



State of Oklahoma
DEPARTMENT OF TRANSPORTATION
PROCUREMENT DIVISION

Solicitation

Solicitation #: 3450004914/20-6-0043

Solicitation Issue Date: 04/11/20

Brief Description of Requirement:

POLE BASE BREAKAWAY - ALUMINUM

SPECIFICATIONS ATTACHED

As of 03/18/2020 and until further notice due to concerns about the possible spread of the coronavirus on packages, bids should be submitted to ODOT via email. Electronic bids will still be considered and sealed bids and the attachments will not be opened until bid closing. Electronic bids should be emailed to the Buyer handling the Solicitation.

The Solicitation is let as a Request for Proposal pursuant to and in accordance with Oklahoma Statute, Title 74, and Section 85.12.B.3.

Response Due Date¹: 04/28/20

Time: 4:00 PM Central Time

Issued By and RETURN SEALED BID TO:

Agency Name: OKLAHOMA DEPARTMENT OF TRANSPORTATION

- U.S. Postal Delivery: 200 NE 21ST STREET
- Carrier Delivery: OKLAHOMA CITY, OKLAHOMA 73105

Solicitation Type (type "X" at one below):

- Invitation to Bid
- Request for Proposal
- Request for Quote

1. Shipping Location:

2. Contracting Officer:

Name: STELLA PAULEY
Phone: 405-522-5149
Email: SPAULEY@ODOT.ORG

¹ Amendments to solicitation may change the Response Due Date (read GENERAL PROVISIONS, section 3, "Solicitation Amendments")



SOLICITATION REQUEST

Request for Quote

Request for Proposal

Request for Bid

Dispatch via Print

Department of Transportation

Dept of Transportation
Procurement Branch
200 NE 21st Street
Oklahoma City OK 73105

Request Quote ID.	Date	Buyer	Page
3450004914	01/07/2020	Stella Pauley	1
Payment Terms	DateTime Quote Open	Closing	
0 Days	04/11/2020 02:33 PM	04/28/2020 04:00 PM	

Requisition Number Reference: From Req ID - 3450032118

Ship To: DEPT OF TRANSPORTATION
SEE BELOW
OK

Bill To: Dept of Transportation
Comptroller Division, Rm B6, 3rd Fl
200 NE 21st Street
Oklahoma City OK 73105

Supplier: NAME _____
Address: _____
Address: _____
City: _____ ST: _____ ZIP: _____

Supplier Responses

Line	Cat CD / Item # - Descr	Qty.	UOM	Unit Cost	Ext. Cost
1	39111603 / 1000033183 POLE BASE: Breakaway, Aluminum	2	EA		

FOB Destination:
Major County Maintenance Yard: 1 mi. N. Jct. SH-8 & US-60 in Fairview, OK

Price to include new light pole, luminaire, breakaway base, wire in pole, fuse kit, labor and equipment

See "As Builds" provided for Specifications

Freight Terms: FOB DEST

Ship Via: COMMON

Lead Time: _____

Supplier Remarks:

COMMENTS:

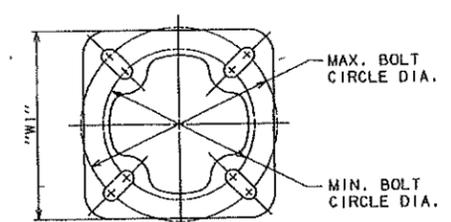
Product meets specifications Yes ___ No ___ If no, please explain:

This is NOT AN ORDER

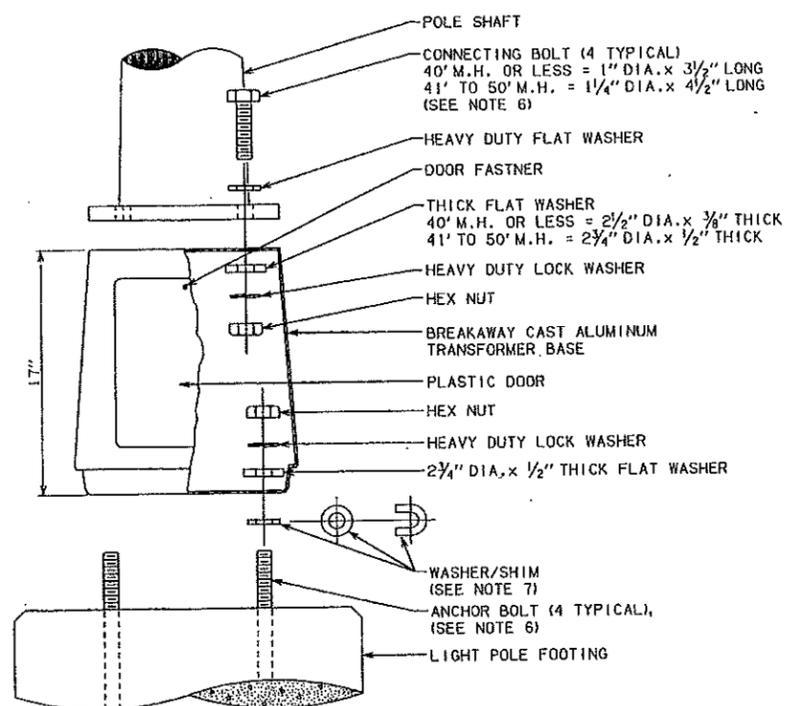
All returned quotes and related documents must be identified with our request for quote Number.

Authorized Signature

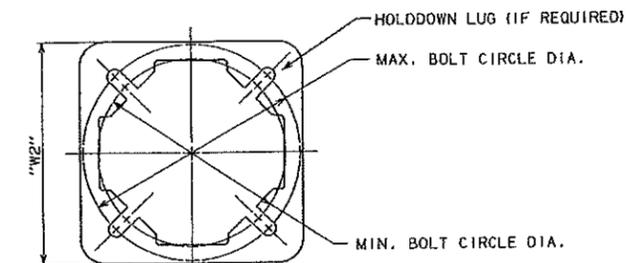
DESCRIPTION	REVISIONS	DATE
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TOP PLAN VIEW

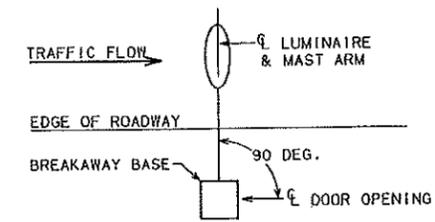


ELEVATION VIEW



BOTTOM PLAN VIEW

CAST ALUMINUM TRANSFORMER
BASE DETAILS



TYPICAL TRANSFORMER BASE
ORIENTATION DETAIL

MATERIAL SPECIFICATIONS

- A. CAST ALUMINUM TRANSFORMER BASES SHALL MEET THE FOLLOWING REQUIREMENTS:
 BASE - ASTM B108 ALLOY SG70A - T6 OR ALLOY 356-T6.
 DOOR - THE HIGH DENSITY PLASTIC DOOR SHALL BE FABRICATED USING NORYL SE1-GFN3 RESIN, OR APPROVED EQUAL. THE VANDAL RESISTANT DOOR FASTNER SHALL BE A STAINLESS STEEL SOCKET BUTTON HEAD CAP SCREW.
- B. CONNECTING AND HOLD DOWN HARDWARE FOR CAST ALUMINUM TRANSFORMER BASES SHALL BE: BOLTS ASTM A-325, NUTS ASTM A-563 GRADE A, AND BOTH GALVANIZED IN ACCORDANCE WITH ASTM A-153 (AASHTO M-232).

GENERAL NOTES

- 1. CAST ALUMINUM TRANSFORMER BASES SHALL MEET THE REQUIREMENTS OF AASHTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" DATED 1985.
- 2. CAST ALUMINUM TRANSFORMER BASES SHALL BE MARKED FOR EASY IDENTIFICATION AS TO COMPLIANCE WITH THE ABOVE SPECIFICATIONS.
- 3. ALL CONNECTING AND HOLD DOWN WASHERS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE BASE MANUFACTURER RECOMMENDATIONS.
- 4. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER A TYPE "A" CERTIFICATION AS SPECIFIED IN SECTION 106.12 OF THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", FOR ALL TYPES OF BREAKAWAY BASES.
- 5. FOR FOOTING DETAILS, SEE STD. GMF1-1(LATEST REVISION).
- 6. ALL CONNECTING AND ANCHOR BOLTS SHALL BE TORQUED TO A MINIMUM OF 200 FT-LBS OR AS SPECIFIED BY THE POLE AND BREAKAWAY BASE MANUFACTURER.
- 7. IF SHIMMING IS NECESSARY TO INSTALL THE LIGHT POLES STRAIGHT AND LEVEL ON ITS LONGITUDINAL AXIS, THE CONTRACTOR SHALL INSTALL "U" SHAPED SHIMS OR ROUND FLAT WASHERS. THE WASHERS/SHIMS SHALL BE INSTALLED AROUND THE ANCHOR BOLTS.
- 8. THE POLE BASE PLATE SHALL NOT BE LARGER THAN OR OVERHANG THE TOP OF THE TRANSFORMER BASE AT ANY POINT.

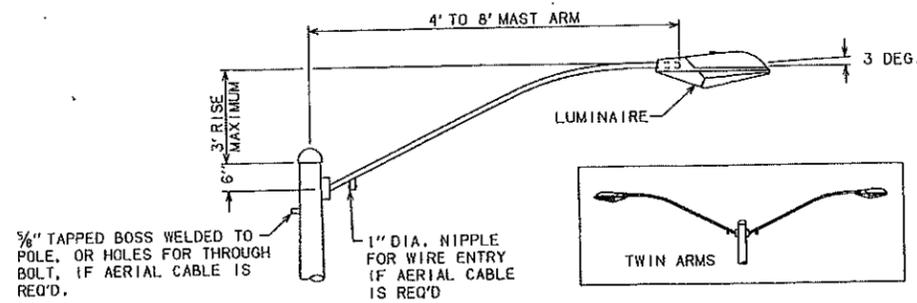
NOMINAL TRANSFORMER BASE DIMENSIONS											
ODOT DESIGN	AKRON BASE NO.	NOMINAL MOUNTING HEIGHT	MAX. POLE WEIGHT	TOP OF BASE				BOTTOM OF BASE			
				WIDTH "W1"	CONNECTING BOLT DIA.	MIN. BOLT CIRCLE	MAX. BOLT CIRCLE	WIDTH "W2"	ANCHOR BOLT DIA.	MIN. BOLT CIRCLE	MAX. BOLT CIRCLE
		FT.	LBS.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	M104 (TB2-17)	39 AND LESS	550	12.04	1.00	10.00	12.00	13.08	1.00	10.00	12.00
B	M093 (TB1-17)	40 - 49.0	950	13.12	1.00	10.50	13.50	15.38	1.00	13.00	15.00
C	M098 (TB3-17)	50 AND LONGER	900	15.09	1.25	13.00	15.13	17.44	1.25	15.00	17.25

APPROVED BY TRAFFIC ENGINEER *David Smith* DATE 10-1-99

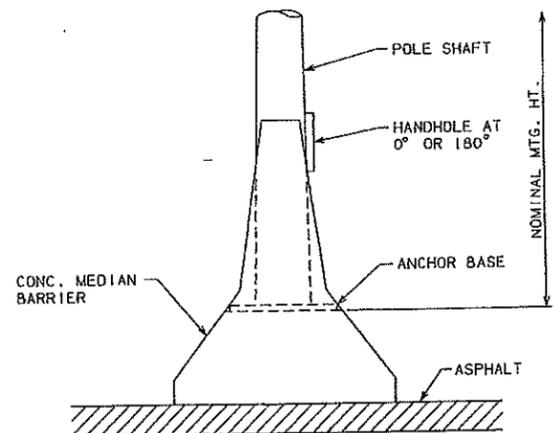
OKLAHOMA DEPT. OF TRANSPORTATION
TRAFFIC STANDARD (ENGLISH)

TYPICAL BREAKAWAY BASE DETAILS

1999 SPECIFICATIONS BBD1-1 OOE T-225E



LIGHT POLE WITH MONO-TUBE MAST ARM

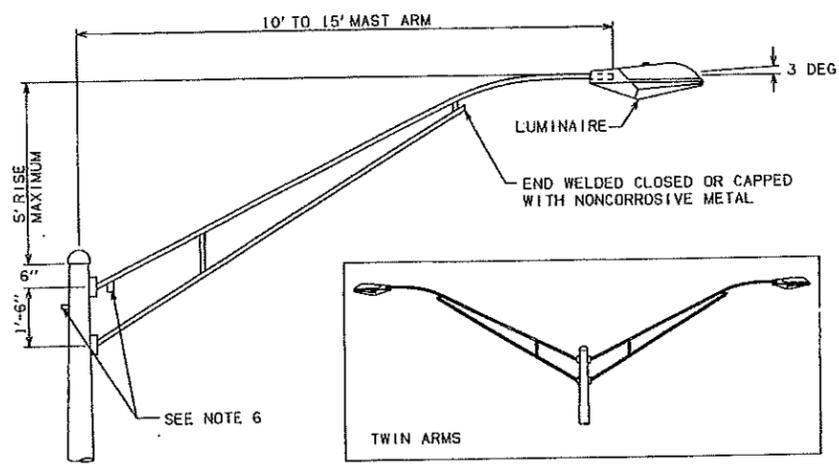


MEDIAN BARRIER MOUNTED LIGHT POLE

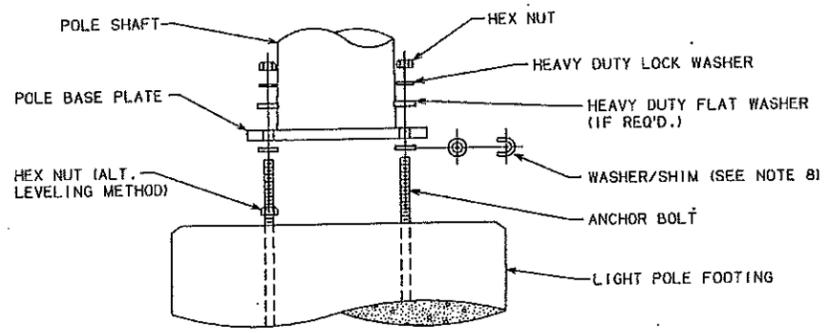
FOR LIGHT POLE FOOTING DETAILS, SEE STANDARD GMF1-1-LATEST REVISION

MATERIAL SPECIFICATIONS

- A. POLE SHAFT SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI. AFTER FABRICATION. SHAFT TAPER SHALL BE 0.10" OR 0.14" PER FOOT
- B. STRUCTURAL PLATES SHALL BE IN ACCORDANCE WITH AASHTO M-183 (ASTM A-36).
- C. MAST ARM SHALL BE CONSTRUCTED OF 2 3/4" O.D. TUBULAR STEEL HAVING A MIN. YIELD STRENGTH OF 36,000 PSI. ALL MAST ARM CONNECTING HARDWARE SHALL BE: BOLTS ASTM A-325, NUTS ASTM A-563, GRADE "A" AND SHALL BE GALVANIZED ACCORDING TO AASHTO M-232 (ASTM A-153). ALL OTHER MISCELLANEOUS HARDWARE SHALL BE STAINLESS STEEL ASTM A-302.
- D. CASTING SHALL BE IN ACCORDANCE WITH THE 1999 STANDARD SPECIFICATIONS.
- E. POLE AND MAST ARM SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 (ASTM A-123), AFTER FABRICATION, AND SHALL BE DESIGNED BASED ON THE FOLLOWING:
 - 1. WINDS OF 80 MPH.
 - 2. ROADWAY LUMINAIRE MAX. WEIGHT 75 LBS. MAX. PROJECTED AREA 3.3 SQ. FT.
 - 3. POST TOP LUMINAIRE MAX. WEIGHT 110 LBS. MAX. PROJECTED AREA 3.8 SQ. FT.
- F. FOR ANCHOR BOLT MATERIAL SPECIFICATIONS, SEE STANDARD GMF1-1-LATEST REVISION.



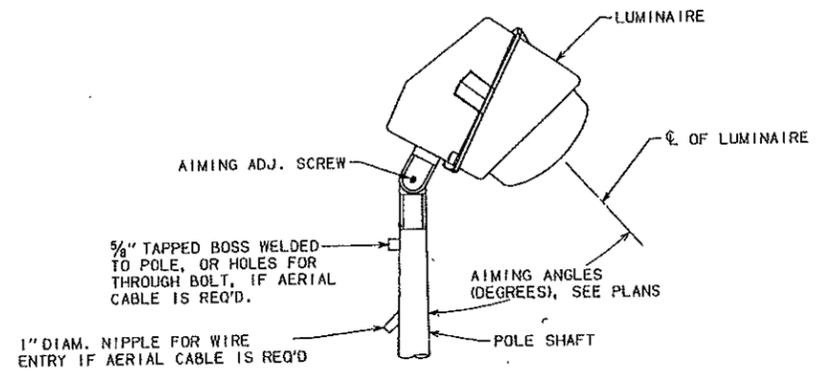
LIGHT POLE WITH TRUSS TYPE MAST ARM



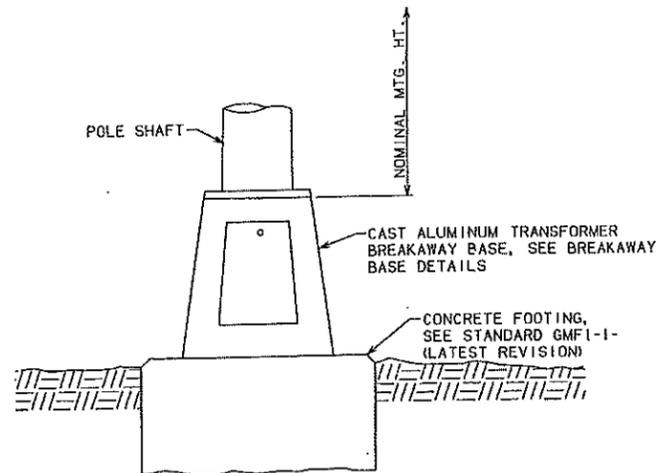
POLE TO FOOTING CONNECTION DETAIL

GENERAL NOTES

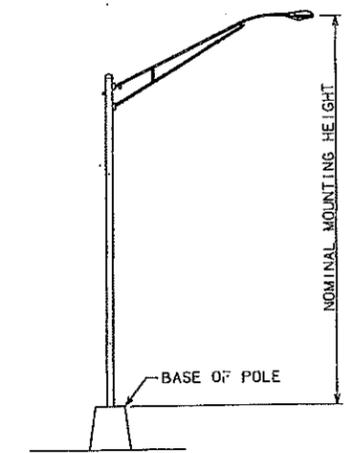
- 1. ALL POLES SHALL MEET THE REQUIREMENTS OF AASHTO'S "STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" AND SHALL BE FABRICATED ACCORDING TO THE SHOP DRAWINGS APPROVED BY THE ENGINEER.
- 2. SEE PLANS FOR MOUNTING HEIGHT. FOR POLES WITH A MOUNTING HEIGHT GREATER THAN 40', THE SHAFT MAY BE TWO PIECE WITH A TELESCOPING JOINT. THE JOINT MAY BE CONNECTED WITH A THROUGH BOLT, OR IN A MANNER APPROVED BY THE ENGINEER.
- 3. WHEN THE POLE IS INSTALLED ON A CAST ALUMINUM TRANSFORMER BASE NO HANDHOLE IS REQUIRED, UNLESS OTHERWISE SPECIFIED. IF A HANDHOLE IS REQUIRED, SEE STANDARD HLP2-1-LATEST REVISION.
- 4. FOR ADDITIONAL LIGHT POLE DETAILS, SEE STANDARD HLP2-1-LATEST REVISION.
- 5. FOR DETAILS OF SPECIAL LENGTH POLES, SEE STANDARD HLP3-1-LATEST REVISION, AND THE PLANS.
- 6. WHEN AERIAL CONDUCTORS ARE REQUIRED, THE POLE SHALL BE DESIGNED TO MEET THE LOADING REQUIREMENTS OF THE NATIONAL ELECTRIC SAFETY CODE (NEC LATEST EDITION). FOR ADDITIONAL DETAILS, SEE STANDARD HLP2-1-LATEST REVISION.
- 7. POLES WITH AERIAL CONDUCTORS SHALL BE EQUIPPED WITH A HANDHOLE AND SHOULD NOT BE INSTALLED ON A BREAKWAY BASE. SEE STANDARD HLP2-1-LATEST REVISION.
- 8. IF SHIMMING IS NECESSARY TO INSTALL THE LIGHT POLES STRAIGHT AND LEVEL ON ITS LONGITUDINAL AXIS, THE CONTRACTOR SHALL INSTALL "U" SHAPED SHIMS OR ROUND FLAT WASHERS. THE WASHERS/SHIMS SHALL BE INSTALLED AROUND THE ANCHOR BOLTS.
- 9. ALL CONNECTING AND ANCHOR BOLTS SHALL BE TORQUED TO A MINIMUM OF 200 FT-LBS OR AS SPECIFIED BY THE POLE AND BREAKAWAY BASE MANUFACTURER.



PEDESTAL LIGHT POLE WITH POST TOP LUMINAIRE

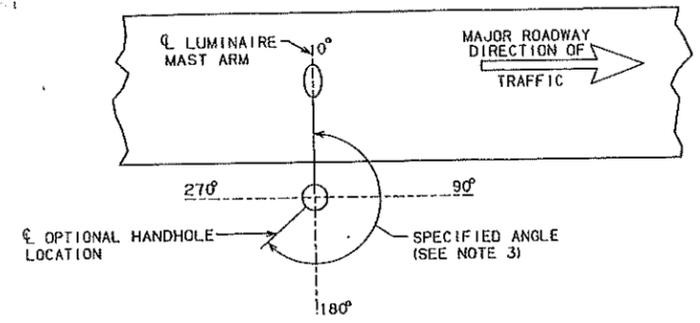


BREAKAWAY BASE MOUNTED POLE

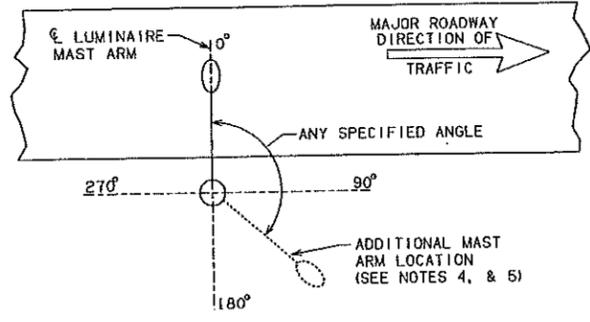


MOUNTING HEIGHT DETAIL

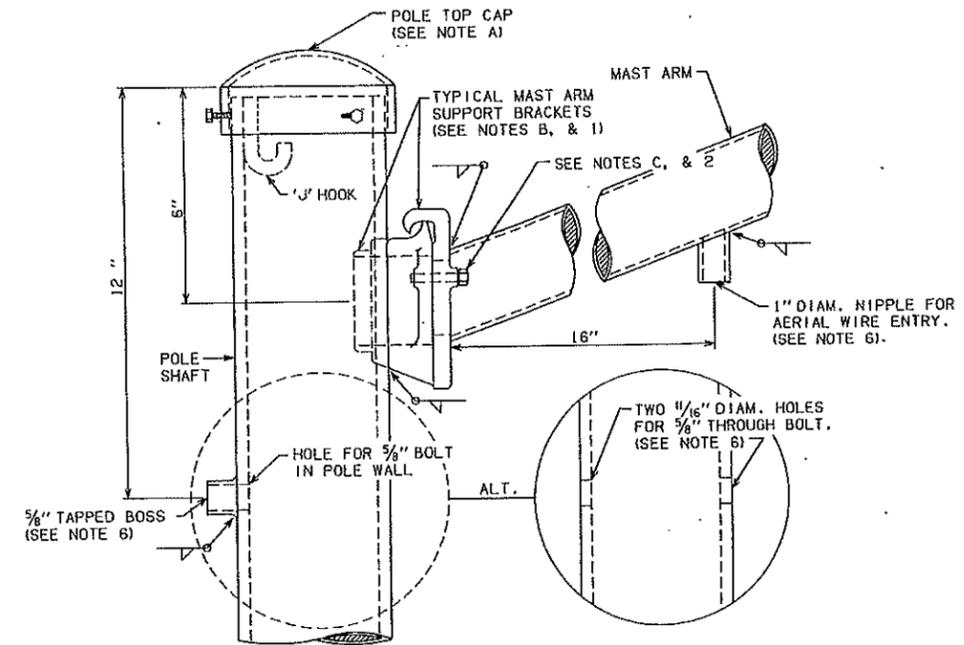
APPROVED BY TRAFFIC ENGINEER *David Smith* DATE 10-1-99
OKLAHOMA DEPT. OF TRANSPORTATION
TRAFFIC STANDARD (ENGLISH)
TYPICAL HIGHWAY LIGHT POLE DETAILS



HANDHOLE ORIENTATION DETAIL



MAST ARM ORIENTATION DETAIL



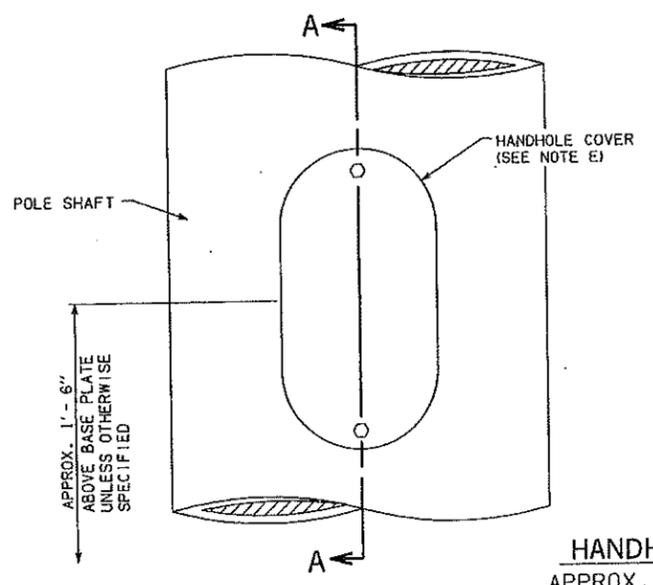
MAST ARM SUPPORT BRACKET AND POLE CAP DETAILS

MATERIAL SPECIFICATIONS

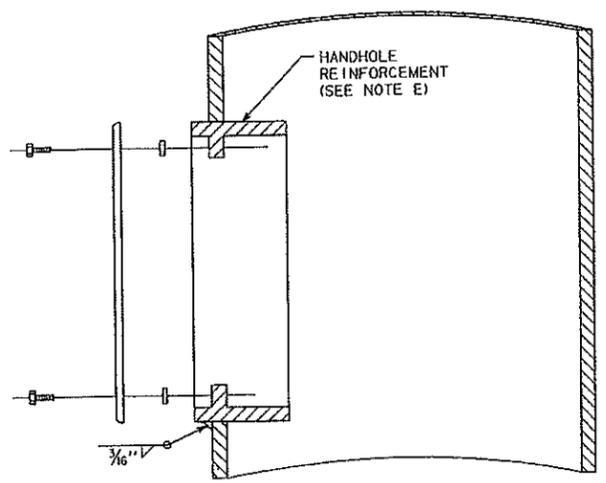
- A. THE POLE TOP CAP SHALL BE FORGED ACCORDING TO ASTM A-66B OR CAST ASTM A-27, GRADE N-1 AND GALVANIZED IN ACCORDANCE WITH ASTM A-135, OR CAST FROM ALUMINUM ALLOY 356. THE POLE TOP CAP SHALL BE FURNISHED WITH THREE (3) AISI 302 STAINLESS STEEL SET SCREWS 1/4" - 20x3/4" OR ONE (1) 1/2" - 20 THROUGH BOLT WITH NYLON INSERT LOCKING HEX-NUT.
- B. THE MAST ARM SUPPORT BRACKETS SHALL BE CAST ACCORDING TO ASTM A-27, GRADE 65-35 OR FORGED ACCORDING TO ASTM A-521.
- C. THE MAST ARM CONNECTING BOLTS SHALL BE 1/2" DIA. x 1 1/4" LONG HEX HEAD CAP SCREWS WITH 13 UNC THREADS AND CONFORM TO THE REQUIREMENTS OF ASTM A-325 OR A-499 OR SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF AISI TYPE 302, AND THE LOCK WASHERS SHALL CONFORM TO THE REQUIREMENTS OF AMSI 818.21.1 EXTERNAL TOOTH WASHERS.
- D. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153 EXCEPT WHEN STAINLESS STEEL IS SUPPLIED.
- E. THE HANDHOLE REINFORCEMENT SHALL BE FORGED FROM STEEL CONFORMING TO ASTM A-576, GRADE 1021; FABRICATED FROM 3/8" WALL TUBING CONFORMING TO ASTM A-36; OR CAST FROM STEEL CONFORMING TO ASTM A-27, GRADE 65-35. THE HANDHOLE COVER SHALL BE GALVANIZED ACCORDING TO ASTM A-153, AND EQUIPPED WITH TWO (2) AISI 302 STAINLESS STEEL 1/4" - 20x3/4" HEX CAP SCREWS AND TWO (2) CAPTIVE WASHERS.

GENERAL NOTES

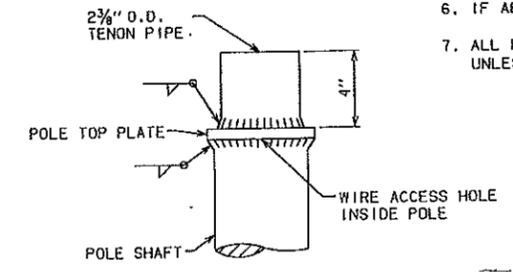
1. THE POLE SHAFT AND SUPPORT BRACKETS SHALL BE WELDED IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" (LATEST REVISION).
2. THERE SHALL BE TWO (2) BOLTS AND TWO (2) LOCK WASHERS FURNISHED WITH EACH SINGLE MEMBER MAST ARM, AND FOUR (4) BOLTS AND FOUR (4) LOCK WASHERS FURNISHED WITH EACH TRUSS TYPE MAST ARM.
3. THE HANDHOLE REINFORCEMENT SHALL BE WELDED TO THE POLE SHAFT IN THE 0 DEG. LOCATION UNLESS OTHERWISE SPECIFIED, PRIOR TO GALVANIZING THE POLE SHAFT.
4. IF AN ADDITIONAL LUMINAIRE MAST ARM IS SPECIFIED, THE NORMAL LOCATION IS AT 180 DEG.
5. FOR SIGNAL POLE MAST ARM AND FOR COMBINATION SIGNAL POLE AND LIGHTING MAST ARM ORIENTATIONS, SEE PLANS.
6. IF AERIAL CONDUCTORS ARE SPECIFIED, CONSTRUCT THE ITEMS AS SHOWN.
7. ALL POLES WITH AERIAL CONDUCTORS SHALL BE PROVIDED WITH A HANDHOLE UNLESS OTHERWISE SPECIFIED.



HANDHOLE DETAILS
APPROX. SIZE (6" X 4")



SECTION "A-A"



POST TOP MOUNTING DETAIL

APPROVED BY TRAFFIC ENGINEER *Henry H. Smith* DATE 10-1-99

OKLAHOMA DEPT. OF TRANSPORTATION
TRAFFIC STANDARD (ENGLISH)

TYPICAL HIGHWAY LIGHT POLE DETAILS

1999 SPECIFICATIONS	HLP2-1	OOE
		T-231E

GENERAL SPECIFICATIONS FOR HIGH-INTENSITY DISCHARGE LUMINAIRES

DESCRIPTION

THE LUMINAIRE SHALL BE A HORIZONTAL OR VERTICAL BURNING AS APPLICABLE, HIGH INTENSITY DISCHARGE, OUTDOOR LUMINAIRE COMPLETE WITH HOUSING, APPROPRIATE MOUNTING, BUILT IN BALLAST, MOGUL SOCKET, LAMP, GASKETED, REFLECTOR AND GLASS REFRACTOR, UNLESS OTHERWISE SPECIFIED.

MATERIALS:

1) LAMP:

- A. THE HIGH-INTENSITY DISCHARGE LAMP SHALL BE OF THE SIZE AND TYPE SPECIFIED IN THE PLANS.
- B. THE LAMP BASE SHALL BE NICKEL PLATED BRASS WITH A DATE CODING FEATURE.
- C. THE LAMP SHALL BE CAPABLE OF STARTING 90% OF THE TIME AT -29°C.

2) MOUNTING:

- A. LUMINAIRES FOR MAST ARM MOUNTING SHALL BE EQUIPPED WITH A SLIP FITTER DESIGNED TO ACCEPT 1-1/4" TO 2" SCHEDULE 40 PIPE AND PROVIDE A METHOD OF LEVELING THE LUMINAIRE AND VERTICAL ADJUSTMENTS +/- 5 DEGREES USING EXTERNALLY ACCESSIBLE BOLTS. THE SLIP FITTER SHALL BE EQUIPPED WITH A PIPE STOP.
- B. LUMINAIRES FOR POST TOP MOUNTING SHALL BE EQUIPPED WITH A SLIP FITTER DESIGNED TO ACCEPT A 2-3/8" TO 3" O.D. POLE OR TENON AND SHALL BE EQUIPPED WITH LEVELING SCREWS.

3) GASKETS:

THE GASKETS SHALL BE MADE OF HEAT RESISTANT NONMOISTURE ABSORBING POLYESTER, SILICON RUBBER OR DACRON FELT. THE GASKET SHALL BE CONTINUOUS OR ONE PIECE AND INSTALLED WITH NO BUTT ENDS OR GAPS.

4) LAMP SOCKET:

THE LAMP SOCKET SHALL BE A COMPLETELY PORCELAIN ENCLOSED NICKEL PLATED BRASS MOGUL TYPE SHELL WITH INTERNAL LAMP GRIPS TO ASSURE ELECTRICAL CONTACT UNDER CONDITIONS OF NORMAL VIBRATION AND RESIST THE REMOVAL OF THE LAMP. THE SOCKET SHALL HAVE WELDED INTERNAL CONNECTIONS, AND BE IN COMPLIANCE WITH THE LATEST REVISION OF EEL PUBLICATION NO. TDJ-147.

5) SOCKET SUPPORT:

THE SOCKET SUPPORT SHALL CONTAIN IDENTIFYING MARKS SO THE SOCKET MAY BE EASILY ADJUSTED, BOTH HORIZONTALLY AND VERTICALLY TO PROVIDE THE SPECIFIED LIGHT DISTRIBUTION.

6) BALLAST:

- A. BALLASTS SHALL BE BOBBIN WOUND AND HAVE A HIGH POWER FACTOR (90% OR BETTER), BE CAPABLE OF OPERATING THE HIGH INTENSITY DISCHARGE LAMP SPECIFIED FROM A SINGLE PHASE, GROUNDING, 480 VOLT NOMINAL, MULTIPLE SYSTEM, UNLESS OTHERWISE SPECIFIED. THE BALLAST, CAPACITOR AND STARTING AID, IF REQUIRED, SHALL BE PREWIRED TO THE LAMP SOCKET AND TERMINAL BOARD AND BE MODULAR CONSTRUCTED AND DESIGNED FOR EASY REMOVAL AND INSTALLATION BY USING QUICK DISCONNECT FEATURES. THE BALLAST SHALL BE DESIGNED TO START THE LAMP AT -29°C (MERCURY AND METAL HALIDE) OR AT -35°C (HIGH PRESSURE SODIUM). FOR LUMINAIRES USED IN CONJUNCTION WITH TRAFFIC SIGNALS, THE BALLAST SHALL BE DESIGNED FOR 120/240 VOLT OPERATION.
- B. MERCURY VAPOR BALLAST SHALL BE CONSTANT WATTAGE TYPE CAPABLE OF OPERATING THE LAMP WITHIN +/- 3% OF RATED WATTS WITH 13% LINE VOLTAGE VARIATION.
- C. METAL HALIDE BALLAST SHALL BE A CONSTANT WATTAGE AUTO-TRANSFORMER TYPE CAPABLE OF OPERATING THE LAMP WITHIN +/- 10% OF RATED WATTS WITH +/- 10% LINE VOLTAGE VARIATION.
- D. HIGH PRESSURE SODIUM BALLAST SHALL BE A CONSTANT WATTAGE OR MAGNETIC REGULATOR TYPE CAPABLE OF OPERATING THE LAMP WITHIN THE LIMITS DEFINED BY ANSI STANDARDS WITH +/- 10% LINE VOLTAGE VARIATION. ARC TUBE VOLTAGE SHALL BE 100 VOLT DESIGN.

7) TERMINAL BOARD:

THE TERMINAL BOARD SHALL BE OF PHENOLIC RESIN, MOLDED PLASTIC OR PORCELAIN WITH PROTECTIVE BARRIERS BETWEEN TERMINALS. THE SCREW TERMINALS SHALL BE CAPTIVE TYPE, COMPATIBLE WITH ALUMINUM OR COPPER CONDUCTORS AND CAPABLE OF ACCEPTING UP TO A NO. 6 AWG CONDUCTOR.

B) ELECTRICAL:

- A. ALL ELECTRICAL COMPONENTS SHALL BE INSULATED TO A MINIMUM OF 10 KV BIL.
- B. TERMINATION CONNECTORS SHALL MEET OR EXCEED TWICE THE RATED CURRENT VALUE FOR EEL-TDJ162 CLASS A HEAT CYCLE TEST.
- C. ALL WIRE SHALL BE UL APPROVED AND THE INSULATION CAPABLE OF WITHSTANDING THE DESIGNED OPERATING TEMPERATURES OF THE LUMINAIRE.

9) HARDWARE:

ALL NUTS BOLTS, SCREWS, CLIPS, WASHERS, SPRINGS AND ATTACHING HARDWARE SHALL BE FABRICATED FROM NON-CORROSIVE ALLOYS, CADMIUM PLATING WILL NOT BE CONSIDERED ADEQUATE WEATHER PROOFING. ALL THREADED SURFACES USED IN ALUMINUM HOUSING SHALL BE LUBRICATED WITH SILICONE GREASE.

10) FINISH:

UNLESS OTHERWISE SPECIFIED, THE LUMINAIRE SHALL HAVE A LIGHT GREY BAKED-ON ENAMEL FINISH, SIMILAR TO THE MUNSELL #5BG-ASA#70.

11) PHOTO CELL AND RECEPTACLE:

IF SPECIFIED, THE LUMINAIRE SHALL BE EQUIPPED WITH THE FOLLOWING:

- A. THE PHOTOELECTRIC CONTROL SHALL BE A HERMETICALLY SEALED CADMIUM SULFIDE PHOTOCELL, DETACHABLE TYPE, 105-285 VOLT, 50/60 HERTZ AC, OUTDOOR CONTROL COMPLETE, IN ACCORDANCE WITH EEL-NEMA STANDARDS. RELAY LOAD CONTACTS RATED 1000 WATTS OR 1600 VOLT-AMPERE REACTIVE, SINGLE-POLE, SINGLE-THROW CONTACT, NORMALLY CLOSED FOR "FAIL SAFE" OPERATION, ENCLOSED POSITIVE LIGHTNING AND SURGE PROTECTION, HOUSED IN A HIGH IMPACT ACRYLIC HOUSING WHICH HAS A BASE PLATE GASKET AND 3-POLE POLARIZED TWIST-LOCK PLUG. TURN-ON SHALL OCCUR AT ONE FOOT-CANDLE AND TURN-OFF AT 5 FOOT-CANDELES APPROXIMATELY.
- B. THE THREE POLE LOCKING RECEPTACLE SHALL BE IN ACCORDANCE WITH THE LATEST EEL AND NEMA STANDARDS AND BE PREWIRED TO THE TERMINAL BOARD.

12) MISCELLANEOUS:

- A. EACH LUMINAIRE SHALL BE SUPPLIED WITH A PERMANENTLY ATTACHED NAME PLATE INSIDE THE HOUSING AND/OR ON THE BALLAST. THIS LABEL SHALL INDICATE THE MANUFACTURER, CATALOG NO., LAMP TYPE, WATTAGE, LINE VOLTAGE RATING AND CONNECTION DIAGRAM.
- B. EACH LUMINAIRE MAY BE MARKED IN ACCORDANCE WITH EEL-NEMA STANDARDS FOR "FIELD IDENTIFICATION OF HIGH-INTENSITY DISCHARGE LAMPS IN LUMINAIRES USED IN ROADWAY LIGHTING EQUIPMENT" EEL PUB. NO. TDJ-150 AND NEMA PUB. NO. 00150.
- C. FOLLOWING THE INSTALLATION OF THE HIGH MAST AND POST TOP (OFFSET DESIGN) LUMINAIRES, AIMING SHALL BE UNDER THE DIRECTION OF THE HIGHWAY LIGHTING ENGINEER.

13) PHOTOMETRIC DATA:

THE LUMINAIRE MANUFACTURER SHALL FURNISH PHOTOMETRIC DATA FOR COMPARING LIGHT QUALITY PRIOR TO RECEIVING INSTALLATION APPROVAL FROM THE ENGINEER.

THE PHOTOMETRIC DATA SHALL BE IN ACCORDANCE WITH THE UNIFORM COMPUTER INPUT FORMAT SPECIFIED IN THE LATEST EDITION OF THE "IES APPROVED METHOD FOR PHOTOMETRIC TESTING OF ROADWAY LUMINAIRES."

14) TESTING:

IF REQUESTED, A SAMPLE LUMINAIRE AND LAMP OF EACH TYPE AND SIZE SHALL BE SUPPLIED FOR TESTING PURPOSES.

15) CERTIFICATION:

THE LUMINAIRE AND/OR LAMP MANUFACTURER SHALL PROVIDE A TYPE "D" CERTIFICATION IN ACCORDANCE WITH SUBSECTION 106.12 OF THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION."

ADDITIONAL INDIVIDUAL LUMINAIRE SPECIFICATIONS FOR HIGH-INTENSITY DISCHARGE LUMINAIRES

DESCRIPTION:

LUMINAIRES SHALL COMPLY WITH THE GENERAL SPECIFICATIONS FOR HIGH INTENSITY DISCHARGE LUMINAIRES ON STD. HLD1-1 (LATEST REVISION), AND THE FOLLOWING SPECIFICATIONS:

1.0 ROADWAY LUMINAIRES (GENERAL):

- A. HOUSING: THE HOUSING SHALL BE PRECISION DIE-CAST ALUMINUM AND BE OF ADEQUATE SIZE TO CONTAIN THE BALLAST COMPONENTS, REFLECTOR LAMP AND SOCKET, TERMINAL BOARD, SLIP FITTER AND ALLOW ALL THE ELECTRICAL COMPONENTS TO OPERATE WITHIN THEIR DESIGNED TEMPERATURE RANGE. THE HOUSING SHALL BE DESIGNED TO ACCOMMODATE AT LEAST A 400 WATT MERCURY VAPOR LAMP.
- B. REFLECTOR: THE REFLECTOR SHALL BE OF SPECULAR FINISHED, HYDRO-FORMED, ANODIC COATED ALUMINUM WITH A MINIMUM COAT THICKNESS OF 0.00015 INCHES AND WEIGHING 7.5 MILIGRAMS PER SQUARE INCH TO PROVIDE A MINIMUM REFLECTIVITY OF 82%. THE REFLECTOR SHALL HAVE A REVERSE FLANGE AND MOUNTED WITHIN THE HOUSING TO ASSURE A FIRM SURFACE FOR PROPER GASKET SEALING WHEN THE REFRACTOR DOOR IS CLOSED.

C. REFRACTOR: THE REFRACTOR SHALL BE PRESSION, HEAT RESISTANT, CRYSTAL CLEAR BOROSILICATE GLASS, ANNEALED, HOMOGENOUS AND FREE FROM IMPERFECTIONS AND STRIATIONS. REFRACTING PRISMS SHALL BE INCORPORATED IN THE REFRACTOR TO ASSURE MAXIMUM UTILIZATION OF THE LIGHT GENERATED AND PROVIDE THE REQUIRED PHOTOMETRIC DISTRIBUTION.

D. DOOR: THE REFRACTOR DOOR SHALL BE PRECISION DIE-CAST ALUMINUM WITH CLIPS FOR PROPER POSITIONING OF THE REFRACTOR. THE DOOR SHALL BE EASILY DETACHED FROM THE HOUSING BY OPERATING THE SPRING LOADED LATCH OR LATCHES AND SEPARATING THE HINGE HALVES WHILE WEARING LINEMEN'S GLOVES.

E. CUT-OFF VISOR: IF SPECIFIED ON THE PLANS, EACH LUMINAIRE SHALL BE EQUIPPED WITH A CUT-OFF VISOR. CUT-OFF SHALL OCCUR FULL CIRCUMFERENCE OF THE LUMINAIRE AT APPROXIMATELY 75 DEGREES FROM THE VERTICAL AXIS. THE VISOR SHALL BE SIMILAR IN COLOR TO THE LUMINAIRE.

F. BALLAST: THE BALLAST SHALL BE DOOR MOUNTED ON ALL LUMINAIRES 400 WATT OR LESS.

1.1 ROADWAY LUMINAIRE (CUTOFF DESIGN)

A. REFRACTOR: THE REFRACTOR SHALL BE FLAT STRIPPLED HEAT AND IMPACT RESISTANT GLASS.

B. DISTRIBUTION CONTROL: DISTRIBUTION CONTROL SHALL BE CUTOFF.

1.2 ROADWAY LUMINAIRE (SQUARE DESIGN)

A. HOUSING & COVER: THE HOUSING SIDE WALLS SHALL BE A SINGLE PIECE OF EXTRUDED ALUMINUM ALLOY 6063-T6 MITRED AND BENT TO FORM A SQUARE.

THE COVER SHALL BE A PEAKED CANOPY OF FORMED SHEET ALUMINUM SPOT WELDED AND GASKETED TO THE HOUSING.

B. REFLECTOR: THE REFLECTOR SHALL BE SEMI-SPECULAR FINISHED ALUMINUM.

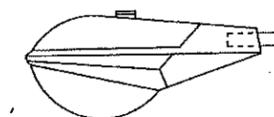
C. REFRACTOR: THE REFRACTOR SHALL BE PRISMED CLEAR INJECTION MOLDED ACRYLIC PLASTIC WITH ULTRAVIOLET INHIBITOR.

D. DOOR: REFRACTOR DOOR SHALL BE OF EXTRUDED ALUMINUM, GASKETED AND HINGED TO THE HOUSING.

E. FINISH: THE LUMINAIRE SHALL BE FINISHED WITH A BAKED ENAMEL, DURONODIC BRONZE NO. 312-E.

LEGEND FOR "LUMINAIRES"

LAMP TYPE	LAMP COLOR	LUMENS	VERT. DIST.	LATERAL DIST.	CONTROL STYLE
LAMP WATT		100, 175, 250, 310, 400, 1000, ETC...			
LAMP TYPE		MV = MERCURY VAPOR MH = METAL HALIDE HPS = HIGH PRESSURE SODIUM			
LAMP COLOR		CL = CLEAR DX = DELUXE WHITE WDX = WARM DELUXE WHITE CI = COLOR IMPROVED			
NOMINAL LAMP LUMEN RATING		9,500/22,000/27,500/37,000/50,000/ 140,000/ETC...			
VERTICAL DISTRIBUTION		S = SHORT M = MEDIUM L = LONG			
LATERAL DISTRIBUTION		TYPE 1, 2, 3, 4, 5			
DISTRIBUTION CONTROL		C = CUTOFF S = SEMICUTOFF N = NONCUTOFF			
STYLE		A1 = STANDARD DESIGN A2 = CUTOFF DESIGN			



STYLE A1
(STANDARD DESIGN)



STYLE A2
(CUTOFF DESIGN)

TYPICAL ROADWAY LUMINAIRES

NOMINAL LAMP WATTAGE	MERCURY VAPOR			METAL HALIDE			HIGH PRESSURE SODIUM		
	COLOR	NOMINAL LUMENS	RATED AVG. LIFE, HRS.	COLOR	NOMINAL LUMENS	RATED AVG. LIFE, HRS.	COLOR	NOMINAL LUMENS	RATED AVG. LIFE, HRS.
70							CL	5,800	20,000
							COATED	5,400	20,000
100	DX	4,200	24,000				CL	9,500	20,000
	WDX	3,400	24,000				COATED	8,800	20,000
	CL	3,800	24,000						
150							CL	16,000	24,000
							COATED	15,000	24,000
175	DX	8,600	24,000	CL	14,000	7,500			
	WDX	7,000	24,000	COATED	14,000	7,500			
	CL	7,950	24,000						
200							CL	22,000	24,000
250	DX	12,100	24,000	CL	20,500	7,500	CL	27,500	24,000
	WDX	10,000	24,000	COATED	20,500	7,500	COATED	26,000	24,000
	CL	11,200	24,000						
310							CL	37,000	24,000
400	DX	22,500	24,000	CL	34,000	15,000	CL	50,000	24,000
	WDX	19,500	24,000	COATED	34,000	15,000	COATED	47,500	24,000
	CL	21,000	24,000						
700	DX	42,000	24,000						
	CL	39,000	24,000						
1000	DX	63,000	24,000	CL	110,000	10,000	CL	140,000	24,000
	WDX	58,000	24,000	COATED	105,000	10,000			
	CL	57,000	24,000						

APPROVED BY TRAFFIC ENGINEER *Husid Ahmad* DATE 10-1-99

OKLAHOMA DEPT. OF TRANSPORTATION
TRAFFIC STANDARD (ENGLISH)

TYPICAL HIGHWAY LUMINAIRE DETAILS

1999 SPECIFICATIONS HLD1-1 00E
T-240E

REV. NO.	DESCRIPTION	REVISIONS	DATE
△	REMOVED TS-24 NOTE		07/14/11
△	ADD ENVIRONMENTAL MITIGATION NOTES		08/30/11

TRAFFIC SIGNING PAY QUANTITY NOTES

- (TS-1) *REMOVAL OF SIGN FOOTINGS* SHALL MEAN THE REMOVAL OF AN EXISTING FOOTING WITH OR WITHOUT STUBS AND SHALL BE DISPOSED OF AS NOTED IN GENERAL CONSTRUCTION NOTES.
- (TS-28) QUANTITY SHOWN INCLUDES 120 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.
- (TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1-(LATEST REVISION).
- (TS-34) INCLUDED IN THIS PAY ITEM IS THE REMOVAL OF ANY EXISTING SIGNS TO BE REPLACED BY NEW ASSEMBLIES.

(TL-35) SEE SERVICE POLE SCHEDULE; FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:
PERSON'S NAME ..Donnie Irvin

Northwestern Electric Cooperative
2925 Williams Ave
Woodward
OK
73801
Voice: 15802567425
E-mail: donnieirvin@nwecok.coop

TRAFFIC CONTROL PAY QUANTITY NOTES

- (TC-25) CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AND APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.
- ALL SIGNS, BARRICADES, AND CHANNELIZING DEVICES WHICH ARE SHOWN WITH EITHER TYPE A OR TYPE C LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.
- (TC-33) ALL CONSTRUCTION WORK ZONE SIGNS AND CHANNELIZING DEVICES SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION) FOR TYPE X REBOUNDABLE SHEETING.
- THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.
- (TC-52) ANY USED TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.
- (TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.
- (TC-76) ANY TRUCK MOUNTED ATTENUATOR USED ON THIS PROJECT SHALL HAVE PASSED ALL MANDATORY AND OPTIONAL TESTS LISTED IN NCHRP 350, TL-3 CRITERIA. THIS ITEM IS TO BE USED WHERE SHOWN IN THE DRAWINGS OR AT THE DISCRETION OF THE ENGINEER ON SHADOW VEHICLES PROTECTING THE WORK AREAS AND TEMPORARY ROADSIDE HAZARDS.
- (TC-77) TRUCK MOUNTED ATTENUATORS ARE TO BE INSTALLED ON NON STATE OWNED TRUCKS HAVING A MINIMUM GROSS WEIGHT RATING OF 15,000 POUNDS. EACH OF THESE TRUCKS SHALL ALSO BE EQUIPPED WITH AN ARROW DISPLAY (TYPE B).
- (TC-84) 90 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.
- (TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:
<http://www.okladot.state.ok.us/traffic/qpl/Index.php>

SPECIAL PAY QUANTITY NOTES

- (SP-1) ALL MILLED SURFACES ARE TO BE CLEANED OFF IMMEDIATELY AFTER MILLING IN A MANNER AND METHOD APPROVED BY THE ENGINEER. MILLED SURFACE SHALL BE FREE OF LOOSE MATERIAL PRIOR TO APPLICATION OF FOG SEAL. ALL MILLED MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND TO BE DISPOSED OF BY HIM IN A MANNER APPROVED BY THE ENGINEER. THE FOG SEAL SHALL BE A MIXTURE OF FIVE PARTS WATER AND ONE PART SS-1 EMULSIFIED ASPHALT. WATER USED IN THE DILUTION OF THE EMULSIFIED ASPHALT WILL NOT BE MEASURED FOR PAYMENT.
- (SP-2) THIS PAY QUANTITY AMOUNT IS AN ESTIMATED MEASUREMENT BASED ON MILLING IN THE RUMBLE STRIPS FROM BEGIN TO END POINTS (INCLUDING EXCEPTION AREAS) AT EACH PROJECT LOCATIONS. THE ONLY EXCEPTION AREA EXCLUDED IS WITHIN CITY LIMITS.
- (SP-3) THE RUMBLE STRIP MACHINE MUST BE CAPABLE OF GRINDING A RUMBLE STRIP ON A NARROW 2 FT. SHOULDER WITHOUT DROPPING A WHEEL OFF ONTO THE DIRT SHOULDER. ALL SUPPORT AND GUIDE WHEELS MUST REMAIN ON THE ASPHALT DURING OPERATIONS.
- (SP-4) CONSTRUCTION OF TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT. ALL SIGNS AND BARRICADES WHICH ARE SHOWN TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.
- (SP-5) THIS DIVISION DOES NOT REQUIRE TYPE 'C' WARNING LIGHTS.
- (SP-6) THIS PAY QUANTITY AMOUNT IS FOR YIELD LINES TO BE PLACED AS SHOWN ON DETAIL AND PM2-1(LATEST REV.) THE UNIT EA. IS FOR EACH YIELD LINE.
- (SP-7) SEE SHEET NO.03 SPECIAL PAY QUANTITY NOTES.
- (SP-8) THIS ITEM IS AN ESTIMATED QUANTITY OF (8) EIGHT 24" STOP LINES.

ENVIRONMENTAL MITIGATION NOTES

Latitude/Longitude	OCC Facility No./OCC Case No.	Facility
36.616389,-100.827756	04-11396 / 064-0674	Former service station
36.616608,-100.522403	04-14618 / AST-0048	Elmwood Pit Stop

Petroleum contamination may exist at or near the referenced Leaking Underground Storage Tank (LUST) sites. Based on the available information, contamination is not expected to affect construction activities, but is still possible. In the event contaminated soil or groundwater is encountered, the contractor shall adhere to ODOT's Hazardous Materials Specification 107.14 and notify the Resident Engineer, who may then contact the Environmental Programs Division at (405) 521-3026 for assistance.

THE CONTRACTOR IS HEREBY NOTIFIED THAT COORDINATION WITH VARIOUS LOCAL, STATE AND FEDERAL AGENCIES MAY BE REQUIRED. ANY SUBSEQUENT DELAYS WHICH HINDER THE CONTRACTOR'S ABILITY TO COMPLETE THE WORK WILL BE CONSIDERED EXCUSABLE, NON-COMPENSABLE IN ACCORDANCE WITH SUBSECTION 108.07(a) OF THE STANDARD SPECIFICATIONS.

THERE ARE POTENTIALLY SIGNIFICANT ARCHAEOLOGICAL SITES WITHIN THE GENERAL VICINITY OF THE REFERENCED PROJECT.

*Locations outside the project area in the following area must not be utilized for borrow, equipment staging, haul roads, spoil dumps or any off-site project-related activity.

Woodward County, T22N, R20W, Section 8: NE1/4 of the SW1/4 of the SE1/4.

PAY QUANTITIES

0300 TRAFFIC			UNIT	TOTAL
ITEM		DESCRIPTION		
413(B)	4862	RUMBLE STRIP-METHOD HMA-CYC GROUP	EAGP	7.00
413(B)	4863	RUMBLE STRIP-METHOD HMA-CYC (SP-1, 2, 3)	LF	316,800.00
802(B)	8340	2" PVC SCH.40 PLASTIC CONDUIT BORED	LF	350.00
802(B)	8342	2" PVC SCH.40 PLASTIC CONDUIT TRENCHED	LF	2000.00
803(A)	8065	PULL BOX (SIZE 1)	EA	4.00
804(A)	2915	STRUCTURAL CONCRETE (TL-9)	CY	38.40
804(B)	2916	REINFORCING STEEL (TL-10)	LB	2782.00
805(A)	8724	(PL) REMOVAL OF EXISTING SIGNS (TS-1)(TS-70)	EA	20.00
805(D)	8756	REMOVE & RESET EXISTING SIGNS (TS-1)(TC-70)	EA	14.00
806(D)	8989	40' MTG.HT.HL.PTP.(G.STL.)	EA	10.00
807	8092	BREAKAWAY BASE (DES. B)	EA	10.00
809(A)	8090	ROADWAY LUMINAIRE	EA	10.00
810(A)	3118	SERVICE POLE (TL-35)	EA	1.00
811	8038	1/C NO.4 ELECT. COND.	LF	4400.00
811	8046	1/C NO.12 ELECT. COND.	LF	1400.00
850(A)	8110	SHEET ALUMINUM SIGNS (TS-34)	SF	416.82
851(B)	3217	2 1/2"Ø5.79 GALV.STL.PIPE POST (TS-33)	LF	1,627.00
856(B)	8870	TRAFFIC STRIPE (MULTI-POLY.(SYMBOL)) (SP-6)	EA	9.00
856(A)	8555	TRAFFIC STRIPE (MULTI-POLY.)(24" WIDE) (TS-28)(SP-8)	LF	120.00
876(A)	8482	(PL)TRUCK MOUNTED ATTENUATOR (TC-52, 76, 77, 84)	SD	90.00
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL (TC-25, 33, 84)(SP-4, 5)	LSUM	1.00
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN (TC-52, 70, 85)	SD	180.00
890	7700	(PL)TRAFFIC ITEMS (SP-7)	LSUM	1.00

PAY QUANTITIES

0640			UNIT	TOTAL
ITEM		DESCRIPTION		
641	1552	MOBILIZATION	LSUM	1.00

TRAFFIC LIGHTING PAY QUANTITY NOTES

- (TL-9) QUANTITIES INCLUDE STRUCTURAL CONCRETE TO BE USED FOR THE FOLLOWING:
GROUND MOUNTED FOOTINGS..... = 18.0 C.Y.
=====
- TOTAL OF STRUCTURAL CONCRETE..... = 18.0 C.Y.
- (TL-10) QUANTITIES INCLUDE REINFORCING STEEL TO BE USED FOR THE FOLLOWING:
GROUND MOUNTED FOOTINGS..... = 334 LBS.
=====
- TOTAL OF REINFORCING STEEL..... = 334 LBS.

SUMMARY OF PAY QUANTITIES & NOTES		
Drawn	SNG	6/11
Design	SNG	6/11
Checked	DCG	6/11
Traffic Engineering DAVID C. GLABAS		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	SHEET NO. 02
DIVISION 6	STATE JOB NO. 27005(04)	DIVISION 6

SUMMARY OF SIGN QUANTITIES

SIGN NO.	APPROXIMATE LOCATION	SIGN TYPE	GALV. STL. PIPE POST		POST SPACING	FOOTING DESIGN NO.	STRUCTURAL CONCRETE 804(A) 2915	REINFORCING STEEL 804(B) 2916	SIGN AREA		REMARKS
			2 1/2" @ 5.79 851(B) 3217	2 1/2" @ 5.79 851(B) 3217					SHEET ALUM. 850(A) 8110	TRAFFIC ITEMS (LED) SIGNS	
			A	B	FT		CY	LB	SF	EA	
BRYAN'S CORNER, BEAVER COUNTY US-412, SH-3 & US-83											
001	SEE TYPICAL DETAIL MINOR APPROACH (NORTH LEG)	R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
002		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
003		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
004		ROUTE ASSM.									RELOCATION - NIA
005		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
006		W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA
007		W3-1E									REMOVE -
008		W3-1E									REMOVE
009		W2-1									REMOVE
010		SEE TYPICAL DETAIL MAJOR APPROACHES	W2-1(O)	16.50	16.50	2.33	A-3	0.40	48.00	16.00	
011	W2-1(O)(LED)		16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 EB OUTSIDE SHLD.
012	W2-1(O)		16.50	16.50	2.33	A-3	0.40	48.00	16.00		ON US-412 WB
013	SEE TYPICAL DETAIL MINOR APPROACH (SOUTH LEG)	W2-1(O)(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 WB OUTSIDE SHLD.
014		R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
015		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
016		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
017		ROUTE ASSM.									RELOCATION - NIA
018		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
019	W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA	
020	W3-1E									REMOVE	
021	W3-1E									REMOVE	
022	W2-1									REMOVE	
ELMWOOD, BEAVER COUNTY US-412, SH-3, US-270 & SH-23, US-270											
023	SEE TYPICAL DETAIL MINOR APPROACH (NORTH LEG)	R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
024		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
025		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
026		ROUTE ASSM.									RELOCATION - NIA
027		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
028		W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA
029		W3-1E									REMOVE
030		W3-1E									REMOVE
031		W2-1									REMOVE
032		SEE TYPICAL DETAIL MAJOR APPROACHES	W2-1(O)	16.50	16.50	2.33	A-3	0.40	48.00	16.00	
033	W2-1(O)(LED)		16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 EB OUTSIDE SHLD.
034	W2-1(O)		16.50	16.50	2.33	A-3	0.40	48.00	16.00		ON US-412 WB
035	SEE TYPICAL DETAIL MINOR APPROACH (SOUTH LEG)	W2-1(O)(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 WB OUTSIDE SHLD.
036		R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
037		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
038		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
039		ROUTE ASSM.									RELOCATION - NIA
040		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
041	W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA	
042	W3-1E									REMOVE	
043	W3-1E									REMOVE	
044	W2-1									REMOVE	
SUBTOTAL			892.00					11.20	1344.00	229.04	12.00

2" double Only used 2" MLB
 2.25" single

SUMMARY OF SIGN QUANTITIES

SIGN NO.	APPROXIMATE LOCATION	SIGN TYPE	GALV. STL. PIPE POST		POST SPACING	FOOTING DESIGN NO.	STRUCTURAL CONCRETE 804(A) 2915	REINFORCING STEEL 804(B) 2916	SIGN AREA		REMARKS
			2 1/2" @ 5.79 851(B) 3217	2 1/2" @ 5.79 851(B) 3217					SHEET ALUM. 850(A) 8110	TRAFFIC ITEMS (LED) SIGNS	
			A	B	FT		CY	LB	SF	EA	
MAJOR COUNTY US-412 & US-281											
045	SEE TYPICAL DETAIL MINOR APPROACH (NORTH LEG)	R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
046		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
047		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
048		ROUTE ASSM.									RELOCATION - NIA
049		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
050		W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA
051		W3-1E									REMOVE
052		W3-1E									REMOVE
053		W2-1									REMOVE
054		SEE TYPICAL DETAIL MAJOR APPROACHES	W2-1(O)	16.50	16.50	2.33	A-3	0.40	48.00	16.00	
055	W2-1(O)(LED)		16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 EB OUTSIDE SHLD.
056	W2-1(O)		16.50	16.50	2.33	A-3	0.40	48.00	16.00		ON US-412 WB
057	W2-1(O)(LED)		16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-412 WB OUTSIDE SHLD.
058	SEE TYPICAL DETAIL MINOR APPROACH (SOUTH LEG)	R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
059		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
060		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
061		ROUTE ASSM.									RELOCATION - NIA
062		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
063		W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA
064	W3-1E									REMOVE	
065	W3-1E									REMOVE	
066	W2-1									REMOVE	
WOODWARD COUNTY SH-3,US-183, US-270 & SH-34											
067	SEE TYPICAL DETAIL ON SH-34 (SOUTH LEG)	R1-1(O),R6-3E,R6-1(L) & R6-1(R)	18.50	18.50	2.33	A-3	0.40	48.00	13.26		EXISTING R6-1'S & R6-3E(RELOCATION)
068		W4-4p(MOD)	13.50	13.50	2.33	A-3	0.40	48.00	12.00		B-4836
069		W4-4p(MOD)(LED)	13.50	13.50	2.33	A-3	0.40	48.00		1.00	B-4836 WITH LED'S
070		ROUTE ASSM.									RELOCATION - NIA
071		W3-1E(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	B-48(D) WITH LED'S
072		W3-1E	16.50	16.50	2.33	A-3	0.40	48.00	16.00		REMOVE - NIA
073		W3-1E									REMOVE
074		W3-1E									REMOVE
075		W2-1									REMOVE
076		SEE TYPICAL DETAIL MAJOR APPROACHES	W2-1(O)	16.50	16.50	2.33	A-3	0.40	48.00	16.00	
077	W2-1(O)(LED)		16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-270,US-183 & SH-3 EB OUTSIDE SHLD.
078	W2-1(O)		16.50	16.50	2.33	A-3	0.40	48.00	16.00		ON US-270,US-183 & SH-3 WB INSIDE SHLD.
079	W2-1(O)(LED)	16.50	16.50	2.33	A-3	0.40	48.00		1.00	ON US-270,US-183 & SH-3 WB OUTSIDE SHLD.	
SUBTOTAL			735.00					9.20	1104.00	187.78	10.00
SUBTOTAL			892.00					11.20	1344.00	229.04	12.00
GRAND TOTAL			1627.00					20.40	2448.00	416.82	22.00

552

SUMMARY OF SIGNS			Drawn	SNG	6/11
			Design	SNG	6/11
			Checked	DCG	6/11
			Traffic Engineering DAVID C. GLABAS		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		SHEET NO. 04	
DIVISION 6		STATE JOB NO. 27005(04)		DIVISION 6	

LIGHT POLE AND FOOTING SCHEDULE

ITEM NUMBER	SHEET NUMBER	CIRCUIT ID NUMBER	LOCATION		FOOTING			ANCHOR BOLT			POLE ASSEMBLY					REMARKS			
			STATION (CTR. LINE OR REF. LINE)	OFFSET DISTANCE FROM EDGE OF DRIVING LANE	STRUCTURAL CONC.	REINFORCING STEEL	QUANTITY	BOLT CIRCLE DIAM.	BREAKAWAY BASE DESIGN NUMBER	MOUNTING HEIGHT	MAST ARM	LUMINAIRE		1/2 NO. 12 AWG TYPE THW ELECTRICAL COND.	LIGHTNING ARRESTOR				
				FT.	C.Y.	LBS.	EA.	IN.	IN.		FT.	LF.	WATTS (H.P.S.)	I.E.S. DISTR. TYPE	LF.				
1	08	B	STA. 2444+00	(C US-270US-183) RT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90	1	
2	08	A	STA. 2445+20	(C US-270US-183) LT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90	1	
3	08	B	STA. 2445+80	(C US-270US-183) RT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90		
4	08	A	STA. 2447+00	(C US-270US-183) LT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90		
5	08	B	STA. 2447+60	(C US-270US-183) RT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90		
6	08	A	STA. 2448+80	(C US-270US-183) LT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90		
7	08	B	STA. 2449+40	(C US-270US-183) RT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90		
8	08	A	STA. 2450+60	(C US-270US-183) LT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90	1	
9	08	B	STA. 2451+20	(C US-270US-183) RT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90	1	
10	08	A	STA. 2452+40	(C US-270US-183) LT	16.0	GMF-24X60	0.58	33.40	4	1 X 40	13	B	40	1	1-250	MS3	90	1	
TOTALS						5.80	334.00					10	10@40		10@250		900	4	



SHEET ESTIMATE SCHEDULE

SHEET NUMBER	CONDUITS		CONDUCTORS		PULL BOX (SIZE 1)	REMARKS
	TRENCHED 2" PVC SCH. 40	PUSHED OR BORED 2" PVC SCH. 40	INSULATED COPPER 3/4 NO. 4 AWG TYPE XHHW	INSULATED COPPER 3/4 NO. 12 AWG TYPE		
	L.F.	L.F.	L.F.	L.F.	EA.	
08	2000	350	4400	500	4	
TOTAL	2000	350	4400	500	4	

SERVICE POLE SCHEDULE

SHEET NUMBER	SERVICE POLE NUMBER	LOCATION		TYPE	SECONDARY VOLTAGE AND NO. PHASE	CONTROLLER				WOOD POLE		METER	REMARKS			
		STATION (CTR. LINE OR REF. LINE)	OFFSET			RATING		CIRCUIT LOADING		N = NEW E = EXISTING	TOTAL LENGTH	CLASS		IM = INSTALL METER NM = NOT METERED		
						EA.	EA.	EA.	EA.						AMP.	AMP.
08		STA. 2447+23	(145' LT C US-270US-183)		480-1	1	2	60			N	30	6	IM	100	

LIGHTING SCHEDULES

US-270, US-183 & SH-34

Drawn	SNG	6/11
Design	SNG	6/11
Checked	DCG	6/11

Traffic Engineering
DAVID C. GLABAS

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION
DIVISION 6	STATE JOB NO. 27005(04)
	SHEET NO. 07

DIVISION 6

SEC.30 T22N R19W

SEC.36 T22N R20W

US-270 / US-183

2450+00

2445+00

STA. 2451+20 9

STA. 2449+40 7

STA. 2447+60 5

10 STA. 2452+40

HUNTER RD

STA. 2445+80 3

8 STA. 2450+60

STA. 2444+00 1

6 STA. 2448+80

SH-34

4 STA. 2447+00

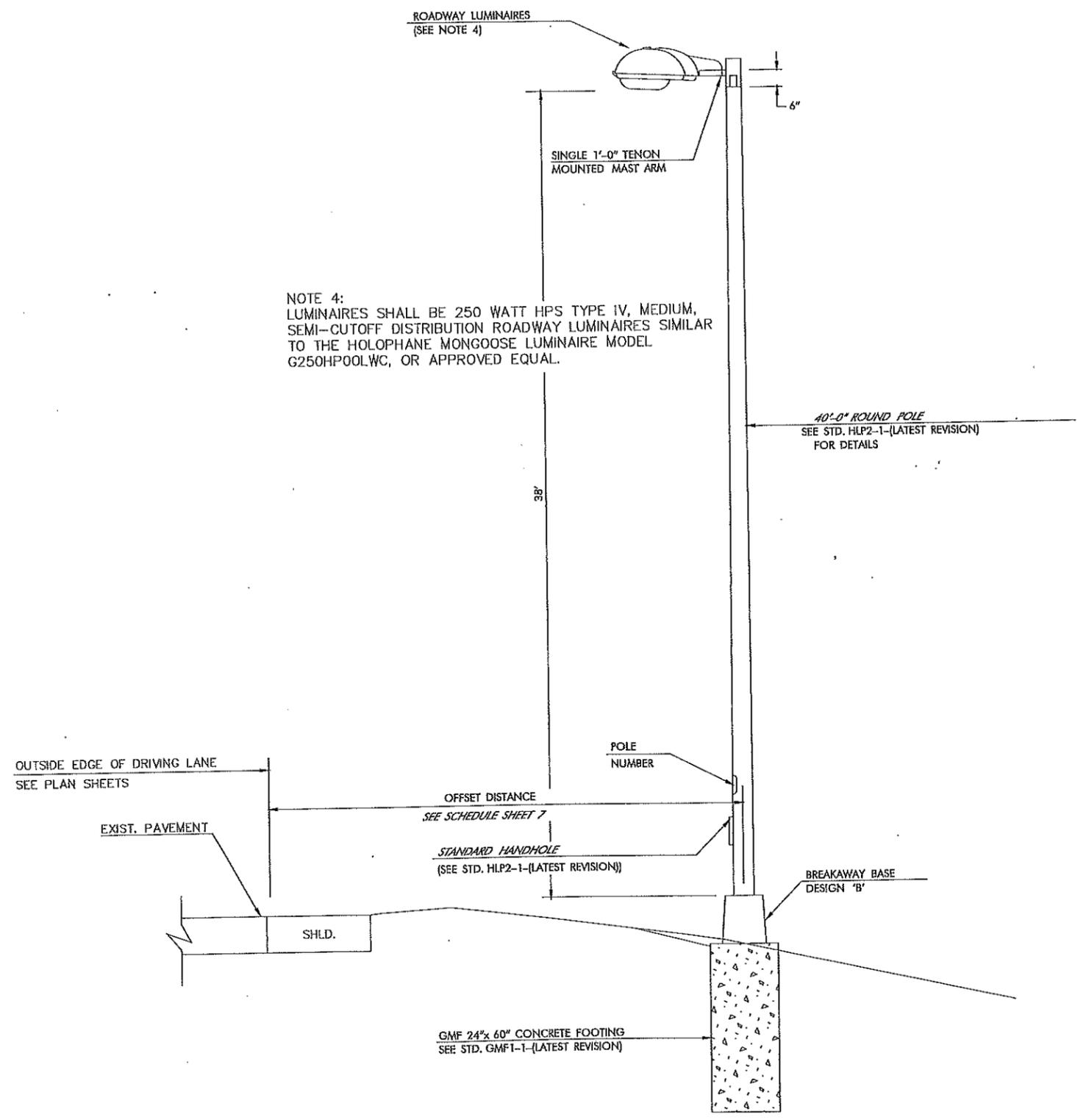
Missing Pole

2 STA. 2445+20

LIGHTING LEGEND	
	CONST. 2" PVC ELECT. CONDUIT TRENCHED WITH TWO NO. 4 AWG CONDUCTORS (UNLESS OTHERWISE SPECIFIED)
	CONST. 2" ELECT. CONDUIT PUSHED OR BORED WITH TWO NO. 4 AWG CONDUCTORS (UNLESS OTHERWISE SPECIFIED)
	CONST. SIZE 1 PULL BOX
	CONSTRUCT SERVICE POLE
	CIRCUIT IDENTIFICATION
	CONST. 250W HPS LUMINAIRE, 40' MTG. HT. POLE BREAKAWAY BASE AND FOOTING

LIGHTING PLAN		Drawn	SNG	6/11
(STA. 2444+00 TO STA. 2452+40)		Design	SNG	6/11
		Checked	DCG	6/11
		Traffic Engineering		
		DAVID C. GLABAS		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	DIVISION 6 STATE JOB NO. 27009101		
		SHEET NO. 08		
		DIVISION 6		

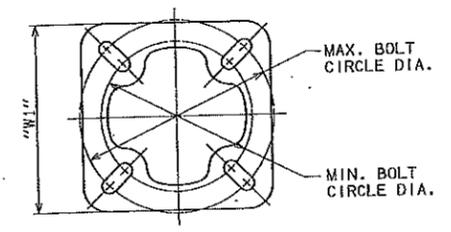
REV. NO.	DESCRIPTION	REVISIONS	DATE



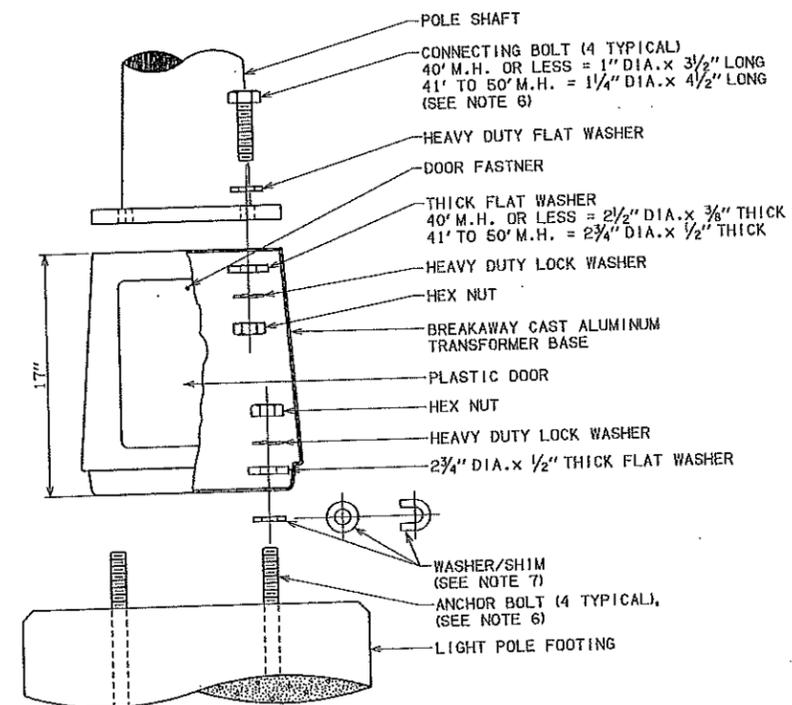
TYPICAL LIGHT POLE DETAILS W/SINGLE MAST ARM

LIGHT POLE DETAIL		Drawn	SNG	6/11
		Design	SNG	6/11
STATE OF OKLAHOMA		Checked	DCG	6/11
		Traffic Engineering DAVID C. GLABAS		
DEPARTMENT OF TRANSPORTATION		SHEET NO. 9		
DIVISION 6	STATE JOB NO. 27005(04)	DIVISION 6		

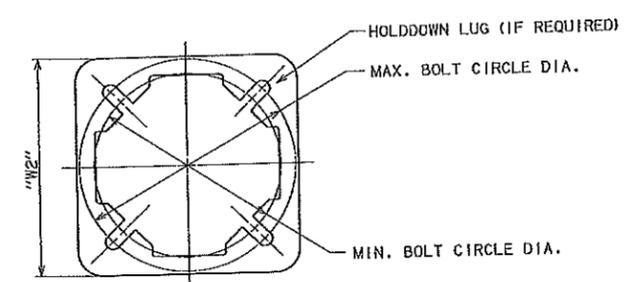
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TOP PLAN VIEW

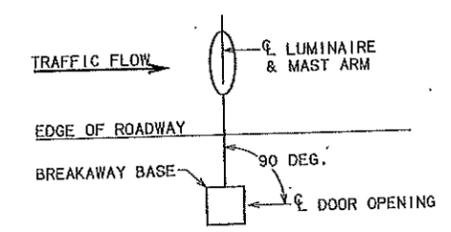


ELEVATION VIEW



BOTTOM PLAN VIEW

CAST ALUMINUM TRANSFORMER
BASE DETAILS



TYPICAL TRANSFORMER BASE
ORIENTATION DETAIL

MATERIAL SPECIFICATIONS

- A. CAST ALUMINUM TRANSFORMER BASES SHALL MEET THE FOLLOWING REQUIREMENTS:
 BASE - ASTM B108 ALLOY SG70A - T6 OR ALLOY 356-T6.
 DOOR - THE HIGH DENSITY PLASTIC DOOR SHALL BE FABRICATED USING NORYL SE1-GFN3 RESIN, OR APPROVED EQUAL. THE VANDAL RESISTANT DOOR FASTNER SHALL BE A STAINLESS STEEL SOCKET BUTTON HEAD CAP SCREW. DOOR TO HAVE NEOPRENE GASKET.
- B. CONNECTING AND HOLD DOWN HARDWARE FOR CAST ALUMINUM TRANSFORMER BASES SHALL BE: BOLTS ASTM A-325, NUTS ASTM A-563 GRADE A, AND BOTH GALVANIZED IN ACCORDANCE WITH ASTM A-153 (AASHTO M-232).

GENERAL NOTES

- 1. CAST ALUMINUM TRANSFORMER BASES SHALL MEET THE REQUIREMENTS OF AASHTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" (LATEST EDITION).
- 2. CAST ALUMINUM TRANSFORMER BASES SHALL BE MARKED FOR EASY IDENTIFICATION AS TO COMPLIANCE WITH THE ABOVE SPECIFICATIONS.
- 3. ALL CONNECTING AND HOLD DOWN WASHERS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE BASE MANUFACTURER RECOMMENDATIONS.
- 4. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER A TYPE "A" CERTIFICATION AS SPECIFIED IN SECTION 106.4C OF THE 2009 STANDARD SPECIFICATIONS, FOR ALL TYPES OF BREAKAWAY BASES.
- 5. FOR FOOTING DETAILS, SEE STD. GMF1-1-(LATEST REVISION).
- 6. ALL CONNECTING AND ANCHOR BOLTS SHALL BE TORQUED TO A MINIMUM OF 200 FT-LBS OR AS SPECIFIED BY THE POLE AND BREAKAWAY BASE MANUFACTURER.
- 7. IF SHIMMING IS NECESSARY TO PLUMB THE LIGHT POLES ON ITS LONGITUDINAL AXIS, THE CONTRACTOR SHALL INSTALL "U" SHAPED SHIMS OR ROUND FLAT WASHERS. THE WASHERS/SHIMS SHALL BE INSTALLED AROUND THE ANCHOR BOLTS.
- 8. THE POLE BASE PLATE SHALL NOT BE LARGER THAN OR OVERHANG THE TOP OF THE TRANSFORMER BASE AT ANY POINT.

NOMINAL TRANSFORMER BASE DIMENSIONS											
ODOT DESIGN	AKRON BASE NO.	NOMINAL MOUNTING HEIGHT	MAX. POLE WEIGHT	TOP OF BASE				BOTTOM OF BASE			
				WIDTH "W1"	CONNECTING BOLT DIA.	MIN. BOLT CIRCLE	MAX. BOLT CIRCLE	WIDTH "W2"	ANCHOR BOLT DIA.	MIN. BOLT CIRCLE	MAX. BOLT CIRCLE
		FT.	LBS.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
A	M104 (TB2-17)	39 AND LESS	550	12.04	1.00	10.00	12.00	13.08	1.00	10.00	12.00
B	M093 (TB1-17)	40 - 49.0	950	13.12	1.00	10.50	13.50	15.38	1.00	13.00	15.00
C	M098 (TB3-17)	50 AND LONGER	900	15.09	1.25	13.00	15.13	17.44	1.25	15.00	17.25



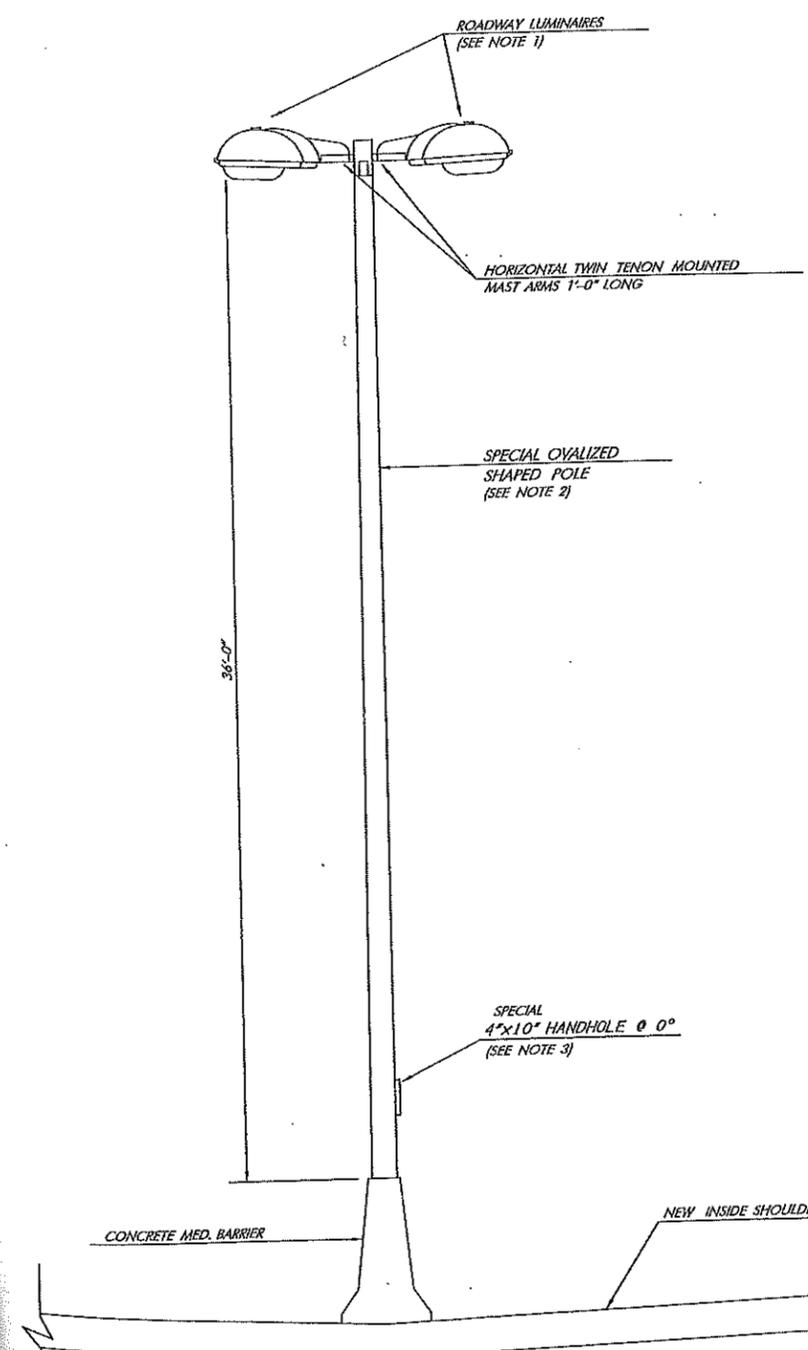
APPROVED BY: *[Signature]* DATE: 8/3/2010
 TRAFFIC ENGINEER: *[Signature]*
 TRAFFIC STANDARD

TYPICAL BREAKAWAY BASE DETAILS

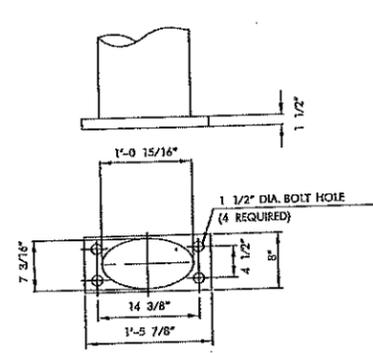
2009 SPECIFICATIONS

BBD1-1	00
T-308	

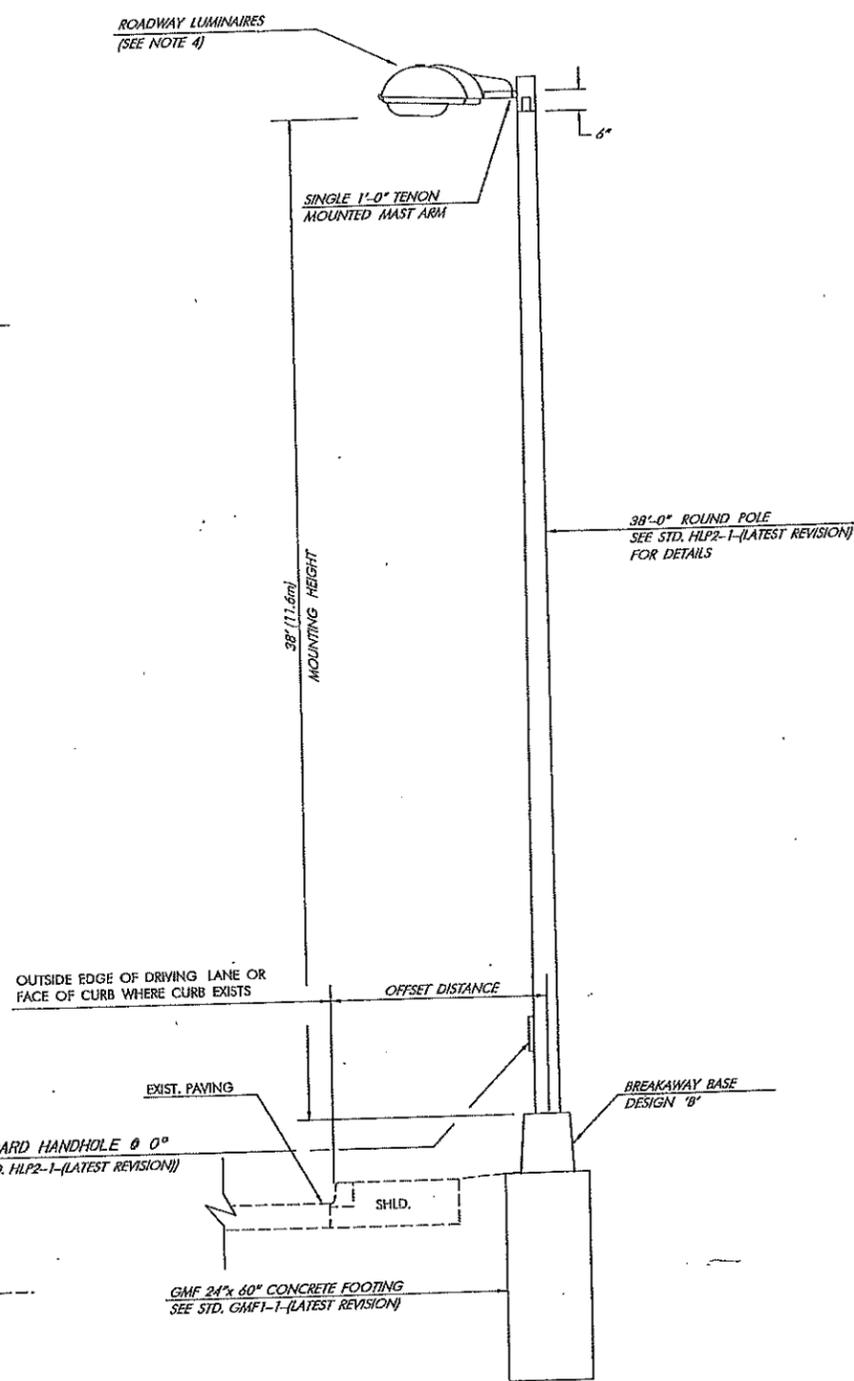
DESCRIPTION	REVISIONS	DATE
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TYPICAL BARRIER MOUNTED
TWIN ARM LIGHT POLE DETAILS
CENTER MEDIAN



OVALIZED SHAPED LIGHT POLE
ANCHOR BOLT SPACING DETAILS



TYPICAL LIGHT POLE DETAILS W/SINGLE MAST ARM

- LUMINAIRES SHALL BE 400 WATT HPS TYPE IV, MEDIUM, SEMI-CUTOFF DISTRIBUTION ROADWAY LUMINAIRES SIMILAR TO THE HOLOPHANE MONGOOSE LUMINAIRE MODEL G400HP48LSCHGB, OR APPROVED EQUAL.
- OVALIZED POLES SHALL BE SIMILAR TO VALMONT INDUSTRIES MODEL SP43S11 OR APPROVED EQUAL.
- HANDHOLES ON CENTERLINE POLES SHALL BE MOUNTED ON THE SAME SIDE AS POLE NUMBER. ALL POLE NUMBERS AND HANDHOLES SHALL FACE THE SAME DIRECTION.
- LUMINAIRES SHALL BE 250 WATT HPS TYPE IV, MEDIUM, SEMI-CUTOFF DISTRIBUTION ROADWAY LUMINAIRES SIMILAR TO THE HOLOPHANE MONGOOSE LUMINAIRE MODEL G250HP48LSCHGB, OR APPROVED EQUAL.



APPROVED BY
TRAFFIC ENGINEER: *[Signature]* DATE: 8/3/2010
TRAFFIC STANDARD

MONGOOSE LUMINAIRES & POLE DETAILS

2009 SPECIFICATIONS

HLD3-1	00
T-316	



State of Oklahoma
DEPARTMENT OF TRANSPORTATION **Responding Bidder Information**
PROCUREMENT DIVISION

*"Certification for Competitive Bid and Contract" (see page 3) **MUST** be submitted along with the response to the Solicitation.*

1. **RE: Solicitation #** 3450004914/20-6-0043

2. **Bidder General Information:**

FEI / SSN : _____ VEN ID: _____
 Company Name: _____

3. **Bidder Contact Information:**

Address: _____
 City: _____ State: _____ Zip Code: _____
 Contact Name: _____
 Contact Title: _____
 Phone #: _____ FAX#: _____
 Email: _____ Website: _____

4. **Oklahoma Sales Tax Permit²** (type "X" at one below):

- YES – Permit #: _____
- NO – Exempt pursuant to Oklahoma Laws or Rules

5. **Registration with the Oklahoma Secretary of State** (type "X" at one below):

- YES - Filing Number: _____
- NO - Prior to the contract award, the successful bidder will be required to register with the Secretary of State or must attach a signed statement that provides specific details supporting the exemption the supplier is claiming (www.sos.ok.gov or 405-521-3911).

6. **Workers' Compensation Insurance Coverage:**

Bidder is required to provide with the bid a certificate of insurance showing proof of compliance with the Oklahoma Workers' Compensation Act (type "X" at one below):

- YES – include a certificate of insurance with the bid
- NO - attach a signed statement that provides specific details supporting the exemption you are claiming from the Workers' Compensation Act (Note: Pursuant to Attorney General Opinion #07-8, the exemption from 85 O.S. 2011, § 311 applies only to employers who are natural persons, such as sole proprietors, and does not apply to employers who are entities created by law, including but not limited to corporations, partnerships and limited liability companies.)³

Authorized Signature	Date
Printed Name	Title

² For frequently asked questions concerning Oklahoma Sales Tax Permit, see <http://www.tax.ok.gov/faq/fagbussales.html>
³ For frequently asked questions concerning workers' compensation insurance, see <http://www.ok.gov/oid/fags.html#fc221>



**State of Oklahoma
DEPARTMENT OF TRANSPORTATION
PROCUREMENT DIVISION**

**Certification for Competitive
Bid and/or Contract
(Non-Collusion Certification)**

NOTE: A certification shall be included with any competitive bid and/or contract exceeding \$5,000.00 submitted to the State for goods or services.

Solicitation or Purchase Order #: 3450004914/20-6-0043

Supplier Legal Name: _____

SECTION I [74 O.S. § 85.22]:

A. For purposes of competitive bid,

1. I am the duly authorized agent of the above named bidder submitting the competitive bid herewith, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to said bid;
2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and have been personally and directly involved in the proceedings leading to the submission of such bid; and
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
 - a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
 - b. to any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - c. in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract, nor
 - d. to any collusion with any state agency or political subdivision employee as to create a sole source acquisition in contradiction to Section 85.45j.1. of this title.

B. I certify, if awarded the contract, whether competitively bid or not, neither the contractor nor anyone subject to the contractor's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring this contract herein.

SECTION II [74 O.S. § 85.42]:

For the purpose of a contract for services, the supplier also certifies that no person who has been involved in any manner in the development of this contract while employed by the State of Oklahoma shall be employed by the supplier to fulfill any of the services provided for under said contract.

The undersigned, duly authorized agent for the above named supplier, by signing below acknowledges this certification statement is executed for the purposes of:

the competitive bid attached herewith and contract, if awarded to said supplier;

OR

the contract attached herewith, which was not competitively bid and awarded by the agency pursuant to applicable Oklahoma statutes.

Supplier Authorized Signature

Certified This Date

Printed Name

Title

Phone Number

Email

Fax Number

A. GENERAL PROVISIONS

A.1. Definitions

As used herein, the following terms shall have the following meaning unless the context clearly indicates otherwise:

- A.1.1. "Acquisition" means items, products, materials, supplies, services, and equipment a state agency acquires by purchase, lease purchase, lease with option to purchase, or rental pursuant to the Oklahoma Central Purchasing Act;
- A.1.2. "Bid" means an offer in the form of a bid, proposal, or quote a bidder submits in response to a solicitation;
- A.1.3. "Bidder" means an individual or business entity that submits a bid in response to a solicitation;
- A.1.4. "Solicitation" means a request or invitation by the State Purchasing Director or a state agency for a supplier to submit a priced offer to sell acquisitions to the state. A solicitation may be an invitation to bid, request for proposal, or a request for quotation; and
- A.1.5. "Supplier" or "vendor" means an individual or business entity that sells or desires to sell acquisitions to state agencies.

A.2. Bid Submission

- A.2.1. Submitted bids shall be in strict conformity with the instructions to bidders and shall be submitted with a completed Responding Bidder Information, OMES-FORM-CP-076, and any other forms required by the solicitation.
- A.2.2. Bids shall be submitted to the procuring agency in a single envelope, package, or container and shall be sealed, unless otherwise detailed in the solicitation. The name and address of the bidder shall be inserted in the upper left corner of the single envelope, package, or container. SOLICITATION NUMBER AND SOLICITATION RESPONSE DUE DATE AND TIME MUST APPEAR ON THE FACE OF THE SINGLE ENVELOPE, PACKAGE, OR CONTAINER.
- A.2.3. The required certification statement, "Certification for Competitive Bid and/or Contract (Non-Collusion Certification)", OMES-FORM-CP-004, must be made out in the name of the bidder and must be properly executed by an authorized person, with full knowledge and acceptance of all its provisions.
- A.2.4. All bids shall be legible and completed in ink or with electronic printer or other similar office equipment. Any corrections to bids shall be identified and initialed in ink by the bidder. Penciled bids and penciled corrections shall NOT be accepted and will be rejected as non-responsive.
- A.2.5. All bids submitted shall be subject to the Oklahoma Central Purchasing Act, Central Purchasing Rules, and other statutory regulations as applicable, these General Provisions, any Special Provisions, solicitation specifications, required certification statement, and all other terms and conditions listed or attached herein—all of which are made part of this solicitation.

A.3. Solicitation Amendments

- A.3.1. If an "Amendment of Solicitation", OMES-FORM-CP-011, is issued, the bidder shall acknowledge receipt of any/all amendment(s) to solicitations by signing and returning the solicitation amendment(s). Amendment acknowledgement(s) may be submitted with the bid or may be forwarded separately. If forwarded separately, amendment acknowledgement(s) must contain the solicitation number and response due date and time on the front of the envelope. The procuring agency must receive the amendment acknowledgement(s) by the response due date and time specified for receipt of bids for the bid to be deemed responsive. Failure to acknowledge solicitation amendments may be grounds for rejection.
- A.3.2. No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in the solicitation. All amendments to the solicitation shall be made in writing by the procuring agency.
- A.3.3. It is the Bidder's responsibility to check frequently for any possible amendments that may be issued. The procuring agency is not responsible for a bidder's failure to download any amendment documents required to complete a solicitation.

A.4. Bid Change

If the bidder needs to change a bid prior to the solicitation response due date, a new bid shall be submitted to the procuring agency with the following statement "This bid supersedes the bid previously submitted" in a single envelope, package, or container and shall be sealed, unless otherwise detailed in the solicitation. The name and address of the bidder shall be inserted in the upper left corner of the single envelope, package, or container. SOLICITATION NUMBER AND SOLICITATION RESPONSE DUE DATE AND TIME MUST APPEAR ON THE FACE OF THE SINGLE ENVELOPE, PACKAGE, OR CONTAINER.

A.5. Certification Regarding Debarment, Suspension, and Other Responsibility Matters

By submitting a response to this solicitation:

- A.5.1. The prospective primary participant and any subcontractor certifies to the best of their knowledge and belief, that they and their principals or participants:
 - A.5.1.1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal, State or local department or agency;
 - A.5.1.2. Have not within a three-year period preceding this proposal been convicted of or pled guilty or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) contract; or for violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - A.5.1.3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph A.5.1.2. of this certification; and
 - A.5.1.4. Have not within a three-year period preceding this application/proposal had one or more public (Federal, State, or local) contracts terminated for cause or default.
- A.5.2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to its solicitation response.

A.6. Bid Opening

Sealed bids shall be opened by the PROCUREMENT DIVISION located at 200 NE 21ST
OKC, OK 73105 at the time and date specified in the solicitation as the Response Due Date and Time.

A.7. Open Bid / Open Record

Pursuant to the Oklahoma Public Open Records Act, a public bid opening does not make the bid(s) immediately accessible to the public. The procurement or contracting agency shall keep the bid(s) confidential, and provide prompt and reasonable access to the records only after a contract is awarded or the solicitation is cancelled. This practice protects the integrity of the competitive bid process and prevents excessive disruption to the procurement process. The interest of achieving the best value for the State of Oklahoma outweighs the interest of vendors immediately knowing the contents of competitor's bids. [51 O.S. § 24A.5(5)]

Additionally, financial or proprietary information submitted by a bidder may be designated by the Purchasing Director as confidential and the procurement entity may reject all requests to disclose information designated as confidential pursuant to 62 O.S. (2012) § 34.11.1(H)(2) and 74 O.S. (2011) § 85.10. Bidders claiming any portion of their bid as proprietary or confidential must specifically identify what documents or portions of documents they consider confidential and identify applicable law supporting their claim of confidentiality. The State Purchasing Director shall make the final decision as to whether the documentation or information is confidential pursuant to 74 O.S. § 85.10. Otherwise, documents and information a bidder submits as part of or in connection with a bid are public records and subject to disclosure after contract award or the solicitation is cancelled.

A.8. Late Bids

Bids received by the procuring agency after the response due date and time shall be deemed non-responsive and shall NOT be considered for any resultant award.

A.9. Legal Contract

- A.9.1. Submitted bids are rendered as a legal offer and any bid, when accepted by the procuring agency, shall constitute a contract.
- A.9.2. The Contract resulting from this solicitation may consist of the following documents in order of preference:
 - A.9.2.1. Purchase order, as amended by Change Order (if applicable);
 - A.9.2.2. Solicitation, as amended (if applicable); and
 - A.9.2.3. Successful bid (including required certifications), to the extent the bid does not conflict with the requirements of the solicitation or applicable law.
- A.9.3. Any contract(s) awarded pursuant to the solicitation shall be legibly written or typed.

A.10. Pricing

- A.10.1. Bids shall remain firm for a minimum of sixty (60) days from the solicitation closing date.
- A.10.2. Bidders guarantee unit prices to be correct.
- A.10.3. In accordance with 74 O.S. §85.40, ALL travel expenses to be incurred by the supplier in performance of the

Contract shall be included in the total bid price/contract amount.

A.11. Manufacturers' Name and Approved Equivalents

Unless otherwise specified in the solicitation, manufacturers' names, brand names, information and/or catalog numbers listed in a specification are for information and not intended to limit competition. Bidder may offer any brand for which they are an authorized representative, and which meets or exceeds the specification for any item(s). However, if bids are based on equivalent products, indicate on the bid form the manufacturer's name and number. Bidder shall submit sketches, descriptive literature, and/or complete specifications with their bid. Reference to literature submitted with a previous bid will not satisfy this provision. The bidder shall also explain in detail the reason(s) why the proposed equivalent will meet the specifications and not be considered an exception thereto. Bids that do not comply with these requirements are subject to rejection.

A.12. Clarification of Solicitation

- A.12.1. Clarification pertaining to the contents of this solicitation shall be directed in writing to the Contracting Officer specified in the solicitation.
- A.12.2. If a bidder fails to notify the State of an error, ambiguity, conflict, discrepancy, omission or other error in the SOLICITATION, known to the bidder, or that reasonably should have been known by the bidder, the bidder shall submit a bid at its own risk; and if awarded the contract, the bidder shall not be entitled to additional compensation, relief, or time, by reason of the error or its later correction. If a bidder takes exception to any requirement or specification contained in the SOLICITATION, these exceptions must be clearly and prominently stated in their response.
- A.12.3. Bidders who believe proposal requirements or specifications are unnecessarily restrictive or limit competition may submit a written request for administrative review to the State prior to the closing date.

A.13. Rejection of Bid

The State reserves the right to reject any bids that do not comply with the requirements and specifications of the solicitation. A bid may be rejected when the bidder imposes terms or conditions that would modify requirements of the solicitation or limit the bidder's liability to the State. Other possible reasons for rejection of bids are listed in OAC 260:1115-7-32.

A.14. Award of Contract

- A.14.1. The State Purchasing Director may award the Contract to more than one bidder by awarding the Contract(s) by item or groups of items, or may award the Contract on an ALL OR NONE basis, whichever is deemed by the State Purchasing Director to be in the best interest of the State of Oklahoma.
- A.14.2. Contract awards will be made to the lowest and best bidder(s) unless the solicitation specifies that best value criteria is being used.
- A.14.3. In order to receive an award or payments from the State of Oklahoma, suppliers must be registered. The vendor registration process can be completed electronically through the OMES website at the following link: <https://www.ok.gov/dcs/vendors/index.php> .

A.15. Contract Modification

- A.15.1. The Contract is issued under the authority of the State Purchasing Director who signs the Contract. The Contract may be modified only through a written Contract Modification, signed by the State Purchasing Director.
- A.15.2. Any change to the Contract, including but not limited to the addition of work or materials, the revision of payment terms, or the substitution of work or materials, directed by a person who is not specifically authorized by the procuring agency in writing, or made unilaterally by the supplier, is a breach of the Contract. Unless otherwise specified by applicable law or rules, such changes, including unauthorized written Contract Modifications, shall be void and without effect, and the supplier shall not be entitled to any claim under this Contract based on those changes. No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in the resultant Contract.

A.16. Delivery, Inspection and Acceptance

- A.16.1. Unless otherwise specified in the solicitation or awarding documents, all deliveries shall be F.O.B. Destination. The bidder(s) awarded the Contract shall prepay all packaging, handling, shipping and delivery charges and firm prices quoted in the bid shall include all such charges. All products and/or services to be delivered pursuant to the Contract shall be subject to final inspection and acceptance by the State at destination. "Destination" shall mean delivered to the receiving dock or other point specified in the purchase order. The State assumes no responsibility for goods until accepted by the State at the receiving point in good condition. Title and risk of loss or damage to all items shall be the responsibility of the supplier until accepted by the receiving agency. The supplier(s) awarded the Contract shall be responsible for filing, processing, and collecting any and all damage claims accruing prior to acceptance.

- A.16.2. Supplier(s) awarded the Contract shall be required to deliver products and services as bid on or before the required date. Deviations, substitutions or changes in products and services shall not be made unless expressly authorized in writing by the procuring agency.

A.17. Invoicing and Payment

- A.17.1. Pursuant to 74 O.S. §85.44(B), invoices will be paid in arrears after products have been delivered or services provided.
- A.17.2. Interest on late payments made by the State of Oklahoma is governed by 62 O.S. §34.71 and 62 O.S. §34.72.

A.18. Tax Exemption

State agency acquisitions are exempt from sales taxes and federal excise taxes. Bidders shall not include these taxes in price quotes.

A.19. Audit and Records Clause

- A.19.1. As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. In accepting any Contract with the State, the successful bidder(s) agree any pertinent State or Federal agency will have the right to examine and audit all records relevant to execution and performance of the resultant Contract.
- A.19.2. The successful bidder(s) awarded the Contract(s) is required to retain records relative to the Contract for the duration of the Contract and for a period of seven (7) years following completion and/or termination of the Contract. If an audit, litigation, or other action involving such records is started before the end of the seven (7) year period, the records are required to be maintained for two (2) years from the date that all issues arising out of the action are resolved, or until the end of the seven (7) year retention period, whichever is later.

A.20. Non-Appropriation Clause

The terms of any Contract resulting from the solicitation and any Purchase Order issued for multiple years under the Contract are contingent upon sufficient appropriations being made by the Legislature or other appropriate government entity. Notwithstanding any language to the contrary in the solicitation, purchase order, or any other Contract document, the procuring agency may terminate its obligations under the Contract if sufficient appropriations are not made by the Legislature or other appropriate governing entity to pay amounts due for multiple year agreements. The Requesting (procuring) Agency's decisions as to whether sufficient appropriations are available shall be accepted by the supplier and shall be final and binding.

A.21. Choice of Law

Any claims, disputes, or litigation relating to the solicitation, or the execution, interpretation, performance, or enforcement of the Contract shall be governed by the laws of the State of Oklahoma.

A.22. Choice of Venue

Venue for any action, claim, dispute or litigation relating in any way to the Contract shall be in Oklahoma County, Oklahoma.

A.23. Termination for Cause

- A.23.1. The supplier may terminate the Contract for default or other just cause with a 30-day written request and upon written approval from the procuring agency. The State may terminate the Contract for default or any other just cause upon a 30-day written notification to the supplier.
- A.23.2. The State may terminate the Contract immediately, without a 30-day written notice to the supplier, when violations are found to be an impediment to the function of an agency and detrimental to its cause, when conditions preclude the 30-day notice, or when the State Purchasing Director determines that an administrative error occurred prior to Contract performance.
- A.23.3. If the Contract is terminated, the State shall be liable only for payment for products and/or services delivered and accepted.

A.24. Termination for Convenience

- A.24.1. The State may terminate the Contract, in whole or in part, for convenience if the State Purchasing Director determines that termination is in the State's best interest. The State Purchasing Director shall terminate the Contract by delivering to the supplier a Notice of Termination for Convenience specifying the terms and effective date of Contract termination. The Contract termination date shall be a minimum of 60 days from the date the Notice of Termination for Convenience is issued by the State Purchasing Director.

A.24.2. If the Contract is terminated, the State shall be liable only for products and/or services delivered and accepted, and for costs and expenses (exclusive of profit) reasonably incurred prior to the date upon which the Notice of Termination for Convenience was received by the supplier.

A.25. Insurance

The successful bidder(s) awarded the Contract shall obtain and retain insurance, including workers' compensation, automobile insurance, medical malpractice, and general liability, as applicable, or as required by State or Federal law, prior to commencement of any work in connection with the Contract. The supplier awarded the Contract shall timely renew the policies to be carried pursuant to this section throughout the term of the Contract and shall provide the procuring agency with evidence of such insurance and renewals.

A.26. Employment Relationship

The Contract does not create an employment relationship. Individuals performing services required by this Contract are not employees of the State of Oklahoma or the procuring agency. The supplier's employees shall not be considered employees of the State of Oklahoma nor of the procuring agency for any purpose, and accordingly shall not be eligible for rights or benefits accruing to state employees.

A.27. Compliance with the Oklahoma Taxpayer and Citizen Protection Act of 2007

By submitting a bid for services, the bidder certifies that they, and any proposed subcontractors, are in compliance with 25 O.S. §1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employment Verification Program (E-Verify) through the Department of Homeland Security and available at www.dhs.gov/E-Verify.

A.28. Compliance with Applicable Laws

The products and services supplied under the Contract shall comply with all applicable Federal, State, and local laws, and the supplier shall maintain all applicable licenses and permit requirements.

A.29. Special Provisions

Special Provisions set forth in SECTION B apply with the same force and effect as these General Provisions. However, conflicts or inconsistencies shall be resolved in favor of the Special Provisions.