UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA
VOLUME II

REVISION SET II
1997 Release

DRAWING NUMBER AND TITLE	SHEET NUMBER(S)	NATURE OF CHANGE	APPROVAL DATE
Drawings listed below have been revised, deleted or added as the result of an electrical engineering review.			
404.001 (2 Sheets)	1 & 2		12/12/96
404.140 (2 Sheets)	1 & 2	Sheet 2 is New Drawing.	"
404.141	1		"
404.201	1		"
404.202	1		"
404.203	1		"
404.204 (2 sheets)	1 & 2	Deleted.	"
404.205	1		"
404.206	1		"
404.207	1		"
404.208	1		"
404.209	1		"
404.211	1		"
404.213	1		"
404.214	1	New Drawing.	"
404.304	1		"
404.305	1		"
404.307	1		"
404.308	1		"
404.309	1		"
404.310	1		"
404.320 (5 Sheets)	1 - 5	Deleted. Incorporated into Specs.	"
404.400 (2 Sheets)	1 & 2		"
404.401 (2 Sheets)	1 & 2		"
404.402	1		"
404.403 (1 Sheet)	1		"
404.404	1	Deleted.	"
404.405	1		"
404.406 (5 Sheets)	1-4 & 6		"
404.407 (2 Sheets)	1 & 2		"
404.408	1	Deleted.	"

DRAWING NUMBER AND TITLE	SHEETS NUMBER(S)	NATURE OF CHANGE	APPROVAL DATE
404.409 (2 Sheets)	1 & 2		"
404.410	1		"
404.411	1		"
404.412	1		"
404.413	1		"
404.414	1		"
404.415	1		"
404.416	1		"
404.420	1		"
404.500	1	Deleted.	"
404.501	1	Deleted.	"
404.502	1		"
404.800	1	Deleted. Incorporated into Specs.	"
404.801 (2 Sheets)	1 & 2	Deleted. Incorporated into Specs.	"
404.811	1		"
404.820	1	Only revision was to add engineering stamp.	
404.821 (2 Sheets)	1 & 2	"	
404.822 (2 Sheets)	1 & 2	"	
404.823 (2 Sheets)	1 & 2	"	
404.825	1	"	
404.826	1		"
404.829	1		"
404.1005	1		"
404.1032	1		"
404.1033	1	Deleted.	"
404.1101	1		"
404.1300 (2 Sheets)	1 & 2		"
404.1301	1		"
404.1302 (2 Sheets)	1 & 2		"
404.1306	1		"
404.1412	1	Sheet 2 Deleted.	"
404.1413	1		"
404.1422	1	Deleted. Incorporated into Specs.	"

End of Electrical Review Changes.

Released April 1997

T J KROB CONSULTING ENGINEERS
4019 SOUTH JONES BLVD.
SUITE B
LAS VEGAS, NV 89102
(702) 871-3621

April 4, 1997

Regional Transportation Commission
301 East Clark Avenue, #300
Las Vegas, Nevada 89101

Attention: Kurt Weinrich, P.E., Director

Reference: Uniform Standard Drawings and Specifications Pertaining to Streetlighting

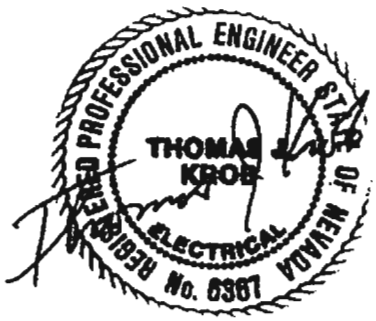
Dear Kurt:

I have reviewed the electrical portions of Volume I, Volume II, and Specification Section 623 of the Uniform Standard Drawings and Specifications. The drawings and specifications meet with my approval and are ready for distribution. I have affixed my stamp and signature on those drawings that are electrical in content. In addition, I have reviewed the electrical grounding portion of foundation detail drawing standards 321, 325 & 404.261, 202, 203, 205, 206, 207, 208, 209, 211, 213. These details also meet my approval.

Sincerely,
T J Krob Consulting Engineers, Inc.

Thomas J Krob

Thomas J. Krob, P.E.
TJK/dm



4-4-97

UNIFORM STANDARD DRAWINGS, CLARK COUNTY AREA

TABLE OF CONTENTS

VOLUME II
SECTION 404
TRAFFIC SIGNALS

SECTION 404

TRAFFIC SIGNALS
CONTINUED

DRAWING NUMBER

CABINET

404.304	Type V Cabinet
404.305	Type VI Cabinet
404.307	Type VIII Cabinet
404.308	Type IX Cabinet
404.309	Flashing Beacon Controller Cabinet
404.310	Wiring Diagram for Flashing Beacon Timer Controlled Operation

PRIORITY VEHICLE PREEMPTION SYSTEM

404.320	**DELETED** - See Uniform Standard Specifications Subsection 623T.02.12

POLES AND POSTS

404.400(SH1)	School Flashing Sign on Pole with Luminaire
404.400(SH2)	School Flashing Sign on Type-III Pole
404.401(SH1)	Pedestrian Push Button Post for Special Sign (8'-6")
404.401(SH2)	Pedestrian Push Button Post for 2-½" Post Top Mounting
404.402	Signal Standard Type 1-A, 1-B
404.403	Sign Post with School Sign Mounted (2 sheets)
404.404	**DELETED**
404.405	Pedestal for Controller Cabinets
404.406	Type XX & XX-A -- 30' Signal and Luminaire Pole (6 sheets)
404.407(SH1)	Type XX -- 20' Signal Pole (45' or Less Mast Arms)
404.407(SH2)	Type XXA -- 20'-0" (50' through 60' Mast Arms) Signal Pole
404.408	**DELETED**
404.409(SH1)	Base Adaptor Plate for Type "H" Foundation
404.409(SH2)	Base Adaptor Plate for Type "L" Foundation
404.410	30' Luminaire with School Flashing Sign
404.411	School Sign Mounted on a Traffic Signal Standard
404.412	School Sign Pole Type XX -- 30'
404.413	School Sign Pole Type XX -- 20'
404.414	Streetlighting Pole with Illuminated Street Name Sign
404.415	Type III Pole with Illuminated Street Name Sign

SECTION 404

TRAFFIC SIGNALS
CONTINUED

DRAWING NUMBER

POLES AND POSTS (CON'T)

404.416	Type XX Pole with Illuminated Street Name Sign
404.417	Street Name Sign Internally Illuminated
404.418	Sign Mounting Illustration
404.420	Block Number Sign

MAST ARMS AND ASSEMBLIES

404.500	**DELETED**
404.501	**DELETED**
404.502	One Bolt Simplex Arm Attachment Clamp Assembly
404.503	Retrofit Streetlight Mast Arm

DRILLING DETAILS

404.600	Pole Drilling Details
404.601	Island Signal Pole Details for 10' Pole

ISLAND EQUIPMENT

404.700	Island Signal Location

DETECTORS

404.800	**DELETED** - See Uniform Standard Specifications Subsection 623T.02.04
404.801	**DELETED** - See Uniform Standard Specifications Subsection 623T.02.04
404.810	Sawcut Details for Induction Loops
404.811	Details at Loop Pull Box
404.820	1 Induction Loop for 1 Travel Lane
404.821(SH1)	1 Induction Loop for 2 Travel Lanes
404.821(SH2)	2 Induction Loops for 2 Travel Lanes
404.822(SH1)	1 Induction Loop for 3 Travel Lanes
404.822(SH2)	3 Induction Loops for 3 Travel Lanes
404.823(SH1)	1 Induction Loop for 4 Travel Lanes
404.823(SH2)	4 Induction Loops for 4 Travel Lanes

SECTION 404

TRAFFIC SIGNALS
CONTINUED

DRAWING NUMBER

DETECTORS (CON'T)

404.825	3 Induction Loops for 3 Travel Lanes
404.826	Multiple Loop System for Thru Lane
404.827	Multiple Loop System for for Left Turn Pocket
404.828	Type "Quadrapole" Loop Installation
404.829	Wire Diagrams for Multiple Loop Systems for Left Turn Pocket and Thru Lane
404.830	Circular Induction Loops for Travel Lanes
404.851	Pedestrian Push Button Detectors

BACK PLATES

404.900	Louvered Backplate for Mast Arm Mounted Signal
404.901	Louvered Backplate for Pole Mounted Signal
404.902	Louvered Backplate for 5 Section Signal Head
404.903	Louvered Backplate for 5 Section Signal Head

SIGNAL UNITS

404.1005	Bill of Materials - Signal Assemblies

SIGNAL ASSEMBLIES

404.1011	Types: A-1, A-2T, A-3
404.1012	Types: A-4T, A-5T
404.1013	Type: A-6T
404.1015	Types: A-8T, A-9T
404.1016	Types: A-10T, A-11T
404.1017	Types: A-12T, A-13T
404.1018	Types: A-14T, A-15T
404.1019	Type: A-16T
404.1020	Type: A-17T

SECTION 404

TRAFFIC SIGNALS
CONTINUED

DRAWING NUMBER

MAST ARM SIGNAL ASSEMBLIES

404.1022	Types: M-2A, M-3A
404.1023	Types: M-3, M-2

SIGNAL ASSEMBLIES

404.1024	Types: B-1T, B-2T, B-3T
404.1025	Types: B-5T, B-6T
404.1026	Types: B-7T, B-8T, B-9T
404.1027	Types: B-10, B-11T
404.1028	Types: B-12T, B-13T
404.1029	Type: B-14T
404.1030	Protective/Permissive M-5 Signal Heads
404.1031	Protective/Permissive M-5 Signal Heads, Assemblies and Part List (3 sheets)
404.1032	Pedestrian Signal Assemblies W-0T, W-1, W-2T, W-3T, W-1T
404.1033	**DELETED**
404.1034	Pedestrian Push Button Sign Detail

VISORS AND LOUVERS

404.1100(SH1)	Visors for 8" Signal
404.1100(SH2)	Louvers and Visors for 12" Signal
404.1100(SH3)	Geometrically Programmed Louver
404.1101	Backplate and Signal Head Assembly

SIGNAL HARDWARE

404.1200	Miscellaneous Signal Mounting Hardware
404.1201	Pole Plate Details
404.1202	Miscellaneous Signal Mounting Hardware
404.1203	Elevator Plumbizer
404.1204	Pole Plate with Wire Guide Details
404.1205	4 Way Center Hub
404.1206	Standard Malleable Pipe Hardware -- 1½" IPS
404.1207	Post Top Mounted Adapter with Terminal Compartment
404.1208	Side Bracket Mounted Adapter with Wire Guide

SECTION 404

TRAFFIC SIGNALS
CONTINUED

DRAWING NUMBER

SIGNAL HARDWARE (CON'T)

404.1210	One Way Mount
404.1211	One Way Mount for 3M Signals
404.1212	One Way Mount Detail

EQUIPMENT ORIENTATION ON SIGNAL POLES

404.1300(SH1)	Pole Location and Signal Mounting at Intersection
404.1300(SH2)	Pole Location and Signal Mounting at Intersection (Center of Return)
404.1301	Pole Location and Signals Mounting on Right Turn Islands
404.1302(SH1)	Future Pole Location Case I (Except City of Las Vegas)
404.1302(SH2)	Future Pole Location Case II
404.1306	Typical Traffic Signal Conduit Layout with Streetlighting

MISCELLANEOUS

404.1410	12" Arrow Lens
404.1412	Single Meter Service Pedestal
404.1413	120/240 VAC Service on Wood Pole Overhead Service
404.1414	Auxiliary Cabinet Equipment Wiring
404.1418	Installation of Conduit into Pull Box from Lip of Gutter Trench
404.1419	Installation of Conduit
404.1422	**DELETED** - See Uniform Standard Specifications Subsection 623G.03.07

FOREWORD

UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION,

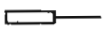
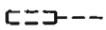
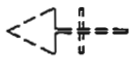
OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA

VOLUME II

Regional Transportation Commission
Adoption By Commission Action
April 8, 1992

The Uniform Standard Drawings for Public Works Construction may be revised by issuance of revisions or supplements to correct errors and omissions found in these drawings and to reflect advanced thinking and the changing technology of the construction industry. Each revision will supersede any previous pertinent drawing. **This volume contains revisions made through April 1997.**

To implement this end a Specifications Committee has been established as a permanent organization to continually study and recommend changes to the standard drawings. Interested parties may address suggested changes and questions to the Regional Transportation Commission, 301 East Clark Avenue, Suite 300, Las Vegas, Nevada, 89101.

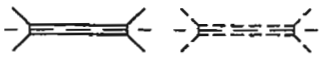
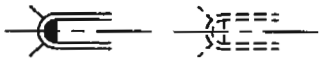
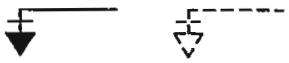
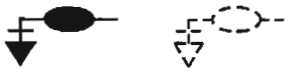
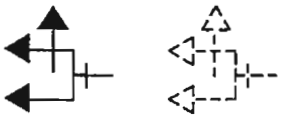
PROPOSED	EXISTING	
		PULL BOX
		SIGNAL LUMINAIRE POLE, POST
		UTILITY POLE
		CONTROL CABINET
		CONDUIT RUN
		AERIAL CABLE
		DETECTOR LOOP
		PADMOUNT, ELECTRICAL SERVICE OR SPLICE BOX
		FLUORESCENT LUMINAIRE
		HIGH PRESSURE SODIUM LUMINAIRE - 750 WATT
		HIGH PRESSURE SODIUM LUMINAIRE - 400 WATT
		TRAFFIC SIGNAL INDICATION WITH BACKPLATE
		TRAFFIC SIGNAL INDICATION WITH DIRECTIONAL ARROW AND BACKPLATE
		PEDESTRIAN INDICATION AND DIRECTION
		HAZARD BEACON, ONE WAY

SPECIFICATION REFERENCE	

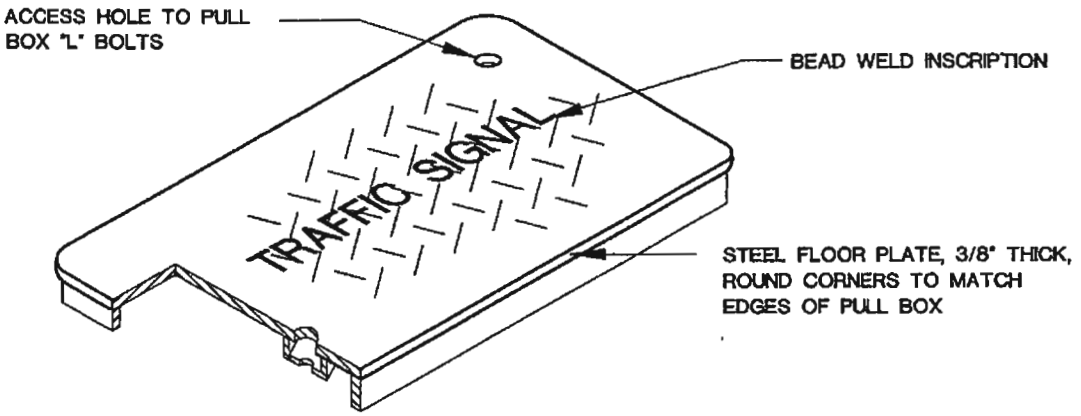
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD SYMBOLS FOR TRAFFIC SIGNAL DRAWINGS

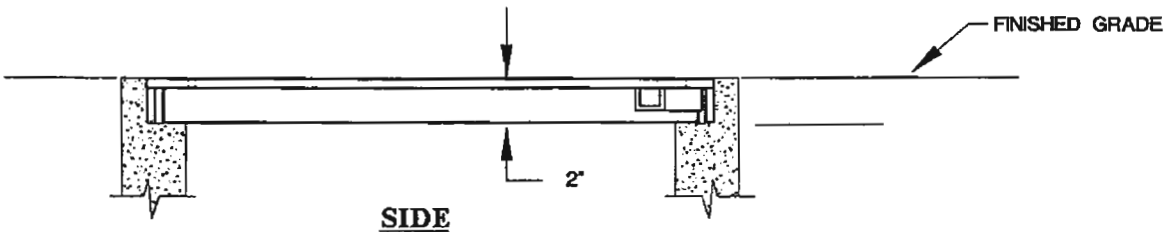
DATE 12-12-96	DWG. NO. 404.001	SHEET 1 OF 2

PROPOSED	EXISTING	
		STREET NAME SIGN INTERNALLY ILLUMINATED
		CURB FLASHER
		VEHICLE MOVEMENT (STOPPED)
		VEHICLE MOVEMENT (MOVING)
		CONDUIT RUN NUMBER
		PEDESTRIAN MOVEMENT
		TRAFFIC SIGNAL ON MAST ARM
		TRAFFIC SIGNAL AND LUMINAIRE ON MAST ARMS
		PEDESTRIAN PUSH BUTTON INDICATING DIRECTION OF CONTROL
		TRAFFIC SIGNAL WITH ALL COLORS LOUVERED
		SCHOOL FLASHER
		5 SECTION SIGNAL HEAD WITH DIRECTIONAL ARROW AND BACKPLATE
		PRIORITY VEHICLE PREEMPTION OPTICAL DETECTOR (OPTICOM OR APPROVED EQUAL)

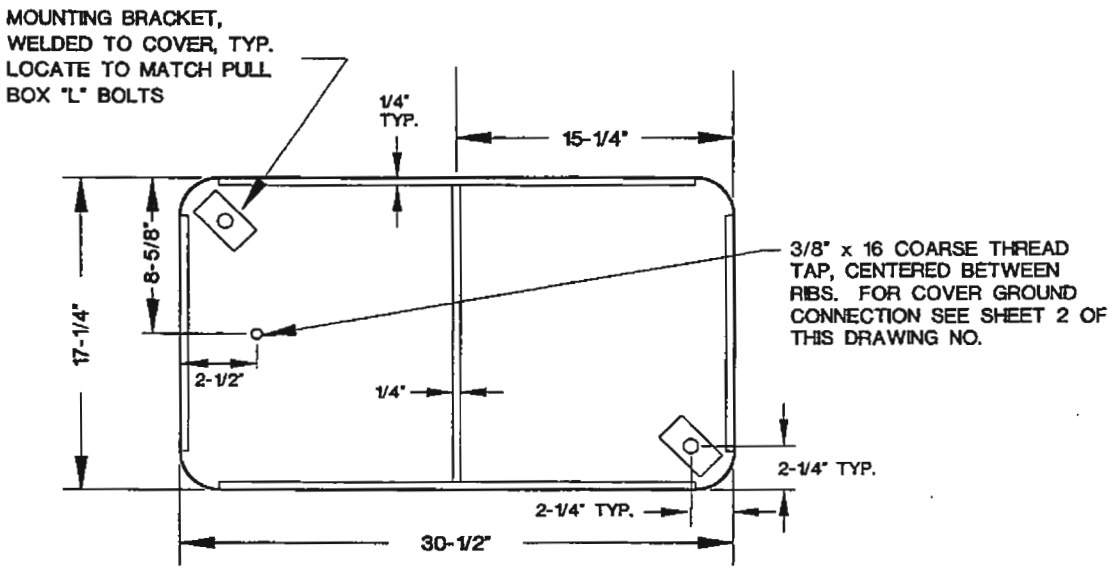
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		STANDARD SYMBOLS FOR TRAFFIC SIGNAL DRAWINGS		
		DATE 12-12-96	DWG. NO. 404.001	SHEET 2 OF 2



COVER



SIDE



BOTTOM

NOTES:

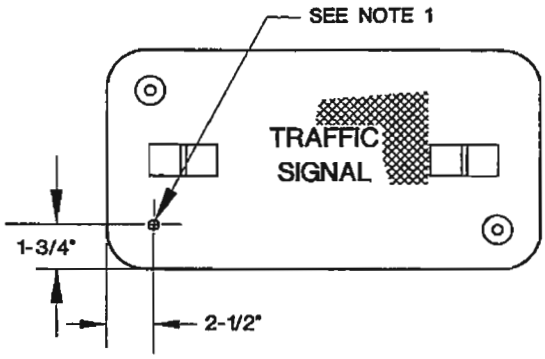
1. THIS COVER TO BE USED IN STREET AREAS AND UNDEVELOPED AREAS ONLY.
2. TYPICAL NO. 7 PULL BOX COVER SHOWN. SUBMIT OTHERS TO THE ENGINEER FOR APPROVAL.
3. ALL TRAFFIC AND OPEN AREA COVERS SHALL BE H 20 RATED.
4. GROUNDING OF STEEL PULL BOX COVERS IS NOT NECESSARY FOR PULL BOXES CONTAINING LOW VOLTAGE, POWER-LIMITED CONNECTIONS.

SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING

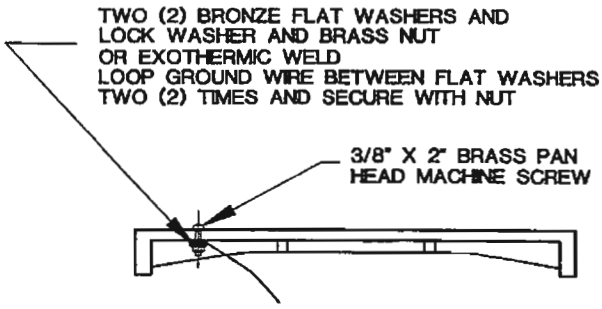
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PULL BOX STREET COVER

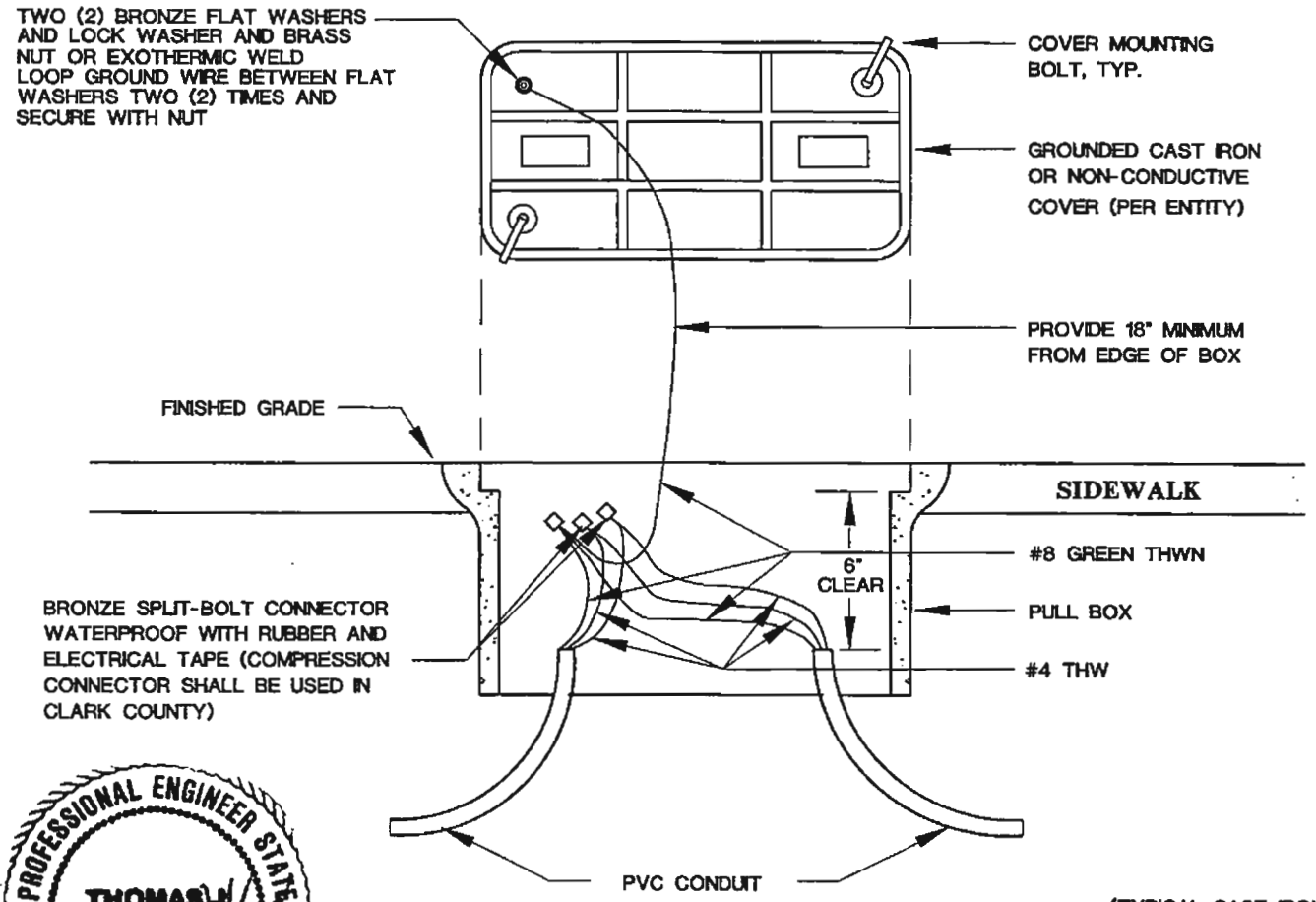
DATE 12-12-96	DWG. NO. 404.140	SHEET 1 OF 2



PULL BOX COVER - TOP VIEW



PULL BOX COVER - SIDE VIEW



(TYPICAL CAST IRON LID SHOWN)

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367
4-2-97

NOTES:

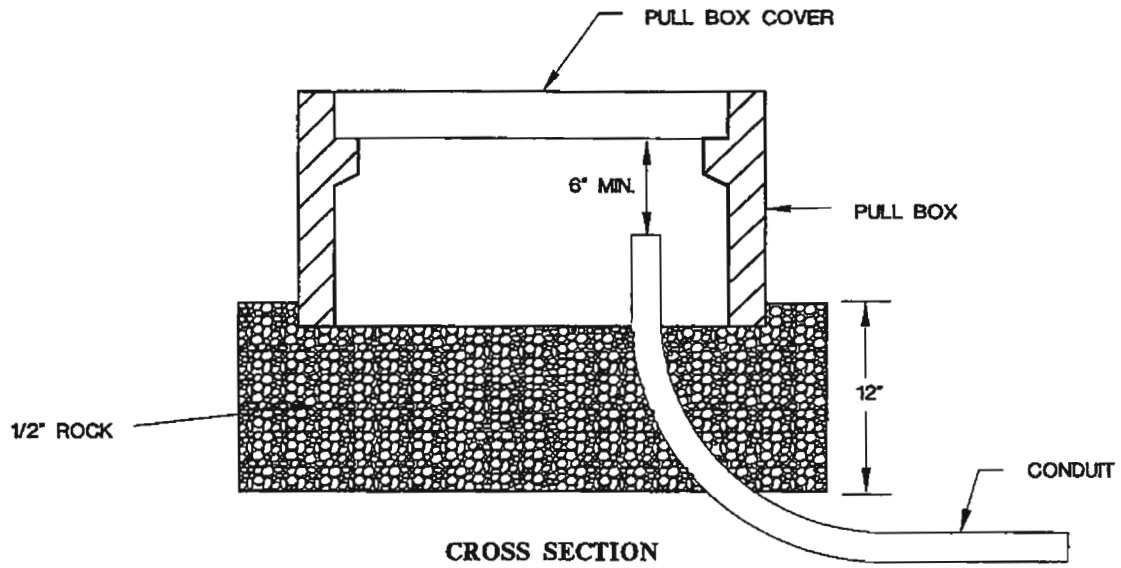
1. PULL BOX LID SHOULD BE TAPPED WITH A 3/8" X 16 COURSE THREAD TAP.
2. FOR TYPICAL NO. 7 PULL BOX COVER GROUNDING, SEE SHEET 1 OF THIS DRAWING NO.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

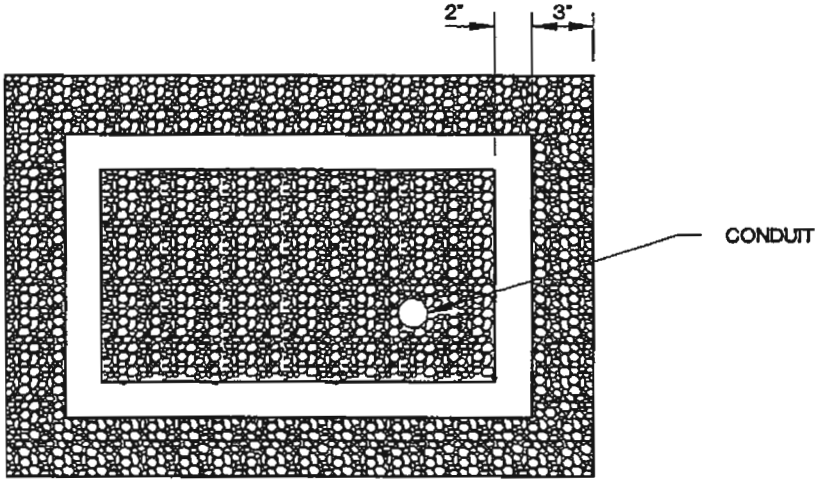
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PULL BOX COVER BONDING DETAIL

DATE 12-12-96	DWG. NO. 404.140	SHEET 2 OF 2

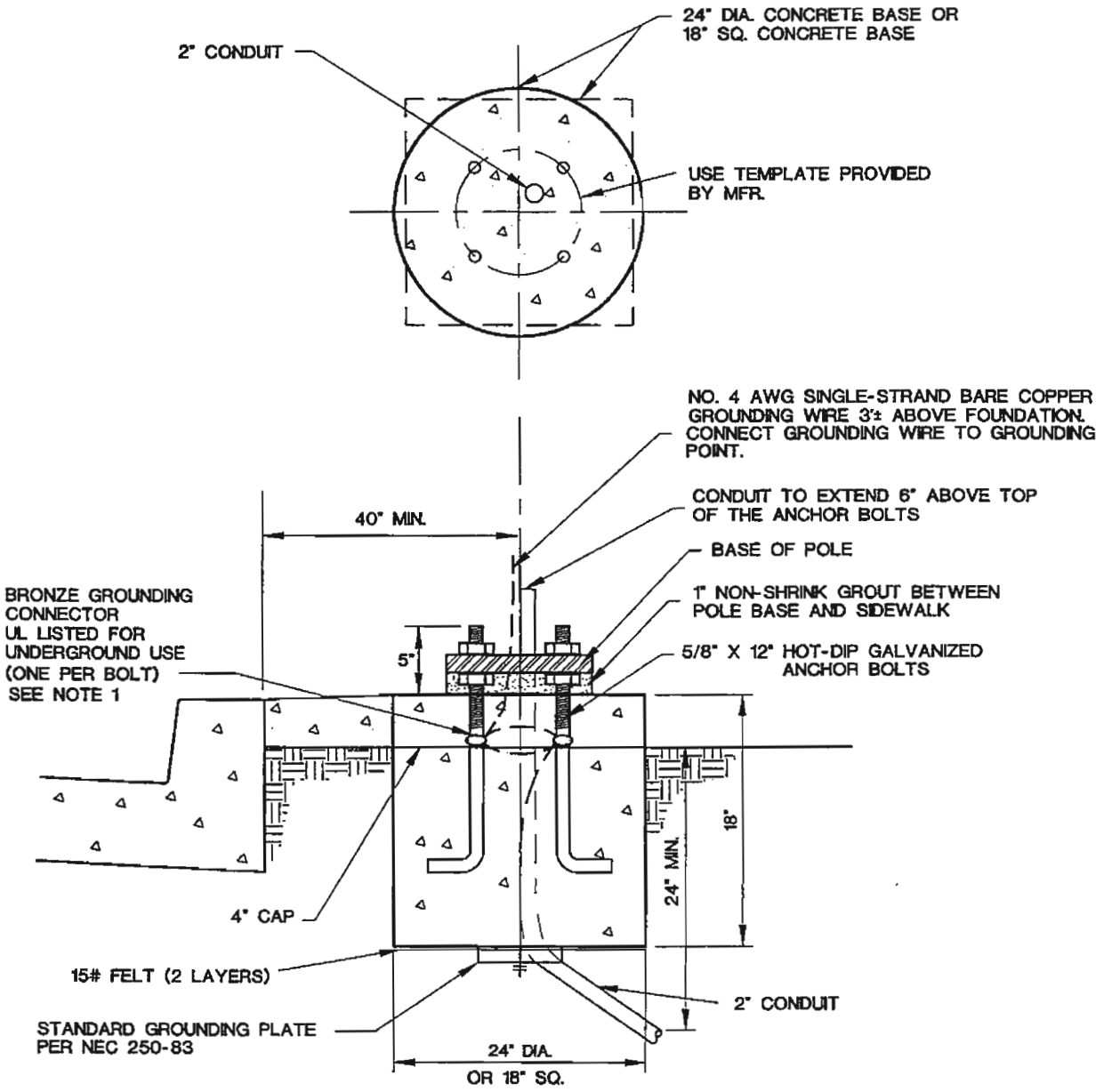


CROSS SECTION



TOP VIEW

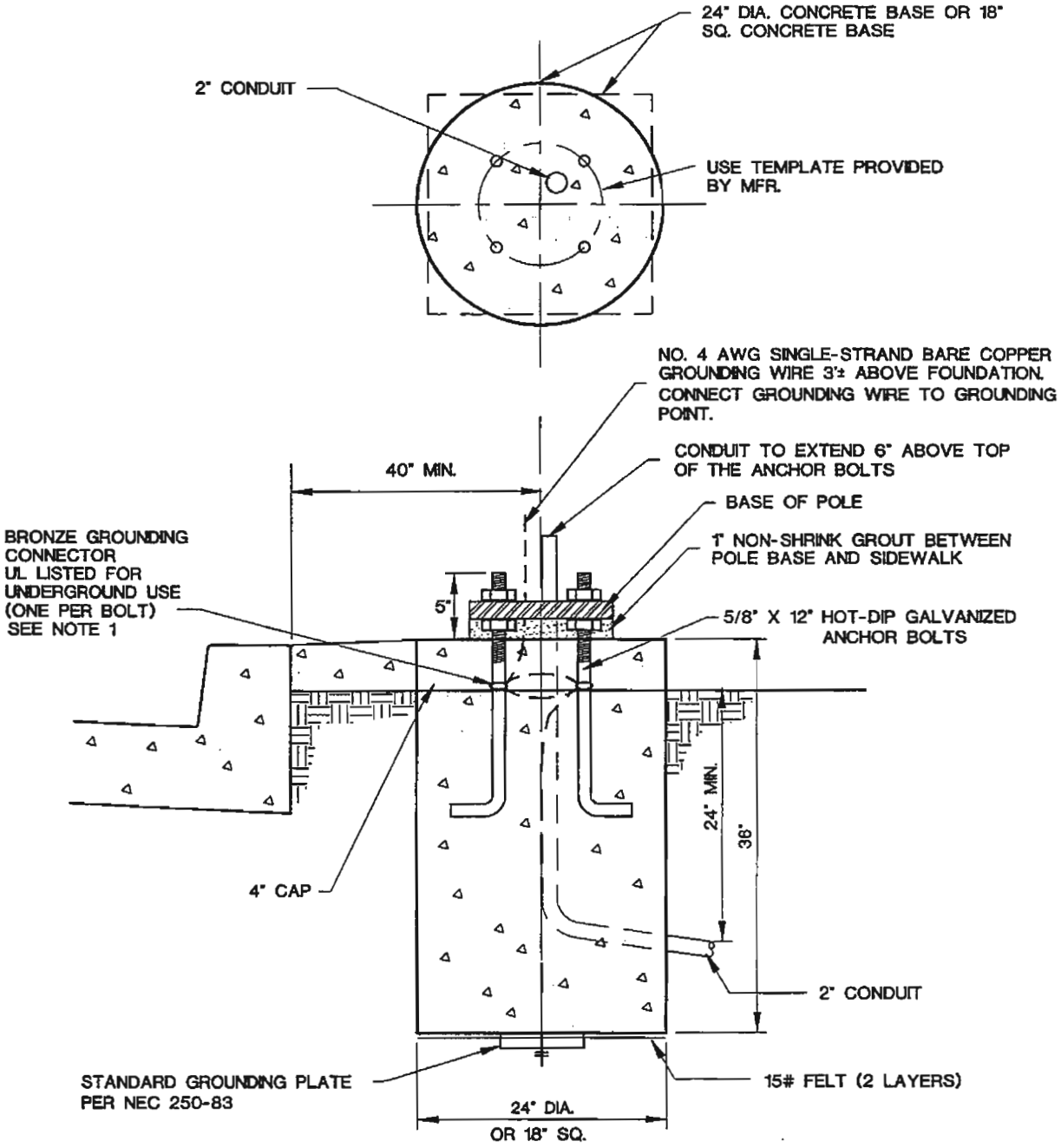
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	PULL BOX FOUNDATION
	DATE 12-12-96 | DWG. NO. 404.141 | SHEET 1 OF 1



NOTE:

1. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

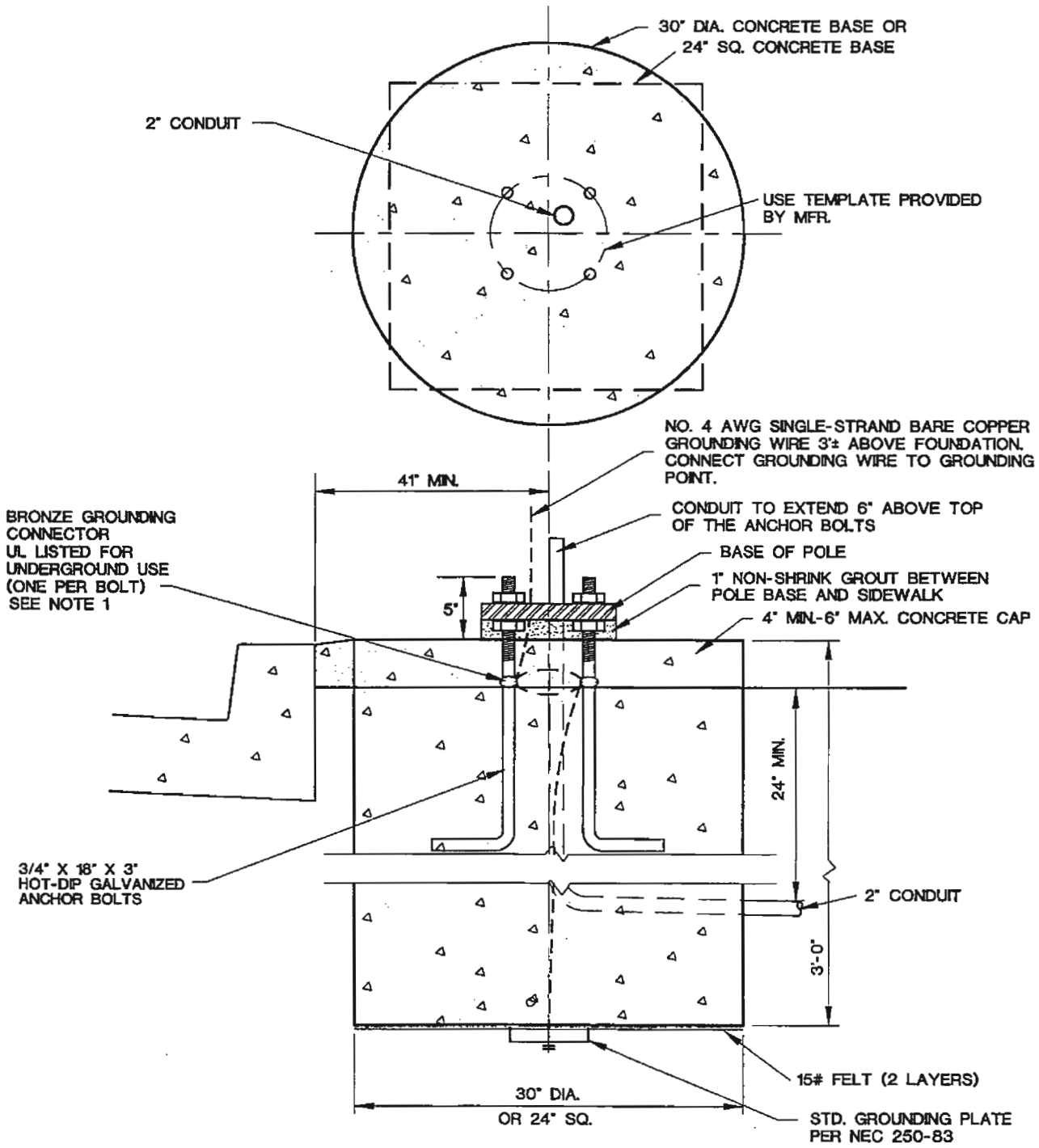
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
623G.03.06 FOUNDATION			
623T.02.02 ANCHOR BOLT	TYPE "A" FOUNDATION		
	DATE 12-12-96	DWG. NO. 404.201	SHEET 1 OF 1



NOTE:

1. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
623G.03.06 FOUNDATION	
623T.02.02 ANCHOR BOLT	
	TYPE "B" FOUNDATION
	DATE 12-12-96 | DWG. NO. 404.202 | SHEET 1 OF 1



NOTE:

1. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

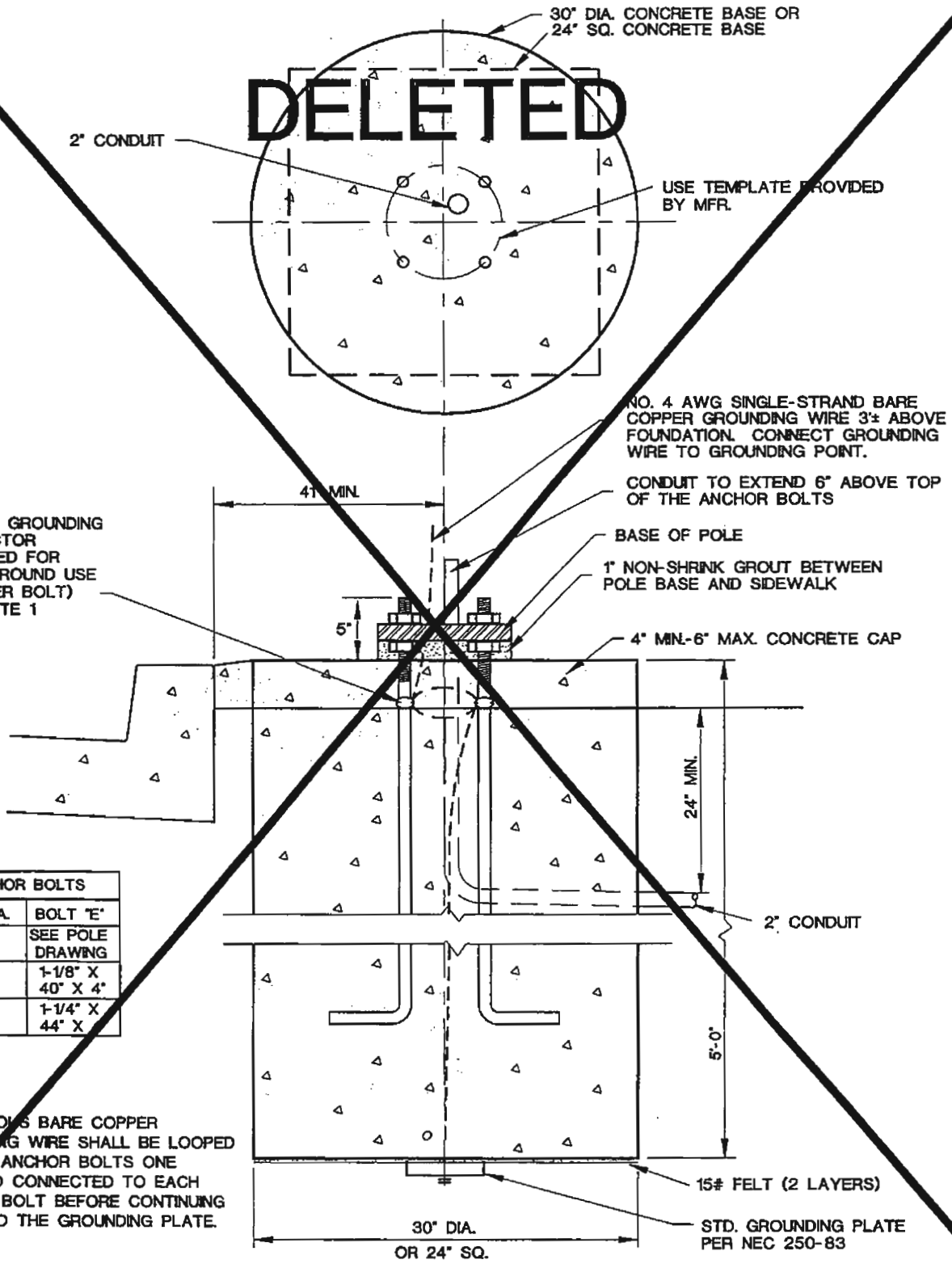
SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION
623T.02.02	ANCHOR BOLT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE "C" FOUNDATION

DATE 12-12-96	DWG. NO. 404.203	SHEET 1 OF 1

DELETED



ANCHOR BOLTS	
POLE GA.	BOLT "E"
11	SEE POLE DRAWING
7	1-1/8" X 40" X 4"
3	1-1/4" X 44" X

NOTE:

1. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

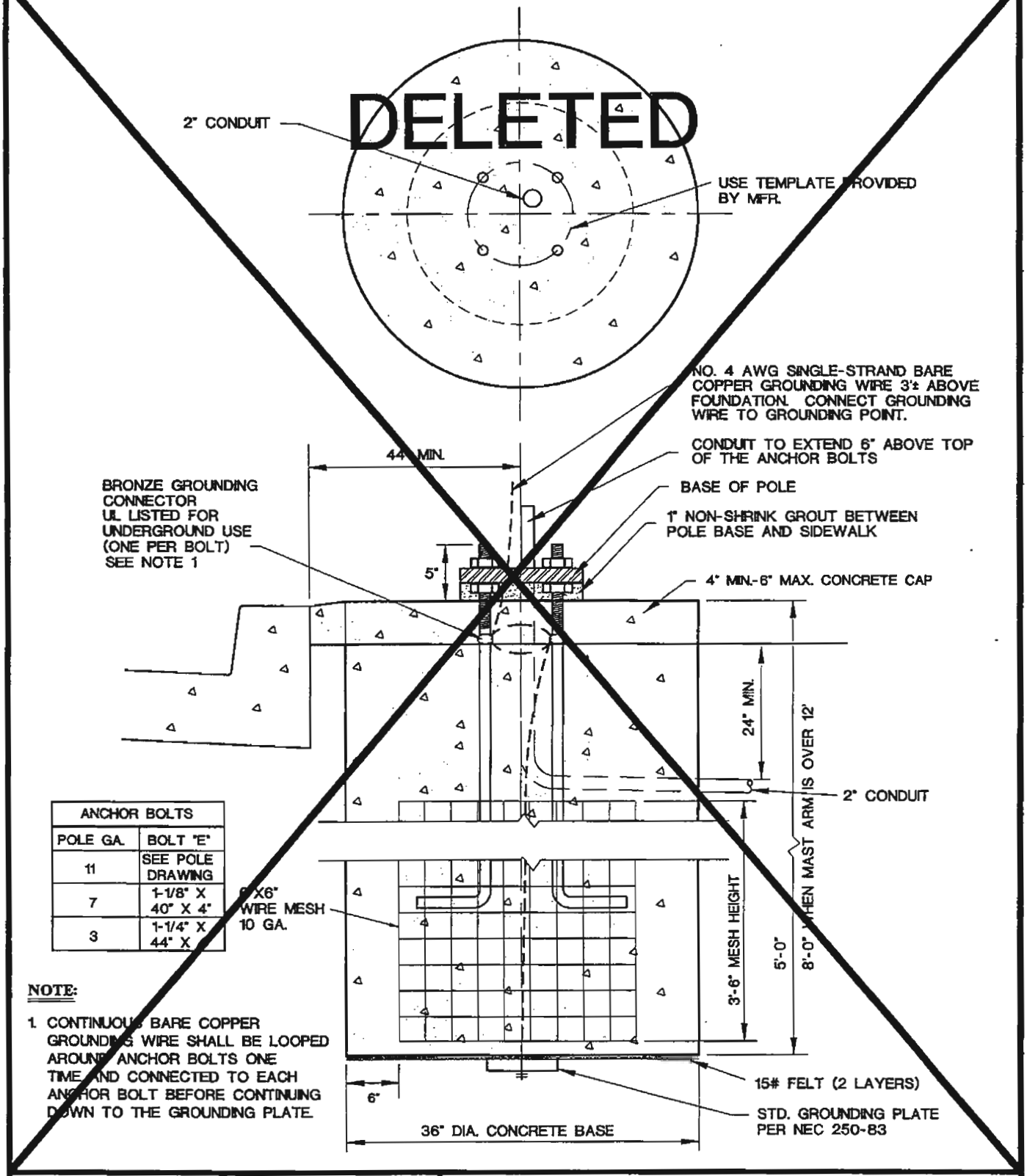
SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION
623T.02.02	ANCHOR BOLT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE "D" FOUNDATION

DATE 12-12-96	DWG. NO. 404.204	SHEET 1 OF 2

DELETED



ANCHOR BOLTS	
POLE GA.	BOLT "E"
11	SEE POLE DRAWING
7	1-1/8" X 40" X 4"
3	1-1/4" X 44" X

NOTE:

1. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION
623T.02.02	ANCHOR BOLT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

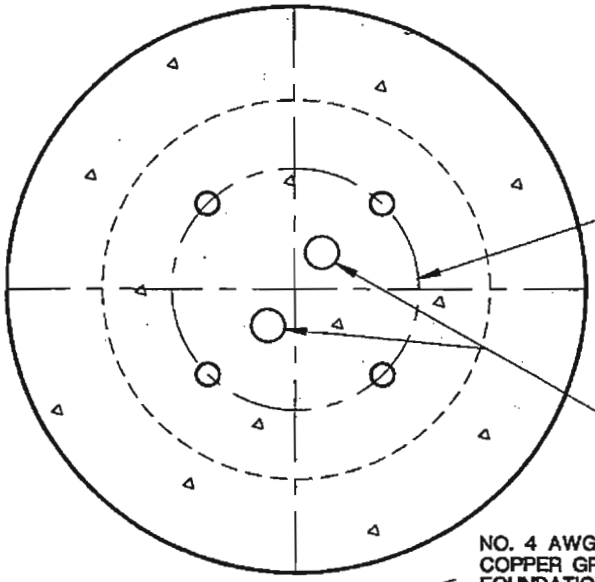
TYPE "D" FOUNDATION

(FOR DRAWING NO. 404.404)

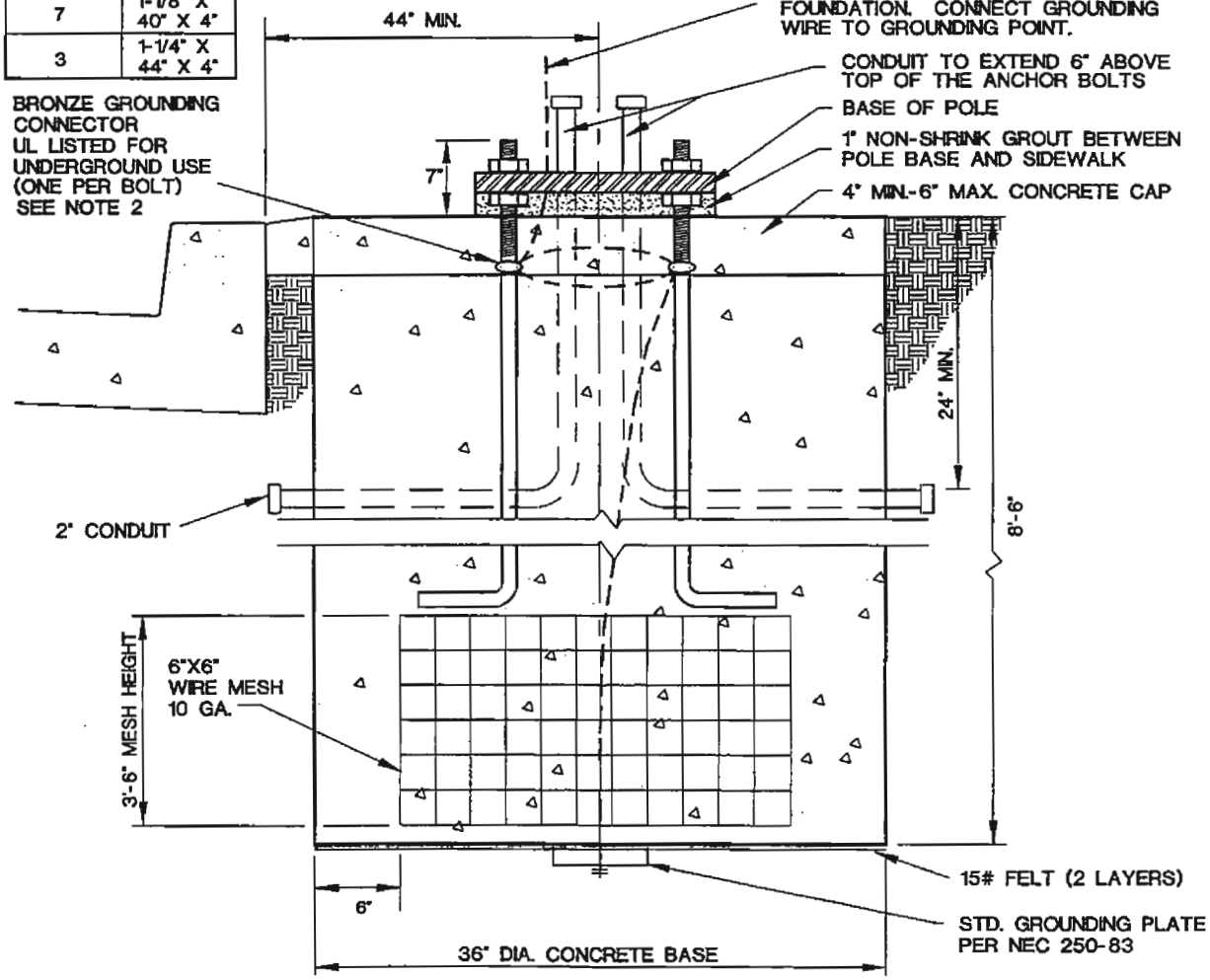
DATE 12-12-96	DWG. NO. 404.204	SHEET 2 OF 2

NOTES:

1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.



ANCHOR BOLTS	
POLE GA.	BOLT "E"
11	SEE POLE DRAWING
7	1-1/8" X 40" X 4"
3	1-1/4" X 44" X 4"



SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

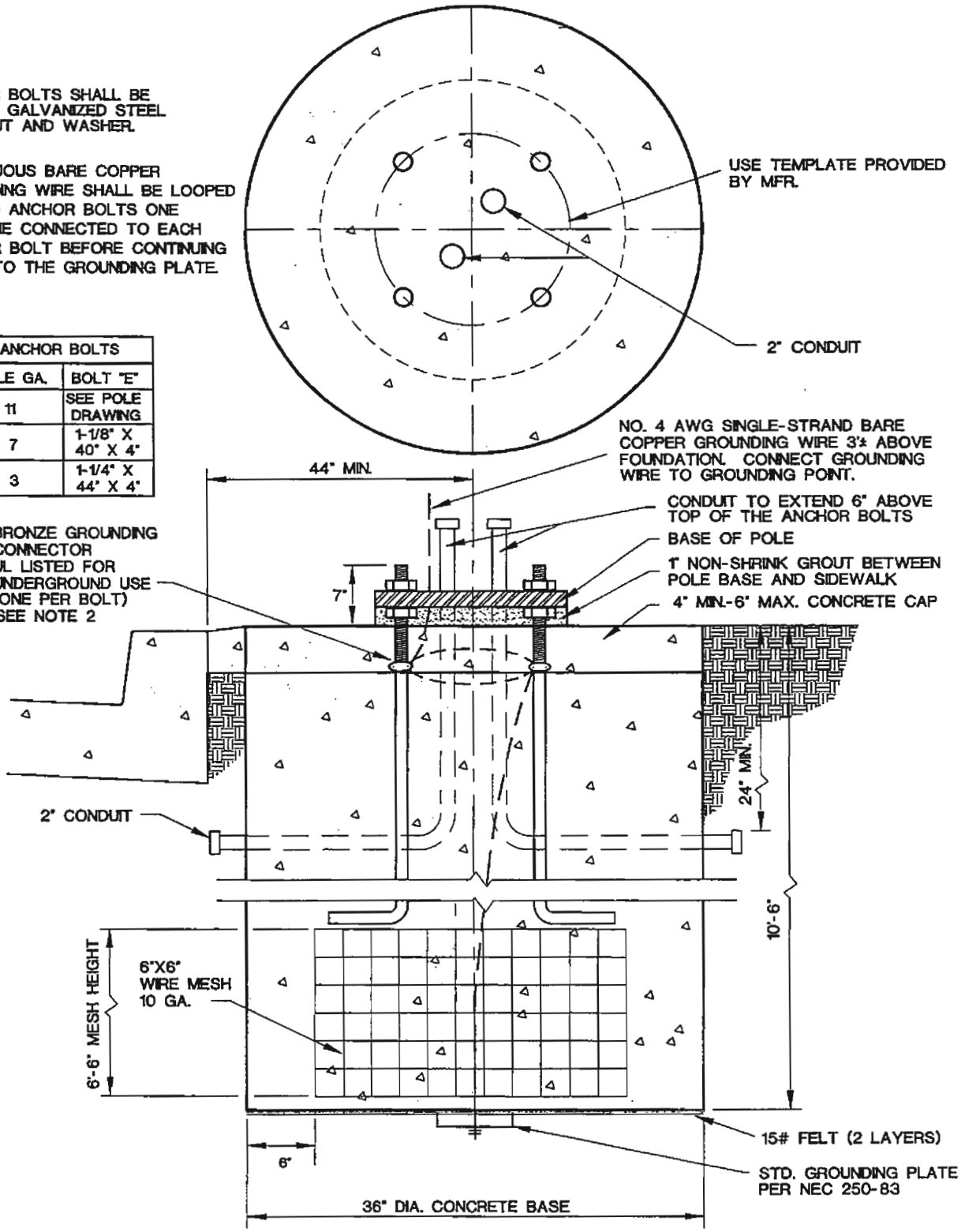
TYPE "E" FOUNDATION

DATE 12-12-96	DWG. NO. 404.205	SHEET 1 OF 1

NOTES:

1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE ONE TIME CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

ANCHOR BOLTS	
POLE GA.	BOLT "E"
11	SEE POLE DRAWING
7	1-1/8" X 40" X 4"
3	1-1/4" X 44" X 4"



SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

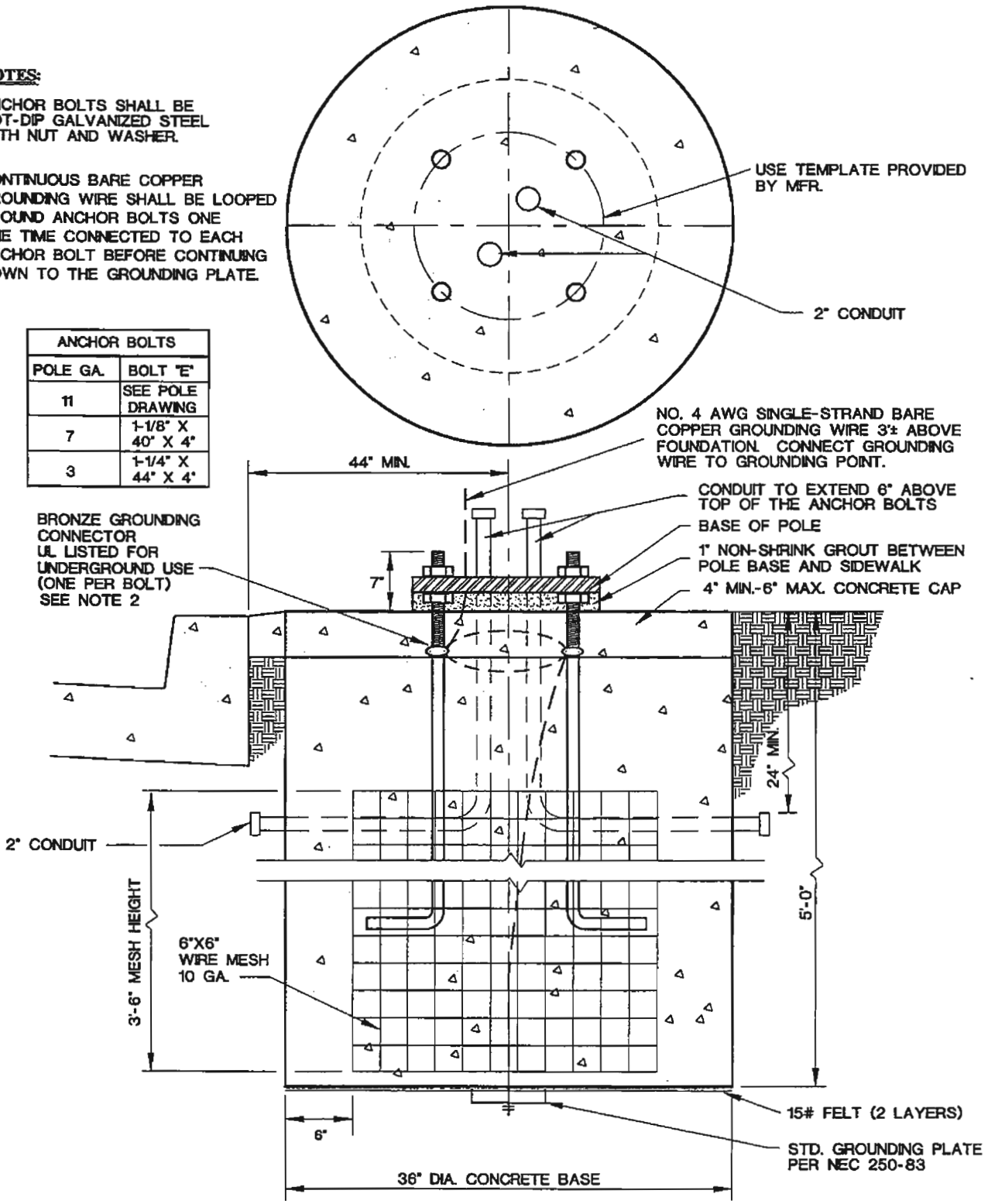
TYPE "F" FOUNDATION

DATE 12-12-96	DWG. NO. 404.206	SHEET 1 OF 1

NOTES:

1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE ONE TIME CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

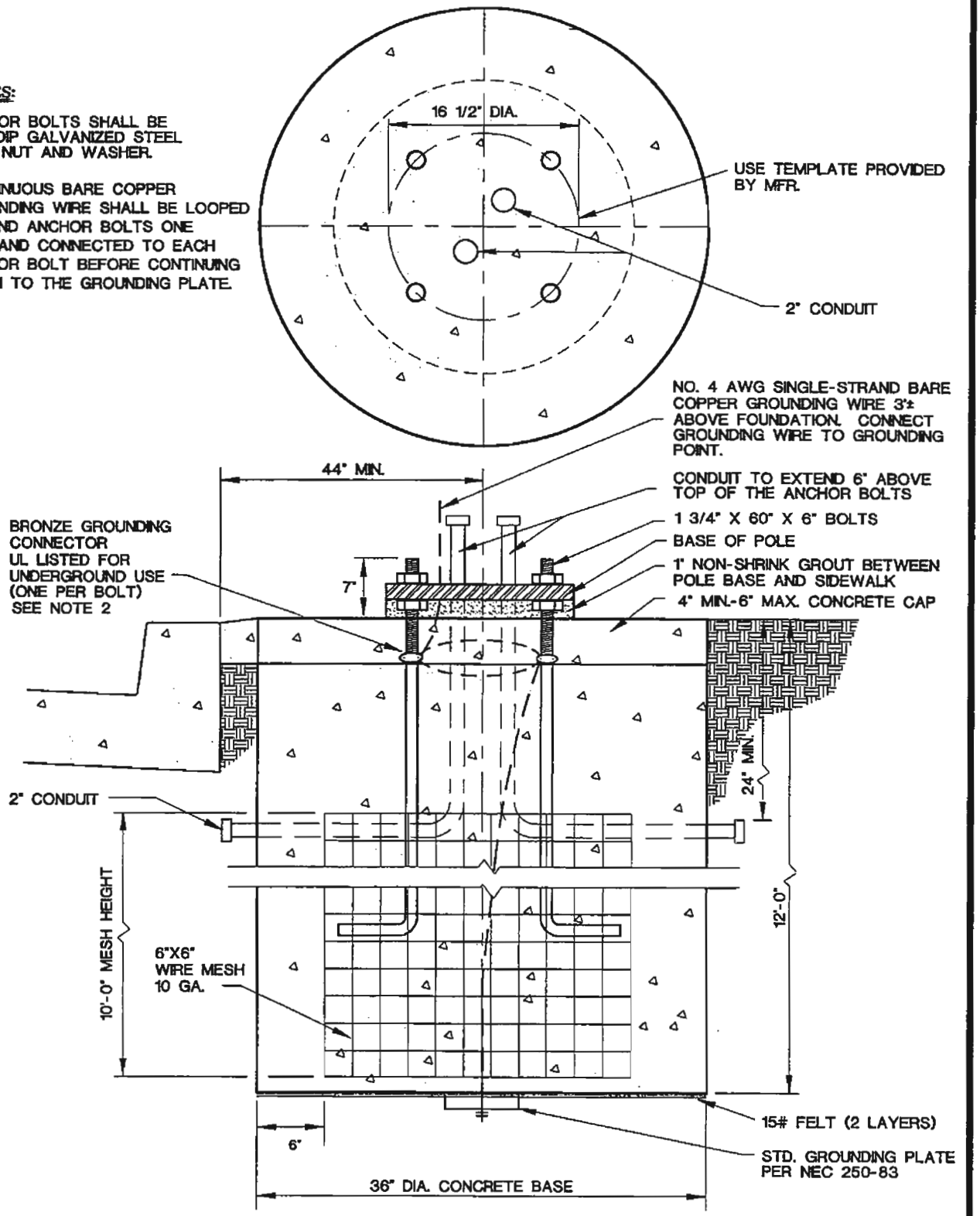
ANCHOR BOLTS	
POLE GA.	BOLT "E"
11	SEE POLE DRAWING
7	1-1/8" X 40" X 4"
3	1-1/4" X 44" X 4"



SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
623G.03.06 FOUNDATION	
	TYPE "G" FOUNDATION
DATE 12-12-96	DWG. NO. 404.207 — SHEET 1 OF 1

NOTES:

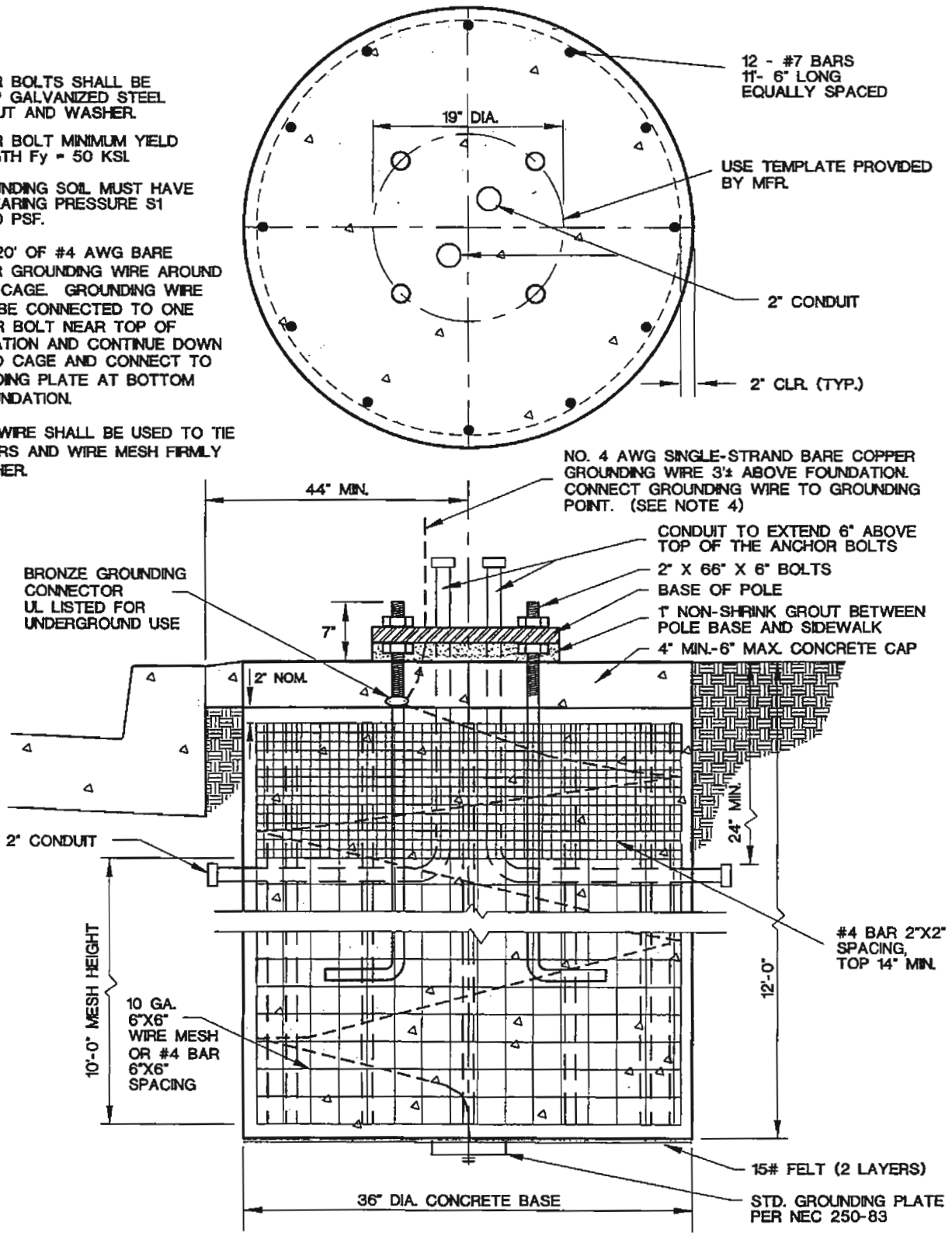
1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.



SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
623G.03.06 FOUNDATION	TYPE "H" FOUNDATION
	DATE 12-12-96 | DWG. NO. 404.208 | SHEET 1 OF 1

NOTES:

1. ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED STEEL WITH NUT AND WASHER.
2. ANCHOR BOLT MINIMUM YIELD STRENGTH Fy = 50 KSI.
3. SURROUNDING SOIL MUST HAVE SOIL-BEARING PRESSURE S1 OF 1500 PSF.
4. WRAP 20' OF #4 AWG BARE COPPER GROUNDING WIRE AROUND ENTIRE CAGE. GROUNDING WIRE SHALL BE CONNECTED TO ONE ANCHOR BOLT NEAR TOP OF FOUNDATION AND CONTINUE DOWN AROUND CAGE AND CONNECT TO GROUNDING PLATE AT BOTTOM OF FOUNDATION.
5. STEEL WIRE SHALL BE USED TO TIE ALL BARS AND WIRE MESH FIRMLY TOGETHER.

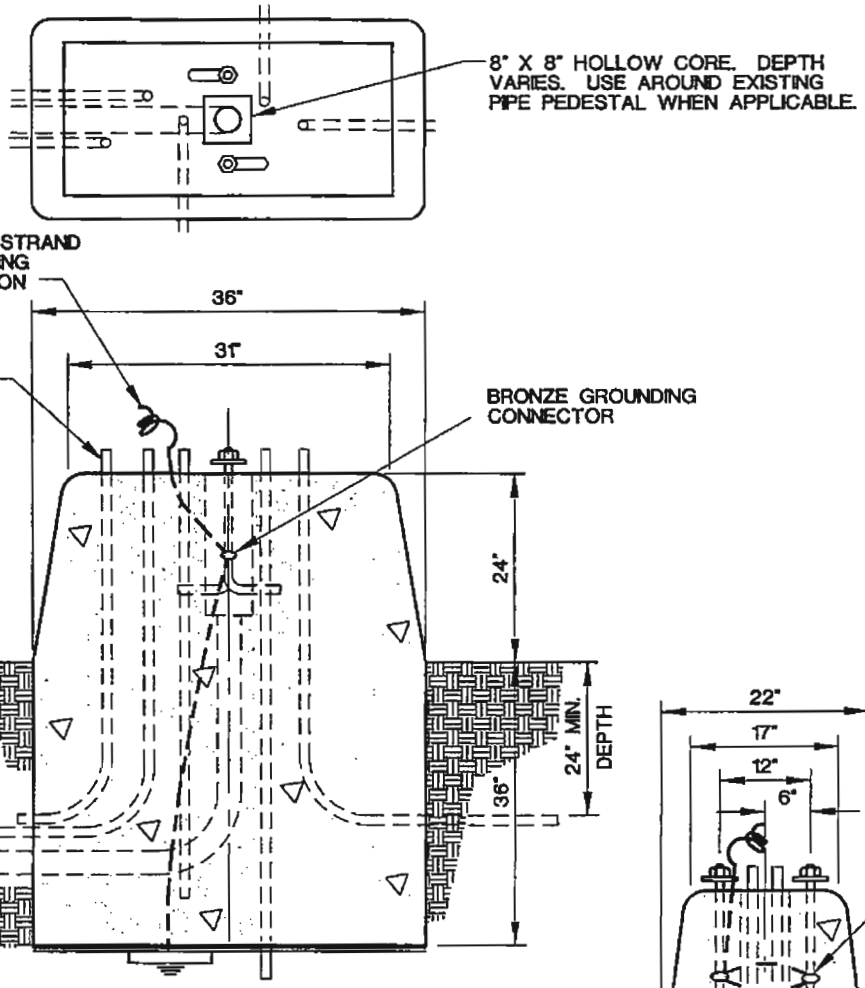


SPECIFICATION REFERENCE	
623G.03.06	FOUNDATION

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE "L" FOUNDATION

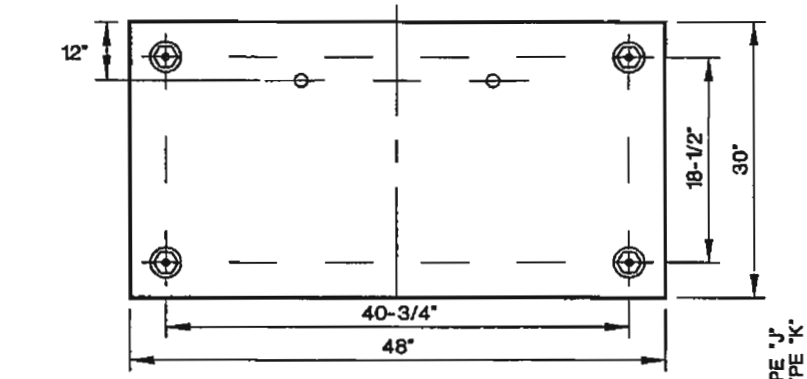
DATE 12-12-96	DWG. NO. 404.209	SHEET 1 OF 1

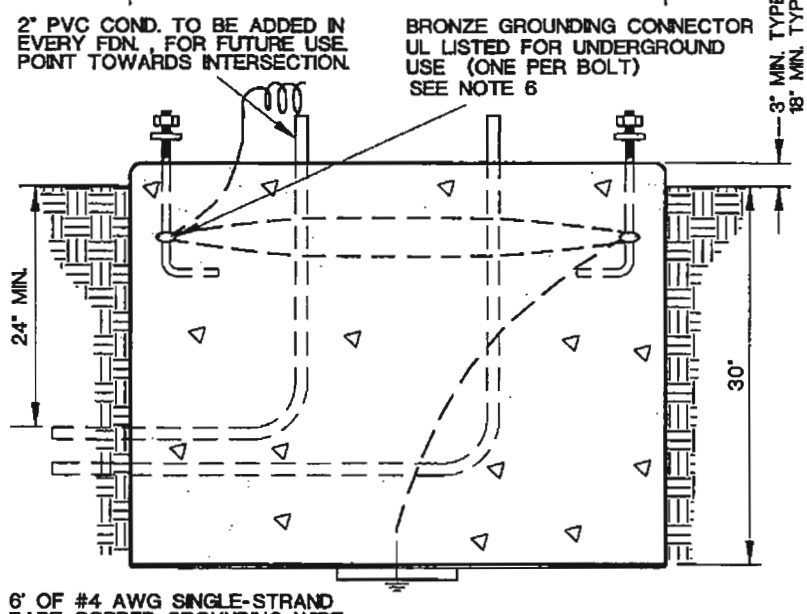


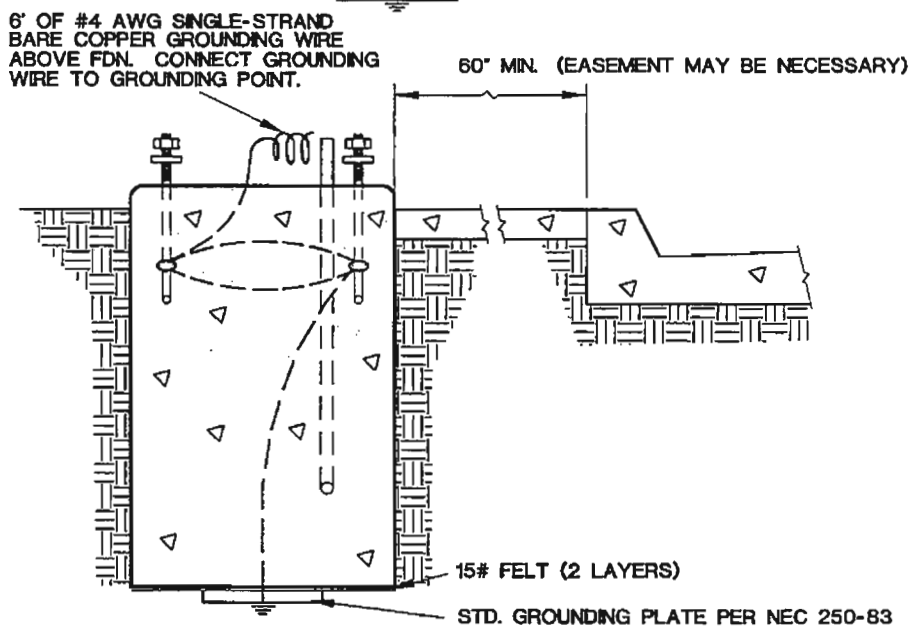
NOTES:

1. FOR CONDUIT SIZE, LOCATION AND QUANTITY, SEE PLANS.
2. ANCHOR BOLTS 3/4" X 18" X 3" SHALL BE HOT-DIP GALVANIZED COMMERCIAL GRADE STEEL WITH NUT AND WASHER.
3. ANCHOR BOLT PROJECTION ABOVE FOUNDATION SHALL BE 3-1/2" MIN, 4-1/2" MAX.
4. CONDUIT PROJECTION ABOVE FOUNDATION SHALL BE 2" MIN, 4" MAX.
5. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPE "I" FOUNDATION
	DATE 12-12-96 | DWG. NO. 404.211 | SHEET 1 OF 1



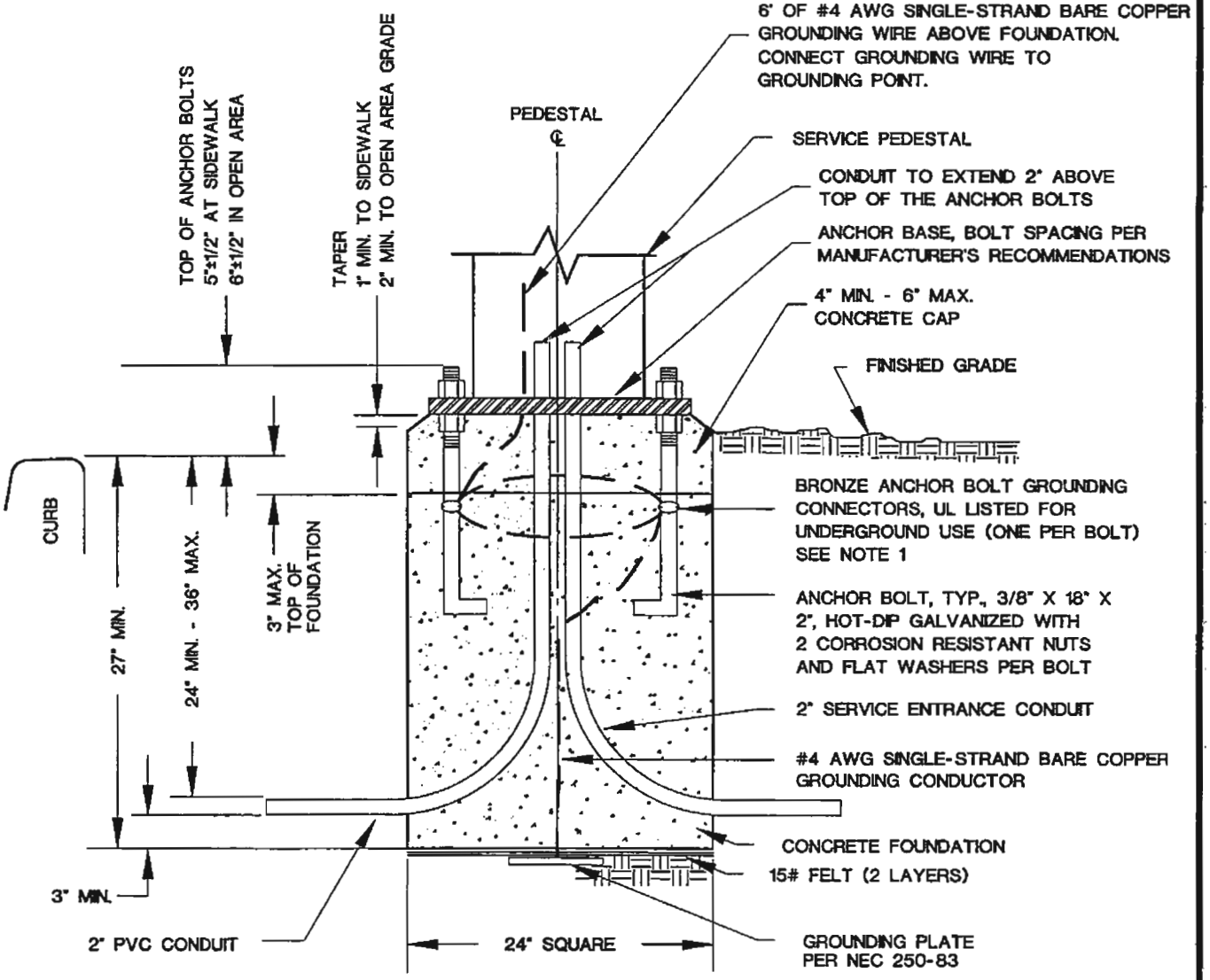




NOTES:

1. FOR CONDUIT SIZE, LOCATION, AND QUANTITY SEE PLANS.
2. 3/4" X 18" X 3" HOT-DIP GALVANIZED ANCHOR BOLTS. LOCATE WITH TEMPLATE.
3. ANCHOR BOLT PROJECTION ABOVE FOUNDATION SHALL BE 3-1/2" MIN., 4-1/2" MAX.
4. CONDUIT PROJECTION ABOVE FOUNDATION SHALL BE 2" MIN., 4" MAX.
5. LOCATION OF FOUNDATION MUST BE APPROVED BY ENGINEER IN FIELD.
6. CONTINUOUS BARE COPPER GROUNDING WIRE SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPE "J" & "K" FOUNDATIONS		
		DATE 12-12-96	DWG. NO. 404.213	SHEET 1 OF 1



NOTES:

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
2. CABINET COVERS SHALL BE PARALLEL WITH CURB.
3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.
4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
NO. 6367
4-2-97

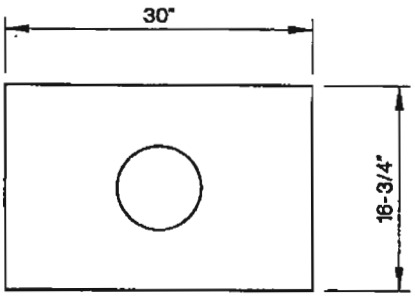
SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

SERVICE PEDESTAL FOUNDATION

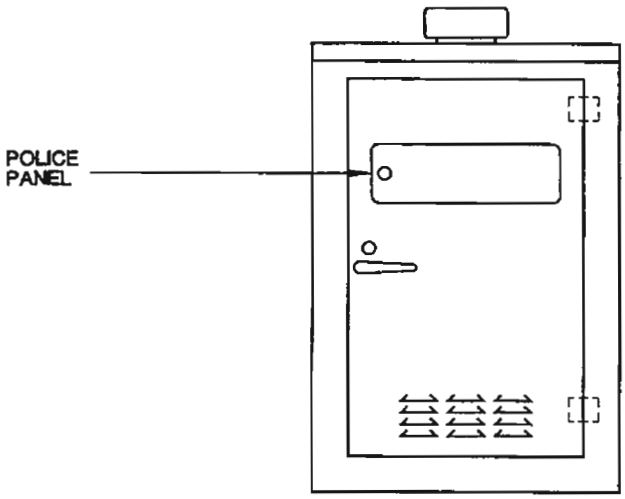
DATE 12-12-96	DWG. NO. 404.214	SHEET 1 OF 1

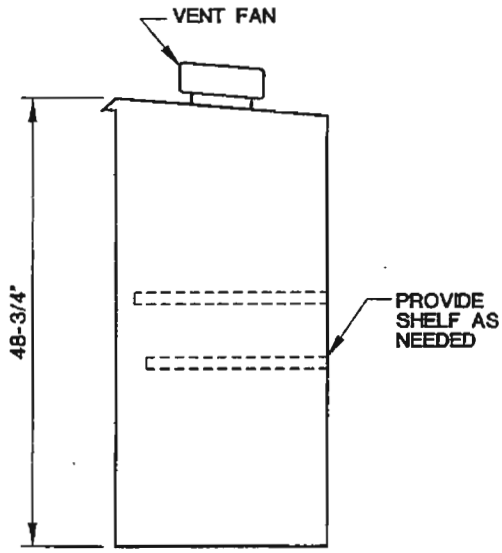
MOTOR: 1/125 HP-
3000 RPM NEMA CLASS
B INS. 0.65 AMPS AT
115 VAC.

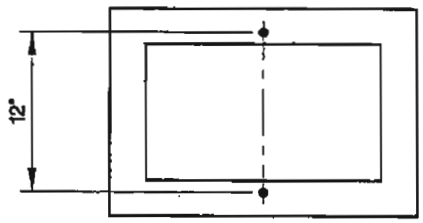


VENT FAN SPECIFICATION:

134 C.F.M. RATING AT .160"
OF WATER STATIC PRESSURE.







PLAN AT BASE

"M" CABINET

NOTES:

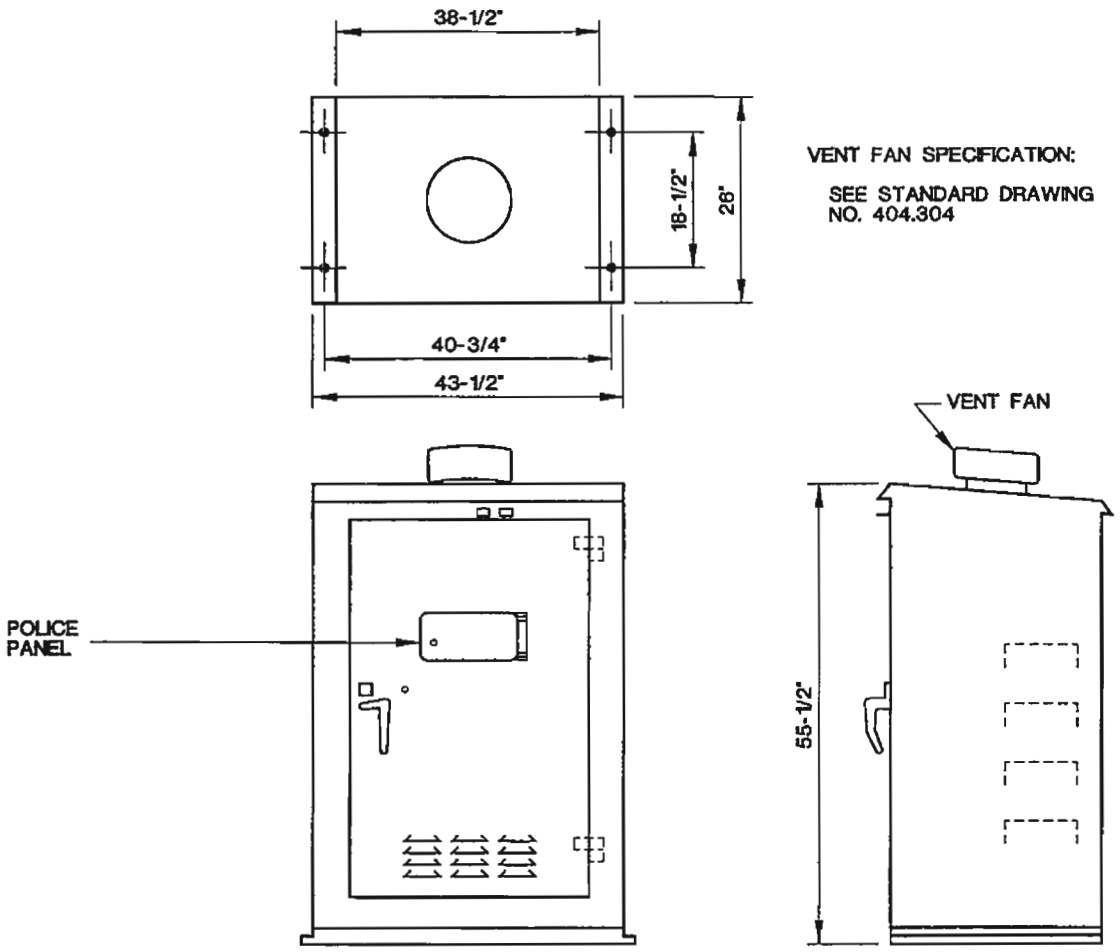
1. MATERIAL - 14 GA. SHEET STEEL, OR ALUMINUM EQUIVALENT.
2. PAINT OUTSIDE TWO COATS AND INSIDE TWO COATS WHITE ENAMEL OR AS APPROPRIATE.
3. DOOR SHALL LOCK AT THREE POINTS.
4. FOR FOUNDATION DETAILS AND ANCHOR BOLT LOCATION SEE DRAWING NO. 404.211.
5. INCLUDE 3/4" x 18" x 3" HOT-DIP GALVANIZED ANCHOR BOLTS WITH EACH CABINET.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE V
CABINET

DATE 12-12-96	DWG. NO. 404.304	SHEET 1 OF 1



VENT FAN SPECIFICATION:

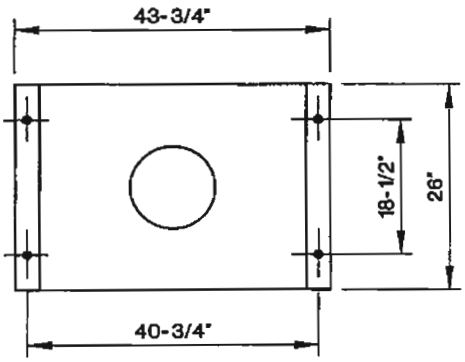
SEE STANDARD DRAWING NO. 404.304

"P" CABINET

NOTES:

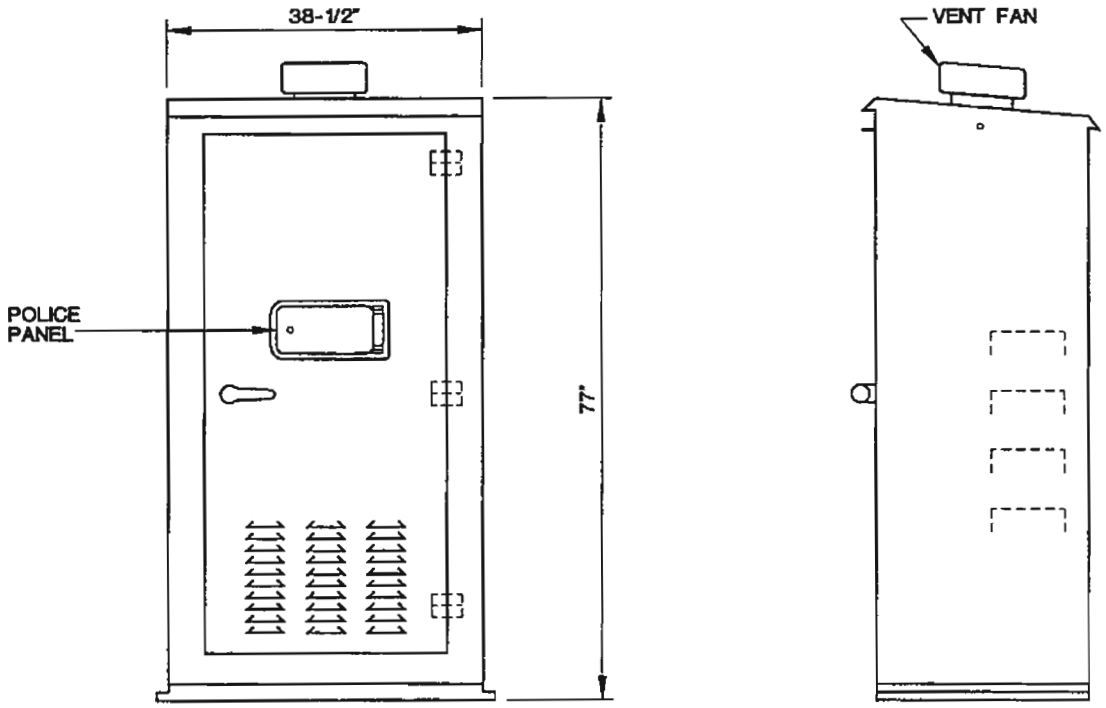
1. MATERIAL - 14 GA. SHEET STEEL, OR ALUMINUM EQUIVALENT.
2. PAINT OUTSIDE TWO COATS AND INSIDE TWO COATS WHITE ENAMEL OR AS APPROPRIATE.
3. SHELVES SHALL BE REMOVABLE AND ADJUSTABLE FOR VERTICAL SPACING.
4. DOOR SHALL LOCK AT THREE POINTS.
5. FOR FOUNDATION DETAILS AND ANCHOR BOLT LOCATION SEE DRAWING NO. 404.213.
6. INCLUDE 3/4" x 18" x 3" HOT-DIP GALVANIZED ANCHOR BOLTS WITH EACH CABINET.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPE VI CABINET		
		DATE 12-12-96	DWG. NO. 404.305	SHEET 1 OF 1



VENT FAN SPECIFICATION:

SEE STANDARD DRAWING NO. 404.304

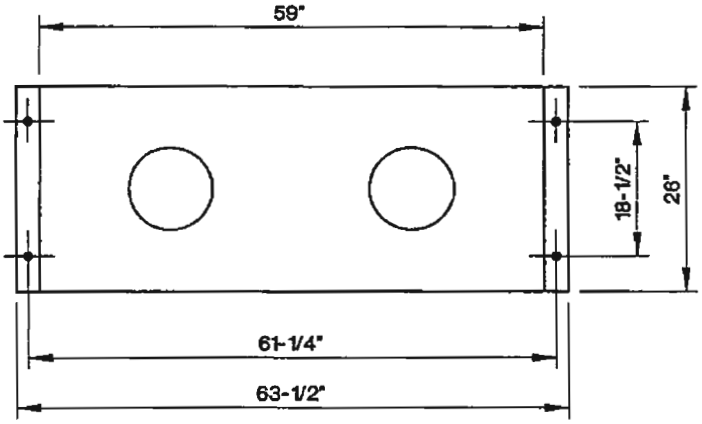


"R" CABINET

NOTES:

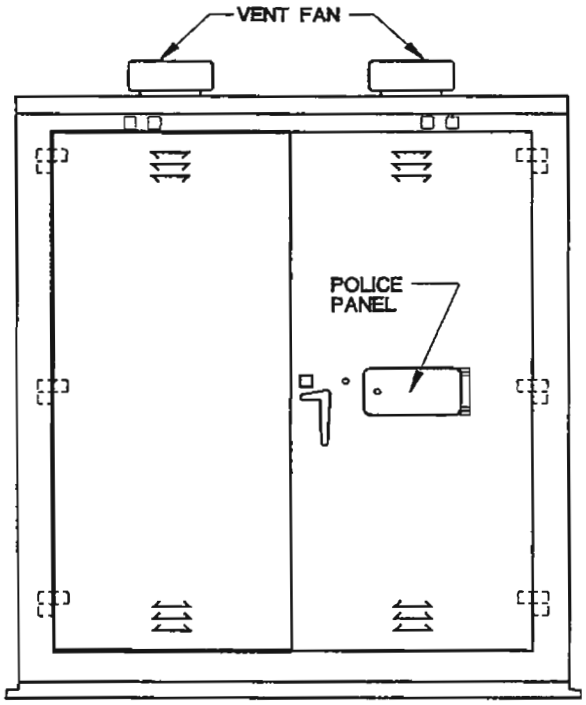
1. MATERIAL = 14 GA. SHEET STEEL, OR ALUMINUM EQUIVALENT.
2. PAINT OUTSIDE TWO COATS AND INSIDE TWO COATS WHITE ENAMEL OR AS APPROPRIATE.
3. FOR FOUNDATION DETAILS AND ANCHOR BOLT LOCATION SEE DRAWING NO. 404.213.
4. INCLUDE 3/4" x 18" x 3" HOT-DIP GALVANIZED ANCHOR BOLTS WITH EACH CABINET.

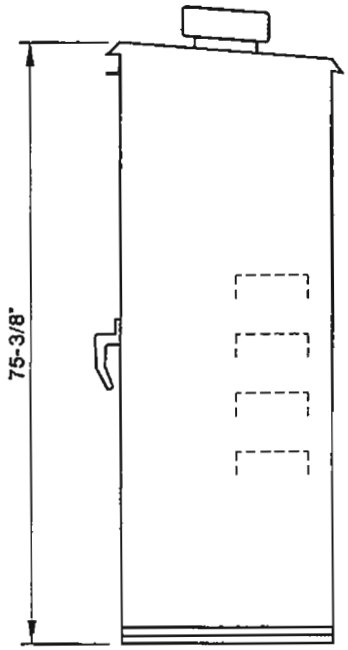
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPE VIII CABINET		
		DATE 12-12-96	DWG. NO. 404.307	SHEET 1 OF 1



VENT FAN SPECIFICATION:

SEE STANDARD DRAWING NO. 404.304





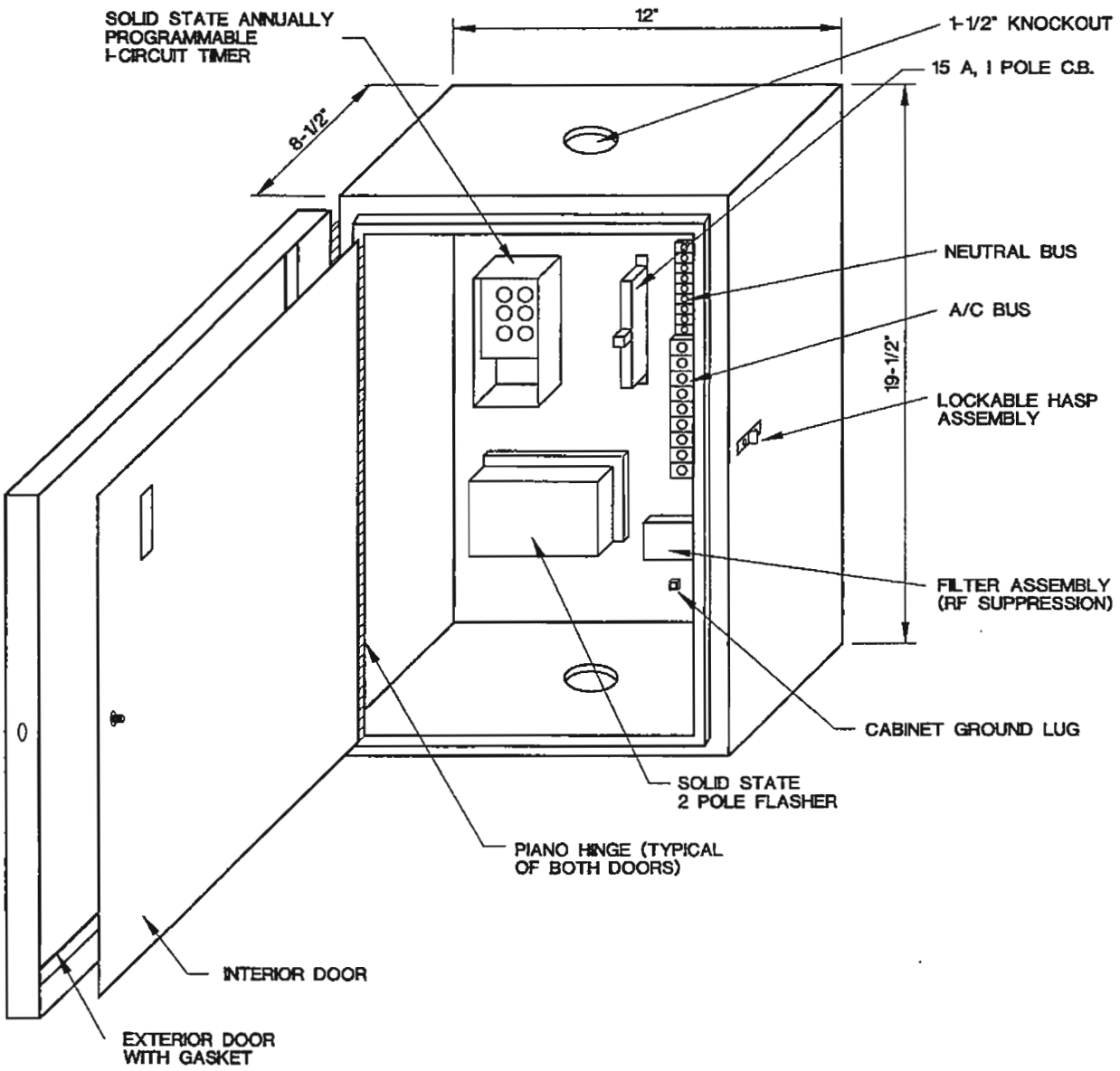
"RR" CABINET

NOTES:

1. MATERIAL - 14 GA. SHEET STEEL, OR ALUMINUM EQUIVALENT.
2. PAINT OUTSIDE TWO COATS AND INSIDE TWO COATS WHITE ENAMEL OR AS APPROPRIATE.
3. FOUNDATION DETAILS SHALL BE SPECIFIED ON THE SIGNAL CONSTRUCTION PLANS.
4. INCLUDE 3/4" x 18" x 3" HOT-DIP GALVANIZED ANCHOR BOLTS WITH EACH CABINET.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPE IX CABINET
	DATE 12-12-96 | DWG. NO. 404.308 | SHEET 1 OF 1

FLASHING BEACON
CONTROLLER CABINET

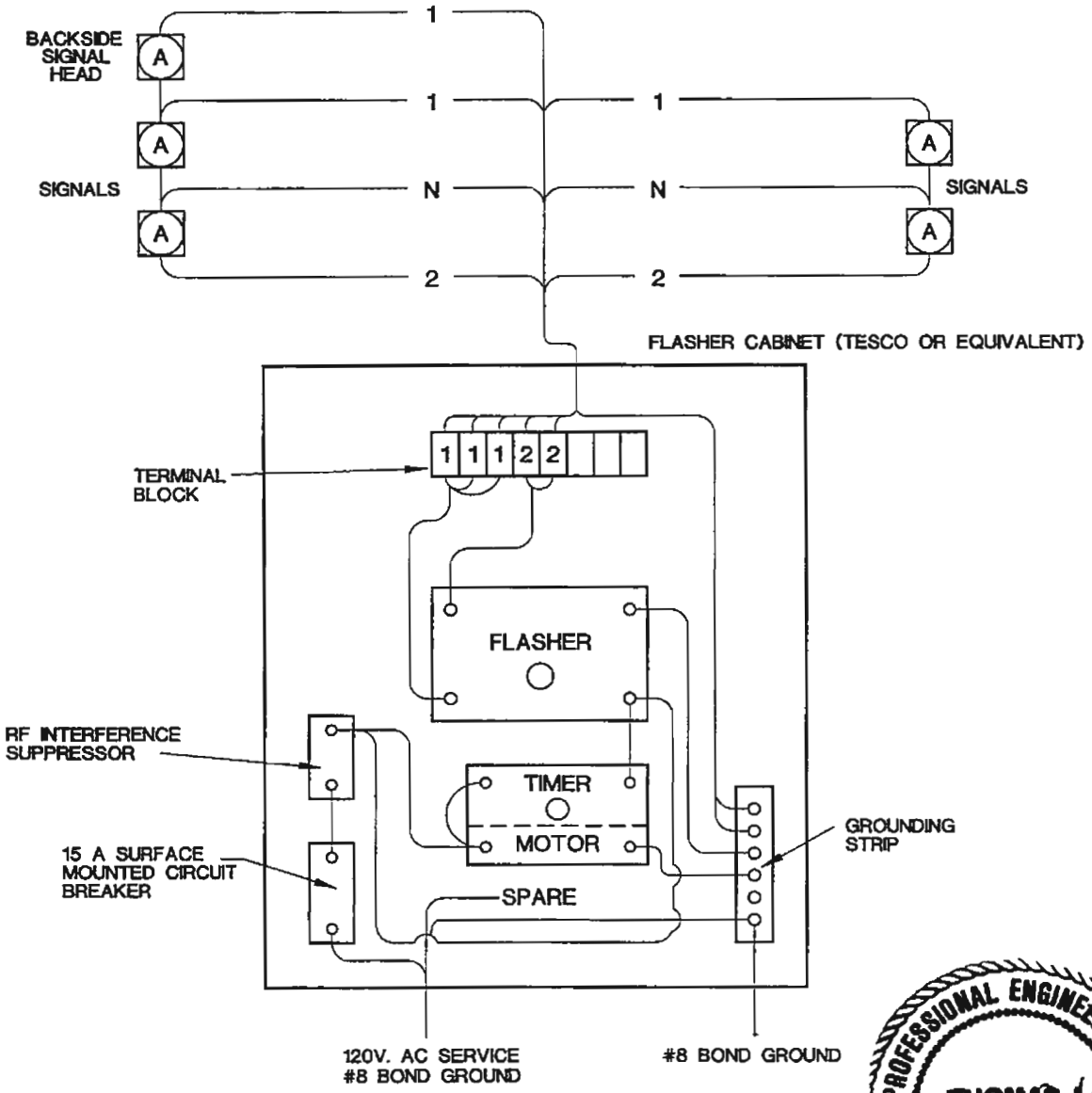


NOTES:

1. CONSTRUCT FROM MINIMUM 12-GUAGE STEEL.
2. THE TIMER SHALL BE RTC-AP21 OR EQUIVALENT.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		FLASHING BEACON CONTROLLER CABINET		
		DATE 12-12-96	DWG. NO. 404.309	SHEET 1 OF 1

WIRING DIAGRAM FOR FLASHING BEACON
TIMER CONTROLLED OPERATION



NOTES:

1. ALL WIRING INSIDE THE CABINET SHALL BE #14 THW.
2. ALL FIELD WIRE TO THE SIGNAL SHALL BE #14 SOLID COPPER.
3. THE SERVICE WIRE SHALL BE 2-#4 THW & 1-#6 THW. PROVIDE #10 PIGTAIL FOR CONNECTION TO BREAKER.
4. THE TIMER SHALL BE RTC-AP21 OR EQUIVALENT.
5. TWO POLE SOLID STATE FLASHER.
6. THERE SHALL BE A 1" MINIMUM CLEARANCE BETWEEN INDIVIDUAL COMPONENTS.
7. ALL SERVICE POINTS SHALL BE AS FOR STREET LIGHTING.
8. FLASHING PATTERN OF LIGHTS TO BE SPECIFIED BY THE ENTITY.

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS KROB
ELECTRICAL
No. 6361

4-2-97

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		WIRING DIAGRAM FOR FLASHING BEACON TIMER CONTROLLED OPERATION		
		DATE 12-12-96	DWG. NO. 404.310	SHEET 1 OF 1

DELETED

SYSTEM DESCRIPTION:

THE SYSTEM EMPLOYS OPTICAL COMMUNICATION TO IDENTIFY THE PRESENCE OF DESIGNATED PRIORITY VEHICLES AND CAUSES THE TRAFFIC SIGNAL CONTROLLER TO ADVANCE AND/OR HOLD A DESIRED TRAFFIC DISPLAY SELECTED FROM PHASES NORMALLY AVAILABLE. THE MATCHED SET OF COMPONENTS WHICH MAKE UP THE SYSTEM WILL CAUSE THE EXISTING TRAFFIC CONTROLLER TO BE MANIPULATED UPON RECOGNITION OF THE SIGNAL FROM THE VEHICLE. THIS COMMUNICATION SHALL BE EFFECTIVE TO THE OPTICAL DETECTORS AT OR NEAR THE INTERSECTION WITHIN A LINE-OF-SIGHT PATH OF UP TO 2500 FEET. THE SYSTEM SHALL REQUIRE NO ACTION OF THE VEHICLE OPERATOR OTHER THAN THE OPERATION OF THE "EMITTER ON" SWITCH LOCATED IN THE VEHICLE. THE SYSTEM SHALL OPERATE ON A FIRST-COME, FIRST-SERVED BASIS OR ON A SELECTED PRIORITY. THE SYSTEM SHALL BE DESIGNED TO YIELD TO OTHER HIGHER PRIORITY DEMANDS SUCH AS RAILROAD, DRAWBRIDGE, ETC. THE SYSTEM SHALL INTERFACE WITH EXISTING TRAFFIC SIGNAL CONTROLLERS WITHOUT COMPROMISING NORMAL OPERATION OR EXISTING SAFETY PROVISIONS. THE PRIORITY CONTROL SYSTEM SHALL BE A COMPATIBLE MATCHED SET OF COMPONENTS CONSISTING OF AN OPTICAL EMITTER, OPTICAL DETECTORS, OPTICAL DETECTOR CABLE, AND PHASE SELECTORS.

MATCHED SYSTEM COMPONENTS:

TO ASSURE DESIRED PERFORMANCE, THE SYSTEM SHALL PROVIDE THE SYNERGY OF THE FOUR PRINCIPAL COMPONENTS, MATCHED AND PROVEN THROUGH INTEGRATED TESTING AND EXTENSIVE FUNCTIONAL EXPERIENCE. THE MATCHED COMPONENTS SYSTEM SHALL OFFER COMPATIBILITY WITH ALL TYPES OF TRAFFIC SIGNAL CONTROLLERS. THE REQUIREMENT FOR MATCHED COMPONENTS PROVIDE FUTURE COMPATIBILITY OF ALL PRIORITY CONTROL ELEMENTS.

1. OPTICAL EMITTER.

   SHALL BE A LIGHTWEIGHT, WEATHERPROOF, LIGHT-EMITTING DEVICE WITH INTERNAL, REGULATED POWER SUPPLY DESIGNED TO PRODUCE STROBED, HIGH INTENSITY OPTICAL ENERGY, FROM A SINGLE SOURCE, PRECISELY TIMED BY A CRYSTAL CONTROLLED CIRCUIT.

2. OPTICAL DETECTOR.

   SHALL BE A LIGHT-WEIGHT, WEATHERPROOF, ADJUSTABLE, BI-DIRECTIONAL OPTICAL DETECTOR ASSEMBLY. INTERNAL CIRCUITRY SHALL TRANSFORM OPTICAL ENERGY FROM THE OPTICAL EMITTER ASSEMBLY INTO ELECTRICAL SIGNALS FOR DELIVERY (UP TO 1000 FEET) VIA OPTICAL DETECTOR CABLE TO THE PHASE SELECTION EQUIPMENT.

3. OPTICAL DETECTOR CABLE.

   SHALL BE A DURABLE, SHIELDED, 3-CONDUCTOR CABLE WITH A DRAIN WIRE AND THE NECESSARY ELECTRICAL CHARACTERISTICS TO CARRY POWER TO THE OPTICAL DETECTOR FROM THE PHASE SELECTOR AND TO CARRY THE OPTICAL DETECTOR TO THE PHASE SELECTOR.

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		PRIORITY VEHICLE PREEMPTION SYSTEM		
		DATE 12-12-96	DWG. NO. 404.320	SHEET 1 OF 5

4. PHASE SELECTOR. DELETED

THIS EQUIPMENT SHALL INTERFACE BETWEEN THE OPTICAL DETECTORS AND THE CONTROLLER UNIT AND PROVIDE THE FOLLOWING FUNCTIONS WHILE NOT COMPROMISING THE EXISTING FAIL-SAFE PROVISIONS:

A. SUFFICIENT POWER TO ALL OPTICAL DETECTORS REQUIRED FOR THE INTERSECTION.

B. SUITABLE SENSITIVITY TO THE OPTICAL DETECTOR SIGNAL VIA ADJUSTABLE RANGE POTENTIOMETER.

C. DIFFERENTIATION OF SIGNALS BY OPTICAL DETECTORS FROM ONE OR MORE EMITTERS ON A FIRST-COME, FIRST-SERVED BASIS.

D. OUTPUT SIGNALS TO THE CONTROLLER TO CAUSE SELECTION OF THE DESIRED PHASE GREEN DISPLAY FOR THE APPROACHING PRIORITY VEHICLE.

E. SMOOTH TRANSITION TO NON-PRIORITY OPERATION UPON TERMINATION OF THE OPTICAL DETECTION INPUT.

SYSTEM OPERATION:

A. PHASE SELECTION SHALL BE ACTIVATED BY AN OPTICALLY SENSITIVE RECEIVER CAPABLE OF RECOGNIZING AND DISCRIMINATING AN OPTICAL EMITTER FLASH RATE (CLASS II, 14.035 HZ 0.255 HZ) FROM A SINGLE LIGHT SOURCE OR UPON THE ACTUATION OF A TEST SWITCH OR REMOTE CALL SIGNAL TO THE PHASE SELECTOR. IF A SECOND CHANNEL OF PREEMPTION IS USED IT SHALL RESPOND TO A FLASH RATE OF (CLASS I) 9.639 HZ 0.119 HZ.

B. THE SYSTEM SHALL CAUSE THE TRAFFIC CONTROLLER TO SELECT FROM NORMALLY AVAILABLE GREEN PHASES BY ACTIVATION OF A COMBINATION OF ITS INPUTS SUCH AS:

MANUAL CONTROL ENABLE
INTERVAL ADVANCE
PHASE OMITS
VEHICLE DETECTOR (CALL/ALL)
FORCE OFF

C. THE SYSTEM SHALL NOT REQUIRE MODIFICATION OR REPLACEMENT OF THE EXISTING CONTROLLER UNIT BEYOND ADDING THE NECESSARY SYSTEM HARDWARE AND INTERFACING AT CABINET TERMINAL BLOCKS.

D. THE SYSTEM SHALL MAINTAIN ADEQUATE MINIMUM TRAFFIC SIGNAL DISPLAYS WHEN PRIORITY CONTROL IS ACTIVE.

E. THE SYSTEM SHALL PROVIDE FOR UP TO 3 OPTICAL DETECTORS TO BE CONNECTED TO EACH CHANNEL TO ACCOMPLISH THE FOLLOWING:

1. PROVIDE ADEQUATE OPTICAL EMITTER DETECTION RANGE TO ALLOW SUFFICIENT TIME TO DELIVER THE DESIRED TRAFFIC SIGNAL DISPLAY IN ACCORDANCE WITH THE MINIMUM TIMES REQUIRED TO TERMINATE NON-DESIRED TRAFFIC SIGNAL DISPLAYS.

2. PROVIDE CONTINUOUS LINE-OF-SIGHT CONTACT BETWEEN THE EMITTER AND THE OPTICAL DETECTOR UNITS.

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	PRIORITY VEHICLE PREEMPTION SYSTEM
	DATE 12-12-96 | DWG. NO. 404.320 | SHEET 2 OF 5

F. ABNORMAL SEQUENCE OF TRAFFIC SIGNAL DISPLAYS SHALL NOT BE CAUSED TO OCCUR.

G. TRANSITIONS FROM GREEN TO RED WITHOUT THE APPROPRIATE CLEARANCE INTERVALS SHALL NOT BE CAUSED TO OCCUR.

H. THE SYSTEM SHALL ALLOW THE TRAFFIC SIGNAL CONTROLLER TO RESUME NORMAL TIMING OPERATION AFTER THE DESIRED DISPLAY IS OBTAINED AND OPTICAL SIGNALS HAVE CEASED FOR AN USER-PROGRAMMABLE PERIOD.

I. THE SYSTEM SHALL NOT ATTEMPT CONTROLLER MANIPULATION NOR RETAIN PRIORITY VEHICLE CALLS DURING PERIODS OF "INTERSECTION FLASH" OPERATION.

SYSTEM COMPONENT SPECIFICATIONS:

A. OPTICAL EMITTER

1. THE OPTICAL EMITTER SHALL BE COMPATIBLE WITH OTHER COMPONENTS OF THE PRIORITY VEHICLE PREEMPTION SYSTEM.

B. OPTICAL DETECTOR.

1. THE OPTICAL DETECTOR SHALL BE A LIGHT-WEIGHT, WEATHERPROOF DEVICE CAPABLE OF SENSING AND TRANSFORMING PULSED OPTICAL ENERGY INTO ELECTRICAL SIGNALS USABLE BY THE PHASE SELECTION EQUIPMENT.
2. THE UNIT SHALL BE HIGH-IMPACT POLYCARBONATE CONSTRUCTION WITH NON-CORROSIVE HARDWARE.
3. THE UNIT SHALL BE DESIGNED FOR SINGLE MOUNTING AT OR NEAR AN INTERSECTION OR MAST ARM, PEDESTAL, PIPE, OR SPAN WIRE USING READILY AVAILABLE, CONVENTIONAL SIGNAL MOUNTING HARDWARE AND FITTINGS.
4. EACH UNIT SHALL ACCEPT OPTICAL SIGNALS FROM TWO DIRECTIONS AND PROVIDE A SINGLE ELECTRICAL OUTPUT SIGNAL.
5. THE UNIT SHALL INCLUDE A DESIGN FEATURE TO ALLOW AIMING OF THE TWO OPTICAL SENSING INPUTS FOR SKEWED APPROACHES OR SLIGHT CURVES.
6. THE UNIT SHALL HAVE A BUILT-IN TERMINAL STRIP TO SIMPLIFY WIRING CONNECTIONS.
7. THE UNIT SHALL RECEIVE POWER FROM THE PHASE SELECTOR AND BE OPERATIONAL FROM 16 TO 40 UNREGULATED DC VOLTS.
8. THE UNIT SHALL BE RESPONSIVE TO THE OPTICAL EMITTER AT A DISTANCE OF 1800 FEET.
9. THE UNIT SHALL BE CAPABLE OF PROVIDING THE NECESSARY ELECTRICAL SIGNAL TO THE PHASE SELECTOR THROUGH UP TO 1000 FEET OF OPTICAL DETECTOR CABLE.
10. THE UNIT SHALL EMPLOY A REPLACEABLE CIRCUIT BOARD ASSEMBLY AND PHOTOCELLS TO FACILITATE REPAIR.

DELETED INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		PRIORITY VEHICLE PREEMPTION SYSTEM		
		DATE 12-12-96	DWG. NO. 404.320	SHEET 3 OF 5

C. OPTICAL DETECTOR CABLE.

1. THE CABLE MUST GUARANTEE DELIVERY OF THE NECESSARY QUALITY SIGNAL FROM THE OPTICAL DETECTOR TO THE PHASE SELECTOR OVER A NON-SPLICED CABLE LENGTH OF 1000 FEET.

2. THE CABLE SHALL HAVE 3 AWG 20 STRANDED COPPER CONDUCTORS, INDIVIDUALLY TINNED AND COLOR CODED AS FOLLOWS:

ORANGE FOR DELIVERY OF OPTICAL DELIVERY POWER (+)
BLUE FOR OPTICAL DETECTOR POWER RETURN (-)
YELLOW FOR OPTICAL DETECTOR SIGNAL

D. PHASE SELECTION EQUIPMENT.

THE PRIORITY VEHICLE PREEMPTION CONTROL SYSTEM SHALL BE A SELF-CONTAINED, STAND-ALONE, SHELF MOUNTED UNIT WHICH SHALL RECOGNIZE INPUT SIGNALS FROM UP TO FOUR SEPARATE CHANNELS OF PRIORITY VEHICLE PREEMPTION AND TO CONTAIN THE FOLLOWING MAJOR PARTS:

A. A CARD RACK WHICH SHALL CONTAIN THE POWER SUPPLY (TO BE POWERED FROM AC MAINS IN CABINET AND CONTAIN ITS OWN INTERNAL POWER SUPPLY TO SUPPORT OPTICAL DETECTORS), PLUG-IN CARD EDGE CONNECTORS, APPROPRIATE PLUGS AND CONNECTOR HARNESSES TO CONNECT THE WHOLE UNIT TO THE CABINET WIRING ASSEMBLY.

B. PHASE SELECTOR DISCRIMINATOR PLUG-IN MODULE: THIS MODULE UNIT SHALL BE A PLUG-IN TWO-CHANNEL DEVICE DESIGNED TO BE USED WITH OPTICAL EMITTERS AND DETECTORS. IT SHALL BE CAPABLE OF RECOGNIZING AND DISCRIMINATING OPTICAL EMITTER FLASH RATES, AS DESCRIBED IN SECTION II, VIA OPTICAL DETECTORS CONNECTED TO EACH CHANNEL. THE PRIMARY FUNCTION OF THE PHASE SELECTOR DISCRIMINATOR PLUG-IN MODULE IS TO PROVIDE PRIORITY VEHICLE PREEMPTION FOR NEMA TRAFFIC SIGNAL CONTROLLERS WITH OR WITHOUT INTERNAL PREEMPT TIMING CAPABILITY.

RELIABILITY:

ALL EQUIPMENT SUPPLIED AS PART OF THE OPTICAL PRIORITY REMOTE TRAFFIC CONTROL SYSTEM INTENDED FOR USE IN THE CONTROLLER CABINET SHALL MEET THE ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS CONTAINED IN THE NEMA STANDARDS PUBLICATION TS1-1983 PART 2.

DELETED

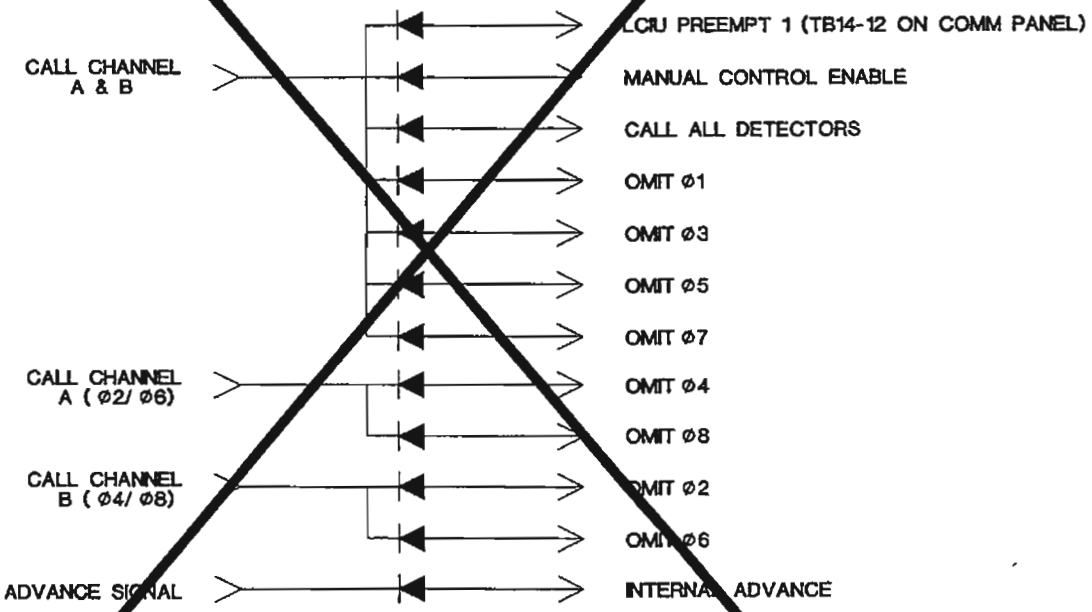
INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		PRIORITY VEHICLE PREEMPTION SYSTEM		
		DATE 12-12-96	DWG. NO. 404.320	SHEET 4 OF 5

DELETED

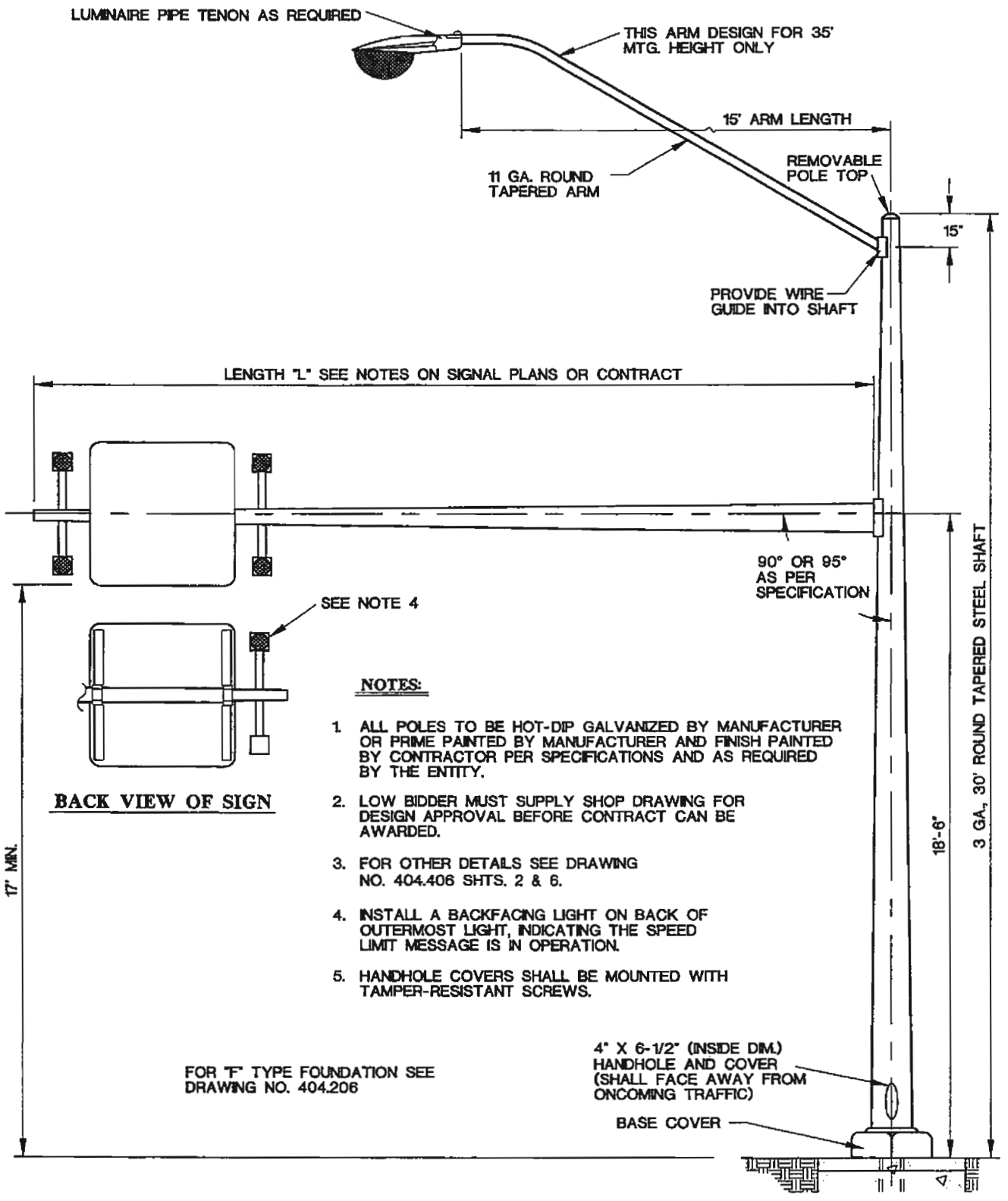
CABINET WIRING:

THE SYSTEM SHALL BE INTERFACED TO THE CABINET ACCORDING TO THE FOLLOWING DIAGRAM, UTILIZING IN4006 DIODES OR EQUIVALENT.



INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		PRIORITY VEHICLE PREEMPTION SYSTEM		
		DATE 12-12-96	DWG. NO. 404.320	SHEET 5 OF 5



BACK VIEW OF SIGN

NOTES:

1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
3. FOR OTHER DETAILS SEE DRAWING NO. 404.406 SHTS. 2 & 6.
4. INSTALL A BACKFACING LIGHT ON BACK OF OUTERMOST LIGHT, INDICATING THE SPEED LIMIT MESSAGE IS IN OPERATION.
5. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.

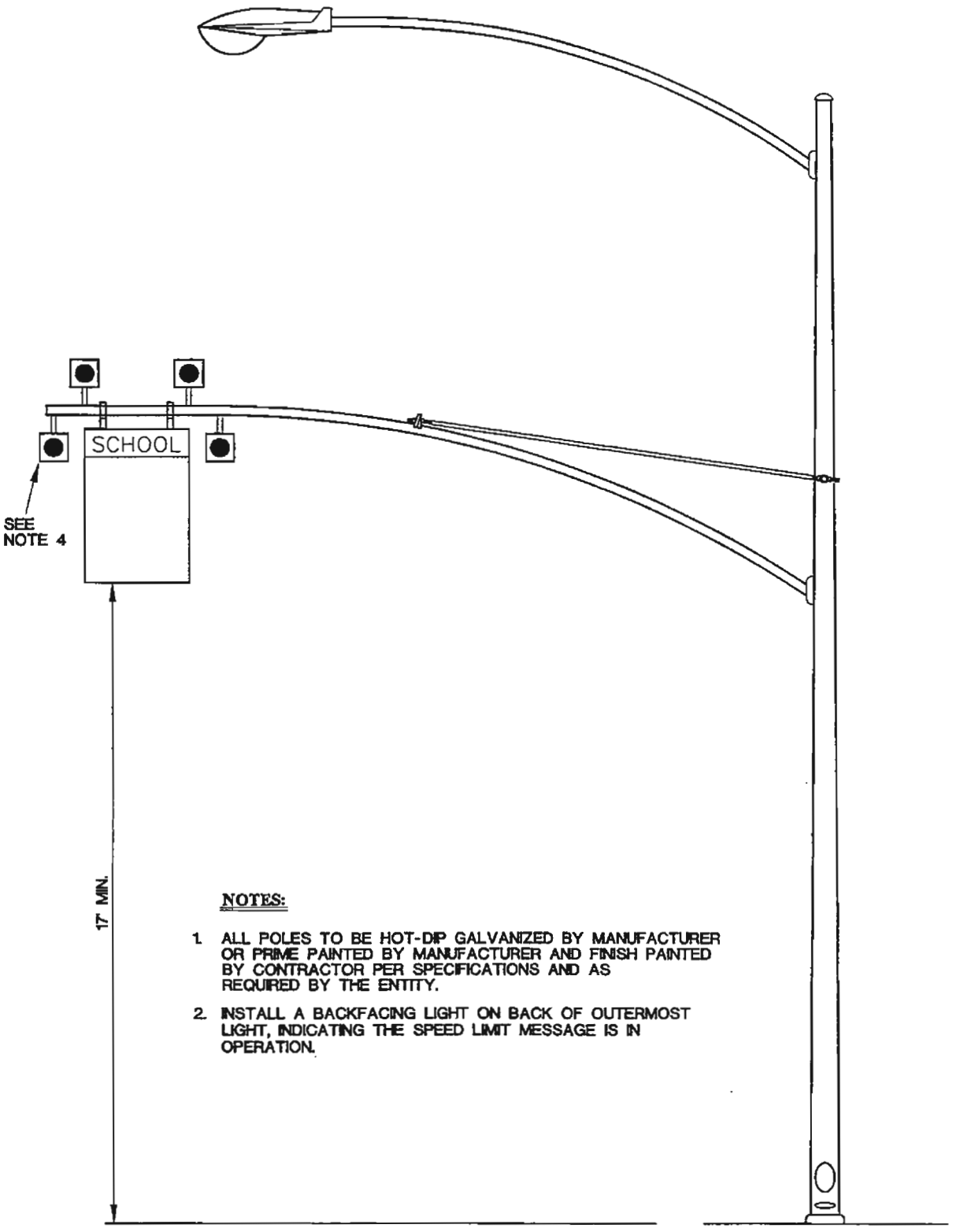
FOR "F" TYPE FOUNDATION SEE DRAWING NO. 404.206

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SCHOOL FLASHING SIGN ON POLE WITH LUMINAIRE

DATE 12-12-96	DWG. NO. 404.400	SHEET 1 OF 2



NOTES:

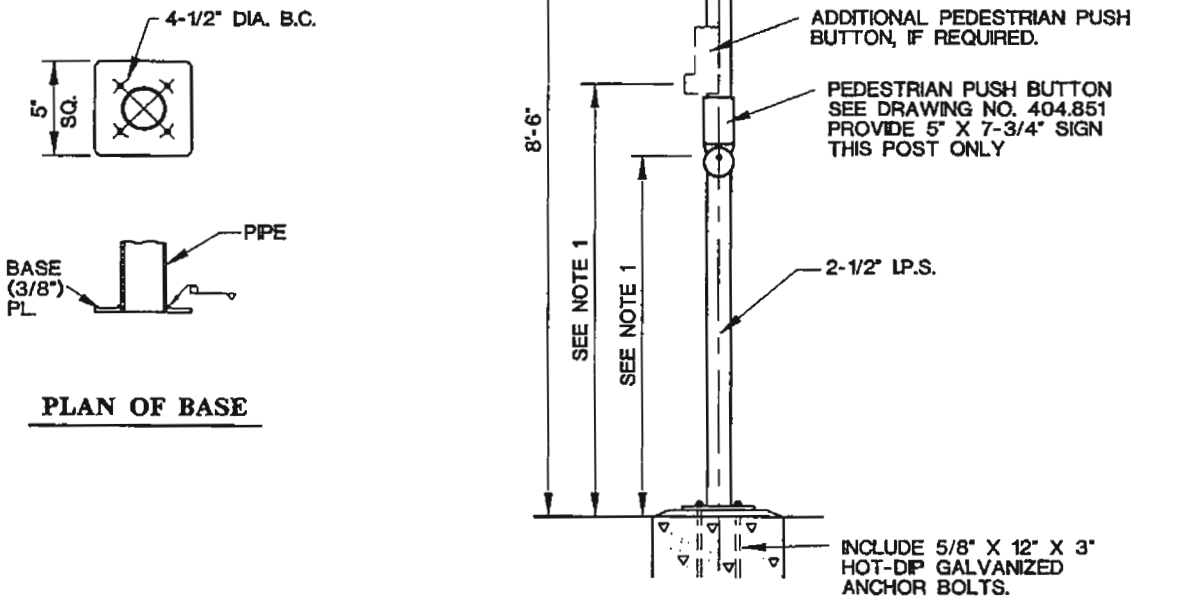
1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. INSTALL A BACKFACING LIGHT ON BACK OF OUTERMOST LIGHT, INDICATING THE SPEED LIMIT MESSAGE IS IN OPERATION.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SCHOOL FLASHING SIGN ON TYPE-III POLE

DATE 12-12-96	DWG. NO. 404.400	SHEET 2 OF 2



PLAN OF BASE

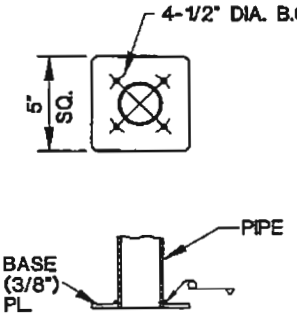
NOTES:

1. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE, THE MAXIMUM HEIGHT SHALL BE 48".
2. THE FORCE REQUIRED TO ACTIVATE CONTROL SHALL BE NO GREATER THAN 5 LB.
3. POST SHALL BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.

FOR TYPE "A" FOUNDATION SEE DRAWING NO. 404.201

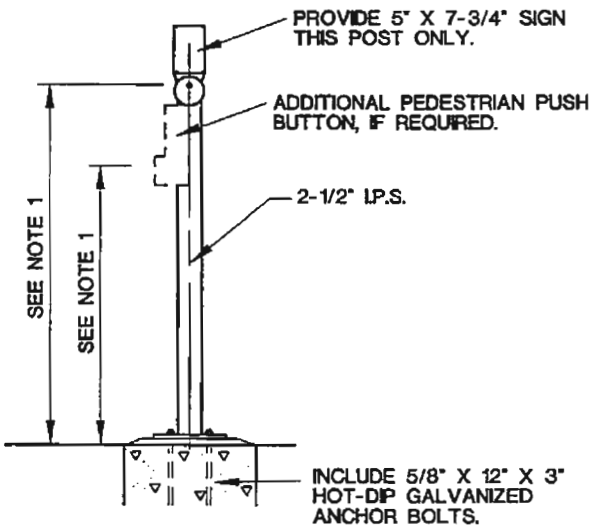
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	PEDESTRIAN PUSH BUTTON POST FOR SPECIAL SIGN (8'-6" HIGH)
	DATE 12-12-96 | DWG. NO. 404.401 | SHEET 1 OF 2

PEDESTRIAN PUSHBUTTON
FOR 2 1/2" POSTTOP MOUNTING



PLAN OF BASE

PEDESTRIAN PUSH BUTTON



NOTES:

1. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE, THE MAXIMUM HEIGHT SHALL BE 48".
2. THE FORCE REQUIRED TO ACTIVATE CONTROL SHALL BE NO GREATER THAN 5 LB.
3. POST SHALL BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.

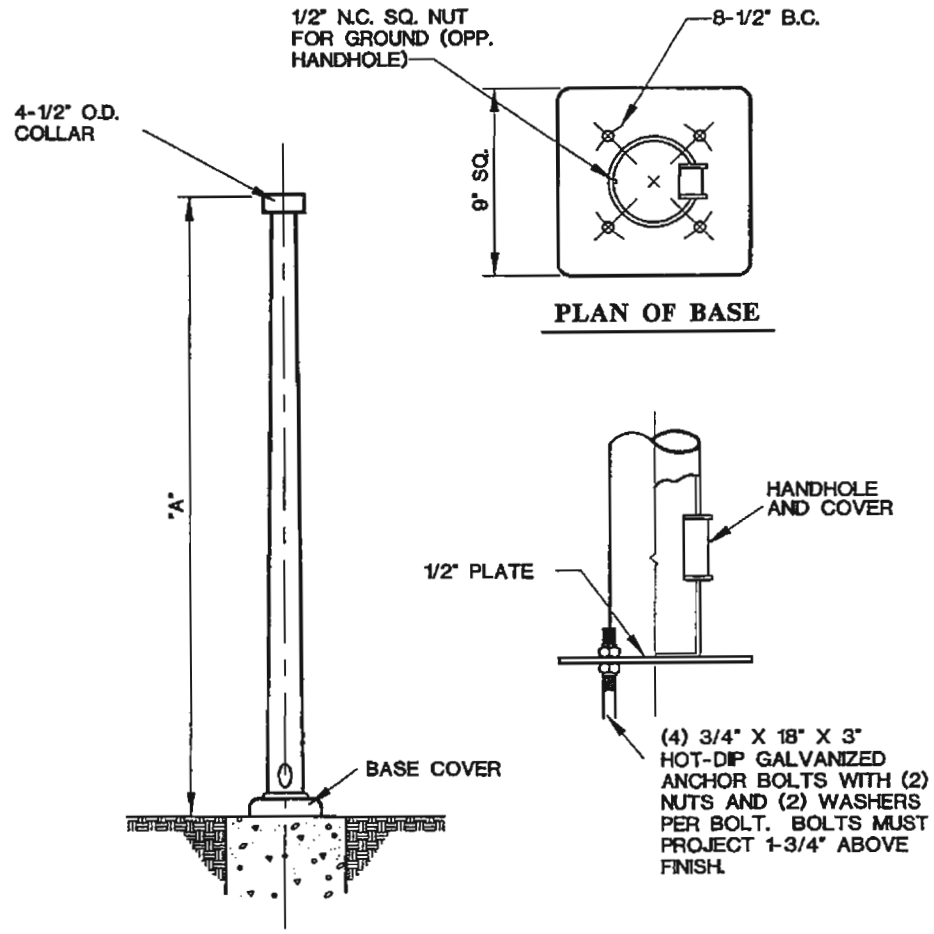
FOR TYPE "A" FOUNDATION SEE DRAWING NO. 404.201

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PEDESTRIAN PUSH BUTTON POST FOR 2 1/2 POSTTOP MOUNTING

DATE 12-12-96	DWG. NO. 404.401	SHEET 2 OF 2



PLAN OF BASE

POLE TYPE	"A" NOM.	SHAFT SIZE	
1-A	10'-0"	11 GA. 5.5" X 4.1" X 10'-0"	NEAR RIGHTS & ISL. POLES
1-B	7'-0"	11 GA. 5.5" X 4.1" X 7'-0"	PED. HEADS & BUTTON ONLY

NOTES:

1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
3. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED A MAXIMUM OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE, THE MAXIMUM HEIGHT SHALL BE 48".

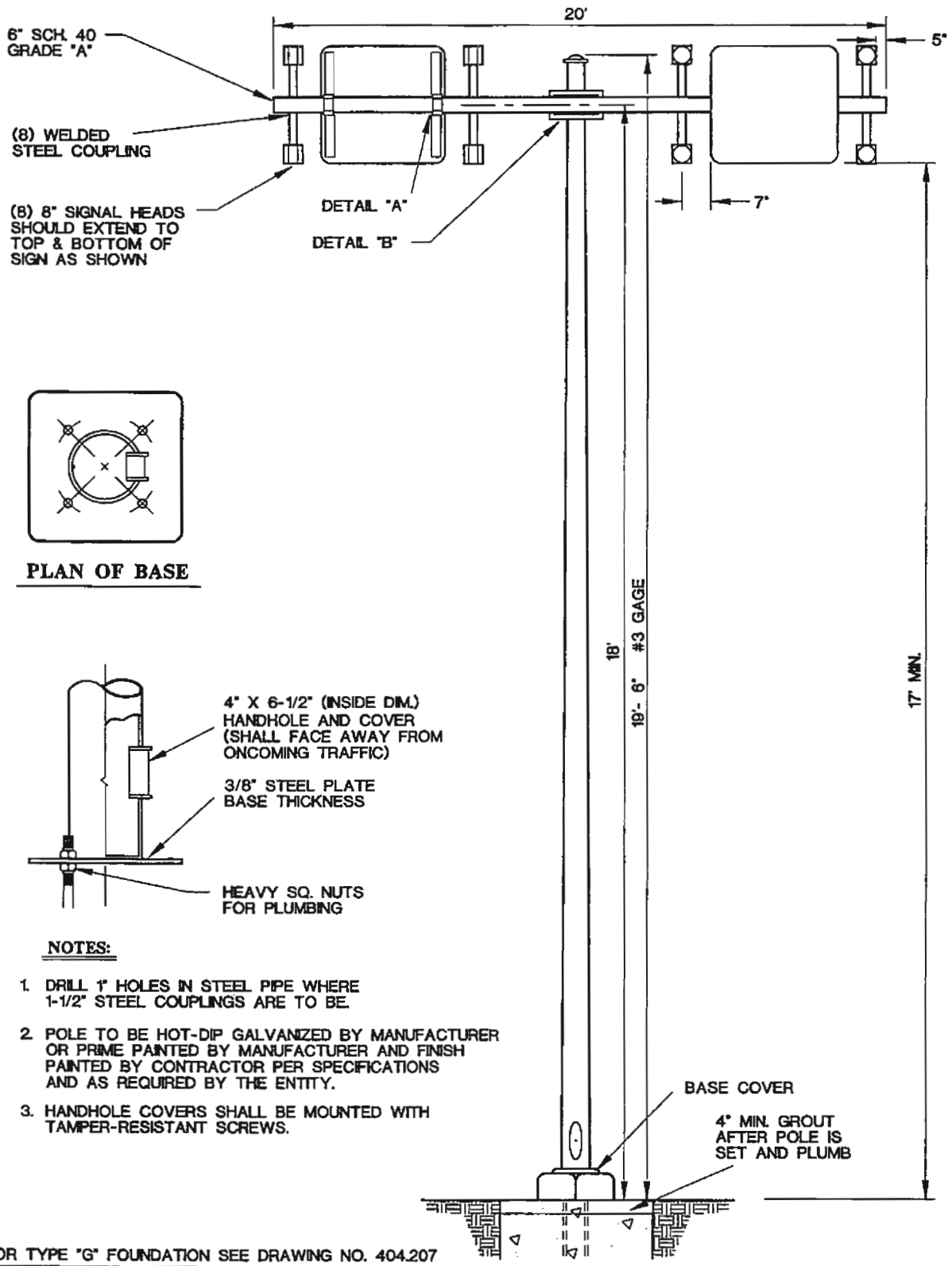
FOR TYPE "C" FOUNDATION SEE DRAWING NO. 404.203.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIGNAL STANDARD
TYPE 1-A, 1-B

DATE 12-12-96	DWG. NO. 404.402	SHEET 1 OF 1



PLAN OF BASE

NOTES:

1. DRILL 1" HOLES IN STEEL PIPE WHERE 1-1/2" STEEL COUPLINGS ARE TO BE.
2. POLE TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.

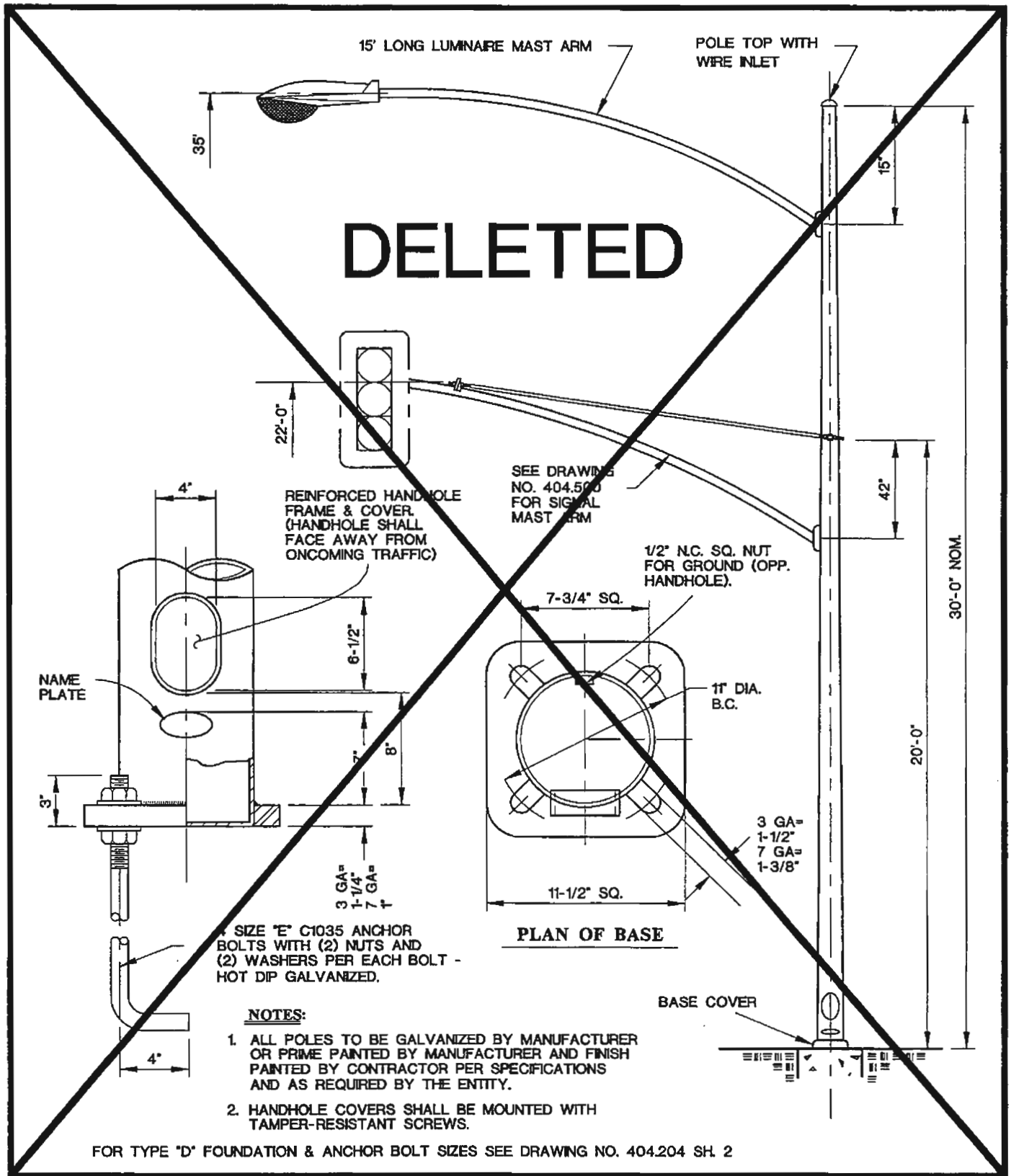
FOR TYPE "G" FOUNDATION SEE DRAWING NO. 404.207

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIGN POST WITH SCHOOL SIGN MOUNTED

DATE 12-12-96	DWG. NO. 404.403	SHEET 1 OF 2



NOTES:

1. ALL POLES TO BE GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.

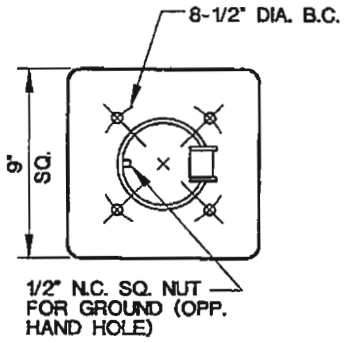
FOR TYPE "D" FOUNDATION & ANCHOR BOLT SIZES SEE DRAWING NO. 404.204 SH. 2

SPECIFICATION REFERENCE	

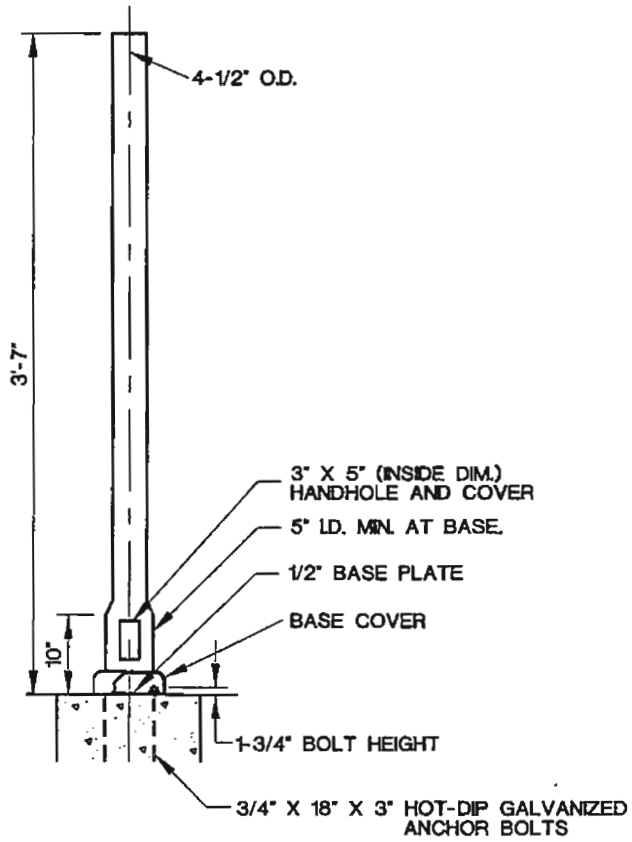
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

30' SIGNAL & LUMINAIRE STANDARD TYPE-III

DATE 12-12-96	DWG. NO. 404.404	SHEET 1 OF 1



PLAN OF BASE



NOTES:

1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH BY PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.

FOR TYPE "C" FOUNDATION SEE DRAWING NO. 404.203.

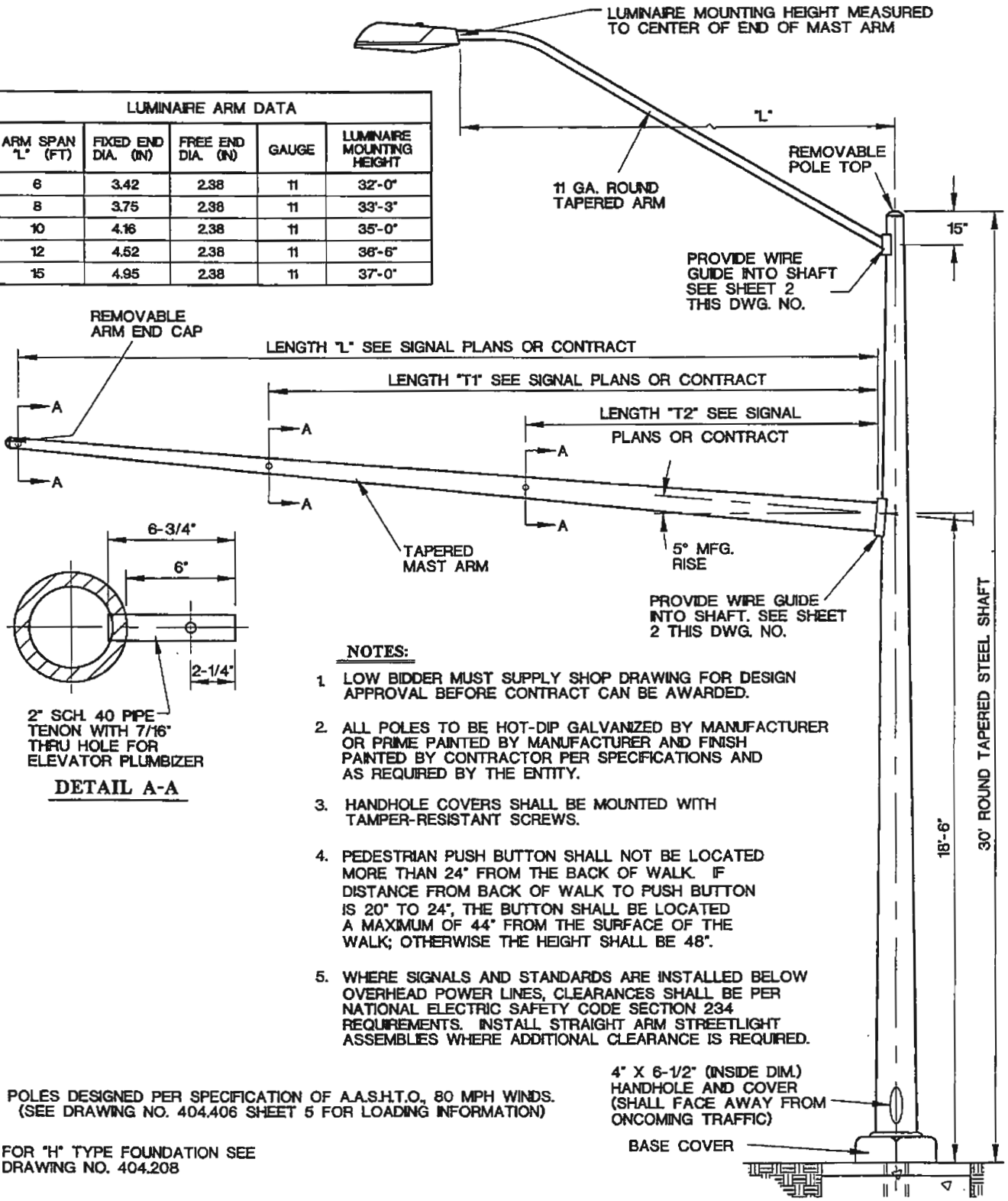
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PEDESTAL FOR CONTROLLER CABINETS

DATE 12-12-96	DWG. NO. 404.405	SHEET 1 OF 1

LUMINAIRE ARM DATA				
ARM SPAN "L" (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE	LUMINAIRE MOUNTING HEIGHT
6	3.42	2.38	11	32'-0"
8	3.75	2.38	11	33'-3"
10	4.16	2.38	11	35'-0"
12	4.52	2.38	11	36'-6"
15	4.95	2.38	11	37'-0"



NOTES:

1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED A MAXIMUM OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE THE HEIGHT SHALL BE 48".
5. WHERE SIGNALS AND STANDARDS ARE INSTALLED BELOW OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRIC SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O., 80 MPH WINDS. (SEE DRAWING NO. 404.406 SHEET 5 FOR LOADING INFORMATION)

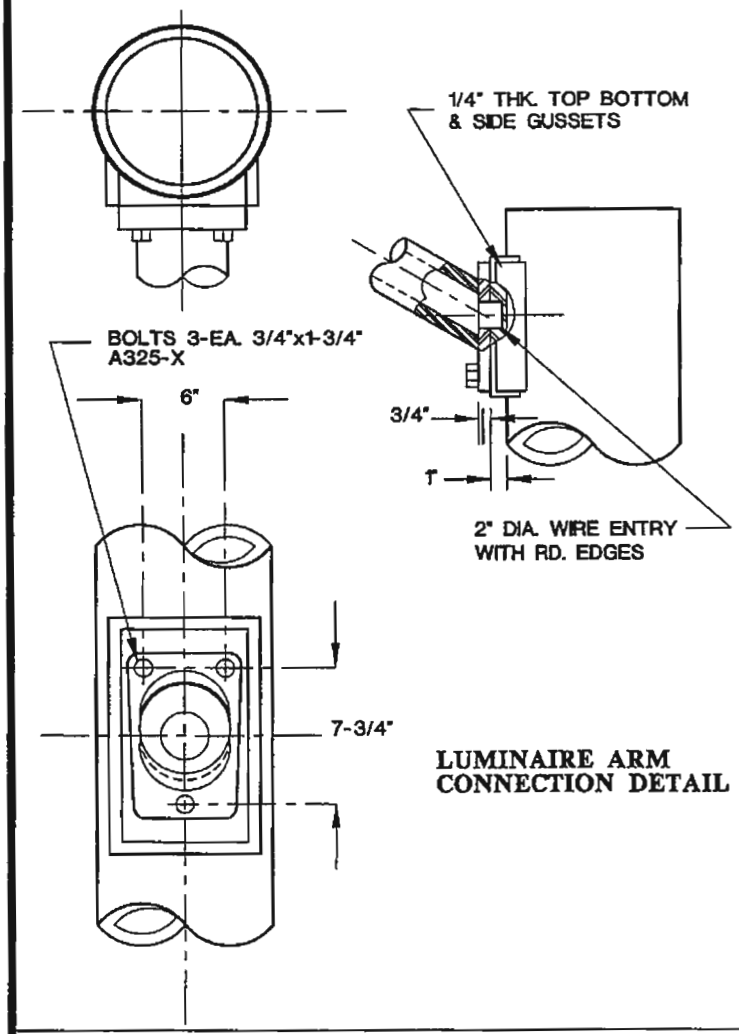
FOR "H" TYPE FOUNDATION SEE DRAWING NO. 404.208

SPECIFICATION REFERENCE	

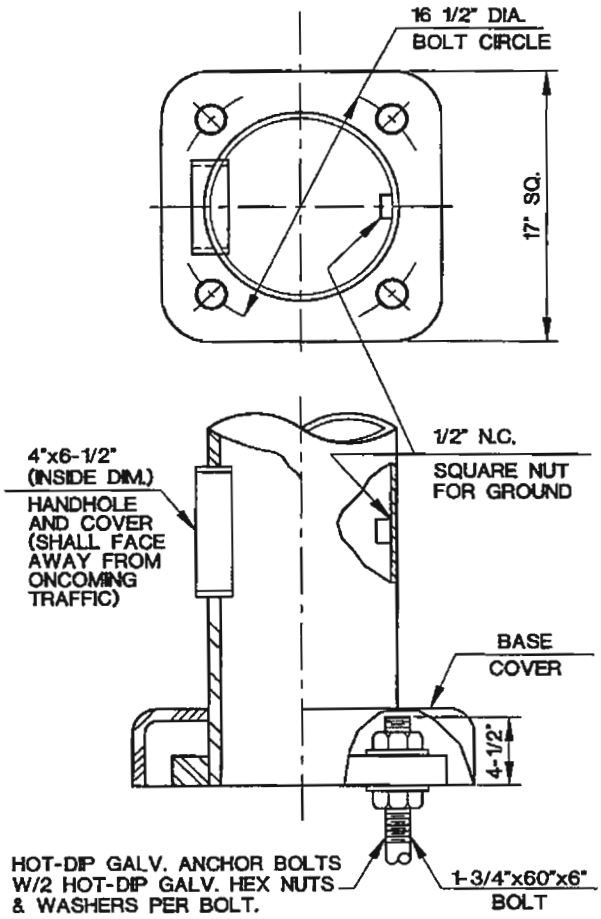
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX-30'-0"
SIGNAL & LUMINAIRE POLE
(45' OR LESS MAST ARMS)

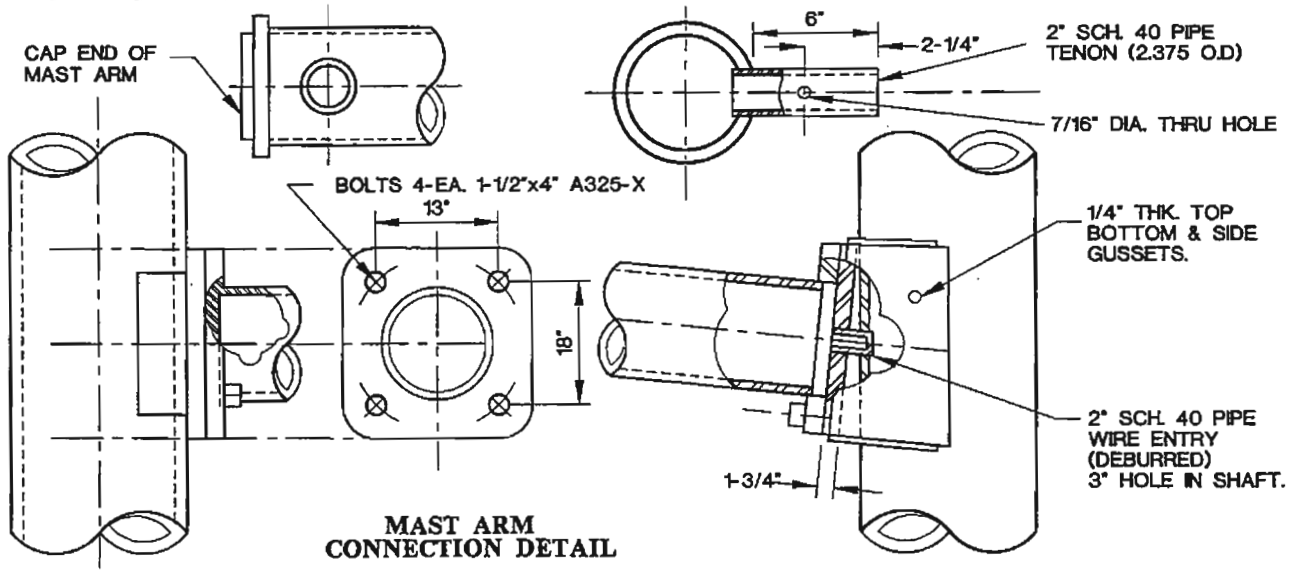
DATE 12-12-96	DWG. NO. 404.406	SHEET 1 OF 6



LUMINAIRE ARM CONNECTION DETAIL



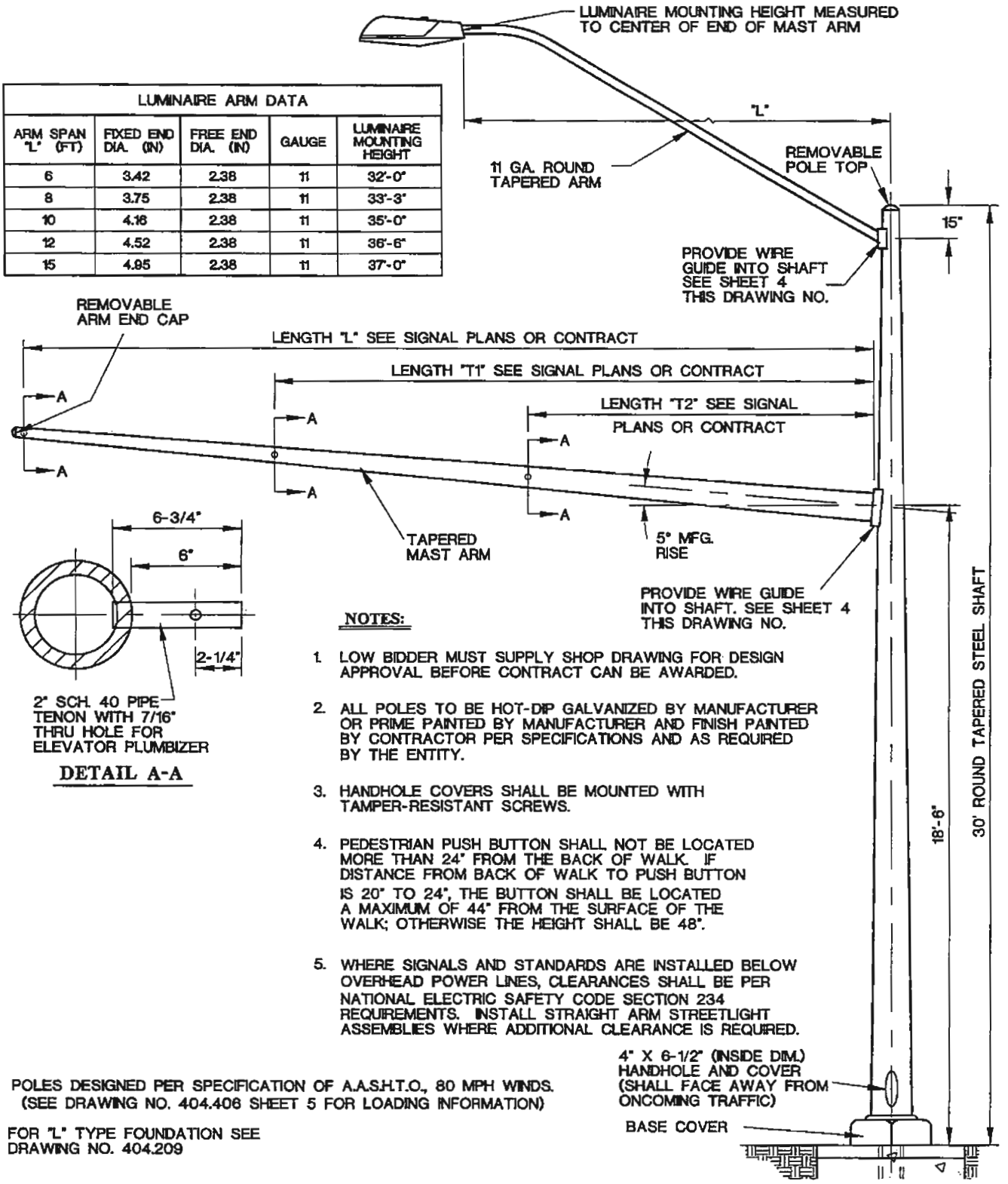
POLE MOUNTING DETAIL



MAST ARM CONNECTION DETAIL

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPE XX - 30'-0" SIGNAL & LUMINAIRE POLE DETAILS
	DATE 12-12-96 | DWG. NO. 404.406 | SHEET 2 OF 6

LUMINAIRE ARM DATA				
ARM SPAN "L" (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE	LUMINAIRE MOUNTING HEIGHT
6	3.42	2.38	11	32'-0"
8	3.75	2.38	11	33'-3"
10	4.16	2.38	11	35'-0"
12	4.52	2.38	11	36'-6"
15	4.95	2.38	11	37'-0"



NOTES:

1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED A MAXIMUM OF 44" FROM THE SURFACE OF THE WALK; OTHERWISE THE HEIGHT SHALL BE 48".
5. WHERE SIGNALS AND STANDARDS ARE INSTALLED BELOW OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRIC SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O., 80 MPH WINDS. (SEE DRAWING NO. 404.406 SHEET 5 FOR LOADING INFORMATION)

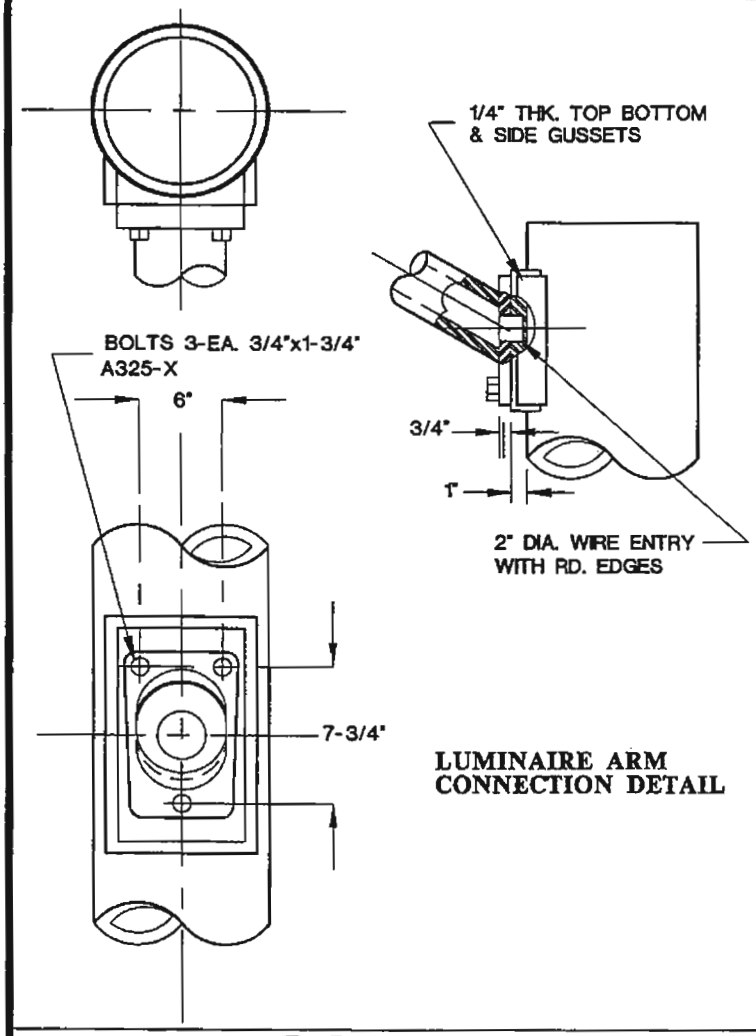
FOR "L" TYPE FOUNDATION SEE DRAWING NO. 404.209

SPECIFICATION REFERENCE	

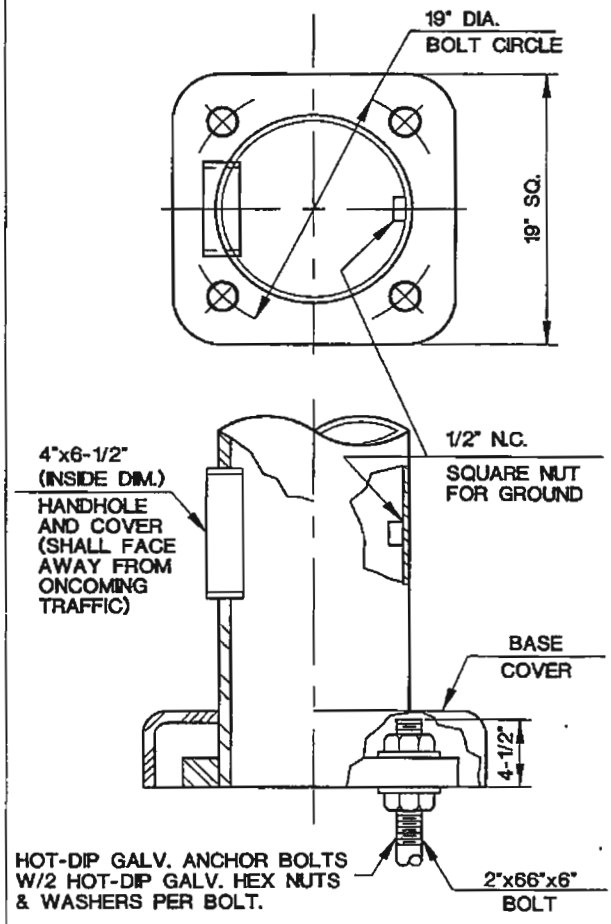
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX - A - 30'-0"
SIGNAL & LUMINAIRE POLE
(50' THRU 60' MAST ARMS)

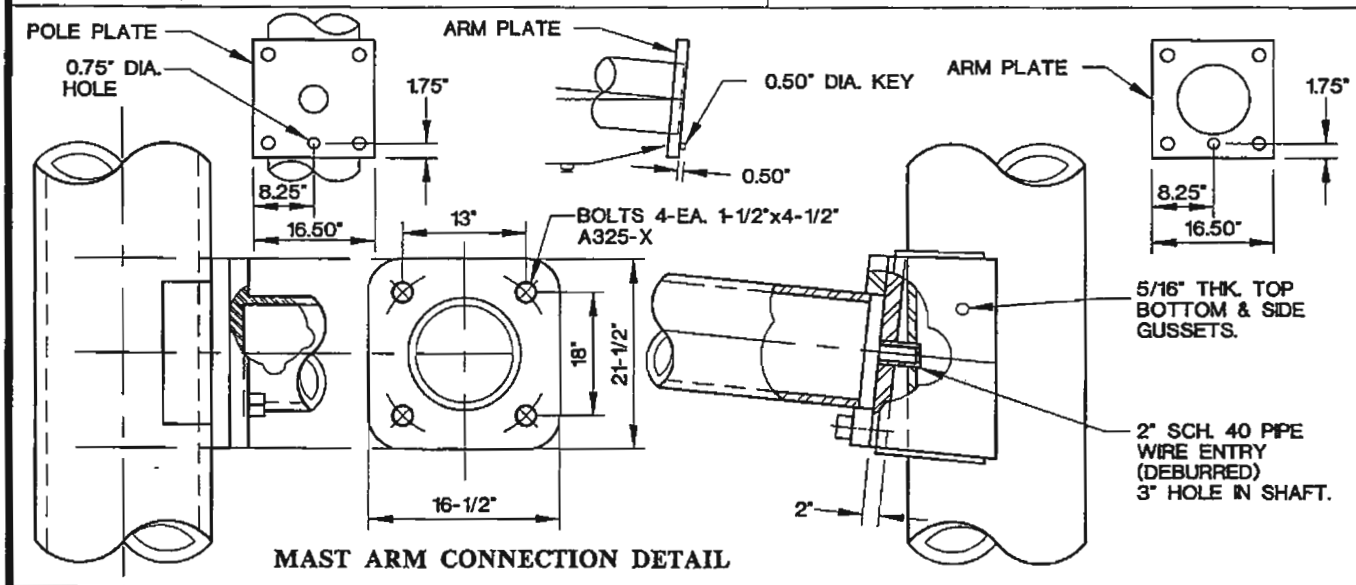
DATE 12-12-96	DWG. NO. 404.406	SHEET 3 OF 6



LUMINAIRE ARM CONNECTION DETAIL



POLE MOUNTING DETAIL



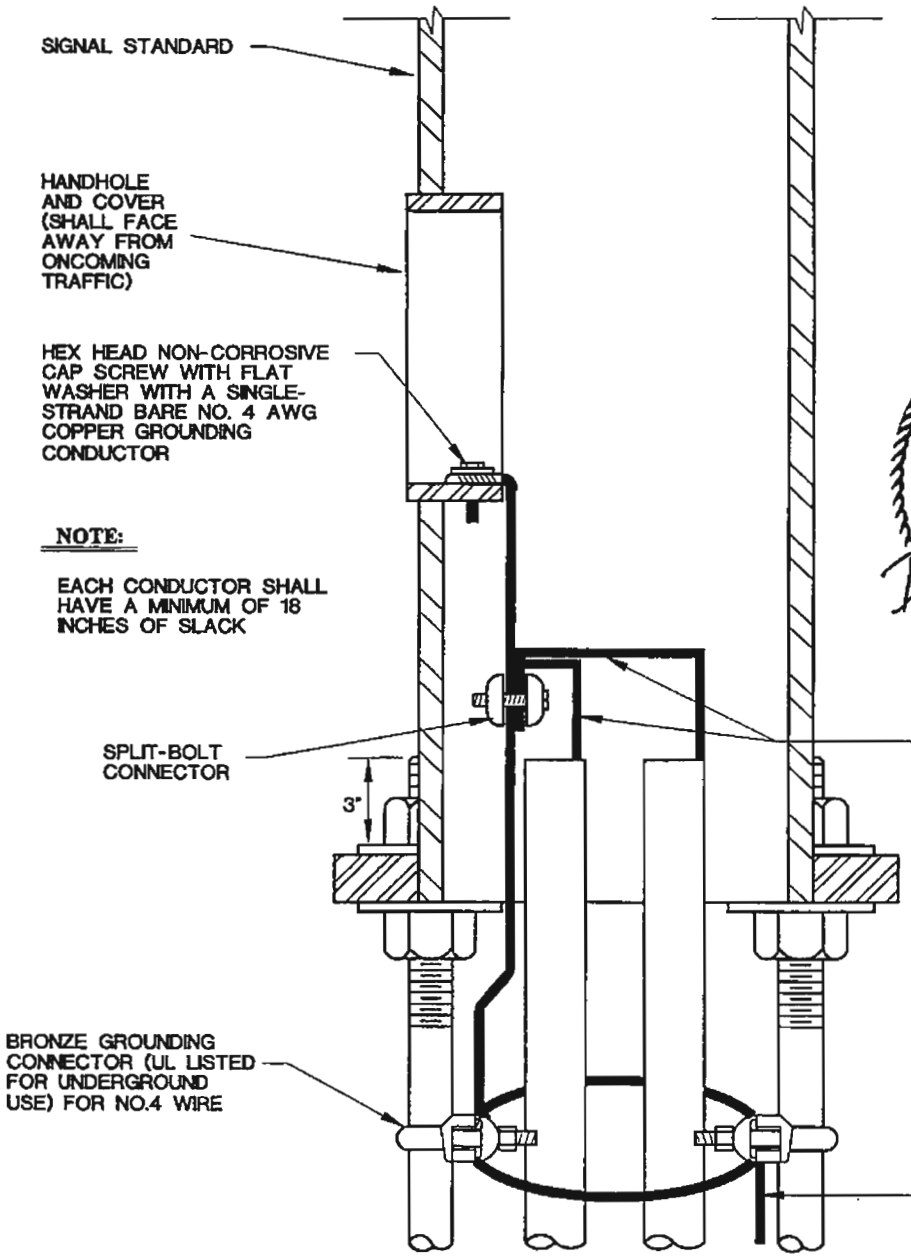
MAST ARM CONNECTION DETAIL

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX - A - 30'-0"
(50' THRU 60' MAST ARMS)
SIGNAL & LUMINAIRE POLE DETAILS

DATE 12-12-96	DWG. NO. 404.406	SHEET 4 OF 6



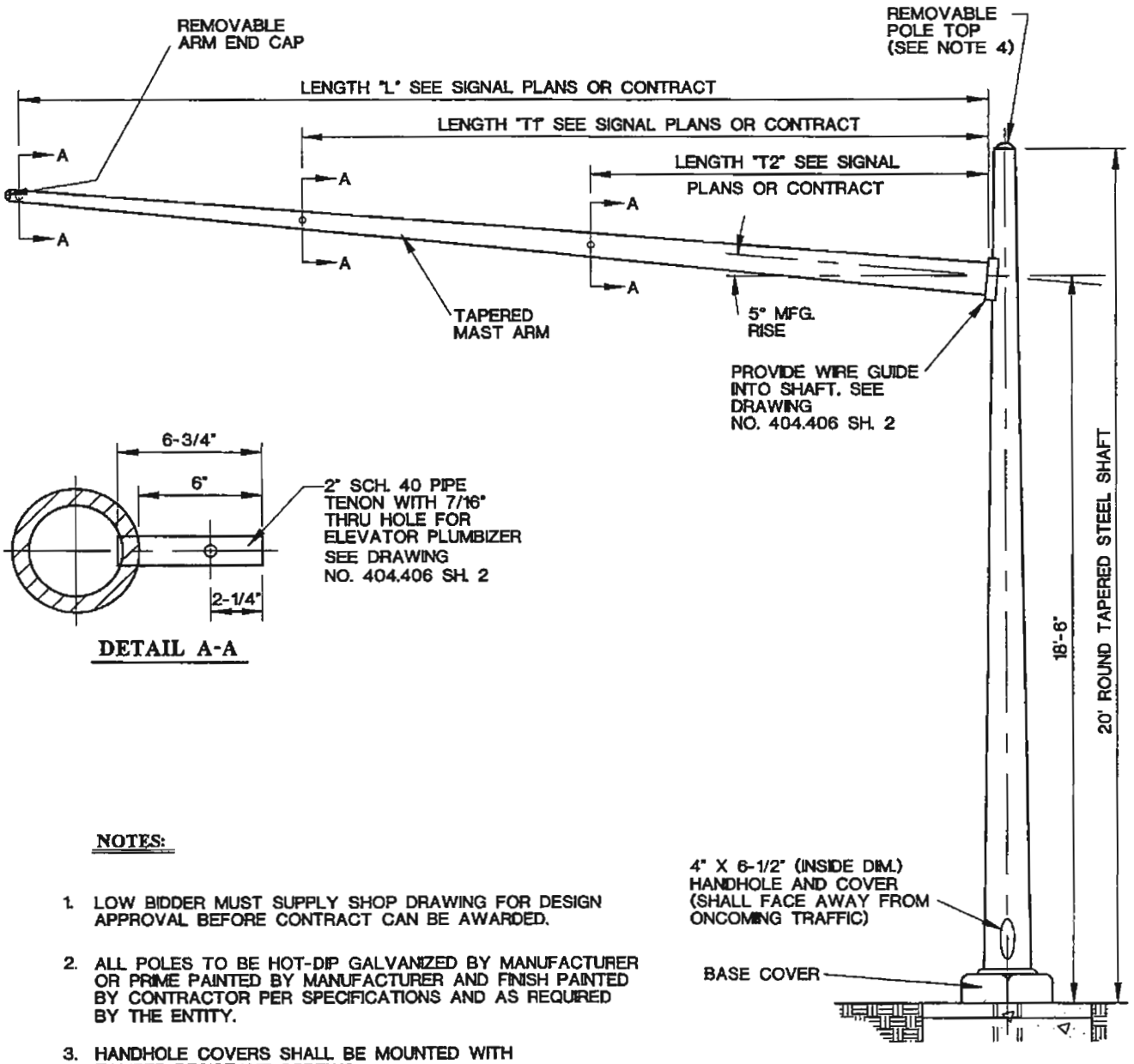
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367
4-2-97

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TRAFFIC SIGNAL POLE GROUNDING

DATE 12-12-96	DWG. NO. 404.406	SHEET 6 OF 6



DETAIL A-A

NOTES:

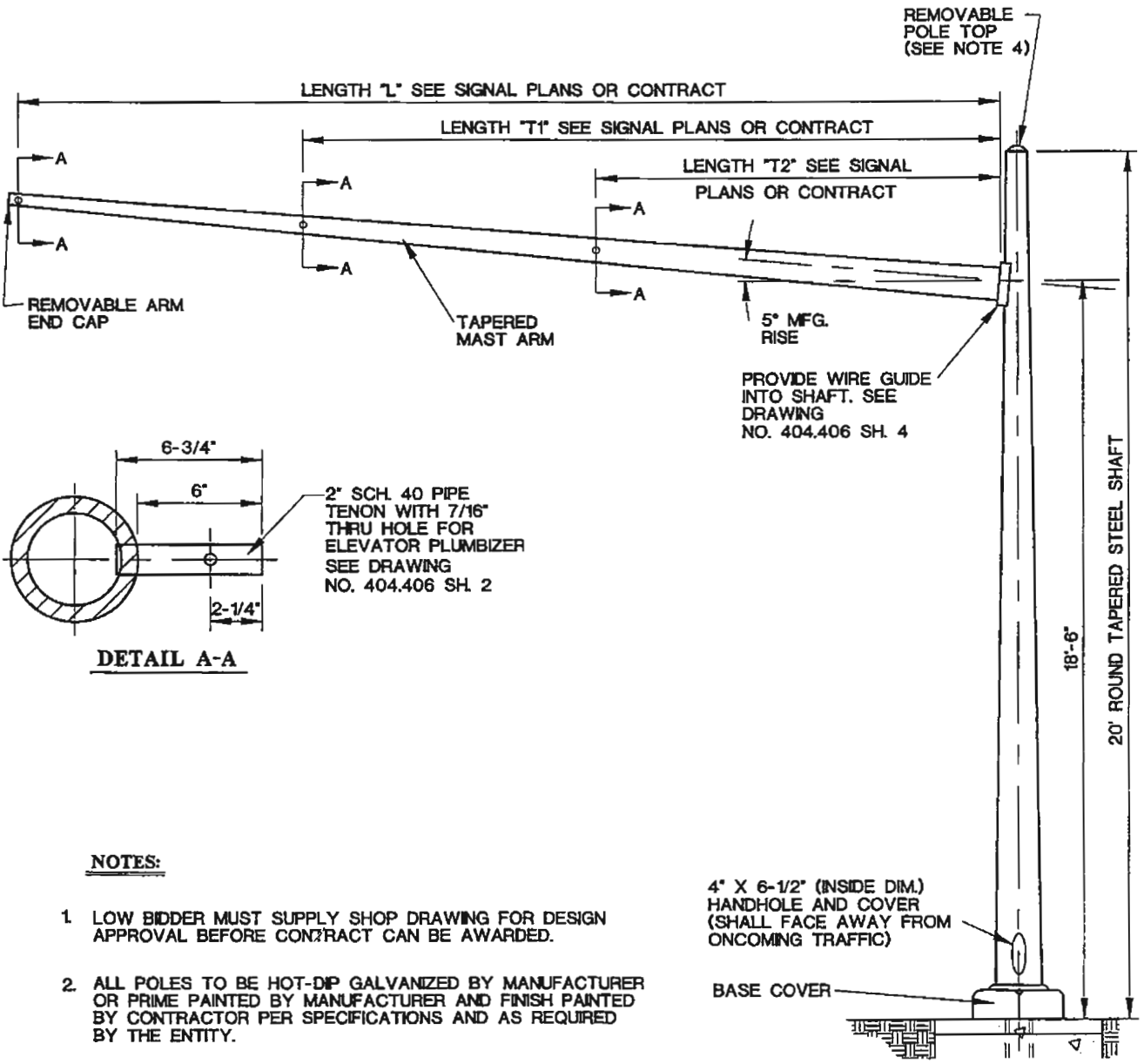
1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
4. PHOTOEYE MAY NEED TO BE AFFIXED TO POLE CAP FOR STREET NAME SIGN ACTIVATION.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O., 80 MPH WINDS.
(SEE DRAWING NO. 404.406 SHEET 5 FOR LOADING INFORMATION)

FOR OTHER DETAILS SEE DRAWING NO. 404.406 SHTS. 2 & 6.

FOR "H" TYPE FOUNDATION SEE DRAWING NO. 404.208.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPE XX 20'-0" SIGNAL POLE (45' OR LESS MAST ARMS)		
		DATE 12-12-96	DWG. NO. 404.407	SHEET 1 OF 2



DETAIL A-A

NOTES:

1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
4. PHOTOEYE MAY NEED TO BE AFFIXED TO POLE CAP FOR STREET NAME SIGN ACTIVATION.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O., 80 MPH WINDS. (SEE DRAWING NO. 404.406 SHEET 5 FOR LOADING INFORMATION)

FOR OTHER DETAILS SEE DRAWING NO. 404.406 SHTS. 4 & 6.

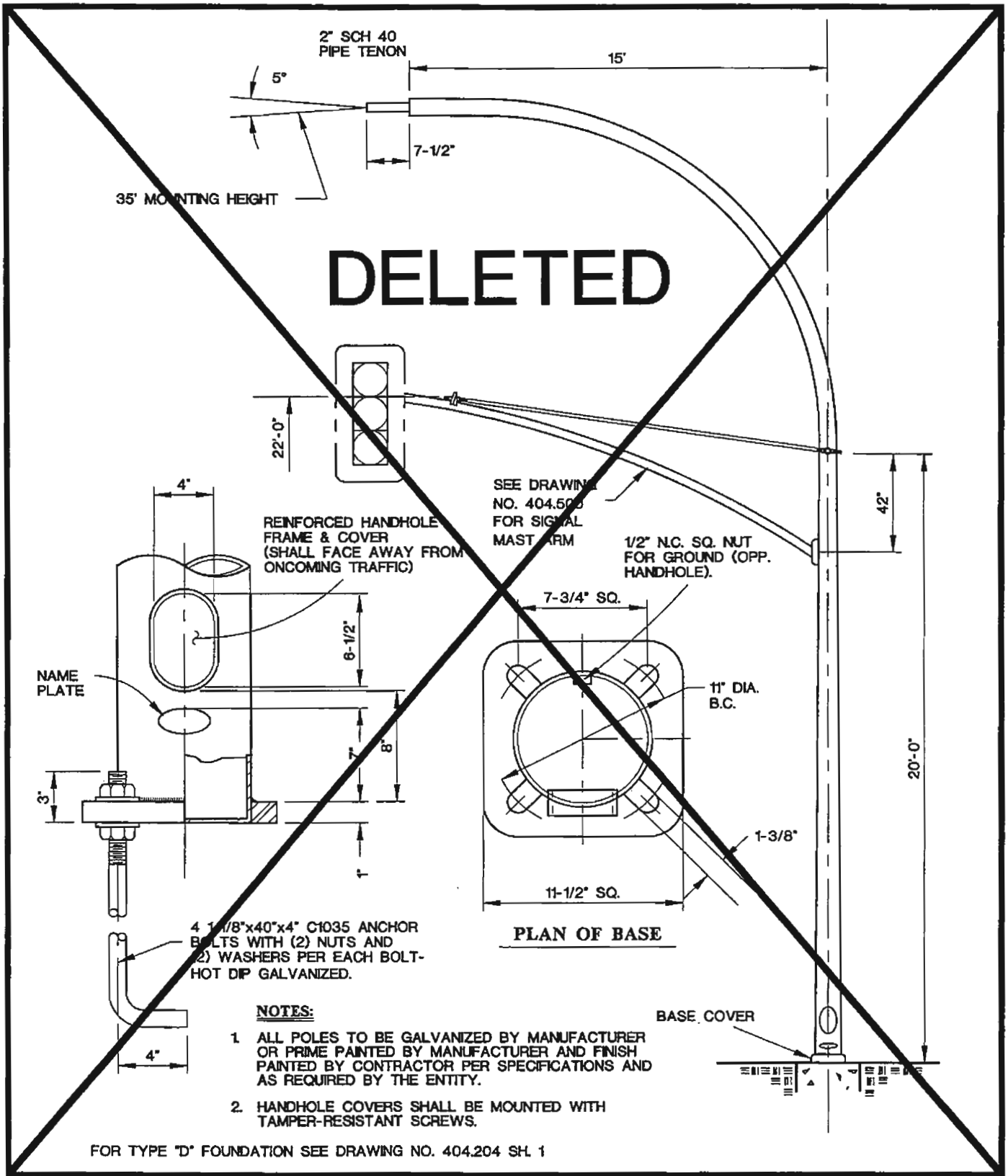
FOR "L" TYPE FOUNDATION SEE DRAWING NO. 404.209.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX-A-20'-0"
(50' THRU 60' MAST ARMS)
SIGNAL POLE

DATE 12-12-96	DWG. NO. 404.407	SHEET 2 OF 2



NOTES:

1. ALL POLES TO BE GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.

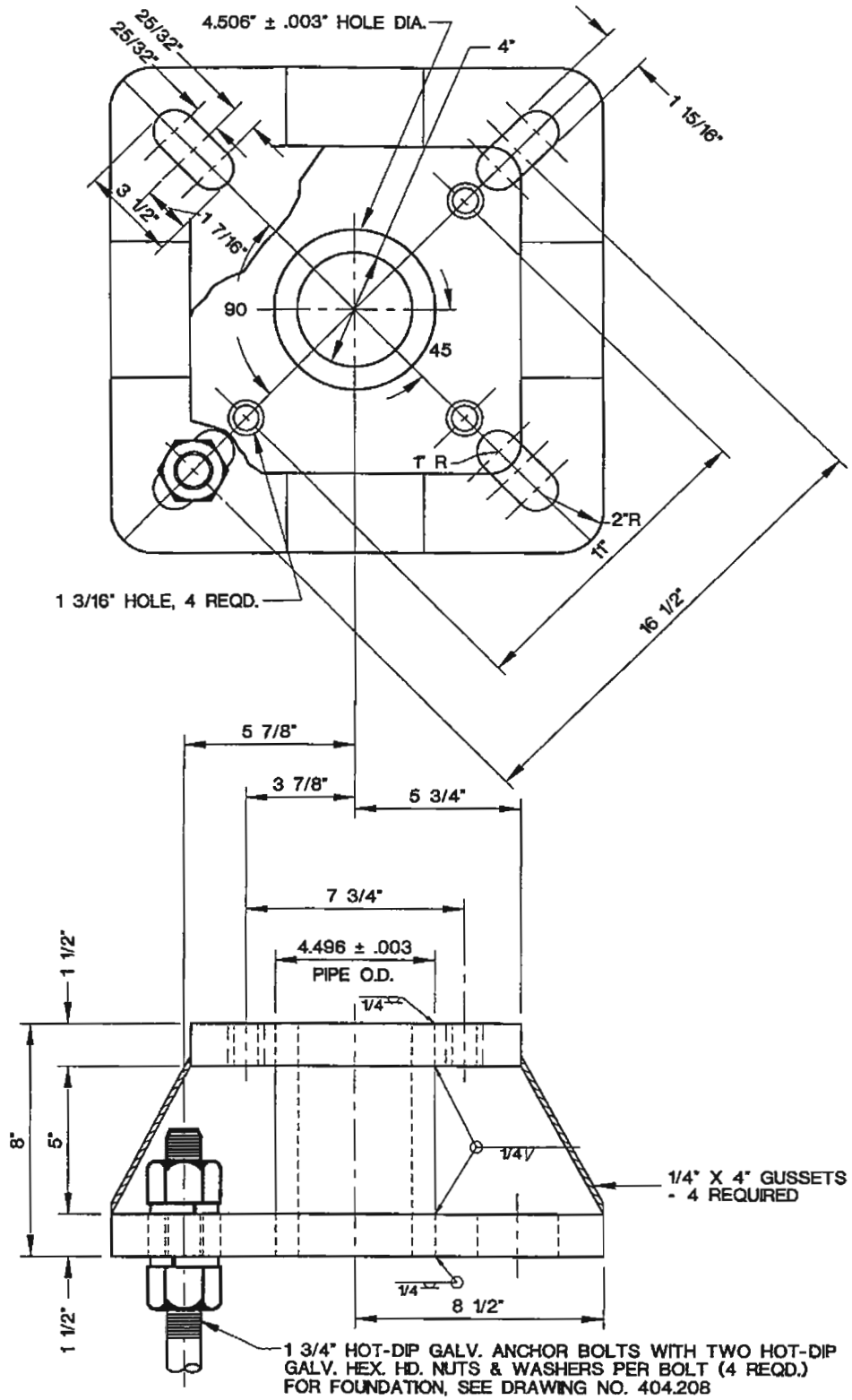
FOR TYPE "D" FOUNDATION SEE DRAWING NO. 404.204 SH. 1

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

30' 7 GAGE SIGNAL & LUMINAIRE STANDARD-DAVIT TYPE FOR 400 HPS WATT LUMINAIRES

DATE 12-12-96	DWG. NO. 404.408	SHEET 1 OF 1

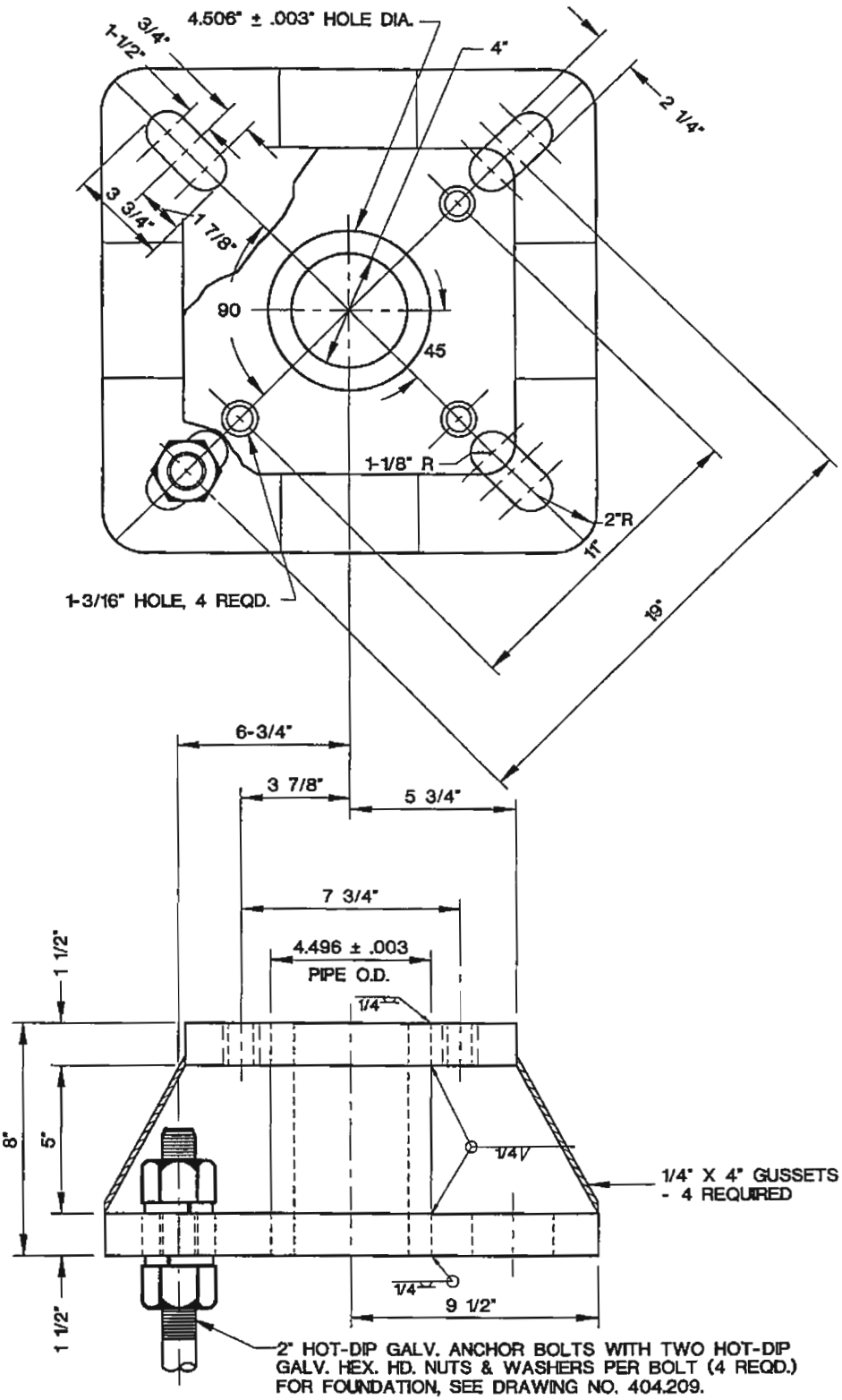


SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BASE ADAPTOR PLATE FOR TYPE "H" FOUNDATION

DATE 12-12-96	DWG. NO. 404.409	SHEET 1 OF 2

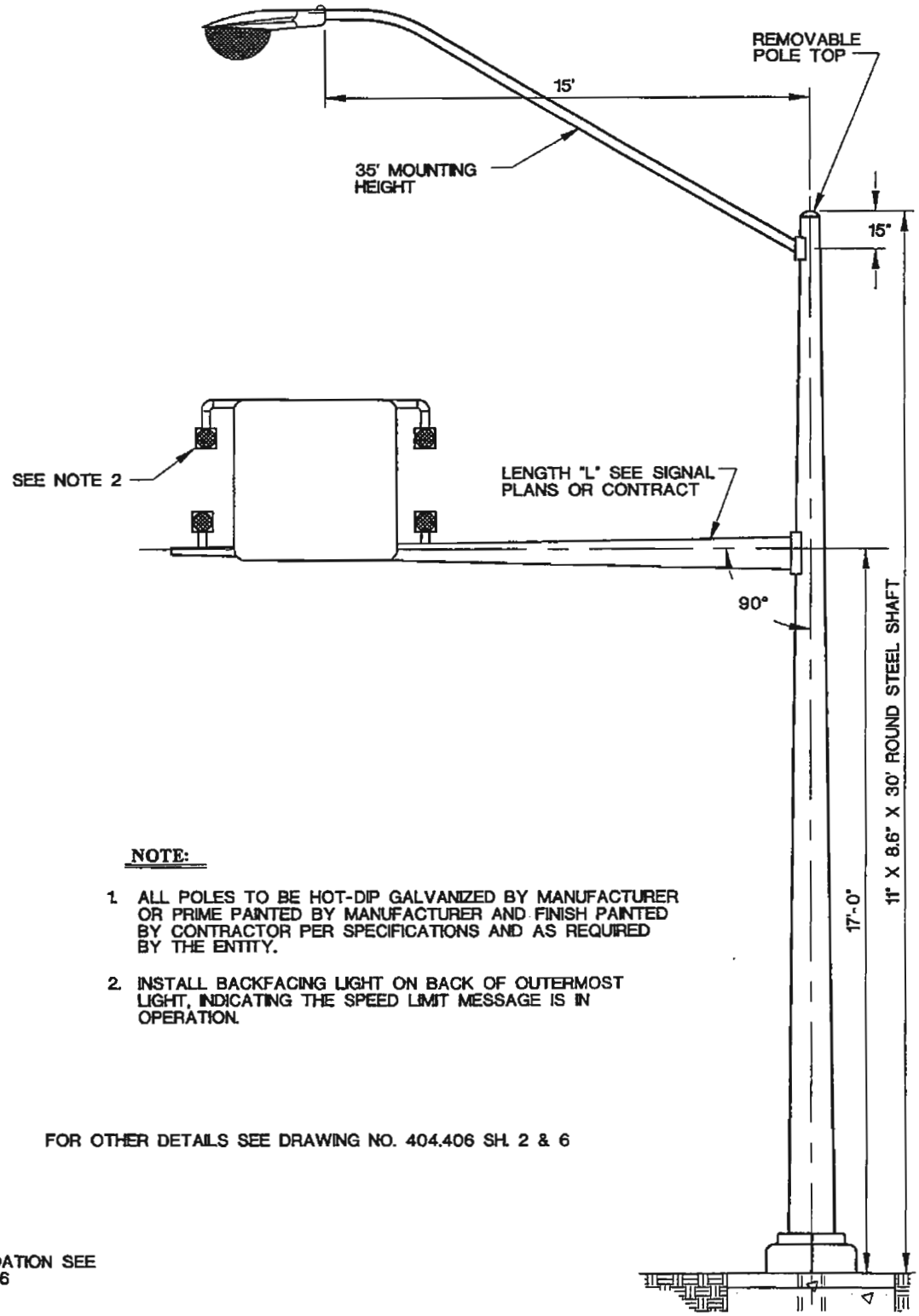


SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BASE ADAPTOR PLATE FOR TYPE "L" FOUNDATION

DATE 12-12-96	DWG. NO. 404.409	SHEET 2 OF 2



NOTE:

1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. INSTALL BACKFACING LIGHT ON BACK OF OUTERMOST LIGHT, INDICATING THE SPEED LIMIT MESSAGE IS IN OPERATION.

FOR OTHER DETAILS SEE DRAWING NO. 404.406 SH. 2 & 6

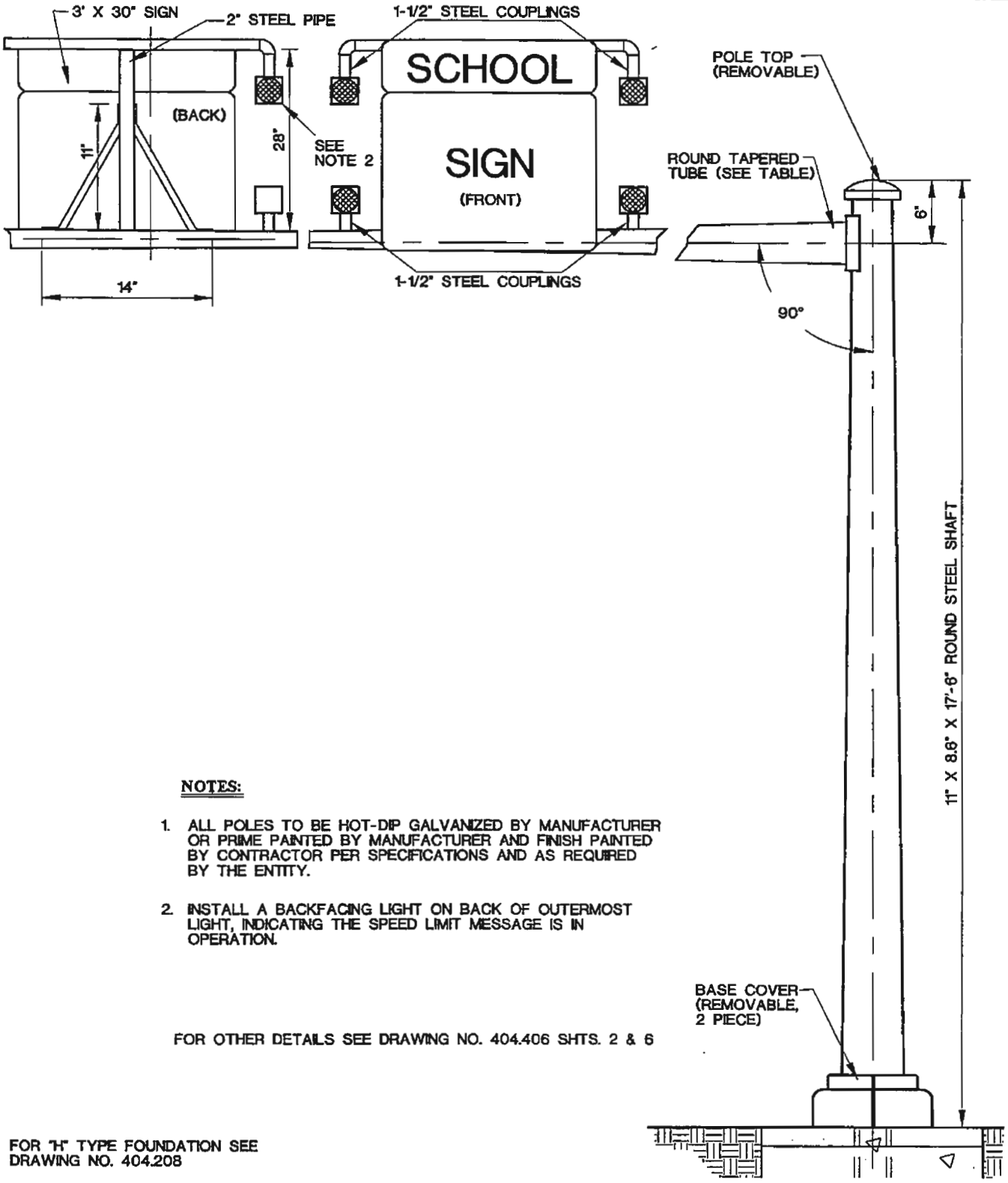
FOR "F" TYPE FOUNDATION SEE DRAWING NO. 404.206

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

30' LUMINAIRE WITH SCHOOL FLASHING SIGN

DATE 12-12-96	DWG. NO. 404.410	SHEET 1 OF 1



NOTES:

1. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. INSTALL A BACKFACING LIGHT ON BACK OF OUTERMOST LIGHT, INDICATING THE SPEED LIMIT MESSAGE IS IN OPERATION.

FOR OTHER DETAILS SEE DRAWING NO. 404.406 SHTS. 2 & 6

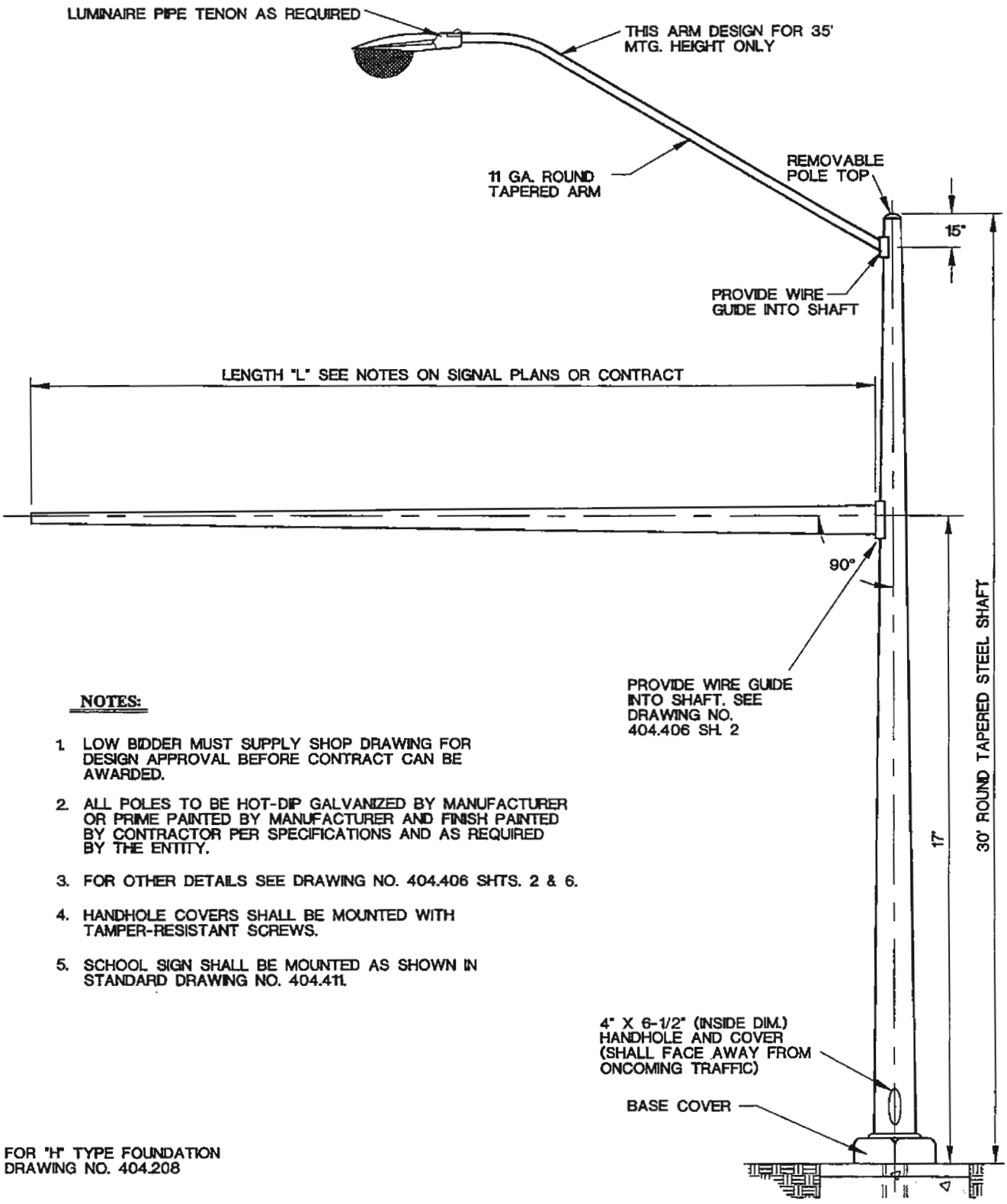
FOR "H" TYPE FOUNDATION SEE DRAWING NO. 404.208

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SCHOOL SIGN MOUNTED ON TRAFFIC SIGNAL STANDARD

DATE 12-12-96	DWG. NO. 404.411	SHEET 1 OF 1



NOTES:

1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. FOR OTHER DETAILS SEE DRAWING NO. 404.406 SHTS. 2 & 6.
4. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
5. SCHOOL SIGN SHALL BE MOUNTED AS SHOWN IN STANDARD DRAWING NO. 404.411.

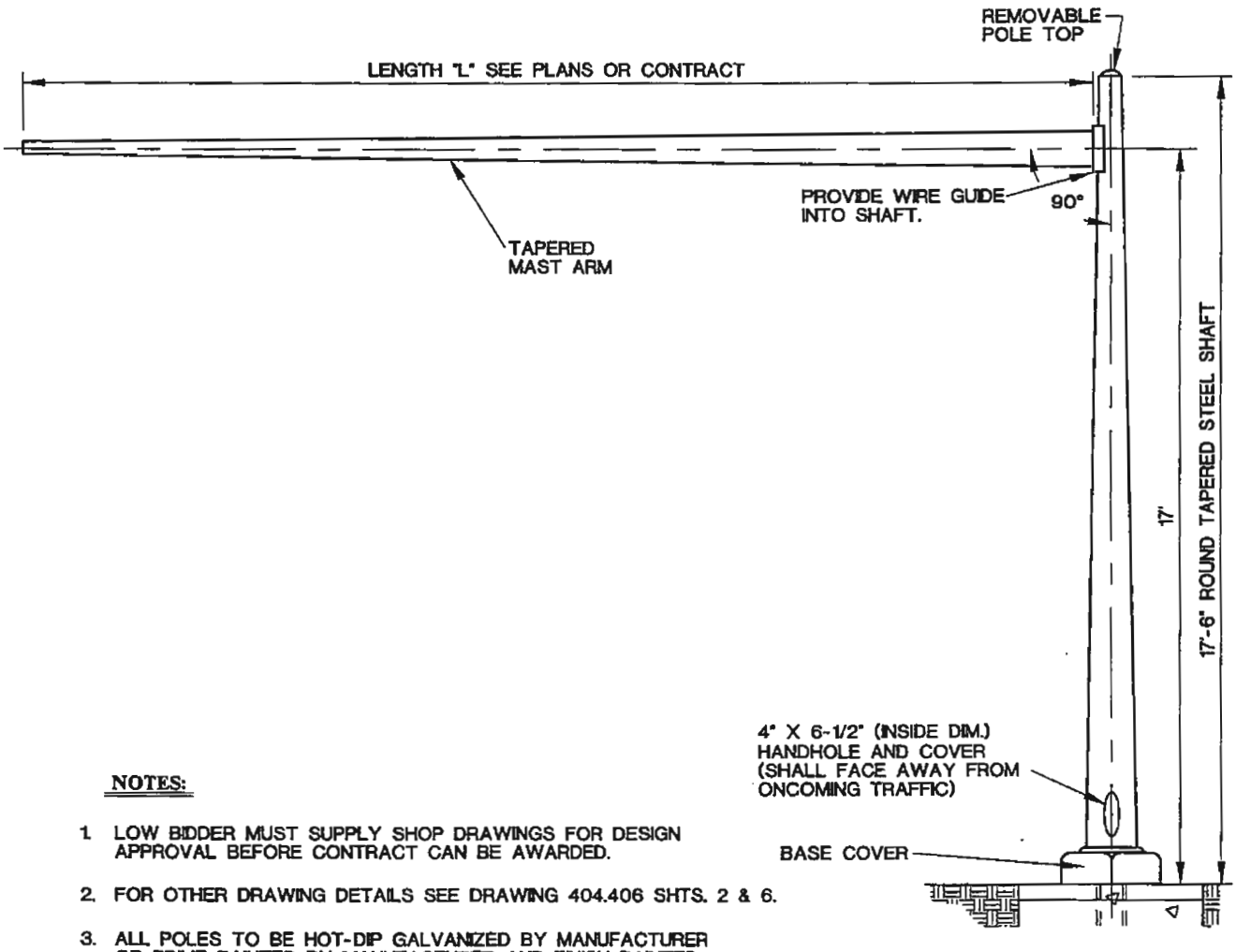
FOR "H" TYPE FOUNDATION DRAWING NO. 404.208

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SCHOOL SIGN POLE
TYPE XX-30'

DATE 12-12-96	DWG. NO. 404.412	SHEET 1 OF 1

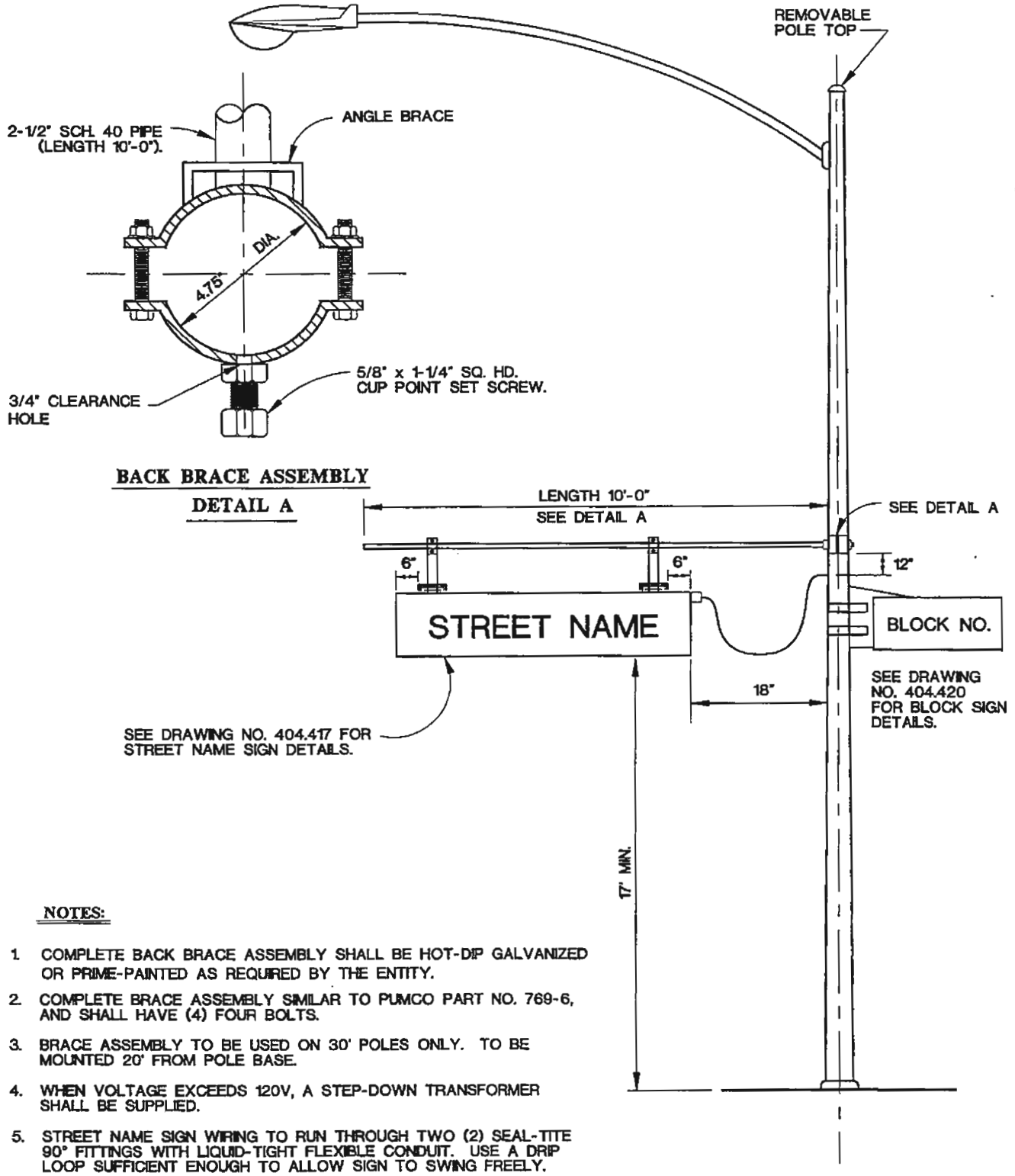


NOTES:

1. LOW BIDDER MUST SUPPLY SHOP DRAWINGS FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. FOR OTHER DRAWING DETAILS SEE DRAWING 404.406 SHTS. 2 & 6.
3. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
4. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
5. SCHOOL SIGN SHALL BE MOUNTED AS SHOWN IN STANDARD DRAWING NO. 404.411.

FOR "H" TYPE FOUNDATION SEE DWG. NO. 404.208.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		SCHOOL SIGN POLE TYPE XX-20'
		DATE 12-12-96 | DWG. NO. 404.413 | SHEET 1 OF 1



NOTES:

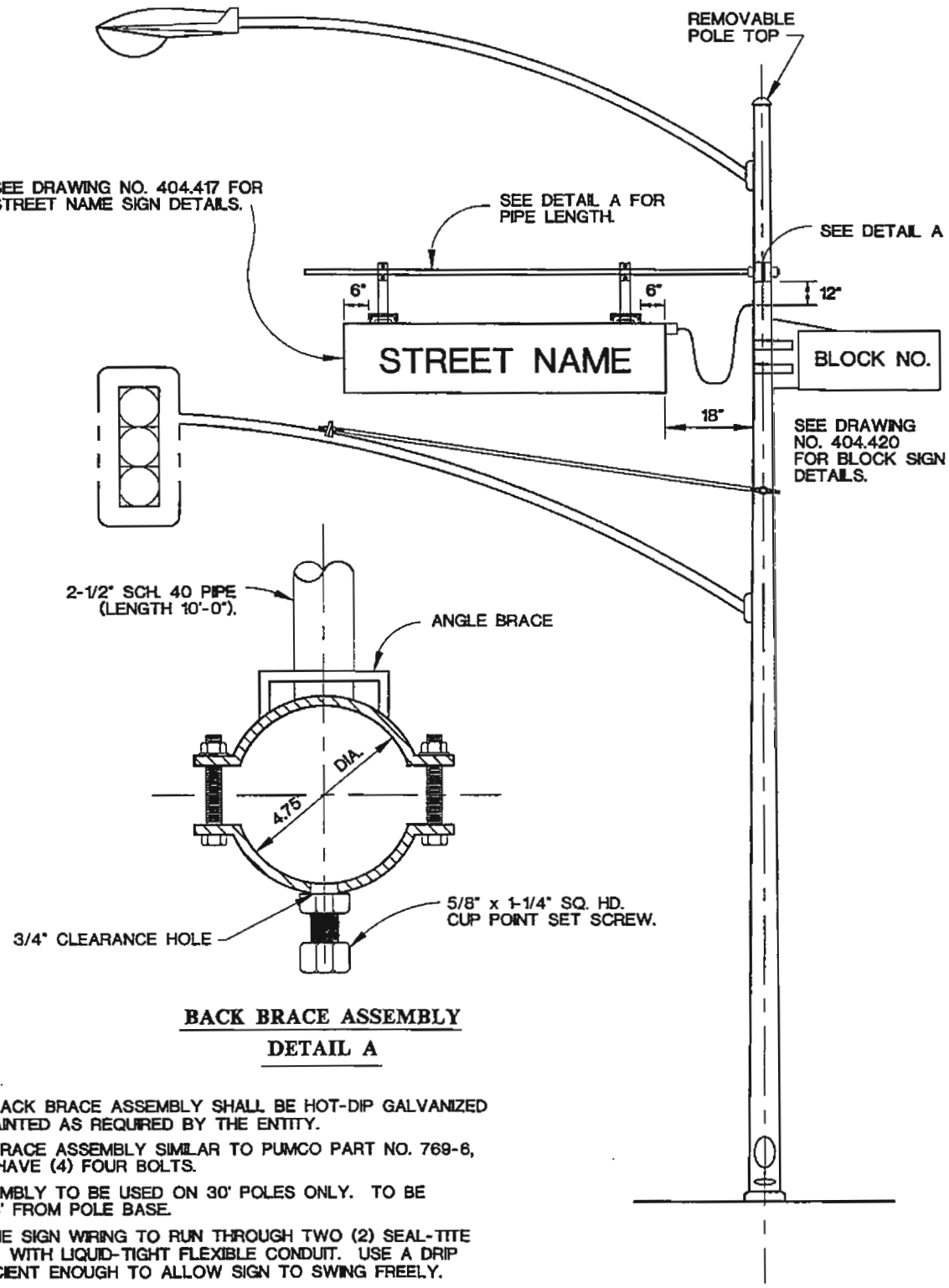
1. COMPLETE BACK BRACE ASSEMBLY SHALL BE HOT-DIP GALVANIZED OR PRIME-PAINTED AS REQUIRED BY THE ENTITY.
2. COMPLETE BRACE ASSEMBLY SIMILAR TO PUMCO PART NO. 769-6, AND SHALL HAVE (4) FOUR BOLTS.
3. BRACE ASSEMBLY TO BE USED ON 30' POLES ONLY. TO BE MOUNTED 20' FROM POLE BASE.
4. WHEN VOLTAGE EXCEEDS 120V, A STEP-DOWN TRANSFORMER SHALL BE SUPPLIED.
5. STREET NAME SIGN WIRING TO RUN THROUGH TWO (2) SEAL-TITE 90° FITTINGS WITH LIQUID-TIGHT FLEXIBLE CONDUIT. USE A DRIP LOOP SUFFICIENT ENOUGH TO ALLOW SIGN TO SWING FREELY.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHTING POLE WITH ILLUMINATED STREET NAME SIGN

DATE 12-12-96	DWG. NO. 404.414	SHEET 1 OF 1



BACK BRACE ASSEMBLY

DETAIL A

NOTES:

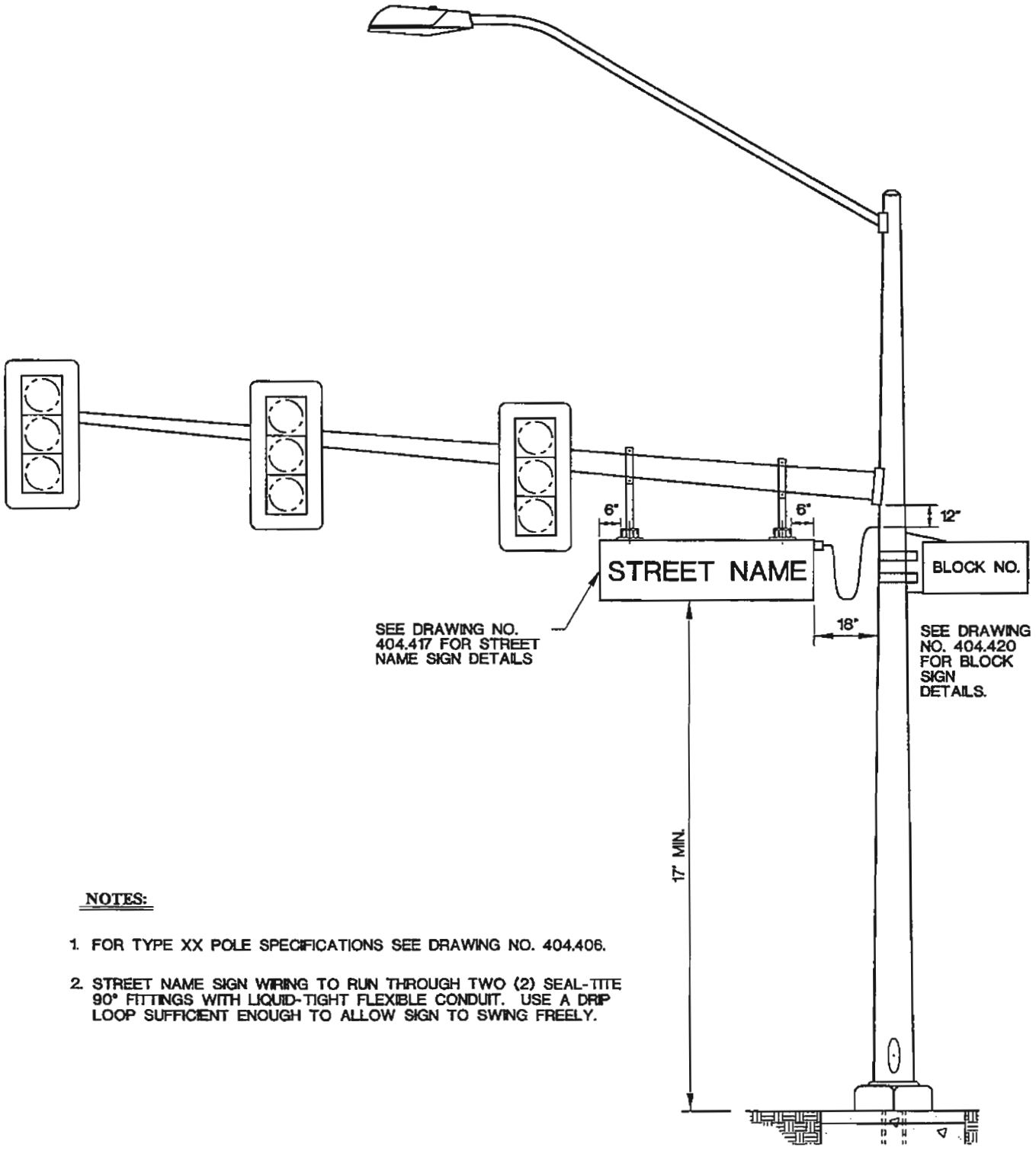
1. COMPLETE BACK BRACE ASSEMBLY SHALL BE HOT-DIP GALVANIZED OR PRIME-PAINTED AS REQUIRED BY THE ENTITY.
2. COMPLETE BRACE ASSEMBLY SIMILAR TO PUMCO PART NO. 769-6, AND SHALL HAVE (4) FOUR BOLTS.
3. BRACE ASSEMBLY TO BE USED ON 30' POLES ONLY. TO BE MOUNTED 24' FROM POLE BASE.
4. STREET NAME SIGN WIRING TO RUN THROUGH TWO (2) SEAL-TITE 90° FITTINGS WITH LIQUID-TIGHT FLEXIBLE CONDUIT. USE A DRIP LOOP SUFFICIENT ENOUGH TO ALLOW SIGN TO SWING FREELY.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE III POLE WITH ILLUMINATED STREET NAME SIGN

DATE 12-12-96	DWG. NO. 404.415	SHEET 1 OF 1



NOTES:

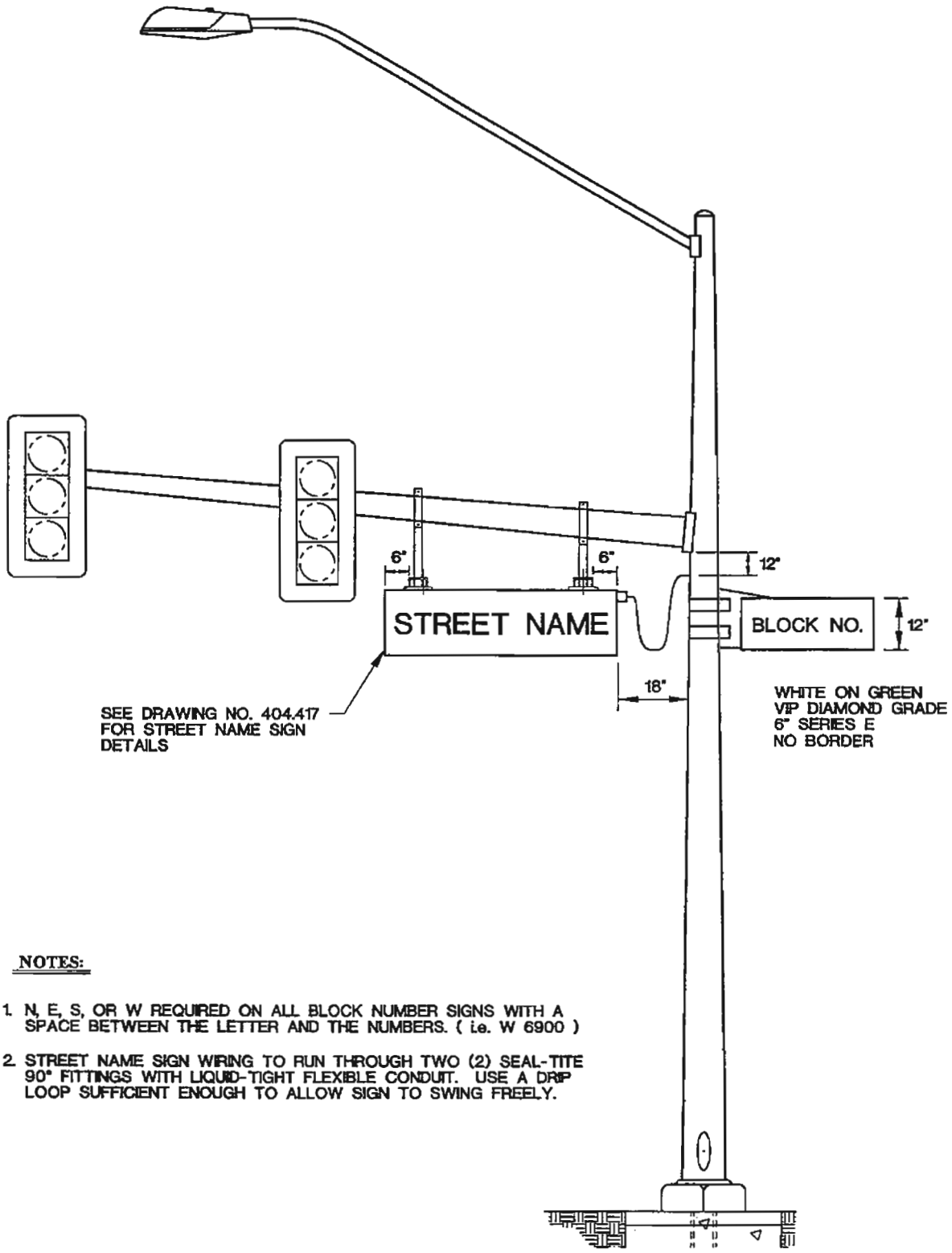
1. FOR TYPE XX POLE SPECIFICATIONS SEE DRAWING NO. 404.406.
2. STREET NAME SIGN WIRING TO RUN THROUGH TWO (2) SEAL-TITE 90° FITTINGS WITH LIQUID-TIGHT FLEXIBLE CONDUIT. USE A DRIP LOOP SUFFICIENT ENOUGH TO ALLOW SIGN TO SWING FREELY.

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE XX POLE WITH ILLUMINATED STREET NAME SIGN

DATE 12-12-96	DWG. NO. 404.416	SHEET 1 OF 1



NOTES:

1. N, E, S, OR W REQUIRED ON ALL BLOCK NUMBER SIGNS WITH A SPACE BETWEEN THE LETTER AND THE NUMBERS. (i.e. W 6900)
2. STREET NAME SIGN WIRING TO RUN THROUGH TWO (2) SEAL-TITE 90° FITTINGS WITH LIQUID-TIGHT FLEXIBLE CONDUIT. USE A DRIP LOOP SUFFICIENT ENOUGH TO ALLOW SIGN TO SWING FREELY.

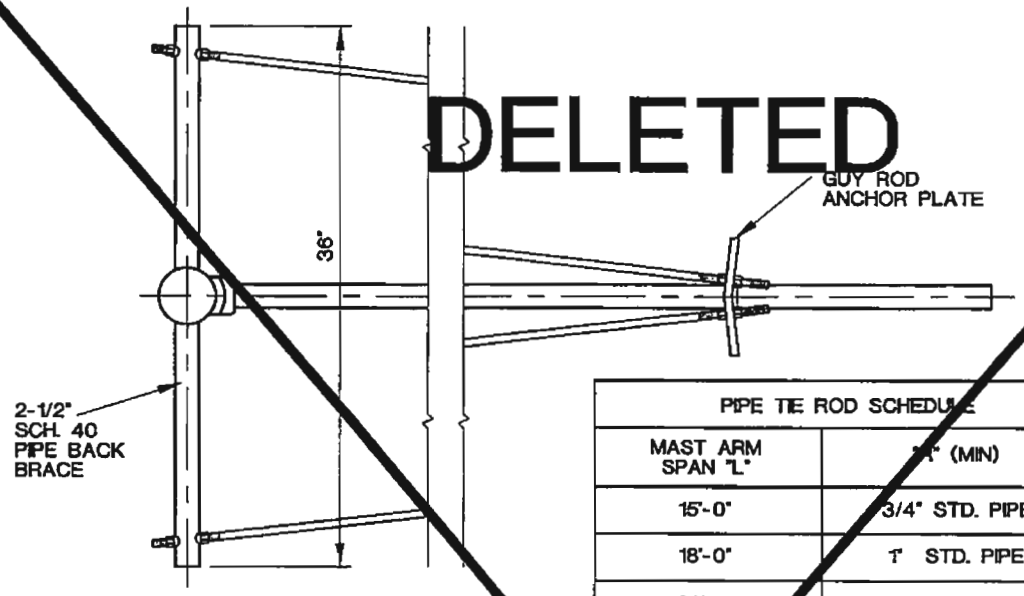
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

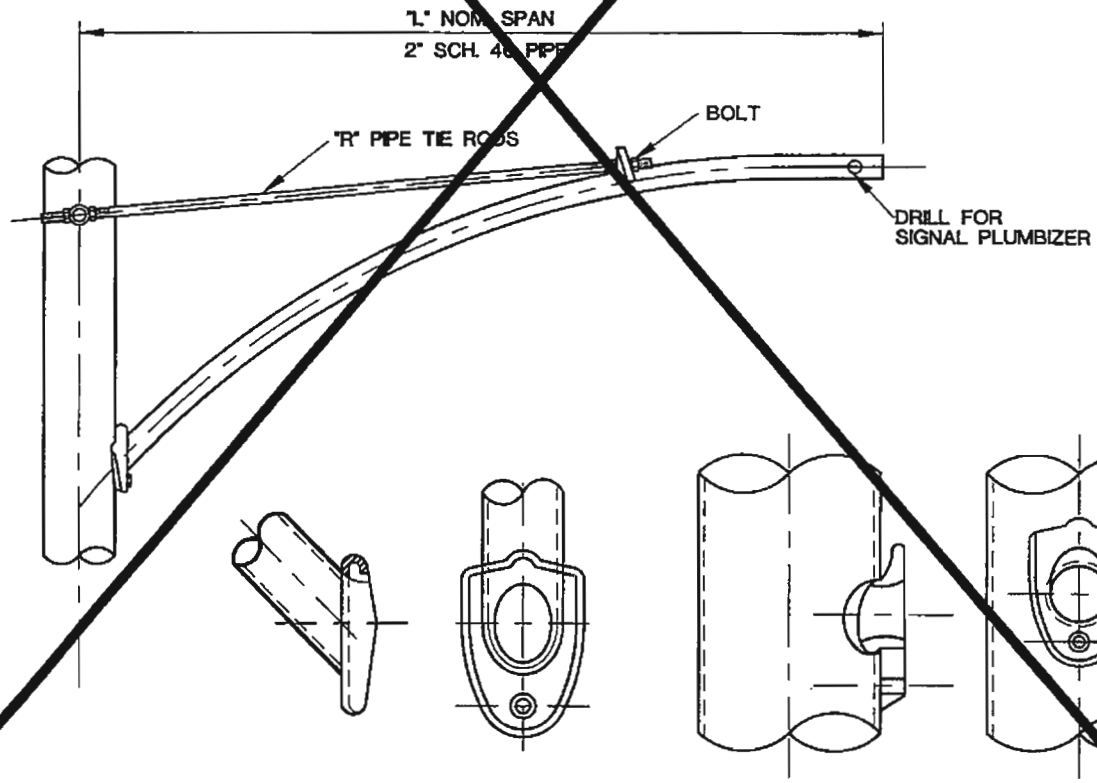
BLOCK NUMBER SIGN

DATE 12-12-96	DWG. NO. 404.420	SHEET 1 OF 1

DELETED



PIPE TIE ROD SCHEDULE		
MAST ARM SPAN "L"	"R" (MIN)	BOLT
15'-0"	3/4" STD. PIPE	3/8"
18'-0"	1" STD. PIPE	1/2"
20'-0"	1 1/2" STD. PIPE	5/8"



ONE BOLT SIMPLEX ARM ATTACHMENT

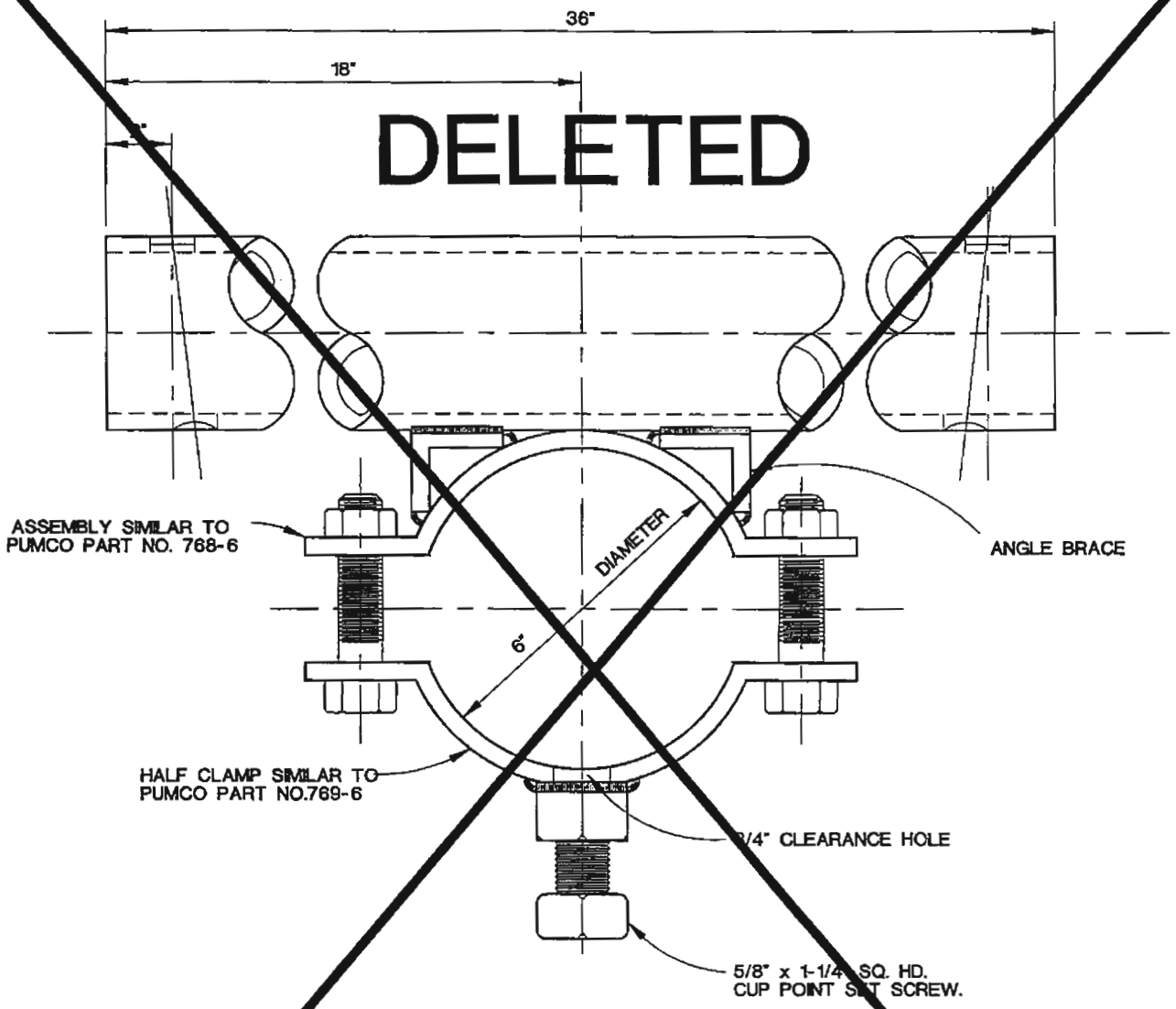
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIGNAL MAST ARM WITH WELDED BACK BRACE

DATE 12-12-96	DWG. NO. 404.500	SHEET 1 OF 1

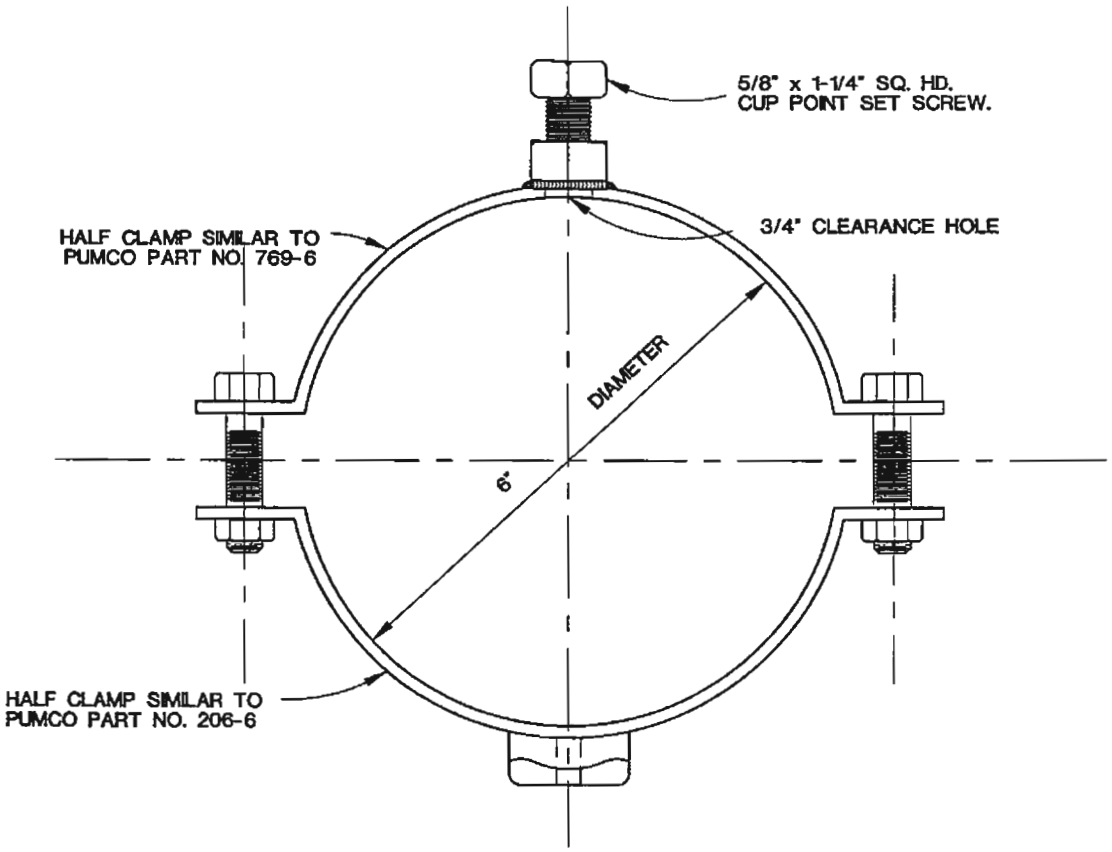
DELETED

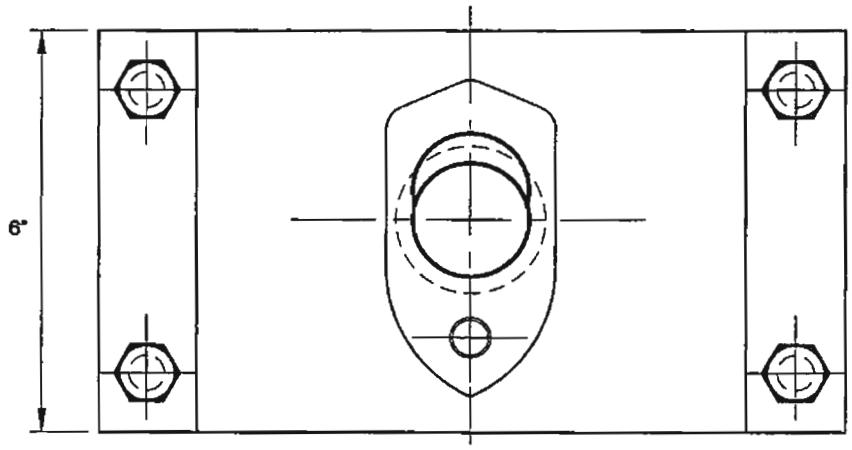


NOTES:

1. ASSEMBLY FINISH SHALL BE PREPARED AS REQUIRED IN THE STANDARD SPECIFICATIONS.
2. COMPLETE ASSEMBLY SIMILAR TO PUMCO PART NO. 767-6.
3. THIS ASSEMBLY TO BE USED ON 30' POLES ONLY, AND TO BE MOUNTED 20' FROM POLE BASE.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		BACK BRACE ASSEMBLY FOR SIGNAL MAST ARM		
		DATE 12-12-96	DWG. NO. 404.501	SHEET 1 OF 1





NOTES:

1. COMPLETE ASSEMBLY SHALL BE HOT-DIP GALVANIZED OR PRIME-PAINTED AS REQUIRED BY THE ENTITY.
2. COMPLETE ASSEMBLY SIMILAR TO PUMCO PART NO. 207-769-6.
3. THIS ASSEMBLY TO BE USED ON EXISTING 30' POLES ONLY.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		ONE BOLT SIMPLEX ARM ATTACHMENT CLAMP ASSEMBLY		
		DATE 12-12-96	DWG. NO. 404.502	SHEET 1 OF 1

GENERAL SPECIFICATIONS

ROADWAY EMBEDDED LOOP WIRES

DELETED

1. GENERAL

1.1 ALL LOOP WIRES TO BE INSTALLED AFTER THE FINAL LAYER OF A.C. AND BEFORE ANY SEAL COAT.

1.2 THE LOOP SHALL BE MADE WITH A SINGLE CONDUCTOR CABLE-IN-DUCT TYPE (IMSA SPEC. 51-5). ALL WIRE MUST BE COLOR CODED OR TAPED AS SHOWN ON THE STANDARD DRAWINGS. THE WIRE MUST BE INSTALLED IN THE SAWED SLOT WINDINGS IN THE DIRECTION AS SHOWN IN THE STANDARD DRAWINGS, WITH A MINIMUM OF 5' OF BOTH ENDS OF THE WIRE COILED AND STORED IN THE PULLBOX. THE MULTIPLE LOOPS IN THE PULLBOX MUST BE PROPERLY TAGGED AS SHOWN IN THE STANDARD DRAWINGS.

1.3 THE SAWED SHALL BE BLOWN CLEAN OF ALL LOOSE MATERIAL AND DRIED. THE WIRE SHALL BE CAREFULLY PUSHED IN THE SLOT WITH A BLUNT STICK TO AVOID DAMAGING ITS INSULATION.

2. CONNECTING CABLES

2.1 EACH WOUND LOOP SYSTEM SHALL HAVE A SEPARATE LEAD-IN CABLE INSTALLED TO THE CONTROLLER CABINET. EACH CABLE SHALL BE ONE (1) TWISTED PAIR 14 A.W.G. POLYETYLENE CABLE CONFORMING IN ITS ENTIRETY TO IMSA SPECS. 19-2, UNLESS OTHERWISE SPECIFIED.

3. LOOP TESTS

3.1 INSULATION TEST. TEST FOR EACH LOOP TO GROUND MUST NOT READ LESS THAN 50 MEG OHMS TO INFINITY USING A MEGGER. INSULATION TEST BETWEEN LOOPS SHALL BE NOT LESS THAN 5 MEG OHMS.

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		GENERAL SPECIFICATIONS ROADWAY EMBEDDED LOOP WIRES		
		DATE 12-12-96	DWG. NO. 404.800	SHEET 1 OF 1

DETECTOR LOOP SEALANT
MODEL SPECIFICATION

DELETED

THIS SEALANT SHALL BE A POLYURETHANE MATERIAL OF A COMPOSITION THAT WILL, WITHIN ITS STATED SHELF LIFE, CURE ONLY IN THE PRESENCE OF MOISTURE. SEALANT SHALL BE SUITABLE FOR USE IN BOTH ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE.

THE CURED SEALANT SHALL HAVE THE FOLLOWING PERFORMANCE CHARACTERISTICS:

PROPERTY AND RESULTS	MEASURING STANDARD AND CONDITIONS
HARDNESS (INDENTATION) - 65-85	ASTM D 2240, REX TYPE A, MODEL 1770 77 DEGREES F (25 DEGREES C), 50% RELATIVE HUMIDITY
TENSILE STRENGTH - 500 PSI, MINIMUM	ASTM D 412 DIE C, PULLED AT 20 IPM
FLEX AT -40 DEGREES - NO CRACKS	25 MIL FREE FILM BEND (180 DEGREES C) OVER 1/2" MANDREL
WEATHERING RESISTANCE - SLIGHT CHALKING	ASTM D 822 WEATHEROMETER 350 HRS. CURED 7 DAYS AT 77 DEGREES F (25 DEGREES C), 50% RELATIVE HUMIDITY
SALT SPRAY RESISTANCE - 500 PSI, MINIMUM TENSILE; 400% MINIMUM ELONGATION	ASTM B 117, 28 DAYS AT 100 DEGREES F (38 DEGREES C), 5% NACL, DIE C, PULLED AT 20 IPM
DIELECTRIC CONSTANT - LESS THAN 25% CHANGE OVER A TEMPERATURE OF -30 DEGREES C TO 50 DEGREES C	ASTM D 150

CHEMICAL RESISTANCE

CHEMICAL AND RESULTS	TEST METHOD
DE-ICING CHEMICAL - NO EFFECT	ASTM D 471
GASOLINE - SLIGHT SWELL	ASTM D 471
HYDRAULIC BRAKE FLUID - NO EFFECT	ASTM D 471
MOTOR OIL - NO EFFECT	ASTM D 471
CALCIUM CHLORIDE 50% - NO EFFECT	ASTM D 471

TESTS CONDUCTED ON DEAERATED, 20 MIL (0.020"), DRY FILM LIQUID IMMERSION, 28 DAYS AT 77 DEGREES F (25 DEGREES C)

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MODEL SPECIFICATIONS -
DETECTOR LOOP SEALANT

DATE 12-12-96	DWG. NO. 404.801	SHEET 1 OF 2

DETECTOR LOOP SEALANT SPECIFICATION

DELETED

THE SEALANT SHALL BE A HOT-MELT, RUBBERIZED ASPHALT SEALANT. THE MATERIAL SHALL BE OF SOLID FORM AT ROOM TEMPERATURE AND FLUID AT AN APPLICATION TEMPERATURE OF 375-400 DEGREES F. FUMES FROM THE MATERIAL SHALL BE NON-TOXIC AND THE SEALANT SHALL BE SUITABLE FOR USE ON BOTH ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE.

THE HOT-MELT, RUBBERIZED ASPHALT SEALANT SHALL BE MELTED IN A JACKETED, DOUBLE BROILER-TYPE, MELTING UNIT. TEMPERATURE OF THE HEAT TRANSFER MEDIUM SHALL NOT EXCEED 475 DEGREES F. APPLICATION OF THE HOT-MELT SEALANT SHALL BE MADE WITH A PRESSURE-FEED APPLICATOR OR A POUR POT TO A PAVEMENT HAVING A SURFACE TEMPERATURE GREATER THAN 40 DEGREES F.

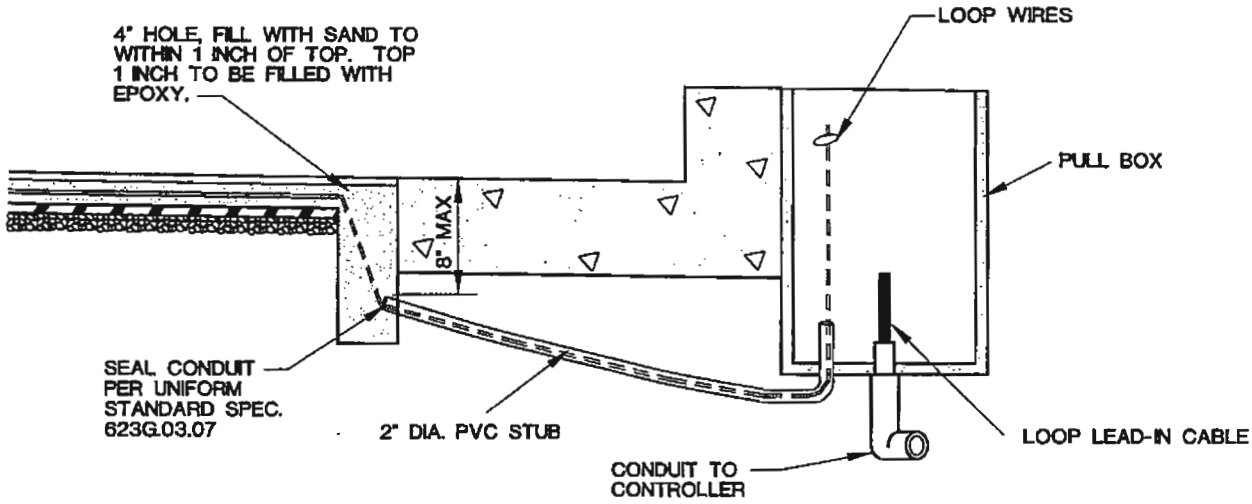
HOT-MELT SEALANT SHALL BE PACKAGED IN CONTAINERS CLEARLY MARKED "DETECTOR LOOP SEALANT" AND SPECIFYING THE BATCH AND LOT NUMBER OF THE MANUFACTURER.

PERFORMANCE CHARACTERISTICS OF THE CURED SEALANT SHALL BE AS FOLLOWS:

CHARACTERISTIC	LIMITS
CONE PENETRATION, 77 DEGREES F., 150 G., 5 SEC., 1/10 MM. ASTM D 3407, SECT. 5	20 - 30 MAX.
FLOW, 140 DEGREES F., MM. ASTM D 3407, SECT. 6	5 MAX.
RESILIENCE, 77 DEGREES F., % ASTM D 3407, SECT. 8	25 MIN.
SOFTENING POINT, DEGREES F. ASTM 2398	180 - 205
DUCTILITY, 77 DEGREES F., 5 CM/SEC., CM. ASTM D 113	30 - 55
FLASH POINT, COC, DEGREES F. ASTM D 92	575 - 600
VISCOSITY, BROOKFIELD, CENTIPOISE @ 375 DEGREES F. ASTM D 92	2500 - 3500

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		MODEL SPECIFICATIONS - DETECTOR LOOP SEALANT		
		DATE 12-12-96	DWG. NO. 404.801	SHEET 2 OF 2



NOTE:

PATCH SLOT AND HOLE WITH EPOXY, REMOVE OVERFLOW BEFORE IT HARDENS.

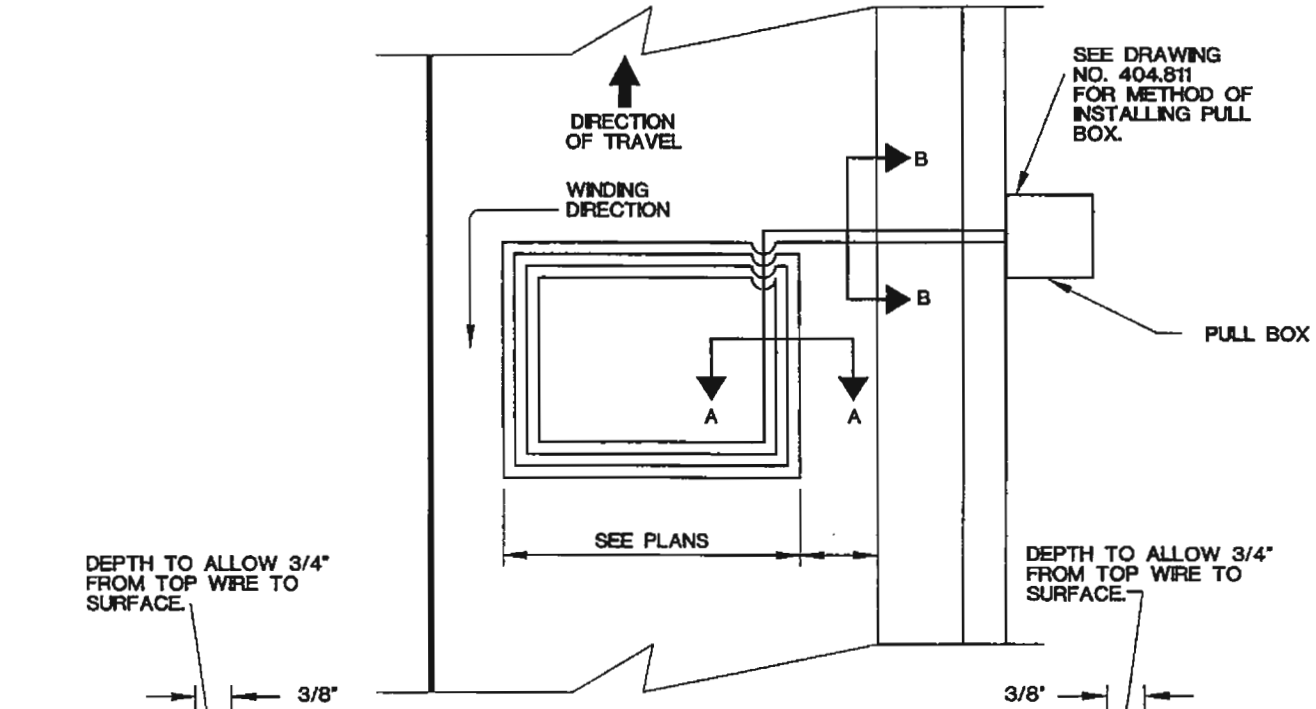
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367

4-2-97

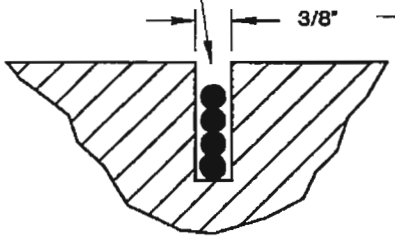
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		DETAILS AT LOOP PULL BOX		
		DATE 12-12-96	DWG. NO. 404.811	SHEET 1 OF 1

NOTE:

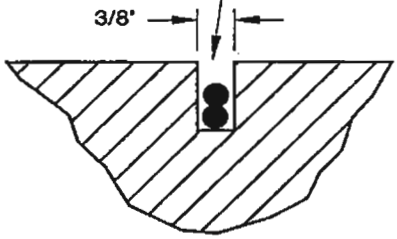
1. 4 TURNS OF WIRE SHOWN. ALWAYS INSTALL 4 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON THE PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



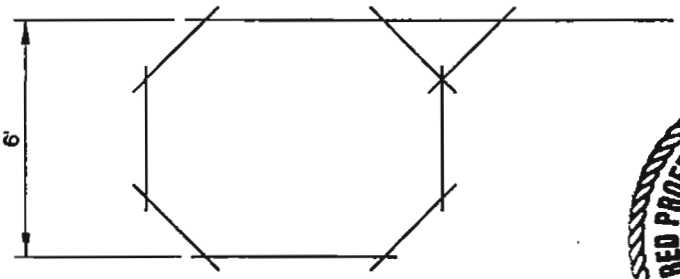
WIRING DIAGRAM



SECTION A-A



SECTION B-B



SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

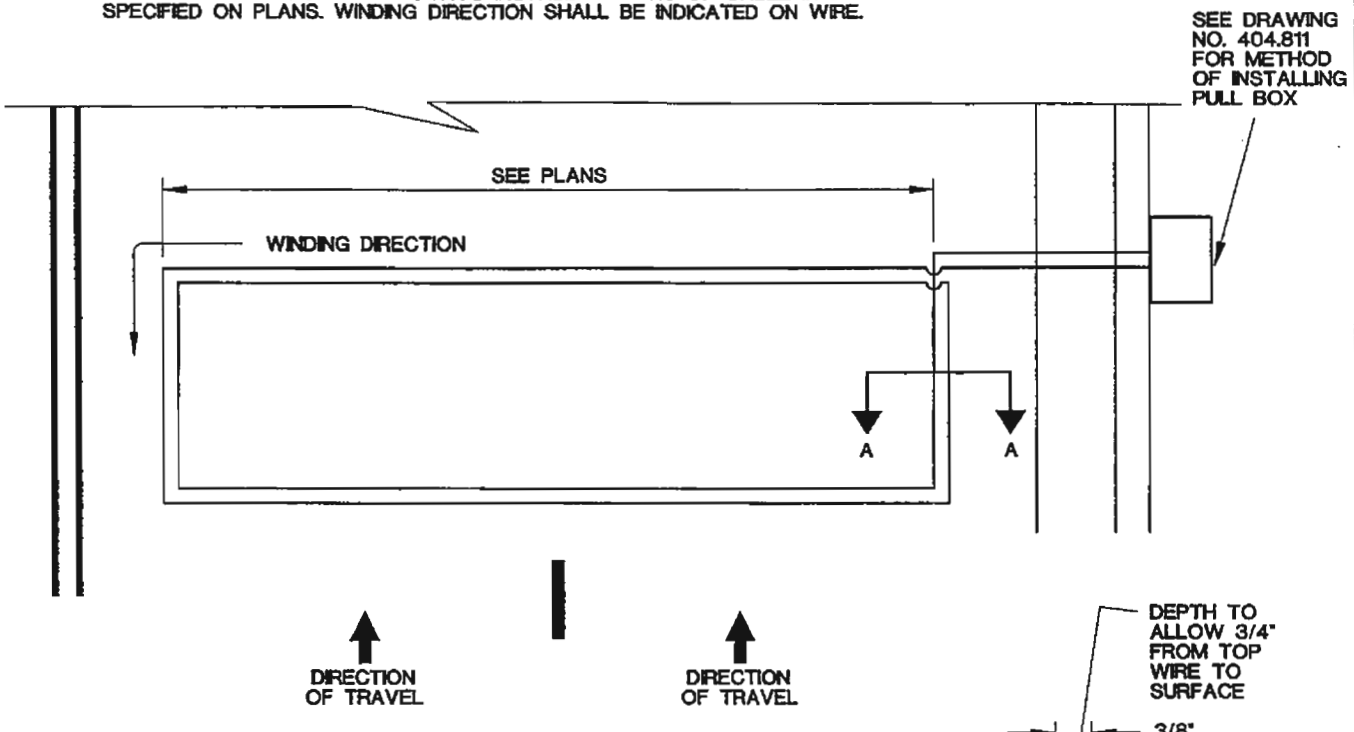
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367

4-2-97

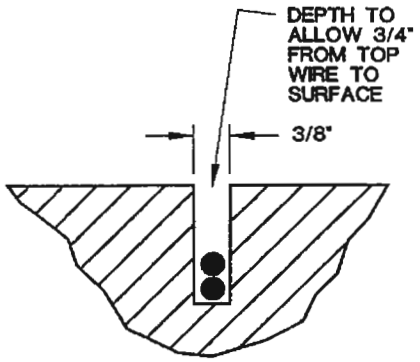
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		1 INDUCTION LOOP FOR 1 TRAVEL LANE		
		DATE	DWG. NO. 404.820	SHEET 1 OF 1

NOTE:

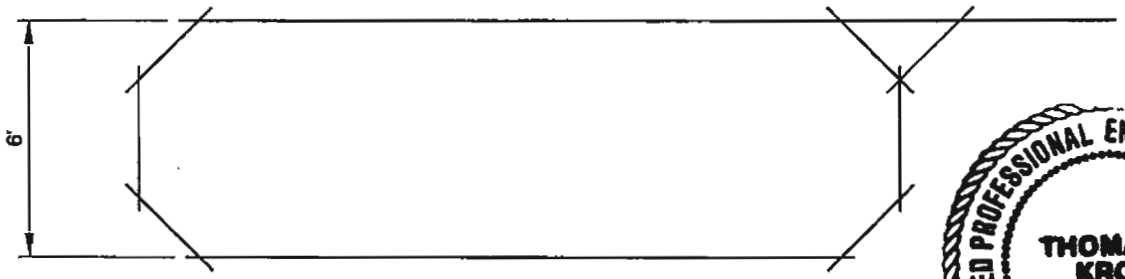
2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



WIRING DIAGRAM



A-A



SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

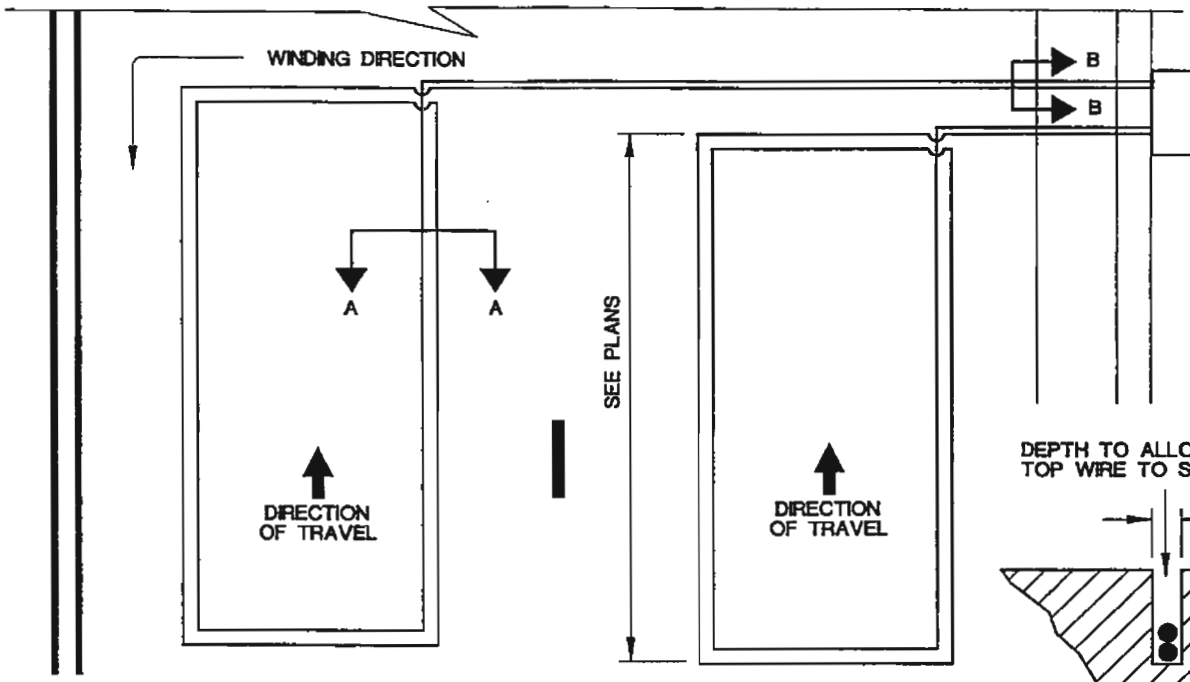
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367

4-2-97

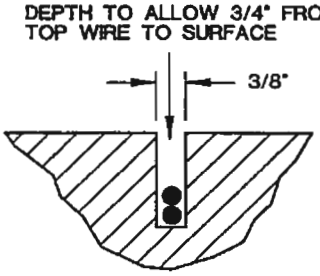
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		1 INDUCTION LOOP FOR 2 TRAVEL LANES		
		DATE	DWG. NO. 404.821	SHEET 1 OF 2

NOTE:

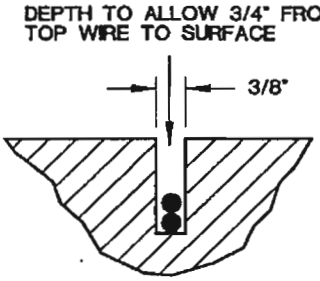
2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



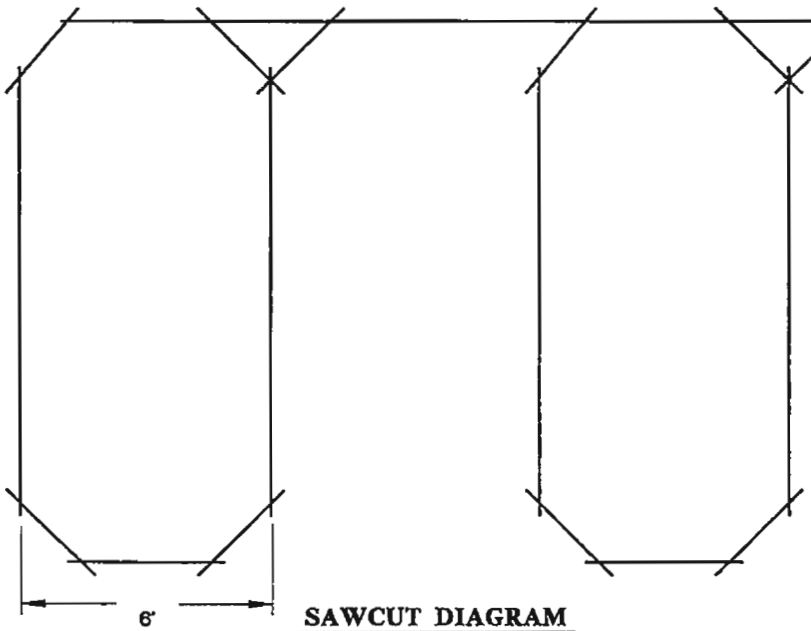
WIRING DIAGRAM



A-A



B-B



SAWCUT DIAGRAM

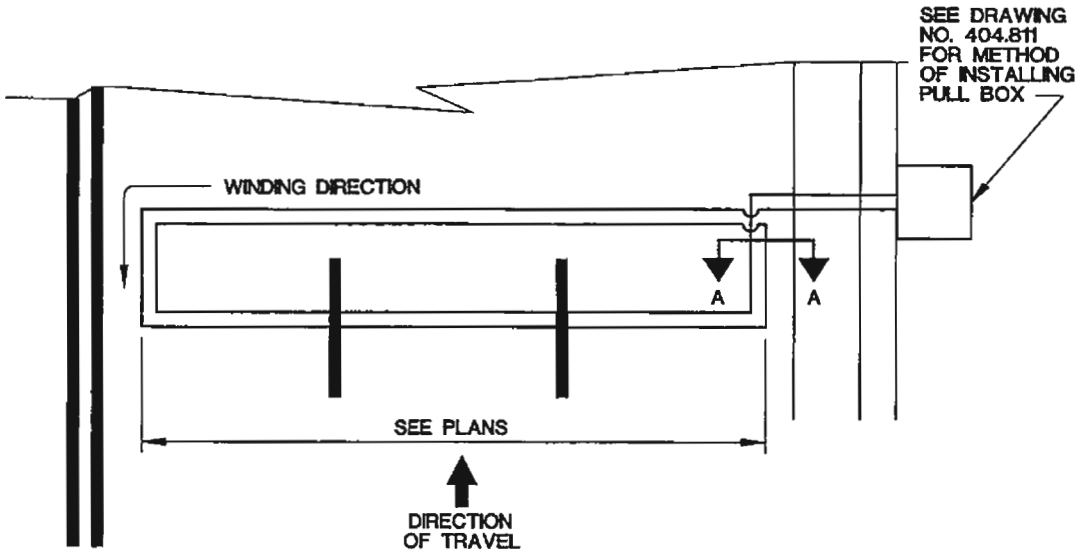
SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

4-2-97

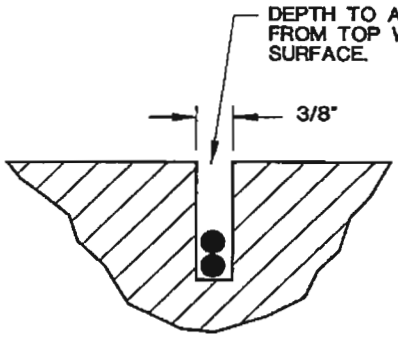
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		2 INDUCTION LOOPS FOR 2 TRAVEL LANES		
		DATE	DWG. NO. 404.821	SHEET 2 OF 2

NOTE:

2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



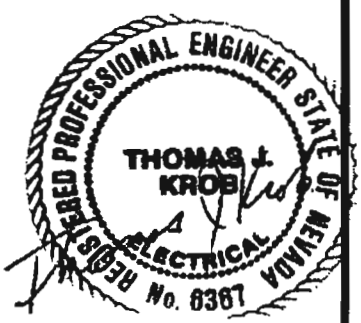
WIRING DIAGRAM



A-A

SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

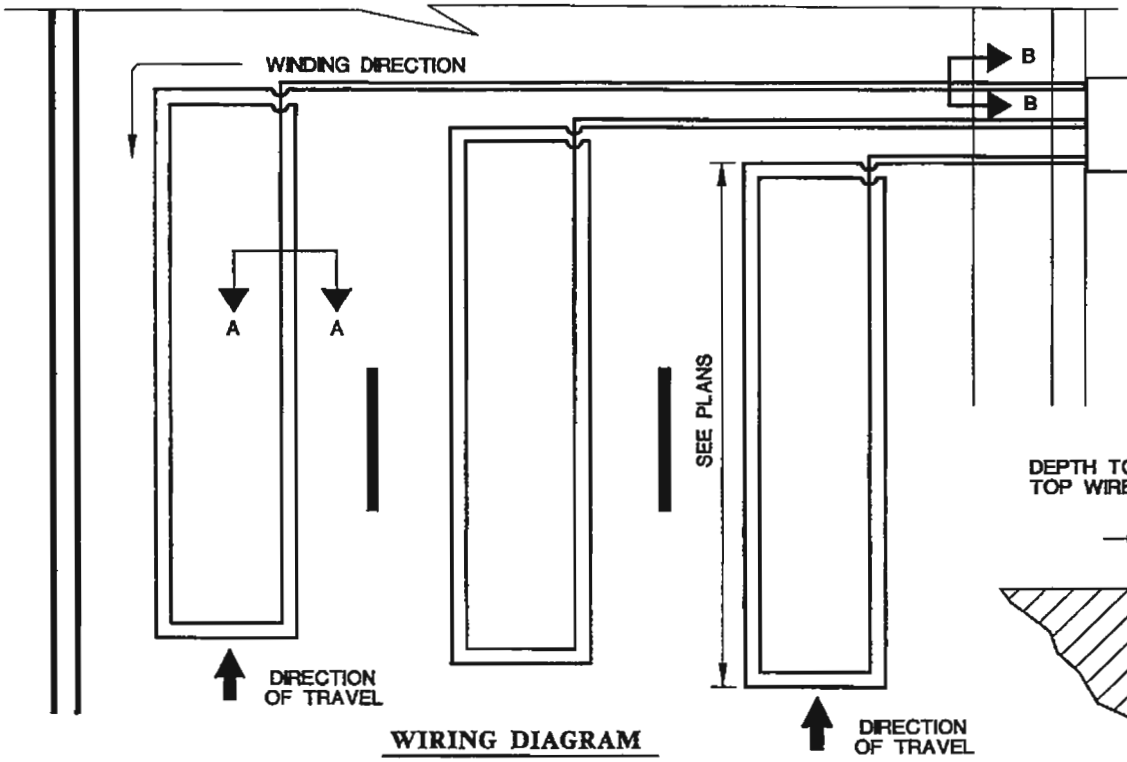


4-297

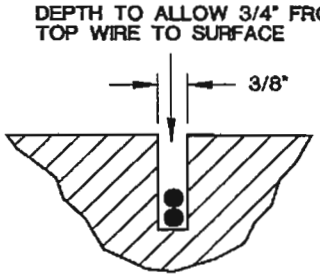
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		1 INDUCTION LOOP FOR 3 TRAVEL LANES		
		DATE	DWG. NO. 404.822	SHEET 1 OF 2

NOTE:

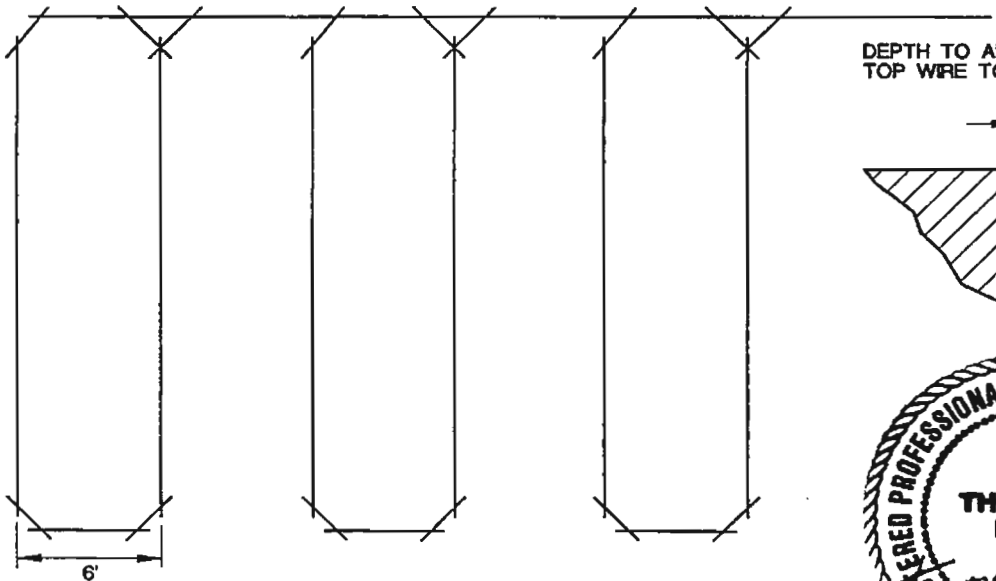
2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



WIRING DIAGRAM

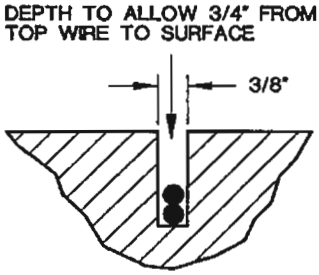


A-A

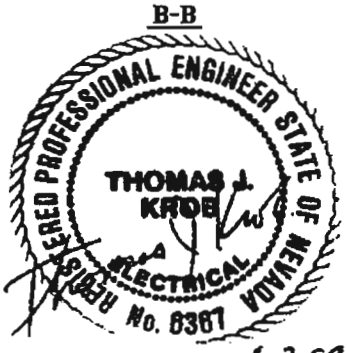


SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.



B-B

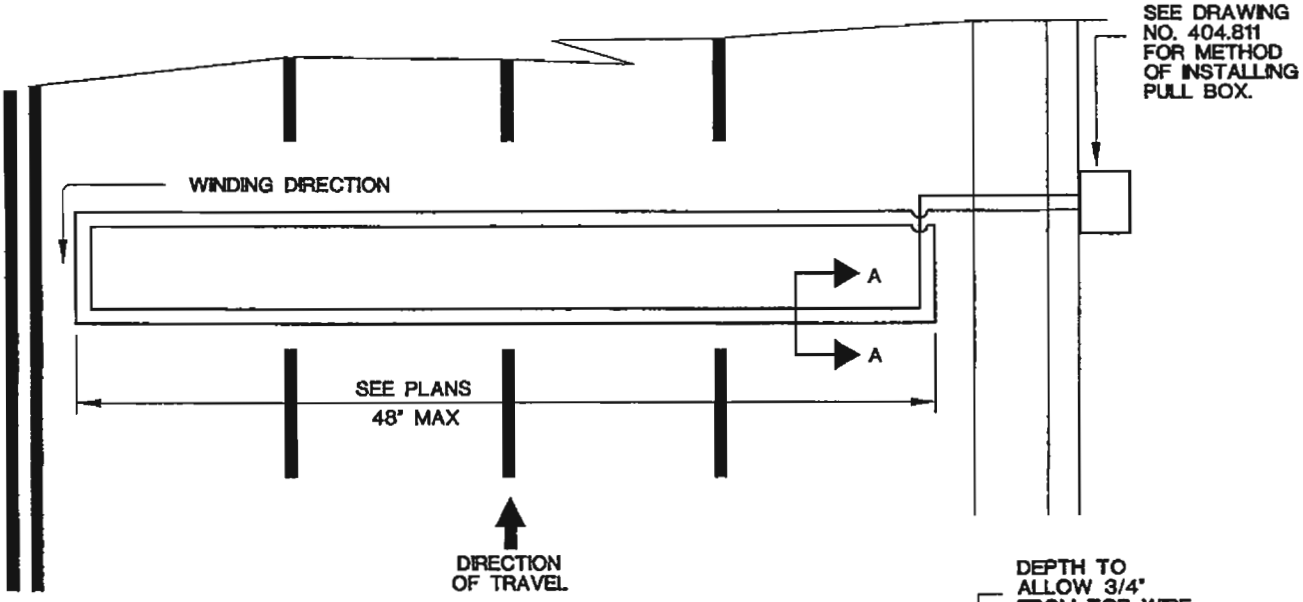


4-2-97

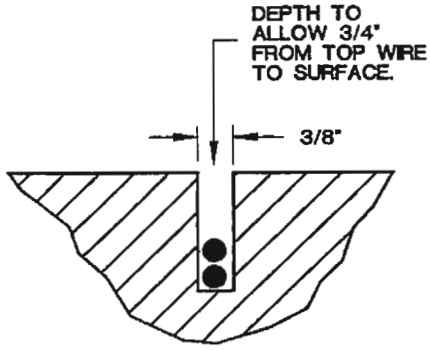
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	3 INDUCTION LOOPS FOR 3 TRAVEL LANES
	DATE | DWG. NO. 404.822 | SHEET 2 OF 2

NOTE:

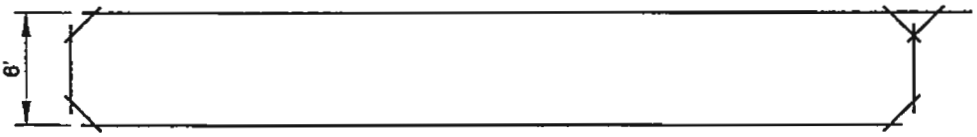
2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



WIRING DIAGRAM



A-A



SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

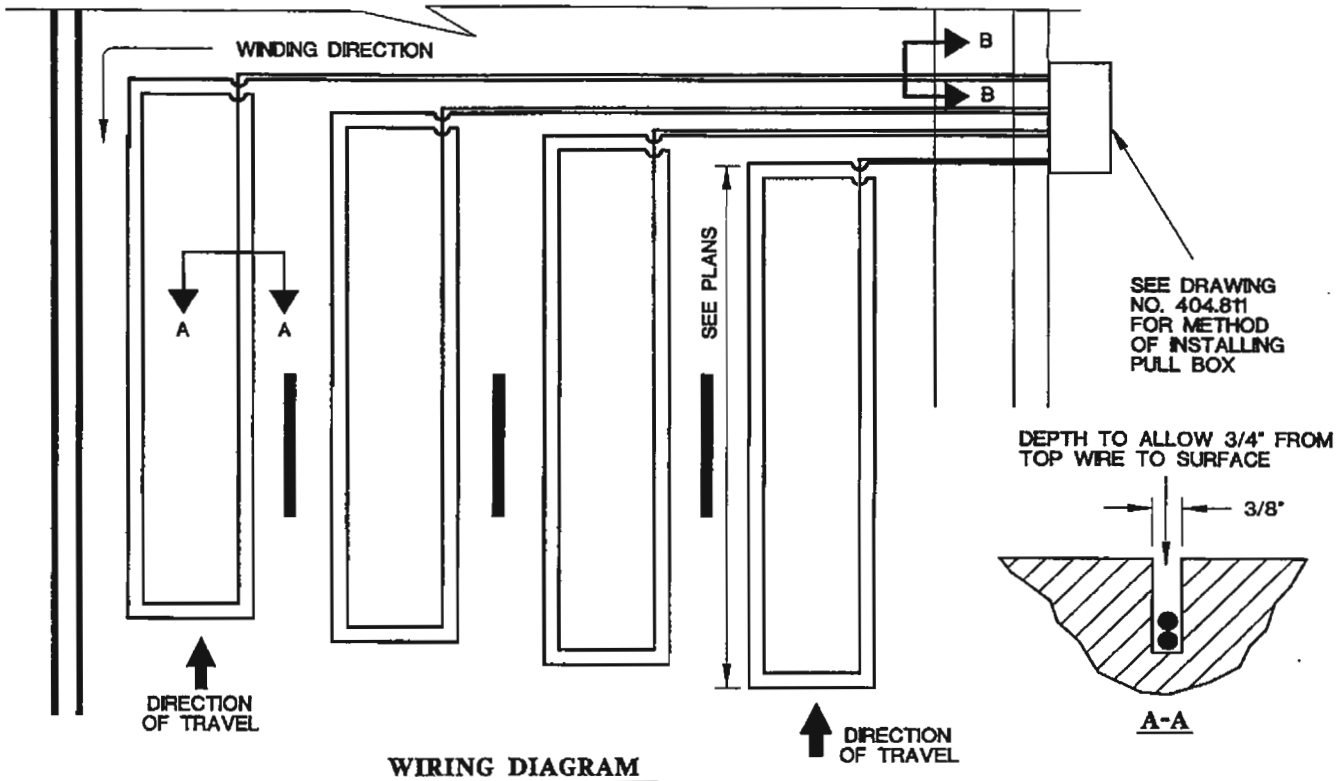
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367

4-2-97

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		1 INDUCTION LOOP FOR 4 TRAVEL LANES		
		DATE	DWG. NO. 404.823	SHEET 1 OF 2

NOTE:

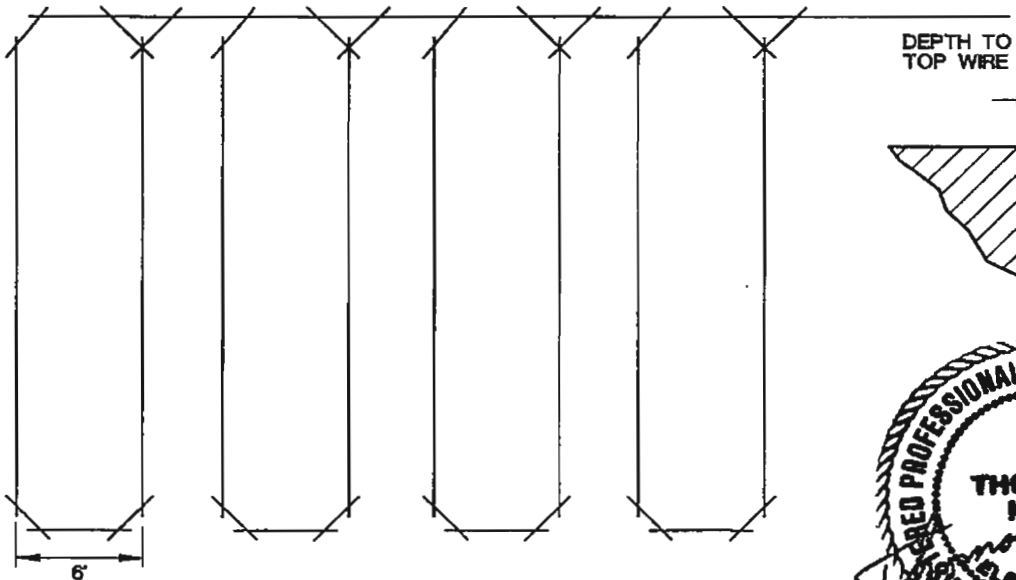
2 TURNS OF WIRE SHOWN. ALWAYS INSTALL 2 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.



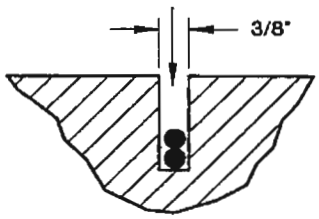
DEPTH TO ALLOW 3/4" FROM TOP WIRE TO SURFACE

A-A

WIRING DIAGRAM



DEPTH TO ALLOW 3/4" FROM TOP WIRE TO SURFACE



B-B

SAWCUT DIAGRAM

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

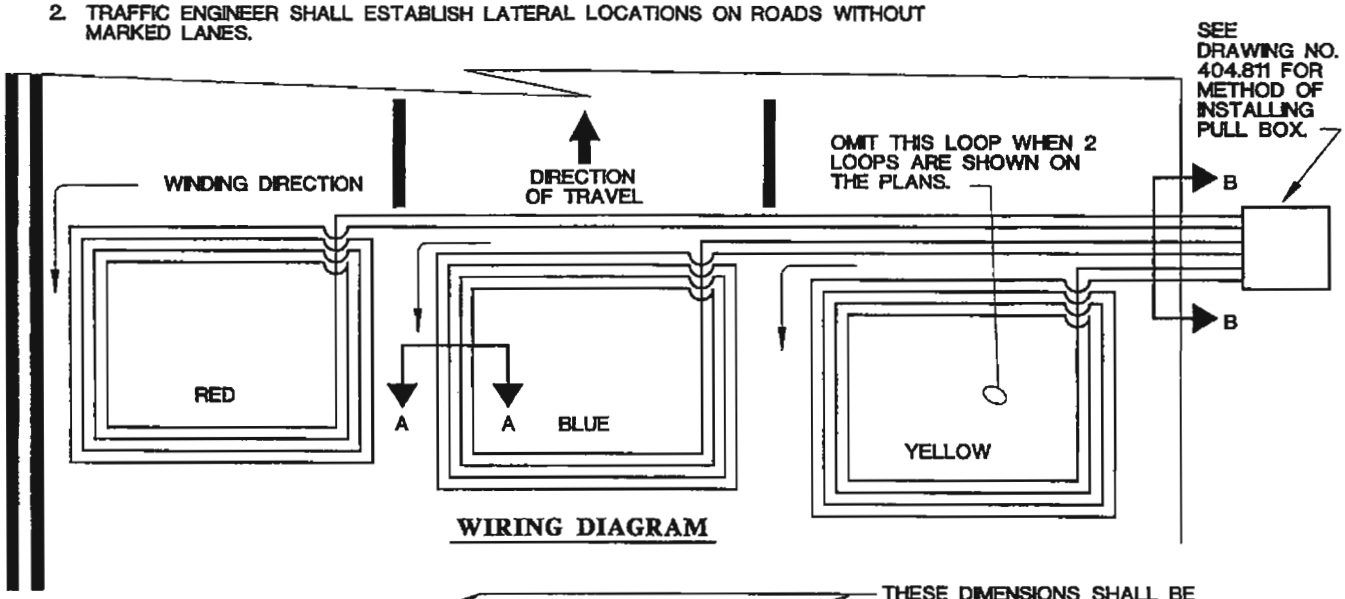
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS KROB
ELECTRICAL
No. 6367

4-2-97

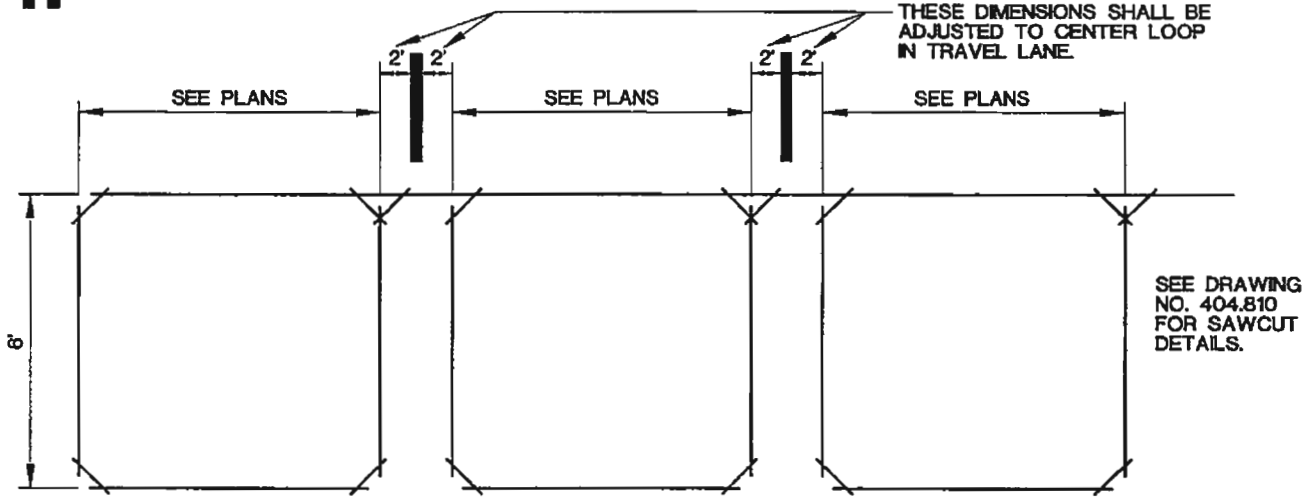
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	4 INDUCTION LOOPS FOR 4 TRAVEL LANES
	DATE | DWG. NO. 404.823 | SHEET 2 OF 2

NOTES:

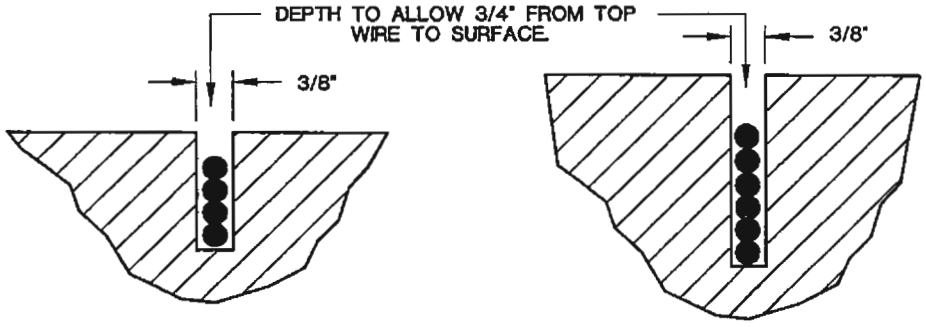
1. 4 TURNS OF WIRE SHOWN. ALWAYS INSTALL 4 TURNS OF CABLE IN DUCT UNLESS OTHERWISE SPECIFIED ON THE PLANS. WINDING DIRECTION SHALL BE INDICATED ON WIRE.
2. TRAFFIC ENGINEER SHALL ESTABLISH LATERAL LOCATIONS ON ROADS WITHOUT MARKED LANES.



WIRING DIAGRAM



SAWCUT DIAGRAM



A-A **B-B**

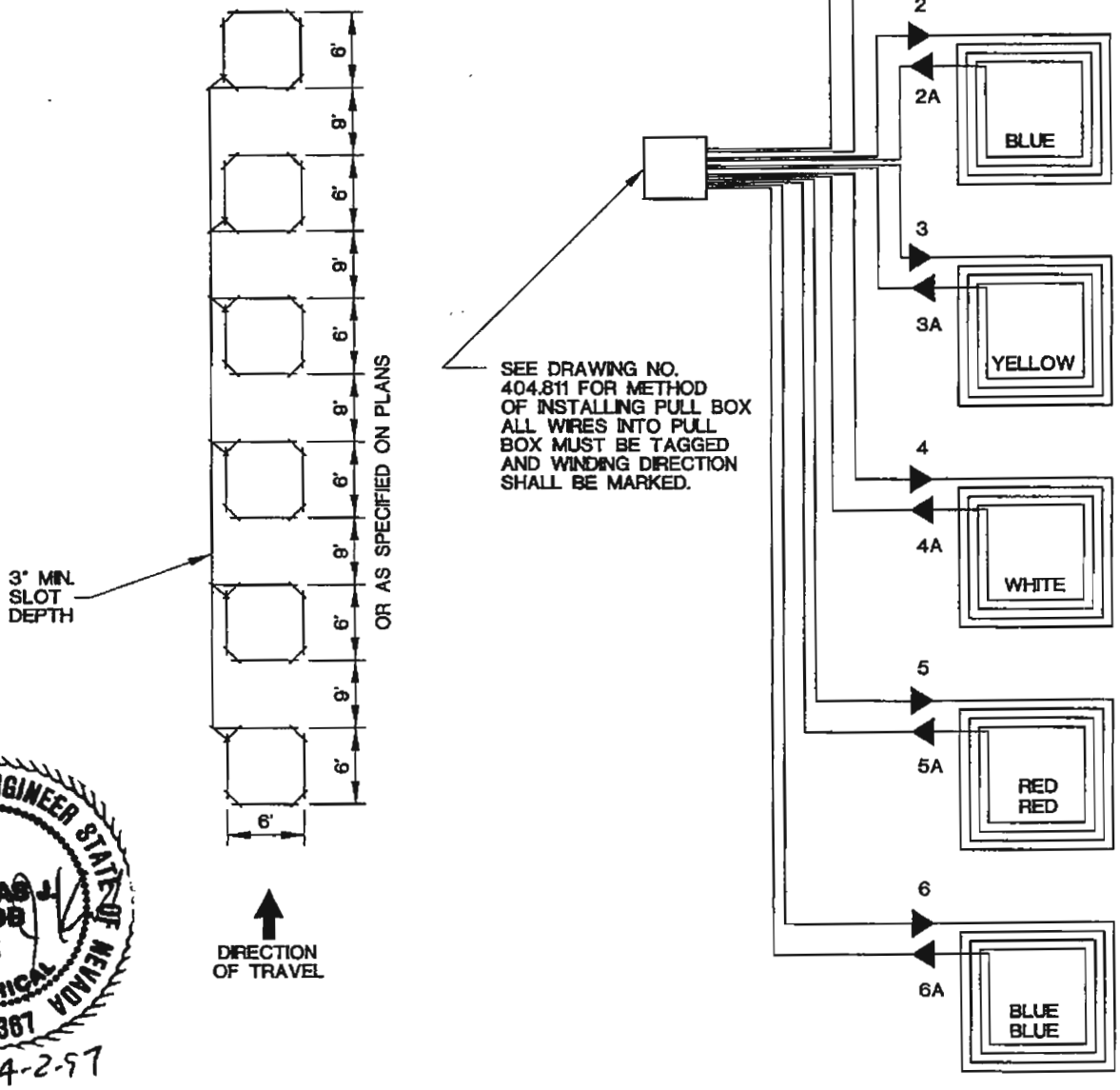
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS KROB
ELECTRICAL
No. 6367

4-2-97

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		3 INDUCTION LOOPS FOR 3 TRAVEL LANES		
		DATE	DWG. NO. 404.825	SHEET 1 OF 1

NOTES:

1. FRONT OF THE LOOP MUST EXTEND INTO THE CROSSWALK 2' TO 4'.
2. INSULATION TEST FOR EACH LOOP TO GROUND MUST NOT READ LESS THAN 50 MEG OHMS TO INFINITY. (USING MEGGER)
3. USE COLOR CODED 4 TURN CABLE IN DUCT AS SHOWN.
4. SEE DRAWING NO. 404.829 FOR WIRING CONNECTIONS.



REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367
4-2-97

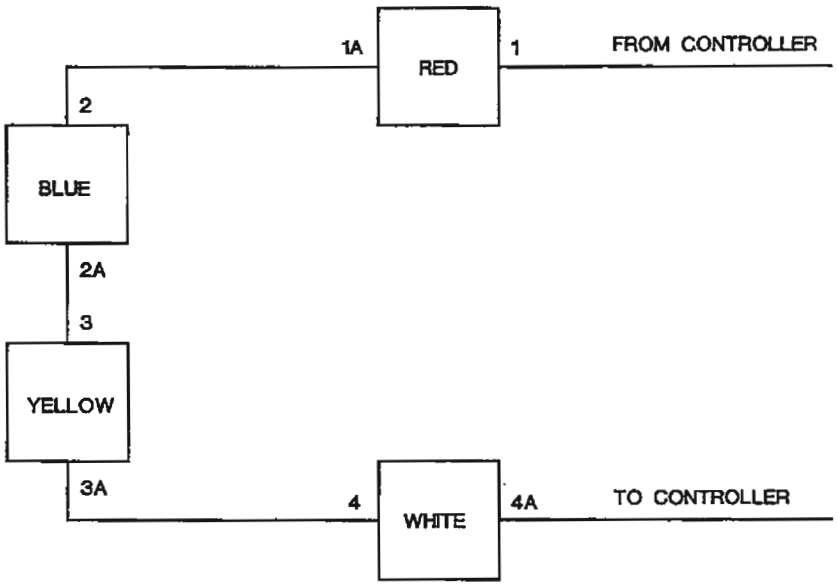
SEE DRAWING NO. 404.829 FOR WIRE CONNECTIONS.

SEE DRAWING NO. 404.810 FOR SAWCUT DETAILS.

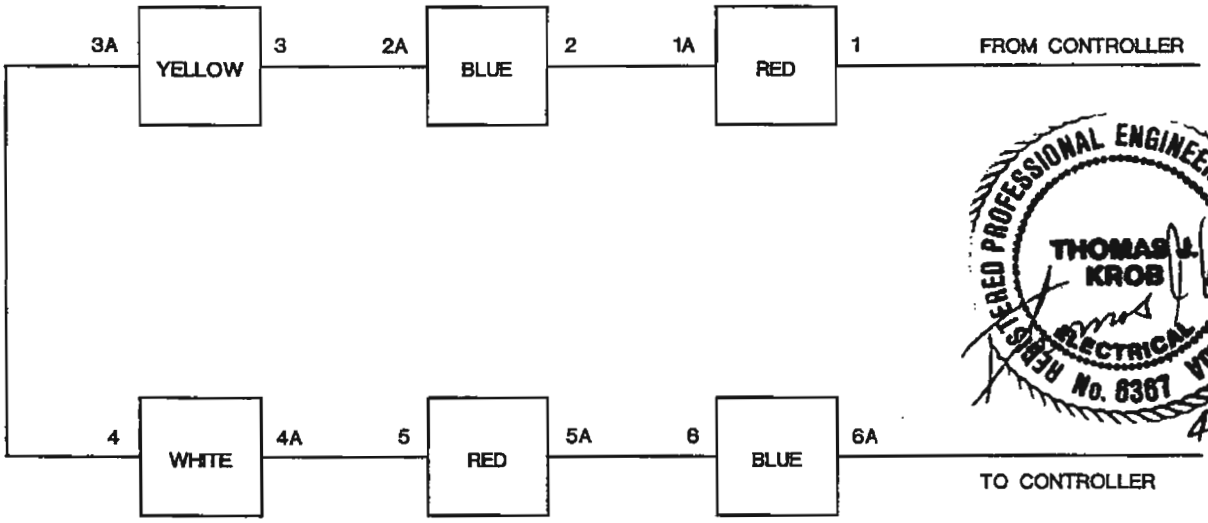
WIRING DIAGRAM

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		MULTIPLE LOOP SYSTEM FOR THRU LANE		
		DATE 12-12-96	DWG. NO. 404.826	SHEET 1 OF 1

SEE DRAWING NO. 404.827 FOR LOOP LAYOUT.



SEE DRAWING NO. 404.826 FOR LOOP LAYOUT.



REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367
4-2-97

SPECIFICATION REFERENCE	

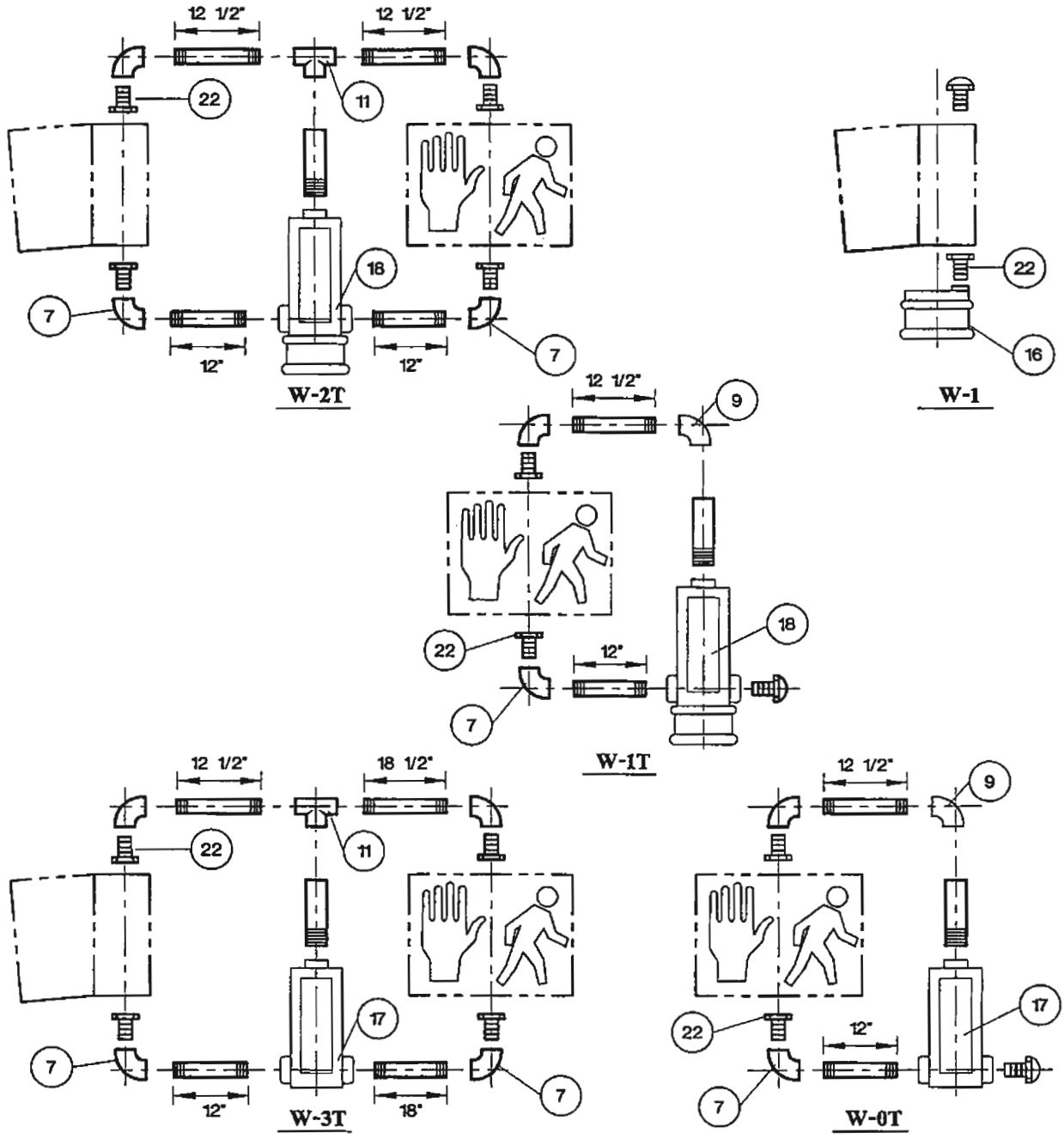
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

WIRE DIAGRAMS FOR MULTIPLE LOOP SYSTEMS FOR LEFT TURN POCKET AND THRU LANE

DATE 12-12-96	DWG. NO. 404.829	SHEET 1 OF 1

ITEM	DESCRIPTION	STANDARD DWG. NO.
1.		
2.	ELEVATOR PLUMBIZER	404.1203
3.	POLE PLATE WITH WIRE GUIDE	404.1204
4.	2-WAY TIE BRACE	404.1200
5.	3-WAY TIE BRACE	404.1200
6.	4-WAY TIE BRACE	404.1200
7.	SPECIAL ELBOW	404.1202
8.	SPECIAL TEE	404.1202
9.	MALLEABLE ELBOW-REAMED/SET SCREW	404.1206
10.	MALLEABLE ELBOW/SIDE OUTLET/REAMED/SET SCREW	404.1206
11.	MALLEABLE TEE, REAMED/SET SCREW	404.1206
12.	MALLEABLE TEE/SIDE OUTLET, REAMED/SET SCREW	404.1206
13.	MALLEABLE CROSS, REAMED/SET SCREW	404.1206
14.	MALLEABLE CROSS/SIDE OUTLET, REAMED/SET SCREW	404.1206
15.	4-WAY CENTER HUB	404.1205
16.	POST TOP MOUNTED BRACKET	404.1202
17.	SIDE BRACKET MOUNTED ADAPTER WITH TERMINAL COMPT.	404.1208
18.	POST TOP MOUNTED ADAPTER WITH TERMINAL COMPT.	404.1207
19.	LOCKING RING	404.1200
20.	ORNAMENTAL CAP	404.1200
21.	POST TOP MOUNTED ADAPTER WITH 3 PORTS	404.1208
22.	LOCKING NIPPLE	404.1200
23.	POLE PLATE	404.1201

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	BILL OF MATERIALS SIGNAL ASSEMBLIES
	DATE 12-12-96 | DWG. NO. 404.1005 | SHEET 1 OF 1



NOTES:

1. FOR GENERAL SPECIFICATIONS SEE TRAFFIC SIGNAL PLANS.
2. FOR ITEMIZED PARTS, SEE DRAWING NO. 404.1005.
3. THE HAND SYMBOL (DON'T WALK) IS PORTLAND ORANGE AND HUMAN SYMBOL (WALK) IS LUNAR WHITE.

SPECIFICATION REFERENCE	

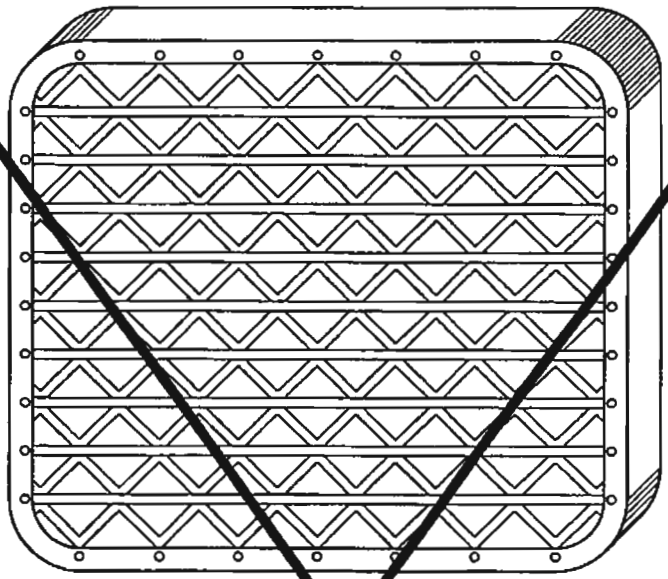
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PEDESTRIAN SIGNAL ASSEMBLIES
W-0T, W-1, W-2T, W-3T, W-1T

DATE 12-12-96	DWG. NO. 404.1032	SHEET 1 OF 1

DELETED

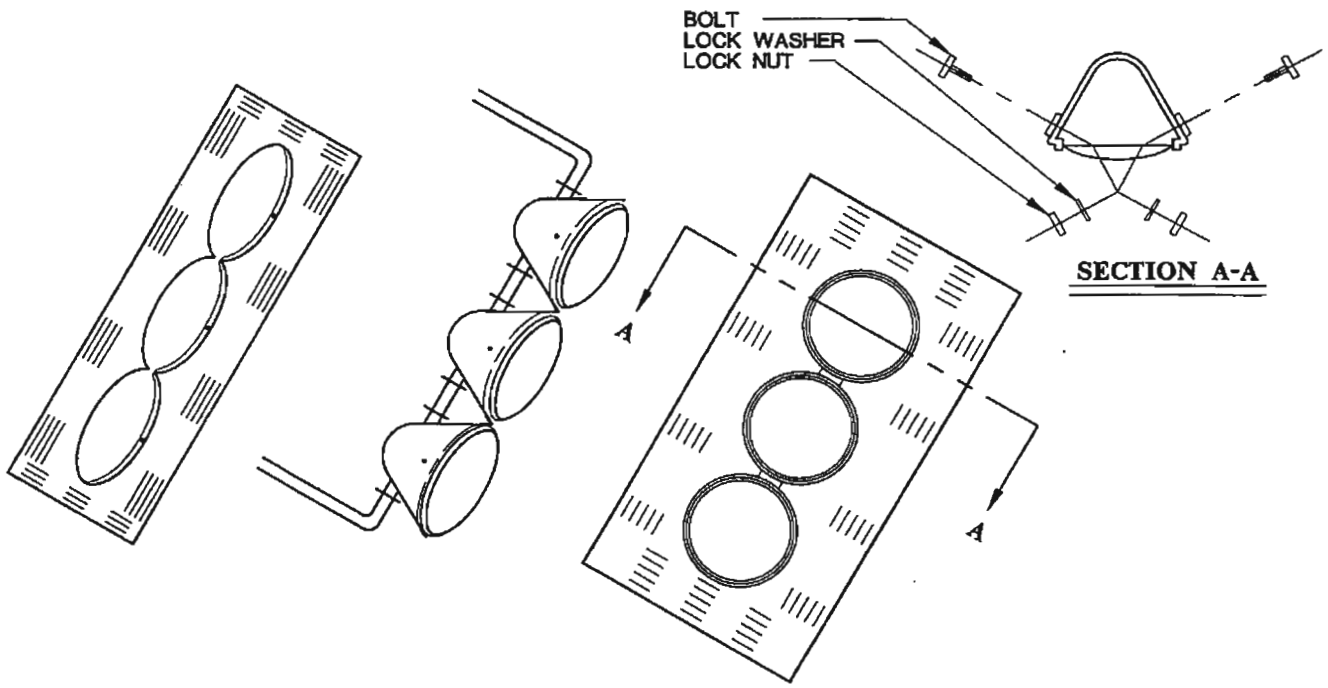
Z-CRATE VISOR



FEATURES

1. ELIMINATES SUN PHANTOM WITH AVERAGE APERATURE RATIO IN EXCESS OF 4.5 TO 1.
2. ALL JOINTS CHEMICALLY WELDED.
3. SUPER STRONG POLYCARBONATE PLASTIC.
4. AFFORDS EXCELLENT MESSAGE LENSE PROTECTION.
5. RIGID ASSEMBLY PREVENTS FRONT REMOVAL.
6. 1.5 INCH DEPTH MINIMIZES TRUCK DAMAGE (9 INCH TOTAL SIGNAL DEPTH).

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	Z-CRATE VISOR
	DATE 12-12-96 | DWG. NO. 404.1033 | SHEET 1 OF 1



SECTION A-A

NOTE:

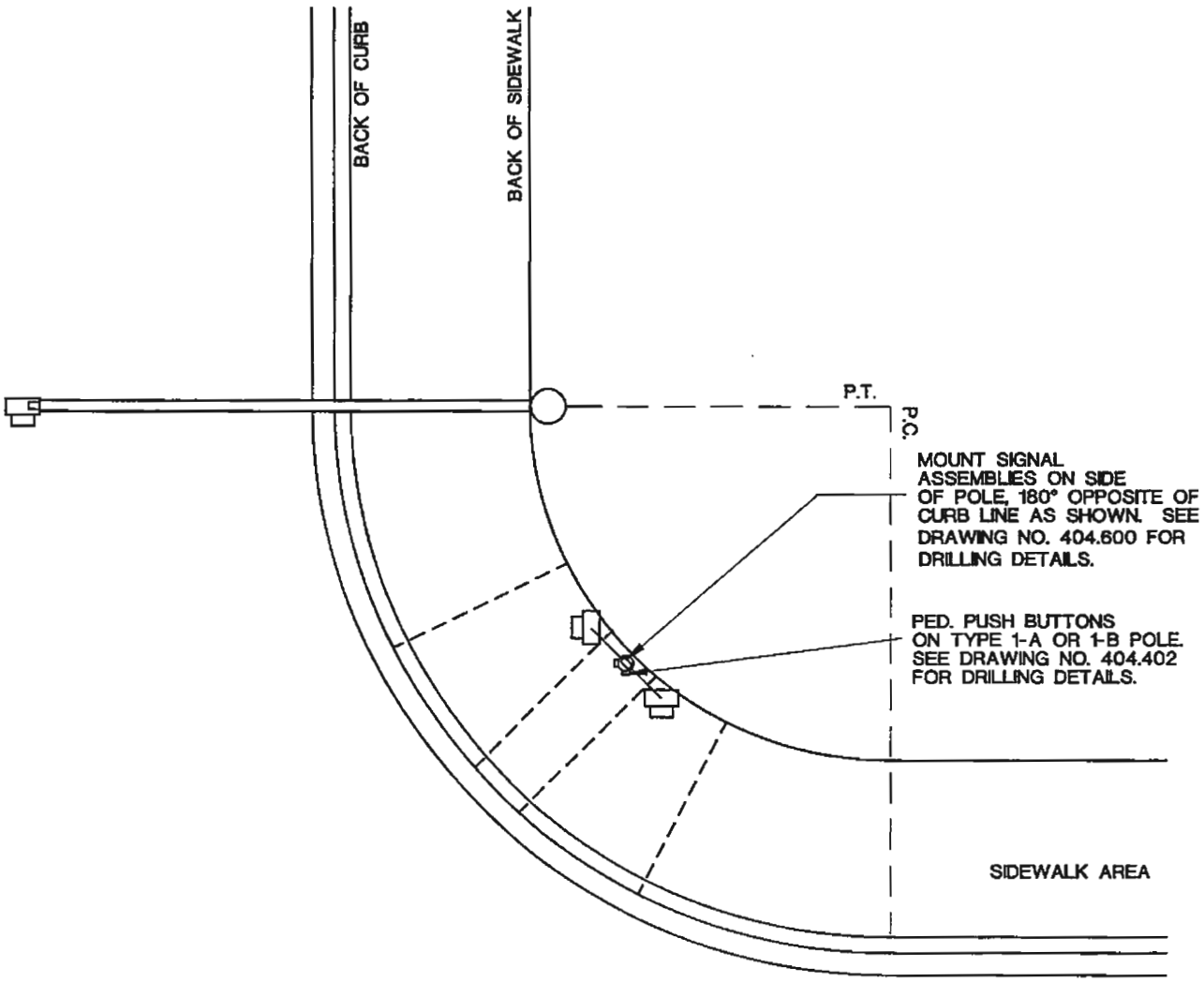
ALL BOLTS, NUTS AND WASHERS SHALL BE BRASS OR STAINLESS STEEL.

SPECIFICATION REFERENCE	

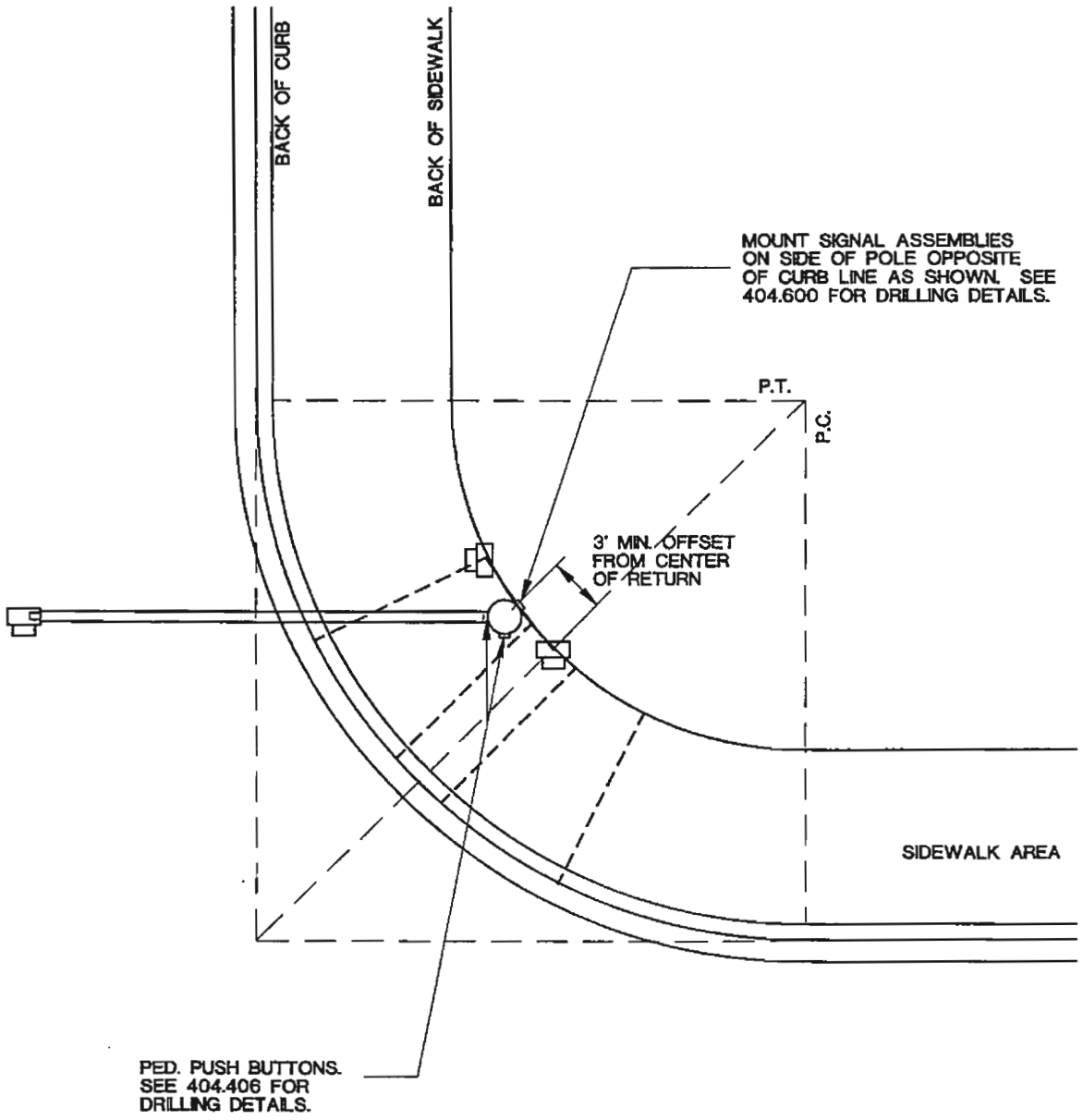
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BACKPLATE AND SIGNAL HEAD ASSEMBLY

DATE 12-12-96	DWG. NO. 404.1101	SHEET 1 OF 1



SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		POLE LOCATION & SIGNAL MOUNTING AT INTERSECTION		
		DATE 12-12-96	DWG. NO. 404.1300	SHEET 1 OF 2

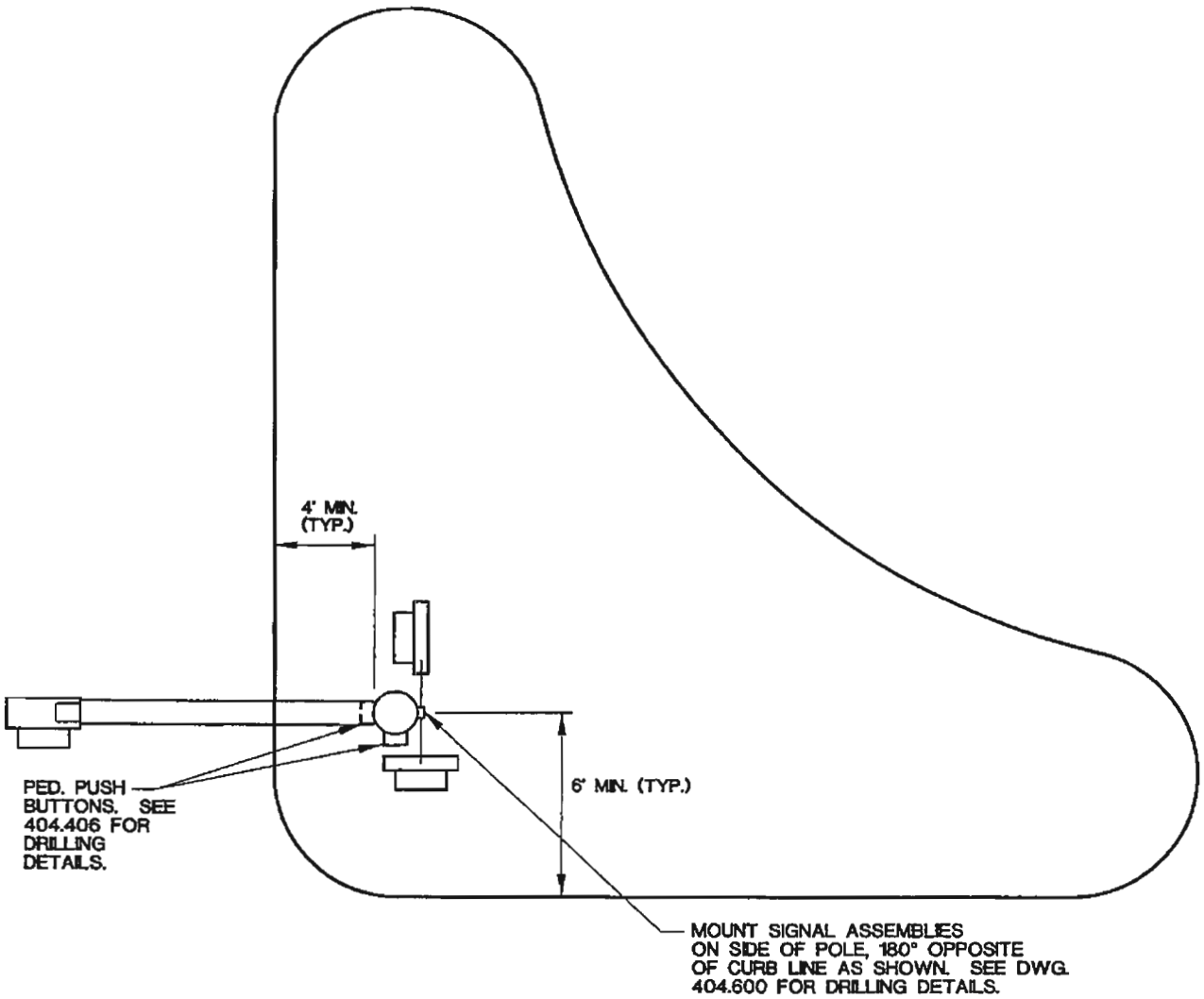


SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

POLE LOCATION & SIGNAL MOUNTING AT INTERSECTION (CENTER OF RETURN)

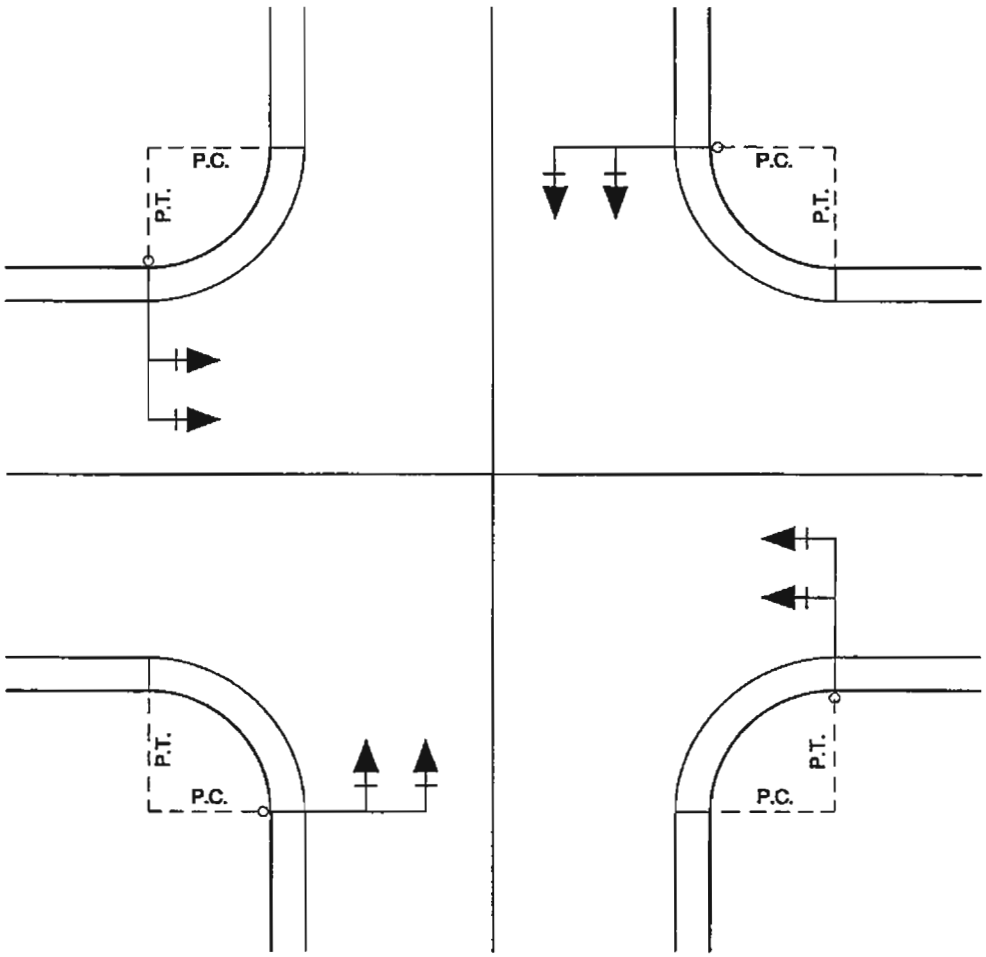
DATE 12-12-96	DWG. NO. 404.1300	SHEET 2 OF 2



NOTE:

SIDEWALK RAMPS IN ACCORDANCE WITH DRAWING NO. 235 SHALL BE CONSTRUCTED. HANDICAPPED ACCESS MUST BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).

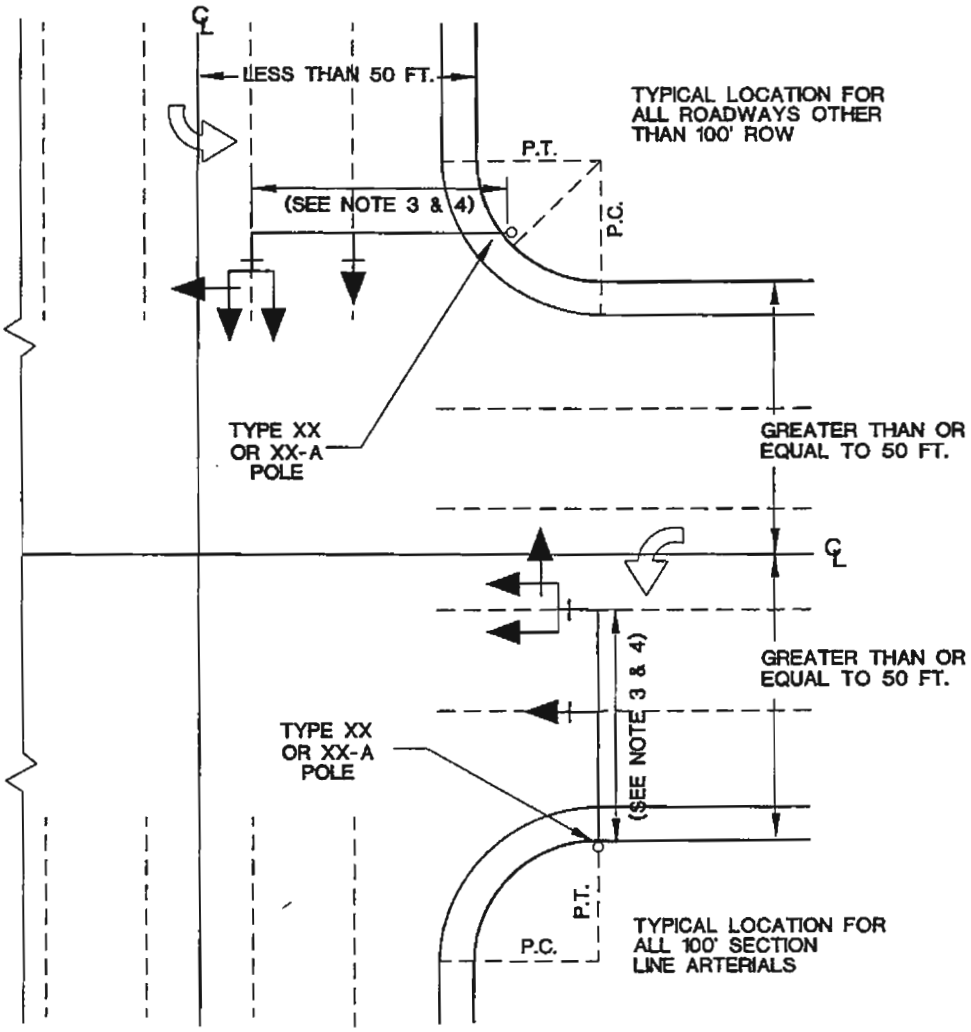
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		POLE LOCATION AND SIGNALS MOUNTING ON RIGHT TURN ISLANDS		
		DATE 12-12-96	DWG. NO. 404.1301	SHEET 1 OF 1



NOTE:

1. SEE PLANS FOR FOUNDATION TYPE.

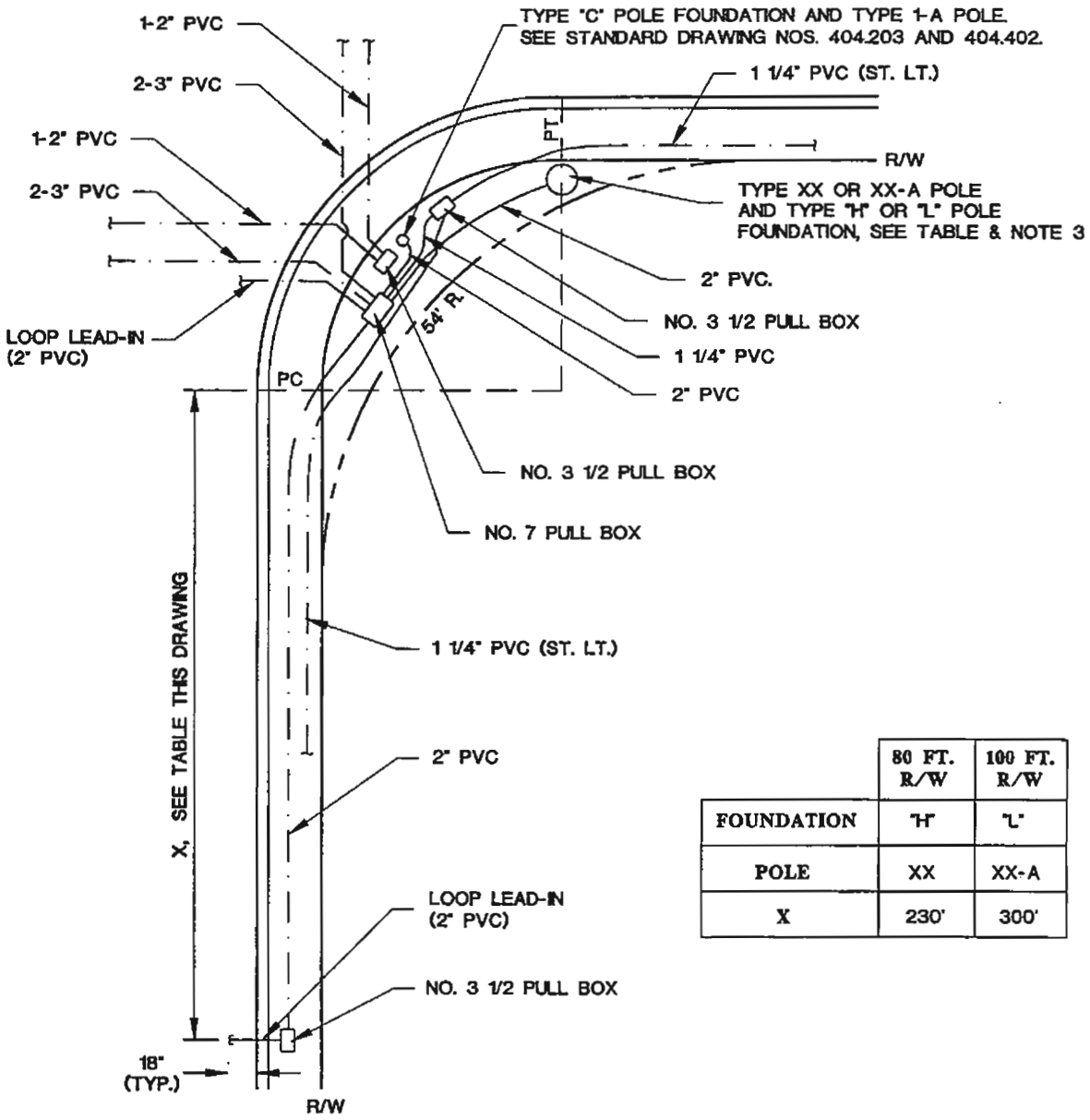
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		FUTURE POLE LOCATION CASE I (EXCEPT CITY OF LAS VEGAS)		
		DATE 12-12-96	DWG. NO. 404.1302	SHEET 1 OF 2



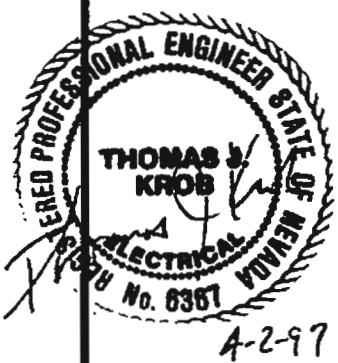
NOTES:

1. FOUNDATIONS WILL BE 36" SQUARE OR ROUND AND 12 FT. DEEP. THE AREA SHALL REMAIN ACCESSIBLE FOR THESE FOUNDATIONS.
2. TRAFFIC SIGNAL POLES SHALL REMAIN AT THE MIDDLE OF THE RETURN BEHIND THE SIDEWALK SO THAT THE OUTSIDE SIGNAL HEAD IS DIRECTLY ABOVE THE LEFT TURN LANE.
3. A TYPE "H" OR "L" FOUNDATION IS REQUIRED FOR MAST ARMS 45' OR LESS. SEE DRAWING NO. 404.208.
4. A TYPE "L" FOUNDATION IS REQUIRED FOR MAST ARMS LONGER THAN 45'. SEE DRAWING NO. 404.209.
5. A MINIMUM OF 32" SHALL BE MAINTAINED BETWEEN TRAFFIC SIGNAL POLE FOUNDATION "CRASH CAP" AND THE BACK OF THE CURB FOR WHEELCHAIR CLEARANCE.
6. THE TRAFFIC ENGINEER WILL MAKE THE FINAL DETERMINATION FOR THE LOCATION OF TRAFFIC SIGNAL POLES.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		FUTURE POLE LOCATION CASE II		
		DATE 12-12-96	DWG. NO. 404.1302	SHEET 2 OF 2



	80 FT. R/W	100 FT. R/W
FOUNDATION	"H"	"L"
POLE	XX	XX-A
X	230'	300'



4-2-97

NOTES:

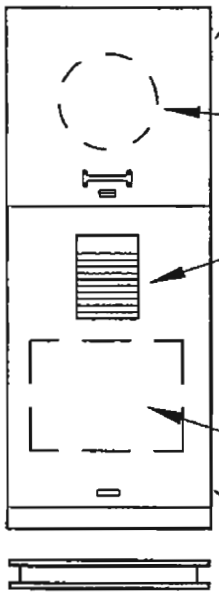
1. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
2. IF STREETLIGHTING CIRCUIT DOES NOT EXIST, DELETE NO. 3 1/2 PULL BOX AT INTERSECTION AND 1 1/4" PVC.
3. FOR TYPE XX AND XX-A POLES, SEE STANDARD DRAWING NO. 406; FOR TYPE "H" AND "L" FOUNDATIONS, SEE STANDARD DRAWING NOS. 404.208 AND 404.209.
4. EXTEND THE 1-2" AND THE 2-3" PVC 5 FEET PAST EDGE OF PAVEMENT TO SINGLE NO. 3 1/2 PULL BOX OR CONNECT TO THE EXISTING TRAFFIC SIGNAL CONDUIT.
5. INTERCONNECT IS DEDICATED 2" CONDUIT WITH A NO. 5 PULL BOX EVERY 500 FEET(MAX).

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL TRAFFIC SIGNAL CONDUIT LAYOUT WITH STREETLIGHTING

DATE 12-12-96 | DWG. NO. 404.1306 | SHEET 1 OF 1



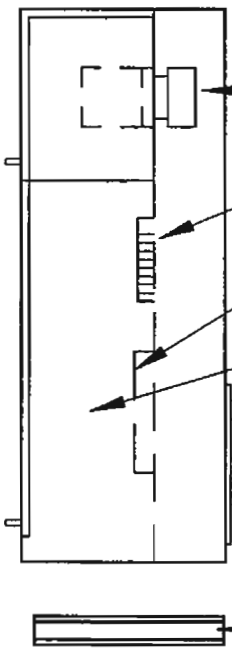
SERVICE PEDESTAL ENCLOSURE, 12 GA. SHEET METAL BODY AND EQUIPMENT MOUNTING PANEL, 14 GA. FRONT COVER(S) AND 16 GA. MIN. FOR ALL OTHER PANELS. ALL SHEET METAL SHALL BE FINISHED WITH ZINC CHROMATE PRIMER AND GREEN BAKED ENAMEL OR POWDER COAT FINISH. METERING SECTION PER P.U.E.S.E.R. STANDARDS.

UTILITY METER SECTION, 100, 125 OR 200 AMP AS NEEDED, 120/240 VOLT, 1 PHASE, 3 WIRE. THE SECTION SHALL HAVE A HINGED COVER WITH PADLOCK TAB.

CIRCUIT BREAKER DISTRIBUTION SECTION, 100, 125 OR 200 AMP AS NEEDED, 120/240 VOLT, 1 PHASE, 3 WIRE. THE SECTION SHALL BE COMPLETE WITH SEPARATE DEAD FRONT, COPPER BUSSING, SPACE FOR A MINIMUM OF TEN FULL SIZE (1") GE TYPE PLUG-IN CIRCUIT BREAKERS (EXCLUDING MAIN BREAKER), COPPER NEUTRAL/GROUNDING BUS AND MAIN BREAKER AS SPECIFIED BY THE ENGINEER. THE SECTION SHALL BE FACTORY WIRED TO THE METER SECTION WITH THE APPROPRIATE SIZE COPPER CONDUCTORS.

EQUIPMENT MOUNTING PANEL, 10" H X 12" W MIN, OPEN OR ENCLOSED, FOR LIGHTING CONTACTORS AS NEEDED.

DISTRIBUTION AND EQUIPMENT SECTION COVER WITH PADLOCK TAB.



UTILITY METER SECTION

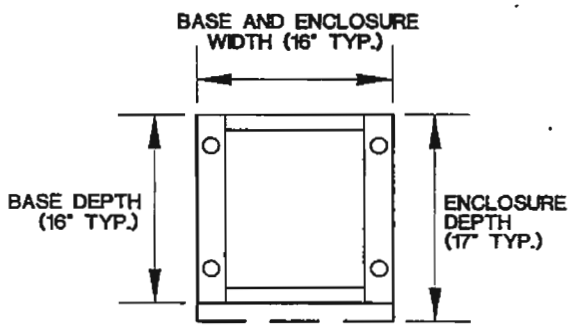
CIRCUIT BREAKER DISTRIBUTION SECTION

EQUIPMENT MOUNTING PANEL

UTILITY SERVICE ENTRANCE CONDUCTOR PULL SPACE PER SERVING UTILITY REQUIREMENTS.

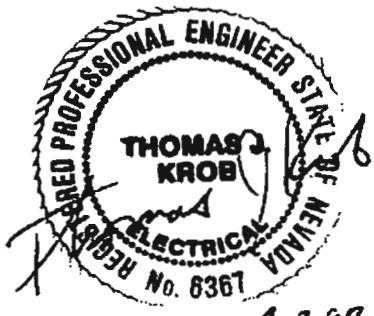
PULL SPACE ACCESS DOOR WITH HANDLE, PER SERVING UTILITY

SEPARATE PEDESTAL ENCLOSURE MOUNTING BASE.



TYPICAL MOUNTING BASE DETAIL

(DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER)



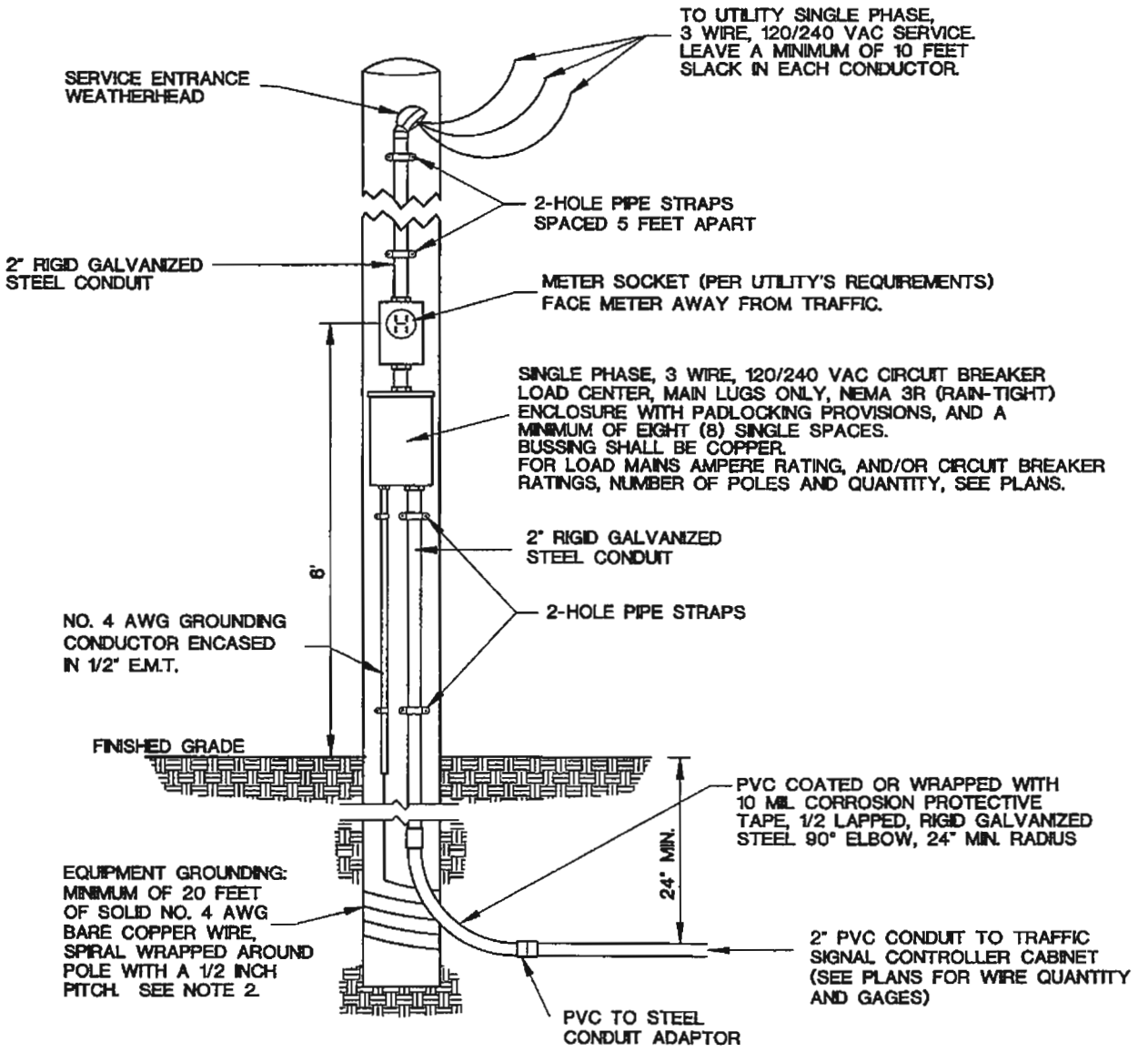
4-2-97

SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

SINGLE METER SERVICE PEDESTAL

DATE 12-12-96	DWG. NO. 404.1412	SHEET 1 OF 1



NOTES:

1. ALL WIRES TO BE COPPER; SEE PLANS FOR QUANTITY AND GAGES.
2. WITH ENGINEER'S APPROVAL, AN 8 FT. BY 5/8 IN. COPPER-CLAD GROUNDING ROD MAY BE USED.
3. ALL CONDUIT FITTINGS TO BE WATER-TIGHT.

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS J. KROB
ELECTRICAL
No. 6367

4-2-97

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

120/240 VAC SERVICE ON WOOD POLE OVERHEAD SERVICE

DATE 12-12-96	DWG. NO. 404.1413	SHEET 1 OF 1

DELETED

SPECIFICATION FOR PVC COATED RIGID STEEL CONDUIT

THE GALVANIZED CONDUIT TO BE COATED SHALL BE RIGID STEEL CONDUIT CONFORMING TO APPLICABLE FEDERAL SPECIFICATIONS AND UNDERWRITER'S LABORATORIES SPECIFICATIONS FOR RIGID METAL ELECTRICAL CONDUIT.

2. THE EXTERIOR SURFACE SHALL BE ACID TREATED TO PROVIDE AN ACCEPTABLE BONDING SURFACE FOR THE COATING. THE TREATED SURFACE SHALL THEN BE COATED WITH A HEAT POLYMERIZING LACQUER NOT TO EXCEED THICK.

3. A POLYVINYLCHLORIDE COMPOUND SHALL THEN BE BONDED TO THE PREPARED CONDUIT WITH A THICKNESS NOT LESS THAN .035" FOR THE FULL LENGTH OF THE CONDUIT EXCEPT THE THREADS. A PLASTIC SLEEVED COUPLINGS SHALL BE FURNISHED WITH EACH LENGTH OF COATED CONDUIT. THE BOND BETWEEN METAL AND PLASTIC SHALL BE EQUAL TO OR GREATER THAN THE TENSILE STRENGTH OF THE PLASTIC COATING.

PHYSICAL CHARACTERISTICS OF PVC COMPOUND:
- A. HARDNESS: 85± SHORE A DUROMETER
- B. DIELECTRIC STRENGTH: (VOLTS/MIL @60 CYCLES) 400
- C. TENSILE STRENGTH: 3500 PSI

INSTALLATION PROCEDURES

1. CUTTING AND THREADING: MANUAL OR POWER OPERATED EQUIPMENT NORMALLY USED FOR CUTTING RIGID IRON CONDUIT IS ACCEPTABLE. DO NOT PEEL BACK PVC BEFORE CUTTING. REAM ALL CUTS. THREAD THE SAME AS NON-COATED CONDUIT. TOUCH UP ALL SCARRED AND GRIP MARKED AREAS WITH APPROVED HEAVY CONSISTENCY COATING COMPOUND.

2. BENDING AND ASSEMBLING: USE THE STANDARD FIELD BENDING TECHNIQUES USING A SHOE ONE SIZE LARGER TO ACCOMODATE LARGER PIPE DIAMETER. KEEP IN MIND THAT THE MINIMUM BENDING RADIUS IS 36".

HAND TIGHTEN ALL COUPLINGS AND THREADED FITTING BEFORE USING A WRENCH. USE STRAP WRENCHES FOR THE FINAL TWO TURNS ONLY, BEING SURE A GOOD GRIP IS OBTAINED TO AVOID EXCESSIVE COATING DAMAGE. RECOAT ALL WRENCH MARKS AND SCORES. ALL JOINTS MUST BE SEALED WITH HEAVY CONSISTENCY PVC COMPOUND. THE FINAL INSTALLATION MUST NOT HAVE ANY EXPOSED METAL AREAS.

INCORPORATED INTO SPECS

SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SPECIFICATION FOR PVC COATED RIGID IRON CONDUIT

DATE 12-12-96	DWG. NO. 404.1422	SHEET 1 OF 1