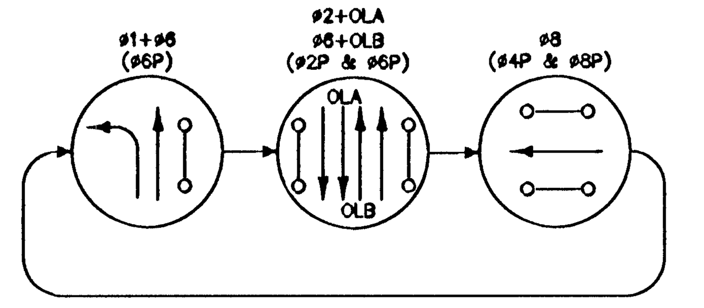
PHASE DIAGRAM



FLASH OPERATIONS – ALL RED
OPTICOM PREEMPTION – ø1, ø6, ø2, ø8, OLA, OLB

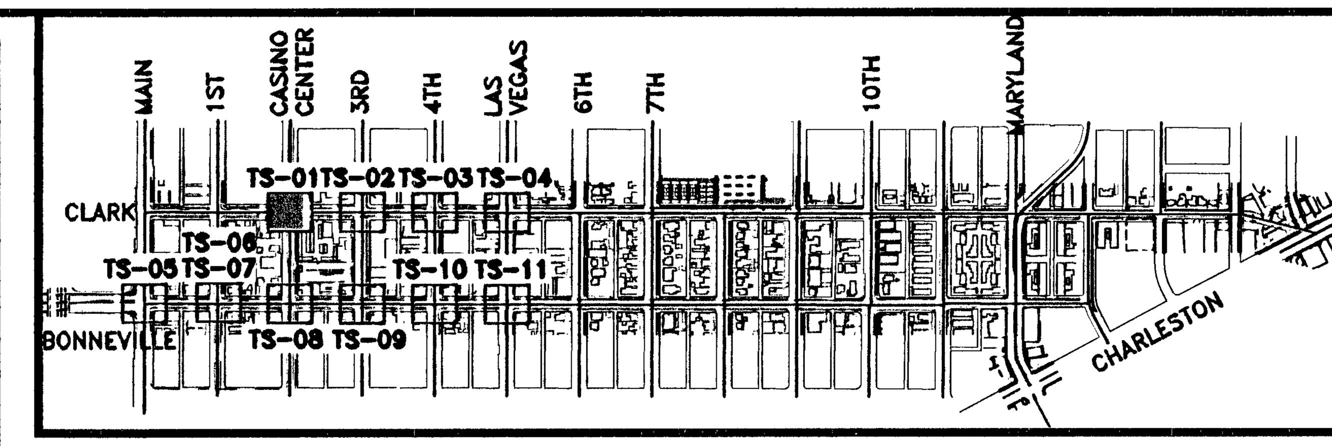
STREET NAME SIGN SCHEDULE

POLE	ORDINAL	STREET NAME	SUFFIX	BLOCK	DOUBLE SIDED	NEW/ EXISTING
(A)	S	CASINO CENTER	BLVD	400	YES	EXISTING
(B)	E	CLARK	AVE	200	YES	EXISTING
(C)	S	CASINO CENTER	BLVD	300	YES	EXISTING
(D)	E	CLARK	AVE	100	YES	EXISTING

CONDUIT AND WIRE SCHEDULE

WIRE & CABLE	FROM	TO	CONDUIT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2 No. 4 AWG 1 No. 8 AWG	SERVICE METER	CONTROLLER	(E)	(E)																
2 No. 4 AWG 1 No. 8 AWG	SERVICE METER	T100 VAULT (INT. LIGHTING)	(E)																	
1–25 COND. No. 14 1–OPTICOM CABLE	CONTROLLER	POLE A					CABLES AND CONDUCTORS INSTALLED IN POLE													
1–25 COND. No. 14 1–OPTICOM CABLE	CONTROLLER	POLE B		(E)				(E)	(E)											
1–25 COND. No. 14	CONTROLLER	POLE C		(E)				(E)			(E)	(E)								
1–25 COND. No. 14 1–OPTICOM CABLE	CONTROLLER	POLE D		(E)														(E)		(E)
2–No. 10 COND.	T100 VAULT	POLE A (INT. LIGHTING)		(E)																
2–No. 10 COND.	T100 VAULT	POLE B (INT. LIGHTING)						(E)	(E)											
2–No. 10 COND.	T100 VAULT	POLE C (INT. LIGHTING)						(E)			(E)	(E)								
2–No. 10 COND.	T100 VAULT	POLE D (INT. LIGHTING)																(E)		(E)
LOOP LEAD–IN CABLE (ø1,ø6,OLB)	CONTROLLER	DET PULLBOX		(E)				(E)			(E)				(E)	(E)				
LOOP LEAD–IN CABLE (ø2,OLA)	CONTROLLER	DET PULLBOX		(E)		(E)	(E)													
LOOP LEAD–IN CABLE (ø4)	CONTROLLER	DET PULLBOX		(E)															(E)	(E)
LOOP LEAD–IN CABLE (ø8 NORTH)	CONTROLLER	DET PULLBOX		1				1		1										
LOOP LEAD–IN CABLE (ø8 SOUTH)	CONTROLLER	DET PULLBOX		1				1			1		1							
1–15 COND. No. 14	POLE A	POLE F		(E)	(E)															
1–15 COND. No. 14	POLE C	POLE E										(E)		(E)						
1–No. 8 (GREEN)	T100 VAULT TO POLES		(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)
PULL ROPE	(NUMBER AS SHOWN)		(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)
No. OF CONDUITS – CONDUIT SIZE:			1–2" (E)	2–3", 1–2" (E)	1–2" (E)	1–2" (E)	1–2" (E)	3–3" (E)	1–3" (E)	1–2" (E)	2–3" (E)	1–2" (E)	1–2" (E)	1–2" (E)	1–2" (E)	1–2" (E)	2–3" (E)	1–3" (E)	1–2" (E)	2–3" (E)

(E) = EXISTING CABLE, CONDUCTORS OR CONDUITS



KEY MAP
NTS

CONSTRUCTION NOTES (TS SHEETS ONLY)

[1] EXISTING 200 AMP 120/240 VAC SERVICE PEDESTAL (SEE SHEET TS–13).

[3] EXISTING POLE–MOUNTED TRAFFIC SIGNAL CABINET ASSEMBLY. CONTRACTOR SHALL PREPARE AS–BUILT DRAWINGS UPON COMPLETION OF PROJECT DETAILING ANY CHANGES TO THE CONTROLLER CABINET OR OPERATION.

[6] TYPE 200 VAULT MARKED "FIBER OPTIC" (SEE SL SHEETS FOR INTERCONNECT AND STREET LIGHTING EQUIPMENT AND DETAILS).

[12] ALL VEHICLE SIGNAL INDICATIONS AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE SUPPLIED AND INSTALLED WITH LIGHT EMITTING DIODE (LED) SIGNAL MODULES.

[13] FURNISH AND INSTALL 6'x6' MULTIPLE LOOP SYSTEM (SEE SHEET TS–13 FOR LOOP LAYOUT AND DETAILS).

[17] FURNISH AND INSTALL INTERNALLY–ILLUMINATED "ONE WAY" SIGN ON MAST ARM. SEE "ONE WAY" SIGN DETAIL (SHEET TS–12) AND SIGN SCHEDULE (THIS SHEET) FOR DETAILS.

[18] FURNISH AND INSTALL SIGN ON MAST ARM. SEE SIGN SCHEDULE (THIS SHEET) FOR SIGN DESIGNATION AND SIZE.

[24] RELOCATE SIGNAL HEADS AND/OR EQUIPMENT ON EXISTING MAST ARM. SEE DEMOLITION SHEETS (DM) AND EQUIPMENT SCHEDULE (THIS SHEET) FOR DETAILS.

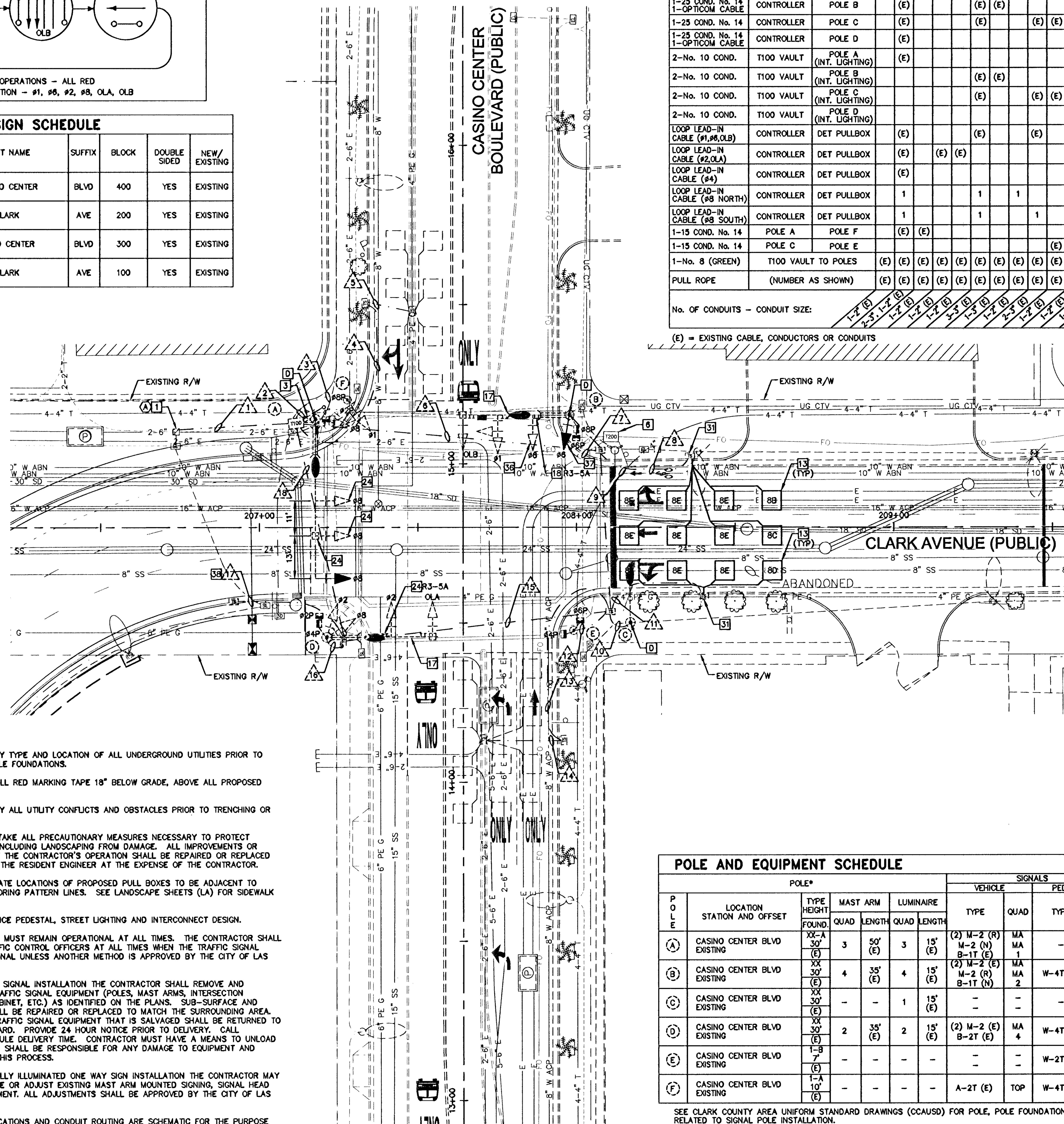
[31] CONNECT NEW LOOP WIRE TO EXISTING LOOP PULL BOX IN ACCORDANCE WITH CCAUSD No. 404.811. FURNISH AND INSTALL NEW LOOP LEAD–IN CABLE. ALL LOOP LEAD–IN CABLE SHALL BE 6–PAIR MULTIPLE CONDUCTOR PER S.P. 623T.02.04.

[36] REPLACE GREEN BALL INDICATION WITH GREEN UP ARROW INDICATION (SEE SHEET TS–12 FOR DETAIL).

[37] FURNISH AND INSTALL NEW SIGNAL HEAD WITH GREEN UP ARROW INDICATION (SEE SHEET TS–12 FOR DETAIL).

[38] BACK PULL EXISTING LOOP LEAD–IN CABLE AND COIL IN NEAREST PULL BOX. ABANDON CONDUIT IN PLACE.

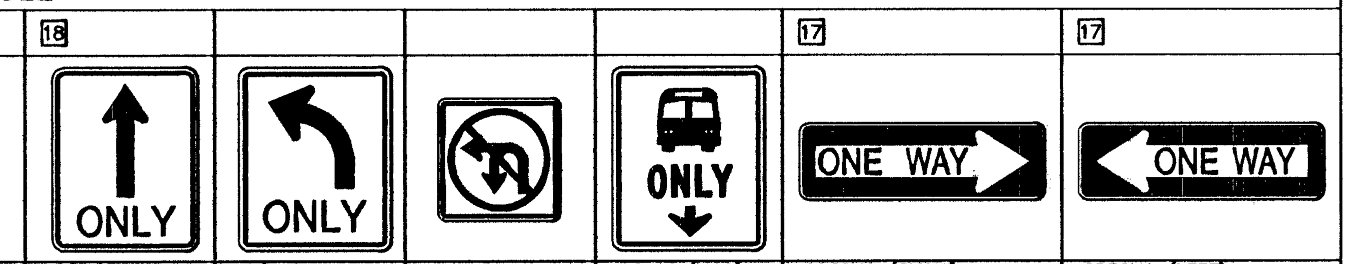
[D] SEE DEMOLITION SHEETS (DM) FOR DEMOLISHED, RELOCATED, AND/OR SALVAGED EQUIPMENT.



GENERAL NOTES

1. CONTRACTOR SHALL VERIFY TYPE AND LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTING SIGNAL POLE FOUNDATIONS.
2. CONTRACTOR SHALL INSTALL RED MARKING TAPE 18" BELOW GRADE, ABOVE ALL PROPOSED CONDUITS.
3. CONTRACTOR SHALL VERIFY ALL UTILITY CONFLICTS AND OBSTACLES PRIOR TO TRENCHING OR DIGGING.
4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS, INCLUDING LANDSCAPING FROM DAMAGE. ALL IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE RESIDENT ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
5. CONTRACTOR TO COORDINATE LOCATIONS OF PROPOSED PULL BOXES TO BE ADJACENT TO SIDEWALK JOINTS AND SCORING PATTERN LINES. SEE LANDSCAPE SHEETS (LA) FOR SIDEWALK SCORING PATTERN.
6. SEE SL SHEETS FOR SERVICE PEDESTAL, STREET LIGHTING AND INTERCONNECT DESIGN.
7. EXISTING TRAFFIC SIGNALS MUST REMAIN OPERATIONAL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE UNIFORMED TRAFFIC CONTROL OFFICERS AT ALL TIMES WHEN THE TRAFFIC SIGNAL CANNOT REMAIN OPERATIONAL UNLESS ANOTHER METHOD IS APPROVED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
8. AS PART OF THE TRAFFIC SIGNAL INSTALLATION THE CONTRACTOR SHALL REMOVE AND SALVAGE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT (POLES, MAST ARMS, INTERSECTION LIGHTING, CONTROLLER CABINET, ETC.) AS IDENTIFIED ON THE PLANS. SUB–SURFACE AND SURFACE CONDITIONS SHALL BE REPAIRED OR REPLACED TO MATCH THE SURROUNDING AREA. ALL STREET LIGHT AND TRAFFIC SIGNAL EQUIPMENT THAT IS SALVAGED SHALL BE RETURNED TO THE CLV EAST SERVICE YARD. PROVIDE 24 HOUR NOTICE PRIOR TO DELIVERY. CALL 702–229–3661 TO SCHEDULE DELIVERY TIME. CONTRACTOR MUST HAVE A MEANS TO UNLOAD EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EQUIPMENT AND MATERIALS INCURRED IN THIS PROCESS.
9. AS PART OF THE INTERNALLY ILLUMINATED ONE WAY SIGN INSTALLATION THE CONTRACTOR MAY BE REQUIRED TO RELOCATE OR ADJUST EXISTING MAST ARM MOUNTED SIGNING, SIGNAL HEAD TENONS OR OTHER EQUIPMENT. ALL ADJUSTMENTS SHALL BE APPROVED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
10. PULL BOX AND VAULT LOCATIONS AND CONDUIT ROUTING ARE SCHEMATIC FOR THE PURPOSE OF CLARITY AND MAY DIFFER FROM ACTUAL INSTALLATION. FINAL LOCATION SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

SIGN SCHEDULE



CONSTRUCTION NOTE	[18]				[17]	[17]
SIGN DESIGNATION DIMENSIONS	R3–5A 30"x36"	R3–5L 30"x36"	R3–18 24"x24"	R3–10 (MOD) 30"x36"	SPECIAL (RIGHT) 72"x17.5"	SPECIAL (LEFT) 72"x17.5"
POLE*	(B)	(B)	(D)	(B) (D)	(D)	(B)

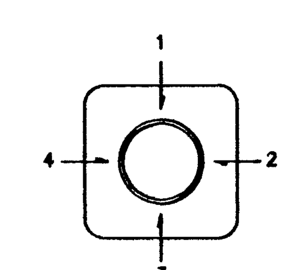
* (X) = EXISTING SIGN, (X) = NEW SIGN

POLE AND EQUIPMENT SCHEDULE

POLE*	LOCATION STATION AND OFFSET	TYPE HEIGHT FOUND.	MAST ARM QUAD	MAST ARM LENGTH	LUMINAIRE QUAD	LUMINAIRE LENGTH	SIGNALS VEHICLE TYPE	VEHICLE QUAD	PEDESTRIAN TYPE	PEDESTRIAN QUAD	PEDESTRIAN PUSH BUTTON PHASE	ARROW	QUAD	EMERGENCY VEHICLE DETECTOR	REMARKS
(A)	CASINO CENTER BLVD EXISTING	XX–A 30' (E)	3	50' (E)	3	15' (E)	(2) M–2 (R) M–2 (N) B–1T (E)	MA MA 1	–	–	– –	– –	– –	ONE–WAY (R)	[D][3][12][24]
(B)	CASINO CENTER BLVD EXISTING	XX 30' (E)	4	35' (E)	4	15' (E)	(2) M–2 (E) M–2 (R) B–1T (N)	MA MA 2	W–4T (E)	2	ø6 ø8	R (E) L (E)	4 3	TWO–WAY (E)	[D][12][17][18][36][37][48]
(C)	CASINO CENTER BLVD EXISTING	XX 30' (E)	–	–	1	15' (E)	– –	– –	–	–	– –	– –	– –	–	[D]
(D)	CASINO CENTER BLVD EXISTING	XX 30' (E)	2	35' (E)	2	15' (E)	(2) M–2 (E) B–2T (E)	MA 4	W–4T (E)	4	ø2 ø4	R (E) L (E)	2 1	–	[17]
(E)	CASINO CENTER BLVD EXISTING	1–B 7' (E)	–	–	–	–	– –	– –	W–2T (E)	TOP	ø4 ø6	R (E) L (E)	1 4	–	
(F)	CASINO CENTER BLVD EXISTING	1–A 10' (E)	–	–	–	–	A–2T (E)	TOP	W–4T (E)	4	ø2 ø8	L (E) R (E)	2 3	–	

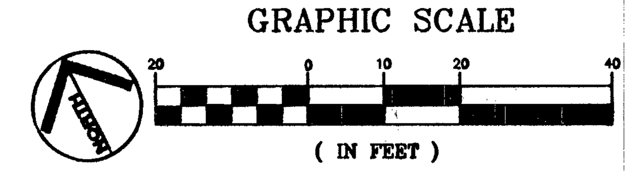
SEE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD) FOR POLE, POLE FOUNDATION, SIGNAL MOUNTING HARDWARE AND OTHER DETAILS RELATED TO SIGNAL POLE INSTALLATION.

* ALL POLES, MAST ARMS, AND LUMINARIES SHALL CONFORM TO THE CITY OF LAS VEGAS CENTENNIAL STANDARDS.
(R) – EQUIPMENT TO BE RELOCATED OR REVISED ACCORDING TO THIS PLAN.
(E) – EXISTING EQUIPMENT
(N) – NEW EQUIPMENT



QUADRANT
ARM, SIGNAL, PED BUTTON
(TOP VIEW)

GRAPHIC SCALE



(IN FEET)

811
know what's below
Call before you dig

SAFETY ALERT
Call
Before You
Overhead
1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

REVISIONS	DATE
1 SHEET REPLACEMENT	6/21/10

SCALE (H): 1":20' | SCALE (V): N/A | DATE: FEBRUARY 2010
DRAWN BY: AP | DESIGNED BY: AP/RC | CHECKED BY: RC/RF

Kimley-Horn and Associates, Inc.
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CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

PROJECT: BONNEVILLE/CLARK ONEWAY COUPLET PHASE 1 IMPROVEMENT PLANS

SHEET: TRAFFIC SIGNAL CLARK AVE AND CASINO CENTER BLVD

PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/10
CIVIL
No. 16131
6·21·10

SHEET NO. TS–01
SHEET 60 OF 91
DRAWING NO. 107V5201

BID# 09.1730.37 REV 3

Jun 21, 2010 – 1:26pm – USER peter.meyerhofer
\\LAVFP01\Projects\LAV_PublicTrans\092256\019 Bonneville–Clark 2008\CADD\256019ts–01_06.dwg

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