

PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH AASHTO : "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 1990".

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERING DIVISION  
 IN CO-OPERATION WITH  
 MICHIGAN DEPARTMENT OF TRANSPORTATION  
 ECONOMIC DEVELOPMENT - CATEGORY A  
 CONTROL SECTION EDA 82522 JOB NO. 40938A

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 1990 STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS

FHWA REGION	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MCH				
STREET	CITY	COUNTY	TWP	SHEET NO	TOTAL SHEETS

TRAFFIC VOLUME	1996	2016
CLAY/ST. AUBIN ADT	9425	10,370
ST. JEAN - ADT	7304	8035
DESIGN SPEED-----	25 MPH	
POSTED SPEED-----	25 MPH	

INDEX OF SHEETS

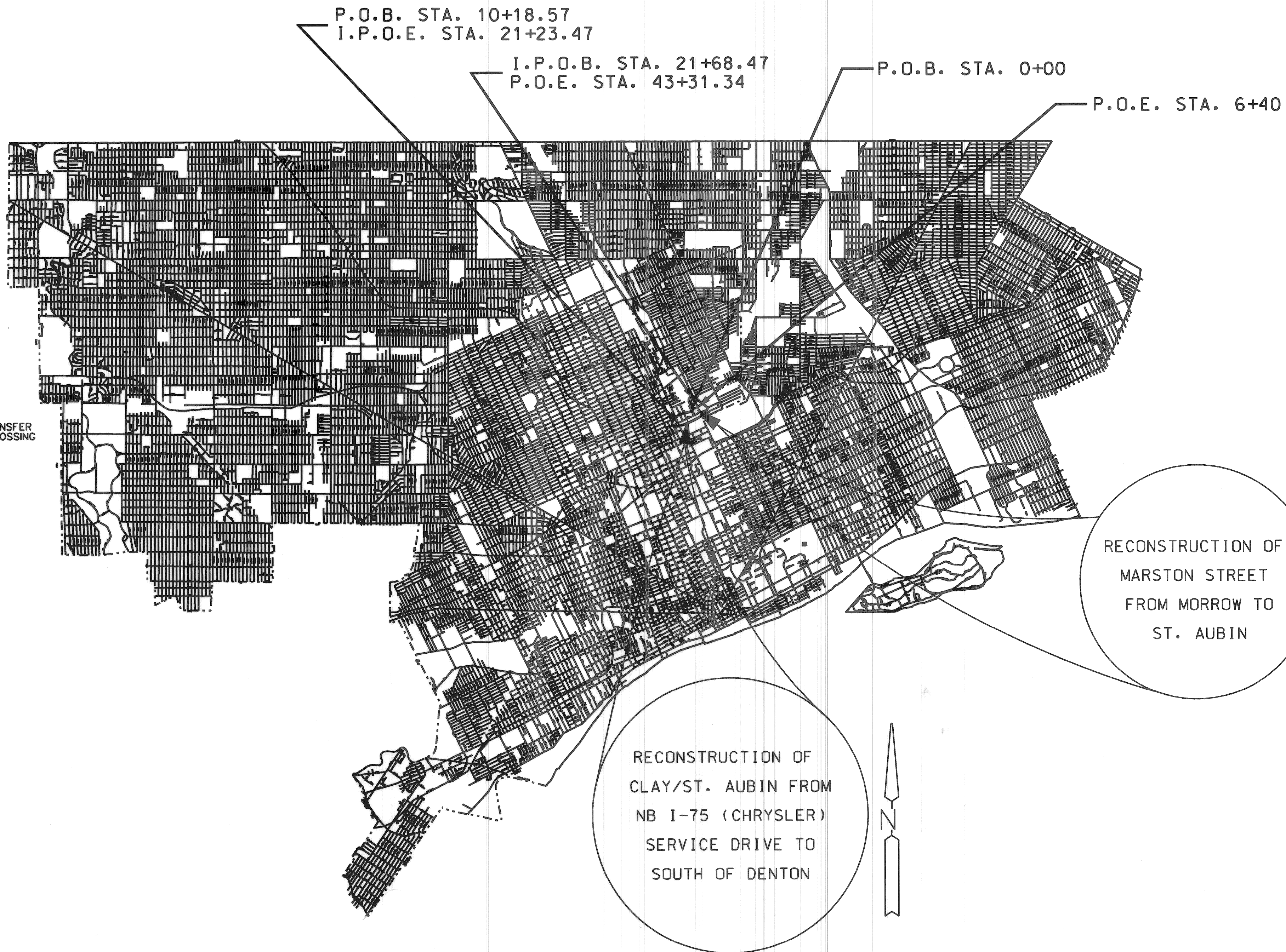
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- II-29E
- II-39K
- II-41J
- II-42F
- II-43D
- II-44H
- II-45G
- III-58M
- III-60H

SPECIAL DETAILS

- II-40H LOAD TRANSFER
- VI-121D TRACK CROSSING
- IV-83H
- V-100C
- VI-125H



CONTRACT FOR RECONSTRUCTION

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

APPROVED BY \_\_\_\_\_ HEAD ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ CITY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

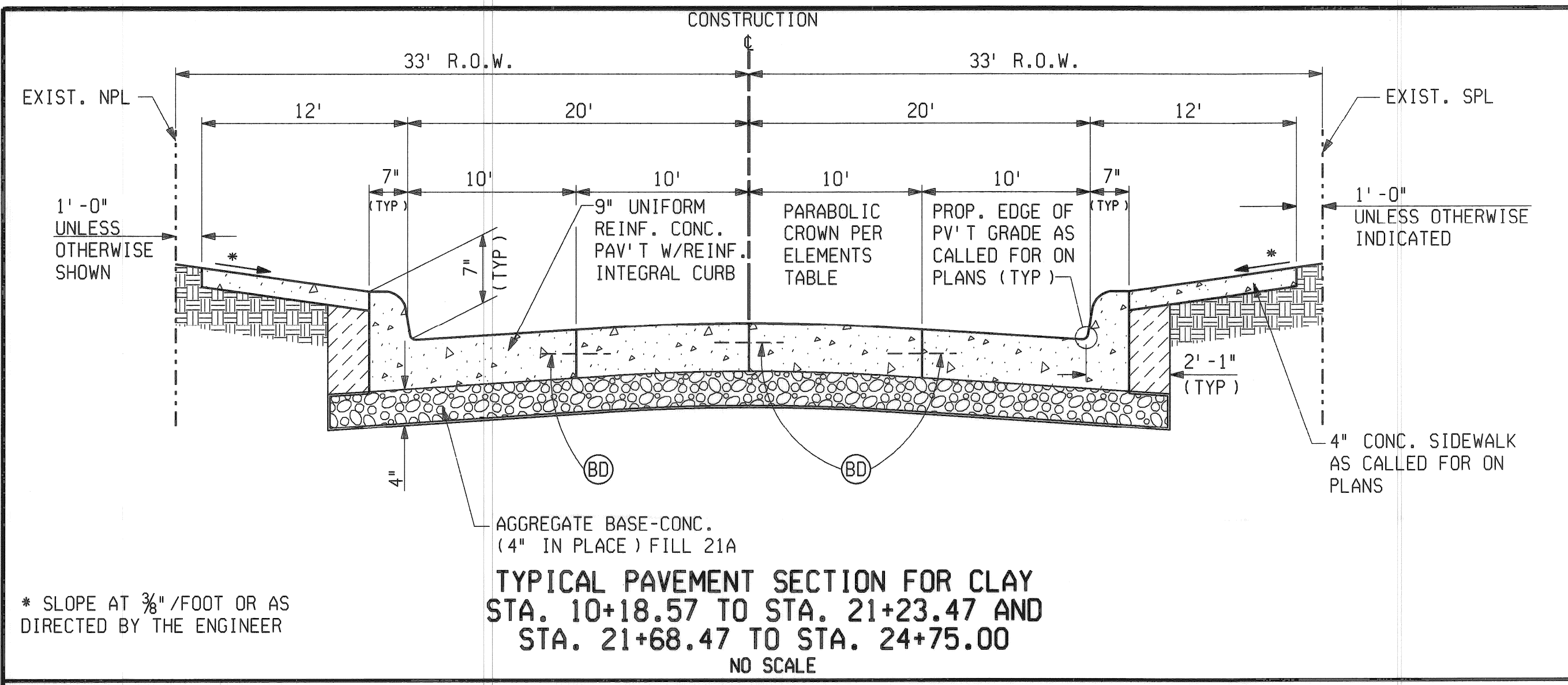
PREPARED UNDER SUPERVISION OF

**PB** 100 YEARS *Donald P. Miller* 42392  
 REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

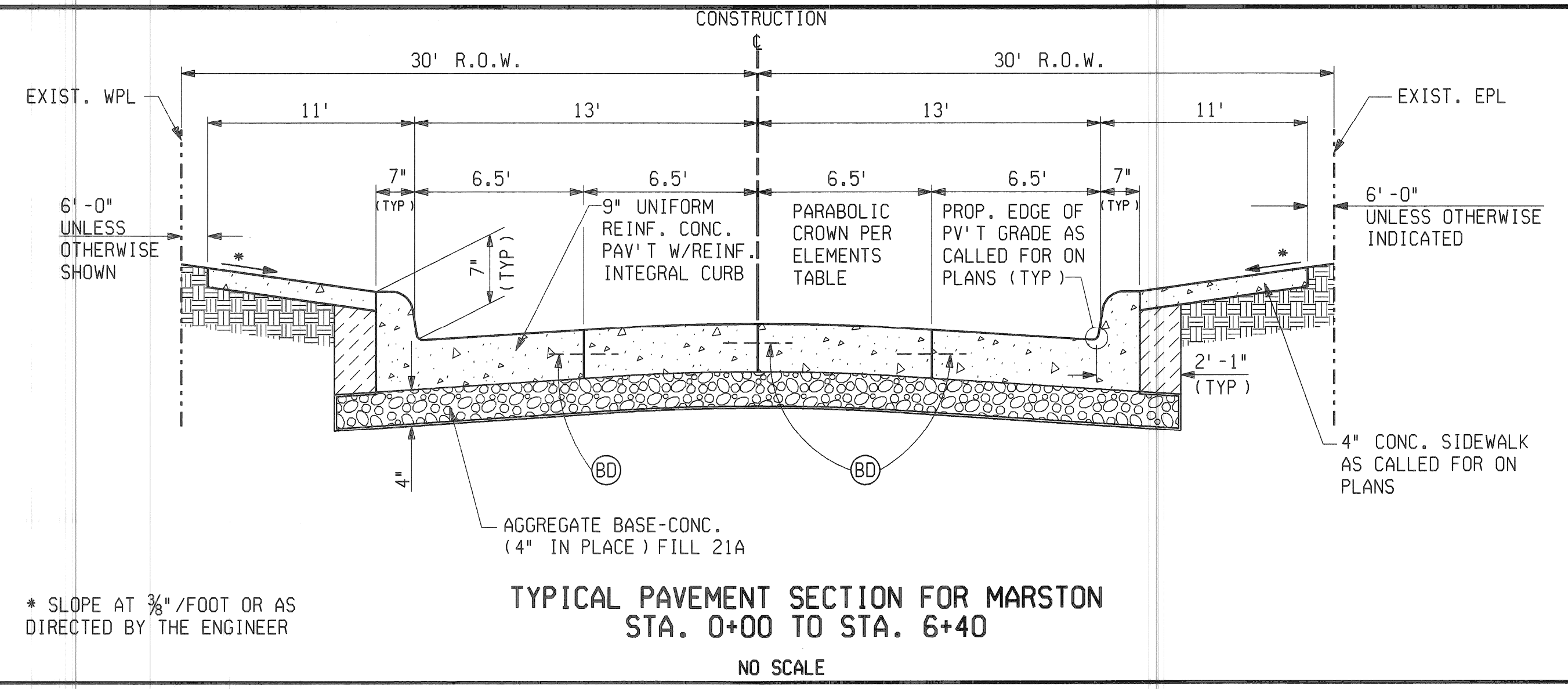
PARSONS BRINCKERHOFF MICHIGAN, INC.  
 DETROIT, MICHIGAN

STATE OF MICHIGAN  
 DONALD MILLER  
 ENGINEER  
 No. 42392  
 LICENSED PROFESSIONAL ENGINEER

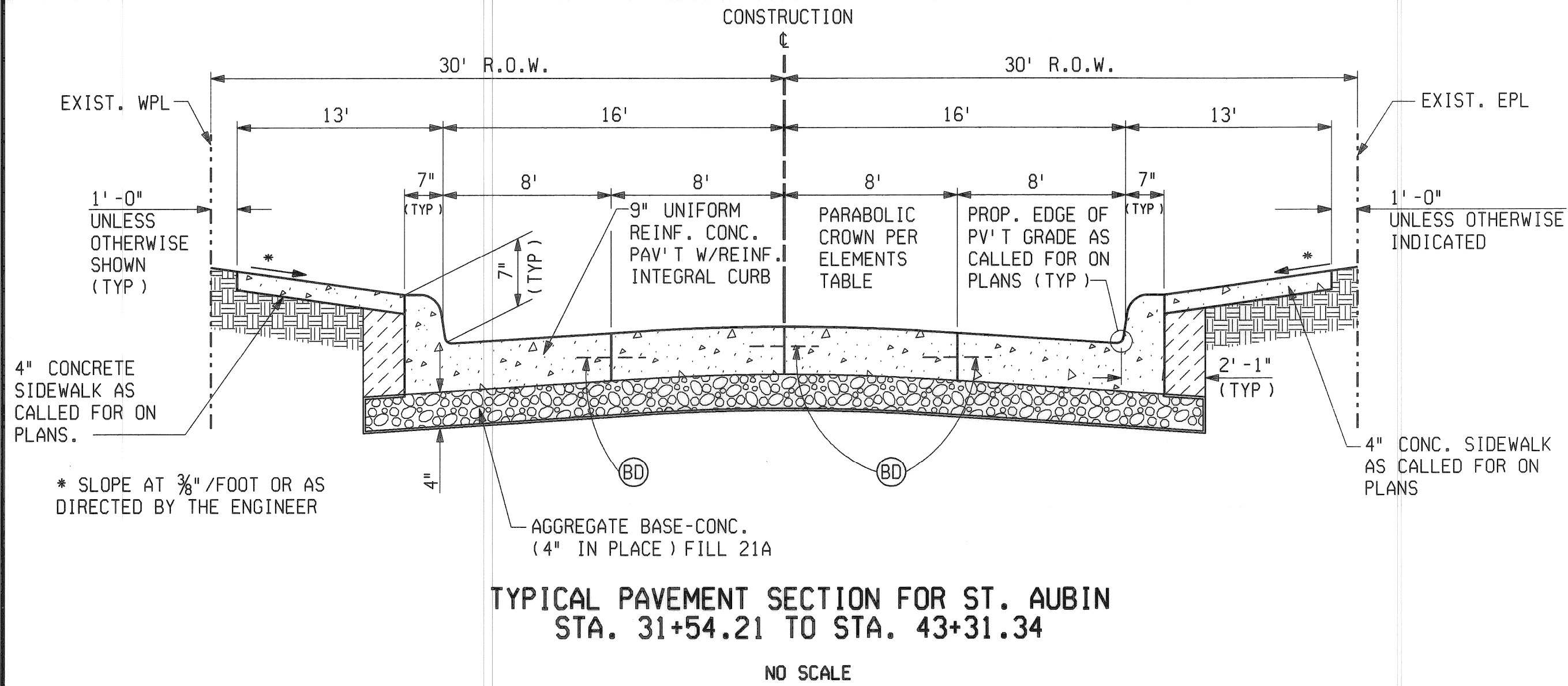
JOB NO. 40938A  
 CONTROL SECTION EDA 82522



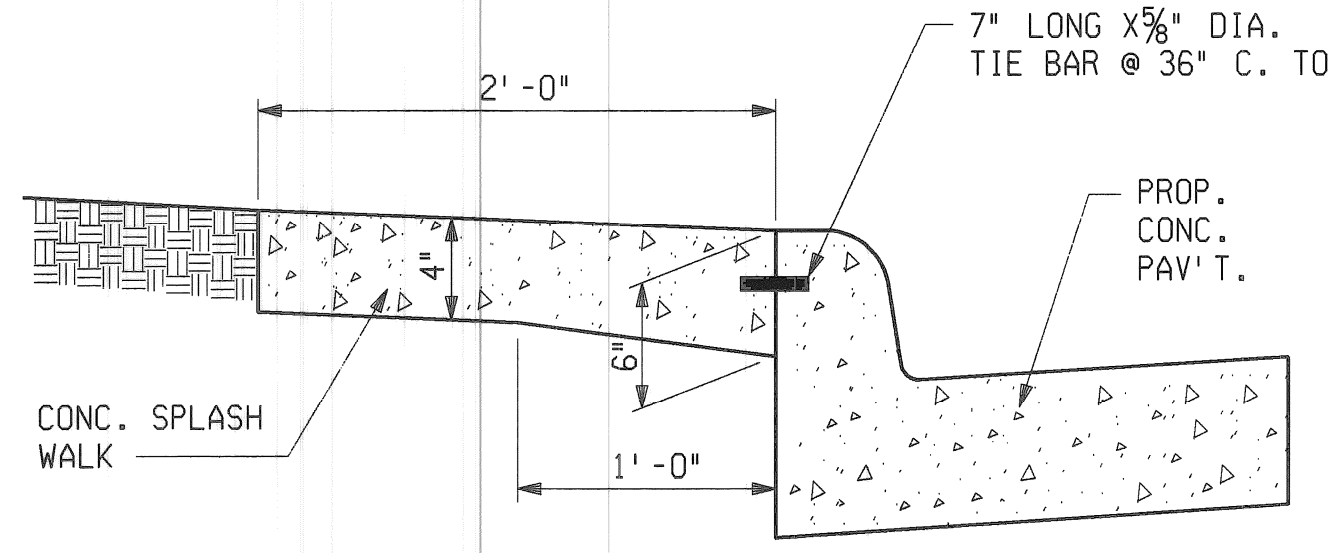
**TYPICAL PAVEMENT SECTION FOR CLAY**  
 STA. 10+18.57 TO STA. 21+23.47 AND  
 STA. 21+68.47 TO STA. 24+75.00  
 NO SCALE



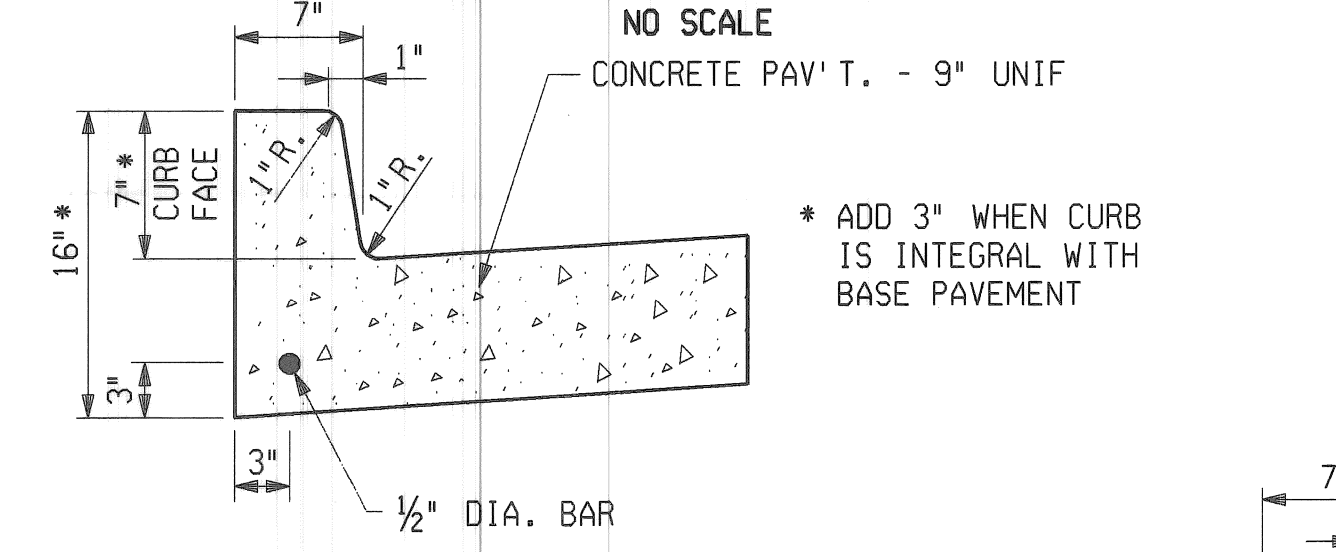
**TYPICAL PAVEMENT SECTION FOR MARSTON**  
 STA. 0+00 TO STA. 6+40  
 NO SCALE



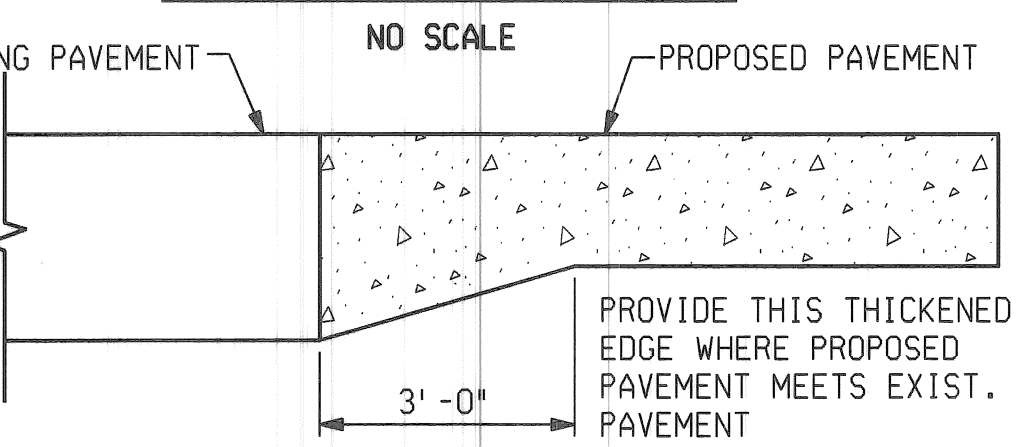
**TYPICAL PAVEMENT SECTION FOR ST. AUBIN**  
 STA. 31+54.21 TO STA. 43+31.34  
 NO SCALE



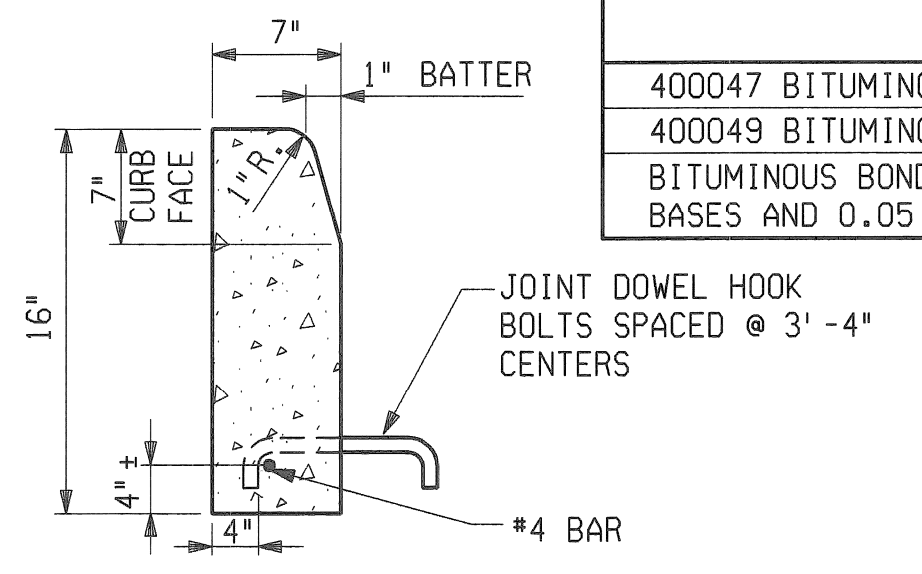
**SPLASH WALK DETAIL**  
 NO SCALE



**INTEGRAL CURB DETAIL**  
 NO SCALE



**DETAIL OF THICKENED EDGE**  
 NO SCALE



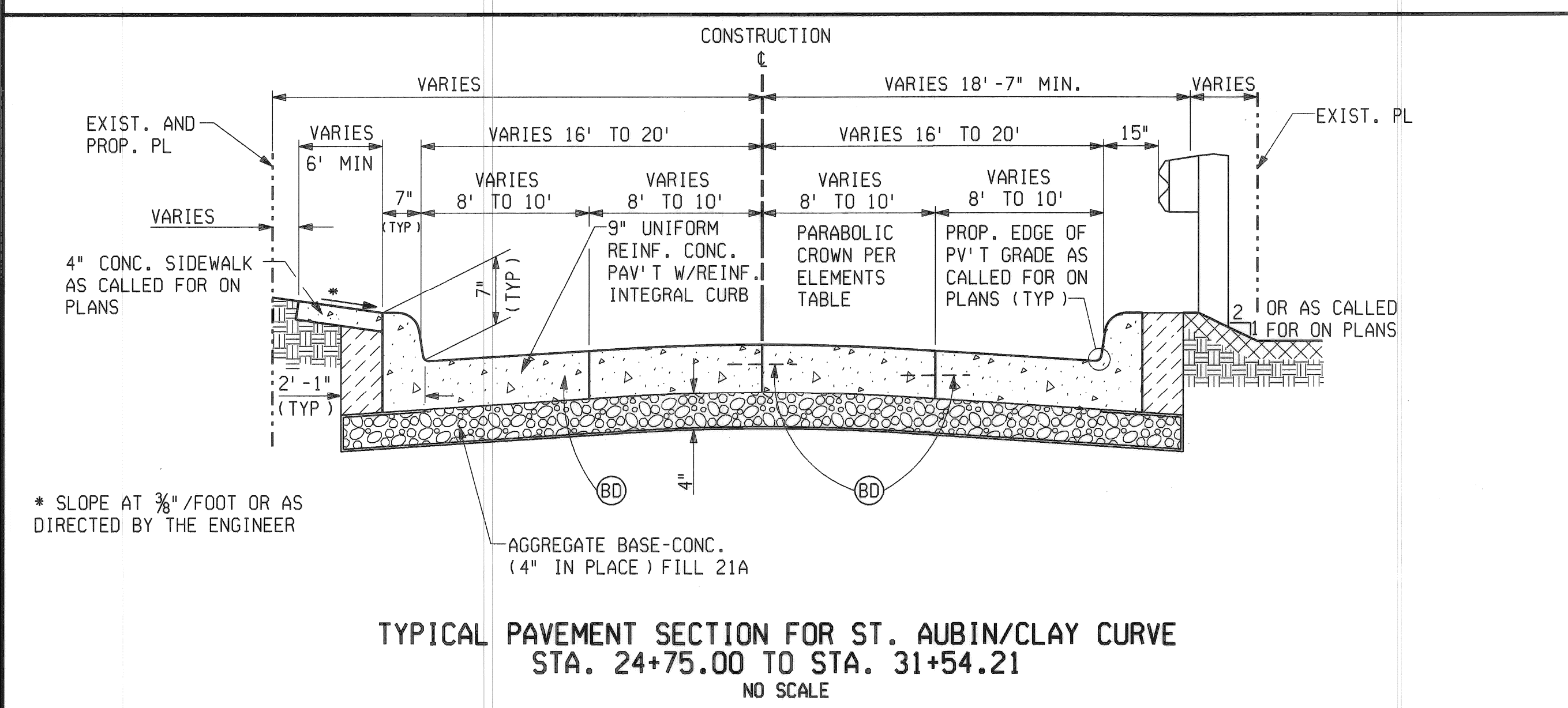
**CONC. CURB DETAIL "X"**  
 NO SCALE

MISCELLANEOUS QUANTITIES			
6310055	FLAG CONTROL	1	LSUM
6230001	MOBILIZATION	1	LSUM
6310054	MINOR TRAFFIC DEVICES	1	LSUM
6220001	FIELD OFFICE	9	MOS

ESTIMATED QUANTITIES FOR USE AT THE DISCRETION OF THE ENGINEER			
2070003	REMOVING CURB	LFT	200
2070011	REMOVING TRACK ENCASMENT	CYD	2000
2080021	EMBANKMENT (CIP) GRANULAR MATERIAL CLASS II	CYD	500
2080031	SUBGRADE UNDERCUTTING TYPE II	CYD	500
5140025	ADJUSTING WATER SHUTOFF	EACH	25
5140045	ADJUSTING DRAINAGE STRUCTURE COVER, CASE 1	EACH	1
5140046	ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2	EACH	1
5147001	MISC. SEWER CLEANOUT NON-PARTICIPATING	LFT	100
5147030	MISC. STRUCTURE COVER	LBS	700
5147050	MISC. CLEANING DRAINAGE STRUCTURE NON-PARTICIPATING	EACH	6
5147050	MISC. RECONSTRUCTING DRAINAGE STRUCTURE, CASE 1	EACH	1
6097001	MISC. CONCRETE CURB, DETAIL "X"	LFT	150
6310086	TEMP PAVEMENT MARKING, TYPE R, 4", YELLOW	LFT	13,800

BITUMINOUS APPLICATION CHART			
ITEM	RATE OF APPLICATION	ESTIMATED THICKNESS	PERFORMANCE GRADE
400047 BITUMINOUS MIXTURE NO. 3C	170 #/SY.	1 1/2 INCHES	PG 58-28
400049 BITUMINOUS MIXTURE NO. 4C	160 #/SY.	1 1/2 INCHES	PG 58-28

BITUMINOUS BOND COAT 0-0.10 GAL./SY. TO RIGID BASES AND 0.05 GAL./SY. TACK COAT BETWEEN LAYERS

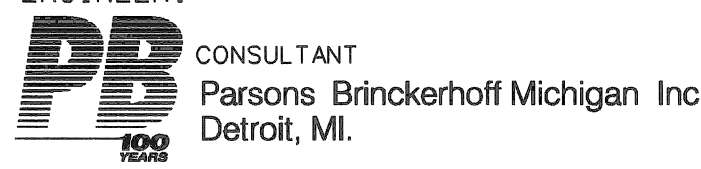


**TYPICAL PAVEMENT SECTION FOR ST. AUBIN/CLAY CURVE**  
 STA. 24+75.00 TO STA. 31+54.21  
 NO SCALE

- JOINT LEGEND**
- (B) LONGITUDINAL BULKHEAD JOINT, ACCORDING TO M.D.O.T. STD. DWG. II - 41J
  - (D) LONGITUDINAL LANE TIE JOINT WITH TIE BAR, ACCORDING TO M.D.O.T. STD. DWG. II - 41J
  - (BD) OPTIONAL, B OR D
- TRANSVERSE JOINTS AS PER SPECIAL PROVISIONS

- EARTHWORK LEGEND**
- (Pattern) CONCRETE PAVEMENT
  - (Pattern) AGGREGATE BASE-CONC. (4" IN PLACE) FILL (21A)
  - (Pattern) GRANULAR MATERIAL CLASS II (SEE NOTE #2)
  - (Pattern) 4" TOPSOIL PLUS CL. A SODDING

- NOTES**
- UNLESS SHOWN AS A SEPARATE - TYPE CURB, THE PROPOSED CURB SHALL BE AN INTEGRAL CURB (SEE DETAIL THIS SHEET) WITH CONCRETE CURB DETAIL "CD" AS AN ALTERNATE. REGARDLESS OF CONSTRUCTION METHOD THE PROPOSED CURB SHALL BE PAID FOR AS "CONCRETE PAV'T. - 9" UNIFORM WITH INTEGRAL CURB".
  - GRANULAR MATERIAL CLASS II WHICH IS USED FOR BACKFILL SHALL BE PAID FOR AS "EMBANKMENT - GRANULAR MATERIAL CLASS II".
  - EDGE DRAIN LOCATION AND DEPTH MAY BE VARIED AS DIRECTED BY THE ENGINEER.



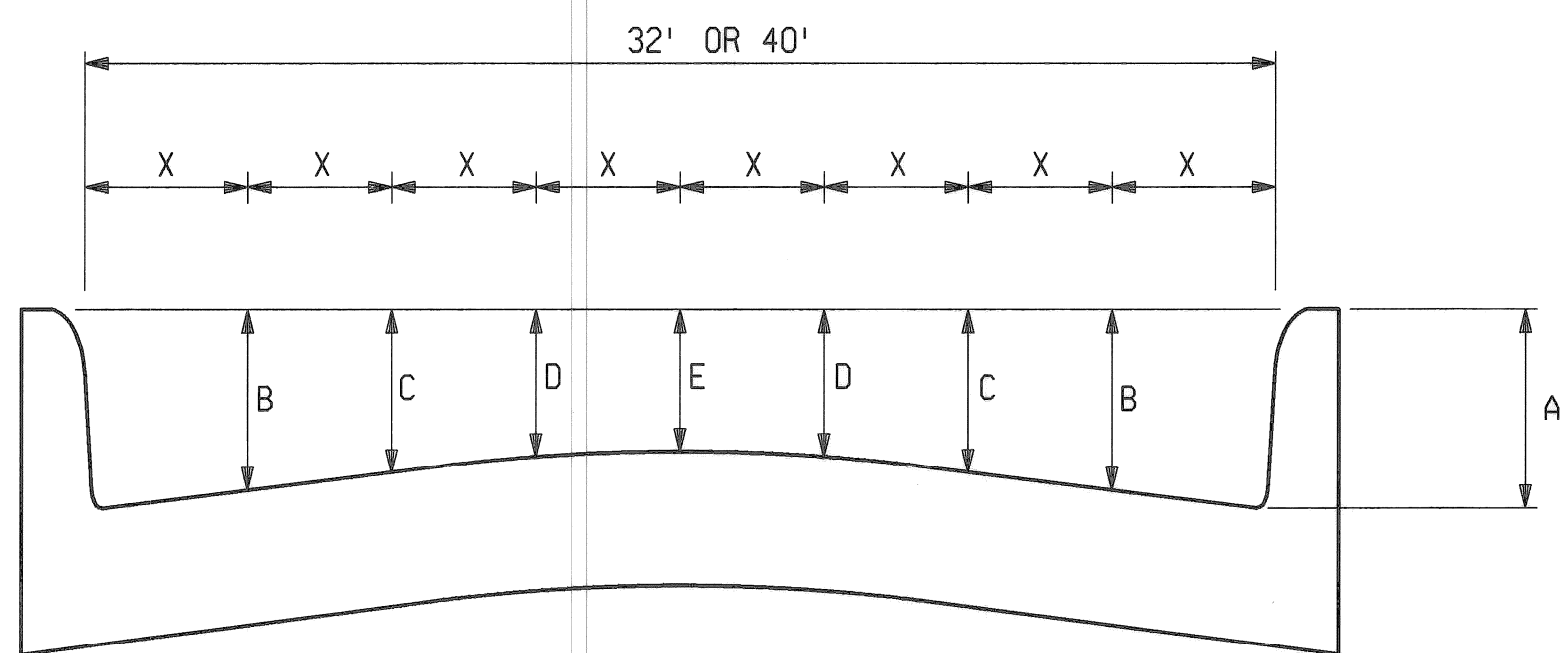
BY	CHECKED BY	APPROVED:
CMK/BS	JWF	ENGINEER OF STREETS
JWF	JWF	
DR'N	CK'D	AP'VD
DATE	CHECK	REVIEW
FINAL		

**CITY OF DETROIT**  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

SHEET 2 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE <b>APRIL 1998</b>

TYPICAL CROSS SECTIONS

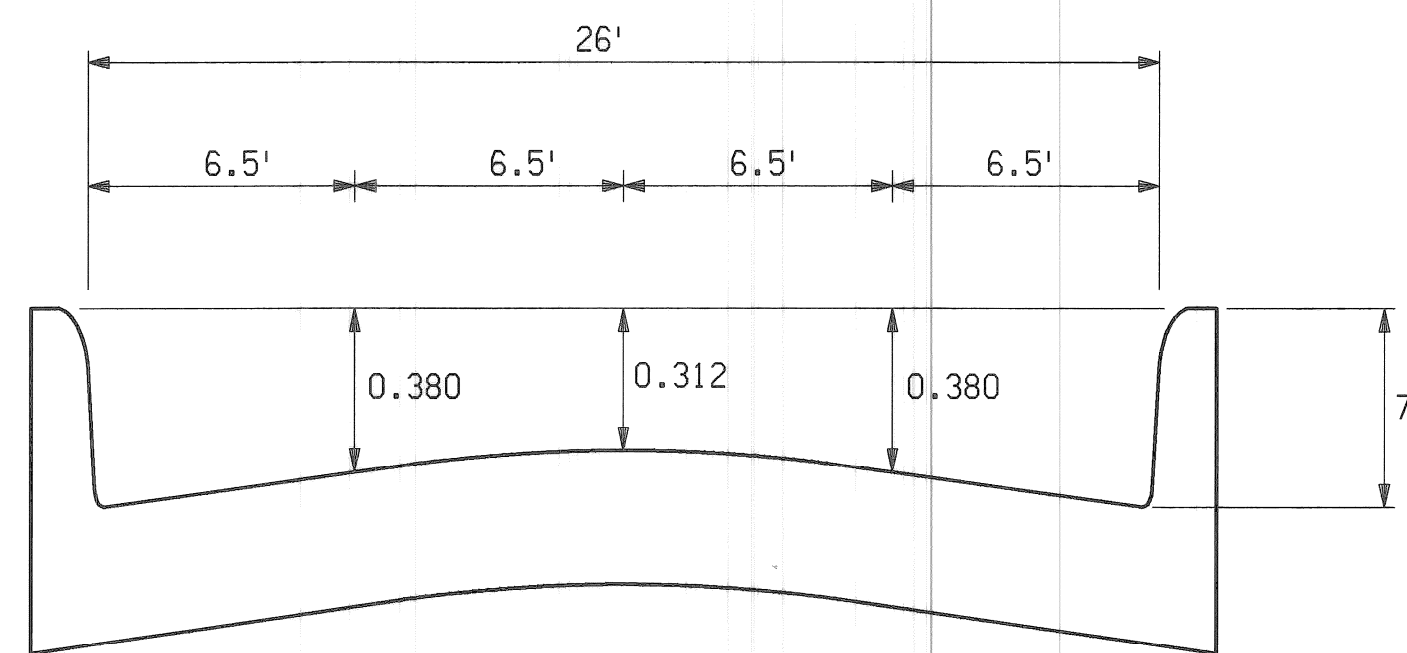


**PARABOLIC CROWN  
ELEMENTS OF A 32' OR 40' PAVEMENT**

NO SCALE

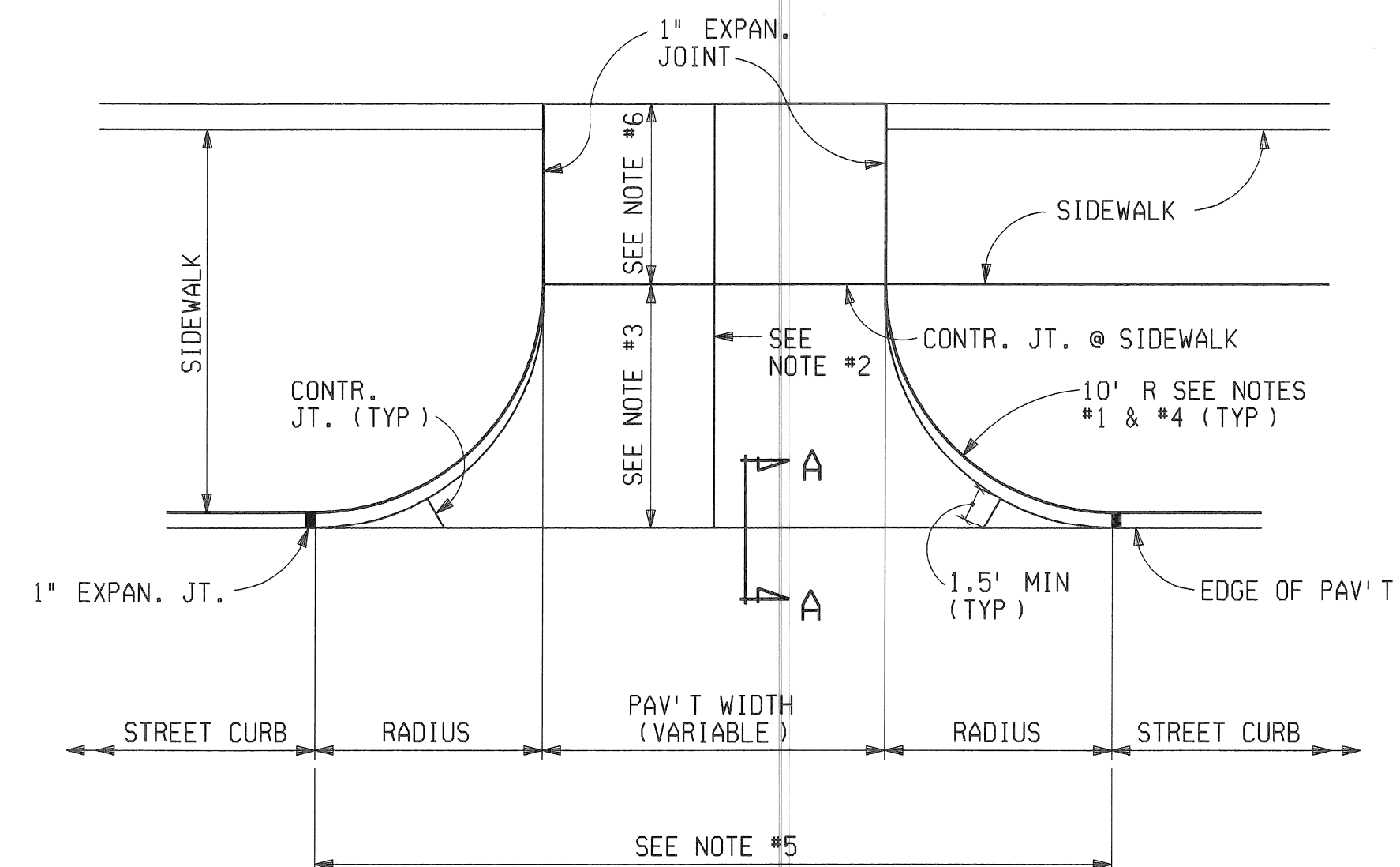
ELEMENTS OF CONCRETE SLAB SECTION						
PAV'T WIDTH	X	CURB HEIGHT	A	B*	C*	E*
32'	4'	7"	0.583	0.438	0.333	0.250
40'	5'	7"	0.583	0.401	0.271	0.167

\* DISTANCE BELOW TOP OF CURB AT LETTERED POINTS



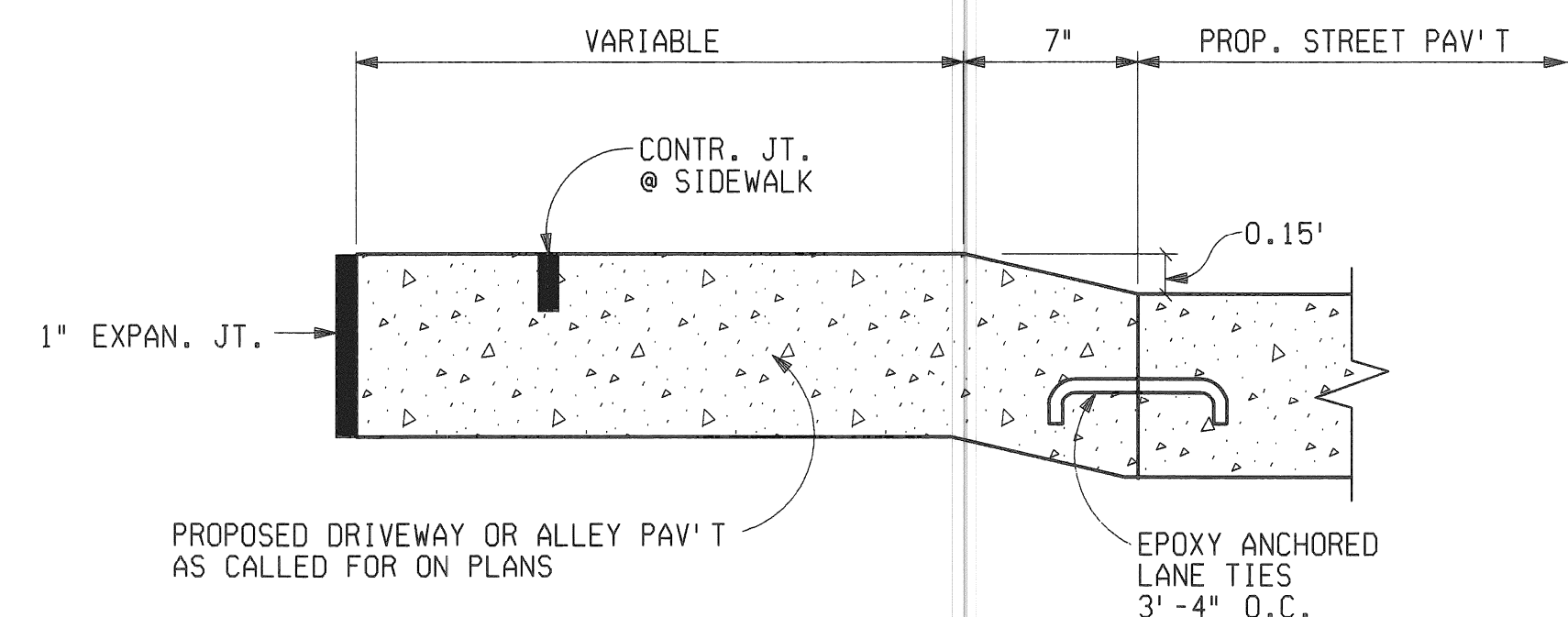
**PARABOLIC CROWN  
ELEMENTS OF A 26' PAVEMENT**

NO SCALE



**COMMERCIAL DRIVEWAY OR ALLEY DETAIL**

NO SCALE



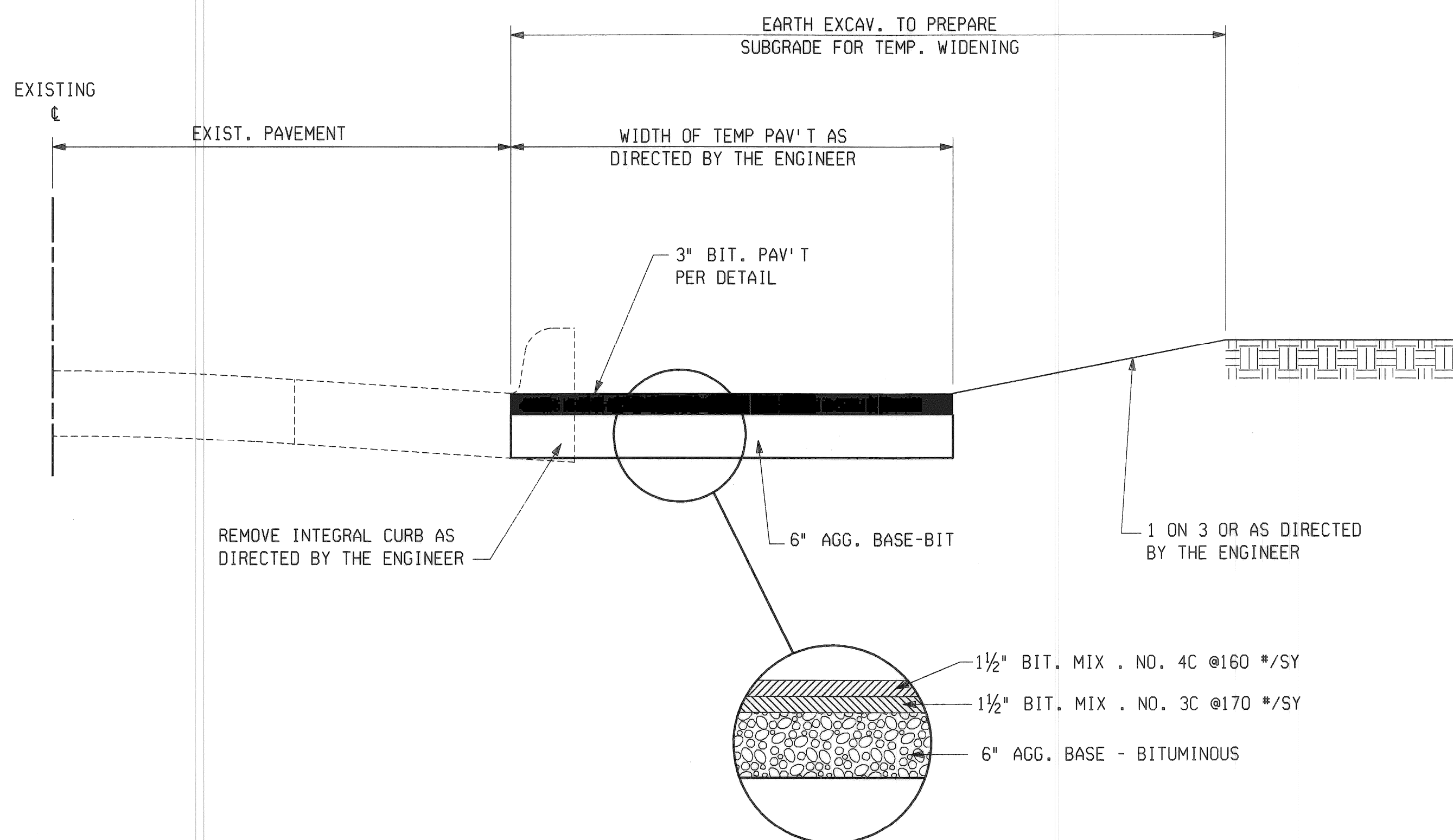
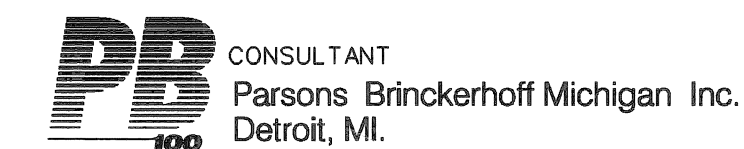
**SECTION A-A**

NO SCALE

**GENERAL NOTES**

**COMMERCIAL DRIVEWAYS & ALLEY'S**

1. TRANSITION EDGE OF DRIVEWAY OR ALLEY FROM CURB AT 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  $\phi$ .
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 OR ALLEY BETWEEN THE END OF RETURNS WILL BE PAID FOR AS CONCRETE PAVEMENT OF THE SPECIFIED THICKNESS.
6. MINIMUM AND MAXIMUM SLOPES OF 1/4"/FT. & 3/4"/FT SHALL BE USED IN THE SIDEWALK AREA.



**TEMPORARY ROAD WIDENING  
FOR STAGED CONSTRUCTION  
STA. 25+00 RT TO 27+50 RT**

NO SCALE

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					PLAN	CMK	JWF
					GRADE	JWF	DPM
					ESTIMATE	JWF	DPM
					FINAL	CHECK	REVIEW

**CITY OF DETROIT  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING**

**RECONSTRUCTION OF CLAY / ST. AUBIN  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON**

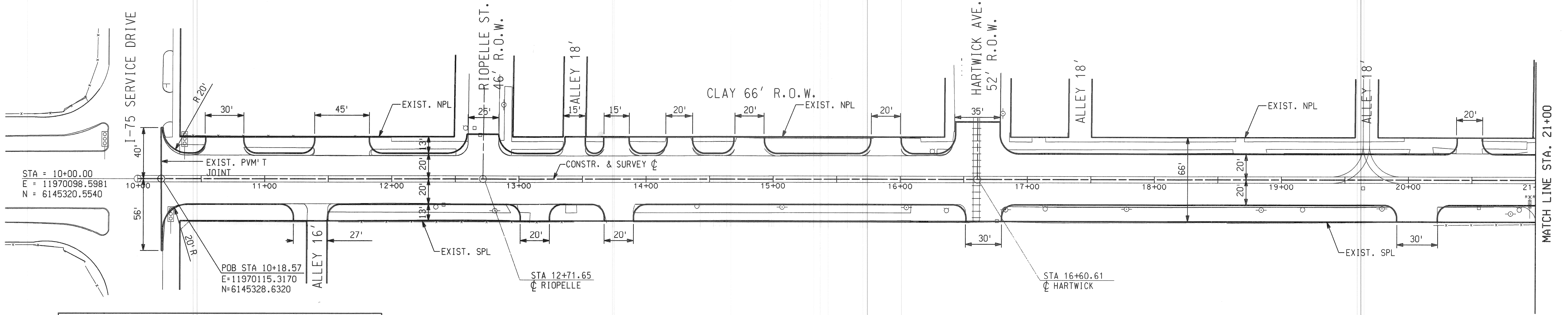
TYPICAL CROSS SECTIONS

SHEET 3 OF 26 SHEETS

CONTRACT NO.

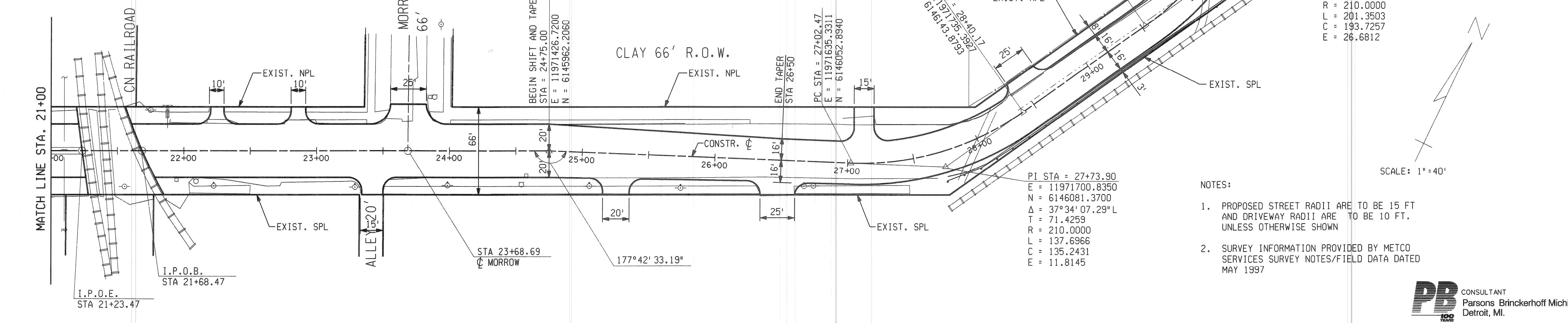
ASSIGNMENT NO.

DATE APRIL 1998



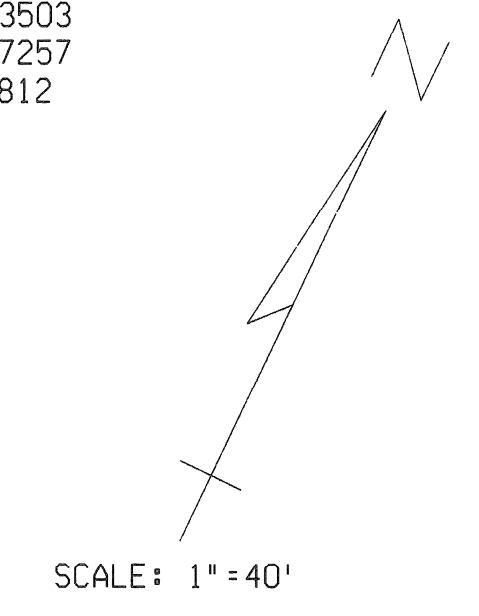
POINT NO.	NORTH COORDINATE	EAST COORDINATE
1	6145320.5540	11970098.5980
2	6146100.0980	11971712.1380
3	6146333.6830	11971844.8600
4	6147537.6310	11971257.6530

PROJECT SURVEY & ALIGNMENT  
METCO SERVICES, APRIL 1997  
(NOT TO SCALE)



PI STA = 27+73.90  
 E = 11971700.8350  
 N = 6146081.3700  
 $\Delta = 37^{\circ}34'07.29''$   
 T = 71.4259  
 R = 210.0000  
 L = 137.6966  
 C = 135.2431  
 E = 11.8145

- NOTES:
- PROPOSED STREET RADII ARE TO BE 15 FT AND DRIVEWAY RADII ARE TO BE 10 FT. UNLESS OTHERWISE SHOWN
  - SURVEY INFORMATION PROVIDED BY METCO SERVICES SURVEY NOTES/FIELD DATA DATED MAY 1997



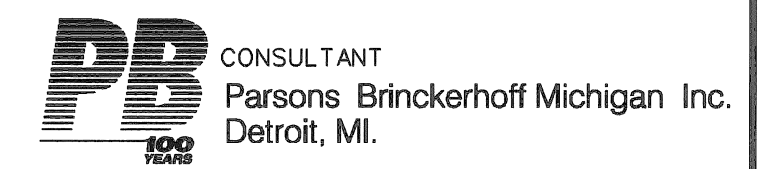
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DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW	BY	CHECKED BY	APPROVED:
PLAN							CMK	JWF	ENGINEER OF STREETS
GRADE									
ESTIMATE									
FINAL									

**CITY OF DETROIT**  
**DEPARTMENT OF TRANSPORTATION**  
**TRANSPORTATION ENGINEERING**

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
**FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON**  
 ALIGNMENT P.O.B. TO STA 32+00

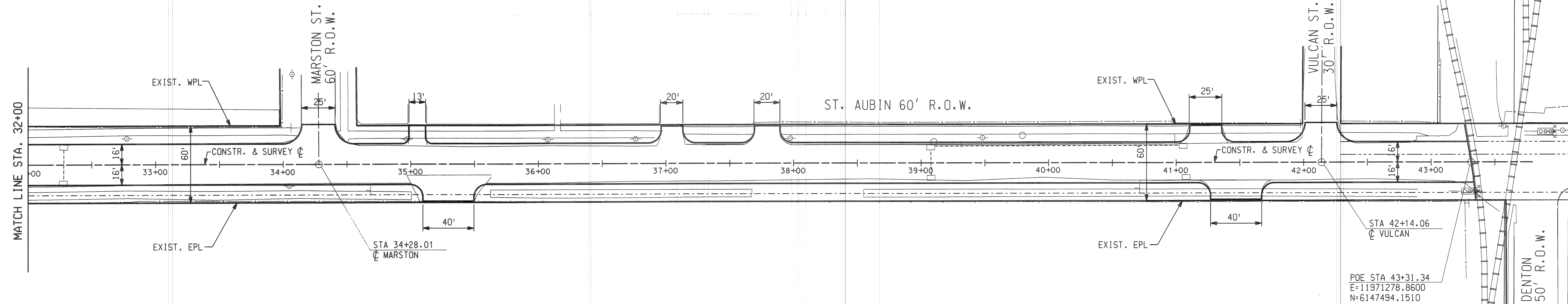
SHEET 4 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE **APRIL 1998**



BM #50 ELEV. = 151.231  
 TOP CENTER NUT ON HYDRANT ON THE NORTH SIDE OF HOLBROOK AT ST. AUBIN

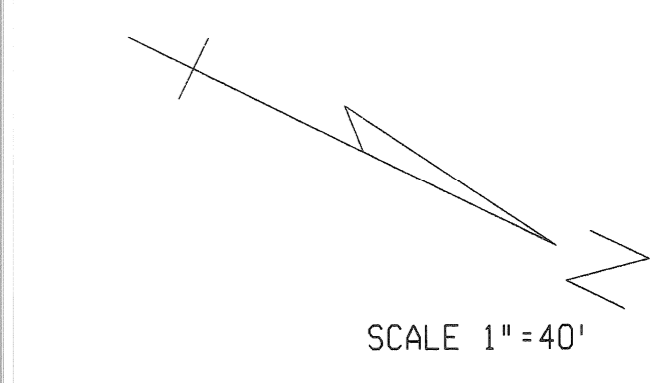
BM #51 ELEV. = 151.341  
 TOP CENTER NUT ON HYDRANT BETWEEN 2 CONCRETE BOLLARDS AT THE LOADING DOCK OF THE DETROIT AXLE POST NO. 3 ON THE WEST SIDE OF ST. AUBIN

BM #53 ELEV. = 151.604  
 P.K. NAIL IN THE EAST FACE OF A UTILITY POLE AT THE SOUTHWEST CORNER OF MARSTON AND ST. AUBIN



SURVEY HORIZONTAL CONTROL POINTS

POINT NO.	EASTING	NORTHING	ST. AUBIN	POINT NO.	EASTING	NORTHING	ST. AUBIN
21	11970224.8386	6149686.2460	SCRIBE IN NW HOLBROOK JUST W OF ST. AUBIN WALK 500' S OF HOLBROOK	31	11969803.4389	6150468.9800	SET SCRIBE N WALK OF POLAND E OF DEQ. 17.15' E OF BUS STOP SIGN 2.35' FROM B/W
22	11970460.8403	6149228.6708	SCRIBE IN E WALK OF ST. AUBIN 26.5' N OF HYD 7' W OF WALL 800' S OF HOLBROOK	32	11969264.7532	6150168.1585	SET PK C DEQ. 6.35' N OF HYD LINE 42.88' W OF HYD @ SE DEQ & POLAND
23	11970599.1410	6148946.1841	SCRIBE @ NE CORNER ST. AUBIN & FABER 5.75' SW OF BLDG. CORNER	33	11969173.8307	6150293.9092	SET SCRIBE ON W WALK OF DEQ. 5.43' FROM WALL IN LINE WITH ALLEY 13' N OF UTILITY POLE
24	11970829.0771	6148473.2127	SCRIBE IN E WALK ST. AUBIN 1.83' FROM B/W 52.65' SE OF HYD. 50.82' S OF NO STANDING SIGN	34	11968998.6355	6150658.4087	SET PK @ NW CORNER DEQ. & EDWIN 7.47' SW OF L. POLE 3' FROM B/W
25	11971063.9084	6147991.4252	SCRIBE IN E WALK OF ST. AUBIN IN FRONT OF 8490 UAW LOCAL 262 1.85' FROM B/W	35	11968827.0827	6151018.0857	SET PK @ NW CORNER DEQ. & DYAR IN ASPH. 13.62' SE OF HOUSE CORNER 17.66' W OF STORM M.H.
26	11971287.8103	6147518.2455	PK IN ASPH. @ DENTON BTN, RR TRACK 25.95 NW OF RR SIGNAL LIGHT 47' W OF UTILITY POLE	36	11968757.6013	6151155.9657	SET SCRIBE C OF YEMANS 1" W WALK OF DEQ. 2.20' FROM B/W 6.97' SW OF LIGHT POLE
27	11971508.3949	6147079.3779	SET SCRIBE IN E WALK OF ST. AUBIN WALK TEMP ENDS 2' FROM B/W 3.2' FROM N OF END				
28	11971705.6542	6146675.5151	SET SCRIBE IN E WALK OF ST. AUBIN @ SOUTH SIDE OF MARSTON 1.8' TO B/W 8.45' E OF UTILITY POLE				
29	11971890.0809	6146295.5889	SET IRON RED CAP 17.20' S OF RAIL 30.60' W OF 3" FACE OF PIPE 4' HIGH	POINT NO.	EASTING	NORTHING	CLAY
30	11971647.6576	6146034.8488	SET SCRIBE @ DET. EDISON M.H. ON S WALK OF CLAY 50' ± W OF I-75 SIGN CLAY	4050	11970649.9913	6145616.7092	SET SCRIBE N WALK @ NW CORNER OF HARTWICK AND CLAY
				4049	11971338.4809	6145884.6087	SET SCRIBE IN WALK ON S SIDE OF CLAY @ MORROW



- NOTES:
- PROPOSED STREET RADII ARE TO BE 15 FT AND DRIVEWAY RADII ARE TO BE 10 FT. UNLESS OTHERWISE SHOWN
  - SURVEY INFORMATION PROVIDED BY METCO SERVICES SURVEY NOTES/FIELD DATA DATED MAY 1997

**PB** CONSULTANT  
 Parsons Brinckerhoff Michigan Inc.  
 Detroit, MI.

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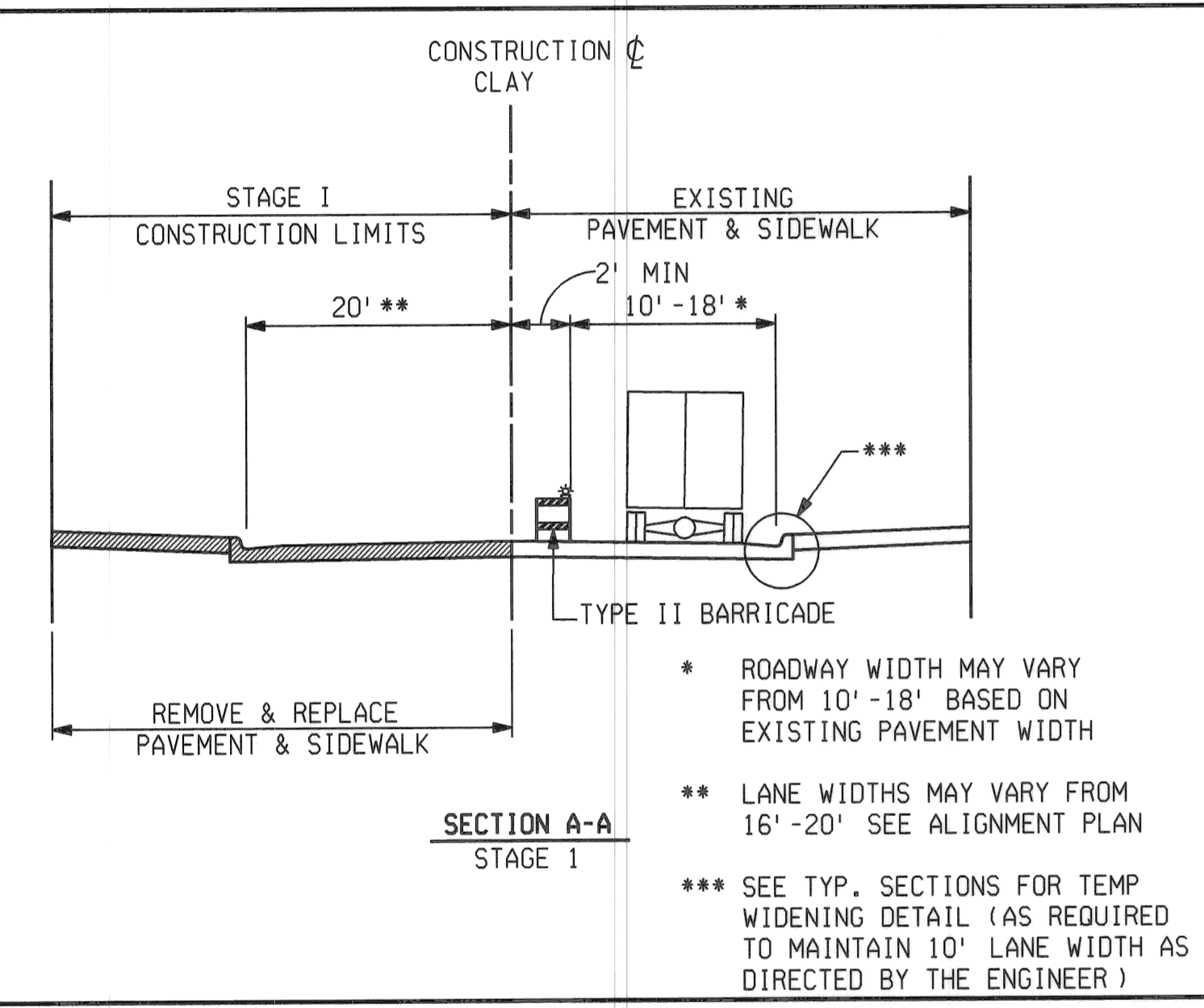
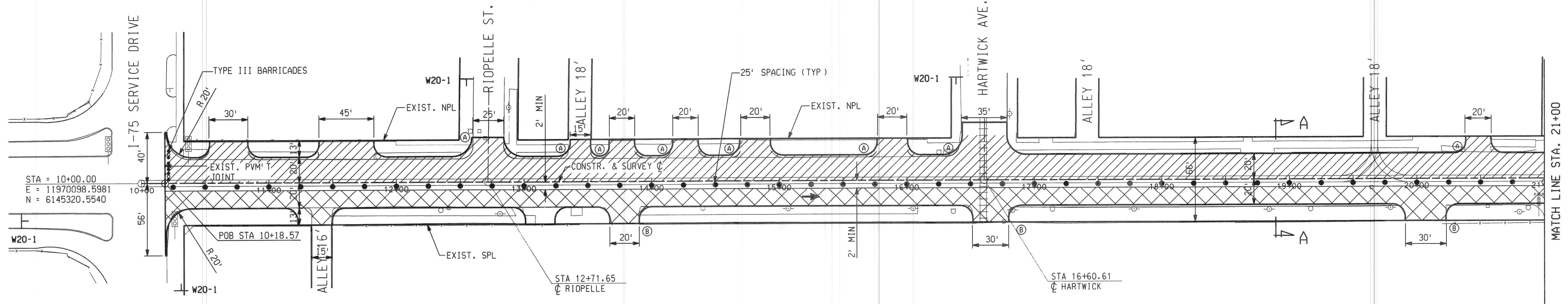
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						ENGINEER OF STREETS
DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW
REVISIONS						

CITY OF DETROIT  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

ALIGNMENT STA 32+00 TO POE

SHEET 5 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE APRIL 1998



- STANDARD CONSTRUCTION SEQUENCE
- NOTES:
- SEE STAGE 1/SHEET 2 FOR DETOUR FOR WESTBOUND CLAY/SOUTHBOUND ST. AUBIN
  - SIGN DESIGNS AND PLACEMENTS SHALL CONFORM TO THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
  - SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED IN THE FIELD WITH APPROVAL OF THE ENGINEER.
  - TYPE II BARRICADE SPACING SHALL BE 25 FEET. CLOSER SPACING AT INTERSECTIONS AS DIRECTED BY THE ENGINEER.
  - SEE TYPICAL SECTION SHEETS FOR TEMPORARY WIDENING STRUCTURAL SECTION.
  - PART WIDTH CONSTRUCTION AT COMMERCIAL DRIVES AND APPROACHES REQUIRED TO MAINTAIN ACCESS SHALL BE INCLUDED IN THE COST OF THE PROJECT.

NO.	DESCRIPTION	(R=RIGHT L=LEFT) SIZE
W20-1	CONSTRUCTION AHEAD	36" X 36"
W20-2	DETOUR AHEAD	36" X 36"
W20-3	ROAD CLOSED AHEAD	36" X 36"
D3-1	DETOUR PANEL W/ ROAD NAME	36" X 12"
M4-9	DETOUR PANEL (W/ARROW)	36" X 24"
M4-8A	DETOUR ENDS	36" X 24"
R11-2	ROAD CLOSED	48" X 30"
M4-10	DETOUR ARROW	48" X 18"
W4-2	LANE REDUCTION	36" X 36"
W1-4A	REVERSE CURV	36" X 36"
W13-1(15)	15 MPH SPEED PANEL	18" X 18"

ASSEMBLY		SIZE
R6-1L	ONE WAY (LEFT)	36" X 12"
R3-1R	NO RIGHT TURN	24" X 24"
R6-1R	ONE WAY (RIGHT)	36" X 12"
R3-1L	NO LEFT TURN	24" X 24"

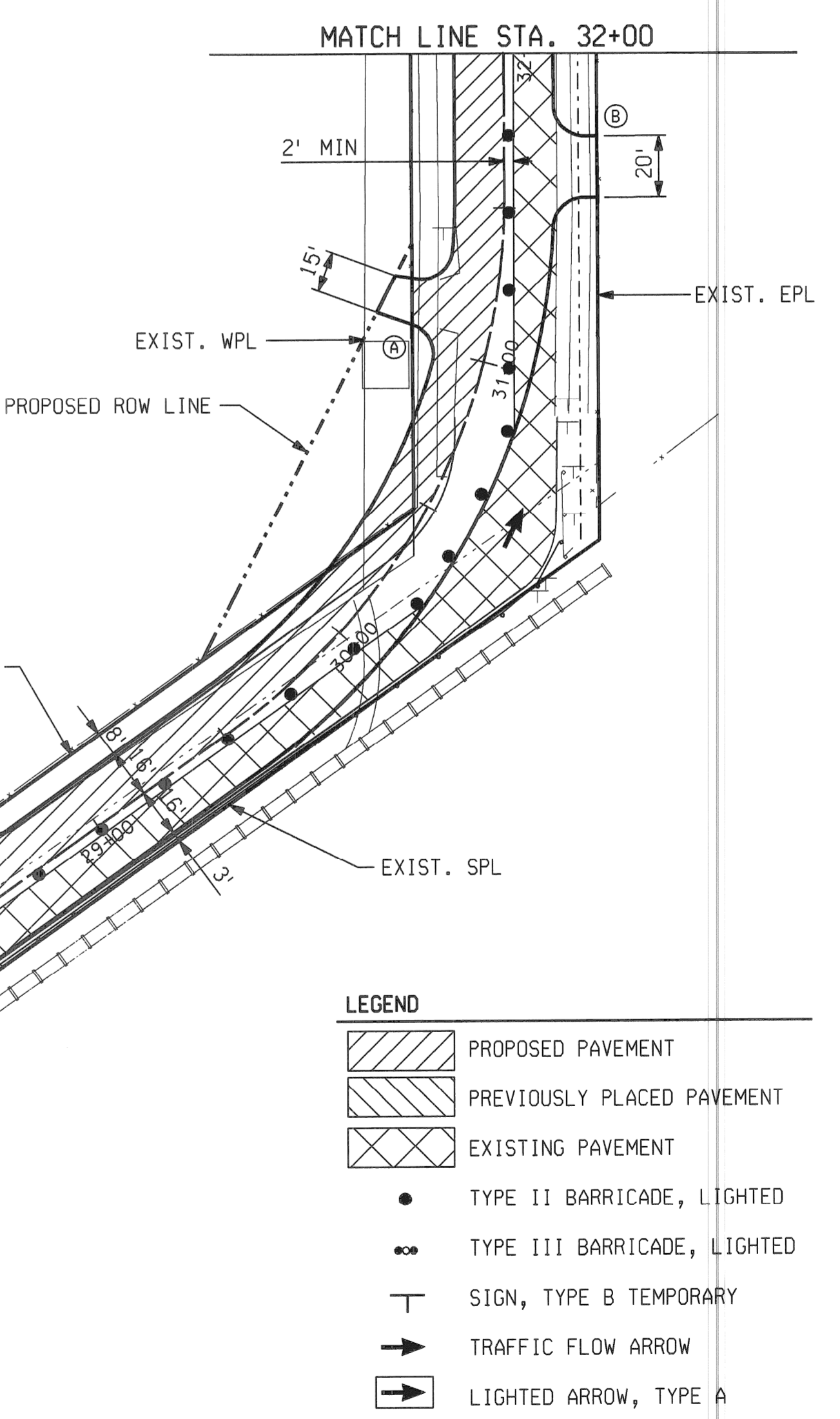
SPECIAL SIGN (ORANGE/BLACK)

ST. AUBIN CLOSED AT DENTON FOLLOW DETOUR

M4-10

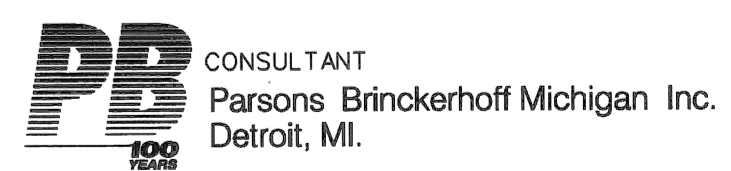
84"

48"



- LEGEND
- PROPOSED PAVEMENT
  - PREVIOUSLY PLACED PAVEMENT
  - EXISTING PAVEMENT
  - TYPE II BARRICADE, LIGHTED
  - TYPE III BARRICADE, LIGHTED
  - SIGN, TYPE B TEMPORARY
  - TRAFFIC FLOW ARROW
  - LIGHTED ARROW, TYPE A

SCALE 1"=40'



DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW
REVISIONS						

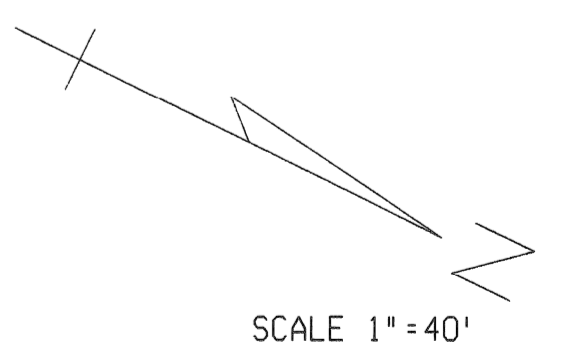
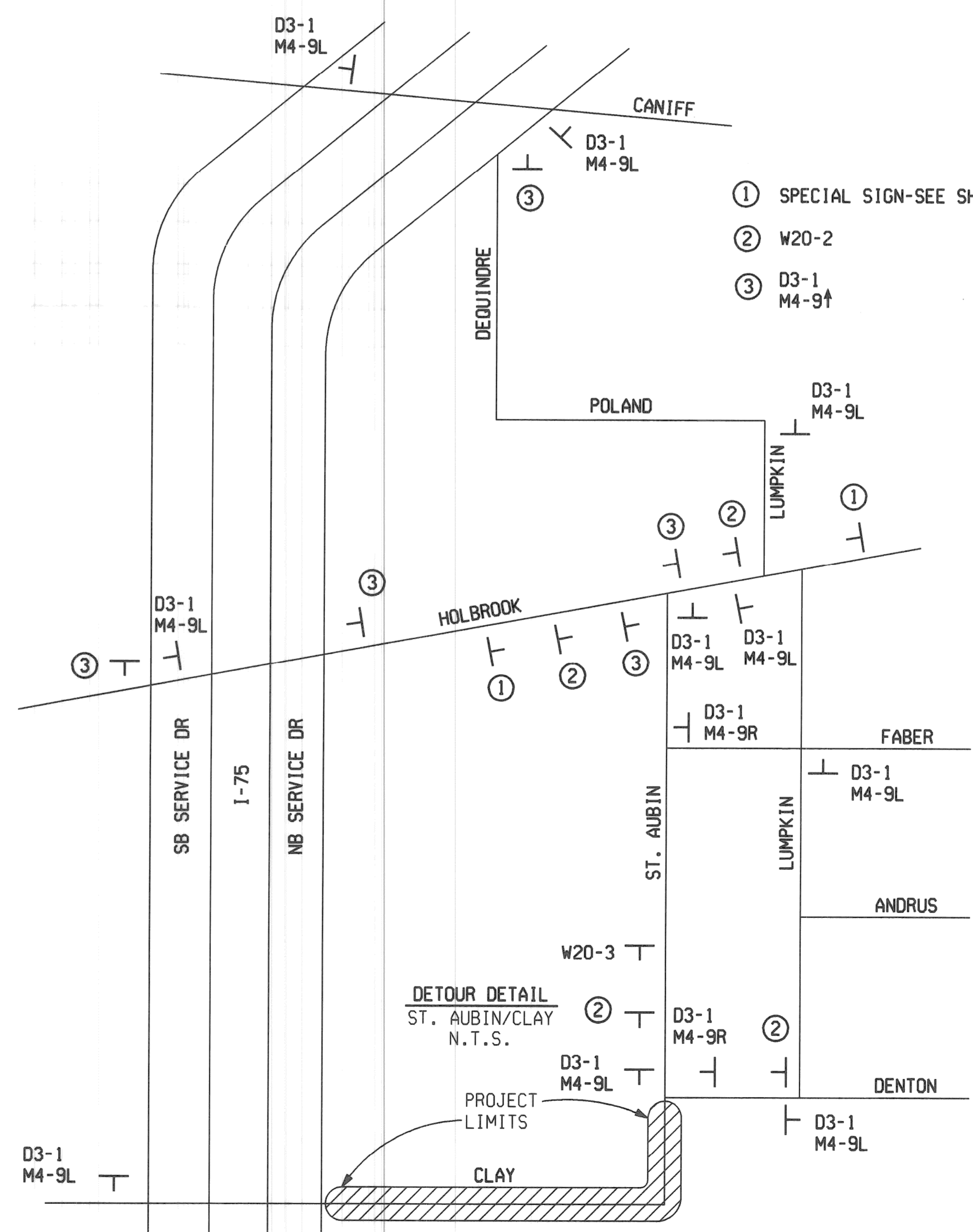
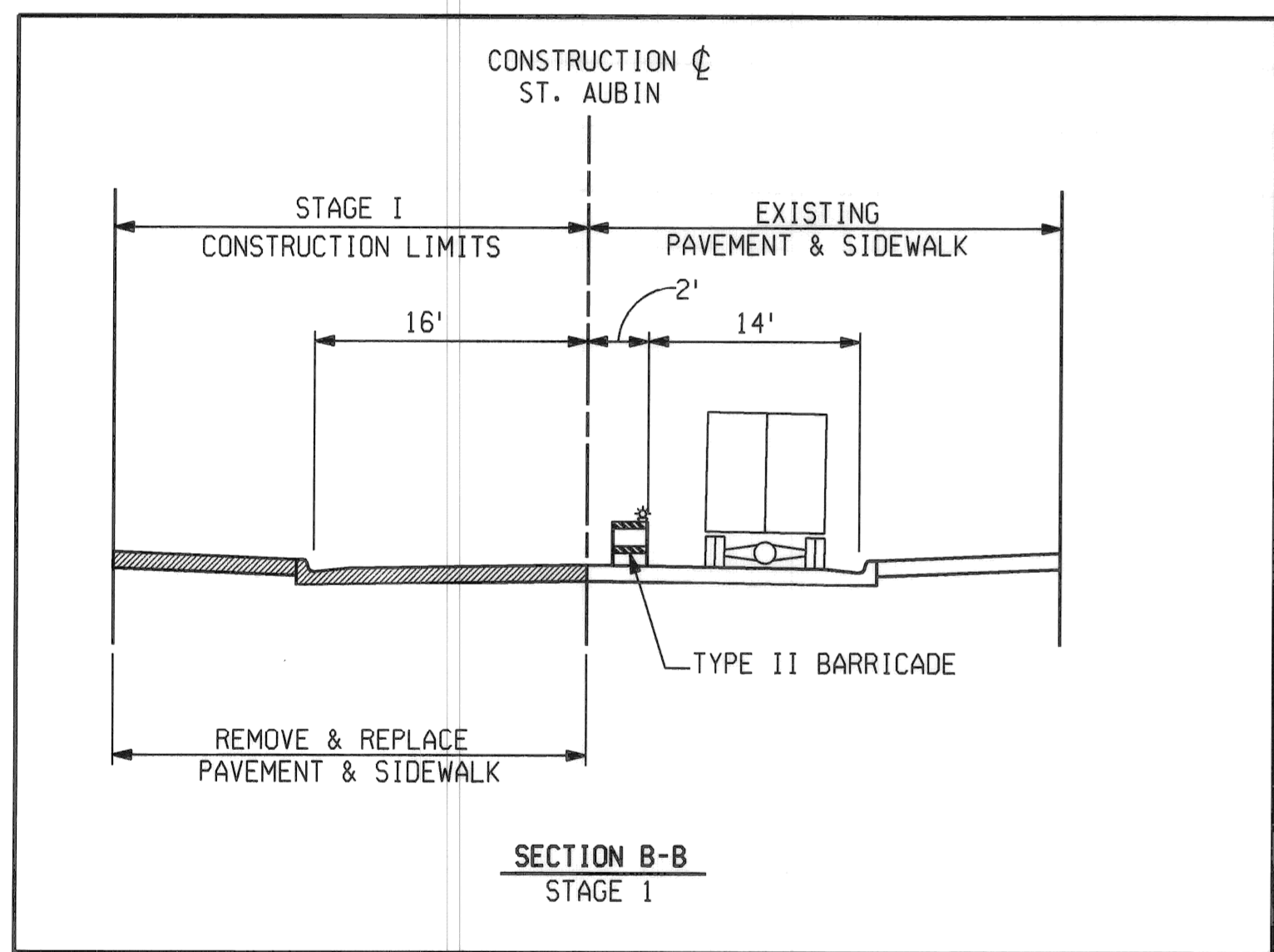
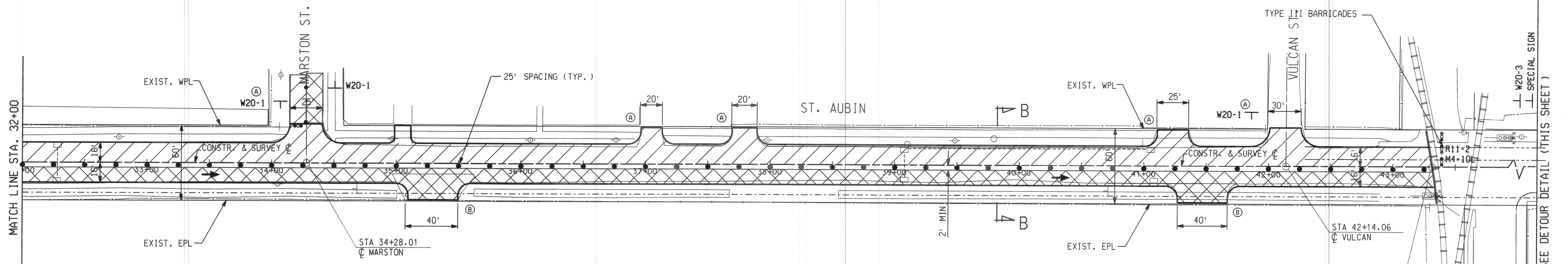
BY	CHECKED BY	APPROVED:
CMK	JWF / DPM	ENGINEER OF STREETS
JWF	DPM	

CITY OF DETROIT  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

CONSTRUCTION SEQUENCE-STAGE 1 / SHEET 1

SHEET 6 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE APRIL 1998



**PB** CONSULTANT  
 Parsons Brinckerhoff Michigan Inc.  
 Detroit, MI.

BY	CHECKED BY	APPROVED:
CMK	JWF/DPM	ENGINEER OF STREETS
ESTIMATE	JWF	DPM
CHECK	REVIEW	
DR'N	CK'D	AP'VD
DATE		
DESCRIPTIONS	DR'N	CK'D
REVISIONS	AP'VD	DATE
FINAL	CHECK	REVIEW

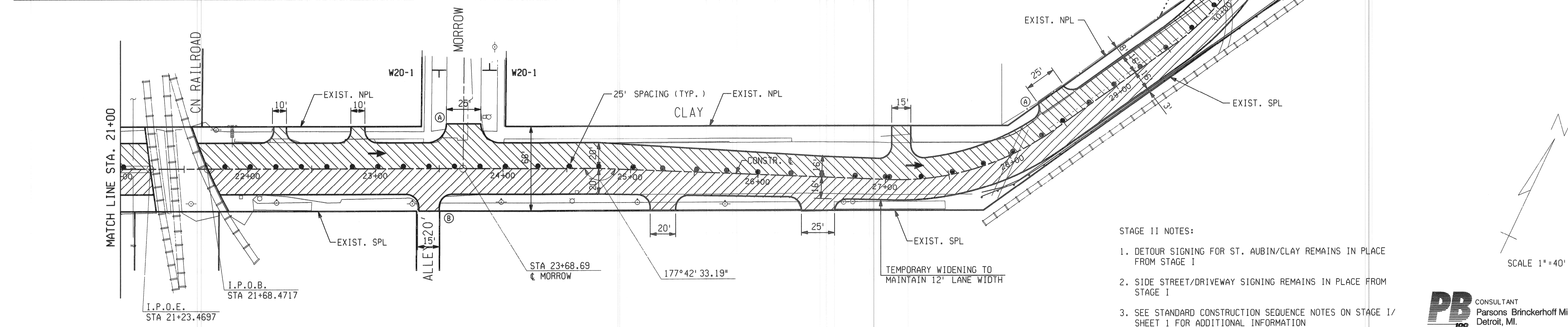
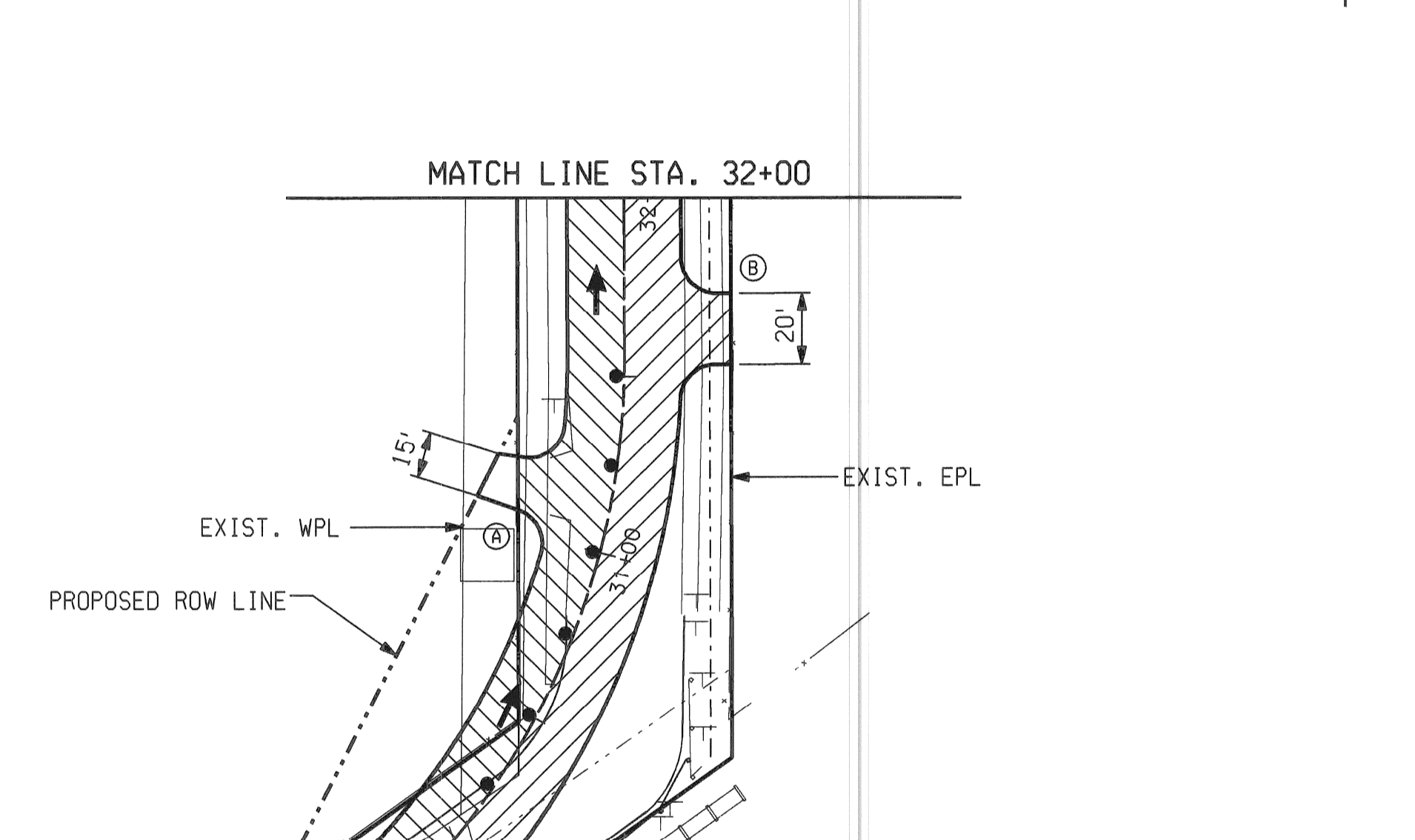
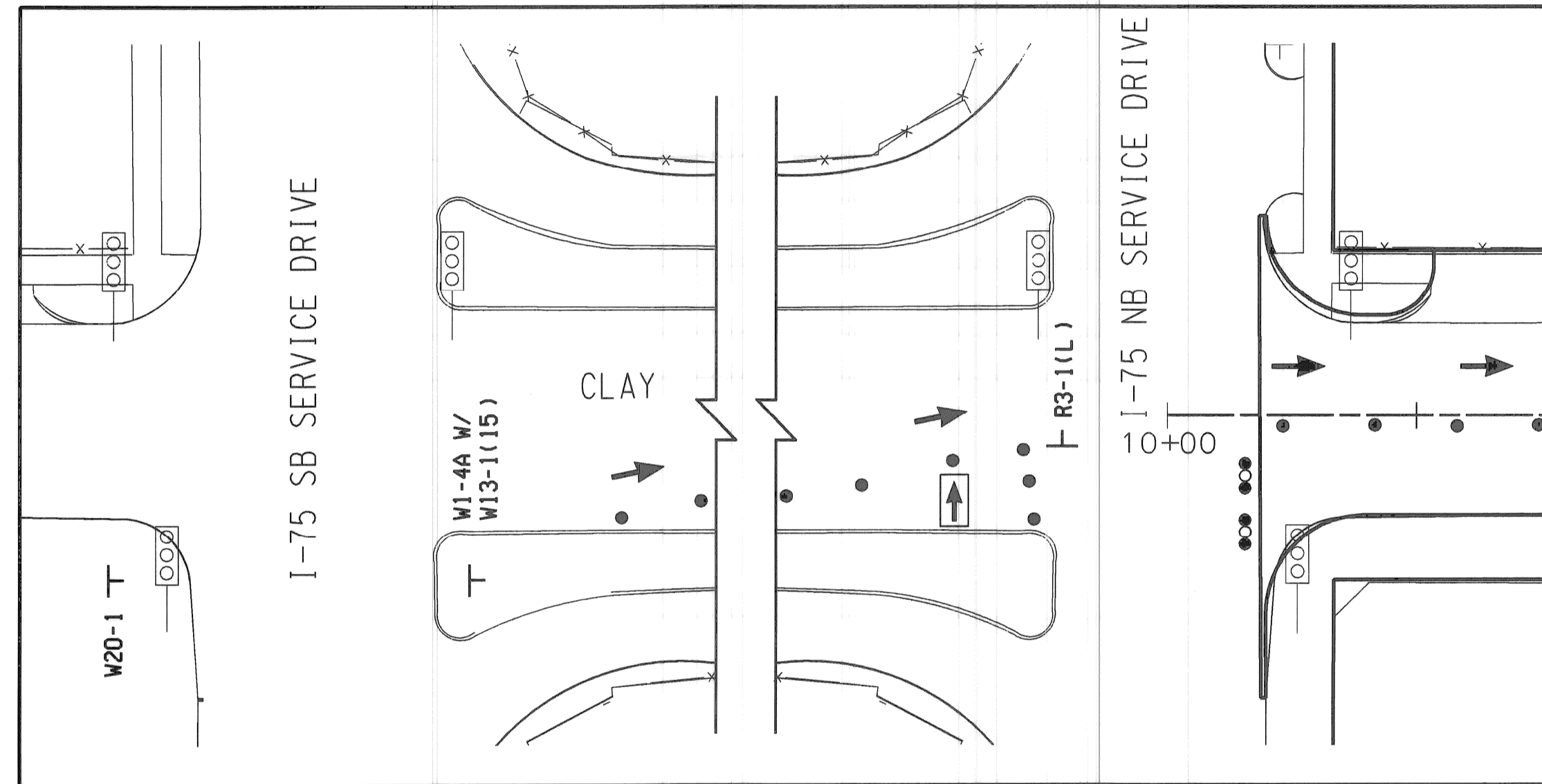
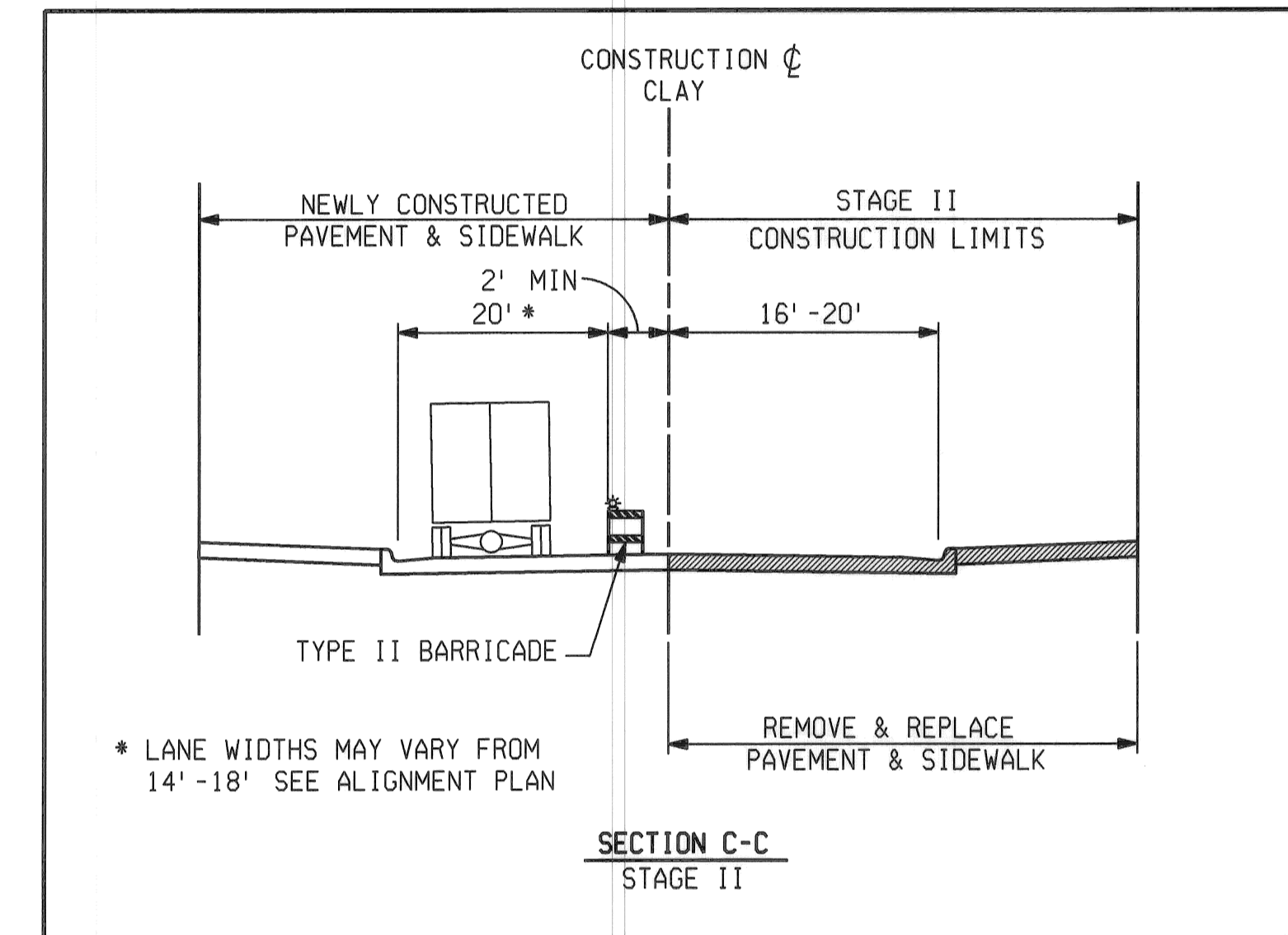
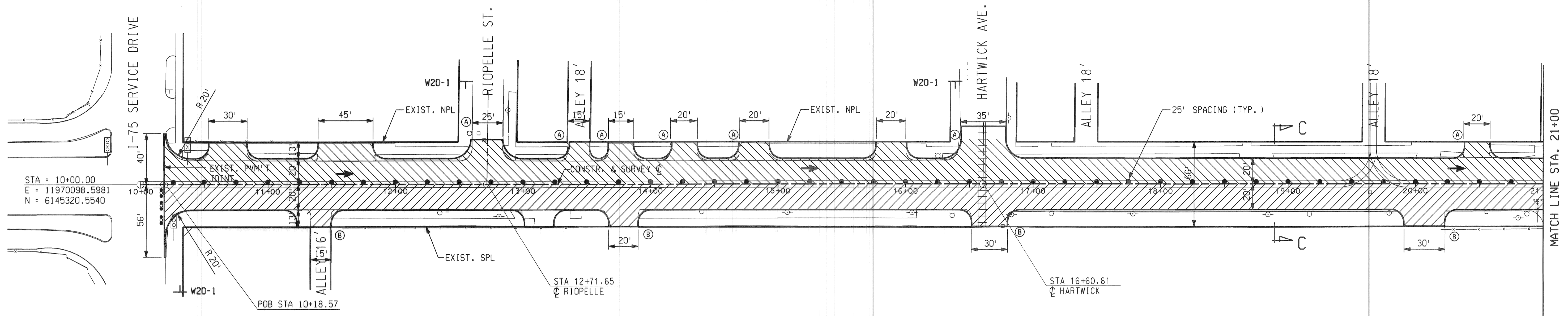
**CITY OF DETROIT**  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

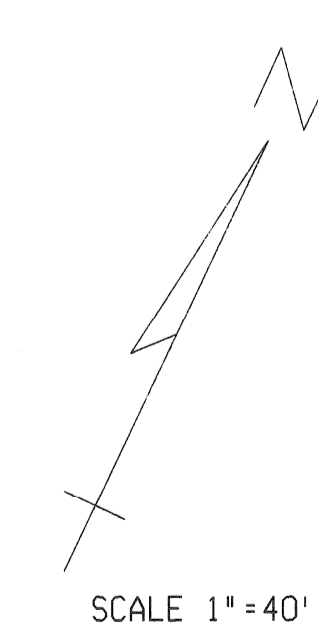
CONSTRUCTION SEQUENCE-STAGE I/SHEET 2

SHEET 7 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE APRIL 1998

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 PLOTTER: HP-GL/2  
 PLOT SCALE: 1"=40'  
 PLOT SHEET: 7 OF 26  
 PLOT DATE: 04/23/98 10:30:33  
 PLOT TIME: 15:13:04  
 PLOT USER: vmm  
 PLOT SYSTEM: HP-GL/2  
 PLOT DEVICE: HP-GL/2  
 PLOT DRIVER: HP-GL/2  
 PLOT COMMAND: PLOT  
 PLOT STATUS: SUCCESS  
 PLOT MESSAGE:



- STAGE II NOTES:
1. DETOUR SIGNING FOR ST. AUBIN/CLAY REMAINS IN PLACE FROM STAGE I
  2. SIDE STREET/DRIVEWAY SIGNING REMAINS IN PLACE FROM STAGE I
  3. SEE STANDARD CONSTRUCTION SEQUENCE NOTES ON STAGE I / SHEET 1 FOR ADDITIONAL INFORMATION



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DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW
REVISIONS						

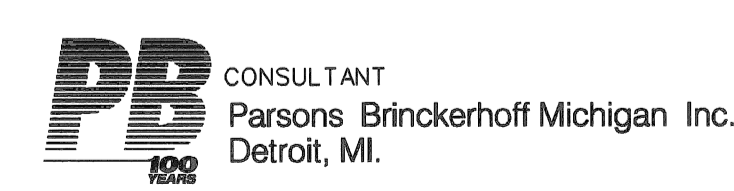
BY	CMK	CHECKED BY	JWF/DPM	APPROVED:
PLAN				ENGINEER OF STREETS
GRADE				
ESTIMATE	JWF		DPM	
FINAL				

**CITY OF DETROIT**  
**DEPARTMENT OF TRANSPORTATION**  
**TRANSPORTATION ENGINEERING**

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
**FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON**

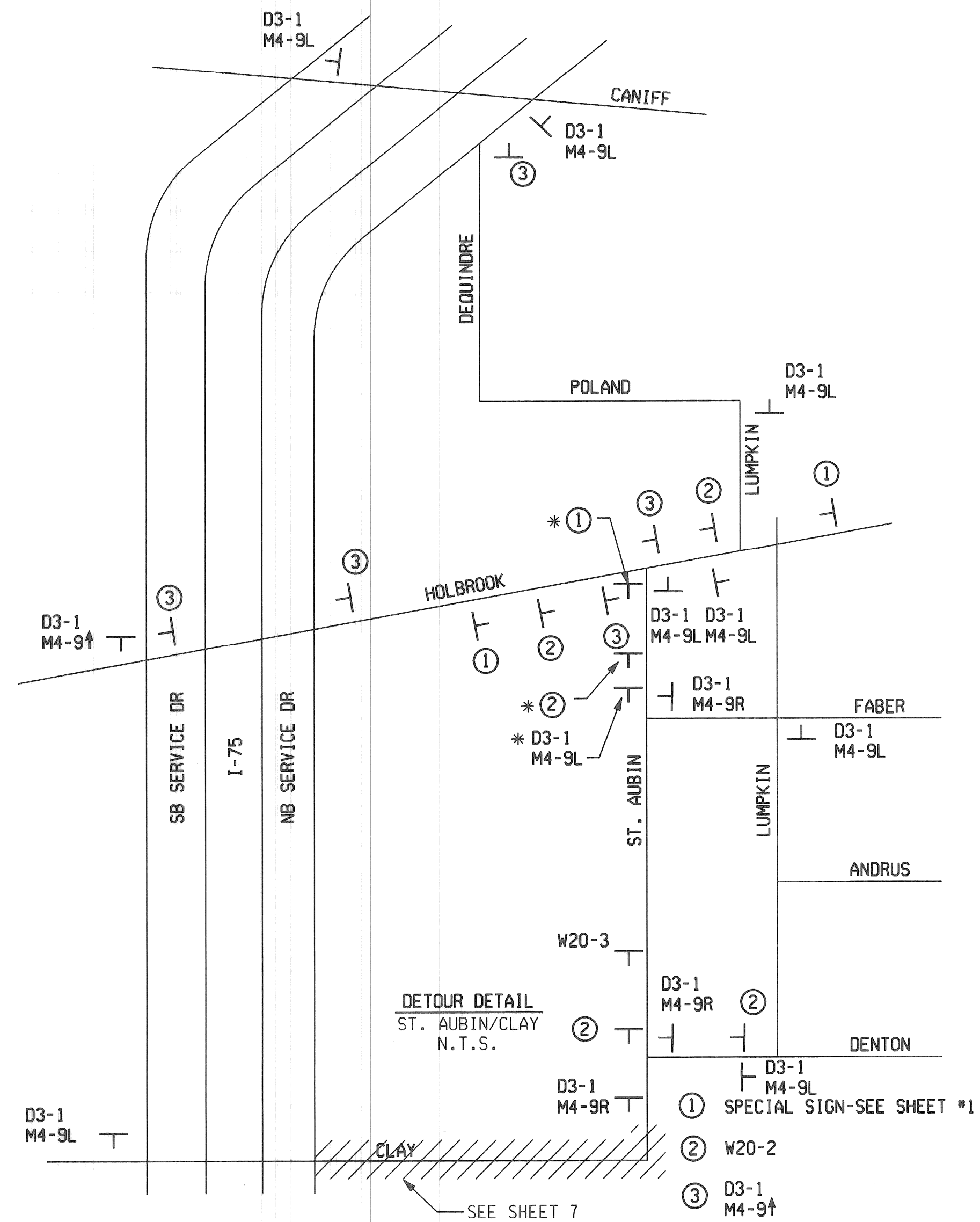
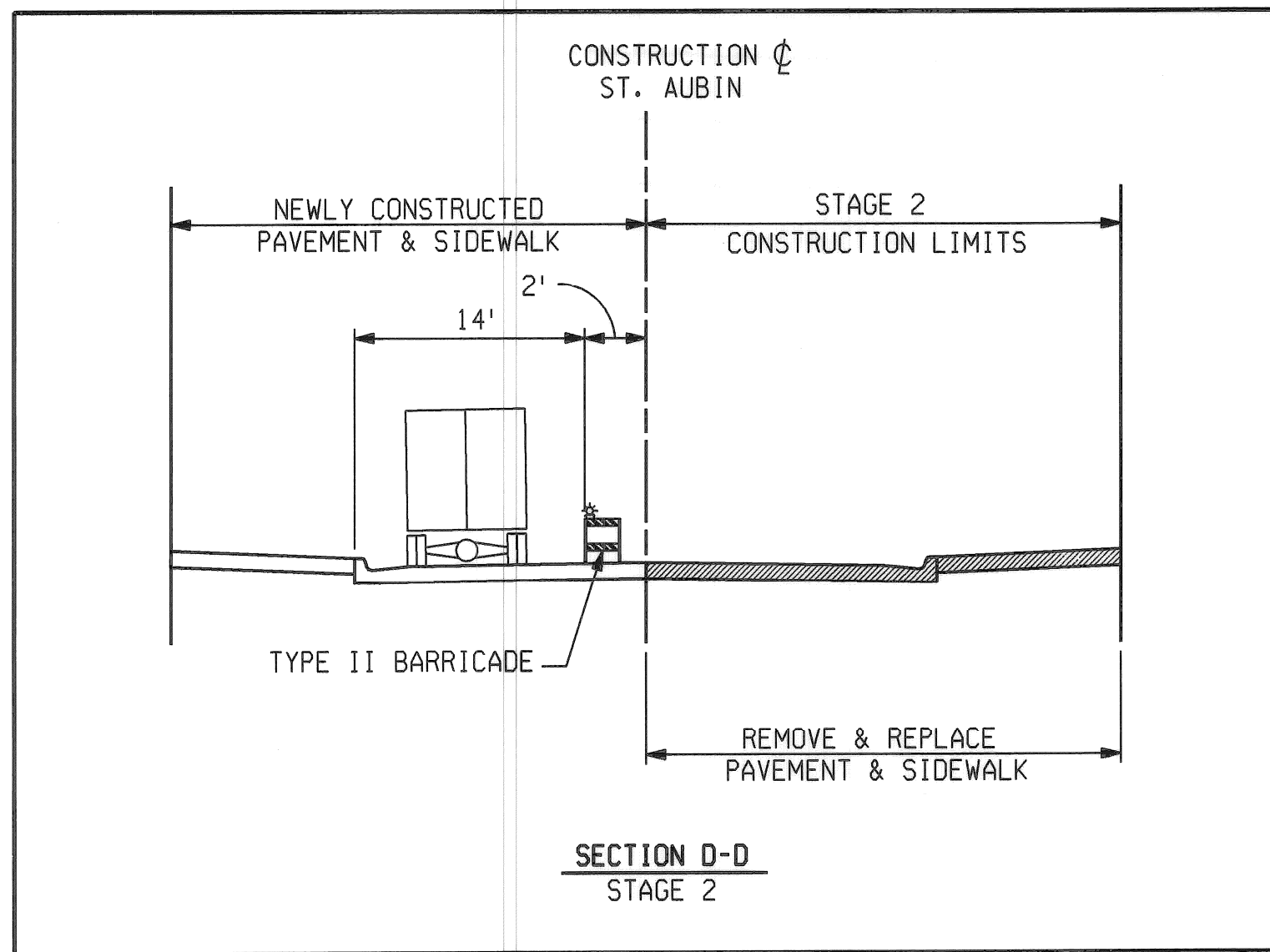
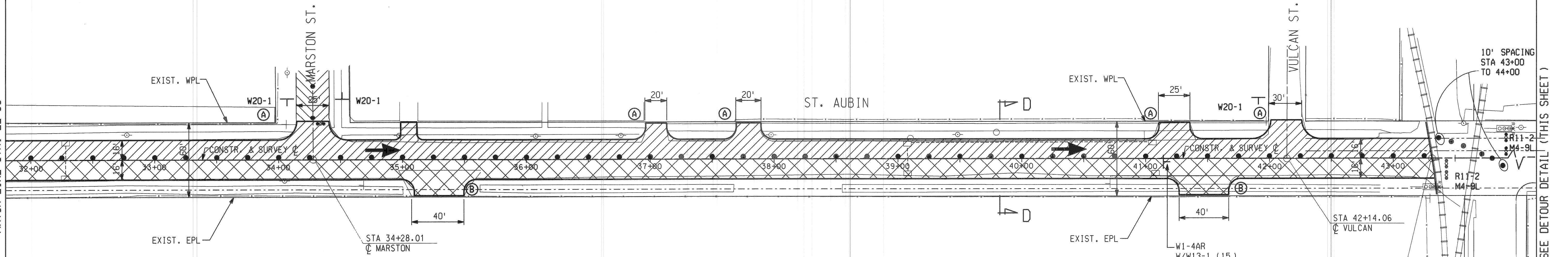
**CONSTRUCTION SEQUENCE-STAGE II/SHEET 1**

SHEET 8 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE **APRIL 1998**



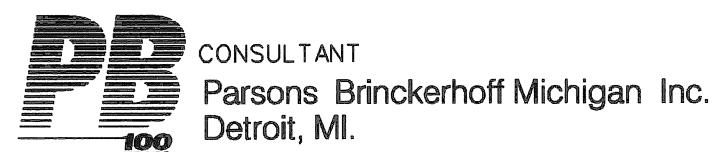


MATCH LINE STA. 22+00



SCALE 1" = 40'

- NOTES:
- DETOUR SIGNING FOR ST. AUBIN/CLAY REMAINS IN PLACE. SEE STAGE 1 SHEET 2
  - \* THESE SIGNS ARE IN ADDITION TO STAGE 1 SIGNAGE FOR DETOUR.



BY	CHECKED BY	APPROVED:
CMK	JWF/DPM	ENGINEER OF STREETS
ESTIMATE	JWF	DPM
DR'N	CK'D	AP'VD
DATE	CHECK	REVIEW
FINAL		

CITY OF DETROIT  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

CONSTRUCTION SEQUENCE-STAGE II/SHEET 2

SHEET 9 OF 26 SHEETS  
CONTRACT NO.  
ASSIGNMENT NO.  
DATE APRIL 1998

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DRAINAGE STRUCTURE NO.	TYPE OF STRUCTURE	WITH TRAP (T)	SEWER LENGTH AND TYPE LEAVING DRAINAGE STRUCTURE			SEWER TAP SIZE (IN.)	TRENCH DETAIL B (FT.)	SEE NOTE NO. SHT. 12, 4, 8
			LENGTH (FT.)	DIA. (IN.)	CLASS C-76			
1	STD MH		26	12	IV	12	26	
2	CB "B"	T	17	12	IV	12	17	
3	CB "B"	T	26	12	IV	12	26	
4	CB "A"		71	12	IV	12	71	
6	STD MH		95	12	IV	12	95	4, 8
7	CB "B"	T	17	12	IV	12	17	
8	CB "B"	T	26	12	IV	12	26	
9	CB "A"		33	12	IV	12	33	
10	CB "B"	T	38	12	IV	12	38	
11	STD MH		57	12	IV	12	57	8
12	STD MH		193	12	IV	12	193	8
13	CB "B"	T	17	12	IV	12	17	
14	CB "B"	T	26	12	IV	12	26	
15	STD MH		26	12	IV	12	26	4, 8
16	CB "B"	T	17	12	IV	12	17	
17	CB "B"	T	26	12	IV	12	26	

TOPSOIL SURFACE, 4" AND SEED

CONCRETE PAVEMENT WITH INTEGRAL CURB - 9" REINF.

CONCRETE SIDEWALK - 4"

CONCRETE SIDEWALK - 6" (RAMP AREAS PAID SEPARATELY)

CONCRETE PAVEMENT - NON-REINFORCED 8" (DRIVEWAY/ALLEYS)

TOPSOIL SURFACE, 4" AND CLASS A SOODING

MISC. SIDEWALK RAMPS (ALL RAMPS ARE TYPE 1 UNLESS NOTED OTHERWISE)

ADJUSTING DRAINAGE STRUCTURE COVER

CONCRETE CURB, DETAIL CD

PROPOSED STORM SEWER MANHOLE

EXISTING STORM SEWER MANHOLE

PROPOSED STORM SEWER CATCH BASIN

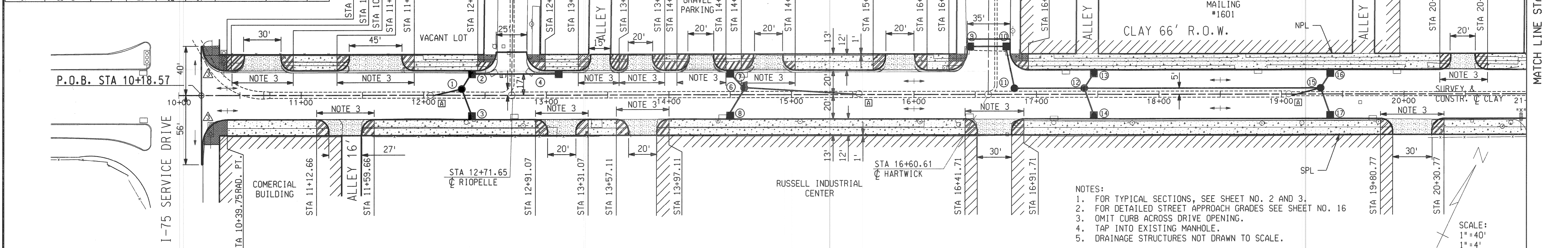
EXISTING STORM SEWER CATH BASIN

SIDEWALK RAMPS, TYPE 1 OR TYPE 3

DRAINAGE STRUCTURE NUMBER

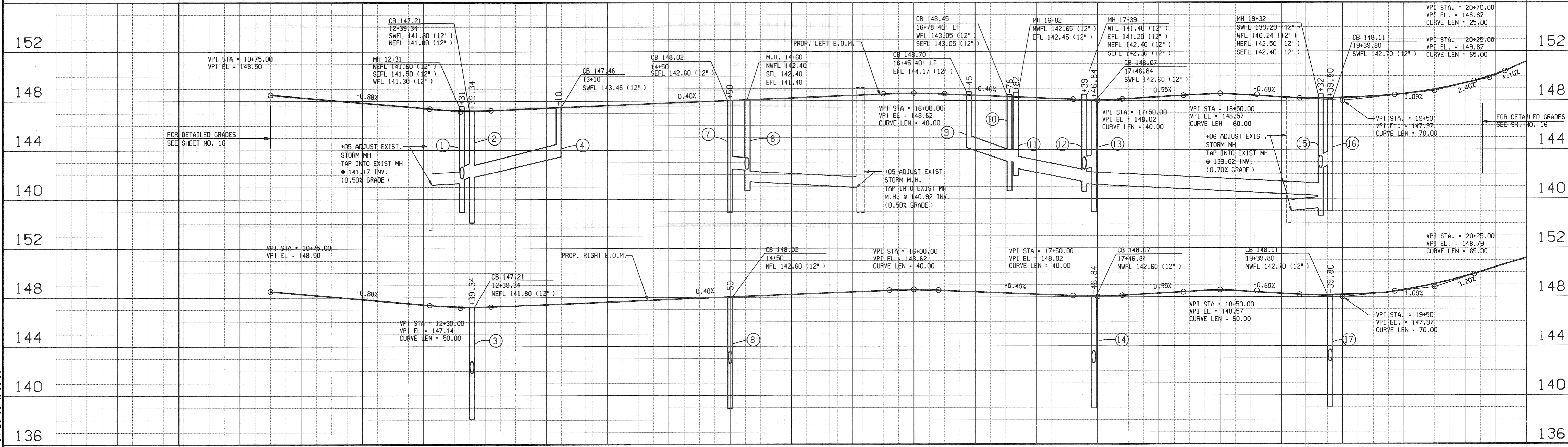
PROPOSED STORM SEWER

FLOW ARROWS

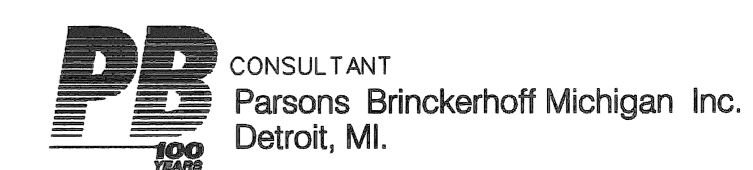


- NOTES:
- FOR TYPICAL SECTIONS, SEE SHEET NO. 2 AND 3.
  - FOR DETAILED STREET APPROACH GRADES SEE SHEET NO. 16
  - OMIT CURB ACROSS DRIVE OPENING.
  - TAP INTO EXISTING MANHOLE.
  - DRAINAGE STRUCTURES NOT DRAWN TO SCALE.

SCALE:  
1" = 40'  
1" = 4'



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DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE
REVISIONS				

BY	CHECKED BY	APPROVED:
CMK	JWF/DPM	ENGINEER OF STREETS
JWF	DPM	
JWF	DPM	
CHECK	REVIEW	

CITY OF DETROIT  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

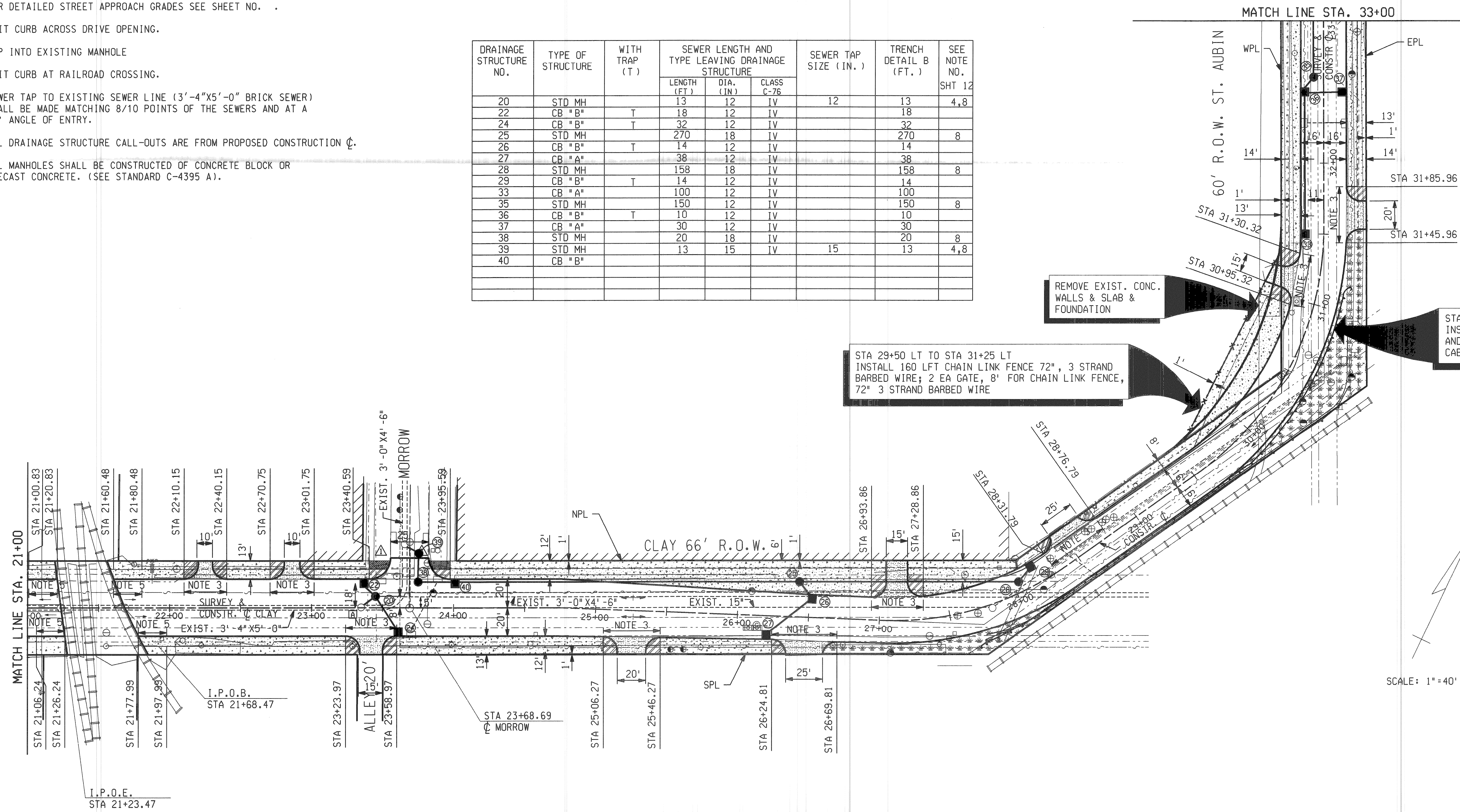
PAVING PLAN AND PROFILES P.O.B. TO STA. 21+00

SHEET 11 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE APRIL 1998

NOTES:

- FOR TYPICAL SECTIONS SEE SHEETS AND .
- FOR DETAILED STREET APPROACH GRADES SEE SHEET NO. .
- OMIT CURB ACROSS DRIVE OPENING.
- TAP INTO EXISTING MANHOLE
- OMIT CURB AT RAILROAD CROSSING.
- SEWER TAP TO EXISTING SEWER LINE (3'-4"x5'-0" BRICK SEWER) SHALL BE MADE MATCHING 8/10 POINTS OF THE SEWERS AND AT A 45° ANGLE OF ENTRY.
- ALL DRAINAGE STRUCTURE CALL-OUTS ARE FROM PROPOSED CONSTRUCTION CL.
- ALL MANHOLES SHALL BE CONSTRUCTED OF CONCRETE BLOCK OR PRECAST CONCRETE. (SEE STANDARD C-4395 A).

DRAINAGE STRUCTURE NO.	TYPE OF STRUCTURE	WITH TRAP (T)	SEWER LENGTH AND TYPE LEAVING DRAINAGE STRUCTURE			SEWER TAP SIZE (IN.)	TRENCH DETAIL B (FT.)	SEE NOTE NO.
			LENGTH (FT)	DIA. (IN)	CLASS C-76			
20	STD MH		13	12	IV	12	13	4,8
22	CB "B"	T	18	12	IV		18	
24	CB "B"	T	32	12	IV		32	
25	STD MH		270	18	IV		270	8
26	CB "B"	T	14	12	IV		14	
27	CB "A"		38	12	IV		38	
28	STD MH		158	18	IV		158	8
29	CB "B"	T	14	12	IV		14	
33	CB "A"		100	12	IV		100	
35	STD MH		150	12	IV		150	8
36	CB "B"	T	10	12	IV		10	
37	CB "A"		30	12	IV		30	
38	STD MH		20	18	IV		20	8
39	STD MH		13	15	IV	15	13	4,8
40	CB "B"							



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 level on=1,45,47,63

DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW
REVISIONS						

BY	CHECKED BY	APPROVED:
CMK	JWF / DPM	
JWF	DPM	

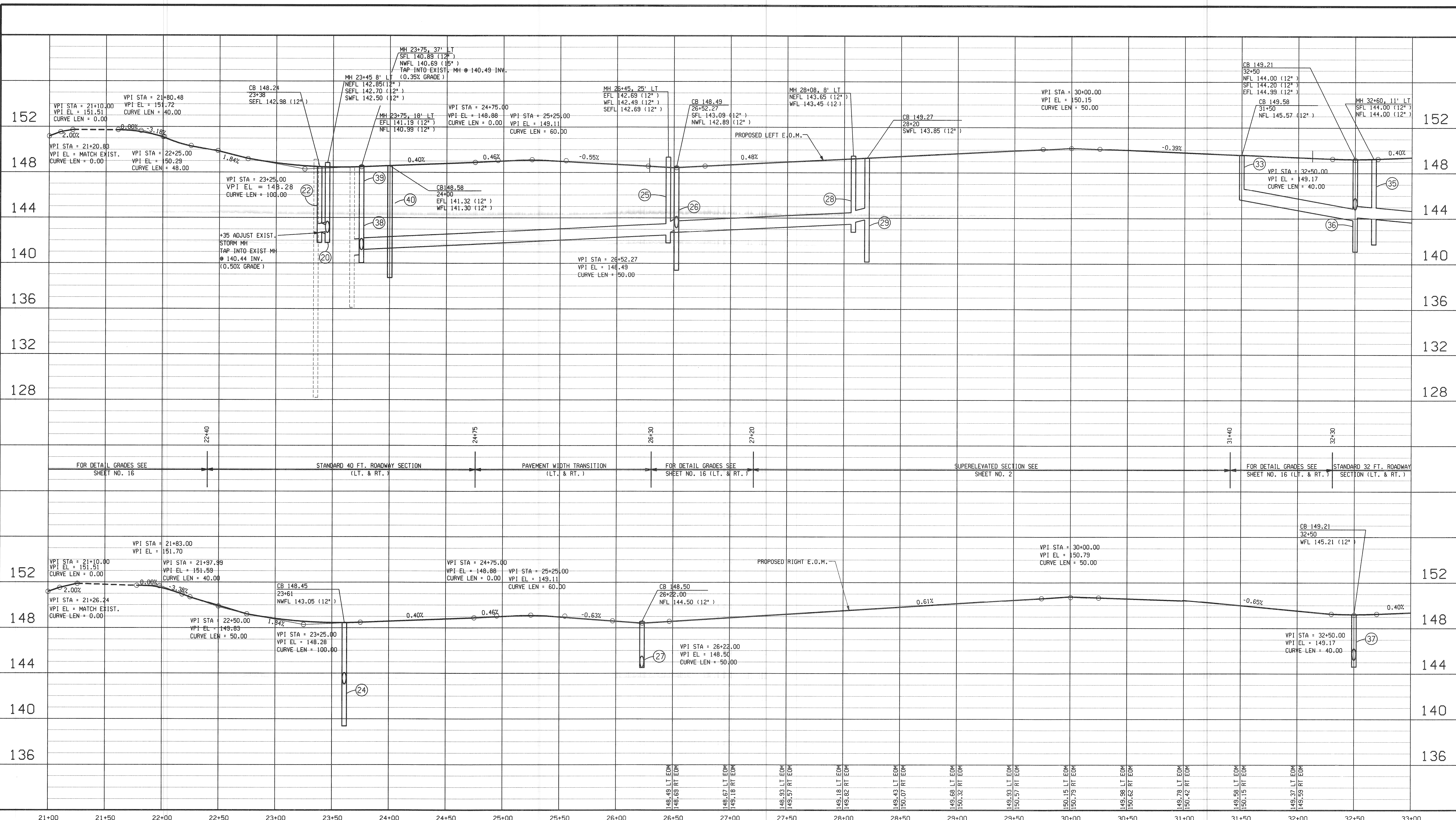
CITY OF DETROIT  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

PAVING PLAN STA 21+00 TO STA 33+00

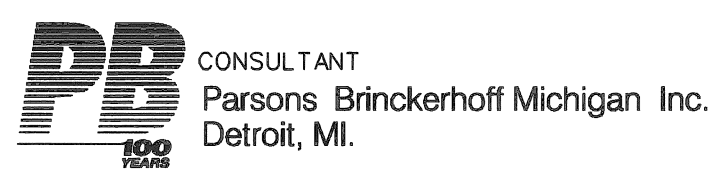
SHEET 12 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE APRIL 1998





21+00	21+50	22+00	22+50	23+00	23+50	24+00	24+50	25+00	25+50	26+00	26+50	27+00	27+50	28+00	28+50	29+00	29+50	30+00	30+50	31+00	31+50	32+00	32+50	33+00
FOR DETAIL GRADES SEE SHEET NO. 16		STANDARD 40 FT. ROADWAY SECTION (LT. & RT.)						PAVEMENT WIDTH TRANSITION (LT. & RT.)				FOR DETAIL GRADES SEE SHEET NO. 16 (LT. & RT.)				SUPERELEVATED SECTION SEE SHEET NO. 2		FOR DETAIL GRADES SEE SHEET NO. 16 (LT. & RT.)				STANDARD 32 FT. ROADWAY SECTION (LT. & RT.)		

SCALE:  
1" = 40' HORZ.  
1" = 4' VERT.



NO.	DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE

BY	CMK	CHECKED BY	JWF/DPM
GRADE	CMK	CHECKED BY	JWF/DPM
ESTIMATE	JWF	CHECKED BY	DPM
FINAL	CHECK	CHECKED BY	REVIEW

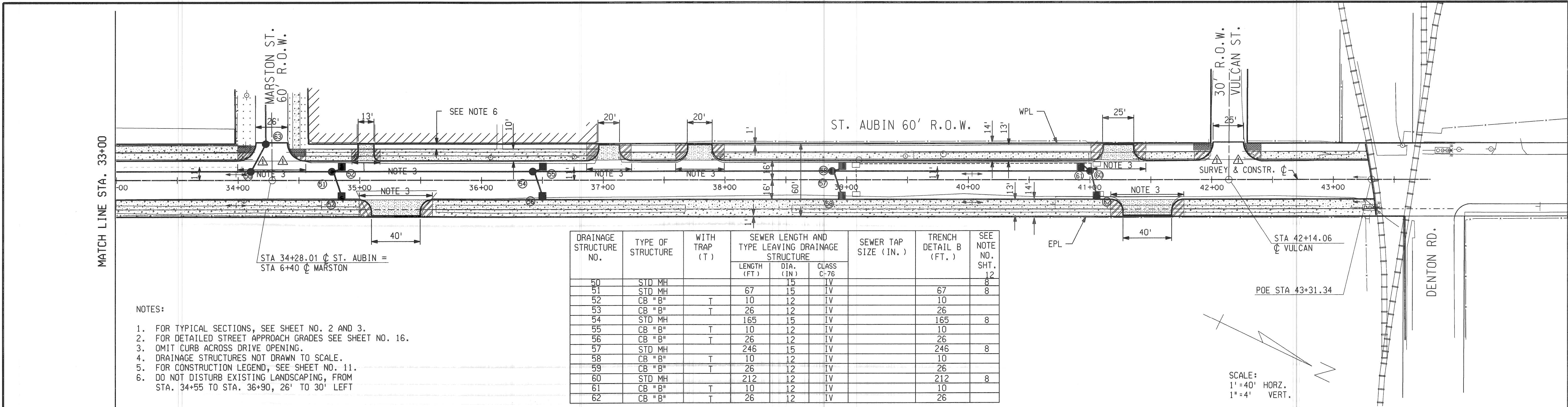
APPROVED:	
ENGINEER OF STREETS	

**CITY OF DETROIT**  
**CITY ENGINEERING DIVISION - D.P.W.**  
**BUREAU OF STREETS AND HIGHWAYS**

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
**FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO EUCLID**  
  
**PAVING PROFILE - STA 21+00 TO STA 33+00**

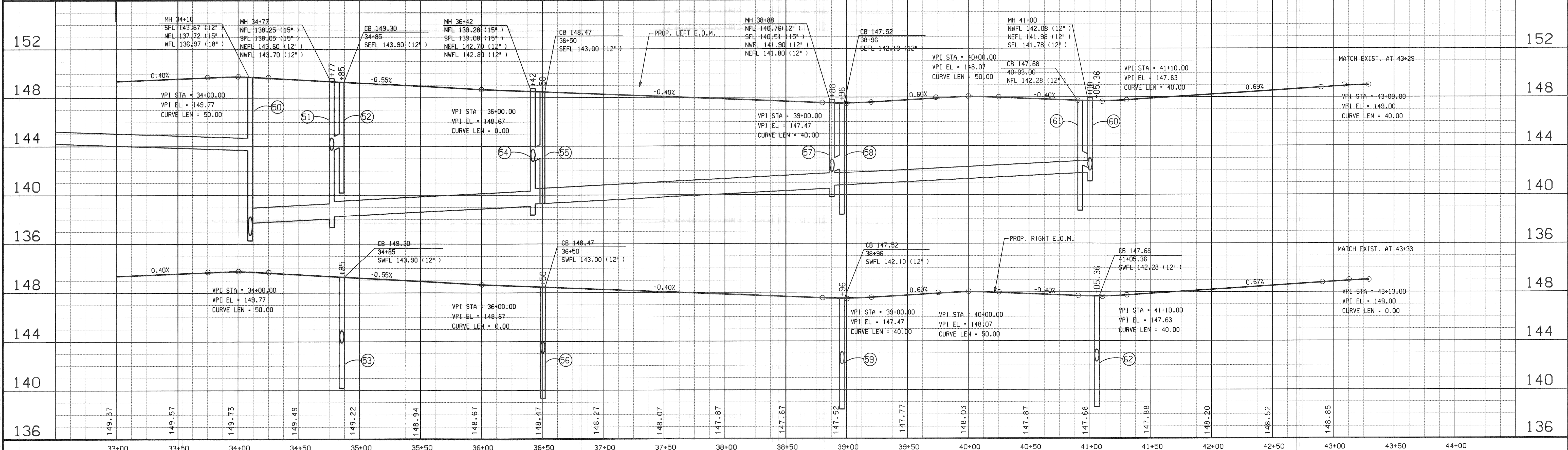
SHEET 13 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE <b>APRIL 1998</b>

On: 1-6-98  
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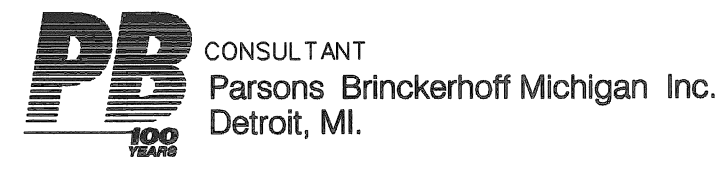


- NOTES:
1. FOR TYPICAL SECTIONS, SEE SHEET NO. 2 AND 3.
  2. FOR DETAILED STREET APPROACH GRADES SEE SHEET NO. 16.
  3. OMIT CURB ACROSS DRIVE OPENING.
  4. DRAINAGE STRUCTURES NOT DRAWN TO SCALE.
  5. FOR CONSTRUCTION LEGEND, SEE SHEET NO. 11.
  6. DO NOT DISTURB EXISTING LANDSCAPING, FROM STA. 34+55 TO STA. 36+90, 26' TO 30' LEFT

DRAINAGE STRUCTURE NO.	TYPE OF STRUCTURE	WITH TRAP (T)	SEWER LENGTH AND TYPE LEAVING DRAINAGE STRUCTURE			SEWER TAP SIZE (IN.)	TRENCH DETAIL B (FT.)	SEE NOTE NO. SHT.
			LENGTH (FT)	DIA. (IN)	CLASS C-76			
50	STD MH		15	15	IV		12	
51	STD MH		67	15	IV	67	8	
52	CB "B"	T	10	12	IV	10		
53	CB "B"	T	26	12	IV	26		
54	STD MH		165	15	IV	165	8	
55	CB "B"	T	10	12	IV	10		
56	CB "B"	T	26	12	IV	26		
57	STD MH		246	15	IV	246	8	
58	CB "B"	T	10	12	IV	10		
59	CB "B"	T	26	12	IV	26		
60	STD MH		212	12	IV	212	8	
61	CB "B"	T	10	12	IV	10		
62	CB "B"	T	26	12	IV	26		



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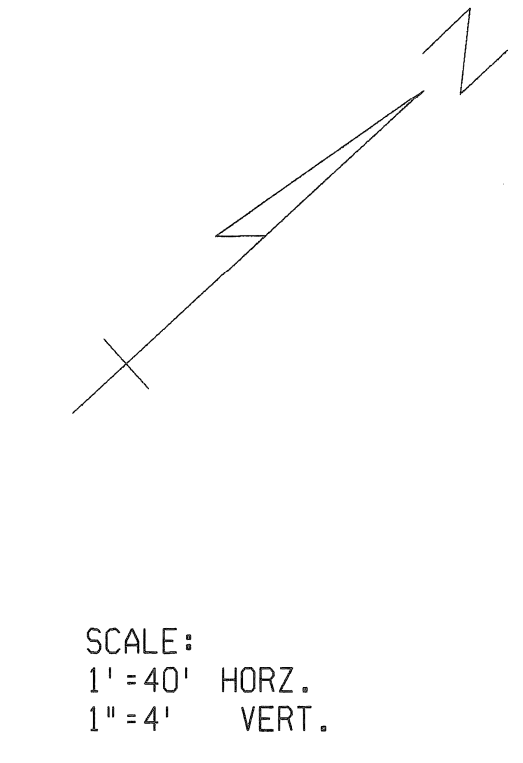
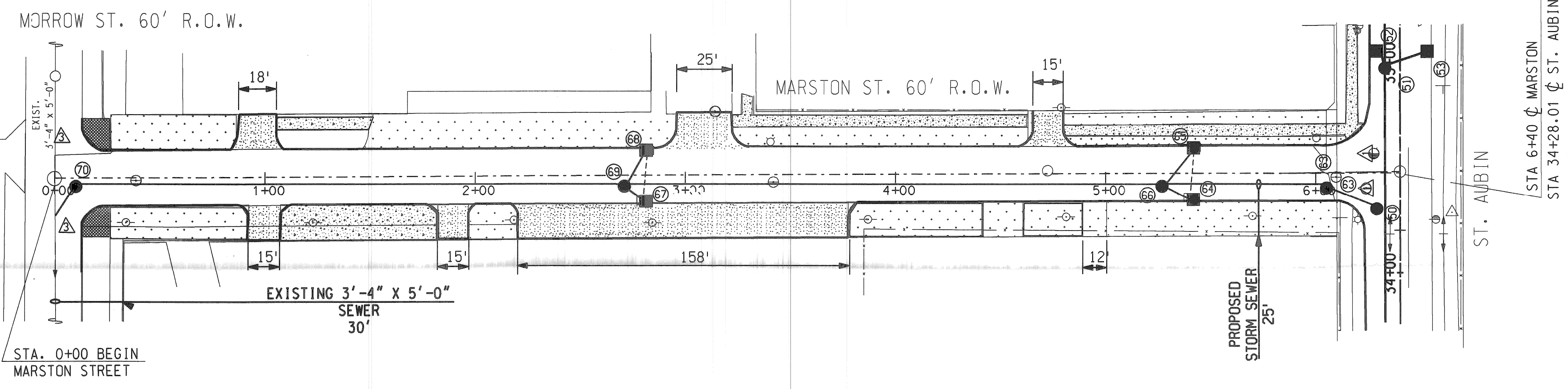


RECONSTRUCTION OF CLAY / ST. AUBIN FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON		SHEET 14 OF 26 SHEETS	
		CONTRACT NO.	
PAVING PLAN AND PROFILES - STA. 33+00 TO P.O.E.		ASSIGNMENT NO.	
		DATE APRIL 1998	

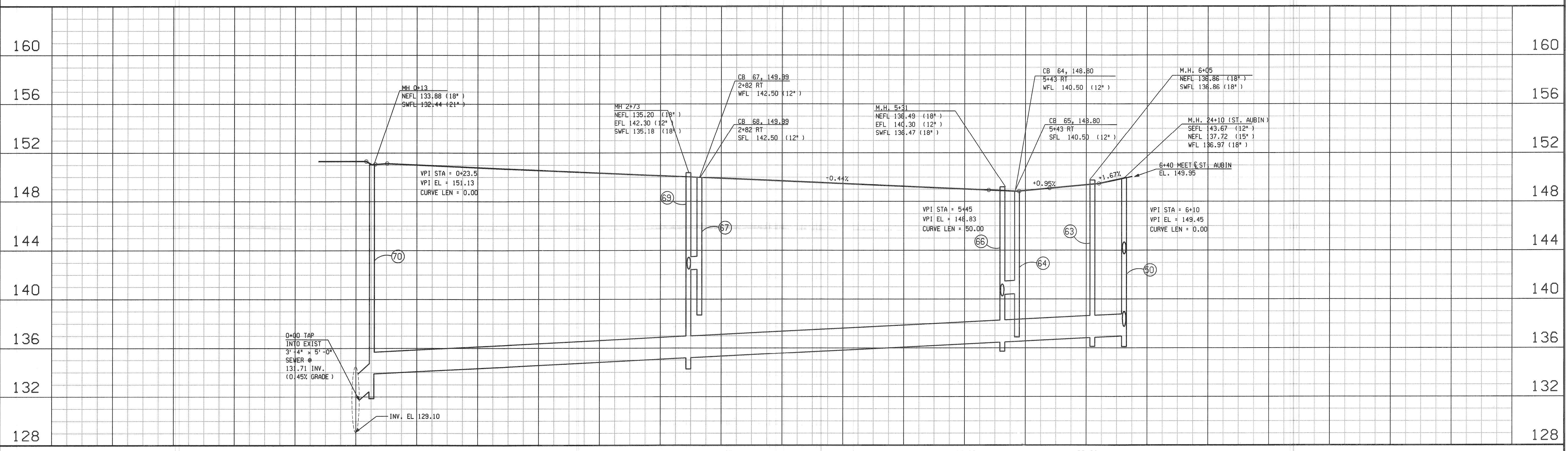
  

<b>CITY OF DETROIT</b> DEPARTMENT OF TRANSPORTATION TRANSPORTATION ENGINEERING		APPROVED:  ENGINEER OF STREETS
BY: CMK	CHECKED BY: JWF / DPM	REVISIONS DR'N CK'D AP'VD DATE CHECK REVIEW
ESTIMATE: JWF	DPM	

DRAINAGE STRUCTURE NO.	TYPE OF STRUCTURE	WITH TRAP (T)	SEWER LENGTH AND TYPE LEAVING DRAINAGE STRUCTURE			SEWER TAP SIZE (IN.)	TRENCH DETAIL B (FT.)	SEE NOTE NO
			LENGTH (FT)	DIA. (IN.)	CLASS			
50	STD MH		28	18	C-76	28	12	
63	STD MH		74	18	IV	74	8	
64	CB "B"	T	14	12	IV	14		
65	CB "B"	T	24	12	IV	24		
66	STD MH		258	18	IV	258	8	
67	CB "B"	T	14	12	IV	14		
68	CB "B"	T	24	12	IV	24		
69	STD MH		260	18	IV	260	8	
70	STD MH		20	21	IV	21	4,8	



SCALE:  
1" = 40' HORZ.  
1" = 4' VERT.



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DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW

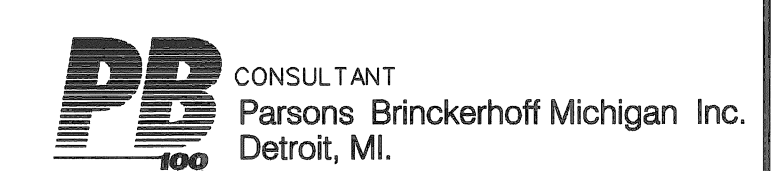
BY	CHECKED BY	APPROVED:
DPM	KEE	
DPM	KEE	ENGINEER OF STREETS
DPM	KEE	

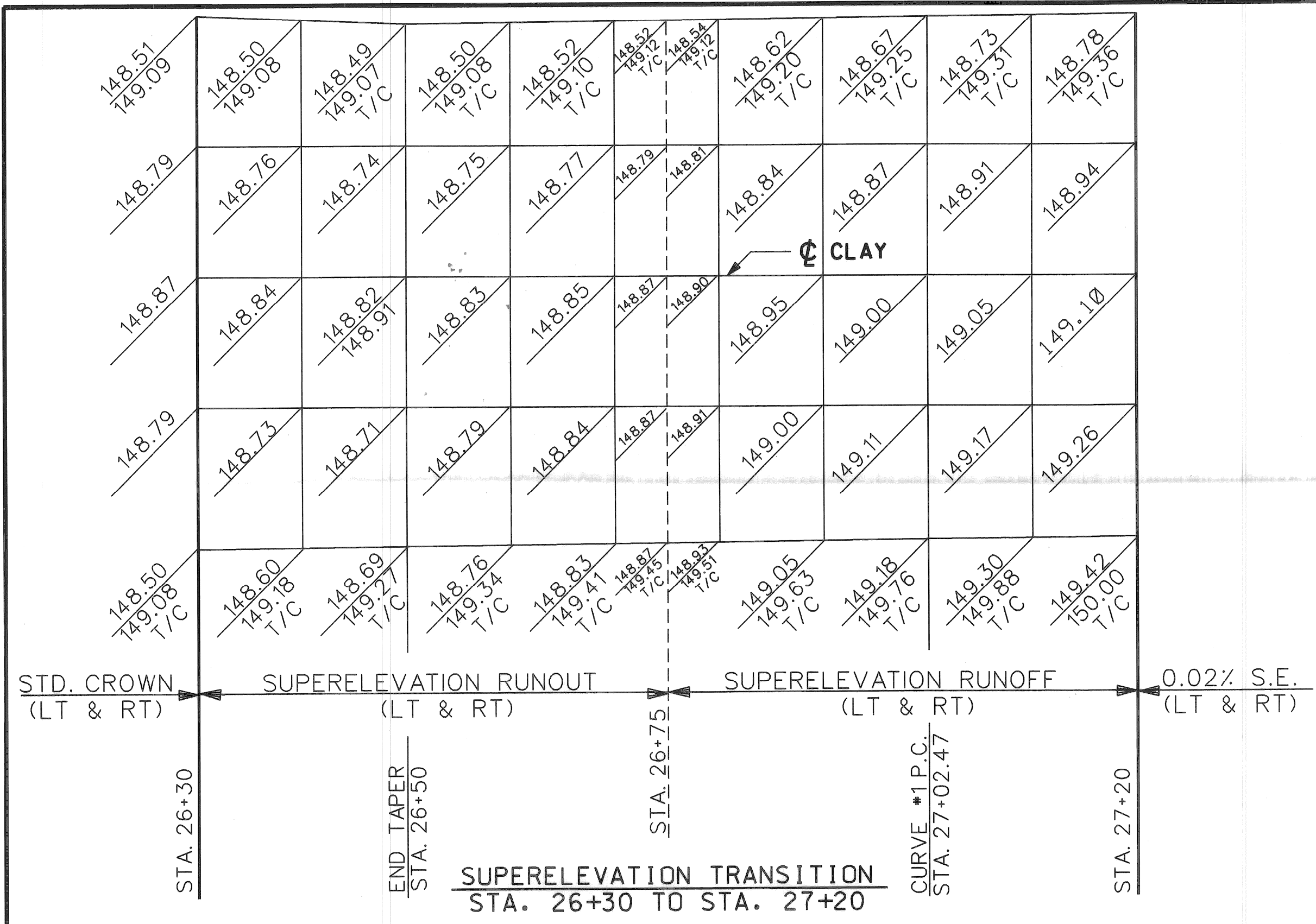
**CITY OF DETROIT**  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

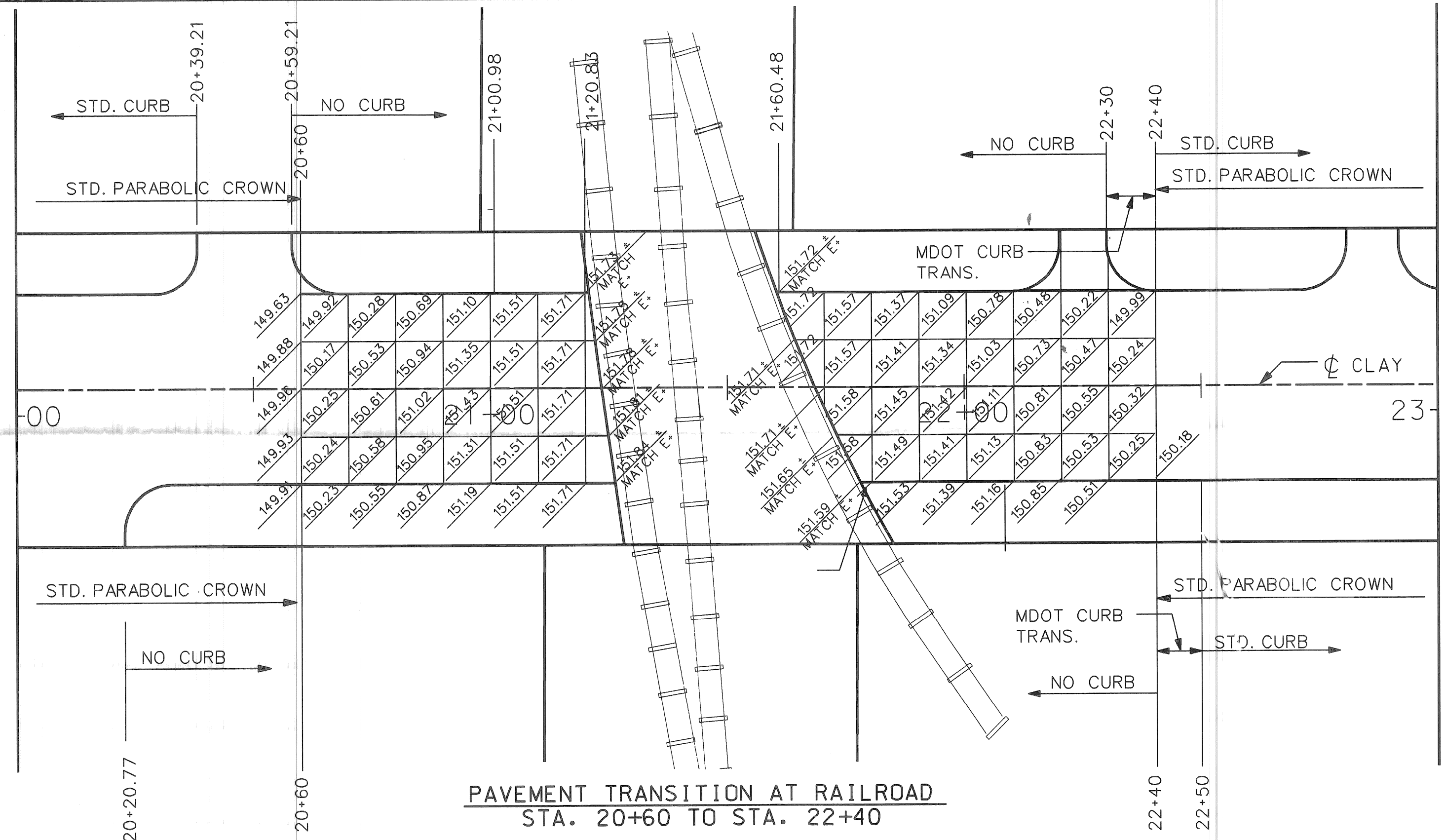
**PAVING PLAN AND PROFILES - MARSTON STREET**

SHEET 15 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE <b>APRIL 1998</b>

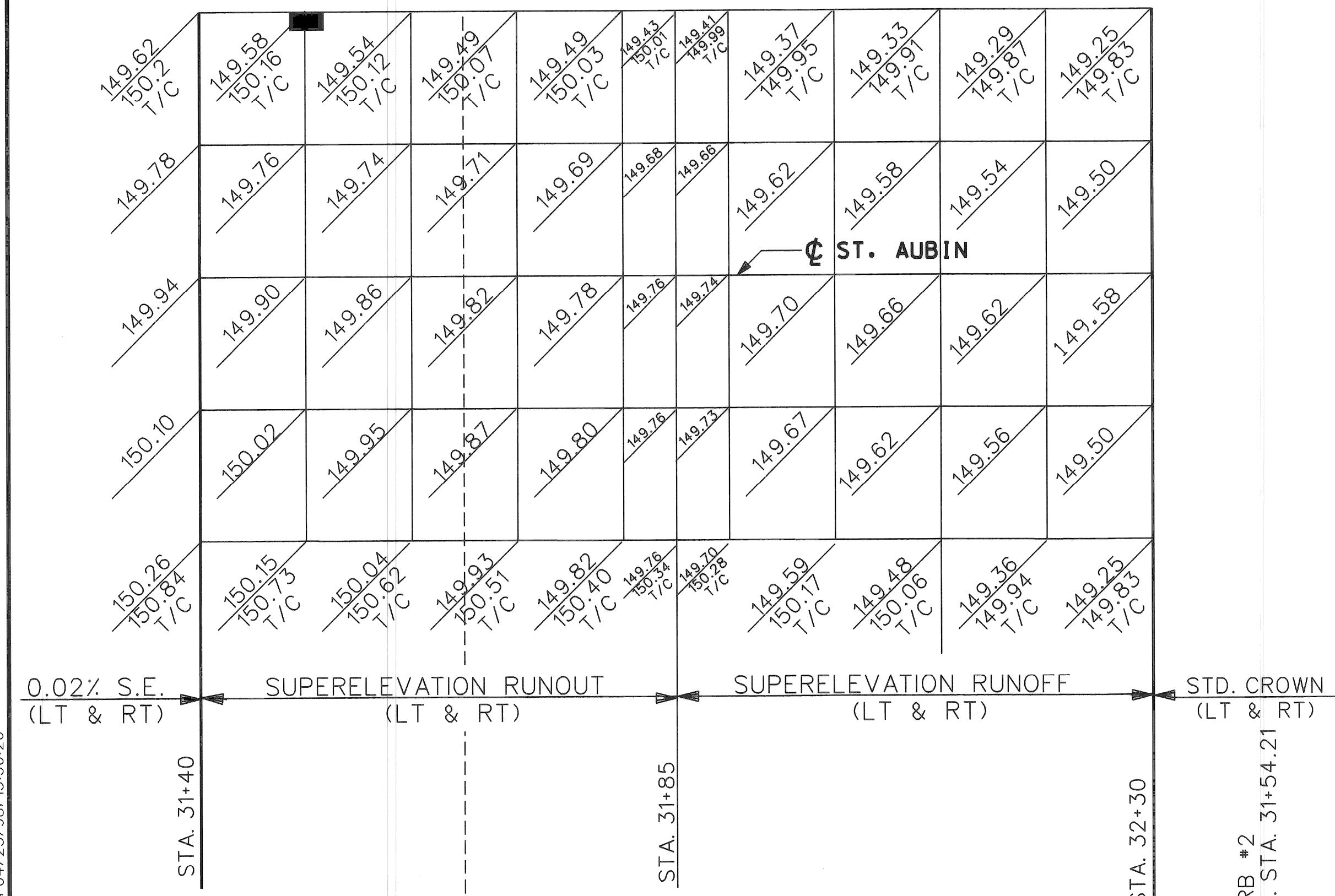




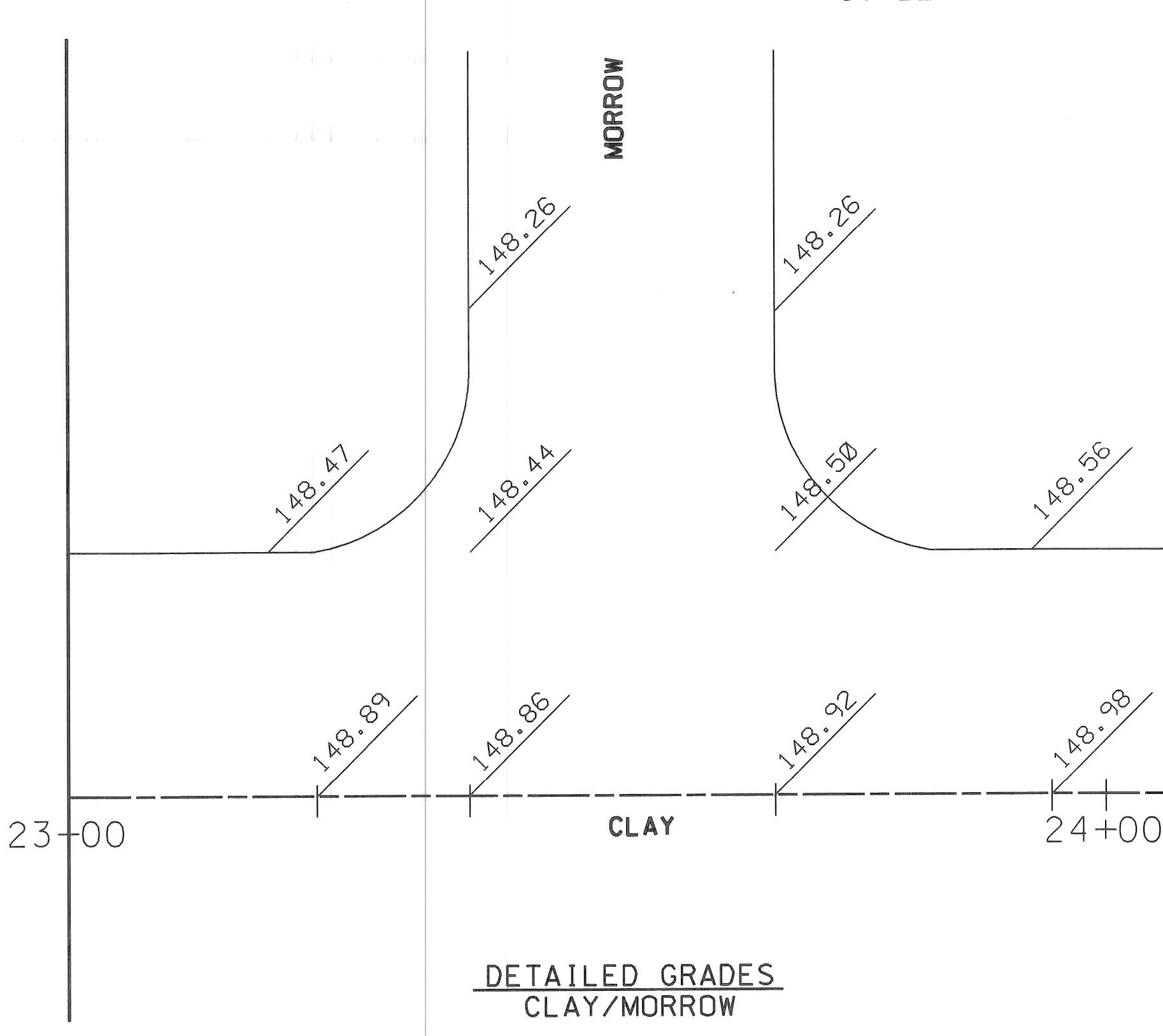
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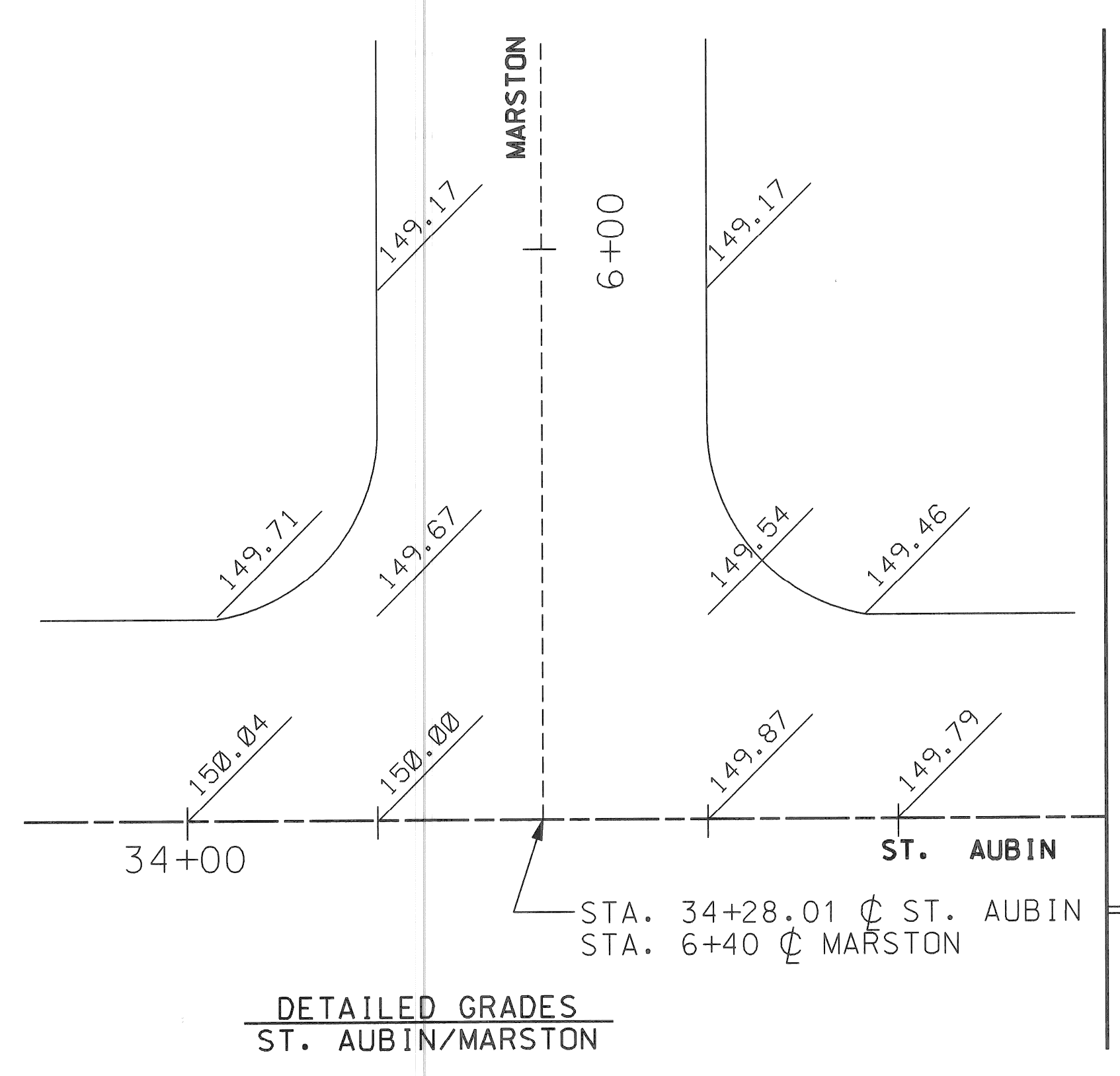
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SCALE 1"=10'

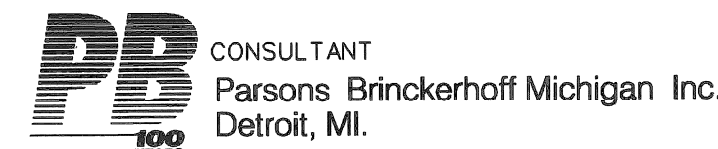


SCALE 1"=10'



SCALE 1"=10'

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BY	CHECKED BY	APPROVED:
PLAN	SB	JWF
GRADE	JWF	DPM
ESTIMATE		
DESCRIPTIONS	DR'N	CK'D
REVISIONS	AP'VD	DATE
FINAL	CHECK	REVIEW

**CITY OF DETROIT**  
**DEPARTMENT OF TRANSPORTATION**  
**TRANSPORTATION ENGINEERING**

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
**FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON**

**DETAILED GRADES**

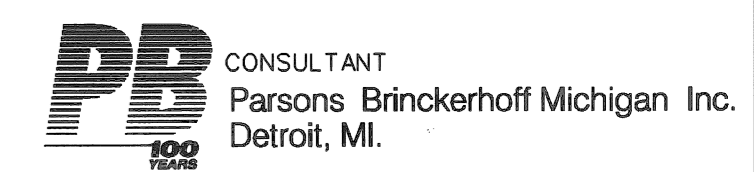
SHEET 16 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE APRIL 1998



SYMBOL	DESCRIPTION
---	EXISTING WATER LINES
— — — — —	PLD CONDUITS
---	EXISTING AMERITECH LINES
—w—w—w—	EXISTING DETROIT EDISON ELECTRICAL CONDUIT
—s—s—s—	EXISTING DETROIT EDISON STEAM LINE
---	EXISTING GAS LINES
---	EXISTING SEWER
---	EXISTING SEWER

SYMBOL	DESCRIPTION
●	EDISON ELECTRIC MANHOLE
◐	EDISON STEAM MANHOLE
◻	EDISON POLE
○	WATER MANHOLE OR GRATE
⊕	GAS MANHOLE OR GRATE
○	STORM MANHOLE
◻	STORM CATCH BASIN
○	PLD LIGHT POLE
○	TELEPHONE POLE
○	FIRE HYDRANT
○	PLD MANHOLE
○	AMERITECH MANHOLE

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DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	BY	CHECKED BY	APPROVED:
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PLAN							
GRADE							
ESTIMATE							
FINAL							

**CITY OF DETROIT**  
**DEPARTMENT OF TRANSPORTATION**  
**TRANSPORTATION ENGINEERING**

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
**FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON**  
  
**STANDARD SYMBOLS FOR UTILITIES**

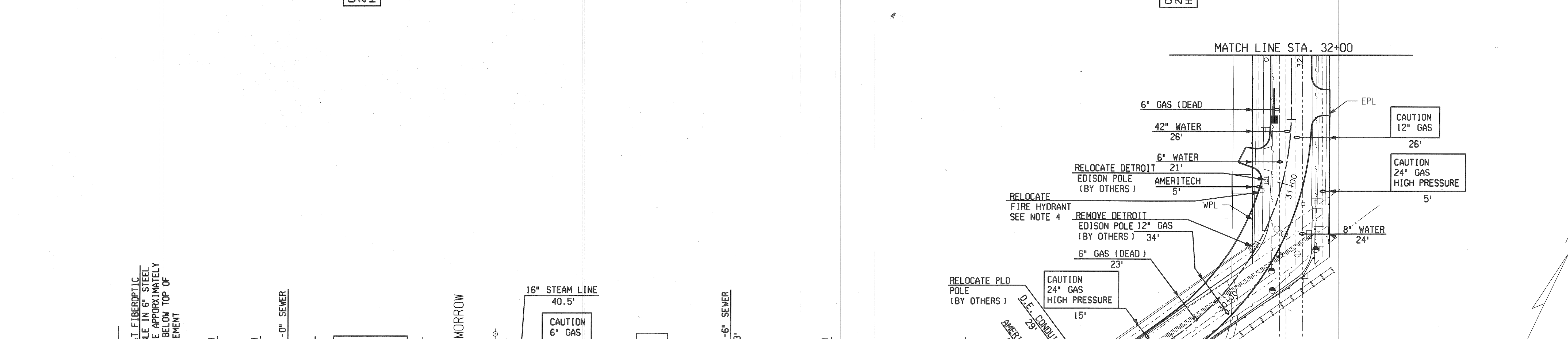
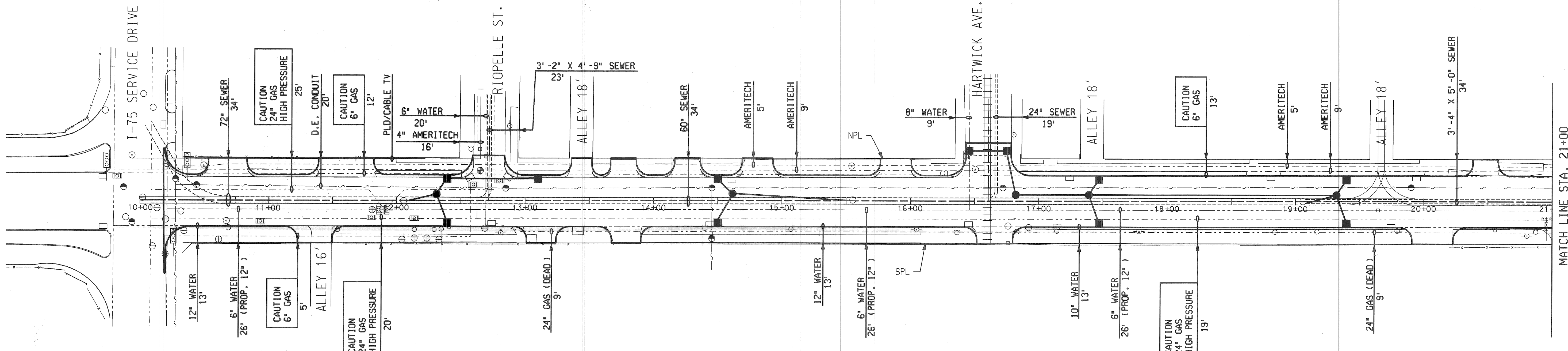
SHEET 17 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE <b>APRIL 1998</b>

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DATE: 04/23/98; 15:56:51



- NOTES:
- FOR UTILITY LEGEND SEE SHEET 17
  - UTILITY LINES ARE DIMENSIONED FROM EXISTING PROPERTY LINES
  - THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. NO GUARANTEES ARE MADE TO THE COMPLETENESS OR ACCURACY OF INFORMATION SHOWN. PURSUANT TO ACT 53 OF THE PA OF 1974 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. PHONE (800) 482-7171 OR 647-7344
  - FIRE HYDRANTS SHALL NOT BE FARTHER THAN 3' BEHIND CURB AND CENTERLINE OF OPENING SHALL BE 19" ABOVE GRADE (MIN.).

STATE LAW ACT 53  
3 WORKING DAYS  
BEFORE YOU DIG  
CALL MISS DIG!  
TOLL FREE  
800-482-7171



CONSULTANT  
Parsons Brinckerhoff Michigan Inc.  
Detroit, MI.

DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE	CHECK	REVIEW
REVISIONS						

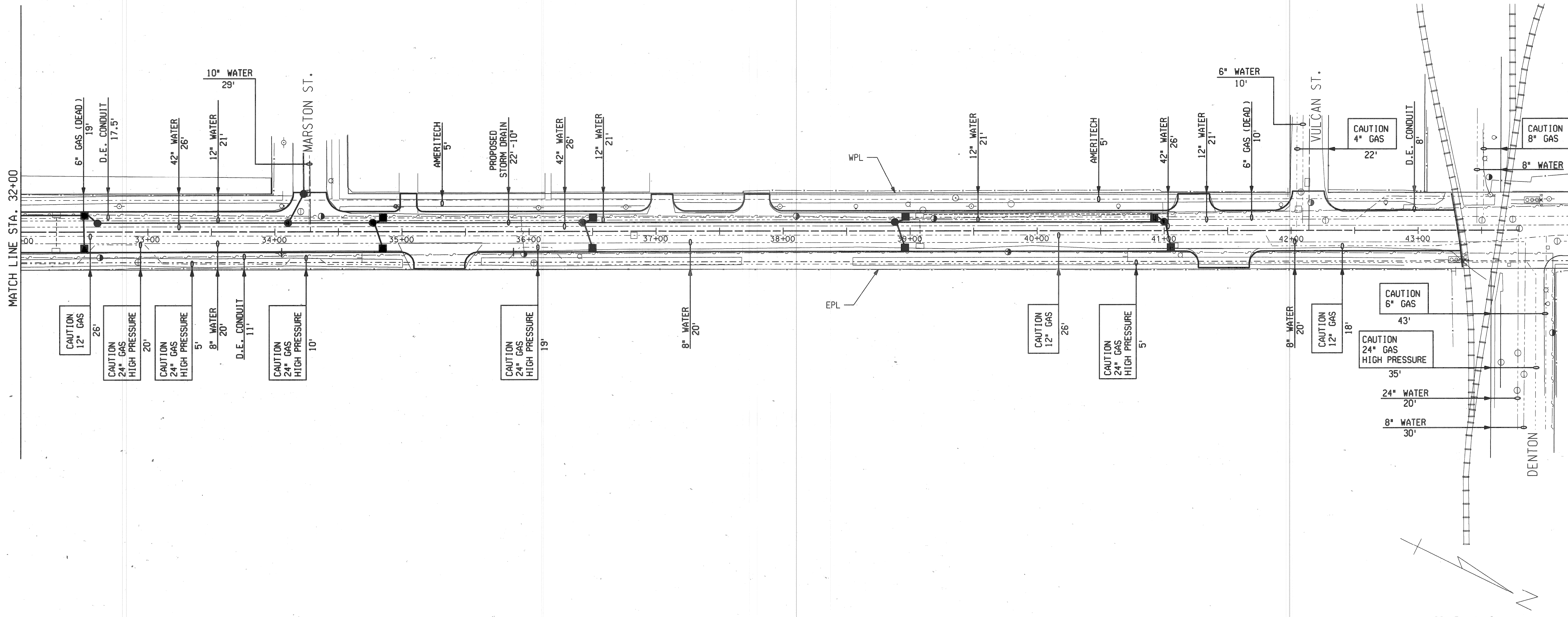
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PLAN				ENGINEER OF STREETS
ESTIMATE	JWF	DPM		
FINAL				

**CITY OF DETROIT**  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

**RECONSTRUCTION OF CLAY / ST. AUBIN**  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

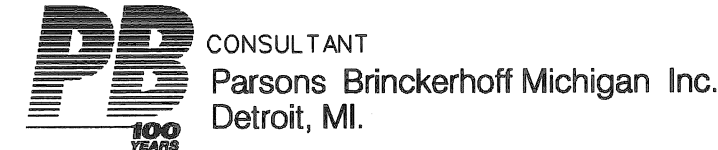
UTILITIES - P.O.B. TO STA. 32+00

SHEET 18 OF 26 SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE APRIL 1998



- NOTES:
- FOR UTILITY LEGEND SEE SHEET
  - UTILITY LINES ARE DIMENSIONED FROM EXISTING PROPERTY LINES
  - THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. NO GUARANTEES ARE MADE TO THE COMPLETENESS OR ACCURACY OF INFORMATION SHOWN. PURSUANT TO ACT 53 OF THE PA OF 1974 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. PHONE (800)-482-7171 OR 647-7344

STATE LAW ACT 53  
 3 WORKING DAYS  
 BEFORE YOU DIG  
 CALL MISS DIG!  
 TOLL FREE  
 800-482-7171



SCALE: 1"=40'

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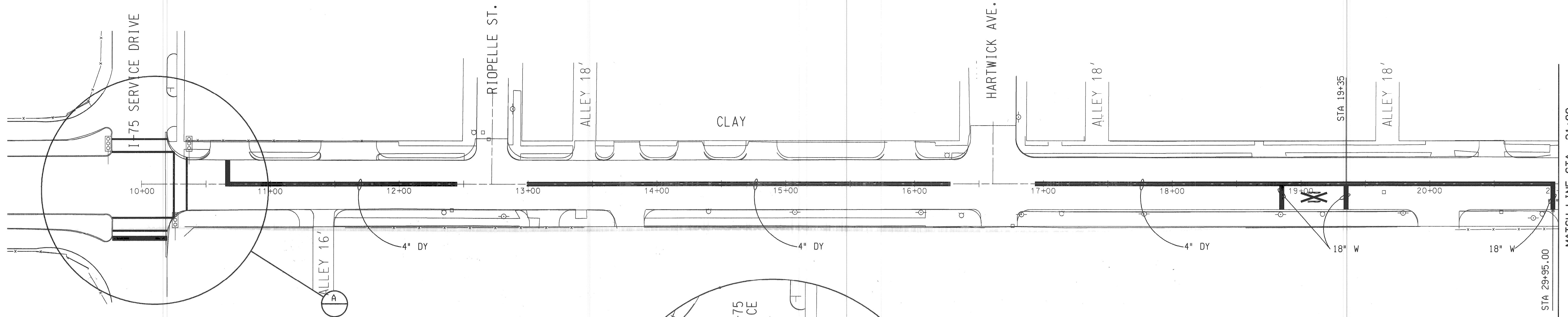
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PLAN					CMK	JWF	ENGINEER OF STREETS
ESTIMATE					JWF	DPM	
FINAL					CHECK	REVIEW	

CITY OF DETROIT  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

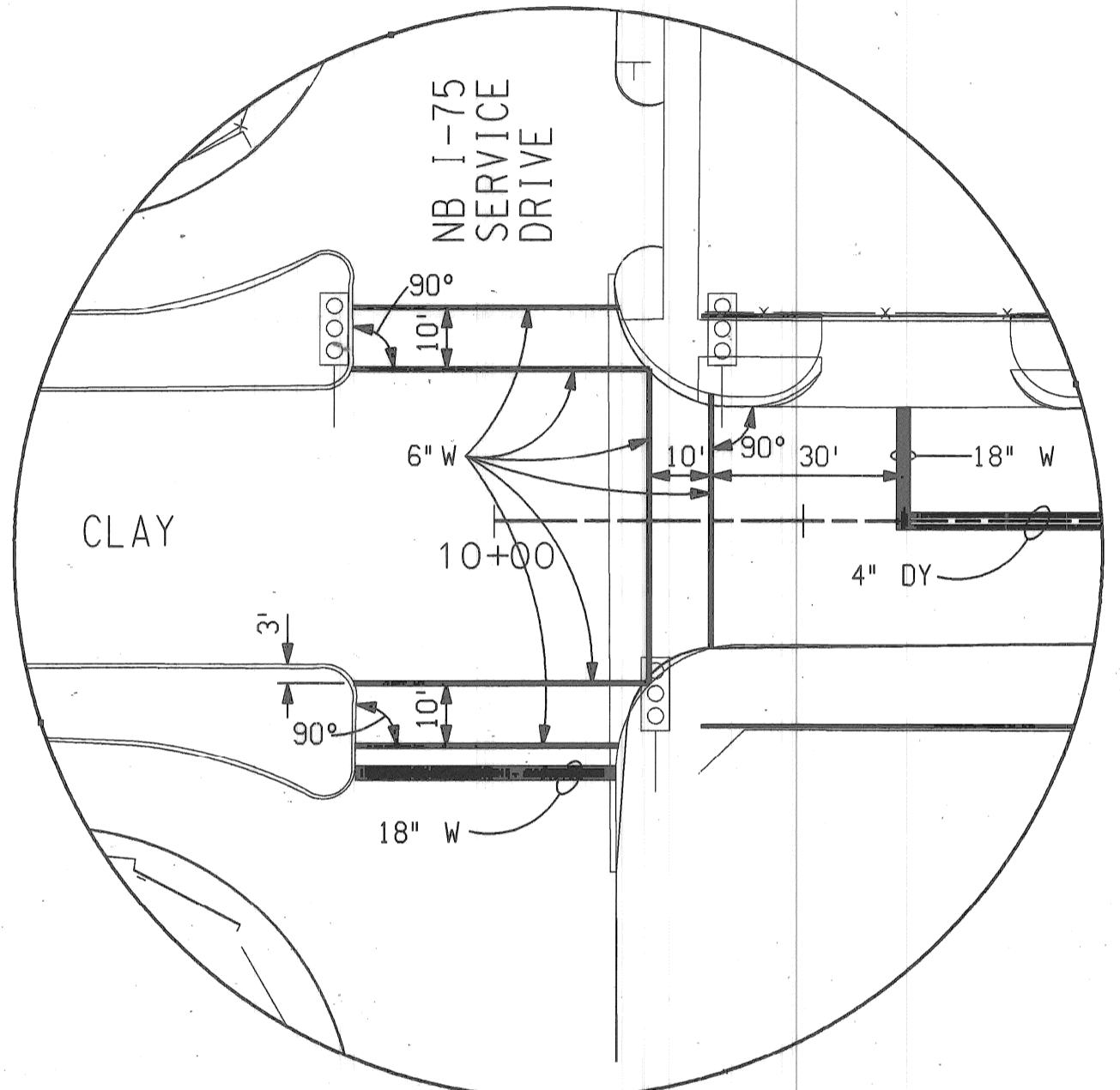
RECONSTRUCTION OF CLAY / ST. AUBIN  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

UTILITIES - STA. 32+00 TO P.O.E.

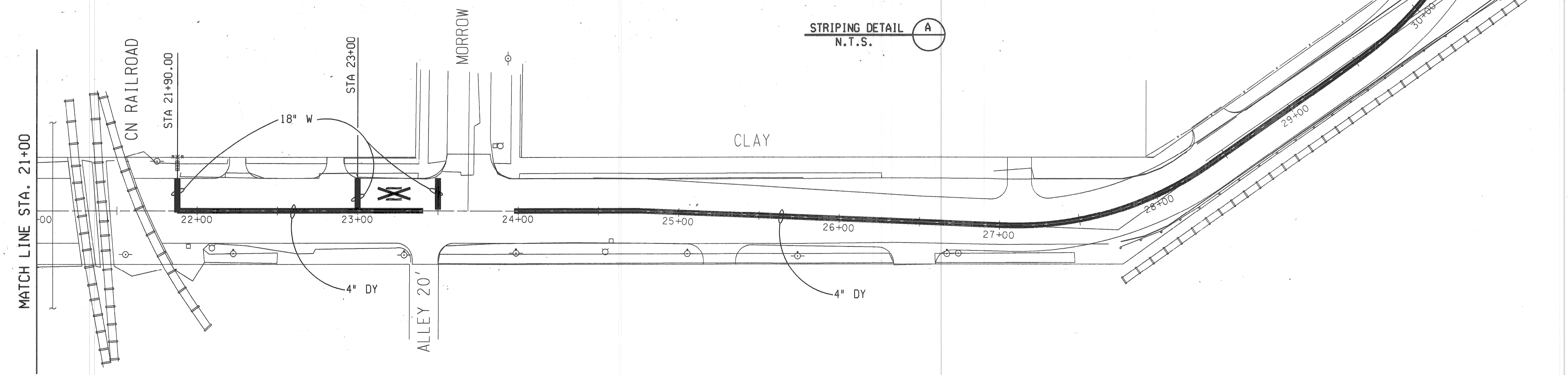
SHEET 19 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE APRIL 1998



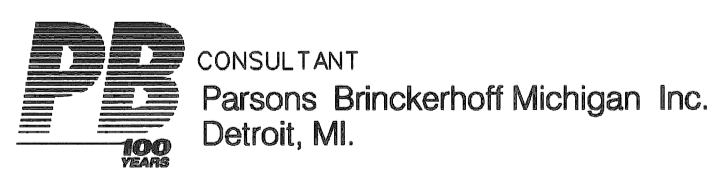
PAVEMENT MARKING SUMMARY		
TYPE	QUAN.	UNITS
4" YELLOW LANE LINE	5744	LFT
4" WHITE LANE LINE	0	LFT
6" WHITE CROSSWALK LINE	276	LFT
18" WHITE STOP LINE	255	LFT
RAILROAD SYMBOL	3	EACH



STRIPING DETAIL A  
N.T.S.



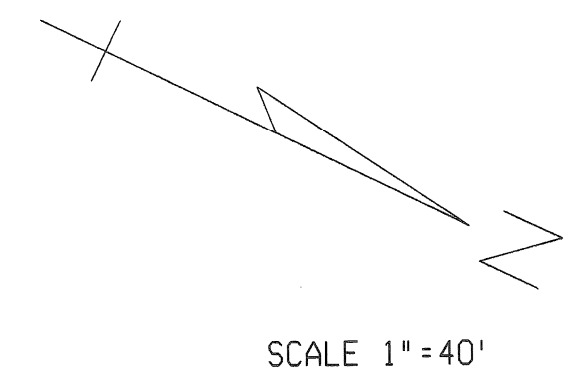
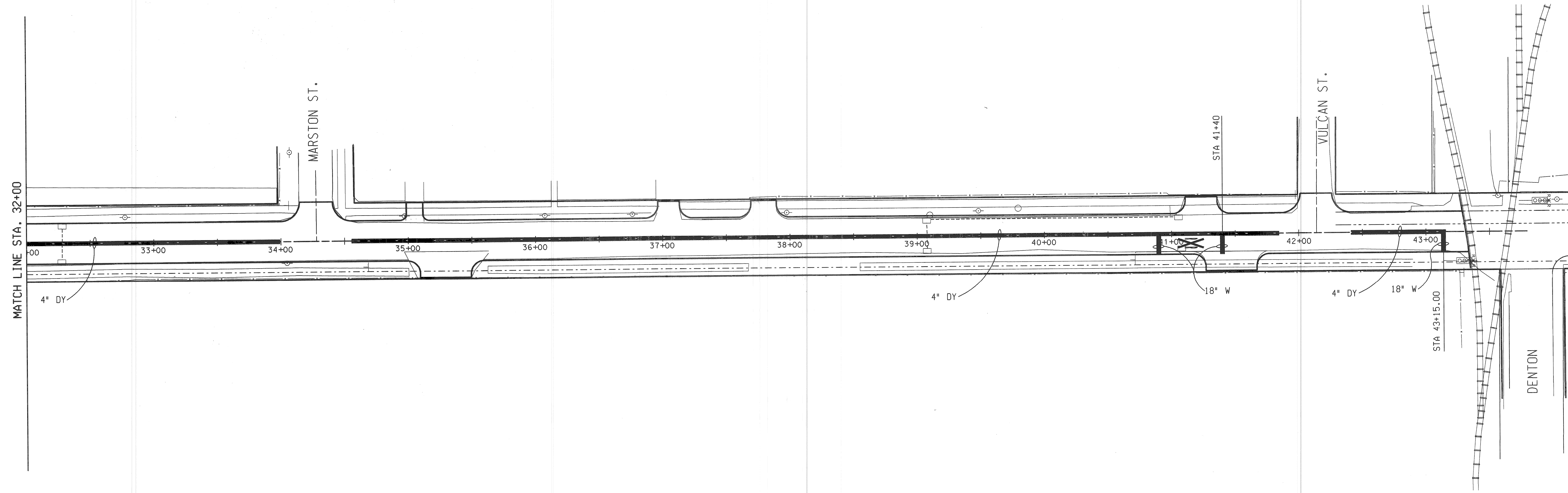
- NOTES:
- SEE TYPICAL PAVEMENT MARKINGS DETAILS IN PROJECT SPECIFICATIONS FOR ADDITIONAL RAILROAD LAYOUT AND PAVEMENT MARKING INFORMATION
  - DY-SOLID DOUBLE YELLOW LINE  
W-SOLID WHITE LINE



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CITY OF DETROIT DEPARTMENT OF TRANSPORTATION TRANSPORTATION ENGINEERING		RECONSTRUCTION OF CLAY / ST. AUBIN FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON		SHEET 20 OF 26 SHEETS
PAVEMENT MARKINGS POB TO STA 32+00				CONTRACT NO.
				ASSIGNMENT NO.
				DATE APRIL 1998
DESCRIPTIONS	DR'N	CK'D	AP'VD	DATE
REVISIONS	FINAL	CHECK	REVIEW	
PLAN	BY CMK	CHECKED BY DPM	APPROVED:	
GRADE			ENGINEER OF STREETS	
ESTIMATE	BY JWF	CHECKED BY DPM		

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**PB** CONSULTANT  
 Parsons Brinckerhoff Michigan Inc.  
 Detroit, MI.

DESCRIPTIONS	DR'N	CK'D	AP'D	VD	DATE
REVISIONS					

	BY	CHECKED BY	APPROVED:
PLAN	CMK	DPM	ENGINEER OF STREETS
GRADE			
ESTIMATE	JWF	DPM	
FINAL	CHECK	REVIEW	

**CITY OF DETROIT**  
 DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
 FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

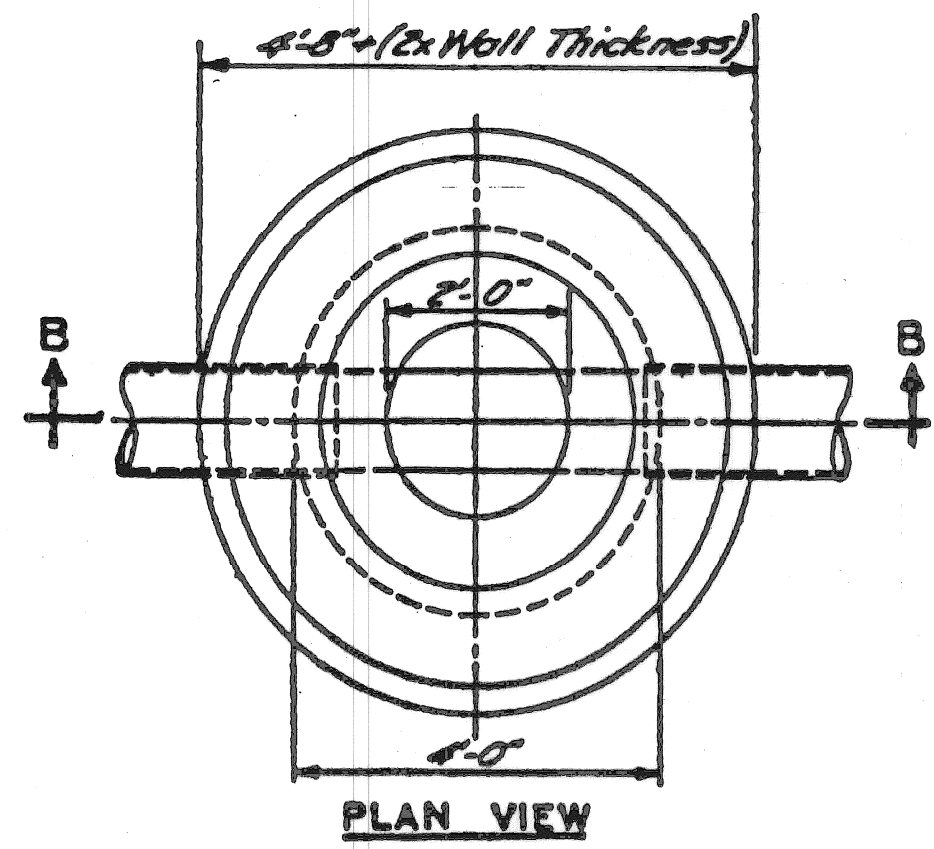
PAVEMENT MARKINGS STA 32+00 TO POE

SHEET 21 OF 26 SHEETS

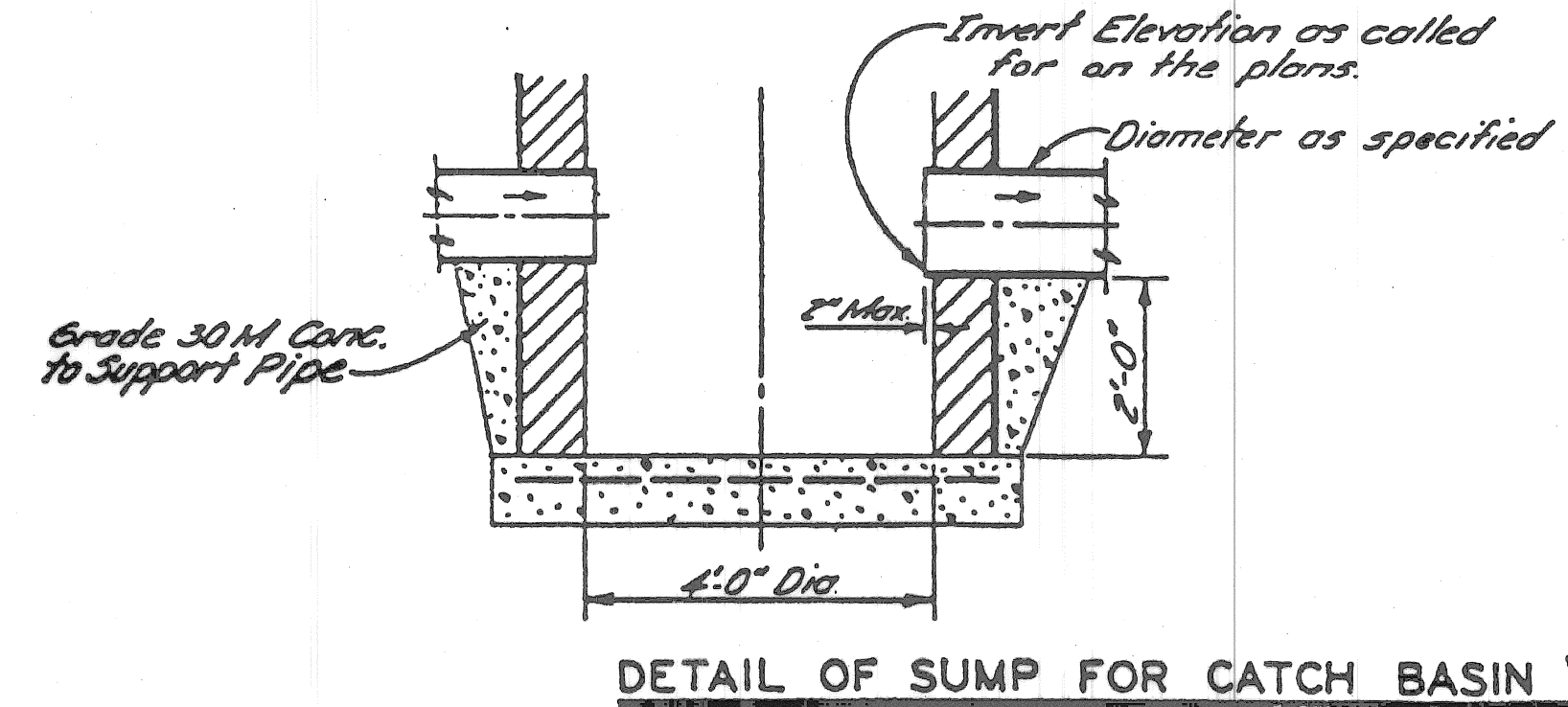
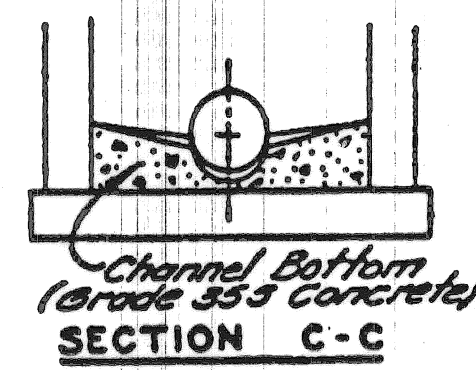
CONTRACT NO.

ASSIGNMENT NO.

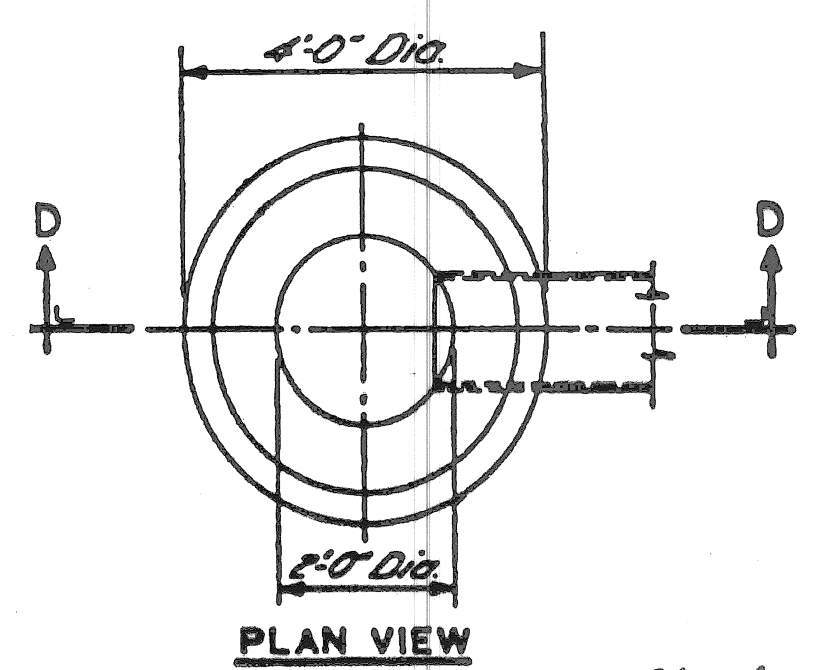
DATE APRIL 1998



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

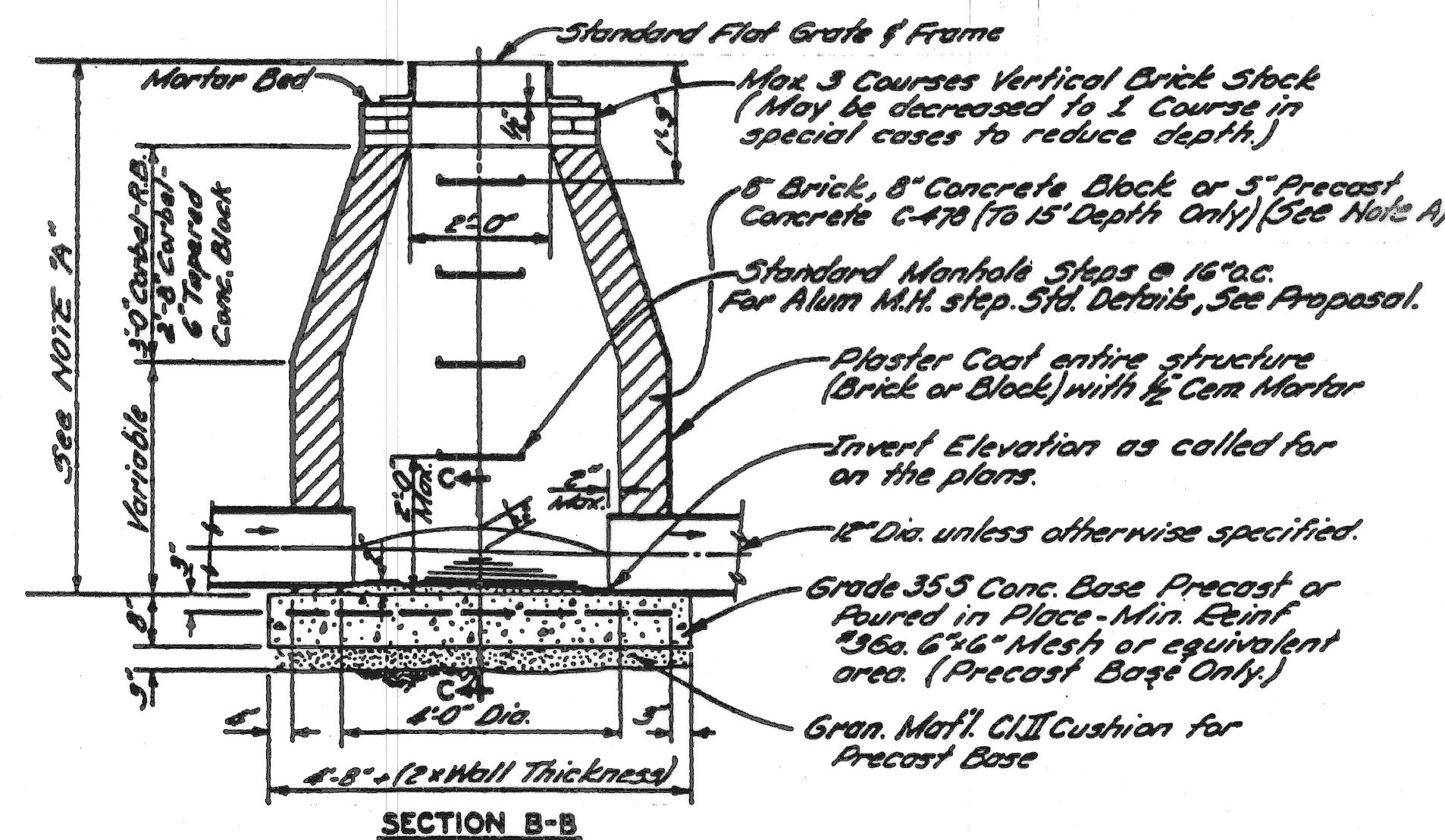


**DETAIL OF SUMP FOR CATCH BASIN "B"**  
NO SCALE

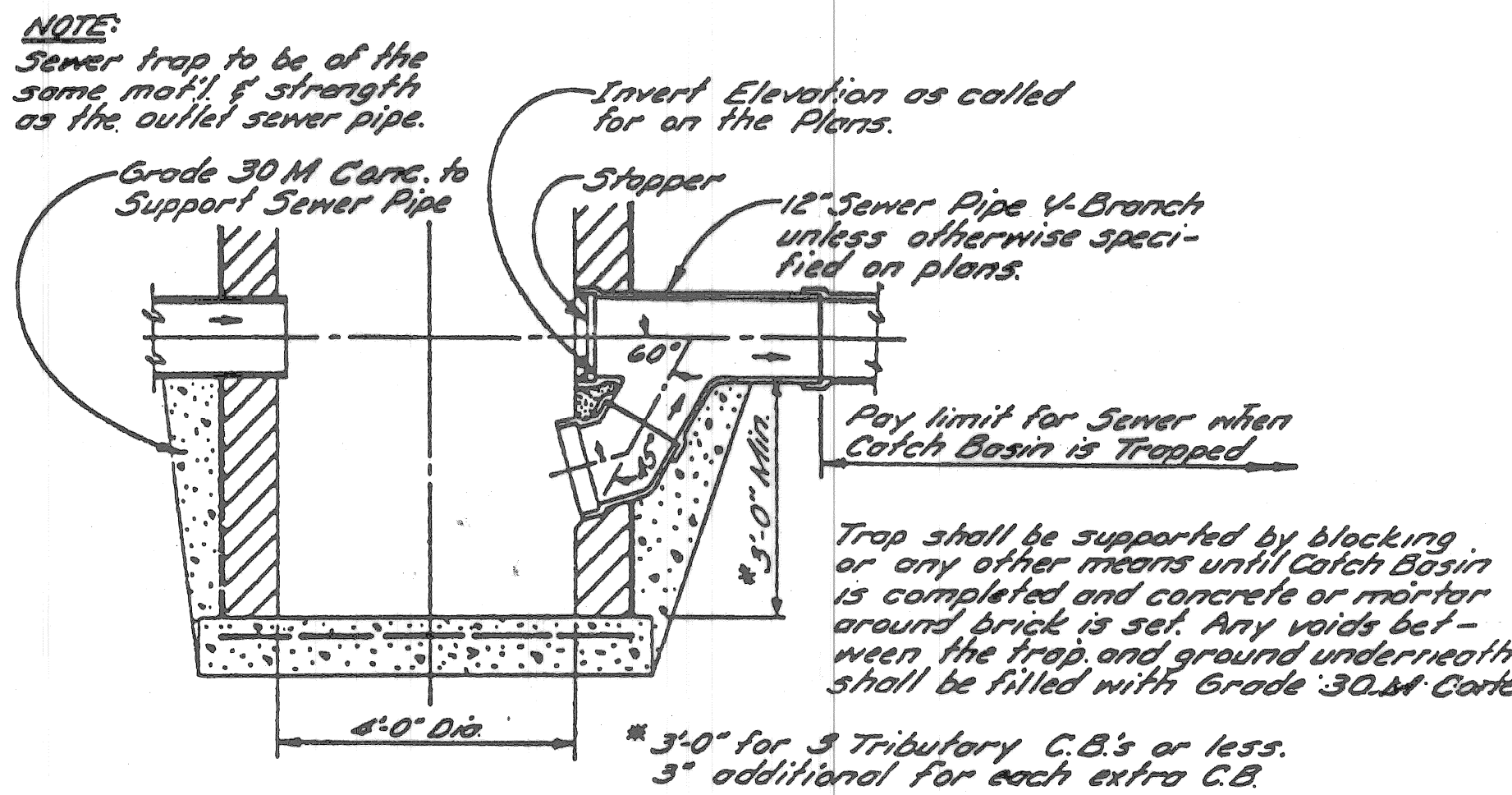


**NOTE:**  
Catch Basin "A" will be used only when outletting to a catch basin "B"

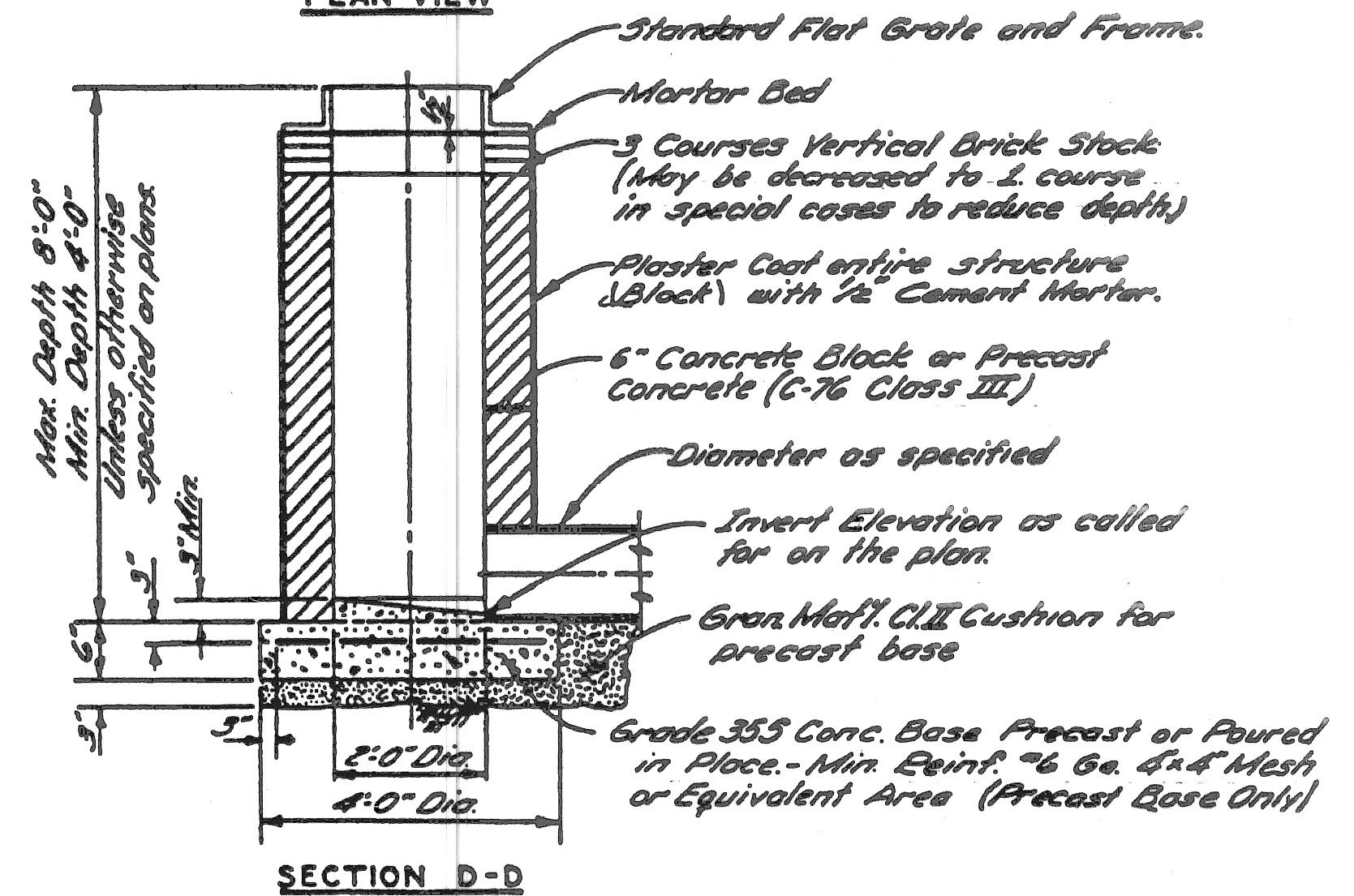
**PLAN VIEW**



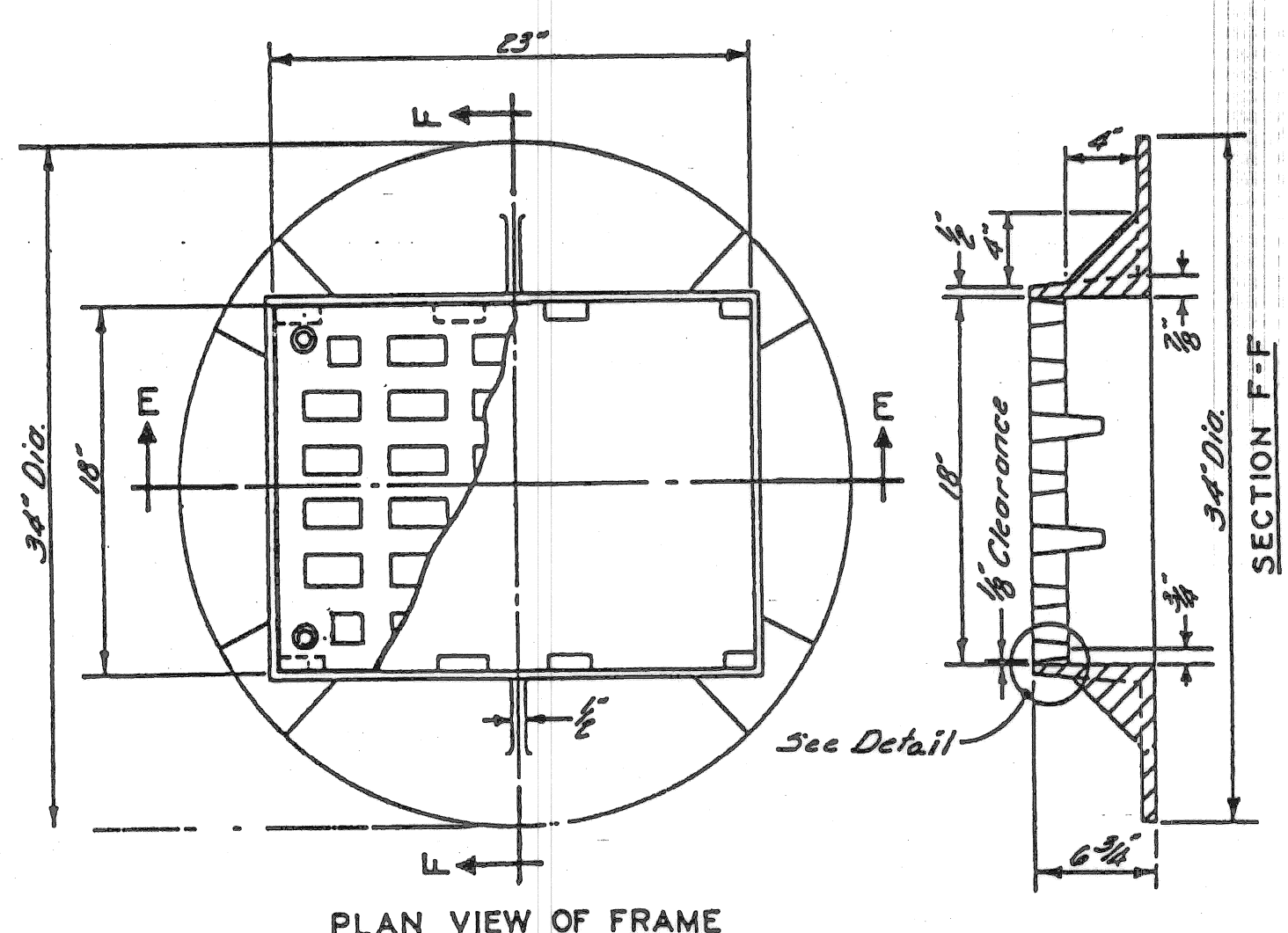
**CATCH BASIN "B"**  
NO SCALE



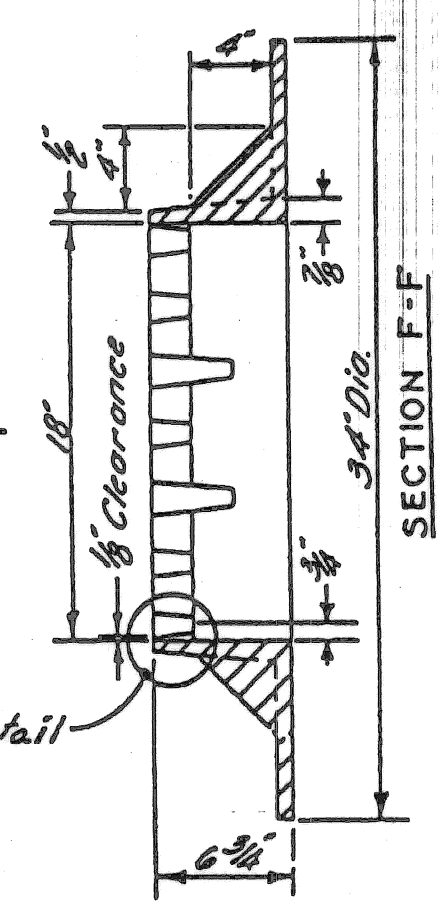
**DETAIL OF TRAP FOR CATCH BASIN "B"**  
NO SCALE



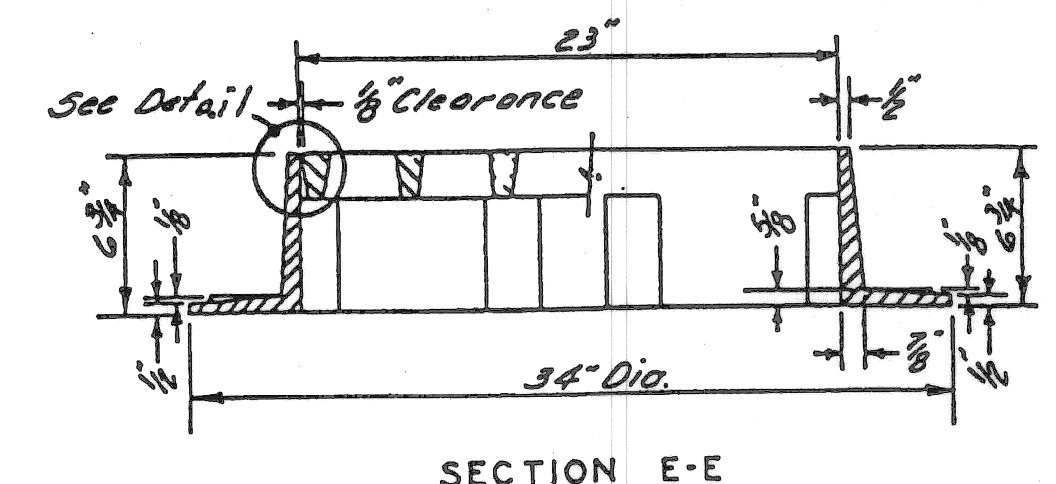
**SECTION D-D**  
**CATCH BASIN "A"**  
NO SCALE



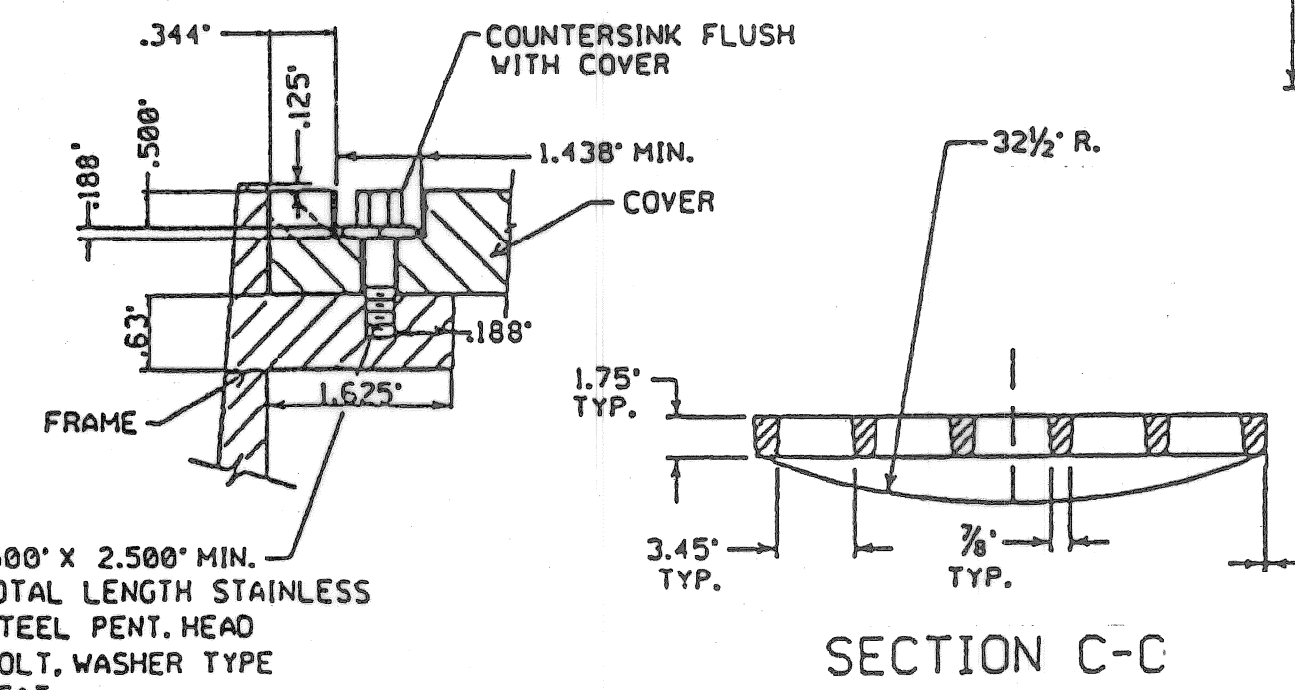
**PLAN VIEW OF FRAME**



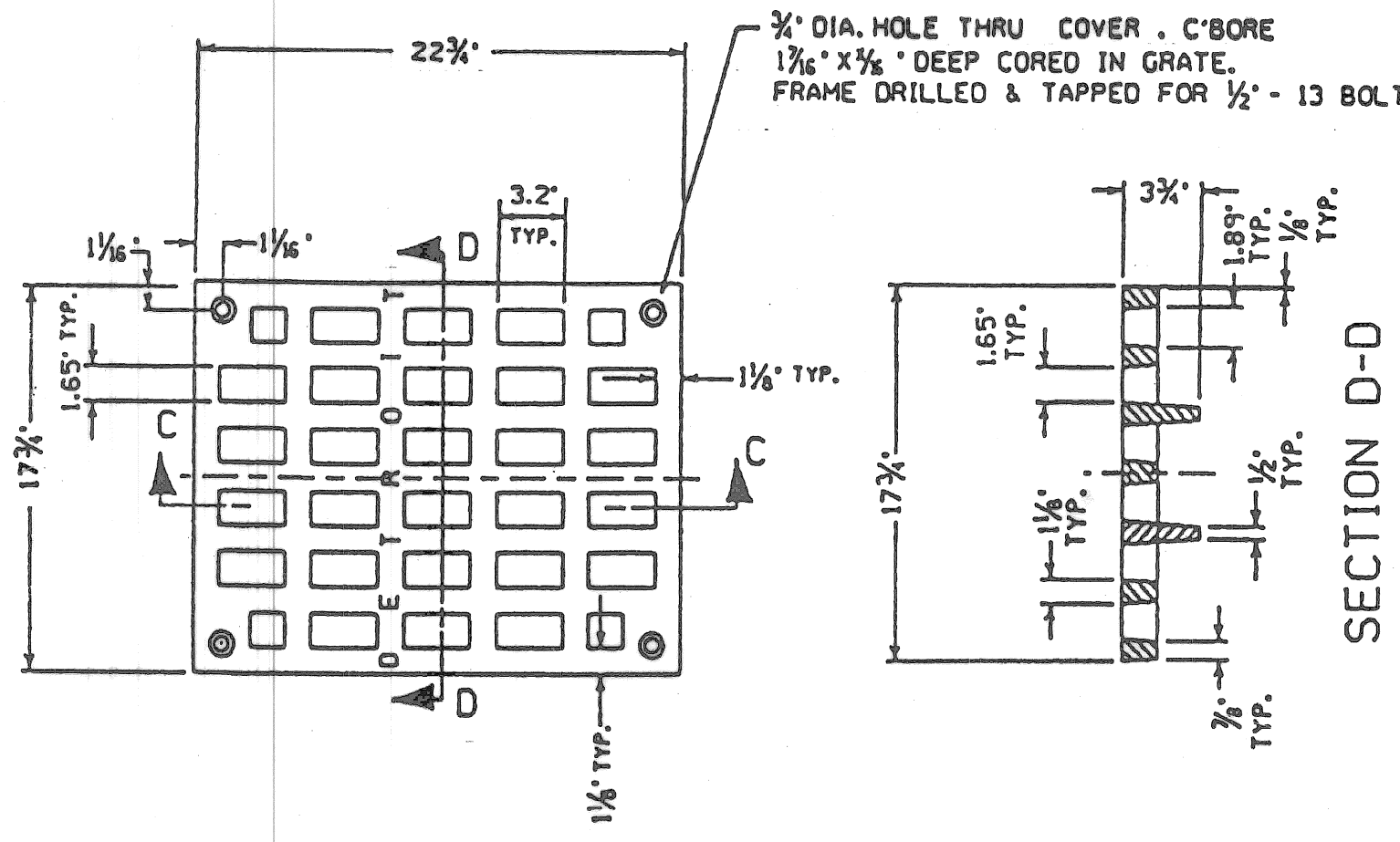
**SECTION F-F**



**SECTION E-E**



**COVER BOLT DETAIL**



**PLAN VIEW OF GRATE**

**MATERIAL:** GRAY IRON A.S.T.M. STD. SPEC. A-48, CLASS 30, BEARING SURFACES OF COVER AND FRAME SHALL BE GRIND TO PREVENT ROCKING, CASTING SHALL NOT BE COATED

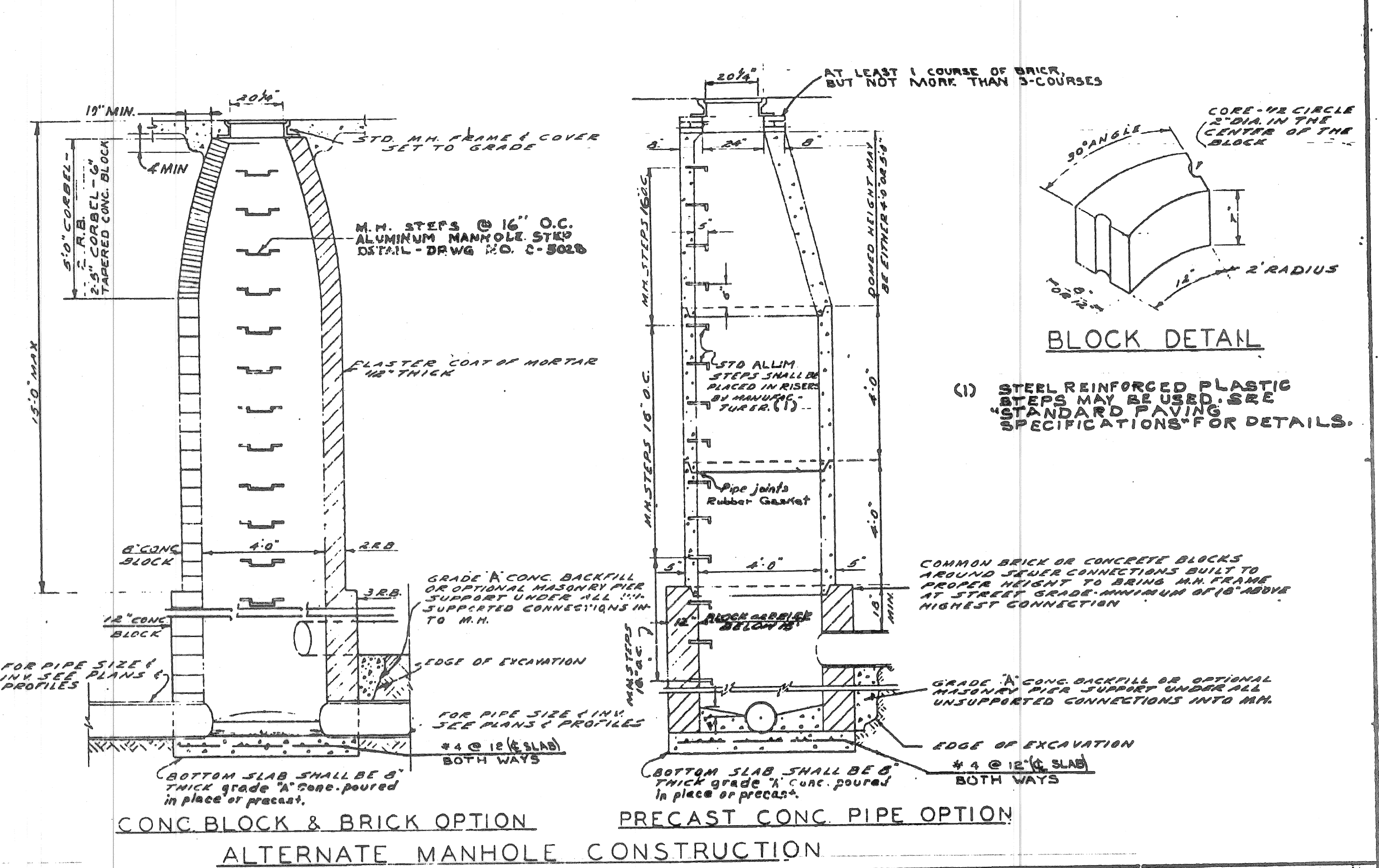
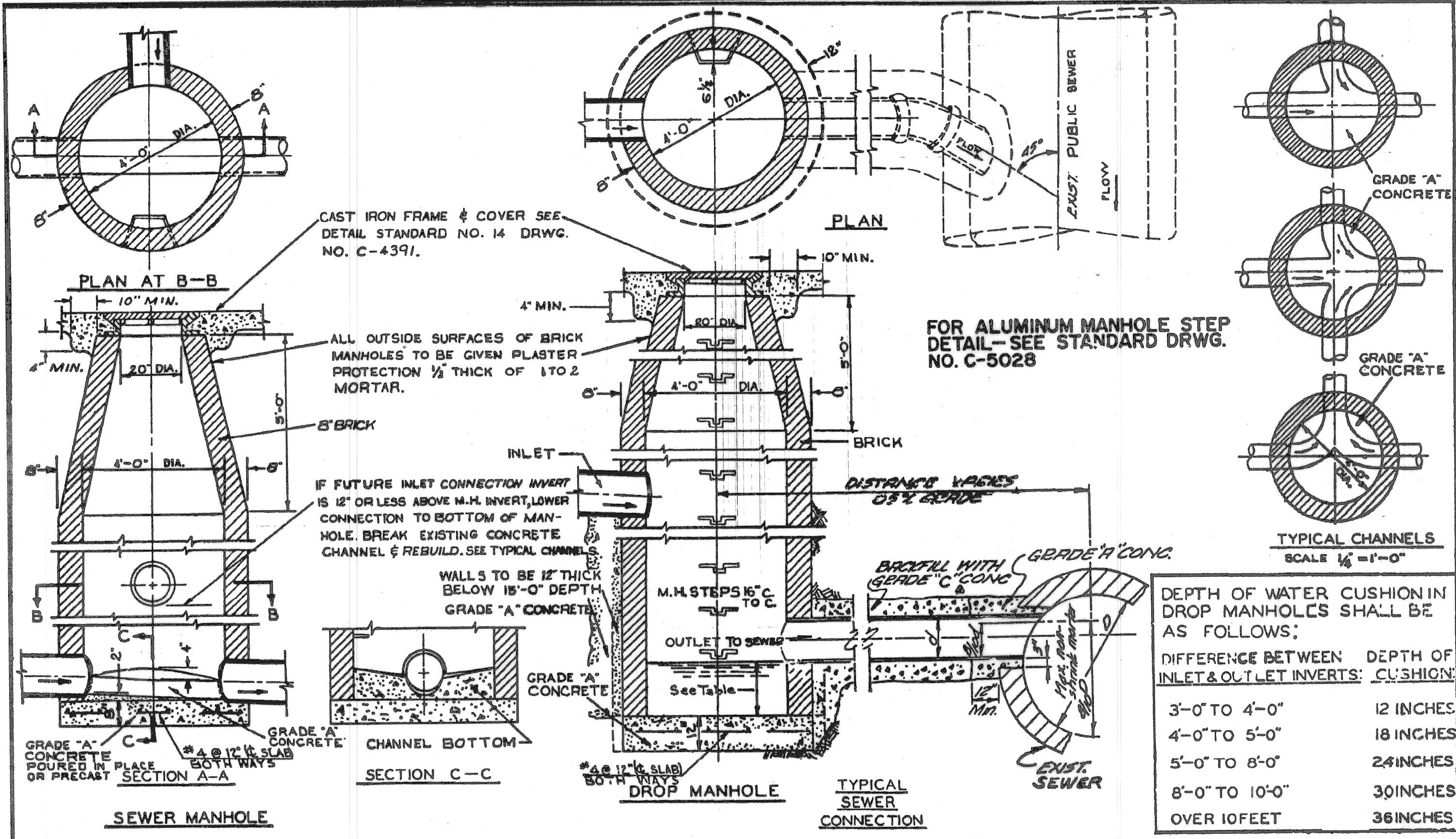
**NOTE:** F = FINISH SURFACE

**STANDARD FLAT GRATE AND FRAME**  
NO SCALE

**GENERAL NOTES**

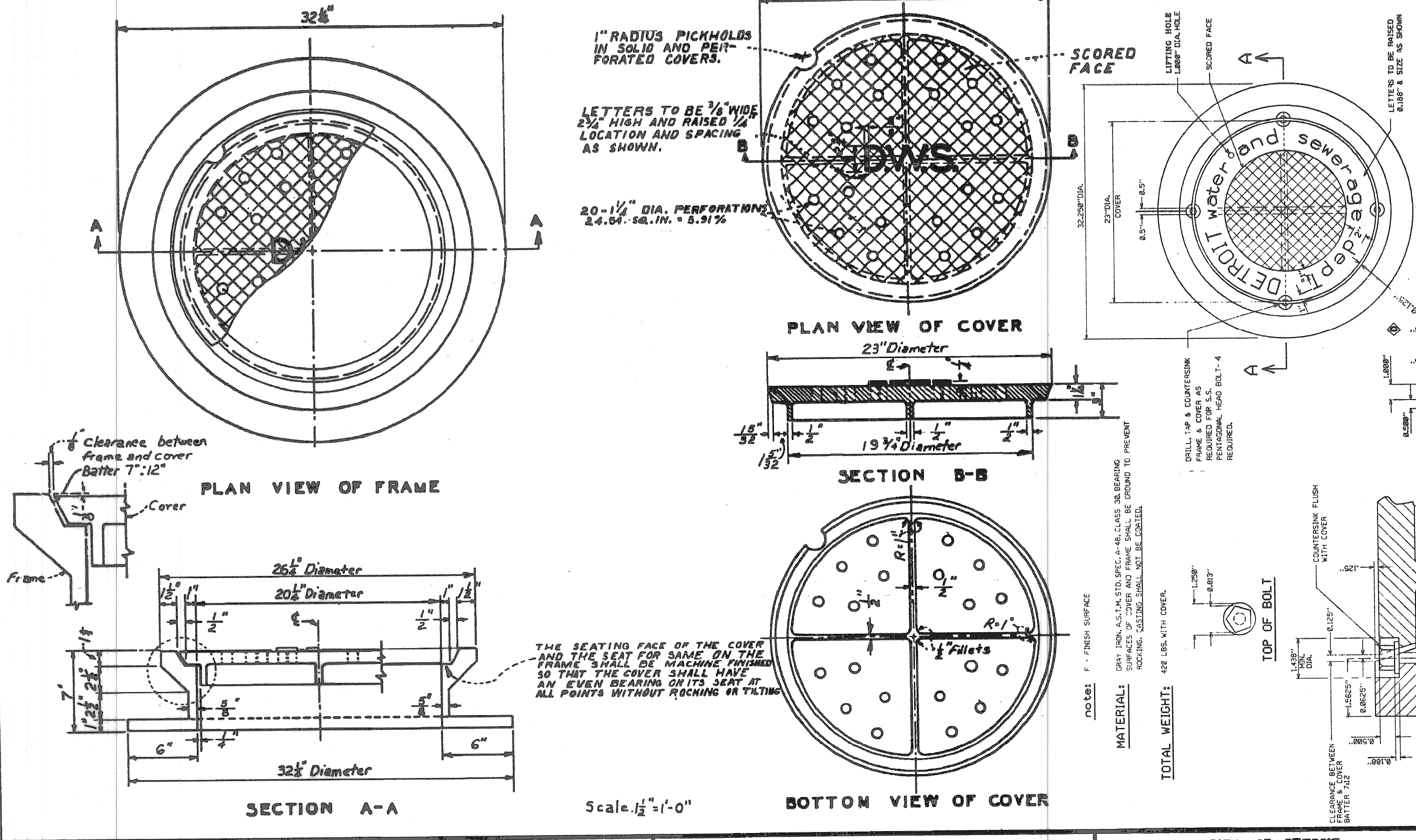
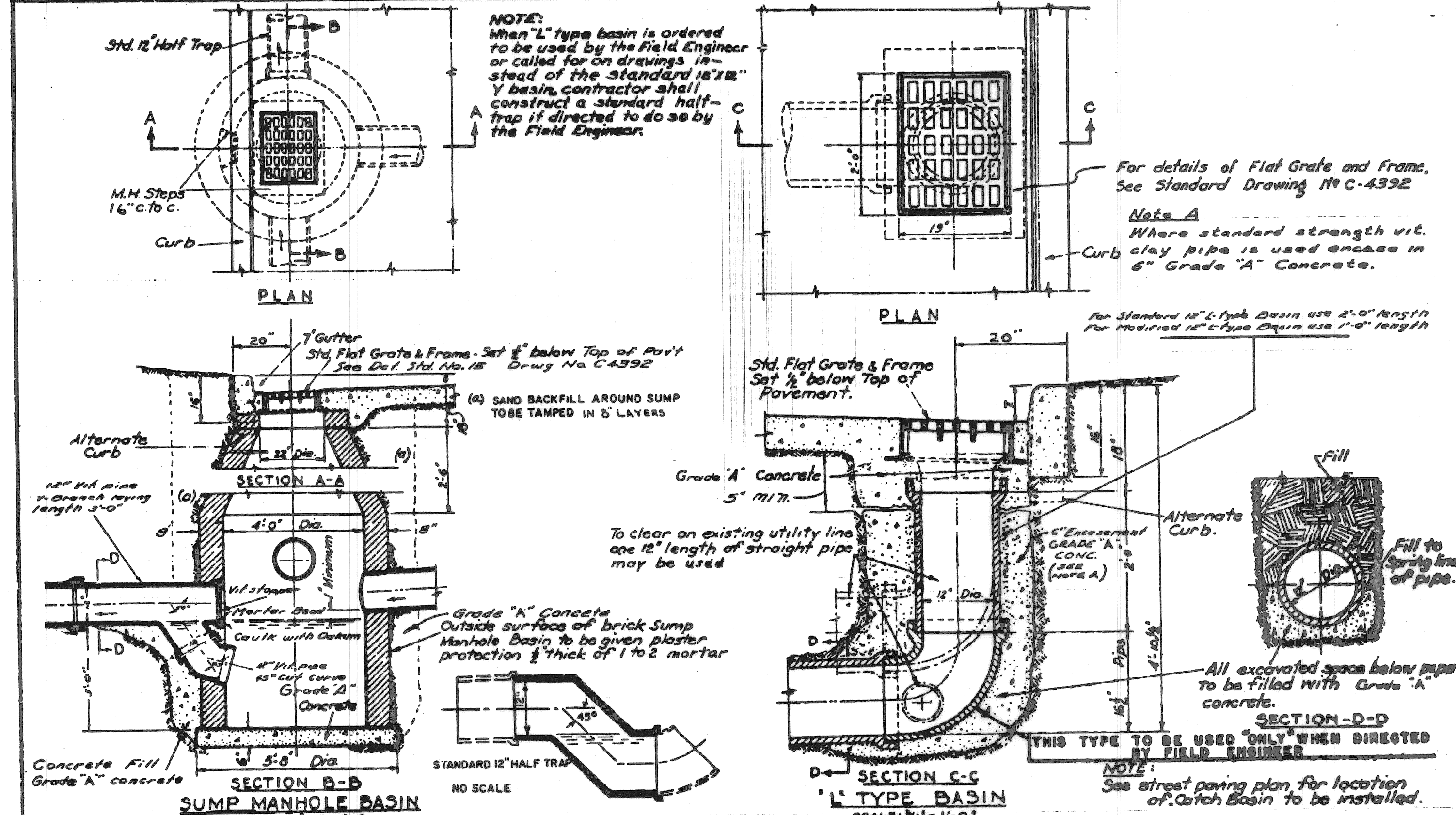
- The materials & workmanship shall be in accordance with the current Standard Specifications.
- Center of Catch Basin shall be 20 inches from back of curb.
- All sizes of flow lines of pipe, and elevations for top & bottom of structures shall be determined from the plans or construction requirements. 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 in 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 of 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 Scales Mfg. Corp.
- Pay limit for sewers shall be inside faces of structures unless otherwise noted.

PLAN		BY: M. POLITO	CHECKED BY: D. MILZ	APPROVED: John Erickson	CITY OF DETROIT CITY ENGINEERING DIVISION - D.P.W. BUREAU OF STREETS AND HIGHWAYS	SHEET 22 OF 26 SHEETS CONTRACT NO. ASSIGNMENT NO. DATE APRIL 1998
GRADE		W. B. Cummings				
ESTIMATE		W. B. Cummings			SPECIAL STANDARDS	DATE APRIL 1998
DESCRIPTION		W. B. Cummings				
REVISIONS		W. B. Cummings				



DESIGNED BY J. J. King	APPROVED BY J. E. Erickson	CITY OF DETROIT CITY ENGINEERING DEPARTMENT BUREAUS OF STREETS AND HIGHWAYS
DRAWN BY J. J. King	ENGINEER OF STREETS H. R. Nische	
TRACED BY W. J. M. ...	ASST. CITY ENGINEER W. J. M. ...	DETAIL STANDARD NO. 14 DWG. NO. C-4391
CHECKED BY W. J. M. ...	CITY ENGINEER	

DESIGNED BY J. J. King	APPROVED BY J. E. Erickson	CITY OF DETROIT CITY ENGINEERING DEPARTMENT BUREAUS OF STREETS AND HIGHWAYS
DRAWN BY T. M. ...	ENGINEER OF STREETS H. R. Nische	
TRACED BY W. J. M. ...	ASST. CITY ENGINEER W. J. M. ...	DETAIL STANDARD NO. 15 DWG. NO. C-4395A
CHECKED BY W. J. M. ...	CITY ENGINEER	



DESIGNED BY J. J. King	APPROVED BY J. E. Erickson	CITY OF DETROIT CITY ENGINEERING DEPARTMENT BUREAUS OF STREETS AND HIGHWAYS
DRAWN BY J. J. King	ENGINEER OF STREETS H. R. Nische	
TRACED BY W. J. M. ...	ASST. CITY ENGINEER W. J. M. ...	DETAIL STANDARD NO. 14 DWG. NO. C-4391
CHECKED BY W. J. M. ...	CITY ENGINEER	

DESIGNED BY J. J. King	APPROVED BY J. E. Erickson	CITY OF DETROIT CITY ENGINEERING DEPARTMENT BUREAUS OF STREETS AND HIGHWAYS
DRAWN BY T. M. ...	ENGINEER OF STREETS H. R. Nische	
TRACED BY W. J. M. ...	ASST. CITY ENGINEER W. J. M. ...	DETAIL STANDARD NO. 15 DWG. NO. C-4395A
CHECKED BY W. J. M. ...	CITY ENGINEER	

DESCRIPTION	BY	CHECKED BY	APPROVED
PLAN			
GRADE			
ESTIMATE			
REVISIONS			

DESCRIPTION	BY	CHECKED BY	APPROVED
PLAN			
GRADE			
ESTIMATE			
REVISIONS			

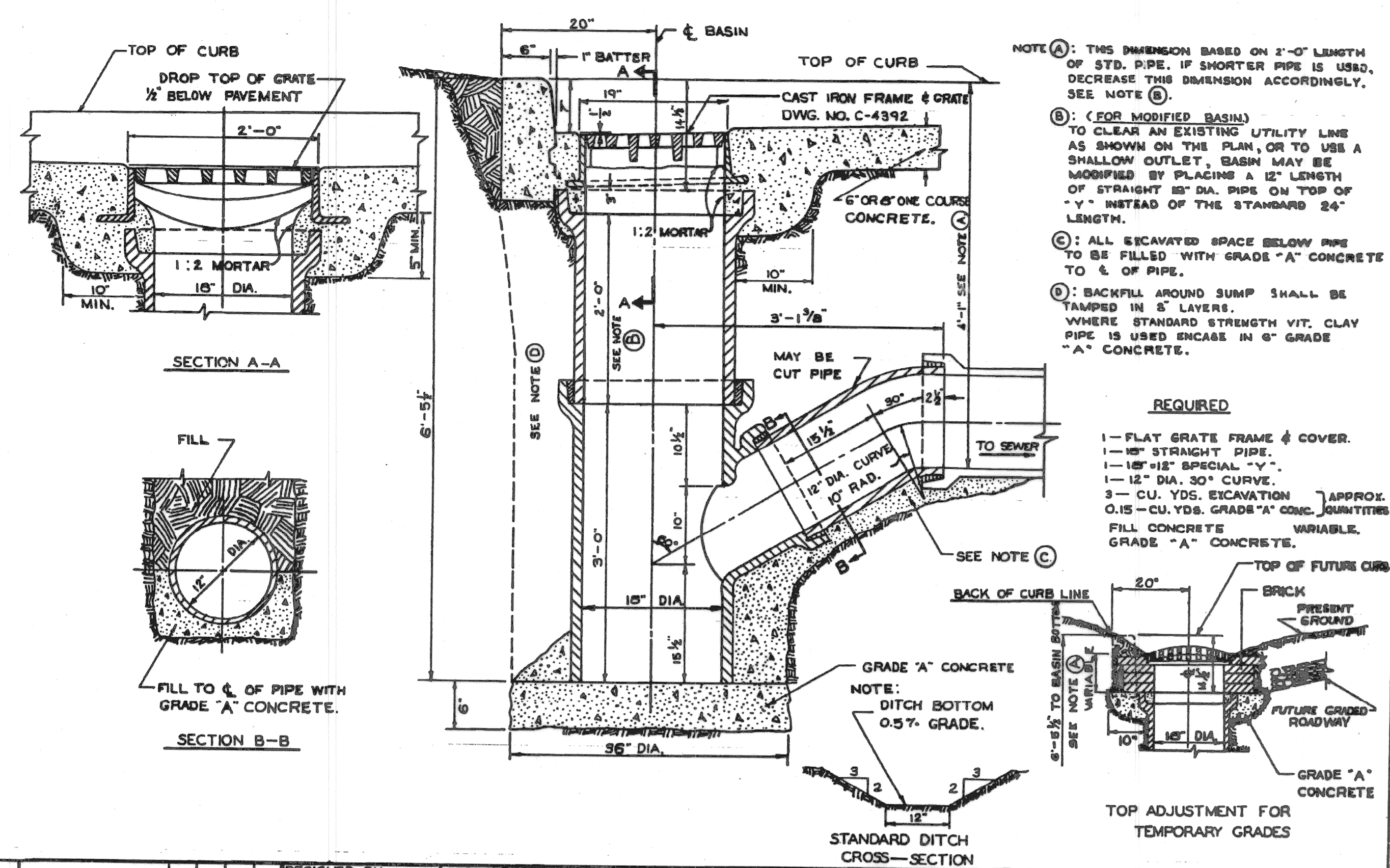
CITY OF DETROIT  
 CITY ENGINEERING DIVISION - D.P.W.  
 BUREAU OF STREETS AND HIGHWAYS

SHEET 23 OF 26 SHEETS  
 CONTRACT NO.  
 ASSIGNMENT NO.  
 DATE APRIL 1998

SPECIAL STANDARDS

city of detroit  
 water & sewerage department  
 engineering division

GATE WELL  
 FRAME & COVER  
 NO SCALE



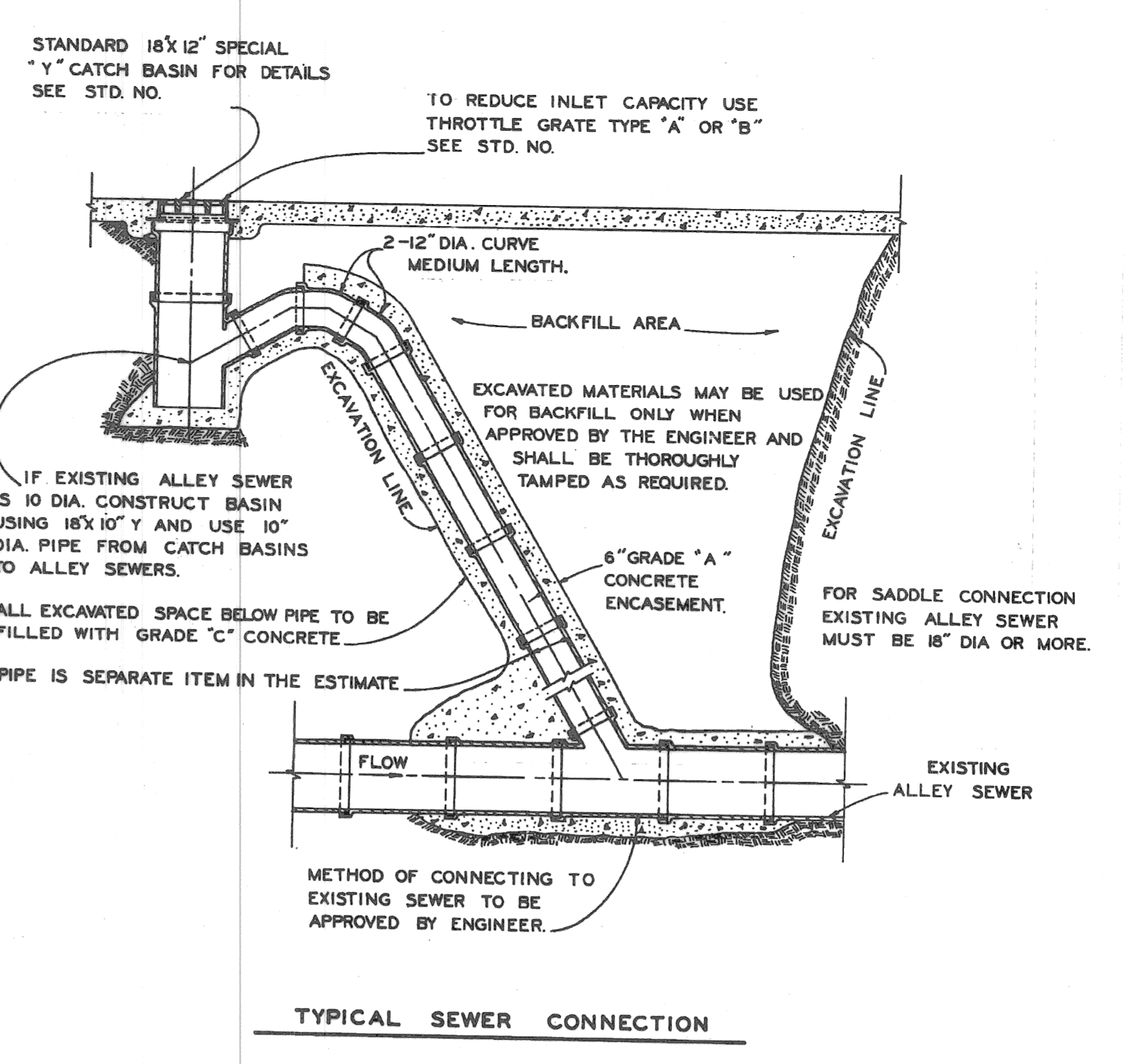
DESIGNED BY: *[Signature]*  
 DRAWN BY: *[Signature]*  
 TRACED BY: *[Signature]*  
 CHECKED BY: *[Signature]*

APPROVED: *[Signature]*  
 ENGINEER OF STREETS

CITY OF DETROIT  
 CITY ENGINEERING DEPARTMENT  
 BUREAU OF STREETS AND HIGHWAYS

STANDARD DESIGN  
 18" X 12" SPECIAL "Y" CATCH BASIN  
 TO BE USED UNLESS DIRECTED  
 OTHERWISE BY FIELD ENGINEER

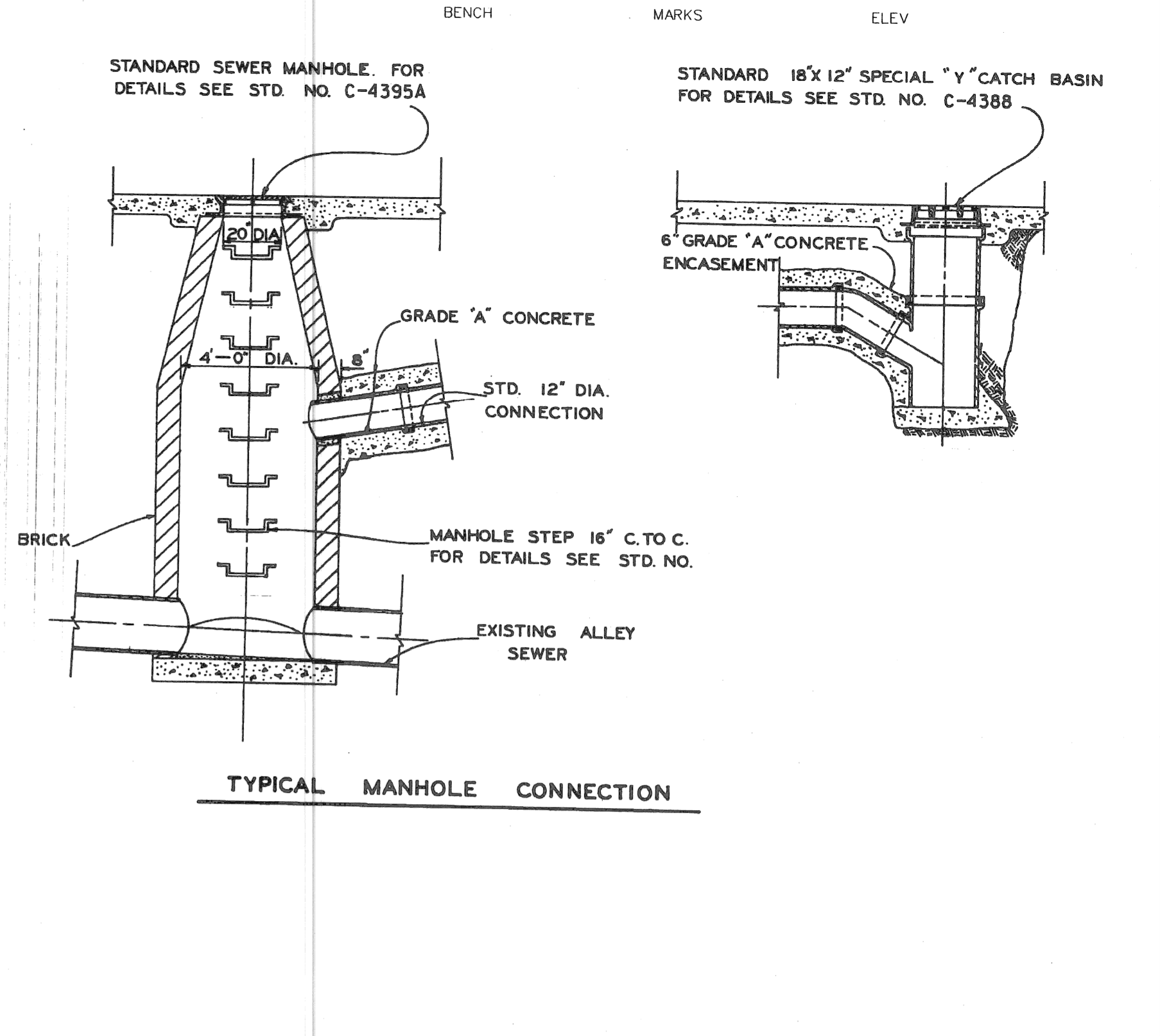
BOOK NO. *[Blank]* SCALE 1"=1'-0"  
 PAGE NO. *[Blank]* DATE 8-19-66 DWG. NO. C-4388



DESIGNED BY: *[Signature]*  
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 TRACED BY: *[Signature]*  
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APPROVED: *[Signature]*  
 ENGINEER OF STREETS

CITY OF DETROIT  
 CITY ENGINEERING DEPARTMENT  
 BUREAU OF STREETS AND HIGHWAYS



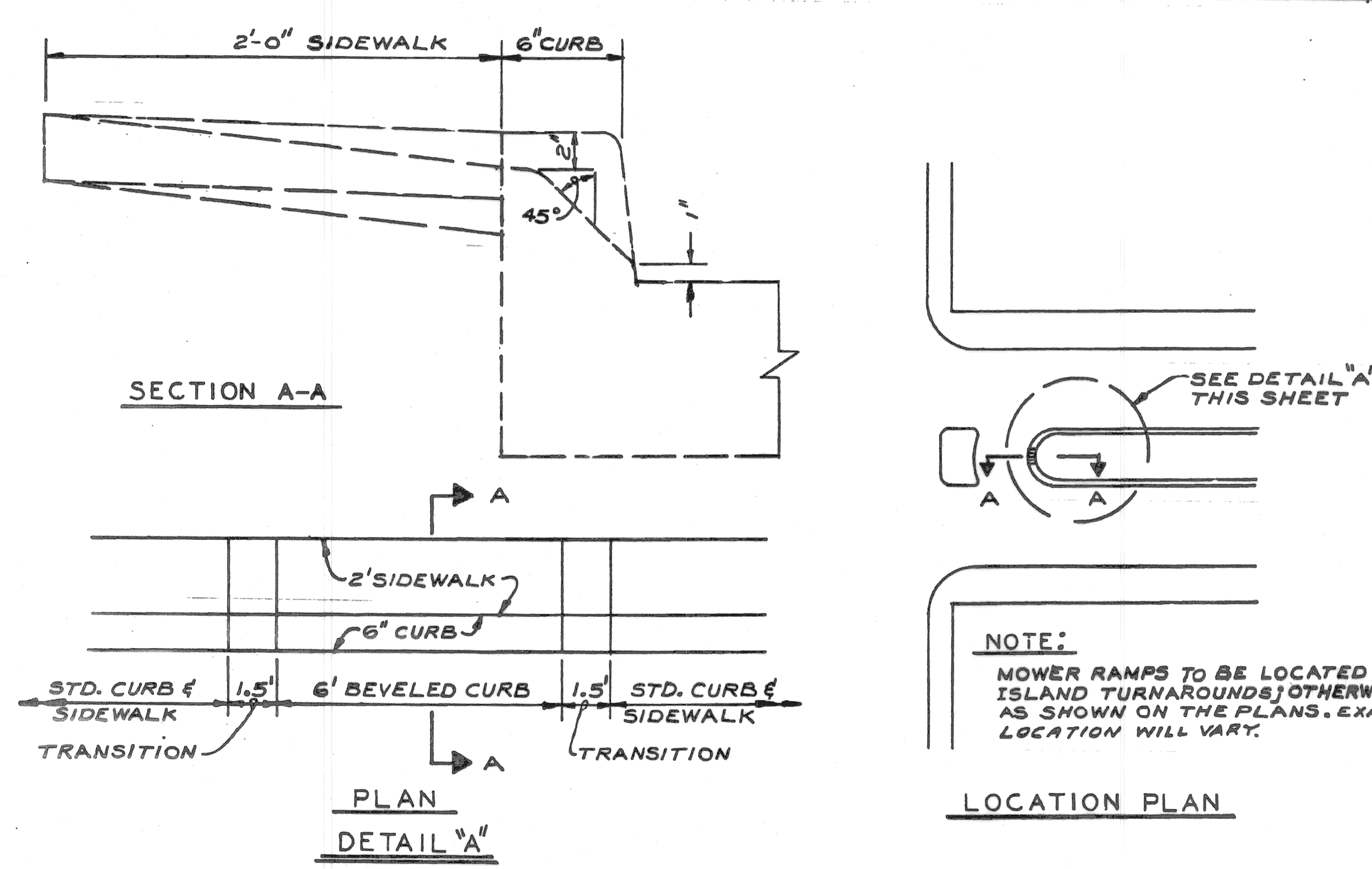
DESIGNED BY: *[Signature]*  
 DRAWN BY: *[Signature]*  
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 CHECKED BY: *[Signature]*

APPROVED: *[Signature]*  
 ENGINEER OF STREETS

CITY OF DETROIT  
 CITY ENGINEERING DEPARTMENT  
 BUREAU OF STREETS AND HIGHWAYS

ALLEY INSTALLATION  
 STANDARD 18" X 12" SPECIAL  
 "Y" CATCH BASIN

DETAIL SHEET NO. *[Blank]*  
 C-4399



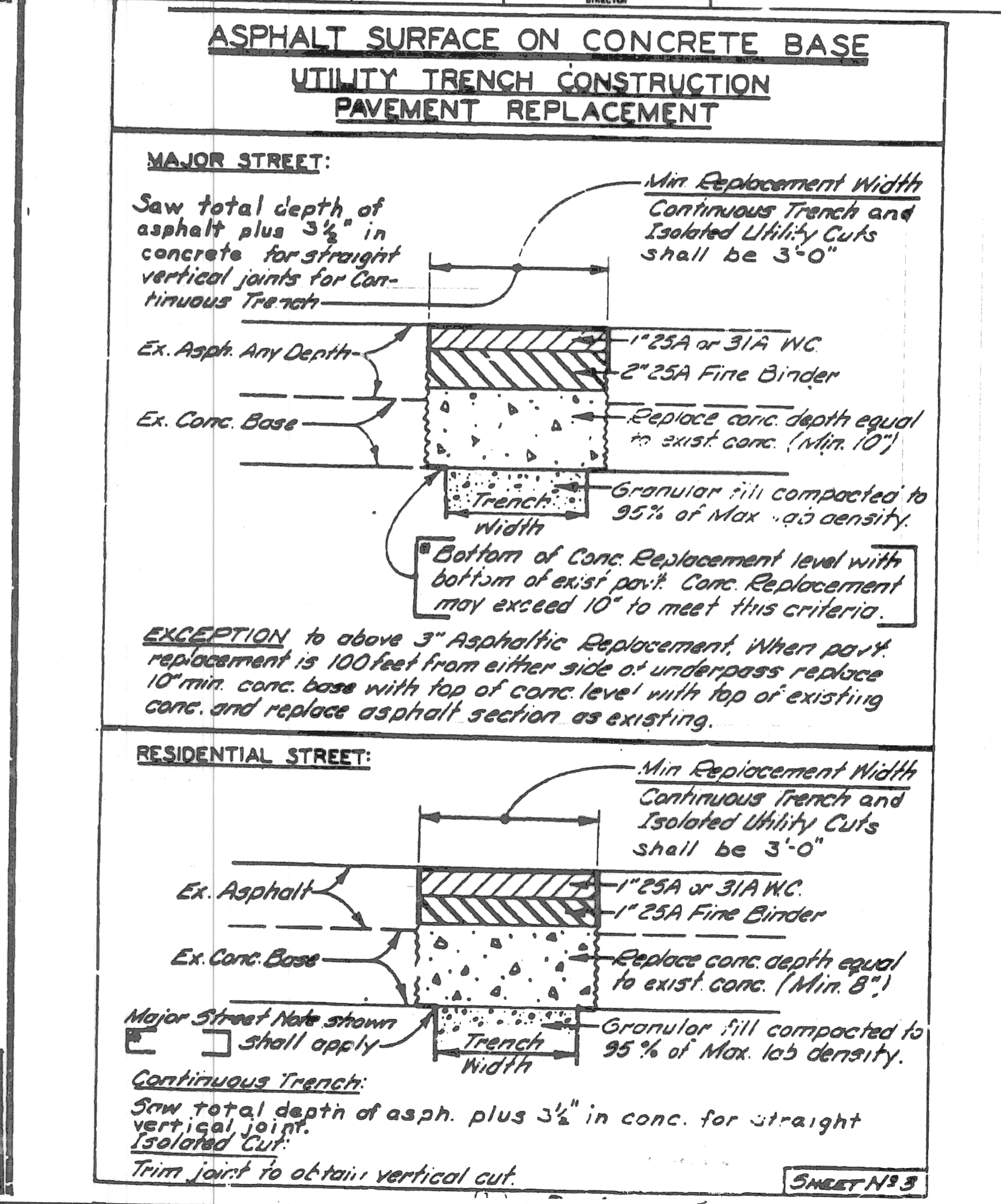
DESIGNED BY: *[Signature]*  
 DRAWN BY: *[Signature]*  
 TRACED BY: *[Signature]*  
 CHECKED BY: *[Signature]*

APPROVED: *[Signature]*  
 ENGINEER OF STREETS

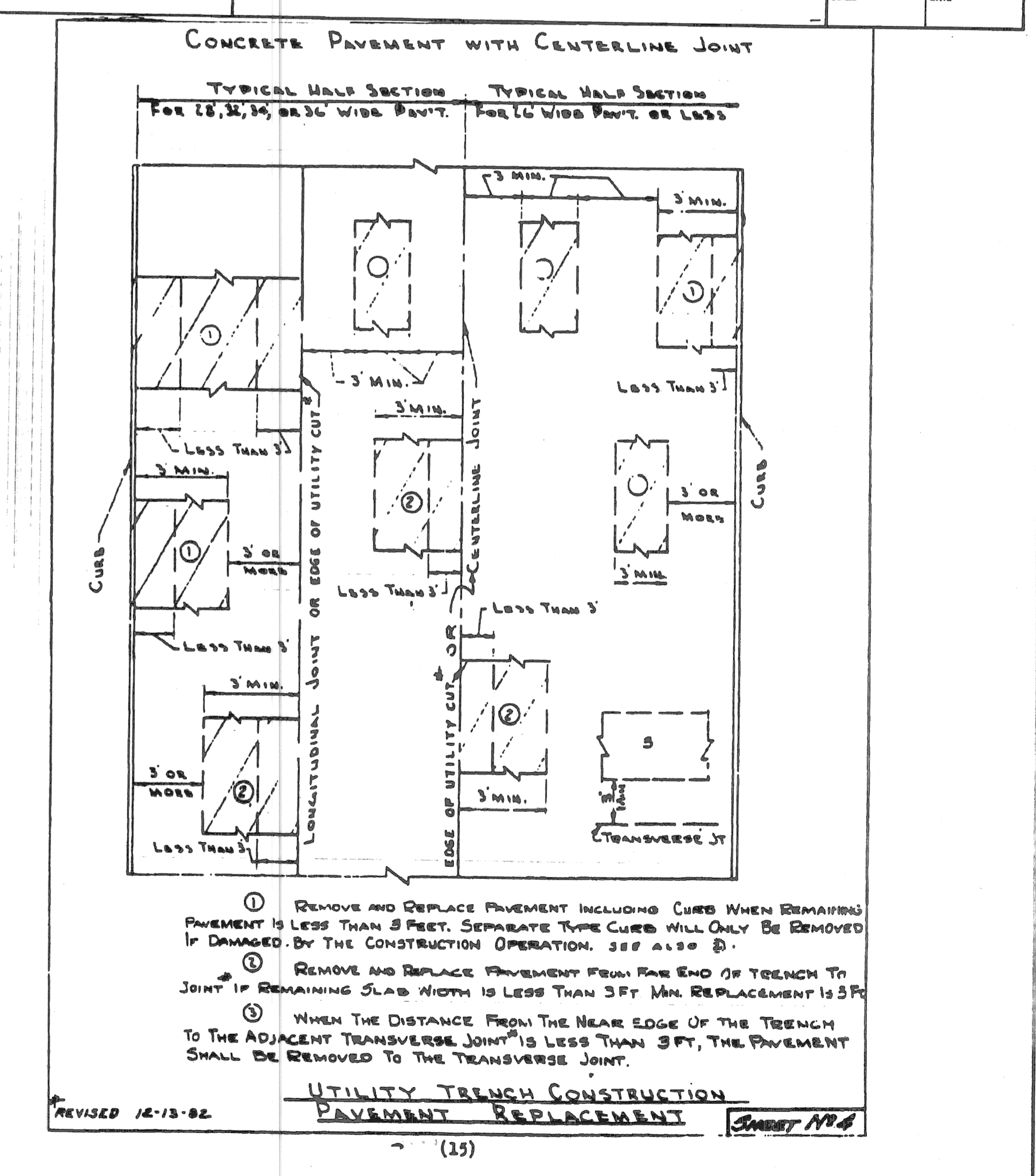
CITY OF DETROIT  
 CITY ENGINEERING DEPARTMENT  
 BUREAU OF STREETS AND HIGHWAYS

SPECIAL MOWER RAMP

BOOK NO. *[Blank]* SCALE NONE  
 PAGE NO. *[Blank]* DATE JULY 22, 1974 DWG. NO. C-5239

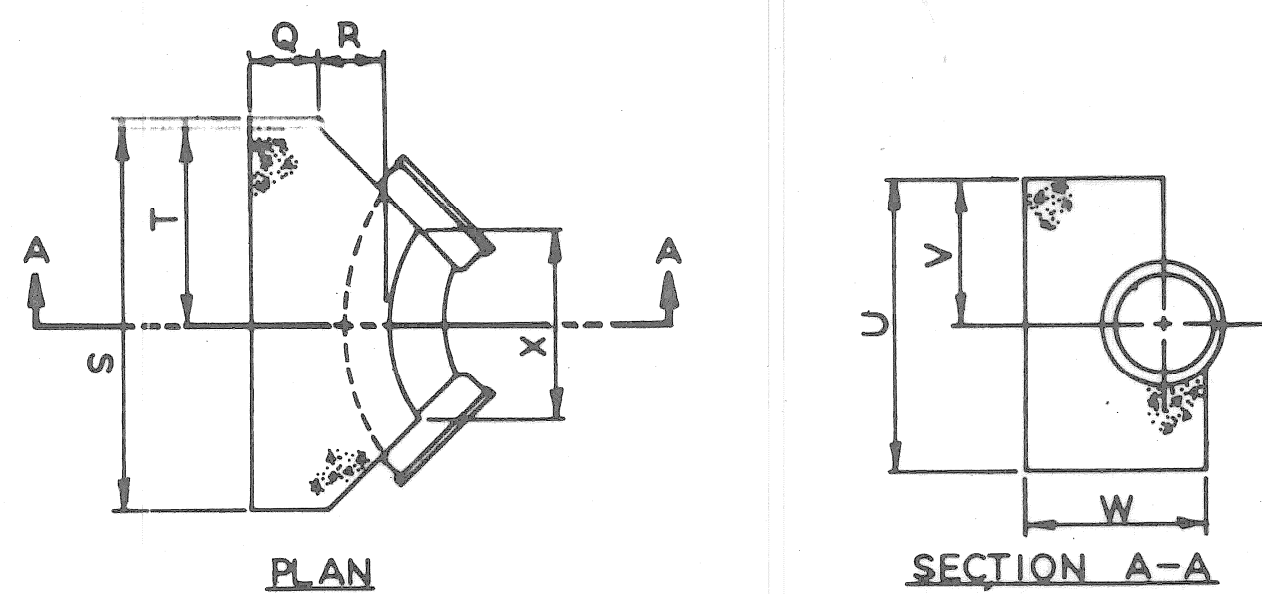


REVISOR  
 DATE  
 DESCRIPTION



REVISOR  
 DATE  
 DESCRIPTION



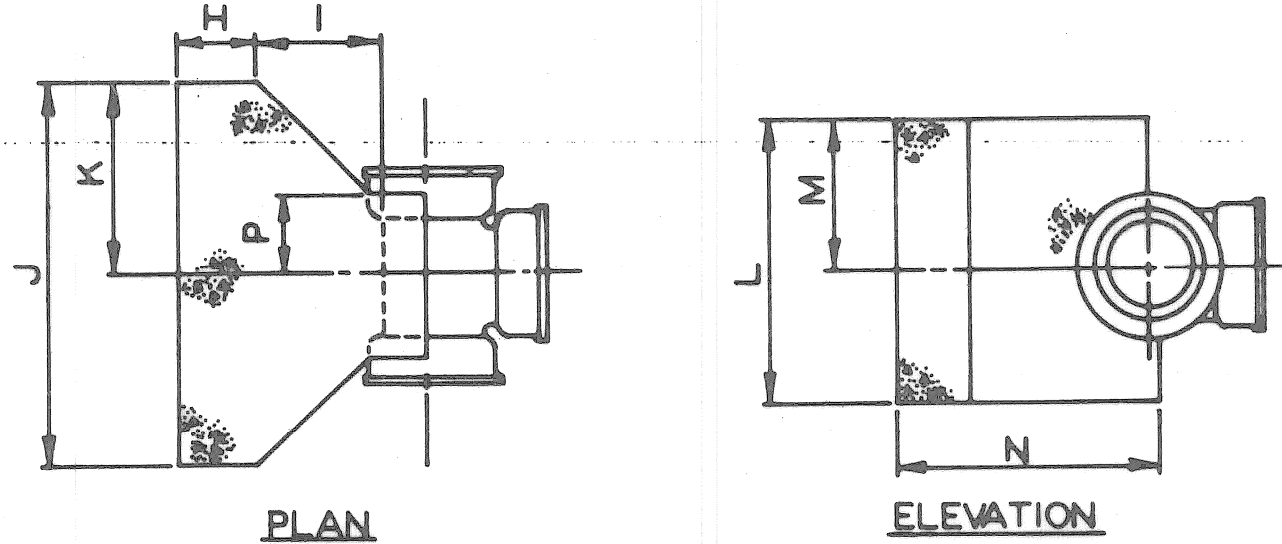


**SCHEDULE OF THRUST BLOCK DIMENSIONS**

BEND SIZE	Q	R	S	T	U	V	W	X
6"-22 1/2" 4.45"	0'-9"	1'-0"	2'-0"	1'-0"	1'-6"	0'-9"	1'-11"	1'-4"
6"-90"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"	1'-2"
8"-22 1/2" 4.45"	0'-9"	1'-0"	2'-4"	1'-2"	2'-0"	1'-0"	1'-11"	1'-4"
8"-90"	0'-9"	1'-0"	3'-4"	1'-8"	2'-6"	1'-3"	1'-11"	1'-2"
12"-22 1/2" 4.45"	0'-9"	1'-0"	2'-6"	1'-5"	2'-0"	1'-0"	2'-0"	1'-4"
12"-45"	0'-9"	1'-4"	3'-6"	1'-9"	2'-6"	1'-5"	2'-4"	1'-4"
12"-90"	0'-9"	1'-4"	5'-6"	2'-9"	3'-0"	1'-6"	2'-4"	1'-8"
16"-22 1/2" 4.45"	1'-0"	1'-8"	3'-4"	1'-8"	2'-6"	1'-3"	3'-0"	1'-2"
16"-45"	1'-0"	1'-8"	5'-4"	2'-8"	3'-0"	1'-6"	3'-0"	2'-6"
16"-90"	1'-0"	1'-8"	6'-0"	3'-0"	5'-0"	2'-6"	3'-0"	2'-8"

**DETAIL OF STANDARD THRUST BLOCKS FOR BENDS**  
Not to Scale

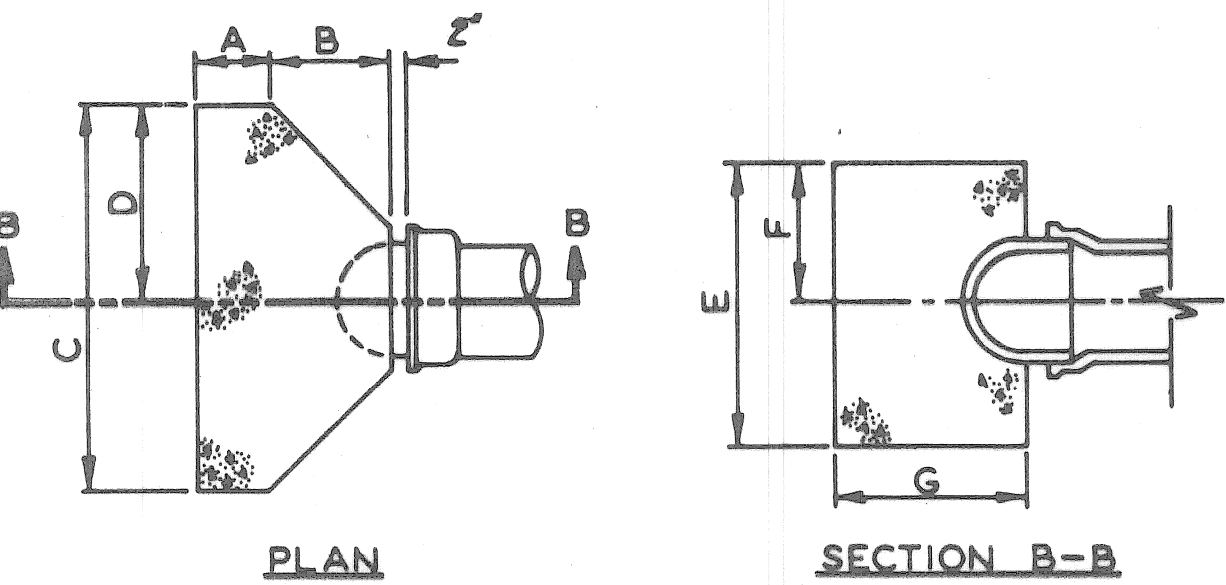
**NOTES**  
The bearing face of all Thrust Blocks shall be poured against undisturbed earth.  
Thrust Blocks when required for vertical bends are shown by special details.



**SCHEDULE OF THRUST BLOCK DIMENSIONS**

TEE SIZE	H	I	J	K	L	M	N	P
6"-6"	0'-9"	1'-0"	2'-6"	1'-3"	1'-6"	0'-9"	2'-3"	0'-6"
8"-8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-3"	0'-6"
10"-10"	0'-9"	1'-2"	3'-6"	1'-9"	2'-6"	1'-3"	2'-7"	0'-7"
12"-8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-5"	0'-6"
12"-12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-9"	0'-8"
16"-8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-9"	0'-6"
16"-12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	3'-1"	0'-8"
16"-16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	3'-8"	0'-11"

**DETAIL OF STANDARD THRUST BLOCKS FOR TEES**  
Not to Scale

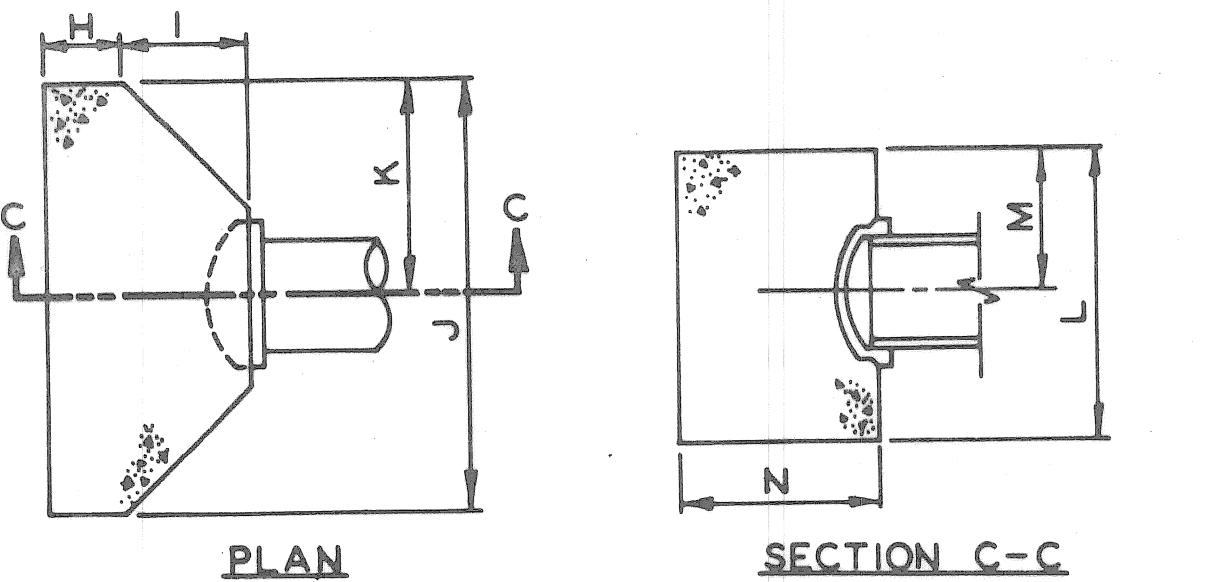


**SCHEDULE OF THRUST BLOCK DIMENSIONS**

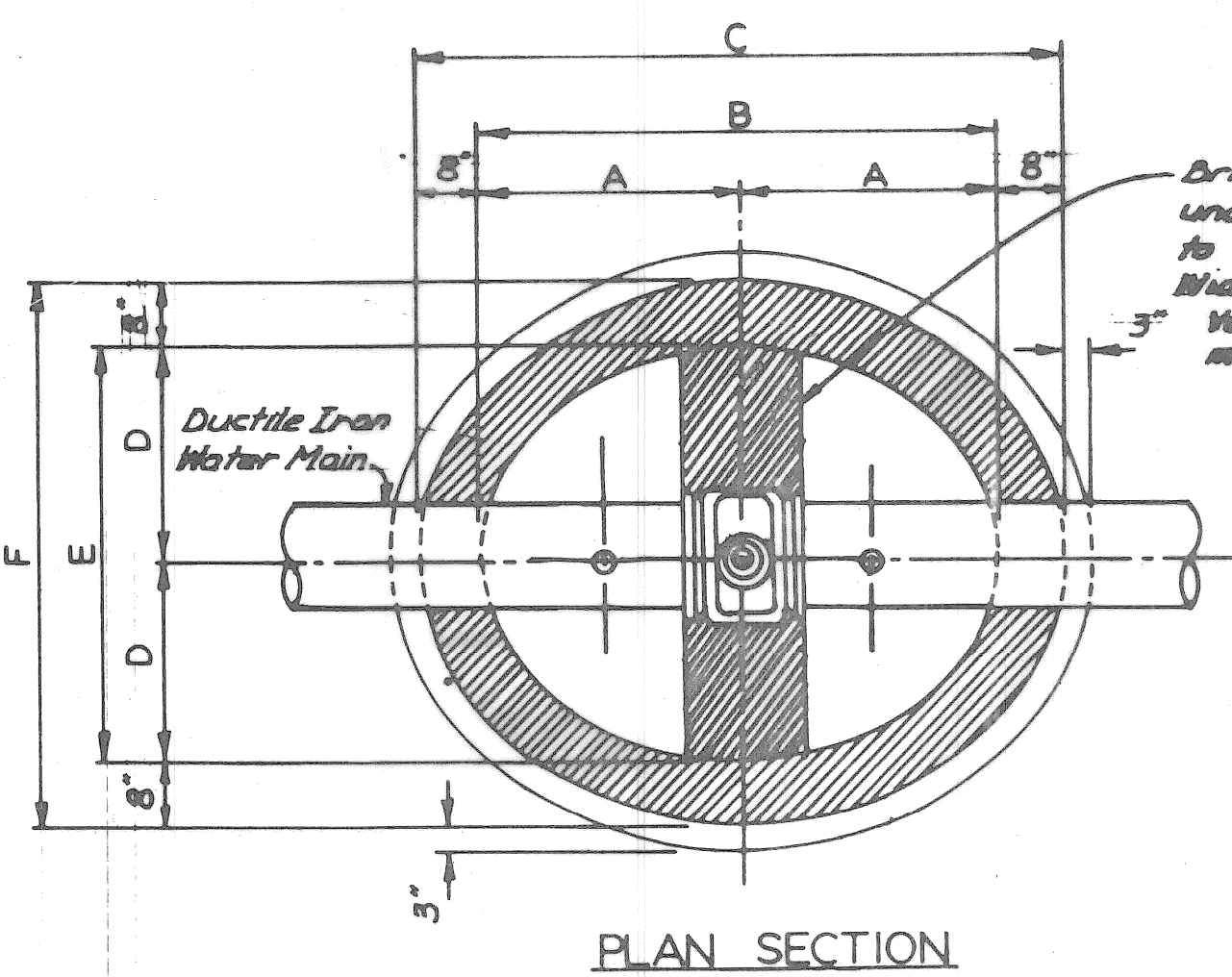
PLUG SIZE	A	B	C	D	E	F	G
6"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
8"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-11"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

CAP SIZE	H	I	J	K	L	M	N
6"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
8"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-11"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

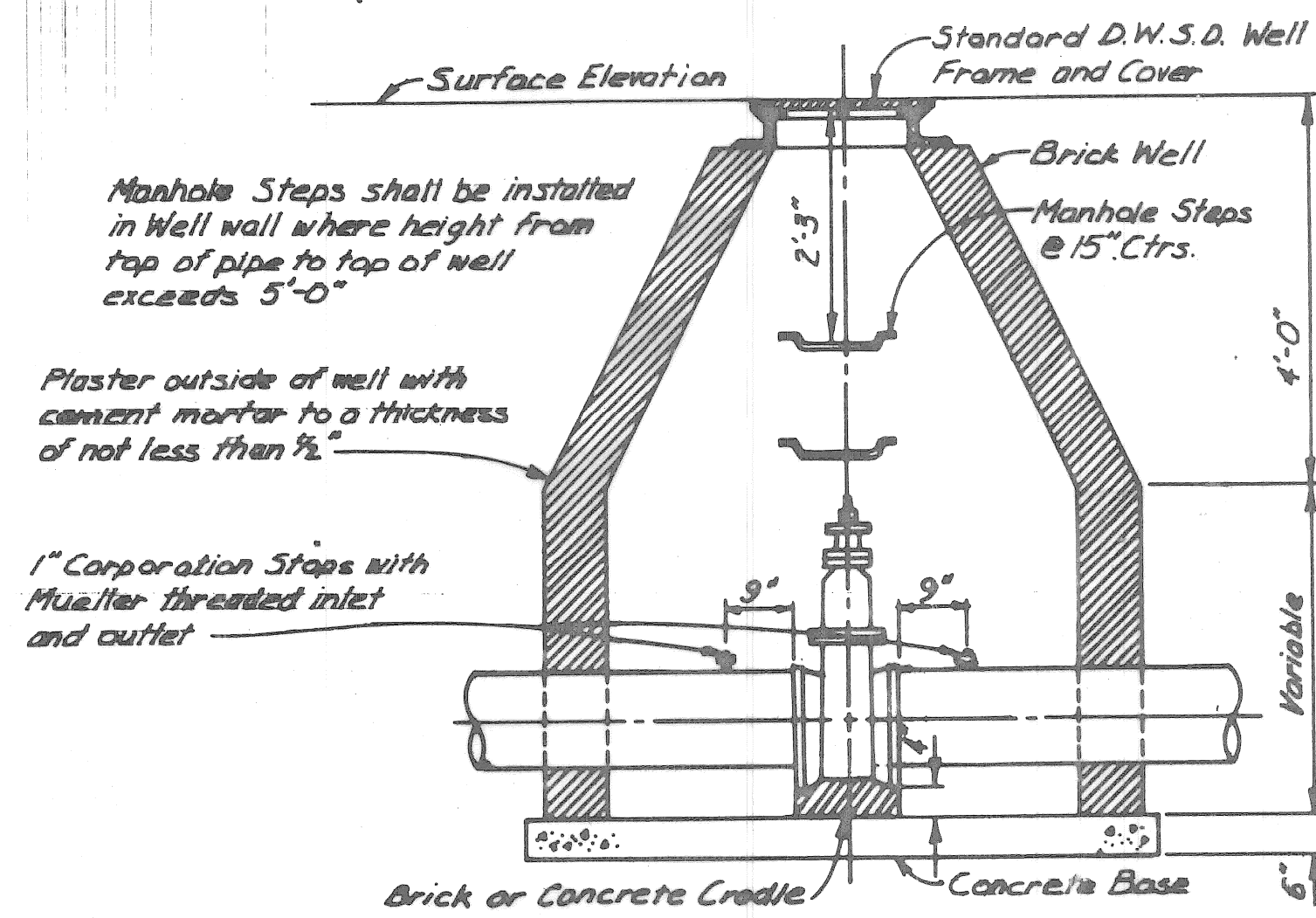
**DETAIL OF STANDARD THRUST BLOCKS FOR PLUGS AND CAPS**  
Not to Scale



CO-OR.	DESCRIPTION	APPRVD.	DATE
	REVISIONS		



**PLAN SECTION**

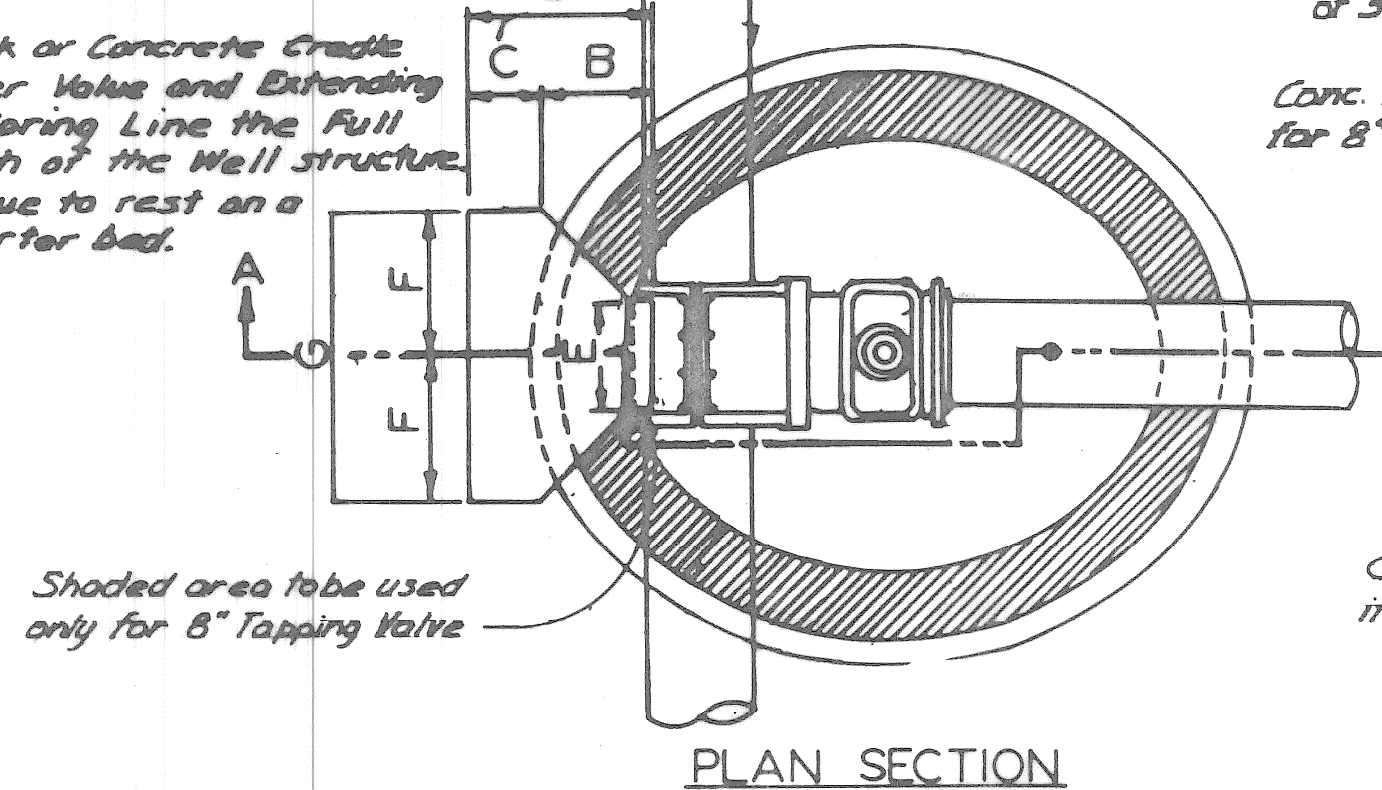


**SECTION THROUGH GATE WELL**

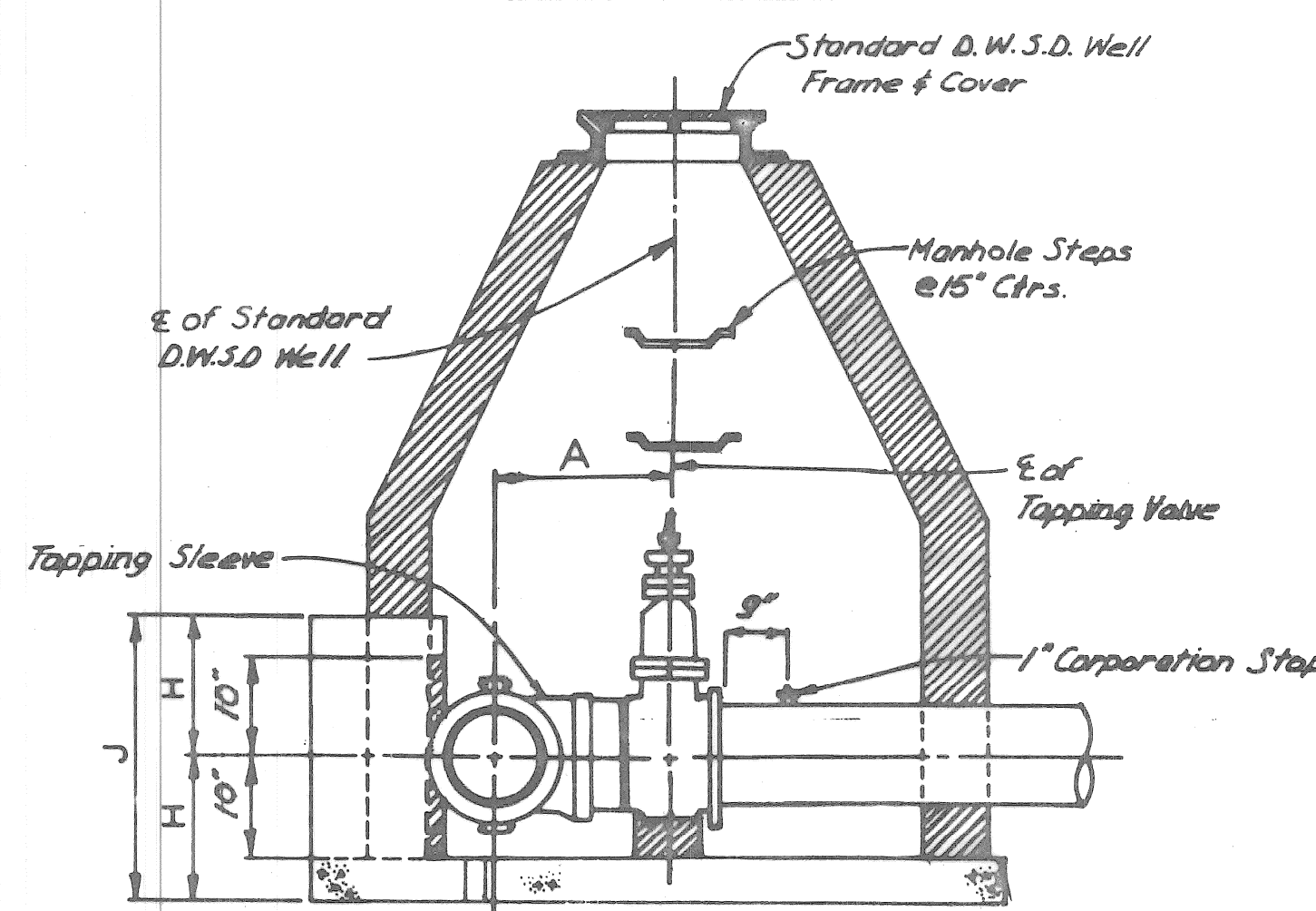
**SCHEDULE OF GATE WELL DIMENSIONS**

SIZE	A	B	C	D	E	F
6"	2'-6"	5'-0"	6'-4"	2'-0"	4'-0"	5'-4"
8"	2'-6"	5'-0"	6'-4"	2'-0"	4'-0"	5'-4"
12"	2'-9"	5'-6"	6'-10"	2'-3"	4'-6"	5'-10"
16"	3'-0"	6'-0"	7'-4"	2'-5"	5'-6"	6'-10"

**DETAIL OF STANDARD GATE WELLS**  
Not to Scale



**PLAN SECTION**

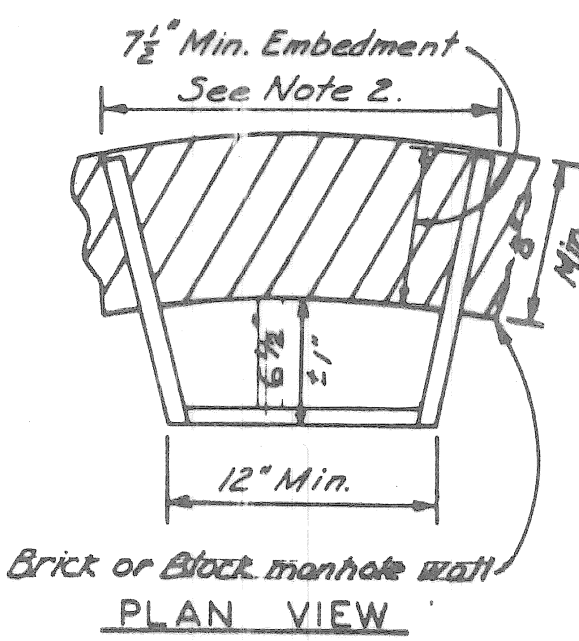


**SECTION A-A**

**SCHEDULE OF STANDARD THRUST BLOCK DIMENSIONS FOR TAPPING VALVE**

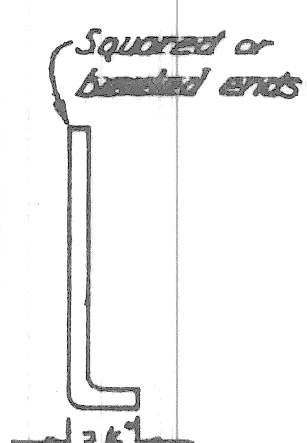
SIZE	A	B	C	E	F	G	H	J
8"-8"	1'-6"			0'-7"				
12"-8"	1'-9"			0'-7"				
16"-8"	1'-11 1/2"			0'-7 1/2"				
12"-12"	1'-9 1/2"	1'-6"	0'-9"	2'-3"	0'-7"	1'-9"	3'-6"	1'-6"
16"-12"	1'-11 1/2"	1'-6"	0'-9"	2'-3"	0'-10 1/2"	1'-9"	3'-6"	1'-6"
16"-16"	2'-2"	2'-7"	1'-0"	3'-7"	0'-10 1/2"	2'-11"	5'-10"	1'-8"

**DETAIL OF STANDARD THRUST BLOCKS FOR TAPPING VALVES**  
Not to Scale



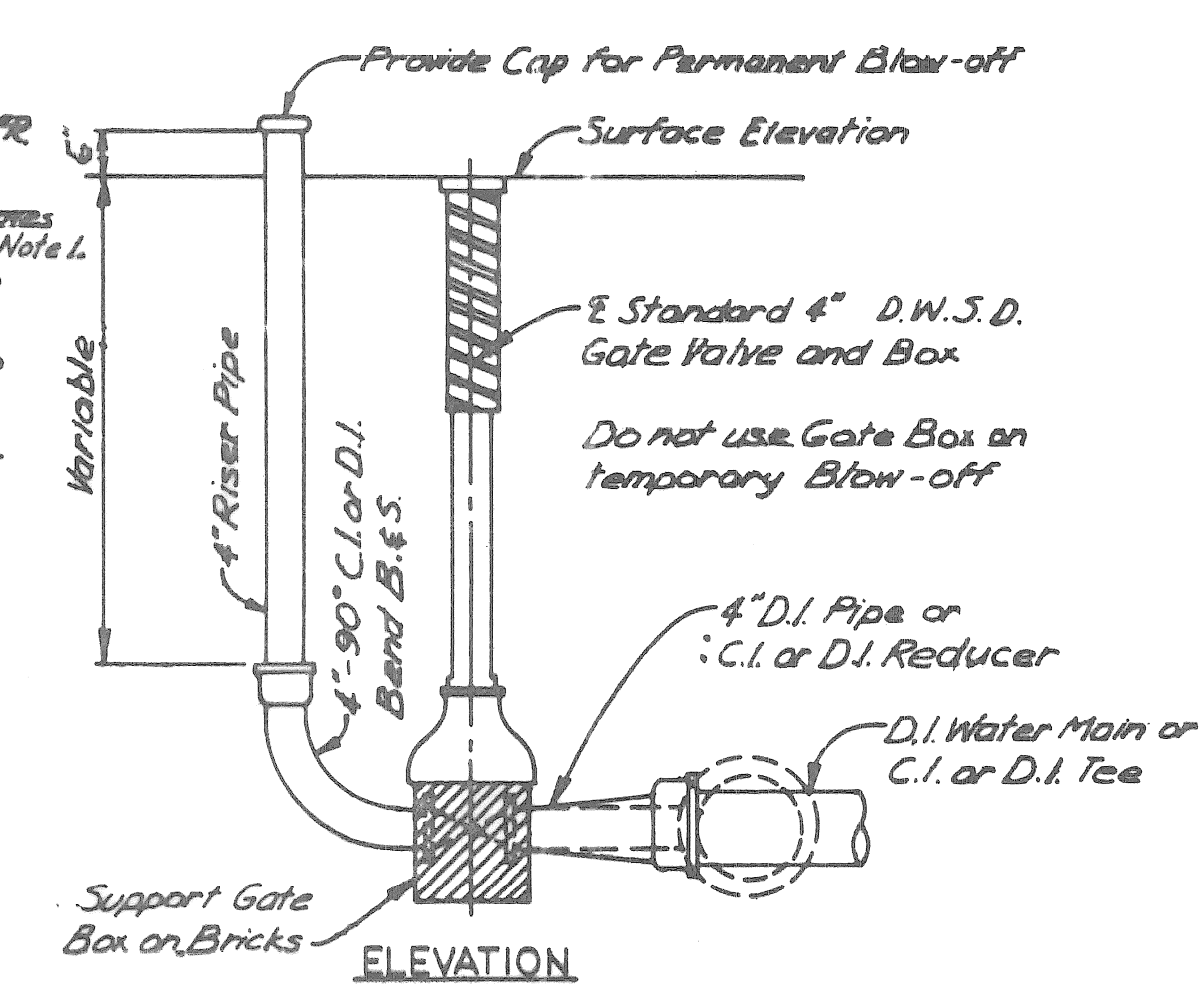
**ALUMINUM MANHOLE STEP**  
Not to Scale

**NOTE:**  
Manhole steps shall conform to the requirements for "Aluminum Alloy Extruded Bars, Posts, Shapes and Tubes," A.S.T.M. B.221 (current), Alloy 6061, Temper T-6, or approved equal.

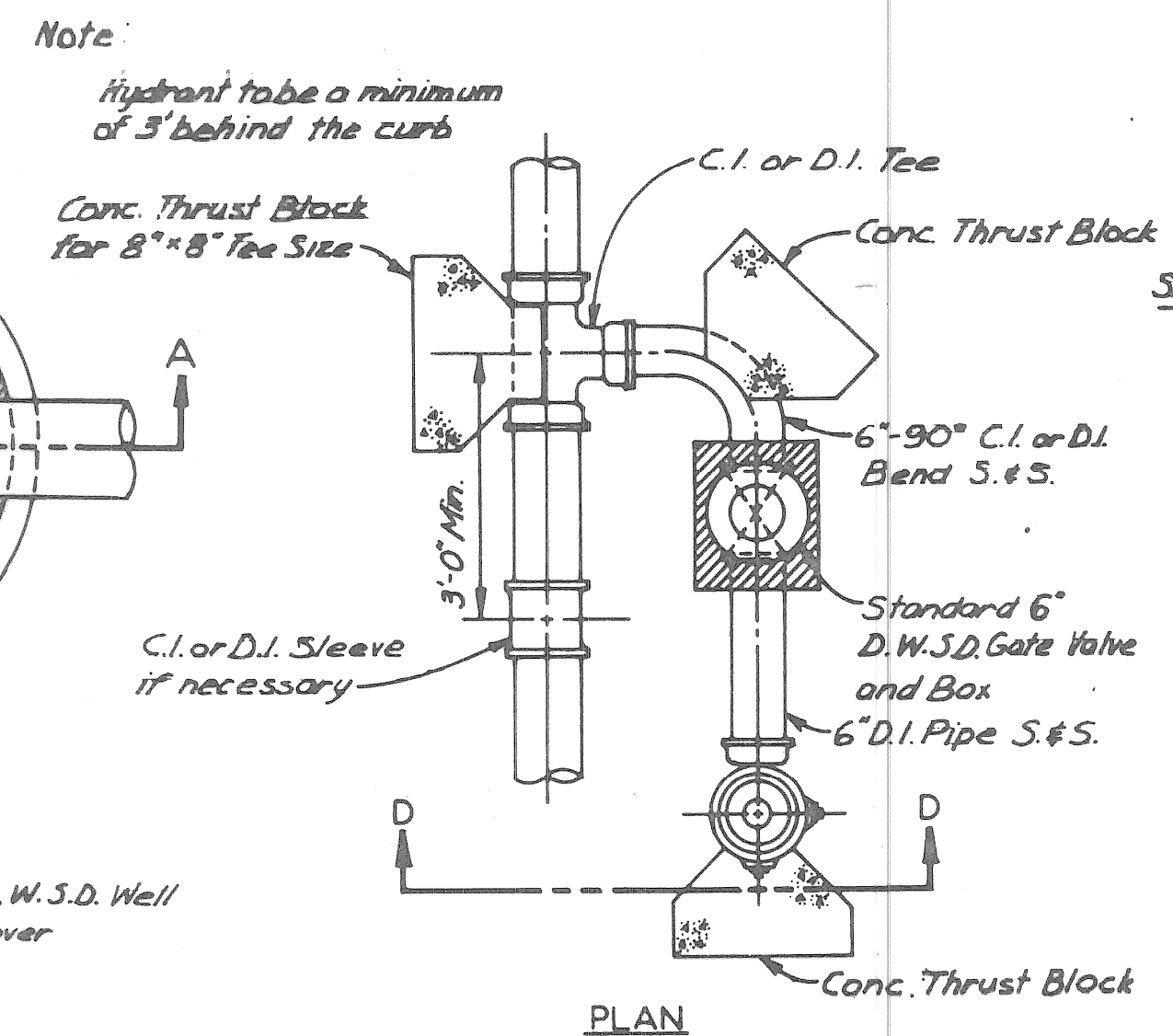


**CROSS SECTION OF STEP**

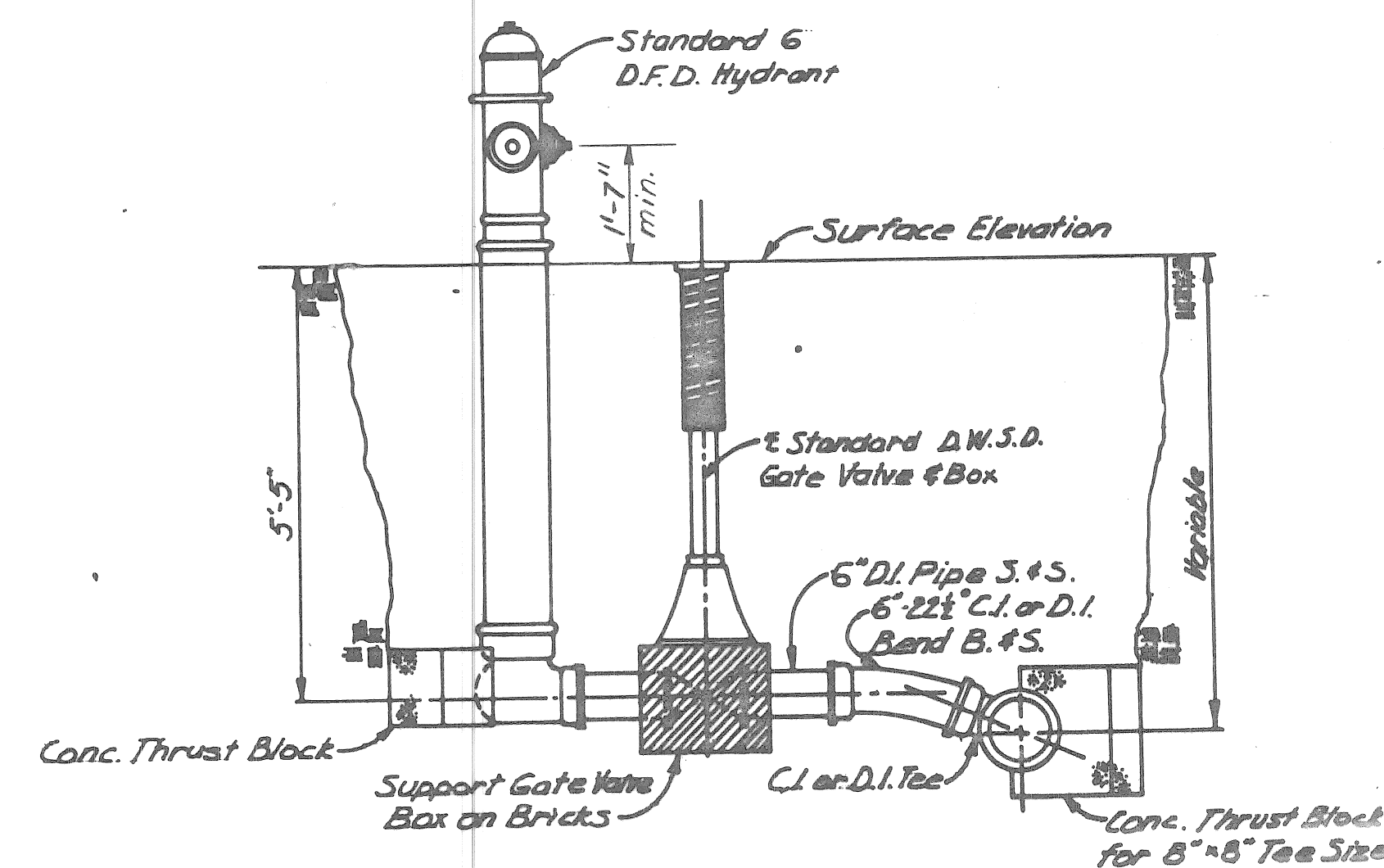
**NOTE:**  
1. In lieu of grooves, alternate foot hold configurations will be considered for approval.  
2. Flared legs shall be radial to the manhole wall.



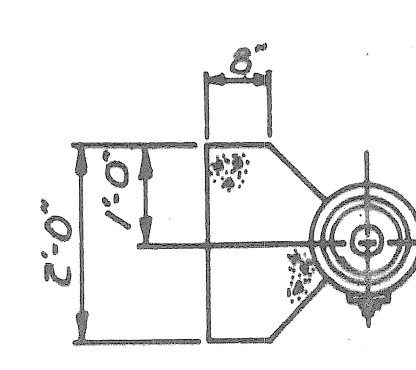
**DETAIL OF 4" BLOW-OFF**  
Not to Scale



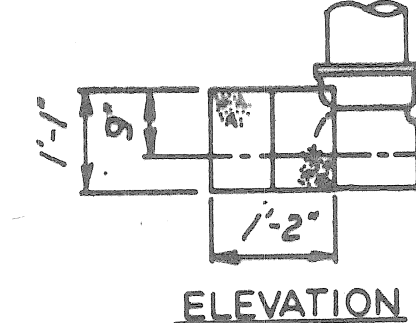
**DETAIL OF 6" HYDRANT INSTALLATION OFF SET**  
Not to Scale



**DETAIL OF 6" HYDRANT INSTALLATION STRAIGHT AWAY**  
Not to Scale

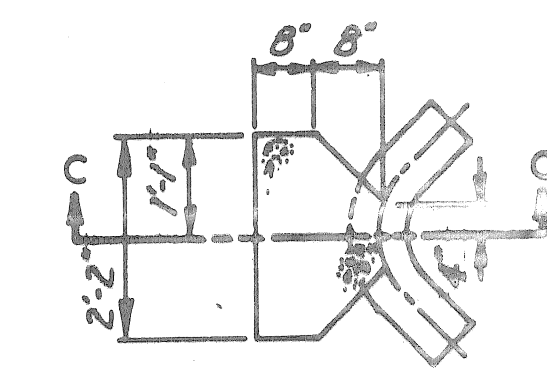


**PLAN**

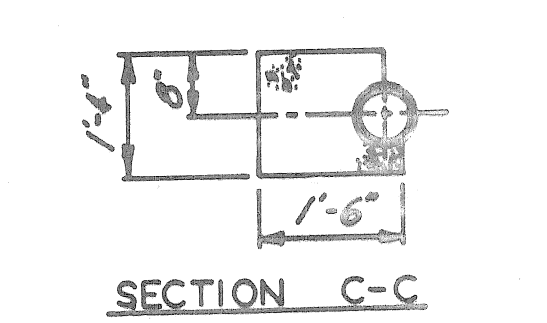


**ELEVATION**

**THRUST BLOCK FOR 6" HYDRANT**  
Not to Scale



**PLAN**



**SECTION C-C**

**THRUST BLOCK FOR 6" HYDRANT BEND**  
Not to Scale

**NOTE:**  
The bearing face of Thrust Blocks shall be poured against undisturbed earth.

DESIGNED BY		APPROVED		CITY OF DETROIT		SHEET 25 OF 26	
DRAWN BY R.A.C.				WATER AND SEWERAGE DEPARTMENT			
CHECKED BY R.T.D.		DIRECTOR OF ENGINEERING		SPECIAL STANDARDS			
		MISCELLANEOUS DETAILS		SECTION MAP		WORK ORDER NO.	
SCALE AS SHOWN		DATE		DATE APRIL 1998			

QUANTITY SHEET

A S P E R P L A N S

WORK ITEM CODE NO.	ITEMS	SHEET NO'S.		PLANS										PAVEMENT MARKINGS	
		TOTALS	UNITS	TYPICAL CROSS SECTIONS	SHEET 6 CONSTRUCTION SEQUENCE	SHEET 7 CONSTRUCTION SEQUENCE	SHEET 8 CONSTRUCTION SEQUENCE	SHEET 9 CONSTRUCTION SEQUENCE	SHEET 10 REMOVALS	SHEET 11 10-18.57 - 21-00	SHEET 12 21-00 - 33-00	SHEET 14 33-00 - 43-31.34	SHEET 15 (MARKSTON)	PAVEMENT MARKINGS SHEET 20	PAVEMENT MARKINGS SHEET 21
2070002	REMOVING PAVEMENT	17,800	SYD												
2070003	REMOVING CURB	200	LFT	200											
2070006	REMOVING SIDEWALK	3,870	SYD						3,870						
2070007	REMOVING MASONRY AND CONCRETE STRUCTURES	60	CYD						60						
2070009	REMOVING BEAM GUARDRAIL	315	LFT						315						
2070011	REMOVING TRACK ENCASEMENT	2,000	CYD	2000											
2070012	REMOVING FENCE	175	LFT						175						
2070015	REMOVING DRAINAGE STRUCTURE	33	EACH						33						
2070016	ABANDONING DRAINAGE STRUCTURE	1	EACH	1											
2080001	EARTH EXCAVATION	2,030	CYD												
2080021	EMBANKMENT (CIP) GRANULAR MATERIAL CLASS II	940	CYD	940					650	620	510	250			
2080031	SUBGRADE UNDERCUTTING TYPE II	500	CYD	500											
3010021	AGGREGATE BASE UNDER CONCRETE (4" IN PLACE)	18,380	SYD						5750	5340	4460	2830			
4000001	REMOVING BITUMINOUS SURFACE	220	SYD	220											
4000047	BITUMINOUS MIXTURE 3C	40	TON	40											
4000049	BITUMINOUS MIXTURE 4C	40	TON	40											
4500040	CONCRETE PAVEMENT - NONREINFORCED 8"	1,920	SYD						550	340	290	740			
4500173	CONCRETE PAVEMENT W/INTEGRAL CURB - REINFORCED 9"	16,320	SYD						5370	4950	4100	1900			
4520045	LANE TIE, PAVEMENT REPAIR	607	EACH						239	120	118	130			
5130429	CLASS C76-IV SEWER, 12", TRENCH DETAIL B	1,562	LFT						711	419	356	76			
5130430	CLASS C76-IV SEWER, 15", TRENCH DETAIL B	491	LFT							13	478				
5130431	CLASS C76-IV SEWER, 18", TRENCH DETAIL B	1,068	LFT							448		620			
5137001	CLASS C76-IV SEWER, 21", TRENCH DETAIL B	20	LFT						3	1		20			
5130624	SEWER TAP, 12"	4	EACH												
5130625	SEWER TAP, 15"	1	EACH									1			
5137050	SEWER TAP, 21"	1	EACH							1					
5140025	ADJUSTING WATER SHUTOFF	25	EACH	25											
5140045	ADJUSTING DRAINAGE STRUCTURE COVER, CASE 1	1	EACH	1											
5140046	ADJUSTING DRAINAGE STRUCTURE COVER, CASE 2	1	EACH	1											
5140070	SEWER TRAP, 12"	26	EACH						9	5	8	4			
5147001	MISC. SEWER CLEANOUT-NON-PARTICIPATING	100	LFT	100											
5147030	MISC. STRUCTURE COVER	700	LBS	700											
5147050	MISC. CLEANING DRAINAGE STRUCTURE-NON-PARTICIPATING	6	EACH	6											
5147050	MISC. RECONSTRUCTING DRAINAGE STRUCTURE, CASE 1	1	EACH	1											
5147050	MISC. CATCH BASIN "A"	5	EACH						2	3					
5147050	MISC. CATCH BASIN "B"	27	EACH						9	6	8	4			
5147050	MISC. MANHOLE - STANDARD	20	EACH						5	6	5	4			
6097001	MISC. CONCRETE CURB, DETAIL "X"	150	LFT	150											
6110002	CONCRETE SIDEWALK, 4"	64,620	SFT						17,700	21,230	22,700	2990			
6110003	CONCRETE SIDEWALK, 6"	6,480	SFT						3200	1740	1540				
6117010	MISC. SIDEWALK RAMPS - MODIFIED	1,860	SFT						940	190	380	350			
6130002	GALVANIZED BEAM GUARDRAIL, TYPE "B"	275	LFT								275				
6137050	GUARDRAIL ANCHORAGE, CABLE, SRT	2	EACH								2				
6210003	BARBED WIRE	480	LFT								480				
6210013	CHAIN LINK FENCE 72"	160	LFT								160				
6210041	GATE 8' FOR CHAIN LINK FENCE 72"	2	EACH								2				
6220001	FIELD OFFICE	6	MOS	6											
6230001	MOBILIZATION	1	LSUM	1											
6290311	INLAY COLD PLASTIC PAVEMENT MARKING, 4", YELLOW	5744	LFT										3740	2004	
6290320	INLAY COLD PLASTIC PAVEMENT MARKING, 18", STOPBAR	255	LFT										198	57	
6290322	INLAY COLD PLASTIC PAVEMENT MARKING, 6", CROSSWALK	276	LFT										276		
6290334	INLAY COLD PLASTIC PAVEMENT MARKING, RAILROAD SYMBOL	3	EACH										2	1	
6310011	LIGHTED ARROW, TYPE A - FURNISHED	3	EACH		1	1		1							
6310012	LIGHTED ARROW, TYPE A - OPERATED	3	EACH		1	1		1							
6310026	BARRICADE, TYPE II, LIGHTED - FURNISHED	186	EACH		90	74	11	11							
6310027	BARRICADE, TYPE II, LIGHTED - OPERATED	186	EACH		90	74	11	11							
6310036	BARRICADE, TYPE III, LIGHTED - FURNISHED	9	EACH		3	5	1								
6310037	BARRICADE, TYPE III, LIGHTED - OPERATED	9	EACH		3	5	1								
6310054	MINOR TRAFFIC DEVICES	1	LSUM	1											
6310055	FLAG CONTROL	1	LSUM	1											
6310057	SIGN, TYPE B TEMPORARY	482	SFT		54	361	15	52							
6310086	TEMPORARY PAVEMENT MARKING, TYPE R, 4", YELLOW	13,800	LFT	13,800											
6530001	CLASS A SODDING	830	SYD							830					
6530003	WATER	2	UNIT	2											
6530008	CEREAL RYE SEEDING	64	LBS										64		
6530025	TOPSOIL SURFACE, (LM)	2,230	SYD							830		1400			
6807050	MISC. REMOVE HYDRANT METHOD I	1	EACH												
6807050	MISC. REMOVE HYDRANT METHOD II	1	EACH												
6807050	MISC. FIRE HYDRANT	2	EACH												
	POLE RELOCATE (PLD)	2	EACH												
	POLE RELOCATE (DETROIT EDISON)	1	EACH												
	REMOVE POLE (DETROIT EDISON)	1	EACH												

PLAN ESTIMATE BY J.F.,S.G./D.M.

DATE

CHECKED BY

DATE

COMPLETED

PROJ. ENG.

DATE

HISTORY ENTERED

CHECKED ON PLANS BY

DATE

SHEET OF SHEETS



BY	CHECKED BY	APPROVED:
PLAN CMK	JWF/DPM	ENGINEER OF STREETS
ESTIMATE JWJ	DPM	
REVISIONS	CHECK REVIEW	

CITY OF DETROIT  
DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION ENGINEERING

RECONSTRUCTION OF CLAY / ST. AUBIN  
FROM NB I-75 (CHRYSLER) SERVICE DRIVE TO SOUTH OF DENTON

SHEET 26 OF 26 SHEETS

CONTRACT NO.

ASSIGNMENT NO.

DATE APRIL 1998

QUANTITY SHEET