

SHEET NO.	TOTAL SHEETS
1	8

CITY OF WICHITA, KANSAS

JAMES L. ARMOUR, P.E., ACTING CITY ENGINEER

TRAFFIC SIGNAL IMPROVEMENTS

FOR
MAIZE ROAD AND CENTRAL PARK
 CITY OF WICHITA PROJECT NO. 472-83957
 OCA NO. 765858

- INDEX OF SHEETS
1. TITLE SHEET
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 3. TRAFFIC SIGNAL PLAN
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 5. MARKING PLAN
 - 6-9. 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.

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: AQUILA NETWORK, WESTAR ENERGY, KANSAS GAS SERVICE COX COMMUNICATIONS, SBC, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

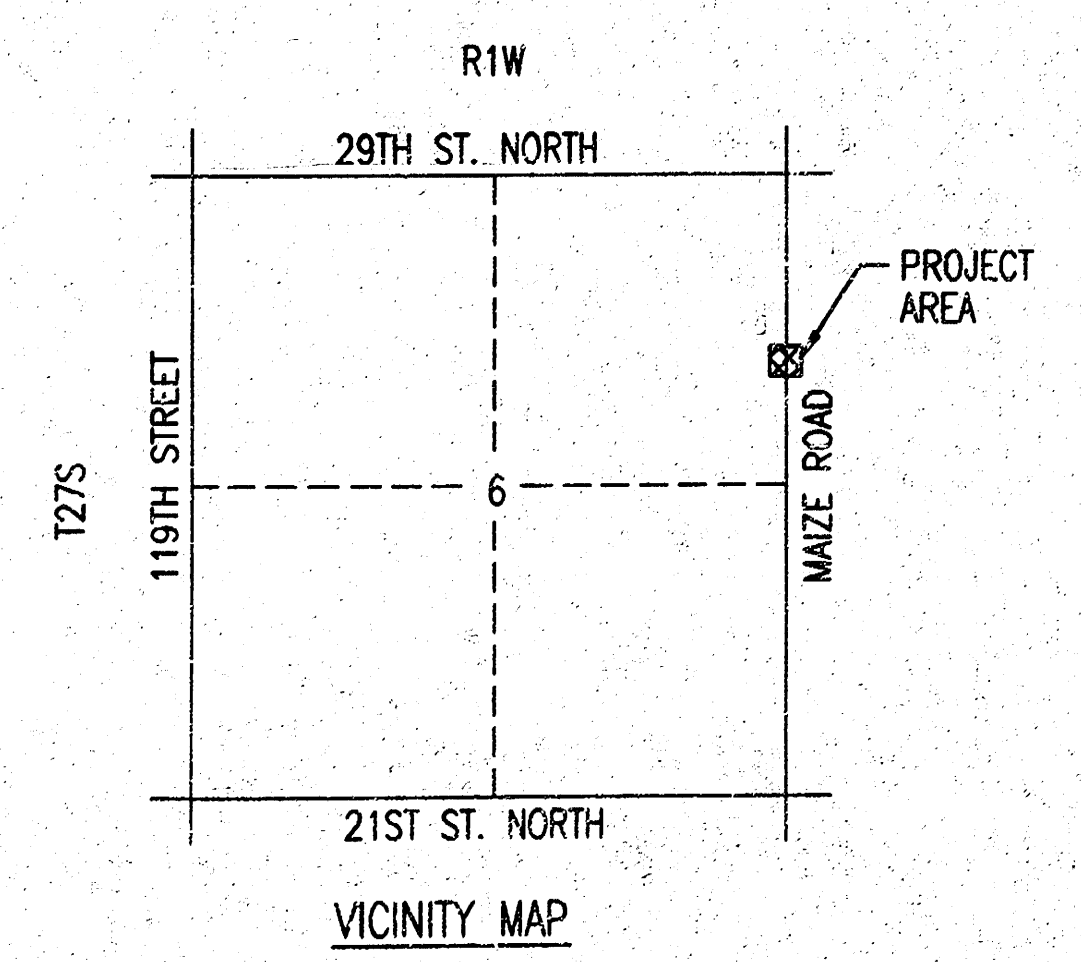
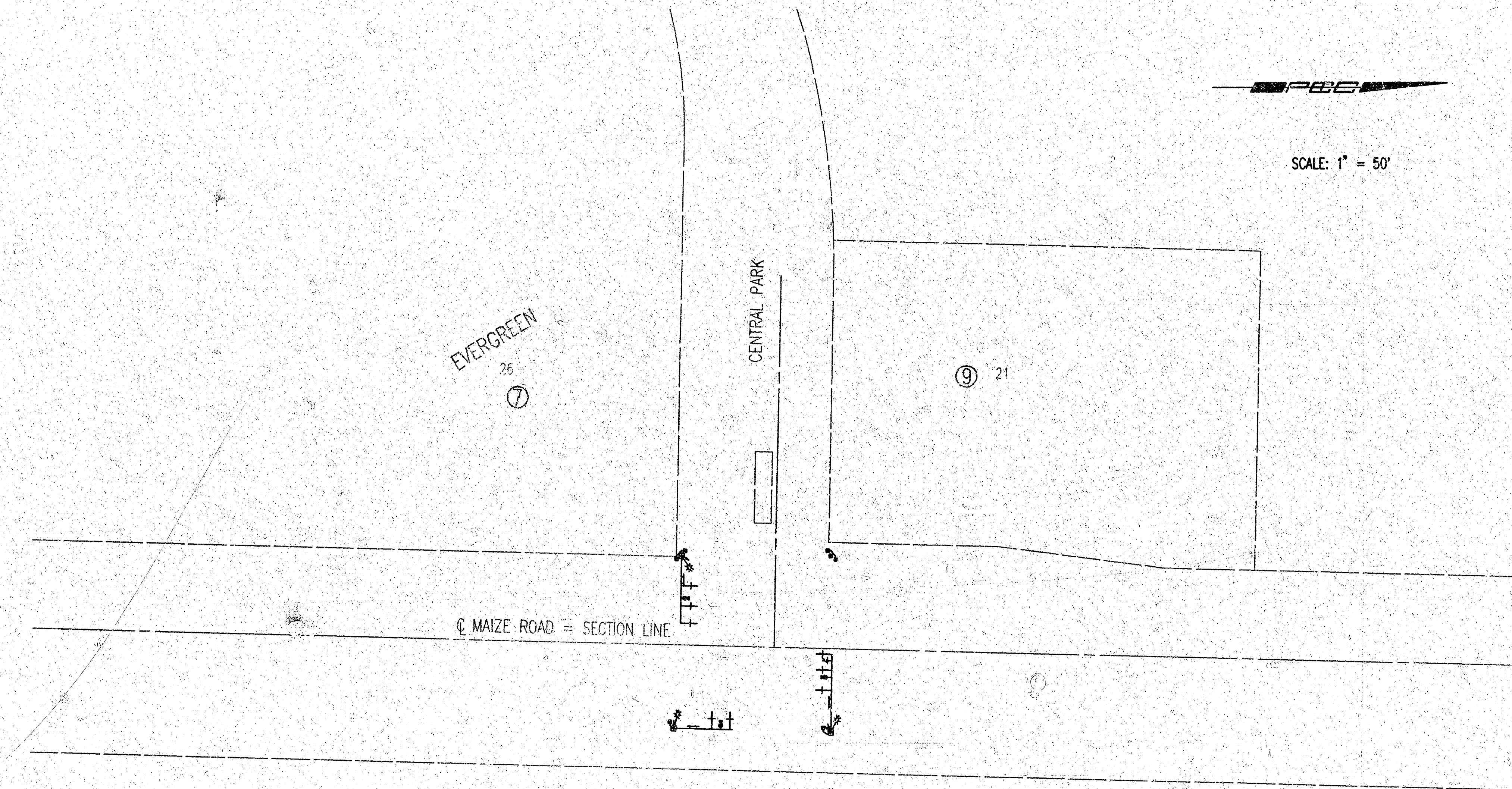
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

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/WESTAR 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.

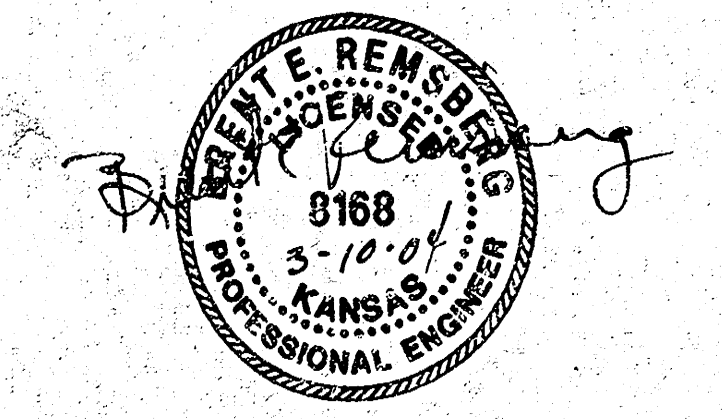
EXISTING STOP SIGN SHALL REMAIN IN PLACE. CONTRACTOR SHALL REMOVE STOP SIGN AT THE TIME THE TRAFFIC SIGNAL IS FULLY FUNCTIONAL.



MARCH 2004

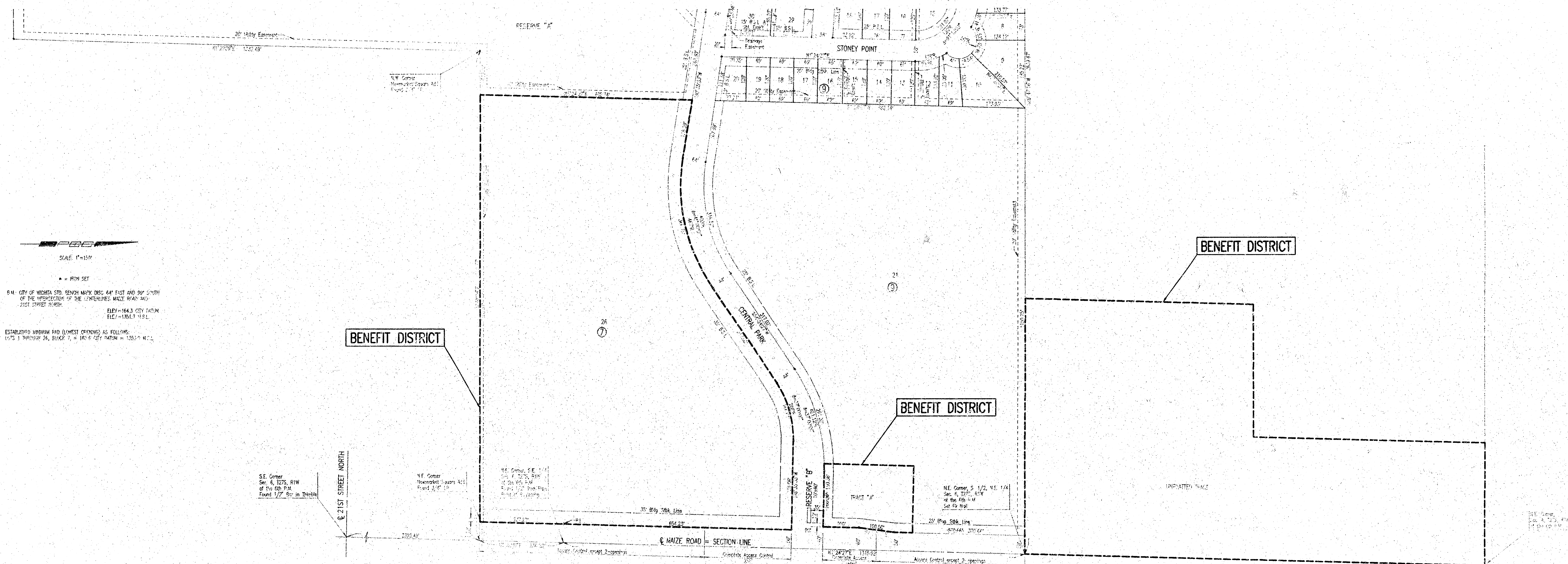
PLANS PREPARED BY

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

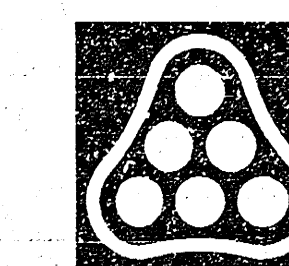


DSNR: PER OPER. CSI SCALE: 1"=50.00
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EXHIBIT
AN ADDITION TO WICHITA, SEYMOUR COUNTY, KANSAS

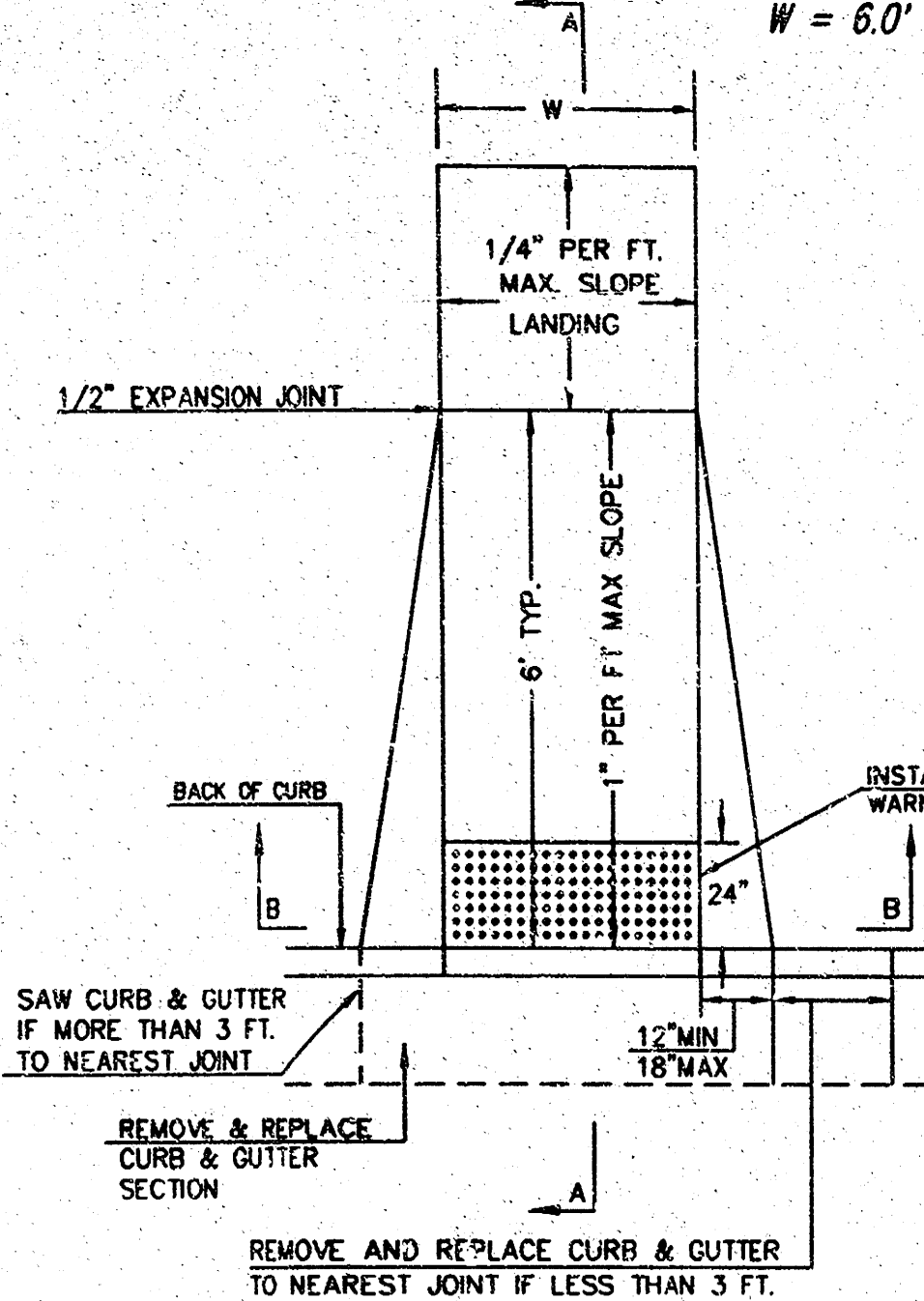


OWNER: BEER COFFEE CO. SCALE: 1" = 100.00
BY: JAMES L. ARMOUR, P.E. 3-10-2004 05:00:18 PM



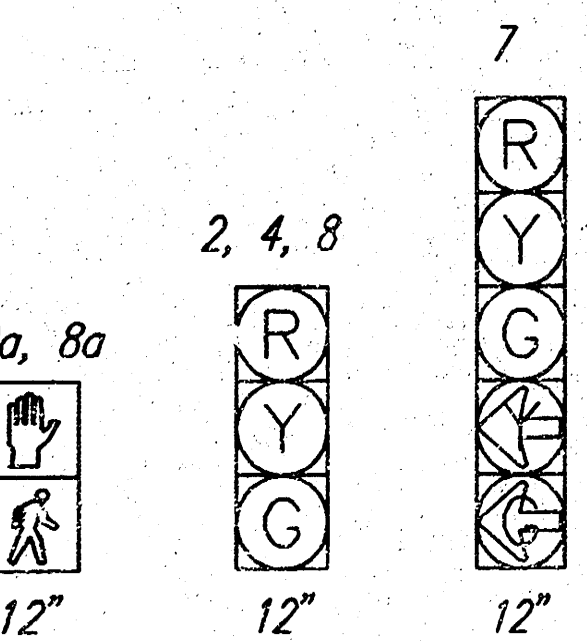
No.	Revision	By	Date
CITY OF WICHITA, KANSAS JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER 21ST STREET BOX EXTENSION BENEFIT DISTRICT CITY OF WICHITA PROJECT NO. 472-83957			
Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	BER	Job No. 35-04094-042	SM. 2 of 9
Drawn by		Date FEBRUARY 2004	

W= 4'0" FOR STANDARD RAMP
W= 5'0" FOR RAMP AT SCHOOL CROSSWALKS
(OR TO MATCH EXISTING)

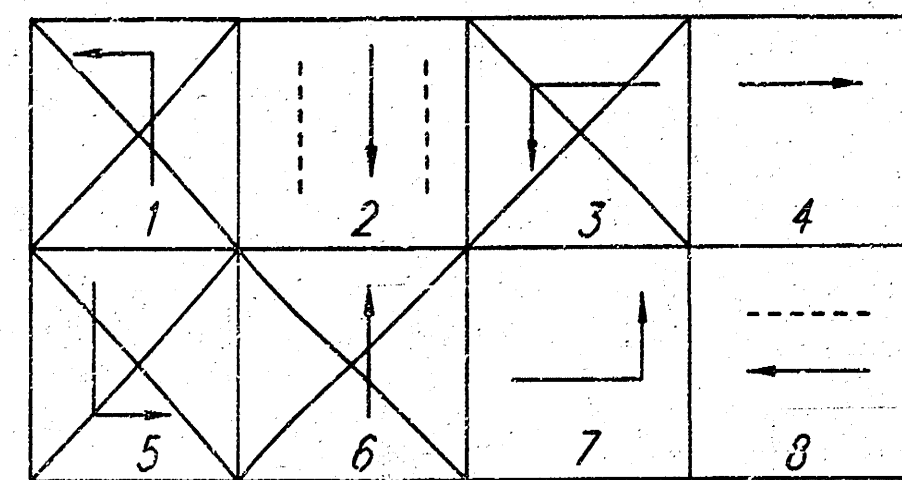


(TYPE A) STANDARD WHEELCHAIR RAMP
WITH DETECTABLE WARNING
CONSTRUCTION DETAIL FOR STREETS
WITH COMBINED CURB & GUTTER

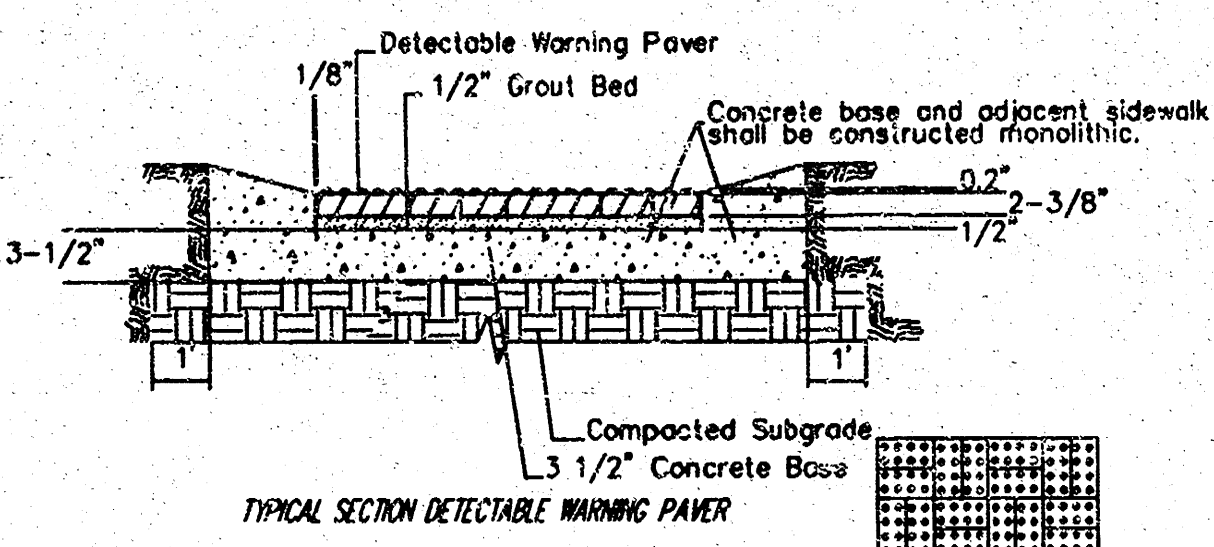
Maize Rd. = Sta. 10+00.00 =
S.E. Corner
Sec. 6, T27S, R1W



SIGNAL HEAD ARRANGEMENT

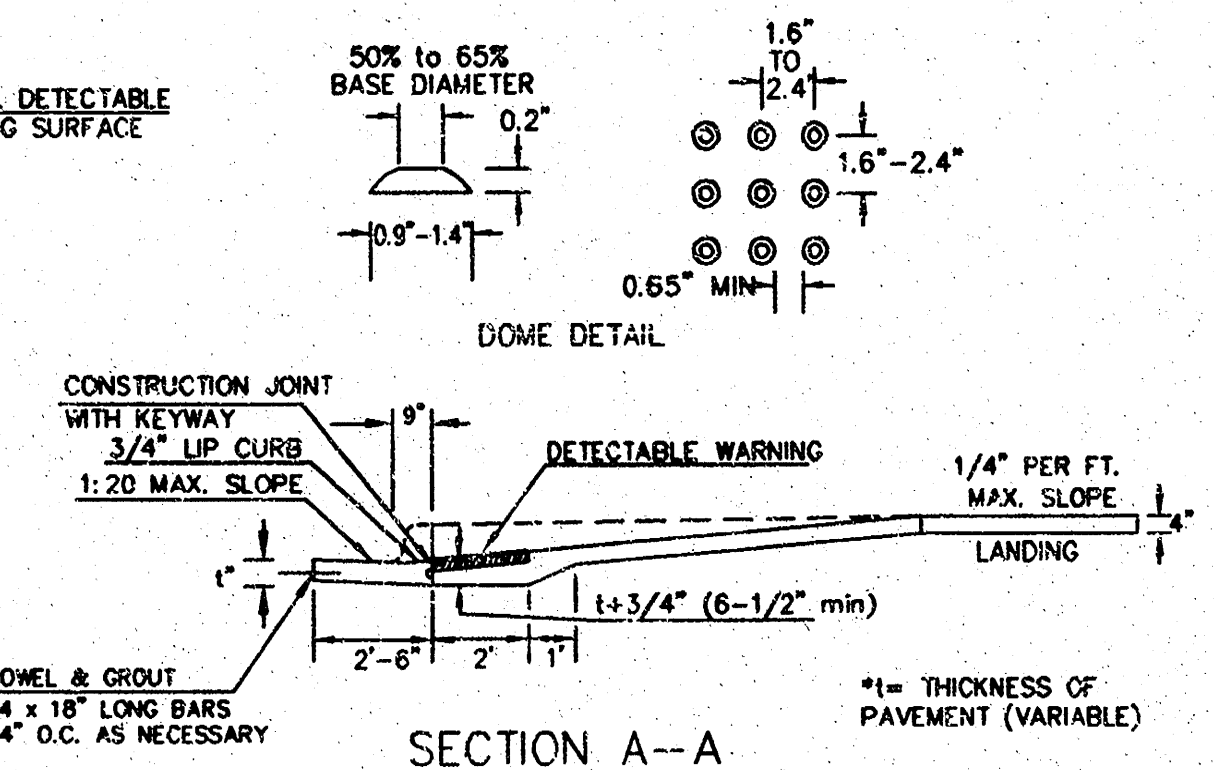


PHASE DIAGRAM



NOTE: RAMP TO COMPLY WITH LATEST ADAAG GUIDELINES
PAVEMENT DETECTABLE WARNING PAVERS (OR AN APPROVED EQUAL) SHALL
BE USED IN ALL WHEELCHAIR RAMP. THE RED PAVER SHALL BE INSTALLED USING
A BASKET WEAVE/PARQUET PATTERN. OTHER PATTERNS MAY BE USED WITH APPROVAL OF
ENGINEER. SAND FILL JOINTS. ALIGN JOINTS IN THE DIRECTION OF PEDESTRIAN TRAVEL.

SECTION B-B



SECTION A-A

INSTALL WEATHERHEAD AND
RISER ON EXIST. LIGHT POLE

Sta. 42+91.10, 50.3' Lt. Install
Traffic Signal Pole J.U.
w/38' Mast Arm,
See Sheet No. 4

CAUTION !!!
Exist. 8" Waterline
4" Gas Line (Aquila)
Buried Telephone (SBC)

CONTROLLER DESCRIPTION

The Traffic Signal Controller shall comply with the requirements
defined in the Specifications for a Type 170E Controller with
412b2 prom module and a 400 modem. It shall be furnished and
installed with a Model 332 cabinet, 3-type 242 isolator units,
1 video detection unit, 6 switch packs, 2-type 204 flashers,
4 flash transfer relay, and a Model 210P conflict monitor MS or
or ECL. The Controller shall also be furnished with WAITS Version 58

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LEGEND

- Traffic Signal Pole with Mast Arm
- Traffic Signal Pedestal
- Traffic Signal Camera
- Traffic Signal Camera
- Luminaire with Arm
- Traffic Signal Head
- Traffic Signal Head with Backplate
- Pedestrian Signal Head
- Controller with pad
- Service Box (Pre-Fab)

D(PHASE)-# Detector Zone

Detector Zone

R10-12 Sign

Conduit

Signal Phase

Signal Pole Reference Number

Street Name Sign

Construct Std. Wheelchair Ramp

Concrete Removal

Curb and Gutter Removal

D8-2

D8-3

D8-4

D8-5

D8-6

D8-7

CENTRAL PARK AND MAIZE ROAD								
	PHASE							
	1	2	3	4	5	6	7	8
MAX. I	-	30	-	80	-	-	30	80
MAX. II/HFDW	-	30	-	80	-	-	30	80
WALK	-	8	-	-	-	-	8	-
FLASH DW	-	25	-	-	-	-	20	-
MAX. INITIAL	-	8.0	-	8.0	-	-	6.0	8.0
MIN. GREEN	-	10.0	-	10.0	-	-	6.0	10.0
T B R	-	-	-	25	-	-	1.0	-
T T R	-	-	-	15	-	-	1.0	-
OBSERVE GAP	-	-	-	-	-	-	-	-
PASSAGE	-	1.0	-	2.0	-	-	1.0	2.0
MIN. GAP	-	1.0	-	1.0	-	-	1.0	1.0
ADDED ACTUATION	-	2.0	-	2.0	-	-	1.0	2.0
YELLOW	-	3.5	-	4.0	-	-	3.0	4.0
RED CLEAR	-	2.0	-	2.0	-	-	1.0	2.0
RED REVERT	-	-	-	-	-	-	-	-
WALK II	-	-	-	-	-	-	-	-

The signal shall dwell green in 44 & 48.

FUNCTION TABLE								
FUNCTION	PHASE							
	1	2	3	4	5	6	7	8
VEHICLE RECALL	-	-	-	X	-	-	-	X
PED RECALL	-	-	-	-	-	-	-	-
RED LOCK	-	-	-	-	-	-	-	-
YELLOW LOCK	-	X	-	-	-	-	X	-
PERMIT	-	X	-	X	-	-	X	X
PED PHASES	-	X	-	-	-	-	-	X
LEAD PHASES	X	-	X	-	X	-	X	-
DOUBLE ENTRY	-	-	-	X	-	-	-	X
SEQUENTIAL TIMING	-	-	-	-	-	-	-	-
START-UP YELLOW	-	X	-	-	-	-	-	-
OVERLAP A	-	-	-	-	-	-	-	-
OVERLAP B	-	-	-	-	-	-	-	-
OVERLAP C	-	-	-	-	-	-	-	-
OVERLAP D	-	-	-	-	-	-	-	-
EXCLUSIVE	-	-	-	-	-	-	-	-
SIMULTANEOUS GAP	-	-	-	-	-	-	-	-

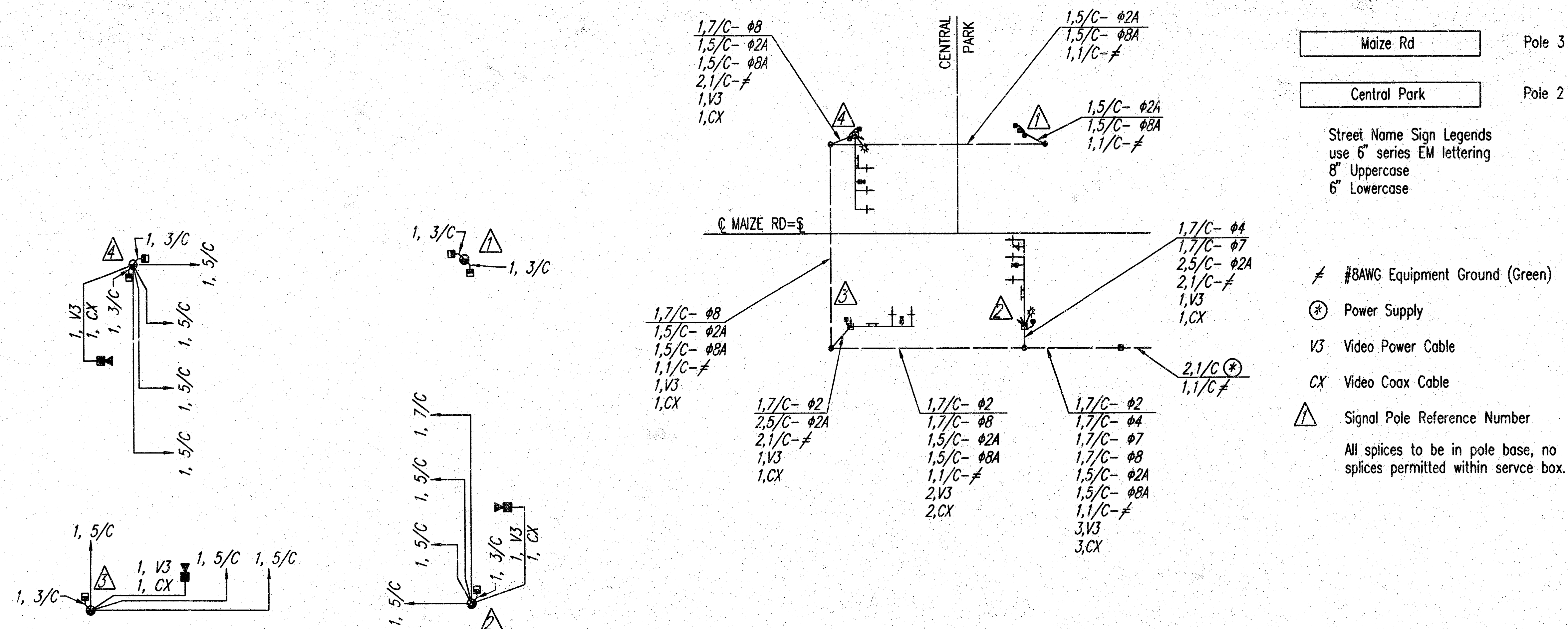
DETECTOR SUMMARY							
CAMERA NO.	DETECTION ZONE	MODE	SIZE (LxW)	PHASE CALLED	PHASE EXTENDED	DELAY/STRETCH TIMER	INITIAL SETTING (SEC.)
1	D7-1	PRESENCE	60x6	7	7	-	-
1	D4-1104	PULSE	6x6	4	4	S	1.0
1	D4-5&6	PRESENCE	60x6	4	4	-	-
2	D2-1	PRESENCE	60x6	2	2	-	-
2	D2-2	PRESENCE	60x6	2	2	D	3.0
3	D8-1104	PULSE	6x6	8	8	S	1.0
3	D8-5&6	PRESENCE	60x6	8	8	-	-
3	D8-7	PRESENCE	60x6	8	8	D	3.0

SEE SHEET NO. 4 FOR WIRING DIAGRAM

TRAFFIC SIGNAL PLAN

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	CSL	Date	FEBRUARY 2004
		Job No.	04094



POLE WIRING DIAGRAMS

Note: Pushbutton to be wired with 2,1/C
to pole base connection

[illegible]

- ① A-15' Pedestal (Alum.)
B-20' Steel with Mast Arm(s)
C-35' Steel (Joint Use) with Mast Arm(s)
D-40' Steel with Mast Arm

Top Coat Finish for Traffic Signal Poles & Controller Cabinet

All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 2.0 mils. Prior to application of the top coat, the surface shall be mechanically etched and pre-heated to 450 degrees F for a minimum of one hour. The coating shall be electro-statically applied and cured at a minimum temperature of 400 degrees F. The finished color for the poles shall be black and approved by the Engineer prior to application on the basis of color chip submittals.

Special Finish for Traffic Signal Equipment

The traffic signal, mounting brackets, signal head backs, sign backs, meter box, disconnect box, and miscellaneous hardware shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The Contractor shall submit two copies of the proposed coating system to the Engineer for approval prior to application. In addition to the requirements stipulated in the Standard Specifications, banding material shall be coated with ethylene-vinyl-alcohol (EVA) copolymer. The color shall be black.

NOTE:

The contractor shall supply and install all necessary materials and equipment for the complete installation and operation of the traffic signal system whether specifically mentioned or not.

NUMBER	TYPE	SIZE	QUANTITY
7	I	12"	1
4	A	12"	3
8	A	12"	4
2	A	12"	3
2A	K	12"	4
8A	K	12"	2
TOTAL			17

SERVICE BOX SUMMARY	
STATION	DIST.—SIDE
42+80	47' LT.
42+80	58' RT.
43+83	58' RT.
43+95	45' LT.

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (Moize Rd. & Central Park)	LUMP SUM	LUMP SUM
	1	1

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	17
TRAFFIC SIGNAL POLE STEEL (20')	EACH	1
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	2
TRAFFIC SIGNAL PEDESTAL (15')	EACH	1
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING -- PEDESTAL	EACH	1
CONCRETE FOOTING -- POLE	EACH	3
CONDUIT ELBOW 90° 2"	EACH	AS REQ'D
CONDUIT ELBOW 90° 3"	EACH	AS REQ'D
BACK PLATE 5" 3 SECTION	EACH	7
BACK PLATE 5" 5 SECTION	EACH	1
TERMINAL BLOCK	EACH	—
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	—
GROUND ROD & CLAMP	EACH	6
PEDESTRIAN INDICATIONS LED (12" COMBINATION)	EACH	6
LED TRAFFIC SIGNAL LENS	EACH	35
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1
SURGE ARRESTOR -- A.C.SERVICE	EACH	1
SURGE ARRESTOR -- DETECTOR	EACH	—
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	6
6 PR. COMMUNICATION CABLE	LIN.FT.	—
DETECTOR LOOP WIRE NO. 14 AWG 1/c	LIN.FT.	—
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	250
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	700
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1550
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	100
SHIELDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	—
CONDUIT 1"(PVC)	LIN.FT.	—
CONDUIT 1 1/2"(RGC)	LIN.FT.	100
CONDUIT 2"(PVC)	LIN.FT.	250
CONDUIT 2"(RGC)	LIN.FT.	51
CONDUIT 3"(RGC)	LIN.FT.	371
#8 AWG GROUND (GREEN)	LIN.FT.	600
STREET NAME SIGN	EACH	3
R10-12 SIGN	EACH	1
VIDEO DETECTION CAMERA (VANTAGE OZZ), MOUNTING HARDWARE	EACH	3
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE)	EACH	1 ϕ
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	800
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN.FT.	800
TV MONITOR	EACH	1
ITERIS LENS ADJUSTMENT UNIT	EACH	—
VIDEO SYSTEM PROGRAMMING UNIT	EACH	—

3 Modules required

-QUANTITIES FOR INFORMATION ONLY-

NOTE: The traffic signal system shall be complete and the contractor shall furnish and install all equipment and materials necessary for the satisfactory operation of electrical apparatus and for the complete operation of the traffic signal system whether specifically mentioned or not.

CENTRAL PARK AND MAIZE ROAD

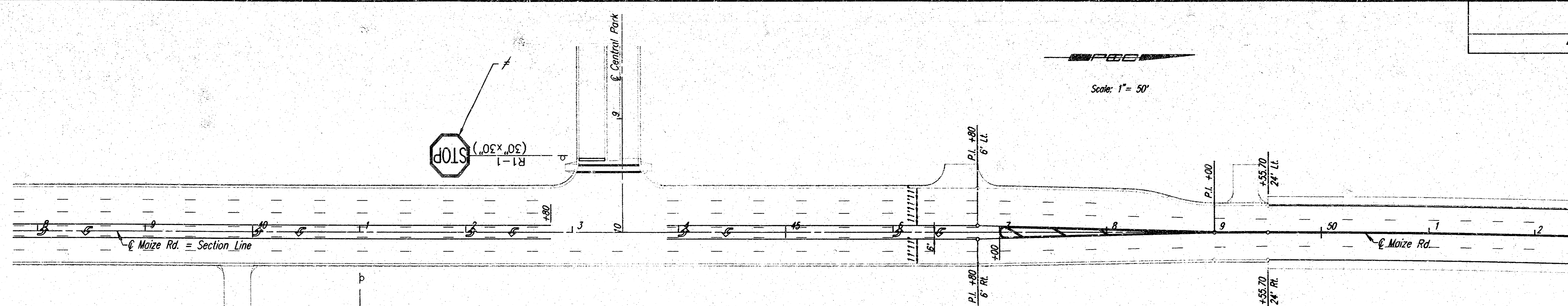
TRAFFIC SIGNAL WIRING AND QUANTITIES



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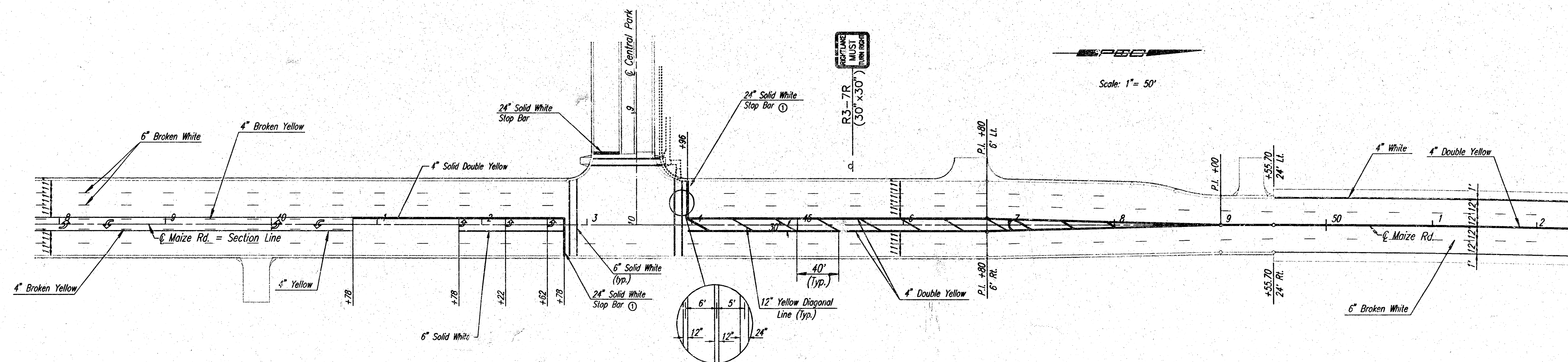
Designed by	BER	Checked by	
Drawn by	CSL	Date	FEBRUARY 2004
			Job No. 04096

PROJECT NO.	SHEET NO.	TOTAL SHEETS
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EXISTING MARKING PLANS

Sign and post to be removed by contractor and salvaged. Material to be delivered to City of Wichita Central Maintenance Facility. This work shall not be paid for separately, but shall be considered incidental to "Traffic Signal Installation".



PROPOSED MARKING PLANS

GENERAL NOTES

Striping dimensions are from centerline of stripe to centerline of stripe.

All single line dimensions are to centerline of stripe.

All double line dimensions are to center of space between stripes. (See Detail)

Existing markings consistent with the proposed marking plan shall remain. Existing markings which conflict with the proposed marking plan shall be completely removed. Removal methods shall be approved by the Engineer. Removal of existing markings shall be subsidiary.

* All markings on Bituminous Pavement shall be Thermoplastic Pavement Marking except as noted below.

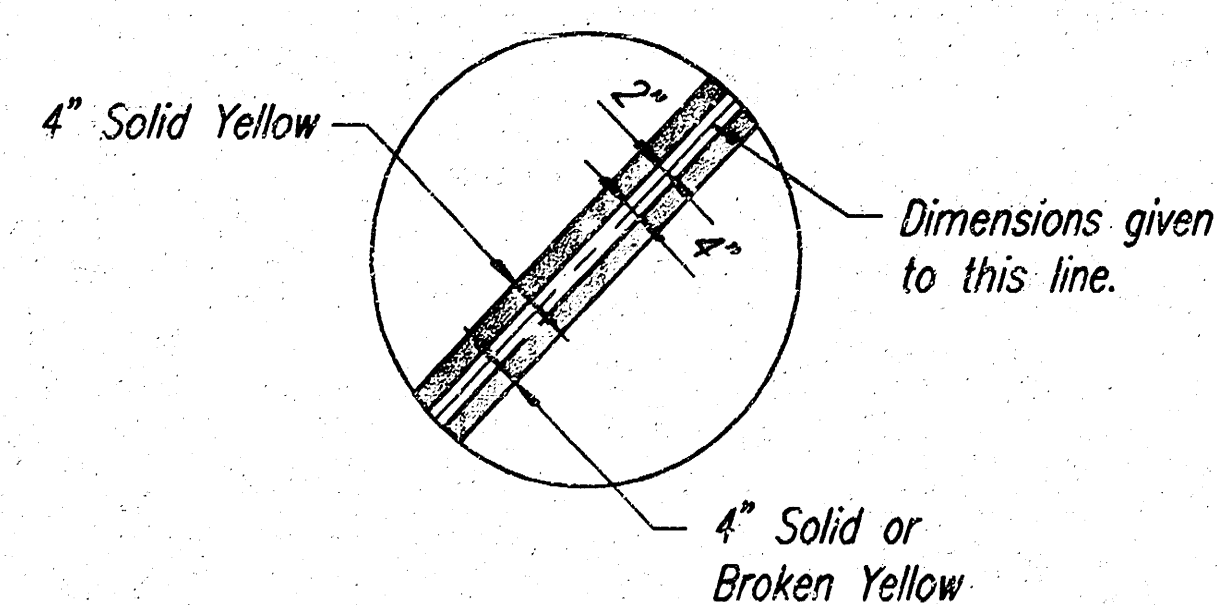
** All symbols and all markings on Concrete Pavement shall be Heat-fused Preformed Thermoplastic Pavement Marking.

Heat-fused Preformed Thermoplastic Pavement Marking placed over a joint line in concrete pavement shall be sliced and removed along the joint edges after placement.

SUMMARY OF PAVEMENT MARKINGS		
ITEMS	TOTAL	UNITS
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (6")	539	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (YELLOW) (4")	1524	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (YELLOW) (12")	176	LIN. FT.
PAVEMENT MARKING SYMBOL (THERMOPLASTIC) (WHITE LEFT ARROWS)	3	EACH
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (12")	-	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (24")	67	LIN. FT.

FOR INFORMATION ONLY - BID ITEM "PAVEMENT MARKING" IS PAID AS LUMP SUM.

① THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE 24" WHITE STOP BARS WITH THE TRAFFIC SIGNAL CONTRACTOR. THE 24" WHITE STOP BARS SHALL NOT BE PLACED UNTIL THE TRAFFIC SIGNAL IS INSTALLED AND FUNCTIONING.



DETAIL OF DOUBLE YELLOW STRIPING

CENTRAL PARK AND MAIZE ROAD

MARKING PLAN

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	CSL	Date	FEBRUARY 2004

Job No. 35-04094

[illegible]

1. MAX. SAG = 5% OF SPAN.

2. STANDARD BACKRAKE = 1.5'

3. HEIGHT OF STRAIN WIRE HOOK-UP TO BE DETERMINED BY FIELD ENGINEER. TRAFFIC SIGNAL CABLE TO BE SECURED TO STRAIN (SPAN) WIRE WEATHERABLE NYLON CABLE HANGERS (12" CTR.) DETAIL 'B'

4. TETHER CLAMP TO BE DESIGNED TO RELEASE UNDER 'HIGH WIND LOAD' TO PERMIT SIGNAL 'FREE SWING'.

NOTE:
* TO BE MARKED WITH WHITE TAPE

A STRAIN POLE ASSEMBLY

NOTE: SEE STEEL POLE ASSY DETAIL SHEET FOR STRAIN POLE BASE DETAILS

STRAN AND TETHER WIRE:
GALV. GUY STRAND (7-WIRE)
5/16" DIA (3300 PEST) WEIGHT PER 1000 @ 205

CABLE EXT
MULTI-CONDUCTOR SIGNAL CABLE

THIMBLE EYE NUT (GALV.)
ASSEMBLY

STRAN CLAMP

STRAN WIRE (5/16" DIA)

3-BOLT GUY CLAMP

B SIGNAL BRACKET ASSEMBLY DETAILS

BLACK WEATHERABLE NYLON TIE
WRAP CABLE TIES (GUY EXCESS STRAP)

5/16" STRAN WIRE
CABLE SADDLE CLAMP
MULTI-CONDUCTOR SIGNAL CABLE
WIRE ENTRANCE/BALANCE ADJUST
CIRCUIT QUICK-DISCONNECT HANGER

TOP BRACKET (FOR SIGNAL ASSY)
BOTTOM BRACKET
5/16" TETHER WIRE
3-BOLT GUY CLAMP (NOTE MTC TO
BOTTOM BRACKET)

SIGNAL FASTENER ASSY.

DRILL 1/2" HOLE
EXTRA LENGTH BOLT

**C WOOD POLE ASSEMBLY DETAILS
KGE POLE EXCLUDED**

BACK PLATE
--SUN NUT
GALV. THIMBLE EYE NUT
GUY WIRE (5/16")
3-BOLT GUY CLAMP

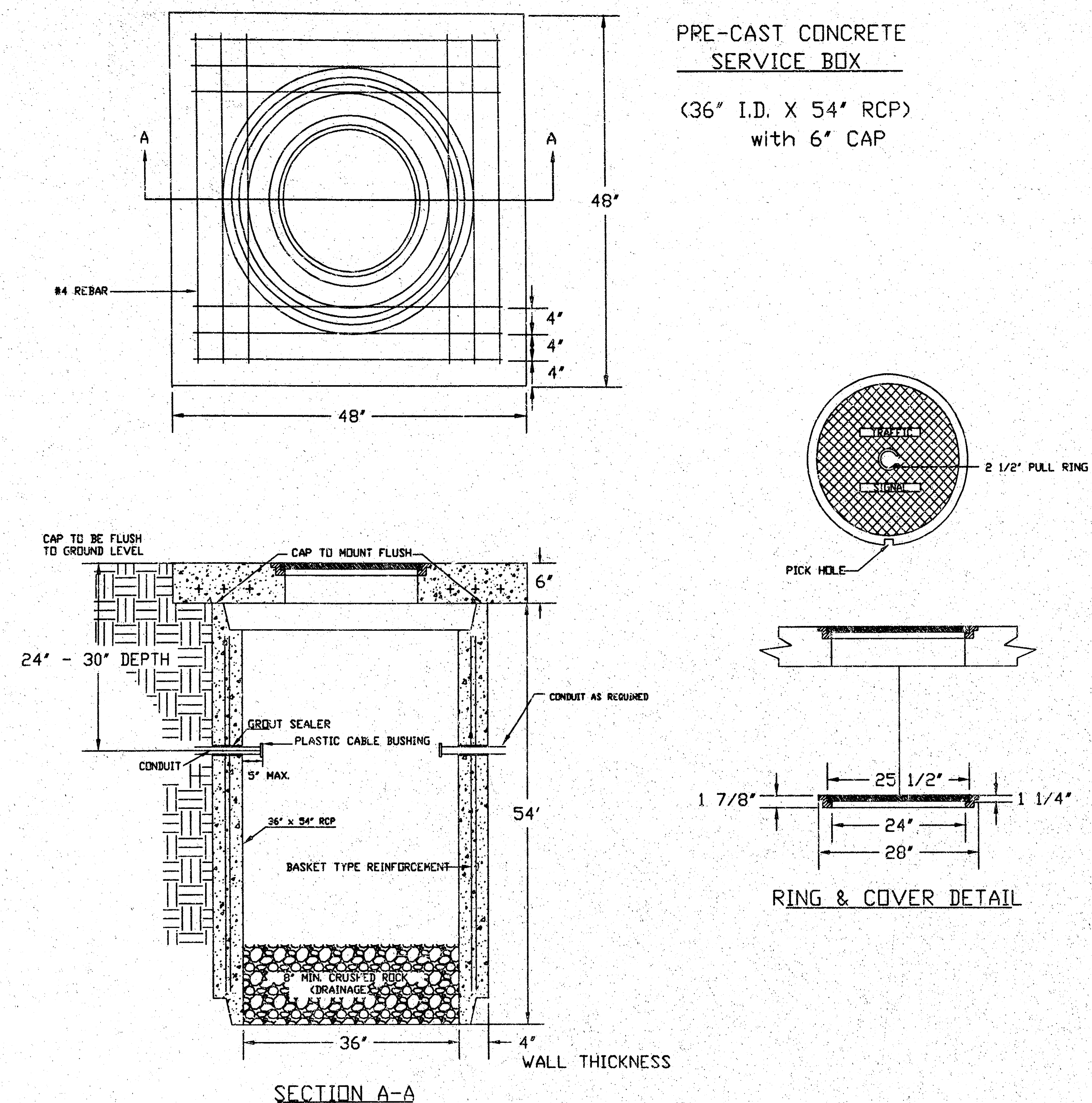
SEE NOTE 1

GALV. THIMBLE EYE BOLT
FRONT PLATE
STRAN WIRE
POWER LINES (120 VAC)
WEATHERHEAD/TENT (FOR POWER LINES)
2-HOLE (METAL) CLAMP
WEATHERHEAD/TENT (FOR MULTI-CONDUCTOR SIGNAL CABLE)
2-HOLE (METAL) CLAMP

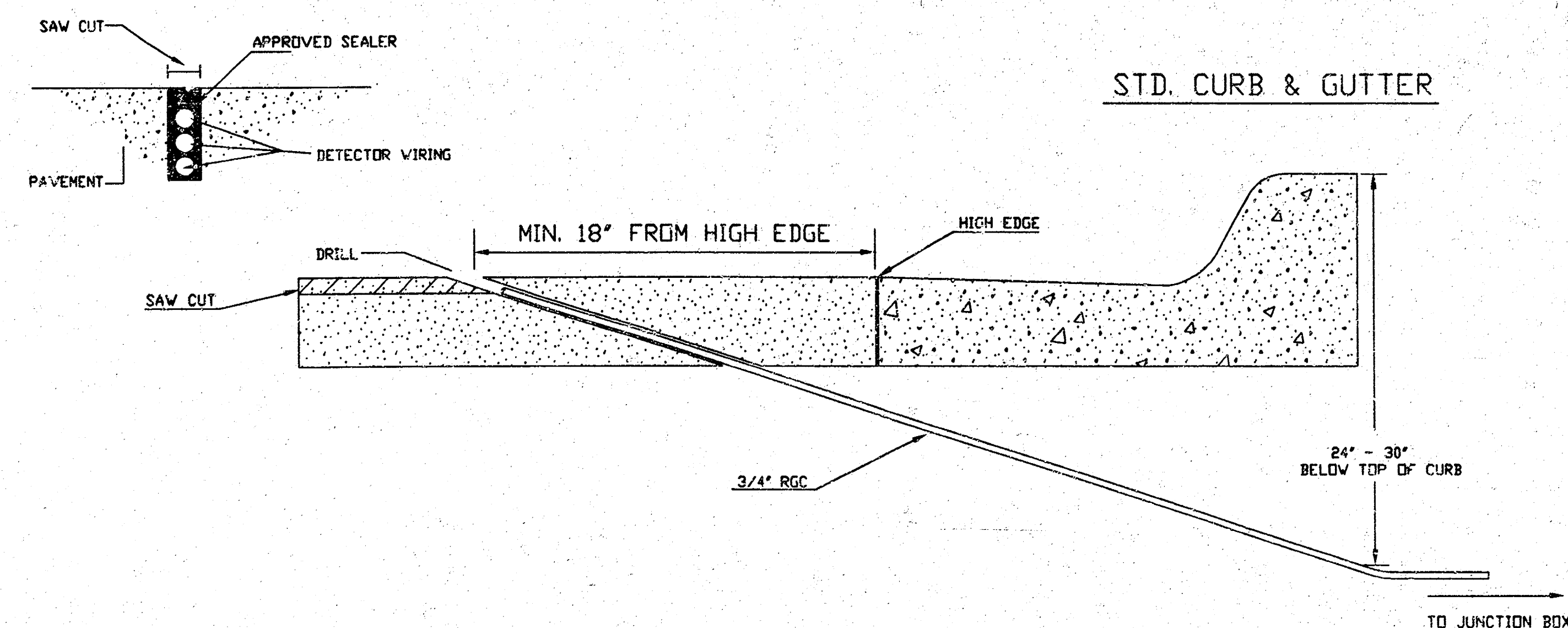
NOTE:

1. GALV. THIMBLE EYE ANCHOR BOLT AND EXPANDING ANCHOR (NOT SHOWN) TO STABILIZE WOOD POLE (WHEN APPLICABLE)
2. ANY COMBINATION OF ROUND/THIMBLE EYE BOLTS AND NUTS MAY BE UTILIZED AS APPLICATION MAY VARY. FIELD ENGINEER TO DETERMINE TYPE OF HARDWARE USED.
3. HARDWARE SHOWN IS TRANSFERABLE TO STEEL POLE IN WHOLE OR PART WHERE STEEL STRAN POLE IS USED. (POWER, SIGNAL, CABLE, METER, ETC.) FIELD ENGINEER TO MAKE DETERMINATION. STEEL STRAN POLE APPLICATIONS MAY VARY AS TO MOUNTING ON POLE USE OF CLAMPS, BANGED BRACKETS, ETC. ARE STD. - FIELD ENGINEER TO DETERMINE BEST TYPE APPLICATIONS.

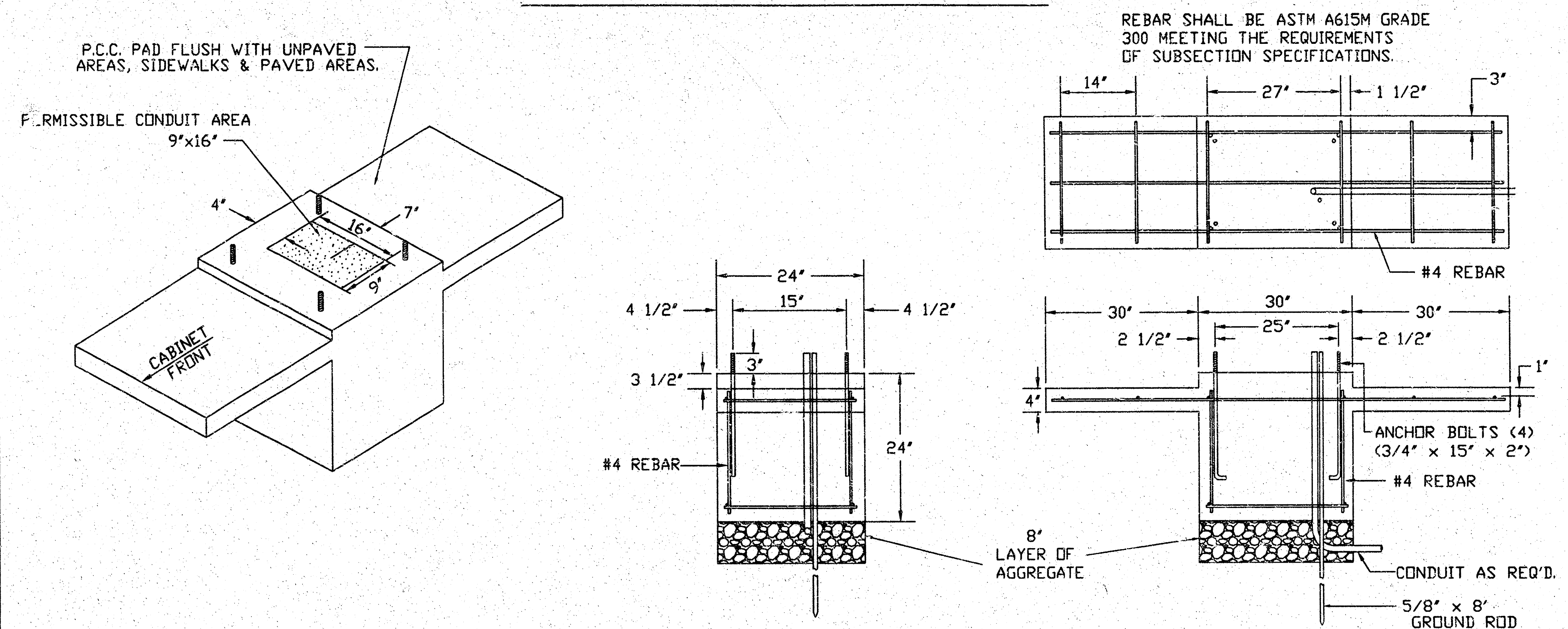
SERVICE BOX CONSTRUCTION/INSTALLATION DETAILS



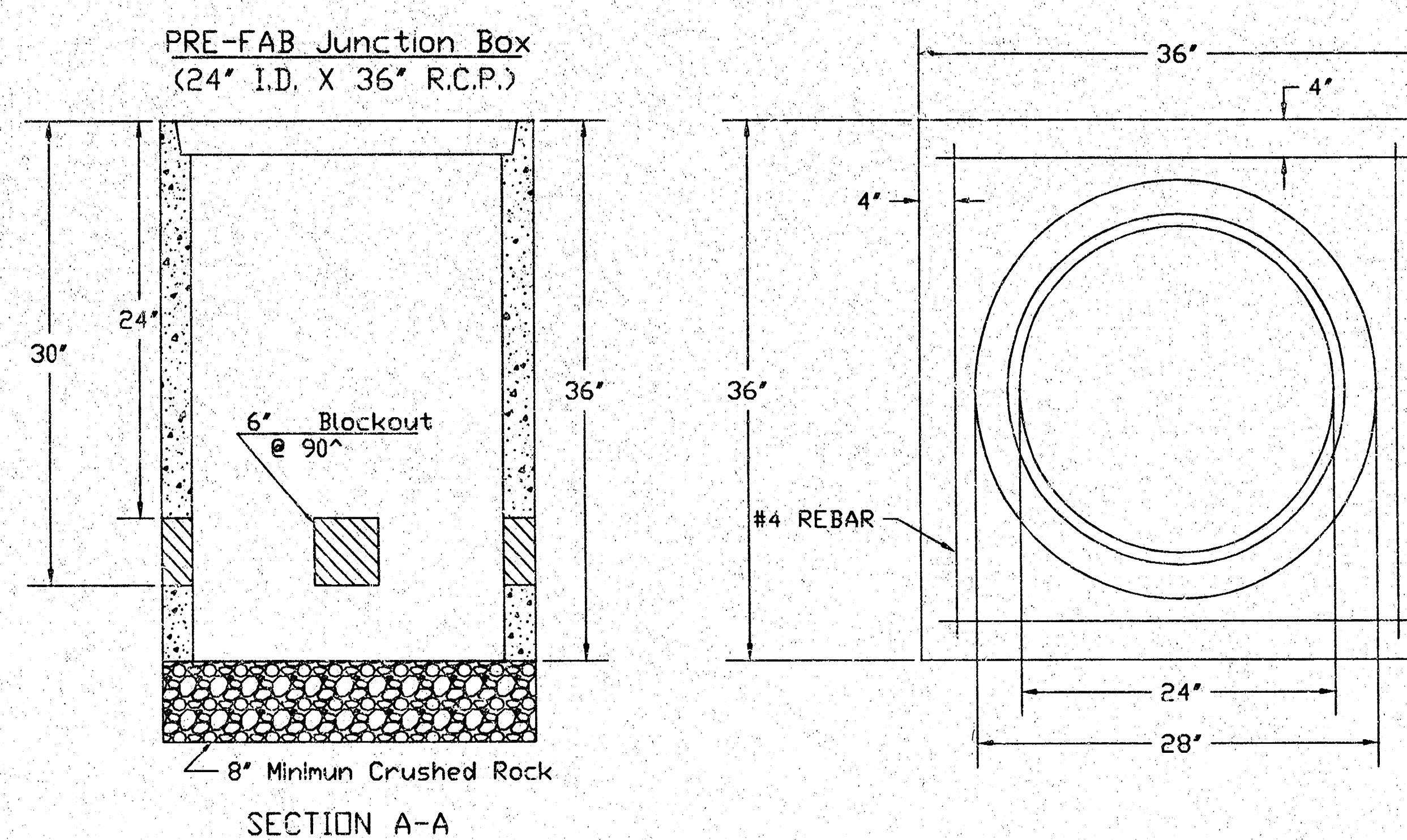
CONDUIT/DETECTOR WIRE INSTALLATION DETAILS



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

SERVICE/JUNCTION BOX, CONTROLLER PAD
CONSTRUCTION/INSTALLATION DETAILS

**SEE SERVICE BOX INSTALLATION
FOR RING & COVER DETAILS.

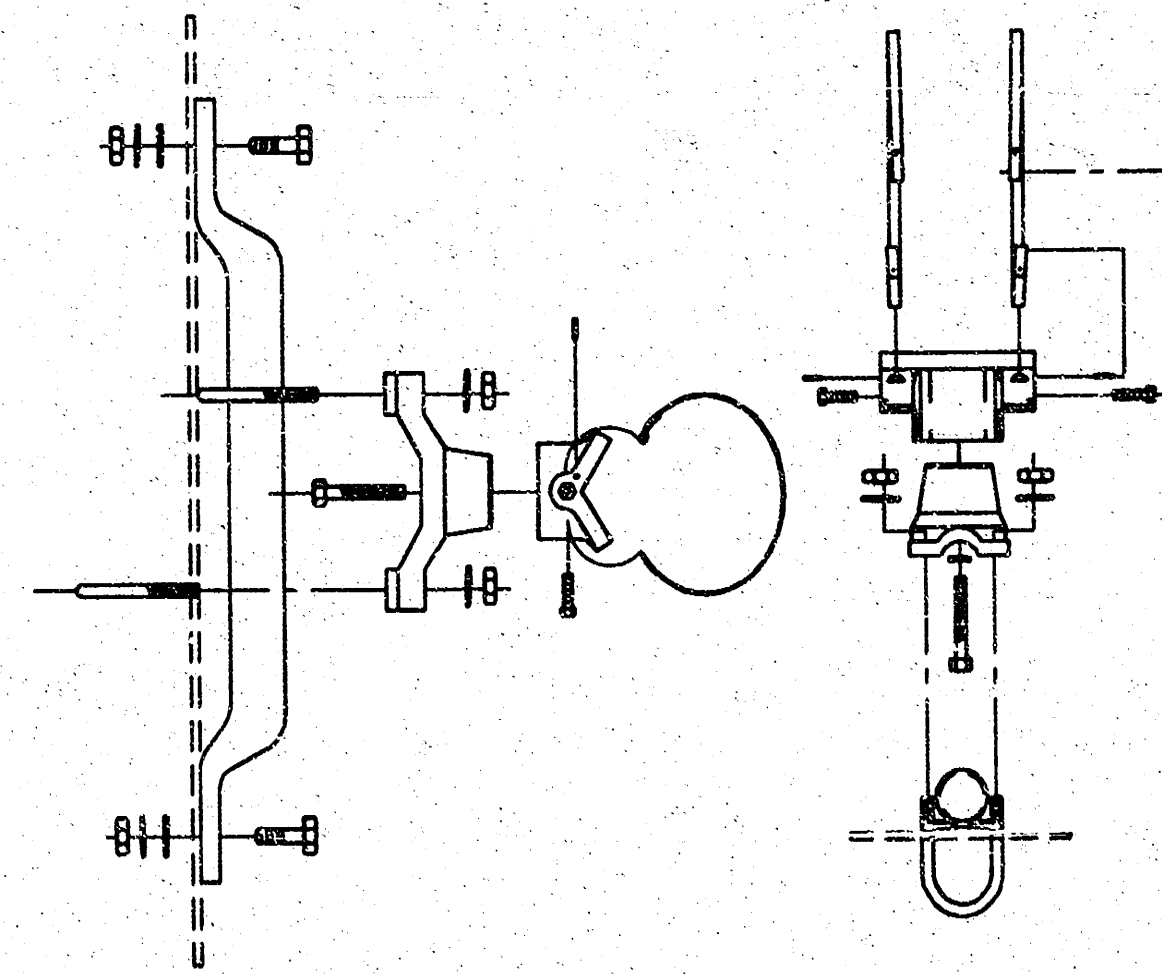
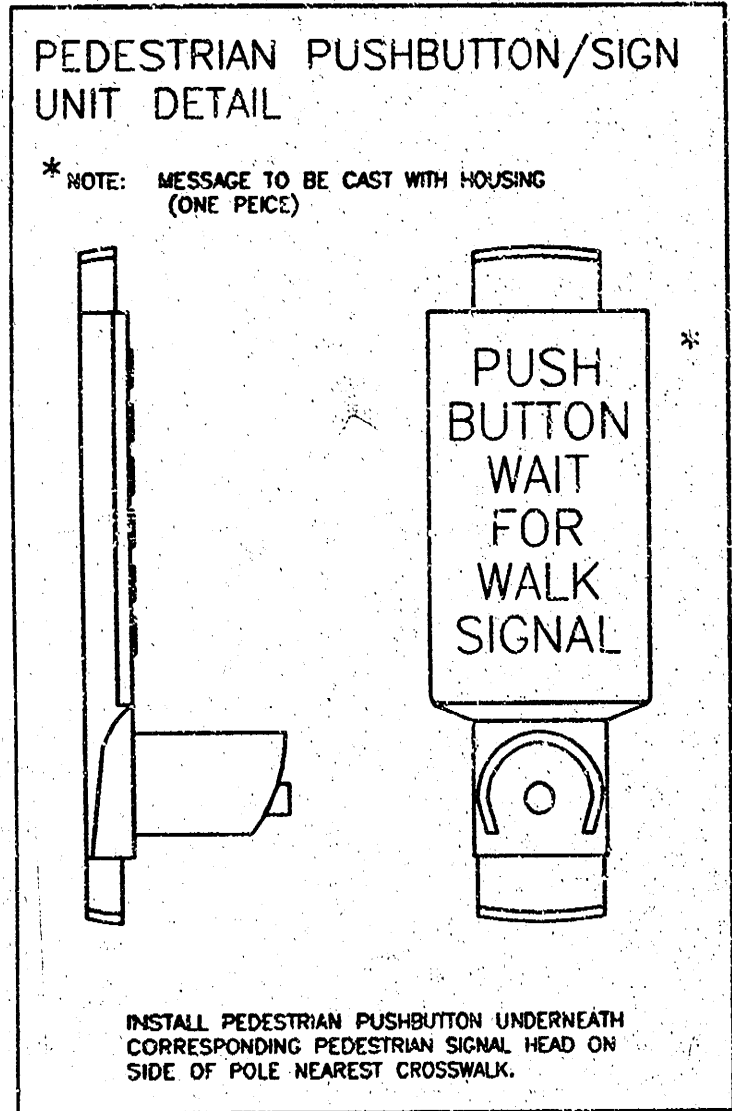
REV. DATE	COMMENTS	INT



CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
405 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-1501
(316) 268-4114 FAX

SERVICE/JUNCTION BOX, CONTROLLER PAD
CONSTRUCTION/INSTALLATION DETAILS

PROJECT NUMBER 472-83957		
DRAWN BY: T.M.	SCALE NO SCALE	REVIEWED BY:
DATE: MAY 97		DATE:
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS		
DIVISION OF TRAFFIC ENGINEERING WM. G. MCKINLEY P.E.	TRAFFIC ENGINEER	SHEET 7 OF 9

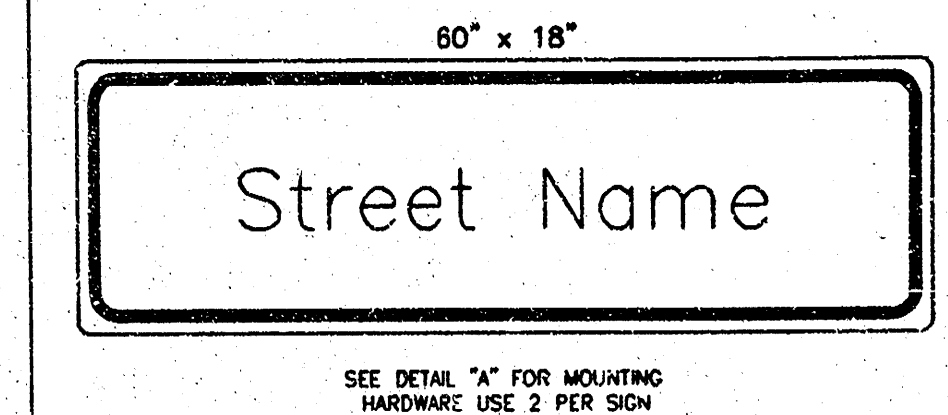


The drawing consists of several views of a mechanical assembly, likely a lamp or light fixture. The main view is a side elevation showing a vertical support structure with a horizontal arm extending from it. The arm has a curved end and is supported by a bracket. A circular component, possibly a lens or a reflector, is attached to the end of the arm. The drawing includes various dimensions and labels, such as '100', '150', '200', '250', '300', '350', '400', '450', '500', '550', '600', '650', '700', '750', '800', '850', '900', '950', '1000', '1050', '1100', '1150', '1200', '1250', '1300', '1350', '1400', '1450', '1500', '1550', '1600', '1650', '1700', '1750', '1800', '1850', '1900', '1950', '2000', '2050', '2100', '2150', '2200', '2250', '2300', '2350', '2400', '2450', '2500', '2550', '2600', '2650', '2700', '2750', '2800', '2850', '2900', '2950', '3000', '3050', '3100', '3150', '3200', '3250', '3300', '3350', '3400', '3450', '3500', '3550', '3600', '3650', '3700', '3750', '3800', '3850', '3900', '3950', '4000', '4050', '4100', '4150', '4200', '4250', '4300', '4350', '4400', '4450', '4500', '4550', '4600', '4650', '4700', '4750', '4800', '4850', '4900', '4950', '5000', '5050', '5100', '5150', '5200', '5250', '5300', '5350', '5400', '5450', '5500', '5550', '5600', '5650', '5700', '5750', '5800', '5850', '5900', '5950', '6000', '6050', '6100', '6150', '6200', '6250', '6300', '6350', '6400', '6450', '6500', '6550', '6600', '6650', '6700', '6750', '6800', '6850', '6900', '6950', '7000', '7050', '7100', '7150', '7200', '7250', '7300', '7350', '7400', '7450', '7500', '7550', '7600', '7650', '7700', '7750', '7800', '7850', '7900', '7950', '8000', '8050', '8100', '8150', '8200', '8250', '8300', '8350', '8400', '8450', '8500', '8550', '8600', '8650', '8700', '8750', '8800', '8850', '8900', '8950', '9000', '9050', '9100', '9150', '9200', '9250', '9300', '9350', '9400', '9450', '9500', '9550', '9600', '9650', '9700', '9750', '9800', '9850', '9900', '9950', '10000'. The drawing also includes a detailed view of a component, showing its internal structure and dimensions. The component is a cylindrical shape with a flange and a central hole. The drawing is a technical drawing, showing the assembly in a clear and concise manner.

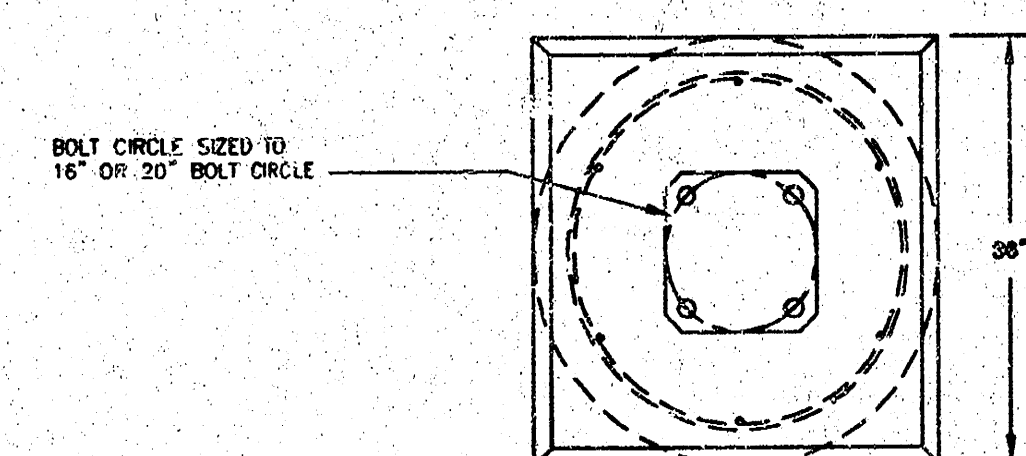
R 10-12
24" x 30"

LEFT TURN
YIELD
ON GREEN

SEE DETAIL "A" FOR MOUNTING
HARDWARE

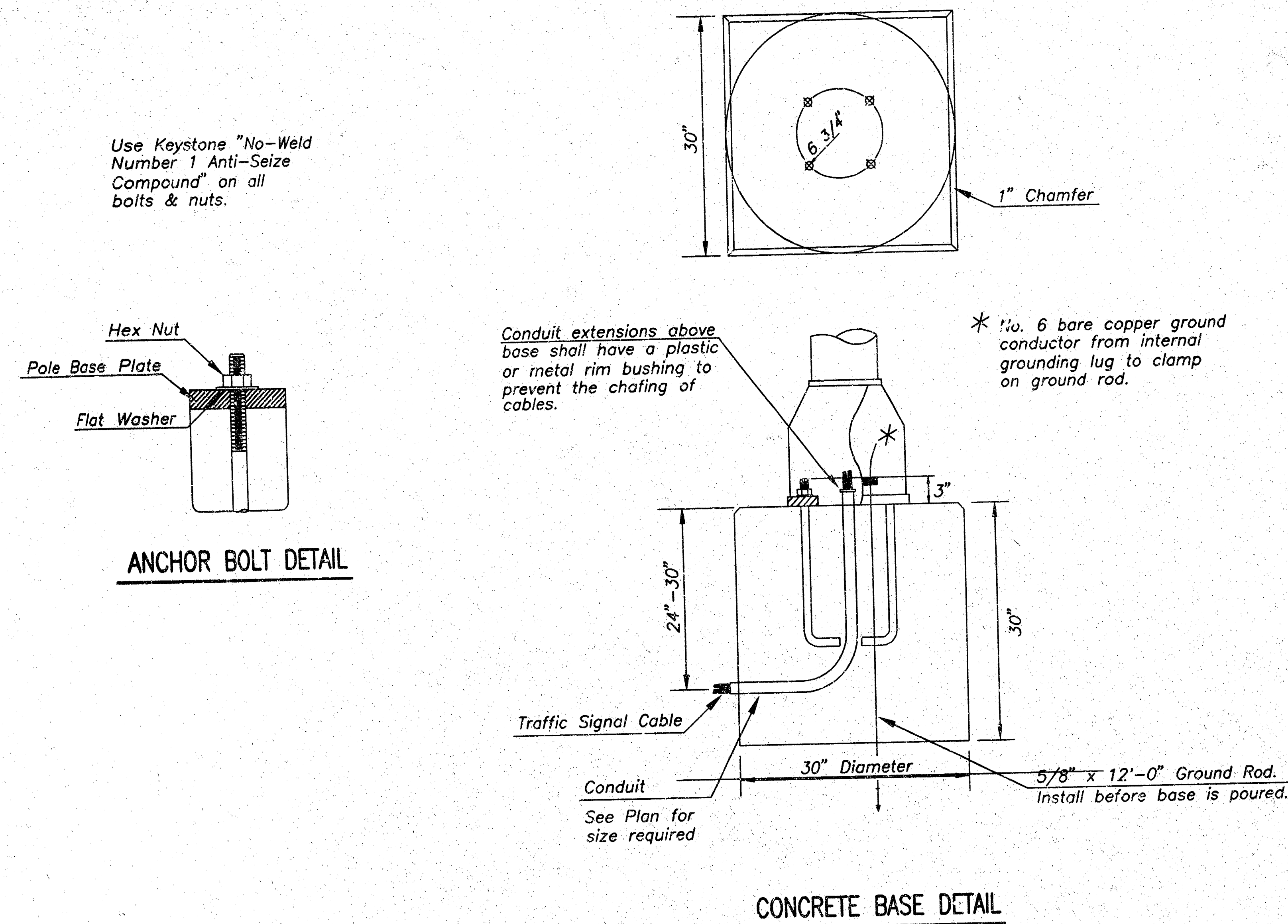


1. DIRECTIONAL ALIGNMENT OF PED. INDICATIONS & BRACKET(S) SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. THROUGH HOLES IN THE POLE SHALL BE DRILLED AND WELL REAMED TO PREVENT CABLE CHAFING.
3. HINGE PEDESTRIAN SIGNAL DOORS AWAY FROM POLE.



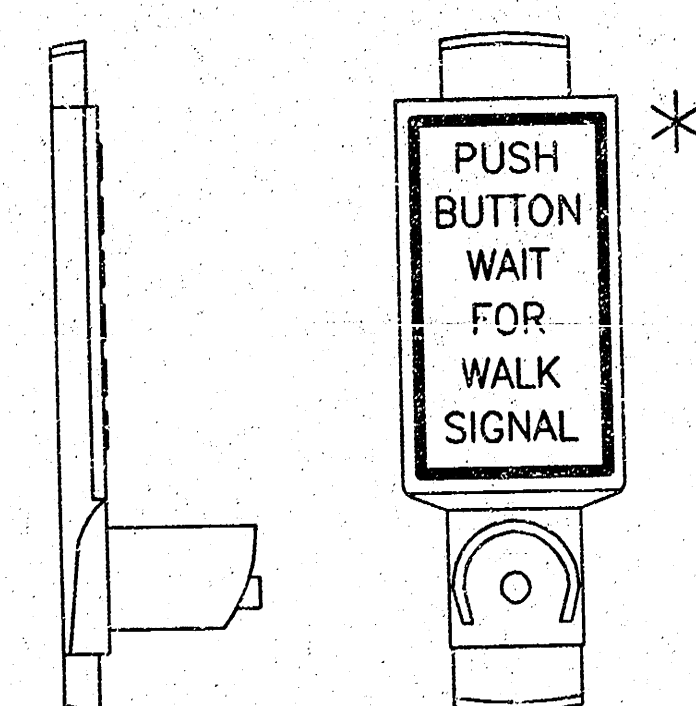
- NOTE:
1. THE ANCHOR BOLTS FOR THE SIGNAL POLE SHALL BE TACK WELDED TOGETHER IN A 18" OR 20" DIA. BOLT PATTERN (ON CENTERS AS SHOWN) TO BE REQUIRED TO BE IN A CONCENTRIC PATTERN AND TO ADJ IN VERTICAL POSITIONING WHILE CONCRETE BASE IS POURED.
2. USE ANTI-SKEW COMPOUND ON ALL THREADS.
3. 12" x 3/4" GROUND ROD TO BE POSITIONED BEFORE POURING BASE.
4. CLASS 'A' CONCRETE SHALL BE USED TO CONSTRUCT BASE.
5. CONSTRUCT A 6" THICK x 36" SQUARE CONCRETE CAP AFTER POLE HAS BEEN ERECTED & PLUMBED. CHAMFER 1" MUST BE APPROVED BY ENG. BEFORE POURING.
6. CONDUIT SHALL HAVE PLASTIC OR METAL BUSHING TO PROTECT FROM EXTERNAL DAMAGE.
7. USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.

CENTRAL PARK AND WALZE ROAD			
STEEL SIGNAL POLE ASSEMBLY DETAILS			
PROJECT NUMBER 472-83357			
DRAWN BY: T.M.	SCALE	REVISED BY: L. B.	
DATE: FEB. 96	NO SCALE	DATE: 2/26/99	
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS			
DESIGNER OF TRAFFIC ENGINEERING W.M. G. McKINNEY P.E.		TRAFFIC ENGINEER	
		SHEET 8 OF 9	

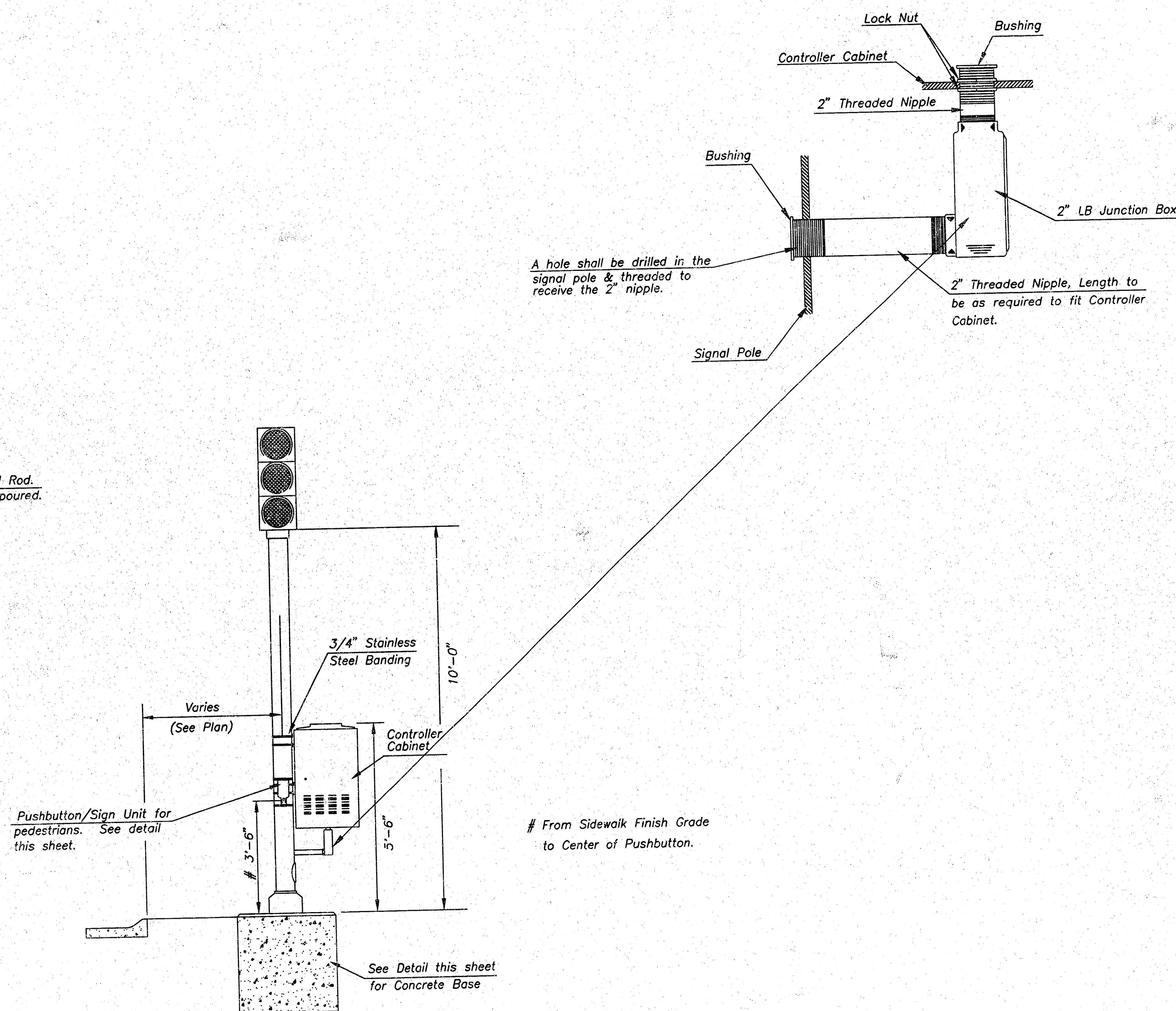


*NOTE: MESSAGE TO BE CAST WITH HOUSING (ONE PIECE)

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.



PEDESTRIAN PUSHBUTTON/SIGN UNIT DETAIL



THE CITY OF WICHITA		CENTRAL PARK AND WAZE ROAD	
		TRAFFIC SIGNAL PEDESTAL & CONCRETE BASE DETAIL SHEET	
		PROJECT NUMBER 472-83957	
DRAWN BY: T.M.	SCALE: NO SCALE	REVISED BY:	DATE:
DATE: MAY 97			
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS			
DIVISION OF TRAFFIC ENGINEERING		SHEET 9 OF 9	
WILLIAM G. MCKINLEY, P.E. TRAFFIC ENGINEER			