

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 IN CO-OPERATION WITH  
 MICHIGAN DEPARTMENT OF STATE HIGHWAYS  
 AND  
 BUREAU OF PUBLIC ROADS  
 PLAN AND PROFILE OF PROPOSED

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

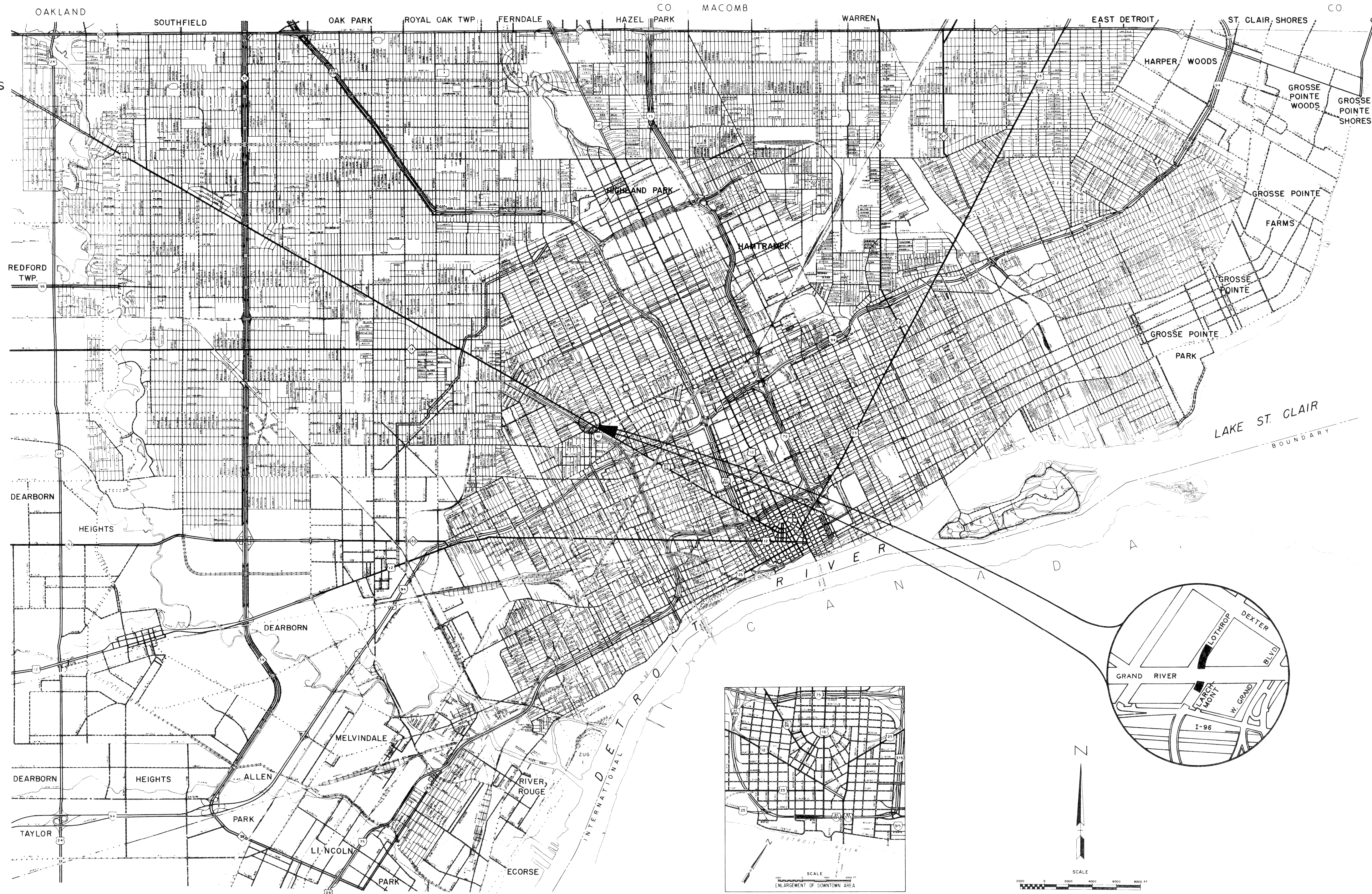
B.P.R. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MICH.	03185			
STREET	CITY	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS
	DETROIT	WAYNE		1	

FEDERAL AID TOPICS PROJECT NO. MICHIGAN T 4000 (4)

JOB NO. 03185 A

- INDEX OF SHEETS
1. TITLE SHEET
  2. TYPICAL CROSS SECTIONS AND QUANTITIES
  3. REMOVAL AND UTILITY PLAN
  4. ALIGNMENT, PLAN AND PROFILE
  5. P.L.C. PLAN AND QUANTITIES
  - 6-11. P.L.C. STANDARDS

- STANDARD PLANS
- E-4-A-27M
  - E-4-A-29H
  - E-4-A-33L
  - E-4-A-110D
  - E-4-A-129A
  - E-6-A-56
  - I-5A
  - IV-83A
  - IV-84A
  - VII-125A



CONTRACT FOR INTERSECTION IMPROVEMENT

LOCAL AUTHORITY APPROVAL  
 CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 GOVERNMENTAL AGENCY

RECOMMENDED FOR APPROVAL W. A. Bannard 2-2-71  
 ACTING HEAD CIVIL ENGINEER DATE

APPROVED BY R. P. Hicks 2-5-71  
 ACTING CITY ENGINEER DATE

APPROVED BY Alfred Berarducci 2-5-71  
 COMMISSIONER OF PUBLIC WORKS DATE

LOCAL AUTHORITY APPROVAL  
 CITY OF DETROIT  
 DEPARTMENT OF STREETS AND TRAFFIC  
 GOVERNMENTAL AGENCY

APPROVED BY G. J. Malo 2-5-71  
 DIRECTOR OF DEPT. OF STREETS & TRAFFIC DATE

RECOMMENDED FOR APPROVAL

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 ENGINEER OF TRAFFIC AND SAFETY

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CONSTRUCTION ENGINEER

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 F.A.S. ENGINEER

PLANS CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF STATE HIGHWAYS APPROVAL  
 APPROVED FOR COMMISSION

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 DEPUTY DIRECTOR

PREPARED UNDER SUPERVISION OF

R. P. Hicks 8435  
 REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

CITY OF DETROIT  
 ORGANIZATION

DETROIT, MICHIGAN  
 ADDRESS

(SEAL)

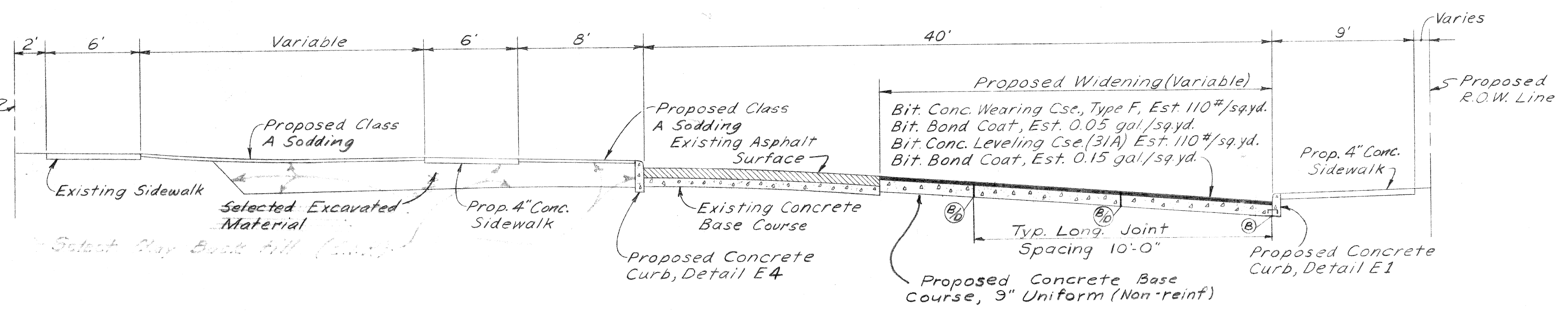
U. S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 BUREAU OF PUBLIC ROADS

APPROVED \_\_\_\_\_  
 DISTRICT ENGINEER DATE

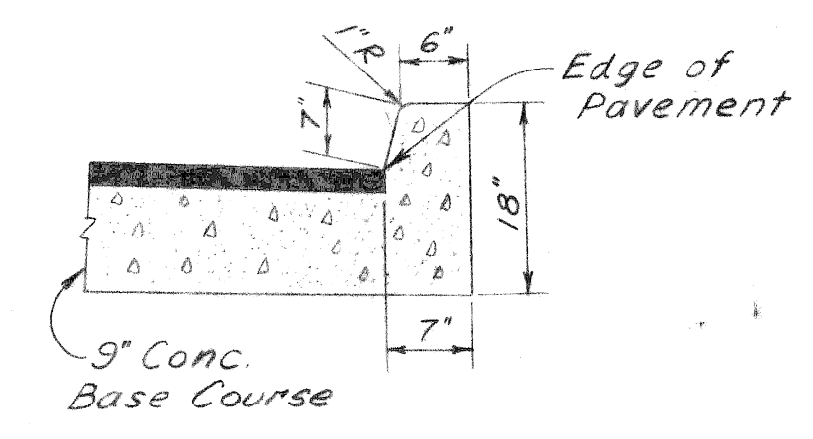
FILE NO. NO. 330 STENCIL	T 4000 (4)	STATE PROJECT 03185	FEDERAL PROJECT T40004	SHEET NO. 1
--------------------------------	------------	------------------------	---------------------------	----------------



ITEMS	Quantity & Pay Unit	As Unit	As Unit
Removing Old Pavement	539 Sq.Yds.	524 Sq.Yd.	1001
Removing Bituminous Surface	337 Sq.Yds.	357 Sq.Yd.	1003
Removing Masonry & Conc. Structures	14 Cu.Yds.	31 Cu.Yd.	1001
Removing Sidewalk	322 Sq.Yds.	390 Sq.Yd.	1001
Removing Curb	188 Lin.Ft.	217 Lin.Ft.	1003
Abandoning Drainage Structures	3 Each	3 Each	—
Earth Excavation	413 Cu.Yds.	671 Cu.Yd.	1001
Select Clay Backfill (Comp. in Place)	257 Cu.Yds.	313 Cu.Yd.	1001
12" Sewer Traps	2 Each	2 Each	—
12" Sewer Traps	2 Each	2 Each	Existing Property Line
12" Sewer (C76-II) (Trench Detail B)	35 Lin.Ft.	35 Lin.Ft.	1001
Adjusting Drainage Structure Cover	1 Each	0 Each	1001
Adjust Gate Well Cover	2 Each	2 Each	—
Adjust Water Shutoffs	1 Each	1 Each	—
Concrete Curb, Detail E1	164 Lin.Ft.	152 Lin.Ft.	1001
Concrete Curb, Detail EA	350 Lin.Ft.	381 Lin.Ft.	1001
Pavement Replacement	57 Sq.Yds.	30 Sq.Yd.	1003
Concrete Pavement, 8" Uniform	7 Sq.Yds.	8 Sq.Yd.	1003
Concrete Base Course, 9" Uniform	322 Sq.Yds.	327 Sq.Yd.	1003
Bituminous Bond Coat	132 Gals.	143 Gal.	1003
4" Concrete Sidewalk	3428 Sq.Ft.	3717 Sq.Ft.	1001
7" Concrete Sidewalk	205 Sq. Ft.	220 Sq.Ft.	1003
Class A Sodding	280 Sq.Yds.	272 Sq.Yd.	1003
Maintaining Traffic	Lump Sum	Lump Sum	—
Bit. Conc. Leveling Course 31A OR	37 Tons	76 Tons	1003
Bit. Conc. Leveling Course (B.F. Slag) 31A	35 Tons	—	—
Bit. Conc. Wearing Course Type F OR	37 Tons	76 Tons	1002
Bit. Conc. Wearing Course (B.F. Slag) Type F	35 Tons	—	—
12" Sewer (C76-II) (Trench Detail 9)	45 Lin.Ft.	44 Lin.Ft.	1001
Final Trim and Cleanup	2.3 Stas.	2.3 Stas.	—
2' Catch Basins (8' Deep or less)	1 Each	1 Each	—
4' Catch Basins (8' Deep or less)	2 Each	2 Each	—
Drainage Structure Covers	1,500 Lbs.	1500 Lbs.	—
Class 1 Barricades	6 Each	6 Each	—
Water Main Trench	Lump Sum	Lump Sum	—

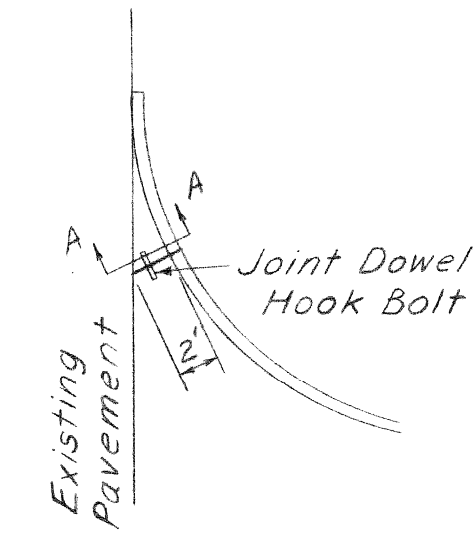


CROSS-SECTION AT WIDENING OF EXISTING LOTHROP AVENUE PAVEMENT  
Scale: 1"=5'

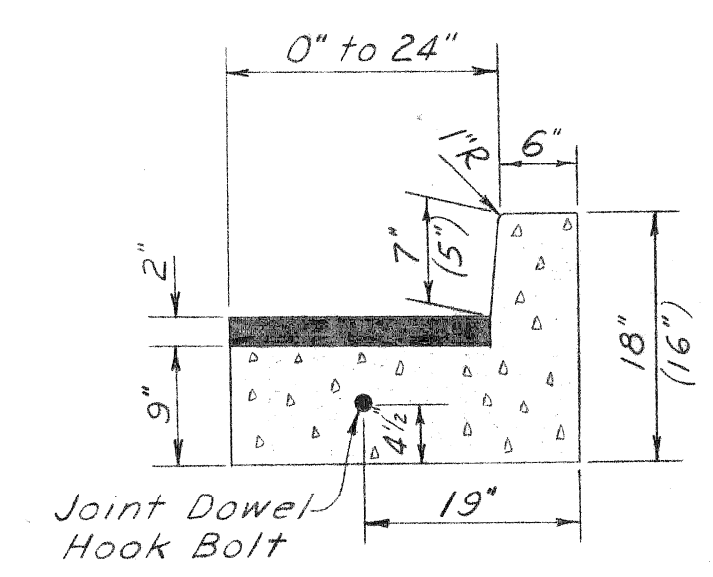


Note: Regardless of the option selected by the Contractor the pay item shall remain the same as if a Concrete Curb Detail E1 were constructed.

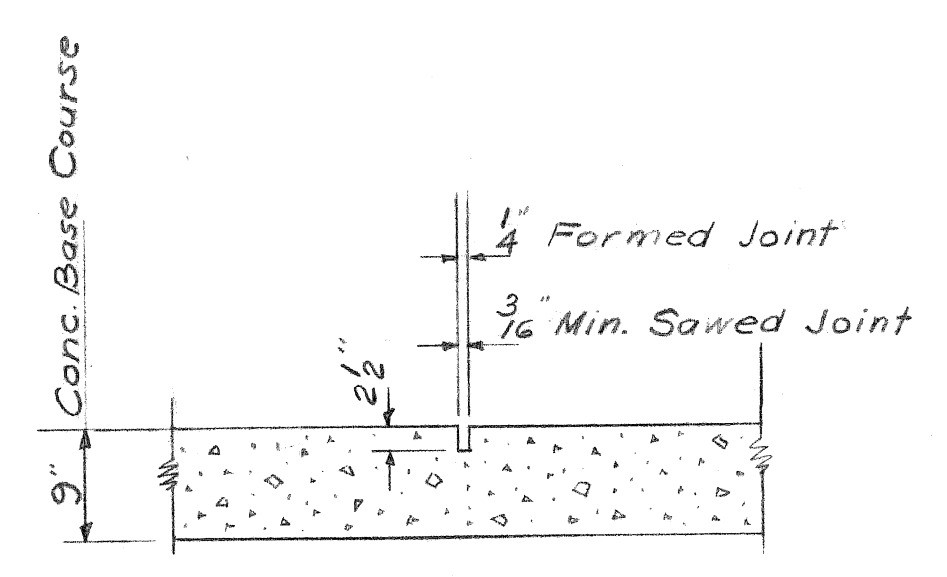
INTEGRAL CURB ALTERNATE



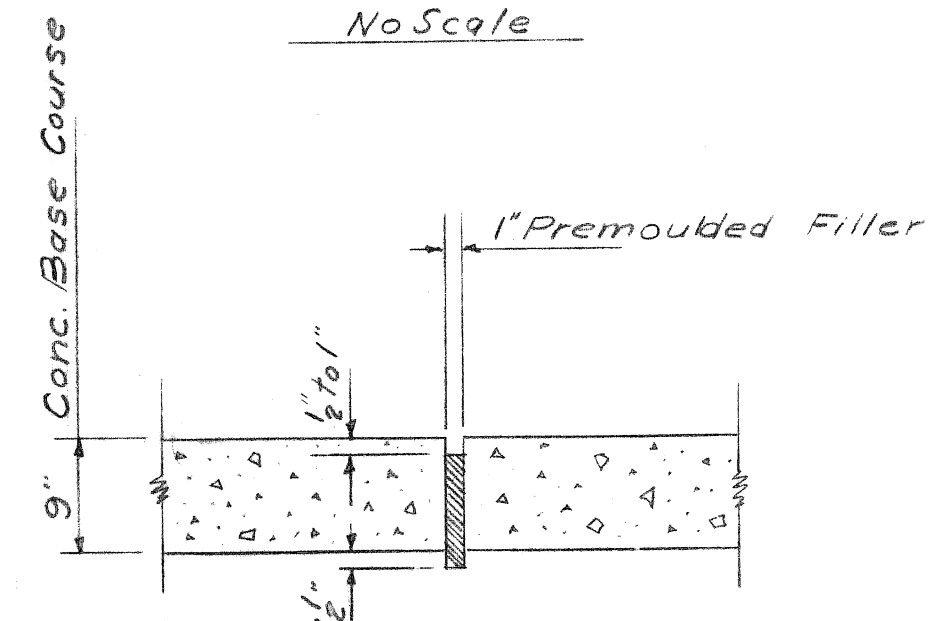
DETAIL "A"



SECTION A-A



CONTRACTION JOINT  
Incid



EXPANSION JOINT  
Incid.

No Scale

Notes  
The edge of the existing pavement shall be thoroughly cleaned before concrete widening is placed.  
If blast furnace slag is used for bituminous coarse aggregate, the rate of application in pounds per square yard shall be reduced by 5% from that shown on the plans.

Bituminous Application Rates

Item	Rate of Application	Est. Thickness	Asphalt Penetration
Bit. Conc. Wearing Course Type F	110#/sq.yd.	1"	85 - 100
Bit. Conc. Leveling Course 31A	110#/sq.yd.	1"	85 - 100

COORD.	DESCRIPTION	DRN	CKD	APVD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

DESIGNED BY	D. MILZ	APPROVED:	<i>Allen E. Pagan</i> ENGINEER OF EXPRESSWAYS
DRAWN BY			<i>J. Conat</i> ACTING ADMINISTRATIVE ENGINEER
TRACED BY			<i>W. A. Baermann</i> ACTING HEAD CIVIL ENGINEER
CHECKED BY	B. TEMPORELLI		

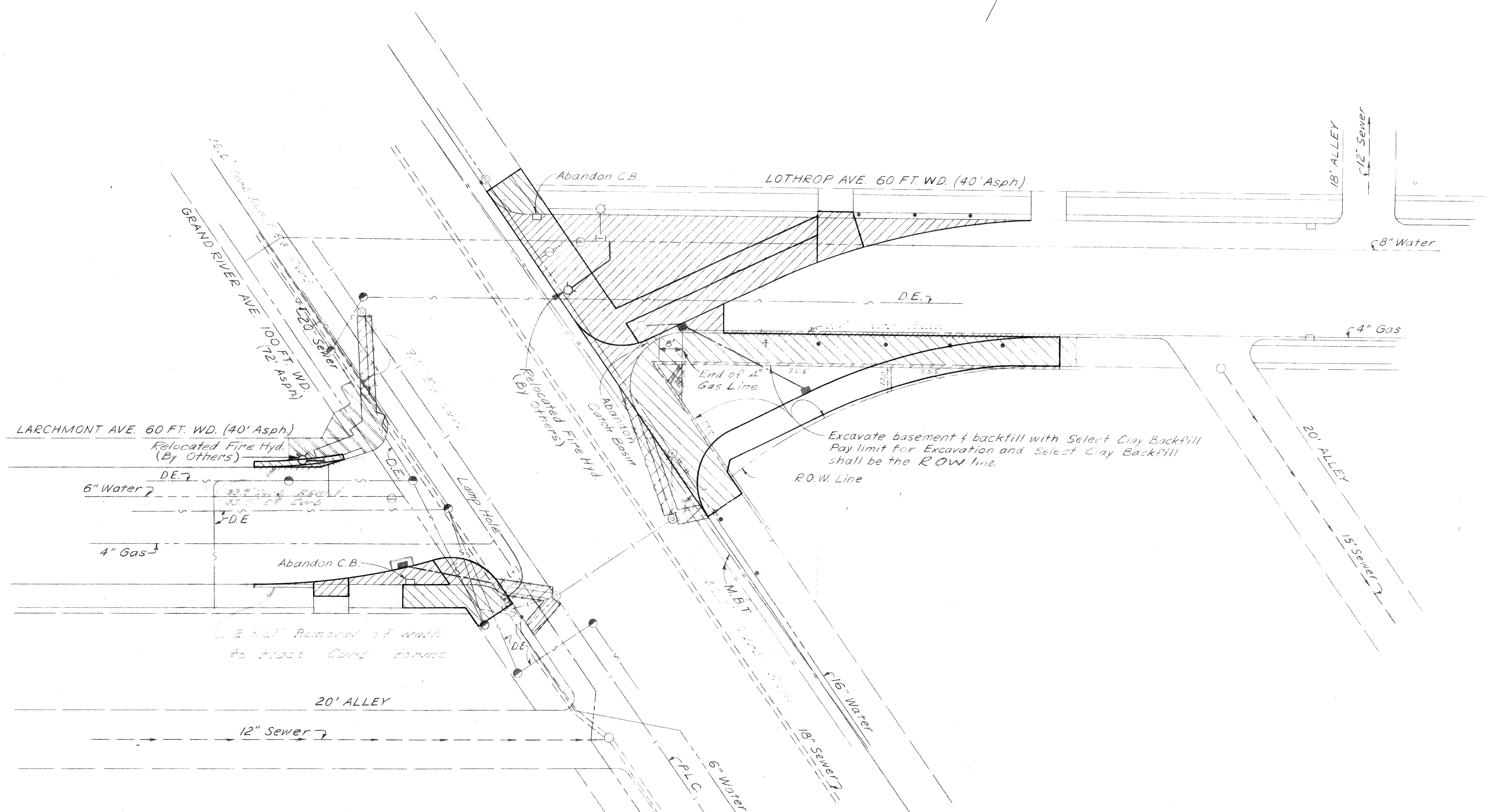
CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE

JOG ELIMINATION  
LOTHROP AVE AT GRAND RIVER AVE

TYPICAL CROSS-SECTIONS AND QUANTITIES

SHEET	2	OF	11	SHEETS
PROJECT NO.	T 4000 (4)			
JOB NO.	03185			
DATE	JAN. 22, 1971			





**UTILITY LEGEND**

- 12" — 15" — Existing Lateral Sewer & M.H.
- 4'-6" — 5'-0" — Existing Public Sewer & M.H.
- Existing Gas Lines
- Existing Water Lines & M.H.
- Existing Detroit Edison Conduit
- Existing Mich. Bell Telephone Ducts
- Existing P.L.C. Conduits
- Curb Lines
- P.L.C. Manhole
- Edison Electric Manhole
- ⊙ Fire Dept. Standard Hydrant
- P.L.C. Light Pole
- (-) Water Shut-Off
- (+) Gas Shut-Off
- † Traffic Sign Post
- ± Mail Box
- Parking Meter
- ⊗ Traffic Signal Light
- ⊕ Traffic Signal on Light Post
- △ Police Call Box
- Exist. C.B., M.H. & Inlet Sewer
- Prop. C.B., M.H. & Inlet Sewer

**REMOVAL LEGEND**

- [Hatched] Removing Old Pavement
- [Hatched] Removing Sidewalk
- [Hatched] Removing Sidewalk and Sidewalk Replacement
- [Hatched] Removing Masonry and Concrete Structures
- [Hatched] Removing Curb
- [Hatched] Removing Old Pavement and Pavement Replacement

SCALE: 1" = 20'

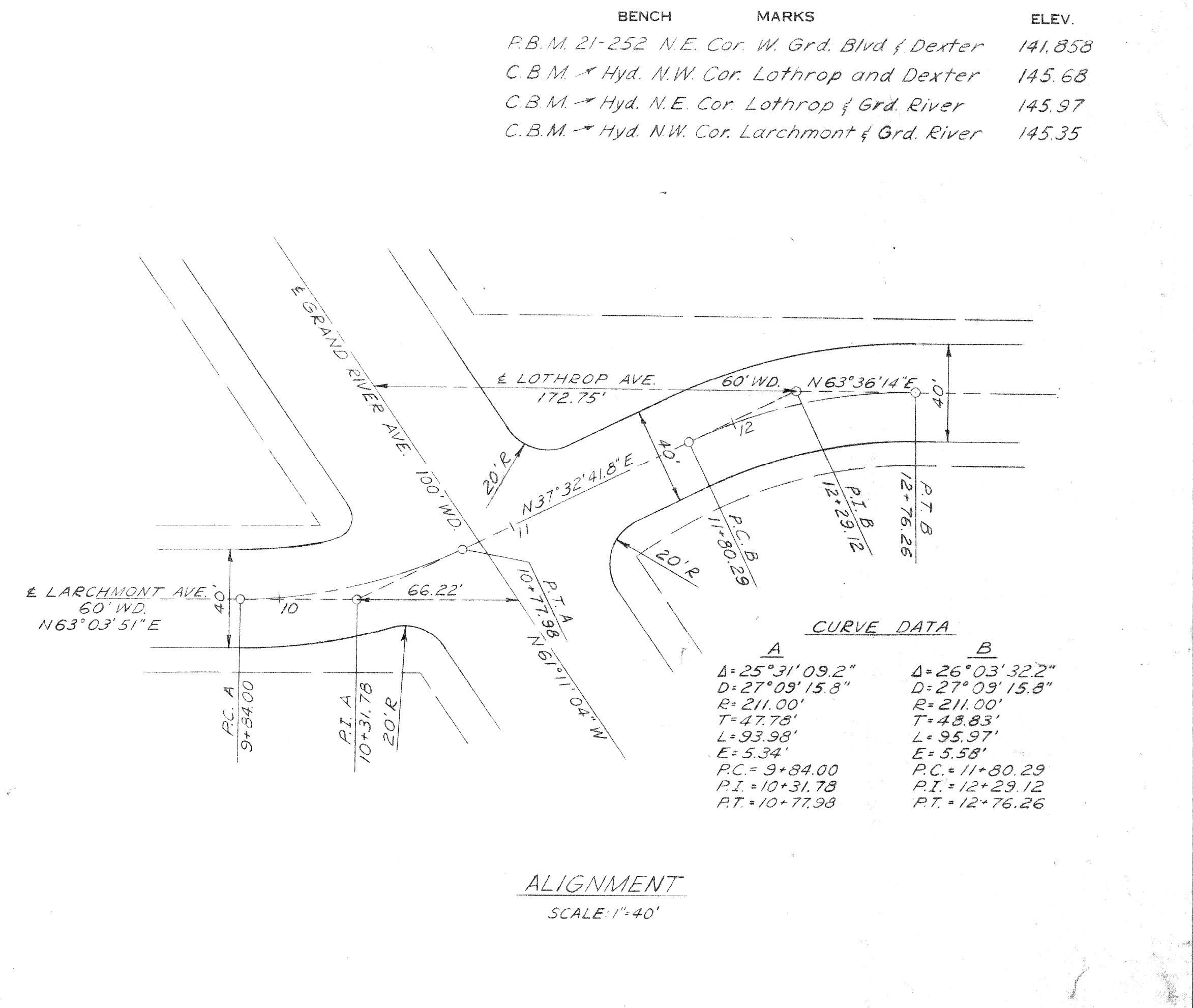
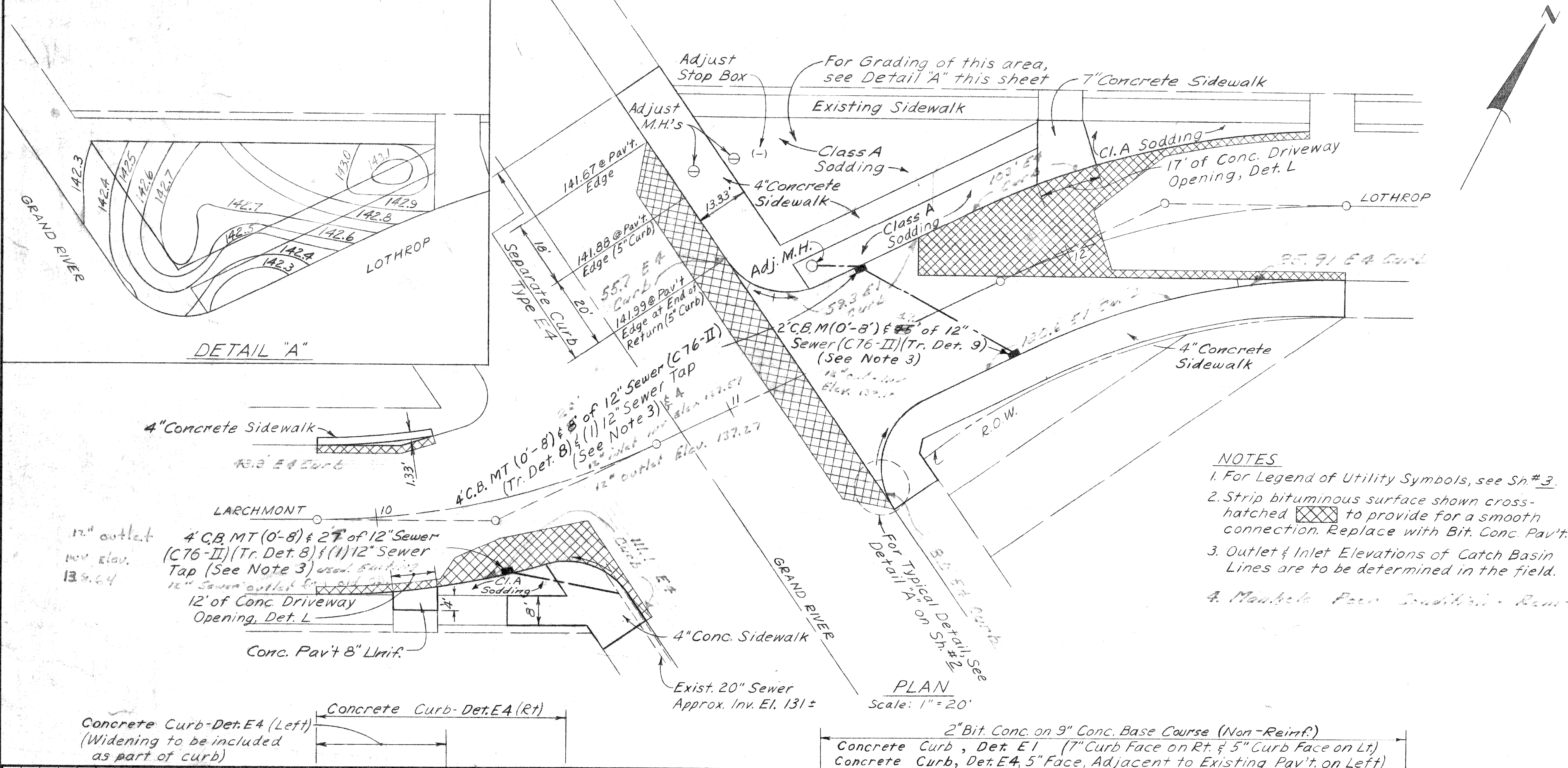
<table border="1"> <tr> <td>DESIGNED BY</td> <td>D. MILZ</td> </tr> <tr> <td>DRAWN BY</td> <td></td> </tr> <tr> <td>TRACED BY</td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td>B. TEMPORELLI</td> </tr> </table>				DESIGNED BY	D. MILZ	DRAWN BY		TRACED BY		CHECKED BY	B. TEMPORELLI	<p>APPROVED:</p> <p><i>Allen E. Cooper</i> ENGINEER OF EXPRESSWAYS</p> <p><i>J. J. Corat</i> ACTING ADMINISTRATIVE ENGINEER</p> <p><i>W. J. Bannard</i> ACTING HEAD CIVIL ENGINEER</p>		<p><b>CITY OF DETROIT</b> DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE</p>		<p>JOG ELIMINATION LOTHROP AVE. AT GRAND RIVER AVE.</p> <p>REMOVAL AND UTILITY PLAN</p>		<p>SHEET <u>3</u> OF <u>11</u> SHEETS</p> <p>PROJECT NO. T4000(4)</p> <p>JOB NO. 03185</p> <p>DATE JAN. 22, 1971</p>	
DESIGNED BY	D. MILZ																		
DRAWN BY																			
TRACED BY																			
CHECKED BY	B. TEMPORELLI																		

REVISIONS LOCATED BY COORDINATES ON SHEET

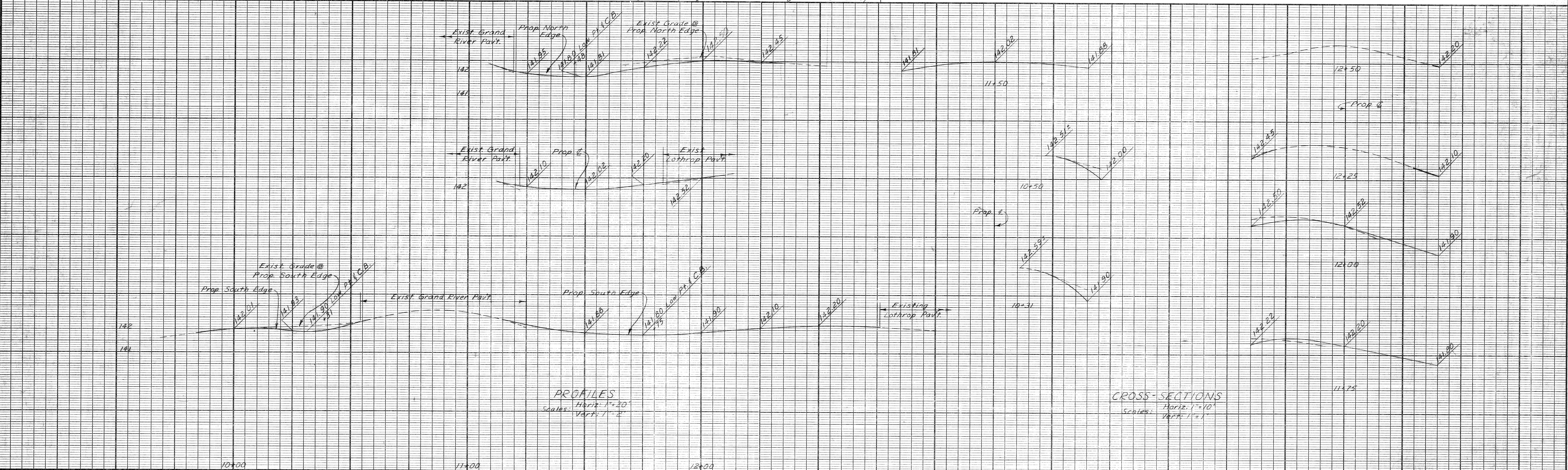
A  
B  
C  
D  
E  
F  
G  
H  
I  
O

Y  
B  
C  
D  
E  
F  
G  
H  
I  
O





- NOTES**
1. For Legend of Utility Symbols, see Sh.# 3.
  2. Strip bituminous surface shown cross-hatched to provide for a smooth connection. Replace with Bit. Conc. Pav't.
  3. Outlet & Inlet Elevations of Catch Basin Lines are to be determined in the field.
  4. Manhole Face Sodding - Remove



DESCRIPTION	DRN	CK'D	AP'VD	DATE	BY	CHECKED BY	APPROVED:
REVISIONS					D. MILZ	B. TEMPORELLI	Allen E. Prosser ENGINEER OF EXPERTS
					B. TEMPORELLI	D. MILZ	J. J. Cant ADMINISTRATIVE ENGINEER
					D. MILZ	B. TEMPORELLI	W. A. ... ACTING HEAD CIVIL ENGINEER

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERS OFFICE

**JOG ELIMINATION**  
**LOTHROP AVE. AT GRAND RIVER AVE.**

ALIGNMENT, PLAN AND PROFILE

INDEX NO.	SHEET 4 of 11 SHEETS
PROJECT NO.	T 4000 (4)
JOB NO.	03185
DATE	JAN. 22, 1971



**NOTE:**

ALL FOUNDATIONS ARE TO BE BUILT 2'-6" BACK OF CURB

**LEGEND**

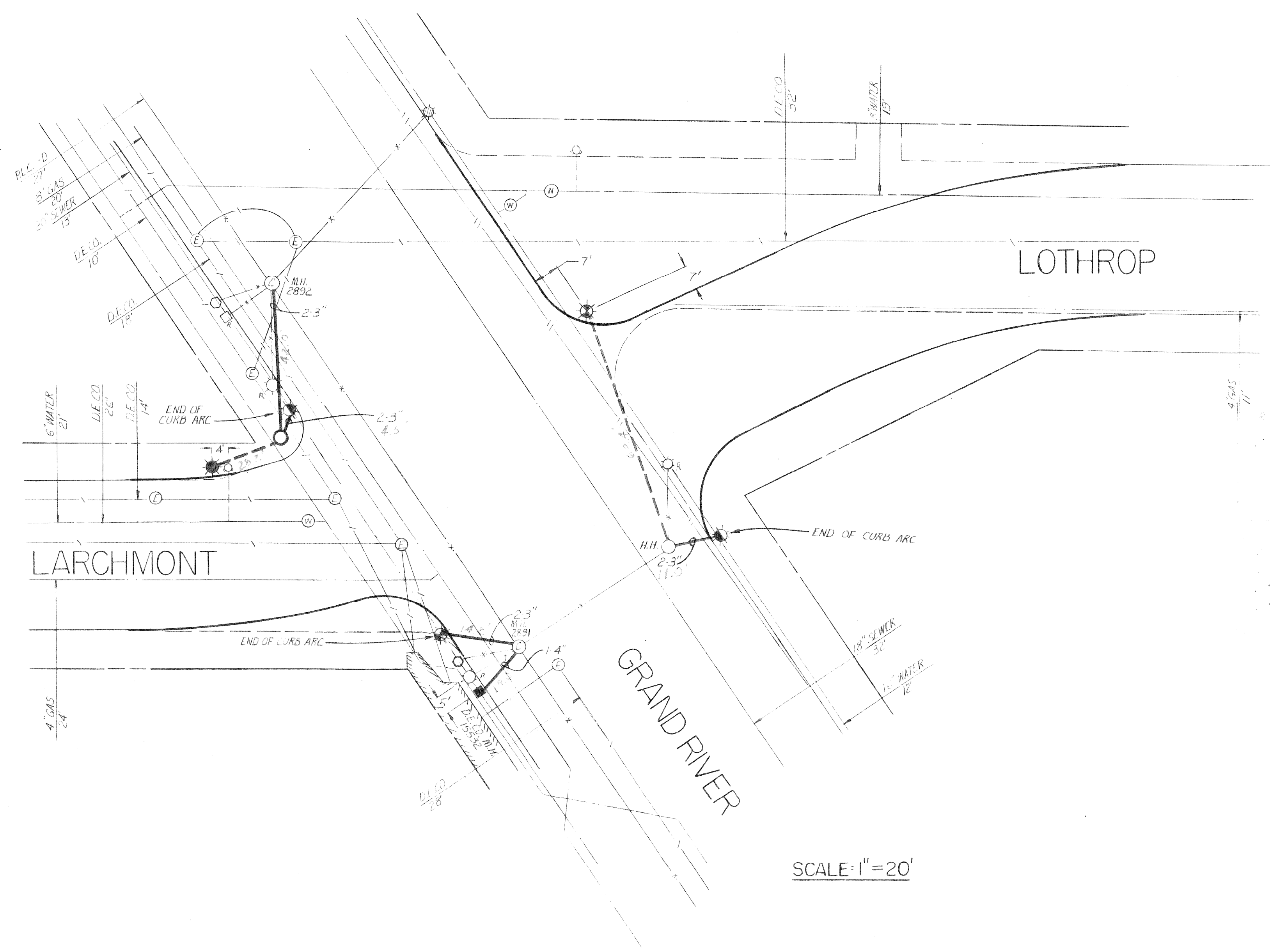
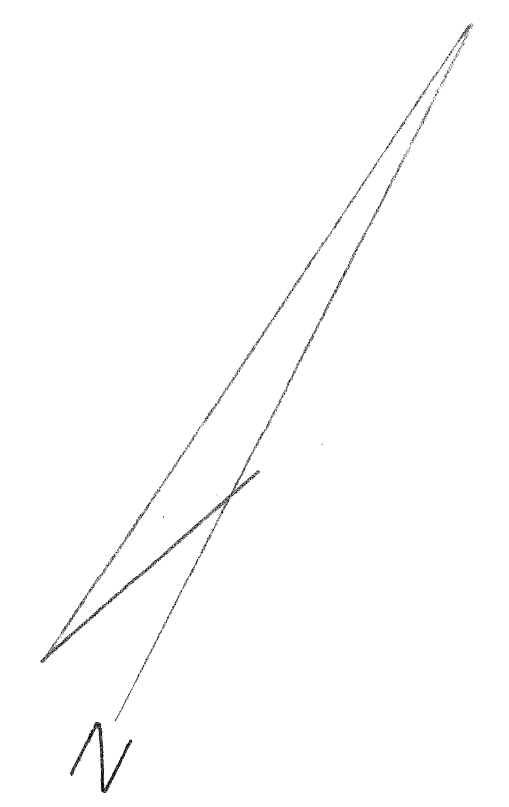
- BUILD NON-COMBINATION POST FOUNDATION DRAWING NO. 43-0353
- ▲ BUILD COMBINATION POST FOUNDATION DRAWING NO. 52-1890
- BUILD COMBINATION POST FOUNDATION DRAWING NO. 43-0323
- BUILD PEDESTAL POST FOUNDATION DRAWING NO. 4-3771
- BUILD SIDEWALK TYPE "D" HANDHOLE
- BUILD 1-3" CONCRETE ENCASED TYPE I CONDUIT
- BUILD CONCRETE ENCASED TYPE I CONDUIT OF SIZE & NUMBER INDICATED
- ⊗ REMOVE EXISTING POST FOUNDATION
- EXIST 6" TELEPHONE POST TO BE REMOVED BY OTHERS
- ⊗ EXIST POST & FOUNDATION TO REMAIN

**UTILITIES**

- EDISON CONDUIT
- BELL TELEPHONE CONDUIT
- GAS MAIN
- WATER MAIN
- P.L.C. CONDUIT
- SEWER
- ⊕ EDISON MANHOLE
- ⊕ WATER MANHOLE
- ⊕ FIRE HYDRANT
- ⊕ P.L.C. MANHOLE
- ⊕ P.L.C. HANDHOLE

**CURBS**

- PROPOSED NEW CURB
- EXISTING CURB TO REMAIN
- EXISTING CURB TO BE REMOVED



SCALE: 1" = 20'

**BILL OF MATERIALS**

DESCRIPTION	AMOUNT
NON-COMBINATION POST FOUNDATION	1
COMBINATION POST FOUNDATION (DWG. NO. 52-1890)	2
PEDESTAL POST FOUNDATION	1
SIDEWALK TYPE "D" HANDHOLE	1
1-3" CONCRETE ENCASED TYPE I CONDUIT	85 LIN. FT.
2-3" CONCRETE ENCASED TYPE I CONDUIT	85 LIN. FT.
1-4" CONCRETE ENCASED TYPE I CONDUIT	17 LIN. FT.
REMOVE EXISTING POST FOUNDATION	4
COMBINATION POST FOUNDATION (DWG. NO. 43-0323)	2

DATE	DESCRIPTION	CHKD. BY

GRAND RIVER-LOTHROP JOG ELIMINATION  
P.L.C. UNDERGROUND FACILITIES

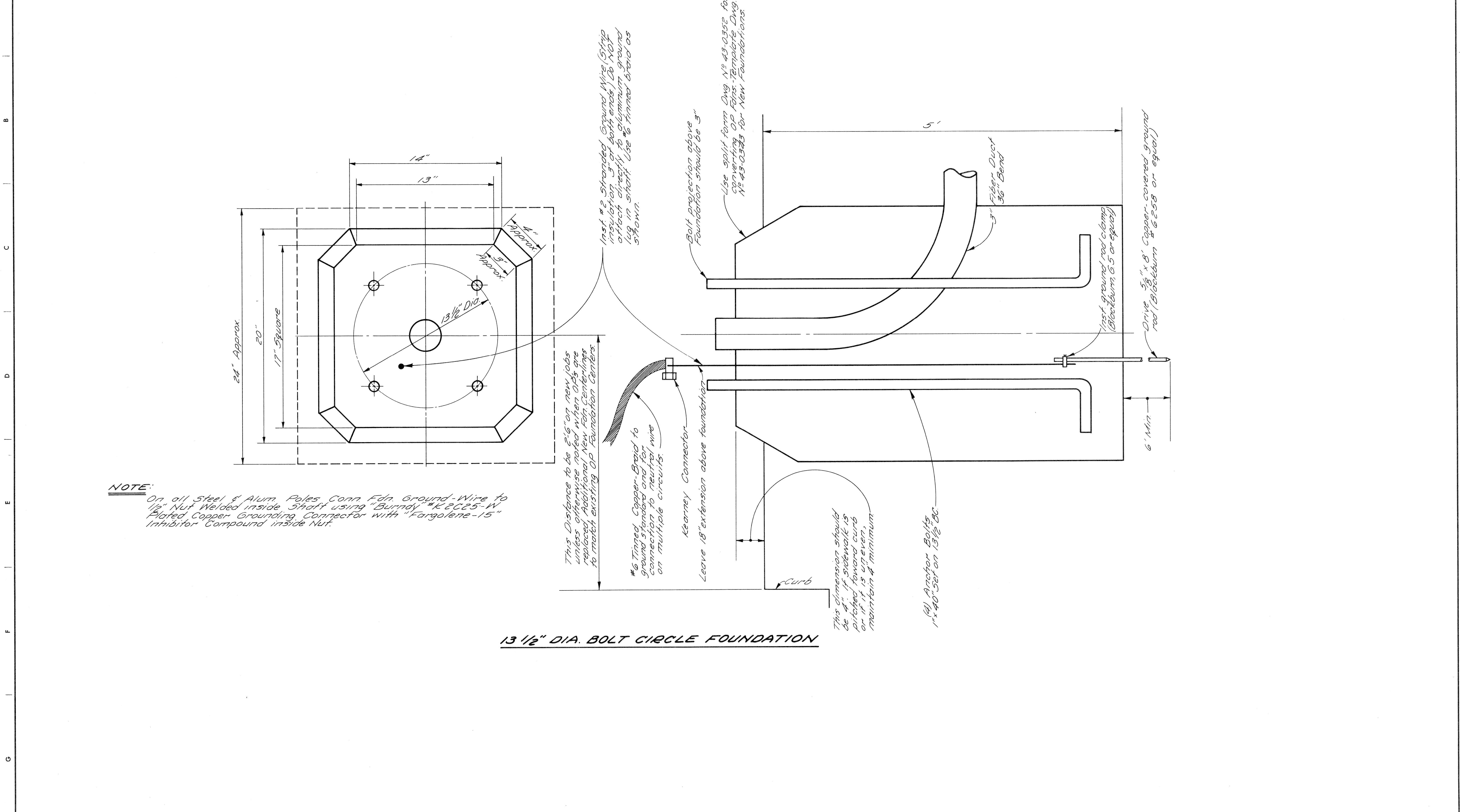
PROJECT NO. T 4000(4) JOB NO. 03185

DRAWN BY PANARS  
CHECKED BY [Signature]  
APPROVED BY [Signature]

**PUBLIC LIGHTING COMMISSION**  
CITY OF DETROIT

FILE NO. 52-2022  
SHEET NO. 5 OF 11  
DATE 1-22-71





**NOTE:**  
 On all Steel & Alum. Poles Conn. Fdn. Ground-Wire to 1/2" Nut Welded inside Shaft using "Burndy" #K2CC25-W Plated Copper Grounding Connector with "Fargalene-15" Inhibitor Compound inside Nut.

This Distance to be 8'-6" on new jobs unless otherwise noted when OP's are replaced. Additional New Fdn. Centerlines to match existing OP Foundation Centers.

#6 Tinned Copper-Braid to ground standard and for connection to neutral wire on multiple circuits.  
 Kearney Connector  
 Leave 18" extension above foundation

This dimension should be 4". If sidewalk is pitched toward curb or if it is uneven, maintain a minimum

(4) Anchor Bolts 1" x 40" Set on 13 1/2" BC.

**13 1/2" DIA. BOLT CIRCLE FOUNDATION**

PROJECT NO. T 4000(4) JOB NO. 03185

DESIGNED BY	APPROVED:
DRAWN BY	
TRACED BY	
CHECKED BY	

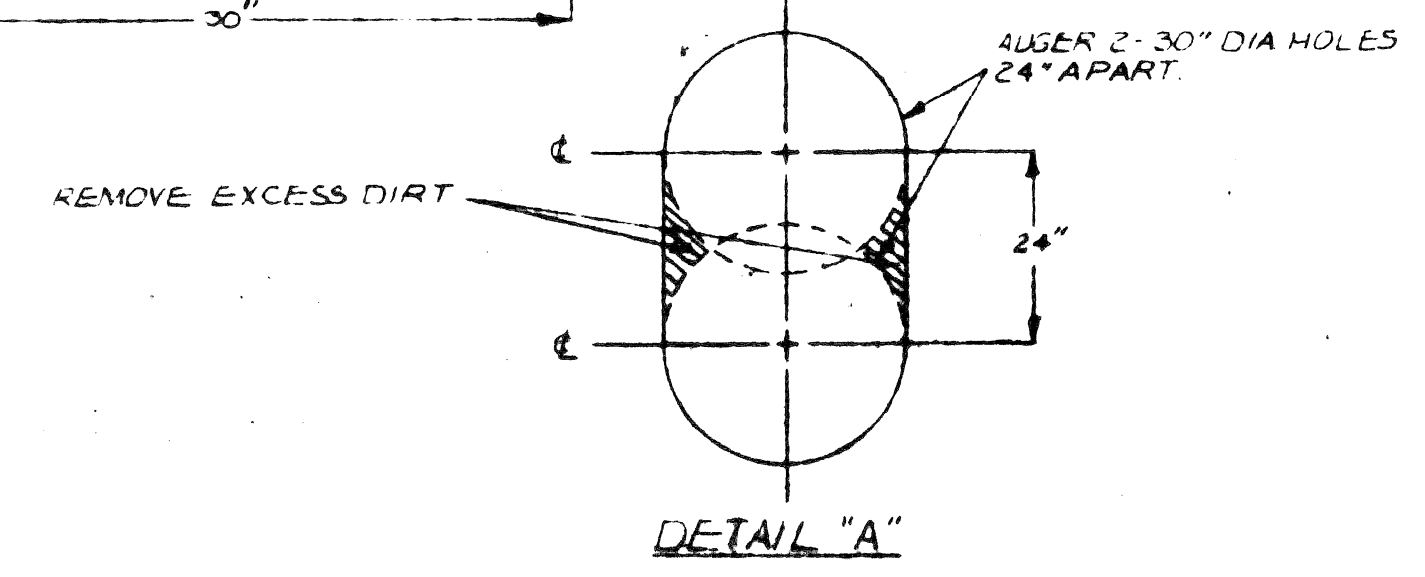
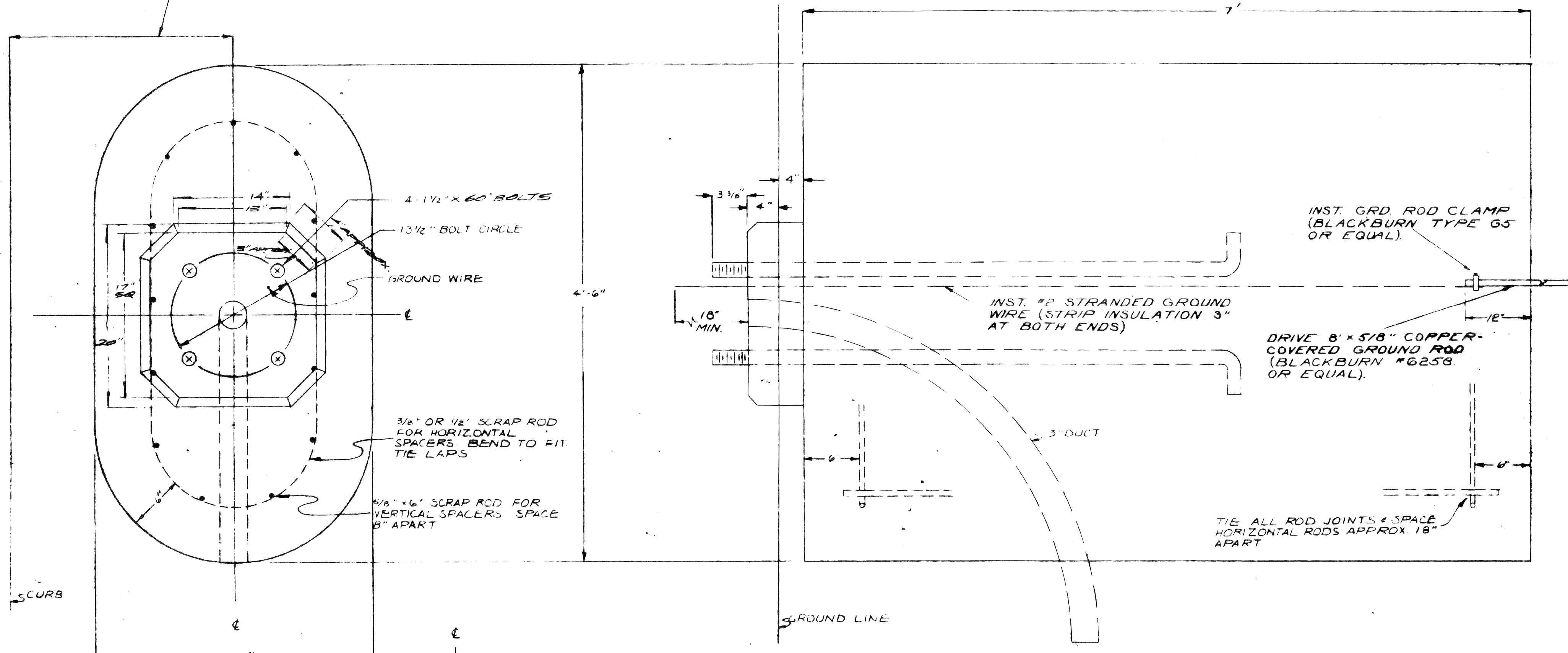
CITY OF DETROIT  
 PUBLIC LIGHTING COMMISSION

DETAILS OF  
 13 1/2" DIA. BOLT CIRCLE FOUNDATION

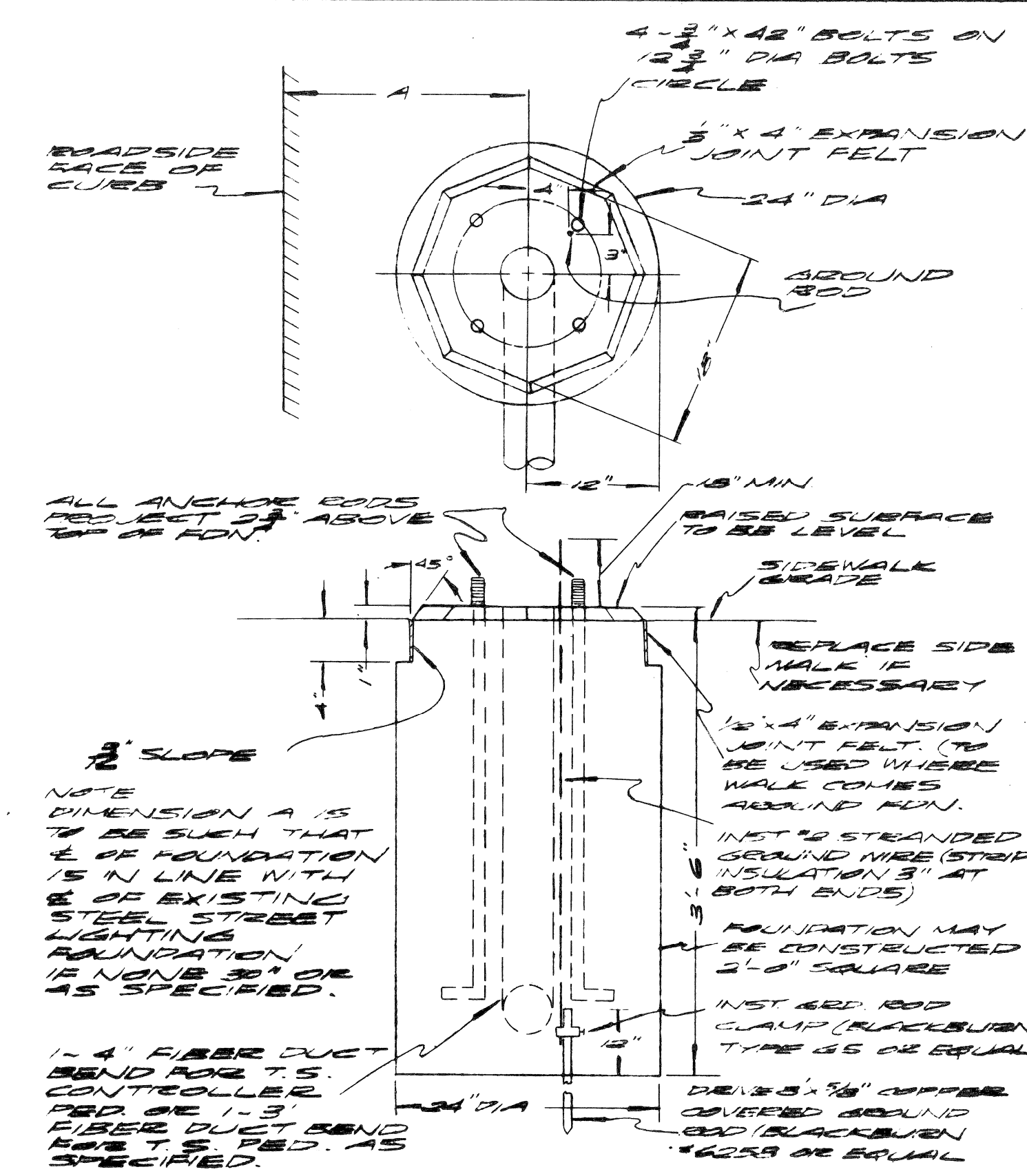
SHEET 6 OF 11 SHEETS
FILE No.
DRWG No.
DATE 2-3-71



SEE CONSTRUCTION DWG FOR THIS DIMENSION



NOTES:  
 1 USE TEMPLATE FOR FDN DWG #43-0353.  
 2 USE SLIGHTLY RUSTED SCRAP ROD. DO NOT USE SCRAP ROD WITH PAINT ON IT.



FOUNDATION FOR OCTAGON BASE PEDAESTAL FOR CONTROLLER OR TRAFFIC SIGNALS  
 SCALE: 1 1/2" = 1'  
 DRAWN BY: E.M.E.  
 APPROVED BY: [Signature]  
 PUBLIC LIGHTING COMMISSION  
 CITY OF DETROIT  
 TILL NO. 4-3771  
 DATE 4-23-68

DATE	DESCRIPTION	CHKD. BY
12-28-68	ADD Bolt Length & Diameter of Top	[Signature]

FOUNDATION FOR MA. STD. & COMBINATION STD FOR TRUSS TYPE T.S. MAST ARM.  
 SCALE: 1 1/2" = 1'

DRAWN BY: [Signature]	FILE NO. 52-1890
CHECKED BY: [Signature]	SHEET NO. 1 OF 1
APPROVED BY: [Signature]	DATE 4-2-68

PROJECT NO. T 4000(4)	JOB NO. 03185		
<b>MICHIGAN STATE HIGHWAY DEPARTMENT</b>			
REVISIONS			
NO.	DESCRIPTION	DATE	BY

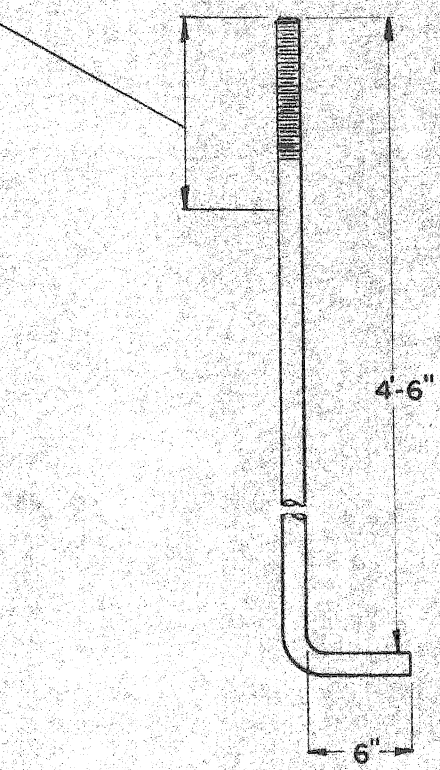


NOTES

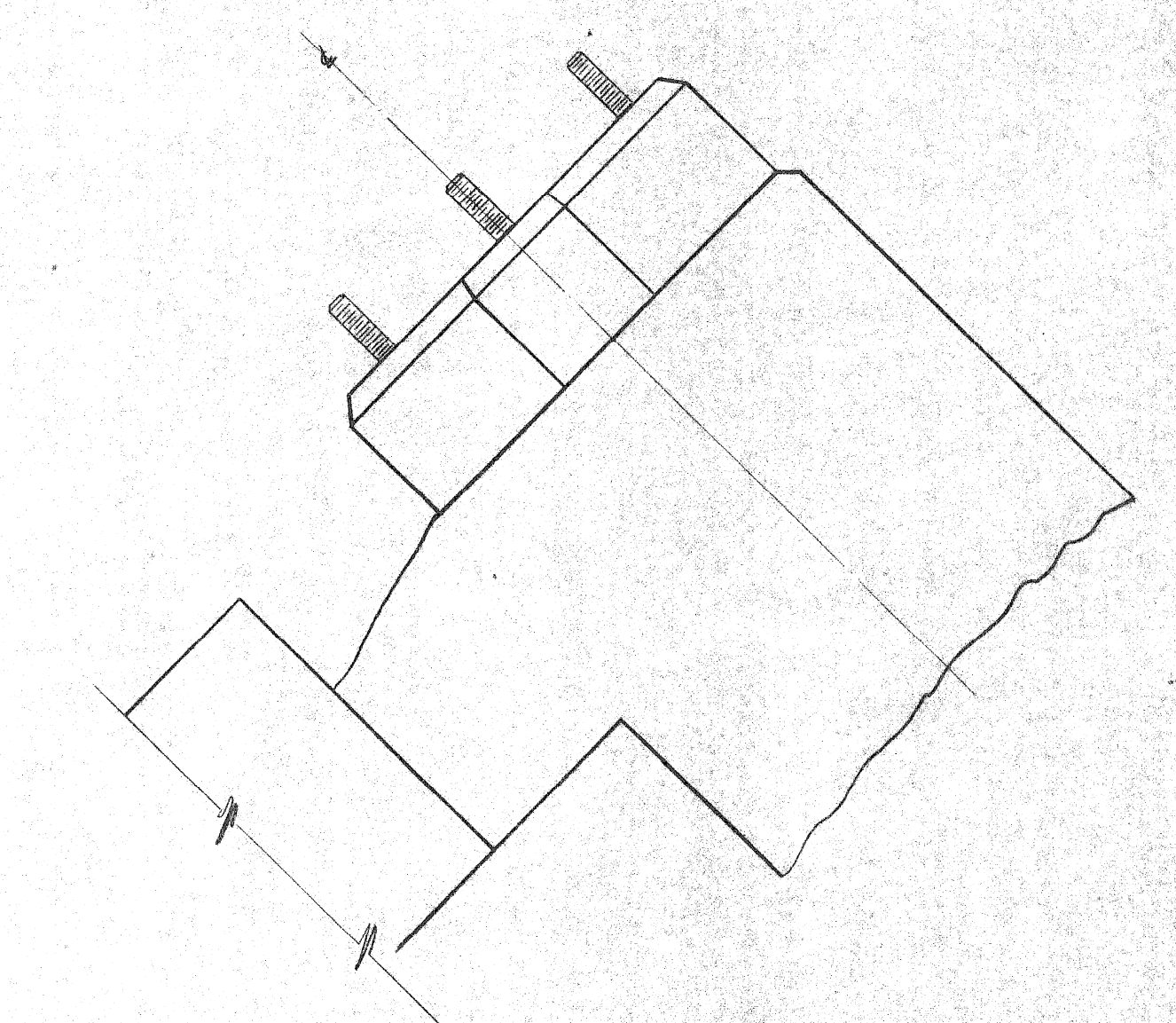
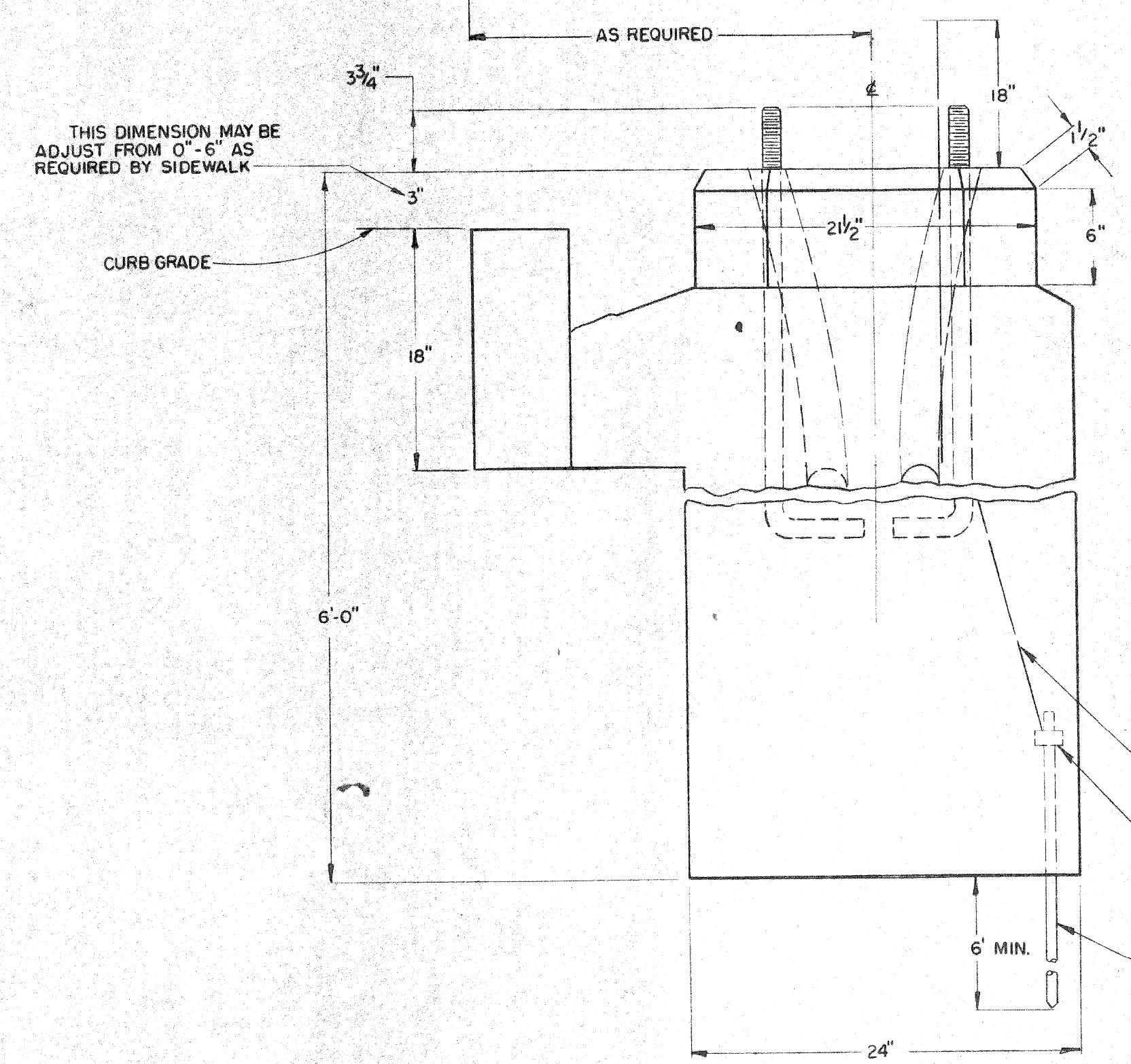
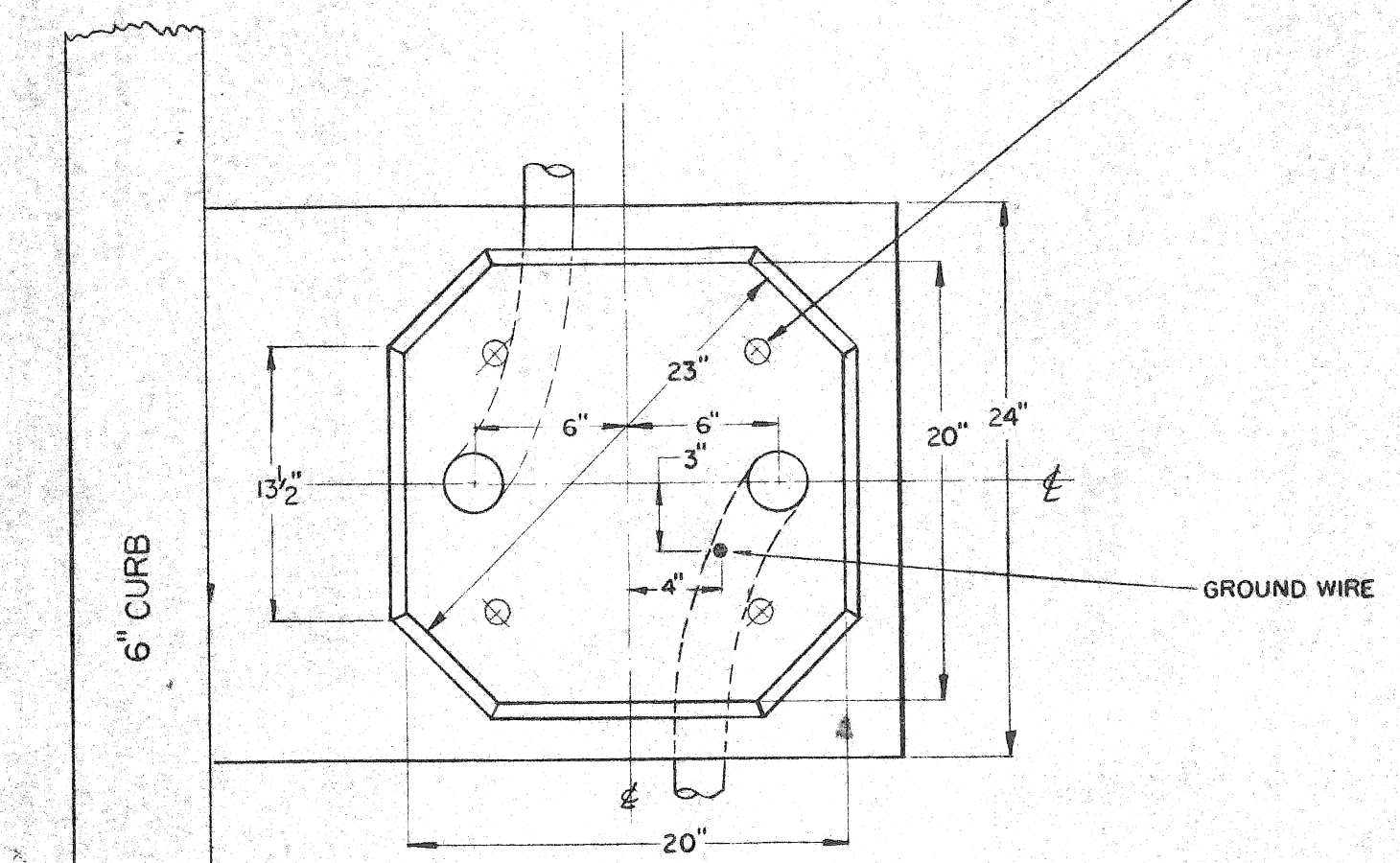
1. CONTRACTOR TO PROVIDE ALL FORMS AND TEMPLATES NECESSARY FOR BUILDING FOUNDATIONS. USE TOP FORM ON DWG. NO. 5073-4

TOP 8" OF FDN. BOLTS TO BE CADMIUM PLATED OR ELECTRO-GALVANIZED AFTER THREADING. NUTS TO BE SIMILARLY PLATED & MUST TURN FREELY.

4- 1/2" BOLTS ON 15 1/2" BOLT CIRCLE USE TEMPLATE NO. 5071



FOUNDATION BOLT



- INSTALL #2 STRANDED GROUND WIRE. STRIP INSULATION 8" AT BOTH ENDS.
- INSTALL GROUND ROD CLAMP (BLACKBURN TYPE 65 OR EQUAL)
- DRIVE 6' x 5/8" COPPER COVERED GROUND ROD. (BLACKBURN # 6258 OR EQUAL)

SCALE: 1/2" = 1'

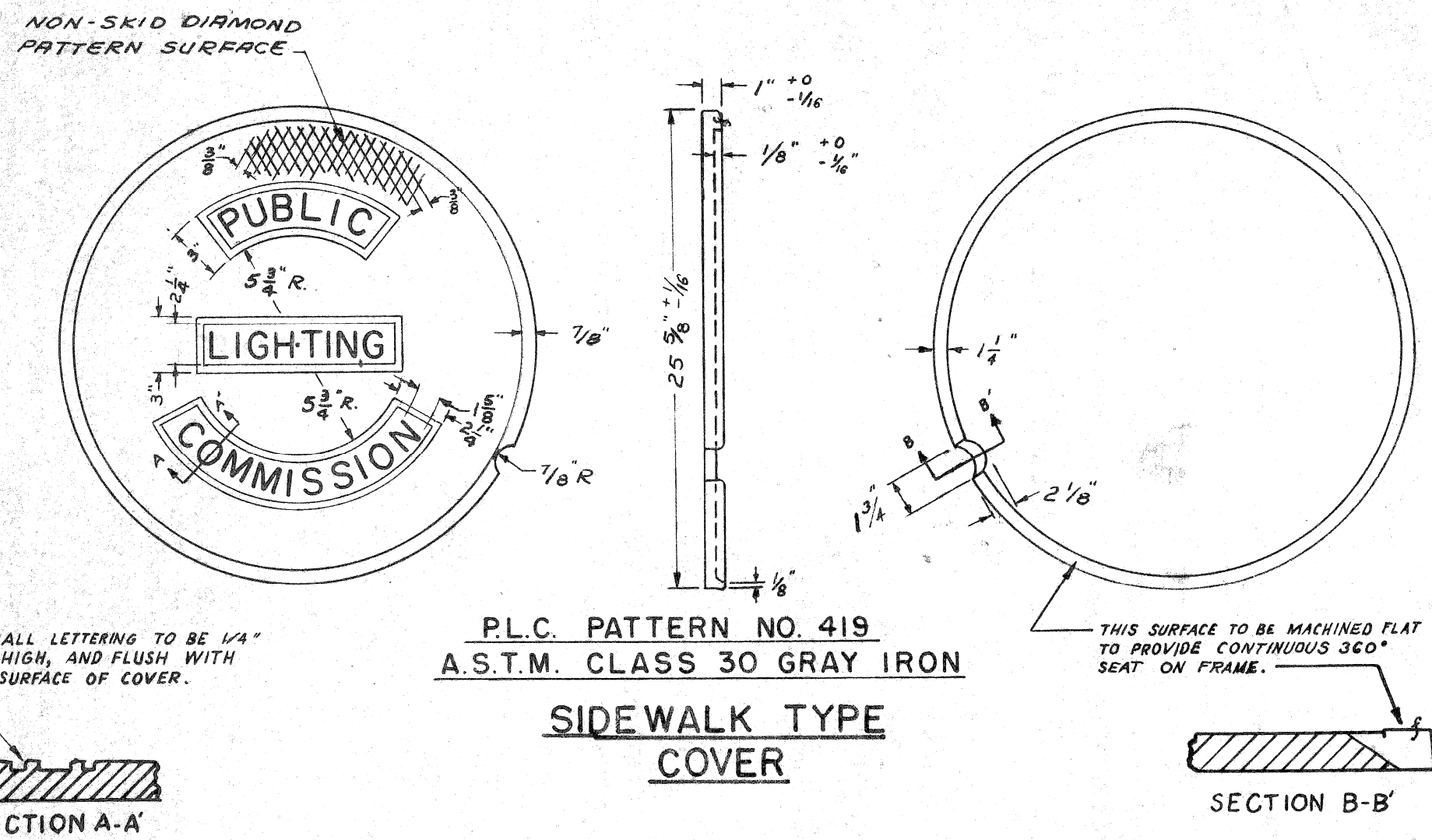
COMBINATION LAMP POST  
24" FOUNDATION  
DWG. NO. 43-0323

DATE	DESCRIPTION	CHKD. BY

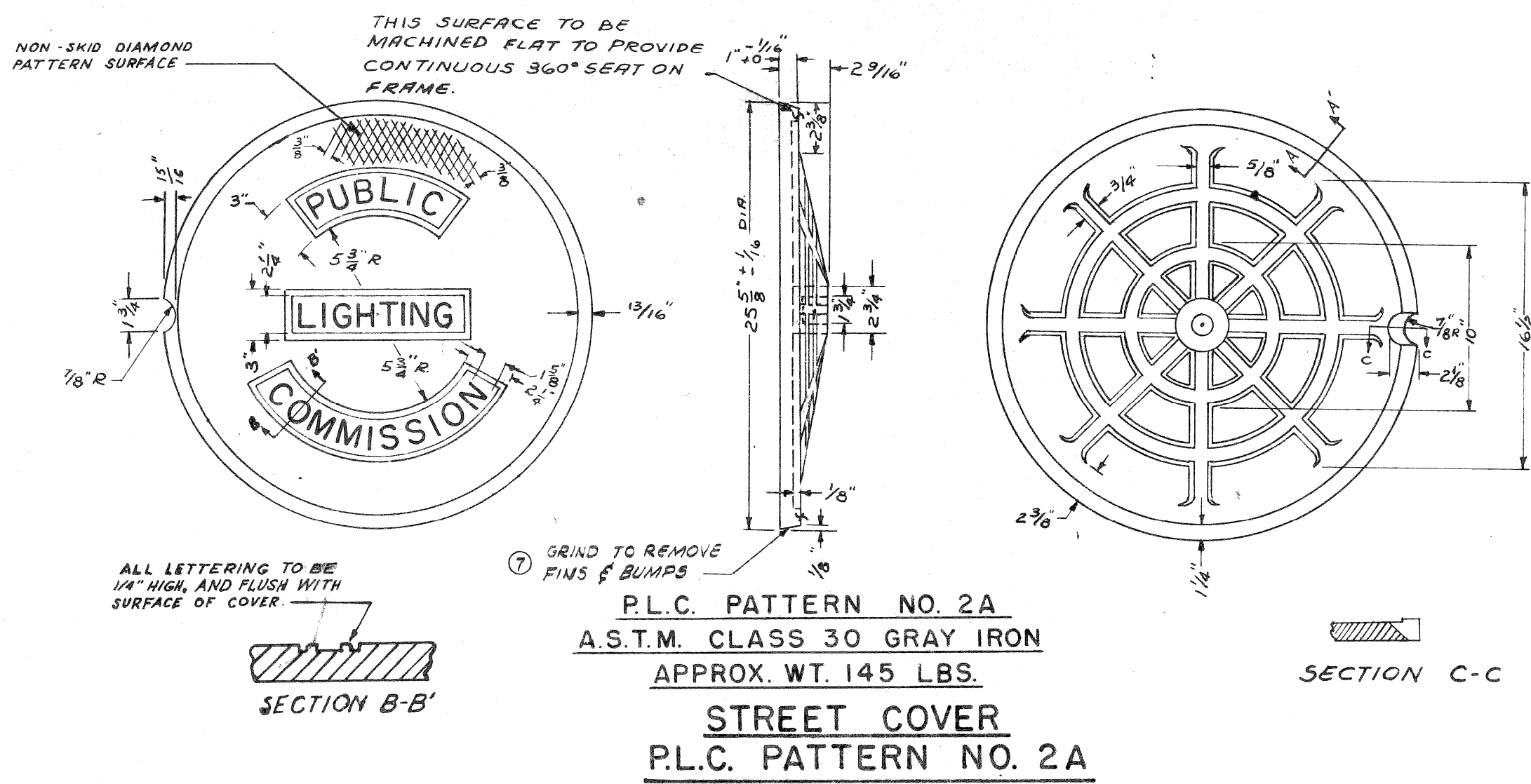
PLC DETAILS  
FOUNDATIONS

PROJECT NO. T 4000(4)		JOB NO. 03185	
DRAWN BY <i>PANARS</i>	PUBLIC LIGHTING COMMISSION CITY OF DETROIT	FILE NO. 43-0360	DATE 1-25-71
CHECKED BY <i>[Signature]</i>		SHEET NO. 8 of 11	
APPROVED BY			

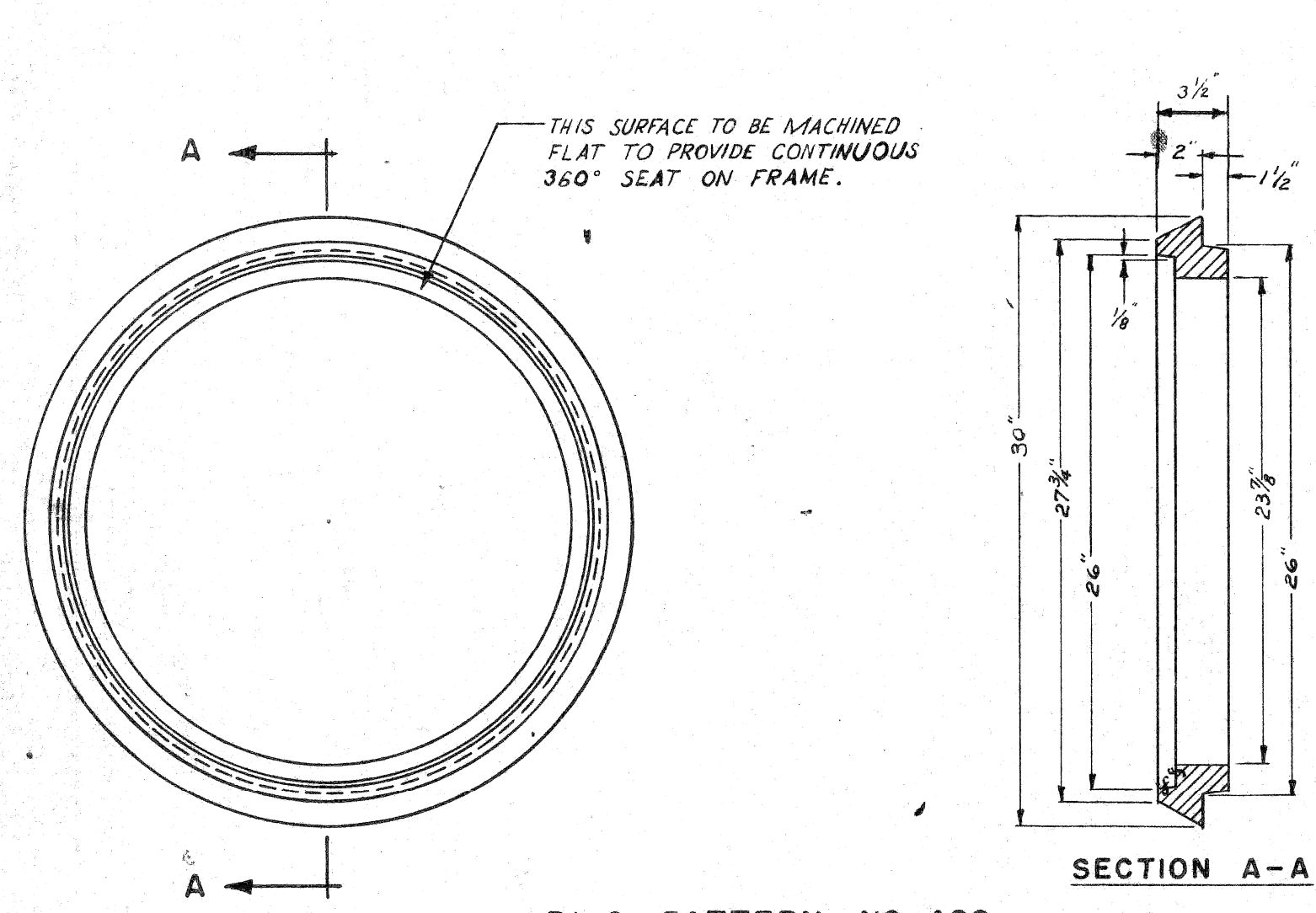




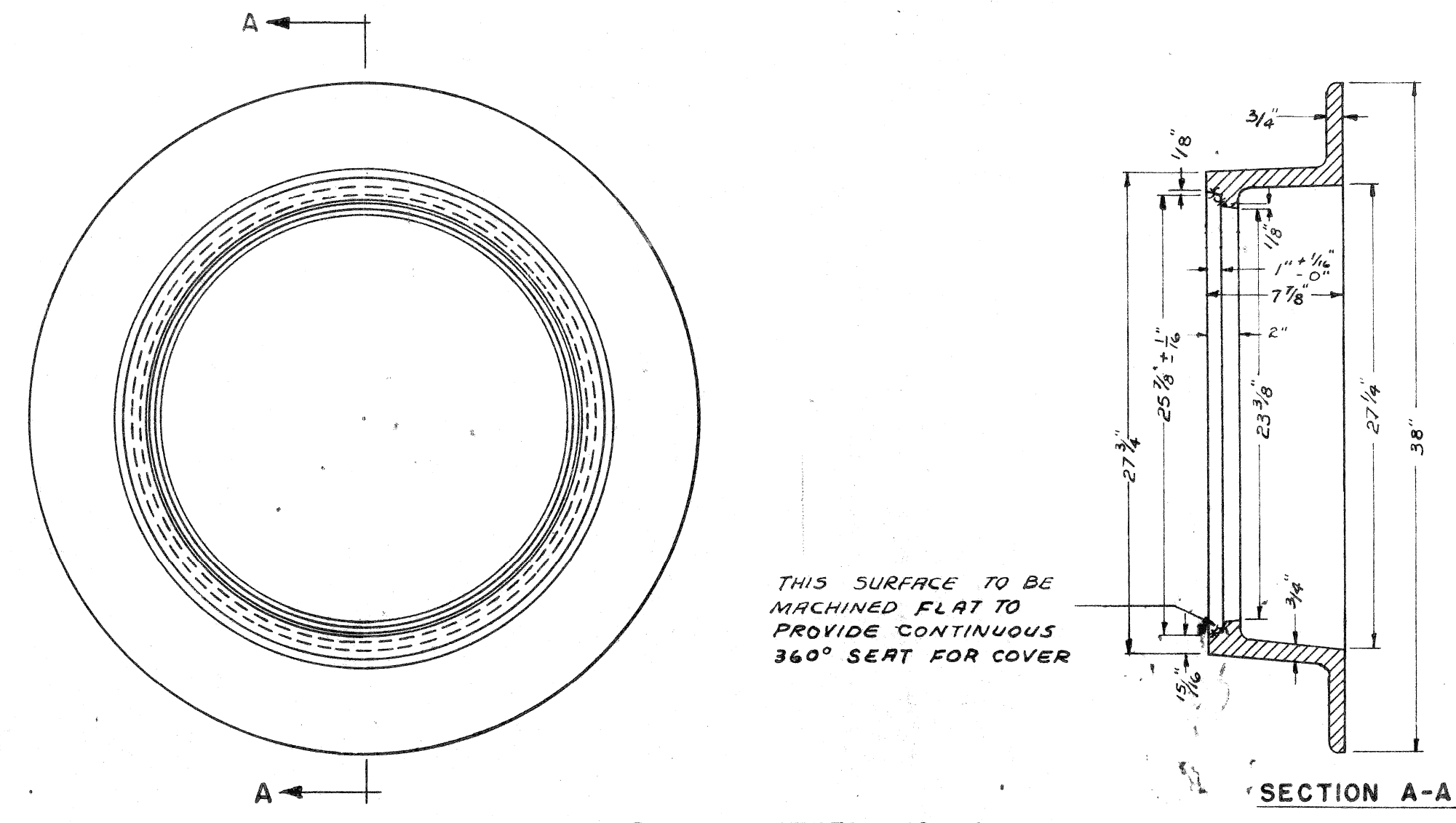
P.L.C. PATTERN NO. 419  
A.S.T.M. CLASS 30 GRAY IRON  
SIDEWALK TYPE  
COVER



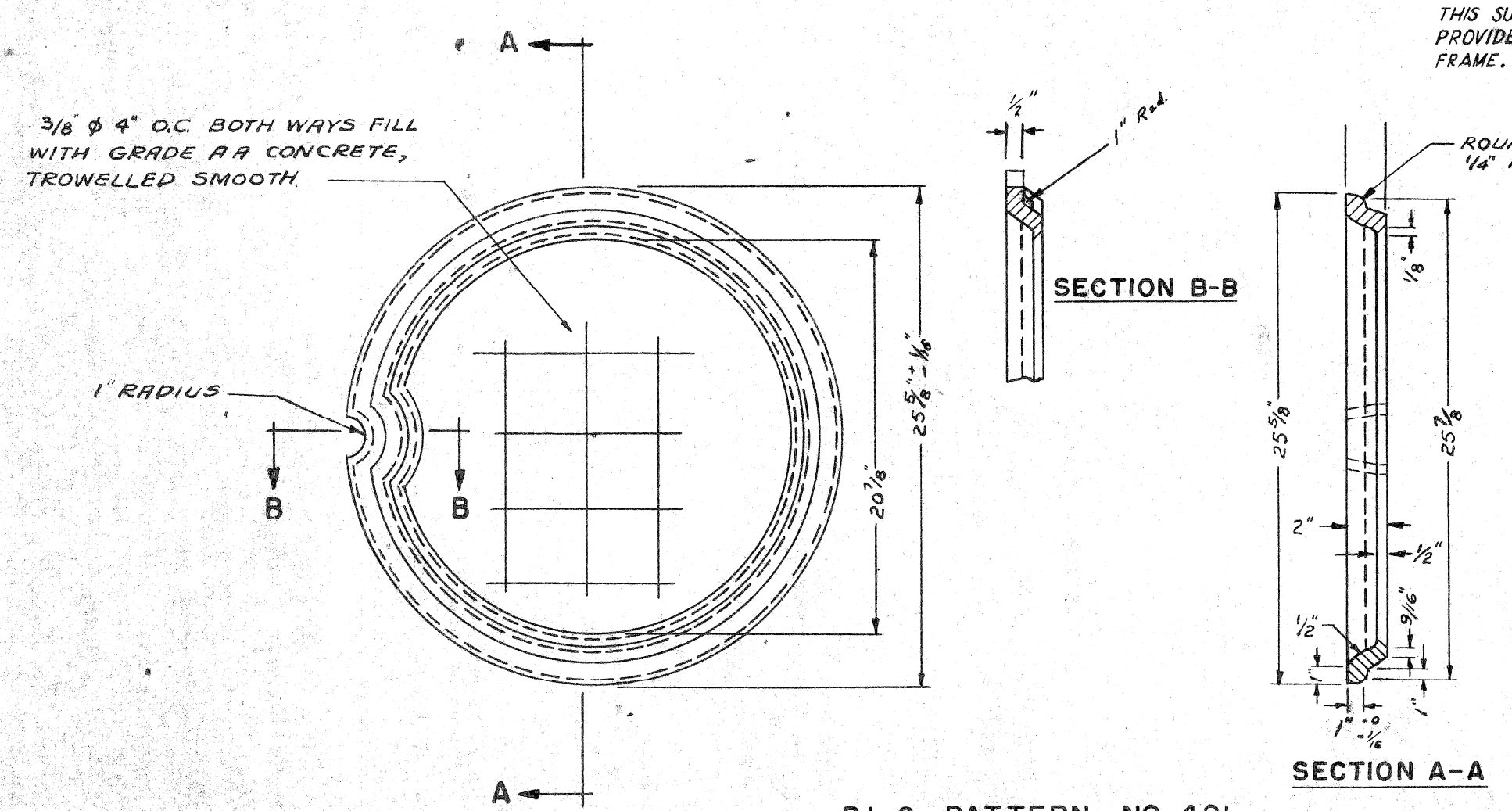
P.L.C. PATTERN NO. 2A  
A.S.T.M. CLASS 30 GRAY IRON  
APPROX. WT. 145 LBS.  
STREET COVER  
P.L.C. PATTERN NO. 2A



P.L.C. PATTERN NO. 420  
A.S.T.M. CLASS 20 OR 30 GRAY IRON  
APPROX. WT. 122 LBS.  
SIDEWALK TYPE  
FRAME



P.L.C. PATTERN NO. 1A  
A.S.T.M. CLASS 20 OR 30 GRAY IRON  
APPROX. WT. 251 LBS.  
STREET TYPE  
FRAME

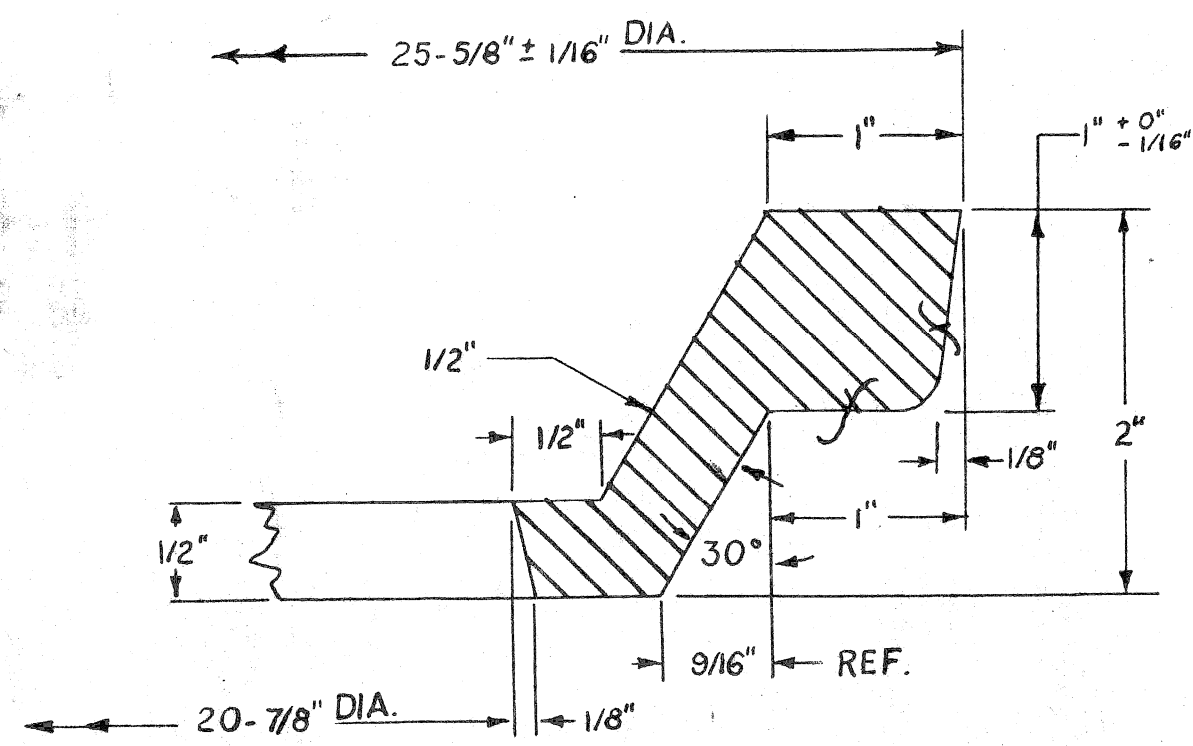


P.L.C. PATTERN NO. 421  
A.S.T.M. CLASS 30 GRAY IRON  
APPROX. WT. 44 LBS.  
SIDEWALK TYPE  
CONCRETE FILLED COVER

THIS SURFACE TO BE MACHINED FLAT TO PROVIDE CONTINUOUS 360° SEAT ON FRAME. SEE DETAIL "A"

NOTE:

FRAMES MAY BE A.S.T.M. CLASS 30 GRAY IRON IF THE CONTRACTOR SO ELECTS.



DETAIL "A"  
(FULL SCALE)

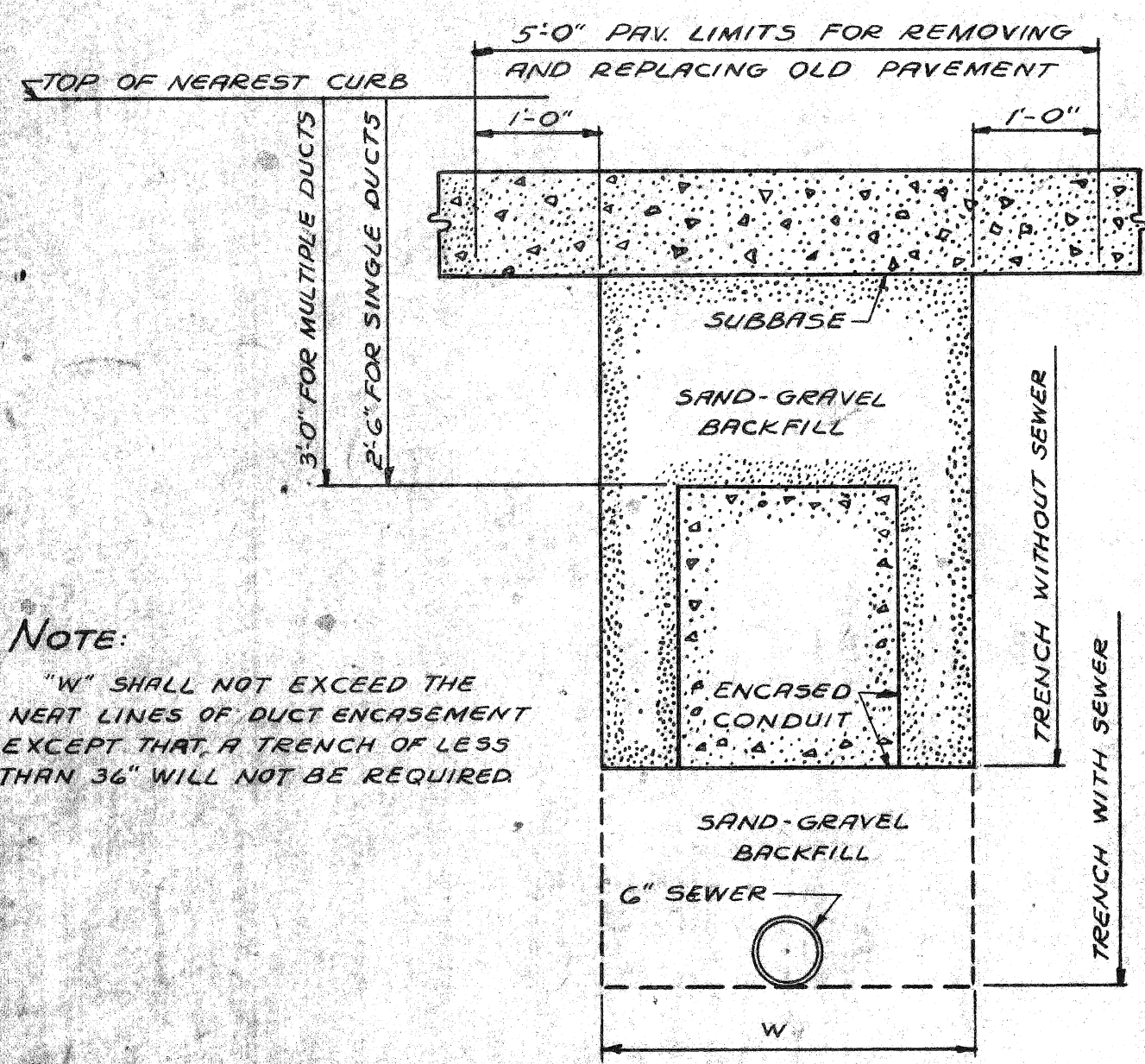
PROJECT NO. T 400(4) JOB NO. 03185		DRAWN BY	FILE NO.
CITY OF DETROIT		R.G.P.	55-36
PUBLIC LIGHTING COMMISSION		CHECKED BY	SHEET NO.
P.L.C. DETAILS - HANDHOLE FRAMES & COVERS		APPROVED BY	DATE
MICHIGAN STATE HIGHWAY DEPARTMENT			2-5-52

NO.	DESCRIPTION	DATE	BY
7	REMOVED FINISH MARKS & ADD NOTE	7-28-61	R.K.J.
8	DIMENSIONAL CHANGES	6-1-61	DE
9	ADDED CLASS 30	6-1-61	J.C.F.
1	CHANGED DIM. ON ST. COVER	4-21-55	R.P.G.
1	MACHINE NOTES ADDED	4-29-53	R.P.P.
2	CHANGE ST. FRAME PATTERN FROM #1 TO NO. 1A & THE DIMENSIONS 11-4-53 J.C.F.	11-4-53	J.C.F.
3	FILLET NOTE ADDED	11-4-53	J.C.F.

APPROVED BY:

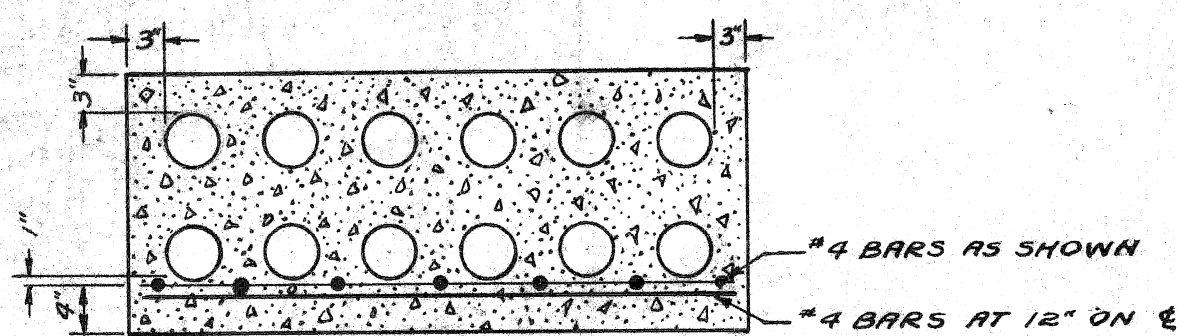
SQUAD BOSS	
DRAWN BY	
TRACED BY	
CHECKED BY	
SHEET	9 OF 11



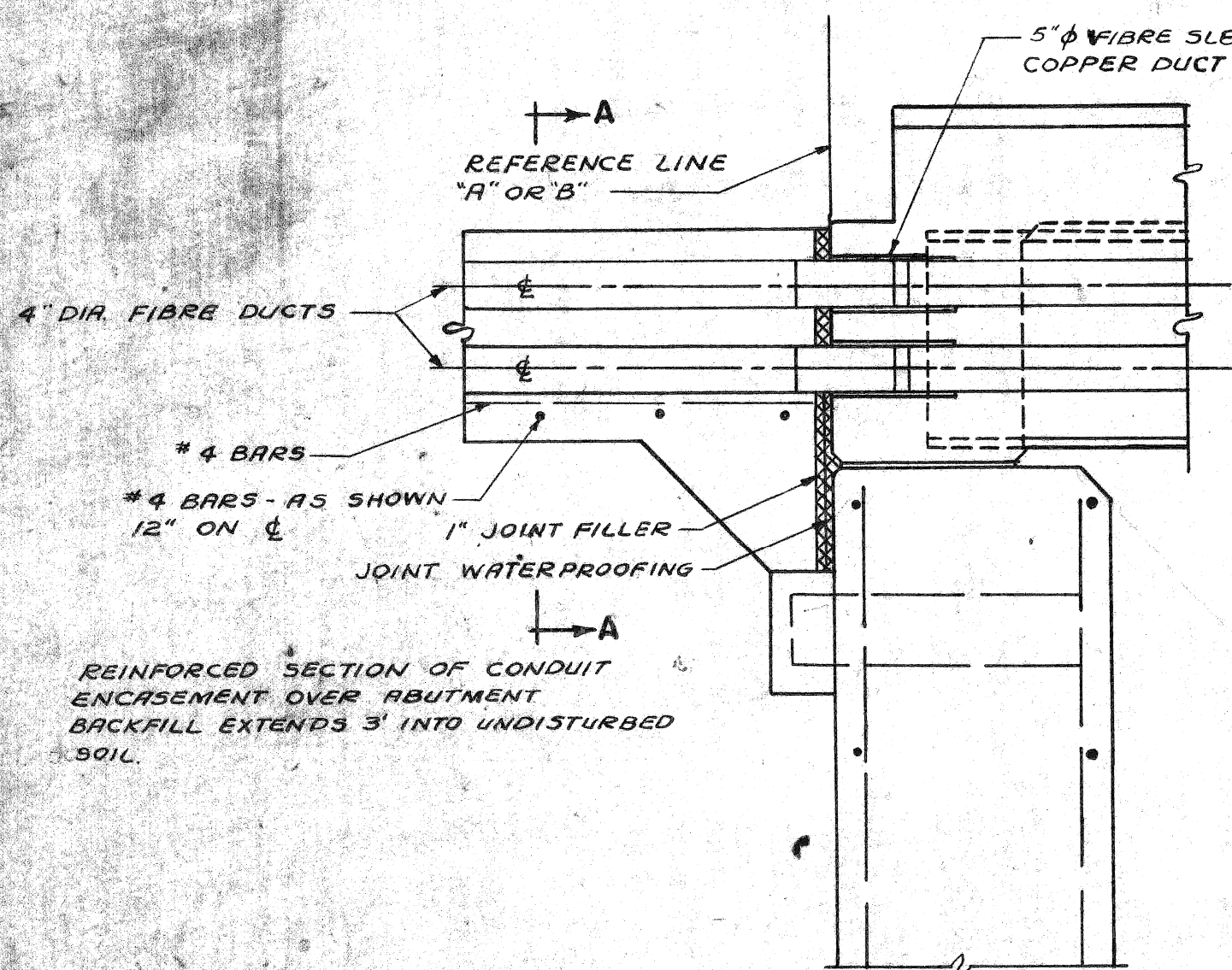


NOTE:  
"W" SHALL NOT EXCEED THE NEXT LINES OF DUCT ENCASEMENT EXCEPT THAT A TRENCH OF LESS THAN 36" WILL NOT BE REQUIRED

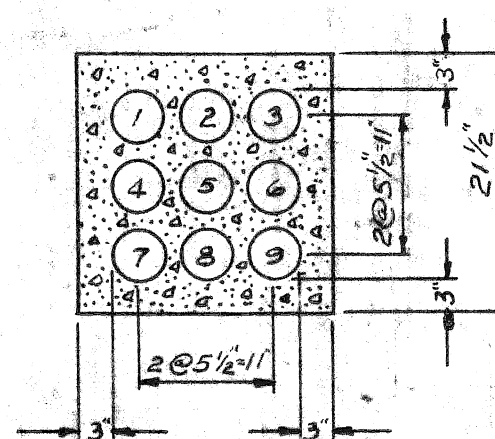
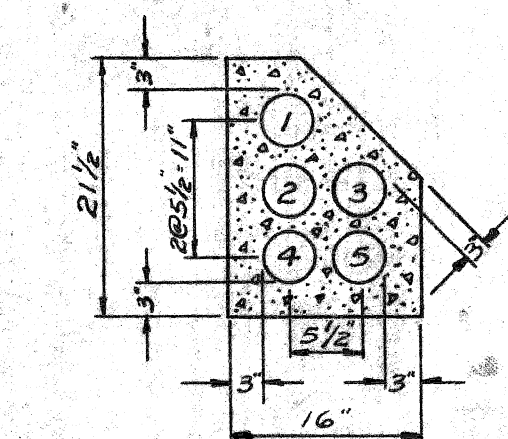
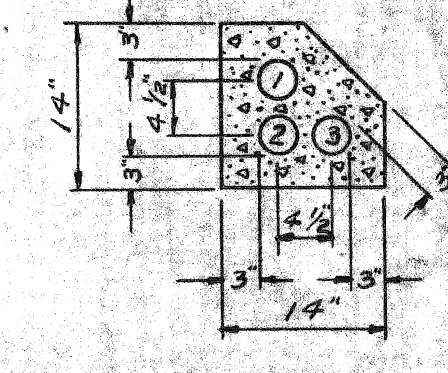
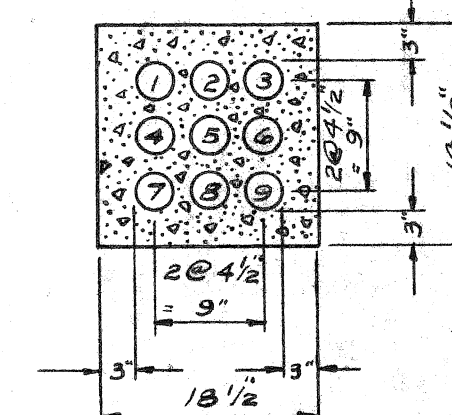
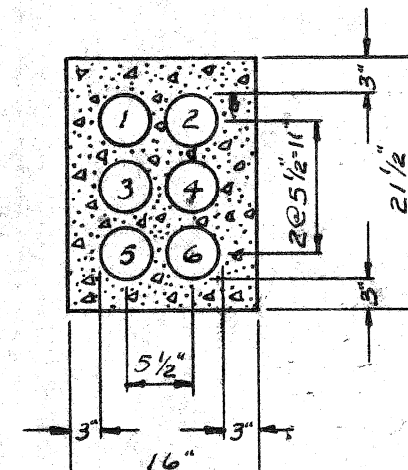
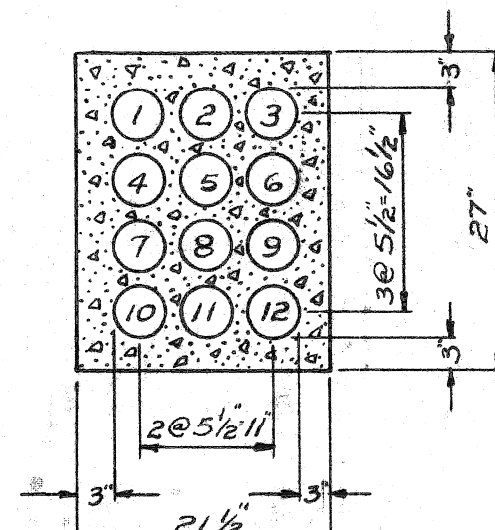
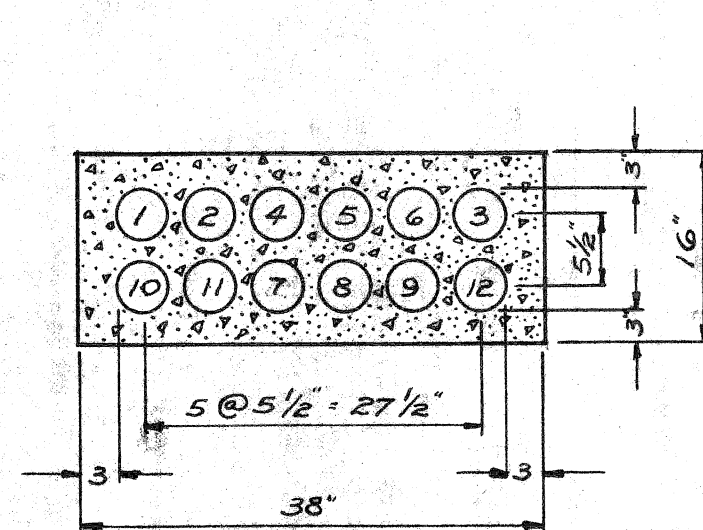
TYPICAL SECTION OF TRENCH  
SCALE: 3/4" = 1'-0"



SECTION A-A

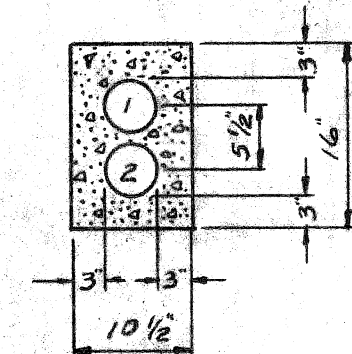


SECTION THROUGH BACKWALL SHOWING SUPPORTS FOR 12-4" DIA. ENCASED CONDUIT AND EXPANSION JOINTS

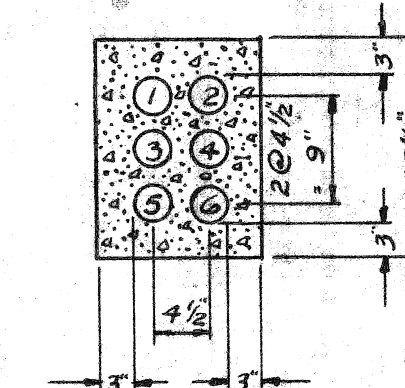


5-4" DUCTS

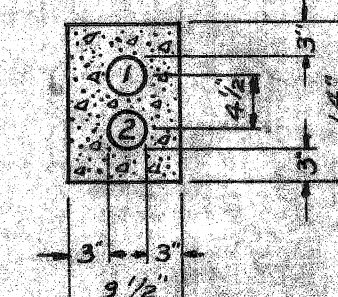
9-4" DUCTS



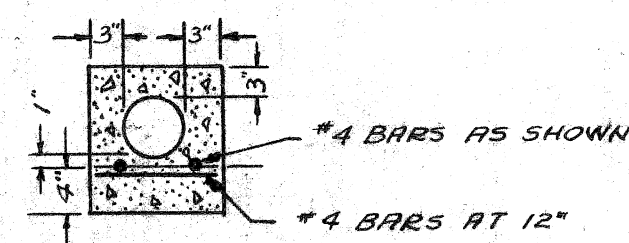
2-4" DUCTS



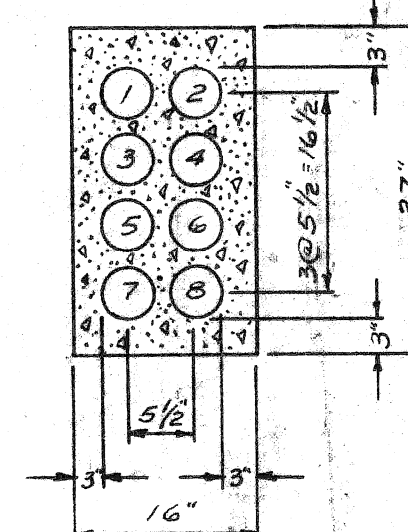
6-3" DUCTS



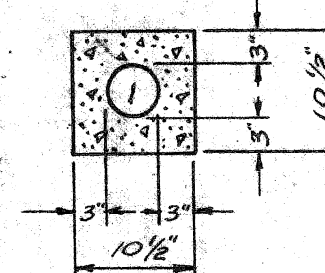
2-3" DUCTS



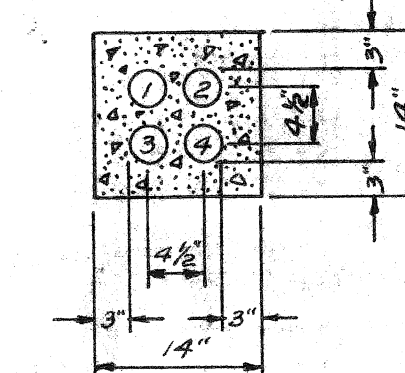
SECTION B-B



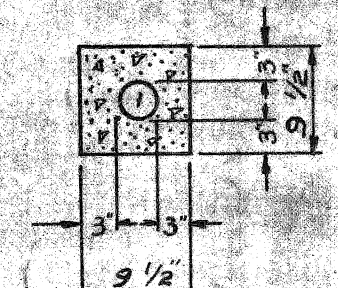
8-4" DUCTS



1-4" DUCT



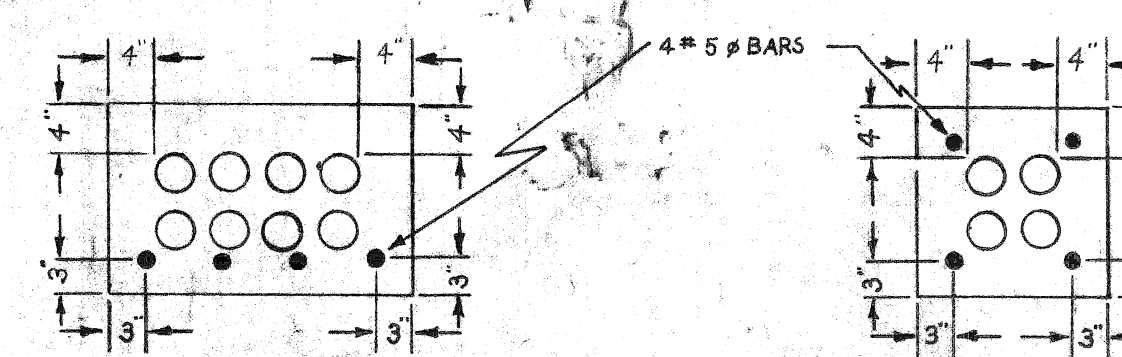
4-3" DUCTS



1-3" DUCT

TYPICAL DUCT SECTIONS

SCALE: 3/4" = 1'-0"



UNDER-PAVEMENT CONDUIT

NO. SIZE & ARRANGEMENT VARIES AS REQUIRED.  
USE WHERE HANDHOLE DEPTH PERMITS.  
EXTEND BARS TO 3' BEYOND EXCAVATION FOR M.H.'S. OR H.H.'S.

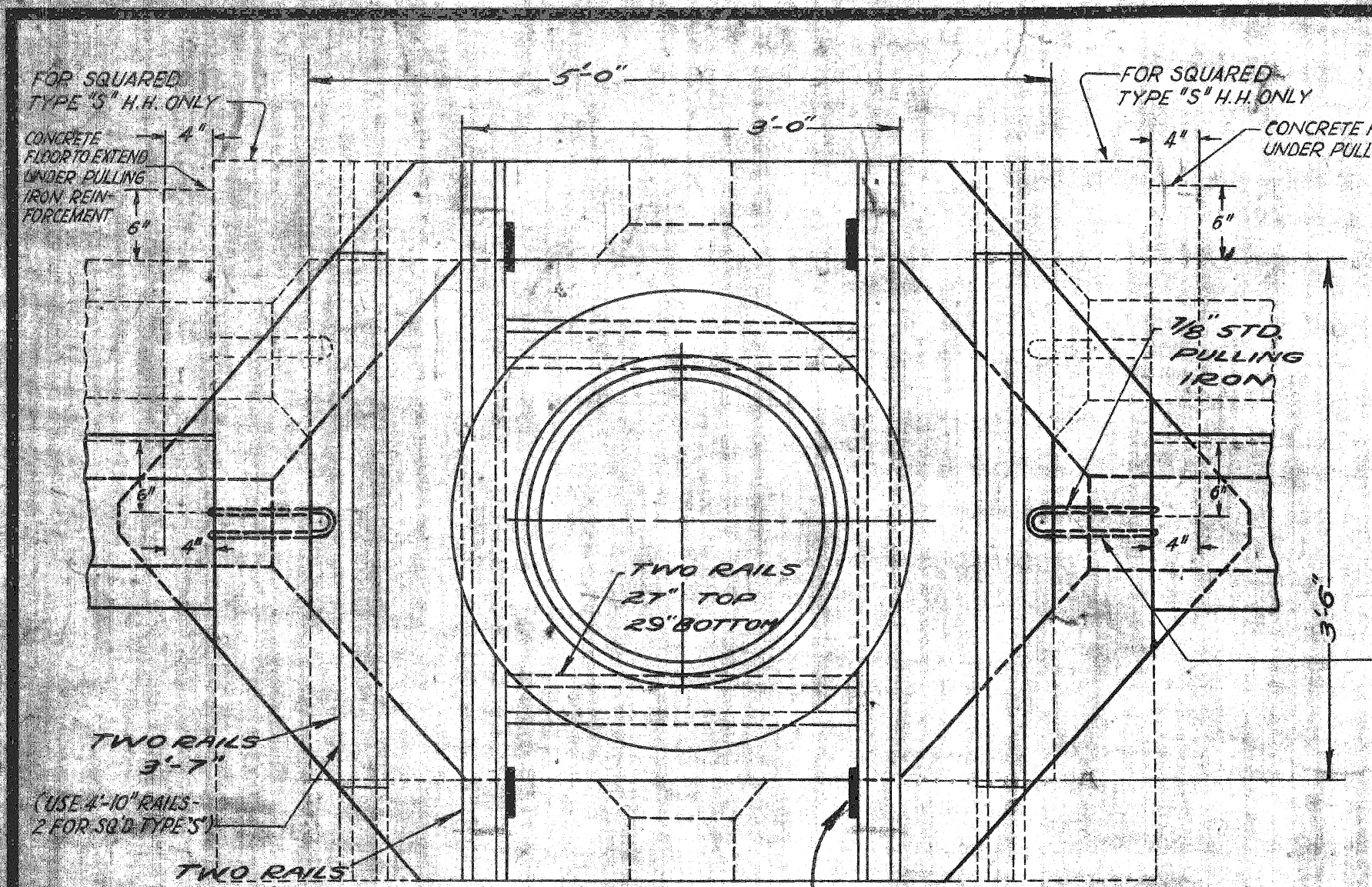
PROJECT NO. T400(4)	JOB NO. 03185	DRAWN BY DJN	FILE NO. 55-3B
CITY OF DETROIT PUBLIC LIGHTING COMMISSION		CHECKED BY M.V.C.	SHEET NO. 24
P.L.C. DETAILS MISCELLANEOUS DUCT SECTIONS		APPROVED BY J.P. M...	DATE 7-10-53

MICHIGAN STATE HIGHWAY DEPARTMENT

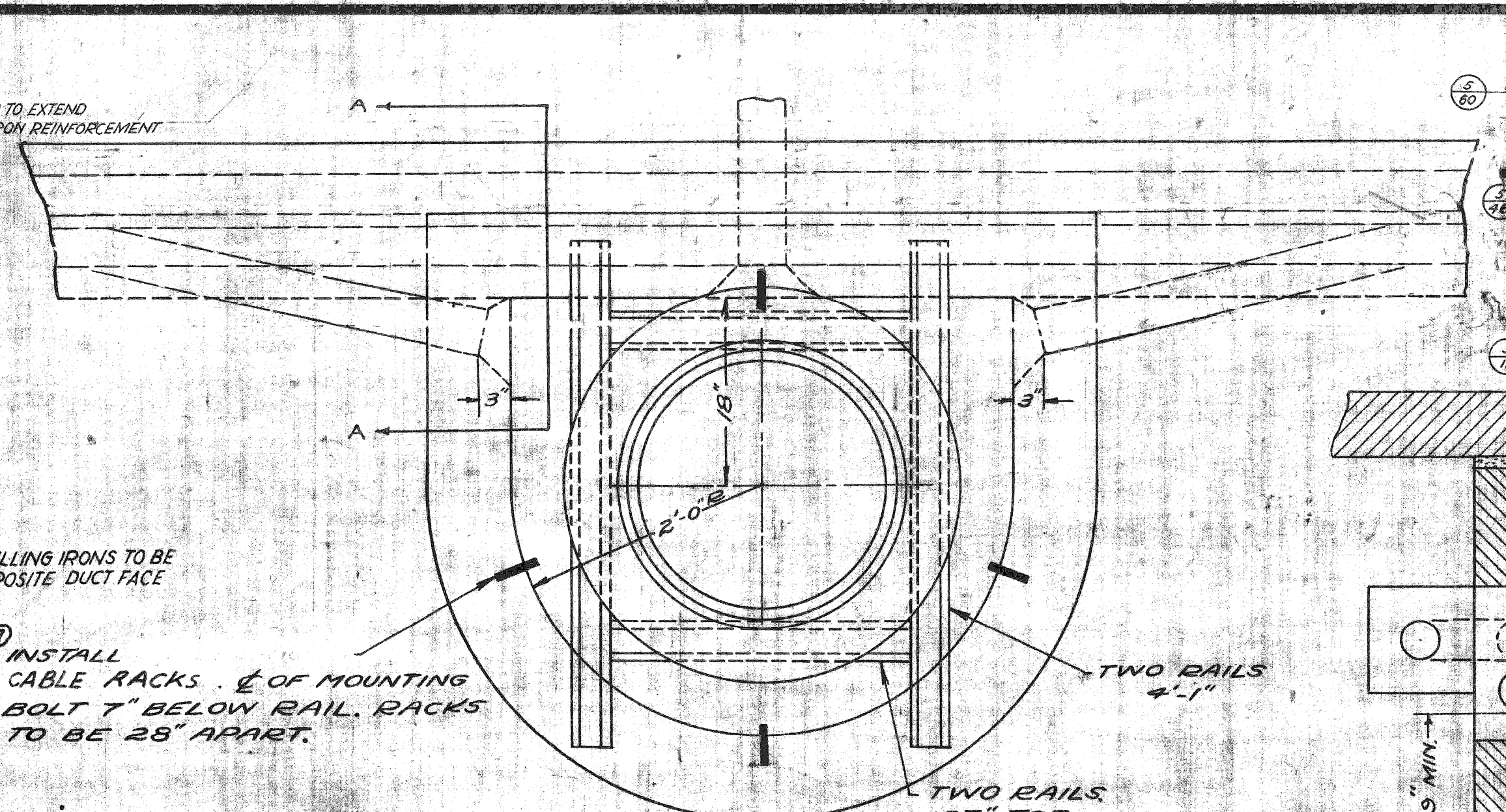
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDED 5-4" DUCTS	11-18-53	R.P.
2	ADDED SECTION THROUGH		
3	BACKWALL FOR 12-4" & 1-3"	2-23-54	R.P.
3	ADDED UNDER-PAVEMENT CONDUIT	12-10-65	J.A.O.

4-18-55  
REDRAWN 2-1-61 R.K.

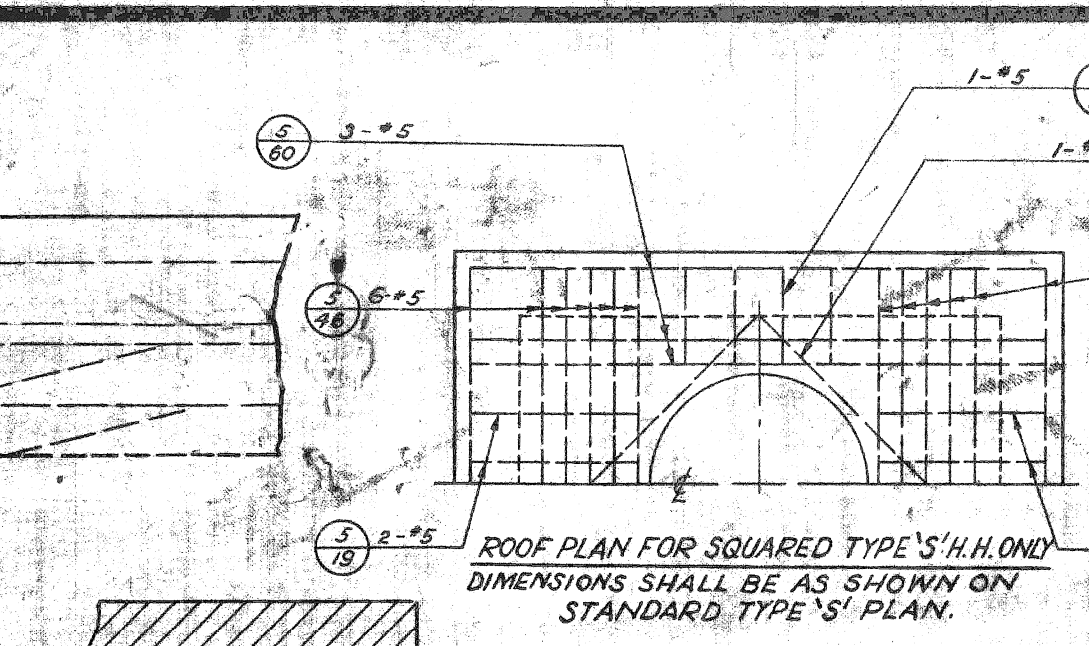




PLAN TYPE "S" HANDHOLE

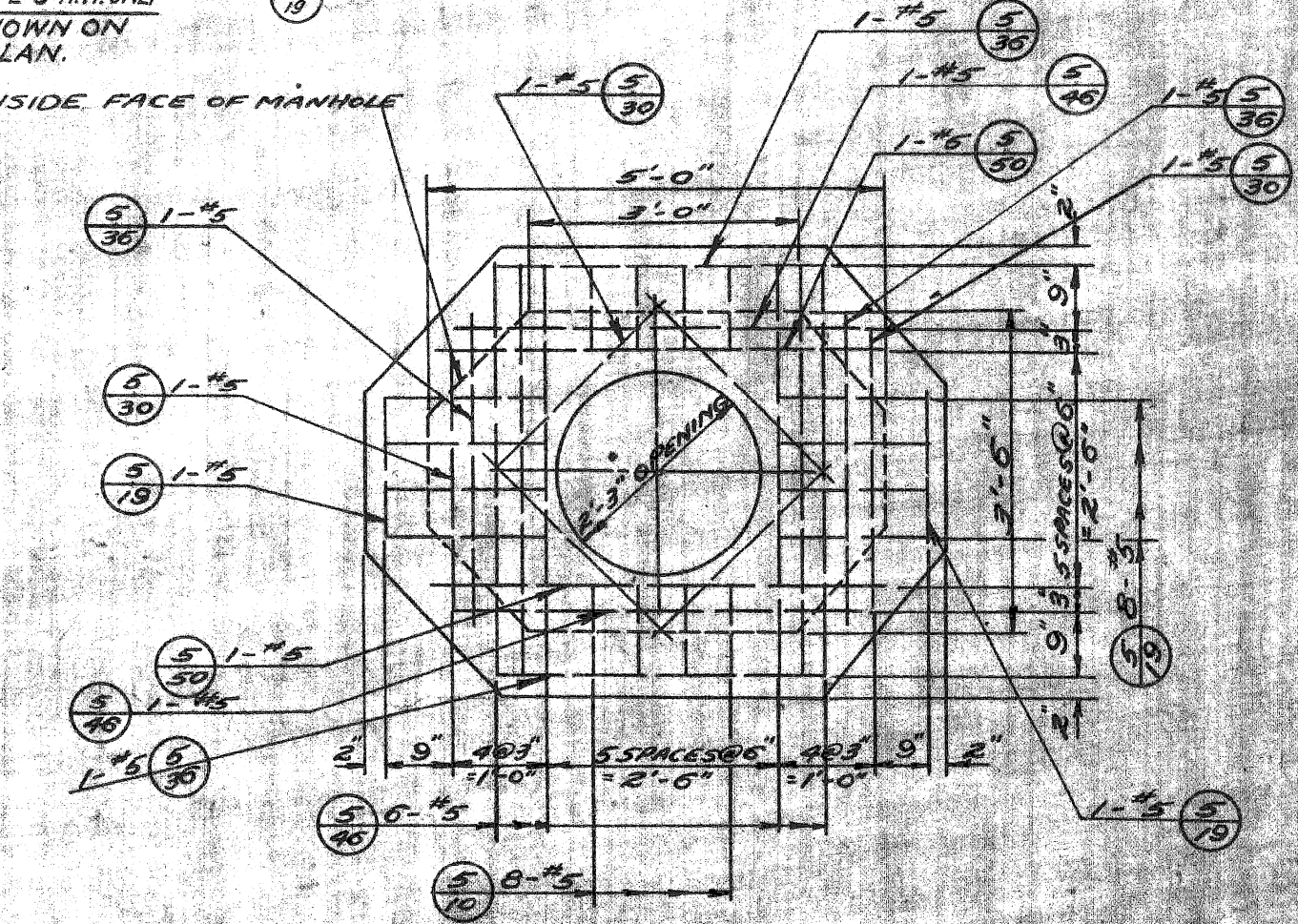


PLAN TYPE "D" HANDHOLE



ROOF PLAN FOR SQUARED TYPE "S" H.H. ONLY

- NOTES:-**
1. DUCT ENTRANCES TO BE BUILT AS REQUIRED.
  2. ALL RAILS TO BE 60# YD. OR HEAVIER.
  3. CABLE PULLING IRONS TO BE GALVANIZED.
  4. CABLE RACKS AND ARMS TO BE GALVANIZED.
  5. IN PAVEMENT PROVIDE AT LEAST 3" BETWEEN ROOF AND BASE OF PAVEMENT. WHERE EXISTING GRADE IS HIGHER THAN PROP. FUTURE GRADE, INSTALL BRICK RING OR BROUT (AS REQ'D) UNDER FRAME TO ALLOW FOR FUTURE FRAME ADJUSTMENT.



ELEVATION ALTERNATE ROOF - TYPE "S" HANDHOLE

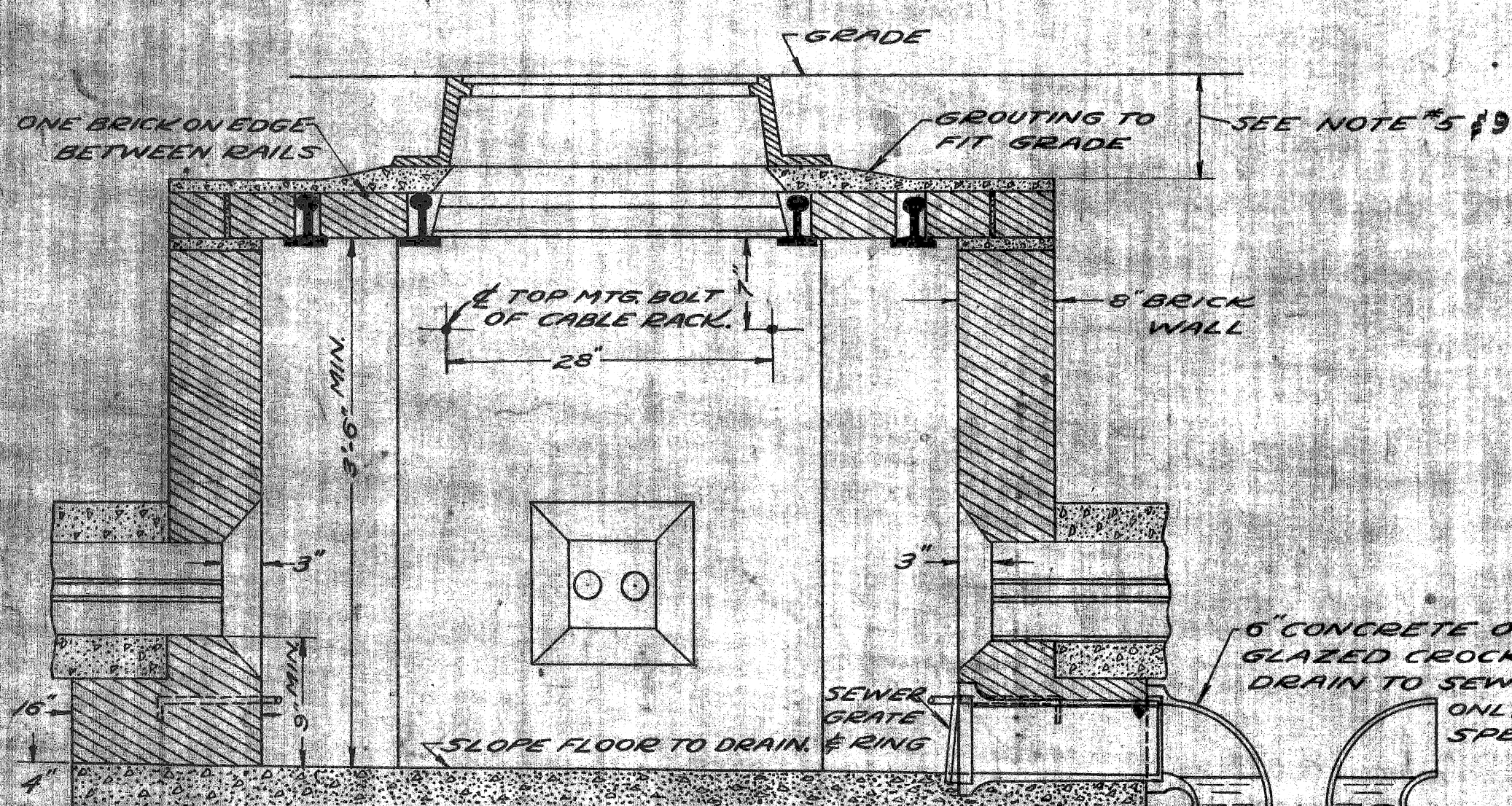
USE FOR STANDARD TYPE "S" H.H. ONLY

MARK NO.	LENGTH
5-50	2'-5" 0"
5-46	3'-0" 0"
5-30	4'-3" 0"
5-30	5'-0" 0"
5-19	10'-0" 0"
5-10	3'-0" 0"

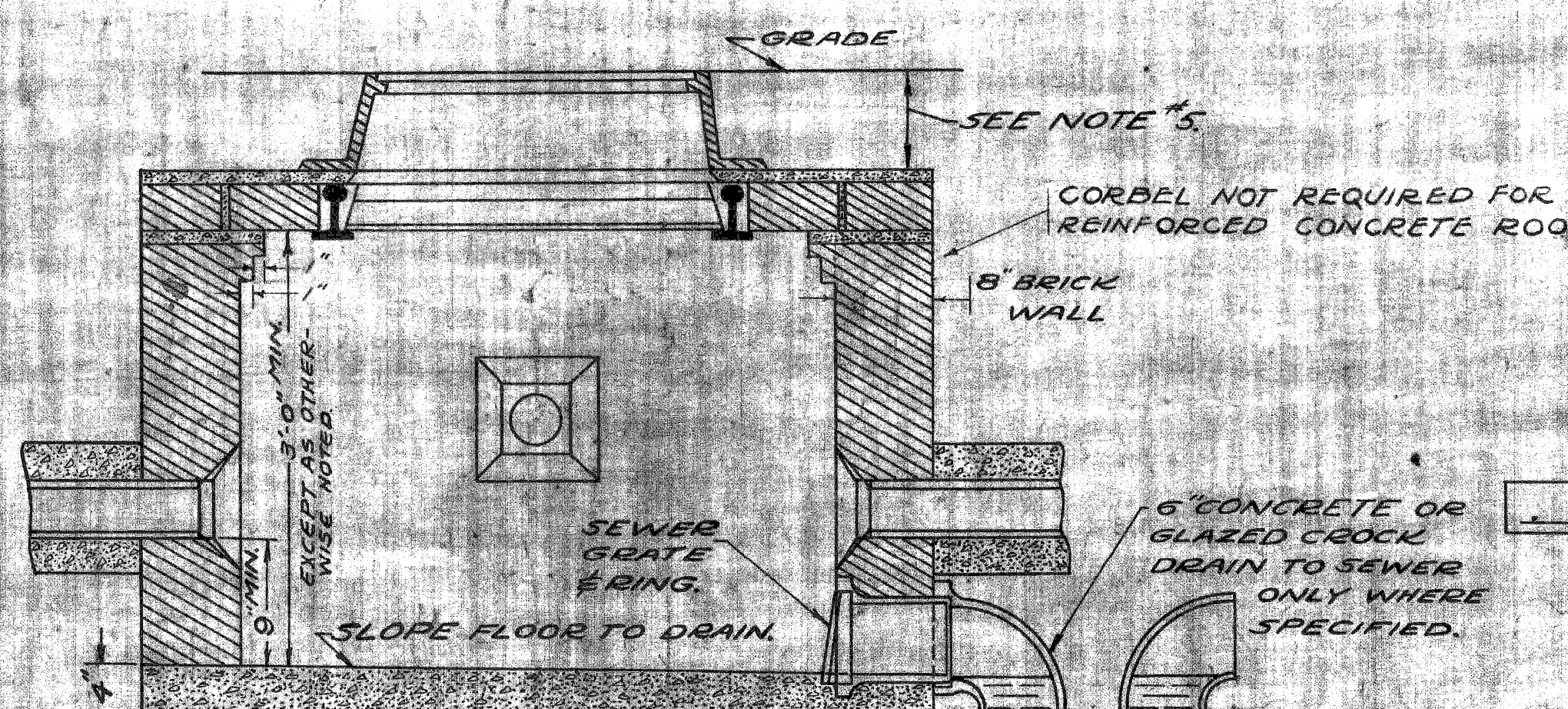
TABLE FOR #5 BARS

MARK NO.	LENGTH
5-60	6'-0" 0"
5-46	12'-0" 0"
5-30	4'-3" 0"
5-10	3'-0" 0"
5-10	3'-0" 0"
5-10	3'-0" 0"

USE ABOVE TABLE FOR SQUARED TYPE "S" H.H. ONLY

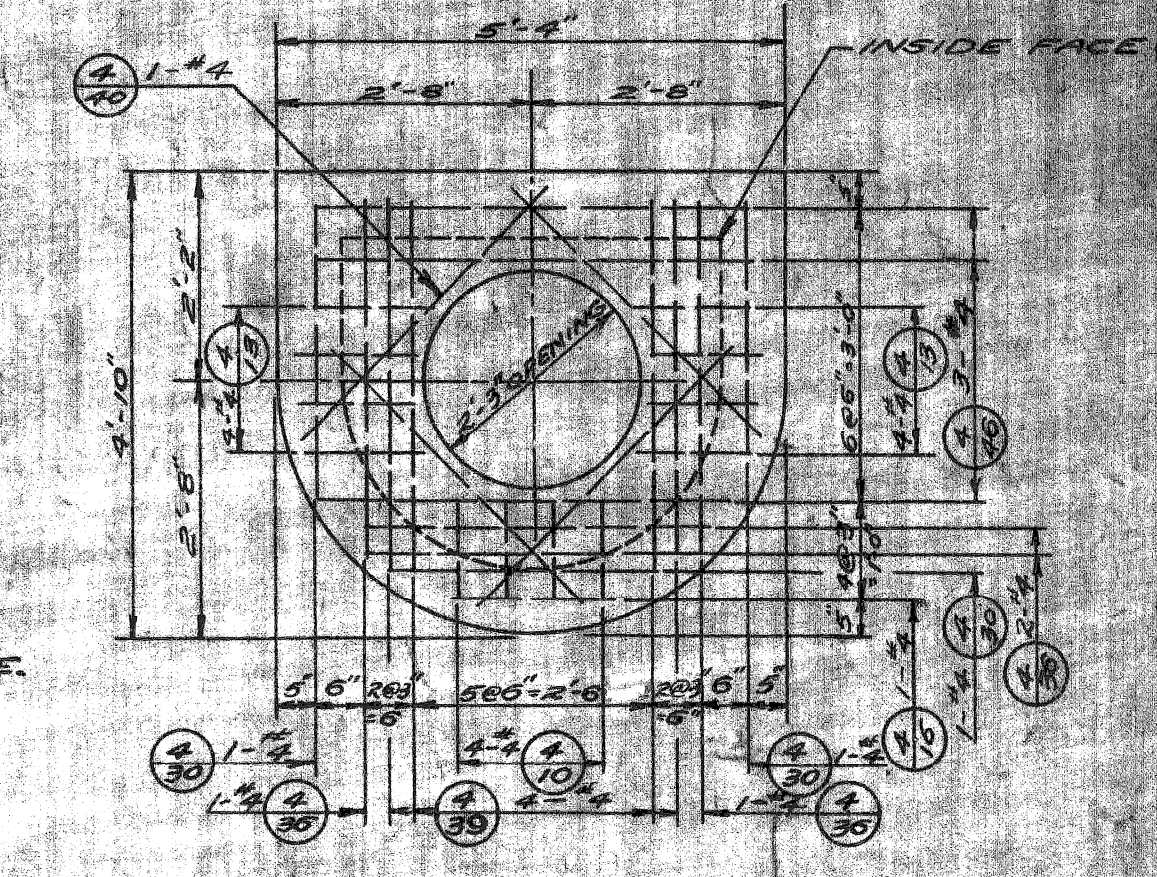


SECTION TYPE "S" STREET HANDHOLE



SECTION TYPE "D" STREET HANDHOLE

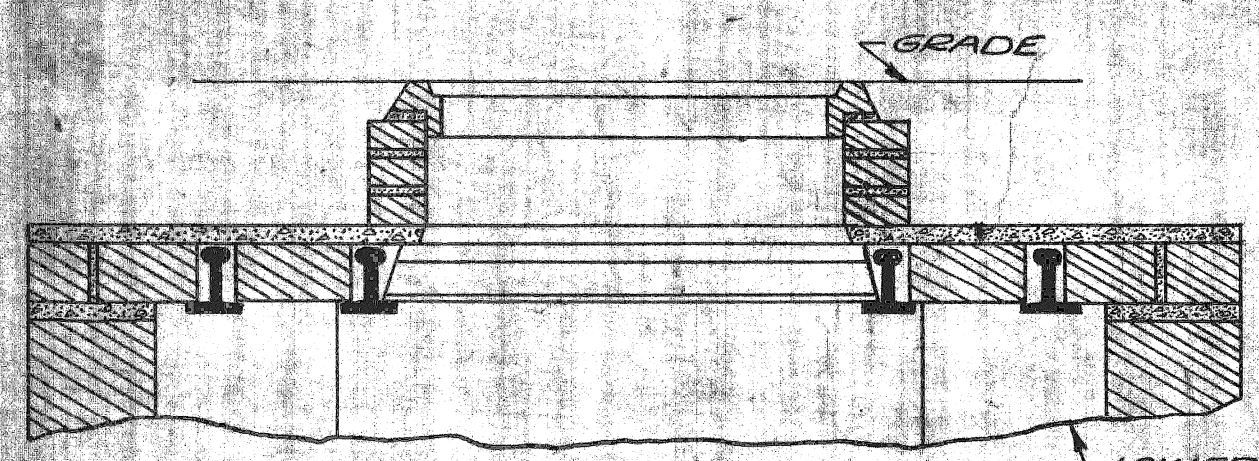
ELEVATION ALTERNATE ROOF - TYPE "S" HANDHOLE



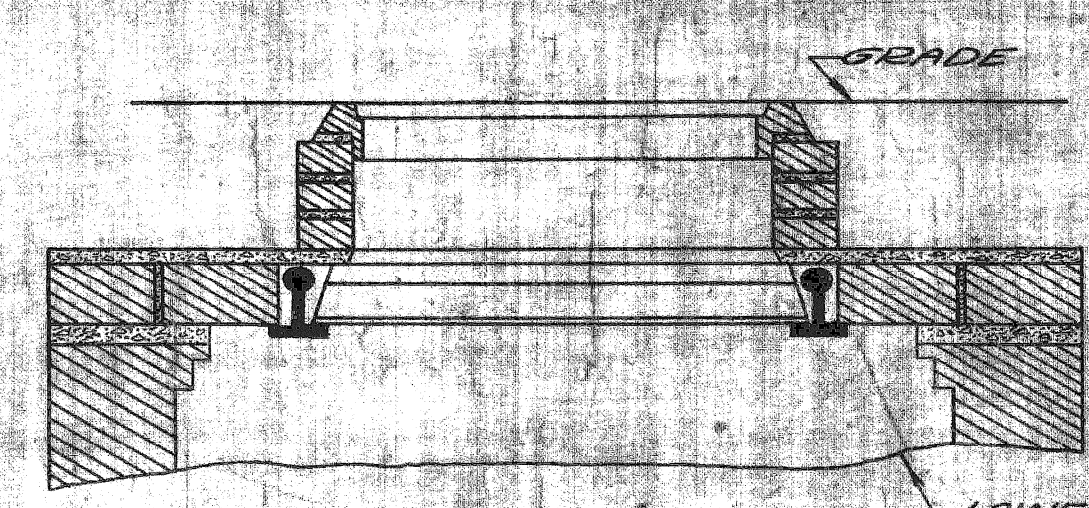
PLAN ALTERNATE ROOF - TYPE "S" HANDHOLE

TABLE FOR #4 BARS

MARK NO.	LENGTH
4-48	3'-0" 0"
4-40	4'-0" 0"
4-30	4'-3" 0"
4-30	4'-3" 0"
4-30	3'-0" 0"
4-10	1'-0" 0"
4-10	3'-0" 0"
4-10	3'-0" 0"



SECTION TYPE "S" SIDEWALK HANDHOLE



SECTION TYPE "D" SIDEWALK HANDHOLE

- NOTES:-**
6. BAR NUMBERS DENOTE THE SIZE OF BAR SPECIFIED IN ACCORDANCE WITH CURRENT USAGE SPECIFIED BY THE CONCRETE REINFORCING STEEL INSTITUTE.
  7. Excavation limits for Public Lighting Commission handholes shall be on vertical planes on the footing outline.
  8. Install anchors & cable-racks as shown.
  9. WHERE HANDHOLES ARE LOCATED BACK OF CURB, ROOF MUST BE BUILT 18" BELOW CURB GRADE, TO PROVIDE FOR FUTURE WIDENING.

SCALE: 1" = 1'-0"  
1/2" = 1'-0"

NO.	DESCRIPTION	DATE	BY
5	ADDED GENERAL NOTE #8	11-2-53	RKJ
7	ADDED NOTES ON CABLE RACKS	1-2-53	J.C.
6	SQUARED TYPE "S" H.H. ADDED	1-25-53	W.M.F.
5	Excavation limits repositioned	6-30-53	J.C.F.
1	ALTERNATE ROOF ADDED		
2	ADDED SECTION A-A TO TYPE "S"	2-2-52	M.V.C.
3	CORRECTIONS ADDED TO H.H. WALL	6-7-52	M.V.C.
4	CHANGE NOTE #5	8-31-54	J.C.F.

PROJECT NO. T 4000(4) JOB NO. 03185

CITY OF DETROIT  
PUBLIC LIGHTING COMMISSION  
P.L.C. DETAILS—HANDHOLES

DRAWN BY: RGR  
CHECKED BY: JLB  
APPROVED BY: C.M.P.

FILE NO: 55-31  
SHEET NO: 2  
DATE: 2-11-52

MICHIGAN STATE HIGHWAY DEPARTMENT

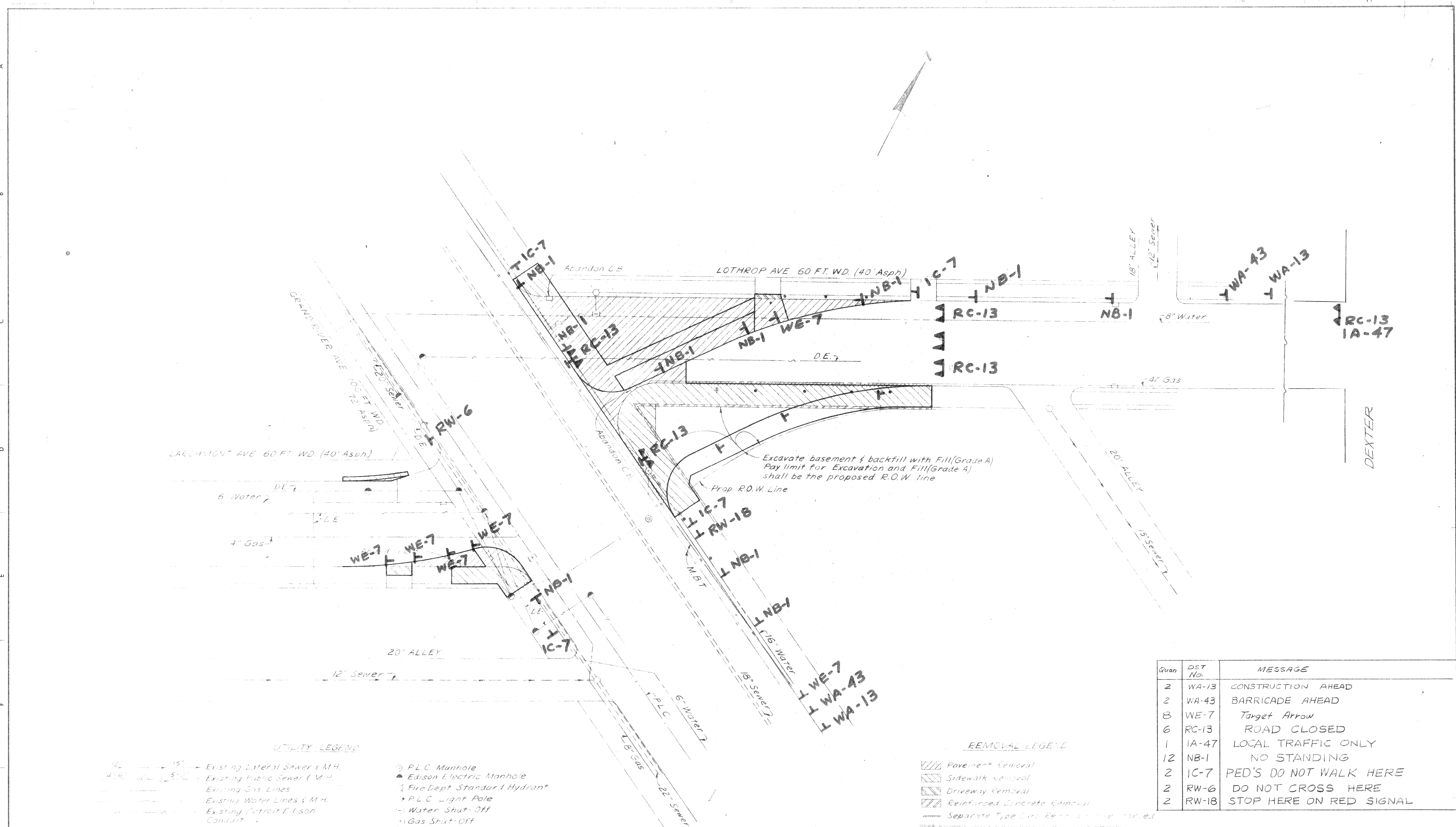
APPROVED: \_\_\_\_\_ CHIEF BRIDGE DRAFTSMAN

APPROVED: \_\_\_\_\_ ENGINEER OF BRIDGE DESIGN

APPROVED: \_\_\_\_\_ BRIDGE ENGINEER

DATE: \_\_\_\_\_





**UTILITY LEGEND**

- 12" --- Existing Lateral Sewer & M.H.
- 4" --- Existing Public Sewer & M.H.
- Existing Gas Lines
- Existing Water Lines & M.H.
- Existing Detroit Edison Conduit
- Existing Mch. Bell Telephone Ducts
- Existing P.L.C. Conduits
- Exist. C.B. M.H. & Inlet Sewer
- Prop. C.B. M.H. & Inlet Sewer
- ⊙ P.L.C. Manhole
- Edison Electric Manhole
- ⊗ Fire Dept. Standard Hydrant
- ⊙ P.L.C. Light Pole
- ⊙ Water Shut-Off
- ⊙ Gas Shut-Off
- ⊙ Traffic Sign Post
- ⊙ Mail Box
- ⊙ Parking Meter
- ⊙ Traffic Signal Light
- ⊙ Traffic Signal on Light Post
- ⊙ Police Call Box

**REMOVAL LEGEND**

- ▨ Pavement Removal
- ▨ Sidewalk Removal
- ▨ Driveway Removal
- ▨ Reinforced Concrete Removal
- Separate Type Curb Removal (to be noted)

Quan	DST No.	MESSAGE
2	WA-13	CONSTRUCTION AHEAD
2	WA-43	BARRICADE AHEAD
8	WE-7	Target Arrow
6	RC-13	ROAD CLOSED
1	IA-47	LOCAL TRAFFIC ONLY
12	NB-1	NO STANDING
2	IC-7	PED'S DO NOT WALK HERE
2	RW-6	DO NOT CROSS HERE
2	RW-18	STOP HERE ON RED SIGNAL

CITY OF DETROIT  
DEPARTMENT OF STREETS AND TRAFFIC

**SIGN LOCATION PLANS**

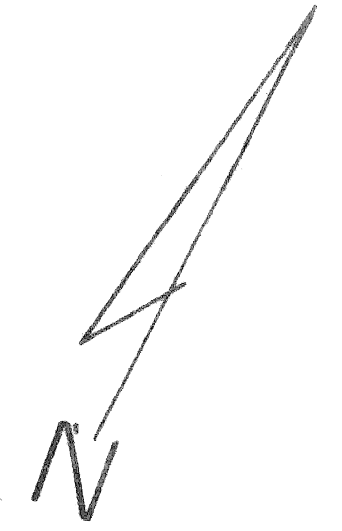
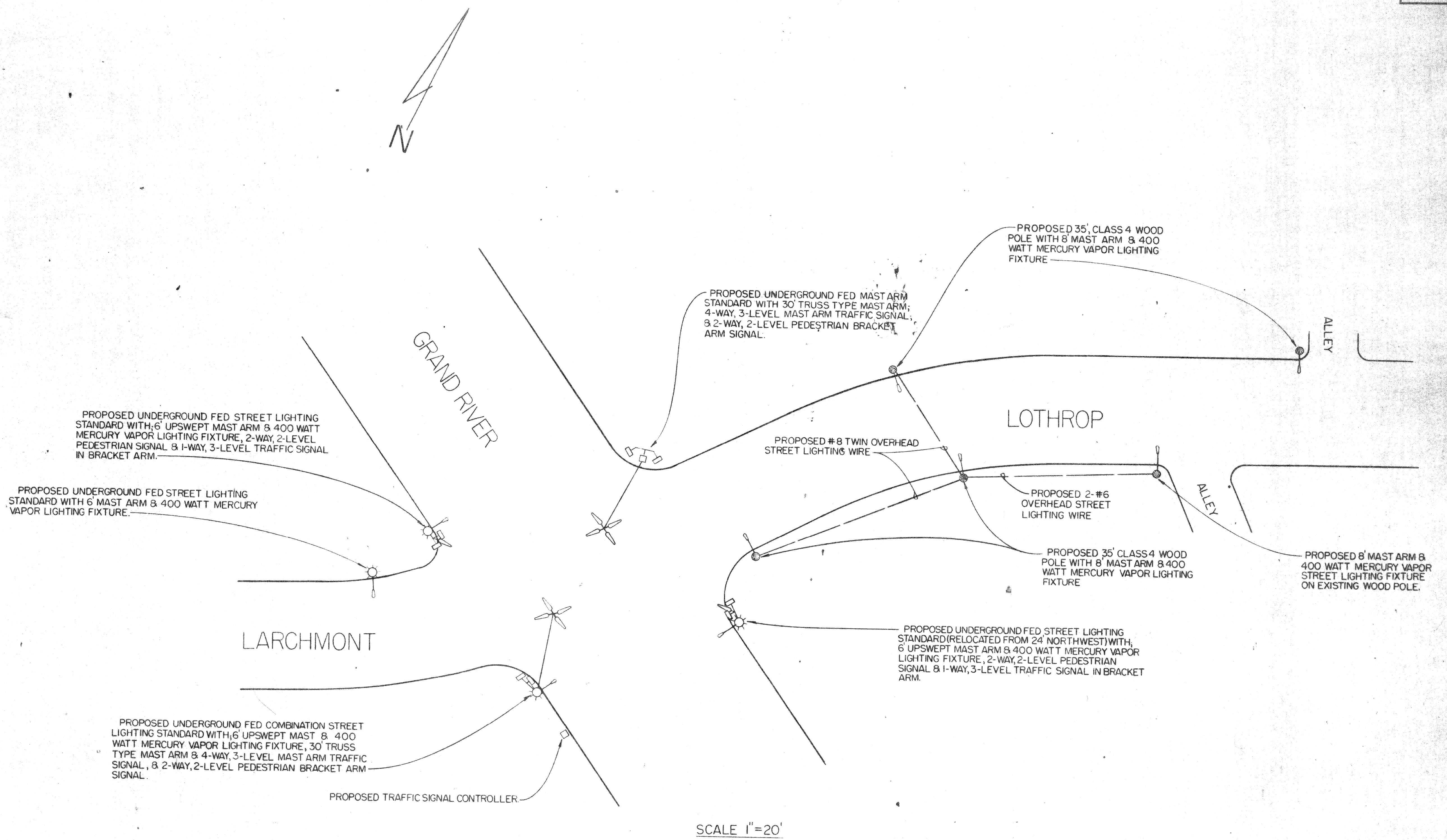
APPROVED: *[Signature]* 7/1/70  
TRAFFIC OPERATIONS ENGINEER DATE

**CLASS I BARRICADE**

SCALE: 1" = 20'

	DESIGNED BY D. MILZ	APPROVED: ENGINEER OF EXPRESSWAYS	<b>CITY OF DETROIT</b> DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE	JOG ELIMINATION LOTHROP AVE. AT GRAND RIVER AVE.	SHEET <u>1</u> OF <u>1</u> SHEETS PROJECT NO. T 4 000 (4) JOB NO. 03185 DATE JAN. 1971
	DRAWN BY D. MILZ	ADMINISTRATIVE ENGINEER			
	TRACED BY	HEAD CIVIL ENGINEER			
	CHECKED BY D. TEMPORELLI				





SCALE 1" = 20'

INDEX OF DRAWING NO. 52-2022	
SHEET NO.	CONTENT
1	PRELIMINARY PLANS
2	P.L.C. UNDERGROUND FACILITIES
3	REMOVAL OF EXISTING FACILITIES
4	TRAFFIC SIGNAL AND STREET LIGHTING MODERNIZATION
5	WIRING DIAGRAMS

DATE	DESCRIPTION	CHKD. BY

PRELIMINARY PLANS FOR  
P.L.C. ABOVE GROUND FACILITIES  
GRAND RIVER-LOTHROP JOG ELIMINATION

DRAWN BY  
**PANARS**  
CHECKED BY  
*[Signature]*  
APPROVED  
*[Signature]*

**PUBLIC LIGHTING  
COMMISSION**  
CITY OF DETROIT

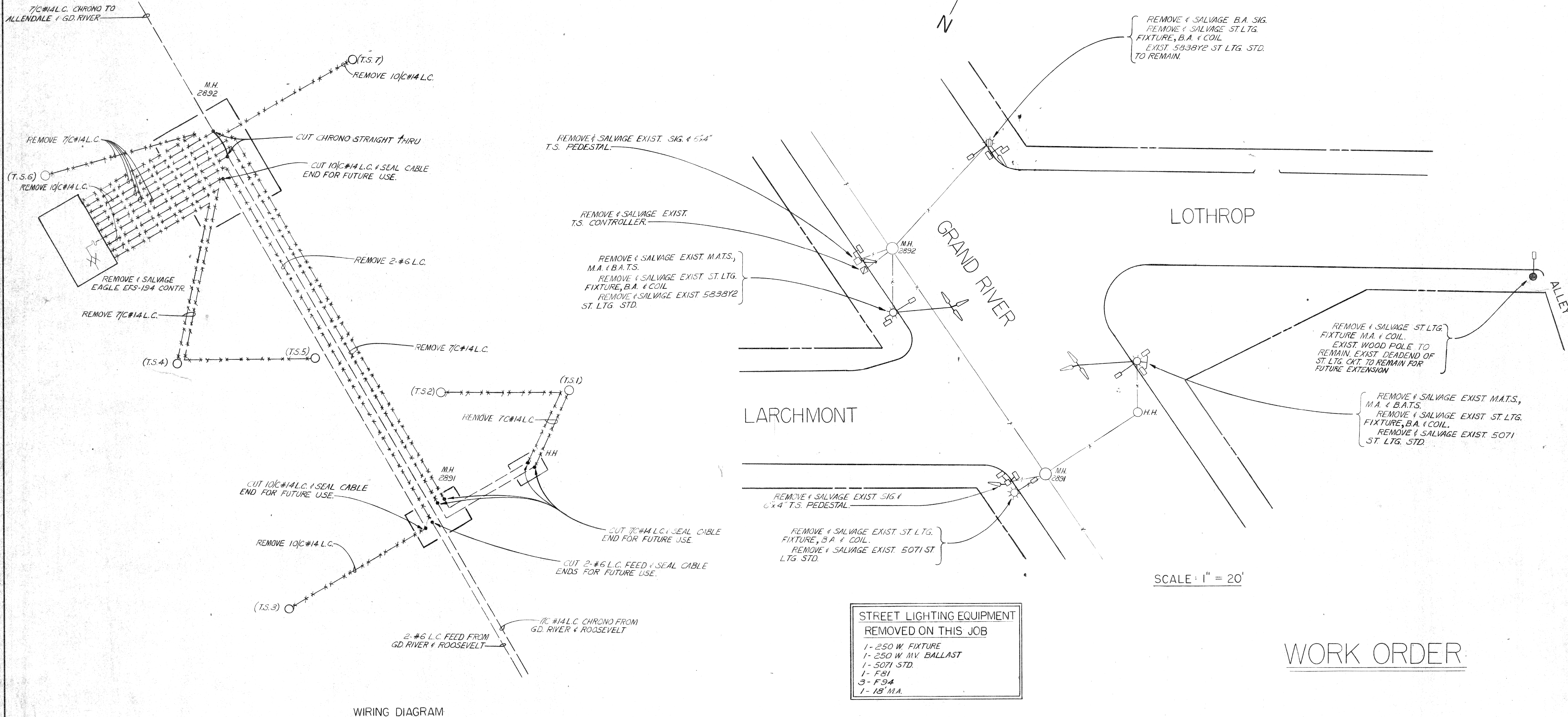
FILE NO.  
52-2022  
SHEET NO.  
1 OF 4  
DATE  
1-25-71



LEGEND

- ☒ REMOVE & SALVAGE EXIST. ST. LTG. STD.
- ☒ EXIST. ST. LTG. STD. TO REMAIN
- ☒ EXIST. WOOD POLE TO REMAIN
- ☒ REMOVE & SALVAGE EXIST. T.S. PEDESTAL
- ☒ REMOVE & SALVAGE EXIST. T.S. CONTROLLER
- ☒ REMOVE & SALVAGE EXIST. 2-LEVEL PEDESTRIAN SIGNAL
- ☒ REMOVE & SALVAGE EXIST. 3-LEVEL T.S.
- ☒ REMOVE & SALVAGE ST. LTG. FIXTURE AND M.A. (TYPE & SIZE AS NOTED)

**NOTE:** NO STREET LIGHTS OR TRAFFIC SIGNALS ARE TO BE TAKEN OUT OF SERVICE WITHOUT PRIOR APPROVAL OF THE PROJECT ENGINEER



DATE	DESCRIPTION	CHKD. BY

REMOVAL OF EXISTING P.L.C. FACILITIES  
GRAND RIVER-LOTHROP JOG ELIMINATION

DRAWN BY  
**PANARS**  
CHECKED BY  
*[Signature]*  
APPROVED BY  
*[Signature]*

**PUBLIC LIGHTING COMMISSION**  
CITY OF DETROIT

FILE NO. 52-2022  
SHEET NO. 2 OF 4  
DATE 1-25-71

WORK ORDER



LEGEND

- INSTALL TRUSS-TYPE MA STD. 111-00
- ⊗ INSTALL TRUSS-TYPE COMB ST LTG STD. 110-06 # 5014Y233
- ⊗ INSTALL 5888Y2 COMB. STD. 047-02
- ⊗ INSTALL 35-0198 ST LTG STD. 044-06
- ⊗ INSTALL 5071 ST LTG STD. 045-02
- ⊗ EXIST 5888Y2 ST LTG STD.
- ⊗ INSTALL EAGLE EF70S32 T.S. CONTR
- ⊗ INSTALL 3-LEVEL T.S.
- ⊗ INSTALL 2-LEVEL PEDESTRIAN SIG
- ⊗ EXIST WOOD POLE TO REMAIN

STREET LIGHTING NOTES

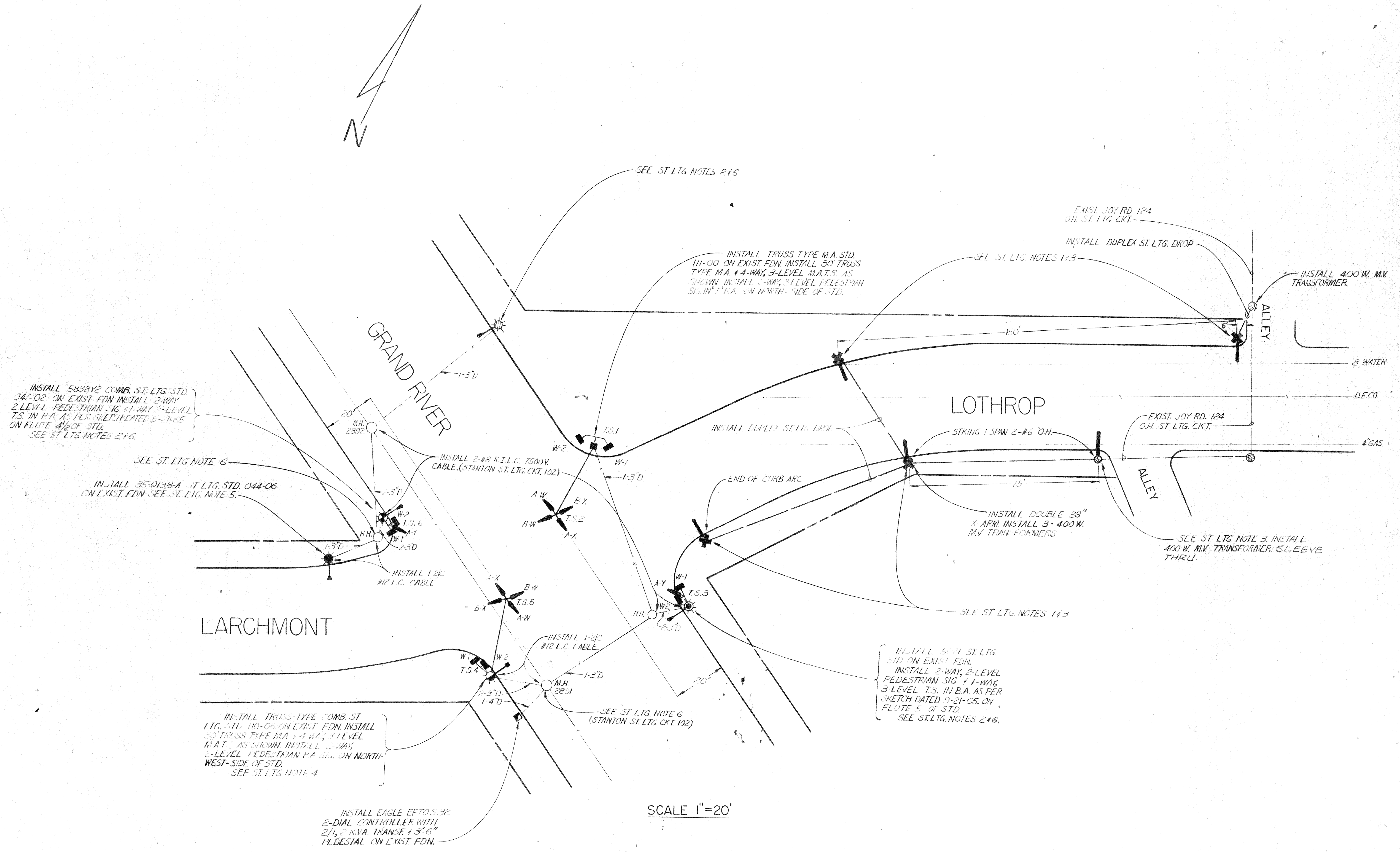
1. SET 35' CLASS 4 WOOD POLE 2" 6" B.O.C. AS SHOWN HEEL & TOE POLE.
2. INSTALL 6" OVAL SECTION CLAMP (6") ON M.A. WITH 400 W. M.V. TYPE III FIXTURE (EXTERNAL TRANSFORMER).
3. INSTALL 8" M.A. 4' RISE AT 27" INSTALL 400W M.V. TYPE II FIXTURE (EXTERNAL TRANSFORMER).
4. INSTALL 6" M.A. 26" RISE, SIMPLEX FITTER WITH 400 W. M.V. TYPE III FIXTURE (EXTERNAL TRANSFORMER).
5. INSTALL 6" OVAL SECTION M.A. WITH 400 W. M.V. TYPE II FIXTURE (EXTERNAL TRANSFORMER).
6. INSTALL 400 W. M.V. EPOXY COATED TRANSFORMER

STREET LIGHTING EQUIPMENT INSTALLED ON THIS JOB

- 1 - 5014Y233 COMB STD.
- 4 - 35' WOOD POLES
- 5 - 8" M.A. 4' RISE
- 4 - 6" OVAL SECTION M.A.
- 1 - 35-0198A STD.
- 10 - 400 W. M.V. FIXTURES
- 10 - 400 W. M.V. TRANSFORMERS
- 140' - #6 WIRE
- 130' - DUPLEX
- 50' - 2/C #12 L.C. CABLE
- 100 - #8 R.I.L.C. CABLE

GENERAL NOTES

1. INSTALL SAFETY CHAINS ON ALL MAST ARM TRAFFIC SIGNALS.
2. SEE SHEET #5, THIS DRAWING FOR T.S. INSTALLATION WIRING DIAGRAM.



TRAFFIC SIGNAL AND STREET LIGHTING MODERNIZATION GRAND RIVER-LOTHROP JOG ELIMINATION

DATE	DESCRIPTION	CHKD. BY

DRAWN BY <b>PANARS</b>	CHECKED BY <b>[Signature]</b>	APPROVED BY <b>[Signature]</b>	FILE NO. 52-2022
			SHEET NO. 3 OF 4
			DATE 1-25-71

**PUBLIC LIGHTING COMMISSION**  
CITY OF DETROIT



LEGEND

- INSTALL O.H. WIRE
- EXIST. O.H. WIRE
- INSTALL U.G. CABLE
- EXIST. U.G. CABLE
- NEW SIG.
- NEW 400 W. M.V. LUMINAIRE
- NEW 400 W. M.V. TRANSFORMER

APPROX. CABLE QUANTITY

- (TRAFFIC SIGNAL)
- 1/C #6 L.C. 50 FEET
  - 7/C #14 L.C. 550 FEET
  - 10/C #14 L.C. 400 FEET
- (STREET LIGHTING)
- #6 WIRE 140 FEET
  - DUPLEX 180 FEET
  - 2/C #12 L.C. 50 FEET
  - #8 R.T.L.C. 100 FEET

EXIST JOY RD. 124  
O.H. ST. LTG. CKT.

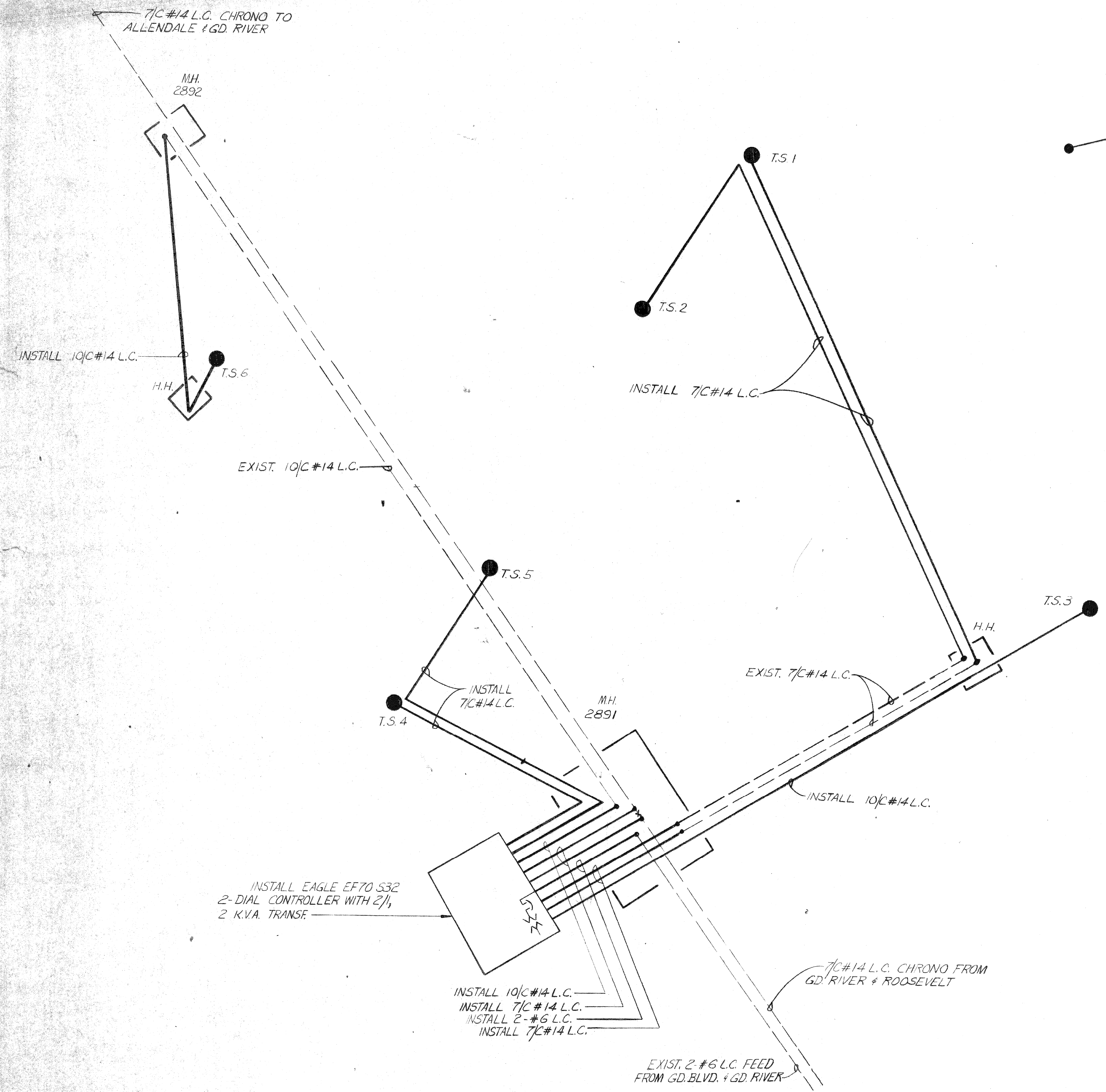
A.E.-GD. RIVER

LOTHROP

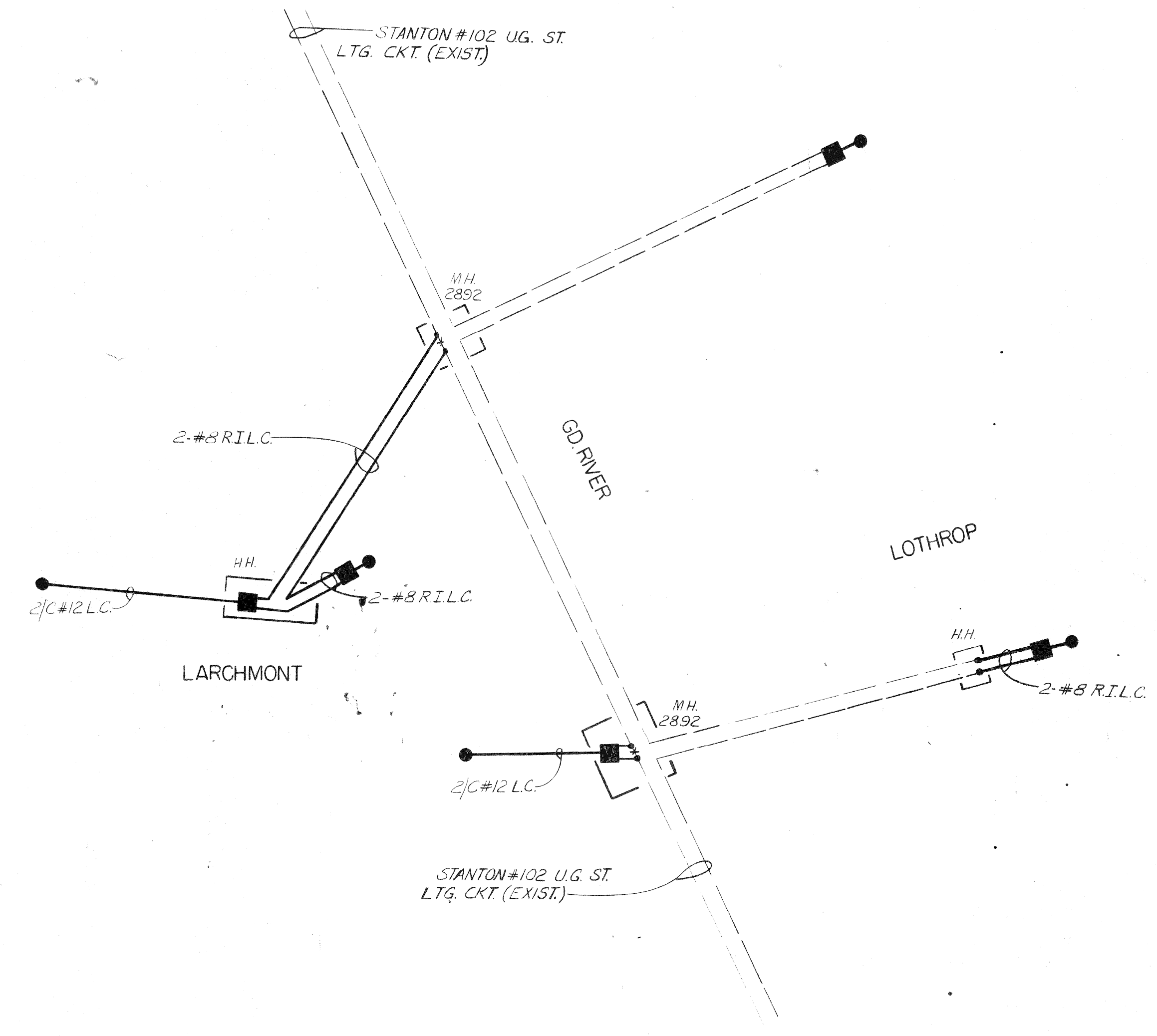
DUPLEX

2-#6 O.H.

ST. LTG. WIRING DIAGRAM  
LOTHROP-GD. RIVER TO A.E.-GD. RIVER



TRAFFIC SIGNAL  
WIRING DIAGRAM



UNDERGROUND STREET LIGHTING  
WIRING DIAGRAM

GRAND RIVER - LOTHROP JOG ELIMINATION  
WIRING DIAGRAM

DATE	DESCRIPTION	CHRD. BY

DRAWN BY  
**PANARS**

CHECKED BY  
*[Signature]*

APPROVED BY  
*[Signature]*

**PUBLIC LIGHTING  
COMMISSION**  
CITY OF DETROIT

FILE NO.  
52-2022

SHEET NO.  
4 OF 4

DATE  
1-25-71