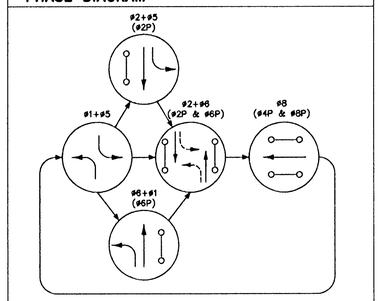
PHASE DIAGRAM



FLASH OPERATIONS – ALL RED
OPTICOM PREEMPTION – ø1, ø2, ø5, ø6, ø8

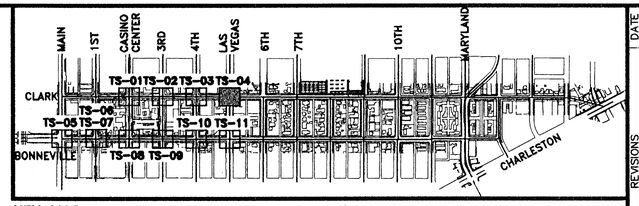
STREET NAME SIGN SCHEDULE

POLE	ORDINAL	STREET NAME	SUFFIX	BLOCK	DOUBLE SIDED	NEW/ EXISTING	NOTES
A	S	LAS VEGAS	BLVD	400	YES	EXISTING	
B	E	CLARK	AVE	500	YES	EXISTING	
D	E	CLARK	AVE	400	YES	EXISTING	22

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
2 No. 4 AWG 1 No. 8 AWG	SERVICE METER	CONTROLLER	(E)	(E)									(E)	(E)				
1-25 COND. No. 14 1-OPTICOM CABLE 1-VID CABLE	CONTROLLER	POLE A		•				•		•	•	•						
1-25 COND. No. 14 1-OPTICOM CABLE 2-No. 10 COND. 1-VID CABLE	CONTROLLER	POLE B		(E)		(E)	(E)											
1-25 COND. No. 14	CONTROLLER	POLE C	CABLES AND CONDUCTORS INSTALLED IN POLE															
1-25 COND. No. 14 1-OPTICOM CABLE 2-No. 10 COND. 1-VID CABLE	CONTROLLER	POLE D		•				•	•			•						
1-20 COND. No. 14	CONTROLLER	POLE E		(E)	(E)													
1-No. 8 (GREEN)	CONTROLLER TO POLES		(E)	2	(E)	(E)	(E)	2	1	2	1	(E)	(E)	(E)	1	1	1	1
PULL ROPE	(NUMBER AS SHOWN)		(E)	3	(E)	1	1	2	1	2	1	2	(E)	(E)	1	1	1	1
No. OF CONDUITS – CONDUIT SIZE:			1-3" (E)	2-3" (E)	1-2" (E)	2-3" (E)	1-3" (E)	2-3"	1-3"	2-3", 1-2"	1-3"	2-3" (E)	1-3" (E)	1-3" (E)	1-2"	1-2"	1-2"	1-2"

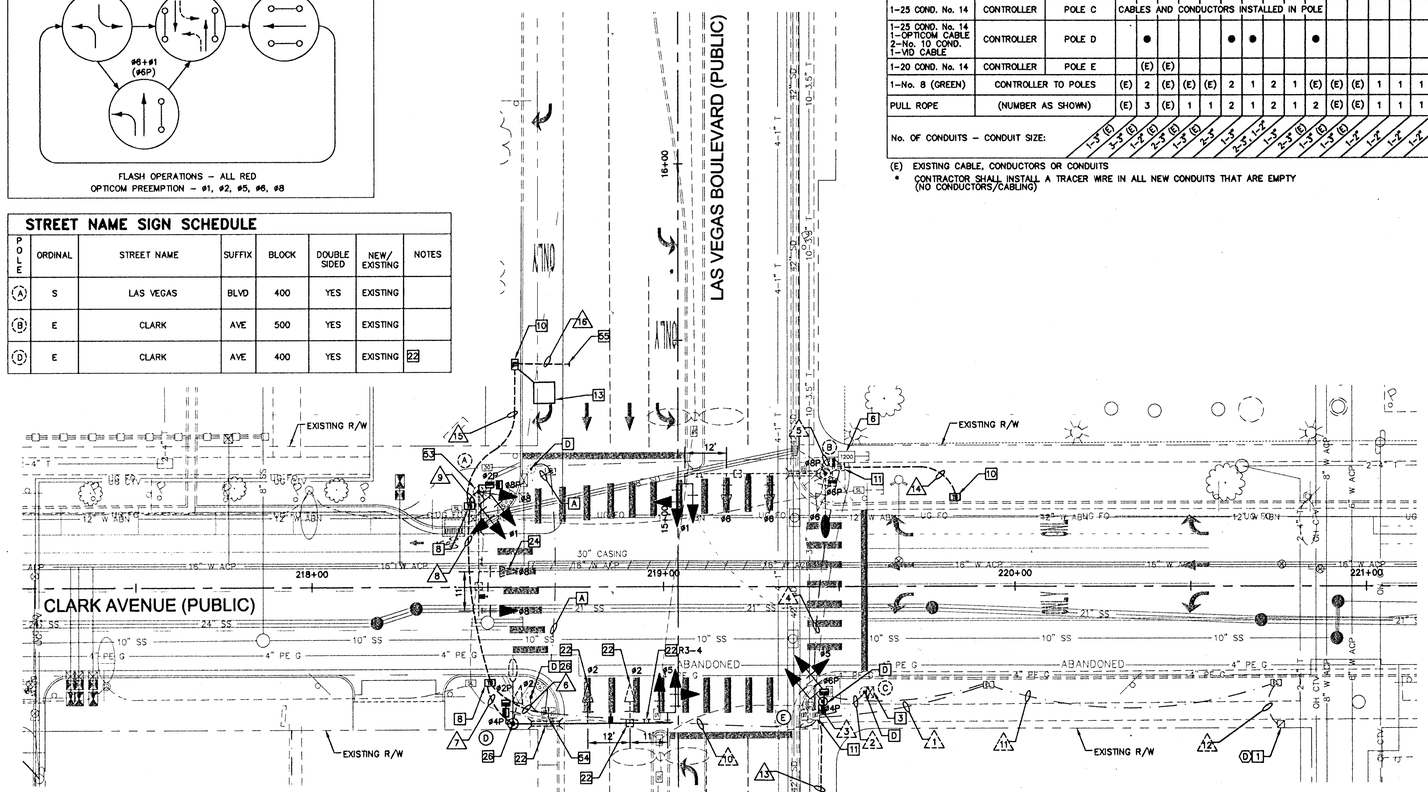
(E) EXISTING CABLE, CONDUCTORS OR CONDUITS
* CONTRACTOR SHALL INSTALL A TRACER WIRE IN ALL NEW CONDUITS THAT ARE EMPTY (NO CONDUCTORS/CABLING)



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).
8. FURNISH AND INSTALL No. 7 PULL BOX MARKED "TRAFFIC SIGNAL" IN ACCORDANCE WITH CCAUSD No. 404.130 AND 404.140.
10. FURNISH AND INSTALL No. 5 PULL BOX MARKED "TRAFFIC sIGNAL IN ACCORDANCE WITH CCAUSD No. 404.120 AND 404.140.
11. INTERCEPT EXISTING CONDUIT(S) OR PULL BOX AND INSTALL NEW CONDUIT.
12. ALL VEHICLE SIGNAL INDICATIONS AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE SUPPLIED AND INSTALLED WITH LIGHT EMITTING DIODE (LED) SIGNAL MODULES.
13. INSTALL 6'x6' MULTIPLE LOOP SYSTEM (SEE SHEET TS-13 FOR LOOP LAYOUT AND DETAILS).
20. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE/TACTILE TYPE.
21. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
22. INSTALL SALVAGED EQUIPMENT ON NEW MAST ARM (SEE DEMOLITION SHEETS (DM) FOR SALVAGED EQUIPMENT).
24. RELOCATE SIGNAL HEADS AND/OR EQUIPMENT ON EXISTING MAST ARM.
26. CONTRACTOR SHALL REMOVE AND RESET EXISTING TRAFFIC SIGNAL POLE WITH LUMINAIRE AND POLE MOUNTED TRAFFIC SIGNAL ASSEMBLY ON NEW FOUNDATION. SEE POLE AND EQUIPMENT SCHEDULE (THIS SHEET) FOR DETAILS. FOUNDATION SHALL MATCH EXISTING POLE BASE BOLT PATTERN. CONTRACTOR SHALL REMOVE EXISTING FOUNDATION 24" BELOW GRADE.
53. INTERCEPT EXISTING CONDUIT OR STUB-OUT IN EXISTING POLE FOUNDATION.
54. INTERCEPT EXISTING CONDUITS AND COUPLE TO NEW CONDUITS TO MAINTAIN CONNECTIVITY.
55. STUB-OUT AND CAP CONDUIT TWO (2) FEET PASSED CONCRETE PAVEING.
A. ABANDON EXISTING.
D. SEE DEMOLITION SHEETS (DM) FOR SALVAGED EQUIPMENT.



SIGN SCHEDULE

CONSTRUCTION NOTE	22
SIGN ILLUSTRATION	
SIGN DESIGNATION DIMENSIONS	R3-4 24"x24"
POLE*	A B D

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

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.

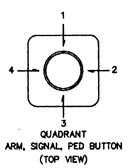
POLE AND EQUIPMENT SCHEDULE

POLE*	LOCATION STATION AND OFFSET	POLE* TYPE HEIGHT	POLE* MAST ARM QUAD	POLE* MAST ARM LENGTH	POLE* LUMINAIRE QUAD	POLE* LUMINAIRE LENGTH	SIGNALS VEHICLE TYPE	SIGNALS VEHICLE QUAD	SIGNALS PEDESTRIAN TYPE	SIGNALS PEDESTRIAN QUAD	PEDESTRIAN PUSH BUTTON PHASE	PEDESTRIAN PUSH BUTTON ARROW	PEDESTRIAN PUSH BUTTON QUAD	EMERGENCY VEHICLE DETECTOR	REMARKS
A	LAS VEGAS BLVD EXISTING	XX 30' (E)	3	35' (E)	–	–	M-2 (R) M-2 (N) B-14T (N)	MA MA 1	W-4T** (N)	1	ø8 ø2	L (N) L (N)	1 2	ONE-WAY (E)	12 20 21 24 53
B	LAS VEGAS BLVD EXISTING	XX 30' (E)	4	40' (E)	3	15' (E)	(2) M-2 (E) M-5 (N) B-11T (E)	MA MA 2	W-3T (E)	2	ø6 ø8	R (E) L (E)	4 3	ONE-WAY (E)	12
C	LAS VEGAS BLVD EXISTING	XX-A 30' (E)	–	–	–	–	B-11T (N)	3	–	–	– –	– –	– –	–	D 3 12
D	LAS VEGAS BLVD STA 14+42, 47± LT ***	XX (R) 30' H (N)	2	45' (N)	1	15' (R)	(2) M-2 (R) M-5 (N) B-1T (R)	MA MA 4	W-4T** (N)	4	ø2 ø4	R (R) L (R)	2 1	ONE-WAY (R)	D 12 22 26
E	LAS VEGAS BLVD EXISTING	1-A 10' (E)	–	–	–	–	A-16T (N)	TOP	W-3T	2	ø4 ø6	R (N) L (N)	1 4	–	

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.
** SEE SHEET TS-12 FOR PEDESTRIAN SIGNAL ASSEMBLY DETAIL.
*** CONTRACTOR TO STAKE FOUNDATION LOCATIONS FOR APPROVAL BY RESIDENT ENGINEER PRIOR TO CONSTRUCTION. CONTRACTOR TO POTHOLE NEW FOUNDATION LOCATIONS PRIOR TO CONSTRUCTION TO IDENTIFY ALL SUBSURFACE CONFLICTS. IF CONFLICTS ARE IDENTIFIED THE CONTRACTOR SHALL WORK WITH THE RESIDENT ENGINEER TO DETERMINE AN ALTERNATE FOUNDATION LOCATION.

(R) – EQUIPMENT TO BE RELOCATED OR REVISED ACCORDING TO THIS PLAN
(E) – EXISTING EQUIPMENT
(N) – NEW EQUIPMENT



QUADRANT
ARM, SIGNAL, PED BUTTON
(TOP VIEW)

TAND, INC.
AS-BUILT

DATE DANIEL MEYER

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

811 know what's below Call before you dig 1-702-227-2929

SAFETY ALERT Call Before You Overhead

Call before you UnderGround 1-702-432-5300

REVISIONS	DATE
1 SHEET REPLACEMENT	6/21/10

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

Kimley-Horn and Associates, Inc.
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DEPARTMENT OF PUBLIC WORKS

PROJECT: BONNEVILLE/CLARK ONEWAY COUPLET PHASE 1 IMPROVEMENT PLANS

SHEET: TRAFFIC SIGNAL CLARK AVE AND LAS VEGAS BLVD

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

SHEET NO. TS-04
SHEET 63 OF 91
DRAWING NO. 107V5201

BID# 09.1730.37 REV 3

Jun 21, 2010 – 1:23pm – USER peter.meyerhofer
\\LVAFP01\Projects\LAV_PublicTrans\092250\019 Bonneville-Clark 2008\CAD3\2560191-01_06.dwg

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