PANEL: 2TO1 MOUNT: FLUSH 120 /208 VOLT 3 PHASE 4 WIRE 225 BUS

JOB: The Olivian FEEDER ENTRY: BOTTOM TYPE: 42 Cir 10K A/C 125 MAIN NEMA1

DATE: 06/24/08 LOCATION: FED FROM: 4H1 CIRCUIT BREAKER

NOTES	FACTOR	CIR	VOLT – AMPERES A-PH	B-PH	C-PH	DESCRIPTION	OUTLETS MISC	REC	LTG	POLE	CIR BKR AMP	PHASE A B C	CIR BKR AMP	POLE	OUTLETS LTG	REC	MISC	DESCRIPTION	VOLT – AMPERES A-PH	B-PH	C-PH	CIR	FACTOR	NOTES
	1	1	1200			INSTA-HOT		1		1	20		20	1	24			OFFICE LIGHTING	1392			2	5	
	3	3		900		OFFICE RECEPTS		5		1	20		20	1	24			OFFICE LIGHTING		1392		4	5	
	3	5			1440	OFFICE RECEPTS		8		1	20		60	2				HP-1			4025	6	2	
	3	7	1080			OFFICE RECEPTS		6		1	20							COMP./HEAT	4025			8	2	
	3	9		540		OFFICE RECEPTS		3		1	20		30	2				HP-1		1883		10	1	
	1	11			1500	COPIER				1	20							SECONDARY HEAT			1883	12	1	
		13											60	2				HP-2	4025			14	1	
		15																COMP./HEAT		4025		16	1	
		17											30	2				HP-2			3755	18	1	
		19																SECONDARY HEAT	3755			20	1	
		21																				22		
		23																				24		
		25																				26		
		27																				28		
		29																				30		
		31																				32		
		33																				34		
		35																				36		
		37																				38		
		39																				40		
		41																				42		
				FEED																				
			2280	1440	2940	SUB TOTALS												SUB TOTALS	13197	7300	9663			
			15477	8740	12603	TOTAL VA/PHASE												LINE AMPS/PHASE	128.98	72.83	105.03			

	CONNECTED LOADS				DEMAND FACTOR LOADS				
5	LTG/CL	=	2.78	KVA	LTG/CL	@ 125 %	=	3.5	KVA
4	LTG/RECPT RES. RM.	=	0.00	KVA	LTG/RECPT RES. RM.	@ 50 %	=	0.0	KVA
3	RECPT THRU 10K	=	3.96	KVA	RECPT THRU 10K	@ 100 %	=	4.0	KVA
3	RECEPT OVER 10K	=	0.00	KVA	RECEPT OVER 10K	@ 50 %	=	0.0	KVA
6	UNIT PANELS	=	0.00	KVA	UNIT PANELS	@ %	=	0.0	KVA
1	MISC.	=	22.03	KVA	MISC	@ 100 %	=	22.0	KVA
2	LARGEST MOTOR	=	8.05	KVA	LARGEST MOTOR	@ 125 %	=	10.1	KVA
7	FEED THROUGH LOAD	=	0.00	KVA	FEED THROUGH PANEL		=		KVA
8	HEATING	=	0.00	KVA	HEATING	@ 100 %	=	0.0	KVA
9	KITCHEN	=	0.00	KVA	KITCHEN	@ 65 %	=	0.0	KVA
	TOTAL CONNECTED	=	36.82	KVA	TOTAL DEMAND KVA			39.5	KVA
	TOTAL AMPS	=	102.32	AMPS	TOTAL DEMAND AMPS			110	AMPS

NOTES:
1

FEEDER:

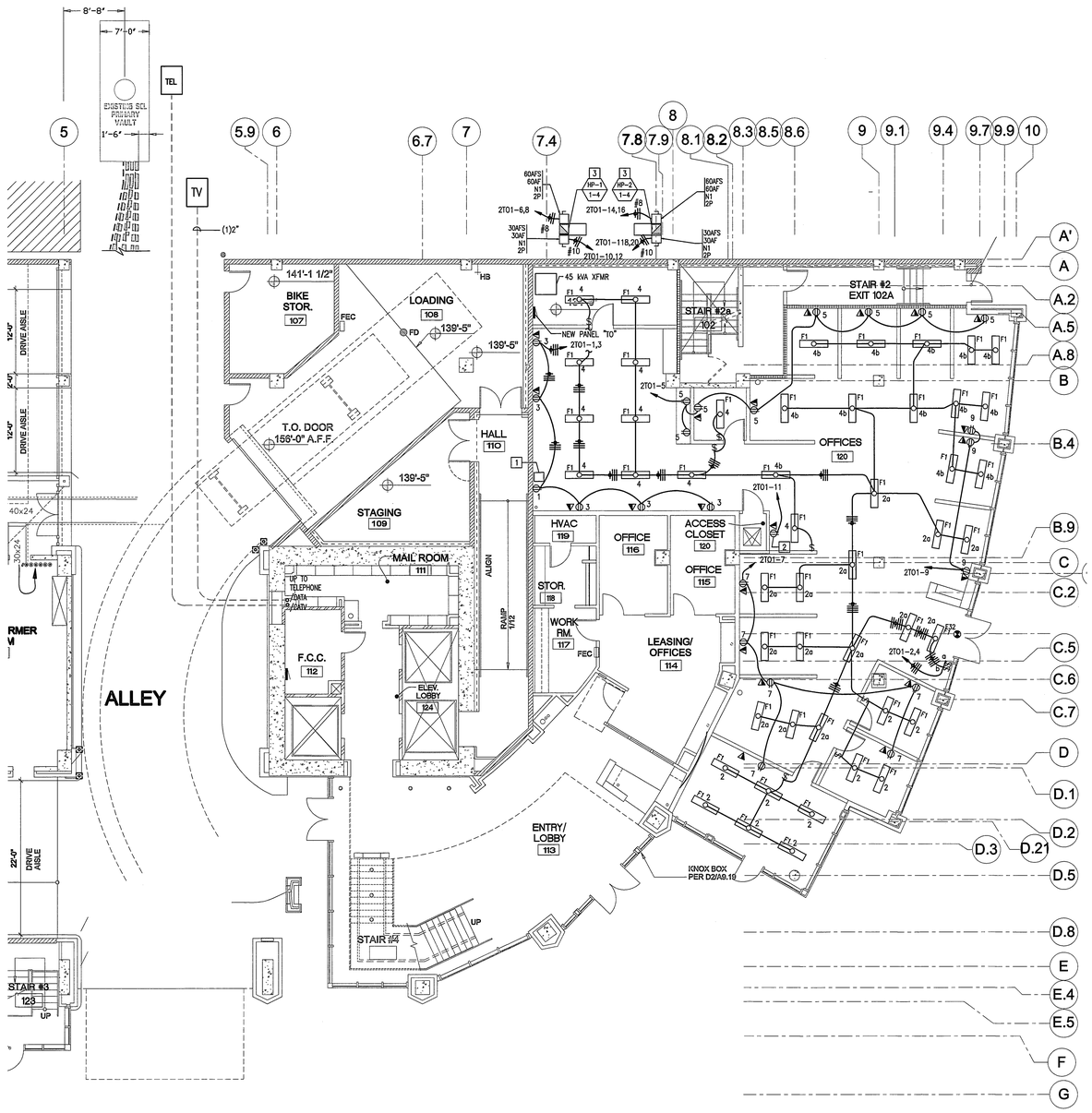
PHASE CONDUCTOR:

NEUTRAL CONDUCTOR:

GROUND CONDUCTOR:

CONDUIT:

LENGTH:



TEMPORARY OFFICES – LEVEL 01 (A / TO1)
SCALE: 1/8" = 1'-0"

0 4' 8' 12' 16'
SCALE: 1/8" = 1'-0"

KEY NOTES

1. UNDER COUNTER 120 VOLT INSTANT HOT WATER HEATER
2. DEDICATED COPY MACHINE OUTLET
3. HVAC UNITS ARE ON LEVEL BELOW

6185870

CITY OF SEATTLE
DEPT. OF PLANNING AND DEVELOPMENT
JUN 3 0 2008
ELECTRICAL
APPROVED as noted on this date and subject to

ALL ELECTRICAL MATERIALS & EQUIPMENT SHALL BE LISTED BY APPROVED TESTING LAB AND APPROVED BY THE ELECTRICAL DIVISION OF THE DEPT. OF PLANNING AND DEVELOMENT SUJECT TO FINAL APPROVAL OF FIELD INSPECTOR

EXIT SIGNS & ILLUMINATION SHALL COMPLY WITH APPROVED BUILDING PLANS

The available fault current requirements of (NEC) Art. 110-9 & 110-10 must be met by the installation of either fully rated equipment or A listed series rated system

APPROVAL DOES NOT INCLUDE FIRE ALARM

ALL ELECTRICAL INSTALLATIONS SHALL COMPLY WITH REQUIREMENTS OF SEATTLE ENERGY CODE

carrierjohnson
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1301 third avenue san diego ca 92101
phone 619.239.2353 | fax 619.239.6227

These plans have been prepared by UNITY ELECTRIC CONSTRUCTION, INC. The Design Contractor:
By
Date: 09/18/07
Unity Electric Construction, Inc.

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OLIVIAN TOWER
809 Olive Way
Seattle WA

ISSUES:

REVISIONS:

PRINCIPAL IN CHARGE: B. Hicks

PROJECT MANAGER: W. Warner

PROJECT DESIGNER: R. Portillo

DRAW P.R.
CHE R. F
ENG
DATE

6185870
809 Olive Way

TITLE: TEMPORARY OFFICES LEVEL 01

UNITY ELECTRIC PROJECT NO: 4104

SHEET NO: TO1

File name: Z:\JOBS\OLIVIAN TOWER\TEMP OFFICES L01.DWG Last edited: 06/24/08 9:15:23

RECORDS MANAGEMENT RECEIVED JUL 03 2008 DEPT. OF PLANNING & DEVELOPMENT

45

SERVICE LOAD SUMMARY

MAIN SWITCHBOARD - MSB - MDP

	CONNECTED LOAD - VA	DEMAND FACTOR %	DEMAND LOAD VA	NOTES
RESIDENT UNIT PANELS	6,600,196	0.23	1,518,045	
LCL LIGHTING	100,669	1.25	125,836	
RECEPTACLES THRU 10K	10,000	1.00	10,000	
RECEPTACLES OVER 10K	53,380	0.50	26,690	
MISCELLANEOUS (WITHOUT LARGEST MOTOR OR FREPUMP)	1,088,193	1.00	1,088,193	
ELEVATOR (50HP) LARGEST MOTOR	63,910	1.25	79,888	
HEATING	121,501	1.00	121,501	
		1.00	0	
RETAIL LOADS (76218.F. @44va/S.F.)	335,324	1.00	335,324	
TOTALS	8,383,173		3,315,477	
TOTAL DEMAND AMPS @ 120/208 3ø 4W =	3,315,477 / 480 X 1.73	3,988 AMPS		
NOTES				

NOTE: THE TEMPORARY OFFICES OCCUPY 3401 SQUARE FEET OF RETAIL SPACE. THE LOAD ALLOWANCE FOR THIS SPACE WAS 44X3401 OR 149,644 WATTS. THE TEMPORARY OFFICE LOAD IS 39,500 WATTS THEREFORE NO LOAD IS BEING ADDED TO THE PROJECT.

KEY NOTES

1. EMERGENCY GENERATOR FUEL TANK SHALL BE SIZED TO PROVIDE MINIMUM 8 HOURS RUN TIME AT FULL LOAD.
2. LOCATE GENERATOR REMOTE ANNUNCIATORS IN FIRE CONTROL AND MAINTENANCE/SALES OFFICE
3. MAIN BUILDING GROUNDING BUS RISER #4/0 CU.
4. CONNECT GROUND TO NEAREST POINT ON MAIN BUILDING GROUNDING RISER.
5. GENERATOR START/STOP CONTROLS
6. PROVIDE PULL BOX WITH CONDUCTOR SUPPORT.
7. PROVIDE CONDUCTOR SUPPORT.
8. SEE FLOORPLAN FOR FEEDER RUN REQUIREMENTS TO RETAIL UNITS.
9. "WS2 THRU WS5" PANELS AT ARTISTS LOFTS
10. PROVIDE 2" EMPTY CONDUIT SLEEVES BETWEEN METERING ROOMS FOR ANTENNA INSTALLATION, TERMINATE AT ROOFTOP PER SCL REQUIREMENTS.
11. THIS FEEDER TO BE ENCLOSED WITHIN A 2 HOUR RATED CONSTRUCTION. FEEDER MUST BE SEPERATED FROM OTHER PANELS AND EQUIPMENT.
12. CONNECT SINGLE PHASE METER STACKS TO THREE PHASE CROSS-BUS ON PHASES AS SHOWN FOR SYSTEM BALANCING
13. PROVIDE REMOTE ENGINE "EMERGENCY STOP" (2" RED PUSH-TO-STOP, TWIST TO RELEASE) BUTTON IN GENERATOR ROOM ON WALL NEAR EXIT DOOR (COMPLIES WITH NEC 445.18)
14. MOUNT 800 AMP FUSED DISCONNECT ON WALL ACROSS FROM GENSET (COMPLIES WITH NEC 445.12(A)).

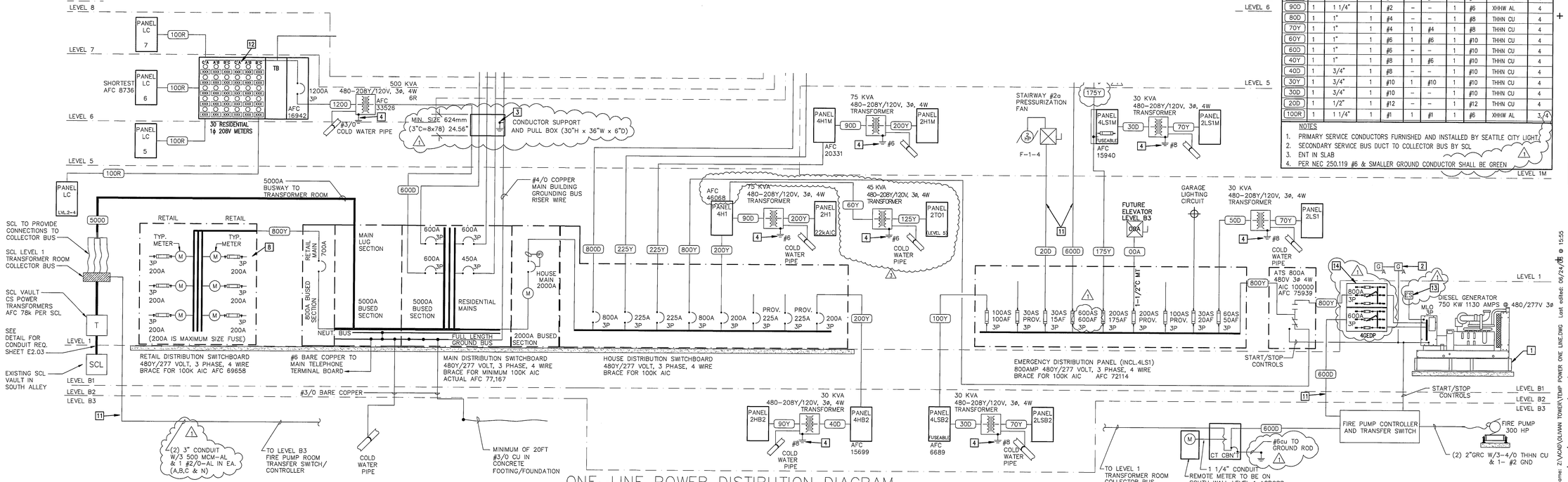
FEEDER SCHEDULE

SUFFIX DESIGNATION
Y= WYE
D= DELTA
R= RESIDENTAL UNIT PNL.

FEEDER	QTY.	CONDUIT SIZE	CONDUCTOR/PER RACEWAY PER PHASE QTY.	PER PHASE SIZE	PER NEUTRAL QTY.	PER NEUTRAL SIZE	GROUND QTY.	GROUND SIZE	TYPE	NOTES
5000	1	N/A	–	–	–	–	–	–	BUS DUCT	
4000	1	N/A	–	–	–	–	–	–	–	
3000	1	N/A	–	–	–	–	–	–	–	
2500	1	N/A	–	–	–	–	–	–	–	
2000	1	N/A	–	–	–	–	–	–	–	
1600	5	4"	1	600	1	600	1	#350	XHHW AL	
1200	4	3"	1	500	1	500	1	#250	XHHW AL	
1000	3	4"	1	600	1	600	1	#4/0	XHHW AL	
800Y	3	3"	1	500	1	500	1	#3/0	XHHW AL	
800D	3	3"	1	500	–	–	1	#3/0	XHHW AL	
600D	2	3"	1	500	–	–	1	#2/0	XHHW AL	
450D	2	2 1/2"	1	300	–	–	1	#1/0	XHHW AL	
400Y	2	2 1/2"	1	250	1	250	1	#1	XHHW AL	
400D	2	2 1/2"	1	250	–	–	1	#1	XHHW AL	
300Y	1	3"	1	500	1	500	1	#2	XHHW AL	
300D	1	3"	1	500	–	–	1	#2	XHHW AL	
225Y	1	2 1/2"	1	300	1	300	1	#2	XHHW AL	
200Y	1	2 1/2"	1	250	1	250	1	#4	XHHW AL	
200D	1	2 1/2"	1	250	–	–	1	#4	XHHW AL	
175Y	1	2"	1	#4/0	1	#4/0	1	#4	XHHW AL	
150Y	1	2"	1	#3/0	1	#3/0	1	#4	XHHW AL	
150D	1	2"	1	#3/0	1	–	1	#4	XHHW AL	
125Y	1	1 1/2"	1	#2/0	1	#2/0	1	#4	XHHW AL	
100Y	1	1 1/2"	1	#1	1	#1	1	#6	XHHW AL	4
90Y	1	1 1/4"	1	#2	1	#2	1	#6	XHHW AL	4
90D	1	1 1/4"	1	#2	–	–	1	#6	XHHW AL	4
80D	1	1"	1	#4	–	–	1	#8	THHN CU	4
70Y	1	1"	1	#4	1	#4	1	#8	THHN CU	4
60Y	1	1"	1	#6	1	#6	1	#10	THHN CU	4
60D	1	1"	1	#6	–	–	1	#10	THHN CU	4
40Y	1	1"	1	#8	1	#6	1	#10	THHN CU	4
40D	1	3/4"	1	#8	–	–	1	#10	THHN CU	4
30Y	1	3/4"	1	#10	1	#10	1	#10	THHN CU	4
30D	1	3/4"	1	#10	–	–	1	#10	THHN CU	4
20D	1	1/2"	1	#12	–	–	1	#12	THHN CU	4
100R	1	1 1/4"	1	#1	1	#1	1	#6	XHHW AL	3,4

NOTES
1. PRIMARY SERVICE CONDUCTORS FURNISHED AND INSTALLED BY SEATTLE CITY LIGHT.
2. SECONDARY SERVICE BUS DUCT TO COLLECTOR BUS BY SCL
3. ENT IN SLAB
4. PER NEC 250.119 #6 & SMALLER GROUND CONDUCTOR SHALL BE GREEN

ALL UPPER LEVEL LOADS AND PANELS ARE EXISTING TO REMAIN



ONE-LINE POWER DISTIBUTION DIAGRAM

NO SCALE

carrierjohnson
architecture for urban environments
1301 third avenue san diego ca 92101
phone 619.239.2353 | fax 619.239.6227

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By
Date: 09/18/07
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OLIVIAN TOWER

809 Olive Way
Seattle WA

ISSUES:

REVISIONS:

1	Fire Department Review	09/18/07
2	ASI #7	09/25/07
3	TEMP OFFICE ADDITION	6-24-08

PRINCIPAL IN CHARGE: B. Hicks
PROJECT MANAGER: W. Warner
PROJECT DESIGNER: R. Portillo
DRAWN BY: P.R. EELLS
CHECK: R. Portillo
ENGINEERS SEAL:
DATE:

TITLE: ONE-LINE POWER DISTRIBUTION DIAGRAM

UNITY ELECTRIC PROJECT NO: 4104

SHEET NO: TO2

File name: Z:\CAD\OLIVIAN TOWER\TEMP POWER ONE LINE.DWG Last edited: 06/24/08 @ 15:55

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