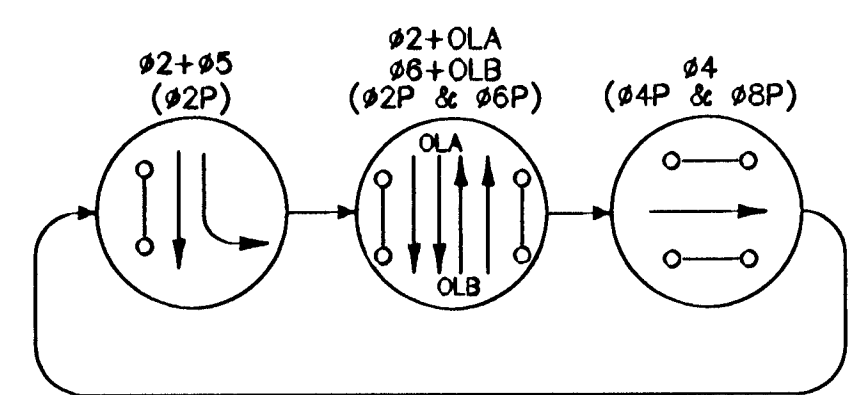


**PHASE DIAGRAM**



FLASH OPERATIONS - ALL RED  
OPTICOM PREEMPTION - #2, #5, #6, #4, OLA, OLB

**STREET NAME SIGN SCHEDULE**

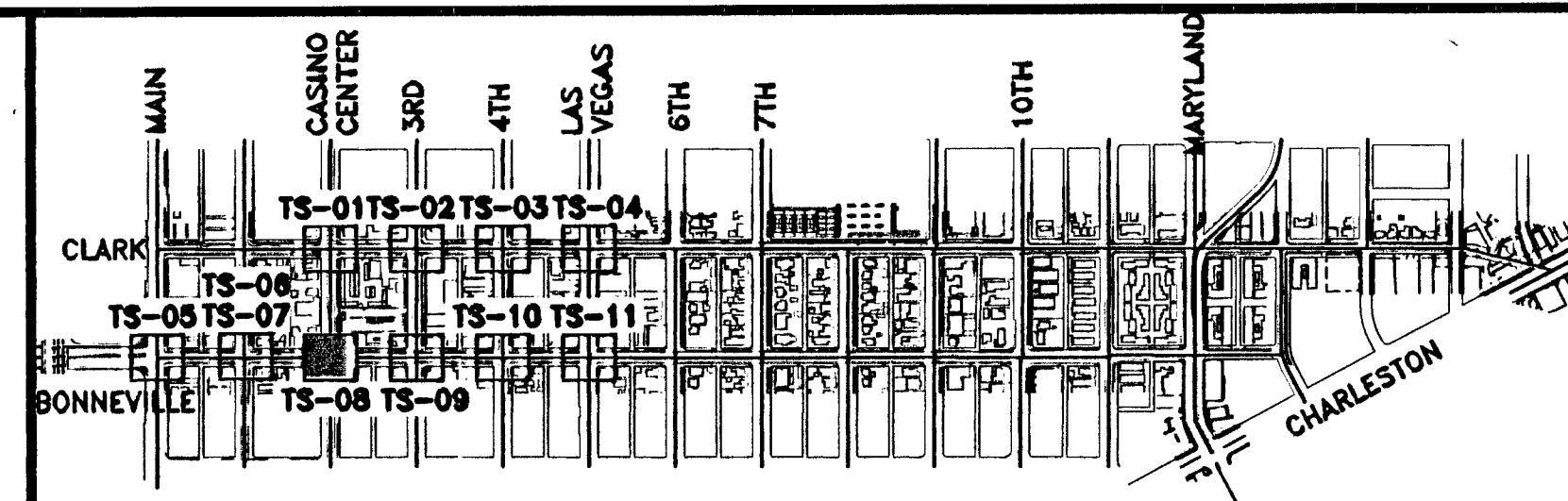
POLE	ORDINAL	STREET NAME	SUFFIX	BLOCK	DOUBLE SIDED	NEW/EXISTING
(B)	E	BONNEVILLE	AVE	200	YES	EXISTING
(C)	S	CASINO CENTER	BLVD	600	YES	EXISTING
(D)	E	BONNEVILLE	AVE	100	YES	EXISTING

**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	19
2 No. 4 AWG SERVICE METER		CONTROLLER	(E)	(E)																	
2 No. 4 AWG SERVICE METER		T100 VAULT (LIGHTING)	(E)																		
1-25 COND. No. 14 1-OPTICOM CABLE		CONTROLLER																			
1-25 COND. No. 14 1-OPTICOM CABLE		CONTROLLER																			
1-25 COND. No. 14 1-OPTICOM CABLE		CONTROLLER																			
1-25 COND. No. 14 1-OPTICOM CABLE		CONTROLLER																			
2-No. 10 COND. T100 VAULT		POLE A	(E)																		
2-No. 10 COND. T100 VAULT		POLE B																			
2-No. 10 COND. T100 VAULT		POLE C																			
2-No. 10 COND. T100 VAULT		POLE D																			
LOOP LEAD-IN CABLE (#2, #5, OLA)		CONTROLLER																			
LOOP LEAD-IN CABLE (#4)		CONTROLLER																			
LOOP LEAD-IN CABLE (#6, OLB)		CONTROLLER																			
LOOP LEAD-IN CABLE (#8)		CONTROLLER																			
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:

(E) - EXISTING CABLE, CONDUCTORS OR CONDUITS

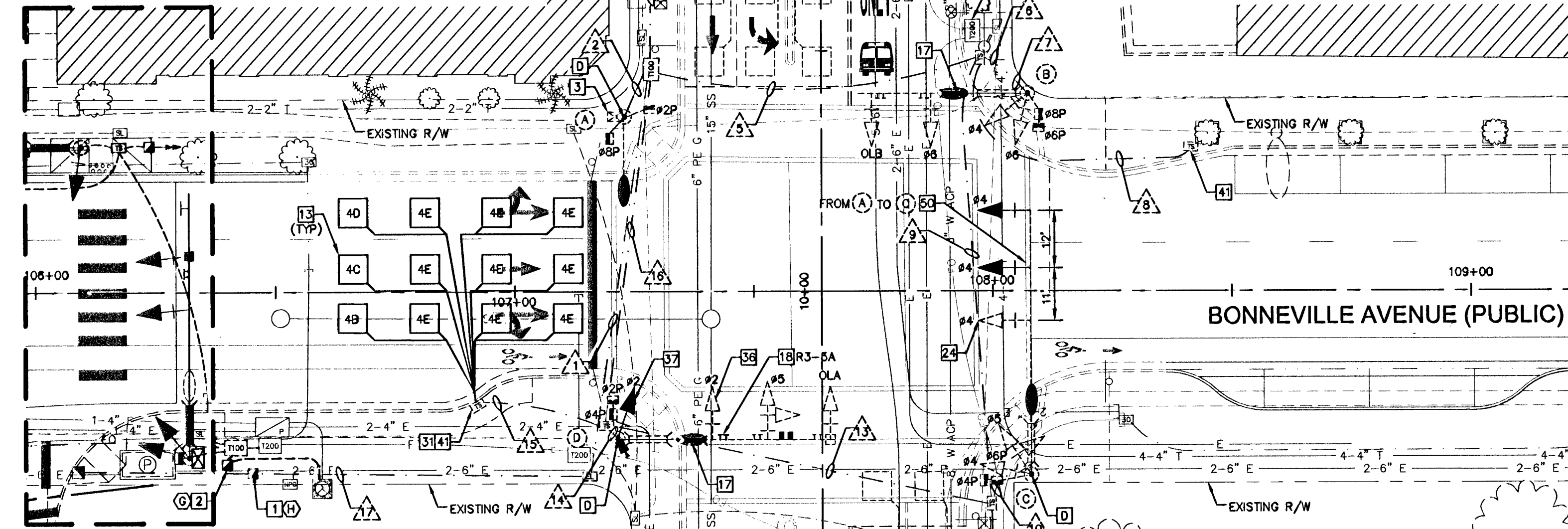


**KEY MAP**

**CONSTRUCTION NOTES (TS SHEETS ONLY)**

- EXISTING 200 AMP 120/240 VAC SERVICE PEDESTAL (SEE SHEET TS-13).
- 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.
- TYPE 200 VAULT MARKED "FIBER OPTIC" (SEE SL SHEETS INTERCONNECT AND STREET LIGHTING EQUIPMENT AND DETAILS).
- ALL VEHICLE SIGNAL INDICATIONS AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE SUPPLIED AND INSTALLED WITH LIGHT EMITTING DIODE (LED) SIGNAL MODULES.
- FURNISH AND INSTALL 6"x6" MULTIPLE LOOP SYSTEM (SEE SHEET TS-13 FOR LOOP LAYOUT AND DETAILS).
- 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.
- FURNISH AND INSTALL SIGN ON MAST ARM. SEE SIGN SCHEDULE (THIS SHEET) FOR SIGN DESIGNATION AND SIZE.
- RELOCATE SIGNAL HEADS AND/OR EQUIPMENT ON EXISTING MAST ARM. SEE DEMOLITION SHEETS (DM) AND EQUIPMENT SCHEDULE (THIS SHEET) FOR DETAILS.
- CONNECT NEW LOOP WIRE TO EXISTING LOOP PULL BOX IN ACCORDANCE WITH CCAUSD No. 404.811. FURNISH AND INSTALL NEW LOOP LEAD-IN CABLE.
- REPLACE GREEN BALL INDICATION WITH GREEN UP ARROW INDICATION (SEE SHEET TS-12 FOR DETAIL).
- FURNISH AND INSTALL NEW SIGNAL HEAD WITH GREEN UP ARROW INDICATION (SEE SHEET TS-12 FOR DETAIL).
- DISCONNECT EXISTING LOOP WIRE FROM LOOP LEAD-IN CABLE IN EXISTING LOOP PULL BOX AND ABANDON IN PLACE.
- RELOCATE AND REINSTALL SIGNAL HEAD AND/OR EQUIPMENT TO DIFFERENT POLE AT SAME INTERSECTION (SEE DM SHEETS).
- SEE DEMOLITION SHEETS (DM) FOR DEMOLISHED, RELOCATED/REMOVED AND/OR SALVAGED EQUIPMENT.

SEE SHEET TS-06



BONNEVILLE AVENUE (PUBLIC)

**SIGN SCHEDULE**

CONSTRUCTION NOTE	16	17	18	19	20
SIGN ILLUSTRATION					
SIGN DESIGNATION DIMENSIONS	R3-5A 30"x36"	R3-5 30"x36"	R3-18 24"x24"	R3-10 (MO) 72"x17.5"	SPECIAL (RIGHT) 72"x17.5"
POLE*	(D)	(D)	(B)	(B) (D)	(D)

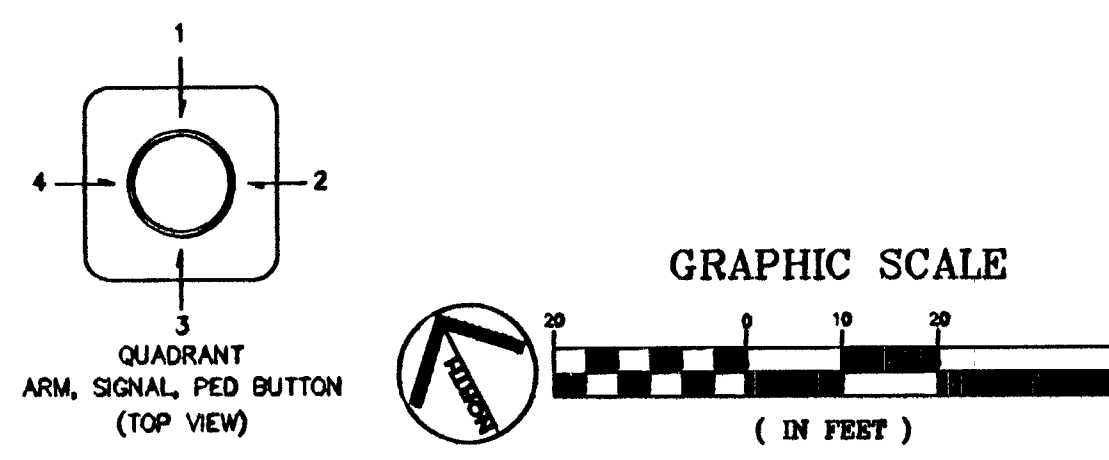
\* (X) = EXISTING SIGN, (N) = NEW SIGN

**POLE AND EQUIPMENT SCHEDULE**

POLE	LOCATION STATION AND OFFSET	TYPE HEIGHT FOUND	MAST ARM QUAD LENGTH	LUMINAIRE QUAD LENGTH	VEHICLE SIGNALS				PEDESTRIAN		EMERGENCY DETECTOR	REMARKS
					TYPE	QUAD	TYPE	QUAD	PHASE	ARROW		
(A)	CASINO CENTER BLVD EXISTING	XX-A 30' (E)	-	3 15' (E)	-	-	PP (E) PP (E)	2 3	#2 R (E) #2 L (E)	2 3	-	(D) (3)
(B)	CASINO CENTER BLVD EXISTING	XX 30' (E)	4 35' (E)	4 15' (E)	(2) M-2 (E) B-2T (E)	MA 2	W-4T (E)	2	#6 R (E) #6 L (E)	4 3	-	(17)
(C)	CASINO CENTER BLVD EXISTING	XX-A 30' (E)	1 55' (E)	1 15' (E)	(2) M-2 (N) M-2 (R) B-2T (E)	MA 3	W-4T (E)	3	#4 R (E) #4 L (E)	1 4	TWO-WAY (R)	(D) (12) (24)
(D)	CASINO CENTER BLVD EXISTING	XX 30' (E)	2 45' (E)	2 15' (E)	(2) M-2 (E) M-2 (R) B-1T (N)	MA 4	W-4T (E)	4	#4 R (E) #4 L (E)	2 2	TWO-WAY (E)	(D) (12) (17) (18) (36) (37)

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 LUMINAIRES SHALL CONFORM TO THE CITY OF LAS VEGAS CENTENNIAL STANDARDS.
- PP - REFER TO CCAUSD No. 404.1201 FOR POLE PLATE PEDESTRIAN SIGNAL HEAD MOUNTING ASSEMBLY DETAIL.
- (N) - NEW EQUIPMENT.
- (R) - EQUIPMENT TO BE RELOCATED ACCORDING TO THIS PLAN.
- (E) - EXISTING EQUIPMENT.



**811 SAFETY ALERT**  
Call Before You Dig  
Know what's below  
Call before you dig 1-702-227-2929

**SAFETY ALERT**  
Call Before You Dig  
Underground  
1-702-432-5300

**GENERAL NOTES**

- CONTRACTOR SHALL VERIFY TYPE AND LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTING SIGNAL POLE FOUNDATIONS.
- CONTRACTOR SHALL INSTALL RED MARKING TAPE 18" BELOW GRADE, ABOVE ALL PROPOSED CONDUITS.
- CONTRACTOR SHALL VERIFY ALL UTILITY CONFLICTS AND OBSTACLES PRIOR TO TRENCHING OR DIGGING.
- 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.
- 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.
- SEE SL SHEETS FOR SERVICE PEDESTAL, STREET LIGHTING AND INTERCONNECT DESIGN.
- 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.
- 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.
- 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 TENSORS OR OTHER EQUIPMENT. ALL ADJUSTMENTS SHALL BE APPROVED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
- 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.

DEPARTMENT OF PUBLIC WORKS  
PROJECT: BONNEVILLE/CLARK ONEWAY COUPLET PHASE 1 IMPROVEMENT PLANS  
SHEET: TRAFFIC SIGNAL BONNEVILLE AVE AND CASINO CENTER BLVD

Kimley-Horn and Associates, Inc.  
Engineering, Planning, and Environmental Consultants  
2100 Las Vegas Blvd, Suite 210, Las Vegas, NV 89119  
PH: (702) 734-6666  
FAX: (702) 734-6666

DATE: FEBRUARY 2010  
CHECKED BY: RC/RP  
DESIGNED BY: AP/RC  
SCALE: 1"=20'  
DRAWN BY: AP

REVISIONS:  
SHEET REPLACEMENT

SHEET NO. TS-08  
SHEET 07 OF 91  
DRAWING NO. 107V5201

BID# 09.1730.37 REV 3