

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	REV	DEC
BOMBARD	948	AH-7 Level 3 Entire Floor	4	22NOV11	28NOV11		
BOMBARD	958	AH-8 Level 4 Entire Floor	4	22NOV11	28NOV11		
BOMBARD	968	AH-9 Level 5 Entire Floor	5	22NOV11	28NOV11		
BOMBARD	978	AH-10 Level 6 Entire Floor	6	22NOV11	30NOV11		
BOMBARD	988	AH-11 Level 7 Entire Floor	5	22NOV11	28NOV11		
BOMBARD	888	AH-2 Level 1, Grand Lobby	3	18DEC11	21DEC11		
ELEVATORS							
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Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	Notes
MOJAVE	2207	Give Urate Forms to cast Charging Pedestals	1	02DEC11	02DEC11	Give Urate Forms to cast Charging Pedestals
URATA	1997	Form Reinforce/Pour Loading Dock	3	05DEC11	07DEC11	Form Reinforce/Pour Loading Dock
MOJAVE	2217	Complete R/I to Charging Stations per RFI 729	1	05DEC11	05DEC11	Complete R/I to Charging Stations per RFI 729
MOJAVE	2227	Install BM1 light fixtures	2	05DEC11	05DEC11	Install BM1 light fixtures
URATA	2007	Form Reinforce/Pour North Parking Area Entries	8	05DEC11	15DEC11	Form Reinforce/Pour North Parking Area Entries
URATA	2227	Form and pour Charging Stations Pedestals	1	05DEC11	05DEC11	Form and pour Charging Stations Pedestals
On Site Work						
MOJAVE	2157	Install WCs on North CMU Walls	2	02DEC11	05DEC11	Install WCs on North CMU Walls
SOUTH AND EAST SIDE WORK						
On Site Work						
Site Concrete						
URATA	1997	Form East Sidewalk along South East Face of Bldg	2	04NOV11	07NOV11	Form East Face of Bldg
URATA	1927	Form and place free grate frames East Walk	4	22NOV11	26NOV11	Form and place free grate frames East Walk
URATA	2307	Pour PV-9 Stepper Pavers	1	22NOV11	22NOV11	Pour PV-9 Stepper Pavers
URATA	2317	Lay out and Fine Grade PV-1 Sidewalk Clark	1	22NOV11	22NOV11	Lay out and Fine Grade PV-1 Sidewalk Clark
URATA/FCS	2337	Form and Place Rebar in PV-1 Sidewalk	1	22NOV11	22NOV11	Form and Place Rebar in PV-1 Sidewalk
URATA	2357	Strip forms/Wash Saw Out	1	23NOV11	23NOV11	Strip forms/Wash Saw Out
URATA	1937	Pour East Walk	3	29NOV11	01DEC11	Pour East Walk
URATA	2347	Pour PV-1 Sidewalk along Clark after Main curb	1	29NOV11	29NOV11	Pour PV-1 Sidewalk along Clark after Main curb
MOJAVE	2377	Install BC1 Light Bollards	3	07DEC11	09DEC11	Install BC1 Light Bollards
MOJAVE	2397	Install SM1 Lights in PV Trees	4	12DEC11	15DEC11	Install SM1 Lights in PV Trees
WEST AREA SITE WORK						
On Site Work						
AMAZON N	1707	Finish masonry Cheek Wall at Employee entrance	4	22NOV11	26NOV11	Finish masonry Cheek Wall at Employee entrance
FLIPPINS	1907	Adjust last Fire Hydrant to grade	1	22NOV11	22NOV11	Adjust last Fire Hydrant to grade
URATA	2027	Fine Grade - Install type two base @ ramp	3	22NOV11	25NOV11	Fine Grade - Install type two base @ ramp
COMMERCIAL	2057	Complete Water proofing at west Employee Entry	3	22NOV11	25NOV11	Complete Water proofing at west Employee Entry
URATA	2127	Form Reinforce Sidewalks/Planters	5	22NOV11	28NOV11	Form Reinforce Sidewalks/Planters
URATA	2037	Regrade ramp for new Design Form/Rebar	2	28NOV11	29NOV11	Regrade ramp for new Design Form/Rebar
MOJAVE	2397	Install SF6 Lights in Steps	1	28NOV11	28NOV11	Install SF6 Lights in Steps
URATA	2047	Form Reinforce West Employee Entry Stairs	3	30NOV11	02DEC11	Form Reinforce West Employee Entry Stairs
URATA	2067	Pour Ramp at West Employee Entrance	1	30NOV11	30NOV11	Pour Ramp at West Employee Entrance
URATA	2177	Pour Sidewalk/Planters along West Main Street	1	30NOV11	30NOV11	Pour Sidewalk/Planters along West Main Street
FLIPPINS	1797	Install Roof Drain Bubbler tie in	2	05DEC11	06DEC11	Install Roof Drain Bubbler tie in

- Early bar
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- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.

LYCH 4 Week Schedule

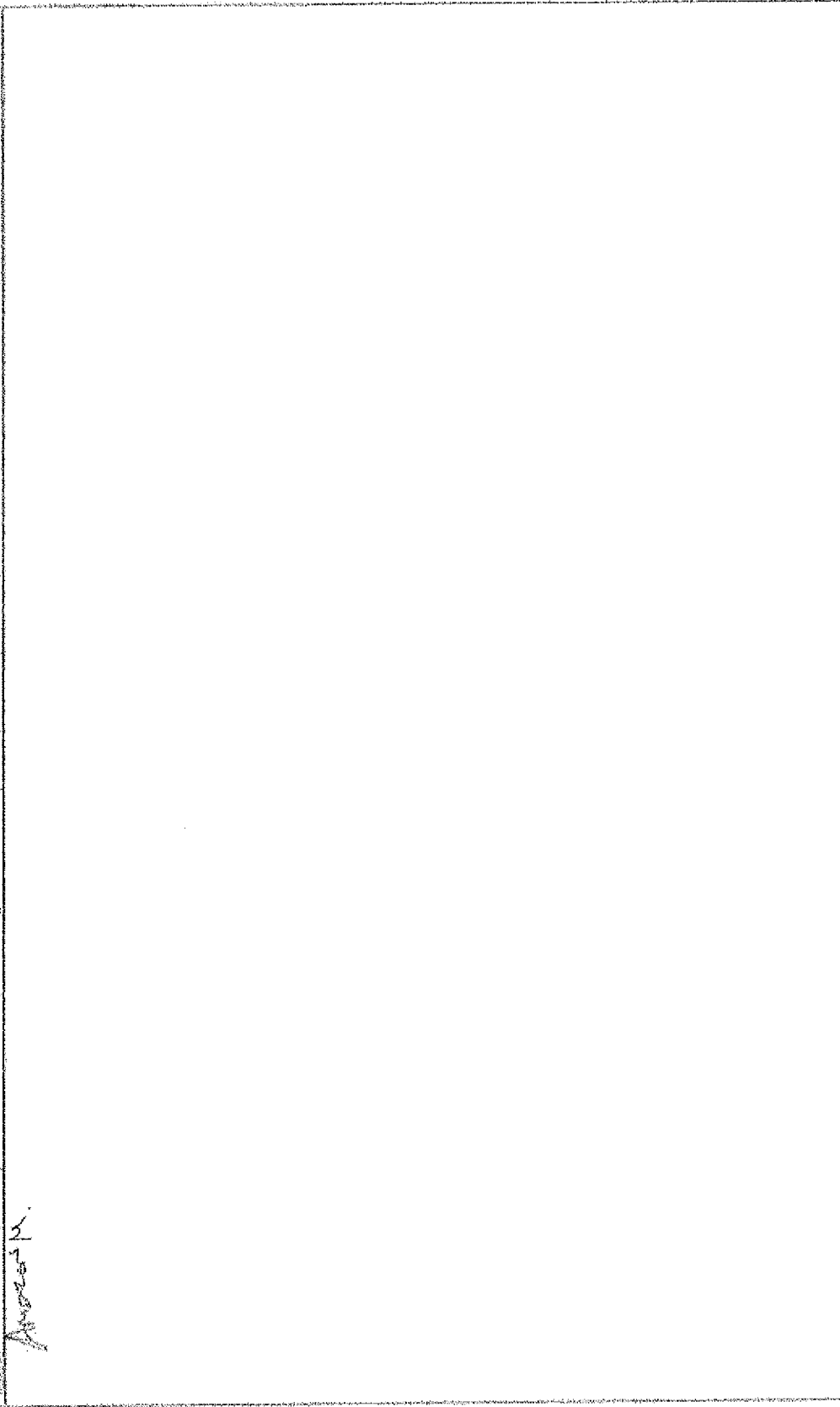
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Run date	25NOV11
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J56-539

MOJ00723
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Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	Start	Finish
URATA	2187	Pour Slabs at West Employee Entrance	1	05DEC11	05DEC11		
VERPARR	2387	Install New tile or Pavers per new design	10	19DEC11	03JAN12		



Run date

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Page number

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The Whiting-Turner Contracting Co.

LVCH 4 Week Schedule

Filter: Four week lookahead

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Summary bar

Start milestone point

J56-540

Responsibility	Act. ID	Description	Orig. Dur.	Early Start	Early Finish	act	DEC
Stone Schedule							
Construction Handprocks							
VENTURA	665	Stone Walls and Floors Installation	50	12/01/11	1/01/12		Stone Walls and
Participation and Delivery							
VENTURA	1155	Containers 1 & 2 (Column Stone) on site to install	0	24/01/11			Containers 1 & 2 (Column Stone) on site to install
VENTURA	1165	Containers 3, 5 & 7 (west Lobby/Prefunction walls)	0	24/01/11			Containers 3, 5 & 7 (west Lobby/Prefunction walls)
VENTURA	1275	Deliver Containers 1 & 2 to site to install	0	27/01/11			Deliver Containers 1 & 2 to site to install
VENTURA	1175	Container 8 (20' & 30' pos. walls /floors)	1	26/01/11	28/01/11		Container 8 (20' & 30' pos. walls /floors)
VENTURA	1185	Containers 4 & 6 (Floors, Prefunction, Lobbydesk)	1	28/01/11	28/01/11		Containers 4 & 6 (Floors, Prefunction, Lobbydesk)
VENTURA	1195	Container 9 (Cur stone to size now Grand Stair)	10	28/01/11	08/NOV/11		Container 9 (Cur stone to size now Grand Stair)
OWNER/W-T	1395	Owner to approve new cut 5' Col. pos.	0	28/01/11			Owner to approve new cut 5' Col. pos.
VENTURA	1285	Deliver Containers 3, 5 and 7 to site to install	0		28/01/11		Deliver Containers 3, 5 and 7 to site to install
VENTURA	1325	Deliver Containers 4 & 6 to install	0	04/NOV/11			Deliver Containers 4 & 6 to install
VENTURA	1245	First shipment of Honeycomb from Italy	0		04/NOV/11		First shipment of Honeycomb from Italy
VENTURA	1315	Fabricate Container 8 Glue stone to Honeycomb	5	08/NOV/11	14/NOV/11		Fabricate Container 8 Glue stone to Honeycomb
VENTURA	1345	Glue Container 9 to 1st shipment Honeycomb	5	08/NOV/11	14/NOV/11		Glue Container 9 to 1st shipment Honeycomb
VENTURA	1205	Containers 10, 11 & 12 (Flooring) Arrives	0		11/NOV/11		Containers 10, 11 & 12 (Flooring) Arrives
VENTURA	1285	Fabricate Containers 10, 11, 12 flooring	5	12/NOV/11	18/NOV/11		Fabricate Containers 10, 11, 12 flooring
VENTURA	1355	Fabricate stone Treads Grand stair	5	14/NOV/11	19/NOV/11		Fabricate stone Treads Grand stair
VENTURA	1365	Air Shipment Column Stone Arrives in Vegas	0		14/NOV/11		Air Shipment Column Stone Arrives in Vegas
VENTURA	1375	Air Shipment to Factory to glue to Honeycomb Col	3	15/NOV/11	17/NOV/11		Air Shipment to Factory to glue to Honeycomb Col
VENTURA	1255	2nd Shipment of Honeycomb from Italy	0		17/NOV/11		2nd Shipment of Honeycomb from Italy
VENTURA	1215	Container 13 (Remainder Last shipment uncut stone)	0		19/NOV/11		Container 13 (Remainder Last shipment uncut stone)
VENTURA	1295	Fabricate Container 13 walls/ Fill in corner pos	5	21/NOV/11	28/NOV/11		Fabricate Container 13 walls/ Fill in corner pos
Installation and Delivery							
VENTURA	675	Install Stone Lobby West Wall	28	28/01/11	25/NOV/11		Install Stone Lobby West Wall
VENTURA	685	Install Stone Lobby Columns	31	31/01/11	30/NOV/11		Install Stone Lobby Columns
VENTURA	1005	Install Flooring Under Main Lobby Desk	5	01/NOV/11	08/NOV/11		Install Flooring Under Main Lobby Desk
MILICI	755	Install Art Glass Hoisting/ Gantry System	1	05/NOV/11	05/NOV/11		Install Art Glass Hoisting/ Gantry System
MILICI	775	Install Art Glass at Grand Stair	10	08/NOV/11	21/NOV/11		Install Art Glass at Grand Stair
VENTURA	935	Need to remove scaffold over Grand Stair	1	08/NOV/11	08/NOV/11		Need to remove scaffold over Grand Stair
ISEC	1015	Install Main Lobby Desk	2	09/NOV/11	10/NOV/11		Install Main Lobby Desk
VENTURA	1025	Install S.S. Counter top on Main Lobby Desk	1	11/NOV/11	11/NOV/11		Install S.S. Counter top on Main Lobby Desk
MILICI	935	Remove Art Glass Gantry / Scaffold system	1	22/NOV/11	22/NOV/11		Remove Art Glass Gantry / Scaffold system
VENTURA	765	Ventura's scaffold west wall taken down	1	23/NOV/11	23/NOV/11		Ventura's scaffold west wall taken down

The Whiting-Turner Contracting Co.

Ventura Stone Schedule

J56-541

MOJ00725
JA 00005172

Responsibility	Act ID	Description	Orig Due	Early Start	Early Finish	2011
MOJAVE	845	Complete trim out Fire Alarm Electrical		2/28/NOV/11	29/NOV/11	Complete trim out Fire Alarm Electrical
Phase 100 Level One						
VENTURA	765	Install Stone Prefunction Southwest Wall		26/31/OCT/11	29/NOV/11	Install Stone Prefunction Southwest Wall
VENTURA	795	Install Stone Prefunction Southeast Wall		26/01/NOV/11	29/NOV/11	Install Stone Prefunction Southeast Wall
VENTURA	835	Install Stone Prefunction Columns		25/01/NOV/11	29/NOV/11	Install Stone Prefunction Columns
VENTURA	815	Install Stone Prefunction Flooring		10/25/NOV/11	05/DEC/11	Install Stone Prefunction Flooring
VENTURA	825	Install Stone Anti / Security		7/01/DEC/11	07/DEC/11	Install Stone Anti / Security
MOJAVE	925	Complete trim out Fire Alarm Electrical		2/05/DEC/11	07/DEC/11	Complete trim out Fire Alarm
Phase 200 Level One						
MILICI	855	Install Art Glass Grand Stair		10/09/NOV/11	17/NOV/11	Install Art Glass Grand Stair
VENTURA	725	Install Stone back of wall on Grand Stair		10/15/NOV/11	24/NOV/11	Install Stone back of wall on Grand Stair
VENTURA	875	Install Stone front face of Grand Stair		10/18/NOV/11	27/NOV/11	Install Stone front face of Grand Stair
VENTURA	895	Install Stone Lobby East Grand Stair Wall		5/18/NOV/11	22/NOV/11	Install Stone Lobby East Grand Stair Wall
VENTURA	885	Install Stone Treads Grand Stair		15/19/NOV/11	04/DEC/11	Install Stone Treads Grand Stair
VENTURA	895	Install Stone Main Lobby Desk Area wall		9/28/NOV/11	06/DEC/11	Install Stone Main Lobby Desk Area
VENTURA	905	Install Stone North Wall (Elevator 4 Pack)		5/28/NOV/11	02/DEC/11	Install Stone North Wall (Elevator)
MOJAVE	955	Complete trim out Fire Alarm Electrical		2/05/DEC/11	06/DEC/11	Complete trim out Fire Alarm
Phase 300 Level One						
VENTURA	735	Install Stone 2055 East Wall		5/05/DEC/11	10/DEC/11	Install Stone 2055 East
VENTURA	965	Install Stone 2055 North Wall		5/05/DEC/11	10/DEC/11	Install Stone 2055 North
VENTURA	975	Install Stone 2055 Flooring		5/05/DEC/11	13/DEC/11	Install Stone 2055
VENTURA	985	Install Stone 2055A Elevator Lobby Flooring		5/05/DEC/11	16/DEC/11	Install Stone 2055
MOJAVE	995	Complete trim out Fire Alarm Electrical		1/16/DEC/11	16/DEC/11	Complete trim out
Phase 400 Level One						
VENTURA	745	Install Stone Elevator Lobby 1003 Flooring		8/21/NOV/11	28/NOV/11	Install Stone Elevator Lobby 1003 Floor
VENTURA	1055	Install Stone Lobby Flooring		10/21/NOV/11	30/NOV/11	Install Stone Lobby Flooring
MOJAVE	1305	Complete trim out Fire Alarm Electrical		2/01/DEC/11	02/DEC/11	Complete trim out Fire Alarm

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The Whiting-Turner Contracting Co.
Ventura Stone Schedule

J56-542

Issues and Resolution Log



Date: 12/6/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
1	3/4/2011		Basement	Stair 3a	Stair 3a, basement level, there are multiple utilities passing through the area that will be the vestibule. Although the construction is incomplete, it does not appear that there will be a way to shaft or isolate these conduits from the stair and vestibule. 4/13/2011: A rated ceiling has been added to the vestibule of stair 3a on the basement level, excluding the utilities from the vestibule. The stair has not yet been completed to exclude the utilities. They are still visible from inside the stair. 5/10/2011: The remaining drywall in stair 3a will be completed with the exterior envelope 9/13/2011: Scheduled to be complete this week 10/21/2011: There is currently an access door installed in the rated ceiling of stair 3a in the basement to access a junction box. This needs to be a rated door at minimum based on discussions with the CLV inspector however WT will look at relocating the junction box and eliminating the access door entirely.	Open	W-T
6	3/4/2011		Stair 2	Penetrations	Stair 2, Level 1, there are multiple conduits and utilities passing through the stair large vestibule that do not serve the stair 4/13/2011: Reviewed the ceiling for the vestibule in stair 2, level 1. The current "armstrong ceiling system" does not appear that it is going to be rated. 5/10/2011: Contractor reports that a hard lid has been installed in the vestibule on level 1, stair 2. Need to verify that the ceiling is rated to exclude the utilities above. 6/14/2011: There is now a ceiling installed in the Stair 2, level 1 vestibule however is does not appear to be rated. A rated ceiling is required due to the utilities located above 10/21/2011: A rated ceiling is installed in stair 2, level 1 however access is currently required above the ceiling for a damper and utilities. Based on discussions with the CLV inspectors, a rated access door is scheduled to be installed however WT will look at providing access from other areas.	Open	W-T
7	3/4/2011		Zone 1W	Boundary Walls	The zone boundary walls at tape storage 1096 and womens restroom 1085 are not full height and work appears to be complete. This area is shown as the smoke zone boundary between 1W and 1N 4/13/2011: Walls have now been extended to full height in the area of the restrooms between zone 1W and 1N. The error was a result of a discrepancy between the architectural drawings and the smoke control drawings. Penetrations and ductwork still need to be sealed. TMCx will check the boundaries during smoke zone inspections. 10/19/2011: WT and TMCx reinspected the tape storage room 1096 but found that there were still outstanding issues. 10/21/2011: There are still gaps around the ductwork above the tape storage room and several pieces of unistrut that penetrate the smoke boundaries that are not sealed.	Open	

J56-543

Project No 95011

Page 1 of 8

Issues and Resolution Log



Date: 12/6/2011

Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
11	4/12/2011		Level 2	Boundary Walls	The smoke zone boundary walls in the area of Mens Restroom 2058, Janitor 2058A and Mens Restroom 2060 on the second floor do not appear to be constructed as smoke zone boundary walls. 9/13/2011: WT noted that this is CR work due to discrepancy between Arch and SCDs. Work being scheduled	Open	W-T
14	4/12/2011		Level 1	Sprinkler drawings	The sprinkler zoning shown on the shop drawings is shown incorrectly in the area of restrooms 1084 and 1085 on level 1 and along the boundary of the council chambers on level 2. Sprinkler zoning has been verified to correctly correspond to the smoke control drawings 5/10/2011: The area of the restrooms 1084/1085 may have been updated on the revised smoke control drawings. TMCx to reverify 11/15/2011: TMCx rechecked the as build sprinkler drawings however the revised piping is not indicated in the area of the restrooms on level 1 and the council chambers on level 2. Need to wait until revised as-builts are issued.	Open	
21	8/16/2011		Level 5	Shaft Wall	The shaft wall near FSD-501 (Level 5, NW) has been cut into and not repaired. Appears an access door will be installed. Ensure rated door is utilized. 9/13/2011: Bombard noted that the damper needed to be relocated in this area. Work in progress 10/25/2011: Drywall patch has been completed however the seal to the I-beam at the top of wall is not complete 11/15/2011: Rechecked the shaft wall near FSD-501 however the top of wall at the I beam is not sealed.	Open	W-T
24	8/16/2011		Basement	Penetrations	The 5 inch drain pipe in the East wall of the sewage ejector pump room is not sealed. This is the smoke zone boundary as shown on the smoke control diagrams.	Open	
26	9/14/2011		Mechanical Rooms	Penetrations	Chilled and hot water risers need to be firestopped between floors in the mechanical rooms. Levels 6, 5 & 4 are not complete 10/25/2011: Work has not started yet on the firestopping for the chilled and heating water risers.	Open	

J56-544

Project No 65011

Issues and Resolution Log



Date: 12/6/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
28	9/14/2011		Electrical Rooms	Elec Buss Duct	The buss duct running through the tower electrical rooms is protected by metal flashing at the floor penetrations however it is not provided with any sealant or backing material to resist the passage of smoke. Need to confirm what the proper installation method is. This affects multiple levels 10/21/2011: TMCx verified that the buss duct in the tower electrical rooms is now sealed from level 3-4 and from 4-5. Other levels need to be verified 10/25/2011: Reinspected the buss duct from level 5 through 7 where it terminates and confirmed that the floor penetrations are firestopped. At this time, the termination of the duct on level 3 is not firestopped where the duct transitions to the 4" conduits. 11/15/2011: The buss duct is still not sealed on level 3 where it transitions to the conduits through the floor.	Open	
30	9/14/2011		Elev Lobby 6035	Penetrations	The firestopping is damaged on multiple penetrations to elevator lobby 6035 (elev 6) on level 6 on the South wall. It also appears that the drywall was patched on the West wall and may not be taped as required	Open	
31	9/14/2011		TelCom/Data Rooms	Penetrations	There are multiple areas where telcom/data rooms are stacked and large numbers of 4" sleeves extend between smoke zones. These sleeves are sealed to the slab but the unused space in the conduits will need to be sealed once the cable has been pulled. Example, TeleCom 5034, 3044, etc	Open	
37	9/14/2011		Lobby Glass Lvl 3	Inspection Item	Lobby glass installation is incomplete on level 3. The seal between the sides of the aluminum frames are not sealed to the adjacent construction. 10/21/2011: Lobby glass installation on level 3 is proceeding however all of the seals are not complete for inspection 11/15/2011: The lobby glass installation is mostly complete however the seals between the frame and the structure of the building are still incomplete.	Open	
38	9/14/2011		Level 3	Penetrations	There is a stud above the lobby glass on level 3 that is not sealed. Location is approximately gridlines J and EE 10/21/2011: Reinspected the stud above the glass wall at gridlines J and EE (outside the passenger elevator lobby) on level 3 but found that it was not yet sealed. 11/15/2011: Reinspected the stud above the glass wall on level 3 by the passenger elevator lobby but the penetration to the boundary has not been sealed yet.	Open	
40	9/14/2011		Level 3	Dampers	There does not appear to be a way to access damper FSD-302 in open office 3011 for inspection/servicing 10/21/2011: The drywall at damper FSD-302 has been trimmed away to allow better access however the access to view and service the damper blades through the duct is by a piece of sheet metal taped to the duct. Need a permanent means of accessing and servicing the damper.	Open	Bombard

J56-549

Project No 95011

Issues and Resolution Log



Date: 12/8/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
41	9/14/2011		Level 3	Inspection Item	The zone boundary in on the north wall of open office 3011 is incomplete for inspection.	Open	
43	9/14/2011		Level 2	Inspection Item	10/21/2011: Glass has been installed on the north wall of open office 3011 as part of the smoke boundary but installation is not complete for inspection.		
46	9/14/2011		Level 2	Penetrations	Zone boundary between gridlines E and F along grid 4 is incomplete for inspection. This is the boundary between 2W and Lobby	Open	
47	9/14/2011		Level 2	Penetrations	Seal holes in the floor of 2nd floor electrical room 2029. Noted holes by transformer and by Strand Lighting panel	Open	
48	9/14/2011		Level 2	Inspection Item	Seal holes in the wall between the council chambers and security 2044 on level 2, inside the access panel.	Open	
49	9/14/2011		Level 2	Walls	The council chamber wall is incomplete and firestopping has not been completed across most of the length of the 2nd floor lobby.	Open	
50	9/14/2011		Level 2	Zone Boundary	There is a piece of drywall missing at FSD-216 on the inside of the KCLV control room next to the elevator. Piece missing is only a couple inches wide but there appears to be an incomplete seal between the damper and wall	Open	
52	9/14/2011		Level 2	Dampers	10/21/2011: The drywall at FSD 216 has not yet been repaired.		
53	9/14/2011		Level 2	Inspection Item	The KCLV Control Room 2048 on level 2 is shown as part of the zone boundary between the lobby and 2N zones. The area above the control room appears to be open between zones. Need to confirm if construction is complete in this area	Open	
57	9/14/2011		Level 1	Inspection Item	10/21/2011: Reinspected the KCLV control room and confirmed with WT that no additional construction was planned in the area. There is still no separation above the ceiling at the smoke zone boundary as shown on the SCDs.		
58	9/14/2011		Level 1	Construction	The gap in the drywall around FSD-214 exceeds the manufacturers allowable. Drywall needs to be repaired/replaced	Open	
J56-546					The zone boundary between 2E and the Lobby is incomplete and will need to be inspected at a later time.	Open	
					10/21/2011: Installation of the panels on the smoke boundary on level 2 at the lobby is proceeding but is not complete for inspection yet		
					Construction is incomplete in the area of reception 1111 and corridor 1008 (between zone 1N and Lobby) and between Lobby and Corridor 1143 (Lobby and zone 1E)	Open	
					The construction of the zone boundary in the area of edit #1 and 2 (rooms 1098 and 1099) on level 1 appears to utilize a soffit around the ductwork passing through the area. There appears to be a rated access panel missing in this area and some penetrations to seal	Open	

Project No 95011

Issues and Resolution Log



Date: 12/6/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/ System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
59	9/14/2011		Level 1	Penetrations	There are unsealed penetrations in tape storage room 1096 on level 1 above the ceiling.	Open	
62	10/21/2011		Level 1	Penetrations	There is an unsealed condensate line in the N wall of electrical room 1006 by elev 5 on level 1. There is also a hole in the S wall at floor level that needs to be repaired.	Open	
65	10/25/2011				11/15/2011: Rechecked electrical room 1006 however the penetrations are not yet sealed		
66	10/25/2011		Level 8	Penetrations	There are 2 plywood covers, one on either side of FSD-801 on level 8. Need to verify penetrations are sealed under plywood.	Open	
66	10/25/2011		Level 8	Penetrations	Level 8 Electrical Room 808, seal hole in floor at the "SatCon" unit. Also, data sleeves will need to be sealed once cables are pulled.	Open	
70	10/25/2011		Level 7	Penetrations	Level 7 passenger elevator lobby (4-pack) seal orange conduit above the lobby doors on the outside of the lobby.	Open	
71	10/25/2011		Level 7	Penetrations	Level 7, electrical room 7030B, repair firestop at orange conduit to thermostat through floor.	Open	
73	10/25/2011		Level 6	Penetrations	11/15/2011: The firestopping is still in need of repair in electrical room 7030 on the orange conduit to the thermostat. The back side is where the firestopping is missing.	Open	
74	10/25/2011		Level 3	Penetrations	Level 6, Elec Rm 6069 need to verify that any penetrations under plywood are sealed	Open	
75	10/25/2011		Level 5	Penetrations	Level 3, passenger elevator lobby (4-pack) repair firestop at yellow conduit on back wall. Conduit has been pulled away from the wall.	Open	
76	10/25/2011		Level 5	Penetrations	Level 5, passenger elevator lobby (4-pack) seal flex conduit penetration on outside wall of lobby above doors AND seal fire alarm penetration on the inside of the lobby above the doors.	Open	
77	10/25/2011		Level 2	Smoke Dampers	11/15/2011: TMCx reinspected the 5th floor passenger elevator lobby but found that the penetrations are not sealed. Also, two patches are required to the drywall on the exterior of the lobby at the top. The drywall is broken away around the sprinkler pipe and the electrical conduit.	Open	
78	11/15/2011		Level 3	Dampers	Need to verify that the out-of-wall installation of the smoke dampers is acceptable	Open	
80	11/15/2011		Level 4	Penetrations	Level 2, passenger elevator lobby (4-pack), need to repair the firestopping at the dual 2" conduits on the North wall, inside lobby.	Open	
81	11/15/2011		Level 2	Penetrations	Damper actuator on damper in the 3rd floor mechanical room is reported to be slipping on the shaft and needs adjustment.	Open	
82	11/15/2011		Level 2	Penetrations	Seal the orange conduit through the floor in the 4th floor mechanical room. Conduit is located with the other 4 inch risers.	Open	
83	11/15/2011		Level 2	Penetrations	Repair the hole in the wall of the exit passageway in stair 3 on level 2. Approx 1.5 inch hole on West wall	Open	

Project No 95011

Page 5 of 6

MOJ00731

JA 00005178

Issues and Resolution Log



Date: 12/6/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
82	11/15/2011		Level 1		All penetrations to the fire command center need to be firestopped	Open	
83	12/1/2011		Roof	Dampers	The end switches for AD-801, AD-802, AD-807 and AD-808 are not installed which will prevent the stair press fans from working in the proper sequence.	Open	
85	12/1/2011				Stair Press fan SP-1 fan and isolation dampers were not wired with control modules or power for testing	Open	
87	12/1/2011		Level 8		Level 8 fan coil duct smoke detectors and shutdown modules need to be connected to verify shutdown	Open	
89	12/2/2011				AH-6 required additional relays to be added to the unit and was not ready for testing of the duct smoke detectors.	Open	
90	12/2/2011		Basement	Duct Smoke Detectors	Was unable to set off the supply or return duct smoke detectors serving AH-1 in the basement.	Open	

J56-548

Project No 95011

Page 6 of 8

MOJ00732

JA 00005179

Carmen Militello

From: Adam Popiel <apopiel@tmcxsolutions.com>
Sent: Tuesday, January 17, 2012 12:37 PM
To: 'Bill Sittman (bsittman@bombardmechanical.com)'; Breck Hardesty; 'cgordon@jbace.com'; 'Clinton Burch (clinton.burch@whiting-turner.com)'; Chris Meiers; 'cyril@powersmiths.com'; 'Daniel Beck'; 'David Klein'; 'David Lee (David.lee@whiting-turner.com)'; 'David R. Phillips (davidphillips@forestcity.net)'; 'ean@lcelectric.net'; 'elliott.loyd@whiting-turner.com'; 'Fletcher Bittle (fletcher.bittle@whiting-turner.com)'; 'Jason Witterman (JWitterman@jbace.com)'; 'jnoble@nobleconsultingservices.com'; 'jspark@westarfire.com'; 'Kirk Kaeser (kirk.kaeser@whiting-turner.com)'; 'Mario "DINO" Iannucci (dino@bombardmechanical.com)'; 'mfritz@westarfire.com'; 'Michael Crowe (mcrowe@JMAarch.com)'; 'Michael.Floyd@whiting-turner.com'; 'michael.j.hahn@jci.com'; 'Nancy Brisneo-Rivera (nancy.briseno@whiting-turner.com)'; 'Phuong Nguyen'; 'Raul Hernandez (raul.hernandez@whiting-turner.com)'; Richard Christensen; 'Robert Messiana (Rmessiana@jmaarch.com)'; 'sschoch@bombardmechanical.com'; 'victor.koger@siemens.com'
Cc: Charlie Flood
Subject: CLV City Hall Updated Meeting Minutes and IR Log
Attachments: CLV CH Life Safety Issues Log - Issue date 2012-01-17.pdf; 2012-01-17 - LV City Hall Life Safety Meeting Minutes.pdf

All:

The meeting minutes from today's brief meeting are attached for your reference as well as the current IR Log. Please note that any of the items that do not affect the performance or testing of the smoke control system will no longer be tracked as part of the meeting minutes. The description for each of the affected items indicates this. Please let me know if you have any questions.

Sincerely,

Adam Popiel, EIT



www.tmcxsolutions.com

5575 S. Durango Dr, Ste 102

Las Vegas, NV 89113

Office: 702-252-7232

Cell: 702-604-5952

Fax: 702-252-7234

apopiel@tmcxsolutions.com

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Carmen Militello

From: Peter Fergen
Sent: Monday, June 20, 2011 3:54 PM
To: Roger Cates
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf OTHER DATA

FYI

-----Original Message-----

From: Kelly Clark [mailto:KellyC@nedco.com]
Sent: Monday, June 20, 2011 2:37 PM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Pete - here are the values from PQI. This should be the last piece of data you need from me.

-----Original Message-----

From: Tom Calo [mailto:tomc@issnv.com]
Sent: Monday, June 20, 2011 12:15 PM
To: Kelly Clark
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Kelly,

Below are the impedance values for the three units on quote number 82709:

DY0-60-045-480:120/208-150-ES-N3R-TP1-IR : 5% DY0-60-112-480:120/208-150-ES-N3R-TP1-IR : 4% DY0-60-500-480:120/208-150-ES-N3R-TP1-IR : 6.3%

Tell me if you need anything else.

Thanks,

Tom

From: Kelly Clark [KellyC@nedco.com]
Sent: Monday, June 20, 2011 7:57 AM
To: Tom Calo
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please advise.

-----Original Message-----

From: Kelly Clark
Sent: Tuesday, June 14, 2011 3:34 PM
To: Tom Calo
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Las Vegas City hall

-----Original Message-----

From: Tom Calo [mailto:tomc@issnv.com]
Sent: Tuesday, June 14, 2011 1:23 PM
To: Kelly Clark

J56.1-001

Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Kelly,

What is the project name? I can't really track stuff from your PO, and at first look through my files I didn't see that PO.

Tom

From: Kelly Clark [KellyC@nedco.com]
Sent: Tuesday, June 14, 2011 12:56 PM
To: Tom Calo
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Tom,

Can you get me documentation for item #2 below? This is for the transformers purchased on my PO# 269810.

Thanks,
Kelly

From: Peter Fergen [mailto:pfergen@mojaveelectric.com]
Sent: Tuesday, June 14, 2011 6:29 AM
To: Kelly Clark
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Can you answer this

From: Chris Meiers
Sent: Tuesday, June 14, 2011 6:28 AM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

More info needed by Hampton-Tedder.

From: Roger Cates [mailto:roger.cates@hamptontedder.com]
Sent: Monday, June 13, 2011 9:53 AM
To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please see below...

Thanks

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [mailto:nk@terrapowersolutions.com]
Sent: Thursday, June 09, 2011 9:13 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Roger,
Additionally, we need a few more data to finalize:

J56.1-002

1. Submittal data for the following panels: PSG, EH1,4A;EHBA,EHRA (missing)
2. Low voltage transformers percentage of impedance Z% (swgr supplier to obtain) 3. UPS Bypass breakers manufacturer and type.
4. Stand-by generator submittal data (if possible)

Once we have these, study will be ready in 3-4 days.

regards

Ned

From: Roger Cates [mailto:roger.cates@hamptontedder.com]
Sent: Thursday, June 09, 2011 7:28 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

See question below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [mailto:cmeiers@mojaveelectric.com]
Sent: Thursday, June 09, 2011 7:25 AM
To: Roger Cates
Cc: Peter Fergen; Robin Moran
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
Exactly what information do you need, just fault level?

Regards,
Chris Meiers

From: Roger Cates [mailto:roger.cates@hamptontedder.com]
Sent: Wednesday, June 08, 2011 3:03 PM
To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [mailto:nk@terrapowersolutions.com]
Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
We shall need utility contact to obtain fault level from Nevada Power.

J56.1-003

Please get me a contact or request this data from the client. I have a good progress on study. If you get me utility data, will be able to finish by the end of the next week.

Nenad

From: Roger Cates [mailto:roger.cates@hamptontedder.com]
Sent: Tuesday, May 31, 2011 7:15 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

I think we have this job.. it is one we estimated a few weeks ago. I am trying to confirm

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Peter Fergen [mailto:pfergen@mojaveelectric.com]
Sent: Friday, May 27, 2011 7:47 AM
To: roger.cates@hamptontedder.com
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

-- This message has been checked by ESVA and is believed to be clean.

--

This message was scanned by ESVA and is believed to be clean.

--

This message was scanned by ESVA and is believed to be clean.

J56.1-004

MOJ01406

JA 00005184

Carmen Militello

From: Crystal Teissedre
Sent: Tuesday, January 18, 2011 3:06 PM
To: John Claudio
Cc: Chris Meiers
Subject: City Hall RFI Log 01/18/11
Attachments: Las Vegas City Hall RFI Log 011811.pdf

Crystal Teissedre
Project Manager Assistant
Mojave Electric
Phone (702) 798-2970
Fax (702) 798-3740

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J56.1-005

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00136	01/16/11	Mojave Electric (Richard Christensen/ Chris Moiers)	Whiting-Turner	Level Two Area C Mounting Issues for Type FD1 Picture Lights	E2.02C Delta 8/ Bulletin #4, A17.11.01 Delta 77 Bulletin #3 and Fixture Type FD1 Specification Sheet and Mounting Instructions.	Drawing E2.02C has note #5 associated with the presidential picture lights shown on the South wall of the Council Chambers. Note #5 calls to provide remote LED driver and to locate it in an accessible and ventilated location. There are several issues associated with this installation. (1) Drawing A17.11.01 appears to show the fixture mounted above each fixture secured to the wall-please confirm. (2) The fixture specified (Type FD1) installation instructions show exposed low voltage wiring from the base of the wall bracket. This installation will be unacceptable because all wiring needs to be protected from physical damage. (3) the wall mounted installation bracket does not allow for installation of a box behind the bracket to conceal and protect the wiring. (4) Fixture type FD1 only comes with six foot long fixture wires, so a box will be required to make the connection from the fixture to extend to the remote driver required to operate the fixture. (5) Mojave electric requires a detailed dimensioned drawing showing exactly where each picture will be mounted and the elevation at which the fixture type FD1 needs to be mounted in relation to the picture. (6) please provide Mojave Electric with a				TBD

J56.1-006

MOJ01408

JA 00005186

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00136	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Whiting-Turner	Level Two Area C Mounting Issues for Type FD1 Picture Lights	E2.02C Delta B/ Bulletin #4, A17.11.01 Delta 7/ Bulletin #3 and Fixture Type FD1 Specification Sheet and Mounting Instructions.	Drawing E2.02C has note #5 associated with the presidential picture lights shown on the South wall of the Council Chambers. Note #5 calls to provide remote LED driver and to locate it in an accessible and ventilated location. There are several issues associated with this installation. 1. Drawing A17.11.01 appears to show the fixture mounted above each fixture secured to the wall- please confirm. 2. The fixture specified (Type FD1) installation instructions show exposed low voltage wiring from the base of the wall bracket. This installation will be unacceptable because all wiring needs to be protected from physical damage. 3. the wall mounted installation bracket does not allow for installation of a box behind the bracket to conceal and protect the wiring. 4. Fixture type FD1 only comes with six foot long fixture wires, so a box will be required to make the connection from the fixture to extend to the remote driver required to operate the fixture. 5. Mojave electric requires a detailed dimensioned drawing showing exactly where each picture will be mounted and the elevation at which the fixture type FD1 needs to be mounted in relation to the picture. 5. please provide Mojave Electric with a location for installation of all drivers required to operate the FD1 fixtures that is accessible and well ventilated.				TBD
00135	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	NEDCO-Lighting	Level Two Area C Lutron Lighting Controls	E2.02C Delta B/ Bulletin #4	Drawing E2.02C has several drawing notes referencing Lutron Lighting Controls. Please provide a set of drawings from Lutron showing type and size of boxes required along with connection diagrams to each box.				TBD
00134	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Whiting-Turner	Level Two Area C Room 2048B FM200 Systems and Dry Pipe Air Compressor Connections	E3.02C Delta 7/ Bulletin #3, FA2.02C and FP-2 (Fire Protection Report Sketch)	Drawing E3.02C at grid lines 8 & EE/ FF shows notes #27 & #29 which call for connection to an FM200 System and a Dry Pipe Air Compressor. Neither of these items are shown on the fire alarm drawings for this area (see attached drawings FA2.02C and FP-2) Please confirm whether or not an FM200 system is required in this area. If it is required, please provide updated FA series drawings along with all information regarding the Dry Pipe Air Compressor.				TBD

J56.1-007

MOJ01409

JA 00005187

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00133	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Siemens FA	Level Two Area C Room 2048B FM 200 System	E3.02C Delta 7/ Bulletin #3, FA2.02C and FP-2 (Fire Protection Report Sketch)	Drawing E3.02C at grid line B & EE/ FF shows note #27 which calls for a connection to an FM 200 Control Panel. There is nothing in the Siemens FA drawings showing details for connection to an FM 200 System. Furthermore, drawing FA2.02C does not show an FM200 System on Level 2. Drawing FP-2 of the Fire Protection Report has note #11 calling for specific rooms to be protected by pre-action/ clean agent suppression systems (other than room 2048B). Please provide information as to connection for FM200 systems and reasons for not showing the pre-action /clean agent suppression systems in rooms indicated by the Fire Protection Report.				TBD
00132	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Whiting-Turner	Level Two area C Room 2035 Microwave Elevation	E3.02C Delta 7/ Bulletin #3 & A17.02.01 Delta 6/ Bulletin #2 Detail #7					TBD
00131	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Whiting-Turner	Level Two Area C Curved Lighting Truss Assembly Coordination with Motorized Curtain Assemblies	E3.02C Delta 7/ Bulletin #3, A14.37 and A16.31	Drawing E3.02C at grid lines 8-10 & AA-DD Notes #17 & #18 call to provide 20A, 205V, 3 phase manual contactor switch for connection to motorized curtain along with a J-box for motorized curtain controls. Provide boxes, conduit, wire etc, as required for a complete & operable system. When you overlay drawing A14.37 on Drawing E3.02C they show the East and West locations for curtain wall connections would be correct if the curtains had opposite connection points from each other. Drawing A14.37 actually shows the middle curtain to be North of the location shown on E3.02C. Drawing A14.37 also shows an overlap between the curtain walls and the lighting trusses, this cannot be correct. We also need to know what types of controls are being provided by the motorized curtain assembly vendor to be able to properly install our raceway system. It is the opinion of Mojave Electric that a coordination meeting needs to be held between all parties involved with the installation of the curtain walls.				TBD
00130	01/16/11	Mojave Electric (Richard Christensen/ Chris Meiers)	Whiting-Turner	Level Two Area C Metal Detector Power Location	E3.02C Delta 7/ Bulletin #3	Drawing E3.02C at grid lines S7 & B8/CC Note #11 calls for a 120V receptacle for a metal detector. Please provide exact location dimensions for the detector leg so the conduit can be stubbed-up in the proper location.				TBD

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	WT RFI #	RFI Response Date	Response	Cost Impact Y/N
00123	12/23/10	Mojave Electric (Richard Christensen/Chris Meiers)	Whiting-Turner	Level 4.5 Mechanical Mezzanine Electrical and FA Connections Missing	No drawings showing this installation	There is a mechanical mezzanine above the council chambers on what is called level 4.5. The structure is built such that an area has been created to house the mechanical equipment and there are no convenience receptacles, lighting or fire alarm in this area. Because of the equipment that resides in this area Mojave Electric is of the opinion that these items should be included in this area. Presently there are no electrical or fire alarm drawings for this area.	0569	01/17/11	Due to grading constraints at the first street entrance, the height of the loading dock was set at 4'-6". A 4'-0" high dock would create an excessively steep slope away from the dock (7.5%)	TBD
00123	12/27/10	Mojave Electric (Richard Christensen/Chris Meiers)	Whiting-Turner	Level One Area A Audio/Video drawing does not show any items to be installed	TA3.01A Original Issue	Drawing TA3.01A (Audio/Video) does not have anything shown. We checked the drawing log and there has not been a revision to this drawing since the original issue. Please confirm that there is not any Audio/Video items required for this area. If there are Audio/Video items required, please provide detailed drawing showing layout of each item.	0564	01/07/11	There are no Audio/Visual requirements for room 1021	TBD
00127	12/27/10	Mojave Electric (Richard Christensen/Chris Meiers)	Whiting-Turner	Level One Area A Room 1024 Break room; clarify microwave receptacle locations	E3.01A Delta 7/ A17.01.01 Bulletin #3	At grid lines 2/3 & E, drawing E3.01A- note 8 requires coordination with architect for rough in locations for microwave oven. After review of the elevation detail #6 on drawing A17.01.01 there is not an elevation note dictating which outlet is the microwave and no upper cabinets are shown which leads us to believe that it sits on the counter. Please provide location details as called out on the drawing	0563	01/07/11	Receptacles are shown in the Architectural Interior Elevations. Please mount them as shown and at 1'-1" from top of counter top to bottom of receptacle - see attached sketch.	TBD
00126	12/27/10	Mojave Electric (Chris Meiers)	Whiting-Turner	CR 112-Request for KCLV drawings	AVE2.02C Delta 2	At grid lines 10 & B3: (Production Interroom Station) there is an added reference note to review KCLV drawings. Please provide these drawings to clarify issues on the project.	0550	01/07/11	Drawings for KCLV system have yet to be completed. Estimated location is on 2nd floor control room for KCLV.	TBD
00125	12/23/10	Mojave Electric (Chris Meiers)	Whiting-Turner	CR 112 - Added Boxes in Custom Millwork for AV Distribution	AVE2.02C Delta 2	At grid lines 9/10 & CC, a note has been added to show 4 boxes added in custom millwork for AV distribution. Please clarify as to what conduits, size, quantity and destination go to these boxes. This information is needed to complete cost impact review of CR 112	0550	01/07/11	sizes are indicated on AVE2.02C (1) 1-1/4" & (2) 3/4" to Hoffman Terminal Can in Control Room. There are 7- total stub ups, use 4 that are closest to the position of the distribution boxes, also reference AVE5.03 for positioning of the distribution box. Sizes are estimates until coordination is done with Millwork integrator, this is done by AV integrator	TBD
00124	12/23/10	Mojave Electric (Chris Meiers)	Whiting-Turner	Hoffman Cabinet	AVE2.02C #2	At grid lines 8 & EE, a note "Hoffman" was added for the broadcast terminal cabinet. Please clarify size and type of Hoffman cabinet required	0550	01/07/11	Hoffman Box is 36"x36"x12" Model # AMC363612R (cut sheet attached)	TBD
00123	12/16/10	Mojave Electric (Chris Meiers)	Whiting-Turner	Fixture type JM-2		Per Submittal for Fixture Type JM-2, please clarify the location of the lamps to be placed in the fixture. There are (4) lamps for JM-2 and JMA has requested (2) medium reflectors and (2) wide reflectors.				TBD

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00122	11/24/10	Mojave Electric (Chris Meiers)	Whiting-Turner	Conference Room 0042 Cpl	TA3.00B Delta 4	Large conference room 0042 shows a Cpl on the wall next to the entrance. We cannot find a detail showing box dimensions. Please provide this information.				TBD
00121	10/25/10	Mojave Electric (Richard Christensen)	Whiting-Turner	Basement Level Security Access Control Wiring	TS1.03 Delta 4	Basement level security notes #1 & #2. Drawing TS1.00 Delta #4 has Note #1: 1-1/4" C to TR-0007 for access control wiring. Note #2: 1-1/4" C to TR-0048 for access control wiring. TR-0007 & TR-0048 are a storage room and IT managers office respectively. Please clarify which rooms these conduits terminate in.				TBD
00120	10/22/10	Mojave Electric (Chris Meiers)	Whiting-Turner	Device Colors	Spec Section 26 27 26 (2.1)(A)	Provide device finish colors per specification section 26 27 26 (2.1)(A) this includes switches/receptacles/ lighting controls etc.	0483	11/08/10	Public areas (Lobby, Prefunction, Council Chamber, Cafe): Brushed aluminum (silver) faceplates with ivory devices. Office floors: ivory devices and ivory faceplates.	TBD
00119	10/21/10	Mojave Electric (Phil Zane)	Whiting-Turner	EC-1 & EC-2 Feeder Deletion	ES.01 & ES.02 Bulletin 4 Delta 8	Sheet ES.01 bulletin 4 delta 8 drawings indicate the deletion of conduit and wire feeding EC-2 shown on sheet ES.08A bulletin 3 delta 7. Sheet ES.02 bulletin 4 delta 8 drawings indicate the deletion of conduit and wire feeding EC-1 shown on sheet ES.08A bulletin 3 delta 7. On ES.058A bulletin 3 delta 7 the VFD, conduit, wire and controls are still shown. Are these to be removed also? Please advise.	0523	12/07/10	12/7/10 - Connections are not deleted. The connections will be changed based on the actual submitted equipment. I think they will be smaller electrically. Still working on it - TBD Answer by Clint Gordon/ JSA 12/7/10 12/17/10- These feeders and circuit breakers are to be revised based on the actual supplied equipment, see attached	TBD
00118	10/14/10	Mojave Electric (Phil Zane)	Whiting-Turner	Specialty fixtures PM1 and PM3.	E2.02A & E2.03A Bulletin 4 delta 3 electrical plans	(1) Fixture PM3 on sheet E2.02A is being fed from panel LR2B which is a 208/120 volt panel. Note that this fixture has been changed to a 277 volt fixture. (2) On Drawing E2.03A, there is (1) Fixture PM1 being fed from panel LR2B which is a 208/120 volt panel. Note that these fixtures have been changed to 277 volt fixture.		12/07/10	12/6/10 - Voided per Chris Meiers 12/7/10 - Fixtures PM3 & PM1 are 277 volt. Homerun LR2B-4 is a relay panel. See sheet ES.07 for circuit H2BA-14 Answered by Clint Gordon/JSA 12/7/10	TBD
00117 R1	10/15/10		Whiting-Turner	2nd Floor Level Plaza Area		Per JMA response to RFI 459 dated 11/25/10, "the 2nd floor plaza bench LED lighting and all associated conduit, power supplies and wiring is to be deleted." Please confirm that by deleting the LED lighting on the Level 2 Terrace, no other lighting systems and/or requirements will be affected.	0459R 1	11/22/10	No other lighting systems are impacted. Refer to attached sketch for deleted circuiting and lighting Answered by Clint Gordon - JSA 11/16/10	TBD

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00117	10/14/10	Mojave Electric (Nolan Carl)	Whiting-Turner	2nd Floor Level Plaza Area	A2.02D (132 V1 A2.02D.1), MEI-PL-02-01	The only pole base detail located in the drawing set details out a ground mounted pole base. The (2) pole base details needed are for poured in place roof top mounts. 1. Pole base detail for lighting fixture BM3 is needed. Provided detail on MEI-PL-02-01 please review radline if necessary, and/or approve. 2. Pole base detail for exit signage XS pole mounted in landscaped area. Provided detail on MEI-PL-02-01 please review radline if necessary, and/or approve. Sheet: A2.02D(132 V1 A2.02D.1) shows a square bench with light fixture SZ7A under the front ledge of the bench. Need spec for bench so that we can layout wire paths to the LED fixture SZ7A mounted on the underside of the bench. Please provide location of transformer power pack for fixture SZ7A to be located in ceiling space below each bench for accessibility and dry conditions for device longevity. If not acceptable provide alternative.	0459	10/25/10	The 2nd floor plaza bench LED lighting and all associated conduit, power supplies and wiring is to be deleted	TBD
00116	10/14/10	Mojave Electric (Nolan Carl)	Whiting-Turner	2nd Floor Level Plaza Area - Power Pack for Motion Detectors	E2.02D (532 V2 E2.02D)	The electrical design shown on E2.02D(532 V2 E2.02D.pdf) shows a power pack for motion detectors. 1. If motion detectors are to be used where are they to be placed. Ground mounted? Pole mounted? 2. If photocell and timer is to be used. Building mounted? Pole mounted? First Light in circuit mounted? Timer to be collocated at designated circuit panel? 3. Verbal direction per Rober Messiana was photocell and timer. Please confirm 4. Response for mounting location still pending.	0454	11/22/10	These are intended to be low voltage power supplies to the lighting. No motion sensors are intended. Exterior lighting control per E4.01. Answered by Clint Gordon - JBA 11/15/10	TBD
00115	10/14/10	Mojave Electric (Nolan Carl)	Whiting-Turner	2nd Floor Level Plaza Area - Planters and Benches	A2.02D (132 V1 A2.02D.1) & E2.02D (532 V2 E2.02D)	Sheet A2.02D (132 V1 A2.02D.1.pdf) shows square planters and benches. Sheet E2.02D (532 V2 E2.02D.pdf) shows round planters and semi-circular benches. Per verbal response from Rober Messiana of JMA is square planters and benches shown on A2.02D is correct. Please confirm.	0453	10/25/10	Refer to sheet A2.02D and landscape drawings for correct planter and bench layouts	TBD
00114	08/30/10	Mojave Electric (Chris Meiers)	Whiting-Turner	Standby Generator Enclosures		Please specify color for standby generator enclosures. Standard color options are CAT yellow, tan or white. Any other color options (by Sherwin Williams) would have cost impact to be	0375	09/07/10	The generator enclosure color is to be tan	TBD

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00113	08/27/10	Mojave Electric (Dan Craven)	Whiting-Turner	Level 1 Cable Tray	T2.01	During our coordination we have found the cable in area "a" on level 1 to be in conflict with the catwalk. Please see the attached files showing the design intent and the latest cable tray routing currently in the model. Please advise on an alternate route.	0382	09/07/10	WT RFI - Refer to T2.01 cable tray TR-0A on Level 1 and confirm if re-route is acceptable per attached sketch. Cable tray must be re-routed due to insufficient space within the cat walk. Answer - Confirmed (by Clint Gordon dated 09/03/10)	TBD
00112	08/24/10	Mojave Electric (Dan Craven)	Whiting-Turner	Grand Stair LED Lighting	E2.02A	Yesco vendor shop drawings require 24-120volt circuits for power supplies. The loads are as follows: (1)-1344va, (2)-732va, (3)-1320va, (4)-1320va, (5)-732va, (6)-960va, (7)-960va, (8)-1920va, (9)-1320va, (10)-1920va, (11)-1920va, (12)-1920va, (13)-960va, (14)-960va, (15)-1440va, (16)-1440va, (17)-1440va, (18)-960va, (19)-960va, (20)-732va, (21)-1020va, (22)-732va, (23)-1020va, (24)-360va. Please advise.				TBD
00111	08/23/10	Mojave Electric (Dan Craven)	Whiting-Turner	Basement Level Cove Lighting	E2.00A	In the most recent model for Graphics Room 0009, the architectural cove profile has been changed. Fixture type "T8" cannot be installed in this type of ceiling. Please advise.	0369	10/11/10	Refer to attached sketch for design of soffit light cove at graphics room. Answered by Robert Messina 10/11/10	TBD
00110	08/19/10	Mojave Electric (Dan Craven)	Whiting-Turner	Level 2 Security Floor Boxes	TS1.02	Level 2 security drawing indicates panic buttons to be floor mounted. Please provide specifications of what type of floor box or panic device is required.				TBD
00109	08/19/10	Mojave Electric (Dan Craven)	Whiting-Turner	Level 2 Floor Boxes Area C	WT RFI #00179	In WT RFI #00179 response, sketch of floor box locations for area C/D indicates to coordinate floor box location with metal detector manufacturer. Also, the dimensional data provided for the floor boxes in the seating area is based on the seating arrangement. Please provide Metal Detector Manufacturer information as well as the latest CAD background that reflects the new seating positions.				TBD
00108	08/09/10	Mojave Electric (Hampton Tedder)	Whiting-Turner	Submitted Faceplates	Drawing T0.01/ Spec Section 27.15 00/ Hampton Tedder RFI #3/ Mojave Systems RFI #4	Per Notice 1 - Contractor submitted samples of faceplates and jacks for approval prior to release of order. Samples included television outlet faceplates, voice, data, time clock, printer outlets, etc., has the Owner, insert color requirements by system and color, i.e. data - blue, voice - gray, etc. It is assumed per Notice 2 that all food service areas require stainless steel faceplates. Note 2 indicates that we are to provide 8 position RJ45 connectors. Blue for data and gray for television.				TBD
00107	08/04/10	Mojave Electric (Dan Craven)	Whiting-Turner	Council Chambers 240 Cad File	E2.02C	Please provide CAD file for the seating layout in the Council Chambers 2040 on Level 2 area C. This will assist in placement of chair aisle lights.				TBD
J5001-012	07/22/10	Mojave Electric (Dan Craven)	Whiting-Turner	Breakroom Receptacles	Drawing E3.00A	Break room receptacles on circuit LBBC-30 & 32 per not 12 refers architectural elevations for rough in requirements. Elevation details do not provide enough information to establish finish floor heights for receptacles. Please advise.			In reference to Mojave RFI 106 - Breakroom Receptacles, please refer to 5/A17.00.01 which calls out the counter elevation at 2'-9 1/2" AFF. Receptacles are for microwave ovens.	TBD

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00105	07/19/10	Mojave Electric (Dan Craven)	Whiting-Turner	Communications Room Lighting	Drawing E2.00B	In the basement level communications room 00050 the design calls for typ/A2" fixtures which is a recessed 2' x 4' fluorescent. Currently in the model, there is no ceiling in the space. We will need direction as how to proceed in this area, either try to hang this T-grid fixtures without T-grid or specify a non-recessed fixture for this area. This drawings shows the problem with ductwork interference and light placement support. (See attached drawings reflecting ductwork to be installed).	9376	09/13/10	Provide type 'C' fixtures. Chain hang from above structure. Adjust locations as needed to avoid duct work.	TBD
00104	07/15/10	Mojave Electric (Chris)	Whiting-Turner	Open Office 0051 Ceiling height Conflict with Beam)	E2.00B, E3.00B	Whiting-Turner requested relocation of a bank 4 conduits out of corridor to new location per attached drawing (ME-0001). The new route forces the conduits below the concrete beam (ME-0002) therefore exposing the conduits. Right now the beam is exposed below the existing ceiling height. Is this acceptable to have the conduits exposed? Possible Solution: Lower ceiling height in this area.		07/16/10	(Per email from David Lee dated 7/16/10) In regards to RFI 104- we requested Mojave take a look at the alternate route. If it doesn't work please find alternate. If no alternate is available, I will be sending over our proposed ceiling changes for your review prior to submission to A/E and we can review this area.	TBD
00103	07/15/10	Mojave Electric (Dan Craven)	Whiting-Turner	Conference Room Soffit Lighting	Drawing E2.00B	In the Enlarge Conference Room 0042 there are (4) soffit lights type "F2" fixtures in conflict with the concrete beam. Please advise.		07/30/10	Per email dated 7/30/10 - Ceiling lowered in large conference room. Draw soffit lights to correct ceiling elevation at 8" AFF	
00102	07/15/10	Mojave Electric (Dan Craven)	Whiting-Turner	Men's & Women's Locker Electronic Valve J-box	Drawing E3.00A	In the men's and women's locker area there are junction boxes for the electronic valves. What are the mounting heights? Please advise.		07/30/10	Per email dated 7/30/10 - See attached submittal for height/location of electrical boxes. Toilets are battery powered. Sink Faucets will need power boxes under the counter per typical installations	
00101	07/05/10	Mojave Electric	Whiting-Turner	Fixture PM2/ PM3 Voltage Issues	E2.03A, E3.02, E6.07, E6.01	Drawing E2.02A shows fixture types PM2 & PM3 being fed from LP28-4. LP28-4 is fed from H28A-14 (277V). Both the fixture schedule and submittal show these fixtures to be 120V. Please verify which voltage is to be used for both fixtures. Possible Solution: Change fixture voltages to 277V		07/08/10		TBD
00100	07/05/10	Mojave Electric	Whiting-Turner	Fixture PM1/ PM2 Voltage Issues	E2.03A, E6.00, E6.02	Drawing E2.03A shows fixture types PM1 & PM2 being fed from E41A-23 (277V). Both the fixture schedule and submittal show these fixtures to be 120V. Please verify which voltage is to be used for both fixtures. Possible Solution: Change fixture voltages to 277V.		07/08/10	Please refer to attached correspondence from JMA regarding Interior Lighting submittal 0785-265100. This submittal was returned to Mojave on 5/18/2010 "Approved as Noted" with the following note for PM1, PM2, and PM3 fixtures. - Div 265100/Note 14 - Fixtures JM1, JM2, RF1, WF1, WF2, FD2, PM1, PM2, PM3, and SZ3 are 277V	TBD

J56.1-013

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00099	06/30/10	Mojave Electric	Whiting-Turner	Two Slabs Shown for Level One Between DD & A	E2.01.C	BIM model is showing two separate elevations on grid line #8 between grid line #8 and #9 elevation is at 17'. Between grid line #9 and #10 elevation is shown at 15'. Please confirm this is correct. (See attached drawing).		07/06/10	In regards to MOJ RFI 099, the separate elevations on Level 1/C are correct. Please refer to sheets A2.01S and/or S2.01C. Between grid lines 8 and 9, the elevation is 100'-0" and between grid lines 9 and 10, the elevation is 99'-0".	TBD
00098	06/30/10	Mojave Electric	Whiting-Turner	Stair #2 Light Elevation at Landing Will be Below 7'-4" Requirement by UBC	E2.00B	Per UBC code, cannot have anything protrude more than 4" from a wall into egress corridors in stair #2. The light below the landing (see attached drawing) will be at 7'-0" because of stair landing steel. Please advise as to a solution or variance from building department. Possible solution: #1 - Variance from building department. #2 - Mount box below the stair landing red iron and surface mount conduit from box into the beam pocket below the landing.	0305	07/15/10	The light fixture may be relocated to the underside of the stair landing metal pan. The conduit should be routed on the underside of the landing from the nearest adjacent wall directly to the fixture. There should be no exposed conduit mounted to the wall.	TBD
00097	06/30/10	Mojave Electric	Whiting-Turner	Switch for Lighting in Data Center Room #0065 at Second Egress	E2.00.D	Room #0065 (Data Center) has two means of egress but only shows one switch at double doors and not at second egress to corridor. Possible Solution: Add switch at corridor egress	0304	07/12/10	Relocate switch as indicated on attached sketch	TBD
00096	06/16/10	Mojave Electric	Whiting-Turner	Indoor Combination Starter	E2.08A & E5.02	Sheet E3.08A shows EF-3 as being fed with a 40 amp breaker from Panel HRBA circuits 2, 4, and 6 with an indoor combination starter. This makes the combination starter at 10 horsepower to be a Size 2 NEMA 1 Starter. The single line drawing sheet E5.02 calls for EF-3 to be fed from HDPRBA from a 25 amp breaker fed with #10 wire to an outdoor location and a weatherproof combination starter. That would make it a Size 1 NEMA 3R Starter. 1. Are there two EF-3? 2. Which power source is correct? 3. What horsepower is the motor for EF-3? 4. Is the starter required to be NEMA type 1 or NEMA type 3?	0272	06/21/10	EF-3 is accurate on Sheet E3.08A and shall be connected to panel HRBA as indicated. EF-3 is 15HP. Starter shall be NEMA type 1. EF-3 on E5.02 is incorrect and shall be deleted from plans.	
00095	06/14/10	Mojave Electric	Whiting-Turner	Wiring Diagrams for LED Strip Lighting on Glass Fins in Area A		DESCRIPTION: Preliminary vendor supplied wiring diagrams for the LED strip lighting on the glass fins in Area "A" Indicates individual 20ampere 120volt circuits for power supplies. Locations are as listed below: Level 6 - (4 - 20 amp 120v circuits) Level 4 - (4 - 20 amp 120v circuits) Level 3 - (4 - 20 amp 120v circuits) Level 2 - (2 - 20 amp 120v circuits) Level 1 - (2 - 20 amp 120v circuits) Basement Level - (1 - 20 amp 120v circuit) Please advise panel and circuit designation for the circuits required.	0264	06/21/10	This design requires an additional three circuits based on the above information. Refer to sheet E4.02 for the original circuiting. New circuiting as follows: Level Relay Circuit 6 LREF7-1,2,3,4 L7AB-2,4,5,8 4 LREF7-5,5,7,8 L7AB-10,12,13,15 3 LREF1-5,7,8,9 L1BA-12 & L1BBS-2,4,6 2 LREF1-4,5 L1BA-8,10 1 LREF1-2,3 L1BA-4,6 Bent L1BA-2	

J56.1-014

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00094	06/14/10	Mojave Electric	Whiting-Turner	10 Mil. tape in lieu of PVC Coated Conduit	Spec Section 05 33	Specification Section 26 05 33 (3.02) H (2) calls for rigid steel elbow and riser for transitions from below grade on slab to above grade/ slab above the floor to be PVC coated. Industry standard has been to double-wrap these items with 10 mil tape. This has been an accepted means and methods by the AHJ through out the valley including utilities. Can we use double wrapped 10 mil tape in lieu of the PVC coated conduit?	0267	06/22/10	This is acceptable	
00093	06/11/10	Mojave Electric	Whiting-Turner	Missing Symbol (box with a "F" inside) on Symbol List	E200.A Delta 4, E00.01 Delta 3	Drawing E2.00A shows two items in between grid line 3 and 3.9 in south wall of room #006 (4 HR vault) that are not listed on the symbol list on drawing E0.001. These items are a box with the letter "F" inside. Please give a description as to what this is for.		06/11/10	Per conversation with JBA the "F" boxes mentioned in the RFI are fire dampers that were mistakenly left on the sheet from the mechanical xref.	
00092	06/02/10	Mojave Electric	Whiting-Turner	Production Control Room Floor Boxes	T3.01C, E3.01C	Drawing sheet T3.01C shows floor boxes for data in the floor of the Production Control Room with a note to "coordinate with power". Drawing E3.01C does not show floor boxes in this room. Are combination floor boxes required, or are there going to be individual, separate floor boxes for power required in this room?	0253	06/21/10	No combination floor boxes and separate floor boxes for power was not requested or required	
00091	06/02/10	Mojave Electric	Whiting-Turner	SM1 and SM1A Elevation	ES1.01, A9.01.4	Sheet ES1.01 shows fixture type SM1 and SM1A mounted to the PV trees on the South plaza of the building. The details of the structure of the poles show the light fixture on sheet A9.01.4 with a note to "verify" elevation. There are four different types of poles constructed in four different heights and installed at four different elevations on grade. At what elevation above the pole base are the fixtures to be installed on each of the poles? This information is critical to the fabrication process so that the fixture mounts can be appropriately installed during the construction of the poles.	0252	06/22/10	See attached drawing for mounting heights of SM1 and SM1A fixtures	

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00050	06/02/10	Mojave Electric	Whiting-Turner	Cable tray "water falls" in Edit room	T2.01	The response to RFI 150 (ME 00082) was to review Drawing T2.01 for the elevation of the cable tray in the editing rooms. There are two separate notes that might apply on Sheet T2.01 that describe the elevations to cable tray in the TV Studio area. One note states "TYPICAL BELOW CEILING OPEN CABLE TRAY 8' AFF" in the margin outside the studio. The other is a general page note that states "TOP OF CABLE TRAY IN TV STUDIO TO BE 13' AFF. ADJUST CABLE TRAY HEIGHT WHERE CONNECTED TO TRAY IN HALLWAYS." Which note applies to the editing room? Does the typical note to install at 8' AFF apply to all the tray in that branch that supply the surrounding areas that are fed from TR-1A? At what point does the 8' cable tray begin?	0251	06/14/10	The note that states "top of cable tray in tv studio to be 13' AFF" only applies to room 1088 Studio.	
00089	05/25/10	Mojave Electric	Whiting-Turner	Exterior Flood Lights	ES1.01, A5.02	Sheet ES1.01 shows a series of type "WC3" exterior floodlights along the North elevation of the building. Sheet A5.02 Detail D shows the same face of the building, and while trying to establish specific placement of these fixtures it was discovered that the lighting layout is different from the electrical site drawing sheet. The exterior detail also shows fewer light fixtures than the electrical sheet. Which sheet is to be used for purchase and installation of these fixtures?	0244	05/14/10	The exterior lighting is to be located per sheet ES1.01	
00085	05/21/10	Mojave Electric	Whiting-Turner	Junction Boxes along Clark Ave	T1.00S	Sheet T1.00S shows a series of junction boxes along the South perimeter of the site along Clark Avenue between the curb and the sidewalk. Note 1 on that sheet calls for a fiberglass Hoffman model #UJ606020 box with rack angles (see attached cut sheet). These would be standing vertical in the planter approximately a foot behind the curb, but no elevation to top of box is given. What height to top of box are these to be installed? Are these protected by a series of bollards to avoid damage by incidental contact by car doors, etc. Because they are mounted in a planter, will they be installed on top of a concrete base for structural support? Please provide MoJave with additional details as to how these cans will be permanently installed.	0245/ 0245R 1	07/23/10	The boxes are to be installed vertically within an in-ground polymer concrete, or fiberglass reinforced polymer vault. The top of the vault should be flush with the finished grade, and sized to provide code required clearances. 10/01/10 - It is acceptable to use the Jensen precast vault in lieu of the specified Hoffman box	

J56.1-016

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Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact V/N
00087	05/19/10	Mojave Electric	Whiting-Turner	Elec Room 134 - Gear Layout	E3.01C DELTA 3, E3.01D	Electrical room 134 shows the gear layout all along the back wall of the room. When all of the gear dimensions were added together, the fit-up does not fit. One issue is that these are actually two pieces of FP gear, the drawings only show one. We would like to move FP-2000 to where the entrance door is and relocate the entrance door. (See attached drawing for reference.)	0225	06/01/10	The wall between the electrical room and the elevator hoistway is to be moved 2'-0" to the East, to enlarge the electrical room and reduce the width of the elevator hoistway. Refer to attached sketches.	
00086	05/13/10	Mojave Electric	Whiting-Turner	Under-slab drain pumps	C5.01, E3.00D, ES1.02	Sheet C5.01 shows (2) Sewage ejector pits at the loading dock for under-slab drainage. Drawing sheet E3.00D shows (1) 1 1/2" conduit each for power and controls to future under-slab drain pump. Sheet ES1.02 shows a single manhole location at the Northeast corner of the Loading Dock area. Will the single 1 1/2" conduit for each system be adequate to supply the electrical requirements of both pumps? These pumps are typically connected via a sealed cord connection and those cords are specific lengths as provided by the manufacturer of the pump. Will there be a remote alarm/control station at the pump location which will serve as a termination point for these cords, or just the single connection point at the basement Booster Pump Room which is over 100' away?	0246	06/14/10	Conduits are for future pumps. Pump information unknown at this time. Original direction was to provide conduits for one pump. We suggest providing a second set of conduits for the second manhole. Coordinate pump and manhole requirements with civil.	
00085	05/12/10	Mojave Electric	Whiting-Turner	Metering on Relay Cabinets	E4.01	Drawing E4.01 Note 5 calls for a J-box for metering equipment for measurement and verification mounted on each relay cabinet. E4.01 also shows a "blown-up" view of this installation calling for a single feed from a branch panel with C.T.s on phases A, B, & C. This detail is incorrect. The way the relay cabinets are laid out, each circuit that is required to be controlled by the relay cabinet requires a separate individual branch circuit. You will not be able to install C.T.s on phases A, B, & C as indicated on the drawings. Each individual circuit will have to be metered, which requires a new metering scheme along with an increase in registry points for the BAS system. Please verify that the info in the RFI is correct and provide new details for metering scheme.	0212	05/17/10	CT's are for branch circuits between power panel and relay panel (not feeder). Group 'A' phase branch circuits, group 'B' phase branch circuits and group 'C' phase branch circuits. Provide separate CT for 277 volt circuits and 120volt circuits.	
00084	05/10/10	Mojave Electric	Whiting-Turner	P.V. Tree Conduits	ES1.02	Note 6 calls for a 1" conduit from each P.V. tree location to the inverter located in the basement. Are these panels stationary? If not, they will require a low voltage conduit for each location to facilitate control wiring. We also need to have copies of the specifications and cut sheets for the P.V. trees to determine point of raceway entry etc.		05/12/10	RFI 0084 is a no. The trees do not articulate or track with the sun. Thank you David Kortekaas	

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00083	05/08/10	Mojave Electric	Whiting-Turner	Identification of Raceway Systems - Colors	Spec 26.05.53 (3.01B)	Specification Section 26.05.53 (3.01B) calls out the colors for raceway systems. Mojave Electric would like to make the following corrections/suggestions: 1. Fire Alarm System - Red 2. Fire suppression supervisory & control (change to solid Red from Red/Yellow - Manufacturers only make solid colors) 3. Power - change to Yellow from Orange. (Yellow is industry standard.) 4. Security - change to Green from Blue. (Blue is normally used for Low Voltage, Tele/Data) 5. Mechanical/Electrical supervisory - change from Yellow to White. (Want to use Yellow for Power). 6. Telecom - change from Green to Blue. (Industry standard). 7. Control wiring - change from Green/Yellow to Orange. (Manufacturers only make solid colors). 8. (Not listed in specs) AV system - would like to use Black. Please see attached sheets. Also, is the sustainability/BAS system considered Mechanical/Electrical supervisory system?	0211	05/17/10	Suggested color changes are acceptable.	
00082	04/10/10	Mojave Electric	Whiting-Turner	Cable tray "waterfalls" in Edit room	T2.01 A13.01.4	On sheet T2.01 above the Edit Rooms, cable tray is shown with "waterfalls" in or on the walls of those rooms. Sheet A13.01.4 shows these rooms with one or two layers of 5/8" drywall and acoustical tile on the ceiling, which will require the installation of several access doors in each of these rooms. Our concern is that the quantity of access doors may compromise the sound rating of these rooms. The access doors would have to be installed approximately every six feet along the cable tray and at each junction point with demising walls to facilitate the removal of covers and to pull cable along the length of the installed tray. Could a 4" conduit, run from the tray in the corridor, turning down the wall in each room, and terminating in a six inch gutter mounted in the wall, serve as an alternative to the cable tray? This would eliminate the need for all the access doors as the corridor tray is readily accessible and each room would have its own raceway and wire way to surface out in the wall.	0810	05/24/10	Please review Drawing T2.01. The cable tray in this area is below the ceiling construction and exposed to view in these rooms.	

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00082	06/10/10	Whiting-Turner	JMA	Cable tray "water falls" in Edit room	T2.01 A13.01.5	The response to RFI 180 (ME 00082) was to review Drawing T2.01 for the elevation of the cable tray in the editing rooms. There are two separate notes that might apply on Sheet T2.01 that describe the elevations to cable trays in the TV Studio area. One notes states: "typical below ceiling open tray 8' AFF" in the margin outside the studio. The other is a general page note that states "top of cable tray in tv studio to be 13' AFF. Adjust cable tray height where connected to tray in hallways." - Which notes applies to the editing room? - Does the typical note to install at 8' AFF apply to all trays in that branch that supply the surrounding areas that are fed from TR-1A? - At what point does the 8' cable tray begin?	0251	06/14/10	The note that states "top of cable tray in tv studio to be 13' AFF" only applies to room 1088 Studio.	
00081	04/10/10	Mojave Electric	Whiting-Turner	Warning Drawer Power	E3.02B A17.02.02	Sheet A17.02.02 shows a series of six warning trays on the South elevation of the cafeteria. The electrical drawing sheet E3.02B shows counter top outlets only in the same location. The panel schedule for Panel L2AASS shows the outlets specified on that wall to all be countertop outlets. Is power required for the warning trays? What panel and circuits are we to use to feed them?				
00080	04/05/10	Mojave Electric	Whiting-Turner	Bypass Feeders	E5.00	The out sheet in the submittal for the 800 Amp Bypass unit shows that it contains three breakers, each of which will accommodate a maximum of 2 conductors per phase at 500-750 MCM. The feeder schedule on sheet E5.00 shows the only options for an 800 amp feed consist of three parallel runs. Is there an option available that will reduce the number of parallel runs from the UPS system to the Bypass unit and out to the load to only two?	0291	06/29/10	Provide lug kit for circuit breakers suitable for three parallel runs of conductors as indicated on plans. Coordinate with manufacturer.	
00079	03/30/10	Mojave Electric	Whiting-Turner	Concrete Troughs		Because of the length of some of the conduits leaving the basement switchgear and the number of bonds required to reach their final destination, Mojave Electric would propose the use of concrete troughs under selected basement level switchgear (see attachment). Rather than a solid housekeeping pad, we would request that a curb be poured around the perimeter of the selected switchgear so that the weight of the switchgear is adequately supported, and a trough be installed below slab level to allow for the wire bonding radius and so that the conductors might be pulled straight into the trough. This would enable the conduits to be layered and spread out throughout the trough, rather than stacked deeper and deeper into the sub grade and would ultimately eliminate any 90 degree bend from each conduit.	0115	04/02/10	In reference to RF10079, please send a basement level drawing circling which switchgear(s) you want to have a trough under. Also, please verify that the switchgear(s) are not over the top of footings, as there is insufficient room for a trough at those locations. Thank you David Kortekaas Project Engineer W/T	

J56.1-019

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00073	03/29/10	Mojave Electric	Whiting-Turner	Conduit Routing		The Electrical drawings show specific locations for panel feeders and conduit sleeves to be installed which are to stub down to the floor below and route to the main electrical room in the basement. The location specified for the Level 2 Electrical Room 2053 Panel H2AA places this panel directly over the Vestibule for Stairway #2 at the First Level which places it in violation of code unless there is a rated separation between the system foreign to the stairway and the stairwell itself. What is the purpose of the 2-4" sleeves, and is there a more appropriate place for them to be run? The panel feeder is also in violation, as shown in the attached sketch.				
00077	03/29/10	Siemens RFI 012	Whiting-Turner	Sprinkler Pre-Action Systems		Please provide info on the following areas, per sprinkler drawings Dated: 07/02/2009 100% Issue. Sprinkler sheets SP2.00 and SP2.01 show the following areas require Pre-Action or Clean Agent systems: SP2.00 – Basement- Communications Distribution Hub 0050, Data Center 0062 Future Data Center 0063 SP2.01 – 1st Level Master Control 1086, Equipment Room 1082, Production Control 7087, Audio Control 7095 Studio 1088 Please provide information on these areas. Specifically identify the type of pre-action system per area and number of points to monitor. Please advise if the owner would like pricing for these pre-action panels for these areas.	0111	04/08/10	Coordinate with actual system shop drawings and vendor. As these are being finalized in design.	
00076	03/29/10	Siemens RFI 011	Whiting-Turner	SP Drawings for 3rd floor area above council chambers		Architectural drawings A2.03C & detail sheets A6.13 and A6.14 show a mechanical level on the 3rd floor above the Council chambers. Please provide an updated drawing for the Sprinkler plans. Sheet FA2.03 does not address this area.				

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00075	03/26/10	Siemens RFI 010	Whiting-Turner	Stair 3A & 3B smoke control discrepancies		Sheet M4.03, SP-2 serves Stair 3A & 3B and shows a duct into the 1st level on Stair 3A. This detail also shows the stairs interconnecting. Sheet M2.01A shows the SP-2 ductwork ending in the open office area 1034. Note 23 reads "stair pressurization outlet in horizontal exit passage." There seems to be some confusion in this area. Is stair 3A provided with pressurization from the bottom of this duct and just not show continuing into the 3A area, or does the SP-2 duct end on the 2nd or 3rd level. As the design on M2.01A stands the SP-2 press duct empties into the open office next to the exhaust duct for this portion of the 1st floor. Please provide us with clarity on how the 3A portion of the stairway receives pressurization from SP-2.	0113	04/14/10	Not answered yet.	
00074	03/26/10	Siemens RFI 009	Whiting-Turner	FA Drawings for 3rd floor area C		Architectural drawings A2.03C & detail sheets A6.13 and A6.14 show a mechanical level on the 3rd floor above the Council chambers. Please provide an updated drawing for the JBA Fire Alarm plans. Sheet FA2.03C is not provided.				
00073	03/26/10	Siemens RFI 006	Whiting-Turner	Fire Phones shown on JBA Fire Alarm drawings, not specified.	FA 2.01.C, FA 2.00A, Delta 5 bulletin 1 2/5/10	Fire Fighter telephones (filled triangle) are shown on the JBA FA plans at the following locations. Basement - Emergency Electrical 0029 - Sheet FA.2.00A 1st Floor - Fire Pump Room 1158 - Sheet FA2.01C 1st floor - Utility Yard - Sheet FA2.01C The filled triangle does not appear on the Legend on Sheet FA0.00. No Fire fighters telephones are required per the Specification or the FPR. Please confirm that this system will require Firefighters telephones at these locations and designate the type of phones (i.e. phone jacks, wardens phones, etc.) that will need to be installed at these locations.	0112	04/08/10	Refer to core & steel package fire alarm drawings. These are indicated as Wardens Stations. Refer to NFPA 6.10.1.11.	
00072	03/26/10	Siemens RFI 007	Whiting-Turner	Door holder power type	Spec 26311- 2.08	As the magnetic door holders will not be provided by the Fire Alarm Contractor, Siemens Industry, Inc. Please verify that the magnetic door holders will be the 120VAC type.	0110	04/02/10	The voltage of the magnetic door locks must be coordinated with the access control vendor.	
00071	03/26/10	Siemens RFI 006	Whiting-Turner	Fire Smoke Damper Identification		As the fire smoke dampers on this project will need to be verified for end switch status, each fire smoke damper will need to have a unique identifier. Please provide the fire smoke damper identifiers to Siemens so the plans and program can reflect the mechanical and smoke control plans when referencing the fire smoke dampers.	0109	04/06/10	The fire/smoke damper identification numbers are indicated as a part of the project smoke control documents.	
00069	03/26/10	Siemens RFI 005	Whiting-Turner	Room I.D. matrix		Please provide Siemens with the latest room identification matrix for programming purposes.	0108	04/12/10	refer to attached Excel spreadsheet for the room matrix	

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00069	03/26/10	Siemens RFI 004	Whiting-Turner	Access door control locations	F.P.R dated 6/22/09 page 6 section 4.3.3	The FPR page 8 Section 4.8.3 calls for Stairway doors locked from stairway side to be unlocked by a signal from the Fire Command Center, activation of a fire alarm signal in an area served by the stairway, or failure of the power supply. Please provide the power supply locations or interface points for the Fire Alarm system to open these doors if they are to be locked from the stairway side.	0107	04/02/10	The location of the stairway door access control power supplies must be coordinated with the access control vendor.	
00068	03/26/10	Siemens RFI 003	Whiting-Turner	Radio Repeater System monitoring & power supply locations for FA monitoring if needed.	F.P.R dated 6/22/09 Spec Sect 283111	The FPR page 15 Section 12.3 calls for an approved radio repeater system for fire fighter use. Will the Fire Alarm system monitor the Radio repeater system power supplies? If so please provide the locations for all repeater power supplies for FA monitoring.	0106	04/03/10	No. See CLV fire code 11.9.5. FYI - RFI page reference to FPR is old. Be sure to reference current approved FPR.	
00067	03/26/10	Siemens RFI 002	Whiting-Turner	Voice Mic. at Secondary Response point	FPR dated 6/22/09	The FPR and Specifications do not call out a paging microphone at the Secondary Response Point. Please verify that this will not be necessary at this location.	0105	04/03/10	Not Necessary. This is not a true secondary response point. It is a remote annunciator for in-house security	
00066	03/26/10	Siemens RFI 001	Whiting-Turner	Fire Alarm Multi-Channel Voice	City Of Las Vegas Amendments to the NFPA 1, 2003 Edition 13.7.1.4, 10.6(B), 1	Multi-Channel voice has not been specified in the FPR or the Specifications. City Of Las Vegas Amendments to the NFPA 1, Uniform Fire Code™, 2003 Edition specifies multi channel voice in the following section. 13.7.1.4, 10.6(B), 1 Multi-channel voice evacuation systems shall be installed in high-rise buildings with large and complex floor plans or other complex structures with high occupant load, as required by the AHJ. (Ordinance #5738) In light of this, please confirm that this system will be installed with the fire alarm having multi-channel voice capabilities.	0104	04/03/10	Comply with Ordinance #5762.	

J56.1-022

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Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00065	03/25/10	Mojave Electric	Whiting-Turner	Conduit Routing	A2.00	There are several 4" conduits that must be routed from the basement ceiling up through the first floor slab and rise to equipment on the roof. The chase that we have found which keeps the bends in the conduit to a minimum per code will route the conduit through a portion of the ceiling of the Elevator Equipment Room at the Basement Level. This is not allowed by State Elevator Standards, but because the conduits are parallel feeds and cannot be routed separately, the conduit runs must be kept together. This would require that a portion of the ceiling of the Elevator Equipment Room would have to have a hard soffit or partial ceiling built to separate the systems not specifically appurtenant to the equipment room from the room. The other option would be to rise in another location as a bank of risers with a framed-out area around the conduits at Levels 1 and 2. See attached sketch.				
00064	03/24/10	Mojave Electric	Whiting-Turner	Architectural Discrepancies	E2.07A	The door to the Electrical Room 7073 is shown on the electrical drawings as being just East of H Line and the Architectural drawing for the same area shows the same door on the other side of the room. As this is critical for the layout and clearance for panels, which set is correct?	0103	4/2/2010 4/13/10	The door may be located anywhere within that wall to facilitate the equipment layout. If no location is advantageous over another, locate per the architectural drawings. Please indicate the preferred location, and we will coordinate the drawings to reflect the proper location. 4/13/10: The door will follow the architectural drawings at no cost/schedule impact to MEP trades. Kortekaas will notify JVA of our intent.	
00063	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.05B	Sheet E3.05B shows circuits L5AA-20, 22, and 24 feeding a junction box for the connection to modular furniture. The panel schedule for panel L5AA shows circuit 22 assigned to refrigerator receptacles in the Break Room. Which is correct? What alternate circuit are we to use?	0100	04/05/10	CIRCUIT SHALL BE L5AAS-20,22,24 FOR FURNITURE.	
00062	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.04B	Sheet E3.04B shows circuit L4AA-33 in two different locations. It is shown feeding wall and floor receptacles in Medium Conference Room 4095 which matches the panel schedule, and feeding TV receptacles in Admin Office 4070. Which is correct? What alternate circuit are we to use?	0100	04/05/10	PANEL SHALL BE L4AAS. (L4AA-33 = TV RECEPTACLES)	
00061	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.01A	Sheet E3.01A shows a homerun feeding wall receptacles in CSR 1025 and File Room 1026 with the panel designation L1BA but no circuit numbers. What circuits are we to use?	0100	04/05/10	UTILIZE CIRCUITS L1BBS-5,7. PANEL L1BBS SHALL BE LOCATED IN THE SAME ELECTRICAL ROOM AS PANELS L1BB & L1BA.	

J56.1-023

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00060	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E2.06A	Sheet E2.06A shows relay circuit LR0A-8 feeding the elevator lobby lights. The corresponding power circuit per the relay schedule is L6A-3. This circuit has been assigned to Equipment Room receptacles in the Core and Shell Package drawings. Which is correct? What alternate circuit are we to use?	0100	04/05/10	THE CORRECT CIRCUIT IS L6A-4.	
00069	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E2.01C	Sheet E2.01C shows relay circuits LR0A-12, 13, 14, 15, and 16 feeding several locations of track lighting. The relay schedule shows the corresponding power circuits to be XLBA-14, 16, 18, 20, 22, and 24. The panel schedule for panel XHBA shows these same circuits already being used to feed CRAH3, and CRAH4 as part of the Core and Shell Package drawings. Which is correct?	0100	04/05/10	RELAY LR0A-12 SHALL BE XLBA-14 RELAY LR0A-13 SHALL BE XLBA-16 RELAY LR0A-14 SHALL BE XLBA-18 RELAY LR0A-15 SHALL BE XLBA-20 RELAY LR0A-16 SHALL BE XLBA-22 RELAY LR0A-17 SHALL BE XLBA-24 CIRCUITS ARE 120 VOLT.	
00058	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E2.00B	Sheet E2.00B shows circuit EHBA-22 feeding light fixtures in the corridor. Should this panel designation be EHBA?	0100	04/05/10	EHBA IS CORRECT.	
00057	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	ES1.01	Sheet ES1.01 of the Core and Shell Package drawings shows exterior lighting at the photovoltaic panels being controlled by relay circuits LR1B-1, 2, and 3. The relay schedule shows the corresponding power circuits to be H1BA-2, 4, and 6. Relay schedule LR1A shows these same circuits corresponding to relays 1, and 2. Which is correct?	0100	04/05/10	RELAY SCHEDULES ARE CORRECT. RELAY LR1A IS SERVED BY PANEL H1AB. RELAY LR1B IS SERVED BY PANEL H1BA.	
00056	03/18/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E2.03C	Sheet E2.03C of the Core and Shell Package drawings shows relay circuit LR2B-1 controlling the high level back-of-house lighting around the Council Chambers. Sheet E2.02C shows the same relay circuit controlling the lighting in 2nd floor Mechanical 230. Is this correct?	0100	04/05/10	YES. REFER TO NOTE #3 ON SHEET E2.02C AND NOTE #1 ON SHEET E2.03C. SAME CIRCUIT.	
00055	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.00C	Sheet E3.00C of the Core and Shell Drawings package shows future CRAH-5 with a homerun back to panel XHBA with no circuit numbers. The panel schedule shows circuits 26, 28, and 30 assigned to CRAH-5. Is this correct?	0100	04/05/10	YES. THIS UNIT IS FUTURE PROVISIONS.	
00054	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.00C	Sheet E3.00C of the Core and Shell Drawings package shows circuit ELBA-8 supplying the control power to WHSP-4. The panel schedule for ELBA shows this circuit to be feeding FC-44. Which is correct?	0100	04/05/10	ELB1-8 IS CORRECT. NO FC-44 EXISTS.	
00053	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.01A	Sheet E3.01A of the Core and Shell Drawings package shows circuit EL1A circuit 1 feeding control power for WSHP-5. The panel schedule for panel EL1A shows that same circuit feeding FC-6. Which is correct?	0100	04/05/10	WSHP-5 CONTROL POWER SHALL BE CIRCUIT EL1A-2. EL1A-1 SHALL BE SPARE. SEE XLTV-1 FOR FC-6	

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00052	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.03A	Sheet E3.03A of the Core and Shell Drawings package shows the power for AH7 as being fed from panel H3AA circuits 14, 16, and 18 in Mechanical room 309. The panel schedule for panel H3AA shows these as spare circuits. Which is correct?	0100	04/05/10	H3AA-14,16,18 IS CORRECT. PROVIDE 90A/3P CIRCUIT BREAKER IN PANEL	
00051	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.08B	Sheet E3.08B of the Core and Shell Drawings package shows the control circuit for WS-IP-12 as being circuit EL7A-42. The panel schedule for panel EL7A circuit 42 as a spare. Which is correct?	0100	04/05/10	CIRCUIT SHALL BE EL7A-6.	
00050	03/15/10	Mojave Electric	Whiting-Turner	Circuit Discrepancies	E3.08B	Sheet E3.08B of the Core and Shell Drawings package shows the wall receptacles in Office 811 on circuit UL77-8. The panel schedule for UL77 shows circuit 8 as spare and circuit 6 as feeding the wall receptacles. Which is correct?	0100	04/05/10	CIRCUIT SHALL BE UL77-6.	
00049	03/15/10	Mojave Electric	Whiting-Turner	TR-04 conduit Counts	T4.01	Sheet T4.01 Detail F shows in the details for TR-04 a total of 6(six) 4" conduits from TR-08 Demark room. The Core and Shell drawings sheet T0.03 Conduit riser drawing shows a total of 10 (ten) 4" conduits on the same path. Which drawing set sheet is correct?				
00048	03/11/10	Mojave Electric	Whiting-Turner	Generator Structural/Isolation Slab	S6.12 Detail 10	Sheet S6.12 Detail 10 shows a 6" slab-on-grade under the Generator Yard. It has been our experience that the Generators are of sufficient weight that a special thickened slab is required to support the additional weight of each generator. Due to vibration experienced during generator run, the generator structural support slab has also been isolated from the surrounding structure. Will these additions be required for this application as well?	0071	03/18/10	Spec section 263213-3.02 install per manufacturer's written instructions. Coord. w/structural	
00047	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AB-37 being used in two different locations. It is shown feeding a copier receptacle in Copy 4047. It is also shown feeding copy receptacles in Copy Center 4037. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Homerun in copy center 4037 should be L4AB-29, 31 *Also team room homerun shown as L4AB-33 should be L4AB-27	
00046	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AB-35 used in two different locations. It is shown feeding wall receptacles in the Copy Center 4037. It is also shown feeding wall receptacles in Vault 4032. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Homerun in copy center 4037 should be L4AB-29, 31	
00045	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AB-10 in two different locations. It is shown feeding a junction box in File 4056 for the connection to modular furniture. It is also shown feeding wall receptacles in Open Office 4035. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Use L4AB-4 for receipts & furniture in payroll coordinator	

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Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00044	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.06A	Sheet E3.06A shows circuit L4AB-B in two different locations. It is shown feeding wall receptacles in Collections Supervisor office, and is shown also feeding wall receptacles in Open Office 5035. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Use L4AB-2 for recept circuit in collections supervisor	
00043	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.06B	Sheet E3.06B shows circuits L6AA 20, 22, and 24 in two different locations. They are shown feeding wall receptacles in Copy Room 6077, and they are also shown feeding a junction box for the connection to modular furniture in Open Office 5089. Which use is correct? What alternate circuits are we to use?	0071	03/18/10	Systems furniture should homerun to L6AAS-	
00042	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.06A	Sheet E3.06A shows circuit L6AB-39 in two different locations. Per note 15, it feeds a receptacle in an A/V box in the ceiling. It is also shown feeding a junction box in the Interamerican Center 6036 for the connection to modular furniture. Which is correct? What alternate circuit are we to use?	0071	03/18/10	Systems furniture base feed should homerun to L6ABS-	
00041	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.06A	Sheet E3.06A shows circuits L6AB 35 and 37 in two different locations. They are shown at the counter in large conference room 6094, and they are also shown feeding a junction box for the connection to modular furniture in the Interamerican Center 6036. Which use is correct? What alternate circuits are we to use?	0071	03/18/10	Systems furniture base feed should homerun to L6ABS-	
00040	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.07A	Sheet E3.07A shows a homerun labeled UL7 13 and 15 feeding receptacles on a data rack. The receptacles are labeled UL779 and 11. Which is correct?	0071	03/18/10	Receptacles serving second rack from the top should be fed by circuit UL77-9, 11	
00039	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.01C	Sheet E3.01C shows homerun LTV 25 and 29 feeding receptacles in camera storage 1093. The receptacles themselves are labeled LTV 25 and 27. Which is correct?	0071	03/18/10	Homerun designation should read LTV-25, 27.	
00038	03/11/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.06A	Sheet E3.06A shows a homerun labeled L6ABS-26, 38, 30 along the wall of Legal Assistant 6040. The receptacles themselves are labeled L6ABS 26, 28, 30. Which is correct?	0071	03/18/10	Drawings should indicate "28" not "38"	
00037	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuits L5ABS-38 and 40 in two different locations. They are shown at column line F feeding a junction box for the connection to modular furniture. They are also shown used near corridor 5015. Which use is correct? What alternate circuits are we to use?	0071	03/18/10	Systems furniture base feed located near gridline 3 between C & D should homerun to panel L5AB	

J56.1-026

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/3 RFI #	RFI Response Date	Response	Cost Impact Y/N
00036	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet 3.05A shows circuit L5AA-42 used to feed receptacles for Signage, per Note 14. Sheet E3.05B shows the same circuit used to feed a junction box for the connection to modular furniture. Which is correct? What alternate circuit are we to use?	0071	03/18/10	Systems furniture base feed located near gridlines 3-L should homerun to panel L5AAS	
00035	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-40 feeding an electric hand dryer, per Note 13, in Women's Restroom 5032. Sheet E3.05B shows the same circuit used to feed a junction box for the connection to modular furniture. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	E3.05B Systems furniture base feed located near gridlines 3-L should homerun to panel L5AAS	
00034	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-35 feeding an electric hand dryer, per Note 13, in the Men's restroom 5033. Sheet E3.05B shows the same circuit feeding a junction box for the connection to modular furniture. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	E3.05B Systems furniture base feed located near gridlines 3-L should homerun to panel L5AAS	
00033	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-34 in two different locations. It is shown feeding wall receptacles in Break room 5048, and it is also shown feeding an electric hand dryer in the men's restroom, per Note 13. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Break room 5048 receptacle homeruns should be L5AA-29, 30, 32 & L5AA-22, 24, 26. Circuit feeding electric hand dryer in men's restroom is correct.	
00032	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows homerun L5AA-30, 33, 34 in Break room 5048. The circuit designations on the receptacles themselves are 30, 32, and 34. Which is correct?	0071	03/18/10	The correct homerun designation is L5AA-29, 30, 32. Refer to RFI00033 for additional information.	
00031	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05B	Sheet E3.05B shows circuits L5AA 25 and 27 in two different locations. They are shown feeding wall receptacles in the medium conference room 5064, and per Note 1, feeding a 30 amp single-phase receptacle. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Maintenance receptacles located at gridlines 3-L should homerun to L5AAS-14, 16	
00030	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-24 powering wall receptacles in break room 5048. Sheet E3.05B shows the same circuit feeding a junction box for the connection to modular furniture. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Systems furniture base feed located on gridline 3-M should homerun to panel L5AAS	
00029	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-20 feeding wall receptacles in Office 5047A. Sheet E3.05B shows the same circuit used to feed a junction box for connection to modular furniture. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Systems furniture base feed located on gridline 3-M should homerun to panel L5AAS	

J56.1-027

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00028	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.05A	Sheet E3.05A shows circuit L5AA-11 feeding a junction box in the men's restroom and in the janitor's closet as part of the core and shell package. Sheet E3.05B shows the same circuit feeding wall receptacles in the small conference room 5068. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	E3.05B Small conference room 5058 receptacles should homerun to panel L5AAS	
00027	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AA-19 in two different locations. It is shown feeding wall receptacles in the small conference room, and Note 1 shows the same circuit feeding a single phase 30 amp receptacle. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Small conference room 4103 receptacles should homerun to panel L4AAS	
00026	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AA-18 feeding floor outlets in the large conference room 4063. Sheet E3.04B shows the same circuit feeding a junction box for the connection to modular furniture. Which is correct? What alternate circuit are we to use?	0071	03/18/10	E3.04B Furniture base feed located at gridline 3-L4 should homerun to panel L4AAS	
00025	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AA-16 powering receptacles in the large conference room 4063. Sheet E3.04B shows the same circuit feeding power to a junction box for connection to modular furniture. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	E3.04B Furniture base feed located at gridline 3-L4 should homerun to panel L4AAS	
00024	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AA-14 feeding two electric water coolers. Sheet E3.04B shows the same circuit powering a junction box for connection to modular furniture. Which is correct? What alternate circuit are we to use?	0071	03/18/10	E3.04B systems furniture base feed located at gridline 3-L4 should homerun to panel L4AAS	
00023	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.04A	Sheet E3.04A shows circuit L4AA-9 feeding a junction box on AH-8, as part of the core and shell package. On drawing sheet E3.04B, Note 5 shows this same circuit feeding an A/V receptacle in the ceiling. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	A/V receptacles on sheet E3.04B should homerun to L4AA-41	
00022	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.01D	Sheet E3.01D shows circuits L1BD-17 and 19 in two different locations. Note 1 on that sheet indicates that circuit feeds a receptacle at the end of corridor 1119. The receptacles and floor outlets in the training room at columns 9 and 10 are also shown on these circuits. Which is correct? What alternate circuits are we to use?	0071	03/18/10	Maintenance receptacles in corridor 1119 should homerun to panel P1BE	
00021	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.01B	Sheet E3.01B shows circuits L1BC-11 and 13 in different locations. A homerun labeled L1BC 11, 13 is shown feeding receptacles in the medium conference room. These same circuits are shown at column line L feeding an electric water cooler, and a 30 amp single-phase receptacle. Which is correct? What alternate circuits are we to use?	0071	03/18/10	Homerun in medium conference room 1151 should be to panel L1BE	

J56.1-028

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00020	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.01A	Sheet E3.01A shows circuit L1BB-32 in two different locations. At column line E it is feeding a receptacle labeled printer. In the same room, a homerun is also shown feeding wall receptacles. Which is correct? What alternate circuit are we to use?	0071	03/18/10	Homerun in fingerprint 2 badge room 1017 should be to L1BBS-1, 3	
00019	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.01A	Sheet E3.01A shows a homerun labeled L1BES 1 and 3. Should the panel designation be L1BE? If this panel designation is correct, a duplication occurs. Circuit L1BE-1 feeds receptacles in the electric room and circuit L1BE-3 feeds a junction box in the janitors closet. Both of these are used as part of the core and shell package. Which application is correct? What alternate circuit are we to use?	0071	03/18/10	Drawings are correct	
00018	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00B	Sheet E3.00B shows circuits LBBB 33 and 35 in two different locations. Note 6 indicates that the circuits are to be used to power the receptacles at the A/V rack. Note 2 states that the same circuit is to be used as power in a junction box to power modular furniture. Which location is the correct one? What alternate circuit are we to use?	0071	03/18/10	Receptacles in conference room 0042 should homerun to panel LBBB	
00017	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00D	Sheet E3.00D shows circuits 18, 20, and 22 in two different locations feeding modular furniture. Which location are the circuits correctly labeled? What alternate circuits are we to use in the other location?	0071	03/18/10	Systems furniture base feed shown on gridline 9-M should homerun to panel LBBB	
00016	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00D	Sheet E3.00D shows circuit LBBB 16 use for power modular furniture. Sheet E3.01 shows the same circuit serving a junction box at Column line HH as part of the core and shell package. Which use is correct? What alternate circuit are we to use?	0071	03/18/10	Systems furniture base feed shown on gridline 9-M should homerun to panel LBBB	
00015	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00D	Sheet E3.00D Shows a homerun to panel LBBB with no circuit called out. The homerun is shown near column lines E/JJ. What circuits are to be used at that location?	0071	03/18/10	The maintenance receptacles should homerun to LBBBS-1, 3	
00014	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00D	Sheet E3.00D shows circuit LBBB 24 used to feed modular furniture in two different locations. Which location is the circuit used correctly? What alternate circuit are we to use for the other location?	0071	03/18/10	Systems furniture base feed shown on gridline 9-M should homerun to panel LBBB	
00013	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00D	Sheet E3.00D shows circuit LBBB 14 in two different locations. Note 2 on this drawing shows this circuit to power a junction box for connection to modular furniture. A receptacle in the elevator equipment room that is part of the core and shell package is also shown as being fed from LBBB 14. Which use is correct? What alternate circuit is to be used?	0071	03/18/10	Systems furniture base feed shown on gridline 9-M should homerun to panel LBBB	

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00012	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00B	Sheet E3.00B Shows circuit LBBC 13 in two different locations. Note 7 on this drawing indicates that the circuits noted are to power a 30 amp single phase receptacle, however the homerun indicated is labeled with only circuit 13. Is this correct? What alternate circuit are we to use?	0071	03/18/10	Receptacle on gridline 1 between H & K should homerun to LBBC-1, 3	
00011	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.00A	Sheet E3.00A shows circuits LBBE 21, 23, and 25 in two different locations. Note 3 shows these circuits are to power the junction box for modular furniture. The second location shows these circuits feeding receptacles and floor boxes. Which use is correct? What alternate circuits are to be used?	0071	03/18/10	Receptacles & Floor boxes should homerun to LBBE-33, 35. Circuit numbers are indicated on devices.	
00010	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.03A	Sheet E3.03A shows circuits L3AB 16, 18, 20, and 22 in two different locations. They are shown feeding junction boxes for connection to modular furniture. Note 12 shows circuit 16 feeding the Q-matic system. Circuits 18 and 22 are shown feeding individual receptacles. Note 16 indicates that circuit 20 is to power a receptacle in an A/V box in the ceiling. Which is correct? Which alternate circuits are to be used?	0071	03/18/10	Systems furniture base feeds at gridline 3 between C & D, 4-C, 4-E & 4-F should all homerun to panel L3ABS	
00009	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.02C	Sheet E3.02C shows circuit L2BB 32 and 34 powering receptacles used for TV lighting, which matches the panel schedule. Note 23 shows the same circuits located next to the Press Feed Connection. Which use is correct? What alternate circuit is to be used?	0071	03/18/10	The three press feed receptacles located along back wall of council chambers with note #23 should homerun to panel L2BBS	
00008	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.02C	Sheet E3.02C shows circuit L2BB 41 in two locations. Note 28 indicates that this circuit is to be used to feed an A/V box located in the ceiling. Note 10 shows circuit 41 feeding an A/V rack in the conference room, which matches the panel schedule for L2BB. Which use is correct? Which alternate circuit is to be used?	0071	03/18/10	Receptacle for A/V box in ceiling at gridline AA-9 should homerun to panel L2BBS	
00007	03/10/10	Mojave Electric	Whiting-Turner	Redundant Circuits	E3.02B	Sheet E3.02B shows circuits L2AAS 21 and 23 in two different locations. The panel schedule for L2AAS shows circuits 21 and 23 are for refrigerator power and Note 12 on sheet E3.02B shows the circuits to provide power to hand dryers. Which is correct? Which alternate circuits are we to use?	0071	03/18/10	Hand Dryer in women's restroom should homerun to panel L2AAS	

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00006R1	03/23/10	Mojave Electric	Whiting-Turner	Shear wall penetrations	S6.12	Further clarification was requested regarding this RFI by the consultants. More specifically, we will need a 20"x14" block out for 6-4" conduits in (2) different locations. The first location will be at 'A' line between 1 line and 2 line, and the second location will be at 'M' line between 3' and 4' lines. We will need (2) 30"x12" block outs for 12-4" at 10 line between 'EE' and 'FF' lines. We will need (2) 18"x12" block outs for 5-4" each at C-9 line between 'BB' and 'CC' lines.	0095	04/15/10	For Blockout/openings in concrete walls, please see detail 12/S6.21 for additional/required reinforcing.	
00006	03/10/10	Mojave Electric	Whiting-Turner	Shear wall penetrations	S6.12	On sheet S6.22 Detail 3 shows a minimum separation, where possible, between conduits penetrating a shear wall. There are at least five locations where the minimum separation can't be met due to space constraints or junction box size. The attached are two examples of options that we would like to see approved. These instances both will enter the shear wall at 10 Line between CC Line and BB Line approximately 10 feet apart, and Generator at grade level in the switch yard to the paralleling switchgear "PSG" in the core of the basement. Two other instances will involve seven 4" Telecommunications conduits and will penetrate the Shear wall, one at A Line between 1 and 2 Lines to a box on Main St, and the second at M Line between 3' and 4' Lines to a box on First street sidewalk. Are either of these options acceptable?			see 00006 R1	
00005	03/08/10	Mojave Electric	Whiting-Turner	Telephone conduits	T1.005 005	Sheet T1.005 005 shows a telephone vault in the planter on the first street with 7-4" conduits from the D-mark board in room TR-06. There are no incoming utilities shown on the civil drawings to the First Street side of the site. Are these conduits considered future use or is there a plan showing where these are routed to?	Per email from Elliot Lloyd	07/05/10	, please stub conduit into street 4". This conduit is going to be used for Media connectivity into the building.	
00004	03/09/10	Mojave Electric	Whiting-Turner	Cone and shell drawings	T0.03	Sheet T0.03 states "to see core and shell drawings for conduit requirements". We have not seen these drawings. Do these drawings exist? If so, can we get a copy or at least let us know where to get them?				

J56.1-031

MOJ01433
JA 00005211

Mojave RFI Number	RFI Date	RFI Originator	RFI Destination	Title	Drawings	RFI Description	W/T RFI #	RFI Response Date	Response	Cost Impact Y/N
00003	03/08/10	Mojave Electric	Whiting-Turner	Dimensions for device placement		In the elevations for many of the rooms shown on the interior package, the switches, outlets and phones are shown as are the fire alarm devices. However, there are not dimensions. Are we to scale these devices or will there be further clarification?	0298	07/13/10	Fire alarm devices are to be located per the approved fire alarm shop drawings and in accordance with mounting heights indicated on EA0.00. Electrical devices are to be located in accordance with mounting heights indicated on E0.01. Where no horizontal dimensions are given, the device is to be located in the approximate location shown on the drawings.	
00002	03/08/10	Mojave Electric	Whiting-Turner	Tray in TV studio	T2.01	Note 2 on Drawing T2.01 calls for 12"x16" tray to be installed in the TV studio. Can this tray be changed to an 18"x6" tray? In reference to E2.03B, E2.03B Delta 5, and E0.01 Delta 3 in Volume 4. On the original drawing E.203B the light fixtures to be installed along gridlines M & 1-4 are shown as A-2. The updated drawing E.203B Delta 5 changes some of these fixtures to type A. According to the fixture schedule on E0.01 Delta 3, type A fixtures are not listed. Please verify these fixtures are type A or if this is a misprint, if they are type A, please provide specifications for this fixture.				
00003	02/21/10	Whiting-Turner	JMA	Bulletin #1 Light Fixture Change	Dwg/Spec Reference: E0-01 A2 9/8/09 E2-03B 100% 7/2/09 E2-03B 100% 7/2/09 E2-03B B1 2/5/10	Specification Section 28 31 11 - 1.06A.1 states that submittals have to be approved by authorities having jurisdiction prior to submitting to the Architect and 28 31 11 - 1.06C.9 states to submit for design review before submitting to the Fire Department (the AHJ). Please confirm that all submittals need to be reviewed and sealed by the Engineer of Record or the Architect of Record prior to submitting to the CLV?		02/25/10	Fixtures shall be type 'A1'	
00001	02/22/10	Whiting-Turner	JMA	Submittal/Shop Drawing Approvals		Original drawings E2.03B shows type A2 fixtures installed along grid lines M & 1-4. The new drawing E2.03B Delta 5 changes these fixtures to type A. According to the fixture schedule on E0.01 Delta 3, type A fixtures are not listed. Please verify if these fixtures are type A or if this is a misprint, if they are type A, please provide specifications for this fixture.	0001	02/02/10	Date Answered: 2/2/2010 The submittals are to be reviewed by the architect prior to submitting to the AHJ. A copy of the final submittal, approved by the AHJ, is also to be submitted for record purposes. Signature: Rev. 06/	
00001	02/24/10	Mojave Electric	Whiting-Turner	Type A Fixtures	E2.03, E2.03 Delta 5, E0.01 Delta 3					

Carmen Militello

From: Peter Fergen
Sent: Tuesday, June 28, 2011 2:43 PM
To: Roger Cates
Cc: Chris Meiers
Subject: FW: 767810 - LV City hall study
Attachments: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA; RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

FYI

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Tuesday, June 28, 2011 7:45 AM
To: Chris Meiers; Peter Fergen
Cc: madeleine.wentland@hamptontedder.com
Subject: FW: LV City hall study

Still need the following info for the City Hall Study.

Madeline, do you have any of this info we can send to Ned?

Thanks

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Tuesday, June 28, 2011 7:45 AM
To: 'Roger Cates'
Subject: RE: LV City hall study

1. Submittal data for the following panels: PSG, EH1,4A;EHBA,EHRA (missing)
2. Utility Fault Level
3. UPS Bypass breakers manufacturer and type.
4. Stand-by generator submittal data (if possible), can make assumption here if needed

Let me know if you have any question

Nenad

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Tuesday, June 28, 2011 7:23 AM
To: Ned
Subject: LV City hall study

Ned, where we at on this study. I have lost track of what you needed vs what was submitted. Please advise

Roger Cates
Hampton Tedder -Nevada
Division Manager

J56.1-033

702-646-7449 office
702-234-8177 cell

^ All sales subject to Codale's Terms and Conditions (T&C's) available at www.codale.com/terms

-- This message has been checked by ESVA and is believed to be clean.

J56.1-034

MOJ01436

JA 00005214

Carmen Militello

From: Kelly Clark <KellyC@nedco.com>
Sent: Tuesday, June 14, 2011 1:00 PM
To: Peter Fergen
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA
Attachments: EHBA Revised Submittal2.pdf; Panel Drawings.pdf

See attached for info on most of the panels referenced in item 1. I do not have a panel 'PSG' in my records. Note that EHBA was revised and is on its own separate submittal. All others are in the panel drawing document.

Awaiting transformer information for item 2 from both PQI and Hammond. Will advise.

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Tuesday, June 14, 2011 6:29 AM
To: Kelly Clark
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Can you answer this

From: Chris Meiers
Sent: Tuesday, June 14, 2011 6:28 AM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

More info needed by Hampton-Tedder.

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Monday, June 13, 2011 9:53 AM
To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please see below...

Thanks

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Thursday, June 09, 2011 9:13 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Roger,
Additionally, we need a few more data to finalize:

1. Submittal data for the following panels: PSG, EH1,4A;EHBA,EHRA (missing)

J56.1-035

2. Low voltage transformers percentage of impedance Z% (swgr supplier to obtain)
3. UPS Bypass breakers manufacturer and type.
4. Stand-by generator submittal data (if possible)

Once we have these, study will be ready in 3-4 days.

regards

Ned

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Thursday, June 09, 2011 7:28 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

See question below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Thursday, June 09, 2011 7:25 AM
To: Roger Cates
Cc: Peter Fergen; Robin Moran
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
Exactly what information do you need, just fault level?

Regards,
Chris Meiers

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Wednesday, June 08, 2011 3:03 PM
To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

J56.1-036

Roger,

We shall need utility contact to obtain fault level from Nevada Power. Please get me a contact or request this data from the client. I have a good progress on study. If you get me utility data, will be able to finish by the end of the next week.

Nenad

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Tuesday, May 31, 2011 7:15 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

I think we have this job.. it is one we estimated a few weeks ago. I am trying to confirm

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Friday, May 27, 2011 7:47 AM
To: roger.cates@hamptontedder.com
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

-- This message has been checked by ESVA and is believed to be clean.

J56.1-037

Carmen Militello

From: Kelly Clark <KellyC@nedco.com>
Sent: Tuesday, June 14, 2011 1:00 PM
To: Peter Fergen
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA
Attachments: EHBA Revised Submittal2.pdf, Panel Drawings.pdf

See attached for info on most of the panels referenced in item 1. I do not have a panel 'PSG' in my records. Note that EHBA was revised and is on its own separate submittal. All others are in the panel drawing document.

Awaiting transformer information for item 2 from both PQI and Hammond. Will advise.

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Tuesday, June 14, 2011 6:29 AM
To: Kelly Clark
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Can you answer this

From: Chris Meiers
Sent: Tuesday, June 14, 2011 6:28 AM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

More info needed by Hampton-Tedder.

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Monday, June 13, 2011 9:53 AM
To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please see below...

Thanks

Roger Cates
Hampton Tedder - Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Thursday, June 09, 2011 9:13 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Roger,
Additionally, we need a few more data to finalize:

1. Submittal data for the following panels: PSG, EH1,4A;EHBA,EHRA (missing)

J56.1-040

2. Low voltage transformers percentage of impedance Z% (swgr supplier to obtain)
3. UPS Bypass breakers manufacturer and type.
4. Stand-by generator submittal data (if possible)

Once we have these, study will be ready in 3-4 days.

regards

Ned

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Thursday, June 09, 2011 7:28 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

See question below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Thursday, June 09, 2011 7:25 AM
To: Roger Cates
Cc: Peter Fergen; Robin Moran
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
Exactly what information do you need, just fault level?

Regards,
Chris Meiers

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Wednesday, June 08, 2011 3:03 PM
To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

J56.1-041

Roger,

We shall need utility contact to obtain fault level from Nevada Power. Please get me a contact or request this data from the client. I have a good progress on study. If you get me utility data, will be able to finish by the end of the next week.

Nenad

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Tuesday, May 31, 2011 7:15 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

I think we have this job.. it is one we estimated a few weeks ago. I am trying to confirm

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Friday, May 27, 2011 7:47 AM
To: roger.cates@hamptontedder.com
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

-- This message has been checked by ESVA and is believed to be clean.

J56.1-042

MOJ01444

JA 00005222

Carmen Militello

From: Peter Fergen
Sent: Monday, June 20, 2011 6:19 AM
To: Roger Cates
Cc: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA
Attachments: NMK030KBKB.pdf; NMK300KBKB3L5.pdf; NMK075KBKB3L5.pdf; NMK045KBKB.pdf

As you requested

From: Kelly Clark [<mailto:KellyC@nedco.com>]
Sent: Friday, June 17, 2011 3:26 PM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Pete,

See attached for transformer impedance on the LV CH Hammond transformers as requested.

Thanks,
Kelly

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Tuesday, June 14, 2011 6:29 AM
To: Kelly Clark
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Can you answer this

From: Chris Meiers
Sent: Tuesday, June 14, 2011 6:28 AM
To: Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

More info needed by Hampton-Tedder.

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
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To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please see below...

Thanks

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

J56.1-045

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Thursday, June 09, 2011 9:13 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Roger,
Additionally, we need a few more data to finalize:

1. Submittal data for the following panels: PSG, EH1,4A;EHBA, EHRA (missing)
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regards

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To: Ned
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See question below

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Hampton Tedder -Nevada
Division Manager
702-646-7449 office
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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
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To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

J56.1-046

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

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To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

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Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

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Sent: Friday, May 27, 2011 7:47 AM
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See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

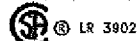
-- This message has been checked by ESVA and is believed to be clean.
-- This message has been checked by ESVA and is believed to be clean.
-- This message has been checked by ESVA and is believed to be clean.

J56.1-047



Hammond Power
Solutions Inc.

GUELPH, ONT. BARABOO, WI COMPTON, CA MONTERREY, MX



UL
DRY TYPE
TRANSFORMER
7705
E1123 13

LISTED

THREE PHASE DRY TYPE TRANSFORMER
TRANSFORMATEUR SEC TRIPHASÉ

HV/HT	480V				Cust. Ref. Réf. du client	
BIL	-				Serial No. No. de série	
TERM. BORNES	H1 H2 H3				Part No. No. de pièce	NMK030KBKB
	VOLTS	CURRENT COURANT	% RATED VOLTAGE % TENSION NOMINALE	CONNECTION EACH PHASE CONNEXION PAR PHASE	kVA	30
	504	34.3	105	1	TYPE	K
	492	35.2	102.5	2	Cooling Refroidissement	ANN
	480	36.1	100	3	Temp. Rise Echauffement	80 °C
	468	37.0	97.5	4	Temp. Class Classe de Temp.	200 °C
	456	38.0	95	5	Frequency Fréquence	60 Hz
	444	39.0	92.5	6	Impedance % @ 100 °C	3.0
	432	40.1	90	7	Encl. Type Type de boîtier	NEMA-3R
LV/BT	208Y/120V				Wt LBS Poids en lbs.	440
BIL	-				Winding Enroulement	CU
TERM. BORNES	X0 X1 X2 X3				CSA	NEMA
					Energy Efficiency Economie d'énergie	C802.2-00 TP 1-2002

SPACINGS BETWEEN ENCLOSURE AND ANY ADJACENT WALL SHALL BE A MINIMUM OF 6 INCHES ELECTROSTATIC SHIELD

VERIFIED



Energy
Performance
Rendement
Énergétique

VERIFIÉ



8 03423 09797 4



Hammond Power
Solutions Inc.

TITLE: 3PH DISTRIBUTION TRANSFORMER
NAMEPLATE INFORMATION

DES: JWN
DATE: 06/11/29
SCALE: NTS
NO. DATE BY REVISION

SHEET 1 OF 2

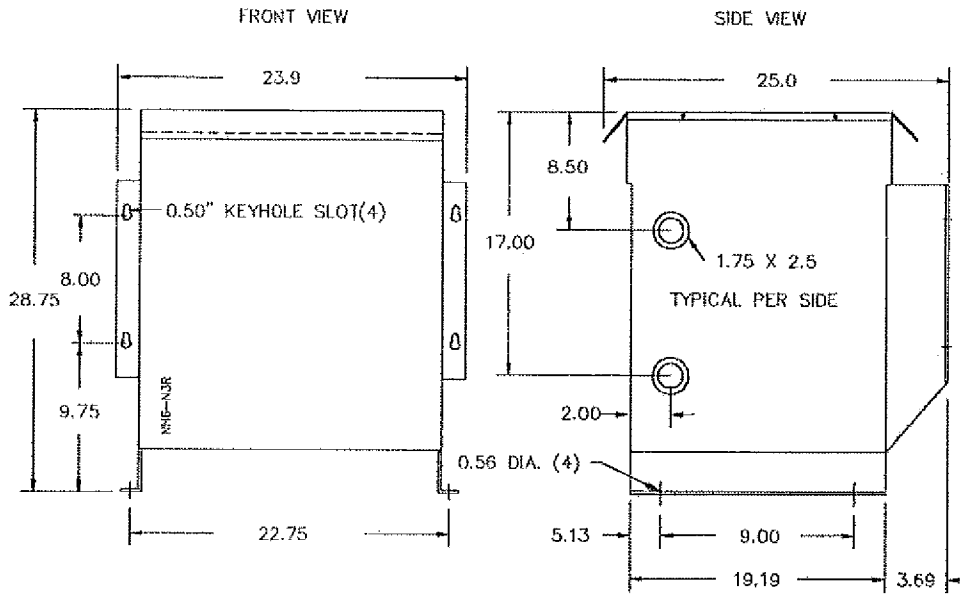
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J56.1-048

MOJ01450

JA 00005228



All Dimensions in inches

ENCLOSURE COLOR : ANSI 61 GREY - OUTDOOR

H.V.1. TERMINAL DETAIL

L.V.1. TERMINAL DETAIL

MECHANICAL TYPE LUGS INCLUDED
 SUITABLE FOR #14-2 CU/AL
 CONDUCTORS
 1 CONDUCTOR PER PHASE

MECHANICAL TYPE LUGS INCLUDED
 SUITABLE FOR 250MCM-6 CU/AL
 CONDUCTORS
 1 CONDUCTOR PER PHASE

CUSTOMER NOTES:

- HV1 TERMINATED AT TOP FRONT
- LV1 TERMINATED AT BOTTOM FRONT



**Hammond Power
 Solutions Inc.**

TITLE: 3PH DISTRIBUTION TRANSFORMER

				DES: JWEN
				DATE: 06/11/2
NO.	DATE	BY	REVISION	SCALE: NTS

SHEET 2 OF 2

EDB NIKK030K BKB

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J56.1-049

MOJ01451

JA 00005229



Hammond Power
Solutions Inc.

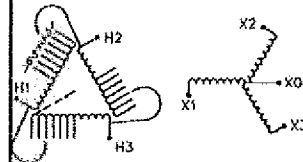
GUELPH, ONT. BARABOO, WI COMPTON, CA MONTERREY, MX



UL LISTED
TYPE TRANSFORMER
7105
E112313

HPS SENTINEL
ENERGY EFFICIENT GENERAL PURPOSE DISTRIBUTION (ISOLATION) TRANSFORMER

IN/HI	480V			Cost. Ref.	
DIL				Rel. de cote	
TERM. BORNES	H1 H2 H3			Serial No.	
				No. de serie	
				Part No.	NMK300KB3L5
				No. de piece	
				Phase	3
				TYPE	K
				Cooling	ANN
				Refroidissement	
				kVA	300
				Temp. Rise	80 °C
				Echauffement	
				Temp. Class	220 °C
				Class de Temp.	
				Frequency	60 Hz
				Frequence	
LV/BT	208Y/120V			Impedance, %	6.6
DIL				@ 100 °C	
TERM. BORNES	X0 X1 X2 X3			Encl. Type	NEMA-3R
				Type de boitier	
				Wt. LBS	2650
				Poids en lbs.	
				Winding	CU
				Enroulement	
				Energy Regulations	NEMA TP1
				Reglements de	
				Energetiques	CEE AC3
					SOR/94/651



ALSO TESTED IN ACCORDANCE WITH ENERGY STANDARD C227.2-96
BY UNDERWRITERS LABORATORIES INC. © JVS

SPARKS BETWEEN ANY VENTILATED ENCLOSURE PANEL AND
ANY ADJACENT WALL SHALL BE A MINIMUM OF 5 INCHES
ELECTROSTATIC SHIELD
SOUND LEVEL IS 5 DB LOWER THAN NEMA 3120
BASED ON EQUIVALENT KVA



Hammond Power
Solutions Inc.

TITLE: 3PH DISTRIBUTION TRANSFORMER
NAMEPLATE INFORMATION

NO.	DATE	BY	REVISION	DES. MCHISTM
				DATE: 10/12/18
				SCALE: NTS

SHEET 1 OF 2

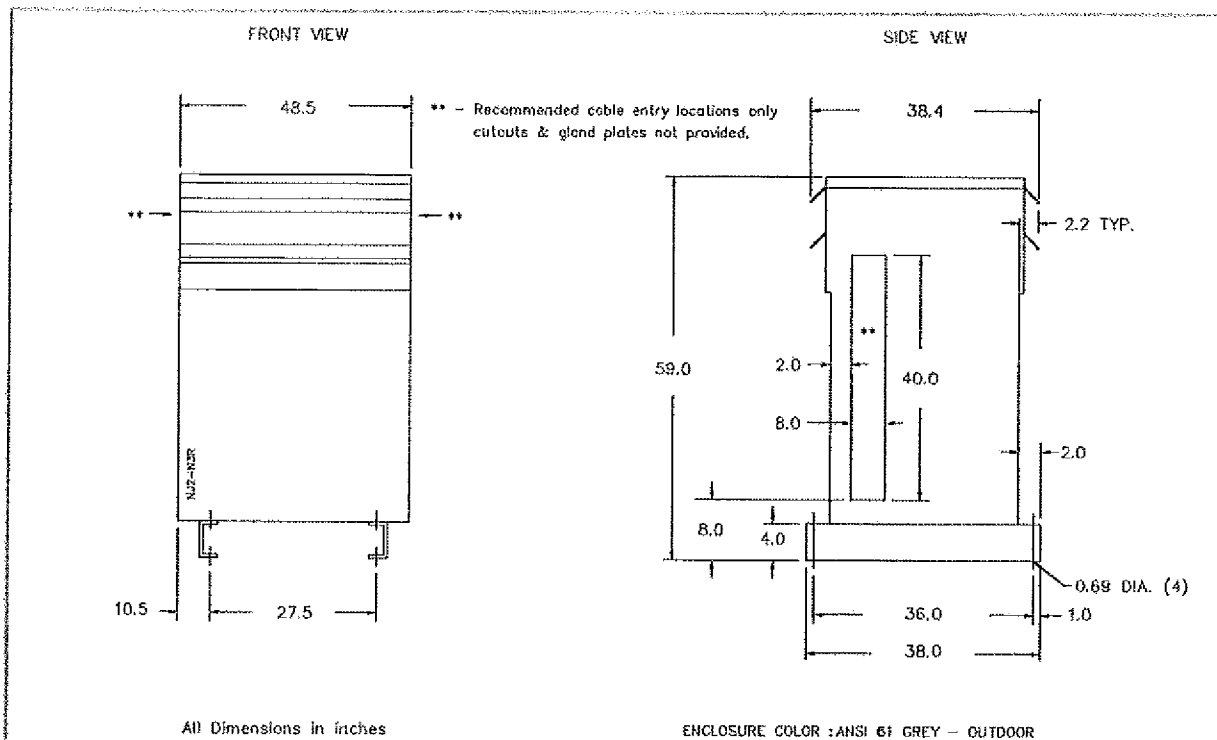
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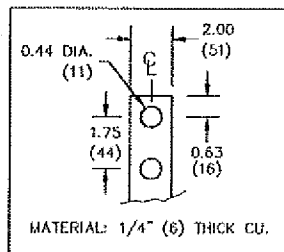
J56.1-050

MOJ01452

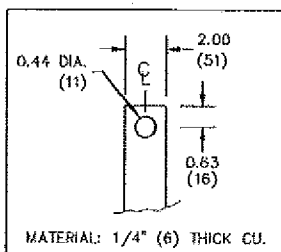
JA 00005230



H.V.1. TERMINAL DETAIL



L.V.1. TERMINAL DETAIL



CUSTOMER NOTES:

- HVI TERMINATED AT TOP FRONT
- LVI TERMINATED AT BOTTOM FRONT



**Hammond Power
Solutions Inc.**

TITLE: 3PH DISTRIBUTION TRANSFORMER

NO.	DATE	BY	REVISION

DES: MCHHSTM
DATE: 10/12/16
SCALE: NTS

SHEET 2 OF 2

EDBMMK300KXB2LS

0.0 root 2017/06/11/17:43

J56.1-051

MOJ01453

JA 00005231



Hammond Power
Solutions Inc.

GUELPH, ONT. BARABOO, WI COMPTON, CA MONTERREY, MX



UL LISTED
DRY TYPE
TRANSFORMER
7105
1112315

HPS SENTINEL
ENERGY EFFICIENT GENERAL PURPOSE DISTRIBUTION (ISOLATION) TRANSFORMER

IN/HT	480V				Cust. Ref.	
BIL					Serial No.	
TERM. BORNES	H1 H2 H3				No. de série	
					Part No.	NMK075KKB3L5
					No. de pièce	
					Phase	3
					TYPE	K
					Cooling	ANN
					KVA	75
					Temp. Rise	80 °C
					Temp. Class	220 °C
					Frequency	60 Hz
					Impedance %	3.1
					Encl. Type	NEMA-3R
					Wt. LBS	895
					Winding	CU
					Energy Regulations	NEMA TP1
					CEE ACT	SOR/94/681

VOLTS	CURRENT COURANT	% RATED VOLTAGE % TENSION NOMINALE	CONNECTION EACH PHASE CONNEXION PAR PHASE
504	85.9	105	1
492	88.0	102.5	2
480	90.2	100	3
468	92.5	97.5	4
456	95.0	95	5
444	97.5	92.5	6
432	100.2	90	7

LV/BT	208Y/120V			
BIL				
TERM. BORNES	X0 X1 X2 X3			

ALSO LISTED IN ACCORDANCE WITH ENERGY STANDARD 6902-04
BY UNDERWRITERS LABORATORIES INC. © 3VJ6

SPACES BETWEEN ANY MODULAR ENCLOSURE PANEL AND
ANY ADJACENT WALL SHALL BE A MINIMUM OF 5 INCHES
ELECTROSTATIC SHIELD
SOUND LEVEL IS 5 DB LOWER THAN NEMA 5120
BASED ON EQUIVALENT KVA



Hammond Power
Solutions Inc.

TITLE: 3PH DISTRIBUTION TRANSFORMER
NAMEPLATE INFORMATION

NO.	DATE	BY	REVISION

DES: MCHRISTM
DATE: 10/12/16
SCALE: NTS

SHEET 1 OF 2

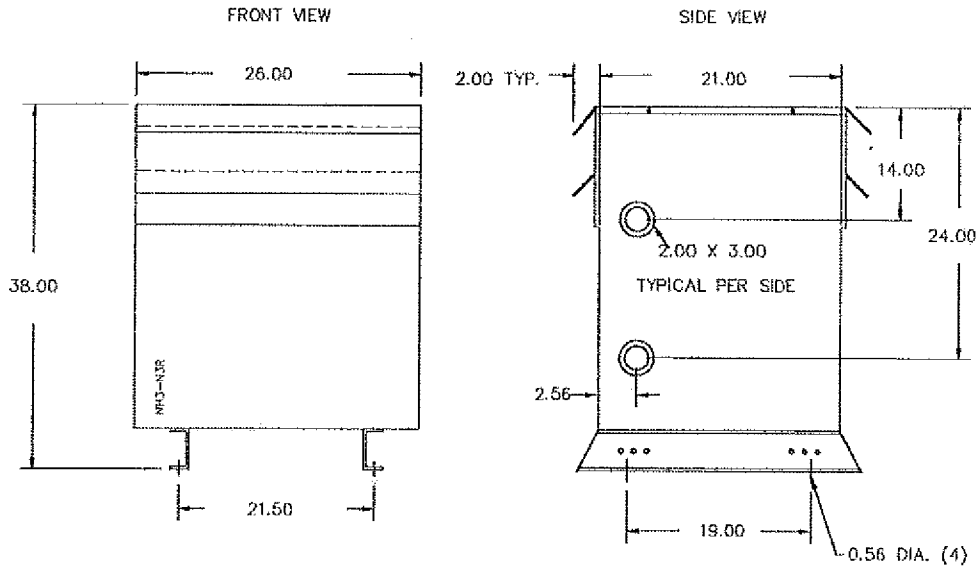
EDB/NMK075KKB3L5

0.1 inch 2011/05/16 17:42

J56.1-052

MOJ01454

JA 00005232



All Dimensions in inches

ENCLOSURE COLOR : ANSI 61 GREY -- OUTDOOR

H.V.1. TERMINAL DETAIL

L.V.1. TERMINAL DETAIL

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR #2/0-6 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR 600MCM-2 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

CUSTOMER NOTES:

- HV1 TERMINATED AT TOP FRONT
- LV1 TERMINATED AT BOTTOM FRONT



TITLE: 3PH DISTRIBUTION TRANSFORMER

NO.	DATE	BY	REVISION

DES: MCHRIST
DATE: 10/12/16
SCALE: NTS

SHEET 2 OF 2

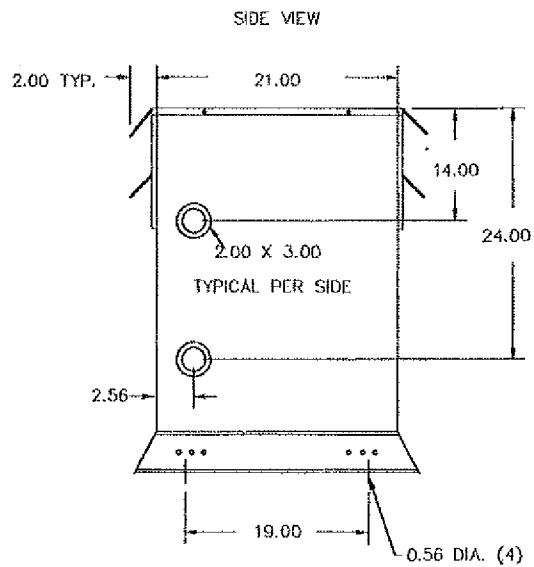
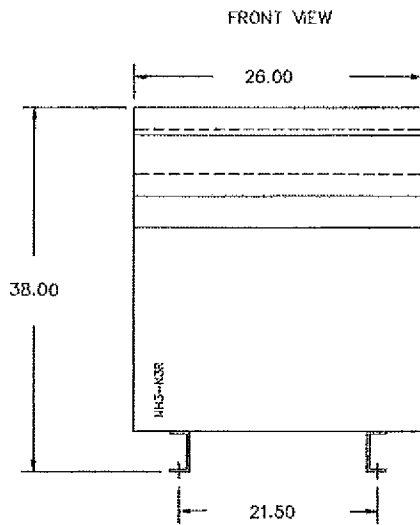
EDB/MK/075/KR/B3/L5

0.1 feet 2011/06/16 17:42

J56.1-053

MOJ01455

JA 00005233



All Dimensions In Inches

ENCLOSURE COLOR :ANSI 61 GREY - OUTDOOR

H.V.1. TERMINAL DETAIL

L.V.1. TERMINAL DETAIL

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR #2/0-6 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR 600MCM-2 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

CUSTOMER NOTES:

- HV1 TERMINATED AT TOP FRONT
- LV1 TERMINATED AT BOTTOM FRONT



**Hammond Power
Solutions Inc.**

TITLE: 3PH DISTRIBUTION TRANSFORMER

				DES: JWEN
				DATE: 06/11/28
NO.	DATE	BY	REVISION	SCALE: NTS

SHEET 2 OF 2

EDBNMK045KKB

17 9/28/11 10:10

J56.1-055

MOJ01457

JA 00005235

Carmen Militello

From: Peter Fergen
Sent: Tuesday, June 14, 2011 4:47 PM
To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA
Attachments: EHBA Revised Submittal2.pdf; Panel Drawings.pdf

FYI

From: Kelly Clark [<mailto:KellyC@nedco.com>]
Sent: Tuesday, June 14, 2011 1:00 PM
To: Peter Fergen
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

See attached for info on most of the panels referenced in item 1. I do not have a panel 'PSG' in my records. Note that EHBA was revised and is on its own separate submittal. All others are in the panel drawing document.

Awaiting transformer information for item 2 from both PQI and Hammond. Will advise.

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Tuesday, June 14, 2011 6:29 AM
To: Kelly Clark
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Can you answer this

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To: Peter Fergen
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J56.1-056

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See question below

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Hampton Tedder -Nevada
Division Manager
702-646-7449 office
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Please see Info request below

Roger Cates
Hampton Tedder -Nevada

J56.1-057

Division Manager
702-646-7449 office
702-234-8177 cell

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Division Manager
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Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

See the attached latest single line for Las Vegas City Hall

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To: Peter Fergen
Subject: LVCH_SingleLine.pdf

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J56.1-058

MOJ01460

JA 00005238

Carmen Militello

From: Roger Cates <roger.cates@hamptontedder.com>
Sent: Monday, June 13, 2011 9:53 AM
To: Chris Meiers
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Please see below...

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Division Manager
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To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

See question below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Thursday, June 09, 2011 7:25 AM

J56.1-061

To: Roger Cates
Cc: Peter Fergen; Robin Moran
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
Exactly what information do you need, just fault level?

Regards,
Chris Meiers

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Wednesday, June 08, 2011 3:03 PM
To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
We shall need utility contact to obtain fault level from Nevada Power. Please get me a contact or request this data from the client. I have a good progress on study. If you get me utility data, will be able to finish by the end of the next week.

Nenad

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Tuesday, May 31, 2011 7:15 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

I think we have this job.. it is one we estimated a few weeks ago, I am trying to confirm

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Friday, May 27, 2011 7:47 AM
To: roger.cates@hamptontedder.com
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

J56.1-062

See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

J56.1-063

MOJ01465

JA 00005243

Carmen Militello

From: Roger Cates <roger.cates@hamptontedder.com>
Sent: Monday, June 20, 2011 4:39 PM
To: Chris Meiers; Peter Fergen
Subject: FW: 767810 - LVCH_SingleLine.pdf OTHER DATA

Still need the Panel Info requested below....

Thanks

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [<mailto:nk@terrapowersolutions.com>]
Sent: Thursday, June 09, 2011 9:13 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf OTHER DATA

Roger,
Additionally, we need a few more data to finalize:

1. Submittal data for the following panels: PSG, EH1,4A;EHBA,EHRA (missing)
2. Low voltage transformers percentage of impedance Z% (swgr supplier to obtain)
3. UPS Bypass breakers manufacturer and type.
4. Stand-by generator submittal data (if possible)

Once we have these, study will be ready in 3-4 days.

regards

Ned

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Thursday, June 09, 2011 7:28 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

See question below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Thursday, June 09, 2011 7:25 AM

J56.1-064

To: Roger Cates
Cc: Peter Fergen; Robin Moran
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Roger,
Exactly what information do you need, just fault level?

Regards,
Chris Meiers

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Wednesday, June 08, 2011 3:03 PM
To: Chris Meiers
Cc: Peter Fergen; Robin Moran
Subject: FW: 767810 - LVCH_SingleLine.pdf UTILITY DATA

Please see info request below

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

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Sent: Wednesday, June 08, 2011 2:48 PM
To: 'Roger Cates'
Subject: RE: 767810 - LVCH_SingleLine.pdf UTILITY DATA

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We shall need utility contact to obtain fault level from Nevada Power. Please get me a contact or request this data from the client. I have a good progress on study. If you get me utility data, will be able to finish by the end of the next week.

Nenad

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Sent: Tuesday, May 31, 2011 7:15 AM
To: Ned
Subject: FW: 767810 - LVCH_SingleLine.pdf

I think we have this job.. it is one we estimated a few weeks ago. I am trying to confirm

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Peter Fergen [<mailto:pfergen@mojaveelectric.com>]
Sent: Friday, May 27, 2011 7:47 AM
To: roger.cates@hamptontedder.com
Cc: Chris Meiers
Subject: 767810 - LVCH_SingleLine.pdf

J56.1-065

See the attached latest single line for Las Vegas City Hall

From: Nolan Carl
Sent: Friday, May 27, 2011 7:45 AM
To: Peter Fergen
Subject: LVCH_SingleLine.pdf

Carmen Militello

From: Roger Cates <roger.cates@hamptontedder.com>
Sent: Tuesday, July 05, 2011 2:50 PM
To: Chris Meiers
Cc: madeleine.wentland@hamptontedder.com
Subject: FW: Breakers at Gen.

Chris, how we doing with getting Utility Info for the study.. that looks like last piece

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Nenad Kostic [mailto:nk@terrapowersolutions.com]
Sent: Tuesday, July 05, 2011 2:49 PM
To: madeleine.wentland@hamptontedder.com
Cc: Roger Cates
Subject: Re: Breakers at Gen.

Roger,
where we are with Utility data. We are almost clear on all the field data and need utility to finalize.

regards
Ned

--- On Tue, 7/5/11, madeleine.wentland@hamptontedder.com <madeleine.wentland@hamptontedder.com> wrote:

From: madeleine.wentland@hamptontedder.com <madeleine.wentland@hamptontedder.com>
Subject: Breakers at Gen.
To: "Nenad Kostic" <nk@terrapowersolutions.com>
Date: Tuesday, July 5, 2011, 9:51 PM

Each generator has this type of breaker. Did I miss anything? Hopefully, next time the phones will work. Thanks for bearing with me.
Sent from my Verizon Wireless BlackBerry

J56.1-067

Carmen Militello

From: Chris Meiers
Sent: Friday, August 12, 2011 6:26 AM
To: Richard Christensen
Subject: FW: City Hall BRKRs

Richard,
Please see update below from MAD.

Please call her when ELFCC and D2CC are ready for Hampton-Tedder to test.

Christopher Meiers
Project Manager
Mojave Electric

-----Original Message-----

From: madeleine.wentland@hamptontedder.com [<mailto:madeleine.wentland@hamptontedder.com>]
Sent: Thursday, August 11, 2011 10:27 AM
To: Chris Meiers
Subject: City Hall BRKRs

The breakers were all set with the exception of DB EHDPA main. We need around 100 amps to go through the trip unit for it to be set. We can set it while we are testing the emergency system. Do you have a date for the generators to be tested? We are also waiting on the settings for the FP and Dist. breakers, on PSG. I would appreciate a call when panel board ELFCC and D2CC are installed and ready for testing. SEA and SEB GFRs both trip, when one trips. I don't know who's issue that is. I just wanted to give you a heads up. Thanks.
Sent from my Verizon Wireless BlackBerry

J56.1-068

MOJ01470

JA 00005248

Carmen Militello

From: Roger Cates <roger.cates@hamptontedder.com>
Sent: Friday, August 19, 2011 1:18 PM
To: Chris Meiers
Subject: FW: Completion of City Hall
Attachments: MCCB EHDPA & HDPRBA.pdf; MCCB UDBL.pdf

FYI.. any input from Mojave on this?

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: MADELEINE WENTLAND [<mailto:madeleine.wentland@hamptontedder.com>]
Sent: Friday, August 19, 2011 1:14 PM
To: Roger Cates
Subject: Completion of City Hall

In order to complete the NETA testing, we need panels ELFCC and D2CC to be installed and the cable to be pulled to them so that we may test both the cables and the panels.

The testing of the automatic transfer switches coincides with the start up of the generators. We will have to verify transfer times and voltages.

The trip unit for EHDPA requires a specific amount of amperage to be running through it, for it to be set. Since the coordination study was not completed until after the breakers were tested, we were not able to use our test machine to set the trip unit. Assuming that the trip unit is still working properly, once there is an adequate amount of load on the breaker, we will be able to set it. I plan on doing this at the same time I complete the ATS testing.

Attached are two breaker data sheets. Please take note of breakers "EHRA" on EHDPA, and "BLANK" on UDBL. I have not heard back regarding the replacement of either.

Thanks.

J56.1-069

MOJ01471

JA 00005249

MOJ01472
JA 00005250

Life Safety Meeting



Issue Date:	12/20/2011	Prepared By:	Adam Popiel
Project:	CLV City Hall MQAA	Location:	W-T Jobsite Trailer
Meeting No:	18 (held on 12/13/2011)	Time:	9:00

NOTICE TO ALL PRESENT: IF ANY OF THE FOLLOWING ITEMS ARE INCORRECT OR FAIL TO RECORD DISCUSSION AT THE MEETING, PLEASE CONTACT PREPARER IMMEDIATELY.

Attendance (for Meeting #18 held on 12/13/2011)

Present	Name	Company	Business Phone	Cell Phone	Email Address
☐	Steve Aguirre	POWER SMITHS	602-361-8408		steve@powersmiths.com
☐	Al Angulo	Johnson Controls, Inc.	510-512-0253		
☐	Daniel P. Beck	JBA	362-9200		dbeck@jbace.com
☐	Ryan Binette	Precision Air Balance Co., Inc	279-1267		Ryan@precisionairbalance.com
☐	Fletcher Bittle	Whiting-Turner Contracting Company	925-485-0800		fletcher.bittle@whiting-turner.com
☐	Nancy Briseno	Whiting-Turner Contracting Company	702-650-0760		nancy.briseno@whiting-turner.com
☐	Adam Brown	Bombard Mechanical	491-4073		
☐	Clinton Burch	Whiting-Turner Contracting Company	702-296-3305		clinton.burch@whiting-turner.com
☐	Richard Christensen	Mojave Electric	702-205-3313		rchristensen@mojaveelectric.com
☐	John Claudio	Siemens Building Technologies, Inc.	308-9349		John.Claudio@Siemens.com
☐	Richard Colletti	Bombard Mechanical	491-4073		
☐	Michael Crowe	JMA Architects	(702) 731-2033	(702) 249-0706	mcrowe@jmaarch.com
☐	Dana Decosta	Siemens Building Technologies, Inc.			
☐	Cyril Eldridge	POWER SMITHS	416-951-1010		cyril@powersmiths.com
☐	Charles Flood	TMCx Solutions, LLC	702-577-3632	702-277-1265	cflood@tmcxsolutions.com
☐	Michael Floyd	Whiting-Turner Contracting Company	702-604-7424		michael.floyd@whiting-turner.com
☐	Mike Fritz	Westar Fire Protection, Inc	702-445-4018		mfritz@westarfire.com
☐	Clinton Gordon	JBA	(702) 362-9200		cgordon@jbace.com
☐	Michael Hahn	Johnson Controls, Inc.	414-870-1789		michael.j.hahn@jci.com
☐	Breck Hardesty	Mojave Electric	702-798-2970	702-205-3316	bhardesty@mojaveelectric.com
☐	Eric Helley	Bombard Mechanical	872-2181		
☐	Raul Hernandez	Whiting-Turner Contracting Company	702-296-3291		raul.hernandez@whiting-turner.com
☐	Dino Iannucci	Bombard Mechanical	702-400-0749		dino@bombardmechanical.com
☐	Todd Jones	Siemens Building Technologies, Inc.		702-249-6259	todd.jones@siemens.com
☐	Kirk Kaeser	Whiting-Turner Contracting Company	949-279-7236		kirk.kaeser@whiting-turner.com
☐	Kyle Kaeser	Whiting-Turner Contracting Company			
☐	David Klein	CLVF&R	702-229-0536	702-305-0720	dklein@lasvegasnevada.gov
☐	Victor Koger	Siemens Building Technologies, Inc.	702-237-2110		victor.koger@siemens.com
☐	Dave Lavery	Westar Fire Protection, Inc	702-334-6296		
☐	David Lee	Whiting-Turner Contracting Company	702-296-3299		david.lee@whiting-turner.com
☐	Elliott Lloyd	Whiting-Turner Contracting Company	702-604-3591		elliott.lloyd@whiting-turner.com
☐	Chris Melers	Mojave Electric	702-205-3311		cmelers@mojaveelectric.com
☐	Robert Messiana	JMA Architects	(702)731-2033	702.592.0281	rmessiana@jmaarch.com
☐	Robert Miller	Safe Electronics, Inc.	702-367-7233	702-429-1092	robertm@safelv.com
☐	Phuong Nguyen	Siemens Building Technologies, Inc.	702-855-5300	702-858-4569	phuongnguyen@siemens.com
☐	Joe Noble	Noble Consulting Services	702-221-1037		jnoble@nobleconsultingservices.com
☐	Charles Ochs	TMCx Solutions, LLC			
☐	Mike Perkins	Precision Air Balance Co., Inc	702-325-5693		

Scott Petrocco	Mojave Systems	702-798-2990		
David Phillips	Forest City Commercial Group	702-434-2741	702-493-4744	davidphillips@forestcity.net
Scott Schoch	Bombard Mechanical	491-3999		sschoch@bombardmechanical.com
Bill Sittman	Bombard Mechanical	702-872-2395		bsittman@bombardmechanical.com
Jason Sparks	Westar Fire Protection, Inc.	702-298-7304		jsparks@westarfire.com
Ean Tucker	L C Electric	702-872-8127		ean@lcelectric.net
Jason Witterman	JBA	702-362-9200		jwitterman@JBACE.com

Meeting Minutes

Old Business

Item: 1.5 Date Submitted: 1/11/2011 Responsibility: Siemens Building Technology Active

Topic: Self Test Feature

- 11/1/2011 Siemens has no issues with the self test.
- 11/8/2011 No update.
- 11/15/2011 Siemens requested input from the owner as to the day of the week and the time when they would like the self test to run.
- 11/22/2011 -Feedback from owner that self test should run Mondays between 5 and 7 AM
- Siemans noted that the self test is showing troubles when running. Need to determine what is causing the troubles so that it will not affect the smoke control operation. It was noted that it might be the HVAC units shutting down in unoccupied mode at night. TMCx confirmed that this should not affect the operation of the smoke control system. If it is, it needs to be addressed.
- 11/29/2011 Previous entry regarding the self test failing was a note by Siemens in reference to another project. This was for discussion purposes only. Once the self test is programmed, we will be able to verify if there is any interference from the normal building operation. If there is, the cause will need to be investigated.
- 12/6/2011 Self test will not be enabled until testing is complete.

Meeting Minutes

Item: 1.6 Date Submitted: 1/11/2011 Responsibility: JMA Architects Active
 Topic: Smoke Control Drawings/Matrix

- 10/25/2011 -Scans of approved drawings will need to be through JMA. Need to check if the approved plans have been scanned yet.
 -Bombard forwarded list of dampers not on SCDs to Elliott for review
 -No new items on the SCDs have been noted
- 11/1/2011 Need to check with Elliot on status of drawings & list of dampers not on SCD's.
- 11/1/2011 Mojave needs latest approved architecture drawing to submit to Siemens for graphic panel face plate revisions.
- 11/8/2011 Mojave received them Saturday 11/5/11 and submitted to Siemens on Monday 11/7/11. Siemens stated that there are items missing and will submit a list by end of this week and will verify that they are working off of the latest approved drawings, which are Delta 14.
- 11/15/2011 There are several items that will need to be captured on the next SCD revision. Siemens will need updated matrix for programming/pretesting.
 -Damper changes for AH-6
 -Adding missing FSDs
 -Changes at grand stair, adding FSDs
 -Matrix updates
- 11/22/2011 -WT was scheduled to receive revised SCDs last Friday. WT will follow up
 -There are 2 FSDs to be added at the grand stair.
 -Other FSDs to be added are lvl 1 corridor 1007, east wall grand entry (corridor 1002)
 Noted that revised drawings are needed ASAP for programming, pretesting, and functional testing.
- 11/29/2011 New Bulletin 15 drawings have been distributed for comments. Please forward any concerns to WT
- 11/29/2011 Siemens developed a list of questions during smoke control programming this weekend. They will forward list to WT. Summary as follows:
 -are the AD control wiring diagrams shown
 -dampers may not be shown on the plans in the location they are installed in the field. Noted AD-104, 105 and 106 specifically
 -Does EC-1 need to be shut down for passive mode
 -do the BRDs need to configure for the SPF duct smoke detector or off switch or just with the SPF
 -EF-3 serves level 8, does it need to shut down with an alarm
 -do any of the other fans in the basement need to shut down? EF-1, EF-9, etc
 -AH-6 return appears to be interlocked with the supply. The return will not run unless the supply is.
- 12/6/2011 -Updated smoke control diagrams needed ASAP for programming/pretesting
 -Revised matrix will indicate the pre-action and water curtain systems to activate smoke control
 -Question asked regarding backdraft dampers referred to as auto dampers? - WT to confirm in RFI
 -Changes to damper locations not addressed in JBA email.
 -WT and TMCx to meet with JBA to review SCD changes at 1:30 today
 JBA responded to the previous list of items as indicated in the next line
- 12/6/2011 JBA responses:
 -EF-1, EF-5 and EF-9 will be added to the matrix to shut down
 -EF-6 served level 8 chiller room and is not required to shut down as part of smoke control
 -There are no motors associated with the Barometric relief dampers and they are not interlocked. Siemens noted that the question was not clear originally. It was meant to refer to the isolation dampers for the barometric relief dampers. Reviewed in the meeting that the NC and NO designations on the smoke control riser diagram were the fail positions of those dampers upon loss of power. Siemens had not been provided the clarification on this.
 -EC-1 does not need to shut down in smoke control
 -JBA will provide sketches of dampers to be decommissioned
- 12/13/2011 -Revised SCDs will be need to be submitted before the all systems test can be scheduled
 -WT will send out the set of bootleg revisions just received for review by all

Meeting Minutes

Item: 1.10 Date Submitted: 1/11/2011 Responsibility: Whiting-Turner Contracting Active
Topic: Schedule Updates

- 10/11/2011 -WT clarified that building turnover is January 4th, not substantial completion
-Functional testing scheduled to begin Dec 1
-Siemens pretesting starting by 11/7, complete by 11/30
-FSDs scheduled to be complete and operational by 11/3, All fans started up and operational by 11/11
- 10/25/2011 All dates noted at the last meeting are still current.
- 11/1/2011 Still on schedule.
- 11/8/2011 ALL areas should be released for device installation and all fire alarm devices should be installed by the first week of December. Siemens still needs to complete their installation of their devices in the Edit room now, with the exception of the acoustic wall coverings.
- 11/8/2011 WT still working on the schedule. Joe Noble will have an updated schedule submitted tomorrow, 11/9/11.
- 11/15/2011 Schedule did not get distributed last week. WT distributed schedule to all in the meeting.
- 11/22/2011 No changes or issues were noted
- 11/29/2011 Reviewed the 4 week schedule with everyone
- 12/6/2011 Reviewed 4 week schedule with all. Highlights below:
-Elev signoff complete for FLS testing
-Elev Doors Installed
-WON door needs reset switch for testing, stone work interfering with install
-Smoke guard testing today
-FA pretest on schedule for Fire Department
-Stair press is ready for testing now, trouble from the auto damper switch will be fixed today
-New FSCP to be installed over the weekend
-New FSDs not complete yet, still have outstanding questions on dampers
-Damper pretesting ongoing, not complete
-Permanent labels should be complete
-TAB can be complete by the end of the week for comfort balance if issues are addressed.
-Smoke control functional testing behind schedule
- 12/13/2011 -Elev Key switches installed and ready for testing
-2 fails on the smoke guards last week
-Fire Alarm pre-final scheduled for tomorrow
-Stair press complete
-New FSCP installed
-NEW FSDs are complete
-Smoke control functional testing - starting to make progress
-Planning on having the majority of MQAA testing complete by the end of the weekend but if not, next week will be Cx 6-12, FD 12-4 and QAA 4-10
-PABCO starting air balance set-up on Saturday
-Noted that testing should start with the most challenging zones for PABCO
-Requested to schedule duct smoke detector testing starting Thursday

Item: 2.3 Date Submitted: 2/8/2011 Responsibility: Whiting-Turner Contracting Active
Topic: Damper access in council chambers

- 10/11/2011 Building department is requiring a second ladder and grating to be installed
- 10/25/2011 Material procurement in process. Approx 2 weeks for completion
- 11/1/2011 On going, should be complete in another week.
11/8/11: WT to verify if complete.
- 11/15/2011 Waiting on second access hatch
- 11/22/2011 2nd access hatch is being installed now.
- 11/29/2011 2nd hatch is installed, grating will be installed today.
- 12/6/2011 Issue with the plenum rating for the fiberglass grating that was installed. WT to address with Building Dept.
- 12/13/2011 -grating needs to be replaced

Meeting Minutes

Item: 7.3 Date Submitted: 7/12/2011 Responsibility: Active

Topic: Access panels in stairs

- 10/25/2011 -WT will look at the two locations after the meeting to review alternatives.
-TMCx noted that the damper access in stair 2, level 1 is to the storage room adjacent to the stair.
- 11/1/2011 WT removing access door in the stairwell and relocating in room adjacent to the stairwell, not complete yet.
11/8/11: Not complete and WT to verify when it will be completed.
- 11/15/2011 In process, not complete yet. WT noted that stair 2 was not an issue but the CMU wall in stair 3 may be an issue. Will explore other options for the junction box.
- 11/22/2011 Mojave will be able to relocate the j-box for the security wiring below the ceiling in stair 3. Work in progress.
- 11/29/2011 work may be complete. WT will verify
- 12/6/2011 -Stair 3 complete, drywall in process of being repaired
-Stair 2 needs electrical relocated, FSD access needs to be addressed as well
- 12/13/2011 -stair 2 - FSD is relocated, walls to be closed up today

Item: 8.3 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Fire Alarm Status/Pretesting

- 11/1/2011 Main FACP complete end of this week, 11/4/11, Siemens is in the process of completing installation.
- 11/1/2011 Fire alarm final is scheduled for 12/23/11 and testing with the fire department is scheduled for 12/19/11 through 12/23/11.
- 11/1/2011 Elec room 1006 smoke detector is inaccessible, WT is working on a resolution.
11/8/11: WT is still working on a resolution.
- 11/1/2011 Mojave needs finished walls and ceilings to complete installation of fire alarm devices. WT working on getting them finished.
11/8/11: All areas will be released for device installation on Monday 11/14/11. Siemens will be complete with pretesting by end of November.
- 11/8/2011 Suppression systems need pretesting and testing complete by 12/23/11.
- 11/15/2011 -Mojave has been released for all areas to complete fire alarm devices. Anticipate being complete by the end of the week.
-Clean agent system install in process
-FACP up and running, network is up. Notification appliances are approximately 98%
-Alarmco radio link installed, wires are pulled and ready to be landed in the FACP. Will leave disconnected until monitoring is required.
-No significant issues reported
- 11/22/2011 -Siemens needs names for the clean agent systems from SAFE to enter into the fire alarm program
-Device install is substantially complete in all areas except the elevator cars
- 11/29/2011 -Clean agent system names not provided yet
-1 elevator car speaker showing trouble, remaining units installed.
- 12/6/2011 -CLV Inspector noted issues with Cheetah panel wiring. Need to change conduit to eliminate straight run into the top of panel. Change is in process but not complete yet
-Cheetah panels are providing alarm, supervisory and trouble signals to Siemens. As the pre-action system are now an initiating device for smoke control, these signals will need to be ready for testing of the smoke control system.
-CLV inspector has identified that where a single Cheetah panel monitors/releases several pre-action systems, distinct signals must be sent to Siemens to distinguish what system is in alarm, etc. SAFE noted that the panels have the capability but may not be set up for this.
-Elevator speakers should be complete. Trouble is gone off the system
- 12/13/2011 -Westar will check into Cheetah panel wiring
-Siemens ready for tie in, Cheetah panels powered
-Still need names for the pre-action / clean agent systems
-Elevators complete

Meeting Minutes

Item: 8.4 Date Submitted: 8/9/2011 Responsibility: Active
 Topic: Firefighters Smoke Control Panel

- 8/9/2011 Noted that the revised smoke control drawings were necessary to finalize the smoke control panel design and submit to the City for approval. This is a critical item due to the review time of the SCD's, submission and approval of the smoke control panel and fabrication time. TMCx offered to complete a courtesy review before submission
- 9/13/2011 Panel ordered and fabrication underway. Scheduled to ship on the 15th with 3-4 days of transit time.
 Siemens will send approved FSCP design to TMCx for record.
- 10/11/2011 FSCP is on site and installed
- 10/25/2011 -New background for FACP is ordered to match current building layout. 1-2 weeks for replacement
- 11/1/2011 New background has not been ordered, Mojave is waiting for latest approved architecture drawings to submit to Siemens.
 11/8/11: Siemens received drawings Monday 1/7/11 and will provide a list of item that are missing. Joe Noble stated that the new face panel needs to be installed by 12/9/11.
- 11/15/2011 -Floor plan was submitted for new background. No update on status
 -TMCx recommended that the background be replaced before functional testing begins so no retesting is required.
- 11/22/2011 New background for the FSCP will not be installed until Dec 9th. Siemens will need 1-2 days to install. TMCx will need to retest functions after the install
- 11/29/2011 No Update
- 12/6/2011 On schedule for the 9th, will change out over the weekend to not interfere with testing.
- 12/13/2011 No further discussion - item closed.

Item: 8.5 Date Submitted: 8/9/2011 Responsibility: Active
 Topic: Smoke Zone Boundary inspections

- 8/9/2011 TMCx began smoke zone boundary inspections in the basement last week before ceiling tiles were dropped. TMCx asked to be kept in the loop on the ceiling tile schedule so that we can stay ahead. All firestopping should be complete before the inspections.
- 9/13/2011 TMCx will be on site tomorrow to continue inspections.
- 10/11/2011 Ongoing, upper floors are ready for inspection. TMCx to schedule
- 10/25/2011 TMCx will revisit IR log items and remaining floors after the meeting
- 11/1/2011 WT working on issues, TMCx to verify.
 11/8/11: TMCx to verify next week.
- 11/15/2011 Zone inspections are complete with the exception of the IR log items.
- 11/22/2011 continuing to reinspect IR log items
- 11/29/2011 No Update
- 12/6/2011 IR log resolution is proceeding slowly, multiple issues remaining.
- 12/13/2011 Still in process

Item: 9.3 Date Submitted: 9/13/2011 Responsibility: Active
 Topic: Smoke Control Test Plan

- 11/22/2011 TMCx will update Test Scenarios to the upcoming revisions to the SCDs and send out to all
- 11/29/2011 Will update test scenarios to Bulletin 15 smoke control diagrams for testing this week.
- 12/6/2011 Bulletin 15 scenarios distributed.
- 12/13/2011 Scenarios updated to the Bulletin 16, Delta 22 drawings.

Meeting Minutes

Item: 10.3 Date Submitted: 9/13/2011 Responsibility: Active
Topic: Comfort Balance

- 10/11/2011 PABCO reports that the comfort balance is approximately 75%. Ceiling completion is the biggest issue for balance. Trouble areas are the council chamber and the area at the passenger elevators. Noted that none of the air handling systems are 100%.
- 10/25/2011 -PABCO noted a correction from last week's minutes, VAVs are approximately 75% complete.
-Noted that completion of balance for the systems will require construction to be complete for removal of pre-filters
-PABCO expects to be mostly complete with the VAVs by the end of the week and moving on to water system balance.
-Should be able to complete the basement and floors 3-7 on a flood-by-floor basis.
- 11/1/2011 Complete with VAV boxes with the exception of unfinished areas, WT will be complete with those areas in 2 weeks so PABCO can complete.
11/8/11: Still on schedule.
- 11/1/2011 PABCO is still on schedule to complete TAB by end of November. They requested that fire alarm testing not interfere with TAB by shutoff air handlers and closing FSD's. Siemens stated that they were not going to shutoff air handlers or close FSD's during their testing.
- 11/1/2011 TAB is complete for the council chambers.
- 11/1/2011 TAB for water is starting 11/7/11 on second shift and should be complete in 2 weeks.
11/8/11: Continuing.
- 11/8/2011 MQAA setup is scheduled for 12/5/11 for 3rd party testing.
- 11/15/2011 Noted that the final filter install is not currently scheduled until Dec 16th. This will affect final verification of pressures between floors and duct smoke detector certification.
- 11/22/2011 -VAVs should be complete by the end of the week throughout
-EF-3 Noise issue - this fan serves multiple floors and remains running in smoke mode so adjustments need to be made before smoke control balance is complete. The fan cfm needs to be increased which will increase the noise issue.
-There are items holding up TAB cpm
- 11/29/2011 TAB is progressing. EF-3 is still in process.
- 12/6/2011 -EF-3 balance complete, noise still an issue. Discussed different discharge plenum to address noise, may affect system balance. WT following up with JBA
-SCF-6/EF-8 dampers not able to be set to normal positions for balance. Need Fire Alarm devices installed. Should be complete today
-AH's on level 3 through 7 are finalized
-AH-6 damper issues affecting balance
-2 VAV boxes remain on AH-2 through 5, should be able to complete by tomorrow if all goes well.
-PABCO will send list of issues to WT to track and advise PABCO when items are complete
- 12/13/2011 -8th floor fan coils
-CRACs not complete
-See Cx meeting for additional

Meeting Minutes

Item: **10.4** Date Submitted: **9/13/2011** Responsibility: Active
 Topic: **Duct Smoke Detector Testing**

- 10/11/2011 Comfort balance needs to be complete to read minimums and maximums on sampling tube detectors.
Bombard believes that most of the detectors at the FSDs are in duct smoke detectors. These will not require certification by the air balancer.
- 10/25/2011 Pending system balance. TMCx noted that we can test the functional component of the detectors separately from the DP verification if necessary in the schedule
- 11/1/2011 Should be ready for testing first of December.
11/8/11: Mojave is short two duct detectors, should be here today.
- 11/15/2011 Last 2 detectors should be installed by tomorrow. Balance will not be finalized until December for certification.
- 11/22/2011 Question was raised whether there are additional units on level 8 that require duct smoke detectors. Noted the relocated fan coils for the electric room, chiller room and FCUs 26, 27, 28, 29 and 32 have some questions
-WT will confirm with JBA
- 11/29/2011 -all duct smoke detectors installed per the mechanical drawings are remaining.
-Need to install detectors on the fan coils on level 8 as noted previously.
- 12/6/2011 -Updated matrix is needed ASAP for programming, pretesting and testing
-JBA will be on site today at 1:30. TMCx and WT to meet to discuss outstanding SCD issues
-Pre-action, water curtain and dry system waterflow switches are added to the latest matrix as initiating devices for the zone where they reside.
- 12/6/2011 -Question asked if duct smoke detectors are required on EC-1-R. TMCx to research.
-Detectors not installed yet on EC-1 - WT is confirming if required with RFI
-Detector not yet installed on FC-35, fan coils on level 8 incomplete.
- 12/13/2011 Requested E3 Balance be scheduled for Thursday. Will need JCI or PABCO to set mins and maxes. Requested to forward Tab info

Item: **10.5** Date Submitted: **9/13/2011** Responsibility: Active
 Topic: **Smoke Control TAB setup**

- 10/11/2011 -PABCO is planning on approximately 7 days to set up the smoke exhaust system.
-Schedule has TAB complete by 12/5
- 10/25/2011 All fans except basement SCF have been bumped
- 11/1/2011 Need SCF above the council chambers bumped, should be ready by 11/11/11.
11/8/11: Complete.
- 11/1/2011 Bombard needs to install the louvers and they will need to be painted, discussing this with WT.
- 11/15/2011 Louvers will be installed by next week. No other updates
- 11/22/2011 Louvers are still being painted, should be complete end of next week. No other updates
- 11/29/2011 -Building enclosure not complete in 2 areas, main entry and 2050, the prefuction area. This needs to be enclosed for smoke control balance.
-discussed that TAB setup should be complete for Dec 12 with verification on the 13th - 14th. This will allow time to submit the Final Report.
- 12/6/2011 -pending completion of the system and building/zone enclosure
-Exterior doors have been installed but are not complete. WT pushing to get complete by the 9th.
-Other zone boundary issues (thresholds, doors, etc) need to be complete to start setup
-Stairs incomplete for setup to occur
- 12/13/2011 Scheduled to begin Saturday

Meeting Minutes

Item: 10.6 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Exhaust Method Verification

- 10/11/2011 Fire protection report specifies that the exhaust for the lobby zone must be read from within the zone. The design of the exhaust openings and the ceiling height will make this problematic. TMCx and JBA will discuss to see if there are any alternate methods that can be used.
- 10/25/2011 TMCx discussed verification with Ken Miller and confirmed that he will accept alternate means of measuring the exhaust. TMCx will evaluate options.
 Also confirmed that we will not have to verify make up air quantity for the lobby zone but we will need to read pressure differentials to confirm the space is at least slightly negative to the adjacent zones. TMCx will detail in test plan
- 11/1/2011 TMCx and Bombard to verify points to measure DPs before next meeting.
 11/8/11: TMCx to complete next week.
- 11/15/2011 TMCx checked the ductwork after the meeting and will be able to verify exhaust quantities in the doghouse on the roof of the council chambers or at the FSDs from the access platforms
- 11/22/2011 No Update

Item: 10.7 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Door Fan Testing

- 10/11/2011 Several of the passive areas will require door fan testing. Some of this will overlap with the integrity testing for the clean agent systems. TMCx will provide list of proposed rooms with the test plan.
- 11/1/2011 Draft test plan submitted for peer review. WT to confirm rooms that are listed to be tested are ready.
 11/8/11: WT to verify if rooms are ready for testing.
- 11/15/2011 -Requested to be notified as SAFE completes the room integrity tests for the clean agent systems.
 -TMCx will request leakage calculations from the Engineer of Record
- 11/22/2011 No Update
- 11/29/2011 WT will verify rooms are complete for testing.
- 12/6/2011 - No update on when SAFE will be performing the door fan test on the clean agent rooms
 - Comm room cable will not be complete until march, conduits will be firestopped.
- 12/13/2011 -WT will check out the list of rooms
 -SAFE has a list of issues with the rooms. They will forward to WT for correction
 TMCx inquired about the VAV sequence and whether it was sufficient to achieve the room integrity.

Meeting Minutes

Item: 10.8 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Stair door unlocking

- 10/11/2011 -It was noted that the current specification for the stair door locking hardware calls for fail secure hardware which is not permitted on the stair doors. WT to follow up with RFI
 -Mojave noted that there is not a provision on the smoke control panel for stair door unlocking and the wiring configuration of the security hardware may not allow selective unlocking of the stair doors only.
- 10/25/2011 -Last week's discussion was partially incorrect. The hardware schedule does specify that certain lock sets are to be fail safe. There is a "FS" designation provided in the description.
 -There will be a meeting today to discuss the power supplies for the doors.
- 11/1/2011 Electric locks fail "unlocked" per the specifications and they need to "unlock" by a fire alarm and power failure.
 11/8/11: Joe Noble needs verification of the operation of the locks. Siemens will have a manual switch on the FAP to unlock the doors.
- 11/15/2011 -Confirmed that there will be a release button on the FACP for the doors.
 -Need to confirm if Stanley has a single point to tie in to the FA system for release
 -Noted that at least one stair door in the tower is locked currently which indicates that the lock hardware is incorrect. The stair doors are without power at this time and should be unlocked.
- 11/22/2011 -Stanley does not have a tie in to the FA system at this time
 -There are still several areas with hardware issues that need to be addressed
- 11/29/2011 -Hardware is still an issue. WT is working with the hardware supplier
 -no tie in to the stanley equipment yet. Mojave is working on the issue
- 12/6/2011 - one outstanding latch issue remains
 -Tie in to FA system is in process
- 12/13/2011 -Not complete
 -Noted that this is needed for fire department testing next week.

Item: 10.9 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Fire Pump and ATS Status signals to main switchgear

- 10/11/2011 System calls for monitoring of the fire pump ATS and fire pump run status as part of load shedding of non-critical loads. These inputs need to be provided to the PSG. Unsure at this time where these status points can be pulled from
- 10/25/2011 No Update
- 11/1/2011 Mojave will verify during load bank testing, which is scheduled for today, 11/1/11. TMCx needs copy of load bank testing.
- 11/8/2011 Generator is ready for testing of the fire pumps.
- 11/15/2011 Mojave has the status points from the fire pump and has the wire pulled. Needs the points to land on in the PLC in the switchgear
- 11/22/2011 Mojave needs time to shut down the switchgear and make the necessary tie-ins to the PLC. Will affect Cx activities
- 11/29/2011 Tie in not completed yet
- 12/6/2011 New PLC has been ordered
- 12/13/2011 PLC has not arrived yet. Still in process.

Meeting Minutes

Item: 10.10 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Generator Status/Shunt Trip

- 10/11/2011 -Noted that there is an issue with manufacturer support on the generator that is hampering efforts to complete the system. The generator is able to run in auto and start automatically but the monitoring points and paralleling are not complete.
 -The generator will be needed as part of the fire pump testing which is in the next couple weeks as well as for smoke control testing
- 10/25/2011 -Load bank testing to occur in the next 1-2 weeks. Fire pump testing will be able to occur after load bank test
 -Generator will be available for testing and will function automatically once shunt trip is installed. Generators will be running in droop mode.
 -No support from ISO at this time for wiring diagrams of the PLC
- 11/1/2011 Generator will be 100% complete this week and ready for MQAA testing.
- 11/1/2011 GenTech called Mojave during the meeting and stated there is 2" of water in the trough. WT is working on the issue.
- 11/8/2011 -Generator is ready for MQAA testing.
 -Discussed what shunts TMCx needs to witness. Based on the conversation, we will need to shunt both NV Energy feeds and the PV feeds. This should drop all normal power to the building.
- 11/15/2011 Mojave would like to pretest the emergency ATS E1 for proper operation this week
- 11/22/2011 Waiting to schedule the test of the ATS, will try for next week
- 11/29/2011 Will try to schedule a test for this afternoon if possible
- 12/6/2011 Will pretest SEA and SEB shunt trips. Pretest on ATS E1 was successful
- 12/13/2011 Shunt trip pretests complete. Permanent labels needed, discussed whether a more descriptive tag was needed than the breaker name.

Item: 10.11 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Fire Pump and Standpipe testing

- 11/15/2011 -Testing pending curbs and paving. Will be after Thanksgiving
 -Mojave has not yet received a CR for the level probes. Westar has received elevations. Installation pending.
- 11/22/2011 -Mojave needs points to monitor fire pump. The one set of contacts identified are tied to the fire pump status display in fire command.
 -Floats are being installed, should be ready for Mojave tomorrow.
 -May be able to schedule standpipe testing for Tuesday next week. WT has plans to manage runoff.
- 11/29/2011 -Fire Pump monitoring is complete
 -Floats are installed and wired. Will be tested today
 -fire pump and standpipe testing scheduled for this week.
- 12/6/2011 -Floats are complete
 -Dry standpipe not yet tested
 -Tamperers still need to be tested, Siemens will program and Westar to provide labels for Siemens to input. Permanent tags will be on site tomorrow
 -Siemens noted that in order to test tamperers with the fire department to off site monitoring, all valves must be open so that no supervisory signals are being sent.
- 12/13/2011 -Dry standpipe complete
 -Tamperers complete through 7 with FD, FD testing will be last thing next week.
 -Westar finished except as-builts.

Meeting Minutes

Item: **10.12** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Hydrant flow test

- 10/11/2011 Hydrant flow test should be conducted as soon as possible.
- 10/25/2011 can be scheduled after curb and gutter is completed. Scheduled to be complete by Nov 10.
Waiting on traffic permit.
- 11/1/2011 Scheduled to be complete by end of November.
- 11/1/2011 Traffic permit complete.
- 11/8/2011 No update.
- 11/15/2011 Will be conducted after Thanksgiving when paving and curbs are complete
- 11/22/2011 Will try to schedule with pump and standpipe testing next week.
- 11/29/2011 WT will coordinate with Flippens
- 12/6/2011 Need painted curbs, reflector in street. WT will schedule with Flippens ASAP
- 12/13/2011 scheduled for the 16th

Item: **10.13** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Dry system testing

- 10/11/2011 Westar reports that the dry system testing is scheduled to start next week
- 10/25/2011 Pretesting has started.
- 11/1/2011 Pretesting is complete.
11/8/11: Pretesting is complete with the exception of the 8th floor 24 hour air test, waiting on power and will be complete on Monday 11/14/11.
- 11/15/2011 Westar is ready to complete testing
- 11/22/2011 8th floor should be complete today which should be the last system. Westar will confirm
- 11/29/2011 -All 24 hour tests are complete
-Trip tests, low/high air, waterflow, etc still to occur
-There is 1 dry standpipe that also needs to be tested
- 12/6/2011 -Will conduct dry system trip tests, low/high air, etc with tamper testing next week
-Will test dry standpipe next week with tampers, 24 hour test complete
- 12/13/2011 should be complete for the 23rd

Item: **11.3** Date Submitted: **10/25/2011** Responsibility: Active

Topic: DAS system

- 10/25/2011 Anderson Communications is the rep for the DAS system. Basement antenna install is in process this week. Schedule shows 11/1 for completion.
- 11/1/2011 Mojave is waiting for the equipment from Anderson and will check on status.
11/8/11: Mojave has all the equipment and should be complete by end of next week.
- 11/15/2011 Installation is in progress, should be complete by the end of the week
- 11/22/2011 Waiting on equipment rack, antennas are complete, system should be complete in a few more days.
-Siemens will need to monitor the required points on the system. Need to confirm that these status points are available
- 11/29/2011 -waiting on rack, system is complete otherwise.
-No points yet for Siemens to monitor
- 12/6/2011 -Waiting on batteries from Anderson communications then system will be ready
-Siemens tie in not complete
- 12/13/2011 -Still missing batteries. No ETA from Anderson. Need for final test
-FD scheduled to test with comm group tomorrow

Meeting Minutes

Item: 12.3 Date Submitted: 10/25/2011 Responsibility: Active

Topic: Smoke Guards

- 11/8/2011 Not required on level 1, but for basement & levels 2 through 8. levels 3-8 will be complete this week and 2nd floor on 11/18/11.
- 11/15/2011 Installation in progress, Mojave noted that the installer was making changes to the wiring in the field.
- 11/22/2011 -Smoke guards install is complete.
- 11/29/2011 Ready for testing
- 12/6/2011 Smoke guard testing today
- 12/13/2011 -Smoke guard on site today to repair issues.
-Will need smoke guard on site for the final testing of smoke guards after TAB is complete

Item: 12.4 Date Submitted: 11/1/2011 Responsibility: Active

Topic: Miscellaneous items

- 11/1/2011 Joe Noble asked Siemens for their as-built drawings for the fire alarm final which is scheduled for 12/23/11. Siemens to submit, but they may or may not be stamped approved.
- 11/1/2011 Joe Noble asked if the schedule was ok and no one had any comments.
- 11/1/2011 All NCR, NOV's, & releases from all agencies need to be closed by 12/16/11.
- 11/8/2011 Joe Noble to send out an updated schedule.
- 11/8/2011 Siemens needs JCI provided CT's for fans installed so they can connect for fan status.
- 11/15/2011 Fire Alarm As-Built's Pending
- 11/22/2011 -FA as-built's should be submitted around 12/15
-Doors for elevator lobbies incomplete
-Fire alarm can be tested on a floor by floor basis with CLVE&R to start knocking out some of the testing
-Sprinkler as-built's - complete for B and 8, will hold B until outstanding questions are addressed
-Fire Pump room inspection needs to be scheduled
-Need smoke control permanent labels by 11/30 for testing
- 11/29/2011 -elevator lobby doors not complete yet
-sprinkler as-built's for level 8 were submitted. Level B holding on hot aisle issue.
-correction to previous, FA as built's should be submitted by 12/18 after testing with FD
-fire pump room inspections in process
- 12/6/2011 -Elev lobby doors reported complete
-Hot aisle issue - looking at head spacing to maintain coverage in all cases - still in process
-Smoke control diagram changes affecting sprinkler as-built's
-Tampers in fire pump room will be tested next week
- 12/13/2011 -hot aisle issue in process with the City
-Elevator lobby doors still missing on level 2
-Fire Pump Room tampers complete

Item: 14.3 Date Submitted: 11/15/2011 Responsibility: Active

Topic: VFD Programming

- 11/15/2011 VFDs for smoke control fans need to be programmed for fire mode
- 11/22/2011 CAMs will be needed for programming once balance points are set. VFDs are reported to be currently programmed to run as required
- 11/29/2011 no update
- 12/6/2011 Need CAMS on site to address VFD programming for AH-6 and other SCFs
- 12/13/2011 SCF-1 and 2 have been reprogrammed. AH-6 needs additional relays to function but has been programmed by CAMS

Meeting Minutes

Item: 14.4 Date Submitted: 11/15/2011 Responsibility: Active

Topic: Current Transducers

- 11/15/2011 CTs are needed for all smoke control fans and fans that shut down as part of smoke control for monitoring status.
 -Need to determine who is responsible for providing ASAP. CTs are required as part of the functional testing scheduled to begin on Dec 1 and need to be pretested.
 -TMCx noted that auto-adjusting CTs are not recommended for any fans that need to run in smoke control.
- 11/22/2011 CTs should be on site tomorrow.
- 11/29/2011 CTs approx 60% complete. Need Stair press ready for testing on Thursday.
- 12/6/2011 CTs installed. Need to wait to adjust until belts on/off test after TAB complete.

Item: 14.5 Date Submitted: 11/15/2011 Responsibility: Active

Topic: Auto Damper Monitoring and Control

- 11/15/2011 Auto dampers are not currently being controlled by the fire alarm system or being monitored by the fire alarm system. This needs to be resolved for pretesting before the end of the month or it will affect functional testing on Dec 1.
 -There are no open-closed Indicator switches on the dampers at this time, they will need to be installed in the field for the fire alarm to monitor status
- 11/22/2011 -OCIs- bombard will be ordering and installing
 -smoke control position needs to be achieved in 60 seconds. Will spot check a few after the meeting
 -No FA controls for the dampers installed yet
- 11/29/2011 -OCIs should be on site tomorrow, will take 1-2 days for install
 -TMCx spot checked a couple dampers after last week's meeting and confirmed that the dampers are spring return and will cycle in 10 seconds or so
 -fire alarm controls and monitoring for auto dampers will be installed as soon as the switches are installed.
- 12/6/2011 -Mercury switches installed
 -FA is connected to the dampers, need to complete point to point
- 12/13/2011 -Complete

Item: 14.6 Date Submitted: 11/15/2011 Responsibility: Active

Topic: AH-6 dampers

- 11/15/2011 AH-6 dampers are not currently shown to configure for smoke control and there is no fire alarm control or monitoring to these dampers.
 -It was discussed that the dampers downstream in the ductwork were not needed now and can be decommissioned. Control functions can be performed by the dampers in the unit. JBA will be making updates to the SCDs.
- 11/22/2011 No update
- 11/29/2011 See revisions on Bulletin 15
- 12/6/2011 AH-6 return fan has multiple modes to configure for: normal run, shutdown with duct smoke detectors and smoke control mode. VFDs are not set up to achieve this yet. CAMs is required to make necessary adjustments and pretest with Siemens.
- 12/6/2011 -AH-6 damper configuration not resolved on smoke control diagrams, still shows 2 EA and OA dampers.
 -Hardwire interlock on the VFDs still affecting smoke control configuration
- 12/13/2011 -Interlock addressed
 -AH-6 dampers addressed in bulletin 16 SCDs

Meeting Minutes

Item: 15.3 Date Submitted: 11/22/2011 Responsibility: Active

Topic: Decommissioning of Dampers

- 11/22/2011 Reviewed the decommissioning process with all: The damper actuator and wiring must be removed, any smoke detectors for the damper must also be removed. A locking handle or other means must be connected to the damper to maintain it in the open position. Any markings that identify it as a FSD (previous labels from the smoke control diagrams, etc) should be removed.
-There are several dampers that will be required to be decommissioned.
- 11/29/2011 WT will look into a list of decommissioned dampers.
- 12/6/2011 Waiting on list from JBA. WT to follow up
- 12/13/2011 -WT has bootleg list. Goes with CR for SCDs

Item: 15.4 Date Submitted: 11/22/2011 Responsibility: Active

Topic: Floor to Floor DP tubing

- 11/22/2011 Floor to floor tubing will be installed in the TR rooms from 3-8. Need to identify locations for tubing on floors B-2
- 11/29/2011 -TMCx to Walk this week with WT
-Need complete for TAB start
- 12/6/2011 CRA will be sent today
- 12/13/2011 Not installed yet, firestopping now complete in the telecom rooms
-Walk after meeting

New Business

Item: 18.3 Date Submitted: 12/13/2011 Responsibility: Active

Topic: Riser room in 2nd fl Mech Rm

- 12/13/2011 Noted that the new riser room in 2FL mechanical room has created issues. Clearances are affected with the dry system compressor, may affect FA notification appliance placement.

Carmen Militello

From: Adam Popiel <apopiel@tmcxsolutions.com>
Sent: Wednesday, November 16, 2011 3:40 PM
To: Bill Sittman (bsittman@bombardmechancial.com); Breck Hardesty; cgordon@jbace.com; Clinton Burch (clinton.burch@whiting-turner.com); Chris Meiers; cyril@powersmiths.com; Daniel Beck; David Lee (David.lee@whiting-turner.com); David R. Phillips (davidphillips@forestcity.net); ean@lcelectric.net; eliott.loyd@whiting-turner.com; Fletcher Bittle (fletcher.bittle@whiting-turner.com); 'Jason Witterman (JWitterman@jbace.com)'; jnoble@nobleconsultingservices.com; jsparks@westarfire.com; Kirk Kaeser (kirk.kaeser@whiting-turner.com); Mario "DINO" Iannucci (dino@bombardmechancial.com); mrfritz@westarfire.com; Michael Crowe (mcrowe@JMAarch.com); Michael.Floyd@whiting-turner.com; michael.j.hahn@jci.com; Nancy Briseno-Rivera (nancy.briseno@whiting-turner.com); Phuong Nguyen; Raul Hernandez (raul.hernandez@whiting-turner.com); Richard Christensen; Robert Messiana (Rmessiana@jmaarch.com); sschoch@bombardmechancial.com; steve@powersmiths.com; todd.jones@siemens.com; victor.koger@siemens.com
Subject: CLV City Hall Updated Life Safety Meeting Minutes
Attachments: 2006 IBC section 911.pdf; 2006 IBC section 3003.pdf; 2006 IBC Combined 101206 Southern Nev Amendments excerpt.pdf; CLV CH Life Safety Issues Log - issue date 2011-11-15.pdf; 2011-11-15 - LV City Hall Life Safety Meeting Minutes.pdf

All:

The updated life safety meeting minutes and current IR log are attached for your review. Please advise if there are any corrections or updates. I have also attached two excerpts from the 2006 IBC for the elevators based on the discussion at the meeting. Please note that the sections were amended by Southern Nevada. I have attached the amendments as well.

Sincerely,

Adam Popiel, EIT



www.tmcxsolutions.com

5575 S. Durango Dr, Ste 102

Las Vegas, NV 89113

Office: 702-252-7232

Cell: 702-604-5952

Fax: 702-252-7234

apopiel@tmcxsolutions.com

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air-handling systems, fans shall be controlled to shut down in accordance with the approved smoke control sequence.

SECTION 911 FIRE COMMAND CENTER

[F] 911.1 Features. Where required by other sections of this code, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be approved by the fire department. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 706 or horizontal assembly constructed in accordance with Section 711, or both. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). A layout of the fire command center and all features required by the section to be contained therein shall be submitted for approval prior to installation. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications unit.
3. Fire detection and alarm system annunciator unit.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. Worktable.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.

SECTION 912 FIRE DEPARTMENT CONNECTIONS

[F] 912.1 Installation. Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with Sections 912.2 through 912.5.

[F] 912.2 Location. With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be approved.

[F] 912.2.1 Visible location. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire code official.

[F] 912.2.2 Existing buildings. On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" at least 6 inches (152 mm) high and words in letters at least 2 inches (51 mm) high or an arrow to indicate the location. All such signs shall be subject to the approval of the fire code official.

[F] 912.3 Access. Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other object for a minimum of 3 feet (914 mm).

[F] 912.3.1 Locking fire department connection caps. The fire code official is authorized to require locking caps on fire department connections for water-based fire protection systems where the responding fire department carries appropriate key wrenches for removal.

[F] 912.4 Signs. A metal sign with raised letters at least 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS, STANDPIPES or TEST CONNECTION, or a combination thereof as applicable.

[F] 912.5 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow as required by the *International Plumbing Code*.

CHAPTER 30

ELEVATORS AND CONVEYING SYSTEMS

SECTION 3001 GENERAL

3001.1 Scope. This chapter governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components.

3001.2 Referenced standards. Except as otherwise provided for in this code, the design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall conform to ASME A17.1, ASME A90.1, ASME B20.1, ALI ALCTV, and ASCE 24 for construction in flood hazard areas established in Section 1612.3.

3001.3 Accessibility. Passenger elevators required to be accessible by Chapter 11 shall conform to ICC A117.1.

3001.4 Change in use. A change in use of an elevator from freight to passenger, passenger to freight, or from one freight class to another freight class shall comply with Part XII of ASME A17.1.

SECTION 3002 HOISTWAY ENCLOSURES

3002.1 Hoistway enclosure protection. Elevator, dumbwaiter and other hoistway enclosures shall be shaft enclosures complying with Section 707.

3002.1.1 Opening protectives. Openings in hoistway enclosures shall be protected as required in Chapter 7.

Exception: The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

3002.1.2 Hardware. Hardware on opening protectives shall be of an approved type installed as tested, except that approved interlocks, mechanical locks and electric contacts, door and gate electric contacts and door-operating mechanisms shall be exempt from the fire test requirements.

3002.2 Number of elevator cars in a hoistway. Where four or more elevator cars serve all or the same portion of a building, the elevators shall be located in at least two separate hoistways. Not more than four elevator cars shall be located in any single hoistway enclosure.

3002.3 Emergency signs. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: **IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS.** The emergency sign shall not be required for elevators that are part of an accessible means of egress complying with Section 1007.4.

3002.4 Elevator car to accommodate ambulance stretcher. Where elevators are provided in buildings four or more stories above grade plane or four or more stories below grade plane, at least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate a 24-inch by 84-inch (610 mm by 1930 mm) ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame.

3002.5 Emergency doors. Where an elevator is installed in a single blind hoistway or on the outside of a building, there shall be installed in the blind portion of the hoistway or blank face of the building, an emergency door in accordance with ASME A17.1.

3002.6 Prohibited doors. Doors, other than hoistway doors and the elevator car door, shall be prohibited at the point of access to an elevator car unless such doors are readily openable from the car side without a key, tool, special knowledge or effort.

3002.7 Common enclosure with stairway. Elevators shall not be in a common shaft enclosure with a stairway.

3002.8 Glass in elevator enclosures. Glass in elevator enclosures shall comply with Section 2409.1.

[F] SECTION 3003 EMERGENCY OPERATIONS

[F] 3003.1 Standby power. In buildings and structures where standby power is required or furnished to operate an elevator, the operation shall be in accordance with Sections 3003.1.1 through 3003.1.4.

[F] 3003.1.1 Manual transfer. Standby power shall be manually transferable to all elevators in each bank.

[F] 3003.1.2 One elevator. Where only one elevator is installed, the elevator shall automatically transfer to standby power within 60 seconds after failure of normal power.

[F] 3003.1.3 Two or more elevators. Where two or more elevators are controlled by a common operating system, all elevators shall automatically transfer to standby power within 60 seconds after failure of normal power where the standby power source is of sufficient capacity to operate all elevators at the same time. Where the standby power source is not of sufficient capacity to operate all elevators at the same time, all elevators shall transfer to standby power in sequence, return to the designated landing and disconnect from the standby power source. After all elevators have been returned to the designated level, at least one elevator shall remain operable from the standby power source.

[F] 3003.1.4 Venting. Where standby power is connected to elevators, the machine room ventilation or air conditioning shall be connected to the standby power source.

[F] 3003.2 Fire-fighters' emergency operation. Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1.

SECTION 3004 HOISTWAY VENTING

3004.1 Vents required. Hoistways of elevators and dumbwaiters penetrating more than three stories shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

Exceptions:

1. In occupancies of other than Groups R-1, R-2, I-1, I-2 and similar occupancies with overnight sleeping quarters, venting of hoistways is not required where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Sidewalk elevator hoistways are not required to be vented.

3004.2 Location of vents. Vents shall be located at the top of the hoistway and shall open either directly to the outer air or through noncombustible ducts to the outer air. Noncombustible ducts shall be permitted to pass through the elevator machine room, provided that portions of the ducts located outside the hoistway or machine room are enclosed by construction having not less than the fire protection rating required for the hoistway. Holes in the machine room floors for the passage of ropes, cables or other moving elevator equipment shall be limited so as not to provide greater than 2 inches (51 mm) of clearance on all sides.

3004.3 Area of vents. Except as provided for in Section 3004.3.1, the area of the vents shall not be less than $3\frac{1}{2}$ percent of the area of the hoistway nor less than 3 square feet (0.28 m²) for each elevator car, and not less than $3\frac{1}{2}$ percent nor less than 0.5 square feet (0.047 m²) for each dumbwaiter car in the hoistway, whichever is greater. Of the total required vent area, not less than one-third shall be permanently open. Closed portions of the required vent area shall consist of openings glazed with annealed glass not greater than 0.125 inch (3.2 mm) in thickness.

Exception: The total required vent area shall not be required to be permanently open where all the vent openings automatically open upon detection of smoke in the elevator lobbies or hoistway, upon power failure and upon activation of a manual override control.

3004.3.1 Reduced vent area. Where mechanical ventilation conforming to the *International Mechanical Code* is

provided, a reduction in the required vent area is allowed provided that all of the following conditions are met:

1. The occupancy is not in Group R-1, R-2, I-1 or I-2 or of a similar occupancy with overnight sleeping quarters.
2. The vents required by Section 3004.2 do not have outside exposure.
3. The hoistway does not extend to the top of the building.
4. The hoistway and machine room exhaust fan is automatically reactivated by thermostatic means.
5. Equivalent venting of the hoistway is accomplished.

3004.4 Plumbing and mechanical systems. Plumbing and mechanical systems shall not be located in an elevator shaft.

Exception: Floor drains, sumps and sump pumps shall be permitted at the base of the shaft provided they are indirectly connected to the plumbing system.

SECTION 3005 CONVEYING SYSTEMS

3005.1 General. Escalators, moving walks, conveyors, personnel hoists and material hoists shall comply with the provisions of this section.

3005.2 Escalators and moving walks. Escalators and moving walks shall be constructed of approved noncombustible and fire-retardant materials. This requirement shall not apply to electrical equipment, wiring, wheels, handrails and the use of $\frac{1}{28}$ -inch (0.9 mm) wood veneers on balustrades backed up with noncombustible materials.

3005.2.1 Enclosure. Escalator floor openings shall be enclosed with shaft enclosures complying with Section 707.

3005.2.2 Escalators. Where provided in below-grade transportation stations, escalators shall have a clear width of 32 inches (815 mm) minimum.

Exception: The clear width is not required in existing facilities undergoing alterations.

3005.3 Conveyors. Conveyors and conveying systems shall comply with ASME B20.1.

3005.3.1 Enclosure. Conveyors and related equipment connecting successive floors or levels shall be enclosed with shaft enclosures complying with Section 707.

3005.3.2 Conveyor safeties. Power-operated conveyors, belts and other material-moving devices shall be equipped with automatic limit switches which will shut off the power in an emergency and automatically stop all operation of the device.

3005.4 Personnel and material hoists. Personnel and material hoists shall be designed utilizing an approved method that accounts for the conditions imposed during the intended operation of the hoist device. The design shall include, but is not limited to:

Section 911.1 Features (Fire Command Center).

Amend Section 911.1 to read as follows:

911.1 Features. Where required by other sections of this code, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be approved by the fire department. The fire command center shall have an access door opening to the exterior of the building and be separated from the remainder of the building by not less than a 2-hour 4-hour fire barrier constructed in accordance with Section 706 or horizontal assembly constructed in accordance with Section 711, or both. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). The room shall have a minimum size equal to 0.015 percent of the total building area of the facility served or 150 square feet (14 m²), whichever is greater, with a minimum dimension, in feet, of 0.8 times the square root of the room area (in square feet). A layout of the fire command center and all features required by the section to be contained therein shall be submitted to the fire department for approval prior to installation. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications unit.
3. Fire detection and alarm system annunciator unit.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with direct controlled access to the public telephone system.
11. Fire pump status indicators.
12. Current, approved building plans including the Master Exit Plans, approved fire protection system shop drawings, approved Smoke Control Diagrams, the approved Fire Protection Report, fire/emergency preplans for the facility, and manufacturer's operation manuals for all fire protection and life safety systems. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. WA minimum 3-feet by 7-feet worktable capable of holding building plans in an open position.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. A minimum 3-feet by 4-feet dry-erase marker board, with dry erase marker and an eraser attached.
17. Separate shunt trip switches for normal and emergency power.

**TABLE 3002.4
AMBULANCE STRETCHER SIZED ELEVATOR CARS**

NUMBER OF BUILDING STORIES	NUMBER OF ELEVATOR CARS SIZED TO ACCOMMODATE AN AMBULANCE STRETCHER
1-30	<u>1</u>
31-60	<u>2</u>
61-90	<u>3</u>
91 and greater	4

Section 3003.1.3 Two or More Elevators.

Amend Section 3003.1.3 to read as follows:

3003.1.3 Two or more elevators. Where two or more elevators are controlled by a common operating system, all elevators shall automatically transfer to standby power within 60 seconds after failure of normal power where the standby power source is of sufficient capacity to operate all elevators at the same time. Where the standby power source is not of sufficient capacity to operate all elevators at the same time, all elevators shall transfer to standby power in sequence, return to the designated landing and disconnect from the standby power source. After all elevators have been returned to the designated level, at least one elevator, and all elevators installed in accordance with Section 3002.4, shall remain operable from the standby power source.

Section 3109.1 Swimming Pool Enclosures and Safety Devices.

Amend Section 3109.1 to read as follows:

3109.1 General. Swimming pools shall comply with the requirements of the Southern Nevada Pool Code ~~this section and other applicable sections of this code.~~

Section 3109.2 Definitions through 3109.5.4 Pool cleaner fittings.

Delete Sections 3109.2 through 3109.5.4 without replacement.

Section 3110 Cabanas.

Add Sections 3110.1 through 3110.9 to read as follows:

SECTION 3110 CABANAS

3110.1 General. This section shall apply to cabanas on, or in close proximity to, buildings where the predominant building construction type would not otherwise allow cabanas to be constructed as membrane structures in accordance with Section 3102.3. Cabanas that are erected for a period of less than 180 days shall comply with the *International Fire Code*.

3110.2 Definitions. The following words and terms shall, for the purposes of this section, have the meanings shown herein:

CABANA. A structure used for temporary shelter, comfort and privacy of occupants located on, or in close proximity to, a building. Cabanas shall not be used for retail sales, bar service, food preparation, storage, or overnight sleeping.

CABANA GROUP. A group of individual cabanas that are not separated from each other as required within this section. The total area of the cabana group shall be used to determine code requirements for all cabanas contained within the cabana group.

3110.3 Design and Construction. Cabanas shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration.

3110.3.1 Frame. Cabanas shall be constructed of a rigid, noncombustible frame that is permanently mounted to the roof or deck on which it is located.

3110.3.2 Membrane Covering. The membrane covering of the cabana shall either be noncombustible in accordance with Section 703.4 or be tested by an approved agency and pass Test 2 of NFPA 701.

3110.3.3 Openness. Each cabana shall be provided with a minimum of one opening to an exterior egress route. Such opening shall provide a minimum unobstructed opening of 5 feet (1524 mm) wide by 7 feet (2134 mm) high.

3110.3.4 Height. The highest point of a cabana shall not exceed 20 feet (4572 mm).

3110.3.5 Area. The area of any single cabana or cabana group shall not exceed 500 square feet (46.45 m²).

Exception: The area of cabanas that are constructed entirely of noncombustible materials shall not exceed 1000 square feet (92.90 m²).

3110.4 Location. Cabanas shall be located to minimize the hazard to the building, other cabanas, and the means of egress.

3110.4.1 Separation between cabanas. Cabanas shall be separated from all other cabanas by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection. Where cabanas do not meet this spacing, the cabanas shall be considered a cabana group, and the cabana group shall meet the requirements set forth herein.

3110.4.2 Separation between cabana groups. Cabana groups shall be separated from all other cabanas by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection.

Issues and Resolution Log



Date: 11/15/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
1	3/4/2011		Basement	Stair 3a	Stair 3a, basement level, there are multiple utilities passing through the area that will be the vestibule. Although the construction is incomplete, it does not appear that there will be a way to shaft or isolate these conduits from the stair and vestibule. 4/13/2011: A rated ceiling has been added to the vestibule of stair 3a on the basement level, excluding the utilities from the vestibule. The stair has not yet been completed to exclude the utilities. They are still visible from inside the stair. 5/10/2011: The remaining drywall in stair 3a will be completed with the exterior envelope 9/13/2011: Scheduled to be complete this week 10/21/2011: There is currently an access door installed in the rated ceiling of stair 3a in the basement to access a junction box. This needs to be a rated door at minimum based on discussions with the CLV inspector however WT will look at relocating the junction box and eliminating the access door entirely.	Open	WT
6	3/4/2011		Stair 2	Penetrations	Stair 2, Level 1, there are multiple conduits and utilities passing through the stair large vestibule that do not serve the stair 4/13/2011: Reviewed the ceiling for the vestibule in stair 2, level 1. The current "armstrong ceiling system" does not appear that it is going to be rated. 5/10/2011: Contractor reports that a hard lid has been installed in the vestibule on level 1, stair 2. Need to verify that the ceiling is rated to exclude the utilities above. 6/14/2011: There is now a ceiling installed in the Stair 2, level 1 vestibule however is does not appear to be rated. A rated ceiling is required due to the utilities located above 10/21/2011: A rated ceiling is installed in stair 2, level 1 however access is currently required above the ceiling for a damper and utilities. Based on discussions with the CLV inspectors, a rated access door is scheduled to be installed however WT will look at providing access from other areas.	Open	WT
7	3/4/2011		Zone 1W	Boundary Walls	The zone boundary walls at tape storage 1096 and womens restroom 1085 are not full height and work appears to be complete. This area is shown as the smoke zone boundary between 1W and 1N 4/13/2011: Walls have now been extended to full height in the area of the restrooms between zone 1W and 1N. The error was a result of a discrepancy between the architectural drawings and the smoke control drawings. Penetrations and ductwork still need to be sealed. TMCx will check the boundaries during smoke zone inspections. 10/19/2011: WT and TMCx reinspected the tape storage room 1096 but found that there were still outstanding issues. 10/21/2011: There are still gaps around the ductwork above the tape storage room and several pieces of unistrut that penetrate the smoke boundaries that are not sealed.	Open	

J56-476

MOJ00660
JA 00005107

Project No 95011

Page 1 of 6

Issues and Resolution Log



Date: 11/15/2011

Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
11	4/12/2011		Level 2	Boundary Walls	The smoke zone boundary walls in the area of Mens Restroom 2058, Janitor 2058A and Mens Restroom 2060 on the second floor do not appear to be constructed as smoke zone boundary walls. 9/13/2011: WT noted that this is CR work due to discrepancy between Arch and SCDs. Work being scheduled	Open	W-T
14	4/12/2011		Level 1	Sprinkler drawings	The sprinkler zoning shown on the shop drawings is shown incorrectly in the area of restrooms 1084 and 1085 on level 1 and along the boundary of the council chambers on level 2. Sprinkler zoning has been verified to correctly correspond to the smoke control drawings 5/10/2011: The area of the restrooms 1084/1085 may have been updated on the revised smoke control drawings. TMCx to reverify 11/15/2011: TMCx rechecked the as build sprinkler drawings however the revised piping is not indicated in the area of the restrooms on level 1 and the council chambers on level 2. Need to wait until revised as-builts are issued.	Open	
15	8/5/2011		Basement	Penetrations	There is what appears to be a temp power cable in the Emergency Electrical Room 0029. Wires are cut on the garage side and firestopped however the elec room side is not. If firestopping method does not require both membranes be sealed, no correction is necessary. 11/15/2011: Rechecked the temp power penetration in room 0029. The power cables have been removed however the drywall has not been patched	Open	
21	8/16/2011		Level 5	Shaft Wall	The shaft wall near FSD-501 (Level 5, NW) has been cut into and not repaired. Appears an access door will be installed. Ensure rated door is utilized. 9/13/2011: Bombard noted that the damper needed to be relocated in this area. Work in progress 10/25/2011: Drywall patch has been completed however the seal to the I-beam at the top of wall is not complete 11/15/2011: Rechecked the shaft wall near FSD-501 however the top of wall at the I beam is not sealed.	Open	W-T
24	8/16/2011		Basement	Penetrations	The 5 inch drain pipe in the East wall of the sewage ejector pump room is not sealed. This is the smoke zone boundary as shown on the smoke control diagrams.	Open	
26	9/14/2011		Mechanical Rooms	Penetrations	Chilled and hot water risers need to be firestopped between floors in the mechanical rooms. Levels 6, 5 & 4 are not complete 10/25/2011: Work has not started yet on the firestopping for the chilled and heating water risers.	Open	

J56-477

Project No 95011

Page 2 of 6

MOJ00661

JA 00005108

Issues and Resolution Log



Date: 11/15/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
28	9/14/2011		Electrical Rooms	Elec Buss Duct	The buss duct running through the tower electrical rooms is protected by metal flashing at the floor penetrations however it is not provided with any sealant or backing material to resist the passage of smoke. Need to confirm what the proper installation method is. This affects multiple levels. 10/21/2011: TMCx verified that the buss duct in the tower electrical rooms is now sealed from level 3-4 and from 4-5. Other levels need to be verified. 10/25/2011: Reinspected the buss duct from level 5 through 7 where it terminates and confirmed that the floor penetrations are firestopped. At this time, the termination of the duct on level 3 is not firestopped where the duct transitions to the 4" conduits. 11/15/2011: The buss duct is still not sealed on level 3 where it transitions to the conduits through the floor.	Open	
30	9/14/2011		Elev Lobby 6035	Penetrations	The firestopping is damaged on multiple penetrations to elevator lobby 6035 (elev 6) on level 6 on the South wall. It also appears that the drywall was patched on the West wall and may not be taped as required	Open	
31	9/14/2011		TelCom/Data Rooms	Penetrations	There are multiple areas where telcom/data rooms are stacked and large numbers of 4" sleeves extend between smoke zones. These sleeves are sealed to the slab but the unused space in the conduits will need to be sealed once the cable has been pulled. Example, TeleCom 5034, 3044, etc	Open	
37	9/14/2011		Lobby Glass Lvl 3	Inspection Item	Lobby glass installation is incomplete on level 3. The seal between the sides of the aluminum frames are not sealed to the adjacent construction. 10/21/2011: Lobby glass installation on level 3 is proceeding however all of the seals are not complete for inspection 11/15/2011: The lobby glass installation is mostly complete however the seals between the frame and the structure of the building are still incomplete.	Open	
38	9/14/2011		Level 3	Penetrations	There is a stud above the lobby glass on level 3 that is not sealed. Location is approximately gridlines J and EE 10/21/2011: Reinspected the stud above the glass wall at gridlines J and EE (outside the passenger elevator lobby) on level 3 but found that it was not yet sealed. 11/15/2011: Reinspected the stud above the glass wall on level 3 by the passenger elevator lobby but the penetration to the boundary has not been sealed yet.	Open	
40	9/14/2011		Level 3	Dampers	There does not appear to be a way to access damper FSD-302 in open office 3011 for inspection/servicing 10/21/2011: The drywall at damper FSD-302 has been trimmed away to allow better access however the access to view and service the damper blades through the duct is by a piece of sheet metal taped to the duct. Need a permanent means of accessing and servicing the damper.	Open	Bombard

J56-478

Project No 95011



Issues and Resolution Log

Date: 11/15/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
41	9/14/2011		Level 3	Inspection Item	The zone boundary in on the north wall of open office 3011 is incomplete for inspection.	Open	
					10/21/2011: Glass has been installed on the north wall of open office 3011 as part of the smoke boundary but installation is not complete for inspection.		
43	9/14/2011		Level 2	Inspection Item	Zone boundary between gridlines E and F along grid 4 is incomplete for inspection. This is the boundary between 2W and Lobby	Open	
46	9/14/2011		Level 2	Penetrations	Seal holes in the floor of 2nd floor electrical room 2029. Noted holes by transformer and by Strand Lighting panel	Open	
47	9/14/2011		Level 2	Penetrations	Seal holes in the wall between the council chambers and security 2044 on level 2, inside the access panel.	Open	
48	9/14/2011		Level 2	Inspection Item	The council chamber wall is incomplete and firestopping has not been completed across most of the length of the 2nd floor lobby.	Open	
49	9/14/2011		Level 2	Walls	There is a piece of drywall missing at FSD-216 on the inside of the KCLV control room next to the elevator. Piece missing is only a couple inches wide but there appears to be an incomplete seal between the damper and wall	Open	
					10/21/2011: The drywall at FSD 216 has not yet been repaired.		
50	9/14/2011		Level 2	Zone Boundary	The KCLV Control Room 2048 on level 2 is shown as part of the zone boundary between the lobby and 2N zones. The area above the control room appears to be open between zones. Need to confirm if construction is complete in this area	Open	
					10/21/2011: Reinspected the KCLV control room and confirmed with WT that no additional construction was planned in the area. There is still no separation above the ceiling at the smoke zone boundary as shown on the SCDs.		
52	9/14/2011		Level 2	Dampers	The gap in the drywall around FSD-214 exceeds the manufacturers allowable. Drywall needs to be repaired/replaced	Open	
53	9/14/2011		Level 2	Inspection Item	The zone boundary between 2E and the Lobby is incomplete and will need to be inspected at a later time.	Open	
					10/21/2011: Installation of the panels on the smoke boundary on level 2 at the lobby is proceeding but is not complete for inspection yet.		
57	9/14/2011		Level 1	Inspection Item	Construction is incomplete in the area of reception 1111 and corridor 1008 (between zone 1N and Lobby) and between Lobby and Corridor 1143 (Lobby and zone 1E)	Open	
58	9/14/2011		Level 1	Construction	The construction of the zone boundary in the area of edit #1 and 2 (rooms 1098 and 1099) on level 1 appears to utilize a soffit around the ductwork passing through the area. There appears to be a rated access panel missing in this area and some penetrations to seal	Open	

J56-479

Project No 95011

Issues and Resolution Log



Date: 11/15/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
59	9/14/2011		Level 1	Penetrations	There are unsealed penetrations in tape storage room 1096 on level 1 above the ceiling	Open	
62	10/21/2011		Level 1	Penetrations	There is an unsealed condensate line in the N wall of electrical room 1006 by elev 5 on level 1. There is also a hole in the S wall at floor level that needs to be repaired.	Open	
65	10/25/2011		Level 8	Penetrations	11/15/2011: Rechecked electrical room 1006 however the penetrations are not yet sealed		
66	10/25/2011		Level 8	Penetrations	There are 2 plywood covers, one on either side of FSD-801 on level 8. Need to verify penetrations are sealed under plywood.	Open	
69	10/25/2011		Level 8	Penetrations	Level 8 Electrical Room 808, seal hole in floor at the "SatCon" unit. Also, data sleeves will need to be sealed once cables are pulled.	Open	
70	10/25/2011		Level 7	Penetrations	There is a green conduit that penetrates the stair vestibule on level 8 multiple times that needs to be sealed.	Open	
71	10/25/2011		Level 7	Penetrations	Level 7 passenger elevator lobby (4-pack) seal orange conduit above the lobby doors on the outside of the lobby.	Open	
72	10/25/2011		Level 8	Penetrations	Level 7, electrical room 7030B, repair firestop at orange conduit to thermostat through floor.	Open	
73	10/25/2011		Level 6	Penetrations	11/15/2011: The firestopping is still in need of repair in electrical room 7030 on the orange conduit to the thermostat. The back side is where the firestopping is missing.	Open	
74	10/25/2011		Level 3	Penetrations	Level 8 inside stairway, seal the sprinkler line penetration above the vestibule door.	Open	
75	10/25/2011		Level 5	Penetrations	Level 6, Elec Rm 6059 need to verify that any penetrations under plywood are sealed	Open	
76	10/25/2011		Level 3	Penetrations	Level 3, passenger elevator lobby (4-pack) repair firestop at yellow conduit on back wall. Conduit has been pulled away from the wall.	Open	
77	10/25/2011		Level 2	Penetrations	Level 5, passenger elevator lobby (4-pack) seal flex conduit penetration on outside wall of lobby above doors AND seal fire alarm penetration on the inside of the lobby above the doors.	Open	
78	10/25/2011		Various	Smoke Dampers	11/15/2011: TMCX reinspected the 5th floor passenger elevator lobby but found that the penetrations are not sealed. Also, two patches are required to the drywall on the exterior of the lobby at the top. The drywall is broken away around the sprinkler pipe and the electrical conduit.	Open	
79	10/25/2011		Level 2	Penetrations	Need to verify that the out-of-wall installation of the smoke dampers is acceptable	Open	
80	11/15/2011		Level 3	Dampers	Level 2, passenger elevator lobby (4-pack), need to repair the firestopping at the dual 2" conduits on the North wall, inside lobby.	Open	
81	11/15/2011		Level 3	Dampers	Damper actuator on damper in the 3rd floor mechanical room is reported to be slipping on the shaft and needs adjustment.	Open	

Project No. 85011

Page 5 of 6

Issues and Resolution Log



Date: 11/15/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
79	11/15/2011		Basement	SCF-8	There does not appear to be a motor starter for SCF-8 in the basement. This fan will need to be controlled for smoke control and carbon monoxide control	Open	
80	11/15/2011		Level 4	Penetrations	Seal the orange conduit through the floor in the 4th floor mechanical room. Conduit is located with the other 4 inch risers.	Open	
81	11/15/2011		Level 2	Penetrations	Repair the hole in the wall of the exit passageway in stair 3 on level 2. Approx 1.5 inch hole on West wall	Open	
82	11/15/2011		Level 1	Penetrations	All penetrations to the fire command center need to be firestopped	Open	

J56-481

Project No 55011

Page 6 of 6

Life Safety Meeting



Issue Date:	11/16/2011	Prepared By:	Adam Popiel
Project:	CLV City Hall MQAA	Location:	W-T Jobsite Trailer
Meeting No:	14 (held on 11/15/2011)	Time:	9:00

NOTICE TO ALL PRESENT: IF ANY OF THE FOLLOWING ITEMS ARE INCORRECT OR FAIL TO RECORD DISCUSSION AT THE MEETING, PLEASE CONTACT PREPARER IMMEDIATELY.

Attendance (for Meeting #14 held on 11/15/2011)

Present	Name	Company	Business Phone	Cell Phone	Email Address
☐	Steve Aguirre	POWER SMITHS	602-361-8408		steve@powersmiths.com
☒	Al Angulo	Johnson Controls, Inc.	510-512-0253		
☒	Daniel P. Beck	JBA	362-9200		dbeck@jbace.com
☒	Ryan Binette	Precision Air Balance Co., Inc	279-1267		Ryan@precisionairbalance.com
☐	Fletcher Bittle	Whiting-Turner Contracting Company	925-485-0800		fletcher.bittle@whiting-turner.com
☐	Nancy Briseno	Whiting-Turner Contracting Company	702-650-0700		nancy.briseno@whiting-turner.com
☐	Adam Brown	Bombard Mechanical	491-4073		
☒	Clinton Burch	Whiting-Turner Contracting Company	702-296-3305		clinton.burch@whiting-turner.com
☒	Richard Christensen	Mojave Electric	702-205-3313		rchristensen@mojaveelectric.com
☐	John Claudio	Siemens Building Technologies, Inc.	308-9349		John.Claudio@Siemens.com
☒	Richard Colletti	Bombard Mechanical	491-4073		
☐	Michael Crowe	JMA Architects	(702) 731-2033	(702) 249-0706	mcrowe@jmaarch.com
☐	Cyril Eldridge	POWER SMITHS	416-951-1010		cyril@powersmiths.com
☐	Charles Flood	TMCx Solutions, LLC	702-577-3632	702-277-1265	cflood@tmcxsolutions.com
☐	Michael Floyd	Whiting-Turner Contracting Company	702-604-7424		michael.floyd@whiting-turner.com
☒	Mike Fritz	Westar Fire Protection, Inc	702-445-4018		mfritz@westarfire.com
☐	Clinton Gordon	JBA	(702) 362-9200		cgordon@jbace.com
☐	Michael Hahn	Johnson Controls, Inc.	414-870-1789		michael.j.hahn@jcl.com
☐	Breck Hardesty	Mojave Electric	702-798-2970	702-205-3316	bhardesty@mojaveelectric.com
☒	Eric Hefley	Bombard Mechanical	872-2181		
☒	Raul Hernandez	Whiting-Turner Contracting Company	702-296-3291		raul.hernandez@whiting-turner.com
☐	Dino Iannucci	Bombard Mechanical	702-400-0749		dino@bombardmechanical.com
☐	Todd Jones	Siemens Building Technologies, Inc.		702-249-6259	todd.jones@siemens.com
☒	Kirk Kaeser	Whiting-Turner Contracting Company	949-279-7236		kirk.kaeser@whiting-turner.com
☒	Kyle Kaeser	Whiting-Turner Contracting Company			
☐	David Klein	LVFD	702-229-0536	702-305-0720	dklein@lasvegasnevada.com
☒	Victor Koger	Siemens Building Technologies, Inc.	702-237-2110		victor.koger@siemens.com
☐	Dave Lavery	Westar Fire Protection, Inc	702-334-6285		
☒	David Lee	Whiting-Turner Contracting Company	702-296-3299		david.lee@whiting-turner.com
☒	Elliott Lloyd	Whiting-Turner Contracting Company	702-604-3591		elliott.lloyd@whiting-turner.com
☐	Chris Meiers	Mojave Electric	702-205-3311		cmeiers@mojaveelectric.com
☐	Robert Messiana	JMA Architects	(702) 731-2033	702-592-0281	rmessiana@jmaarch.com
☐	Robert Miller	Safe Electronics, Inc.	702-367-7233	702-429-1092	robertm@safelv.com
☐	Phuong Nguyen	Siemens Building Technologies, Inc.	702-855-5300	702-858-4569	phuongnguyen@siemens.com
☐	Joe Noble	Noble Consulting Services	702-221-1037		jnoble@nobleconsultingservices.com
☐	Charles Ochs	TMCx Solutions, LLC			
☒	Mike Perkins	Precision Air Balance Co., Inc	702-325-5693		
☒	Scott Petrocco	Mojave Systems	702-798-2990		
☐	David Phillips	Forest City Commercial Group	702-434-2741	702-493-4744	davidphillips@forestcity.net

	Scott Schoch	Bombard Mechanical	491-3999	sschoch@bombardmechanical.com
	Bill Sittman	Bombard Mechanical	702-872-2395	bsittman@bombardmechanical.com
	Jason Sparks	Westar Fire Protection, Inc.	702-296-7304	jsparks@westarfire.com
	Ean Tucker	L C Electric	702-872-8127	ean@lcelectric.net
	Jason Wilfeman	JBA	702-362-9200	jwilfeman@JBACE.com

Meeting Minutes

Old Business

Item: 1.5 Date Submitted: 1/11/2011 Responsibility: Siemens Building Technology Active
Topic: Self Test Feature

- 1/11/2011 The FPR requires a self test be provided for the smoke control system. TMCx recommends consulting the City of Las Vegas Fire & Rescue/FPE to determine what the requirements will be. The City of Las Vegas has not required this feature in the past.
- 2/8/2011 Discussed self test feature. As this requirement has not historically been enforced, TMCx recommended contacting the City to ensure what is going to be provided meets their expectations.
- 3/8/2011 No update
- 4/12/2011 Siemens has verbal confirmation from the FD that the self test is required. They will put together a narrative describing the operation of the system for review by the fire department. TMCx can include narrative with the test plan
- 5/10/2011 Need to confirm with Siemens whether this has been completed
- 6/14/2011 Siemens will put a narrative together next week for the City to review
- 7/12/2011 Siemens provided brief narrative to TMCx. TMCx will request input from the City prior to submitting Test Plan.
- 8/9/2011 TMCx will check with the City prior to inclusion with Test Plan
- 9/13/2011 TMCx planning on meeting in the next couple weeks with CLVF&R
- 10/11/2011 TMCx met with Ken Miller several weeks ago and has a follow-up email in to Ken. Waiting on a response
- 10/25/2011 TMCx met with Ken Miller yesterday and he had no issues with the self test as described in Siemens' outline
- 11/1/2011 Siemens has no issues with the self test.
- 11/8/2011 No update.
- 11/15/2011 Siemens requested input from the owner as to the day of the week and the time when they would like the self test to run.

Meeting Minutes

Item: 1.6

Date Submitted: 1/11/2011

Responsibility: JMA Architects

Active

Topic: Smoke Control Drawings/Matrix

- 1/11/2011 Smoke zone boundaries have been modified which will affect sprinkler and fire alarm zones. Drawing update has not been submitted to the City of Las Vegas for approval yet.
- 2/8/2011 Smoke zone boundaries have been revised however there are several damper locations that need to be coordinated and revised on the drawings for the council chambers. Revised drawings expected this week and will be submitted to the City for approval
- 3/8/2011 Revised drawings have been prepared by JBA, waiting on review by JMA and revision number. Question was asked if SCDs will be a stand alone set.
- 4/12/2011 Bulletin 6 has updated smoke zone boundaries
Bulletin 9 has removed several fire smoke dampers.
W-T will confirm whether revisions have been approved by the City.
Drawings are available on JMA FTP site.
- 5/10/2011 Revised smoke control drawings were approved yesterday. Should be available for download on FTP site once scanned. TMCx will review
- 6/14/2011 TMCx noted that the most recent drawings on the JMA site are the Bulletin 6, not Bulletin 9. WT will confirm whether there is a more recent set.
TMCx will need approved copies showing the City Review stamp before testing begins.
- 7/12/2011 No Update
- 8/9/2011 SCDs have been reviewed and coordinated with the latest MEP revisions. WT expects to receive them by the end of this week and they will be submitted to the City at that time. Smoke zone boundaries are being updated to match the FPR.
- 9/13/2011 TMCx received revised smoke control drawings on 8/20/11 from WT. Requested update whether these drawings have been approved by the City and a copy for records. WT will investigate. It was also noted that a subsequent of the drawings has taken place. WT will confirm and distribute them for review.
Noted that there are 2 items to be discussed today that affect the SCDs; added FSD in the sewage ejector pump room and the roll down door at the electrical room. See updated for those specific items in meeting minutes/IR log.
- 10/11/2011 -SCDs and FSCP are approved. TMCx requested a copy of the approved drawings
- See item 7.4 for discussion on basement roll down door
-Noted during the meeting that TMCx did not think the added damper at the pump room was shown on the most recent drawings. TMCx and JBA confirmed after the meeting that it was
-Bombard has 3 FSDs that are not currently shown on the SCDs. Will provide list
-It was requested that all issues with the smoke control drawings be brought forward asap so the revisions can be made.
-JBA will plan on submitting the final revision approximately 3rd week of November.
- 10/25/2011 -Scans of approved drawings will need to be through JMA. Need to check if the approved plans have been scanned yet.
-Bombard forwarded list of dampers not on SCDs to Elliott for review
-No new items on the SCDs have been noted
- 11/1/2011 Need to check with Elliot on status of drawings & list of dampers not on SCD's.
- 11/1/2011 Mojave needs latest approved architecture drawing to submit to Siemens for graphic panel face plate revisions.
- 11/8/2011 Mojave received them Saturday 11/5/11 and submitted to Siemens on Monday 11/7/11. Siemens stated that there are items missing and will submit a list by end of this week and will verify that they are working off of the latest approved drawings, which are Delta 14.
- 11/15/2011 There are several items that will need to be captured on the next SCD revision. Siemens will need updated matrix for programming/pretesting.
-Damper changes for AH-6
-Adding missing FSDs
-Changes at grand stair, adding FSDs
-Matrix updates

Meeting Minutes

Item: 1.10 Date Submitted: 1/11/2011 Responsibility: Whiting-Turner Contracting Active
Topic: Schedule Updates

- 1/11/2011 W-T will send out milestone dates
- 2/8/2011 WT had 4 week look ahead available at the meeting, will send to TMCx via email. Substantial completion by Jan 2012
- 3/8/2011 W-T will send out schedule updates and add TMCx to weekly distribution list
- 4/12/2011 TMCx has not been receiving schedule updates. Next 2 weeks are focusing on startup of the level 8 central plant.
- 5/10/2011 WT is finalizing revised schedule. Will add TMCx to sub distribution list.
- 6/14/2011 TMCx did not make it on to distribution list last month. WT will add.
- 7/12/2011 No update
- 8/9/2011 Noted that TMCx is not receiving the schedule updates.
Noted that ceiling installation is a point where TMCx should be notified so that smoke zone boundaries can be inspected.
- 9/13/2011 TMCx received 4 week look ahead schedule. Noted that ceiling installation progressing floors 1-6, smoke zone boundary inspections to continue.
Generator startup scheduled for 1st week of October
- 10/11/2011 -WT clarified that building turnover is January 4th, not substantial completion
-Functional testing scheduled to begin Dec 1
-Siemens pretesting starting by 11/7, complete by 11/30
-FSDs scheduled to be complete and operational by 11/3, All fans started up and operational by 11/11
- 10/25/2011 All dates noted at the last meeting are still current.
- 11/1/2011 Still on schedule.
- 11/8/2011 ALL areas should be released for device installation and all fire alarm devices should be installed by the first week of December. Siemens still needs to complete their installation of their devices in the Edit room now, with the exception of the acoustic wall coverings.
- 11/8/2011 WT still working on the schedule. Joe Noble will have an updated schedule submitted tomorrow, 11/9/11.
- 11/15/2011 Schedule did not get distributed last week. WT distributed schedule to all in the meeting.

Meeting Minutes

Item: **2.2** Date Submitted: **2/8/2011** Responsibility: Active
 Topic: **2nd floor stair vestibule dry system compressor**

- 2/8/2011 A dry system compressor and riser is scheduled for the stair vestibule on level 2. WT has verbal sign off from Ken Miller on this however does not have BD approval yet. BD will be on site and this item will be reviewed with the inspector
- 4/12/2011 Believe this item to be closed. W-T to confirm signoffs by Fire. Building department sign off is in hand.
- 5/10/2011 WT will confirm with Fire
- 6/14/2011 Field inspector (Drake) did not originally have any issues with location however when it was confirmed with the supervisor staff, the location was not acceptable. Westar will verify with inspector. Compressor may be relocated to the mechanical room.
- 7/12/2011 Compressor will not be within vestibule. Will either utilize existing compressor in mechanical room or add 2nd compressor.
- 8/9/2011 Dry system compressor has been removed from stairs, not yet relocated to mechanical room 6. Mojave/WT looking into the electrical drawings to see if they show the correct locations for all compressors.
- 9/13/2011 It was confirmed that all systems are now shown on drawings and direction has been provided for relocating compressors. Westar will confirm if there are any outstanding items before item is closed.
- 10/11/2011 -A circuit is needed for Level 8, east wall for the compressor in that location
- 10/25/2011 -RFI will be sent today for circuit.
 -WT will confirm with Westar if there are any other issues
- 11/1/2011 Mojave received the answer to the RFI on 10/31/11 and are installing the circuits now.
 11/8/11: Waiting on breakers, should be complete next week.
- 11/15/2011 No further discussion, item closed

Item: **2.3** Date Submitted: **2/8/2011** Responsibility: **Whiting-Turner Contracting** Active
 Topic: **Damper access in council chambers**

- 2/8/2011 Damper locations in council chambers may require some alternate access due to location. WT looking at providing a ladder accessible platform
- 3/8/2011 Access platform is under review, access may be from the roof
- 4/12/2011 Confirmed access platform is approved with access from roof. Work is proceeding on installation.
- 5/10/2011 Correction, work is waiting on owner approval to begin.
- 6/14/2011 Platform and roof hatch installed, ladder installation pending
- 7/12/2011 Ladder installation still pending
- 8/9/2011 Ladder is reported to be installed. WT will follow up
- 9/13/2011 Ladder is confirmed to be installed. WT will bring CLV inspectors to the area to ensure there are no issues before item is closed.
- 10/11/2011 Building department is requiring a second ladder and grating to be installed
- 10/25/2011 Material procurement in process. Approx 2 weeks for completion
- 11/1/2011 On going, should be complete in another week.
 11/8/11: WT to verify if complete.
- 11/15/2011 Waiting on second access hatch

Meeting Minutes

Item: 7.3 Date Submitted: 7/12/2011 Responsibility: Active

Topic: Access panels in stairs

- 8/9/2011 TMCx noted during site walk last week that there are 2 locations where access doors are cut in in stair vestibules or stairs. Stair 3A, basement and Stair 2, level 1. Access doors for utilities that do not serve the stair are not permitted by code. If they must be provided, approval will be needed from the City.
- 9/13/2011 WT confirmed with the CLV Building Inspector that the installation of rated access panels in the stairs and stair vestibules as noted is acceptable.
TMCx will add this to the Test Plan so that written record exists
- 10/11/2011 TMCx will review the level 1 access panels in stair 2 with JBA after the meeting
- 10/25/2011 -WT will look at the two locations after the meeting to review alternatives.
-TMCx noted that the damper access in stair 2, level 1 is to the storage room adjacent to the stair.
- 11/1/2011 WT removing access door in the stairwell and relocating in room adjacent to the stairwell, not complete yet.
11/8/11: Not complete and WT to verify when it will be completed.
- 11/15/2011 In process, not complete yet. WT noted that stair 2 was not an issue but the CMU wall in stair 3 may be an issue. Will explore other options for the junction box.

Meeting Minutes

Item: 8.3 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Fire Alarm Status/Pretesting

- 8/9/2011 Scheduled items: Point-to-point and other preliminary testing will begin early October. Fire alarm scheduled to be complete Oct 20th. Full system pretesting to start early November.
- 9/13/2011 On schedule
- 10/11/2011 -No pretesting or point to point started yet, system wiring and device installation is incomplete
-1st floor is lagging behind other areas due to construction. Siemens/Mojave are waiting until the majority of the devices on a loop are installed before powering up the loop to minimize troubles on the system.
-Noted that the 1st floor loop includes the basement and affects the monitoring of equipment in the fire pump room. It was requested that if the 1st floor devices can be expedited to allow the full testing of the fire pump and appurtenances.
-main FACP is being built now, will be ready next week
- 10/25/2011 -Mojave noted that the system is still incomplete in various areas due to construction. FA is complete in all areas construction is complete.
-Basement is mostly complete, moving focus to level 1
-Elec room 1006 smoke detector is inaccessible
-WT noted that the outstanding questions that had been holding up finish installation have been answered and the installation will be moving forward
-Main FACP complete this week
- 11/1/2011 Main FACP complete end of this week, 11/4/11, Siemens is in the process of completing installation.
- 11/1/2011 Fire alarm final is scheduled for 12/23/11 and testing with the fire department is scheduled for 12/19/11 through 12/23/11.
- 11/1/2011 Elec room 1006 smoke detector is inaccessible, WT is working on a resolution.
11/8/11: WT is still working on a resolution.
- 11/1/2011 Mojave needs finished walls and ceilings to complete installation of fire alarm devices. WT working on getting them finished.
11/8/11: All areas will be released for device installation on Monday 11/14/11. Siemens will be complete with pretesting by end of November.
- 11/8/2011 Suppression systems need pretesting and testing complete by 12/23/11.
- 11/15/2011 -Mojave has been released for all areas to complete fire alarm devices. Anticipate being complete by the end of the week.
-Clean agent system install in process
-FACP up and running, network is up. Notification appliances are approximately 98%
-Alarmco radio link installed, wires are pulled and ready to be landed in the FACP. Will leave disconnected until monitoring is required.
-No significant issues reported

Meeting Minutes

Item: 8.4 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Firefighters Smoke Control Panel

- 8/9/2011 Noted that the revised smoke control drawings were necessary to finalize the smoke control panel design and submit to the City for approval. This is a critical item due to the review time of the SCD's, submission and approval of the smoke control panel and fabrication time.
TMCx offered to complete a courtesy review before submission
- 9/13/2011 Panel ordered and fabrication underway. Scheduled to ship on the 15th with 3-4 days of transit time.
Siemens will send approved FSCP design to TMCx for record.
- 10/11/2011 FSCP is on site and installed
- 10/25/2011 -New background for FACP is ordered to match current building layout. 1-2 weeks for replacement
- 11/1/2011 New background has not been ordered, Mojave is waiting for latest approved architecture drawings to submit to Siemens.
11/8/11; Siemens received drawings Monday 1/7/11 and will provide a list of item that are missing. Joe Noble stated that the new face panel needs to be installed by 12/9/11.
- 11/15/2011 -Floor plan was submitted for new background. No update on status
-TMCx recommended that the background be replaced before functional testing begins so no retesting is required.

Item: 8.5 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Smoke Zone Boundary Inspections

- 8/9/2011 TMCx began smoke zone boundary inspections in the basement last week before ceiling tiles were dropped. TMCx asked to be kept in the loop on the ceiling tile schedule so that we can stay ahead. All firestopping should be complete before the inspections.
- 9/13/2011 TMCx will be on site tomorrow to continue inspections.
- 10/11/2011 Ongoing, upper floors are ready for inspection. TMCx to schedule
- 10/25/2011 TMCx will revisit IR log items and remaining floors after the meeting
- 11/1/2011 WT working on issues, TMCx to verify.
11/8/11; TMCx to verify next week.
- 11/15/2011 Zone inspections are complete with the exception of the IR log items.

Item: 9.3 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Smoke Control Test Plan

- 9/13/2011 TMCx has started the Test Plan, will provide draft copy for review prior to submitting to the City.
- 10/11/2011 Will distribute test plan and scenarios by next week.
- 10/25/2011 TMCx will distribute draft scenarios this afternoon for comments. Request any comments by Friday so they can be incorporated into the test plan for submission to the CLVF&R
- 11/1/2011 TMCx completed draft of test plan and sent for peer review. Joe Noble requested a copy of the test plan.
- 11/8/2011 TMCx has comments back, revised, and submitted test plan for peer review.
- 11/15/2011 TMCx revised test scenarios and resent to all based on comments received. Scenarios are still draft until revisions to SCDs are made.

Meeting Minutes

Item: 10.3 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Comfort Balance

- 10/11/2011 PABCO reports that the comfort balance is approximately 75%. Ceiling completion is the biggest issue for balance. Trouble areas are the council chamber and the area at the passenger elevators. Noted that none of the air handling systems are 100%.
- 10/25/2011 -PABCO noted a correction from last week's minutes, VAVs are approximately 75% complete.
-Noted that completion of balance for the systems will require construction to be complete for removal of pre-filters
-PABCO expects to be mostly complete with the VAVs by the end of the week and moving on to water system balance.
-Should be able to complete the basement and floors 3-7 on a flood-by-floor basis.
- 11/1/2011 Complete with VAV boxes with the exception of unfinished areas, WT will be complete with those areas in 2 weeks so PABCO can complete.
11/8/11: Still on schedule.
- 11/1/2011 PABCO is still on schedule to complete TAB by end of November. They requested that fire alarm testing not interfere with TAB by shutoff air handlers and closing FSD's. Siemens stated that they there not going to shutoff air handlers or close FSD's during their testing.
- 11/1/2011 TAB is complete for the council chambers.
- 11/1/2011 TAB for water is starting 11/7/11 on second shift and should be complete in 2 weeks.
11/8/11: Continuing.
- 11/8/2011 MQAA setup is scheduled for 12/5/11 for 3rd party testing.
- 11/15/2011 Noted that the final filter install is not currently scheduled until Dec 16th. This will affect final verification of pressures between floors and duct smoke detector certification.

Item: 10.4 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Duct Smoke Detector Testing

- 10/11/2011 Comfort balance needs to be complete to read minimums and maximums on sampling tube detectors.
Bombard believes that most of the detectors at the FSDs are in duct smoke detectors. These will not require certification by the air balancer.
- 10/25/2011 Pending system balance. TMCx noted that we can test the functional component of the detectors separately from the DP verification if necessary in the schedule
- 11/1/2011 Should be ready for testing first of December.
11/8/11: Mojave is short two duct detectors, should be here today.
- 11/15/2011 Last 2 detectors should be installed by tomorrow. Balance will not be finalized until December for certification.

Item: 10.5 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Smoke Control TAB setup

- 10/11/2011 -PABCO is planning on approximately 7 days to set up the smoke exhaust system.
-Schedule has TAB complete by 12/5
- 10/25/2011 All fans except basement SCF have been bumped
- 11/1/2011 Need SCF above the council chambers bumped, should be ready by 11/11/11.
11/8/11: Complete.
- 11/1/2011 Bombard needs to install the louvers and they will need to be painted, discussing this with WT.
- 11/15/2011 Louvers will be installed by next week. No other updates

Meeting Minutes

Item: **10.6** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Exhaust Method Verification

- 10/11/2011 Fire protection report specifies that the exhaust for the lobby zone must be read from within the zone. The design of the exhaust openings and the ceiling height will make this problematic. TMCx and JBA will discuss to see if there are any alternate methods that can be used.
- 10/25/2011 TMCx discussed verification with Ken Miller and confirmed that he will accept alternate means of measuring the exhaust. TMCx will evaluate options.
Also confirmed that we will not have to verify make up air quantity for the lobby zone but we will need to read pressure differentials to confirm the space is at least slightly negative to the adjacent zones. TMCx will detail in test plan
- 11/1/2011 TMCx and Bombard to verify points to measure DPs before next meeting.
11/8/11: TMCx to complete next week.
- 11/15/2011 TMCx checked the ductwork after the meeting and will be able to verify exhaust quantities in the doghouse on the roof of the council chambers or at the FSDs from the access platforms

Item: **10.7** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Door Fan Testing

- 10/11/2011 Several of the passive areas will require door fan testing. Some of this will overlap with the integrity testing for the clean agent systems. TMCx will provide list of proposed rooms with the test plan.
- 11/1/2011 Draft test plan submitted for peer review. WT to confirm rooms that are listed to be tested are ready.
11/8/11: WT to verify if rooms are ready for testing.
- 11/15/2011 -Requested to be notified as SAFE completes the room integrity tests for the clean agent systems.
-TMCx will request leakage calculations from the Engineer of Record

Item: **10.8** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Stair door unlocking

- 10/11/2011 -It was noted that the current specification for the stair door locking hardware calls for fail secure hardware which is not permitted on the stair doors. WT to follow up with RFI
-Mojave noted that there is not a provision on the smoke control panel for stair door unlocking and the wiring configuration of the security hardware may not allow selective unlocking of the stair doors only.
- 10/25/2011 -Last week's discussion was partially incorrect. The hardware schedule does specify that certain lock sets are to be fail safe. There is a "FS" designation provided in the description.
-There will be a meeting today to discuss the power supplies for the doors.
- 11/1/2011 Electric locks fail "unlocked" per the specifications and they need to "unlock" by a fire alarm and power failure.
11/8/11: Joe Noble needs verification of the operation of the locks. Siemens will have a manual switch on the FAP to unlock the doors.
- 11/15/2011 -Confirmed that there will be a release button on the FACP for the doors.
-Need to confirm if Stanley has a single point to tie in to the FA system for release
-Noted that at least one stair door in the tower is locked currently which indicates that the lock hardware is incorrect. The stair doors are without power at this time and should be unlocked.

Item: **10.9** Date Submitted: **10/11/2011** Responsibility: Active

Topic: Fire Pump and ATS Status signals to main switchgear

- 10/11/2011 System calls for monitoring of the fire pump ATS and fire pump run status as part of load shedding of non-critical loads. These inputs need to be provided to the PSG. Unsure at this time where these status points can be pulled from
- 10/25/2011 No Update
- 11/1/2011 Mojave will verify during load bank testing, which is scheduled for today, 11/1/11. TMCx needs copy of load bank testing.
- 11/8/2011 Generator is ready for testing of the fire pumps.
- 11/15/2011 Mojave has the status points from the fire pump and has the wire pulled. Needs the points to land on in the PLC in the switchgear

Meeting Minutes

Item: 10.10 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Generator Status/Shunt Trip

- 10/11/2011 -Noted that there is an issue with manufacturer support on the generator that is hampering efforts to complete the system. The generator is able to run in auto and start automatically but the monitoring points and paralleling are not complete.
 -The generator will be needed as part of the fire pump testing which is in the next couple weeks as well as for smoke control testing
- 10/25/2011 -Load bank testing to occur in the next 1-2 weeks. Fire pump testing will be able to occur after load bank test
 -Generator will be available for testing and will function automatically once shunt trip is installed. Generators will be running in droop mode.
 -No support from ISO at this time for wiring diagrams of the PLC
- 11/1/2011 Generator will be 100% complete this week and ready for MQAA testing.
- 11/1/2011 GenTech called Mojave during the meeting and stated there is 2" of water in the trough. WT is working on the issue.
- 11/8/2011 Generator is ready for MQAA testing.
- 11/15/2011 Mojave would like to pretest the emergency ATS E1 for proper operation this week

Item: 10.11 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Fire Pump and Standpipe testing

- 10/11/2011 -Roof and drains need to be complete for flow testing. Planning for water runoff needed. Discussed the bubblers as an item that needs completion
 -main PRV valve is installed, however the 2" is not. There are only 2 PRVs on the project per Westar
 -It is preferable to have all of the tampers and monitoring active in the fire pump room for testing.
 -Mojave confirmed that the fire pump status panel is wired and ready to go it is just turned off
 -High/Low level alarms in the secondary water supply are not complete. Tank is inaccessible due to landscaping.
 -Standpipe testing should be scheduled as soon as the pump is ready
- 10/25/2011 -Discussed setting up temporary connections for the bubblers or flowing off of the roof. WT will discuss options
 -Secondary water supply is not complete. RFI for connections to the level indicators is needed. The secondary water supply will be needed for the fire pump test.
- 11/1/2011 WT is working on the water flowing off the roof issue.
- 11/1/2011 RFI for level indicators has been submitted.
- 11/1/2011 Level probe for the storage tank is install but conduit and wire still needs to be installed.
- 11/1/2011 Joe Noble to send out a revised fire pump testing schedule.
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.
- 11/8/2011 WT to submit a CR for the installation of the probes, as they are not installed, should be complete by end of this week. Fire pump testing is scheduled for 11/15/11. Joe Noble to send out a fire pump testing schedule.
- 11/15/2011 -Testing pending curbs and paving. Will be after Thanksgiving
 -Mojave has not yet received a CR for the level probes. Westar has received elevations.
 Installation pending.

Item: 10.12 Date Submitted: 10/11/2011 Responsibility: Active
 Topic: Hydrant flow test

- 10/11/2011 Hydrant flow test should be conducted as soon as possible.
- 10/25/2011 can be scheduled after curb and gutter is completed. Scheduled to be complete by Nov 10. Waiting on traffic permit.
- 11/1/2011 Scheduled to be complete by end of November.
- 11/1/2011 Traffic permit complete.
- 11/8/2011 No update.
- 11/15/2011 Will be conducted after Thanksgiving when paving and curbs are complete

Meeting Minutes

Item: 10.13 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Dry system testing

- 10/11/2011 Westar reports that the dry system testing is scheduled to start next week
- 10/25/2011 Pretesting has started.
- 11/1/2011 Pretesting is complete.
11/8/11: Pretesting is complete with the exception of the 8th floor 24 hour air test, waiting on power and will be complete on Monday 11/14/11.
- 11/15/2011 Westar is ready to complete testing

Item: 10.14 Date Submitted: 10/11/2011 Responsibility: Active
Topic: 24 hour monitoring

- 10/11/2011 24 hour monitoring needs to be in place for completion of the fire pump testing. WT will research the preferred vendor from the City and determine if wireless or wired connections will be used.
- 10/25/2011 Confirmed that Alarmco Wireless system will be used. Rep will be on site this week to review installation
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.
11/8/11: Will be complete by end of this week.
- 11/15/2011 Alarmco Panel is installed, wiring is complete and ready to be tied in to the FACP. Will leave disconnected until needed.

Item: 11.3 Date Submitted: 10/25/2011 Responsibility: Active
Topic: DAS system

- 10/25/2011 Anderson Communications is the rep for the DAS system. Basement antenna install is in process this week. Schedule shows 11/1 for completion.
- 11/1/2011 Mojave is waiting for the equipment from Anderson and will check on status.
11/8/11: Mojave has all the equipment and should be complete by end of next week.
- 11/15/2011 Installation is in progress, should be complete by the end of the week

Item: 12.3 Date Submitted: 10/25/2011 Responsibility: Active
Topic: Smoke Guards

- 11/8/2011 Not required on level 1, but for basement & levels 2 through 8. levels 3-8 will be complete this week and 2nd floor on 11/18/11.
- 11/15/2011 Installation in progress, Mojave noted that the installer was making changes to the wiring in the field.

Item: 12.4 Date Submitted: 11/1/2011 Responsibility: Active
Topic: Miscellaneous items

- 11/1/2011 Joe Noble asked Siemens for their as-built drawings for the fire alarm final which is scheduled for 12/23/11. Siemens to submit, but they may or may not be stamped approved.
- 11/1/2011 Joe Noble asked if the schedule was ok and no one had any comments.
- 11/1/2011 All NCR, NOVs, & releases from all agencies need to be closed by 12/16/11.
- 11/8/2011 Joe Noble to send out an updated schedule.
- 11/8/2011 Siemens needs JCI provided CT's for fans installed so they can connect for fan status.
- 11/15/2011 Fire Alarm As-Builts Pending

New Business

Item: 14.3 Date Submitted: 11/15/2011 Responsibility: Active
Topic: VFD Programming

- 11/15/2011 VFDs for smoke control fans need to be programmed for fire mode

Meeting Minutes

Item: 14.4 Date Submitted: 11/15/2011 Responsibility:

Active

Topic: Current Transducers

- 11/15/2011 CTs are needed for all smoke control fans and fans that shut down as part of smoke control for monitoring status.
-Need to determine who is responsible for providing ASAP. CTs are required as part of the functional testing scheduled to begin on Dec 1 and need to be pretested.
-TMCx noted that auto-adjusting CTs are not recommended for any fans that need to run in smoke control.

Item: 14.5 Date Submitted: 11/15/2011 Responsibility:

Active

Topic: Auto Damper Monitoring and Control

- 11/15/2011 Auto dampers are not currently being controlled by the fire alarm system or being monitored by the fire alarm system. This needs to be resolved for pretesting before the end of the month or it will affect functional testing on Dec 1.
-There are no open-closed indicator switches on the dampers at this time, they will need to be installed in the field for the fire alarm to monitor status

Item: 14.6 Date Submitted: 11/15/2011 Responsibility:

Active

Topic: AH-6 dampers

- 11/15/2011 AH-6 dampers are not currently shown to configure for smoke control and there is no fire alarm control or monitoring to these dampers.
-It was discussed that the dampers downstream in the ductwork were not needed now and can be decommissioned. Control functions can be performed by the dampers in the unit. JBA will be making updates to the SCDs.

Life Safety Testing / Inspections

JOB: LV CITY HALL					
COMPLETION DATE: 1-4-12					
UPDATED: 11-8-11					
Description	Response	Start	Finish	Completed	Notes
1. Available Resources					
a. Fire Sprinkler/Submit	Westar	?	12/23/2011		
b. Fire Alarm/Submit	Siemens	?	12/23/2011		
c. Standpipes/Submit	Westar	9/15/2011	10/3/2011		
d. Smoke Control/Submit		?	12/23/2011		
e. H&D/AFES	N/A	N/A	N/A	N/A	
2. All Tests Complete					
a. Roof	WT		9/30/2011		Ready to flow test standpipes
b. Building ready for MOAA testing	WT	12/1/2011	12/16/2011		
c. Bldg ready for FD alarm test/final	WT		12/19/2011		
d. FF&E Load In Letter Submitted				N/A	
e. Approved For FF&E Load In				N/A	
f. Temp. FPR Submit/Approved				N/A	
3. Fire Sprinkler System					
a. Hydro Tests	Westar		12/1/2011		
b. PRV's Tested/Approved	Westar		11/4/2011		
c. Final	Westar		12/23/2011		
d. Dry Sys. 24 Hr. Air Test	Westar		11/15/2011		
e. Dry Sys. Final	Westar		12/23/2011		
f. Special Systems	SAFC		12/23/2011		
4. Fire Hydrant Flow Tests					
a. Hydro Tests	Flippins		9/30/2011		
b. Underground Flush	Flippins		9/30/2011		
c. Hydrant Final (Flow Test)	Flippins		12/5/2011		
d. Fire Access Paved	WT		12/5/2011		
e. Fire Lanes Marked/Painted	WT		12/5/2011		
5. Fire Pump (Primary)					
a. Hydro Tests	Westar		9/30/2011		
b. Secondary Water Storage	Westar		11/14/2011		
c. Status Panel Installed in FCC	Westar		9/30/2011	X	
d. 24 Hour Monitoring	Alarmco		11/11/2011		
e. Final (Performance Test)	Westar		11/15/2011		Ready to test on this date. test subject to availability to discharge water without impacting site.
6. Fire Pump (Secondary)					
a. Hydro Tests	Westar		9/30/2011		
b. Secondary Water Storage	Westar		11/14/2011		
c. Status Panel Installed in FCC	Westar		9/30/2011	X	
d. 24 Hour Monitoring	Alarmco		11/11/2011		
e. Final (Performance Test)	Westar		11/15/2011		Ready to test on this date. test subject to availability to discharge water without impacting site.
7. Standpipes					
a. Hydro Tests	Westar		9/29/2011		
b. PRV Tests	Westar		11/15/2011		
c. Final	Westar		11/22/2011		Final flow test subject ability to flow water without impacting site
d. Tamper FD Test/Approved	Westar		11/21/2011		
8. Elevators					
a. State Sign Off	Otis		12/2/2011		
b. Lobby Doors Operational	WT		11/28/2011		Including all smoke guard doors
c. Final Performance Test FD	Otis	12/5/2011	12/9/2011		
d. Final BD	Otis		12/12/2011		

Life Safety Testing / Inspections

JOB: LV CITY HALL					
Description	Response	Start	Finish	Completed	Notes
10. Alarm System					
a. Pre-Test	Siemens	11/7/2011	12/1/2011		
b. BD Electrical Pre-Final	Mojave		12/16/2011		
c. FD Performance Test	Siemens	12/19/2011	12/23/2011		LVFR is willing to test on a floor by floor basis, upon completion of a floor LVFR should be scheduled to accomplish test and sign off floor.
11. Smoke Control					
a. Final Graphics Panel Installed	Siemens		11/4/2011		
b. Fans Wired	Mojave		11/4/2011	X	
c. Smoke/Fire Dampers Wired	Mojave		11/3/2011		
d. Initial Start Up SEF/SFP	Bomb	11/5/2011	11/11/2011		
e. Initial Air Bal. (Ready for MOAA)	Bomb		12/5/2011		
f. Other HVAC Equip. Start Up	Bomb		11/11/2011		
g. Smoke/Fire Dampers Pre-Test	Bomb		11/30/2011		
h. HVAC Pre Test (Duct Detectors)	Bomb		11/30/2011		
i. Smoke Ctrl. Equip. Perm. Label	Bomb		11/30/2011		
12. MOAA					
a. MOAA Testing	TM	12/1/2011	12/16/2011		
b. Scenarios/Test Plan Received	TM		11/7/2011	X	
c. Scenarios reviewed by subs			11/21/2011	X	
d. Duct Detector Certification	Bomb		12/14/2011		LVFR can be scheduled to test smoke detectors with 3rd party testing agency
e. MOAA Report Submit/Approved	TM	12/21/2011	1/3/2012		
13. Electrical					
a. Electrical Final/Partial Final	Mojave		12/23/2011		
b. Generator Start Up	Mojave		9/16/2011	X	Dates for Generator testing have been revised
c. Generator Internal Testing	Mojave	10/21/2011	10/27/2011	X	
d. Remote Pnl. w Controls in FCC	Mojave		10/27/2011		
e. BD Generator Approval	Mojave		10/28/2011		
14. Plumbing					
a. Plumbing Final/Partial Final	Bomb		12/23/2011		
b. Gas Complete	Bomb		12/16/2011		
15. Mechanical					
a. Air Balance Report in Hand	Bomb		12/16/2011		
b. Duct Detector Cert. in Hand	Bomb		12/16/2011		
c. Mechanical Final/Partial Final	Bomb		12/23/2011		
16. Fire Command Center Equipment					
a. Bldg/Life Safety Plans/FPR	WT		12/23/2011		
b. Elevator Status Panel			11/28/2011		
c. Final Graph. Smoke Control Pan.	Siemens		11/4/2011		
d. Fire Alarm Panel	Siemens		10/31/2011	X	
e. Shunt Trips - Normal/E-Power	Mojave		11/1/2011		5 separate shunt trips with labels
f. Generator Panel w Manual Start	Mojave		9/16/2011	X	
g. Emerg./Standby Power Status	Mojave		11/1/2011	X	
h. 24 Hour Monitoring Panel	Siemens		11/11/2011		
i. Fire Pump Status Panel	Westar		9/30/2011	X	
j. Controls to Unlock Stair Doors	Siemens		11/4/2011		
k. Voice Paging Panel	Siemens		10/31/2011	X	
l. Manufacturer Op. manuals	Siemens		12/23/2011		
m. White Board 3X4 Marker/Eras.	WT		11/15/2011		
n. Public Telephone	WT		11/15/2011		
o. Work Table 3' X 7'	WT		11/15/2011		
p. 1st Responder DAS Equip.			11/8/2011		Including required FD monitoring of status
17. Fire Department Entry					
a. Fire Final Inspection	WT		12/21/2011		
b. FD Final Sys. Reports in Hand	WT		12/21/2011		
c. Signage Install. Stairs/Rms./S.S.	WT		12/16/2011		
d. Permanent Fire Exting. Installed	WT		12/16/2011		
e. DAS Final FD Test			12/30/2011		Final test to coincide w All Sys Test

Life Safety Testing / Inspections

JOB: LV CITY HALL					
	Description	Response	Start	Finish	Completed
1. Fire Alarm Test					
a.	Pre-Test	WT		12/22/2011	
b.	Scheduled with FD/BD	WT		12/21/2011	
c.	Completed	WT	12/26/2011	12/30/2011	
2. Building Final					
a.	All Finals in Hand	WT		12/30/2011	
b.	All NCR's/NOV's Addressed	WT		12/18/2011	
c.	Application for TCO submitted				N/A
d.	Final Building Inspection	WT		12/30/2011	
e.	Certificate of Occupancy/TCO	WTT		1/3/2012	
3. Releases					
a.	Water clearance	WT		12/16/2011	
b.	Drainage compliance	WT		12/16/2011	
c.	Off site clearance	WT		12/16/2011	
d.	Structural QAA report approved	WT		12/16/2011	
e.	Sanitation clearance	WT		12/16/2011	
f.	Pad Certification(s)	WT		12/16/2011	
g.	Landscape approved	WT		12/16/2011	

Commissioning Meeting Sign In



Meeting Date:	11/15/2011	Prepared By:	Charles Flood
Project:	Cx, CLV City Hall	Location:	WT Jobsite Trailer
Meeting No.:	14	Time:	9:00am

Notice to all present: If any of the following items are incorrect, please notify preparer immediately.

Initial	Name	Company	Business Phone	Cell Phone	Email Address
AA	Al Angulo	Johnson Controls, Inc.	510-512-0253		
	Daniel P. Beck Engineers	JBA	362.9200		dbeck@jbace.com
RB	Ryan Binello	Precision Air Balance Co., Inc	702-279-1267	623.580.8707	ryan@precisionairbalance.com
CB	Clinton Burch Superintendent	Whiting-Turner Contracting Company	122*23-19385	(702)296-3305	clinton.burch@whiting-turner.com
PC	Richard Christensen	Mojave Electric	702-205-3313	702-205-3313	rchristensen@mojaveelectric.com
RA	Richard Colletti	Bombard Mechanical	702-357-2311		
CF	Charles Flood Operations Manager	TMCx Solutions, LLC	(702) 577-3632	(702) 277-1265	cflood@tmcxsolutions.com
MF	Mike Fritz	Westar Fire Protection, Inc	702-445-4018		mfritz@westarfire.com
	Clinton Gordon Engineer	JBA	(702) 362-9200	702-821-6837	cgordon@jbace.com
	Michael Hahn	Johnson Controls, Inc.	414-870-1789		michael.j.hahn@jci.com
	Breck Hardesty	Mojave Electric	702-798-2970	702-205-3318	bhardesty@mojaveelectric.com
EH	Eric Hefley	Bombard Mechanical	702-872-2181		
RH	Raul Hernandez	Whiting-Turner Contracting Company	702-296-3291	702-296-3291	raul.hernandez@whiting-turner.com
	Dino Iannucci General Superintendent	Bombard Mechanical	(702)940-4622	(702)400-0749	dino@bombardmechanical.com
	Carolyn Johnson Commissioning Engineer	TMCx Solutions, LLC	(702) 577-3619	(702) 540-0371	cjohnson@tmcxsolutions.com
	Todd Jones	Siemens Building Technologies, Inc.		702.249.6259	todd.jones@siemens.com
	Kyle Kaeser	Whiting-Turner Contracting Company			
	David Klein	LVFD	702-229-0336	702-305-0720	dklein@lasvegasnevada.gov
	Victor Koger	Siemens Building Technologies, Inc.		702-237-2110	victor.koger@siemens.com
	Dave Lavery	Westar Fire Protection, Inc	702-334-6295		dlavery@wfpnv.com
	David Lee Asst. Project Manager	Whiting-Turner Contracting Company	702-851-4190	702-296-3295	David.Lee@whiting-turner.com
	Elliott Lloyd	Whiting-Turner Contracting Company	702-604-3591		elliott.lloyd@whiting-turner.com

Project No: 81039

J56-498

MOJ00682

JA 00005129

Commissioning Meeting Sign In



Meeting Date:	11/15/2011	Prepared By:	Charles Flood
Project:	Cx.CLV City Hall	Location:	WT Jobsite Trailer
Meeting No.:	14	Time:	9:00am
Notice to all present: If any of the following items are incorrect, please notify preparer immediately.			

Initial	Name	Company	Business Phone	Cell Phone	Email Address
	Chris Meiers Project Manager	Mojave Electric	702-798-2978	702-205-3311	cmeyers@mojaveelectric.com
	Robert Messiana Senior Project Manager	JMA Architects	(702)731-2033	702.592.0281	rmessiana@jmaarch.com
	Robert Miller	Safe Electronics, Inc.	702-367-7233	702-429-1092	robertm@safelv.com
	Phuong Nguyen	Siemens Building Technologies, Inc.	702-858-4569	702-858-4569	phoungnguyen@siemens.com
	Joe Noble	NCS	702-221-1057	702-630-8031	jnoble@nobleconsultingsevlces.com
MP	Mike Perkins	Precision Air Balance Co., Inc		702-325-5693	
SP	Scott Petrocchio	Mojave Systems	702-798-2930		
AP	Adam Popiel Fire Protection Engineering	TMCx Solutions, LLC	(702) 577-3621	(702) 604-5952	apopiel@tmcxsolutions.com
	Scott Schoch	Bombard Mechanical	702-491-3999		sschoch@bombardmechanical.com
	Bill Sittman	Bombard Mechanical	702.940.4822	702.872.2395	bsittman@bombardmechanical.com
	Jason Sparks	Westar Fire Protection, Inc.		702-296-7304	jsparks@westarfire.com
	Ean Tucker	LC Electric	702-872-8127		ean@lcelectric.net
	Jason Witterman	JBA	702-362-9200		jwillerman@jbace.com
AA	AL Argudo	JCI	505-512-0112		
	Kyle Kaeser	WIT			
	Kirk Kaeser	WT	949-779-7136		Kirk.Kaeser@Whiting-Turner.com
	Dan Beck	JBA	702-362-9200	702-460-3380	dbeck@jbace.com

Project No: 81039

J56-499

MOJ00683
JA 00005130

Carmen Militello

From: Adam Popiel <apopiel@tmcxsolutions.com>
Sent: Monday, December 05, 2011 7:25 PM
To: Bill Siltman (bsiltman@bombardmechanical.com); Breck Hardesty; cgordon@jbace.com; Clinton Burch (clinton.burch@whiting-turner.com); Chris Meiers; cyril@powersmiths.com; Daniel Beck; David Klein; David Lee (David.lee@whiting-turner.com); David R. Phillips (davidphillips@forestcity.net); ean@lcelectric.net; ellott.lloyd@whiting-turner.com; Fletcher Bittle (fletcher.bittle@whiting-turner.com); Jason Witterman (JWitterman@jbace.com); jnoble@nobleconsultingservices.com; jsparks@westarfire.com; Kirk Kaeser (kirk.kaeser@whiting-turner.com); Mario "DINO" Iannucci (dino@bombardmechanical.com); mfrilz@westarfire.com; Michael Crowe (mcrowe@JMAarch.com); Michael Floyd@whiting-turner.com; michael.j.hahn@jci.com; Nancy Briseno-Rivera (nancy.briseno@whiting-turner.com); Phuong Nguyen; Raul Hernandez (raul.hernandez@whiting-turner.com); Richard Christensen; Robert Messina (Rmessiana@jmaarch.com); sschoch@bombardmechanical.com; steve@powersmiths.com; todd.jones@siemens.com; victor.koger@siemens.com
Subject: CLV City Hall Updated Life Safety Meeting Minutes
Attachments: 2011-11-29 - LV City Hall Life Safety Meeting Minutes.pdf; CLV CH Life Safety Issues Log - issue date 2011-12-06.pdf

All:

The updated Life Safety Meeting minutes and current IR log are attached for your use. Please contact me with any questions or updates.

Sincerely,

Adam Popiel, EIT



www.tmcxsolutions.com

5575 S. Durango Dr, Ste 102

Las Vegas, NV 89113

Office: 702-252-7232

Cell: 702-604-5952

Fax: 702-252-7234

apopiel@tmcxsolutions.com

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J56-500

Life Safety Meeting



Meeting Date:	12/6/2011	Prepared By:	Adam Popiel
Project:	CLV City Hall MQAA	Location:	W-T Jobsite Trailer
Meeting No:	17 (scheduled for 12/6/2011)	Time:	9:00

NOTICE TO ALL PRESENT: IF ANY OF THE FOLLOWING ITEMS ARE INCORRECT OR FAIL TO RECORD DISCUSSION AT THE MEETING, PLEASE CONTACT PREPARER IMMEDIATELY.

Attendance (for Meeting #16 held on 11/29/2011)

Present	Name	Company	Business Phone	Cell Phone	Email Address
☐	Siege Aguirre	POWER SMITHS	602-361-8408		steve@powersmiths.com
☐	Al Angulo	Johnson Controls, Inc.	510-512-0253		
☐	Daniel P. Beck	JBA	362-0200		dbeck@jbace.com
☐	Ryan Binette	Precision Air Balance Co., Inc	279-1267		Ryan@precisionairbalance.com
☐	Fletcher Bittle	Whiting-Turner Contracting Company	925-485-0800		fletcher.bittle@whiting-turner.com
☒	Nancy Briseno	Whiting-Turner Contracting Company	702-650-0700		nancy.briseno@whiting-turner.com
☐	Adam Brown	Bombard Mechanical	491-4073		
☒	Clinton Burch	Whiting-Turner Contracting Company	702-296-3305		clinton.burch@whiting-turner.com
☐	Richard Christensen	Mojave Electric	702-205-3313		rchristensen@mojaveelectric.com
☐	John Claudio	Siemens Building Technologies, Inc.	308-9349		John.Claudio@Siemens.com
☐	Richard Colletti	Bombard Mechanical	491-4073		
☐	Michael Crowe	JMA Architects	(702) 731-2033	(702) 249-0706	mcrowe@jmaarch.com
☐	Cyril Eldridge	POWER SMITHS	416-951-1010		cyril@powersmiths.com
☒	Charles Flood	TMCx Solutions, LLC	702-577-3632	702-277-1265	cflood@tmcxsolutions.com
☐	Michael Floyd	Whiting-Turner Contracting Company	702-604-7424		michael.floyd@whiting-turner.com
☐	Mike Fritz	Westar Fire Protection, Inc	702-445-4018		mfritz@westarfire.com
☐	Clinton Gordon	JBA	(702) 362-9200		cgordon@jbace.com
☐	Michael Hahn	Johnson Controls, Inc.	414-870-1789		michael.j.hahn@jci.com
☐	Breck Hardesty	Mojave Electric	702-798-2870	702-205-3316	bhardesty@mojaveelectric.com
☐	Eric Hefley	Bombard Mechanical	872-2181		
☒	Raul Hernandez	Whiting-Turner Contracting Company	702-296-3291		raul.hernandez@whiting-turner.com
☐	Dino Iannucci	Bombard Mechanical	702-400-0749		dino@bombardmechanical.com
☐	Todd Jones	Siemens Building Technologies, Inc.		702-249-6259	todd.jones@siemens.com
☒	Kirk Kaeser	Whiting-Turner Contracting Company	949-279-7236		kirk.kaeser@whiting-turner.com
☐	Kyle Kaeser	Whiting-Turner Contracting Company			
☒	David Klein	CLVF&R	702-229-0536	702-305-0720	dklein@lasvegasnevada.com
☒	Victor Koger	Siemens Building Technologies, Inc.	702-237-2110		victor.koger@siemens.com
☐	Dave Lavery	Westar Fire Protection, Inc	702-334-6295		
☒	David Lee	Whiting-Turner Contracting Company	702-206-3299		david.lee@whiting-turner.com
☒	Elliott Lloyd	Whiting-Turner Contracting Company	702-604-3591		elliott.lloyd@whiting-turner.com
☒	Chris Meiers	Mojave Electric	702-205-3311		cmeiers@mojaveelectric.com
☐	Robert Messiana	JMA Architects	(702)731-2033	702.592.0281	rmessiana@jmaarch.com
☐	Robert Miller	Safe Electronics, Inc.	702-367-7233	702-429-1092	robertm@safelv.com
☒	Phuong Nguyen	Siemens Building Technologies, Inc.	702-855-5300	702-858-4569	phuongnguyen@siemens.com
☒	Joa Noble	Noble Consulting Services	702-221-1037		jnoble@nobleconsultingservices.com
☐	Charles Ochs	TMCx Solutions, LLC			
☒	Miko Perkins	Precision Air Balance Co., Inc	702-325-6693		
☒	Scott Petrocco	Mojave Systems	702-798-2990		
☐	David Phillips	Forest City Commercial Group	702-434-2741	702-493-4744	davidphillips@forestcity.net

☐	Scott Schoch	Bombard Mechanical	481-3999	sschoch@bombardmechanical.com
☒	Bill Siltman	Bombard Mechanical	702-872-2395	bsiltman@bombardmechanical.com
☐	Jason Sparks	Westar Fire Protection, Inc.	702-296-7304	Jsparks@westarfire.com
☐	Ean Tucker	L.C. Electric	702-872-8127	ean@lcelectric.net
☐	Jason Wittmerman	JBA	702-362-9200	Jwittmerman@JBACE.com

Meeting Minutes

Old Business

Item: 1.5 Date Submitted: 1/11/2011 Responsibility: Siemens Building Technology

Topic: Self Test Feature

- 1/11/2011 The FPR requires a self test be provided for the smoke control system. TMCx recommends consulting the City of Las Vegas Fire & Rescue/FPE to determine what the requirements will be. The City of Las Vegas has not required this feature in the past.
- 2/8/2011 Discussed self test feature. As this requirement has not historically been enforced, TMCx recommended contacting the City to ensure what is going to be provided meets their expectations.
- 3/8/2011 No update
- 4/12/2011 Siemens has verbal confirmation from the FD that the self test is required. They will put together a narrative describing the operation of the system for review by the fire department. TMCx can include narrative with the test plan
- 5/10/2011 Need to confirm with Siemens whether this has been completed
- 6/14/2011 Siemens will put a narrative together next week for the City to review
- 7/12/2011 Siemens provided brief narrative to TMCx. TMCx will request input from the City prior to submitting Test Plan.
- 8/9/2011 TMCx will check with the City prior to inclusion with Test Plan
- 9/13/2011 TMCx planning on meeting in the next couple weeks with CLVF&R
- 10/11/2011 TMCx met with Ken Miller several weeks ago and has a follow-up email in to Ken. Waiting on a response
- 10/25/2011 TMCx met with Ken Miller yesterday and he had no issues with the self test as described in Siemens' outline
- 11/1/2011 Siemens has no issues with the self test.
- 11/8/2011 No update.
- 11/15/2011 Siemens requested input from the owner as to the day of the week and the time when they would like the self test to run.
- 11/22/2011 -Feedback from owner that self test should run Mondays between 5 and 7 AM
-Siemens noted that the self test is showing troubles when running. Need to determine what is causing the troubles so that it will not affect the smoke control operation. It was noted that it might be the HVAC units shutting down in unoccupied mode at night. TMCx confirmed that this should not affect the operation of the smoke control system. If it is, it needs to be addressed.
- 11/29/2011 Previous entry regarding the self test failing was a note by Siemens in reference to another project. This was for discussion purposes only. Once the self test is programmed, we will be able to verify if there is any interference from the normal building operation. If there is, the cause will need to be investigated.

Meeting Minutes

Item: 1.6 Date Submitted: 1/11/2011 Responsibility: JMA Architects

Topic: Smoke Control Drawings/Matrix

- 6/14/2011 TMCx noted that the most recent drawings on the JMA site are the Bulletin 6, not Bulletin 9. WT will confirm whether there is a more recent set.
TMCx will need approved copies showing the City Review stamp before testing begins.
- 7/12/2011 No Update
- 8/9/2011 SCDs have been reviewed and coordinated with the latest MEP revisions. WT expects to receive them by the end of this week and they will be submitted to the City at that time. Smoke zone boundaries are being updated to match the FPR.
- 9/13/2011 TMCx received revised smoke control drawings on 8/20/11 from WT. Requested update whether these drawings have been approved by the City and a copy for records. WT will investigate. It was also noted that a subsequent of the drawings has taken place. WT will confirm and distribute them for review.
Noted that there are 2 items to be discussed today that affect the SCDs; added FSD in the sewage ejector pump room and the roll down door at the electrical room. See updated for those specific items in meeting minutes/IR log.
- 10/11/2011 -SCDs and FSCP are approved. TMCx requested a copy of the approved drawings
- See item 7.4 for discussion on basement roll down door
-Noted during the meeting that TMCx did not think the added damper at the pump room was shown on the most recent drawings. TMCx and JBA confirmed after the meeting that it was
-Bombard has 3 FSDs that are not currently shown on the SCDs. Will provide list
-It was requested that all issues with the smoke control drawings be brought forward asap so the revisions can be made.
-JBA will plan on submitting the final revision approximately 3rd week of November.
- 10/25/2011 -Scans of approved drawings will need to be through JMA. Need to check if the approved plans have been scanned yet.
-Bombard forwarded list of dampers not on SCDs to Elliott for review
-No new items on the SCDs have been noted
- 11/1/2011 Need to check with Elliot on status of drawings & list of dampers not on SCD's.
- 11/1/2011 Mojave needs latest approved architecture drawing to submit to Siemens for graphic panel face plate revisions.
- 11/8/2011 Mojave received them Saturday 11/5/11 and submitted to Siemens on Monday 11/7/11. Siemens stated that there are items missing and will submit a list by end of this week and will verify that they are working off of the latest approved drawings, which are Delta 14.
- 11/15/2011 There are several items that will need to be captured on the next SCD revision. Siemens will need updated matrix for programming/pretesting.
-Damper changes for AH-6
-Adding missing FSDs
-Changes at grand stair, adding FSDs
-Matrix updates
- 11/22/2011 -WT was scheduled to receive revised SCDs last Friday. WT will follow up
-There are 2 FSDs to be added at the grand stair.
-Other FSDs to be added are lvl 1 corridor 1007, east wall grand entry (corridor 1002)
Noted that revised drawings are needed ASAP for programming, pretesting, and functional testing.
- 11/29/2011 New Bulletin 15 drawings have been distributed for comments. Please forward any concerns to WT
- 11/29/2011 Siemens developed a list of questions during smoke control programming this weekend. They will forward list to WT. Summary as follows:
-are the AD control wiring diagrams shown
-dampers may not be shown on the plans in the location they are installed in the field. Noted AD-104, 105 and 106 specifically
-Does EC-1 need to be shut down for passive mode
-do the BRDs need to configure for the SPF duct smoke detector or off switch or just with the SPF
-EF-3 serves level 8, does it need to shut down with an alarm
-do any of the other fans in the basement need to shut down? EF-1, EF-9, etc
-AH-6 return appears to be interlocked with the supply. The return will not run unless the supply is.

Meeting Minutes

Item: 1.6 Date Submitted: 1/11/2011 Responsibility: JMA Architects

Topic: Smoke Control Drawings/Matrix

Item: 1.10 Date Submitted: 1/11/2011 Responsibility: Whiting-Turner Contracting

Topic: Schedule Updates

- 1/11/2011 W-T will send out milestone dates
- 2/8/2011 WT had 4 week look ahead available at the meeting, will send to TMCx via email. Substantial completion by Jan 2012
- 3/8/2011 W-T will send out schedule updates and add TMCx to weekly distribution list
- 4/12/2011 TMCx has not been receiving schedule updates. Next 2 weeks are focusing on startup of the level 8 central plant.
- 5/10/2011 WT is finalizing revised schedule. Will add TMCx to sub distribution list.
- 6/14/2011 TMCx did not make it on to distribution list last month. WT will add.
- 7/12/2011 No update
- 8/9/2011 Noted that TMCx is not receiving the schedule updates.
Noted that ceiling installation is a point where TMCx should be notified so that smoke zone boundaries can be inspected.
- 9/13/2011 TMCx received 4 week look ahead schedule. Noted that ceiling installation progressing floors 1-6, smoke zone boundary inspections to continue.
Generator startup scheduled for 1st week of October
- 10/11/2011 -WT clarified that building turnover is January 4th, not substantial completion
-Functional testing scheduled to begin Dec 1
-Siemens pretesting starting by 11/7, complete by 11/30
-FSDs scheduled to be complete and operational by 11/3. All fans started up and operational by 11/11
- 10/25/2011 All dates noted at the last meeting are still current.
- 11/1/2011 Still on schedule.
- 11/8/2011 ALL areas should be released for device installation and all fire alarm devices should be installed by the first week of December. Siemens still needs to complete their installation of their devices in the Edit room now, with the exception of the acoustic wall coverings.
- 11/8/2011 WT still working on the schedule. Joe Noble will have an updated schedule submitted tomorrow, 11/9/11.
- 11/15/2011 Schedule did not get distributed last week. WT distributed schedule to all in the meeting.
- 11/22/2011 No changes or issues were noted
- 11/29/2011 Reviewed the 4 week schedule with everyone

Meeting Minutes

Item: 2.3 Date Submitted: 2/8/2011 Responsibility: Whiting-Turner Contracting

Topic: Damper access in council chambers

2/8/2011	Damper locations in council chambers may require some alternate access due to location. WT looking at providing a ladder accessible platform
3/8/2011	Access platform is under review, access may be from the roof
4/12/2011	Confirmed access platform is approved with access from roof. Work is proceeding on installation.
5/10/2011	Correction, work is waiting on owner approval to begin.
6/14/2011	Platform and roof hatch installed, ladder installation pending
7/12/2011	Ladder installation still pending
8/9/2011	Ladder is reported to be installed, WT will follow up
9/13/2011	Ladder is confirmed to be installed. WT will bring CLV inspectors to the area to ensure there are no issues before item is closed.
10/11/2011	Building department is requiring a second ladder and grating to be installed
10/25/2011	Material procurement in process. Approx 2 weeks for completion
11/1/2011	On going, should be complete in another week. 11/8/11: WT to verify if complete.
11/15/2011	Waiting on second access hatch
11/22/2011	2nd access hatch is being installed now.
11/29/2011	2nd hatch is installed, grating will be installed today.

Item: 7.3 Date Submitted: 7/12/2011 Responsibility:

Topic: Access panels in stairs

8/9/2011	TMCx noted during site walk last week that there are 2 locations where access doors are cut in stair vestibules or stairs. Stair 3A, basement and Stair 2, level 1. Access doors for utilities that do not serve the stair are not permitted by code. If they must be provided, approval will be needed from the City.
9/13/2011	WT confirmed with the CLV Building Inspector that the installation of rated access panels in the stairs and stair vestibules as noted is acceptable. TMCx will add this to the Test Plan so that written record exists
10/11/2011	TMCx will review the level 1 access panels in stair 2 with JBA after the meeting
10/25/2011	-WT will look at the two locations after the meeting to review alternatives. -TMCx noted that the damper access in stair 2, level 1 is to the storage room adjacent to the stair.
11/1/2011	WT removing access door in the stairwell and relocating in room adjacent to the stairwell, not complete yet. 11/8/11: Not complete and WT to verify when it will be completed.
11/15/2011	In process, not complete yet. WT noted that stair 2 was not an issue but the CMU wall in stair 3 may be an issue. Will explore other options for the junction box.
11/22/2011	Mojave will be able to relocate the j-box for the security wiring below the ceiling in stair 3. Work in progress.
11/29/2011	work may be complete. WT will verify

Meeting Minutes

Item: 8.3 Date Submitted: 8/9/2011 Responsibility:

Topic: Fire Alarm Status/Pretesting

- | | |
|------------|--|
| 8/9/2011 | Scheduled items: Point-to-point and other preliminary testing will begin early October. Fire alarm scheduled to be complete Oct 20th. Full system pretesting to start early November. |
| 9/13/2011 | On schedule |
| 10/11/2011 | <ul style="list-style-type: none"> -No pretesting or point to point started yet, system wiring and device installation is incomplete -1st floor is lagging behind other areas due to construction. Siemens/Mojave are waiting until the majority of the devices on a loop are installed before powering up the loop to minimize troubles on the system. -Noted that the 1st floor loop includes the basement and affects the monitoring of equipment in the fire pump room. It was requested that if the 1st floor devices can be expedited to allow the full testing of the fire pump and appurtenances. -main FACP is being built now, will be ready next week |
| 10/25/2011 | <ul style="list-style-type: none"> -Mojave noted that the system is still incomplete in various areas due to construction. FA is complete in all areas construction is complete. -Basement is mostly complete, moving focus to level 1 -Elec room 1006 smoke detector is inaccessible -WT noted that the outstanding questions that had been holding up finish installation have been answered and the installation will be moving forward -Main FACP complete this week |
| 11/1/2011 | Main FACP complete end of this week, 11/4/11, Siemens is in the process of completing installation. |
| 11/1/2011 | Fire alarm final is scheduled for 12/23/11 and testing with the fire department is scheduled for 12/19/11 through 12/23/11. |
| 11/1/2011 | <ul style="list-style-type: none"> Elec room 1006 smoke detector is inaccessible, WT is working on a resolution. 11/8/11: WT is still working on a resolution. |
| 11/1/2011 | <ul style="list-style-type: none"> Mojave needs finished walls and ceilings to complete installation of fire alarm devices. WT working on getting them finished. 11/8/11: All areas will be released for device installation on Monday 11/14/11. Siemens will be complete with pretesting by end of November. |
| 11/8/2011 | Suppression systems need pretesting and testing complete by 12/23/11. |
| 11/15/2011 | <ul style="list-style-type: none"> -Mojave has been released for all areas to complete fire alarm devices. Anticipate being complete by the end of the week. -Clean agent system install in process -FACP up and running, network is up. Notification appliances are approximately 98% -Alarmco radio link installed, wires are pulled and ready to be landed in the FACP. Will leave disconnected until monitoring is required. -No significant issues reported |
| 11/22/2011 | <ul style="list-style-type: none"> -Siemens needs names for the clean agent systems from SAFE to enter into the fire alarm program -Device install is substantially complete in all areas except the elevator cars |
| 11/29/2011 | <ul style="list-style-type: none"> -Clean agent system names not provided yet -1 elevator car speaker showing trouble, remaining units installed. |

Meeting Minutes

Item: 8.4 Date Submitted: 8/9/2011 Responsibility:

Topic: Firefighters Smoke Control Panel

- 8/9/2011 Noted that the revised smoke control drawings were necessary to finalize the smoke control panel design and submit to the City for approval. This is a critical item due to the review time of the SCD's, submission and approval of the smoke control panel and fabrication time. TMCx offered to complete a courtesy review before submission
- 9/13/2011 Panel ordered and fabrication underway. Scheduled to ship on the 15th with 3-4 days of transit time.
Siemens will send approved FSCP design to TMCx for record.
- 10/11/2011 FSCP is on site and installed
- 10/25/2011 -New background for FACP is ordered to match current building layout. 1-2 weeks for replacement
- 11/1/2011 New background has not been ordered, Mojave is waiting for latest approved architecture drawings to submit to Siemens.
11/8/11: Siemens received drawings Monday 1/7/11 and will provide a list of item that are missing. Joe Noble stated that the new face panel needs to be installed by 12/9/11.
- 11/15/2011 -Floor plan was submitted for new background. No update on status
-TMCx recommended that the background be replaced before functional testing begins so no retesting is required.
- 11/22/2011 New background for the FSCP will not be installed until Dec 9th. Siemens will need 1-2 days to install. TMCx will need to retest functions after the install
- 11/29/2011 No Update

Item: 8.5 Date Submitted: 8/9/2011 Responsibility:

Topic: Smoke Zone Boundary Inspections

- 8/9/2011 TMCx began smoke zone boundary inspections in the basement last week before ceiling tiles were dropped. TMCx asked to be kept in the loop on the ceiling tile schedule so that we can stay ahead. All firestopping should be complete before the inspections.
- 9/13/2011 TMCx will be on site tomorrow to continue inspections.
- 10/11/2011 Ongoing, upper floors are ready for inspection. TMCx to schedule
- 10/25/2011 TMCx will revisit IR log items and remaining floors after the meeting
- 11/1/2011 WT working on issues, TMCx to verify.
11/8/11: TMCx to verify next week.
- 11/15/2011 Zone inspections are complete with the exception of the IR log items.
- 11/22/2011 continuing to reinspect IR log items
- 11/29/2011 No Update

Meeting Minutes

Item: 9.3

Date Submitted: 9/13/2011

Responsibility:

Topic: Smoke Control Test Plan

9/13/2011 TMCx has started the Test Plan, will provide draft copy for review prior to submitting to the City.

10/11/2011 Will distribute test plan and scenarios by next week.

10/25/2011 TMCx will distribute draft scenarios this afternoon for comments. Request any comments by Friday so they can be incorporated into the test plan for submission to the CLVF&R

11/1/2011 TMCx completed draft of test plan and sent for peer review. Joe Noble requested a copy of the test plan.

11/8/2011 TMCx has comments back, revised, and submitted test plan for peer review.

11/15/2011 TMCx revised test scenarios and resent to all based on comments received. Scenarios are still draft until revisions to SCDs are made.

11/22/2011 TMCx will update Test Scenarios to the upcoming revisions to the SCDs and send out to all

11/29/2011 Will update test scenarios to Bulletin 15 smoke control diagrams for testing this week.

Meeting Minutes

Item: 10.3 Date Submitted: 9/13/2011 Responsibility:

Topic: Comfort Balance

- 10/11/2011 PABCO reports that the comfort balance is approximately 75%. Ceiling completion is the biggest issue for balance. Trouble areas are the council chamber and the area at the passenger elevators. Noted that none of the air handling systems are 100%.
- 10/25/2011 -PABCO noted a correction from last week's minutes, VAVs are approximately 75% complete.
-Noted that completion of balance for the systems will require construction to be complete for removal of pre-filters
-PABCO expects to be mostly complete with the VAVs by the end of the week and moving on to water system balance.
-Should be able to complete the basement and floors 3-7 on a flood-by-floor basis.
- 11/1/2011 Complete with VAV boxes with the exception of unfinished areas, WT will be complete with those areas in 2 weeks so PABCO can complete.
11/8/11: Still on schedule.
- 11/1/2011 PABCO is still on schedule to complete TAB by end of November. They requested that fire alarm testing not interfere with TAB by shutoff air handlers and closing FSD's. Siemens stated that they there not going to shutoff air handlers or close FSD's during their testing.
- 11/1/2011 TAB is complete for the council chambers.
- 11/1/2011 TAB for water is starting 11/7/11 on second shift and should be complete in 2 weeks.
11/8/11: Continuing.
- 11/8/2011 MQAA setup is scheduled for 12/5/11 for 3rd party testing.
- 11/15/2011 Noted that the final filter install is not currently scheduled until Dec 16th. This will affect final verification of pressures between floors and duct smoke detector certification.
- 11/22/2011 -VAVs should be complete by the end of the week throughout
-EF-3 Noise issue - this fan serves multiple floors and remains running in smoke mode so adjustments need to be made before smoke control balance is complete. The fan cfm needs to be increased which will increase the noise issue.
-There are items holding up TAB cpm
- 11/29/2011 TAB is progressing. EF-3 is still in process.

Meeting Minutes

Item: 10.4 Date Submitted: 9/13/2011 Responsibility:

Topic: Duct Smoke Detector Testing

- 10/11/2011 Comfort balance needs to be complete to read minimums and maximums on sampling tube detectors.
Bombard believes that most of the detectors at the FSDs are in duct smoke detectors. These will not require certification by the air balancer.
- 10/25/2011 Pending system balance. TMCx noted that we can test the functional component of the detectors separately from the DP verification if necessary in the schedule
- 11/1/2011 Should be ready for testing first of December.
11/8/11: Mojave is short two duct detectors, should be here today.
- 11/15/2011 Last 2 detectors should be installed by tomorrow. Balance will not be finalized until December for certification.
- 11/22/2011 Question was raised whether there are additional units on level 8 that require duct smoke detectors. Noted the relocated fan coils for the electric room, chiller room and FCUs 26, 27, 28, 29 and 32 have some questions
-WT will confirm with JBA
- 11/29/2011 -all duct smoke detectors installed per the mechanical drawings are remaining.
-Need to install detectors on the fan coils on level 8 as noted previously.

Item: 10.5 Date Submitted: 9/13/2011 Responsibility:

Topic: Smoke Control TAB setup

- 10/11/2011 -PABCO is planning on approximately 7 days to set up the smoke exhaust system.
-Schedule has TAB complete by 12/5
- 10/25/2011 All fans except basement SCF have been bumped
- 11/1/2011 Need SCF above the council chambers bumped, should be ready by 11/11/11.
11/8/11: Complete.
- 11/1/2011 Bombard needs to install the louvers and they will need to be painted, discussing this with WT.
- 11/15/2011 Louvers will be installed by next week. No other updates
- 11/22/2011 Louvers are still being painted, should be complete end of next week. No other updates
- 11/29/2011 -Building enclosure not complete in 2 areas, main entry and 2050, the prefunction area. This needs to be enclosed for smoke control balance.
-discussed that TAB setup should be complete for Dec 12 with verification on the 13th - 14th.
This will allow time to submit the Final Report.

Meeting Minutes

Item: 10.6 Date Submitted: 10/11/2011 Responsibility:

Topic: Exhaust Method Verification

- 10/11/2011 Fire protection report specifies that the exhaust for the lobby zone must be read from within the zone. The design of the exhaust openings and the ceiling height will make this problematic. TMCx and JBA will discuss to see if there are any alternate methods that can be used.
- 10/25/2011 TMCx discussed verification with Ken Miller and confirmed that he will accept alternate means of measuring the exhaust. TMCx will evaluate options.
Also confirmed that we will not have to verify make up air quantity for the lobby zone but we will need to read pressure differentials to confirm the space is at least slightly negative to the adjacent zones. TMCx will detail in test plan
- 11/1/2011 TMCx and Bombard to verify points to measure DPs before next meeting.
11/8/11: TMCx to complete next week.
- 11/15/2011 TMCx checked the ductwork after the meeting and will be able to verify exhaust quantities in the doghouse on the roof of the council chambers or at the FSDs from the access platforms
- 11/22/2011 No Update

Item: 10.7 Date Submitted: 10/11/2011 Responsibility:

Topic: Door Fan Testing

- 10/11/2011 Several of the passive areas will require door fan testing. Some of this will overlap with the integrity testing for the clean agent systems. TMCx will provide list of proposed rooms with the test plan.
- 11/1/2011 Draft test plan submitted for peer review. WT to confirm rooms that are listed to be tested are ready.
11/8/11: WT to verify if rooms are ready for testing.
- 11/15/2011 -Requested to be notified as SAFE completes the room integrity tests for the clean agent systems.
-TMCx will request leakage calculations from the Engineer of Record
- 11/22/2011 No Update
- 11/29/2011 WT will verify rooms are complete for testing.

Meeting Minutes

Item: 10.8 Date Submitted: 10/11/2011 Responsibility:

Topic: Stair door unlocking

- 10/11/2011 -It was noted that the current specification for the stair door locking hardware calls for fail secure hardware which is not permitted on the stair doors. WT to follow up with RFI
-Mojave noted that there is not a provision on the smoke control panel for stair door unlocking and the wiring configuration of the security hardware may not allow selective unlocking of the stair doors only.
- 10/25/2011 -Last week's discussion was partially incorrect. The hardware schedule does specify that certain lock sets are to be fail safe. There is a "FS" designation provided in the description.
-There will be a meeting today to discuss the power supplies for the doors.
- 11/1/2011 Electric locks fail "unlocked" per the specifications and they need to "unlock" by a fire alarm and power failure.
11/8/11: Joe Noble needs verification of the operation of the locks. Siemens will have a manual switch on the FAP to unlock the doors.
- 11/15/2011 -Confirmed that there will be a release button on the FACP for the doors.
-Need to confirm if Stanley has a single point to tie in to the FA system for release
-Noted that at least one stair door in the tower is locked currently which indicates that the lock hardware is incorrect. The stair doors are without power at this time and should be unlocked.
- 11/22/2011 -Stanley does not have a tie in to the FA system at this time
-There are still several areas with hardware issues that need to be addressed
- 11/29/2011 -Hardware is still an issue. WT is working with the hardware supplier
-no tie in to the stanley equipment yet. Mojave is working on the issue

Item: 10.9 Date Submitted: 10/11/2011 Responsibility:

Topic: Fire Pump and ATS Status signals to main switchgear

- 10/11/2011 System calls for monitoring of the fire pump ATS and fire pump run status as part of load shedding of non-critical loads. These inputs need to be provided to the PSG. Unsure at this time where these status points can be pulled from
- 10/25/2011 No Update
- 11/1/2011 Mojave will verify during load bank testing, which is scheduled for today, 11/1/11. TMCx needs copy of load bank testing.
- 11/8/2011 Generator is ready for testing of the fire pumps.
- 11/15/2011 Mojave has the status points from the fire pump and has the wire pulled. Needs the points to land on in the PLC in the switchgear
- 11/22/2011 Mojave needs time to shut down the switchgear and make the necessary tie-ins to the PLC. Will affect Cx activities
- 11/29/2011 Tie in not completed yet

Meeting Minutes

Item: 10.10 Date Submitted: 10/11/2011 Responsibility:

Topic: Generator Status/Shunt Trip

- 10/11/2011 -Noted that there is an issue with manufacturer support on the generator that is hampering efforts to complete the system. The generator is able to run in auto an start automatically but the monitoring points and paralleling are not complete.
-The generator will be needed as part of the fire pump testing which is in the next couple weeks as well as for smoke control testing
- 10/25/2011 -Load bank testing to occur in the next 1-2 weeks. Fire pump testing will be able to occur after load bank test
-Generator will be available for testing and will function automatically once shunt trip is installed. Generators will be running in droop mode.
-No support from ISO at this time for wiring diagrams of the PLC
- 11/1/2011 Generator will be 100% complete this week and ready for MQAA testing.
- 11/1/2011 GenTech called Mojave during the meeting and stated there is 2" of water in the trough. WT is working on the issue.
- 11/8/2011 -Generator is ready for MQAA testing.
-Discussed what shunts TMCx needs to witness. Based on the conversation, we will need to shunt both NV Energy feeds and the PV feeds. This should drop all normal power to the building.
- 11/15/2011 Mojave would like to pretest the emergency ATS E1 for proper operation this week
- 11/22/2011 Waiting to schedule the test of the ATS, will try for next week
- 11/29/2011 Will try to schedule a test for this afternoon if possible

Meeting Minutes

Item: 10.11 Date Submitted: 10/11/2011 Responsibility: _____

Topic: Fire Pump and Standpipe testing

- 10/11/2011 -Roof and drains need to be complete for flow testing. Planning for water runoff needed.
Discussed the bubblers as an item that needs completion
-main PRV valve is installed, however the 2" is not. There are only 2 PRVs on the project per Westar
-It is preferable to have all of the tampers and monitoring active in the fire pump room for testing.
-Mojave confirmed that the fire pump status panel is wired and ready to go it is just turned off
-High/Low level alarms in the secondary water supply are not complete. Tank is inaccessible due to landscaping.
-Standpipe testing should be scheduled as soon as the pump is ready
-
- 10/25/2011 -Discussed setting up temporary connections for the bubblers or flowing off of the roof. WT will discuss options
-Secondary water supply is not complete. RFI for connections to the level indicators is needed. The secondary water supply will be needed for the fire pump test.
- 11/1/2011 WT is working on the water flowing off the roof issue.
- 11/1/2011 RFI for level indicators has been submitted.
- 11/1/2011 Level probe for the storage tank is install but conduit and wire still needs to be installed.
- 11/1/2011 Joe Noble to send out a revised fire pump testing schedule.
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.
- 11/8/2011 WT to submit a CR for the installation of the probes, as they are not installed, should be complete by end of this week. Fire pump testing is scheduled for 11/15/11. Joe Noble to send out a fire pump testing schedule.
- 11/15/2011 -Testing pending curbs and paving. Will be after Thanksgiving
-Mojave has not yet received a CR for the level probes. Westar has received elevations. Installation pending.
- 11/22/2011 -Mojave needs points to monitor fire pump. The one set of contacts identified are tied to the fire pump status display in fire command.
-Floats are being installed, should be ready for Mojave tomorrow.
-May be able to schedule standpipe testing for Tuesday next week. WT has plans to manage runoff.
- 11/29/2011 -Fire Pump monitoring is complete
-Floats are installed and wired. Will be tested today
-fire pump and standpipe testing scheduled for this week.

Meeting Minutes

Item: 10.12 Date Submitted: 10/11/2011 Responsibility:

Topic: Hydrant flow test

- 10/11/2011 Hydrant flow test should be conducted as soon as possible.
- 10/25/2011 can be scheduled after curb and gutter is completed. Scheduled to be complete by Nov 10.
Waiting on traffic permit.
- 11/1/2011 Scheduled to be complete by end of November.
- 11/1/2011 Traffic permit complete.
- 11/8/2011 No update.
- 11/15/2011 Will be conducted after Thanksgiving when paving and curbs are complete
- 11/22/2011 Will try to schedule with pump and standpipe testing next week.
- 11/29/2011 WT will coordinate with Flippens

Item: 10.13 Date Submitted: 10/11/2011 Responsibility:

Topic: Dry system testing

- 10/11/2011 Westar reports that the dry system testing is scheduled to start next week
- 10/25/2011 Pretesting has started.
- 11/1/2011 Pretesting is complete.
11/8/11: Pretesting is complete with the exception of the 8th floor 24 hour air test, waiting on power and will be complete on Monday 11/14/11.
- 11/15/2011 Westar is ready to complete testing
- 11/22/2011 8th floor should be complete today which should be the last system. Westar will confirm
- 11/29/2011 -All 24 hour tests are complete
-Trip tests, low/high air, waterflow, etc still to occur
-There is 1 dry standpipe that also needs to be tested

Item: 10.14 Date Submitted: 10/11/2011 Responsibility:

Topic: 24 hour monitoring

- 10/11/2011 24 hour monitoring needs to be in place for completion of the fire pump testing. WT will research the preferred vendor from the City and determine if wireless or wired connections will be used.
- 10/25/2011 Confirmed that Alarmco Wireless system will be used. Rep will be on site this week to review installation
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.
11/8/11: Will be complete by end of this week.
- 11/15/2011 Alarmco Panel is installed, wiring is complete and ready to be tied in to the FACP. Will leave disconnected until needed.
- 11/22/2011 -Fire Pump testing will occur shortly, will need monitoring up and running.
- 11/29/2011 Will be complete today for fire pump testing

Meeting Minutes

Item: 11.3 Date Submitted: 10/25/2011 Responsibility:

Topic: DAS system

- 10/25/2011 Anderson Communications is the rep for the DAS system. Basement antenna install is in process this week. Schedule shows 11/1 for completion.
- 11/1/2011 Mojave is waiting for the equipment from Anderson and will check on status.
11/8/11: Mojave has all the equipment and should be complete by end of next week.
- 11/15/2011 Installation is in progress, should be complete by the end of the week
- 11/22/2011 Waiting on equipment rack, antennas are complete, system should be complete in a few more days.
-Siemens will need to monitor the required points on the system. Need to confirm that these status points are available
- 11/29/2011 -waiting on rack, system is complete otherwise.
-No points yet for Siemens to monitor

Item: 12.3 Date Submitted: 10/25/2011 Responsibility:

Topic: Smoke Guards

- 11/8/2011 Not required on level 1, but for basement & levels 2 through 8. levels 3-8 will be complete this week and 2nd floor on 11/18/11.
- 11/15/2011 Installation in progress, Mojave noted that the installer was making changes to the wiring in the field.
- 11/22/2011 -Smoke guards install is complete.
- 11/29/2011 Ready for testing

Meeting Minutes

Item: 12.4 Date Submitted: 11/1/2011 Responsibility:

Topic: Miscellaneous items

- 11/1/2011 Joe Noble asked Siemens for their as-built drawings for the fire alarm final which is scheduled for 12/23/11. Siemens to submit, but they may or may not be stamped approved.
- 11/1/2011 Joe Noble asked if the schedule was ok and no one had any comments.
- 11/1/2011 All NCR, NOVs, & releases from all agencies need to be closed by 12/16/11.
- 11/8/2011 Joe Noble to send out an updated schedule.
- 11/8/2011 Siemens needs JCI provided CT's for fans installed so they can connect for fan status.
- 11/15/2011 Fire Alarm As-Built Pending
- 11/22/2011
 - FA as-builts should be submitted around 12/15
 - Doors for elevator lobbies incomplete
 - Fire alarm can be tested on a floor by floor basis with CLVF&R to start knocking out some of the testing
 - Sprinkler as-builts - complete for B and 8, will hold B until outstanding questions are addressed
 - Fire Pump room inspection needs to be scheduled
 - Need smoke control permanent labels by 11/30 for testing
- 11/29/2011
 - elevator lobby doors not complete yet
 - sprinkler as-builts for level 8 were submitted. Level B holding on hot aisle issue.
 - correction to previous, FA as builts should be submitted by 12/18 after testing with FD
 - fire pump room Inspections in process

Item: 14.3 Date Submitted: 11/15/2011 Responsibility:

Topic: VFD Programming

- 11/15/2011 VFDs for smoke control fans need to be programmed for fire mode
- 11/22/2011 CAMs will be needed for programming once balance points are set. VFDs are reported to be currently programmed to run as required
- 11/29/2011 no update

Meeting Minutes

Item: 14.4 Date Submitted: 11/15/2011 Responsibility:

Topic: Current Transducers

- 11/15/2011 CTs are needed for all smoke control fans and fans that shut down as part of smoke control for monitoring status.
-Need to determine who is responsible for providing ASAP. CTs are required as part of the functional testing scheduled to begin on Dec 1 and need to be pretested.
-TMCx noted that auto-adjusting CTs are not recommended for any fans that need to run in smoke control.
- 11/22/2011 CTs should be on site tomorrow.
- 11/29/2011 CTs approx 60% complete. Need Stair press ready for testing on Thursday.

Item: 14.5 Date Submitted: 11/15/2011 Responsibility:

Topic: Auto Damper Monitoring and Control

- 11/15/2011 Auto dampers are not currently being controlled by the fire alarm system or being monitored by the fire alarm system. This needs to be resolved for pretesting before the end of the month or it will affect functional testing on Dec 1.
-There are no open-closed indicator switches on the dampers at this time, they will need to be installed in the field for the fire alarm to monitor status
- 11/22/2011 -OCIs- bombard will be ordering and installing
-smoke control position needs to be achieved in 60 seconds. Will spot check a few after the meeting
-No FA controls for the dampers installed yet
- 11/29/2011 -OCIs should be on site tomorrow, will take 1-2 days for install
-TMCx spot checked a couple dampers after last week's meeting and confirmed that the dampers are spring return and will cycle in 10 seconds or so
-fire alarm controls and monitoring for auto dampers will be installed as soon as the switches are installed.

Item: 14.6 Date Submitted: 11/15/2011 Responsibility:

Topic: AH-6 dampers

- 11/15/2011 AH-6 dampers are not currently shown to configure for smoke control and there is no fire alarm control or monitoring to these dampers.
-It was discussed that the dampers downstream in the ductwork were not needed now and can be decommissioned. Control functions can be performed by the dampers in the unit. JBA will be making updates to the SCDs.
- 11/22/2011 No update
- 11/29/2011 See revisions on Bulletin 15

Meeting Minutes

Item: 15.3 Date Submitted: 11/22/2011 Responsibility:

Topic: Decommissioning of Dampers

- 11/22/2011 Reviewed the decommissioning process with all: The damper actuator and wiring must be removed, any smoke detectors for the damper must also be removed. A locking handle or other means must be connected to the damper to maintain it in the open position. Any markings that identify it as a FSD (previous labels from the smoke control diagrams, etc) should be removed.
-There are several dampers that will be required to be decommissioned.
- 11/29/2011 WT will look into a list of decommissioned dampers.

Item: 15.4 Date Submitted: 11/22/2011 Responsibility:

Topic: Floor to Floor DP tubing

- 11/22/2011 Floor to floor tubing will be installed in the TR rooms from 3-8. Need to identify locations for tubing on floors 8-2
- 11/29/2011 -TMCx to Walk this week with WT
-Need complete for TAB start

New Business

Item: 17.1 Date Submitted: 12/6/2011 Responsibility:

Topic: Next Meeting Date

Item: 17.2 Date Submitted: 12/6/2011 Responsibility:

Topic: Update Issues Log

Responsibility	Ad ID	Description	Orig Dtl	Early Start	Early Finish	Day	Notes
BOMBARD	150	Deliver Painted Louver / Diffuser steel Lobby	0	28NOV11			Deliver Painted Louver / Diffuser steel Lobby
BOMBARD	190	Exterior Louvers	0	28NOV11			Exterior Louvers
GIORX	480	Deliver all Bullet proof Glass to Building	0	28NOV11			Deliver all Bullet proof Glass to Building
LBP	820	Toilet Partitions (Re-Ordered) B through 3	0	28NOV11			Toilet Partitions (Re-Ordered) B through 3
HEINAMAN	340	Service Yard Gates Metal Panel Header Wraps	0	30NOV11			Service Yard Gates Metal Panel Header Wraps
HEINAMAN	580	Header wraps at Doors 1030A and B (studio)	0	30NOV11			Header wraps at Doors 1030A and B (studio)
ISEC	280	Ship Batch 4, 42-48 Rulon Wall Panels	0	01DEC11			Ship Batch 4, 42-48 Rulon Wall Panels
BOMBARD	180	CT's for Auto Dampers	0	02DEC11			CT's for Auto Dampers
ISEC	250	Deliver Batch 4 to site ready for install	0	05DEC11			Deliver Batch 4 to site ready for install
U. BRASS	110	Council Chambers Handrail on site for install	0	05DEC11			Council Chambers Handrail on site for install
MOJAVE	210	CT's for Metering KWH Metering	0	05DEC11			CT's for Metering KWH Metering
MOJAVE	260	BC1 Bollards	0	05DEC11			BC1 Bollards
MOJAVE	300	SM1 PV Tree Light fixtures	0	05DEC11			SM1 PV Tree Light fixtures
U. BRASS	60	Grand stair handrail tread embed	0	06DEC11			Grand stair handrail tread embed
MOJAVE	320	WC2 Fixtures	0	06DEC11			WC2 Fixtures
MOJAVE	310	SM7 (CC Metal Panels)	0	07DEC11			SM7 (CC Metal Panels)
HEINAMAN	550	Louvers Terrace Level 2 (Ohio Grating)	0	09DEC11			Louvers Terrace Level 2 (Ohio Grating)
U. BRASS	120	Service Yard Gates arrive on site to install	0	12DEC11			Service Yard Gates arrive on site to install
YESCO	130	Sign C1	0	12DEC11			Sign C1
MOJAVE	240	Electric Charging Stations	0	12DEC11			Electric Charging Stations
MOJAVE	280	LD1 Light for room 1076	0	12DEC11			LD1 Light for room 1076
MOJAVE	830	Wrightline Equipment	0	12DEC11			Wrightline Equipment
VENTURA	80	Fabricate Stone Flooring	0	13DEC11			Fabricate Stone Flooring
YESCO	140	Signs B1, B2, B3	0	14DEC11			Signs B1, B2, B3
YESCO	180	Signs A1, A2, A3, B4, B5, E1, F1	0	15DEC11			Signs A1, A2, A3, B4, B5, E1, F1
AMAZON	400	Decorative Bollards	0	16DEC11			Decorative Bollards
AMAZON	410	Centennial Benches/Trash Recept	0	16DEC11			Centennial Benches/Trash Recept
DH-PACE	100	Council Chambers Doors arrive on site	0	19DEC11			Council Chambers Doors arrive on site
MOJAVE	260	Signal Light Poles	0	27DEC11			Signal Light Poles
MOJAVE	330	Street Light Poles	0	29DEC11			Street Light Poles
MOJAVE	270	JM1-3 Prefunction Light Fixtures	0	15JAN12			JM1-3 Prefunction Light Fixtures
Parking Delivery Schedule							
South Side Level One							
AMAZON	800	Raise 1 Palo Verde 36" Box Traces in East walk	1	22NOV11	22NOV11		Raise 1 Palo Verde 36" Box Traces in East walk
AMAZON	540	Deliver and Place Rocks	2	23NOV11	25NOV11		Deliver and Place Rocks
AMAZON	810	Hard water Trees Until Irrigation is live	10	23NOV11	07DEC11		Hard water Trees Until Irrigation is live
AMAZON	370	Deliver & Plant Mexican Grass Tree Sign on	0	25NOV11			Deliver & Plant Mexican Grass Tree Sign on

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-521

MOJ00705

JA 00005152

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	2011	2012
AMAZON	383	Deliver & Plant Yellow Yucca 5 gallon	0	25NOV11		Deliver & Plant Yellow Yucca 5 gallon	
AMAZON	380	Deliver & Plant Mexican Fence Post Cluster	0	25NOV11		Deliver & Plant Mexican Fence Post Cluster	
East Site Level One							
AMAZON	480	Plant Yellow Yucca 5 gallon	0	22NOV11		Plant Yellow Yucca 5 gallon	
AMAZON	470	Plant Tecoma 15 gallon 6'x3'	0	22NOV11		Plant Tecoma 15 gallon 6'x3'	
North Site Level One							
AMAZON	490	Plant Yellow Yucca 5 gallon	0	28NOV11		Plant Yellow Yucca 5 gallon	
AMAZON	500	Plant Italian Cypress 24" box 7'x3'	0	28NOV11		Plant Italian Cypress 24" box 7'x3'	
AMAZON	510	Plant Tecoma 15 gallon 6'x3'	0	28NOV11		Plant Tecoma 15 gallon 6'x3'	
West Site Level One							
AMAZON	530	Plant Mexican Grass Tree 5gallon	0	28NOV11		Plant Mexican Grass Tree 5gallon	
Phase Level 1070							
AMAZON	280	Plant Phoenix Mesquite 36" box 11'x5'	0	21NOV11		Plant Phoenix Mesquite 36" box 11'x5'	
AMAZON	420	Plant Bulbine Lily 5gallon	0	28NOV11		Plant Bulbine Lily 5gallon	
AMAZON	430	Plant Texas Ranger 5gallon	0	28NOV11		Plant Texas Ranger 5gallon	
AMAZON	440	Plant Century Plant 15 gallon	0	28NOV11		Plant Century Plant 15 gallon	
AMAZON	450	Plant Pink Muhly 5 gallon	0	28NOV11		Plant Pink Muhly 5 gallon	
EXTERIOR ENCLOSURE/ SHELL							
LOW RISE							
Low Rise Metal Panel System							
KHSS/MSCO	324	Work on Quality Control panel Remediation	13	22NOV11	06DEC11	Work on Quality Control panel Remediation	
Low Rise South Elevation Levels 2, 3 & 4							
COMMERCIAL	583	Add Second Roof access to Fire Dampers.	1	18NOV11	18NOV11	Second Roof access to Fire Dampers.	
SME	582	Remove Plywood on Platform with metal grating	2	22NOV11	23NOV11	Remove Plywood on Platform with metal grating	
CURTAIN WALL							
High Rise Curtain Wall Glass System							
South Elevation							
HEINAMAN	948	Install Lower Upper Mechanical Level 8	2	22NOV11	23NOV11	Install Lower Upper Mechanical Level 8	
HEINAMAN	979	Install Last Fin Across top of Parapet	1	25NOV11	25NOV11	Install Last Fin Across top of Parapet	
HEINAMAN	1449	Install Main Entrance Metal Panels	5	05DEC11	09DEC11	Install Main Entrance Metal Panels	
HEINAMAN	939	Vestibule 1001 Installation into glass	4	12DEC11	15DEC11	Vestibule 1001 Installation into glass	
HEINAMAN	955	Install Vestibule 1001 doors/hardware/closures	2	12DEC11	13DEC11	Install Vestibule 1001 doors/hardware	
Satellite South East Corner							

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule

Filter: Four week lookahead

Run Date	23NOV11
Page Number	34
Date Date	23NOV11

J56-522

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	Notes
HEINAMAN	785	Complete Install of Re-ordered Canopy Panels	2	28NOV11	29NOV11	Complete install of Re-ordered Canopy Panels
HEINAMAN	786	Install Sape Column Panels	2	01DEC11	02DEC11	Install Sape Column Panels
Mayor's Balcony Level 7						
HEINAMAN	1789	Install end caps for Stairs	1	18NOV11	18NOV11	Install end caps for Stairs
VENTURA	1859	Install Waterproofing	1	21NOV11	21NOV11	Install Waterproofing
VENTURA	1789	Install Tile Flooring	4	22NOV11	26NOV11	Install Tile Flooring
East Elevation						
HEINAMAN	1349	Install Green Guard CS500 Centria Panels	5	14NOV11	18NOV11	Install Green Guard CS500 Centria Panels
HEINAMAN	1359	Install Centria Panels 22 gauge around Catwalk	5	21NOV11	23NOV11	Install Centria Panels 22 gauge around Catwalk
HEINAMAN	999	Install P. Coping @ Catwalk	2	30NOV11	01DEC11	Install P. Coping @ Catwalk
HEINAMAN	1339	Install High Parapet Coping Level 9	2	30NOV11	01DEC11	Install High Parapet Coping Level 9
North West Side Development						
U. BRASS	1708	Install Slide support on Beam for Hanging Gates	2	28NOV11	28NOV11	Install Slide support on Beam for Hanging Gates
HEINAMAN	1689	Install Cladding at Entry Gate Bm @ Loading Dock	3	03DEC11	13DEC11	Install Cladding at Entry Gate Bm @ Loading Dock
HEINAMAN	1699	Install Cladding at Entry Gate Bm @ Utility Yard	3	06DEC11	13DEC11	Install Cladding at Entry Gate Bm @ Utility Yard
HEINAMAN	1719	Install Header wraps at Doors 1090A-1090B	4	09DEC11	14DEC11	Install Header wraps at Doors 1090A-1090B
Louvers						
HEINAMAN	1636	Install Louvers Level 2 Plaza North	9	12DEC11	22DEC11	Install Louvers Level 2
Plaza 2 Roof						
Roof Top Construction Activities						
West Side Area A						
COMMERCIAL	1559	Water Test Area A West Side Single ply Roof	1	25NOV11	25NOV11	Water Test Area A West Side Single ply Roof
COMMERCIAL	1364	Manufacturer to Certify Single Ply Roofing	1	28NOV11	28NOV11	Manufacturer to Certify Single Ply Roofing
SME	1299	Install New Steps	2	12DEC11	13DEC11	Install New Steps
East Side Area B Beneath Coping Louvers						
COMMERCIAL	1129	Water Test Area A West Side Single ply Roof	2	25NOV11	28NOV11	Water Test Area A West Side Single ply Roof
COMMERCIAL	1149	Manufacturer to Certify Single Ply Roofing	1	28NOV11	28NOV11	Manufacturer to Certify Single Ply Roofing
SME	1139	Install new steps	2	12DEC11	13DEC11	Install new steps
Extension Plaza Level 2, Area D						
General						
HEINAMAN	1290	CW-016 Top cap removed	1	23NOV11	23NOV11	CW-016 Top cap removed
COMMERCIAL	1290	Install waterproof membrane under top cap	1	25NOV11	25NOV11	Install waterproof membrane under top cap
W-T	1260	Pour extensions to bench pads	1	28NOV11	28NOV11	Pour extensions to bench pads
HEINAMAN	1300	Re-install top cap on CW-016	1	28NOV11	28NOV11	Re-install top cap on CW-016
COMMERCIAL	1049	Remediate Waterproof membrane	3	28NOV11	01DEC11	Remediate Waterproof membrane

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-523

MOJ00707
JA 00005154

Run date	29NOV11
Page number	4A
Date date	29NOV11

Responsibility	Act ID	Description	Orig. Dur.	Early Start	Early Finish
AMAZON	1059	Layout and drill anchors for Benches		21 29NOV11	30NOV11
GIORX	1270	Complete install Glass Rail		1 30NOV11	30NOV11
COMMERCIAL	1039	waterproof anchors for benches		2 01DEC11	02DEC11
MOJAVE	1310	Install BM3 Light Poles on Pedistals		3 03DEC11	05DEC11
COMMERCIAL	1039	Start Paver Installation		15 03DEC11	23DEC11
AMAZON	1039	Install Shims for benches		1 05DEC11	05DEC11
AMAZON	1109	Hold 4 remediated planter pots and set in place		1 07DEC11	07DEC11
AMAZON	1250	Hold 4 trees place in pots/ Irrigation five		1 08DEC11	08DEC11
North Elevation, East Side					
MOJAVE	1429	Install Up Lighting in Planters		21 22NOV11	23NOV11
AMAZON	1439	Install Irrigation in Planters		31 22NOV11	24NOV11
AMAZON	1459	Plant 5 gallon, 15 gallon Shrubs		1 23NOV11	23NOV11
North Elevation, West Side					
MOJAVE	719	Install Up Lighting in Planters		2 22NOV11	23NOV11
AMAZON	729	Install Irrigation in Planters		3 22NOV11	24NOV11
AMAZON	739	Plant 5 gallon, 15 gallon Shrubs		1 23NOV11	23NOV11
Interior Build Out/ Finishes					
Planting Common Wall Activities					
Level 2					
East Prefunction 3049					
HEINAMAN	3359	Vestibule 2050 Soffit Panels		4 25NOV11	30NOV11
HEINAMAN	4215	Install Risers for Doors		1 23NOV11	23NOV11
Interior Parking Common MEP Activities					
Basement					
General					
J&R	1819	Install Entry Floor Mats		2 22NOV11	23NOV11
ALL-STAR F	1939	Room 0043 install Chain Link Fence		2 22NOV11	23NOV11
J&R	2009	Demol Defective RF-1 Flooring		4 22NOV11	23NOV11
ISEC	2049	Install recycle colored banding/s.s. countertops		1 22NOV11	22NOV11
KHS&S	2059	Paint Garage/ Parking area C Parking Spaces		2 22NOV11	23NOV11
LEPWESTAR	2119	Install Fire Cabinets/ Hose Reels		1 23NOV11	23NOV11
KHS&S	2129	Rework Vault door rough Opening for new door		4 22NOV11	23NOV11
MODERN F	1809	Install SAFE DOOR		4 03DEC11	03DEC11
J&R	2059	Start 3rd installation of RF-1 Flooring		10 19DEC11	03JAN12
Basement Area A					
Install Entry Floor Mats Room 0043 install Chain Link Fence Demol Defective RF-1 Flooring Install recycle colored banding/s.s. countertops Paint Garage/ Parking area C Parking Spaces Install Fire Cabinets/ Hose Reels Rework Vault door rough Opening for new door Install SAFE DOOR Vestibule 2050 Soffit Panels Install Risers for Doors					

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.
LVCH4 Week Schedule

Filter: Four week lookahead

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	DEC
0037 Men Locker Showers						
GIORX	446	Install Mirror	1	22NOV11	22NOV11	Install Mirror
L&P	436	Install toilet partitions and accessories	3	28NOV11	30NOV11	Install toilet partitions and accessories
0038 Women Locker Showers						
GIORX	524	Remove and Re-Install Mirror	1	22NOV11	22NOV11	Remove and Re-Install Mirror
L&P	514	Install toilet partitions and accessories	3	28NOV11	01DEC11	Install toilet partitions and accessories
Level 1 Area A						
Area A						
BOMBARD	1038	Install sinks in Cabinets	2	22NOV11	23NOV11	Install sinks in Cabinets
DHFACE/MQJ	1108	Install door Hardware/electric card readers	3	22NOV11	25NOV11	Install door Hardware/electric card readers
MOJAVE	2178	Install electrical trim, cover plates	4	22NOV11	25NOV11	Install electrical trim, cover plates
DHFACE	2648	Install EE Aluminum window frames in Rm. 1015	2	22NOV11	23NOV11	Install EE Aluminum window frames in Rm. 1015
VENTURA	2678	Install S.S. Tops of Cabinets install Rm 1015	3	22NOV11	25NOV11	Install S.S. Tops of Cabinets install Rm 1015
L&P/WESTAR	2688	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
KHS&S	3028	Seal Concrete floors	4	22NOV11	28NOV11	Seal Concrete floors
MOJAVE	3348	Install card readers connect electrical hardware	3	22NOV11	25NOV11	Install card readers, connect electrical hardware
DHFACE	2558	Install J Aluminum window frames in Rm. 1014	1	25NOV11	25NOV11	Install J Aluminum window frame in Rm. 1014
GIORX	2668	Install glass in Windows Type J	2	28NOV11	27NOV11	Install glass in Windows Type J
L&P	1088	Install toilet partitions and accessories	5	28NOV11	03DEC11	Install toilet partitions and accessories
J&R	3048	Install Resilient Flooring	1	22DEC11	22DEC11	Install Resilient Floor
Lobby - 1007 Area A						
ALL SUBS	2400	Rough in Ctg. Framing Vestibule 1001	2	18NOV11	21NOV11	Rough in Ctg. Framing Vestibule 1001
BOMBARD	2100	Install Remaining Linear diffuser, fake	1	22NOV11	22NOV11	Install Remaining Linear diffuser, fake
MEP SUBS	2130	Receive above suspended ceiling inspection	1	22NOV11	22NOV11	Receive above suspended ceiling inspection
U. BRASS	2180	Install Glass rail and Metal Fascia panels L 2	5	22NOV11	28NOV11	Install Glass rail and Metal Fascia panels L 2
GIORX	2200	Install storefront doors 1015, 1002	4	22NOV11	28NOV11	Install storefront doors 1015, 1002
CITY MSP	2580	Receive Vestibule Ceiling MEP Inspection	1	22NOV11	22NOV11	Receive Vestibule Ceiling MEP Inspection
KHS&S	2710	Frame/drywall/texture/paint Lobby Desk Die wall	4	22NOV11	28NOV11	Frame/drywall/texture/paint Lobby Desk Die wall
KHS&S	2800	Complete high suspended ceiling above stair	2	23NOV11	24NOV11	Complete high suspended ceiling above stair
KHS&S	2700	Receive Vestibule Ceiling Framing Inspection	1	23NOV11	23NOV11	Receive Vestibule Ceiling Framing Inspection
KHS&S	2140	Drop all remaining tiles in Suspended ceilings	1	25NOV11	25NOV11	Drop all remaining tiles in Suspended ceilings
KHS&S	2190	Complete suspended ceiling above Lobby desk	2	25NOV11	25NOV11	Complete suspended ceiling above Lobby desk
HEINEMAN	2690	Install Metal Panels on Vestibule Ceiling 1001	4	28NOV11	30NOV11	Install Metal Panels on Vestibule Ceiling 1001
MOJAVE	2720	R/E Electrical /Data at Die wall	1	25NOV11	25NOV11	R/E Electrical /Data at Die wall
MOJAVE	2730	Remove floor box and Relocate into Die Wall	1	28NOV11	28NOV11	Remove floor box and Relocate into Die Wall

The Whiting-Turner Contracting Co.

LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-525

MOJ00709
JA 00005156

Run date	28NOV11
Page number	5A
Date date	28NOV11

Responsibility	Act ID	Description	Orig. Dur.	Early Start	Early Finish	Notes
VENTURA	2248	See Stone Schedule Phase Three Level One	10	22NOV11	08DEC11	See Stone Schedule Phase Three Level One
MILICI	2298	Install GLASS Row 3	1	22NOV11	29NOV11	Install GLASS Row 3
VENTURA	2238	Install Stone Honeycomb panels	10	01DEC11	14DEC11	Install Stone Honeycomb panels
MILICI	2308	Install GLASS Row 2	2	02DEC11	03DEC11	Install GLASS Row 2
HARTSCO	1118	Remove Scaffold and Gantry System 2nd Time	1	04DEC11	04DEC11	Remove Scaffold and Gantry System 2nd Time
MILICI	1058	Install GLASS Row 1	4	05DEC11	09DEC11	Install GLASS Row 1
MILICI	1068	Complete Grind and Polish back of Glass	5	05DEC11	09DEC11	Complete Grind and Polish back of Glass
U. BRASS	1048	Install hand rail insert embeds	2	08DEC11	09DEC11	Install hand rail insert embeds
Corridors 1013, 1029, 1012, 1008, 1001, 1007, 1015						
CITY INSP.	2838	Receive above suspended Ceiling Inspection	1	22NOV11	22NOV11	Receive above suspended Ceiling Inspection
KHSAS	2848	Drop/Install Suspended ceiling tiles	1	22NOV11	22NOV11	Drop/Install Suspended ceiling tiles
J&R	3038	Install Flooring and Base	2	22NOV11	22NOV11	Install Flooring and Base
Reception 1111						
DHPACEMOJ	2738	Install Door and Electric Strike Hardware	2	22NOV11	23NOV11	Install Door and Electric Strike Hardware
J&R	R-200	Install Flooring and Base	1	22NOV11	22NOV11	Install Flooring and Base
Elevator Lobby 1003						
VENTURA	2788	See Stone Schedule Phase Five Level One	5	01DEC11	07DEC11	See Stone Schedule Phase Five Level One
GIORX	2798	Install Rudy Art Glass	5	08DEC11	14DEC11	Install Rudy Art Glass
J&R	E-200	Install Flooring and Base	5	12DEC11	16DEC11	Install Flooring and Base
Level 1 Area B						
Area B						
MOJAVE	B-200	Install electrical trim, cover plates	3	22NOV11	25NOV11	Install electrical trim, cover plates
LAPWESTAR	B-300	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/Hose Reels
VENTURA	B-330	Install S.S Top 1153	2	22NOV11	23NOV11	Install S.S Top 1153
DHPACEMOJ	B-348	Install door Hardware/electric/door readers	3	22NOV11	25NOV11	Install door Hardware/electric/door readers
DHPACE	B-250	Install glass/Bullet Resistant type J	3	22NOV11	28NOV11	Install glass/Bullet Resistant type J
J&R	B-310	Install Resilient Flooring	1	22DEC11	22DEC11	Install Resilient Flooring
Level 1 Area C						
Area C						
KHSAS	1156	Complete install of WC-5 on Walls	2	22NOV11	23NOV11	Complete install of WC-5 on Walls
J&R	1308	Install Carpet & Base	2	22NOV11	23NOV11	Install Carpet & Base
ALL SUBS	1418	Adjust all wall devices to fit to WC-5 Covering	1	22NOV11	22NOV11	Adjust all wall devices to fit to WC-5 Covering
KHSAS	1428	Drop and install suspended ceiling tiles	2	22NOV11	23NOV11	Drop and install suspended ceiling tiles
GIORX	1478	Install Mirrors in Restrooms	1	22NOV11	22NOV11	Install Mirrors in Restrooms
VENTURA	1488	Install S.S top 1060	5	22NOV11	28NOV11	Install S.S top 1060
DHPACEMOJ	1498	Install door Hardware/electric/door readers	4	22NOV11	28NOV11	Install door Hardware/electric/door readers
LAPWESTAR	1528	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/Hose Reels

The Waiting-Turner Contracting Co.

LVCN 4 Week Schedule

Filter: Four week lookahead

☐ Early bar
☐ Progress bar
☐ Critical bar
☐ Summary bar
☐ Start milestone point

J56-526

MOJ00710
JA 00005157

Run date	29NOV11
Page number	7A
Date date	29NOV11

Responsibility	Act ID	Description	Orig. Dur.	Early Start	Early Finish
Level 2 Area B					
Area B					
DHPAC/MOJ	3658	Install door Hardware/electric /card readers	3	22NOV11	28NOV11
KHS&S	3726	Install tile in suspended ceiling North Corridor	2	22NOV11	23NOV11
MCJAVE	2-200	Install electrical trim, cover plates	1	22NOV11	22NOV11
L&P	2-230	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11
VENTURA	2-210	Install Store Flooring North Corridor	7	28NOV11	02DEC11
GOURX	2-250	Install Door 2051A	1	28NOV11	28NOV11
BOYBARD	2-270	Install Plumbing Fixtures Restrooms 2059/2060	2	28NOV11	29NOV11
GOURX	2-260	Install Door 2055A	1	28NOV11	28NOV11
J&R	2-240	Install Resilient Flooring	1	20DEC11	20DEC11
2075 Galleria					
ARTIST	3708	Install wood Art on Art wall	4	22NOV11	28NOV11
LLOYDS	3788	Install stainless steel cabinets south wall	1	22NOV11	22NOV11
KHS&S	3988	Paint Soffit around Vestibule 2080	3	22NOV11	28NOV11
KHS&S	4068	Paint Vestibule Hardid 2080	1	22NOV11	22NOV11
HEINAMAN	4228	Install Fixtures in Vestibule 2080	1	22NOV11	22NOV11
HEINAMAN	4758	Install Dish washer	1	23NOV11	23NOV11
HEINAMAN	4238	Install Missing Pcs. of Glass in Vestibule 2080	1	23NOV11	28NOV11
Level 2 Area C					
Area C					
DH PAGE	1905	Install Door Frames/Doors 2038C,2039B	2	21NOV11	23NOV11
VENTURA	1808	Install S.S Top 2034,2035, 2049	5	22NOV11	28NOV11
BOMBARD	1818	Install sink in Solid surface countertop	2	22NOV11	23NOV11
DHPAC/MOJ	1838	Install door Hardware/electric /card readers	3	22NOV11	28NOV11
MOJAVE	C-280	Install electrical trim, cover plates	3	22NOV11	25NOV11
ISEC	C-350	Complete installation of Cabinets	3	22NOV11	25NOV11
J&R	C-400	Install flooring BOH Corridors	3	22NOV11	28NOV11
L&P/WESTAR	C-410	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11
GOURX	C-420	Install Mirrors in Restrooms	1	22NOV11	22NOV11
L&P	1888	Install toilet partitions and accessories	5	23NOV11	28NOV11
U. BRASS	1918	Complete install of Handrails in B.O.H Corridors	4	28NOV11	02DEC11
J&R	C-450	Install Resilient Flooring	1	20DEC11	20DEC11
2040 P. Perimeter					
HEINAMAN	3158	Install Vestibule 2050 Metal Panels	5	22NOV11	28NOV11
HEINAMAN	3168	Install Fixtures for Doors Vestibule 2050	1	22NOV11	22NOV11
ISEC	3238	Complete Wood Paneling in Security rms	3	22NOV11	25NOV11

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.
 LVCH4 Week Schedule
 Filter: Four week lookahead

Run date	23NOV11
Page number	9A
Date date	29NOV11

Responsibility	Act In	Description	Orig. Dur.	Early Start	Early Finish	Notes
JJR	3975	Install opt-3 in 2048B KOLV Control Room	1	22NOV11	22NOV11	Install opt-3 in 2048B KOLV Control Room
KH-S&S	3948	Install WC-5 in 2048B KOLV Control Room	2	22NOV11	25NOV11	Install WC-5 in 2048B KOLV Control Room
ISEC	4048	Rectify Replacement shipment of Wood Panels	1	28NOV11	28NOV11	Rectify Replacement shipment of Wood Panels
ISEC	4028	Install Wood wall paneling in 2048/2045 Anti rms	5	23NOV11	03DEC11	Install Wood wall paneling in 2048/2045 Anti rms
VENTURA	3148	See Stone Schedule Phase 2 Level 2	9	03DEC11	15DEC11	See Stone Schedule Phase 2 Level 2
J&R	4038	Install opt-3 in 2046 Control rm/2047 Press rm.	1	03DEC11	03DEC11	Install opt-3 in 2046 Control rm/2047 Press rm.
MOJAVE	4738	Install JM1-3 Light fixtures	2	16JAN12	17JAN12	
2049 Council Chambers						
MOJAVE	3458	R/I AV and power with Data Installation	2	22NOV11	22NOV11	R/I AV and power with Data Installation
ISEC	3518	1-Wood Window and 6-Door Jambas Installed	7	22NOV11	28NOV11	1-Wood Window and 6-Door Jambas Installed
KH-S&S	3529	Install Metal Panels on North Zig Zag Wall.	8	22NOV11	30NOV11	Install Metal Panels on North Zig Zag Wall.
ISEC	3673	Complete Installation of Fixed Dials	3	22NOV11	24NOV11	Complete Installation of Fixed Dials
MOJAVE	4003	Pull Wire to fixed Seating	2	22NOV11	22NOV11	Pull Wire to fixed Seating
W-T	4058	Lead Flush Air Test	1	22NOV11	22NOV11	Lead Flush Air Test
ISEC	4098	Install Demountable Partition & top cap	3	22NOV11	24NOV11	Install Demountable Partition & top cap
CITY INSP.	3798	Inspection of AV Power R/I	1	24NOV11	24NOV11	Inspection of AV Power R/I
ISEC	4088	Install Wood Base & Rulon Wedge Shaped panels	3	26NOV11	28NOV11	Install Wood Base & Rulon Wedge Shaped panels
SITIMATIC	3558	Complete Install of Fixed Seating	3	26NOV11	30NOV11	Complete Install of Fixed Seating
MOJAVE	3778	Install TV's	5	28NOV11	02DEC11	Install TV's
W-T	3838	Install Temp Doors/ Lockable Space for TV Install	1	28NOV11	28NOV11	Install Temp Doors/ Lockable Space for TV Install
U. BRASS	3578	Install Handrails	3	05DEC11	07DEC11	Install Handrails
ISEC	4108	Install Batch 4, 4 Panels North End	1	05DEC11	05DEC11	Install Batch 4, 4 Panels North End
ISEC	4118	Set two desks at the rear of Council Chambers	1	05DEC11	05DEC11	Set two desks at the rear of Council Chambers
MOJAVE	4128	Final Equipment Testing	3	06DEC11	08DEC11	Final Equipment Testing
W-T	4138	Turn over Chambers to CLV	1	08DEC11	08DEC11	Turn over Chambers to CLV
DH PACE	3858	Install Doors & Hardware, Rooms Secured	2	17DEC11	18DEC11	Install Doors & Hardware
Level 3 Area A						
Area 2						
MOJAVE	3-220	Install electrical trim, cover plates.	2	22NOV11	22NOV11	Install electrical trim, cover plates.
KH-S&S/HEIN	3-490	Caulk gap at R&P window room 3011	1	22NOV11	22NOV11	Caulk gap at R&P window room 3011
GIORX	3-490	rm. 3048A install bullet proof Glass	1	22NOV11	22NOV11	rm. 3048A install bullet proof Glass
L&P	3-510	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
VENTURA	3-520	Install Honeycomb Store on Column F/2	4	22NOV11	28NOV11	Install Honeycomb Store on Column F/2
VENTURA	3-530	Complete file rework Womens Rm.3031	2	22NOV11	22NOV11	Complete file rework Womens Rm.3031
ROSINE	3-560	Final Fit of ZIG Zag Wall Floor	1	22NOV11	22NOV11	Final Fit of ZIG Zag Wall Floor
HEINAWAN	3-580	Install Missing Curtain Wall Glass 3011	1	22NOV11	22NOV11	Install Missing Curtain Wall Glass 3011
DHPACE/MOJ	3-520	Install door Hardware/electric board readers	5	28NOV11	02DEC11	Install door Hardware/electric board readers

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule
Filter: Four week lookahead

Run date	28NOV11
Page number	104
Data date	28NOV11

Responsibility	Act ID	Description	Orig. Due	Early Start	Early Finish	Notes
L&P	3-450	Complete install toilet partitions/ accessories	5	28NOV11	02DEC11	Complete install toilet partitions/ accessories
KHSSS	3-470	Install door frame 3013 to Rm. 3024 Open Office	1	28NOV11	28NOV11	Install door frame 3013 to Rm. 3024 Open Office
DHPAGE	3-500	Install Door and Hardware 3013	1	28NOV11	28NOV11	Install Door and Hardware 3013
GIORX	3-570	Install Mirrors 3030/ 3031	1	28NOV11	28NOV11	Install Mirrors 3030/ 3031
J&R	3-540	Install Resilient Flooring	2	20DEC11	21DEC11	Install Resilient Floor
Level 3 Area B						
Area B						
MOJAVE	3-420	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
DHPAGE/MQJ	3-530	Install door Hardware/electric card readers	5	22NOV11	28NOV11	Install door Hardware/electric card readers
J&R	3-600	Install Base in North Corridor 3037	2	22NOV11	23NOV11	Install Base in North Corridor 3037
L&P	3-610	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
L&P	3-620	Restrooms 3046/3047 complete partitions/access.	1	22NOV11	22NOV11	Restrooms 3046/3047 complete partitions/access.
SW SUN CNT	3-630	Install Medico Shades	3	22NOV11	25NOV11	Install Medico Shades
ALL SUBS	3-640	Restrooms 3046/3047 Install Hand dryers	1	22NOV11	22NOV11	Restrooms 3046/3047 Install Hand dryers
J&R	3-650	Install Resilient Flooring	1	19DEC11	19DEC11	Install Resilient Flooring
Level 4 Area A						
Area A						
DHPAGE/MQJ	1878	Install Door Hardware/Electric card readers	3	22NOV11	25NOV11	Install Door Hardware/Electric card readers
CITY INSP	2158	Receive overhead cty. inspection Corridor 4054	1	22NOV11	22NOV11	Receive overhead cty. inspection Corridor 4054
VENTURA	2188	Restrooms 4052/4053 Install S.S. tops	1	22NOV11	22NOV11	Restrooms 4052/4053 Install S.S. tops
L&P	2318	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
MOJAVE	4-250	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
BOMBARD	4-270	Restrooms 4052/4053 Install Sinks and Toilets	3	22NOV11	25NOV11	Restrooms 4052/4053 Install Sinks and Toilets
DHPAGE	2138	Install Bullet proof frames and Glass RM. 4035	2	28NOV11	27NOV11	Install Bullet proof frames and Glass RM. 4035
GIORX	2168	Install Bullet Proof frame/ Glass RM. 4038A	1	28NOV11	28NOV11	Install Bullet Proof frame/ Glass RM. 4038A
L&P	1893	Complete install toilet partitions/ accessories	5	28NOV11	02DEC11	Complete install toilet partitions/ accessories
J&R	4-320	Install Flooring/Resilient	4	12DEC11	15DEC11	Install Flooring/Resilient
Level 4 Area B						
Area B						
MOJAVE	4-530	Install electrical trim, cover plates	3	22NOV11	25NOV11	Install electrical trim, cover plates
DHPAGE/MQJ	4-570	Install door Hardware/electric card readers	3	22NOV11	28NOV11	Install door Hardware/electric card readers
GIORX	4-600	Install Glass last two A types	1	22NOV11	22NOV11	Install Glass last two A types
L&P	4-610	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
J&R	4-820	Install Base in Corridor 4030/ Waiting 4033	1	22NOV11	22NOV11	Install Base in Corridor 4030/ Waiting 4033
J&R	4-820	Install Flooring/Resilient	2	13DEC11	14DEC11	Install Flooring/Resilient
Level 5 Area A						

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-530

MOJ00714
JA 00005161

Run date	28NOV11
Page number	11A
Date date	28NOV11

Responsibility	Ant ID	Description	Orig Dur	Early Start	Early Finish	Notes
Area A						
ALL SUBS	1938	Restrooms 5039/5040 Install hand dryers	1	22NOV11	22NOV11	Restrooms 5039/5040 Install hand dryers
MOJAVE	5-270	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
DHPACEMOJ	5-370	Install door Hardware/electric /card readers	3	22NOV11	23NOV11	Install door Hardware/electric /card readers
GOURX	5-390	Install Mirrors in Restrooms	1	22NOV11	22NOV11	Install Mirrors in Restrooms
BOMBARD	5-440	Complete install of Drinking Fountain	1	22NOV11	22NOV11	Complete install of Drinking Fountain
L&P WESTAR	5-450	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/Hose Reels
GOURX	5-590	Install Glass 5026	2	22NOV11	23NOV11	Install Glass 5026
L&P	5-360	Complete install toilet partitions/ accessories	5	09DEC11	09DEC11	Complete install toilet partitions/ accessories
J&R	5-340	Install Resilient Flooring	2	14DEC11	15DEC11	Install Resilient Flooring
Area B						
MOJAVE	5-470	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
DHPACEMOJ	5-570	Install door Hardware/electric /card readers	3	22NOV11	23NOV11	Install door Hardware/electric /card readers
L&P WESTAR	5-580	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/Hose Reels
GOURX	5-610	Install Glass 5054	2	22NOV11	23NOV11	Install Glass 5054
W&T	5-630	Grind hump out of Conc. deck Rm. 5048	1	22NOV11	22NOV11	Grind hump out of Conc. deck Rm. 5048
J&R	5-640	Install RF-1 in Room 5048	1	22NOV11	22NOV11	Install RF-1 in Room 5048
GOURX	5-490	Install Bullet Resistant frame/Glass	1	28NOV11	28NOV11	Install Bullet Resistant frame/Glass
J&R	5-620	Install Resilient flooring	2	19DEC11	19DEC11	Install Resilient flooring
Area C						
BOMBARD	3038	Restrooms 6056/6057 Install Sinks & Toilets	2	22NOV11	23NOV11	Restrooms 6056/6057 Install Sinks & Toilets
GOURX	3103	Install Mirrors in restrooms	1	22NOV11	22NOV11	Install Mirrors in restrooms
SW SUN CNT	3118	Install Medico Shades	3	22NOV11	23NOV11	Install Medico Shades
L&P WESTAR	3128	Install Fire Cabinets/Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/Hose Reels
MOJAVE	5-260	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
ALL SUBS	5-270	Restrooms 6056/6057 Install Hand Dryers	1	22NOV11	22NOV11	Restrooms 6056/6057 Install Hand Dryers
VENTURA	5-540	Install S.S. top 6003	5	22NOV11	23NOV11	Install S.S. top 6003
DHPACEMOJ	5-550	Install door Hardware/electric /card readers	3	22NOV11	23NOV11	Install door Hardware/electric /card readers
L&P	5-500	Complete install toilet partitions/ accessories	5	09DEC11	09DEC11	Complete install toilet partitions/ accessories
J&R	5-610	Install resilient flooring	2	19DEC11	20DEC11	Install resilient flooring
Area D						
MOJAVE	5-460	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
DHPACEMOJ	5-520	Complete aluminum door frames 6062/6068	1	22NOV11	22NOV11	Complete aluminum door frames 6062/6068
VENTURA	5-580	Install S.S. Top 6073	5	22NOV11	23NOV11	Install S.S. Top 6073

The Whiting-Turner Contracting Co.

LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-531

MOJ00715

JA 00005162

Responsibility	Act. ID	Description	Orig. Dur.	Early Start	Early Finish	Notes
DHPAC/MQJ	6-500	Install door Hardware/electric /card readers	3	22NOV11	25NOV11	Install door Hardware/electric /card readers
ISEC	6-600	Complete install cabinets	2	22NOV11	22NOV11	Complete install cabinets
L&PWESTAR	6-670	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
SW SUN CNT	6-570	Install Mechto Shades	3	22NOV11	22NOV11	Install Mechto Shades
GOURX	6-470	Install Bullet Resistant frame /Glass	1	22NOV11	25NOV11	Install Bullet Resistant frame /Glass
J&R	6-300	Install Resilient Flooring	1	20DEC11	20DEC11	Install Resilient Flooring
Level 7 Area A						
Area A						
GOURX/DHP	1978	Install glass Clips	2	22NOV11	23NOV11	Install glass Clips
DHPAC/MQJ	2003	Install door Hardware/electric /card readers	3	22NOV11	25NOV11	Install door Hardware/electric /card readers
L&PWESTAR	2126	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
BOMBARD	2208	Restrooms 7062/7063 Install Sinks & Toilets	2	22NOV11	23NOV11	Restrooms 7062/7063 Install Sinks & Toilets
GOURX	2228	Install Mirrors in Restrooms	1	22NOV11	22NOV11	Install Mirrors in Restrooms
VENTURA	2278	Install Waterproofing /Tile Mayors Balcony	4	22NOV11	26NOV11	Install Waterproofing /Tile Mayors Balcony
VENTURA	2288	Grout Mayors Restrooms 7003/7002	1	22NOV11	22NOV11	Grout Mayors Restrooms 7003/7002
MOJAVE	7-300	Install electrical trim, cover plates	2	22NOV11	23NOV11	Install electrical trim, cover plates
ALL SUBS	7-310	Complete Hand dryer add in 7062/7063 Restrooms	1	22NOV11	22NOV11	Complete Hand dryer add in 7062/7063 Restrooms
VENTURA	7-350	Install S.S top 7047	4	22NOV11	26NOV11	Install S.S top 7047
ISEC	2268	Install Sub top in Mayors Restroom 7003	1	23NOV11	23NOV11	Install Sub top in Mayors Restroom 7003
VENTURA	2258	Install S.S tops in Mayors Restroom 7003	1	23NOV11	23NOV11	Install S.S tops in Mayors Restroom 7003
GOURX	2218	Install Bullet Resistant frame /Glass	1	22NOV11	22NOV11	Install Bullet Resistant frame /Glass
SW SUN CNT	7-160	Install Mechto Shades	3	23NOV11	01DEC11	Install Mechto Shades
L&P	1988	Complete install toilet partitions/ accessories	5	12DEC11	16DEC11	Complete install toilet partitions/ accessories
J&R	1998	Install Resilient Flooring	1	21DEC11	21DEC11	Install Resilient Flooring
Level 7 Area B						
Area B						
DHPAC/MQJ	7-490	Install door Hardware/electric /card readers	3	22NOV11	25NOV11	Install door Hardware/electric /card readers
MOJAVE	7-440	Install electrical trim, cover plates	3	22NOV11	25NOV11	Install electrical trim, cover plates
GOURX/DHP	7-500	Complete clip install of Glass	2	22NOV11	23NOV11	Complete clip install of Glass
SW SUN CNT	7-550	Install Mechto Shade Pockets City Manager 7079	1	22NOV11	22NOV11	Install Mechto Shade Pockets City Manager 7079
SW SUN CNT	7-590	Install Mechto Shade Pockets City Director 7091	1	22NOV11	22NOV11	Install Mechto Shade Pockets City Director 7091
MOJAVE	7-580	Complete electrical above cabinet 7067	1	22NOV11	22NOV11	Complete electrical above cabinet 7067
MODERN F.	7-590	Install sliding partition Pocket doors	1	22NOV11	22NOV11	Install sliding partition Pocket doors
L&PWESTAR	7-600	Install Fire Cabinets/ Hose Reels	1	22NOV11	22NOV11	Install Fire Cabinets/ Hose Reels
GOURX	7-420	Install Bullet Resistant frame /Glass	1	23NOV11	23NOV11	Install Bullet Resistant frame /Glass
SW SUN CNT	7-570	Install Mechto Shades	3	30NOV11	02DEC11	Install Mechto Shades
J&R	7-610	Install Resilient Flooring	1	22DEC11	22DEC11	Install Resilient Flooring

Run date

23NOV11

Page number

13A

Data date

23NOV11

The Whiting-Turner Contracting Co.

LVCH 4 Week Schedule

Filter: Four week lookahead

Early bar

Progress bar

Critical bar

Summary bar

Start milestone point

J56-532

Responsibility	Act ID	Description	Orig. Dur	Early Start	Early Finish
SCHEDULES					
Level 1					
Stair 2					
ALL SUES	635	Complete rated ceiling lid remediation	5	22NOV11	25NOV11
Stair 5-6					
SME	865	Install Handrails	5	22NOV11	25NOV11
KHS&S	915	Paint Rails	2	22NOV11	23NOV11
COMMERCIAL	908	Install Pavers	10	05DEC11	16DEC11
Electrical Distribution Termination Activities					
Generator StartUp					
MOJAVE	2558	Drop Power test	1	22NOV11	22NOV11
Low Voltage Installation					
Fire Alarm System					
MOJAVE	2778	Fire Alarm Pre-Test	15	22NOV11	16DEC11
MOJAVE	3078	First Responder Trim and Test Level 4 Complete	1	22NOV11	22NOV11
MOJAVE	3428	First Responder Trim and Test Level 5 Complete	3	22NOV11	25NOV11
MOJAVE	3438	First Responder Trim and Test Level 6 Complete	2	22NOV11	23NOV11
MOJAVE	3448	First Responder Trim and Test Level 7 Complete	5	22NOV11	30NOV11
MOJAVE	3528	Complete Fire Alarm Trim and Test Levels B-8	5	22NOV11	29NOV11
MOJAVE	3458	First Responder Trim and Test Level 8 Complete	3	29NOV11	01DEC11
FIRE DEPT	2818	Fire Alarm Final	1	21DEC11	21DEC11
Voice and Data					
MOJAVE	2848	High Count Copper/Fiber Completed through L7	15	01NOV11	29NOV11
MOJAVE	2858	Trim and Test TR Rooms 1-7 Complete	8	01NOV11	02DEC11
MOJAVE	2918	Trim and Test Level 3	3	21NOV11	23NOV11
MOJAVE	2928	Trim and Test Level 4	3	21NOV11	23NOV11
MOJAVE	2953	Trim and Test Level 5	1	22NOV11	22NOV11
MOJAVE	3058	Trim and Test TR Room for Council Chambers	8	22NOV11	02DEC11
MOJAVE	2958	Trim and Test Level 5	3	23NOV11	28NOV11
MOJAVE	2963	Trim and Test Level 6	3	29NOV11	01DEC11
MOJAVE	2978	Trim and Test Level 7	3	30NOV11	02DEC11
MOJAVE	2988	Trim and Test Level 8	3	30NOV11	02DEC11
Audio Visual Systems					
Legend					
Run date	25NOV11				
Page number	14A				
Date date	25NOV11				
The Whiting-Turner Contracting Co.					
LVCH 4 Week Schedule					
Filter: Four week lookahead					
Early bar Progress bar Critical bar Summary bar Start milestone point					

J56-533

MOJ00717

JA 00005164

Responsibility	Activity ID	Description	Orig. Dur.	Early Start	Early Finish	Notes
MOJAVE	2838	Trim and Test Level B	1	07NOV11	11NOV11	B
MOJAVE	3138	Trim and Test Level 1	1	14NOV11	18NOV11	Trim and Test Level 1
MOJAVE	3188	Trim and Test Level 3	4	17NOV11	28NOV11	Trim and Test Level 3
MOJAVE	3178	Trim and Test Level 2	8	22NOV11	30NOV11	Trim and Test Level 2
MOJAVE	3198	Trim and Test Level 4	4	25NOV11	30NOV11	Trim and Test Level 4
MOJAVE	3208	Trim and Test Level 5	4	28NOV11	01DEC11	Trim and Test Level 5
MOJAVE	3218	Trim and Test Level 6	4	28NOV11	02DEC11	Trim and Test Level 6
MOJAVE	3228	Trim and Test Level 7	5	30NOV11	06DEC11	Trim and Test Level 7
MOJAVE	3248	Trim and Test Level 8	3	30NOV11	02DEC11	Trim and Test Level 8
Surveillance and Access Control Systems						
MOJAVE	3228	Trim and Test Level B	1	14NOV11	15NOV11	Test Level B
MOJAVE	3228	Trim and Test Level 1	1	15NOV11	15NOV11	Test Level 1
MOJAVE	3238	Trim and Test Level 2	5	18NOV11	17NOV11	Trim and Test Level 2
MOJAVE	3318	Trim and Test Level 3	3	17NOV11	18NOV11	Trim and Test Level 3
MOJAVE	3358	Trim and Test Level 4	3	22NOV11	25NOV11	Trim and Test Level 4
MOJAVE	3418	Trim and Test Level 5	3	28NOV11	30NOV11	Trim and Test Level 5
MOJAVE	3478	Trim and Test Level 6	4	01DEC11	06DEC11	Trim and Test Level 6
MOJAVE	3528	Trim and Test Level 7	7	07DEC11	15DEC11	Trim and Test Level 7
MOJAVE	3948	Trim and Test Level 8	3	07DEC11	09DEC11	Trim and Test Level 8
AS-BUILT DRAWINGS						
AS-BUILT DRAWINGS COMPLETE						
WESTAR	4178	Standpipes / Submitt	1	22NOV11	22NOV11	Standpipes / Submitt
BOMBARD	4188	Smoke Control / Submitt	1	19DEC11	19DEC11	Smoke Control / Submitt
WESTAR	2598	Fire Sprinkler / Submitt	1	12DEC11	21DEC11	Fire Sprinkler / Submitt
SIEMENS	4188	Fire Alarm / Submitt	1	12DEC11	21DEC11	Fire Alarm / Submitt
AS-BUILT DRAWINGS COMPLETE						
COMMERCIAL	2608	Roof	1	22NOV11	22NOV11	Roof
ALL SUBS	4198	Building Ready MOAA testing	15	01DEC11	21DEC11	Building Ready for PD Alarm Test
SIEMENS	4208	Building Ready for PD Alarm Test / Final	1	19DEC11	19DEC11	Building Ready for PD Alarm Test
Fire Sprinkler System						
WESTAR	4248	PRV's Tested / Approved	1	22NOV11	22NOV11	PRV's Tested / Approved
WESTAR	4258	Dry Systems 24 hour Air Test	1	22NOV11	22NOV11	Dry Systems 24 hour Air Test
WESTAR	2618	Hydro Tests	1	29NOV11	29NOV11	Hydro Tests
WESTAR	4278	Dry Systems Final	1	19DEC11	19DEC11	Dry Systems Final
WESTAR	4288	Special Systems Final	1	19DEC11	19DEC11	Special Systems Final
WESTAR	4298	Final	1	21DEC11	21DEC11	Final

The Whiting-Turner Contracting Co.
LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-534

MOJ00718

JA 00005165

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	Rev	Dep
Fire Hydrants - Fire Access							
WESTAR	2628	Hydro Tests	1	22NOV11	22NOV11		Hydro Tests
WESTAR	4298	Underground Flush	1	22NOV11	22NOV11		Underground Flush
WESTAR	4308	Hydrant Final (Flow Test)	1	22NOV11	22NOV11		Hydrant Final (Flow Test)
WESTAR	4318	Fire Access Paved	1	05DEC11	05DEC11		Fire Access Paved
SNP	4328	Fire Lanes Marked / Painted	1	05DEC11	05DEC11		Fire Lanes Marked / Painted
Fire Pump - Primary							
WESTAR	2638	Hydro Tests	1	28NOV11	28NOV11		Hydro Tests
WESTAR	4338	Secondary Water Storage	1	28NOV11	28NOV11		Secondary Water Storage
WESTAR	4348	Status Panel Installed in Fire Command Center	1	30NOV11	30NOV11		Status Panel Installed in Fire Command Center
ALAPMCO	4358	24 Hour Monitoring	1	01DEC11	01DEC11		24 Hour Monitoring
WESTAR	4368	Final (Performance Test)	1	02DEC11	02DEC11		Final (Performance Test)
Fire Pump - Secondary							
WESTAR	2708	Hydro Tests	1	28NOV11	28NOV11		Hydro Tests
WESTAR	4378	Secondary Water Storage	1	28NOV11	28NOV11		Secondary Water Storage
WESTAR	4388	Status Panel Installed in Fire Command Center	1	30NOV11	30NOV11		Status Panel Installed in Fire Command Center
ALAPMCO	4398	24 Hour Monitoring	1	01DEC11	01DEC11		24 Hour Monitoring
WESTAR	4408	Final (Performance Test)	1	02DEC11	02DEC11		Final (Performance Test)
Standpipes							
WESTAR	2718	Hydro Tests	1	28NOV11	28NOV11		Hydro Tests
WESTAR	4418	PRV Tests	1	29NOV11	29NOV11		PRV Tests
WESTAR	4428	Final	1	30NOV11	30NOV11		Final
WESTAR	4438	Tampers Fire Department Test / Approved	1	01DEC11	01DEC11		Tampers Fire Department Test / Approved
Elevators							
OTIS	4448	Lobby Doors Operational	1	30NOV11	30NOV11		Lobby Doors Operational
OTIS	2728	State Sign Off	1	02DEC11	02DEC11		State Sign Off
OTIS	4458	Final Performance Test Fire Department	1	02DEC11	02DEC11		Final Performance Test Fire Department
OTIS	4468	Final Building Department	1	12DEC11	12DEC11		Final Building Department
Fire Alarm System							
SIEMENS	2738	Pre-Test	7	22NOV11	01DEC11		Pre-Test
MOJAVE	4018	Building Department Electrical Pre-Final	1	16DEC11	16DEC11		Building Department Electrical
SIEMENS	4148	Fire Department Performance Test	5	19DEC11	23DEC11		Fire Department
Smoke Control							
SIEMENS	2748	Final Graphics Panel Installed	1	22NOV11	22NOV11		Final Graphics Panel Installed
MOJAVE	4158	Fans Wired	1	22NOV11	22NOV11		Fans Wired
MAJAVE	4478	Smoke / Fire Dampers Wired	1	22NOV11	22NOV11		Smoke / Fire Dampers Wired
BOMBARD	4488	Initial Start Up SEF / SPF	1	22NOV11	22NOV11		Initial Start Up SEF / SPF

The Whiting-Turner Contracting Co.

LVCH 4 Week Schedule

Filter: Four week lookahead

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

J56-535

Responsibility	Act ID	Description	Orig Dur	Early Start	Early Finish	100%	20%	100%
BOMBARD	4498	Other HVAC Equipment Start Up	1	22NOV11	22NOV11			Other HVAC Equipment Start Up
BOMBARD	4508	Smoke / Fire Dampers Pre-Test	1	30NOV11	30NOV11			Smoke / Fire Dampers Pre-Test
BOMBARD	4518	HVAC Pre Test (Duct Detectors)	1	30NOV11	30NOV11			HVAC Pre Test (Duct Detectors)
BOMBARD	4528	Smoke Central Equipment Permanent Labels	1	30NOV11	30NOV11			Smoke Central Equipment Permanent Labels
BOMBARD	4646	Initial Air Balance (Ready for MQAA)	1	05DEC11	05DEC11			Initial Air Balance (Ready for MQAA)
Third Party								
TESTMARC	2878	Scenarios/ Test Plan Received	1	22NOV11	22NOV11			Scenarios/ Test Plan Received
ALL SUBS	2888	Scenarios Reviewed by Subcontractors	1	22NOV11	22NOV11			Scenarios Reviewed by Subcontractors
TESTMARC	2898	MQAA Testing	15	01DEC11	21DEC11			MQAA Testing
BOMBARD	2938	Duct Detector Certification	1	14DEC11	14DEC11			Duct Detector Certification
TESTMARC	3008	MQAA Report Submitted	1	21DEC11	21DEC11			MQAA Report Submitted
BDPT	3308	MQAA Report Approved	1	03JAN12	03JAN12			MQAA Report Approved
Electrical								
MOJAVE	3018	Generator Start Up	1	22NOV11	22NOV11			Generator Start Up
MOJAVE	3028	Generator Internal Testing	1	22NOV11	22NOV11			Generator Internal Testing
MOJAVE	3038	Remote Panel w/ Controls in Fire Command Center	1	22NOV11	22NOV11			Remote Panel w/ Controls in Fire Command Center
MOJAVE	3098	Building Department Generator Approval	1	22NOV11	22NOV11			Building Department Generator Approval
MOJAVE	2758	Electrical Final/ Partial Final	1	21DEC11	21DEC11			Electrical Final/ Partial Final
Plumbing								
BOMBARD	3538	Gas Complete	1	18DEC11	18DEC11			Gas Complete
BOMBARD	3538	Plumbing Final/ Partial Final	1	20DEC11	20DEC11			Plumbing Final/ Partial Final
Mechanical								
BOMBARD	3548	Air Balance Report in Hand	1	18DEC11	18DEC11			Air Balance Report in Hand
BOMBARD	3618	Duct Detector Certification in Hand	1	18DEC11	18DEC11			Duct Detector Certification in Hand
BOMBARD	3638	Mechanical Final/ Partial Final	1	21DEC11	21DEC11			Mechanical Final/ Partial Final
Fire Command Center Equipment								
OTIS	3548	Elevator Status Panel	1	22NOV11	22NOV11			Elevator Status Panel
SIEMENS	3558	Final Graph, Smoke Control Plan	1	22NOV11	22NOV11			Final Graph, Smoke Control Plan
SIEMENS	3728	Fire Alarm Panel	1	22NOV11	22NOV11			Fire Alarm Panel
MOJAVE	3748	Shunt Trips- Normal / E-Power	1	22NOV11	22NOV11			Shunt Trips- Normal / E-Power
MOJAVE	3838	Generator Panel W/ Manual Start	1	22NOV11	22NOV11			Generator Panel W/ Manual Start
MOJAVE	3898	Emergency / Standby Power Status	1	22NOV11	22NOV11			Emergency / Standby Power Status
SIEMENS	3908	24 Hour Monitoring Panel	1	22NOV11	22NOV11			24 Hour Monitoring Panel
WESTAR	3918	Fire Pump Status Panel	1	22NOV11	22NOV11			Fire Pump Status Panel
SIEMENS	3928	Controls to Unlock Stair Doors	1	22NOV11	22NOV11			Controls to Unlock Stair Doors
SIEMENS	3988	Voice Paging Panel	1	22NOV11	22NOV11			Voice Paging Panel
W-T	4538	White Board 3x4 Marker/ Erasure	1	22NOV11	22NOV11			White Board 3x4 Marker/ Erasure

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point

The Whiting-Turner Contracting Co.
 LVCH4 Week Schedule
 Filter: Four week lookahead

Run date	28NOV11
Page number	17A
Data date	28NOV11

J56-536

Responsibility	Act ID	Description	Orig. Dur.	Early Start	Early Finish	Notes
W-T/MQ/A/E	4549	Public Telephone	1	22NOV11	22NOV11	Public Telephone
W-T	4550	Work Table 3' X 7'	1	22NOV11	22NOV11	Work Table 3' X 7'
CITY/OWNER	4558	1st Responder DAS Equipment	1	22NOV11	22NOV11	1st Responder DAS Equipment
MO/A/E	4748	Install Revised Panel Graphics	1	25NOV11	25NOV11	Install Revised Panel Graphics
W-T	4558	Bldg Life Safety Plans/FPP	1	21DEC11	21DEC11	Bldg Life Safety Plans
SIEMENS	4078	Manufacturer Operation Manuals	1	23DEC11	23DEC11	Manufacturer Operation Manuals
Fire Department Final						
YESCO	4598	Signage Installation Stairs/ Rooms/ Systems	1	16DEC11	16DEC11	Signage Installation Stairs/ Rooms/ Systems
YESCO	4598	Permanent Fire Exting. Installed	1	16DEC11	16DEC11	Permanent Fire Exting. Installed
	3588	Fire Final Inspection	1	21DEC11	21DEC11	Fire Final Inspection
	4578	Fire Department Final Systems Report in Hand	1	21DEC11	21DEC11	Fire Department Final
	4608	DAS Final Fire Department Test	1	30DEC11	30DEC11	DAS Final Fire Department Test
All Systems Test						
W-T	3588	Pre-Test	1	22NOV11	22NOV11	Pre-Test
W-T	4618	Scheduled with Fire Department/ Building Dept.	1	21DEC11	21DEC11	Scheduled with Fire Department
W-T	4628	Completed	5	27DEC11	03JAN12	Completed
Building Final						
W-T	4638	All NCR's/ NOV's Addressed	1	16DEC11	16DEC11	All NCR's/ NOV's Addressed
W-T	3628	All Final in Hand	1	30DEC11	30DEC11	All Final in Hand
W-T	4658	Final Building Inspection	1	30DEC11	30DEC11	Final Building Inspection
W-T	4668	Certificate of Occupancy/ TCO	1	04JAN12	04JAN12	Certificate of Occupancy/ TCO
Permits						
W-T	3668	Water Clearance	1	16DEC11	16DEC11	Water Clearance
W-T	4678	Drainage Compliance	1	16DEC11	16DEC11	Drainage Compliance
W-T	4686	Off Site Clearance	1	16DEC11	16DEC11	Off Site Clearance
W-T	4698	Structural QAA Report Approved	1	16DEC11	16DEC11	Structural QAA Report Approved
W-T	4708	Sanitation Clearance	1	16DEC11	16DEC11	Sanitation Clearance
W-T	4718	Pad Certifications	1	16DEC11	16DEC11	Pad Certifications
W-T	4728	Landscape approved	1	16DEC11	16DEC11	Landscape approved
Permitting Start Up						
Level 8						
Air Balancing						
BOMBARD	858	AH-1 Basement Level	4	22NOV11	28NOV11	AH-1 Basement Level
BOMBARD	878	AH-3 Level 1 & 2 West Offices	4	22NOV11	28NOV11	AH-3 Level 1 & 2 West Offices
BOMBARD	898	AH-4 Level 1 & 2 East Offices	4	22NOV11	28NOV11	AH-4 Level 1 & 2 East Offices
BOMBARD	928	AH-5 Level 1 Studio	3	22NOV11	25NOV11	AH-5 Level 1 Studio
BOMBARD	938	AH-6 Level 2 Council Chambers	5	22NOV11	29NOV11	AH-6 Level 2 Council Chambers

The Whiting-Turner Contracting Co.
LVCH4 Week Schedule

Filter: Four week lookahead

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point

J56-537

MOJ00721

JA 00005168

Subject: Fw: DAQEM Permit

Kim,
Try this one

----- Original Message -----

From: Payne, Daniel <Daniel.Payne@whiting-turner.com>
To: Payne, Daniel <Daniel.Payne@whiting-turner.com>; Chris Meiers
Cc: Crystal Teissedre; Lee, David <David.Lee@whiting-turner.com>; Lloyd, Elliott <Elliott.Lloyd@whiting-turner.com>; Burch, Clinton <Clinton.Burch@whiting-turner.com>
Sent: Fri Jul 08 13:31:03 2011
Subject: RE: DAQEM Permit

Las Vegas New City Hall
Chris,

As discussed, WT needs additional information for the DAQEM permit. Attached is the permit application and the spreadsheets that are to be submitted.

Please provide the required information and backup documentation.

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Payne, Daniel
Sent: Monday, June 13, 2011 4:22 PM
To: Christopher Meiers (cmeiers@mojaveelectric.com)
Cc: Crystal Teissedre (cteissedre@mojaveelectric.com); Lee, David; Lloyd, Elliott; Burch, Clinton
Subject: DAQEM Permit

Las Vegas New City Hall
Chris,

As discussed, the link below is for the DAQEM permit required for the generators. We are not able to find this information in the submittals. Please have this form filled out and returned by Thursday, 6-16-2011 to Clint Burch and myself.

http://www.clarkcountynv.gov/Depts/daqem/Documents/Permitting/SS_forms/Internal_Combustion_Engine.pdf

Below is the spreadsheet that need to be submitted - please ensure the information returned from the manufacturer will fill in all cells, one for each unit. Do not worry about hours of operation.

EU#	Horsepower:	Emission Factor (lb/hp-hr)		Control Efficiency			Potential Emissions		
Make:	Hours/Day:	lb/hr	lb/day	ton/yr					
Model:	Hours/Year	PM10	7.00E-04	0.00%	0.00	0.00	0.00		
S/N:		NOx	2.40E-02	0.00%	0.00	0.00	0.00		
		CO	5.50E-03	0.00%	0.00	0.00	0.00		
M	<<att5488a.gif>> manufacturer Guaran	<<att5488b.gif>> tees			SOx	4.05	<<att5488c.gif>> E-		
04	0.00%	0.00	<<att548ac.gif>> 0.00	0.00					
PM10	<<att548ad.gif>>								

<<att548be.gif>>

1	VOC	7.05E-04	0.00%	0.00	0.00	0.00		
NOx	1	HAP	3.05E-05	0.00%	0.00	0.00	0.00	
CO	1							
SOx	1							
VOC	1							

Engine Type: 2

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Tuesday, July 19, 2011 12:20 PM
To: Chris Meiers
Subject: RE: DAQEM Permit
Attachments: no-reply@cashmanequipment.com_20110719_133011.pdf

See attached.

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

Sales and Rentals:
Generators
Transfer Switches
UPS Systems
Switch Gear

Light Towers
Cable and Distribution
Air Compressors
Temperature Control

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, July 18, 2011 3:46 PM
To: Kim Symons
Subject: Fw: DAQEM Permit

Kim,
Try this one

----- Original Message -----

From: Payne, Daniel <Daniel.Payne@whiting-turner.com>
To: Payne, Daniel <Daniel.Payne@whiting-turner.com>; Chris Meiers
Cc: Crystal Teissedre; Lee, David <David.Lee@whiting-turner.com>; Lloyd, Elliott <Elliott.Lloyd@whiting-turner.com>; Burch, Clinton <Clinton.Burch@whiting-turner.com>
Sent: Fri Jul 08 13:31:03 2011
Subject: RE: DAQEM Permit

Las Vegas New City Hall
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Please provide the required information and backup documentation.

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Payne, Daniel
Sent: Monday, June 13, 2011 4:22 PM
To: Christopher Meiers (cmeiers@mojaveelectric.com)
Cc: Crystal Teissedre (cteissedre@mojaveelectric.com); Lee, David; Lloyd, Elliott; Burch, Clinton
Subject: DAQEM Permit

Las Vegas New City Hall
Chris,

As discussed, the link below is for the DAQEM permit required for the generators. We are not able to find this information in the submittals. Please have this form filled out and returned by Thursday, 6-16-2011 to Clint Burch and myself.

http://www.clarkcountynv.gov/Depts/daqem/Documents/Permitting/SS_forms/Internal_Combustion_Engine.pdf

Below is the spreadsheet that need to be submitted - please ensure the information returned from the manufacturer will fill in all cells, one for each unit. Do not worry about hours of operation.

EU#	Horsepower:	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions
Make:	Hours/Day:	lb/hr lb/day ton/yr		
Model:	Hours/Year	PM10 7.00E-04 0.00% 0.00 0.00 0.00		

S/N: NOx 2.40E-02 0.00% 0.00 0.00 0.00
CO 5.50E-03 0.00% 0.00 0.00 0.00
M <<att5488a.gif>> anufacturer Guaran <<att5488b.gif>> tees SOx 4.05 <<att5488c.gif>> E-
04 0.00% 0.00 <<att548ac.gif>> 0.00 0.00
PM10 <<att548ad.gif>>

<<att548be.gif>>
I VOC 7.05E-04 0.00% 0.00 0.00 0.00
NOx 1 HAP 3.05E-05 0.00% 0.00 0.00 0.00
CO 1
SOx 1
VOC 1

Engine Type: 2

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)



DEPARTMENT OF AIR QUALITY & ENVIRONMENTAL MANAGEMENT
500 S Grand Central Parkway 1st Floor • Box 555210 • Las Vegas, NV 89155-5210
(702) 455-5942 • Fax (702) 383-9994
Lewis Wolfenrieyer Director • Tina Gingras Assistant Director

For Office Use Only

EMISSION UNIT INFORMATION WORKSHEET INTERNAL COMBUSTION ENGINE

I. SOURCE INFORMATION

Source Name: Generator

Source ID Number (if applicable): _____

II. ENGINE SPECIFICATIONS (Complete all that apply)

Engine Manufacturer's Name: Caterpillar

Engine Model Number: C32

Engine Serial Number: PRH 01018/PRH 01020

Date of Engine Manufacture: 10/24/2010

Date Unit Ordered: 8/12/2010

Date of Installation: _____

Number of Cylinders: 12

Displacement: 1958.86 in³ (in³, liters)
32.10 liters

Check ALL configurations below that apply to this engine:

☐ Two Cycle

☒ Four Cycle

☐ Dual-Fuel (not Flex Fuel)

☐ Spark Ignition

☐ Compression Ignition

☐ Lean Burn

☐ Rich Burn

Engine Power Rating: 1474 bhp (HP) @ 1,800 RPM

Type of Fuel(s) Used: Diesel

Exhaust Stack Height above grade: _____ ft

Exhaust Stack Diameter: 8 in

Exhaust Velocity: _____ ft/sec Or

Exhaust Flow Rate: _____ ft³/min 237.5 m³/min

Exhaust Temperature: 964.9 °F

J56-375

MOJ00559
JA 00005006

III. EQUIPMENT SPECIFICATIONS (Complete all that apply)

Check ONE option below that best describes the equipment receiving power from the engine referenced above:

☒ Electrical Generator

☐ Fire Pump

☐ Air Compressor

☐ Other, Explain _____

Equipment Manufacturer's Name: Caterpillar

Equipment Model Number: EGP

Equipment Serial Number: JSS01013 / JSS01016

Electrical Generator Output Rating (if applicable): 1000 (kW)

IV. EMISSIONS DATA

For the purposes of determining whether or not a source needs a Minor Source Permit, DAQEM will calculate the Potential to Emit (PTE) using 8,760 hours of operation per year for all new engines, including emergency equipment.

Emergency Equipment (backup power supply)

DAQEM will calculate a source's permitted PTE for emergency generators and/or fire pumps using 500 hours per year, unless the applicant requests a voluntary limit that is more stringent. The source's PTE will include operation due to testing, maintenance and emergency purposes. DAQEM will limit the maximum operating hours for testing and maintenance to those limits specified in any applicable NSPS or NESHAP (e.g. 100 hours per year).

If you are requesting a limit on maximum operating hours less than those described in the paragraph above, including during emergencies, specify total operating hours below:

_____ (hours/day), AND/OR _____ (hours/year)

Continuous Duty Equipment (primary power supply)

DAQEM will calculate a source's permitted PTE for continuous duty equipment using 8,760 hours per year, unless the emission unit is physically or voluntarily limited. The permitted PTE will include all operating purposes.

If you are requesting a limit on maximum operating hours less than those described in the paragraph above, specify total operating hours below:

_____ (hours/day), AND/OR _____ (hours/year)

J56-376.

MOJ00560
JA 00005007

Engine Emissions Data

List the emission data for this unit for Particulate Matter under 10 microns (PM₁₀), Particulate Matter under 2.5 microns (PM_{2.5}), Nitrogen Oxides (NO_x), Sulfur Oxides (SO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC).

POLLUTANT	EMISSIONS RATE	UNITS (Circle One)
PM _{2.5}	.02	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon
PM ₁₀	.02	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon
NO _x	4.93	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon
SO _x	1839 E-4	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon
CO	.13	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon
VOC	.01	g/bhp-hr; g/hr; ppmv; lb/day; lb/gallon

Check ALL sources of emissions data referenced above and note for which pollutant(s):

- ☒ Manufacturer's Guarantee* Pollutant(s) PM, NOX, CO, VOC
- ☐ Source Test Pollutant(s) _____
- ☐ AP-42 (if no other data available) Pollutant(s) _____

What methods of air pollution control are used with this engine?*

* Attach copy of Manufacturer's Information concerning emissions and controls.

J56-377

MOJ00561
JA 00005008

GENSET POWER WITH FAN		EKW	1,000.0	750.0	500.0	250.0	100.0
ENGINE POWER		BHP	1,474	1,116	765	420	206
PERCENT LOAD		%	100	75	50	25	10
TOTAL NOX (AS NO2)		G/HR	8,726	5,093	3,335	2,252	1,328
TOTAL CO		G/HR	356	235	501	819	1,263
TOTAL HC		G/HR	37	104	99	75	153
PART MATTER		G/HR	51.8	39.2	67.6	105.5	83.2
TOTAL NOX (AS NO2)	(CORR 5% O2)	MG/NM3	2,841.8	2,105.6	2,041.6	2,429.4	2,417.2
TOTAL CO	(CORR 5% O2)	MG/NM3	116.1	93.7	305.5	894.8	2,570.4
TOTAL HC	(CORR 5% O2)	MG/NM3	10.3	37.8	52.6	69.6	283.1
PART MATTER	(CORR 5% O2)	MG/NM3	14.1	13.5	35.5	106.1	135.6
TOTAL NOX (AS NO2)	(CORR 5% O2)	PPM	1,384	1,026	994	1,183	1,177
TOTAL CO	(CORR 5% O2)	PPM	93	75	244	716	2,056
TOTAL HC	(CORR 5% O2)	PPM	19	71	98	130	528
TOTAL NOX (AS NO2)		G/HP-HR	5.97	4.59	4.38	5.37	6.45
TOTAL CO		G/HP-HR	0.24	0.21	0.66	1.95	6.14
TOTAL HC		G/HP-HR	0.03	0.09	0.13	0.18	0.74
PART MATTER		G/HP-HR	0.04	0.04	0.09	0.25	0.40
TOTAL NOX (AS NO2)		LB/HR	19.24	11.23	7.35	4.96	2.93
TOTAL CO		LB/HR	0.79	0.52	1.10	1.81	2.78
TOTAL HC		LB/HR	0.08	0.23	0.22	0.17	0.34
PART MATTER		LB/HR	0.11	0.09	0.15	0.23	0.18

RATED SPEED NOMINAL DATA: 1800 RPM

GENSET POWER WITH FAN		EKW	1,000.0	750.0	500.0	250.0	100.0
ENGINE POWER		BHP	1,474	1,116	765	420	206
PERCENT LOAD		%	100	75	50	25	10
TOTAL NOX (AS NO2)		G/HR	7,212	4,209	2,756	1,861	1,097
TOTAL CO		G/HR	191	126	268	438	676
TOTAL HC		G/HR	19	55	52	40	81
TOTAL CO2		KG/HR	721	564	380	217	124
PART MATTER		G/HR	26.6	20.1	34.7	54.1	42.7
TOTAL NOX (AS NO2)	(CORR 5% O2)	MG/NM3	2,348.6	1,740.1	1,687.3	2,007.8	1,997.7
TOTAL CO	(CORR 5% O2)	MG/NM3	62.1	50.1	163.4	478.5	1,374.6
TOTAL HC	(CORR 5% O2)	MG/NM3	5.5	20.0	27.8	36.8	149.8
PART MATTER	(CORR 5% O2)	MG/NM3	7.2	6.9	18.2	54.4	69.5
TOTAL NOX (AS NO2)	(CORR 5% O2)	PPM	1,144	848	822	978	973
TOTAL CO	(CORR 5% O2)	PPM	50	40	131	383	1,100
TOTAL HC	(CORR 5% O2)	PPM	10	37	52	69	280
TOTAL NOX (AS NO2)		G/HP-HR	4.93	3.79	3.62	4.43	5.33
TOTAL CO		G/HP-HR	0.13	0.11	0.35	1.04	3.28

GENSET POWER WITH FAN	EKW	1,000.0	750.0	500.0	250.0	100.0
ENGINE POWER	BHP	1,474	1,116	765	420	206
PERCENT LOAD	%	100	75	50	25	10
* TOTAL HC <i>VOL</i>	G/HP-HR	0.01	0.05	0.07	0.09	0.39
* PART MATTER	G/HP-HR	0.02	0.02	0.05	0.13	0.21
TOTAL NOX (AS NO2)	LB/HR	15.90	9.28	6.08	4.10	2.42
TOTAL CO	LB/HR	0.42	0.28	0.59	0.97	1.49
TOTAL HC	LB/HR	0.04	0.12	0.12	0.09	0.18
TOTAL CO2	LB/HR	1,589	1,244	839	475	273
PART MATTER	LB/HR	0.06	0.04	0.08	0.12	0.09
OXYGEN IN EXH	%	10.1	11.5	12.2	13.5	15.7
DRY SMOKE OPACITY	%	0.7	0.7	1.4	3.0	2.2
BOSCH SMOKE NUMBER		0.18	0.16	0.58	1.31	0.99

Regulatory Information [Top](#)

EPA TIER 2			2006 - 2010	
GASEOUS EMISSIONS DATA MEASUREMENTS ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 89 SUBPART D AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. GASEOUS EMISSIONS VALUES ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE NON-ROAD REGULATIONS.				
Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
U.S. (INCL CALIF)	EPA	NON-ROAD	TIER 2	CO: 3.5 NOx + HC: 6.4 PM: 0.20

EPA EMERGENCY STATIONARY		2011 - ----		
GASEOUS EMISSIONS DATA MEASUREMENTS ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 60 SUBPART IIII AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. GASEOUS EMISSIONS VALUES ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE NON-ROAD REGULATIONS.				
Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
U.S. (INCL CALIF)	EPA	STATIONARY	EMERGENCY STATIONARY	CO: 3.5 NOx + HC: 6.4 PM: 0.20

Altitude Derate Data [Top](#)

ALTITUDE CORRECTED POWER CAPABILITY (BHP)

AMBIENT OPERATING TEMP (F)	50	60	70	80	90	100	110	120	130	NORMAL
ALTITUDE (FT)										
0	1,474	1,474	1,474	1,474	1,474	1,468	1,442	1,417	1,393	1,474
1,000	1,474	1,474	1,474	1,466	1,439	1,413	1,388	1,365	1,341	1,474
2,000	1,474	1,465	1,437	1,411	1,385	1,360	1,337	1,313	1,291	1,434

EMISSIONS DATA(PRH01018)-ENGINE (G1E01083)-GENERATOR (JSJ01013)-
GENSET**JULY 19, 2011**For Help Desk Phone Numbers [Click here](#)**Engine Emissions Data**For Emissions feedback and questions contact: engine_certification@cat.com

This link is case sensitive.

Emissions Definitions

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	PRH01018
Sales Model	C32
Build Date	2010-11-24
Interlock Code Progression	No Interlock Code Progression
As Shipped Data	
Engine Arrangement Number	3367659
Certification Arrangement	
Test Spec Number	0K8987
Certification	NR EPA/CARB w/NMHC+NOx & PM
Labeled Model Year	2010
Family Code	ACPXL32.0ESW
Family Certification	EPA Tier 2
Family Certification	
Family Certification	
Flash File	3459218
Flash File Progression	3459218
CORR FL Power at RPM	1,502 HP (1,120.0 KW) at 1800 rpms
Advertised Power	1,474hp 1,800RPM
Liters	1,959CU IN

This is not an official emission certificate. This is for emission data information only.

Caterpillar Confidential: Green
 Content Owner: Shane Gilles
 Web Master(s): PSG Web Based Systems Support
 Current Date: Tuesday, July 19, 2011 12:18:16 PM
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[Data Privacy Statement](#)

EMISSIONS DATA(PRH01020)-ENGINE (G1E01086)-GENERATOR (JSJ01016)-
GENSET**JULY 19, 2011**For Help Desk Phone Numbers [Click here](#)**Engine Emissions Data**For Emissions feedback and questions contact: engine_certification@cat.com

This link is case sensitive.

Emissions Definitions

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	PRH01020
Sales Model	C32
Build Date	2010-11-24
Interlock Code Progression	No Interlock Code Progression

As Shipped Data

Engine Arrangement Number	3367659
Certification Arrangement	
Test Spec Number	OK8987
Certification	NR EPA/CARB w/NMHC+NOx & PM
Labeled Model Year	2010
Family Code	ACPXL32.0ESW
Family Certification	EPA Tier 2
Family Certification	
Family Certification	
Flash File	3459218
Flash File Progression	3459218
CORR FL Power at RPM	1,502 HP (1,120.0 KW) at 1800 rpms
Advertised Power	1,474hp 1,800RPM
Liters	1,959CU IN

This is not an official emission certificate. This is for emission data information only.

Caterpillar Confidential: Green
 Content Owner: Shane Gilles
 Web Master(s): PSG Web Based Systems Support
 Current Date: Tuesday, July 19, 2011 10:41:02 AM
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[Data Privacy Statement](#)

Carmen Miltello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Monday, July 18, 2011 1:03 PM
To: Chris Meiers
Subject: RE: DAQEM Permit

Attachment?

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

Sales and Rentals:
Generators
Transfer Switches
UPS Systems
Switch Gear

Light Towers
Cable and Distribution
Air Compressors
Temperature Control

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From: Chris Meiers [mailto:cmeiers@mojaveelectric.com]
Sent: Monday, July 18, 2011 1:04 PM
To: Kim Symons
Subject: Fw: DAQEM Permit

Kim,
Please take a look at attached and give me a call.

Thanks,
Chris Meiers

----- Original Message -----

From: Payne, Daniel <Daniel.Payne@whiting-turner.com>
To: Chris Meiers
Cc: Crystal Teissedre
Sent: Fri Jul 15 09:12:58 2011
Subject: RE: DAQEM Permit

Chris,

Please provide an update - this permit is now over a week late.

Las Vegas New City Hall

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Payne, Daniel
Sent: Tuesday, July 05, 2011 7:19 AM
To: Christopher Meiers (cmeiers@mojaveelectric.com)
Cc: Crystal Teissedre (cteissedre@mojaveelectric.com)
Subject: RE: DAQEM Permit

Las Vegas New City Hall
Chris,

Is this complete? I need to submit to the city in the next day or so.

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Payne, Daniel
 Sent: Monday, June 13, 2011 4:22 PM
 To: Christopher Meiers (cmeiers@mojaveelectric.com)
 Cc: Crystal Teissedre (cteissedre@mojaveelectric.com); Lee, David; Lloyd, Elliott; Burch, Clinton
 Subject: DAQEM Permit

Las Vegas New City Hall
 Chris,

As discussed, the link below is for the DAQEM permit required for the generators. We are not able to find this information in the submittals. Please have this form filled out and returned by Thursday, 6-16-2011 to Clint Burch and myself.

http://www.clarkcountynv.gov/Depts/daqem/Documents/Permitting/SS_forms/Internal_Combustion_Engine.pdf

Below is the spreadsheet that need to be submitted - please ensure the information returned from the manufacturer will fill in all cells, one for each unit. Do not worry about hours of operation.

EU#	Horsepower:	Emission Factor (lb/hp-hr)			Control Efficiency			Potential Emissions		
		lb/hr	lb/day	ton/yr						
Make:	Hours/Day:	PM10	7.00E-04	0.00%	0.00	0.00	0.00			
Model:	Hours/Year	NOx	2.40E-02	0.00%	0.00	0.00	0.00			
S/N:		CO	<<att5488a.gif>> 5.50E-03	0.00%	0	<<att5488b.gif>> .00	0.00	0.00		
<<att5488c.gif>> Manufacturer	Guara	<<att548ac.gif>> ntees				SOx	4.0	<<att548ad.gif>> 5E-		
04	0.00%	0.00	<<att548be.gif>> 0.00	0.00						
PM10										

1	VOC	7.05E-04	0.00%	0.00	0.00	0.00
NOx	1	HAP	3.05E-05	0.00%	0.00	0.00
CO	1					
SOx	1					
VOC	1					

Engine Type: 2

Thank you,

Daniel Payne
 The Whiting-Turner Contracting Company
 518 S 1st Street
 Las Vegas, NV 89101

702-604-4179 (c)
 702-851-4190 (o)
 702-851-4198 (f)

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Monday, July 25, 2011 7:37 AM
To: Chris Meiers
Subject: RE: DAQEM Permit

I got some help from a company called Broadbent and Assoc. who specialize in air quality permitting. They told me to use the PM number from the information I sent to you and use the number for both the PM2.5 and PM10. The Sox number used was a standard number that DAQEM supplied to B&A for use in permitting.

Based on the submittal drawings, the top of the muffler appears to be about 183".

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

Sales and Rentals:
Generators
Transfer Switches
UPS Systems
Switch Gear

Light Towers
Cable and Distribution
Air Compressors
Temperature Control

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From: Chris Meiers [mailto:cmeiers@mojaveelectric.com]
Sent: Friday, July 22, 2011 3:15 PM
To: Kim Symons
Subject: Fw: DAQEM Permit

J56-385

Kim,
Can you please address the permit information when you get a chance.

Thanks,
Chris Meiers

----- Original Message -----

From: Payne, Daniel <Daniel.Payne@whiting-turner.com>
To: Chris Meiers
Sent: Tue Jul 19 16:40:02 2011
Subject: RE: DAQEM Permit

The forms are filled out (except for exhaust stack - I'll just have to go measure it)
However - there is no manufacturers documentation for the PM2.5, PM 10, and SOx emissions.

Please have them provide the documentation for this.

Las Vegas New City Hall

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Chris Meiers [<mailto:cmeiers@mojavectelectric.com>]
Sent: Tuesday, July 19, 2011 12:48 PM
To: Payne, Daniel
Subject: Fw: DAQEM Permit

Daniel,
Can you open attached and review. Hopefully this is completed for some reason I cannot open.

Regards,
Chris Meiers

----- Original Message -----

From: Kim Symons <Kim_Symons@cashmanequipment.com>
To: Chris Meiers
Sent: Tue Jul 19 12:20:08 2011
Subject: RE: DAQEM Permit

See attached.

Kim Symons

Kim Symons

Account Manager

Cashman Equipment Co.

Power Solutions Division

3300 St. Rose Parkway

Henderson, NV 89052

702-326-6596 Mobile

Sales and Rentals:

Generators

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From: Chris Meiers [mailto:cmeiers@mojaveelectric.com]
Sent: Monday, July 18, 2011 3:46 PM
To: Kim Symons
Subject: Fw: DAQEM Permit

Kim,
Try this one

----- Original Message -----

From: Payne, Daniel <Daniel.Payne@whiting-turner.com>
To: Payne, Daniel <Daniel.Payne@whiting-turner.com>; Chris Meiers
Cc: Crystal Teissedre; Lee, David <David.Lee@whiting-turner.com>; Lloyd, Elliott <Elliott.Lloyd@whiting-turner.com>; Burch, Clinton <Clinton.Burch@whiting-turner.com>
Sent: Fri Jul 08 13:31:03 2011
Subject: RE: DAQEM Permit

Las Vegas New City Hall
Chris,

As discussed, WT needs additional information for the DAQEM permit. Attached is the permit application and the spreadsheets that are to be submitted.

Please provide the required information and backup documentation.

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

From: Payne, Daniel
Sent: Monday, June 13, 2011 4:22 PM
To: Christopher Meiers (cmeiers@mojaveelectric.com)
Cc: Crystal Teissedre (cteissedre@mojaveelectric.com); Lee, David; Lloyd, Elliott; Burch, Clinton
Subject: DAQEM Permit

Las Vegas New City Hall
Chris,

As discussed, the link below is for the DAQEM permit required for the generators. We are not able to find this information in the submittals. Please have this form filled out and returned by Thursday, 6-16-2011 to Clint Burch and myself.

http://www.clarkcountynv.gov/Depts/dacem/Documents/Permitting/SS_forms/Internal_Combustion_Engine.pdf

Below is the spreadsheet that need to be submitted - please ensure the information returned from the manufacturer will fill in all cells, one for each unit. Do not worry about hours of operation.

EU#	Horsepower:	Emission Factor (lb/hp-hr)				Control Efficiency				Potential Emissions
Make:	Hours/Day:	lb/hr	lb/day	ton/yr						
Model:	Hours/Year	PM10	7.00E-04	0.00%	0.00	0.00	0.00	0.00		
S/N:		NOx	2.40E-02	0.00%	0.00	0.00	0.00	0.00		
		CO	5.50E-03	0.00%	0.00	0.00	0.00	0.00		
M	<<att5488a.gif>> anufacturer Guaran	<<att5488b.gif>> tees			SOx	4.05	<<att5488c.gif>> E-			
04	0.00%	0.00	<<att548ac.gif>> 0.00	0.00						
		PM10	<<att548ad.gif>>							

<<att548be.gif>>									
1	VOC	7.05E-04	0.00%	0.00	0.00	0.00			
NOx	1	HAP	3.05E-05	0.00%	0.00	0.00	0.00	0.00	
CO	1								
SOx	1								
VOC	1								

Engine Type: 2

Thank you,

Daniel Payne
The Whiting-Turner Contracting Company
518 S 1st Street
Las Vegas, NV 89101

702-604-4179 (c)
702-851-4190 (o)
702-851-4198 (f)

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Thursday, May 12, 2011 7:09 AM
To: Chris Meiers; Rob Mayer
Subject: Re: Generator Installation

We are also waiting for the arrival of the remote shunt trip station. I will check on its ETA.

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Thursday, May 12, 2011 06:39 AM
To: Rob Mayer; Kim Symons
Subject: Fw: Generator Installation

Rob/ Kim,
Please see email below. Are you aware of any other items that need to be addressed for the generator? Let me know.

Thanks,
Chris Meiers

----- Original Message -----
From: Richard Christensen
To: Lee, David <David.Lee@whiting-turner.com>
Cc: Chris Meiers
Sent: Thu May 12 06:28:35 2011
Subject: RE: Generator Installation

The panel that feeds the block heater and the battery charger, Panel LEY, is fed from MSA which is awaiting 2) 800 amp breakers which failed testing and must be replaced under warrantee by Siemens before we energize. We have been chasing Siemens for two weeks already for these breakers. The Cashman technician will not come out until the power is on to both of those.

The status wiring harness from each generator back to PSG must be landed on the terminal strip in PSG (they are landed in each generator).

The status wiring from each of the ATS's needs to be landed in PSG and in the three ATS's. Each of these requires some assistance and input from Cashman, but would take less than a day to complete everything.

I am not sure of the status of the generators themselves, there was still some work left to be done on the exhaust system last time we saw the Cashman technician.

I will have Chris call Cashman and see when we could schedule them to come back out and complete everything to facilitate check-out and start-up.

From: Lee, David [<mailto:David.Lee@whiting-turner.com>]
Sent: Wednesday, May 11, 2011 4:53 PM
To: Richard Christensen
Subject: FW: Generator Installation

Rich,

Can you get me a list of the outstanding activities for the generators.

Thank you,

David Lee | Project Manager | LEED® AP

THE WHITING-TURNER CONTRACTING COMPANY

Las Vegas City Hall| 518 S. 1st St., Las Vegas, NV 89101

T: (702) 851-4190 | F: (702) 851-4198 | C: (702) 296-3295

From: Phillips, David [<mailto:DavidPhillips@forestcity.net>]
Sent: Wednesday, May 11, 2011 4:10 PM
To: Lee, David; Lloyd, Elliott
Cc: Briseno, Nancy
Subject: Generator Installation

The Commissioning Team Meeting Minutes indicates that the Generator installation is not complete.

Please provide list of uncompleted work as well the completion schedule for complete installation.

Thanks

David R. Phillips CSI
FOREST CITY COMMERCIAL CONSTRUCTION
Vice President
518 South First Street
Las Vegas, Nevada 89101
Phone: 702-851-3460
Fax: 702-851-3464
Cell: 702-493-4744
davidphillips@forestcity.net

Nothing contained in this email shall be deemed to constitute or form the basis of an offer, acceptance, counteroffer, contract, agreement or other binding obligation and any of the foregoing may only exist with the express written agreement of the sender in a separate written agreement.

Carmen Militello

From: Richard Christensen
Sent: Friday, May 20, 2011 9:50 AM
To: Chris Meiers
Subject: RE: LV City Hall PSG overhead conduits

There is no other way onto that thing. We tried to stay in the wireways but because each section is double walled and filled with breaker there was no other way into the equipment. I would like to see what exactly is required to mount the lifting device because the conduits are only in a few select spots. The conduits can't be changed at this point. All of the wire is pulled and terminated to all of the ATS's and to the generators. We need to look at some alternatives.

From: Chris Meiers
Sent: Friday, May 20, 2011 9:31 AM
To: Richard Christensen
Subject: FW: LV City Hall PSG overhead conduits

Richard,
Please look into this issue with the conduits.

Thanks,

Christopher Meiers
Project Manager
Mojave Electric

From: Rob Mayer [mailto:Robert_Mayer@cashmanequipment.com]
Sent: Friday, May 20, 2011 9:25 AM
To: Chris Meiers
Cc: Kim Symons; Mark Pfeiffer; James Wingard
Subject: LV City Hall PSG overhead conduits

Chris,

We have run into a problem with the over head conduits on PSG.
There is a lifting fixture that bolts onto the top to allow circuit breakers to be removed.
With the conduits on top, we cannot install this CB lifting removal tool.

Also, do you any updates for our startup?

Thank you,

Rob Mayer
Project Manager
Cashman Power Solutions
3300 St. Rose Parkway
Henderson Nv. 89052
tel 702/326-3693
fax 702/639-5090
rob_mayer@cashmanequipment.com

J56-392

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Wednesday, July 27, 2011 1:36 PM
To: Chris Meiers
Subject: RE: New City Hall - Generator Fuel
Attachments: no-reply@cashmanequipment.com_20110727_144458.pdf

Yes, up to B20, as long as it meets all the "standards". Info from CAT attached.

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

Sales and Rentals:
Generators
Transfer Switches
UPS Systems
Switch Gear

Light Towers
Cable and Distribution
Air Compressors
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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Wednesday, July 27, 2011 12:57 PM
To: Kim Symons
Subject: New City Hall - Generator Fuel

Kim,
Is the Generator BIO Diesel Fuel compatible?

Thanks,
Chris Meiers

Table 8

Alternative Distillate Fuels - Arctic Applications (1) (2)	
Specification	Grade
"MIL-DTL-5624U"	JP-5
"MIL-DTL-83133F"	JP-8
"ASTM D1655-08a"	Jet A ⁽³⁾ , Jet A-1 ⁽³⁾

(1) The fuel that is selected must meet the requirements that are specified in the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines" table, table 7. Cooling of the fuel may be required to maintain 1.4 cSt or greater viscosity at the fuel injection pump. Consult the supplier for the recommended additives in order to maintain the proper fuel lubricity.

(2) The fuel specifications listed in this table allow and/or recommend the use of fuel additives that have not been tested by Caterpillar for use in Caterpillar fuel systems. The use of these specifications allowed and/or recommended fuel additives are at the risk of the user.

(3) Jet A is the standard fuel used by U.S. commercial airlines when operating within the U.S. Jet A-1 is the standard fuel used by commercial airlines worldwide. Per "ASTM D1655-08a, Table 1 (Detailed Requirements of Aviation Turbine Fuels)", Jet A and Jet A-1 have identical requirements except for freezing point. Jet A has a freeze point requirement of -40 °C (-40 °F) versus the Jet A-1 has a freeze point requirement of -47 °C (-52.6 °F), but other freezing points may be agreed on by the fuel purchaser and the fuel supplier.

These fuels are lighter than the No. 2 grades of fuel. The cetane number of the fuels in table 8 must be at least 40. If the viscosity is below 1.4 cSt at 40 °C (104 °F), use the fuel only in temperatures below 0 °C (32 °F). Do not use any fuels with a viscosity of less than 1.2 cSt at 40 °C (104 °F).

Note: Fuel cooling may be required in order to maintain the minimum viscosity of 1.4 cSt at the fuel injection pump.

Note: These fuels may not prove acceptable for all applications.

Aftermarket Fuel Additives

There are many different types of fuel additives that are available to use. Caterpillar does not generally recommend the use of fuel additives.

In special circumstances, Caterpillar recognizes the need for fuel additives. Fuel additives need to be used with caution. The additive may not be compatible with the fuel. Some additives may precipitate. This action causes deposits in the fuel system. The deposits may cause seizure. Some additives may plug fuel filters. Some additives may be corrosive, and some additives may be harmful to the elastomers in the fuel system. Some additives may damage emission control systems. Some additives may raise fuel sulfur levels above the maximum allowed by the United States (U.S.) Environmental Protection Agency (EPA) and/or, as appropriate, other regulatory agencies. Consult your fuel supplier for those circumstances when fuel additives are required. Your fuel supplier can make recommendations for additives to use and for the proper level of treatment.

Note: Metallic fuel additives can cause fuel system/injector fouling and after treatment device fouling. Caterpillar discourages the use of metallic fuel additives in most applications. Metallic fuel additives should only be used in applications where their use is specifically recommended by Caterpillar.

Note: The U.S. EPA bans the use of metallic fuel additives in on-highway applications.

Note: Diesel fuel additives/conditioners may not improve markedly poor diesel fuel properties enough to make them acceptable for use.

Note: For best results, your fuel supplier should treat the fuel when additives are needed.

Cat Diesel Fuel Conditioner

Note: Cat Diesel Fuel Conditioner, part number 256-4968, is the only fuel conditioner/additive available to the end user that is tested and approved by Caterpillar for use in Caterpillar diesel engines.

Cat Diesel Fuel Conditioner is a proprietary metal and ash free formulation that has been extensively tested for use with distillate diesel fuels for use in Caterpillar diesel engines. Cat Diesel Fuel Conditioner helps address many of the challenges that various fuels worldwide present in regards to fuel life/stability, engine startability, injector deposits, fuel system life, and long term engine performance.

Note: Diesel fuel additives/conditioners may not improve markedly poor diesel fuel properties enough to make them acceptable for use.

Note: For maximum overall benefits, ask your fuel supplier to add Cat Diesel Fuel Conditioner at the recommended treat rate before fuel delivery, or you may add Cat Diesel Fuel Conditioner at the recommended treat rate during the early weeks of fuel storage. Follow all applicable national, regional, and local laws, mandates, and regulations concerning the use of diesel fuel conditioners/additives.

Cat Diesel Fuel Conditioner is a proven high performance, multipurpose diesel fuel conditioner that is designed to improve:

- Fuel economy (through fuel system cleanup)
- Lubricity
- Oxidative stability
- Detergency/dispersancy
- Moisture dispersancy
- Corrosion protection
- Cetane (typically 2-3 cetane numbers)

Cat Diesel Fuel Conditioner has been validated through lab and field tests to improve/reduce diesel fuel consumption and emissions for typical fleets through fuel system/injector cleanup, and to help maintain new engine performance by keeping fuel systems clean. Note that while fuel system/injector cleanup takes place over time, maintaining fuel system/injector cleanliness is an ongoing process.

Data indicates that average fuel economy improvements across typical fleets may be in the 2-3+ percentage range. Note that improvements may vary based on factors such as engine model, age and condition of the engine, and application.

Cat Diesel Fuel Conditioner also reduces the formation of gums, resins, and sludge, and disperses insoluble gums. This can dramatically improve fuel storage life, reduce fuel related engine deposits and corrosion, and extend fuel filter life.

NOTICE

Use of Cat Diesel Fuel Conditioner does not lessen the engine owner and/or responsibility of the fuel supplier to follow all industry standard maintenance practices for fuel storage and for fuel handling. Refer to the "General Fuel Information" article in this Special Publication for additional information. Additionally, use of Cat Diesel Fuel Conditioner does NOT lessen the engine responsibility of the owner to use appropriate diesel fuel. Refer to the "Fuel Specifications" section in this Special Publication (Maintenance Section) for guidance.

Caterpillar strongly recommends that Cat Diesel Fuel Conditioner be used with biodiesel and biodiesel blends. Cat Diesel Fuel Conditioner is suitable for use with biodiesel/biodiesel blends that meet Caterpillar biodiesel recommendations and requirements. **Note that not all fuel additives are suitable for use with biodiesel/biodiesel blends.** Read and follow all applicable label usage instructions. Also, refer to this Special Publication, "Distillate Diesel Fuel" article and also refer to the "Biodiesel" article, which includes Caterpillar biodiesel recommendations and requirements.

When used as directed, Cat Diesel Fuel Conditioner has proven to be compatible with existing and U.S. EPA 2007 on-highway certified diesel engine emission control catalysts and particulate filters.

Note: When used as directed, Cat Diesel Fuel Conditioner will not raise fuel sulfur levels measurably in the final fuel/additive blend. In the U.S. the current formulation of Cat Diesel Fuel Conditioner must be blended in at the recommended treat-rate at the fuel supplier/distributor level for use in on-highway or other applications where use of ULSD fuel is mandated (15 ppm or less fuel sulfur). Follow all applicable national, regional, and local laws, mandates, and regulations concerning the use of diesel fuel conditioners/additives.

NOTICE

When used as directed Cat Diesel Fuel Conditioner will not raise fuel sulfur levels measurably in the final fuel/additive blend. But, in the U.S., aftermarket fuel additives (retail consumer level versus bulk fuel additives used at the fuel supplier/distributor level) with more than 15 ppm sulfur are **NOT** allowed to be used in applications where ULSD usage is mandated (15 ppm or less fuel sulfur). The current formulation of Cat Diesel Fuel Conditioner has more than 15 ppm sulfur. Follow all applicable national, regional, and local laws, mandates and regulations concerning the use of diesel fuel conditioners/additives.

103432180

Biodiesel

SMCS Code: 1280

NOTICE

These recommendations are subject to change without notice. Consult your Caterpillar dealer for the most up to date recommendations.

J56-396

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Note: For guidance related to on-highway diesel engines refer to specific engine Operation and Maintenance Manuals and to the most current revision level of Special Publication, SEBU6385, "Caterpillar On-Highway Diesel Engine Fluids Recommendations".

Referenced Documents:

- "ASTM D6751 Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels"
- "EN 14214 Automotive fuels - Fatty acid methyl esters (FAME) for diesel engines - Requirements and test methods"
- "ASTM D7467 Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)"
- "ASTM D975-08a Standard Specification for Diesel Fuel Oils" (Includes requirements for B5 and lower biodiesel blends)
- "EN 590 Automotive fuels - Diesel - Requirements and test methods" (includes requirements for B5 and lower biodiesel blends)
- "EN 14078 Liquid petroleum products - Determination of fatty acid methyl esters (FAME) in middle distillates - Infrared spectroscopy method"
- "EN 14104 Fat and oil derivatives - Fatty Acid Methyl Esters (FAME) - Determination of Acid Value"
- "ASTM D664 Standard Test Method for Acid Number of Petroleum Products by Potentiometric Titration"
- "ASTM D6469 Standard Guide for Microbial Contamination in Fuels and Fuel Systems"

Note: For the purpose of these recommendations, the cautions, guidelines and recommendations applicable to biodiesel (B100) are also applicable to biodiesel blends (B2, B5, B20, etc.).

Note: A complete Caterpillar S-O-S Services oil analysis program is strongly recommended when using biodiesel blends B1 (1 percent) through B19 (19 percent), and a complete Caterpillar S-O-S Services oil analysis program is required when using biodiesel/biodiesel blends that are B20 or above (when requesting oil analysis, be sure to note the level of biodiesel being used (B5, B20, etc.)).

Note: DO NOT USE ONLY THIS SPECIAL PUBLICATION AS A BASIS FOR DETERMINING OIL DRAIN INTERVALS.

This Special Publication does not address recommended oil drain intervals, but rather provides guidance that should be used in conjunction with your specific engine/machine Operation and Maintenance Manuals in determining acceptable oil drain intervals. Consult your engine/machine Operation and Maintenance Manuals, and consult Caterpillar dealers for additional guidance, including but not limited to guidance on establishing optimized and/or acceptable oil drain intervals.

Note: The use of a Caterpillar S-O-S Services oil analysis program helps environmental sustainability as it is the best way to optimize oil life, and will help engines reach their expected life. Consult with your Caterpillar dealer regarding the testing required to establish a safe, optimized oil drain interval.

Biodiesel is a fuel that can be made from a variety of feedstocks. Soybean oil and rapeseed oil are the primary feedstocks. Without esterification, these oils gel in the crankcase and the fuel tank. These fuels may not be compatible with many of the elastomers that are used in engines. In original forms, these oils are not suitable for use as a fuel in compression ignition engines. Alternate base stocks for biodiesel may include animal tallow, waste cooking oils, or a variety of other feedstocks. To use any of the oils listed above as fuel, the oil must be esterified.

Biodiesel and biodiesel blends are known to cause an increase in fuel system deposits, most significant of which is deposits within the fuel injector. These deposits can cause a loss in power due to restricted or modified fuel injection or cause other functional issues associated with these deposits. Caterpillar Diesel Fuel Conditioner helps to limit these issues by improving the stability of biodiesel and biodiesel blends while also cleaning formed deposits and hindering the production of new deposits. Therefore, the use of Caterpillar Diesel Fuel Conditioner is strongly recommended when running biodiesel and biodiesel blends, especially when using B20 or higher blend levels. Refer to this Special Publication, "Distillate Diesel Fuel" article, "Caterpillar Diesel Fuel Conditioner" topic for additional information.

Note: Engines that are manufactured by Caterpillar are certified by use of the prescribed U.S. EPA and European Certification fuels. Caterpillar does not certify engines on any other fuel.

Note: The user of the engine has the responsibility of using the correct fuel that is recommended by the manufacturer and allowed by the U.S. EPA and other appropriate regulatory agencies.

Caterpillar is not in a position to evaluate the many variations of biodiesel and the long-term effects on performance, durability, or compliance to ~~156-397~~ standards for Caterpillar products.

Note: Visually apparent phase separation, sediment, suspended matter, or undissolved water should not be present in biodiesel and biodiesel blends.

Biodiesel and biodiesel blends should not contain any constituent, additive or other substance that makes them unacceptable for use in diesel engines.

"EN 14078" is the recommended test method for determining the volume percent biodiesel in a biodiesel blend.

NOTICE

Failures that result from the use of any fuel are not Caterpillar factory defects. Therefore, the cost of repair would NOT be covered by the Caterpillar warranty for materials and/or the warranty for workmanship.

Recommendation for the Use of Biodiesel in Caterpillar Commercial and Machine Diesel Engines

For Caterpillar Series C175 Series diesel engines, consult the Caterpillar Application & Installation Group or consult your Caterpillar dealer before using biodiesel or biodiesel blends.

For Caterpillar off-highway ACERT Technology diesel engine model numbers C7, C9, C11, C13, C15, C18, C27, and C32 and also for Caterpillar 3114, 3116, 3126, 3176, 3196, 3208, 3306, C-9, C-10, C-12, 3406, C-15, C-16, C-18, 3456, 3408, 3412, Series 3500 Series, Series 3600 Series, Series C280 Series, CM20, CM25, and CM32 engines, biodiesel that meets the requirements that are listed in the "Caterpillar Specification for Biodiesel Fuel", "ASTM D6751", or "EN 14214" are acceptable blendstock. Biodiesel may be blended in amounts up to a maximum of 20 percent (B20) with an acceptable diesel fuel. This blend is acceptable provided that the biodiesel constituent meets the requirements that are outlined in Table 9 prior to blending. In addition, the final blend must meet the requirements for distillate diesel fuel that are listed in the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines", Table in this Special Publication, "Distillate Diesel Fuel" article. Biodiesel that meets "ASTM D7467" (B6 to B20), or biodiesel that meets "ASTM D975-08a" or "EN 590" requirements for B5 and lower biodiesel blends are also acceptable for use in the listed engines.

C0.5-C2.2, C4.4, and C4.4 ACERT Technology diesel engines and C6.6 ACERT Technology diesel engines compatible with up to B20 biodiesel as described above have been released as follows:

- C0.5-C2.2 Tier 4 Interim/Stage IIIB, at model introduction, starting April 2007

- C4.4 (Mechanical) Tier 3/Stage IIIA, at model introduction, starting Nov 2007

- C4.4 ACERT Technology Tier 3/Stage IIIA electronic diesel engines manufactured after 1 July 2008, Serial numbers:

- Cat Machine Group - C4E05524-UP

- Cat Industrial - 44404304-UP

- C6.6 ACERT Technology electronic diesel engines built after 1 July 2008, Serial numbers:

- Cat Machine Group - CE614624-UP

- Cat Industrial - 66609016-UP

Note: Diesel fuels that meet the requirements of the most current versions of the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines", the "Caterpillar Specification for Distillate Diesel Fuel for On-Highway Diesel Engines", the National Conference on Weights and Measures (NCWM) Premium Diesel definition, "EN 590" and/or "ASTM 975 (No.1-D, No.2-D)", are examples of fuels that are acceptable for creating biodiesel blends. These biodiesel blends must meet the Caterpillar recommendations and requirements for biodiesel blends.

Note: Crankcase oil fuel dilution may be much higher when biodiesel and/or biodiesel blends are used. This increased level of fuel dilution when using biodiesel and/or biodiesel blends is related to the typically lower volatility of biodiesel. In-cylinder emissions control strategies utilized in many of the industries latest engine designs may lead to a higher level of biodiesel concentration in the sump.

The long-term effect of biodiesel concentration in crankcase oil is currently unknown, but some potential issues are:

- A higher risk of corrosion
- A higher risk of wear
- A higher risk of piston deposits
- Either increased or decreased oil viscosity
- Shortened aftertreatment device ash service intervals (more frequent) and/or shortened aftertreatment device life
- Shortened oil life (more frequent oil drain intervals)

J56-398

The use of a complete Caterpillar S-O-S Services oil analysis program is strongly recommended when B19 and lower biodiesel blends are used, and the use of a complete Caterpillar S-O-S Services oil analysis program is required when using biodiesel/biodiesel blends that are B20 or above (when requesting oil analysis, be sure to note the level of biodiesel being used (B5, B20, etc.)).

For blends of biodiesel B20 or above, consult your Caterpillar dealer for guidance. A complete Caterpillar S-O-S Services oil analysis program is required when biodiesel or blends of biodiesel that are B20 or above are used. Biodiesel or blends of biodiesel as used in the engine must meet the requirements that are stated in the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines" Table in this Special Publication, "Distillate Diesel Fuel" article.

For Caterpillar C0.5 through C2.2 and for C4.4 mechanical engines that meet Tier2/Stage2 or earlier emissions regulations, for C4.4 (machine engine serial numbers C4E05523 and lower, and industrial engine serial numbers 44404303 and lower) and C6.6 (machine engine serial numbers CE614623 and lower, and industrial engine serial numbers 66609015 and lower) ACERT Technology diesel engines, and for C3.4, 3003 through 3034, 3044, 3046, 3054, 3056, 3064, and 3066 engines, biodiesel that meets the requirements that are listed in the "Caterpillar Specification for Biodiesel Fuel", "ASTM D6751", or "EN 14214" may be blended with an acceptable diesel fuel. This blend should be a maximum ratio of 5% biodiesel to 95% of an acceptable diesel fuel. The biodiesel must meet the requirements that are listed in Table 9 prior to blending. Biodiesel that meets "ASTM D975-08a" or "EN 590" requirements for B5 and lower biodiesel blends are also acceptable for use in the listed engines. Use of more than a 5% biodiesel can cause premature failures. The repair for these failures would not be covered under the Caterpillar warranty.

Note: When biodiesel, or any blend of biodiesel is used, the user has the responsibility for obtaining the proper local exemptions, regional exemptions, and/or national exemptions, if required, for the use of biodiesel in any Caterpillar engine that is regulated by emissions standards. Biodiesel that meets the requirements that are listed in the "Caterpillar Specification for Biodiesel Fuel", "ASTM D6751", or "EN 14214" is not expected to pose major problems when blended with an acceptable distillate diesel fuel and when used as recommended at the maximum stated percentages. In addition, biodiesel that meets "ASTM D7467" (B6 to B20), or biodiesel that meets "ASTM D975-08a" or "EN 590" requirements for B5 and lower biodiesel blends are not expected to pose major problems and when used as recommended. However, the following additional recommendations must be followed.

Recommendations

For the purpose of these recommendations, the cautions, guidelines and recommendations applicable to biodiesel (B100) are also applicable to biodiesel blends (B2, B5, B20, etc.).

Note: Fuel storage tanks should be thoroughly cleaned before converting to biodiesel/biodiesel blends. Conversion to biodiesel/biodiesel blends can loosen fuel system and fuel storage tank deposits. Bulk tank continuous filtration unit and dispensing point filters, and onboard engine filters change intervals may need to be shortened for an extended period of time in order to allow for this cleaning effect.

In North America, the use of biodiesel from "BQ-9000" accredited producers and "BQ-9000" certified marketers is required. Look for the "BQ-9000" biodiesel quality accreditation program certification logo that is available to distributors that meet the requirements of "BQ-9000". For more information on the "BQ-9000" program, go to "www.BQ-9000.org".

In other areas of the world, the use of biodiesel that is "BQ-9000" accredited and certified, or that is accredited and certified by a comparable biodiesel quality body to meet similar biodiesel quality control standards, is required.

- The oil change interval can be negatively affected by the use of biodiesel. Use Caterpillar S-O-S Services oil analysis in order to monitor the condition of the engine oil. Use Caterpillar S-O-S Services oil analysis also in order to determine the oil change interval that is optimum. A complete Caterpillar S-O-S Services oil analysis program is strongly recommended when using biodiesel blends B1 through B19, and a complete Caterpillar S-O-S Services oil analysis program is required when using biodiesel/biodiesel blends that are B20 or above (when requesting oil analysis, be sure to note the level of biodiesel being used (B5, B20, etc.)).
- Confirm with the filter manufacturer that the fuel filter/filters to be used are compatible with biodiesel. Caterpillar fuel filters are compatible with biodiesel that meets the quality requirements given in this Special Publication.
- Conversion to biodiesel can loosen fuel system deposits. Fuel filter change intervals may need to be shortened for an extended period of time in order to allow for this cleaning effect when converting used engines and/or used fuel tanks to biodiesel.
- Filter biodiesel and biodiesel blends through a fuel filter with a rating of four microns(c) absolute or less. This filtration should be located on the device that dispenses the fuel to the fuel tank for the engine, and also on the device that dispenses fuel from the bulk storage tank. Series filtration is recommended.
- In a comparison of distillate fuels to biodiesel, biodiesel typically provides less energy per gallon by 5% to 8%. Do NOT change the engine rating in order to compensate for the power loss. This will help avoid engine problems when the engine is converted back to 100 percent distillate diesel fuel.
- Compatibility of the elastomers with biodiesel is currently being monitored. The condition of seals and hoses should be monitored regularly by the end user.
- Biodiesel may pose low ambient temperature problems for both storage and operation. At low ambient temperatures, fuel may need to be stored in a heated building or a heated storage tank. The fuel system may require heated fuel lines, filters, and tanks. Filters may plug and fuel in the tank may solidify at low ambient temperatures if precautions are not taken. Consult your biodiesel supplier for assistance in the blending and attaining of the proper cloud point for the fuel.
- Biodiesel has poor oxidation stability, which can result in long term storage problems. Biodiesel should be used within six months of production. Storage life for biodiesel and biodiesel blends that are greater than B20 may be much shorter than six months. The poor oxidation stability may accelerate fuel oxidation in the fuel system. This is especially true in engines with electronic fuel systems because these engines operate at higher temperatures. In addition to this "Biodiesel" article, also refer to this Special Publication, "Distillate Diesel Fuel" article, "Aftermarket Fuel Additives" and "Cat Diesel Fuel Conditioner" topics for information concerning oxidation stability and fuel additives.
- Biodiesel can be produced using various feedstocks. The feedstock used can affect product performance. Two of the fuel characteristics affected are cold flow and oxidation stability. Consult your fuel supplier for guidance.
- Due to poor oxidation stability and other potential issues, it is strongly recommended that engines with limited operational time either not use biodiesel/biodiesel blends or, while accepting some risk, limit biodiesel to a maximum of B5. Examples of applications that should limit the use of biodiesel are the following: Standby Generator sets and certain emergency vehicles.
- Biodiesel is an excellent medium for microbial contamination and growth. Microbial contamination and growth can cause corrosion in the fuel system and premature plugging of the fuel filter. Refer to "ASTM D6469", and consult your supplier of fuel and fuel additive for assistance in selecting appropriate anti-microbial additives.
- Care must be taken in order to remove water from fuel tanks. Water accelerates microbial contamination and growth. When biodiesel is compared to distillate fuels, water is naturally more likely to exist in the biodiesel.
- Refer to this Special Publication, "General Fuel Information" article for additional recommendations.

Seasonal Operation

It is strongly recommended that seasonally operated engines have the fuel systems, including fuel tanks, flushed with conventional diesel fuel before prolonged shutdown periods. An example of an application that should seasonally flush the fuel system is school buses (U.S.).

Perform the following items in the listed order before shutting down the engine for prolonged periods:

J56-400

1. Operate the engine until the fuel level in the tank is very low.
2. Refill the fuel tank with high quality conventional distillate diesel fuel.
3. Repeat the previous steps a minimum of two times before the engine is shut down for prolonged periods.

Biodiesel Degradation

Biodiesel and blends of biodiesel have poor thermal stability and oxidation stability compared to petroleum distillate diesel fuels. The use of these biodiesels and blends of biodiesel can accelerate the problems that are addressed in this Special Publication. Using biodiesel blends above the maximum level approved for the engine is not recommended.

A test that can be used to help determine the degradation of biodiesel and biodiesel blends is the measurement of the Total Acid Number (TAN). This number represents the amount of acid present in the biodiesel or biodiesel blend as a result of degradation. The following test methods may be used: "EN 14104" or "ASTM D664". For neat (B100) biodiesel, this value should not exceed 0.5 mg KOH/g. For biodiesel blends such as 20% biodiesel and 80% diesel (B20), this value should not exceed 0.3 mg KOH/g. Biodiesel and biodiesel blends that exceed these values should be considered degraded beyond acceptable limits and further testing would not be required. Biodiesel and biodiesel blends that exceed 0.16 mg KOH/g may result in the formation of undesired degradation by-products that can cause the problems discussed in this document. Samples that exceed 0.16 mg KOH/g but do not exceed 0.3 mg KOH/g should be tested with the other methods in order to determine the thermal and oxidative stability of the fuel.

With the following considerations, commercial and machine diesel engines that are covered by this Special Publication should be able to operate satisfactorily on fuels with the stated maximum biodiesel levels:

- The biodiesel/biodiesel blends meet all of the requirements that are stated in this Special Publication.
- All appropriate guidelines and maintenance practices as stated in engine specific Operation and Maintenance Manuals and in this Special Publication are followed.
- The engines are operating in applications with low to moderate severity.
- When other factors do not preclude.

Refer to this Special Publication, and refer to your specific Cat commercial engine Operation and Maintenance Manual and/or refer to your specific Cat machine Operation and Maintenance Manual for additional guidance.

NOTICE

In order to meet expected fuel system component life, 4 micron(c) absolute or less secondary fuel filtration is required for all Caterpillar diesel engines that are equipped with common-rail fuel systems, and for all Caterpillar diesel engines that are equipped with unit injected fuel systems. For all other Caterpillar diesel engines (mostly older engines with pump, line and nozzle type fuel systems), the use of 4 micron(c) absolute or less secondary fuel filtration is strongly recommended. Note that all current Caterpillar diesel engines are factory equipped with Caterpillar Advanced Efficiency 4 micron(c) absolute fuel filters.

In order to obtain additional information on Caterpillar designed and produced filtration products, refer to this Special Publication, "Reference Material" article, "Filters" and "Miscellaneous" topics, and then contact your Caterpillar dealer for assistance with filtration recommendations for your Caterpillar machine.

Fuel System Deposits

Biodiesel and biodiesel blends are known to cause an increase in fuel system deposits, most significant of which is deposits within the fuel injector. These deposits can cause a loss in power due to restricted or modified fuel injection or cause other functional issues associated with these deposits. Caterpillar Diesel Fuel Conditioner helps to limit these issues by improving the stability of biodiesel and biodiesel blends while also cleaning formed deposits and hindering the production of new deposits. Therefore, the use of Caterpillar Diesel Fuel Conditioner is strongly recommended when running biodiesel and biodiesel blends, especially when using B20 or higher blend levels. Refer to this Special Publication, "Distillate Diesel Fuel" article, "Caterpillar Diesel Fuel Conditioner" topic for additional information.

Biodiesel Specification

The final blend of biodiesel as used in the engine must meet the requirements that are stated in the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines" Table in this Special Publication, "Distillate Diesel Fuel" article.

NOTICE

The footnotes are a key part of the "Caterpillar Specification for Biodiesel Fuel" Table 9. Read ALL footnotes.

Table 9

Caterpillar Specification for Biodiesel Fuel ⁽¹⁾				
Property	Test Method	Test Method	Units	Limits
	United States	International	Specific Properties of Fuel	
Density at 15°C	"ASTM D1298"	"ISO 3675"	g/cm ³	0.86-0.90
Viscosity at 40°C	"ASTM D445"	"ISO 3104"	mm ² /s (cSt)	1.9-6.0
Flash Point	"ASTM D93"	"ISO 3679"	°C	93 minimum
Pour Point - Summer - Winter	"ASTM D97"	"ISO 3016"	°C	6 °C (10 °F) minimum below ambient temperature
Cloud Point	"ASTM D2500"		°C	Report
Sulfur Content	"ASTM D5453"	"ISO 20846" "ISO 20884"	% weight	0.0015 maximum
Distillation - 10% Evaporation - 90% Evaporation	"ASTM D1160"		°C	To Be Determined 360
Carbon Residue, Conradson (CCR)	"ASTM D4530"	"ISO 10370"	% weight	0.05 maximum
Cetane Number	"ASTM D613"	"ISO 5165"		45 minimum
Sulfated Ash	"ASTM D874"	"ISO 3987"	% weight	0.02 maximum
Water/Sediment Content	"ASTM D2709"	"ISO 12937"	% volume	0.05 maximum
Copper Corrosion	"ASTM D130"	"ISO 2160"		No. 1
Oxidation Stability	"EN 14112"	"EN 14112"	hours	3 minimum
Esterification	"EN 14103"	"EN 14103"	% volume	97.5 minimum
Acid Value	"ASTM D664"	"EN 14104"	mg NaOH/g	0.5 maximum
Methanol Content	"EN 14110"	"EN 14110"	% weight	0.2 maximum
Monoglycerides	"ASTM D6584"	"EN 14105"	% weight	0.8 maximum
Diglycerides	"ASTM D6584"	"EN 14105"	% weight	0.2 maximum
Triglycerides	"ASTM D6584"	"EN 14105"	% weight	0.2 maximum
Free Glycerin	"ASTM D6584"	"EN 14105"	% weight	0.02 maximum
Total Glycerin	"ASTM D6584"	"EN 14105"	% weight	0.240 maximum
Phosphorus Content	"ASTM D4851"	"EN 14107"	% weight	0.001
Calcium and Magnesium combined	"EN 14538"	"EN 14538"	ppm	5 maximum
Sodium and Potassium combined	"EN 14538"	"EN 14538"	ppm	5 maximum
Cold Soak Filterability	Annex A1 in "ASTM D6751"		seconds	360 maximum ⁽²⁾

(1) The final blend of biodiesel as used in the engine must meet the requirements that are stated in the "Caterpillar Specification for Distillate Diesel Fuel for Off-Highway Diesel Engines" Table in this Special Publication, "Distillate Diesel Fuel" article.

(2) B100 intended for blending into diesel fuel that is expected to give satisfactory vehicle performance at fuel temperatures at or below -12° C (10.4° F) shall comply with a cold soak filterability limit of 200 seconds maximum. Passing this "ASTM D6751" 200 seconds Cold Soak Filterability test limit does not guarantee cold performance for all biodiesel blends at all possible fuel temperatures, but biodiesel that fails this Cold Soak Filterability test requirement will produce biodiesel blends that will likely plug fuel filters when fuel temperatures are below -12° C (10.4° F).

J56-402

MOJ00586
JA 00005033

Note: Fuels that meet the most current revision level of "ASTM D6751" or "EN 14214" may be used for blending with an acceptable distillate fuel. The conditions, recommendations, and limits that are noted in this biodiesel article apply.

Cooling System Specifications

103467385

General Coolant Information

SMCS Code: 1350; 1395

NOTICE

Every attempt is made to provide accurate, up to date information. By use of this document you agree that Caterpillar Inc. is not responsible for errors or omissions.

The information that is provided is the latest recommendations for the Caterpillar diesel engines that are covered by this Special Publication. This Information supersedes all previous recommendations which have been published for the Caterpillar diesel engines that are covered by this Special Publication. Special fluids may be required for some engines and it will be necessary to continue to use these special products. Refer to the applicable Operation and Maintenance Manual.

This publication is a supplement to the Operation and Maintenance Manual. This publication does not replace the engine specific Operation and Maintenance Manual.

NOTICE

These recommendations are subject to change without notice. Consult your local Caterpillar dealer for the most up to date recommendations.

NOTICE

To avoid potential damage to your Cat machine and/or Cat engine, only purchase Cat fluids and Cat filters through your Caterpillar dealer or Caterpillar authorized outlets. For a list of authorized Caterpillar parts outlets in your area, consult your Caterpillar dealer.

If you purchase what appear to be Cat fluids and/or Cat filters through other outlets/sources, you are at a very high risk of purchasing counterfeit ("look-alike") products.

Counterfeit or "look-alike" products may visually appear the same as the original Cat product, but the product performance and internal quality will typically be very low.

Counterfeit or "look-alike" products have a very high likelihood of causing and/or allowing engine and/or machine compartment damage.

NOTICE

Many of the guidelines, recommendations, and requirements that are provided in this Special Publication are interrelated. Before using the provided information, it is the responsibility of the user of this Special Publication to read and understand the information provided in its entirety.

For questions concerning the information provided in this Special Publication, consult with your Caterpillar dealer.

For additional guidelines, recommendations, and requirements (including maintenance interval recommendations/requirements) refer to your product specific Operation and Maintenance Manual.

NOTICE

Commercial products that make generic claims of meeting Cat and/or Caterpillar requirements without listing the specific Cat recommendations and/or requirements that are met may not provide acceptable performance and may cause reduced engine and/or machine fluid compartment life. Refer to this Special Publication and refer to product specific Operation and Maintenance Manuals for Caterpillar fluids recommendations and/or requirements.

NOTICE

It is the responsibility of the user of this Special Publication to read, understand, and follow all safety guidelines found in this Special Publication and in engine and/or machine specific Operation and Maintenance Manuals when performing all recommended and/or required engine, engine systems, and/or machine maintenance.

For questions concerning the information provided in this Special Publication and/or in your product Operation and Maintenance Manual, consult with your Caterpillar dealer.

Follow all industry standard safety practices when operating engines and/or machines and when performing all recommended and/or required maintenance.

Note: For the purpose of this Special Publication, the term "coolant" is interchangeable with the terms "antifreeze", "coolant/antifreeze", and/or "antifreeze/coolant".

NOTICE

Never add coolant to an overheated engine. Engine damage could result. Allow the engine to cool first.

J56-404

MOJ00588
JA 00005035

Carmen Militello

From: Shemilly Briscoe <sbriscoe@nevadafirm.com>
Sent: Monday, September 19, 2011 3:17 PM
To: Brian Bugni
Cc: Chris Meiers; Troy Nelson
Subject: RE: New City Hall - Generator FW: Mojave



COTTON, BRIDGES, WALCH,
HOLLEY, WOLOSON & THOMPSON

From the desk of Shemilly A. Briscoe

[Click Here for a Card](#)

I am waiting for Cashman's lawyer to call me and once we have discussed, I will contact you so we can talk about our options. However, I want to speak with counsel first to be sure that there is no misunderstanding.

This e-mail message (including any attachments): (a) may include privileged, confidential, proprietary and/or other protected information, (b) is sent based upon a reasonable expectation of privacy, and (c) is not intended for transmission to, or receipt by, unauthorized persons. To comply with Internal Revenue Service regulations, we advise you that if this message includes any information about tax issues, such as tax information was not intended or written to be used, and cannot be used, to: (y) avoid any penalties that may be imposed or (z) promote, market, or recommend to another party any transaction, arrangement, or matter. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this message is prohibited. If you are not the intended recipient, please notify the sender immediately by telephone (702-791-0308) or by replying to this message and then delete this message and all copies or portions from your system. Thank you.

From: Brian Bugni [<mailto:bbugni@mojaveelectric.com>]
Sent: Monday, September 19, 2011 2:41 PM
To: Shemilly Briscoe
Cc: Chris Meiers
Subject: FW: New City Hall - Generator FW: Mojave

Shemilly,

FYI – This is the response from Cashman to perform the Start-up Work on the Generator at City Hall. (Troy was copied on the original email)

Thanks,
Brian

From: Joel Larson [mailto:Joel_Larson@cashmanequipment.com]
Sent: Monday, September 19, 2011 2:18 PM
To: Brian Bugni
Cc: Troy Nelson; Keith Lozeau
Subject: FW: New City Hall - Generator FW: Mojave

Brian

We just received the notice from your Legal folks.

We will not be performing the Start-up on any equipment with unpaid invoices. If you would like to discuss further please contact me.

Thanks, Joel

Office: 702-633-4623
Cell: 702-326-7171

From: Kim Symons
Sent: Sunday, September 18, 2011 05:16 PM
To: Keith Lozeau; Shane Norman
Subject: FW: New City Hall - Generator FW: Mojave

I just rec'd this. It's a copy of the bond – which, Shane, you said you already rec'd. I don't know if you rec'd the letter from the lawyer that I got. Anyway, this is an FYI and I need to know what to do next, if anything at all. Thanks!

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Sunday, September 18, 2011 4:40 PM
To: Kim Symons
Subject: New City Hall - Generator FW: Mojave

J56-406

Kim,

Please see bond and attorney letter as we discussed today. Please arrange to have someone on site as soon as possible so we can coordinate what needs to be done yet.

Thanks,

Christopher Meiers
Project Manager
Mojave Electric

Mobile; (702) 205-3311

Email; cmeiers@mojavelectric.com

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Tuesday, September 20, 2011 2:41 PM
To: Chris Meiers
Subject: RE: New City Hall - Letter received by W/T from Valentine Ike

Junk mail!

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, September 19, 2011 2:06 PM
To: Kim Symons
Subject: New City Hall - Letter received by W/T from Valentine Ike

Kim,
W/T received a letter from Valentine Ike addressed to Cashman with the jobsite address. I have the letter at our front desk for your pick-up.

Regards,

*Christopher Meiers
Project Manager
Mojave Electric
3755 West Hacienda
Las Vegas, NV 89118
Office; (702) 798-2970
Fax; (702) 798-3740
Mobile; (702) 205-3311
Email; cmeiers@mojaveelectric.com*

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Monday, September 19, 2011 2:05 PM
To: Chris Meiers
Subject: RE: New City Hall - Letter received by W/T from Valentine Ike

Call me

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, September 19, 2011 2:06 PM
To: Kim Symons
Subject: New City Hall - Letter received by W/T from Valentine Ike

Kim,
W/T received a letter from Valentine Ike addressed to Cashman with the jobsite address. I have the letter at our front desk for your pick-up.

Regards,

Christopher Meiers

Project Manager

Mojave Electric

3755 West Hacienda

Las Vegas, NV 89118

Office; (702) 798-2970

Fax; (702) 798-3740

Mobile; (702) 205-3311

Email; cmeiers@mojaveelectric.com

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Wednesday, September 21, 2011 5:17 AM
To: Chris Meiers
Subject: RE: New City Hall - Letter received by W/T from Valentine Ike

No way you could. No problem. ☺

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Tuesday, September 20, 2011 9:02 PM
To: Kim Symons
Subject: Re: New City Hall - Letter received by W/T from Valentine Ike

Sorry-did not know.

Christopher Meiers

J56-414

Project Manager
Mojave Electric
3755 West Hacienda
Las Vegas, NV 89118
Office: (702) 798-2970
Fax: (702) 798-3740
Mobile: (702) 205-3311
Email: emeiers@mojaveelectric.com

On Sep 20, 2011, at 4:42 PM, "Kim Symons" <Kim_Symons@cashmanequipment.com> wrote:

Junk mail!

Kim Symons

Kim Symons

Account Manager

Cashman Equipment Co.

Power Solutions Division

3300 St. Rose Parkway

Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, September 19, 2011 2:06 PM
To: Kim Symons
Subject: New City Hall - Letter received by W/T from Valentine Ike

Kim,

W/T received a letter from Valentine Ike addressed to Cashman with the jobsite address. I have the letter at our front desk for your pick-up.

Regards,

Christopher Meiers

Project Manager

Mojave Electric

3755 West Hacienda

Las Vegas, NV 89118

Office; (702) 798-2970

Fax; (702) 798-3740

Mobile; (702) 205-3311

Email; cmeiers@mojaveelectric.com

Carmen Militello

From: Kim Symons <Kim_Symons@cashmanequipment.com>
Sent: Wednesday, June 01, 2011 6:04 AM
To: Chris Meiers; Rob Mayer
Subject: RE: New City Hall - PSG breaker testing

Chris,

I'm not sure what testing you are referring to, maybe Rob does. Aside from being told not to go to the site, I'm not sure where we are at. I have heard there have been some discussions by people higher than us. Apparently we have gone to the authorities in regards to CAM. That's all I really know. I was going to call you yesterday to see if you'd heard anything.

Kim Symons

Kim Symons
Account Manager

Cashman Equipment Co.
Power Solutions Division
3300 St. Rose Parkway
Henderson, NV 89052

702-326-6596 Mobile

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From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Wednesday, June 01, 2011 4:42 AM
To: Kim Symons; Rob Mayer
Subject: New City Hall - PSG breaker testing

J56-418

Kim,
I know there are still issues with Cashman and CAM consulting, but was Cashman going to test the breakers in PSG?

Regards,
Chris Meiers

Carmen Militello

From: Rob Mayer <Robert_Mayer@cashmanequipment.com>
Sent: Wednesday, June 01, 2011 6:13 AM
To: Chris Meiers; Kim Symons
Subject: Re: New City Hall - PSG breaker testing

Chris,

Testing or setting breakers is not part of our scope of responsibilities. Normally this is done by 3rd party testing agency.

Thank you,

Rob

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Wednesday, June 01, 2011 04:41 AM
To: Kim Symons; Rob Mayer
Subject: New City Hall - PSG breaker testing

Kim,

I know there are still issues with Cashman and CAM consulting, but was Cashman going to test the breakers in PSG?

Regards,
Chris Meiers

Carmen Militello

From: Rob Mayer <Robert_Mayer@cashmanequipment.com>
Sent: Monday, May 23, 2011 10:03 AM
To: Chris Meiers
Cc: Kim Symons; Mark Pfeiffer; James Wingard; Richard Christensen; Mike Bellino
Subject: RE: New City Hall - Ready for Fuel

Chris,

I would like to begin to plan for setting up the load bank and cable.

I wanted to place the load bank at the opening of the parking garage and run the cables down the ramp on the far wall all the way down to the PSG. That way the cables would out of way and access would not be blocked. This will require that Mojave gang boxes along the wall be moved out from against wall so we could lay the load bank cables against the basement wall.

I will get with Richard this week to show him what I have in mind.

Thank you,

Rob Mayer
Project Manager
Cashman Power Solutions
3300 St. Rose Parkway
Henderson Nv. 89052
tel 702/326-3693
fax 702/639-5090
rob_mayer@cashmanequipment.com

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, May 23, 2011 9:28 AM
To: Rob Mayer; Kim Symons
Subject: New City Hall - Ready for Fuel

Rob/ Kim,

We are ready for fuel, please arrange to have fuel delivered so preliminary testing and calibrating can be completed for load bank testing.

Thanks,
Chris Meiers

Carmen Militello

From: Richard Christensen
Sent: Monday, May 23, 2011 10:42 AM
To: Rob Mayer; Chris Meiers
Cc: Kim Symons; Mark Pfeiffer; James Wingard; Mike Bellino
Subject: RE: New City Hall - Ready for Fuel

I walked with James this morning with an alternate as well. We have two options we can use, the one I showed James may save you a few hundred feet of cabling. Call if you still want to walk it, I'm always here.

Thanks,
Richard

From: Rob Mayer [mailto:Robert_Mayer@cashmanequipment.com]
Sent: Monday, May 23, 2011 10:03 AM
To: Chris Meiers
Cc: Kim Symons; Mark Pfeiffer; James Wingard; Richard Christensen; Mike Bellino
Subject: RE: New City Hall - Ready for Fuel

Chris,

I would like to begin to plan for setting up the load bank and cable.
I wanted to place the load bank at the opening of the parking garage and run the cables down the ramp on the far wall all the way down to the PSG. That way the cables would out of way and access would not be blocked. This will require that Mojave gang boxes along the wall be moved out from against wall so we could lay the load bank cables against the basement wall.
I will get with Richard this week to show him what I have in mind.

Thank you,

Rob Mayer
Project Manager
Cashman Power Solutions
3300 St. Rose Parkway
Henderson Nv. 89052
tel 702/326-3693
fax 702/639-5090
rob_mayer@cashmanequipment.com

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, May 23, 2011 9:28 AM
To: Rob Mayer; Kim Symons
Subject: New City Hall - Ready for Fuel

Rob/ Kim,
We are ready for fuel, please arrange to have fuel delivered so preliminary testing and calibrating can be completed for load bank testing.

Thanks,
Chris Meiers

Mobile; (702) 205-3311

Email; cmeiers@mojaveelectric.com

Carmen Militello

From: Peter Fergen
Sent: Monday, September 26, 2011 3:42 PM
To: Chris Meiers
Cc: Brian Bugni
Subject: 4024911 - LVCH Generator Startup

I believe we will be opening Mojave and the startup legal issue do undue scrutiny if we have Hampton Tedder terminate the wires – this work is part of Mojave's work scope, and having Hampton Tedder perform the terminations we are crossing the lines of Mojave vs. Cashman's work scope

Also I backed into the Fuel we will need about 1700 Gallons – now that can be 1 fill up with a top off after start up – I will have Roger issue a PO to Pro Fueloil for 1700 gallons – Cheapest Street Diesel is 3.90 per gallon

We also paid for a 2 year warranty – which we will need Gentech to cross Price

From: Roger Cates [<mailto:roger.cates@hamptontedder.com>]
Sent: Monday, September 26, 2011 2:06 PM
To: Chris Meiers
Cc: Peter Fergen; kee.littleman@hamptontedder.com
Subject: RE: LVCH Gen

Kee and I will meet you at 10

Roger Cates
Hampton Tedder -Nevada
Division Manager
702-646-7449 office
702-234-8177 cell

From: Chris Meiers [<mailto:cmeiers@mojaveelectric.com>]
Sent: Monday, September 26, 2011 1:59 PM
To: Roger Cates
Cc: Chris Meiers; Peter Fergen; kee.littleman@hamptontedder.com
Subject: Re: LVCH Gen

No offense taken, I would rather you do it.

Let's meet at 10 with GenTech so we are all on the same page.

Christopher Meiers
Project Manager
Mojave Electric
3755 West Hacienda
Las Vegas, NV 89118
Office: (702) 798-2970
Fax: (702) 798-3740
Mobile: (702) 205-3311
Email: cmeiers@mojaveelectric.com

On Sep 26, 2011, at 1:45 PM, "Roger Cates" <roger.cates@hamptontedder.com> wrote:

I think that if we do it will get done faster.. no offense....Chris, what time do you want to get together tomorrow morning with Kee (and me)

Roger Cates

Hampton Tedder -Nevada

Division Manager

702-646-7449 office

702-234-8177 cell

From: Chris Meiers [<mailto:cmeliers@mojavelectric.com>]
Sent: Monday, September 26, 2011 1:29 PM
To: Roger Cates
Cc: Peter Fergen; Chris Meiers; kee.littleman@hamptontedder.com
Subject: Re: LVCH Gen

Honestly Roger, I would rather have Hampton Tedder just complete the work. I have Gen Tech on site tomorrow at 10 AM to review the mechanical portion.

Christopher Meiers

Project Manager

Mojave Electric

3755 West Hacienda

Las Vegas, NV 89118

Office: (702) 798-2970

Fax: (702) 798-3740

Mobile: (702) 205-3311

Email: cmeliers@mojavelectric.com

On Sep 26, 2011, at 1:17 PM, "Roger Cates" <roger.cates@hamptontedder.com> wrote:

Kee will be onsite tomorrow am to start Punchlist and get Started on Generator.
What is the Plan, are we doing the hook up or will Mojave do the completion?

Roger Cates

Hampton Tedder -Nevada

Division Manager

702-646-7449 office

702-234-8177 cell

Carmen Militello

From: Peter Fergen
Sent: Monday, September 26, 2011 3:58 PM
To: Chris Meiers
Subject: 4024911 - LVCH Generator Startup

When you see Gentech tomorrow please make sure we don't have to the tanks prior to getting them filled up – Buck needs about a days notice before he can fill them – I just don't want him sitting on site if the tanks need to be purged or cleaned before filling them – also are the tanks underground or just the tanks under the generators

Carmen Militello

From: Peter Fergen
Sent: Tuesday, October 11, 2011 7:03 AM
To: Chris Meiers
Subject: 4024911 - New City Hall - Generator Status

See below article on ISO (Intelligent Switchgear Organization, LLC aka CAT Switchgear) — Caterpillar has already told me they will not assist Mojave in any way — Hampton Tedder might have a strong Eaton contact in LA — Eaton in Vegas would have no abilities to assist us. Contact information if you would like to try is below

Intelligent Switchgear Organization, LLC

CAT Switchgear
4955 Marconi Drive
Alpharetta, GA 30005
(770) 442-9442

Caterpillar and Eaton Corporation Announce Joint Venture to Provide Fully Integrated Electric Power



The joint venture will operate under the name Intelligent Switchgear Organization LLC and will be based in Alpharetta, Georgia. The joint venture will capitalize on the strong reputation Caterpillar has developed as a leading provider of advanced generator set control switchgear utilizing PowerLynx(R) technology and on Eaton's strength in the electrical distribution switching market.

"This agreement represents each organization's strong commitment to provide customers with a single source for the best in electric power generation equipment sales and service," commented Jim Parker, Caterpillar vice president for the Power Systems Marketing Division. "This joint venture expands the Caterpillar branded switchgear offering for Caterpillar electric power generator sets into a total systems solution. When these quality components are combined with the Caterpillar dealer reputation for excellence in product support, you have a situation that can't be matched in the electric power generation industry."

The product lines for the joint venture will include paralleling switchgear and automatic transfer switches used for emergency or prime power applications for a wide variety of facilities, ranging from commercial and industrial facilities to utility and generation installations. The product line will carry the Cat brand. The joint venture will sell its products exclusively through the Caterpillar dealer network focused initially in North America, with plans to begin expansion through the global Cat dealer network in 2004.

"Maintaining continuity of power during an outage or peak demand time is critical to our customers," commented Randy Carson, Eaton senior vice president and group executive for Eaton's Cutler-Hammer Group. "This total systems approach offers a single source for design, product support and customer service. Seamless integration of all elements means maximum customer value and assures our customers a quality product and the highest level of long-term, local product support."

The North American markets to be served by the joint venture are approximately \$500 million, with substantial growth expected over the next several years. It is anticipated that the joint venture will be able to capture a significant share of that market, and accordingly, the annual revenues within the next two to three years are expected to be in excess of \$100 million.

Eaton Corporation is a global diversified industrial manufacturer with 2002 sales of \$7.2 billion that is a leader in fluid power systems; electrical power quality, distribution and control; automotive engine air management and fuel economy; and intelligent drivetrain systems for fuel economy and safety in trucks. Eaton has 51,000 employees and sells products in more than 50 countries. For more information, visit www.eaton.com.

For more than 75 years, Caterpillar Inc. has been building the world's infrastructure and, in partnership with its worldwide dealer network, is driving positive and sustainable change on every continent. With 2002 sales and revenues of \$20.15

billion, Caterpillar is a technology leader and the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines and industrial gas turbines. More information is available at www.cat.com.

From: Chris Meiers
Sent: Monday, October 10, 2011 3:27 PM
To: Peter Fergen
Subject: FW: New City Hall - Generator Status

Pete,

According to GENTECH, there is a company called ISO that would be in charge of startup with the PSG. Can you please look into this and get back to me.

Thanks,

*Christopher Meiers
Project Manager
Mojave Electric*

From: Chris Meiers
Sent: Monday, October 10, 2011 3:26 PM
To: Roger Cates; Kirk Wichman
Cc: Peter Fergen
Subject: New City Hall - Generator Status

Roger/ Kirk,

Where do we sit with regards to generator start-up? Please send me a list of outstanding issues that we know of to date. Per our conversation this afternoon, I will see if Pete Fergen can contact ISO with regards to PSG startup. Let me now on the outstanding issues as soon as possible.

Regards,

*Christopher Meiers
Project Manager
Mojave Electric
3755 West Hacienda
Las Vegas, NV 89118
Office; (702) 798-2970
Fax; (702) 798-3740
Mobile; (702) 205-3311
Email; cmeiers@mojaveelectric.com*

Carmen Militello

From: Michael at GEN-TECH <mbonville@gentechus.ccsend.com> on behalf of Michael at GEN-TECH <mbonville@gentechus.com>
Sent: Thursday, December 08, 2011 6:37 AM
To: Chris Meiers
Subject: Batteries for Christmas at GEN-TECH

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**Power Design PRO
Software**

GEN-TECH POWER CONNECTION

Emergency Power News - December 2011

Dear Chris,



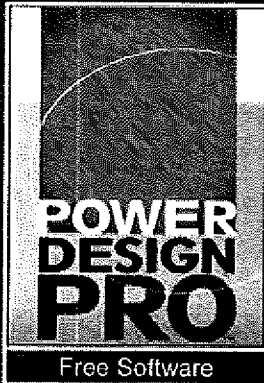
Generators Headed to Outage

Looking back on 2011, the widespread Southwest blackout affected large areas of Southern California as well as western Arizona and Mexico. Beginning Thursday afternoon, September 8, at around 3:30 PM, the cascading failures eventually forced the shut down of the San Onofre nuclear power plant (protecting it from overload), plunging millions of people into darkness.

As the blackout swept across parts of the Southwest and Mexico, which apparently began with a utility worker performing a minor repair, calls to GEN-TECH began coming in around closing time that day. We were asked to deploy an 800kW and a 1mW to Yuma for a large grocery store chain. As well, we sent all generators from our ready line to a mobile phone company in Escondido. Our Technicians and support staff worked throughout the night to deploy several megawatts of various sized Mobil power units to affected areas within hours of the first call. Our commitment to being available 24 hours a day, 7 days a week, was clearly on display that evening.

So while you browse through the latest edition of our Newsletter, let the Great Blackout of 2011 serve as a reminder that GEN-TECH

J56-432



The most powerful electrical and mechanical design and sizing tool on the market, Generac Industrial Power's Power Design Pro has been improved with more added features. This software is a one stop solution center for the consulting engineer. In addition to state of the art generator sizing and analysis, it includes...

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EGSA Certification



EGSA Certification will identify those technicians who not only have a broad knowledge of electricity, mechanical and electrical components and the interaction between them, but are proficient in the installation, service, maintenance, and repair of On-Site Power generation systems.

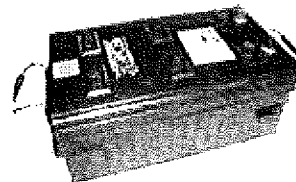
stands ready to keep your power on should utility power fail.

Sincerely,

Michael Bonville
GEN-TECH
800-625-8324

Battery Maintenance and Needs

With Christmas, winter, toys, and a time when battery replacement seems to be a forethought on our minds, I thought it apropos to write an article on battery care and maintenance.



8D Lead Acid Battery

The commercial use of the lead acid battery is over 100 years old. The same chemical principal that is being used to store energy today is basically the same as that which was used in the first Model A Ford.

If you can grasp the basics of battery technology you will have fewer battery problems with your generator and will get better performance, reliability, and longevity.

Analysis of emergency generator set failures shows that battery problems cause at least half of all failures to start. These failures don't need to happen. Generator set maintenance requirements frequently give detailed attention to the engine, the generator, and peripheral equipment but little more than voltage requirements for the starting battery. Reliability of a generator requires a good battery and charger and periodic maintenance. Proper maintenance can prevent almost all battery failures.

Battery failure can be the result of an old battery reaching...
([complete article here](#)).

ASK GT?

Question: I have heard that electricity flows from negative to positive, yet every diagram I see shows it flowing from positive to negative. So, which way do they go?

Answer: When Benjamin Franklin speculated that the direction of charge flow, he set a precedent for electrical theory that exists to this day, despite the fact that we know electrons are the components of current, and that they are displaced from the negative to positive -- not from the positive to negative -- when say two dissimilar materials are rubbed together. This is why electrons are said to have a negative charge: because Franklin assumed electric charge moved in the opposite direction that it actually does, and so objects he called "negative" (representing a deficiency of charge) actually have a surplus of



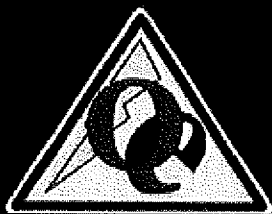
Ask GT a Question!

Our EGSA-certified work force at GEN-TECH shows our customers that our personnel are highly qualified and that our organization is committed to excellence.

Next Issue:

A New Year is just around the corner. What does 2012 hold in store for GEN-TECH and those we serve. Check out our January 2012 Edition and find out.

Quoting Electricity



"All that was great in the past was ridiculed, condemned, combated, suppressed - only to emerge all the more powerfully, all the more triumphantly from the struggle. Let the future tell the truth and evaluate each one according to his work and accomplishments. The present is theirs, the future, for which I really worked, is mine."

--Nikola Tesla

"Power corrupts, and absolute power corrupts absolutely."

--Lord Acton

electrons.

By the time the true direction of electron flow was discovered (nearly 100 years later), the categorization of "positive" and "negative" had already been so well established in the scientific community that no effort was made to change it, although calling electrons "positive" would make more sense in referring to "excess" charge. Franklin could have just as easily referred to a surplus of charge as "green" and a deficiency as "blue," in which case we would be speaking of electrons having a "blue" charge (assuming the same incorrect assumption).

However, because we tend to associate the word "positive" with "surplus" and "negative" with "deficiency," the standard for electron movement does seem backward. Because of this, engineers years ago decided to retain the old concept of electricity. This became known as conventional flow.

At the end of the day; it doesn't matter, really, how we designate current flow in a circuit, so long as we're consistent in the use of the symbols. You may follow an imagined direction of current (conventional flow) or the actual (electron flow) with equal understanding of the circuit.

You may want to consider coming to one of our training seminars or workshops where we cover Circuit Diagrams and how it relates directly to today's power generators. Take a look [here](#) for more information on our classes and dates.

Do you have a question for GT? Submit your question [here](#). We answer every question. With your permission we may publish your question along with our answer in the next issue.

About GEN-TECH

We service equipment, made by every major manufacturer in the engine driven generator business, at locations throughout the United States and around the world. We take great pride in being your single source of responsibility for your emergency systems before and after the sale. We are your full service, one stop, generator system supplier combining sales, service, parts, rental and training under one roof!

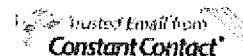
Arizona Generator Technology, Inc.
dba: GEN-TECH
7901 N. 70th Ave.
Glendale, Arizona 85303
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 Constant Contact

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J56-435

MOJ00619
JA 00005066

Carmen Militello

From: Adam Popiel <apopiel@tmcxsolutions.com>
Sent: Thursday, November 03, 2011 3:49 PM
To: Bill Siltman (bsiltman@bombardmechanical.com); Breck Herdeisty (bherdeisty@mojaveelectric.com); cgordon@jbace.com; Clinton Burch (clinton.burch@whiting-turner.com); Chris Meiers; cyril@powersmiths.com; Daniel Beck; David Lee (David.lee@whiting-turner.com); David R. Phillips (davidphillips@forestcity.net); ean@lcelectric.net; elliot.ilyd@whiting-turner.com; Fletcher Bittle (fletcher.bittle@whiting-turner.com); 'Jason Witterman (JWitterman@jbace.com)'; jnoble@nobleconsultingservices.com; jsparks@westarfire.com; Kirk Kaeser (kirk.kaeser@whiting-turner.com); Mario "DINO" Iannucci (dino@bombardmechanical.com); mfritz@westarfire.com; Michael Crowe (mcrowe@JMAarch.com); Michael.Floyd@whiting-turner.com; michael.j.hahn@jci.com; Nancy Briseno-Rivera (nancy.briseno@whiting-turner.com); Phuong Nguyen; Raul Hernandez (raul.hernandez@whiting-turner.com); Richard Christensen; Robert Messiana (Rmessiana@jmaarch.com); sschoch@bombardmechanical.com; steve@powersmiths.com; todd.jones@siemens.com; victor.koger@siemens.com
Subject: CLV City Hall Life Safety Meeting Minutes
Attachments: CLV CH Life Safety Issues Log - issue date 2011-11-03.pdf; 2011-11-01 - LV City Hall Life Safety Meeting Minutes.pdf

All:

The updated meeting minutes and current IR log are attached from this week's meeting. Please advise if there are any corrections or additions.

Sincerely,

Adam Popiel, EIT



www.tmcxsolutions.com

5575 S. Durango Dr, Ste 102

Las Vegas, NV 89113

Office: 702-252-7232

Cell: 702-604-5952

Fax: 702-252-7234

apopiel@tmcxsolutions.com

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Issues and Resolution Log



Date: 11/3/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/ System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
1	3/4/2011		Basement	Stair 3a	Stair 3a, basement level, there are multiple utilities passing through the area that will be the vestibule. Although the construction is incomplete, it does not appear that there will be a way to shaft or isolate these conduits from the stair and vestibule. 4/13/2011: A rated ceiling has been added to the vestibule of stair 3a on the basement level, excluding the utilities from the vestibule. The stair has not yet been completed to exclude the utilities. They are still visible from inside the stair. 5/10/2011: The remaining drywall in stair 3a will be completed with the exterior envelope 9/13/2011: Scheduled to be complete this week 10/21/2011: There is currently an access door installed in the rated ceiling of stair 3a in the basement to access a junction box. This needs to be a rated door at minimum based on discussions with the CLV inspector however WT will look at relocating the junction box and eliminating the access door entirely.	Open	W-T
6	3/4/2011		Stair 2	Penetrations	Stair 2, Level 1, there are multiple conduits and utilities passing through the stair large vestibule that do not serve the stair 4/13/2011: Reviewed the ceiling for the vestibule in stair 2, level 1. The current "armstrong ceiling system" does not appear that it is going to be rated. 5/10/2011: Contractor reports that a hard lid has been installed in the vestibule on level 1, stair 2. Need to verify that the ceiling is rated to exclude the utilities above. 6/14/2011: There is now a ceiling installed in the Stair 2, level 1 vestibule however is does not appear to be rated. A rated ceiling is required due to the utilities located above 10/21/2011: A rated ceiling is installed in stair 2, level 1 however access is currently required above the ceiling for a damper and utilities. Based on discussions with the CLV inspectors, a rated access door is scheduled to be installed however WT will look at providing access from other areas.	Open	W-T
7	3/4/2011		Zone 1W	Boundary Walls	The zone boundary walls at tape storage 1096 and womens restroom 1085 are not full height and work appears to be complete. This area is shown as the smoke zone boundary between 1W and 1N 4/13/2011: Walls have now been extended to full height in the area of the restrooms between zone 1W and 1N. The error was a result of a discrepancy between the architectural drawings and the smoke control drawings. Penetrations and ductwork still need to be sealed. TMCx will check the boundaries during smoke zone inspections. 10/19/2011: WT and TMCx reinspected the tape storage room 1096 but found that there were still outstanding issues. 10/21/2011: There are still gaps around the ductwork above the tape storage room and several pieces of unistrut that penetrate the smoke boundaries that are not sealed.	Open	TMCx to Verify

J56-437

Project No 95011

Page 1 of 5

Issues and Resolution Log



Date: 11/3/2011

Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/ System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
11	4/12/2011		Level 2	Boundary Walls	The smoke zone boundary walls in the area of Mens Restroom 2058, Janitor 2058A and Mens Restroom 2060 on the second floor do not appear to be constructed as smoke zone boundary walls. 9/13/2011: WT noted that this is CR work due to discrepancy between Arch and SCDs. Work being scheduled	Open	W-T
14	4/12/2011		Level 1	Sprinkler drawings	The sprinkler zoning shown on the shop drawings is shown incorrectly in the area of restrooms 1084 and 1085 on level 1 and along the boundary of the council chambers on level 2. Sprinkler zoning has been verified to correctly correspond to the smoke control drawings 5/10/2011: The area of the restrooms 1084/1085 may have been updated on the revised smoke control drawings. TMCx to reverify	Open	TMCx to Verify
16	8/5/2011		Basement	Penetrations	There is what appears to be a temp power cable in the Emergency Electrical Room 0029. Wires are cut on the garage side and firestopped however the elec room side is not. If firestopping method does not require both membranes be sealed, no correction is necessary.	Open	
21	8/16/2011		Level 5	Shaft Wall	The shaft wall near FSD-501 (Level 5, NW) has been cut into and not repaired. Appears an access door will be installed. Ensure rated door is utilized. 9/13/2011: Bombard noted that the damper needed to be relocated in this area. Work in progress 10/25/2011: Drywall patch has been completed however the seal to the I-beam at the top of wall is not complete	Open	W-T
23	8/16/2011		Basement	Penetrations	There is an exhaust vent serving sewage ejector pump room 0025 that also serves the basement restrooms (0037 & 0038). These areas are in separate smoke zones and there is no fire smoke damper located at the boundary. 9/13/2011: Last communication with JBA indicated that an additional fire smoke damper will be required for the duct 10/25/2011: The Delta 20 smoke control drawings now indicate that a FSD will be provided at the sewage ejector pump room 0025. The damper is identified as FSD-004. Issue pending installation of damper.	Open	Bombard
24	8/16/2011		Basement	Penetrations	The 5 inch drain pipe in the East wall of the sewage ejector pump room is not sealed. This is the smoke zone boundary as shown on the smoke control diagrams.	Open	
26	9/14/2011		Mechanical Rooms	Penetrations	Chilled and hot water risers need to be firestopped between floors in the mechanical rooms. Levels 6, 5 & 4 are not complete 10/25/2011: Work has not started yet on the firestopping for the chilled and heating water risers.	Open	
27	9/14/2011		Mechanical Rooms	Penetrations	There is a single cored hole in the mechanical rooms with an orange conduit passing through. The penetration is not sealed on levels 6, 5 & 4. 10/25/2011: Level 7 mechanical room should be included in issue 27 for the cored holes	Open	

Issues and Resolution Log



Date: 11/3/2011

Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
28	9/14/2011		Electrical Rooms	Elec Buss Duct	The buss duct running through the tower electrical rooms is protected by metal flashing at the floor penetrations however it is not provided with any sealant or backing material to resist the passage of smoke. Need to confirm what the proper installation method is. This affects multiple levels 10/21/2011: TMCX verified that the buss duct in the tower electrical rooms is now sealed from level 3-4 and from 4-5. Other levels need to be verified 10/25/2011: Reinspected the buss duct from level 5 through 7 where it terminates and confirmed that the floor penetrations are firestopped. At this time, the termination of the duct on level 3 is not firestopped where the duct transitions to the 4" conduits.	Open	
30	9/14/2011		Elev Lobby 6035	Penetrations	The firestopping is damaged on multiple penetrations to elevator lobby 6035 (elev 6) on level 6 on the South wall. It also appears that the drywall was patched on the West wall and may not be taped as required	Open	
31	9/14/2011		TelCom/Data Rooms	Penetrations	There are multiple areas where telecom/data rooms are stacked and large numbers of 4" sleeves extend between smoke zones. These sleeves are sealed to the slab but the unused space in the conduits will need to be sealed once the cable has been pulled. Example, TeleCom 5034, 3044, etc	Open	
35	9/14/2011		Mech 3035	Penetrations	Seal the unused holes in the floor in mechanical room 3035 on level 3 in the NW corner. Note that the penetrations are covered by plywood	Open	
36	9/14/2011		Mech 3035	Penetrations	Seal the 6" unused hole in the floor located behind the air handler unit	Open	
37	9/14/2011		Lobby Glass Lvl 3	Inspection Item	Lobby glass installation is incomplete on level 3. The seal between the sides of the aluminum frames are not sealed to the adjacent construction. 10/21/2011: Lobby glass installation on level 3 is proceeding however all of the seals are not complete for inspection	Open	
38	9/14/2011		Level 3	Penetrations	There is a stud above the lobby glass on level 3 that is not sealed. Location is approximately gridlines J and EE 10/21/2011: Reinspected the stud above the glass wall at gridlines J and EE (outside the passenger elevator lobby) on level 3 but found that it was not yet sealed.	Open	
39	9/14/2011		Level 3	Penetrations	There is a hole cut in the rated wall in large conference room 3022. 10/21/2011: The hole in the rated wall of large conf room 3022 has not been sealed yet, work is in progress.	Open	

J56-439

Project No 95011

Page 3 of 6

MOJ00623

JA 00005070

Issues and Resolution Log



Date: 11/3/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
40	9/14/2011		Level 3	Dampers	There does not appear to be a way to access damper FSD-302 in open office 3011 for inspection/servicing	Open	Bombard
41	9/14/2011		Level 3	Inspection Item	10/21/2011: The drywall at damper FSD-302 has been trimmed away to allow better access however the access to view and service the damper blades through the duct is by a piece of sheet metal taped to the duct. Need a permanent means of accessing and servicing the damper. The zone boundary in on the north wall of open office 3011 is incomplete for inspection.	Open	
43	9/14/2011		Level 2	Inspection Item	10/21/2011: Glass has been installed on the north wall of open office 3011 as part of the smoke boundary but installation is not complete for inspection. Zone boundary between gridlines E and F along grid 4 is incomplete for inspection. This is the boundary between 2W and Lobby	Open	
46	9/14/2011		Level 2	Penetrations	Seal holes in the floor of 2nd floor electrical room 2029. Noted holes by transformer and by Strand Lighting panel	Open	
47	9/14/2011		Level 2	Penetrations	Seal holes in the wall between the council chambers and security 2044 on level 2, inside the access panel.	Open	
48	9/14/2011		Level 2	Inspection Item	The council chamber wall is incomplete and firestopping has not been completed across most of the length of the 2nd floor lobby.	Open	
49	9/14/2011		Level 2	Walls	There is a piece of drywall missing at FSD-216 on the inside of the KCLV control room next to the elevator. Piece missing is only a couple inches wide but there appears to be an incomplete seal between the damper and wall	Open	
50	9/14/2011		Level 2	Zone Boundary	10/21/2011: The drywall at FSD 216 has not yet been repaired. The KCLV Control Room 2048 on level 2 is shown as part of the zone boundary between the lobby and 2N zones. The area above the control room appears to be open between zones. Need to confirm if construction is complete in this area	Open	
52	9/14/2011		Level 2	Dampers	10/21/2011: Reinspected the KCLV control room and confirmed with WT that no additional construction was planned in the area. There is still no separation above the ceiling at the smoke zone boundary as shown on the SCDs. The gap in the drywall around FSD-214 exceeds the manufacturers allowable. Drywall needs to be repaired/replaced	Open	
53	9/14/2011		Level 2	Inspection Item	The zone boundary between 2E and the Lobby is incomplete and will need to be inspected at a later time. 10/21/2011: Installation of the panels on the smoke boundary on level 2 at the lobby is proceeding but is not complete for inspection yet.	Open	

J56-440

Project No 95011

Issues and Resolution Log



Date: 11/3/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
57	9/14/2011		Level 1	Inspection Item	Construction is incomplete in the area of reception 1111 and corridor 1008 (between zone 1N and Lobby) and between Lobby and Corridor 1143 (Lobby and zone 1E)	Open	
58	9/14/2011		Level 1	Construction	The construction of the zone boundary in the area of edit #1 and 2 (rooms 1098 and 1099) on level 1 appears to utilize a soffit around the ductwork passing through the area. There appears to be a rated access panel missing in this area and some penetrations to seal	Open	
59	9/14/2011		Level 1	Penetrations	There are unsealed penetrations in tape storage room 1096 on level 1 above the ceiling	Open	
62	10/21/2011		Level 1	Penetrations	There is an unsealed condensate line in the N wall of electrical room 1006 by elev 5 on level 1. There is also a hole in the S wall at floor level that needs to be repaired.	Open	
63	10/25/2011		Level 8	Penetrations	Level 8 Boiler Room, firestop hole under Panel P-2 - Hot Water	Open	
64	10/25/2011		Level 8	Penetrations	Level 8 - Room with SCF-2 (West of Elev 5 lobby) seal copper tubing penetration through floor (appears to be a trap primer)	Open	
65	10/25/2011		Level 3	Penetrations	There are 2 plywood covers, one on either side of FSD-801 on level 8. Need to verify penetrations are sealed under plywood.	Open	
66	10/25/2011		Level 8	Penetrations	Level 8 Electrical Room 808, seal hole in floor at the "SatCon" unit. Also, data sleeves will need to be sealed once cables are pulled.	Open	
67	10/25/2011		Level 8	Penetrations	Level 8 by EC-1, seal copper tubing penetration through floor. Appears to be a trap primer.	Open	
68	10/25/2011		Level 8	Penetrations	Level 8 by EC-1, seal vent line floor penetration	Open	
69	10/25/2011		Level 8	Penetrations	There is a green conduit that penetrates the stair vestibule on level 8 multiple times that needs to be sealed.	Open	
70	10/25/2011		Level 7	Penetrations	Level 7 passenger elevator lobby (4-pack) seal orange conduit above the lobby doors on the outside of the lobby.	Open	
71	10/25/2011		Level 7	Penetrations	Level 7, electrical room 7030B, repair firestop at orange conduit to thermostat through floor.	Open	
72	10/25/2011		Level 8	Penetrations	Level 8 inside stairway, seal the sprinkler line penetration above the vestibule door.	Open	
73	10/25/2011		Level 6	Penetrations	Level 6, Elec Rm 6069 need to verify that any penetrations under plywood are sealed	Open	
74	10/25/2011		Level 3	Penetrations	Level 3, passenger elevator lobby (4-pack) repair firestop at yellow conduit on back wall. Conduit has been pulled away from the wall.	Open	

J56-44

Project No 95011

Page 5 of 6

MOJ00625

JA 00005072

Issues and Resolution Log



Date: 11/3/2011
Project: CLV City Hall MQAA

Issue #	Issued Date	Date Resolved	Area/ System	Equipment ID	Description of Issue/Activity on Issue	Status	Responsible
75	10/25/2011		Level 5	Penetrations	Level 5, passenger elevator lobby (4-pack) seal flex conduit penetration on outside wall of lobby above doors AND seal fire alarm penetration on the inside of the lobby above the doors.	Open	
76	10/25/2011		Vanos	Smoke Dampers	Need to verify that the out-of-wall installation of the smoke dampers is acceptable	Open	
77	10/25/2011		Level 2	Penetrations	Level 2, passenger elevator lobby (4-pack), need to repair the firestopping at the dual 2" conduits on the North wall, inside lobby.	Open	

J56-442

Project No 95011

Page 6 of 5

MOJ00626

JA 00005073

Life Safety Meeting



Issue Date:	11/3/2011	Prepared By:	Adam Popiel
Project:	CLV City Hall MQAA	Location:	W-T Jobsite Trailer
Meeting No:	12 (held on 11/1/2011)	Time:	9:00

NOTICE TO ALL PRESENT: IF ANY OF THE FOLLOWING ITEMS ARE INCORRECT OR FAIL TO RECORD DISCUSSION AT THE MEETING, PLEASE CONTACT PREPARER IMMEDIATELY.

Attendance (for Meeting #12 held on 11/1/2011)

Present	Name	Company	Business Phone	Cell Phone	Email Address
☐	Steve Aguirre	POWER SMITHS	602-361-8408		steve@powersmiths.com
☐	Al Angulo	Johnson Controls, Inc.	510-512-0253		
☐	Daniel P. Beck	JBA	362.9200		dbeck@jbace.com
☐	Ryan Binette	Precision Air Balance Co., Inc	279-1267		Ryan@precisionairbalance.com
☐	Fletcher Bittle	Whiting-Turner Contracting Company	925-485-0800		fletcher.bittle@whiting-turner.com
☐	Nancy Briseno	Whiting-Turner Contracting Company	702-650-0700		nancy.briseno@whiting-turner.com
☐	Adam Brown	Bombard Mechanical	491-4073		
☐	Clinton Burch	Whiting-Turner Contracting Company	702-296-3305		clinton.burch@whiting-turner.com
☐	Richard Christensen	Mojave Electric	702-205-3313		rchristensen@mojaveelectric.com
☐	John Claudio	Siemens Building Technologies, Inc.	308-9349		John.Claudio@Siemens.com
☒	Richard Colletti	Bombard Mechanical	491-4073		
☐	Michael Crowe	JMA Architects	(702) 731-2033	(702) 249-0706	mcrowe@jmaarch.com
☐	Cyril Eldridge	POWER SMITHS	416-951-1010		cyril@powersmiths.com
☒	Charles Flood	TMCx Solutions, LLC	702-577-3632	702-277-1265	cflood@tmcxsolutions.com
☐	Michael Floyd	Whiting-Turner Contracting Company	702-604-7424		michael.floyd@whiting-turner.com
☐	Mike Fritz	Westar Fire Protection, Inc	702-445-4018		mfriz@westarfire.com
☐	Clinton Gordon	JBA	(702) 362-8200		cogordon@jbace.com
☐	Michael Hahn	Johnson Controls, Inc.	414-870-1789		michael.j.hahn@jci.com
☒	Eric Helley	Bombard Mechanical	872-2181		
☐	Breck Herdeisty	Mojave Electric	702-798-2970	702-205-3316	bherdeisty@mojaveelectric.com
☒	Raul Hernandez	Whiting-Turner Contracting Company	702-296-3291		raul.hernandez@whiting-turner.com
☐	Dino Iannucci	Bombard Mechanical	702-400-0749		dino@bombardmechanical.com
☐	Carolyn Johnson	TMCx Solutions, LLC	(702) 577-3619	(702) 540-0371	cjohnson@tmcxsolutions.com
☐	Todd Jones	Siemens Building Technologies, Inc.		702-249-6259	todd.jones@siemens.com
☒	Kirk Kaeser	Whiting-Turner Contracting Company	949-279-7236		kirk.kaeser@whiting-turner.com
☒	Victor Koger	Siemens Building Technologies, Inc.	702-237-2110		victor.koger@siemens.com
☒	Dave Lavery	Westar Fire Protection, Inc	702-334-6295		david.leu@whiting-turner.com
☐	David Lee	Whiting-Turner Contracting Company	702-296-3299		david.lee@whiting-turner.com
☐	Elliott Lloyd	Whiting-Turner Contracting Company	702-604-3591		elliott.lloyd@whiting-turner.com
☒	Chris Meiers	Mojave Electric	702-205-3311		cmeiers@mojaveelectric.com
☐	Robert Messina	JMA Architects	(702) 731-2033	702-582-0281	rmessiana@jmaarch.com
☒	Phuong Nguyen	Siemens Building Technologies, Inc.	702-855-6300	702-858-4569	phuongnguyen@siemens.com
☒	Joe Noble	Noble Consulting Services	702-221-1037		jnoble@nobleconsultingservices.com
☐	Charles Ochs	TMCx Solutions, LLC	702-325-5693		
☒	Mike Perkins	Precision Air Balance Co., Inc	702-706-2990		
☐	Scott Petrocco	Mojave Systems	702-434-2741	702-493-4744	davidphillips@forestcity.net
☐	David Phillips	Forest City Commercial Group	702-434-2741		
☐	Scott Schoch	Bombard Mechanical	491-3999		sschoch@bombardmechanical.com
☐	Bill Siltman	Bombard Mechanical	702-872-2395		bsiltman@bombardmechanical.com
☐	Jason Sparks	Westar Fire Protection, Inc.	702-296-7304		jsparks@westarfire.com

Ean Tucker	L C Electric	702-872-8127	ean@lcelectric.net
Jason Witterman	JBA	702-362-9200	Jwitterman@JBACE.com

Meeting Minutes

Old Business

Item: 1.5 Date Submitted: 1/11/2011 Responsibility: Siemens Building Technolo Active

Topic: Self Test Feature

- 1/11/2011 The FPR requires a self test be provided for the smoke control system. TMCx recommends consulting the City of Las Vegas Fire & Rescue/FPE to determine what the requirements will be. The City of Las Vegas has not required this feature in the past.
- 2/8/2011 Discussed self test feature. As this requirement has not historically been enforced, TMCx recommended contacting the City to ensure what is going to be provided meets their expectations.
- 3/8/2011 No update
- 4/12/2011 Siemens has verbal confirmation from the FD that the self test is required. They will put together a narrative describing the operation of the system for review by the fire department. TMCx can include narrative with the test plan
- 5/10/2011 Need to confirm with Siemens whether this has been completed
- 6/14/2011 Siemens will put a narrative together next week for the City to review
- 7/12/2011 Siemens provided brief narrative to TMCx. TMCx will request input from the City prior to submitting Test Plan.
- 8/9/2011 TMCx will check with the City prior to inclusion with Test Plan
- 9/13/2011 TMCx planning on meeting in the next couple weeks with CLVF&R
- 10/11/2011 TMCx met with Ken Miller several weeks ago and has a follow-up email in to Ken. Waiting on a response
- 10/25/2011 TMCx met with Ken Miller yesterday and he had no issues with the self test as described in Siemens' outline
- 11/1/2011 Siemens has no issues with the self test.

Meeting Minutes

Item: 1.6

Date Submitted: 1/11/2011

Responsibility: JMA Architects

Active

Topic: Smoke Control Drawings/Matrix

- 1/11/2011 Smoke zone boundaries have been modified which will affect sprinkler and fire alarm zones. Drawing update has not been submitted to the City of Las Vegas for approval yet.
- 2/8/2011 Smoke zone boundaries have been revised however there are several damper locations that need to be coordinated and revised on the drawings for the council chambers. Revised drawings expected this week and will be submitted to the City for approval
- 3/8/2011 Revised drawings have been prepared by JBA, waiting on review by JMA and revision number. Question was asked if SCDs will be a stand alone set.
- 4/12/2011 Bulletin 6 has updated smoke zone boundaries
Bulletin 9 has removed several fire smoke dampers.
W-T will confirm whether revisions have been approved by the City.
Drawings are available on JMA FTP site.
- 5/10/2011 Revised smoke control drawings were approved yesterday. Should be available for download on FTP site once scanned. TMCx will review
- 6/14/2011 TMCx noted that the most recent drawings on the JMA site are the Bulletin 6, not Bulletin 9. WT will confirm whether there is a more recent set.
TMCx will need approved copies showing the City Review stamp before testing begins.
- 7/12/2011 No Update
- 8/9/2011 SCDs have been reviewed and coordinated with the latest MEP revisions. WT expects to receive them by the end of this week and they will be submitted to the City at that time. Smoke zone boundaries are being updated to match the FPR.
- 9/13/2011 TMCx received revised smoke control drawings on 8/20/11 from WT. Requested update whether these drawings have been approved by the City and a copy for records. WT will investigate. It was also noted that a subsequent of the drawings has taken place. WT will confirm and distribute them for review.
Noted that there are 2 items to be discussed today that affect the SCDs; added FSD in the sewage ejector pump room and the roll down door at the electrical room. See updated for those specific items in meeting minutes/IR log.
- 10/11/2011 -SCDs and FSCP are approved. TMCx requested a copy of the approved drawings
- See item 7.4 for discussion on basement roll down door
-Noted during the meeting that TMCx did not think the added damper at the pump room was shown on the most recent drawings. TMCx and JBA confirmed after the meeting that it was
-Bombard has 3 FSDs that are not currently shown on the SCDs. Will provide list
-It was requested that all issues with the smoke control drawings be brought forward asap so the revisions can be made.
-JBA will plan on submitting the final revision approximately 3rd week of November.
- 10/25/2011 -Scans of approved drawings will need to be through JMA. Need to check if the approved plans have been scanned yet.
-Bombard forwarded list of dampers not on SCDs to Elliott for review
-No new items on the SCDs have been noted
- 11/1/2011 Need to check with Elliot on status of drawings & list of dampers not on SCD's.
- 11/1/2011 Mojave needs latest approved architecture drawing to submit to Siemens for graphic panel face plate revisions.

Meeting Minutes

Item: 1.10 Date Submitted: 1/11/2011 Responsibility: Whiting-Turner Contracting Active
Topic: Schedule Updates

- 1/11/2011 W-T will send out milestone dates
- 2/8/2011 WT had 4 week look ahead available at the meeting, will send to TMCx via email. Substantial completion by Jan 2012
- 3/8/2011 W-T will send out schedule updates and add TMCx to weekly distribution list
- 4/12/2011 TMCx has not been receiving schedule updates. Next 2 weeks are focusing on startup of the level 8 central plant.
- 5/10/2011 WT is finalizing revised schedule. Will add TMCx to sub distribution list.
- 6/14/2011 TMCx did not make it on to distribution list last month. WT will add.
- 7/12/2011 No update
- 8/9/2011 Noted that TMCx is not receiving the schedule updates.
Noted that ceiling installation is a point where TMCx should be notified so that smoke zone boundaries can be inspected.
- 9/13/2011 TMCx received 4 week look ahead schedule. Noted that ceiling installation progressing floors 1-6, smoke zone boundary inspections to continue.
Generator startup scheduled for 1st week of October
- 10/11/2011 -WT clarified that building turnover is January 4th, not substantial completion
-Functional testing scheduled to begin Dec 1
-Siemens pretesting starting by 11/7, complete by 11/30
-FSDs scheduled to be complete and operational by 11/3, All fans started up and operational by 11/11
- 10/25/2011 All dates noted at the last meeting are still current.
- 11/1/2011 Still on schedule.

Item: 2.2 Date Submitted: 2/8/2011 Responsibility: Active
Topic: 2nd floor stair vestibule dry system compressor

- 2/8/2011 A dry system compressor and riser is scheduled for the stair vestibule on level 2. WT has verbal sign off from Ken Miller on this however does not have BD approval yet. BD will be on site and this item will be reviewed with the inspector
- 4/12/2011 Believe this item to be closed. W-T to confirm signoffs by Fire. Building department sign off is in hand.
- 5/10/2011 WT will confirm with Fire
- 6/14/2011 Field inspector (Drake) did not originally have any issues with location however when it was confirmed with the supervisor staff, the location was not acceptable. Westar will verify with inspector. Compressor may be relocated to the mechanical room.
- 7/12/2011 Compressor will not be within vestibule. Will either utilize existing compressor in mechanical room or add 2nd compressor.
- 8/9/2011 Dry system compressor has been removed from stairs, not yet relocated to mechanical room 6. Mojave/WT looking into the electrical drawings to see if they show the correct locations for all compressors.
- 9/13/2011 It was confirmed that all systems are now shown on drawings and direction has been provided for relocating compressors. Westar will confirm if there are any outstanding items before item is closed.
- 10/11/2011 -A circuit is needed for Level 8, east wall for the compressor in that location
- 10/25/2011 -RFI will be sent today for circuit.
-WT will confirm with Westar if there are any other issues
- 11/1/2011 Mojave received the answer to the RFI on 10/31/11 and are installing the circuits now.

Meeting Minutes

Item: 2.3 Date Submitted: 2/8/2011 Responsibility: Whiting-Turner Contracting Active
Topic: Damper access in council chambers

2/8/2011 Damper locations in council chambers may require some alternate access due to location. WT looking at providing a ladder accessible platform
3/8/2011 Access platform is under review, access may be from the roof
4/12/2011 Confirmed access platform is approved with access from roof. Work is proceeding on installation.
5/10/2011 Correction, work is waiting on owner approval to begin.
6/14/2011 Platform and roof hatch installed, ladder installation pending
7/12/2011 Ladder installation still pending
8/9/2011 Ladder is reported to be installed, WT will follow up
9/13/2011 Ladder is confirmed to be installed. WT will bring CLV inspectors to the area to ensure there are no issues before item is closed.
10/11/2011 Building department is requiring a second ladder and grating to be installed
10/25/2011 Material procurement in process. Approx 2 weeks for completion
11/1/2011 On going, should be complete in another week.

Item: 7.3 Date Submitted: 7/12/2011 Responsibility: Active
Topic: Access panels in stairs

8/9/2011 TMCx noted during site walk last week that there are 2 locations where access doors are cut in in stair vestibules or stairs. Stair 3A, basement and Stair 2, level 1. Access doors for utilities that do not serve the stair are not permitted by code. If they must be provided, approval will be needed from the City.
9/13/2011 WT confirmed with the CLV Building Inspector that the installation of rated access panels in the stairs and stair vestibules as noted is acceptable.
TMCx will add this to the Test Plan so that written record exists
10/11/2011 TMCx will review the level 1 access panels in stair 2 with JBA after the meeting
10/25/2011 -WT will look at the two locations after the meeting to review alternatives.
-TMCx noted that the damper access in stair 2, level 1 is to the storage room adjacent to the stair.
11/1/2011 WT removing access door in the stairwell and relocating in room adjacent to the stairwell, not complete yet.

Meeting Minutes

Item: 8.3 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Fire Alarm Status/Pretesting

- 8/9/2011 Scheduled items: Point-to-point and other preliminary testing will begin early October. Fire alarm scheduled to be complete Oct 20th. Full system pretesting to start early November.
- 9/13/2011 On schedule
- 10/11/2011 -No pretesting or point to point started yet, system wiring and device installation is incomplete
 -1st floor is lagging behind other areas due to construction. Siemens/Mojave are waiting until the majority of the devices on a loop are installed before powering up the loop to minimize troubles on the system.
 -Noted that the 1st floor loop includes the basement and affects the monitoring of equipment in the fire pump room. It was requested that if the 1st floor devices can be expedited to allow the full testing of the fire pump and appurtenances.
 -main FACP is being built now, will be ready next week
- 10/25/2011 -Mojave noted that the system is still incomplete in various areas due to construction. FA is complete in all areas construction is complete.
 -Basement is mostly complete, moving focus to level 1
 -Elec room 1006 smoke detector is inaccessible
 -WT noted that the outstanding questions that had been holding up finish installation have been answered and the installation will be moving forward
 -Main FACP complete this week
- 11/1/2011 Main FACP complete end of this week, 11/4/11, Siemens is in the process of completing installation.
- 11/1/2011 Fire alarm final is scheduled for 12/23/11 and testing with the fire department is scheduled for 12/19/11 through 12/23/11.
- 11/1/2011 Elec room 1006 smoke detector is inaccessible, WT is working on a resolution.
- 11/1/2011 Mojave needs finished walls and ceilings to complete installation of fire alarm devices. WT working on getting them finished.

Item: 8.4 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Firefighters Smoke Control Panel

- 8/9/2011 Noted that the revised smoke control drawings were necessary to finalize the smoke control panel design and submit to the City for approval. This is a critical item due to the review time of the SCD's, submission and approval of the smoke control panel and fabrication time.
 TMCx offered to complete a courtesy review before submission
- 9/13/2011 Panel ordered and fabrication underway. Scheduled to ship on the 15th with 3-4 days of transit time.
 Siemens will send approved FSCP design to TMCx for record.
- 10/11/2011 FSCP is on site and installed
- 10/25/2011 -New background for FACP is ordered to match current building layout. 1-2 weeks for replacement
- 11/1/2011 New background has not been ordered, Mojave is waiting for latest approved architecture drawings to submit to Siemens.

Item: 8.5 Date Submitted: 8/9/2011 Responsibility: Active

Topic: Smoke Zone Boundary inspections

- 8/9/2011 TMCx began smoke zone boundary inspections in the basement last week before ceiling tiles were dropped. TMCx asked to be kept in the loop on the ceiling tile schedule so that we can stay ahead. All firestopping should be complete before the inspections.
- 9/13/2011 TMCx will be on site tomorrow to continue inspections.
- 10/11/2011 Ongoing, upper floors are ready for inspection. TMCx to schedule
- 10/25/2011 TMCx will revisit IR log items and remaining floors after the meeting
- 11/1/2011 WT working on issues, TMCx to verify.

Meeting Minutes

Item: 9.3 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Smoke Control Test Plan

- 9/13/2011 TMCx has started the Test Plan, will provide draft copy for review prior to submitting to the City.
- 10/11/2011 Will distribute test plan and scenarios by next week.
- 10/25/2011 TMCx will distribute draft scenarios this afternoon for comments. Request any comments by Friday so they can be incorporated into the test plan for submission to the CLVF&R
- 11/1/2011 TMCx completed draft of test plan and sent for peer review. Joe Noble requested a copy of the test plan.

Item: 10.3 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Comfort Balance

- 10/11/2011 PABCO reports that the comfort balance is approximately 75%. Ceiling completion is the biggest issue for balance. Trouble areas are the council chamber and the area at the passenger elevators. Noted that none of the air handling systems are 100%
- 10/25/2011 -PABCO noted a correction from last week's minutes, VAVs are approximately 75% complete.
-Noted that completion of balance for the systems will require construction to be complete for removal of pre-filters
-PABCO expects to be mostly complete with the VAVs by the end of the week and moving on to water system balance.
-Should be able to complete the basement and floors 3-7 on a flood-by-floor basis.
- 11/1/2011 Complete with VAV boxes with the exception of unfinished areas, WT will be complete with those areas in 2 weeks so PABCO can complete.
- 11/1/2011 PABCO is still on schedule to complete TAB by end of November. They requested that fire alarm testing not interfere with TAB by shutoff air handlers and closing FSD's. Siemens stated that they there not going to shutoff air handlers or close FSD's during their testing.
- 11/1/2011 TAB is complete for the council chambers.
- 11/1/2011 TAB for water is starting 11/7/11 on second shift and should be complete in 2 weeks.

Item: 10.4 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Duct Smoke Detector Testing

- 10/11/2011 Comfort balance needs to be complete to read minimums and maximums on sampling tube detectors.
Bombard believes that most of the detectors at the FSDs are in duct smoke detectors. These will not require certification by the air balancer.
- 10/25/2011 Pending system balance. TMCx noted that we can test the functional component of the detectors separately from the DP verification if necessary in the schedule
- 11/1/2011 Should be ready for testing first of December.

Item: 10.5 Date Submitted: 9/13/2011 Responsibility: Active

Topic: Smoke Control TAB setup

- 10/11/2011 -PABCO is planning on approximately 7 days to set up the smoke exhaust system.
-Schedule has TAB complete by 12/5
- 10/25/2011 All fans except basement SCF have been bumped
- 11/1/2011 Need SCF above the council chambers bumped, should be ready by 11/11/11.
- 11/1/2011 Bombard needs to install the louvers and they will need to be painted, discussing this with WT.

Meeting Minutes

Item: 10.6 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Exhaust Method Verification

- 10/11/2011 Fire protection report specifies that the exhaust for the lobby zone must be read from within the zone. The design of the exhaust openings and the ceiling height will make this problematic. TMCx and JBA will discuss to see if there are any alternate methods that can be used.
- 10/25/2011 TMCx discussed verification with Ken Miller and confirmed that he will accept alternate means of measuring the exhaust. TMCx will evaluate options.
Also confirmed that we will not have to verify make up air quantity for the lobby zone but we will need to read pressure differentials to confirm the space is at least slightly negative to the adjacent zones. TMCx will detail in test plan
- 11/1/2011 TMCx and Bombard to verify points to measure DP's before next meeting.

Item: 10.7 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Door Fan Testing

- 10/11/2011 Several of the passive areas will require door fan testing. Some of this will overlap with the integrity testing for the clean agent systems. TMCx will provide list of proposed rooms with the test plan.
- 11/1/2011 Draft test plan submitted for peer review. WT to confirm rooms that are listed to be tested are ready.

Item: 10.8 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Stair door unlocking

- 10/11/2011 -It was noted that the current specification for the stair door locking hardware calls for fail secure hardware which is not permitted on the stair doors. WT to follow up with RFI
-Mojave noted that there is not a provision on the smoke control panel for stair door unlocking and the wiring configuration of the security hardware may not allow selective unlocking of the stair doors only.
- 10/25/2011 -Last week's discussion was partially incorrect. The hardware schedule does specify that certain lock sets are to be fail safe. There is a "FS" designation provided in the description.
-There will be a meeting today to discuss the power supplies for the doors.
- 11/1/2011 Electric locks fail "unlocked" per the specifications and they need to "unlock" by a fire alarm and power failure.

Item: 10.9 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Fire Pump and ATS Status signals to main switchgear

- 10/11/2011 System calls for monitoring of the fire pump ATS and fire pump run status as part of load shedding of non-critical loads. These inputs need to be provided to the PSG. Unsure at this time where these status points can be pulled from
- 10/25/2011 No Update
- 11/1/2011 Mojave will verify during load bank testing, which is scheduled for today, 11/1/11. TMCx needs copy of load bank testing.

Item: 10.10 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Generator Status/Shunt Trip

- 10/11/2011 -Noted that there is an issue with manufacturer support on the generator that is hampering efforts to complete the system. The generator is able to run in auto and start automatically but the monitoring points and paralleling are not complete.
-The generator will be needed as part of the fire pump testing which is in the next couple weeks as well as for smoke control testing
- 10/25/2011 -Load bank testing to occur in the next 1-2 weeks. Fire pump testing will be able to occur after load bank test
-Generator will be available for testing and will function automatically once shunt trip is installed. Generators will be running in droop mode.
-No support from ISO at this time for wiring diagrams of the PLC
- 11/1/2011 Generator will be 100% complete this week and ready for MQAA testing.
- 11/1/2011 GenTech called Mojave during the meeting and stated there is 2" of water in the trough. WT is working on the issue.

Meeting Minutes

Item: 10.11 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Fire Pump and Standpipe testing

- 10/11/2011 -Roof and drains need to be complete for flow testing. Planning for water runoff needed.
Discussed the bubblers as an item that needs completion
-main PRV valve is installed, however the 2" is not. There are only 2 PRVs on the project per Westar
-It is preferable to have all of the tampers and monitoring active in the fire pump room for testing.
-Mojave confirmed that the fire pump status panel is wired and ready to go it is just turned off
-High/Low level alarms in the secondary water supply are not complete. Tank is inaccessible due to landscaping.
-Standpipe testing should be scheduled as soon as the pump is ready
- 10/25/2011 -Discussed setting up temporary connections for the bubblers or flowing off of the roof. WT will discuss options
-Secondary water supply is not complete. RFI for connections to the level indicators is needed. The secondary water supply will be needed for the fire pump test.
- 11/1/2011 WT is working on the water flowing off the roof issue.
- 11/1/2011 RFI for level indicators has been submitted.
- 11/1/2011 Level probe for the storage tank is install but conduit and wire still needs to be installed.
- 11/1/2011 Joe Noble to send out a revised fire pump testing schedule.
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.

Item: 10.12 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Hydrant flow test

- 10/11/2011 Hydrant flow test should be conducted as soon as possible.
- 10/25/2011 can be scheduled after curb and gutter is completed. Scheduled to be complete by Nov 10. Waiting on traffic permit.
- 11/1/2011 Scheduled to be complete by end of November.
- 11/1/2011 Traffic permit complete.

Item: 10.13 Date Submitted: 10/11/2011 Responsibility: Active
Topic: Dry system testing

- 10/11/2011 Westar reports that the dry system testing is scheduled to start next week
- 10/25/2011 Pretesting has started.
- 11/1/2011 Pretesting is complete.

Item: 10.14 Date Submitted: 10/11/2011 Responsibility: Active
Topic: 24 hour monitoring

- 10/11/2011 24 hour monitoring needs to be in place for completion of the fire pump testing. WT will research the preferred vendor from the City and determine if wireless or wired connections will be used.
- 10/25/2011 Confirmed that Alarmco Wireless system will be used. Rep will be on site this week to review installation
- 11/1/2011 Alarmco panel not installed yet, WT is coordinating.

Item: 11.3 Date Submitted: 10/25/2011 Responsibility: Active
Topic: DAS system

- 10/25/2011 Anderson Communications is the rep for the DAS system. Basement antenna install is in process this week. Schedule shows 11/1 for completion.
- 11/1/2011 Mojave is waiting for the equipment from Anderson and will check on status.

New Business

Item: 12.1 Date Submitted: 11/1/2011 Responsibility: Active
Topic: Next Meeting Date

- 11/1/2011 Next meeting is scheduled for 11/08/11 at 9:00am.

Meeting Minutes

Item: 12.2 Date Submitted: 11/1/2011 Responsibility: Active
Topic: Update Issues Log

Item: 12.3 Date Submitted: 10/25/2011 Responsibility: Active
Topic: Smoke Guards

Item: 12.4 Date Submitted: 11/1/2011 Responsibility: Active
Topic: Miscellaneous items

11/1/2011 Joe Noble asked Siemens for their as-built drawings for the fire alarm final which is scheduled for 12/23/11. Siemens to submit, but they may or may not be stamped approved.

11/1/2011 Joe Noble asked if the schedule was ok and no one had any comments.

11/1/2011 All NCR, NOVs, & releases from all agencies need to be closed by 12/16/11.

Carmen Militello

From: Adam Popiel <apopiel@tmcxsolutions.com>
Sent: Tuesday, December 20, 2011 1:00 AM
To: Bill Sittman (bsittman@bombardmechanical.com); Breck Hardesty; cgordon@jbace.com; Clinton Burch (clinton.burch@whiting-turner.com); Chris Meiers; cyril@powersmiths.com; Daniel Beck; David Klein; David Lee (David.lee@whiting-turner.com); David R. Phillips (davidphillips@forestcity.net); ean@lcelectric.net; elliot.lloyd@whiting-turner.com; Fletcher Bittle (fletcher.bittle@whiting-turner.com); Jason Witterman (JWitterman@jbace.com); jnoble@nobleconsultingservices.com; jsparks@westarfire.com; Kirk Kaeser (kirk.kaeser@whiting-turner.com); Mario "DINO" Iannucci (dino@bombardmechanical.com); mfrtiz@westarfire.com; Michael Crowe (mcrowe@JMAarch.com); Michael.Floyd@whiting-turner.com; michael.j.hahn@jci.com; Nancy Briseno-Rivera (nancy.briseno@whiting-turner.com); Phuong Nguyen; Raul Hernandez (raul.hernandez@whiting-turner.com); Richard Christensen; Robert Messiana (Rmessiana@jmaarch.com); sschoch@bombardmechanical.com; steve@powersmiths.com; victor.koger@siemens.com
Subject: CLV City Hall Meeting Minutes
Attachments: 2011-12-13 - LV City Hall Life Safety Meeting Minutes.pdf

All:

Please see the attached meeting minutes from last week's meeting.

Sincerely,

Adam Popiel, EIT



www.tmcxsolutions.com

5575 S. Durango Dr, Ste 102

Las Vegas, NV 89113

Office: 702-252-7232

Cell: 702-604-5952

Fax: 702-252-7234

apopiel@tmcxsolutions.com

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1 **IN THE SUPREME COURT OF THE STATE OF NEVADA**

2
3
4 CASHMAN EQUIPMENT COMPANY,
5 a Nevada corporation,

6 Appellant,

7 vs.

8
9 WEST EDNA ASSOCIATES, LTD., dba
10 MOJAVE ELECTRIC, a Nevada
11 corporation; WESTERN SURETY
12 COMPANY, a surety; THE WHITING
13 TURNER CONTRACTING
14 COMPANY, a Maryland corporation;
15 FIDELITY AND DEPOSIT COMPANY
16 OF MARYLAND, a surety;
17 TRAVELERS CASUALTY AND
18 SURETY COMPANY OF AMERICA, a
19 surety; QH LAS VEGAS LLC, a foreign
20 limited liability company; PQ LAS
21 VEGAS, LLC, a foreign limited liability
22 company; L W T I C SUCCESSOR LLC,
23 an unknown limited liability company;
24 FC/LW VEGAS, a foreign limited
25 liability company;

26 Respondents.

 Electronically Filed
Case No: 66452 Jun 17 2015 01:05 p.m.
Case No: 61715 Tracie K. Lindeman
Case No: 65819 Clerk of Supreme Court

District Court Case Nos.: **A642583 &**
 A653029

27 **TABLE OF CONTENTS FOR JOINT APPENDIX**
28 **- CHRONOLOGICAL & ALPHABETICAL -**

 Volume 21 of 32

TABLE OF CONTENTS FOR JOINT APPENDIX
- CHRONOLOGICAL & ALPHABETICAL -

Jennifer R. Lloyd, Esq.
Nevada Bar No. 9617
Marisa L. Maskas, Esq.
Nevada Bar No. 10928
Pezzillo Lloyd
6725 Via Austi Pkwy., Suite 290
Las Vegas, Nevada 89119
Attorneys for Appellant

Brian W. Boschee, Esq.
Nevada Bar No. 7612
William N. Miller, Esq.
Nevada Bar No. 11658
Holley, Driggs, Walch, Puzey & Thompson
400 S. Fourth St., 3rd Fl.
Las Vegas, NV 89101
Attorneys for Respondents

TABLE OF CONTENTS (CHRONOLOGICAL)

Tab No.	Description	Filed	Vol. No.	Page(s)
1	Complaint	06/03/2011	1	JA00001- 9
2	Amended Complaint	07/25/2011	1	JA00010 - 27
3	Affidavits of Service on Angelo Carvalho and Janel Rennie aka Janel Carvalho	09/29/2011	1	JA00028 - 33
4	Second Amended Complaint	09/30/2011	1	JA00034-50
5	Errata to Second Amended Complaint	10/10/2011	1	JA00051-52

1	6	Acceptance of Service	10/10/2011	1	JA00053
2					
3	7	Answer to Second Amended Complaint, Counterclaim and Crossclaim	10/26/2011	1	JA00054-75
4					
5					
6					
7	8	Amended Answer to Second Amended Complaint, Counterclaim and Crossclaim	10/27/2011	1	JA00076-97
8					
9					
10					
11					
12	9	Errata to Amended Answer to Second Amended Complaint, Counterclaim and Crossclaim	11/10/2011	1	JA00098-99
13					
14					
15					
16					
17	10	Cashman's Response to Mojave's Counterclaim	11/21/2011	1	JA000100-03
18					
19					
20					
21	11	Complaint (Filed in A653029)	12/09/2011	1	JA000104-11
22					
23	12	Motion to Consolidate (re: Case A653029)	01/11/2012	1	JA000112-18
24					
25					
26	13	Acceptance of Service (Filed in A653029)	01/18/2012	1	JA000119-22
27					
28					

1	14	Affidavit of Service	01/19/2012	1	JA000123-25
2	15	Scheduling Order	01/31/2012	1	JA000126-28
3	16	Notice of Entry of Order Granting Motion to Consolidate (Filed in A653029)	02/02/2012	1	JA000129-34
4					
5					
6					
7					
8	17	Answer to Complaint (Filed in A653029)	02/02/2012	1	JA000135-44
9					
10					
11	18	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	02/21/2012	1	JA000145-46
12					
13					
14	19	Affidavit of Service	03/01/2012	1	JA000147-49
15					
16	20	Defendants' Motion for Summary Judgment	03/09/2012	1	JA000150-203
17					
18					
19					
20	21	Cashman's Opposition to Motion for Summary Judgment	04/23/2012	1-2	JA000204-61
21					
22					
23					
24	22	Affidavit of Service	04/30/2012	2	JA000262-65
25					
26	23	Defendants' Reply to Cashman's Opposition to	05/02/2012	2	JA000266-75
27					
28					

	Motion for Summary Judgment			
24	Third Amended Complaint	05/24/2012	2	JA000276-94
25	Notice of Entry of Order Granting Cashman's Motion to Amend Complaint	05/25/2012	2	JA000295-99
26	Notice of Entry of Order Denying Defendants' Motion for Summary Judgment without Prejudice	05/25/2012	2	JA000300-04
27	Defendants' Answer to Third Amended Complaint, Counterclaim, and Cross Claim	06/28/2012	2	JA000305-31
28	Counterclaimants' Motion for Mandatory Injunction to Procure Codes on OST or in the Alternative Application for Writ of Possession	07/18/2012	2	JA000332-58

1	29	Cashman's Answer to Counterclaim	07/20/2012	2	JA000359-63
2					
3	30	Cashman's Opposition to Motion for Injunctive Relief or Writ of Possession	07/26/2012	2	JA000364-97
4					
5					
6					
7	31	Reply to Cashman's Opposition to Motion for Injunctive Relief or Writ of Possession	07/31/2012	2	JA000398-404
8					
9					
10					
11					
12	32	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	08/06/2012	2	JA000405-06
13					
14					
15					
16	33	Notice of Posting Security Bond	08/09/2012	2	JA000407-13
17					
18	34	Findings of Fact and Conclusions of Law Based upon Counterclaimants Motion to Procure Codes	08/10/2012	2	JA000414-16
19					
20					
21					
22					
23	35	Notice of Entry of Findings of Fact and Conclusions of Law Based upon Counterclaimants Motion to Procure Codes	08/13/2012	2	JA000417-22
24					
25					
26					
27					
28					

1	36	Transcript of Proceedings for August 3, 2012	08/22/2012	2	JA000423-38
2					
3					
4	37	Cashman's Motion for Reconsideration of Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	08/29/2012	2	JA000439-66
5					
6					
7					
8					
9					
10					
11					
12					
13					
14	38	Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims	08/30/2012	2	JA000467-98
15					
16					
17					
18					
19	39	Opposition to Cashman's Motion for Reconsideration of Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	09/07/2012	2-3	JA000499-609
20					
21					
22					
23					
24					
25					
26					
27					
28					

1	40	Notice of Appeal	09/13/2012	3	JA00610-19
2	41	Defendants' Motion to Expunge or Reduce Mechanic's Lien	09/17/2012	3	JA000620-700
3					
4					
5					
6	42	Case Appeal Statement	09/18/2012	3	JA000701-03
7					
8	43	Cashman's Opposition to Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims	09/19/2012	3-4	JA000704-853
9					
10					
11					
12					
13					
14					
15	44	Notice of Posting Cost Bond	09/19/2012	4	JA000854-57
16					
17	45	Cashman's Motion to Stay or Suspend Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	09/28/2012	4	JA000858-84
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

1	46	Defendants' Opposition to Cashman's Motion to Stay or Suspend Order Granting in Part	10/01/2012	4	JA000885-89
2		Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively			
3		Motion for Clarification and Request for OST			
4					
5					
6					
7					
8					
9					
10					
11					
12	47	Amended Affidavit of Service	10/17/2012	4	JA000890
13					
14	48	Cashman's Reply to its Motion to Stay or Suspend Order Granting in Part	10/22/2012	4	JA000891-904
15		Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively			
16		Motion for Clarification and Request for OST			
17					
18					
19					
20					
21					
22					
23					
24					
25	49	Cashman's Opposition to Defendants' Motion to Expunge or Reduce Mechanic's Lien	10/25/2012	4-5	JA000905-1039
26					
27					
28					

1	50	Motion to Amend Complaint	10/31/2012	5	JA0001040-76
2					
3	51	Order Granting Cashman's Motion to Stay or Suspend Order Granting in Part Motion for Preliminary Injunction to Procure Codes	11/02/2012	5	JA0001077-78
4					
5					
6					
7					
8					
9	52	Notice of Entry of Order Granting Cashman's Motion to Stay or Suspend Order Granting in Part Motion for Preliminary Injunction to Procure Codes	11/02/2012	5	JA0001079-83
10					
11					
12					
13					
14					
15					
16	53	Affidavit of Brian Bugni in support of Defendants' Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001084-85
17					
18					
19					
20					
21	54	Affidavit of Nancy Briseno-Rivero in support of Defendants' Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001086-87
22					
23					
24					
25					
26					
27					
28					

1	55	Cashman's Reply in support of Countermotion for Summary Judgment	11/02/2012	5	JA0001088- 1101
2					
3					
4					
5	56	Reply to Cashman's Opposition to Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001102-11
6					
7					
8					
9					
10	57	Notice of Posting Bond	11/07/2012	5	JA0001112-16
11					
12	58	Opposition to Motion to Amend Complaint	11/19/2012	5	JA0001117-26
13					
14					
15	59	Reply in Support of Motion to Amend Complaint	12/17/2012	5	JA0001127-48
16					
17					
18	60	Notice of Entry of Order Granting Motion to Amend Complaint	01/09/2013	5	JA0001149-53
19					
20					
21					
22	61	Fourth Amended Complaint	01/10/2013	5	JA0001154-72
23					
24	62	Transcript of Proceedings for November 9, 2012	01/11/2013	5	JA0001173- 1203
25					
26					
27	63	Certificate of Service for Fourth Amended	01/17/2013	5	JA0001204-05
28					

1		Complaint		
2	64	Acceptance of	01/22/2013	5
3		Services for		
4		LWTIC Successor,		
5		LLC, FC/LW		
6		Vegas, PQ Las		
7		Vegas, LLC, and		
8		QH Las Vegas,		
9	65	LLC		
10		Answer to Fourth	02/07/2013	5
11		Amended		
12		Complaint,		
13		Counterclaim and		
14		Crossclaim		
15	66	QH Las Vegas,	02/07/2013	5-6
16		LLC, PQ Las		
17		Vegas, LLC,		
18		LWTIC Successor,		
19		LLC, and FC/LW		
20		Vegas Motion to		
21		Dismiss, or in the		
22		alternative, Motion		
23		for Summary		
24		Judgment		
25	67	Cashman's Motion	02/25/2013	7
26		for Summary		
27		Judgment on the		
28		Payment Bond		
		Claim		
	68	Cashman's	03/06/2013	7
		Opposition to QH		
		Las Vegas, LLC,		
		PQ Las Vegas,		
		LLC, LWTIC		
		Successor, LLC,		

	and FC/LW Vegas Motion to Dismiss, or in the alternative, Motion for Summary Judgment			
69	Defendants' Opposition to Cashman's Motion for Summary Judgment on the Payment Bond Claim	03/15/2013	7-8	JA0001665-1782
70	Cashman's Supplement to its Countermotion for Summary Judgment on its Payment Bond and Mechanic's Lien Claims	03/18/2013	8	JA0001783-1893
71	Defendants' Supplement to Motion to Expunge Lien and Opposition to Motion for Summary Judgment as to Lien and Bond Claims	04/02/2012	8-9	JA0001894-2065
72	Cashman's Reply to its Motion for Summary Judgment on the Payment Bond	04/05/2013	9	JA0002066-94

		Claim		
73	Supplement to Cashman's Supplement to its Countermotion for Summary Judgment on its Payment Bond and Mechanic's Lien Claims	04/05/2013	9	JA0002095- 2101
74	QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Reply to their Motion to Dismiss, or in the alternative, Motion for Summary Judgment	04/05/2013	9- 10	JA0002102- 2387
75	Order Rescheduling Pretrial/Calendar Call	04/17/2013	10	JA0002388-89
76	Notice of Entry of Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims and Cashman's Countermotion for Summary	05/06/2013	10	JA0002390-95

	Judgment			
77	Notice of Entry of Order Denying Cashman's Motion for Summary Judgment on Defendants' Payment Bond Claim	05/06/2013	10	JA0002396-2401
78	Notice of Entry of Order Denying Mojave's Motion to Expunge or Reduce Mechanic's Lien	05/06/2013	10	JA0002402-07
79	Notice of Entry of Order Denying QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Motion to Dismiss, or in the alternative, Motion for Summary Judgment	05/06/2013	10	JA0002408-13
80	Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	05/31/2013	10	JA0002414-40
81	QH Las Vegas, PQ Las Vegas, LWITC Successor and	06/11/2013	10	JA0002441-61

	FC/LW Vegas' Answer to Fourth Amended Complaint			
82	Opposition to Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	06/20/2013	10	JA0002462-74
83	Cashman's Reply in Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	07/02/2013	10	JA0002475-87
84	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	09/06/2013	10	JA0002488-90
85	Cashman's Response to Mojave's Counterclaim (Filed in A653029)	09/12/2013	10	JA0002491-95
86	Order Granting Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	09/20/2013	10	JA0002496-97

1	87	Notice of Entry of Order Granting Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	09/24/2013	10- 11	JA0002498- 2502
2					
3					
4					
5					
6	88	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	10/1/2013	11	JA0002503-05
7					
8					
9					
10	89	Defendants' Trial Brief	01/16/2014	11	JA0002506-33
11					
12	90	Plaintiff's Trial Brief	01/16/2014	11	JA0002534-59
13					
14	91	Joint Pretrial Memorandum	01/16/2014	11	JA0002560-79
15					
16	92	Joint Trial Exhibit Index	01/21/2014	11	JA0002580-82
17					
18	92.J01	Joint Trial Exhibits	01/21/2014	11- 27	JA0002583- 6552
19	to				
20	92.J65				
21					
22					
23	93	Non-Jury Trial Transcripts (for January 21, 2014 through January 24, 2014)	01/31/2014	27- 29	JA0006553- 7098
24					
25					
26					
27	94	Motion for Relief Pursuant to NRCP 60(b) and Motion	03/20/2014	29	JA0007099- 7112
28					

	for Attorneys' Fees and Costs Pursuant to NRS Ch. 108			
95	Appendix to Exhibits to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	03/20/2014	29-30	JA0007113-7359
96	Opposition to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	04/15/2014	30-31	JA0007360-7693
97	Reply to Cashman's Opposition to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	04/23/2014	31	JA0007694-7707
98	Cashman's Reply in Support of Motion for Attorneys' Fees	05/05/2014	31	JA0007708-13
99	Findings of Fact and Conclusions of Law	05/05/2014	31	JA0007714-29

1	100	Notice of Entry of Findings of Fact and Conclusions of Law	05/06/2014	31	JA0007730-47
2					
3					
4	101	Memorandum of Costs and Disbursements	05/13/2014	31	JA0007748-50
5					
6					
7	102	Notice of Appeal	05/30/2014	32	JA0007751-72
8					
9	103	Case Appeal Statement	06/05/2014	32	JA0007773-76
10					
11	104	Decision and Order	08/04/2014	32	JA0007777-81
12	105	Notice of Entry of Decision and Order	08/13/2014	32	JA0007782-88
13					
14	106	Judgment	08/18/2014	32	JA0007789-91
15					
16	107	Notice of Entry of Judgment	08/21/2014	32	JA0007792-96
17					
18	108	Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007797-98
19					
20					
21					
22	109	Notice of Entry of Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007799-7804
23					
24					
25					
26					
27					
28					

1	110	Errata to Notice of Entry of Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007804-12
2					
3					
4					
5					
6	111	Notice of Appeal	09/02/2014	32	JA0007813-29
7					
8	112	Case Appeal Statement	09/11/2014	32	JA0007830-33
9					
10	113	Stipulation and Order for Dismissal of Defendants Fidelity and Deposit Company of Maryland and Travelers Casualty and Surety Company of America with Prejudice	05/08/2015	32	JA0007834-36
11					
12					
13					
14					
15					
16					
17					
18					
19	114	Notice of Entry of Stipulation and Order for Dismissal of Defendants Fidelity and Deposit Company of Maryland and Travelers Casualty and Surety Company of America with Prejudice	05/11/2015	32	JA0007837-42
20					
21					
22					
23					
24					
25					
26					
27					
28					

TABLE OF CONTENTS (ALPHABETICAL)

Tab No.	Description	Filed	Vol. No.	Page(s)
6	Acceptance of Service	10/10/2011	1	JA00053
13	Acceptance of Service (Filed in A653029)	01/18/2012	1	JA000119-22
64	Acceptance of Services for LWTIC Successor, LLC, FC/LW Vegas, PQ Las Vegas, LLC, and QH Las Vegas, LLC	01/22/2013	5	JA0001206-13
53	Affidavit of Brian Bugni in support of Defendants' Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001084-85
54	Affidavit of Nancy Briseno-Rivero in support of Defendants' Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001086-87
14	Affidavit of Service	01/19/2012	1	JA000123-25

1	19	Affidavit of Service	03/01/2012	1	JA000147-49
2					
3	22	Affidavit of Service	04/30/2012	2	JA000262-65
4					
5	3	Affidavits of Service on Angelo Carvalho and Janel Rennie aka Janel Carvalho	09/29/2011	1	JA00028 - 33
6					
7					
8					
9	47	Amended Affidavit of Service	10/17/2012	4	JA000890
10					
11	8	Amended Answer to Second Amended Complaint, Counterclaim and Crossclaim	10/27/2011	1	JA00076-97
12					
13					
14					
15					
16	2	Amended Complaint	07/25/2011	1	JA00010 - 27
17					
18					
19	17	Answer to Complaint (Filed in A653029)	02/02/2012	1	JA000135-44
20					
21					
22	65	Answer to Fourth Amended Complaint, Counterclaim and Crossclaim	02/07/2013	5	JA0001214-40
23					
24					
25					
26	7	Answer to Second Amended Complaint, Counterclaim and	10/26/2011	1	JA00054-75
27					
28					

		Crossclaim		
95	Appendix to Exhibits to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	03/20/2014	29-30	JA0007113-7359
42	Case Appeal Statement	09/18/2012	3	JA000701-03
103	Case Appeal Statement	06/05/2014	32	JA0007773-76
112	Case Appeal Statement	09/11/2014	32	JA0007830-33
29	Cashman's Answer to Counterclaim	07/20/2012	2	JA000359-63
80	Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	05/31/2013	10	JA0002414-40
37	Cashman's Motion for Reconsideration of Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or	08/29/2012	2	JA000439-66

	Alternatively Motion for Clarification and Request for OST			
67	Cashman's Motion for Summary Judgment on the Payment Bond Claim	02/25/2013	7	JA0001356- 1520
45	Cashman's Motion to Stay or Suspend Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	09/28/2012	4	JA000858-84
43	Cashman's Opposition to Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims	09/19/2012	3-4	JA000704-853
49	Cashman's Opposition to Defendants'	10/25/2012	4-5	JA000905-1039

		Motion to Expunge or Reduce Mechanic's Lien		
30	Cashman's Opposition to Motion for Injunctive Relief or Writ of Possession	07/26/2012	2	JA000364-97
21	Cashman's Opposition to Motion for Summary Judgment	04/23/2012	1-2	JA000204-61
68	Cashman's Opposition to QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Motion to Dismiss, or in the alternative, Motion for Summary Judgment	03/06/2013	7	JA0001521- 1664
83	Cashman's Reply in Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	07/02/2013	10	JA0002475-87
55	Cashman's Reply in support of Countermotion for Summary	11/02/2012	5	JA0001088- 1101

	Judgment			
98	Cashman's Reply in Support of Motion for Attorneys' Fees	05/05/2014	31	JA0007708-13
72	Cashman's Reply to its Motion for Summary Judgment on the Payment Bond Claim	04/05/2013	9	JA0002066-94
48	Cashman's Reply to its Motion to Stay or Suspend Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	10/22/2012	4	JA000891-904
10	Cashman's Response to Mojave's Counterclaim	11/21/2011	1	JA000100-03
85	Cashman's Response to Mojave's Counterclaim (Filed in A653029)	09/12/2013	10	JA0002491-95

70	Cashman's Supplement to its Countermotion for Summary Judgment on its Payment Bond and Mechanic's Lien Claims	03/18/2013	8	JA0001783-1893
63	Certificate of Service for Fourth Amended Complaint	01/17/2013	5	JA0001204-05
1	Complaint	06/03/2011	1	JA00001- 9
11	Complaint (Filed in A653029)	12/09/2011	1	JA000104-11
28	Counterclaimants' Motion for Mandatory Injunction to Procure Codes on OST or in the Alternative Application for Writ of Possession	07/18/2012	2	JA000332-58
104	Decision and Order	08/04/2014	32	JA0007777-81
27	Defendants' Answer to Third Amended Complaint,	06/28/2012	2	JA000305-31

		Counterclaim, and Cross Claim		
20	Defendants' Motion for Summary Judgment	03/09/2012	1	JA000150-203
38	Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims	08/30/2012	2	JA000467-98
41	Defendants' Motion to Expunge or Reduce Mechanic's Lien	09/17/2012	3	JA000620-700
69	Defendants' Opposition to Cashman's Motion for Summary Judgment on the Payment Bond Claim	03/15/2013	7-8	JA0001665- 1782
46	Defendants' Opposition to Cashman's Motion to Stay or Suspend Order Granting in Part Counterclaimants' Motion for Preliminary Injunction to Procure Codes or Alternatively	10/01/2012	4	JA000885-89

	Motion for Clarification and Request for OST			
23	Defendants' Reply to Cashman's Opposition to Motion for Summary Judgment	05/02/2012	2	JA000266-75
71	Defendants' Supplement to Motion to Expunge Lien and Opposition to Motion for Summary Judgment as to Lien and Bond Claims	04/02/2012	8-9	JA0001894-2065
89	Defendants' Trial Brief	01/16/2014	11	JA0002506-33
9	Errata to Amended Answer to Second Amended Complaint, Counterclaim and Crossclaim	11/10/2011	1	JA00098-99
110	Errata to Notice of Entry of Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007804-12

1	5	Errata to Second Amended Complaint	10/10/2011	1	JA00051-52
2					
3					
4	99	Findings of Fact and Conclusions of Law	05/05/2014	31	JA0007714-29
5					
6					
7	34	Findings of Fact and Conclusions of Law Based upon Counterclaimants Motion to Procure Codes	08/10/2012	2	JA000414-16
8					
9					
10					
11					
12	61	Fourth Amended Complaint	01/10/2013	5	JA0001154-72
13					
14	91	Joint Pretrial Memorandum	01/16/2014	11	JA0002560-79
15					
16	92	Joint Trial Exhibit Index	01/21/2014	11	JA0002580-82
17					
18	92.J01	Joint Trial Exhibits	01/21/2014	11-27	JA0002583-6552
19	to				
20	92.J65				
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23	106	Judgment	08/18/2014	32	JA0007789-91
24					
25	101	Memorandum of Costs and Disbursements	05/13/2014	31	JA0007748-50
26					
27	94	Motion for Relief Pursuant to NRCP	03/20/2014	29	JA0007099-7112
28					

		60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108		
50	Motion to Amend Complaint	10/31/2012	5	JA0001040-76
12	Motion to Consolidate (re: Case A653029)	01/11/2012	1	JA000112-18
93	Non-Jury Trial Transcripts (for January 21, 2014 through January 24, 2014)	01/31/2014	27- 29	JA0006553- 7098
40	Notice of Appeal	09/13/2012	3	JA00610-19
102	Notice of Appeal	05/30/2014	32	JA0007751-72
111	Notice of Appeal	09/02/2014	32	JA0007813-29
105	Notice of Entry of Decision and Order	08/13/2014	32	JA0007782-88
76	Notice of Entry of Defendants' Motion for Summary Judgment of Surety Payment and License Bond Claims and Cashman's Countermotion for	05/06/2013	10	JA0002390-95

		Summary Judgment		
100	Notice of Entry of Findings of Fact and Conclusions of Law	05/06/2014	31	JA0007730-47
35	Notice of Entry of Findings of Fact and Conclusions of Law Based upon Counterclaimants Motion to Procure Codes	08/13/2012	2	JA000417-22
107	Notice of Entry of Judgment	08/21/2014	32	JA0007792-96
77	Notice of Entry of Order Denying Cashman's Motion for Summary Judgment on Defendants' Payment Bond Claim	05/06/2013	10	JA0002396-2401
109	Notice of Entry of Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007799-7804
26	Notice of Entry of Order Denying Defendants'	05/25/2012	2	JA000300-04

	Motion for Summary Judgment without Prejudice			
78	Notice of Entry of Order Denying Mojave's Motion to Expunge or Reduce Mechanic's Lien	05/06/2013	10	JA0002402-07
79	Notice of Entry of Order Denying QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Motion to Dismiss, or in the alternative, Motion for Summary Judgment	05/06/2013	10	JA0002408-13
87	Notice of Entry of Order Granting Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	09/24/2013	10-11	JA0002498-2502
25	Notice of Entry of Order Granting Cashman's Motion to Amend Complaint	05/25/2012	2	JA000295-99

1	52	Notice of Entry of Order Granting Cashman's Motion to Stay or Suspend Order Granting in Part Motion for Preliminary Injunction to Procure Codes	11/02/2012	5	JA0001079-83
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8	60	Notice of Entry of Order Granting Motion to Amend Complaint	01/09/2013	5	JA0001149-53
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11	16	Notice of Entry of Order Granting Motion to Consolidate (Filed in A653029)	02/02/2012	1	JA000129-34
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16	114	Notice of Entry of Stipulation and Order for Dismissal of Defendants Fidelity and Deposit Company of Maryland and Travelers Casualty and Surety Company of America with Prejudice	05/11/2015	32	JA0007837-42
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26	57	Notice of Posting Bond	11/07/2012	5	JA0001112-16
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1	44	Notice of Posting Cost Bond	09/19/2012	4	JA000854-57
2					
3	33	Notice of Posting Security Bond	08/09/2012	2	JA000407-13
4					
5	82	Opposition to Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	06/20/2013	10	JA0002462-74
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10	39	Opposition to Cashman's Motion for Reconsideration of Order Granting in Part Counter- claimants' Motion for Preliminary Injunction to Procure Codes or Alternatively Motion for Clarification and Request for OST	09/07/2012	2-3	JA000499-609
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20	96	Opposition to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	04/15/2014	30- 31	JA0007360- 7693
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26	58	Opposition to Motion to Amend Complaint	11/19/2012	5	JA0001117-26
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1	108	Order Denying Cashman's Request for Costs Pursuant to NRS 18.020	09/02/2014	32	JA0007797-98
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5	86	Order Granting Cashman's Motion for Award of Attorneys' Fees and Costs Pursuant to NRS 108.2275	09/20/2013	10	JA0002496-97
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11	51	Order Granting Cashman's Motion to Stay or Suspend Order Granting in Part Motion for Preliminary Injunction to Procure Codes	11/02/2012	5	JA0001077-78
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17	75	Order Rescheduling Pretrial/Calendar Call	04/17/2013	10	JA0002388-89
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21	18	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	02/21/2012	1	JA000145-46
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24	32	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	08/06/2012	2	JA000405-06
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1	84	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	09/06/2013	10	JA0002488-90
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4	88	Order Setting Civil Non-Jury Trial, Pre-Trial/Calendar Call	10/1/2013	11	JA0002503-05
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8	90	Plaintiff's Trial Brief	01/16/2014	11	JA0002534-59
9					
10	66	QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Motion to Dismiss, or in the alternative, Motion for Summary Judgment	02/07/2013	5-6	JA0001241- 1355
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18	74	QH Las Vegas, LLC, PQ Las Vegas, LLC, LWTIC Successor, LLC, and FC/LW Vegas Reply to their Motion to Dismiss, or in the alternative, Motion for Summary Judgment	04/05/2013	9- 10	JA0002102- 2387
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26	81	QH Las Vegas, PQ Las Vegas, LWITC Successor and FC/LW Vegas'	06/11/2013	10	JA0002441-61
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	Answer to Fourth Amended Complaint			
59	Reply in Support of Motion to Amend Complaint	12/17/2012	5	JA0001127-48
31	Reply to Cashman's Opposition to Motion for Injunctive Relief or Writ of Possession	07/31/2012	2	JA000398-404
97	Reply to Cashman's Opposition to Motion for Relief Pursuant to NRCP 60(b) and Motion for Attorneys' Fees and Costs Pursuant to NRS Ch. 108	04/23/2014	31	JA0007694-7707
56	Reply to Cashman's Opposition to Motion to Expunge or Reduce Mechanic's Lien	11/02/2012	5	JA0001102-11
15	Scheduling Order	01/31/2012	1	JA000126-28
4	Second Amended Complaint	09/30/2011	1	JA00034-50
113	Stipulation and Order for	05/08/2015	32	JA0007834-36

	Dismissal of Defendants Fidelity and Deposit Company of Maryland and Travelers Casualty and Surety Company of America with Prejudice			
73	Supplement to Cashman's Supplement to its Countermotion for Summary Judgment on its Payment Bond and Mechanic's Lien Claims	04/05/2013	9	JA0002095-2101
24	Third Amended Complaint	05/24/2012	2	JA000276-94
36	Transcript of Proceedings for August 3, 2012	08/22/2012	2	JA000423-38
62	Transcript of Proceedings for November 9, 2012	01/11/2013	5	JA0001173-1203