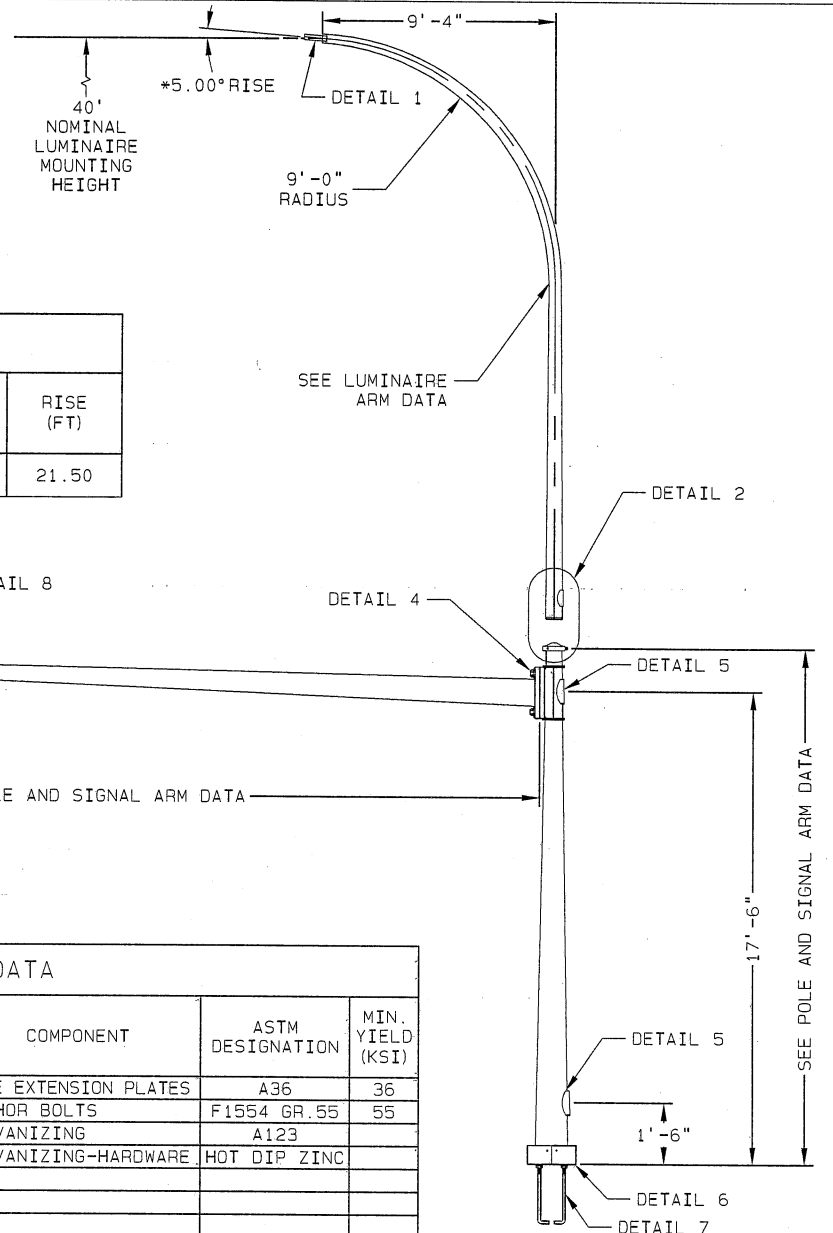


*NOMINAL MANUFACTURING TOLERANCES APPLY.



LUMINAIRE ARM DATA				
BASE DIA. (IN)	TOP DIA. (IN)	WALL THK.	LENGTH (FT)	RISE (FT)
7.54	3.87	11 GA	26.25	21.50

SEE LUMINAIRE ARM DATA

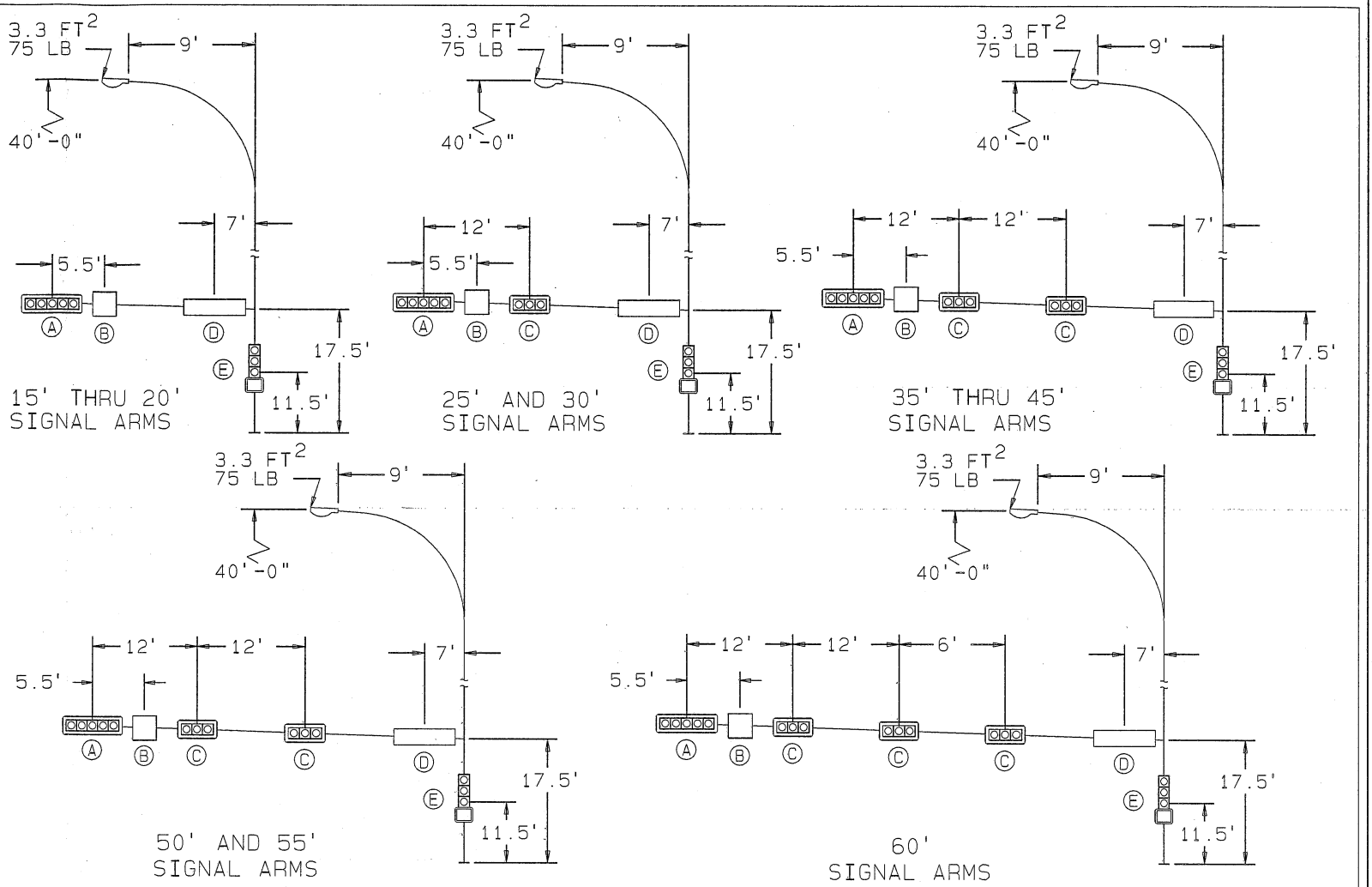
SEE POLE AND SIGNAL ARM DATA

MATERIAL DATA

COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
TAPERED TUBES	A595 GR. A OR A572	55	POLE EXTENSION PLATES	A36	36
BASE PLATE	A36	36	ANCHOR BOLTS	F1554 GR. 55	55
MAST ARM ATTACHMENTS	A36	36	GALVANIZING	A123	
MAST ARM CONN. BOLTS	A325		GALVANIZING-HARDWARE	HOT DIP ZINC	

POLE AND SIGNAL ARM DATA

DESIGN	POLE TUBE				POLE BASE				ANCHOR BOLT				ARM DATA			
	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "V" (IN)	THK. "M" (IN)	HOLE/SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)
ARL-15	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	9.00	6.90	7	15.00
ARL-20	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	9.00	6.20	7	20.00
ARL-25	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	11.00	7.50	7	25.00
ARL-30	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	11.00	6.80	7	30.00
ARL-35	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	11.00	6.10	3	35.00
ARL-40	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	12.50	6.90	3	40.00
ARL-45	14.50	11.91	18.50	0.219	20.00	19.00	1.50	1.75	1.50	54.00	6.00	8.00	13.50	7.56	DET. 8	45.00
ARL-50	TXDOT LMA SPEC POLES to be used for 50 FT and longer mast arms.															
ARL-55																
ARL-60																



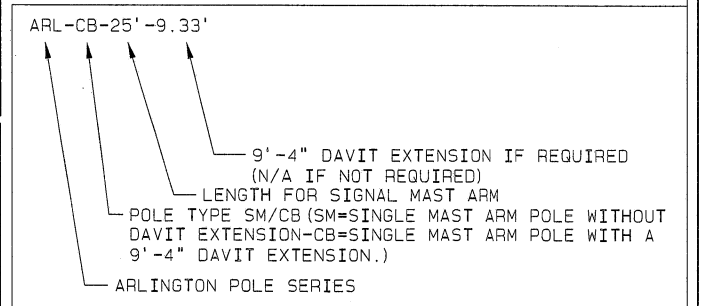
DEVICE	DESCRIPTION	PROJ. AREA (SQ. FT.)	WEIGHT (LBS.)
(A) SIGNAL	12"-5 SEC. SIGNAL W/BACKPLATES	13.33	83
(B) SIGN	36" X 36" DIRECTIONAL SIGN	9.00	27
(C) SIGNAL	12"-3 SEC. SIGNAL W/BACKPLATES	8.67	53
(D) SIGN	18" X 84" STREET NAME SIGN	10.50	27
(E) SIGN	12"-3 SEC. SIGNAL & PED SIGNALS	9.50	135

DESIGN CRITERIA

THESE TRAFFIC SIGNAL SUPPORT STRUCTURES ARE DESIGNED IN ACCORDANCE WITH LOADING AND ALLOWABLE STRESS REQUIREMENTS OF 2009 AASHTO "STANDARDS SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", FIFTH EDITION. WIND LOADS ARE BASED ON A BASIC WIND SPEED OF 90 MPH ISOTACH WITH A RECURRENCE INTERVAL OF 50 YEARS, AND A FATIGUE CATEGORY OF 2. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 AND THE FOLLOWING DESIGN LOADS:

- VORTEX SHEDDING: NOT APPLICABLE FOR STRUCTURES WITH A TAPER OF AT LEAST 0.14"/FT. PER AASHTO.
- NATURAL WIND GUSTS: THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS WILL BE ASSUMED TO BE 11.2 MPH.
- GALLOPING: STRUCTURES ARE NOT DESIGNED TO RESIST PERIODIC GALLOPING FORCES.
- TRUCK-INDUCED GUST: STRUCTURES ARE NOT DESIGNED TO INCLUDE TRUCK-INDUCED GUSTS.
- ICE LOAD: STRUCTURES ARE DESIGNED TO INCLUDE AASHTO ICE LOADS.

MAXIMUM LOADING INFORMATION



DESIGNATION EXAMPLE

F-4591



Barry N. Sladek
2/6/14

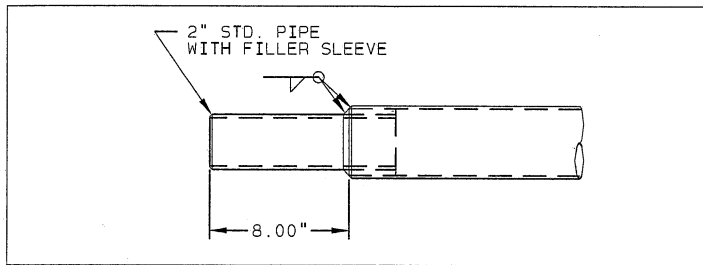
REV	DATE	DESCRIPTION
A	AC19 08/05/13	BDS 08/05/13
	AC19 03/07/13	BDS 03/13/13

TITLE CITY OF ARLINGTON, TX.
TRAFFIC SIGNAL STRUCTURES

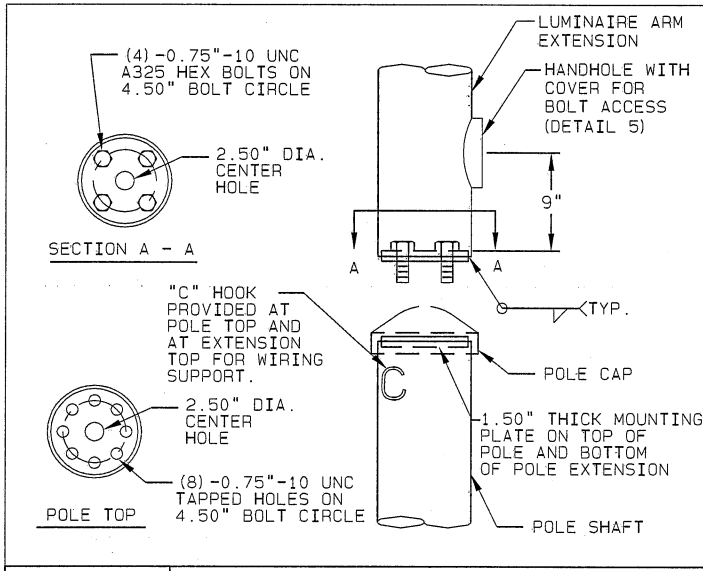
VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.



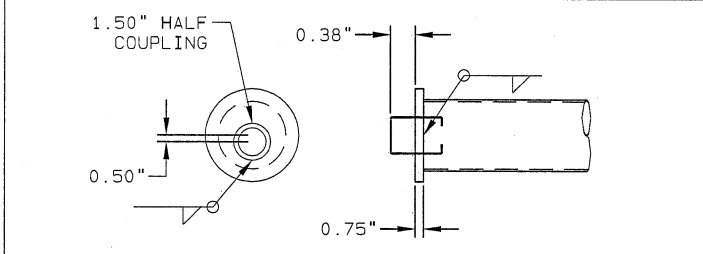
PAGE NUMBER: 1 OF 2
DRAWING NUMBER: DB01041
REV: A



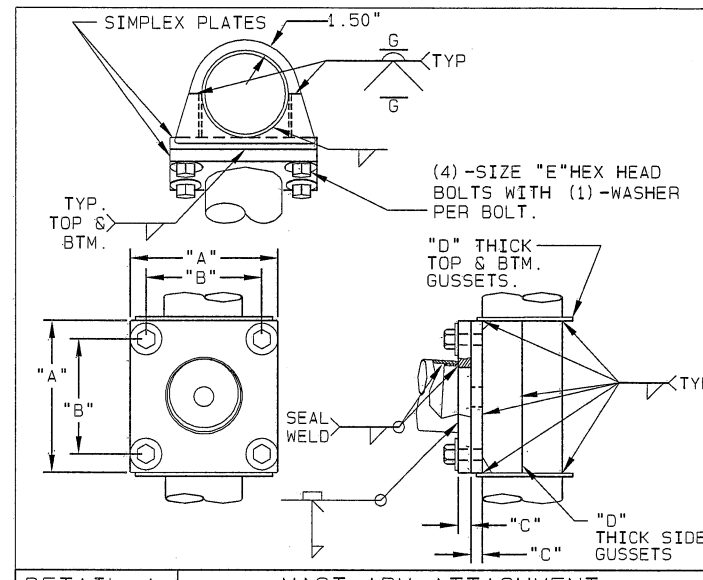
DETAIL 1 DAVIT ARM END TENON



DETAIL 2 POLE EXTENSION CONNECTION

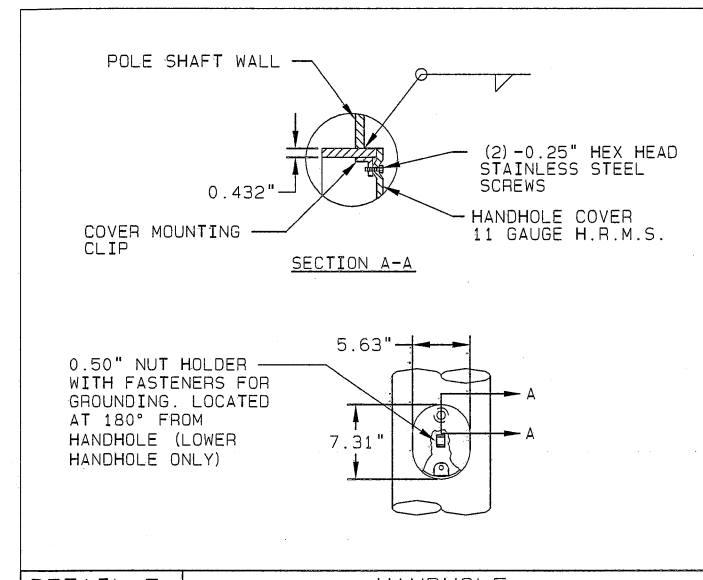


DETAIL 3 SIGNAL ARM END BRACKET

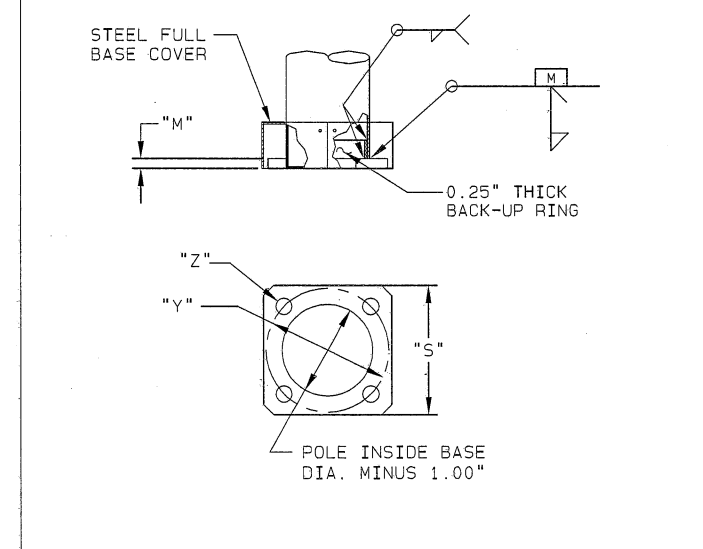


DETAIL 4 MAST ARM ATTACHMENT

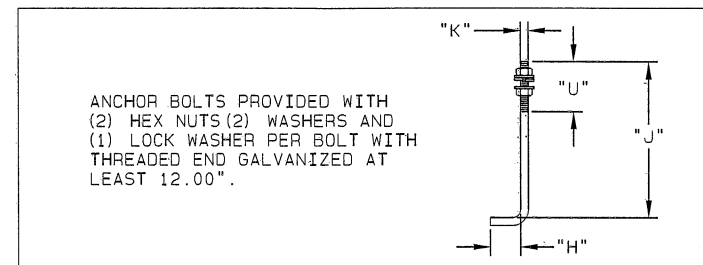
ARM PLATE ATTACHMENT DATA					
POLE BASE DIA. (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	"E" (IN)
14.50	20.25	17.00	1.75	0.250	1.25 X 3.75
16.00	22.00	18.50	1.75	0.313	1.25 X 3.75



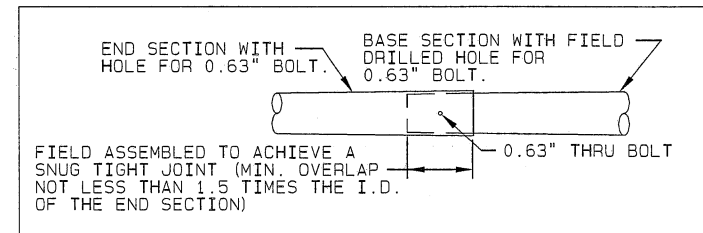
DETAIL 5 HANDHOLE



DETAIL 6 POLE BASE CONNECTION

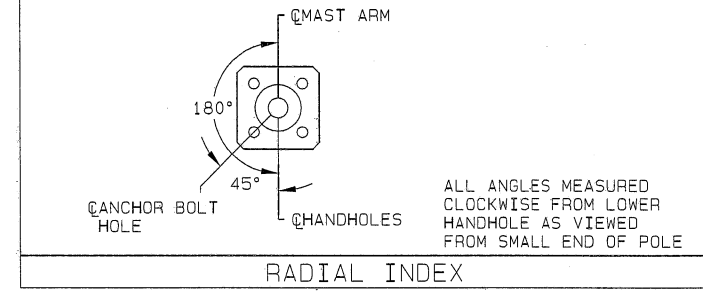


DETAIL 7 ANCHOR BOLT



SPAN (FT)	BASE SECTION		END SECTION	
	LENGTH (FT)	GAUGE OR THICK (IN)	LENGTH (FT)	GAUGE
45	15.85	0.313	31.72	7
50	15.85	0.313	36.72	7
55	22.99	0.313	34.58	7
60	22.99	0.313	39.58	7

DETAIL 8 SIGNAL ARM SLIP JOINT



RADIAL INDEX

TITLE CITY OF ARLINGTON, TX TRAFFIC SIGNAL STRUCTURES

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valmont Valley, NE 68064 (402) 359-2201

PAGE NUMBER: 2 OF 2
DRAWING NUMBER: DB01041
REV: A

F-4591
STATE OF TEXAS
BARRY N. SLADEK
91283
LICENSED PROFESSIONAL ENGINEER
Barry N. Sladek
2/6/14