

SHEET NO.	TOTAL SHEETS
1	3

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

TRAFFIC SIGNAL IMPROVEMENTS

FOR
21ST STREET NORTH AND BRADLEY FAIR PARKWAY

CITY OF WICHITA PROJECT NO. 472-83251
 OCA NO. 765658

- INDEX OF SHEETS
1. TITLE SHEET
 2. BENEFIT DISTRICT
 3. TRAFFIC SIGNAL PLAN
 4. TRAFFIC SIGNAL BILL OF MATERIALS
 - 5-8. TRAFFIC SIGNAL DETAILS

GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED BELOW.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

CONTRACTOR SHALL SATISFY HIMSELF OF SURFACE AND SUBSURFACE CONDITIONS PRIOR TO BIDDING.

TEMPORARY SURFACING MATERIAL (ROCK, ASPHALT, ETC.) MAY HAVE BEEN PLACED WITHIN STREET RIGHTS-OF-WAY FOR HAUL ROADS AND TEMPORARY ACCESS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXTENT. IF ANY OF SUCH SURFACING, CONTRACTOR SHALL REMOVE SAID TEMPORARY SURFACING IN THE SAME MANNER AS NOTED ABOVE FOR RUBBLE. THIS REMOVAL SHALL BE SUBSIDIARY TO EXCAVATION.

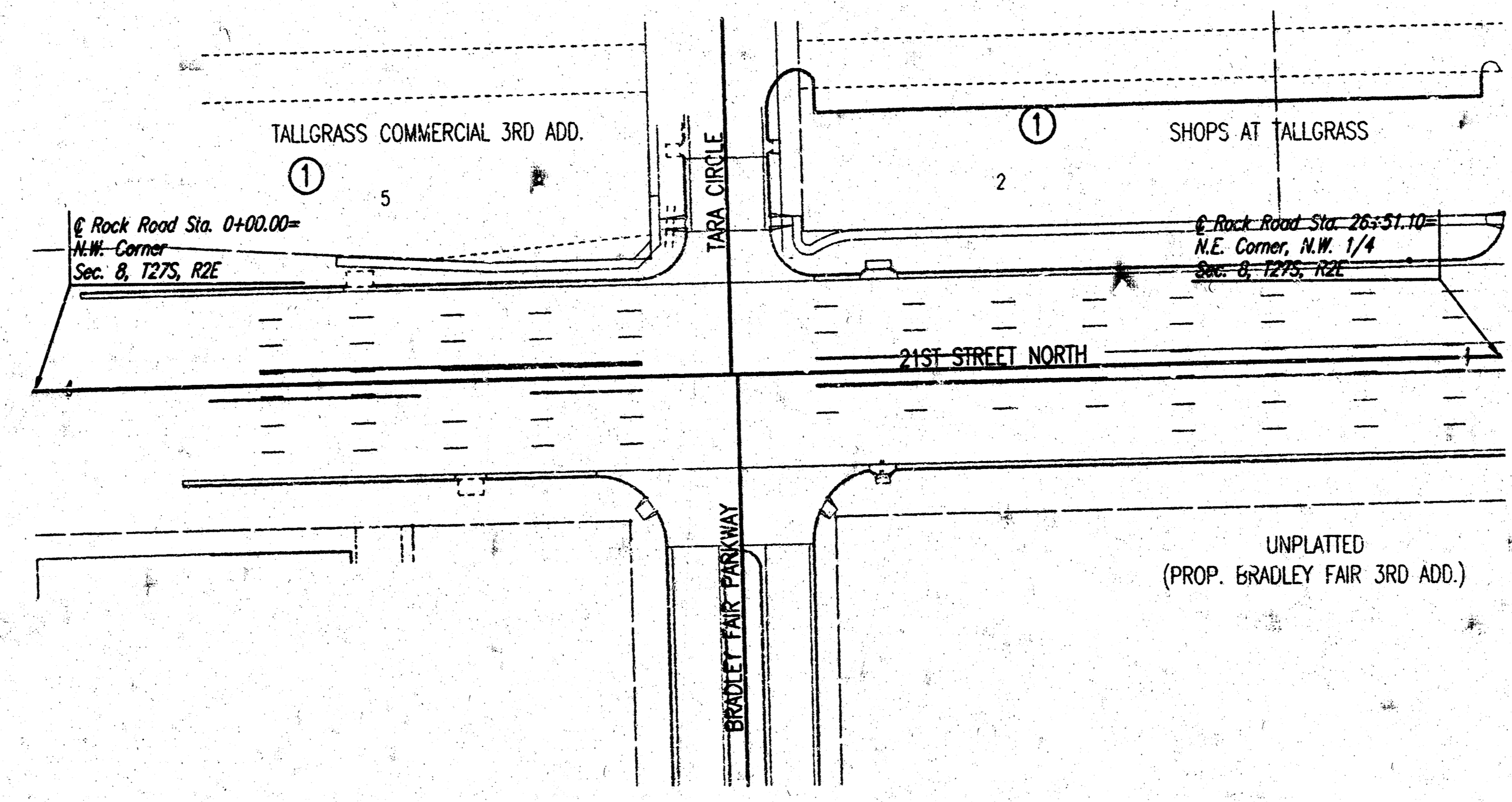
CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470. TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.G.S. GAS, PEOPLES NATURAL GAS, K.G.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, COX COMMUNICATIONS, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

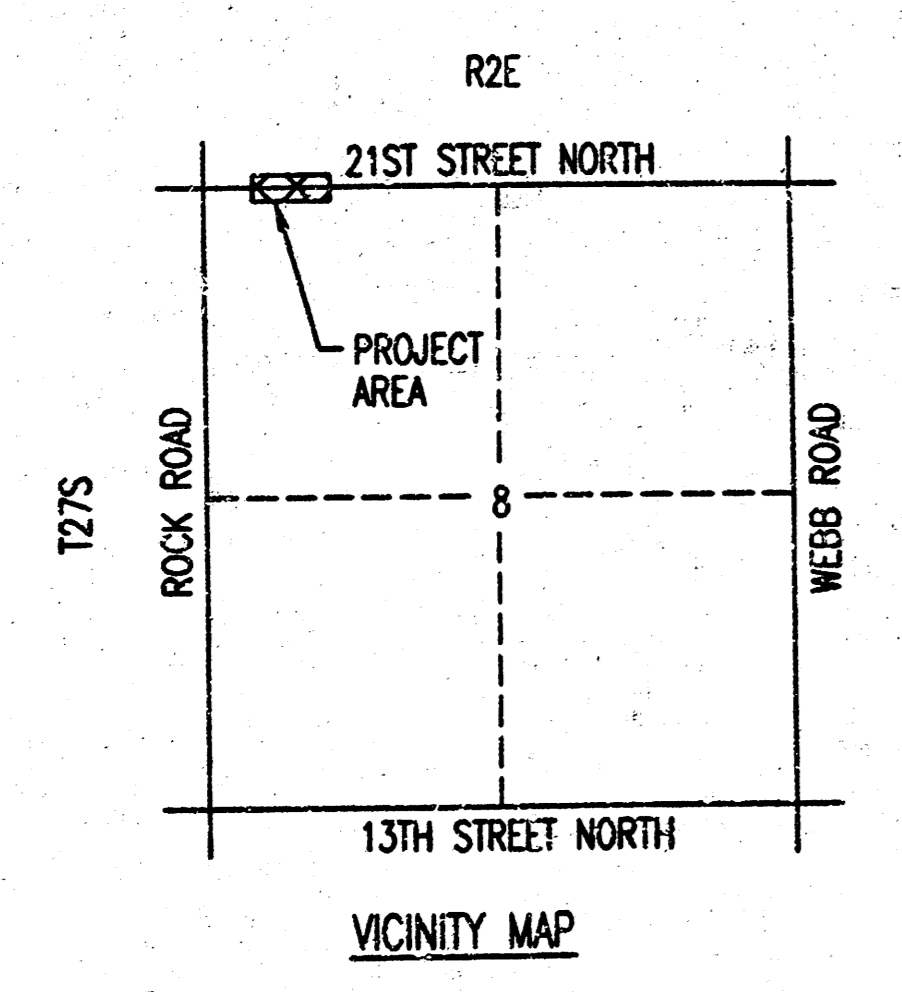
THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER. THIS WORK TO BE SUBSIDIARY TO OTHER BID ITEMS.

THE CONTRACTOR SHALL INSTALL CONDUIT UNDER EXISTING PAVEMENT USING DIRECTIONAL BORING METHODS. THE CONTRACTOR SHALL COORDINATE W/ KGE FOR INSTALLATION AND LOCATION OF THE POWER FEED AND METER. ALL COSTS FOR THE INSTALLATION OF THE POWER FEED, INCLUDING SERVICE AND INSPECTION FEES SHALL BE BORNE BY THE CONTRACTOR.



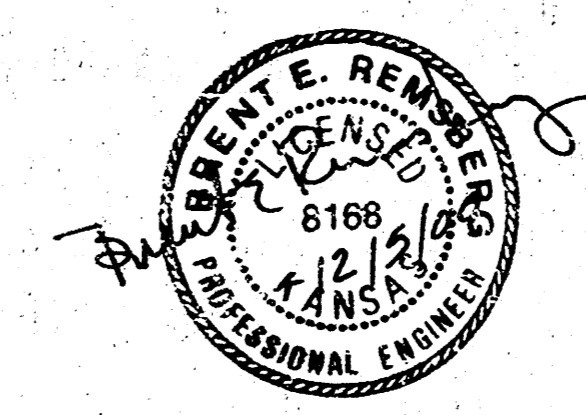
SCALE: 1" = 50'



NOVEMBER, 2000

PLANS PREPARED BY

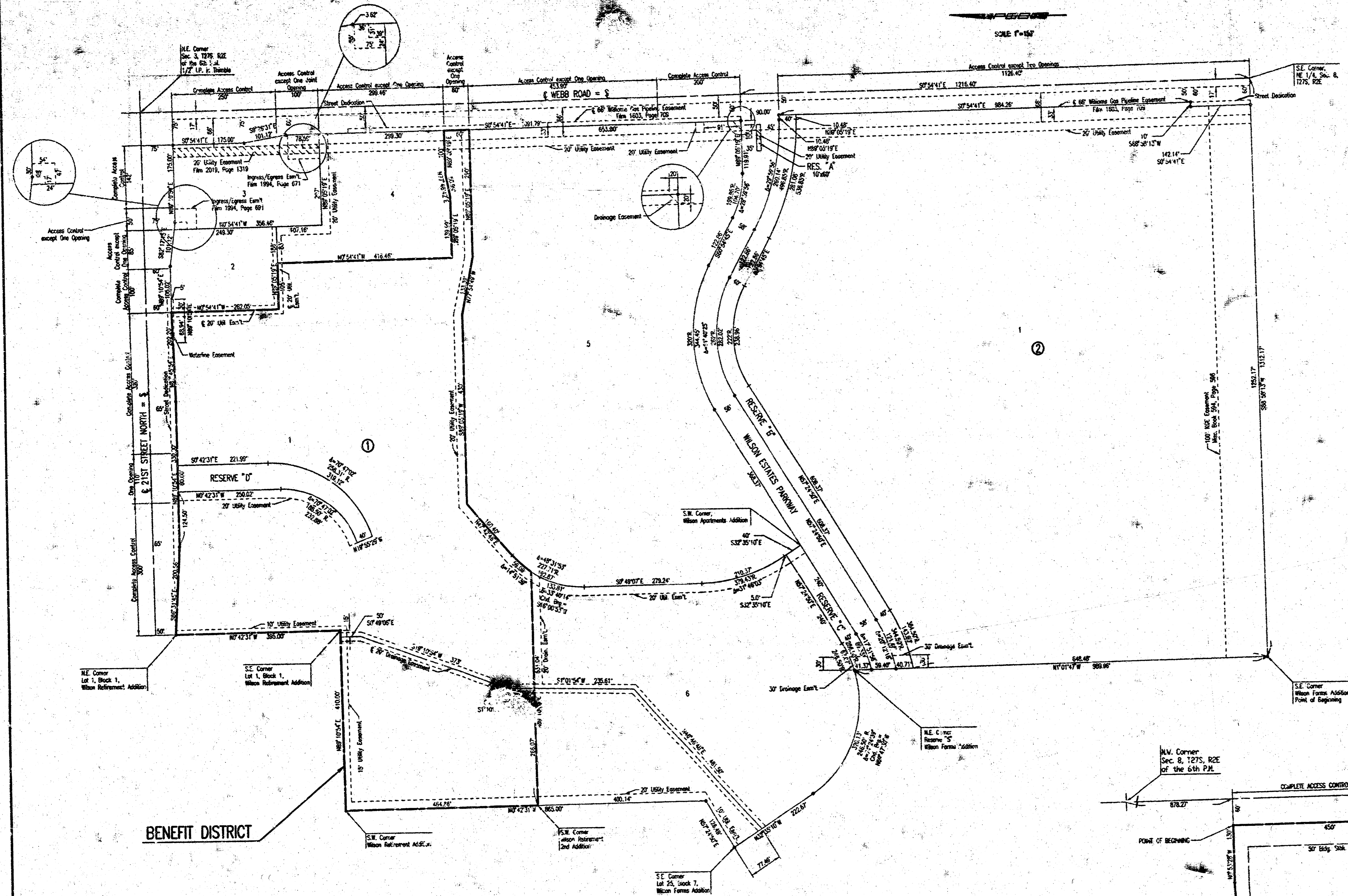
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



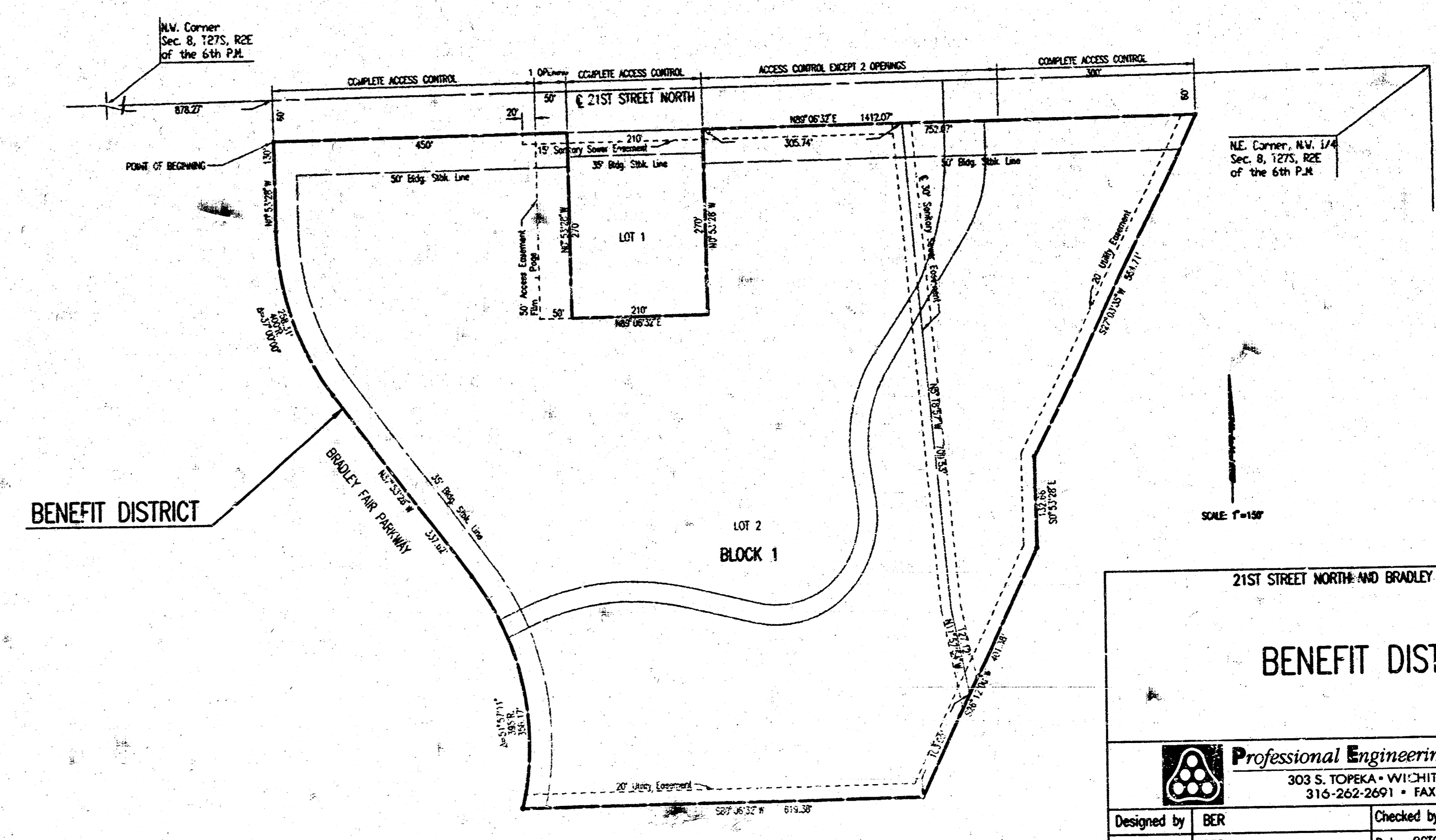
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LEGACY PARK WILSON ESTATES ADDITION
TO WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-43251	2	8



BRADLEY FAIR 3RD ADDITION
TO WICHITA, SEDGWICK COUNTY, KANSAS



DSNR: BER OPER: ILS SCALE: 1"=150.00
 C:\2000\06525\06525.DWG PLOT: 12-05-2000 03:48:03 pm

BENEFIT DISTRICT

BENEFIT DISTRICT

21ST STREET NORTH AND BRADLEY FAIR PARKWAY

BENEFIT DISTRICT

Professional Engineering Consultants, P.A.
 303 S. TOPEKA • WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

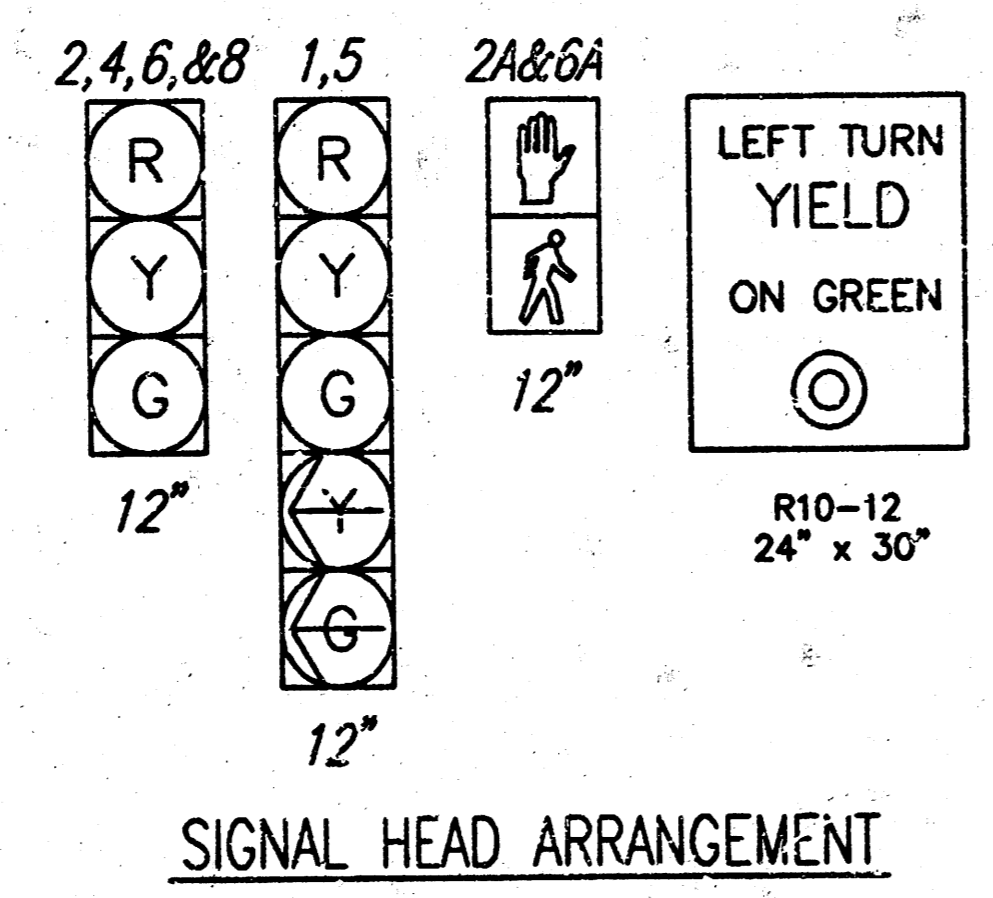
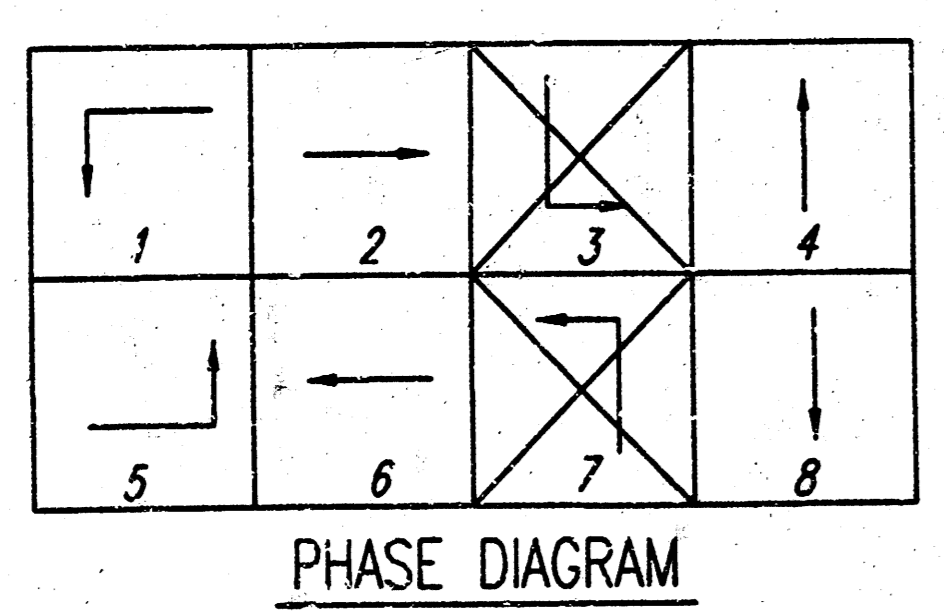
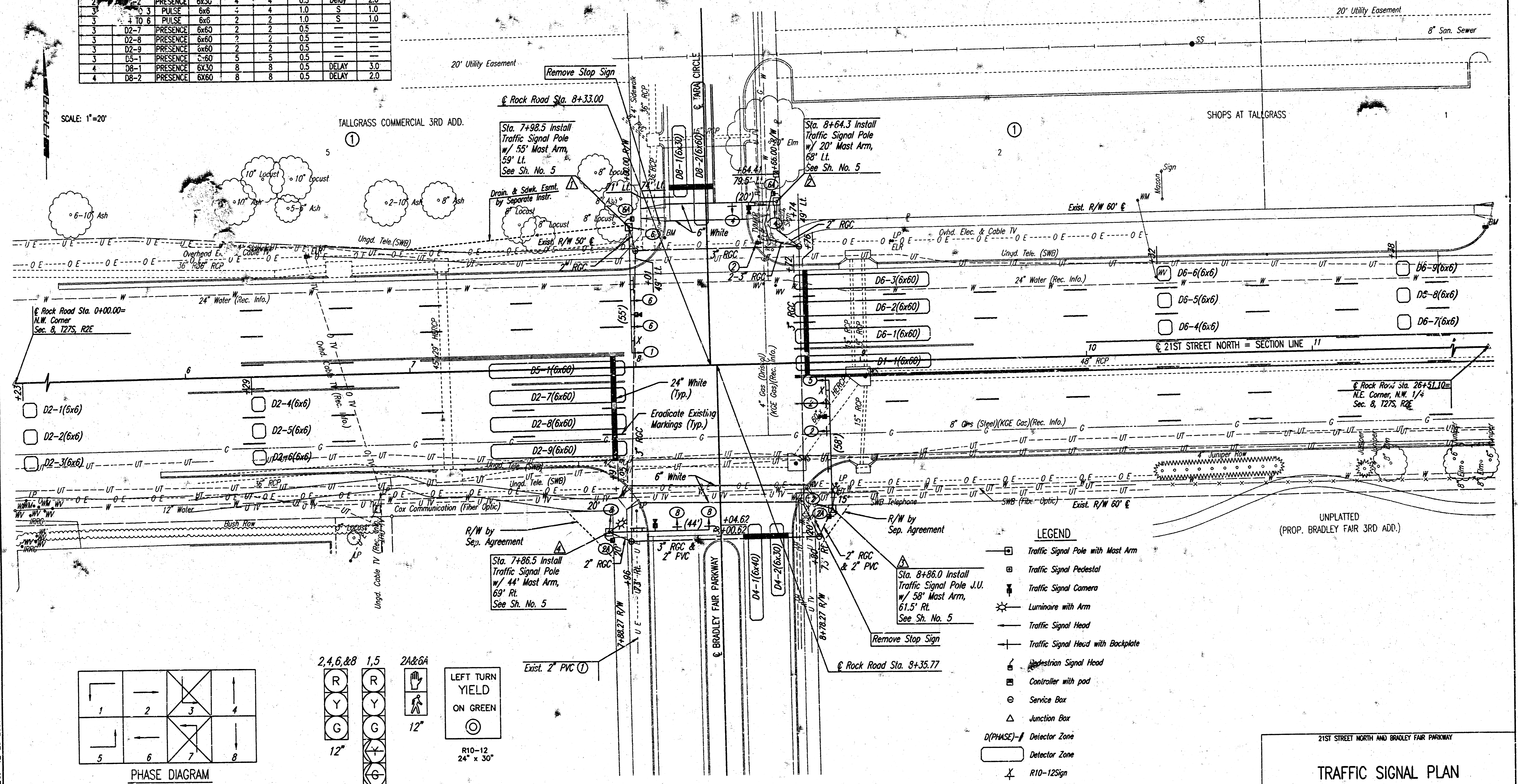
Designed by	BER	Checked by	
Drawn by	DEP	Date	OCTOBER 2000
		Job No.	00525

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-83251	3	8

DETECTOR SUMMARY							
CAMERA NO.	DETECTION ZONE	MODE	SIZE (LxW)	PHASE CALLED	PHASE EXTENDED	UNIT EXTENSION	DELAY/STRETCH/TIMER
1	D1-1	PRESENCE	6x60	1	1	0.5	
1	D6-1	PRESENCE	6x60	6	6	0.5	
1	D6-2	PRESENCE	6x60	6	6	0.5	
1	D6-3	PRESENCE	6x60	6	6	0.5	
1	D6-4 TO 6	PULSE	6x6	6	6	1.0	S 1.0
1	D6-7 TO 9	PULSE	6x6	6	6	1.0	S 1.0
2	D4-1	PRESENCE	6x40	6	6	0.5	Delay 2.0
2	D2-2	PRESENCE	6x30	4	4	0.5	Delay 2.0
3	D3-3	PULSE	6x6	4	4	1.0	S 1.0
3	D4 TO 6	PULSE	6x6	2	2	1.0	S 1.0
3	D2-7	PRESENCE	6x60	2	2	0.5	
3	D2-8	PRESENCE	6x60	2	2	0.5	
3	D2-9	PRESENCE	6x60	2	2	0.5	
3	D3-1	PRESENCE	6x60	5	5	0.5	
4	D8-1	PRESENCE	6x30	8	8	0.5	DELAY 3.0
4	D8-2	PRESENCE	6x60	8	8	0.5	DELAY 2.0

CONTROLLER DESCRIPTION
 The Traffic Signal Controller shall comply with the requirements defined in the Specifications for a Type 170E Controller with Motorola 68HC11 processor chip, 256K prom module and a 400 modem. It shall be furnished and installed with a Model 332 cabinet, 2-type 242 isolator units, 1 detection unit, 10 switch packs, 2-type 204 flashers, 4 flash transfer relay, and a Model 210P conflict monitor MS or ECL. The Controller shall also be furnished with WAHKS Version 5.3A or latest version of software developed by WAPITI MICRO SYSTEMS.

SCALE: 1"=20'



- LEGEND**
- Traffic Signal Pole with Mast Arm
 - Traffic Signal Pedestal
 - ⊕ Traffic Signal Camera
 - ⊙ Luminaire with Arm
 - ⊖ Traffic Signal Head
 - ⊕ Traffic Signal Head with Backplate
 - ⊕ Pedestrian Signal Head
 - ⊕ Controller with pod
 - ⊕ Service Box
 - ⊕ Junction Box
 - D(PHASE) Detector Zone
 - Detector Zone
 - ⊕ R10-12 Sign
 - Rigid Galvanized Conduit (RGC)
 - ⊕ Signal Phase
 - ⊕ Signal Pole Reference Number
 - Street Name Sign

- 1 REROUTE EXISTING 2" PVC INTO SERVICE BOX AT STA. 7+96.73' RL. COORDINATE WITH KGE FOR REMOVAL OF STEEL POLE AND CIRCUIT SHUTDOWN.
- 2 INSTALL METER AND DISCONNECT BOX ON EXISTING POLE. (2202 TARA CIRCLE)

21ST STREET NORTH AND BRADLEY FAIR PARKWAY

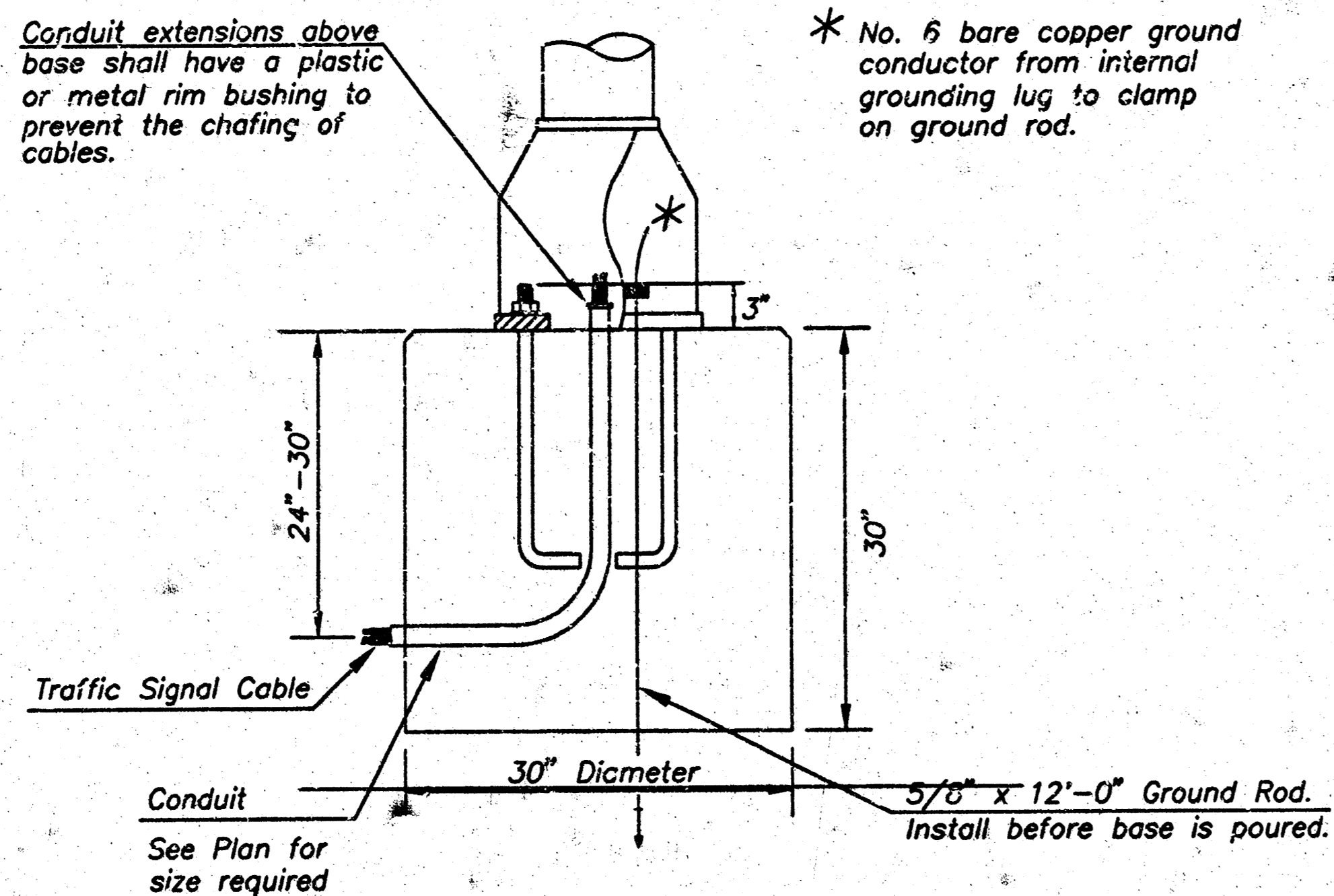
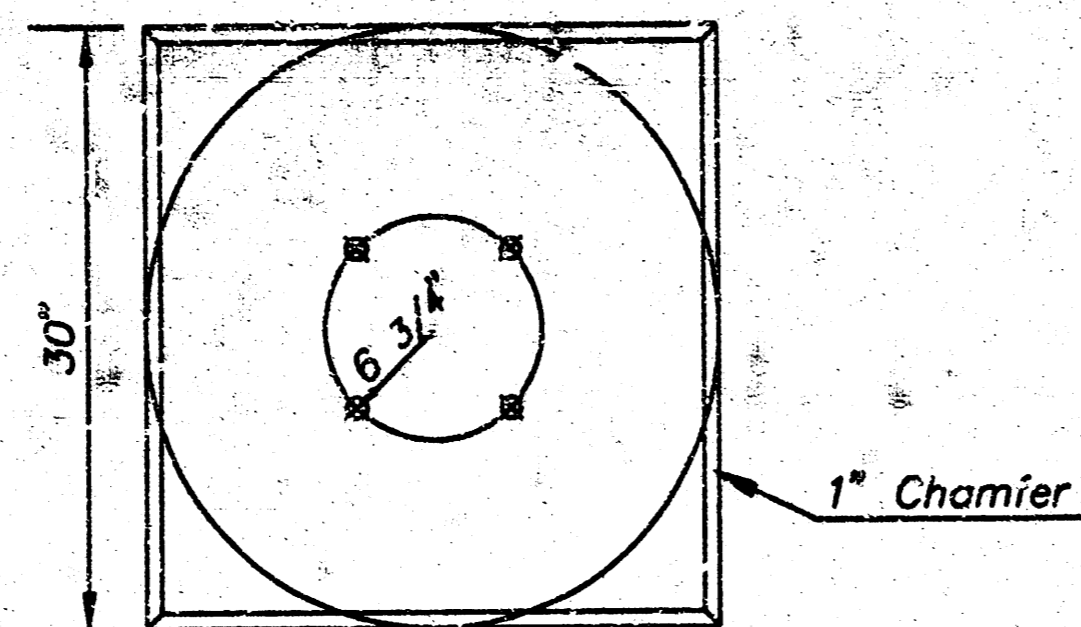
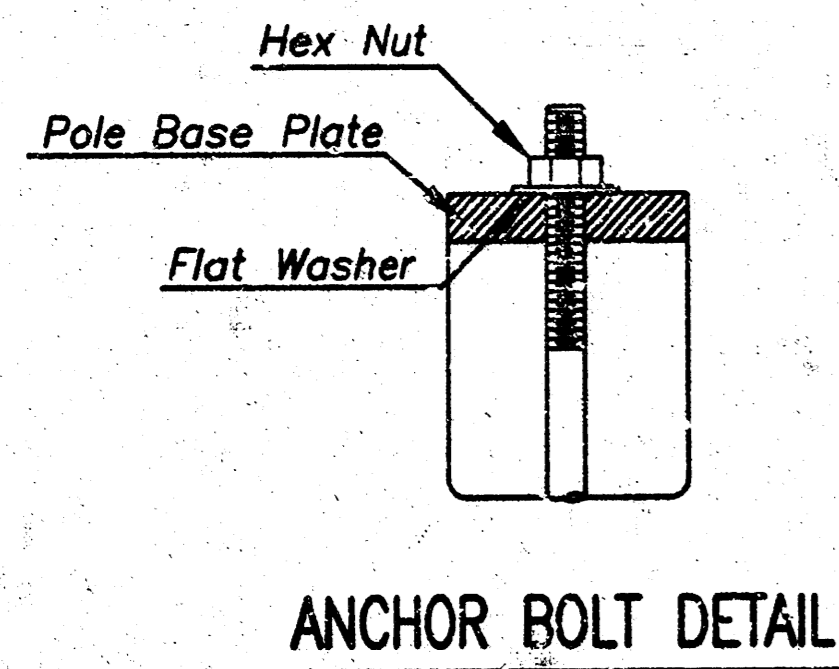
TRAFFIC SIGNAL PLAN

Professional Engineering Consultants, P.A.
 303 S. TOPEKA, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3038

Designed by BLR Checked by
 Drawn by DEP Date OCTOBER 2000 Job No. 00525

DSNR, DEP OPER. SCALE: 1"=20.00
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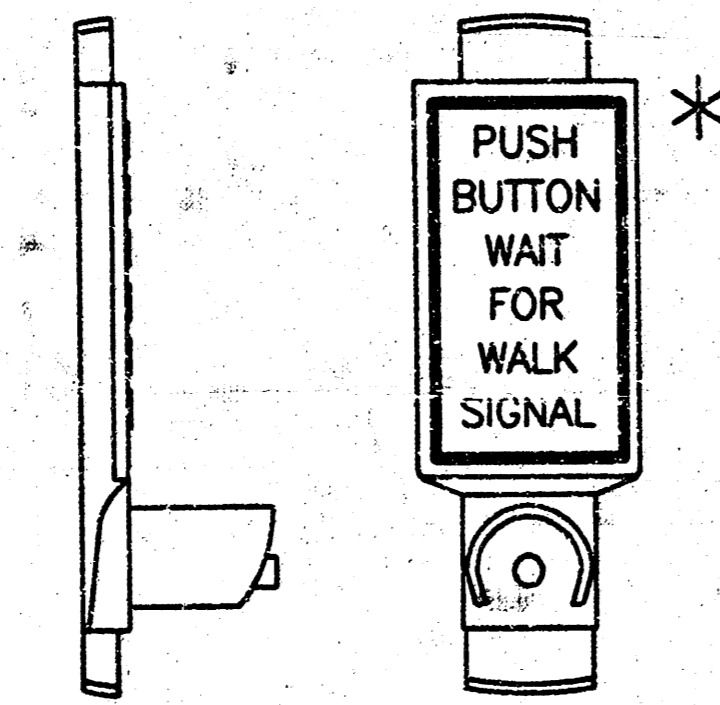
Use Keystone "No-Weld Number 1 Anti-Seize Compound" on all bolts & nuts.



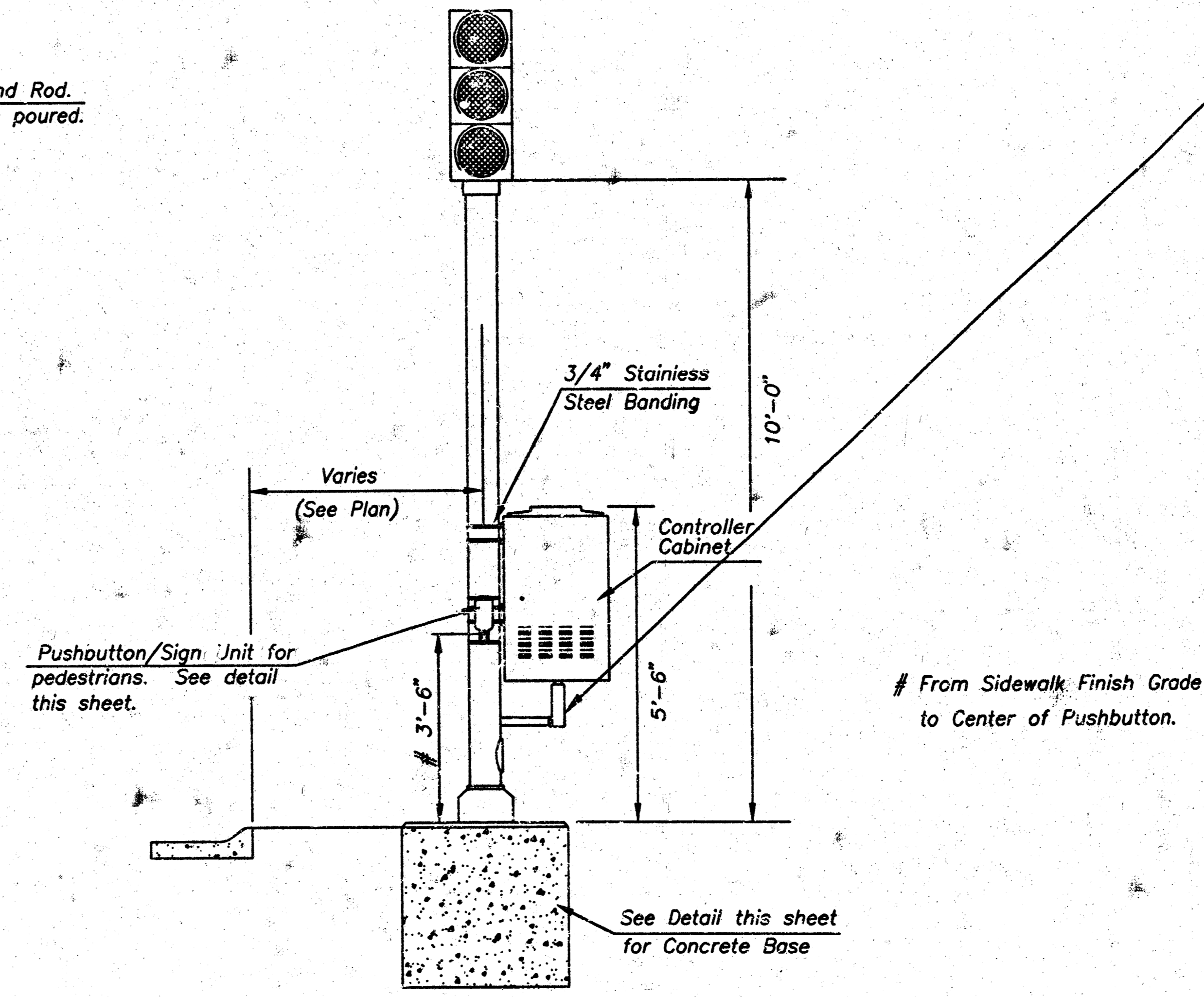
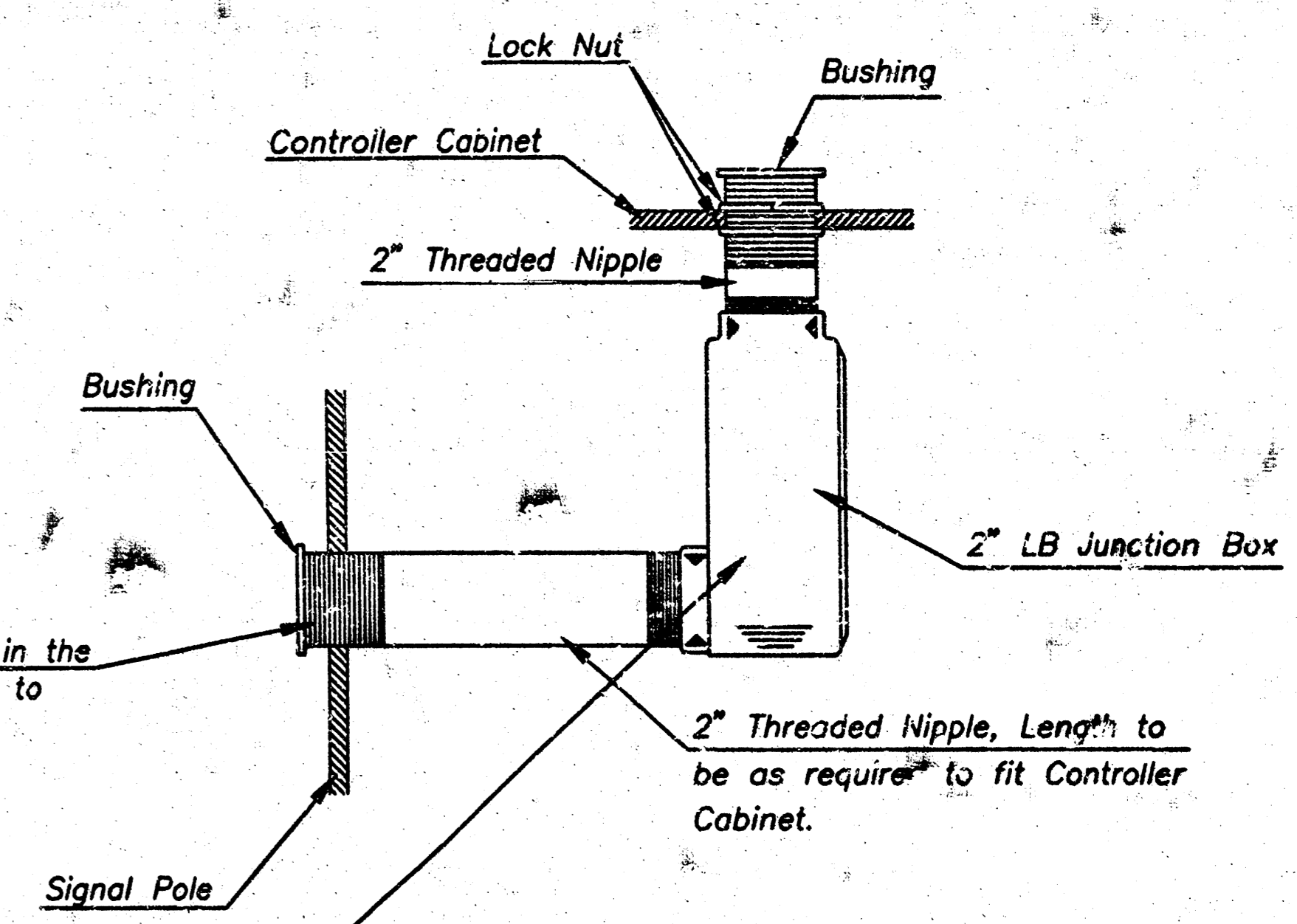
* No. 6 bare copper ground conductor from internal grounding lug to clamp on ground rod.

Conduit extensions above base shall have a plastic or metal rim bushing to prevent the chafing of cables.

*NOTE: MESSAGE TO BE CAST WITH HOUSING (ONE PIECE)



INSTALL PEDESTRIAN PUSHBUTTON UNDERNEATH CORRESPONDING PEDESTRIAN SIGNAL HEAD ON SIDE OF POLE NEAREST CROSSWALK. UNIT SHALL BE FIRMLY ATTACHED TO THE SIDE OF POLE WITH 3/4" STEEL BANDS. SHARP ENDS SHALL BE FOLDED UNDER TO PREVENT INJURY TO PEDESTRIANS.

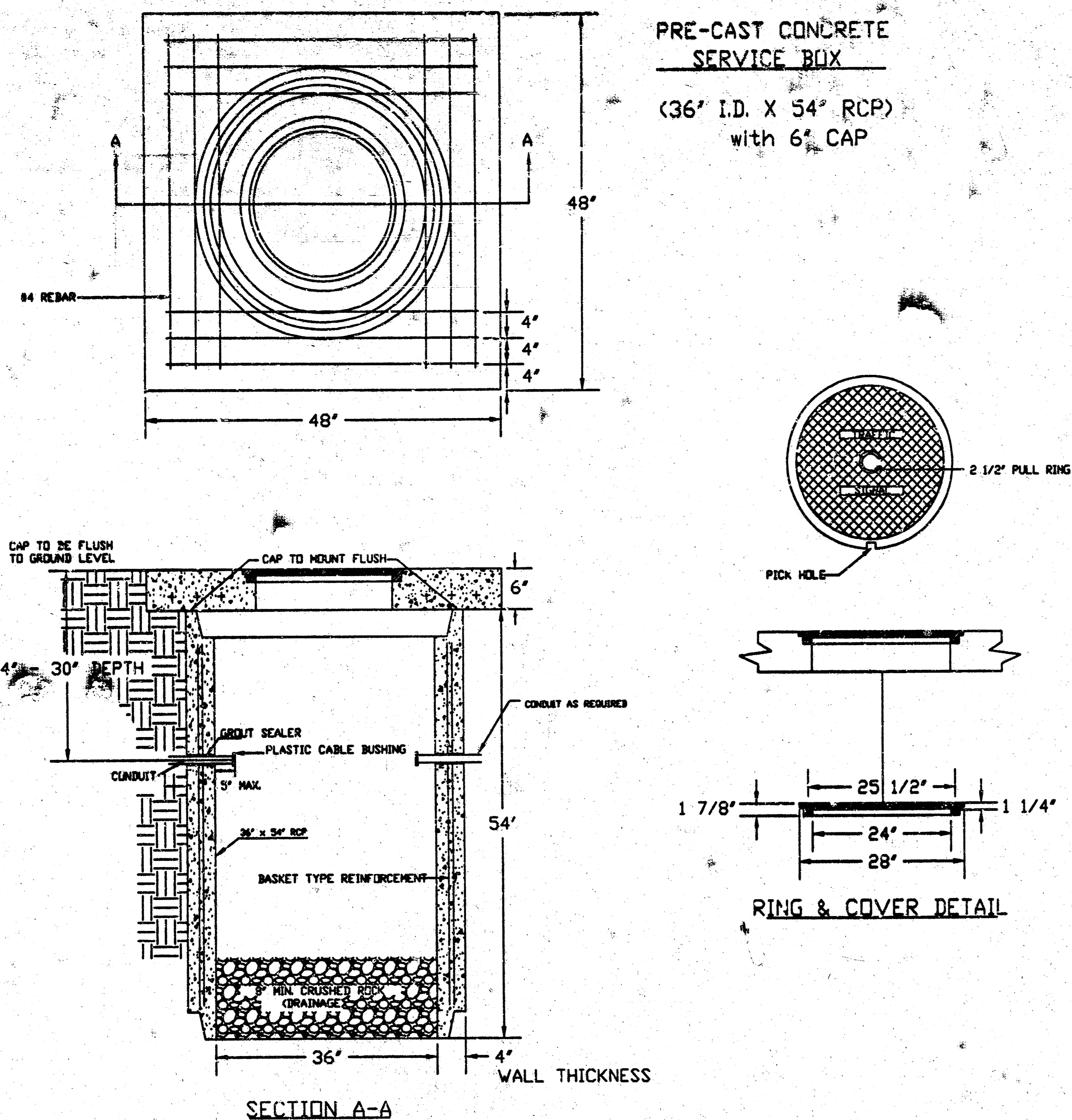


From Sidewalk Finish Grade to Center of Pushbutton.

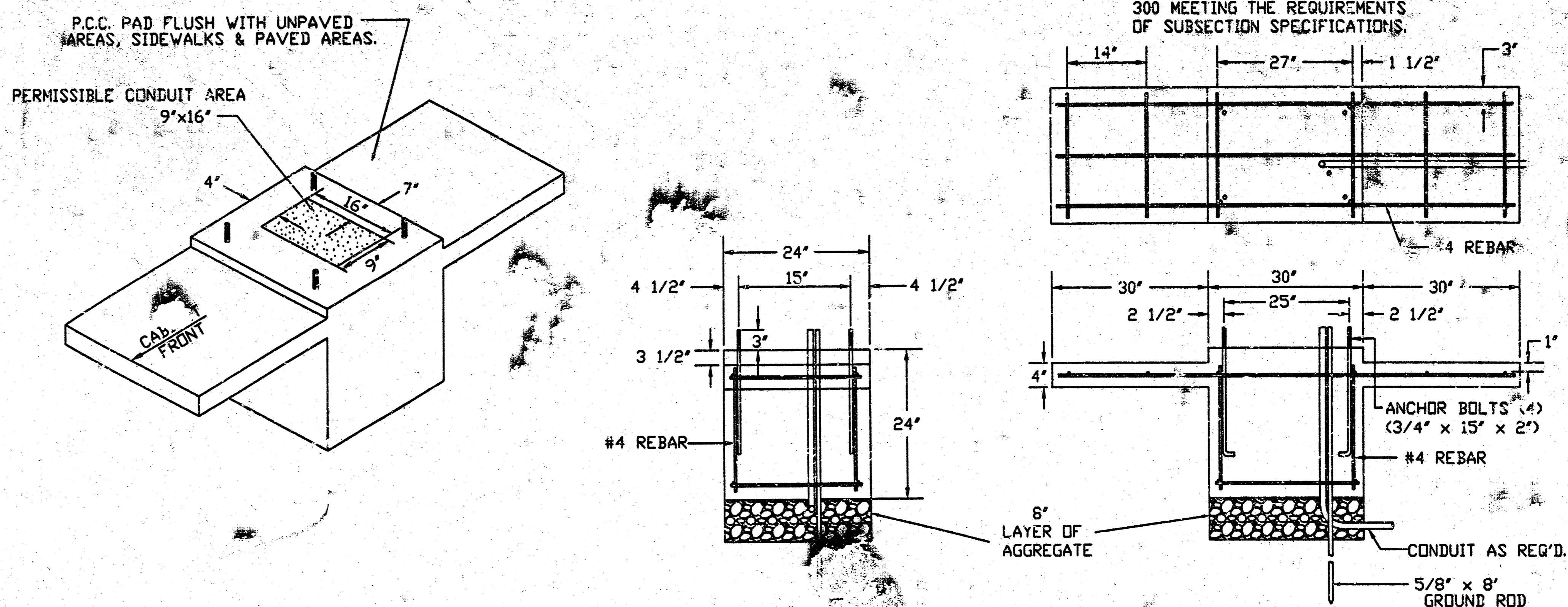
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<p>THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SECOND FLOOR 505 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 241-1200 (316) 246-1114 FAX</p>	PROJECT DESCRIPTION	
	TRAFFIC SIGNAL PEDESTAL & CONCRETE BASE DETAIL SHEET	
	PROJECT NUMBER 472-76-245-83251-000-000-001	
	DESIGN BY: T.M.L.	SCALE: NO SCALE
DATE: MAY 97		DATE:
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS		
DIVISION OF TRAFFIC ENGINEERING WAL. G. MCKINLEY P.E. TRAFFIC ENGINEER		SHEET 6 OF 8

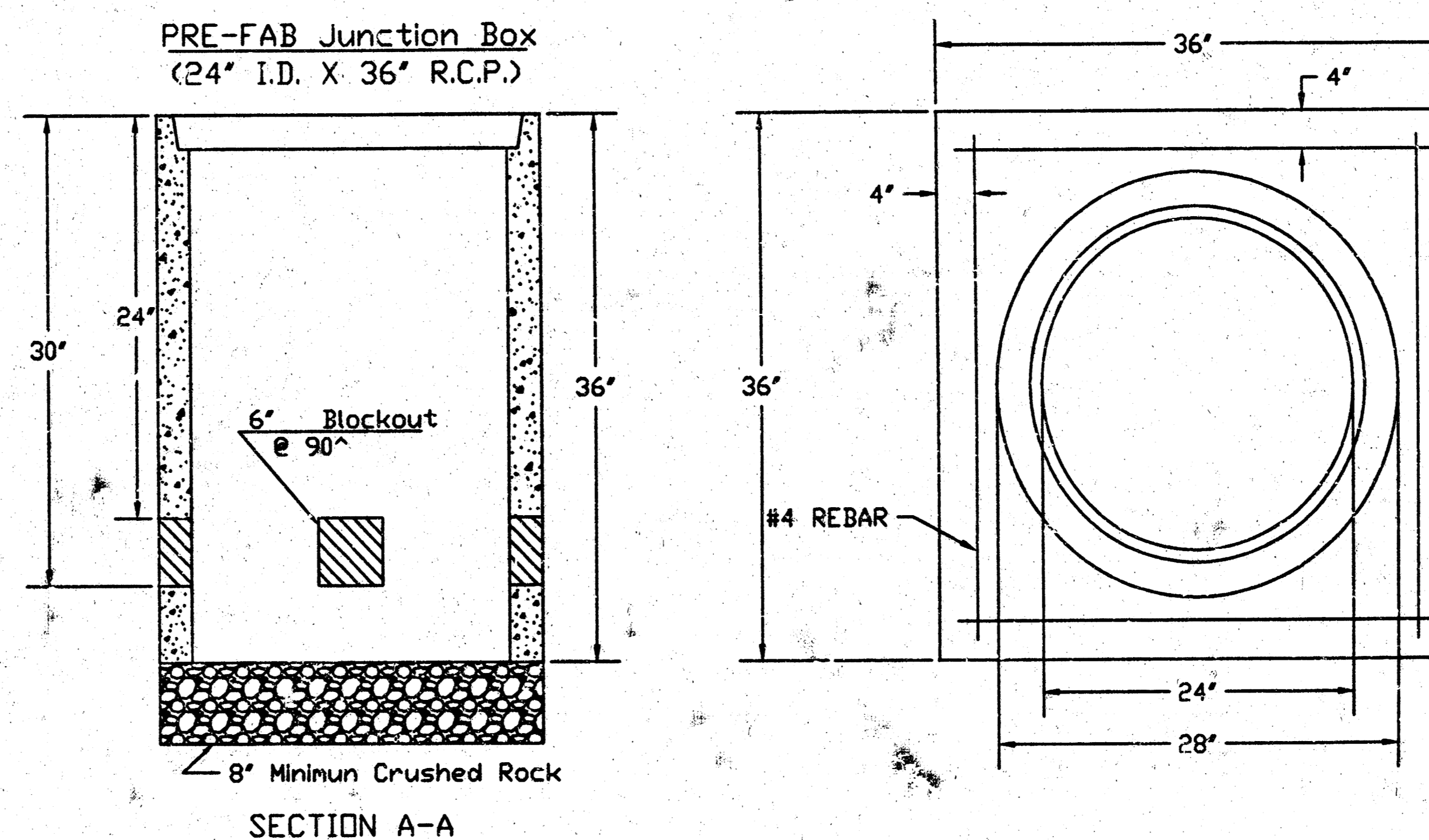
SERVICE BOX CONSTRUCTION/INSTALLATION DETAILS



170 CONTROLLER PAD DETAILS



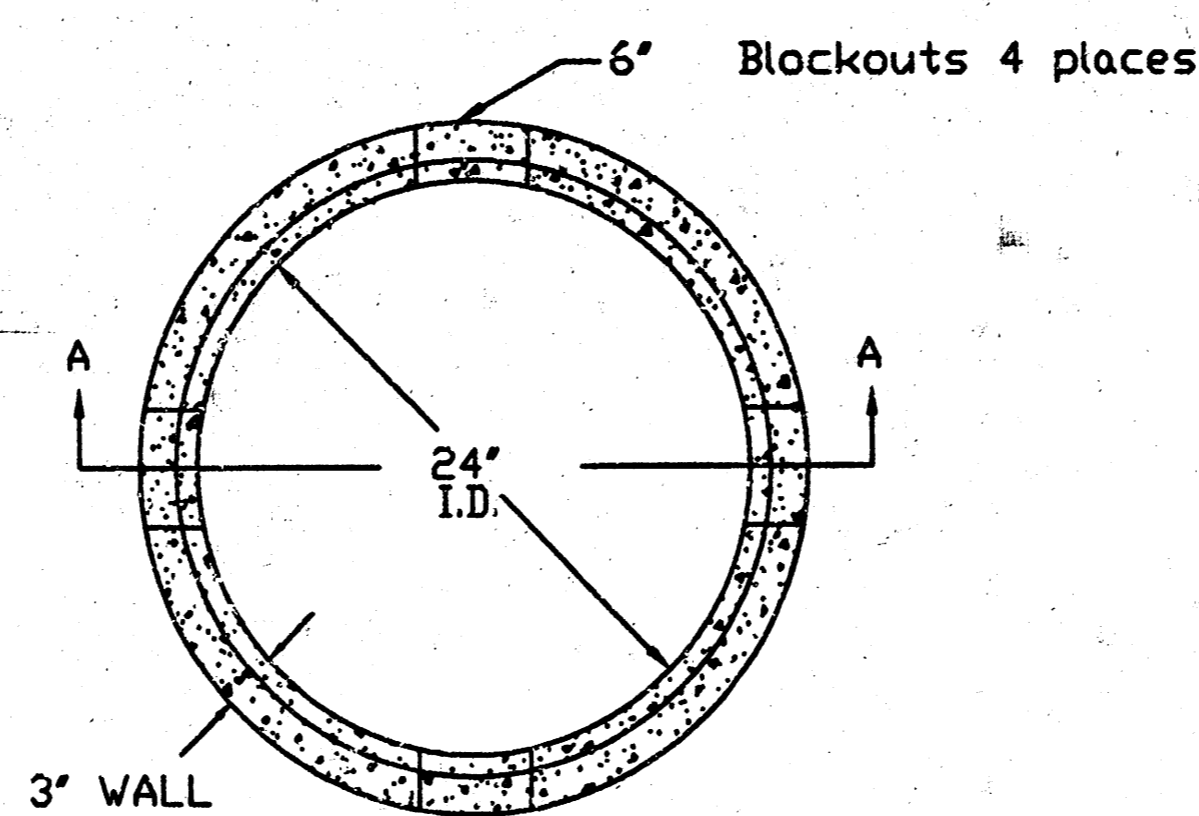
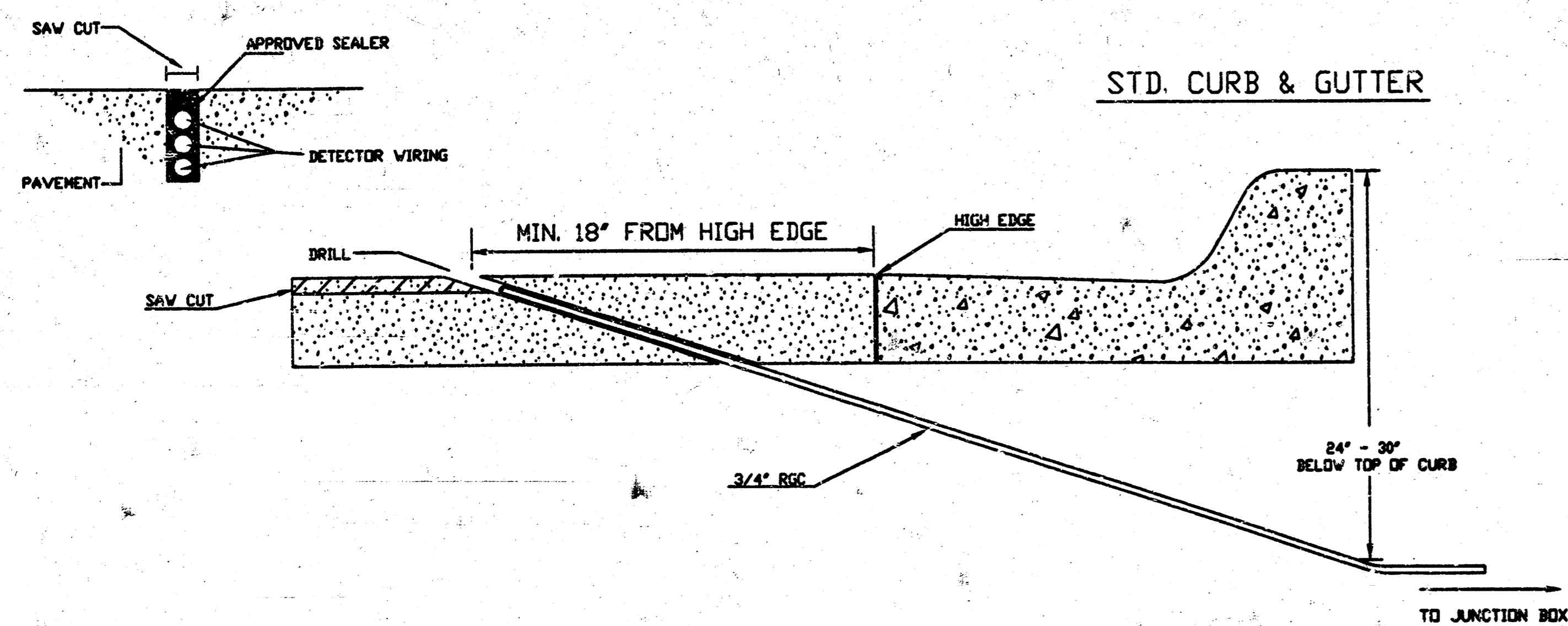
JUNCTION BOX DETAILS



NOTES:

- SERVICE & JUNCTION BOX:**
- CONDUIT CONNECTION TO BE FLUSH TO WITHIN 125 mm OF INSIDE FACE OF SIDE WALL, CONDUIT TO DRAIN INTO SERVICE BOX.
 - CONDUIT CONNECTIONS TO SERVICE BOX SHALL BE TERMINATED WITH PLASTIC CABLE BUSHING.
 - CONDUIT SHALL BE SEALED WITH APPROVED SEALER AT INSIDE WALL FACE.
 - ALL SERVICE & JUNCTION BOXES TO HAVE 200 mm OF CRUSHED ROCK.
- TRENCHING:**
- DEPTH TO BE 30" MINIMUM WITH ROCK & STUBBLE FREE BACKFILL TO SERVE AS BEDDING MATERIAL. MAINTAIN MINIMUM CONDUIT DEPTH IN TRENCH.
 - BACKFILL TO BE COMPACTED IN 6" LOOSE LIFTS BY HAND OR MECHANICAL TAMPING TO A 95% STANDARD DENSITY.
- CONDUIT:**
- SLOPE CONDUIT TO DRAIN AS DIRECTED BY THE ENGINEER.
 - 3" RIGID STEEL CONDUIT BTWN. SERVICE BOXES.
1 1/4" BTWN. SERVICE & JUNCTION BOXES.
3/4" BTWN. JUNCTION BOXES.
3/4" BTWN. JUNCTION BOX & DETECTOR LOOP SAW CUT.

CONDUIT/DETECTOR WIRE INSTALLATION DETAILS



SEE SERVICE BOX INSTALLATION FOR RING & COVER DETAILS.

REV. DATE	COMMENTS	INT

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
402 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-1114 FAX

PROJECT DESCRIPTION		
SERVICE/JUNCTION BOX, CONTROLLER PAD CONSTRUCTION/INSTALLATION DETAILS		
PROJECT NUMBER 472-76-245-83251-000-000-001		
DRAWN BY: T.M.	SCALE: NO SCALE	REVISED BY:
DATE: MAY 97		DATE:
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS		
DIVISION OF TRAFFIC ENGINEERING WM. G. MCKINLEY P.E.	TRAFFIC ENGINEER	SHEET 8 OF 8

DSMR: BER OPER: DEP SCALE: 1=1.00
C: 2000\0625\SB-DTL 12-05-2000 03:40:43 pm