

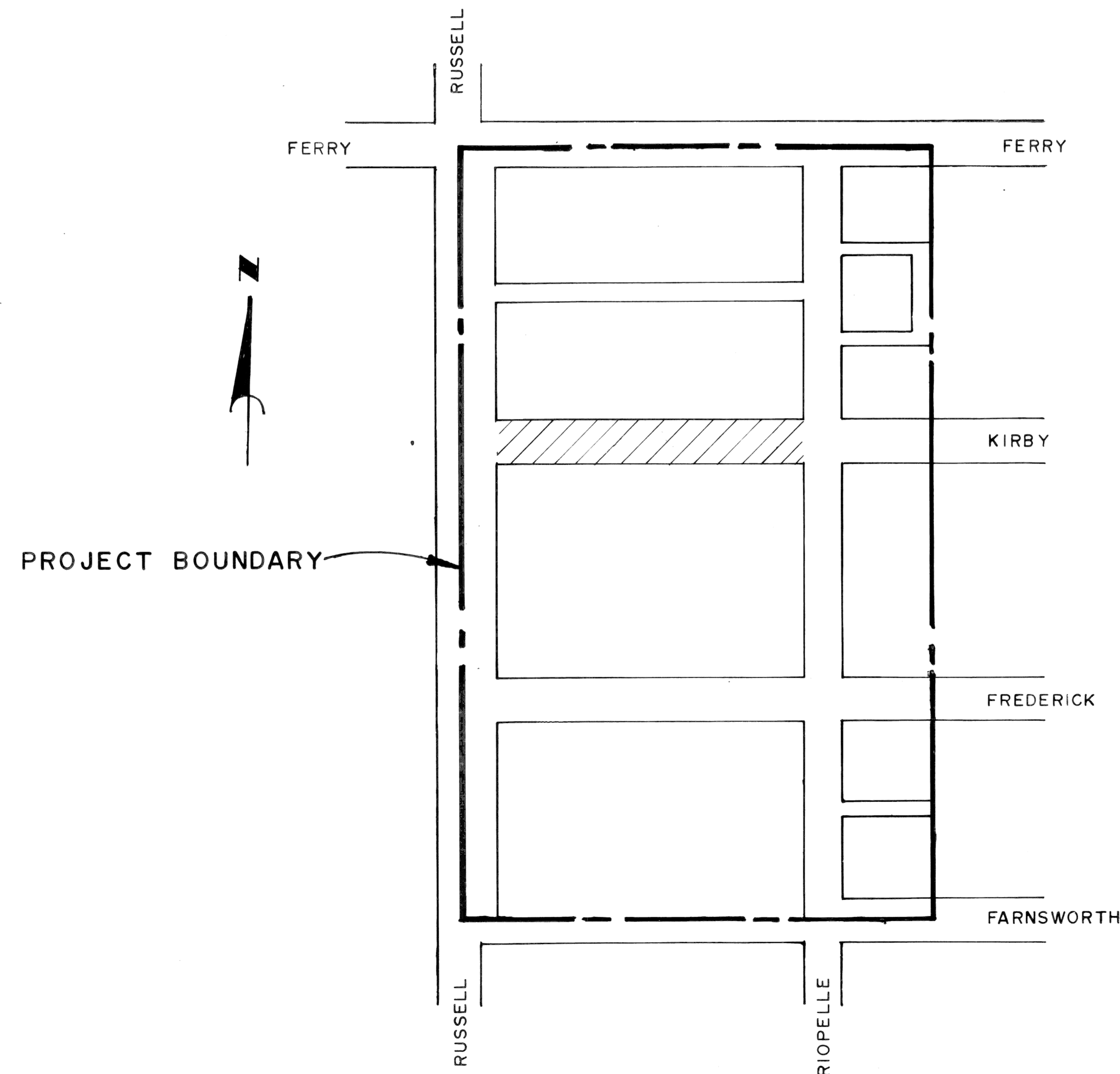
CITY OF DETROIT
 CITY ENGINEERING DIVISION - EPMD

PLANS FOR PROPOSED

WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE
 MILWAUKEE JUNCTION NO. 2
 FOR
 COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

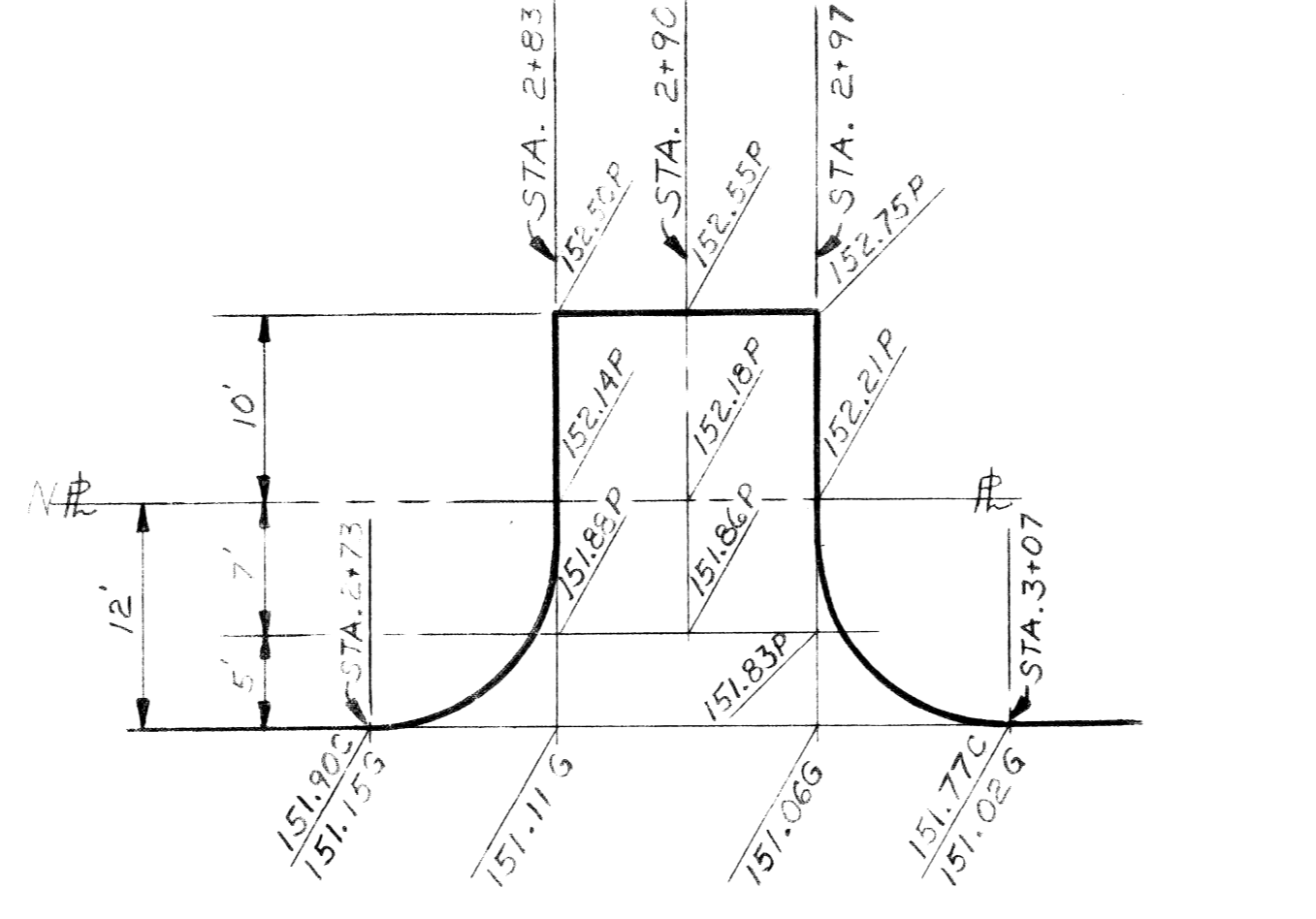
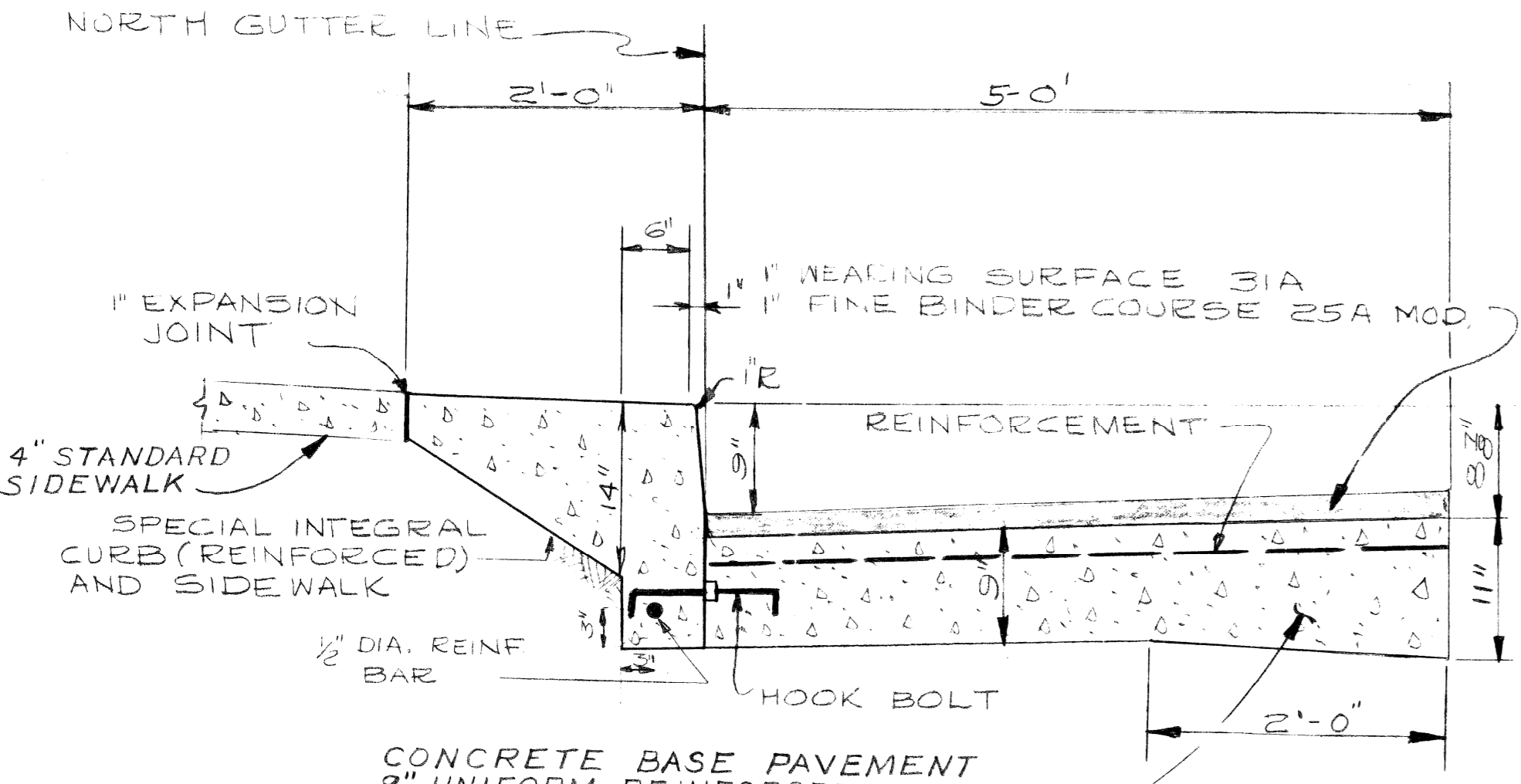
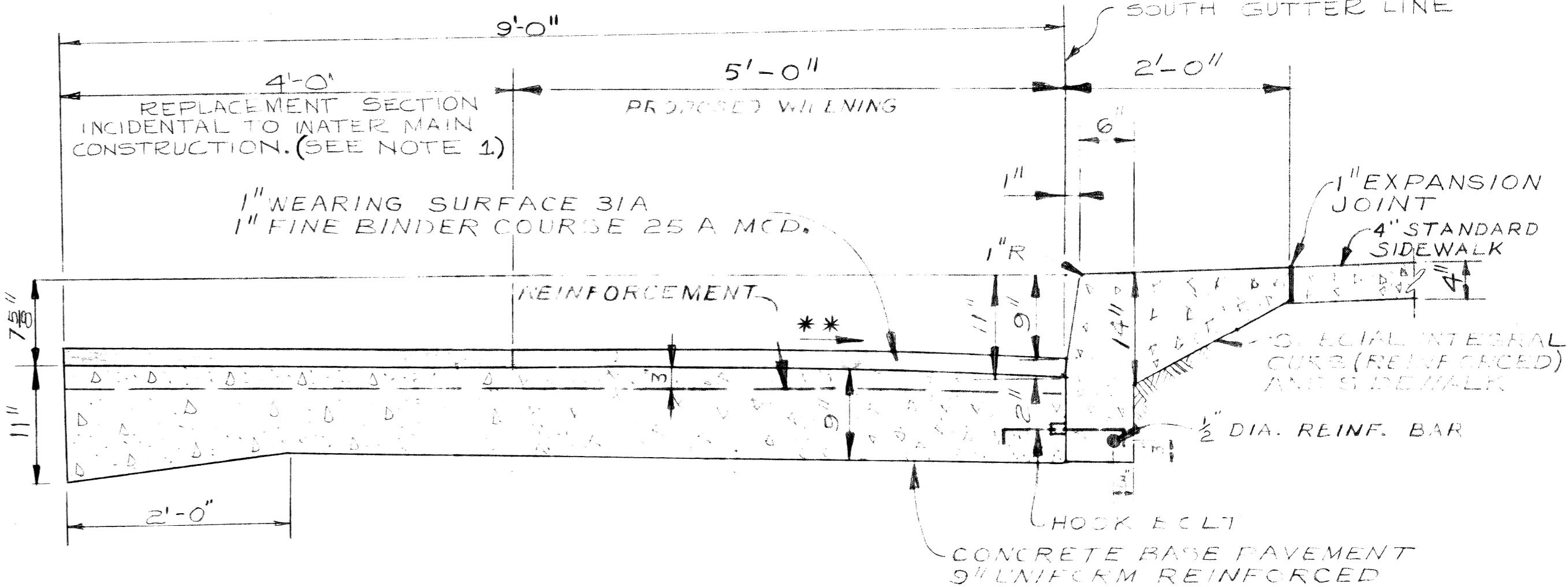
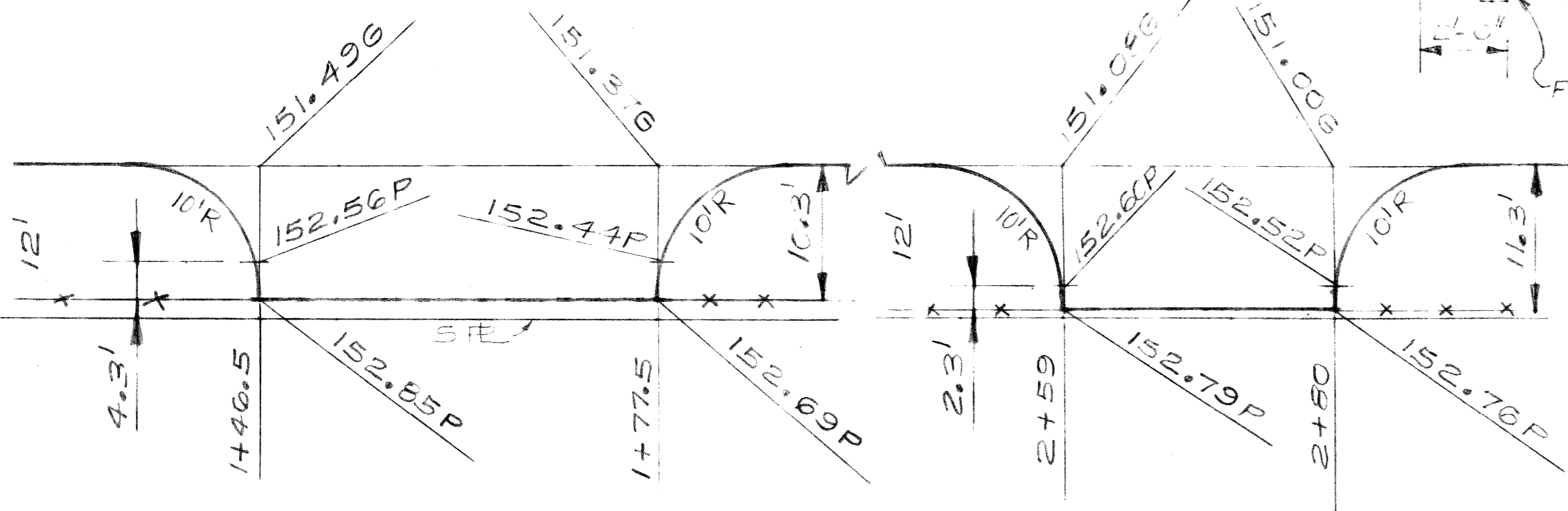
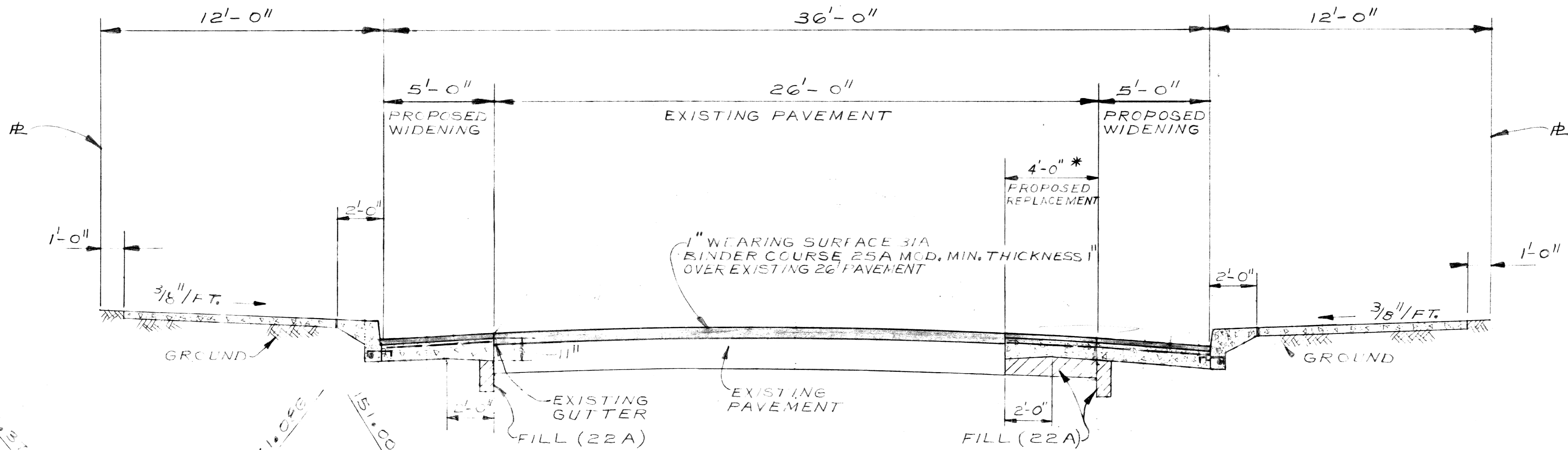
INDEX OF SHEETS

1. TITLE SHEET
2. TYPICAL SECTIONS AND DETAILS
3. UTILITY AND REMOVAL PLAN
4. PAVING PLAN
5. QUANTITY SHEET
6. LANDSCAPE PLAN
- 7-10. WATER SYSTEM ALTERATIONS



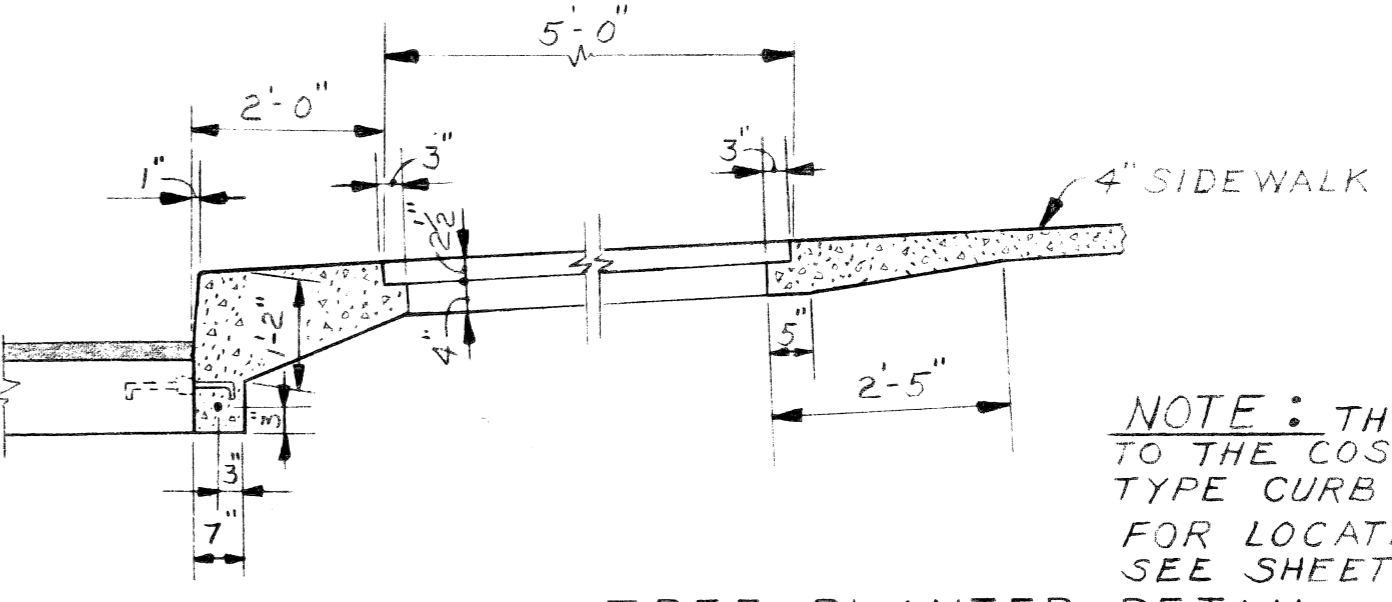
 CONSTRUCTION AREA

PROJECT: WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE MILWAUKEE JUNCTION NO. 2		CONTRACT NO. PW 6592
PLANS PREPARED BY CITY ENGINEERING DIVISION-EPMD		
RECOMMENDED FOR APPROVAL	ENGINEER OF INSPECTION	DATE
RECOMMENDED FOR APPROVAL	<i>William J. Kawwas</i> ENGINEER OF STREETS	3/29/78 DATE
APPROVED	ASSISTANT CITY ENGINEER	DATE
APPROVED	CITY ENGINEER	DATE
DATE	MARCH 28, 1978	DRWG. NO. 1 OF 10



NOTE:
1. THE COST OF THE REPLACEMENT SECTION WHICH IS LIMITED TO 4' SHALL BE IN FULL CHARGE OF THE OWNER AND SHALL NOT BE PAID FOR BY THE CITY. THIS INCLUDES THE PAVEMENT REMOVAL, CURB, SIDEWALKS WITH FILL (GRADE A AND 22A) AND REINFORCEMENT WITH THE PAVING SPECIFICATIONS, CURB AND SIDEWALK WITH A THICKENED EDGE AND 2 INCH BITUMINOUS CONCRETE.

** FOR CATCH BASIN GUTTER DETAIL SEE SHEET 4

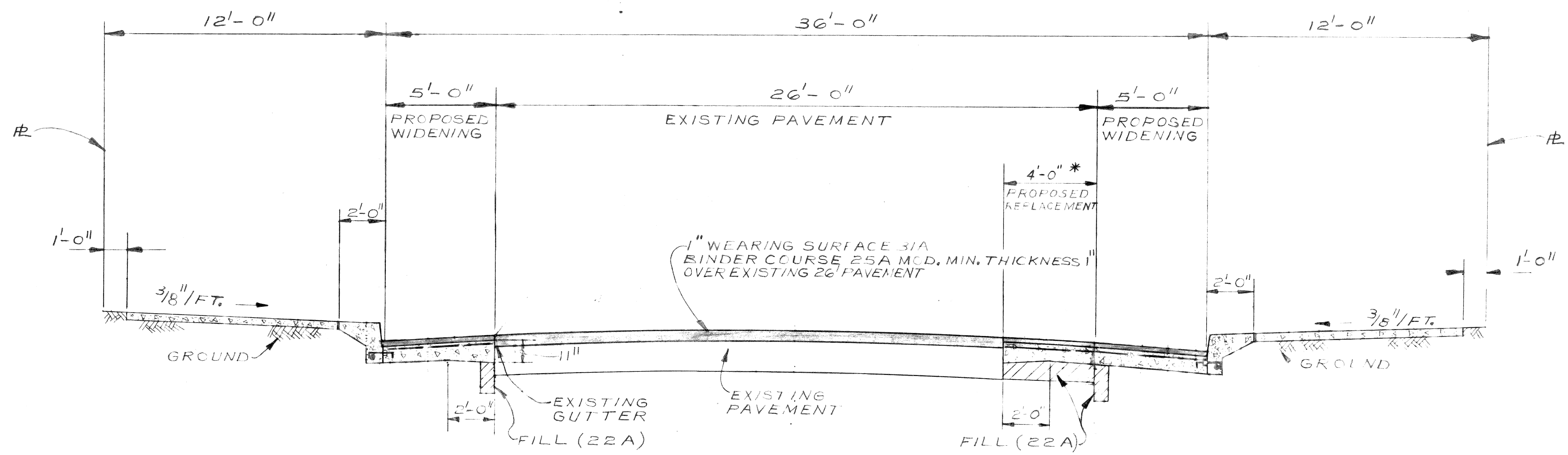


DESIGNED BY <i>W. H. Jones</i>	APPROVED: <i>W. H. Jones</i> ENGINEER OF STREETS
DRAWN BY JONES	
TRACED BY	
CHECKED BY	

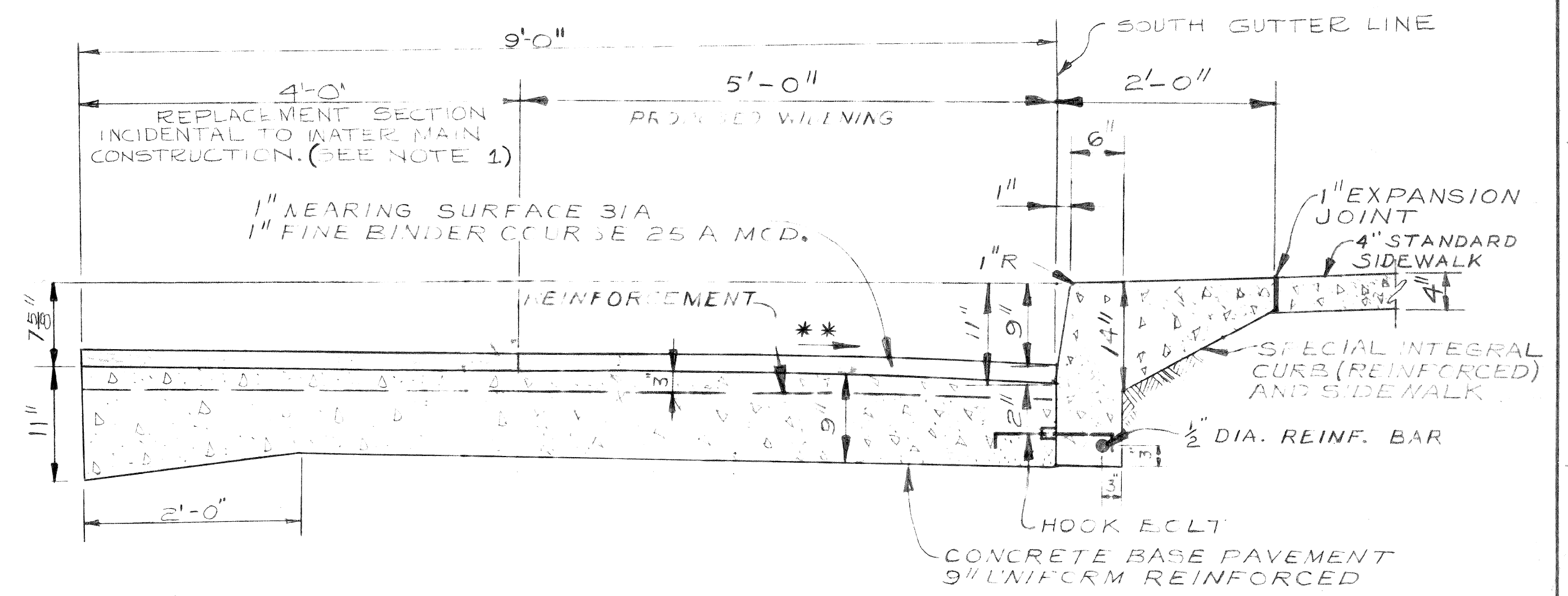
CITY OF DETROIT
CITY ENGINEERING DIVISION - E.P.M.D.
BUREAUS OF STREETS AND HIGHWAYS
FOR
COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE
MILWAUKEE JUNCTION NO. 2
TYPICAL SECTION AND DETAILS

SHEET 2 OF 10 SHEETS
CONTRACT NO. PW 6592
ASSIGNMENT NO. 77-14-13
DATE 3-28-78



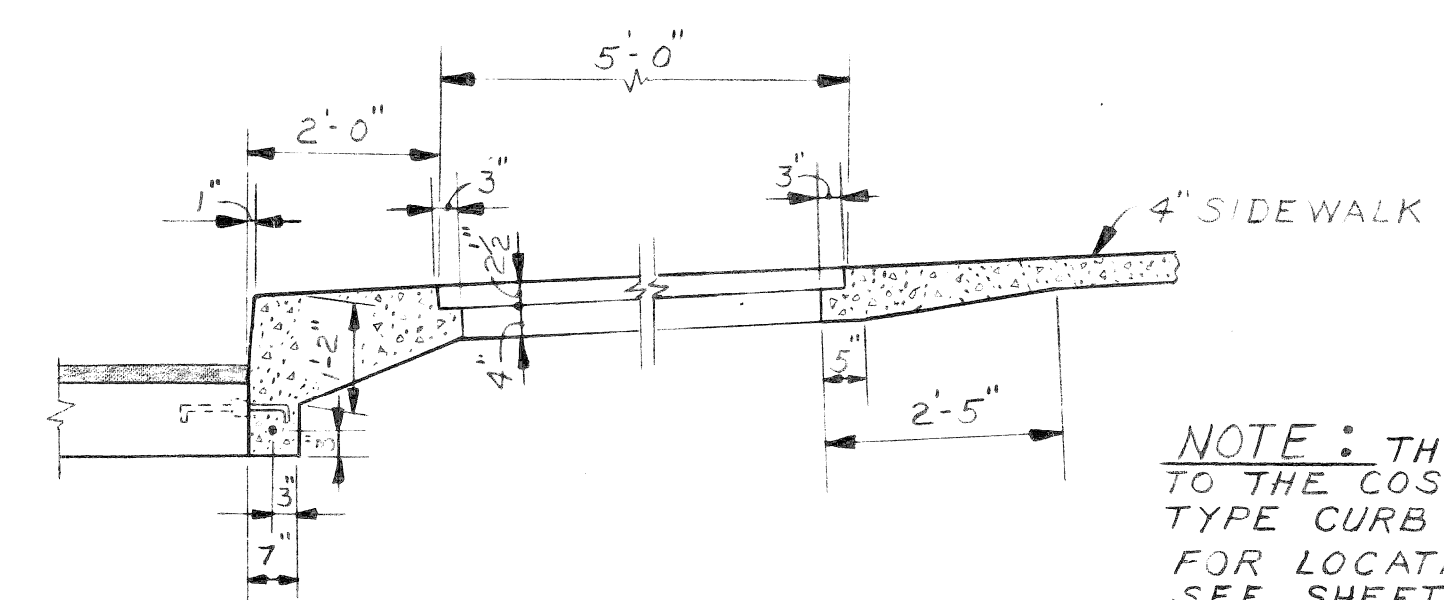
TYPICAL SECTION
 SCALE 1"=3'
 NOTE: CURB FACE REMAINING AFTER RESURFACING SHALL BE 7 INCHES.
 FOR TREE PLANTERS SEE DETAIL THIS SHEET.
 * PAVEMENT REMOVAL FOR WATERMAIN CONSTRUCTION SHALL NOT EXCEED 4" W. DTH.



DETAIL OF PROPOSED WIDENING AND REPLACEMENT SECTION
 SCALE 1"=3'

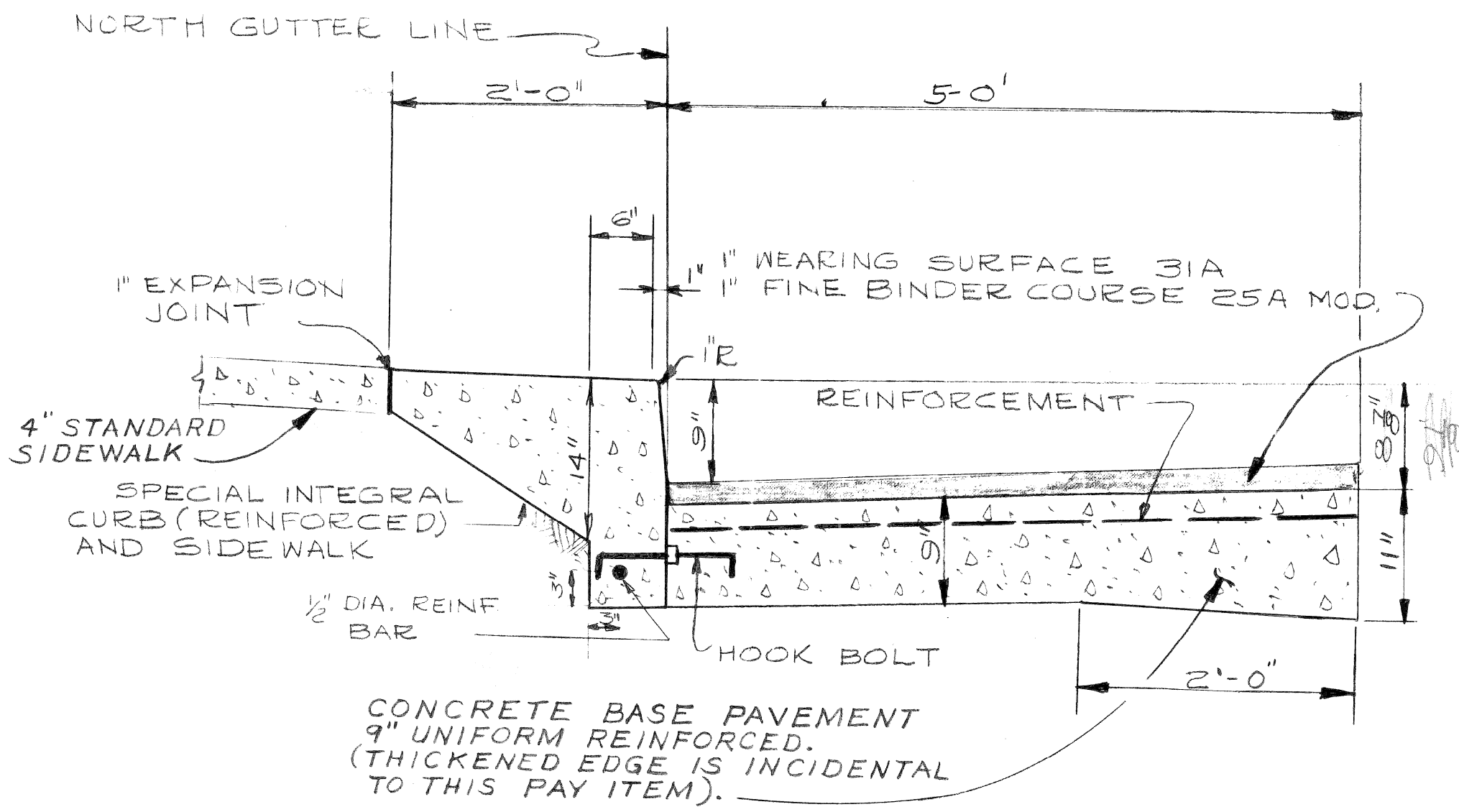
NOTE:
 1. THE COST OF THE REPLACEMENT SECTION WHICH IS LIMITED TO 4'-0" SHALL BE IN FULL FOR THE RELOCATION OF THE WATER MAINS AND SHALL NOT BE PAID FOR SEPARATELY. THIS INCLUDES THE PAVEMENT REMOVAL, EXCAVATION, BACKFILLS WITH FILL GRADE A AND 22A COMPACTED IN ACCORDANCE WITH THE PAVING SPECIFICATIONS, MIN. 4" THICKNESS ON SETTS WITH A THICKENED EDGE AND 2 INCH BITUMINOUS CONCRETE.

** FOR CATCH BASIN GUTTER DETAIL SEE SHEET 4

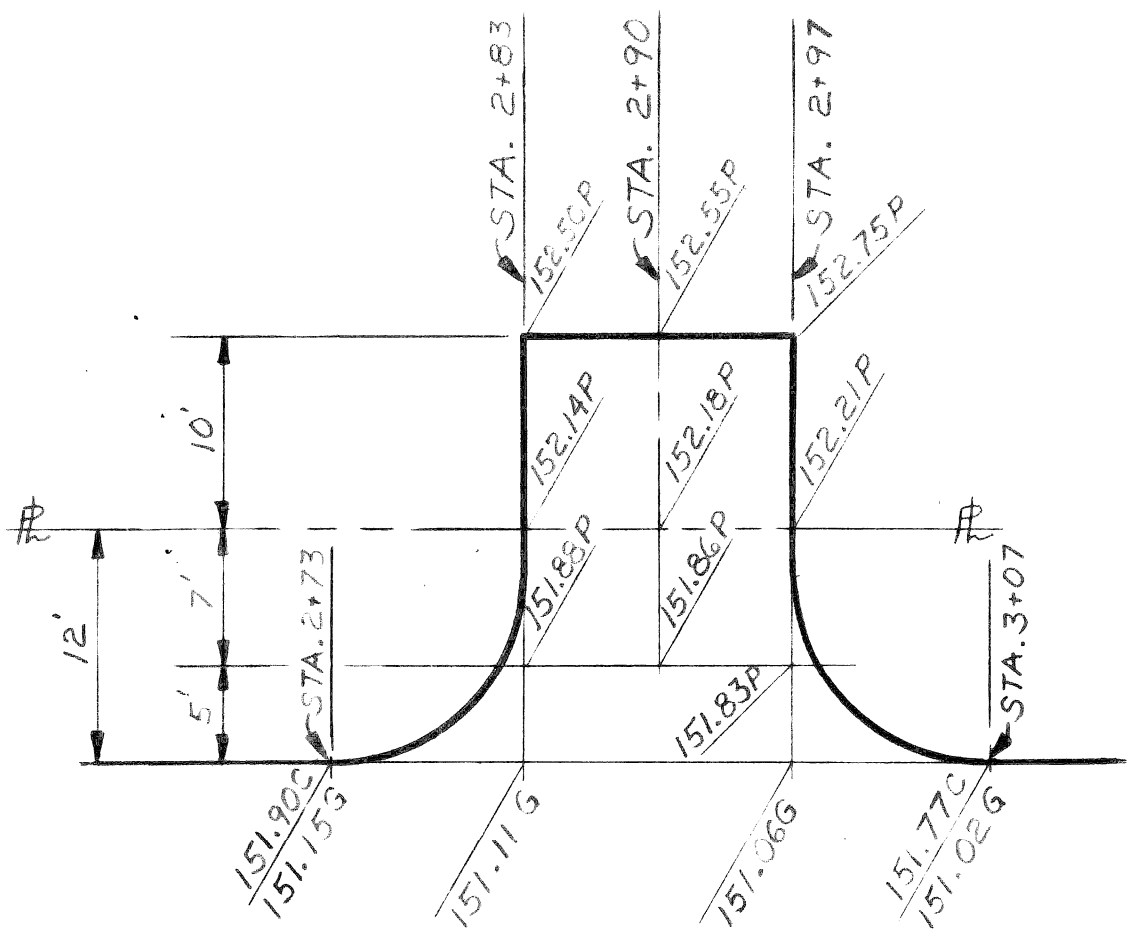


TREE PLANTER DETAIL
 SCALE 1"=2'-0"

NOTE: THE EDGE THICKENING IS INCIDENTAL TO THE COST OF THE SIDEWALK AND SPECIAL TYPE CURB (REINFORCED).
 FOR LOCATION OF TREES IN THE MARGINS SEE SHEET No. 6.



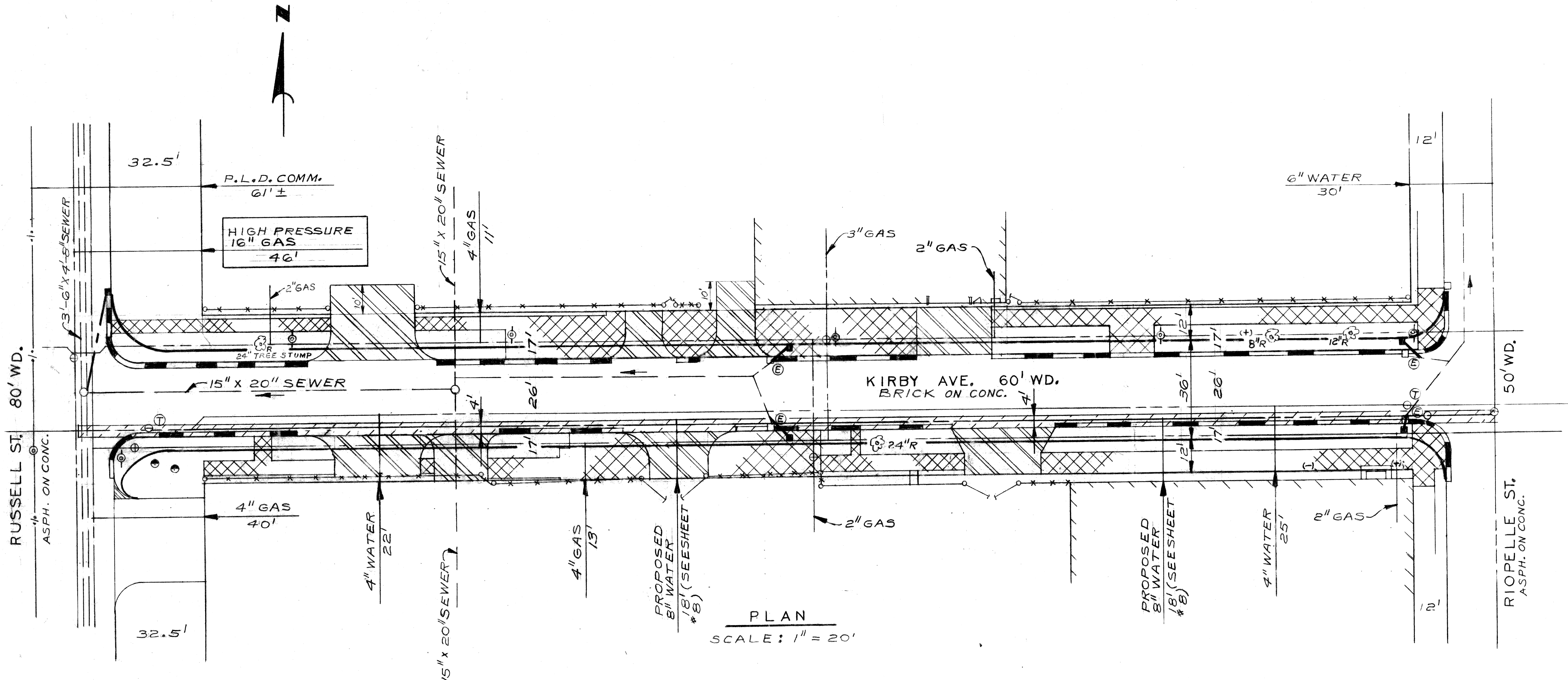
DETAIL OF PROPOSED 5' WIDENING
 SCALE 1"=1'



DRIVEWAY DETAILS
 SCALE 1"=10'

VOID

REVISIONS LOCATED BY COORDINATES ON SHEET 1 2 3 4 5 6 7 8 9 10 11		REFERENCE DRAWINGS DESIGNED BY: <i>W. Jones</i> DRAWN BY: JONES TRACED BY: CHECKED BY: <i>W. Jones</i>	APPROVED: <i>W. Jones</i> ENGINEER OF STREETS	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD BUREAU OF STREETS AND HIGHWAYS FOR COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT	WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE MILWAUKEE JUNCTION NO. 2 TYPICAL SECTION AND DETAILS	SHEET 2 OF 10 SHEETS CONTRACT NO. PW 6592 ASSIGNMENT NO. 77-14-13 DATE 3-28-78
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CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

PLAN
SCALE: 1" = 20'

GENERAL NOTES

- BEFORE STARTING CONSTRUCTION THE CONTRACTOR MUST CHECK WITH THE UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING STRUCTURES, WHETHER OR NOT INDICATED ON THE PLANS.
- FOR UTILITY LEGEND, SEE STANDARD DRAWING C 902-A.

REMOVAL LEGEND

- SIDEWALK REMOVAL
- DRIVEWAY REMOVAL
- SEPARATE TYPE CURB REMOVAL
- TREE OR STUMP REMOVAL
- ABANDON EXISTING CATCH BASINS
- RESET EXISTING MANHOLES
- PAVEMENT REMOVAL TO BE INCIDENTAL TO THE COST OF WATER MAIN CONSTRUCTION

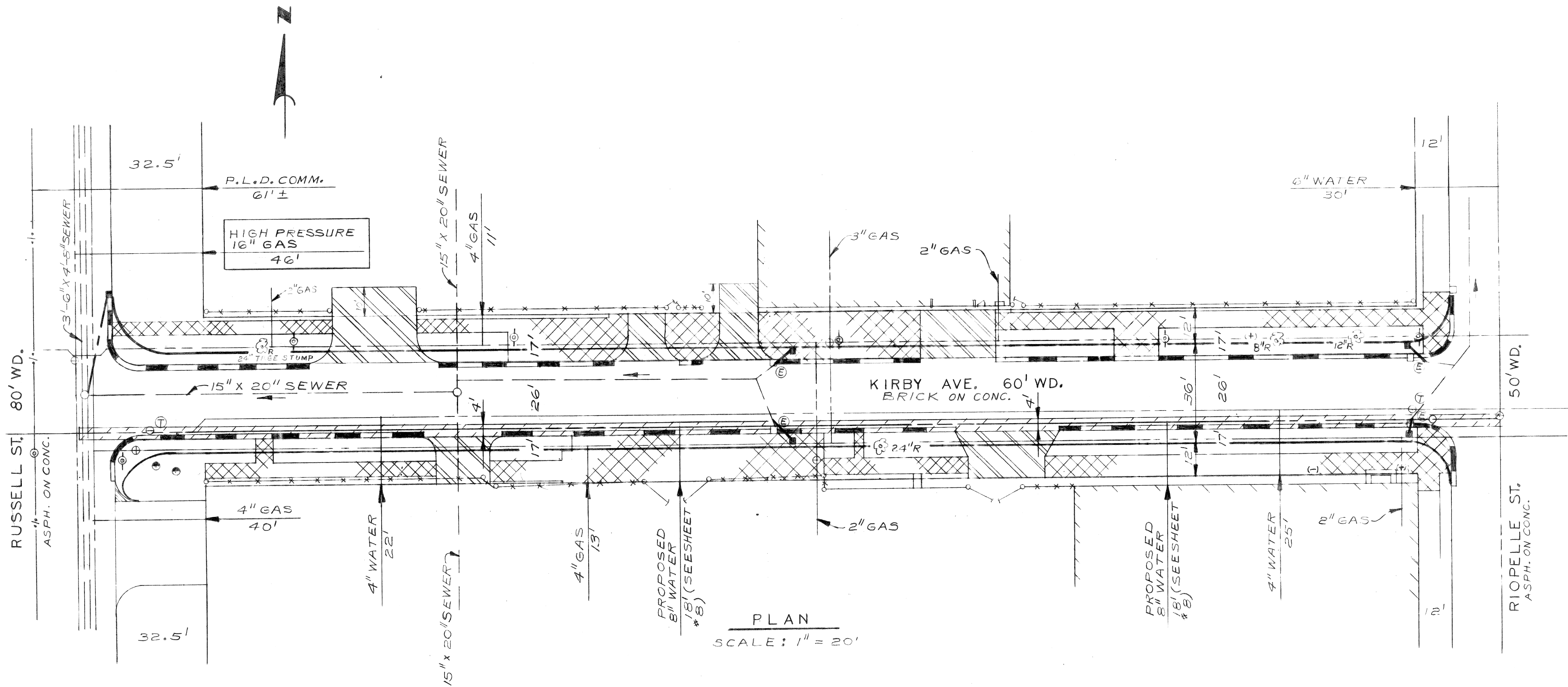
DESIGNED BY	JONES
DRAWN BY	JONES
ESTIMATE BY	Talley
CHECKED BY	[Signature]
APPROVED:	[Signature] ENGINEER OF STREETS

CITY OF DETROIT
CITY ENGINEERING DIVISION - EPMD
BUREAUS OF STREETS AND HIGHWAYS
FOR
COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE
MILWAUKEE JUNCTION NO. 2
UTILITY AND REMOVAL PLAN

SHEET 3 OF 10 SHEETS
CONTRACT NO. PW 6592
ASSIGNMENT NO. 77-14-13
DATE 3-28-78

COORD	DESCRIPTION	DRN	CKD	APVD	DATE
	DRIVE REMOVAL ON SOUTH SIDE ADDED	J.J.	J.J.	J.J.	4-8-78





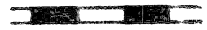



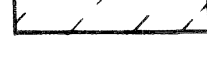
PLAN
SCALE: 1" = 20'

GENERAL NOTES

- BEFORE STARTING CONSTRUCTION THE CONTRACTOR MUST CHECK WITH THE UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING STRUCTURES, WHETHER OR NOT INDICATED ON THE PLANS.
- FOR UTILITY LEGEND, SEE STANDARD DRAWING C 902-A.

VOIDED

REMOVAL LEGEND

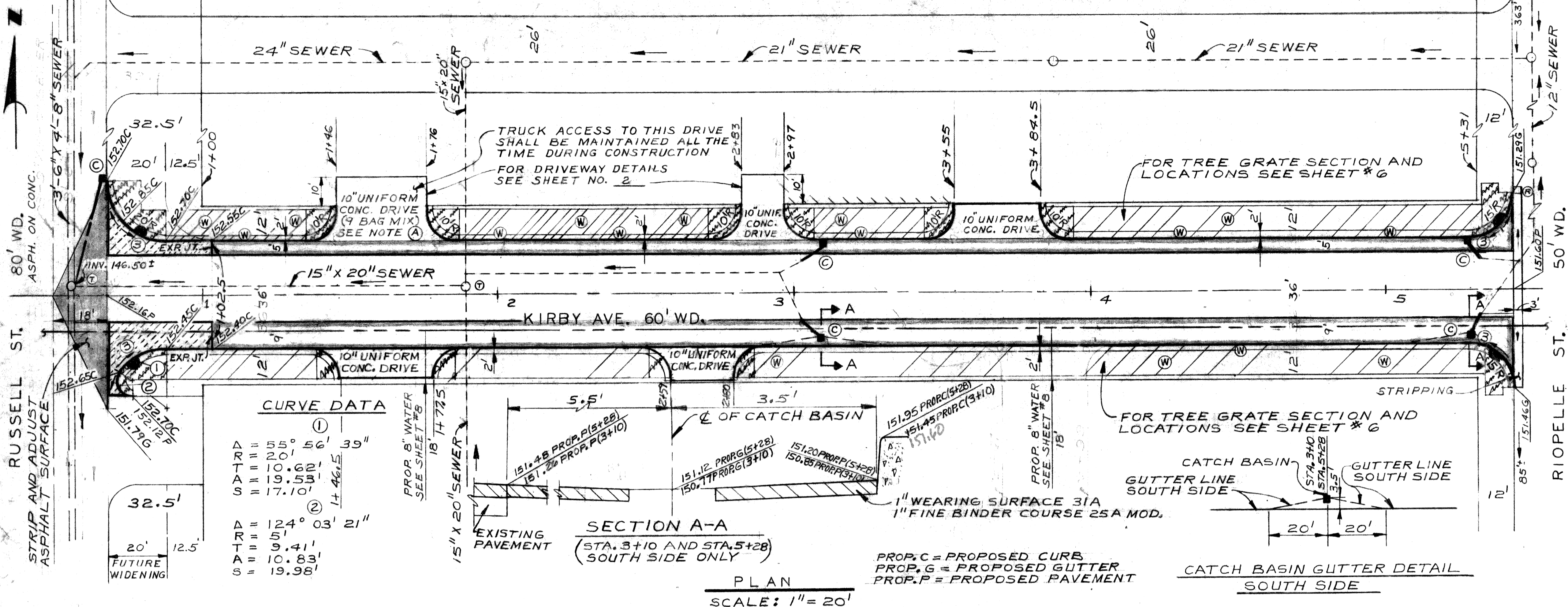
-  SIDEWALK REMOVAL
-  DRIVEWAY REMOVAL
-  SEPARATE TYPE CURB REMOVAL
-  TREE OR STUMP REMOVAL
-  ABANDON EXISTING CATCH BASINS
-  RESET EXISTING MANHOLES
-  PAVEMENT REMOVAL TO BE INCIDENTAL TO THE COST OF WATER MAIN CONSTRUCTION

DESIGNED BY	JONES
DRAWN BY	Wm. J. Talley
ESTIMATE BY	Wm. J. Talley
CHECKED BY	Wm. J. Talley

CITY OF DETROIT
CITY ENGINEERING DIVISION - EPMD
BUREAU OF STREETS AND HIGHWAYS
FOR
COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE
MILWAUKEE JUNCTION NO. 2
UTILITY AND REMOVAL PLAN

SHEET 3 OF 10 SHEETS
CONTRACT NO. PW 6592
ASSIGNMENT NO. 77-14-13
DATE 3-28-78



CURVE DATA

①
 TRD = 55° 56' 39"
 Δ = 20.1'
 Δ = 10.62'
 S = 19.53'
 S = 17.10'

②
 Δ = 124° 03' 21"
 TRD = 5'
 Δ = 9.41'
 Δ = 10.83'
 S = 19.98'

SECTION A-A
 (STA. 3+10 AND STA. 5+28)
 SOUTH SIDE ONLY

PROP. C = PROPOSED CURB
 PROP. G = PROPOSED GUTTER
 PROP. P = PROPOSED PAVEMENT

CATCH BASIN GUTTER DETAIL
 SOUTH SIDE

BENCH MARKS ELEV

ARROW ON HYD. N.W. COR. OF RUSSELL AND FREDERICK ELEV. 154.89

ARROW ON HYD. N.W. COR. OF RUSSELL AND KIRBY ELEV. 155.36

ARROW ON HYD. S.E. COR. OF KIRBY AND RIOPELLE ELEV. 154.99

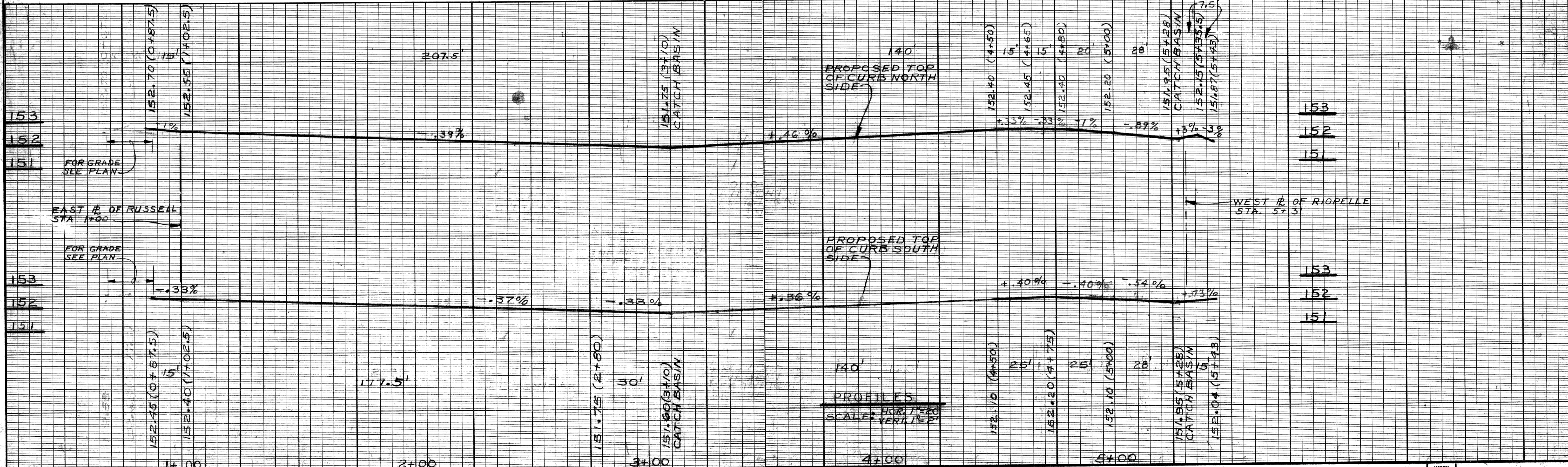
- NOTES:**
- ALL CATCH BASINS SHALL BE 18"X12" SPECIAL "Y".
 - ALL PIPE SHALL BE 12" C-76-IV, THE MINIMUM SLOPE ON THE PIPE SHALL BE 0.5%.
 - INVERT OF CATCH BASIN LINES SHALL BE DETERMINED IN THE FIELD.
 - PAVEMENT REPLACEMENT THAT IS REQUIRED FOR THE CONSTRUCTION OF THE 8" WATER MAIN SHALL BE INCIDENTAL TO THE COST OF THE CONSTRUCTION OF THE WATER MAIN. THE 9 BAG CONCRETE MIX SHALL BE INCIDENTAL TO THE COST OF THE CONSTRUCTION OF THE DRIVEWAY-10" STANDARD.

- CONSTRUCTION LEGEND**
- CONSTRUCT 4" - STANDARD SIDEWALK
 - CONSTRUCT SIDEWALK RAMP TYPE III
 - 9" UNIFORM UNREINFORCED CONC. WITH BITUMINOUS SURFACE WITH SPECIAL INTEGRAL CURB AND SIDEWALK - 2' WIDE
 - 9" UNIFORM REINFORCED CONCRETE WITH BITUMINOUS SURFACE WITH SPECIAL INTEGRAL CURB (REINFORCED) AND SIDEWALK - 2' WIDE
 - STRIP AND ADJUST ASPHALT SURFACE
 - RESET EXISTING MANHOLES
 - RESET EXISTING CATCH BASINS
 - CONSTRUCT CATCH BASIN
 - CONSTRUCT 6" - STANDARD SIDEWALK

HORIZONTAL CONTROL

CROSS IN SIDEWALK 5 FT. OFF NORTH R. AT STA. 1+18

CROSS IN SIDEWALK 5 FT. OFF SOUTH R. AT STA. 5+31



BY	JONES	CHECKED BY	APPROVED:
PLAN	JONES		<i>Norm J. Kawana</i>
GRADE			ENGINEER OF STREETS
ESTIMATE		TAILEY	
FINAL			

CITY OF DETROIT
 CITY ENGINEERING DIVISION - EPMD
 BUREAUS OF STREETS AND HIGHWAYS
 FOR
 COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE
 MILWAUKEE JUNCTION NO. 2

INDEX NO. 6 SHEET 4 OF 10 SHEETS
 CONTRACT NO. PW 6592
 ASSIGNMENT NO. 77-14-13
 DATE 3-28-78

Senior Approved
 12/18/77
 C. D. Smith

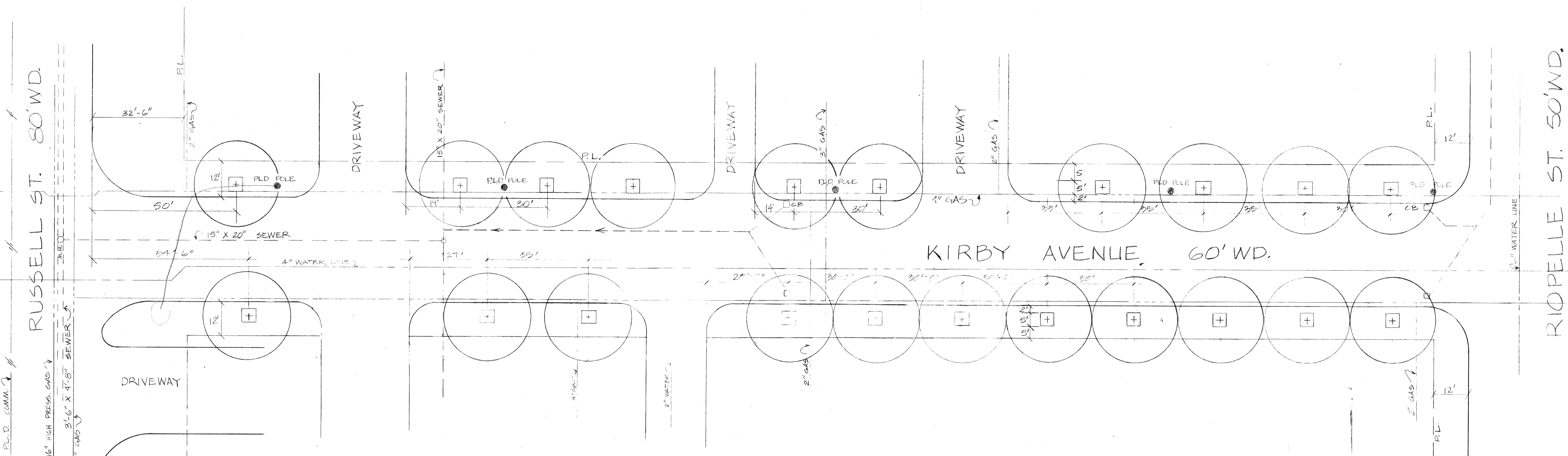
ITEM No.	DESCRIPTION OF ITEM	UNIT	SHEET #3	SHEET #4	TOTAL
1	EXCAVATION	CYDS		330	330
2	SEPARATE TYPE CURB REMOVAL-UNREINF.	LFT	837	—	837
3	SIDEWALK REMOVAL	SFT	7810	—	7810
4	DRIVEWAY REMOVAL	SFT	2914	—	2914
5	TREE REMOVAL 4"-12" DIA.	EACH	2	—	2
6	TREE REMOVAL 24" DIA.	EACH	1	—	1
7	SPECIAL INTEGRAL CURB (REINF.) # SDVIK. 2' WD.	LFT	—	854	854
8	SPECIAL INTEGRAL CURB # SIDEWALK 2' WD.	LFT	—	92	92
9	FILL (22A)	CYDS	—	15	15
10	CATCH BASIN - ABANDONMENT	EACH	4	—	4
11	CLEAN STREETS	EACH	—	—	3
12	CATCH BASIN 18x12" SPECIAL "Y"	EACH	—	5	5
13	SEWER -12" PIPE C-76-IV	LFT	—	60	60
14	SEWER UNDER PAVEMENT -12" PIPE C-76-IV	LFT	—	50	50
15	MANHOLE - RECONSTRUCT CONE	EACH	—	—	1
16	CONCRETE BASE PAVT. 9" UNIF. UNREINF.	SYDS	—	55	55
17	CONCRETE BASE PAVT. 9" UNIF. REINF.	SYDS	—	445	445
18	TEST CORES	EACH	—	2	2
19	SIDEWALKS-4" STANDARD *	SFT	—	6175	6175
20	SIDEWALKS-6" STANDARD *	SFT	—	848	848
21	DRIVEWAYS 10" STANDARD	SFT	—	1451	1451
22	TREE STUMP REMOVAL 24" DIA.	EACH	1	—	1
23	STRIP AND ADJUST ASPHALT SURFACE	SYDS	—	76	76
24	STRIPPING	SYDS	—	25	25
25	CLEAN AND CONDITION EXISTING SURFACE	SYDS	—	1167	1167
26	RESETTING CATCH BASINS - ALL TYPES	EACH	—	1	1
27	RESETTING MANHOLES	EACH	2	2	4
28	RESETTING STOP BOXES	EACH	—	—	1
29	REMOVE EXISTING CONCRETE BASE	SYDS	—	—	10
30	REPLACE CONC. BASE WITH GRADE "A" CONC.	SYDS	—	—	10
31	REBUILDING CATCH BASINS	EACH	—	—	1
32	SEMI REBUILD CATCH BASIN	EACH	—	—	1
33	SHEET ASPH. WEARING SURFACE MIXTURE	TONS	—	—	10
34	MAINTAINING TRAFFIC	LUMP SUM	—	—	LUMP SUM
35	BITUMINOUS BOND COAT	GALS	—	258	258
36	RESURFACING MIXTURE IN PLACE	TONS	—	201	201
	a. FINE BINDER COURSE MIXTURE (ALL NATURAL AGGREGATES)				
36	b. FINE BINDER COURSE MIXTURE (ALL SLAG AGGREGATES)	TONS	—	134	134
37	RESURFACING MIXTURE IN PLACE WEARING SURFACE MIXTURE 3/4" (CD) (ALL SLAG AGGREGATES)	TONS	—	89	89
38	GLEDITSIA TRICANTHOS INERMIS "SKYLINE" 3 1/2 - 4" B&B	EACH	—	—	25
39	TOPSOIL	CYDS	—	—	25
40	CONCRETE TREE GRATE (5'x5')	EACH	—	—	25
41-42	WATER ALTERATIONS FOR QUANTITIES SEE SHEET 7 OF 10				

* CONSTRUCTION ONLY

REFERENCE DRAWINGS DESIGNED BY DRAWN BY CHECKED BY		APPROVED: <i>William Oxley</i> ENGINEER OF STREETS		CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD BUREAUS OF STREETS AND HIGHWAYS FOR COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT		WIDENING OF KIRBY FROM RUSSELL TO RIOPELLE MILWAUKEE JUNCTION NO. 2 QUANTITY SHEET		SHEET 5 OF 10 SHEETS CONTRACT NO. PW 6592 ASSIGNMENT NO. 77-14-13 DATE	
COORD. DESCRIPTION DRN CK'D APVD DATE		DESIGNED BY R Rosik		DRAWN BY J. B. Field		CHECKED BY J. B. Field		REVISIONS LOCATED BY COORDINATES ON SHEET	

PROJECT: WIDENING OF
KIRBY FROM RUSSELL
TO RIOPELLE
MILWAUKEE JUNCTION
NO. 2

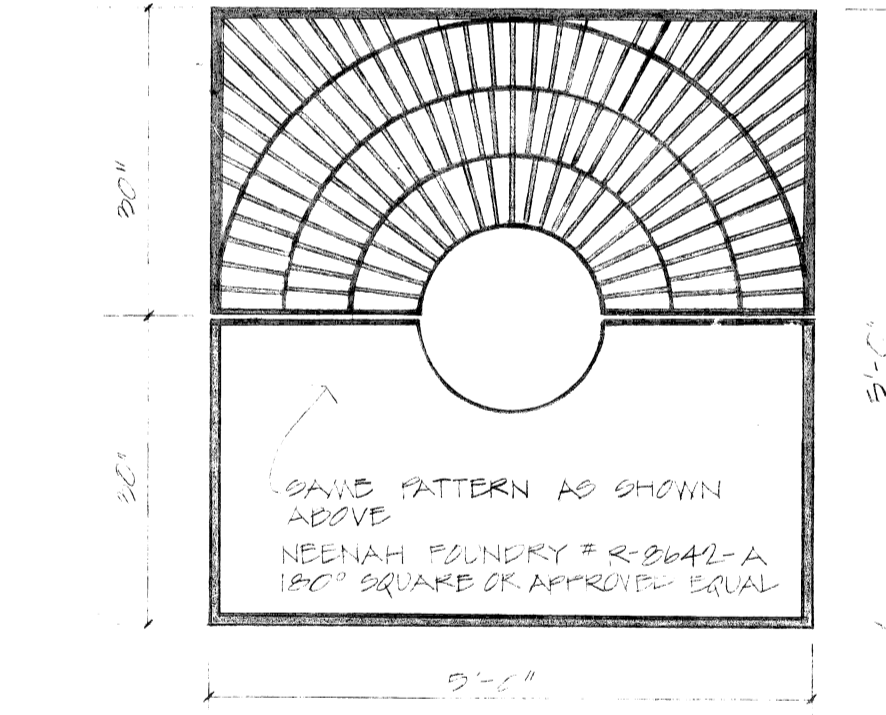
NOTES



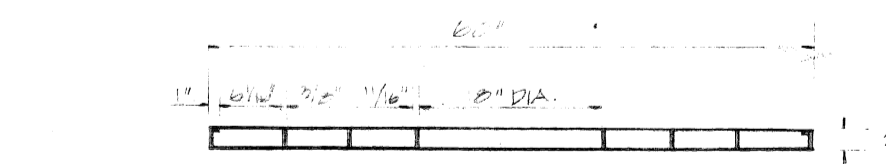
NOTE:
TREES ARE SPACED 30'
ON CENTER

PLANT LIST

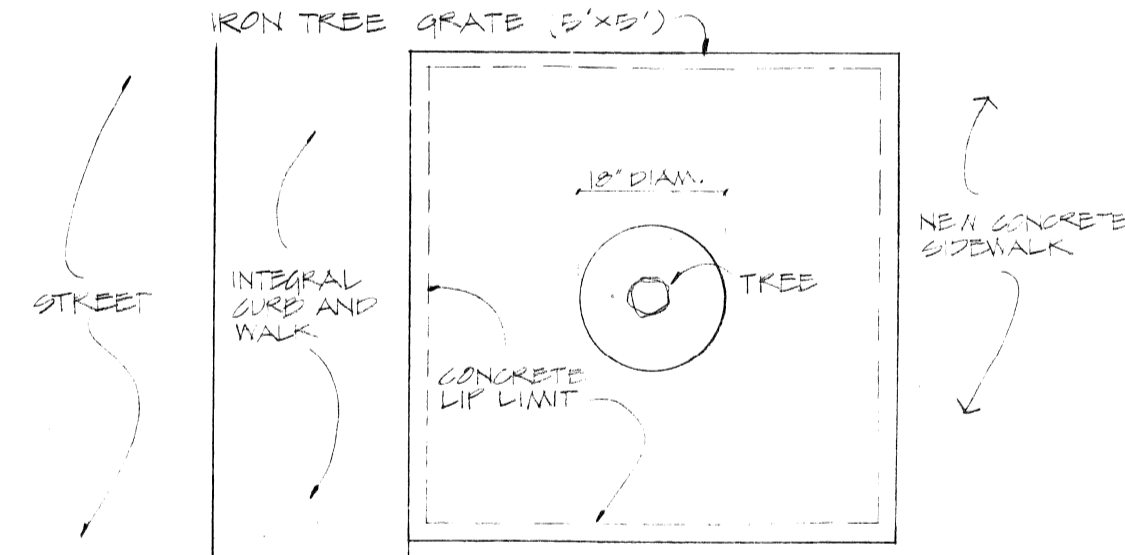
- 21 GLEDITSIA TRICANTHOS 'SKYLINE' • SKYLINE HONEYLOCUST • 3/2\"/>
- 42 CUBIC YARDS OF TOPSOIL (12 CUBIC YARDS PER TREE)



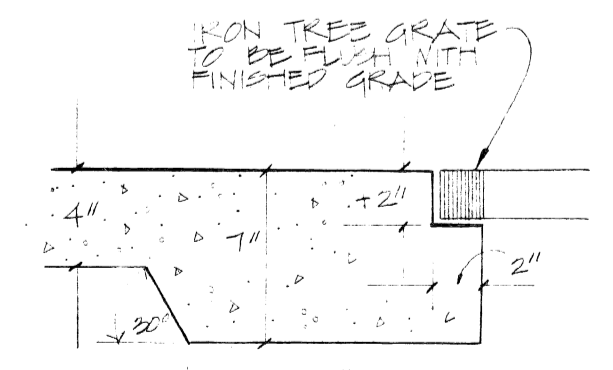
IRON TREE GRATE PLAN
NO SCALE



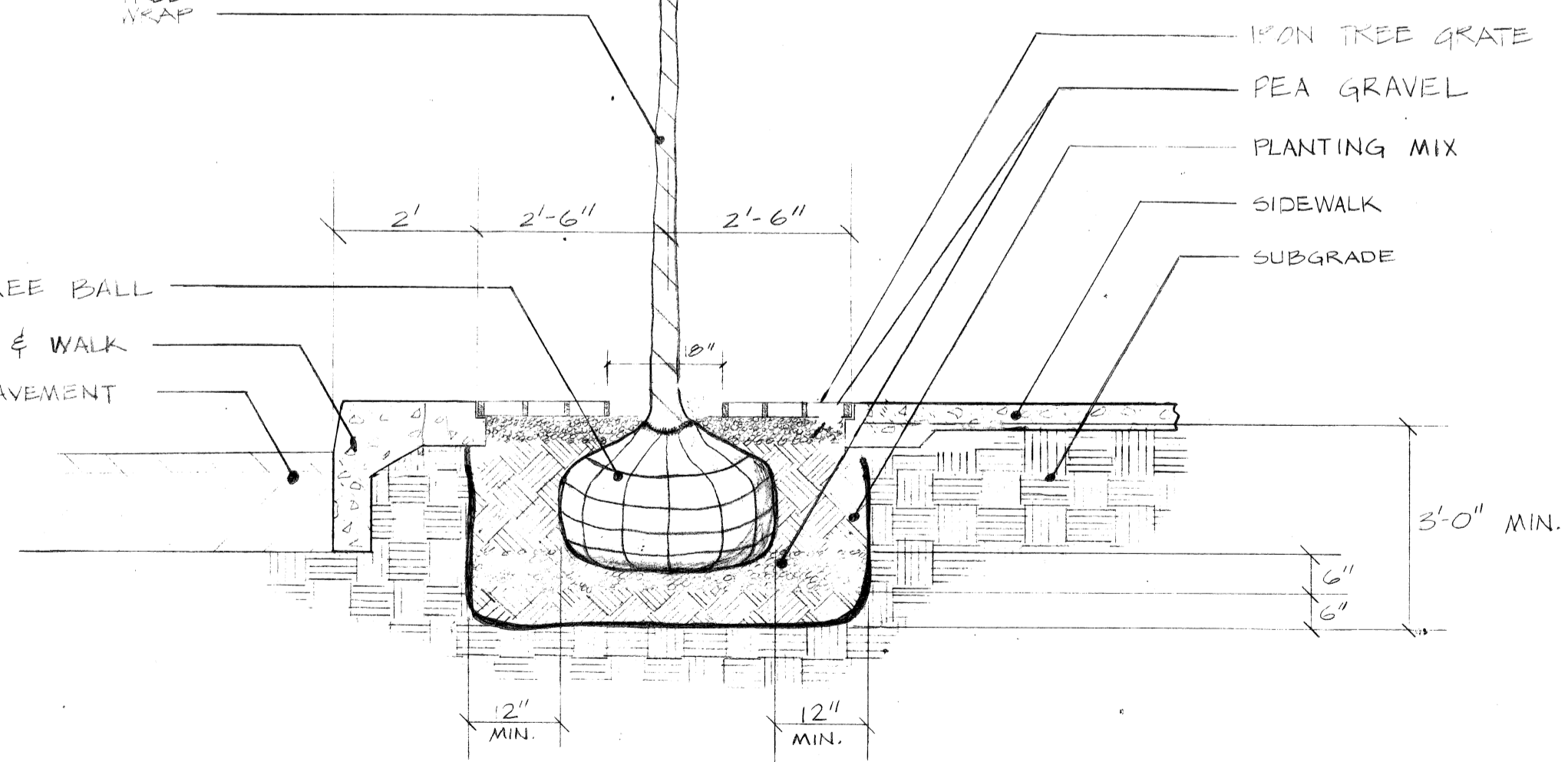
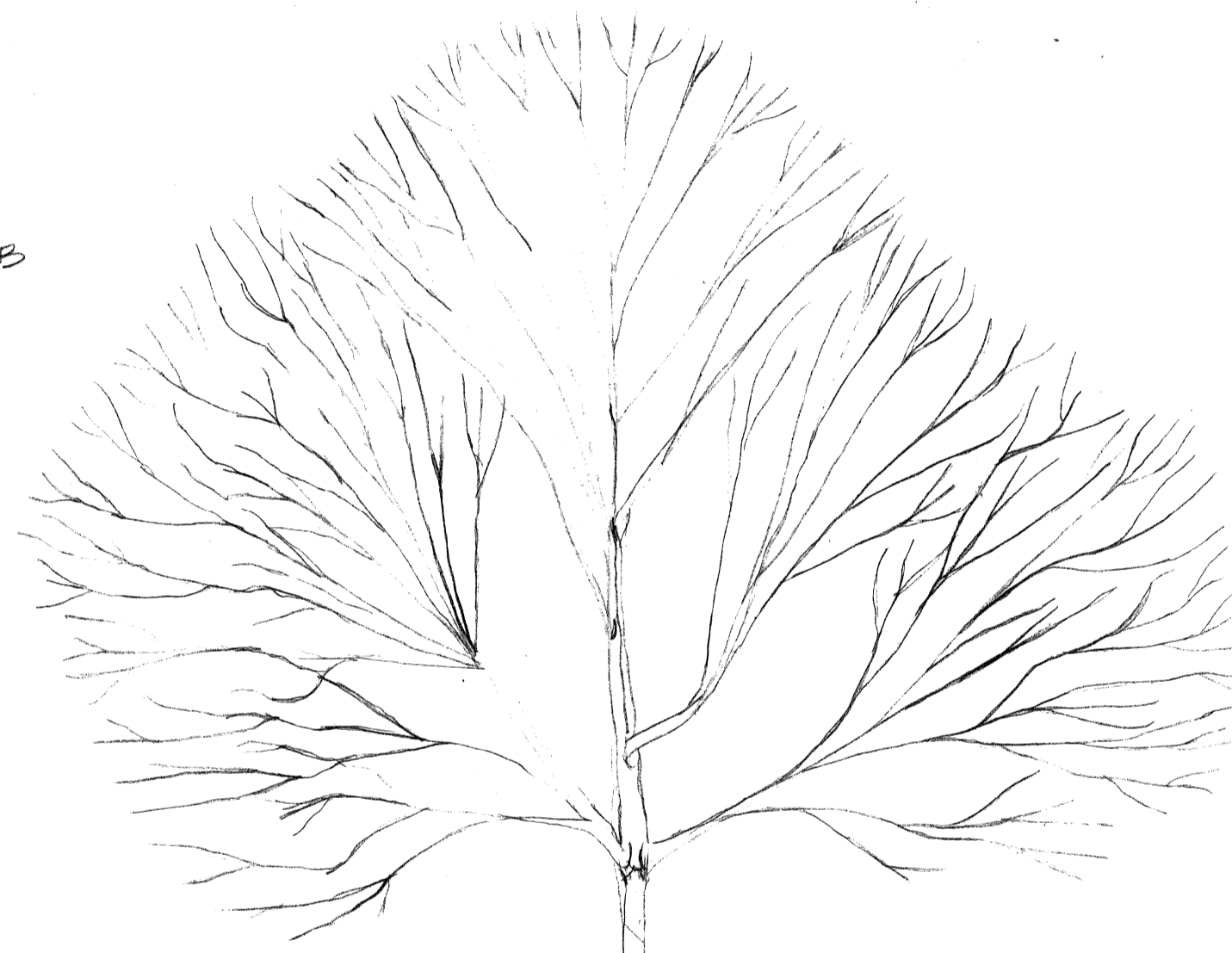
IRON TREE GRATE SECTION
NO SCALE



CONCRETE LIP PLAN
SCALE: 1/2\"/>



CONCRETE LIP
DETAIL SECTION
SCALE: 1/2\"/>



TREE GRATE AND TREE PLANTING SECTION
SCALE 1/2\"/>

PREPARED BY
LANDSCAPE DESIGN UNIT
DRAWN BY: PRUZINSKY DATE: 1/5/78
CHECKED BY: VILLI DATE: 1/9/78
APPROVED:

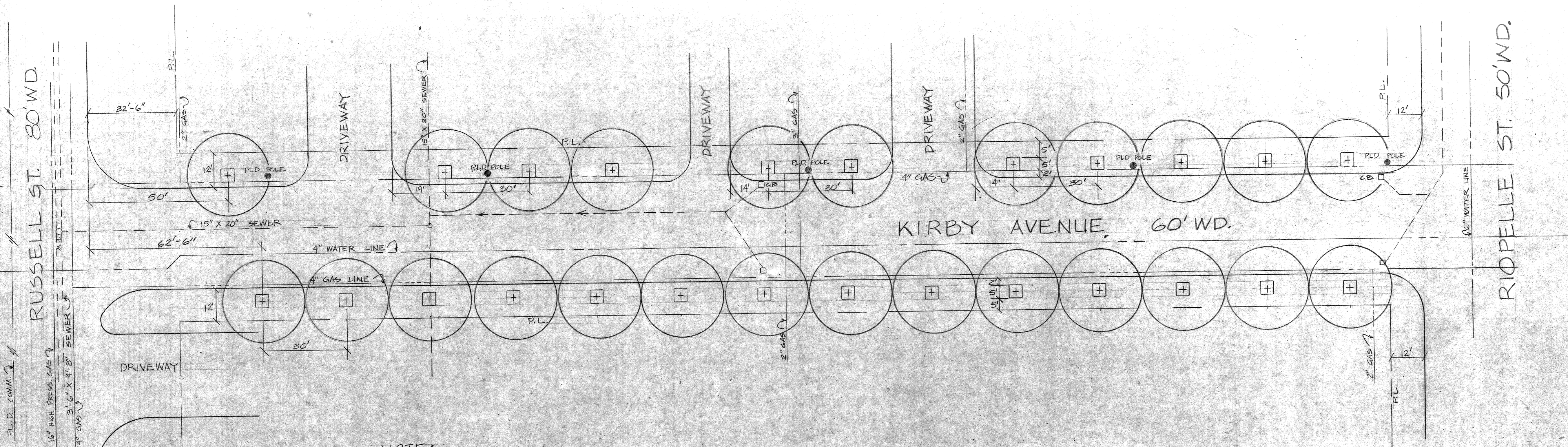
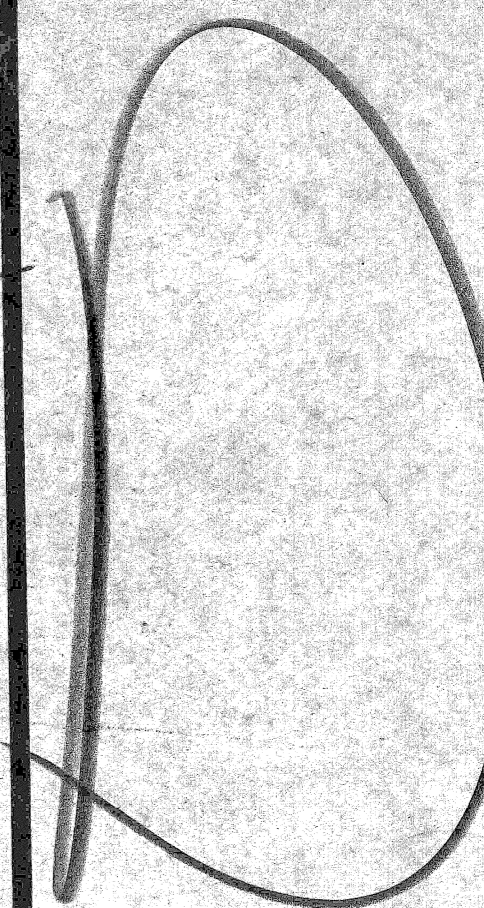
REVISIONS: CL SWENBY 3/1/80

SHEET TITLE:
LANDSCAPE PLAN

735 RANDOLPH
WATER BOARD BUILDING
ROOM 2001
DETROIT, MICHIGAN 48226

PROJECT: WIDENING OF
KIRBY FROM RUSSELL
TO RIOPELLE
MILWAUKEE JUNCTION
NO. 2

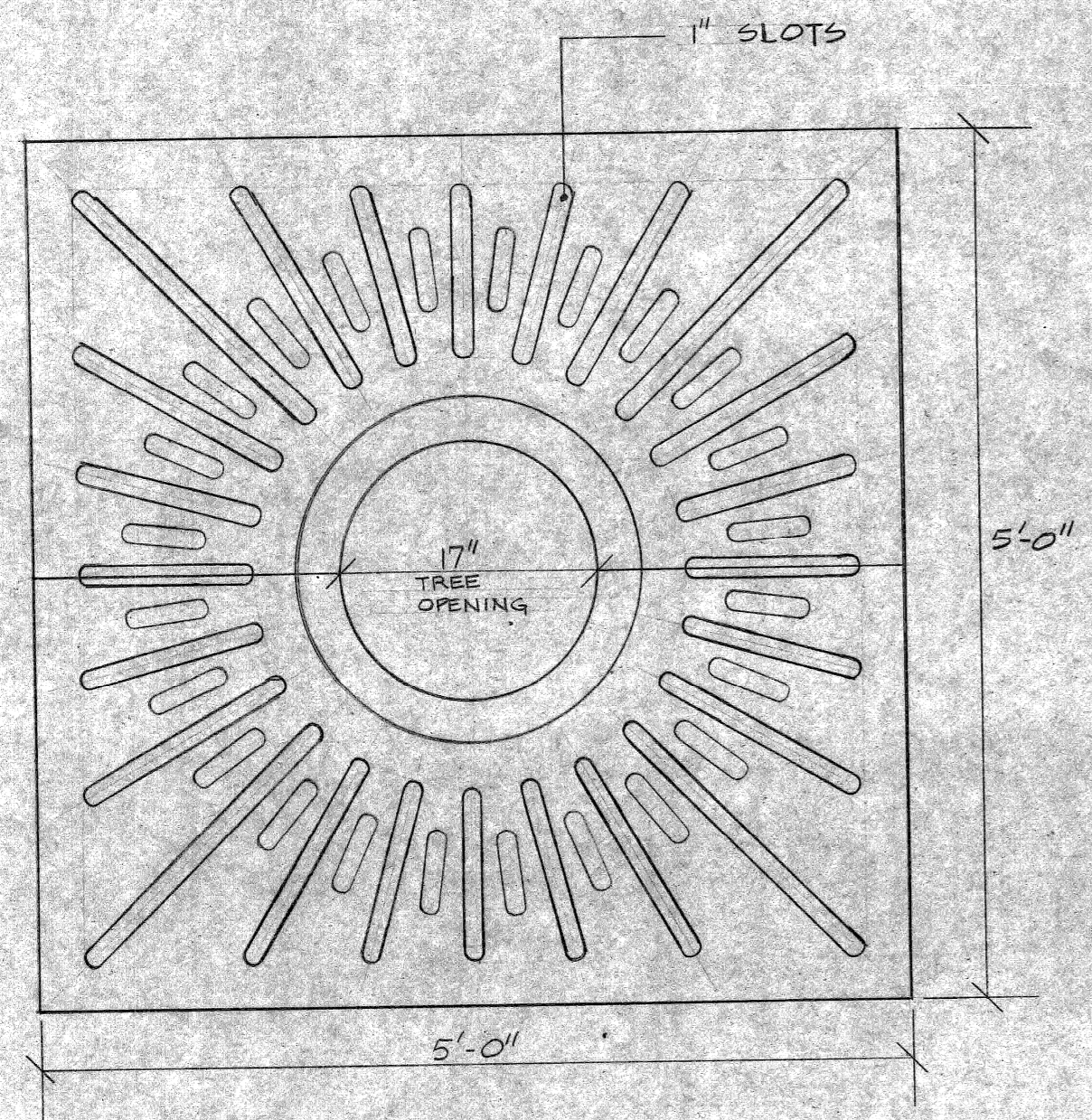
NOTES



NOTE:
TREES ARE SPACED 30'
ON CENTER

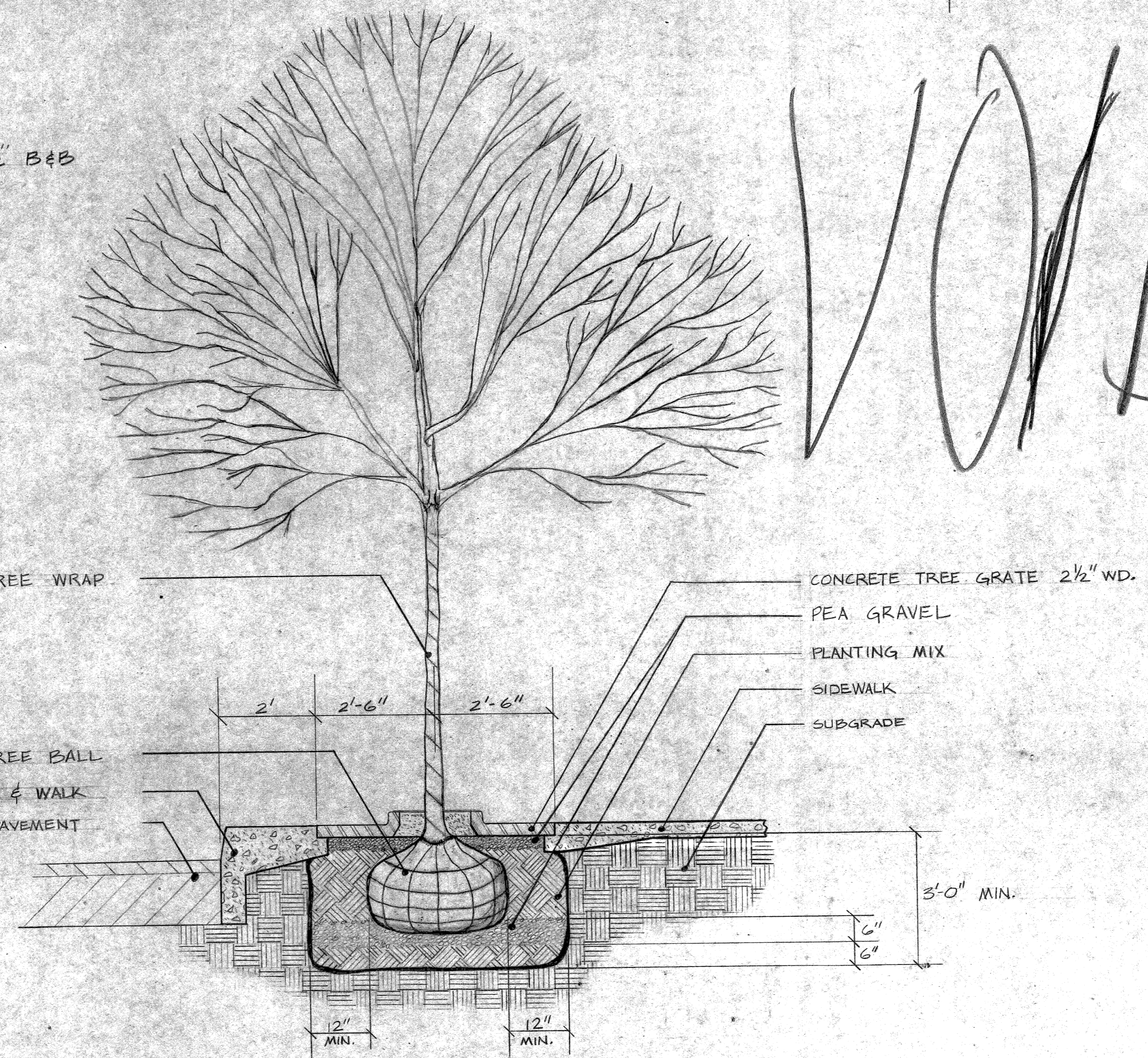
PLANT LIST

25 · GLEDITSIA TRICANTHOS 'SKYLINE' · SKYLINE HONEYLOCUST · 4\"/>



TREE GRATE PLAN
NO SCALE

NOTE: TREE GRATE COLOR SHALL BE
AS FRANK D. DAVIS COMPANY 'LAKESIDE'
BROWN #6804 OR APPROVED EQUAL

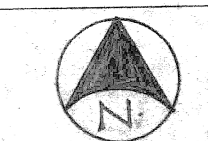


TREE GRATE AND TREE PLANTING SECTION
SCALE 1/2\"/>

PREPARED BY:
LANDSCAPE DESIGN UNIT
DRAWN: W. PRUZINSKY DATE: 1/5/78
CHECKED: E.H. VIALI DATE: 1/30/78
APPROVED:

REVISIONS:

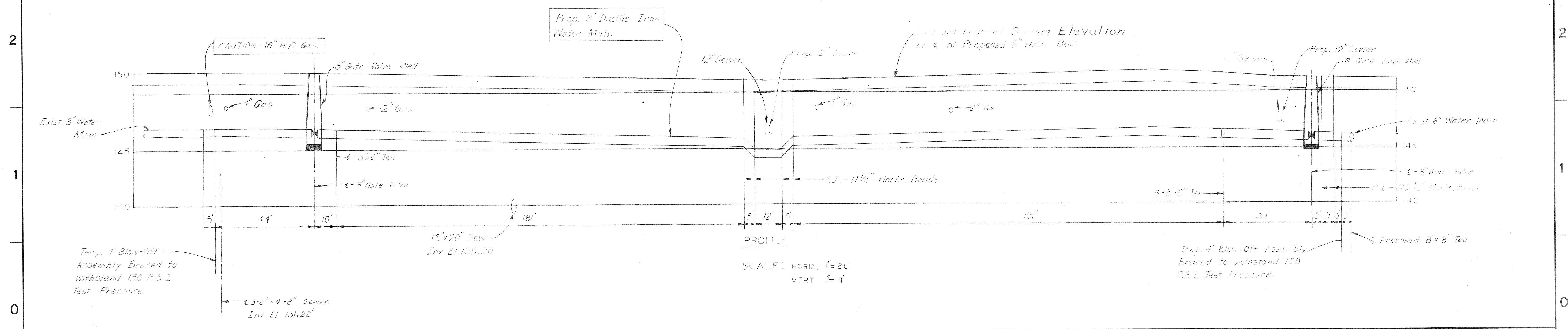
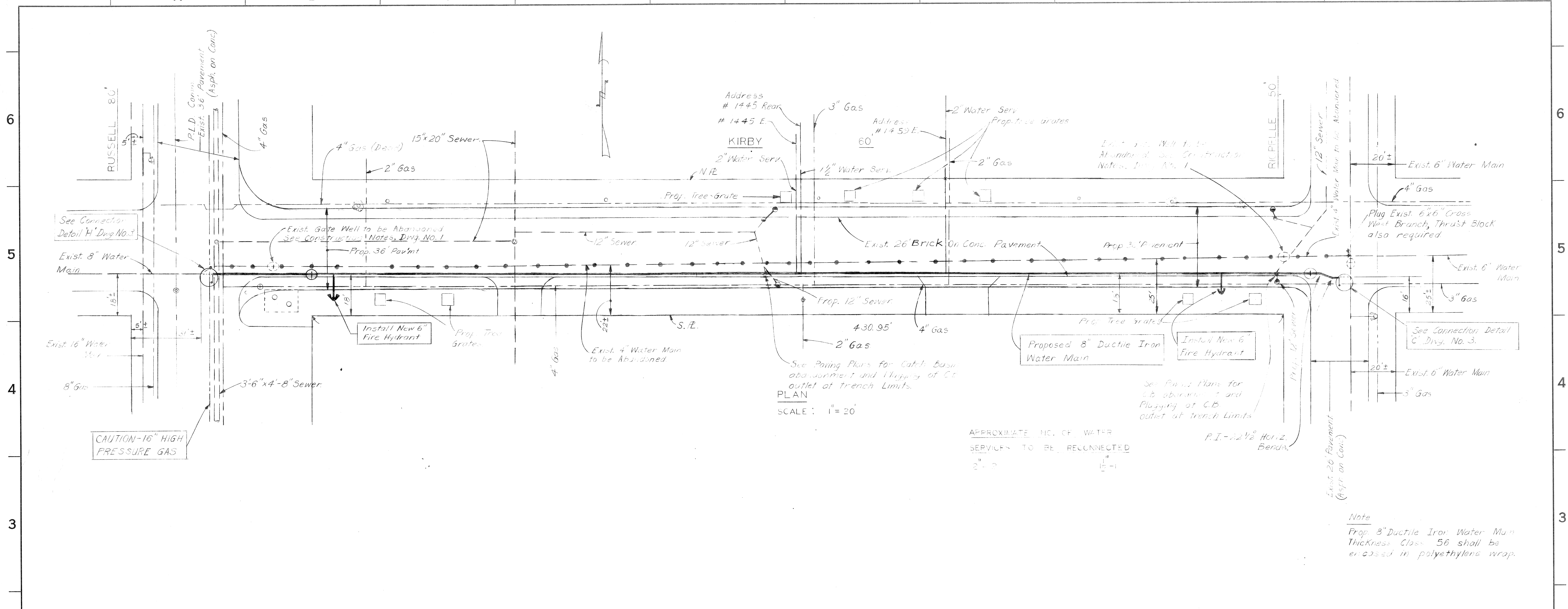
SHEET TITLE:
LANDSCAPE PLAN



SCALE
1\"/>

SHEET NUMBER 6 OF 10

PROPERTY NUMBER



F				
E				
D				
C				
B				
A				
CO-OR.	DESCRIPTION REVISIONS	APRVD.	DATE	

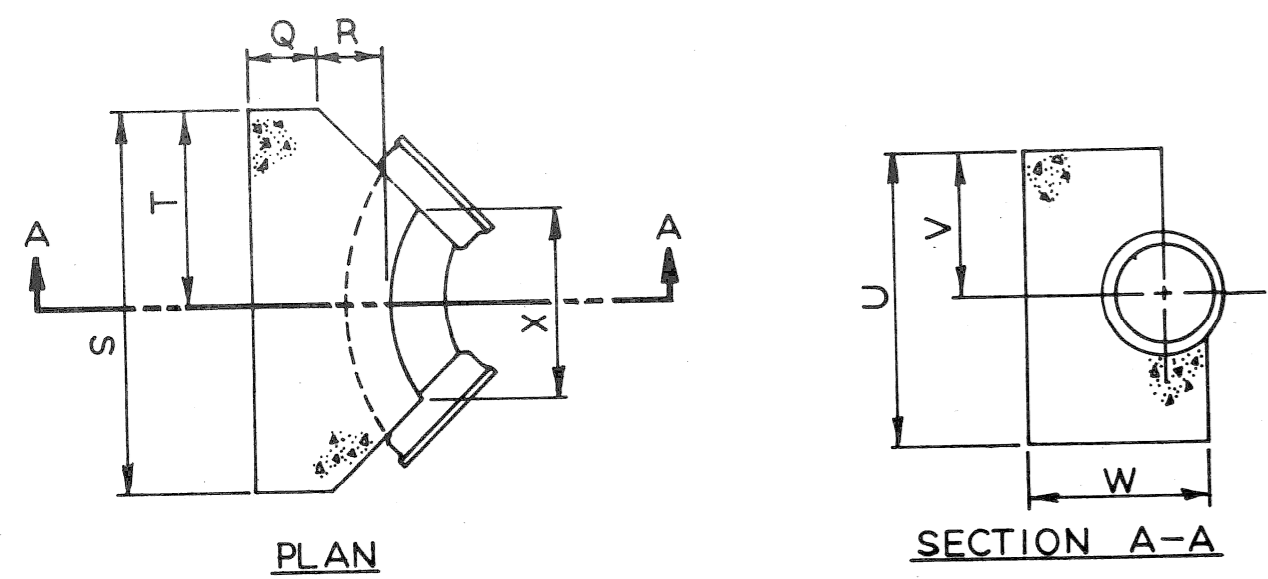
DESIGNED BY
 DRAWN BY J.M.
 CHECKED BY J.W.
 ENGINEER - WASTEWATER SYSTEM

APPROVED
 HEAD ENGINEER - WATER SYSTEM
 DIVISION ENGINEER - DWSD

MILWAUKEE JUNCTION NO. 2 PROJECT
 WATER SYSTEM ALTERATIONS
 PIPE FROM RUSSELL TO RICHELLE
 PROPOSED 8" WATER MAIN
 SCALE AS SHOWN
 DATE 11-10-1978

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
 ENGINEERING DIVISION
 SECTION MAP TOWN RANGE SECTION PORTION CODE WORK ORDER NO.

M.D.P.H. PERMIT NO.
 FED. REF. NO.
 CONTRACT NO. PW 6592
 SHEET 8 OF 10 SHEETS

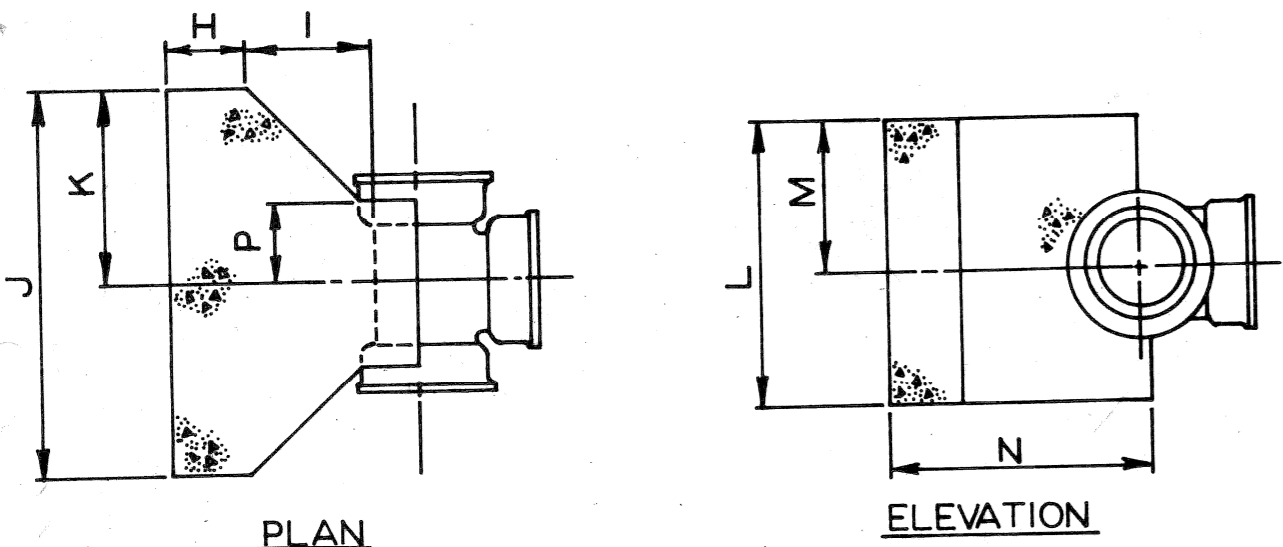


SCHEDULE OF THRUST BLOCK DIMENSIONS

BEND SIZE	Q	R	S	T	U	V	W	X
6"-22½" 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"-22½" 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"-22½"	0'-9"	1'-0"	2'-6"	1'-3"	2'-0"	1'-0"	2'-0"	1'-4"
12"-45°	0'-9"	1'-4"	3'-6"	1'-9"	2'-6"	1'-3"	2'-4"	1'-4"
12"-90°	0'-9"	1'-4"	5'-6"	2'-9"	3'-0"	1'-6"	2'-4"	1'-8"
16"-22½"	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

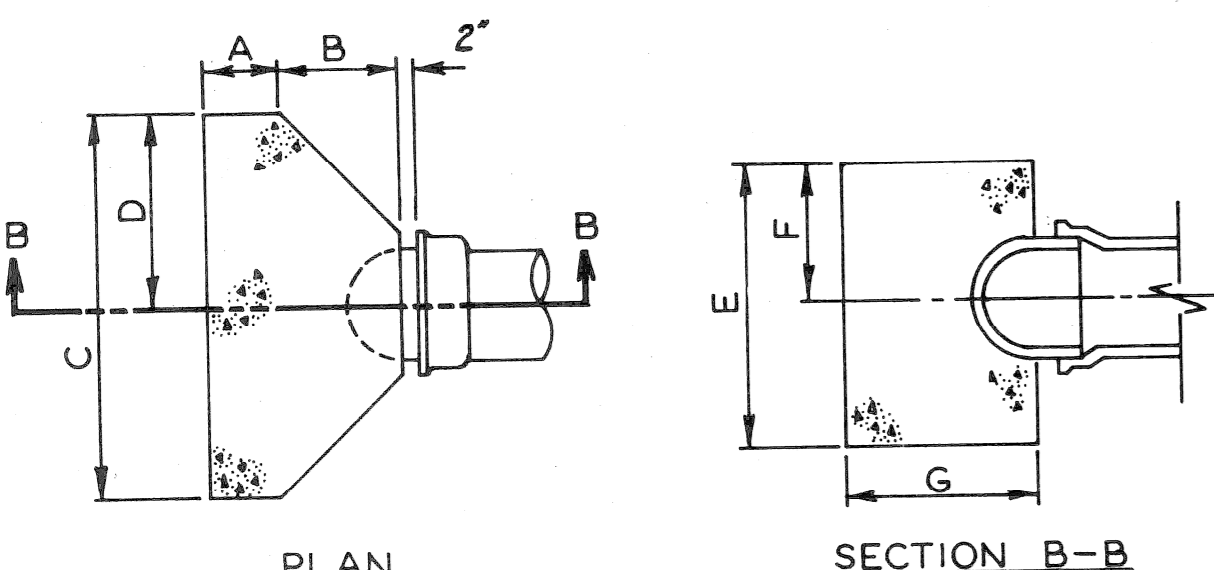
NOTES
The bearing face of all Thrust Blocks shall be poured against undisturbed earth. Thrust Blocks when required for vertical bends are shown by special details.



SCHEDULE OF THRUST BLOCK DIMENSIONS

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

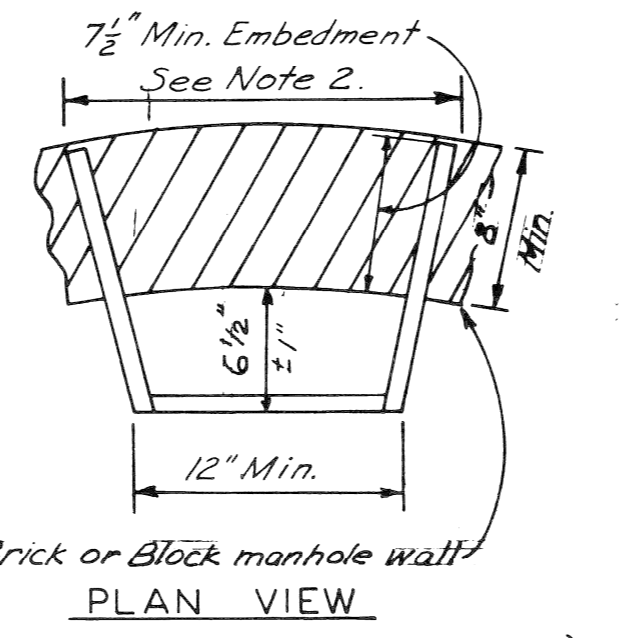


SCHEDULE OF THRUST BLOCK DIMENSIONS

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'-1"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

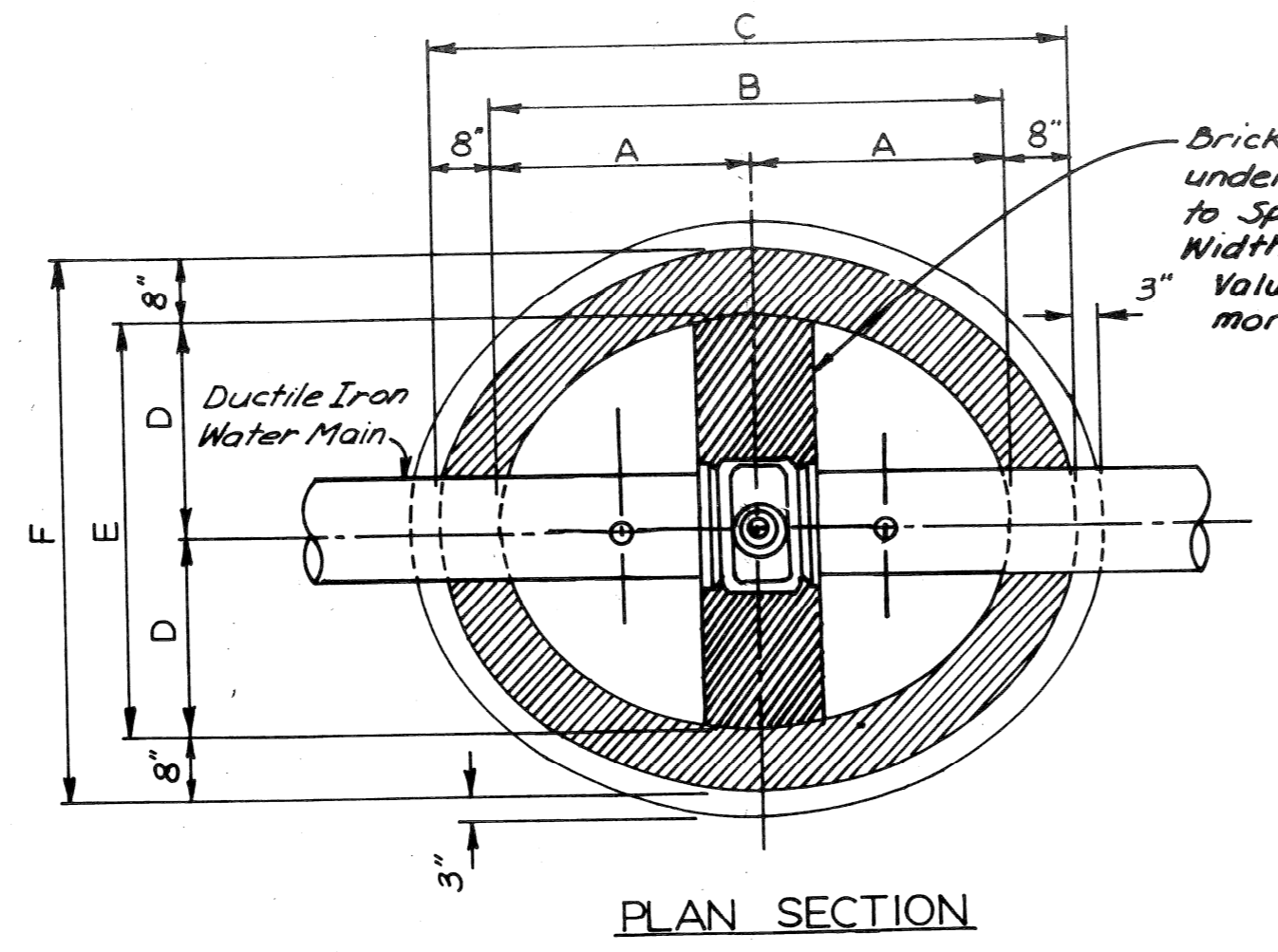
CAP SIZE	H	I	J	K	L	M	N
6"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
8"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-1"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

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

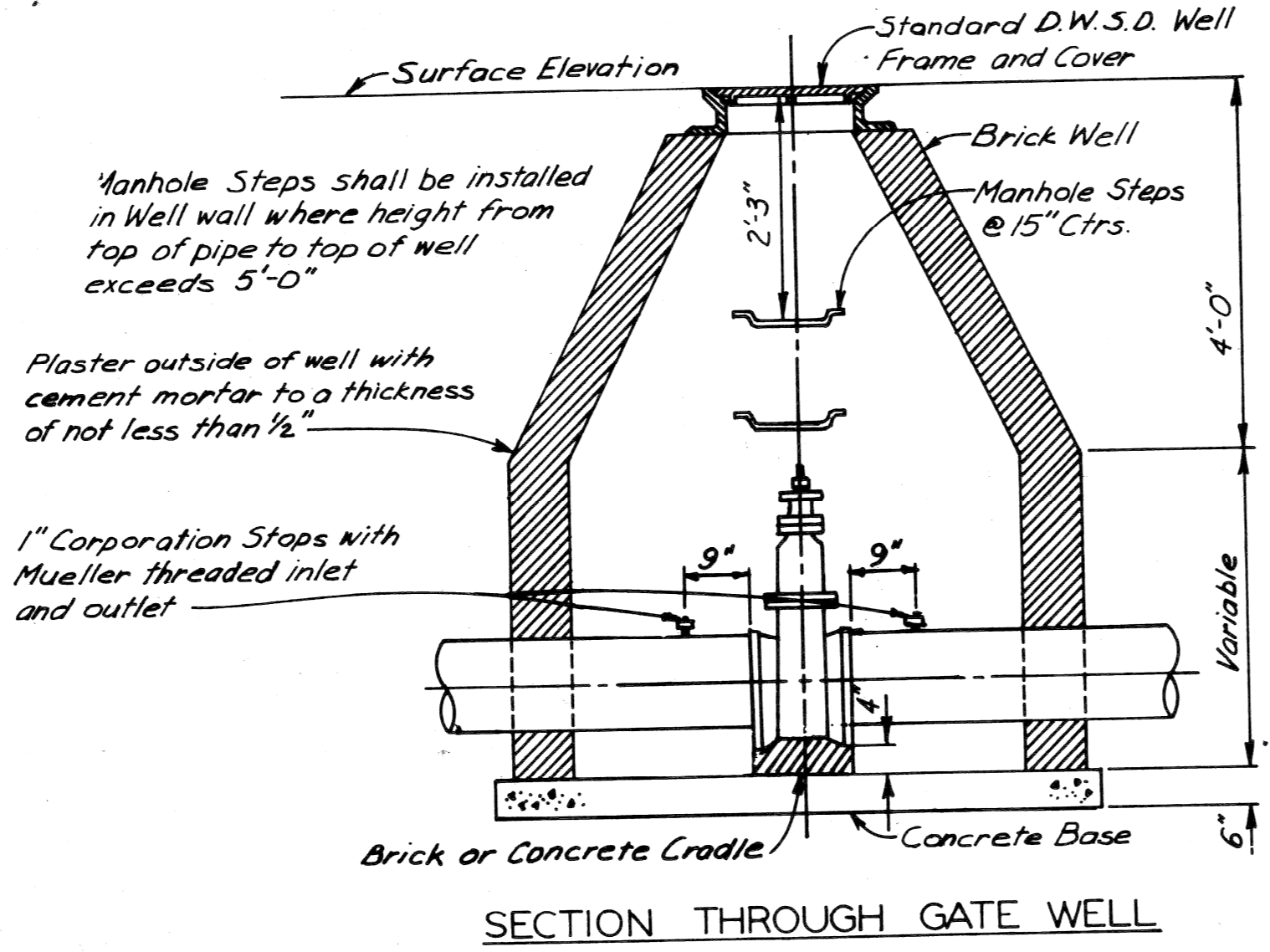


ALUMINUM MANHOLE STEP
Not to Scale

Note: Manhole steps shall conform to the requirements for "Aluminum Alloy Extruded Bars, Rods, Shapes and Tubes", A.S.T.M. B 221 (current), Alloy 6061-T6, or approved equal.



PLAN SECTION

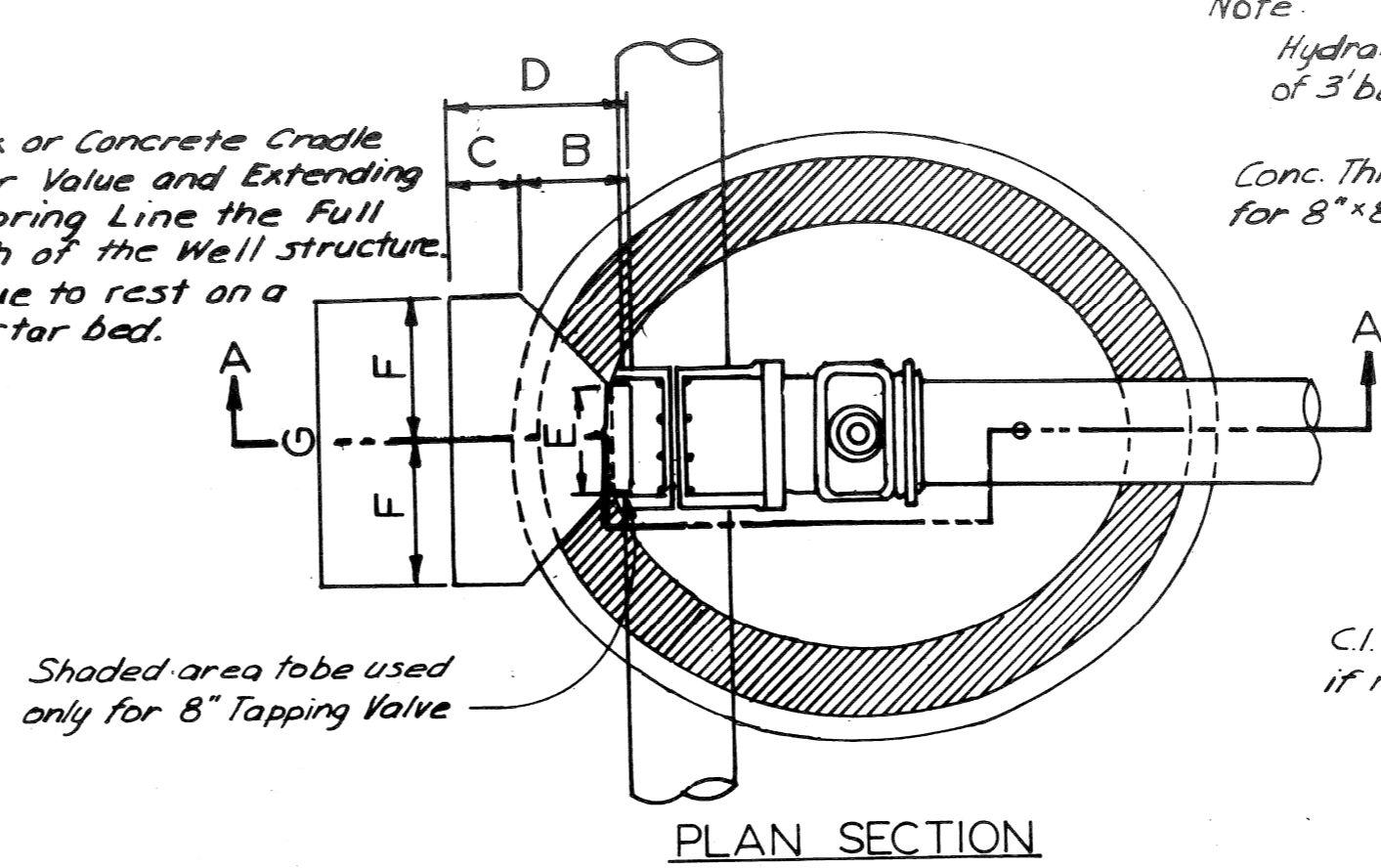


SECTION THROUGH GATE WELL

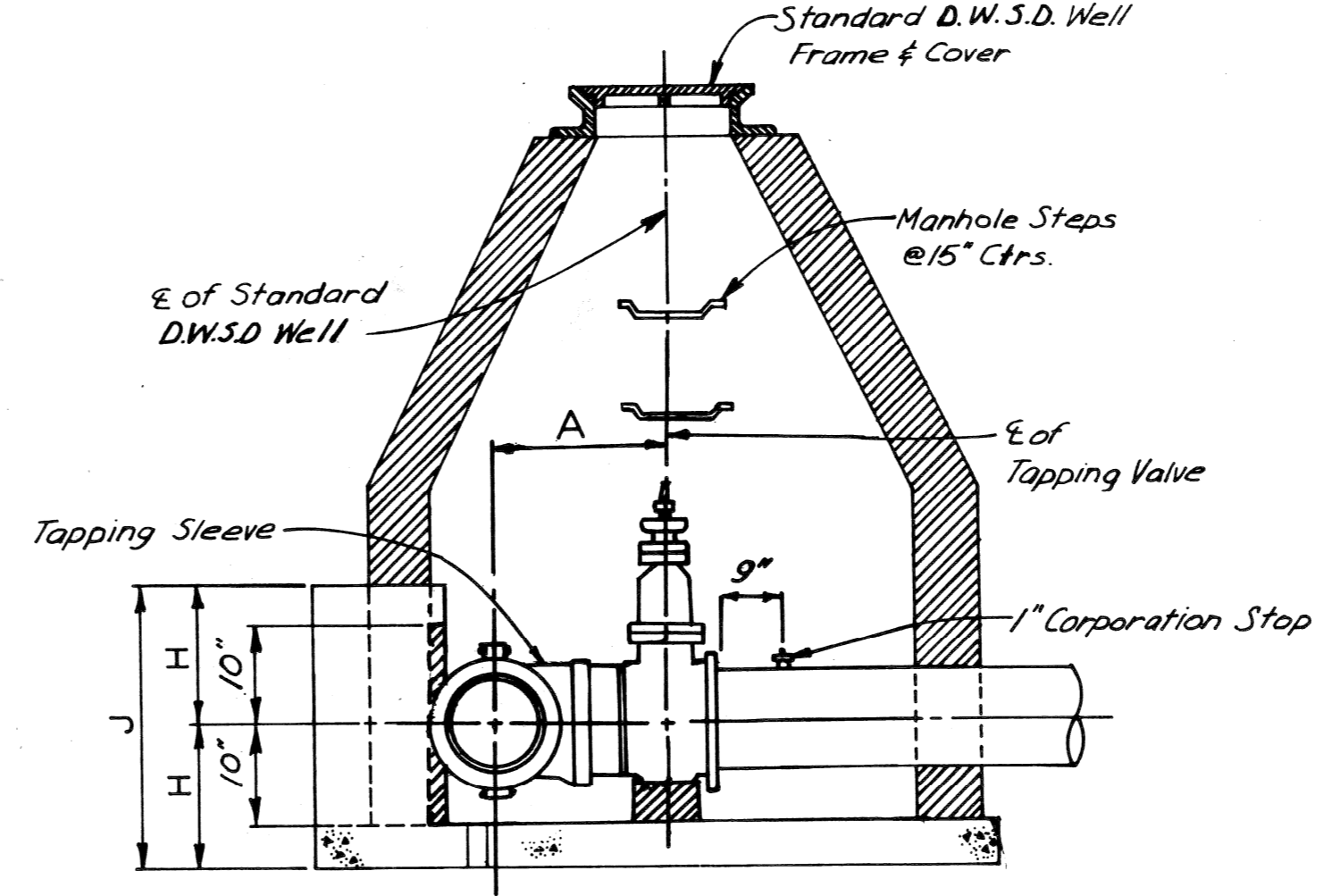
SCHEDULE OF GATE WELL DIMENSIONS

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'-9"	5'-6"	6'-10"

DETAIL OF STANDARD GATE WELLS
Not to Scale



PLAN SECTION



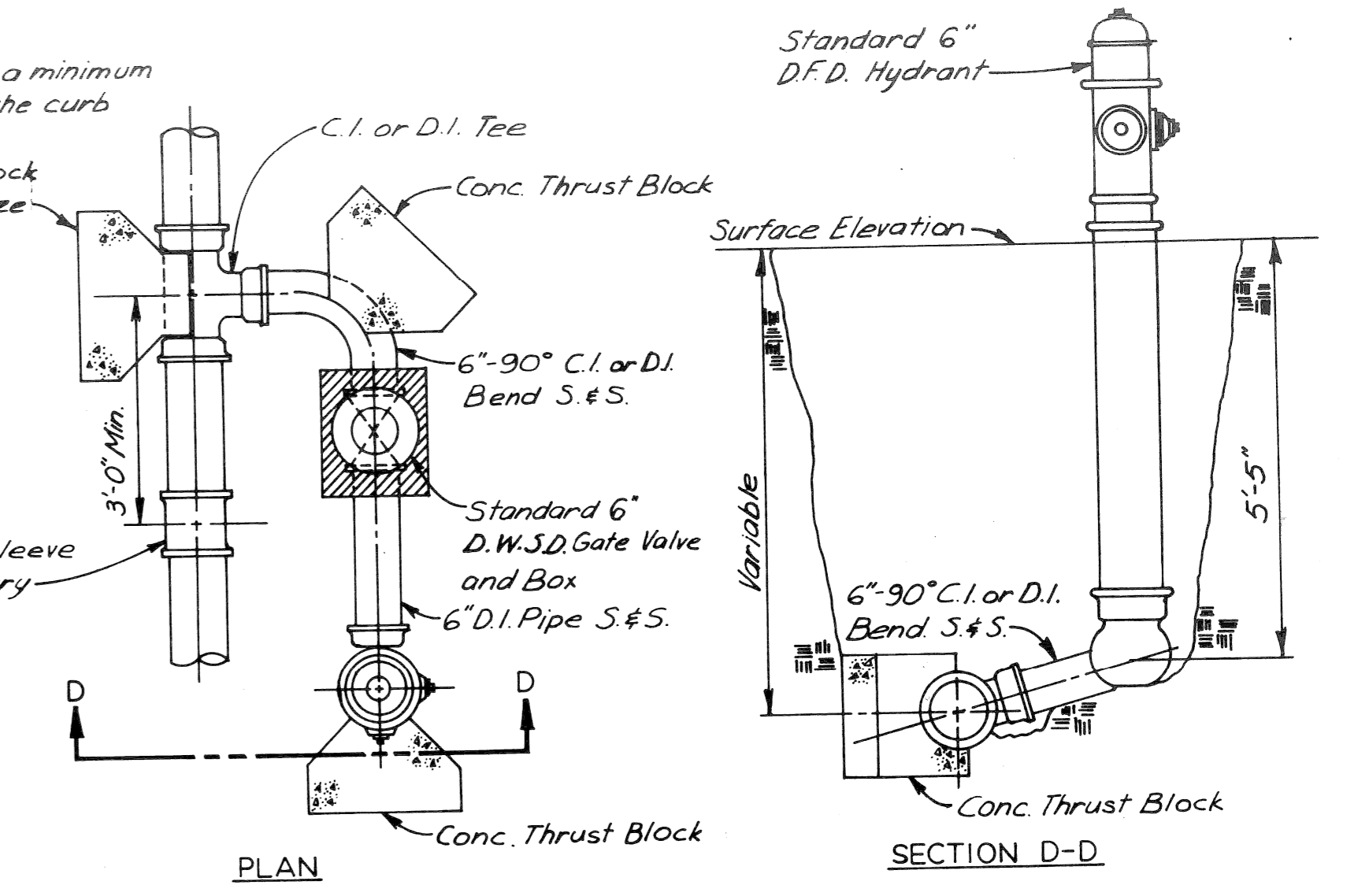
SECTION A-A

SCHEDULE OF STANDARD THRUST BLOCK DIMENSIONS FOR TAPPING VALVES

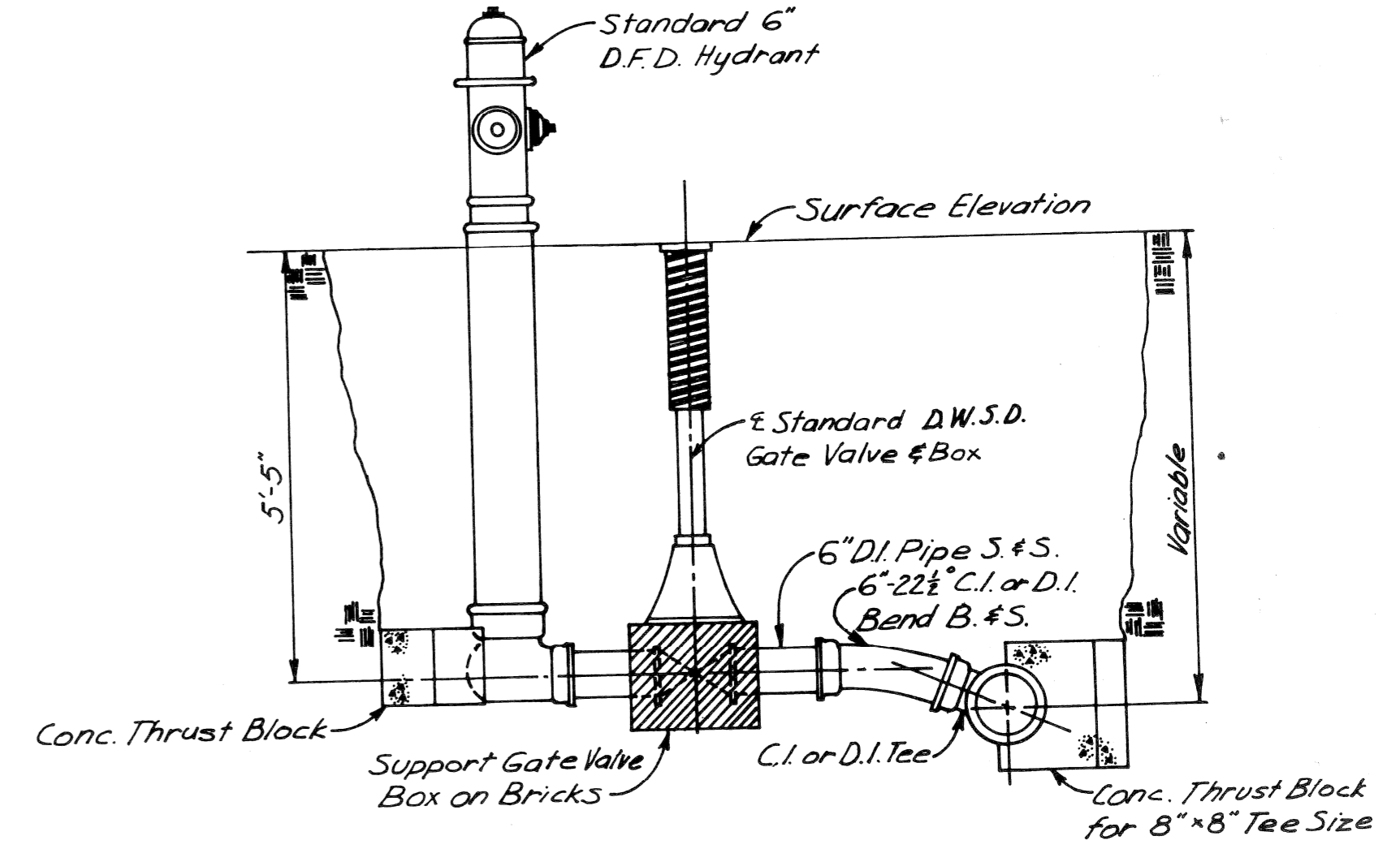
SIZE	A	B	C	E	F	G	H	J
8" x 8"	1'-6½"			0'-7"				
12" x 8"	1'-9"			0'-7"				
16" x 8"	1'-11½"			0'-7½"				
12" x 12"	1'-8½"	1'-6"	0'-9"	2'-3"	0'-7"	1'-9"	3'-6"	1'-6"
16" x 12"	1'-11½"	1'-6"	0'-9"	2'-3"	0'-10½"	1'-9"	3'-6"	1'-6"
16" x 16"	2'-2"	2'-7"	1'-0"	3'-7"	0'-10½"	2'-11"	5'-10"	1'-8"

DETAIL OF STANDARD THRUST BLOCKS FOR TAPPING VALVES
Not to Scale

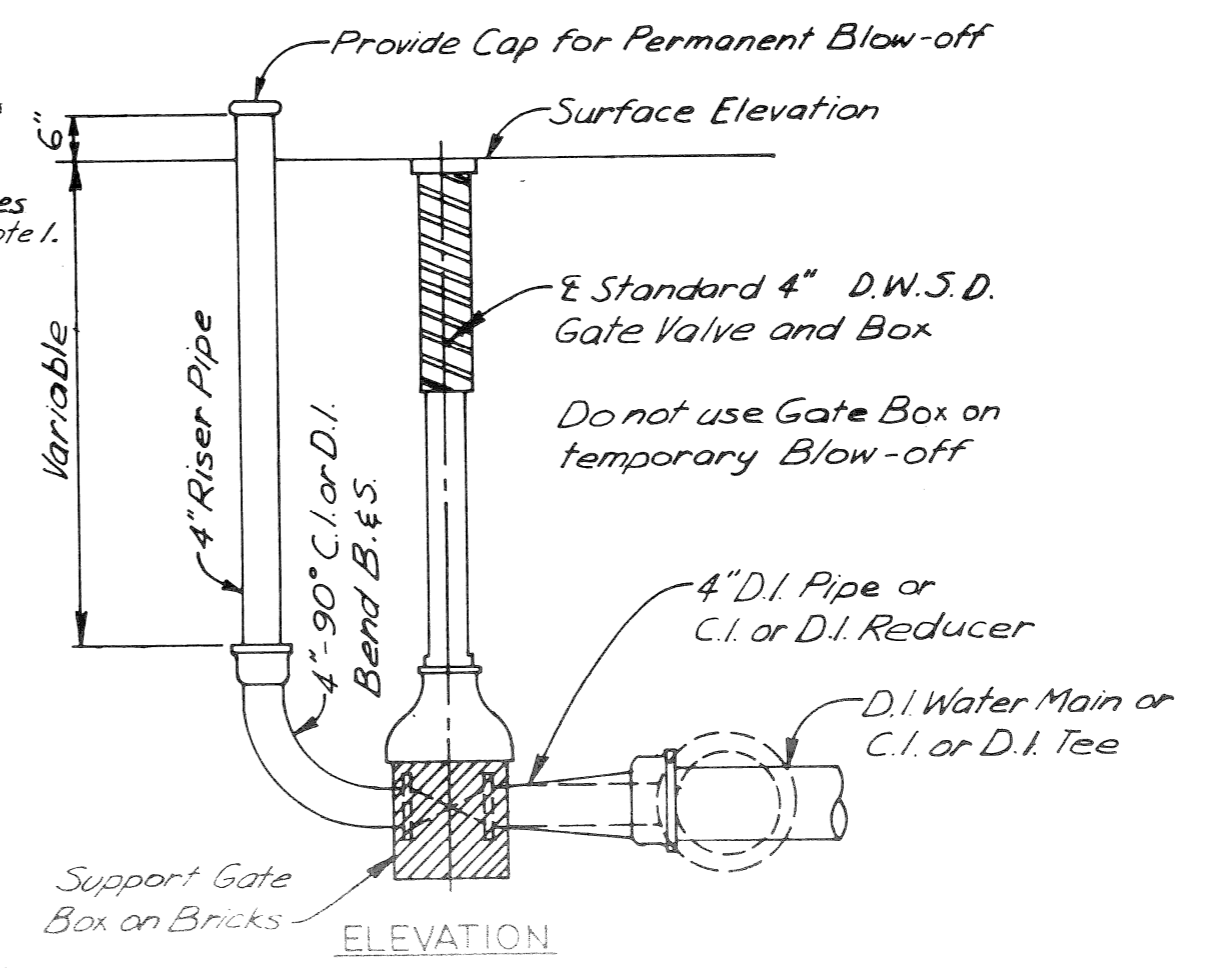
Note: Hydrant to be a minimum of 3' behind the curb



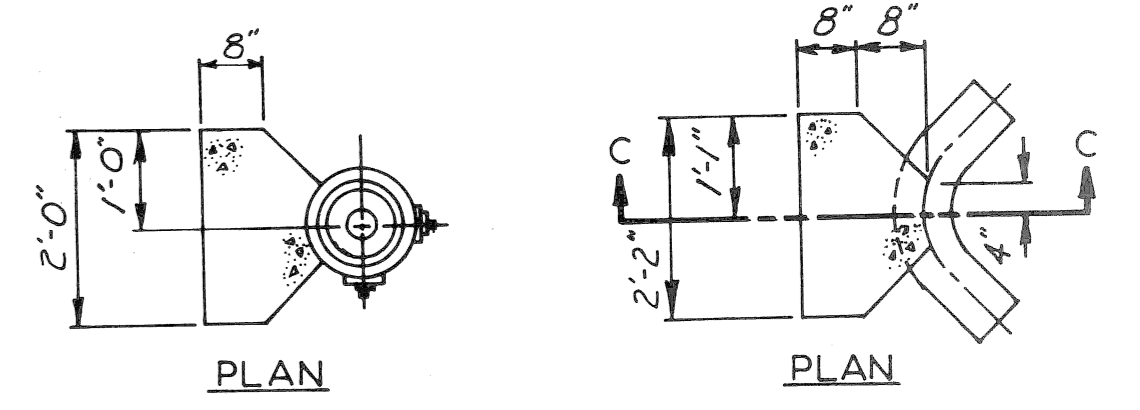
DETAIL OF 6" HYDRANT INSTALLATION OFF SET
Not to Scale



DETAIL OF 6" HYDRANT INSTALLATION STRAIGHT AWAY
Not to Scale

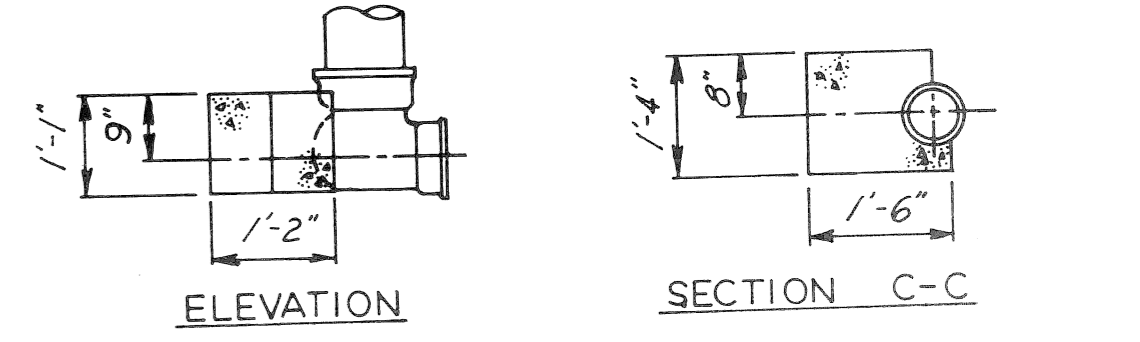


DETAIL OF 4" BLOW-OFF



PLAN

PLAN



ELEVATION

SECTION C-C

THRUST BLOCK FOR 6" HYDRANT
Not to Scale

THRUST BLOCK FOR 6" HYDRANT BEND
Not to Scale