
 - PROPOSED RETAINING WALL (SEE STRUCTURAL DRAWINGS, SH. NO. ____ THRU NO. ____)
 - MOVING FENCE (SEE TYPICAL CROSS SECTIONS, SH. NO. ____ FOR LOCATION DETAILS)
 - CLASS "B" SODDING AND 3" TOPSOIL SURFACE
 - CLASS A SEEDING, 3" TOPSOIL SURFACE, CHEMICAL FERTILIZER NUTRIENT, AND EXCELSIOR MULCH BLANKETS.

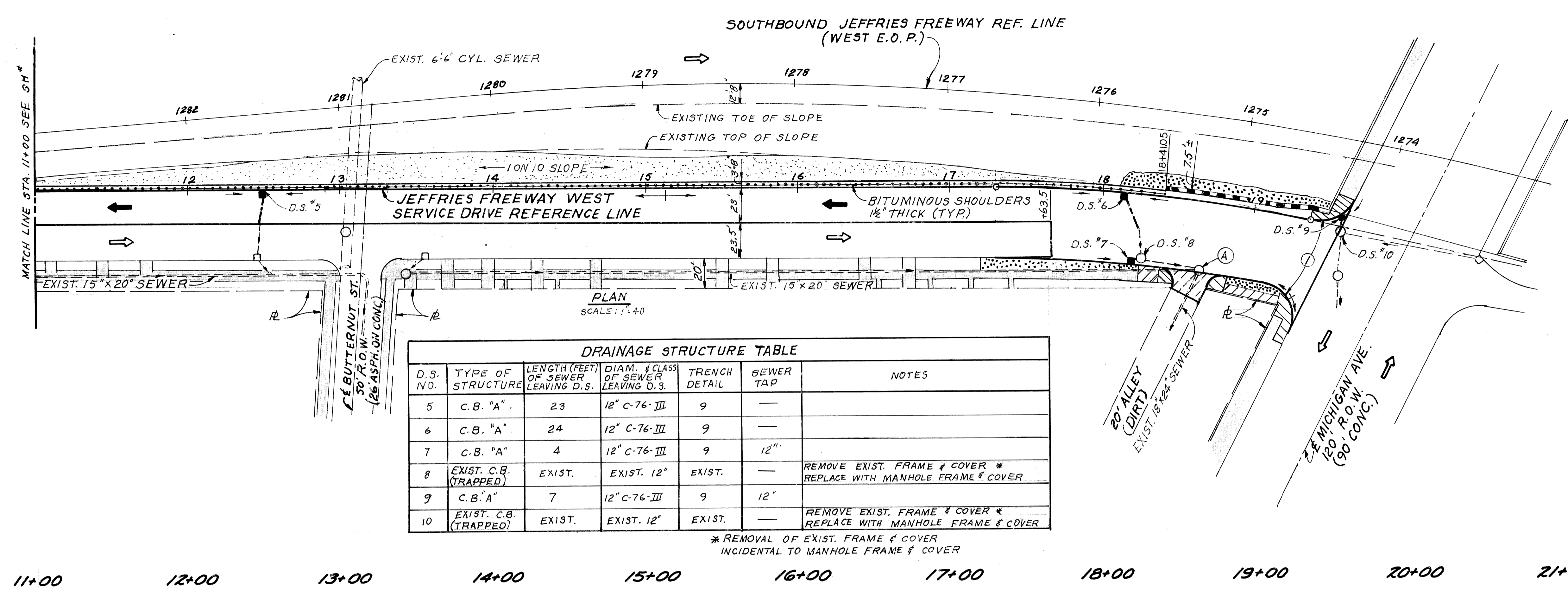
- NOTES:**
- FOR ALIGNMENT, SEE SHEET NO. ____.
 - FOR UTILITY LEGEND AND SYMBOLS, SEE SHEET NO. ____.

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00



DESCRIPTION		DR	CK	AP	VD	DATE	BY			CHECKED BY			APPROVED:			CITY OF DETROIT CITY ENGINEERS OFFICE	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING M.L. KING JR. BLVD. TO MICHIGAN AVE.			INDEX NO.	SHEET 5 OF 5 SHEETS
REVISIONS							E.O.			W.B.			ENGINEER OF STREETS				CONTRACT NO.				
							E.O.			W.B.			ADMINISTRATIVE ENGINEER				ASSIGNMENT NO.				
							E.O.			W.B.			HEAD CIVIL ENGINEER				DATE				

BENCH MARKS ELEV.
 C.B.M. # ON HYDRANT N.W. MICHIGAN & JEFFRIES W. SER. DR. 122.41
 C.B.M. # ON HYDRANT N.W. BUTTERNUT & JEFFRIES W. SER. DR. 122.29

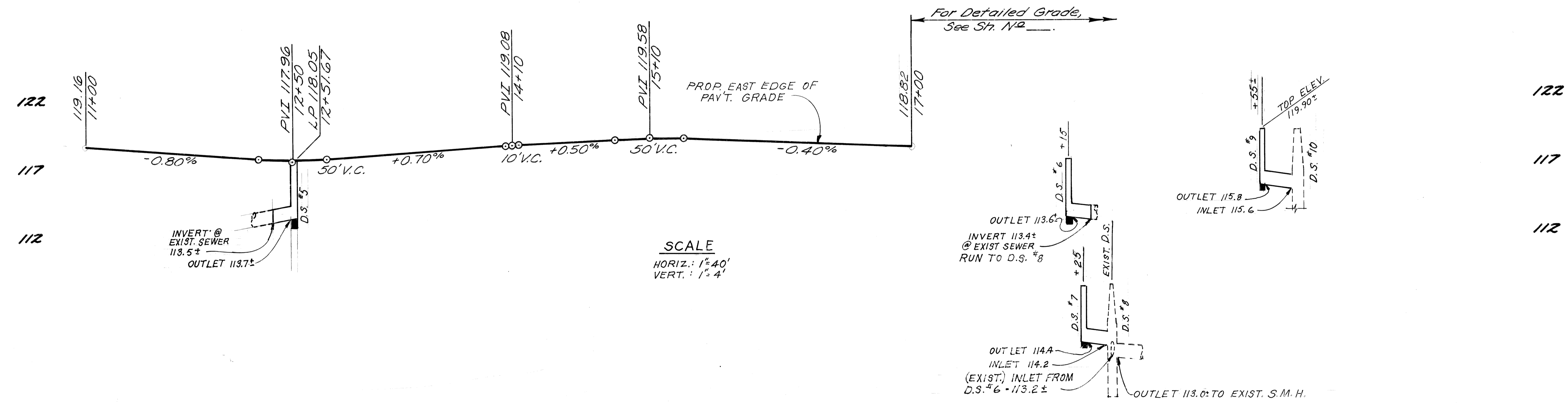


- PLAN LEGEND**
- CONCRETE PAV'T (REINF.) - 9" WITH INTEGRAL CURB (REINF.)
 - 4" CONCRETE SIDEWALK
 - 6" CONCRETE SIDEWALK
 - 9" CONCRETE PAV'T - NONREINF.
 - EXISTING SIDEWALK OR DRIVEWAY TO REMAIN
 - SIDEWALK RAMP, TYPE 1
 - DRAINAGE FLOW ARROWS
 - PROPOSED RETAINING WALL (SEE STRUCTURAL DRAWINGS, SH. NO. THRU NO.)
 - MOVING FENCE (SEE TYPICAL CROSS-SECTIONS, SH. NO. FOR LOCATION DETAILS.)
 - CLASS A SEEDING, 3" TOPSOIL SURFACE, CHEMICAL FERTILIZER NUTRIENT, & EXCELSION MULCH BLANKETS.
 - CLASS "B" SODDING & 3" TOPSOIL SURFACE.
 - (A) ADJUSTING DRAINAGE STRUCT. COVERS

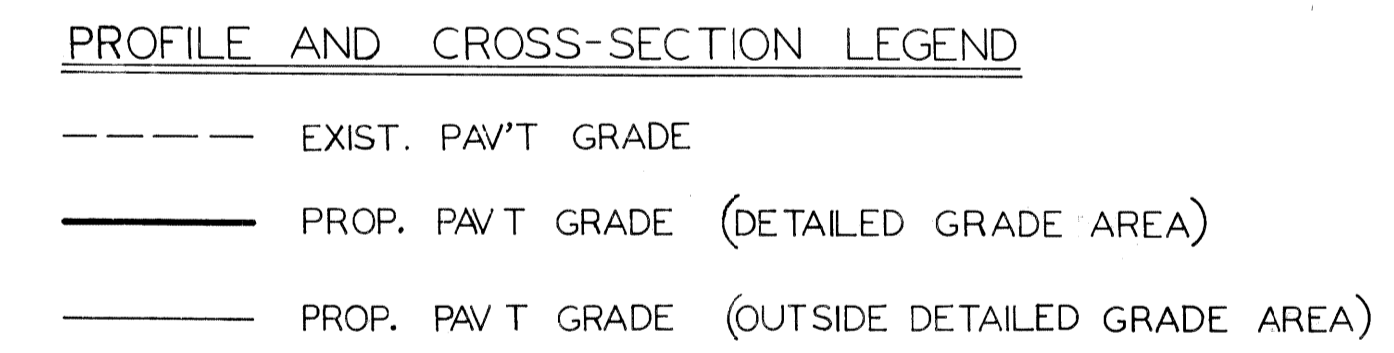
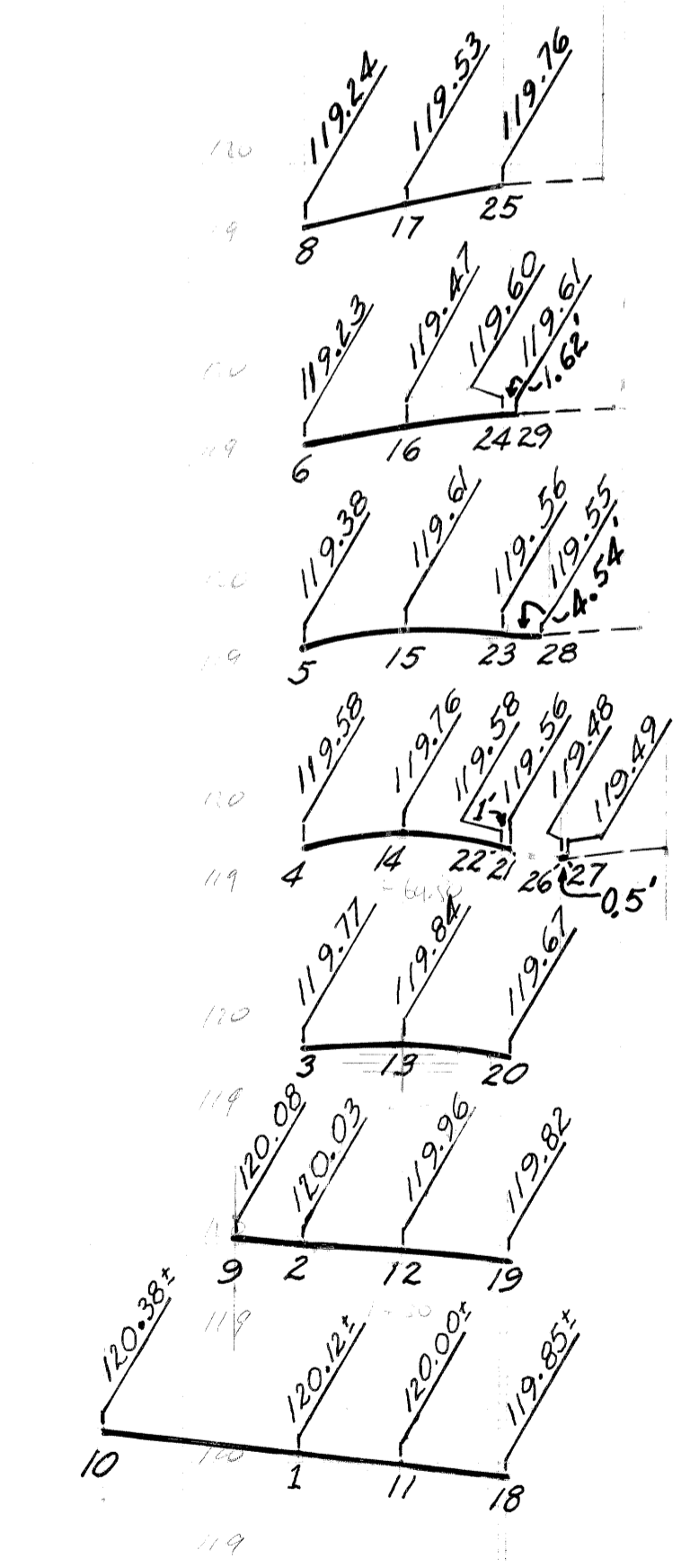
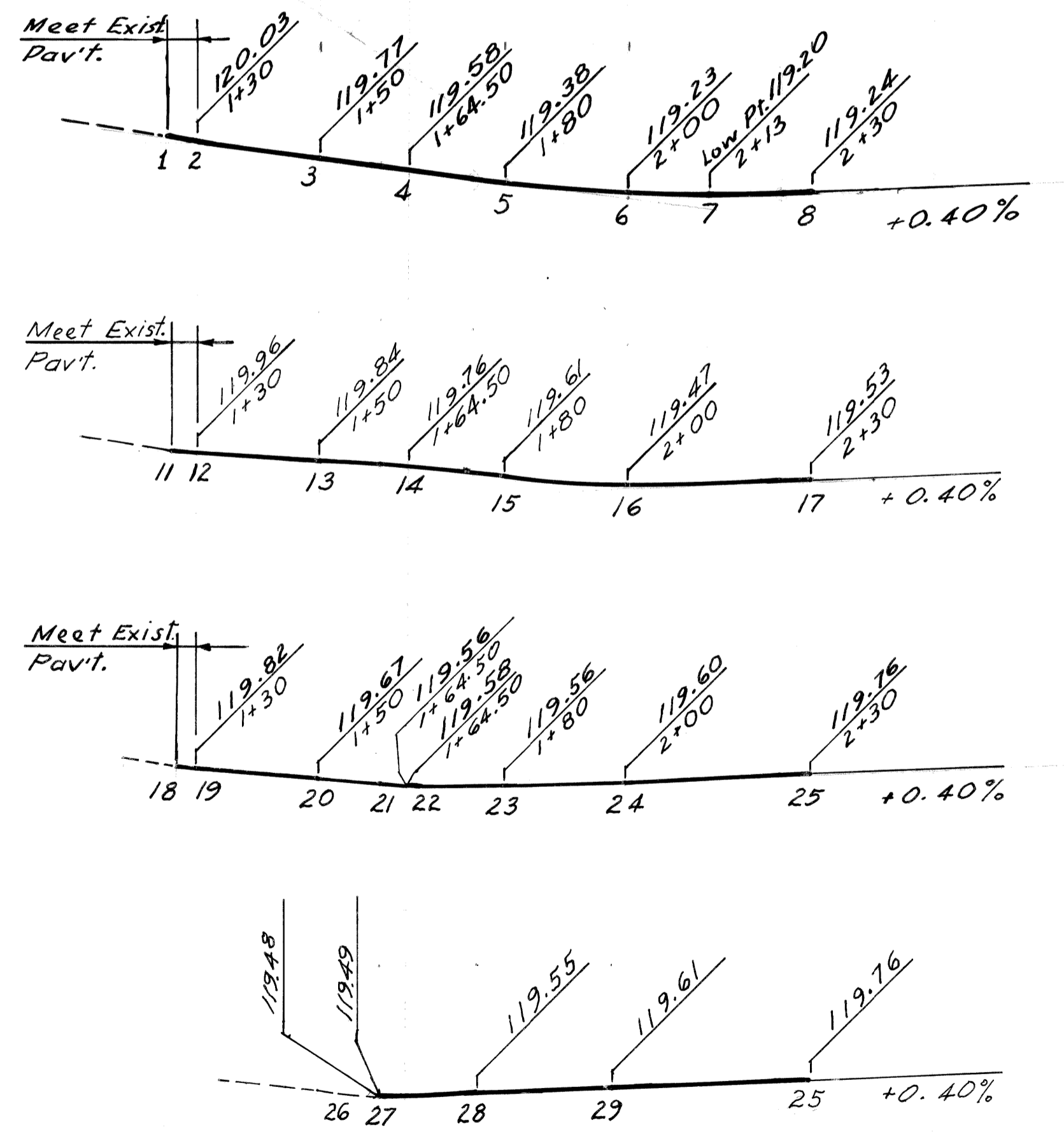
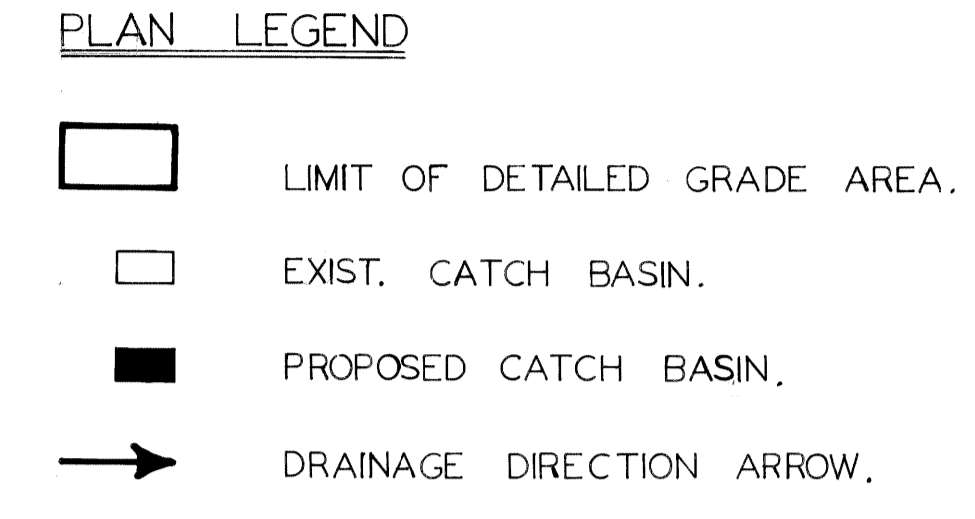
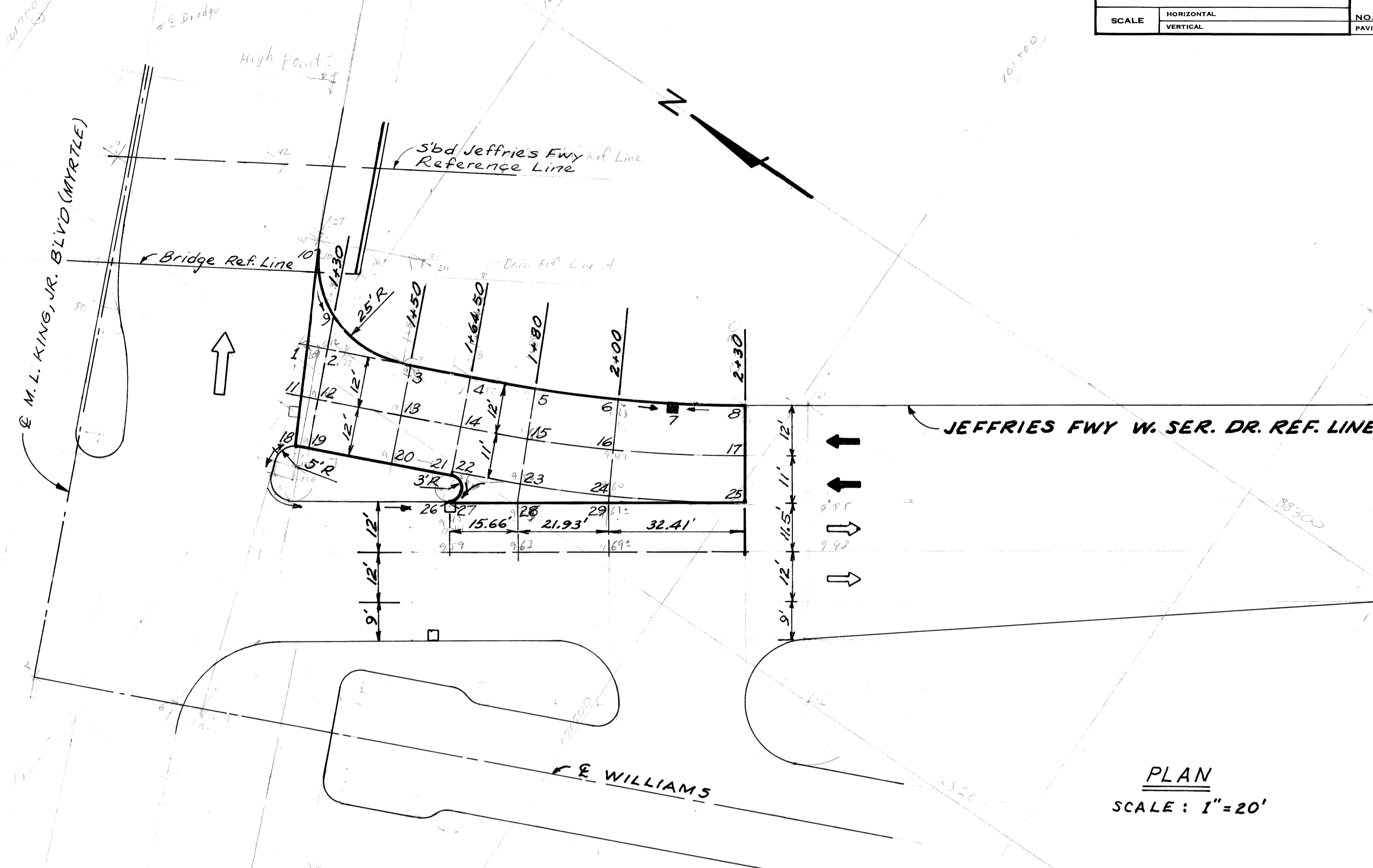
D.S. NO.	TYPE OF STRUCTURE	LENGTH (FEET) OF SEWER LEAVING D.S.	DIAM. & CLASS OF SEWER LEAVING D.S.	TRENCH DETAIL	SEWER TAP	NOTES
5	C.B. "A"	23	12" C-76-III	9	—	
6	C.B. "A"	24	12" C-76-III	9	—	
7	C.B. "A"	4	12" C-76-III	9	12"	
8	EXIST. C.B. (TRAPPED)	EXIST.	EXIST. 12"	EXIST.	—	REMOVE EXIST. FRAME & COVER * REPLACE WITH MANHOLE FRAME & COVER
9	C.B. "A"	7	12" C-76-III	9	12"	
10	EXIST. C.B. (TRAPPED)	EXIST.	EXIST. 12"	EXIST.	—	REMOVE EXIST. FRAME & COVER * REPLACE WITH MANHOLE FRAME & COVER

* REMOVAL OF EXIST. FRAME & COVER INCIDENTAL TO MANHOLE FRAME & COVER

- NOTES:**
- 1) FOR ALIGNMENT, SEE SH. #
 - 2) FOR UTILITY LEGEND AND SYMBOLS, SEE SH. #



11+00		12+00		13+00		14+00		15+00		16+00		17+00		18+00		19+00		20+00		21+00			
PLAN				BY LG		CHECKED BY WB		APPROVED:				CITY OF DETROIT				JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING				INDEX NO.		SHEET 6 OF SHEETS	
GRADE				BY LG/WB		WB		ENGINEER OF STREETS				CITY ENGINEERS OFFICE				M.L. KING JR. BLVD. TO MICHIGAN AVE.				TOP NO.		CONTRACT NO.	
ESTIMATE								ADMINISTRATIVE ENGINEER												INDEXED		ASSIGNMENT NO.	
DESCRIPTION				DR. N.		CK. D.		AP. VO.		DATE		FINAL		CHECK		REVIEW		HEAD CIVIL ENGINEER				DATE	
REVISIONS																							



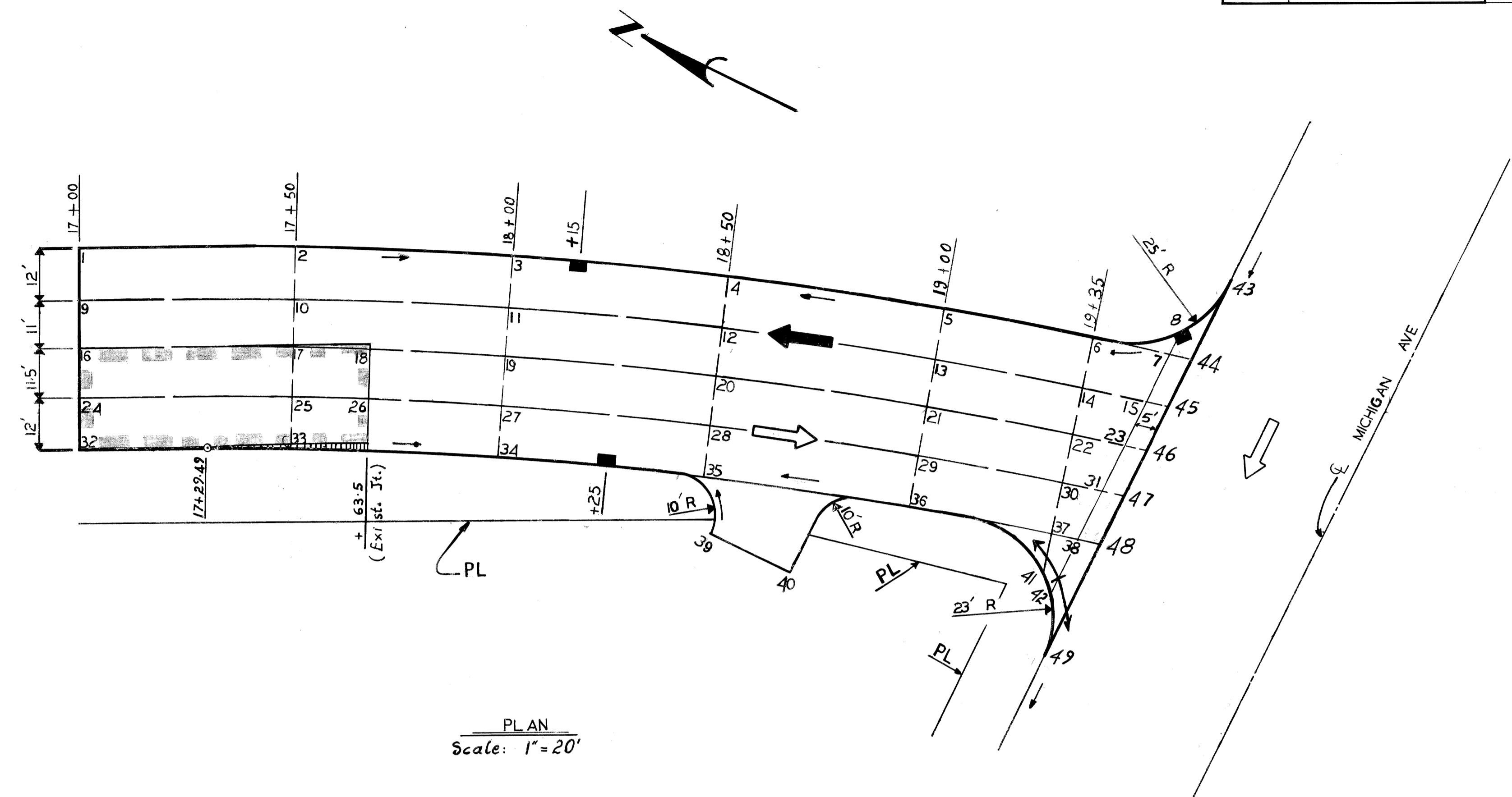
BY: RP CHECKED BY: APPROVED:		CITY OF DETROIT CITY ENGINEERING BUREAU OF STREETS AND HIGHWAYS	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING M.L. KING JR. BLVD. TO MICHIGAN AVE.		INDEX NO. SHEET 7 OF SHEETS
ESTIMATE: RP CHECK: REVIEW			ENGINEER OF STREETS HIGHWAY ENGINEER	CONTRACT NO. ASSIGNMENT NO. DATE	
REVISIONS			DETAILED GRADES AT M.L. KING JR. BLVD.		

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.

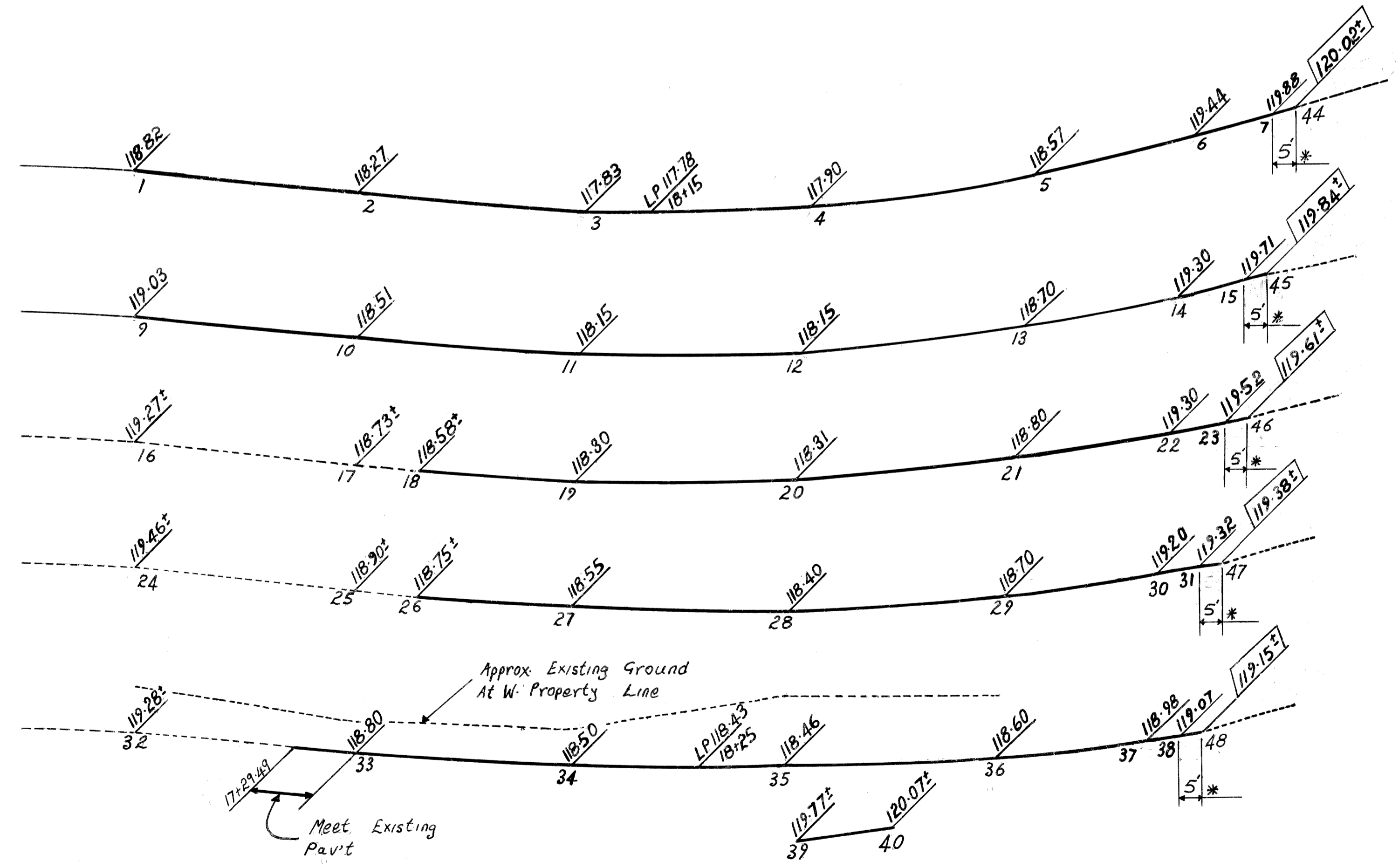
NOTE - FOR SYMBOLS (C) ETC. SEE STANDARD DETAIL DRAWING NO. C-475

BENCH MARKS ELEV.



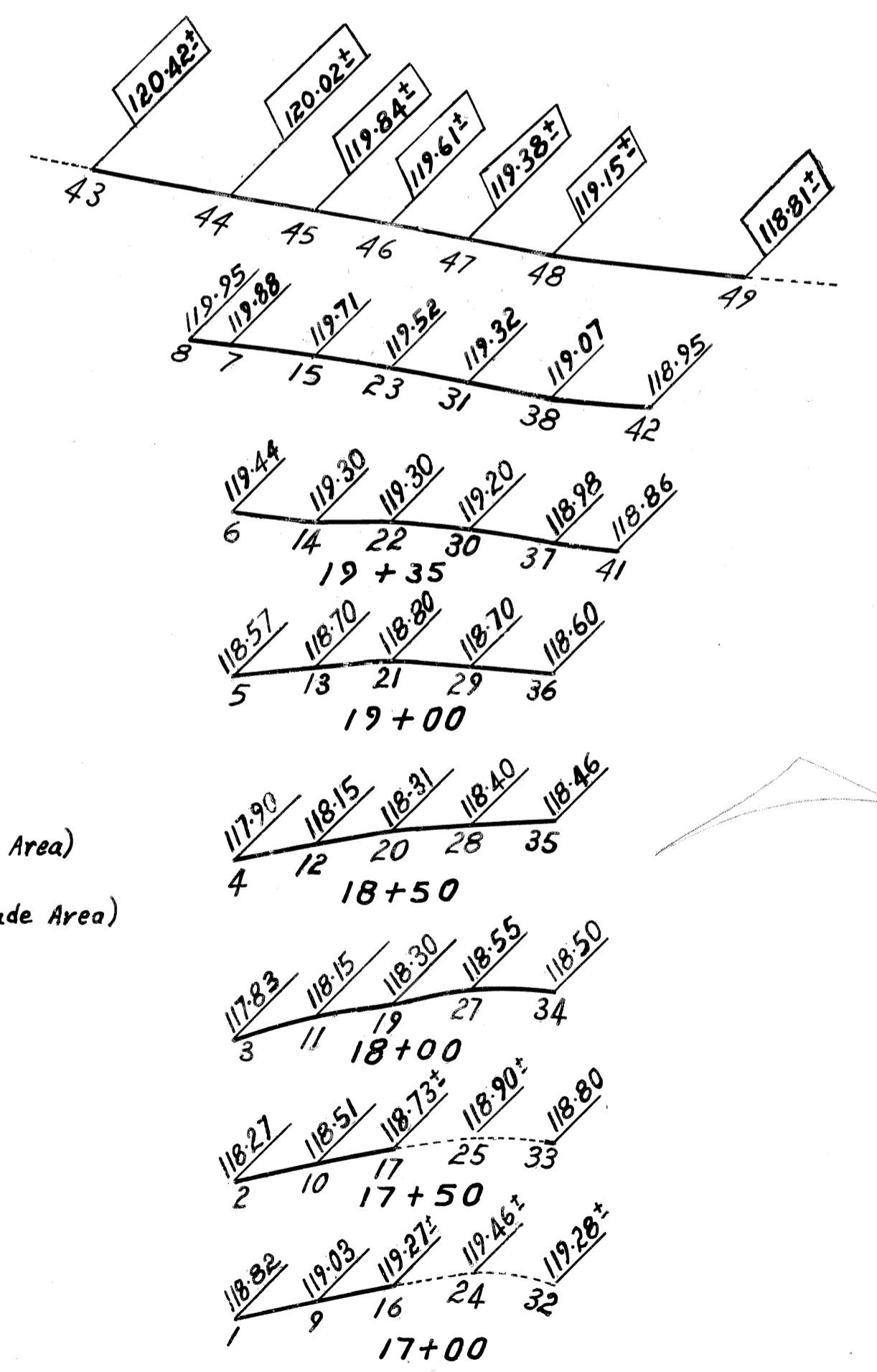
PLAN
Scale: 1" = 20'

- PLAN LEGEND
- Limit Of Detailed Grade Area
 - Const. Conc. Pav't- 9" Unif Non-Reinf with Integral Curb
 - Existing Pav't to Remain
 - Drainage Direction Arrow
 - Proposed Catch Basin



PROFILES AND CROSS-SECTIONS

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



PROFILE AND CROSS-SECTION LEGEND

- Existing Pav't Grade
- Proposed Pav't Grade (Detailed Grade Area)
- Proposed Pav't Grade (Outside Detailed Grade Area)
- * Meet Existing Pav't
- 120.02' Approx. Exist. Pav't Elevation to be met by Proposed Pav't

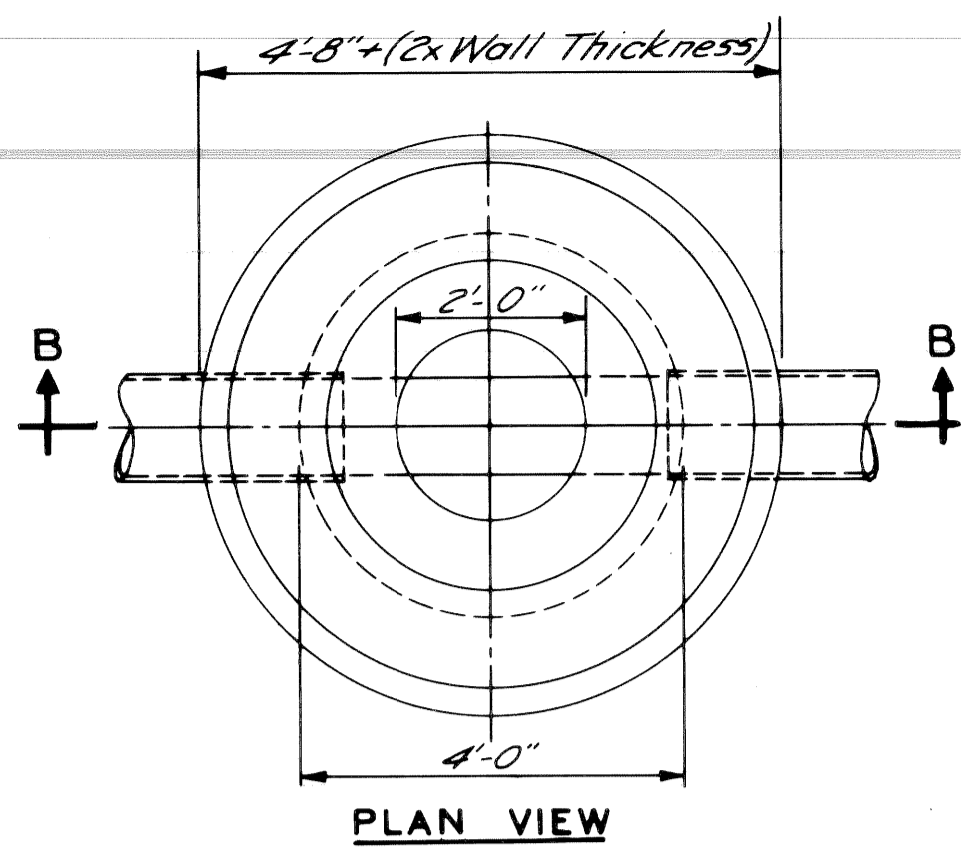
Note: Profiles & Cross-Sections Are Drawn True Length

DESCRIPTION	DRN	CK'D	AP'VD	DATE	BY	CHECKED BY	APPROVED:
REVISIONS					PLAN	GRADE	ESTIMATE
					FINAL	CHECK	REVIEW
							ENGINEER OF STREETS
							ADMINISTRATIVE ENGINEER
							HEAD CIVIL ENGINEER

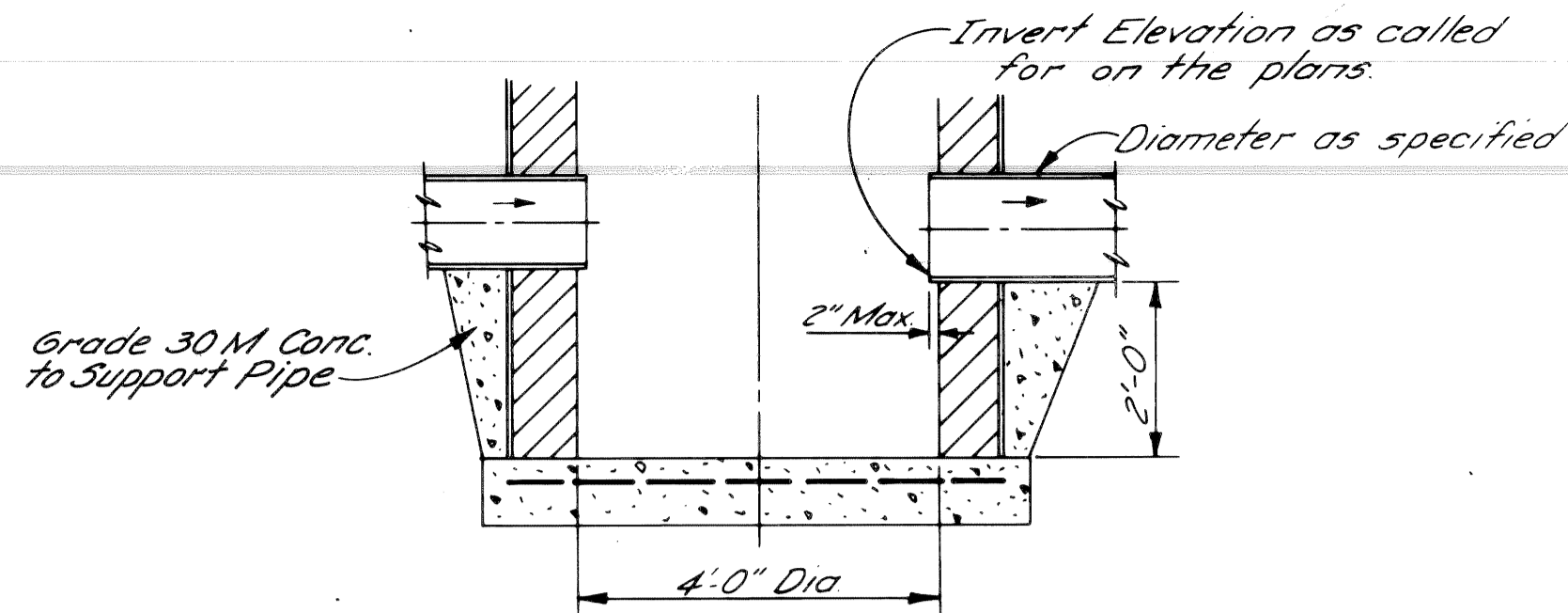
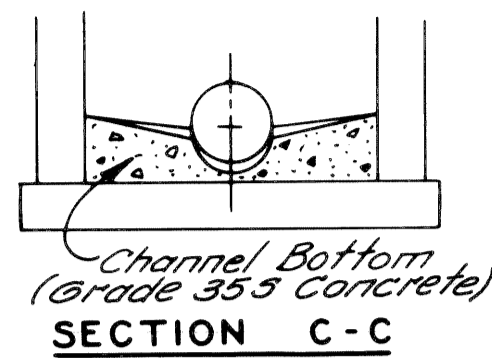
CITY OF DETROIT
CITY ENGINEERS OFFICE

JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING
M.L. KING JR. BLVD. TO MICHIGAN AVE.
DETAILED GRADES AT MICHIGAN AVE.

INDEX NO.	SHEET 8 OF SHEETS
TOPO NO.	CONTRACT NO.
INDEXED	ASSIGNMENT NO.
	DATE

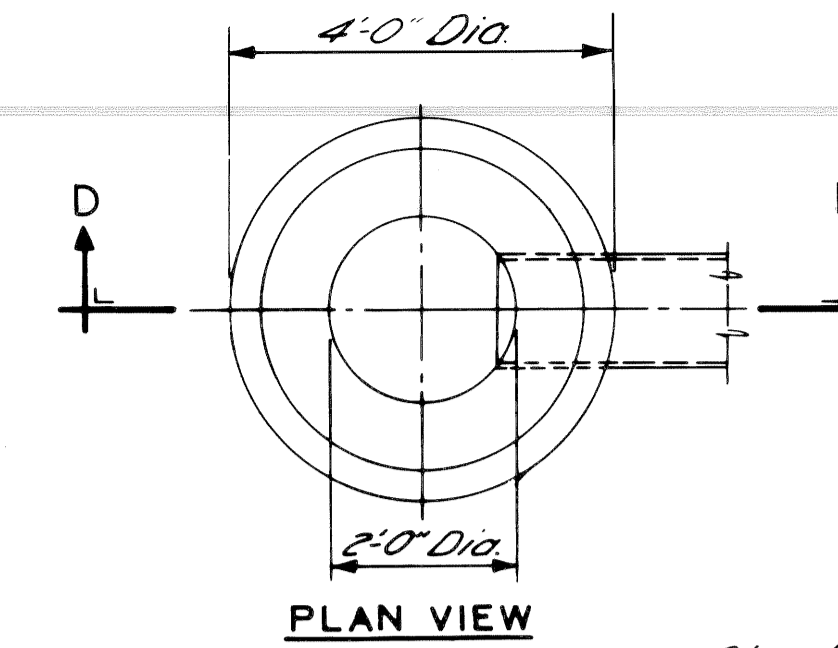


NOTE "A"
Wall thickness below a depth of 15 feet shall be 12 inches.

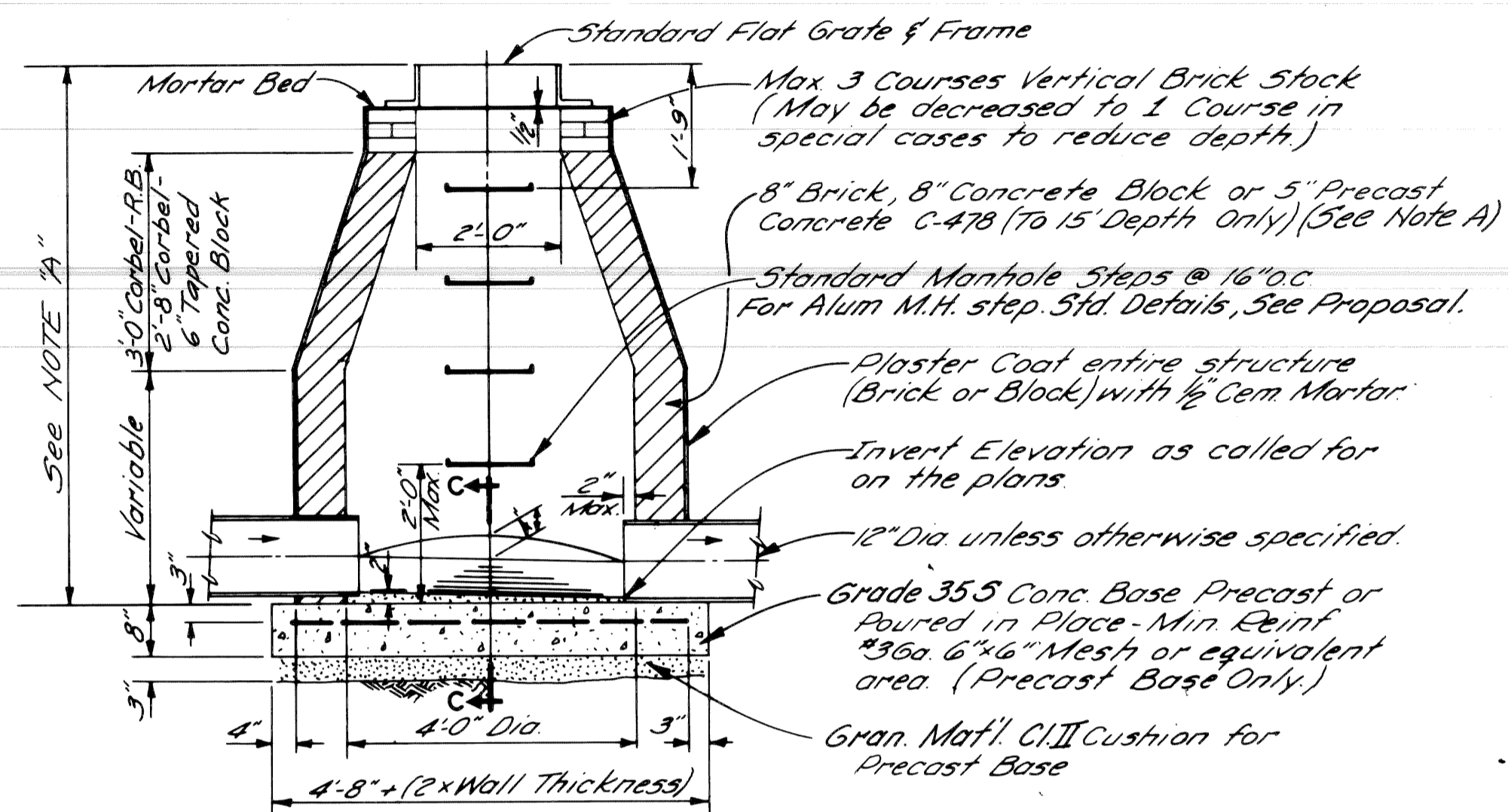


DETAIL OF SUMP FOR CATCH BASIN "B"

NO SCALE

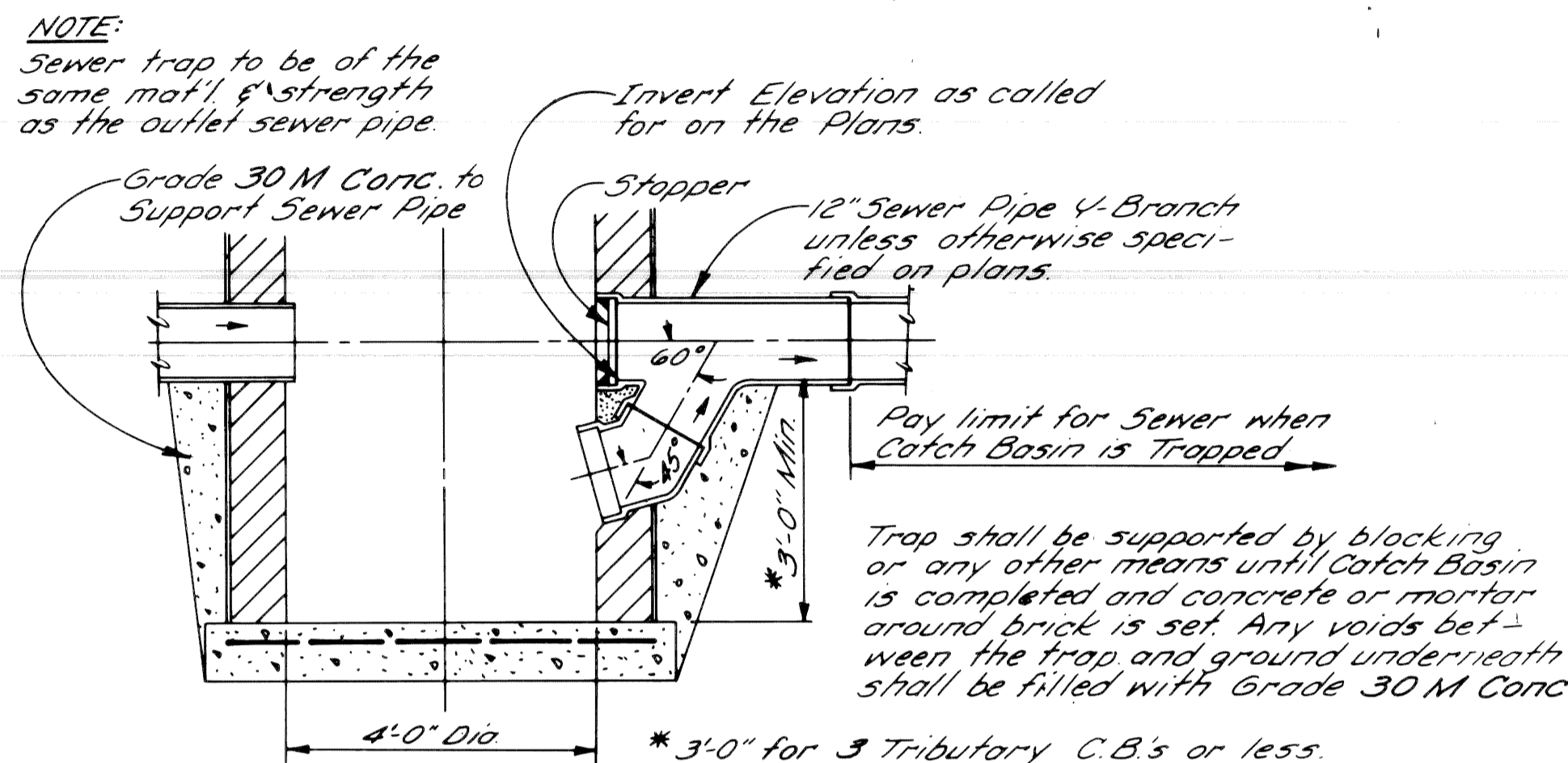


NOTE:
Catch Basin "A" will be used only when outletting to a Catch Basin "B"



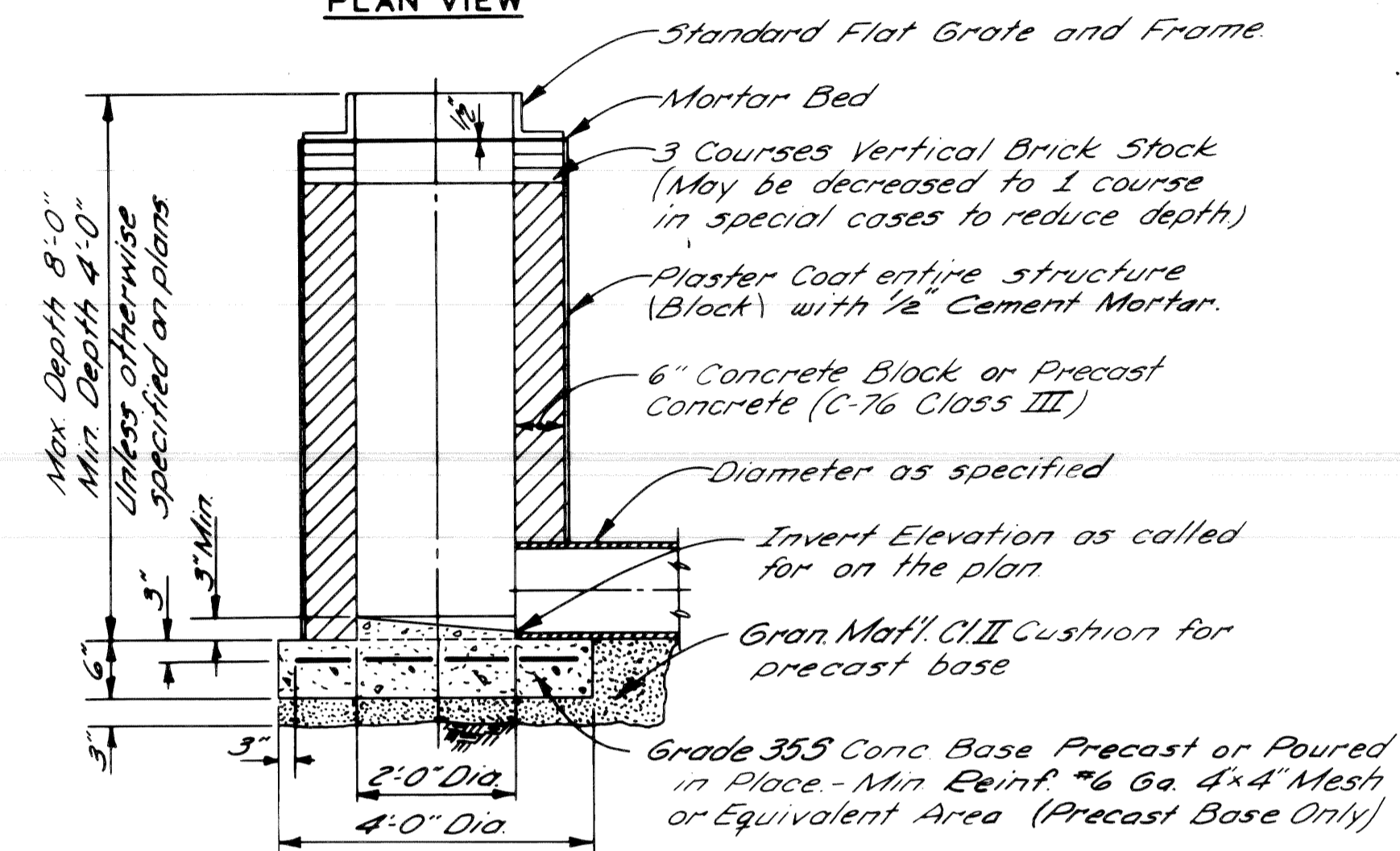
CATCH BASIN "B"

NO SCALE



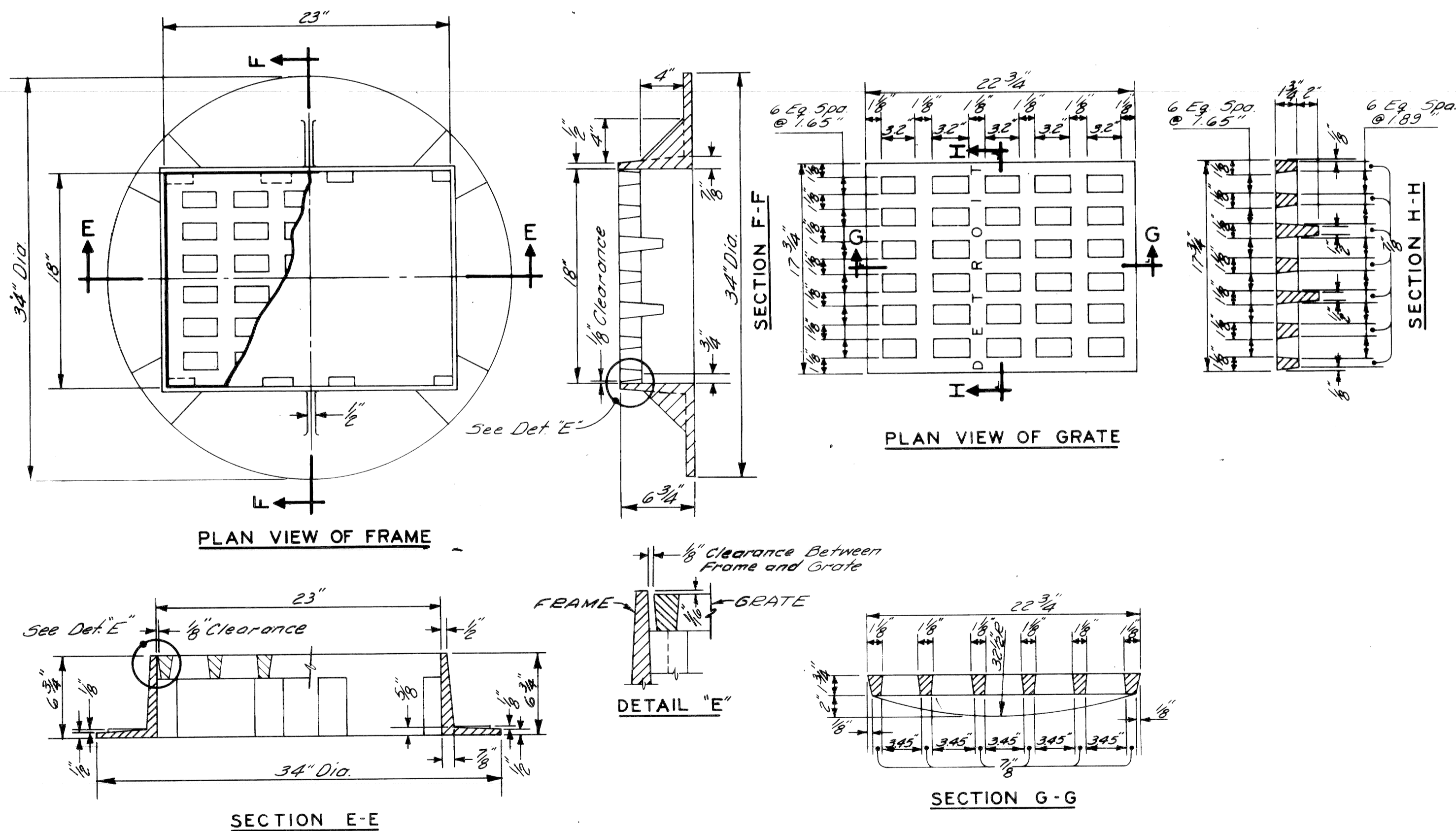
DETAIL OF TRAP FOR CATCH BASIN "B"

NO SCALE



CATCH BASIN "A"

NO SCALE



STANDARD FLAT GRATE AND FRAME

NO SCALE

GENERAL NOTES

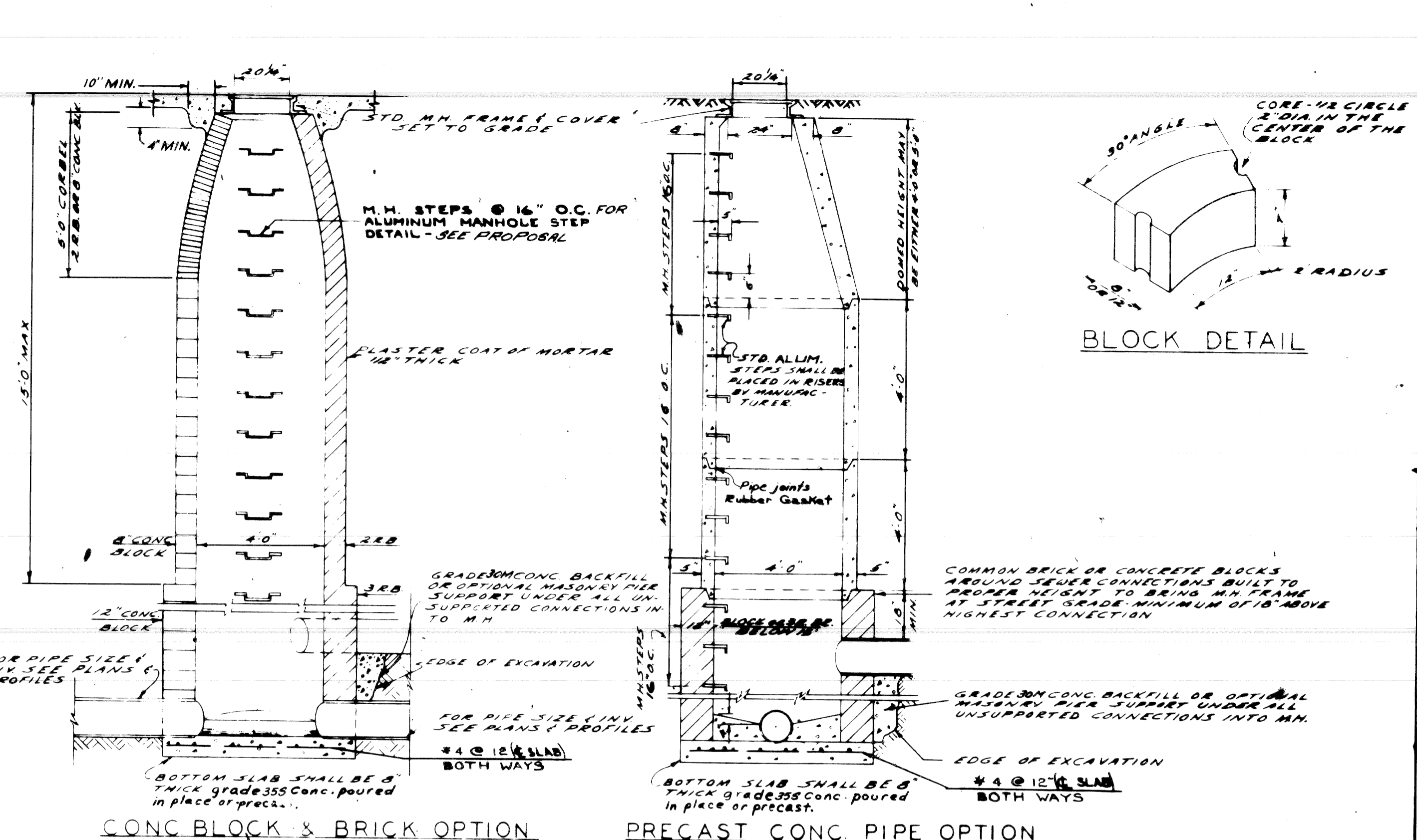
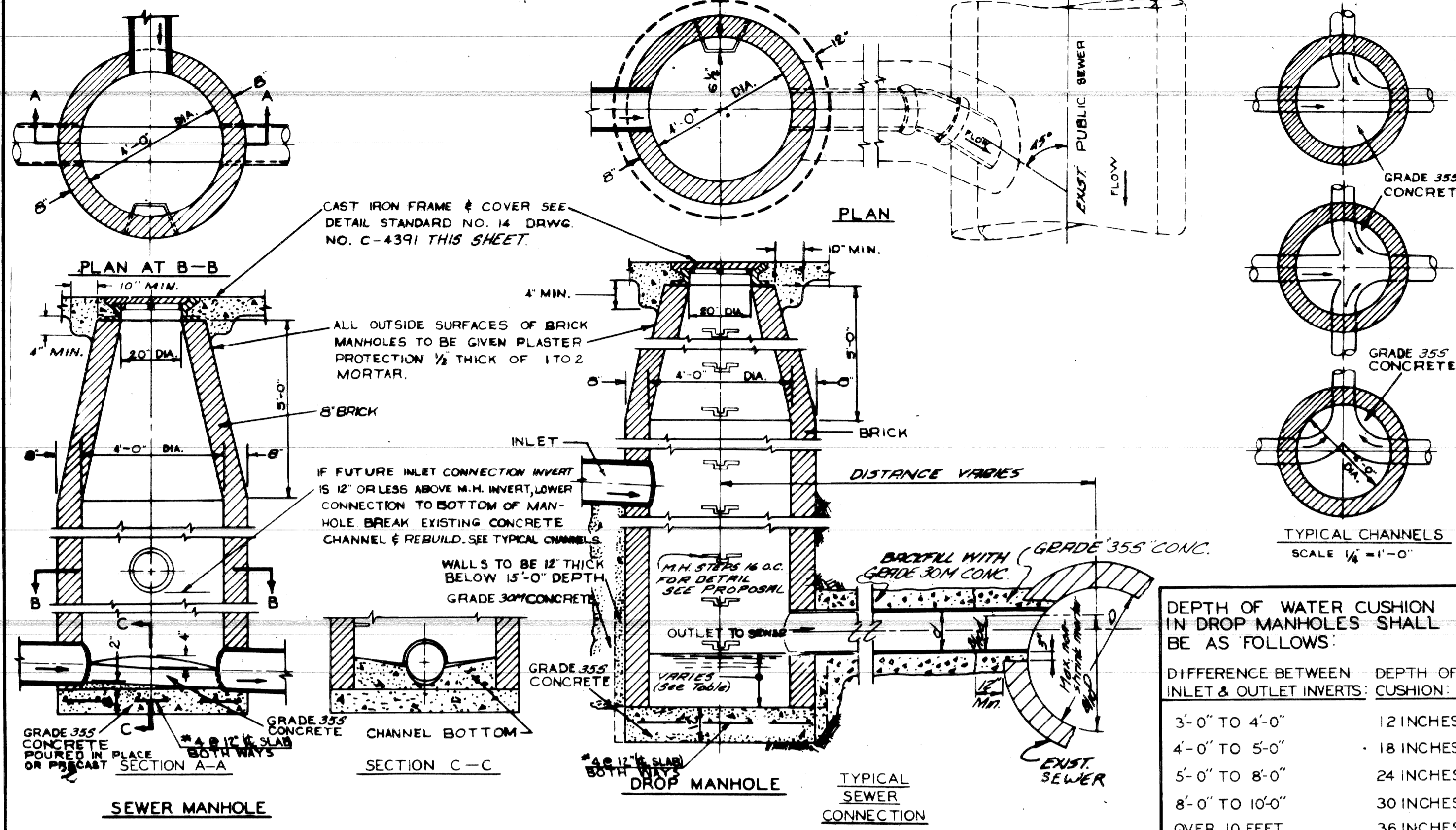
- The materials & workmanship shall be in accordance with the current standard specifications.
- Center of Catch Basin shall be 20 inches from back of curb.
- All sizes & flow lines of pipe, and elevations for top & bottom of structures shall be determined from the plans or construction requirements.
The bell shall be removed from the first length of outlet pipe projecting through the wall of the structures.
When any structure is constructed of precast concrete or concrete block, the top of the masonry shall be left sufficiently low to permit proper adjustment of cover to grade by the use of mortar or bricks as directed by the Engineer.
- A Trap, as detailed on this sheet, shall be placed where called for in the outlet sewer line of Catch Basins "B".
This trap shall be set into the masonry wall as shown on the detail. The space between the faces of the wall & the trap shall be completely filled with cement, mortar or concrete, so as to hold Trap securely in place.
The Traps will be paid for separately at the Contract Unit Price each, which price shall include the extra catch basin construction required and for furnishing and installing the trap.
- A plaster coat of mortar 1/2 inch in thickness shall be applied to the outer surface of the structure as shown. A 1/2 inch cement plaster coat shall be placed on the inside of all sumps.
- Contractor shall verify elevations of existing utilities to enable construction to indicated elevations shown on drawings. If necessary, invert elevations shown on the drawings may be altered in the field to clear existing utilities. Such alterations, upward or downward, shall be at no change in contract price.
- When precast concrete pipe sections are used for catch basins, either a section of the inlet and outlet pipes or an opening or eye for the inlet & outlet pipes shall be cast into the wall of the catch basin pipe when it is being manufactured. Eyes in precast pipe sections shall be furnished to accommodate a flexible joint connection, such as Press-Wedge by Press Seal Gasket Corp or Res-Seal by Seals Mfg. Corp.
- Pay limit for sewers shall be inside faces of structures unless otherwise noted.

DESIGNED BY	M. POLITO	APPROVED:	John Erickson ENGINEER OF STREETS
DRAWN BY			Allen E. Fagan ENGINEER OF EXPRESSWAYS
TRACED BY			W. R. Bannard HEAD CIVIL ENGINEER
CHECKED BY	D. MILZ		

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE

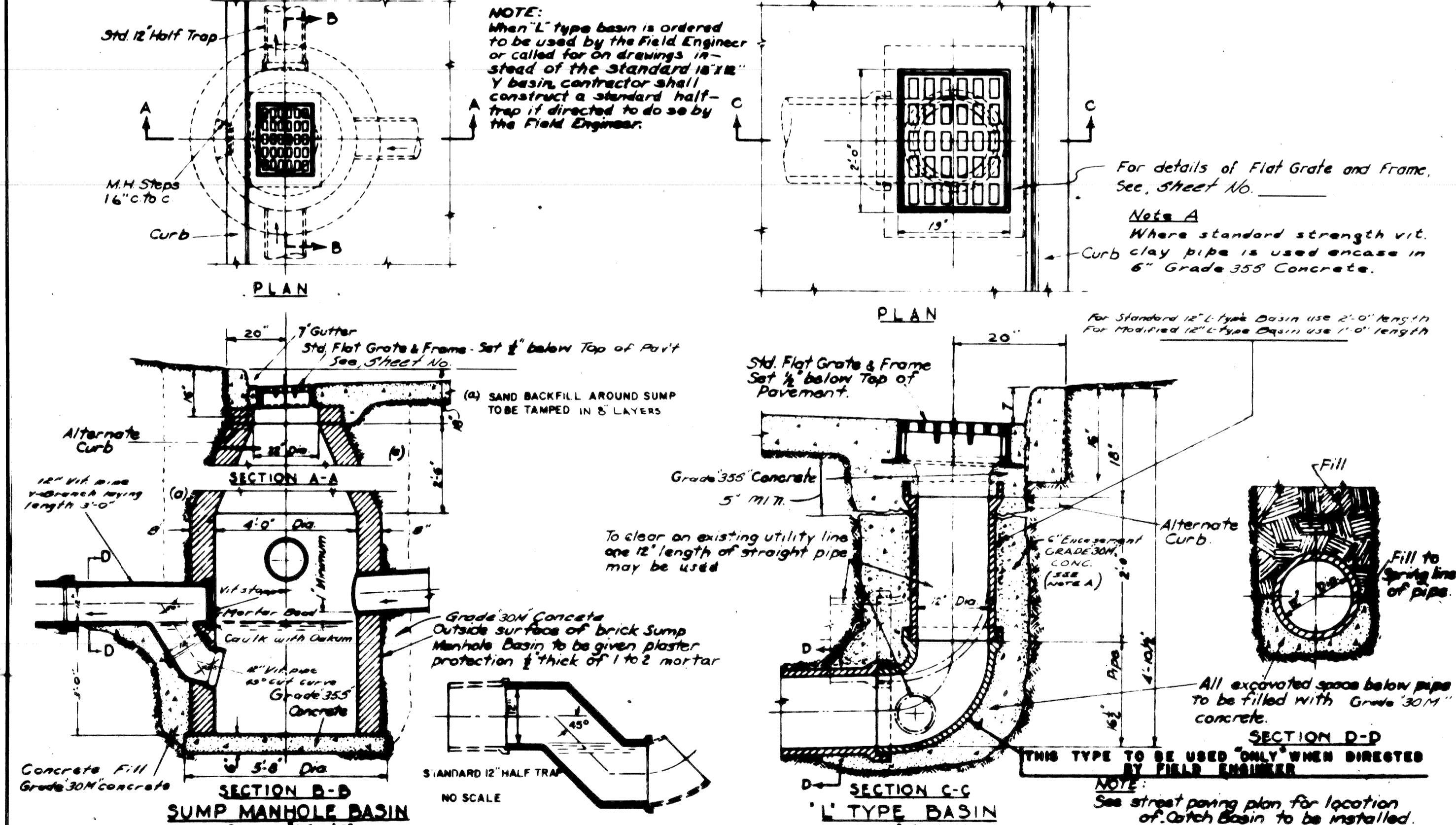
DETAILS OF STANDARD
CATCH BASINS "A" & "B"
AND FLAT GRATE & FRAME

SHEET 9 OF SHEETS
CONTRACT No.
ASSIGN. NO.
DATE

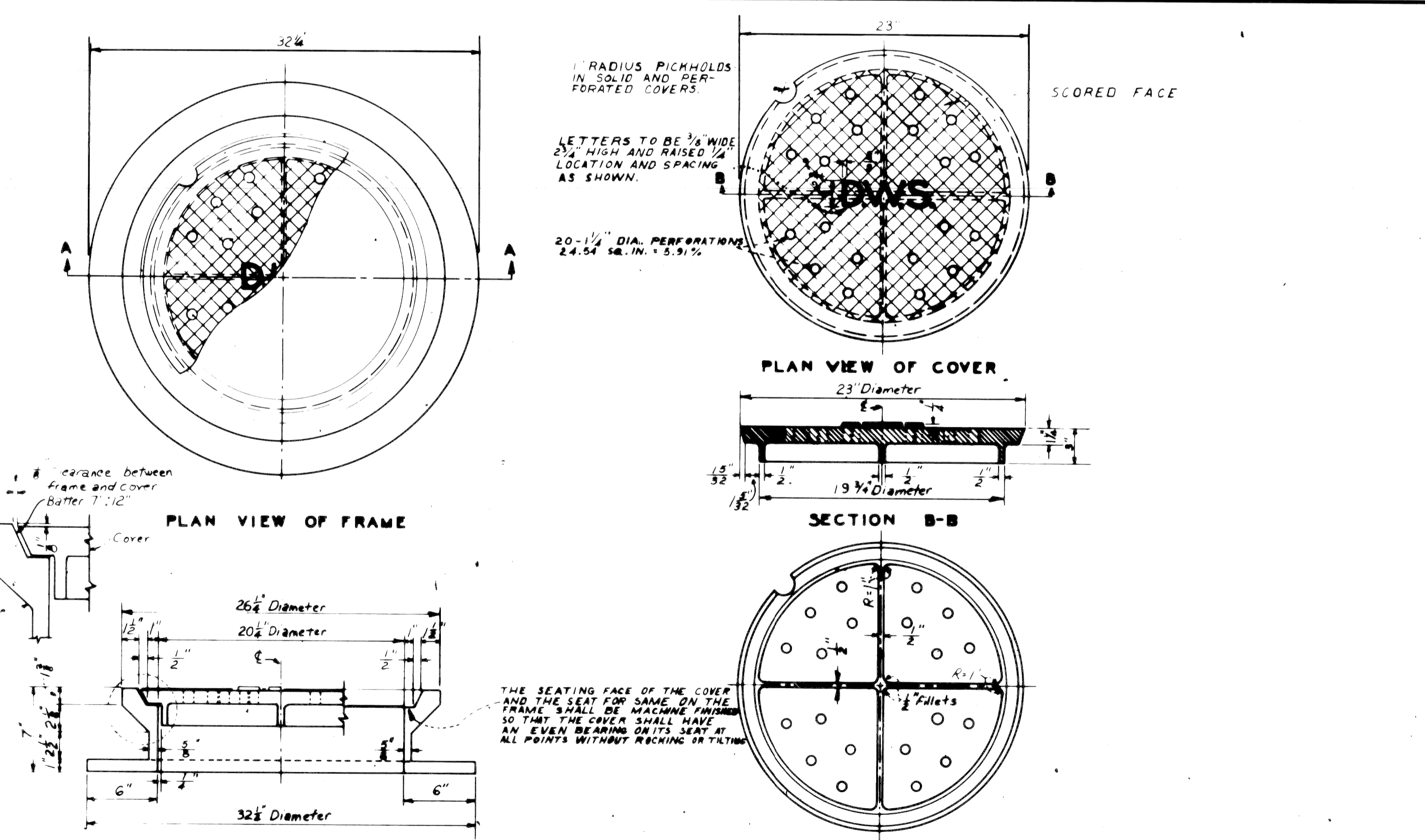


DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN	DETAILS OF STANDARD SEWER & DROP MANHOLES
DRAWN BY	TRACED BY		
REVISIONS	DESCRIPTION	BOOK NO.	PG. SCALE 3/8" = 1'-0" DATE: 8-27-66
1971	1970	1969	1968

DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN	STD SEWER MANHOLES CONSTRUCTION ALTERNATES
DRAWN BY	TRACED BY		
REVISIONS	DESCRIPTION	BOOK NO.	SCALE NONE
1971	1970	1969	1968



DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN	TYPICAL SUMP MANHOLE & 'L' TYPE CATCH BASINS
DRAWN BY	TRACED BY		
REVISIONS	DESCRIPTION	BOOK NO.	SCALE 3/8" = 1'-0" DATE: 8-27-66
1971	1970	1969	1968



DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN	DETAILS OF STANDARD - MANHOLE FRAME AND COVER -
DRAWN BY	TRACED BY		
REVISIONS	DESCRIPTION	BOOK NO.	SCALE: AS SHOWN DATE: 8-27-66
1971	1970	1969	1968

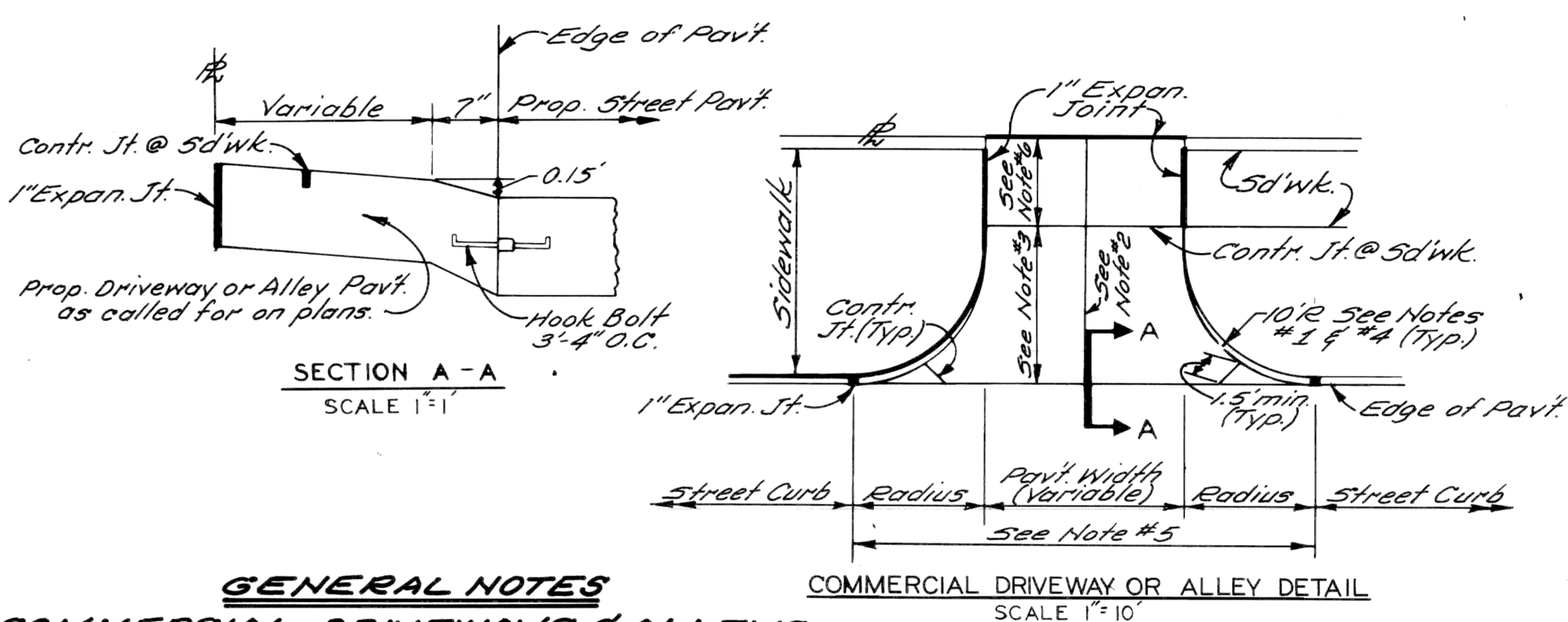
DESIGNED BY	APPROVED BY
DRAWN BY	
TRACED BY	
CHECKED BY	

DESIGNED BY	APPROVED BY	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN	DETAILS OF STANDARD - MANHOLE FRAME AND COVER -
DRAWN BY	TRACED BY		
REVISIONS	DESCRIPTION	BOOK NO.	SCALE: AS SHOWN DATE: 8-27-66
1971	1970	1969	1968

CITY OF DETROIT CITY ENGINEERING DEPARTMENT	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING	SHEET 10 OF SHEETS
	SPECIAL DETAILS	CONTRACT NO.
		ASSIG.
		DATE

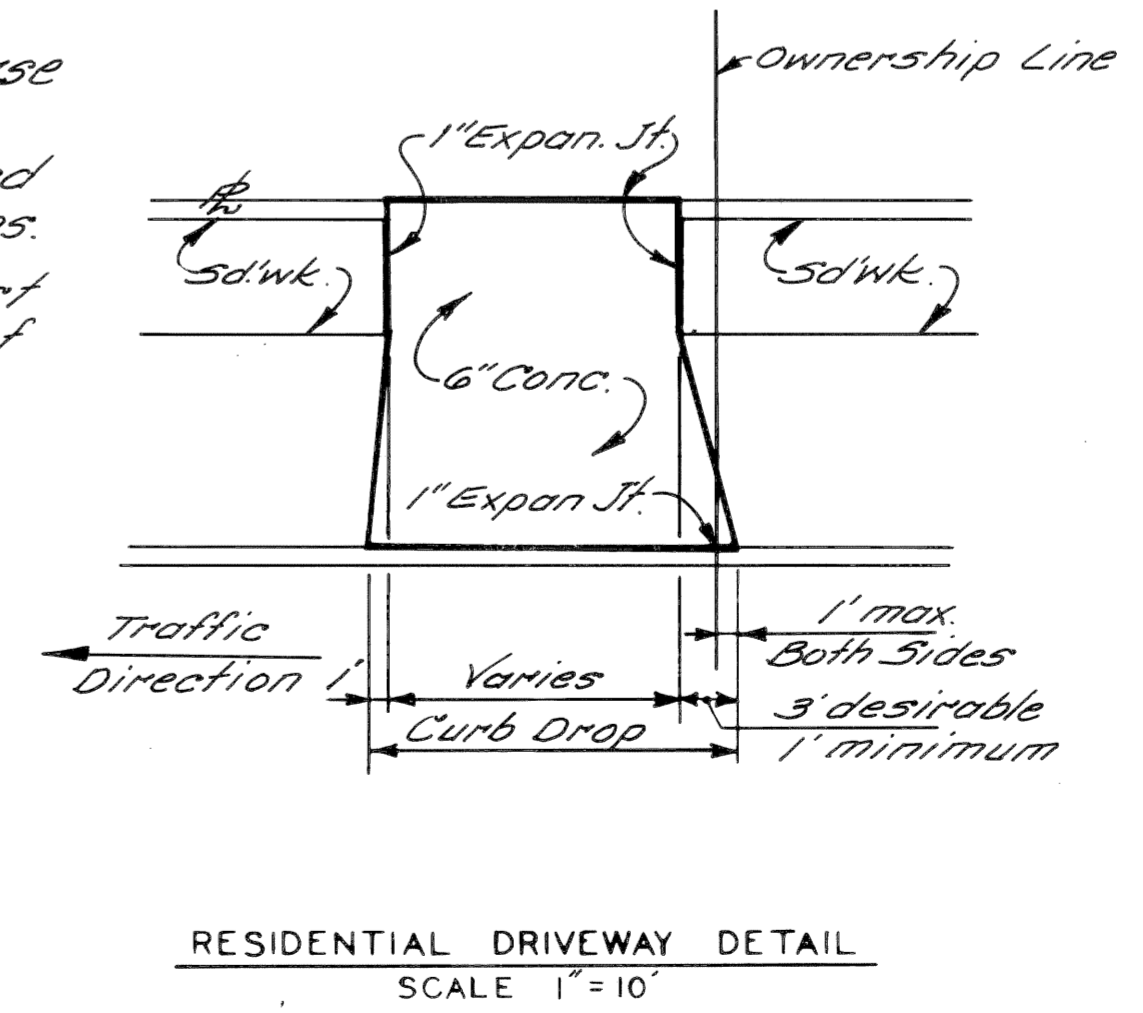
COLOR	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BLACK	---	PROPERTY AND LOT LINES	○	SEWER MANHOLE	#	STREET SIGN POST
	---	PROPOSED CURB LINES AND HEADERS AT RETURNS	⊙	P.L.C. HANDHOLE	□	LATCH BASIN
	---	EXISTING CURB LINES OR EDGE OF PAVEMENT	⊖	WATER MANHOLE OR GRATE	(W)	WATER METER
	---	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	(H)	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	⊖	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	⊠	P.L.C. F.D. 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	⊖	D.S.R. DANGER PLATE
	---		⊖	TRAFFIC CONTROL BOX	⊠	R.R. SIGNAL CONTROL BOX
	---		---	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 (P.L.C. COMMUNICATIONS)		

DESIGNED BY	APPROVED	CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEER'S OFFICE BUREAU OF DESIGN PAVING DETAIL NO 25	STANDARD SYMBOLS FOR UTILITIES
DRAWN BY T. SANDR	APPROVED		
TRACED BY T.K.	DATE	SCALE	DWG. NO. C-902-A



**GENERAL NOTES
COMMERCIAL DRIVEWAYS & ALLEYS**

1. Transition edge of driveway or alley from curb of the street to no curb at the end of the driveway or alley radius.
2. Where driveway or alley exceeds 15' in width a contraction joint shall be placed longitudinally along it.
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 & materials req'd to construct the driveway or alley between the end of returns will be paid for as "Concrete Pavement" of the specified thickness.
6. Minimum & Maximum Slopes of 1/4" ft. & 3/4" ft. shall be used in the sidewalk area.



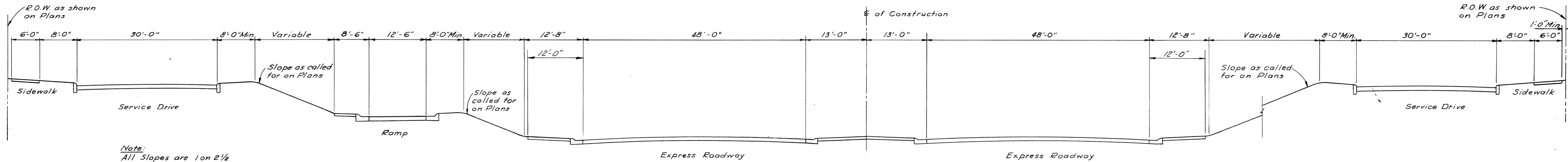
DESIGNED BY	APPROVED	CITY OF DETROIT CITY ENGINEERING DIVISION E. P. M. D.	JEFFRIES FREEWAY WEST SERVICE DRIVE WIDENING	SHEET 11 OF 11 SHEETS
DRAWN BY J.R.D.	APPROVED			CONTRACT No. P.W.
TRACED BY	DATE	SPECIAL STANDARDS & SPECIAL DETAILS	ASSIGNMENT No. A.O.	DATE
CHECKED BY				

QUANTITY SHEET - E

ITEMS	SHEET NO'S.		AS PER PLANS																					
	TOTALS	UNITS	TYPICAL CROSS SECTIONS UTILITIES AND REMOVALS	PLAN AND PROFILE KING-II+00	PLAN AND PROFILE II+00-MICH	CONST. SEQUENCE (SEE PROPOSAL)																		
Removing Pavement	601	Sq. Yd.		601																				
Removing Curb	1,721	Lin. Ft.		1,721																				
Removing Sidewalk	191	Sq. Yd.	20	171																				
Removing Beam Guard Rail	82	Lin. Ft.		82																				
Abandoning Drainage Structures	2	Each		2																				
Earth Excavation	3,013	Cu. Yd.			1,102	1,911																		
Subgrade Undercutting Type II	10	Cu. Yd.	10																					
Granular Material Class II	171	Cu. Yd.			125	46																		
Bituminous Shoulders	53	Tons			28	25																		
Concrete Pavement (Reinforced) - 9" with Integral Curb (Reinforced)	5,392	Sq. Yd.			2,607	2,785																		
Concrete Pavement - Nonreinforced - 9" Cement	45	Sq. Yd.				45																		
	3	Tons	3																					
Expansion Anchored Lane Ties	4,678	Lin. Ft.			980	698																		
Removing Old Pavement - Patching	5	Sq. Yd.		5																				
Concrete Pavement Patching Type FS Nonreinf.	5	Sq. Yd.		5																				
Catch Basin "A"	5	Each				1	4																	
12" Sewer C-76-III Trench Detail 8	25	Lin. Ft.	25																					
12" Sewer C-76-III Trench Detail 9	167	Lin. Ft.			109	58																		
12" Sewer Tap	4	Each				2	2																	
Manhole Frame and Cover	4	Each				2	2																	
Sewer Cleanout	150	Lin. Ft.	150																					
Cleaning Existing Storm Drainage Structures	5	Each		5																				
Concrete Curb Detail "X"	35	Lin. Ft.		35																				
4" Concrete Sidewalk	626	Sq. Ft.		180		100	346																	
6" Concrete Sidewalk	1,206	Sq. Ft.				652	554																	
Sidewalk Ramps, Type I	204	Sq. Ft.				120	84																	
Moving Fence	790	Lin. Ft.				65	725																	
Barricade, Type II, Lighted, Furnished	135	Each					135																	
Barricade, Type II, Lighted, Operated	90	Each					90																	
Barricade, Type III, Lighted	5	Each					5																	
Sign, Type B Temporary	116.5	Sq. Ft.					116.5																	
Class "B" Sodding	1,024	Sq. Yd.	25		770	229																		
Water	23	Units		1	3	19																		
Class A Seeding	24	Pounds				1	23																	
Chemical Fertilizer Nutrient	56	Pounds				1	55																	
Topsoil Surface, 3"	2,145	Sq. Yd.	25		792	1,328																		
Excelsior Mulch Blankets	1,121	Sq. Yd.			22	1,099																		
Removing Trees, 8-18" Diameter	1	Each		1																				
Removing Drainage Structures	1	Each		1																				
Adjust Water Shut-Off	1	Each				1																		
Adjusting Drainage Structure Covers	1	Each					1																	
12" Sewer Trap	1	Each		1																				
Fence Post	1	Each					1																	
Lighted Arrow, Type A, Furnished	1	Each																						
Lighted Arrow, Type A, Operated	1	Each																						
Reconstruct Gate Well	1	Each				1																		
Adjust Gate Well Cover	1	Each				1																		
Catch Basin "B"	1	Each				1																		
Catch Basin "L"	1	Each				1																		
On The Job Training	1	Each				1																		
Mobilization	1	Lump Sum		1																				
Minor Traffic Devices	1	Lump Sum		1																				

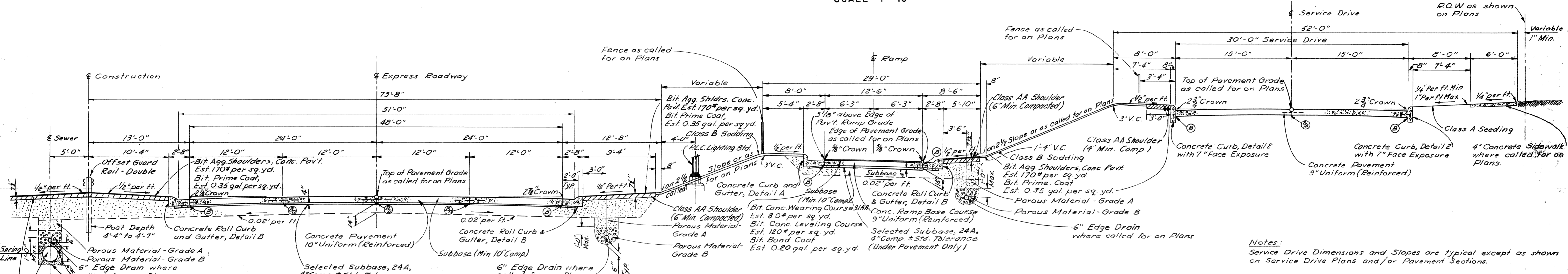
TYPICAL CROSS-SECTIONS

S.P. No.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MICH.				
ROUTE PROJECT	COUNTY	CITY		SHEET NO.	TOTAL SHEETS
1-96	82194L	Wayne	Detroit	502	



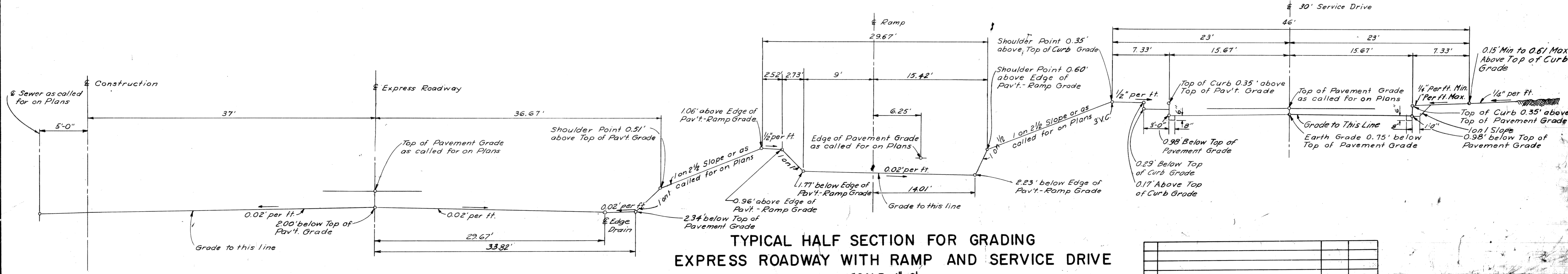
GENERAL TYPICAL CROSS SECTION

SCALE 1" = 10'



TYPICAL HALF SECTION SHOWING FINISHED EXPRESS ROADWAY WITH RAMP AND SERVICE DRIVE

SCALE 1" = 6'



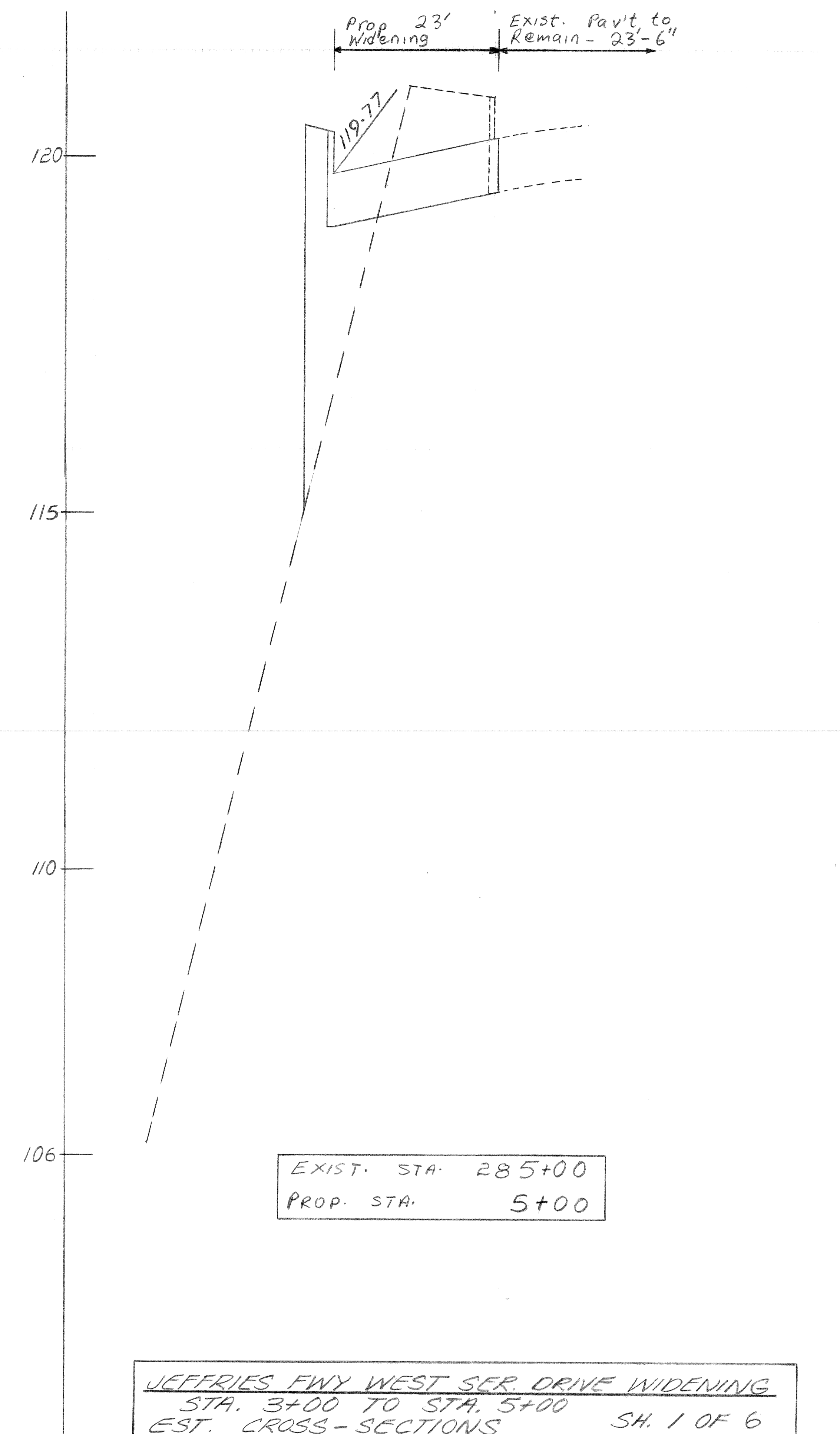
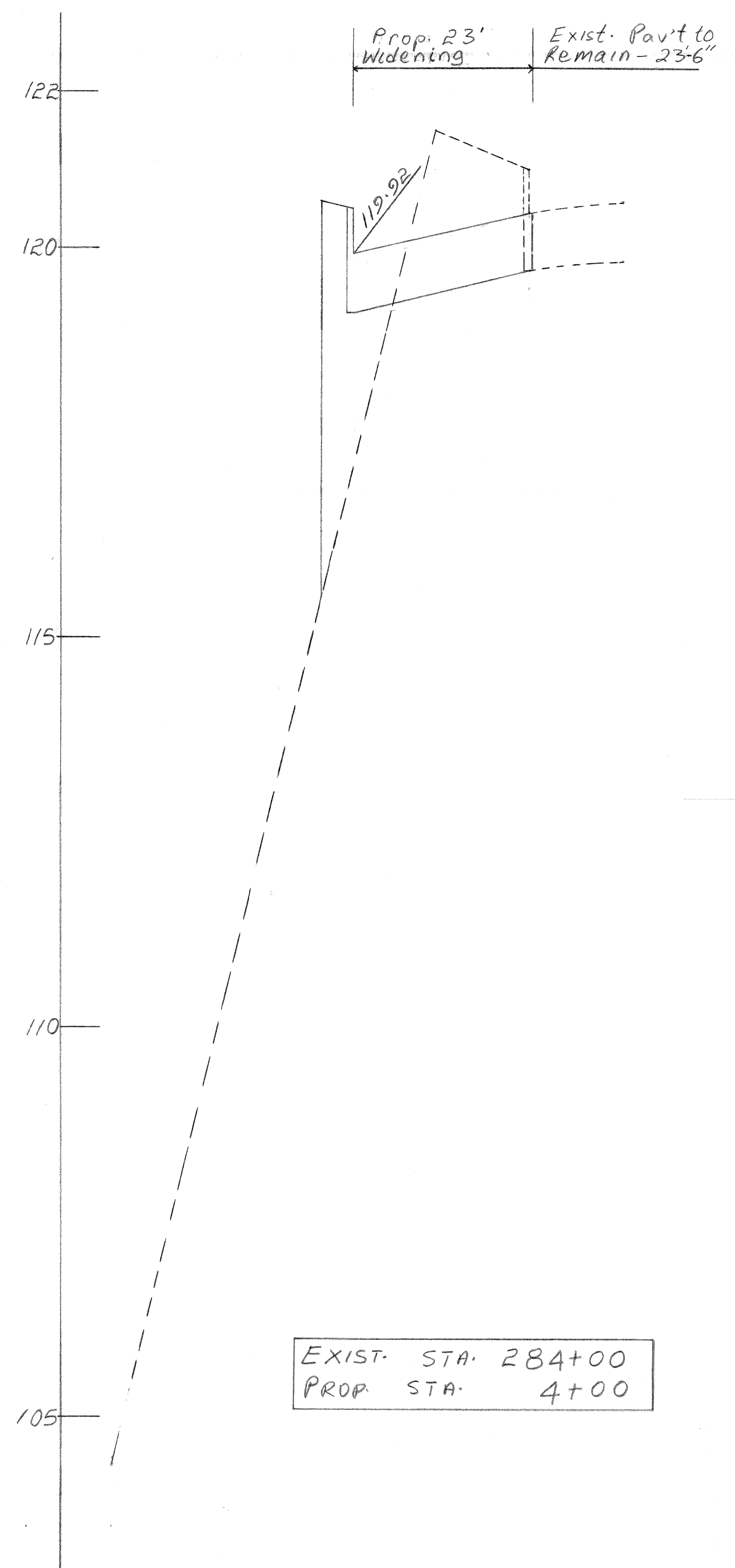
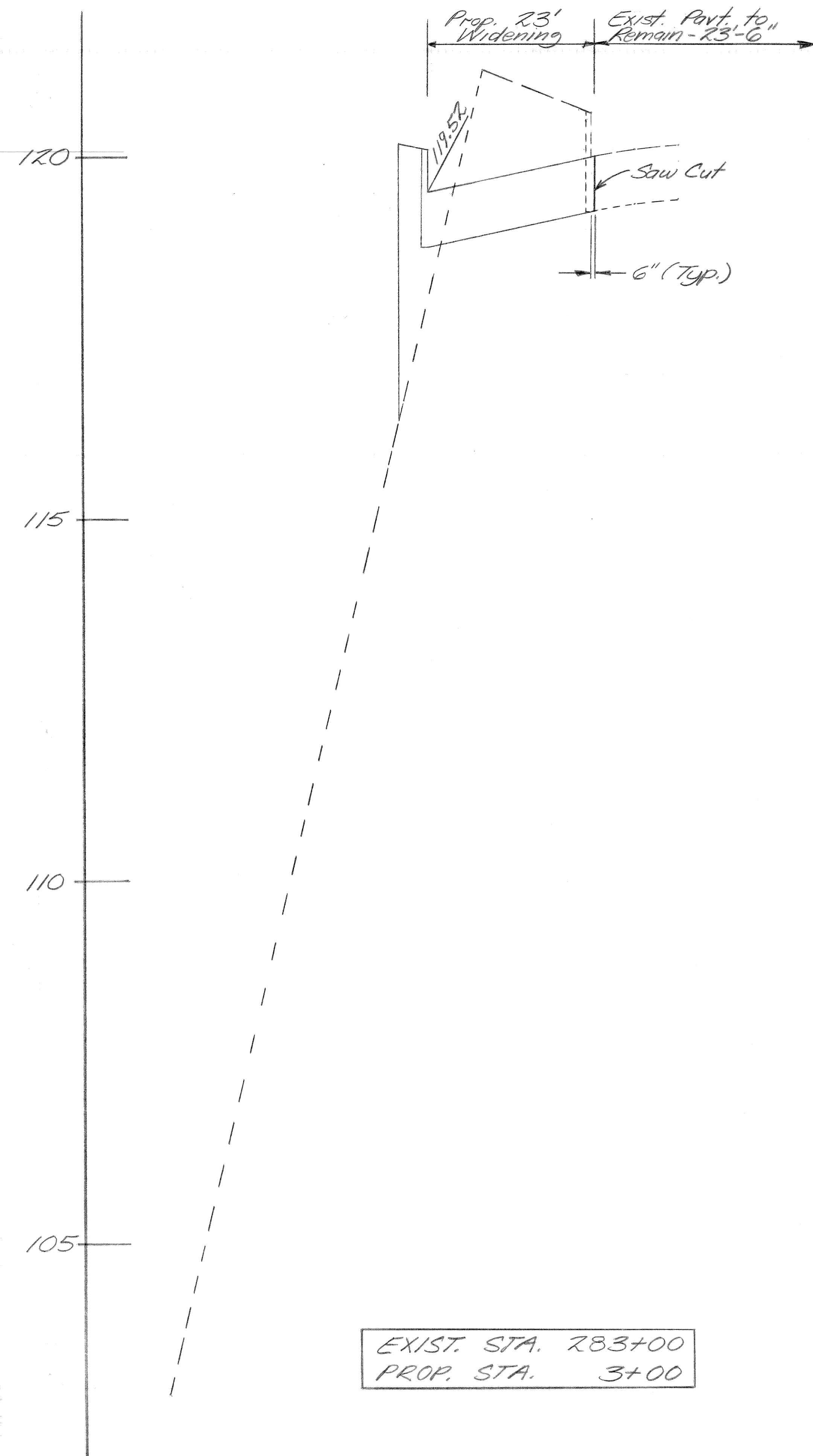
TYPICAL HALF SECTION FOR GRADING EXPRESS ROADWAY WITH RAMP AND SERVICE DRIVE

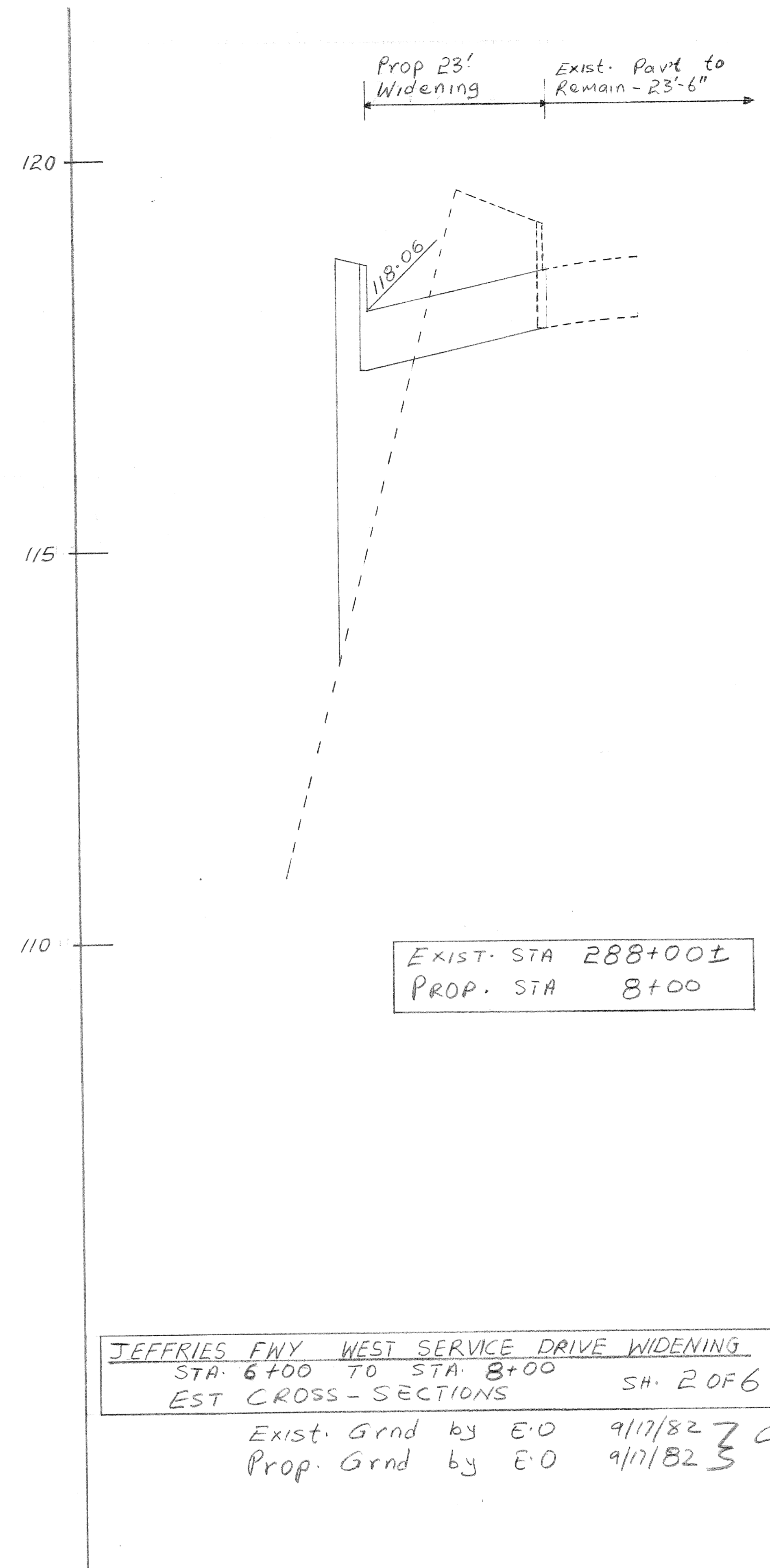
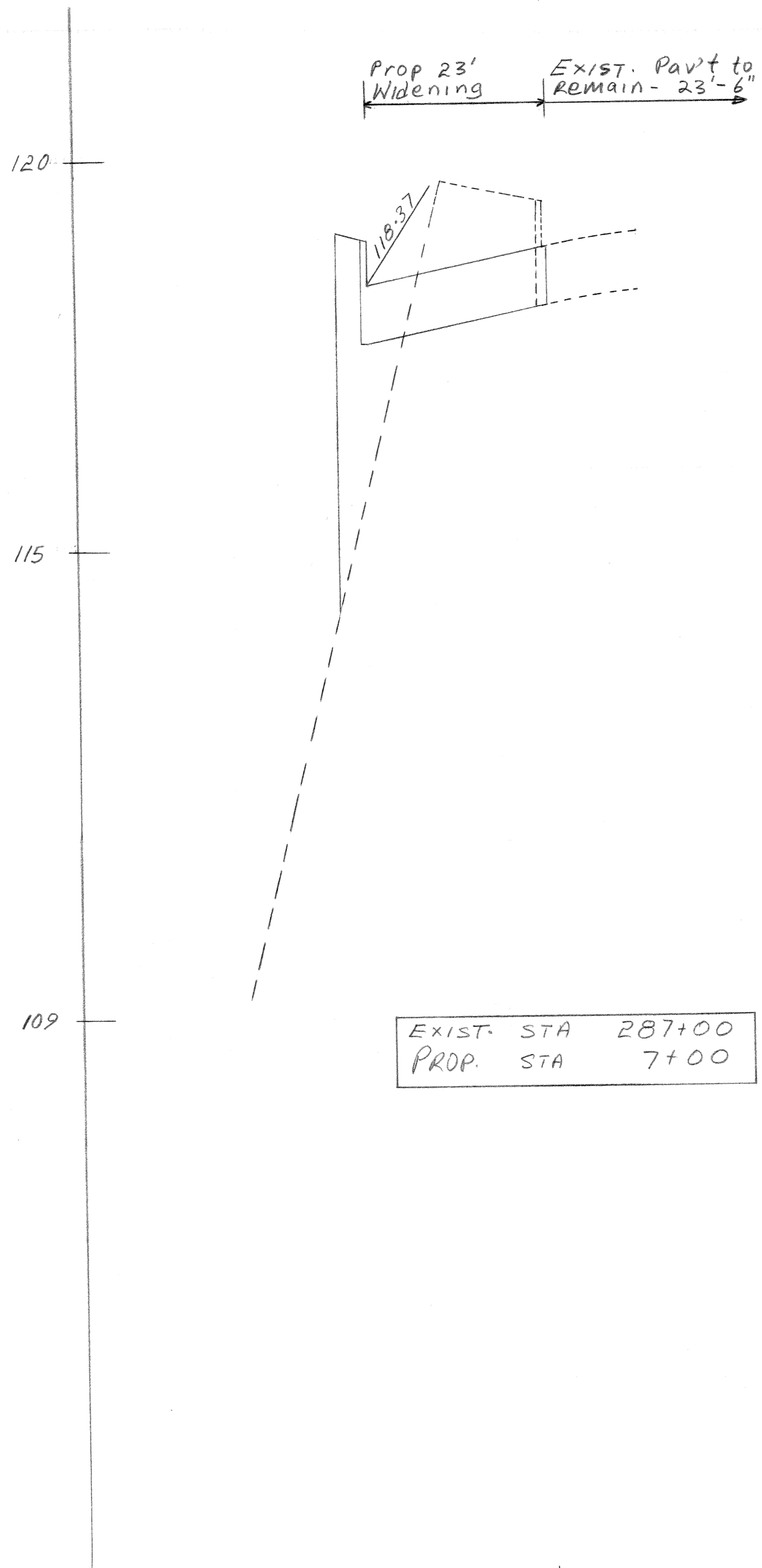
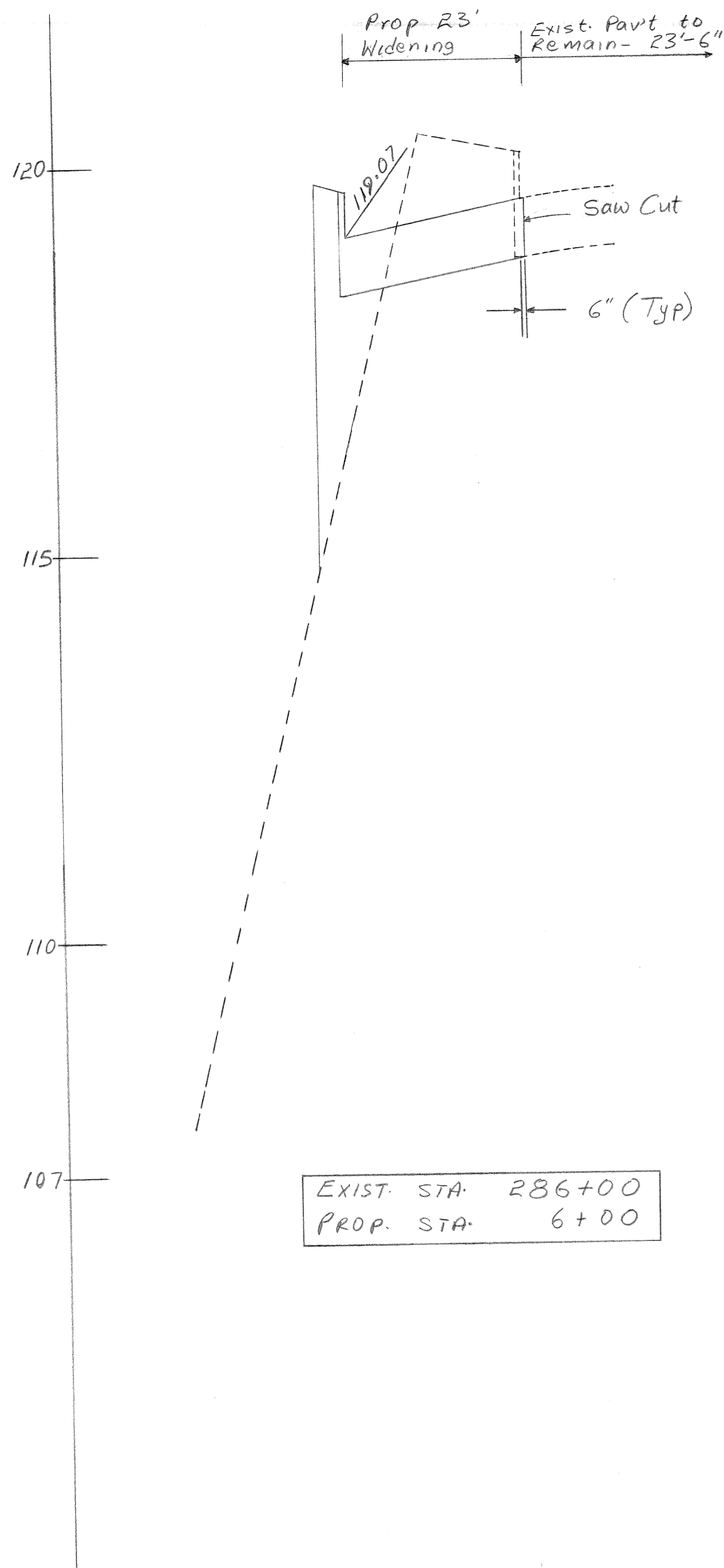
SCALE 1" = 6'

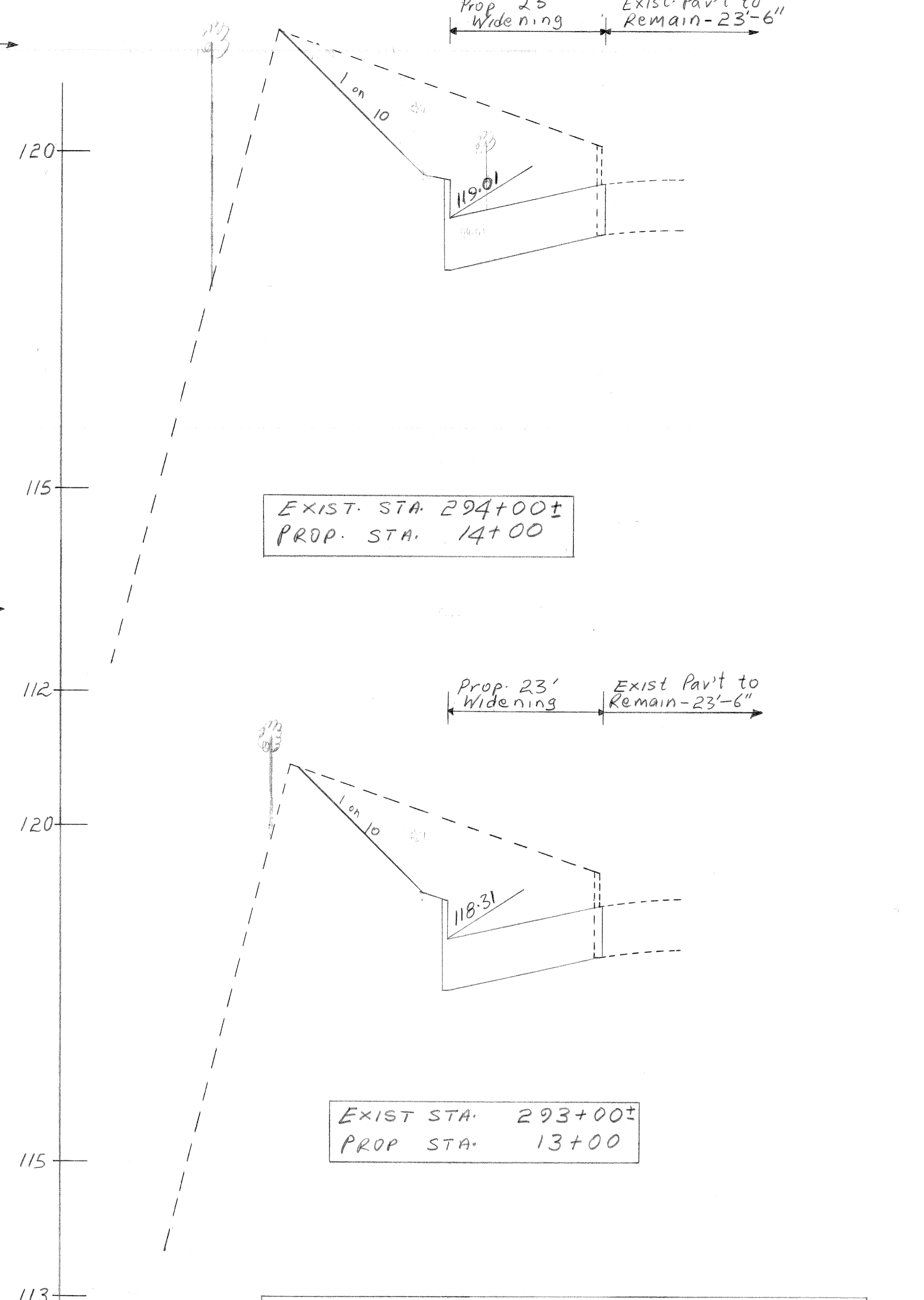
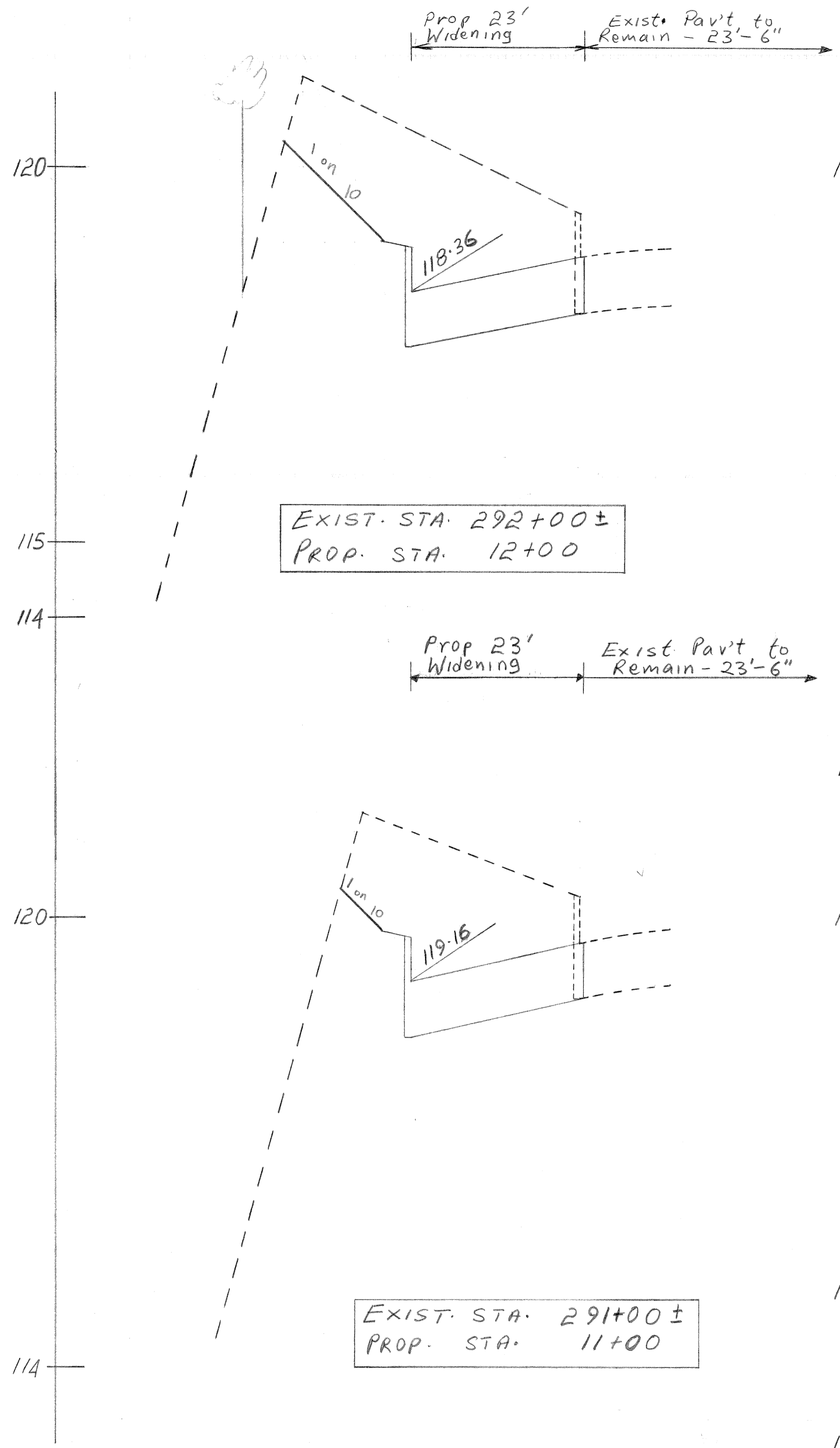
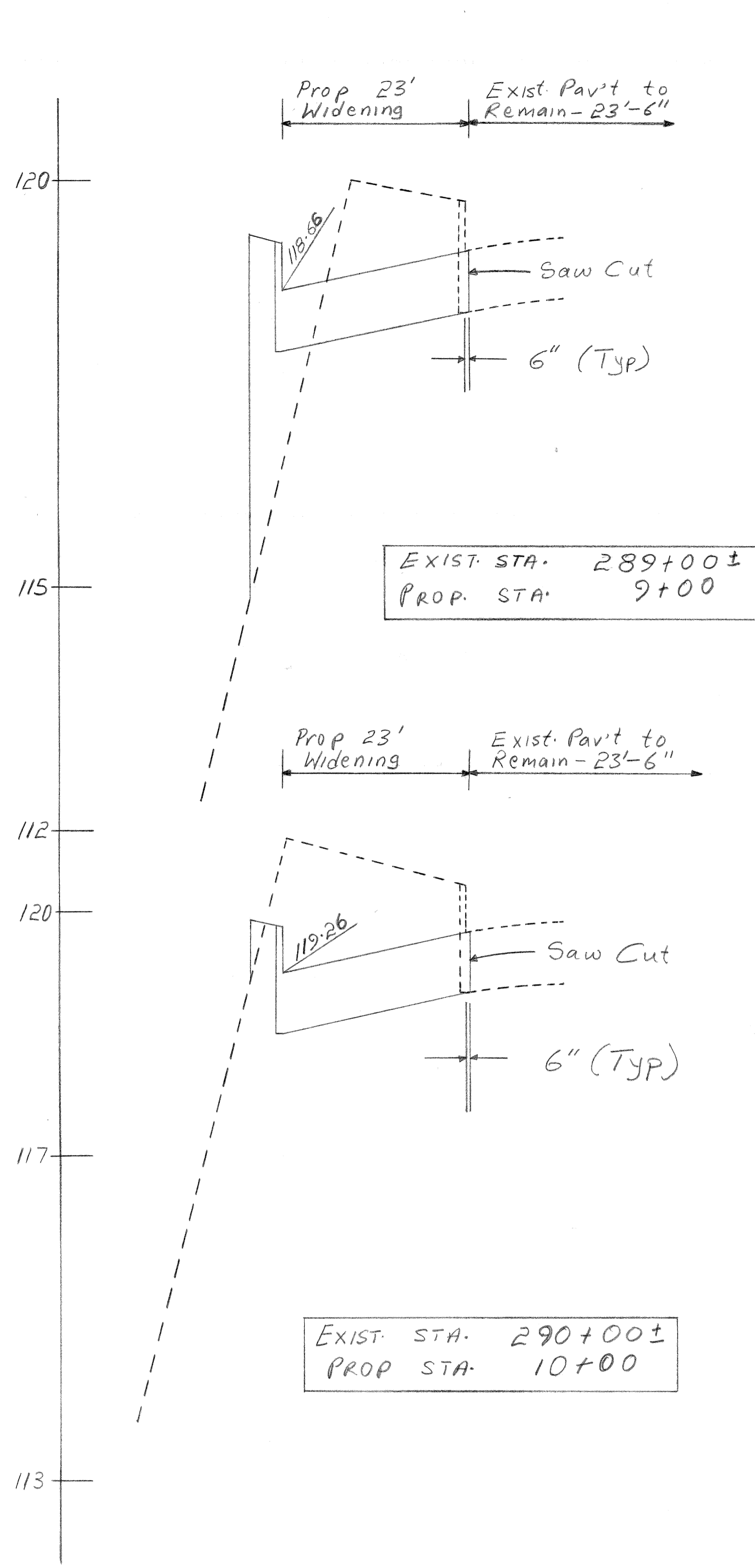
No.	REVISIONS	DATE	AUTH.
	FINAL R.O.W.		

48' ROADWAY

FILE NO. R82194L PROJECT NO. 82194L SHEET NO. 502

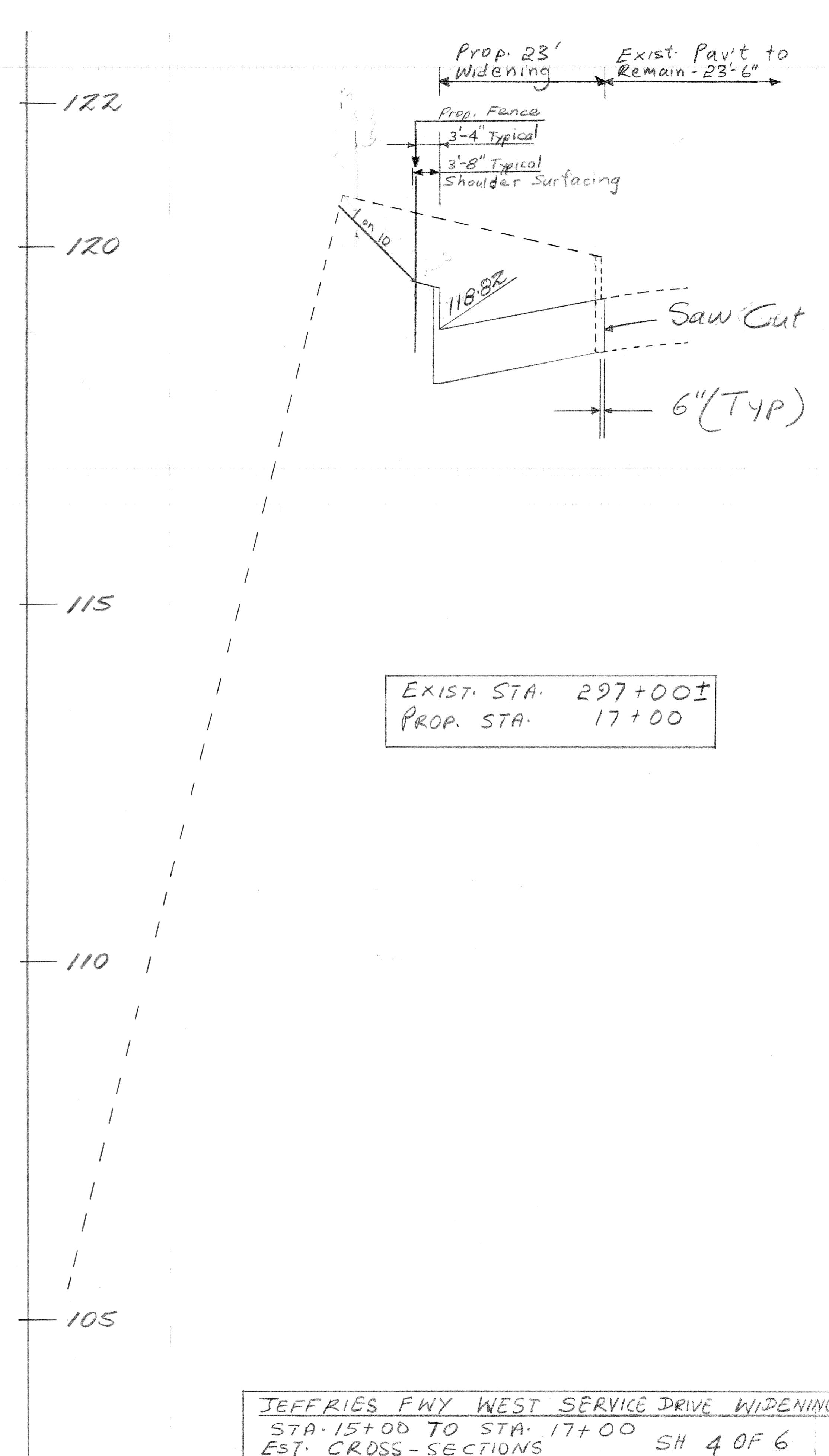
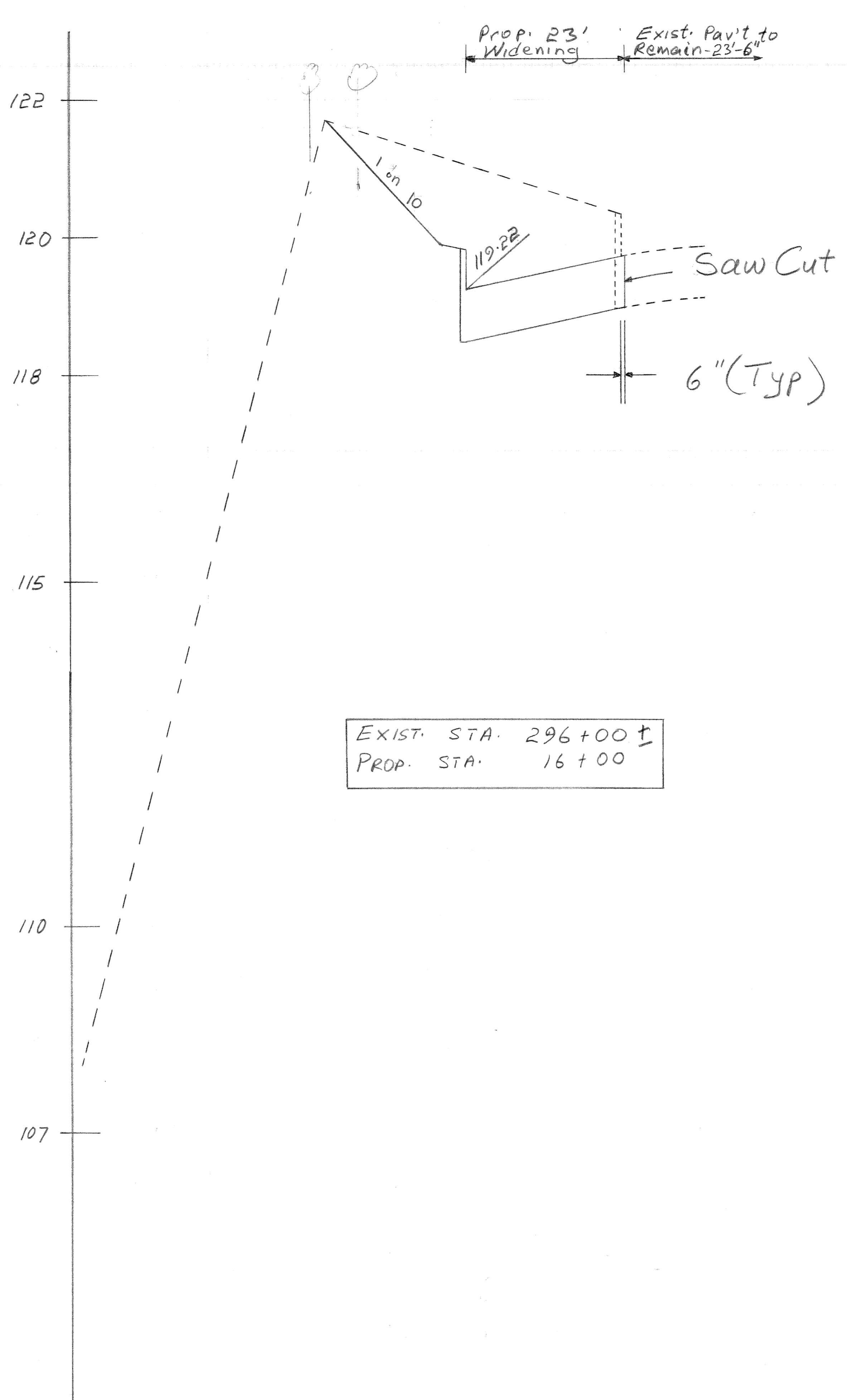
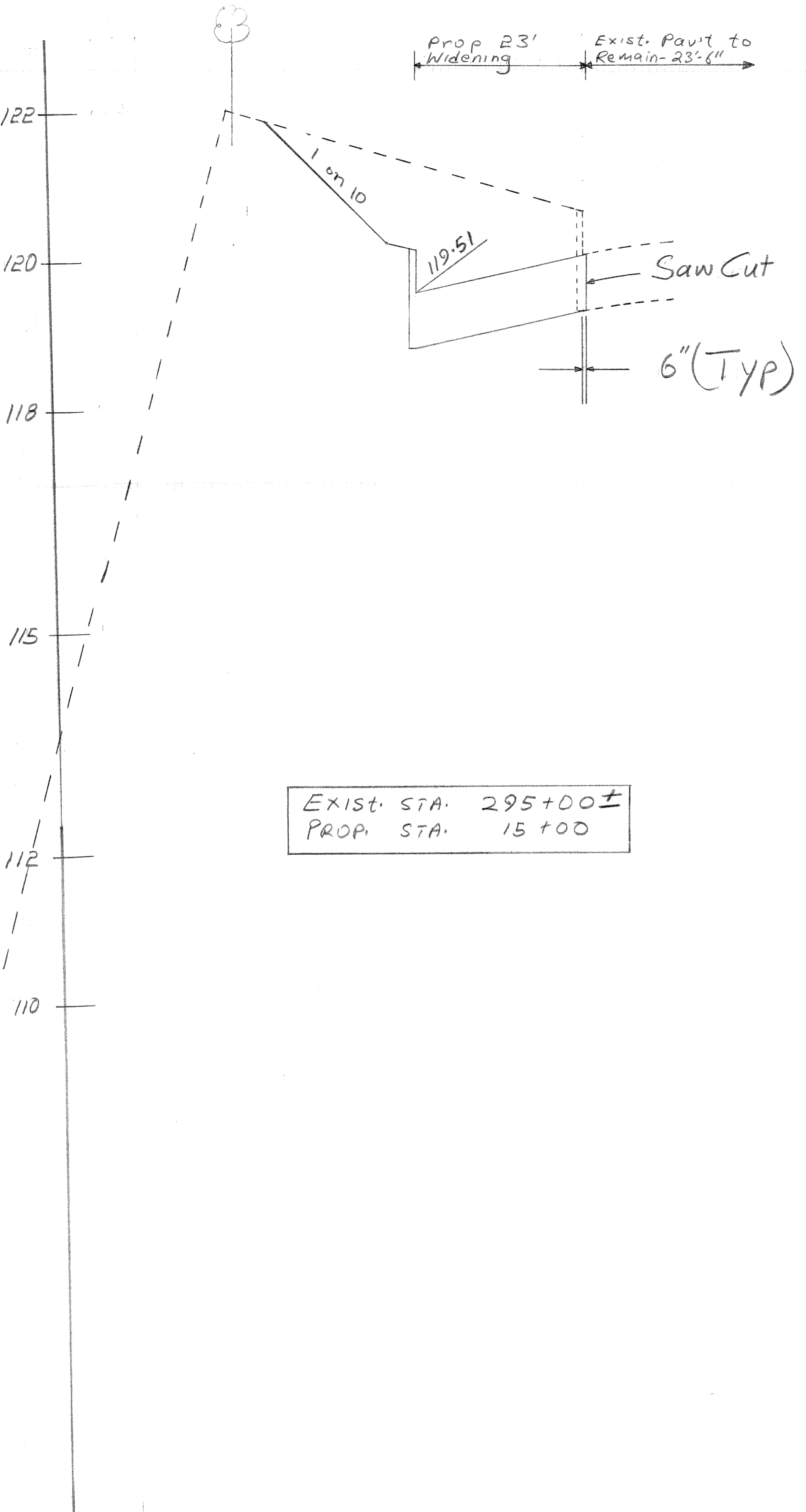




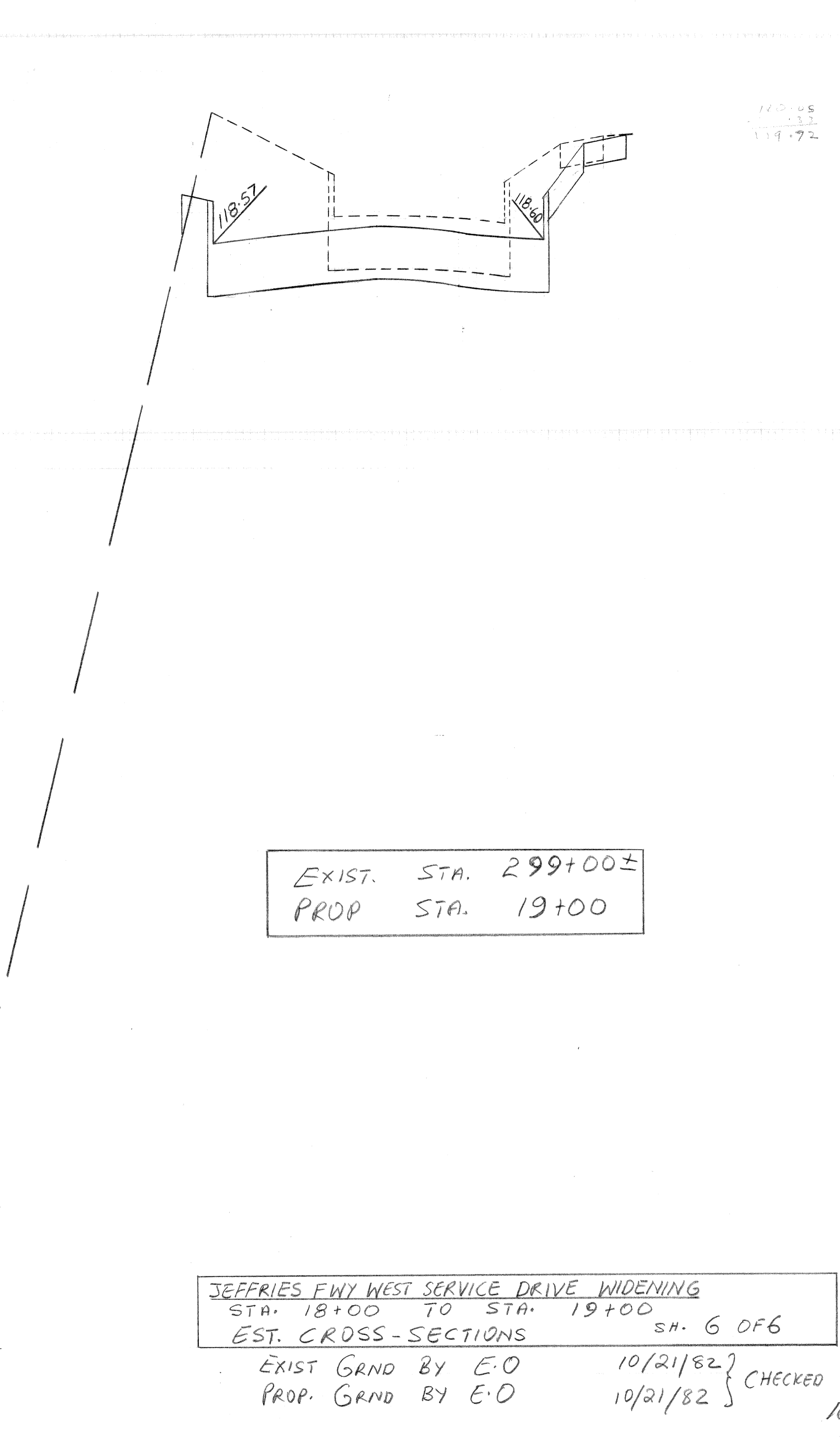
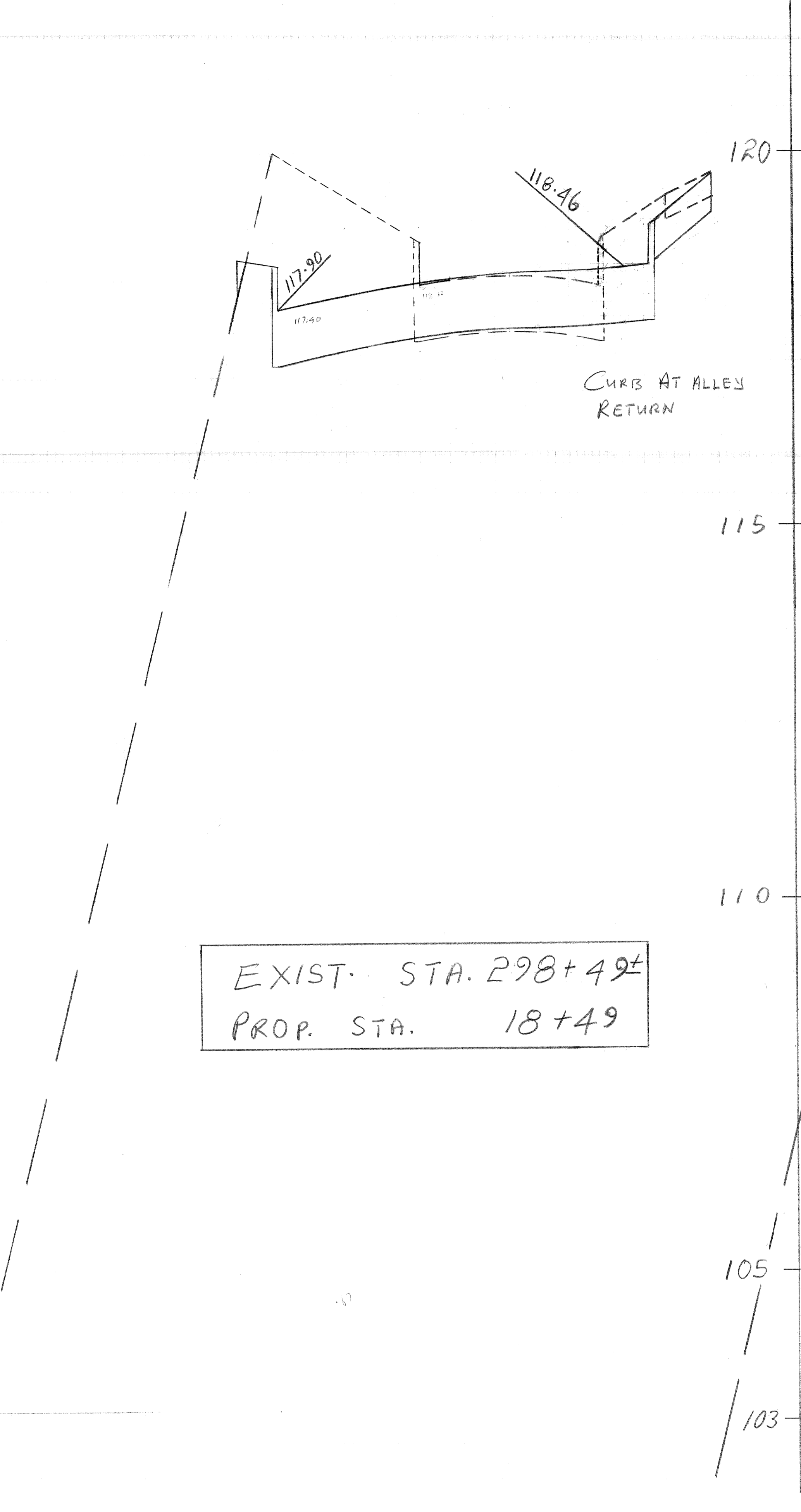
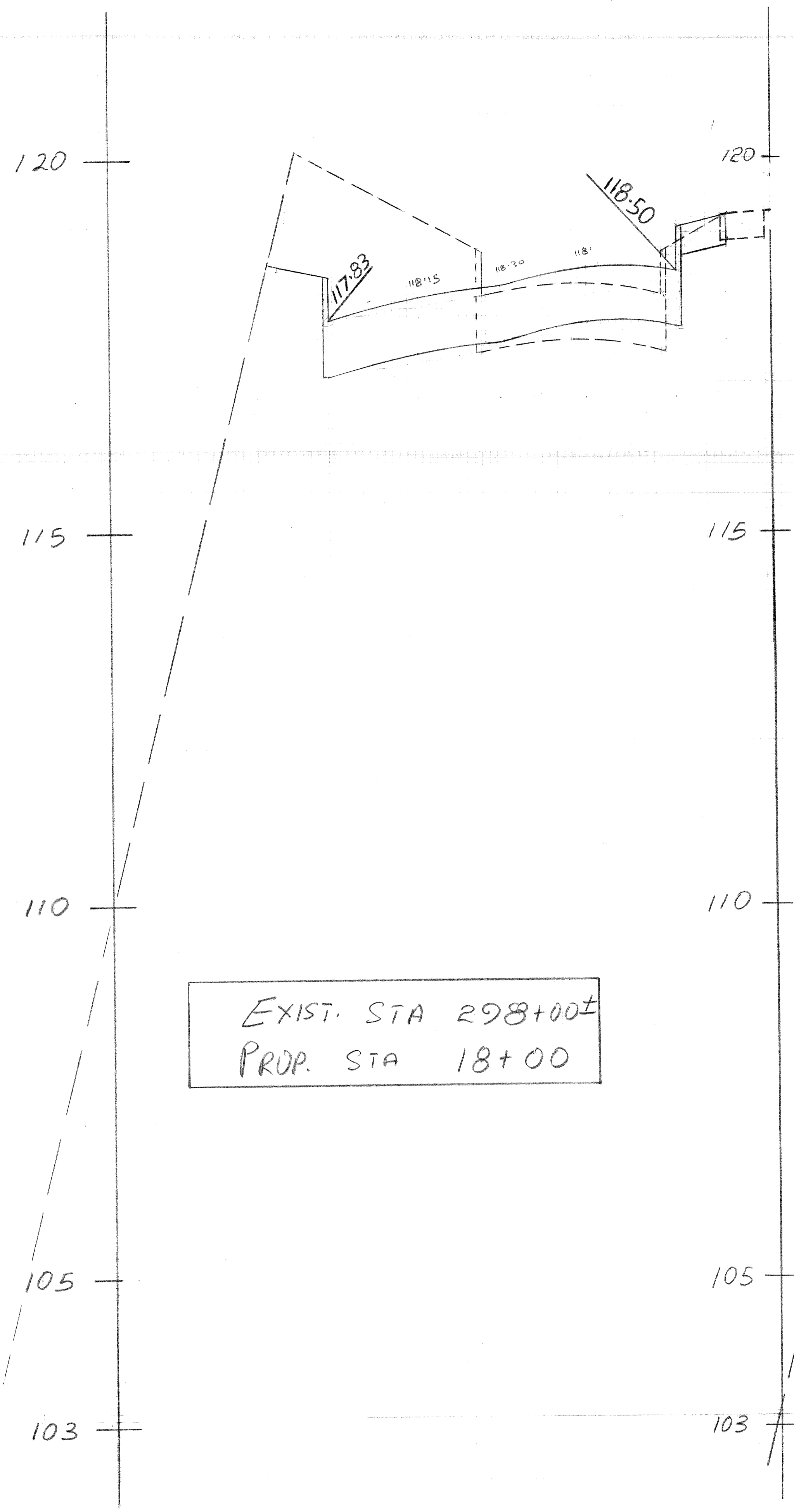


JEFFRIES FWY WEST SERVICE DRIVE WIDENING
 STA. 9+00 TO STA. 14+00 SH. 3 OF 6
 EST. CROSS-SECTION

EXIST. Grnd by E.O. 9/17/82 Checked
 PROP. Grnd by E.O. 9/17/82 WB 9/27/82



JEFFRIES FWY WEST SERVICE DRIVE WIDENING
 STA. 15+00 TO STA. 17+00 SH 4 OF 6
 EST. CROSS-SECTIONS
 Exist Grnd by E.O 9/17/827 Checked
 Prop Grnd by E.O 9/17/825 WBS 9/27/82



120.05
119.72

JEFFRIES FWY WEST SERVICE DRIVE WIDENING
 STA. 18+00 TO STA. 19+00 SH. 6 OF 6
 EST. CROSS-SECTIONS

EXIST GRND BY E.O 10/21/82 }
 PROP. GRND BY E.O 10/21/82 } CHECKED BY- WBS
 10/25/82