STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: NEW SERVICE PEDESTAL "1" LA/SL** (F)

SERVICE PEDESTAL LOCATION:	BONNEVILLE AVE (SOUTH SIDE) – WEST OF FIRST ST	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATIONS: CIRCUIT "A"

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	37	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	0	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	37	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	0 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	0	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	37	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	11	AMPS

CAPACITY CALCULATIONS: CIRCUIT "B"

9	NEW CIRCUIT CAPACITY	60 AMPS	
10	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
11	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	10	AMPS
12	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	7	AMPS
13	TOTAL EXISTING CIRCUIT LOAD (11 MINUS 12) (ENTER 0 IF NEW)	3.0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
14	4 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	6	AMPS
15	TOTAL CIRCUIT PROPOSED NEW LOAD (13+14)	9	AMPS
16	REMAINING AVAILABLE LOAD (10 MINUS 15)	39	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.
**SEE TS SHEETS FOR INSTALLATION DETAILS.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: NEW SERVICE PEDESTAL "2" TS/SL** (K)

SERVICE PEDESTAL LOCATION:	BONNEVILLE AVE (SOUTH SIDE) –EAST OF LV BLVD.	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATIONS: CIRCUIT "A"

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	0	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	0	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	4 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	6	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	6	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	42	AMPS

CAPACITY CALCULATIONS: CIRCUIT "B"

9	NEW CIRCUIT CAPACITY	60 AMPS	
10	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
11	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	0	AMPS
12	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	0	AMPS
13	TOTAL EXISTING CIRCUIT LOAD (11 MINUS 12) (ENTER 0 IF NEW)	0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
14	0 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	0	AMPS
15	TOTAL CIRCUIT PROPOSED NEW LOAD (13+14)	0	AMPS
16	REMAINING AVAILABLE LOAD (10 MINUS 15)	48	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.
**SEE TS SHEETS FOR INSTALLATION DETAILS.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "212 BONNEVILLE" – EXISTING

SERVICE PEDESTAL LOCATION:	BONNEVILLE AVE (SOUTH SIDE) – EAST OF CASINO CENTER BLVD	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	13	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	2	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	11	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	2 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	3	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	14	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	34	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "601 BONNEVILLE" – EXISTING

SERVICE PEDESTAL LOCATION:	BONNEVILLE AVE (SOUTH SIDE) – WEST OF LAS VEGAS BLVD	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	16.0	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	6.0	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	10.0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	3 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	4.5	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	14.5	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	33.5	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "487 GASS" – EXISTING

SERVICE PEDESTAL LOCATION:	GASS AVE (SOUTH SIDE) – WEST OF LAS VEGAS BLVD	
PERSON WHO DID THE CALCULATIONS:	WSW	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	48.0	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	3.0	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	45.0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	2 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	3.0	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	48.0	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	0	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "018 CLARK" – EXISTING

SERVICE PEDESTAL LOCATION:	CLARK AVE (NORTH SIDE) – WEST OF CASINO CENTER BLVD	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	17.5	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	1.5	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	16	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	8 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	12	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	28	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	20	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "324 LEWIS" – EXISTING

SERVICE PEDESTAL LOCATION:	LEWIS AVE (SOUTH SIDE) – WEST OF LAS VEGAS BLVD	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	27.0	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	6.0	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	21.0	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	1 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	1.5	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	22.5	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	25.5	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

STREETLIGHT CIRCUIT CAPACITY CALCULATIONS: SERVICE PEDESTAL "206 CLARK" – EXISTING

SERVICE PEDESTAL LOCATION:	CLARK AVE (NORTH SIDE) – EAST OF CASINO CENTER BLVD	
PERSON WHO DID THE CALCULATIONS:	RWC	
CONSULTING ENGINEERING FIRM:	KIMLEY-HORN AND ASSOCIATES, INC	

CAPACITY CALCULATION

1	NEW CIRCUIT CAPACITY	60 AMPS	
2	AVAILABLE CAPACITY – MAX CONTINUOUS CURRENT DRAW (80%)	48 AMPS	
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	39.5	AMPS
4	*EXISTING CIRCUIT LOAD REDUCTION (ENTER 0 IF NEW)	11.5	AMPS
5	TOTAL EXISTING CIRCUIT LOAD (3 MINUS 4) (ENTER 0 IF NEW)	28	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT		
6	0 NUMBER OF 250 WATT ST LTS @ 1.5 AMPS/EA	0	AMPS
7	TOTAL CIRCUIT PROPOSED NEW LOAD (5+6)	28	AMPS
8	REMAINING AVAILABLE LOAD (2 MINUS 7)	20	AMPS

* DUE TO REMOVAL OF EXISTING LUMINAIRES FROM EXISTING CIRCUIT.

TAND, INC.
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DEPARTMENT OF PUBLIC WORKS

PROJECT: BONNEVILLE/CLARK ONEWAY COUPLET PHASE 1 IMPROVEMENT PLANS

SHEET: STREET LIGHT CIRCUIT CAPACITY CALCULATIONS

REVISIONS: 1 SHEET REPLACEMENT — DATE 6/21/10

SCALE (H): N/A SCALE (V): N/A DATE: FEBRUARY 2010
DRAWN BY: WSW DESIGNED BY: WSW CHECKED BY: RC/RF

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SHEET NO. SL-07
SHEET 48 OF 91
DRAWING NO. 107V5201

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