State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL
Lt. Governor

Department of Administrative Services
KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management
DAVID G. BUXTON
Director

ADDENDUM NO. 6

Date: May 14, 2012

To: Contractors

From: Kurt Baxter – Project Manager

Reference: Student Life Center and Parking Structure
Utah Valley University – Orem, Utah
DFCM Project No. 10289790

Subject: **Addendum No. 6**

Pages	Addendum Cover Sheet	1	page
	Architect's Addendum No. 4	8	pages
	Architect's Q/A Response	10	pages
	Revised Specifications and Drawings	348	pages
	Total	367	pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

6.1 SCHEDULE CHANGES: There are no Project Schedule changes.

6.2 GENERAL ITEMS:

6.2.1 See attached Architect's Addendum No. 4 dated May 14, 2012.
6.2.2 See attached Architect's Q/A Responses No. 3-7
6.2.3 See attached Architects Revised Specifications/Drawings

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

ADDENDUM NO. 4

May 14, 2012

The original specifications and drawings, dated April 27, 2012 for the project referenced above are amended in this Addendum No. 4, dated May 04, 2012.

Receipt of this addendum shall be acknowledged by inserting its number and date in the space provided on the bid form.

This addendum consists of 356 total pages.

Attachments: This addendum includes the following attachments:

Architectural, Landscape and Civil specifications and drawings (194 pages)
Structural Addendum (36 Pages)
Mechanical Addendum (34 Pages)
Electrical Addendum (84 Pages)

Item No.	Reference Specification	Product Type	Alternate Manufacturer
4-01	062023	Wood slat wall panels	All manufacturers allowed that can meet documented requirements
4-02	081416	Flush wood doors	Oshkosh Architectural Wood Doors
4-03	095113	Wood grill panels	Architectural Components Group
4-04	099123	Writable Paint Surface	Contrary to previous direction, ClearErase product IS NOT an approved substitution for the basis of design product. ClearErase is a clear coating not compatible with the project requirements.

Item No.	Reference Spec/Page	DESCRIPTION
4-05	General	The Bid Form indicates a value for the Bowling Equipment Add Alternate as $300,000. The correct value is $370,000. This value is consistent with specification section 012300 Alternates.
4-06	General	At all roof locations, provide air / vapor barrier on top of rigid insulation. Air / vapor barrier to continue over parapet and down wall to provide a complete envelope.
4-07	General	At all exterior glazing locations, provide double sealant joint at frame to wall connection.
4-08	General	All exposed utilities shall be painted per UVU's color standards. This includes elements installed as part of this project, but outside the new

		building's footprint.
4-09	Spec. Index	New sections have been added. See attachment.
4-10	012100	Section 3.3 A Allowance No. 1 – Replace term "Quantity Allowance" with the term "Lump-Sum Allowance".
4-11	034900	Section 1.2 B – Add 4. Section 074213 "Formed Metal Wall Panels" for panels attached directly to GFRC panels. Section 2.2 – Insert a new paragraph at the front. A. Panel Thickness: 1 ½ inch. Remove paragraph 2.4 A –The metal panels will be attached directly to the GFRC panel, not embed strip is required.
4-12	055100	Revised section 2.6 A – See attachment.
4-13	071800	Add new specification section Traffic Coatings. This section includes striping.– See attachment.
4-14	071900	Add new specification section Water Repellents. This section addresses items in the Parking Structure.– See attachment.
4-15	074213.13	Add section for delegated design and mockups. Section 2.3 A and D - Add information about metal panel attachment directly to GFRC panel. – See attachment.
4-16	079500	Added entire specification section. – See attachment.
4-17	083326	Added section for delegated design. – See attachment.
4-18	083513	Added section for delegated design. – See attachment.
4-19	088300	Add new specification section Mirrors. This section includes information on typical products to be used throughout the project and tempered safety mirrors to be used in all athletic and recreation spaces.
4-20	095113	Added section for delegated design. – See attachment.
4-21	096813	Section 2.1 A. – Modify the state contract number to be MA#2097.
4-22	098433	Added section for delegated design and addition of high-impact product. – See attachment.
4-23	098436	Added section for delegated design. – See attachment.
4-24	099123	Section 1.5 A – Basis of Design shall be MDC "Pro" IdeaPaint. Section 3.6 I.1 – Basis of Design shall be MDC "Pro" IdeaPaint. Add item e. Color: Light gray.
4-25	116643	Added section for delegated design. – See attachment.
4-26	116653	Added section for delegated design. – See attachment.
2-27	316200	Add new specification section Micropiles. – See attachment.
DRAWINGS VOLUME 1		
4-28	GI-010 (All Volumes)	Index Updated. See attachment.
4-29	GI-040	Revised deferred submittals list. Revised nonstructural component checklist. See attachment.

4-30	GI-105	Revised dimension identifying the extent of shear wall. See attachment
4-31	GI-106	Revised dimension identifying the extent of shear wall. See attachment
4-32	GI-107	Revised extent of shear wall. Modify openness legend. See attachment
4-33	C-5.0	Elevations associated with the sand/oil water separator have been modified. See attachment.
4-34	C5.1	Elevations of various utility pipes have been modified. See attachment.
4-35	AS-101	Add stainless steel handrails on each side of the ramp on the north-west side of the service road. See attachment.
4-36	AS-102	New dimensions and a detail have been added describing the generator / transformer enclosure.
4-37	AS-503	Detail 10 has been added showing a new section through the generator / transformer enclosure walls.
4-38	Slab Control Plans–Vol1 (including P900)	Legend – Replace WATERPROOF PARKING MEMBRANE to WATERPROOF TRAFFIC COATING. Legend – Add note: PROVIDE CLEAR PENETRATING WATER REPELLANT ON ALL CONCRETE SLABS, WASHES AND 24" UP WALLS AND COLUMNS THROUGHOUT ENTIRE PARKNIG STRUCTURE. RE: SPECIFICATION.
4-39	AE-P101	Changes to signage notes and legend, adjustments to striping. See attachment. Single door P104-1 is now double door.
4-40	AE-P102	Changes to signage notes and legend, adjustments to striping. Specified Basis of Design for bicycle racks. See attachment.
4-41	AE-P103	Changes to signage notes and legend, adjustments to striping. See attachment.
4-42	AE-P104	Changes to signage notes and legend, adjustments to striping. See attachment.
4-43	AE-P105	Changes to signage notes and legend, adjustments to striping. See attachment.
4-44	AE-P201	Dimensions added to North Elevation. Additional bay of shear wall added. Perimeter wall at level 2 lowered. Cable rail added to three openings. See attachments.
4-45	AE-P302	Modify height of concrete wall at level 2. Add cable rail. See attachment.
4-46	AE-P411	Added tapered insulation and notes to roof plan. See attachment.
4-47	AE-P412	Added stair-ramp plan. See attachment.
4-48	AE-P413	Added tapered insulation and notes to roof plan. Added concrete column and dimensions at level 2. See Attachments.
4-49	AE-P501	Added detail of concrete bollard. See attachment.
4-50	AE-P503	SF-P3a,b,c – Glazing type changed to IG-1AT. See attachment.
4-51	AE-P901	Signage notes and legend modified. Additional bay of shear wall added to elevation.

		Enlarge sprinkler room on Level 1 as part of alternate. See attachment.
DRAWING VOLUME 2		
4-52	Floor Plan Sheets	Add “BR-1 Barrier Rail – Pipe” to Railing Type Legend – See attachment.
4-53	Floor Plan Sheets	Add note #11 to General Notes – See attachment.
4-54	Finish Plan Sheets	Add note to Finish Key – See attachment.
4-55	Vertical Circulation Sheets	Add note #6 to General Notes
4-56	AE-022	Expansion joint near grids F8 and 1.6 has been extended to the exterior wall. See attachment
4-57	AE-111	Added Space / Room Acoustical Requirement chart. See attachment
4-58	AE-111a	New detail references Concrete bench on north wall in lobby deleted. See attachment
4-59	AE-111b	New detail references and enlarged plan references. Added new glazing with wall to glass point support system at south side of gaming desk. See attachment
4-60	AE-111c	New detail references Changed wall types. See attachment
4-61	AE-112b	New detail references Changed wall types. See attachment
4-62	AE-112c	Changed the door swing of 223B-1 Added elevation references New detail references Changed wall types. See attachment
4-63	AE-113a	New detail references. See attachment
4-64	AE-113b	New detail references Changed wall types. See attachment
4-65	AE-113c	Corrected elevation references. See attachment
4-66	AE-114b	New detail references Horizontal fire shutter HFS-5 and adjacent wall have been modified Add water curtain protection at glazing. See attachment
4-67	AE-114c	New detail references. See attachment
4-68	AE-115	Wall Type X1A: Revise "5/8" SHEATHING" to read "5/8" GLASS-MAT WATER-RESISTANT BACKING BOARD.
4-69	AE-121	Cricket added to the west side of the roof along grid line G2. See attachment
4-70	AE-131b	Added AWP-2 to bowling 117. See attachment
4-71	AE-131c	Added AWP-2 to Bowling Lanes 117H Elev. Machine Room 110V – changed flooring from EP-1 to SC-2 Publicity 122R – Delete note regarding kraft paper roll. See equipment coordination plans.
4-72	AE-132-b	Climbing & Bouldering 203 – AWP-2 added to walls

		Massage 211E –No base cabinets. See attachment
4-73	AE-132c	Wait 222A & Rep. Lockers 224A – Paint color changed. See attachment
4-74	AE-133a	3-Court Gym – AWP-1 changed to AWP-2 Added ST-2 (stair 2) finishes: P-1, RB-1, SC-2. See attachment
4-75	AE-133c	MAC Gym 306 - Changed AWP-1 to AWP-2 MP Room-Dance 1 - Added AWP-2 MP Room-Dance 2 - Added AWP-2 Custodial 313A - Changed wall tile CT-1 to WT-4; 4'-0" wainscot around mop sink. See attachment.
4-76	AE-134b	Custodial 400H – Change wall tile CT-1 to WT-4. See attachment
4-77	AE-135	Added AWP-2 - High Impact Acoustic Wall Panels Removed EP-1 - Epoxy Flooring Removed RU-1 - Rubber Sheet Flooring Changed model number on ST-1 Ramp Sink Designated paint color for Gyp. Board Ceilings. See attachment
4-78	AE-141a	Add ceiling under / beside stair for piping. See attachment
4-79	AE-144b	Change ceiling height in Machine Weights Room to be 10'-6".
4-80	AE-151	For Office Equipment - Paper Roll (EQ-7D) revise note to read "GC TO PROVIDE BACKING IN WALL, COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLING BACKING" Publicity Room 122R - Revise location of Paper Roll (EQ-7D). See attachment.
4-81	AE-153	Gym Equipment - Scoreboard, tag EQ-2D, to be furnished by G.C.
4-82	AE-154	Added "Misc Equipment – Digital Timer" at Track Rm 403. See attachment
4-83	AE-202	Expansion joint information and extent clarified in elevation. See attachment.
4-84	AE-342	Add brick support relieving angle detail bubbles. See attachment
4-85	AE-411	Renumber views. (2 was renumbered to 1, 3 was renumbered to 4) Added new enlarged plans Added detail references and dimensions Added detail callouts (11/AE-521) and (3/AE-503) Added wall specifying tag. See attachment
4-86	AE-412	Detail 6- Replaced incorrect detail reference (3/GI-503); Changed faucet, mirror, and light locations, Added detail reference Detail 9- Changed faucet, mirror, and light locations, Added detail reference New elevation, Old 7 renumbered to detail 9 Detail 8 – New. See attachment
4-87	AE-413	Details 4,6,8,10 - Added shower rod tag TA20. See attachment
4-88	AE-414	Changed wall type. See attachment
4-89	AE-415	Change wall types. See attachment Three tags were showing TA18- Corrected the following: TA19 SHOWER CURTAIN W/ RINGS TA20 SHOWER CURTAIN ROD
4-90	AE-416	Changed wall types. See attachment Added note outside Unisex 300H – DAY LOCKERS, ADD ALT.
4-91	AE-420	Added gypsum board under the stairs

		Added dimensions New detail references. See attachment
4-92	AE-421	Details 4,7 - New detail references Details 1,6,7 - New barrier rails under stair Details 1,2,3,4 - Added railing tags Details 6,7 – New dimensions. See attachment
4-93	AE-422	Details 1,2,3 – Remove handrail between aisle stair and stair lounge Details 1,2 – Flip wall section 3/AE-422 so that it is viewing south. New detail references. Detail 3 – New section view. See attachment
4-94	AE-423	Details 1,3 – Added barrier rails below stairs Detail 1 – Additional rail tag, notes and shading Detail 3 – Added dimensions and notes. See attachment
4-95	AE-424	Details 1,2,3,4,5 – New detail references Details 3,5 – New barrier rail under stair. See attachment
4-96	AE-425	Details 7,8 – Add gypsum board ceiling under the stairs. New dimensions. Detail 5 – Add detail reference. See attachment
4-97	AE-426	Details 1,6 – New barrier rail under stair Details 1,2 – Changed wall types. Details 4,5 – Removed brick wall in interior space. Details 1,2,3,4,5 – Move south exterior wall. See attachment
4-98	AE-427	Details 4,6 – New detail references. New barrier rail under stair. New dimensions and notes. See attachment
4-99	AE-428	Detail 3 – Moved millwork & Ice Machine. Move wall to allow for necessary clearance. Detail 4 – Moved wall and door. See attachment
4-100	AE-443	Details 12,13 – Added AWP-2 to long walls of bowling. See attachment
4-101	AE-444	Details 2,3 - Section callout 20/AE-545 corrected to 11/AE-516.
4-102	AE-445	Elevations renumbered to be sequential. See attachment. Revise note about steel plate to read "4'X8' 16 GA. STEEL PLATE, METAL PLATE BACKING FOR EQUIP. (KRAFT PAPER ROLLS). COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLING."
4-103	AE-446	Detail 1 – Added note about glass to wall connection Detail 2 – Modified notes Details 4,5 – Additional millwork notes. See attachment.
4-104	AE-451	Elevations renumbered to be sequential. See attachment.
4-105	AE-461	Elevations renumbered to be sequential. See attachment.
4-106	AE-462	Details 1,3,4 – Added detail reference, changed title. See attachment.
4-107	AE-463	Details 2,3,4,5 – Added AWP-2 above mirrors and glazing Details 3,4 – New detail reference. See attachment.
4-108	AE-464	Details 1,2,3,4 – Added AWP-2 above mirrors and glazing Detail 3 – New detail reference. See attachment.
4-109	AE-471	Elevations renumbered to be sequential. See attachment. Detail 2 – Mirror deleted at fire extinguisher location. Mirror size changed.
4-110	AE-472	Elevations renumbered to be sequential. See attachment.

4-111	AE-481	Elevations renumbered to be sequential. See attachment. Added AWP-2 in areas to match note requiring 25% coverage in space.
4-112	AE-482	Revised tectum note to read "PAINTED (P-5), 1" THICK HIGH-IMPACT TECTUM WALL PANELS, (AWP-2)". Details 1,2 – Modify reference 1/AE-533 to read 7/AE-533.
4-113	AE-483	Revised tectum note to read "PAINTED (P-5), 1" THICK HIGH-IMPACT TECTUM WALL PANELS, (AWP-2)". Details 1,2 – Modify reference 1/AE-533 to read 7/AE-533.
4-114	AE-484	Revised tectum note to read "PAINTED (P-5), 1" THICK HIGH-IMPACT TECTUM WALL PANELS, (AWP-2)". Details 1,2 – Modify reference 1/AE-533 to read 7/AE-533.
4-115	AE-485	Revised tectum note to read "2" BEVELED-EDGE, HIGH-IMPACT TECTUM PANEL (AWP-2),PAINTED P-5". Revised gyp note to say 1/2" rather than 1/4". Added 5 new reference details. See attachment.
4-116	AE-486	Revised tectum note to read "2" BEVELED-EDGE, HIGH-IMPACT TECTUM PANEL (AWP-2),PAINTED P-5". Revised gyp note to say 1/2" rather than 1/4". Added 5 new reference details. See attachment.
4-117	AE-501	Detail 4 - Add secondary sealant, support angle, air and vapor barrier around support angle. Detail 9 - Add secondary sealant, add framing at glazing system to separate interior and exterior masonry. Detail 14 – Revised corner condition. See attachments.
4-118	AE-503	New Exterior Plan Details Sheet – See attachment
4-119	AE-511	General Notes now include - Continuous air / vapor barrier on roof and insulation at spandrel glass locations. Blocking at metal panel attachments Firestop at slab to curtainwall locations. See attachment.
4-120	AE-512	Detail 8 – Add frame under brick wall. Detail 11 – Add frame under brick wall, foam tube @ deflection break, compressive filler at top of brick wall. Detail 17 - Clarified curtain wall connection. Box header to support curtainwall. Added/changed notations. See attachment.
4-121	AE-513	Detail 17 – New Detail 15 – Add compressive filler. See attachment.
4-122	AE-516	Detail 5 – Change steel bend plate to metal flashing. See attachment.
4-123	AE-521	New Interior Plan Details Sheet. See attachment.
4-124	AE-532	Detail 4 – New detail Details 15, 16 – Changed notations to 4 LAYERS ½" DRYWALL SHEATHING, OR EQUAL AS REQUIRED TO ALIGN WITH CMU WALL. See attachment.
4-125	AE-533	Detail numbers modified and detail 8 and 13 added Detail 5 - Added notations ("1/8"TH PERFORATED ALUMINUM PANELS - 1/8 HOLES W 3/8" STAGGERED CENTERS CLEAR ANODIZED" &"ALIGN VERTICAL RAILING WITH THE TECTUM PANELS.". See attachment.
4-126	AE-541	"3/8" PLYWOOD LAYER REMOVED FROM ALL "AF" AND "WF"

		TRANSITION DETAILS". See attachment.
4-127	AE-542	"3/8" PLYWOOD LAYER REMOVED FROM ALL "AF" AND "WF" TRANSITION DETAILS". See attachment.
4-128	AE-543	Added notes to details including under-cabinet task lights. Clarified dimensions. See attachment.
4-129	AE-544	Detail 1 – Changed text to SCHED. WALL TILE Detail 19 – Revised detail to include strip light. See attachments.
4-130	AE-545	Detail 6 – Adjust tectum to 2” panel Detail 17 – Delete detail and replaced Detail 20 – New detail. See attachments.
4-131	AE-601	Detail 4 – Curtain wall dimension adjusted (CW1) Detail 9 – CP locations added to CW6-a&b. See attachment.
4-132	AE-604	SW 16 a&b – Glazing type changed. See attachment.
4-133	AE-606	The width of door P200E2 shall be changed to 6’-0”. Door P104-1 shall be changed to a pair of 3’-0” doors with hardware set 43 and a 4” frame head height.
4-134	AE-611	Added new glazing elevation depicting glass at 117M Gaming Desk. See attachment. L1c-W9a,b,c – Glazing shall be type IG-1AT.

END OF ADDENDUM

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

Response to Bid Period Questions
NO. 3

May 11, 2012

Questions Dated 5/8/2012

03-01 S We received a substitution request for carbon fiber panels in lieu of GFRC panels. Please see attached. Apparently these carbon fiber panels were installed on the BYU Idaho auditorium building in Rexburg, Idaho (and apparently BYU Idaho is the project closest to the UVU project with this type of panel). This panel also apparently attaches directly to building structural steel and doesn't require its own steel support framing similar to GFRC panels. Will you please review the attached information and comment via the next addendum.

Response: This substitution is not allowed due to the requirement to change structural support systems.

03-02 Reference Tile Carpeting specification 096813 – 2.1.A. This item indicates that the State of Utah contract number for purchasing carpet is MA#2067. Is this supposed to be MA#20**9**7.

Response: The specification is incorrect. The correct number is MA#2097.

03-03 The bid form issued in Addendum #1 indicates the bowling equipment allowance for Alternate #1 is $300,000. In the Allowances specification (012100), this amount is indicated to be $370,000 (see item 3.3.B). Please clarify which is the correct allowance amount.

Response: Addendum #4 will clarify that the correct allowance is $370,000.

03-04 In the Allowances specification (012100), Allowance No. 1 is indicated to be a "Quantity Allowance". The term "Quantity Allowance" is not defined in the spec. Will you please define "Quantity Allowance"?

Response: Replace the term "Quantity Allowance" with the term "Lump-Sum Allowance".

03-05 Ground Improvement spec 316100 references a Micropiles specification (316200). There is no Micropiles specification; please issue a specification for Micropiles.

Response: A micropile specification will be provided in Addendum #4. It is worth noting that Addendum #4 will also direct the use of micropiles under certain footings on the east side of the parking structure. The outlined strategy is expected to reduce impact of new construction on the existing service road and utilities in that area.

03-06 Regarding the stone columns, will you please issue the actual live and dead loads for the footings for both the parking structure and the student life center building? These are required to compute settlement.

Response: The footings have been designed based on a maximum soil pressure of 5,000 psf. Column loads can be determined by multiplying the footing area (sf) and 5000 psf.

03-07 The one-line diagram on drawing EP-603 (student life center) shows relief fans 'RF1' through 'RF9' being fed from starters with disconnects in 1MCCC. However, the equipment schedule on drawing EP-605 calls for VFDs. Which is correct?
Response: The Equipment Schedule is correct relief fans "RF1" through "RF9" shall be controlled by VDF's.

03-08 Panel '3LA2' is shown on power plan EP-131c but is not shown on the one-line diagram (drawing EP-603). Please confirm whether it is fed from Panel '1LDPA' and feeder size is 30-2N. Please also provide a panel schedule for Panel '3LA2'.
Response: 3LA2 will not be required. It is a future panel.

03-09 Panel '4LA2' is shown on power plan EP-141c but is not shown on the one-line diagram (drawing EP-603). Please confirm whether it is fed from Panel '1LDPA' and feeder size is 30-2N. Please also provide a panel schedule for Panel '3LA2'.
Response: 4LA2 will not be required. It is a future panel

03-10 Regarding the one-line diagram on drawing EP-603: the feeder tag between '1MCCC' and Panel '1HC' is blank. Should the feeder for '1HC' be #30 from the conductor and conduit schedule?
Response: Feeder to 1HC will be #30.

03-11 Regarding the one-line diagram on drawing EP-603: the feeder tag between '1MCCC' and 'ELEV A' is blank. Should the feeder for 'ELEV A' be #29 similar to the other elevators on this drawing?
Response: Feeder to elevator will be #29.

03-12 Please confirm whether the 2500A gear that is fed from the relocated Student Services 2000kVA transform is the same as 'MS' (existing) that is shown on drawing EP-602. Please confirm whether the ground for this gear is existing.
Response: The relocated transformer feeds a new 2500A/3P main circuit breaker (located adjacent to transformer) which then feeds the existing "MS". Grounding at the new main breaker is required. Ground at the existing "MS" may exist but shall be field verified. Neutral-ground bond shall be removed at existing "MS" per the NEC.

03-13 Regarding the one-line diagram on drawing EP-602: we have assumed that the feeds from existing 'ATS' to existing 'EM' and from 'MDP3' to 'ATS' are existing. Please confirm this assumption.
Response: Assumption is correct.

03-14 Reference drawing EP-111a. The feeds for 'P-17' and 'P-18' come from '4MCCA'. '1MCCC' is much closer. Please confirm that 'P-17' and 'P-18' are to be fed from '4MCCA' and not from '1MCCC'.
Response: Pumps "P-17" and "P-18" will be fed from 1MCCC.

END OF RESPONSE

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

Response to Bid Period Questions
NO. 4

May 14, 2012

Questions Dated 5/8/2012

04-01 Detail 10/AE514 shows brick "soap" cast into GFRC wall panel but spec section 034900 2.3.C calls for a "Tab II system by Tabs Wall Systems, LLC or approved equal." Which method of attachment will be required?
Response: The tab system is required per the specifications.

04-02 What is the required embed strip product specification for the metal panel attachment in the GFRC panel. (Ref. 15/AE514)
Response: The embed strip will be removed from the specification for the GFRC panel in Addendum #4. Metal panels will be screwed directly into the GFRC.

04-03 The finish plan shows a note that the 'Laundry Room' receives General Polymers Epoxy Coating. The Finish Schedule indicates that the same room is to receive a 'Sealed Concrete' finish. Which is correct? If General Polymers Epoxy Coating, please specify the product you want; ceramic carpet double broadcast multi colored quartz 1/8" thick or just a plain pigmented colored floor? If plain sealed concrete finish, please specify the product.
Response: The Laundry Room is to have a sealed concrete floor.

04-04 the parking structure decks to receive a traffic coating or sealant? If yes, what is the product and specification? How many coats?
Response: A sealer and traffic coating will be specified in Addendum #4, as well as striping.

END OF RESPONSE

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

Response to Bid Period Questions
NO. 5

May 14, 2012

Questions Dated 5/8/2012

05-01 Parking structure enlarged plan 2/AE-P413 points to a chain link fence, but this appears to be an error. Please confirm there is no chain link fence associated with this part of the parking structure.
Response: There is no chain link fence in this location.

05-02 Please issue a detail for the heavy-duty bollards at the parking structure (i.e. 1/AE-P413).
Response: Addendum 4 will include a detail of this bollard. They are cast in place rather than a manufactured product.

05-03 Is a cold joint at the base of the wall (top of slab elevation) at detail D2/SF-P503 acceptable?
Response: Yes, it is ok to have a cold joint at the top of the slab in this detail (occurs LP2 north side, over PTB-2 west end of shear wall). Vertical wall reinforcing must be cast into the beam. Joint must be intentionally roughened surface.

END OF RESPONSE

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

Response to Bid Period Questions
NO. 6

May 14, 2012

Questions Dated 5/10/2012

06-01 There are no details on the cable rail for the parking structure on the size of cable and how they want the connections to look. Can you provide the needed details?
Response: See detail A1/SF-P504 for cable barrier information.

06-02 There seems to be some bike racks on level 2 (Sheet AE-P102). No details. Can we get the needed details.
Response: The new addendum indicates a basis of design for these racks. They are Landscape Forms "Flo". Specification 129300 addresses anchorage.

06-03 Metal rails at dance studios do not have a detail on what they want (1/AE-113C, 5/AE-332, 1, 2, 4/AE-464). Can we get a detail on what they want for a metal rail.
Response: The exact rails have not been determined. Provide an allowance as follows:
Wall mounted rail: 125 linear feet @ $60/lf = $7,500
Floor mounted rail: 50 linear feet @ $75/lf= $3,750

06-04 They are shown some HSS framing on details (4/AE311 and 2/AE312) that says reference structural drawings. This framing is not shown on structural drawings. Can you provide needed details for this framing?
Response: On sheet SF-103a at grid F3 (7.5-7.6) and grid 7.51 (F2.18-F3), details D1 and D2/SF-531 are referenced. These details show HSS tube framing at these locations.

06-05 On sheet AE-122c they are saying there are removable bollards, but there is no detail provided. Can you provide a detail?
Response: We are assuming the reference is to sheet AE-112c. The basis of design for these bollards shall be TrafficGuard HRP 48. The bollards are mounted to the slab with embedded J-bolts.

06-06 On details 10, 11/AE-515, 15/AE-515, 7/AE-516 they are showing a bent plate lintel to reference the structural drawings. The schedule on the structural drawings on detail C4/SF-606 does not have a bent plate on it. What do you want us to use for this bent plate and does this bent plate need to galvanize?
Response: Provide steel angles as shown in structural drawings. All angles shall be galvanized.

06-07 Bent plate shown on detail 5/AE-516 for an insulation closure. What is the size of material you are requiring on this? Is this by Insulation supplier?

Response: Bent plate will not be required at this location. Provide metal flashing with drip edge. This issue will be addressed in Addendum #4.

END OF RESPONSE

Utah Valley University

STUDENT LIFE CENTER & PARKING STRUCTURE

Response to Bid Period Questions
NO. 7

May 14, 2012

Questions Dated 5/10/2012

07-01

AE-133c	Custodial room 313A and 400H on AE-133c call for "CT-1" wall finish, but I don't see CT-1 on the finish schedule. Should this be relabeled as "WT-4" which is designated for janitors rooms? Also, what is the height of the tile wainscot in the custodial rooms?

Response: CT-1 has been revised to WT-4 and covered in Add. 4. Typical Custodial Room was elevated in original drawings and height of wainscot was shown. See details 15-18 on sheet AE-414.

07-05

AE-111a	Between grid lines F8-F8.5 at 8.02 on sheet AE-111a there looks to be some millwork. Section 1/AE-315 shows this to possibly be a bench. Will the bench construction for this location be the same as detail 11/AE-516 for the student council chamber bench?

Response: AE-111a Concrete Bench will be eliminated. Revised & covered in Add. 4.

07-06

AE-131c	Who is responsible for providing the "Portable Paint Booth" in Publicity room 122R shown on AE-131c?

Response: Paint booth is owner supplied.

07-07

AE-111c & AE-131c	AE-111c in Publicity room 122R calls for a refrigerator, but AE-131c notes "Wall Mt. Craft Paper Rolls". Please clarify. If this is to be the "Wall Mt. Craft Paper Rolls", will this be provided by owner?

Response: Room 122R contains both a wall mounted craft paper roll and a refrigerator. Location will be clarified in Addendum-04. See equipment coordination plan sheet AE-151 for “furnished by” information

07-08

AE-111c & AE-131c	What is the height of the "18" Deep Shelves" in Publicity room 122R as well as the "Adjustable Shelves" in Supplies 116E & 116J?

Response: Height of shelves will be clarified in Addendum-04

07-09

AE-111c	What is the item shown at approx. grid line 7.5 and G1.2 on sheet AE-111c?

Response: There is a diagonal brace from column at grid 7.45/G1 to column at grid 7.5/G1. See sheet AE-151 for level 1 equipment coordination plan.

07-10

2/AE-411	We are assuming that the laundry/dryer equipment shown on detail 2 of AE-411 is owner furnished and installed. Please clarify if this is correct?

Response: See equipment coordination plan – level 1, sheet AE-151. Equipment tags EQ-4A and EQ-4C.

07-11

13/AE-454	This elevation shown in detail 13 on AE-454 calls for "Cast Stone Trough Sink ST-1" and doesn't show any base cabinets below, but on sheet AE-132b for Massage room 211E it calls for a "Hand Sink & Base Cab". Please clarify whether base cabinets will be required or not?

Response: Detail 13 on sheet AE-454 Trough Sink (renamed to Ramp Sink): no base cabinets below. Massage 211E is Ramp Sink only, no base cabs. Notes have been revised & covered in Add.4.

07-12

AE-132c	On sheet AE-132c it appears there is some millwork in rooms 227A, 227B and 227C. Please provide elevations showing what is wanted at these locations.

Response: Sheet AE-132c, Rooms 227A, 227B, 227C have no millwork. Floor hatch was shown incorrectly. Has been revised & covered in Add. 4.

07-13

AE-112c	Sheet AE-112c, please provide details for the "4' Ht. Display Case" called for in room 227.

Response: Display Case Millwork in Room 227 is N.I.C.

07-14

AE-112c & AE-132c	Please provide millwork elevations showing what is wanted for the service desk and workstations in rooms 227G and 227H.

Response: Service desk & workstation millwork in Room 227 is N.I.C.

07-15

AE-412	Detail 1 on AE-412 calls for "Wood Laminate" at approx grid line 7.01 and G2.6, but interior elevation 6 on AE-412 calls for "SS-1" countertop. Please clarify that wood laminate does not apply to these locations.

Response: Detail 1/ AE-412: Callout for “Wood Laminate” is wrong. Has been revised to SS-1 & covered in Add. 4.

07-17

AE-133A	On AE-133a there aren't any finishes called out for ST-2 room 300C. Please clarify.

Response: Sheet AE-133a: ST-2 finishes have been added & covered in Add. 4.

07-18

AE-112a	Who is responsbile for providing the Double Sided Information Kiosks shown at grid lines 7.7 and F8.4? If by contractor, please provide detail.

Response: See equipment coordination plan – level 2, sheet AE-152. Equipment tag EQ-6E.

07-19

1/AE-416	Detail 1 on AE-416, are the lockers in Hallway 300G part of bid alternate 6 Daylockers? Also, are these tiered lockers? How many?

Response: All lockers not in the locker room are part of the add-alternate.

07-20

AE-113c	AE-113c, are the lockers in MP Yoga Entry 305 part of bid alternate 6 Daylockers? Also are these tiered lockers? How many?

Response: All lockers not in the locker room are part of the add-alternate.

07-22

AE-153 and Spec. 11 66 43	Specification 11 66 43 Calls out the basis of design for the scoreboards to be Nevco or CID Corp. The plans call for the basis of design to Daktronics and that the Owner is to provide and GC to install. Please verify that these items are Owner provided and Contractor installed.

Response: Specification Section 116643 Interior Scoreboards Part 2.1.A. Include Daktronics as Basis-of-Design Product. Scoreboards to be Contractor Furnished, Contractor Installed

07-23

AE-153	Please provide a specification for the ballet bars (EQ-1A and EQ-1B) calle out on AE-153

Response: See addendum #4 for allowance. Exact bar types / basis of design not known.

07-29

	The EJ Sheet in volume 2 show overhead projectors. Are these to be Owner Furnished and Installed?

Response: Yes, see EJ-601 General Notes.

07-30

	The EJ Sheets in volume 2 show overhead projector mounts. Are these to be Owner supplied and Contractor installed?

Response: Contractor to provide and install projector ceiling mount (structural) and pole. Projector mounting plates are projector specific and will be provided and installed by owner.

07-31

	The EJ Sheets in volume 2 show projection screens. Are these to be Contractor supplied and Installed?

Response: Yes, see EJ-601 General Notes

END OF RESPONSE

Table of Contents

Division	Section Title	Pages
SPECIFICATIONS GROUP		
General Requirements Subgroup		
VOLUME I		
DIVISION 00 – DFCM DOCUMENTS		
	GENERAL CONDITIONS	51
	SUPPLEMENTAL GENERAL CONDITIONS – FOR HEALTH INSURANCE	4
	SUPPLEMENTAL GENERAL CONDITIONS – FOR ILLEGAL IMMIGRATION	4
	SUPPLEMENTAL GENERAL CONDITIONS – FOR DRUG AND ALCOHOL TESTING	2
	CONTRACTOR'S AGREEMENT	5
	SUPPLEMENTAL GENERAL CONDITIONS – FOR CONSTRUCTION AGREEMENTS	2
DIVISION 01 - GENERAL REQUIREMENTS		
011000	SUMMARY	6
012100	**ALLOWANCES**	**4**
012300	ALTERNATES	3
012500	SUBSTITUTION PROCEDURES	4
012600	CONTRACT MODIFICATION PROCEDURES	3
012900	PAYMENT PROCEDURES	6
013100	PROJECT MANAGEMENT AND COORDINATION	13
013200	CONSTRUCTION PROGRESS DOCUMENTATION	11
013300	SUBMITTAL PROCEDURES	13
014000	QUALITY REQUIREMENTS	11
014200	REFERENCES	19
015000	TEMPORARY FACILITIES AND CONTROLS	12
015639	TEMPORARY TREE AND PLANT PROTECTION	8
016000	PRODUCT REQUIREMENTS	6
017300	EXECUTION	11
017419	CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL	16
017700	CLOSEOUT PROCEDURES	7
017823	OPERATION AND MAINTENANCE DATA	9
017839	PROJECT RECORD DOCUMENTS	5
017900	DEMONSTRATION AND TRAINING	7
018113.13	SUSTAINABLE DESIGN REQUIREMENTS - LEED FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS	10
019113	GENERAL COMMISSIONING REQUIREMENTS	10
Facility Construction Subgroup		
DIVISION 02 - EXISTING CONDITIONS		
024113	SELECTIVE SITE DEMOLITION	3

024114	PAVEMENT REMOVAL	3
024119	SELECTIVE DEMOLITION	8

DIVISION 03 - CONCRETE

032000	CONCRETE REINFORCING	4
033000	CAST-IN-PLACE CONCRETE	24
033004	CONCRETE	10
033005	CONCRETE TESTING	5
033010	CONCRETE PLACEMENT	6
033300	ARCHITECTURAL CONCRETE	8
033500	CONCRETE FINISHING	5
033816	UNBONDED POST-TENSIONED CONCRETE	13
033900	CONCRETE CURING	3
034000	SITE PRECAST CONCRETE	5
034900	**GLASS-FIBER-REINFORCED CONCRETE (GFRC)**	**11**
036100	CEMENTITIOUS GROUTING	3

DIVISION 04 - MASONRY

042113	BRICK MASONRY	15
042200	CONCRETE UNIT MASONRY	16

DIVISION 05 - METALS

051200	**STRUCTURAL STEEL FRAMING**	**11**
051250	BUCKLING RESTRAINED BRACES	9
052100	STEEL JOIST FRAMING	7
053100	STEEL DECKING	7
054000	COLD-FORMED METAL FRAMING	13
055100	**METAL STAIRS**	**11**
055213	PIPE AND TUBE RAILINGS	9
057300	DECORATIVE METAL RAILINGS	11

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

061053	MISCELLANEOUS ROUGH CARPENTRY	8
061600	GYPSUM SHEATHING	4
062023	INTERIOR FINISH CARPENTRY	9
064113	WOOD-VENEER-FACED ARCHITECTURAL CABINETS	10
064116	PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS	9
064216	FLUSH WOOD PANELING	8

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

071326	SELF-ADHERING SHEET WATERPROOFING	7
071800	**TRAFFIC COATINGS**	**8**
071900	**WATER REPELLENTS**	**5**
072100	THERMAL INSULATION	7
072413	POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)	10
072500	WEATHER BARRIERS	2
074213.13	**FORMED METAL WALL PANELS**	**9**
075419	POLYVINYL-CHLORIDE (PVC) ROOFING	11

075556	FLUID-APPLIED PROTECTED MEMBRANE ROOFING	11
076200	SHEET METAL FLASHING AND TRIM	9
077129	MANUFACTURED ROOF EXPANSION JOINTS	10
078100	APPLIED FIREPROOFING	7
078123	INTUMESCENT FIREPROOFING	6
078413	PENETRATION FIRESTOPPING	7
078446	FIRE-RESISTIVE JOINT SYSTEMS	5
079200	JOINT SEALANTS	12
079500	**EXPANSION CONTROL**	**16**

VOLUME II

DIVISION 08 - OPENINGS

081113	HOLLOW METAL DOORS AND FRAMES	9
081416	FLUSH WOOD DOORS	7
083113	ACCESS DOORS AND FRAMES	6
083300	HORIZONTAL FIRE AND SMOKE RATED SHUTERS	5
083323	OVERHEAD COILING DOORS	10
083326	**OVERHEAD COILING GRILLS**	**10**
083513	**FOLDING DOORS**	**5**
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS	13
084226	ALL-GLASS ENTRANCES	6
084413	GLAZED ALUMINUM CURTAIN WALLS	14
084513	STRUCTURED-POLYCARBONATE-PANEL ASSEMBLIES	8
086200	UNIT SKYLIGHTS	5
087100	DOOR HARDWARE	53
088000	GLAZING	16
088300	**MIRRORS**	**5**
088810	FIRE RATED GLASS & FRAMING	5

DIVISION 09 - FINISHES

092100	SPRAY APPLIED ACOUSTICAL CEMENT PLASTER	4
092116.23	GYPSUM BOARD SHAFT WALL ASSEMBLIES	5
092216	NON-STRUCTURAL METAL FRAMING	9
092900	GYPSUM BOARD	11
093000	TILING	18
095113	**ACOUSTICAL PANEL CEILINGS**	**14**
096466	WOOD ATHLETIC FLOORING	10
096513	RESILIENT BASE AND ACCESSORIES	7
096516	RESILIENT SHEET FLOORING	6
096566	RESILIENT ATHLETIC FLOORING	6
096766	**FLUID-APPLIED ATHLETIC FLOORING**	**7**
096813	**TILE CARPETING**	**9**
098433	**SOUND ABSORBING WALL PANELS**	**4**
098436	**SOUND-ABSORBING CEILING UNITS**	**6**
099113	EXTERIOR PAINTING	7
099123	**INTERIOR PAINTING**	**11**
099600	HIGH-PERFORMANCE COATINGS	5

DIVISION 10 - SPECIALTIES

102113	TOILET COMPARTMENTS	5
102238	OPERABLE PANEL PARTITIONS	10
102239	OPERABLE GLASS-PANEL PARTITIONS	7
102600	WALL AND DOOR PROTECTION	4
104413	FIRE EXTINGUISHER CABINETS	6
104416	FIRE EXTINGUISHERS	4
105100	CLASS A FIRE RATED PHENOLIC LOCKERS	7
105113	METAL LOCKERS	7

DIVISION 11 - EQUIPMENT

111400	PEDESTRIAN CONTROL EQUIPMENT	3
116643	**INTERIOR SCOREBOARDS**	**5**
116653	**GYMNASIUM DIVIDERS**	**6**
116733	CLIMBING WALLS	3

DIVISION 12 - FURNISHINGS

122413	ROLLER WINDOW SHADES	6
123661	SIMULATED STONE COUNTERTOPS	3
124813	ENTRANCE FLOOR MATS AND FRAMES	2
126600	TELESCOPING STANDS	6
129300	SITE FURNISHINGS	6

DIVISION 14 - CONVEYING EQUIPMENT

142100	ELECTRIC TRACTION ELEVATORS	11
142400	HYDRAULIC ELEVATORS	10

Facility Services Subgroup

DIVISION 21 – FIRE PROTECTION

211000	FIRE PROTECTION	29

DIVISION 22 – PLUMBING

221410	PLUMBING PIPING	8
221411	DISINFECTING WATER SUPPLY SYSTEM	6
221430	PLUMBING SPECIALTIES	14
224440	PLUMBING FIXTURES	9
224450	PLUMBING EQUIPMENT	4
224460	SPECIAL PLUMBING EQUIPMENT SYSTEMS	5

DIVISION 23 - HEATING VENTILATING AND AIR CONDITIONING

230500	BASIC MECHANICAL REQUIREMENTS	18
230529	BASIC MECHANICAL MATERIALS AND METHODS	33
230540	MECHANICAL SOUND AND VIBRATION CONTROL	23
230548	MECHANICAL SEISMIC CONTROL	8
230593	TESTING, ADJUSTING AND BALANCING	6
230595	MECHANICAL SYSTEMS COMMISSIONING (BY COMMISSIONING AGENT)	
230700	MECHANICAL INSULATION	10

230800	MECHANICAL SYSTEMS COMMISSIONING	12
230810	VARIABLE FREQUENCY DRIVES	1
230900	ELECTRONIC CONTROLS	30
231123	NATURAL GAS SYSTEM	8
232113	HVAC PIPING & SPECIALTIES	17
232123	HVAC PUMPS	6
232500	HVAC WATER TREATMENT	7
233300	DUCTWORK AND ACCESSORIES	18
233400	AIR HANDLING FANS	8
233600	AIR TERMINAL UNITS	3
233713	AIR INLETS AND OUTLETS	5
234100	AIR CLEANING	3
235100	BREECHINGS, CHIMNEYS, STACKS AND FLUES	4
235200	BOILERS	6
235700	HEAT TRANSFER	9
236400	REFRIGERATION	16
237410	AIR HANDLING UNIT WITH COILS	13

VOLUME III

DIVISION 26 - ELECTRICAL

260500	COMMON WORK RESULTS FOR ELECTRICAL	5
260513	MEDIUM-VOLTAGE CABLES	6
260516	OVERHEAD MEDIUM-VOLTAGE WIRING	11
260519	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES	5
260526	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	6
260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	5
260533	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS	10
260536	CABLE TRAYS FOR ELECTRICAL SYSTEMS	5
260539	UNDERFLOOR RACEWAYS FOR ELECTRICAL SYSTEMS	7
260543	UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS	11
260548	VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS	8
260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS	8
260573	OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY	5
260800	COMMISSIONING FOR ELECTRICAL	9
260913	ELECTRICAL POWER MONITORING AND CONTROL	20
260923	LIGHTING CONTROL DEVICES	6
260936	MODULAR DIMMING CONTROLS	6
260943	NETWORK LIGHTING CONTROLS	9
261200	MEDIUM-VOLTAGE TRANSFORMERS	6
261350	MEDIUM-VOLTAGE SWITCHGEAR, PAD OR VAULT MOUNTED	9
262200	LOW-VOLTAGE TRANSFORMERS	5
262413	SWITCHBOARDS	11
262416	PANELBOARDS	9
262419	MOTOR-CONTROL CENTERS	14
262726	WIRING DEVICES	9
262726SC	WIRING DEVICE SCHEDULE	3
262813	FUSES	3

262816 ENCLOSED SWITCHES AND CIRCUIT BREAKERS 8
262913 ENCLOSED CONTROLLERS 10
262923 VARIABLE-FREQUENCY MOTOR CONTROLLERS 15
263213 ENGINE GENERATORS 14
263600 TRANSFER SWITCHES 8
264113 LIGHTNING PROTECTION FOR STRUCTURES 3
264313 TRANSIENT-VOLTAGE SUPPRESSION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS 6
265100 INTERIOR LIGHTING 11
265600 EXTERIOR LIGHTING 11
268313 ELECTRIC HEATING CABLES 7

DIVISION 27 - COMMUNICATIONS
270500 COMMON WORK RESULTS FOR COMMUNICATIONS 22
271300 COMMUNICATIONS BACKBONE CABLING 14
271500 COMMUNICATIONS HORIZONTAL CABLING 17
274113 AUDIO SYSTEMS 10
274115 CONTROL SYSTEMS 16
274133 MASTER ANTENNA TELEVISION SYSTEM 11
275313 CLOCK SYSTEMS 4

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY
281300 ACCESS CONTROL 14
283111 DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM 15

Site and Infrastructure Subgroup

DIVISION 31 – EARTHWORK
310513 COMMON FILL 4
310519 GEOTEXTILES 12
311100 SITE CLEARING 2
312316 EXCAVATION 4
312323 EPS BLOCK FOR EARTHWORK 6
312326 COMPACTION 2
312500 EROSION AND SEDIMENTATION CONTROL 4
316100 GROUND IMPROVEMENT USING AGGREGATE PIERS / STONE COLUMNS 6
316200 MICROPILES 20

DIVISION 32 - EXTERIOR IMPROVEMENTS
321123 CRUSHED AGGREAGE BASE 7
321203 PAVING ASPHALTS 4
321205 ASPHALT CONCRETE 10
321213 PRIME COAT 2
321214 TACK COAT 2
321216 PLANT MIX – ASPHALT PAVING 9
321313 CONCRETE PAVING 11
321373 CONCRETE PAVING JOINT SEALANTS 6

321613	DRIVEWAY, SIDEWALK, CURB, GUTTER	6
321614	CURB RAMP	3
321723	PAVEMENT MARKINGS	8
328400	PLANTING IRRIGATION	13
329200	TURF AND GRASSES	12
329300	PLANTS	18

DIVISION 33 – UTILITIES

330506	POLYETHYLENE PIPE	4
330507	POLYVINYL CHLORIDE PIPE	3
330514	UTILITY GRADE ADJUSTMENT	3
330520	BACKFILLING TRENCHES	6
330525	PAVEMENT RESTORATION	5
330800	COMMISSIONING OF WATER UTILITES	4
331100	WATER DISTRIBUTION AND TRANSMISSION	7
331111	RELOCATE WATER METERS AND FIRE HYDRANTS	3
331216	WATER VALVES	4
331219	HYDRANTS	4
331233	WATER METER	3
331300	DISINFECTION	4
333100	SANITARY SEWERAGE SYSTEMS	4
334100	STORM DRAINAGE SYSTEMS	5

END OF TABLE OF CONTENTS

2.6 STEEL-FRAMED STAIRS

~~A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:~~

A. Basis of Design: Subject to compliance with requirements, provide steel framed stairs from Pacific Stair Corporation or comparable product by one of the following:

1. Alfab, Inc.
2. American Stair, Inc.
3. Sharon Companies Ltd. (The).
~~4. Pacific Stair Corporation.~~

B. Stair Framing:

1. Fabricate stringers of steel plates or channels.

   a. Provide closures for exposed ends of channel stringers.

2. Construct platforms of steel plate or channel headers and miscellaneous framing members as indicated.
3. Weld stringers to headers; weld framing members to stringers and headers.
4. Where stairs are enclosed by gypsum board shaft-wall assemblies, provide hanger rods or struts to support landings from floor construction above or below. Locate hanger rods and struts where they will not encroach on required stair width and will be within the fire-resistance-rated stair enclosure.
5. Where masonry walls support metal stairs, provide temporary supporting struts designed for erecting steel stair components before installing masonry.

C. Metal-Pan Stairs: Form risers, subtread pans, and subplatforms to configurations shown from steel sheet of thickness needed to comply with performance requirements but not less than 0.067 inch.

1. Steel Sheet: Uncoated hot-rolled steel sheet unless otherwise indicated.
2. Directly weld metal pans to stringers; locate welds on top of subtreads where they will be concealed by concrete fill. Do not weld risers to stringers.
3. Attach risers and subtreads to stringers with brackets made of steel angles or bars. Weld brackets to stringers and attach metal pans to brackets by welding, riveting, or bolting.
4. Shape metal pans to include nosing integral with riser.
5. At Contractor's option, provide stair assemblies with metal-pan subtreads filled with reinforced concrete during fabrication.
6. Provide subplatforms of configuration indicated or, if not indicated, the same as subtreads. Weld subplatforms to platform framing.

   a. Smooth Soffit Construction: Construct subplatforms with flat metal under surfaces to produce smooth soffits.

2.7 STAIR RAILINGS

A. Comply with applicable requirements in Section 055213 "Pipe and Tube Railings."

SECTION 071800 - TRAFFIC COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes traffic coatings and pavement markings for the following applications:

1. Pedestrian traffic.
2. Vehicular traffic.
3. Equipment-room floor.

B. Related Requirements:

1. Section 071900 "Water Repellents" for penetrating and film-forming water repellents applied on traffic-bearing surfaces.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product, including installation instructions.

B. LEED Submittals:

1. Product Data for Credit IEQ 4.2: For interior field-applied traffic coatings and pavement-marking paints, documentation including printed statement of VOC content.

C. Shop Drawings: For traffic coatings.

1. Include details for treating substrate joints and cracks, flashings, deck penetrations, and other termination conditions.
2. Include plans showing layout of pavement markings, lane separations, and defined parking spaces. Indicate, with international symbol of accessibility, spaces allocated for people with disabilities.

D. Samples for Initial Selection: For each type of exposed finish.

E. Samples for Verification: For each type of exposed finish, prepared on rigid backing.

1. Provide stepped Samples on backing to illustrate buildup of traffic coatings.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of traffic coating.

C. Field quality-control reports.

D. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For traffic coatings to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

B. Mockups: Build mockups to set quality standards for materials and execution.

1. Build mockup for each traffic coating and substrate to receive traffic coatings.
2. Size: 200 sq. ft. of each substrate to demonstrate surface preparation, joint and crack treatment, thickness, texture, color, and standard of workmanship.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Apply traffic coatings within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply traffic coatings to damp or wet substrates, when temperatures are below 40 deg F, when relative humidity exceeds 85 percent, or when temperatures are less than 5 deg F above dew point.

1. Do not apply traffic coatings in snow, rain, fog, or mist, or when such weather conditions are imminent during the application and curing period. Apply only when frost-free conditions occur throughout the depth of substrate.

B. Do not install traffic coating until items that penetrate membrane have been installed.

C. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F for oil-based materials, and not exceeding 95 deg F.

1.9 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace traffic coating that fails in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Adhesive or cohesive failures.
b. Abrasion or tearing failures.
c. Surface crazing or spalling.
d. Intrusion of water, oils, gasoline, grease, salt, deicer chemicals, or acids into deck substrate.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Material Compatibility: Provide primers; base-, intermediate-, and topcoat; and accessory materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Source Limitations:

1. Obtain traffic coatings from single source from single manufacturer.
2. Obtain primary traffic-coating materials, including primers, from traffic-coating manufacturer. Obtain accessory materials including aggregates, sheet flashings, joint sealants, and substrate repair materials of types and from sources recommended in writing by primary material manufacturer.
3. Obtain pavement-marking paint from single source from single manufacturer.

2.2 TRAFFIC COATING

A. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for vehicular traffic; according to ASTM C 957.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Neogard; Autoguard, or comparable product.

B. Primer: Liquid primer recommended for substrate and conditions by traffic-coating manufacturer.

1. Material: Urethane.

C. Preparatory and Base Coats: Aliphatic urethane.

1. Thicknesses: Minimum dry film thickness as recommended in writing by manufacturer for substrate and service conditions indicated.

D. Intermediate Coat: Aliphatic urethane.

1. Thicknesses: Minimum dry film thickness as recommended in writing by manufacturer for substrate and service conditions indicated, measured excluding aggregate.

E. Topcoat: Aliphatic urethane.

1. Thicknesses: Minimum dry film thickness as recommended in writing by manufacturer for substrate and service conditions indicated, measured excluding aggregate.
2. Aggregate Content: As required to achieve slip-resistant finish.
3. Color: As selected by Architect from manufacturer's full range.

F. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.

G. VOC Content: Traffic coating shall have a VOC content of 150 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.3 ACCESSORY MATERIALS

A. Joint Sealants: As specified in Section 079200 "Joint Sealants."

B. Reinforcing Strip: Fiberglass mesh recommended in writing by traffic-coating manufacturer.

2.4 PAVEMENT MARKINGS

A. Pavement-Marking Paint: MPI #32 Alkyd Traffic Marking Paint.

1. Color: Yellow.

B. Glass Beads: AASHTO M 247, Type 1.

C. VOC Content: Pavement-marking paints shall have a VOC content of 150 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for surface smoothness, surface moisture, and other conditions affecting performance of traffic-coating work.

B. Verify that substrates are visibly dry and free of moisture.

1. Test for moisture according to ASTM D 4263.
2. Test for moisture content by method recommended in writing by traffic-coating manufacturer.

C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of traffic-coating work.

D. Proceed with installation only after substrate construction and penetrating work have been completed and unsatisfactory conditions have been corrected.

1. Begin coating application only after minimum concrete-curing and -drying period recommended in writing by traffic-coating manufacturer has passed and after substrates are dry.
2. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. General: Before applying traffic coatings, clean and prepare substrates according to ASTM C 1127 and manufacturer's written instructions to produce clean, dust-free, dry substrate for traffic-coating application. Remove projections, fill voids, and seal joints if any, as recommended in writing by traffic-coating manufacturer.

B. Schedule preparation work so dust and other contaminants from process do not fall on wet, newly coated surfaces.

C. Mask adjoining surfaces not receiving traffic coatings to prevent overspray, spillage, leaking, and migration of coatings. Prevent traffic-coating materials from entering deck substrate penetrations and clogging weep holes and drains.

D. Concrete Substrates: Mechanically abrade surface to a uniform profile acceptable to manufacturer, according to ASTM D 4259. Do not acid etch.

1. Remove grease, oil, paints, and other penetrating contaminants from concrete.
2. Remove concrete fins, ridges, and other projections.
3. Remove laitance, glaze, efflorescence, curing compounds, concrete hardeners, form-release agents, and other incompatible materials that might affect coating adhesion.
4. Remove remaining loose material to provide a sound surface, and clean surfaces according to ASTM D 4258.

3.3 TERMINATIONS AND PENETRATIONS

A. Prepare vertical and horizontal surfaces at terminations and penetrations through traffic coatings and at expansion joints, drains, and sleeves according to ASTM C 1127 and manufacturer's written instructions.

B. Provide sealant cants at penetrations and at reinforced and nonreinforced, deck-to-wall butt joints.

C. Terminate edges of deck-to-deck expansion joints with preparatory base-coat strip.

3.4 JOINT AND CRACK TREATMENT

A. Prepare, treat, rout, and fill joints and cracks in substrates according to ASTM C 1127 and manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.

1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

B. Apply reinforcing strip in traffic-coating system where recommended in writing by traffic-coating manufacturer.

3.5 TRAFFIC-COATING APPLICATION

A. Apply traffic coating according to ASTM C 1127 and manufacturer's written instructions.

B. Apply number of coats of specified compositions for each type of traffic coating at locations as indicated on Drawings.

C. Start traffic-coating application in presence of manufacturer's technical representative.

D. Verify that wet film thickness of each coat complies with requirements every 100 sq. ft..

E. Uniformly broadcast aggregate on coats specified to receive aggregate. Embed aggregate according to manufacturer's written instructions. After coat dries, sweep away excess aggregate.

F. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated; omit aggregate on vertical surfaces.

G. Cure traffic coatings. Prevent contamination and damage during application and curing stages.

3.6 PAVEMENT MARKINGS

A. Do not apply pavement-marking paint for striping and other markings until layout, colors, and placement have been verified with Architect and traffic coating has cured.

B. Sweep and clean surface to eliminate loose material and dust.

C. Apply pavement-marking paint with mechanical equipment to produce markings of dimensions indicated with uniform straight edges. Apply at manufacturer's recommended rates for a 15-mil- minimum, wet film thickness.

1. Apply graphic symbols and lettering with paint-resistant, die-cut stencils, firmly secured to surface. Mask an extended area beyond edges of each stencil to prevent paint application beyond stencil. Apply paint so that it cannot run beneath stencil.
2. Broadcast glass beads uniformly into wet pavement-marking paint at a rate of 6 lb/gal..

3.7 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform the following field tests and inspections:

1. Materials Testing:

a. Samples of material delivered to Project site shall be taken, identified, sealed, and certified in presence of Contractor.
b. Testing agency shall perform tests for characteristics specified, using applicable referenced testing procedures.
c. Testing agency shall verify thickness of coatings during traffic-coating application for each 600 sq. ft. of installed traffic coating or part thereof.

B. Final Traffic-Coating Inspection: Arrange for traffic-coating manufacturer's technical personnel to inspect membrane installation on completion.

1. Notify Architect or Owner 48 hours in advance of date and time of inspection.

C. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.8 PROTECTING AND CLEANING

A. Protect traffic coatings from damage and wear during remainder of construction period.

B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 071800

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes penetrating water-repellent treatments for the following vertical and horizontal surfaces:

1. Cast-in-place concrete.

1.3 PERFORMANCE REQUIREMENTS

A. General Performance: Water repellents shall meet performance requirements indicated without failure due to defective manufacture, fabrication, or installation.

1. Water Repellents: Comply with performance requirements specified, as determined bytesting on manufacturer's standard substrate assemblies representing those indicated for this Project.

B. Water Absorption: Minimum 90 percent reduction of water absorption after 24 hours in comparison of treated and untreated specimens.

1. Cast-in Place Concrete: ASTM C 642.

C. Water-Vapor Transmission: Comply with one or both of the following:

1. Maximum 10 percent reduction in rate of vapor transmission in comparison of treated and untreated specimens, according to ASTM E 96/E 96M.
2. Minimum 80 percent water-vapor transmission in comparison of treated and untreated specimens, according to ASTM D 1653.

D. Durability: Maximum 5 percent loss of water-repellent properties after 2500 hours of weathering according to ASTM G 154 in comparison to water-repellent-treated specimens before weathering.

E. Chloride-Ion Intrusion in Concrete: NCHRP Report 244, Series II tests.

1. Reduction of Water Absorption: 80 percent.

2. Reduction in Chloride Content: 80 percent.

1.4 PRECONSTRUCTION TESTING

A. Preconstruction Testing: Installed water repellents shall comply with performance requirements indicated, as evidenced by reports of tests performed on manufacturer's standard substrate assemblies by a qualified testing agency.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1. Include manufacturer's printed statement of VOC content.
2. Include manufacturer's recommended number of coats for each type of substrate and spreading rate for each separate coat.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Applicator.

B. Product Certificates: For each type of water repellent, from manufacturer.

C. Field quality-control reports.

D. Warranty: Special warranty specified in this Section.

1.7 QUALITY ASSURANCE

A. Applicator Qualifications: An employer of workers trained and approved by manufacturer.

B. Mockups: Apply water repellent to each type of substrate required.

1. Locate each test application as directed by Architect.
2. Size: 25 sq. ft..
3. Final approval by Architect of water-repellent application will be from test applications.

1.8 PROJECT CONDITIONS

A. Limitations: Proceed with application only when the following existing and forecasted weather and substrate conditions permit water repellents to be applied according to manufacturers' written instructions and warranty requirements:

1. Concrete surfaces and mortar have cured for not less than 28 days.
2. Building has been closed in for not less than 30 days before treating wall assemblies.

3. Ambient temperature is above 40 deg F and below 100 deg F and will remain so for 24 hours.
4. Substrate is not frozen and substrate-surface temperature is above 40 deg F and below 100 deg F.
5. Rain or snow is not predicted within 24 hours.
6. Not less than seven days have passed since surfaces were last wet.
7. Windy conditions do not exist that might cause water repellent to be blown onto vegetation or surfaces not intended to be treated.
8. All construction activities have been completed.
9. One month prior to substantial completion.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer and Applicator agree(s) to repair or replace materials that fail to maintain water repellency specified in "Performance Requirements" Article within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PENETRATING WATER REPELLENTS

A. Silane/Siloxane-Blend, Penetrating Water Repellent: Clear, silane and siloxane blend with 600 g/L or less of VOCs.

1. Products: Subject to compliance with requirements, provide one of the following:

a. Pecora Corporation; KlereSeal 920-W.
b. Sika Corporation, Inc.; Sikagard 701W.
c. Tnemec Inc.; Prime-A-Pell Plus, Series 662.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of the Work.

1. Verify that surfaces are clean and dry according to water-repellent manufacturer's requirements. Check moisture content in three representative locations by method recommended by manufacturer.

2. Inspect for previously applied treatments that may inhibit penetration or performance of water repellents.
3. Verify that there is no efflorescence or other removable residues that would be trapped beneath the application of water repellent.
4. Verify that required repairs are complete, cured, and dry before applying water repellent.

B. Test pH level according to water-repellent manufacturer's written instructions to ensure chemical bond to silica-containing or siliceous minerals.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Cleaning: Before application of water repellent, clean substrate of substances that could impair penetration or performance of product according to water-repellent manufacturer's written instructions and as follows:

1. Cast-in-Place Concrete: Remove oil, curing compounds, laitance, and other substances that inhibit penetration or performance of water repellents according to ASTM E 1857.

B. Protect adjoining work, including mortar and sealant bond surfaces, from spillage or blow-over of water repellent. Cover adjoining and nearby surfaces of aluminum and glass if there is the possibility of water repellent being deposited on surfaces. Cover live vegetation.

C. Coordination with Mortar Joints: Do not apply water repellent until pointing mortar for joints adjacent to surfaces receiving water-repellent treatment has been installed and cured.

D. Coordination with Sealant Joints: Do not apply water repellent until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.

1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those required.

3.3 APPLICATION

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of water repellent and to instruct Applicator on the product and application method to be used.

B. Apply a heavy-saturation coating of water repellent, on surfaces indicated for treatment, using 15 psi- pressure spray with a fan-type spray nozzle to the point of saturation. Apply coating in dual passes of uniform, overlapping strokes. Remove excess material; do not allow material to puddle beyond saturation. Comply with manufacturer's written instructions for application procedure unless otherwise indicated.

3.4 FIELD QUALITY CONTROL

A. Testing of Water-Repellent Material: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when water repellent is being applied:

1. Owner will engage the services of a qualified testing agency to sample water-repellent material being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
2. Testing agency will perform tests for compliance of water-repellent material with product requirements.
3. Owner may direct Contractor to stop applying water repellents if test results show material being used does not comply with product requirements. Contractor shall remove noncomplying material from Project site, pay for testing, and correct deficiency of surfaces treated with rejected materials, as approved by Architect.

B. Coverage Test: In the presence of Architect, hose down a dry, repellent-treated surface to verify complete and uniform product application. A change in surface color will indicate incomplete application.

1. Notify Architect seven days in advance of the dates and times when surfaces will be tested.
2. Reapply water repellent until coverage test indicates complete coverage.

3.5 CLEANING

A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Correct damage to work of other trades caused by water-repellent application, as approved by Architect.

B. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071900

SECTION 074213.13 - FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Concealed-fastener, lap-seam metal wall panels.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. LEED Submittals:

   1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.

C. Shop Drawings:

   1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
   2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

D. Samples for Initial Selection: For each type of metal panel indicated with factory-applied finishes.

   1. Include Samples of trim and accessories involving color selection.

E. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:

1. Metal Panels: 12 inches long by actual panel width. Include fasteners, closures, and other metal panel accessories.

F. Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical metal panel assembly including corner, soffits, supports, attachments, and accessories. Size and location to be determined by Architect.

2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal panels during installation.

1.8 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.9 COORDINATION

A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including rupturing, cracking, or puncturing.

b. Deterioration of metals and other materials beyond normal weathering.

2. Warranty Period: Two years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.

b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.

c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

B. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:

1. Wind Loads: As indicated on Drawings.
2. Other Design Loads: As indicated on Drawings .
3. Deflection Limits: Perforated Panels: For wind loads, no greater than 1/90 of the span.
4. Deflection Limits: Metal Wall Panels: For wind loads, no greater than 1/180.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces .

2.2 CONCEALED-FASTENER, LAP-SEAM METAL WALL PANELS

A. General: Provide factory-formed metal panels designed to be field assembled by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners and factory-applied sealant in side laps. Include accessories required for weathertight installation.

B. Flush-Profile, Concealed-Fastener Metal Wall Panels : Formed with vertical panel edges and creased pan between panel edges; with flush joint between panels.

1. Basis-of-Design Product: Subject to compliance with requirements, provide:
   a. Wall Panel: Morin concealed fastener wall panel model W-12
   b. Soffit Panel: Morin concealed fastener model F-12-S
   c. Or comparable product by one of the following:

      1) CENTRIA Architectural Systems.
      2) MBCI; a division of NCI Building Systems, L.P.

2. Metallic-Coated Steel Sheet: Typical Installation Wall and Soffit: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.

   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: PPG DURANAR VARI-Cool coating with a factory applied Kynar 500 foundation or approved equal.
   c. Color: Kaleidoscope 865X13.

3. Aluminum Sheet: Perforated Installation: Coil-coated sheet, ASTM B 209, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.

   a. Thickness: 0.040 inch.
   b. Surface: Smooth, flat finish.
   c. Openness: 35%
   d. Exterior Finish: PPG DURANAR VARI-Cool coating with a factory applied Kynar 500 foundation or approved equal.
   e. Color: Kaleidoscope 865X13.

2.3 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C 645, cold-formed, metallic-coated steel sheet, ASTM A 653/A 653M, G90 coating designation or ASTM A 792/A 792M,

Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

1. Subframing and furring is not required at locations where metal panel attaches to GFRC panel.

B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and rakes, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for ALL fasteners.

1. At locations where metal panel attaches to GFRC, metal panel will anchor directly to GFRC panel with concrete fasteners. Size and spacing of fasteners to be determined by metal panel manufacturer to account for pull out requirements. Predrill holes for fasteners if required to prevent cracking. Fastener cannot penetrate GFRC panel. If penetration/spalling should occur on back side of GFRC panel, patch and repair damaged area prior to applying spray foam insulation.

E. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C 1311.

2.4 FABRICATION

A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.

C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

D. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

   a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal wall panel manufacturer for application but not less than thickness of metal being secured.

2.5 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:

1. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

D. Aluminum Panels and Accessories:

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.
2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal wall panel manufacturer.
3. Examine GFRC panels to verify support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.

3.3 METAL PANEL INSTALLATION

A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.

7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless-steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
2. Aluminum Panels: Use aluminum or stainless-steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.
1. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
2. Flash and seal panels with weather closures at perimeter of all openings.

E. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.

F. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

3.4 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. After metal panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.

C. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074213.13

SECTION 079500 - EXPANSION CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Interior expansion control systems.
2. Exterior wall expansion control systems.
3. Parking and open-air structure expansion control systems.

B. Related Requirements:

1. Section 077129 "Manufactured Roof Expansion Joints" for factory-fabricated roof expansion control.
2. Section 078446 "Fire-Resistive Joint Systems" for liquid-applied joint sealants in fire-resistive building joints.
3. Section 079200 "Joint Sealants" for liquid-applied joint sealants and for elastomeric sealants without metal frames.

1.3 ACTION SUBMITTALS

A. Shop Drawings: For each expansion control system specified. Include plans, elevations, sections, details, splices, blockout requirement, attachments to other work, and line diagrams showing entire route of each expansion control system. Where expansion control systems change planes, provide isometric or clearly detailed drawing depicting how components interconnect.

B. Samples: For each exposed expansion control system and for each color and texture specified, full width by 6 inches (150 mm) long in size.

C. Samples for Initial Selection: For each type of expansion control system indicated.

1. Include manufacturer's color charts showing the full range of colors and finishes available for each exposed metal and elastomeric seal material.

D. Samples for Verification: For each type of expansion control system indicated, full width by 6 inches (150 mm) long in size.

E. Product Schedule: Prepared by or under the supervision of the supplier. Include the following information in tabular form:

1. Manufacturer and model number for each expansion control system.
2. Expansion control system location cross-referenced to Drawings.
3. Nominal joint width.
4. Movement capability.
5. Classification as thermal or seismic.
6. Materials, colors, and finishes.
7. Product options.
8. Fire-resistance ratings.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each fire barrier provided as part of an expansion control system, for tests performed by a qualified testing agency.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. General: Provide expansion control systems of design, basic profile, materials, and operation indicated. Provide units with capability to accommodate variations in adjacent surfaces.

1. Furnish units in longest practicable lengths to minimize field splicing. Install with hairline mitered corners where expansion control systems change direction or abut other materials.
2. Include factory-fabricated closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous expansion control systems.

B. Coordination: Coordinate installation of exterior wall and soffit expansion control systems with roof expansion control systems to ensure that wall transitions are watertight. Roof expansion joint assemblies are specified elsewhere.

2.2 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: Where indicated, provide expansion control systems with fire barriers identical to those of systems tested for fire resistance per UL 2079 or ASTM E 1966 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1. Hose Stream Test: Wall-to-wall and wall-to-ceiling systems shall be subjected to hose stream testing.

B. Seismic Performance: Expansion control systems shall withstand the effects of earthquake motions determined according to **ASCE/SEI 7**.

1. The term "withstand" means "the system will remain in place without separation of any parts when subjected to the seismic forces specified."
2. Component Importance Factor:
   a. Parking Garage: 1.0
   b. Student Life Center 1.25.

2.3 INTERIOR EXPANSION CONTROL SYSTEMS

A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or a comparable product by one of the following:

1. Architectural Art Mfg., Inc.; Division of Pittcon Industries.
2. Balco, Inc.
3. Construction Specialties, Inc.
4. JointMaster/InPro Corporation.
5. Michael Rizza Company, LLC.
6. MM Systems Corporation.
7. Nystrom, Inc.
8. Watson Bowman Acme Corp.; a BASF Construction Chemicals business.

B. Source Limitations: Obtain expansion control systems from single source from single manufacturer.

C. Floor-to-Floor – **EJ-F1**

1. Basis-of-Design Product: Balco EXB.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability 100%.
   c. Type of Movement: Seismic.
   d. Load Capacity:

      1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
      2) Concentrated Load: 2000 lb (907 kg).
      3) Maximum Deflection: 0.5 inch (13 mm).

   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

f. Location: This joint assembly is to be used in support spaces or concealed spaces only.

3. Type: Center plate.

a. Cover-Plate Design: Plain.

b. Metal: Aluminum.

1) Finish: Mill.

D. Floor-to-Floor – **EJ-F2**

1. Basis-of-Design Product: Balco NBR.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement Seismic.
   d. Load Capacity:

      1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
      2) Concentrated Load: 2000 lb (907 kg).
      3) Maximum Deflection: 0.5 inch (13 mm).

   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Pan.

a. Cover-Plate Design: Recessed to accept field-applied finish materials.

1) Cover-Plate Recess Depth: As required to accommodate adjacent flooring.

b. Metal: Aluminum.

1) Finish: Clear anodic, Class I.

E. Floor-to-Floor – **EJ-F3**

1. Basis-of-Design Product: Balco PS
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.

c. Type of Movement: Seismic.
d. Load Capacity:

1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
2) Concentrated Load: 2000 lb (907 kg).
3) Maximum Deflection: 0.5 inch (13 mm).

e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Pan.

a. Cover-Plate Design: Recessed to accept field-applied finish materials.

1) Cover-Plate Recess Depth: As required to accommodate adjacent flooring.

b. Metal: Aluminum.

1) Finish: Clear anodic, Class I

F. Floor-to-Wall – **EJ-FW1**:

1. Basis-of-Design Product: Balco EXBL.
2. Design Criteria:
a. Minimum Joint Width: As indicated on Drawings.
b. Movement Capability 100%.
c. Type of Movement: Seismic.
d. Load Capacity:

1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
2) Concentrated Load: 2000 lb (907 kg).
3) Maximum Deflection: 0.5 inch (13 mm).

e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

f. Location: This joint assembly is to be used in support spaces or concealed spaces only.

3. Type: Center plate.

a. Cover-Plate Design: Plain.

b. Metal: Aluminum.

1) Finish: Mill.

G. Floor-to-Wall – **EJ-FW2**

1. Basis-of-Design Product: Balco NBRL.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement Seismic.
   d. Load Capacity:

      1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
      2) Concentrated Load: 2000 lb (907 kg).
      3) Maximum Deflection: 0.5 inch (13 mm).

   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Pan.

   a. Cover-Plate Design: Recessed to accept field-applied finish materials.

      1) Cover-Plate Recess Depth: As required to accommodate adjacent flooring.

   b. Metal: Aluminum.

      1) Finish: Clear anodic, Class I.

H. Wall-to-Wall -- **EJ-W1**

1. Basis-of-Design Product:
   a. Balco GCVS
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Substrate: Gypsum board on steel studs.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Elastomeric seal.

   a. Metal: Aluminum.

1) Finish: Clear anodic, Class I

b. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

I. Wall-to-Wall -- **EJ-W2**

1. Basis-of-Design Product: Balco TCVS
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Substrate: Cast in place concrete or concrete masonry units.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Elastomeric seal.

   a. Metal: Aluminum.

      1) Finish: Clear anodic, Class I

   b. Seal Material: Santoprene.

      1) Color: As selected by Architect from manufacturer's full range.

J. Wall Corner – **EJ-W3**

1. Basis-of-Design Product: Balco GCVSC
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement Seismic.
   d. Substrate: Gypsum board on steel studs.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Elastomeric seal.

   a. Metal: Aluminum.

1) Finish: Clear anodic, Class I.

b. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

K. Wall-to-Ceiling -- **EJ-WC1**

1. Basis-of-Design Product: Balco GCVSC.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement: Seismic.
   d. Substrate: Gypsum board on steel studs.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction

3. Type: Elastomeric seal.

a. Metal: Aluminum.

1) Finish: Clear anodic, Class I.

b. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

L. Wall-to-Ceiling -- **EJ-WC2**

1. Basis-of-Design Product: Balco ACW.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement: Seismic.
   d. Substrate: Acoustic ceiling panel in ceiling grid to gypsum board on steel studs..
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction

3. Type: Elastomeric seal.

a. Metal: Aluminum.

1) Finish: Clear anodic, Class I.

b. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

M. Ceiling-to-Ceiling – **EJ-C1**

1. Basis-of-Design Product: Balco GCVS.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement: Seismic.
   d. Substrate: Gypsum board on steel studs.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction

3. Type: Elastomeric seal.

   a. Metal: Aluminum.

      1) Finish: Clear anodic, Class I.

   b. Seal Material: Santoprene.

      1) Color: As selected by Architect from manufacturer's full range.

N. Ceiling-to-Ceiling – **EJ-C2**

1. Basis-of-Design Product: Balco ACW.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%.
   c. Type of Movement: Seismic.
   d. Substrate: Acoustic ceiling panel in ceiling grid.
   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction

3. Type: Elastomeric seal.

   a. Metal: Aluminum.

      1) Finish: Clear anodic, Class I.

   b. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

2.4 EXTERIOR WALL EXPANSION CONTROL SYSTEMS

A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or a comparable product by one of the following:

1. Architectural Art Mfg., Inc.; Division of Pittcon Industries.
2. Balco, Inc.
3. Construction Specialties, Inc.
4. JointMaster/InPro Corporation.
5. Michael Rizza Company, LLC.
6. MM Systems Corporation.
7. Nystrom, Inc.
8. Watson Bowman Acme Corp.; a BASF Construction Chemicals business.

B. Source Limitations: Obtain expansion control systems from single source from single manufacturer.

C. Wall-to-Wall – **EJ-EW1**:

1. Basis-of-Design Product: Balco FCVS.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Flat seal.
   a. Seal Material: Santoprene.

      1) Color: As selected by Architect from manufacturer's full range.

   b. Pantograph Mechanism: Manufacturer's standard pantographic wind-load support mechanism with stainless-steel fasteners.

D. Wall-to-Wall -- **EJ-EW2**:

1. Basis-of-Design Product: Balco 9W.
2. Design Criteria:

a. Minimum Joint Width: As indicated on Drawings.
b. Movement Capability: 100%
c. Type of Movement: Seismic.
d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Cover plate.

a. Metal: Stainless steel.

1) Finish: **No. 4**.

E. Wall-to-Corner – **EJ-EW3**:

1. Basis-of-Design Product: Balco FCVS.
2. Design Criteria:
a. Minimum Joint Width: As indicated on Drawings.
b. Movement Capability: 100%
c. Type of Movement: Seismic.
d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Flat seal.
a. Seal Material: Santoprene.

1) Color: As selected by Architect from manufacturer's full range.

b. Pantograph Mechanism: Manufacturer's standard pantographic wind-load support mechanism with stainless-steel fasteners.

F. Wall-to-Corner – **EJ-EW4**:

1. Basis-of-Design Product: Balco 9WC.
2. Design Criteria:
a. Minimum Joint Width: As indicated on Drawings.
b. Movement Capability: 100%
c. Type of Movement: Seismic.
d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

G. Wall-to-Soffit – **EJ-EW5**:

1. Basis-of-Design Product: Balco FCVS.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Flat seal.
   a. Seal Material: Santoprene.

      1) Color: As selected by Architect from manufacturer's full range.

   b. Pantograph Mechanism: Manufacturer's standard pantographic wind-load support mechanism with stainless-steel fasteners.

H. Soffit-to-Soffit **– EJ-EC1:**

1. Basis-of-Design Product: Balco FCVS.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings.
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

3. Type: Flat seal.
   a. Seal Material: Santoprene.

      1) Color: As selected by Architect from manufacturer's full range.

   b. Pantograph Mechanism: Manufacturer's standard pantographic wind-load support mechanism with stainless-steel fasteners.

2.5 PARKING AND OPEN-AIR STRUCTURE EXPANSION CONTROL SYSTEMS

A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or a comparable product by one of the following:

1. Architectural Art Mfg., Inc.; Division of Pittcon Industries.
2. Balco, Inc.
3. Construction Specialties, Inc.
4. JointMaster/InPro Corporation.
5. Michael Rizza Company, LLC.

6. MM Systems Corporation.
7. Nystrom, Inc.
8. Watson Bowman Acme Corp.; a BASF Construction Chemicals business.

B. Source Limitations: Obtain expansion control systems from single source from single manufacturer.

C. Slab-to-Slab – **EJ-PF1**:

1. Basis-of-Design Product: Balco SCPQ.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Load Capacity:

      1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
      2) Concentrated Load: 2000 lb (907 kg).
      3) Maximum Deflection: 0.5 inch (13 mm).

   e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

   f. Moisture Barrier: Provide flexible elastomeric material as defined under 2.7 Materials.

3. Type: Metal plate.

   a. Metal: Aluminum.

      1) Finish: Mill.

   b. Attachment Method: Cast in.

D. Slab-to-Wall -- **EJ-PF1**:

1. Basis-of-Design Product: Balco SCPQL.
2. Design Criteria:
   a. Minimum Joint Width: As indicated on Drawings
   b. Movement Capability: 100%
   c. Type of Movement: Seismic.
   d. Load Capacity:

1) Uniform Load: 150 lb/sq. ft. (732 kg/sq. m).
2) Concentrated Load: 2000 lb (907 kg).
3) Maximum Deflection: 0.5 inch (13 mm).

e. Fire-Resistance Rating: Provide expansion control system and fire-barrier assembly with a rating not less than that of adjacent construction.

f. Moisture Barrier: Provide flexible elastomeric material as defined under 2.7 Materials.

3. Type: Metal plate.

a. Metal: Aluminum.

1) Finish: Mill.

b. Attachment Method: Cast in.

2.6 ACCESSORIES

A. Moisture Barriers: Manufacturer's standard moisture barrier consisting of a continuous, waterproof membrane within joint and attached to substrate on sides of joint below the primary cover.

1. Drain-Tube Assemblies: Equip moisture barrier with drain tubes and seals to direct collected moisture to exterior-wall expansion control system.

2.7 MATERIALS

A. Aluminum: ASTM B 221 (ASTM B 221M), Alloy 6063-T5 for extrusions; ASTM B 209 (ASTM B 209M), Alloy 6061-T6 for sheet and plate.

1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.

B. Stainless Steel: ASTM A 240/A 240M or ASTM A 666, Type 304 for plates, sheet, and strips.

1. Remove tool and die marks and stretch lines or blend into finish.

C. Brass: ASTM B 36/B 36M, UNS Alloy C26000 for half hard sheet and coil.

D. Bronze: ASTM B 455, Alloy C38500 for extrusions; Alloy C23000 red brass for plates.

E. Elastomeric Seals: ASTM E 1783; preformed elastomeric membranes or extrusions to be installed in metal frames.

F. Compression Seals: ASTM E 1612; preformed elastomeric extrusions having an internal baffle system and designed to function under compression.

G. Cellular Foam Seals: Extruded, compressible foam designed to function under compression.

H. Elastomeric Concrete: Modified epoxy or polyurethane extended into a prepackaged aggregate blend, specifically designed for bonding to concrete substrates.

I. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist the passage of flame and hot gases through a movement joint and to meet performance criteria for required fire-resistance rating.

J. Moisture Barrier: Flexible elastomeric material, PVC, minimum 30 mils thick.

K. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107/C 1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

L. Accessories: Manufacturer's standard anchors, clips, fasteners, set screws, spacers, and other accessories compatible with material in contact, as indicated or required for complete installations.

2.8 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.9 ALUMINUM FINISHES

A. Mill finish.

B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

2.10 STAINLESS-STEEL FINISHES

A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.

B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.

1. Run grain of directional finishes with long dimension of each piece.
2. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
3. Directional Satin Finish: No. 4.

C. Bright, Cold-Rolled, Unpolished Finish: No. 2B.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces where expansion control systems will be installed for installation tolerances and other conditions affecting performance of work.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare substrates according to expansion control system manufacturer's written instructions.

B. Coordinate and furnish anchorages, setting drawings, and instructions for installing expansion control systems. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of expansion control systems.

C. Cast-In Frames: Coordinate and furnish frames to be cast into concrete.

3.3 INSTALLATION

A. Comply with manufacturer's written instructions for storing, handling, and installing expansion control systems and materials unless more stringent requirements are indicated.

B. Metal Frames: Perform cutting, drilling, and fitting required to install expansion control systems.

1. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
2. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation. Notify Architect where discrepancies occur that will affect proper expansion control system installation and performance.
3. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.

4. Repair or grout blockout as required for continuous frame support using nonmetallic, shrinkage-resistant grout.
5. Install frames in continuous contact with adjacent surfaces.

    a. Shimming is not permitted.

6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches (75 mm) from each end and not more than 24 inches (600 mm) o.c.

C. Seals in Metal Frames: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.

1. Provide in continuous lengths for straight sections.
2. Seal transitions according to manufacturer's written instructions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.
3. Installation: Mechanically lock seals into frames or adhere to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.

D. Compression Seals: Apply adhesive or lubricant adhesive as recommended by manufacturer to both sides of slabs before installing compression seals.

E. Foam Seals: Install with adhesive recommended by manufacturer.

F. Epoxy-Bonded Seals: Pressurize seal for time period and to pressure recommended by manufacturer. Do not overpressurize.

G. Terminate exposed ends of expansion control systems with field- or factory-fabricated termination devices.

H. Fire-Resistance-Rated Assemblies: Coordinate installation of expansion control system materials and associated work so complete assemblies comply with assembly performance requirements.

1. Fire Barriers: Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of joint, including transitions and field splices.

I. Moisture Barrier: Provide at all exterior joints and where indicated on Drawings. Provide drainage fittings at a maximum of 50 feet (15.2 m) or where indicated on Drawings.

3.4 PROTECTION

A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.

B. Protect the installation from damage by work of other Sections. Where necessary due to heavy construction traffic, remove and properly store cover plates or seals and install temporary protection over expansion control systems. Reinstall cover plates or seals prior to Substantial Completion of the Work.

END OF SECTION 079500

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data. Include plans, elevations, sections, details, and attachments to other work.

1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
2. Wiring Diagrams: For power, signal, and control wiring.

C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

1. Include similar Samples of accessories involving color selection.

D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.

1. Open-Curtain Grille: 18-inch- square assembly with full-size components consisting of rods, spacers, and links as required to illustrate each assembly.
2. Bottom Bar: 6 inches long with sensor edge.
3. Guides: 6 inches long.
4. Mounting Frame: 6 inches long.
5. Brackets: 6 inches square.
6. Hood: 6 inches square.

E. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Seismic Qualification Certificates: For overhead coiling grilles**,** accessories, and components, from manufacturer.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For overhead coiling grilles to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.

B. Source Limitations: Obtain overhead coiling grilles from single source from single manufacturer.

1. Obtain operators and controls from overhead coiling grille manufacturer.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

SECTION 083513 - FOLDING DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Horizontal Sliding, Accordion-type fire doors.

B. Related Sections:

1. Section 099123 “Interior Painting”
2. Section 283111 "Digital, Addressable Fire Alarm System" for fire-alarm and activating signaling systems.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for folding doors.

B. Shop Drawings: For folding doors. Include plans, elevations, sections, details, attachments to other work, clearances required for operation, access requirements, and accessory items. Show blocking.

C. Setting Drawings: For anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors that are to be embedded in concrete or masonry, and for cutouts required in other work, including support-beam punching template.

D. Samples for Initial Selection: For units with factory-applied color finishes.

E. Samples for Verification: For each type of folding door indicated and for each type of exposed finish required, in manufacturer's standard sizes.

F. Product Schedule: For folding doors. Use same designations indicated on Drawings.

G. Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM’s seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

SECTION 088300 - MIRRORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes the following types of silvered flat glass mirrors:

1. Annealed monolithic glass mirrors. - Typical
2. Tempered glass mirrors qualifying as safety glazing. – At all recreational and exercise spaces.

B. Related Sections:

1. Section 088000 "Glazing" for glass with reflective coatings used for vision and spandrel lites.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1. Mirrors. Include description of materials and process used to produce each type of silvered flat glass mirror specified that indicates sources of glass, glass coating components, edge sealer, and quality-control provisions.

B. LEED Submittals:

1. Product Data for Credit IEQ 4.1: For adhesives, documentation including printed statement of VOC content.

C. Shop Drawings: Include mirror elevations, edge details, mirror hardware, and attachments to other work.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of mirror, from manufacturer.

B. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

B. Glazing Publications: Comply with the following published recommendations:

1. GANA's "Glazing Manual" unless more stringent requirements are indicated. Refer to this publication for definitions of glass and glazing terms not otherwise defined in this Section or in referenced standards.
2. GANA Mirror Division's "Mirrors, Handle with Extreme Care: Tips for the Professional on the Care and Handling of Mirrors."

C. Safety Glazing Products: For tempered mirrors, provide products complying with testing requirements in 16 CFR 1201 for Category II materials.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect mirrors according to mirror manufacturer's written instructions and as needed to prevent damage to mirrors from moisture, condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with mirror manufacturer's written instructions for shipping, storing, and handling mirrors as needed to prevent deterioration of silvering, damage to edges, and abrasion of glass surfaces and applied coatings. Store indoors.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not install mirrors until ambient temperature and humidity conditions are maintained at levels indicated for final occupancy.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which mirror manufacturer agrees to replace mirrors that deteriorate within specified warranty period. Deterioration of mirrors is defined as defects developed from normal use that are not attributed to mirror breakage or to maintaining and cleaning mirrors contrary to manufacturer's written instructions. Defects include discoloration, black spots, and clouding of the silver film.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SILVERED FLAT GLASS MIRRORS

A. Glass Mirrors, General: ASTM C 1503.

B. Clear Glass: Mirror Select Quality.

1. Nominal Thickness: 6.0 mm.

C. Tempered Clear Glass: Mirror Glazing Quality, for blemish requirements; and comply with ASTM C 1048 for Kind FT, Condition A, tempered float glass before silver coating is applied.

1. Nominal Thickness: 6.0 mm.

2.2 MISCELLANEOUS MATERIALS

A. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

B. Edge Sealer: Coating compatible with glass coating and approved by mirror manufacturer for use in protecting against silver deterioration at mirrored glass edges.

C. Mirror Mastic: An adhesive setting compound, asbestos-free, produced specifically for setting mirrors and certified by both mirror manufacturer and mastic manufacturer as compatible with glass coating and substrates on which mirrors will be installed.

1. Adhesive shall have a VOC content of not more than 70 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Adhesive shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.3 MIRROR HARDWARE

A. Top and Bottom Aluminum J-Channels: Aluminum extrusions with a return deep enough to produce a glazing channel to accommodate mirrors of thickness indicated and in lengths required to cover bottom and top edges of each mirror in a single piece.

1. Bottom Trim: J-channels formed with front leg and back leg not less than 3/8 and 7/8 inch in height, respectively, and a thickness of not less than 0.05 inch.
2. Top Trim: J-channels formed with front leg and back leg not less than 5/8 and 1 inch in height, respectively, and a thickness of not less than 0.062 inch.
3. Finish: Clear bright anodized.

B. Fasteners: Fabricated of same basic metal and alloy as fastened metal and matching it in finished color and texture where fasteners are exposed.

C. Anchors and Inserts: Provide devices as required for mirror hardware installation. Provide toothed or lead-shield expansion-bolt devices for drilled-in-place anchors. Provide galvanized anchors and inserts for applications on inside face of exterior walls and where indicated.

2.4 FABRICATION

A. Mirror Sizes: To suit Project conditions, cut mirrors to final sizes and shapes.

B. Cutouts: Fabricate cutouts for notches and holes in mirrors without marring visible surfaces. Locate and size cutouts so they fit closely around penetrations in mirrors.

C. Mirror Edge Treatment: Rounded polished .

1. Seal edges of mirrors with edge sealer after edge treatment to prevent chemical or atmospheric penetration of glass coating.
2. Require mirror manufacturer to perform edge treatment and sealing in factory immediately after cutting to final sizes.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, over which mirrors are to be mounted, with Installer present, for compliance with installation tolerances, substrate preparation, and other conditions affecting performance of the Work.

B. Verify compatibility with and suitability of substrates, including compatibility of mirror mastic with existing finishes or primers.

C. Proceed with installation only after unsatisfactory conditions have been corrected and surfaces are dry.

3.2 PREPARATION

A. Comply with mastic manufacturer's written installation instructions for preparation of substrates, including coating substrates with mastic manufacturer's special bond coating where applicable.

3.3 INSTALLATION

A. General: Install mirrors to comply with mirror manufacturer's written instructions and with referenced GANA publications. Mount mirrors accurately in place in a manner that avoids distorting reflected images.

B. Provide a minimum air space of 1/8 inch between back of mirrors and mounting surface for air circulation between back of mirrors and face of mounting surface.

C. Wall-Mounted Mirrors: Install mirrors with mastic and mirror hardware. Attach mirror hardware securely to mounting surfaces with mechanical fasteners installed with anchors or inserts as applicable. Install fasteners so heads do not impose point loads on backs of mirrors.

1. Top and Bottom Aluminum J-Channels: Provide setting blocks 1/8 inch thick by 4 inches long at quarter points. To prevent trapping water, provide, between setting blocks, two slotted weeps not less than 1/4 inch wide by 3/8 inch long at bottom channel.
2. Install mastic as follows:

   a. Apply barrier coat to mirror backing where approved in writing by manufacturers of mirrors and backing material.
   b. Apply mastic to comply with mastic manufacturer's written instructions for coverage and to allow air circulation between back of mirrors and face of mounting surface.
   c. After mastic is applied, align mirrors and press into place while maintaining a minimum air space of 1/8 inch between back of mirrors and mounting surface.

3.4 CLEANING AND PROTECTION

A. Protect mirrors from breakage and contaminating substances resulting from construction operations.

B. Do not permit edges of mirrors to be exposed to standing water.

C. Maintain environmental conditions that will prevent mirrors from being exposed to moisture from condensation or other sources for continuous periods of time.

D. Wash exposed surface of mirrors not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash mirrors as recommended in writing by mirror manufacturer.

END OF SECTION 088300

E. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.

1. Acoustical Panel: Set of 6-inch- square Samples of each type, color, pattern, and texture.
2. Exposed Suspension-System Members, Moldings, and Trim: Set of 6-inch- long Samples of each type, finish, and color.

F. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Suspended ceiling components.
2. Structural members to which suspension systems will be attached.
3. Size and location of initial access modules for acoustical panels.
4. Items penetrating finished ceiling including the following:
   a. Lighting fixtures.
   b. Air outlets and inlets.
   c. Speakers.
   d. Sprinklers.
   e. Access panels.
5. Perimeter moldings.

B. Qualification Data: For testing agency.

C. Product Test Reports: For each acoustical panel ceiling, for tests performed by manufacturer and witnessed by a qualified testing agency.

D. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.

E. Field quality-control reports.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Acoustical Ceiling Panels: Full-size panels equal to 2 percent of quantity installed.

E. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.

1. Acoustical Panel: Set of 6-inch- square Samples of each type, color, pattern, and texture.
2. Exposed Suspension-System Members, Moldings, and Trim: Set of 6-inch- long Samples of each type, finish, and color.

F. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Suspended ceiling components.
2. Structural members to which suspension systems will be attached.
3. Size and location of initial access modules for acoustical panels.
4. Items penetrating finished ceiling including the following:
   a. Lighting fixtures.
   b. Air outlets and inlets.
   c. Speakers.
   d. Sprinklers.
   e. Access panels.
5. Perimeter moldings.

B. Qualification Data: For testing agency.

C. Product Test Reports: For each acoustical panel ceiling, for tests performed by manufacturer and witnessed by a qualified testing agency.

D. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.

E. Field quality-control reports.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Acoustical Ceiling Panels: Full-size panels equal to 2 percent of quantity installed.

SECTION 098433 – SOUND-ABOSRBING WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cementitious wood fiber plank acoustical wall panel system and installation accessories.
2. High-Impact cementitious wood fiber plank acoustical wall panel system and installation.

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions.

B. Samples: Submit selection and verification samples: 6" x 6" sample for each wood fiber wall panel unit required, showing full range of exposed texture to be expected in completed work.

C. LEED Submittals LEED-NC version 2.2:

1. Credit MR 4.1 (recycled content 10%, post-consumer + 1/2 pre-consumer) and 4.2 (recycled content 20%, post consumer + 1/2 pre-consumer): Submit product data stating the percentage of post-consumer and pre-consumer (post-industrial) recycled content by weight. Submit material cost for same.
2. Credit MR5.1 (Regional Materials, 10% Extracted, Processed & Manufactured Regionally) and Credit MR5.2 (Regional Materials, 20% Extracted, Processed & Manufactured Regionally: Submit a statement from the steel, aluminum or other metal manufacturer stating the distance between the place of extraction, processing, and manufacture and the project location. Regionally Extracted Materials are materials that have their source as a raw material from within a 500-mile radius of the project site.

D. Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 SYSTEM DESCRIPTION

A. Performance Requirements:

1. Provide acoustical wall panel assembly designed and tested to provide surface burning characteristics (ASTM E84) as follows:

a. Flamespread: 0.
b. Smoke Developed: 0.

2. Provide acoustical wall panel system which has been manufactured, fabricated and installed to provide Noise Reduction Coefficient (NRC) rating as follows:

   a. 1.0

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

1.5 DELIVERY, STORAGE & HANDLING

A. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1. Prevent soiling, physical damage or wetting.
2. Store carton open at each end to stabilize moisture content and temperature.

1.6 PROJECT/SITE CONDITIONS

A. Environmental Requirements:

1. Do not install acoustical panels until building is closed in and HVAC system is operational.
2. Locate materials onsite at least 24 hours before beginning installation to allow materials to reach temperature and moisture content equilibrium.
3. Maintain the following conditions in areas where acoustical materials are to be installed 24 hours before, during and after installation:

   a. Relative Humidity: 65 – 75%.
   b. Uniform Temperature: 55 – 70 degrees F.

PART 2 - PRODUCTS

2.1 ACOUSTICAL WALL PANEL SYSTEM

A. Basis-of-Design Product: Tectum Designer Series Wall Panels.

B. Acoustical Wall panel systems, including the following:

1. Standard Interior Wall Panels:

   a. Material: Aspen wood fibers bonded with inorganic hydraulic cement.
   b. Thickness: 1 inch **and 2 inch.**

c. Edge: Long edge beveled. Tongue-and-groove edges, square ends.
d. Width: 47 3/4 inches.
e. Length: As indicated on the drawings.
f. Color: Natural.
g. Mounting Style: **Z – clip adhesive as required.**

2.2 ACCESSORIES

A. Provide accessories as follows:

1. Painted Head Drywall Screws:

a. Material: Steel.
b. Length: As required.
c. Color: Natural.

2. Moulding:

a. Material: Extruded Aluminum edges and reveals by Fry Reglet, or equal.
b. Designation: As indicated on the drawings.

3. Touch-Up Paint:

a. Natural.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Comply with the instructions and recommendations of the acoustical wall panels system manufacturer.

3.2 EXAMINATION

A. Site Verification of Conditions:

1. Examine surfaces scheduled to receive suspended or directly attached acoustical units for unevenness, irregularities and dampness that would affect quality and execution of work.
2. Do not proceed with installation of wall panel system until unacceptable conditions are corrected.

3.3 INSTALLATION

A. Install in exact accordance with manufacturer's recommendations and submittals.

B. Install secure, plumb, level and true to line and location free of restoration and rack in a permanent manner.

3.4 CLEANING

A. Clean exposed surfaces of acoustical panel, trim, moldings and suspension members to comply with manufacturer's instructions for cleaning.

B. Touch up any minor finish damage.

C. Remove and replace work which amount cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

3.5 PROTECTION

A. Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION 098433

SECTION 098436 - SOUND-ABSORBING CEILING UNITS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Acoustical ceilings indicated and as specified.

1.2 SUBMITTALS

A. Product Data: Submit complete printed data for each type of product.

B. Samples: Submit samples for each component and for each exposed finish required, prepared on Samples of size indicated below.

1. Acoustical Panel: Set of 6-inch-square Samples of each type, color, pattern, and texture.
2. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch-long Samples of each type, finish, and color.

C. LEED Submittals LEED-NC version 2.2:

1. Credit MR 4.1 (recycled content 10%, post-consumer + 1/2 per-consumer) and 4.2 (recycled content 20%, post consumer + 1/2 pre-consumer): Submit product data stating the percentage of post-consumer and pre-consumer (post-industrial) recycled content by weight. Submit material cost for same.
2. Credit MR5.1 (Regional Materials, 10% Extracted, Processed & Manufactured Regionally) and Credit MR5.2 (Regional Materials, 20% Extracted, Processed & Manufactured Regionally: Submit a statement from the material manufacturer stating the distance between the place of extraction, processing, and manufacture and the project location. Regionally Extracted Materials are materials that have their source as a raw material from within a 500-mile radius of the project site.
3. Credit EQ 4.1 (low VOC adhesives and sealants): Submit product data for installation adhesives stating the VOC content of adhesives used on the project.

D. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.3 QUALITY ASSURANCE

A. Fire Resistance Characteristics: Where indicated, provide acoustical panel ceilings identical to those of assemblies tested for fire resistance per ASTM E 119 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory".
2. Identify materials with appropriate markings of applicable testing and inspecting agency.

SECTION 116643- INTERIOR SCOREBARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions and other Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

A. Single-sided LED scoreboards.

1.3 REFERENCES

A. Standard for Electric Signs, UL-48, 13th Edition

B. Standard for Control Centers for Changing Message Type Signs, UL-1433, 1st Edition

C. Standard for CAN/CSA C22.2 No. 207-M89 for indoor use

D. Federal Communications Commission Regulation Part 15

E. National Electric Code

1.4 SUBMITTALS

A. Product data: Submit manufacturer's product illustrations, data and literature that fully describe the scoreboards and accessories proposed for installation.

B. Shop drawings: Submit installation details and electrical product specification drawings.

C. Maintenance data: Submit manufacturer's installation, operation, and maintenance manuals.

D. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.5 DELIVERY, STORAGE, AND HANDLING

A. Environmental Limitations: Do not install scoring equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for project when occupied for its intended use.

B. Field Measurements: Coordinate scoreboard location and height with the customer. Verify dimensions by field measurements.

SECTION 116653 - GYMNASIUM DIVIDERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Top-roll divider systems.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Motors: Show mounting arrangements and wiring diagram to power source and controls.

B. Shop Drawings: For gymnasium dividers.

1. Include plans showing alignment of curtains in relation to court layout.
2. Include elevations, sections, details, and attachments to other work.
3. Include system clearances, stacking requirements, and limits for fitting into adjacent construction.
4. Include loads, point reactions, and locations for attachment of gymnasium dividers to structure.

C. Samples for Initial Selection: For each type of gymnasium divider curtain fabric.

D. Samples for Verification: For divider curtain fabric, not less than 12 inches square of mesh and of solid fabric.

E. **Delegated-Design Submittal: Provide all documentation and engineering required to satisfy DFCM's seismic restraint requirements. This shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of gymnasium divider.

C. Sample Warranty: For special warranty.

SECTION 31 62 00

MICROPILES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Construction of micropiles as shown on the contract plans and approved working drawings and as specified herein.

B. Micropiles are defined as small diameter (typically no greater than 12 inches) grouted in-place, drilled piles, incorporating steel reinforcement to resist the applied load.

C. The Micropile Specialty Contractor (referred to hereafter as "Specialty Contractor") selects the micropile type, size, pile top attachment, installation means and methods, bond length, and micropile diameter, within the constraints of the contract plans and specifications.

D. The Specialty Contractor installs a micropile system that will provide the load capacities and not exceed the allowable deflections specified on the drawings and in this specification.

E. The Specialty Contractor verifies and documents the load capacities and deflections by testing as required and specified herein.

F. Where the imperative mood is used in this specification, "the Specialty Contractor Shall" is implied.

G. Furnish all designs, materials, products, accessories, tools, equipment, services, transportation, labor and supervision, and manufacturing techniques required for testing and installation of micropiles and pile-top attachments.

1.2 REFERENCES

A. ASTM A 36: Standard Specification for Carbon Structural Steel.

B. ASTM A 252: Standard Specification for Welded and Seamless Steel Pipe Piles.

C. ASTM A 615: Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement.

D. ASTM A 722: Standard Specification for Uncoated High Strength Steel Bars for Prestressing Concrete.

E. ASTM A 775: Standard Specification for Epoxy-Coated Steel Reinforcing Bars.

F. ASTM A 934: Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.

G. ASTM C 33: Standard Specification for Concrete Aggregates.

H. ASTM C 109: Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.

I. ASTM C 144: Standard Specification for Aggregate for Masonry Mortar.

J. ASTM C 150: Standard Specification for Portland Cement.

K. ASTM C 494: Standard Specification for Chemical Admixtures for Concrete.

L. ASTM D 1143: Standard Test Methods for Deep Foundations Under Static Axial Compressive Load.

M. ASTM D 3689: Standard Test Methods for Deep Foundations Under Static Axial Tensile Load.

N. ASTM D 3966: Standard Test Methods for Deep Foundations Under Lateral Load.

O. AASHTO T 26: Standard Method of Test for Quality of Water to Be Used in Concrete.

P. ACI 318-11: Building Code Requirements for Structural Concrete and Commentary.

Q. ANSI/AISC 360-10: Specification for Structural Steel Buildings.

R. FHWA-SA-97-070: Micropile Design and Construction Guidelines Implementation Manual.

S. FHWA-NHI-05-039: Micropile Design and Construction Reference Manual.

1.3 SUBMITTALS

A. At least 20 working days prior to the planned start of micropile installation, submit to the Engineer documentation demonstrating that the selected Micropile Specialty Contractor meets the qualifications specified in 1.4 below.

1. Include a signed statement that the Specialty Contractor has reviewed the plans, specifications, and available geotechnical data, has visited the project site, and is familiar with the requirements, conditions, and constraints applicable to micropile work on the project.

B. At least 15 working days prior to the planned start of micropile installation, submit to the Engineer complete working drawings and design calculations for the micropile system, signed and sealed by a registered Professional Engineer.

1. Allow the Engineer 10 working days to review the working drawing submittal after a complete set has been received. Do not begin micropile work until the complete submittals have been accepted in writing by the Engineer.

2. Include in the submittal micropile details for each pile type (load) showing:
   a. Micropile design load,
   b. Type, size, and length of permanent casing and reinforcing steel,
   c. Minimum total bond length,
   d. Total micropile length, and
   e. Micropile top attachment.

3. Specify in the submittal a micropile numbering system for records.

4. Include in the submittal the grout mix designs, and the detailed procedure for placing the grout.

5. Include in the submittal detailed descriptions of the construction procedure and sequence.

6. Include in the submittal plans for testing of the micropiles, including all drawings, details, and notes necessary to clearly describe the method.
   a. Specify distances between test piles, reaction piles, instrument reference frames, and other test apparatus.

C. Submit the following information during construction:

1. Certified mill test reports, properly marked, for the reinforcing steel showing the ultimate strength, yield strength, elongation, and material properties.

2. Test results for permanent casing.

3. Calibration reports for each test jack, pressure gauge and master pressure gauge to be used, for calibration tests conducted by an independent testing laboratory within 90 calendar days of the date submitted.

4. Submit all grout cube compressive strength and grout density test results to the Engineer within 24 hours of testing.

D. Within 24 hours after completing installation of each micropile, submit to the Engineer installation records for each micropile. Include the following information as a minimum.

1. Pile drilling duration,

2. Final toe elevation,

3. Total micropile length, and permanent casing length,

4. Description of any unusual installation behavior or conditions,

5. Grout quantities pumped, and

6. Pile materials and dimensions.

E. Prepare and submit to the Engineer all submittals required in Section 3.3, Pile Load Tests. Submit these load test records within 24 hours after each pile load test is complete.

1.4 QUALIFICATIONS OF MICROPILE SPECIALTY CONTRACTOR

A. The minimum qualifications of the Specialty Contractor are listed below.

1. Document at least 5 years of experience in all aspects of micropile design, construction, and load testing.

2. Furnish all necessary plant, materials, skilled labor, and supervision to carry out the contract.

3. Provide a list of at least 5 successful projects constructed in the last 5 years involving construction totaling at least 100 micropiles of similar capacity to those required for this project.

4. Provide construction details, structural details, and load test results for at least two previous successful micropile projects of similar scope to this project.

5. Demonstrate successful experience designing and installing micropiles in subsurface conditions similar those anticipated for this project.

6. Assign an engineer to supervise the work who has experience on at least 3 projects of similar scope to this project completed in the past 5 years.

7. Assign an on-site foreman and drill rig operator having experience on at least 3 projects over the past 5 years in the installation of micropiles of equal or greater capacity and required for this project.

8. Provide design of the micropiles by a registered Professional Engineer with experience in the design of at least 3 successfully completed micropile projects over the past 5 years, with micropiles of similar capacity and in similar soil conditions to those of this project.

1.5 ALLOWABLE TOLERANCES

A. Centerline of piling: Not more than 3 inches from indicated plan position.

B. Pile vertical alignment: Within 2% of design alignment.

C. Top elevation of pile: Within 2 inches of the design elevation.

1.6 DESIGN CRITERIA

A. Design micropiles and pile top to footing attachments in accordance with Federal Highway Administration Report No. FHWA-NHI-05-039, excepts as modified herein.

B. Design micropiles to meet the capacity and load-displacement criteria specified on structural plan notes

C. Design micropiles for the locations and spacing shown on the plans, and extending at least down to the elevations specified below:

1. Zone A (near PE Building): 4545 ft.

2. Zone C (near Sorenson Building): 4555 ft.

D. For the geotechnical capacity of the micropiles (grout to ground bond), use factors of safety of at least 2.5.

E. For steel pipe used for external encasement for micropiling, incorporate an additional 1/16 inch thickness of sacrificial steel for corrosion protection. Corrosion resistant coating of casing is not allowed in lieu of sacrificial steel.

F. Design the micropiles such that the required capacity is developed by skin friction between grout and ground over a suitable length in competent ground.

1. Account for the presence of the liquefiable soils above the clay.
   a. Assume that the contribution of liquefiable soils to axial capacity is negligible.
   b. Use permanent casing through the liquefiable soils if necessary to ensure pile stability.
   c. Where battered piles are used, address the potential impacts of liquefaction-induced settlements in design of the micropiles.

G. Limit the allowable stresses at working loads so as not to exceed the following values.

1. Compression Loads
   a. Allowable Stress, Cement Grout: 33% of the 28-day unconfined compressive strength.
   b. Allowable Stress, Steel Reinforcing including permanent steel casing: 40% of the minimum specified yield strength.
   c. Allowable Stress, Steel: 32,000 psi (for strain compatibility at ultimate load).
   d. Design the reinforcing steel to carry not less than 60% of the design compression load.

2. Tension Loads

a. Allowable Stress, Steel Reinforcing: 60% of the minimum specified yield strength.
b. Allowable Stress, Cement Grout: Zero (0).

H. Determine the ultimate structural capacity by the following equations.

1. Compression

$P_{uc}=(0.85*f'c*A_{grout}+fy_{casing}*A_{casing}+fy_{bar}*A_{bar})$

where: f'c = UCS of grout

A_{grout} = area of grout

fy_{casing} = yield strength of casing up to 80 ksi

A_{casing} = area of steel casing (at threaded joints if applicable)

fy_{bar} = yield strength of rebar up to 80 ksi

A_{bar} = area of rebar

The maximum useable strength of the steel of 80 ksi is based on the typical ultimate concrete strain of 0.003 (29000 ksi * 0.003 = 87 ksi). Eighty (80) ksi is also the maximum steel strength used in ACI 318.

2. Tension

$P_{ut} = (fy_{casing}*A_{casing}+fy_{bar}*A_{bar})$

where: fy_{casing} = yield strength of casing

A_{casing} = area of steel casing (at threaded joints if applicable)

fy_{bar} = yield strength of rebar

A_{bar} = area of rebar

I. Lateral Load and Bending: Where lateral loads are provided on the plans, determine the bending moment from these lateral loads using COM624, LPILE, or equal. Provide combined bending and axial load strength (nominal resistance) of the micropile meeting a factor of safety of at least 2.5 for service loads and at least1.2 for ultimate loads.

J. Design the micropile top attachment to effectively distribute the design load (DL) to the concrete footing, such that the concrete bearing stress does not exceed the stresses allowed by the ACI Building Code, and the bending stress in the steel plates does not exceed AISC allowable stresses for steel members

1.7 GROUND CONDITIONS

A. The test borings in the geotechnical report are believed to be representative of the conditions likely to be encountered on the site, and may be used as the basis for micropile design. The Specialty Contractor is responsible for all additional investigations and/or testing it deems necessary.

B. If a manmade obstruction is encountered during installation of a pile that prevents the advancing of the hole, abandon the hole and fill with grout. Relocate the pile as directed by the Engineer.

1.8 PRECONSTRUCTION MEETING

A. Schedule and conduct an on-site micropile preconstruction meeting prior to the start of micropile construction, at a time approved by the Engineer.

1. Required attendees include the General Contractor's on-site foreman, the Micropile Specialty Contractor's designer, engineer, and foreman, micropile inspectors, and the Engineer.

2. In the meeting, explain the construction process and requirements, coordinate the construction schedule and relationships between construction activities, present safety training associated with the work, delineate contractual relationships and responsibilities (e.g., excavation, micropile installation, micropile testing, survey), and specify lines of communication.

PART 2 PRODUCTS

2.1 WATER

A. Provide and use potable water for mixing grout, or test the water for use with the cement in accordance with AASHTO T 26 and submit the results for approval with the grout mix.

2.2 CEMENT

A. Use only Portland cement conforming to ASTM C 150, Types II, III, or V, that is the product of one manufacturer.

2.3 ADMIXTURES FOR GROUT

A. Where admixtures are used, conform to the requirements of ASTM C 494.

B. Use admixtures which control bleed, improve flowability, reduce water content and/or retard set in the grout only with the written approval of the Engineer.

C. Add expansive admixtures to the grout only for filling sealed encapsulations and anchorage covers.

D. Do not use accelerators.

E. Do not use admixtures containing chlorides.

F. Use only admixtures that are compatible with the grout and mixed in accordance with the manufacturer's recommendations.

G. Use admixtures only after appropriate field tests on fluid and set grout properties.

2.4 GROUT

A. For all micropiles, use a neat cement or a sand-cement grount mixture having a minimum 28-day compressive strength of 4,000 psi as determined by ASTM C 109.

1. During production, test micropile grout for compressive strength in accordance with ASTM C 109 at a frequency of at least one set of three 2-inch grout cubes from each grout plan each day of operation, or per every 10 piles, whichever occurs more frequently.
   a. The compressive strength of a set is the average of the three cubes tested.

2. Monitor grout consistency by testing the grout density with the Baroid Mud Balance in accordance with API RP-13B-1, at a frequency of at least one test per micropile conducted just prior to the start of pile grouting.
   a. Maintain the grout density within the limits specified by the micropile designer.

3. Take grout samples for testing directly from the grout plant.

B. For verification and proof test piles, use grout that attains a minimum 3-day compressive strength of 2,000 psi before testing the piles.

C. If sand-cement grout is used, use sand conforming to ASTM C 144.

2.5 GROUT COVER

A. Provide a minimum of 2.0-inch grout cover over micropile reinforcing bars.

2.6 REINFORCEMENT

A. For micropile reinforcement use expoxy-coated solid deformed bars in accordance with ASTM A 615, Grade 60, or Grade 75, or ASTM A722 Grade 150.

B. If bar couplers are required, use bar couplers that develop the ultimate tensile strength of the bars without evidence of any failure.

2.7 CASING

A. For permanent casing, use steel pipe meeting the tensile requirements of ASTM A 252, Grade 3, but having a minimum yield strength of 50,000 psi to 80,000 psi.

1. New "Structural Grade" ("Mill Secondary") steel pipe without Mill Certification may be used if:
   a. meeting the Tensile Requirements above,
   b. free from defects (dents, cracks, tears), and
   c. two coupon tests per truckload delivered to the fabricator.

B. Where threaded casing joints are used, use casing that is machine-threaded to develop the required design strength of the pile section.

C. For permanent casing/pipe that will be welded for structural purposes, meet both of the following material conditions as demonstrated by mill certifications:

1. Carbon equivalency (CE) as defined in AWS D1.1, Section X15.1 not exceeding 0.45.

2. Sulfur content not exceeding 0.05%.

D. For permanent casing/pipe that will be shop or field welded, meet the following fabrication or construction conditions:

1. Do not join steel pipe by welded lap splicing.

2. Use complete penetration welds for welded seams and splices.

3. Partial penetration welds may be restored in conformance with AWS D1.1.

4. Submit the proposed welding procedure certified by a welding specialist for approval.

2.8 PLATES AND SHAPES

A. Use structural steel plates and shapes for pile top attachments conforming to ASTM A 36 or A 572 Grade 50.

2.9 CENTRALIZERS

A. Use centralizers fabricated from plastic, steel, or material that is nondetrimental to the reinforcing steel. Do not use wood centralizers.

PART 3 EXECUTION

3.1 INSTALLATION

A. Conduct drilling, installation of reinforcement, and grouting of each micropile in a series of continuous processes and in an expeditious manner, so that drilled micropile holes and portions of holes do not remain open any longer than necessary.

B. The Specialty Contractor is responsible for selecting and implementing an appropriate drilling method to successfully install micropiles of the required diameters and depths, within the following constraints.

1. As a minimum case the portion of the pile length through liquefiable soils in the upper 30 feet with temporary casing as the pile is advanced.

2. Maintain near-intimate contact between the drill casing and the borehole wall.

3. Do not conduct external grouting around the casing.

4. Do not use impact or vibratory hammers to advance casing.

5. Avoid causing damage to overlying or adjacent structures or services, and prevent detrimental ground movement.

C. Upon completion of advancing the casing to the determined pile tip elevation, withdraw the internal rods and fill the pile internally with grout by tremie method.

D. Place micropile reinforcement either prior to grouting or after grout has been placed in the bond zone.

1. Ensure that reinforcement is free of deleterious substances such as soil, mud, grease, or oil that might contaminate the grout or coat the reinforcement and impair bond.

2. Where pile cages and/or reinforcement groups are used, ensure that they are sufficiently robust to withstand the installation, grouting, and casing withdrawal processes without damage or disturbance.

E. Provide centralizers on central reinforcement.

1. Locate the uppermost and lowermost centralizers 5 feet maximum from the top and bottom of the reinforcement, respectively.

2. Space centralizers at no more than 10 feet along the length of the reinforcement.

3. Use only centralizers that permit the free flow of grout without misalignment of the reinforcement.

F. Plan and conduct the installation process such that lowering of the central reinforcement steel with centralizers into the stabilized drill holes to the required depth is achieved without difficulty.

1. Do not drive or force partially-inserted reinforcing bars into the hole.

2. Redrill the hole where necessary to insert bars that cannot be easily lowered to the required depth.

G. Check the pile top elevations and adjust all installed micropiles to the planned elevations.

H. Do not use external wash piles. An external wash pile is defined as an uncased pile advanced through the ground by injectimg a fluid originating from the tip of the drill rods to create an annular space between the drill steel and the borehole wall.

I. Control and properly dispose of drill flush, excess grout, and construction-related waste in accordance with the project specifications and all applicable laws and regulations.

3.2 GROUTING

A. Unless the suitability of a longer different time frame is demonstrated by the Specialty Contractor's site-specific verification load testing and approved by the Engineer, grout each micropile within 24 hours of drilling the load transfer bond length.

B. Fill the pipe casing with grout without voids, by tremie method from bottom to top of micropile.

1. Once grout placement begins in a given hole, keep the tremie pipe below the level of the grout in the hole at all times.

2. Control grout pressures and takes to prevent excessive heave or fracturing of soil formations.

C. Measure the grout quality and quantity during the grouting operations, and maintain records showing the quantities and test data for inspection by the Engineer.

1. Use a grout pump equipped with a pressure gauge to monitor grout pressures, and use a second pressure gauge at to monitor pressures at the point of injection into the pile top.

D. Use grouting equipment that produces a colloidially mixed grout free of lumps and undispersed cement.

E. Size the grouting equipment to enable each pile to be grouted in one continuous operation.

F. Use a mixer that continuously agitates the grout.

G. Place grout within one hour of mixing.

H. Extract temporary casing in stages, ensuring that the grout level is brought back up to the ground level after each length is removed prior to removing the subsequent length.

I. Allow grout within the micropiles to attain adequate strength prior to load testing and prior to applying foundation loads.

3.3 PILE LOAD TESTS

A. Submit for review and acceptance the Specialty Contractor's proposed micropile load testing program. Include in the proposed load testing program the following information, as a minimum.

1. Type and accuracy of apparatus for measuring load.
   a. A load cell is required for the creep test portion of the verification test.

2. Type and accuracy of apparatus for applying load.

3. Type and accuracy of apparatus for measuring the pile deformation.

4. Type and capacity of reaction load system.

5. Hydraulic jack calibration report.

6. Drawings of proposed load test setup, showing locations of test piles, reaction piles, loading apparatus, measurement equipment, and reference frames.

7. Removal plan for test pile groups (e.g., cutoff elevations).

B. Use installation methods (e.g., drilling and grouting methods and time frames, casing diameter, and depth of embedment) for the test piles that are identical to those used for the production piles.

C. Test micropiles as specified in the applicable ASTM standards, except as modified in this specification.

1. ASTM D 1143 for axial compression.

2. ASTM D 3689 for axial tension.

3. ASTM D 3966 for lateral loading (where lateral loads are to be resisted by lateral pile resistance).

D. Position the jack at the beginning of each test such that unloading and repositioning of the jack during the test will not be necessary.

E. Design the testing reaction frame to be sufficiently rigid and of adequate dimensions so that excessive deformation of the testing equipment does not occur.

F. Test piles under compression loads prior to testing under tension loads.

G. Adjust the design as needed if the load tests demonstrate the design assumptions to be unconservative.

H. If a verification or proof test micropile fails to meet the specified acceptance criteria, modify the design, the construction procedure, or both. These modifications may include, but are not limited to, installing replacement micropiles, modifying the installation methods, revising the pile diameter, or changing the micropile type.

1. Obtain the Engineer's written acceptance of any modification which requires changes to the structure.

2. All modifications of design or construction procedures and the costs of implementing such changes are at the Specialty Contractor's expense, including costs of additional verification piles, additional testing, and replacement production piles.

I. Design and install test piles to safely resist the maximum test loads.

1. Design piles so that the maximum test loads to not exceed 80 percent of the structural capacity of the micropile structural elements, including steel yield in tension, steel yield or buckling in compression, and grout crushing in compression.

2. Select sizes and materials for test piles that will give capacity and deflection results that are representative of production piles.

3. Any costs to provide additional structural strength for test piles are the responsibility of the Specialty Contractor.

J. Verification Load Tests

1. Conduct compression and tension verification pile load tests on sacrificial test piles to verify the load carrying capacity of the pile system and the construction procedures prior to installing production piles.

2. Conduct a minimum of two verification tests, with one test at each of the two general micropile foundation areas of the site, at locations specified in the micropile design submittals.

3. Provide instrumentation or other means to allow the tested resistance in liquefiable soil zones to be distinguished from the remaining resistance that can be relied upon under seismic conditions.

4. Load each verification test pile to at least 2.5 times the working load or to the ultimate design load, whichever is greater.

5. Begin installation of production micropiles only after the verification load tests have been evaluated and approved in writing by the micropile designer as satisfactory verification of the design assumptions, and only after the test results and micropile designer's analysis/conclusions have been approved by the Engineer.

6. Conduct verification axial pile load tests by incrementally loading the micropile in accordance with the following schedule.

Step	Loading	Applied Load	Hold Time (min)
1	Apply AL	AL	2.5
2	Cycle 1	0.15DL	2.5
		0.30DL	2.5
		0.45DL	2.5
		AL	1
3	Cycle 2	0.15DL	1
		0.30DL	1
		0.45DL	2.5
		0.60DL	2.5
		0.75DL	2.5
		0.90DL	2.5
		1.00DL	2.5
		AL	1
4	Cycle 3	0.15DL	1
		1.00DL	1
		1.15DL	2.5

		1.30DL	10 to 60
		1.45DL	2.5
		AL	1
5	Cycle 4	0.15DL	1
		0.45DL	1
		1.60DL	1
		1.75DL	2.5
		2.00DL	2.5
		2.25DL	2.5
		2.50DL	10
		2.00DL	5
		1.50DL	5
		1.00DL	5
		0.50DL	5
		AL	5

a. In the table above, "AL" is a minimal initial Alignment Load applied to keep the testing equipment correctly positioned, and no greater than 5 percent of the Design Load (DL).
b. Reset dial gauges to zero after the initial AL is applied.

7. Measure and record the top movement at each load increment.
   a. The load-hold period begins as soon as each test load increment is applied.
   b. Monitor the verification test pile for creep at the 1.30DL increment in Cycle 3.
   c. During the creep test, measure and record pile movement at 1, 2, 3, 4, 5, 6, 10, 20, 30, 50, and 60 minutes.

8. Verification test piles are acceptable if they meet all of the following criteria:
   a. Sustain the first 1.0DL compression and tension test loads with no more than 0.15 inch total vertical movement at the top of the pile, relative to the position of the top of the pile prior to testing.
   b. At the end of the 1.30DL creep test load increment, demonstrate a creep rate not exceeding 0.05 inch per log cycle time (1 to 10 minutes) or 0.10 inch per log cycle time (6 to 60 minutes).
   c. Demonstrate linear or decreasing creep rate throughout the creep load holding period.
   d. Support the 2.5DL test load without failure, where failure is defined as the load at which the slope of the load versus head displacement curve first exceeds 0.03 in/kip.

9. Submit to the Engineer a written evaluation by the micropile designer concerning micropile construction and the results of the load tests.
   a. Include the micropile designer's opinion as to the suitability of the test results in meeting the project requirements and the micropile design.
   b. The Engineer will approve or reject the verification load tests within 3 working days of receiving this submittal.

10. At the completion of verification testing and after acceptance of the final results, remove test piles and reaction piles down to the specified elevations.

K. Proof Tests

1. Conduct compression and tension proof testing on a minimum of 5 percent of production micropiles, at locations distributed evenly across the site and specified in the micropile design submittals.
   a. At each specified proof test location, install the proof test pile and necessary reaction piles and conduct the proof test prior to installing the remaining production piles in that area.

2. Load proof test piles to a test load of 1.60 times the micropile design load. Use the incremental loading schedule shown below.

Step	Loading	Applied Load	Hold Time (min)
1	Apply AL	AL	2.5
2	Load Cycle	0.15DL	2.5
		0.30DL	2.5
		0.45DL	2.5
		0.60DL	2.5
		0.75DL	2.5
		0.90DL	2.5
		1.00DL	2.5
		1.15DL	2.5
		1.30DL	10 to 60
		1.45DL	2.5
		1.60DL	2.5
3	Unload Cycle	1.30DL	4
		1.00DL	4
		0.75DL	4
		0.50DL	4
		0.25DL	4

		AL	4

a. Use an Alignment Load (AL) not exceeding 5 percent of the Design Load (DL).

3. At the 1.33 DL test load, a 10-minute creep test is adequate if the pile top movement between 1 and 10 minutes is less than 0.05 inch.
   a. Otherwise, continue the creep test for a total of 60 minutes.
   b. Record movements at time intervals of 1, 2, 3, 5, 6, 10, 20, 30, 50, and 60 minutes.

4. Proof test piles are acceptable if they meet all of the following criteria:
   a. Sustain the 1.0DL compression and tension test loads with no more than 0.15 inch total vertical movement at the top of the pile, relative to the position of the top of the pile prior to testing.
   b. At the end of the 1.30DL creep test load increment, demonstrate a creep rate not exceeding 0.05 inch per log cycle time (1 to 10 minutes) or 0.10 inch per log cycle time (6 to 60 minutes).
   c. Demonstrate linear or decreasing creep rate throughout the creep load holding period.
   d. Support the 1.60DL test load without failure, where failure is defined as the load at which the slope of the load versus head displacement curve first exceeds 0.03 in/kip.

5. In the event that a proof-tested micropile fails to meet the acceptance criteria, immediately proof test another pile within the same footing area.

3.5 MEASUREMENT AND PAYMENT

A. The quantities accepted for payment will be paid for at the contract unit prices for the following items:

Pay Item	Unit
Mobilization/Demobilization	Lump Sum
Micropile Load Test	Each
Micropile Proof Load Test	Each
Micropiles	Each
Drilling through Obstructions	Hour

1. Micropile quantities are the number of piles shown on the plans, and load test quantities are those specified herein (2 verification tests, and proof load tests on 5 percent of production piles).

2. The Micropile Load Test Pay Item includes the cost of all sacrificial test piles and reaction piles for the verification tests.

3. The Contractor is responsible for all costs of any additional micropiles installed and/or testing conducted to address test results that fail to meet the acceptance criteria.

B. The contract unit prices for the above items will be full and complete payment for providing all design, materials, labor, equipment, and incidentals to complete the work.

C. Micropile load test unit costs include the cost of any applicable non-production piles.

D. The unit contract amount for "Micropiles" includes the drilling, furnishing, and placing of reinforcing steel and casing, grouting, and pile top attachments.

1. The Micropile Specialty Contractor is responsible for estimating the grout take. There will be no extra payment for grout overruns.

END OF SECTION

DRAWING INDEX

VOLUME 1

DRAWING INDEX VOL 1 - STUDENT LIFE CENTER (SLC)

GENERAL

Sheet Number	Sheet Name
GI-000	COVER SHEET - VOL 1
GI-010	DRAWING INDEX
GI-020	ABBREVIATIONS, SYMBOLS, GENERAL NOTES, LOCATION PLAN
GI-030	COMCHECK DOCUMENTS
GI-040	SPECIAL INSPECTIONS / DEFERRED SUBMITTALS
GI-050	BUILDING CODE ANALYSIS
GI-101	STUDENT LIFE CENTER - CODE ANALYSIS & EXITING PLAN - LEVEL 1
GI-102	STUDENT LIFE CENTER - CODE ANALYSIS & EXITING PLAN - LEVEL 2
GI-103	STUDENT LIFE CENTER - CODE ANALYSIS & EXITING PLAN - LEVEL 3
GI-104	STUDENT LIFE CENTER - CODE ANALYSIS & EXITING PLAN - LEVEL 4
GI-105	PARKING STRUCTURE - CODE ANALYSIS & EXITING PLANS - LEVELS P1 & P2
GI-106	PARKING STRUCTURE - CODE ANALYSIS & EXITING PLANS - LEVELS P3, P4, P4, P5
GI-107	PARKING STRUCTURE - OPENNESS CALCULATIONS
GI-200	PROJECT SCOPE PLAN
GI-501	UL REFERENCED ASSEMBLIES
GI-502	UL REFERENCED ASSEMBLIES
GI-503	UL REFERENCED ASSEMBLIES
GI-504	UL REFERENCED ASSEMBLIES
GI-505	UL REFERENCED ASSEMBLIES
GI-506	UL REFERENCED ASSEMBLIES
GI-507	UL REFERENCED ASSEMBLIES
GI-508	UL REFERENCED ASSEMBLIES

GENERAL: 22

CIVIL

Sheet Number	Sheet Name
C-1.0	GENERAL NOTES
C-2.0	DEMOLITION PLAN
C-2.1	DEMOLITION PLAN
C-3.0	OVERAL SITE PLAN
C-3.1	SITE PLAN
C-3.2	SITE PLAN
C-4.0	GRADING PLAN
C-4.1	GRADING PLAN
C-4.2	ACCESSIBLE SITE PLAN
C-4.3	ACCESSIBLE SITE PLAN
C-5.0	DRAINAGE PLAN
C-5.1	DRAINAGE PLAN
C-5.2	UTILITY PLAN
C-5.3	UTILITY PLAN
C-6.0	EROSION CONTROL PLAN
C-6.1	EROSION CONTROL PLAN
C-7.0	DETAILS

CIVIL: 17

LANDSCAPE

Sheet Number	Sheet Name
AS-101	ARCHITECTURAL SITE PLAN - NORTH
AS-102	ARCHITECTURAL SITE PLAN - SOUTH
AS-103	ENLARGED SITE PLAN
AS-104	ENLARGED SITE PLAN
AS-131	PLANTING PLAN - NORTH
AS-132	PLANTING PLAN - SOUTH
AS-141	IRRIGATION PLAN - NORTH
AS-142	IRRIGATION PLAN - SOUTH
AS-501	STAIR DETAILS
AS-502	SITE DETAILS
AS-503	SITE DETAILS
AS-504	PLANTING & IRRIGATION DETAILS

LANDSCAPE: 12

Grand total: 51

DRAWING INDEX VOL 1 - PARKING STRUCTURE (PS)

ARCHITECTURAL

Sheet Number	Sheet Name
AE-P021	SLAB CONTROL PLAN - LEVEL P1
AE-P022	SLAB CONTROL PLAN - LEVEL P2
AE-P023	SLAB CONTROL PLAN - LEVEL P3
AE-P024	SLAB CONTROL PLAN - LEVEL P4
AE-P025	SLAB CONTROL PLAN - LEVEL P5
AE-P101	OVERALL P1 FLOOR PLAN
AE-P102	OVERALL P2 FLOOR PLAN
AE-P103	OVERALL P3 FLOOR PLAN
AE-P104	OVERALL P4 FLOOR PLAN
AE-P105	OVERALL P5 FLOOR PLAN
AE-P201	PARKING STRUCTURE ELEVATIONS
AE-P301	PARKING STRUCTURE BLDG. & WALL SECTIONS
AE-P302	PARKING STRUCTURE BLDG. & WALL SECTIONS
AE-P303	PARKING STRUCTURE BLDG. & WALL SECTIONS
AE-P411	STAIR 1 / ELEVATIOR P1 & P2 ENLARGED PLANS
AE-P412	STAIR 1 SECTIONS AND DETAILS
AE-P413	STAIR P2 PLANS AND SECTIONS
AE-P501	PARKING STRUCTURAL DETAILS
AE-P503	CURTAINWALL AND STOREFRONT
AE-P900	ALTERNATE SLAB CONTROL PLAN - LEVEL P6
AE-P901	ALTERNATE OVERALL P6 FLOOR PLAN

ARCHITECTURAL: 21

STRUCTURAL

Sheet Number	Sheet Name
SE-P001	GENERAL STRUCTURAL NOTES
SE-P002	GENERAL STRUCTURAL NOTES
SB-P101	FOOTING & FOUNDATION PLAN
SB-P501	FOOTING & FOUNDATION DETAILS
SB-P502	FOOTING & FOUNDATION DETAILS
SB-P601	SCHEDULES
SB-P602	SCHEDULES
SB-P603	SCHEDULES
SF-P102	LEVEL P2 FLOOR FRAMING PLAN
SF-P103	LEVEL P3 FLOOR FRAMING PLAN
SF-P104	LEVEL P4 FLOOR FRAMING PLAN
SF-P105	LEVEL P5 FLOOR FRAMING PLAN
SF-P201	CONCRETE SHEAR WALL ELEVATIONS
SF-P401	ENLARGED FRAMING PLANS
SF-P402	ENLARGED STAIR PLANS
SF-P501	TYPICAL POST-TENSIONED CONCRETE DETAILS
SF-P502	TYPICAL POST-TENSIONED CONCRETE DETAILS
SF-P503	FLOOR FRAMING DETAILS
SF-P504	FLOOR FRAMING DETAILS
SF-P505	FLOOR FRAMING DETAILS
SF-P511	ROOF FRAMING DETAILS
SF-P601	SCHEDULES
SF-P905	LEVEL P5 FLOOR FRAMING PLAN - ALTERNATE 1
SF-P906	LEVEL P6 FLOOR FRAMING PLAN - ALTERNATE 1
SF-P910	CONCRETE SHEAR WALL ELEVATIONS - ALTERNATE 1

STRUCTURAL: 25

PLUMBING

Sheet Number	Sheet Name
PL-P101	OVERALL P1 PLUMBING FLOOR PLAN
PL-P102	OVERALL P2 PLUMBING FLOOR PLAN
PL-P103	OVERALL P3 PLUMBING FLOOR PLAN
PL-P104	OVERALL P4 PLUMBING FLOOR PLAN
PL-P105	OVERALL P5 PLUMBING FLOOR PLAN
PL-P901	ALTERNATE OVERALL P4 PLUMBING FLOOR PLAN
PL-P902	ALTERNATE OVERALL P5 PLUMBING FLOOR PLAN
PL-P903	ALTERNATE OVERALL P6 PLUMBING FLOOR PLAN

PLUMBING: 8

ELECTRICAL

Sheet Number	Sheet Name
EP-P101	PARKING LEVEL P1 POWER PLAN
EP-P102	PARKING LEVEL P2 POWER PLAN
EP-P103	PARKING LEVEL P3 POWER PLAN
EP-P104	PARKING LEVEL P4 POWER PLAN
EP-P105	PARKING LEVEL P5 POWER PLAN
EP-P916	PARKING LEVEL P5/ P6 POWER PLAN - BID ALT
EL-P101	PARKING LEVEL P1 LIGHTING PLAN
EL-P102	PARKING LEVEL P2 LIGHTING PLAN
EL-P103	PARKING LEVEL P3 LIGHTING PLAN
EL-P104	PARKING LEVEL P4 LIGHTING PLAN
EL-P105	PARKING LEVEL P5 LIGHTING PLAN
EL-P301	PARKING LIGHTING SECTIONS
EL-P916	PARKING LEVEL P5/ P6 LIGHTING PLAN - BID ALT
ET-P101	PARKING LEVEL P1 TELECOMMUNICATIONS PLAN
ET-P102	PARKING LEVEL P2 TELECOMMUNICATIONS PLAN
ET-P103	PARKING LEVEL P3 TELECOMMUNICATIONS PLAN
ET-P104	PARKING LEVEL P4 TELECOMMUNICATIONS PLAN
ET-P105	PARKING LEVEL P5 TELECOMMUNICATIONS PLAN
ET-P916	PARKING LEVEL P5/ P6 TELECOMMUNICATIONS PLAN - BID ALT
EY-P101	PARKING LEVEL P1 SECURITY PLAN
EY-P102	PARKING LEVEL P2 SECURITY PLAN
EY-P103	PARKING LEVEL P3 SECURITY PLAN
EY-P104	PARKING LEVEL P4 SECURITY PLAN
EY-P105	PAKRING LEVEL P5 SECURITY PLAN
EY-P916	PARKING LEVEL P5/ P6 SECURITY PLAN - BID ALT
FA-P101	PARKING LEVEL P1 FIRE ALARM PLAN
FA-P102	PARKING LEVEL P2 FIRE ALARM PLAN
FA-P103	PARKING LEVEL P3 FIRE ALARM PLAN
FA-P104	PARKING LEVEL P4 FIRE ALARM PLAN
FA-P105	PARKING LEVEL P5 FIRE ALARM PLAN
FA-P601	FIRE ALARM RISER - PARKING STRUCTURE
FA-P916	PARKING LEVEL P5/ P6 FIRE ALARM PLAN - BID ALT

ELECTRICAL: 32

Grand total: 86

VOLUME 2

DRAWING INDEX VOL 2 - STUDENT LIFE CENTER (SLC)

GENERAL

Sheet Number	Sheet Name
GI-000.	COVER SHEET - VOL 2
GI-010	DRAWING INDEX

GENERAL: 2

ARCHITECTURAL

Sheet Number	Sheet Name
AD-101	DEMOLITION PLANS - SORENSEN BLDG
AD-111	DEMOLITION PLAN - PE BLDG LOCKER ROOMS
AD-151	DEMOLITION PLANS - SORENSEN BLDG & PEDESTRIAN TUNNEL
AE-021	FIREPROOFING PLANS
AE-022	EXPANSION JOINT PLANS
AE-051	FLOOR PLAN - SORENSEN BLDG
AE-061	FLOOR PLAN - PE BLDG LOCKER ROOMS
AE-100a	AXONOMETRIC VIEWS FROM NORTH
AE-100b	AXONOMETRIC VIEWS FROM SOUTH
AE-101	AXONOMETRIC VIEWS - LEVEL 1
AE-102	AXONOMETRIC VIEWS - LEVEL 2
AE-103	AXONOMETRIC VIEWS - LEVEL 3
AE-104	AXONOMETRIC VIEWS - LEVEL 4
AE-111	FLOORPLAN - LEVEL 1 OVERALL
AE-111a	FLOORPLAN - LEVEL 1 - ZONE A
AE-111b	FLOORPLAN - LEVEL 1 - ZONE B
AE-111c	FLOORPLAN - LEVEL 1 - ZONE C
AE-112	FLOORPLAN - LEVEL 2 OVERALL
AE-112a	FLOORPLAN - LEVEL 2 - ZONE A
AE-112b	FLOORPLAN - LEVEL 2 - ZONE B
AE-112c	FLOORPLAN - LEVEL 2 - ZONE C
AE-113	FLOORPLAN - LEVEL 3 OVERALL
AE-113a	FLOORPLAN - LEVEL 3 - ZONE A
AE-113b	FLOORPLAN - LEVEL 3 - ZONE B
AE-113c	FLOOR PLAN - LEVEL 3 - ZONE C
AE-114	FLOORPLAN - LEVEL 4 OVERALL
AE-114a	FLOORPLAN - LEVEL 4 - ZONE A
AE-114b	FLOORPLAN - LEVEL 4 - ZONE B
AE-114c	FLOORPLAN - LEVEL 4 - ZONE C
AE-115	PARTITION TYPES SCHEDULE
AE-121	ROOF PLAN - OVERALL
AE-131a	FINISH PLAN - LEVEL 1 - ZONE A
AE-131b	FINISH PLAN - LEVEL 1 - ZONE B
AE-131c	FINISH PLAN - LEVEL 1 - ZONE C
AE-132a	FINISH PLAN - LEVEL 2 - ZONE A
AE-132b	FINISH PLAN - LEVEL 2 - ZONE B
AE-132c	FINISH PLAN - LEVEL 2 - ZONE C
AE-133a	FINISH PLAN - LEVEL 3 ZONE A
AE-133b	FINISH PLAN - LEVEL 3 - ZONE B
AE-133c	FINISH PLAN - LEVEL 3 - ZONE C
AE-134a	FINISH PLAN - LEVEL 4 - ZONE A
AE-134b	FINISH PLAN - LEVEL 4 - ZONE B
AE-134c	FINISH PLAN - LEVEL 4 - ZONE C
AE-135	FINISH LEGEND, ACCESS PANEL SCHEDULE, WINDOW TREATMENT SCHEDULE
AE-141a	REFLECTED CEILING PLAN - LEVEL 1 - ZONE A
AE-141b	REFLECTED CEILING PLAN - LEVEL 1 - ZONE B
AE-141c	REFLECTED CEILING PLAN - LEVEL 1 - ZONE C
AE-142a	REFLECTED CEILING PLAN - LEVEL 2 - ZONE A
AE-142b	REFLECTED CEILING PLAN - LEVEL 2 - ZONE B
AE-142c	REFLECTED CEILING PLAN - LEVEL 2 - ZONE C
AE-143a	REFLECTED CEILING PLAN - LEVEL 3 - ZONE A
AE-143b	REFLECTED CEILING PLAN - LEVEL 3 - ZONE B
AE-143c	REFLECTED CEILING PLAN - LEVEL 3 - ZONE C
AE-144a	REFLECTED CEILING PLAN - LEVEL 4 - ZONE A
AE-144b	REFLECTED CEILING PLAN - LEVEL 4 - ZONE B
AE-144c	REFLECTED CEILING PLAN - LEVEL 4 - ZONE C
AE-151	EQUIPMENT COORDINATION PLAN - LEVEL 1
AE-152	EQUIPMENT COORDINATION PLAN - LEVEL 2
AE-153	EQUIPMENT COORDINATION PLAN - LEVEL 3
AE-154	EQUIPMENT COORDINATION PLAN - LEVEL 4
AE-201	BUILDING ELEVATIONS - NORTH / SOUTH
AE-202	BUILDING ELEVATIONS - EAST / WEST
AE-203	BUILDING ELEVATIONS - MISC
AE-204	BUILDING ELEVATIONS - MISC
AE-301	BUILDING SECTIONS
AE-302	BUILDING SECTIONS
AE-303	BUILDING SECTIONS
AE-311	WALL SECTIONS - EXTERIOR ZONE A
AE-312	WALL SECTIONS - EXTERIOR ZONE A
AE-313	WALL SECTIONS - EXTERIOR ZONE A
AE-314	WALL SECTIONS - EXTERIOR ZONE A
AE-315	WALL SECTIONS - EXTERIOR ZONE A & B
AE-316	WALL SECTIONS - EXTERIOR ZONE B
AE-317	WALL SECTIONS - EXTERIOR ZONE B & C
AE-318	WALL SECTIONS - EXTERIOR ZONE C
AE-319	WALL SECTIONS - EXTERIOR ZONE C
AE-331	WALL SECTIONS - INTERIOR
AE-332	WALL SECTIONS - INTERIOR
AE-341	WALL SECTIONS - FIRE SEPARATION WALLS
AE-342	WALL SECTIONS -FIRE SEPARATION WALLS
AE-343	WALL SECTIONS -FIRE SEPARATION WALLS
AE-411	ENLARGED PLANS & RCPS
AE-412	ENLARGED PLANS / ELEVATIONS - LOCKER ROOMS & SHOWERS
AE-413	ENLARGED PLANS / ELEVATIONS - LOCKER ROOMS & SHOWERS
AE-414	ENLARGED PLANS / ELEVATIONS - LEVEL 1 RESTROOMS
AE-415	ENLARGED PLANS / ELEVATIONS - LEVEL 2 RESTROOMS
AE-416	ENLARGED PLANS / ELEVATIONS - LEVEL 3/4 RESTROOMS
AE-417	FREE STANDING ROOF STRUCTURE & ELECTRICAL EQUIPMENT
AE-420	VERTICAL CIRCULATION - STAIR 1
AE-421	VERTICAL CIRCULATION - STAIR 2 / ELEVATOR A
AE-422	VERTICAL CIRCULATION - STAIR 3
AE-423	VERTICAL CIRCULATION - STAIR 4 & DETAILS
AE-424	VERTICAL CIRCULATION - STAIR 5
AE-425	VERTICAL CIRCULATION - STAIR 6 & 7, ELEVATOR E
AE-426	VERTICAL CIRCULATION - STAIR 8 & ELEVATOR D
AE-427	VERTICAL CIRCULATION - STAIR 9 & 10
AE-428	VERTICAL CIRCULATION - ELEVATOR B & C / ELEVATOR SCHEDULE
AE-429	VERTICAL CIRCULATION - LADDER DETAILS
AE-441	INTERIOR ELEVATIONS - LEVEL 1
AE-442	INTERIOR ELEVATIONS - LEVEL 1
AE-443	INTERIOR ELEVATIONS - LEVEL 1
AE-444	INTERIOR ELEVATIONS - LEVEL 1
AE-445	INTERIOR ELEVATIONS - LEVEL 1
AE-446	INTERIOR ELEVATIONS - LEVEL1
AE-451	INTERIOR ELEVATIONS - LEVEL 2
AE-452	INTERIOR ELEVATIONS - LEVEL 2
AE-453	INTERIOR ELEVATIONS - LEVEL 2
AE-454	INTERIOR ELEVATIONS - LEVEL 2
AE-461	INTERIOR ELEVATIONS - LEVEL 3
AE-462	INTERIOR ELEVATIONS - LEVEL 3
AE-463	INTERIOR ELEVATIONS LEVEL 3
AE-464	INTERIOR ELEVATIONS - LEVEL 3
AE-471	INTERIOR ELEVATIONS - LEVEL 4
AE-472	INTERIOR ELEVATIONS - LEVEL 4
AE-481	INTERIOR ELEVATIONS - CLIMBING / BOULDERING
AE-482	INTERIOR ELEVATIONS - 3-COURT GYM - NORTH
AE-483	INTERIOR ELEVATIONS - 3-COURT GYM - EAST & WEST
AE-484	INTERIOR ELEVATIONS - 3-COURT GYM - SOUTH
AE-485	INTERIOR ELEVATIONS - MAC GYM NORTH & EAST
AE-486	INTERIOR ELEVATIONS - MAC GYM SOUTH & WEST
AE-501	EXTERIOR PLAN DETAILS
AE-502	EXTERIOR PLAN DETAILS
AE-503	EXTERIOR PLAN DETAILS
AE-510	EXTERIOR DETAILS - ROOF
AE-511	EXTERIOR SECTION DETAILS
AE-512	EXTERIOR SECTION DETAILS
AE-513	EXTERIOR SECTION DETAILS
AE-514	EXTERIOR SECTION DETAILS
AE-515	EXTERIOR SECTION DETAILS
AE-516	EXTERIOR SECTION DETAILS
AE-517	EXTERIOR SECTION DETAILS
AE-521	INTERIOR PLAN DETAILS
AE-531	INTERIOR SECTION DETAILS
AE-532	INTERIOR SECTION DETAILS
AE-533	INTERIOR SECTION DETAILS
AE-541	INTERIOR MILLWORK & FINISH DETAILS
AE-542	INTERIOR MILLWORK & FINISH DETAILS
AE-543	INTERIOR MILLWORK & FINISH DETAILS
AE-544	INTERIOR MILLWORK & FINISH DETAILS
AE-545	INTERIOR MILLWORK & FINISH DETAILS
AE-551	WALL DETAILS
AE-561	CEILING DETAILS
AE-562	CEILING DETAILS

DRAWING INDEX VOL 2 - STUDENT LIFE CENTER (SLC)

Sheet Number	Sheet Name
AE-601	CURTAINWALL,STOREFRONT & EXTERIOR WINDOWS SOUTH ELEV.
AE-602	CURTAINWALL,STOREFRONT & EXTERIOR WINDOWS NORTH & EAST ELEV.
AE-603	CURTAINWALL,STOREFRONT & EXTERIOR WINDOWS NORTH & EAST ELEV.
AE-604	CURTAINWALL,STOREFRONT & EXTERIOR WINDOWS NORTH ELEV
AE-605	CURTAINWALL, STOREFRONT, SCHEDULES & EXT. WINDOWS WEST ELEV.
AE-606	DOOR & FIRE SHUTTER SCHEDULE
AE-607	DOOR & FRAME & FIRE SHUTTER TYPES
AE-608	DOOR & GLAZING DETAILS
AE-611	INTERIOR GLAZING ELEVATIONS
AE-612	INTERIOR GLAZING ELEVATIONS

ARCHITECTURAL: 153

STRUCTURAL

Sheet Number	Sheet Name
SE-001	GENERAL STRUCTURAL NOTES
SE-002	GENERAL STRUCTURAL NOTES
SB-101	FOOTING & FOUNDATION PLAN - OVERALL
SB-101a	FOOTING & FOUNDATION PLAN - ZONE A
SB-101b	FOOTING & FOUNDATION PLAN - ZONE B
SB-101c	FOOTING & FOUNDATION PLAN - ZONE C
SB-401	FOOTING & FOUNDATION AT SORENSEN BUILDING
SB-501	TYPICAL FOOTING AND FOUNDATION DETAILS
SB-502	FOOTING AND FOUNDATION DETAILS
SB-503	FOOTING AND FOUNDATION DETAILS
SB-504	FOOTING AND FOUNDATION DETAILS
SB-601	SCHEDULES
SB-602	SCHEDULES
SF-102	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 OVERALL
SF-102a	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 ZONE A
SF-102b	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 ZONE B
SF-102c	FLOOR FRAMING PLAN - LEVEL 2 ZONE C
SF-103	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 3 OVERALL
SF-103a	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 3 ZONE A
SF-103b	FLOOR FRAMING PLAN - LEVEL 3 ZONE B
SF-103c	FLOOR & LOW ROOF FRAMING PLAN - LEVEL 3 ZONE C
SF-104	FLOOR FRAMING PLAN - LEVEL 4 OVERALL
SF-104a	FLOOR FRAMING PLAN - LEVEL 4 ZONE A
SF-104b	FLOOR FRAMING PLAN - LEVEL 4 ZONE B
SF-104c	FLOOR FRAMING PLAN - LEVEL 4 ZONE C
SF-105	ROOF FRAMING PLAN - OVERALL
SF-105a	ROOF FRAMING PLAN - ZONE A
SF-105b	ROOF FRAMING PLAN - ZONE B
SF-105c	ROOF FRAMING PLAN - ZONE C
SF-106	HIGH ROOF FRAMING PLANS
SF-201	BRACED FRAME ELEVATIONS
SF-202	BRACED FRAME ELEVATIONS
SF-203	BRACED FRAME ELEVATIONS
SF-204	STEEL TRUSS & BRACED FRAME ELEVATIONS
SF-205	MOMENT FRAME ELEVATIONS
SF-206	STEEL TUBE TRUSS ELEVATION, PLAN & 3D VIEW
SF-210	BUCKLING RESTRAINED BRACE SCHEDULE
SF-211	TYPICAL BUCKLING RESTRAINED BRACE FRAME DETAILS
SF-212	TYPICAL BUCKLING RESTRAINED BRACE FRAME DETAILS
SF-213	TYPICAL BUCKLING RESTRAINED BRACE FRAME DETAILS
SF-214	TYPICAL BUCKLING RESTRAINED BRACE FRAME DETAILS
SF-215	TYPICAL MOMENT FRAME DETAILS
SF-216	TYPICAL MOMENT FRAME DETAILS
SF-220	TYPICAL STEEL TRUSS DETAILS
SF-221	TYPICAL STEEL TRUSS DETAILS
SF-225	TUBE TRUSS CONNECTION DETAILS
SF-401	FRAMING PLANS AT SORENSEN BUILDING
SF-402	ENLARGED FRAMING PLANS
SF-501	TYPICAL CONCRETE OVER STEEL FLOOR DECK DETAILS
SF-502	TYPICAL FLOOR FRAMING DETAILS
SF-503	TYPICAL FLOOR FRAMING DETAILS
SF-504	TYPICAL FLOOR FRAMING DETAILS
SF-505	TYPICAL FLOOR FRAMING DETAILS
SF-511	TYPICAL ROOF FRAMING DETAILS
SF-512	TYPICAL ROOF FRAMING DETAILS
SF-513	TYPICAL ROOF FRAMING DETAILS
SF-514	TYPICAL ROOF FRAMING DETAILS
SF-515	TYPICAL ROOF FRAMING DETAILS
SF-516	ROOF FRAMING DETAILS
SF-517	ROOF FRAMING DETAILS
SF-520	SORENSON REMODEL DETAILS
SF-521	TYPICAL CONCRETE FLOOR FRAMING DETAILS
SF-530	GFRC PANEL SUPPORT DETAILS
SF-531	GFRC PANEL & CURTAIN WALL SUPPORT DETAILS
SF-601	TYPICAL STEEL FRAMING SCHEDULES
SF-602	STEEL COLUMN SCHEDULE
SF-603	STEEL COLUMN SCHEDULE
SF-604	STRUCTURAL SCHEDULES
SF-605	STRUCTURAL SCHEDULES
SF-606	STUD DETAILS

STRUCTURAL: 70

Grand total: 225

VOLUME 3

DRAWING INDEX VOL 3 - STUDENT LIFE CENTER (SLC)

GENERAL

Sheet Number	Sheet Name
GI-000..	COVER SHEET - VOL 3
GI-010	DRAWING INDEX

GENERAL: 2

MECHANICAL

Sheet Number	Sheet Name
MH0.01	MECHANICAL LEGEND, SYMBOLS & ABBREVIATIONS
FF1.11	OVERALL LEVEL 1 FIRE PROTECTION PLAN
FF1.12	OVERALL LEVEL 2 FIRE PROTECTION PLAN
FF1.13	OVERALL LEVEL 3 FIRE PROTECTION PLAN
FF1.14	OVERALL LEVEL 4 FIRE PROTECTION PLAN
FF1.21	FIRE PROTECTION ROOF PLAN
FF3.01	FIRE PROTECTION EAST ELEVATIONS
MD051	EXISTING SORENSEN ROOF MECHANICAL DEMOLITON PLAN
MD061	EXISTING P.E. LOCKER ROOM UNDERGROUND MECHANICAL DEMOLITION PLAN
MH051	EXISTING SORENSEN ROOF MECHANICAL PLAN
MH052	EXISITNG SORENSEN ENLARGED MECHANICAL PLAN - ROOM 205
MH061	EXISTING P.E. LOCKER ROOM UNDERGROUND MECHANICAL PLAN
MH081	EXISTING COMPUTER SCIENCES BLDG MECHANICAL FLOOR PLANS
MH082	EXISTING COMPUTER SCIENCES BLDG MECHANICAL ROOF PLAN
MH1.11A	MECHANICAL FLOOR PLAN LEVEL 1 ZONE A
MH1.11B	MECHANICAL FLOOR PLAN LEVEL 1 ZONE B
MH1.11C	MECHANICAL FLOOR PLAN LEVEL 1 ZONE C
MH1.12A	MECHANICAL FLOOR PLAN LEVEL 2 ZONE A
MH1.12B	MECHANICAL FLOOR PLAN LEVEL 2 ZONE B
MH1.12C	MECHANICAL FLOOR PLAN LEVEL 2 ZONE C
MH1.13A	MECHANICAL FLOOR PLAN LEVEL 3 ZONE A
MH1.13B	MECHANICAL FLOOR PLAN LEVEL 3 ZONE B
MH1.13C	MECHANICAL FLOOR PLAN LEVEL 3 ZONE C
MH1.14A	MECHANICAL FLOOR PLAN LEVEL 4 ZONE A
MH1.14B	MECHANICAL FLOOR PLAN LEVEL 4 ZONE B
MH1.14C	MECHANICAL FLOOR PLAN LEVEL 4 ZONE C
MH1.21	MECHANICAL ROOF PLAN
MH4.01	ENLARGED MECHANICAL ROOMS MECHANICAL PLANS
MH5.01	MECHANICAL DETAILS
MH5.02	MECHANICAL DETAILS
MH5.03	MECHANICAL DETAILS
MH5.04	MECHANICAL DETAILS
MH6.01	MECHANICAL SCHEDULES
MH6.02	MECHANICAL SCHEDULES
MH6.03	MECHANICAL SCHEDULES
MI2.01	MECHANICAL CONTROLS SCHEMATICS
MI2.02	MECHANICAL CONTROLS SCHEMATICS
MP061	EXISTING P.E. BLDG MECHANICAL PIPING PLAN
MP071	EXISTING L.A. BLDG MECHANICAL PIPING PLAN
MP1.10	LEVEL 1 MECHANICAL PIPING UNDERGROUND PLAN
MP1.11A	MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE A
MP1.11B	MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE B
MP1.11C	MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE C
MP1.12A	MECHANICAL PIPING FLOOR PLAN LEVEL 2 ZONE A
MP1.12B	MECHANICAL PIPING FLOOR PLAN LEVEL 2 ZONE B
MP1.12C	MECHANICAL PIPING FLOOR PLAN LEVEL 2 ZONE C
MP1.13A	MECHANICAL PIPING FLOOR PLAN LEVEL 3 ZONE A
MP1.13B	MECHANICAL PIPING FLOOR PLAN LEVEL 3 ZONE B
MP1.13C	MECHANICAL PIPING FLOOR PLAN LEVEL 3 ZONE C
MP1.14A	MECHANICAL PIPING FLOOR PLAN LEVEL 4 ZONE A
MP1.14B	MECHANICAL PIPING FLOOR PLAN LEVEL 4 ZONE B
MP1.14C	MECHANICAL PIPING FLOOR PLAN LEVEL 4 ZONE C
MP2.01	CHILLED WATER PIPING SCHEMATIC
MP2.02	HEATING WATER PIPING SCHEMATIC
MP2.03	UPPER PLANT BOILER PIPING SCHEMATIC
MP4.01	ENLARGED MECHANICAL ROOMS PIPING PLANS

MECHANICAL: 56

PLUMBING

Sheet Number	Sheet Name
PL1.11A	PLUMBING FLOOR PLAN LEVEL 1 ZONE A
PL1.11B	PLUMBING FLOOR PLAN LEVEL 1 ZONE B
PL1.11C	PLUMBING FLOOR PLAN LEVEL 1 ZONE C
PL1.12A	PLUMBING FLOOR PLAN LEVEL 2 ZONE A
PL1.12B	PLUMBING FLOOR PLAN LEVEL 2 ZONE B
PL1.12C	PLUMBING FLOOR PLAN LEVEL 2 ZONE C
PL1.13A	PLUMBING FLOOR PLAN LEVEL 3 ZONE A
PL1.13B	PLUMBING FLOOR PLAN LEVEL 3 ZONE B
PL1.13C	PLUMBING FLOOR PLAN LEVEL 3 ZONE C
PL1.14A	PLUMBING FLOOR PLAN LEVEL 4 ZONE A
PL1.14B	PLUMBING FLOOR PLAN LEVEL 4 ZONE B
PL1.14C	PLUMBING FLOOR PLAN LEVEL 4 ZONE C
PL4.01	ENLARGED MECHANICAL ROOMS PLUMBING PLANS
PL4.02	LEVEL 1 & 2 ENLARGED PLUMBING PLANS
PL4.03	LEVEL 1 & 2 ENLARGED PLUMBING PLANS
PL4.04	LEVEL 3 & 4 ENLARGED PLUMBING PLANS
PL4.05	LEVEL 3 ENLARGED LOCKER ROOM PLUMBING PLAN
PL6.01	PLUMBING SCHEDULES

PLUMBING: 18

DRAWING INDEX VOL 3 - STUDENT LIFE CENTER (SLC)

ELECTRICAL

Sheet Number	Sheet Name
EE-001	SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES
EE-002	SYMBOLS LEGEND
EE-101	EXISTING SORENSEN LEVEL 1
EE-501	DETAILS
EE-502	DETAILS
EE-601	GROUNDING RISER DIAGRAM
EE-701	TYPICAL MOUNTING HEIGHT DETAILS
ES-101	CAMPUS REFERENCE PLAN
ES-102	ENLARGED PARTIAL CAMPUS ELECTRICAL SITE PLAN
ES-103	SITE DEMOLITION PLAN
ES-104	SITE POWER PLAN
ES-105	SITE LIGHTING PLAN
ES-401	ENLARGED SITE POWER PLAN
ES-501	SITE ELECTRICAL DETAILS
ED-101	ELECTRICAL DEMOLITION PLANS - SORENSEN BLDG
ED-102	ELECTRICAL DEMOLITION PLANS - PE BLDG
EP-111a	LEVEL 1 POWER PLAN ZONE A
EP-111b	LEVEL 1 POWER PLAN ZONE B
EP-111c	LEVEL 1 POWER PLAN ZONE C
EP-121a	LEVEL 2 POWER PLAN ZONE A
EP-121b	LEVEL 2 POWER PLAN ZONE B
EP-121c	LEVEL 2 POWER PLAN ZONE C
EP-131a	LEVEL 3 POWER PLAN ZONE A
EP-131b	LEVEL 3 POWER PLAN ZONE B
EP-131c	LEVEL 3 POWER PLAN ZONE C
EP-141a	LEVEL 4 POWER PLAN ZONE A
EP-141b	LEVEL 4 POWER PLAN ZONE B
EP-141c	LEVEL 4 POWER PLAN ZONE C
EP-151a	ROOF POWER PLAN ZONE A
EP-151b	ROOF POWER PLAN ZONES B & C
EP-161	ENLARGED UPPER CENTRAL PLANT ELECTRICAL PLAN
EP-401	ENLARGED POWER PLANS
EP-402	PARTIAL PE AND SORENSEN POWER PLANS
EP-601	POWER ONE-LINE DIAGRAM - MEDIUM VOLTAGE
EP-602	POWER ONE-LINE DIAGRAM - STUDENT CENTER
EP-603	NORMAL POWER ONE-LINE DIAGRAM
EP-604	EMERGENCY POWER ONE-LINE DIAGRAM
EP-605	EQUIPMENT SCHEDULE
EP-606	EQUIPMENT SCHEDULE
EP-607	PANEL SCHEDULES
EP-608	PANEL SCHEDULES
EP-609	PANEL SCHEDULES
EP-610	PANEL SCHEDULES
EP-611	PANEL SCHEDULES
EP-612	PANEL SCHEDULES
EP-613	PANEL SCHEDULES
EP-661	UPPER PLANT POWER ONE-LINE DIAGRAM
EL-111a	LEVEL 1 LIGHTING PLAN ZONE A
EL-111b	LEVEL 1 LIGHTING PLAN ZONE B
EL-111c	LEVEL 1 LIGHTING PLAN ZONE C
EL-121a	LEVEL 2 LIGHTING PLAN ZONE A
EL-121b	LEVEL 2 LIGHTING PLAN ZONE B
EL-121c	LEVEL 2 LIGHTING PLAN ZONE C
EL-131a	LEVEL 3 LIGHTING PLAN ZONE A
EL-131b	LEVEL 3 LIGHTING PLAN ZONE B
EL-131c	LEVEL 3 LIGHTING PLAN ZONE C
EL-141a	LEVEL 4 LIGHTING PLAN ZONE A
EL-141b	LEVEL 4 LIGHTING PLAN ZONE B
EL-141c	LEVEL 4 LIGHTING PLAN ZONE C
EL-151a	ROOF LIGHTING PLAN ZONE A
EL-151b	ROOF LIGHTING PLAN ZONES B & C
EL-201	LIGHTING STAIR SECTIONS
EL-202	LIGHTING SECTIONS
EL-401	PARTIAL PE AND SORENSEN LIGHTING PLANS
EL-501	LIGHTING CONTROL SCHEDULES AND DETAILS
EL-502	LIGHTING DETAILS
EL-601	FIXTURE SCHEDULE
EL-602	FIXTURE SCHEDULE
ET-111a	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE A
ET-111b	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE B
ET-111c	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE C
ET-121a	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE A
ET-121b	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE B
ET-121c	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE C
ET-131a	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE A
ET-131b	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE B
ET-131c	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE C
ET-141a	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE A
ET-141b	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE B
ET-141c	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE C
ET-401	ENLARGED TELECOMMUNICATIONS LAYOUT PLANS
ET-402	ENLARGED TELECOMMUNICATIONS LAYOUT PLANS
ET-601	TELECOMMUNICATIONS ROUGH-IN DETAILS
EY-111a	LEVEL 1 SECURITY PLAN ZONE A
EY-111b	LEVEL 1 SECURITY PLAN ZONE B
EY-111c	LEVEL 1 SECURITY PLAN ZONE C
EY-121a	LEVEL 2 SECURITY PLAN ZONE A
EY-121b	LEVEL 2 SECURITY PLAN ZONE B
EY-121c	LEVEL 2 SECURITY PLAN ZONE C
EY-131a	LEVEL 3 SECURITY PLAN ZONE A
EY-131b	LEVEL 3 SECURITY PLAN ZONE B
EY-131c	LEVEL 3 SECURITY PLAN ZONE C
EY-141a	LEVEL 4 SECURITY PLAN ZONE A
EY-141b	LEVEL 4 SECURITY PLAN ZONE B
EY-141c	LEVEL 4 SECURITY PLAN ZONE C
EY-601	SECURITY SYSTEMS SCHEDULES
EY-602	SECURITY DIAGRAMS
EJ-111a	LEVEL 1 AUDIO-VIDEO PLAN ZONE A
EJ-111b	LEVEL 1 AUDIO-VIDEO PLAN ZONE B
EJ-111c	LEVEL 1 AUDIO-VIDEO PLAN ZONE C
EJ-121a	LEVEL 2 AUDIO-VIDEO PLAN ZONE A
EJ-121b	LEVEL 2 AUDIO-VIDEO PLAN ZONE B
EJ-121c	LEVEL 2 AUDIO-VIDEO PLAN ZONE C
EJ-131a	LEVEL 3 AUDIO-VIDEO PLAN ZONE A
EJ-131b	LEVEL 3 AUDIO-VIDEO PLAN ZONE B
EJ-131c	LEVEL 3 AUDIO-VIDEO PLAN ZONE C
EJ-141a	LEVEL 4 AUDIO-VIDEO PLAN ZONE A
EJ-141b	LEVEL 4 AUDIO-VIDEO PLAN ZONE B
EJ-141c	LEVEL 4 AUDIO-VIDEO PLAN ZONE C
EJ-301	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-302	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-303	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-501	AUDIO-VIDEO ROUGH-IN DETAILS
EJ-502	AUDIO-VIDEO ROUGH-IN DETAILS
EJ-601	AUDIO-VIDEO ROUGH-IN SCHEDULES AND NOTES
EJ-602	AUDIO-VIDEO ROUGH-IN RISER DIAGRAMS
FA-111a	LEVEL 1 FIRE ALARM PLAN ZONE A
FA-111b	LEVEL 1 FIRE ALARM PLAN ZONE B
FA-111c	LEVEL 1 FIRE ALARM PLAN ZONE C
FA-121a	LEVEL 2 FIRE ALARM PLAN ZONE A
FA-121b	LEVEL 2 FIRE ALARM PLAN ZONE B
FA-121c	LEVEL 2 FIRE ALARM PLAN ZONE C
FA-131a	LEVEL 3 FIRE ALARM PLAN ZONE A
FA-131b	LEVEL 3 FIRE ALARM PLAN ZONE B
FA-131c	LEVEL 3 FIRE ALARM PLAN ZONE C
FA-141a	LEVEL 4 FIRE ALARM PLAN ZONE A
FA-141b	LEVEL 4 FIRE ALARM PLAN ZONE B
FA-141c	LEVEL 4 FIRE ALARM PLAN ZONE C
FA-151a	ROOF FIRE ALARM PLAN ZONE A
FA-151b	ROOF FIRE ALARM PLAN ZONES B & C
FA-401	PARTIAL PE AND SORENSEN FIRE ALARM PLANS
FA-601	FIRE ALARM RISER
TA-001	TECHNOLOGY SCHEDULES, ABBREV, AND NOTES
TA-002	TECHNOLOGY EQUIPMENT LIST
TA-501	TECHNOLOGY DETAILS
TA-601	TECHNOLOGY RISER DIAGRAMS
TT-001	TELECOMMUNICATIONS SCHEDULES AND NOTES
TT-501	TELECOMMUNICATIONS DETAILS
TT-601	TELECOMMUNICATIONS RISER DIAGRAMS

ELECTRICAL: 139

Grand total: 215

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.01.2012	Addendum-01
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

THE GREAT SEAL OF THE STATE OF UTAH 1896

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	TY
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

DRAWING INDEX

CONSTRUCTION DOCUMENTS

2 GI-010

DEFERRED SUBMITTAL	APPROXIMATE DATE
A. ARCHITECTURAL (NONSTRUCTURAL COMPONENT CHECKLIST)	12/01/2012
1. GFRC	
2. CURTAIN WALL INCLUDING VERTICAL FINS / NFRC RATING	
3. OPERABLE PARTITIONS	
4. GUARDRAIL SYSTEM	
5. STORAGE RACKS AND CABINETS PROVIDED AS PART OF THIS CONTRACT.	
6. CLIMBING WALL	
7. METAL PANEL	
8. METAL STAIRS	
9. FIRE SHUTTERS	
10. SUSPENDED OR WALL HUNG ATHLETIC EQUIPMENT AS PART OF THIS CONTRACT.	
2 11. STRUCTURED-POLYCARBONATE-PANEL ASSEMBLY SKYLIGHTS.	
B. STRUCTURAL	12/01/2012
1. FOUNDATION ELEMENTS: STONE COLUMNS, HELICAL PEIRS, SHORING WALLS, MICROPILES & PILE CAPS	
2. GRADE BEAMS	
3. ROOF JOISTS	
C. MECHANICAL (NONSTRUCTURAL COMPONENT CHECKLIST)	12/01/2012
1. FIRE PROTECTION SYSTEM	
2. SEISMIC BRACING FOR MECHANICAL SYSTEM / EQUIPMENT / DUCTS	
3. SEISMIC BRACING FOR PLUMBING	
D. ELECTRICAL (NONSTRUCTURAL COMPONENT CHECKLIST)	12/01/2012
1. SEISMIC BRACING FOR ELECTRICAL EQUIPMENT / LIGHTS / RACEWAY	
2. SEISMIC BRACING FOR AV EQUIPMENT	
3. PIPING & CONDUIT SYSTEM	
4. FIRE ALARM AND BATTERY CALCS.	

NOTES:

2

A. For all the items listed in the deferred submittals list, the contractor or subcontrctor shall provide a delegated design submittal that provides all documentation and engineering required to satisfy DFCM's seismic restraint requirements. The delegated design submittal shall include but is not limited to analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

B. The following documents are required before a certificate of occupancy is issued.
1. A code inspection report recommending that a certificate of occupancy be issued.
2. Final report from the special inspection agency.
3. Certificate of fire clearance from the State Fire Marshall.
4. Final approval from the State Elevator inspector, if applicable.
5. Final approval from the State boiler inspector, if applicable.
6. Report of the disinfection of the potable water system. IPC 610
7. A Certificate of Compliance from the approved fabricator, if applicable. IBC 1704.2.2
8. A stamped and signed final report from the structural engineer when structural observation is required by IBC 1710.
9. Final report from the special inspector and the mechanical engineer when smoke control is required. The reports must comply with IBC 909.18.8.3.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

GI-040-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

ARCHITECTURAL COMPONENTS:				
INTERIOR NONSTRUCTURAL WALLS & PARTITIONS		X		
CANTILEVER ELEMENTS (I.E. PARAPETS, ETC.)		X		
EXTERIOR NONSTRUCTURAL WALL ELEMENTS			X	METAL PANEL SYSTEM / CURTAIN WALL SYSTEM
VENEER		X	X	GFRC, BRICK, METAL PANELS
PENTHOUSE		X		
CEILINGS (I.E. SUSPENDED GRID OR HARD LID)		X	X	ANY SUSPENDED CEILING NOT COVERED IN THE DRAWINGS WILL BE A DEFERRED SUBMITTAL.
CABINETS (I.E. STORAGE CABINETS, EQUIP, ETC.)			X	2
ACCESS FLOOR	X			
STORAGE RACKS			X	
APPENDAGES & ORNAMENTATIONS	X			
SIGNS & BILLBOARDS			X	
OTHER: SUSPENDED CEILING CLOUDS		X		
OTHER: CLIMBING WALL			X	
OTHER: STRUCTURED-POLYCARBONATE-PANEL ASSEMBLY SKYLIGHT			X	
OTHER: OPERABLE PARTITIONS			X	2
OTHER: CEILING MOUNTED FIRE SHUTTERS			X	
OTHER: SUSPENDED OR WALL HUNG ATHLETIC EQUIPMENT			X	
MEP COMPONENTS:				

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

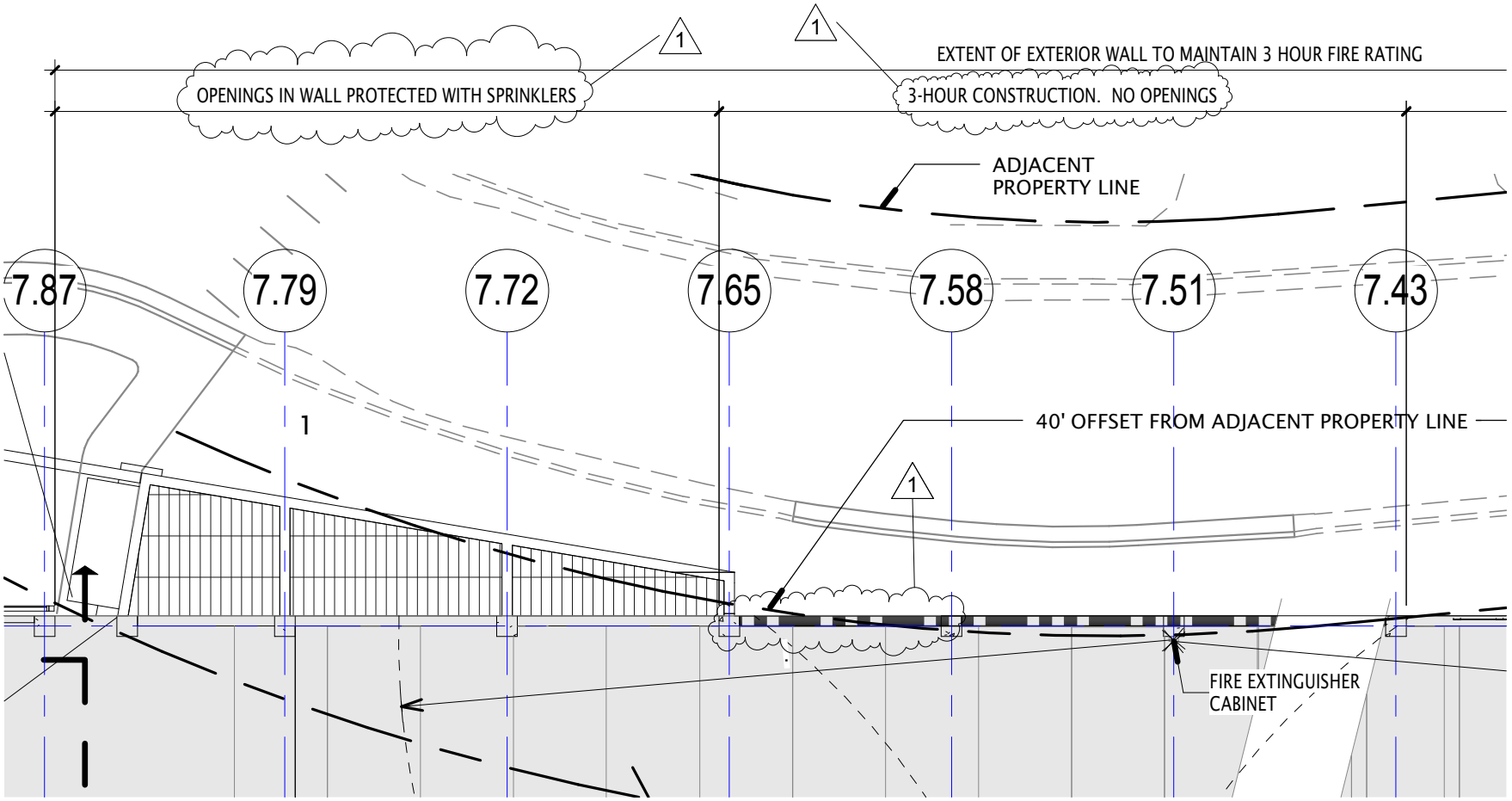
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

GI-040-02

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

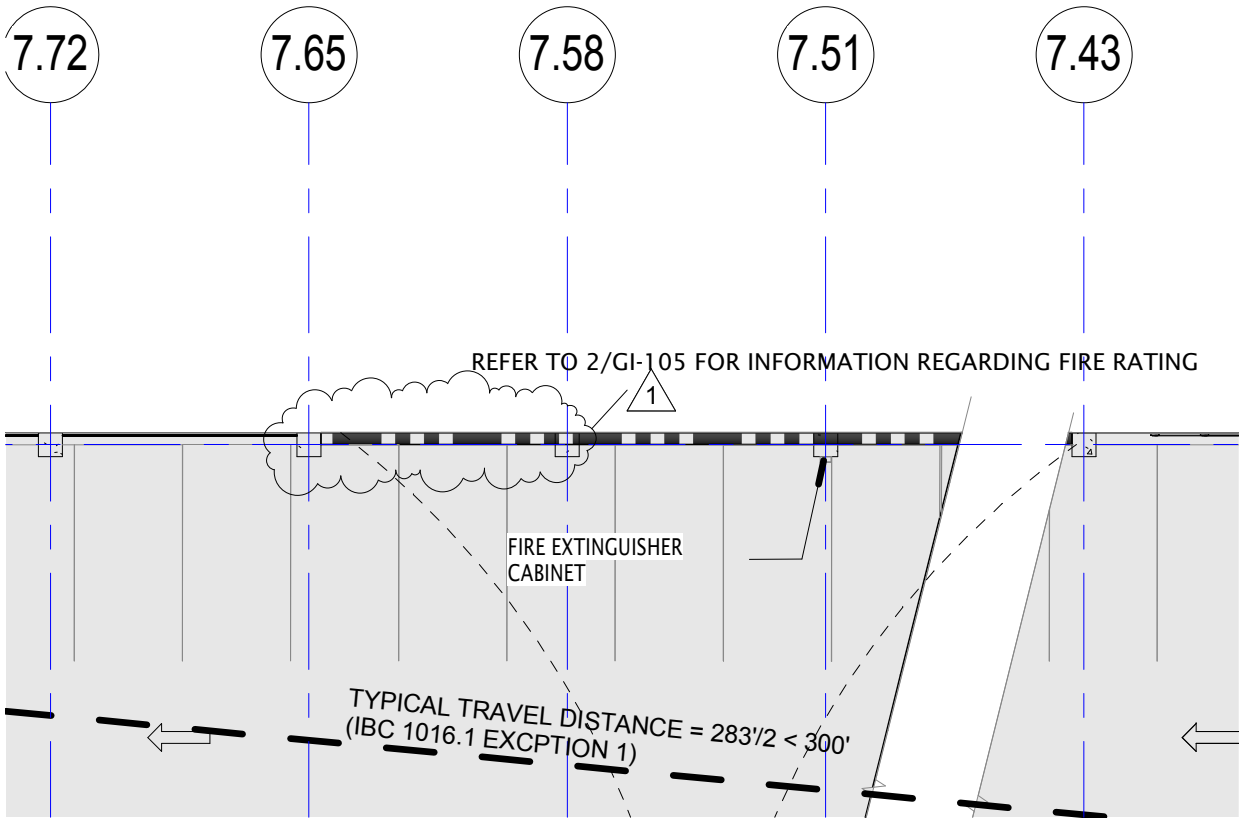
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

GI-105-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

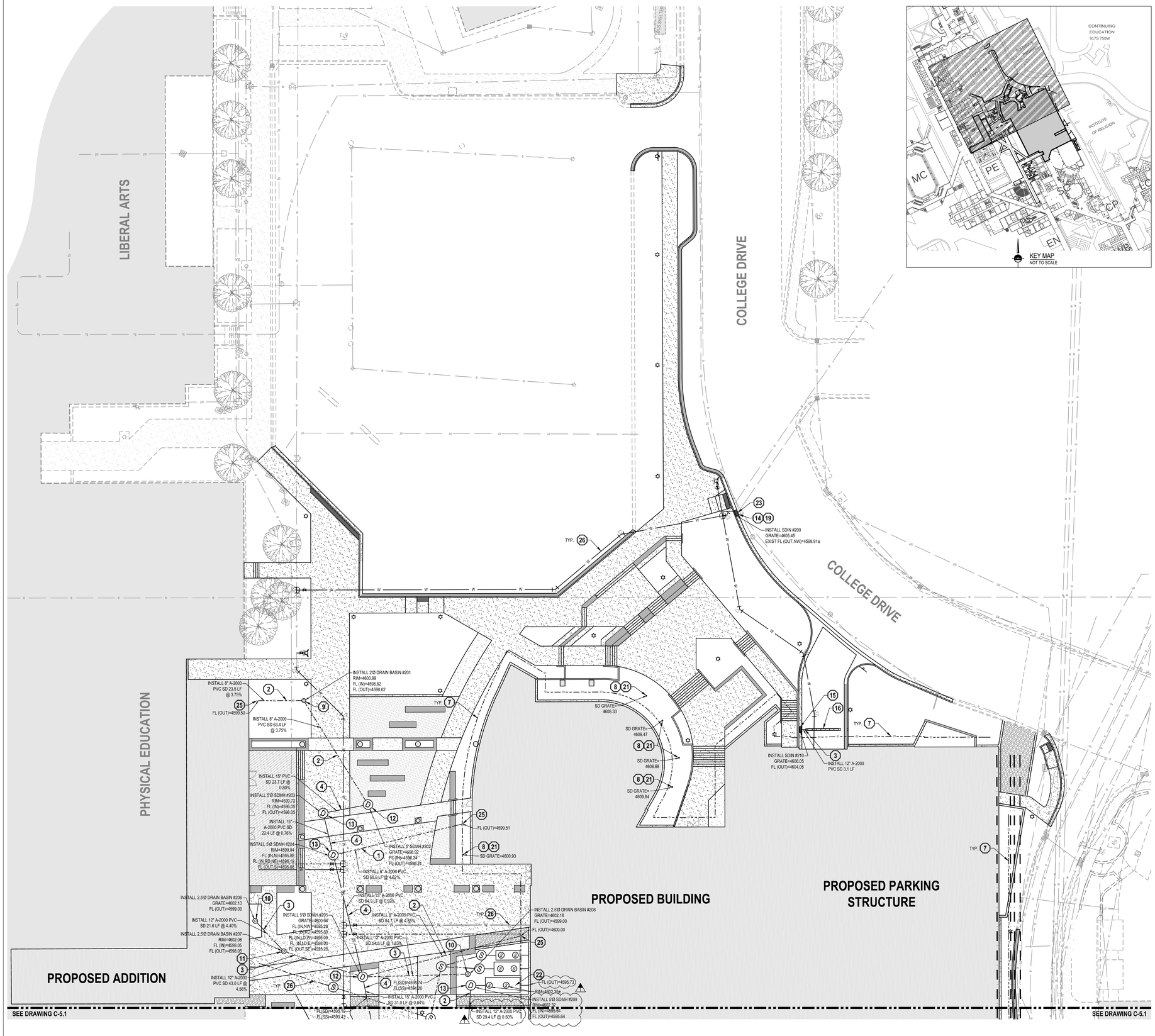
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

GI-106-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



NOTES:

EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTORS FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR IS TO VERIFY CONNECTION POINTS WITH EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION OF ALL EXISTING UTILITIES. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.

ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES, DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.

CONTRACTOR TO PROTECT & PRESERVE EXISTING UTILITIES (TYPICAL UNLESS OTHERWISE NOTED).

CONTRACTOR TO RELOCATE OR ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS. SEE GRADING PLAN FOR DESIGN INFORMATION.

ALL FACILITIES WITH DOWNSPOUTS SHALL BE CONNECTED TO STORM DRAIN SYSTEM.

CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL AND ELECTRICAL DRAWINGS.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. 6"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
2. 8"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
3. 12"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
4. 15"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
7. 8"Ø PERFORATED PVC FOUNDATION DRAIN SURROUNDED BY CRUSHED SEWER ROCK AND WRAPPED IN MIRIFI FABRIC PER DETAIL 7/C-7.0, PLANS, AND SPECIFICATIONS. SEE STRUCTURAL AND MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
8. 1'Ø NYLOPLAST DRAIN BASIN WITH SLOTTED GRATE, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
9. 2'Ø NYLOPLAST DRAIN BASIN WITH SLOTTED GRATE, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
10. 2.5'Ø NYLOPLAST DRAIN BASIN WITH SLOTTED GRATE, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
11. 2.5'Ø NYLOPLAST DRAIN BASIN WITH SOLID COVER, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
12. AMCOR 5'Ø CLEANOUT MH130 & 5'Ø ECCENTRIC CONE MH230 W/ 30"Ø FRAME & SLOTTED GRATE #2670 PER APWA PLAN 302 OR APPROVED EQUAL.
13. AMCOR 5'Ø CLEANOUT MH130 & 5'Ø ECCENTRIC CONE MH230 W/ 30"Ø FRAME & SOLID COVER #1180 PER APWA PLAN 302 OR APPROVED EQUAL.
14. CATCH BASIN PER APWA STANDARD PLAN NO. 315 AND SPECIFICATIONS.
15. CATCH BASIN WITH HOOD REMOVED PER APWA STANDARD PLAN NO. 315 AND SPECIFICATIONS.
16. TRENCH DRAIN. CONNECT TO SANITARY SEWER INFRASTRUCTURE INSIDE PARKING STRUCTURE. SEE MECHANICAL PLANS FOR CONTINUATION.
19. IF LOCATION OF EXISTING STORM DRAIN PIPE DIFFERS MORE THAN 6" FROM WHAT IS SHOWN HERE ON PLANS, CONTACT ENGINEER WITH ACTUAL LOCATION FOR NEW TOP OF GRATE ELEVATION.
21. CONNECT INLINE DRAIN TO FOUNDATION DRAIN WITH 6"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL.
22. SAND/OIL WATER SEPARATOR. SEE MECHANICAL PLANS FOR DESIGN INFORMATION.
23. CONNECT TO EXISTING STORM DRAIN LINE PER PLANS AND SPECIFICATIONS.
25. SEE MECHANICAL PLANS FOR CONTINUATION.
26. SEE UTILITY PLANS FOR OTHER UTILITY DESIGN INFORMATION.

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

CALL BLUESTAKES @ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P801.521.8600
F801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

ENSIGN
SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529
Fax: 801.255.4449

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.590.0187

WWW.ENSIGNUTAH.COM

LICENSED PROFESSIONAL ENGINEER
Kory J. Morgan
No. 5567061
4-27-12
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

DFCM

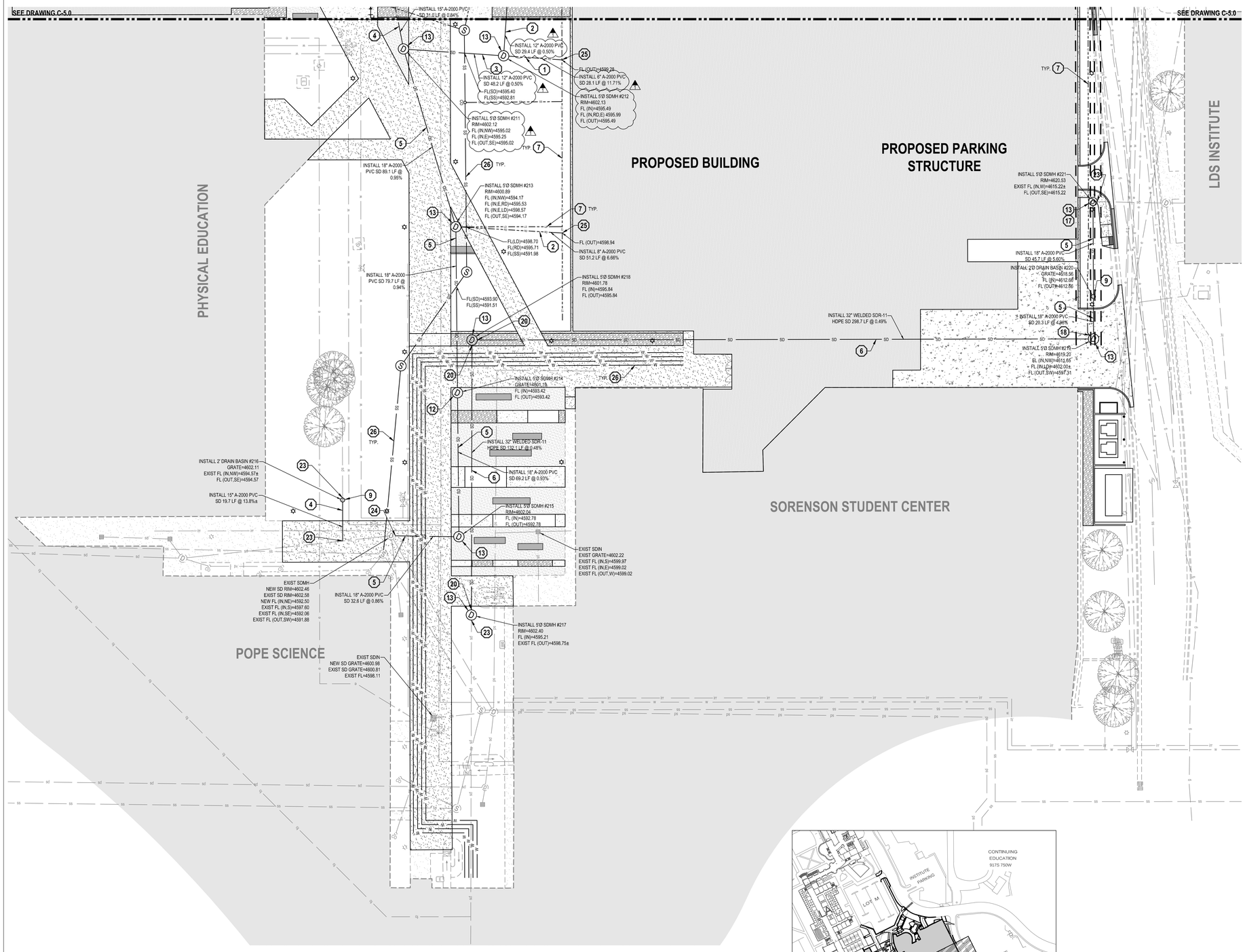
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

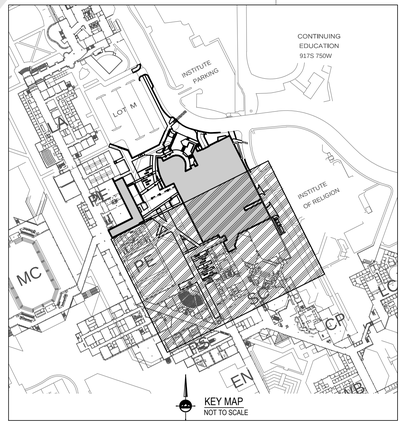
DRAWN BY:	DAG
CHECKED BY:	KJM
OWNER PROJECT NO.:	
ENSIGN PROJECT NO.:	5215
ISSUED DATE:	04/27/2012

DRAINAGE PLAN

CONSTRUCTION DOCUMENTS

C-5.0





NOTES:

EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTORS FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR IS TO VERIFY CONNECTION POINTS WITH EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION OF ALL EXISTING UTILITIES. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.

ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES, DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.

CONTRACTOR TO PROTECT & PRESERVE EXISTING UTILITIES (TYPICAL UNLESS OTHERWISE NOTED).

CONTRACTOR TO RELOCATE OR ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS. SEE GRADING PLAN FOR DESIGN INFORMATION.

ALL FACILITIES WITH DOWNSPOUTS SHALL BE CONNECTED TO STORM DRAIN SYSTEM.

CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL AND ELECTRICAL DRAWINGS.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. 6"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
2. 8"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
3. 12"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
4. 15"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
5. 18"Ø A-2000 PVC STORM DRAIN LINE OR APPROVED EQUAL. LENGTH AND SLOPE PER PLAN. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS.
6. 32"Ø WELDED SDR 11 ISCO PE 4710 HDPE STORM DRAIN LINE OR APPROVED EQUAL, INCLUDING ALL FITTINGS. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH AND SLOPE PER PLAN.
7. 6"Ø PERFORATED PVC FOUNDATION DRAIN SURROUNDED BY CRUSHED SEWER ROCK AND WRAPPED IN MIRIFI FABRIC PER DETAIL 7/C-7.0, PLANS, AND SPECIFICATIONS. SEE STRUCTURAL AND MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
9. 2'Ø NYLOPLAST DRAIN BASIN WITH SLOTTED GRATE, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
12. AMCOR 5'Ø CLEANOUT MH130 & 5'Ø ECCENTRIC CONE MH230 W/ 30"Ø FRAME & SLOTTED GRATE #2670 PER APWA PLAN 302 OR APPROVED EQUAL.
13. AMCOR 5'Ø CLEANOUT MH130 & 5'Ø ECCENTRIC CONE MH230 W/ 30"Ø FRAME & SOLID COVER #1180 PER APWA PLAN 302 OR APPROVED EQUAL.
17. ROTATE MANHOLE CONE TO ORIENT LID TO FURTHEST POSITION FROM SIDEWALK.
18. 6" HYDROGATE MODEL 50C OR EQUIVALENT FLAP GATE.
20. CONTRACTOR TO APPROPRIATELY GROUT AND SEAL PIPE JOINT. PIPE IS UNDER HYDROSTATIC PRESSURE.
23. CONNECT TO EXISTING STORM DRAIN LINE PER PLANS AND SPECIFICATIONS.
24. CONNECT TO EXISTING STORM DRAIN MANHOLE PER PLANS AND SPECIFICATIONS.
25. SEE MECHANICAL PLANS FOR CONTINUATION.
26. SEE UTILITY PLANS FOR OTHER UTILITY DESIGN INFORMATION.

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

CALL BLUESTAKES @ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P801.521.8600
F801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

ENSIGN
SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529
Fax: 801.255.4449

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.590.0187

WWW.ENSIGNUTAH.COM

LICENSED PROFESSIONAL ENGINEER
Kody J. Morgan
No. 5567061
4-27-12
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

DFCM

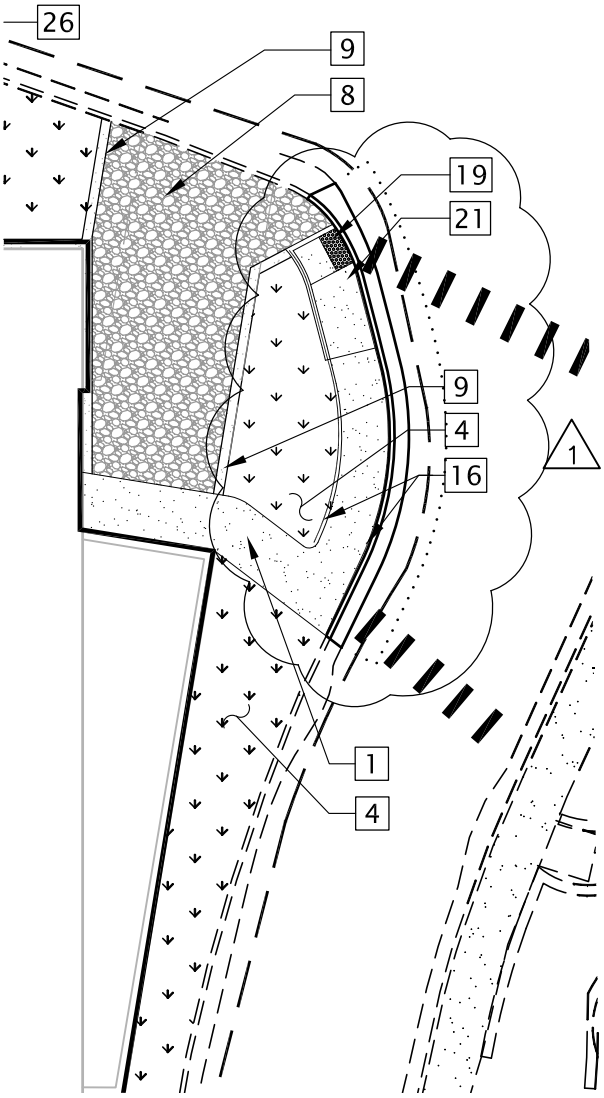
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DAG
CHECKED BY:	KJM
OWNER PROJECT NO.:	
ENSIGN PROJECT NO.:	5215
ISSUED DATE:	04/27/2012

DRAINAGE PLAN

CONSTRUCTION DOCUMENTS

C-5.1



4	PLANTED ARE
5	CONCRETE BE
6	SITTING STEP
7	STAIRS - SEE /
8	18-24" RUBBL
9	CONCRETE M SEE 1/AS502
10	EXISTING INFI MOUNTING
11	EXISTING TRE
12	DECOMPOSED
13	EXISTING CON
14	TRASH RECEP
15	BIKE STORAG
16	STAINLESS ST
17	PROPOSED CU
18	PROPOSED CU
19	TACTILE WAR
20	RE-STRIPING F

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

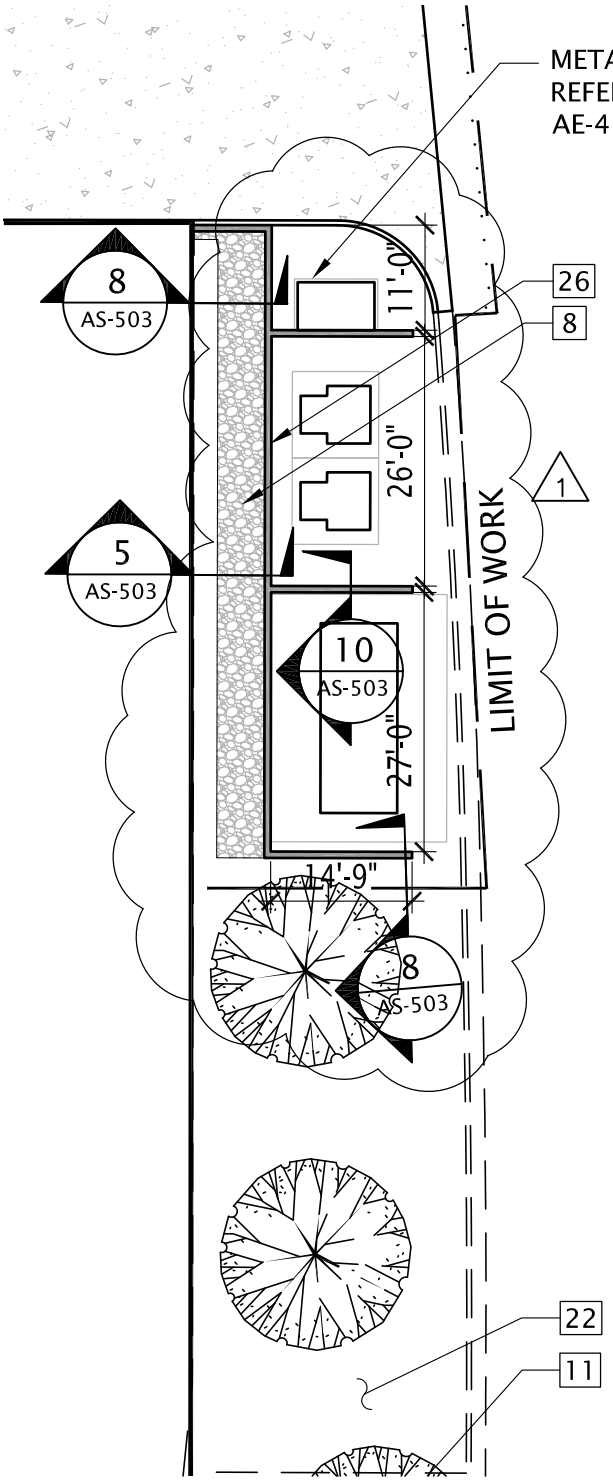
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: CO

AS-101-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



REFERENCE NOTES S

SYMBOL	DESCRIPTION
1	CONCRETE
2	CONCRETE (DAVIS COLOR
3	CONCRETE (DAVIS COLOR
4	PLANTED AREA - SEE AS13
5	CONCRETE BENCH - SEE 6
6	SITTING STEPS - SEE 4,5/A
7	STAIRS - SEE AS501, AS50
8	18-24" RUBBLE - SEE 2/AS
9	CONCRETE MOW STRIP, T SEE 1/AS502
10	EXISTING INFINITY SCULP MOUNTING
11	EXISTING TREES (PROTECT
12	DECOMPOSED GRANITE- S
13	EXISTING CONCRETE

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

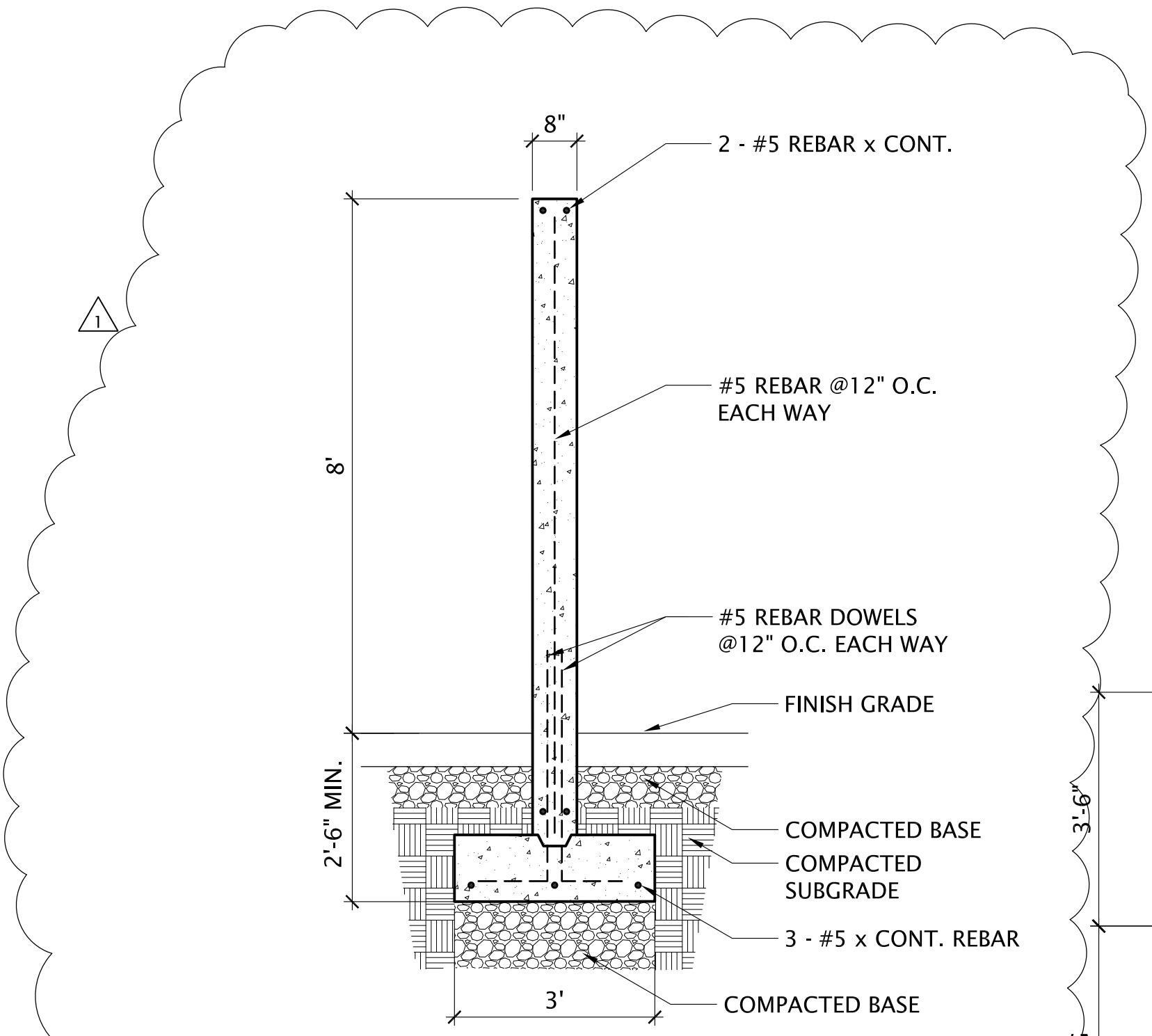
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: CO

AS-102-01

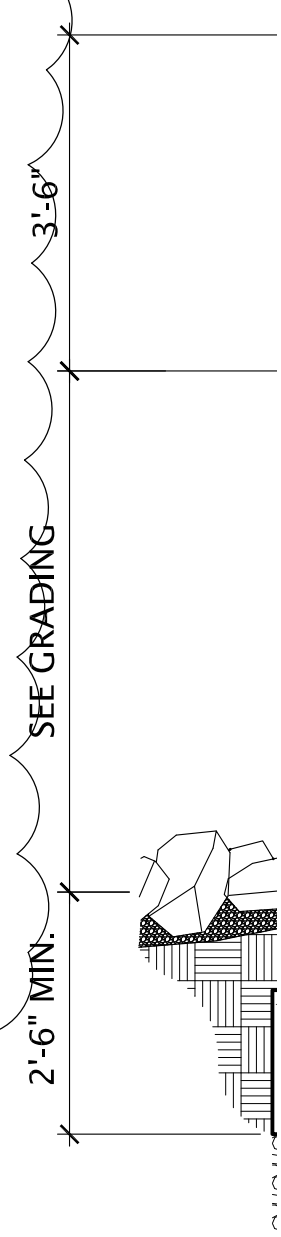
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



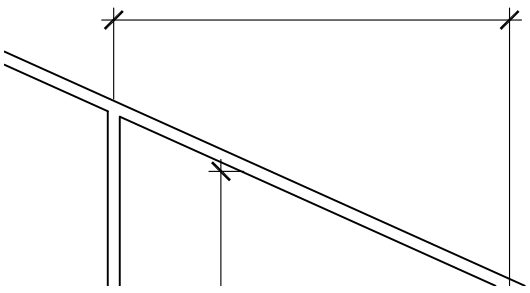
10 CONCRETE SCREEN-WALL

1/2" = 1'-0"

UVUSL-28



POSTS TO BE SPACED
EQUALLY, 5' MAXIMUM
DISTANCE



8 RETAIN

1/2" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: CO

AS-503-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

PARKING LEGEND

A COMPACT PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND "COMPACT" DESIGNATION.

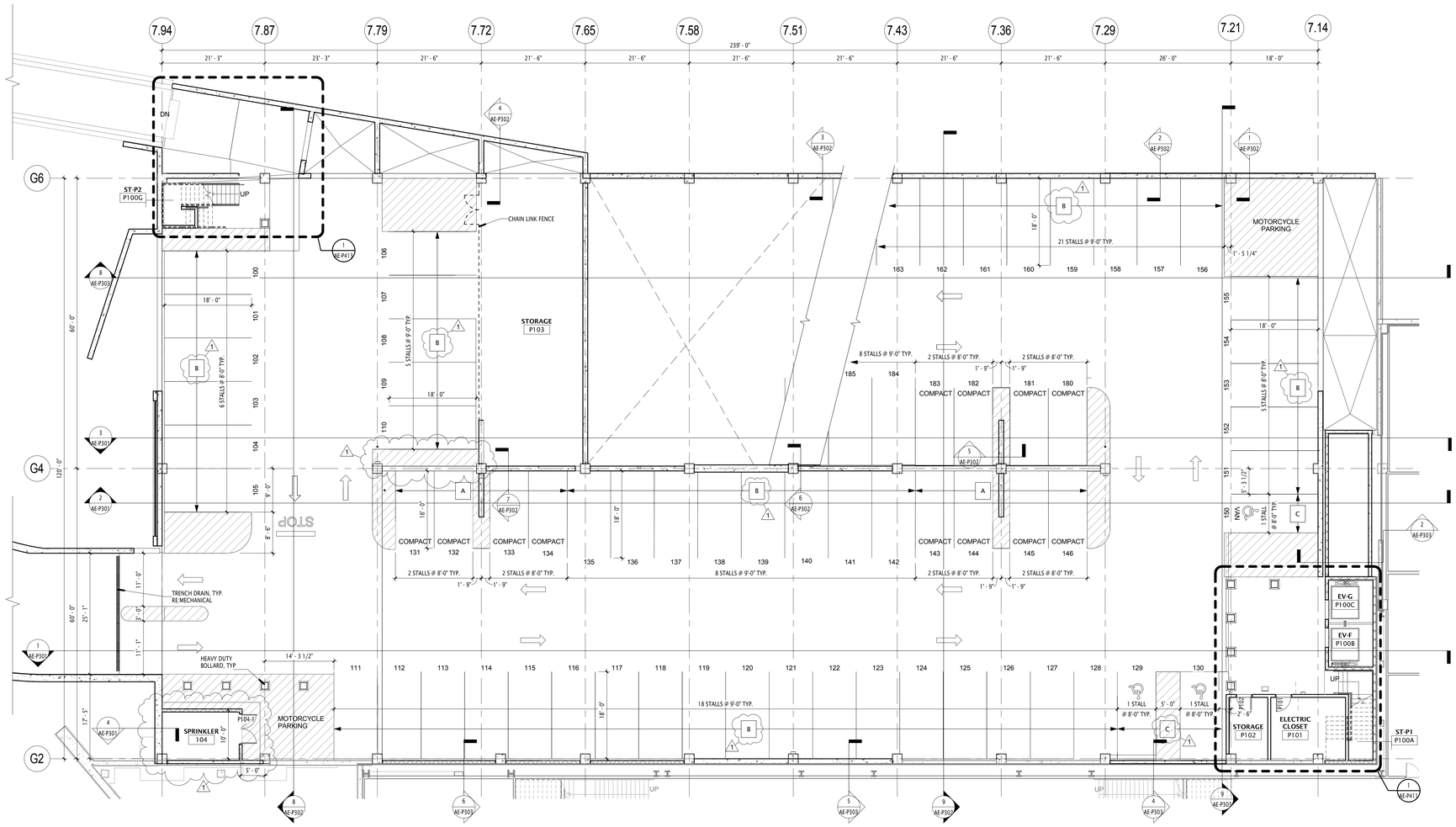
B STANDARD PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER.

C ACCESSIBLE PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND UNIVERSAL SYMBOL FOR ACCESSIBILITY.

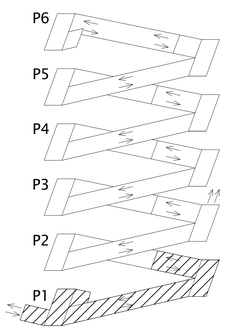
REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
LICENSED ARCHITECT



1 LEVEL P1
AE-P101 3/32" = 1'-0"



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

OVERALL P1 FLOOR PLAN

CONSTRUCTION DOCUMENTS

AE-P101

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

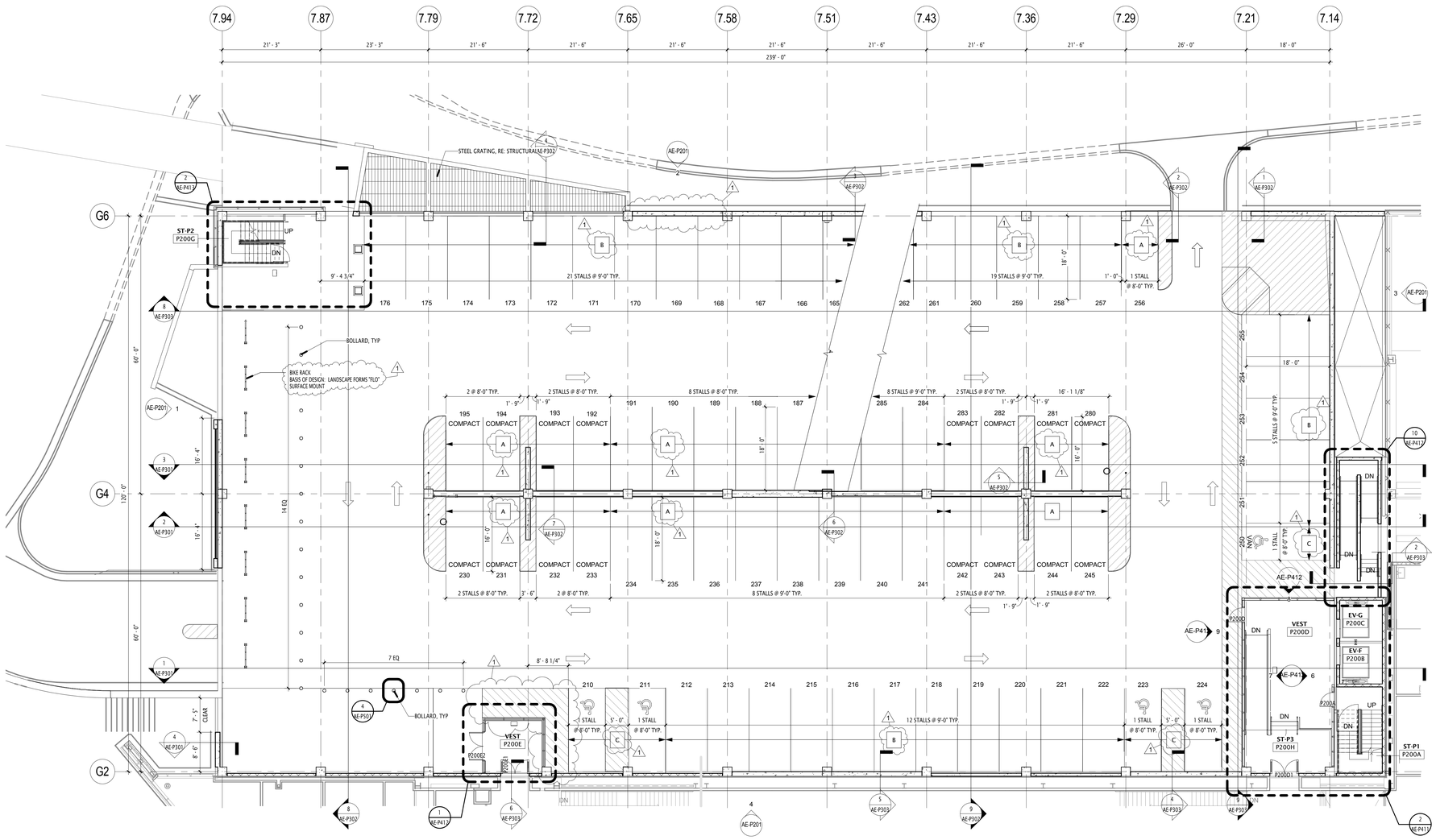
1	05.14.2012	Addendum-04

PARKING LEGEND

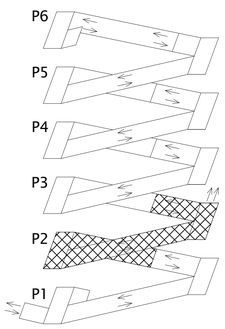
A COMPACT PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND "COMPACT" DESIGNATION.

B STANDARD PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER.

C ACCESSIBLE PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND UNIVERSAL SYMBOL FOR ACCESSIBILITY.



1 LEVEL P2
AE-P102 3/32" = 1'-0"



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

OVERALL P2 FLOOR PLAN

CONSTRUCTION DOCUMENTS

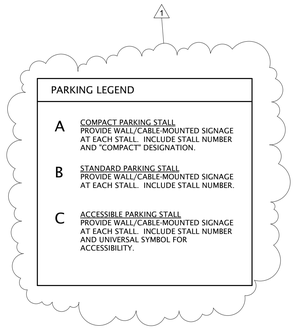
AE-P102

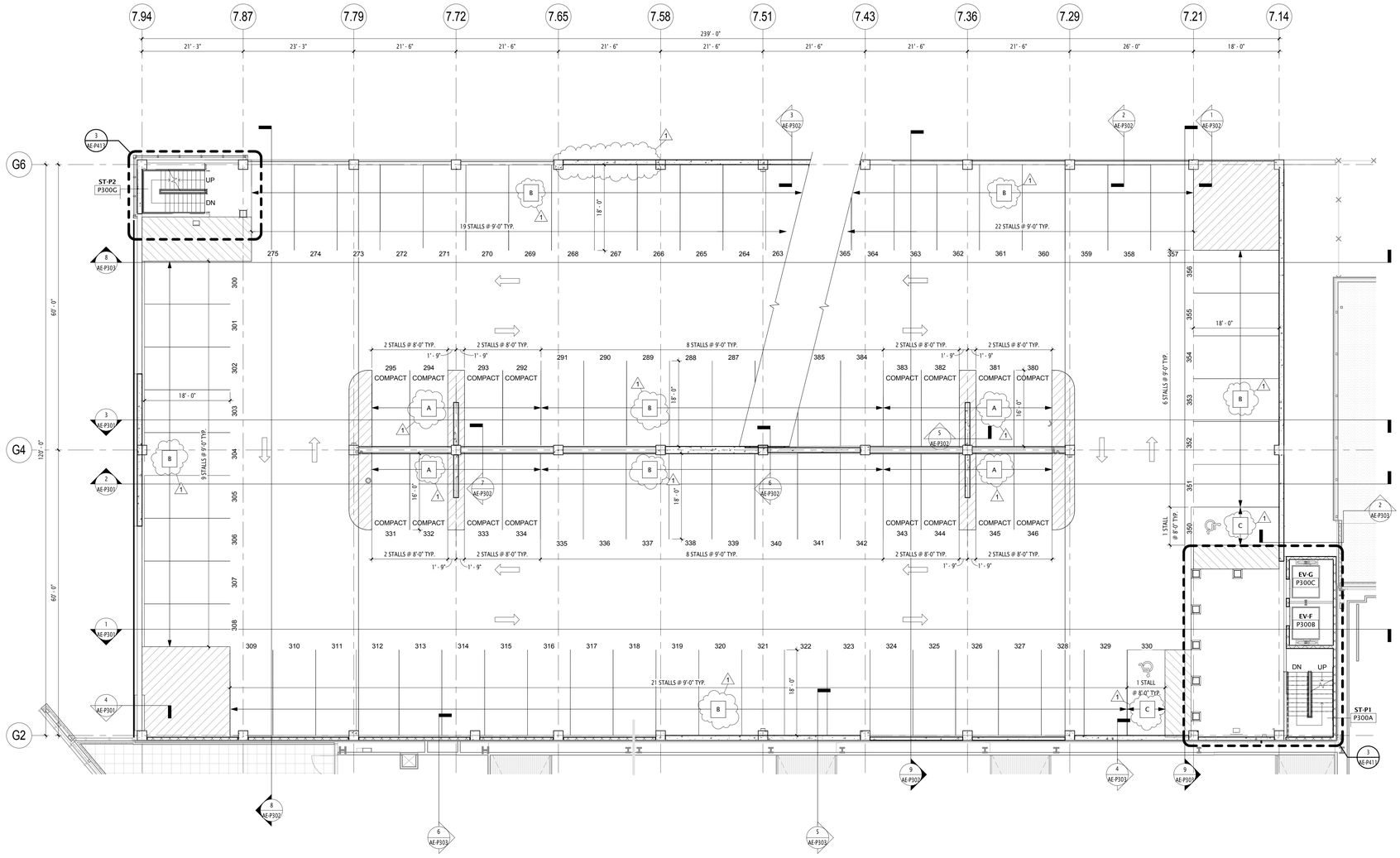
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

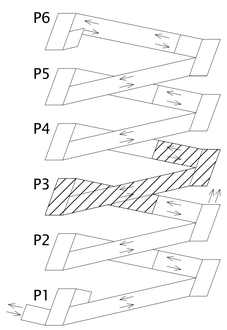
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04







KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

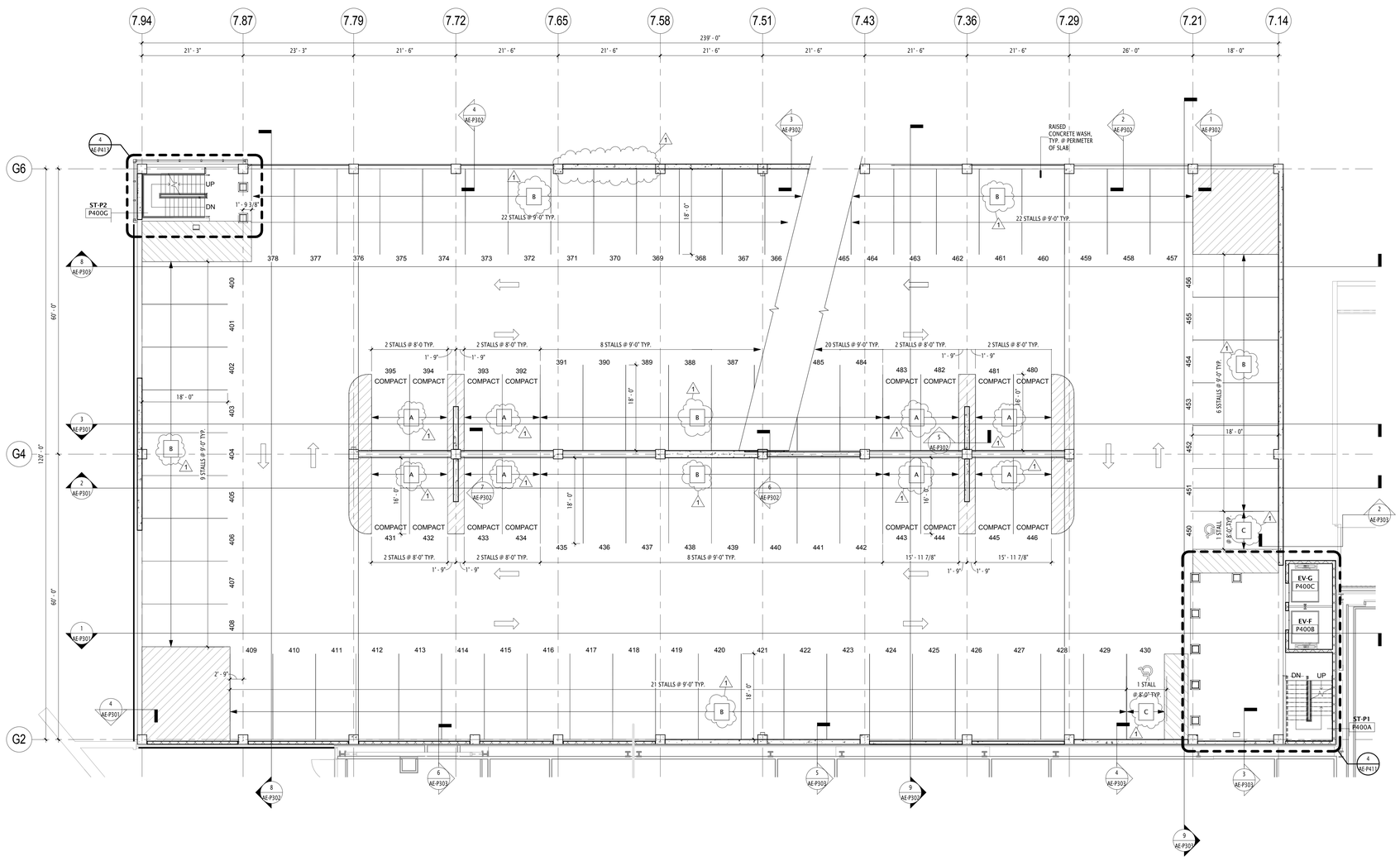
DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

OVERALL P3 FLOOR PLAN

1 LEVEL P3
AE-P103 3/32" = 1'-0"

CONSTRUCTION DOCUMENTS

AE-P103



1 LEVEL P4
AE-P104 3/32" = 1'-0"

PARKING LEGEND

A COMPACT PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND "COMPACT" DESIGNATION.

B STANDARD PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER.

C ACCESSIBLE PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND UNIVERSAL SYMBOL FOR ACCESSIBILITY.

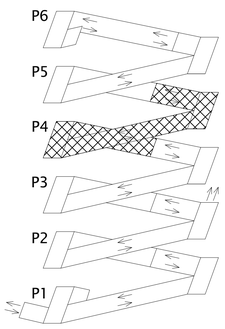
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
LICENSED ARCHITECT



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

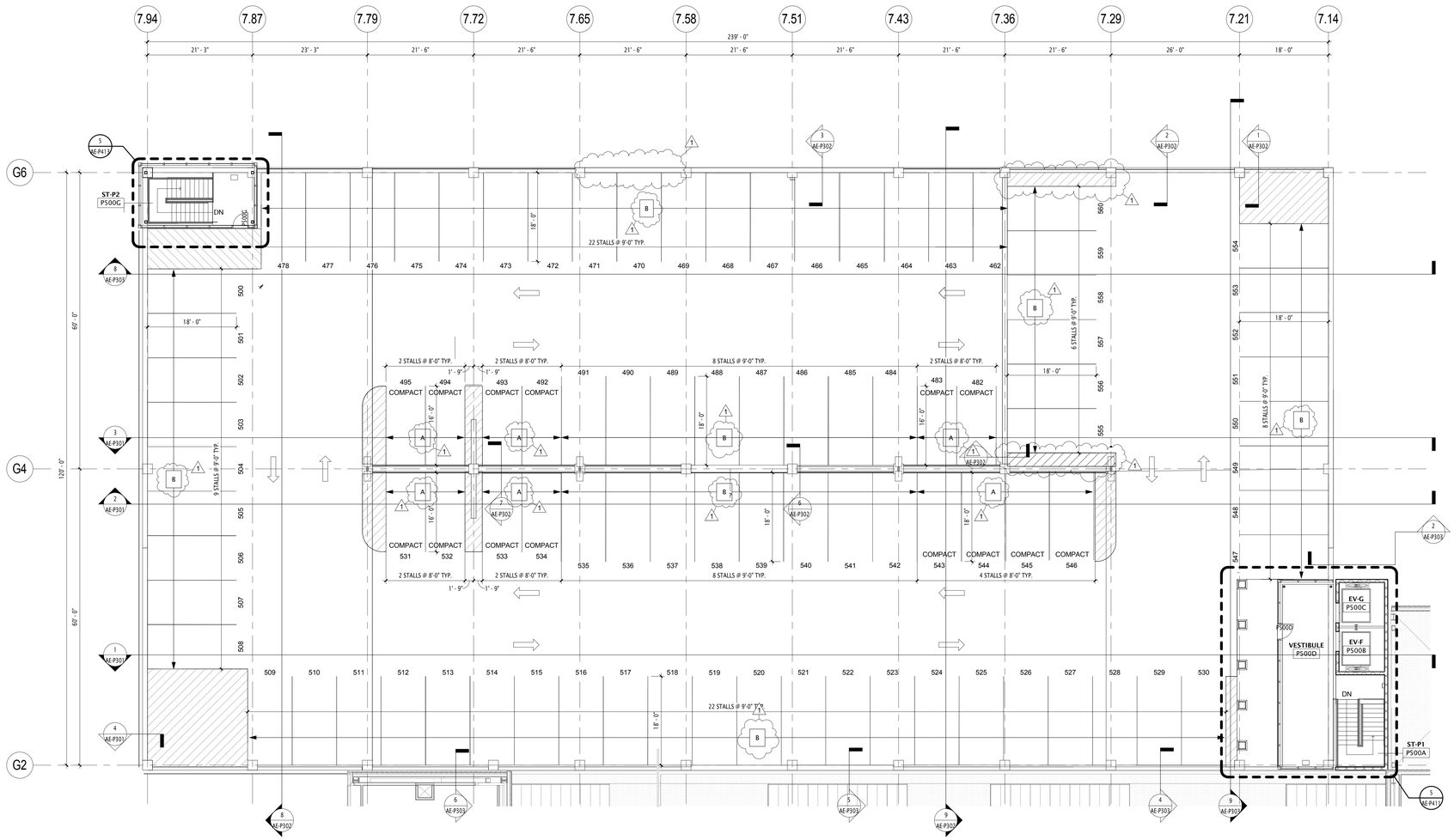
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

OVERALL P4 FLOOR PLAN

CONSTRUCTION DOCUMENTS

AE-P104



REFER TO SHEET AP-901 FOR
ADD ALTERNATE P6 FLOOR PLAN

1 LEVEL P5
AE-P105 3/32" = 1'-0"

PARKING LEGEND

A COMPACT PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND "COMPACT" DESIGNATION.

B STANDARD PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER.

C ACCESSIBLE PARKING STALL
PROVIDE WALL/CABLE-MOUNTED SIGNAGE AT EACH STALL. INCLUDE STALL NUMBER AND UNIVERSAL SYMBOL FOR ACCESSIBILITY.

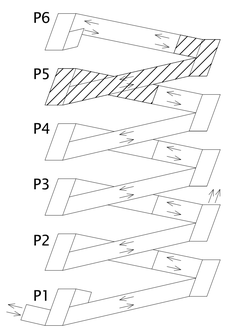
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
LICENSED ARCHITECT



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

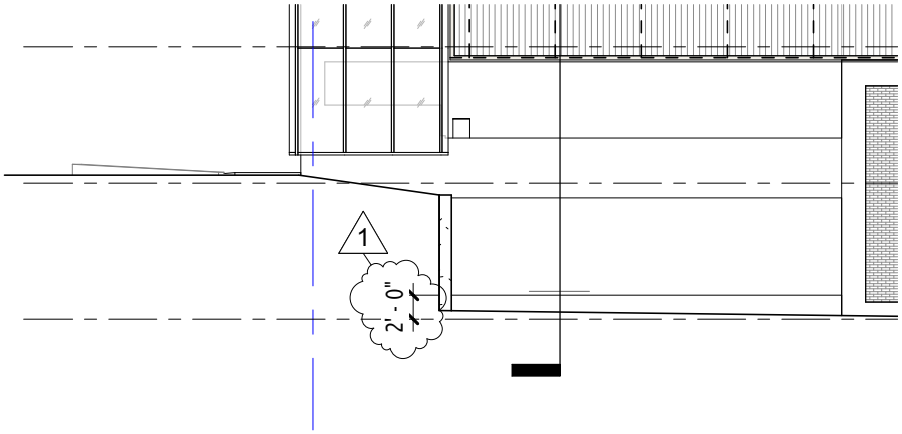
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

OVERALL P5 FLOOR PLAN

CONSTRUCTION DOCUMENTS

AE-P105



1 ELEVATION - NORTH

AE-P201 1/16" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

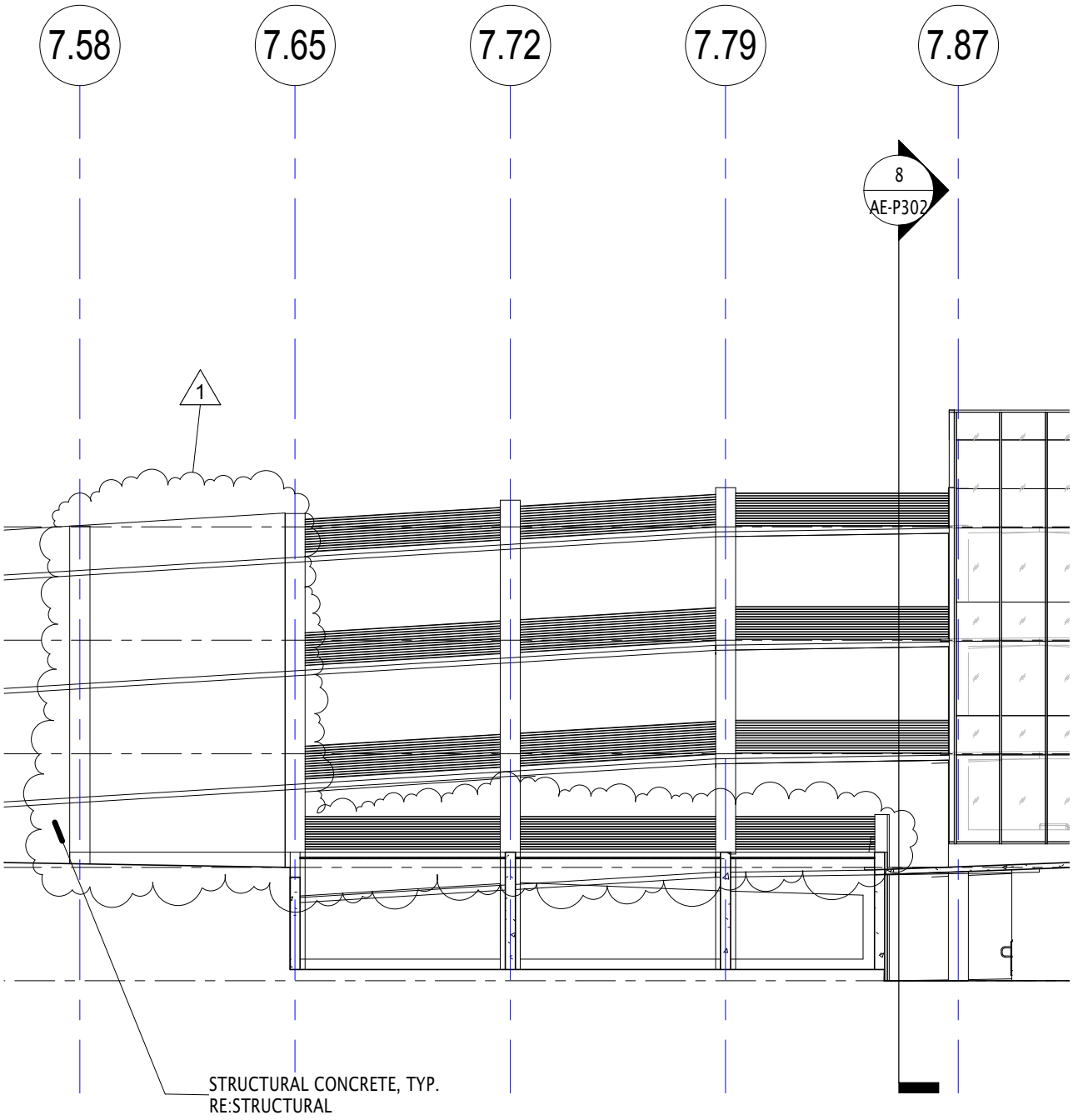
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: NE

AE-P201-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

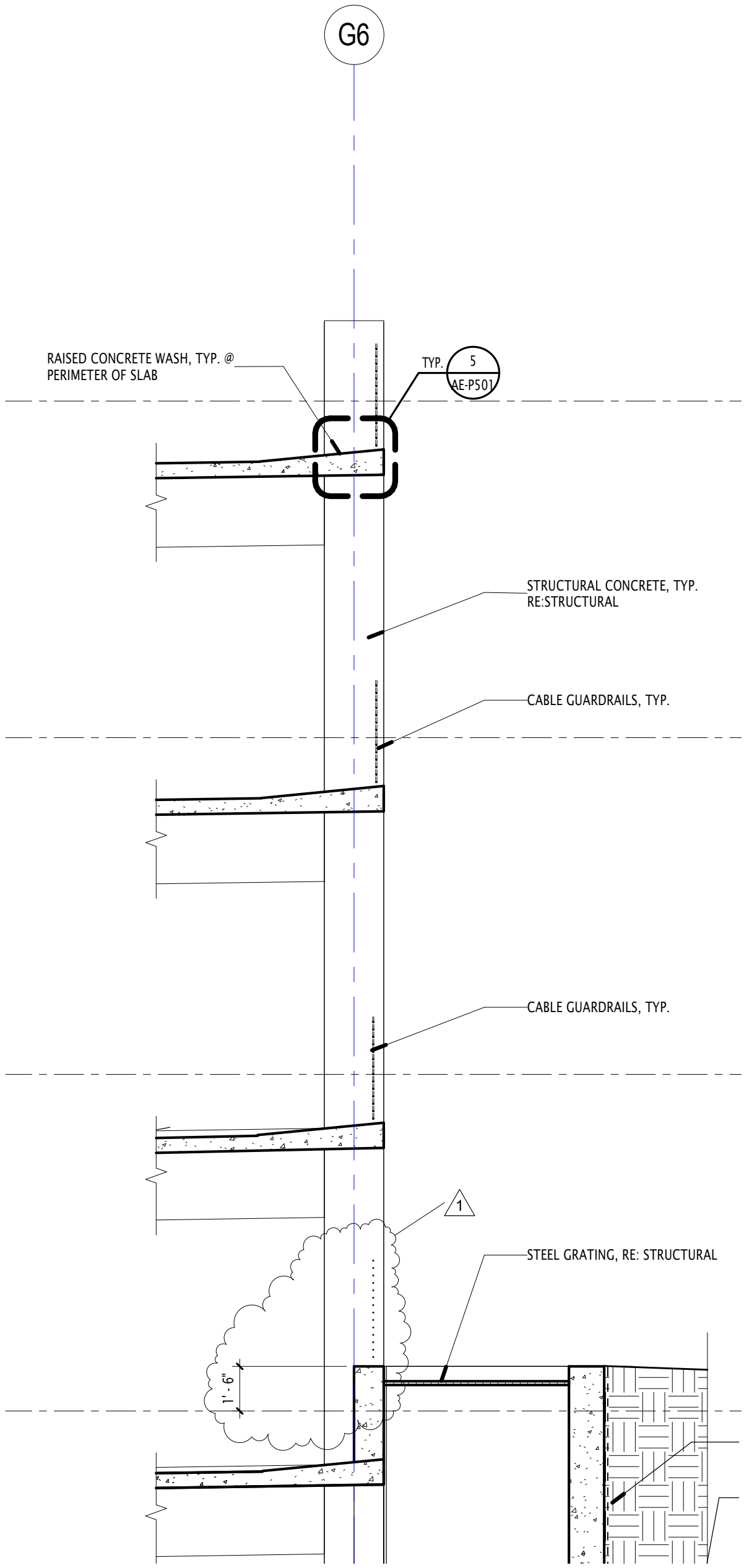
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: NE

AE-P201-02

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

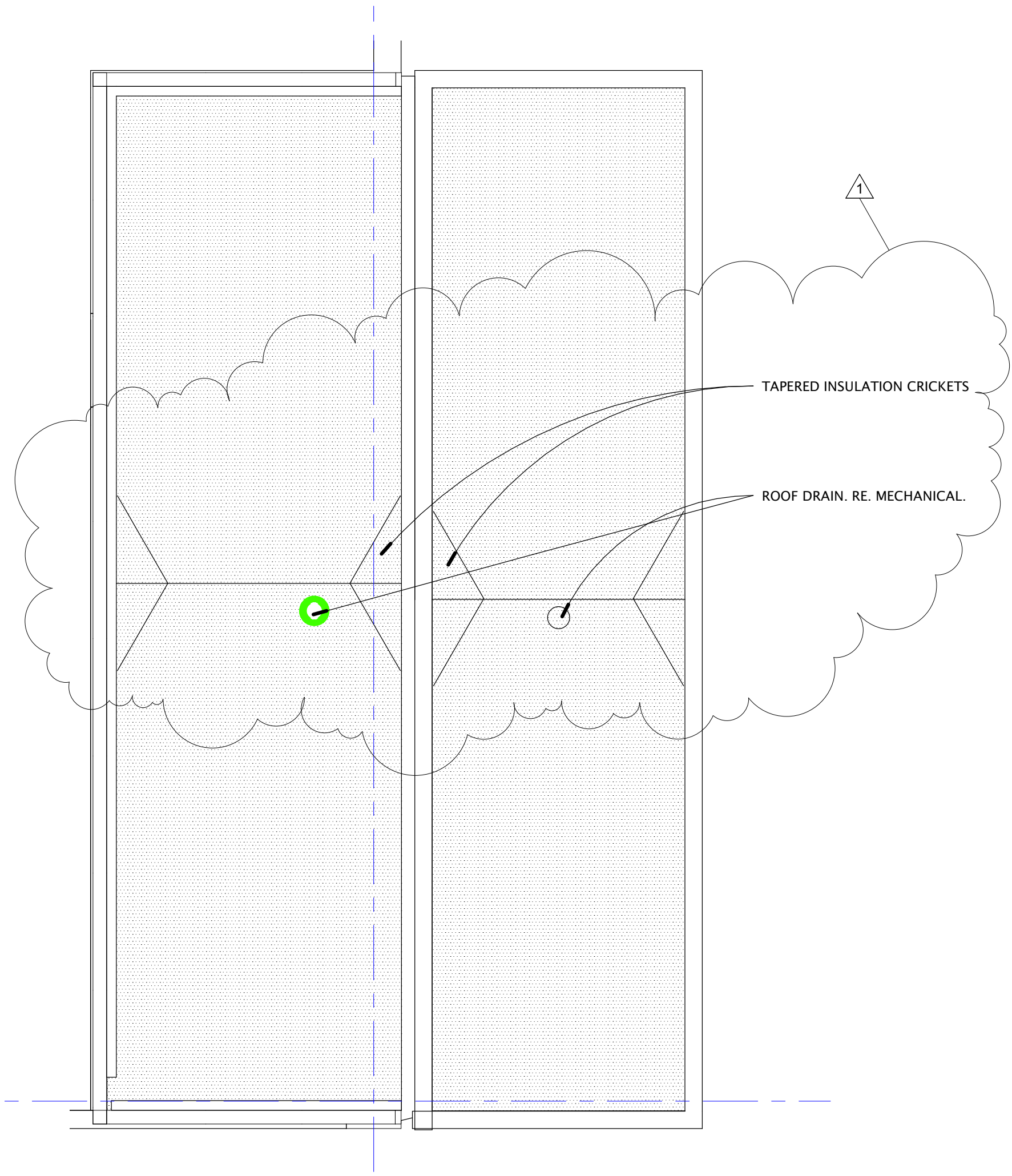
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

AE-P302-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

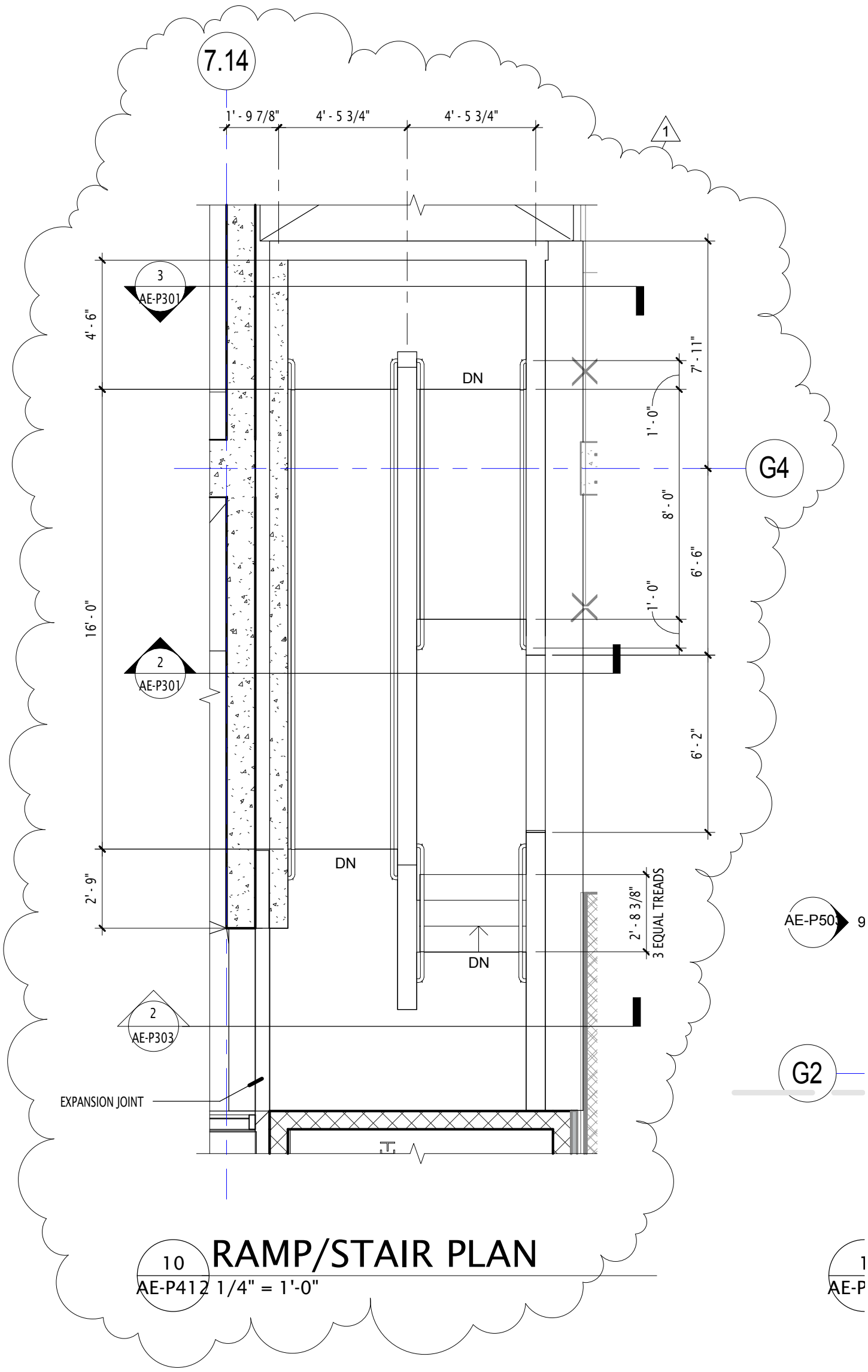
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

AE-P411-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



RAMP/STAIR PLAN

1/4" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

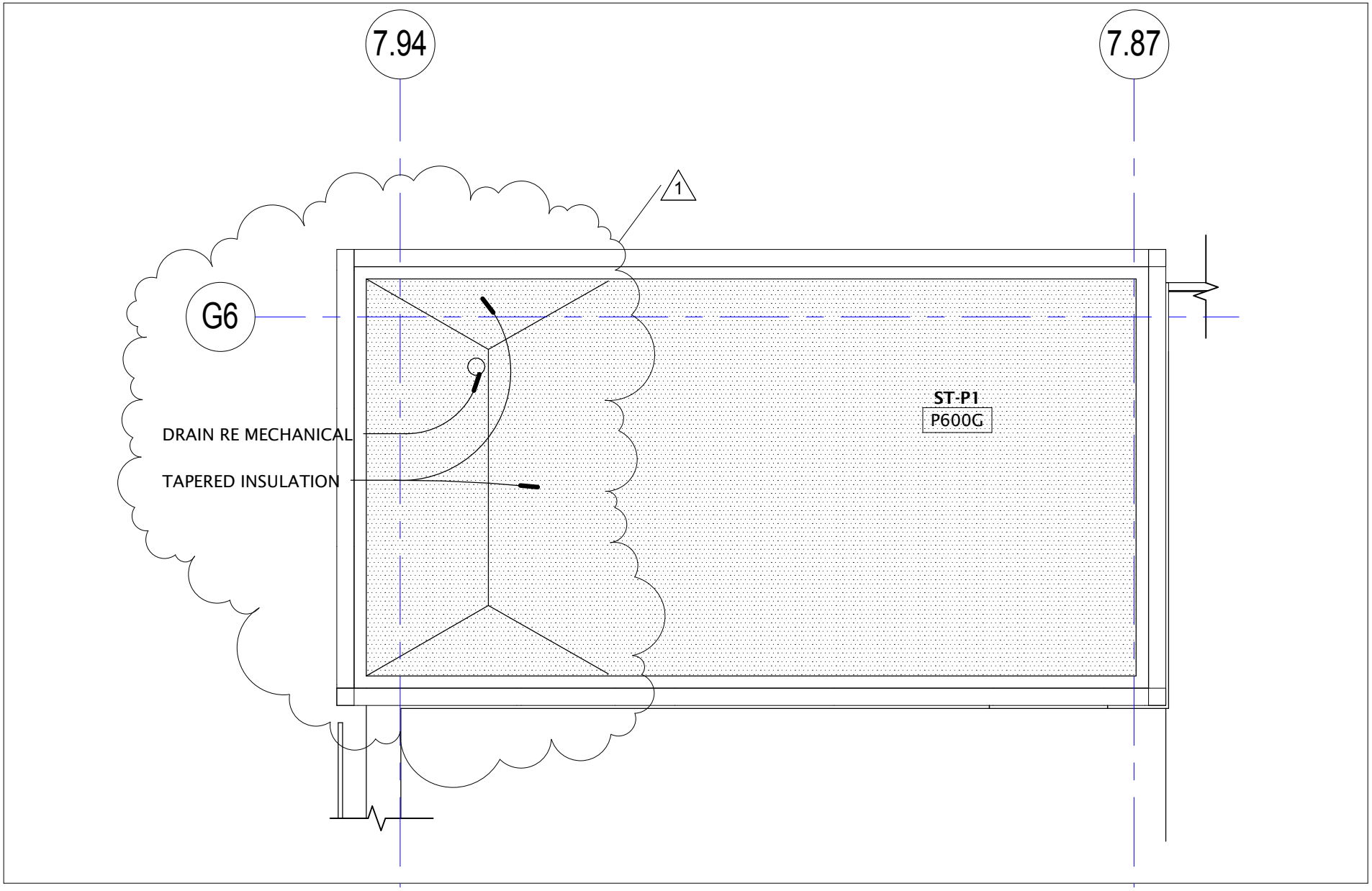
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

AE-P412-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

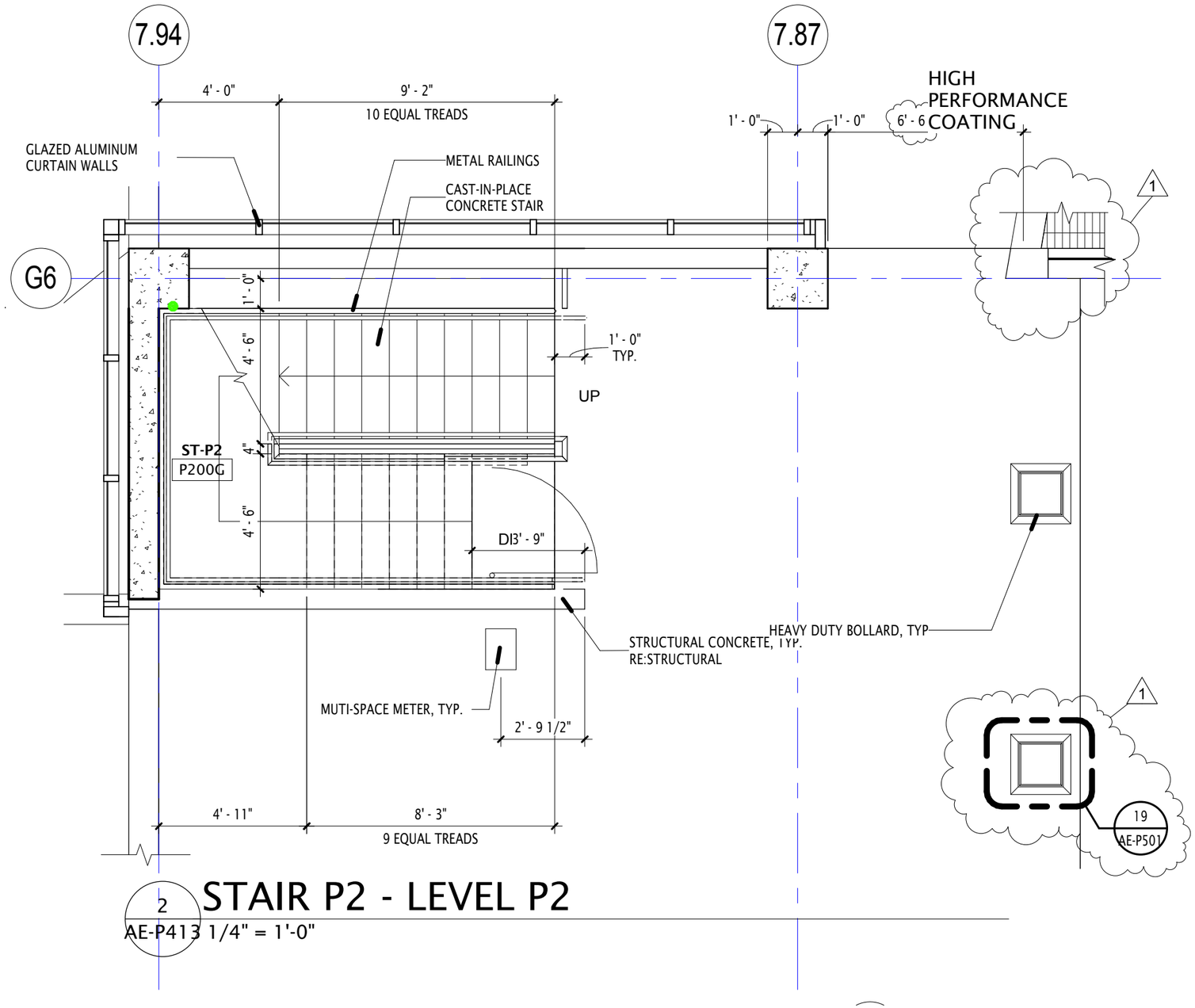
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

AE-P413-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



2 STAIR P2 - LEVEL P2

AE-P413 1/4" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

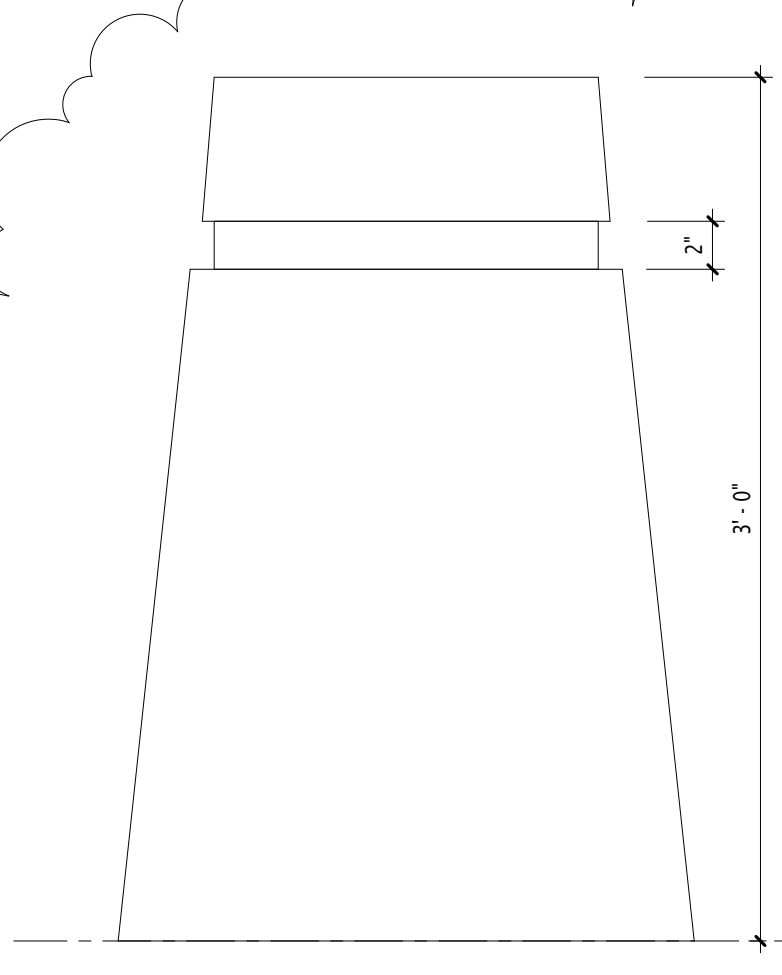
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: NE

AE-P413-02

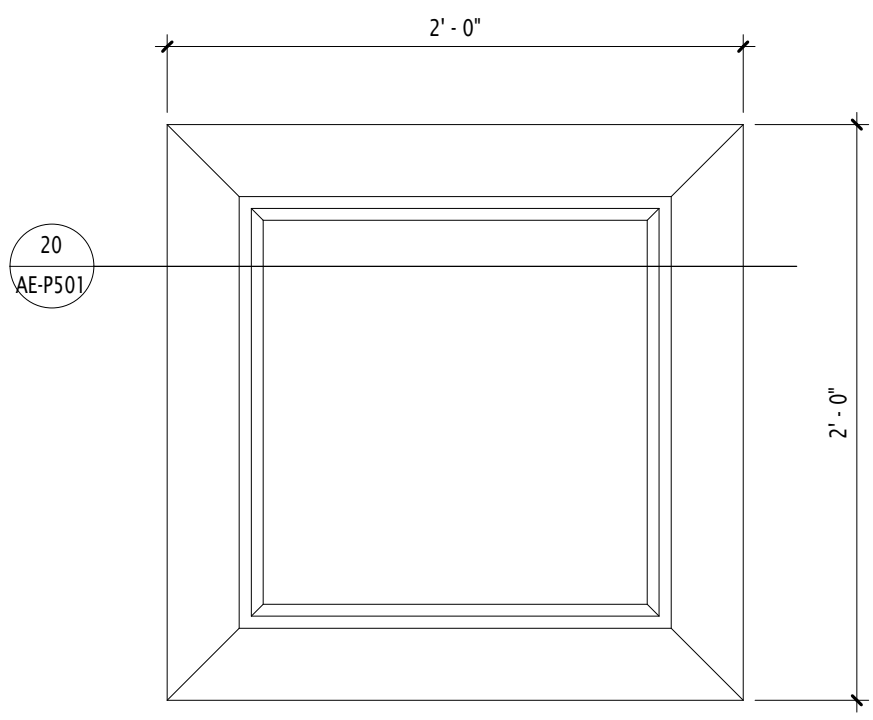
DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



20
AE-P501

CONCRETE BOLLARD SECTION

1 1/2" = 1'-0"



19
AE-P501

CONCRETE BOLLARD PLAN

1 1/2" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

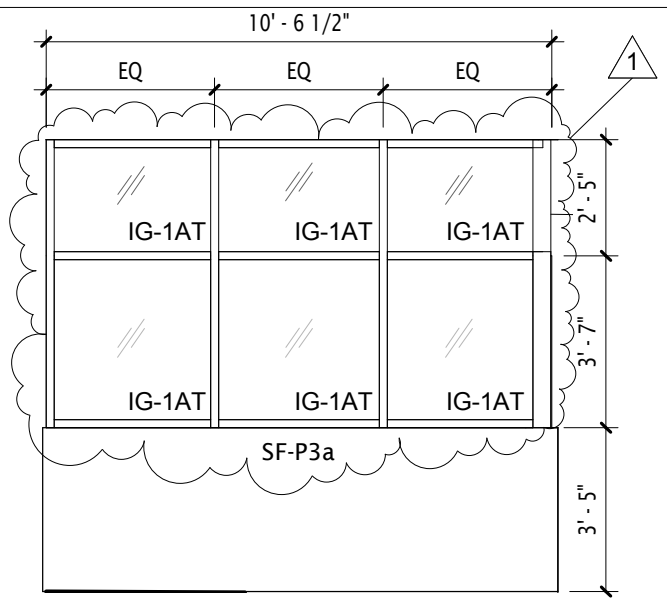
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

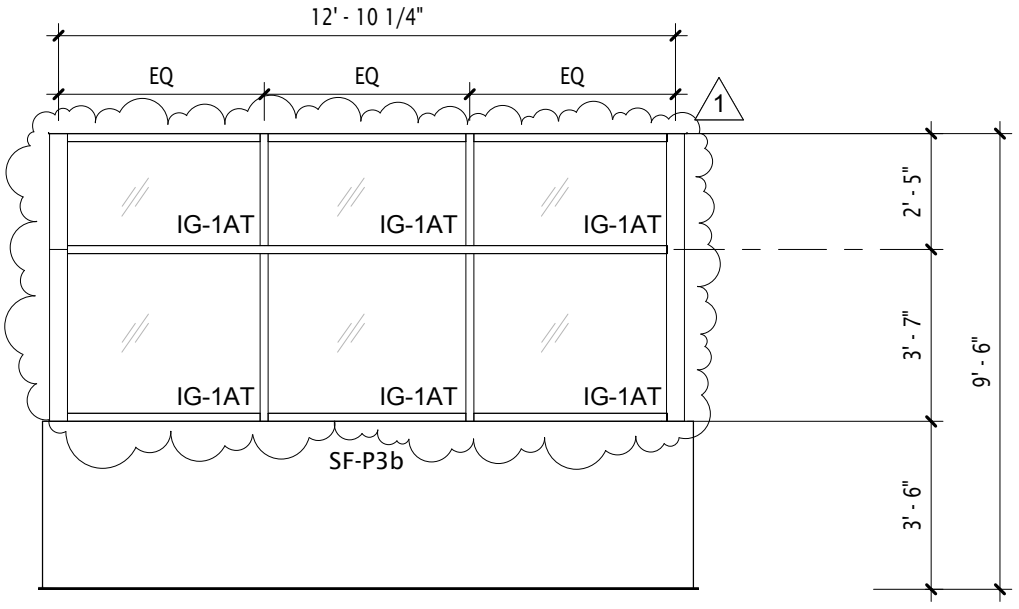
REV.: Addendum-04
BY: NE

AE-P501-01

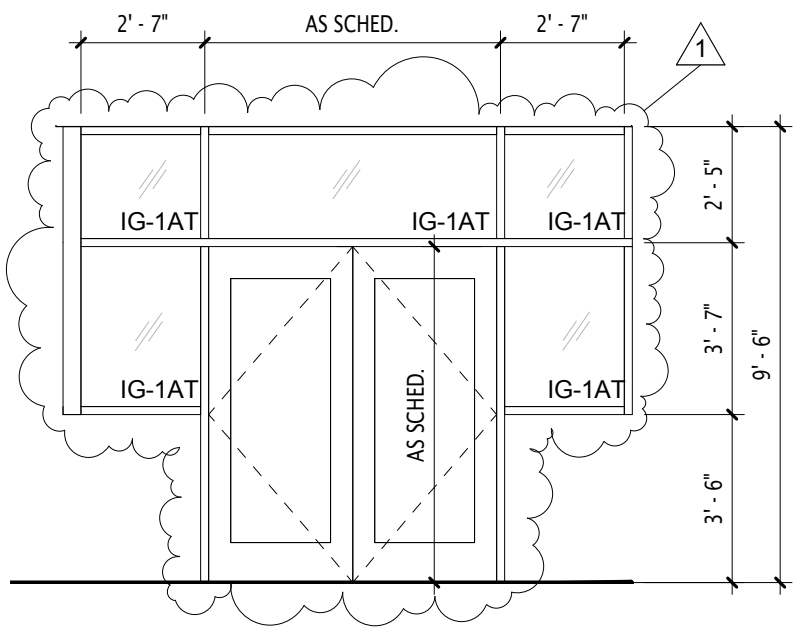
DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



15 SF-P3a
AE-P503 1/4" = 1'-0"



13 SF-P3b
AE-P503 1/4" = 1'-0"



9 SF-P3c
AE-P503 1/4" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

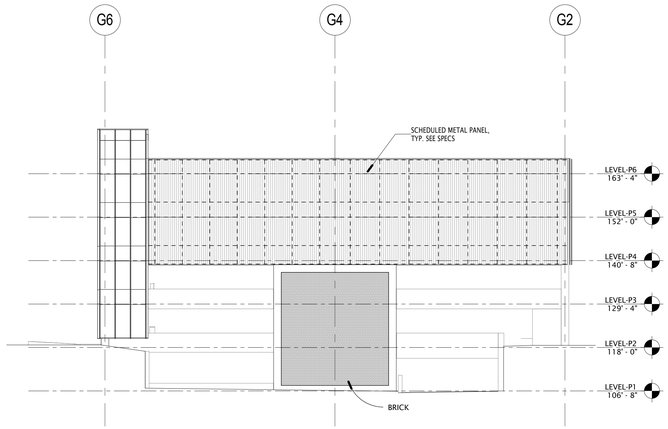
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

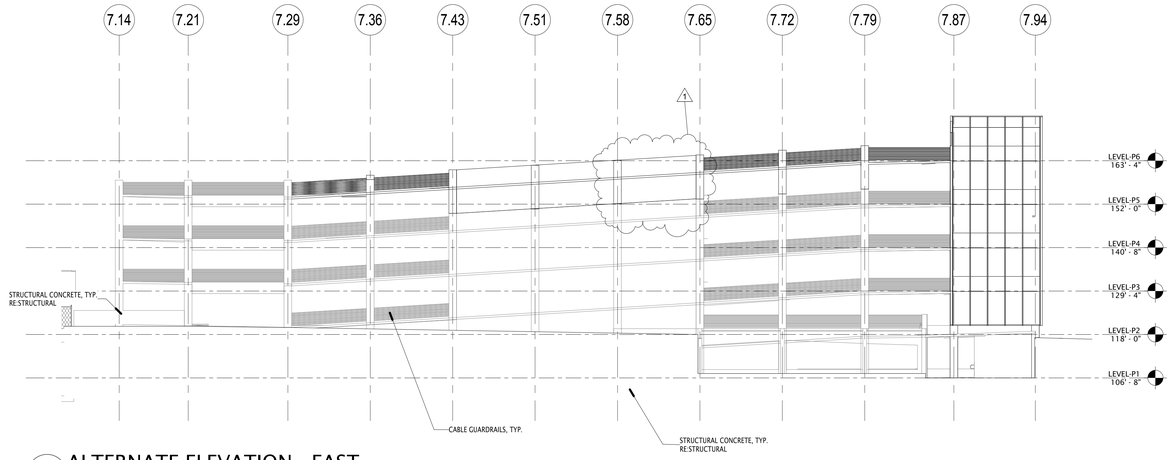
REV.: Addendum-04
BY: NE

AE-P503-01

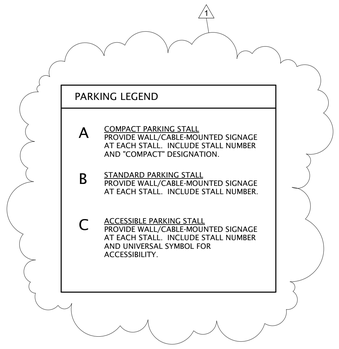
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

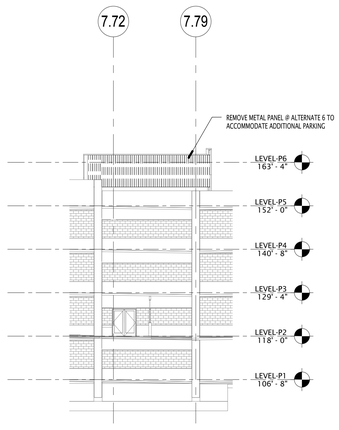


3 AE-P901 ALTERNATE ELEVATION - NORTH
1/16" = 1'-0"

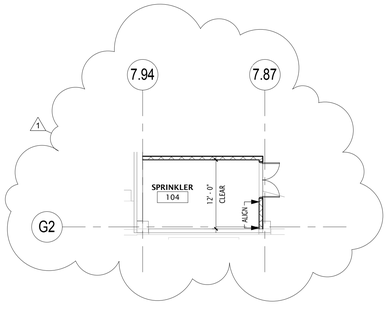


2 AE-P901 ALTERNATE ELEVATION - EAST
1/16" = 1'-0"

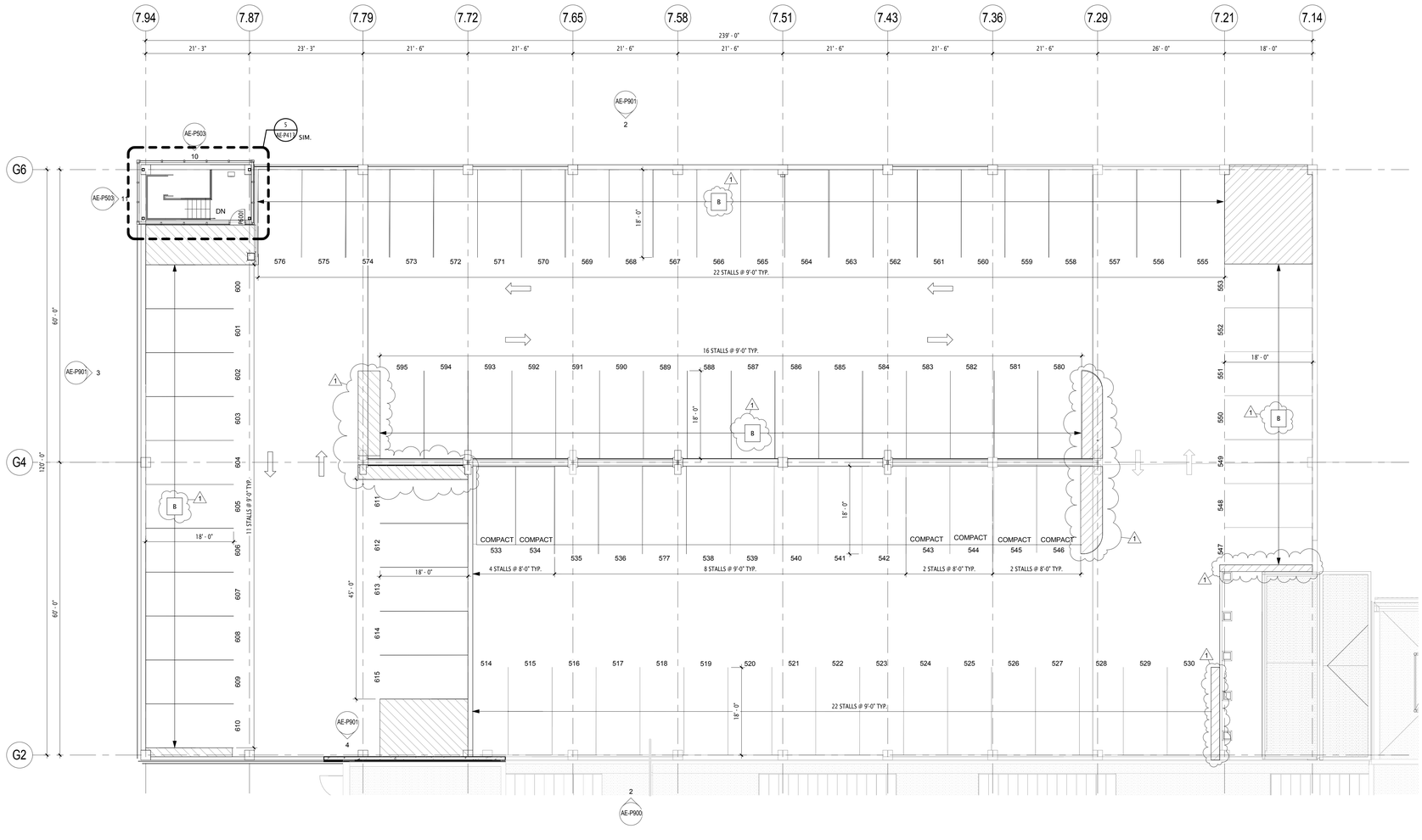




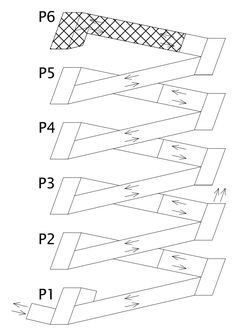
4 AE-P901 ALTERNATE ELEVATION - STUDENT LIFE CENTER
1/16" = 1'-0"



5 AE-P901 ATERNATE SPRINKLER ROOM @ LEVEL 1
3/32" = 1'-0"



1 AE-P901 ALTERNATE LEVEL P6 - ROOF
3/32" = 1'-0"



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ALTERNATE OVERALL P6
FLOOR PLAN

CONSTRUCTION DOCUMENTS

AE-P901

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
LICENSED ARCHITECT

RAILING TYPE LEGEND	
TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

2

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

Railing Type Legend-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O.
   COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415

2

11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY
General Note-Plan-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

FINISH KEY

RM NAME

RM #

WALL	BASE	FLOOR

GENERAL NOTE - FINISH PLAN

7.6

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.

2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.

3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

1

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: AM

AE-131a-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

2

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

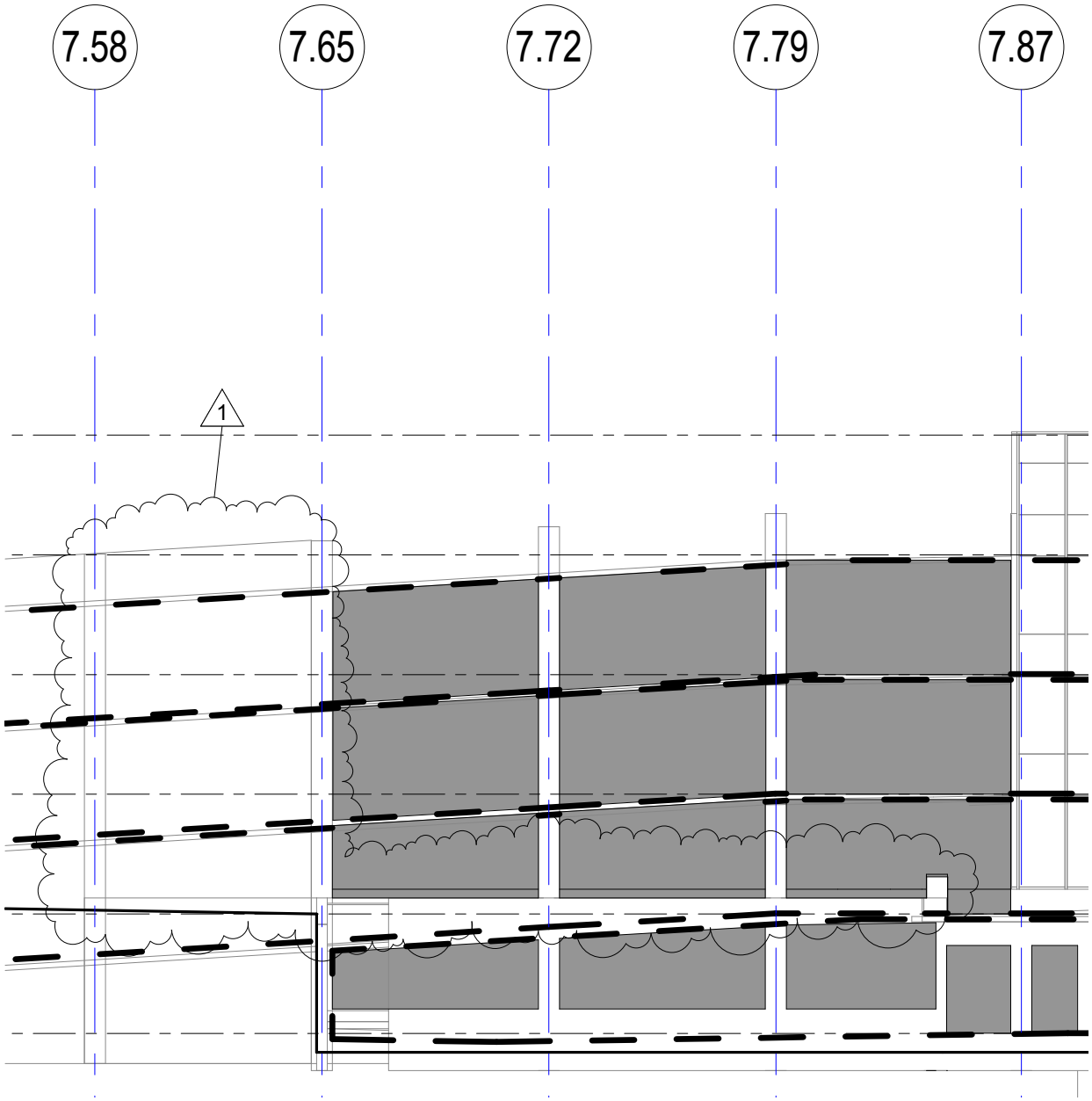
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

General Note-
Vertical Circulation-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: NE

GI-107-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

1

LEVEL		NORTH	EAST	SOUTH	WEST	TOTALS	% OPEN
P1	TOTAL WALL AREA	1250	1360	1280	2509	6399	**21.99%**
	TOTAL AREA OF OPENINGS	496	560	351	0	1407	
P2	TOTAL WALL AREA	1310	2698	1320	2589	7917	**20.23%**
	TOTAL AREA OF OPENINGS	450	829	323	0	1602	
P3	TOTAL WALL AREA	1375	2572	1320	2589	7856	**23.92%**
	TOTAL AREA OF OPENINGS	147.35	1432	300	0	1879.35	
P4	TOTAL WALL AREA	1375	2793	1320	2589	8077	**26.09%**
	TOTAL AREA OF OPENINGS	163.45	1644	300	0	1944	

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

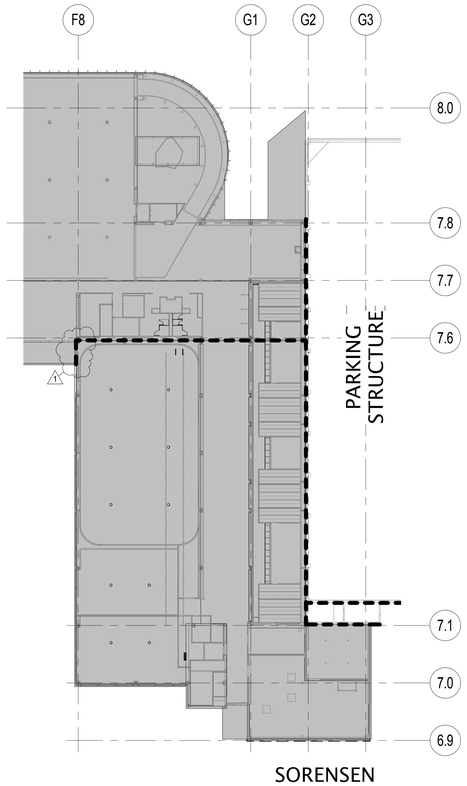
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

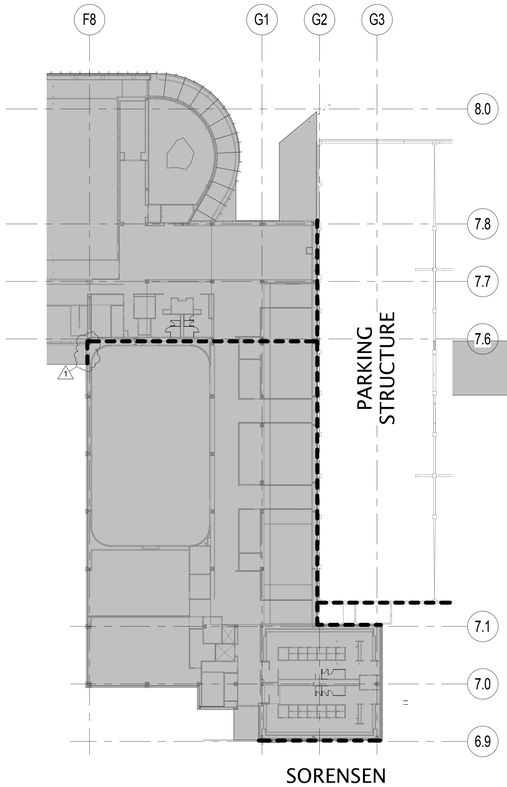
REV.: Addendum-04
BY: NE

GI-107-02

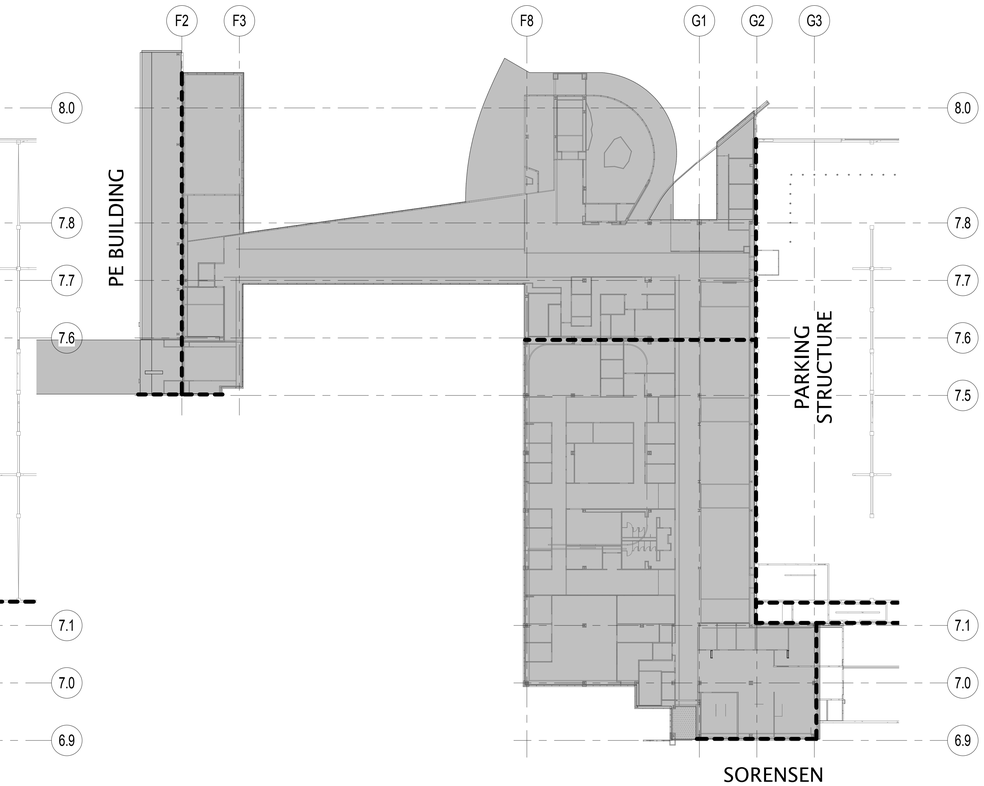
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



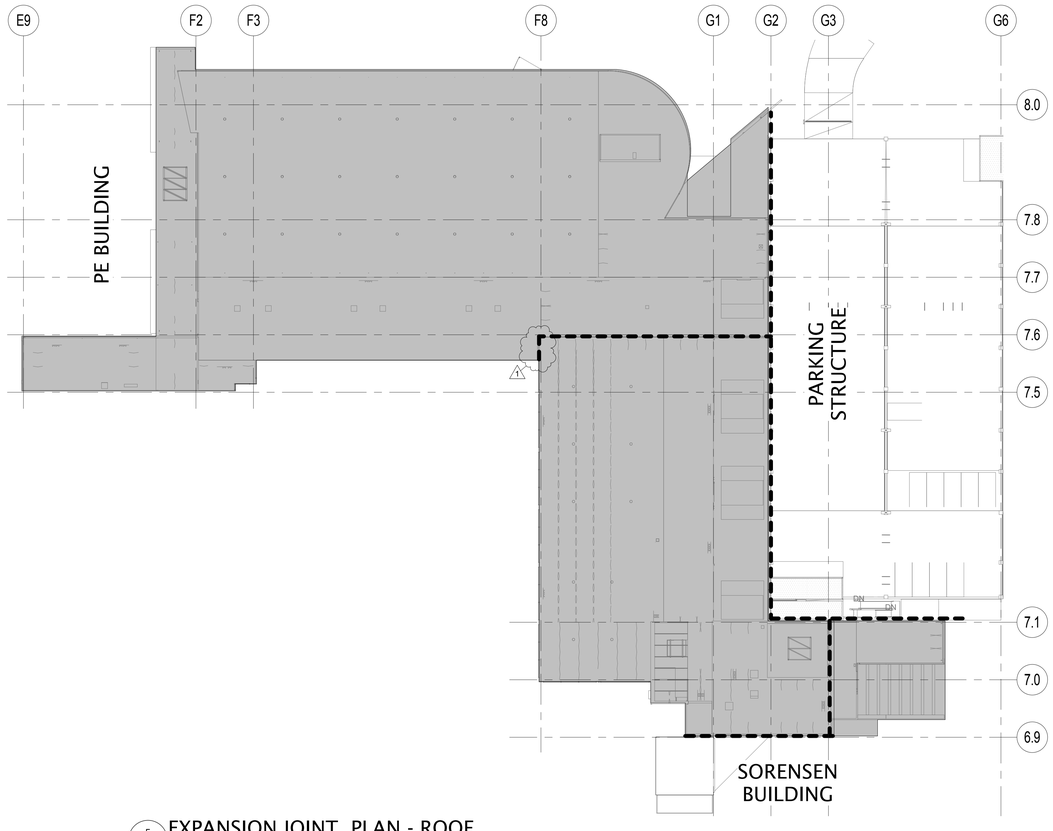
4 AE-022 EXPANSION JOINT PLAN - LEVEL 4 TO ROOF
1/32" = 1'-0"



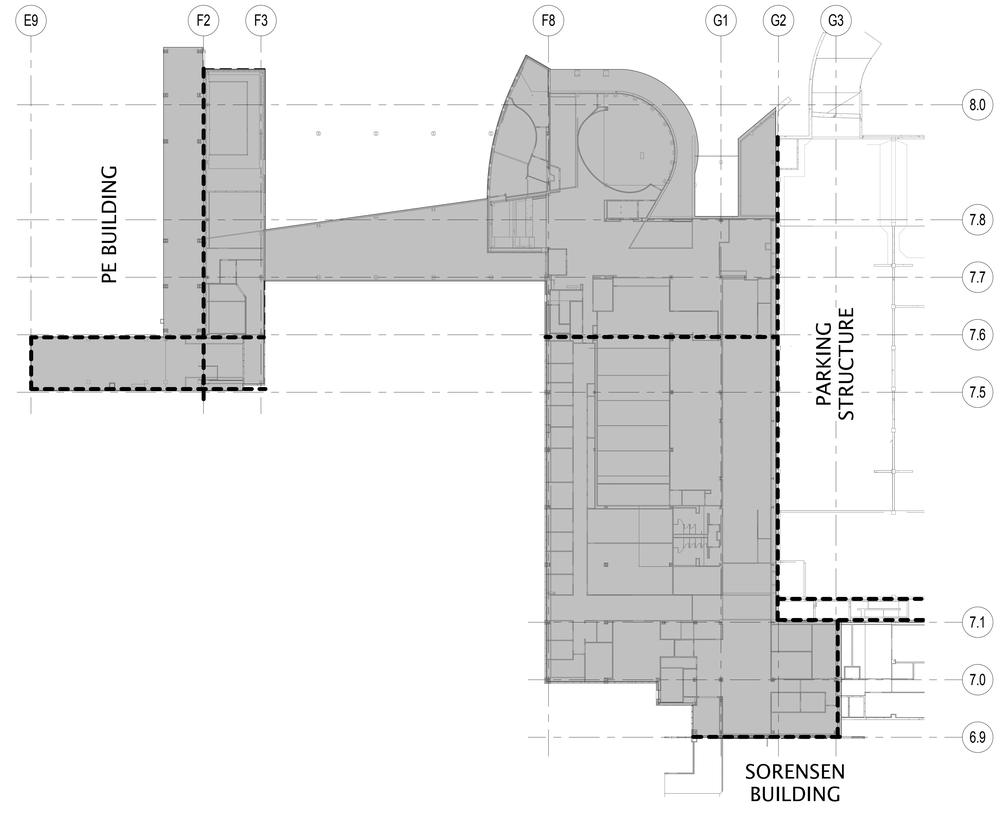
3 AE-022 EXPANSION JOINT PLAN - LEVEL 3 TO 4
1/32" = 1'-0"



2 AE-022 EXPANSION JOINT PLAN - LEVEL 2 TO 3
1/32" = 1'-0"



5 AE-022 EXPANSION JOINT PLAN - ROOF
1/32" = 1'-0"



1 AE-022 EXPANSION JOINT PLAN - LEVEL 1 TO 2
1/32" = 1'-0"

EXPANSION JOINT LEGEND
SEISMIC EXPANSION JOINT

NOTES:

1. REFER TO STRUCTURAL DOCUMENTS FOR NOMINAL CLEAR JOINT WIDTHS.

2. JOINT WIDTH REFERS TO THE CLEAR WIDTH BETWEEN CONSTRUCTION ON EITHER SIDE OF JOINT. PLACE NO MATERIAL WITHIN THIS CLEAR DIMENSION.

3. WHEN CONSTRUCTION REQUIRES MATERIAL TO BE PLACED WITHIN THE CLEAR WIDTH OF THE JOINT ADJUST ADJACENT CONSTRUCTION TO MAINTAIN CLEAR WIDTH OF JOINT IN ALL DIRECTIONS. MEASURE THE CLEAR WIDTH OF THE JOINT FROM THE INSIDE FACE OF THIS MATERIAL.

2. REFER TO SPECIFICATION FOR EXPANSION JOINT COVER ASSEMBLIES.

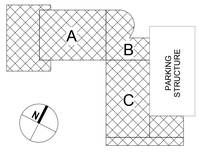
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	CA
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EXPANSION JOINT PLANS

CONSTRUCTION DOCUMENTS

AE-022

1

SPACE/ROOM ACOUSTICAL REQUIREMENT USING ROOM CRITERION (RC) MARK-II RATING SYSTEM		
SPACE/ROOM NAME	MAXIMUM DESIGN RC(N) RATING	MAXIMUM FIELD RC(N) RATING
BOWLING ALLEY	40	45
CARDIO AREAS	40	45
CLASSROOMS	30	35
CLIMBING WALL	40	45
CONFERENCE ROOMS	30	35
CORRIDORS / CIRCULATION / STAIR LOUNGE	40	45
CUSTODIAL CLOSETS	N/A	N/A
DEMO KITCHEN / CLASSROOM	35	40
ELECTRICAL / DATA / AV CLOSETS	N/A	N/A
GYMS (MAC & 3-COURT)	35	40
JOGGING TRACK / STRETCHING AREAS	40	45
LAUNDRY	40	45
LOBBIES	40	45
LOCKER ROOMS / RESTROOMS / SPA	40	45
LOUNGES	35	40
MECHANICAL ROOMS	N/A	N/A
MULTIPURPOSE STUDIOS / DANCE ROOMS	30	35
OFFICES (OPEN PLAN)	40	45
OFFICES (PRIVATE)	35	40
REFLECTION CENTER	30	35
STORAGE & SUPPLY ROOMS	N/A	N/A
STUDENT COUNCIL CHAMBER	30	35
TABLE GAMES & E-GAMING	35	40
WEIGHTS (MACHINE & FREE)	40	45
VENDOR SPACE	35	40

RC = Room Criterion
(N) = Neutral spectrum without any indicators of problematic noise induced vibration

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

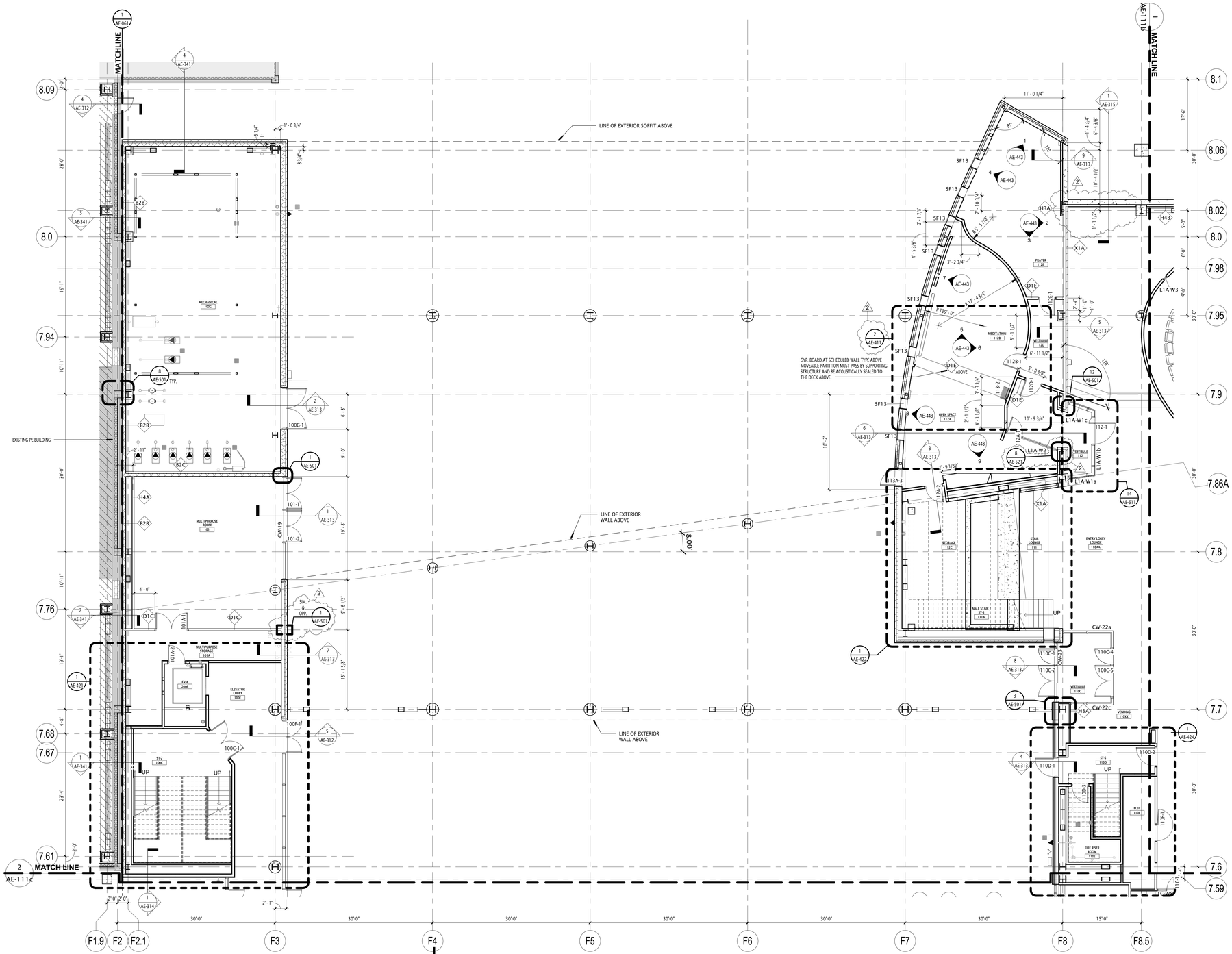
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

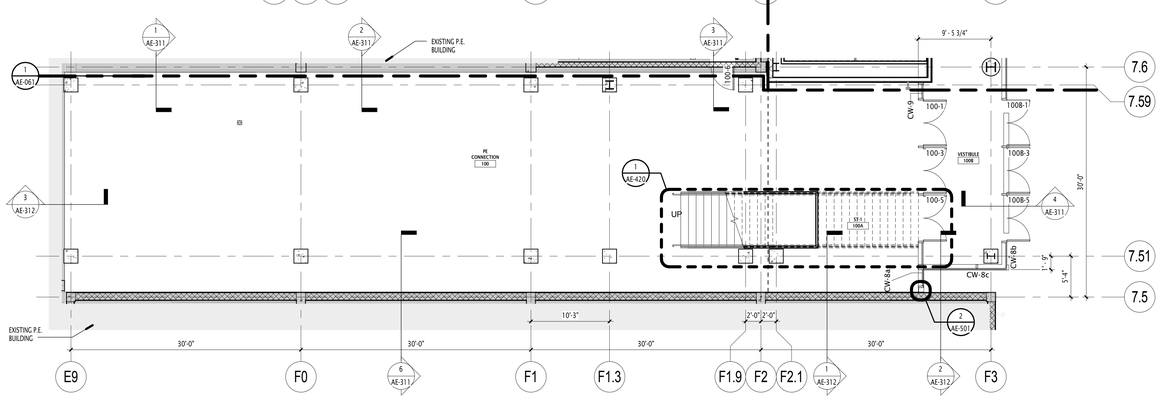
AE-111-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



1 AE-111a FLOORPLAN - LEVEL 1 ZONE A 1/8" = 1'-0"

8' 4' 0' 8' 16'



GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

2

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

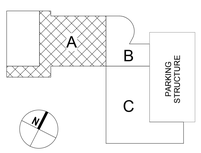
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 1 - ZONE A

CONSTRUCTION DOCUMENTS

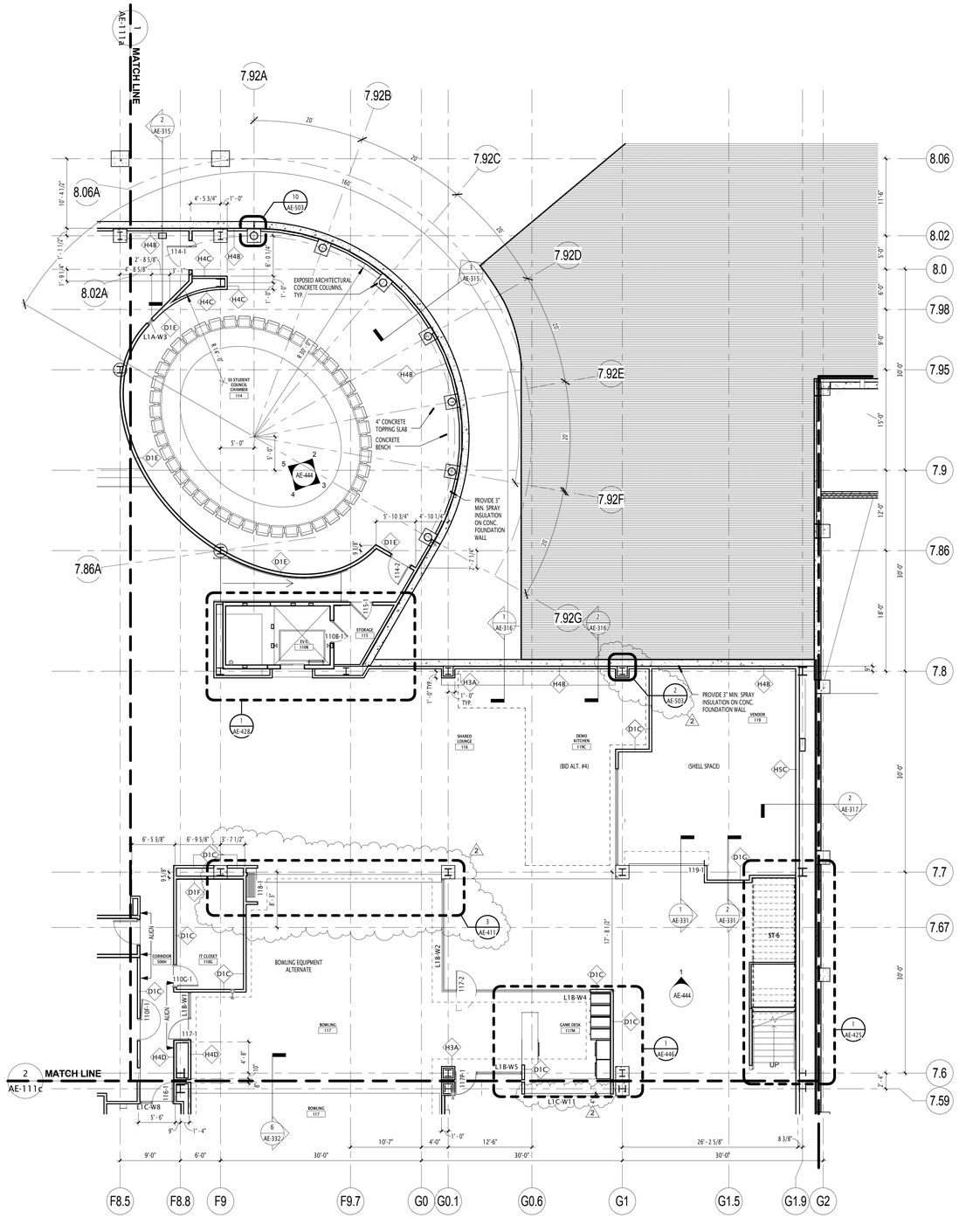
2 AE-111a

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only



1 AE-111b FLOORPLAN - LEVEL 1 ZONE B 1/8" = 1'-0"

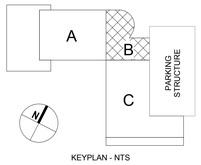
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

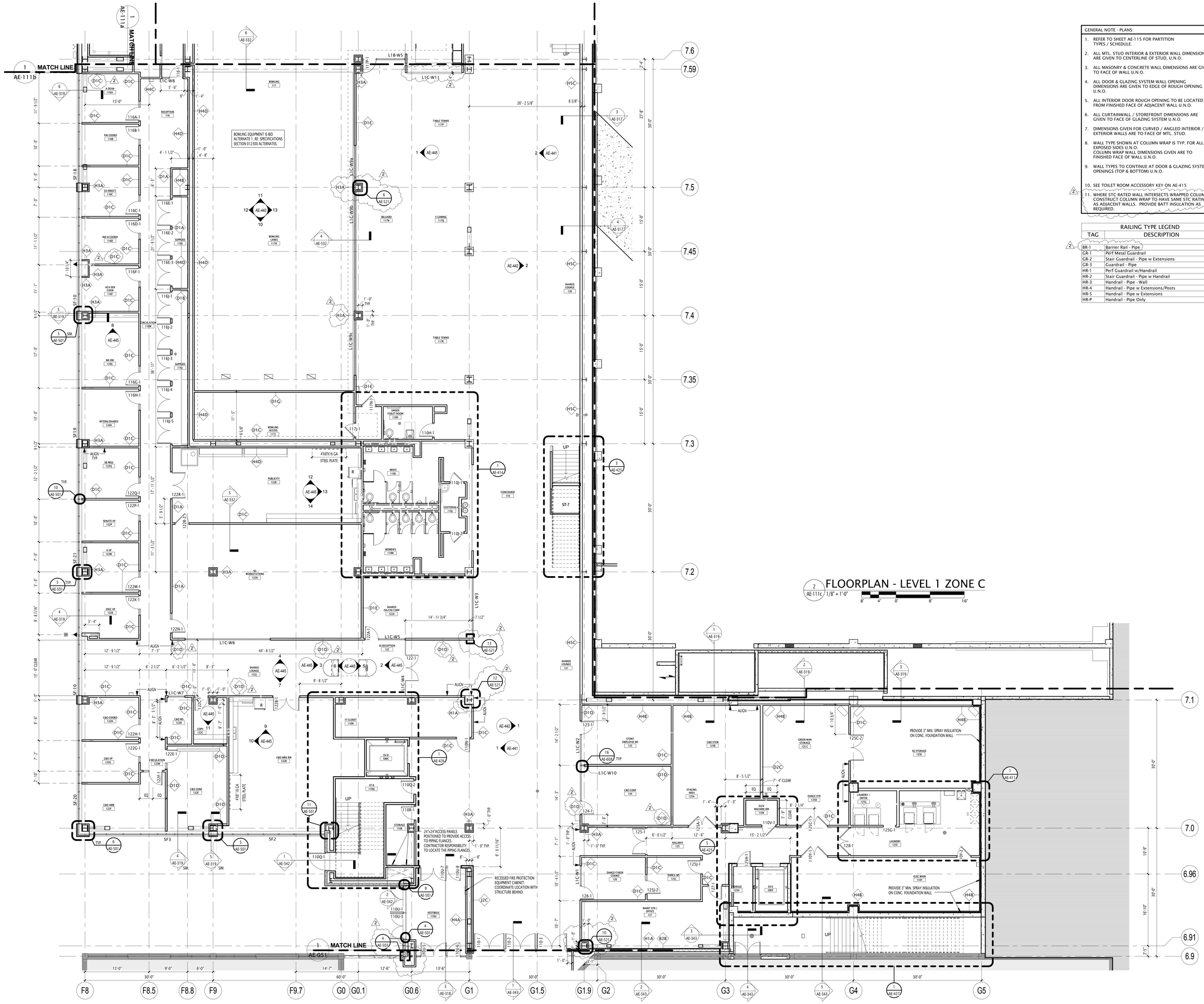
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 1 - ZONE B

CONSTRUCTION DOCUMENTS

AE-111b



2 AE-111c FLOORPLAN - LEVEL 1 ZONE C
1/8" = 1'-0"

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

2

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

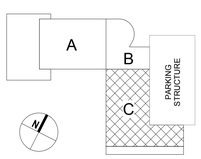
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 1 - ZONE C

CONSTRUCTION DOCUMENTS

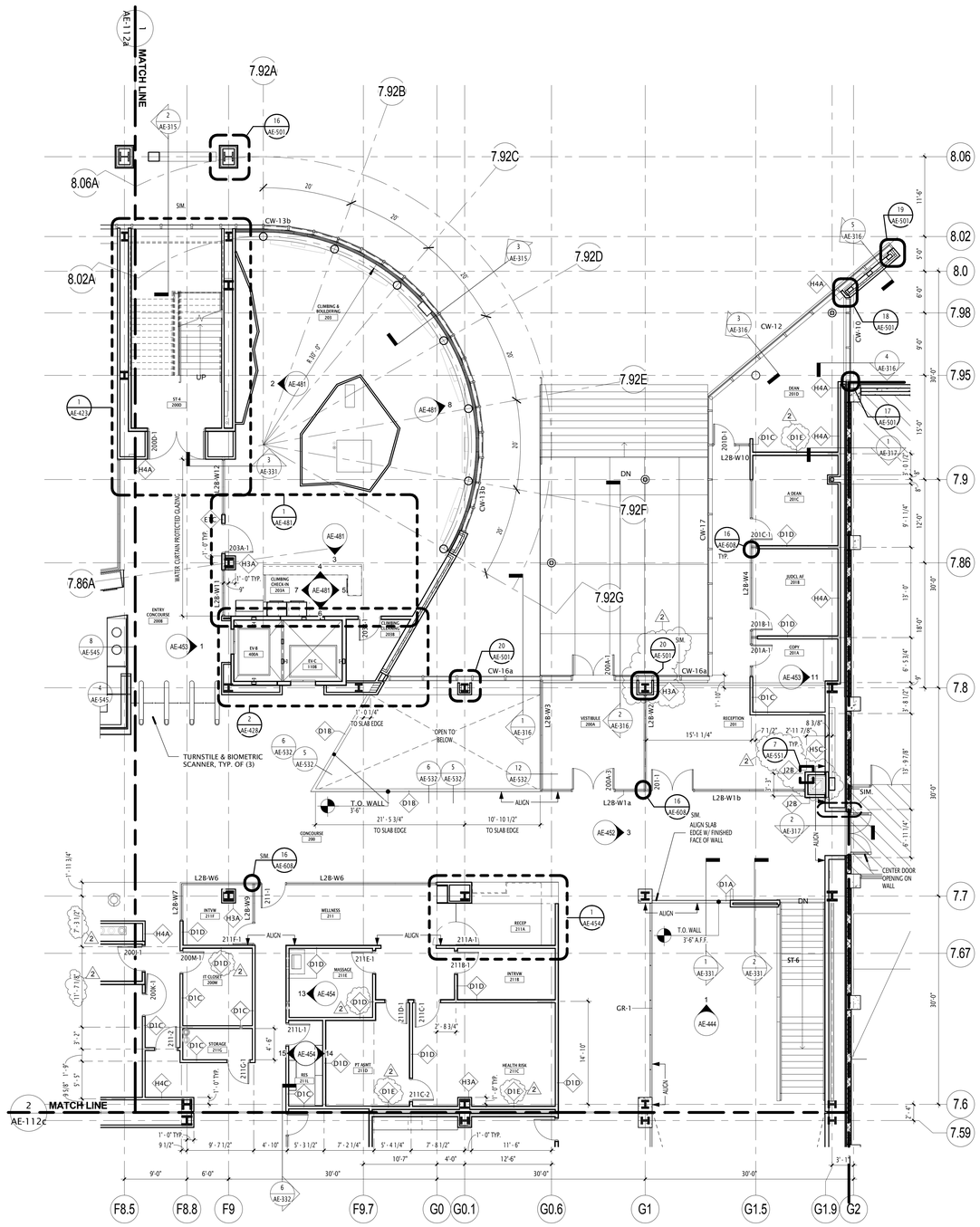
2 AE-111c

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only



1 AE-112b FLOORPLAN - LEVEL 2 ZONE B 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

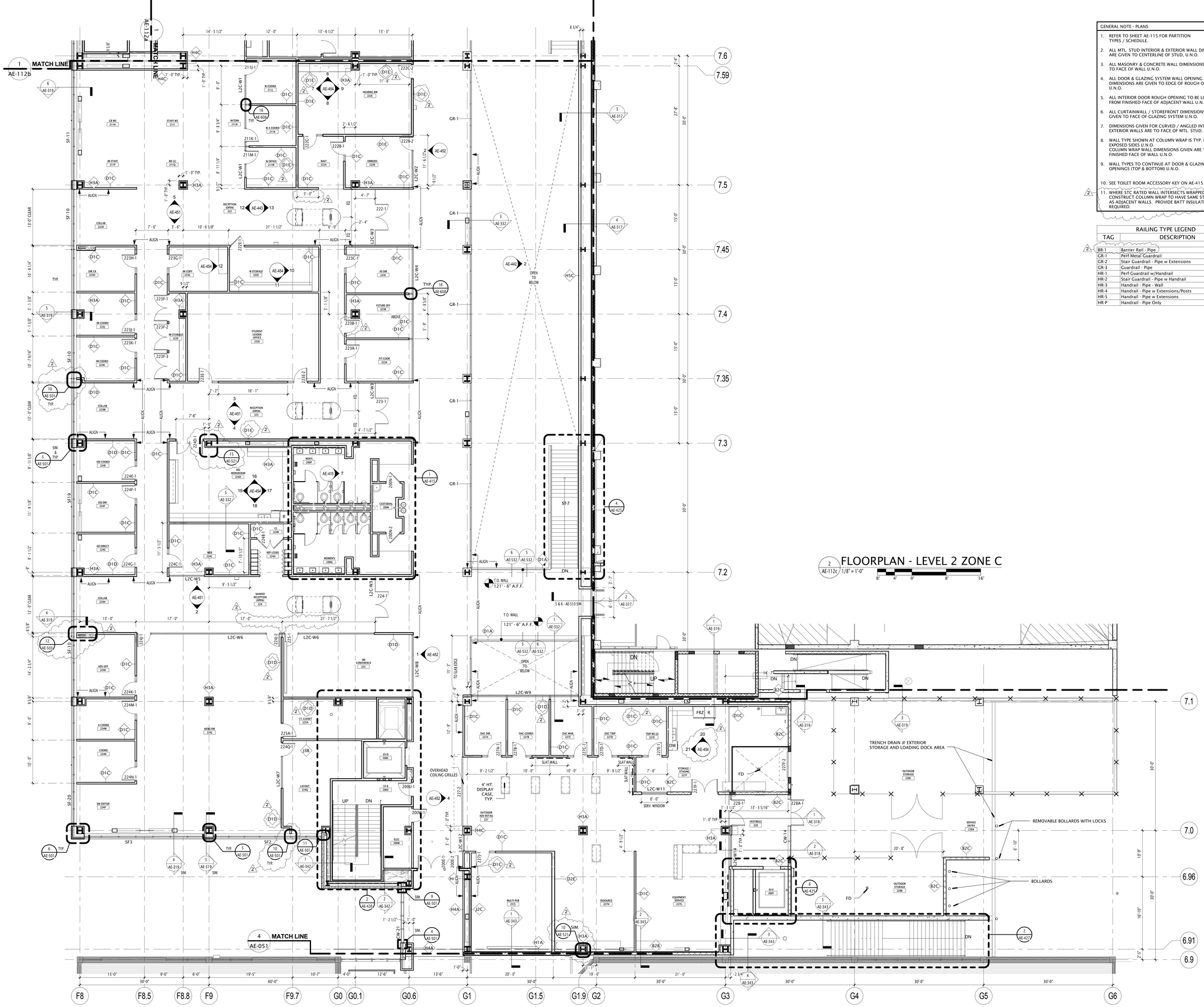
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 2 - ZONE B

CONSTRUCTION DOCUMENTS

AE-112b



2 AE-112c FLOORPLAN - LEVEL 2 ZONE C 1/8" = 1'-0"

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

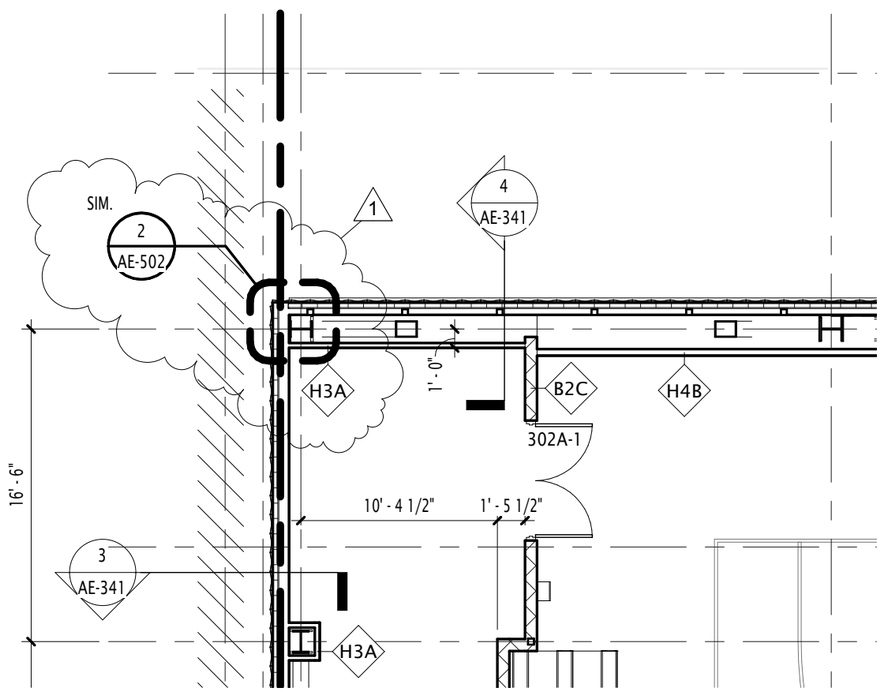
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

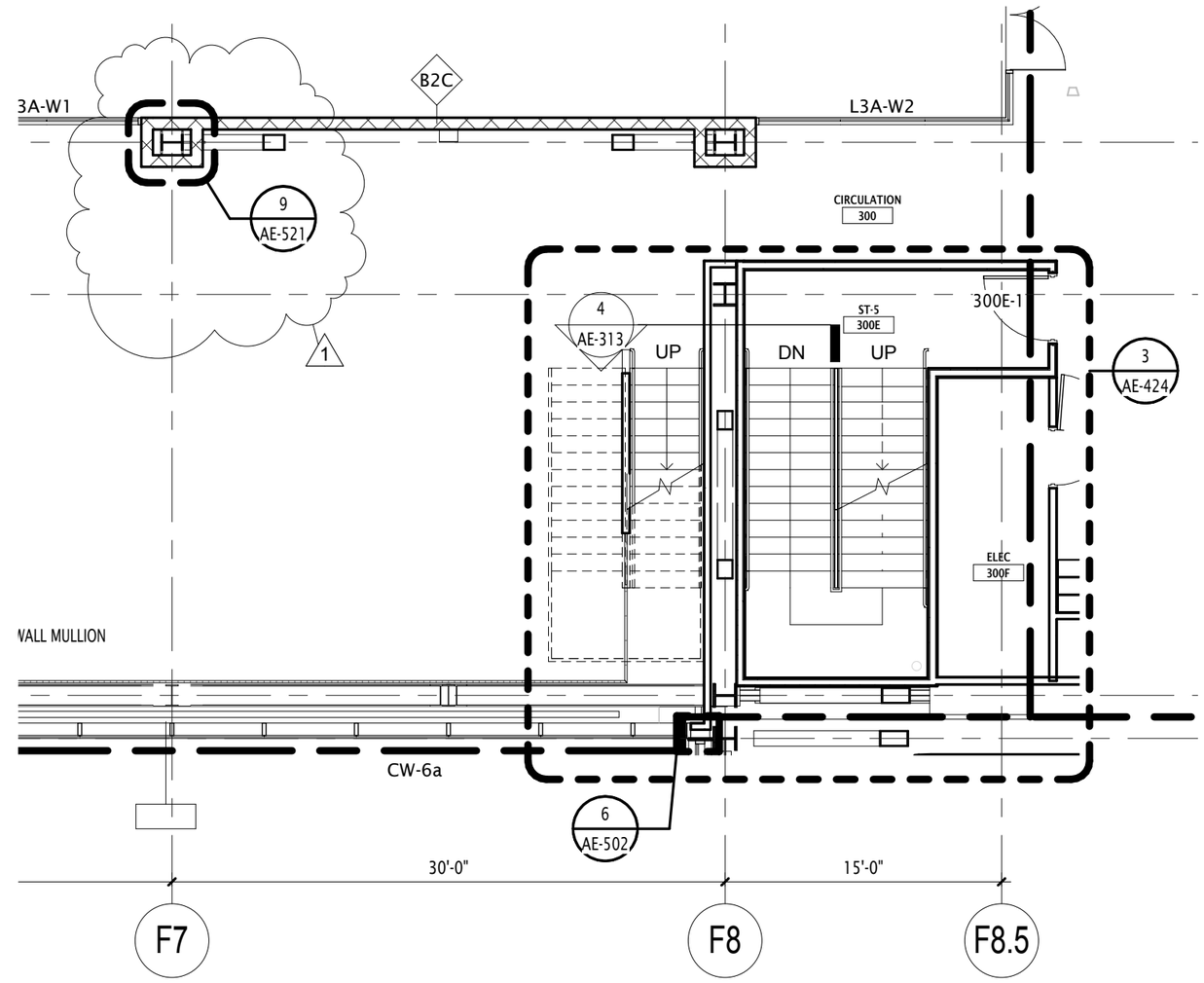
DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 2 - ZONE C

CONSTRUCTION DOCUMENTS

AE-112c





C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

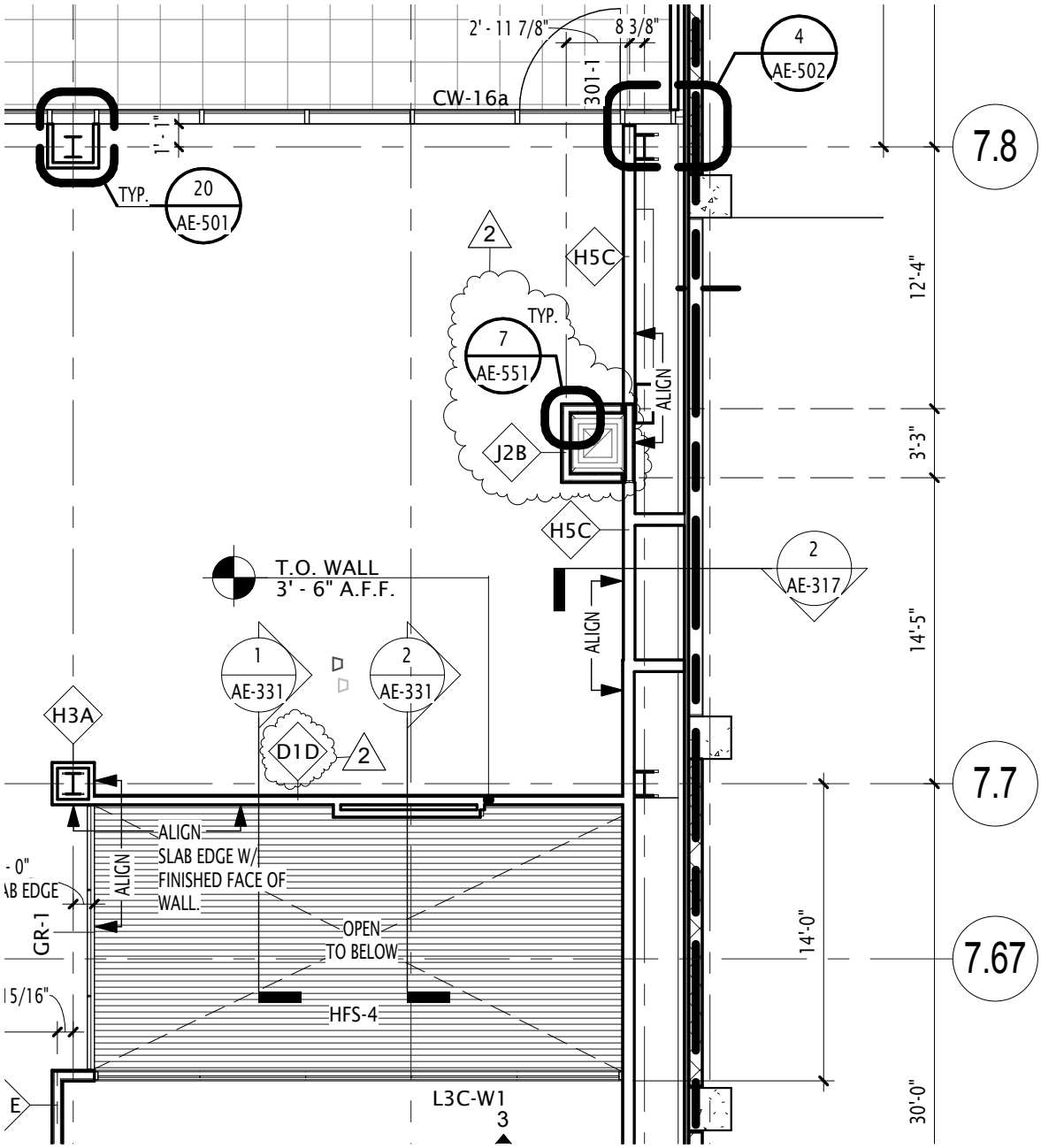
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-113a-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

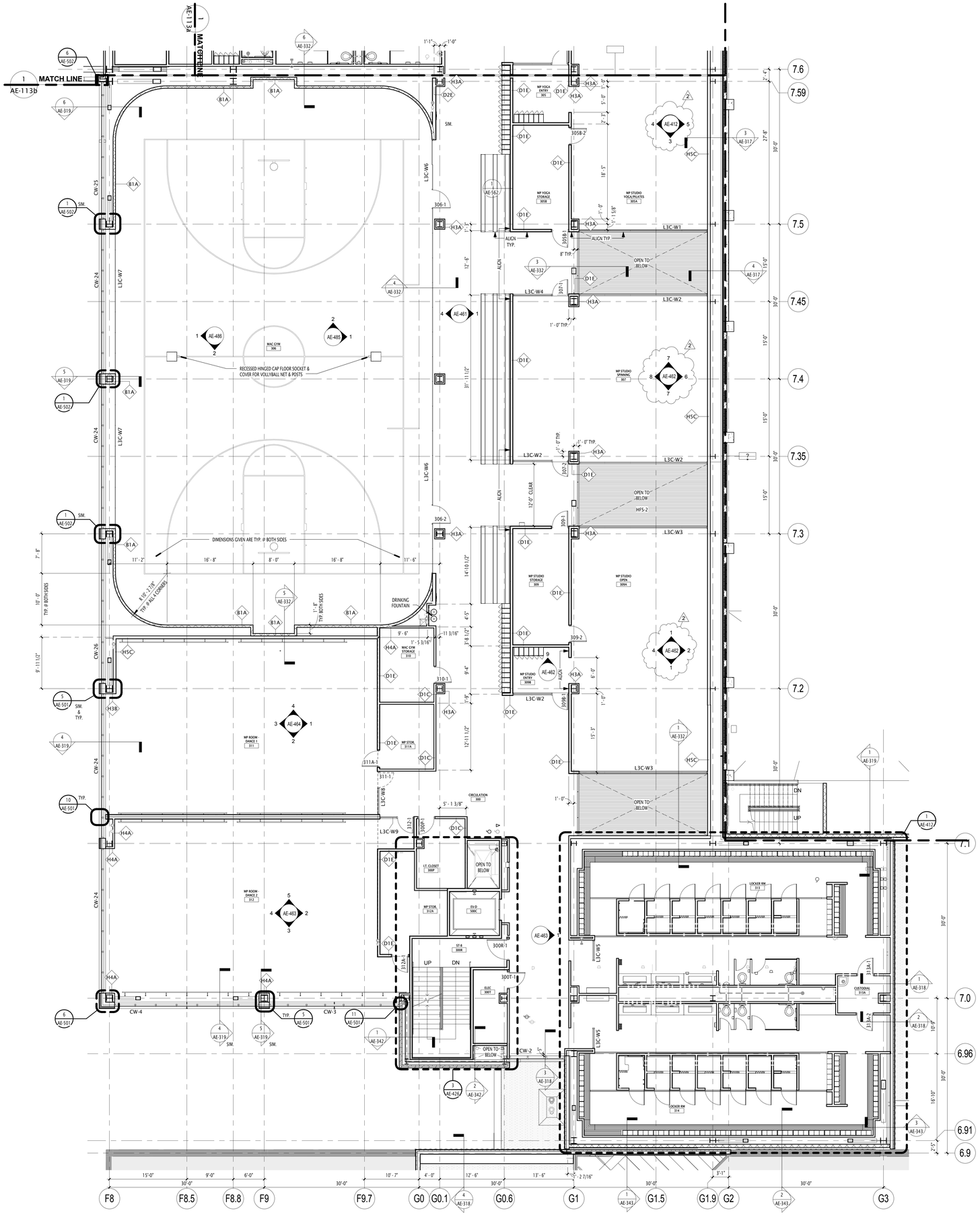
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-113b-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



1 AE-113c FLOORPLAN - LEVEL 3 ZONE C
1/8" = 1'-0"

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

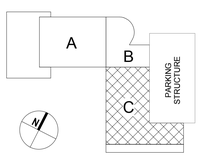
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR PLAN - LEVEL 3 - ZONE C

CONSTRUCTION DOCUMENTS

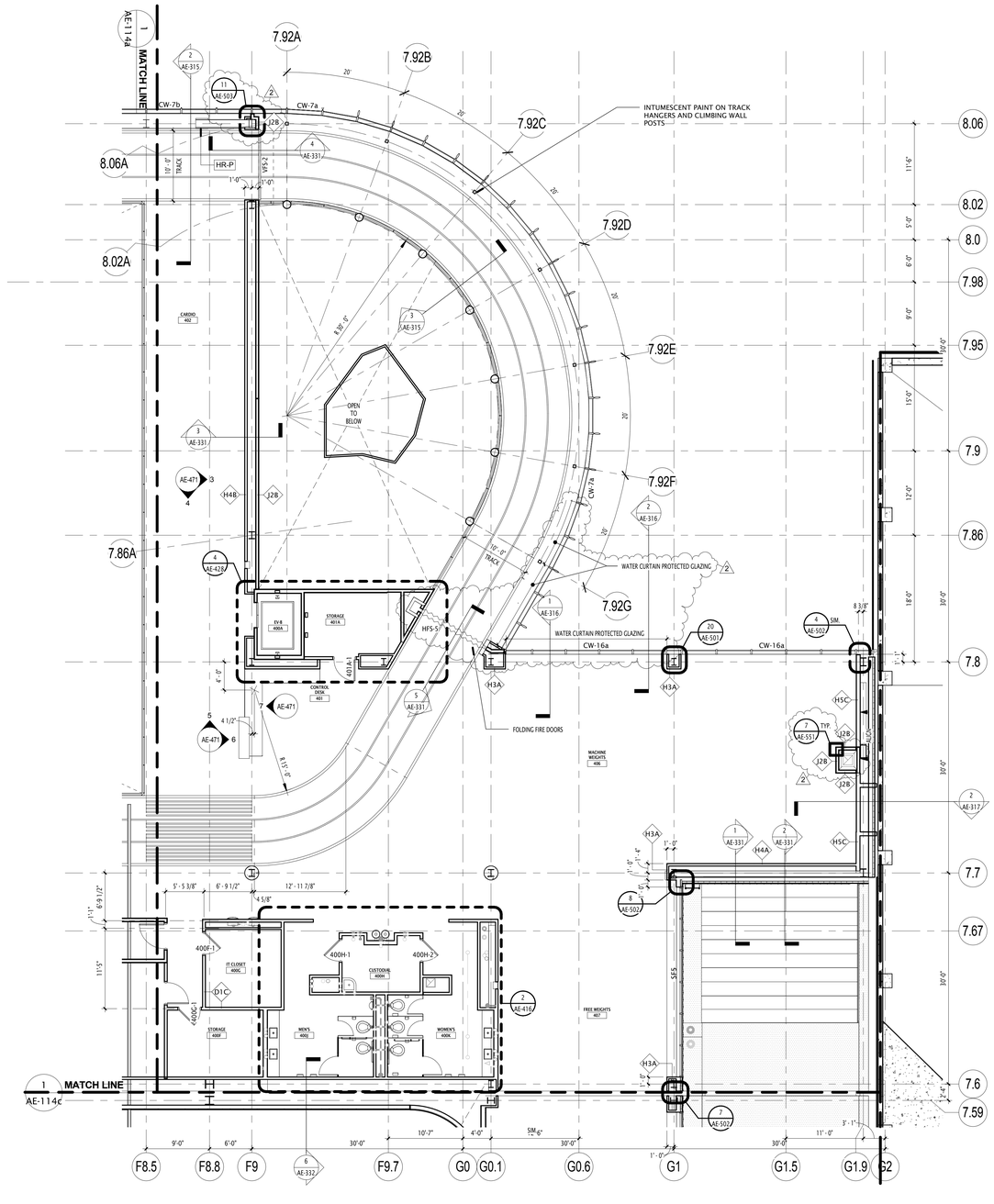
AE-113c

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only



1 AE-114b FLOORPLAN - LEVEL 4 ZONE B
1/8" = 1'-0"

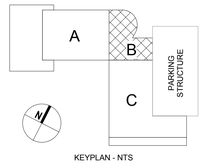
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

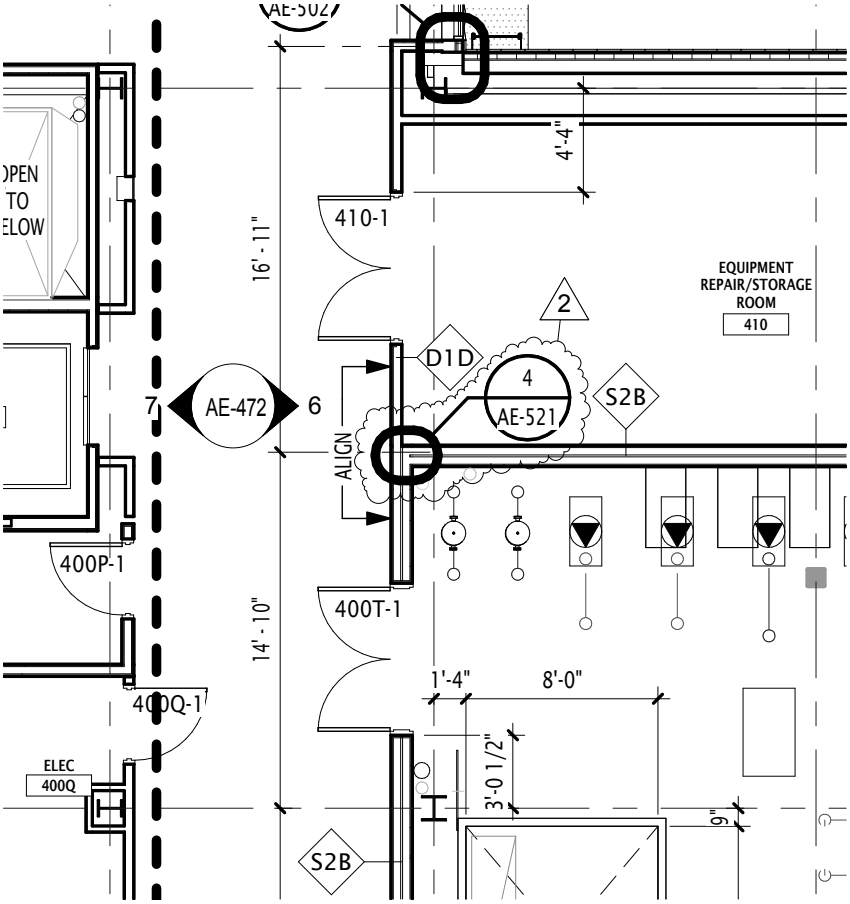
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOORPLAN - LEVEL 4 - ZONE B

CONSTRUCTION DOCUMENTS

AE-114b



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

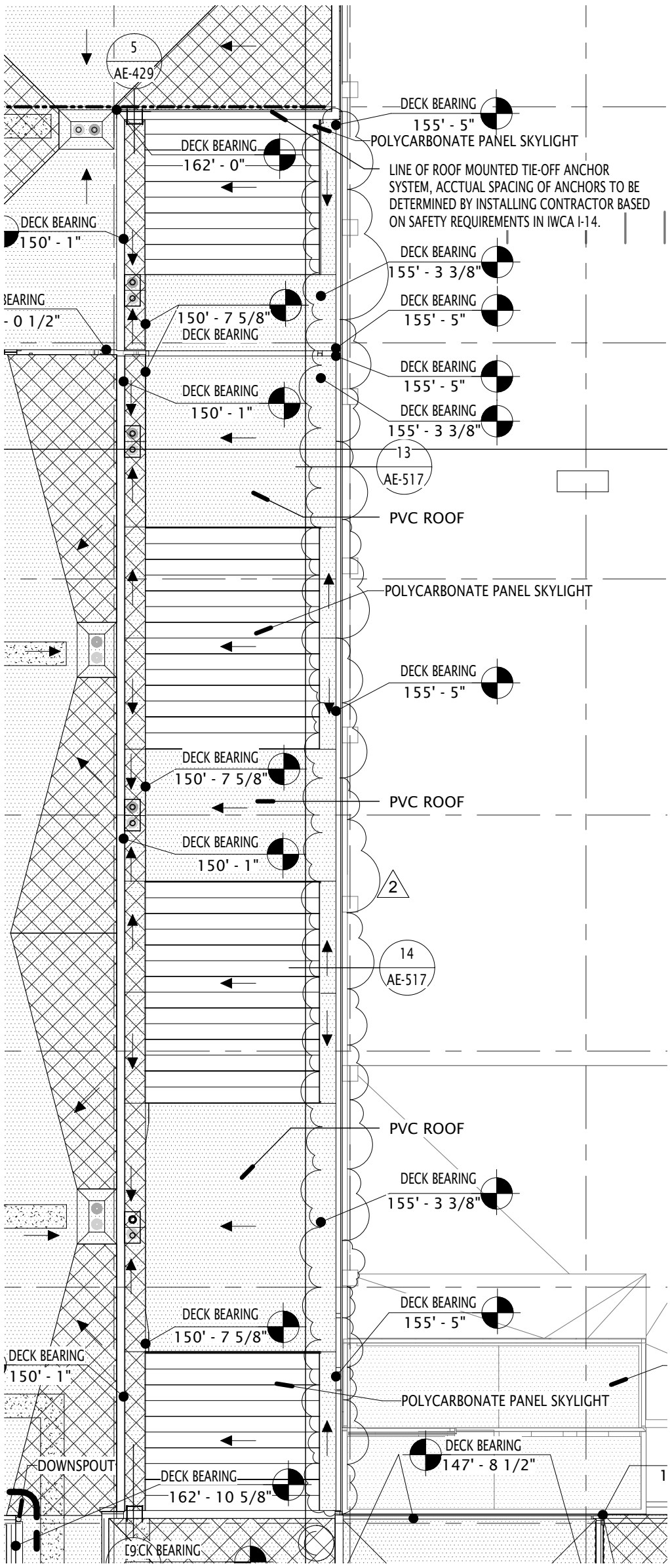
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-114c-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-121-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

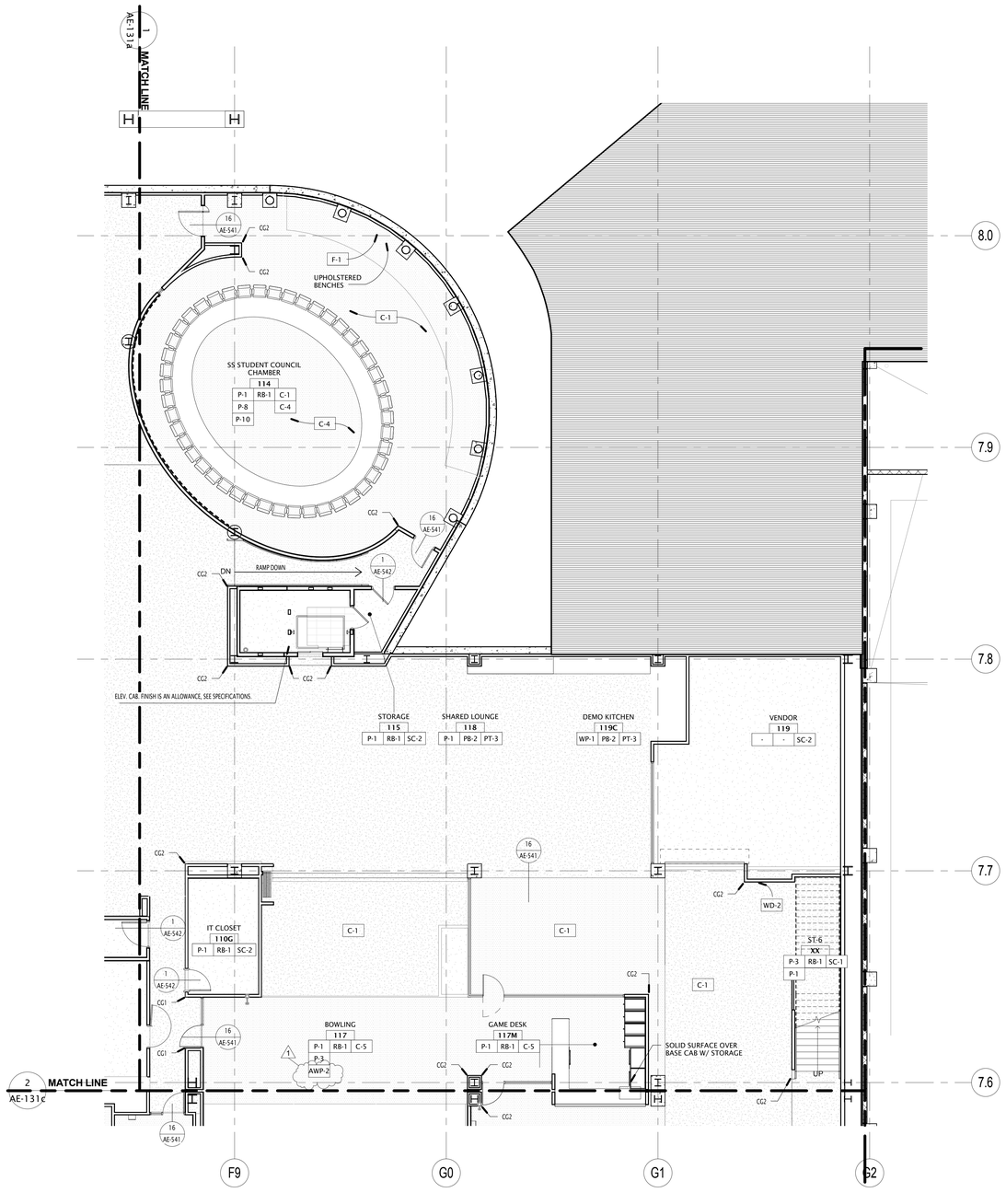
FINISH KEY

RM NAME
RM #
WALL | BASE | FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.



1 AE-131b FINISH PLAN - LEVEL 1 ZONE B
1/8" = 1'-0"
8' 4' 0' 8' 16'

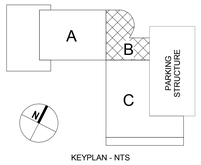
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

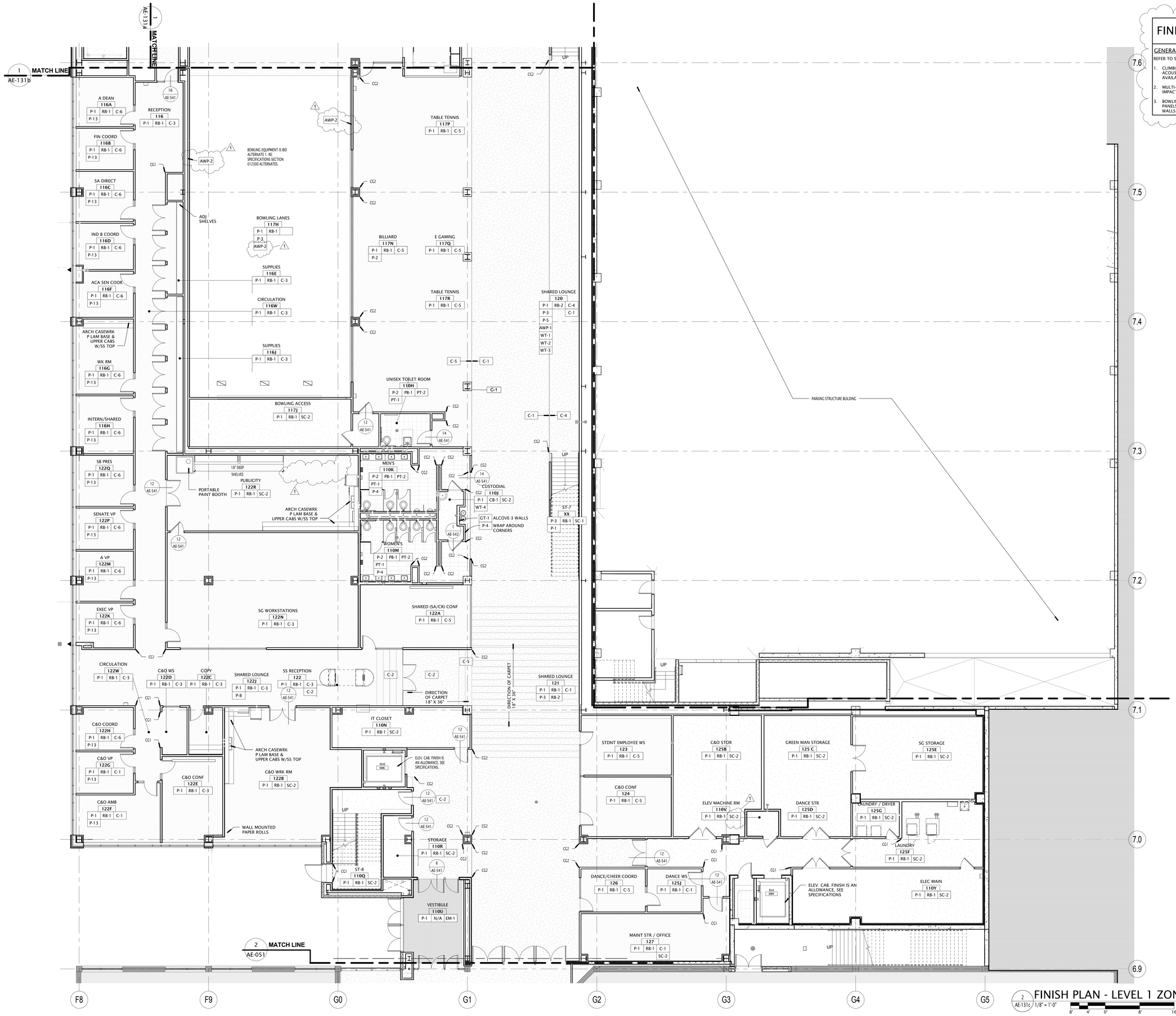
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 1 - ZONE B

CONSTRUCTION DOCUMENTS

AE-131b



2 AE-131c FINISH PLAN - LEVEL 1 ZONE C 1/8" = 1'-0"

8' 4' 0' 8' 16'

FINISH KEY

RM NAME | RM # | WALL | BASE | FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

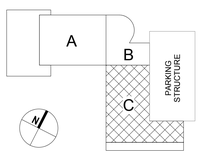
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 1 - ZONE C

CONSTRUCTION DOCUMENTS

AE-131c

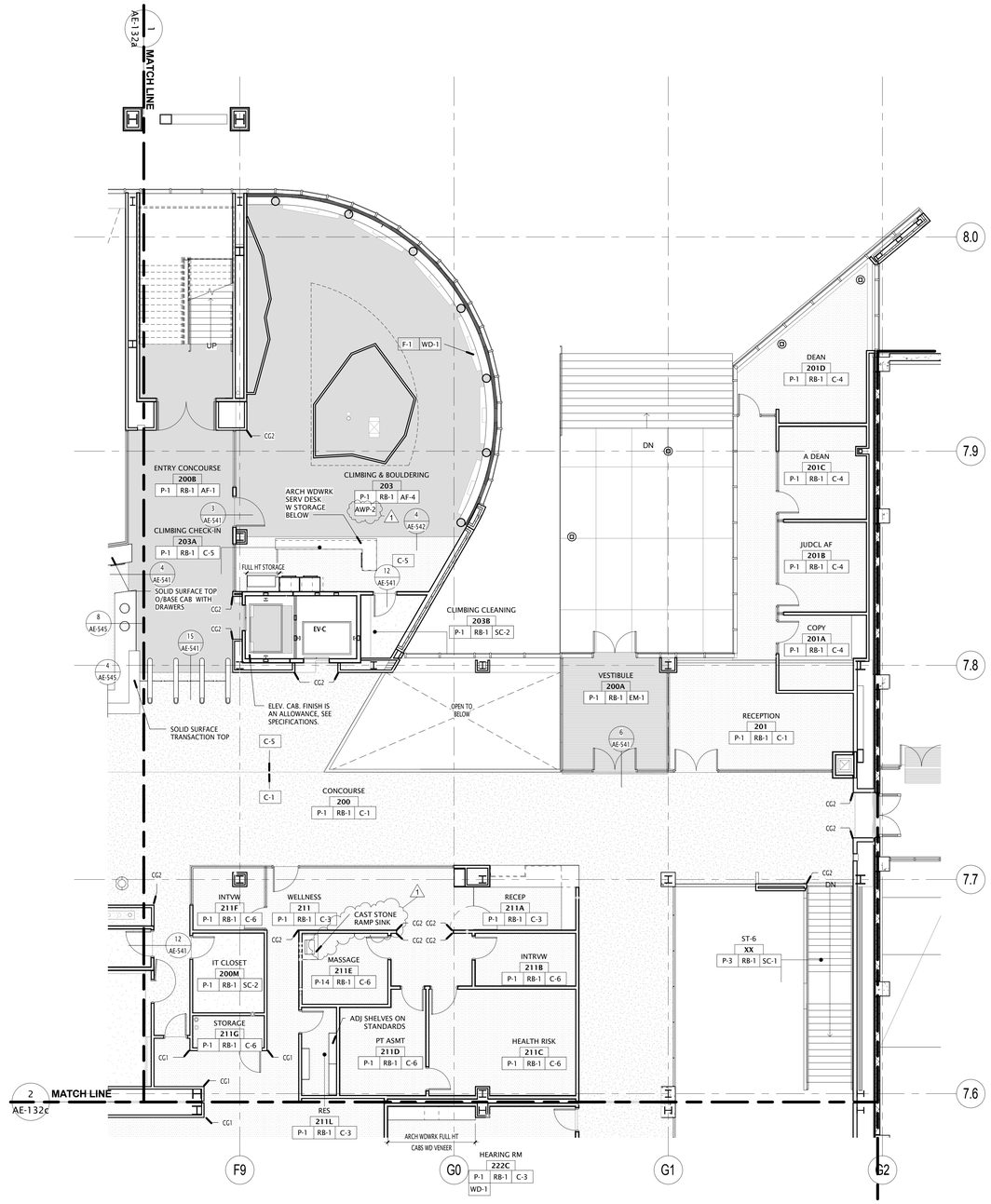
FINISH KEY

RM NAME		
	RM #	
WALL	BASE	FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.



1 AE-132b FINISH PLAN - LEVEL 2 ZONE B

1/8" = 1'-0"

8' 4' 0' 8' 16'

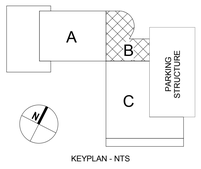
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

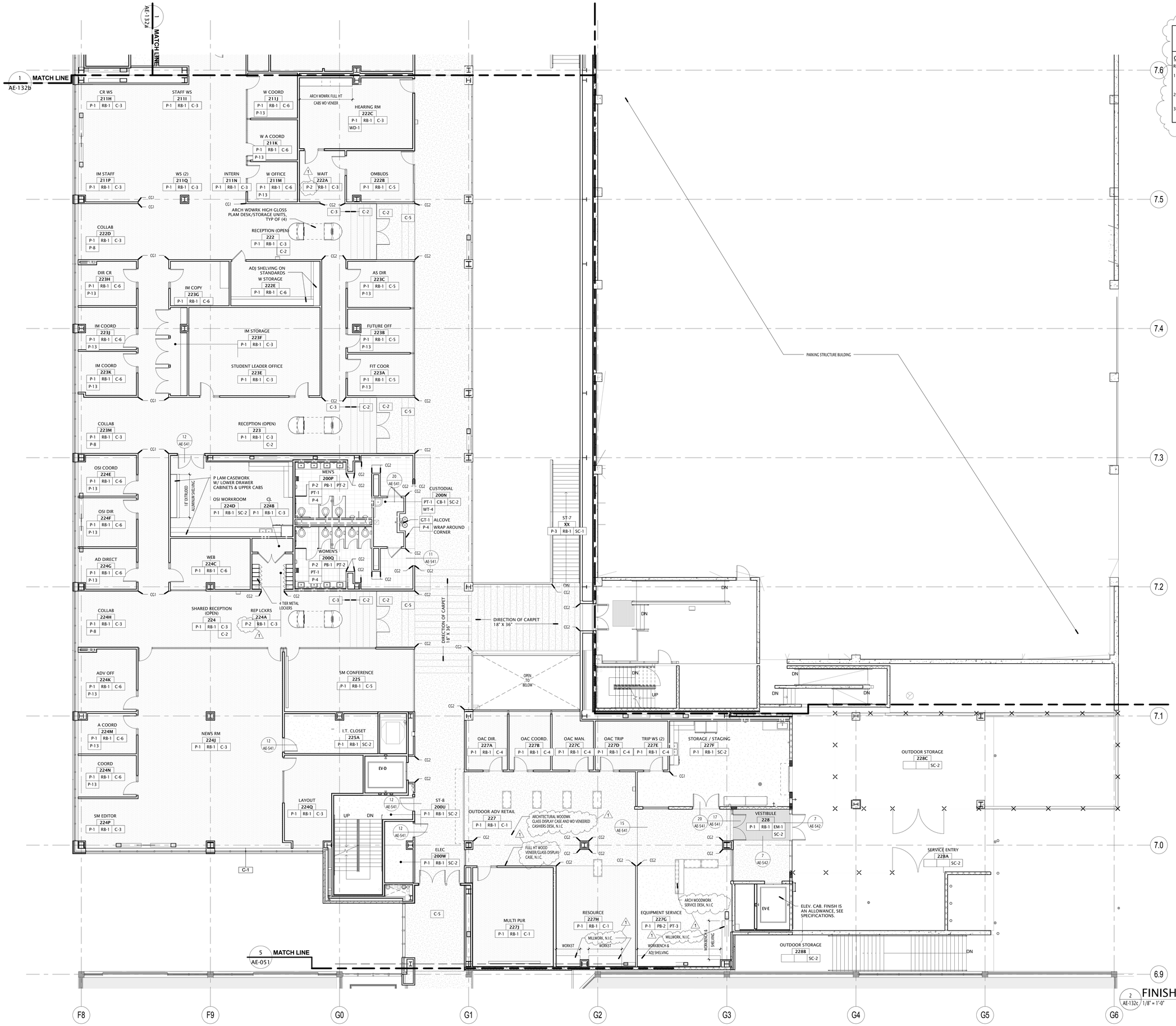
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 2 - ZONE B

CONSTRUCTION DOCUMENTS

AE-132b



FINISH KEY

RM NAME		
RM #		
WALL	BASE	FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

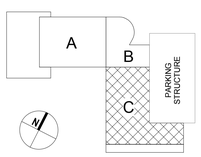
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

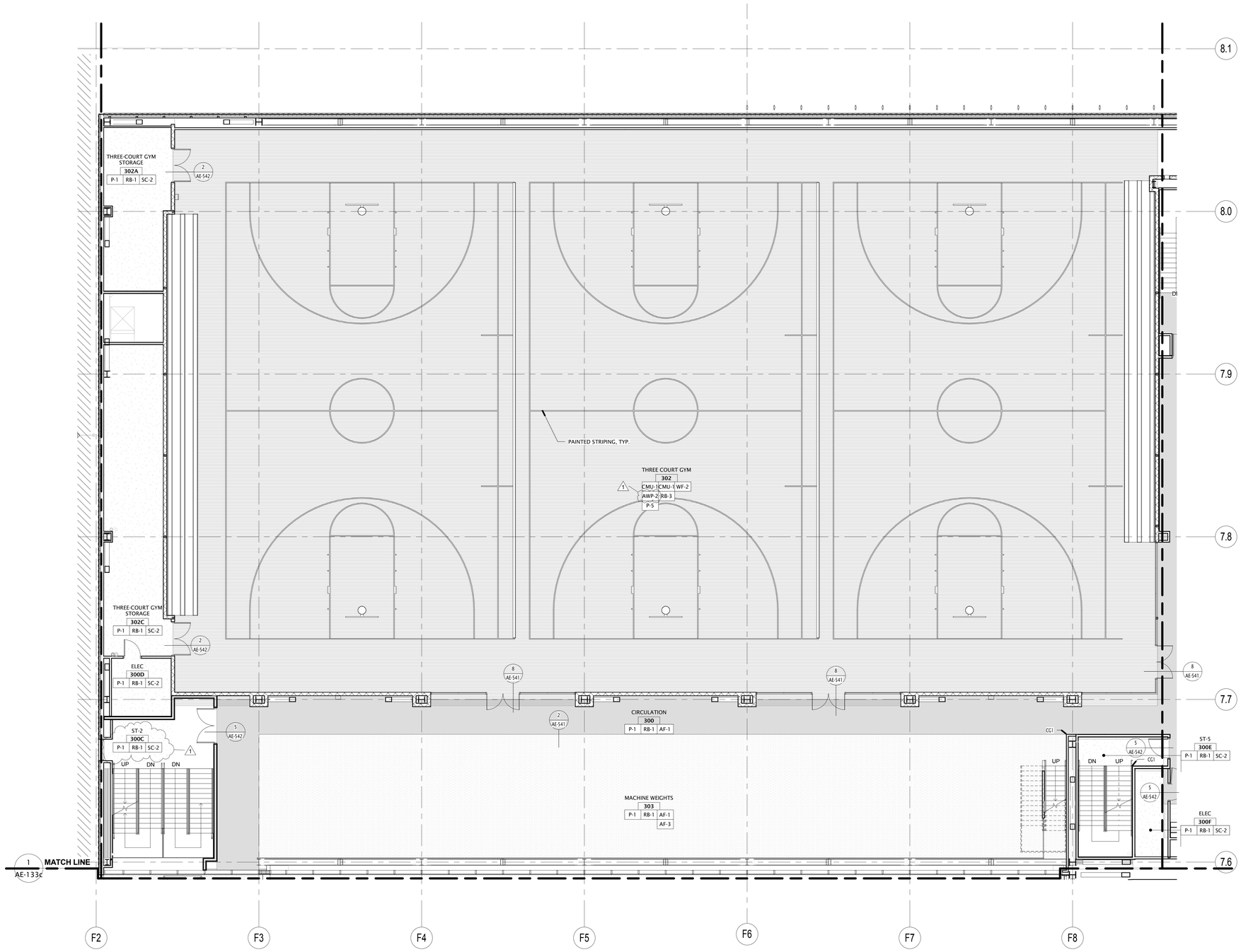
FINISH PLAN - LEVEL 2 - ZONE C

CONSTRUCTION DOCUMENTS

2 AE-132c 1/8" = 1'-0"

8' 4' 0' 8' 16'

AE-132c



1 AE-133a FINISH PLAN - LEVEL 3 ZONE A

1/8" = 1'-0"

8' 4' 0' 8' 16'

FINISH KEY

RM NAME
RM #
WALL | BASE | FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

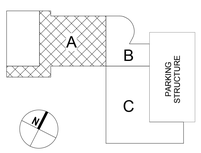
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

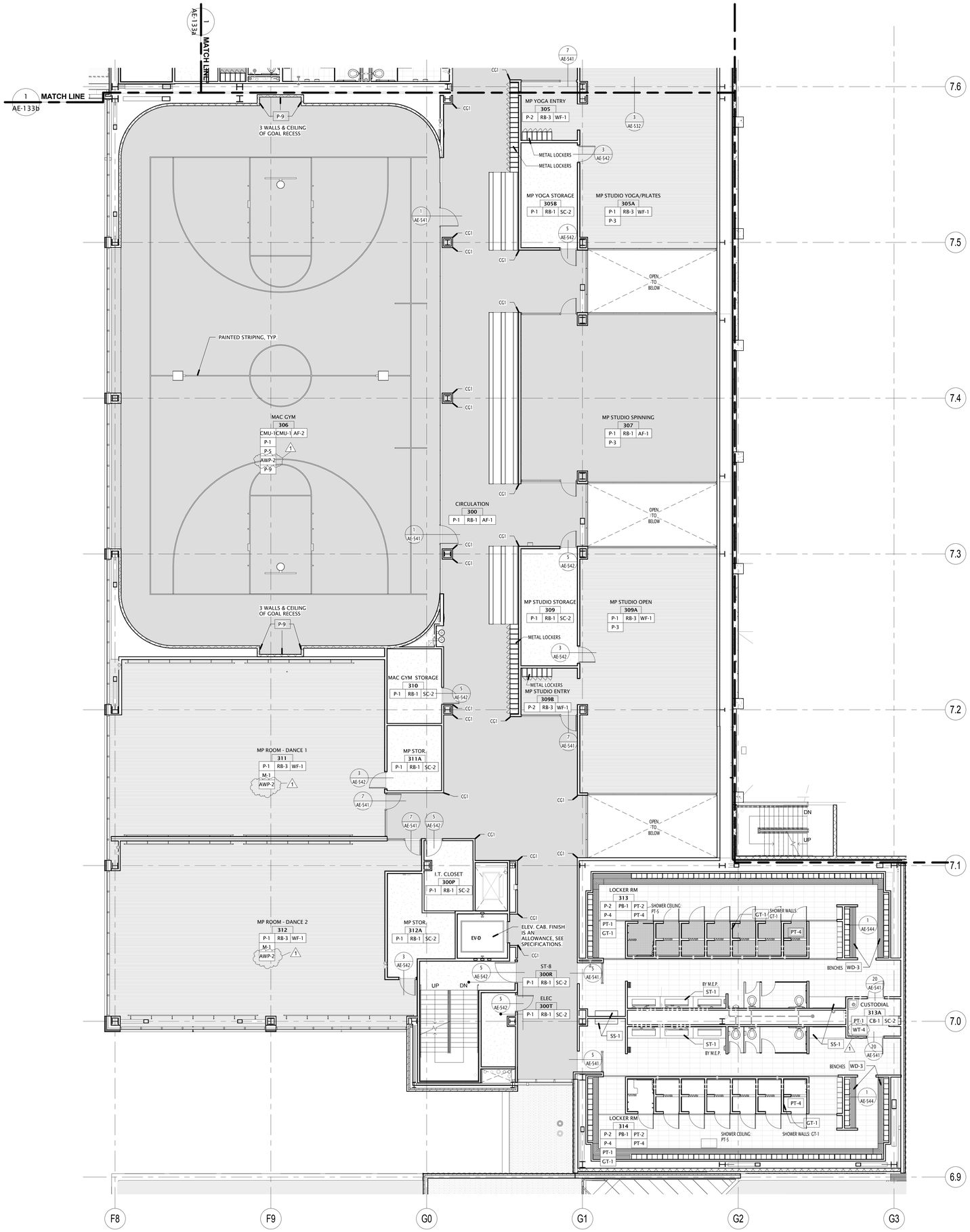
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 3 ZONE A

CONSTRUCTION DOCUMENTS

AE-133a



1 AE-133c FINISH PLAN - LEVEL 3 ZONE C
1/8" = 1'-0"

8' 4' 0' 8' 16'

FINISH KEY

RM NAME | RM # | WALL | BASE | FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

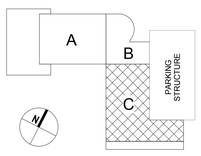
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 3 - ZONE C

CONSTRUCTION DOCUMENTS

AE-133c

FINISH KEY

RM NAME		
RM #		
WALL	BASE	FLOOR

GENERAL NOTE - FINISH PLAN

REFER TO SHEET AE-135 FOR FINISH SCHEDULE / LEGEND

1. CLIMBING WALL AREA: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ON 25% OF AVAILABLE WALL SPACE, ABOVE 8'-0" AFF.
2. MULTI-PURPOSE DANCE STUDIOS: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS ABOVE 8'-0" AFF.
3. BOWLING: PROVIDE HIGH-IMPACT ACOUSTICAL WALL PANELS (AWP-2) ABOVE 10'-0" ON EAST & WEST WALLS.

1

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

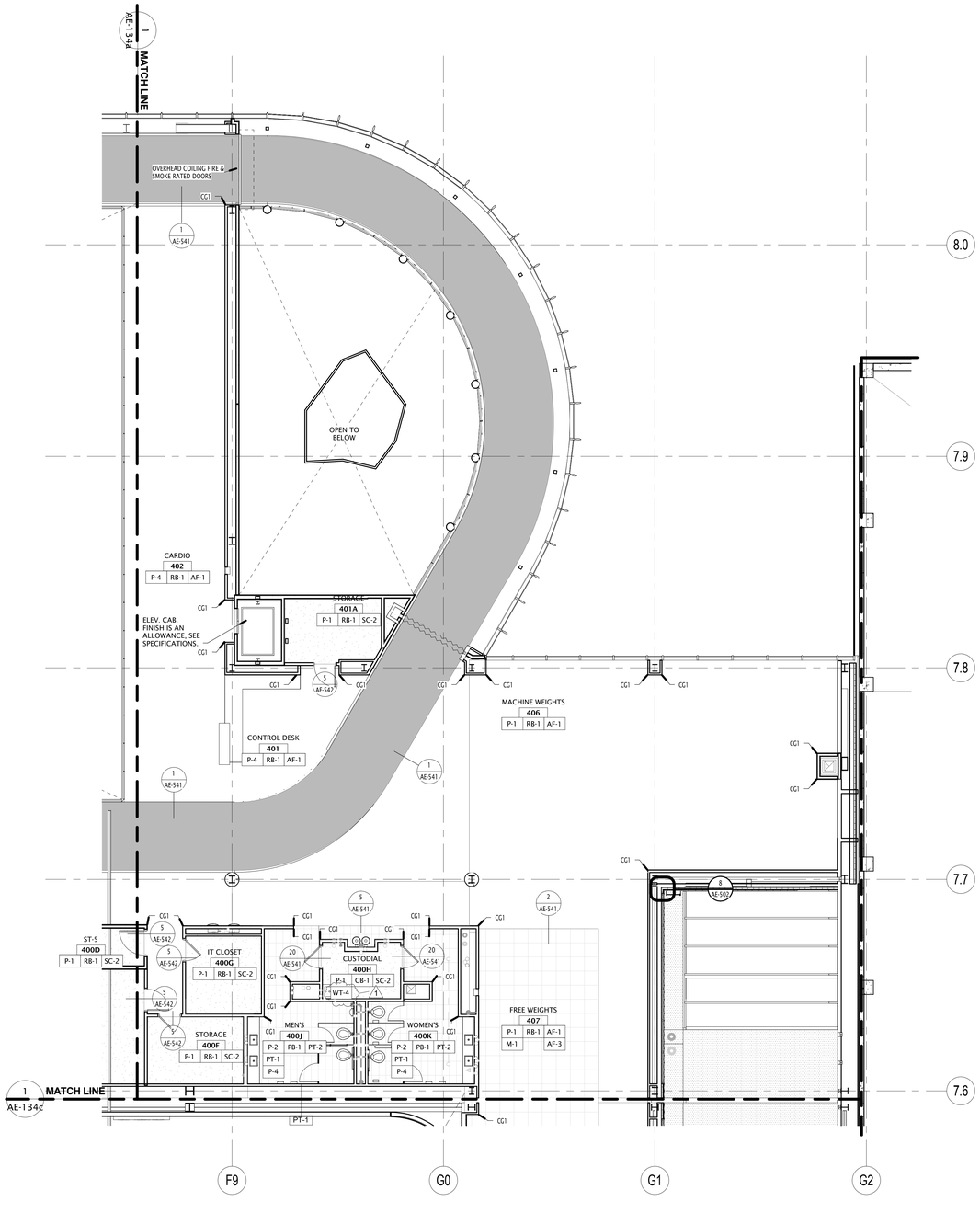
www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

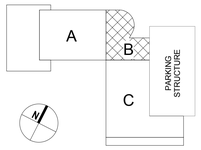
1	05.14.2012	Addendum-04



1 AE-134b FINISH PLAN - LEVEL 4 ZONE B

1/8" = 1'-0"

8' 4' 0' 8' 16'



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH PLAN - LEVEL 4 - ZONE B

CONSTRUCTION DOCUMENTS

AE-134b

WINDOW TREATMENT SCHEDULE (ALTERNATE #3)

TAG	ROOM NUMBER	ROOM NAME	OPENING COUNT	FURNISHED BY	INSTALLED BY	SERVICES	NOTES
ROLLER SHADE - MANUAL							
WT-1a			2	GC	GC	NONE	
WT-1a			5	GC	GC	NONE	FREE WEIGHTS RM 407
WT-1a			2	GC	GC	NONE	MAC GYM RM 306
WT-1a			1	GC	GC	NONE	MACHINE WEIGHTS RM 303
WT-1a	112E	PRAYER	1	GC	GC	NONE	
WT-1a	116A	A DEAN	1	GC	GC	NONE	
WT-1a	116B	FIN COORD	1	GC	GC	NONE	
WT-1a	116C	SA DIRECT	2	GC	GC	NONE	
WT-1a	116D	IND B COORD	1	GC	GC	NONE	
WT-1a	116F	ACA SEN COOR	1	GC	GC	NONE	
WT-1a	116G	WK RM	1	GC	GC	NONE	
WT-1a	116H	INTERN/SHARED	1	GC	GC	NONE	
WT-1a	122A	SHARED (SA/CR) CONF	2	GC	GC	NONE	
WT-1a	122B	C&O WRK RM	1	GC	GC	NONE	
WT-1a	122E	C&O CONF	1	GC	GC	NONE	
WT-1a	122F	C&O AMB	2	GC	GC	NONE	
WT-1a	122G	C&O VP	1	GC	GC	NONE	
WT-1a	122H	C&O COORD	1	GC	GC	NONE	
WT-1a	122J	SHARED LOUNGE	1	GC	GC	NONE	
WT-1a	122K	EXEC VP	1	GC	GC	NONE	
WT-1a	122M	A VP	2	GC	GC	NONE	
WT-1a	122P	SENATE VP	1	GC	GC	NONE	
WT-1a	122Q	SB PRES	1	GC	GC	NONE	
WT-1a	201B	JUDCL AF	1	GC	GC	NONE	
WT-1a	201C	A DEAN	1	GC	GC	NONE	
WT-1a	201D	DEAN	3	GC	GC	NONE	
WT-1a	211H	CR WS	1	GC	GC	NONE	
WT-1a	211M	W OFFICE	1	GC	GC	NONE	
WT-1a	222D	COLLAB	1	GC	GC	NONE	
WT-1a	223A	FIT COOR	1	GC	GC	NONE	
WT-1a	223B	FUTURE OFF	1	GC	GC	NONE	
WT-1a	223C	AS DIR	1	GC	GC	NONE	
WT-1a	223H	DIR CR	1	GC	GC	NONE	
WT-1a	223J	IM COORD	2	GC	GC	NONE	
WT-1a	223K	IM COORD	1	GC	GC	NONE	
WT-1a	223M	COLLAB	1	GC	GC	NONE	
WT-1a	224E	OSI COORD	1	GC	GC	NONE	
WT-1a	224F	OSI DIR	1	GC	GC	NONE	
WT-1a	224G	AD DIRECT	1	GC	GC	NONE	
WT-1a	224H	COLLAB	1	GC	GC	NONE	
WT-1a	224J	NEWS RM	2	GC	GC	NONE	
WT-1a	224K	ADV OFF	1	GC	GC	NONE	
WT-1a	224M	A COORD	1	GC	GC	NONE	
WT-1a	224N	COORD	1	GC	GC	NONE	
WT-1a	224P	SM EDITOR	1	GC	GC	NONE	
WT-1a	224Q	LAYOUT	1	GC	GC	NONE	
WT-1a	225	SM CONFERENCE	1	GC	GC	NONE	
WT-1a	301	CARDIO THEATER	2	GC	GC	NONE	
WT-1a	306	MAC GYM	1	GC	GC	NONE	
WT-1a	311	MP ROOM - DANCE 1	1	GC	GC	NONE	
WT-1a	312	MP ROOM - DANCE 2	3	GC	GC	NONE	
WT-1a	404	STRETCH	1	GC	GC	NONE	
WT-1a	406	MACHINE WEIGHTS	2	GC	GC	NONE	
Grand total			71				

NOTE: THE COUNTS ON THE WINDOW TREATMENT SCHEDULES ARE FOR THE NUMBER OF OPENINGS THAT NEEDS WINDOW TREATMENT. IT IS THE CONTRATORS RESPONSIBILITY TO DETERMINE LENGTH AND NUMBER OF WINDOW TREATMENT SEGMENTS REQUIRED TO COVER THE OPENING. THIS SCHEDULE IS PROVIDED TO ASSIST WITH WINDOW TREATMENT LOCATIONS AND MAY NOT CONTAIN ALL WINDOW TREATMENTS REQUIRED ON THE PROJECT. REFLECTED CEILING PLANS AND ELEVATIONS MAY SHOW ADDITIONAL LOCATIONS.

ACCESS PANEL SCHEDULE, IN CEILING (COORDINATE WITH MECHANICAL DRAWINGS)

TAG	ROOM NUMBER	ROOM NAME	COUNT	FURNISHED BY	INSTALLED BY	SERVICES	NOTES
ACCESS PANEL							
AP-1			5	GC	GC	NONE	
AP-1	110AA	ENTRY LOBBY LOUNGE	1	GC	GC	NONE	
AP-1	112	VESTIBULE	1	GC	GC	NONE	
AP-1	112A	OPEN SPACE	1	GC	GC	NONE	
AP-1	121	SHARED LOUNGE	1	GC	GC	NONE	
AP-1	407	FREE WEIGHTS	1	GC	GC	NONE	
Grand total			10				

NOTE: THE COUNTS ON THE ACCESS PANEL SCHEDULES ARE FOR THE NUMBER OF ACCESS PANELS IN CEILINGS. IT IS THE CONTRATORS RESPONSIBILITY TO DETERMINE SIZE OF ACCESS PANELS BASED ON EQUIPMENT THAT IS BEING ACCESSED. THIS SCHEDULE IS PROVIDED TO ASSIST WITH ACCESS PANEL LOCATIONS AND MAY NOT CONTAIN ALL ACCESS PANELS REQUIRED ON THE PROJECT. PLANS, REFLECTED CEILING PLANS AND ELEVATIONS MAY SHOW ADDITIONAL LOCATIONS.

FINISHES LEGEND

Finish Type	Code	Description	Manufacturer	Product Name/ Number	Color/ Finish	Dimensions	Coordinating Base (UNO)	Grout	Comments
WALLS									
PAINT									
PAINT	P-1	Paint	Dunn Edwards	DE6366 Silver Spoon	Satin	n/a			General Paint - Gyp. Board Walls
PAINT	P-2	Paint	Dunn Edwards	DE5551 Asparagus Fern	Satin	n/a			Accent Paint
PAINT	P-3	Paint	Dunn Edwards	DE6385 Black Bean	Satin	n/a			Accent Paint
PAINT	P-4	Paint	MDC	Liquipearl	LP1048 / 4436 (Plum color)	n/a			Provide Level 5 finish on gyp. board
PAINT	P-5	Paint	MDC	Liquipearl	LP1068 / 4436 (Dark Grey color)	n/a			Provide Level 5 finish on gyp. board
PAINT	P-6	Paint		MATCH ADJACENT WALL COLOR	Semi-gloss	n/a			Hollow metal frames, typ.
PAINT	P-7	Paint	Dunn Edwards	DE6366 Silver Spoon 2	Flat / Matte	n/a			Gyp. bd. ceilings
PAINT	P-8	Dry Erase Paint	MDC	Ideapaint	TAB 50LG Light Grey	n/a			Provide Level 5 finish on gyp. board
PAINT	P-9	Paint	Dunn Edwards	DE5594 Jolly Green	Semi-Gloss over CMU	n/a			Goal recesses in Mac Gym (match AF-2)
PAINT	P-10	Projection Screen Paint	Goo Systems Global	Screen Goo		See elevations			Provide Level 5 finish on gyp. board
PAINT	P-11	Paint		White	Intumescent Paint	n/a			Painted structure in gyms & any exposed primary structural steel
PAINT	P-12	Paint	Dunn Edwards	White	Flat/ Matte	n/a			Painted Tectum ceiling panels in gym
PAINT	P-13	Paint	Dunn Edwards	(Plumy) TBD	Satin	n/a			Accent Paint- Office areas (one wall)
PAINT	P-14	Paint	Dunn Edwards	(Soft Green) TBD	Satin	n/a			Accent Paint - Massage Room
TILE									
TILE	WT-1	Ceramic Wall Tile	Kaiser Tile	Lea Ceramic - Sweet 16	Cemento	4" x 16" x 1/4"		Laticrete #45 Raven	Atrium walls
TILE	WT-2	Ceramic Wall Tile	Kaiser Tile	Lea Ceramic - Sweet 16	Kiwi	4" x 16" x 1/4"		Laticrete #45 Raven	Atrium walls
TILE	WT-3	Ceramic Wall Tile	Kaiser Tile	Lea Ceramic - Progetto Spy Deco	Cemento	4" x 16" x 1/4"		Laticrete #45 Raven	Atrium walls
TILE	PT-1	Porcelain Wall Tile	Ceramiche Caesar	More Series	Manhattan	12" x 24"	PB-1, PB-2		Toilet room walls; Schluter St. Steel cove strip; Stacked Pattern
TILE	GT-1	Glass Tile	Hakatai	Texture Series	TS 969 Kiwi	1" x 1"	GT-1		Shower pod walls; Drinking fountain surround
TILE	PT-5	PorcelainTile CEILING	Ceramiche Caesar	More	Manhattan	5" X 24"			Shower CEILINGS; Running Bond Pattern
TILE	WT-4	Ceramic Wall Tile	Daltile	Semi-gloss wall tile	0190 Arctic White	4" x 4"	CB-1		Janitor rooms- wainscot at mop sinks
MIRROR									
MIRROR	M-1	Plate glass mirrors				See elevations			Dance Studios, Free Weight areas
ACOUSTIC WALL PANELS									
ACOUSTIC WALL PANELS	AWP-1	Painted acoustic wall panels	Tectum	MDC Liquipearl	LP1068 / 4436 (Dark Grey color)	1" x 4' x			Concourse
ACOUSTIC WALL PANELS	AWP-2	High-Impact acoustic wall panels	Tectum	MDC Liquipearl	LP1068 / 4436 OR AS NOTED ON ELEVATIONS	1" or 2" x 4' x			See Finish Plans & Interior Elevations for extents
CMU									
CMU	CMU-1	CMU	Lehi Block	Ground-face block	TBD 2				Mac Gym, 3-Court Gym
FLOOR									
CARPET									
CARPET	C-1	Carpet Tile	Shaw	Vertical Edge 59114	Brite Green Fringe 67586	18" x 36"			General Carpet - See WTFI Plans
CARPET	C-2	Carpet Tile	Shaw	Vertical Edge 59114	Shimmer Fringe 67585	18" x 36"			General Carpet - See WTFI Plans
CARPET	C-3	Carpet Tile	Shaw	Vertical Edge 59114	Pewter Limit 67515	18" x 36"			General Carpet - See WTFI Plans
CARPET	C-4	Carpet Tile	Shaw	Colour Plank 59595	Brite Green 95325	18" x 36"			Accent Carpet - See WTFI Plans
CARPET	C-5	Carpet Tile	Shaw	Minimal 59164	Fringe 64585	18" x 36"			General Carpet - See WTFI Plans
CARPET	C-6	Carpet Tile	Shaw	Minimal 59164	Limit 64515	18" x 36"			General Carpet - See WTFI Plans
ENTRY MAT									
ENTRY MAT	EM-1	Entry Mat Carpet Tile	Shaw	Welcome Tile EW24 59410	101119 Charcoal	24" x 24"	RB-1		Vestibules
TILE									
TILE	PT-2	Porcelain Floor Tile	Ceramiche Caesar	More Scratched	Eclypse	12" x 24"	PB-1		Toilet Room & Locker Room floors; Running Bond Pattern
TILE	PT-3	Porcelain Floor Tile	Ceramiche Caesar	More	Eclypse	12" x 24"	PB-2		Shared Lounge/ Food Venue/ Demo Kitchen; Running Bond Pattern
TILE	PT-4	Porcelain Floor Tile	Ceramiche Caesar	More Scratched	Eclypse	5" X 24"	GT-1		Shower floors; Running Bond Pattern
ATHLETIC FLOORING									
ATHLETIC FLOORING	AF-1	Rubber Athletic Flooring	Robbins	Pulastic 2000 9+2	506 Dusty Grey or 504 Stone Grey		RB-1		General Rec Center: Provide Kinetics 2" Rim System
ATHLETIC FLOORING	AF-2	Rubber Athletic Flooring	Robbins	Pulastic TB-2000 9+2	417 May Green		RB-1		Running track
ATHLETIC FLOORING	AF-3	Rubber Athletic Flooring	Infinity Performance, Inc.	Infinity Max			RB-1		Weight Areas: Provide Kinetics 2" Rim System
ATHLETIC FLOORING	AF-4	Rubber Athletic Flooring	Surface America	Playbound			RB-1		Climbing Wall: Provided by climbing wall vendor
WOOD FLOOR									
WOOD FLOOR	WF-1	Resilient Wood Floor	Action Floor Systems	ActionThrust I	2nd Grade & Better Maple	2 1/4" x 25/32"	RB-3		Exercise Studios: Provide Kinetics 2" Rim System
WOOD FLOOR	WF-2	Resilient Wood Floor	Action Floor Systems	Concorde II	2nd Grade & Better Maple	2 1/4" x 25/32"	RB-3		3-Court Gymnasium
SEALED CONCRETE									
SEALED CONCRETE	SC-1	Exposed Architectural Concrete					RB-1		
SEALED CONCRETE	SC-2	Sealed Concrete					RB-1		
BASE									
RUBBER BASE & ACCESSORIES									
RUBBER BASE & ACCESSORIES	RB-1	Rubber Base	Roppe	Vulcanized Rubber	197 Iceberg	4" H. Coved			Typical Rubber Base
RUBBER BASE & ACCESSORIES	RT-1		Roppe	Vulcanized Rubber					Typical Transition Strips
RUBBER BASE & ACCESSORIES	RB-2	Rubber Base	Roppe	Vulcanized Rubber	193 Black Brown	4" H. Coved			Typical Rubber Base - P-3 walls
RUBBER BASE & ACCESSORIES	RT-2		Roppe	Vulcanized Rubber					Typical Transition Strips
RUBBER BASE & ACCESSORIES	RB-3	Rubber Base		Vent Cove Wall Base		4"h x 3"w			Vented rubber base at resilient wood floors
TILE BASE									
TILE BASE	PB-1	Porcelain Tile Base	Ceramiche Caesar	More	Manhattan	6" x 12"-Cut to size	Schluter Cove Strip		Toilet Room & Locker Room Base
TILE BASE	PB-2	Porcelain Tile Base	Ceramiche Caesar	More	Eclypse	4" X 12"-Cut to size	Schluter Cove Strip		Shared Lounge/ Food Venue/ Demo Kitchen
TILE BASE	CB-1	Ceramic Tile Base	Daltile	Semi-gloss Glazed Tile Base	0190 Arctic White	4" x 4" Coved			Janitor Closets
WOOD BASE									
WOOD BASE	WB-1	Wood Base		White Oak	Rift Cut/ Natural Finish	4" high			
MILLWORK									
CABINETS									
CABINETS	PL-1	Plastic Laminate	Formica	ColorCore 2 (Polished Finish)	7223C-90 New White	n/a			Check-in desks, Reception Desks
CABINETS	PL-2	Plastic Laminate	Formica	ColorCore 2 (Velour Finish)	927C-FV Folkstone	n/a			Check-in desks, Reception Desks
CABINETS	PL-3	Plastic Laminate	Pionite		SG211 Ingot Gray	n/a			Back-of-house millwork
CABINETS	PL-5	Plastic Laminate	Formica DecoMetal Collection		2178 Brushed Stainless Steel	n/a			Base at Check-In, Reception, Millwork desks
WALL PANELS / MILLWORK									
WALL PANELS / MILLWORK	PL-4	Plastic Laminate	Formica		6901-MC Vibrant Green Microdot	n/a			Mac Gym Accent Wall
WALL PANELS / MILLWORK	WD-1	Wood panels		White Oak	Rift Cut/ Natural Finish				Wood panels at railing sytem
WALL PANELS / MILLWORK	WD-2	Wood slat walls & ceiling elements		White Oak	Rift Cut/ Natural Finish				Check-in desk feature wall & ceiling element; Concourse
WALL PANELS / MILLWORK	WD-3	Composite wood benches	Trex	Enhance	Clam Shell	1" x 5.5"			Benches @ Locker Room; cut to 1" x 2.25"
WALL PANELS / MILLWORK	GL-1	Back-painted glass	TBD						Backsplash in Reflection Center
COUNTERTOPS									
COUNTERTOPS	SS1	Quartz	Caesarstone		#6600 Nougat	n/a			Countertops, general
COUNTERTOPS	SS2	Quartz	Caesarstone		#1141 Pure White	n/a			Transaction tops at reception desks
COUNTERTOPS	ST-1	Cast Stone Vanity/ Ramp Sink	Sonoma Cast Stone	Ramp Sink RMP-5415-B 2	N604 Porcelain	see plan			Locker rooms; to be specified by plumbing consultant
MILLWORK									
UPHOLSTERED BENCHES									
UPHOLSTERED BENCHES	F-1	UPHOLSTERED BENCHES	Maharam	Chime 465350	008 Lawn	54" w.			Benches in Student Council, Control Desk, Climbing

NOTES:
1. ANY SPACE WITHOUT A FINISH TAG WILL HAVE THE FOLLOWING FINISHES; P-1, RB-1, C-1.
2. ALL EXPOSED (VISIBLE) STEEL TO BE PAINTED, SEE SPECIFICATIONS FOR PAINTING REQUIREMENTS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

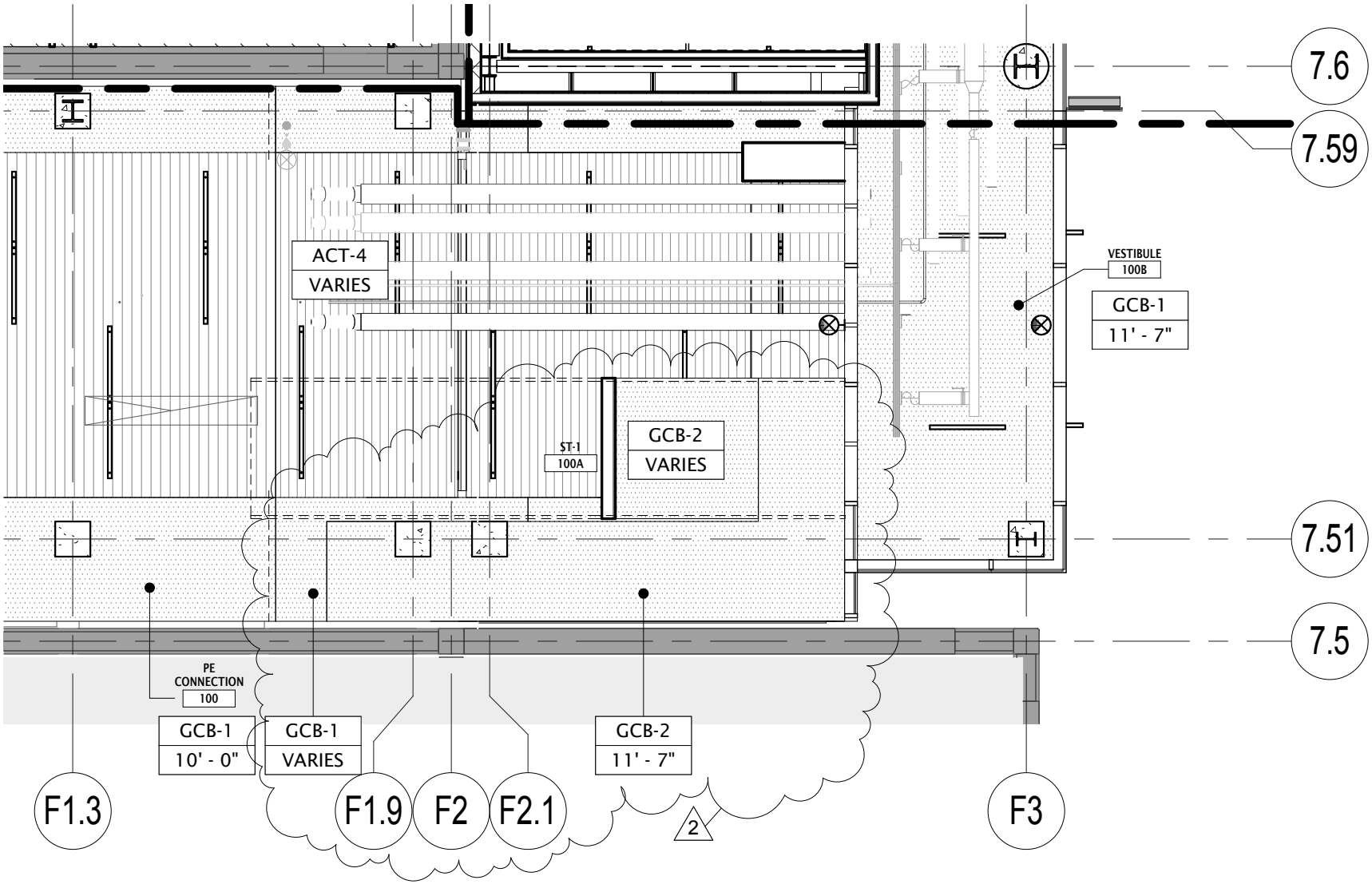
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FINISH LEGEND, ACCESS PANEL SCHEDULE, WINDOW TREATMENT SCHEDULE

CONSTRUCTION DOCUMENTS

AE-135



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

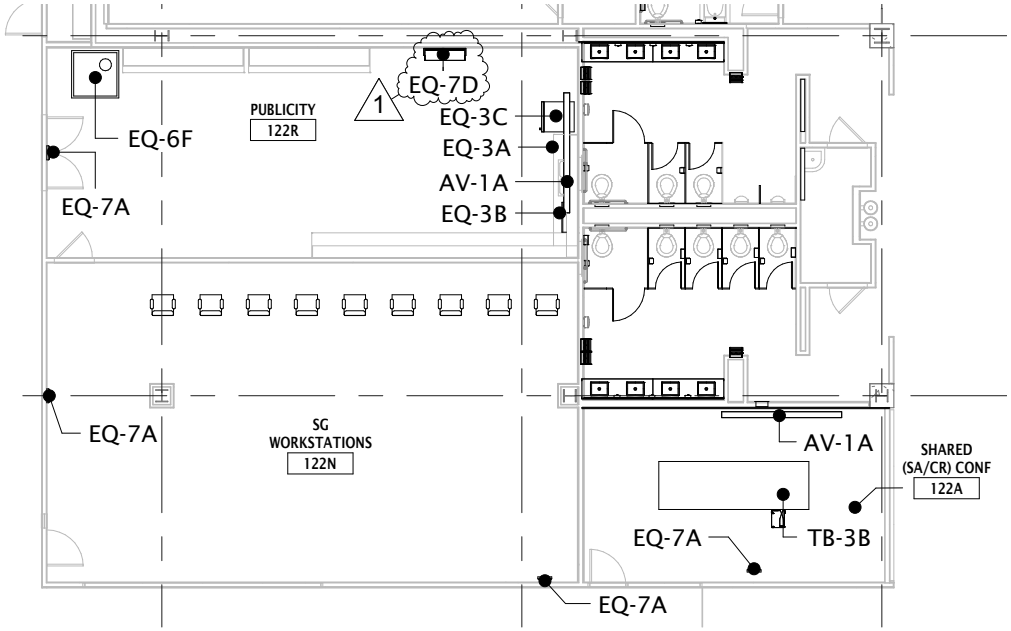
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-141a-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: XX

AE-151-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12

52

MISC EQUIPMENT - BOTTLE FILLING STATION

EQ-6A	400	CIRCULATION	4	GC	GC	POWER, WATER, DRAIN		

1

4

MISC EQUIPMENT - DIGITAL TIMER

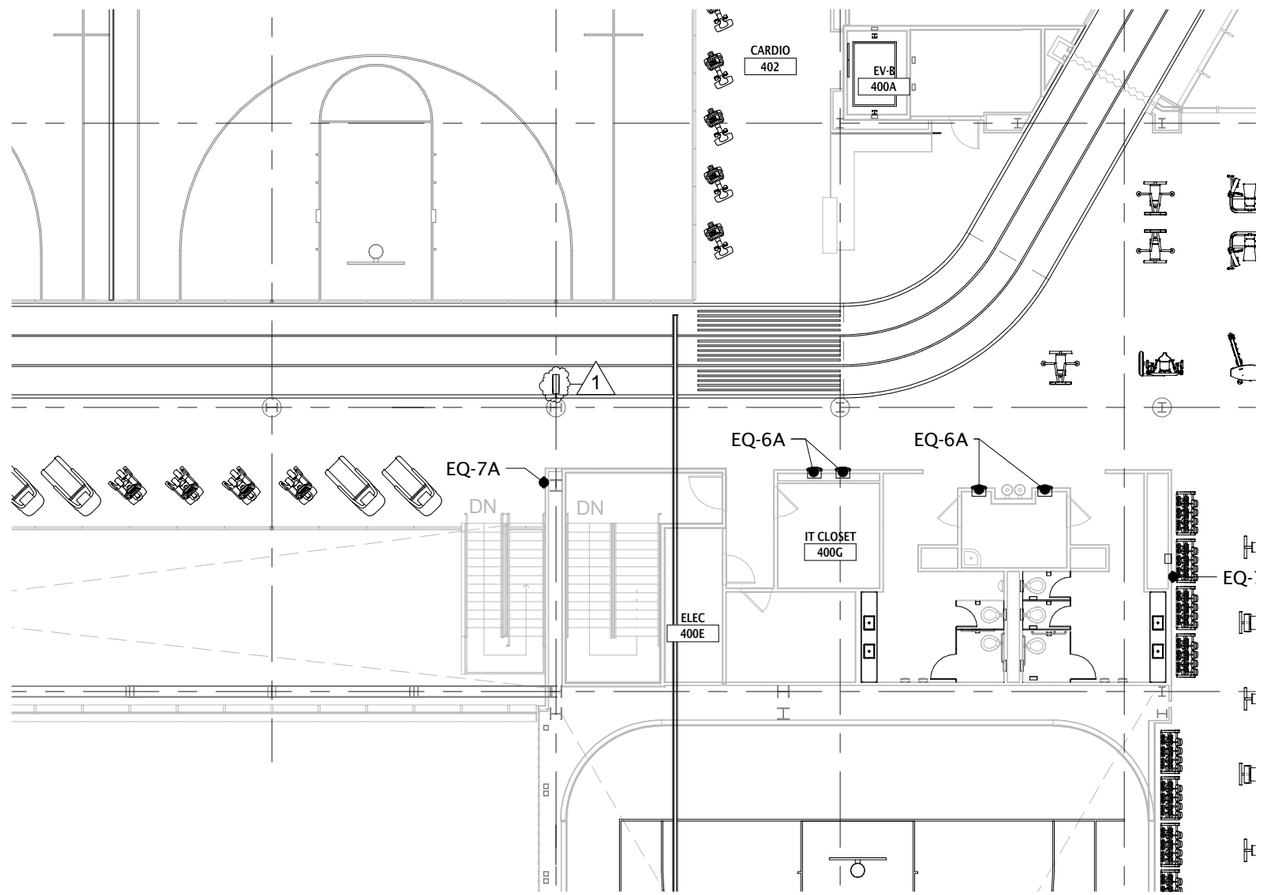
EQ-6J	403	TRACK	1	GC	GC	POWER		DISPLAY ON BOTH SIDES

1

MISC EQUIPMENT - FIRE EXTINGUISHER AND CABINET, RECESSED

EQ-6B	402	CARDIO	1	GC	GC	NONE		
EQ-6B	403	TRACK	1	GC	GC	NONE		
EQ-6B	407	FREE WEIGHTS	2	GC	GC	NONE		

4



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

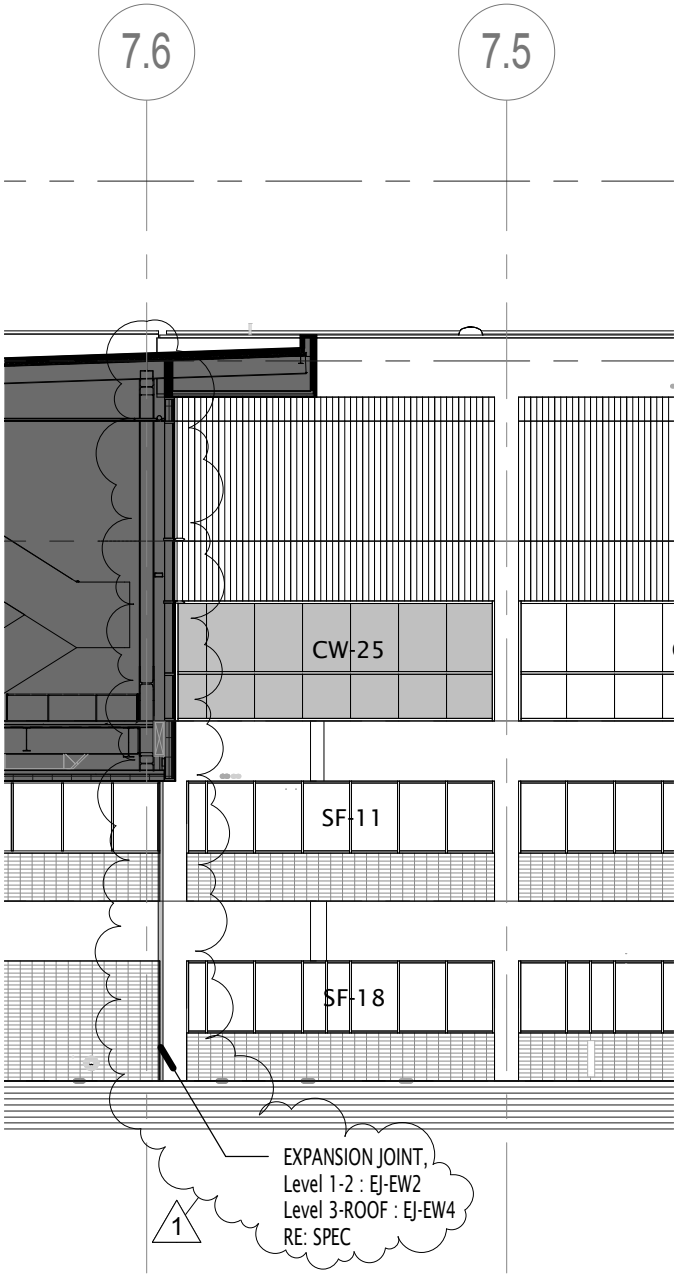
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-154-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

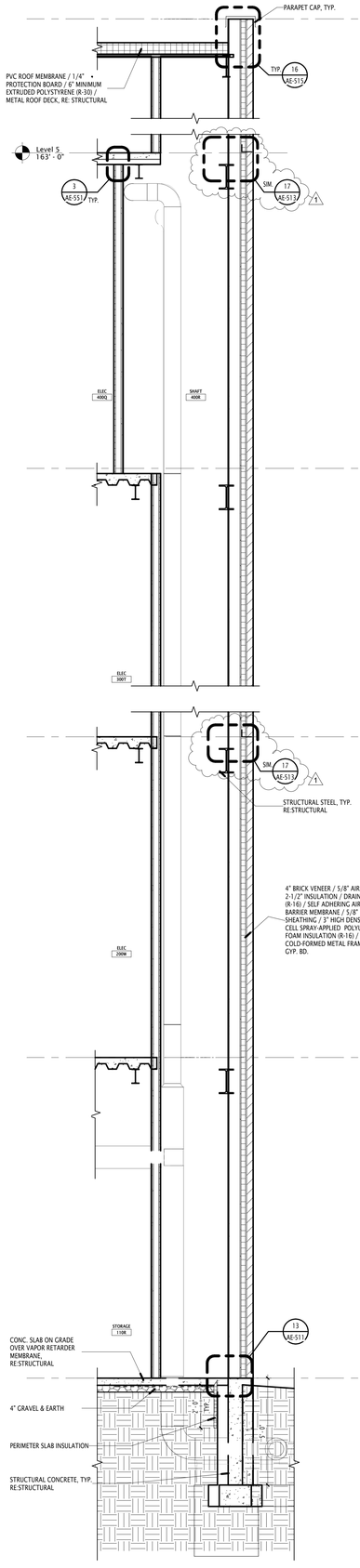
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

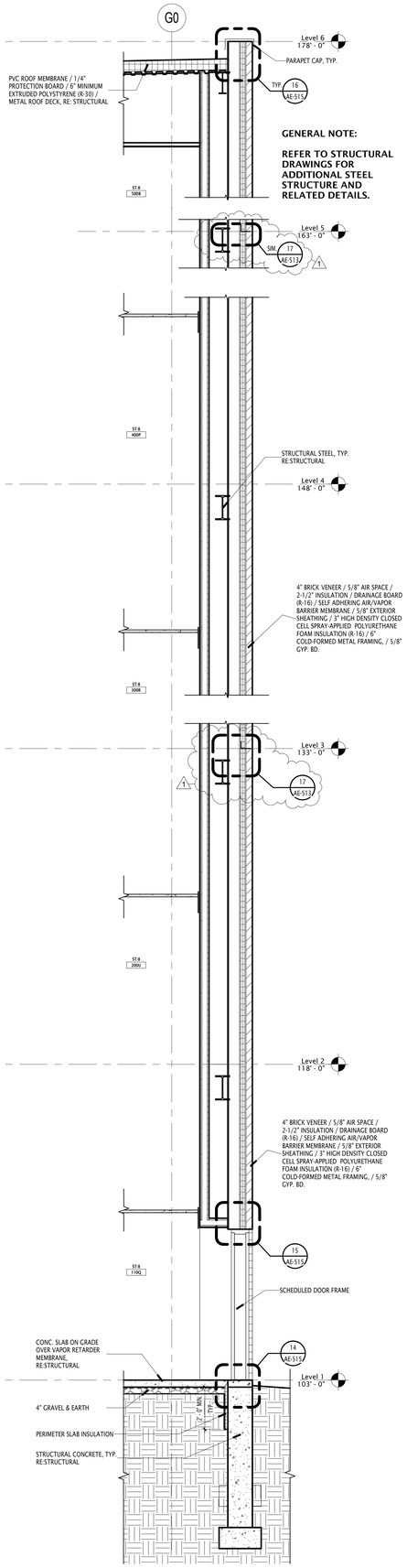
REV.: Addendum-04
BY: JL

AE-202-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



2 AE-342 WALL SECTION - ZONE C_S2
3/8" = 1'-0"



1 AE-342 WALL SECTION - ZONE C_W2
3/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

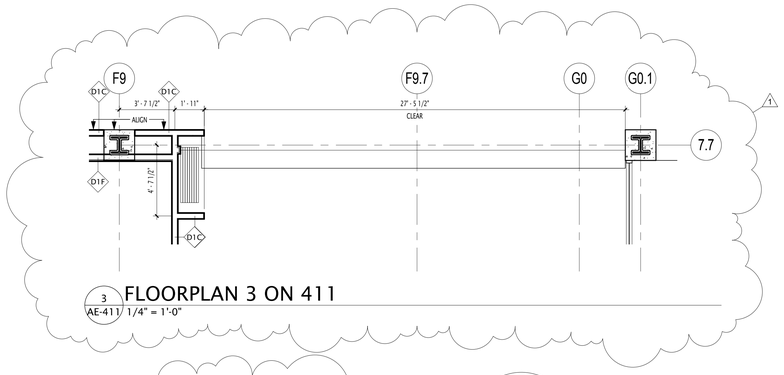
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JL
CHECKED BY:	TY
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

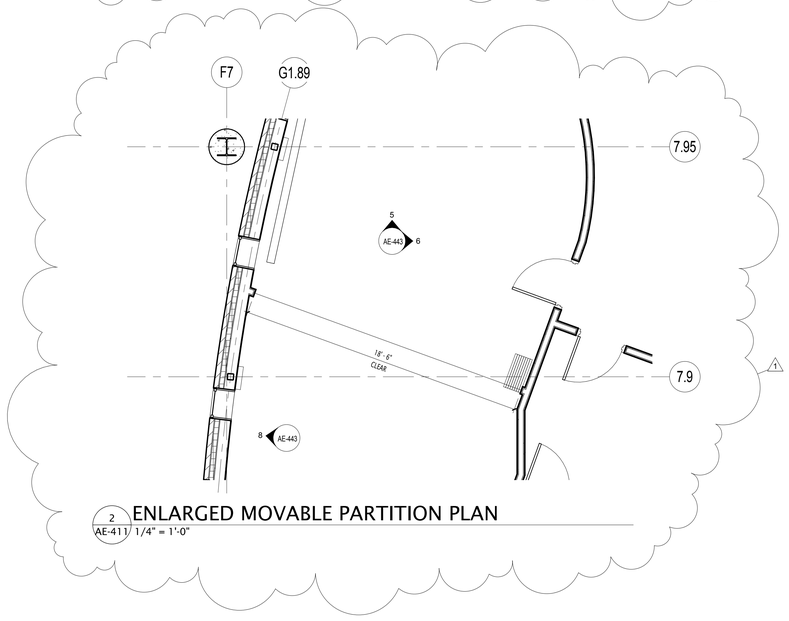
WALL SECTIONS -FIRE SEPARATION WALLS

CONSTRUCTION DOCUMENTS

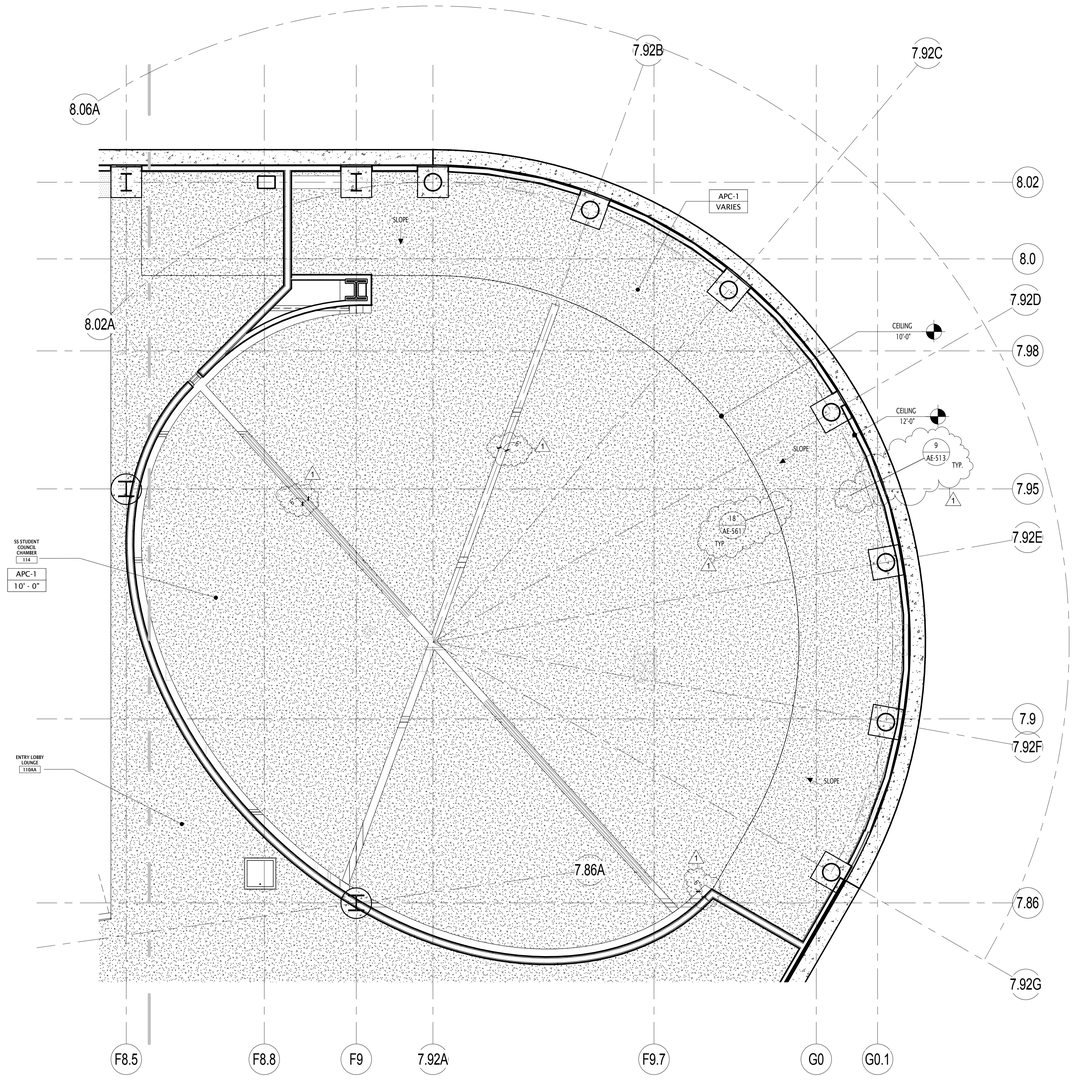
AE-342



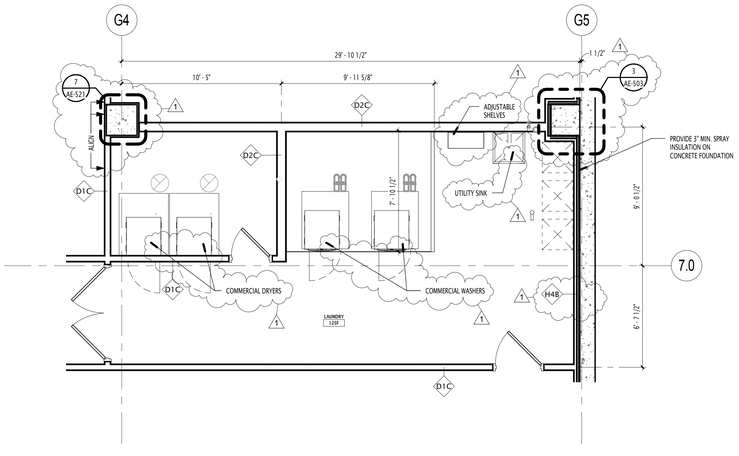
3 AE-411 FLOORPLAN 3 ON 411
1/4" = 1'-0"



2 AE-411 ENLARGED MOVABLE PARTITION PLAN
1/4" = 1'-0"



4 AE-411 ENLARGED SS STUDENT COUNCIL CHAMBER RCP
1/4" = 1'-0"



1 AE-411 ENLARGED LAUNDRY ROOM PLAN
1/4" = 1'-0"

GENERAL NOTE - PLANS:

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

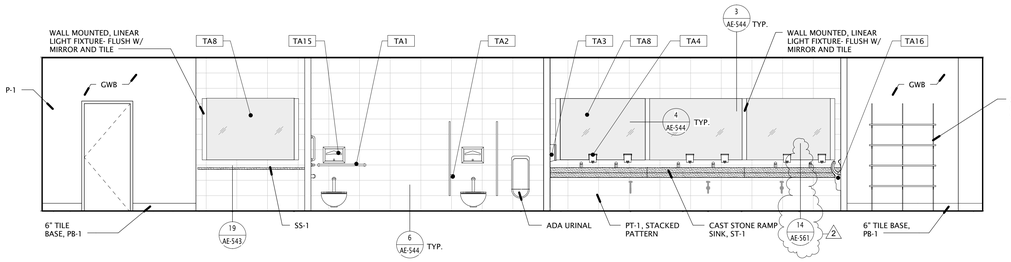
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

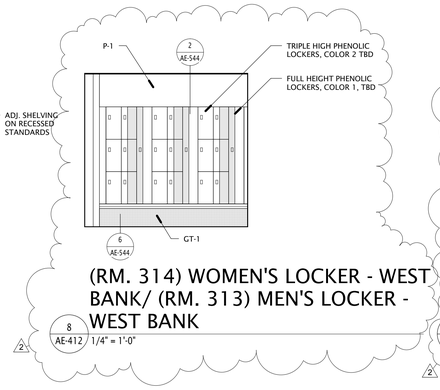
ENLARGED PLANS & RCPS

CONSTRUCTION DOCUMENTS

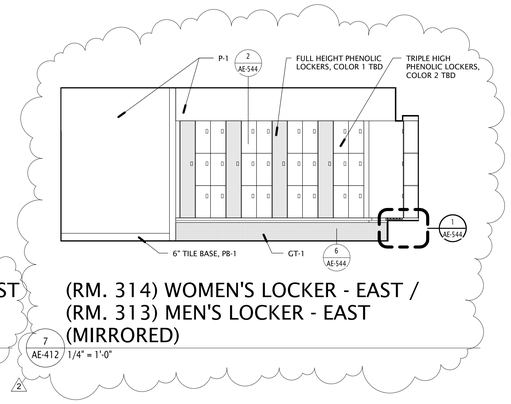
AE-411



9 AE-412 (RM. 313) MEN'S LOCKER - SOUTH
1/4" = 1'-0"



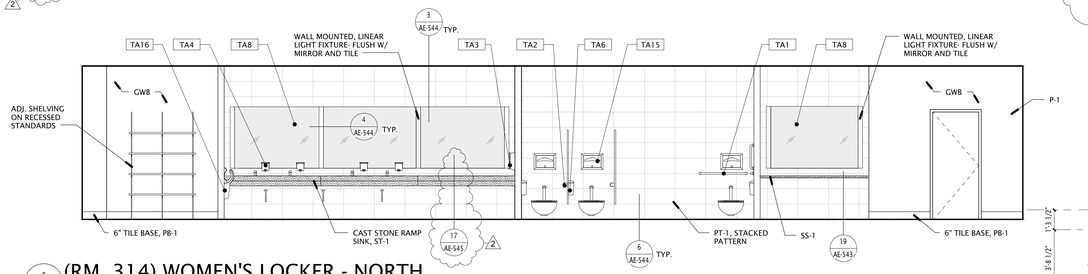
8 AE-412 (RM. 314) WOMEN'S LOCKER - WEST BANK/ (RM. 313) MEN'S LOCKER - WEST BANK
1/4" = 1'-0"



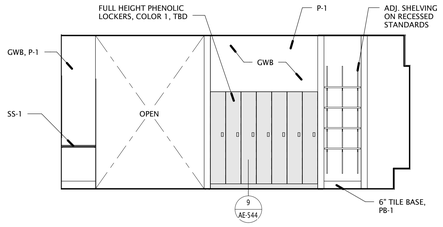
7 AE-412 (RM. 314) WOMEN'S LOCKER - EAST / (RM. 313) MEN'S LOCKER - EAST (MIRRORED)
1/4" = 1'-0"

GENERAL NOTE - PLANS:

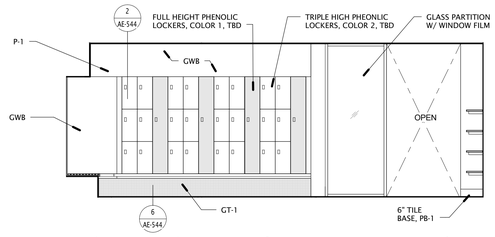
1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.



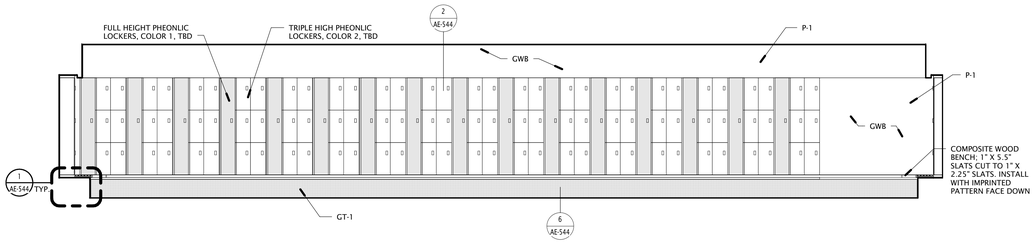
6 AE-412 (RM. 314) WOMEN'S LOCKER - NORTH
1/4" = 1'-0"



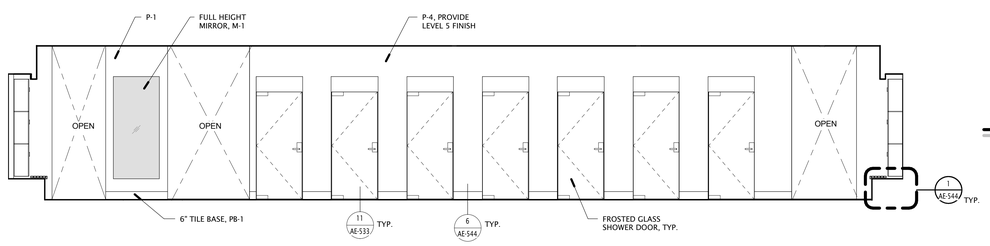
5 AE-412 (RM. 314) - WOMEN'S LOCKER - EAST BANK / (RM. 313) MEN'S LOCKER - EAST BANK, MIRRORED
1/4" = 1'-0"



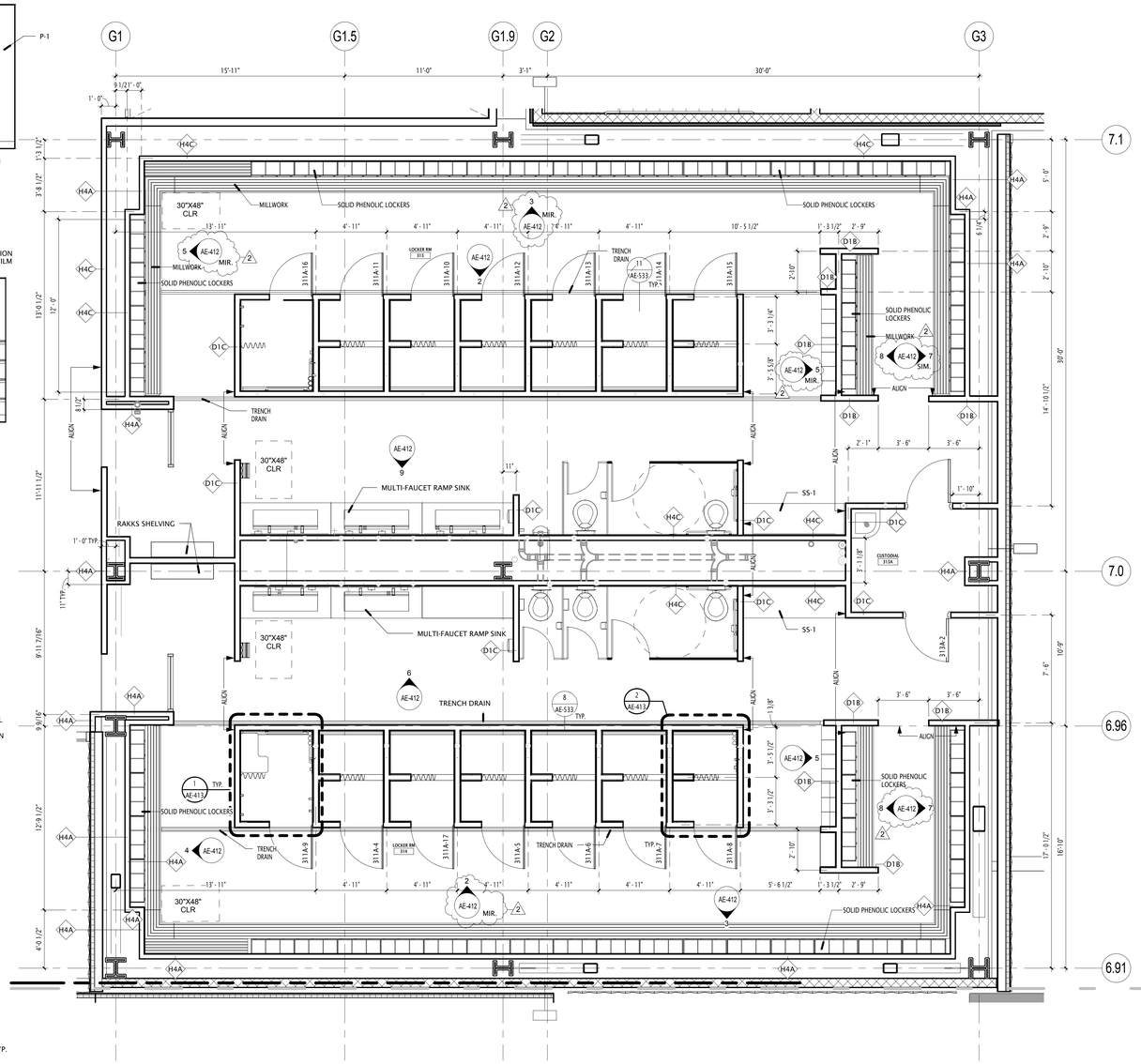
4 AE-412 (RM. 314) WOMEN'S LOCKER - WEST / (RM. 313) MEN'S LOCKER - WEST, MIRRORED
1/4" = 1'-0"



3 AE-412 (RM. 314) WOMEN'S LOCKER - SOUTH / (RM. 313) MEN'S LOCKER - NORTH, MIRRORED
1/4" = 1'-0"



2 AE-412 (RM. 313) MEN'S LOCKER - SHOWERS / (RM. 314) WOMEN'S LOCKER - SHOWERS, MIRRORED
1/4" = 1'-0"



1 AE-412 ENLARGED PLAN - LEVEL 3 MEN'S / WOMEN'S LOCKER ROOMS
1/4" = 1'-0"

4' 2' 0' 4' 8'

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

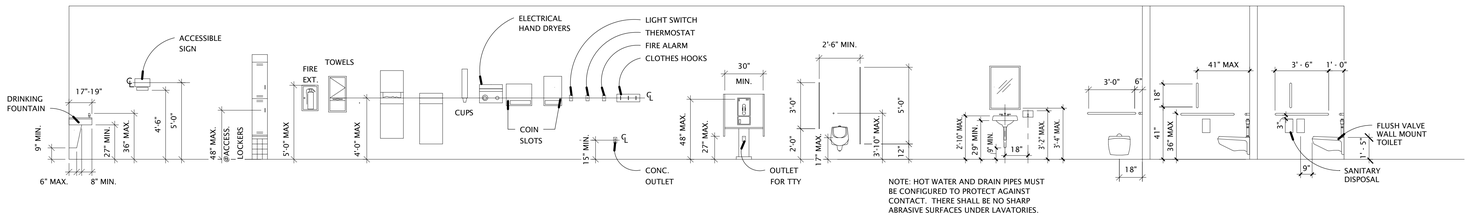
ENLARGED PLANS / ELEVATIONS - LOCKER ROOMS & SHOWERS

CONSTRUCTION DOCUMENTS

AE-412

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500



NOTE: HOT WATER AND DRAIN PIPES MUST BE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP ABRASIVE SURFACES UNDER LAVATORIES.

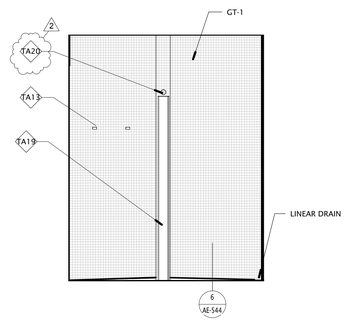
11 / AE-413 TYPICAL MOUNTING HEIGHTS
1/4" = 1'-0"

GENERAL NOTE - PLANS:

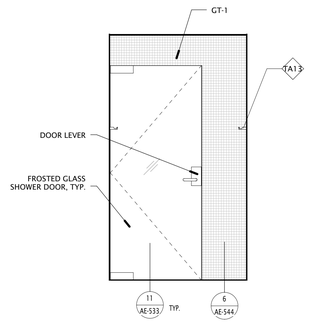
1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. ALL INTERIOR DOOR ROUGH OPENING TO BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL U.N.O.
6. ALL CURTAINWALL / STOREFRONT DIMENSIONS ARE GIVEN TO FACE OF GLAZING SYSTEM U.N.O.
7. DIMENSIONS GIVEN FOR CURVED / ANGLED INTERIOR / EXTERIOR WALLS ARE TO FACE OF MTL. STUD.
8. WALL TYPE SHOWN AT COLUMN WRAP IS TYP. FOR ALL EXPOSED SIDES U.N.O. COLUMN WRAP WALL DIMENSIONS GIVEN ARE TO FINISHED FACE OF WALL U.N.O.
9. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
10. SEE TOILET ROOM ACCESSORY KEY ON AE-415
11. WHERE STC RATED WALL INTERSECTS WRAPPED COLUMN, CONSTRUCT COLUMN WRAP TO HAVE SAME STC RATING AS ADJACENT WALLS. PROVIDE BATT INSULATION AS REQUIRED.

REVISIONS:

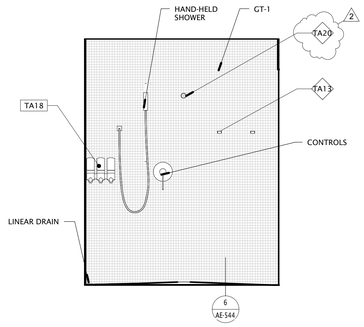
1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04



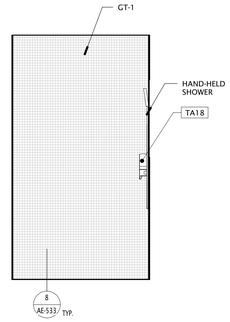
10 / AE-413 TYP. SHOWER POD - WEST
1/2" = 1'-0"



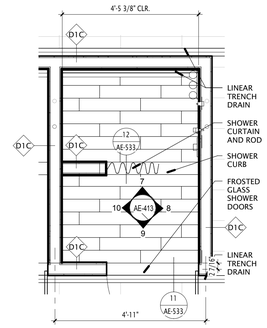
9 / AE-413 TYP. SHOWER POD - SOUTH
1/2" = 1'-0"



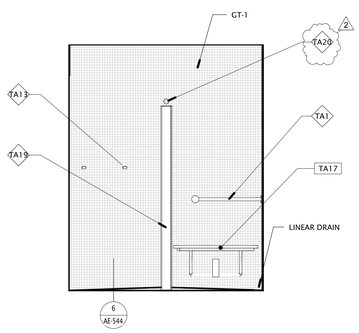
8 / AE-413 TYP. SHOWER POD - EAST
1/2" = 1'-0"



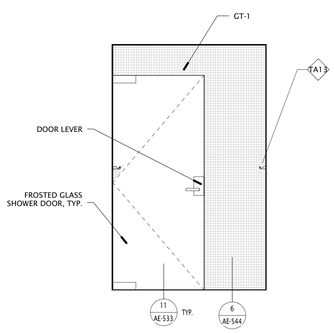
7 / AE-413 TYP. SHOWER POD - NORTH
1/2" = 1'-0"



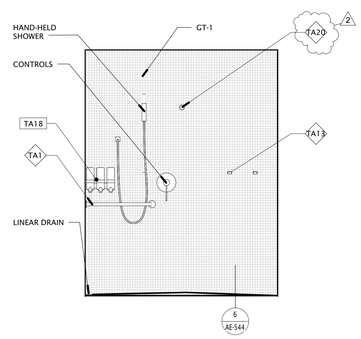
2 / AE-413 ENLARGED TYPICAL SHOWER POD
1/2" = 1'-0"



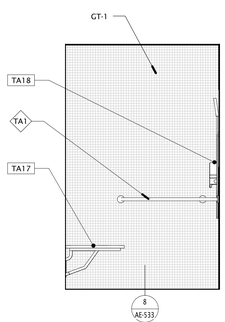
6 / AE-413 TYP. ADA SHOWER POD - WEST
1/2" = 1'-0"



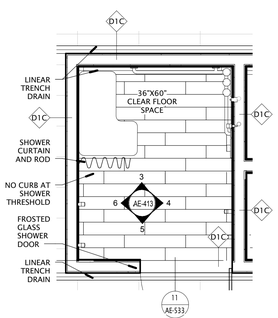
5 / AE-413 TYP. ADA SHOWER POD - SOUTH
1/2" = 1'-0"



4 / AE-413 TYP. ADA SHOWER POD - EAST
1/2" = 1'-0"



3 / AE-413 TYP. ADA SHOWER POD - NORTH
1/2" = 1'-0"



1 / AE-413 ENLARGED ADA SHOWER POD
1/2" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

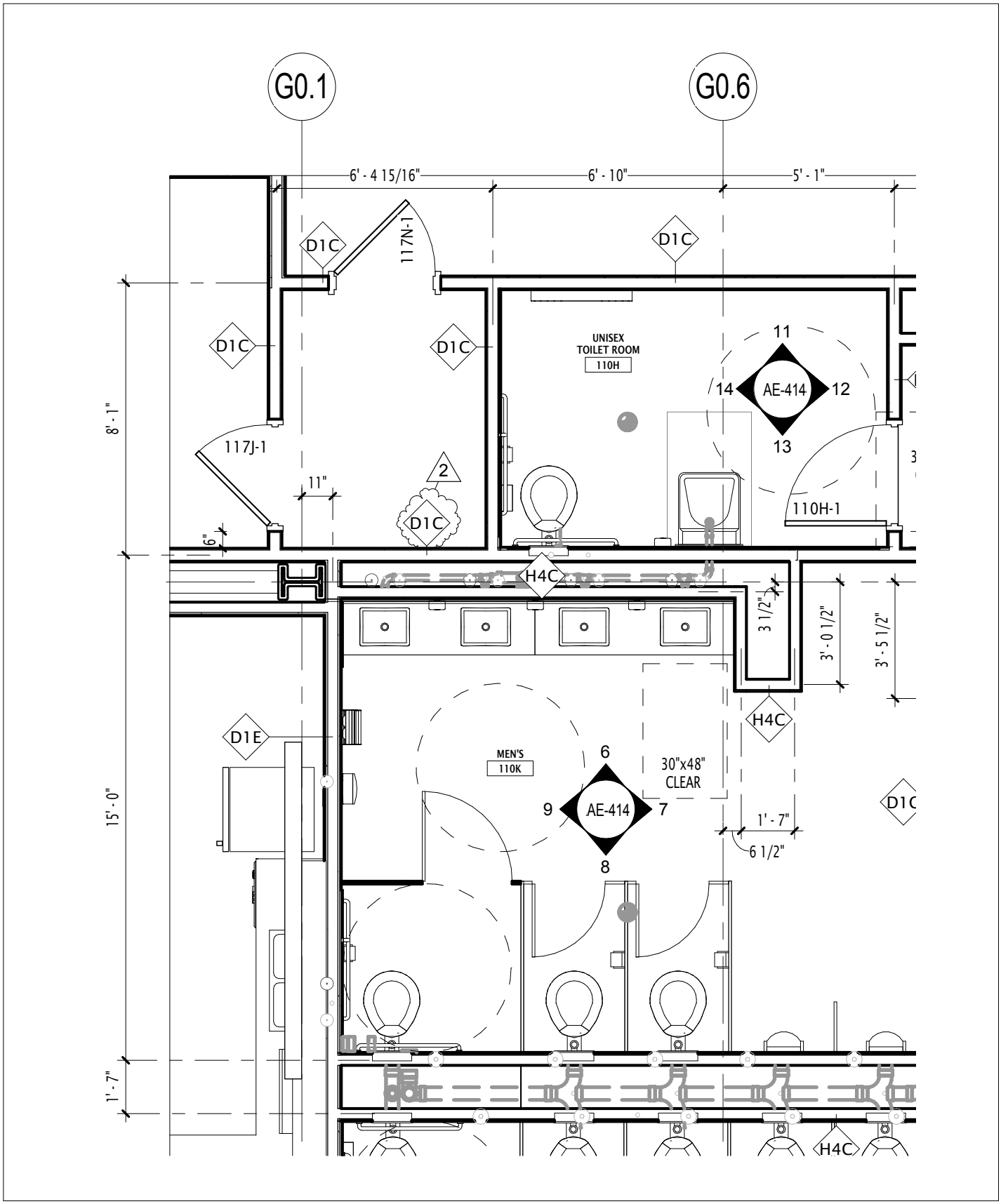
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	Author
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ENLARGED PLANS / ELEVATIONS - LOCKER ROOMS & SHOWERS

CONSTRUCTION DOCUMENTS

AE-413



C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

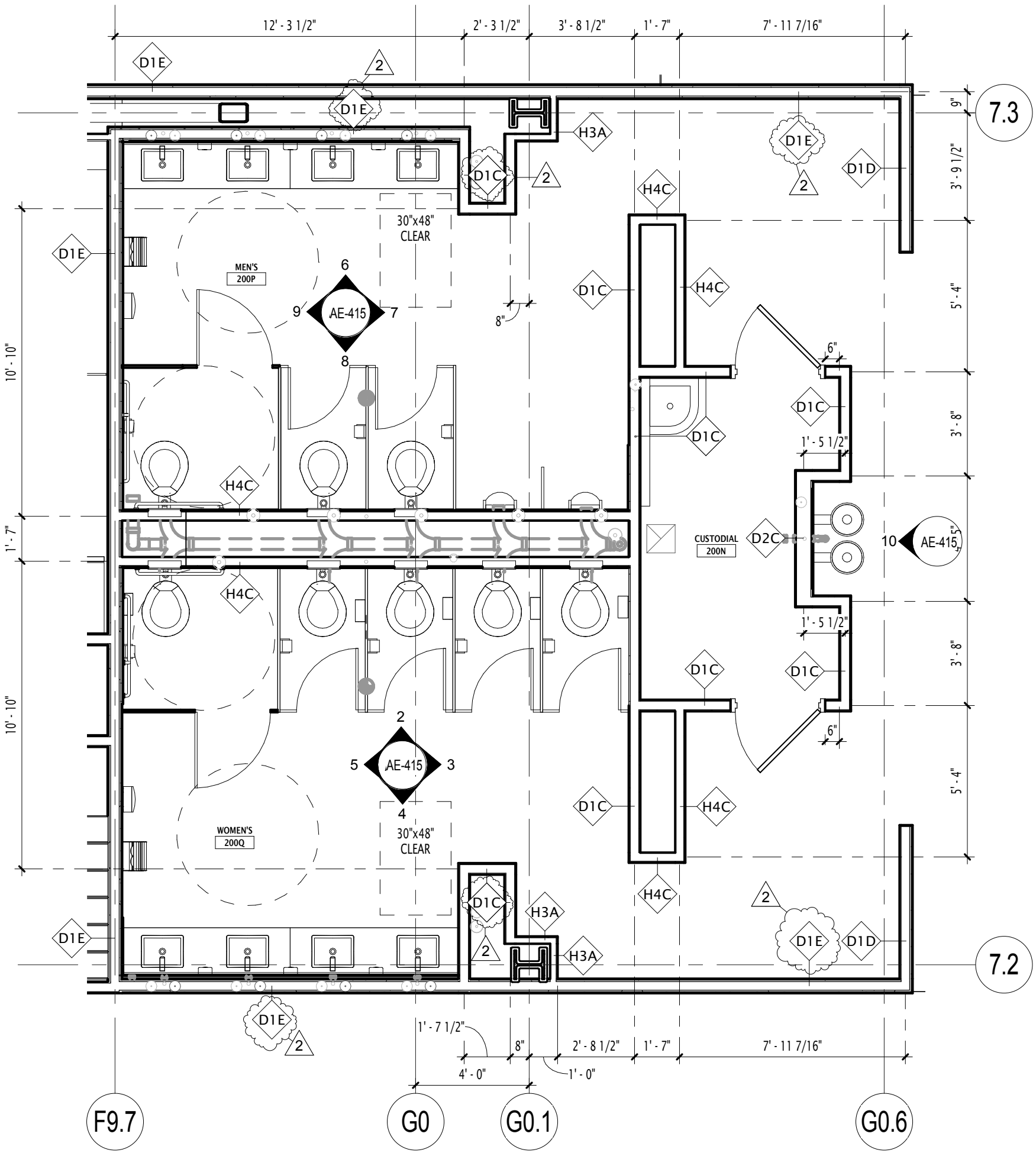
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-414-03

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



1 / AE-415 ENLARGED PLAN - LEVEL 2 MEN'S / WOMEN'S RESTROOMS

1/4" = 1'-0"

4' 2' 0' 4' 8'

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

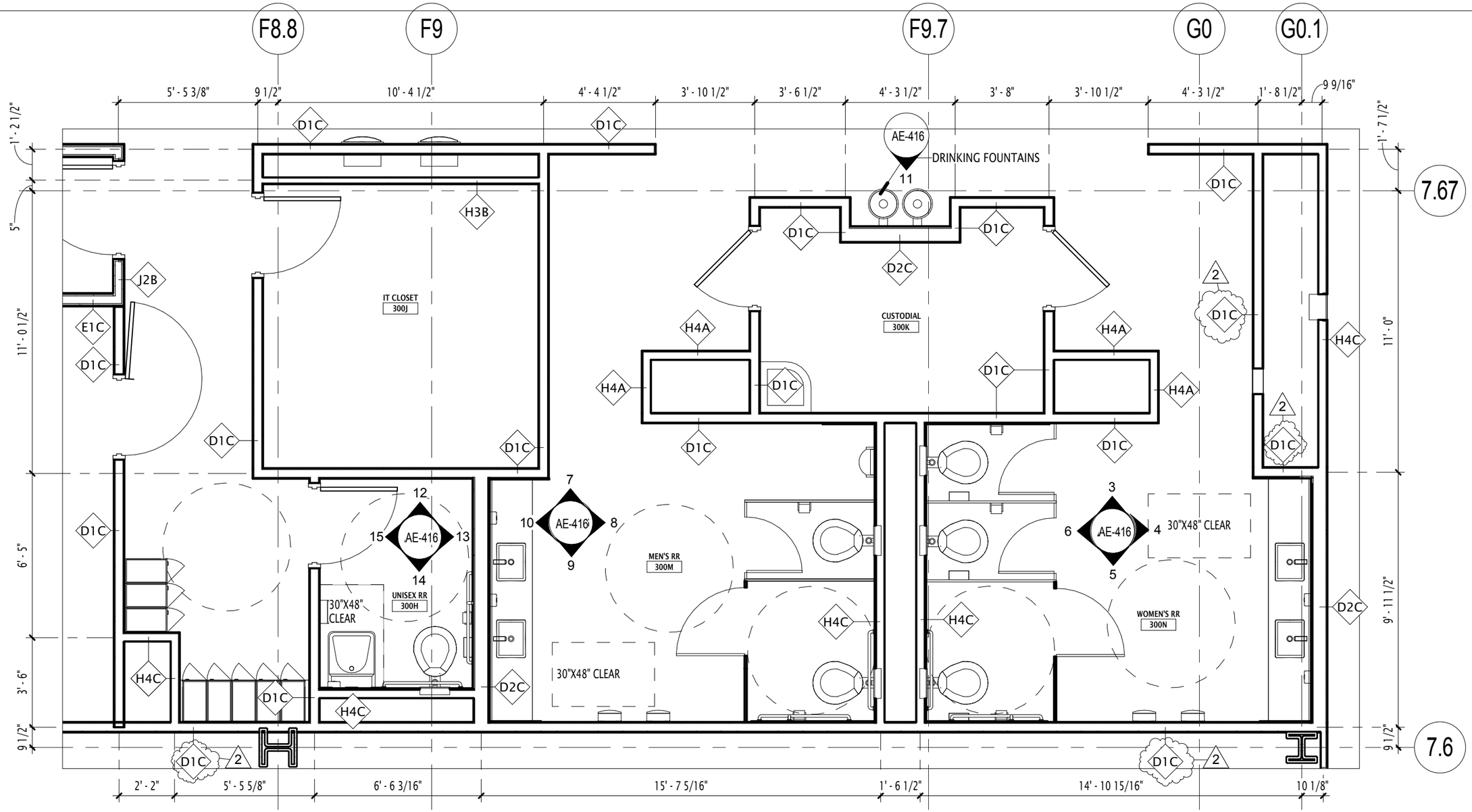
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-415-02

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



1
AE-416

ENLARGED PLAN - LEVELS 3 MEN'S / WOMEN'S RESTROOMS

1/4" = 1'-0"

4' 2' 0' 4' 8'

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-416-02

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

2

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

2

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

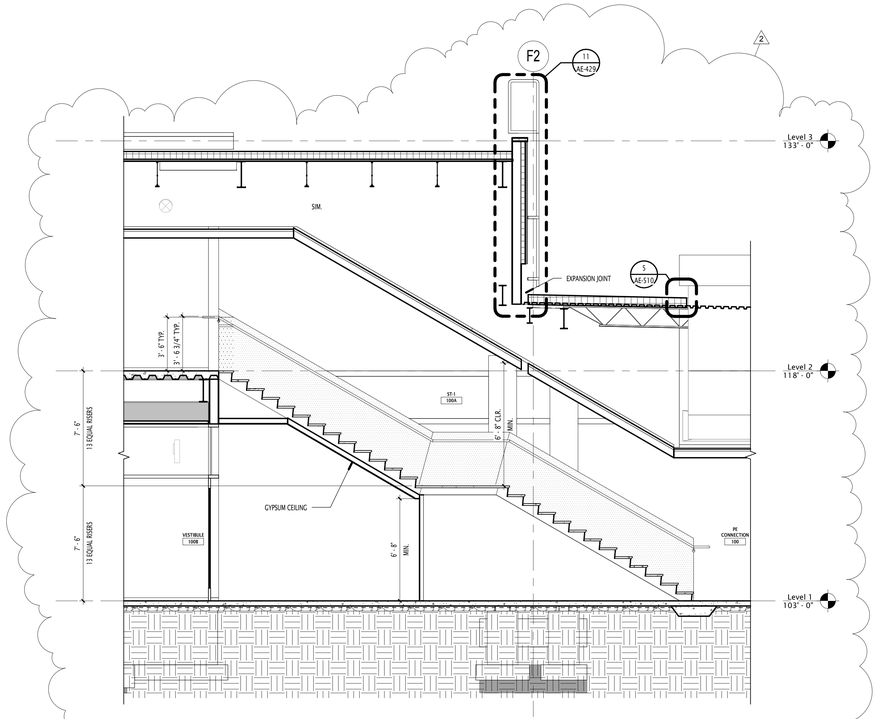
CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

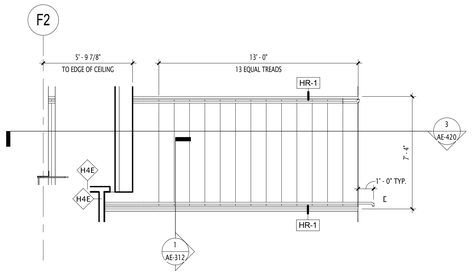
REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

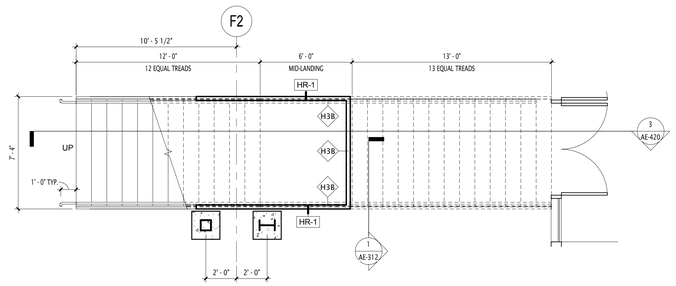
STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT



3 AE-420 SECTION @ STAIR-1
1/4" = 1'-0"



2 AE-420 STAIR-1 LEVEL 2 PLAN
1/4" = 1'-0"



1 AE-420 STAIR-1 LEVEL 1A PLAN
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

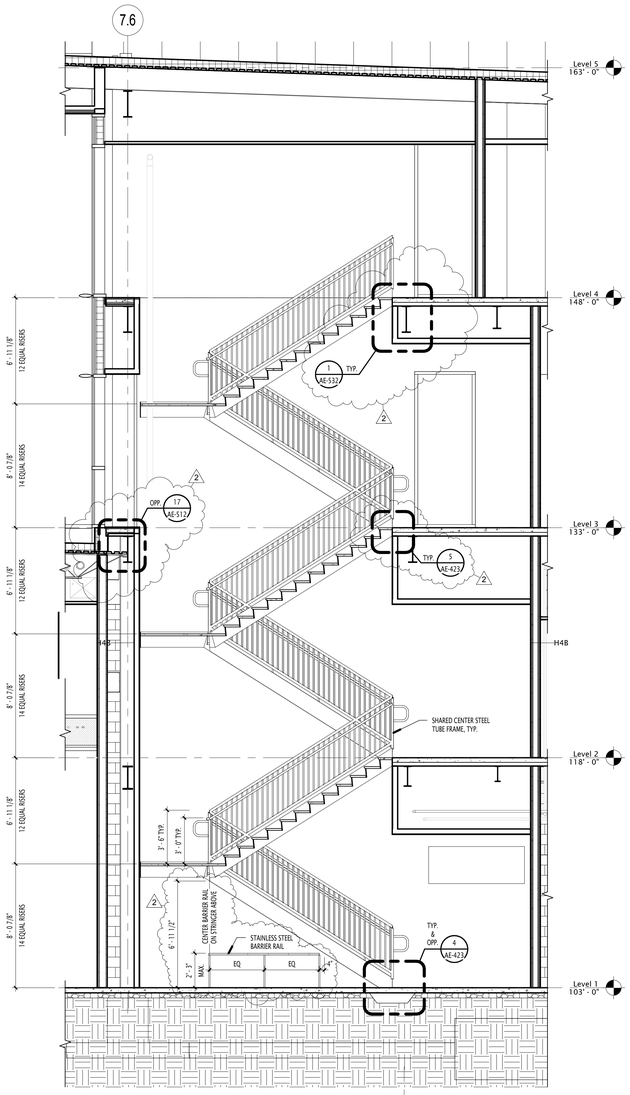
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

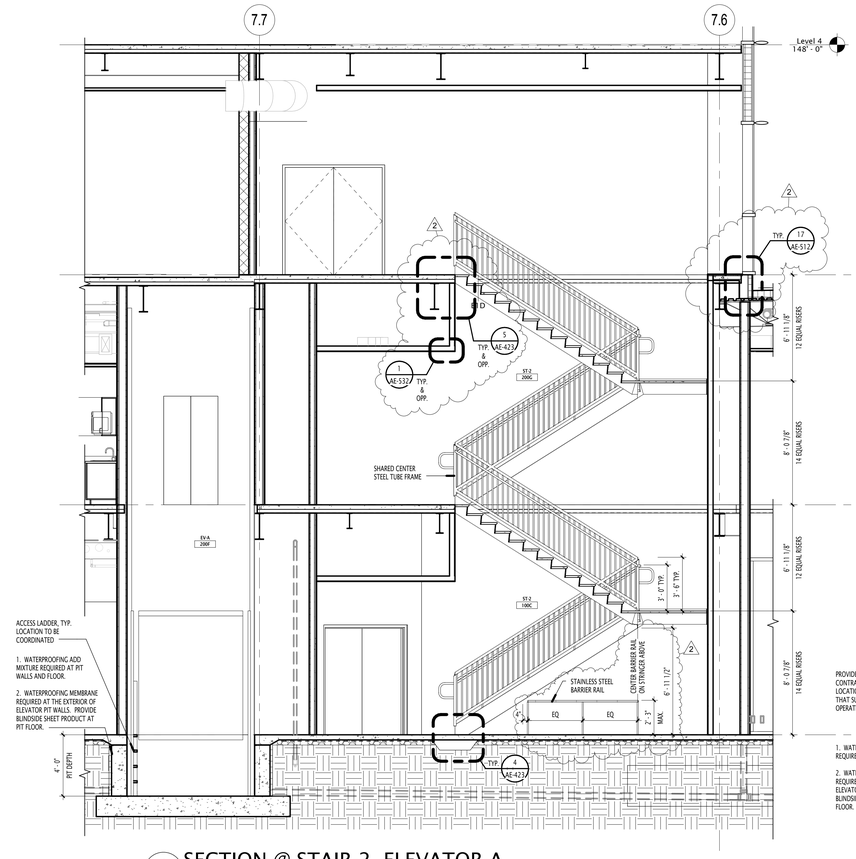
VERTICAL CIRCULATION - STAIR 1

CONSTRUCTION DOCUMENTS

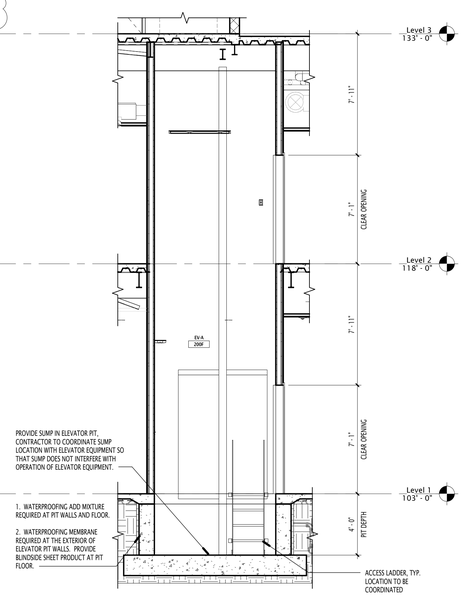
2 AE-420



7 AE-421 SECTION @ STAIR-2, ELEVATOR-A1
1/4" = 1'-0"



6 AE-421 SECTION @ STAIR-2, ELEVATOR-A
1/4" = 1'-0"



5 AE-421 SECTION 1 @ ELEVATOR-A
1/4" = 1'-0"

GENERAL NOTE - VERTICAL CIRCULATION
1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
2 6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

RAILING TYPE LEGEND

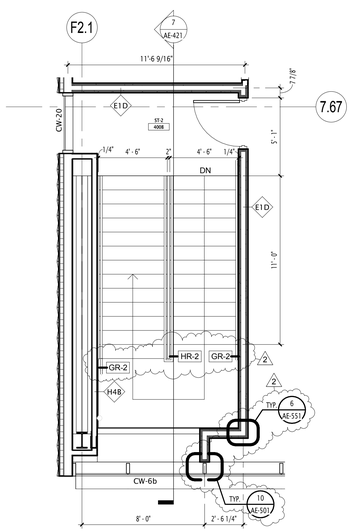
TAG	DESCRIPTION
2 BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

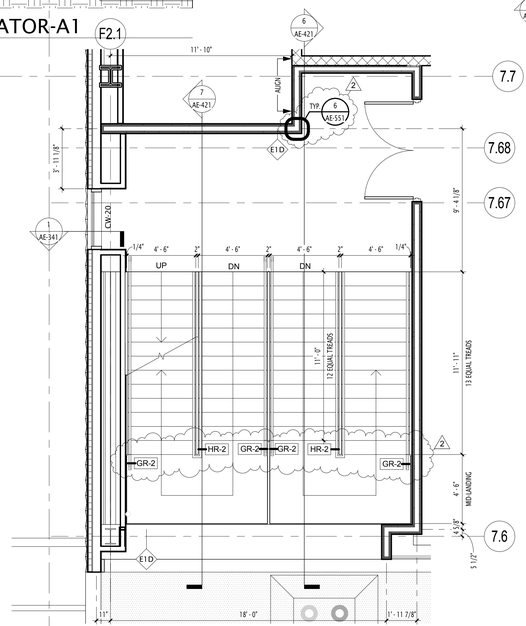
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

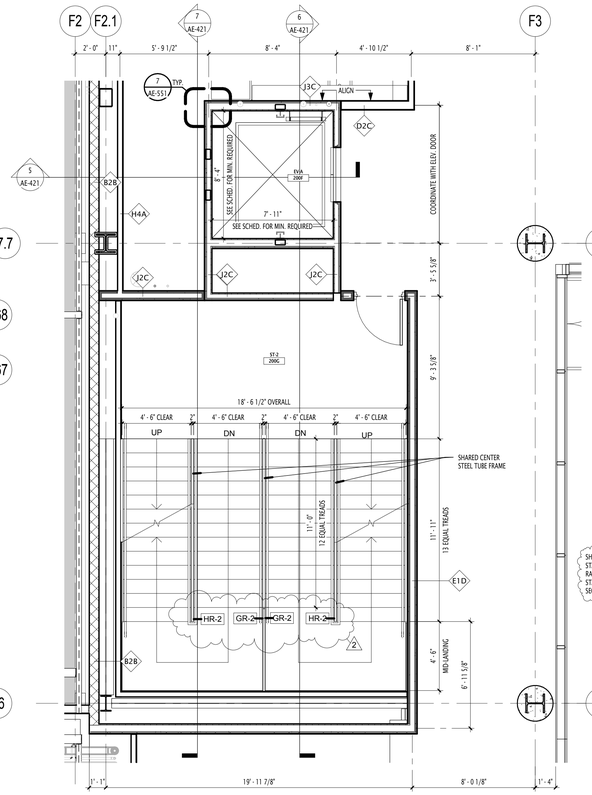
1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04



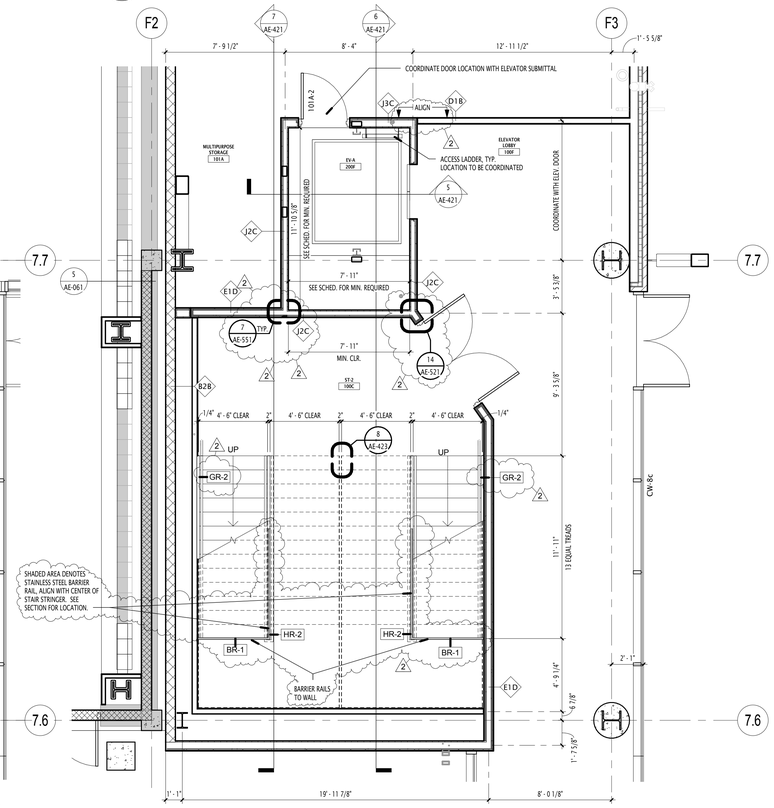
4 AE-421 STAIR-2 @ LEVEL 4 PLAN
1/4" = 1'-0"



3 AE-421 STAIR-2 @ LEVEL 3 PLAN
1/4" = 1'-0"



2 AE-421 STAIR-1, STAIR-2, ELEVATOR-A @ LEVEL 2 PLAN
1/4" = 1'-0"



1 AE-421 STAIR-2, ELEVATOR-A @ LEVEL 1 PLAN
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

VERTICAL CIRCULATION -
STAIR 2 / ELEVATOR A

CONSTRUCTION DOCUMENTS

2 AE-421

RAILING TYPE LEGEND	
TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7915

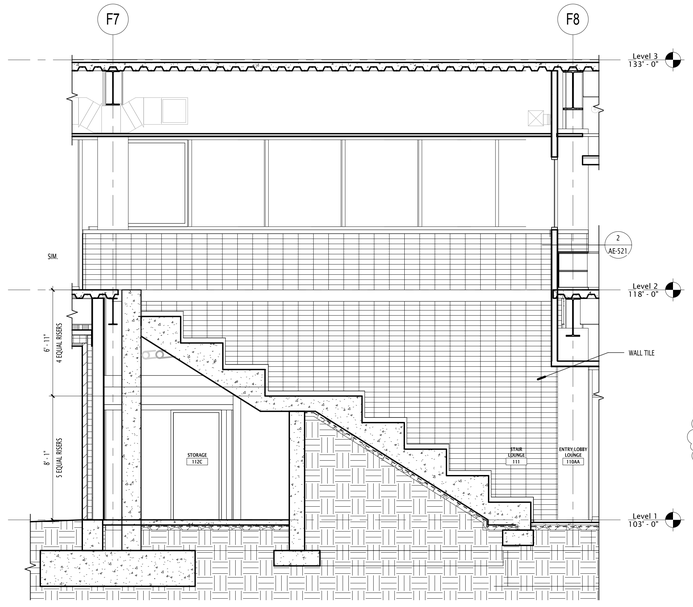
www.gsbsarchitects.com

CANNONDESIGN

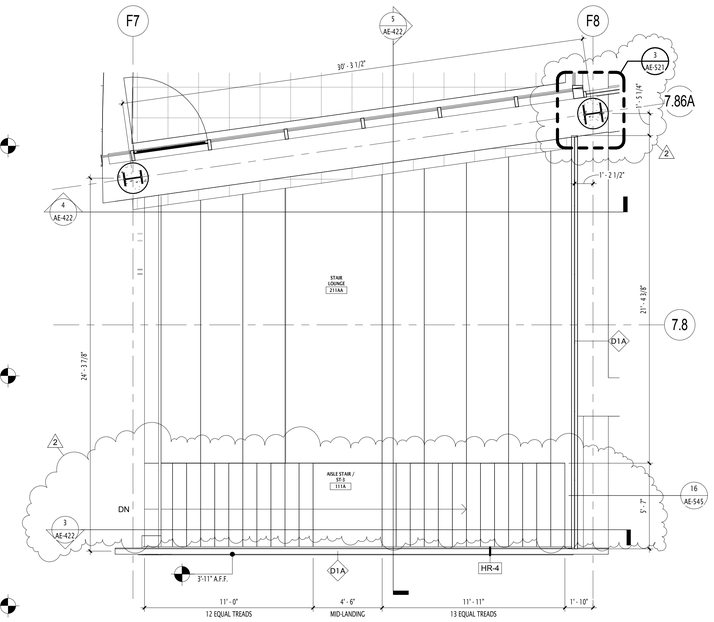
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

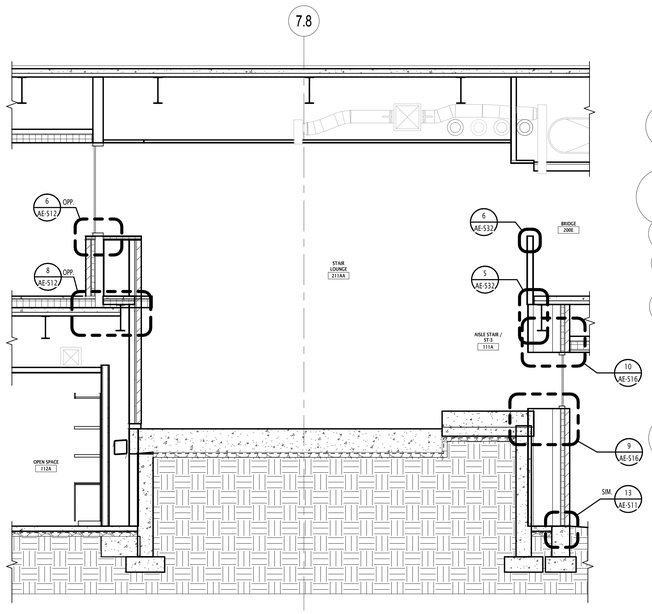
1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04



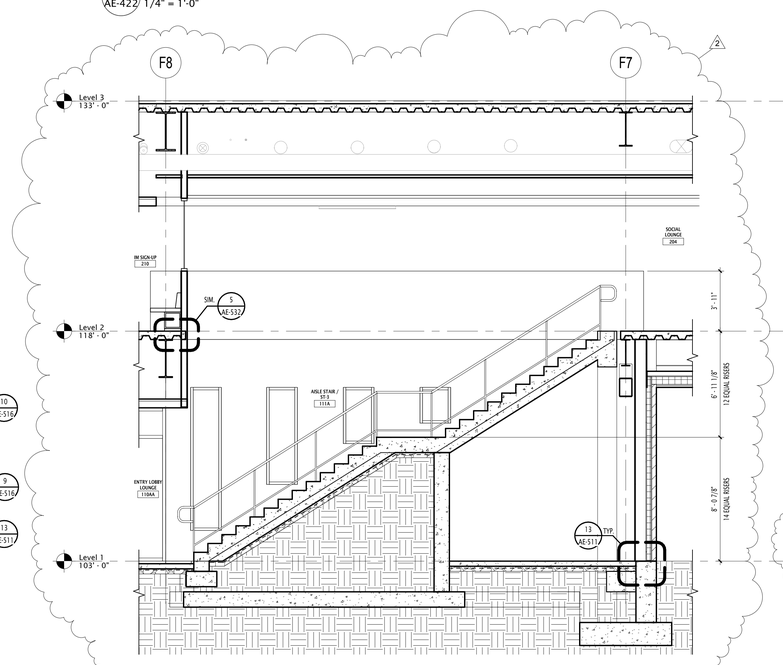
4 AE-422 SECTION @ STAIR LOUNGE 111
1/4" = 1'-0"



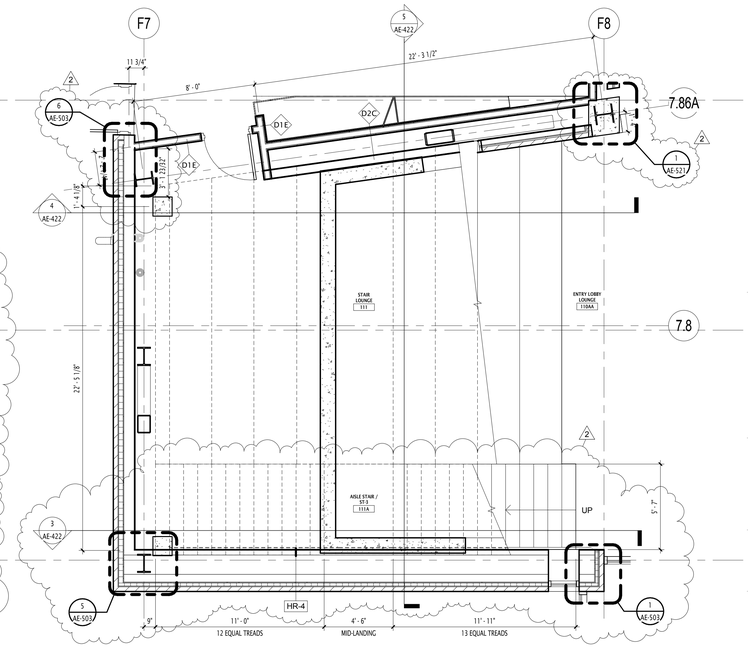
2 AE-422 STAIR-3 LEVEL 2 PLAN
1/4" = 1'-0"



5 AE-422 SECTION @ STAIR LOUNGE 1
1/4" = 1'-0"



3 AE-422 SECTION @ STAIR-3
1/4" = 1'-0"



1 AE-422 STAIR-3 LEVEL 1 PLAN
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

VERTICAL CIRCULATION - STAIR 3

CONSTRUCTION DOCUMENTS

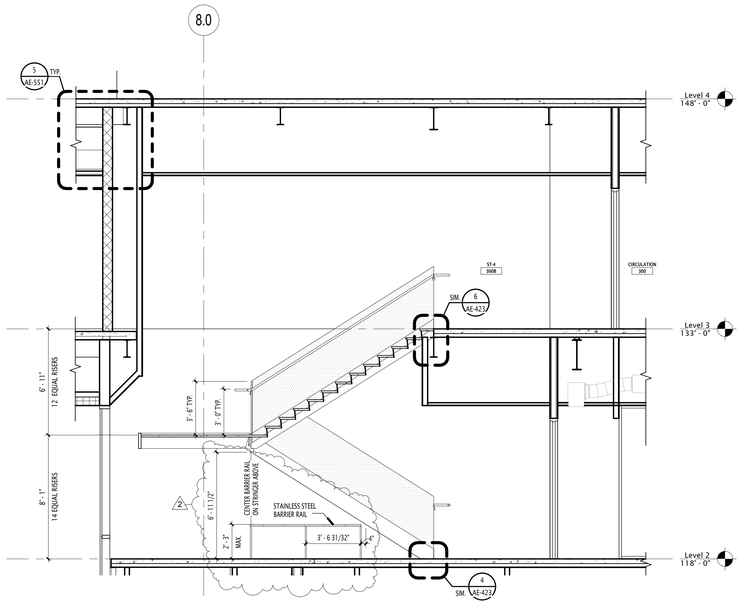
2 AE-422

GENERAL NOTE - VERTICAL CIRCULATION

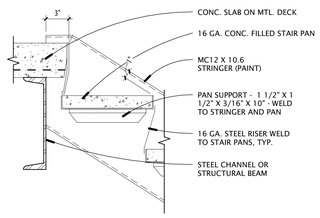
1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

RAILING TYPE LEGEND

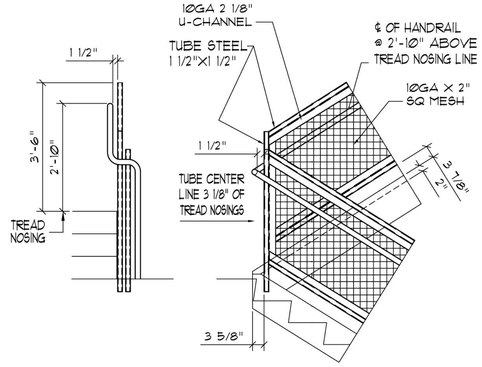
TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only



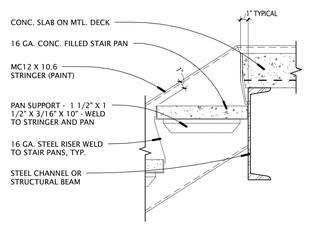
3 AE-423 SECTION @ STAIR-4
1/4" = 1'-0"



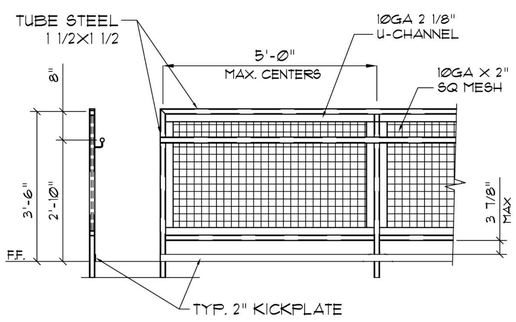
6 AE-423 METAL PAN - TOP OF STAIR
1 1/2" = 1'-0"



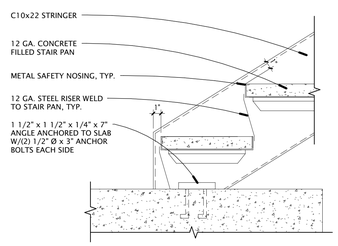
8 AE-423 STAIR 2 GUARDRAIL DTL. 2
NTS



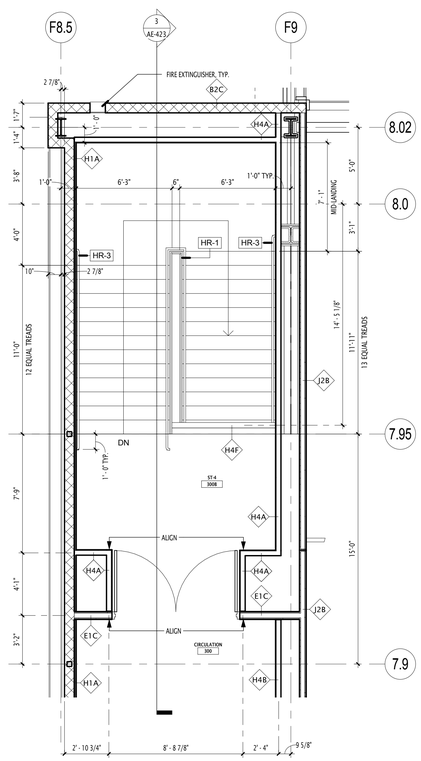
5 AE-423 METAL PAN - TOP OF LANDING
1 1/2" = 1'-0"



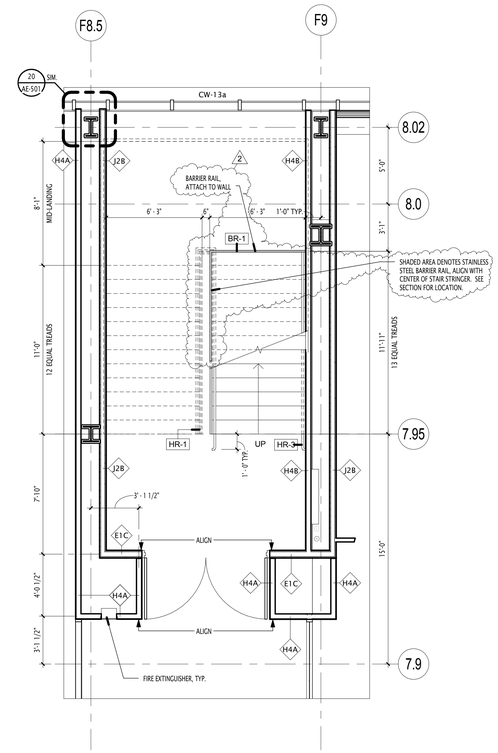
7 AE-423 STAIR 2 GUARDRAIL DTL. 1
NTS



4 AE-423 METAL PAN - BOTTOM OF STAIR
1 1/2" = 1'-0"



2 AE-423 STAIR-4 LEVEL 3 PLAN
1/4" = 1'-0"



1 AE-423 STAIR-4 LEVEL 2 PLAN
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

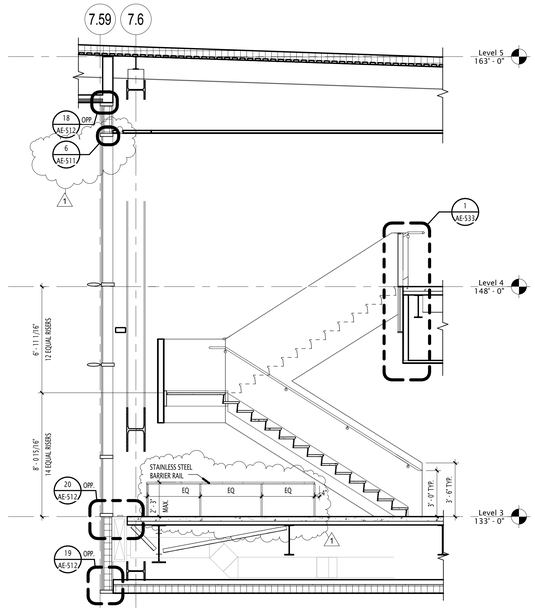
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

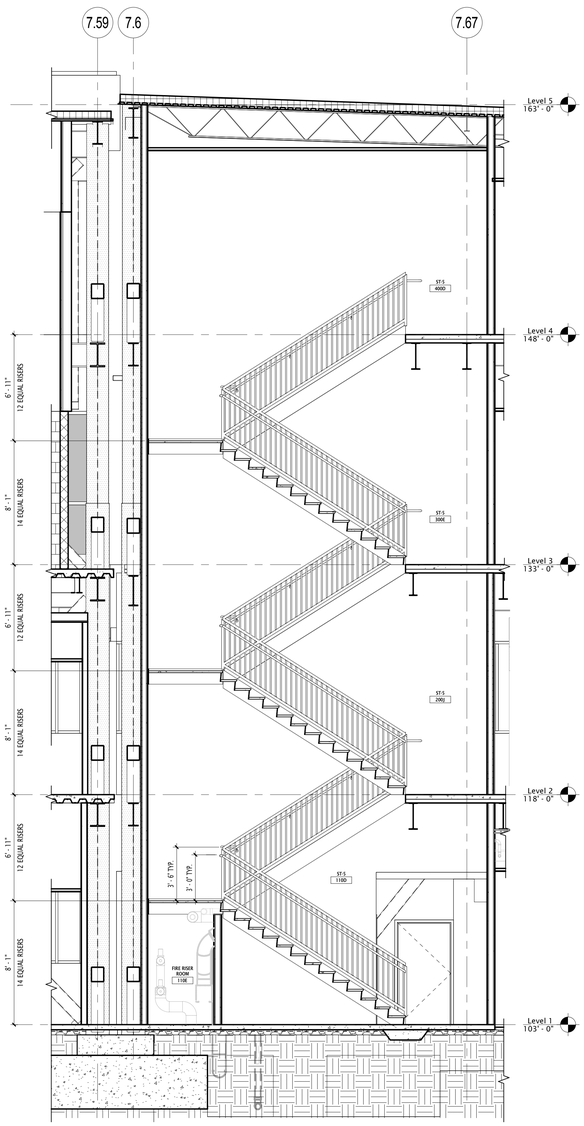
VERTICAL CIRCULATION - STAIR 4 & DETAILS

CONSTRUCTION DOCUMENTS

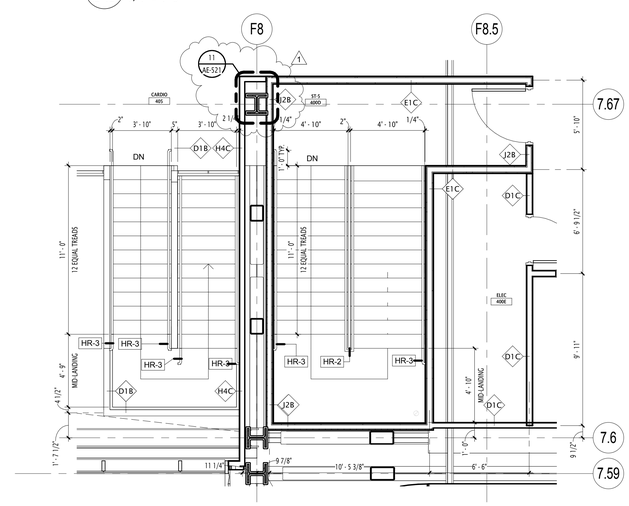
2 AE-423



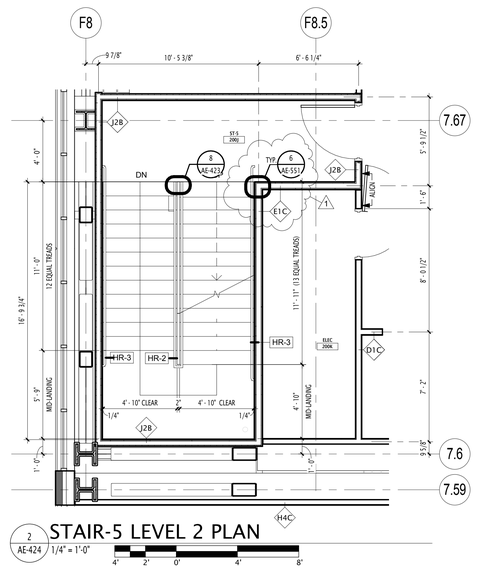
5 AE-424 SECTION @ STAIR #
1/4" = 1'-0"



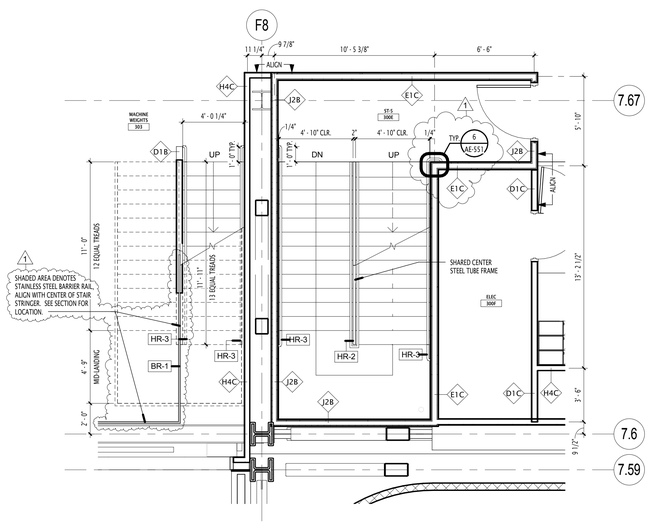
6 AE-424 SECTION @ STAIR-5
1/4" = 1'-0"



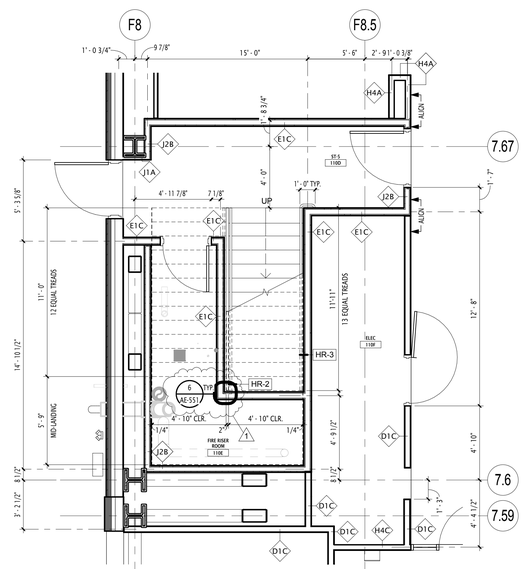
4 AE-424 STAIR-5 LEVEL 4 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



2 AE-424 STAIR-5 LEVEL 2 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



3 AE-424 STIAR-5 LEVEL 3 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



1 AE-424 STAIR-5 LEVEL 1 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

1

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

1

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

VERTICAL CIRCULATION - STAIR 5

CONSTRUCTION DOCUMENTS

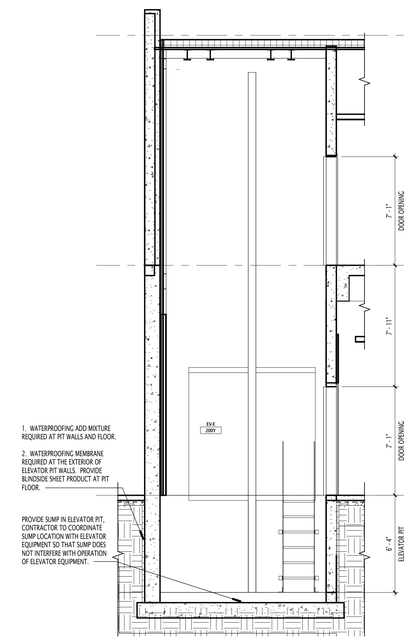
1 AE-424

GENERAL NOTE - VERTICAL CIRCULATION

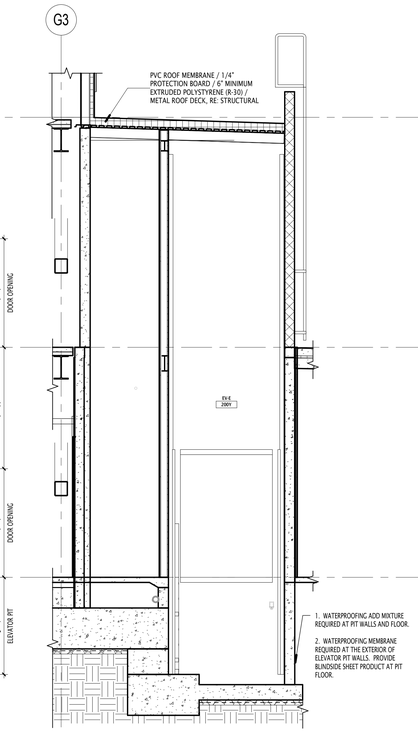
1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

RAILING TYPE LEGEND

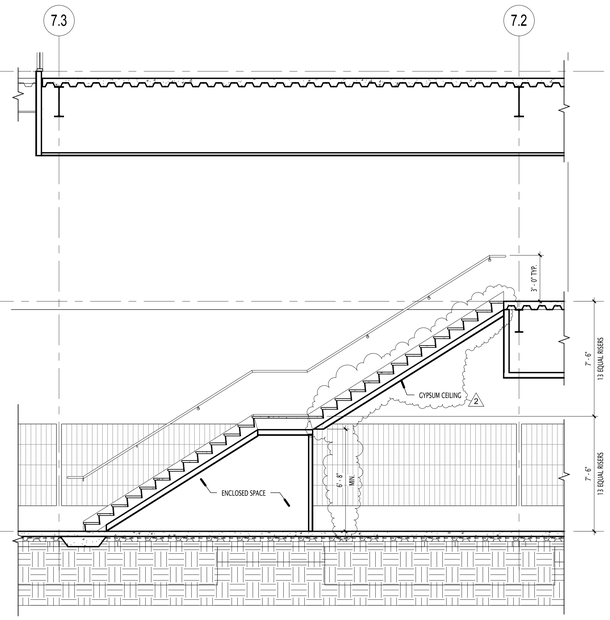
TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only



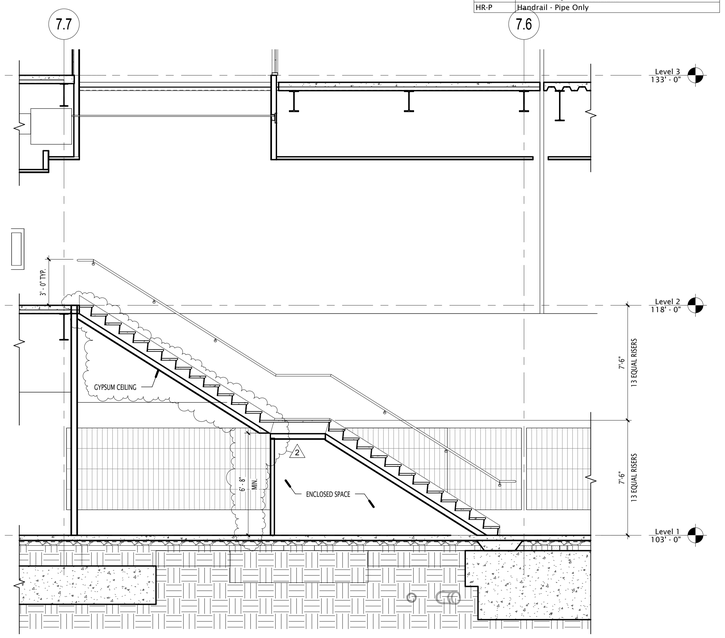
10 AE-425 SECTION 2 @ ELEVATOR-E1
1/4" = 1'-0"



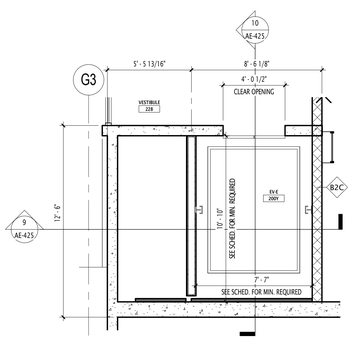
9 AE-425 SECTION @ ELEVATOR-E
1/4" = 1'-0"



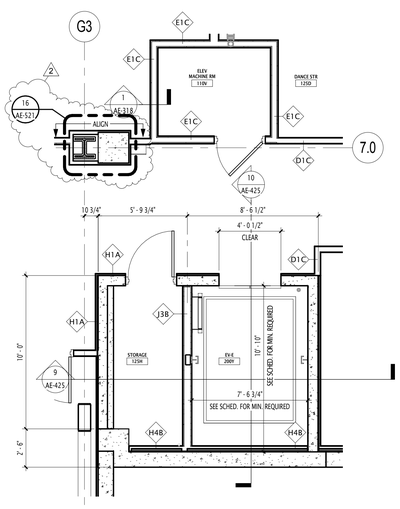
8 AE-425 SECTION @ STAIR-7
1/4" = 1'-0"



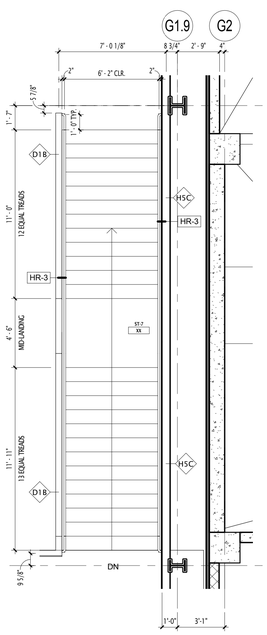
7 AE-425 SECTION @ STAIR-6
1/4" = 1'-0"



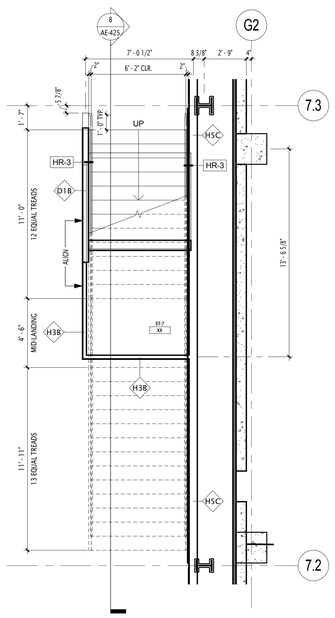
6 AE-425 ELEVATOR-E @ LEVEL 2 PLAN
1/4" = 1'-0"



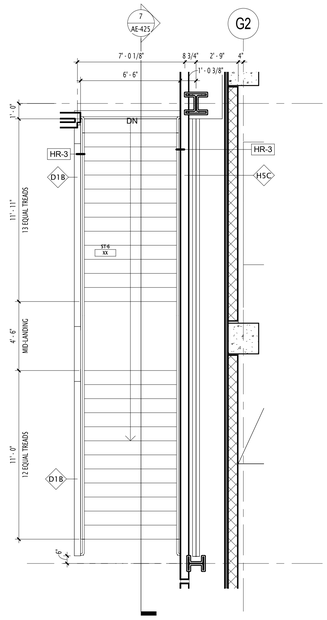
5 AE-425 ELEVATOR-E @ LEVEL 1 PLAN
1/4" = 1'-0"



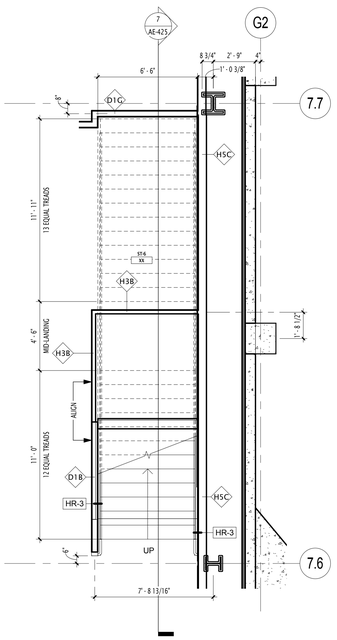
4 AE-425 STAIR-7 LEVEL 2 PLAN
1/4" = 1'-0"



3 AE-425 STAIR-7 LEVEL 1 PLAN
1/4" = 1'-0"



2 AE-425 STAIR-6 LEVEL 2 PLAN
1/4" = 1'-0"



1 AE-425 STAIR-6 LEVEL 1 PLAN
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

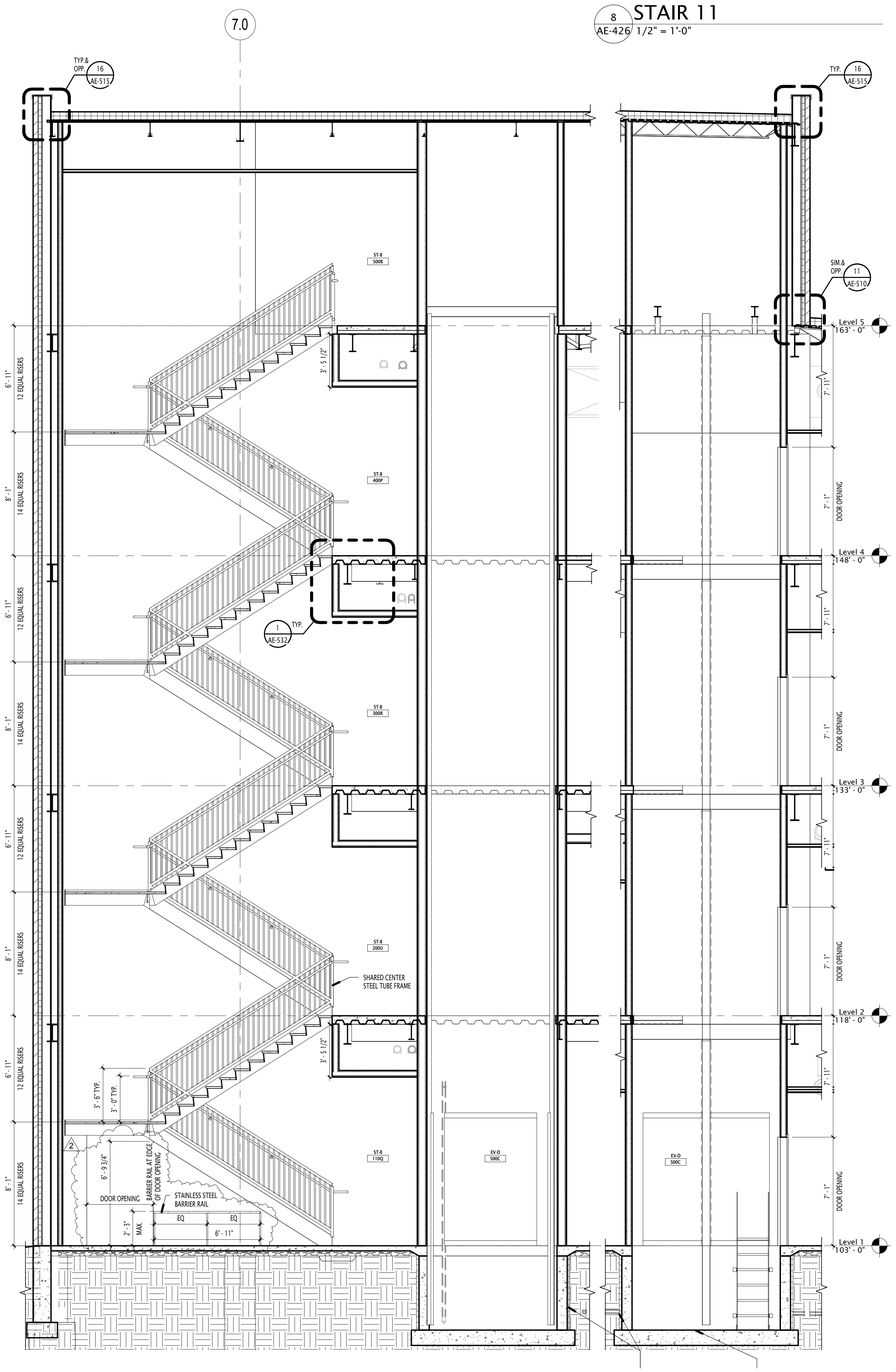
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

VERTICAL CIRCULATION - STAIR 6 & 7, ELEVATOR E

CONSTRUCTION DOCUMENTS

2 AE-425

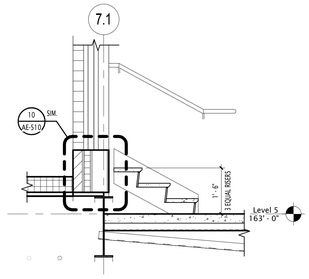


1. WATERPROOFING ADD MIXTURE REQUIRED AT PIT WALLS AND FLOOR.

2. WATERPROOFING MEMBRANE REQUIRED AT THE EXTERIOR OF ELEVATOR PIT WALLS. PROVIDE BLINDSIDE SHEET PRODUCT AT PIT FLOOR.

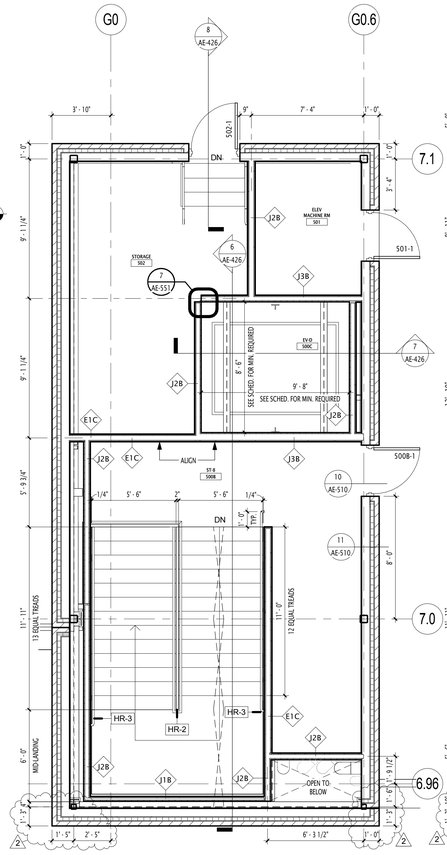
PROVIDE SUMP IN ELEVATOR PIT. CONTRACTOR TO COORDINATE SUMP LOCATION WITH ELEVATOR EQUIPMENT SO THAT SUMP DOES NOT INTERFERE WITH OPERATION OF ELEVATOR EQUIPMENT.

6 AE-426 SECTION @ STAIR-8 & ELEVATOR-D
1/4" = 1'-0"

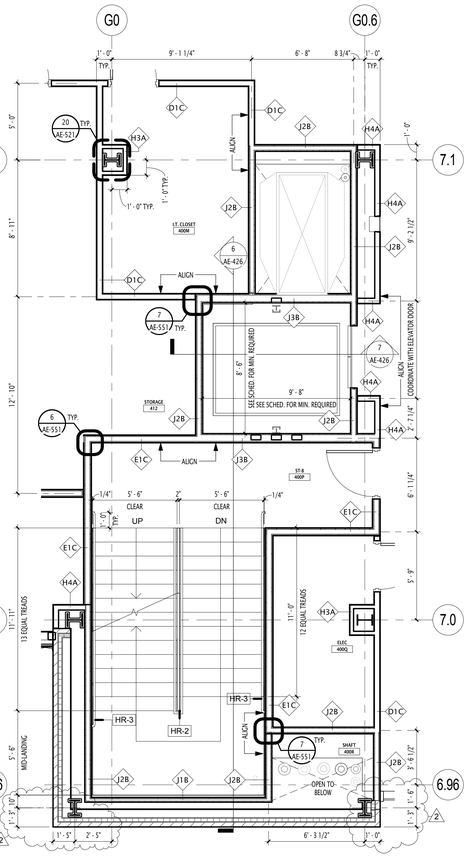


8 AE-426 STAIR 11
1/2" = 1'-0"

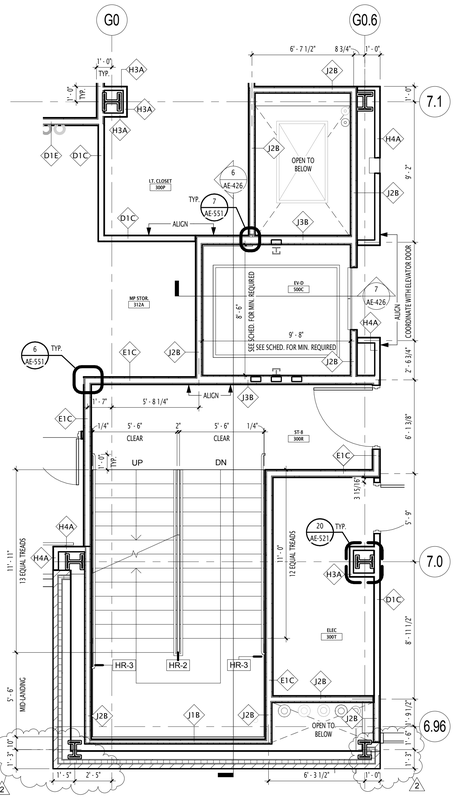
7 AE-426 SECTION @ ELEVATOR-D
1/4" = 1'-0"



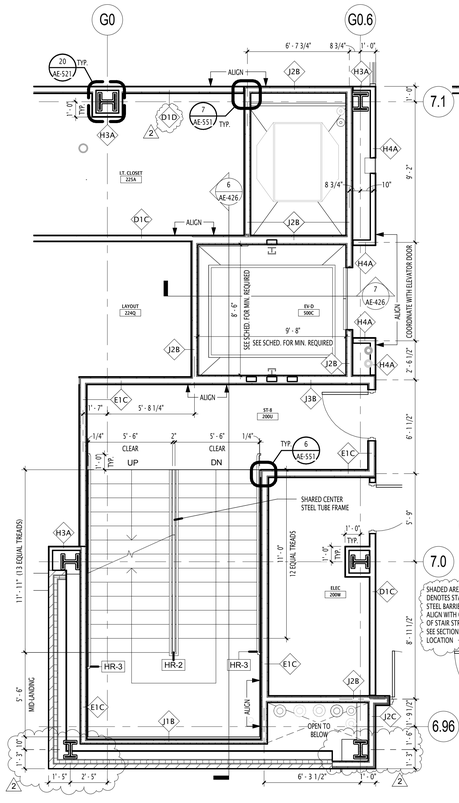
5 AE-426 STAIR-8, ELEVATOR-D @ ROOF
1/4" = 1'-0"



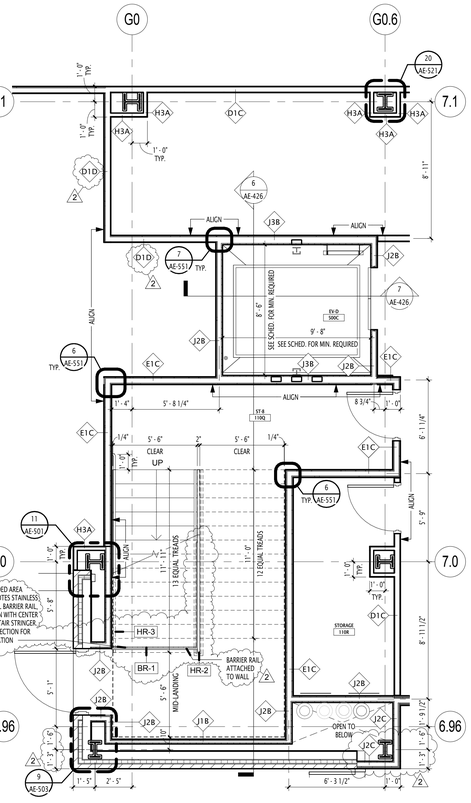
4 AE-426 STAIR-8, ELEVATOR-D @ LEVEL 4 PLAN
1/4" = 1'-0"



3 AE-426 STAIR-8, ELEVATOR-D @ LEVEL 3 PLAN
1/4" = 1'-0"



2 AE-426 STAIR-8,ELEATOR-D @ LEVEL 2 PLAN
1/4" = 1'-0"



1 AE-426 STAIR-8, ELEVATOR-D @ LEVEL 1 PLAN
1/4" = 1'-0"

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
GR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

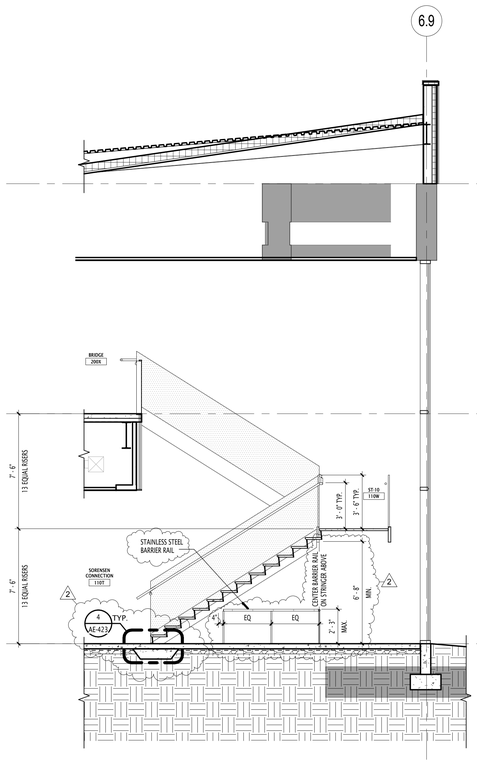
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

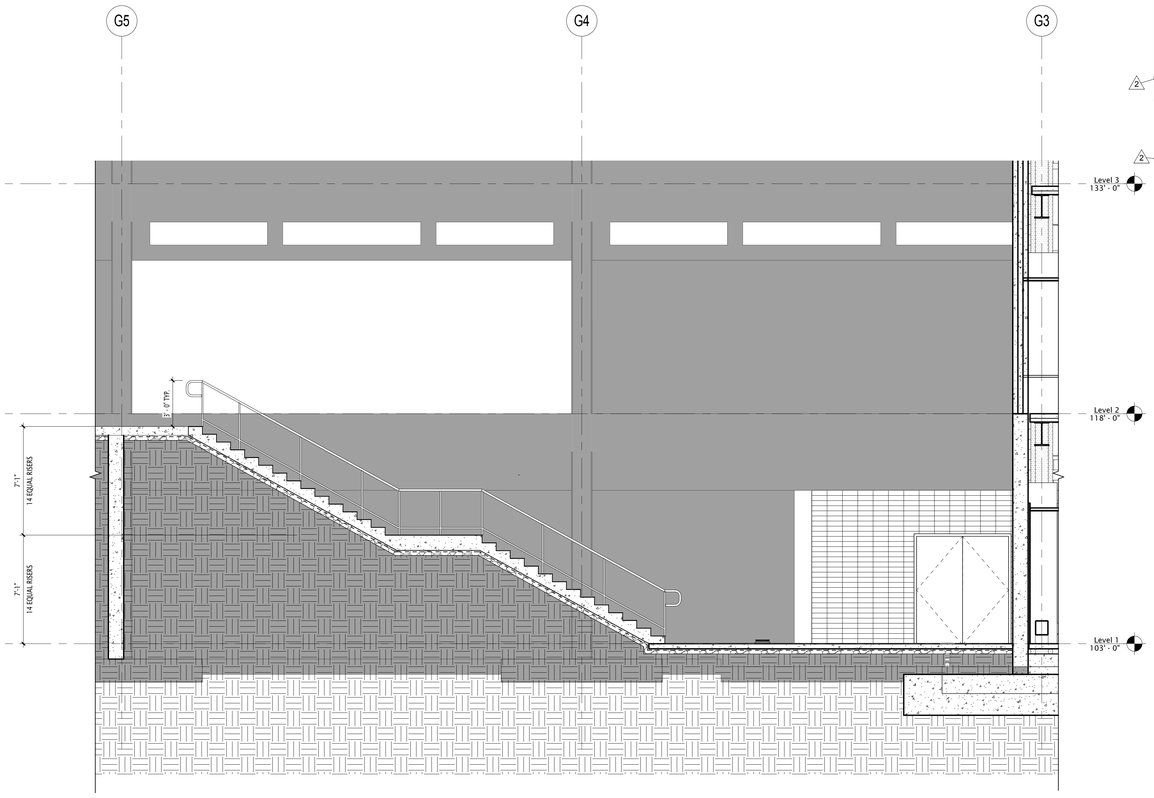
VERTICAL CIRCULATION -
STAIR 8 & ELEVATOR D

CONSTRUCTION DOCUMENTS

AE-426



6 AE-427 SECTION @ STAIR 10
1/4" = 1'-0"



3 AE-427 SECTION @ STAIR-9
1/4" = 1'-0"

GENERAL NOTE - VERTICAL CIRCULATION

1. REFER TO SHEET AE-115 FOR PARTITION TYPES / SCHEDULE.
2. ALL MTL. STUD INTERIOR & EXTERIOR WALL DIMENSIONS ARE GIVEN TO CENTERLINE OF STUD, U.N.O.
3. ALL MASONRY & CONCRETE WALL DIMENSIONS ARE GIVEN TO FACE OF WALL U.N.O.
4. ALL DOOR & GLAZING SYSTEM WALL OPENING DIMENSIONS ARE GIVEN TO EDGE OF ROUGH OPENING U.N.O.
5. WALL TYPES TO CONTINUE AT DOOR & GLAZING SYSTEM OPENINGS (TOP & BOTTOM) U.N.O.
6. STAIR TREAD AND LANDING DIMENSIONS TO INSIDE OF STRINGER U.N.O.

RAILING TYPE LEGEND

TAG	DESCRIPTION
BR-1	Barrier Rail - Pipe
CR-1	Perf Metal Guardrail
GR-2	Stair Guardrail - Pipe w Extensions
GR-3	Guardrail - Pipe
HR-1	Perf Guardrail w/Handrail
HR-2	Stair Guardrail - Pipe w Handrail
HR-3	Handrail - Pipe - Wall
HR-4	Handrail - Pipe w Extensions/Posts
HR-5	Handrail - Pipe w Extensions
HR-P	Handrail - Pipe Only

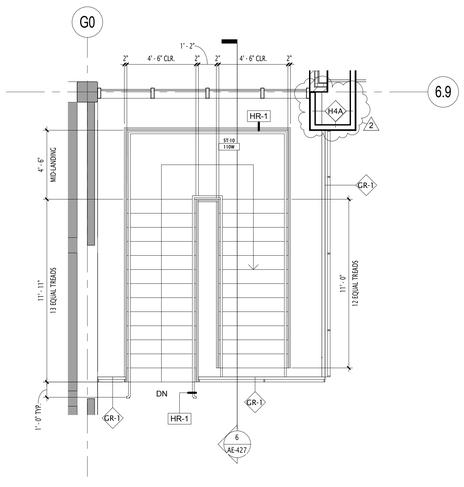
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

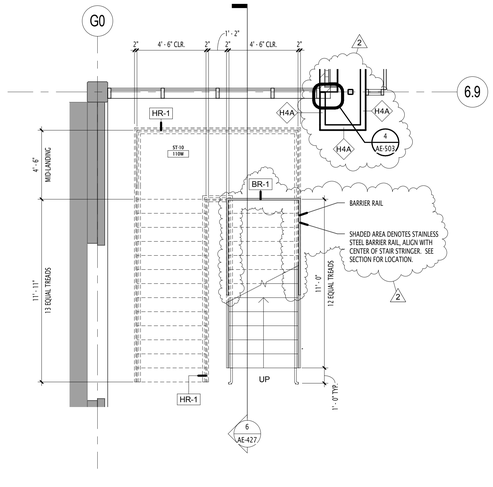
REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

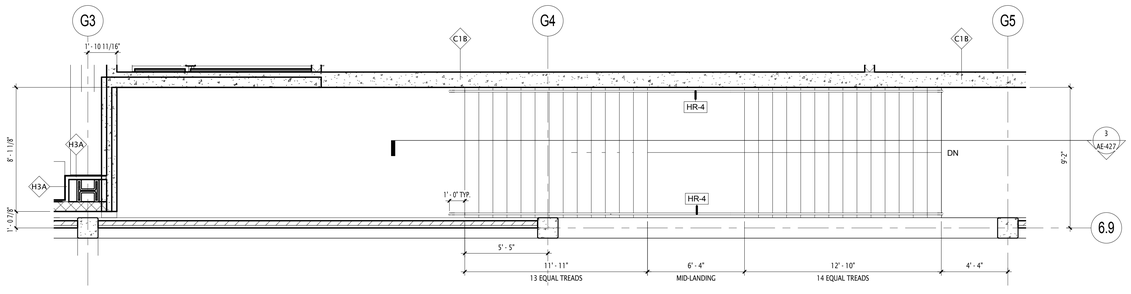
STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



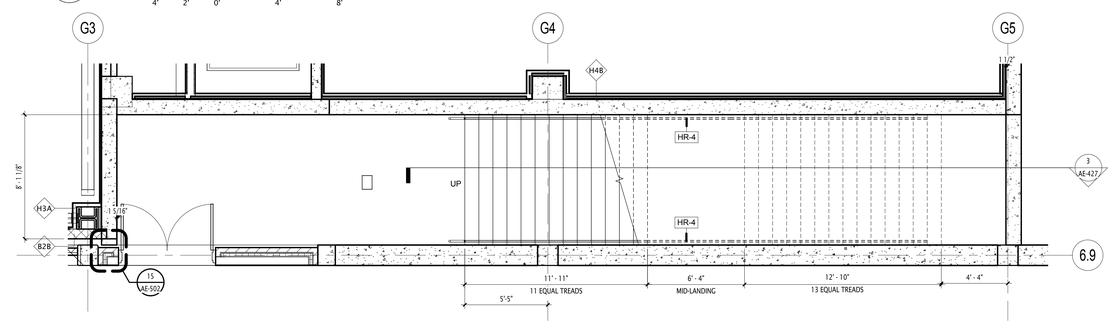
5 AE-427 STAIR-10 @ LEVEL 2 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



4 AE-427 STAIR-10 @ LEVEL 1 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



2 AE-427 STAIR-9 LEVEL 2 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'



1 AE-427 STAIR-9 LEVEL 1 PLAN
1/4" = 1'-0"
4' 2' 0' 4' 8'

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

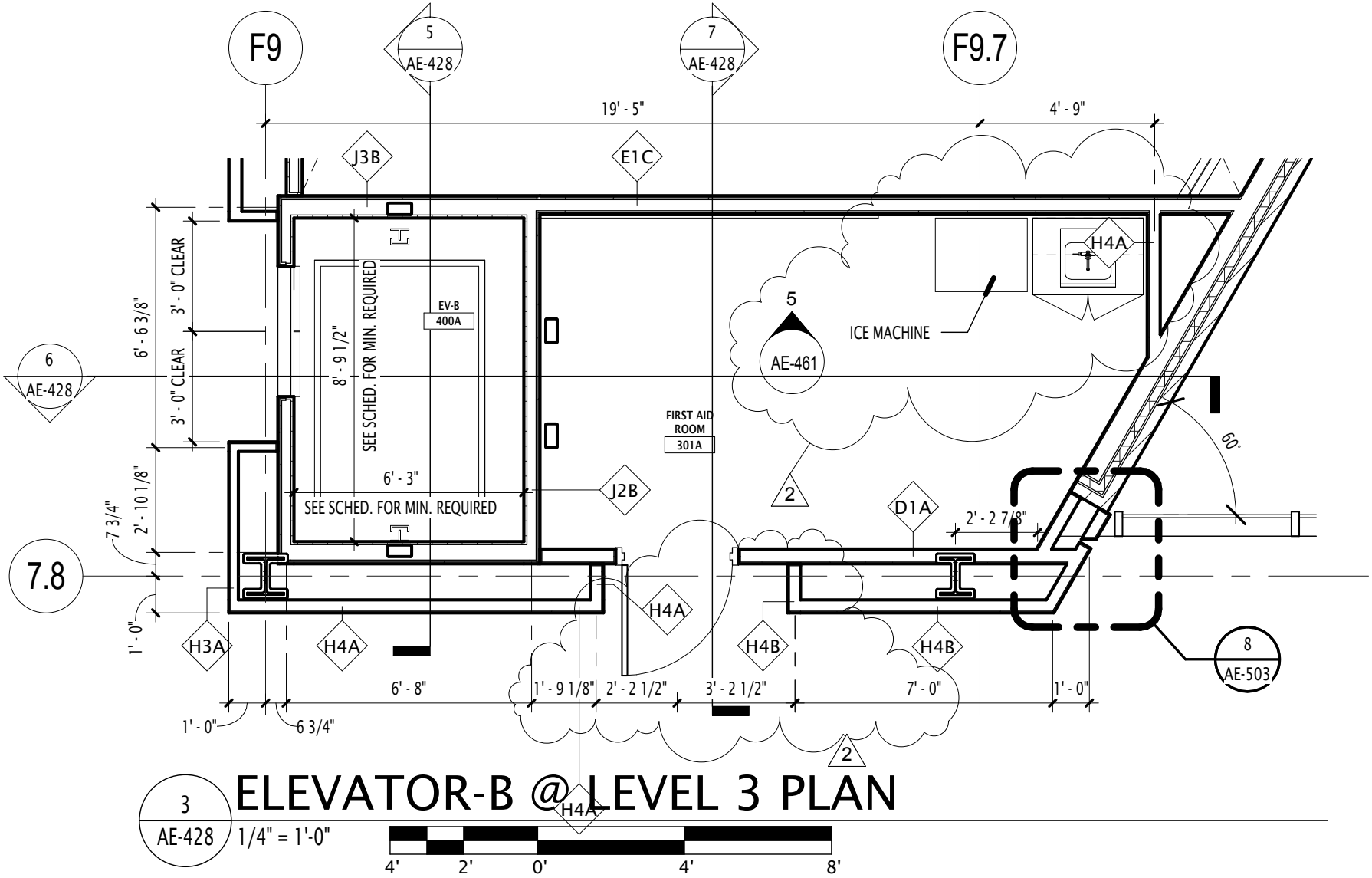
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	NE
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

VERTICAL CIRCULATION -
STAIR 9 & 10

CONSTRUCTION DOCUMENTS

2 AE-427



ELEVATOR-B @ LEVEL 3 PLAN

3
AE-428

1/4" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

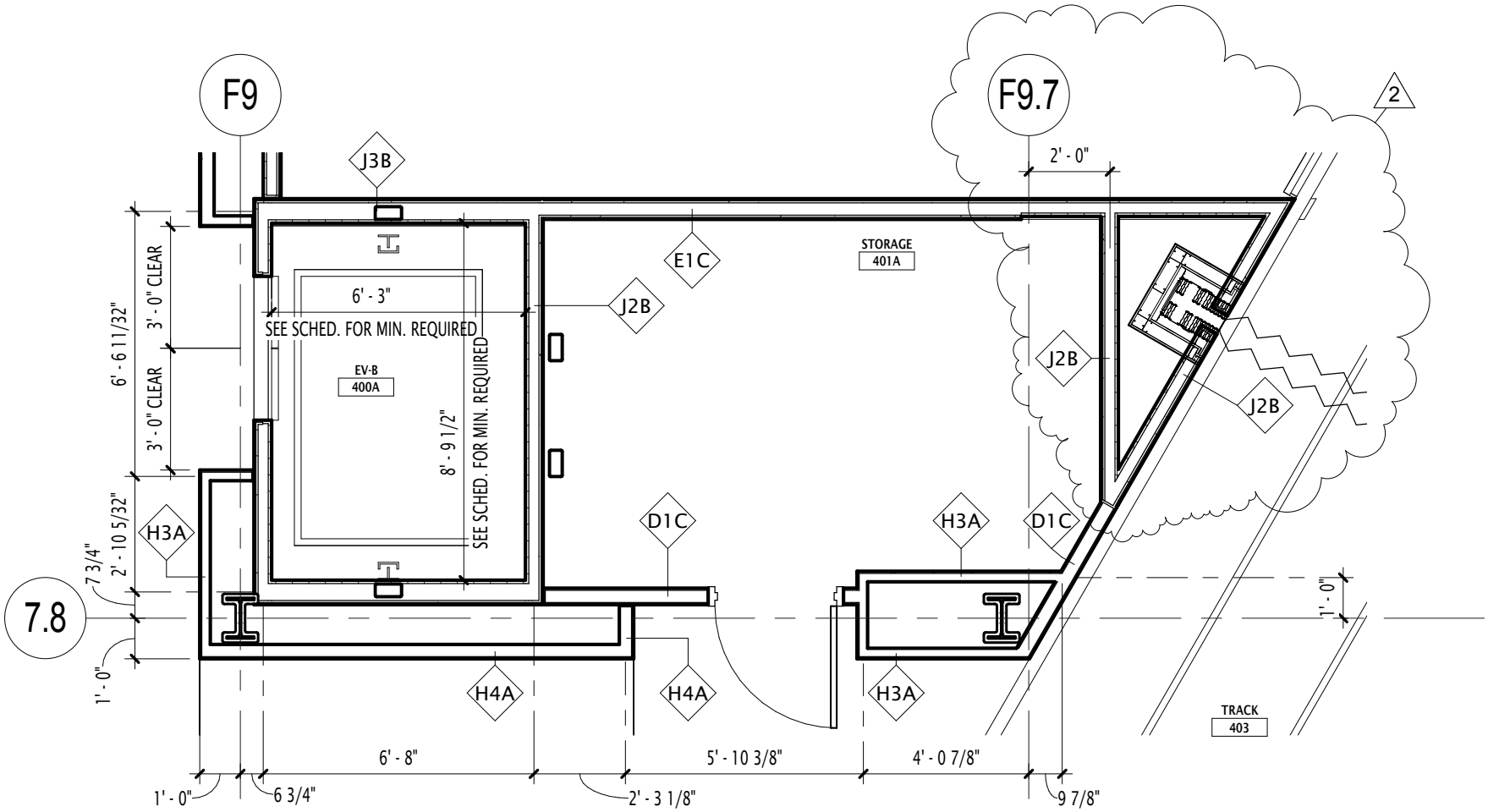
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: AM

AE-428-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE:



ELEVATOR-B @ LEVEL 4 PLAN

4
AE-428

1/4" = 1'-0"

4' 2' 0' 4' 8'

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

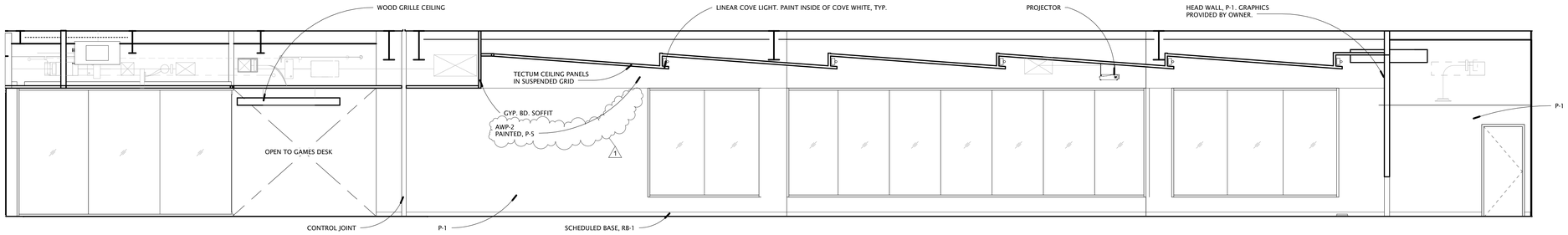
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

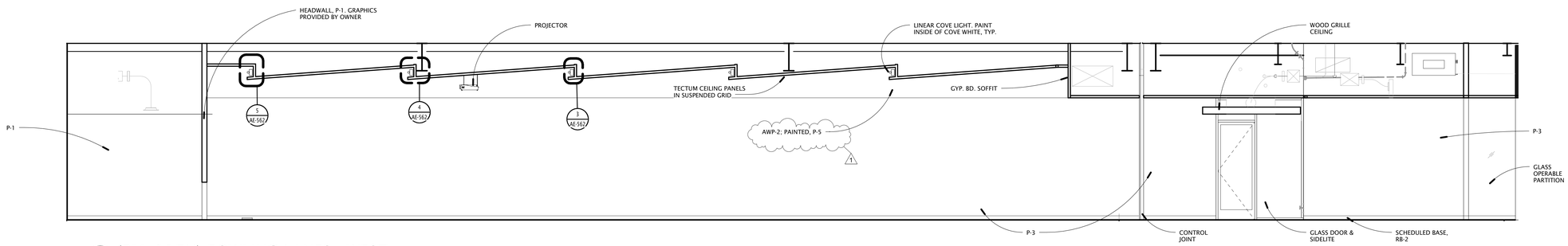
REV.: Addendum-04
BY: TY

AE-428-02

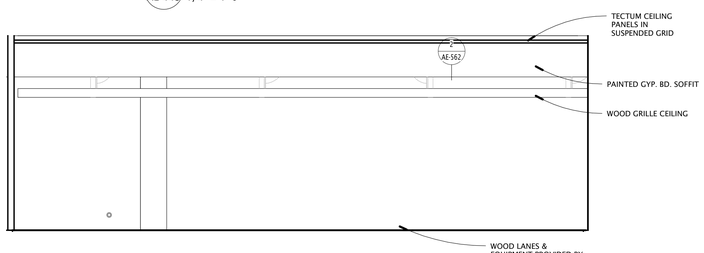
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



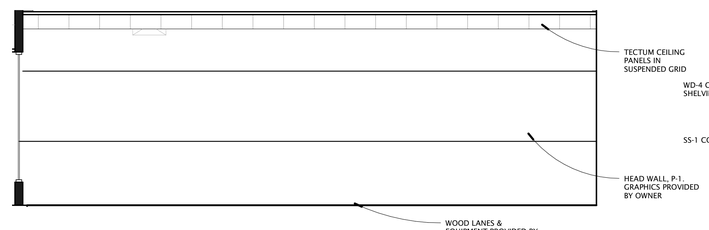
13 AE-443 (RM. 117H) BOWLING LANES - EAST
1/4" = 1'-0"



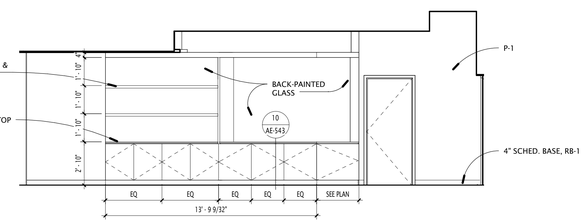
12 AE-443 (RM. 117H) BOWLING LANES - WEST
1/4" = 1'-0"



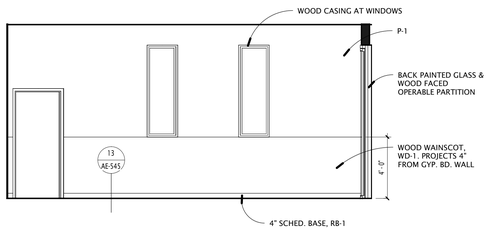
11 AE-443 (RM. 117H) BOWLING LANES - NORTH
1/4" = 1'-0"



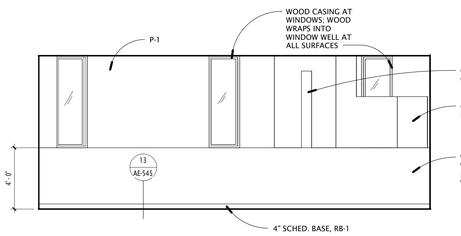
10 AE-443 (RM. 117H) BOWLING LANES - SOUTH
1/4" = 1'-0"



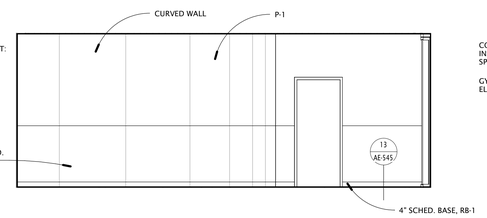
9 AE-443 (RM. 112A) OPEN SPACE - SOUTH
1/4" = 1'-0"



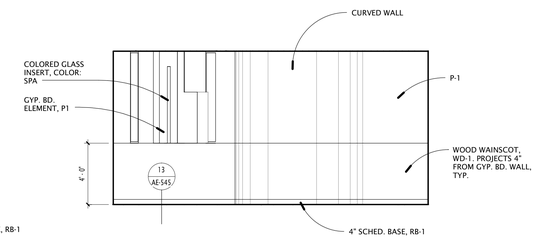
8 AE-443 (RM. 112A) OPEN SPACE WEST
1/4" = 1'-0"



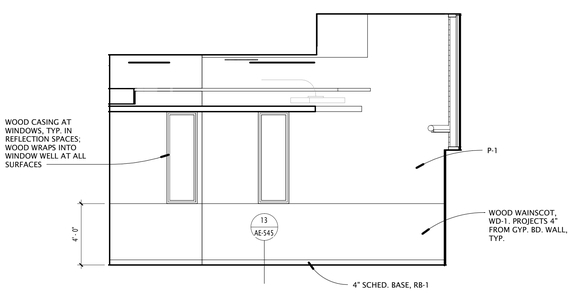
7 AE-443 (RM. 112B) MEDITATION WEST
1/4" = 1'-0"



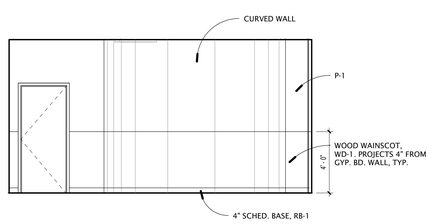
6 AE-443 (RM. 112B) MEDITATION EAST
1/4" = 1'-0"



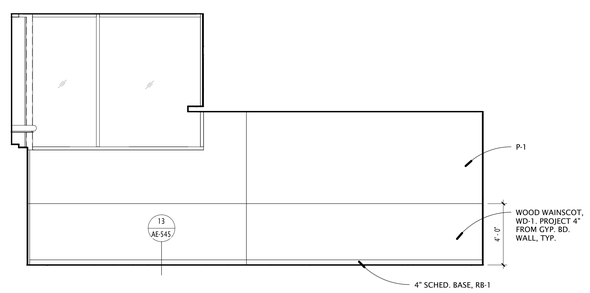
5 AE-443 (RM. 112B) MEDITATION NORTH
1/4" = 1'-0"



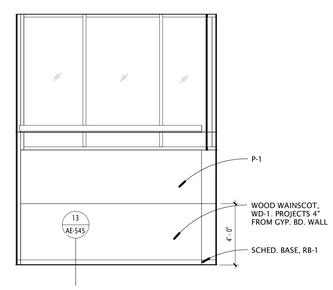
4 AE-443 (RM. 112E) PRAYER WEST
1/4" = 1'-0"



3 AE-443 (RM. 112E) PRAYER SOUTH
1/4" = 1'-0"



2 AE-443 (RM. 112E) PRAYER EAST
1/4" = 1'-0"



1 AE-443 (RM. 112) PRAYER NORTH
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

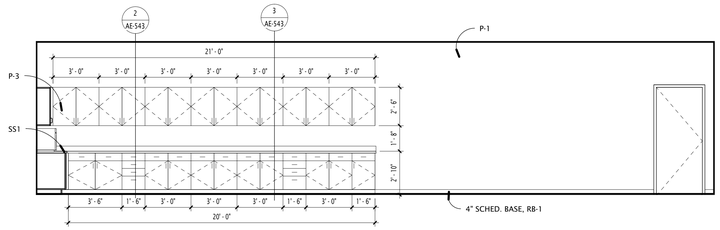
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

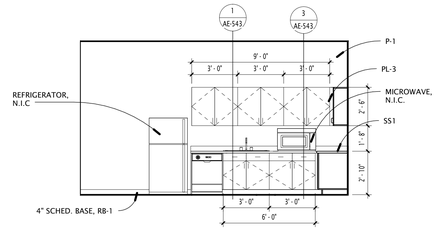
INTERIOR ELEVATIONS - LEVEL 1

CONSTRUCTION DOCUMENTS

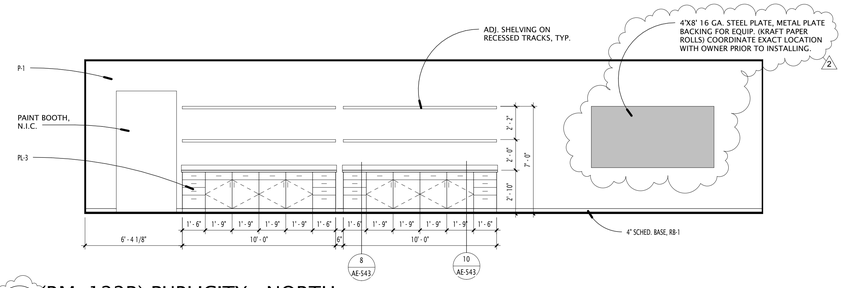
AE-443



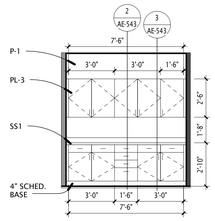
14 AE-445 (RM. 122R) PUBLICITY - SOUTH
1/4" = 1'-0"



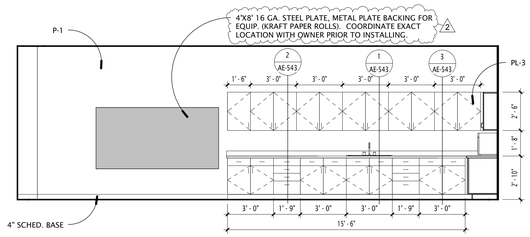
13 AE-445 (RM. 122R) PUBLICITY - EAST
1/4" = 1'-0"



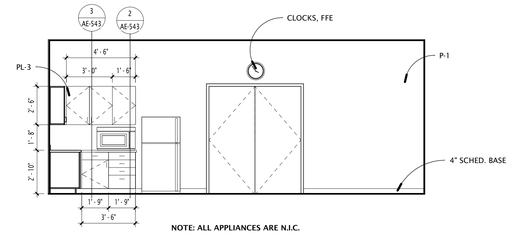
12 AE-445 (RM. 122R) PUBLICITY - NORTH
1/4" = 1'-0"



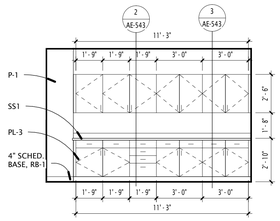
11 AE-445 (RM. 122C) COPY - SOUTH
1/4" = 1'-0"



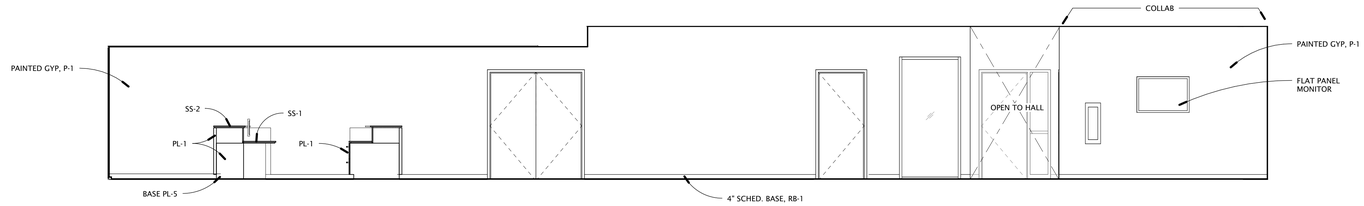
10 AE-445 (RM. 122B) C&O WORKROOM - WEST
1/4" = 1'-0"



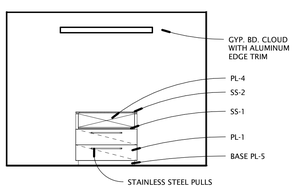
9 AE-445 (RM. 122B) C&O WORKROOM - NORTH
1/4" = 1'-0"



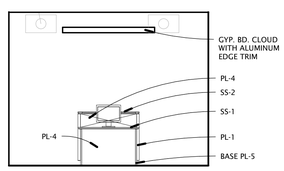
8 AE-445 (RM. 116G) WORK ROOM CABINET - NORTH
1/4" = 1'-0"



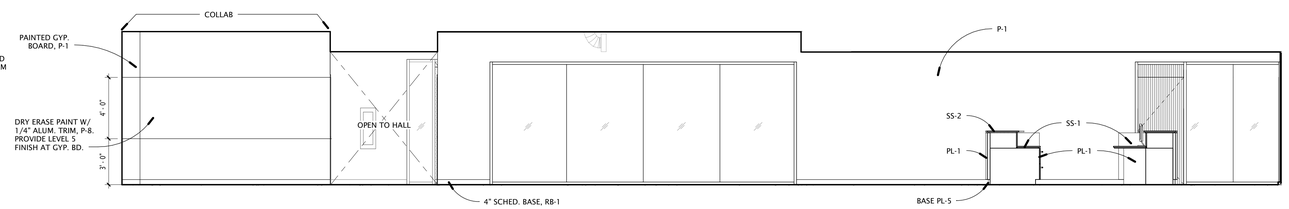
7 AE-445 (RM. 122J) SHARED LOUNGE SOUTH
1/4" = 1'-0"



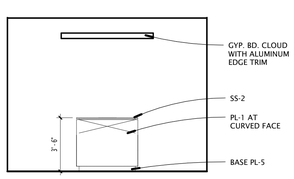
6 AE-445 TYP. RECEPT. POD-WEST
1/4" = 1'-0"



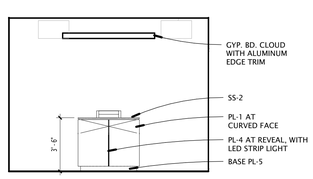
5 AE-445 TYP. RECEPT. POD - EAST
1/4" = 1'-0"



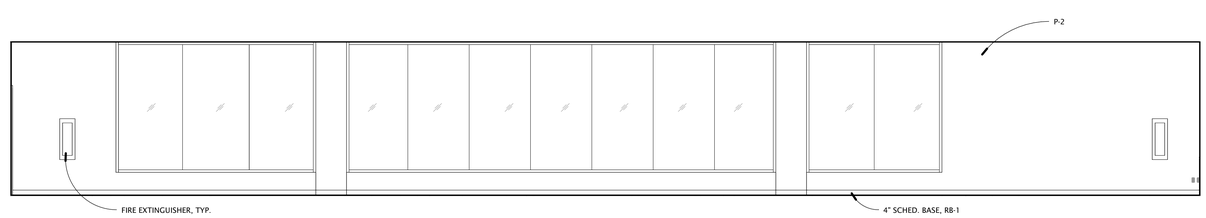
4 AE-445 (RM. 122J) SHARED LOUNGE NORTH
1/4" = 1'-0"



3 AE-445 TYP. RECEPT. POD-BACK ELEV.
1/4" = 1'-0"



2 AE-445 TYP. RECEPT. POD-FRONT ELEV.
1/4" = 1'-0"



1 AE-445 (RM. 117H) BILLIARD WEST
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR ELEVATIONS - LEVEL 1

CONSTRUCTION DOCUMENTS

AE-445

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

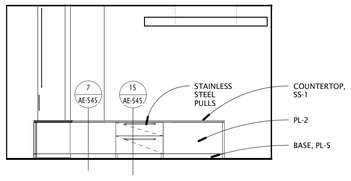
www.gsbsarchitects.com

CANNONDESIGN

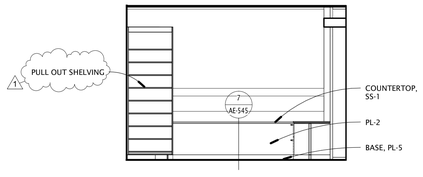
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

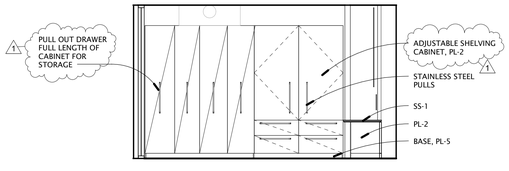
1	05.14.2012	Addendum-04



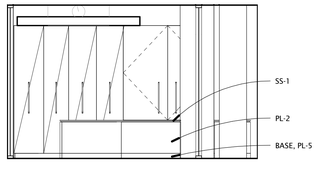
6 AE-446 (RM. 117M) GAMES DESK WEST INSIDE
1/4" = 1'-0"



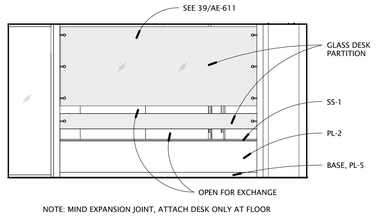
5 AE-446 (RM 117M) GAMES DESK SOUTH INSIDE
1/4" = 1'-0"



4 AE-446 (RM. 117M) GAMES DESK EAST INSIDE
1/4" = 1'-0"

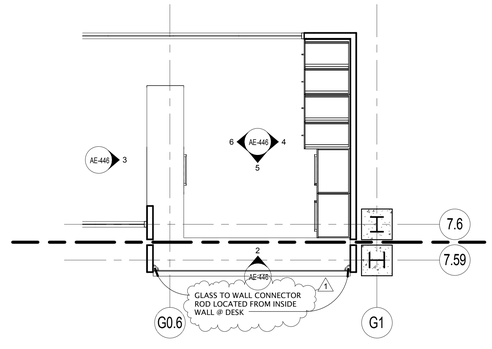


3 AE-446 (RM. 117M) GAMES DESK EAST OUTSIDE
1/4" = 1'-0"



NOTE: MIND EXPANSION JOINT, ATTACH DESK ONLY AT FLOOR

2 AE-446 (RM. 117M) GAMES DESK NORTH OUTSIDE
1/4" = 1'-0"



1 AE-446 ENLARGED PLAN - GAMES DESK 117M
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	Author
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR ELEVATIONS - LEVEL1

CONSTRUCTION DOCUMENTS

AE-446

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

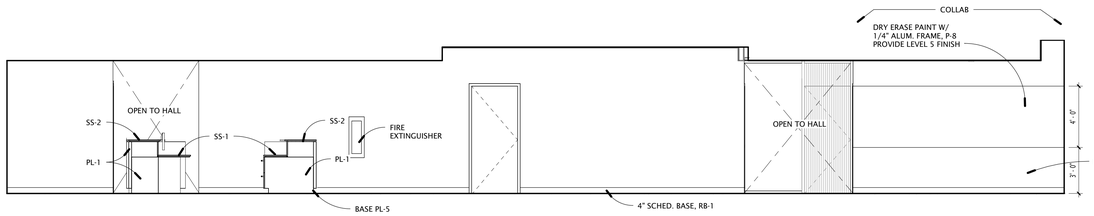
CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

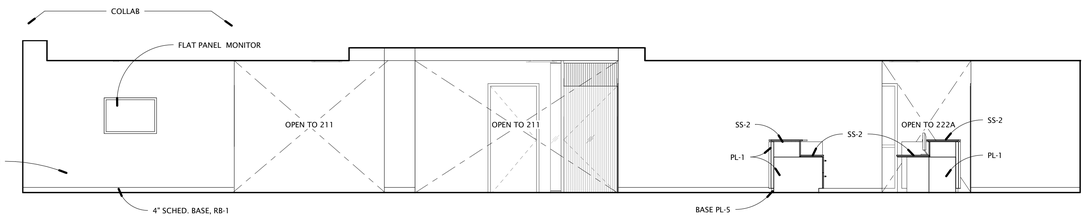
REVISIONS:

1	05.14.2012	Addendum-04

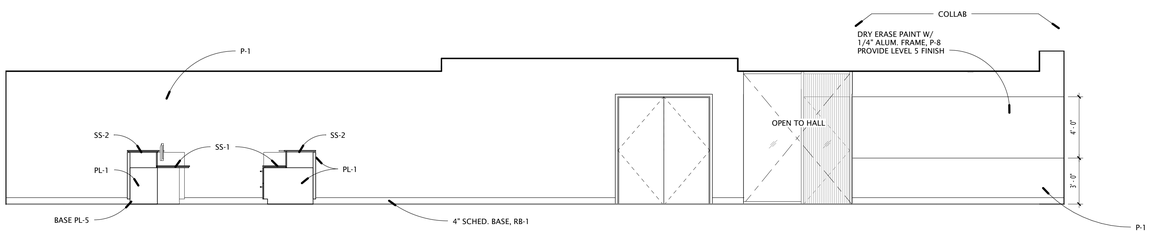
STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT



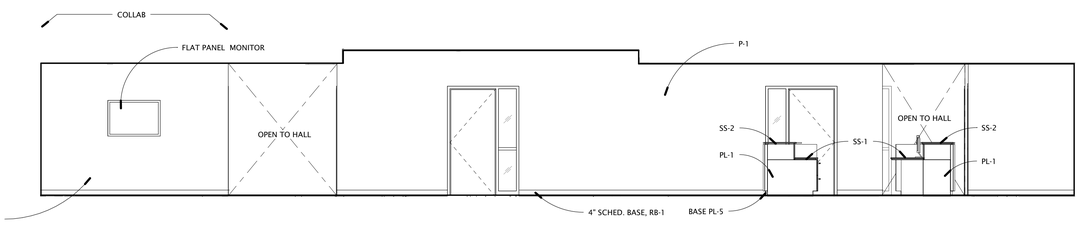
6 AE-451 (RM. 222) RECEPTION OPEN SOUTH
1/4" = 1'-0"



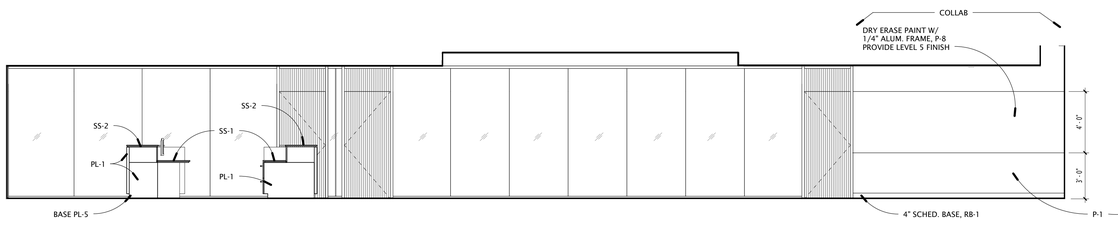
5 AE-451 (RM. 222) RECEPTION OPEN NORTH
1/4" = 1'-0"



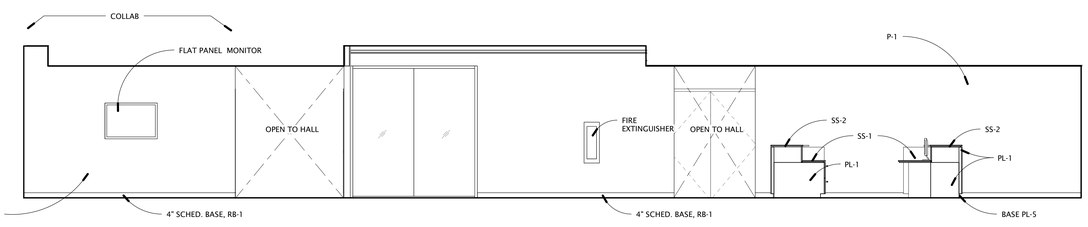
4 AE-451 (RM. 223) RECEPTION SOUTH
1/4" = 1'-0"



3 AE-451 (RM. 223) RECEPTION OPEN NORTH
1/4" = 1'-0"



2 AE-451 (RM. 224) SHARED RECEPTION SOUTH
1/4" = 1'-0"



1 AE-451 (RM. 224) SHARED RECEPTION NORTH
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

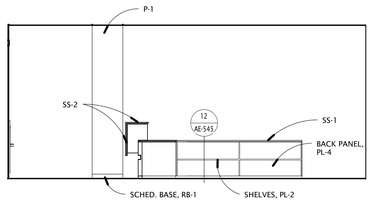
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

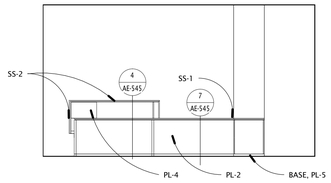
INTERIOR ELEVATIONS - LEVEL 2

CONSTRUCTION DOCUMENTS

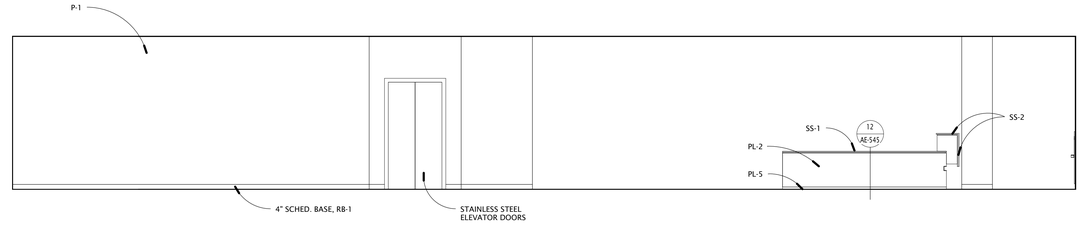
AE-451



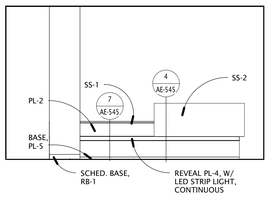
10 AE-461 (RM. 301) CONTROL DESK - WEST
1/4" = 1'-0"



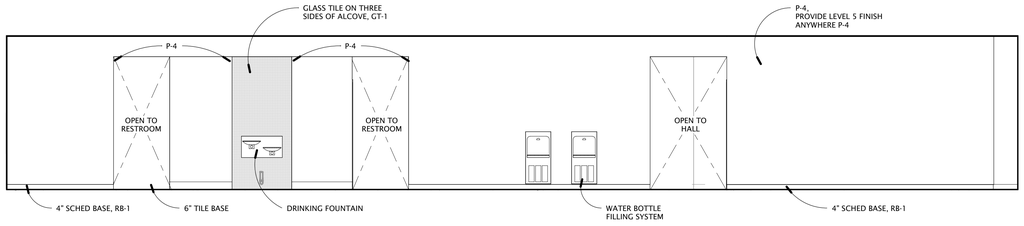
9 AE-461 (RM. 301) CONTROL DESK - SOUTH
1/4" = 1'-0"



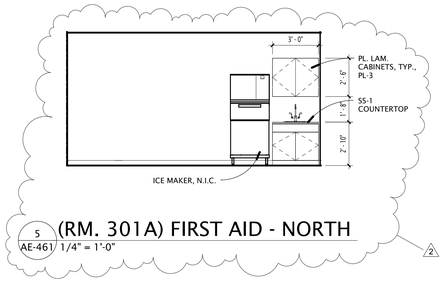
8 AE-461 (RM. 301) CONTROL DESK - EAST
1/4" = 1'-0"



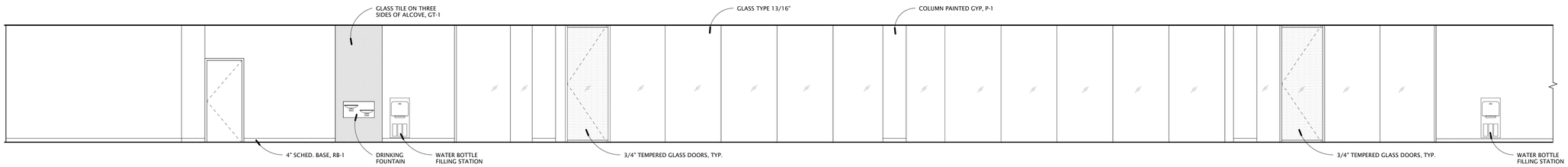
7 AE-461 (RM. 301) CONTROL DESK - NORTH
1/4" = 1'-0"



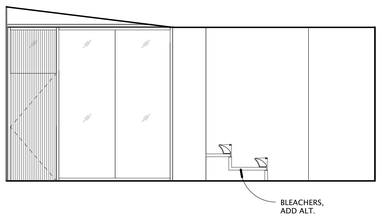
6 AE-461 (RM. 301) CARDIO THEATRE SOUTH B
1/4" = 1'-0"



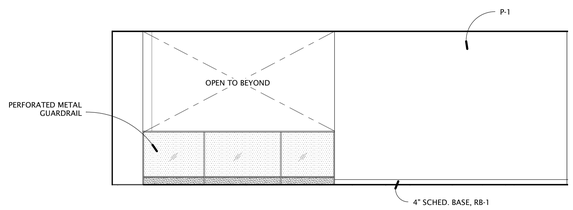
5 AE-461 (RM. 301A) FIRST AID - NORTH
1/4" = 1'-0"



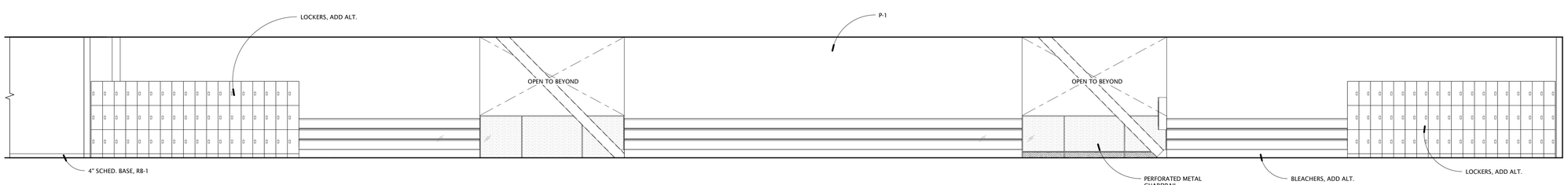
4 AE-461 (RM. 300) CIRCULATION WEST LEVEL 3
1/4" = 1'-0"



3 AE-461 (RM. 300) CIRCULATION - SOUTH
1/4" = 1'-0"



2 AE-461 (RM. 300) CIRCULATION - EAST A
1/4" = 1'-0"



1 AE-461 (RM. 300) CIRCULATION - EAST B
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

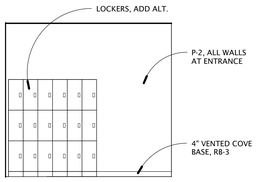
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR ELEVATIONS - LEVEL 3

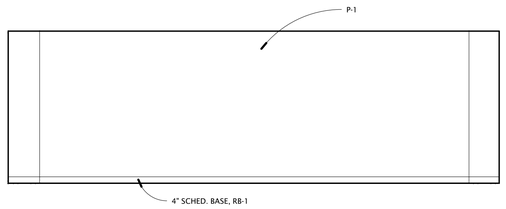
CONSTRUCTION DOCUMENTS

AE-461



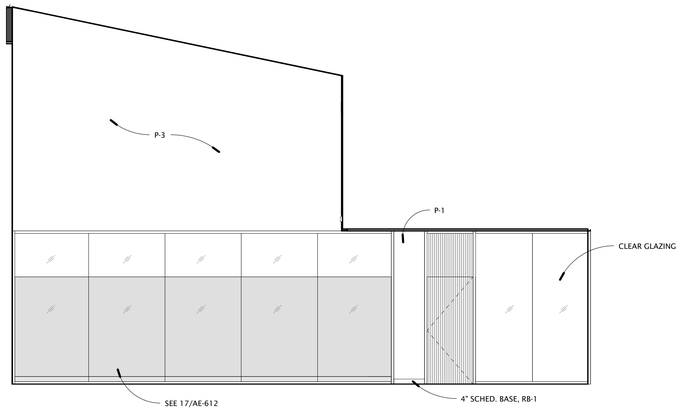
(RM. 309B) MP STUDIO ENTRY - NORTH / (RM. 305B) MP YOGA ENTRY - SOUTH, MIRRORED

9 AE-462 1/4" = 1'-0"



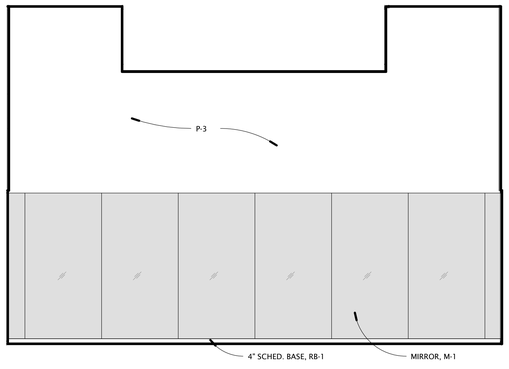
8 AE-462 (RM. 307) MP STUDIO SPINNING WEST

1/4" = 1'-0"



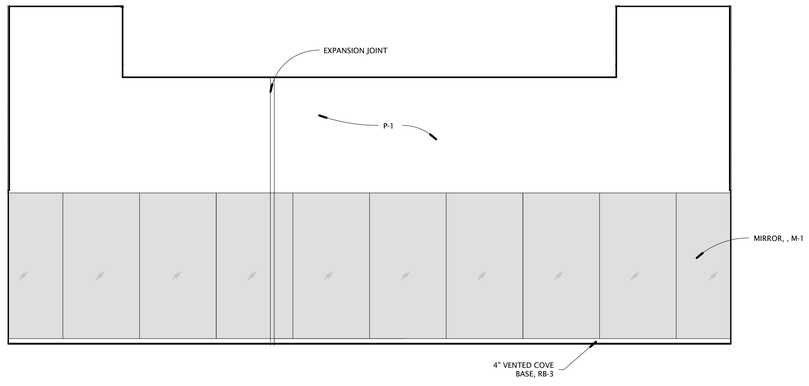
7 AE-462 (RM. 307) MP STUDIO SPINNING - SOUTH / NORTH EQ, MIRRORED

1/4" = 1'-0"



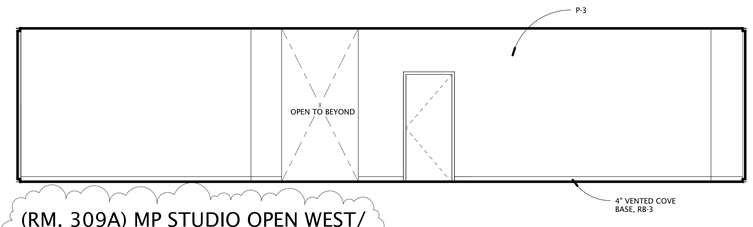
6 AE-462 (RM. 307) MP STUDIO SPINNING EAST

1/4" = 1'-0"



5 AE-462 (RM. 305A) MP STUDIO YOGA/PILATES EAST

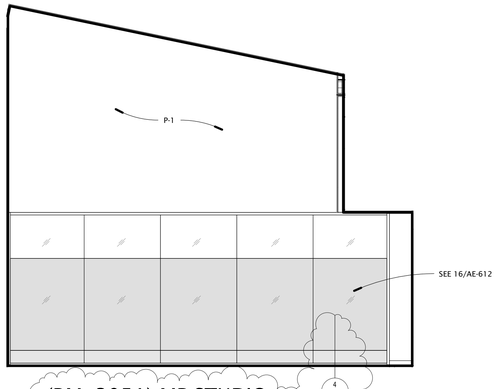
1/4" = 1'-0"



4 AE-462 (RM. 309A) MP STUDIO OPEN WEST/ (RM. 305A) MP STUDIO YOGA/PILATES WEST (MIRRORED)

1

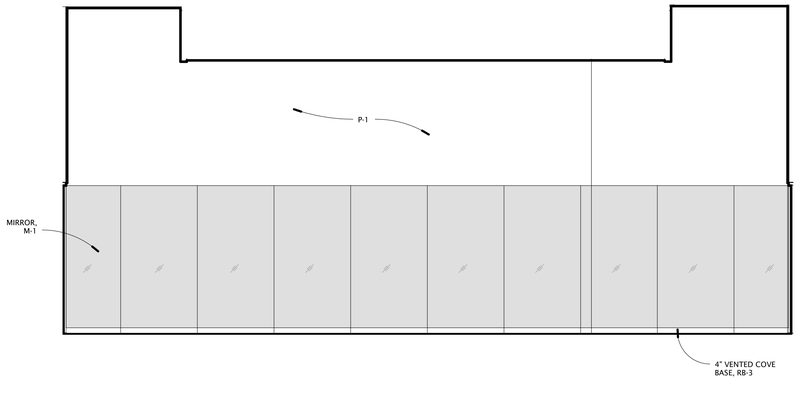
1/4" = 1'-0"



3 AE-462 (RM. 305A) MP STUDIO YOGA/PILATES SOUTH/ NORTH (MIRRORED)

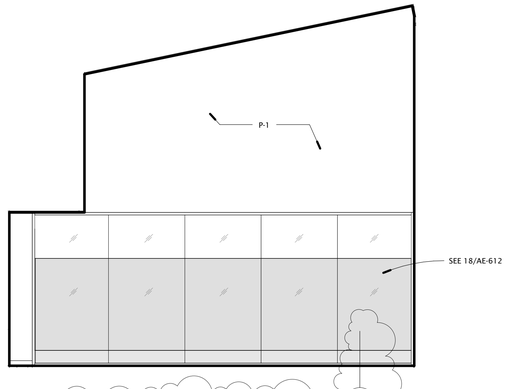
1

1/4" = 1'-0"



2 AE-462 (RM. 309A) MP STUDIO OPEN EAST

1/4" = 1'-0"



1 AE-462 (RM. 309A) MP STUDIO OPEN NORTH/ SOUTH (MIRRORED)

1

1/4" = 1'-0"

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

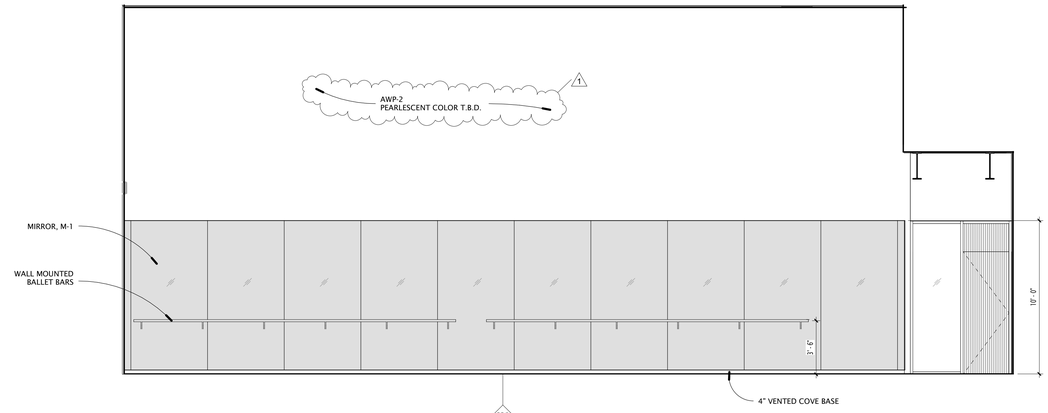
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

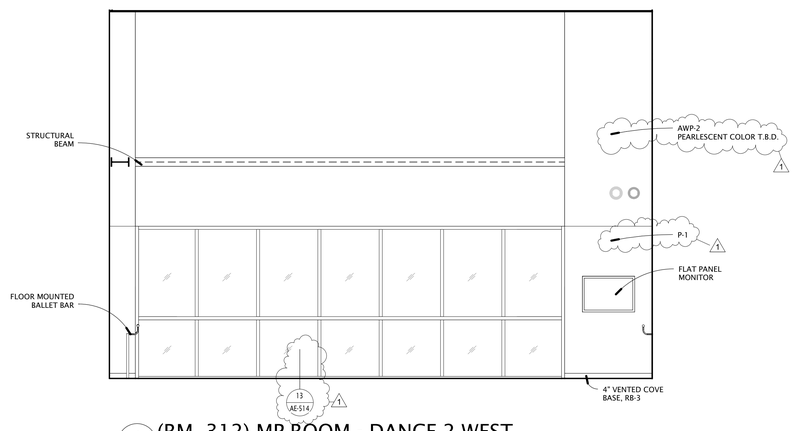
INTERIOR ELEVATIONS - LEVEL 3

CONSTRUCTION DOCUMENTS

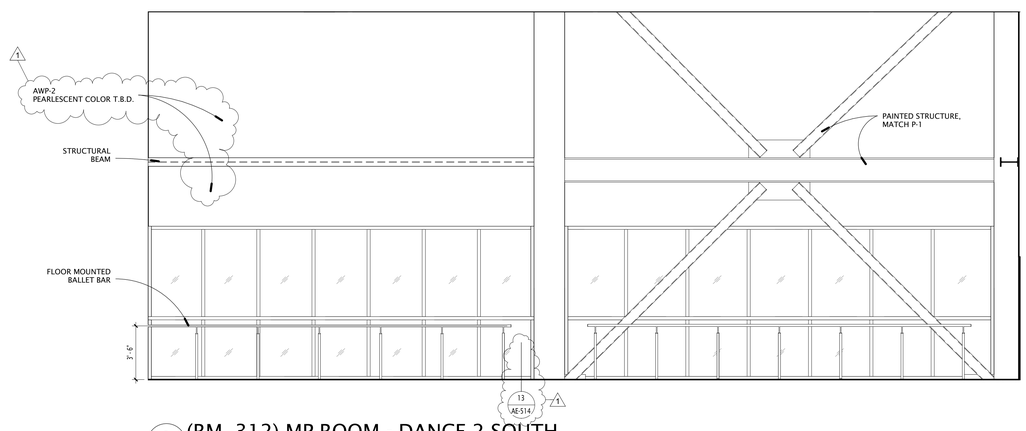
AE-462



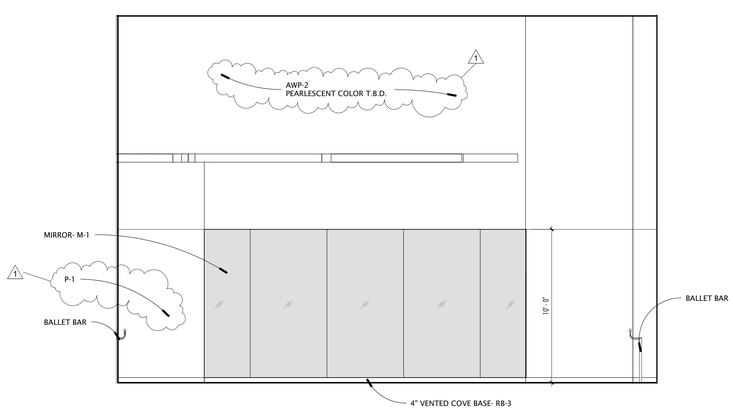
5 AE-463 (RM. 312) MP ROOM - DANCE 2 NORTH
1/4" = 1'-0"



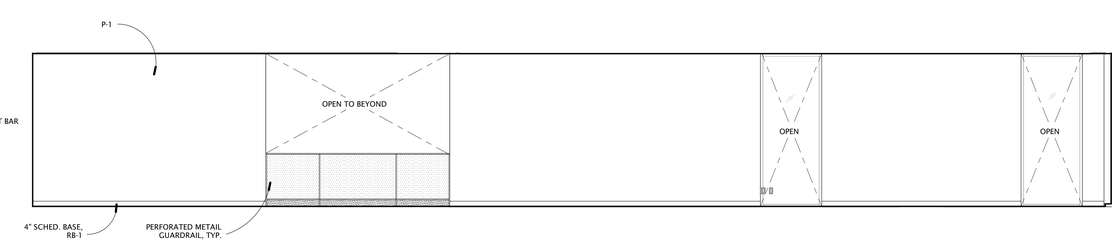
4 AE-463 (RM. 312) MP ROOM - DANCE 2 WEST
1/4" = 1'-0"



3 AE-463 (RM. 312) MP ROOM - DANCE 2 SOUTH
1/4" = 1'-0"



2 AE-463 (RM. 312) MP ROOM - DANCE 2 EAST
1/4" = 1'-0"



1 AE-463 (RM. 300) CIRCULATION - EAST
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN
BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

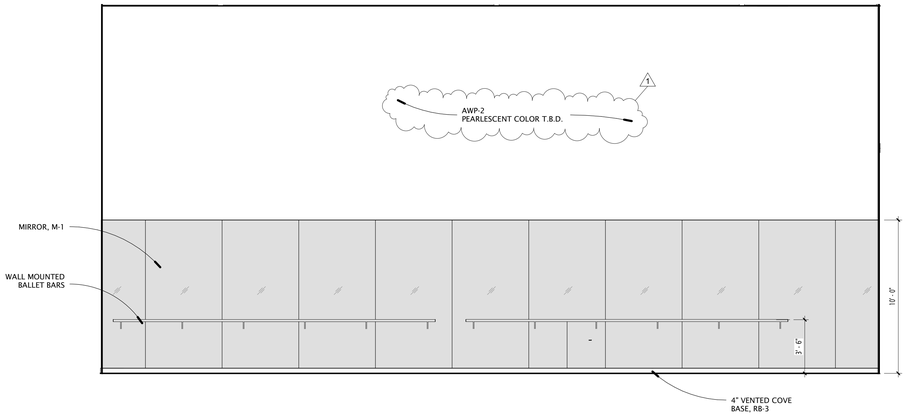
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

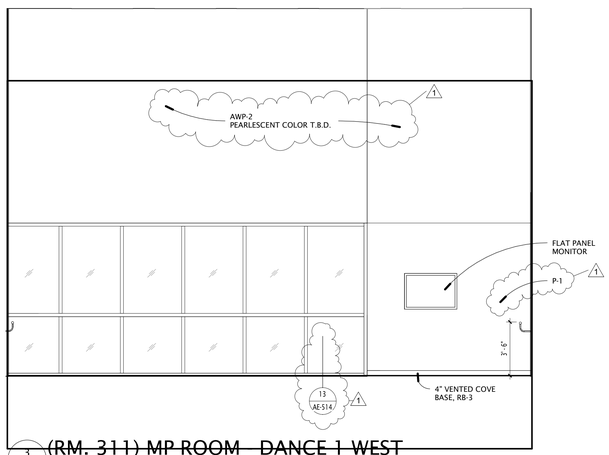
INTERIOR ELEVATIONS LEVEL 3

CONSTRUCTION DOCUMENTS

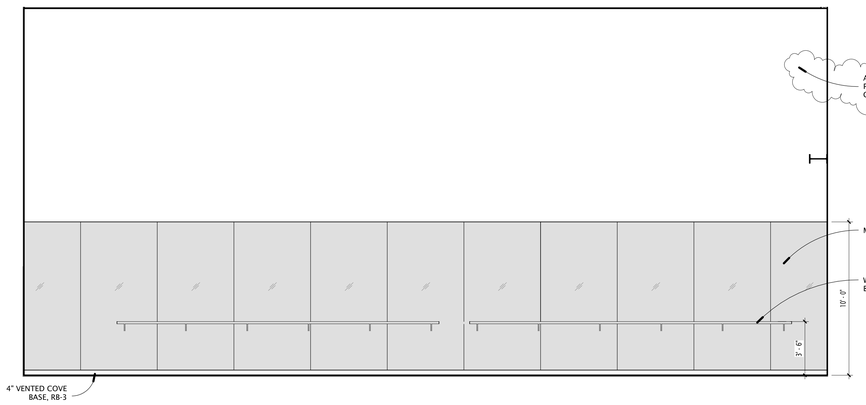
AE-463



4 AE-464 (RM. 311) MP ROOM - DANCE 1 NORTH
1/4" = 1'-0"



3 AE-464 (RM. 311) MP ROOM - DANCE 1 WEST
1/4" = 1'-0"



2 AE-464 (RM. 311) MP ROOM - DANCE 1 SOUTH
1/4" = 1'-0"

1 AE-464 (RM. 311) MP ROOM - DANCE 1 EAST
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN
BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

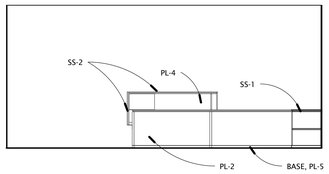
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

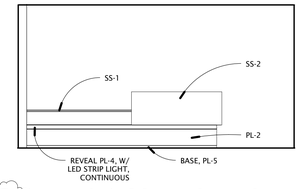
INTERIOR ELEVATIONS - LEVEL 3

CONSTRUCTION DOCUMENTS

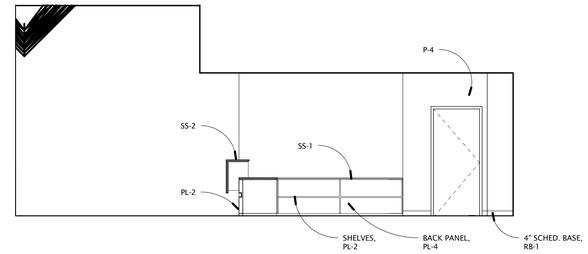
AE-464



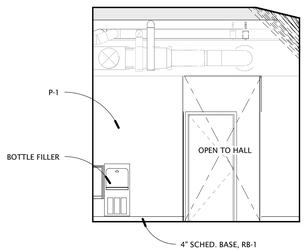
7 AE-471 (RM. 401) CONTROL DESK - WEST
1/4" = 1'-0"



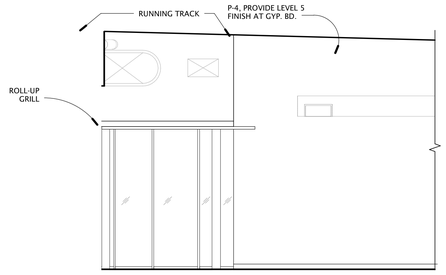
6 AE-471 (RM. 401) CONTROL DESK - EAST
1/4" = 1'-0"

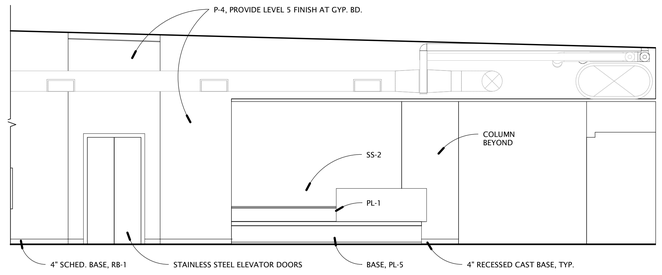


5 AE-471 (RM. 401) CONTROL DESK - NORTH
1/4" = 1'-0"

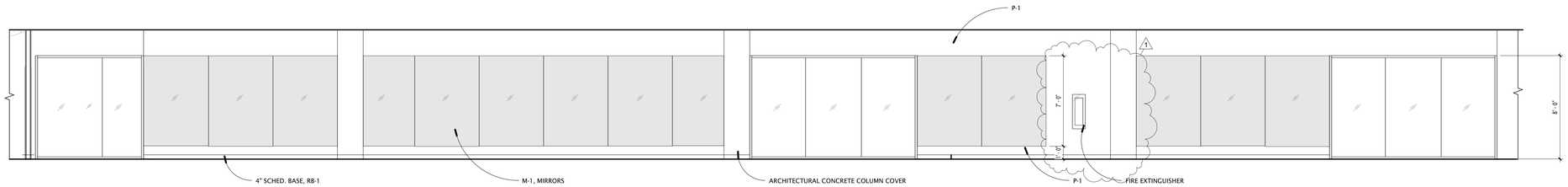


4 AE-471 (RM. 402) CARDIO SOUTH
1/4" = 1'-0"

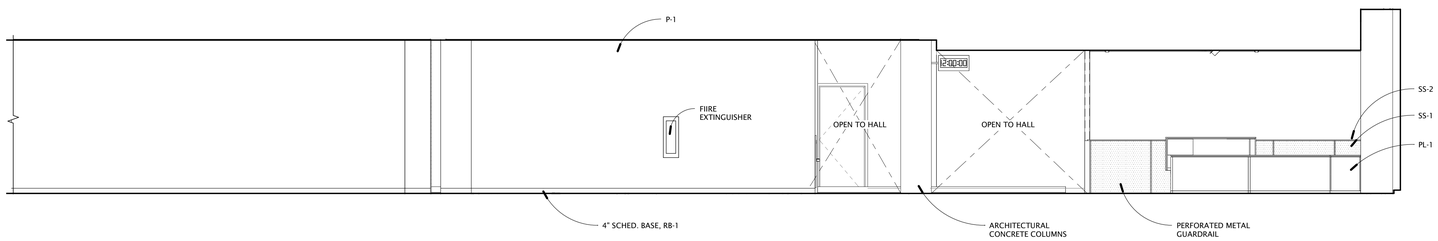




3 AE-471 (RM. 402) CARDIO EAST
1/4" = 1'-0"



2 AE-471 (RM. 407 / 408) LEVEL 4 FREE WEIGHTS WEST
1/4" = 1'-0"



1 AE-471 (RM. 400) LEVEL 4 CONCOURSE WEST - CONTINUATION
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

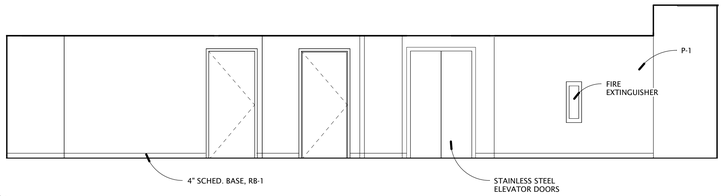
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

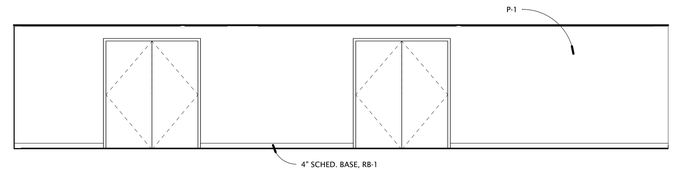
INTERIOR ELEVATIONS - LEVEL 4

CONSTRUCTION DOCUMENTS

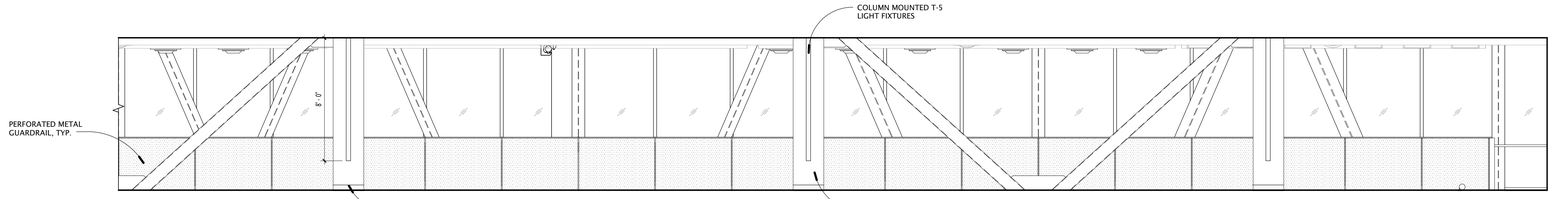
AE-471



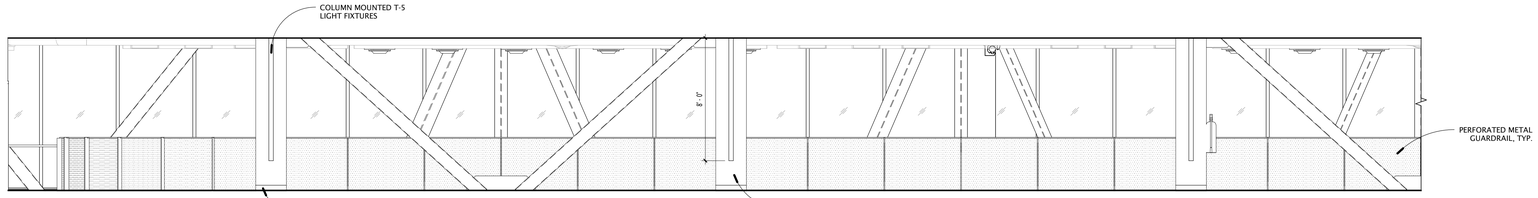
7 AE-472 (RM. 408) HALLWAY - WEST
1/4" = 1'-0"



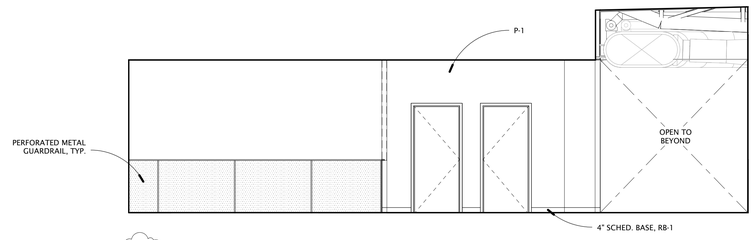
6 AE-472 (RM. 408) HALLWAY - EAST
1/4" = 1'-0"



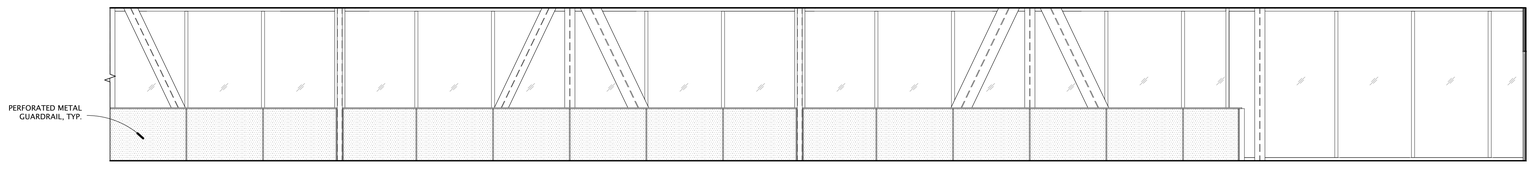
5 AE-472 (RM. 400 / 405) CIRCULATION / CARDIO NORTH B
1/4" = 1'-0"



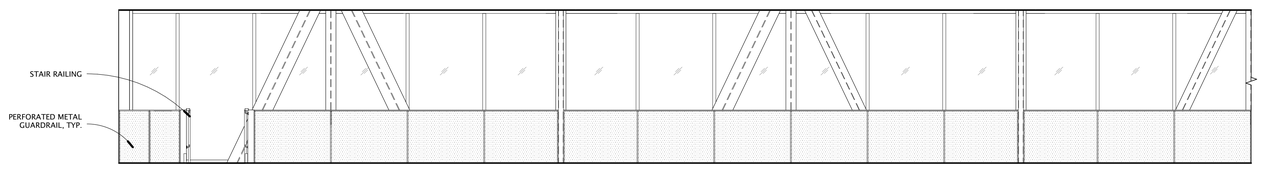
4 AE-472 (RM. 400 / 405) CIRCULATION / CARDIO NORTH A
1/4" = 1'-0"



3 AE-472 (RM. 400 / 405) CIRCULATION / CARDIO WEST
1/4" = 1'-0"



2 AE-472 (RM. 400 / 405) CIRCULATION /CARDIO SOUTH B
1/4" = 1'-0"



1 AE-472 (RM. 400 / 405) CIRCULATION /CARDIO SOUTH A
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

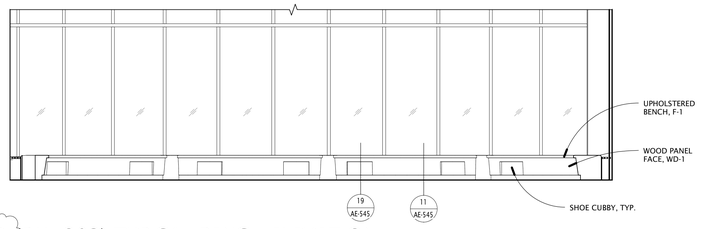
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

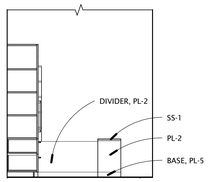
INTERIOR ELEVATIONS - LEVEL 4

CONSTRUCTION DOCUMENTS

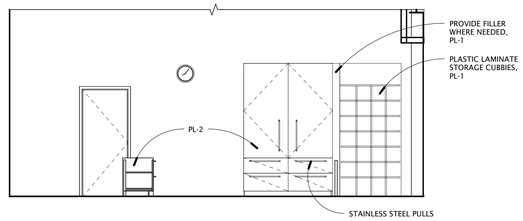
AE-472



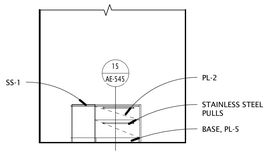
8 AE-481 (RM. 203) TYPICAL BENCH ELEVATION
1/4" = 1'-0"



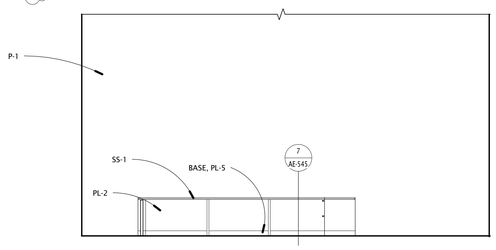
7 AE-481 (RM. 203A) CLIMBING CHECK- IN WEST INSIDE
1/4" = 1'-0"



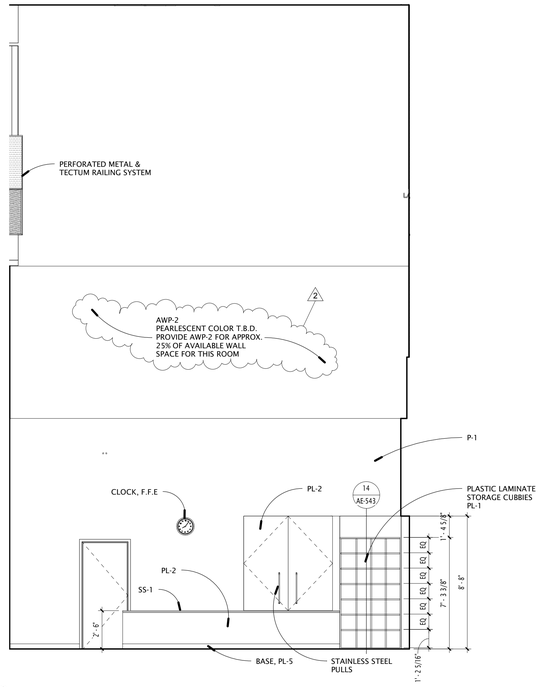
6 AE-481 (RM. 203A) CLIMBING CHECK- IN SOUTH INSIDE
1/4" = 1'-0"



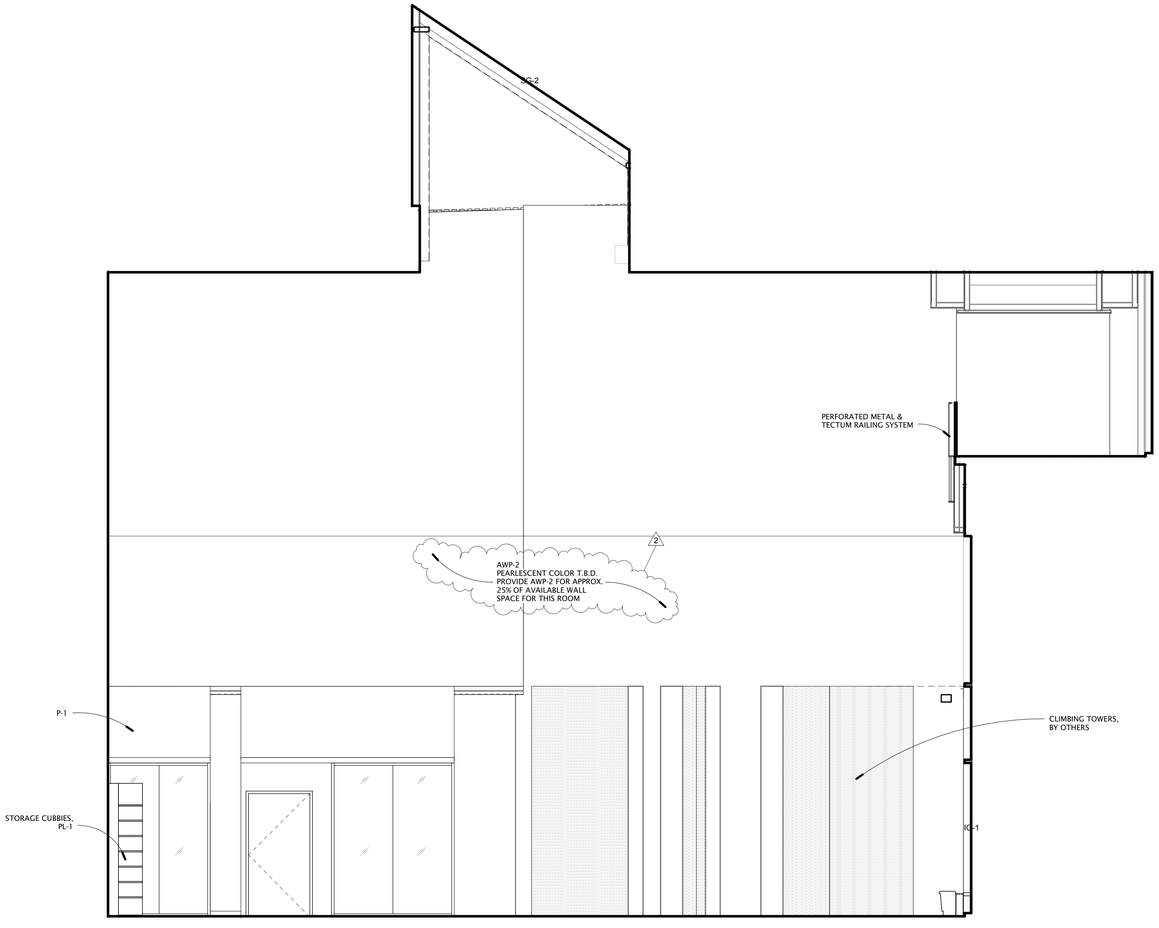
5 AE-481 (RM. 203A) CLIMBING CHECK- IN EAST INSIDE
1/4" = 1'-0"



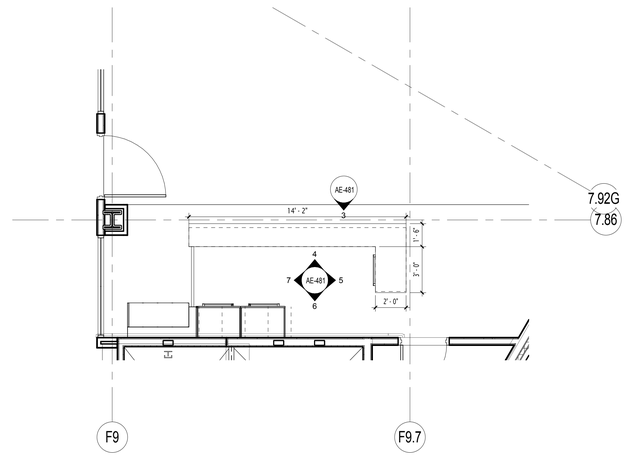
4 AE-481 (RM. 203A) CLIMBING CHECK-IN INSIDE- NORTH
1/4" = 1'-0"



3 AE-481 (RM. 203A) CLIMBING CHECK- IN OUTSIDE- SOUTH
1/4" = 1'-0"



2 AE-481 (RM. 203) CLIMBING & BOULDERING WEST
1/4" = 1'-0"



1 AE-481 ENLARGED PLAN - CLIMBING DESK 203A
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

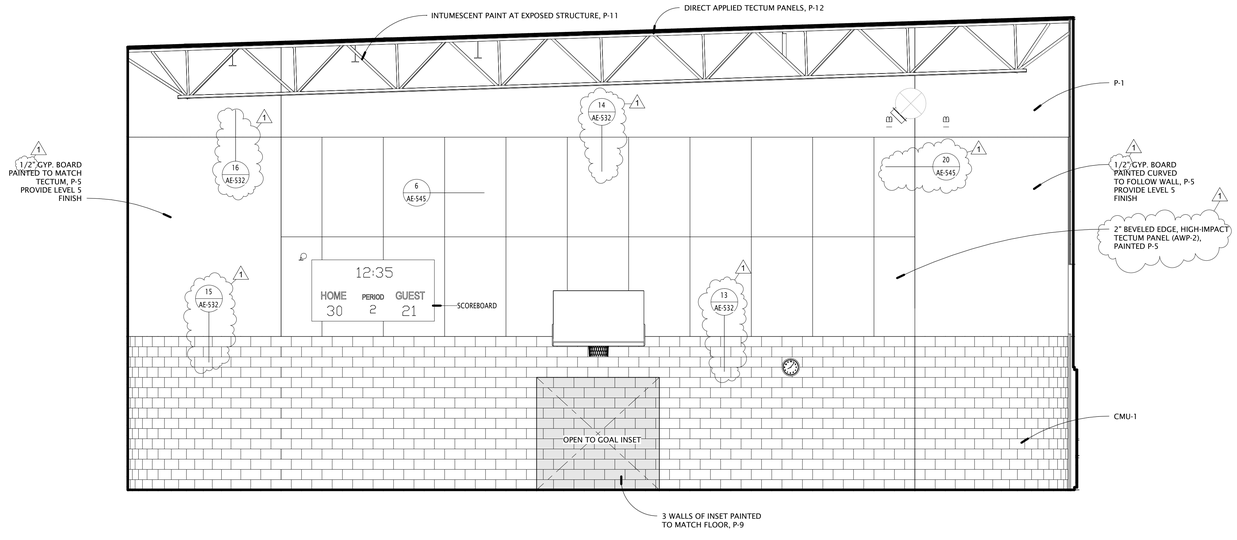
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

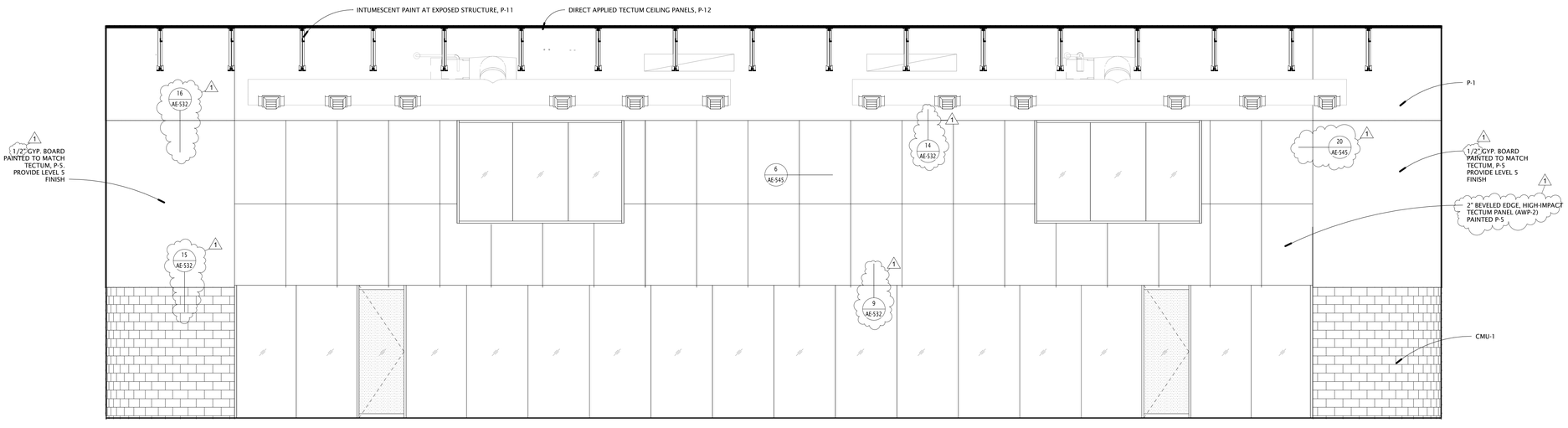
INTERIOR ELEVATIONS -
CLIMBING / BOULDERING

CONSTRUCTION DOCUMENTS

AE-481



2 AE-485 (RM. 306) MAC GYM NORTH
1/4" = 1'-0"



1 AE-485 (RM. 306) MAC GYM EAST
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

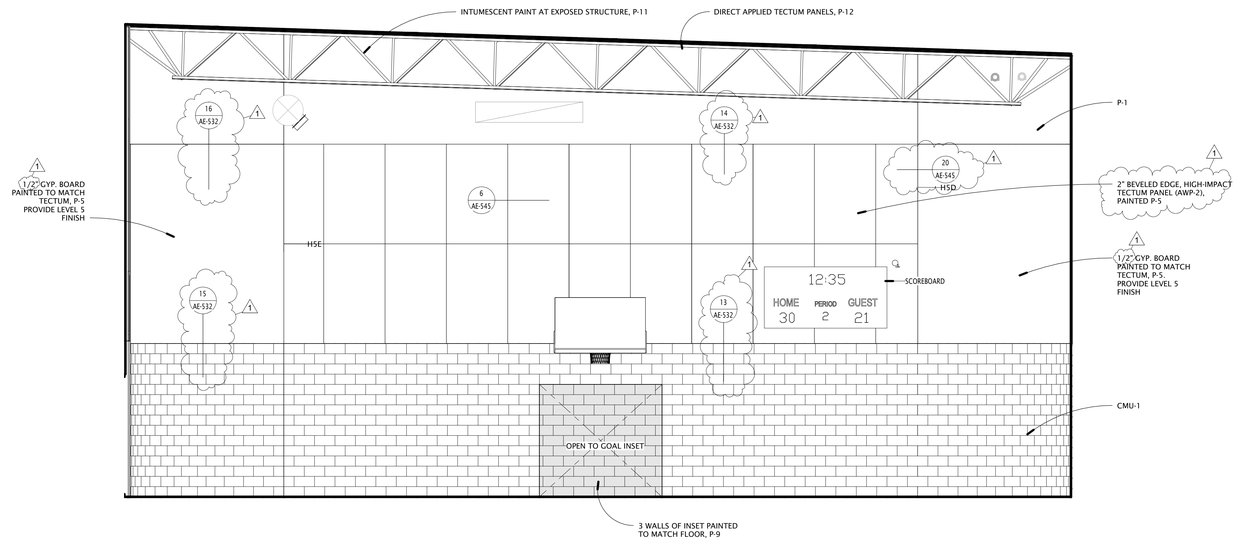
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

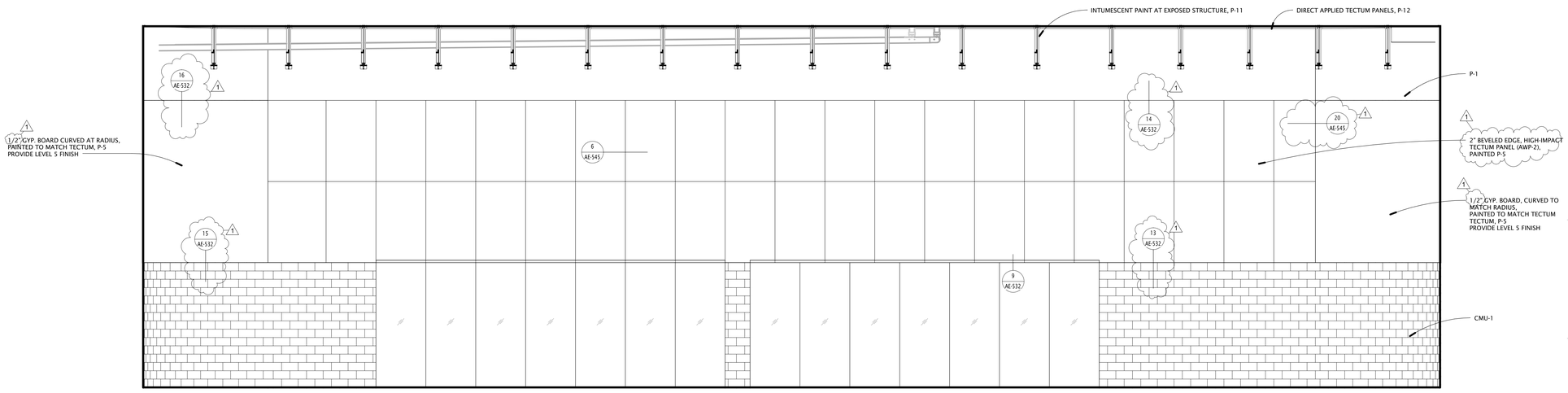
INTERIOR ELEVATIONS - MAC GYM NORTH & EAST

CONSTRUCTION DOCUMENTS

AE-485



2 AE-486 (RM. 306) MAC GYM SOUTH
1/4" = 1'-0"



1 AE-486 (RM. 306) MAC GYM WEST
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

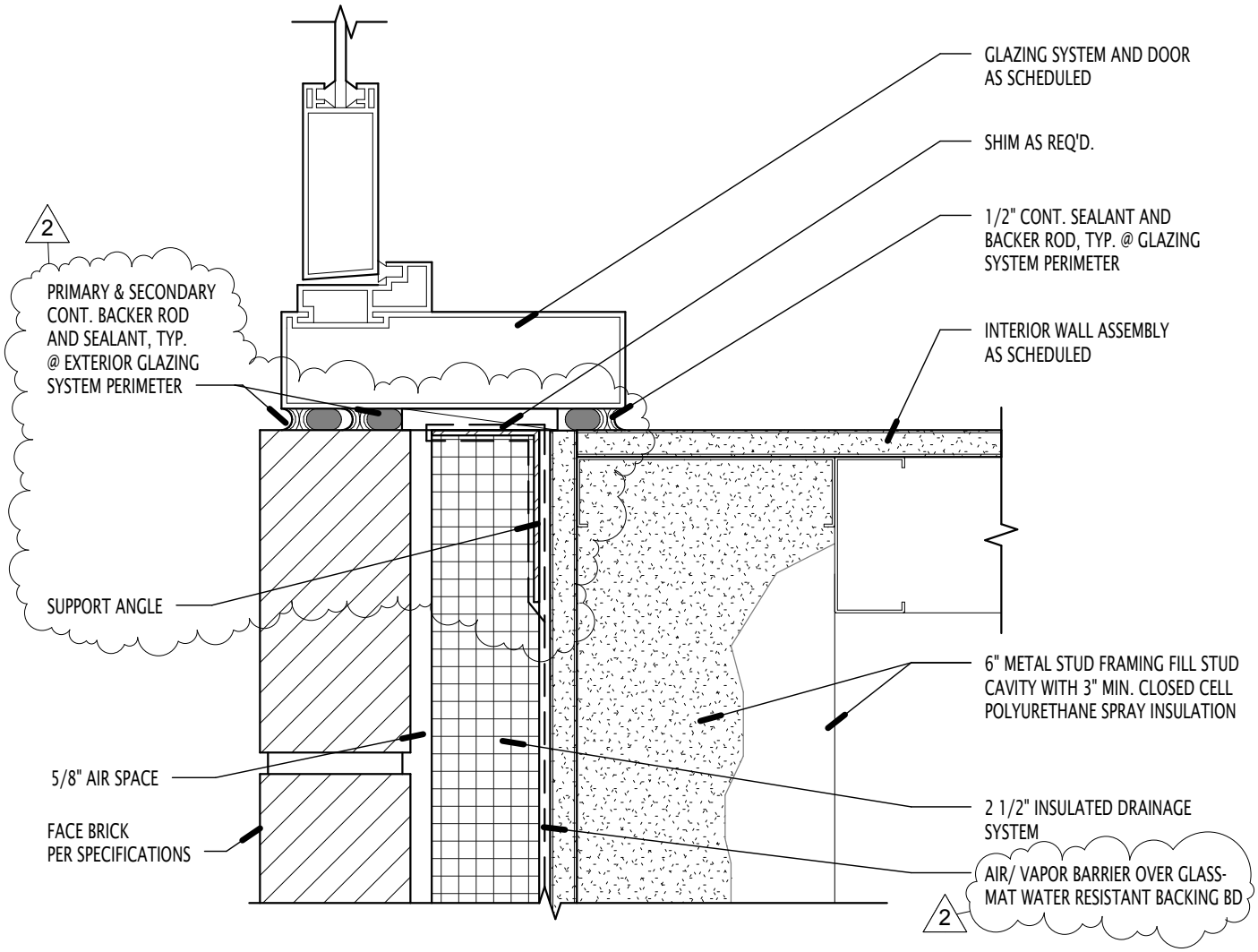
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AM
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR ELEVATIONS - MAC GYM SOUTH & WEST

CONSTRUCTION DOCUMENTS

AE-486



4
AE-501

ALUM FRAME JAMB AT BRICK WALL

3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

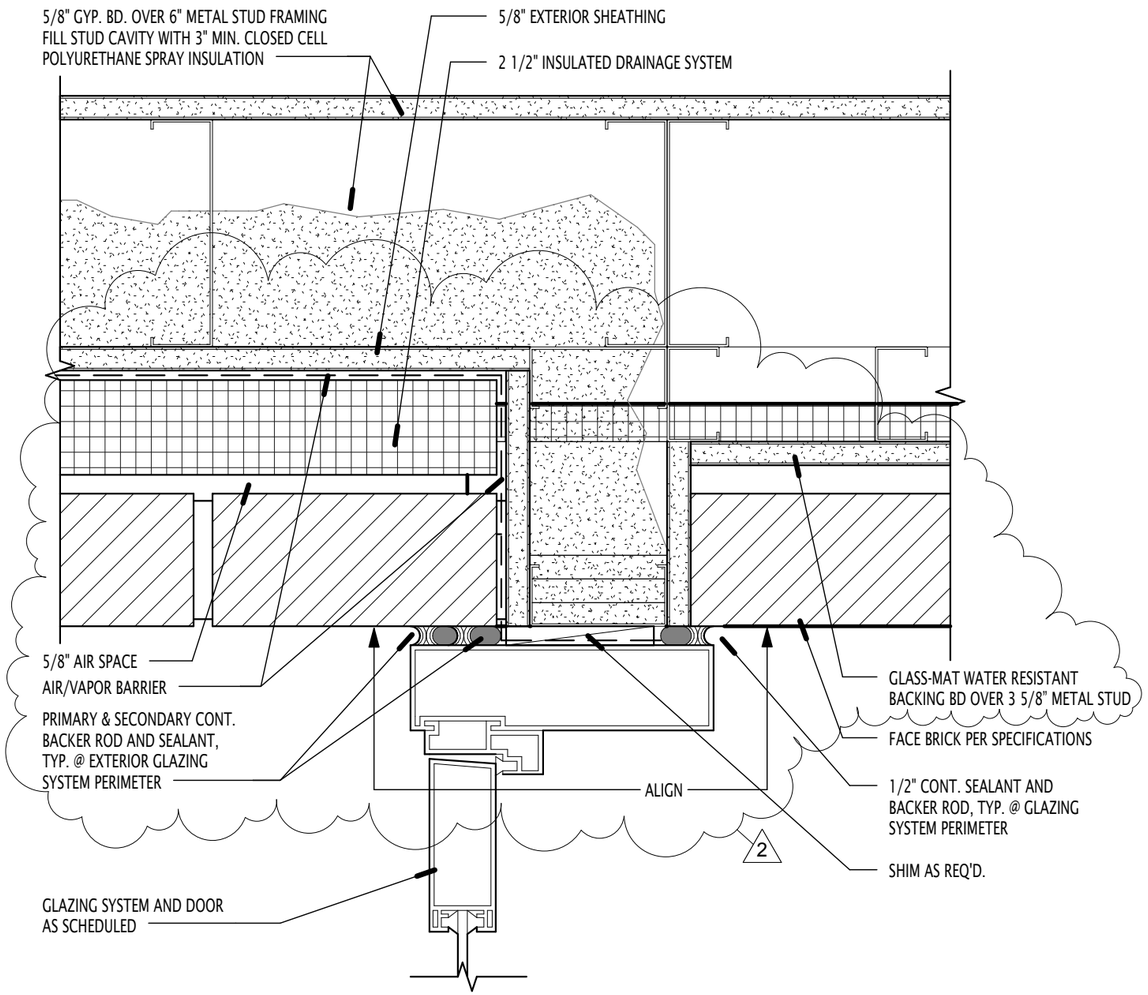
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-501-03

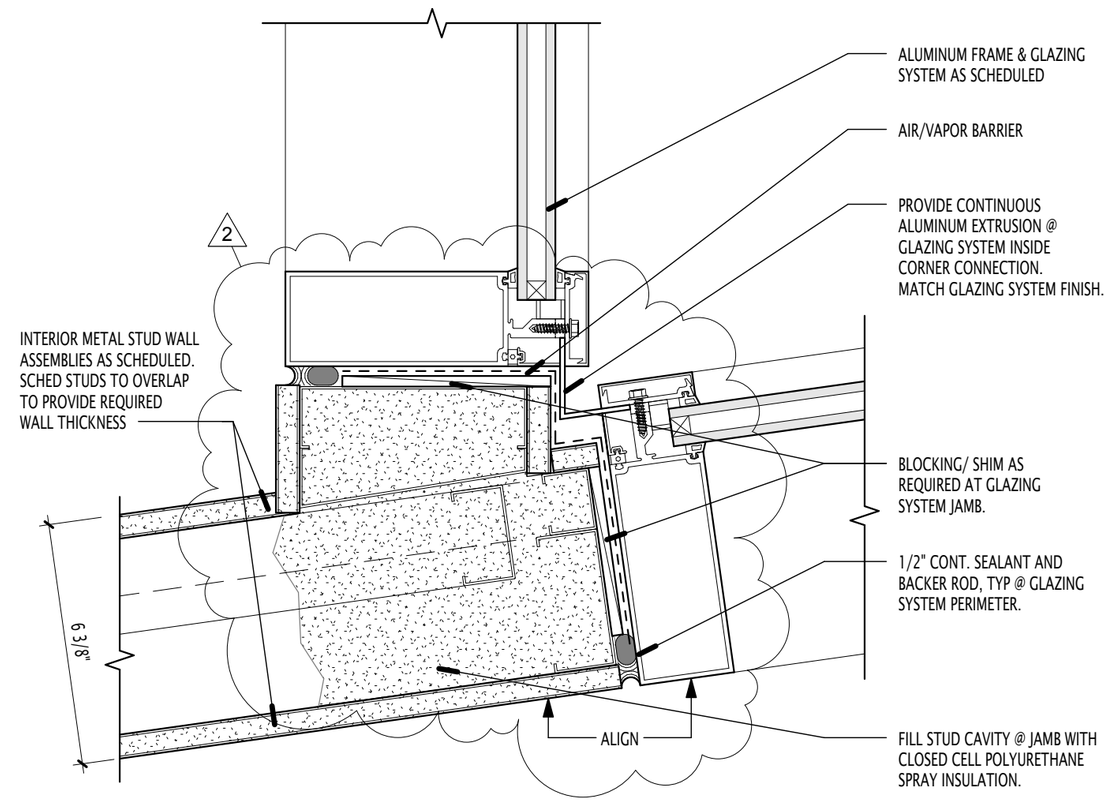
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



9
AE-501

ALUM FRAME JAMB DTL AT BRICK WALL

3" = 1'-0"



14
AE-501

CURTAIN WALL CORNER DTL @ BRIDGE

3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

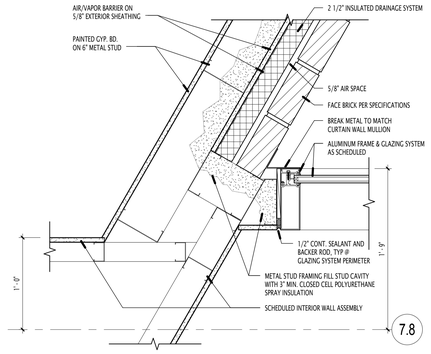
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

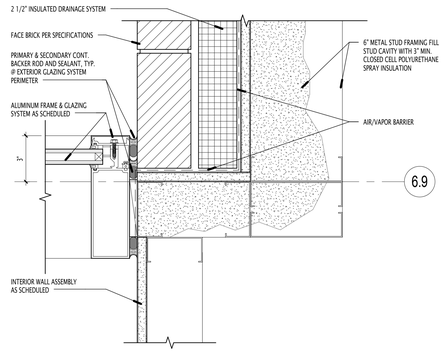
REV.: Addendum-04
BY: TY

AE-501-04

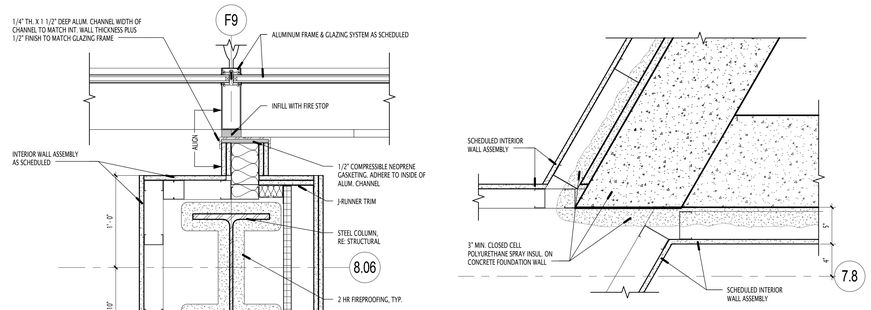
DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



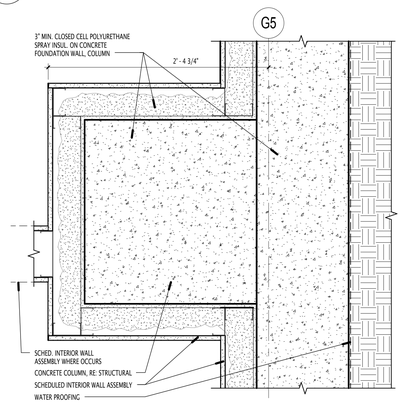
8 AE-503 CW CORNER DETAIL W/ BRICK WALL
1 1/2" = 1'-0"



4 AE-503 CURTAINWALL DETAIL W/ BRICK WALL
3" = 1'-0"

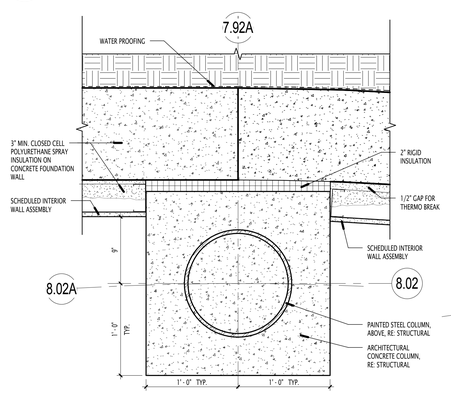


7 AE-503 CONC. FOUNDATION WALL CORNER
1 1/2" = 1'-0"

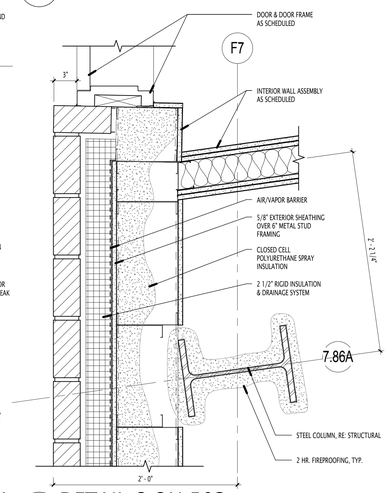


3 AE-503 COLUMN WRAP W/ CONC. FOUNDATION
1 1/2" = 1'-0"

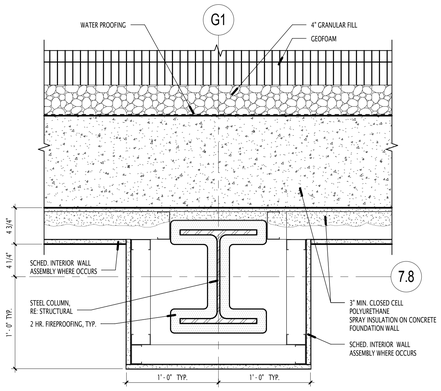
11 AE-503 FIRE SHUTTER JAMB DETAIL
1 1/2" = 1'-0"



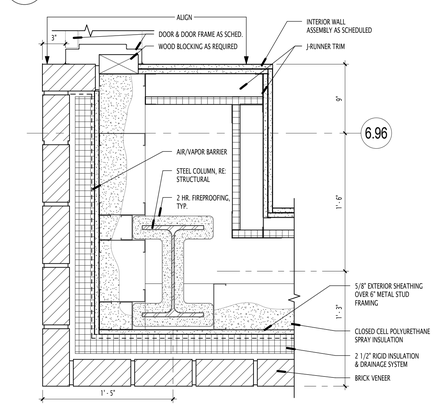
10 AE-503 ARCHITECTURAL CONC. COLUMN DETAIL
1 1/2" = 1'-0"



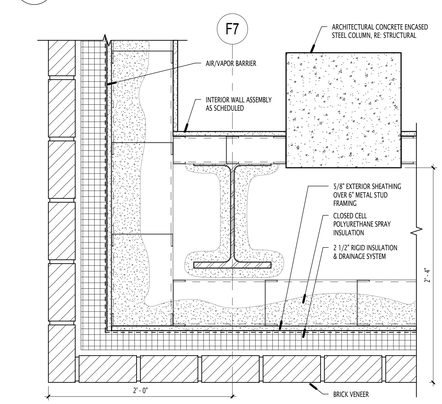
6 AE-503 DETAIL 6 ON 503
1 1/2" = 1'-0"



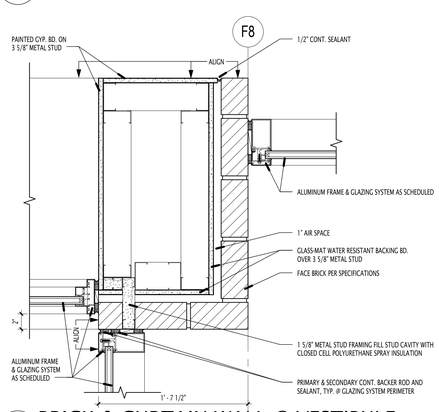
2 AE-503 COLUMN WRAP W/ CONC. WALL
1 1/2" = 1'-0"



9 AE-503 BRICK WALL CORNER W/ SHAFT WALL
1 1/2" = 1'-0"



5 AE-503 BRICK WALL CORNER @ STAIR LOUNGE
1 1/2" = 1'-0"



1 AE-503 BRICK & CURTAIN WALL @ VESTIBULE
1 1/2" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134865
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

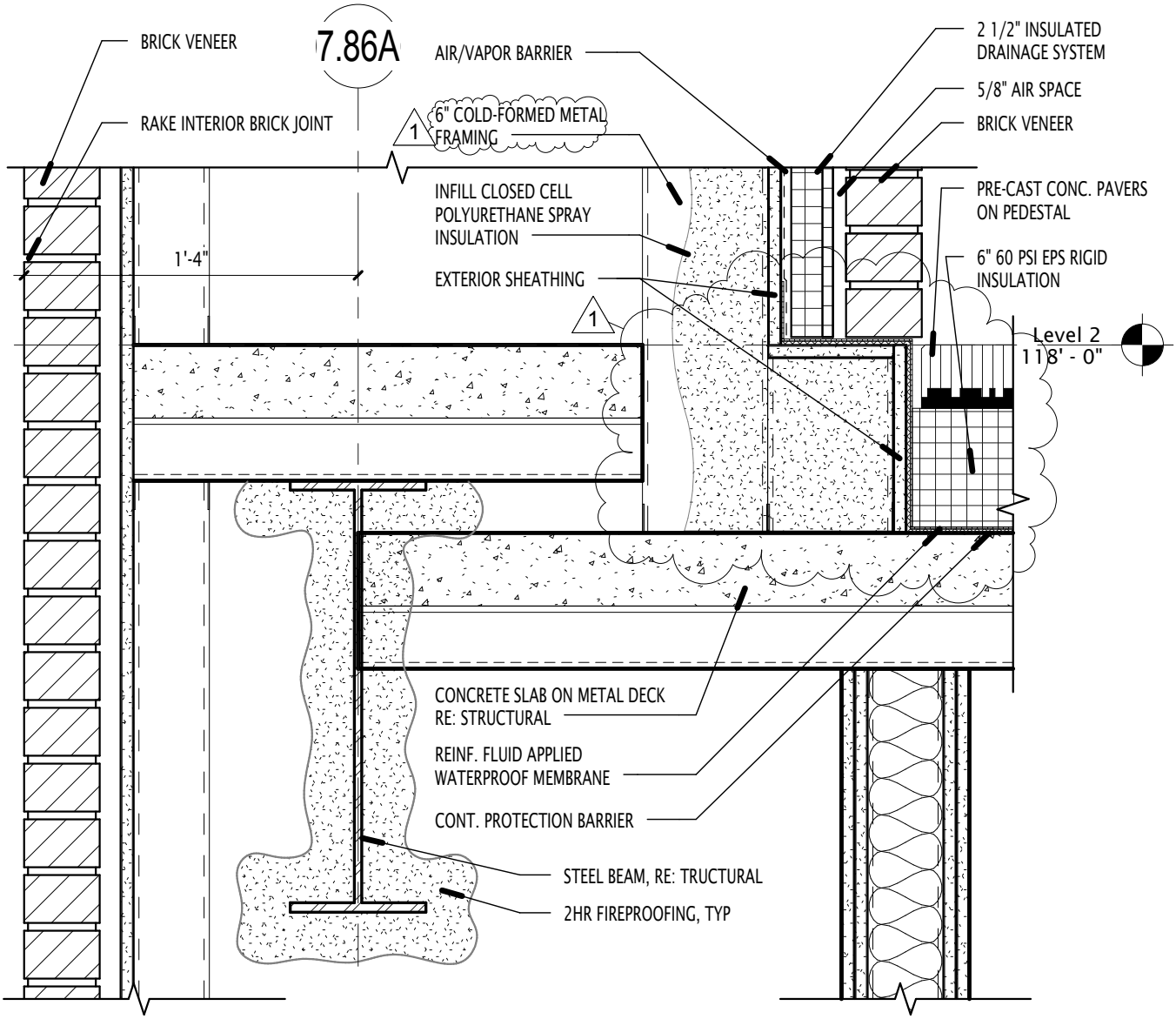
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EXTERIOR PLAN DETAILS

CONSTRUCTION DOCUMENTS

AE-503



8 / AE-512 WALL SCTN DTL @ ROOF PAVER SYSTEM

1 1/2" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

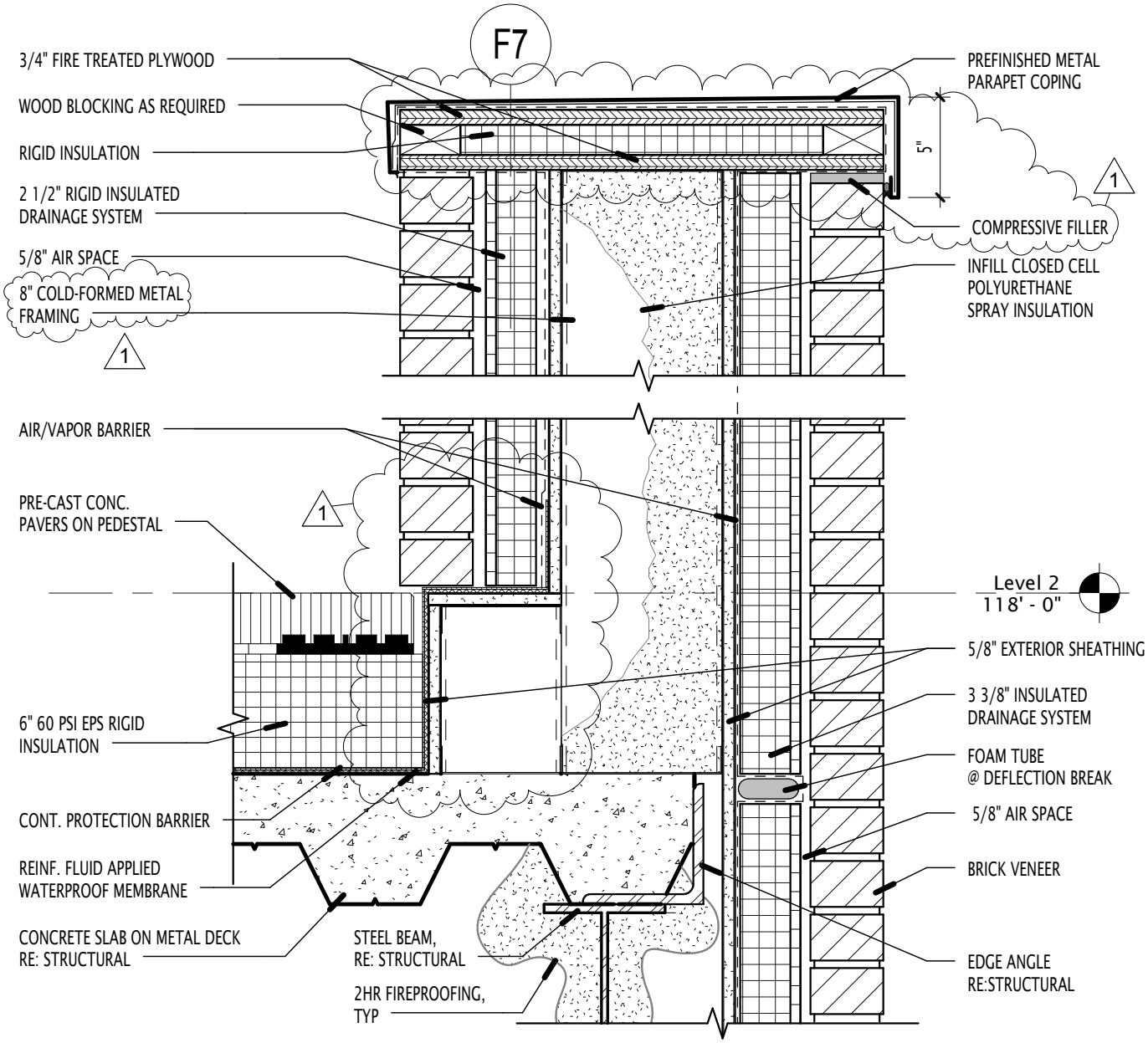
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-512-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



11 / AE-512 TYP PARAPET DTL @ PRAYER/MEDITATION

1 1/2" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

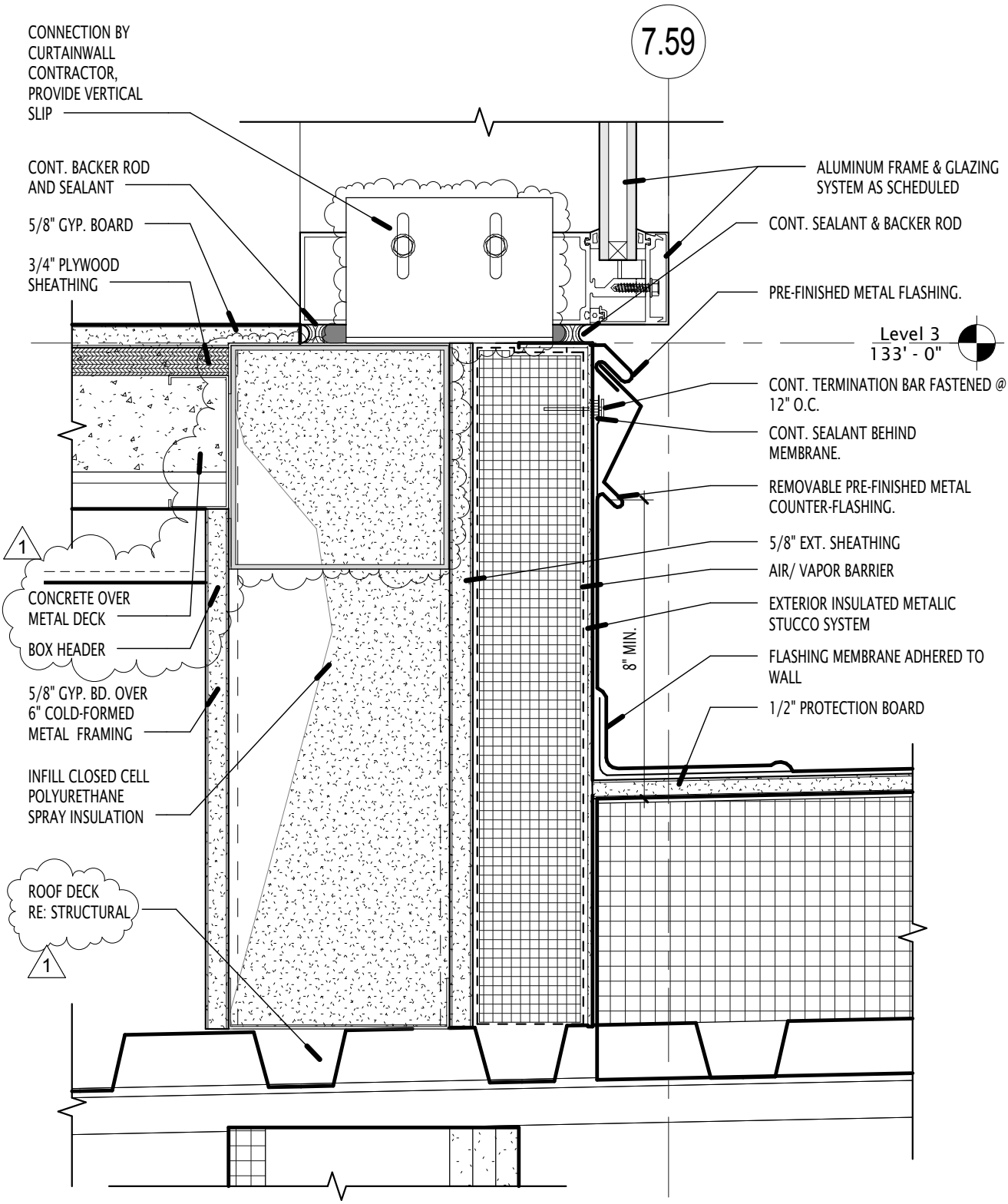
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-512-02

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



CURTAIN WALL / ROOF FLASHING DTL

17
AE-512

3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

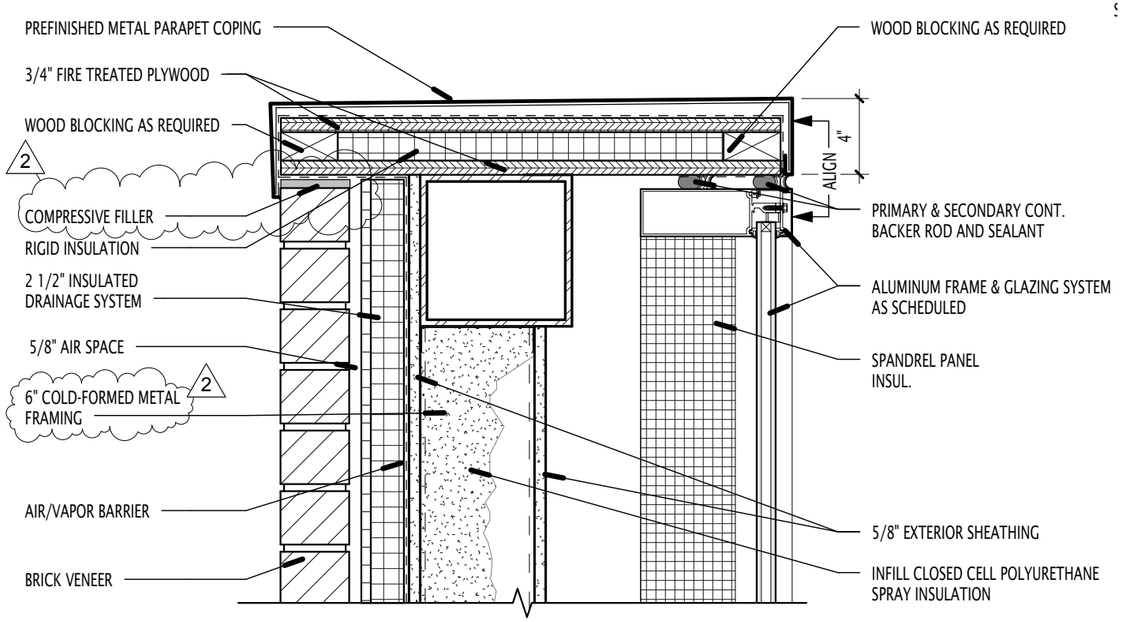
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: TY

AE-512-03

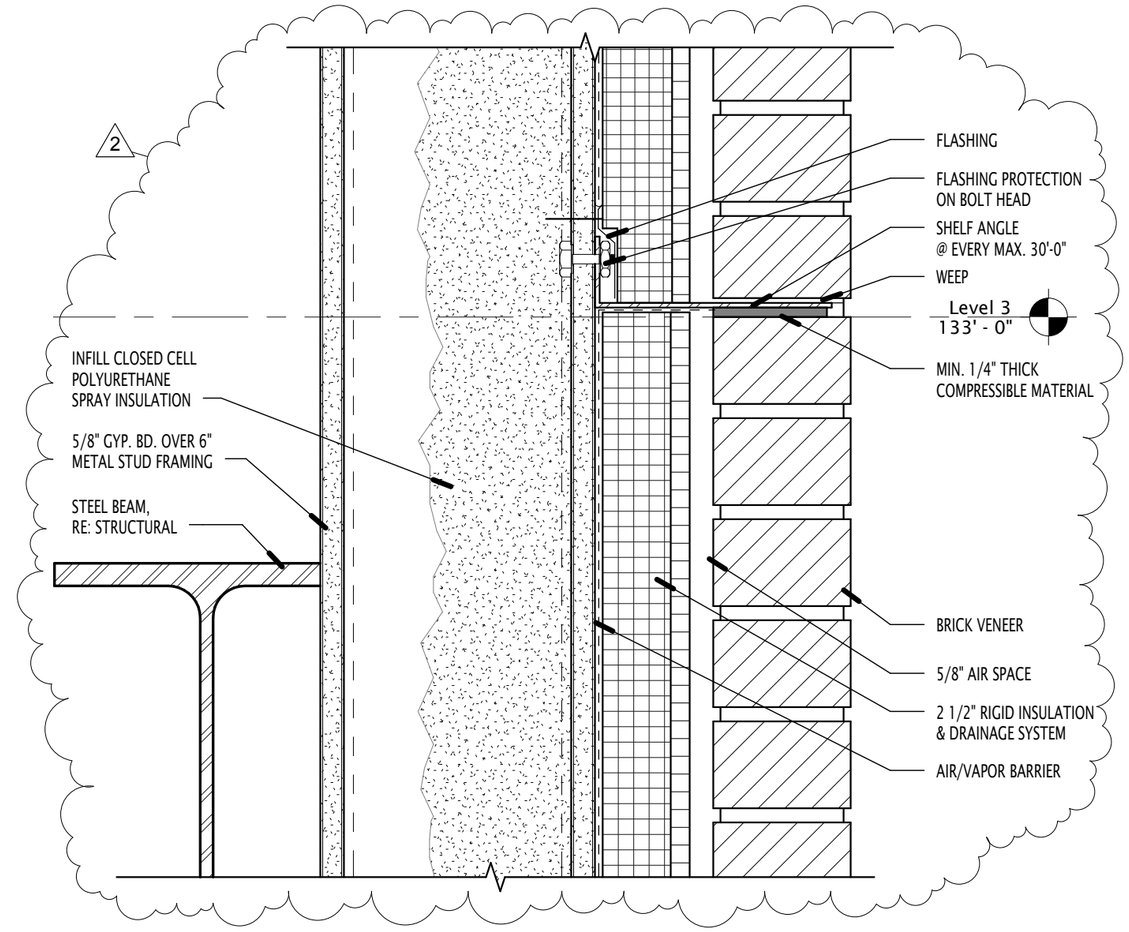
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



15
AE-513

TYP. PARAPET DTL @ CW & BRICK

1 1/2" = 1'-0"



17
AE-513

BRICK SUPPORT RELIEVING ANGLE DETAIL

3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

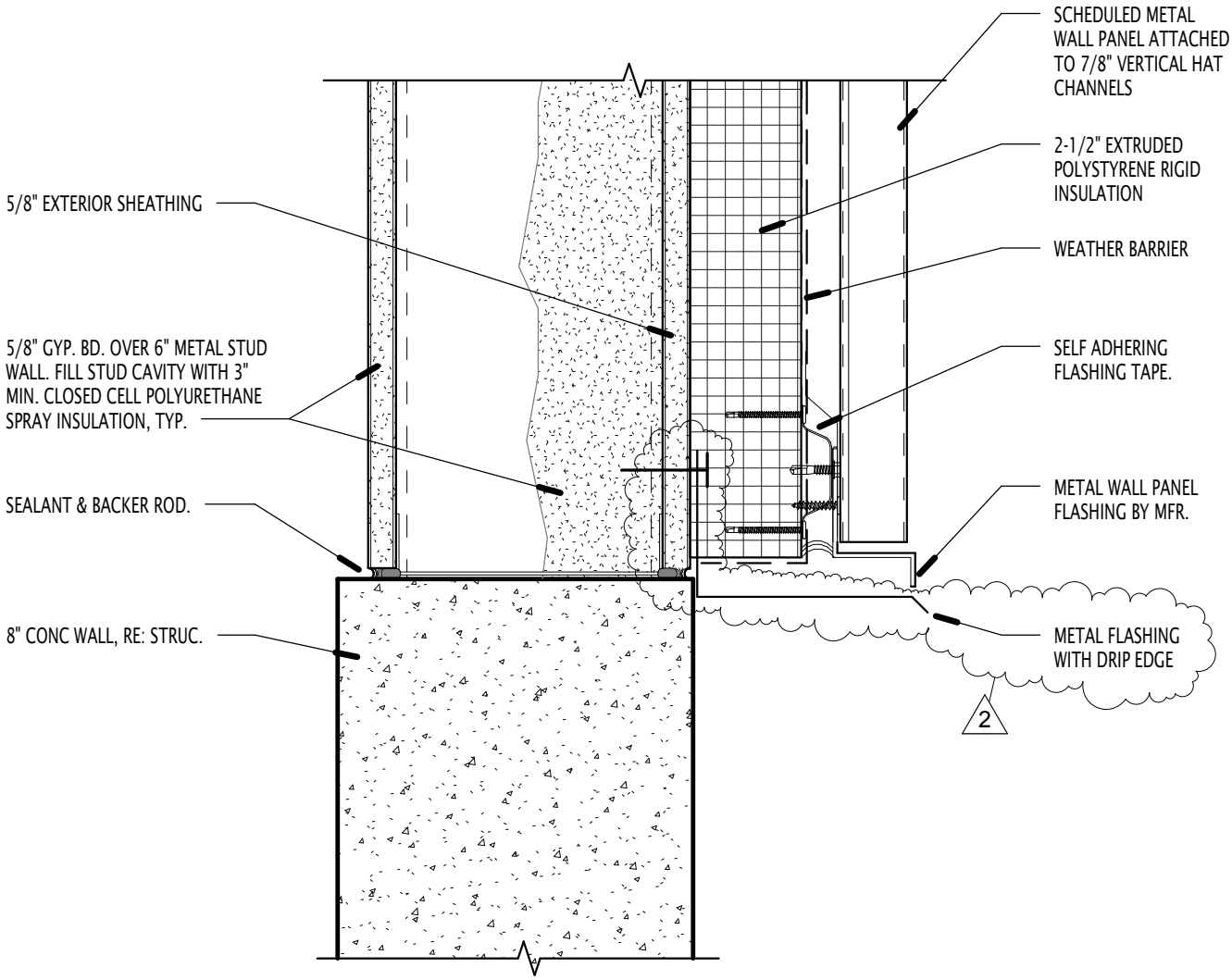
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: TY

AE-513-03

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



5
AE-516

METAL PANEL @ CONCRETE WALL

3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

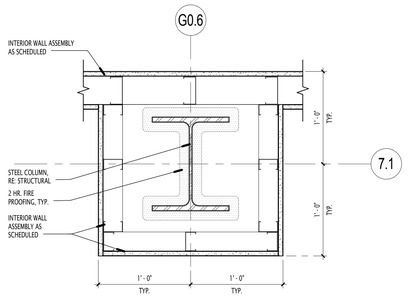
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

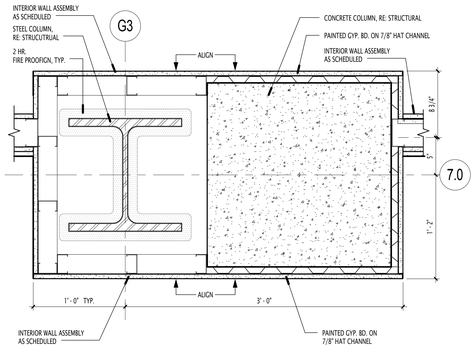
REV.: Addendum-04
BY: JB

AE-516-02

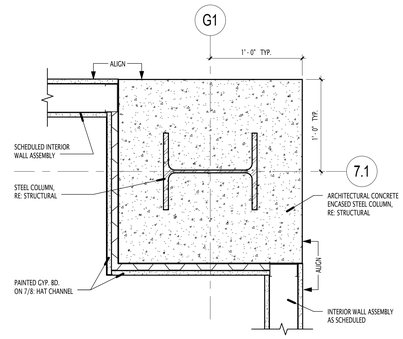
DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



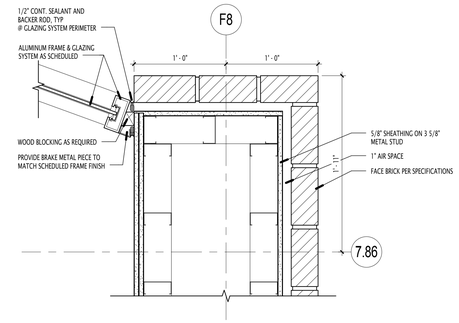
20 AE-521 STEEL COLUMN WRAP DETAIL
1 1/2" = 1'-0"



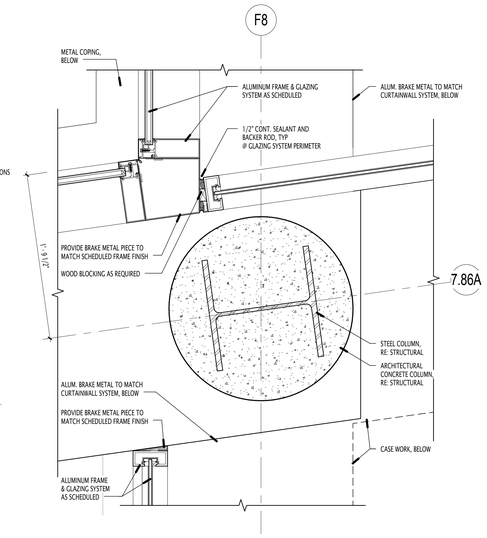
16 AE-521 STEEL & CONCRETE COLUMN DETAIL
1 1/2" = 1'-0"



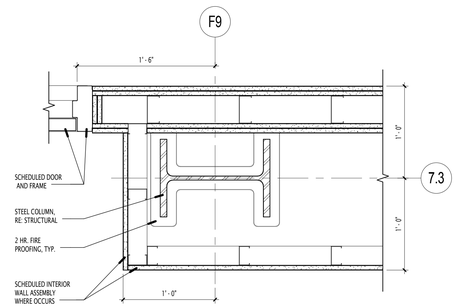
12 AE-521 ARCH. CONCRETE COLUMN DETAIL
1 1/2" = 1'-0"



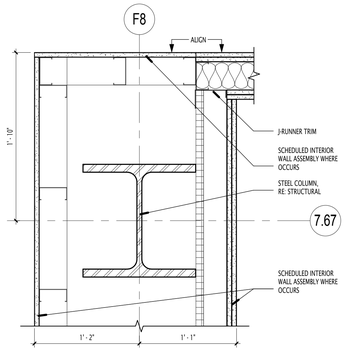
8 AE-521 DETAIL 2 ON 521
1 1/2" = 1'-0"



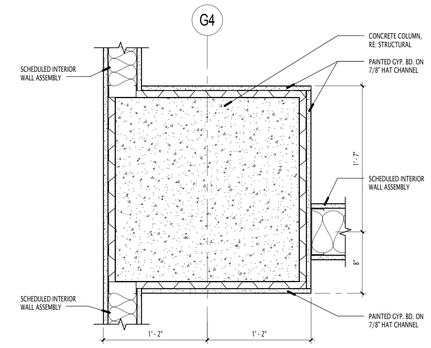
3 AE-521 COLUMN @ CONTROL COUNTER ABOVE
1 1/2" = 1'-0"



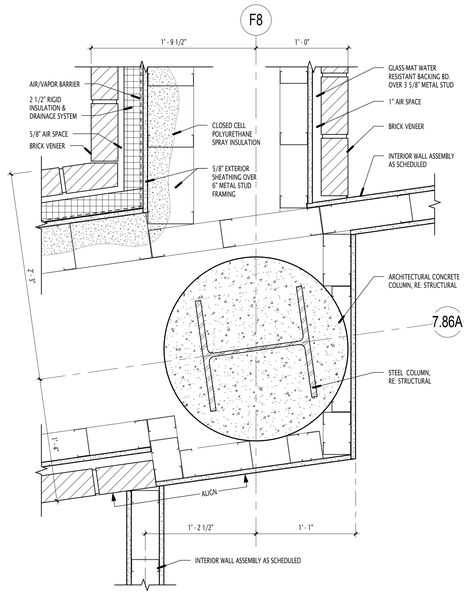
15 AE-521 COLUMN WRAP W/ DOOR
1 1/2" = 1'-0"



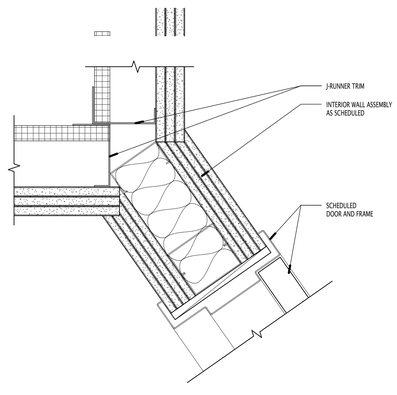
11 AE-521 COLUMN WRAP W/ SHAFT WALL
1 1/2" = 1'-0"



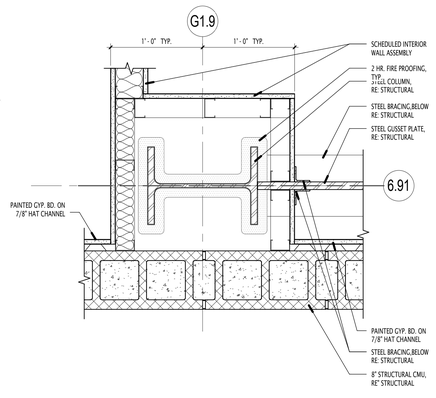
7 AE-521 CONCRETE COLUMN DETAIL
1 1/2" = 1'-0"



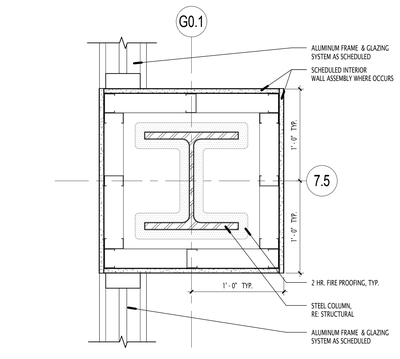
2 AE-521 COLUMN @ CONTROL COUNTER BELOW
1 1/2" = 1'-0"



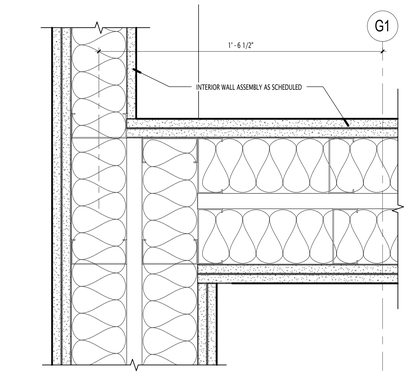
14 AE-521 DOOR JAMB DETAIL @ STAIR 2
3" = 1'-0"



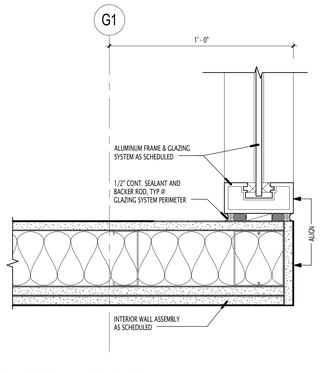
10 AE-521 COLUMN WRAP DETAIL W/ BRACING
1 1/2" = 1'-0"



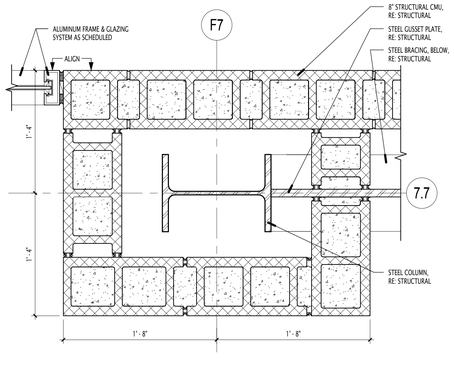
6 AE-521 STEEL COLUMN WRAP W/ STOREFRONT
1 1/2" = 1'-0"



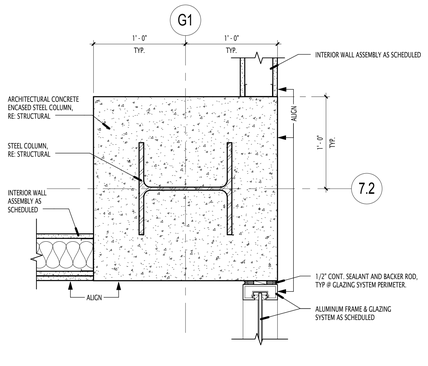
4 AE-521 WALL DETAIL @ MECHANICAL RM
3" = 1'-0"



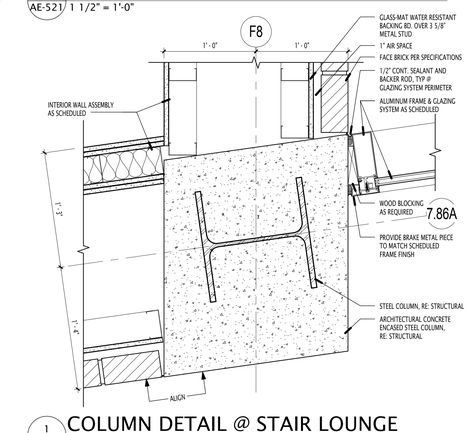
13 AE-521 STOREFRONT DETAIL
3" = 1'-0"



9 AE-521 COLUMN WRAP DETAIL W/ CMU
1 1/2" = 1'-0"



5 AE-521 ARCH. CONCRETE COLUMN
1 1/2" = 1'-0"



1 AE-521 COLUMN DETAIL @ STAIR LOUNGE
1 1/2" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 1349855
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

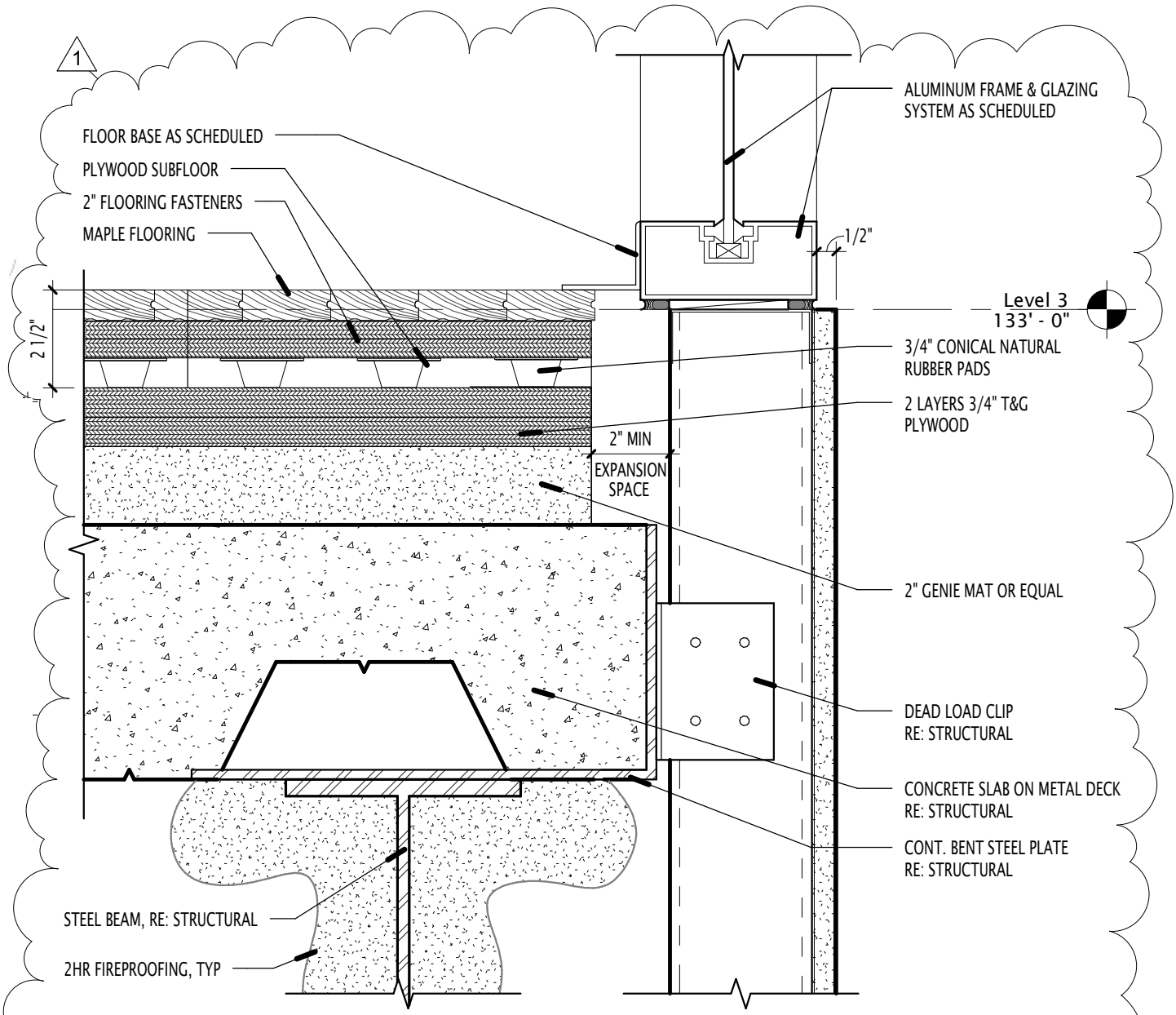
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR PLAN DETAILS

CONSTRUCTION DOCUMENTS

AE-521



RECESSED SLAB EDGE W/ WOOD FLOOR

4
AE-532 3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

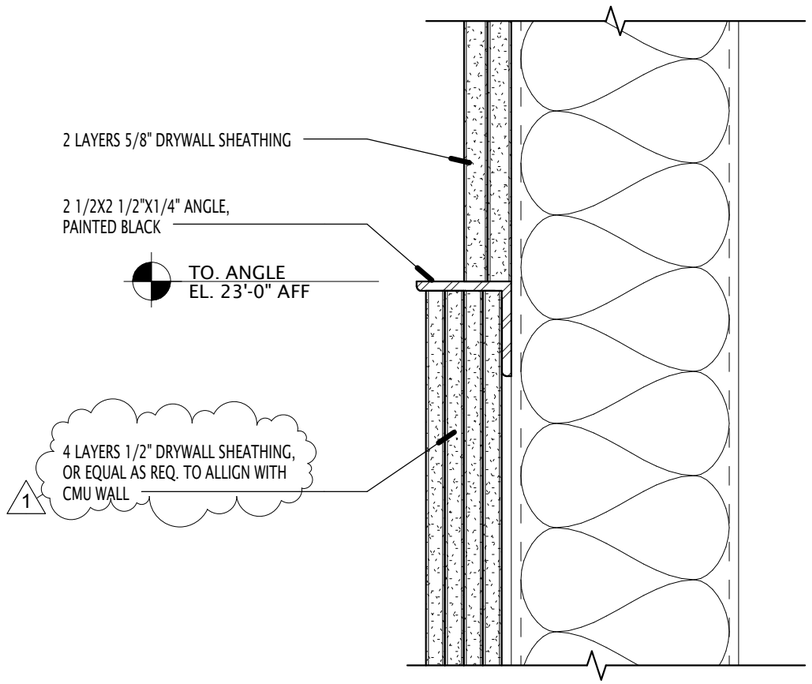
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

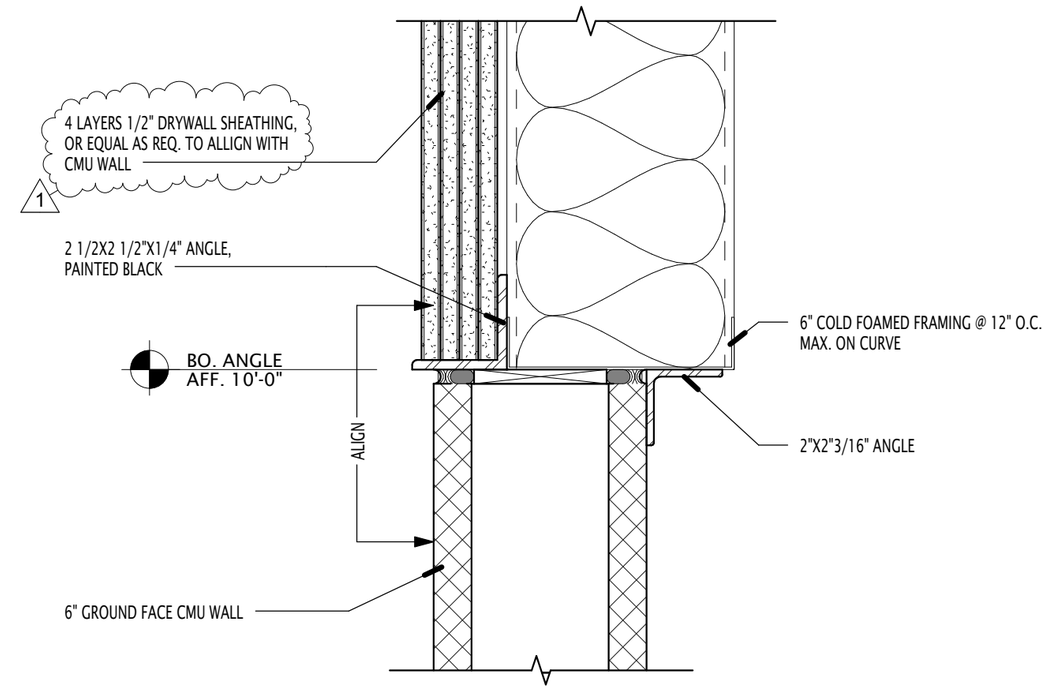
REV.: Addendum-04
BY: BM

AE-532-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



16 / AE-532 CURVED DRYWALL/DRYWALL TRANSITION
3" = 1'-0"



15 / AE-532 CURVED DRYWALL/CMU TRANSITION
3" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

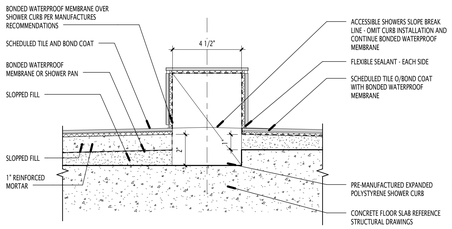
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

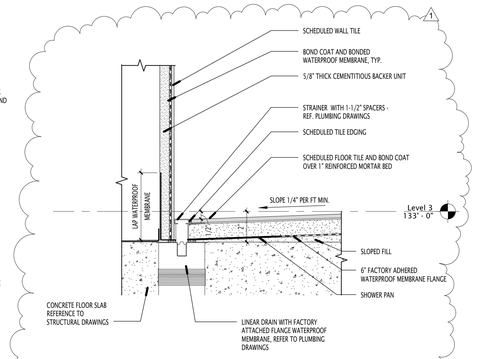
REV.: Addendum-04
BY: BM

AE-532-02

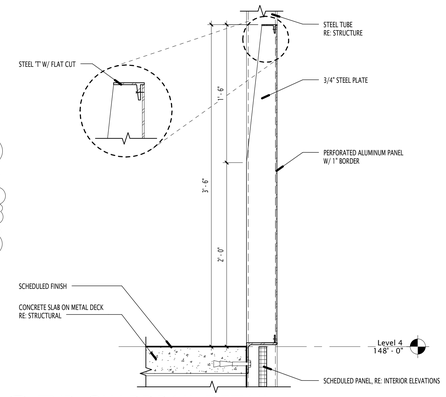
DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



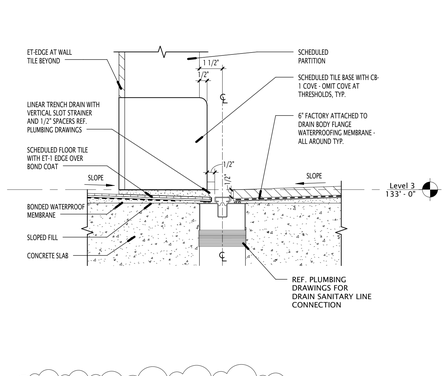
12 AE-533 TYPICAL SHOWER CURB
3" = 1'-0"



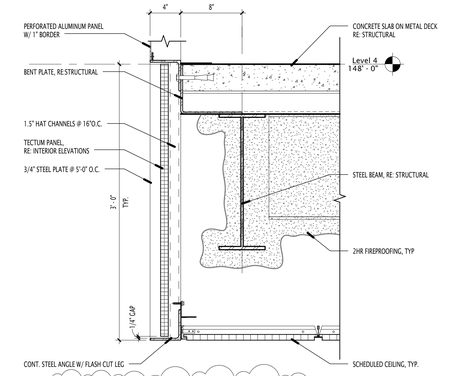
8 AE-533 TYPICAL SHOWER LINEAR DRAIN
3" = 1'-0"



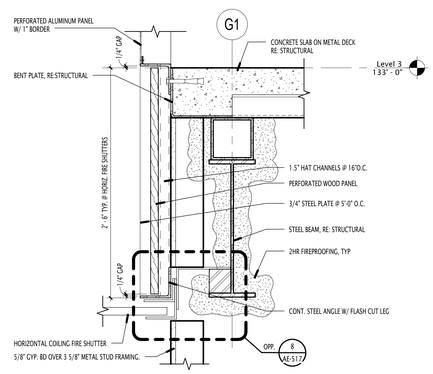
4 AE-533 TYP. GUARDRAIL DETAIL
1 1/2" = 1'-0"



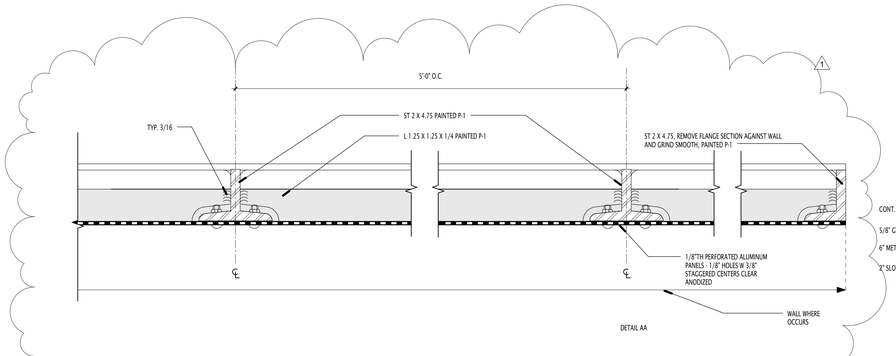
11 AE-533 TYP. SHOWER POD ENTRY @ LINEAR DRAIN
3" = 1'-0"



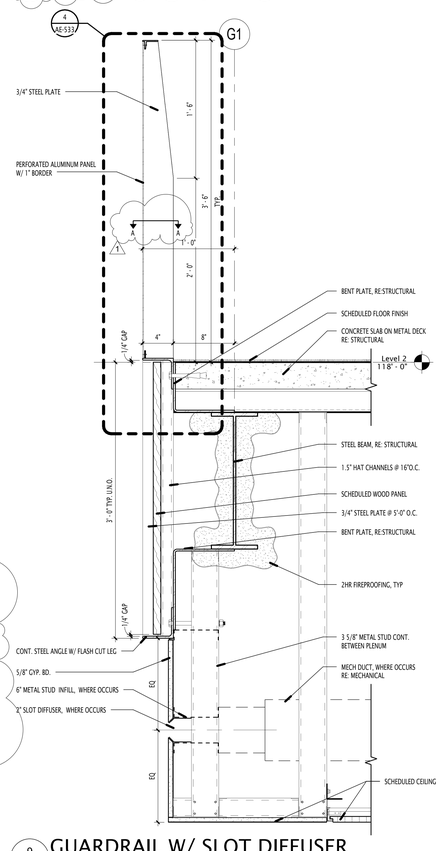
7 AE-533 SOFFIT DETAIL @ TRACK
1 1/2" = 1'-0"



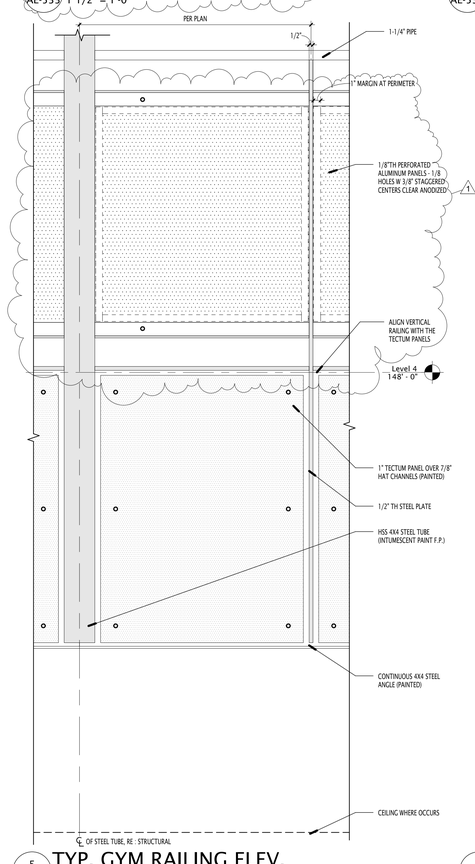
3 AE-533 GUARDRAIL W/ HORIZONTAL FIRE SHUTTER
1 1/2" = 1'-0"



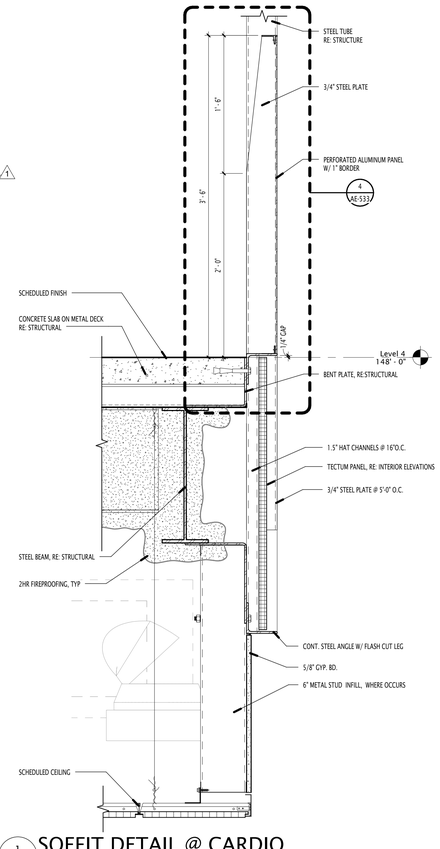
13 AE-533 TRACK GUARD RAIL
3" = 1'-0"



9 AE-533 GUARDRAIL W/ SLOT DIFFUSER
1 1/2" = 1'-0"



5 AE-533 TYP. GYM RAILING ELEV.
1 1/2" = 1'-0"



1 AE-533 SOFFIT DETAIL @ CARDIO
1 1/2" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

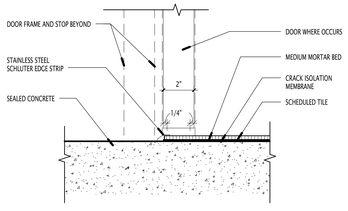
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

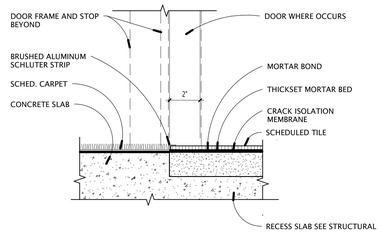
INTERIOR SECTION DETAILS

CONSTRUCTION DOCUMENTS

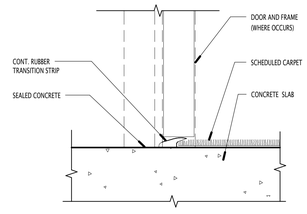
1 AE-533



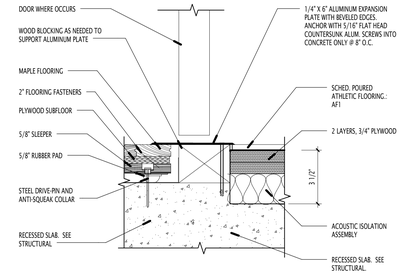
20 AE-541 SEALED CONCRETE - TILE / MED. BED
3" = 1'-0"



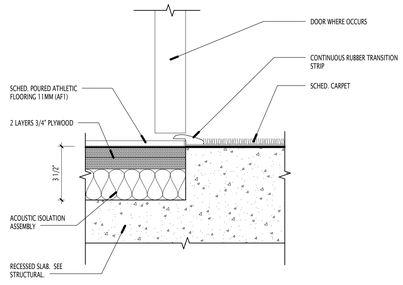
16 AE-541 CARPET - TILE / THICKSET
3" = 1'-0"



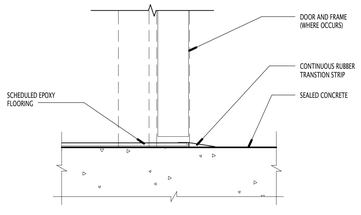
12 AE-541 CARPET - SEALED CONCRETE
3" = 1'-0"



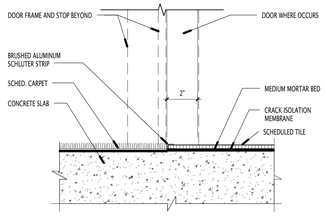
8 AE-541 AF1-WF2
3" = 1'-0"



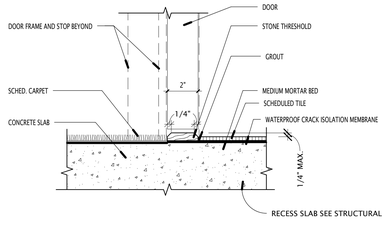
4 AE-541 AF1 - CARPET
3" = 1'-0"



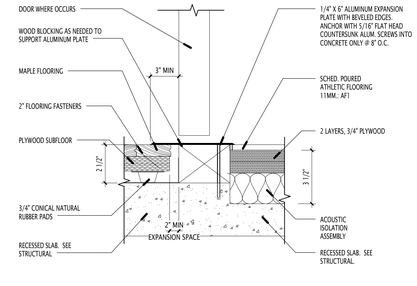
19 AE-541 SEALED CONCRETE - EPOXY
3" = 1'-0"



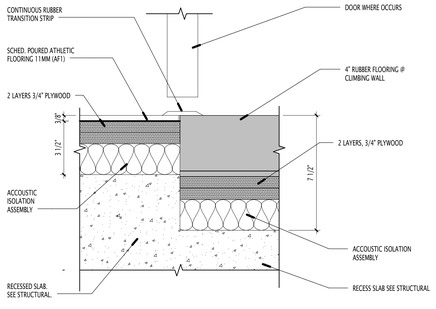
15 AE-541 CARPET - TILE / MEDIUM BED
3" = 1'-0"



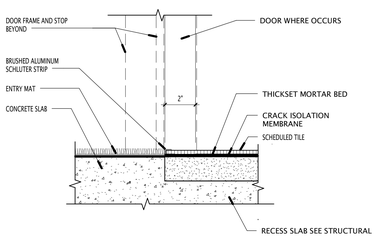
11 AE-541 CARPET - MEDIUM SET TILE (W/ THRESHOLD)
3" = 1'-0"



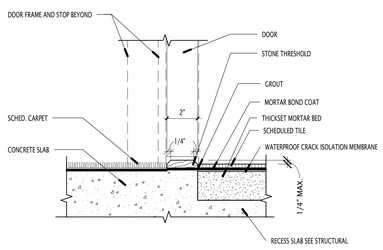
7 AE-541 AF1-WF1
3" = 1'-0"



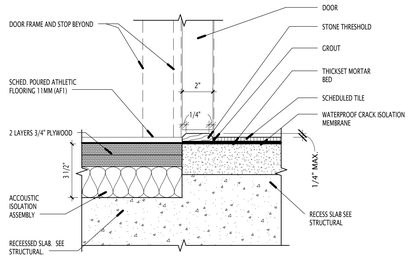
3 AE-541 AF1 - AF4
3" = 1'-0"



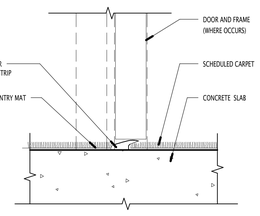
18 AE-541 ENTRY MAT - TILE / THICKSET
3" = 1'-0"



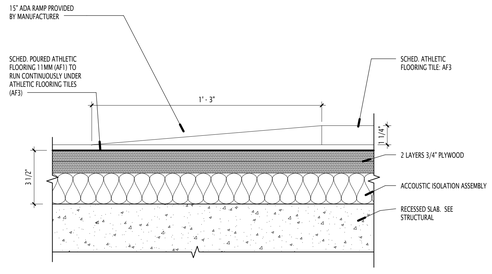
14 AE-541 CARPET - THICKSET TILE (W/ THRESHOLD)
3" = 1'-0"



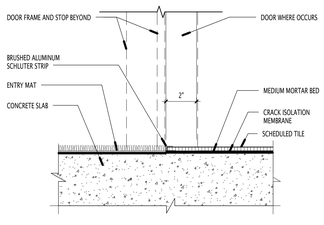
10 AE-541 AF1 - TILE / THICKSET (W/ THRESHOLD)
3" = 1'-0"



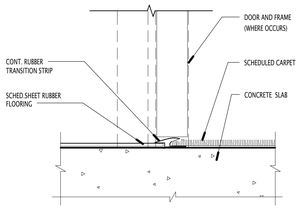
6 AE-541 CARPET - ENTRY MAT
3" = 1'-0"



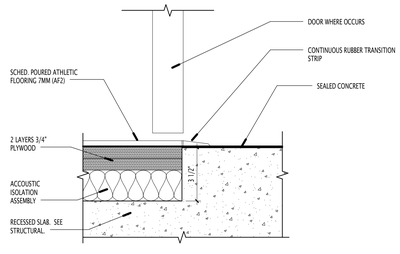
2 AE-541 AF1 - AF3
3" = 1'-0"



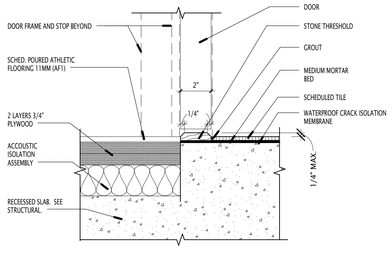
17 AE-541 ENTRY MAT - TILE / MEDIUM BED
3" = 1'-0"



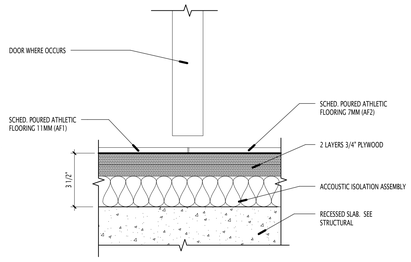
13 AE-541 CARPET - SHEET RUBBER
3" = 1'-0"



9 AE-541 AF2 - SEALED CONCRETE
3" = 1'-0"



5 AE-541 AF1 - TILE / MEDIUM BED (W/ THRESHOLD)
3" = 1'-0"



1 AE-541 AF1 - AF2
3" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

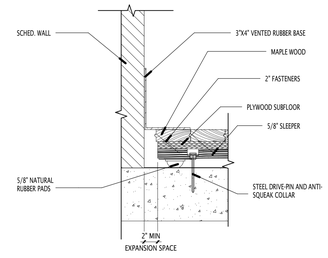
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

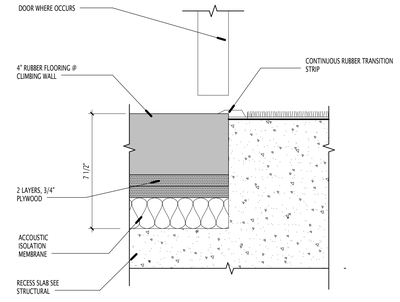
INTERIOR MILLWORK & FINISH DETAILS

CONSTRUCTION DOCUMENTS

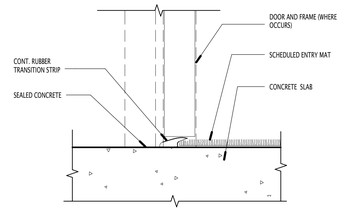
1 AE-541



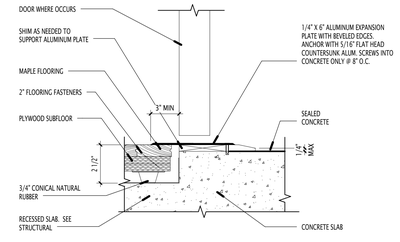
8 AE-542 VENTED RUBBER BASE @ WF2
3" = 1'-0"



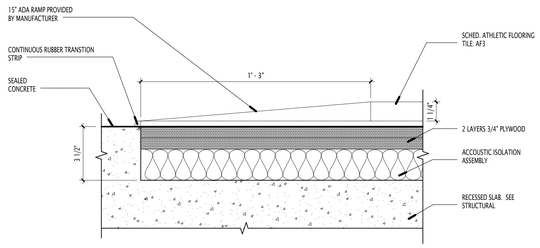
4 AE-542 AF4 - CARPET
3" = 1'-0"



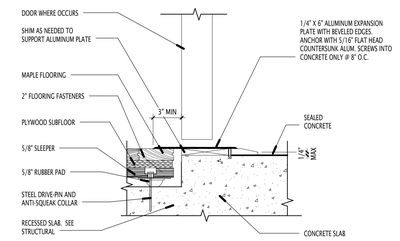
7 AE-542 ENTRY MAT - SEALED CONCRETE
3" = 1'-0"



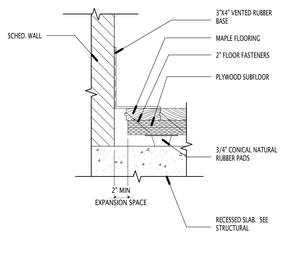
3 AE-542 SEALED CONCRETE - WF1
3" = 1'-0"



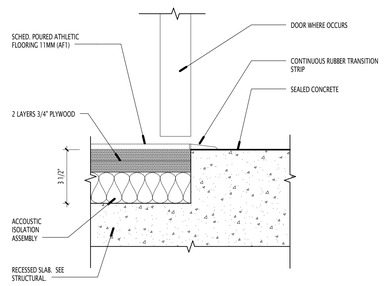
6 AE-542 SEALED CONCRETE - AF3
3" = 1'-0"



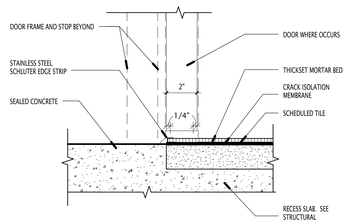
2 AE-542 SEALED CONCRETE - WF2
3" = 1'-0"



9 AE-542 VENTED RUBBER BASE @ WF1
3" = 1'-0"



5 AE-542 AF1 - SEALED CONCRETE
3" = 1'-0"



1 AE-542 SEALED CONCRETE - TILE / THICKSET
3" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 1349555
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

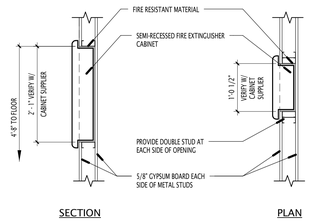
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

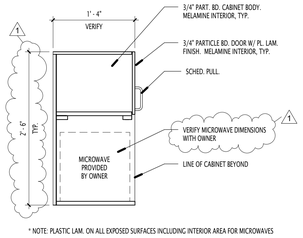
INTERIOR MILLWORK & FINISH DETAILS

CONSTRUCTION DOCUMENTS

AE-542

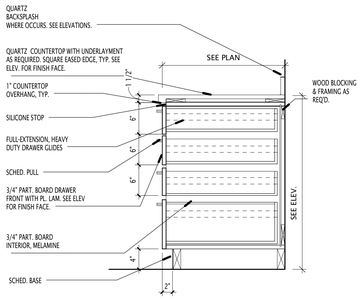


16 AE-543 FIRE EXTINGUISHER CABINET1
3/4" = 1'-0"

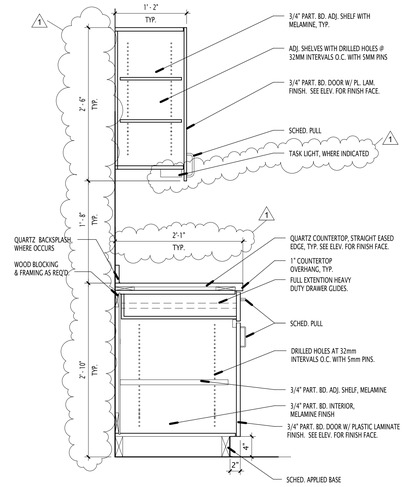


* NOTE: PLASTIC LAM. ON ALL EXPOSED SURFACES INCLUDING INTERIOR AREA FOR MICROWAVES

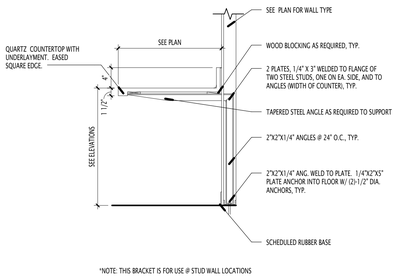
12 AE-543 MICROWAVE CABINET
1" = 1'-0"



8 AE-543 BASE CABINET DRAWERS DETAIL
1" = 1'-0"

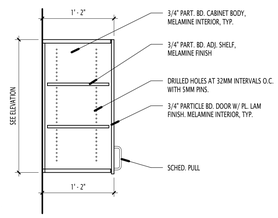


3 AE-543 CABINET BASE & UPPER CABINET
1" = 1'-0"

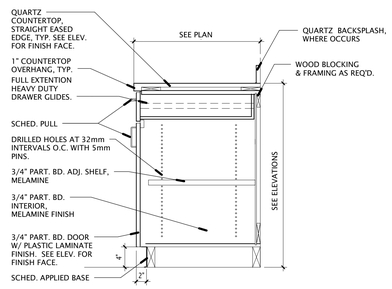


*NOTE: THIS BRACKET IS FOR USE @ STUD WALL LOCATIONS

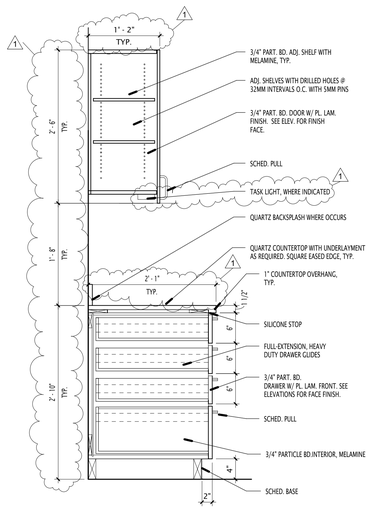
19 AE-543 TYPICAL COUNTER DETAIL
1" = 1'-0"



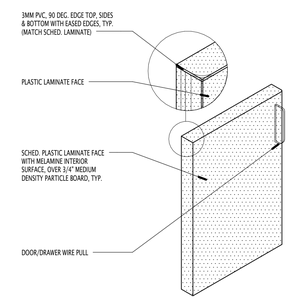
11 AE-543 UPPER CABINET - TYP.
1" = 1'-0"



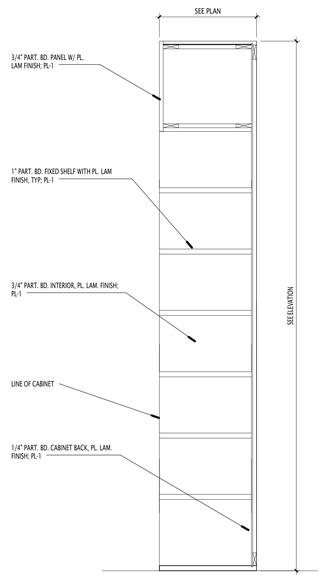
7 AE-543 BASE WITH DRAWER
1" = 1'-0"



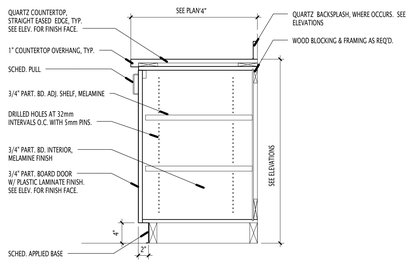
2 AE-543 DRAWER CABINETRY SECTION
1" = 1'-0"



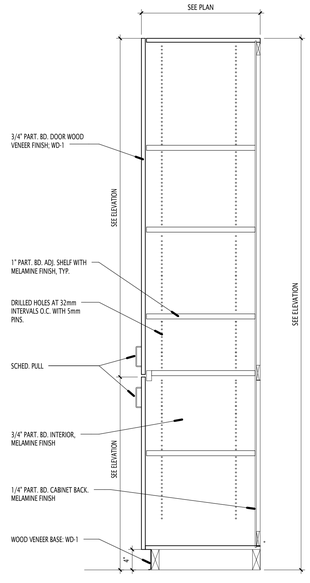
18 AE-543 TYP. DOOR/DRWR DETAIL
3" = 1'-0"



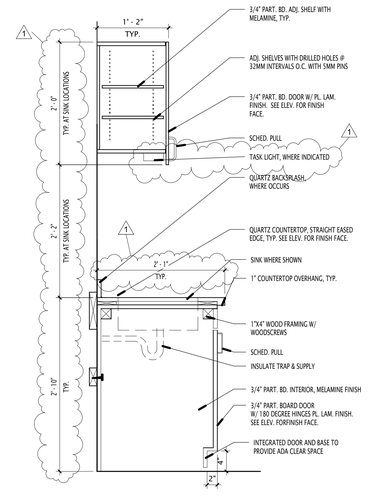
14 AE-543 CLIMBING DESK CUBBIES
1" = 1'-0"



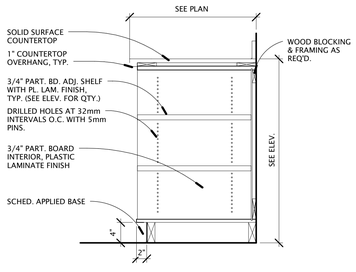
10 AE-543 BASE CABINET DETAIL
1" = 1'-0"



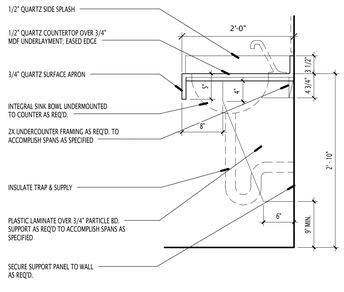
5 AE-543 TALL CABINET HEARING RM
1" = 1'-0"



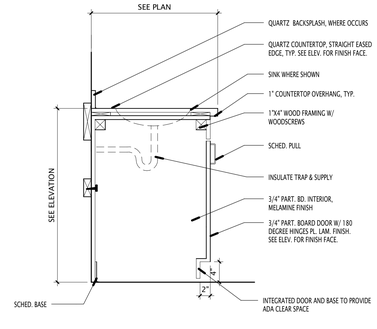
1 AE-543 ADA CABINET BASE & UPPER CABINET
1" = 1'-0"



17 AE-543 BASE CABINET - OPEN
1" = 1'-0"



13 AE-543 RESTROOM COUNTERTOP SECTION
1" = 1'-0"



9 AE-543 ADA SINK BASE
1" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

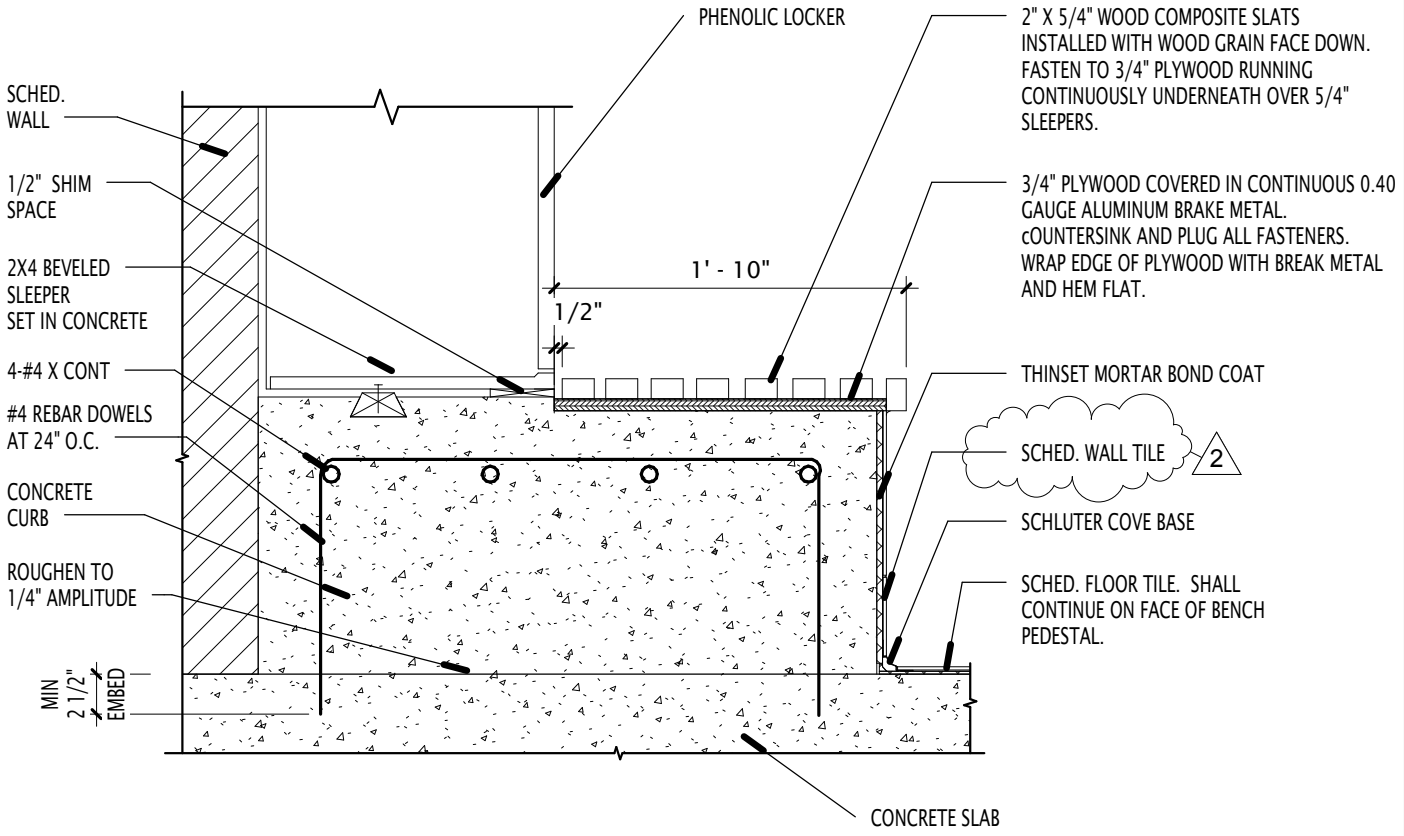
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	JB
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

INTERIOR MILLWORK & FINISH DETAILS

CONSTRUCTION DOCUMENTS

AE-543



1
AE-544

LOCKER BENCH

1" = 1'-0"

C:\Users\tyang\Documents\2011|045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

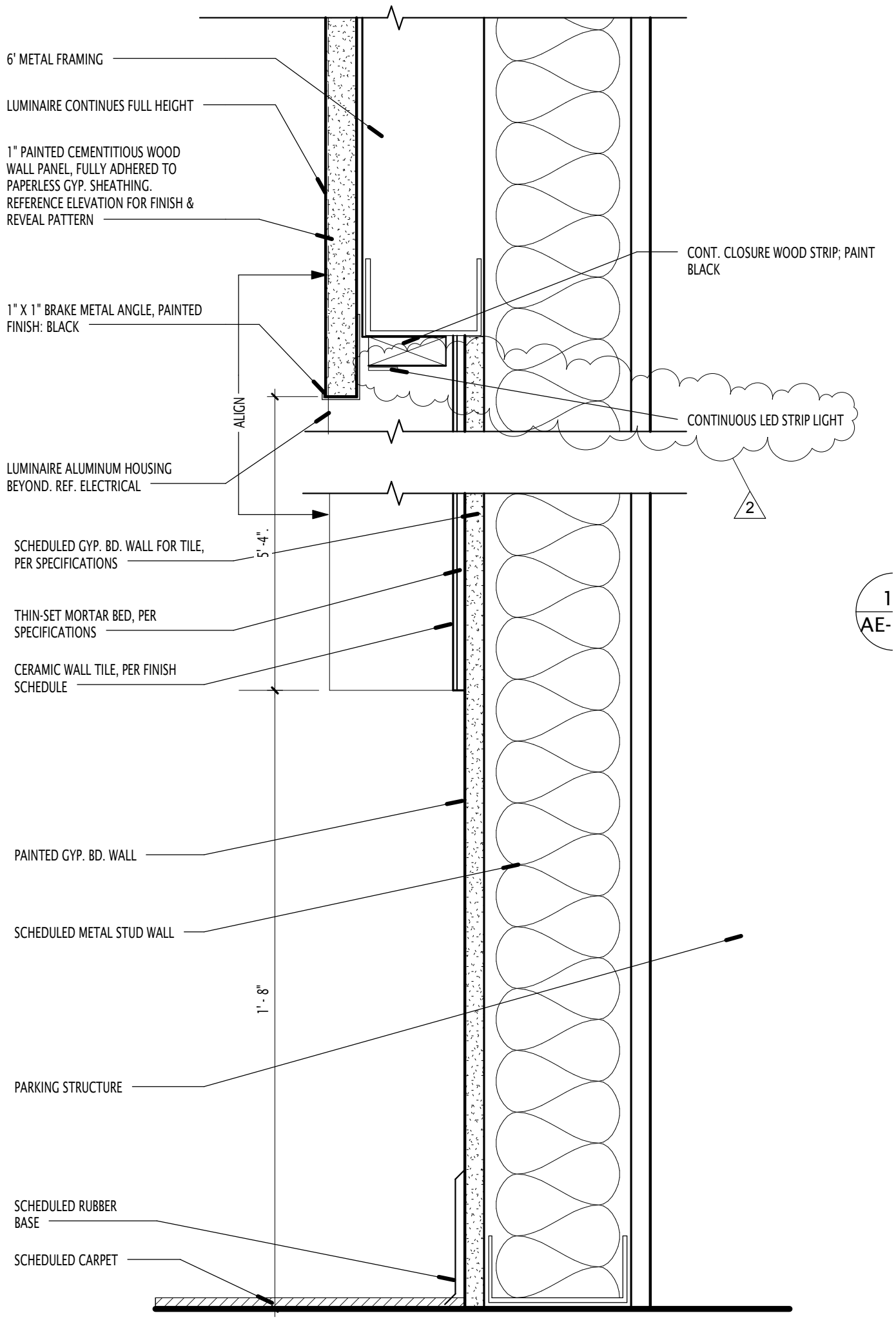
UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: BM

AE-544-01

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12



19
AE-544

TECTUM WALL DETAIL AT CONCOURSE

3" = 1'-0"

1
AE-

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:51 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

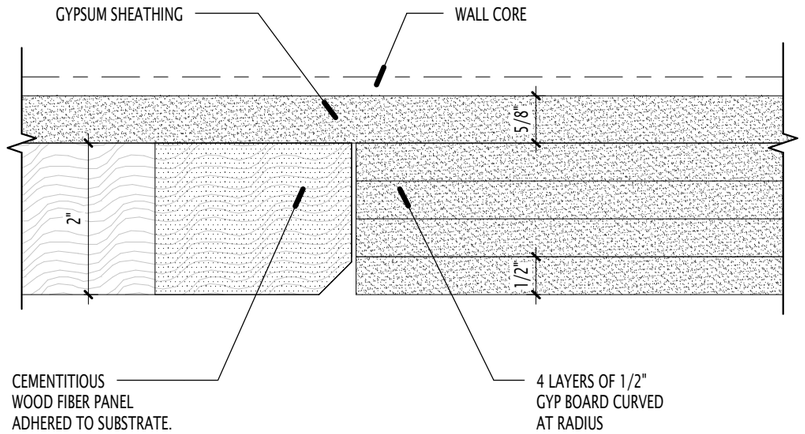
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: XX

AE-544-02

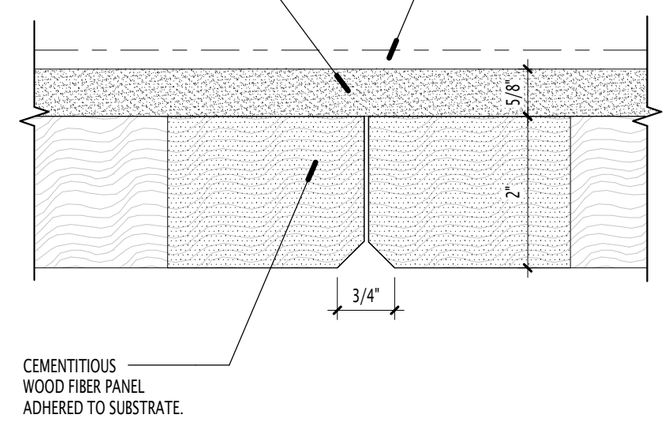
DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



20 / AE-545 TECTUM TO GYP @ MAC

6" = 1'-0"

2



6 / AE-545 TECTUM BEVELED REVEALS

6" = 1'-0"

2

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:42:11 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

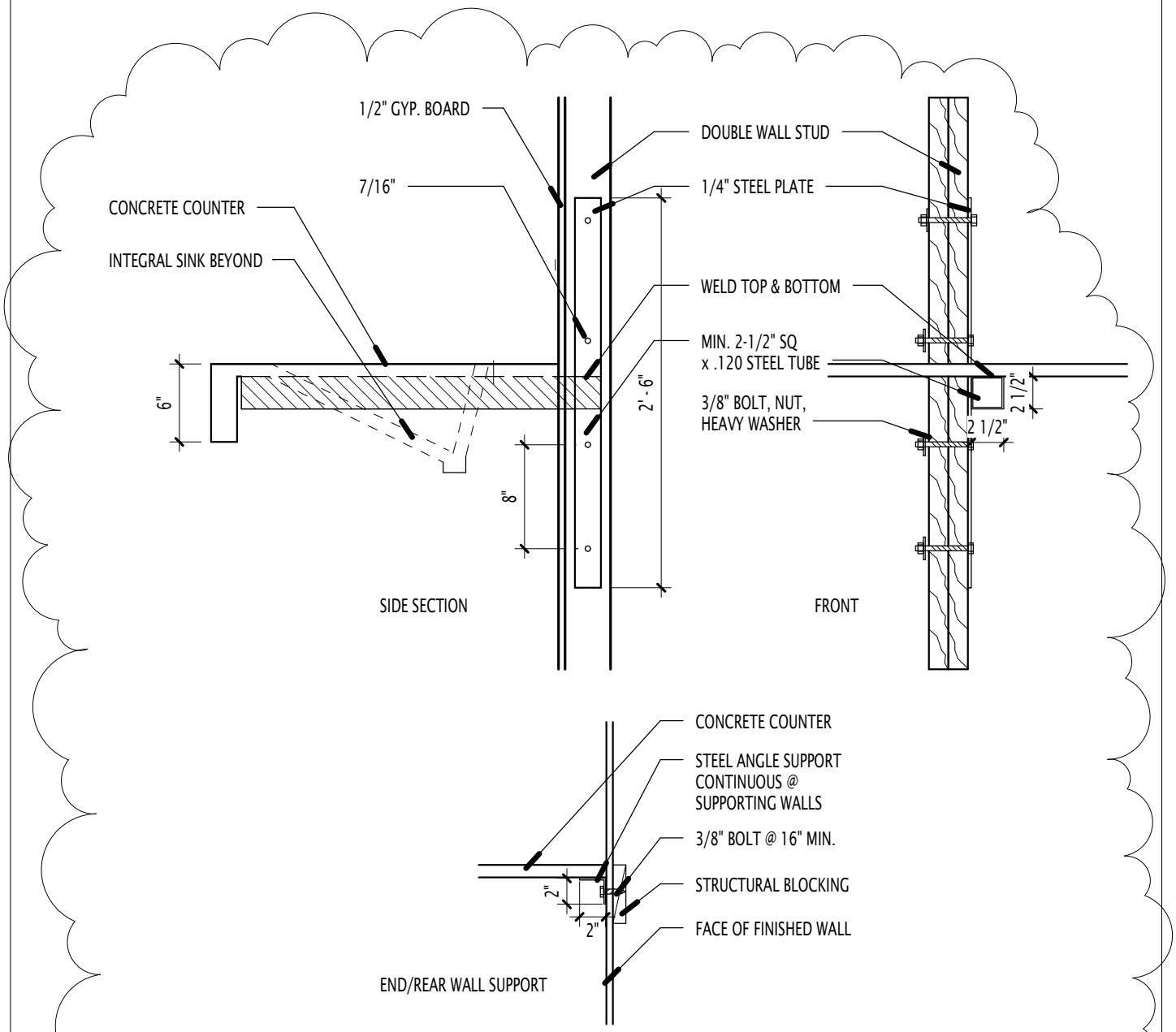
DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: BM

AE-545-01

DFCM PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	05/14/12



17
AE-545

LOCKER ROOM RAMP SINK

1" = 1'-0"

2

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:40:55 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

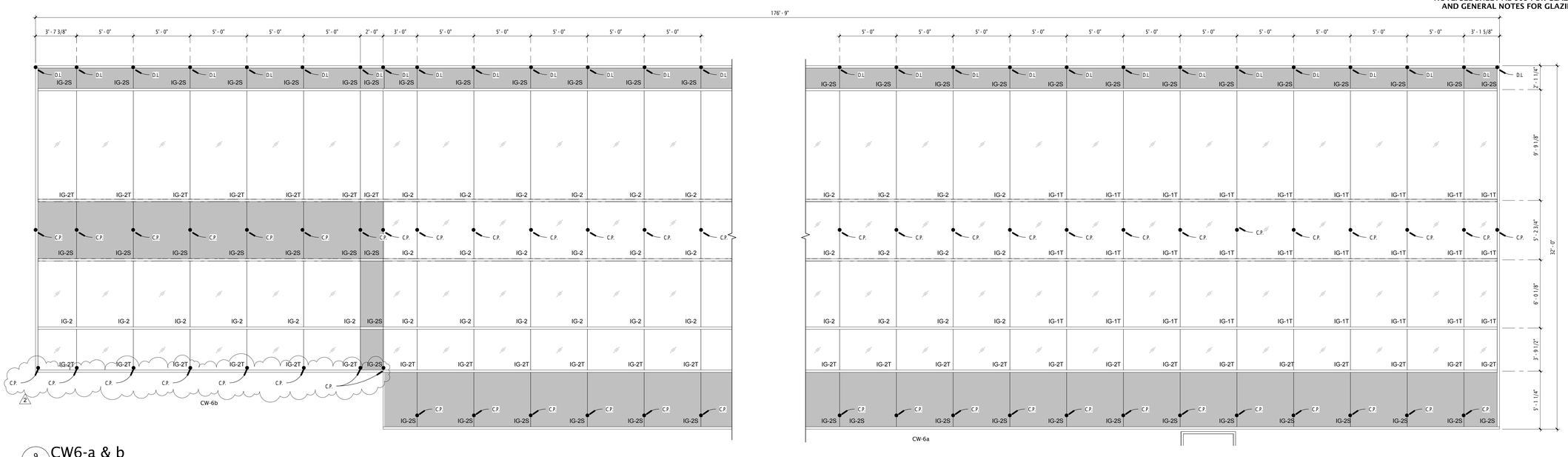
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

REV.: Addendum-04
BY: BM

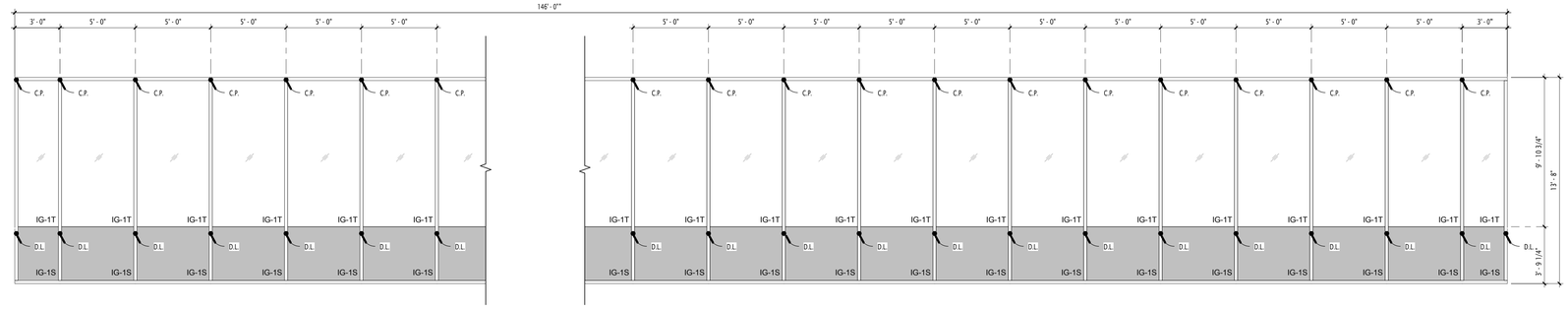
AE-545-02

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

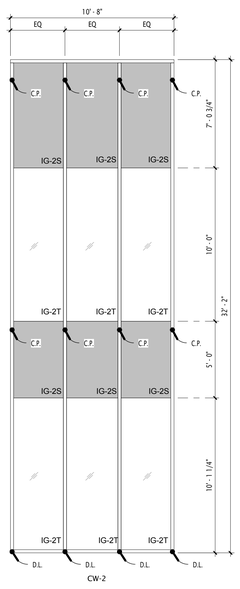
NOTE: SEE SHEET AE-605 FOR GLAZING LEGEND
AND GENERAL NOTES FOR GLAZING SYSTEMS



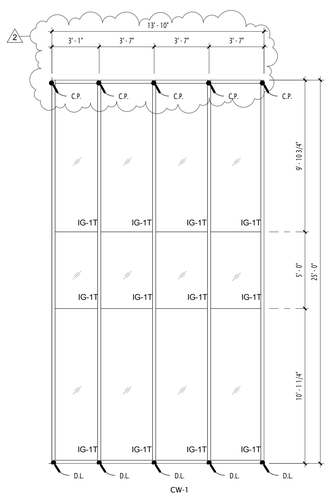
9 AE-601 CW6-a & b
1/4" = 1'-0"



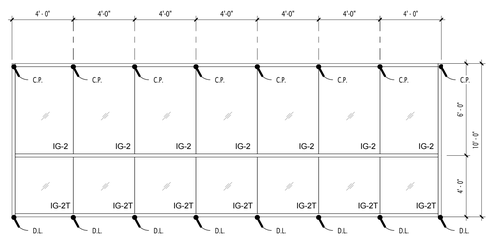
8 AE-601 CW5
1/4" = 1'-0"



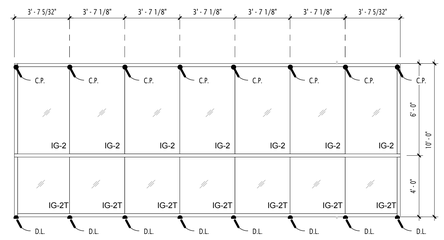
5 AE-601 CW2
1/4" = 1'-0"



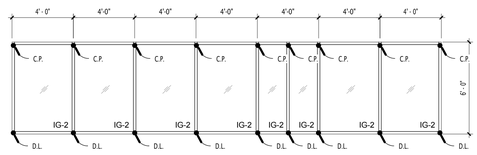
4 AE-601 CW1
1/4" = 1'-0"



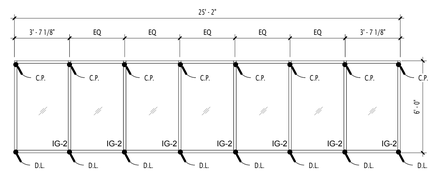
7 AE-601 CW4
1/4" = 1'-0"



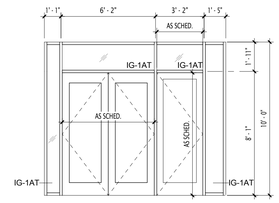
6 AE-601 CW3
1/4" = 1'-0"



3 AE-601 SF3
1/4" = 1'-0"



2 AE-601 SF2
1/4" = 1'-0"



1 AE-601 SF1
1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7915
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04

STATE OF UTAH
JOHN BRANSON
NO. 134955
04.27.2012
LICENSED ARCHITECT

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	AK
CHECKED BY:	TY
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

CURTAINWALL,STOREFRONT
& EXTERIOR WINDOWS
SOUTH ELEV.

CONSTRUCTION DOCUMENTS

2 AE-601

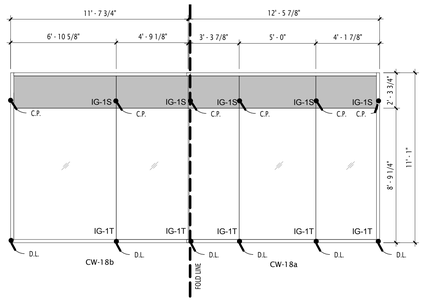
NOTE: SEE SHEET AE-605 FOR GLAZING LEGEND
AND GENERAL NOTES FOR GLAZING SYSTEMS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

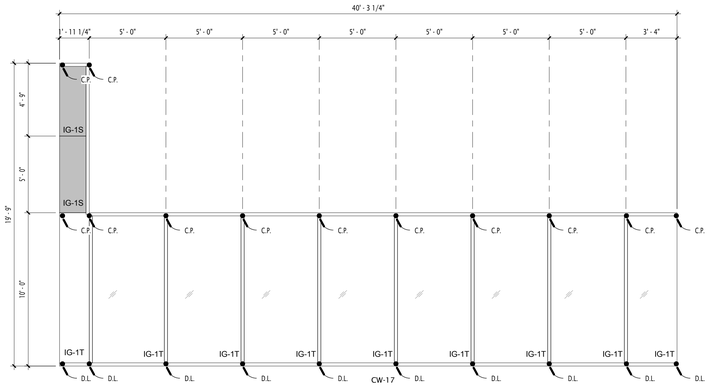
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

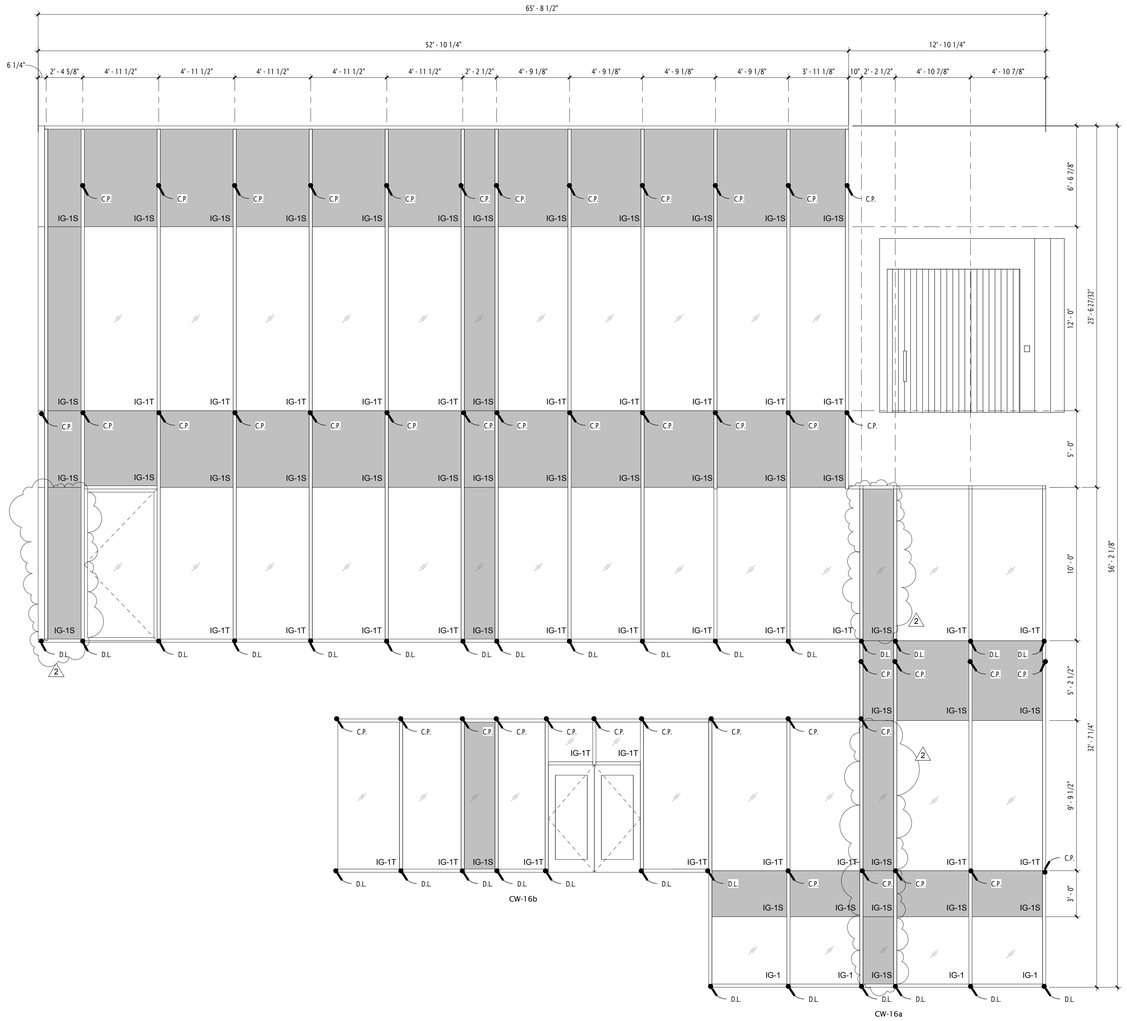
1	05.04.2012	Addendum-02
2	05.14.2012	Addendum-04



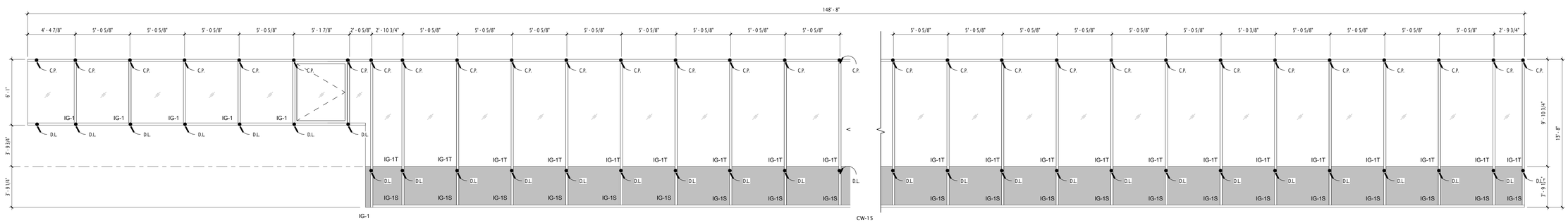
4 AE-604 CW18-a &b
1/4" = 1'-0"



3 AE-604 CW17
1/4" = 1'-0"



2 AE-604 CW16-a & b
1/4" = 1'-0"



1 AE-604 CW15
1/4" = 1'-0"

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

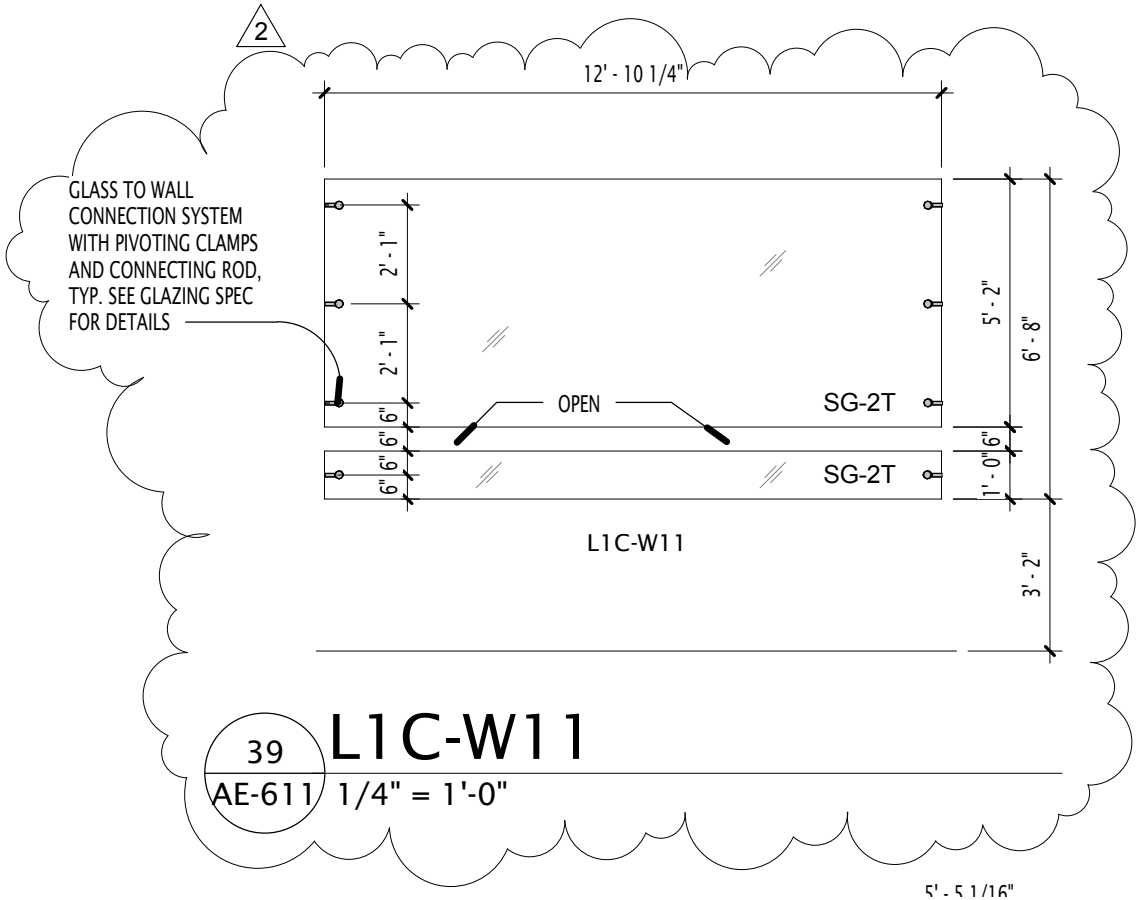
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	AK
CHECKED BY:	AS
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

CURTAINWALL,STOREFRONT
& EXTERIOR WINDOWS
NORTH ELEV

CONSTRUCTION DOCUMENTS

2 AE-604



39
AE-611

L1C-W11

1/4" = 1'-0"

C:\Users\tyang\Documents\2011.045.00 UVU Student Life Center_Central_tyang.rvt

5/3/2012 2:38:35 PM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P: 801.521.8600 F: 801.521.7913
www.gsbsarchitects.com

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

REV.: Addendum-04
BY: AK

AE-611-39

DFCM PROJECT NO.: #10289790
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 05/14/12

REAVELEY ENGINEERS + ASSOCIATES
40 YEAR ANNIVERSARY

P: 801.486.3883
F: 801.485.0911

675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Utah Valley University Parking Structure
Addendum #4

May 14, 2012

Sheet SB-P101

1. See revised Sheet SB-P101 for changes to footings and foundations and slab on grade on southeast side of the Parking Garage.

Sheet SB-P601

1. Add detail A4/SB-P601 Concrete Pile Cap Schedule. See revised Sheet SB-P601.

Sheet SB-P602

1. Add concrete column CC-5P to Concrete Column Schedule. See revised Sheet SB-P602.

Sheet SF-P102

1. Add CC-5P at top of slab just south of Grid 7.87 with detail cut A4/SF-P502. See revised Sheet SF-P102.
2. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P102.
3. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P102.

Sheet SF-P103

1. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P103.
2. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P103.

Sheet SF-P104

1. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P104.
2. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P104.

Sheet SF-P105

1. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P105.
2. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P105.

Sheet SF-P201

1. C1/SF-P201 – Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P201.

Sheet SF-P502

1. Add new detail A4/SF-P502. See revised Sheet SF-P502.

REAVELEY ENGINEERS + ASSOCIATES
40 YEAR ANNIVERSARY

P: 801.486.3883
F: 801.485.0911

675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Sheet SF-P905

1. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P905.
2. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P905.

Sheet SF-P906

1. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P906.
2. Modify PT forces for PTB-1 on Grid 7.72 (and thusly, Grid 7.36). See revised Sheet SF-P906.
3. Add PT forces for PTB-4 and PTB-6 on Grid 7.94. See revised Sheet SF-P906

Sheet SF-P910

3. C4/SF-P910. Extend shear wall on Grid G6 north to Grid 7.65. See revised Sheet SF-P910.

Sheet SB-101

1. See revised footing and foundation plan –Overall. Extents of soil mitigation have been updated.

Sheet SB-101a

1. See revised footing and foundation plan zone-A for removal of concrete column cover.

Sheet SB-101b

1. See revised footing and foundation plan zone-B.

Sheet SB-101c

1. See revised footing and foundation plan zone-C.

Sheet SB-504

1. Detail B3/SB-504 has been added.

Sheet SB-601

1. New concrete pier has been added to the schedule.

Sheet SF-102a

1. See revised Floor and Low-Roof Framing Plan –Level 2 zone-A.

Sheet SF-102b

1. See revised Floor and Low Roof Framing Plan – Level 2 zone-B.

Sheet SF-102c

1. See revised Floor and Low Roof Framing Plan – Level 2 zone-C.

Sheet SF-103b

1. See revised Floor and Low Roof Framing Plan – Level 3 zone-B.

REAVELEY ENGINEERS + ASSOCIATES

P: 801.486.3883
F: 801.485.0911

675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Sheet SF-103c

1. See revised Floor and Low Roof Framing Plan – Level 3 zone-C.

Sheet SF-104b

1. See revised Floor Framing Plan – Level 4 zone-B.

Sheet SF-104c

1. See revised Floor Framing Plan – Level 4 zone-C.

Sheet SF-105a

1. See revised Floor Framing Plan – Level 5 zone-A.

Sheet SF-105b

1. See revised Roof Framing Plan – Level 5 zone-B.

Sheet SF-105c

1. See revised Roof Framing Plan – Level 5 zone-C.

Sheet SF-106

1. Detail A4/SF-106 has been revised.

Sheet SF-402

1. Detail C4/SF-402 has been revised.

Sheet SF-505

1. Detail B4/SF-505 has been updated.

Sheet SF-602

1. Steel Column Schedule has been updated.

Sheet SF-604

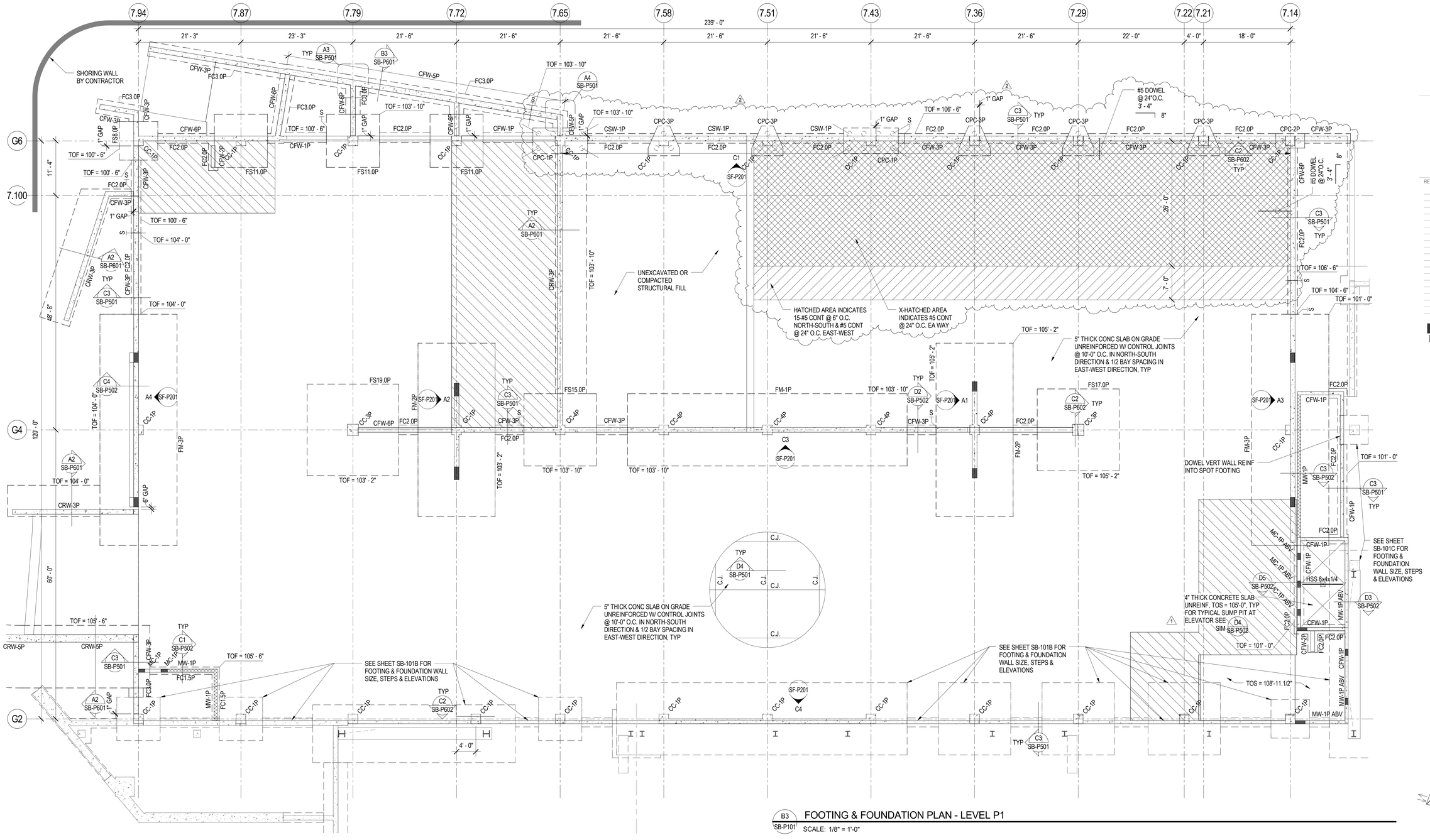
1. Snow Drift Schedule has been updated.

Specification Section 051200 – Structural Steel Framing

1. Part 1.6.B Installer Qualifications - has been removed from the specification.

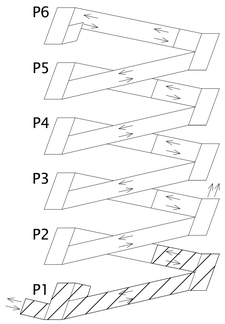
Specification Section 316200 – Micropiles

1. Micropile Specification Section has been added. See attached.



B3 / SB-P101 FOOTING & FOUNDATION PLAN - LEVEL P1

SCALE: 1/8" = 1'-0"



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

MICRO PILE NOTES

1. ALL PILE DESIGNS SHALL BE THE RESPONSIBILITY OF THE (SUB) CONTRACTOR. DESIGN OF PILES SHALL BE PERFORMED BY A QUALIFIED ENGINEER LICENSED IN THE STATE OF UTAH. THE DESIGN OF THE PILES SHALL BE BASED ON THE GEOTECHNICAL REPORT DATED FEB. 2012 BY RB&G, AND SUPPLEMENTAL INFORMATION DATED FEB. 13, 2012.

2. PILES SHALL BE DESIGNED WITH A MINIMUM SAFETY FACTOR OF 2.5. PILE STIFFNESS SHALL BE ENGINEERED SUCH THAT MAXIMUM DEFLECTIONS AT THIS LOAD ARE LIMITED TO 3/8 INCH. PILE MARKS NOTED ON THE PLANS SHALL APPLY TO ALL OF THE PILES TYP U.N.O.

3. ALL PILES, INCLUDING BATTERED PILES, SHALL BE DESIGNED FOR AN ALLOWABLE LOAD OF 198 KIPS DOWNLOAD & UPLIFT.

4. ALL PILE CAPS WERE DESIGNED BASED ON 12"Ø PILES.

5. PILES AND PILE SHORING WALLS SHALL BE DESIGNED FOR COMBINED AXIAL AND LATERAL LOADS WHERE APPLICABLE. SEE GEOTECHNICAL REPORT FOR SOIL LATERAL FORCES INCLUDING SEISMIC LOADING.

6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. CALCULATIONS SHALL BE SUBMITTED FOR REVIEW OF PILE DESIGN. SUBMITTAL SHALL BEAR STAMP OF PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.

2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.

3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.

4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT CONCRETE COLUMN
- CJ / C3 SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- OPENING

MICRO PILE LEGEND

- MICRO PILE
- MICRO PILE - BATTERED
- PILE CAP W/ MICRO PILE

FOOTING & FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.

2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING AND TYPICAL STEP DETAIL AT MAT FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

10.EE A1/SB-P501 FOR TYPICAL CONTROL JOINTS IN 8" MASONRY WALLS.

11. SEE A2/SB-P501 FOR TYPICAL RECESS IN 8" MASONRY WALL.

12. SEE B2/SB-P602 FOR TYPICAL OPENINGS THROUGH CONCRETE WALLS.

13. CONTRACTOR SHALL COORDINATE LOCATION OF ELEVATOR SUMP PITS WITH ELEVATOR EQUIPMENT DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E.500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Ronald J. Reaveley
PROFESSIONAL STRUCTURAL ENGINEER #144210
4/27/2012
Ronald J. Reaveley
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

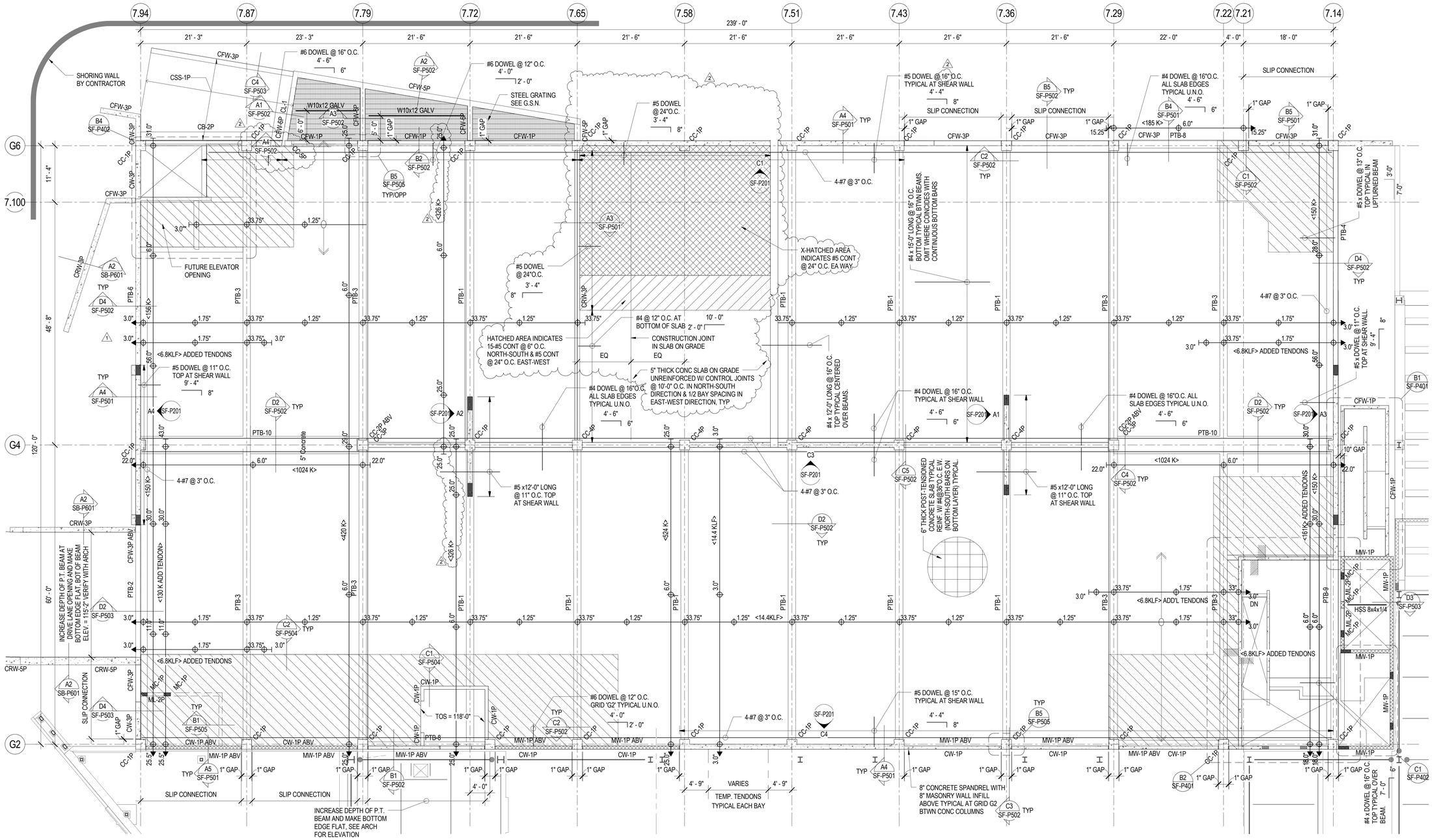
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

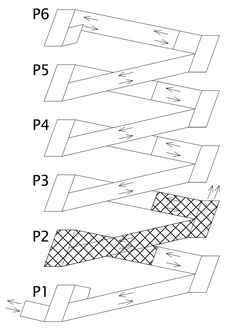
DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FOOTING & FOUNDATION PLAN

CONSTRUCTION DOCUMENTATION

SB-P101





KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.
2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.
3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.
4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.
6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.
7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.
8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.
9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.
10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.
11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.
12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.
13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.
14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.
15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.
16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

B3 / SF-P102 LEVEL P2 FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.
2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.
3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.
4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

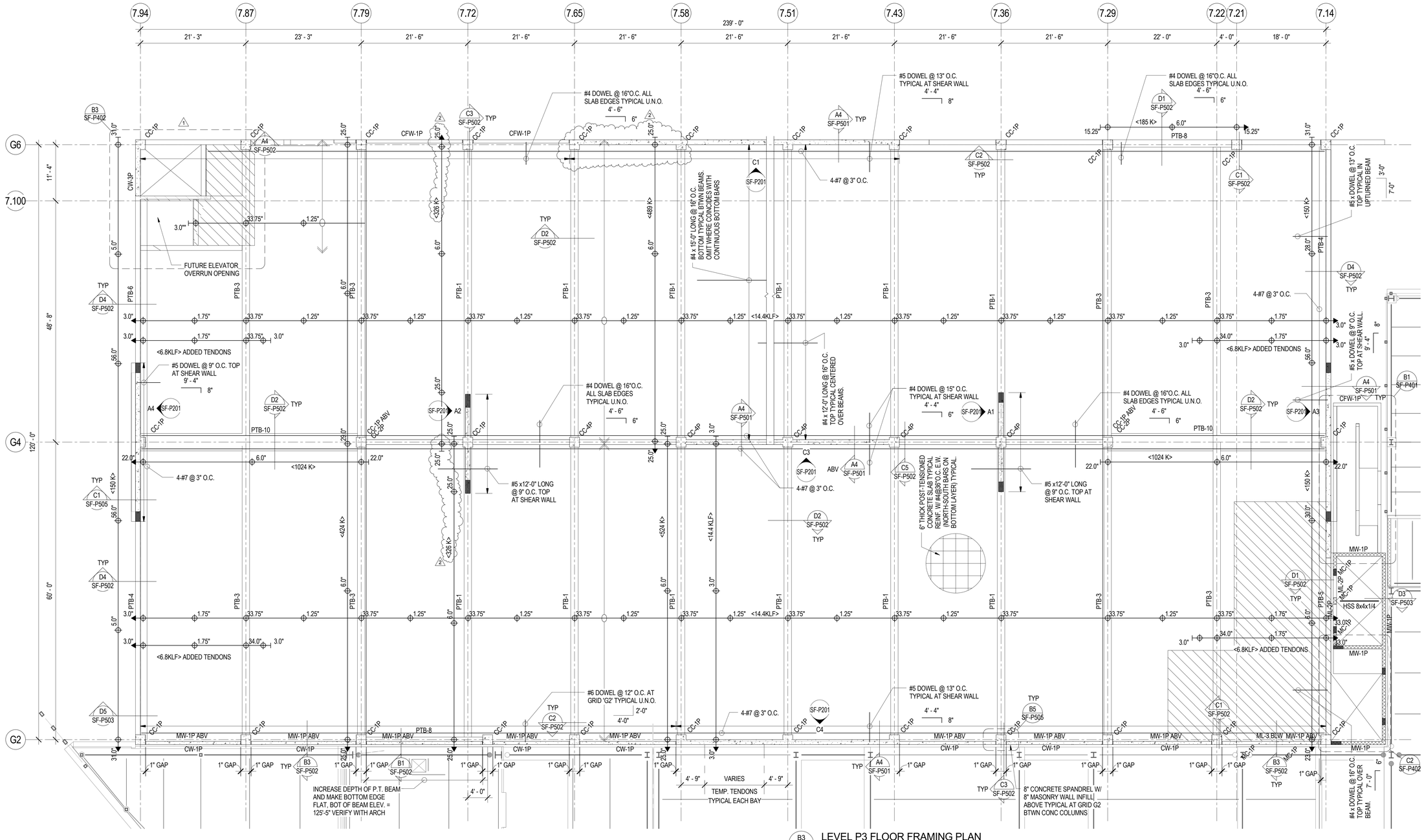
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P2 FLOOR FRAMING PLAN

CONSTRUCTION DOCUMENTATION

SF-P102



B3 / SF-P103 LEVEL P3 FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.

2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.

3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.

4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.

5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.

6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.

7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.

8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.

9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.

10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.

11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.

12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.

13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.

14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.

15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.

16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.

2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.

3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.

4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

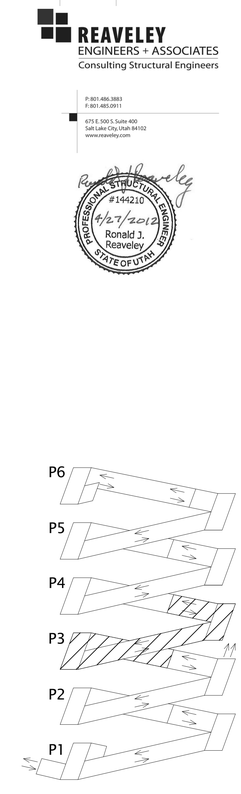
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E.500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

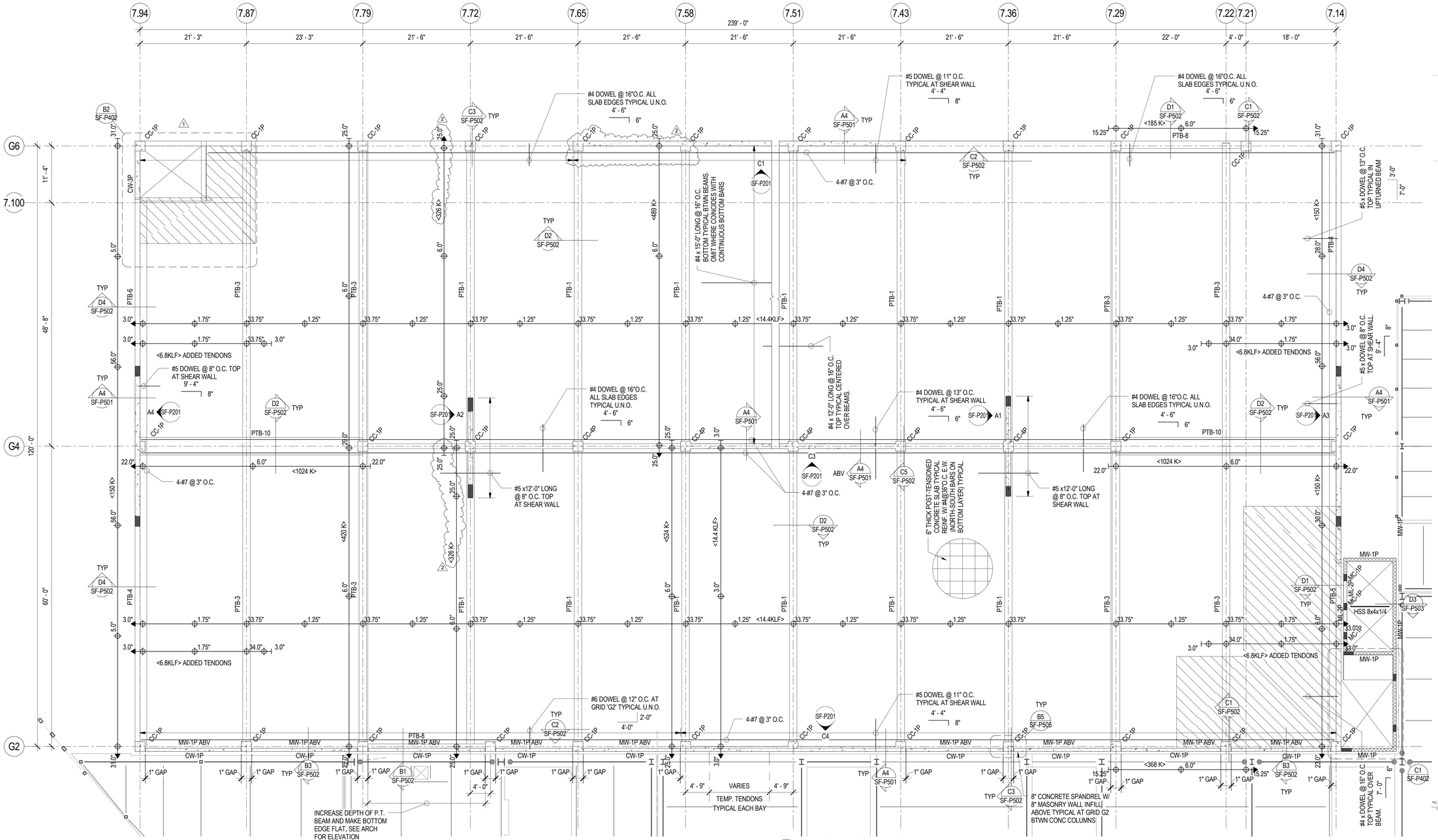
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P3 FLOOR FRAMING PLAN

CONSTRUCTION DOCUMENTATION

SF-P103



LEVEL P4 FLOOR FRAMING PLAN

B3 / SF-P104

SCALE: 1/8" = 1'-0"

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.
2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.
3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.
4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.
6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.
7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.
8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.
9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.
10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.
11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.
12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.
13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.
14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.
15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.
16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.
2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.
3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.
4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

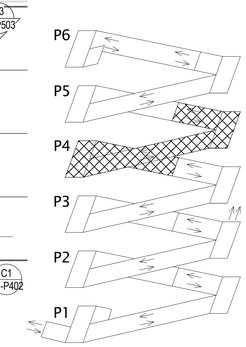
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E.500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com



KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

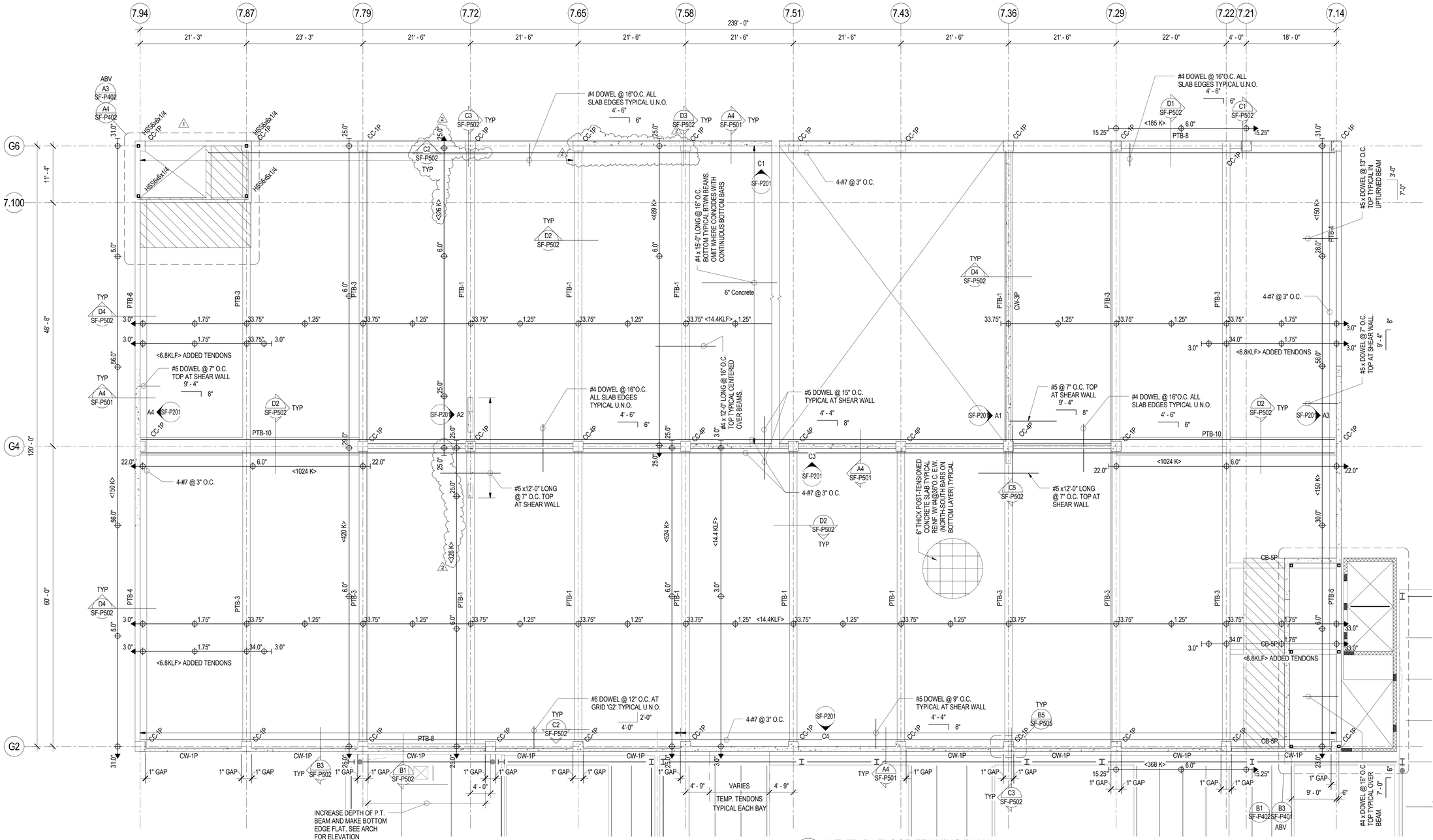
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P4 FLOOR FRAMING PLAN

CONSTRUCTION DOCUMENTATION

SF-P104



B3 / SF-P105 LEVEL P5 FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.
2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.
3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.
4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.
6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.
7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.
8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.
9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.
10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.
11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.
12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.
13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.
14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.
15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.
16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.
2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.
3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.
4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

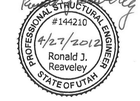
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

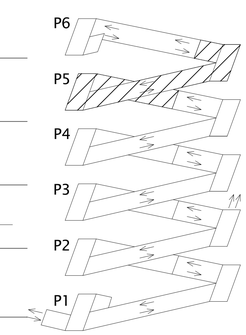
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E.500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com





KEYPLAN

NOTE : PARKING LEVEL P2 = MAIN BUILDING LEVEL 2

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

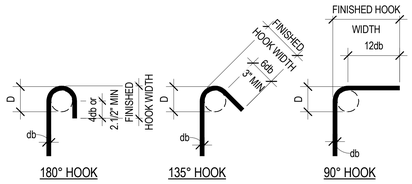
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P5 FLOOR FRAMING PLAN

CONSTRUCTION DOCUMENTATION

SF-P105

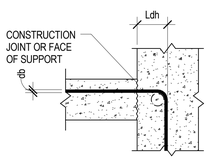


END HOOK SCHEDULE				
BAR SIZE	D	FINISHED HOOK WIDTH		
		180° HOOK	135° HOOK	90° HOOK
#3	2.1/4"	3"	3"	6"
#4	3"	4"	3"	8"
#5	3.1/4"	5"	3.3/4"	10"
#6	4.1/2"	6"	4.1/2"	12"
#7	5.1/4"	7"	5.1/4"	14"
#8	6"	8"	6"	16"
#9	9.1/2"	11.3/4"	--	19"
#10	10.3/4"	13.1/4"	--	22"
#11	12"	14.3/4"	--	24"
#14	18.1/4"	21.3/4"	--	31"
#18	24"	28.1/2"	--	41"

Sched - End-Hook

D1 / SB-P601 TYPICAL STANDARD HOOKS AND EMBEDMENT SCHEDULE

NO SCALE



TENSION HOOK DEVELOPMENT LENGTH (Ldh)					
BAR SIZE	NORMAL WEIGHT CONCRETE, f'c = PSI				
	3,000	4,000	4,500	5,000	6,000
#3	6"	6"	6"	6"	6"
#4	8"	7"	7"	7"	7"
#5	10"	9"	8"	8"	7"
#6	12"	10"	10"	9"	8"
#7	14"	12"	11"	11"	10"
#8	16"	14"	13"	12"	11"
#9	18"	15"	14"	14"	13"
#10	20"	17"	16"	15"	14"
#11	22"	19"	18"	17"	16"
#14	37"	32"	31"	29"	27"
#18	50"	43"	41"	39"	35"

NOTES:
1. VALUES HERE VALID FOR ALL CASES IF:
   SIDE COVER ≥ 2.1/2"
   END COVER ≥ 2"

2. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR LIGHTWEIGHT CONCRETE

3. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR USE WITH EPOXY COATED REBAR

Sched - Tension-Hook

B1 / SB-P601 TYPICAL STANDARD HOOKS AND EMBEDMENT SCHEDULE

NO SCALE

CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE																								
BAR SIZE	f'c = 3000 PSI				f'c = 4000 PSI				f'c = 4500 PSI				f'c = 5000 PSI				f'c = 6000 PSI				f'c = ALL	
	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ldc	Lsc
#3	17"	22"	22"	28"	15"	19"	19"	25"	14"	18"	18"	23"	13"	17"	17"	22"	12"	16"	16"	20"	8"	12"
#4	22"	29"	29"	38"	19"	25"	25"	33"	18"	24"	24"	31"	17"	23"	23"	29"	16"	21"	21"	27"	10"	15"
#5	28"	36"	36"	47"	24"	31"	31"	41"	23"	30"	30"	38"	22"	28"	28"	36"	20"	26"	26"	33"	12"	19"
#6	33"	43"	43"	56"	29"	37"	37"	49"	27"	35"	35"	46"	26"	34"	34"	44"	24"	31"	31"	40"	15"	23"
#7	48"	63"	63"	81"	42"	54"	54"	71"	40"	51"	51"	67"	38"	49"	49"	63"	34"	45"	45"	58"	17"	27"
#8	55"	72"	72"	93"	48"	62"	62"	81"	45"	59"	59"	76"	43"	56"	56"	72"	39"	51"	51"	66"	19"	30"
#9	62"	81"	81"	105"	54"	70"	70"	91"	51"	66"	66"	86"	48"	63"	63"	81"	44"	57"	57"	74"	22"	34"
#10	70"	91"	91"	118"	61"	79"	79"	102"	57"	74"	74"	96"	54"	71"	71"	92"	50"	64"	64"	84"	24"	39"
#11	78"	101"	101"	131"	67"	87"	87"	114"	64"	82"	82"	107"	60"	78"	78"	102"	55"	71"	71"	93"	27"	43"
#14	93"	121"	NA	NA	81"	105"	NA	NA	76"	99"	NA	NA	72"	94"	NA	NA	66"	86"	NA	NA	33"	NA
#18	124"	161"	NA	NA	108"	140"	NA	NA	101"	132"	NA	NA	96"	125"	NA	NA	88"	114"	NA	NA	43"	NA

NOTES:
1. DEFINITIONS:
   Ld: TENSION DEVELOPMENT LENGTH FOR REINFORCEMENT SATISFYING THE FOLLOWING CONDITIONS:
      SLABS AND WALLS: CLEAR SPACING > 2db AND CONCRETE CLEAR COVER > db
      BEAMS AND COLUMNS: CLEAR COVER SPACING > db AND CONCRETE CLEAR COVER > db
   Lt: DEVELOPMENT LENGTH FOR TOP BARS IN TENSION
   Lsb: TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS (CLASS B)
   Lsbt: TENSION LAP SPLICE LENGTH OF TOP BARS.
   Ldc: DEVELOPMENT LENGTH FOR BARS IN COMPRESSION
   Lsc: TIED COLUMN LAP SPLICE IN COMPRESSION
   db: NOMINAL BAR DIAMETER (INCHES)
   TOP BARS: HORIZONTAL BEAM REINFORCEMENT WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW

2. MULTIPLY VALUES IN SCHEDULE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET REQUIREMENTS FOR Ld IN NOTE 1.

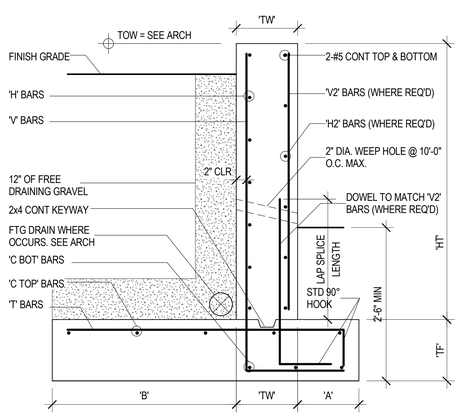
3. MULTIPLY VALUES IN SCHEDULE BY 1.3 FOR USE IN LIGHTWEIGHT AGGREGATE CONCRETE.

4. FOR EPOXY COATED BAR: MULTIPLY VALUES IN SCHEDULE BY 1.5 FOR BARS WITH CLEAR COVER < 3db OR CLEAR SPACING < 6db. OTHERWISE MULTIPLY VALUES BY 1.2.

5. a. FOR BUNDLED BARS OF THREE OR LESS MULTIPLY LENGTHS BY 1.2.
   b. FOR BUNDLED BARS OF FOUR OR MORE MULTIPLY LENGTHS BY 1.33.
   c. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.

6. SCHEDULE LENGTHS ARE FOR fy=60ksi REINFORCING, MULTIPLY LENGTHS BY 1.25 FOR fy=75ksi REINFORCING.

7. LAP SPLICES ARE NOT PERMITTED FOR #14 & #18 BARS. USE BAR COUPLERS PER G.S.N.



CONCRETE RETAINING WALL SCHEDULE																			
MARK	'HT'	'A'	'B'	'TW'	'TF'	'V' BARS		'H' BARS		'V2' BARS		'H2' BARS		'T' BARS		'C TOP' BARS		'C BOT' BARS	
						SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE
CRW-1P	4'-0"	0'-6"	1'-10"	8"	1'-0"	#5	14"	#5	18"	--	--	--	--	#5	14"	4-#5	10"	2-#5	12"
CRW-2P	7'-0"	0'-6"	3'-8"	10"	1'-6"	#5	8"*	#4	12"	#4	12"	#4	12"	#6	8"	5-#6	13.5"	2-#6	10"
CRW-3P	9'-0"	0'-6"	5'-0"	1'-0"	1'-6"	#7	8"*	#5	12"	#5	12"	#5	12"	#6	8"	7-#6	12"	2-#6	12"
CRW-4P	11'-0"	1'-0"	6'-0"	1'-0"	1'-6"	#8	8"*	#5	12"	#5	12"	#5	12"	#7	8"	8-#6	12.8"	2-#6	18"
CRW-5P	13'-0"	2'-0"	7'-0"	1'-0"	1'-8"	#9	8"*	#5	18"	#5	12"	#5	12"	#6	8"	11-#6	11.4"	3-#6	15"

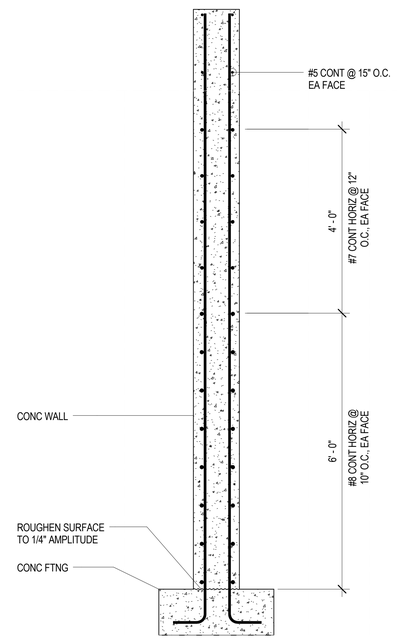
NOTES:
1. 'V' BARS SHALL NOT BE SPLICED BELOW MID-HEIGHT OF WALL
2. * DENOTES ONE HALF OF THE 'V' BARS CAN BE DISCONTINUED FROM MID-HEIGHT TO TOP OF WALL.

A2 / SB-P601 TYPICAL CONCRETE RETAINING WALL SCHEDULE AND DETAIL

NO SCALE

CONCRETE FOOTING SCHEDULE													
MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
				NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
FC1.5P	1' - 6"	CONT.	1' - 0"	--	--	--	--	2	#4	CONT	12"	
FC2.0P	2' - 0"	CONT.	1' - 0"	--	--	--	--	3	#4	CONT	9"	
FC3.0P	3' - 0"	CONT.	1' - 0"	--	#5	2'-6"	14"	3	#5	CONT	15"	
FS8.0P	8' - 0"	8' 0"	1' - 11"	10	#6	7' 6"	10"	10	#6	7' 6"	10"	
FS11.0P	11' - 0"	11' 0"	2' - 6"	11	#8	10' 6"	12.6"	11	#8	10' 6"	12.6"	
FS15.0P	15' - 0"	15' 0"	3' - 5"	15	#9	14' 6"	12.5"	15	#9	14' 6"	12.5"	
FS17.0P	17' - 0"	17' 0"	3' - 9"	13	#11	16' 6"	16.5"	13	#11	16' 6"	16.5"	
FS19.0P	19' - 0"	19' 0"	4' - 3"	16	#11	18' 6"	14.8"	16	#11	18' 6"	14.8"	
FM-1P	15' - 0"	48'-0"	4' - 6"	--- ---	#9 #9	14'-6" 14'-6"	11" 11"	17 17	#9 #9	CONT CONT	10.8" 10.8"	TOP BOT
FM-2P	16' - 0"	36'-0"	4' - 6"	37 37	#10 #10	15'-6" 15'-6"	11.8" 11.8"	17 17	#10 #10	35'-6" 35'-6"	11.6" 11.6"	TOP BOT
FM-3P	16' - 0"	58'-0"	4' - 6"	--- ---	#11 #11	15'-6" 15'-6"	12" 12"	17 17	#11 #11	CONT CONT	11.6" 11.6"	TOP BOT

1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.
2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" CLEAR CONCRETE COVER.
3. SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS AND CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS, UNLESS NOTED OTHERWISE. CENTER MAT FOOTINGS ON CONCRETE SHEAR WALLS.
4. ALL FOOTINGS SHALL BE FORMED. FOOTINGS SHALL NOT BE EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.
5. PLACE LENGTHWISE MAT FOOTING REINFORCING IN OUTER LAYER.
6. AT INTERSECTING MAT FOOTINGS: PLACE NORTH/SOUTH REINFORCEMENT IN OUTER LAYER; CONTINUE LOGITUDINAL REINFORCEMENT FROM EACH FOOTING THROUGH INTERSECTION; CONTINUE CROSSWISE BOTTOM REINFORCEMENT FROM THE THICKER FOOTING THROUGH THE INTERSECTION.
7. UP TO TWO BARS MAY BE BUNDELED SIDE BY SIDE.
8. AVOID SPLICES IN LENGTHWISE REINFORCEMENT WHERE CONCRETE SHEAR WALL JAMB COLUMNS OCCUR.
9. CONCRETE MAT FOOTING BARS IN BOTH LONGITUDINAL AND CROSSWISE DIRECTION SHALL HAVE 90 DEGREE HOOKS.



B3 / SB-P601 DETAIL AT CFW-5P

NO SCALE

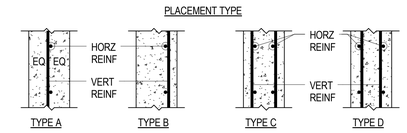
CONCRETE FOUNDATION WALL SCHEDULE					
MARK	THICK	VERTICAL REINFORCING	HORIZONTAL REINFORCING	T & B HORIZ. BARS	PLACEMENT
CFW-1P	8"	#4 @ 16" O.C.	#5 @ 15" O.C.	1-#5	TYPE A
CFW-2P	10"	#4 @ 13" O.C.	#5 @ 12" O.C.	1-#5	TYPE A
CFW-3P	1' - 0"	#6 @ 16" O.C., I.F. #4 @ 16" O.C., O.F.	#4 @ 13" O.C., E.F.	2-#5	TYPE C
CFW-5P	1' - 2"	#5 @ 18" O.C., EA FACE	SEE CFW-5P DETAIL		TYPE D
CFW-6P	1' - 0"	#4 @ 18" O.C., E.F.	#4 @ 13" O.C., E.F.	2-#5	TYPE C

CONCRETE SHEAR WALL SCHEDULE					
MARK	THICK	VERTICAL REINFORCING	HORIZONTAL REINFORCING	T & B HORIZ. BARS	PLACEMENT
CSW-1P	1' - 0"	#4 @ 13" O.C., E.F.	#4 @ 13" O.C., E.F.	2-#4	TYPE C
CSW-2P	1' - 0"	#5 @ 12" O.C., E.F.	#5 @ 12" O.C., E.F.	2-#5	TYPE C

CONCRETE WALL SCHEDULE					
MARK	THICK	VERTICAL REINFORCING	HORIZONTAL REINFORCING	T & B HORIZ. BARS	PLACEMENT
CW-1P	8"	#5 @ 16" O.C.	#5 @ 15" O.C.	1-#5	TYPE A
CW-2P	6"	#4 @ 16" O.C.	#5 @ 15" O.C.	1-#5	TYPE A
CW-3P	1' - 0"	#4 @ 16" O.C., E.F.	#4 @ 13" O.C., E.F.	2-#4	TYPE C

NOTES:
1. HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS THRU CONSTRUCTION & CONTROL JOINTS.
2. SPLICES IN HORIZONTAL WALL REINFORCING SHALL BE TYPE Lsb, STAGGERED SUCH THAT SPLICES DO NOT OVERLAP. SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.

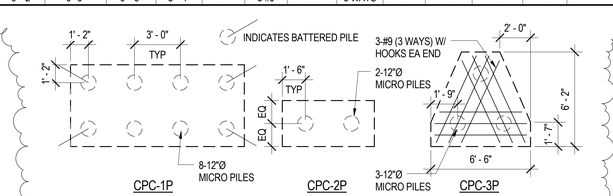
PLACEMENT TYPE



E.F. = EACH FACE
O.F. = OUTSIDE FACE (AGAINST SOIL)
I.F. = INSIDE FACE
3L = THREE LAYERS

CONCRETE JAMB COLUMN SCHEDULE			
Type	WIDTH	DEPTH	VERT. REINF.
CJC-1P	1' - 0"	2' - 0"	8-#8
CJC-2P	1' - 0"	2' - 0"	8-#6
CJC-3P	1' - 0"	2' - 8"	12-#9
CJC-4P	1' - 0"	2' - 0"	8-#7

CONCRETE PILE CAP SCHEDULE													
MARK	WIDTH	LENGTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
					NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
CPC-1P	5' - 4"	11' 4"	11' - 4"	4' - 0"	--	#11	5' 0"	12"	--	#11	10' 10"	12"	
CPC-2P	3' - 0"	6' 0"	6' - 0"	3' - 4"	--	#5	2' 6"	12"	--	#5	2' 6"	12"	
CPC-3P	6' - 2"	6' 6"	6' - 6"	3' - 4"	--	3-#9	--	3 WAYS	--	--	--	--	



A4 / SB-P601 CONC. PILE CAPS

NO SCALE

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Ronald J. Reaveley
PROFESSIONAL STRUCTURAL ENGINEER #144210
4/27/2012
Ronald J. Reaveley
STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

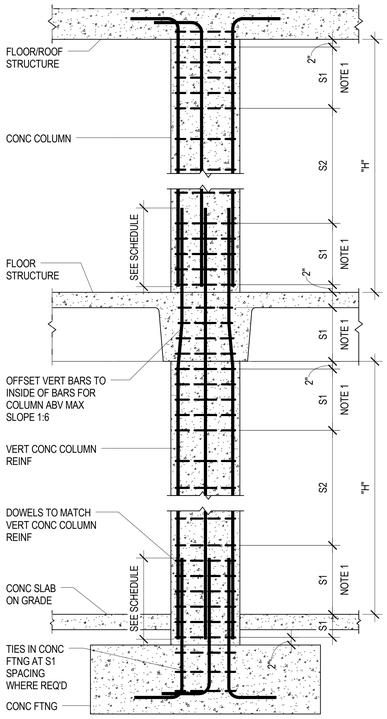
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

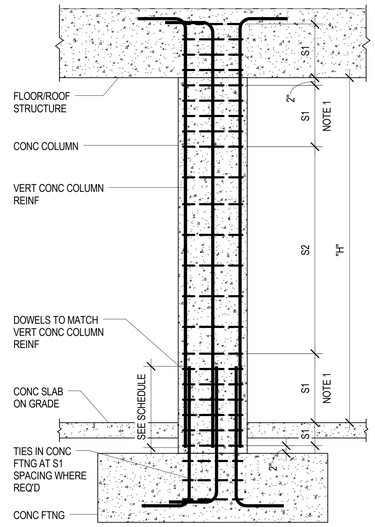
SCHEDULES

CONSTRUCTION DOCUMENTATION

SB-P601



MULTI STORY COLUMN TIE SPACING

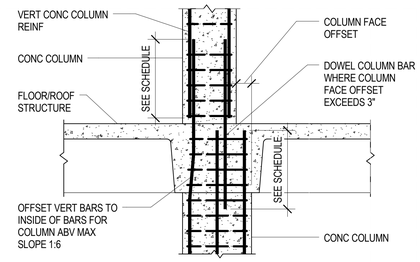


SINGLE STORY COLUMN TIE SPACING

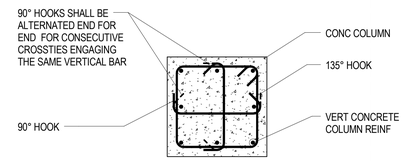
NOTE:
1. PROVIDE REDUCED TIE SPACING (S1) FOR THE LARGER OF H/6 THE MAX COLUMN DIMENSION or 18"

C2 / SB-P602 TYPICAL CONCRETE COLUMN TIE DIAGRAMS

NO SCALE



VERTICAL BAR SPLICE

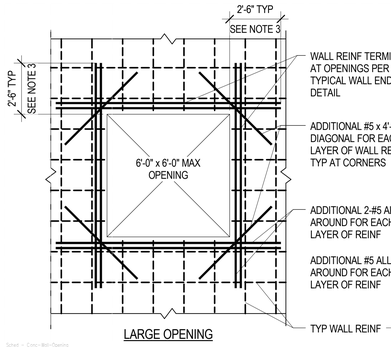


CROSS TIE LAYOUT (PLAN VIEW)

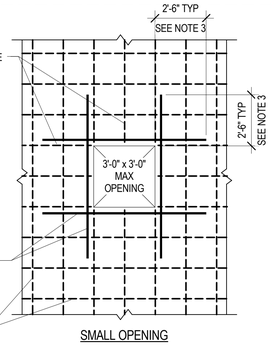
CONCRETE COLUMN SCHEDULE

MARK	SIZE	REINFORCING					REMARKS
		VERTICAL	SPLICE	TIES	S1 SPACING	S2 SPACING	
CC-1P	24" x 24"	4-#11	Ldc	1-#4	6" O.C.	20" O.C.	-
CC-2P	24" x 24"	4-#11	Ldc	1-#4	6" O.C.	20" O.C.	5,000PSI
CC-3P	28" x 28"	8-#9	Ldc	3-#4	6" O.C.	20" O.C.	5,000PSI
CC-4P	24" x 24"	8-#8	Ldc	3-#6	5" O.C.	5" O.C.	5,000PSI
CC-5P	12" x 16"	4-#5		1-#4	6" O.C.	--	5,000PSI

NOTES:
1. SEE DETAIL FOR TYPICAL CONCRETE COLUMN TIE SPACING AND PLACEMENT.
2. SEE CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE.



LARGE OPENING



SMALL OPENING

NOTES:
1. OMIT ADDED REINFORCEMENT SHOWN WHEN SPECIAL REINFORCEMENT INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.

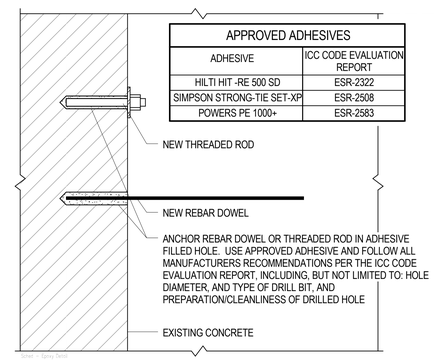
2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.

3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH TERMINATE AT EDGE WITH STANDARD HOOK.

4. WHERE MULTIPLE OPENINGS OCCUR WITHIN TWO TIMES THE OPENING DIMENSION, THE GROUP OF OPENINGS SHALL BE TREATED AS A SINGLE OPENING

B2 / SB-P602 TYPICAL OPENINGS THROUGH CONCRETE WALLS

NO SCALE



APPROVED ADHESIVES

ADHESIVE	ICC CODE EVALUATION REPORT
HILTI HIT -RE 500 SD	ESR-2322
SIMPSON STRONG-TIE SET-XP	ESR-2508
POWERS PE 1000+	ESR-2583

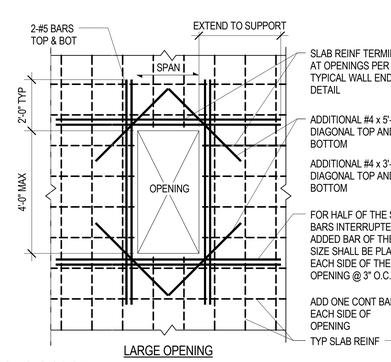
B4 / SB-P602 ADHESIVE ANCHORING SCHEDULE

NO SCALE

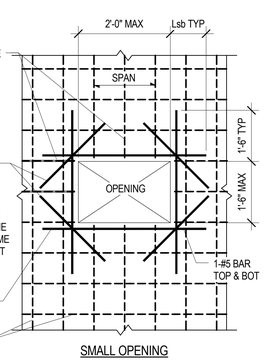
ADHESIVE ANCHORING SCHEDULE

REINFORCING		THREADED ROD	
DOWEL SIZE	EMBEDMENT LENGTH (SEE NOTE #2)	SIZE (DIA)	EMBEDMENT LENGTH (SEE NOTE #2)
#3	4"	3/8"	4 1/2"
#4	6"	1/2"	6"
#5	9"	5/8"	7 1/2"
#6	10"	3/4"	9"
#7	12"	7/8"	10 1/2"
#8	13"	1"	12"
#9	14"	1 1/4"	15"
#10	18"		
#11	18"		

NOTES:
1. THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS AND AT OTHER LOCATIONS WITH THE APPROVAL OF THE ENGINEER.
2. EMBEDMENT LENGTHS SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER EMBEDMENT LENGTHS IN THIS SCHEDULE.
3. WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER IS NOT SUFFICIENT TO ACHIEVE SCHEDULED EMBEDMENT AND SPECIFIED CLEAR COVER FOR THE ANCHOR, CONTACT THE ENGINEER.
4. USE PROCEDURES AND PRODUCTS RECOMMENDED BY ADHESIVE MANUFACTURER FOR OVERHEAD INSTALLATION.
5. SPECIAL INSPECTION IS REQUIRED DURING INSTALLATION OF ALL ADHESIVE ANCHORS PER THE CODE EVALUATION REPORT FOR THE ANCHOR AND THE QUALITY ASSURANCE SECTION OF THE GENERAL STRUCTURAL NOTES.



LARGE OPENING



SMALL OPENING

NOTES:
1. OMIT ADDED REINFORCEMENT SHOWN WHEN SPECIAL REINFORCEMENT INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.

2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.

3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH TERMINATE AT EDGE WITH STANDARD HOOK.

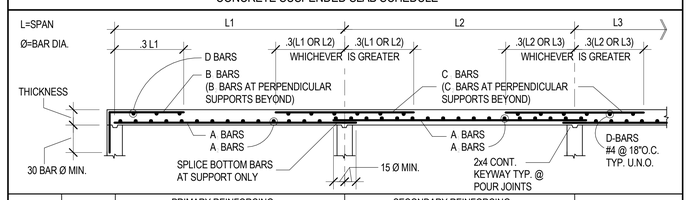
4. EXTEND NEW REINFORCEMENT TO END OF INTERRUPTED REINFORCEMENT OR 10'-0" BEYOND EDGE OF OPENING WHICHEVER IS SMALLER

5. WHERE MULTIPLE OPENINGS OCCUR WITHIN TWO TIMES THE OPENING DIMENSION, THE GROUP OF OPENINGS SHALL BE TREATED AS A SINGLE OPENING

A2 / SB-P602 TYPICAL OPENING THROUGH ONE WAY CONCRETE SUSPENDED SLAB (PLAN VIEW)

NO SCALE

CONCRETE SUSPENDED SLAB SCHEDULE



MARK	THICK	PRIMARY REINFORCING			SECONDARY REINFORCING			D BARS
		A BARS	B BARS	C BARS	A BARS	B BARS	C BARS	
CSS-1P	12"	#7 @ 12" O.C.	#5 @ 12" O.C.	--	#5 @ 14" O.C.	#4 @ 14" O.C.	--	--
CSS-2P	12"	#7 @ 11" O.C.	--	--	#5 @ 14" O.C.	--	--	--
CSS-3P	8"	#5 @ 16" O.C.	--	--	#4 @ 16" O.C.	--	--	--
CSS-4P	7"	#6 @ 10" O.C.	--	--	#4 @ 16" O.C.	--	--	--
CSS-5P	6"	#4 @ 11" O.C.	--	--	#4 @ 18" O.C.	--	--	--

NOTES.
1. PRIMARY REINFORCING SHALL RUN PARALLEL TO THE DIRECTION OF THE ARROW ( ).
2. PRIMARY BOTTOM REINFORCING SHALL BE PLACED BELOW SECONDARY BOTTOM REINFORCING. PRIMARY TOP REINFORCING SHALL BE PLACED ABOVE SECONDARY TOP REINFORCING.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Ronald J. Reaveley
PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

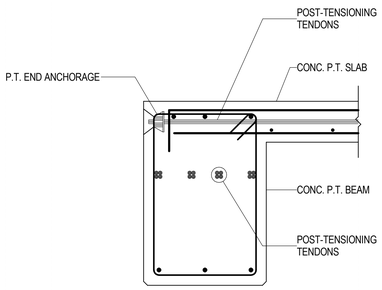
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

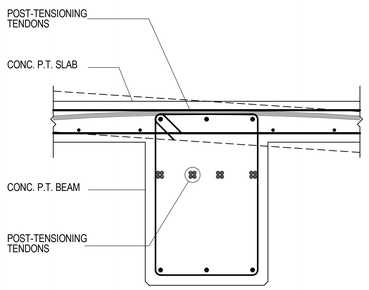
SCHEDULES

CONSTRUCTION DOCUMENTATION

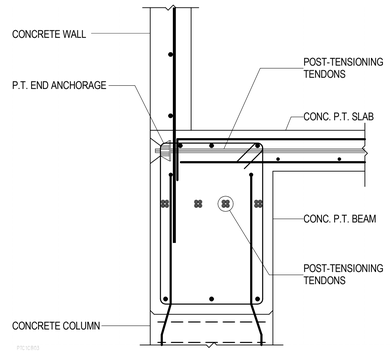
SB-P602



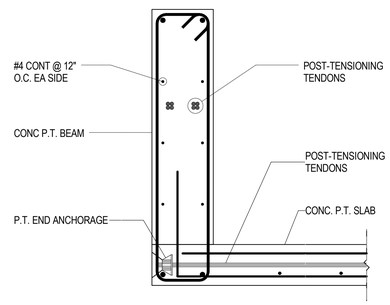
D1 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM W/ SLAB ONE SIDE
NO SCALE



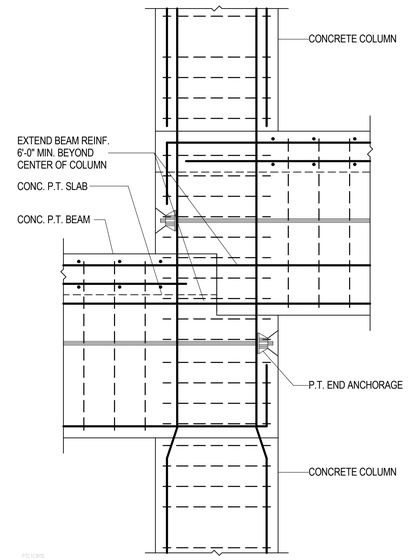
D2 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM W/ SLAB TWO SIDES
NO SCALE



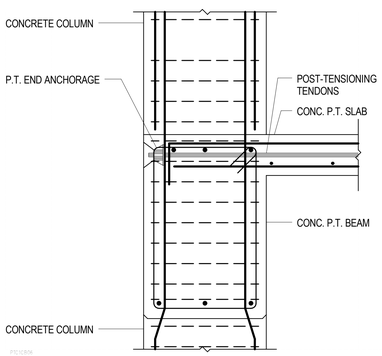
D3 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE COLUMN
NO SCALE



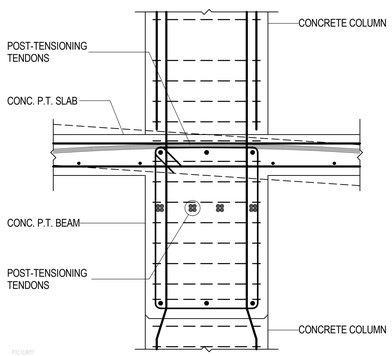
D4 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM W/ SLAB ONE SIDE
NO SCALE



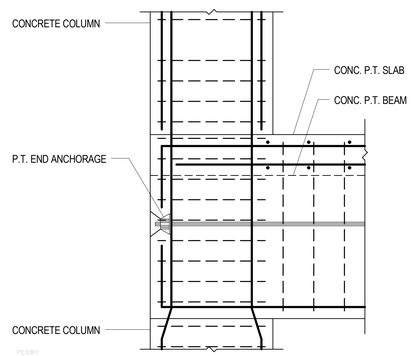
C5 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE COLUMN
NO SCALE



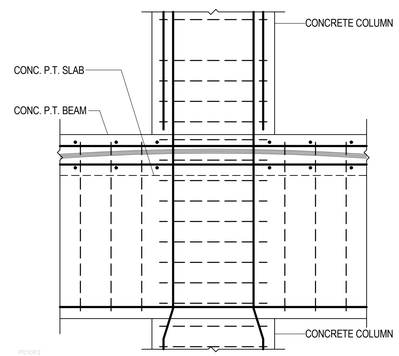
C1 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE BEAM
NO SCALE



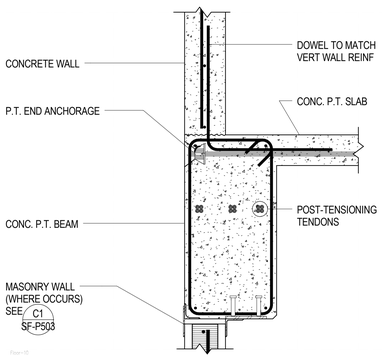
C2 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE COLUMN
NO SCALE



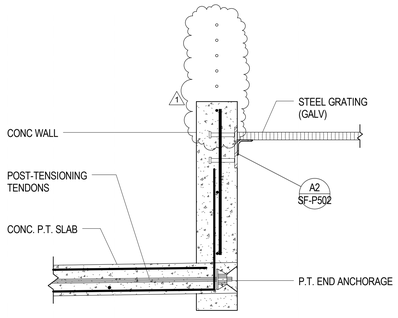
C3 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE COLUMN
NO SCALE



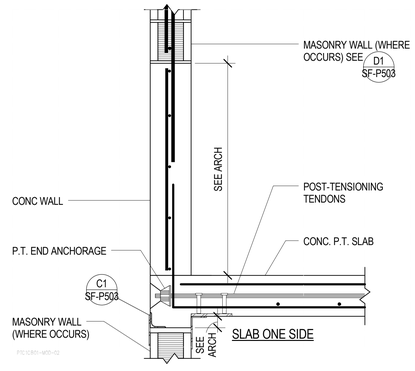
C4 SF-P502 TYPICAL POST-TENSIONED CONCRETE BEAM AT CONCRETE COLUMN
NO SCALE



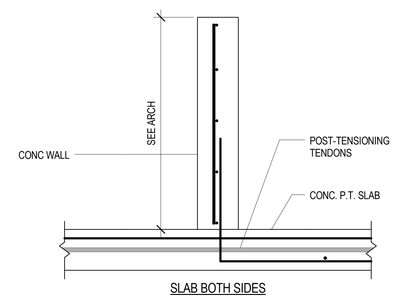
B1 SF-P502 POST-TENSIONED CONCRETE BEAM W/ SLAB ONE SIDE AND CONCRETE WALL ABOVE
NO SCALE

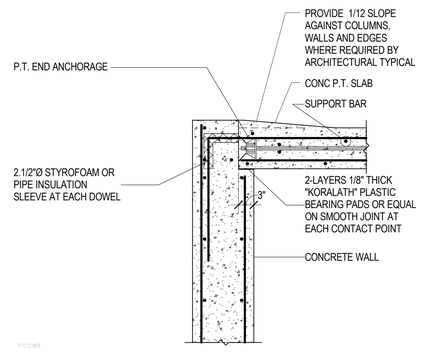


B2 SF-P502 STEEL GRATE BEARING AT CONCRETE WALL
NO SCALE

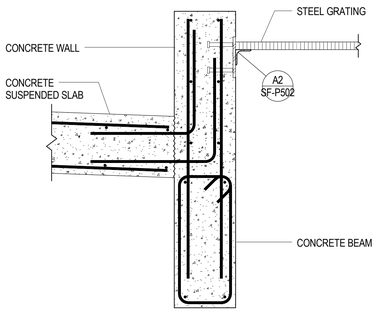


B3 SF-P502 CONCRETE WALL AT CONCRETE POST TENSIONED SLAB
NO SCALE

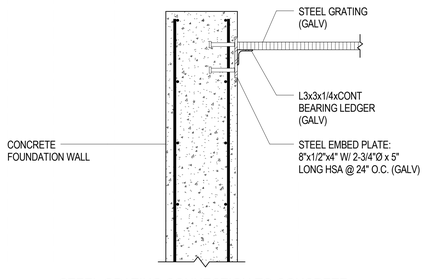




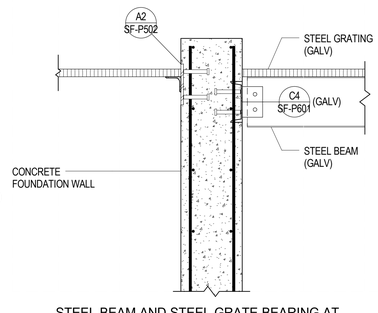
B5 SF-P502 TYPICAL POST-TENSIONED CONCRETE SLAB AT CONCRETE WALL AT SLIP JOINT
NO SCALE



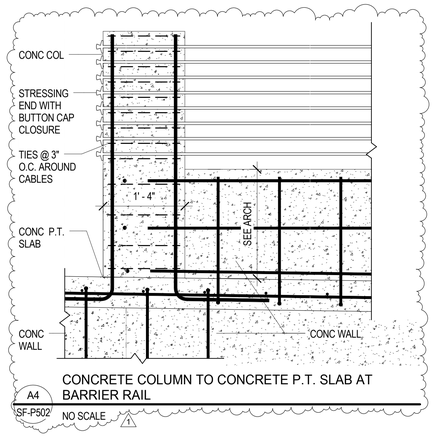
A1 SF-P502 STEEL GRATE AND CONCRETE SUSPENDED WALL BEARING AT CONCRETE WALL/BEAM
NO SCALE



A2 SF-P502 STEEL GRATING CONNECTION TO CONCRETE FOUNDATION WALL
NO SCALE



A3 SF-P502 STEEL BEAM AND STEEL GRATE BEARING AT CONCRETE FOUNDATION WALL
NO SCALE



A4 SF-P502 CONCRETE COLUMN TO CONCRETE P.T. SLAB AT BARRIER RAIL
NO SCALE

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

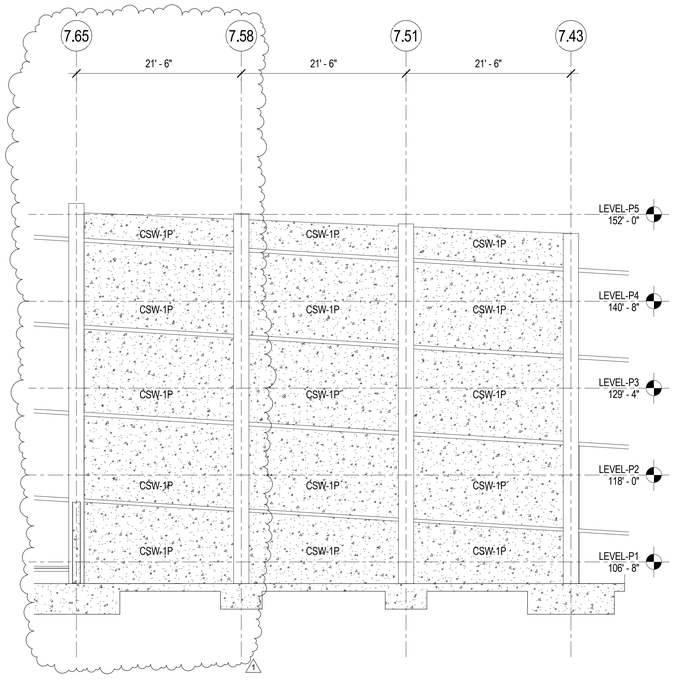
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

TYPICAL POST-TENSIONED CONCRETE DETAILS

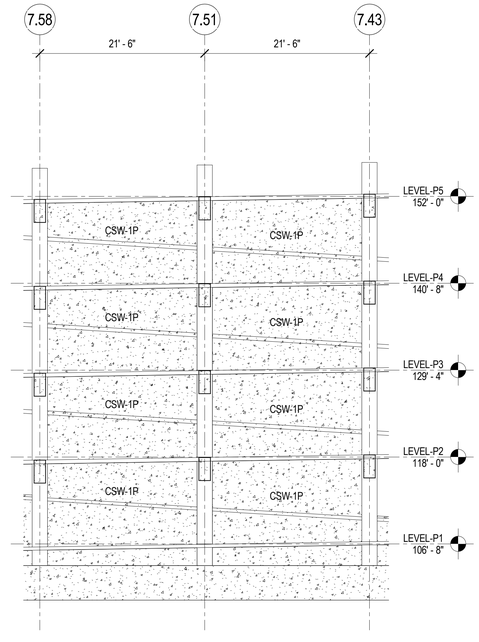
CONSTRUCTION DOCUMENTATION

SF-P502



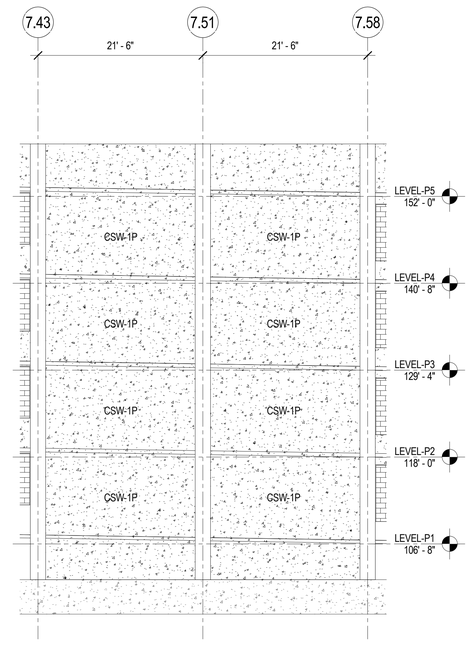
C1 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG G6

SCALE: 1/8" = 1'-0"



C3 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG G4

SCALE: 1/8" = 1'-0"



C4 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG G2

SCALE: 1/8" = 1'-0"

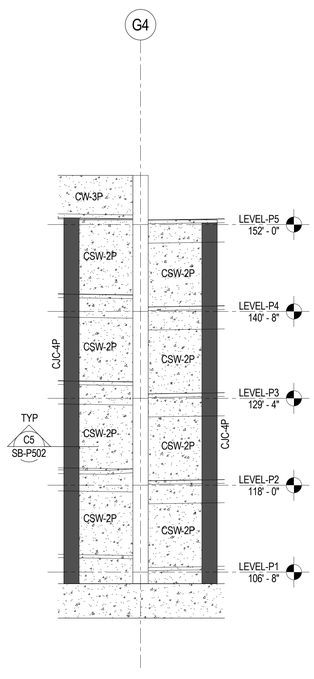
CONCRETE SHEAR WALL ELEVATION NOTES

1. VERIFY ALL DATUM ELEVATIONS W/ ARCHITECTURAL DRAWINGS.

2. VERIFY ALL OPENING LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL.

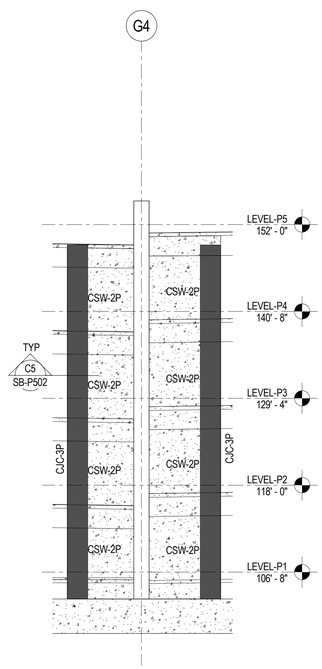
3. SEE TYPICAL OPENINGS THROUGH CONCRETE WALLS DETAIL FOR ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE WALL OR CONCRETE SHEAR WALL.

4. CONCRETE JAMB COLUMNS ARE CONTINUOUS THROUGH P.T. BEAMS.



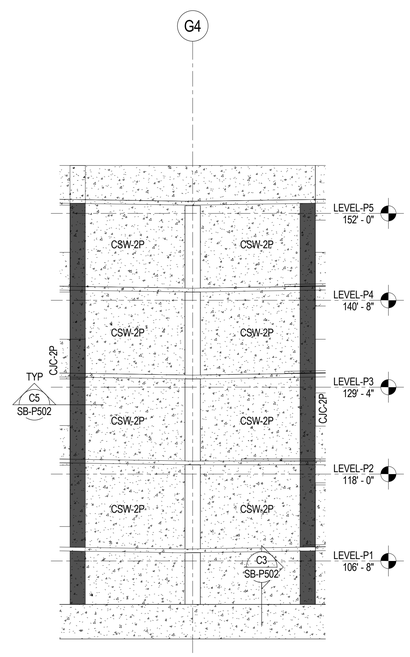
A1 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG 7.36

SCALE: 1/8" = 1'-0"



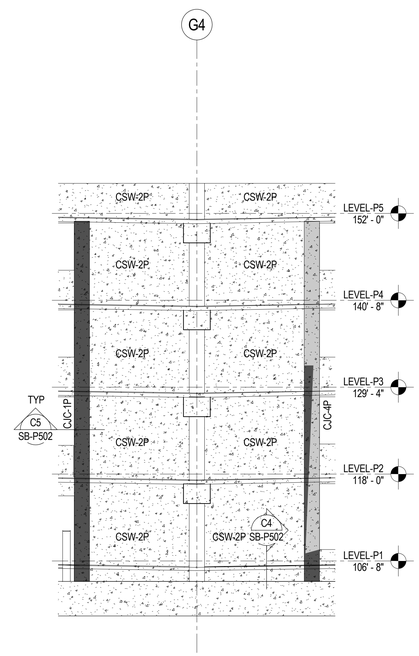
A2 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG 7.72

SCALE: 1/8" = 1'-0"



A3 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG 7.14

SCALE: 1/8" = 1'-0"



A4 SF-P201 CONCRETE SHEAR WALL ELEVATION ALONG 7.94

SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P: 801.486.3883
F: 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

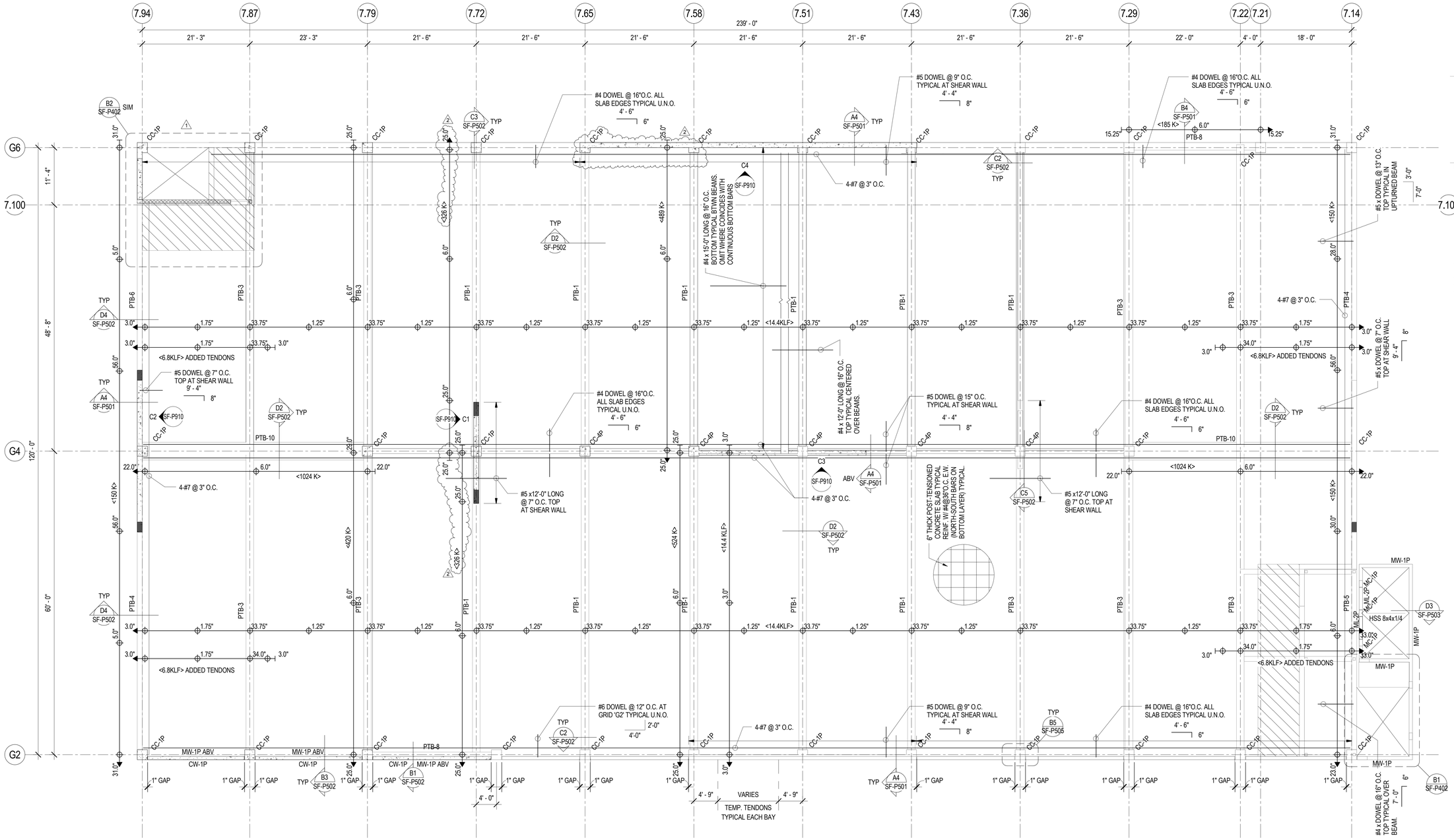
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

CONCRETE SHEAR WALL ELEVATIONS

CONSTRUCTION DOCUMENTATION

SF-P201



B3 / SF-P905 LEVEL P5 FLOOR FRAMING PLAN - ALTERNATE 1

SCALE: 1/8" = 1'-0"

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.
2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.
3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.
4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.
6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.
7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.
8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.
9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.
10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.
11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.
12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.
13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.
14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.
15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.
16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.
2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.
3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.
4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

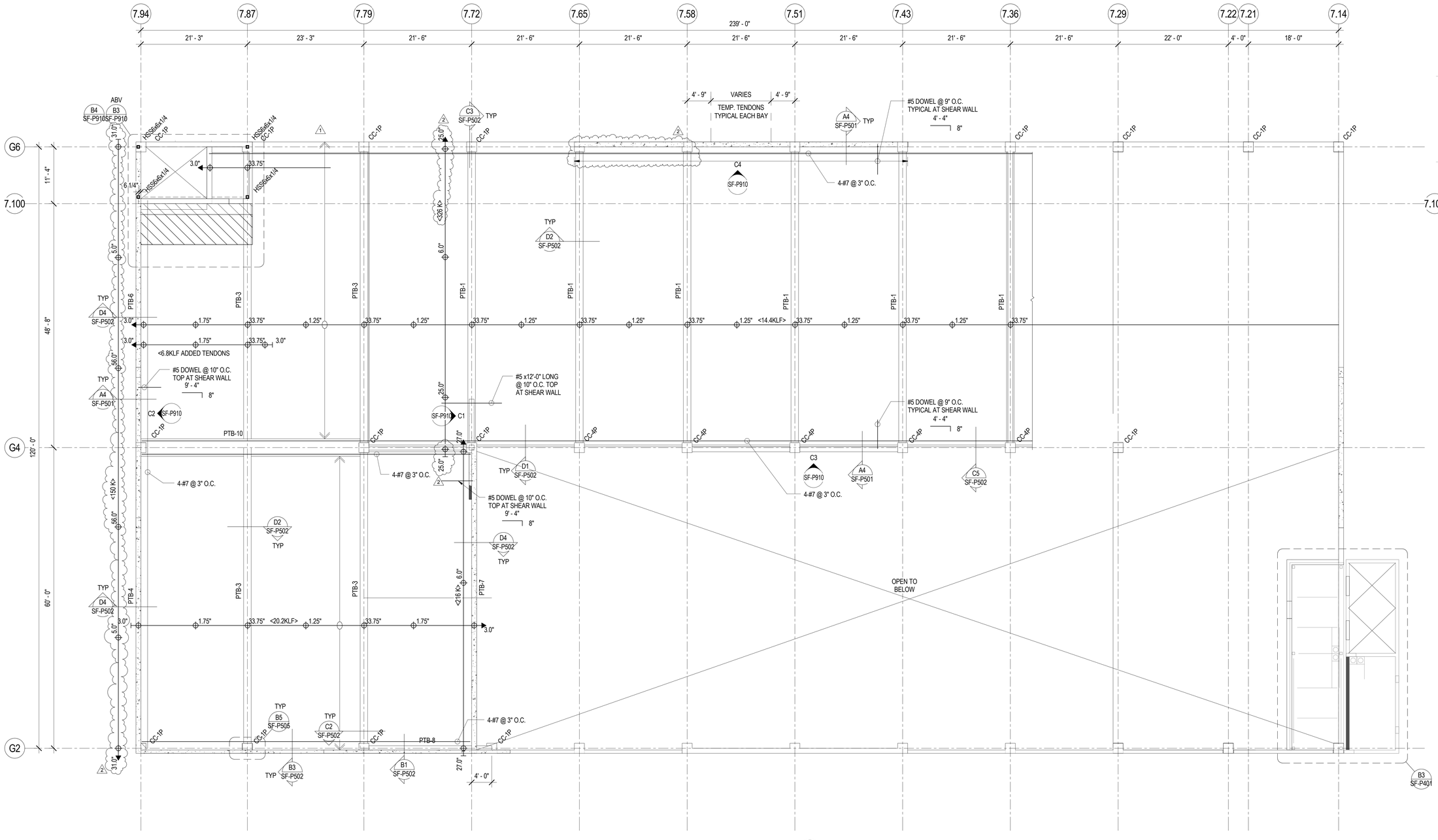
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P5 FLOOR FRAMING PLAN - ALTERNATE 1

CONSTRUCTION DOCUMENTATION

SF-P905



B3 SF-P906 LEVEL P6 FLOOR FRAMING PLAN - ALTERNATE 1

SCALE: 1/8" = 1'-0"

FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CONCRETE BEAM
- CONCRETE POST TENSIONED BEAM
- 6" CONCRETE SLAB OVER 1'-4" RIGID FOAM INSULATION
- 3" TOPPING SLAB POUR MONOLITHICALLY WITH STRUCTURAL SLAB
- RECESSED/DEPRESSED SLAB
- OPENING

POST-TENSIONED NOTES

1. UNLESS NOTED OTHERWISE, ALL P.T. SLABS SHALL BE 6" THICK.

2. ALL REINFORCING SHALL BE EPOXY COATED EXCEPT AT CONCRETE FOOTINGS & MASONRY WALLS.

3. SEE GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS FOR DETAILED POST-TENSION SYSTEM INFORMATION.

4. TENDONS SHALL BE PLACED AT MID-HEIGHT OF SLAB AT ALL SLAB EDGES AND CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.

5. PROVIDE SUPPORT BARS FOR TENDONS AND REBAR AS REQUIRED.

6. PROVIDE REINFORCEMENT AT ANCHORAGE OF DISTRIBUTED TENDONS PER DETAIL.

7. TWO TENDONS, MINIMUM, SHALL PASS THROUGH COLUMN CAGE EACH DIRECTION.

8. SEE DETAIL FOR TYPICAL P.T. TENDON PROFILE DIAGRAM.

9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS.

10. PROVIDE REINFORCEMENT AND SWEEP TENDONS AROUND OPENINGS IN SLABS PER DETAIL.

11. SEE DETAIL FOR SLEEVES AND BLOCK-OUTS NEAR P.T. TENDON ANCHORS.

12. DENOTES POST-TENSION TENDON STRESSING END ANCHORAGE, W/ ELEVATION MARK AT CENTERLINE OF TENDON.

13. DENOTES POST-TENSION TENDON W/ ELEVATION MARK AT CENTERLINE OF TENDON. MEASURED FROM BOTTOM OF SLAB OR BEAM, U.N.O.

14. DENOTES POST-TENSION TENDON DEAD END ANCHORAGE W/ ELEVATION MARK AT CENTERLINE OF TENDON.

15. SEE A1/SF-P504 FOR TYPICAL CABLE BARRIER ATTACHMENT/ANCHORAGE TO CONCRETE WALL/COLUMNS - PLAN VIEWS.

16. SEE A3/SF-P505 FOR TYPICAL SLEEVED OPENINGS IN POST-TENSIONED CONCRETE BEAM

PLAN NOTES:

1. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE WALL AT LEVEL P1 TO P2 AT SLIP CONNECTIONS. 1" GAPS CALLED-OUT ALONG GRID 'G2' OCCUR AT THE CONCRETE & MASONRY WALL AT LEVEL P2 AND ABOVE.

2. 1" GAPS CALLED-OUT ALONG GRID 'G6' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO LEVEL P2 AT SLIP CONNECTIONS.

3. 1" GAPS CALLED-OUT ALONG GRID '7.94' OCCUR AT CONCRETE WALLS FROM LEVEL P1 TO P2 AT SLIP CONNECTIONS.

4. SEE C5/SF-P503 FOR TYPICAL METAL PANEL SUPPORT ANCHORAGE DETAIL.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P: 801.486.3883
F: 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL P6 FLOOR FRAMING PLAN - ALTERNATE 1

CONSTRUCTION DOCUMENTATION

SF-P906

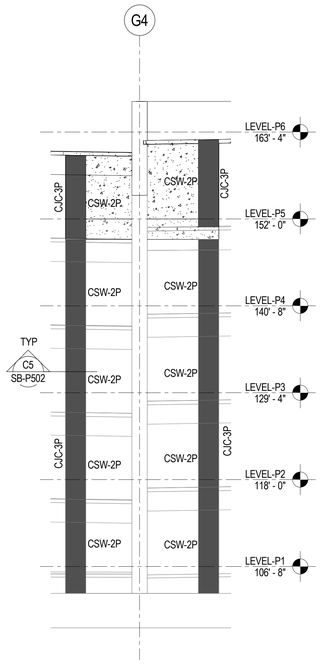
CONCRETE SHEAR WALL ELEVATION NOTES

1. VERIFY ALL DATUM ELEVATIONS W/ ARCHITECTURAL DRAWINGS.

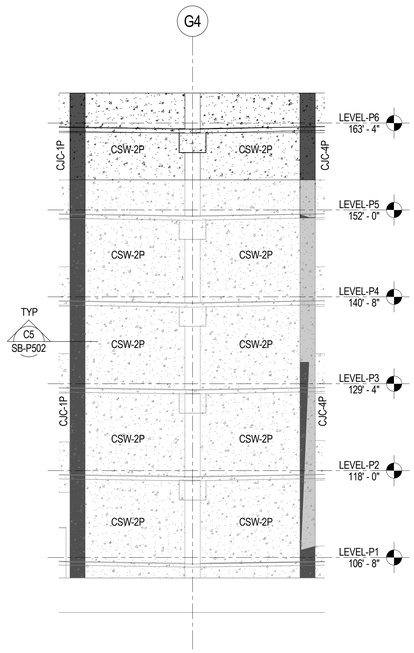
2. VERIFY ALL OPENING LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL.

3. SEE TYPICAL OPENINGS THROUGH CONCRETE WALLS DETAIL FOR ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE WALL OR CONCRETE SHEAR WALL.

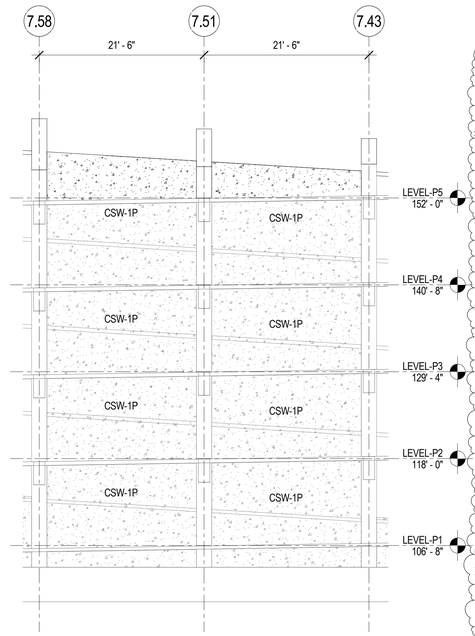
4. CONCRETE JAMB COLUMNS ARE CONTINUOUS THROUGH P.T. BEAMS.



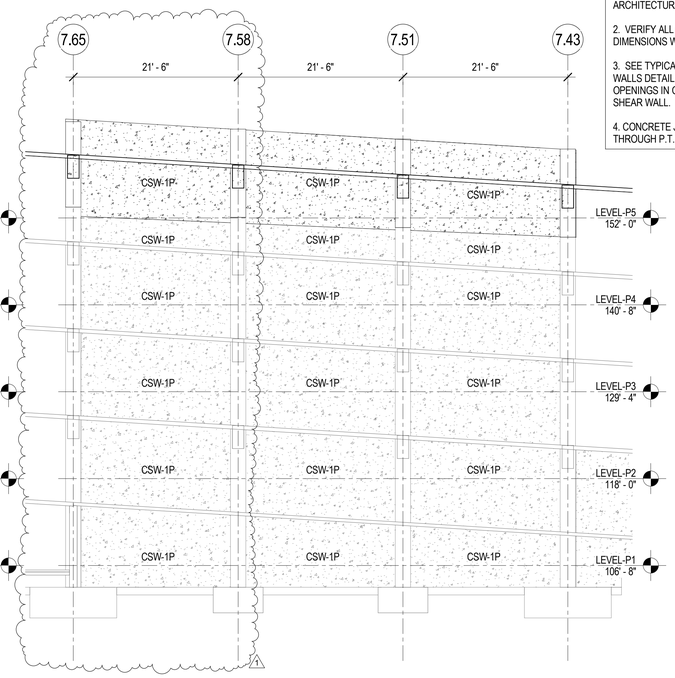
C1 SF-P910 CONC SHEAR WALL ELEV ALONG 7.72 - ALTERNATE 1
SCALE: 1/8" = 1'-0"



C2 SF-P910 CONC SHEAR WALL ELEV ALONG 7.94 - ALTERNATE 1
SCALE: 1/8" = 1'-0"

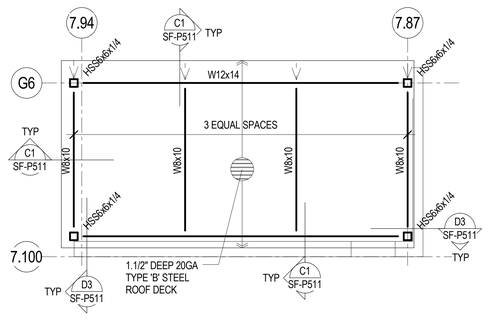


C3 SF-P910 CONC SHEAR WALL ELEV ALONG G4 - ALTERNATE 1
SCALE: 1/8" = 1'-0"

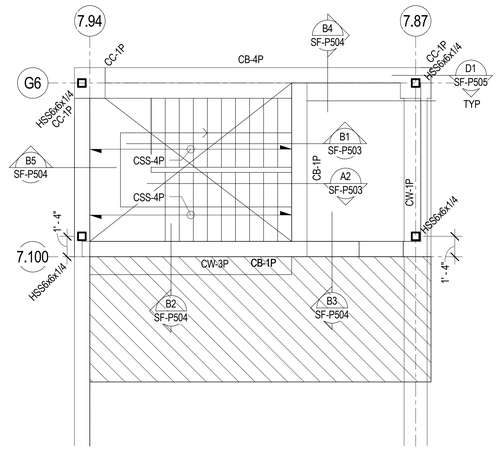


C4 SF-P910 CONC SHEAR WALL ELEV ALONG G6 - ALTERNATE 1
SCALE: 1/8" = 1'-0"

NOTES:
1. SEE C4/SF-P505 FOR TYPICAL HANDRAIL EMBED PLATE DETAIL.



B3 SF-P910 ROOF FRAMING PLAN OVER NORTHEAST STAIR - ALTERNATE
SCALE: 1/4" = 1'-0"



B4 SF-P910 LEVEL P6 FLOOR FRAMING PLAN - ALTERNATE
SCALE: 1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Ronald J. Reaveley
PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

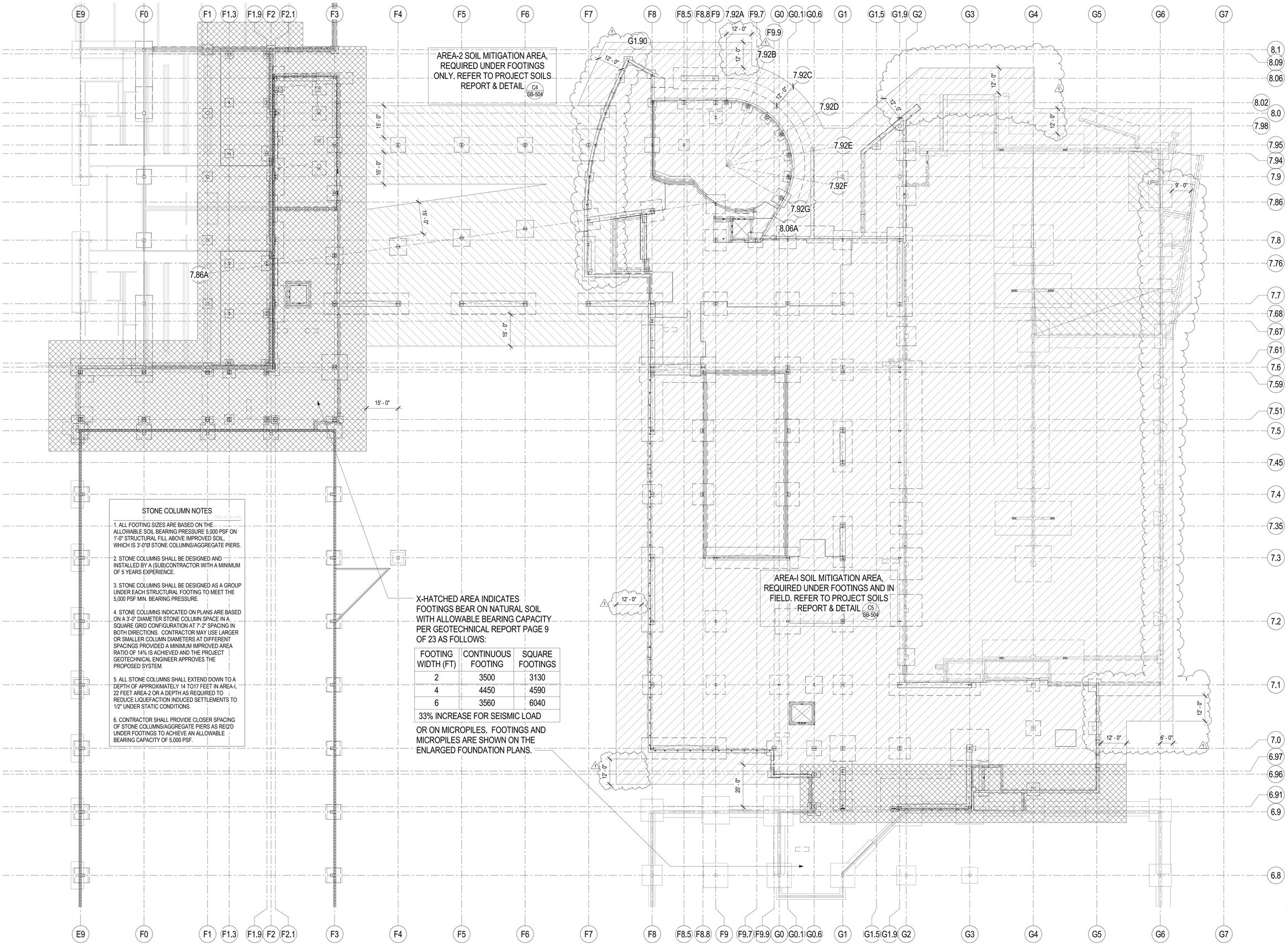
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	YW
CHECKED BY:	MB
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

CONCRETE SHEAR WALL ELEVATIONS - ALTERNATE 1

CONSTRUCTION DOCUMENTATION

SF-P910



STONE COLUMN NOTES

1. ALL FOOTING SIZES ARE BASED ON THE ALLOWABLE SOIL BEARING PRESSURE 5,000 PSF ON 1'-0" STRUCTURAL FILL ABOVE IMPROVED SOIL, WHICH IS 3'-0"Ø STONE COLUMNS/AGGREGATE PIERS.

2. STONE COLUMNS SHALL BE DESIGNED AND INSTALLED BY A (SUB)CONTRACTOR WITH A MINIMUM OF 5 YEARS EXPERIENCE.

3. STONE COLUMNS SHALL BE DESIGNED AS A GROUP UNDER EACH STRUCTURAL FOOTING TO MEET THE 5,000 PSF MIN. BEARING PRESSURE.

4. STONE COLUMNS INDICATED ON PLANS ARE BASED ON A 3'-0" DIAMETER STONE COLUMN SPACE IN A SQUARE GRID CONFIGURATION AT 7'-2" SPACING IN BOTH DIRECTIONS. CONTRACTOR MAY USE LARGER OR SMALLER COLUMN DIAMETERS AT DIFFERENT SPACINGS PROVIDED A MINIMUM IMPROVED AREA RATIO OF 14% IS ACHIEVED AND THE PROJECT GEOTECHNICAL ENGINEER APPROVES THE PROPOSED SYSTEM.

5. ALL STONE COLUMNS SHALL EXTEND DOWN TO A DEPTH OF APPROXIMATELY 14 TO17 FEET IN AREA-I, 22 FEET AREA-2 OR A DEPTH AS REQUIRED TO REDUCE LIQUEFACTION INDUCED SETTLEMENTS TO 1/2" UNDER STATIC CONDITIONS.

6. CONTRACTOR SHALL PROVIDE CLOSER SPACING OF STONE COLUMNS/AGGREGATE PIERS AS REQ'D UNDER FOOTINGS TO ACHIEVE AN ALLOWABLE BEARING CAPACITY OF 5,000 PSF.

FOOTING WIDTH (FT)	CONTINUOUS FOOTING	SQUARE FOOTINGS
2	3500	3130
4	4450	4590
6	3560	6040
33% INCREASE FOR SEISMIC LOAD		

A1 SB-101 FOOTING & FOUNDATION PLAN - OVERALL

SCALE: 1/16" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

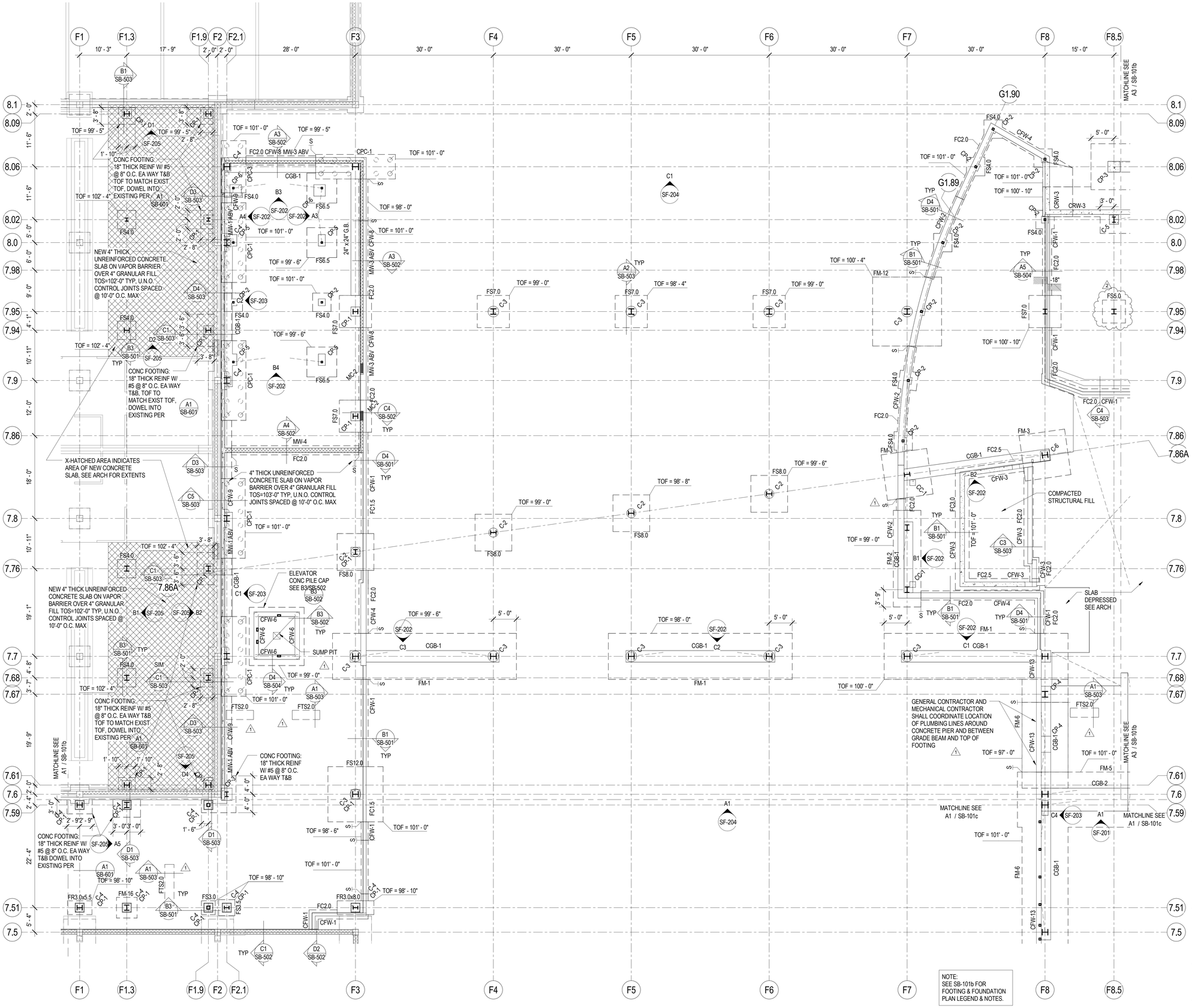
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FOOTING & FOUNDATION PLAN - OVERALL

CONSTRUCTION DOCUMENTS

SB-101



NOTE:
SEE SB-101b FOR FOOTING & FOUNDATION PLAN LEGEND & NOTES.

A1 SB-101a FOOTING & FOUNDATION PLAN - ZONE A

SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

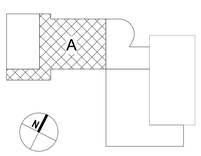
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FOOTING & FOUNDATION PLAN - ZONE A

CONSTRUCTION DOCUMENTS

SB-101a

MICRO PILE LEGEND

- MICRO PILE
- MICRO PILE - BATTERED
- PILE CAP W/ MICRO PILE

MICRO PILE NOTES

1. ALL PILE DESIGNS SHALL BE THE RESPONSIBILITY OF THE (SUB)CONTRACTOR. DESIGN OF PILES SHALL BE PERFORMED BY A QUALIFIED ENGINEER LICENSED IN THE STATE OF UTAH. THE DESIGN OF THE PILES SHALL BE BASED ON THE GEOTECHNICAL REPORT DATED FEB. 2012 BY RB&G, AND SUPPLEMENTAL INFORMATION DATED FEB. 13, 2012.

2. PILES SHALL BE DESIGNED WITH A MINIMUM SAFETY FACTOR OF 2.5. PILE STIFFNESS SHALL BE ENGINEERED SUCH THAT MAXIMUM DEFLECTIONS AT THIS LOAD ARE LIMITED TO 3/8 INCH. PILE MARKS NOTED ON THE PLANS SHALL APPLY TO ALL OF THE PILES TYP U.N.O.

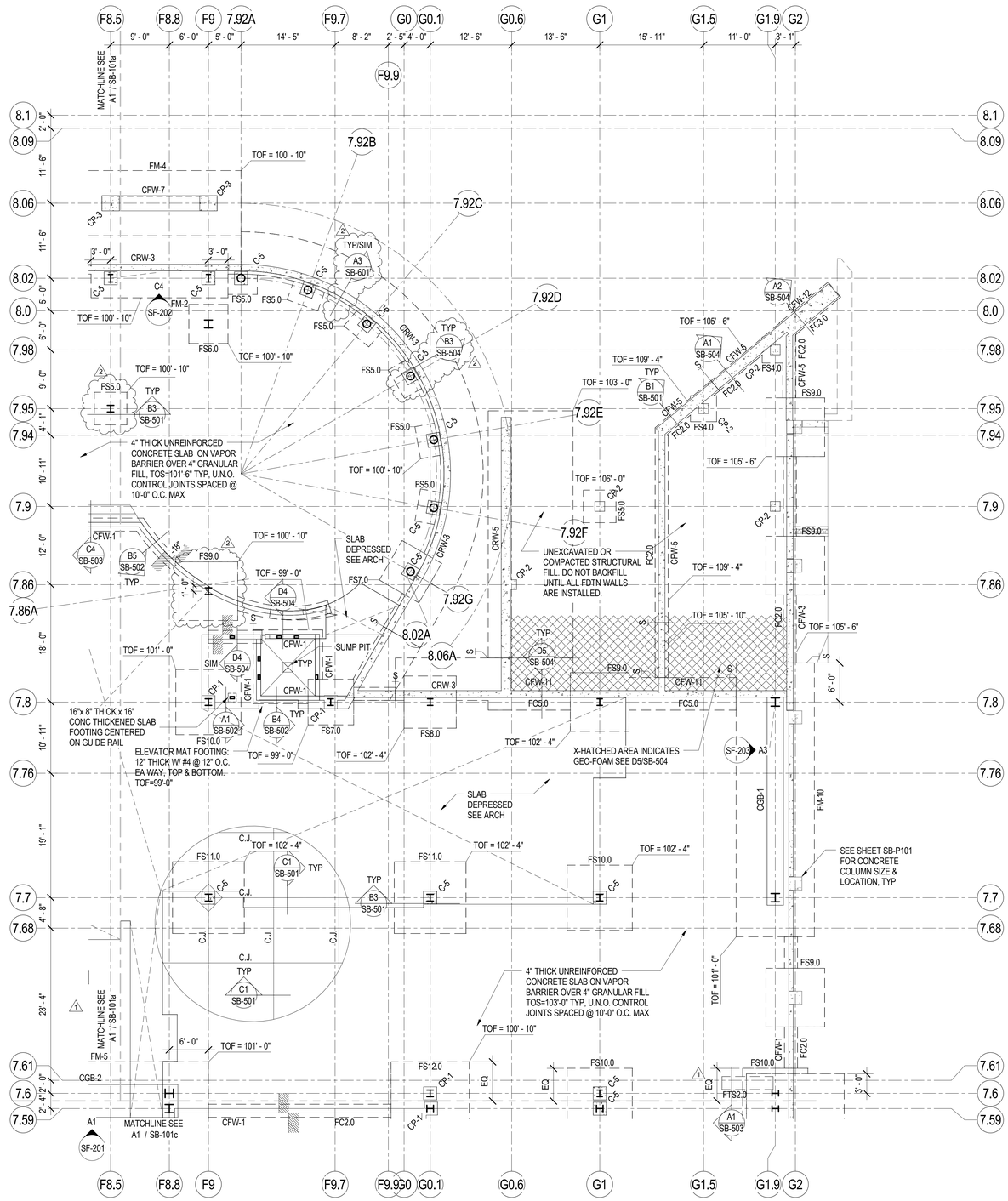
3. ALL PILES, INCLUDING BATTERED PILES, SHALL BE DESIGNED FOR AN ALLOWABLE LOAD OF 198 KIPS DOWNLOAD & UPLIFT.

4. ALL PILE CAPS WERE DESIGNED BASED ON 12"Ø PILES.

5. PILES AND PILE SHORING WALLS SHALL BE DESIGNED FOR COMBINED AXIAL AND LATERAL LOADS WHERE APPLICABLE. SEE GEOTECHNICAL REPORT FOR SOIL LATERAL FORCES INCLUDING SEISMIC LOADING.

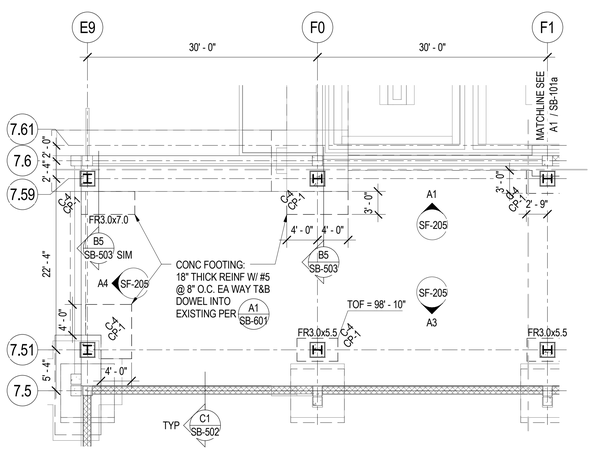
6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. CALCULATIONS SHALL BE SUBMITTED FOR REVIEW OF PILE DESIGN. SUBMITTAL SHALL BEAR STAMP OF PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.



A1 SB-101b FOOTING & FOUNDATION PLAN - ZONE A CORRIDOR

SCALE: 1/8" = 1'-0"



A3 SB-101b FOOTING & FOUNDATION PLAN - ZONE B

SCALE: 1/8" = 1'-0"

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE PIER IN CONCRETE WALL. TOP OF PIER RECESSED 8" BELOW SLAB. TYP U.N.O.
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- RECESSED/DEPRESSED SLAB
- OPENING

FOOTING & FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.

2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING AND TYPICAL STEP DETAIL AT MAT FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

10. SEE TYPICAL RECESS IN MASONRY WALL DETAIL FOR RECESS IN MASONRY WALLS.

11. SEE TYPICAL CONTROL JOINTS IN MASONRY WALLS DETAIL FOR CONTROL JOINTS IN MASONRY WALLS.

12. REFER TO DETAIL C4/SB-501 FOR TYPICAL STAIR LANDING COLUMN AND FOOTING. PROVIDE 4 COLUMNS MIN. AT EACH LANDING.

13. CONTRACTOR SHALL COORDINATE LOCATION OF ELEVATOR SUMP PITS WITH ELEVATOR EQUIPMENT DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

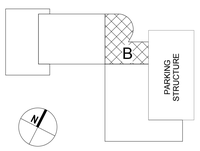
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

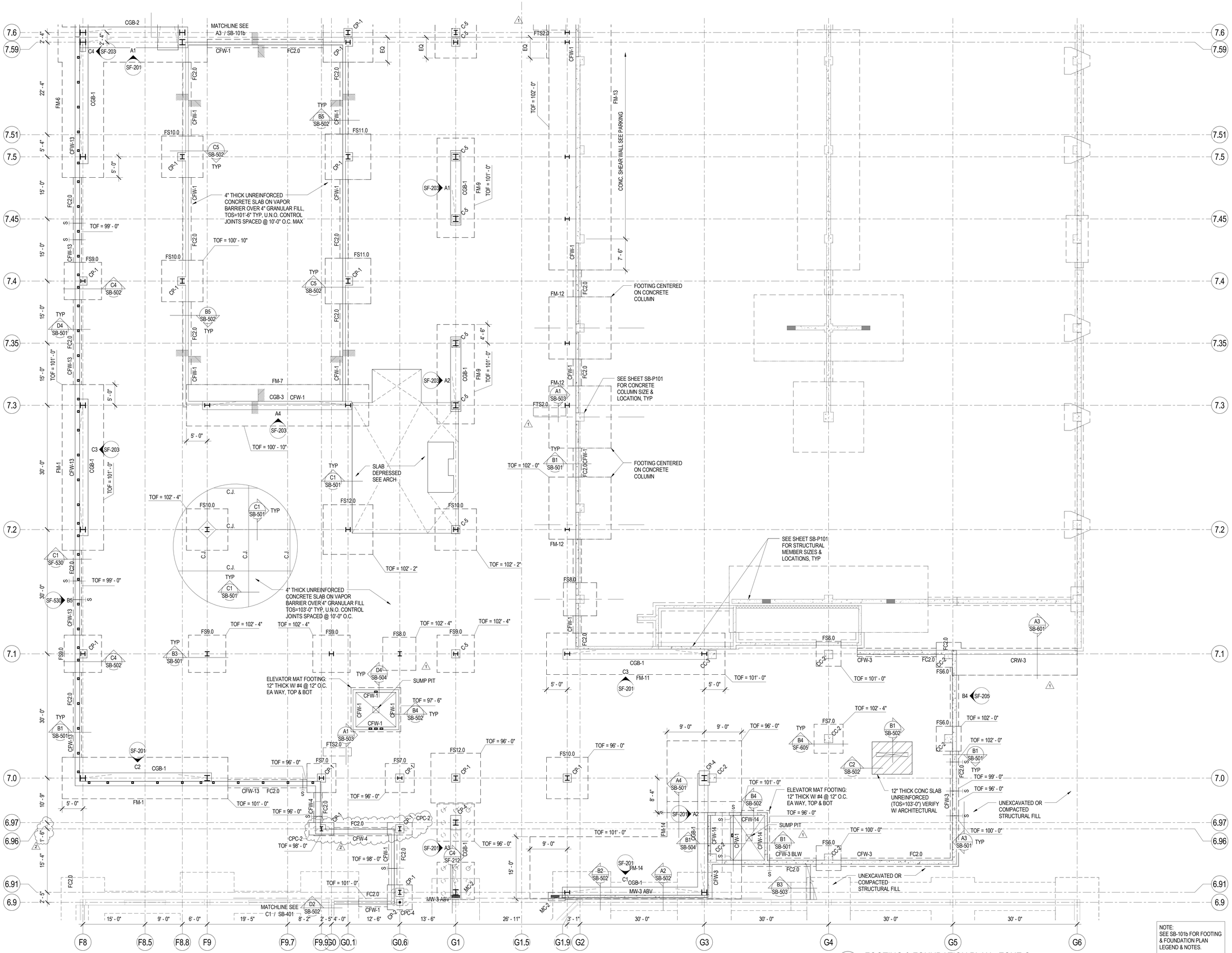
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FOOTING & FOUNDATION PLAN - ZONE B

CONSTRUCTION DOCUMENTS

SB-101b



A1 SB-101c FOOTING & FOUNDATION PLAN - ZONE C

SCALE: 1/8" = 1'-0"

NOTE:
SEE SB-101b FOR FOOTING & FOUNDATION PLAN LEGEND & NOTES.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

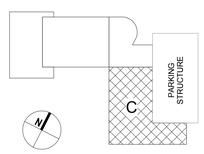
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P: 801.486.3883
F: 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

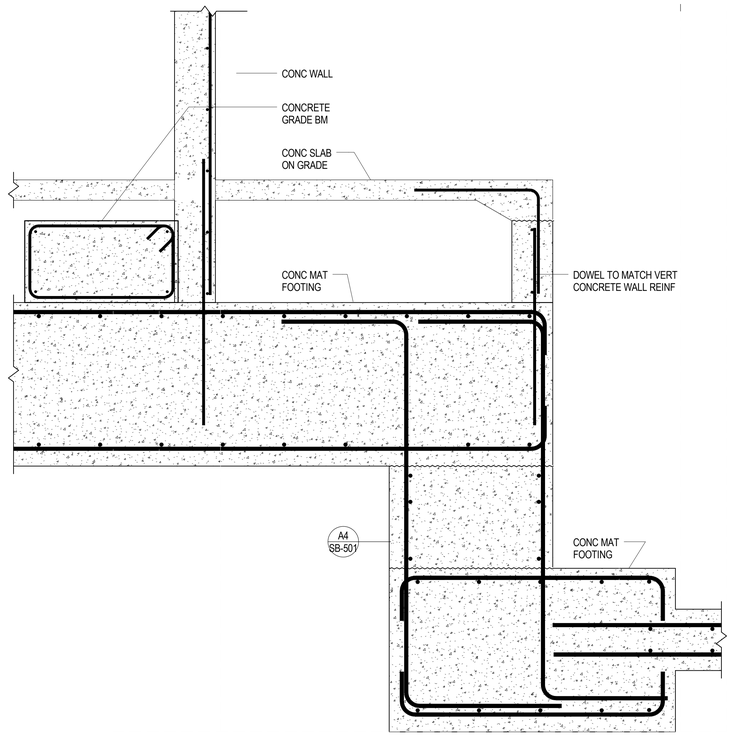
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#110289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

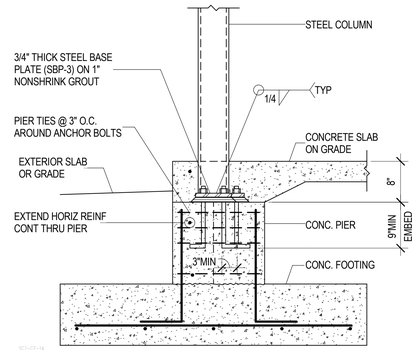
FOOTING & FOUNDATION PLAN - ZONE C

CONSTRUCTION DOCUMENTS

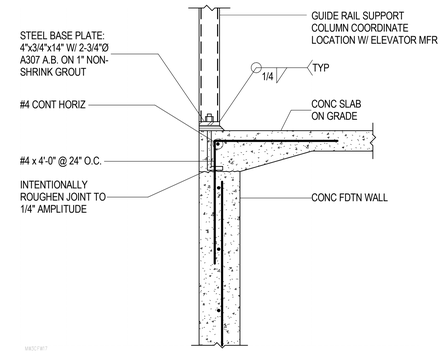
SB-101c



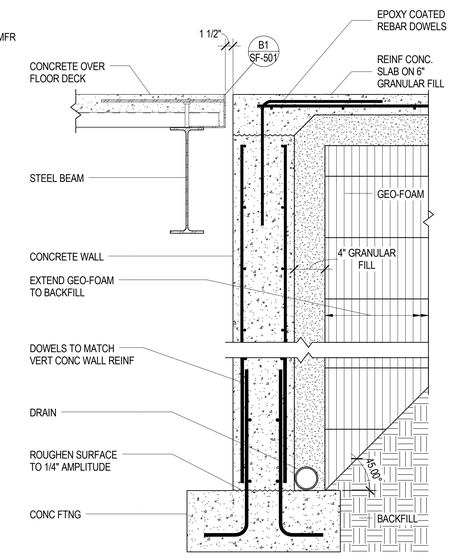
B1 SB-504 CONC MAT FOOTING STEP AT ELEVATOR
NO SCALE



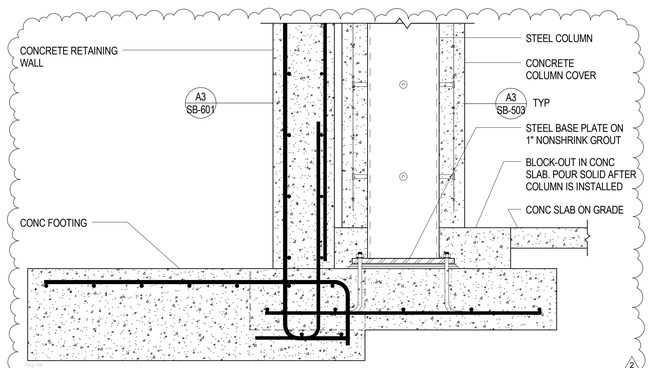
D3 SB-504 TYP STEEL COLUMN BASE AT CONC PIER IN FOUNDATION WALL
NO SCALE



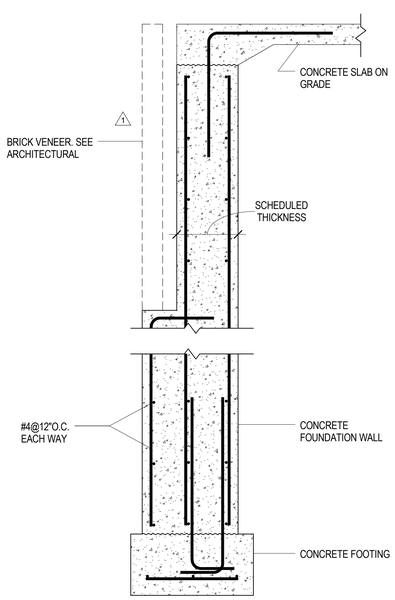
D4 SB-504 TYP ELEVATOR GUIDE RAIL SUPPORT COLUMN BEARING ON CONC FDTN WALL
NO SCALE



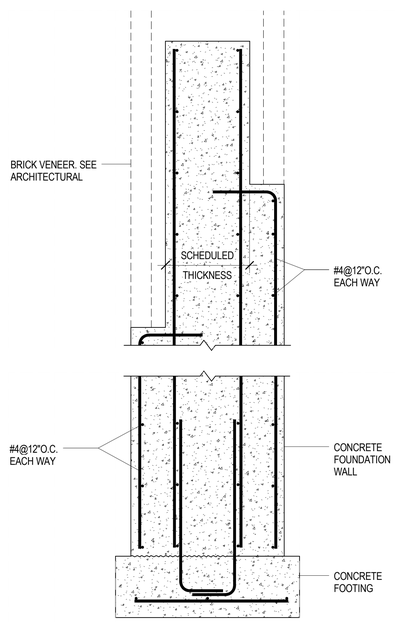
D5 SB-504 CONCRETE FOUNDATION WALL W/ BUILT-UP GEO-FOAM - ONE SIDE
NO SCALE



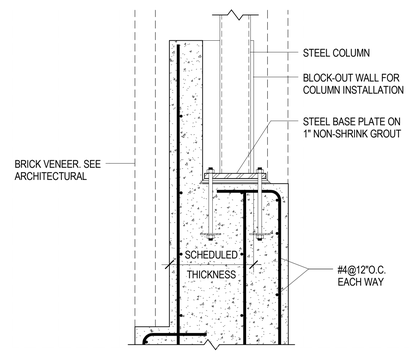
B3 SB-504 TYPICAL STEEL COLUMN BASE AGAINST CONCRETE RETAINING WALL
NO SCALE



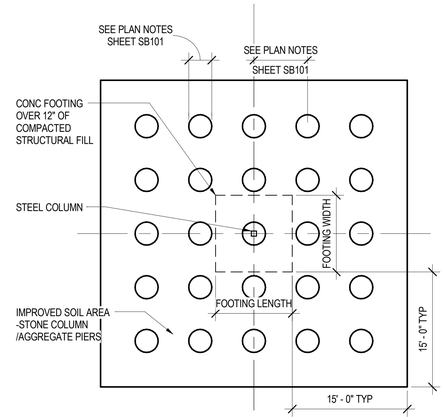
A1 SB-504 CONCRETE FOUNDATION WALL W/ BRICK VENEER
NO SCALE



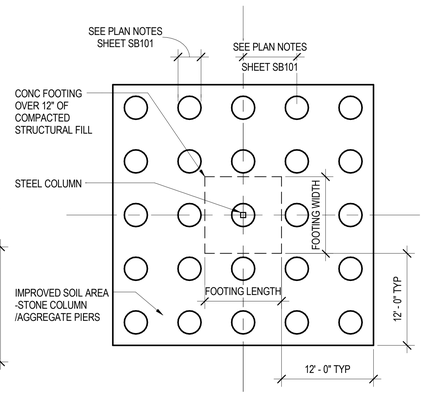
A2 SB-504 CONCRETE FOUNDATION WALL W/ BRICK VENEER
NO SCALE



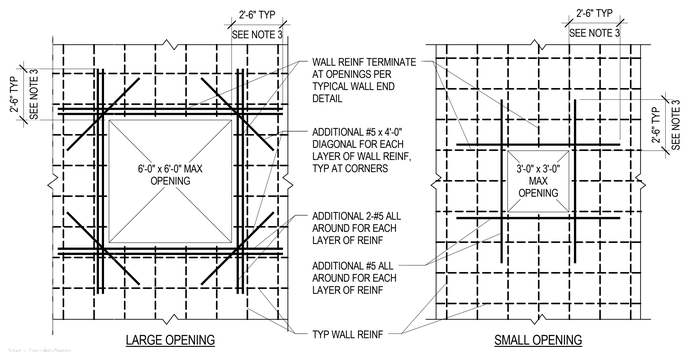
C3 SB-504 STEEL COLUMN BEARING AT FOUNDATION WALL
NO SCALE



C4 SB-504 AREA-2 TYPICAL UNDER FOOTINGS & IN-FIELD
NO SCALE

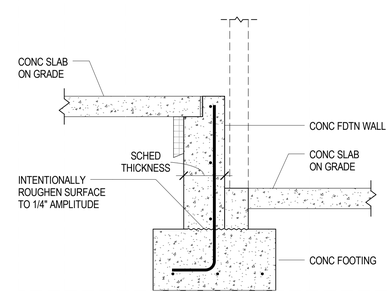


C5 SB-504 AREA-I TYPICAL UNDER FOOTINGS & IN-FIELD
NO SCALE



NOTES:
1. OMIT ADDED REINFORCEMENT SHOWN WHEN SPECIAL REINFORCEMENT INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.
2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.
3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH TERMINATE AT EDGE WITH STANDARD HOOK.
4. WHERE MULTIPLE OPENINGS OCCUR WITHIN TWO TIMES THE OPENING DIMENSION, THE GROUP OF OPENINGS SHALL BE TREATED AS A SINGLE OPENING

A3 SB-504 TYPICAL OPENINGS THROUGH CONCRETE WALLS
NO SCALE



A5 SB-504 CONCRETE FOUNDATION WALL BEARING ON CONCRETE FOOTING AT SLAB STEP
NO SCALE

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

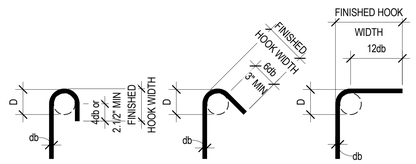
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FOOTING AND FOUNDATION DETAILS

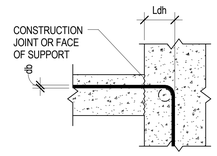
CONSTRUCTION DOCUMENTS

SB-504



END HOOK SCHEDULE				
BAR SIZE	D	FINISHED HOOK WIDTH		
		180° HOOK	135° HOOK	90° HOOK
#3	2.1/4"	3"	3"	6"
#4	3"	4"	3"	8"
#5	3.1/4"	5"	3.3/4"	10"
#6	4.1/2"	6"	4.1/2"	12"
#7	5.1/4"	7"	5.1/4"	14"
#8	6"	8"	6"	16"
#9	9.1/2"	11.3/4"	--	19"
#10	10.3/4"	13.1/4"	--	22"
#11	12"	14.3/4"	--	24"
#14	18.1/4"	21.3/4"	--	31"
#18	24"	28.1/2"	--	41"

Sched – End Hook



TENSION HOOK DEVELOPMENT LENGTH (Ldh)					
BAR SIZE	NORMAL WEIGHT CONCRETE, f'c = PSI				
	3,000	4,000	4,500	5,000	6,000
#3	6"	6"	6"	6"	6"
#4	8"	7"	7"	7"	7"
#5	10"	9"	8"	8"	7"
#6	12"	10"	10"	9"	8"
#7	14"	12"	11"	11"	10"
#8	16"	14"	13"	12"	11"
#9	18"	15"	14"	14"	13"
#10	20"	17"	16"	15"	14"
#11	22"	19"	18"	17"	16"
#14	37"	32"	31"	29"	27"
#18	50"	43"	41"	39"	35"

NOTES:
1. VALUES HERE VALID FOR ALL CASES IF:
   SIDE COVER ≥ 2.1/2"
   END COVER ≥ 2"

2. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR LIGHTWEIGHT CONCRETE

3. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR USE WITH EPOXY COATED REBAR

Sched – Tension Hook

CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE																							Sched – Rebar Splice
BAR SIZE	f'c = 3000 PSI				f'c = 4000 PSI				f'c = 4500 PSI				f'c = 5000 PSI				f'c = 6000 PSI				f'c = ALL	
	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ldc	Lsc
#3	17"	22"	22"	28"	15"	19"	19"	25"	14"	18"	18"	23"	13"	17"	17"	22"	12"	16"	16"	20"	8"	12"
#4	22"	29"	29"	38"	19"	25"	25"	33"	18"	24"	24"	31"	17"	23"	23"	29"	16"	21"	21"	27"	10"	15"
#5	28"	36"	36"	47"	24"	31"	31"	41"	23"	30"	30"	38"	22"	28"	28"	36"	20"	26"	26"	33"	12"	19"
#6	33"	43"	43"	56"	29"	37"	37"	49"	27"	35"	35"	46"	26"	34"	34"	44"	24"	31"	31"	40"	15"	23"
#7	48"	63"	63"	81"	42"	54"	54"	71"	40"	51"	51"	67"	38"	49"	49"	63"	34"	45"	45"	58"	17"	27"
#8	55"	72"	72"	93"	48"	62"	62"	81"	45"	59"	59"	76"	43"	56"	56"	72"	39"	51"	51"	66"	19"	30"
#9	62"	81"	81"	105"	54"	70"	70"	91"	51"	66"	66"	86"	48"	63"	63"	81"	44"	57"	57"	74"	22"	34"
#10	70"	91"	91"	118"	61"	79"	79"	102"	57"	74"	74"	96"	54"	71"	71"	92"	50"	64"	64"	84"	24"	39"
#11	78"	101"	101"	131"	67"	87"	87"	114"	64"	82"	82"	107"	60"	78"	78"	102"	55"	71"	71"	93"	27"	43"
#14	93"	121"	NA	NA	81"	105"	NA	NA	76"	99"	NA	NA	72"	94"	NA	NA	66"	86"	NA	NA	33"	NA
#18	124"	161"	NA	NA	108"	140"	NA	NA	101"	132"	NA	NA	96"	125"	NA	NA	88"	114"	NA	NA	43"	NA

NOTES:

1. DEFINITIONS:
   Ld: TENSION DEVELOPMENT LENGTH FOR REINFORCEMENT SATISFYING THE FOLLOWING CONDITIONS:
   SLABS AND WALLS: CLEAR SPACING > 2db AND CONCRETE CLEAR COVER > db
   BEAMS AND COLUMNS: CLEAR COVER SPACING > db AND CONCRETE CLEAR COVER > db
   Lt: DEVELOPMENT LENGTH FOR TOP BARS IN TENSION
   Lsb: TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS (CLASS B)
   Lsbt: TENSION LAP SPLICE LENGTH OF TOP BARS.
   Ldc: DEVELOPMENT LENGTH FOR BARS IN COMPRESSION
   Lsc: TIED COLUMN LAP SPLICE IN COMPRESSION
   db: NOMINAL BAR DIAMETER (INCHES)
   TOP BARS: HORIZONTAL REINFORCEMENT WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW

2. MULTIPLY VALUES IN SCHEDULE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET REQUIREMENTS FOR Ld IN NOTE 1.

3. MULTIPLY VALUES IN SCHEDULE BY 1.3 FOR USE IN LIGHTWEIGHT AGGREGATE CONCRETE.

4. FOR EPOXY COATED BAR: MULTIPLY VALUES IN SCHEDULE BY 1.5 FOR BARS WITH CLEAR COVER < 3db OR CLEAR SPACING < 6db. OTHERWISE MULTIPLY VALUES BY 1.2.

5. a. FOR BUNDLED BARS OF THREE OR LESS MULTIPLY LENGTHS BY 1.2.
   b. FOR BUNDLED BARS OF FOUR OR MORE MULTIPLY LENGTHS BY 1.33.
   c. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.

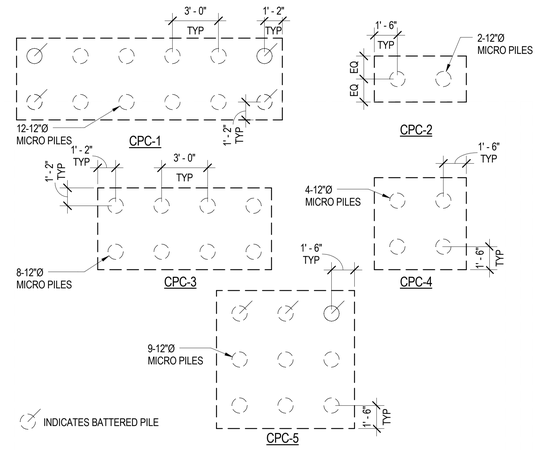
6. SCHEDULE LENGTHS ARE FOR fy=60ksi REINFORCING, MULTIPLY LENGTHS BY 1.25 FOR fy=75ksi REINFORCING.

7. LAP SPLICES ARE NOT PERMITTED FOR #14 & #18 BARS. USE BAR COUPLERS PER G.S.N.

8. MECHANICAL BAR COUPLERS MAY BE USED AS AN ALTERNATE TO LAP SPLICE, SEE GENERAL STRUCTURAL NOTES FOR BAR COUPLER REQUIREMENTS.

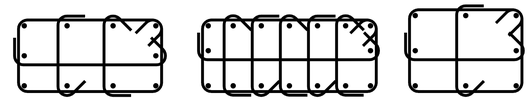
CONCRETE PILE CAP SCHEDULE													
MARK	WIDTH	LENGTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
					NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
CPC-1	5' - 4"	17'-4"	17' - 4"	4' - 0"	--	#11	4'-10"	12"	--	#11	16'-10"	12"	
CPC-2	3' - 0"	6'-0"	6' - 0"	3' - 4"	--	#5	2'-6"	12"	--	#11	5'-6"	12"	
CPC-3	5' - 4"	11'-4"	11' - 4"	4' - 0"	--	#11	4'-10"	12"	--	#11	10'-10"	12"	
CPC-4	6' - 0"	6'-0"	6' - 0"	4' - 0"	--	#11	5'-6"	12"	--	#11	5'-6"	12"	
CPC-5	9' - 0"	9'-0"	9' - 0"	4' - 0"	--	#11	8'-6"	12"	--	#11	8'-6"	12"	T&B EA WAY

CONCRETE PILE CAP NOTES
1. PLACE ALL CONCRETE PILE CAP REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.
2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE CONCRETE PILE CAP WITH 2" CLEAR CONCRETE COVER.
3. ALL CONCRETE PILE CAPS SHALL BE FORMED. CONCRETE PILE CAPS SHALL NOT BE EARTH FORMED OR OVERSIZED.
4. PLACE LENGTHWISE CONCRETE PILE CAP REINFORCING IN OUTER LAYER.
5. ALL LENGTHWISE AND CROSSWISE CONCRETE PILE CAP REINFORCING SHALL END IN 90 DEGREE HOOK.



C3 / SB-601 CONC. PILE CAPS
NO SCALE

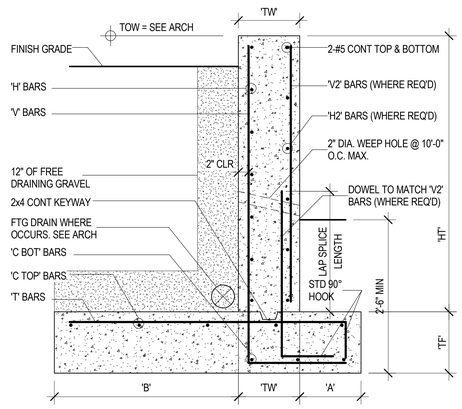
CONCRETE GRADE BEAM SCHEDULE					
	BEAM				
MARK	WIDTH	DEPTH	HORIZ. REINF.	TIE REINF.	NOTES
CGB-1	2' - 6"	1' - 4"	10-#7	4-#4 @ 12" O.C.	
CGB-2	5' - 0"	1' - 4"	16-#8	7-#4 @ 12" O.C.	
CGB-3	2' - 0"	1' - 6"	8-#7	3-#4 @ 12" O.C.	



CGB – Diagram

CONCRETE COLUMN COVER SCHEDULE	
MARK	SIZE
C-1	14" DIA
C-2	24" DIA
C-3	28" DIA
C-4	22" SQUARE
C-5	24" SQUARE
C-6	SEE A3/SB-503

1. VERIFY CONCRETE COLUMN COVER SIZE, LOCATION AND ELEVATIONS WITH ARCHITECTURAL.
2. SEE A3/SB-503 FOR TYPICAL CONCRETE COLUMN COVER AT STEEL COLUMN - PLAN VIEW.
3. ALL EXPOSED CONCRETE COLUMN COVERS ARE ARCHITECTURAL CONCRETE, SEE SPECIFICATIONS.

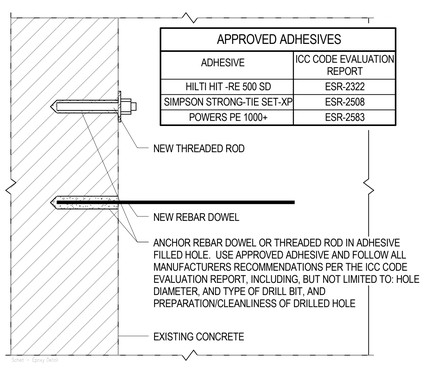


CONCRETE RETAINING WALL SCHEDULE																							
MARK	'HT'	'A'	'B'	'TW'	'TF'	'V' BARS		'H' BARS		'V2' BARS		'H2' BARS		'T' BARS		'C TOP' BARS		'C BOT' BARS	
						SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE	SIZE	SPACE
CRW-1	4'-0"	0'-6"	1'-10"	8"	1'-0"	#5	14"	#5	18"	--	--	--	--	#5	14"	4-#5	10"	2-#5	12"
CRW-2	7'-0"	0'-6"	3'-8"	10"	1'-6"	#5	8"*	#4	12"	#4	12"	#4	12"	#6	8"	5-#6	13.5"	2-#6	10"
CRW-3	9'-0"	0'-6"	5'-0"	1'-0"	1'-6"	#7	8"*	#5	12"	#5	12"	#5	12"	#6	8"	7-#6	12"	2-#6	12"
CRW-4	11'-0"	1'-0"	6'-0"	1'-0"	1'-6"	#8	8"*	#5	12"	#5	12"	#5	12"	#7	8"	8-#6	12.8"	2-#6	18"
CRW-5	13'-0"	2'-0"	7'-0"	1'-0"	1'-8"	#9	8"*	#5	18"	#5	12"	#5	12"	#6	8"	11-#6	11.4"	3-#6	15"

NOTES:
1. 'V' BARS SHALL NOT BE SPLICED BELOW MID-HEIGHT OF WALL
2. * DENOTES ONE HALF OF THE 'V' BARS CAN BE DISCONTIUED FROM MID-HEIGHT TO TOP OF WALL.

A3 / SB-601 TYPICAL CONCRETE RETAINING WALL SCHEDULE AND DETAIL
NO SCALE

APPROVED ADHESIVES	
ADHESIVE	ICC CODE EVALUATION REPORT
HILTI HIT -RE 500 SD	ESR-2322
SIMPSON STRONG-TIE SET-XP	ESR-2508
POWERS PE 1000+	ESR-2583



Sched – Epoxy Detail

ADHESIVE ANCHORING SCHEDULE			
	REINFORCING	THREADED ROD	
DOWEL SIZE	EMBEDMENT LENGTH (SEE NOTE #2)	SIZE (DIA)	EMBEDMENT LENGTH (SEE NOTE #2)
#3	4"	3/8"	4 1/2"
#4	6"	1/2"	6"
#5	9"	5/8"	7 1/2"
#6	10"	3/4"	9"
#7	12"	7/8"	10 1/2"
#8	13"	1"	12"
#9	14"	1 1/4"	15"
#10	18"		
#11	18"		

NOTES:
1. THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS AND AT OTHER LOCATIONS WITH THE APPROVAL OF THE ENGINEER.
2. EMBEDMENT LENGTHS SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER EMBEDMENT LENGTHS IN THIS SCHEDULE.
3. WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER IS NOT SUFFICIENT TO ACHIEVE SCHEDULED EMBEDMENT AND SPECIFIED CLEAR COVER FOR THE ANCHOR, CONTACT THE ENGINEER.
4. USE PROCEEDURES AND PRODUCTS RECOMMENDED BY ADHESIVE MANUFACTURER FOR OVERHEAD INSTALLATION.
5. SPECIAL INSPECTION IS REQUIRED DURING INSTALLATION OF ALL ADHESIVE ANCHORS PER THE CODE EVALUATION REPORT FOR THE ANCHOR AND THE QUALITY ASSURANCE SECTION OF THE GENERAL STRUCTURAL NOTES.

A1 / SB-601 ADHESIVE ANCHORING SCHEDULE
NO SCALE

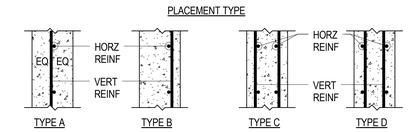
CONCRETE FOOTING SCHEDULE													
MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
				NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
FC1.5	1' - 6"	CONT.	1' - 0"	--	NONE	REQ'D	--	3	#4	CONT	6"	
FC2.0	2' - 0"	CONT.	1' - 0"	--	NONE	REQ'D	--	3	#4	CONT	9"	
FC2.5	2' - 6"	CONT.	1' - 0"	--	#5	2'-0"	14"	3	#5	CONT	12"	
FC3.0	3' - 0"	CONT.	1' - 0"	--	#5	2'-6"	14"	3	#5	CONT	15"	
FC5.0	5' - 0"	CONT.	1' - 4"	--	#5	4' - 6"	14"	4	#5	CONT	16"	
FS3.0	3' - 0"	3' - 0"	1' - 0"	4	#4	2' 6"	10"	4	#4	2' 6"	10"	
FS3.5	3' - 6"	3' - 6"	1' - 0"	6	#4	3' 0"	7.2"	6	#4	3' 0"	7.2"	TOP & BOTTOM
FS4.0	4' - 0"	4' - 0"	1' - 0"	7	#4	3' 6"	7"	7	#4	3' 6"	7"	
FS5.0	5' - 0"	5' - 0"	1' - 2"	9	#4	4' 6"	6.75"	9	#4	4' 6"	6.75"	
FS6.0	6' - 0"	6' - 0"	1' - 6"	8	#5	5' 6"	9.43"	8	#5	5' 6"	9.43"	
FS6.5	6' - 6"	6' - 6"	1' - 7"	7	#6	6' 0"	12"	7	#6	6' 0"	12"	
FS7.0	7' - 0"	7' - 0"	1' - 8"	8	#6	6' 6"	11.14"	8	#6	6' 6"	11.14"	
FS8.0	8' - 0"	8' - 0"	1' - 11"	10	#6	7' 6"	10"	10	#6	7' 6"	10"	
FS9.0	9' - 0"	9' - 0"	2' - 1"	13	#6	8' 6"	8.5"	13	#6	8' 6"	8.5"	
FS10.0	10' - 0"	10' - 0"	2' - 4"	12	#7	9' 6"	10.4"	12	#7	9' 6"	10.4"	
FS11.0	11' - 0"	11' - 0"	2' - 6"	11	#8	10' 6"	12.6"	11	#8	10' 6"	12.6"	
FS12.0	12' - 0"	12' - 0"	2' - 8"	13	#8	11' 6"	11.5"	13	#8	11' 6"	11.5"	
FR3.0x5.5	3' - 0"	5' - 6"	1' - 6"	7	#5	5'-0"	10"	4	#5	5'-0"	10"	TOP & BOTTOM *
FR3.0x7.0	3' - 0"	7' - 0"	1' - 6"	--	#5	2'-6"	8"	--	#5	6'-6"	8"	TOP & BOT
FR3.0x8.0	3' - 0"	8' - 0"	1' - 6"	--	#5	2'-6"	10"	--	#5	7'-6"	10"	TOP & BOT
FM-1	10' - 0"	40' - 0"	2' - 6"	41 41	#9 #9	9'-6" 9'-6"	11.85" 11.85"	11 11	#9 #9	39'-6" 39'-6"	11.4" 11.4"	TOP BOT
FM-2	6' - 0"	21' - 0"	1' - 6"	--- ---	#5 #5	5'-6" 5'-6"	8" 8"	9 9	#5 #5	20'-6" 20'-6"	8.25" 8.25"	TOP BOT
FM-3	10' - 0"	10' - 0"	2' - 4"	12 12	#7 #7	9'-6" 9'-6"	10.4" 10.4"	12 12	#7 #7	9'-6" 9'-6"	10.4" 10.4"	TOP BOT
FM-4	10' - 0"	25' - 0"	2' - 0"	27 27	#8 #8	9'-6" 9'-6"	11.4" 11.4"	11 11	#8 #8	24'-6" 24'-6"	11.4" 11.4"	TOP BOT
FM-5	12' - 0"	36' - 0"	3' - 6"	37 37	#9 #11	11'-6" 11'-6"	11.8" 11.8"	13 13	#9 #11	35'-6" 35'-6"	11.5" 11.5"	TOP BOT
FM-6	60' - 0"	CONT	3' - 6"	--- ---	#9 #9	9'-6" 9'-6"	12" 12"	11 11	#9 #9	CONT CONT	11.4" 11.4"	TOP BOT
FM-7	10' - 0"	44' - 0"	2' - 0"	45 45	#9 #9	9'-6" 9'-6"	11.8" 11.8"	11 11	#9 #9	43'-6" 43'-6"	11.4" 11.4"	TOP BOT
FM-9	9' - 0"	24' - 0"	2' - 0"	25 25	#9 #9	8'-6" 8'-6"	11.75" 11.75"	10 10	#9 #9	23'-6" 23'-6"	11.3" 11.3"	TOP BOT
FM-10	12' - 0"	42' - 0"	2' - 6"	43 43	#8 #9	11'-6" 11'-6"	11.8" 11.8"	13 13	#9 #10	41'-6" 41'-6"	11.5" 11.5"	TOP BOT
FM-11	10' - 0"	43' - 1"	2' - 6"	44 44	#9 #9	9'-6" 9'-6"	11.8" 11.8"	11 11	#9 #9	42'-7" 42'-7"	11.4" 11.4"	TOP BOT
FM-12	15' - 0"	15' - 0"	2' - 6"	16 16	#9 #9	14'-6" 14'-6"	11.6" 11.6"	16 16	#9 #9	14'-6" 14'-6"	11.6" 11.6"	TOP BOT
FM-13	15' - 0"	CONT	4' - 6"	-- --	#9 #9	14'-6" 14'-6"	11" 11"	17 17	#9 #9	CONT CONT	10.8" 10.8"	TOP BOT
FM-14	SEE	PLAN	2' - 8"	-- --	#11 #10	CONT CONT	12" 12"	-- --	#11 #10	CONT CONT	12" 12"	TOP BOT
FM-16	4' - 6"	4' - 6"	1' - 6"	--	#5	4'-0"	8"	--	#5	4'-0"	8"	TOP & BOTTOM

CONCRETE FOOTING NOTES
1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.
2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" CLEAR CONCRETE COVER.
3. SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS AND CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS, UNLESS NOTED OTHERWISE. CENTER MAT FOOTINGS ON BRACED OR MOMENT FRAMES.
4. ALL FOOTINGS SHALL BE FORMED. FOOTINGS SHALL NOT BE EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.
5. PLACE LENGTHWISE MAT FOOTING REINFORCING IN OUTER LAYER.
6. AT INTERSECTING MAT FOOTINGS: PLACE NORTH/SOUTH REINFORCEMENT IN OUTER LAYER; CONTINUE LOGITUDINAL REINFORCEMENT FROM EACH FOOTING THROUGH INTERSECTION; CONTINUE CROSSWISE BOTTOM REINFORCEMENT FROM THE THICKER FOOTING THROUGH THE INTERSECTION.
7. UP TO TWO BARS MAY BE BUNDELED SIDE BY SIDE.
8. AVOID SPLICES IN LENGTHWISE REINFORCEMENT WHERE CONCRETE SHEAR WALL JAMB COLUMNS OCCUR.
9. SEE PLAN FOR FM-14 WIDTH & LENGTH DIMENSIONS.
10. * INDICATES BARS IN BOTH LONGITUDINAL AND CROSSWISE DIRECTION SHALL HAVE 90 DEGREE HOOKS.

CONCRETE FOUNDATION WALL SCHEDULE					
MARK	THICK	HORIZONTAL REINFORCING	VERTICAL REINFORCING	T & B HORIZ. BARS	PLACEMENT
CFW-1	8"	#5 @ 15" O.C.	#4 @16" O.C.	2-#5	TYPE A OR B
CFW-2	1' - 4"	#5 @ 12" O.C. E.F.	#7 @ 10" O.C. I.F. #6 @ 10" O.C. O.F.	2-#5	TYPE C
CFW-3	1' - 0"	#5 @ 12" O.C. E.F.	#6 @ 12" O.C. E.F.	2-#5	TYPE C
CFW-4	1' - 2"	#5 @ 12" O.C. E.F.	#5 @ 12" O.C. E.F.	2-#5	TYPE C
CFW-5	1' - 0"	#5 @ 12" O.C. E.F.	#5 @ 12" O.C. E.F.	2-#5	TYPE C
CFW-6	1' - 0"	#7 @ 12" O.C. E.F.	#4 @ 12" O.C.	2-#11	TYPE C SEE B3/SB-502
CFW-7	2' - 4"	#6 @ 12" O.C. E.F.	#6 @ 12" O.C. E.F.	2-#6	TYPE C
CFW-8	1' - 3"	#5 @ 12" O.C. E.F.	#5 @ 12" O.C. E.F.	2-#5	TYPE C
CFW-9	10"	#6 @ 12" O.C.	#6 @ 12" O.C.	2-#7	TYPE A
CFW-11	1' - 0"	#6 @ 10" O.C. E.F.	#6 @ 10" O.C. E.F.	2-#6	TYPE C
CFW-12	1' - 4 1/2"	#5 @ 12" O.C. E.F.	#5 @ 12" O.C. E.F.	2-#5	TYPE C
CFW-13	1' - 1"	#5 @ 14" O.C. E.F.	#5 @ 14" O.C. E.F.	2-#5	TYPE C
CFW-14	8"	#5 @ 15" O.C.	#5 @ 12" O.C.	2-#5	TYPE A
CFW-15	1' - 0"	#4 @ 13" O.C. E.F.	#5 @ 18" O.C. E.F.	2-#5	TYPE C

NOTES:
1. HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS THRU CONSTRUCTION & CONTROL JOINTS.
2. SPLICES IN HORIZONTAL WALL REINFORCING SHALL BE TYPE Lsb, STAGGERED SUCH THAT SPLICES DO NOT OVERLAP. SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.

PLACEMENT TYPE



E.F. = EACH FACE
O.F. = OUTSIDE FACE (AGAINST SOIL)
I.F. = INSIDE FACE
3L = THREE LAYERS

CONCRETE PIER SCHEDULE					
	DIMENSIONS		REINFORCING		
MARK	DEPTH	WIDTH	VERTICAL	TIES	REMARKS
CP-1	2' - 0"	2' - 0"	8-#8	2-#4 @ 12" O.C.	
CP-2	1' - 6"	1' - 6"	4-#9	1-#4 @ 12" O.C.	
CP-3	2' - 4"	2' - 8"	10-#9	3-#4 @ 6" O.C.	
CP-4	3' - 6"	2' - 6"	14-#9	3-#4 @ 6" O.C.	
CP-5	2' - 6"	1' - 6"	10-#7	3-#3 @ 6"O.C.	
CP-6	2' - 6"	2' - 6"	12-#9	3-#4 @ 6" O.C.	
CP-7	1' - 0"	1' - 0"	4-#6	#3 @ 12"O.C.	

1

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

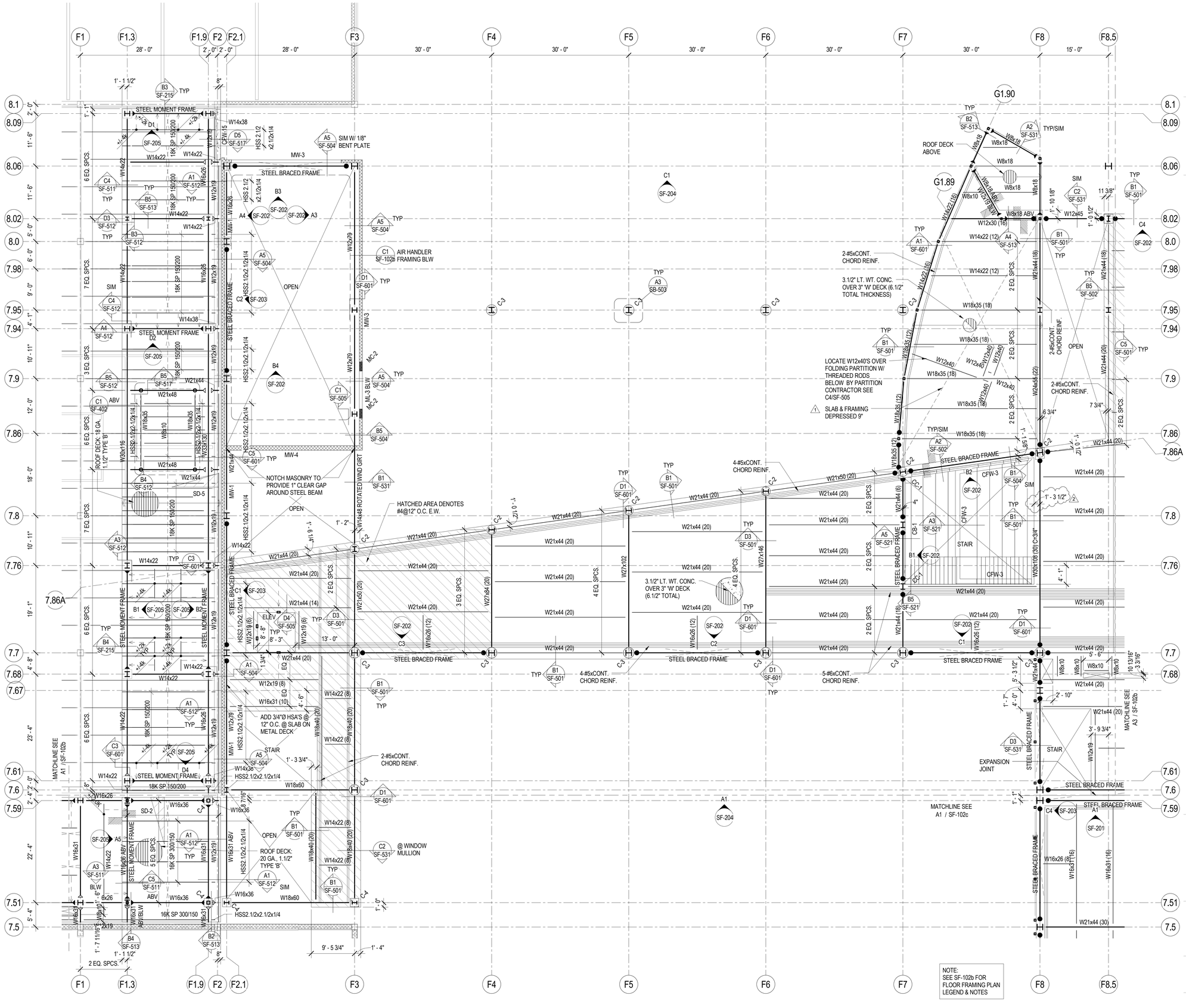
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

SCHEDULES

CONSTRUCTION DOCUMENTS

SB-601



NOTE:
SEE SF-102b FOR FLOOR FRAMING PLAN LEGEND & NOTES

A1 / SF-102a FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 ZONE A

SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

Ronald J. Reaveley
PROFESSIONAL STRUCTURAL ENGINEER #144210
5/27/2012
Ronald J. Reaveley
STATE OF UTAH

KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

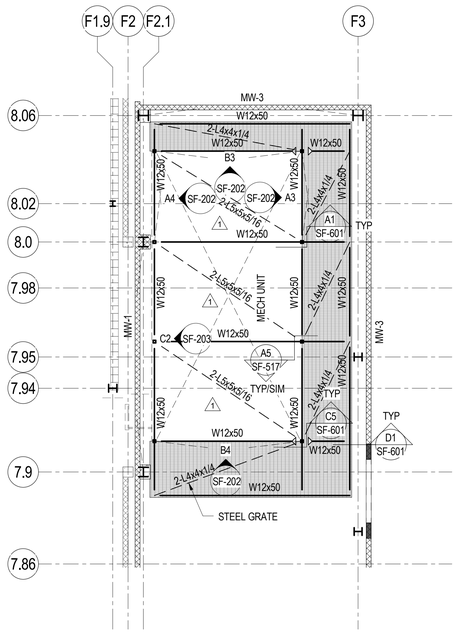
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 ZONE A

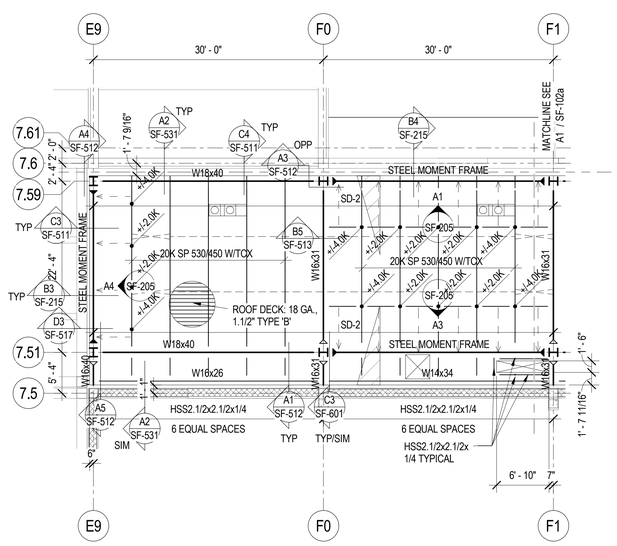
CONSTRUCTION DOCUMENTS

SF-102a



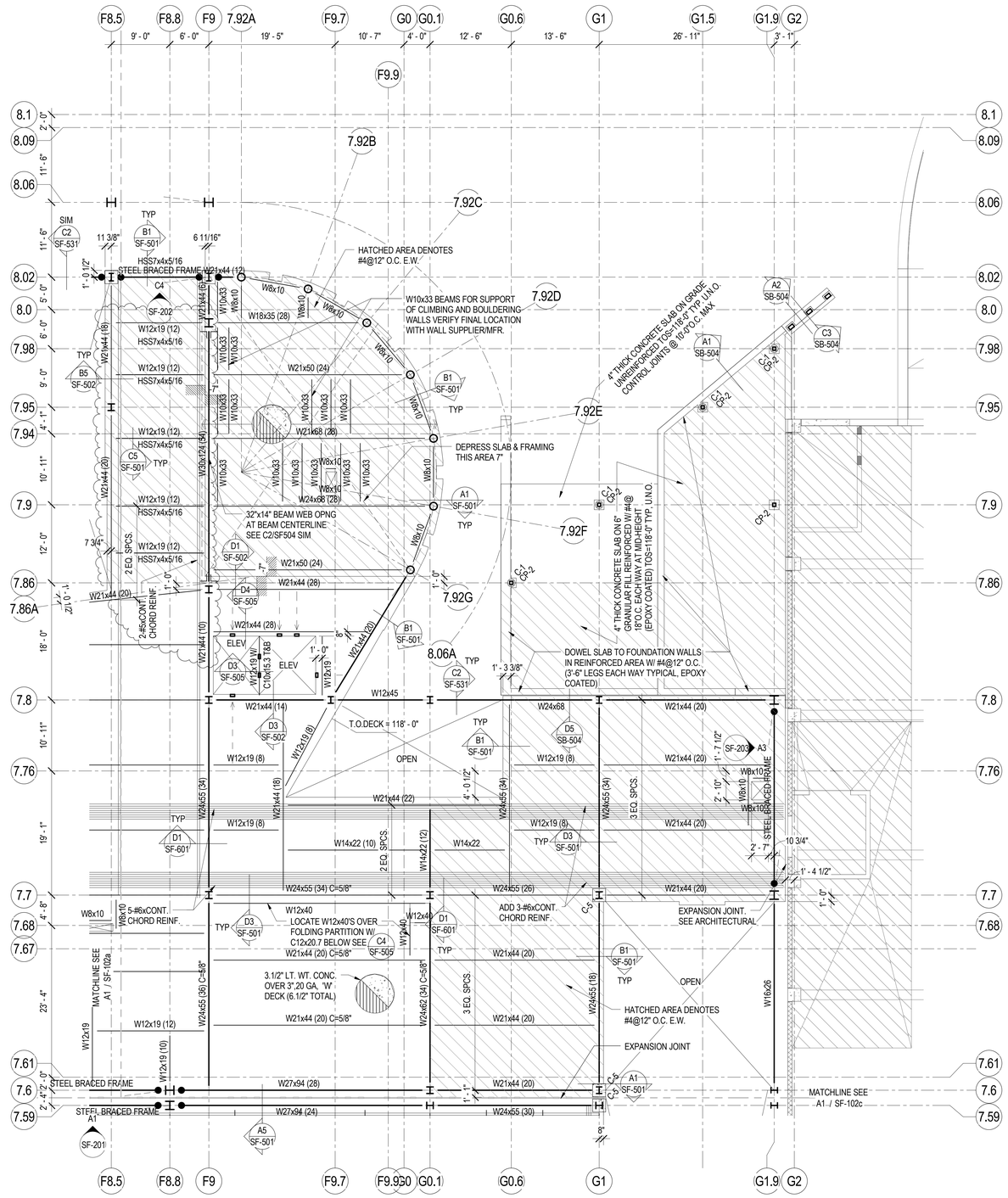
C1 SF-102b AIR HANDLER FRAMING PLAN

SCALE: 1/8" = 1'-0"



A1 SF-102b LOW ROOF FRAMING PLAN - LEVEL 2 ZONE A CORRIDOR

SCALE: 1/8" = 1'-0"



A3 SF-102b FLOOR FRAMING PLAN - LEVEL 2 ZONE B

SCALE: 1/8" = 1'-0"

FLOOR FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- CANTILEVER FULL PEN CONNECTION
- COLLECTOR CONNECTION SEE B1/SF601
- DOUBLE SHEAR CONNECTION SEE C1/SF601
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- STEEL ANGLE BRACE / KICKER. SEE B1/SF501 FOR SLAB EDGE KICKER. SEE D1/SF215 FOR FRAME BRACE
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- THICKENED SLAB - SEE PLAN
- SLAB REINFORCING - SEE PLAN
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

FLOOR FRAMING PLAN NOTES

1. SEE GENERAL STRUCTURAL NOTE (III.D.8) AND DETAILS D3/SF501 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.

2. SEE DETAILS D1/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.

3. SEE GENERAL STRUCTURAL NOTE (5.10) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.

4. PROVIDE 4.1/2" LONG HEADED STUD ANCHORS ON COMPOSITE BEAMS IN THE AREAS OF 1" SLAB RECESSES.

5. SEE DETAILS C1 & C2/SF501 FOR TYPICAL HEADED STUD PLACEMENT AND COMPOSITE DECK BEARING DETAILS.

6. REFR TO DETAIL C4/SF501 FOR TYPICAL HOUSEKEEPING PADS AND CURBS ON FLOOR DECK.

7. REFER TO DETAILS A3 & A5/SF502 FOR MASONRY WALL BRACING AND SLAB REINF. REQUIREMENTS.

8. REINFORCEMENT SHOWN ON PLANS SHALL BE LOCATED AT MID-HEIGHT OF CONCRETE. LOCATED BETWEEN THE TOP OF METAL DECK AND THE TOP OF CONCRETE.

9. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO DETAILING MANUFACTURING, ERECTING OR INSTALLING ANT STRUCTURAL ELEMENT. EXISTING DIMENSIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. IF CONDITIONS SHOWN DO NOT MATCH ACTUAL CONDITIONS, CONTACT THE ENGINEER AS SOON AS POSSIBLE.

10. ALL CHORD REINFORCING IN SLABS SHALL HAVE STAGGERED LAP SPLICES AT 4"O.C.

11. SEE DETAIL A3/SB-503 FOR CONCRETE COLUMN COVER REINFORCING AROUND STEEL COLUMNS.

12. REFER TO DETAIL B2/SF-505 FOR TYPICAL STAIR LANDING COLUMN AND CONNECTION. PROVIDE 4 COLUMNS MIN. AT EACH LANDING.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

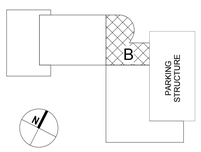
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

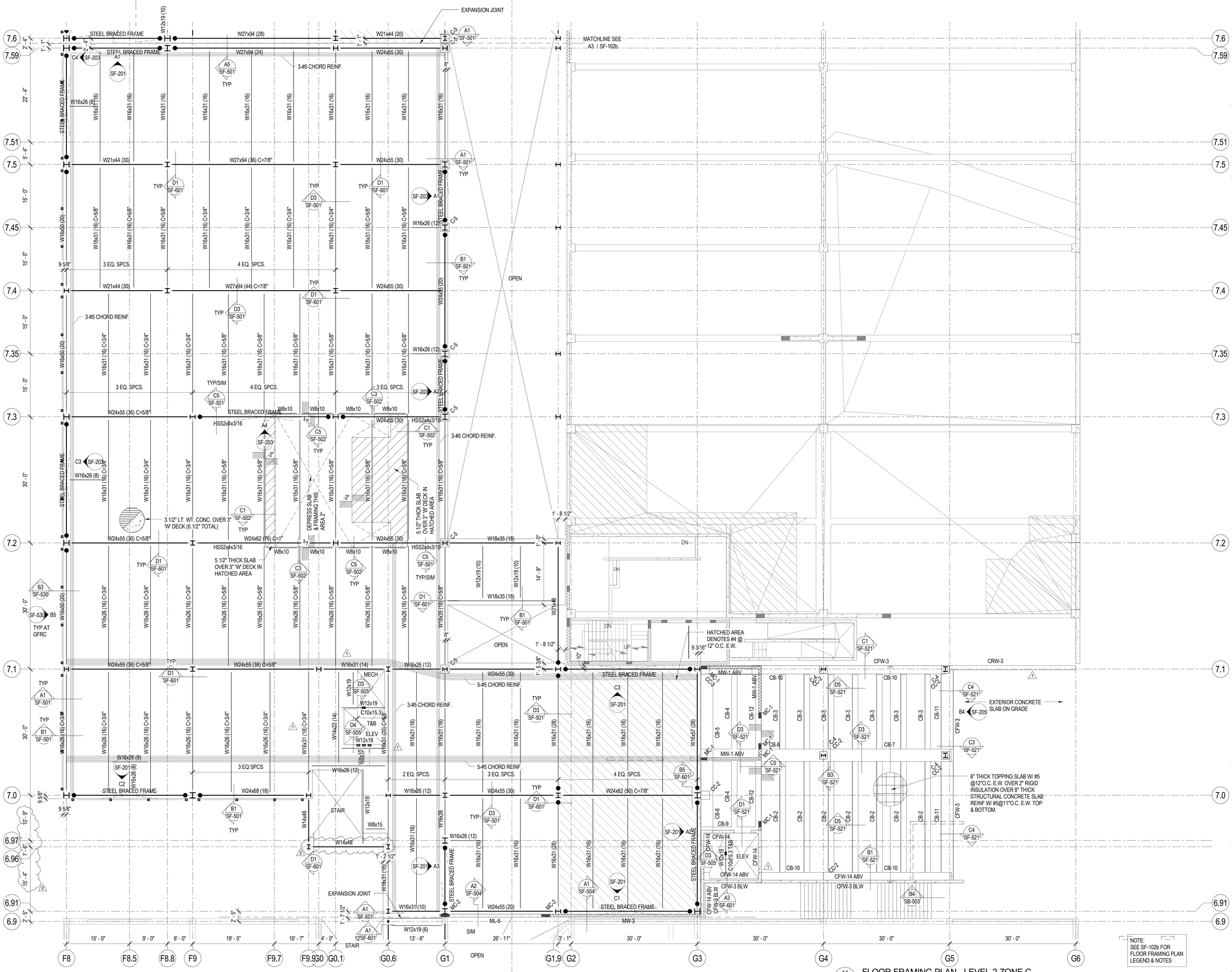
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#102897790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR & LOW ROOF FRAMING PLAN - LEVEL 2 ZONE B

CONSTRUCTION DOCUMENTS

SF-102b



A1 SF-102c FLOOR FRAMING PLAN - LEVEL 2 ZONE C

SCALE: 1/8" = 1'-0"

NOTE:
SEE SF-102b FOR FLOOR FRAMING PLAN LEGEND & NOTES

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

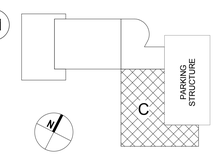
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

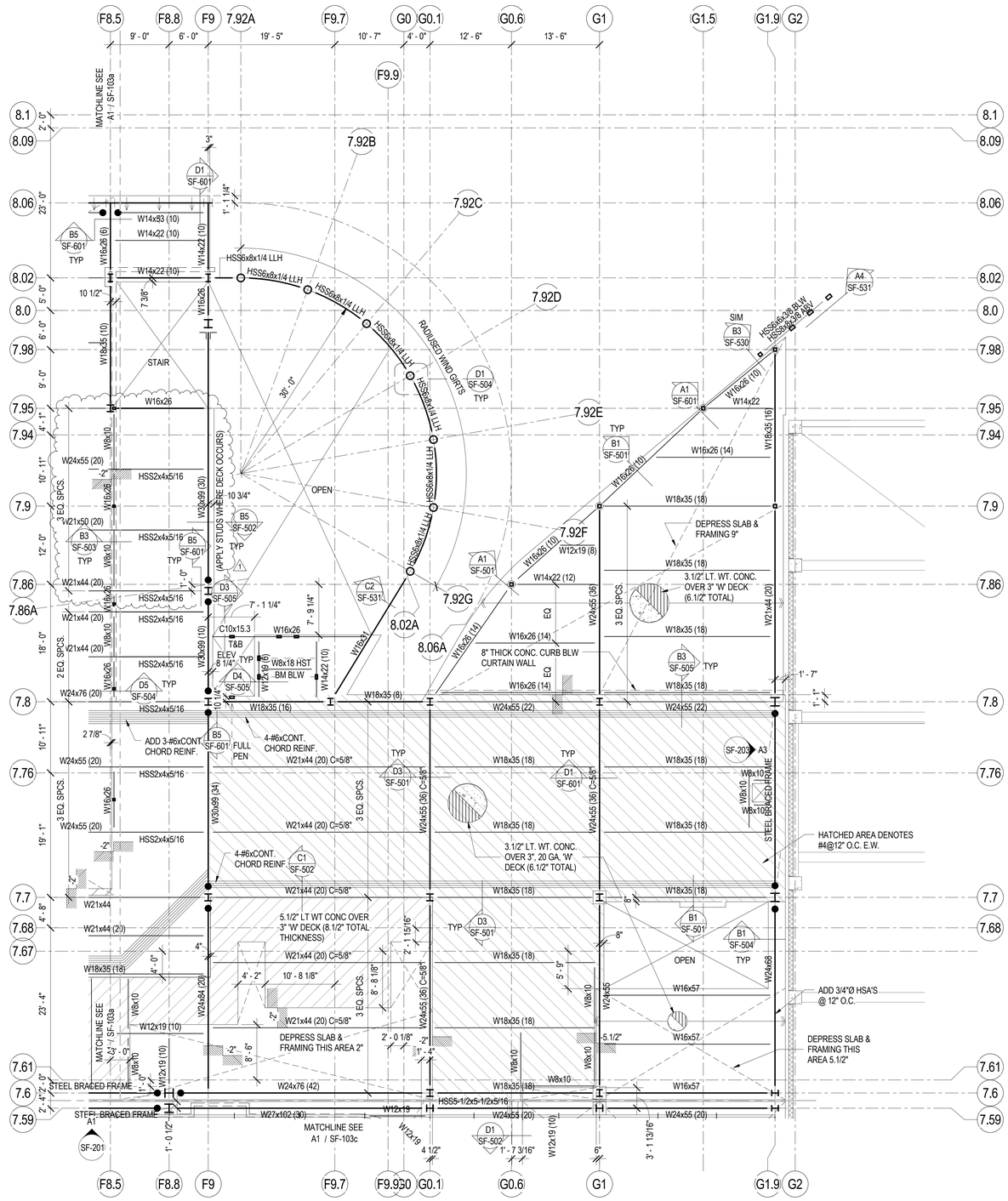
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR FRAMING PLAN - LEVEL 2 ZONE C

CONSTRUCTION DOCUMENTS

SF-102c



A3 / SF-103b FLOOR FRAMING PLAN - LEVEL 3 ZONE B

SCALE: 1/8" = 1'-0"

FLOOR FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- CANTILEVER FULL PEN CONNECTION
- COLLECTOR CONNECTION SEE B1/SF601
- DOUBLE SHEAR CONNECTION SEE C1/SF601
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- STEEL ANGLE BRACE / KICKER. SEE B1/SF501 FOR SLAB EDGE KICKER. SEE D1/SF215 FOR FRAME BRACE
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- THICKENED SLAB - SEE PLAN
- SLAB REINFORCING - SEE PLAN
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

FLOOR FRAMING PLAN NOTES

1. SEE GENERAL STRUCTURAL NOTE (III.D.8) AND DETAILS D3/SF501 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.

2. SEE DETAILS D1/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.

3. SEE GENERAL STRUCTURAL NOTE (5.10) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.

4. PROVIDE 4.1/2" LONG HEADED STUD ANCHORS ON COMPOSITE BEAMS IN THE AREAS OF 1" SLAB RECESSES.

5. SEE DETAILS C1 & C2/SF501 FOR TYPICAL HEADED STUD PLACEMENT AND COMPOSITE DECK BEARING DETAILS.

6. REFR TO DETAIL C4/SF501 FOR TYPICAL HOUSEKEEPING PADS AND CURBS ON FLOOR DECK.

7. REFER TO DETAILS A3 & A5/SF502 FOR MASONRY WALL BRACING AND SLAB REINF. REQUIREMENTS.

8. REINFORCEMENT SHOWN ON PLANS SHALL BE LOCATED AT MID-HEIGHT OF CONCRETE. LOCATED BETWEEN THE TOP OF METAL DECK AND THE TOP OF CONCRETE.

9. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO DETAILING MANUFACTURING, ERECTING OR INSTALLING ANT STRUCTURAL ELEMENT. EXISTING DIMENSIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. IF CONDITIONS SHOWN DO NOT MATCH ACTUAL CONDITIONS, CONTACT THE ENGINEER AS SOON AS POSSIBLE.

10. ALL CHORD REINFORCING IN SLABS SHALL HAVE STAGGERED LAP SPLICES AT 4"O.C.

11. SEE DETAIL A3/SB-503 FOR CONCRETE COLUMN COVER REINFORCING AROUND STEEL COLUMNS.

12. REFER TO DETAIL B2/SF-505 FOR TYPICAL STAIR LANDING COLUMN AND CONNECTION. PROVIDE 4 COLUMNS MIN. AT EACH LANDING.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

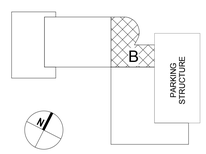
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

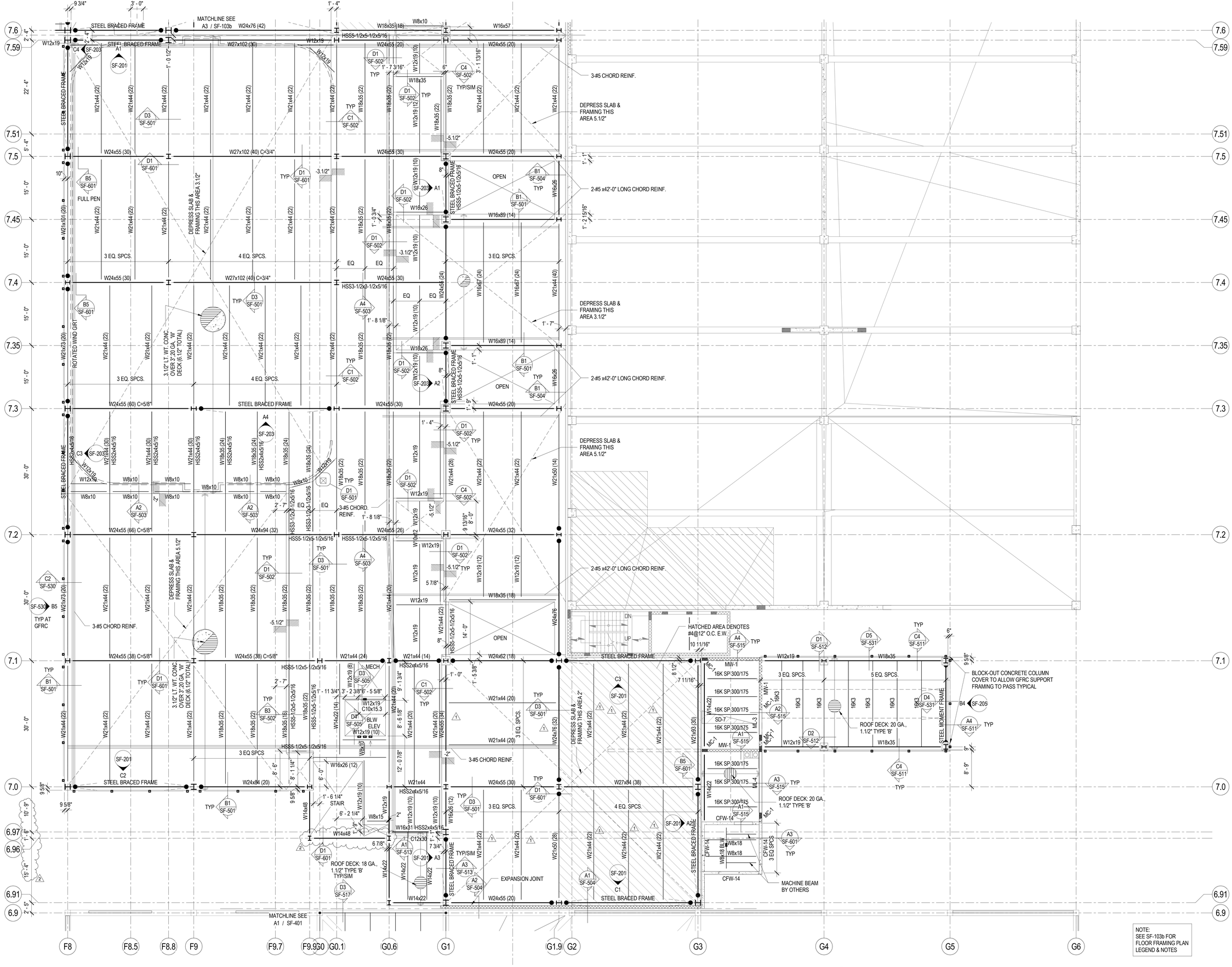
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR FRAMING PLAN - LEVEL 3 ZONE B

CONSTRUCTION DOCUMENTS

SF-103b



GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

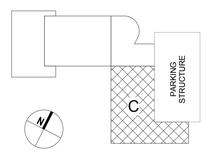
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

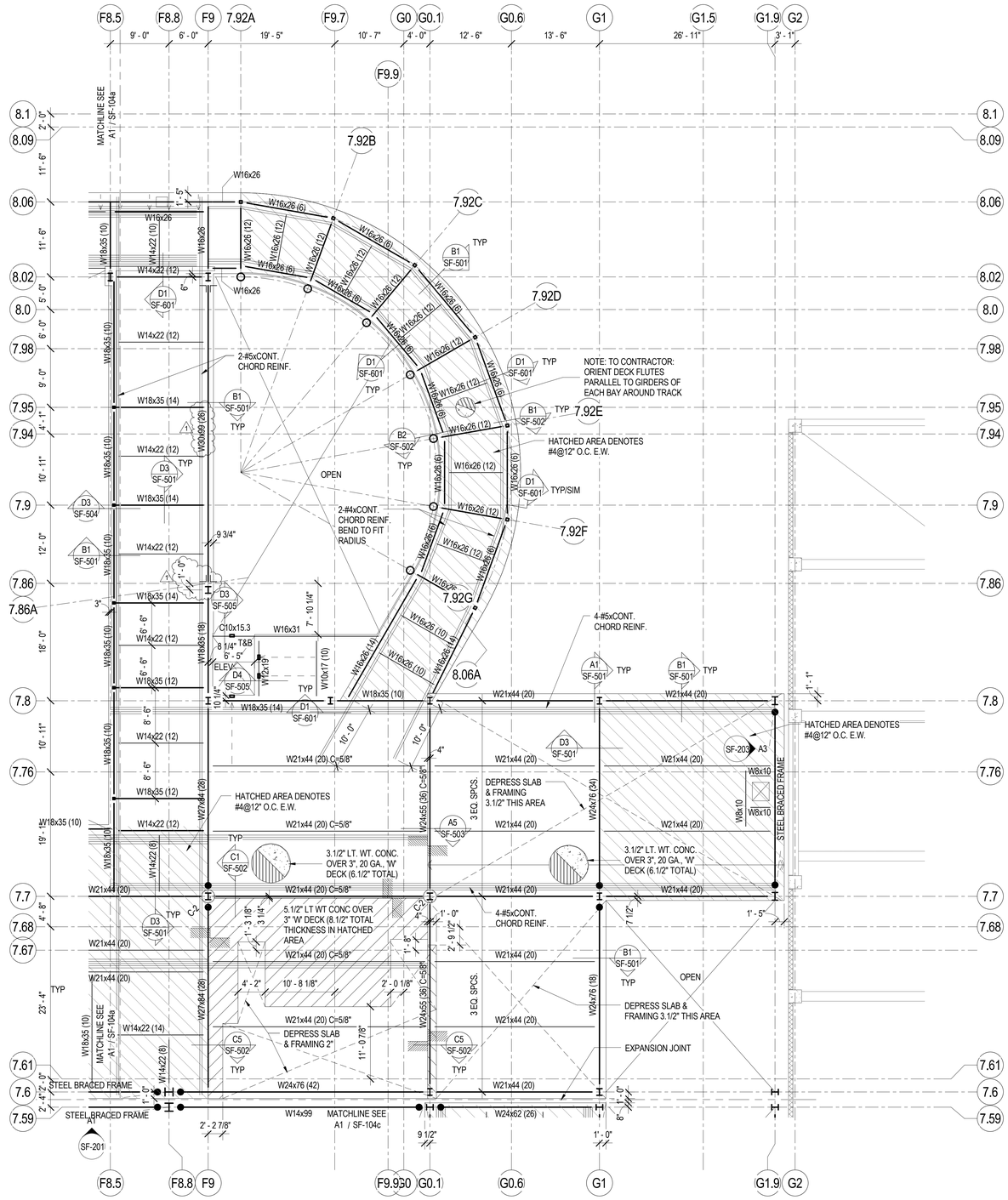
NOTE:
SEE SF-103b FOR FLOOR FRAMING PLAN LEGEND & NOTES

FLOOR & LOW ROOF FRAMING PLAN - LEVEL 3 ZONE C

CONSTRUCTION DOCUMENTS

A1 / SF-103c FLOOR & LOW ROOF FRAMING PLAN - LEVEL 3 ZONE C
SCALE: 1/8" = 1'-0"

SF-103c



A3 / SF-104b FLOOR FRAMING PLAN - LEVEL 4 ZONE B

SCALE: 1/8" = 1'-0"

FLOOR FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- CANTILEVER FULL PEN CONNECTION
- COLLECTOR CONNECTION SEE B1/SF601
- DOUBLE SHEAR CONNECTION SEE C1/SF601
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- STEEL ANGLE BRACE / KICKER. SEE B1/SF501 FOR SLAB EDGE KICKER. SEE D1/SF215 FOR FRAME BRACE
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- THICKENED SLAB - SEE PLAN
- SLAB REINFORCING - SEE PLAN
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

FLOOR FRAMING PLAN NOTES

1. SEE GENERAL STRUCTURAL NOTE (III.D.8) AND DETAILS D3/SF501 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.

2. SEE DETAILS D1/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.

3. SEE GENERAL STRUCTURAL NOTE (5.10) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.

4. PROVIDE 4.1/2" LONG HEADED STUD ANCHORS ON COMPOSITE BEAMS IN THE AREAS OF 1" SLAB RECESSES.

5. SEE DETAILS C1 & C2/SF501 FOR TYPICAL HEADED STUD PLACEMENT AND COMPOSITE DECK BEARING DETAILS.

6. REFR TO DETAIL C4/SF501 FOR TYPICAL HOUSEKEEPING PADS AND CURBS ON FLOOR DECK.

7. REFER TO DETAILS A3 & A5/SF502 FOR MASONRY WALL BRACING AND SLAB REINF. REQUIREMENTS.

8. REINFORCEMENT SHOWN ON PLANS SHALL BE LOCATED AT MID-HEIGHT OF CONCRETE. LOCATED BETWEEN THE TOP OF METAL DECK AND THE TOP OF CONCRETE.

9. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO DETAILING MANUFACTURING, ERECTING OR INSTALLING ANT STRUCTURAL ELEMENT. EXISTING DIMENSIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. IF CONDITIONS SHOWN DO NOT MATCH ACTUAL CONDITIONS, CONTACT THE ENGINEER AS SOON AS POSSIBLE.

10. ALL CHORD REINFORCING IN SLABS SHALL HAVE STAGGERED LAP SPLICES AT 4"O.C.

11. SEE DETAIL A3/SB-503 FOR CONCRETE COLUMN COVER REINFORCING AROUND STEEL COLUMNS.

12. REFER TO DETAIL B2/SF-505 FOR TYPICAL STAIR LANDING COLUMN AND CONNECTION. PROVIDE 4 COLUMNS MIN. AT EACH LANDING.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

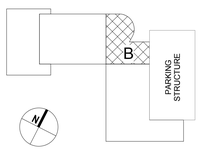
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FLOOR FRAMING PLAN - LEVEL 4 ZONE B

CONSTRUCTION DOCUMENTS

SF-104b

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

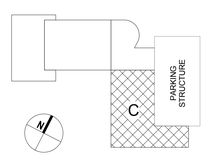
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

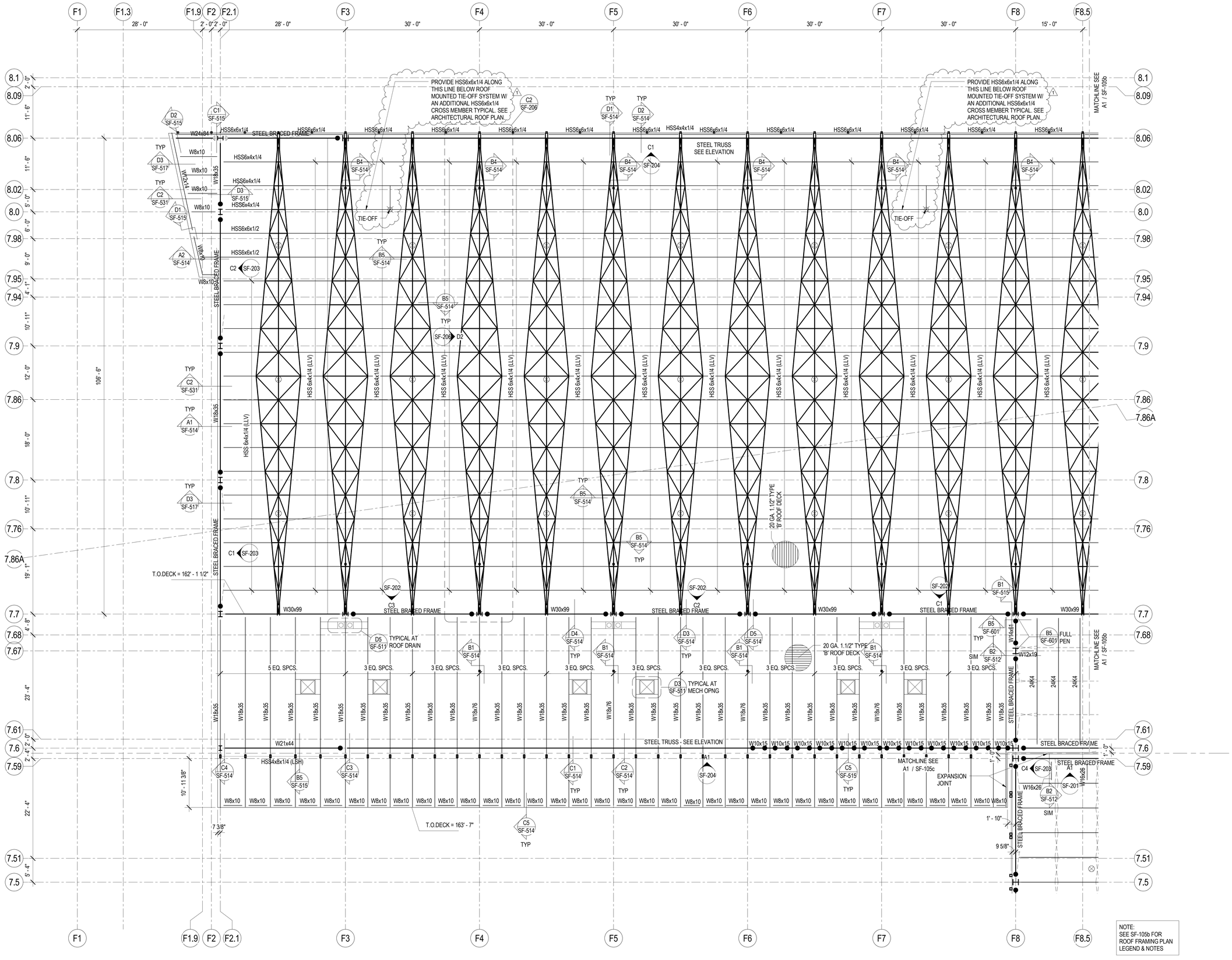
FLOOR FRAMING PLAN - LEVEL 4 ZONE C

CONSTRUCTION DOCUMENTS

SF-104c

NOTE:
SEE SF-104b FOR FLOOR FRAMING PLAN LEGEND & NOTES

A1 / SF-104c FLOOR FRAMING PLAN - LEVEL 4 ZONE C
SCALE: 1/8" = 1'-0"



NOTE:
SEE SF-105b FOR ROOF FRAMING PLAN LEGEND & NOTES

A1 / SF-105a ROOF FRAMING PLAN - LEVEL 5 ZONE A

SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

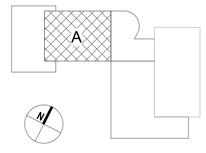
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

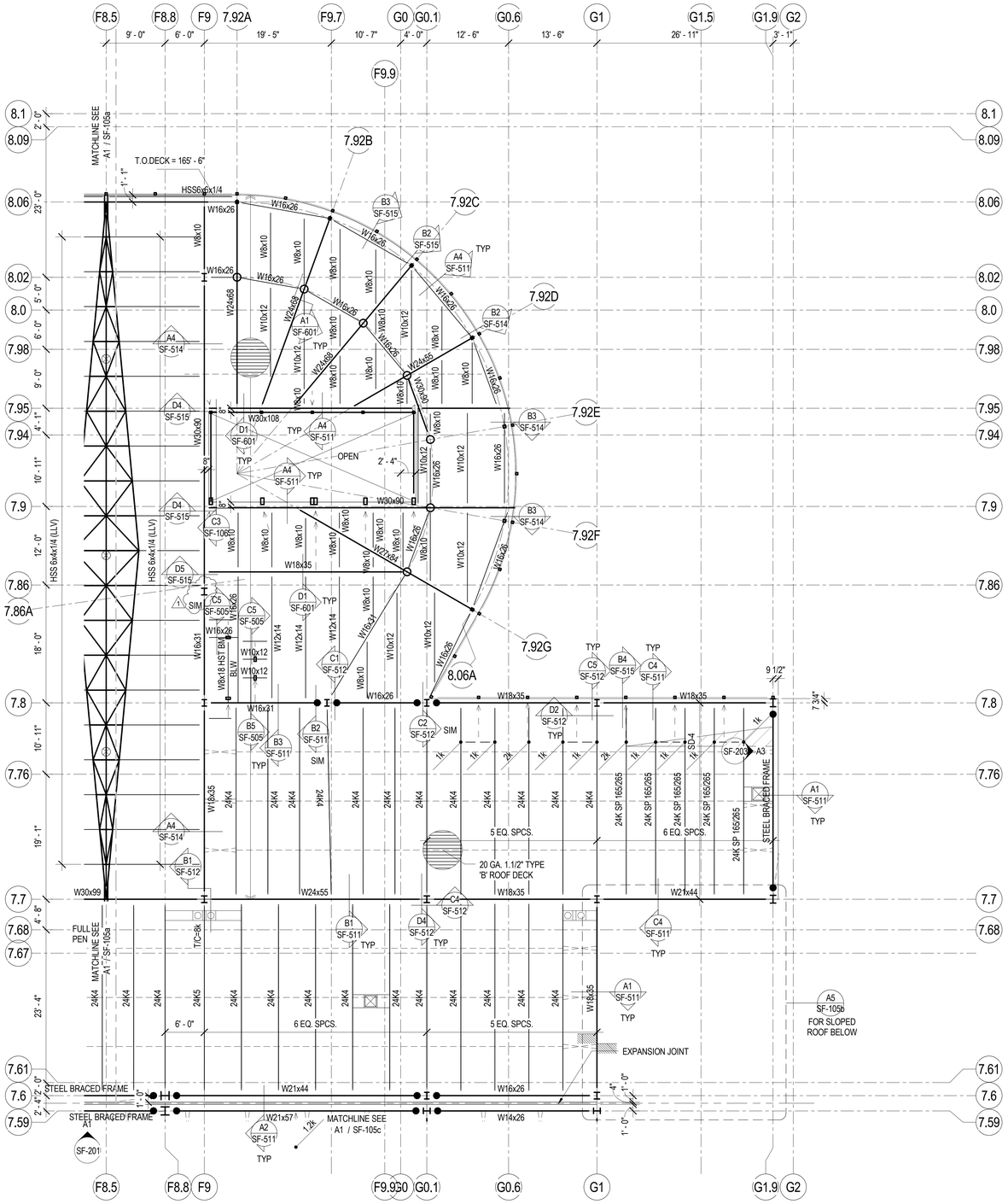
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ROOF FRAMING PLAN - ZONE A

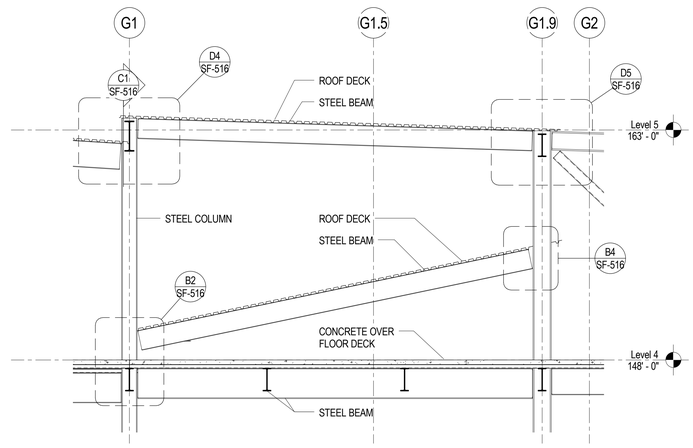
CONSTRUCTION DOCUMENTS

SF-105a



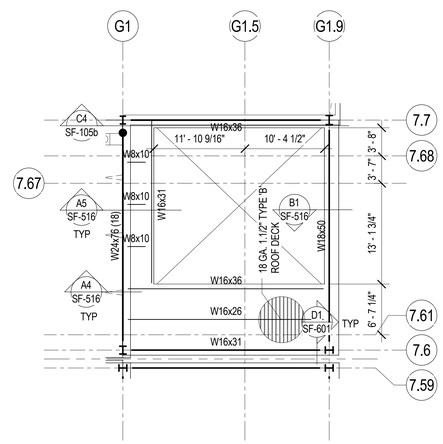
A1 SF-105b ROOF FRAMING PLAN - LEVEL 5 ZONE B

SCALE: 1/8" = 1'-0"



C4 SF-105b FRAMING SECTION

SCALE: 1/4" = 1'-0"



A5 SF-105b LOW ROOF FRAMING PLAN - SLOPED ROOF

SCALE: 1/8" = 1'-0"

ROOF FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- CANTILEVER FULL PEN CONNECTION
- COLLECTOR CONNECTION SEE B1/SF-601
- DOUBLE SHEAR CONNECTION SEE C1/SF-601
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- STEEL ANGLE BRACE / KICKER. SEE A4/SF-511 FOR ROOF EDGE KICKER. SEE B3 &B4/SF215 FOR MOMENT FRAME BRACE
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL D4/SF-511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL D3/SF-511. FOR ROUND OPENINGS WHICH ARE LESS THAN 12"Ø SEE DETAIL D2/SF-511.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE D5/SF-511 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN. JOISTS SHALL BE DESIGNED FOR NET UPWARD WIND PRESSURES AND SNOW DRIFT AS INDICATED ON PLANS (SD-#) REFER TO SF-604 FOR LOAD SCHEDULES.

5. ±#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=###K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION, INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL D1/SF-511.

8. SEE DETAIL C1&C2/SF-511 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. REFER TO DETAILS A3&A4/SF-502 FOR TYPICAL NON-BEARING MASONRY WALL BRACING AT UNDERSIDE OF FLOOR DECK AND DECK REINFORCEMENT REQUIREMENTS AT MASONRY WALLS BEARING AON CONC. OVER FLOOR DECK.

12. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO DETAILING MANUFACTURING, ERECTING OR INSTALLING ANT STRUCTURAL ELEMENT. EXISTING DIMENSIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. IF CONDITIONS SHOWN DO NOT MATCH ACTUAL CONDITIONS, CONTACT THE ENGINEER AS SOON AS POSSIBLE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

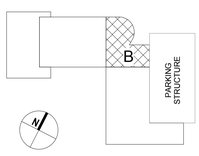
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

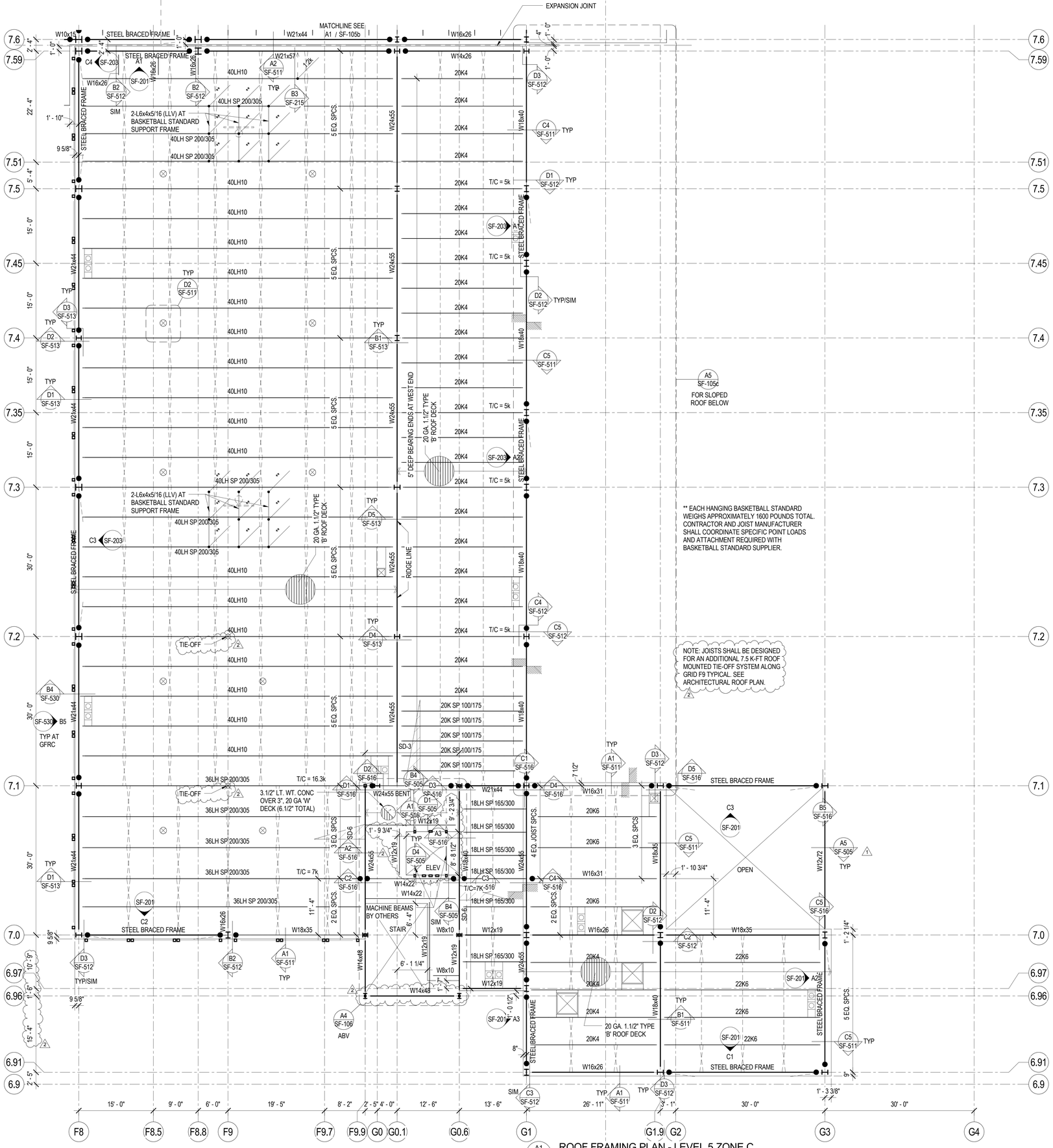
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ROOF FRAMING PLAN - ZONE B

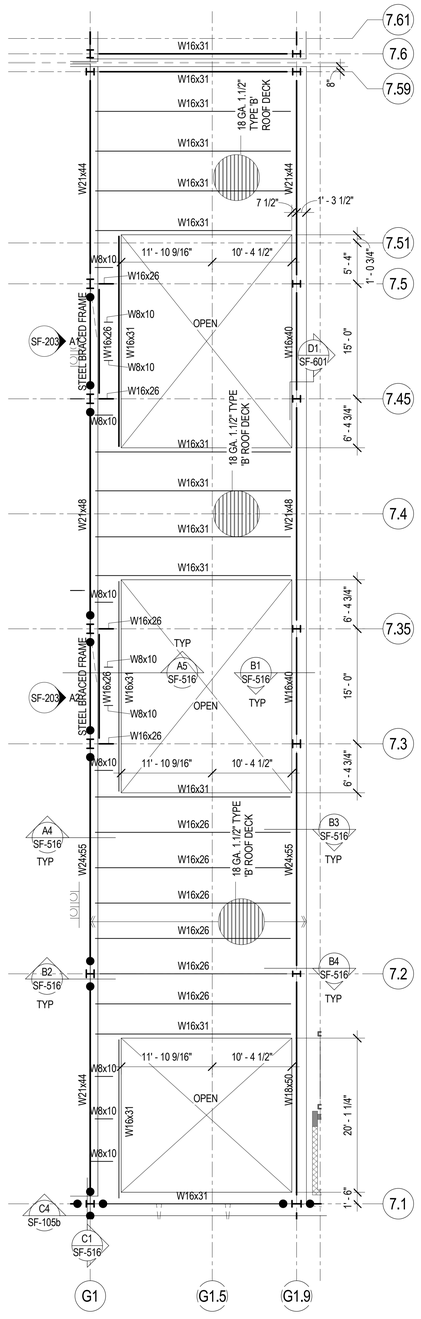
CONSTRUCTION DOCUMENTS

SF-105b



A1 SF-105c ROOF FRAMING PLAN - LEVEL 5 ZONE C

SCALE: 1/8" = 1'-0"



A5 SF-105c LOW ROOF FRAMING PLAN - SLOPED ROOF

SCALE: 1/8" = 1'-0"

NOTE:
SEE SF-105b FOR ROOF FRAMING PLAN LEGEND & NOTES

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

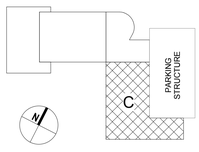
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

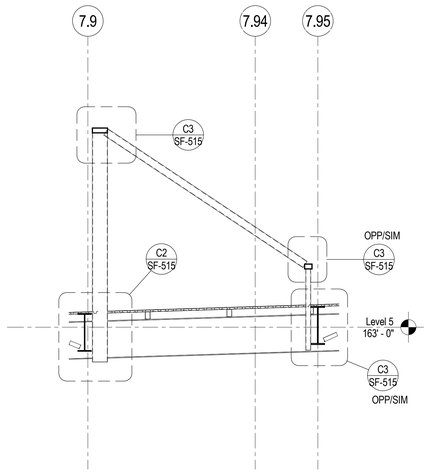
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ROOF FRAMING PLAN - ZONE C

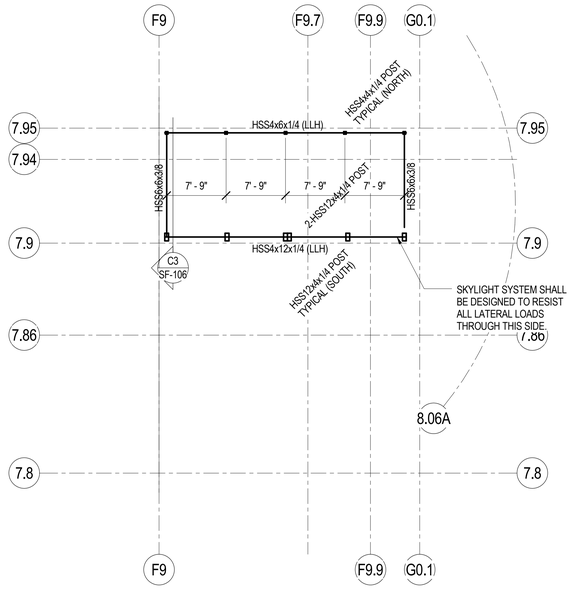
CONSTRUCTION DOCUMENTS

SF-105c



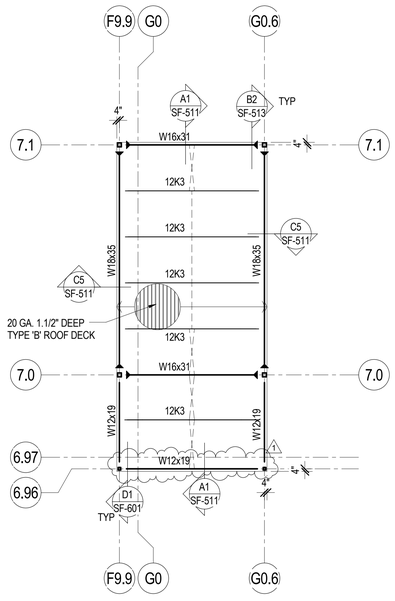
C3 / SF-106 SECTION THROUGH SKYLIGHT FRAMING

SCALE: 1/4" = 1'-0"



C4 / SF-106 HIGH ROOF FRAMING PLAN - ZONE B1

SCALE: 1/8" = 1'-0"



A4 / SF-106 HIGH ROOF FRAMING PLAN - ZONE B2

SCALE: 1/8" = 1'-0"

ROOF FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL COLUMN - WIDE FLANGE
- STEEL COLUMN - PIPE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- CANTILEVER FULL PEN CONNECTION
- COLLECTOR CONNECTION SEE B1/SF-601
- DOUBLE SHEAR CONNECTION SEE C1/SF-601
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- STEEL ANGLE BRACE / KICKER. SEE A4/SF-511 FOR ROOF EDGE KICKER. SEE B3 &B4/SF215 FOR MOMENT FRAME BRACE
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL D4/SF-511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL D3/SF-511. FOR ROUND OPENINGS WHICH ARE LESS THAN 12"Ø SEE DETAIL D2/SF-511.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE D5/SF-511 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN. JOISTS SHALL BE DESIGNED FOR NET UPWARD WIND PRESSURES AND SNOW DRIFT AS INDICATED ON PLANS (SD-#) REFER TO SF-604 FOR LOAD SCHEDULES.

5. ±#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=##K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL D1/SF-511.

8. SEE DETAIL C1&C2/SF-511 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. REFER TO DETAILS A3&A4/SF-502 FOR TYPICAL NON-BEARING MASONRY WALL BRACING AT UNDERSIDE OF FLOOR DECK AND DECK REINFORCEMENT REQUIREMENTS AT MASONRY WALLS BEARING AON CONC. OVER FLOOR DECK.

12. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO DETAILING MANUFACTURING, ERECTING OR INSTALLING ANT STRUCTURAL ELEMENT. EXISTING DIMENSIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. IF CONDITIONS SHOWN DO NOT MATCH ACTUAL CONDITIONS, CONTACT THE ENGINEER AS SOON AS POSSIBLE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

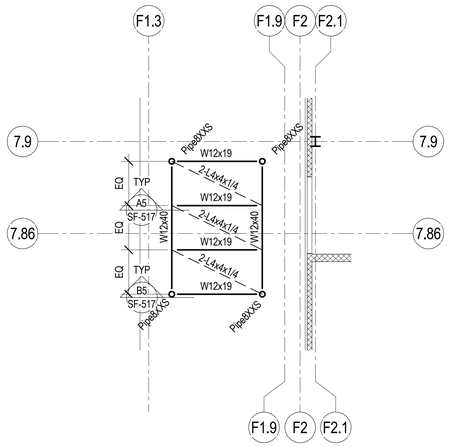
HIGH ROOF FRAMING PLANS

CONSTRUCTION DOCUMENTS

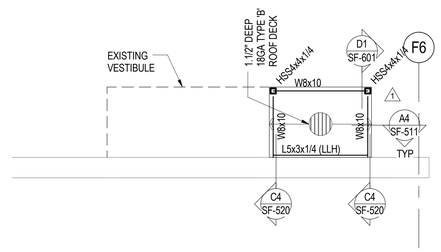
SF-106

NOTE:
1. SEE SB-101b FOR FOOTING & FOUNDATION PLAN LEGEND & NOTES.

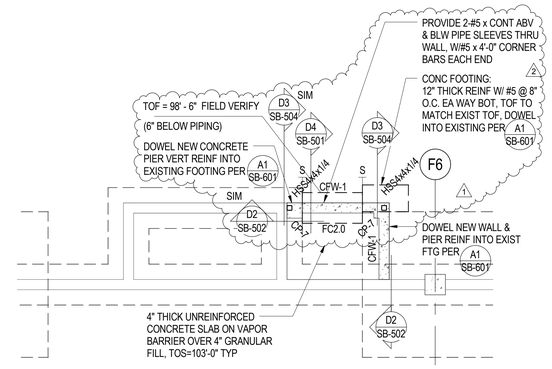
2. SEE SF-105b FOR ROOF FRAMING PLAN LEGEND & NOTES.



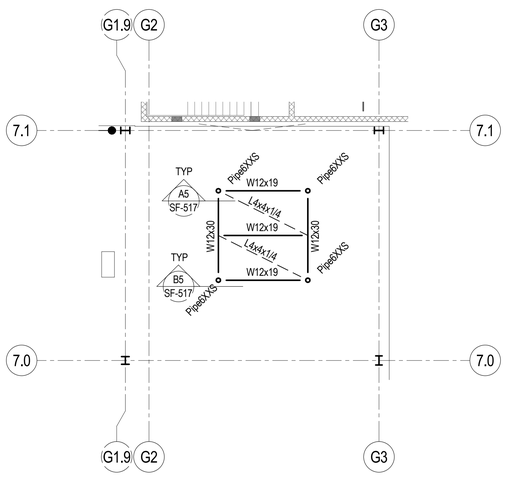
C1 / SF-402 COOLING TOWER SUPPORT FRAME
SCALE: 1/8" = 1'-0"



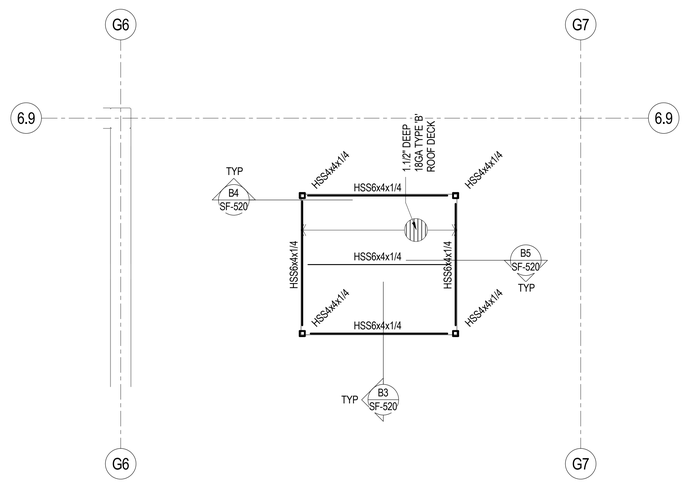
C2 / SF-402 ROOF FRAMING PLAN - SORENSEN BLDG ATTACHMENT
SCALE: 1/4" = 1'-0"



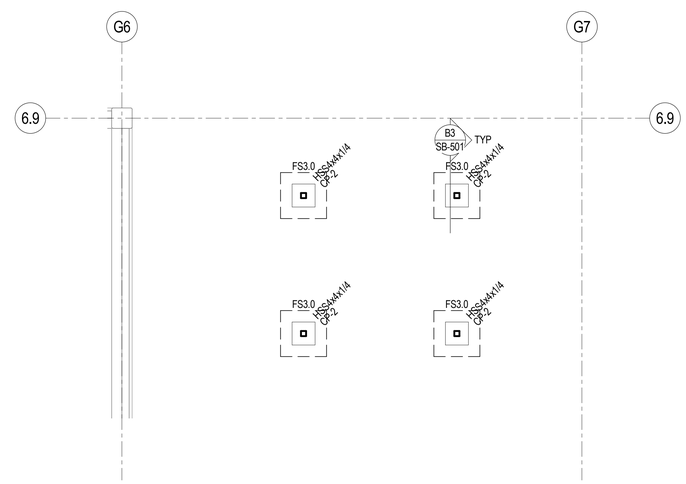
C4 / SF-402 FOOTING & FOUNDATION PLAN - SORENSEN BLDG ATTACHMENT
SCALE: 1/4" = 1'-0"



B1 / SF-402 COOLING TOWER SUPPORT FRAME
SCALE: 1/8" = 1'-0"



B2 / SF-402 ROOF FRAMING PLAN - FREE STANDING STRUCTURE
SCALE: 1/4" = 1'-0"



B4 / SF-402 FOOTING & FOUNDATION PLAN - FREE STANDING STRUCTURE
SCALE: 1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

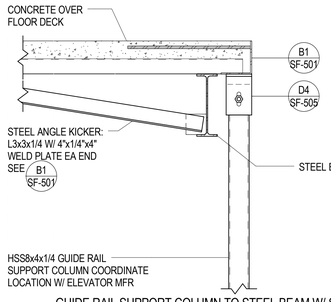
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ENLARGED FRAMING PLANS

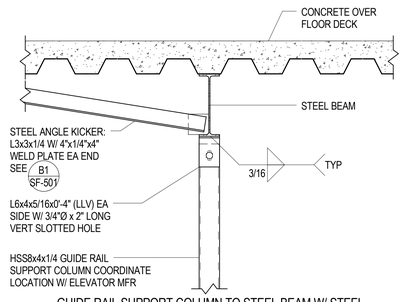
CONSTRUCTION DOCUMENTS

SF-402



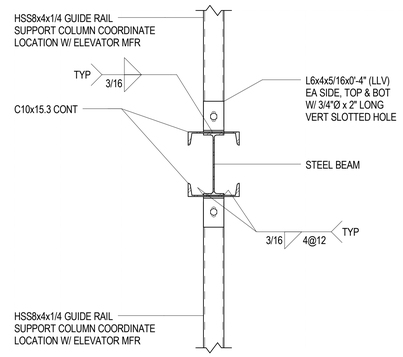
D1 / SF-505 GUIDE RAIL SUPPORT COLUMN TO STEEL BEAM W/ STEEL ANGLE KICKER

NO SCALE



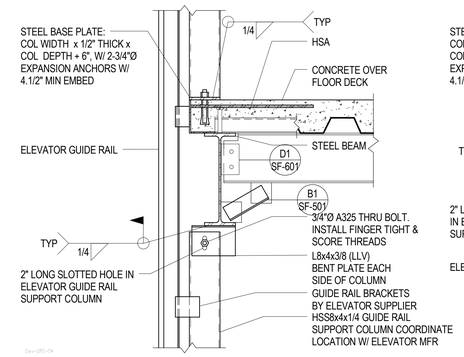
D2 / SF-505 GUIDE RAIL SUPPORT COLUMN TO STEEL BEAM W/ STEEL ANGLE KICKER

NO SCALE



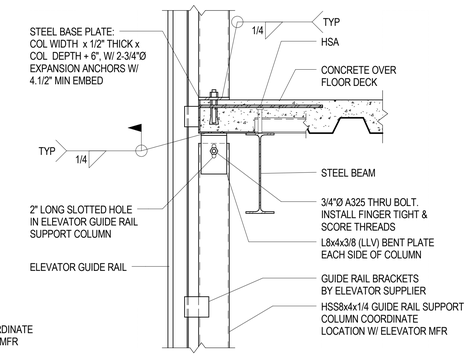
D3 / SF-505 GUIDE RAIL SUPPORT COLUMN TO STEEL BEAM

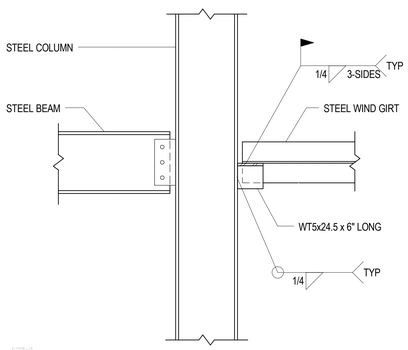
NO SCALE



D4 / SF-505 TYPICAL ELEVATOR GUIDE RAIL SUPPORT CONNECTION TO STEEL BEAM

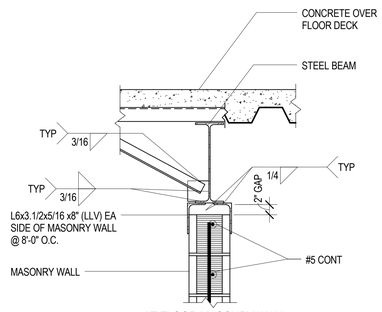
NO SCALE



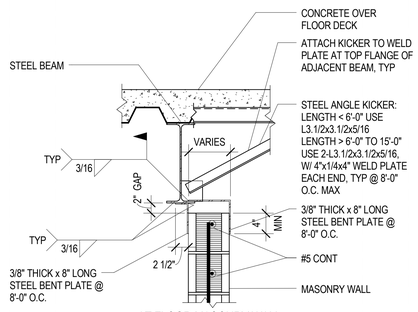


C1 / SF-505 TYPICAL WIND GIRT CONNECTION TO STEEL COLUMN

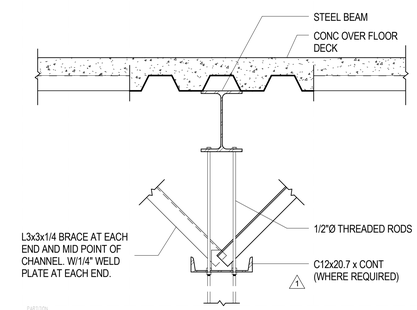
NO SCALE



AT FLOOR MASONRY WALL CENTERED ON STEEL BEAM

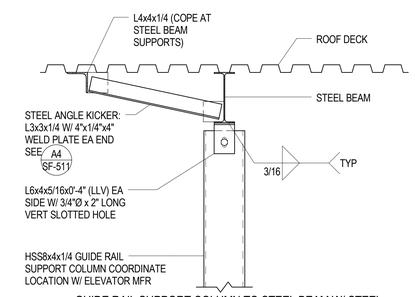


AT FLOOR MASONRY WALL OFFSET FROM STEEL BEAM



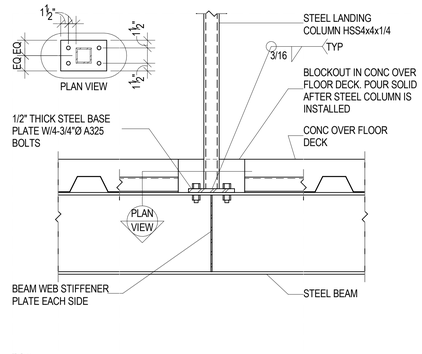
C4 / SF-505 TYPICAL HANGING PARTITION SUPPORT DETAIL

NO SCALE



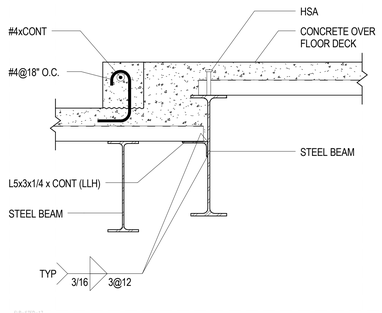
C5 / SF-505 GUIDE RAIL SUPPORT COLUMN TO STEEL BEAM W/ STEEL ANGLE KICKER

NO SCALE



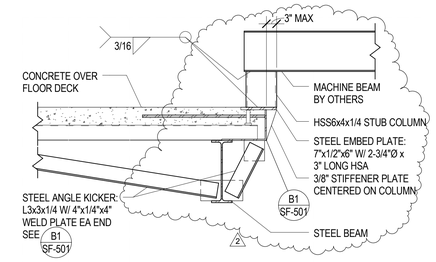
B2 / SF-505 TYPICAL STAIR LANDING COLUMN DETAIL

NO SCALE



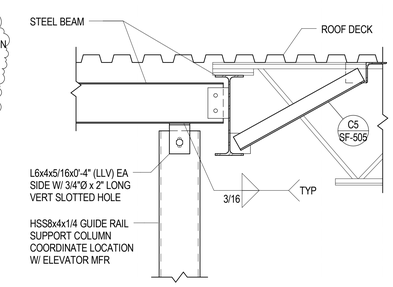
B3 / SF-505 TYPICAL DETAIL AT FLOOR STEP AT STEEL BEAM

NO SCALE



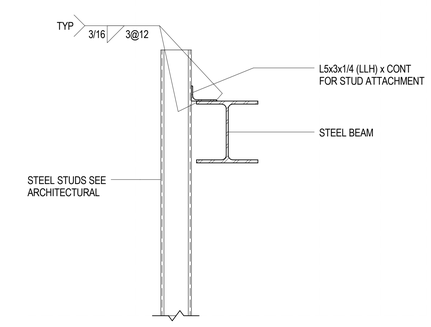
B4 / SF-505 MACHINE BEAM TO STEEL STUB COLUMN TO STEEL BEAM W/ STEEL ANGLE KICKER

NO SCALE



B5 / SF-505 GUIDE RAIL SUPPORT COLUMN TO STEEL BEAM W/ STEEL ANGLE KICKER

NO SCALE



A5 / SF-505 TYPICAL STEEL STUD CONNECTION AT SCREEN WALL

NO SCALE

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 5/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#102897P0
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

TYPICAL FLOOR FRAMING DETAILS

CONSTRUCTION DOCUMENTS

SF-505

Level 6																																	Level 6
178' - 0" / Level 5																																	178' - 0" / Level 5
163' - 0" / Level 4					W12x50							HSS4x4x1/4			HSS4x4x1/4				HSS4x4x1/4					W12x65	W12x58						W12x58	W12x40	163' - 0" / Level 4
148' - 0" / Level 3						HSS4x4x5/16	HSS4x4x1/4																										148' - 0" / Level 3
133' - 0" / Level 2				W12x40	W12x50			W12x40	W14x132	W12x79	W12x53		W14x82	W14x90		W14x82	W14x90		W14x82		W14x90	W12x65	W12x58		W12x53		HSS4x4x1/4						W12x36	W12x65	133' - 0" / Level 2
118' - 0" / Level 1.5	W8x35	HSS8x8x3/8	W8x35																	HSS5x5x1/4															118' - 0" / Level 1.5
111' - 0" / Level 1																										HSS5x5x5/16									111' - 0" / Level 1
103' - 0"	1.1/4", SBP-5	1.1/4", SBP-1 (1)	1.1/4", SBP-5	1.1/4", SBP-5	1.1/4", SBP-5	SEE DETAIL (1)	F2.1(10' - 8 3/16")-7.86(-3' - 0"), F2.1(10' - 8 3/16")-7.9, F2.1(10' - 8 3/16")-7.95(10 1/2"), F2.1(12' - 1 13/16")-8.0, F8.5(6 11/16")-7.76(-4' - 1"), F8.5(6 11/16")-7.8(2' - 0"), F8.5(6 11/16")-7.86A(-11 1/2"), F8.5(6 11/16")-7.9,	1.1/4", SBP-5	1.1/4", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	SEE DETAIL (1)	1.1/4", SBP-5	1.1/4", SBP-5	SEE DETAIL (1)	1.1/4", SBP-5	1.1/4", SBP-5	SEE DETAIL (1)	1.1/4", SBP-5	1", SBP-2	1.1/4", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	SEE DETAIL (1)	1.1/2", SBP-5	1", SBP-1	1", SBP-2	1", SBP-2	1.1/4", SBP-5	1.3/4", SBP-5	1.3/4", SBP-5	1.1/4", SBP-5	1.3/4", SBP-5	1.3/4", SBP-5	103' - 0"
Column Locations	F1.3-8.02	F1.9-7.51, F1.9-7.59	F1.9-8.02	F2.1-7.51	F2.1-7.6	F2.1(10' - 8 3/16")-7.8		F3-7.51	F3-7.6	F3-7.86(4' - 2 13/16"), F3-7.95, F8.8-7.4	F3-7.86A	F4-7.67(-4' - 6")	F4-7.86A	F4-7.95, F6-7.95	F5-7.67(-4' - 6")	F5-7.86A	F5-7.95	F6-7.67(-4' - 6"), F7-7.67(-4' - 6")	F6-7.86A	F7(-10 3/4")-7.86(-1' - 1 3/4"), G1.89-7.95, G1.89-8.0	F7-7.95	F8-7.1	F8-7.4	F8(-1' - 1 1/8")-7.5(1' - 6"), F9(1' - 6")-7.0(-1' - 1 1/8")	F8-7.95	F8-8.02	F8(-8' - 4 15/16")-8.02	F8-8.06(1' - 7 3/4"), G1.90-8.06, G1.90-8.09(-3' - 3 7/8")	F8.5-7.95	F8.8-7.5	F9-7.1, F9-7.2	F9-7.3	F9-7.7	F9-7.8	

Level 6							F8.5(6 11/16")-7.95, 7.76(-4' - 1")-7.86A(-5' - 5 1/16")																										Level 6
178' - 0" / Level 5						HSS6x6x3/8														HSS6x6x3/8													178' - 0" / Level 5
163' - 0" / Level 4	W12x58		W12x40	W12x40	W12x58			W12x50	W12x58	W12x53	W12x58	W12x58	W12x50	W12x53	W12x40			W12x45	W12x50	W12x58				W12x65	W12x58	W12x65	W12x58	W12x53	W12x50		W12x65				163' - 0" / Level 4
148' - 0" / Level 3							HSS4x4x1/4																HSS4x4x1/4												148' - 0" / Level 3
133' - 0" / Level 2	W12x72							W12x72	W12x96	W12x96	W12x96	W12x65	W12x65	W12x87	W12x58		W12x40	W12x45	W12x50	W12x58	HSS6x6x1/4			W12x65	W12x58	W12x65	W12x65	W12x53	W12x72	HSS6x6x1/2		W12x96	W12x50	W12x65	W12x53	133' - 0" / Level 2
118' - 0" / Level 1.5		W14x120														HSS4x4x5/16															HSS5x5x5/16					118' - 0" / Level 1.5
111' - 0" / Level 1																																			111' - 0" / Level 1
103' - 0"	1.3/4", SBP-5	1.1/4", SBP-5	1.1/2", SBP-5	1.1/4", SBP-5	1.1/2", SBP-5	1", SBP-2 (1)	SEE DETAIL	1.3/4", SBP-5	1.3/4", SBP-5	1.3/4", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	1.3/4", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	3/4", SBP-1 (1)	1.1/4", SBP-5	1.1/4", SBP-5	1.1/4", SBP-5	1.1/2", SBP-5	1", SBP-1	SEE DETAIL (1)	1.3/4", SBP-5	1.1/2", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	1.1/2", SBP-5	1.3/4", SBP-5	1", SBP-1	1", SBP-2	1.3/4", SBP-5	1.1/4", SBP-5	1.3/4", SBP-5	1.1/2", SBP-5	103' - 0"
Column Locations	F9-7.86(-1' - 0") (2)	F9-8.0(-2' - 0 1/4")	F9.7(-8")-7.8 (1)	F9.9-6.96	F9.9-7.0	F9.9-7.1	G0-6.9	G0-7.1	G0.1-7.2	G0.1-7.4	G0.1-7.5	G0.1-7.59	G0.1-7.6	G0.1-7.7	G0.1-7.8, G1-7.8	G0.6-6.9	G0.6-6.91	G0.6-6.96	G0.6-7.0	G0.6-7.1	G0.6-7.86, G1.5-7.95, G1.9-7.98	G1-6.9	G1-7.0	G1-7.1	G1-7.2	G1-7.59	G1-7.6	G1-7.7	G1-7.9, G1.9-7.9	G1.89-7.9	G1.9-7.0	G1.9-7.2	G1.9-7.3	G1.9-7.35, G1.9-7.45, G1.9-7.5, G1.9-7.59	

STEEL COLUMN SCHEDULE

SCALE: 1/8" = 1'-0"

STEEL COLUMN SCHEDULE NOTES

1. UNLESS NOTED OTHERWISE ALL COLUMNS SHALL BE INSTALLED W/ 4-3/4" DIAMETER A.B. W/ 3" (MIN.) HOOKS. PROJECT ANCHOR BOLTS 3" (MIN.) ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" (MIN.). ALL BOLTS SHALL BE INSTALLED W/ HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE BOLT DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ALL BOLTS IN CAP PLATES SHALL BE 3/4" DIA, A325M BOLTS TYPICAL U.N.O.
3. COLUMN SPLICES SHALL BE LOCATED PER SPLICE DETAILS, TYPICAL, U.N.O.
4. WELDS SHALL NOT BE MADE TO ANCHOR BOLTS.
5. ALL STEEL CAP PLATES SHALL BE 3/4" THICK UNO ON DETAILS. SEE DETAILS FOR ALL STEEL CAP PLATE TYPES.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/04/2012	ADDENDUM #2
2	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P:801.486.3883
F:801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER &
PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

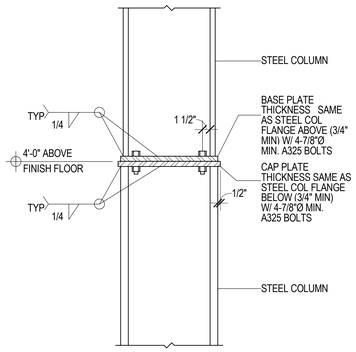
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

STEEL COLUMN SCHEDULE

CONSTRUCTION DOCUMENTS

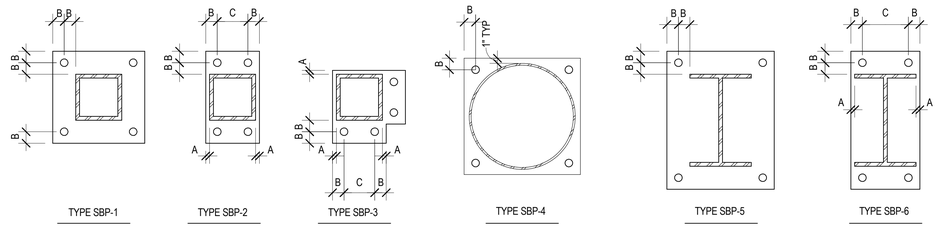
SF-602



D1 / SF-604

TYPICAL STEEL COLUMN SPLICE FOR GRAVITY COLUMNS WITH SAME NOMINAL DEPTH

NO SCALE



TYPE SBP-1 | TYPE SBP-2 | TYPE SBP-3 | TYPE SBP-4 | TYPE SBP-5 | TYPE SBP-6

A = 1/2" MIN.

B = 1 1/2" (PER TABLE J3.5 OF THE MANUAL OF STEEL CONSTRUCTION FOR BOLTS LARGER THAN 7/8" DIAMETER)

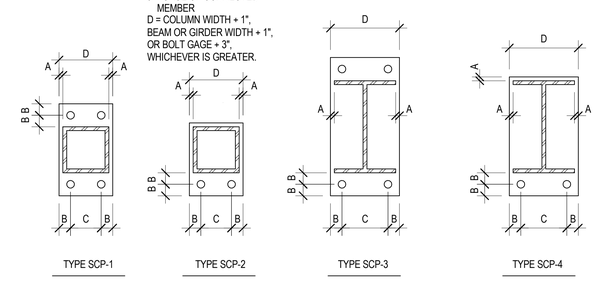
C = 3" MIN.

D2 / SF-604

TYPICAL STEEL BASE PLATES - PLAN VIEW

NO SCALE

A = 1/2" MIN.
B = 1 1/2" MIN.
C = GAGE OF CONNECTED MEMBER
D = COLUMN WIDTH + 1", BEAM OR GIRDER WIDTH + 1", OR BOLT GAGE + 3", WHICHEVER IS GREATER.



TYPE SCP-1 | TYPE SCP-2 | TYPE SCP-3 | TYPE SCP-4

D4 / SF-604

TYPICAL STEEL CAP PLATES - REFLECTED PLAN VIEW

NO SCALE

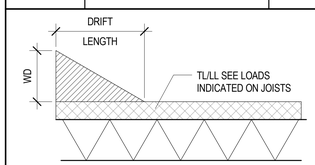
JOIST NET UPLIFT WIND PRESSURE SCHEDULE

JOIST SPAN	WITHIN 17'-0" OF BUILDING EDGE	ALL OTHER AREAS
0'-0" TO 12'-0"	40psf	25psf
12'-0" TO 15'-0"	35psf	25psf
15'-0" TO 20'-0"	30psf	25psf
SPAN > 20'-0"	25psf	25psf

NOTES:
1. ALL OPEN WEB STEEL JOIST SHALL BE DESIGNED FOR THE ABOVE NET UPLIFT WIND PRESSURES.

SNOW DRIFT SCHEDULE

MARK	DRIFT LENGTH	WD (PSF)
SD-1	1 22'-4"	126 1
SD-2	18'-8"	92
SD-3	17'-3"	85
SD-4	22'-5"	55
SD-5	21'-7"	107
SD-6	10'-3"	50
SD-7	12'-3"	60



NOTES:
1. FOR OPEN WEB STEEL JOIST DESIGN, DRIFT LOADS SHALL BE IN ADDITION TO ALL LOADS (TL/LL) SHOWN ON PLANS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05/14/2012	ADDENDUM #4

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P: 801.486.3883
F: 801.485.0911
675 E. 500 S. Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

PROFESSIONAL STRUCTURAL ENGINEER #144210 4/27/2012 Ronald J. Reaveley STATE OF UTAH

UTAH VALLEY UNIVERSITY
STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RH/RE+A
CHECKED BY:	OB/RE+A
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

STRUCTURAL SCHEDULES

CONSTRUCTION DOCUMENTS

SF-604

Colvin Engineering Associates, Inc.
HIGH PERFORMANCE DESIGN

MECHANICAL PORTION OF ADDENDUM NO. 4

UVU SLC & Parking Structure

CEA PROJECT NO. 2011-009.00

May 14, 2012

All contractors submitting proposals for this project shall be governed by the following addendum, changes, and explanations to the bidding documents. Bids shall be submitted in accordance with the following:

Item No.	Add, Delete or Clarify	Specification Section or Drawing No.	Reference / Description:
1	Clarify Add	MH1.11B	-Change Keynote #7 to read: "ELBOW DUCT UP THROUGH SLAB PENETRATION TO SERVE SECOND FLOOR SPACE. SEE STRUCTURAL DRAWINGS AND ARCHITECTURAL DETAIL #10 ON SHEET AE-513." -Change Keynote #6 to read: "ROUTE SOUND ATTENUATOR AND DUCT PARALLEL TO SLOPED CEILING." -Add sound attenuators SA-9 thru SA-14. -Add keyed note #10.
2	Clarify	MP061	-Demolish Fan Coil Unit SCF-23 PE and all associate ductwork, piping, and accessories. -Revise drawing. See sheet MP061.
3	Delete Clarify Add	MH1.12B	-Delete return grilles in INTVW 211F, MASSAGE 211E, INTRVW 211B, and PT ASMT 211D. -Change the Max Cooling CFM for VAV box #2-28 to 125 CFM. -Add transfer ducts above rooms PT ASMT 211D and Health Risk 211C.
4	Add	MH1.12C	-Add transfer return ducts.
5	Clarify	MH082	-See revised keyed note 1 for new boiler vents.
6	Clarify Add	MH1.12B MH6.01 MH6.03	-In Addendum #3 SA-8 was added to sheet MH1.12B but it was not added to the Sound Attenuator Schedule on sheet MH6.01. In Addendum #4 SA-8 is added to the Sound Attenuator Schedule. -Relocate Sound Attenuator Schedule from sheet MH6.01 to sheet MH6.03. -Add SA-9 thru SA-14 to Sound Attenuator Schedule on Sheet MH6.03. -Clarify note #1 on Sound Attenuator Schedule. -Clarify Make-up Air Fan Schedule. -Clarify pump schedule.
7	Add	233300	-Add duct material for dryer exhaust ductwork. See modification to specification section 233300 at the end of this narrative.
8	Add	MP1.10	-Add demolition of existing fan coil unit, storm louver, and associated ductwork.

Item No.	Add, Delete or Clarify	Specification Section or Drawing No.	Reference / Description:
9	Add	MH6.02	-Add VFD-31. -Add air device 62 and 63.
10	Clarify	MH1.11C	-See clarifications.
11	Clarify	235100	-See revised information for engine exhaust pipe material.
12	Add	MH051	-Pipe exhaust from generator to the roof of the Sorensen Student Center.
13	Clarify/Add	230900	-See revisions to controls specification at the end of this narrative.
14	Add		-Include two 24”x24 storm louvers, Ruskin ELF6375DX, two 2-position control dampers 24”x24”, and ventilation fan VF-1 for the fire pump room as part of the add-alternate that adds one floor of parking. Interlock with fire pump so dampers open and fan runs when pump is operating, and dampers close and fan turns off when pump is off. Fan is Cook model GC2000, 120/1 ph, with solid state speed controller. No drawings or graphical representation being issued at this time.
15	Add	MP1.11A MP1.11B MP1.11C	-Clarify piping.
16	Add	MH1.11A	-Change CUH-6 callout to UH-16.
17	Clarify	MP1.12A MP1.13A MP1.13B MP1.14A MP1.14B	-Clarify piping.
18	Clarify	MH1.14B	-Clarify ductwork.
19	Add	PL1.13B	-See plumbing modifications.

END OF MECHANICAL NARRATIVE FOR ADDENDUM NO. 4

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

ELECTRIC UNIT HEATER SCHEDULE (EUH)

PLAN CODE	ELECTRICAL TYPE	TOTAL KW	NO OF STEPS	VOLT/ PH	FAN HP	CFM (ALT)	MOUNTING	EAT (°F)	MANUFACTURER & MODEL NO	REMARKS
EUH-1	VERTICAL	2.6	1	277/1	1/30	360	OVERHEAD BRACKET	60	CHROMALOX HVH-02-71-00	PROVIDE WITH CONTACTOR, NO LINE-VOLTAGE THERMOSTAT.
EUH-2	VERTICAL	2.6	1	277/1	1/30	360	OVERHEAD BRACKET	60	CHROMALOX HVH-02-71-00	PROVIDE WITH CONTACTOR, NO LINE-VOLTAGE THERMOSTAT.

CABINET UNIT HEATER SCHEDULE (CUH)

PLAN CODE	AREA SERVED	CFM @ ELEV	MIN HEATING CAPACITY (MBH) (LOW SPD)	GPM	MAX WPD (FT)	EWT/ LWT (°F)	% PPG	EAT/ MAX LAT (°F)	MOTOR HP	MOTOR VOLT/ PH	MOUNTING	CONFIG	MAX DIMENSIONS W x H x D (IN)	MANUFACTURER & MODEL NO	REMARKS
CUH-1	VESTIBULE 228	350	6.4	1.4	2.5	100 / 85	0	70 / 90	.22	120/1	RECESSED WALL	INVERTED FLOW	27 x 26 x 10	TRANE MODEL "N" FFNB04	-
CUH-2	VESTIBULE P200E	350	6.4	NA	NA	NA / NA	NA	70 / 90	.22	208/1	WALL/FLOOR	- / -	40 x 26 x 10	TRANE MODEL "B" FFBB04	ELECTRIC HEAT COILS
CUH-3	STAIR-4 200D	600	8.1	1.2	0.4	100 / 85	0	70 / 90	.22	120/1	RECESSED WALL	INVERTED FLOW	43 x 27 x 10	TRANE MODEL "N" FFNB06	-
CUH-4	STAIR-2 100C	920	21.4	8.2	11.2	100 / 85	0	70 / 90	.22	120/1	RECESSED WALL	INVERTED FLOW	75 x 29 x 10	TRANE MODEL "N" FFNB12	-
CUH-5	STAIR-5 110D	550	7.1	1.1	1.7	100 / 85	0	70 / 90	.22	120/1	WALL/FLOOR	INVERTED FLOW	48 x 29 x 10	TRANE MODEL "M" FFMB06	FLOOR MOUNTED, BACK FLUSH TO WALL, WITH 4" BASE.
CUH-6	STAIR-8 110Q	550	6.9	1.0	1.5	100 / 85	0	70 / 90	.22	120/1	WALL/FLOOR	INVERTED FLOW	48 x 29 x 10	TRANE MODEL "M" FFMB06	FLOOR MOUNTED, BACK FLUSH TO WALL, WITH 4" BASE.

MAKE-UP AIR FAN (MAF)

PLAN CODE	AREA SERVED	TYPE	CFM @ ELEV	ESP @ ELEV	FAN RPM	MOTOR BHP	MOTOR HP	MOTOR EFFICIENCY %	MOTOR VOLT/ PH	SONES	DAMPER (GRAVITY OR MOTOR)	METHOD OF CONTROL	OPENING SIZE	MAX OPERATING WT (LBS)	MANUFACTURER & MODEL NO	REMARKS
MAF-1	DRYER 125G	INLINE CENTRIFUGAL	3,200	0.5	1612	1.01	1.5	PREMIUM	460/3	24	GRAVITY	VFD	20"X20"	225	COOK 150SQN-B	- -

FORCED DRAFT CONDENSING BOILER SCHEDULE (B)

PLAN CODE	MBH CAPACITY OUTPUT @ 4400 FT.	MBH CAPACITY INPUT @ SEA LEVEL	ASME PRESS. RATING (PSI)	OPERATING PRESSURE	MIN. EFFICIENCY % (*)	FLUE CATEGORY	FLUE SIZE	GPM	PRESS. DROP (FT.HD.)	MAX. SIZE LENGTH (IN)	MAX. SIZE WIDTH (IN)	MAX. SIZE HEIGHT (IN)	MAX. SIZE OPERATING WT.(LBS)	ELECTRICAL FLA	ELECTRICAL VOLTAGE & PHASE	MIN. GAS PRESSURE (IN. W.C.)	MAKE & MODEL	REMARKS
B-3	5,520	6,000	150	80	92	IV	14"	280	12	156	49	88	9,300	13	460/3	11	FULTON VANTAGE 6000	-
B-4	5,520	6,000	150	80	92	IV	14"	280	12	156	49	88	9,300	13	460/3	11	FULTON VANTAGE 6000	-

SOUND ATTENUATOR SCHEDULE (SA)

PLAN CODE	SYSTEM SERVED	CFM (ALT)	MAX VEL (FPM)	MAX PRESS DROP	MAX DIMENSIONS (1) LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	MAX OPERATING WT (LBS)	MANUFACTURER & MODEL NO	OCTAVE BAND HZ	1 (63)	2 (125)	3 (250)	4 (500)	5 (1000)	6 (2000)	7 (4000)	8 (8000)	POSITION OF BAFFLES
SA-1	RF-1	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-2	RF-2	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-3	RF-3	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-4	RF-4	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-5	RF-5	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-6	RF-6	13,000	1444	0.11	108 (1)	36	36	360	VIBRO-ACOUSTICS RED-UHV-FC-L13968	DIL	10	16	16	26	35	30	21	21	VERTICAL
SA-7	BOWLING ALLEY	2,100	727	0.08	144 (1)	26	16	300	VIBRO-ACOUSTICS RED-HV-F9-L14049	DIL	9	24	36	50	47	46	45	27	VERTICAL
SA-8	FC-1	8,100	1140	0.13	72	32	32	360	VIBRO-ACOUSTICS RD-MHV-FA-L14075	DIL	7	13	22	26	26	19	15	13	VERTICAL
SA-9	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL
SA-10	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL
SA-11	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL
SA-12	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL
SA-13	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL
SA-14	FC-1	1,350	540	0.02	36	26	14	360	VIBRO-ACOUSTICS RD-MHV-F3-L14075	DIL	3	6	10	15	15	13	10	8	VERTICAL

(1) LENGTH SHOWN FOR ELBOW SILENCERS IS CENTERLINE LENGTH.

CONTROL DAMPER SCHEDULE (CD)

PLAN CODE	SERVICE	TYPE	AIR FLOW VOLUME (CFM)	DIMENSIONS WIDTH (IN)	DIMENSIONS HEIGHT (IN)	MAX FACE VELOCITY (FPM)	METHOD OF CONTROL	BLADE ORIENTATION	MANUFACTURER & MODEL NO
CD-1	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-2	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-3	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-4	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-5	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-6	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-7	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-8	RETURN AIR	MOTORIZED/ 2-POSITION	9,100	36	30	1,215	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-9	RETURN AIR	MOTORIZED/ 2-POSITION	6,100	36	24	1,050	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-10	RETURN AIR	MOTORIZED/ 2-POSITION	6,100	36	24	1,050	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-11	RETURN AIR	MOTORIZED/ 2-POSITION	6,100	36	24	1,050	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-12	RETURN AIR	MOTORIZED/ 2-POSITION	6,100	36	24	1,050	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-13	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-14	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-15	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-16	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-17	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-18	AH-1 OUTSIDE AIR	MOTORIZED/ MODULATING	17,480	38	54	1,230	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-19	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-20	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-21	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-22	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-23	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-24	AH-1 RETURN AIR	MOTORIZED/ MODULATING	16,170	38	54	1,135	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-25	AH-2 OUTSIDE AIR	MOTORIZED/ MODULATING	15,350	40	44	1,260	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-26	AH-2 OUTSIDE AIR	MOTORIZED/ MODULATING	15,350	40	44	1,260	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-27	AH-2 OUTSIDE AIR	MOTORIZED/ MODULATING	15,350	40	44	1,260	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-28	AH-2 OUTSIDE AIR	MOTORIZED/ MODULATING	15,350	40	44	1,260	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-29	AH-2 OUTSIDE AIR	MOTORIZED/ MODULATING	15,350	40	44	1,260	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-30	AH-2 RETURN AIR	MOTORIZED/ MODULATING	17,750	30	60	1,420	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-31	AH-2 RETURN AIR	MOTORIZED/ MODULATING	17,750	30	60	1,420	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-32	AH-2 RETURN AIR	MOTORIZED/ MODULATING	17,750	30	60	1,420	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-33	AH-2 RETURN AIR	MOTORIZED/ MODULATING	17,750	30	60	1,420	ATC	PARALLEL BLADE	RUSKIN CD40X2 (1)
CD-34	ELEVATOR-C SHAFT 110B	MOTORIZED/ MODULATING	300	10	10	440	ATC	PARALLEL BLADE	RUSKIN CD60 (1)
CD-35	ELEVATOR-A SHAFT 200F	MOTORIZED/ MODULATING	300	8	6	900	ATC	PARALLEL BLADE	RUSKIN CD60 (1)
CD-36	ELEVATOR MACHINE ROOM 110V	MOTORIZED/ MODULATING	300	10	10	440	ATC	PARALLEL BLADE	RUSKIN CD60 (1)
CD-37	RF-1	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-38	RF-2	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-39	RF-3	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-40	RF-4	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-41	RF-5	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-42	RF-6	MOTORIZED/ 2-POSITION	13,000	36	36	1445	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-43	RF-7	MOTORIZED/ 2-POSITION	19,000	42	42	1555	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-44	RF-8	MOTORIZED/ 2-POSITION	19,000	42	42	1555	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)
CD-45	RF-9	MOTORIZED/ 2-POSITION	19,000	42	42	1555	ATC	OPPOSED BLADE	RUSKIN CD40X2 (1)

(1) PROVIDE END SWITCHES ON DAMPER.

JOB SITE ELEVATION = 4,500 FT
JOB SITE PRESSURE = 12.32 PSI
SELECT ALL EQUIPMENT FOR OPERATION AT JOB SITE ELEVATION
ALL MOTORS TO BE PREMIUM EFFICIENCY

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	ADDENDUM 2
2	05.09.2012	ADDENDUM 3
3	05.14.2012	ADDENDUM 4

LICENSED PROFESSIONAL ENGINEER No. 595106 Roger Lee Hamlet JR. 04-27-2011 State of Utah

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

THE GREAT SEAL OF THE STATE OF UTAH 1896

DRAWN BY: JMN
CHECKED BY: RLH
OWNER PROJECT NO.:
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 04.27.2012

MECHANICAL SCHEDULES

CONSTRUCTION DOCUMENTS

MH6.03

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

AIR DEVICE SCHEDULE

PLAN CODE / GRILLE CFM

PLAN CODE	TYPE & DUTY	FACE SIZE	NECK SIZE	CEILING TYPE (2)	MAX CFM	MAX TP (IN WC)	NC LEVEL MAX	MIN THROW (FT) (T50)	4-WAY MIN THROW (T50)	2-WAY MIN THROW (T50)	MANUFACTURER & MODEL NO	REMARKS
1	LINEAR-SUPPLY	24"L	6"Ø	MATCH CEILING	60	0.04	28	10	-	-	TEMP0 L.D.	1 @ 1" SLOT
2	LINEAR-SUPPLY	24"L	8"Ø	MATCH CEILING	120	0.05	29	11	-	-	TEMP0 L.D.	2 @ 1" SLOT
2A	LINEAR-SUPPLY	24"L	8"Ø	MATCH CEILING	120	0.05	29	10	-	10	TEMP0 L.D.	2 @ 1" SLOT, 2-WAY THROW
3	LINEAR-SUPPLY	24"L	8"Ø	MATCH CEILING	180	0.06	30	12	-	-	TEMP0 L.D.	3 @ 1" SLOT
4	LINEAR-SUPPLY	24"L	10"Ø	MATCH CEILING	240	0.06	31	13	-	-	TEMP0 L.D.	4 @ 1" SLOT
5	LINEAR-SUPPLY	48"L	8"Ø	MATCH CEILING	120	0.04	28	10	-	-	TEMP0 L.D.	1 @ 1" SLOT
6	LINEAR-SUPPLY	48"L	10"Ø	MATCH CEILING	240	0.04	29	11	-	-	TEMP0 L.D.	2 @ 1" SLOT
6A	LINEAR-SUPPLY	48"L	10"Ø	MATCH CEILING	240	0.04	29	10	-	10	TEMP0 L.D.	2 @ 1" SLOT, 2-WAY THROW
7	LINEAR-SUPPLY	48"L	12"ØL	MATCH CEILING	360	0.06	30	12	-	-	TEMP0 L.D.	3 @ 1" SLOT
8	LINEAR-SUPPLY	48"L	12"Ø	MATCH CEILING	480	0.06	31	13	-	-	TEMP0 L.D.	4 @ 1" SLOT
9	PERFORATED RETURN	24" X 24"	22" X 22"	MATCH CEILING	1200	0.05	17	-	-	-	TITUS PAR	-
10	PERFORATED RETURN	24" X 12"	22"X 10"	MATCH CEILING	600	0.06	10	-	-	-	TITUS PAR	-
13	PERFORATED EXHAUST GRILLE	8" X 8"	6" X 6"	MATCH CEILING	120	0.12	10	-	-	-	TITUS 8F	-
14	PERFORATED EXHAUST GRILLE	10" X 10"	8" X 8"	MATCH CEILING	225	0.12	12	-	-	-	TITUS 8F	-
15	PERFORATED EXHAUST GRILLE	12" X 12"	10" X 10"	MATCH CEILING	360	0.12	14	-	-	-	TITUS 8F	-
16	PERFORATED EXHAUST GRILLE	14" x 14"	12" X 12"	MATCH CEILING	550	0.12	16	-	-	-	TITUS 8F	-
21	RADIAL BLADE DIFFUSER	12"Ø	8"Ø	SURFACE	210	0.14	29	8 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
22	RADIAL BLADE DIFFUSER	15"Ø	10"Ø	SURFACE	330	0.14	29	10 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
23	RADIAL BLADE DIFFUSER	18"Ø	12"Ø	SURFACE	470	0.14	30	12 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
26	RADIAL BLADE DIFFUSER	24" X 24"	8"Ø	GRID	210	0.14	29	8 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
27	RADIAL BLADE DIFFUSER	24" X 24"	10"Ø	GRID	330	0.14	29	10 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
28	RADIAL BLADE DIFFUSER	24" X 24"	12"Ø	GRID	470	0.14	30	12 (1)	-	-	AIR DIFFUSION PRODUCTS DNR	-
31	ADJUSTABLE LOUVERED	24" X 24"	6"Ø	MATCH CEILING	170	0.13	25	ADJUSTABLE	11	18	TITUS TDCA	18" x 18" CORE
38	LINEAR BAR GRILLES	4" WIDE	NA	-	160/LF	0.09	28	21	-	-	PRICE LBMH 25B	GRILLE TO APPEAR CONTINUOUS
42	DRUM LOUVER	26" X 11"	24" X 8"	-	600	0.08	15	54	-	-	AIR CONCEPTS DL-C SERIES	-
43	DUCT MOUNTED PERFORATED GRILLE	14" X 6"	12" X 4"	-	180	0.1	-	21	-	-	AIR CONCEPTS DMPG SERIES	-
44	DUCT MOUNTED PERFORATED GRILLE	26" X 6"	24" X 4"	-	430	0.13	24	32	-	-	AIR CONCEPTS DMPG SERIES	-
45	LINEAR SUPPLY	48"	12"	MATCH CEILING	470	0.05	20	-	-	20	PRICE AS230	2 @ 3" SLOT (5)(3)
46	LINEAR SUPPLY	60"	8"	MATCH CEILING	330	0.02	-	-	-	14	PRICE AS220	2 @ 2" SLOT (5)(3)
47	LINEAR SUPPLY	60"	8"	MATCH CEILING	360	0.16	27	-	-	28	PRICE AS210	2 @ 1" SLOT (5)(3)(4)
48	LINEAR SUPPLY	48"	8"	MATCH CEILING	160	0.04	17	-	-	20	PRICE AS210	2 @ 1" SLOT (5)(3)
49	LINEAR SUPPLY	60"	6"	MATCH CEILING	150	.06	25	20	-	-	PRICE AS210	1 @ 1" SLOT (5)(3)
50	LINEAR SUPPLY	60"	8"	MATCH CEILING	210	0.05	26	16	-	-	PRICE AS215	1 @ 1.5" SLOT (5)(3)
51	LINEAR SUPPLY	48"	8"	MATCH CEILING	210	.07	16	26	-	-	PRICE AS215	1 @ 1.5" SLOT PROVIDE PRICE VCR8EC CONTROL DAMPER KIT AS NOTED ON DRAWINGS (5)(3)
52	LINEAR SUPPLY	48"	8"	MATCH CEILING	360	.04	-	-	-	26	PRICE AS215	2 @ 1.5" SLOT PROVIDE PRICE VCR8EC CONTROL DAMPER KIT AS NOTED ON DRAWINGS (5)(3)
53	LINEAR SUPPLY	48"	6"	SURFACE	480	0.06	24	32	-	-	PRICE AS210	1 @ 3" SLOT (5)(3)
54	LINEAR SUPPLY	48"	8"	MATCH CEILING	300	0.04	17	18	-	-	PRICE AS220	2 @ 2" SLOT (5)(3)
55	LINEAR SUPPLY	26" X 12"	24" X 10"	WALL MOUNTED	1,335	0.18	39	-	-	-	TITUS 300RS	-
56	LINEAR SUPPLY	48"	10"	WALL MOUNTED	280	0.01	-	-	-	-	PRICE AS225	2 @ 2.5" SLOT
57	LINEAR SUPPLY	60"	8"	WALL MOUNTED	300	0.08	17	21	-	-	PRICE AS215	2 @ 1.5" SLOT
58	LINEAR SUPPLY	60"	10	MATCH CEILING	440	0.03	-	-	-	11	PRICE AS230	2 @ 3" SLOT (5)(3)
59	LINEAR SUPPLY	48"	8"	MATCH CEILING	230	0.14	27	34	-	-	PRICE AS210	1 @ 1" SLOT (5)(3)
60	LINEAR SUPPLY	60"	6"	MATCH CEILING	280	0.07	-	-	-	19	PRICE AS215	1.5 @ 2" SLOT (5)(3)
61	LINEAR BAR GRILLES	(6)	NA	SEE BENCH DETAIL ON AE-506	300/LF	-	26	30	-	-	PRICE LBMH 25B	PROVIDE OBD
62	LINEAR SUPPLY	26" X 18"	24" X 16"	WALL MOUNTED	1,960	0.12	35	-	-	-	TITUS 300RS	- (1)
63	LINEAR SUPPLY	42" X 22"	40" x 20"	WALL MOUNTED	3,300	0.07	30	-	-	-	TITUS 300RS	-

(1) RECOMMENDED MINIMUM DISTANCE BETWEEN DIFFUSERS IN 9' CEILING.
(2) VERIFY FRAME TYPE OF ALL AIR DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN BEFORE ORDERING.
(3) SEE NOTES ON DRAWINGS FOR LOCATIONS WHERE SLOT DIFFUSERS MUST HAVE A CONTINUOUS FRAME.
(4) SEE NOTES ON DRAWINGS FOR DIRECTIONS ON CUSTOM PLENUM BOXES. CONTRACTOR IS RESPONSIBLE TO PROVIDE AN ADEQUATELY SIZED PLENUM.
(5) COMPATIBLE WITH TECHZONE CEILINGS AS REQUIRED.
(6) GRILLE IS 8" WIDE AND APPROXIMATELY 96" LONG. CONTRACTOR MUST FIELD VERIFY EXACT LENGTH OF GRILLE AND COORDINATE WITH OTHER DISCIPLINES. SEE BENCH DETAIL ON AE-506

FAN COIL UNIT SCHEDULE (FC)

PLAN CODE	CFM	ESP (IN WC)	FAN HP	VOLT/ PH	HEATING COIL CAPACITY (MBH)	HEATING COIL EAT/ LAT (°F)	HEATING COIL EWT/ LWT (°F)	HEATING COIL GPM	HEATING COIL WATER PD (FT)	HEATING COIL AIR PD (IN WC)	COOLING COIL CAPACITY (MBH)	COOLING COIL EAT (DB/ WB) (°F)	COOLING COIL LAT (DB/ WB) (°F)	COOLING COIL EWT/ LWT (°F)	COOLING COIL GPM	COOLING COIL WATER PD (FT)	COOLING COIL AIR PD (IN WC)	MAX DIMENSIONS LENGTH (IN)	MAX DIMENSIONS WIDTH (IN)	MAX DIMENSIONS HEIGHT (IN)	OPERATING WT (LBS)	MANUFACTURER & MODEL NO	ACCESSORIES
FC-1	8100	0.5	7.5	460/3	115	74/89	100/85	15.7	7	0.22	NA	NA	NA	NA	NA	NA	NA	55	60	102	2800	JOHNSON CONTROLS SOLUTION INDOOR AH	(2) - (3) -
FC-2	1800	0.5	2.3	460/3	NA	NA	NA	NA	NA	NA	29	72/59	55/54	48/62.5	4	9.0	1.11	86	43	22	800	AAON H3-BRA-3-0-26QA-000	- -
FC-3	3250	1.03	4	460/3	NA	NA	NA	NA	NA	NA	55	72/59	55/54	48/62.5	8	6.0	1.16	74	61	27	900	AAON H3-CRA-3-0-28HA-000	- -
FC-4	1200	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	19	72/59	55/53	48/63	2.6	1.9	0.13	33	58	17	290	ENVIRO-TEC HPP-16	- -
FC-5	2250	0.5	4	460/3	NA	NA	NA	NA	NA	NA	32	72/59	55/54	48/62.5	4.5	2.4	0.78	74	61	27	900	AAON H3-CRA-3-0-26HA-000	- -
FC-6	1200	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	19	72/59	55/53	48/63	2.6	1.9	0.13	33	58	17	290	ENVIRO-TEC HPP-16	- -
FC-7	1200	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	19	72/59	55/53	48/63	2.6	1.9	0.13	33	58	17	290	ENVIRO-TEC HPP-16	- -
FC-8	1200	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	19	72/59	55/53	48/63	2.6	1.9	0.13	33	58	17	290	ENVIRO-TEC HPP-16	- -
FC-9	1200	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	19	72/59	55/53	48/63	2.6	1.9	0.13	33	58	17	290	ENVIRO-TEC HPP-16	- -
FC-10	720	0.5	2 @ 1/3	115/1	18,000	72/90	100/85	2.6	1.2	.02	12	72/59	55/53	48/63	1.6	1.5	0.09	33	48	17	270	ENVIRO-TEC HPP-12	- -
FC-11	750	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	12	72/59	55/53	48/63	1.6	1.5	0.09	33	48	17	290	ENVIRO-TEC HPP-12	(1) PROVIDE WITH EMERGENCY BACK-UP POWER.
FC-12	750	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	12	72/59	55/53	48/63	1.6	1.5	0.09	33	48	17	290	ENVIRO-TEC HPP-12	(1) PROVIDE WITH EMERGENCY BACK-UP POWER.
FC-13	750	0.5	2 @ 1/3	115/1	NA	NA	NA	NA	NA	NA	12	72/59	55/53	48/63	1.6	1.5	0.09	33	48	17	290	ENVIRO-TEC HPP-12	(1) PROVIDE WITH EMERGENCY BACK-UP POWER.

(1) PROVIDE FAN COIL UNIT WITH EMERGENCY BACK-UP POWER.
(2) TOP RETURN INLET AND BOTTOM SUPPLY DISCHARGE.
(3) PROVIDE WITH FAN COIL UNIT MANUFACTURERS 18" SUPPORT FRAME AND VIBRATION ISOLATORS.

UNIT HEATER SCHEDULE (UH)

PLAN CODE	AREA SERVED	CFM (ALT)	HEATING CAP (MBH) (LOW SPD)	GPM	WPD (FT)	EWT/ LWT (°F)	% PPG	EAT (°F)	MOTOR HP	MOTOR VOLT/ PH	MOUNTING	MOUNTING HEIGHT TO BOTTOM OF HEATER	MANUFACTURER & MODEL NO	REMARKS
UH-1	3-COURT GYM STOR	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-2	3-COURT GYM STOR	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-3	3-COURT GYM STOR	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-4	3-COURT GYM STOR	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-5	3-COURT GYM STOR	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-6	STORAGE 400F	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-7	STORAGE 410	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-8	STORAGE 410	700	11.7	5.2	6.0	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A36	HORIZONTAL SPACE SAVING MODEL S
UH-9	MECH RM 400T	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-10	MECH RM 400T	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-11	STORAGE 125C	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-12	STORAGE 125C	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-13	STORAGE 125E	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-14	STORAGE 125E	2050	42.6	16.5	1.2	100/85	NONE	50	1/3	115/1	(1)	8'-0"	TRANE UHSB-180	HORIZONTAL SPACE SAVING MODEL S
UH-15	STORAGE 101A	245	1.6	0.8	0.8	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A08	HORIZONTAL SPACE SAVING MODEL S
UH-16	FIRE RISER 110E	245	1.6	0.8	0.8	100/85	NONE	50	1/20	115/1	(1)	8'-0"	TRANE UHSB-A08	HORIZONTAL SPACE SAVING MODEL S

(1) WALL BRACKET (2) HANG FROM CEILING OR ROOF STRUCTURE

VARIABLE FREQUENCY DRIVE SCHEDULE (VFD)

PLAN CODE	SERVICE	BYPASS	MAX AMBIENT TEMPERATURE (°F)	REMARKS
VFD-1	PUMP P-3	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-2	PUMP P-4	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-3	PUMP P-5	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-4	PUMP P-6	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-5	PUMP P-9	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-6	PUMP P-10	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-7	PUMP P-11	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-8	PUMP P-12	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-9	PUMP P-13	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-10	PUMP P-14	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-11	PUMP P-15	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-12	PUMP P-16	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-13	COOLING TOWER CT-1	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-14	COOLING TOWER CT-2	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-15	AH-1 SUPPLY FANS SF-1/SF-2	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-16	AH-1 SUPPLY FANS SF-3/SF-4	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-17	AH-1 SUPPLY FANS SF-5/SF-6	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-18	AH-1 SUPPLY FANS SF-7/SF-8	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-19	AH-2 SUPPLY FANS SF-9/SF-10	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-20	AH-2 SUPPLY FANS SF-11/SF-12	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-21	AH-2 SUPPLY FANS SF-13/SF-14	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-22	RELIEF FAN RF-1	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-23	RELIEF FAN RF-2	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-24	RELIEF FAN RF-3	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-25	RELIEF FAN RF-4	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-26	RELIEF FAN RF-5	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-27	RELIEF FAN RF-6	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-28	RELIEF FAN RF-7	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-29	RELIEF FAN RF-8	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-30	RELIEF FAN RF-9	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT
VFD-31	MAKE-UP AIR FAN MAF-1	NONE	105	PASSWORD PROTECTED KEYPAD, LOCKING DISCONNECT

VAV

PLAN CODE / BOX NO. / MAX COOLING CFM / MIN CFM

PLAN CODE	INLET SIZE (IN)	DESIGN INLET SP (IN WC)	MAX COOLING AIR FLOW (CFM)	MAX HEATING AIR FLOW (CFM)	MAX NC	MIN CONTROL (CFM)	MAX SP DROP (IN WC COOLING)	USE WITH REHEAT COIL
6C	6	1.0	500	NA	34	80	0.22	NONE/ COOLING ONLY
6I	6	1.0	500	360	34	80	0.22	RH-1
6E	6	1.0	500	500	34	80	0.22	RH-2
8C	8	1.0	800	NA	33	150	0.05	NONE/ COOLING ONLY
8I	8	1.0	900	450	33	150	0.05	RH-3
8E	8	1.0	800	800	33	150	0.05	RH-4
10C	10	1.0	1400	NA	34	230	0.05	NONE/ COOLING ONLY
10I	10	1.0	1400	700	34	230	0.05	RH-5
10E	10	1.0	1400	1400	34	230	0.05	RH-6
12C	12	1.0	1600	NA	34	325	0.05	NONE/ COOLING ONLY
12I	12	1.0	1600	900	34	325	0.05	RH-7
12E	12	1.0	1600	1600	34	325	0.05	RH-8
14C	14	1.0	2500	NA	35	450	0.07	NONE/ COOLING ONLY
14I	14	1.0	2500	1250	35	450	0.07	RH-9
14E	14	1.0	2500	2500	35	450	0.07	RH-10

RE-HEAT COIL SCHEDULE (RH)

PLAN CODE	VAV BOX SERVED	CFM @ ELEV.	MBH	FV (FPM)	AIR SIDE EAT/LAT (ºF)	AIR SIDE MAX AIR PD (IN WC)	WATER SIDE EWT/LWT (ºF)	WATER SIDE GPM	WATER SIDE MAX PD (F0)	COIL FACE MAX DIMENSIONS (H" x W")	ROWS/ FINS PER IN	MANUFACTURER & MODEL NO.
RH-1	6I	360	11.6	247	54/88	0.1	100/85	1.6	2.4	10.5 x 20	3/10	TEMTROL 5WC-20-10.5X20X3-10AL
RH-2	6E	500	16.7	343	54/88	0.18	100/85	2.3	6.0	10.5 x 20	4/9	TEMTROL 5WC-28-10.5X20X4-9AL
RH-3	8I	450	14.8	246	54/88	0.1	100/85	2.0	4.4	12 x 22	3/10	TEMTROL 5WC-24-12X22X3-10AL
RH-4	8E	800	29.5	416	54/88	0.28	100/85	4.0	3.3	12 x 26	4/10	TEMTROL 5WC16-12X26X4-10AL
RH-5	10I	700	22.5	216	54/88	0.07	100/85	3.1	0.8	18 x 26	3/10	TEMTROL 5WC-12-18X26X3-10AL
RH-6	10E	1400	46.9	431	54/88	0.3	100/85	6.4	11.1	18 x 26	4/10	TEMTROL 5WC-24-18X26X4-10AL
RH-7	12I	900	29.3	258	54/88	0.1	100/85	4.0	3.8	18 x 28	3/10	TEMTROL 5WC-18-18X28X3-10AL
RH-8	12E	1600	52.7	427	54/88	0.3	100/85	7.1	5.0	18 x 30	4/10	TEMTROL 5WC-16-18X30X4-10AL
RH-9	14I	1250	40.5	257	54/88	0.1	100/85	5.5	2.9	19.5 x 36	3/10	TEMTROL 5WC-12-19.5X36X3-10AL
RH-10	14E	2500	83.3	429	54/88	0.3	100/85	11.2	7.4	21 x 40	4/10	TEMTROL 5WC-14-21X40X4-10AL
RH-11	16E	3500	111.8	467	54/88	0.3	100/85	15	4.2	22.5 x 48	4/10	TEMTROL 5WC-8-22.5X48X4-10AL

JOB SITE ELEVATION = 4,500 FT
JOB SITE PRESSURE = 12.32 PSI
SELECT ALL EQUIPMENT FOR OPERATION AT JOB SITE ELEVATION
ALL MOTORS TO BE PREMIUM EFFICIENCY

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4

Roger Lee Hamlet JR. 04-27-2011 State of Utah

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY: JMN
CHECKED BY: RLH
OWNER PROJECT NO.:
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 04.27.2012

MECHANICAL SCHEDULES

CONSTRUCTION DOCUMENTS

MH6.02

AIR HANDLING UNIT SCHEDULE (AH)

PLAN CODE	AREA SERVED	MANUFACTURER MODEL	WEIGHT LBS	SUPPLY FAN											HEATING COIL											COOLING COIL														AIR WASHER										PRE-FILTER			REMARKS	CONTROL
				TYPE	DIA	CLASS	CFM AT ELEV	TSP (SL)	BHP	MOTOR EFF	HP (1)	RPM	VOLT/ PH	SPEED CONTROL	CFM AT ELEV	MBH SEN	TOTAL GPM	% PG	WPD (FT)	EWT (ºF)	EAT (ºF)	LAT (ºF)	ROWS / FPF	AIR PD (IN MAX)	COIL SIZE	CFM AT ELEV	MBH SEN	MBH TOTAL	TOTAL GPM	% PG	WPD (FT)	EWT (ºF)	EAT (dbºF)	EAT (wbºF)	LAT (dbºF)	LAT (wbºF)	AIR PD (IN MAX)	ROWS / FPI	COIL SIZE	MAX AIR VEL (FPM)	AIR PD (IN MAX)	MEDIA DEPTH (IN)	SATURATION EFF %	PUMP GPM	PUMP HP	PUMP VOLT/ PH	MAX SIZE (IN) DEPTH	MAX SIZE (IN) WIDTH	MAX SIZE (IN) HEIGHT	MAX VEL	% EFF	TYPE		
AH-1	NORTH MECHANICAL RM	UNITECH -	72,600	BLOW THRU	27	II	104,860	6.5	8 @ 17.4	PREMIUM	8 @ 25	1914	480 / 3	VFD	29,519	1,217	228	25	4.0	98	15	54	1 / 11	0.02	6 @ 43.5 x 108	(2) 100,720	1,550	2,197	360	0	8.8	48	71.6	62.5	54.6	54.5	0.76	8 / 8	6 @ 43.5 x 108	480	0.22	12	90	40	0.5	120/1	12	237	123	350	MERV-13	V-BANK -	PROVIDE BACKDRAFT DAMPER FOR EACH FAN	VFD
AH-2	SOUTH MECHANICAL RM	UNITECH -	58,600	BLOW THRU	27	II	76,750	6.5	6 @ 17.0	PREMIUM	6 @ 20	1898	480 / 3	VFD	22,014	692	132	25	7.1	98	23	54	1 / 8	0.01	6 @ 40.5 X 94	(3) 73,720	1,166	1,689	270	0	12.5	48	71.6	62.5	54.2	54.0	0.65	8 / 8	6 @ 40.5 x 94	440	0.22	12	90	35	0.5	120/1	12	205	114	350	MERV-13	V-BANK -	PROVIDE BACKDRAFT DAMPER FOR EACH FAN	VFD

(1) PROVIDE FAN ARRAY.
(2) AIRFLOW AT DESIGN ENTERING CONDITIONS RESULTS IN 97,000 CFM LEAVING THE AIR HANDLER.
(3) AIRFLOW AT DESIGN ENTERING CONDITIONS RESULTS IN 71,000 CFM LEAVING THE AIR HANDLER.

AIR HANDLING UNIT SCHEDULE CONT'D (AH)

PLAN CODE	INDIRECT COOLING COIL									
	CFM AT ELEV	MBH SEN	TOTAL GPM	% PG	WPD (FT)	EWT (ºF)	LAT (ºF)	ROWS / FPF	AIR PD (IN MAX)	COIL SIZE
AH-1	(2) 104,860	2,647	1050	0	12.5	66	68.8	8 / 8	0.61	6 @ 43.5 x 108
AH-2	(3) 76,750	1,941	720	0	6.1	66	68.7	8 / 8	0.52	6 @ 40.5 x 94

COOLING TOWER SCHEDULE (CT)

PLAN CODE	FLOW RATE (GPM)	MIN. FLOW RATE (GPM)	TOTAL HEAT REJECTED (MBH)	EWT (ºF)	LWT (ºF)	OSA wb (ºF)	NO. OF CELLS	MIN FAN EFF (%)	ELECTRICAL				MAXIMUM DIMENSIONS			MAX. OPERATING WEIGHT (LBS)	MANUFACTURER & MODEL NO	REMARKS
									MOTOR HP	CONTROL	SUMP HEATERS (KW)	VOLTAGE/ PHASE	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)			
CT-1	1,100	500	3,570	72.5	66	63	1	PREMIUM	40	VFD	2 @ 6KW	460/3	217	144	201	26,000	BAC PT2-1218A-3O1	304 STAINLESS STEEL BASIN
CT-2	750	400	2,430	72.5	66	63	1	PREMIUM	40	VFD	2 @ 4KW	460/3	144	144	192	15,000	BAC PT2-1212A-3N1	304 STAINLESS STEEL BASIN

PUMP SCHEDULE (P)

PLAN CODE	TYPE	DUTY	FLOW (GPM)	PRESSURE (FT)	CONTROL	PUMP SPEED (RPM)	MIN EFF (%)	FLUID	MOTOR			PUMP AND MOTOR WT (LBS)	MANUFACTURER & MODEL NO	REMARKS
									LOAD (BHP)	HP	VOLTAGE/ PHASE			
P-1	END SUCTION	COOLING TOWER N. MECH RM	1,050	45	CONSTANT	1750	PREMIUM	FW	19.4	25	460/3	2500 (W/ INERTIA BASE)	BELL & GOSSETT 1531 6G	(3)
P-2	END SUCTION	COOLING TOWER N. MECH RM	1,050	45	CONSTANT	1750	PREMIUM	FW	19.4	25	460/3	2500 (W/ INERTIA BASE)	BELL & GOSSETT 1531 6G	(3)
P-3	END SUCTION	CHILLED WATER N. MECH RM	360	30	VFD	1750	PREMIUM	FW	3.5	5	460/3	1150 (W/ INERTIA BASE)	BELL & GOSSETT 1531 4AC	(1)
P-4	END SUCTION	CHILLED WATER N. MECH RM	360	30	VFD	1750	PREMIUM	FW	3.5	5	460/3	1150 (W/ INERTIA BASE)	BELL & GOSSETT 1531 4AC	(1)
P-5	END SUCTION	HEATING WATER N. MECH RM	560	45	VFD	1750	PREMIUM	FW	16.2	20	460/3	1540 (W/ INERTIA BASE)	BELL & GOSSETT 1531 3AC	(1)
P-6	END SUCTION	HEATING WATER N. MECH RM	560	45	VFD	1750	PREMIUM	FW	16.2	20	460/3	1540 (W/ INERTIA BASE)	BELL & GOSSETT 1531 3AC	(1)
P-7	END SUCTION	COOLING TOWER S. MECH RM	720	45	CONSTANT	1750	PREMIUM	FW	10.7	15	460/3	2100 (W/ INERTIA BASE)	BELL & GOSSETT 1531 5BC	(1)
P-8	END SUCTION	COOLING TOWER S. MECH RM	720	45	CONSTANT	1750	PREMIUM	FW	10.7	15	460/3	2100 (W/ INERTIA BASE)	BELL & GOSSETT 1531 5BC	(1)
P-9	INLINE	CHILLED WATER S. MECH RM	270	30	VFD	1750	PREMIUM	FW	2.8	3	460/3	280	BELL & GOSSETT 80 4X4X7	(1)
P-10	INLINE	CHILLED WATER S. MECH RM	270	30	VFD	1750	PREMIUM	FW	2.8	3	460/3	280	BELL & GOSSETT 80 4X4X7	(1)
P-11	END SUCTION	HEATING WATER S. MECH RM	320	45	VFD	1750	PREMIUM	FW	5.3	7.5	460/3	1100 (W/ INERTIA BASE)	BELL & GOSSETT 1531 3BC	(1)
P-12	END SUCTION	HEATING WATER S. MECH RM	320	45	VFD	1750	PREMIUM	FW	5.3	7.5	460/3	1100 (W/ INERTIA BASE)	BELL & GOSSETT 1531 3BC	(1)
P-13	INLINE	IT CLOSET FAN COIL UNITS N. MECH RM	25	28	VFD	1750	PREMIUM	FW	0.6	1	460/3	200	BELL & GOSSETT 80 2X2X7	(1)
P-14	INLINE	IT CLOSET FAN COIL UNITS N. MECH RM	25	28	VFD	1750	PREMIUM	FW	0.6	1	460/3	200	BELL & GOSSETT 80 2X2X7	(1)
P-15	INLINE	IT CLOSET FAN COIL UNITS S. MECH RM	25	28	VFD	1750	PREMIUM	FW	0.6	1	460/3	200	BELL & GOSSETT 80 2X2X7	(1)
P-16	INLINE	IT CLOSET FAN COIL UNITS S. MECH RM	25	28	VFD	1750	PREMIUM	FW	0.6	1	460/3	200	BELL & GOSSETT 80 2X2X7	(1)
P-17	INLINE	AH-1 PRE-HEAT COIL	230	30	CONSTANT	1750	PREMIUM	25% PG	2.5	3	460/3	280	BELL & GOSSETT 80 4X4X7	(1)
P-18	INLINE	AH-1 PRE-HEAT COIL	230	30	CONSTANT	1750	PREMIUM	25% PG	2.5	3	460/3	280	BELL & GOSSETT 80 4X4X7	(1)
P-19	INLINE	AH-2 PRE-HEAT COIL	130	30	CONSTANT	1750	PREMIUM	25% PG	1.6	2	460/3	250	BELL & GOSSETT 80 2-1/2X2-1/2X7	(1)
P-20	INLINE	AH-2 PRE-HEAT COIL	130	30	CONSTANT	1750	PREMIUM	25% PG	1.6	2	460/3	250	BELL & GOSSETT 80 2-1/2X2-1/2X7	(1)
P-21	INLINE	ELEV EQUIPMENT RM	1.6	15	CONSTANT	2650	PREMIUM	FW	0.08	-	120/1	15	BELL & GOSSETT PL-30	
P-22	INLINE	ELEV EQUIPMENT RM	1.6	15	CONSTANT	2650	PREMIUM	FW	0.08	-	120/1	15	BELL & GOSSETT PL-30	
P-23	INLINE	ELEV EQUIPMENT RM	1.6	15	CONSTANT	2650	PREMIUM	FW	0.08	-	120/1	15	BELL & GOSSETT PL-30	
BCP-3	END SUCTION	COMP SCIENCE EQUIPMENT RM	280	30	CONSTANT	1750	PREMIUM	FW	2.8	3	460/3	770	BELL & GOSSETT 1531 3AC	
BCP-4	END SUCTION	COMP SCIENCE EQUIPMENT RM	280	30	CONSTANT	1750	PREMIUM	FW	2.8	3	460/3	770	BELL & GOSSETT 1531 3AC	
P-24	INLINE	ELEV EQUIPMENT RM	1.6	15	CONSTANT	2650	PREMIUM	FW	0.08	-	120/1	15	BELL & GOSSETT PL-30	
P-25	INLINE	ELEV EQUIPMENT RM	1.6	15	CONSTANT	2650	PREMIUM	FW	0.08	-	120/1	15	BELL & GOSSETT PL-30	

(1) PROVIDE MAXIMUM IMPELLER.

LOUVER SCHEDULE (L)

PLAN CODE	CFM	MAXIMUM VELOCITY (FPM)	MINIMUM FREE AREA (SQ FT)	MAXIMUM DIMENSIONS (W x H) (IN)	MANUFACTURER & MODEL NO
L-1	50	170	0.31	12" x 12"	RUSKIN ELF6375DX
L-2	26,215	1125	23.3	120" x 48"	RUSKIN ELF6375DX
L-3	26,215	1125	23.3	120" x 48"	RUSKIN ELF6375DX
L-4	26,215	1125	23.3	120" x 48"	RUSKIN ELF6375DX
L-5	26,215	1125	23.3	120" x 48"	RUSKIN ELF6375DX
L-6	300	620	.49	18" x 12"	RUSKIN ELF6375DX

RELIEF FAN SCHEDULE (RF)

PLAN CODE	SYSTEM SERVED	TYPE	CFM @ ELEV	ESP @ ELEV (IN WC)	FAN RPM	MOTOR					OCTAVE BAND	SOUND PERFORMANCE DATA								AIR VOLUME CONTROL	METHOD OF CONTROL	FAN DIAMETER (IN)	OPERATING WEIGHT (LBS)	MANUFACTURER & MODEL NO	REMARKS
						HP	BHP	EFF	RPM	VOLTAGE/ PHASE	HZ	1 (63)	2 (125)	3 (250)	4 (500)	5 (1K)	6 (2K)	7 (4K)	8 (8K)						
RF-1	AH-1 BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-2	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-3	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-4	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-5	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-6	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	13,000	1.0	871	5	4.7	PREMIUM	1725	460/3	INLET	88	93	91	86	78	75	69	63	ATC/VFD	ATC SYSTEM/ DUCT STATIC	54	360	COOK 300 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-7	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	19,000	0.75	397	5	4.4	PREMIUM	1725	460/3	INLET	88	87	82	75	71	65	59	55	ATC/VFD	ATC SYSTEM/ DUCT STATIC	76	1100	COOK 490 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-8	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	19,000	0.75	397	5	4.4	PREMIUM	1725	460/3	INLET	88	87	82	75	71	65	59	55	ATC/VFD	ATC SYSTEM/ DUCT STATIC	76	1100	COOK 490 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER
RF-9	BUILDING RELIEF	BELT DRIVE CENTRIFUGAL UPBLAST	19,000	0.75	397	5	4.4	PREMIUM	1725	460/3	INLET	88	87	82	75	71	65	59	55	ATC/VFD	ATC SYSTEM/ DUCT STATIC	76	1100	COOK 490 ACRUB	PROVIDE WITH ROOF CURB, BACKDRAFT DAMPER

PLATE-AND-FRAME HEAT EXCHANGER SCHEDULE (HX)

PLAN CODE	SYSTEM SERVED	CAPACITY (MBH)	HOT				COLD				WEIGHT (LB)	MANUFACTURER & MODEL NO
			FLOW (GPM)	EWT / LWT (ºF)	PD (FT)	FLUID	FLOW (GPM)	EWT / LWT (ºF)	PD (FT)	FLUID		
HX-1	AH-1 PRE-HEAT COILS	1,195	228	100 / 85	10	WATER	228	83 / 98	10	25% PG	3,100	BELL & GOSSETT GPX AP47
HX-2	AH-2 PRE-HEAT COILS	944	132	100 / 85	5	WATER	132	83 / 98	5	25% PG	4,000	BELL & GOSSETT GPX AP62

IN-LINE SOLIDS SEPARATOR SCHEDULE (ISS)

PLAN CODE	SYSTEM SERVED	PUMP FLOW (GPM)	PUMP HEAD (FT)	INLET/ OUTLET PIPE SIZE (IN)	ELECTRICAL		MAX DIMENSIONS L x W x H (IN)	MAX OPERATING WEIGHT (LBS)	MANUFACTURER & MODEL NO	REMARKS
					VOLTAGE/ PHASE	AMPS				
ISS-1	CT-1	70	60	2.5 / 2.0	460/3	4.8	27 x 30 x 53	500	GRISWOLD CSS-201-LH	PROVIDE WITH CONTACTOR FOR REMOTE START/STOP, PURGE VALVE FURNISEHD BY 232500 CONTRACTOR
ISS-2	CT-2	42	40	2.0 / 2.0	460/3	4.8	27 x 30 x 53	500	GRISWOLD CSS-201-LH	PROVIDE WITH CONTACTOR FOR REMOTE START/STOP, PURGE VALVE FURNISEHD BY 232500 CONTRACTOR

EXHAUST FAN SCHEDULE (EF)

PLAN CODE	AREA SERVED	TYPE	CFM @ ELEV	ESP @ ELEV	FAN RPM	MOTOR				SONES	DAMPER (GRAVITY OR MOTOR)	METHOD OF CONTROL	OPENING SIZE	MAX OPERATING WT (LBS)	MANUFACTURER & MODEL NO	REMARKS
						BHP	HP	EFFICIENCY %	VOLT/ PH							
EF-1	DEMO KITCHEN	UPBLAST CENTRIFUGAL	2,400	1.0	1093	0.75	1.0	PREMIUM	460/3	13.1	GRAVITY	ATC	26"X26"	210	COOK VCR 180V6B	-
EF-2	RESTROOMS LEVELS 3 & 4	UPBLAST CENTRIFUGAL	1200	1.0	1725	.46	0.5	PREMIUM	115/1	14.6	GRAVITY	ATC	24"X24"	150	COOK ACRUD-HP 150RH17D	-
EF-3	RESTROOMS LEVELS 1 & 2	UPBLAST CENTRIFUGAL	2,400	1.0	1093	0.75	1.0	PREMIUM	460/3	13.1	GRAVITY	ATC	26"X26"	210	COOK VCR 180V6B	-
EF-4	DEMO KITCHEN	UPBLAST CENTRIFUGAL	2,400	1.0	1093	0.75	1.0	PREMIUM	460/3	13.1	GRAVITY	ATC	26"X26"	210	COOK VCR 180V6B	-
EF-5	EMPLOYEE LOUNGE 208	INLINE CENTRIFUGAL	50	1.0	2144	0.13	1/6	PREMIUM	460/3	12.1	GRAVITY	ATC	12"X12"	125	COOK 60SQN-B	-
EF-6	ELEC MAIN 110Y	INLINE CENTRIFUGAL	75	0.3	1000	46 WATTS	-	PREMIUM	115/1	1.4	GRAVITY	PROVIDE LINE VOLTAGE THERMOSTAT	6"x6"	20	COOK GN-142	-
EF-7	LAUNDRY 125F	INLINE CENTRIFUGAL	480	0.5	2854	0.38	1/2	PREMIUM	115/1	25	GRAVITY	ATC	12"x12"	135	COOK 70SQN-B	PROVIDE WITH SOLID STATE SPEED CONTROLLER.
EF-8	ELEC 200K	INLINE CENTRIFUGAL	850	.3	904	208 WATTS	-	PREMIUM	115/1	2.0	GRAVITY	PROVIDE LINE VOLTAGE THERMOSTAT	20"x6"	90	COOK GN-822	-
EF-9	ELEVATOR A	INLINE CENTRIFUGAL	300	.5	1200	108 WATTS	-	PREMIUM	115/1	2.0	GRAVITY	ATC	8"x6"	40	COOK GN-520	DIRECT DRIVE MOTOR. PROVIDE WITH SOLID STATE SPEED CONTROLLER.
EF-10	ELEVATOR RM 110V	INLINE CENTRIFUGAL	300	.5	1200	108 WATTS	-	PREMIUM	115/1	2.0	GRAVITY	ATC	8"x6"	40	COOK GN-520	DIRECT DRIVE MOTOR. PROVIDE WITH SOLID STATE SPEED CONTROLLER.

AIR SEPARATOR (AS)

PLAN CODE	SYSTEM SERVED	CONNECTION SIZE	MAX GPM	PD (FT)	MAX DIMENSIONS (IN)			DRY WT (LBS)	MAX OPER WT (LBS)	MANUFACTURER & MODEL NO
					DIAMETER	HEIGHT	FLANGE TO FLANGE			
AS-1	AH-1 CHILLED WATER	6"	360	0.5	12.8	30.6	27.7	450	620	SPIROVENT SENIOR
AS-2	AH-2 CHILLED WATER	3"	270	0.5	8.6	23.7	20.2	115	175	SPIROVENT SENIOR
AS-3	AH-1 HEATING WATER	8"	560	0.5	16	38.4	33.6	430	710	SPIROVENT SENIOR
AS-4	AH-2 HEATING WATER	6"	320	0.5	12.8	30.6	27.7	450	620	SPIROVENT SENIOR
AS-5	AH-1 PRE-HEAT COIL	2 1/2"	230	0.5	6.3	19	15.7	70	95	SPIROVENT SENIOR
AS-6	AH-2 PRE-HEAT COIL	2"	130	0.5	6.3	19	15.2	60	80	SPIROVENT SENIOR

LOUVERED PENTHOUSE SCHEDULE (LPH)

PLAN CODE	FUNCTION	THROAT SIZE			MINIMUM FREE AREA (SQ FT)	MANUFACTURER & MODEL NO
		LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)		
LPH-1	INTAKE	24	24	24	5.67	RUSKIN PHB6375DXD
LPH-2	EXHAUST	108	18	18	14.22	RUSKIN PHB6375DXD
LPH-3	EXHAUST	114	48	36	44.68	RUSKIN PHB6375DXD
LPH-4	INTAKE	114	30	24	24.06	RUSKIN PHB6375DXD

EXPANSION TANK SCHEDULE (ET)

PLAN CODE	SYSTEM SERVED	WATER TEMP (°F)	% GLYCOL	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	PRE-CHARGE (PSI)	MAX DIMENSIONS			MANUFACTURER & MODEL NO	REMARKS
							DIA (IN)	HEIGHT (IN)	OPERATING WT (LBS)		
ET-1	AH-1 CHILLED WATER	48	0	8.0	2.4	14	12	19	130	AMTROL AX-15	1/2" NPT CONNECTION
ET-2	AH-2 CHILLED WATER	48	0	8.0	2.4	14	12	19	130	AMTROL AX-15	1/2" NPT CONNECTION
ET-3	AH-1 HEATING WATER	100	0	68	34.0	14	24	41	950	AMTROL AX-120V	1" NPT CONNECTION
ET-4	AH-2 HEATING WATER	100	0	68	34.0	14	24	41	950	AMTROL AX-120V	1" NPT CONNECTION
ET-5	AH-1 PRE-HEAT COIL	98	25	21.7	11.3	14	16	29	310	AMTROL AX-40V	1/2" NPT CONNECTION
ET-6	AH-2 PRE-HEAT COIL	98	25	8.0	2.4	14	12	19	130	AMTROL AX-15	1/2" NPT CONNECTION

JOB SITE ELEVATION = 4,500 FT
JOB SITE PRESSURE = 12.32 PSI
SELECT ALL EQUIPMENT FOR OPERATION AT JOB SITE ELEVATION
ALL MOTORS TO BE PREMIUM EFFICIENCY

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	ADDENDUM 2
2	05.09.2012	ADDENDUM 3
3	05.14.2012	ADDENDUM 4

NO. 595406 Roger Lee Hamlet JR. 04-27-2011 State of Utah

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY: JMN
CHECKED BY: RLH
OWNER PROJECT NO.:
GSBS PROJECT NO.: 2011.045.00
ISSUED DATE: 04.27.2012

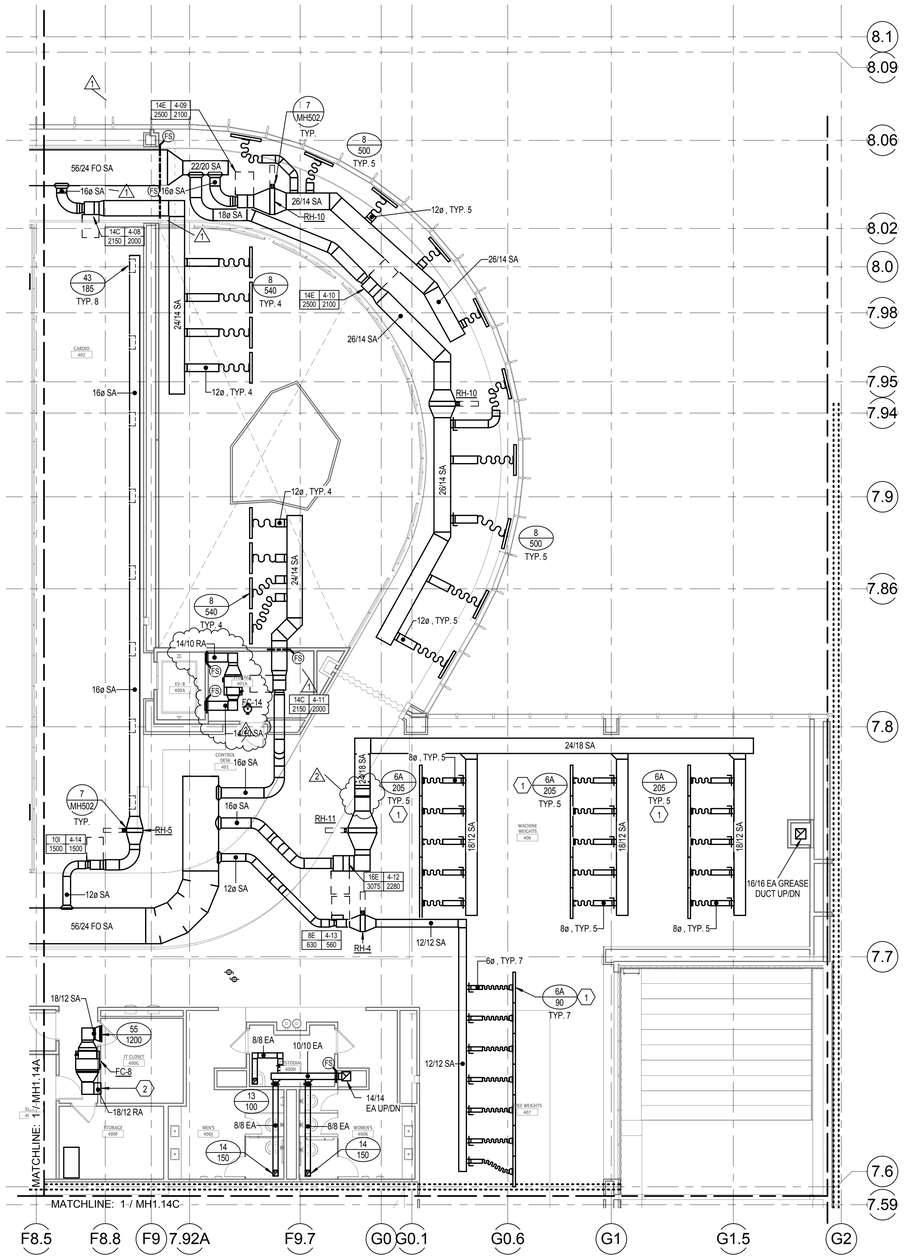
MECHANICAL SCHEDULES

CONSTRUCTION DOCUMENTS

MH6.01

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 4 - MECHANICAL ZONE B

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1. LINEAR SLOT DIFFUSERS MUST BE CONTINUOUS. COORDINATE WITH ARCHITECT FOR FINISH AND ARCHITECTURAL APPEAL.
2. PROVIDE GALVANIZED WIRE MESH SCREEN AT END OF DUCT. SECURE WITH SCREWED FLANGED FRAME.

GENERAL NOTES

A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

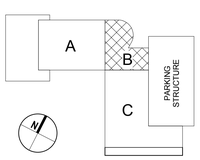
E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

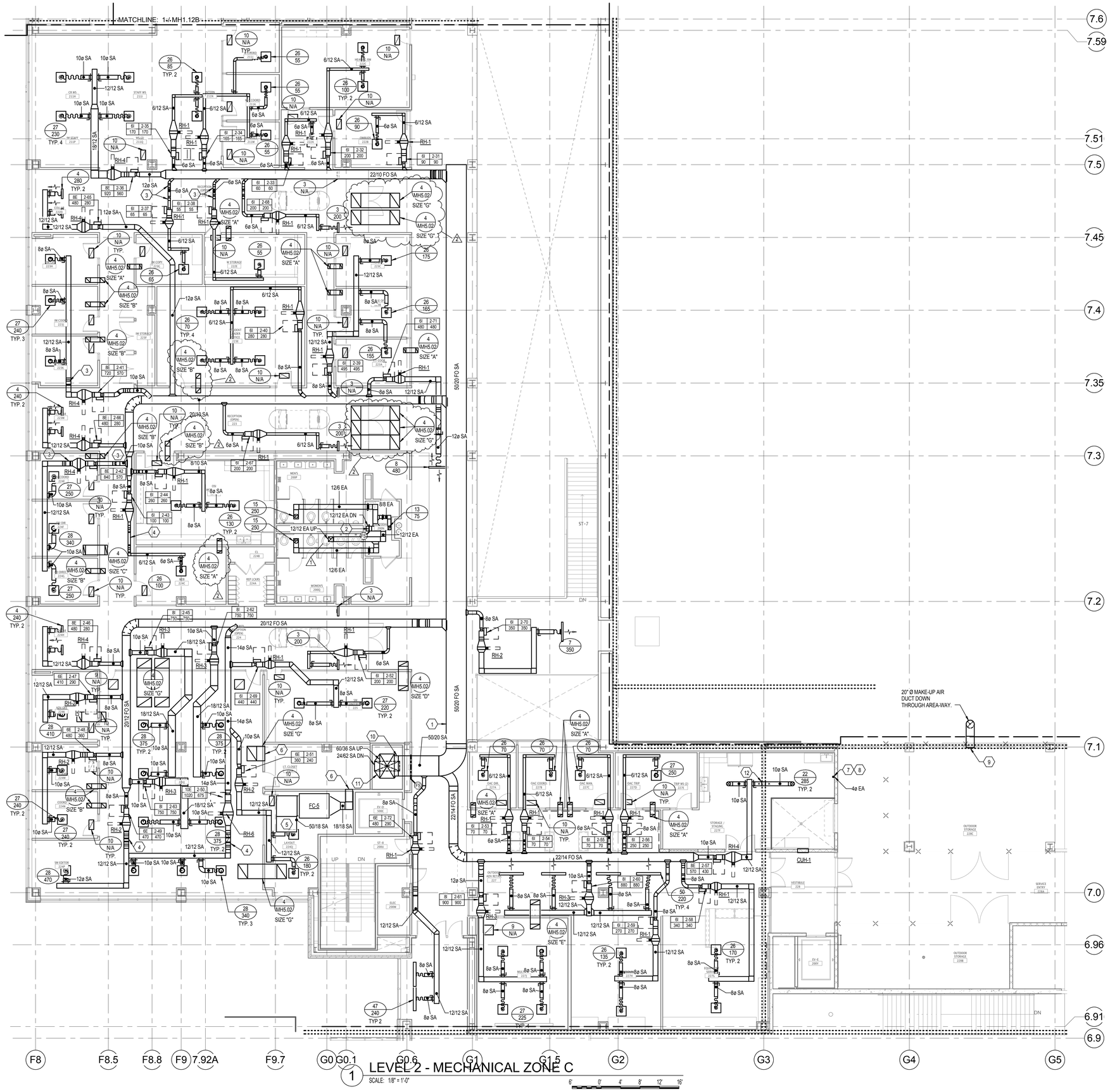
MECHANICAL FLOOR PLAN LEVEL 4 ZONE B

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

MH1.14B

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 2 - MECHANICAL ZONE C

SCALE: 1/8" = 1'-0"

KEYED NOTES

1. DOUBLE WALL SUPPLY AIR DUCT EXTENDS FROM DISCHARGE OF AIR HANDLER AH-2, DOWN THE MECHANICAL SHAFT, THROUGH FLOOR TAKE-OFF DUCTS, THROUGH THE LONG SWEEP ELBOW, AND TWO FEET PAST THE ELBOW.
2. INSTALL FIRE/SMOKE DAMPER IN EXHAUST DUCT AT SLAB PENETRATION. ACTUATOR MUST BE ACCESIBLE.
3. PROVIDE ELBOWS AND OFFSETS AS NECESSARY TO OFFSET AROUND REHEAT PIPING.
4. PROVIDE OFFSETS IN DUCT AS REQUIRED TO AVOID CONFLICT WITH ROOF DRAIN PIPING. COORDINATE IN FIELD.
5. PROVIDE 44"X20" OPENING IN TOP OF LINED RETURN AIR DUCT.
6. PROVIDE GALVANIZED WIRE MESH SCREEN AT END OF DUCT. SECURE WITH SCREWED FLANGED FRAME.
7. CONNECT DRYER EXHAUST TO DUCT. INSTALL ACCESSIBLE CLEANOUT IN DUCTWORK.
8. ROUTE DRYER EXHAUST DUCT UP AND TERMINATE WITH GOOSENECK. GOOSENECK TO BE 24" ABOVE ROOF SURFACE. PROVIDE BIRDSCREEN OVER OPENING.
9. ROUTE MAKE-UP AIR DUCT TIGHT UNDER STORAGE ROOF. COVER OPENING WITH BIRDSCREEN.
10. TRANSITION FROM A 50"X32" TO A 50"X20" AT A 45° ANGLE FROM THE DUCT RISER TAKE-OFF. TAKE-OFF MUST BE IN THE 50"X32" PORTION OF THE DUCT RISER. SEE DETAIL 1 ON SHEET MH5.03 FOR ADDITIONAL INFORMATION.
11. TRANSITION DUCT IN CHASE SO THAT LONG DUCT DIMENSION ROTATES FROM NORTH-SOUTH DIRECTION TO EAST-WEST DIRECTION.
12. PROVIDE FLEXIBLE DUCT CONNECTION ACROSS SEISMIC EXPANSION JOINT TO ACCOMODATE 7" OF MOVEMENT. PROVIDE SEISMIC BRACING ON BOTH SIDES OF FLEXIBLE DUCT CONNECTION. —1

GENERAL NOTES

A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

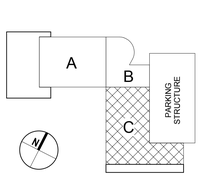
E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL FLOOR PLAN LEVEL 2 ZONE C

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

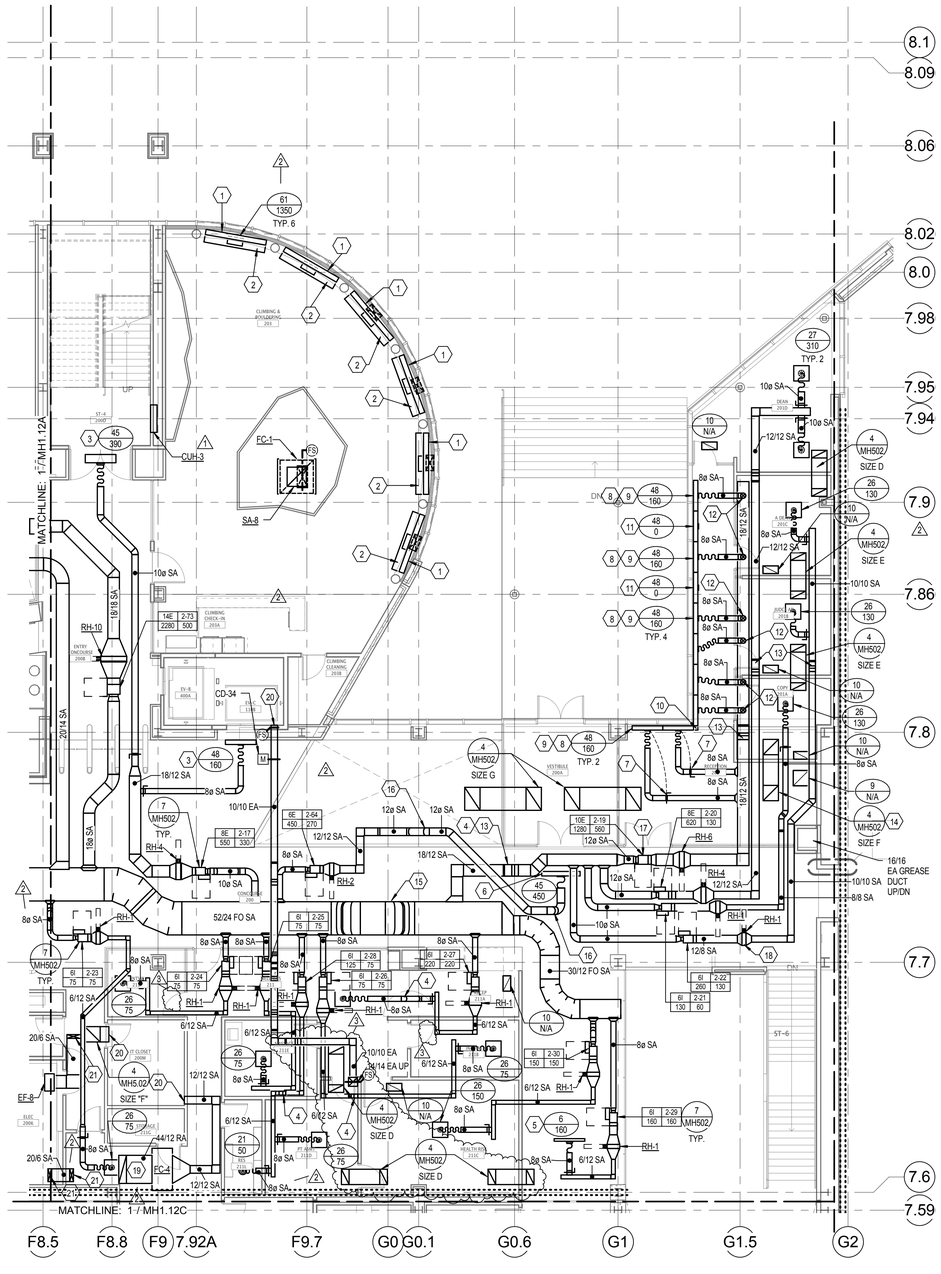
MH1.12C

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	ADDENDUM 2
2	05.09.2012	ADDENDUM 3
3	05.14.2012	ADDENDUM 4



1 LEVEL 2 - MECHANICAL ZONE B
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. 129" X 20" X 14" PLENUM CONCEALED IN ARCHITECTURAL BENCH. SEE ARCHITECTURAL BENCH DETAIL #10 ON SHEET AE-513.
2. 24" X 12" OPENING IN FLOOR. SEE STRUCTURAL DRAWINGS AND ARCHITECTURAL BENCH DETAIL #10 ON SHEET AE-513.
3. DIRECT BOTH SLOTS TO THE SOUTH.
4. PROVIDE OFFSETS IN DUCT AS NECESSARY TO ROUTE DUCT AROUND ROOF AND OVERFLOW DRAINS.
5. DIRECT BOTH SLOTS TO THE NORTH.
6. DIRECT BOTH SLOTS AT AN AN ANGLE TOWARD THE GLASS. MAXIMUM ANGLE IS APPROXIMATELY 30° FROM HORIZONTAL.
7. PROVIDE REMOTE DAMPER OPERATOR THAT RUNS THROUGH THE SUPPLY BRANCH. REMOTE OPERATOR MUST BE ACCESSIBLE THROUGH THE FACE OF THE GRILLE. OPERATOR MUST NOT BE VISIBLE WHEN NOT BEING USED.
8. LINEAR SLOT DIFFUSERS MUST BE CONTINUOUS. COORDINATE WITH ARCHITECT FOR FINISH AND ARCHITECTURAL APPEAL.
9. DIRECT ONE SLOT DOWN ACROSS THE GLASS AND ONE SLOT HORIZONTALLY.
10. PROVIDE MANUFACTURES 90° CORNER SO THAT LINEAR DIFFUSERS APPEAR CONTINUOUS.
11. FAUX LINEAR SLOT GRILLES. MUST MATCH APPEARANCE OF OTHER SLOTS TO GIVE GRILLES A CONTINUOUS APPEARANCE. SHEETMETAL BLANK-OFF PLATE ON BACK SIDE OF DIFFUSER. PAINT FLAT BLACK.
12. PROVIDE BALANCING DAMPER IN VERTICAL TAKE-OFF OF BRANCH DUCTWORK COMING OFF OF 18/12 MAIN. CONTRACTOR TO COORDINATE AND WITH ALL DISCIPLINES SO THAT DAMPERS ARE ACCESSIBLE.
13. PROVIDE OFFSETS IN DUCT AS REQUIRED TO AVOID CONFLICT WITH STRUCTURE.
14. INSTALL RETURN BOOT OVER THE TOP OF THE ROOF DRAINS. COORDINATE INSTALLATION WITH PLUMBING, MECHANICAL PIPING, AND ELECTRICAL.
15. PROVIDE OFFSETS IN DUCT AS REQUIRED TO AVOID CONFLICT WITH ROOF DRAIN PIPING. COORDINATE IN FIELD.
16. PROVIDE OFFSETS AS NECESSARY TO ROUTE SUPPLY BRANCH AROUND STRUCTURE AND OTHER DISCIPLINES. DUCT IS OVERSIZED SO PRESSURE DROP SHOULD BE NEGLIGIBLE.
17. ROUTE MECHANICAL EQUIPMENT AND SHEETMETAL OVER THE TOP OF ROOF DRAINS. NOTE: KEEP MAINTENANCE AREA TO SIDE OF VAV BOX CLEAR OF ANY PIPING, DUCTWORK, OR CONDUIT NOT SERVING THE VAV BOX.
18. MECHANICAL EQUIPMENT AND SHEETMETAL MUST BE INSTALLED FAR ENOUGH TO THE NORTH SO AS NOT TO CONFLICT WITH HORIZONTAL FIRE SHUTTING DEVICES. CONTRACTOR TO COORDINATE ALL DISCIPLINES.
19. PROVIDE 44"X12" OPENING IN TOP OF LINED RETURN AIR DUCT.
20. PROVIDE GALVANIZED WIRE MESH SCREEN AT END OF DUCT. SECURE WITH SCREWED FLANGED FRAME.
21. 20"X6" OPENING IN TOP OF DUCT.

GENERAL NOTES

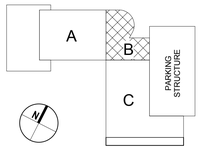
A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

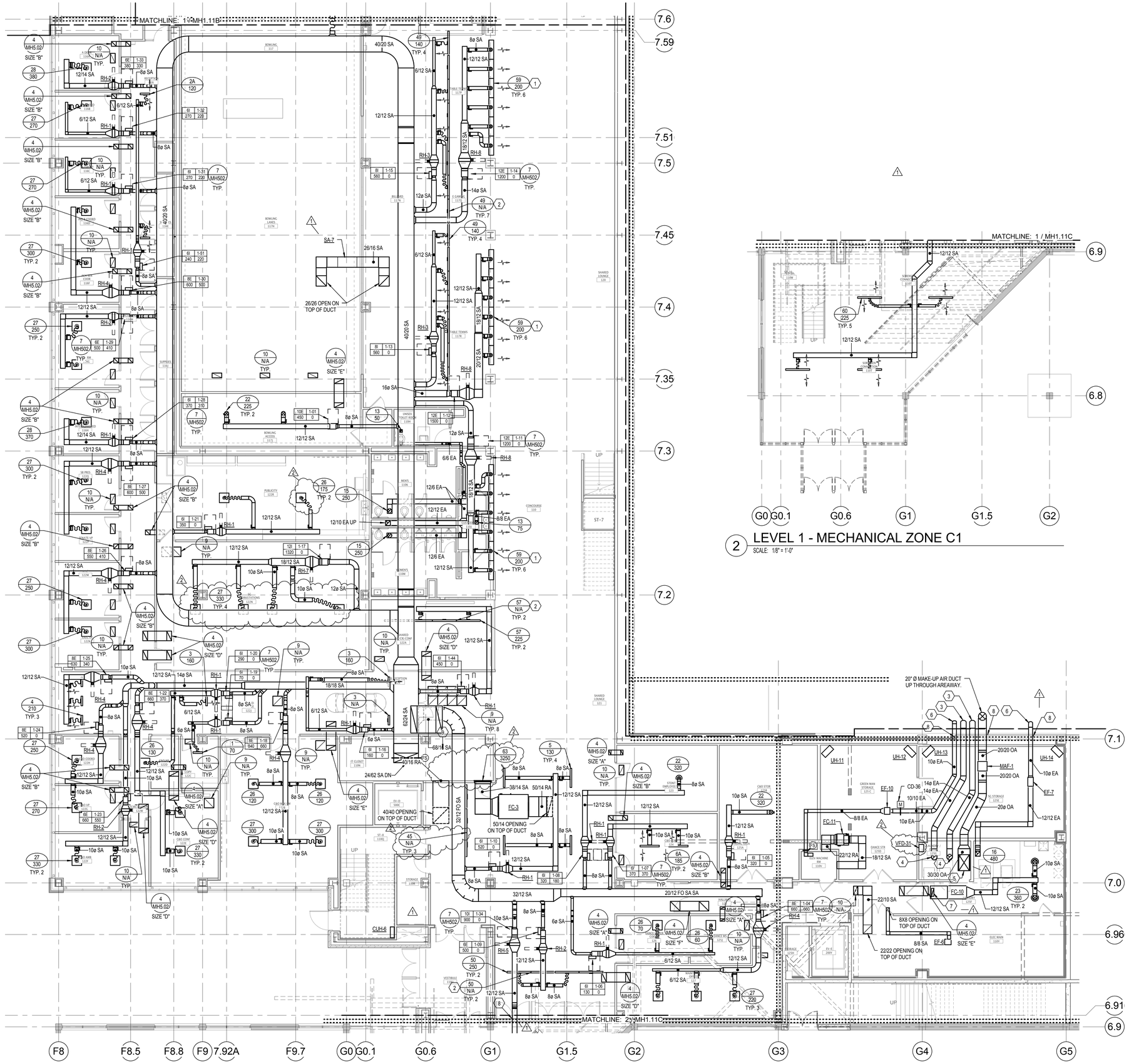
MECHANICAL FLOOR PLAN LEVEL 2 ZONE B

CONSTRUCTION DOCUMENTS

MH1.12B

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 1 - MECHANICAL ZONE C

SCALE: 1/8" = 1'-0"

2 LEVEL 1 - MECHANICAL ZONE C1

SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE PRICE CONTROL DAMPER KIT MODEL VCR8EC TO ALLOW FOR BALANCING OF AIR FLOW THROUGH FACE OF SLOT DIFFUSER.
2. RETURN SLOT DIFFUSER TO MATCH NUMBER OF SLOTS AND WIDTHS OF ADJACENT SUPPLY SLOT DIFFUSER FOR A CONTINUOUS APPEARANCE.
3. ROUTE DRYER EXHAUST DUCT OUT AND TERMINATE WITH A 45° ELBOW TURNED DOWN INSIDE OF THE AREAWAY. PROVIDE BIRDSCREEN OVER OPENING.
4. CONNECT DRYER EXHAUST TO DUCT. INSTALL ACCESSIBLE CLEANOUT IN DUCTWORK.
5. 26"X40" OPENING IN TOP OF DUCT.
6. TERMINATE WITH A 45° ELBOW TURNED DOWN INSIDE OF AREAWAY. PROVIDE BIRDSCREEN OVER OPENING.
7. 20"X6" OPENING IN TOP OF DUCT.
8. PROVIDE FLEXIBLE DUCT CONNECTION IN MEDIUM PRESSURE DUCT TO ACCOMMODATE 7" OF DUCT MOVEMENT ACROSS SEISMIC EXPANSION JOINT.
9. PROVIDE GALVANIZED WIRE MESH SCREEN AT END OF DUCT. SECURE WITH SCREWED FLANGED FRAME.

GENERAL NOTES

A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

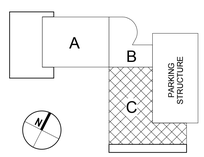
E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL FLOOR PLAN LEVEL 1 ZONE C

CONSTRUCTION DOCUMENTS

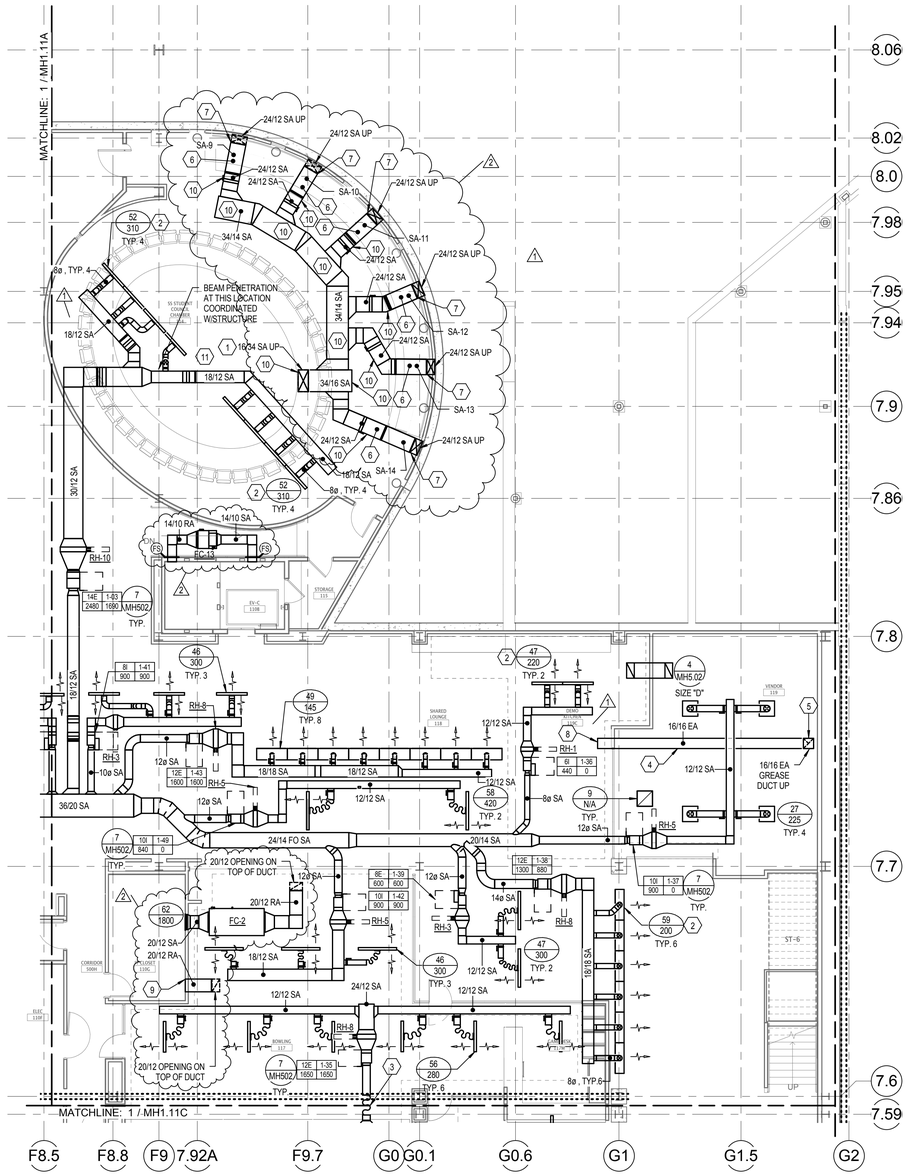
MH1.11C

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500



1 LEVEL 1 - MECHANICAL ZONE B

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1. INSTALL FIRE/SMOKE DAMPER AT SUPPLY AIR DUCT SLAB PENETRATION IN CEILING SPACE.
2. PROVIDE PRICE CONTROL DAMPER KIT MODEL VCR8EC TO ALLOW FOR BALANCING OF AIR FLOW THROUGH FACE OF SLOT DIFFUSER.
3. PROVIDE FLEXIBLE DUCT CONNECTION IN MEDIUM PRESSURE DUCT TO ACCOMMODATE 7" OF DUCT MOVEMENT ACROSS SEISMIC EXPANSION JOINT.
4. SLOPE GREASE DUCT 1/4" PER 1'-0" TOWARDS GREASE HOOD.
5. INSTALL 12"X12" CLEAN OUT IN BASE OF GREASE DUCT RISER.
6. ROUTE SOUND ATTENUATOR AND DUCT PARALLEL TO SLOPED CEILING.
7. ELBOW DUCT UP THROUGH SLAB PENETRATION TO SERVE SECOND FLOOR SPACE. SEE STRUCTURAL DRAWINGS AND ARCHITECTURAL DETAIL #10 ON SHEET AE-513.
8. PROVIDE CAPPED GREASE DUCT STUBBED INTO DEMO KITCHEN ABOVE CEILING. GREASE DUCT TO BE EXTENDED AND CONNECTED TO KITCHEN EXHAUST HOOD COLLARS IN FUTURE.
9. PROVIDE GALVANIZED WIRE MESH SCREEN AT END OF DUCT. SECURE WITH SCREWED FLANGE FRAME.
10. ALL SUPPLY DUCTWORK OFF OF FC-1 MUST BE 12 GAGE FROM OUTLET OF FAN COIL TO CONNECTION WITH SOUND ATTENUATOR.DUCTWORK MUST BE INTERNALLY LINED PER SPECIFICATION.
11.

GENERAL NOTES

A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

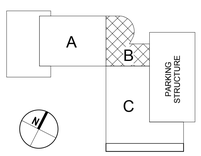
C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL FLOOR PLAN LEVEL 1 ZONE B

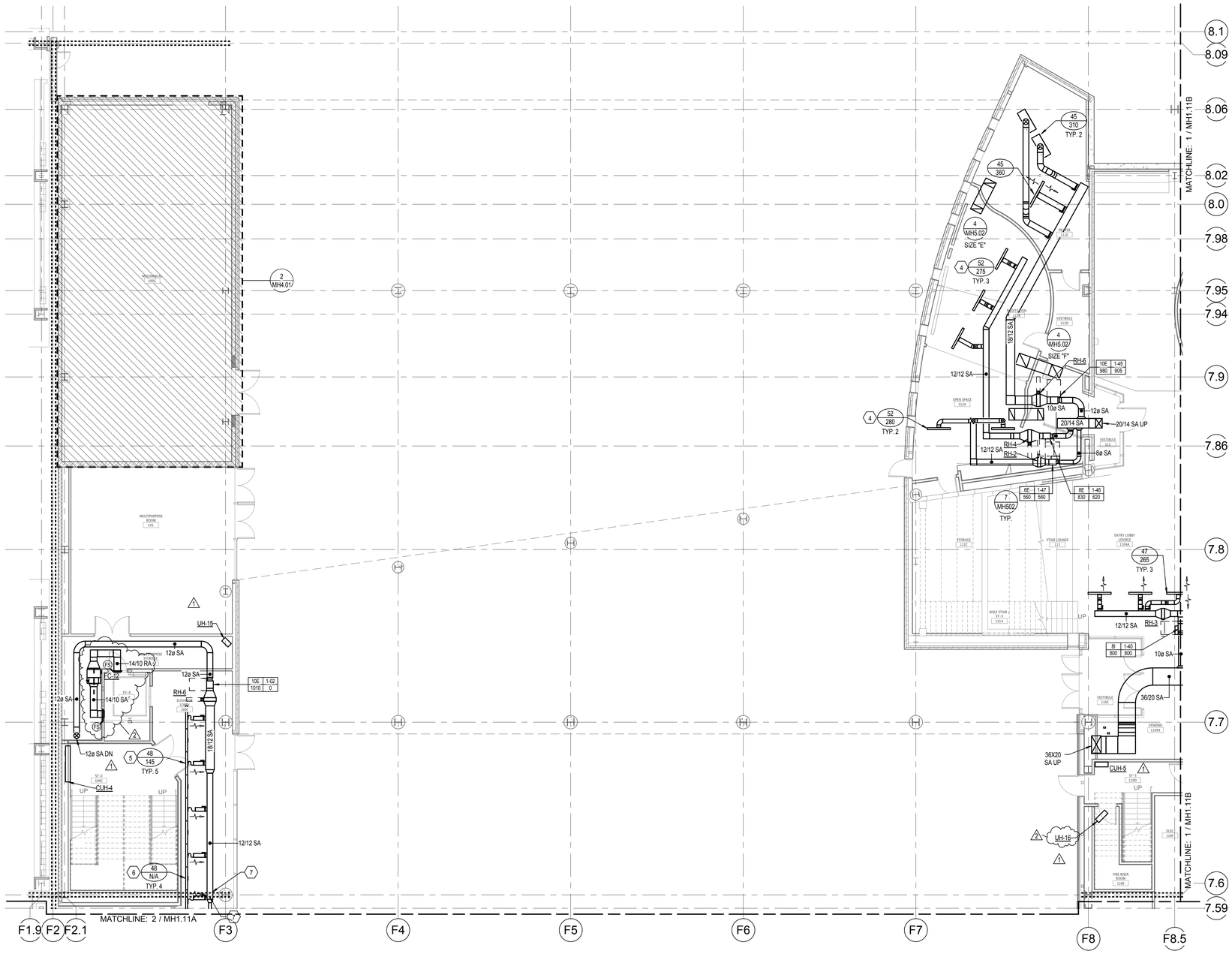
CONSTRUCTION DOCUMENTS

MH1.11B

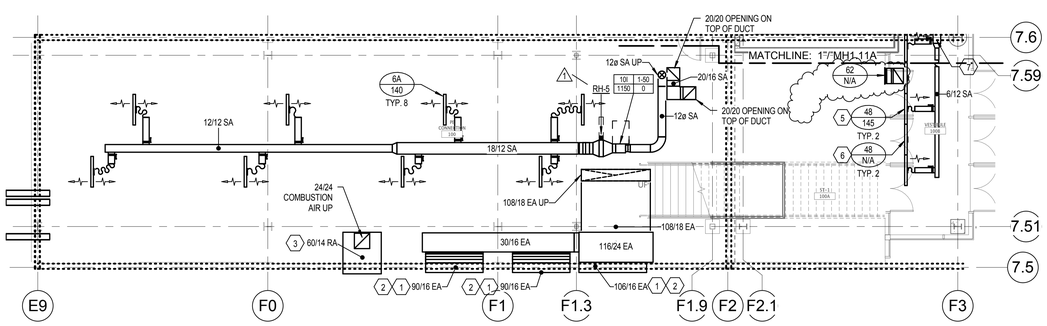
Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 1 - MECHANICAL ZONE A
SCALE: 1/8" = 1'-0"



2 LEVEL 1 - MECHANICAL ZONE A1
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. REMOVE EXISTING LOUVER AND EXTEND EXISTING EXHAUST DUCT THROUGH EXISTING OPENING IN WALL. PROVIDE FLEXIBLE DUCT CONNECTION IN DUCT TO ACCOMMODATE 7" OF MOVEMENT ACROSS EXPANSION JOINT. (1)
2. VERIFY AIR FLOW THROUGH EXISTING LOUVER BEFORE ANY WORK. BALANCE SYSTEM AIR FLOW AFTER NEW WORK IS COMPLETED.
3. REMOVE EXISTING OUTSIDE AIR LOUVER AND EXTEND OUTSIDE AIR DUCT AS SHOWN. PROVIDE FLEXIBLE DUCT CONNECTION IN DUCT TO ACCOMMODATE 7" OF MOVEMENT ACROSS EXPANSION JOINT. (1)
4. PROVIDE PRICE CONTROL DAMPER KIT MODEL VCRBEC TO ALLOW FOR BALANCING OF AIR FLOW THROUGH FACE OF SLOT DIFFUSER.
5. LINEAR SLOT DIFFUSERS MUST BE CONTINUOUS. COORDINATE WITH ARCHITECT FOR FINISH AND ARCHITECTURAL APPEAL.
6. RETURN SLOT DIFFUSER TO MATCH NUMBER OF SLOTS AND WIDTHS OF ADJACENT SUPPLY SLOT DIFFUSER FOR A CONTINUOUS APPEARANCE.
7. PROVIDE FLEXIBLE CONNECTION IN LOW PRESSURE DUCT WORK TO ACCOMODATE FOR 7" OF DUCT MOVEMENT ACROSS SEISMIC EXPANSION JOINT. (1)

GENERAL NOTES

A. PROVIDE A RETURN SOUND BOOT AT EACH CEILING RETURN AIR GRILLE THAT IS NOT DUCTED IN ACCORDANCE WITH DETAIL 6 ON SHEET MH5.02.

B. SUPPLY AIR DUCT SERVED BY AIR HANDLERS AH-1 AND AH-2 IS DOUBLE-WALLED FROM THE POINT IT CONNECTS TO THE AIR HANDLERS IN THEIR RESPECTIVE MECHANICAL ROOMS, ALONG ITS ENTIRE LENGTH IN THE SHAFT, TO A POINT 8'-0" BEYOND FIRE/SMOKE DAMPER IN BRANCH DUCTS SERVING EACH FLOOR.

C. INSTALL VAV BOXES IN ACCORDANCE WITH DETAIL 7 ON SHEET MH5.02.

D. INSTALL DUCT MOUNTED HEATING COIL IN ACCORDANCE WITH DETAIL 2 ON SHEET MH5.03.

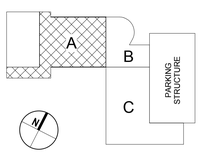
E. RUNOUTS TO DIFFUSERS ARE TO BE NECK SIZE UNLESS OTHERWISE NOTED ON DRAWINGS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	Author
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

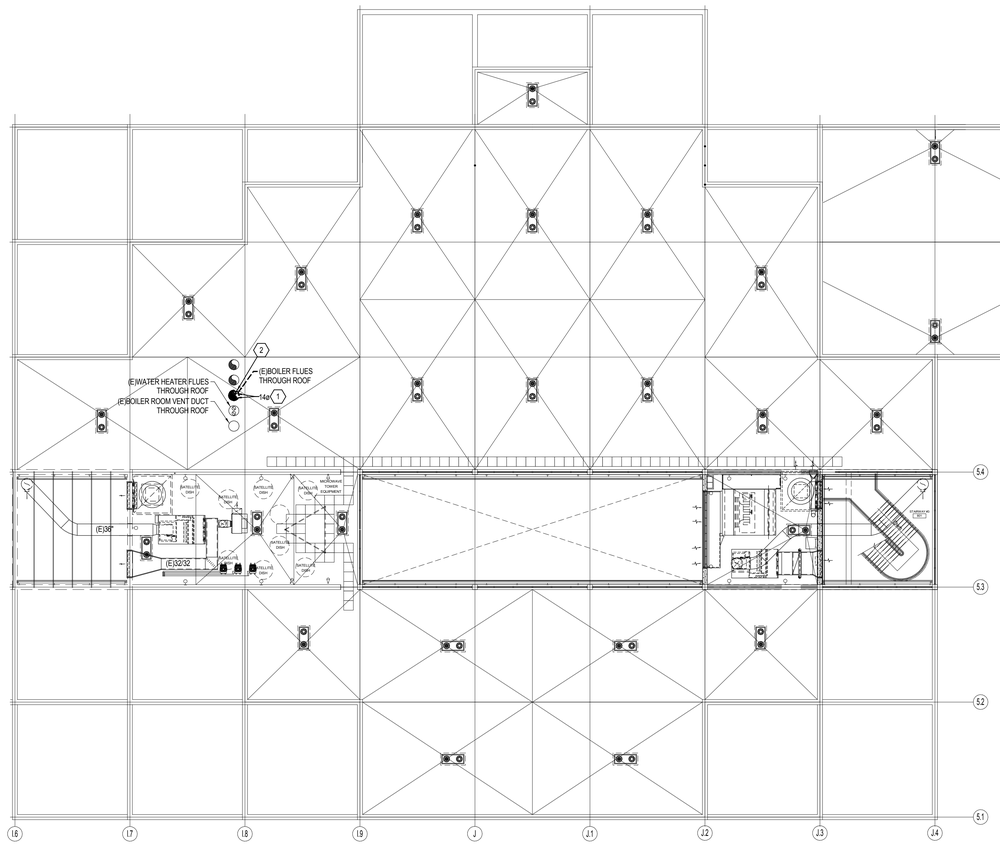
MECHANICAL FLOOR PLAN LEVEL 1 ZONE A

CONSTRUCTION DOCUMENTS

MH1.11A

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



KEYED NOTES

1. 14"Ø BOILER VENTS EXTEND ABOVE ROOF TO MATCH HEIGHT OF EXISTING VENTS SERVING BOILERS B-1 AND B-2 (APPROX. 6 FT.) BOILER VENTS LOCATED OUTDOORS TO INCLUDE TYPE 304 STAINLESS STEEL OUTER PIPE. DO NOT PROVIDE A WEATHER CAP. TOTAL VERTICAL RISE FROM TOP OF BOILER TO TERMINATION OF VENT ABOVE ROOF IS APPROXIMATELY 75 FEET. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE ADDITIONAL VENT MATERIALAS NECESSARY. 1
2. DEMOLISH EXISTING DOUBLE WALL VENT THROUGH ROOF.

EXISTING COMPUTER SCIENCES BLDG MECHANICAL ROOF PLAN

1 SCALE: 1/16" = 1'-0"

12' 0' 8' 16' 24' 32'

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

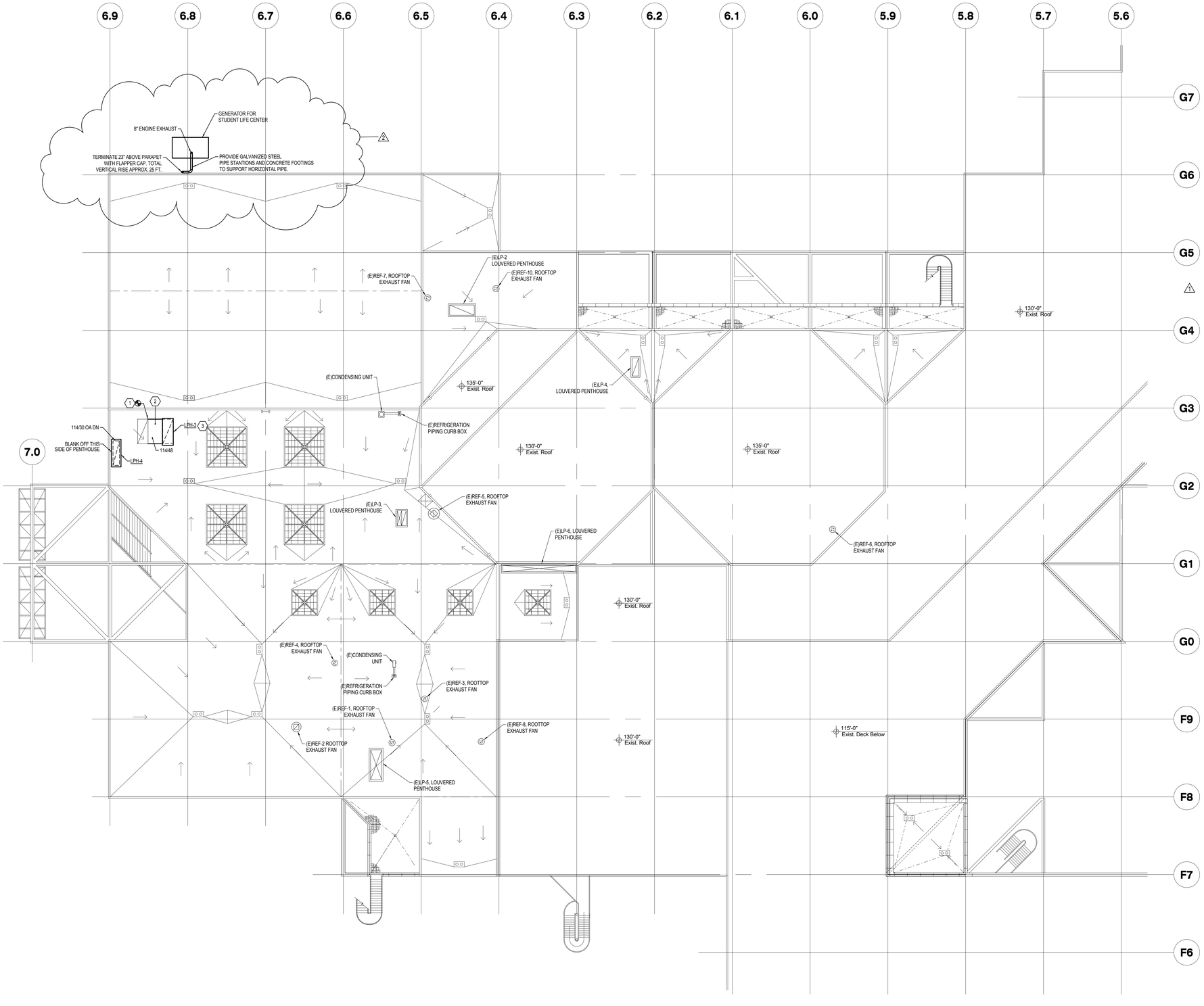
DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EXISTING COMPUTER SCIENCES BLDG MECHANICAL ROOF PLAN

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

MH082



1 EXISTING SORENSEN ROOF MECHANICAL PLAN

SCALE: 1/16" = 1'-0"

12' 0' 8' 16' 24' 32'

KEYED NOTES

1. 114/48 DUCT DOWN WITH TURNING VANES TO EXISTING RELIEF AIR DAMPER.
2. ROUTE 114/48 RELIEF AIR DUCTWORK ON ROOF TO LOUVERED PENTHOUSE. SEE ARCHITECTURAL DRAWINGS FOR INTEGRATION INTO ROOFING MEMBRANE.
3. TURN 114/48 RELIEF AIR DUCT UP WITH TURNING VANES 12". TERMINATE WITH FLANGED FITTING. LOUVERED PENTHOUSE TO BE ATTACHED TO THIS FLANGE.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EXISTING SORENSEN ROOF MECHANICAL PLAN

CONSTRUCTION DOCUMENTS

MH051

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-3400 / Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

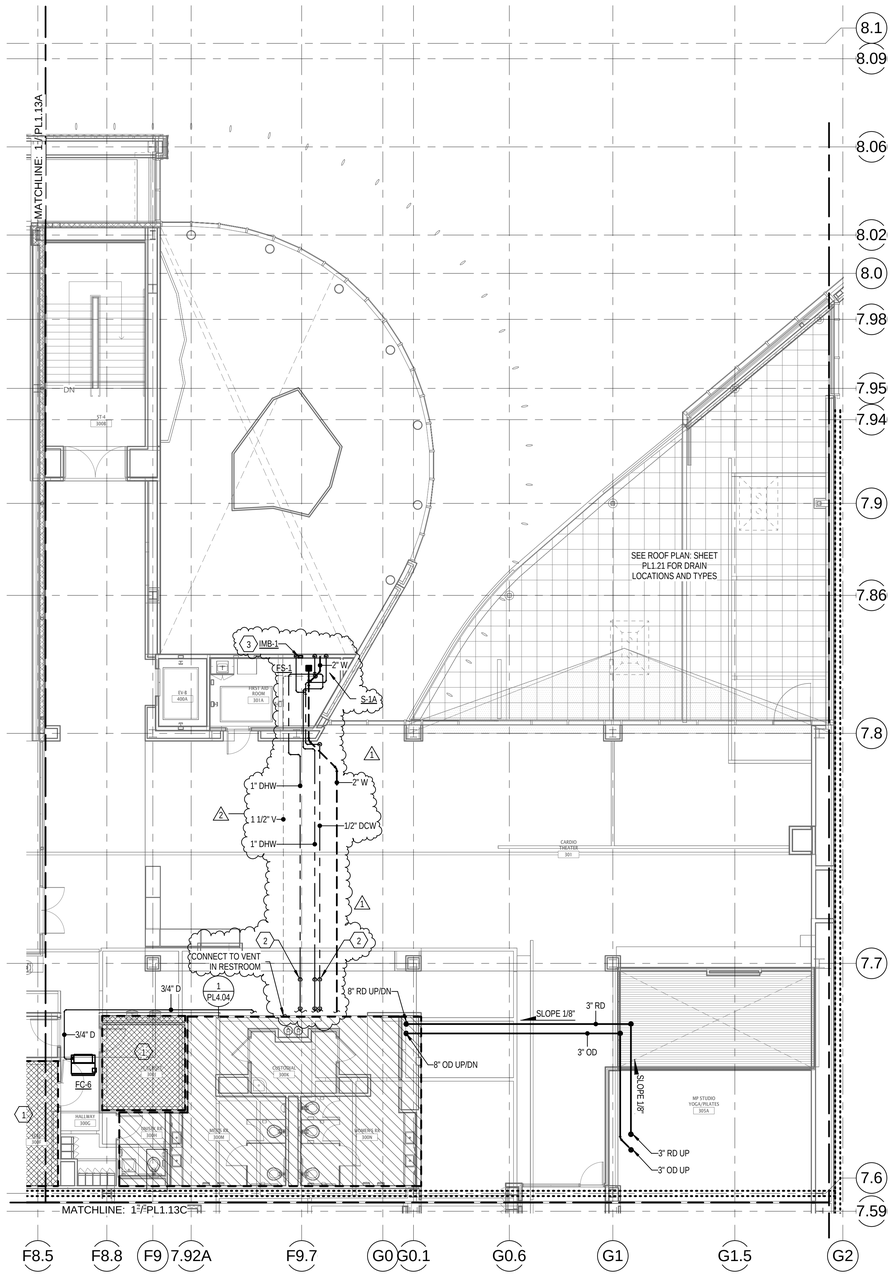
www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



1 LEVEL 3 - PLUMBING ZONE B

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

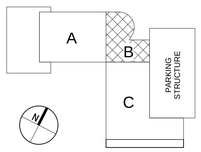
KEYED NOTES

1. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL OR IT ROOMS. TYPICAL.
2. PROVIDE OFFSETS IN PIPE AS REQUIRED TO AVOID CONFLICT WITH DUCT WORK. COORDINATE WITH HVAC PLANS AND IN THE FIELD. TYPICAL.
3. PROVIDE 1/2" COLD WATER CONNECTION TO ICE MAKER AT REFRIGERATOR WITH ICE MAKER BOX. SEE PLUMBING FIXTURE SCHEDULE FOR MODEL NUMBER. PROVIDE VACUUM BREAKER AND ISOLATION VALVE IN AN ACCESSIBLE LOCATION.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL SANITARY SEWER AND ROOF DRAIN PIPING SHALL BE SLOPED AT 1/8" PER FOOT MINIMUM.



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JLW
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

PLUMBING FLOOR PLAN LEVEL 3 ZONE B

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

PL1.13B

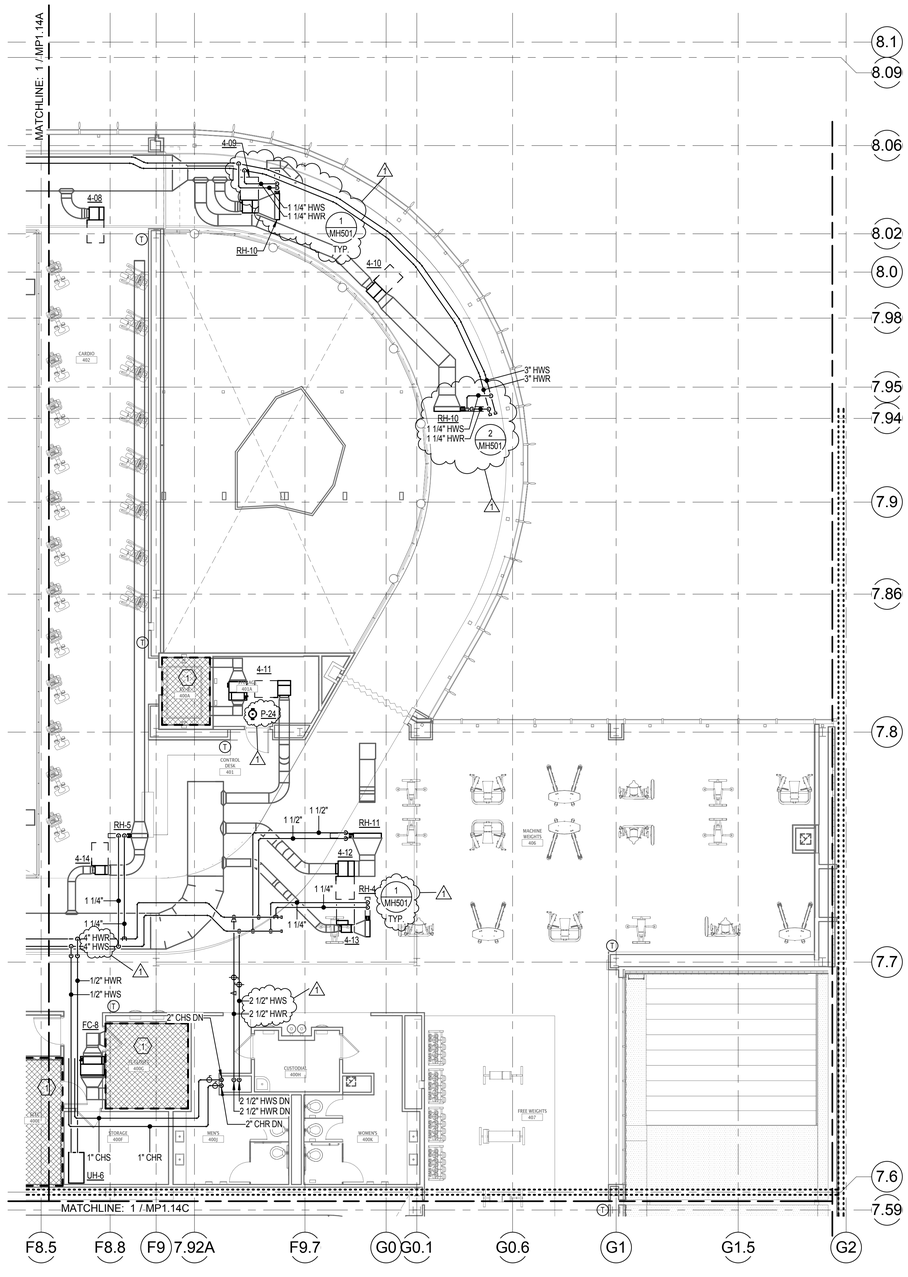
Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com



2 LEVEL 4 - MECHPIPING ZONE B
SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1 DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

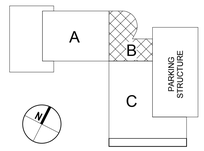
C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

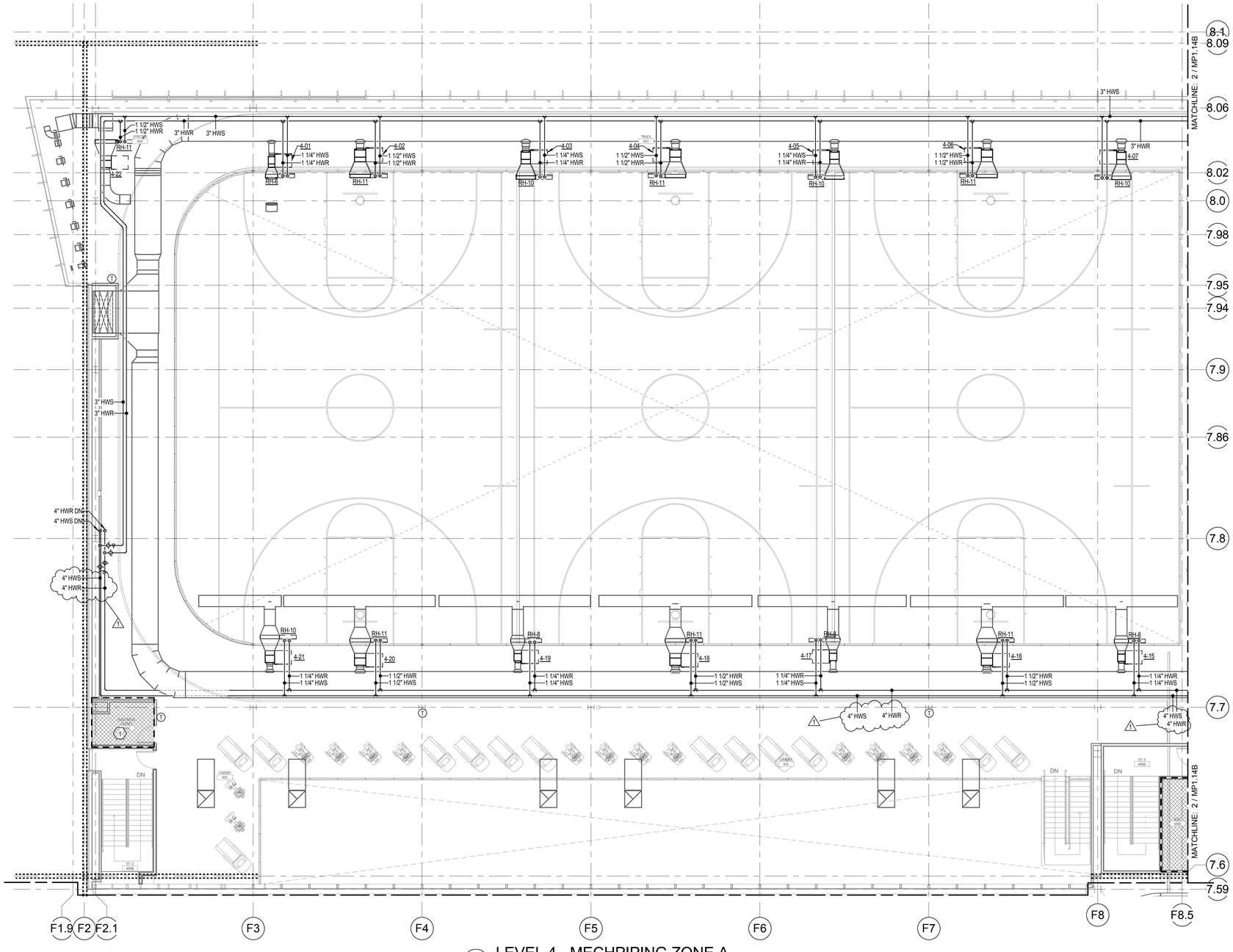
MECHANICAL PIPING FLOOR PLAN LEVEL 4 ZONE B

CONSTRUCTION DOCUMENTS

MP1.14B

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 4 - MECHPIPING ZONE A

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1 DO NOT ROUTE ANY PIPING ABOVE ELECTRICAUIT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

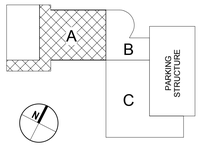
C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL PIPING FLOOR PLAN LEVEL 4 ZONE A

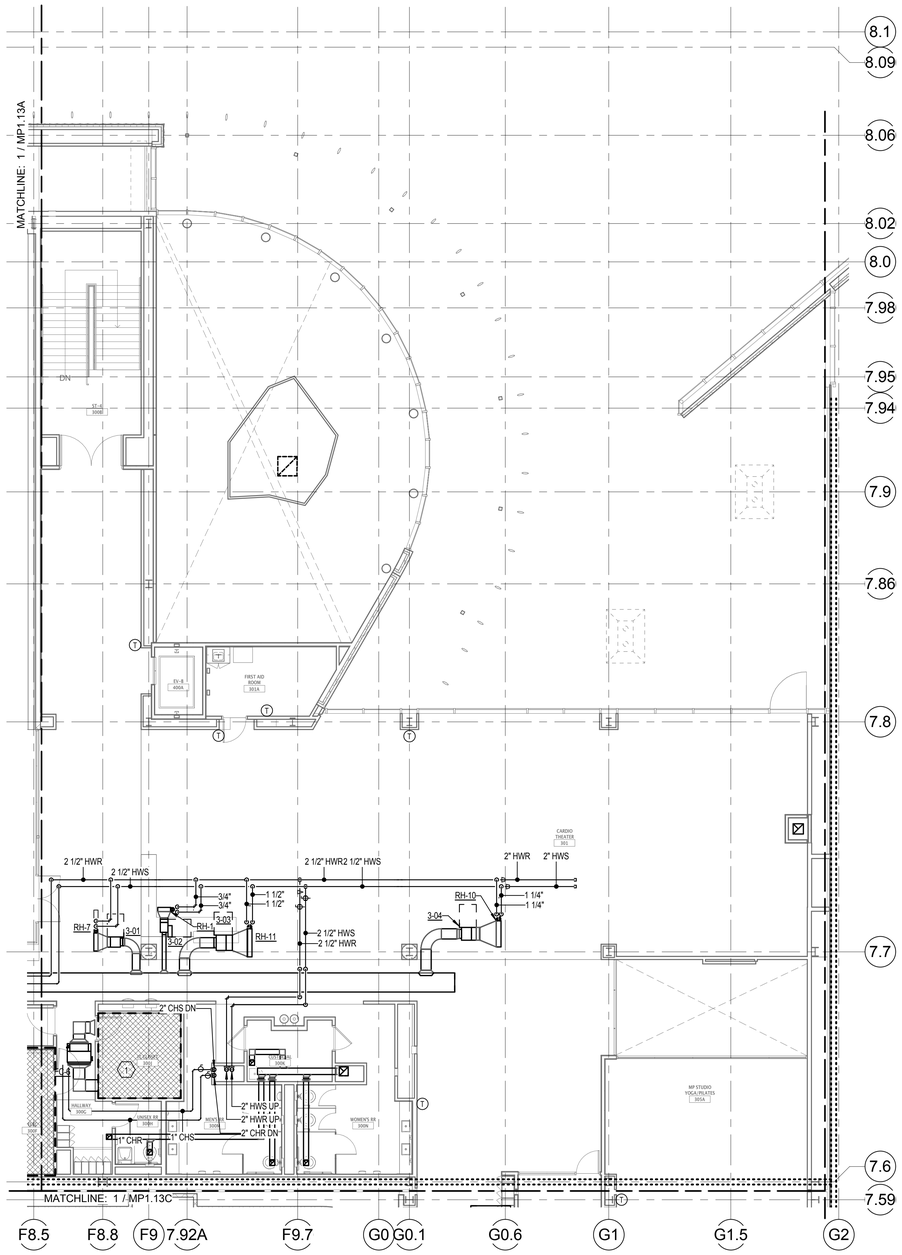
CONSTRUCTION DOCUMENTS

MP1.14A

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



2 LEVEL 3 - MECHPIPING ZONE B

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1 DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

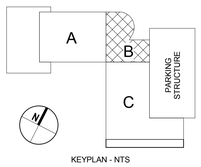
B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

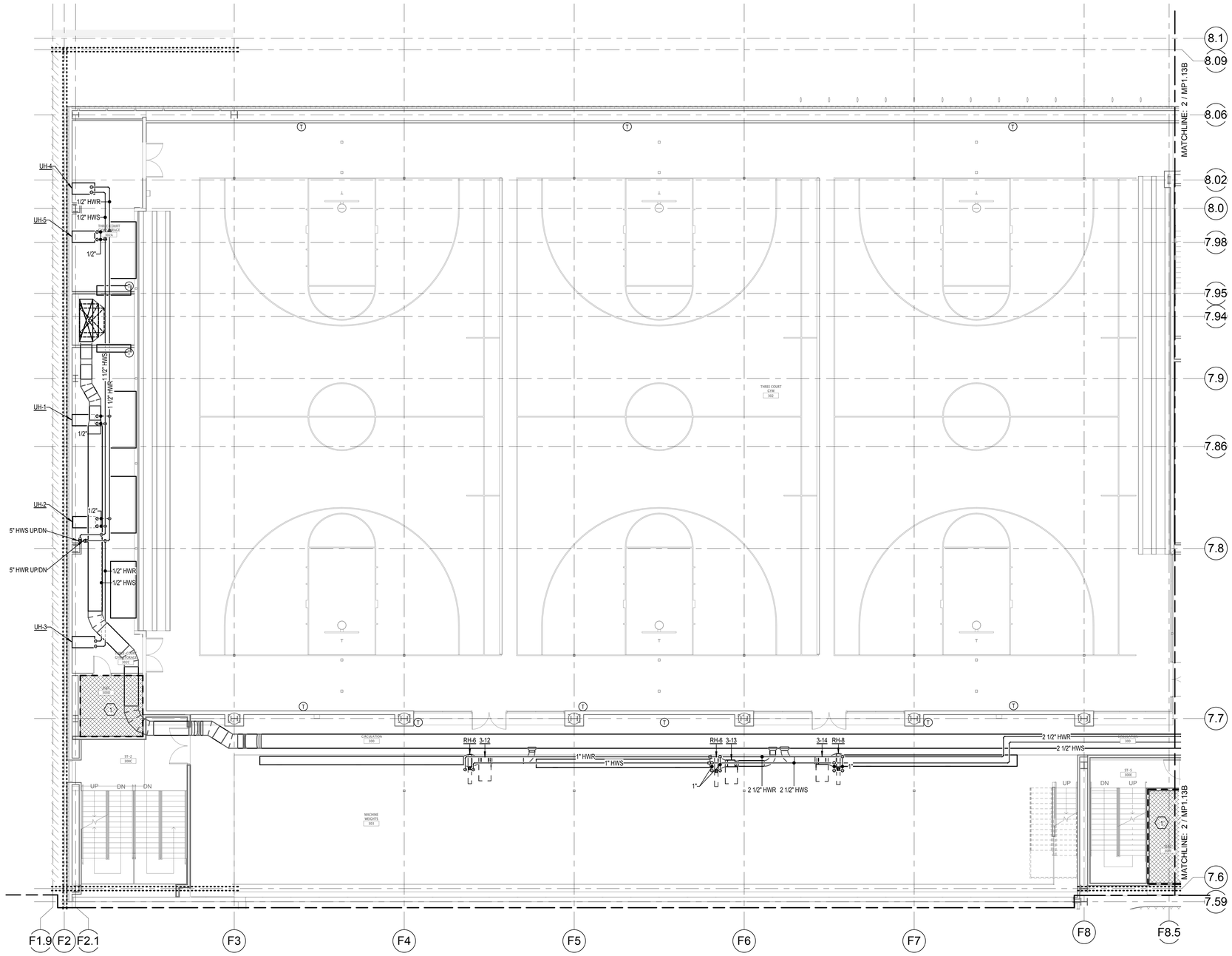
DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL PIPING FLOOR PLAN LEVEL 3 ZONE B

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

MP1.13B



1 LEVEL 3 - MECHPIPING ZONE A

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1 DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

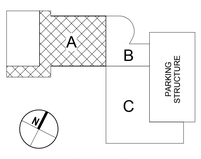
B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

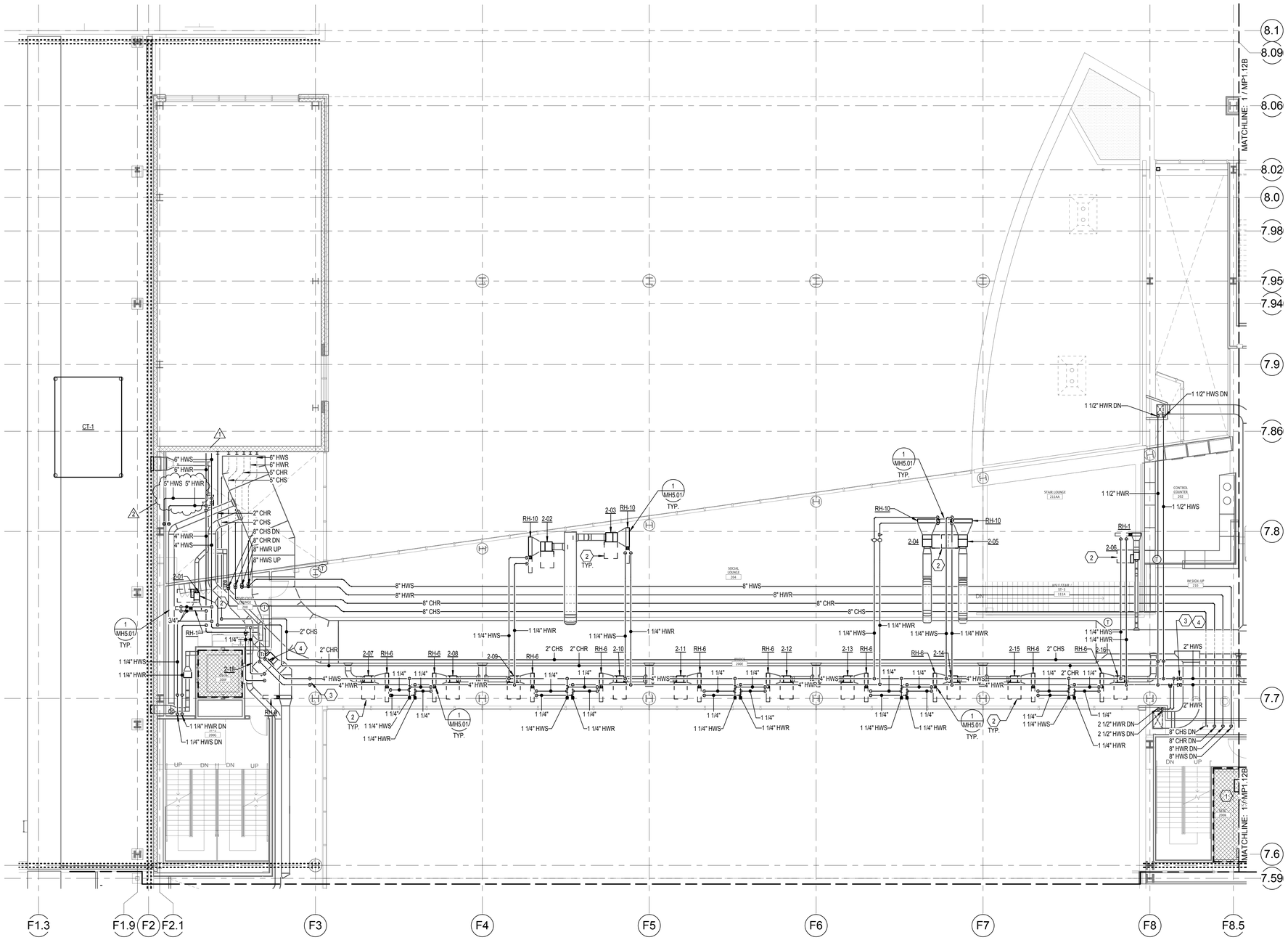
MECHANICAL PIPING FLOOR PLAN LEVEL 3 ZONE A

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

MP1.13A

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 2 - MECHPIPING ZONE A

SCALE: 1/8" = 1'-0"

6' 0' 4' 8' 12' 16'

KEYED NOTES

1. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.
2. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING, DUCTWORK, OR CONDUIT NOT SERVING THE VAV BOX. PIPING, DUCTWORK, AND CONDUIT MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE BOX, AVOIDING THE CONTROLS ACCESS ZONE.
3. COORDINATE PIPING WITH STRUCTURE. PROVIDE ELBOWS AS NECESSARY.
4. ROUTE PIPING UP HIGH OVER OTHER DISCIPLINES.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

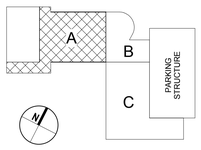
www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	ADDENDUM 2
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

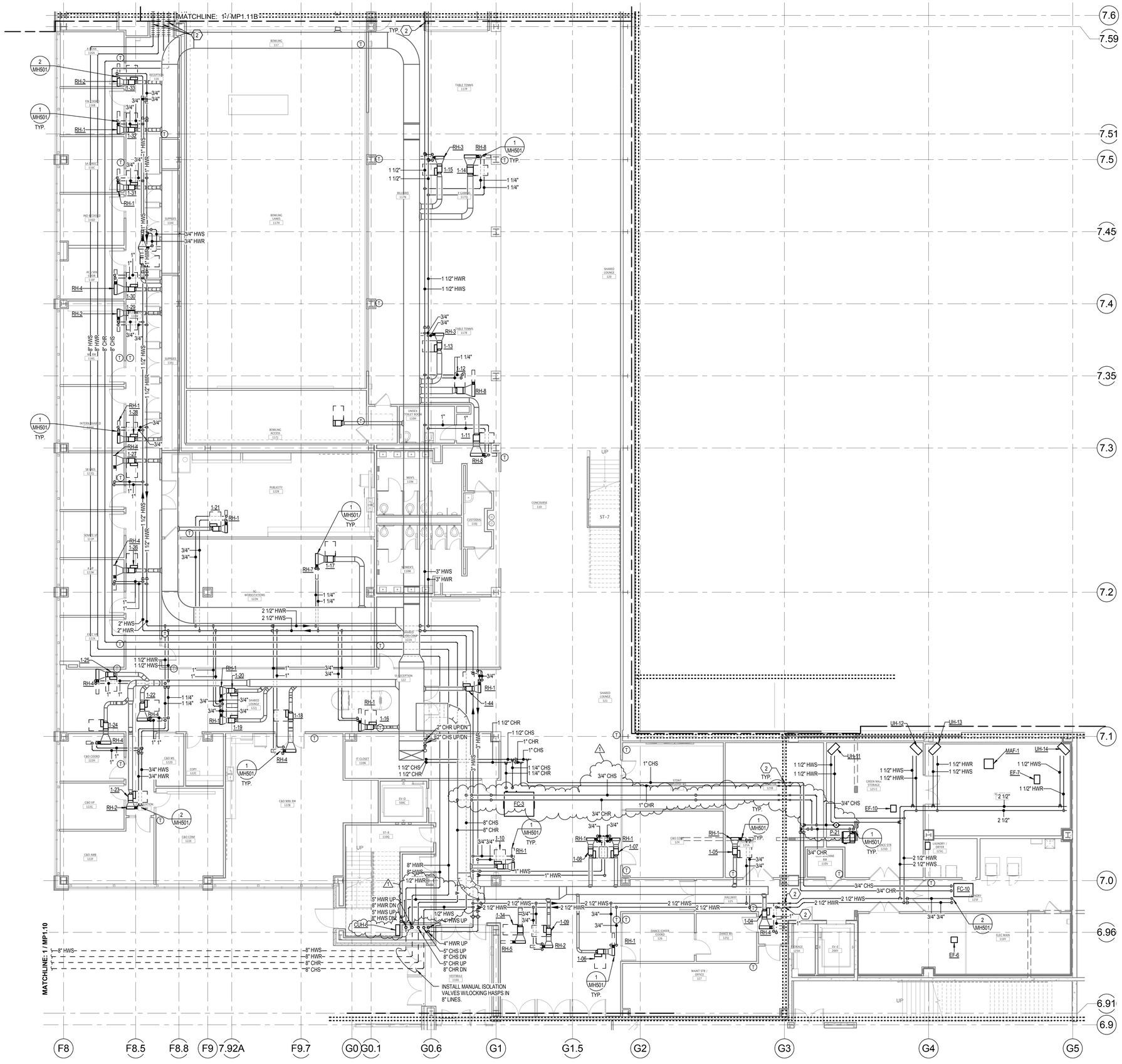
MECHANICAL PIPING FLOOR PLAN LEVEL 2 ZONE A

CONSTRUCTION DOCUMENTS

MP1.12A

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 1 - MECHPIPING ZONE C

SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE METRAFLEX EXPANSION JOINT TO ACCOMMODATE PIPE MOVEMENT ACROSS SEISMIC EXPANSION JOINT. TYPICAL.
2. PROVIDE METRAFLEX METRALOOP EXPANSION JOINT IN MECHANICAL PIPING DESIGNED FOR 7" OF MOVEMENT ACROSS SEISMIC EXPANSION JOINT. PROVIDE SEISMIC BRACING ON BOTH SIDES OF EXPANSION JOINT.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

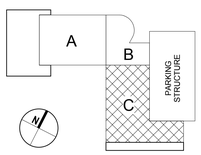
www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE C

CONSTRUCTION DOCUMENTS

MP1.11C

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

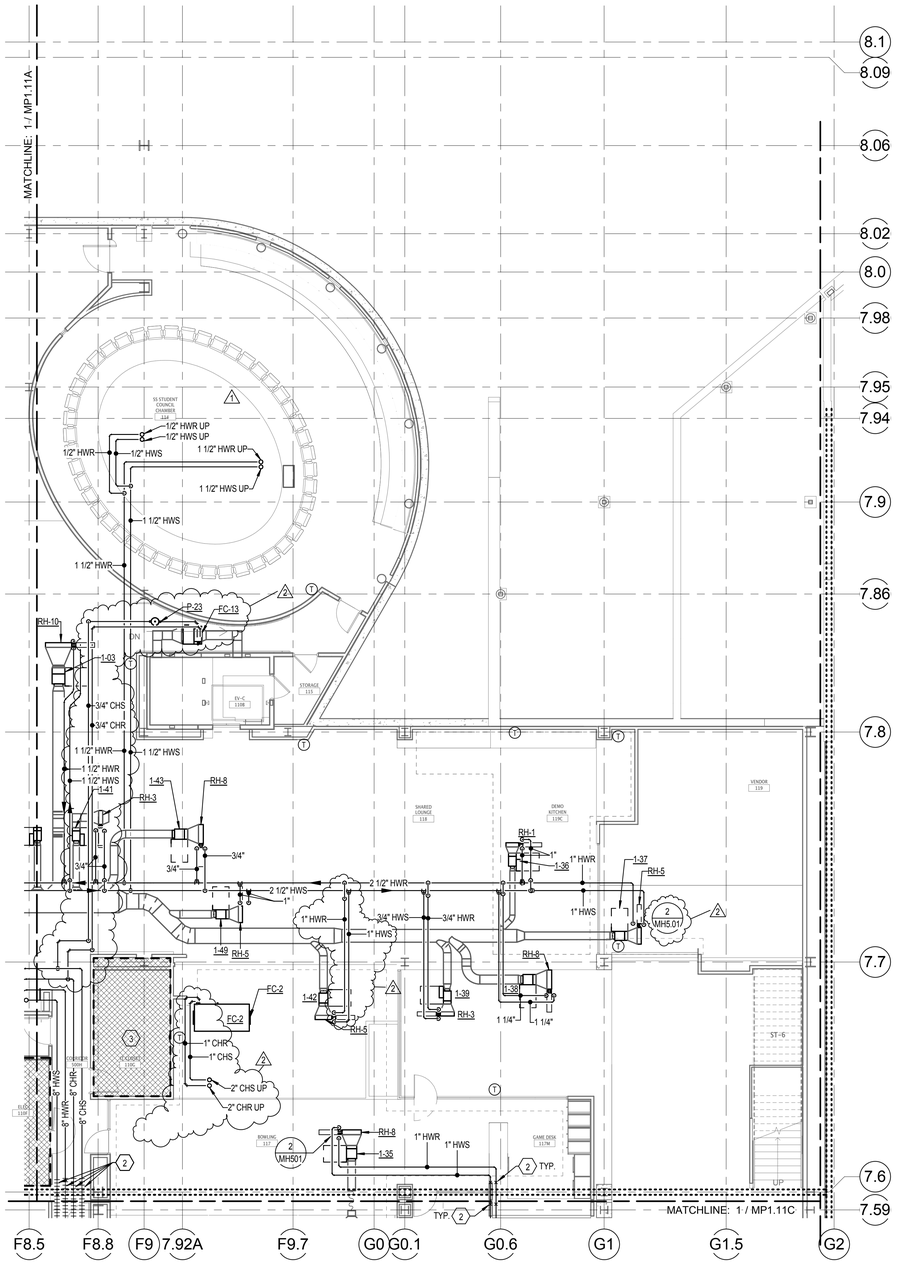
Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.04.2012	ADDENDUM 2
2	05.14.2012	ADDENDUM 4



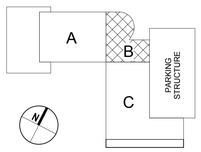
1 LEVEL 1 - MECHPIPING ZONE B
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE METRAFLEX EXPANSION JOINT TO ACCOMMODATE PIPE MOVEMENT ACROSS SEISMIC EXPANSION JOINT. TYPICAL.
2. PROVIDE METRAFLEX METRALOOP EXPANSION JOINT IN MECHANICAL PIPING DESIGNED FOR 7" OF MOVEMENT ACROSS SEISMIC EXPANSION JOINT. PROVIDE SEISMIC BRACING ON BOTH SIDES OF EXPANSION JOINT.
3. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.
B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.
C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE B

CONSTRUCTION DOCUMENTS

MP1.11B

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

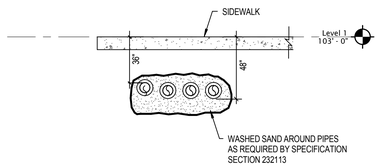
Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

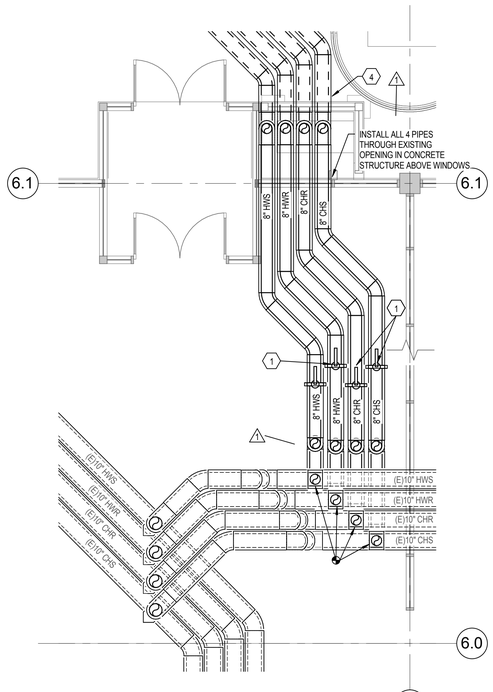
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

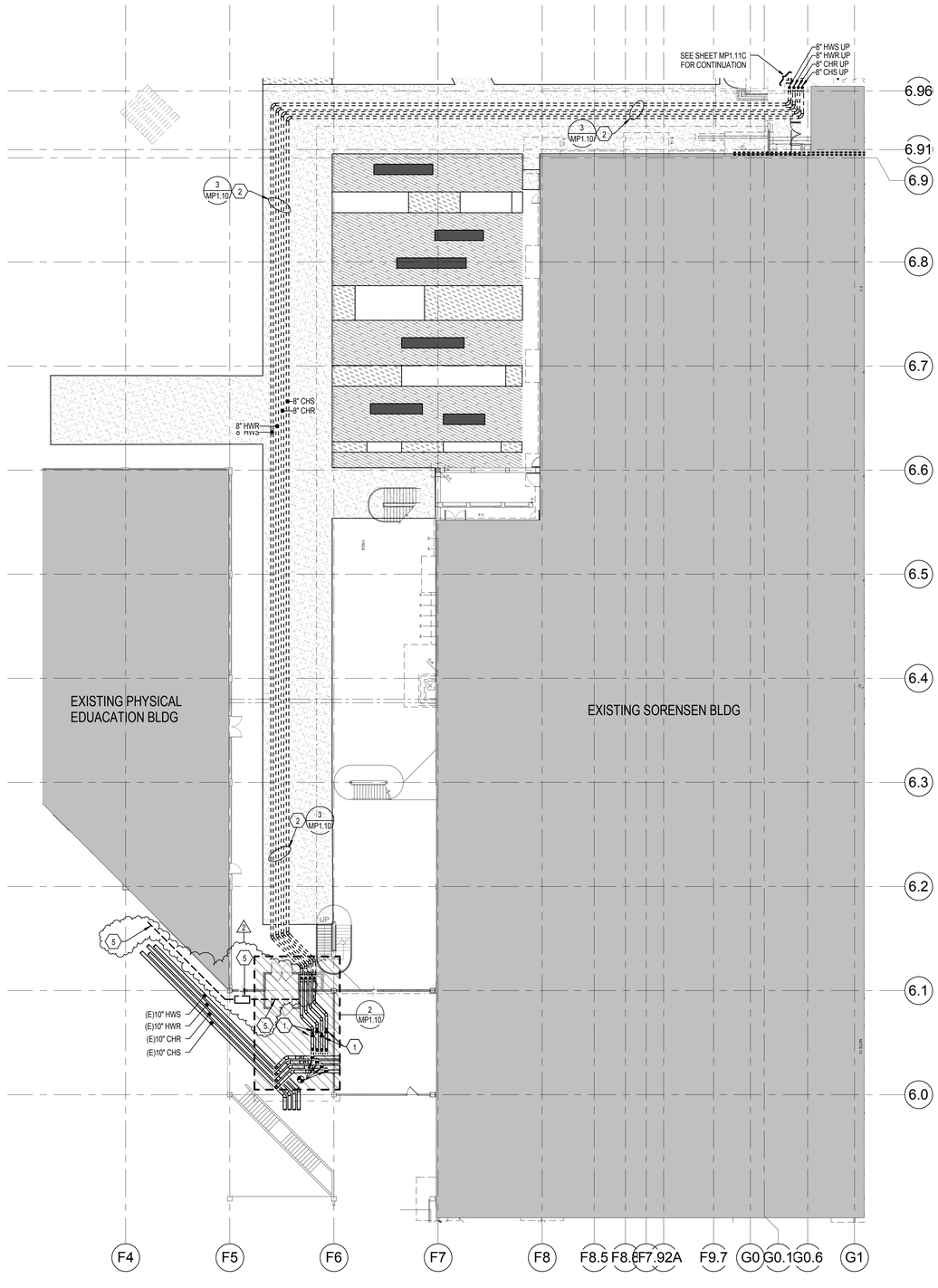
1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



3 BELOW-GRADE PIPE DETAIL
SCALE: NONE



2 ENLARGED MECHANICAL PIPING IN VESTIBULE
SCALE: 1/4" = 1'-0"



1 LEVEL 1 MECHANICAL PIPING UNDERGROUND PLAN
SCALE: 1/16" = 1'-0"

KEYED NOTES

1. BUTTERFLY VALVE FOR MANUAL ISOLATION. INCLUDE LOCKABLE HASP.
2. BELOW GRADE PIPE TO BE INSTALLED WITH BOTTOM OF PIPE INSULATION 48" BELOW TOP OF SIDEWALK, AND TOP OF PIPE INSULATION 36" BELOW TOP OF SIDEWALK.
3. TRANSITION FROM STEEL PIPE TO PLASTIC PIPE 12" ABOVE SLAB-ON-GRADE INSDIE VESTIBULE. USE A FLANGE TO JOIN PLASTIC TO STEEL PIPE.
4. VERTICAL PIPE CONTINUES BELOW GRADE INSIDE FOOTPRINT OF VESTIBULE. TOP OF PIPE INSULATION AT TOP OF HORIZONTAL BURIED PIPE SHALL BE 36" BELOW FINISHED GRADE.
5. REMOVE EXISTING FAN COIL UNIT, STORM LOUVER, AND ASSOCIATED DUCTWORK AND CONTROLS. PLASTIC NAMEPLATE ON NORTH SIDE OF FAN COIL UNIT IDENTIFIES THIS UNIT AS UV-2. FELT PEN MARKING ON SOUTH SIDE OF UNIT IDENTIFIES IT AS UV-2. ALSO REMOVE ITS CONDENSATE DRAIN LINE BACK TO THE COMMON DRAIN LINE ABOVE THE VESTIBULE DOORS. CAP BRANCH DRAIN NEAR MAIN SO MAIN CONDENSATE LINE CAN CONTINUE SERVING FAN COIL UNITS IN COMPUTER LAB TO THE EAST. 2

GENERAL NOTES

A. INSULATE BURIED GVAC PIPES AS REQUIRED BY SPECIFICATION SETION 230700.
B. COORDINATE WITH BELOW-GRADE UTILITIES SHOWN ON THE SITE UTILITY DRAWINGS.

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 1 MECHANICAL PIPING UNDERGROUND PLAN

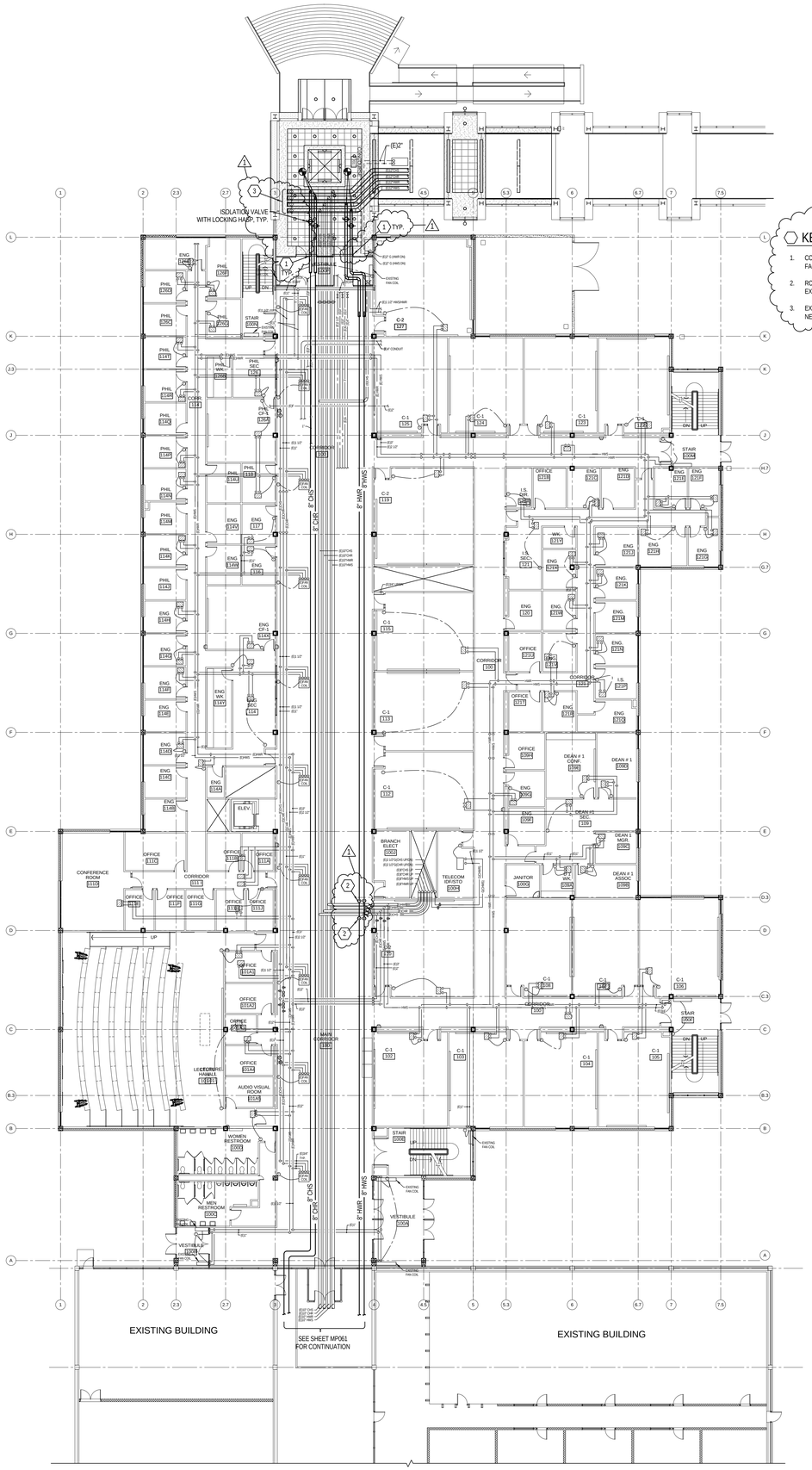
CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

MP1.10

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



KEYED NOTES

1. CORE DRILL THROUGH EXISTING CONCRETE BEAM TO FACILITATE INSTALLATION OF NEW PIPING. SEE STRUCTURAL.
2. ROUTE NEW HOT WATER SUPPLY AND RETURN PIPING BELOW EXISTING CONDUITS.
3. EXTEND EXISTING PIPING, CAP, AND ISOLATION VALVE, AS NECESSARY TO FACILITATE TIE-IN.

1 EXISTING L.A. BLDG MECHANICAL PIPING PLAN

SCALE: 1/16" = 1'-0"

12" 0" 8" 16" 24" 32"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4

LICENSED PROFESSIONAL ENGINEER
NO. 156-6708
Roger Lee. Hamlet JR.
04-27-2011
State of Utah

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

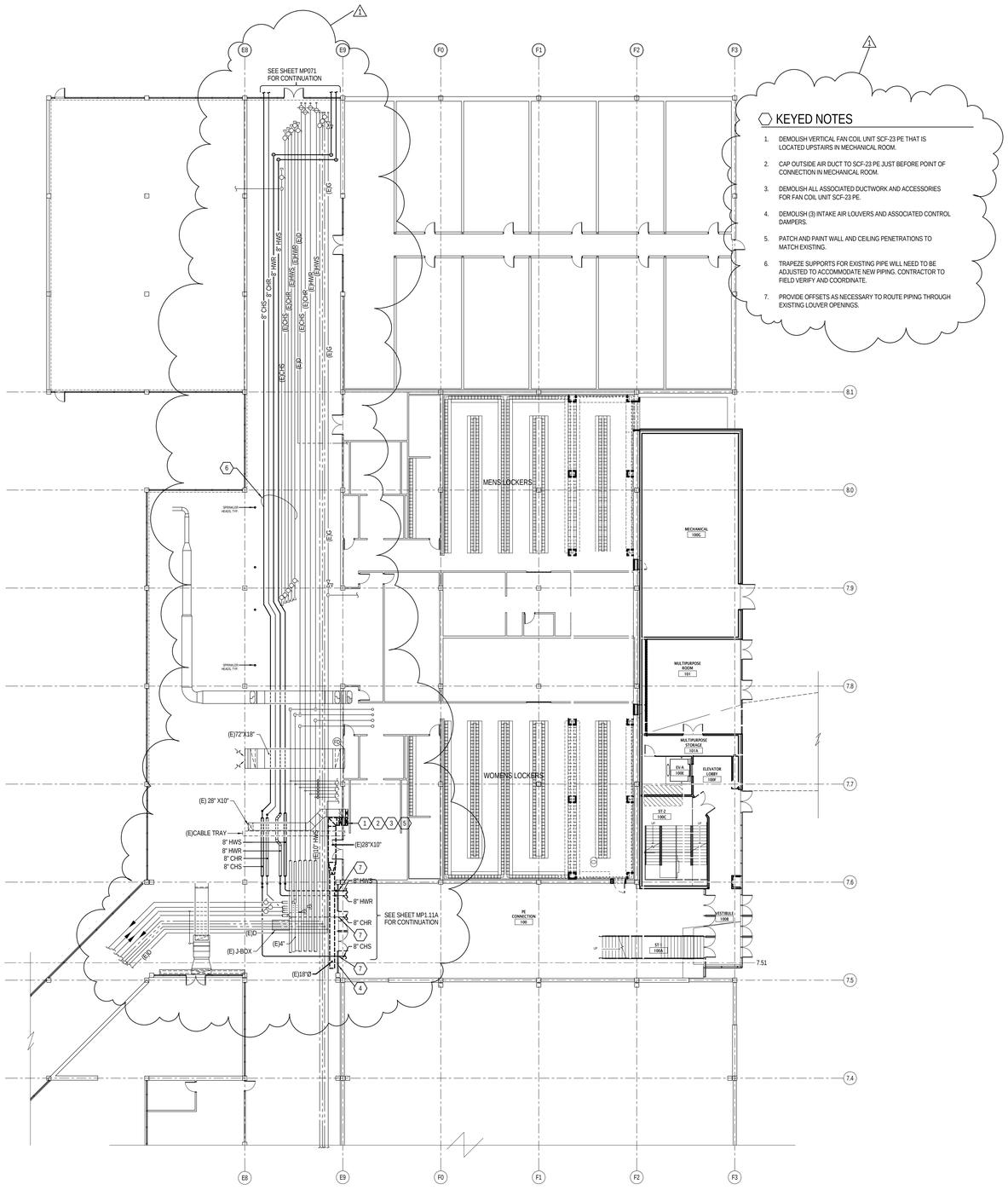
EXISTING L.A. BLDG MECHANICAL PIPING PLAN

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 | Fax: (801) 322-2416

MP071

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



KEYED NOTES

1. DEMOLISH VERTICAL FAN COIL UNIT SCF-23 PE THAT IS LOCATED UPSTAIRS IN MECHANICAL ROOM.
2. CAP OUTSIDE AIR DUCT TO SCF-23 PE JUST BEFORE POINT OF CONNECTION IN MECHANICAL ROOM.
3. DEMOLISH ALL ASSOCIATED DUCTWORK AND ACCESSORIES FOR FAN COIL UNIT SCF-23 PE.
4. DEMOLISH (3) INTAKE AIR LOUVERS AND ASSOCIATED CONTROL DAMPERS.
5. PATCH AND PAINT WALL AND CEILING PENETRATIONS TO MATCH EXISTING.
6. TRAPEZE SUPPORTS FOR EXISTING PIPE WILL NEED TO BE ADJUSTED TO ACCOMMODATE NEW PIPING. CONTRACTOR TO FIELD VERIFY AND COORDINATE.
7. PROVIDE OFFSETS AS NECESSARY TO ROUTE PIPING THROUGH EXISTING LOUVER OPENINGS.

1 EXISTING P.E. BLDG MECHANICAL PIPING PLAN

SCALE: 1/16" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.14.2012	ADDENDUM 4

LICENSED PROFESSIONAL ENGINEER
NO. 7 500 6108
Roger Lee Hamlet JR.
04-27-2011
State of Utah

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

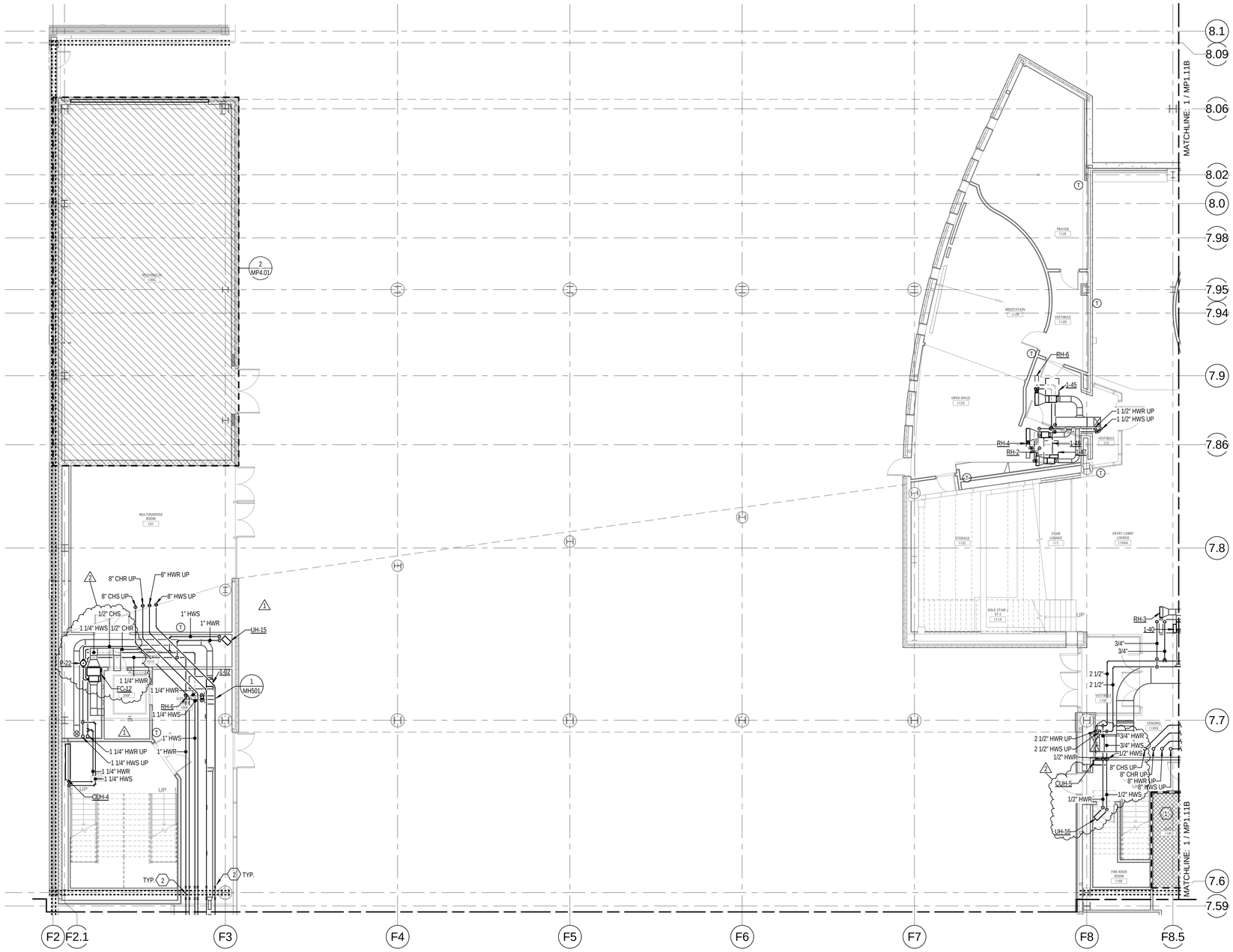
EXISTING P.E. BLDG MECHANICAL PIPING PLAN

CONSTRUCTION DOCUMENTS

MP061

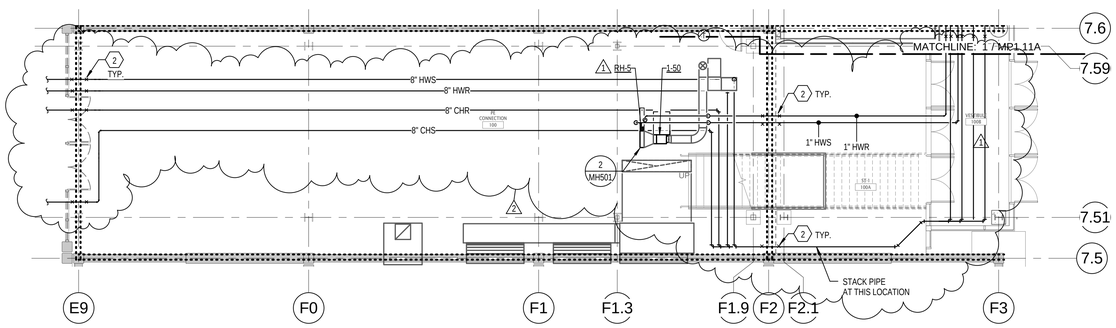
Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

Copyright (C) 2011 by Colvin Engineering Associates, Inc. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



1 LEVEL 1 - MECHPIPING ZONE A

SCALE: 1/8" = 1'-0"



2 LEVEL 1 - MECHPIPING ZONE A1

SCALE: 1/8" = 1'-0"

KEYED NOTES

1. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL/IT ROOMS AND ELEVATORS OR ELEVATOR EQUIPMENT ROOMS. TYPICAL.
2. PROVIDE METRAFLEX METRALOOP EXPANSION JOINT IN MECHANICAL PIPING DESIGNED FOR 7" OF MOVEMENT ACROSS SEISMIC EXPANSION JOINT. PROVIDE SEISMIC BRACING ON BOTH SIDES OF EXPANSION JOINT.

GENERAL NOTES

A. DO NOT ROUTE ANY PIPING ABOVE ELECTRICAL, IT ROOMS OR ELEVATOR MACHINE ROOMS.

B. ALL MANUAL VALVES, AUTOMATIC CONTROL VALVES, STRAINERS, AND CIRCUIT SETTERS SHALL BE INSTALLED WHERE ACCESSIBLE ABOVE LAY-IN CEILING. COORDINATE WITH LATEST AVAILABLE ARCHITECTURAL CEILING PLAN.

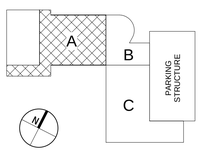
C. KEEP CONTROLS ACCESS ZONE OFF SIDE OF VAV BOX CLEAR OF ALL PIPING. PIPING MAY BE ROUTED ABOVE THE ELEVATION OF THE TOP OF THE VAV BOX, AVOIDING THE CONTROLS ACCESS ZONE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	05.09.2012	ADDENDUM 3
2	05.14.2012	ADDENDUM 4



KEYPLAN - NTS

STUDENT LIFE CENTER & PARKING STRUCTURE

Orem, Utah

UTAH VALLEY UNIVERSITY

DRAWN BY:	JMN
CHECKED BY:	RLH
OWNER PROJECT NO.:	
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

MECHANICAL PIPING FLOOR PLAN LEVEL 1 ZONE A

CONSTRUCTION DOCUMENTS

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2416

MP1.11A

SECTION 235100 - BREECHINGS, CHIMNEYS, STACKS, AND FLUES

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Positive Pressure Chimney and Manifold System.

B. **Engine Generator and Fire Pump Exhaust System.**

1.2 RELATED WORK

A. Requirements: Provide Breechings, Chimneys, Stacks and Flues in accordance with the Contract Documents.

B. Section 230500 - Basic Mechanical Requirements.

C. Section 230529 - Basic Mechanical Materials and Methods.

D. Section 224450 - Plumbing Equipment.

E. Section 235200 - Boilers.

F. **Section 211000 – Fire Protection**

1.3 REFERENCES

A. Reference Standards: Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations of the following:

ANSI/NFPA 37 - Installation and Use of Stationary Combustion Engines and Gas Turbines.

ANSI/NFPA 211 - Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances.

ANSI/UL 441 - Standard for Gas Vents.

1.4 QUALITY ASSURANCE

A. Manufacturers: Firms regularly engaged in manufacturer of prefabricated breeching and smokepipe, of types and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

1.5 SUBMITTALS

A. Submit Shop Drawings for the following items under provisions of the General Conditions of the Contract:

1. Positive Pressure Chimney and Manifold System.
2. **Engine Generator and Fire Pump Exhaust System**

B. Submit Product Data for the following items under provisions of the General Conditions of the Contract:

1. Positive Pressure Chimney and Manifold System.\
2. **Engine Generator and Fire Pump Exhaust System**

PART 2 - PRODUCTS

2.1 POSITIVE PRESSURE CHIMNEY AND MANIFOLD SYSTEM

A. Acceptable Manufacturers: Selkirk Metalbestos Model PS, Schebler, Amerivent, AMPCO, Metal Fab, Cheminee Lining, Metal Vent, United McGill, Van Packer**, Protech Systems**.

B. General: Provide double wall metal chimney, U.L. Listed for use with building heating equipment burning gas, solid or liquid fuels as described in NFPA 211, Section 2-3.1 and Appendix A.

C. Material: Double wall metal chimney with minimum one inch air space between the walls and inner gas-carrying pipe of AL29-4C stainless steel, intended for use with condensing appliances. Where installed indoors, outer jacket shall be aluminum coated steel. Where installed outdoors/above roof, outer jacket shall be type 304 stainless steel.

D. Accessories: Provide manufacturer's standard accessory items including flanged boiler kits, clamp flanges, elbows, increasers, tees, wyes, drain sections, wall supports, wall guides, floor guides, plate supports, roof supports, ventilated roof thimbles, flashings, storm collars, exit cones, open stack top rings and stack caps as indicated and required for complete installation. The basis-of-design boiler manufacturer requires all 90° changes in direction to be made with radiused elbows, not with tee fittings.

E. Seals: For flue gas temperatures up to 600 degrees F, any RTV Silicone Sealant. For flue gas temperatures over 600 degrees F, Sauereisen #33 ceramic joint cement or its equivalent.

2.2 ENGINE GENERATOR EXHAUST SYSTEM

A. Acceptable Manufacturer: Selkirk Metalbestos Model PS, United McGill Unistack, Metal-Fab PIC, Ampco VSI, Van Packer DW., Cheminee Lining, **Protech Systems.**

B. General: Provide double wall metal chimney, U.L. Listed for use with equipment burning gas or liquid fuels as described in NFPA 37 and 211. **Min. 2" insulation between inner and outer walls.**

C. Material:

1. ASTM A53, Type E (electric resistance welded), Grade B; or ASTM A 106, Type S Grade B Schedule 40 pipe; with welded joints and carbon-steel fittings and flanges.

   a. Wrought-Steel Fittings: ASME B16.9 wall thickness to match adjoining pipe.
   b. Wrought Cast- and Forged-Steel Flanges and Flanged Fittings: ASME B16.5, Class 150, including bolts, nuts and gaskets.

2. All elbows to be wide sweep. Insulate Schedule 40 black steel pipe with mineral wool or calcium silicate insulation and metal jacket as per Specification Section 230700 - Mechanical Insulation. Contractor is responsible for providing all necessary accessories to accommodate thermal expansion of the pipe.
3. **Outer wall to be type 304 stainless steel.**

D. Accessories: Provide manufacturer's standard accessory items including flanged connector kits, clamp flanges, elbows, increasers, tees, wyes, drain sections, drain traps, wall supports, wall guides, floor guides, plate supports, roof supports, ventilated roof thimbles, flashings, storm collars, exit cones, open stack top rings and stack caps as indicated and required for complete installation. **All mounting brackets and angles shall be galvanized or stainless steel, intended for installation outdoors.**

E. Seals: For flue gas temperatures over 600 degrees F, Sauereisen #33 ceramic joint cement or its equivalent.

~~F. At contractor's option, provide schedule 40 black steel pipe with welded joints and fittings in place of the factory built generator exhaust system.~~

PART 3 - EXECUTION

3.1 POSITIVE PRESSURE CHIMNEY AND MANIFOLD SYSTEM

A. Install in accordance with Manufacturers installation instructions. Maintain UL-Listed minimum clearances from combustibles as described in NFPA 211, Section 2-3.1 and Appendix A. Assemble manifold, stack and accessories as indicated for complete installation.

B. Seal inner pipe joints during field assembly with a paste of Sauereisen #33 ceramic joint cement or its equivalent to assure positive internal pressure requirements.

C. Terminate chimney pipe extending above roof surfaces as required by local code.

D. Slope all boiler vent material back towards boiler so all condensate flows back into boiler. Basis-of-design boiler includes a condensate drain outlet that is intended to handle all condensate out of the vent system. **Transitions from horizontal to vertical vent material shall use a radiused elbow to allow condensate to drain back into boiler.**

3.2 ENGINE GENERATOR EXHAUST SYSTEM

A. Install in accordance with Manufacturers installation instructions. Maintain UL-Listed minimum clearance from combustibles as described in NFPA 37 and 211. Assemble manifold, stack, and accessories as indicated for complete installation. Manufacturer shall design the venting system and provide accessories to accommodate thermal expansion.

B. Seal inner pipe joints during field assembly with sealant to assure positive internal pressure requirements.

C. Terminate chimney pipe extending above roof surfaces with ~~rain cap and as required by local code~~ **a counterbalanced flapper cap**.

D. ~~Provide a minimum of one base coat and one finish coat of heat and corrosion resistance primer and paint protection on all exposed metal parts in accordance with Section 09900 - Painting.~~ **Provide a flexible connector at the connection to the exhaust outlet from the generator weatherproof enclosure.**

END OF SECTION 235100

3.6 DUCTWORK APPLICATION SCHEDULE

A. AIR SYSTEM MATERIAL

Low Pressure Supply (System with cooling coils)	Galv. Steel
Medium and High Pressure Supply	Galv. Steel
Return and Relief	Galv. Steel
General Exhaust, **Dryer Exhaust**	Galv. Steel
Low Pressure Flex Duct	Insulated Flexible Round Duct
Kitchen Hood Exhaust	304 Stainless Steel
Outside Air Intake	Galv. Steel
Combustion Air	Galv. Steel

Unless identified otherwise at specific locations on the drawings.

3.7 DAMPER OPERATOR HARDWARE

A. Install per manufacturer's instructions and recommendations. Coordinate any celing control locations prior to installation.

B. Coordinate length of flexible shaft on site.

3.8 VOLUME CONTROL DAMPERS

A. Provide balancing dampers at points on low pressure supply, return, and exhaust systems where branches are taken from larger ducts as required for air balancing.

3.9 FIRE DAMPERS, SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS

A. Provide fire dampers, combination fire and smoke dampers or smoke dampers at locations indicated, where ducts and outlets pass through fire rated components. Install with required perimeter mounting angles, sleeves, breakaway duct connections, corrosion resistant springs, bearings, bushings and hinges per manufacturer's instructions.

B. Demonstrate re-setting of fire/smoke dampers and/or smoke dampers to authorities having jurisdiction and Owner's representative.

3.10 GRAVITY BACKDRAFT DAMPERS (LOW PRESSURE SYSTEMS)

A. Provide backdraft dampers on exhaust fans or exhaust ducts where indicated.

2.3 VALVE AND DAMPER ACTUATORS

A. Electric actuators for modulating or two-position control shall be direct coupled type. The drive motor shall be protected from overload at all angles of rotation. Where indicated, actuators shall be provided with spring return to the end position upon power interruption. Outdoor air dampers to fail closed, return air dampers to fail open. Actuator shall be available with adjustable end switches and have manual positioning capability. Thermally actuated valves are not allowed on this project. Install an actuator in each individual device that requires automatic actuation. Do not use linkage between devices to share a single actuator.

1. **Control valve actuators shall be 0-10 VDC or 0-20 MA. Do not use 3-point floating control.**

2.4 CONTROL DAMPERS

A. Motorized control dampers furnished by the Control Contractor shall be factory built units with minimum 16 gauge galvanized steel blades, 1/2" axles, and oillite or cycoloy bearings. Frames shall be hat channel design, 0.125" minimum thickness with corner braces to assure squareness. Mixing dampers shall be parallel blade with blade direction oriented to assist mixing of air streams. Volume dampers shall be opposed blade. Outside air and relief air dampers shall be low leakage type with edge seals. Leakage shall not exceed 10 cfm/sq. ft. at 4" W.C. Maximum blade width shall not exceed 8". Dampers shall be not more than 42" in length between bearings. Damper sections shall be not more than 72" high. Dampers shall be Ruskin model CD60 (no substitutions), except where other models are specifically noted.

2.5 SMOKE DETECTORS

A. Provide smoke detectors where indicated on drawings and schematics. Smoke detectors shall be wired by Division 230900 Contractor.

obtain design cfm and to satisfy space temperature setpoints. The cooling demand shall reset the duct static pressure so that the minimum static pressure is used to maintain the greatest demand for cooling.

4. The control system shall sequence all cooling and heating devices in the air handler to maintain discharge air temperature at 54°F (programmable) throughout the year. The system will be sequenced as follows:

   a. Use air side economizer by modulating outdoor air and return air dampers to satisfy discharge air temperature setpoint.
   b. Leave outside air dampers 100% open and return air dampers 100% closed. Start condenser water pump to supply the indirect cooling coils, and start the cooling tower fan on low speed. Use cooling tower fan VFD to modulate tower fan speed to satisfy discharge air temperature setpoint of the air handler.
   c. Start the fill cycle of the direct evaporative cooler, then start its recirculation pump. Continue to modulate tower fan speed to maintain discharge air temperature.
   d. Continue to operate the direct evaporative cooler recirc pumps. Start chilled water pump and modulate pump speed to satisfy discharge air temperature setpoint off the air handler. Outside air dampers to remain 100% open, cooling tower fans operate at full speed, direct evaporative air washer pumps continue to circulate water.
   e. Also see the tabular summary of the sequence at the end of this specification section. Note that discharge air temperature off AH-1 shall never be allowed to rise above 54°F when the direct evaporative media is being used. This is to prevent objectionable humidity levels from occurring in the occupied spaces. Do not stage the direct evaporative media on and off once it has been turned on during an occupied period. It should only be shut down at the end of the occupied period for that day. **The only exception to this is if outdoor air temperature is less than DAT setpoint for the air handler, at which time the direct evap system shall be shut off.** Do not turn on preheat coils if the direct evaporative air washer is operating.
   f. If the discharge air temperature drops below setpoint, the above cooling sequence shall be reversed. If the discharge air temperature continues to be below setpoint after the modulating outside air control dampers have been modulated to minimum airflow (minimum outside air being provided), start the lead heating coil circulation pump and modulate the two-way heating water valve at the heat exchanger to maintain discharge air temperature setpoint of the air handler.
   g. Direct evaporative cooler shutdown at the end of 5 programmed occupied periods during which the sump was full of water (programmable) will result in a evaporative media rinse cycle as follows:
      1) Close the solenoid valve leading to the direct evaporative cooler make-up water float valve.
      2) Open the motorized ball valve at the evaporative cooler sump

T. Chilled Water Pumps for Fan Coils (P-13/P-14 and P-15/P-16)

These pumps serve chilled water fan coils in floor-by-floor IT rooms. There are two sets of pumps, one set per mechanical room, and each set serves a different group of fan coil units. Pumps are in a lead/lag configuration.

Upon a call for cooling from any of these fan coils, start the lead pump and modulate its speed to satisfy the differential pressure sensor located in the piping on the first floor. Upon failure of a pump, start the back-up pump and generate an alarm.

U. Glycol Make-Up

Provide controls for the two glycol make-up systems as indicated on detail 10 on sheet MH5.01. Display all pressure readings and alarms on the 230900 controls system.

V. Hydraulic Elevator Exhaust Fans:

Run continuously during scheduled occupied hours. These fans operate at a constant operating speed. Equip each fan with a two-position motorized damper at the point it connects to the exhaust duct system. Open damper when fan is in operation, and close the damper when the fan is off. Monitor fan motor status with an adjustable setpoint current switch. Fan failure or an uncommanded change of status is to generate an alarm.

W. Fire Pump (Add-Alternate Only)

A diesel driven fire pump is included in the bid alternate for an additional floor of parking garage. Monitor the fire pump controller for fuel tank leakage alarm, low fuel level condition, and high fuel level condition.

Monitor pump control panel to determine when pump is operating, and open the two 2-position motorized dampers in pump room wall and operate the pump room ventilation fan whenever pump is operating. Shut off fan and close dampers when pump is off.

X. Make-Up Air Fan MAF-1 for Dryers

Monitor dry contacts on commercial dryers to determine when they are operating. When dryer operation is detected, start MAF-1. If one fan is operating, run MAF-1 at ½ design airflow rate by programming fixed operating speed into its VFD. If two dryers are operating, run MAF-1 at full speed.

Monitor MAF-1 fan motor with an adjustable setpoint current sensor. Generate an alarm upon fan failure.

Y. Fan Coil FC-1 (Climbing Room)
Fan coil FC-1 is a heating-only fan coil unit that consists of supply fan, filters, and

heating coils. Upon a call for heating in the climbing room, start the fan coil unit as the first stage of heating. Modulate heating coil valve to satisfy space temperature setpoint. Monitor filter bank with a differential pressure sensor and generate a filter change notification when the pressure drop across the fitler bank reaches 1.0" WC (adjustable). Monitor the fan motor with an adjustable setpoint current switch, and generate an alarm upon fan failure.

Include a manual switch inside the storage closet where FC-1 is installed so the fan can be turned on, even if heating is not required. This allows the filters in the fan coil to help control dust in the room.

The overhead VAV boxes in this room act as the second stage of cooling, and the reheat coils and air damper are to be modulated as described for VAV boxes only after the fan coil unit is not capable of maintaining space temperature.

END OF SECTION 230900

Utah Valley University

STUDENT LIFE CENTER AND PARKING STRUCTURE

ADDENDUM NO. 4

May 14, 2012

ELECTRICAL and TECHNOLOGY

This addendum consists of the following:

Revised Sheets:

AD4-E01 The following drawings and sheets are revised, and are attached herewith. Changes are clouded and further explanation may or may not be provided in the written portion that follows in this addendum:

8-1/2 x 11 Revision Drawings:

Fixture Schedule, 8-1/2 x 11 format

EY-121B-RV04	Level 2 Security Plan Zone B
EY-602-RV04	Hand Reader Access Entry System

Full-Size Revised Sheets:

EE-001	SHEET INDEX, ABBREVIATIONS,AND GENERAL NOTES
EE-501	DETAILS
ES-102	ENLARGED PARTIAL CAMPUS ELECTRICAL SITE PLAN
ES-103	SITE DEMOLITION PLAN
ES-104	SITE POWER PLAN
ES-105	SITE LIGHTING PLAN
EP-111a	LEVEL 1 POWER PLAN ZONE A
EP-111b	LEVEL 1 POWER PLAN ZONE B
EP-111c	LEVEL 1 POWER PLAN ZONE C
EP-121a	LEVEL 2 POWER PLAN ZONE A
EP-121b	LEVEL 2 POWER PLAN ZONE B
EP-121c	LEVEL 2 POWER PLAN ZONE C
EP-131a	LEVEL 3 POWER PLAN ZONE A
EP-131b	LEVEL 3 POWER PLAN ZONE B
EP-131c	LEVEL 3 POWER PLAN ZONE C
EP-141a	LEVEL 4 POWER PLAN ZONE A
EP-141b	LEVEL 4 POWER PLAN ZONE B
EP-141c	LEVEL 4 POWER PLAN ZONE C
EP-151b	ROOF POWER PLAN ZONES B & C

EP-161	ENLARGED UPPER CENTRAL PLANT ELECTRICAL PLAN
EP-603	NORMAL POWER ONE-LINE DIAGRAM
EP-604	EMERGENCY POWER ONE-LINE DIAGRAM
EP-605	EQUIPMENT SCHEDULE
EP-606	EQUIPMENT SCHEDULE
EP-661	UPPER PLANT POWER ONE-LINE DIAGRAM
EL-111a	LEVEL 1 LIGHTING PLAN ZONE A
EL-111b	LEVEL 1 LIGHTING PLAN ZONE B
EL-111c	LEVEL 1 LIGHTING PLAN ZONE C
EL-121a	LEVEL 2 LIGHTING PLAN ZONE A
EL-121b	LEVEL 2 LIGHTING PLAN ZONE B
EL-121c	LEVEL 2 LIGHTING PLAN ZONE C
EL-131a	LEVEL 3 LIGHTING PLAN ZONE A
EL-131b	LEVEL 3 LIGHTING PLAN ZONE B
EL-131c	LEVEL 3 LIGHTING PLAN ZONE C
EL-141a	LEVEL 4 LIGHTING PLAN ZONE A
EL-141b	LEVEL 4 LIGHTING PLAN ZONE B
EL-141c	LEVEL 4 LIGHTING PLAN ZONE C
EL-202	LIGHTING SECTIONS
EL-401	PARTIAL PE AND SORENSEN LIGHTING PLANS
EL-501	LIGHTING CONTROL SCHEDULES AND DETAILS
EL-502	LIGHTING DETAILS
EL-601	FIXTURE SCHEDULE
EL-602	FIXTURE SCHEDULE
ET-121a	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE A
ET-121b	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE B
EY-121b	LEVEL 2 SECURITY PLAN ZONE B
EY-602	SECURITY DIAGRAMS
EJ-111a	LEVEL 1 AUDIO-VIDEO PLAN ZONE A
EJ-111b	LEVEL 1 AUDIO-VIDEO PLAN ZONE B
EJ-111c	LEVEL 1 AUDIO-VIDEO PLAN ZONE C
EJ-121a	LEVEL 2 AUDIO-VIDEO PLAN ZONE A
EJ-121b	LEVEL 2 AUDIO-VIDEO PLAN ZONE B
EJ-131c	LEVEL 3 AUDIO-VIDEO PLAN ZONE C
EJ-141c	LEVEL 4 AUDIO-VIDEO PLAN ZONE C
EJ-301	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-302	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-502	AUDIO-VIDEO ROUGH-IN DETAILS
EJ-601	AUDIO-VIDEO ROUGH-IN SCHEDULES AND NOTES
EJ-602	AUDIO-VIDEO ROUGH-IN RISER DIAGRAMS

TT-001 TELECOMMUNICATIONS SCHEDULES AND NOTES
TT-601 TELECOMMUNICATIONS RISER DIAGRAMS

FA-P916 PARKING LEVEL P5/P6 FIRE ALARM PLAN - BID ALT

General Items:

AD4-E02 Allowances:

Include the following allowances in the bid. Allowances prices shall include all materials and labor for complete installation and operation, and shall be valid for the duration of the project. Unused allowances will be credited back to the Owner at the end of the project:

a. Exit Signs (E9-1): 20 each, including 100' of typical branch conduit and wiring.
b. Smoke Detectors: 20 each, including 50' of typical fire alarm conduit and wiring.
c. Evacuation Speaker/Strobe Lights: 20 each, including 50' of typical fire alarm conduit and wiring.
d. Connections to Miscellaneous 120V/20A Equipment: 20 each, including 100' of typical branch conduit and wiring

Specifications:

AD4-E03 Specification Section 260533 - Raceways and Boxes for Electrical Systems:

a. Paragraph 3.2.H: Replace this paragraph with the following:

H. Raceways embedded in elevated slabs:
1. Parking Structure:
a. Run conduit parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.
b. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
c. Change to rigid steel conduit before existing slab.
d. Separate conduits by at least 18".
e. Install conduits in middle 1/3 of slab.
f. Provide at least 1" cover over conduits.
g. Do not cross over conduits.

2. Building and All Other Areas:
a. Do not install raceways in elevated slabs

AD4-E04 Specification Section 263213 - Engine Generators:

a. Paragraph 2.3.I: Replace with the following:

I. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to handle engine manufacturer's engine backpressure requirements, plus the additional backpressure required for two 90-degree

elbows and 30 feet of 8' exhaust pipe. The silencer/muffler shall be included as part of the generator housing, and shall terminate outside the generator housing so that the mechanical contractor can connect and extend the piping beyond the housing.

1. Sound level measured at a distance of 23 feet (7 m) from exhaust discharge after installation is complete shall be 72 dBA or less.

b. Paragraph 2.8.A.1: Replace with the following:

1. Sound level measured at a distance of 23 feet (7 m) from exhaust discharge after installation is complete shall be 72 dBA or less.

AD4-E05 Specification Section 260943 - Network Lighting Controls:

a. Paragraph 2.2.C.2: Add the following paragraph:

a. Provide a list of BACnet points for the owner to approve prior to installation. Provide a minimum of 10 separate points to interface with the BMS.

b. Paragraph 3.2.B.2: Add the following paragraph:

2. Include at least 3 separate trips to the site for startup, programming and training.

AD4-E06 Specification Section 262923 - Variable Frequency Motor Controllers:

a. Paragraph 2.2.G.2: Add the following paragraph:

3. Provide separate landing strip to for Remote Signal, Output Signal, Alarm Signal and Start/Stop Signal.

AD4-E07 Specification Section 281300 – Access Control:

a. New Paragraph 1.2.B: Insert this new paragraph that reads as follows:

B. This Section also includes a hand reader entry system at the controlled entrance to the Recreation Area on the Second Floor. There are three turnstile entry points, each with a separate hand reader with PIN pad. System readers are networked to a computer terminal with the reader software at the adjacent control desk. A fourth hand reader shall be located at a separate location for hard template enrollment purposes. The system can be deployed as either a stand-alone system or part of the Campus security network (Lenel).

b. New Paragraph 2.8: Insert the new paragraph that reads as follows:

2.8 HAND READER ENTRY CONTROL SYSTEM

A. Provide the HandKey II Biometric Access Control Reader by IR Recognition Systems with associated power supplies and network cabling per manufacturer's requirements.

B. Provide a compatible PC computer terminal with associated reader system software (HandNet for Windows) and with hardware features that complement the system requirements for processor speed, hard drive storage, and network connections.

C. Coordinate mounting of readers at the turnstile locations with the Architect and the turnstile installers

Drawings:

AD4-E08 Sheets EP-111a through EP-151b - Power to Mechanical Equipment: Several changes and additions to mechanical equipment have occurred in this and previous addenda. Refer to the Mechanical Addenda, revised Equipment Schedule (included in this addendum) and the list below for revised electrical connections to mechanical equipment:

a. B-3 EXISTING MECHANICAL IN COMPUTER SERVICE BUILDING NEAREST PANEL
b. B-4 EXISTING MECHANICAL IN COMPUTER SERVICE BUILDING NEAREST PANEL
c. BCP-3 EXISTING MECHANICAL IN COMPUTER SERVICE BUILDINGNEAREST PANEL
d. BCP-4 EXISTING MECHANICAL IN COMPUTER SERVICE BUILDINGNEAREST PANEL
e. CD-X MECHANICAL AND ELECTRICAL SPACES AND THROUGHOUT NEAREST PANEL
f. CRP-2 GREEN MAN STORAGE 125C NEAREST Q - PANEL
g. CRP-3 LAYOUT 224Q NEAREST Q - PANEL
h. CT-1 OUTSIDE AREA C GRID LINES F2 AND 7.9 NEAREST Q - PANEL
i. CT-1bh OUTSIDE AREA C GRID LINES F2 AND 7.9 NEAREST PANEL
j. CT-2bh ROOF OFF OF MECHANICAL 400T NEAREST PANEL
k. CT-1bh OUTSIDE AREA C GRID LINES F2 AND 7.9 NEAREST PANEL
l. CT-2bh ROOF OFF OF MECHANICAL 400T NEAREST PANEL
m. CUH-2 PARKING GARAGE ELEV LOBBY NEAREST PANEL
n. CUH-3 CUH-3 200D NEAREST PANEL
o. CUH-4 ST-2 100C NEAREST PANEL
p. CUH-5 VESTIBULE 110C NEAREST PANEL
q. CUH-6 ST-8-1 110Q-1 NEAREST PANEL
r. DCP-1 MECHANICAL 400T NEAREST PANEL
s. EF-7 GREEN MAN STORAGE 125C NEAREST PANEL
t. EF-8 ELEC 200K NEAREST PANEL
u. EF-9 EMPLOYEE LOUNGE 208 NEAREST PANEL
v. EF-10 GREEN MAN STORAGE 125C NEAREST PANEL
w. EUH-2 CUSTODIAL 313A NEAREST PANEL
x. FC-10 LAUNDRY 125E NEAREST Q - PANEL
y. FC-14 STORAGE 401A NEAREST Q - PANEL
z. FC-15 STORAGE 502 NEAREST Q - PANEL
aa. MAF-1 SG STORAGE 125E 4MCC-A
bb. P-1 MECHANICAL-1 100G-1 1MCC-C
cc. P-2 MECHANICAL-1 100G-1 1MCC-C

dd. P-5 PUMP changes from 10HP to 20HP. Change wiring to CC#8, and switch size to 60A. (NOTE: THIS CHANGE DOES NOT SHOW ON THE REVISED EQUIPMENT SCHEDULE, BUT IS REQUIRED).

ee. PUMP changes from 10HP to 20HP. Change wiring to CC#8, and switch size to 60A. (NOTE: THIS CHANGE DOES NOT SHOW ON THE REVISED EQUIPMENT SCHEDULE, BUT IS REQUIRED).

ff. P-17 MECHANICAL-1 100G-1 1MCC-C

gg. P-18 MECHANICAL-1 100G-1 1MCC-C

hh. P-22 MULTIPURPOSE STORAGE 101A NEAREST Q - PANEL

ii. P-23 NEAR - SS STUDENT COUNCIL CHAMBER 114 EAREST Q - PANEL

jj. P-24 STORAGE 401A NEAREST Q - PANEL

kk. P-25 STORAGE 502 NEAREST Q - PANEL

ll. SP-1 EV-A-1 NEAREST PANEL

mm. SP-2 EV-C-1 NEAREST PANEL

nn. SP-3 ELEV-3 NEAREST PANEL

oo. SP-4 ELEV-4 NEAREST PANEL

pp. SP-5 ELEV-5 NEAREST PANEL

qq. UH-15 MULTIPURPOSE STORAGE 101A 1LA1

rr. UH-16 ST-5 110D 1LA1

AD4-E09 <u>Sheet EP-131c:</u> The following changes apply to this sheet (in addition to the items indicated on the clouded revision sheet):

a. Add power and data outlet for flat-panel monitors along gridline F-8 at gridlines 7.2 and 7.1, mounted at flat panel height (to be coordinated with AV installer) - two total added outlets. Circuit outlets to spare breaker in panel 3LA1.

AD4-E010 <u>Sheet EP-141a:</u> The following changes apply to this sheet (in addition to the items indicated on the clouded revision sheet):

a. The outlet in electrical room 400E is circuits to panel 2QLB.

AD4-E011 <u>Sheet EP-141b:</u> The following changes apply to this sheet (in addition to the items indicated on the clouded revision sheet):

a. Control Desk 401: Provide electrical connections to LED lights in desk millwork. Circuit through relay panel to 4LB1.

b. Circuit outlet on colum 7.7 and G0.1 with other outlets in area (4LB2-24).

AD4-E012 <u>Sheet EP-141c:</u> The following changes apply to this sheet (in addition to the items indicated on the clouded revision sheet):

a. Panel 4LA2 in electrical room is future.

b. J-boxes in MP Studio: Apply Sheet Keynote #3.

AD4-E013 <u>Sheet EP-402:</u> The following changes apply to this sheet::

a. Un-circuited outlets to to 1LA2-2.

AD4-E014 <u>Sheet EP-161:</u> Add this sheet (Enlarged Upper Central Plant Electrical Plan) to the drawing set (attached) which indicates electrical requirements for added mechanical equipment in the existing Upper Central Plant.

AD4-E015 <u>Sheet EP-661:</u> Add this sheet (Upper Central Plant Power One-Line Diagram) to the drawing set (attached) which indicates electrical requirements for added mechanical equipment in the existing Upper Central Plant.

AD4-E016 Sheet EP-P101: The following changes apply to this sheet:

a. Add weather-proof GFI outlet in elevator pit for sump pump. Coordinate exact location with mechanical installer. Circuit to spare 20A/1P CB in panel PQLA.

AD4-E017 Sheet EP-P101 and EL-P101: The following changes apply to this sheet::

a. Add 120V/20A connections to diesel fire pump. Circuit to PQLA using #10 AWG wire.
b. Add outlet in room at G2/7.94. Circuit to P1LA.
c. Add light fixture (F-11) to same room, with switch and occupancy sensor. Circuit to P1LA.

AD4-E018 Sheet EL-P301: The following changes apply to this sheet:

a. The sections on this sheet show the (V-11) fixtures surface mounted deck on each level of the parking structure, however, these fixtures shall be pendant-mounted such that the bottom of fixture is at same elevation as bottom of beam.

AD4-E019 Sheet EL-P916: The following changes apply to this sheet:

a. Parking P6 Lighting Plan - Bid Alt: There shall be (4) total (ZX-3) pole lights on this sheet, mounted in the same positions as they are on Sheet EL-P105, only moved up to this level to accommodate the added level of parking under the Bid Alternate.

AD4-E020 Sheet EY-121B: The following changes apply to this sheet:

a. Hand reader entry system has been added. See Attachment EY-121B-RV04-1.

AD4-E021 Sheet EY-602: The following changes apply to this sheet:

a. New single line detail for hand reader system has been added. See Attachment EY-602-RV04-2.

AD4-E022 Sheet ET-111B: The following changes apply to this sheet:

a. Change The AV rack in Storage 115 to a 'W'.
b. Add a 'C' type rack in Student Council Chamber 114 as shown on EJ sheets.
c. Provide 2 each 4" conduits from IT Closet 110G to accessible ceiling in Entry Lobby Lounge 110A.
d. Add 3 each 4" conduits from IT Closet 110G to Accessible ceiling in Billards117N

AD4-E023 Sheet ET-111C: The following changes apply to this sheet:

a. See EJ sheets for locations and designations of equipment racks.

AD4-E024 Sheet ET-121A: The following changes apply to this sheet:

a. Add a ceiling data outlet above the new ceiling mount flat panel shown on EJ sheets above Control Counter 202.

AD4-E025 Sheet ET-131B: The following changes apply to this sheet:

a. A TV outlet on the east and west side of the north column on gridline G1 in Cardio Theater 301.

AD4-E026 Sheet ET-601B: The following changes apply to this sheet:

a. As a general note add the following: Where cable tray and conduit are located above a wood slate ceiling all conduit and tray shall follow pathways

that are parallel and perpendicular to the ceiling. Were conduit is shown above such ceiling it can be changed to cable tray.

b. As a general note add the following: Where designations for floor boxes are missing refer to EP and EJ sheet for additional information on box type.

AD4-E027 Sheet EJ-601: Additional changes on this sheet (in addition to clouded chagnes):

a. For all speakers with 'H' and 'B' provide 'Z' type cable as shown on TA-601 cable schedule.

AD4-E028 Sheet TA-001: The following changes apply to this sheet:

a. For all systems shown provide cable as shown on the drawings for all speaker systems. See EJ sheets for cable to be furnished by electrical installer.
b. Provide trim rings and ceiling tile supports to electrical installer for installation.
c. For CP1 shown on plans provide 2 each 'L' type cable and 2 each 'M' type cables to rack associated with the system.
d. For all 'H' and 'B' type speakers cable provide shall be type 'Z'.

AD4-E029 Sheets FA-111a through FA141c: The following changes apply to this sheet:

a. Provide fire alarm and electrical connections to 10 additional smoke dampers that have been added by mechanical addenda. Refer to mechanical drawings and addenda for locations.

AD4-E030 Sheet FA-111B: The following changes apply to this sheet:

b. Removed one ceiling mounted speaker and relocated on ceiling mounted speaker/strobe in Vending 119.
c. Added control module for security system interface in IT Closet 110G.

AD4-E031 Sheet FA-111C: The following changes apply to this sheet:

a. Removed smoke detector from ST-8-1 110Q-1 landing.
b. Added control module for security system interface in IT Closet 110N.
c. Added two (2) wall mounted speaker strobes to Elec Main 110Y.
d. Added manual pull station outside of Storage 110R near Vestibule 110U.
e. Changed speaker/strobe to speaker only in ST-8-1 110Q-1.

AD4-E032 Sheet FA-121A: The following changes apply to this sheet:

a. Removed speaker from ST-2 landing.
b. Removed speaker from ST-5 landing.
c. Added speaker/strobe to Room 223P.

AD4-E033 Sheet FA-121B: The following changes apply to this sheet:

a. Added duct smoke detector to FC-1 ductwork at Climbing & Bouldering 203.
b. Added control module for security system interface in IT Closet 200M.
c. Added ceiling mounted speaker/strobe to Concourse 200-1.

AD4-E034 Sheet FA-121C: The following changes apply to this sheet:

a. Removed ceiling mounted speaker/strobe from ST-8 200U landing.
b. Added control module for security system interface in IT Closet 225A.

AD4-E035 Sheet FA-131A: The following changes apply to this sheet:

a. Added two (2) smoke detectors to Three-Court Gym Storage 302A for shaft fire/smoke damper closure.

b. Added three (3) smoke detectors to Three-Court Gym Storage 302C for shaft fire/smoke damper closure.

AD4-E036 Sheet FA-131B: The following changes apply to this sheet:
a. Added control module for security system interface in IT Closet 300J.

AD4-E037 Sheet FA-131C: The following changes apply to this sheet:
a. Added control module for security system interface in IT Closet 300P.
b. Changed wall mounted speaker/strobe in ST-8 300R landing to ceiling mounted speaker.
c. Removed ceiling mounted smoke detector from ST-8 300R landing.
d. Changed wall mounted speaker/strobe in Circulation 300 to ceiling mounted speaker/strobe.

AD4-E038 Sheet FA-141A: The following changes apply to this sheet:
a. Removed wall mounted speaker/strobe in ST-5 400D landing.
b. Removed fourteen (14) ceiling mounted smoke detectors above track area of Three Court Gym. This area is covered by beam detectors.

AD4-E039 Sheet FA-141B: The following changes apply to this sheet:
a. Added duct smoke detector and inter-connections adjacent to existing duct smoke detector between Three Court Gym and Climbing area.
b. Added smoke detector at ceiling of Climbing area.
c. Added ceiling mounted speaker/strobe at ceiling of Climbing area.
d. Added duct smoke detector in ductwork between Climbing area and Storage 401A.
e. Added control module for security system interface in IT Closet 400G.

AD4-E040 Sheet FA-141C: The following changes apply to this sheet:
a. Added control module for security system interface in IT Closet 400M.
b. Removed ceiling mounted smoke detector from ST-8 400P landing.
c. Removed wall mounted speaker/strobe in ST-8 400P landing.
d. Added wall mounted speaker/strobe to Equipment Repairs/Storage Room 410.
e. Added wall mounted speaker/strobe to Mechanical 400T near exterior doors.

AD4-E041 Sheet FA-601: The following changes apply to this sheet:
a. Added reference to new sheet FA-P601 for Parking Garage fire alarm riser information.
b. Removed Parking Input/Output Matrix (moved to new sheet FA-P601).
c. Revised Main Building Input/Output Matrix Fourth Floor Tamper to only indicate trouble alarm.

AD4-E042 Sheet FA-P101: The following changes apply to this sheet:
a. Revised FCP in to FTR (transponder panel).
b. Added tamper switch for each control valve on backflow preventer (2).
c. Added dry-pipe fire sprinkler system monitoring points for each level of parking structure (pressure flow switch, tamper switch, low pressure switch).
d. Added semi-automatic standpipe system monitoring points for stairwells in parking structure (pressure flow switch, tamper switches (3), low pressure switch). The standpipe deluge valve shall be interlocked with the dry-pipe sprinkler systems to release when flowing.

e. Added manual release switch for standpipe systems deluge valve releasing.
f. Added one wall mounted speaker/strobe at grids 7.95 & G4.

AD4-E043 Sheet FA-P102: The following changes apply to this sheet:
a. Added one wall mounted speaker/strobe at grids 7.95 & G4.
b. Added one wall mounted speaker/strobe at grids 7.6 & G6.

AD4-E044 Sheet FA-P103: The following changes apply to this sheet:
a. Added one wall mounted speaker/strobe at grids 7.95 & G4.
b. Added one wall mounted speaker/strobe at grids 7.6 & G6.

AD4-E045 Sheet FA-P104: The following changes apply to this sheet:
a. Added one wall mounted speaker/strobe at grids 7.95 & G4.
b. Added one wall mounted speaker/strobe at grids 7.6 & G6.

AD4-E046 Sheet FA-P916: The following changes apply to this sheet:
a. Add notification devices on P5 similar to P4, Add devices on P6 similar to P5.
b. Add heat detector at elevator.
c. The Add-Alternate for the parking garage adds one additional story to the garage. This will require the use of a diesel engine driven fire pump. Provide 120V Power to pump controller, which also includes two battery chargers. The fire pump will include 6 tamper switches and one flow switch. The additional floor of parking garage will require one additional dry valve, which means one additional tamper switch, pressure switch, and low pressure alarm switch.
d. Add transponder panel riser diagram from FA-601.
e. Add diesel fire pump monitoring points to Input/Output Matrix.

Attachments:

Revised drawings and sheets are attached, as listed at the beginning of this Electrical Addendum No. 4.

End of Addendum No. 4 - Electrical

LIGHTING FIXTURE SCHEDULE

BLUE TEXT IS REVISED

NOTE TO BIDDERS: COMPLY WITH THE LIGHTING SECTIONS OF THE SPECIFICATIONS.

REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

LINEAR FLUORESCENT FIXTURES MARKED "HIGH EFFICIENCY" USE 32 WATT 3100 INITIAL LUMEN LAMPS WITH .77 BALLAST FACTOR ELECTRONIC BALLAST.
LAMPS: OSI "XPS" SERIES, PHILIPS "ADV" SERIES, GE "T8 ULTRA HIGH LUMEN",
BALLASTS; ADVANCE "IOP" SERIES, OSI " PROSTART PSX", GE ULTRASTART SERIES.

SYMBOL	MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER
	AS						
	AS-1	ADJUSTABLE RECESSED LED DOWNLIGHT; 8' APERATURE WITH 21" X 21' X 10' DEEP HOUSING; ELECTRONIC DIMMABLE DRIVER; HIGH OUTPUT LED; 2800 LUM DELIVERED; NARROW FLOOD OPTICS; VERIFY AIMING IN FIELD WITH ARCHITECT	LED (incl) 3000K 85 CRI	54W	277V	BETA LED KIRLIN	ESA-ADR-828-C-NDADJ-SSGC-FF-277-525-30K LRR 07515 NFL UNV 30
	AS-2	ADJUSTABLE 3-HEAD, SEMI- RECESSED FIXTURE ASSEMBLY; 3XLED HEADS, 800 LUMENS EACH; 45 X 360 DEG ROTATION; WIDE FLOOD OPTICS; OVERALL HOUSING DIMENSION 21" X 15" X 6" DEEP.	LED (incl) 3000K 85 CRI	60 W (3X20W)	277V	AMERLUX LTG TIMESQUARE SPECTRUM LTG RSA	C3SR-3-16-LED-E-WT-277-(3)WFL-WT-3000 LSA11R-3-572-SCBA RC618LED3X30W 35K WD E2 SCBA/AR0318 XX C3 N W 30 LED E U X R SCBA SCBA
	CM	STEEL LINEAR FIXTURES: LENGTHS AND CONFIGURATIONS SHOWN ON THE DRAWINGS; LAMPS FOUR FOOT WHERE POSSIBLE; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; INTERNAL CONCEALED FASTENERS; COLOR AS NOTED AND/OR APPROVED BY ARCHITECT; ORIENT FIXTURE ACCORDING TO ARCHITECTS/ ENGINEER'S INSTRUCTIONS. SWIVEL STEM MOUNT UNLESS NOTED OTHERWISE. INSTALL LEVEL AND STRAIGHT WITH INVISIBLE SPLICES. PROVIDE ALL REQUIRED HANGERS, SPLICERS, END CAPS, JOINTS, FEEDS, ETC., FOR A COMPLETE INSTALLATION, WHITE LOUVER FINISH.					
	CM-1	6"X 6 1/2" PROFILE, WALL MOUNT, OPEN UP, K19 LENS DOWN, INDIRECT/DIRECT, 4' MODULE. HIGH EFFICIENCY	2-F32T8 RE841	50W/4'	277/120V	LITECONTROL MARK NEORAY PRUDENTIAL PMC LIGHTOLIER NATIONAL AXIS	W-ID-66N24T8K19-CWM-PST8-120/277 66W-DI-232T8-ET8PRS-UNIV-K19-MW-4' 88/2T8-S22-4-120/277PSEB P 60 D5 M5 2 04 T8 PROG START P19A UNIVOLT S66-DIA-W-2/OCT-4-K19-WHT-EBSPEC-12/27 SQ624BWL-UNV-PSX S66-ID/D-232OCT-A-W-UEB-CBA B6W-X-4-T8-1-1-M0-W-UNV-ERS-1

					DAY-O-LITE	PTP-DI-K19-1U1D-32T8-WM-4-SCBA-PROGST
CF	FLUORESCENT DOWNLIGHT; THERMALLY PROTECTED HOUSING: TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF FLANGING TRIM UNLESS NOTED.					
CF-1	RECESSED DOWNLIGHT; 6" APERTURE, HORIZONTAL, 26-32-42W CF-AMALGAM LAMP, CLEAR	1-CF-A32 RE835	50W	277/120V	PORTFOLIO KIRLIN LIGHTOLIER LITHONIA OMEGA PRESCOLITE HUBBELL HEWILLIAMS	C6132E-6151LI RR80602-97 8031CLW/6132BU AF 1/32TRT 6AR MVOLT OM6-1H-32PLT-CS-120/277 CFT632HEB-STF602H D9132-120/277V-9ARW PH60-132T-CS-BH-120/277
CF-2	RECESSED DOWNLIGHT; HORIZONTAL, 6" APERTURE, 32W CF-AMALGAM LAMP, LENSED, WET LABEL; SHOWER LIGHT.	1-CF-A32 RE835	40W	277/120V	LITHONIA LITON HEWILLIAMS HALO CAPRI	LF6N-1/32TRT-F6LS73-MVOLT LSH276A-132/LR14PW-WL PVSL60-132T-BH-120/277 PD6H142 E 62H 1G C W HB128APK CM6-F126/32/42-U-H66P
CF-3	RECESSED DOWNLIGHT; 8 3/4" APERTURE, HORIZONTAL, 2-32W CF-AMALGAM LAMPS, CLEAR.	2-CF-A32 RE835	76W	277/120V	LIGHTOLIER PRESCOLITE PORTFOLIO GOTHAM LTG OMEGA HEWILLIAMS	8039 CLP-8242HU CFT932HEB-STF902H C8242E-8351L1 AF 2/32TRT 8AR MVOLT S82H32PLT-U-T82HPLT-CS PH75-232T-CS-BH-120/277
CF-5	RECESSED WALL WASHER; 6-7" APERTURE, HORIZONTAL LAMP, 1-42W CF-AMALGAM LAMP, CLEAR CONE.	1-CF-A42 RE835	50W	277/120V	PORTFOLIO INFINITY LIGHTOLIER LITHONIA PRESCOLITE OMEGA	C7142E-7111LI (13 X 11-1/2 X 6-1/2) PH60 142T-EB (GX24Q-4) WW 277 BH 8087CLW/7142BU (15 X 12-3/4 X 7-3/4) AFW 1/42TRT 6AR MVOLT CFT632HEB-STF602HWW S61H42PLT-U-T61H-WW-CS
CF-16	WALL-MTD DOWNLIGHT; 9" APERTURE, OVERALL DIM. 11" DIA X 12' H; HORIZONTAL (2) 26-32-42W CF-AMALGAM LAMP, CLEAR REFLECTOR; CUSTOM COLOR BY ARCHITECT	(2)-CF-A32 RE835	100W	277/120V	PORTFOLIO KIRLIN LIGHTOLIER OMEGA HE WILLIAMS PRESCOLITE GOTHAM	 FSR 12053 WB MV SCBA CW8242HUCL-CBA OM82H32PLT-WC-CSFF PHC11/85-232T-CC-CS-WM-EB2-UNV CFW932EB-UNV-CBA CF11-2/32TRT 10AR MVOLT WM
DC / DW	LED LINEAR SYSTEMS, CEILING AND WALL, RECESSED AND SURFACE VERSIONS REQUIRED; WHERE A CEILING ROW CONTINUES TO AND DOWN A WALL, PROVIDE CONTINUOUS CORNER-PIECE TRANSITION FOR ONCE CONTINUOUS SYSTEM. FOR COMPLETE INFORMATION,INSTALLER IS REQUIRED TO REVIEW ALL LIGHTING AND ARCHITECTURAL PLANS, SECTIONS, ELEVATIONS AND DETAILS. DETAILED FACTORY SHOP DRAWINGS ARE REQUIRED FOR EACH LENGTH AS PART OF THE SUBMITTAL.					
DC-1	LINEAR DIRECT, RECESSED LED LIGHT FIXTURE; 3.5"W X 4" DEEP X LENGTH AS SHOWN ON DRAWINGS; HIGH-EFFICIENCY MICRO LENS; SPACKLE FLANGE FOR USE IN GYP BOARD CEILINGS; 1000 LUM/FT. DIMMABLE DRIVER	LED (incl.) 3500K	45 W per 4'	277V	AXIS LTG NEO-RAY	BMRLED-M-FL-XX-1000-3500K-W-277-D 22DR 100 L35 SR XX 277 DD/S92HT
DW-1	LINEAR DIRECT, RECESSED LED LIGHT FIXTURE; 3.5"W X 4" DEEP X LENGTH AS SHOWN ON DRAWINGS; HIGH-EFFICIENCY MICRO LENS; SPACKLE FLANGE FOR USE IN GYP BOARD WALLS; 750 LUM/FT. DIMMABLE DRIVER	LED (incl.) 3500K	45 W per 4'	277V	AXIS LTG NEO-RAY	BMRLED-M-FL-XX-750-3500K-W-277-D 22DR -750 L35 XX 277 DD/S92HT

	CONTINUOUS WITH DC-1 CEILING FIXTURE WHERE INDICATED ON DRAWINGS. TRANSITION TO SURFACE-MOUNTED PIECES ARE REQUIRED PER ARCHTECTURAL DETAILS AND ELEVATIONS.					
DF	DIRECT FLUORESCENT LIGHTING; MOUNTING AND STYLE AS INDICATED					
DF-1	LINEAR FLUORESCENT "STICK" LIGHT; ALUMINUM HOUSING WITH SPECULAR LOUVERS; IN ROW LENGTHS AS INDICATED ON DRAWINGS; SURFACE OR CABLE MOUNTED AS REQUIRED. 2.5"W X 4"D X 48" LONG; 1-LAMP T5HO	1-F54T5HO RE835	60W	UNV	DELRAY ARCH. LIGHT WORKS	ST44154.440-SAC LPLD-XX-FHO-R-STD-UNV-LV-CBA
DF-2	LINEAR FLUORESCENT "STICK" LIGHT; ALUMINUM HOUSING WITH SPECULAR LOUVERS; IN ROW LENGTHS AS INDICATED ON DRAWINGS; SURFACE OR CABLE MOUNTED AS REQUIRED. 2.5"W X 4"D X 48" LONG; 1-LAMP T5 STANDARD OUTPUT.	1-F28T5 RE835	30W	UNV	DELRAY ARCH. LIGHT WORKS	ST54128.440-SAC LPLD-XX-FSO-R-STD-UNV-LV-CBA
E9	EXIT SIGN: METAL HOUSING; CEILING MOUNT, SEE DRAWINGS; ARROWS PER PLANS; LED LAMPS;EMERGENCY BATTERY PACK WITH 10 YEAR PRO-RATA WARRANTY; SELF-TESTING; EDGE LIGHTED CLEAR LENS; GREEN LETTERS ON CLEAR BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. UNITS SHOWN ARE CEILING MOUNT MODELS. CONTRACTOR TO PROVIDE MATCHING WALL MOUNTED UNITS WHERE REQUIRED.					
E9-1	SINGLE FACE:	LED	20W	120/277V	DUAL-LITE EELP LITHONIA ISOLITE CHLORIDE EXITRONIX LIGHTOLIER SURE-LITES	CVER1GNE EDG 1 GC W EM EDGR W 1 GMR EL EDGL-EM-S-S-G-BK (BLACK HOUSING) STELX-X-1-SC-X 902-WB-GC-SCBA LEEC1GCX ES7 1 70 S X G X
E9-2	DUAL FACE:	LED	20W	120/277V	DUAL-LITE EELP LITHONIA ISOLITE CHLORIDE EXITRONIX LIGHTOLIER SURE-LITES	CVER2GNE EDG 2 GC W EM EDGR W 2 GMR EL EDGL-EM-D-S-GM-BK (BLACK HOUSING) STELX-X-2-SC-X 903-WB-GM-SCBA LEEC2GC7 ES7 2 70 S X G X
E9-W	SINGLE FACE; OUTDOOR NEMA 4X RATED EXIT SIGN	LED	2W		DUALITE LITHONIA LIGHTOLIER KENALL MCPHILBEN EXITRONIX	SEWL-S-G-W LV S W 1 G 120/277 LWL2NUGW-SD2T UX6 0 95 G X 60MLA-1-G-W NAV-NC-G-S-SCBA
EP	EQUIPMENT ROOM LIGHTS: COMPACT FLUORESCENT VAPORTIGHT; COPPER-FREE CAST ALUMINUM BODY AND GUARD; CAST ADAPTERS FOR MOUNTING AS NOTED, CLEAR TEMPERED GLASS GLOBE, U.L. LISTED FOR USE IN WET LOCATIONS.					
EP-1	WALL ARM MOUNT ON FLUSH OR RECESSED OUTLET BOX.	1-CF32A RE841	40W	120-277	SPERO D'AC EXCELINE	VW15-41-G-VB32-CF D1010-1F32-UEB-SCBA RLW32HFLCGC1

					RIG-A-LITE	VP-WB-1-32-F-MT
					DAYBRITE	VFN-32-C-U-W-PG
					GUTH	VPW-32T
					LITHONIA	VW42L M6
					TMS	69-X-F-WF-32-UNV-G-GSC
					TRACELITE	TL802-CF-32-120/277-2W
					ARK	AVW31 120
EP-2	SURFACE MOUNT ON FLUSH OR RECESSED OUTLET BOX.	1-CF32A RE841	40W	120-277	SPERO	VS15-41-G-VB32-CF
					D'AC	D8010-1F32-UEB-SCBA
					EXCELINE	RLW32HFLCGC6
					RIG-A-LITE	VP-C-1-32-F-MT
					DAYBRITE	VFN-32-C-U-C-PG
					GUTH	VPC-32T
					LITHONIA	VC42L M6
					TMS	69-X-F-CF-32-UNV-G-GSC
					TRACELITE	TL802-CF-32-120/277-2B
					ARK	AVB31 119
ET	TRANSFER DEVICE FOR FLUORESCENT BALLASTS, LOCATE ON FIRST EMERGENCY FIXTURE IN ROOM PER CIRCUIT TO TRANSFER EMERGENCY PORTION OF CIRCUIT TO EMERGENCY FEED, CONNECT TO NORMAL SIDE FOR SENSING, AND TO BOTH NORMAL FEED AND EMERGENCY CIRCUIT. USE 2 POLE FOR NORMAL CIRCUITS AND 3 POLES FOR DIMMED CIRCUITS.					
	CIRCUIT LEVEL TRANSFER DEVICE 20A MIN RATING;				BODINE	GEN-20
					NINE24inc	BLTC-X
					LIGHTGUARD	LIGHTSTAR SERIES
					CHLORIDE	LIGHTSTAR SERIES
					IOTA	ETS
					DUALITE	ATSD20
					SIDE-LITE	SB20
G	INDIRECT TROFFERS: RECESSED FOR LAY-IN GRID; HINGED FLUSH STEEL DOOR WITH LATCH; EARTHQUAKE CLIPS, PROGRAM START ELECTRONIC BALLASTS; LONG COMPACT FLUORESCENT LAMPS; ONE BALLAST PER FIXTURE, 100-10% DIMMING BALLAST WHERE SHOWN.					
G-1	2X4, 2-LAMP; FLAT CENTER, ANGLED SIDES, ACRYLIC LENS; HIGH PERFORMANCE (80% - 85% FIXTURE EFFICIENCY) PREMIUM EFFICIENCY LAMPS/BALLAST; MUST SUBMIT PHOTOMETRIC REPORT FOR APPROVAL.	2-F32T8 RE835	50W	277/120V	LIGHTOLIER	SKS2GPK232UNV-PROGRAM START-0.77BF
					FINELITE	HPR-1-2X4-DCO-2T8-UNV-XX-XX-PS-0.77BF
					LEDALITE	3324-D1-ST-T232-S-XX-UNV-PRGRM-.77
					AXIS	DIA24-VL-T8-2-UNV-E-1-TB.77
					PINNACLE	CJ24A-2T8-GX-UNV-1C-W-.71PS
					DAYBRITE	2STG232-D-UNV-1/2EB10R (.77BF)
					CORELITE	Z3 W L 2 T8 1 UNV 24 T1
G-1F	SAME AS G-1, FLANGE-MOUNTED					
G-2	1X4, 2-LAMP; FLAT CENTER, ANGLED SIDES, ACRYLIC LENS; HIGH PERFORMANCE (80% - 85% FIXTURE EFFICIENCY) PREMIUM EFFICIENCY LAMPS/BALLAST; MUST SUBMIT PHOTOMETRIC REPORT FOR APPROVAL.	2-F32T8 RE835	50W	277/120V	DAYBRITE	1ST-G-232-D-UNV-EB-PRGRMSTART-.77
					PINNACLE	CJ14A-2T8-GX-UNV-1C-W-PRGRMSTART-.77
					LEDALITE	3314-D1-ST-T232-S-1-UNV-E (.77BF)
					AXIS	DIA14-VL-T8-2-X-UNV-E-1-TB.77
					PINNACLE	CJ14A-2T8-GX-UNV-1C-W-.71PS
					FINELITE	HPR-A-1X4-DC0-2T8-UNV-SC-XX-PS.77
					CORELITE	Z3 W L 2 T8 1 UNIV 14 T1
G-4	2X2, 2-LAMP; FLAT CENTER, ANGLED SIDES, ACRYLIC LENS; HIGH PERFORMANCE (80% - 85% FIXTURE EFFICIENCY)	2-T524H0 RE835	60W	277/120V	DAYBRITE	
					PINNACLE	CJ22A-2T5HO-GX-UNV-1C-W
					LEDALITE	
					AXIS	DIA22-VL-T5HO-2-W-UNV-ERS-1-X
					CORELITE	Z3 W L 2 T8 1 UNIV 22 T1
					DAYBRITE	2STG224HO-D-UNV-1/2EB
G-6	6"X4', 1-LAMP; FLAT LENS;	1-F32T8	30W	277/120V	AXIS	B6R-F-FL-XX-T8-1-W-UNV-XX

	COMPATIBLE WITH TEK-ZONE CEILING SYSTEMS; PREMIUM EFFICIENCY	RE835			PINNACLE HEWILLIAMS LITECONTROL PMC PRUDENTIAL	ETA-1T8-4-GX-UNV-1C-W-.71PS LL6-G-4-128T5S-S-W-F-AF125-EB8P1-UNV NG/LG D 66TZ14T8 SGL CWT X LP/ELB ADVANCE IOP . 266-R-D-T(TEK-ZONE)O1T8-4-WOA/FA-WHT-UV-PSEB.7 P63-1T8-XX-WA-XX-UNV-TEKZONE-10THD
G-8	4"X4', 1-LAMP; FLAT LENS; CONTINUOUS ROWS AS INDICATED; VERIFY MOUNTING STYLE WITH CEILING TYPE PREMIUM EFFICIENCY	1-F32T8 RE835	30W	277/120V	PINNACLE PAL AXIS LITECONTROL NEO-RAY	E4A-1T8-XX-FL-UNV-1C-W-XX MLR3-1-*-OF-YK-TWA-VOLT-T8-PROGST BBR-S-FL-4-T8-1-M0-W-ERS-1-X NG/LG D 44TZ 14T8 SG6 CWT X LP/ELB ADVANCE IOP . 23D R 1 T8 X U EB S1 S93 HT
HE	RECESSED HID DOWNLIGHTS: ELLIPSOIDAL REFLECTORS; HIGH POWER FACTOR BALLASTS; BOTTOM ACCESS REQUIRED; PREMIUM SILENT PACK BALLASTS; FUSED; PROVIDE TEMPERED GLASS SHIELD FOR METAL HALIDE AND OTHER LAMPS THAT REQUIRE END OF LIFE PROTECTION; COATED LAMPS ONLY.					
HE-3	7-10" APERTURE; CLEAR REFLECTOR; OPEN DOWNLIGHT.	150PSMH COATED	200W	277/120V	PORTFOLIO OMEGA HUBBELL PRESCOLITE KIRLIN SPECTRUM LTG INDY LIGHTOLIER	M7815T-750F-55850BA-PULSE START (16 1/2") OM8-150ED17MH-ND-XX-CS-FZ LE512-120/277V-F/384W-150PSMH (17" DEPTH) 1061M9-150PSMHFE-830L-MT GLR (16") RR50707-OG-97-43 (14 5/8") SGD8MH 150 E2 ED17 ND CB24 AR8044 3150MP-BKB-F-PULSE START EL8MG/EL8B17HBFX150PS (16 1/4")
LD	LED LIGHTING: COMPLY WITH IES LM-79 AND 80 TESTING REQUIREMENTS.					
LD-1	RECESSED DOWNLIGHT; 6" 1500 DELIVERED LUMEN PACKAGE SEMI-SPECULAR REFLECTOR; 3500K; 25 WATT; 1% -100% DIMMABLE	LED 35K incl.	25W	277/120V	PORTFOLIO VANTAGE PRESCOLITE BRUCK LIGHTOLIER FOCAL POINT GOTHAM LTG OMEGA	LD615-835-DLUT-4LS50-H A6VLED-X-2000L-3500K-L6060SCL LF6LED-6LFLED535KWT WILA# 621 663 WH80 LUD C6L1520DL35KWCCLW / C6L15NX FL6D-20LED-L35-UNV-RO-T-L6RO-DN-CD-WP ALED 35/14 6AR 277 ECOS3 OM6LED27-VOLT-R6LED-35K-MD-CSS
LD-2	RECESSED DOWNLIGHT; 4" 1000 DELIVERED LUMNE PACAKGE SEMI-SPECULAR REFLECTOR; 3500K; 20 WATT;	LED 35K incl.	25W	277/120V	VANTAGE FOCAL POINT GOTHAM LTG OMEGA	A4VLED-X-2000L-3500K-L4040SCL FL4D-13LED-L35-UNV-RO-T-L4-RO-DN-CD-WP ALED 35/10 6AR 277 0M4LED20XX-R4LED35KCSS
LD-10	LED LINEAR COVE SYSTEM; SURFACE-MOUNTED; 4.5" X 1" X LENGTH INDICATED; 500 LUMENS AND 8 WATTS PER FOOT ASYMETRIC DISTRIBUTION	LED 35K	8W/FT	277/120V	LITECONTROL CONTRACTOR ALLOWANCE: $807.00 PER 4' SECTION NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	SC-AL-L16-XX-35K-TCWM-277V-HPR
LD-12	LED LINEAR WALL-MOUNT FIXTURE; SURFACE-MOUNTED; LENGTH INDICATED; UP/DOWN LIGHT DISTRIBUTION 5 WATTS PER FOOT TOP AND BOTTOM (10 WATTS PER FOOT TOTAL) INTEGRAL DRIVER	LED 35K	10-W/FT	277/120V	ARCHITECTURAL LIGHTING WORKS CONTRACTOR ALLOWANCE: $765.00 PER 4' SECTION NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	LPW2.2-W5-W5-X-277-LENS-CBA-X
LD-13	LED LINEAR WALL-MOUNT FIXTURE; SURFACE-MOUNTED; LENGTH INDICATED;	LED 35K	5-W/FT	277/120V	ARCHITECTURAL LIGHTING WORKS CONTRACTOR ALLOWANCE: $520.45 PER 4' SECTION	LPW2.2-W5-N/A-X-277-LENS-CBA-X

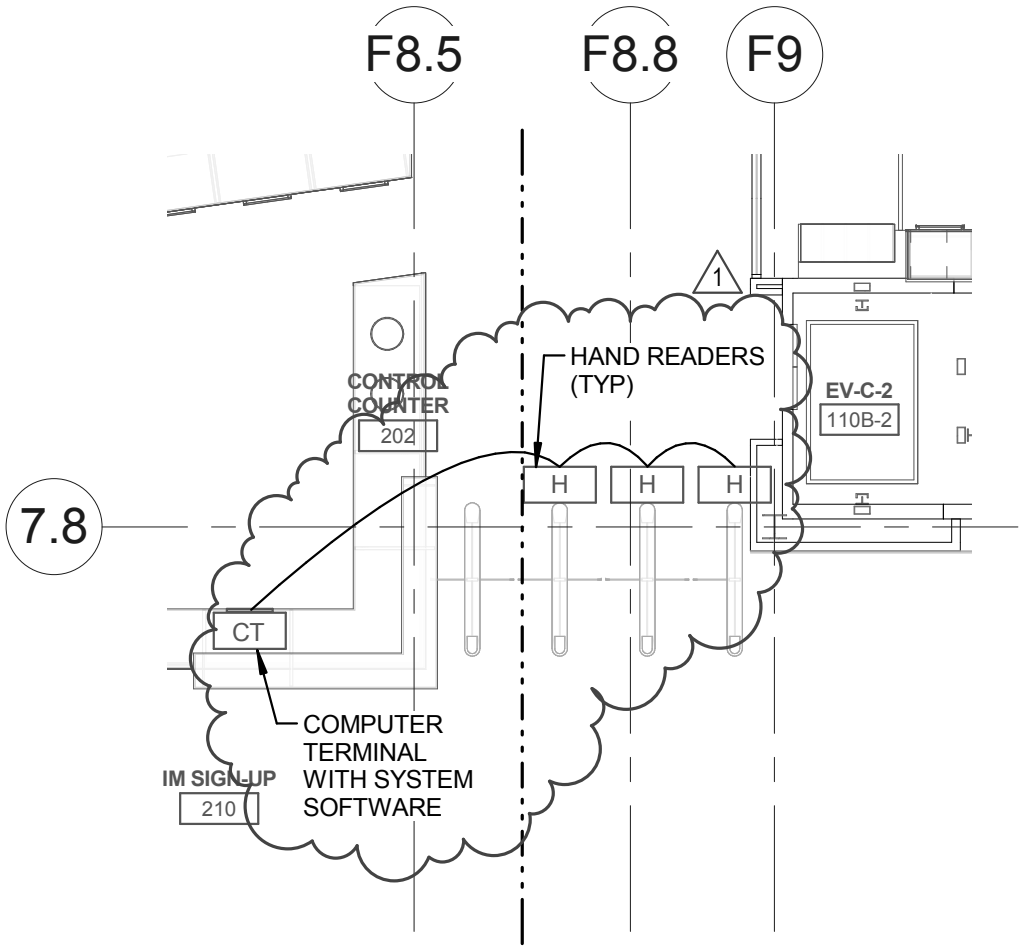
	UP LIGHT DISTRIBUTION ONLY 5 WATTS PER FOOT. INTEGRAL DRIVER				NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
LD-15	LED LINEAR TAPE LIGHT; SURFACE-MOUNTED; 2.5 W/FT LENGTH INDICATED; PROVIDE POWER SUPPLIES AND ALL REQUIRED ACCESSORIES AS REQUIRED; COORDINATE WITH ARCHITECTURAL DETAILS	LED 35K	2.5W/FT	277VAC- 24VDC	BARRON CONTRACTOR ALLOWANCE: $27.50 PER FOOT NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	RFX-WW-XX-24-
OB	BOLLARDS: WITH MOUNTING BASE AND ANCHOR BOLTS, ACRYLIC LENS, INTEGRAL MULTI-TAP BALLAST; FUSED, COLOR AS DIRECTED BY ARCHITECT CHOSEN FROM MANUFACTURERS' STANDARD PAINTED FINISHES.					
OB-1	8" ROUND X 42" HIGH, CONCRETE SHAFT LIGHTED BOLLARD; 25W LED; TYPE 5 DISTRIBUTION	LED 3500K	25W	MTBV	KIM VISIONAIRE	VRB2C-20L-3K-UV-CBA EDS-1A-HZG-20-55KL-LED-UNV-AB-CBA
OC	WALL PACK: ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING: WET LOCATION; STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.					
OC-32	LED, ARCHITECTURAL STYLE WITH TRAPEZOID TOP; FULL CUT-OFF; TYPE 3 DISTRIBUTION RECESSED J BOX.	54-LED 6K	87 W	277/120V	HUBBELL MCGRAW GARDCO LITHONIA TRACELITE	TRP-50L8-5K-WT-BL IST C02 LED E1 BL3 SCBA 101L-3-55LA-NW-UNIV-CBA WST LED 2 10A700/40K SR3 MVOLT DDBXD TLED110A-48-DT
OJ	RECESSED WALL STEP AND WALK LIGHTS; 3- 4 1/2" RECESSING DEPTH; WELDED STEEL HOUSING; DIECAST LOUVERED FACEPLATES; FACEPLATES FINISHED IN TEXTURED FINISH PER ARCHITECT, FULLY GASKETED; WET LABEL; TYPES AND WATTAGES AS INDICATED.					
OJ-1	LED STEPLIGHT FOR MASONRY INSTALLATION, SIZED FOR ONE MASONRY BLOCK 2.5" X 11.75" X 4.25" DEEP LED WITH CLEAR FLAT GLASS LENS IP64	LED 3000k	15W	277V	BEGA COLE LUMUX LTG AMERLUX FC LIGHTING	2192LED SLV L509-10.8W/645 LUMNES SL600-X PSLT12-A-CBA-2F30 FCSL101-UNV-LED-E-CBA
OL	OUTDOOR LIGHTING; UL LISTED FOR WET LOCATIONS					
OL-1	RECESSED IN-GROUND FLUSH LANDSCAPE UPLIGHT; 8.5" DIA. X 12" DEEP HOUSING; 15 DEGREE ADJUSTABILITY; LED; LOUVERED	LED 3000K	25W	MVOLT	HYDREL LUMASCAPE WE-EF	PDX10-BSS-22LED-WMW-MVOLT-SP- FLCAS-34S-IHL-LPI LS853LED-20H6-X-N-82-N-29-Q-4 ETC-140-GB-LED
OL-2	LINEAR DIRECT, RECESSED LED LIGHT FIXTURE; 3.5"W X 4" DEEP X LENGTH AS SHOWN ON DRAWINGS; HIGH-EFFICIENCY MICRO LENS; SEALED AND GASKETED WITH UL WET LOCATION LISTING. FIXTURE SHALL HAVE SPACKLE FLANGE AND BE FOR USE WITH HARD CEILINGS. VERIFY ROW INFORMATION WITH ARCHTECTURAL DETAILS	LED (incl.) 3500K	45 W per 4'	277V	AXIS LTG CONTRACTOR ALLOWANCE: $595.00 PER 4' SECTION NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	BMRLED-M-FL-XX-750-3500K-W-277-R-1-DS
OW	OUTDOOR WALL-MOUNTED LIGHTING; IP65 RATED; UL LISTED FOR WET LOCATIONS					

OW-1	WALL-MOUNTED UP/DOWN LIGHT; 8" DIA X 11"H MAX DIMENSIONS X 12" DEEP HOUSING; DUAL WIDE BEAM 70W MH LAMP	70MHT6 3000K	80W	MVOLT	BEGA LUMASCAPE PACE	6620MH W2D280-MHC70-UNV-CBA EUDC U/D 8 100MHT6 3000K SCBA WAM
OW-2	WALL-MOUNTED /DOWN LIGHT; 8" DIA X 11"H MAX DIMENSIONS X 12" DEEP HOUSING; 15 DEGREE 1-32CFL LAMP	1-CF32A RE835	40W	MVOLT	BEGA PRISMA PACE	6585P 074448-CBA EDTC/ 8 PLT32 X SCBA WAM
OW-3	ADJUSTABLE, ARM-MOUNTED WALL LIGHT; DECORATIVE DIE-CAST ALUMINUM HOUSING; MOVEABLE SUPPORT STRUT AND WALL FITTER MOUNT DIRECTED UPWARD 150WMH	150MH 3000K	160W	MVOLT	BEGA LIGMAN LTG	6823MH FS U90032 CMH DE 150W X SCBA
RC	RECESSED WALL SLOT LIGHTING; LENGTHS AND CONFIGURATIONS AS SHOWN ON DRAWINGS; FIELD VERIFY LENGTHS AND MOUNTING CONDITIONS PRIOR TO INSTALLATION.					
RC-1	6" X 6" CONTINUOUS WALL SLOT; 1-LAMP T5HO LAMP; PROVIDE NECESSARY HARDWARE AND ACCESSORIES FOR MOUNTING IN GYP BOARD CEILINGS	1-F54T5HO RE835	60W per 4'	UNV	LITECONTROL LIGHTOLIER PMC LINEAR	2114-T5HO-TCWM-LP/ELB PTS5-1-H-0-UNV S3061-D-FL-1/T5HO-XX'-MWA-WHT-UNV WW4-D-1-ET5HO-UNV-NS-R-BW-NO4015
S	FLUORESCENT STRIP LIGHT: STEEL CONSTRUCTION; WHITE PAINTED FINISH; SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.					
S-1	3.5" X 3" X 4' SURFACE-MOUNTED 2-LAMP T5HO WITH PERFORATED SYMMETRICAL REFLECTOR AND ARCHITECTURAL GALVANIZED WIRE GUARD; 2-BALLASTS PER 4' FOR DUAL-LEVEL SWITCHING	2-F54T5HO RE835	120W per 4'	277/120V	PRUDENTIAL LIGHTOLIER BIRCHWOOD	PT5-SRP/WG-2T5HO-4'-GLV-DUAL BALLAST SV2S254-UNV-(2)PG/SV5R14WSPER/WG WP2T5HO-S-UNV-2EB-154-LPG-SR(PERF)
S-2	4', 2-LAMP; WITH WIRE GUARD HIGH EFFICIENCY	2-F32T8 RE835	50W	277/120V	LITHONIA LIGHTOLIER METALUX HEWILLIAMS DAYBRITE HUBBELL COLUMBIA	C232-MVOLT-TUBRHP-WGCUN SW232-U-SOP-W SS-232-UNV-PROGRAM START-WG 76-4-232-EB8PX2*OS-UNV-WG T232-UNV-1/2-EB-SPEC-WG C232UPS-WG CS4-232-EB8120/277 PROG-WG
S-3	4', 2 LAMP; INDUSTRIAL REFLECTOR HIGH EFFICIENCY BALLAST. PROVIDE TANDEM MOUNTING WHERE 8' OR OTHER CONTINUOUS LENGTHS ARE SHOWN.	2-F32T8 RE835 3100 LU	48W per 4'	277/120V	LITHONIA LIGHTOLIER METALUX LSI COLUMBIA HEWILLIAMS DAYBRITE	EJ232-MVOLT-TUBRHP-THUN KWS232-U-SOP IC-232-UNV-PROGRAM START F22 232 SSO10PRS CH-12 UE CSR4-232-EB8120/277 PROG-CSTH 80-4-232-EB8P2-UNV IS232-UNV-1/2-EB-SPEC
S-4	4', 1-LAMP; NARROW. 2.5" WIDE HIGH EFFICIENCY	1-F32T8 RE835	25W	277/120V	LITHONIA LIGHTOLIER METALUX HEWILLIAMS DAYBRITE HUBBELL COLUMBIA	S132-GEB SN132 S132 75-4-132 N13-UNV-1/1EB10R S132UPS CS4132
S-5	4', 1-LAMP STAGGER-STRIP HIGH EFFICIENCY BALLAST.	1-F32T8 RE835	25W	277/120V	LITHONIA LIGHTOLIER	SS132-MVOLT-TUBRHP STG-132-U-SOP

		3100 LU			METALUX LSI COLUMBIA HEWILLIAMS DAYBRITE	SSL-132-UNV-PROGRAM START STG 132 SSO10PS UE SS4-132-EB8120/277 PROG 74-4-132-EB8P1-UNV SS132-UNV-1/2-EB-SPEC
S-9	4', 1-LAMP STAGGER-STRIP WITH LENS; APPROX. 3.5"Wx4"H; RECESSED FLANGELESS WITH STUD MOUNTING; COORDINATE WITH ARCHITECTURAL DETAILS; HIGH EFFICIENCY BALLAST. CORNER TRANITION PIECES REQUIRED	1-F32T8 RE835 3100 LU	25W per 4'	277/120V	AXIS NEORARY ZUMTOBEL PINNACLE	BMRF-FL-XX-T8-1-W-UNV-XX-CBA FLANGLESS WITH STUD MOUNTING 23DR1T8SR-X-U-EB-S1-S93HT SCON4-EB-1T8-XXXX.XX-P-W-UNV ES4A-1T8-XX-SF-UNV-1C-W
SS	HIGH-BAY FLUORESCENT LIGHTING					
SS-2	18"W X 4' X 3' DEEP; MONO-POINT MOUNTED; HIGH OUTPUT T5 LAMPS WITH CLEAR ACRYLIC LENS AND INTEGRAL WIRE GUARD; MULTIPLE BALLASTS FOR 50%-100% DUAL-LEVEL SWITCHING; VERIFY MOUNTING REQUIREMENTS AND PROVIDE ALL NECESSARY ACCESSORIES.	6-F54T5HO RE835	365W	277/120V	LITHONIA LA LIGHTING HEWILLIAMS METALUX	IBZ-654L-NDU-ACLWG-MVOLT-LP835A WITH IBZPMP HBI600-6-4M-SR-CA-HUB-WG11-2/4E5H-UNV GL-4-654T5H-SCHA118-WG11-EB8P3/3-UNV HBE 6 54T5 X CL UNV EBT 2 HBL SPM
TH	TRACK AND TRACK LIGHTS: LENGTH OF TRACK AND NUMBER OF FIXTURES AND ACCESSORIES AS SHOWN ON DRAWINGS. TRACK FEEDENDS, DEADENDS, TURNS, HANGING DEVICES, ETC., ARE AS REQUIRED TO INSTALL TRACKS AS SHOWN ON DRAWINGS AND/OR SPECIFIED, IN COMPLIANCE WITH NEC 410-104. INSTALLERS ARE CAUTIONED TO ENSURE TRACK HEADS AND TRACK ARE COMPATIBLE (I.E., ADAPTER FOR TWO CIRCUIT TRACK WHERE REQUIRED).					
TH-99	FLOOD LIGHT; LINE VOLTAGE 50W LED; 30 DEG SPOT 6" DIA X 8" L HEAD MAX. HEAVY DUTY; MONO-POINT MOUNTING DIRECT CONNECTION TO STRUCTURE AND CORD/CONNECTOR ARRANGEMENT MAY BE PROPOSED. ADAPT TO MOUNT ON VERTICAL SURFACE	50W LED INCL.	60W	120V	ALTMAN LUMENTON ETC LUMENPULSE	SSW-IQ38-50-XX-XX AG59/N6483L-120-CBA SELD40DI-1A/DPA-A/400L/400CC SELO3070-7.5 LBM 120 X FL X SCBA PROVIDE WITH SPREAD LENS AND HONEYCOMB LOUVER
TX	DECORATIVE LUMINAIRE AS DESCRIBED. APPEARANCE IS CRITICAL; APPROVAL REQUIRED.					
TX-1	PROTECTIVE TUBE LUMINAIRE; APPROX. 3" DIA. X 68" LONG; 1-T8 LAMP	1-F32T8 RE835 3100U	30W	277/120V	WALDMAN CONTRACTOR ALLOWANCE: $465.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	RL70E-132X
TX-2	HANGING BOX LIGHT; APPROX 24" X 24" X 8"H; ENLOSED WHITE ACRLIC LENS; FLUORESCENT LAMPING	2G13 1-T5-R55 RE835	85W	277/120V	DELTALIGHT CONTRACTOR ALLOWANCE: $1,239.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	JETI PLANO H-160-C-27154-160
TX-3	PENDANT FOR MAIN LOBBY: 60" DIA DISK, PENDANT MOUNTED RING WITH SOLID OUTER FINISH AND LED GLOW INNER DIFFUSER; WARM LED CUSTOM STEM LENGTH	LED 4100K		277V	DELRAY CONTRACTOR ALLOWANCE: $3,065.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	6705-WW-CBA-277

TX-4	WALL SCONCE; MASSAGE ROOM 11" W X 18" X 4" DEEP LIGHT CUBE; 2X26W CFL - DIMMABLE; ADA COMPLIANT	2-26CFL	55W	277V	EUREKA CONTRACTOR ALLOWANCE: $262.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	PHAROS 3226-2XCFD.26-277-DM1
UC	UNDERCABINET LIGHT: LOW PROFILE X 5 1/4"DEEP X LENGTH AS NOTED; ACRYLIC DIFFUSER.					
UC-9	34 1/2" LONG; PREMIUM T5 LAMP; W/ROCKER SWITCH; ASSYMETRIC PRISMATIC LENS	F21T5	25W	120V	ALKCO LIGHTOLIER METALUX CREATIVE ILLUMINATION DURAY MANF DAYBRITE HEWILLIAMS	SFHP-121/BW/RSW TSF-1-21-W-UNV-PG-BPR SFCL-0813T5-EB-UNV UCSF-121-XV GLI121 5UC121-S-120-1/1EB10R-LTP835-RS 1SF-21-1-21T5S-EB8P1-UNV
V	VANDAL RESISTANT SURFACE MOUNTED LIGHTING: .125" INJECTION MOLDED POLYCARBONATE LENS; IMPACT RESISTANT; UV STABILIZED; ALL METAL PARTS ARE ENCLOSED; GASKETED; VANDAL RESISTANT STAINLESS STEEL SCREWS; SECURED MOUNTING; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS.					
V-11	4', 2-LAMP WITH PRISMATIC ROUNDED LENS; 5.5" X 5.5" X 48" 20 GAUGE STEEL. HIGH EFFICIENCY BALLAST. IP65 RATED; WET LOCATIONS SURFACE OR PENDANT MOUNTED.	2-F32T8 RE841 3100 LU	48W	277/120V	KENALL LA LIGHTING NEW STAR LTG MORLITE	ES5-48-232-SB-2-DV-2H-AP-PM-WW WSE200-2-4R-WR-WL-2E5H-UNV-PENDANT VIC4N-2-32-RC-UN-PENDANT VLP7-S-4-232-EB10R-UNV-1/2-PM
W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS WRAPAROUND ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.					
W-3	MEDIUM BODY WRAPAROUND; 2-LAMP, APPROX; 3" X 10" X 48". HIGH EFFICIENCY	2-F32T8 RE841 3100 LU	65W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI HEWILLIAMS COLUMBIA	LB232-MVOLT-TUBPHP CAN232-UNV-1/2-EB-SPEC WS-232A-UNV-PROGRAM START WA232-U-SOP PR 232 SSO10PRS UE 17-4-232-A-EB8P2-UNV WC4-232-EBPS120/277
WF	WALL FLUORESCENT LIGHTING					
WF-1	NARROW BODY SURFACE-MOUNT WALL LIGHTING; APPROX. 3" X 2.5" X 48" LONG; STEEL HOUSING WITH EXTRUDED ACRYLIC WHITE LENS 2-T8 LAMPS; HIGH-EFFICIENY	2-F32T8 RE841 3100 LU	50W	277/120V	PRUDENTIAL ARCHITECTURAL LIGHTING W TRPW 4 MOD: 1F32T8 ADVANCE IOP .77BF UNV	S1-2T8-04'-SAL-YSL-UNV-SUR
WF-18	NARROW BODY SURFACE-MOUNT WALL LIGHTING; APPROX. 3" X 2.5" X 96" LONG; STEEL HOUSING WITH EXTRUDED ACRYLIC WHITE LENS 1-T8 LAMP; HIGH-EFFICIENY	2-F32T8 RE841 3100 LU	50W	277/120V	PRUDENTIAL ARCHITECTURAL LIGHTING WORKS	S1-1T8-08'-SAL-YSL-UNV-SUR TRPW 8 MOD: 2F32T8 ADVANCE IOP .77BF UNV
WF-2	3.5" X 4'H X 2.75" D SEMI-RECESSED WALL SCONCE; VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT HEIGHT AND MOUNTING REQUIREMENTS	1-FP28 RE835	25W	277/120V	LUMENART LTG VISA	ILLL-36-28W-NW-XX-FR-SN OW1602-1FS28-PTD

WF-5	NARROW-PROFILE WALL-MTD LIGHT WITH ASSYMETRIC PERFORATED REFLECTOR 4', T5HO LAMPING	1-F54T5HO RE835	60W	277/120V	DELRAY LITECONTROL	SW54154.418 W AI 3414T5HO PFF CSL LP/ELB 1CWQ UNV
ZX	LIGHT POLES: TOTALLY ENCLOSED RAINTIGHT, DUST-TIGHT AND CORROSION RESISTANT; POLE AS SHOWN IN DETAIL WITH HANDHOLE, COVER, BOLT COVER, AND BASE; PAINTED (COLOR TO BE SELECTED BY ARCHITECT / ENGINEER WHICH MAY DIFFER FROM CATALOG NUMBER SHOWN). MTB= 120,208,240,277 VOLT MULTI-TAP BALLAST. ALL BALLASTS HPF. ARM MOUNT. HORIZONTAL LAMP, SEGMENTED OPTICS.					
ZX-1	LOW-PROFILE CONTEMPORARY SINGLE-HEAD FIXTURE, ARM-MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; HINGED POLE BASE ASSEMBLY	(60) 1W LED LAMPS INCL 3500K	75W	277V	KIM CONTRACTOR ALLOWANCE: $1,929.50 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	WARP9 LED SERIES
ZX-2	LOW-PROFILE CONTEMPORARY DOUBLE-HEAD FIXTURE, ARM-MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; HINGED POLE BASE ASSEMBLY	2X(60) 1W LED LAMPS INCL 3500K EA HEAD	150W	277V	KIM CONTRACTOR ALLOWANCE: $2,929.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	WARP9 LED SERIES
ZX-3	LOW-PROFILE CONTEMPORARY DOUBLE-HEAD FIXTURE, ARM-MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; MOUNTED TO TOP OF PARKING STRUCTURE PER STRUCTURAL DETAILS	2X(120) 1W LED LAMPS INCL 3500K	250W	277V	KIM CONTRACTOR ALLOWANCE: $4,262.65 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	WARP9 LED "LARGE" SERIES



SPECTRUM
ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com
© 2010 Spectrum Engineers, Inc.

REFERENCE:	
ISSUE:	Addendum #4
DATE:	05/11/12
PROJ NO:	2011.045.00
DRAWN BY:	DXH
CHECKED BY:	MAB

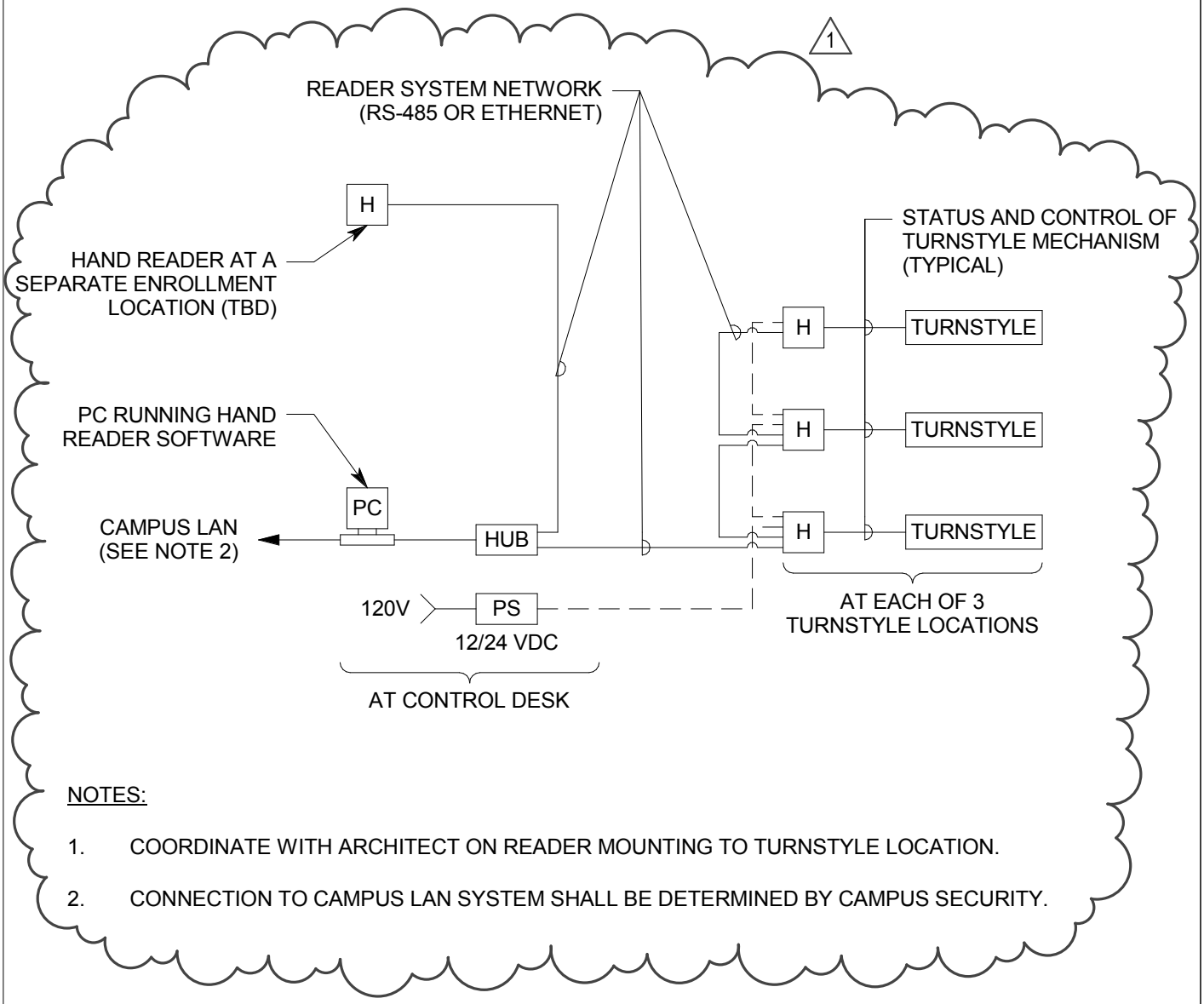
PROJECT: UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

SHEET TITLE: LEVEL 2 SECURITY PLAN ZONE B

SCALE: 1/8" = 1'-0"

EY-121B - RV04-1

C:\Users\dxh\Documents\20110364Elec UVU Student Life Center_Spartan DxH.rvt
5/11/2012 3:22:46 PM



NOTES:

1. COORDINATE WITH ARCHITECT ON READER MOUNTING TO TURNSTYLE LOCATION.
2. CONNECTION TO CAMPUS LAN SYSTEM SHALL BE DETERMINED BY CAMPUS SECURITY.

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com
© 2010 Spectrum Engineers, Inc.

REFERENCE:	
ISSUE:	Addendum #4
DATE:	05/11/12
PROJ NO:	2011.045.00
DRAWN BY:	DXH
CHECKED BY:	MAB

PROJECT: UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

SHEET TITLE: HAND READER ACCESS ENTRY SYSTEM

SCALE: 1/8" = 1'-0"

EY-602 - RV04-2

C:\Users\dxh\Documents\20110364Elec UVU Student Life Center_Spartan DxH.rvt
5/11/2012 3:22:47 PM

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 10:56:05 AM

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE
1PH	SINGLE-PHASE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
3WAY	THREE-WAY
4OUT	QUADRUPLE RECEPTACLE OUTLET
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
A	ABOVE COUNTER
AC	ARMORED CABLE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AMP	AMPERE
ANN	ANNUNCIATOR
AP	ACCESS POINT (WIRELESS DATA)
AR	AS REQUIRED
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BB XFMR	BUCK-BOOST TRANSFORMER
C	CEILING MOUNTED
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT
CCTV	CLOSED CIRCUIT TELEVISION
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CND	CONDUIT
CO	CONVENIENCE OUTLET
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
dBA	UNIT OF SOUND LEVEL
DPDT	DOUBLE POLE DOUBLE THROW
DS	DISCONNECT SWITCH
EA	EACH
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NONMETALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EX	EXISTING
F	FURNITURE MOUNTED
FA	FIRE ALARM
FCP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALCONDUIT
FOB	FREIGHT ON BOARD
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED/ISOLATED
I/O	INPUT/OUTPUT
IR	INFRARED
J-BOX	JUNCTION BOX

KV	KILOVOLT
KVA	KILOVOLT AMPERE
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWh	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVER CURRENT PROTECTION
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFP	OBTAIN FROM PLANS
OH DR	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PTZ	PAN/TILT/ZOOM
QTY	QUANTITY
R	REMOVE
RCP	REFLECTED CEILING PLAN
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETALLIC CONDUIT
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE AND RELOCATE
SCA	SHORT CIRCUIT AMPS
SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
SF	SQUARE FOOT (FEET)
SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
S/S	START/STOP
ST	SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TL	TWIST LOCK
TP	TELEPHONE POLE
TP	TWISTED PAIR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UF	UNDERFLOOR
UGND	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VFC/VFD	VARIABLE FREQUENCY MOTOR CONTROLLER
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

STUDENT LIFE CENTER ELECTRICAL SHEET INDEX

EE-001	SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES
EE-002	SYMBOLS LEGEND
EE-101	EXISTING SORENSEN LEVEL 1
EE-501	DETAILS
EE-502	DETAILS
EE-601	GROUNDING RISER DIAGRAM
EE-701	TYPICAL MOUNTING HEIGHT DETAILS
ES-101	CAMPUS REFERENCE PLAN
ES-102	ENLARGED PARTIAL CAMPUS ELECTRICAL SITE PLAN
ES-103	SITE DEMOLITION PLAN
ES-104	SITE POWER PLAN
ES-105	SITE LIGHTING PLAN
ES-401	ENLARGED SITE POWER PLAN
ES-501	SITE ELECTRICAL DETAILS
ED-101	ELECTRICAL DEMOLITION PLANS - SORENSEN BLDG
ED-102	ELECTRICAL DEMOLITION PLANS - PE BLDG
EP-111a	LEVEL 1 POWER PLAN ZONE A
EP-111b	LEVEL 1 POWER PLAN ZONE B
EP-111c	LEVEL 1 POWER PLAN ZONE C
EP-121a	LEVEL 2 POWER PLAN ZONE A
EP-121b	LEVEL 2 POWER PLAN ZONE B
EP-121c	LEVEL 2 POWER PLAN ZONE C
EP-131a	LEVEL 3 POWER PLAN ZONE A
EP-131b	LEVEL 3 POWER PLAN ZONE B
EP-131c	LEVEL 3 POWER PLAN ZONE C
EP-141a	LEVEL 4 POWER PLAN ZONE A
EP-141b	LEVEL 4 POWER PLAN ZONE B
EP-141c	LEVEL 4 POWER PLAN ZONE C
EP-151a	ROOF POWER PLAN ZONE A
EP-151b	ROOF POWER PLAN ZONES B & C
EP-161	ENLARGED UPPER CENTRAL PLANT ELECTRICAL PLAN
EP-401	ENLARGED POWER PLANS
EP-402	PARTIAL PE AND SORENSEN POWER PLANS
EP-601	POWER ONE-LINE DIAGRAM - MEDIUM VOLTAGE
EP-602	POWER ONE-LINE DIAGRAM - STUDENT CENTER
EP-603	NORMAL POWER ONE-LINE DIAGRAM
EP-604	EMERGENCY POWER ONE-LINE DIAGRAM
EP-605	EQUIPMENT SCHEDULE
EP-606	EQUIPMENT SCHEDULE
EP-607	PANEL SCHEDULES
EP-608	PANEL SCHEDULES
EP-609	PANEL SCHEDULES
EP-610	PANEL SCHEDULES
EP-611	PANEL SCHEDULES
EP-612	PANEL SCHEDULES
EP-613	PANEL SCHEDULES
EP-661	UPPER PLANT POWER ONE-LINE DIAGRAM
EL-111a	LEVEL 1 LIGHTING PLAN ZONE A
EL-111b	LEVEL 1 LIGHTING PLAN ZONE B
EL-111c	LEVEL 1 LIGHTING PLAN ZONE C
EL-121a	LEVEL 2 LIGHTING PLAN ZONE A
EL-121b	LEVEL 2 LIGHTING PLAN ZONE B
EL-121c	LEVEL 2 LIGHTING PLAN ZONE C
EL-131a	LEVEL 3 LIGHTING PLAN ZONE A
EL-131b	LEVEL 3 LIGHTING PLAN ZONE B
EL-131c	LEVEL 3 LIGHTING PLAN ZONE C
EL-141a	LEVEL 4 LIGHTING PLAN ZONE A
EL-141b	LEVEL 4 LIGHTING PLAN ZONE B
EL-141c	LEVEL 4 LIGHTING PLAN ZONE C
EL-151a	ROOF LIGHTING PLAN ZONE A
EL-151b	ROOF LIGHTING PLAN ZONES B & C
EL-201	LIGHTING STAIR SECTIONS
EL-202	LIGHTING SECTIONS
EL-401	PARTIAL PE AND SORENSEN LIGHTING PLANS
EL-501	LIGHTING CONTROL SCHEDULES AND DETAILS
EL-502	LIGHTING DETAILS
EL-601	FIXTURE SCHEDULE
EL-602	FIXTURE SCHEDULE
ET-111a	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE A
ET-111b	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE B
ET-111c	LEVEL 1 TELECOMMUNICATIONS PLAN ZONE C
ET-121a	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE A
ET-121b	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE B
ET-121c	LEVEL 2 TELECOMMUNICATIONS PLAN ZONE C
ET-131a	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE A
ET-131b	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE B
ET-131c	LEVEL 3 TELECOMMUNICATIONS PLAN ZONE C
ET-141a	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE A
ET-141b	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE B
ET-141c	LEVEL 4 TELECOMMUNICATIONS PLAN ZONE C
ET-401	ENLARGED TELECOMMUNICATIONS LAYOUT PLANS
ET-402	ENLARGED TELECOMMUNICATIONS LAYOUT PLANS
ET-601	TELECOMMUNICATIONS ROUGH-IN DETAILS
EY-111a	LEVEL 1 SECURITY PLAN ZONE A
EY-111b	LEVEL 1 SECURITY PLAN ZONE B
EY-111c	LEVEL 1 SECURITY PLAN ZONE C
EY-121a	LEVEL 2 SECURITY PLAN ZONE A
EY-121b	LEVEL 2 SECURITY PLAN ZONE B
EY-121c	LEVEL 2 SECURITY PLAN ZONE C
EY-131a	LEVEL 3 SECURITY PLAN ZONE A
EY-131b	LEVEL 3 SECURITY PLAN ZONE B
EY-131c	LEVEL 3 SECURITY PLAN ZONE C
EY-141a	LEVEL 4 SECURITY PLAN ZONE A
EY-141b	LEVEL 4 SECURITY PLAN ZONE B
EY-141c	LEVEL 4 SECURITY PLAN ZONE C
EY-601	SECURITY SYSTEMS SCHEDULES
EY-602	SECURITY DIAGRAMS
EJ-111a	LEVEL 1 AUDIO-VIDEO PLAN ZONE A
EJ-111b	LEVEL 1 AUDIO-VIDEO PLAN ZONE B
EJ-111c	LEVEL 1 AUDIO-VIDEO PLAN ZONE C
EJ-121a	LEVEL 2 AUDIO-VIDEO PLAN ZONE A
EJ-121b	LEVEL 2 AUDIO-VIDEO PLAN ZONE B
EJ-121c	LEVEL 2 AUDIO-VIDEO PLAN ZONE C
EJ-131a	LEVEL 3 AUDIO-VIDEO PLAN ZONE A
EJ-131b	LEVEL 3 AUDIO-VIDEO PLAN ZONE B
EJ-131c	LEVEL 3 AUDIO-VIDEO PLAN ZONE C
EJ-141a	LEVEL 4 AUDIO-VIDEO PLAN ZONE A
EJ-141b	LEVEL 4 AUDIO-VIDEO PLAN ZONE B
EJ-141c	LEVEL 4 AUDIO-VIDEO PLAN ZONE C
EJ-301	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-302	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-303	AUDIO-VIDEO ROUGH-IN SECTION DETAILS
EJ-501	AUDIO-VIDEO ROUGH-IN DETAILS
EJ-502	AUDIO-VIDEO ROUGH-IN DETAILS
EJ-601	AUDIO-VIDEO ROUGH-IN SCHEDULES AND NOTES
EJ-602	AUDIO-VIDEO ROUGH-IN RISER DIAGRAMS
FA-111a	LEVEL 1 FIRE ALARM PLAN ZONE A
FA-111b	LEVEL 1 FIRE ALARM PLAN ZONE B
FA-111c	LEVEL 1 FIRE ALARM PLAN ZONE C
FA-121a	LEVEL 2 FIRE ALARM PLAN ZONE A
FA-121b	LEVEL 2 FIRE ALARM PLAN ZONE B
FA-121c	LEVEL 2 FIRE ALARM PLAN ZONE C
FA-131a	LEVEL 3 FIRE ALARM PLAN ZONE A
FA-131b	LEVEL 3 FIRE ALARM PLAN ZONE B
FA-131c	LEVEL 3 FIRE ALARM PLAN ZONE C
FA-141a	LEVEL 4 FIRE ALARM PLAN ZONE A
FA-141b	LEVEL 4 FIRE ALARM PLAN ZONE B
FA-141c	LEVEL 4 FIRE ALARM PLAN ZONE C
FA-151a	ROOF FIRE ALARM PLAN ZONE A
FA-151b	ROOF FIRE ALARM PLAN ZONES B & C
FA-401	PARTIAL PE AND SORENSEN FIRE ALARM PLANS
FA-601	FIRE ALARM RISER
TA-001	TECHNOLOGY SCHEDULES, ABBREV, AND NOTES
TA-002	TECHNOLOGY EQUIPMENT LIST
TA-501	TECHNOLOGY DETAILS
TA-601	TECHNOLOGY RISER DIAGRAMS
TT-001	TELECOMMUNICATIONS SCHEDULES AND NOTES
TT-501	TELECOMMUNICATIONS DETAILS
TT-601	TELECOMMUNICATIONS RISER DIAGRAMS

GENERAL ELECTRICAL NOTES

1. CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.

2. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.

   A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.

   B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.

   C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE.THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.

3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.

4. SUBMITTALS: PROVIDE SUBMITTALS IN THREE RING BINDERS WITH JOB NAME, SUBCONTRACTOR, AND VOLUME ON THE BINDING. PREPARE TABS FOR EACH SPECIFICATION SECTION REQUIRING SUBMITTALS. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.

5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

PARKING STRUCTURE ELECTRICAL SHEET INDEX

EP-P101	PARKING LEVEL P1 POWER PLAN
EP-P102	PARKING LEVEL P2 POWER PLAN
EP-P103	PARKING LEVEL P3 POWER PLAN
EP-P104	PARKING LEVEL P4 POWER PLAN
EP-P105	PARKING LEVEL P5 POWER PLAN
EP-P916	PARKING LEVEL P5/ P6 POWER PLAN - BID ALT
EL-P101	PARKING LEVEL P1 LIGHTING PLAN
EL-P102	PARKING LEVEL P2 LIGHTING PLAN
EL-P103	PARKING LEVEL P3 LIGHTING PLAN
EL-P104	PARKING LEVEL P4 LIGHTING PLAN
EL-P105	PARKING LEVEL P5 LIGHTING PLAN
EL-P301	PARKING LIGHTING SECTIONS
EL-P916	PARKING LEVEL P5/ P6 LIGHTING PLAN - BID ALT
ET-P101	PARKING LEVEL P1 TELECOMMUNICATIONS PLAN
ET-P102	PARKING LEVEL P2 TELECOMMUNICATIONS PLAN
ET-P103	PARKING LEVEL P3 TELECOMMUNICATIONS PLAN
ET-P104	PARKING LEVEL P4 TELECOMMUNICATIONS PLAN
ET-P105	PARKING LEVEL P5 TELECOMMUNICATIONS PLAN
ET-P916	PARKING LEVEL P5/ P6 TELECOMMUNICATIONS PLAN - BID ALT
EY-P101	PARKING LEVEL P1 SECURITY PLAN
EY-P102	PARKING LEVEL P2 SECURITY PLAN
EY-P103	PARKING LEVEL P3 SECURITY PLAN
EY-P104	PARKING LEVEL P4 SECURITY PLAN
EY-P105	PAKRING LEVEL P5 SECURITY PLAN
EY-P916	PARKING LEVEL P5/ P6 SECURITY PLAN - BID ALT
FA-P101	PARKING LEVEL P1 FIRE ALARM PLAN
FA-P102	PARKING LEVEL P2 FIRE ALARM PLAN
FA-P103	PARKING LEVEL P3 FIRE ALARM PLAN
FA-P104	PARKING LEVEL P4 FIRE ALARM PLAN
FA-P105	PARKING LEVEL P5 FIRE ALARM PLAN
FA-P601	FIRE ALARM RISER - PARKING STRUCTURE
FA-P916	PARKING LEVEL P5/ P6 FIRE ALARM PLAN - BID ALT

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

LICENSED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

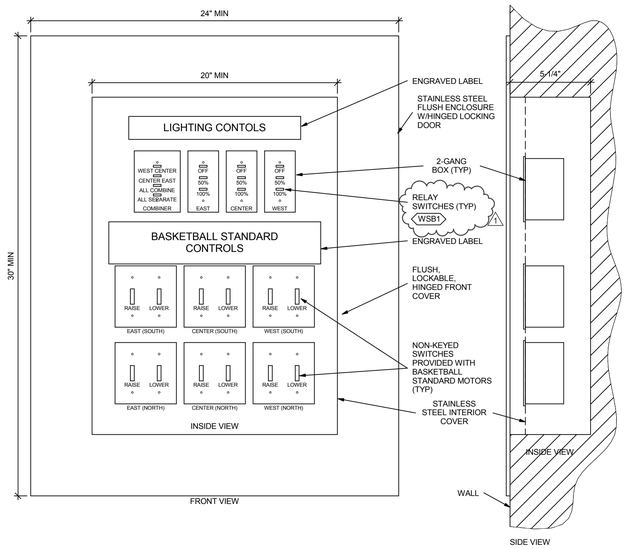
THE GREAT SEAL OF THE STATE OF UTAH 1896

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

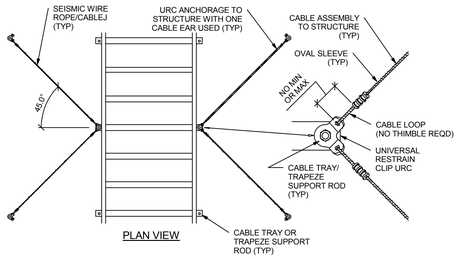
SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES

CONSTRUCTION DOCUMENTS

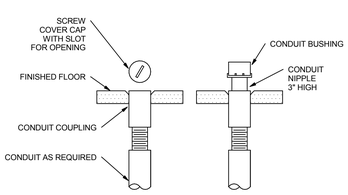
EE-001



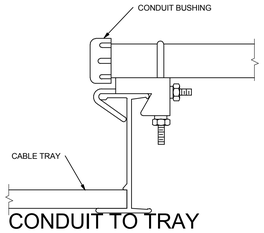
6 GYM LIGHTING AND BACKBOARD CONTROL BOX (3 COURT GYM)
SCALE: NTS



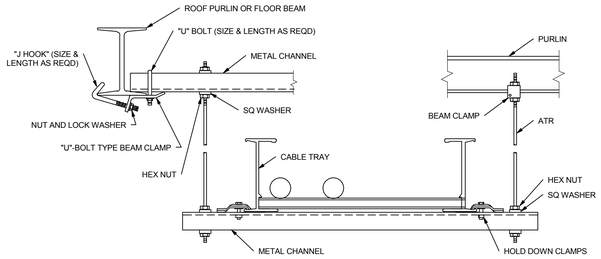
8 SEISMIC WIRE ROPE/CABLEJ BRACING
SCALE: NTS



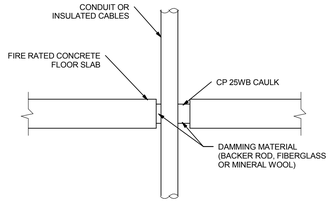
10 CONDUIT IN FLOOR SLAB DETAIL
SCALE: NTS



11 CONDUIT TO TRAY ADAPTER
SCALE: NTS

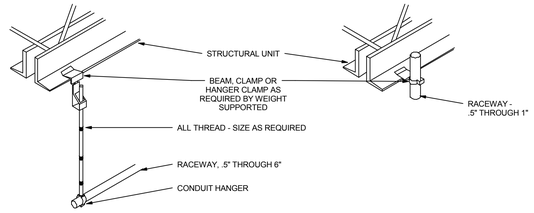


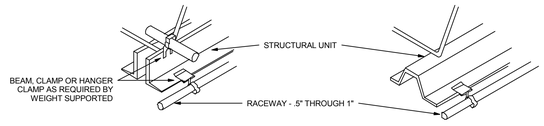
9 TYPICAL INDOOR CABLE TRAY MOUNTING DETAIL
SCALE: NTS



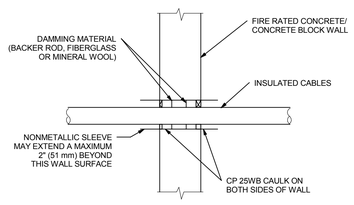
7 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING
SCALE: NTS

NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.

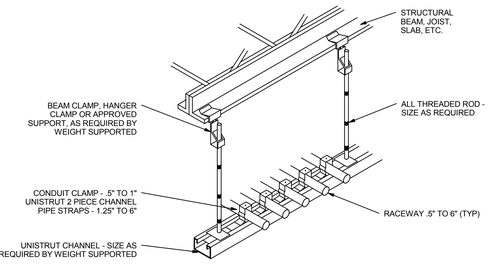




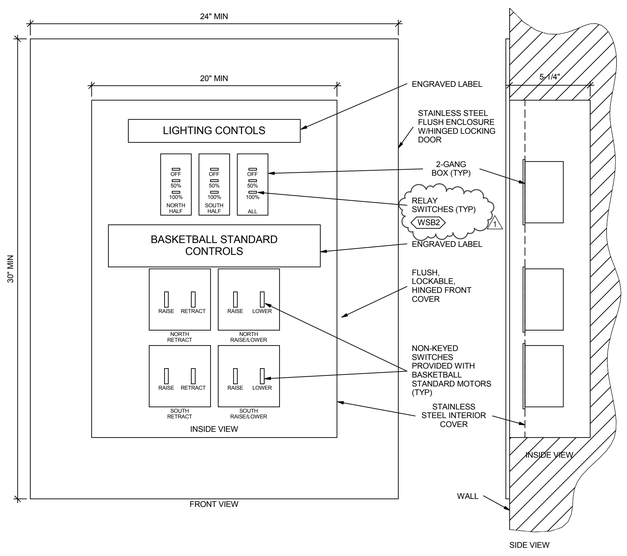
5 TYPICAL RACEWAY SUPPORT METHODS DETAIL
SCALE: NTS



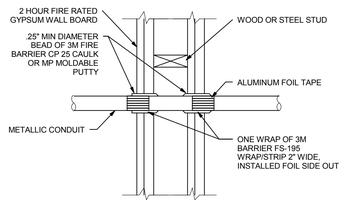
4 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS
SCALE: NTS



3 TYPICAL CONDUIT RACK DETAIL
SCALE: NTS



1 GYM LIGHTING AND BACKBOARD CONTROL BOX (MAC GYM)
SCALE: NTS



2 FIRE STOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD
SCALE: NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

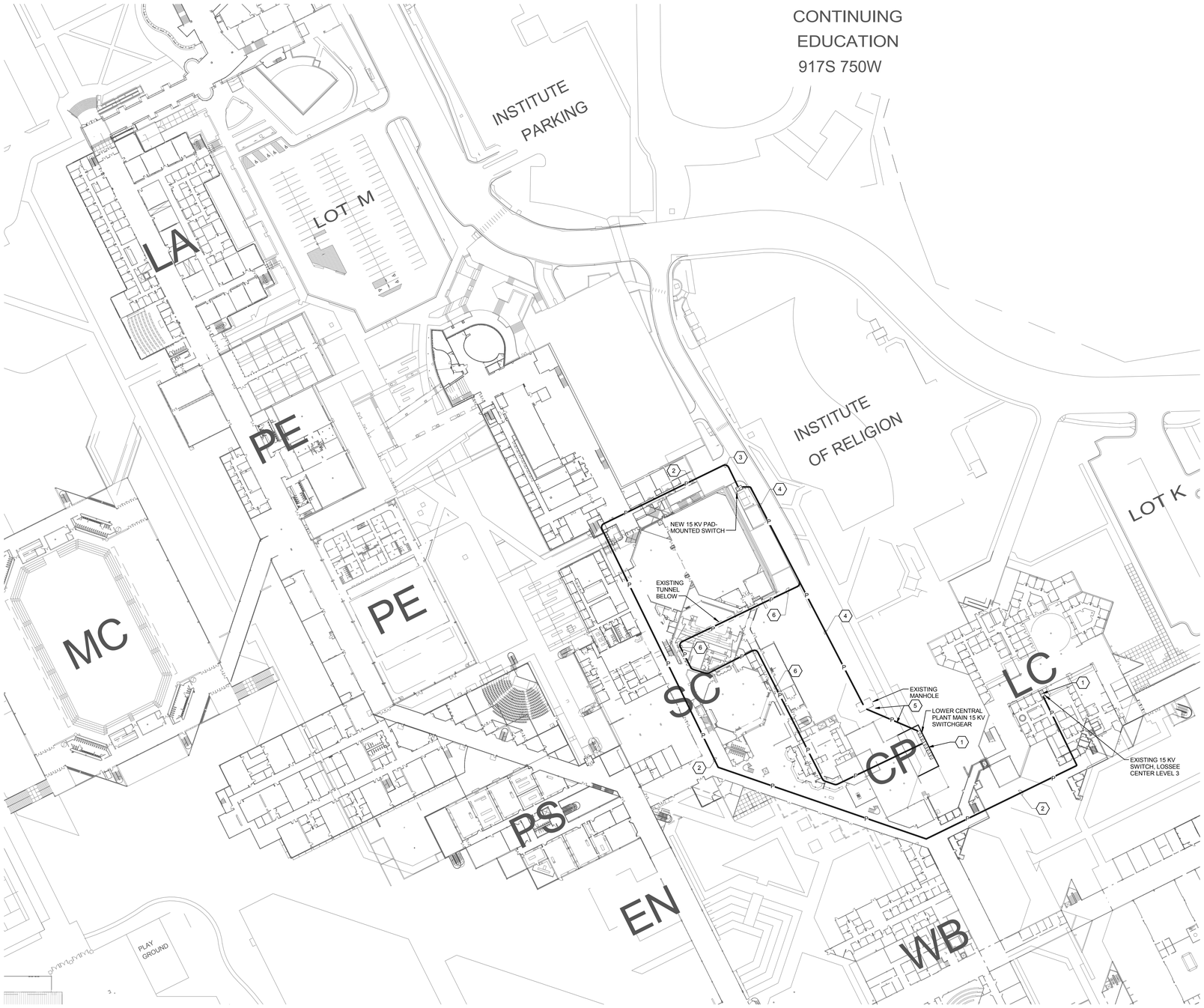
DETAILS

CONSTRUCTION DOCUMENTS

EE-501

C:\Users\dlm\Documents\2011\03645\Ec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 10:56:08 AM



1 ENLARGED PARTIAL CAMPUS ELECTRICAL SITE PLAN
SCALE: 1" = 60'-0"

GENERAL SHEET NOTES

1. PRIOR TO BID, VISIT SITE TO REVIEW AND VERIFY EXISTING CONDITIONS RELATING TO MV CABLE AND CONDUIT INSTALLATION. FOR INDOOR INSTALLATIONS, ALL REQUIRED BENDS, OFFSETS, VERTICAL AND HORIZONTAL TRANSITIONS, AND PULL BOXES ARE NOT SHOWN. THESE ITEMS SHALL BE FIELD VERIFIED AND INCLUDED IN THE BID.
2. INSTALL INDOOR CONDUIT AS HIGH AS POSSIBLE ABOVE CONCOURSE AREAS, IN ACCESSIBLE CEILING SPACES.
3. PRIOR TO INSTALLATION, SUBMIT SHOP DRAWING OF PROPOSED CONDUIT ROUTE TO ARCHITECT/ENGINEER FOR REVIEW.
4. PROVIDE OVERCURRENT PROTECTIVE DEVICE STUDY WITH RECOMMENDED TRIP SETTINGS TO ENGINEER, PER SPECIFICATION SECTION 260573.
5. LABEL ALL CONDUIT THAT BECOMES SPARE AS A RESULT OF THIS WORK AS "SPARE CONDUIT" AT END POINTS, J-BOXES, AND 20' INTERVALS.
6. PATCH AND REPAIR ALL SURFACES TO LIKE ORIGINAL CONDITION.

SHEET KEYNOTES

1. LOCATION OF EQUIPMENT SHOWN IS APPROXIMATE. FIELD VERIFY EXACT LOCATION.
2. NEW 15 KV CABLING IN NEW CONDUIT, INSTALLED OVERHEAD IN CONCOURSE: 3 # 4/0 15 KV EPR CU, 1 #4/0 THWN GR IN 4" RIGID METAL CONDUIT (PAINTED RED). ROUTING SHOWN IS APPROXIMATE. FIELD VERIFY EXACT ROUTE AND INCLUDE ALL COSTS IN BID. CUT, PATCH AND REPAIR EXISTING CEILINGS AND WALLS FOR INSTALLATION OF NEW CONDUIT.
3. CONDUIT ROUTE EXITS NEW BUILDING AND TRANSITIONS TO UNDERGROUND DUCT BANK TO NEW 15 KV SWITCH. PROVIDE (2) 5" CND, CONCRETE ENCASED" (1) SPARE AND (1) WITH 3 # 4/0 15 KV EPR CU, 1 #4/0 THWN G.
4. FROM NEW 15 KV SWITCH TO EXISTING SWITCHGEAR IN LOWER CENTRAL PLANT, PROVIDE NEW UNDERGROUND DUCT BANK: (2) 5" CND, CONCRETE ENCASED" (1) SPARE AND (1) WITH 3 # 4/0 15 KV EPR CU, 1 #4/0 THWN G.
5. RUN NEW DUCT BANK INTO EXISTING MANHOLE. LOOP AND RACK CABLE AROUND MANHOLE, THEN CONTINUE INTO LOWER CENTRAL PLANT WITH NEW DUCT BANK. CUT AND PATCH ASPHALT THROUGH LOADING DOCK, THEN RUN CONDUIT UP WALL THEN INTO CENTRAL PLANT FROM OVERHEAD. VERIFY ALLOWABLE LOCATIONS OF EXPOSED CONDUIT IN LOADING DOCK WITH UVU, AND PROTECT THIS CONDUIT FROM DAMAGE.
6. ONE ACCEPTABLE ALTERNATE ROUTE FOR CONDUIT AND CABLING FROM NEW SWITCH TO LOWER CENTRAL PLANT IS TO ENTER EXISTING TUNNEL FROM UNDERGROUND, THEN ROUTE THE CONDUIT INDOORS TO THE LOWER PLANT. WHATEVER ROUTE IS PROVIDED, BIDDER ASSUMES RESPONSIBILITY FOR FIELD VERIFICATION OF ROUTING AND INCLUDING ALL COSTS IN BID.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

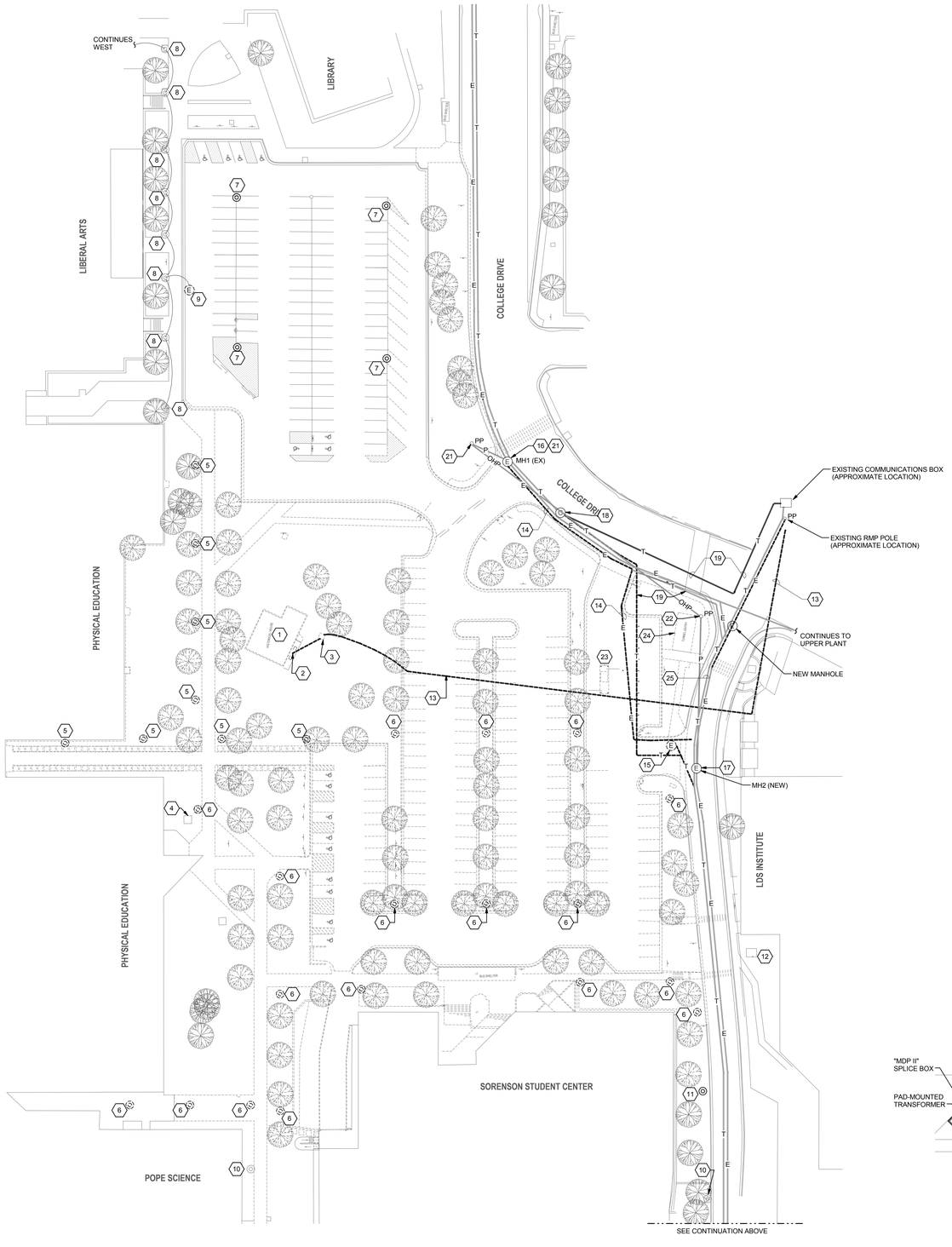
ENLARGED PARTIAL CAMPUS ELECTRICAL SITE PLAN

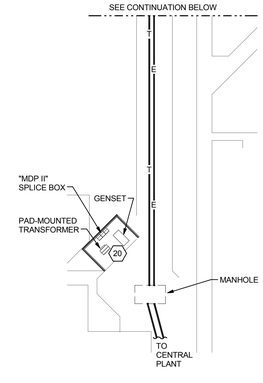
CONSTRUCTION DOCUMENTS

ES-102

C:\Users\dlm\Documents\2011036-Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 11:02:48 AM





1 SITE DEMOLITION PLAN
SCALE: 1" = 40'-0"

GENERAL SHEET NOTES

1 PRIOR TO SUBMITTING BID, VISIT SITE TO FIELD VERIFY EXISTING CONDITIONS THAT ARE AFFECTED BY WORK OF THIS PROJECT. NOTIFY ARCHITECT/ENGINEER PRIOR TO BID OF ANY DISCREPANCIES OR ISSUES THAT WILL AFFECT COST.

2 REFER TO CIVIL DRAWINGS FOR ADDITIONAL SITE UTILITY INFORMATION AND REQUIREMENTS.

3 COORDINATE POWER OUTAGES AT LEAST 4 WEEKS IN ADVANCE WITH UVU. OUTAGES ARE ONLY ALLOWED DURING NON-BUSINESS HOURS. COORDINATE BACK-UP POWER PLAN WITH UVU AND ENGINEER TO MAINTAIN POWER TO CAMPUS DURING EXTENDED OUTAGES. PROVIDE SWITCHING AND SECTIONALIZING AS REQUIRED AND DIRECTED BY UVU TO MAINTAIN POWER TO CAMPUS.

SHEET KEYNOTES

1 DISCONNECT AND REMOVE ELECTRICAL SERVICE TO BUNNEL HOUSE (TO BE RELOCATED).

2 REMOVE SERVICE PANELS, TRANSFORMER AND ASSOCIATE GEAR AT HOUSE. PANEL FEEDS EXSTING EXTERIOR WALKWAY LIGHTING THAT WILL REMAIN AND BE RE-FED FROM ANOTHER SOURCE.

3 COORDINATE THE DISCONNECTION AND REMOVAL OF PAD-MOUNTED TRANSFORMER WITH ROCKY MOUNTAIN POWER. TRANSFORMER IS 50 KVA, 12470-120/240V 1-PHASE/3-WIRE.

4 EXISTING UVU-OWNED PAD-MOUNTED TRANSFORMER SERVING PE BUILDING TO REMAIN. LOCATION OF UNDERGROUND PRIMARY AND SECONDARY LINES ARE UNKNOWN. LOCATE AND PROTECT THESE LINES.

5 REMOVE EXISTING LIGHT POLE WITH ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR FIRST ACTIVE JUNCTION. MAINTAIN CIRCUIT CONTINUITY FOR DOWNSTREAM LIGHT POLES THAT REMAIN. THESE POLES ARE BELIEVED TO BE SERVED FROM BUNNEL HOUSE, BUT SHALL BE FIELD VERIFIED.

6 REMOVE EXISTING LIGHT POLE WITH ASSOCIATED CONDUIT AND WIRING BACK TO PANEL OR FIRST ACTIVE JUNCTION. MAINTAIN CIRCUIT CONTINUITY FOR DOWNSTREAM LIGHT POLES THAT REMAIN. THESE POLES ARE BELIEVED TO BE SERVED FROM STUDENT CENTER, BUT SHALL BE FIELD VERIFIED.

7 EXISTING LIGHT POLE TO REMAIN WITH ASSOCIATED CONDUIT AND WIRING. LOCATE AND PROTECT SERVICE TO THESE POLES. THESE POLES ARE BELIEVED TO BE SERVED FROM LA BUILDING, BUT SHALL BE FIELD VERIFIED.

8 EXISTING LIGHT POLE TO REMAIN WITH ASSOCIATED CONDUIT AND WIRING. SERVICES TO THESE POLES WILL BE DISRUPTED AT THE REMOVAL OF BUNNEL HOUSE. REFEED THESE. POLES ARE 480V, 175W EACH.

9 EXISTING MANHOLE WITH SPARE 480V/30A/2P CIRCUIT FROM LA BUILDING. RECIRCUIT POLES BY CONNECTING TO SPARE CIRCUIT IN MANHOLE. CIRCUIT ORIGINATES FROM PANELBOARD "1L" IN ROOM LA-001G, BASEMENT LEVEL. WITHIN ELECTICAL ROOM, EXTEND CIRCUIT THROUGH EXISTING RELAY PANEL, 2-POLE RELAY, AND PROGRAM RELAY SYSTEM TO CONTROL THESE LIGHTS PER UVU INSTRUCTIONS. ALLOW 100' OF CONDUIT AND WIRING FOR WORK IN ELECTRICAL ROOM. CIRCUIT WIRING IS #6 AWG IN 1" CONDUIT. PROVIDE 20A/2P BREAKER IN PANEL TO CONNECT CIRCUIT.

10 EXISTING LIGHT POLE TO REMAIN WITH ASSOCIATED CONDUIT AND WIRING. SOURCE UNKNOWN. LOCATE AND PROTECT SERVICE TO POLE.

11 REMOVE AND RELOCATE EXISTING LIGHT POLE AS INDICATED ON NEW LIGHTING PLAN. REMOVE CONCRETE BASE AND EXTEND WIRING TO NEW LOCATION.

12 EXISTING ROCKY MOUNTAIN POWER PAD-MOUNTED TRANSFORMER TO REMAIN. LOCATE AND PROTECT THE UNDERGROUND PRIMARY FEEDER TO THIS TRANSFORMER.

13 COORDINATE THE DISCONNECTION AND REMOVAL OF UNDERGROUND PRIMARY HIGH-VOLTAGE LINE SERVING BUNNEL HOUSE WITH ROCKY MOUNTAIN POWER. LOCATION OF LINE IS APPROXIMATE AND SHALL BE FIELD VERIFIED.

14 EXISTING UNDERGROUND 12,470V DUCT BANK (APPROXIMATE LOCATION) WITH MAIN FEED FROM SUBSTATION INTO LOWER CENTRAL PLANT. RELOCATE PORTION OF DUCT BANK THAT WILL BE WITHIN EXCAVATION OF NEW BUILDING.

15 REMOVE EXISTING MANHOLE AS PART OF DUCT BANK RELOCATION.

16 EXISTING MANHOLE TO REMAIN. BEGIN 15 KV DUCT BANK RELOCATION FROM THIS POINT TOWARDS CENTRAL PLANT.

17 EXCAVATE AND INTERCEPT EXISTING ABONDONED CONDUIT AND CABLING FROM ROCKY MOUNTAIN POWER POLE TO LOWER CENTRAL PLANT. REMOVE ABANDONED CABLNG IN IT'S ENTIRETY FROM RMP POLE TO LOWER CENTRAL PLANT AND PROVIDE NEW MANHOLE AT THIS POINT. CONNECT CONDUITS FROM BOTH DIRECTIONS TO MANHOLE (ASSUME TWO 6" CONDUITS EACH DIRECTION).

18 EXISTING TELECOMMUNICATIONS MANHOLE TO REMAIN. THIS RUN CONTAINS 144-COUNT FIBER OPTIC CABLING FROM THE LIBRARY TO THE COMPUTER SCIENCES BUILDING. CAREFULL REMOVE THIS RUN OF CABLING IN IT'S ENTIRETY TO BE PULLED THROUGH NEW ROUTE. COORDINATE REMOVAL WITH UVU.

19 PROVIDE (2) 5" NEW CONDUIT FROM EXISTING TELECOMM MANHOLE TO EXISTING COMMUNICATIONS BOX. DIRECTIONAL BORE UNDERNEATH EXISTING TUNNEL. RE-INSTALL EXISTING 144-COUNT FIBER CABLING FROM LIBRARY TO COMPUTER SCIENCES BUILDING. MEASURE CONDUIT ROUTE AND EXISTING CABLING PRIOR TO INSTALLATION. TERMINATE AND TEST. COORDINATE THIS WORK WITH UVU.

20 REMOVE EXISTING TRANSFORMER, GENERATOR, PANELS, CONDUIT, CABLING AND EQUIPMENT SERVING SORENSEN STUDENT CENTER. LOADS WILL BE SERVED FROM NEW TRANSFORMER AND GENERATOR. REMOVE AFTER NEW SERVICES ARE INSTALLED AND READY FOR CUT-OVER.

21 INTERCEPT EXISTING UNDERGROUND CABLING IN EXISTING MANHOLE - THE CABLING FROM SUBSTATION TO LOWER CENTRAL PLANT (THE MANHOLE CONTAINS OTHER CABLING TO REMAIN UNDISTURBED). SPLICE CABLING AND RUN NEW CONDUIT AND CABLING TO NEW POWER POLE WITH RISER UP POLE TO NEW OVERHEAD LINE TO SERVE AS TEMPORARY ROUTE FOR THE CAMPUS MAIN FEED TO LOWER CENTRAL PLANT DURING CONSTRUCTION. MAINTAIN 600 AMP-15KV CAPACITY ON ALL TEMPORARY LINES.

22 SET NEW POWER POLE FOR TEMPORARY OVERHEAD LINE WITH DIP TO NEW MANHOLE. PROVIDE ALL NEW 15 KV CABLING FROM OVERHEAD POWER POLE TO LOWER CENTRAL PLANT. DISCONNECT EXISTING FEEDER FROM SUBSTATION AND RECONNECT NEW LINE. NEW CABLING SHALL BE 3 #750 KCMIL 15 KV EPR CU WITH CONCENTRIC NEUTRAL CU GR IN 6" CONDUIT. WRAP NEW CABLING AROUND NEW MANHOLE SO THAT THERE IS SUFFICIENT LENGTH TO RE-PULL TO EXISTING MANOLE "MH1" FROM LOWER PLANT, UNSPLICED. EXISTING 6" CONDUIT MAY BE REUSED, BUT SHALL BE VERIFIED FOR REUSE BY BIDDER/INSTALLER. COORDINATE ALL WORK WITH UVU AND RMP. LOCATE AND PROTECT EXISTING UTILITIES IN THIS AREA.

23 DISCONNECT AND REMOVE ELECTRICAL SERVICE TO PARKING BOOTH.

24 MAINTAIN ELECTRICAL SERVICE TO TUNNEL LIGHTS AND HEAT TRACE. PROVIDE 277V AND 120V 20A CIRCUITS TO TUNNEL FROM EXISTING STUDENT CENTER ELECTRICAL ROOM "MDP3" CONSISTING OF 3 #8, 1" CND FOR EACH CIRCUIT.

25 MAINTAIN EXISTING CONDUIT ROUTE FROM COMM BOX TO LOWER CENTRAL PLANT FOR FUTURE USE.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 1, 2012	Addendum #1
2	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

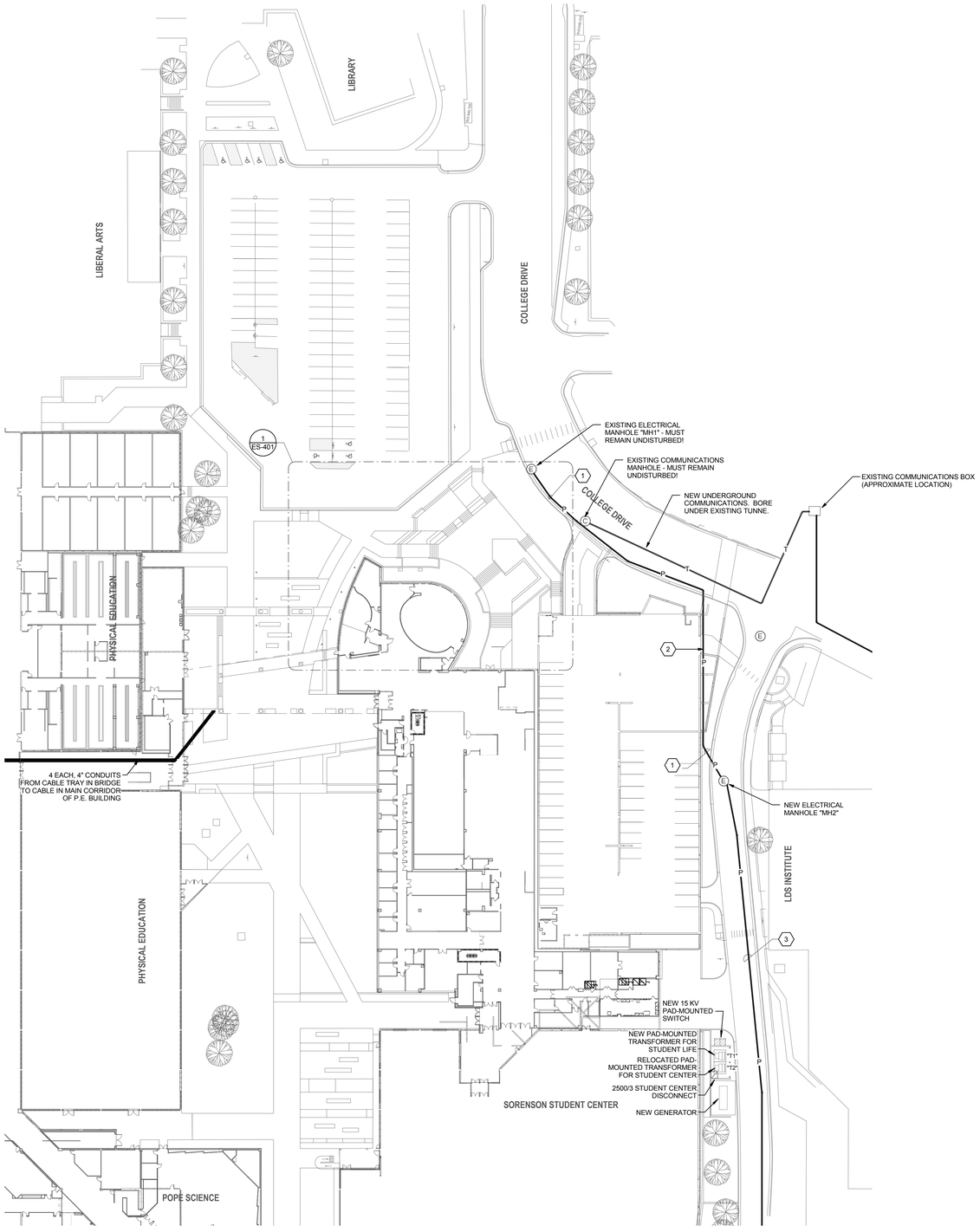
DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

SITE DEMOLITION PLAN

CONSTRUCTION DOCUMENTS

ES-103

C:\Users\dlm\Documents\2010354Elec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:02:52 AM



1 SITE POWER PLAN

SCALE: 1" = 40'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE NEW 15 KV DUCT BANK FROM EXISTING MANHOLE "MH1" TO NEW MANHOLE "MH2". 2 EACH 6" CONDUITS, CONCRETE ENCASED, ONE WITH 3 #750 KCMIL-15KV-CU, CONCENTRIC NEUTRAL. PROVIDE WATER-PROOF SPLICE IN MH1 THEN RUN CABLING CONTINUOUS WITHOUT SPLICES AND CONNECT TO EXISTING MAIN 15 KV GEAR IN LOWER PLANT. WRAP EACH MANHOLE AT LEAST ONCE WITH CABLING. WHEN COMPLETE, REMOVE THE TEMPORARY OVERHEAD LINE.

2 RUN NEW DUCT BANK DEEP, UNDERNEATH AREA-WAY SLAB OF NEW PARKING STRUCTURE, THEN GRADUALLY TRANSITION UP TO NEW MANHOLE.

3 NEW CABLING IN EXISTING DUCT BANK.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

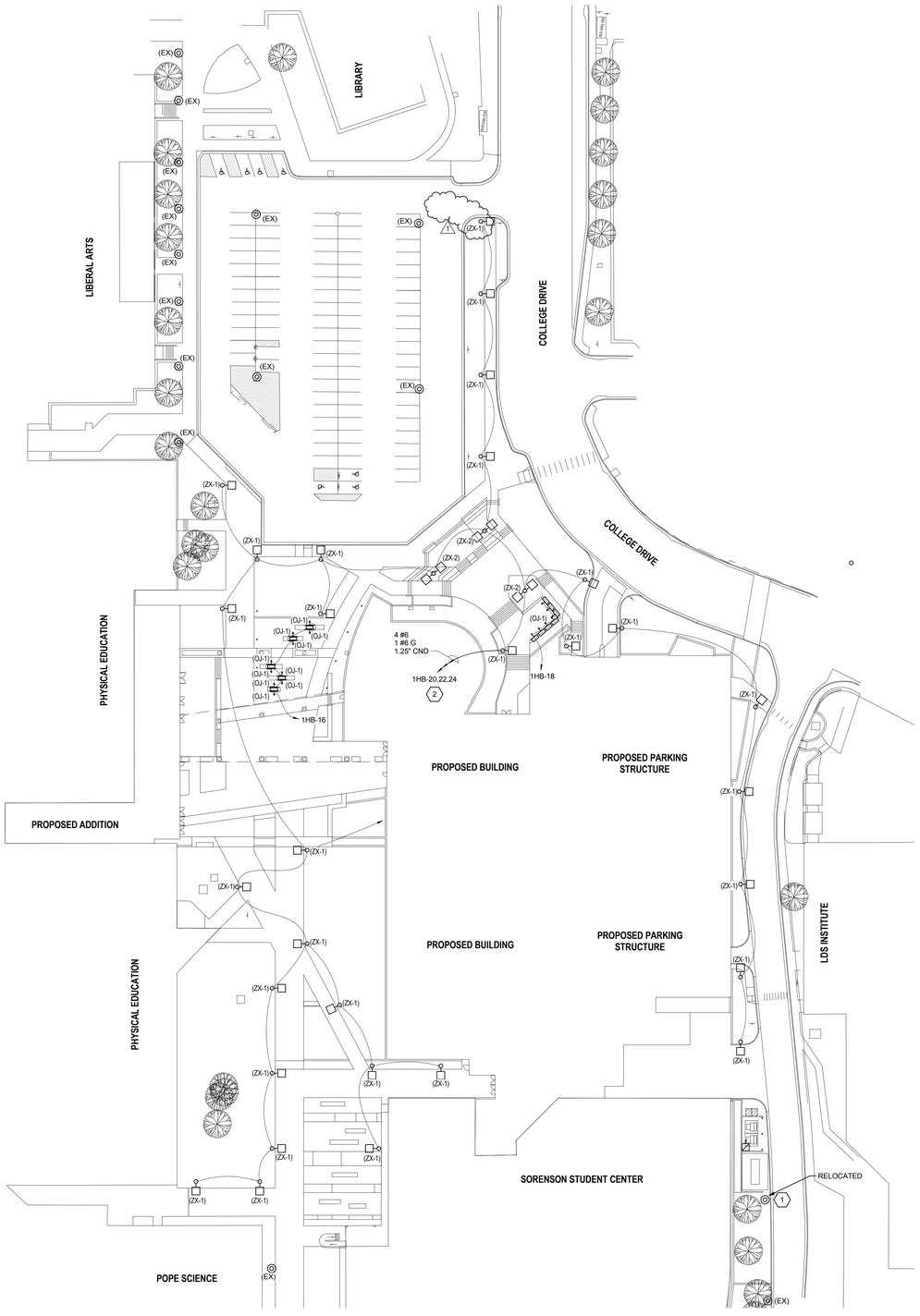
DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

SITE POWER PLAN

CONSTRUCTION DOCUMENTS

ES-104

C:\Users\dlm\Documents\2011\3364Elec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:02:59 AM



1 SITE LIGHTING PLAN
SCALE: 1" = 40'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT PLACEMENT OF ALL EXTERIOR LIGHTING FIXTURES WITH LANDSCAPE ARCHITECT.

SHEET KEYNOTES

1 RELOCATED LIGHT POLE. PROVIDE NEW POLE BASE AND EXTEND EXISTING WIRING TO NEW LOCATION. MAINTAIN AND REPAIR EXISTING CIRCUITING FOR ALL OTHER LIGHT POLES THAT REMAIN.

2 CARRY ALL THREE CIRCUITS THROUGH TO EVERY LIGHT POLE AND CONNECT POLES TO ALTERNATING CIRCUITS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

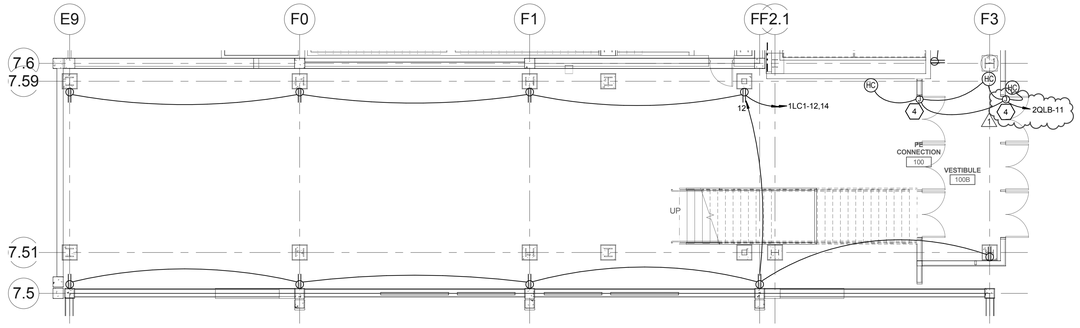
SITE LIGHTING PLAN

CONSTRUCTION DOCUMENTS

ES-105

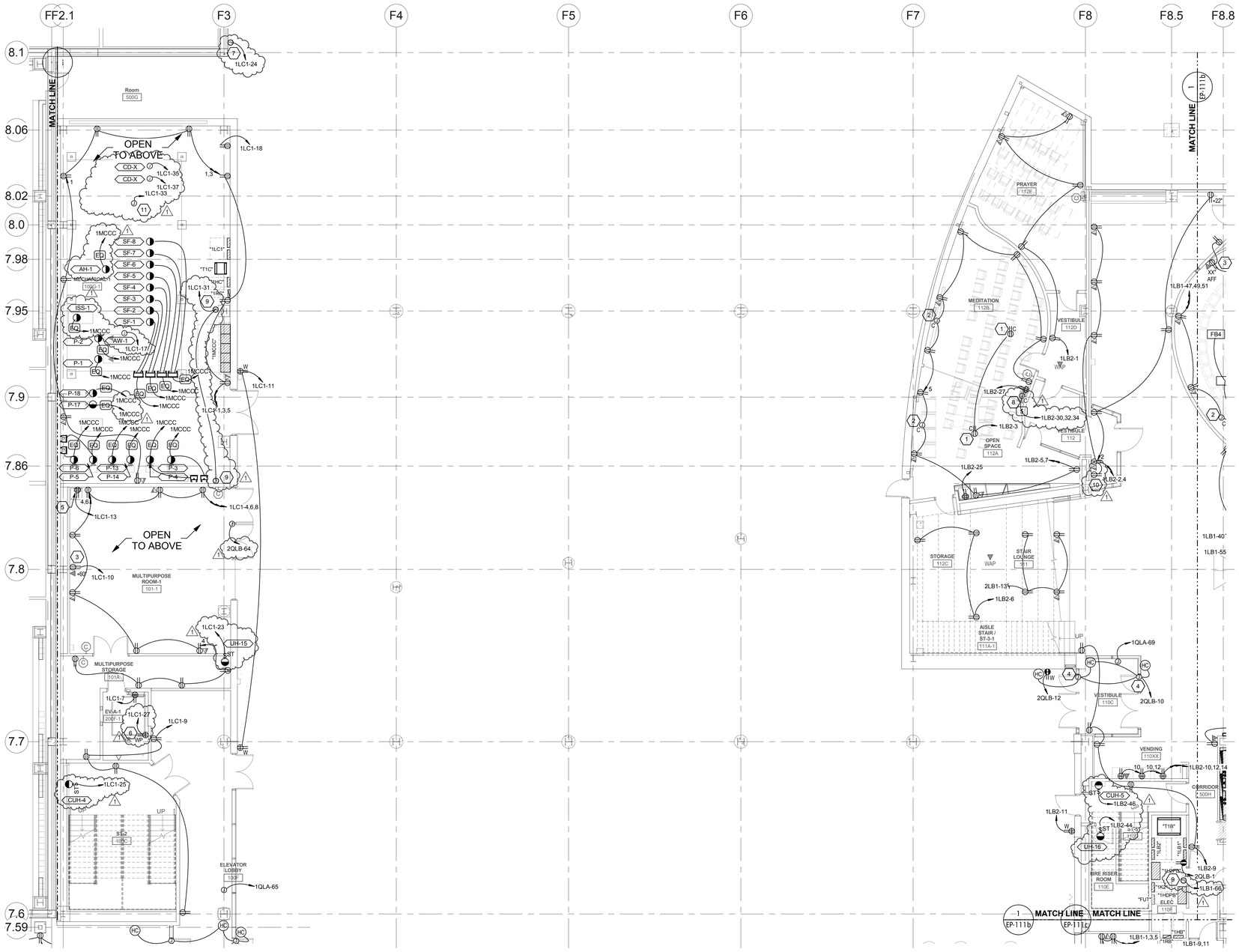
C:\Users\dlm\Documents\2010364Elec UVU Student Life Center Jrdi Master McD.rvt

5/14/2012 11:03:32 AM



2 LEVEL 1 POWER PLAN CIRCULATION

SCALE: 1/8" = 1'-0"



1 LEVEL 1 POWER PLAN ZONE A

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

2 PROVIDE POWER AND CONTROL WIRING FOR MOTORIZED SCREEN.

3 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

4 PROVIDE ELECTRICAL CONNECTIONS TO ADA DOOR OPERATORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

5 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

6 OUTLET FOR ELEVATOR PIT SUMP PUMP. COORDINATE WITH MECHANICAL DIVISION.

7 PROVIDE CONNECTION TO IRRIGATION CONTROL BOX. COORDINATE WITH LANDSCAPE INSTALLER.

8 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED PARTITION DIVIDER WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. ARRANGE TO CLOSE DOOR UPON ACTIVATION OF FIRE ALARM.

9 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

10 PROVIDE POWER FOR AV EQUIPMENT ABOVE THE CEILING. COORDINATE WITH UVU MEDIA SERVICES AND AV INSTALLER FOR EXACT LOCATION.

11 PROVIDE POWER FOR LIGHTING INSIDE AIR HANDELING UNIT. COORDINATE EXACT LOCATION OF POWER CONNECTION.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

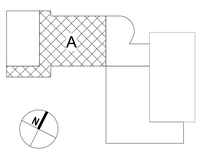
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

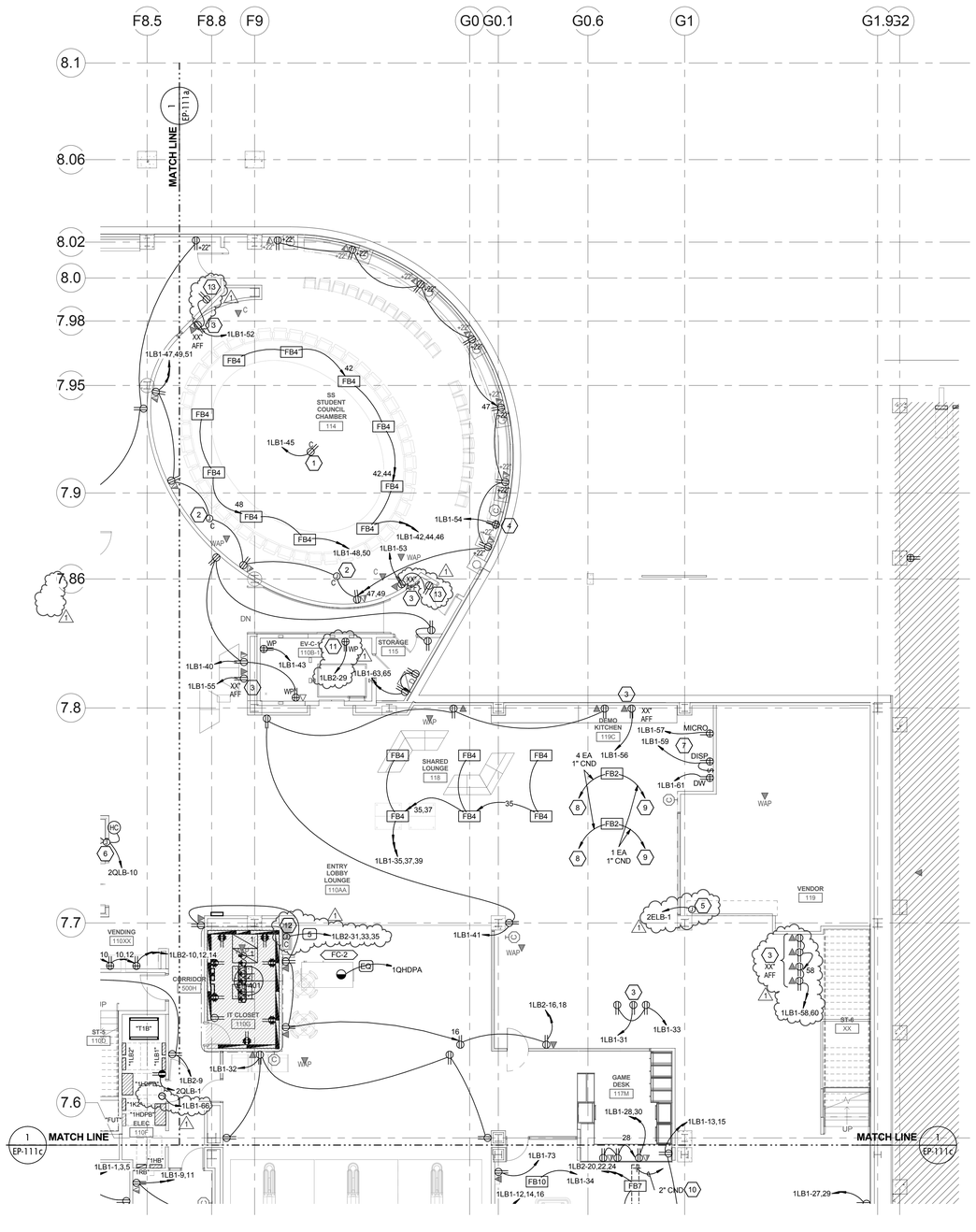
LEVEL 1 POWER PLAN ZONE A

CONSTRUCTION DOCUMENTS

EP-111a

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 11:01:18 AM



1 LEVEL 1 POWER PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

2 PROVIDE POWER AND CONTROL WIRING FOR MOTORIZED SCREEN.

3 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

4 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

5 PROVIDE ELECTRICAL CONNECTIONS TO OVERHEAD GRILL MOTOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. ARRANGE TO CLOSE DOOR UPON ACTIVATION OF FIRE ALARM.

6 PROVIDE ELECTRICAL CONNECTIONS TO ADA DOOR OPERATORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

7 REFER TO ARCHITECTURAL ELEVATIONS FOR ALL EQUIPMENT REQUIRING OUTLETS AND FOR EXACT OUTLET PLACEMENT.

8 PROVIDE 4 EA 1" CND FROM FLOORBOX TO ELECTRICAL ROOM 110F FOR FUTURE DEMO KITCHEN COUNTER AND EQUIPMENT.

9 PROVIDE 1" CND FROM FLOORBOX TO I.T. CLOSET 111E FOR FUTURE COMMUNICATIONS TO COUNTER.

10 STUB 2" CND FROM UNDERFLOOR DUCT TO NEAREST I.T. CLOSET.

11 OUTLET FOR ELEVATOR PIT SUMP PUMP. COORDINATE WITH MECHANICAL DIVISION.

12 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED PARTITION DIVIDER WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. ARRANGE TO CLOSE DOOR UPON ACTIVATION OF FIRE ALARM.

13 PROVIDE POWER FOR AV EQUIPMENT ABOVE THE CEILING. COORDINATE WITH UVU MEDIA SERVICES AND AV INSTALLER FOR EXACT LOCATION.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

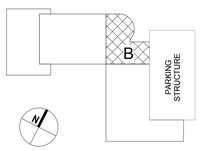
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10280790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

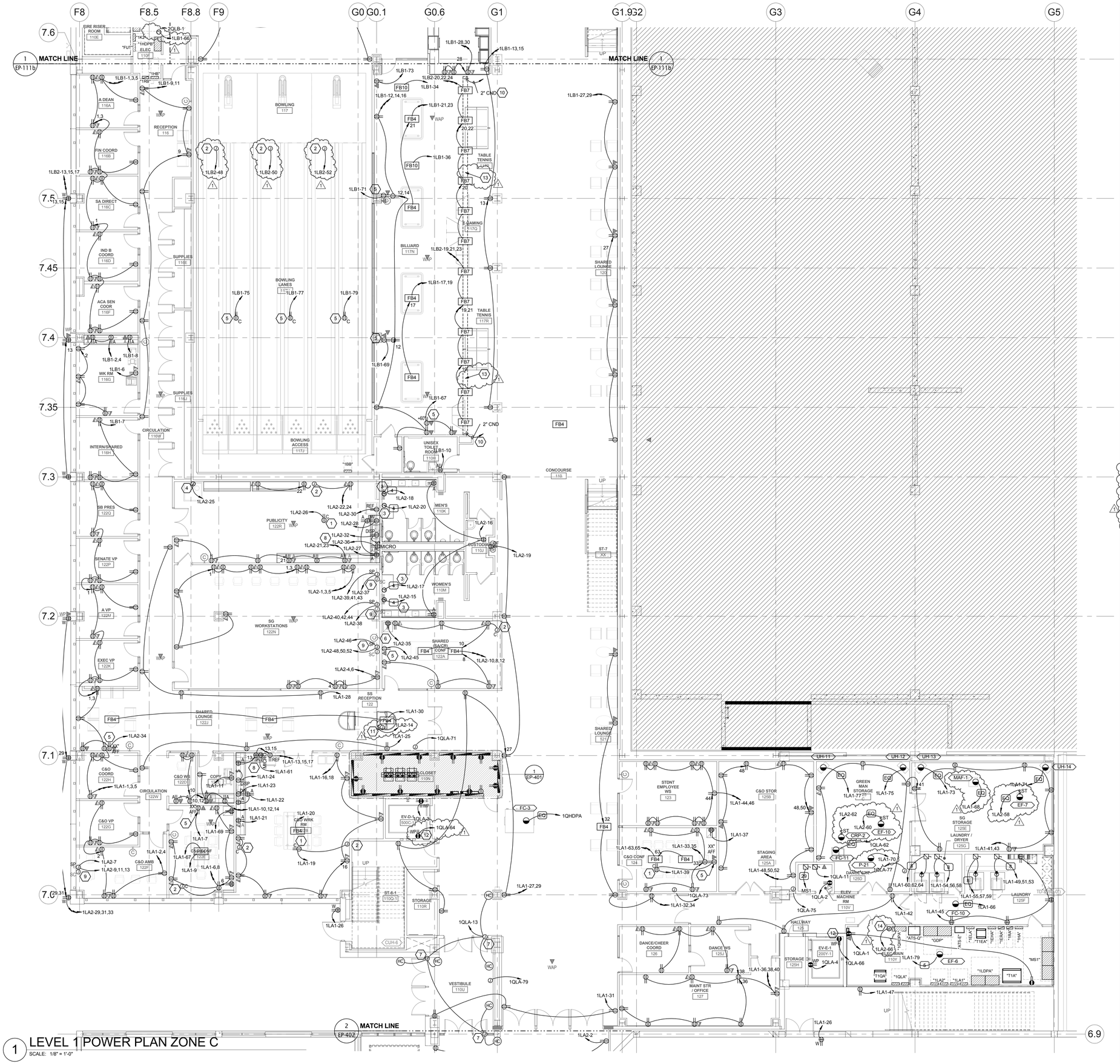
LEVEL 1 POWER PLAN ZONE B

CONSTRUCTION DOCUMENTS

EP-111b

C:\Users\dlm\Documents\2011036456c UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:01:23 AM



1 LEVEL 1 POWER PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

2 PROVIDE POWER AND CONTROL WIRING FOR MOTORIZED SCREEN.

3 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

4 PROVIDE ELECTRICAL CONNECTIONS TO PAINT SPRAY BOOTH PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLY WITH NEC ARTICLE 516 FOR MATERIALS AND WIRING METHODS.

5 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

6 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

7 PROVIDE ELECTRICAL CONNECTIONS TO ADA DOOR OPERATORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

8 REFER TO ARCHITECTURAL ELEVATIONS FOR ALL EQUIPMENT REQUIRING OUTLETS AND FOR EXACT OUTLET PLACEMENT.

9 PROVIDE ELECTRICAL CONNECTIONS TO SYSTEMS FURNITURE. DESIGN IS BASED ON 4 CIRCUIT/8 WIRE SYSTEM (3 CIRCUITS, SHARED OVERSIZED NEUTRAL AND GROUND, PLUS 1 CIRCUIT WITH DEDICATED NEUTRAL AND GROUND). VERIFY WIRING CONFIGURATION AND FEED POINT WITH SYSTEMS FURNITURE INSTALLER PRIOR TO INSTALLATION. COORDINATE WITH FURNITURE INSTALLER SUCH THAT CIRCUITS ARE UNIFORMLY DISTRIBUTED TO NO MORE THAN 3 WORKSTATIONS PER CIRCUIT AND EACH WORKSTATION HAVING AVAILABLE IT'S ASSIGNED CIRCUIT. COPIER OR PRINTERS LOCATED IN A GROUP OF WORKSTATIONS SHALL RECEIVE A DEDICATED CIRCUIT.

10 STUB 2" CND FROM UNDERFLOOR DUCT TO NEAREST I.T. CLOSET.

11 PROVIDE CONNECTIONS TO LED LIGHTING IN MILLWORK AND PROVIDE LOCAL SWITCH IN MILLWORK. COORDINATE WITH MILLWORK INSTALLER AND ARCHITECTURAL DETAILS. CIRCUIT THROUGH RELAY PANEL.

12 OUTLET FOR ELEVATOR PIT SUMP PUMP. COORDINATE WITH MECHANICAL DIVISION.

13 3-CHANNEL UF DUCT FOR POWER, DATA AND A/V CABLING.

14 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

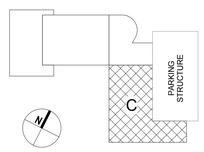
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

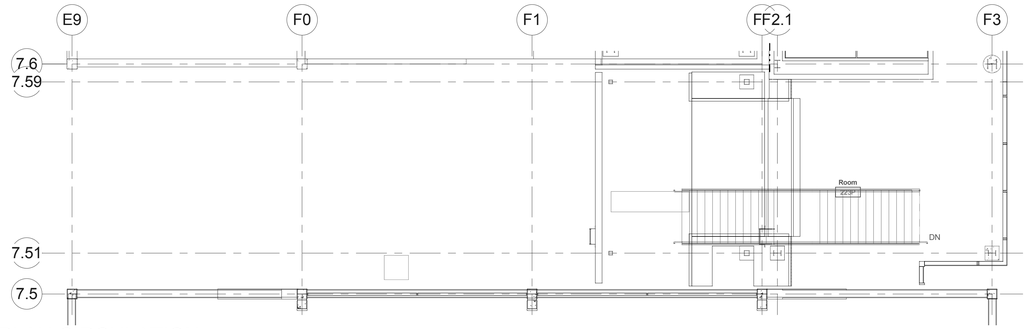
LEVEL 1 POWER PLAN ZONE C

CONSTRUCTION DOCUMENTS

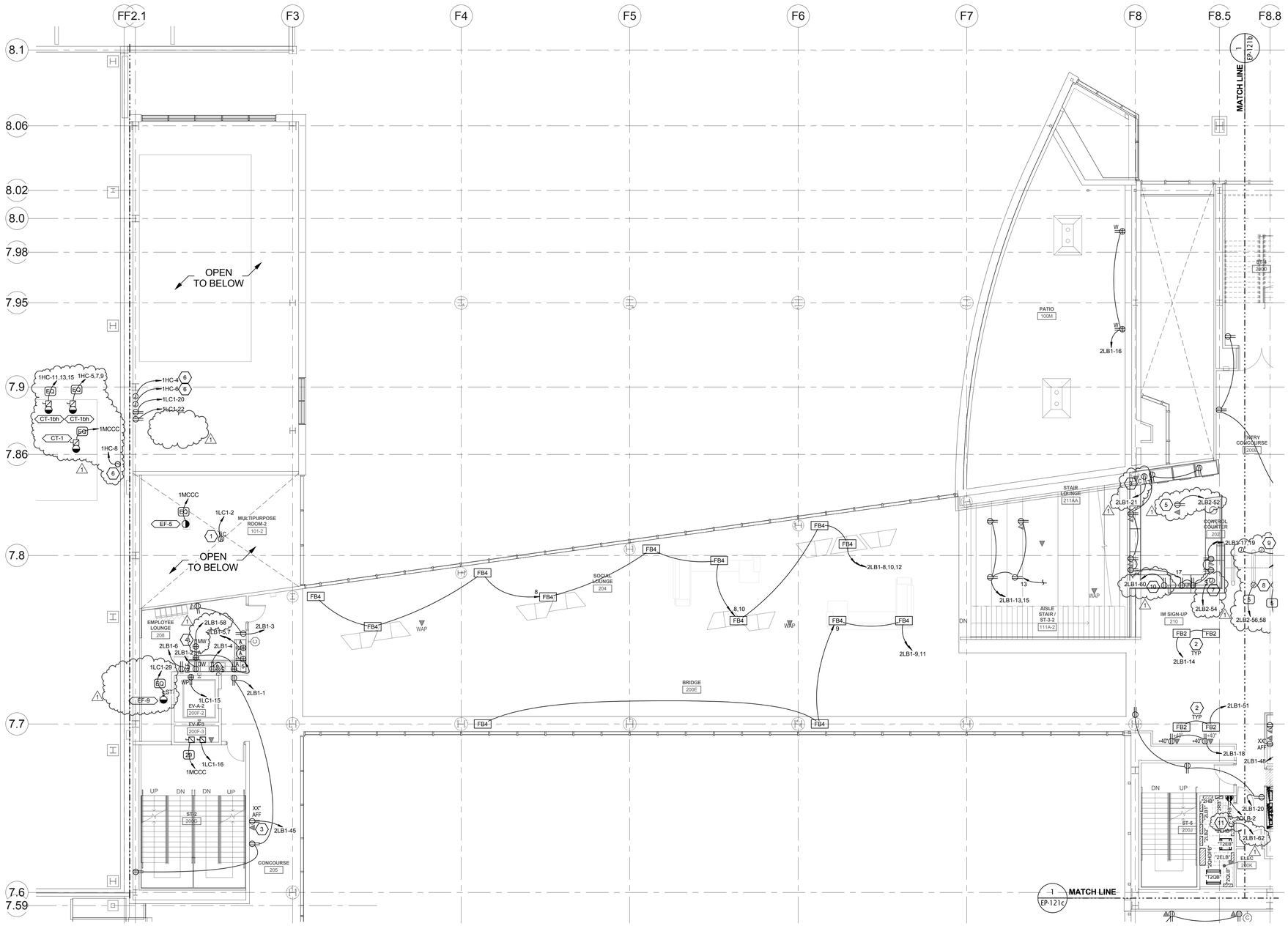
EP-111c

C:\Users\dlm\Documents\2011\0364\Elec UVU Student Life Center_Jedi Master MoD.rvt

5/14/2012 11:01:29 AM



2 LEVEL 2 POWER PLAN CIRCULATION
SCALE: 1/8" = 1'-0"



1 LEVEL 2 POWER PLAN ZONE A
SCALE: 1/8" = 1'-0"

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:01:37 AM

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

2 FLOOR OUTLETS FOR KIOSKS. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH ARCHITECT AND KIOSK INSTALLER.

3 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

4 REFER TO ARCHITECTURAL ELEVATIONS FOR ALL EQUIPMENT REQUIRING OUTLETS AND FOR EXACT OUTLET PLACEMENT.

5 POWER AND DATA FOR BIOMETRIC SCANNER.

6 HEAT TRACE, PROVIDE 30MA CIRCUIT BREAKER.

7 PROVIDE CONNECTIONS TO LED LIGHTING IN MILLWORK AND PROVIDE LOCAL SWITCH IN MILLWORK. COORDINATE WITH MILLWORK INSTALLER AND ARCHITECTURAL DETAILS. CIRCUIT THROUGH RELAY PANEL.

8 PROVIDE ELECTRICAL CONNECTIONS TO TURNSTILES: 208V/1-PHASE, 10 AMP EACH.

9 PROVIDE 120V POWER AND CONNECTIONS TO BIOMETRIC READERS AT TURNSTILES.

10 PROVIDE OUTLET ADJACENT TO AV CONNECTION PLATES. COORDINATE EXACT LOCATION.

11 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

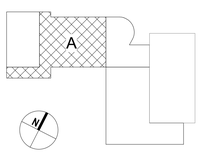
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

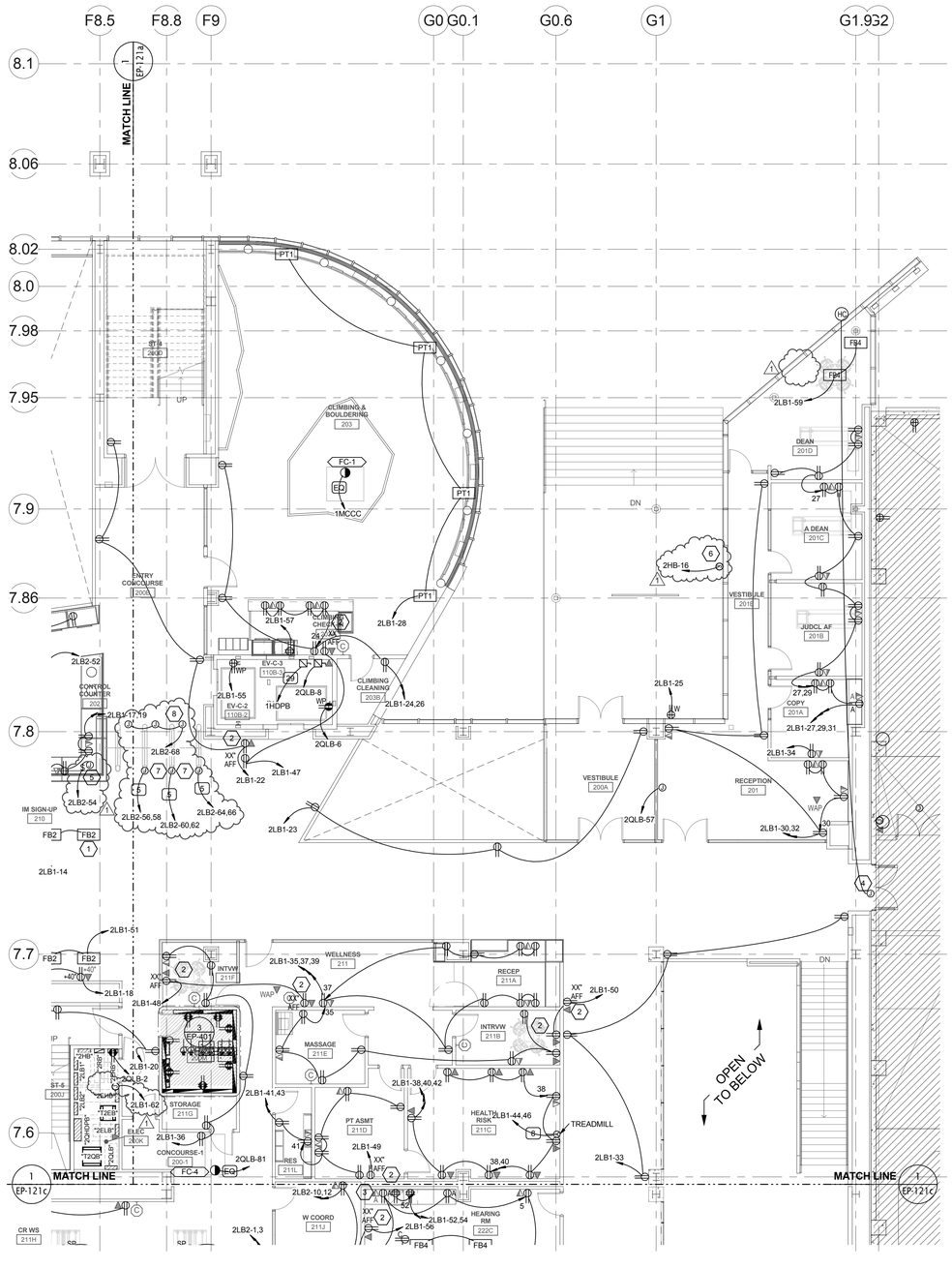
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10280790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 2 POWER PLAN ZONE A

CONSTRUCTION DOCUMENTS

EP-121a



1 LEVEL 2 POWER PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLOOR OUTLETS FOR KIOSKS. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH ARCHITECT AND KIOSK INSTALLER.

2 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

3 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

4 PROVIDE ELECTRICAL CONNECTIONS TO ADA DOOR OPERATORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

5 PROVIDE CONNECTIONS TO LED LIGHTING IN MILLWORK AND PROVIDE LOCAL SWITCH IN MILLWORK. COORDINATE WITH MILLWORK INSTALLER AND ARCHITECTURAL DETAILS. CIRCUIT THROUGH RELAY PANEL.

6 HEAT TRACE, PROVIDE 30MA CIRCUIT BREAKER.

7 PROVIDE ELECTRICAL CONNECTIONS TO TURNSTILES: 208V/1-PHASE, 10 AMP EACH.

1 8 PROVIDE 120V POWER AND CONNECTIONS TO BIOMETRIC READERS AT TURNSTILES.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

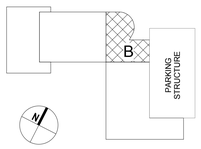
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 2 POWER PLAN ZONE B

CONSTRUCTION DOCUMENTS

EP-121b

C:\Users\dlm\Documents\2011\09\64\Etc UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:01:42 AM

1 LEVEL 2 POWER PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

2 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

3 PROVIDE POWER AND CONTROL WIRING FOR MOTORIZED SCREEN.

4 OUTLET FOR WALL/CEILING MOUNTED TV/MONITOR. SEE EJ SHEETS FOR INSTALLATION DETAILS AND ELEVATIONS. COORDINATE WITH UVU MEDIA SERVICES AND A/V INSTALLER FOR EXACT LOCATION.

5 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

6 PROVIDE ELECTRICAL CONNECTIONS TO OVERHEAD GRILL MOTOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. ARRANGE TO CLOSE DOOR UPON ACTIVATION OF FIRE ALARM.

7 PROVIDE ELECTRICAL CONNECTIONS TO ADA DOOR OPERATORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

8 REFER TO ARCHITECTURAL ELEVATIONS FOR ALL EQUIPMENT REQUIRING OUTLETS AND FOR EXACT OUTLET PLACEMENT.

9 PROVIDE ELECTRICAL CONNECTIONS TO SYSTEMS FURNITURE. DESIGN IS BASED ON 4 CIRCUIT/8 WIRE SYSTEM (3 CIRCUITS, SHARED OVERSIZED NEUTRAL AND GROUND, PLUS 1 CIRCUIT WITH DEDICATED NEUTRAL AND GROUND). VERIFY WIRING CONFIGURATION AND FEED POINT WITH SYSTEMS FURNITURE INSTALLER PRIOR TO INSTALLATION. COORDINATE WITH FURNITURE INSTALLER SUCH THAT CIRCUITS ARE UNIFORMLY DISTRIBUTED TO NO MORE THAN 3 WORKSTATIONS PER CIRCUIT AND EACH WORKSTATION HAVING AVAILABLE IT'S ASSIGNED CIRCUIT. COPIER OR PRINTERS LOCATED IN A GROUP OF WORKSTATIONS SHALL RECEIVE A DEDICATED CIRCUIT.

10 PROVIDE POWER FOR AV EQUIPMENT ABOVE THE CEILING. COORDINATE WITH UVU MEDIA SERVICES AND AV INSTALLER FOR EXACT LOCATION.

11 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

12 PROVIDE CONNECTIONS TO LED LIGHTING IN MILLWORK AND PROVIDE LOCAL SWITCH IN MILLWORK. COORDINATE WITH MILLWORK INSTALLER AND ARCHITECTURAL DETAILS. CIRCUIT THROUGH RELAY PANEL.

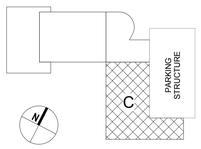
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com
REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

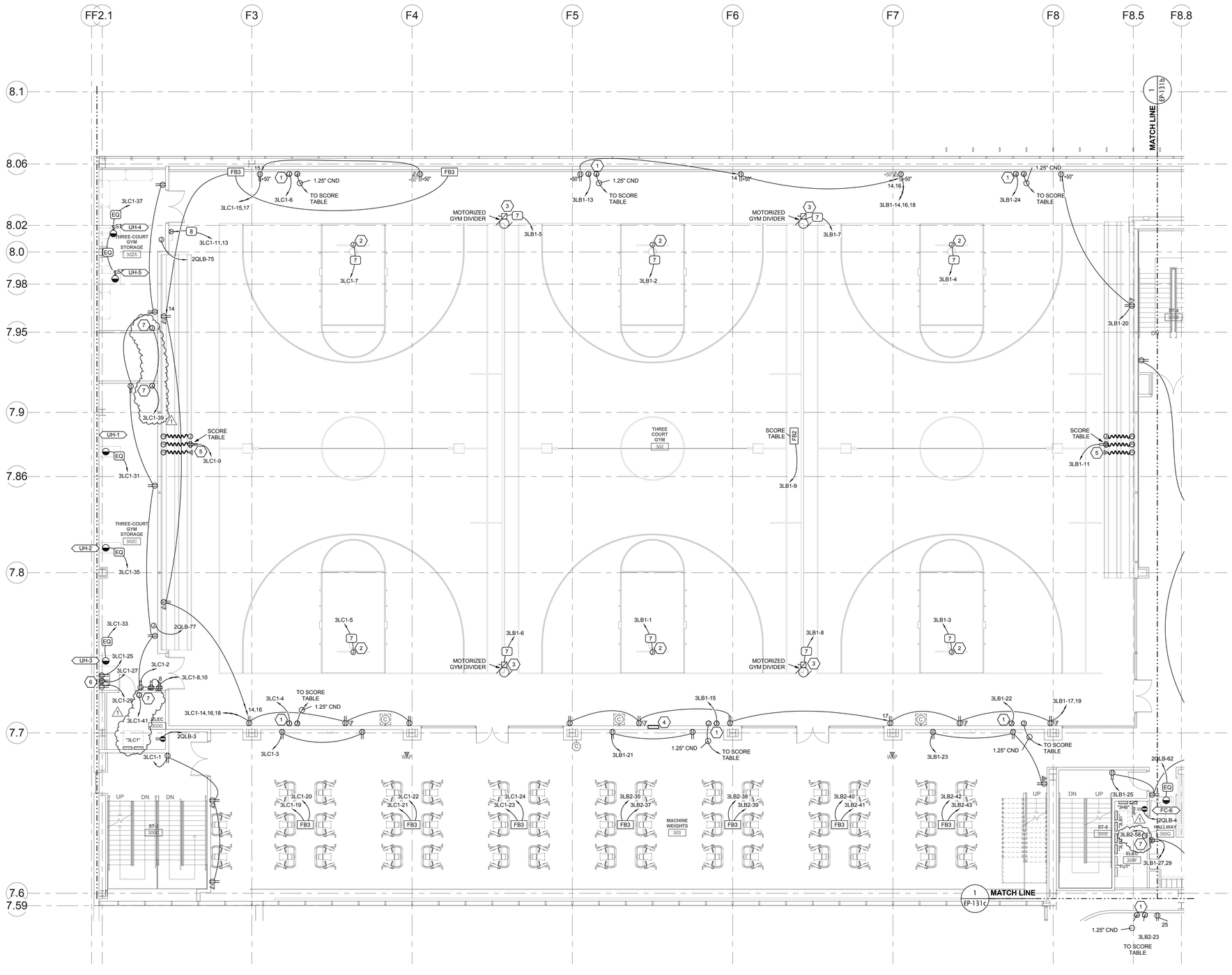
LEVEL 2 POWER PLAN ZONE C

CONSTRUCTION DOCUMENTS

EP-121c

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:01:49 AM



1 LEVEL 3 POWER PLAN ZONE A

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL AND SIGNAL CONNECTIONS TO SCOREBOARD WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE EXACT LOCATION WITH ARCHITECT AND SCOREBOARD INSTALLER. VERIFY SCORE KEEPER TABLE LOCATION WITH ARCHITECT.

2 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED BACK STOPS (RAISE/LOWER DEVICE) WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCHES IN GYM LIGHTING AND BACKBOARD CONTROL BOX.

3 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED GYM DIVIDERS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCHES IN GYM LIGHTING AND BACKBOARD CONTROL BOX.

4 GYM LIGHTING AND BACKBOARD CONTROL BOX FOR ALL LIGHTING, BACKSTOP AND DIVIDER CURTAIN CONTROLS. PROVIDE STAINLESS STEEL BOX WITH FLUSH TRIM, LOCKABLE DOOR, AND SIZED APPROPRIATE FOR REQUIRED CONTROL SWITCHES. SEE DETAIL.

5 MOUNT OUTLETS FLUSH IN FACE OF BLEACHERS WITH SEAL-TIGHT FLEX TO ALLOW RETRACTION AND EXPANSION OF BLEACHERS. COORDINATE WITH BLEACHER INSTALLER.

6 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

7 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

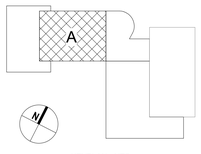
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

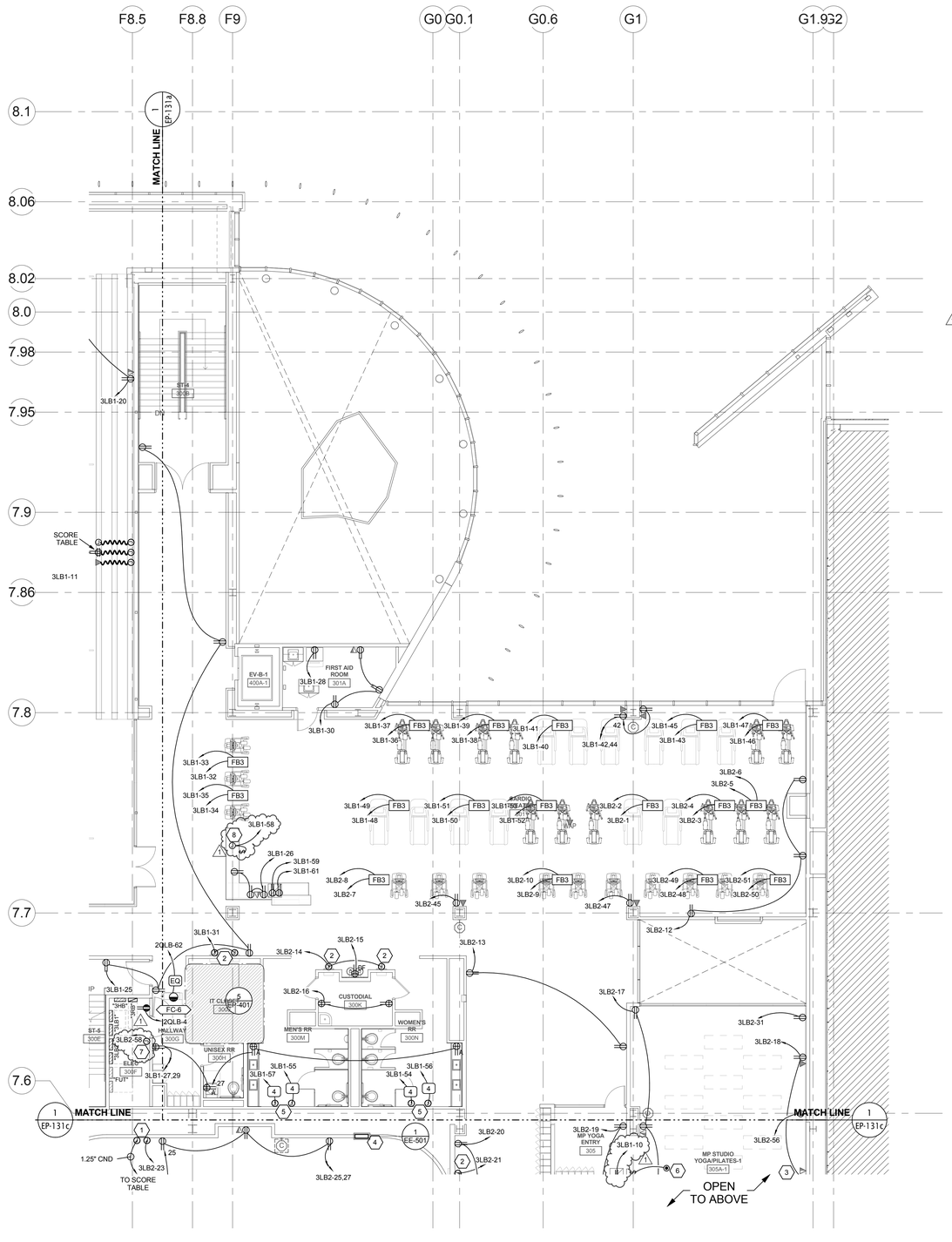
LEVEL 3 POWER PLAN ZONE A

CONSTRUCTION DOCUMENTS

EP-131a

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 11:01:55 AM



1 LEVEL 3 POWER PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL AND SIGNAL CONNECTIONS TO SCOREBOARD WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE EXACT LOCATION WITH ARCHITECT AND SCOREBOARD INSTALLER. VERIFY SCORE KEEPER TABLE LOCATION WITH ARCHITECT.

2 PROVIDE ELECTRICAL CONNECTIONS TO BOTTLE FILL STATION.

3 OUTLETS ON MIRROR WALLS SHALL BE LOCATED PER ARCHITECTURAL ELEVATIONS, AND BE BLACK IN COLOR WITH SATIN CHROME, SCREWLESS WALLPLATES (LUTRON ARCHITECTURAL SERIES WALLPLATES OR APPROVED EQUAL).

4 GYM LIGHTING AND BACKBOARD CONTROL BOX FOR ALL LIGHTING, BACKSTOP AND DIVIDER CURTAIN CONTROLS. PROVIDE STAINLESS STEEL BOX WITH FLUSH TRIM, LOCKABLE DOOR, AND SIZED APPROPRIATE FOR REQUIRED CONTROL SWITCHES. SEE DETAIL.

5 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

6 PROVIDE CIRCUITING AND ROUGH-IN FOR FUTURE CEILING FAN.

7 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

8 PROVIDE CONNECTIONS TO LED LIGHTING IN MILLWORK AND PROVIDE LOCAL SWITCH IN MILLWORK. COORDINATE WITH MILLWORK INSTALLER AND ARCHITECTURAL DETAILS. CIRCUIT THROUGH RELAY PANEL.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

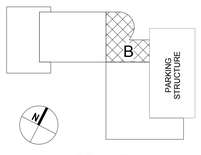
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

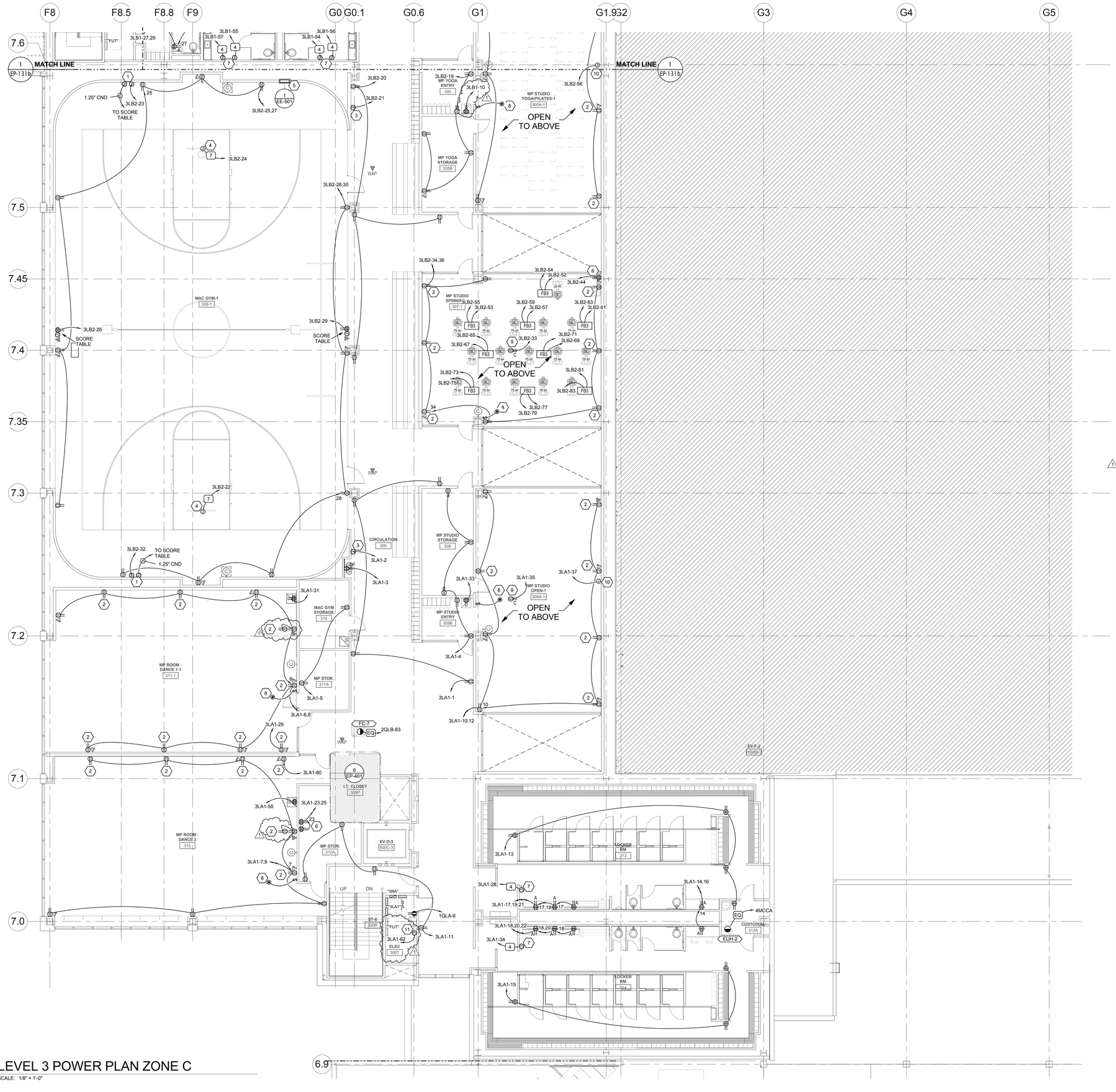
LEVEL 3 POWER PLAN ZONE B

CONSTRUCTION DOCUMENTS

EP-131b

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master MoD.rvt

5/14/2012 11:02:01 AM



1 LEVEL 3 POWER PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL AND SIGNAL CONNECTIONS TO SCOREBOARD WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE EXACT LOCATION WITH ARCHITECT AND SCOREBOARD INSTALLER. VERIFY SCORE KEEPER TABLE LOCATION WITH ARCHITECT.

2 OUTLETS ON MIRROR WALLS SHALL BE LOCATED PER ARCHITECTURAL ELEVATIONS, AND BE BLACK IN COLOR WITH SATIN CHROME, SCREWLESS WALLPLATES (LUTRON ARCHITECTURAL SERIES WALLPLATES OR APPROVED EQUAL).

3 PROVIDE ELECTRICAL CONNECTIONS TO BOTTLE FILL STATION.

4 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED BACK STOPS (RAISE/LOWER DEVICE) WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE CONTROL SWITCHES IN GYM LIGHTING AND BACKBOARD CONTROL BOX.

5 GYM LIGHTING AND BACKBOARD CONTROL BOX FOR ALL LIGHTING, BACKSTOP AND DIVIDER CURTAIN CONTROLS. PROVIDE STAINLESS STEEL BOX WITH FLUSH TRIM, LOCKABLE DOOR, AND SIZED APPROPRIATE FOR REQUIRED CONTROL SWITCHES. SEE DETAIL.

6 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

7 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

8 PROVIDE CIRCUITING AND ROUGH-IN FOR FUTURE CEILING FAN.

9 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

10 PROVIDE POWER AND CONTROL WIRING FOR MOTORIZED SCREEN.

11 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

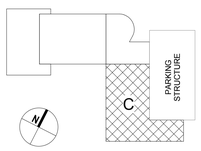
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

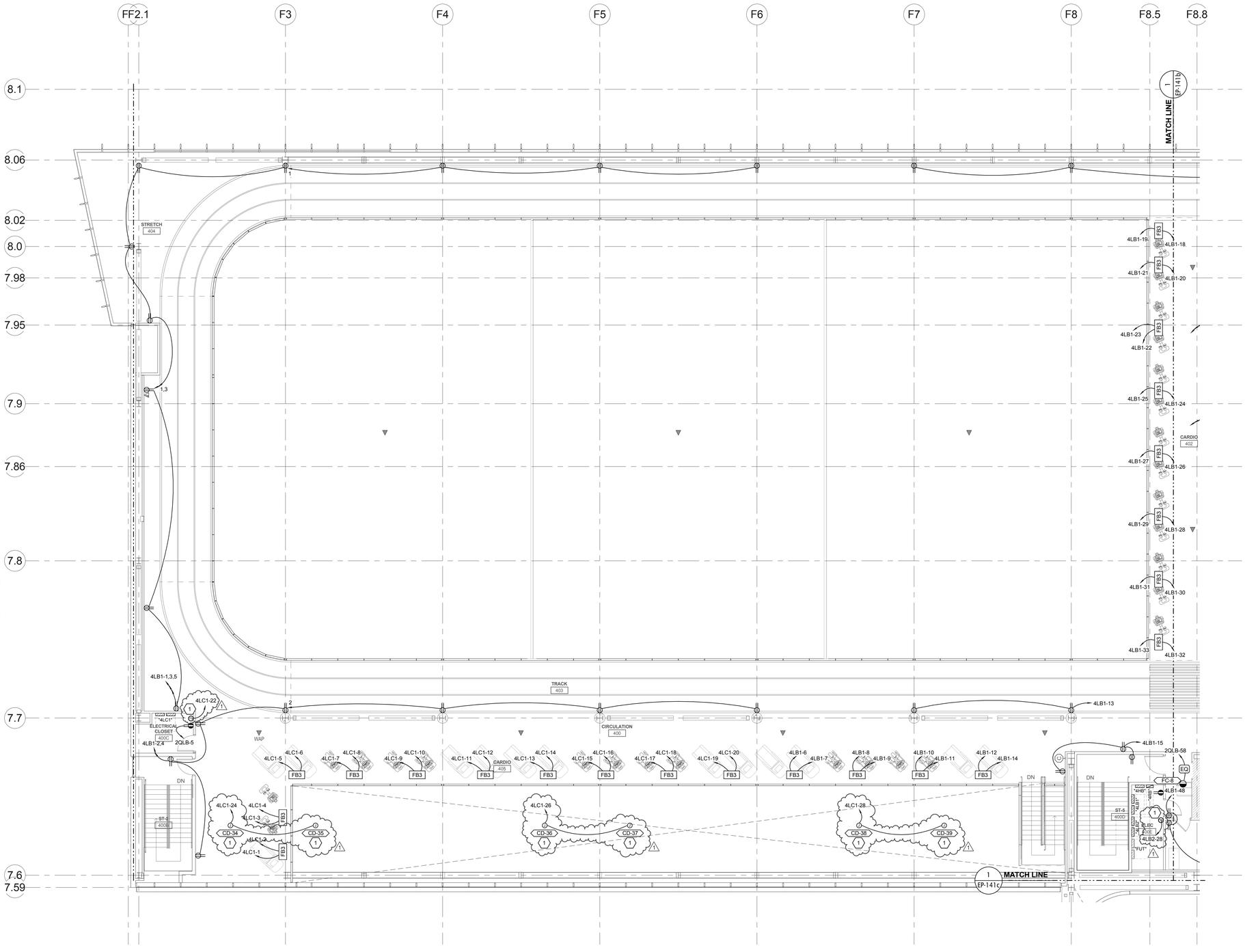
LEVEL 3 POWER PLAN ZONE C

CONSTRUCTION DOCUMENTS

EP-131c

C:\Users\jdm\Documents\20110364Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 11:02:08 AM



1 LEVEL 4 POWER PLAN ZONE A

SCALE: 1/8" = 1'-0"

C:\Users\dlim\Documents\20110364Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 11:02:14 AM

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

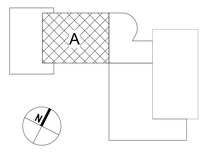
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

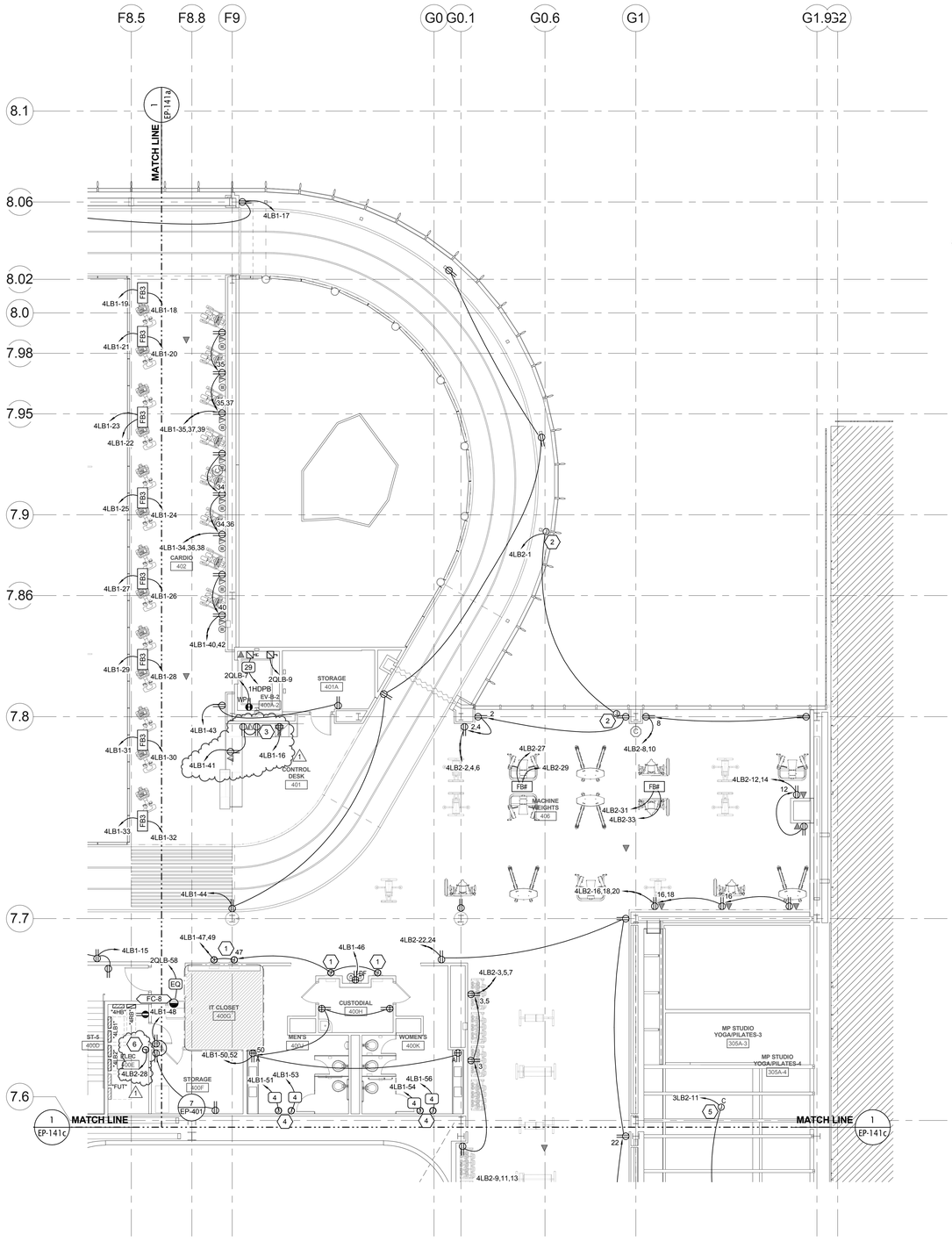
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 4 POWER PLAN ZONE A

CONSTRUCTION DOCUMENTS

EP-141a



1 LEVEL 4 POWER PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL CONNECTIONS TO BOTTLE FILL STATION.

2 PROVIDE ELECTRICAL CONNECTIONS TO WATER CURTAIN WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

3 OUTLET FOR A/V EQUIPMENT CABINET. COORDINATE EXACT LOCATION AND MOUNTING REQUIREMENTS WITH A/V INSTALLER.

4 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

5 PROVIDE CIRCUITING AND ROUGH-IN FOR FUTURE CEILING FAN.

6 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

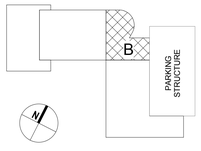
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

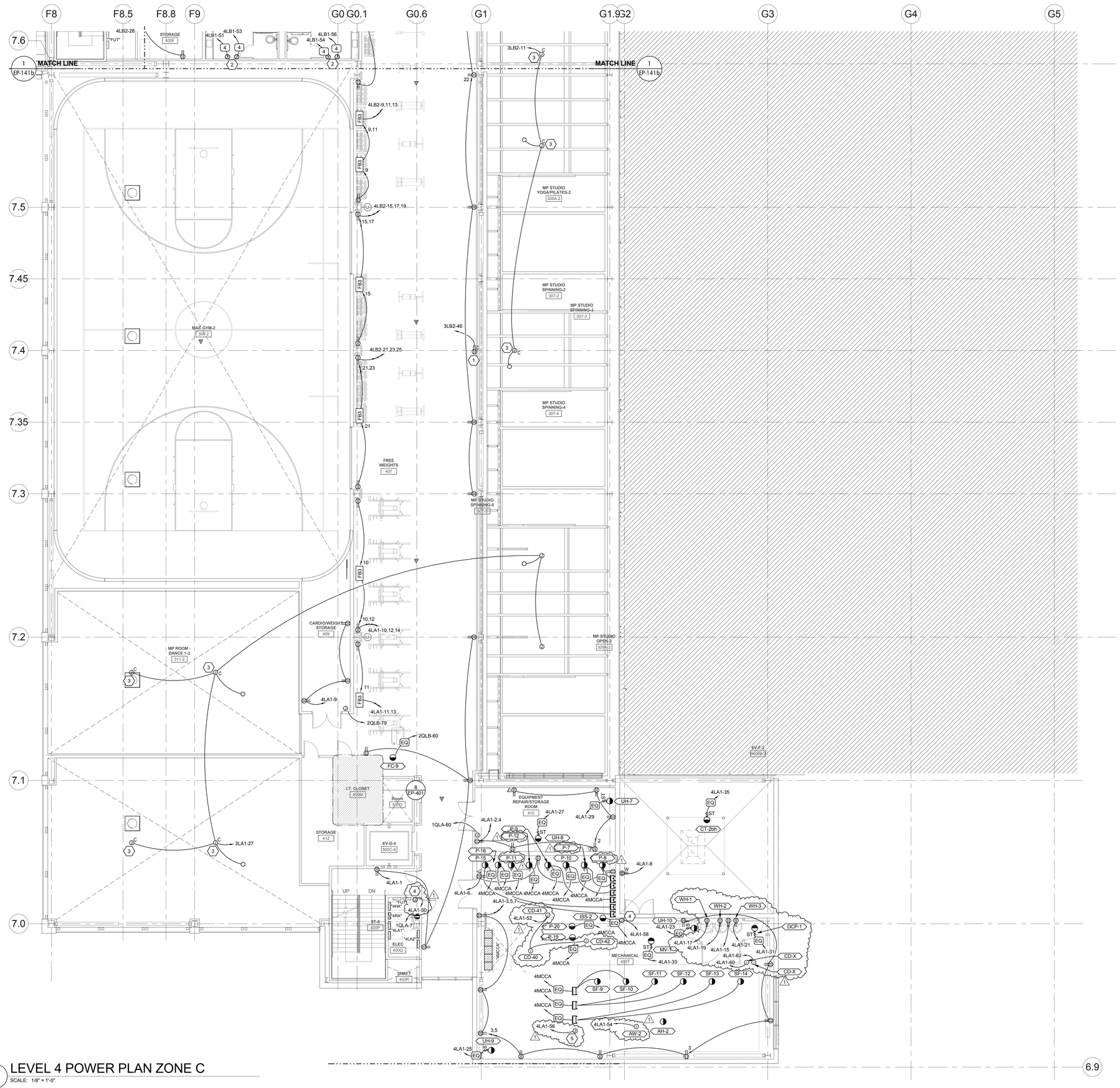
DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 4 POWER PLAN ZONE B

CONSTRUCTION DOCUMENTS

EP-141b

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jxdi Master MKD.rvt
5/14/2012 11:02:19 AM



1 LEVEL 4 POWER PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY EXACT LOCATION OF EACH FLOORBOX AND POKE-THROUGH OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

SHEET KEYNOTES

1 FLUSH MOUNTED OUTLET FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION WITH A/V INSTALLER.

2 PROVIDE ELECTRICAL CONNECTIONS TO HAND DRYER PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

3 PROVIDE CIRCUITING AND ROUGH-IN FOR FUTURE CEILING FAN.

4 PROVIDE POWER CONNECTION TO CONTROLS TRANSFORMERS LOCATED ABOVE THE CEILING. COORDINATE EXACT LOCATION WITH CONTROLS CONTRACTOR. PROVIDE POWER AS REQUIRED.

5 PROVIDE POWER FOR LIGHTING INSIDE AIR HANDELING UNIT. COORDINATE EXACT LOCATION OF POWER CONNECTION.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

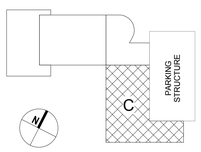
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 4 POWER PLAN ZONE C

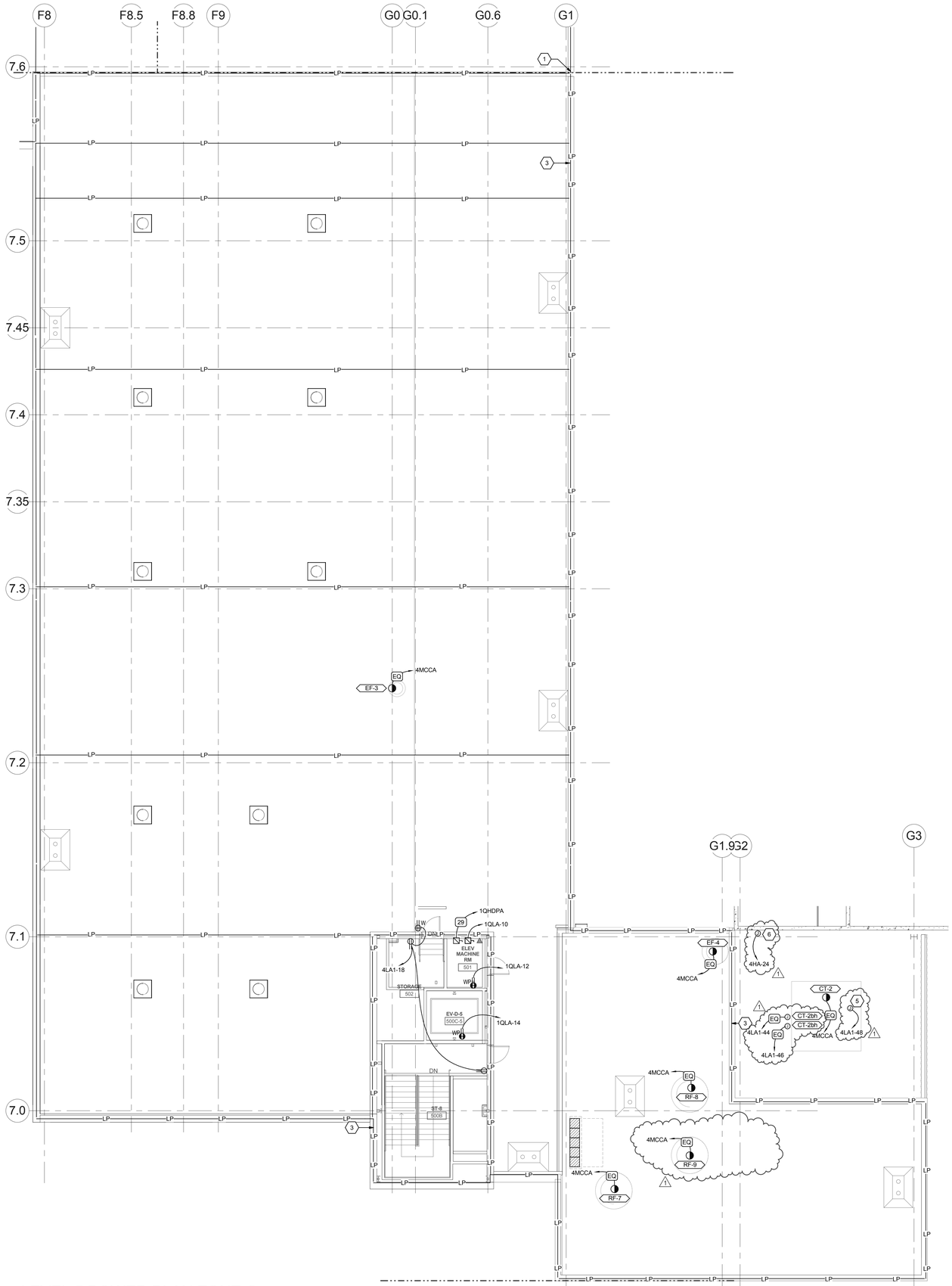
CONSTRUCTION DOCUMENTS

EP-141c

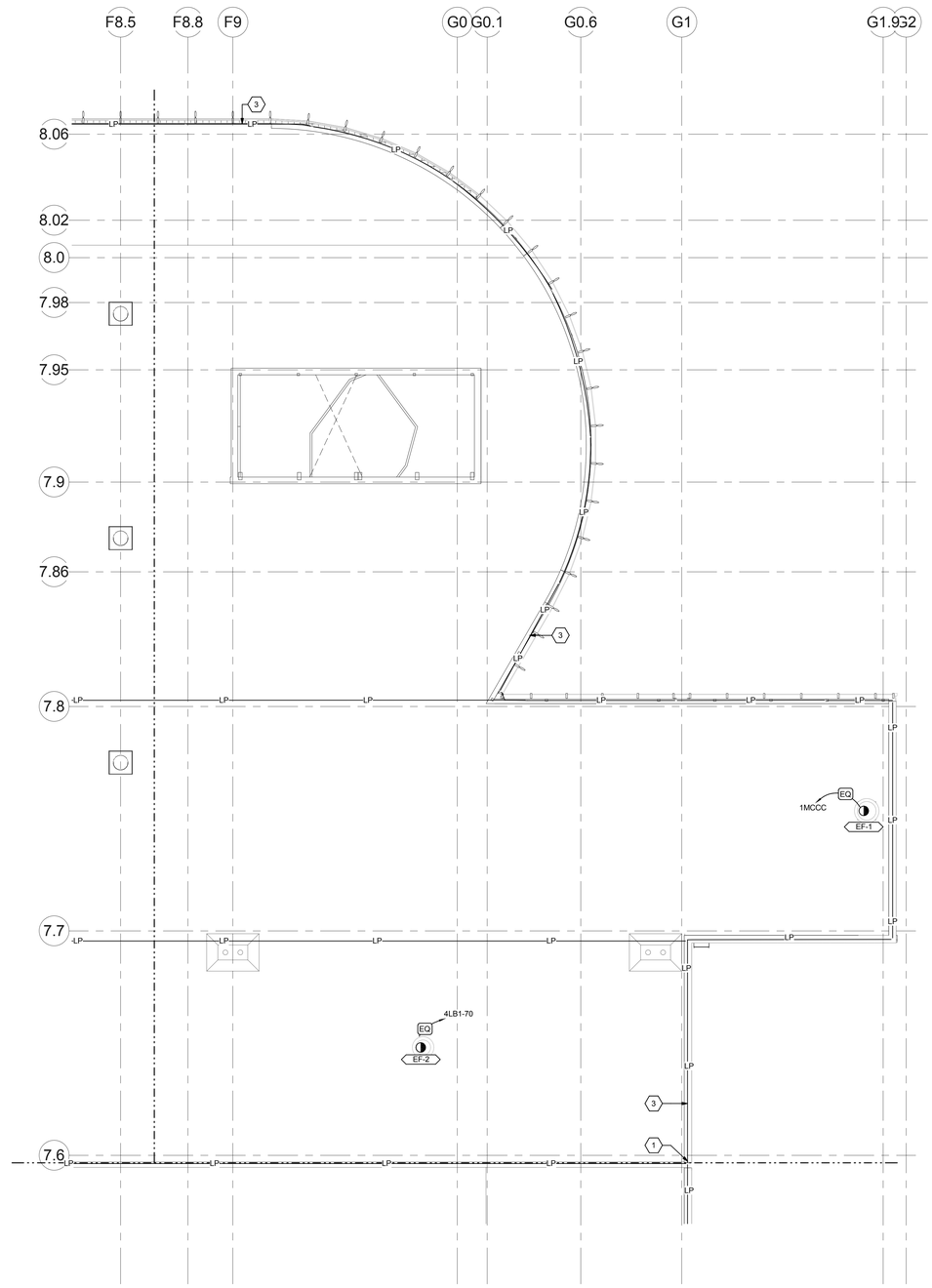
C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jadi Master MKD.rvt

5/14/2012 11:02:26 AM

GENERAL SHEET NOTES	SHEET KEYNOTES
	1 TYPICAL DOWNLEAD. BOND TO STEEL AND CONTINUE DOWN TO GROUND ROD.
	2 TYPICAL ROOF-MOUNTED AIR TERMINAL.
	3 TYPICAL LIGHTNING PROTECTION CONDUCTOR ON ROOF.
	4 TYPICAL BOND POINT TO STEEL.
	5 PROVIDE POWER TO COOLING TOWER WATER LEVEL CONTROLLER. COORDINATE EXACT LOCATION OF CONNECTION POINT.
	6 HEAT TRACE, PROVIDE 30MA CIRCUIT BREAKER.



1 LEVEL 5 POWER PLAN ZONE C
SCALE: 1/8" = 1'-0"



2 LEVEL 5 POWER PLAN ZONE B
SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

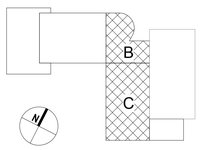
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ROOF POWER PLAN ZONES B & C

CONSTRUCTION DOCUMENTS

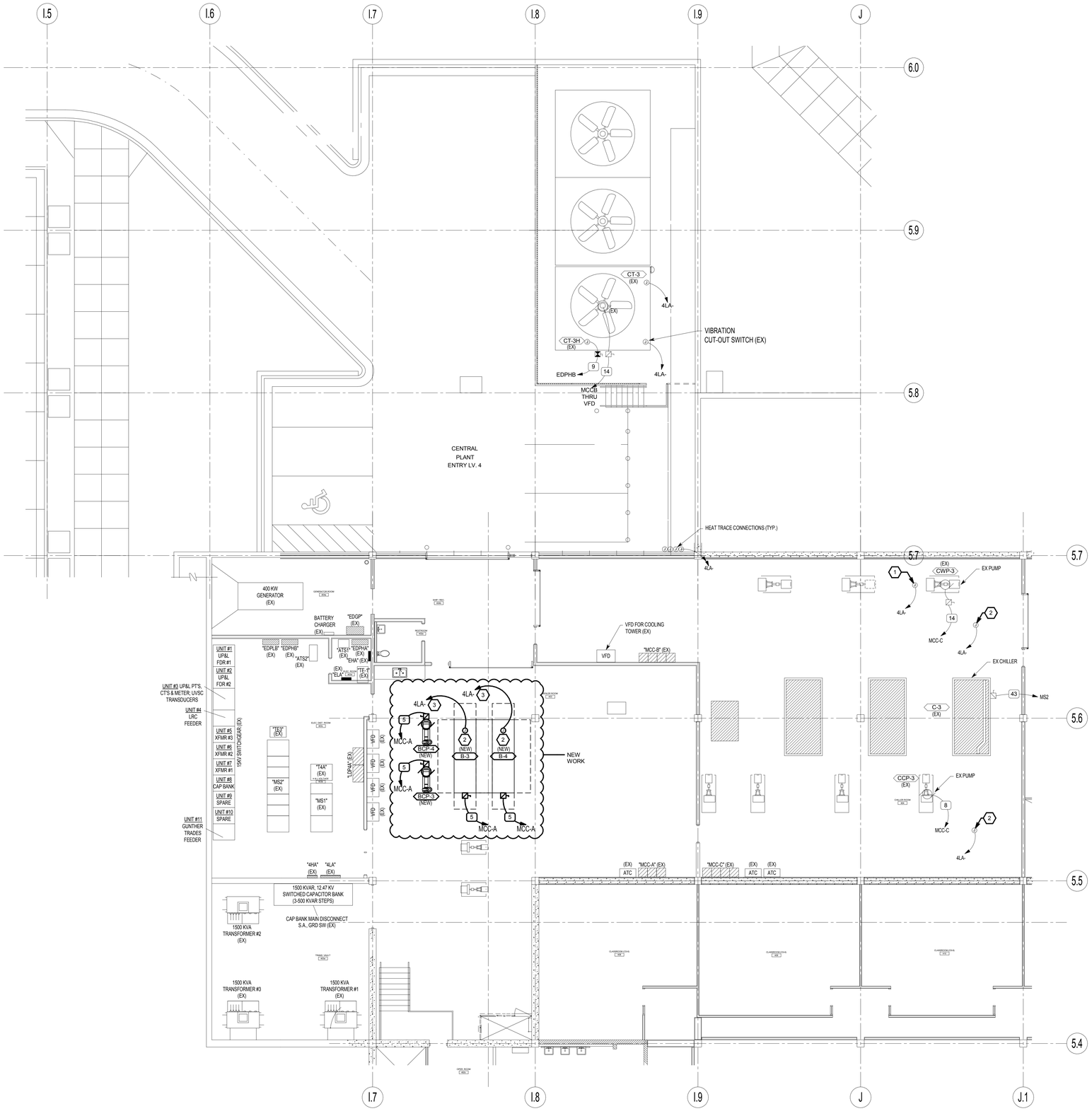
EP-151b

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jedi Master MKD.rvt

5/14/2012 11:02:33 AM

SHEET KEYNOTES

1. CONNECTIONS TO CONTROL VALVE.
2. J-BOX FOR CONTROL POWER.
3. PROVIDE NEW 20A/IP CIRCUIT BREAKER IN EXISTING 120/208V PANELBOARD TO ACCOMMODATE NEW CIRCUITS INDICATED. CIRCUIT TO AVAILABLE SPACES AND MARK ACTUAL CIRCUIT NUMBER ON RECORD DRAWINGS.



1 ENLARGED UPPER CENTRAL PLANT ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	RRP
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

ENLARGED UPPER CENTRAL PLANT ELECTRICAL PLAN

CONSTRUCTION DOCUMENTS

EP-161

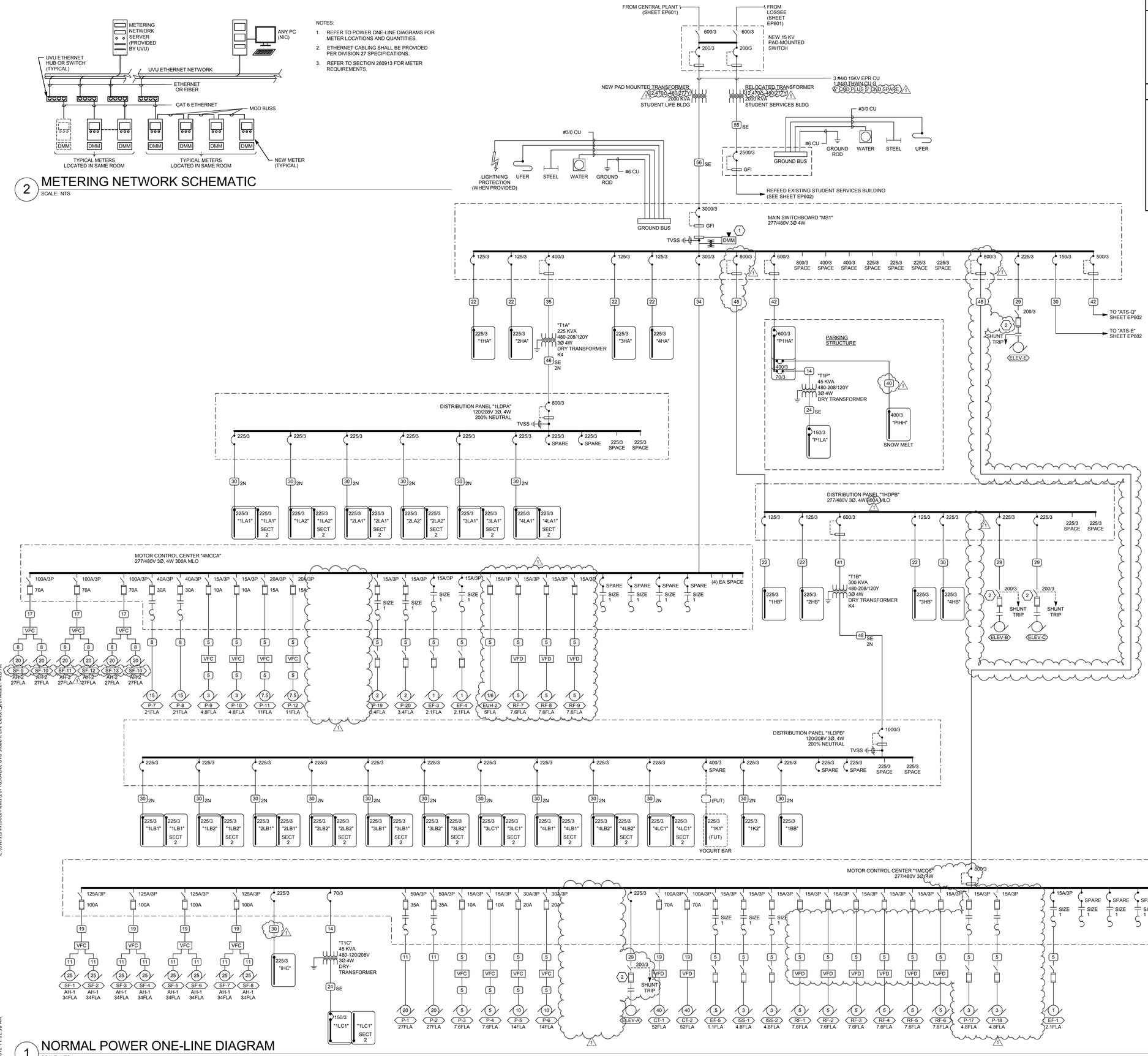
C:\Users\dim\Documents\3201103645Rc UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:02:34 AM

NOTES:

1. REFER TO POWER ONE-LINE DIAGRAMS FOR METER LOCATIONS AND QUANTITIES.
2. ETHERNET CABLING SHALL BE PROVIDED PER DIVISION 27 SPECIFICATIONS.
3. REFER TO SECTION 260913 FOR METER REQUIREMENTS.

2 METERING NETWORK SCHEMATIC

SCALE: NTS



1 NORMAL POWER ONE-LINE DIAGRAM

SCALE: NTS

GENERAL SHEET NOTES

1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.

SHEET KEYNOTES

1. PROVIDE NETWORK CABLING AND DATA PORT TO METER FROM NEAREST I.T./DATA CLOSET. COORDINATE IP ADDRESS OF METER WITH UVU. MODIFY PROGRAMMING OF EXISTING UVU METERING SYSTEM FOR THE ADDITIONAL METERS.
2. PROVIDE FUSIBLE SHUNT-TRIP ELEVATOR DISCONNECT AND INTERFACE WITH FIRE ALARM SYSTEM. VERIFY FUSE SIZE WITH ELEVATOR MANUFACTURER.

CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	780	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	780	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 3.50	4	400	4/0	4/0	4/0	4
54	2010	6 EA 3.50	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS; WHEN SYMBOL SUBSCRIPT INDICATES "2N" INCLUDE A SECOND NEUTRAL CONDUCTOR SCHEDULED, AND PANEL NEUTRAL SHALL BE RATED FOR 200% NEUTRAL.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

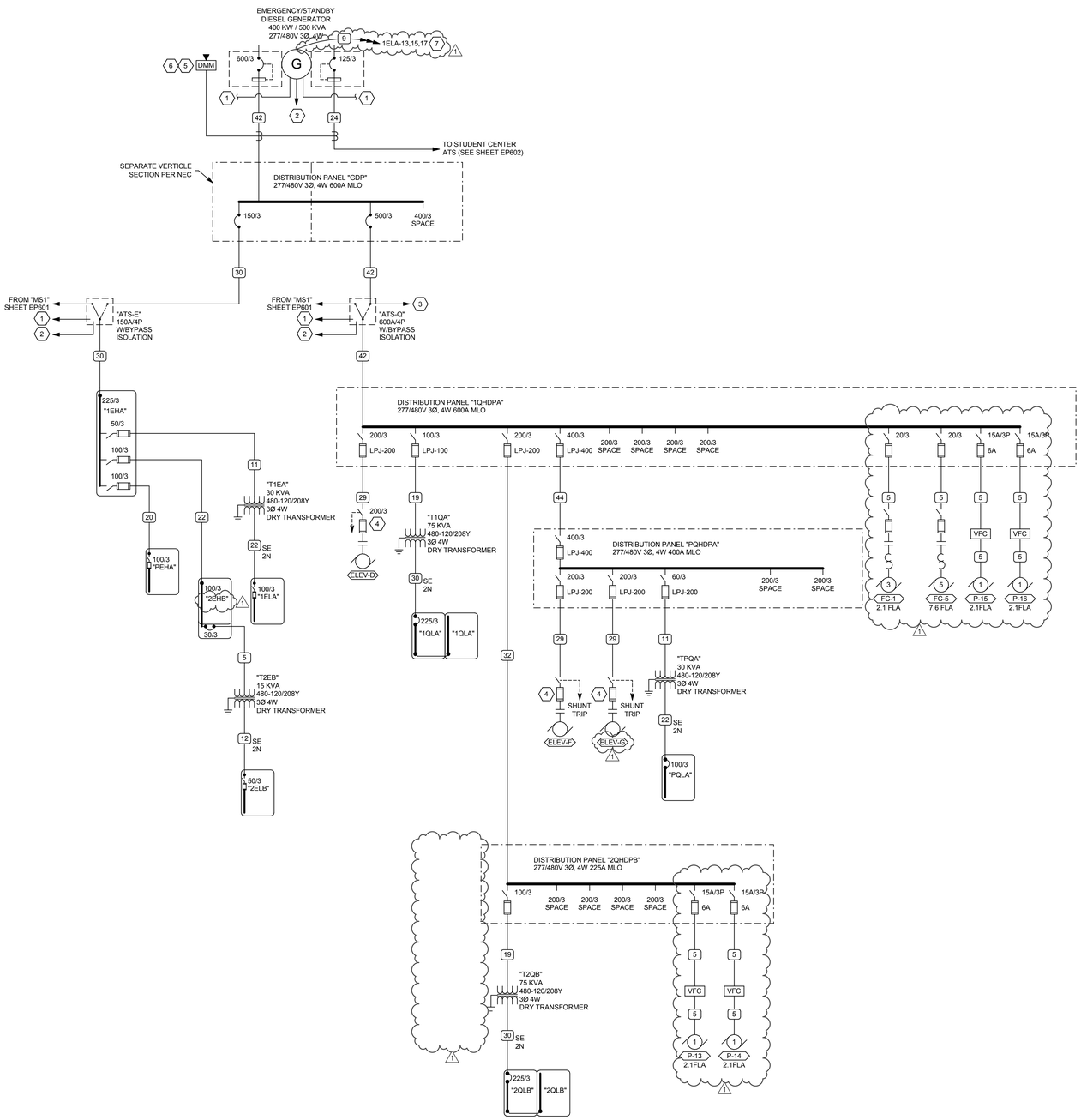
NORMAL POWER ONE-LINE DIAGRAM

CONSTRUCTION DOCUMENTS

EP-603

C:\Users\dlm\Documents\2011\03545Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:02:39 AM



1 EMERGENCY POWER ONE-LINE DIAGRAM

SCALE: NTS

FAULT CURRENT TABLE

BUS	FAULT CURRENT
1BB	5,003 SCA
1EHA	28,860 SCA
1ELA	1,808 SCA
1HA	31,712 SCA
1HB	5,276 SCA
1HC	4,505 SCA
1HDPB	5,623 SCA
1K1	7,501 SCA
1K2	7,501 SCA
1LA1	10,239 SCA
1LA2	10,050 SCA
1LB1	7,047 SCA
1LB2	7,501 SCA
1LC1	2,628 SCA
1LDPA	10,532 SCA
1LDPB	7,665 SCA
1MCCC	4,634 SCA
1QHDPA	35,022 SCA
1QLA	5,745 SCA
2EHB1	4,449 SCA
2ELB	1,276 SCA
2HA	9,936 SCA
2HB	4,968 SCA
2LA1	6,236 SCA
2LA2	6,278 SCA
2LB1	7,134 SCA
2LB2	7,282 SCA
2QHDPB	11,203 SCA
2QLB	5,081 SCA
3HA	8,728 SCA
3HB	4,814 SCA
3LA1	5,989 SCA
3LB1	6,773 SCA
3LB2	6,907 SCA
3LC1	3,948 SCA
4HA	7,778 SCA
4HB	4,656 SCA
4LA1	5,760 SCA
4LB1	6,494 SCA
4LB2	6,618 SCA
4LC1	3,841 SCA
4MCCA	17,526 SCA
ATS-E	40,000 SCA
ATS-Q	40,000 SCA
GDP	3,467 SCA
MS1	40,507 SCA
P1HA	28,320 SCA
P1HH	19,475 SCA
P1LA	3,448 SCA
PEHA	9,398 SCA
PQHDPA	21,640 SCA
PQLA	1,826 SCA

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

GENERAL SHEET NOTES

1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.

SHEET KEYNOTES

1. PROVIDE 1" CND WITH CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS TO EACH ATS. EACH ATS SHALL INDEPENDANTLY START GENERATOR.
2. PROVIDE 1" CND TO BMS FOR MONITORING OF EACH TRANSFER SWITCH AND GENERATOR. COORDINATE WITH MECHANICAL CONTROLS INSTALLER.
3. PROVIDE 1" CND AND CONTROL WIRING TO EACH ELEVATOR CONTROLLER FROM ATS FOR "SIGNAL BEFORE TRANSFER" AND "CONNECTED TO GENERATOR" SIGNALS.
4. PROVIDE FUSIBLE SHUNT-TRIP ELEVATOR DISCONNECT AND INTERFACE WITH FIRE ALARM SYSTEM. VERIFY FUSE SIZE WITH ELEVATOR MANUFACTURER.
5. LOCATE METER INSIDE OF GENERATOR HOUSING.
6. PROVIDE NETWORK CABLING AND DATA PORT TO METER FROM NEAREST I.T./DATA CLOSET. COORDINATE IP ADDRESS OF METER WITH UVU. MODIFY PROGRAMMING OF EXISTING UVU METERING SYSTEM FOR THE ADDITIONAL METERS.
7. PROVIDE CIRCUITS FOR GENERATOR AUXILIARY POWER (HEATER, BATTERY CHARGER AND DAMPERS). VERIFY VOLTAGE AND LOAD REQUIREMENTS WITH MANUFACTURERS SHOP DRAWINGS AND PROVIDE THE APPROPRIATE CIRCUIT BREAKERS IN PANELS.

CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G. 5 IG)

SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	780	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	780	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 3.50	4	400	4/0	4/0	4/0	4
54	2010	6 EA 3.50	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS; WHEN SYMBOL SUBSCRIPT INDICATES "2N" INCLUDE A SECOND NEUTRAL CONDUCTOR SCHEDULED, AND PANEL NEUTRAL SHALL BE RATED FOR 200% NEUTRAL.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EMERGENCY POWER ONE-LINE DIAGRAM

CONSTRUCTION DOCUMENTS

EP-604

C:\Users\dlm\Documents\2011\03645Elec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:02:41 AM

EQUIPMENT SCHEDULE

UVU Student Life 1.2

MARK	QTY	ITEM DESCRIPTION	LOAD DATA							WIRE AND CONDUIT SIZE	OVERCURRENT PROTECTION			DISCONNECT												NOTES	MARK
			HP	kW	MCA	FLA	VOLT	PH	Hz		FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	FUSE TYPE FRN	LOCATION	FURN BY	DEVICE	SIZE	SELECTOR SWITCH	PILOT LAMP	NORMALLY OPEN CONTACTS	NORMALLY CLOSED CONTACTS	PHASE FAILURE RELAY		
AH-1	1	AIR HANDLING UNIT	(8)25			272	480	3	60	(4) CC#19 TO VFD (8) CC#11 TO MOTOR	E	(4) 125A/3P RK5-100	1MCC-C	E	(4)125A/3P NF		ADJ. TO EQUIP.	Q	(4) VFD							1, 2, 5, 6, 8, 12	AH-1
AH-2	1	AIR HANDLING UNIT	(6)20			162	480	3	60	(3) CC#17 TO VFD (6) CC#8 TO MOTOR	E	(3) 100A/3P RK5-100	4MCC-A	E	(3)100A/3P NF		ADJ. TO EQUIP.	Q	(3) VFD							1, 2, 9, 6, 8, 12	AH-2
AW-1	1	AIR WASHER AH-1	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										AW-1
AW-2	1	AIR WASHER AH-2	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										AW-2
B-3	1	BOILER				9.3	480	3	60	3 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.									1	B-3
B-4	1	BOILER				9.3	480	3	60	3 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.									1	B-4
BCP-3	1	BOILER PUMP	3			4.8	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	PANEL	E	30A/3P FS	10A RK5	ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2	YES	1	BCP-3
BCP-4	1	BOILER PUMP	3			4.8	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	PANEL	E	30A/3P FS	10A RK5	ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2	YES	1	BCP-4
CD-X	45	CONTROL DAMPER	1/20			1	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CD-X
CP-1	1	CIRCULATING PUMP	1/6			4.4	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CP-1
CRP-1	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH												CRP-1
CRP-2	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-2
CRP-3	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-3
CRP-4	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-4
CRP-5	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-5
CRP-6	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-6
CRP-7	1	CONDENSATE REMOVAL PUMP		.09		1.5	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH												CRP-7
CT-1	1	COOLING TOWER	40			52	480	3	60	3 #2, #8 GR 1.25" CND	E	100A/3P CB	Q - PANEL	E	100A/3P FS	70A RK5	ADJ. TO EQUIP.	Q	VFD							1, 3, 8	CT-1
CT-2	1	COOLING TOWER	40			52	480	3	60	3 #2, #8 GR 1.25" CND	E	100A/3P CB	1MCC-C	E	100A/3P FS	70A RK5	ADJ. TO EQUIP.	Q	VFD							1, 3, 8	CT-2
CT-1bh	1	COOLING TOWER BASIN HEATER		6			480	3	60	4 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.	E	FVNR	3	HOA	R,G	2	2	YES	1	CT-1bh
CT-2bh	1	COOLING TOWER BASIN HEATER		4			480	3	60	4 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.	E	FVNR	3	HOA	R,G	2	2	YES	1	CT-2bh
CT-1bh	1	COOLING TOWER BASIN HEATER		6			480	3	60	4 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.	E	FVNR	3	HOA	R,G	2	2	YES	1	CT-1bh
CT-2bh	1	COOLING TOWER BASIN HEATER		4			480	3	60	4 #10, #10 GR 0.75" CND	E	20A/3P CB	PANEL	E	30A/3P FS	15A RK5	ADJ. TO EQUIP.	E	FVNR	3	HOA	R,G	2	2	YES	1	CT-2bh
CUH-1	1	CABINET UNIT HEATER	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CUH-1
CUH-2	1	CABINET UNIT HEATER	1/4			3.2	208	1	60	3 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	30A/2P FS	5A RK5	ADJ. TO EQUIP.										CUH-2
CUH-3	1	CABINET UNIT HEATER	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CUH-3
CUH-4	1	CABINET UNIT HEATER	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CUH-4
CUH-5	1	CABINET UNIT HEATER	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CUH-5
CUH-6	1	CABINET UNIT HEATER	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										CUH-6
DCP-1	1	CIRCULATION PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										DCP-1
EF-1	1	EXHAUST FAN	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF	6A RK5	ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-1
EF-2	1	EXHAUST FAN	1/2			9.8	120	1	60	2 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL 4LB1	E	THERMAL SWITCH		ADJ. TO EQUIP.	E									EF-2
EF-3	1	EXHAUST FAN	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	MCC	E	30A/3P NF	6A RK5	ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-3
EF-4	1	EXHAUST FAN	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	MCC	E	30A/3P NF	6A RK5	ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-4
EF-5	1	EXHAUST FAN	1/2			1.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.										EF-5
EF-6	1	EXHAUST FAN	1/2			9.8	120	1	60	3 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-6
EF-7	1	EXHAUST FAN	1/2			9.8	120	1	60	3 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-7
EF-8	1	EXHAUST FAN	1/4			5.8	120	1	60	3 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-8
EF-9	1	EXHAUST FAN	1/2			9.8	120	1	60	3 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-9
EF-10	1	EXHAUST FAN	1/2			9.8	120	1	60	3 #10, #10 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EF-10
EUH-1	1	ELECTRIC UNIT HEATER		2.6			277	1	60	3 #10, #10 GR 0.75" CND	E	15A/1P CB	PANEL	E	30A/2P FS	10A RK5	ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EUH-1
EUH-2	1	ELECTRIC UNIT HEATER		2.6			277	1	60	3 #10, #10 GR 0.75" CND	E	15A/1P CB	PANEL	E	30A/2P FS	10A RK5	ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		EUH-2
FC-1	1	FAN COIL UNIT	7.5	6.13		11	480	3	60	3 #10, #10 GR 0.75" CND	E	20A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-1
FC-2	1	FAN COIL UNIT	3	6.2		4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	Q - MCC	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-2
FC-3	1	FAN COIL UNIT	5			7.6	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	Q - MCC	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-3
FC-4	1	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL 2QLB	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-4
FC-5	1	FAN COIL UNIT	5			7.6	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1QHDPA	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-5
FC-6	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-6
FC-7	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL 2QLB	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-7
FC-8	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL 2QLB	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-8
FC-9	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL 2QLB	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	7	FC-9
FC-10	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-10
FC-11	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-11
FC-12	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-12
FC-13	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-13
FC-14	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-14
FC-15	2	FAN COIL UNIT	3/4			13.8	120	1	60	2 #10, #10 GR 0.75" CND	E	30A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES		FC-15
ISS-1	1	IN-LINE SOLIDS SEPARATOR	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2	YES	1	ISS-1
ISS-2	1	IN-LINE SOLIDS SEPARATOR	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2	YES	1	ISS-2
MAF-1	1	MAKE-UP AIR FAN	1.5			3	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1	MAF-1
MV-1	1	MIXING VALVE	1/3			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										MV-1
P-1	1	PUMP	25			34	480	3	60	3 #6, #10 GR 1" CND	E	60A/3P RK5-100	1MCC-C	E	60A/3P NF		ADJ. TO EQUIP.	E	FVNR	2	HOA	R,G	2	2	YES	1	P-1
P-2	1	PUMP	25			34	480	3	60	3 #6, #10 GR 1" CND	E	60A/3P RK5-100	1MCC-C	E	60A/3P NF		ADJ. TO EQUIP.	E	FVNR	2	HOA	R,G	2	2	YES	1	P-2
P-3	1	PUMP	5			7.6	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-100	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-3
P-4	1	PUMP	5			7.6	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-4
P-5	1	PUMP	10			14	480	3	60	3 #10, #10 GR 0.75" CND	E	30A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-5
P-6	1	PUMP	10			14	480	3	60	3 #10, #10 GR 0.75" CND	E	30A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-6
P-7	1	PUMP	15			21	480	3	60	3 #8, #10 GR 1" CND	E	40A/3P RK5-100	4MCC-A	E	60A/3P NF		ADJ. TO EQUIP.	E	FVNR	2	HOA	R,G	2	2	YES	1	P-7
P-8	1	PUMP	15			21	480	3	60	3 #8, #10 GR 1" CND	E	40A/3P RK5-100	4MCC-A	E	60A/3P NF		ADJ. TO EQUIP.	E	FVNR	2	HOA	R,G	2	2	YES	1	P-8

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EQUIPMENT SCHEDULE

CONSTRUCTION DOCUMENTS

EP-605

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jedi Master MKD.rvt
5/14/2012 11:02:43 AM

P-9	1	PUMP	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-9
P-10	1	PUMP	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-10
P-11	1	PUMP	7.5			11	480	3	60	3 #10, #10 GR 0.75" CND	E	20A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-11
P-12	1	PUMP	7.5			11	480	3	60	3 #10, #10 GR 0.75" CND	E	20A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	P-12
P-13	1	PUMP	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1	P-13
P-14	1	PUMP	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1	P-14
P-15	1	PUMP	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1	P-15
P-16	1	PUMP	1			2.1	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1	P-16
1 P-17	1	PUMP	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2		1, 7, 8	P-17
P-18	1	PUMP	3			4.8	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	1	HOA	R,G	2	2		1, 7, 8	P-18
P-19	1	PUMP	2			3.4	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	1, 7, 8	P-19
P-20	1	PUMP	2			3.4	480	3	60	3 #10, #10 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	E	FVNR	0	HOA	R,G	2	2	YES	1, 7, 8	P-20
P-21	1	PUMP	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.									7	P-21
P-22	1	PUMP	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.									7	P-22
1 P-23	1	PUMP	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.									7	P-23
P-24	1	PUMP	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.									7	P-24
P-25	1	PUMP	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	Q - PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.									7	P-25
RF-1	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	20A/3P RK5-100	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-1
RF-2	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-2
RF-3	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-3
RF-4	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-4
RF-5	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-5
RF-6	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	1MCC-C	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-6
RF-7	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-7
RF-8	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-8
RF-9	1	RELIEF FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P RK5-30	4MCC-A	E	30A/3P NF		ADJ. TO EQUIP.	Q	VFD							1, 8	RF-9
SP-1	1	SUMP PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										SP-1
SP-2	1	SUM PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										SP-2
1 SP-3	1	SUM PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										SP-3
SP-4	1	SUM PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										SP-4
SP-5	1	SUM PUMP	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										SP-5
UH-1	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 3LC1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-1
UH-2	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 3LC1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-2
UH-3	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 3LC1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-3
UH-4	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-4
UH-5	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-5
UH-6	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-6
UH-7	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-7
UH-8	1	UNIT HEATER	1/20			1.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-8
UH-9	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-9
UH-10	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-10
UH-11	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-11
UH-12	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-12
UH-13	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-13
UH-14	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-14
1 UH-15	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-15
UH-16	1	UNIT HEATER	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL 1LA1	E	THERMAL SWITCH		ADJ. TO EQUIP.										UH-16
WH-1	1	WATER HEATER				6.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	CORD & PLUG												WH-1
WH-2	1	WATER HEATER				6.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	CORD & PLUG												WH-2
WH-3	1	WATER HEATER				6.2	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	CORD & PLUG												WH-3

NOTES:

1. CONTROL/ACCESSORY POWER
2. AIR HANDLER HAS 2 VFD'S CONTROLLING 2 FAN MOTORS PER VFD FOR A TOTAL OF 8 MOTORS, SF-1 THRU SF-8 @ 25 HP EACH. COORDINATE CONNECTIONS WITH MECHANICAL INSTALLER.
3. PROVIDE POWER TO EACH OF THE 2 SUMP HEATERS (6KW EACH SUMP PUMP)
4. NOT USED
5. CC# REFERS TO CONDUIT AND CONDUCTOR SCHEDULE NUMBER. REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR MORE INFORMATION.
6. UNIT REQUIRES A 120V ACCESSORIES CIRCUIT.
7. STANDBY POWER REQUIRED
8. PROVIDE DISCONNECT WITH QUICK-BREAK/SLOW MAKE CONTACT AND INTERLOCK TO PROTECT VFD.
9. AIR HANDLER HAS 2 VFD'S CONTROLLING 2 FAN MOTORS PER VFD FOR A TOTAL OF 6 MOTORS, SF-9 THRU SF-14 @ 20 HP EACH. COORDINATE CONNECTIONS WITH MECHANICAL INSTALLER.
10. SOLID STATE SPEED CONTROLLER IS PROVIDED WITH EQUIPMENT.
11. TWO ELECTRICAL CONNECTION REQUIRED.
12. EACH FAN SHALL BE CIRCUITED TO A THERMAL OVERLOAD PANEL THEN TO A COMMON VFD. PROVIDE THEMAL PANEL AS REQUIRED.

EQUIPMENT SCHEDULE KEY

E	DIVISION 26
Q	FURNISHED WITH THE EQUIPMENT
*	COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
**	AUTOMATIC CONTROL WIRING BY DIVISION 23

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

EQUIPMENT SCHEDULE

CONSTRUCTION DOCUMENTS

EP-606

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jxdi Master MKD.rvt
5/14/2012 11:02:44 AM

⬡SHEET KEYNOTES

1. CLOUDED AREAS INDICATE NEW WORK. ALL OTHER EQUIPMENT SHOWN IS EXISTING TO REMAIN.
2. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SWITCHBOARD OR MCC, WITH MINIMUM 65 KAIC RATING. FIELD VERIFY AVAILABLE SPACE AND MOUNTING PROVISIONS.
3. PROVIDE NEW COMBINATION STARTER/MOTOR CIRCUIT PROTECTOR IN EXISTING MCC, WITH MINIMUM 65 KAIC RATING. FIELD VERIFY AVAILABLE SPACE AND MOUNTING PROVISIONS.

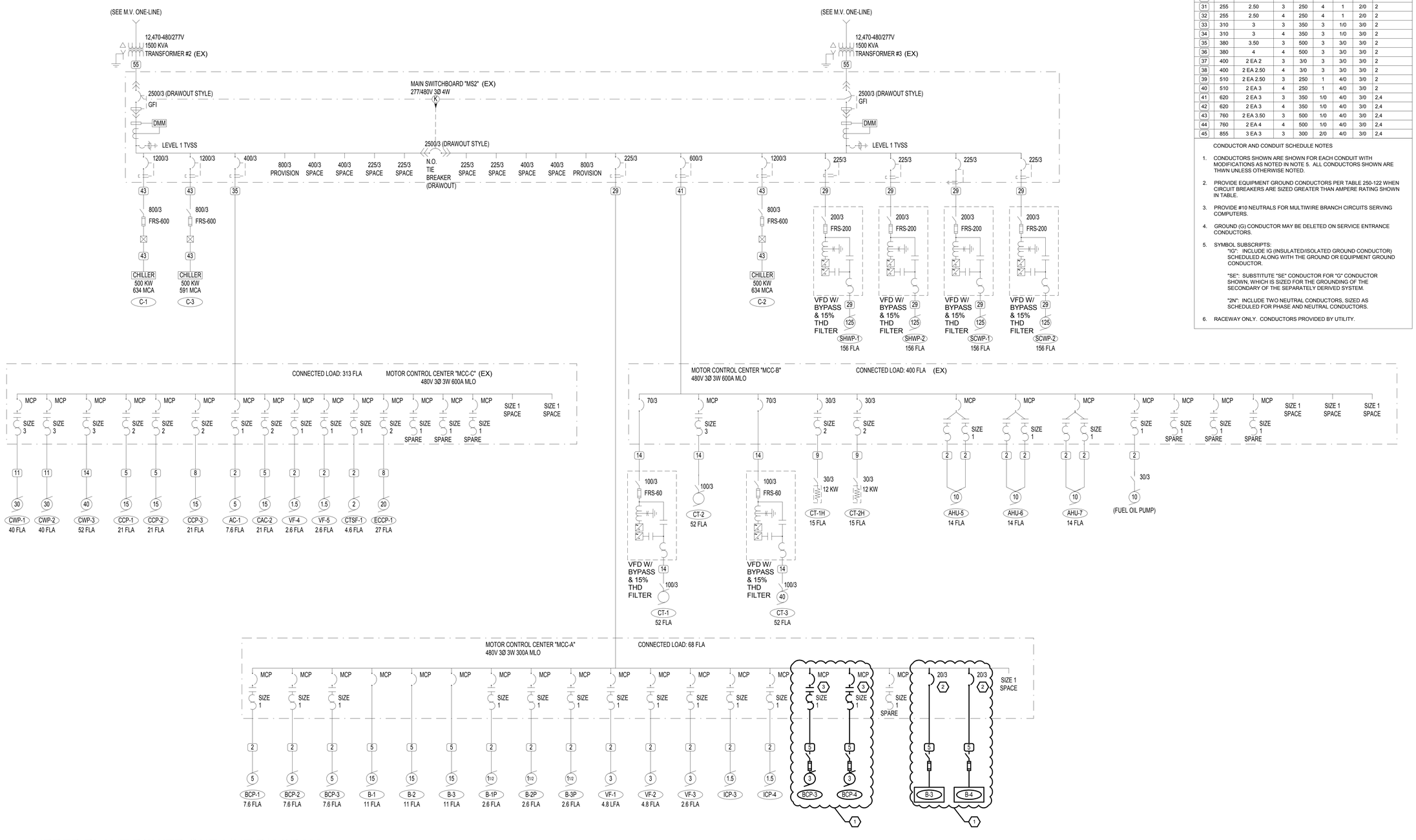
CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. SYMBOL SUBSCRIPTS:
   "IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OR EQUIPMENT GROUND CONDUCTOR.
   "SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
   "2N": INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASE AND NEUTRAL CONDUCTORS.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.



1 UPPER PLANT POWER ONE-LINE DIAGRAM
SCALE: N.T.S.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	Author
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

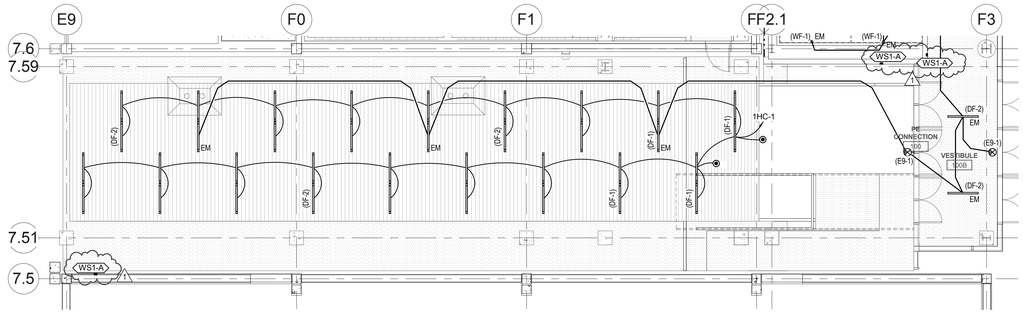
UPPER PLANT POWER ONE-LINE DIAGRAM

CONSTRUCTION DOCUMENTS

1 EP-661

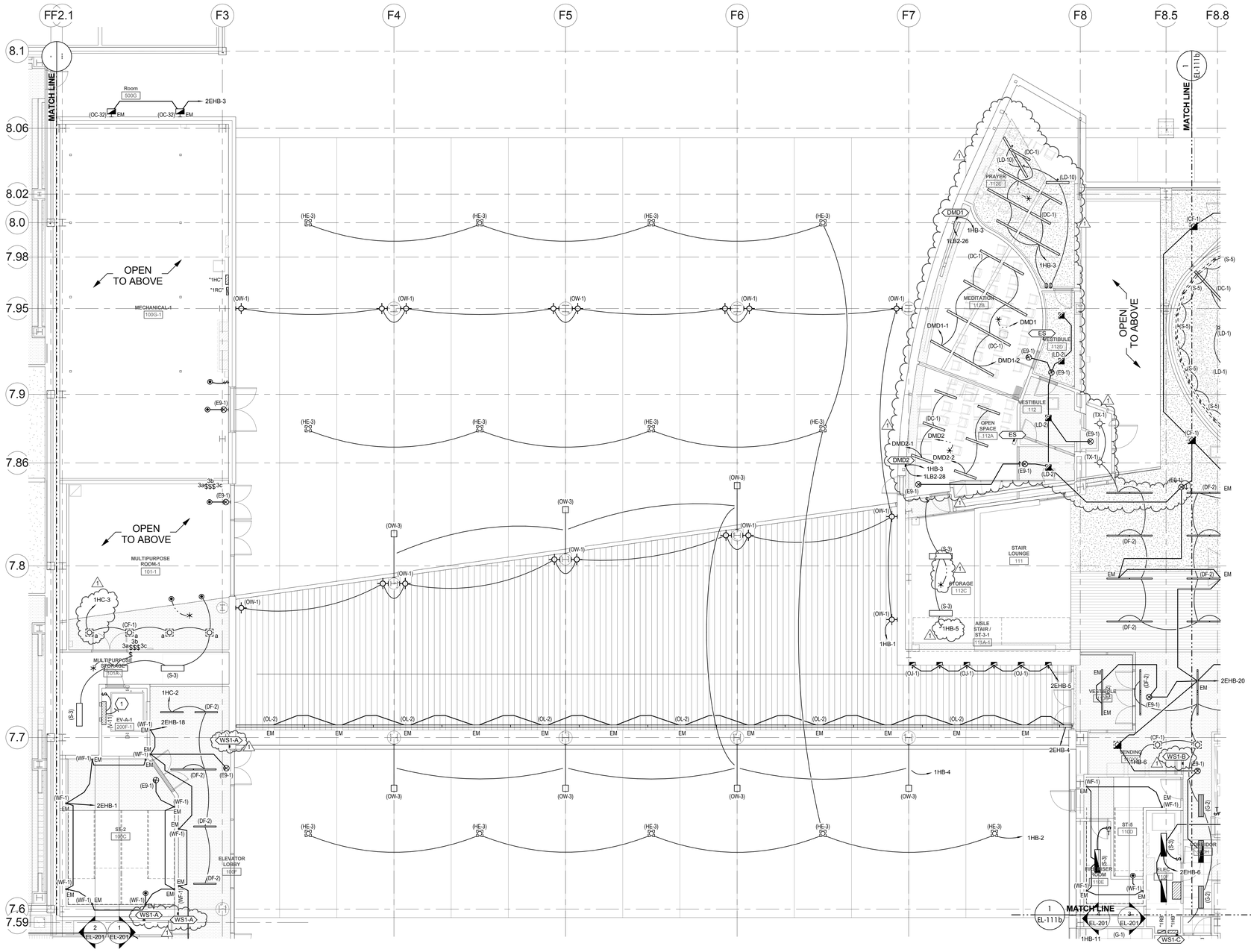
C:\Users\jdm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:02:45 AM



2 LEVEL 1 LIGHTING PLAN CIRCULATION

SCALE: 1/8" = 1'-0"



1 LEVEL 1 LIGHTING PLAN ZONE A

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

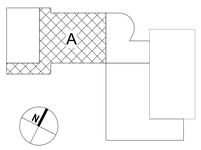
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

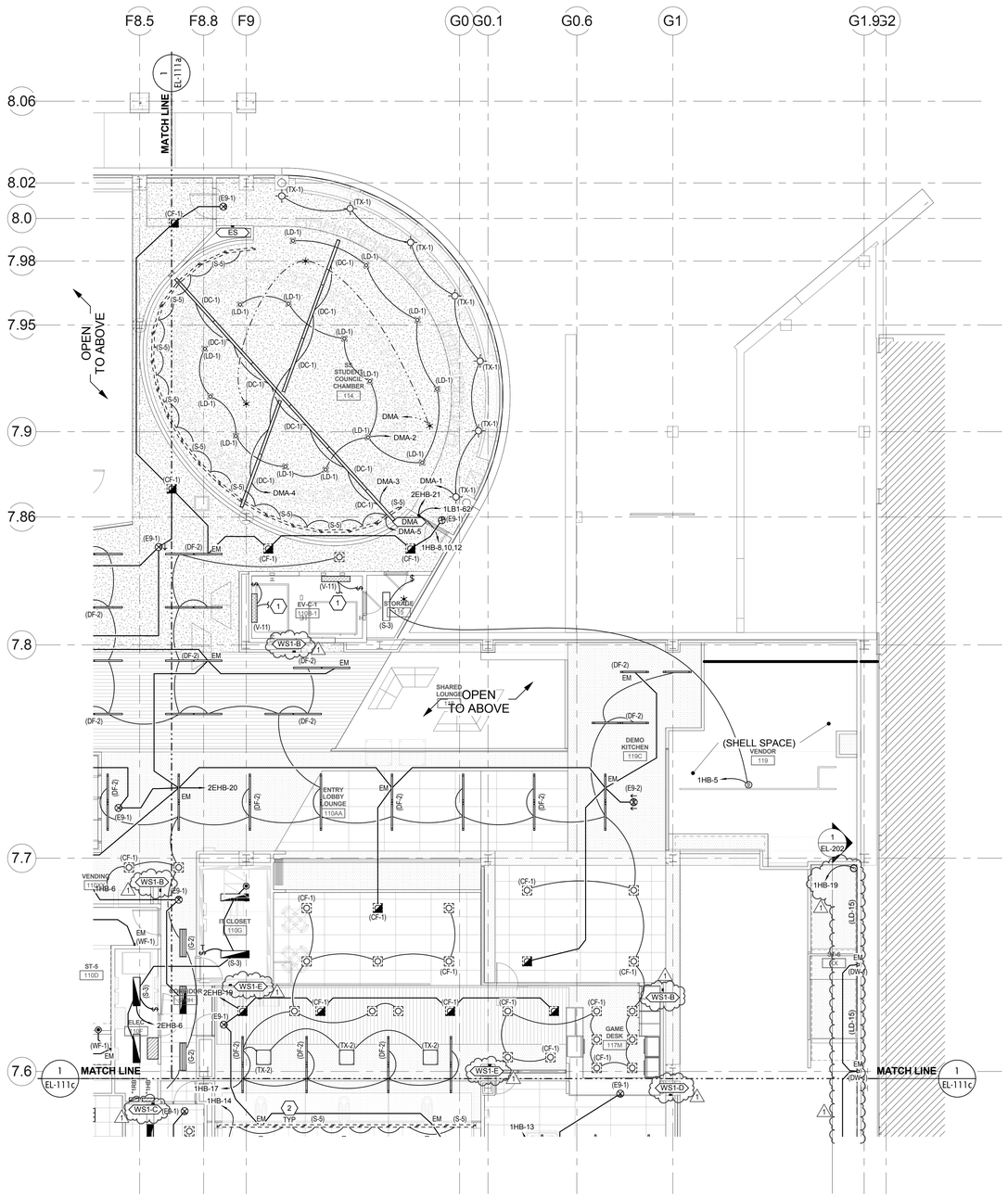
LEVEL 1 LIGHTING PLAN ZONE A

CONSTRUCTION DOCUMENTS

EL-111a

C:\Users\dlm\Documents\2011\0364Elec UVU Student Life Center_Jedi Master MED.rvt

5/14/2012 10:39:28 AM



1 LEVEL 1 LIGHTING PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).

2 MOUNT FIXTURE IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS AND FIELD VERIFY COVE DIMENSIONS PRIOR TO ORDERING FIXTURES.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

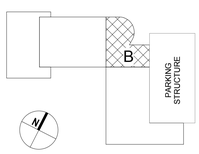
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

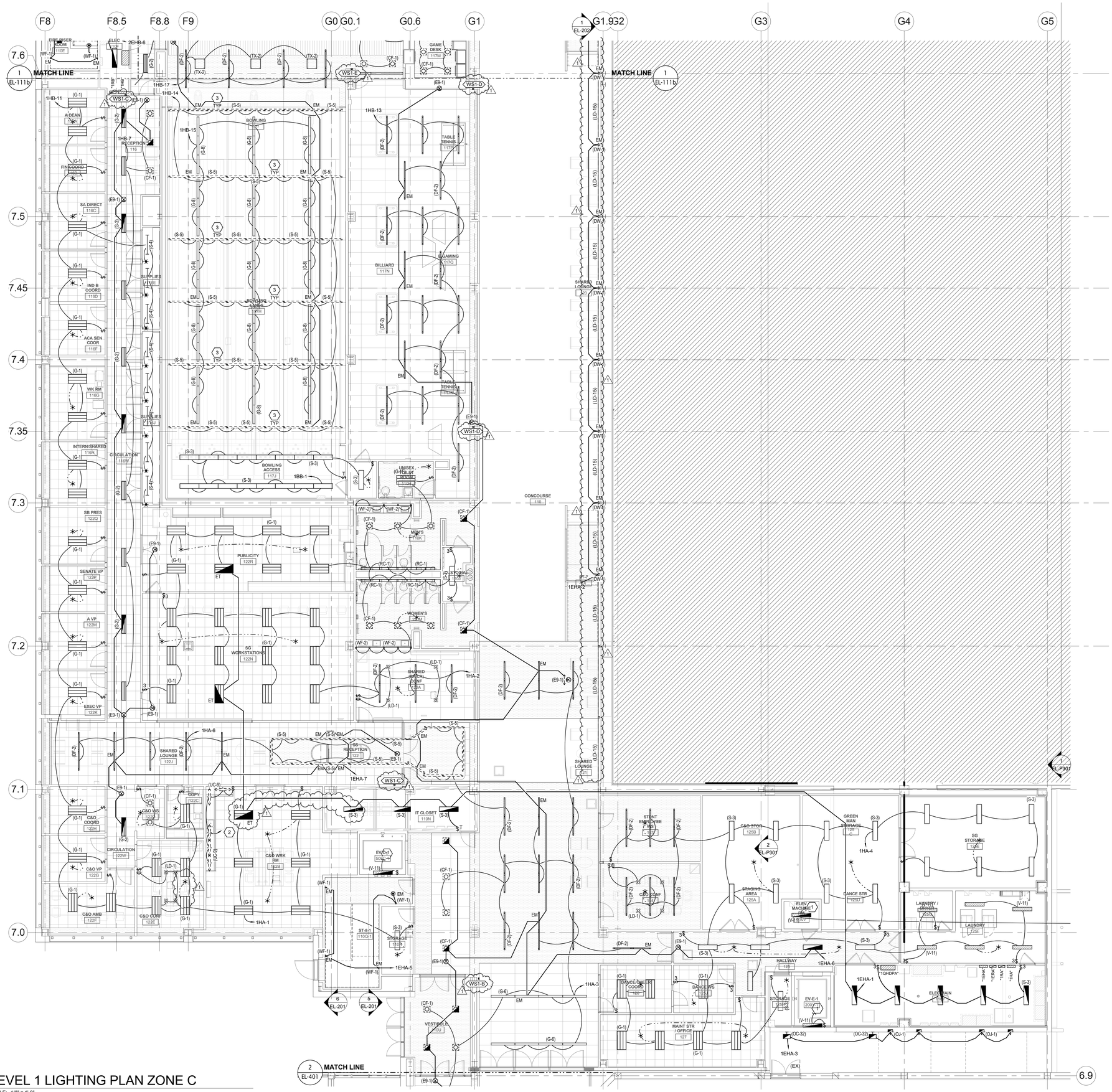
LEVEL 1 LIGHTING PLAN ZONE B

CONSTRUCTION DOCUMENTS

EL-111b

C:\Users\dlm\Documents\2011\0364Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 10:59:34 AM



1 LEVEL 1 LIGHTING PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).

2 CIRCUIT UNDERCABINET LIGHTS WITH ABOVE COUNTER OUTLETS, AND RUN THIS LEG OF THE CIRCUIT THROUGH THE ROOM OCCUPANCY SENSOR (ADDITIONAL SLAVE RELAY REQUIRED).

3 MOUNT FIXTURE IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS AND FIELD VERIFY COVE DIMENSIONS PRIOR TO ORDERING FIXTURES.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

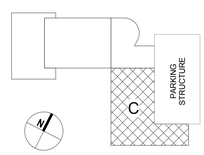
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

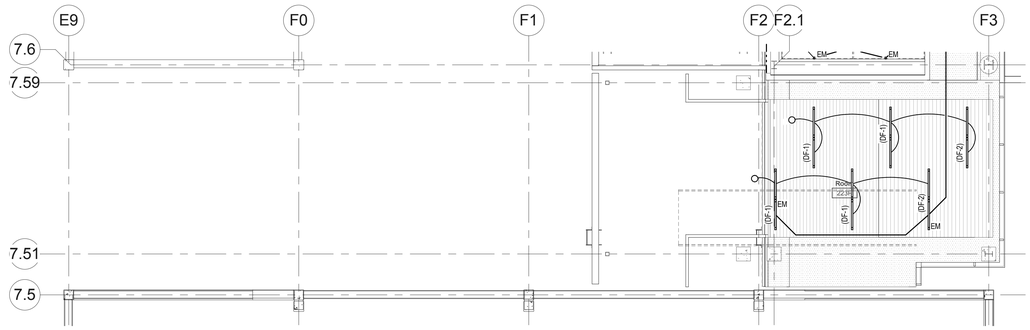
LEVEL 1 LIGHTING PLAN ZONE C

CONSTRUCTION DOCUMENTS

EL-111c

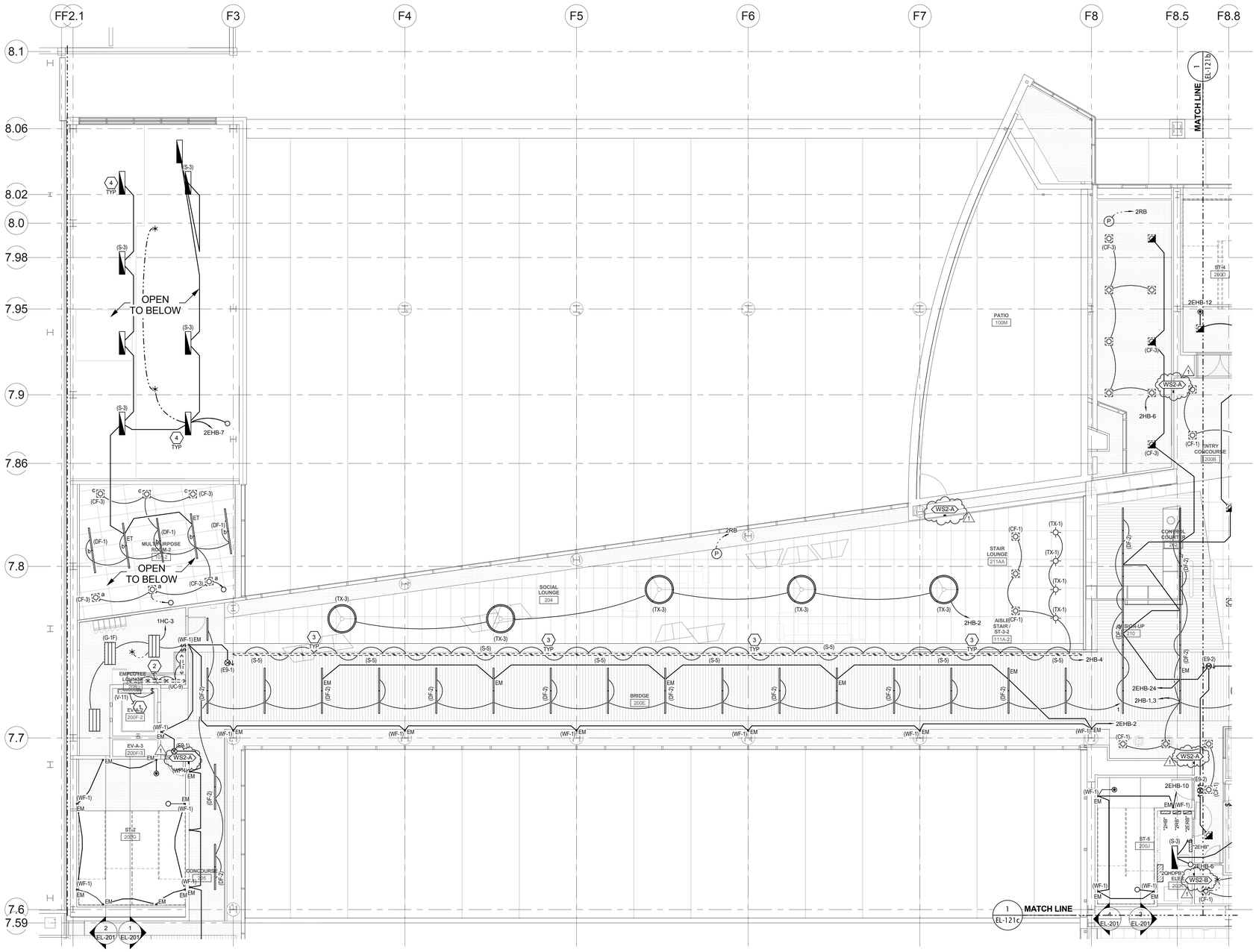
C:\Users\dlm\Documents\2011\0364\Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 10:59:44 AM



2 LEVEL 2 LIGHTING PLAN CIRCULATION

SCALE: 1/8" = 1'-0"



1 LEVEL 2 LIGHTING PLAN ZONE A

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1. ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).
2. CIRCUIT UNDERCABINET LIGHTS WITH ABOVE COUNTER OUTLETS, AND RUN THIS LEG OF THE CIRCUIT THROUGH THE ROOM OCCUPANCY SENSOR (ADDITIONAL SLAVE RELAY REQUIRED).
3. MOUNT FIXTURE IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS AND FIELD VERIFY COVE DIMENSIONS PRIOR TO ORDERING FIXTURES.
4. LAYOUT OF LIGHT FIXTURES IN THIS ROOM BASED OFF OF INFORMATION PROVIDED. FIELD COORDINATE, WITH MECHANICAL INSTALLER, EXACT LOCATIONS OF LIGHT FIXTURES WITH OVERHEAD MECHANICAL EQUIPMENT, DUCT, PIPE, ETC.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

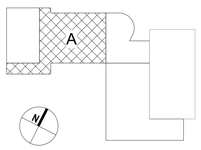
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

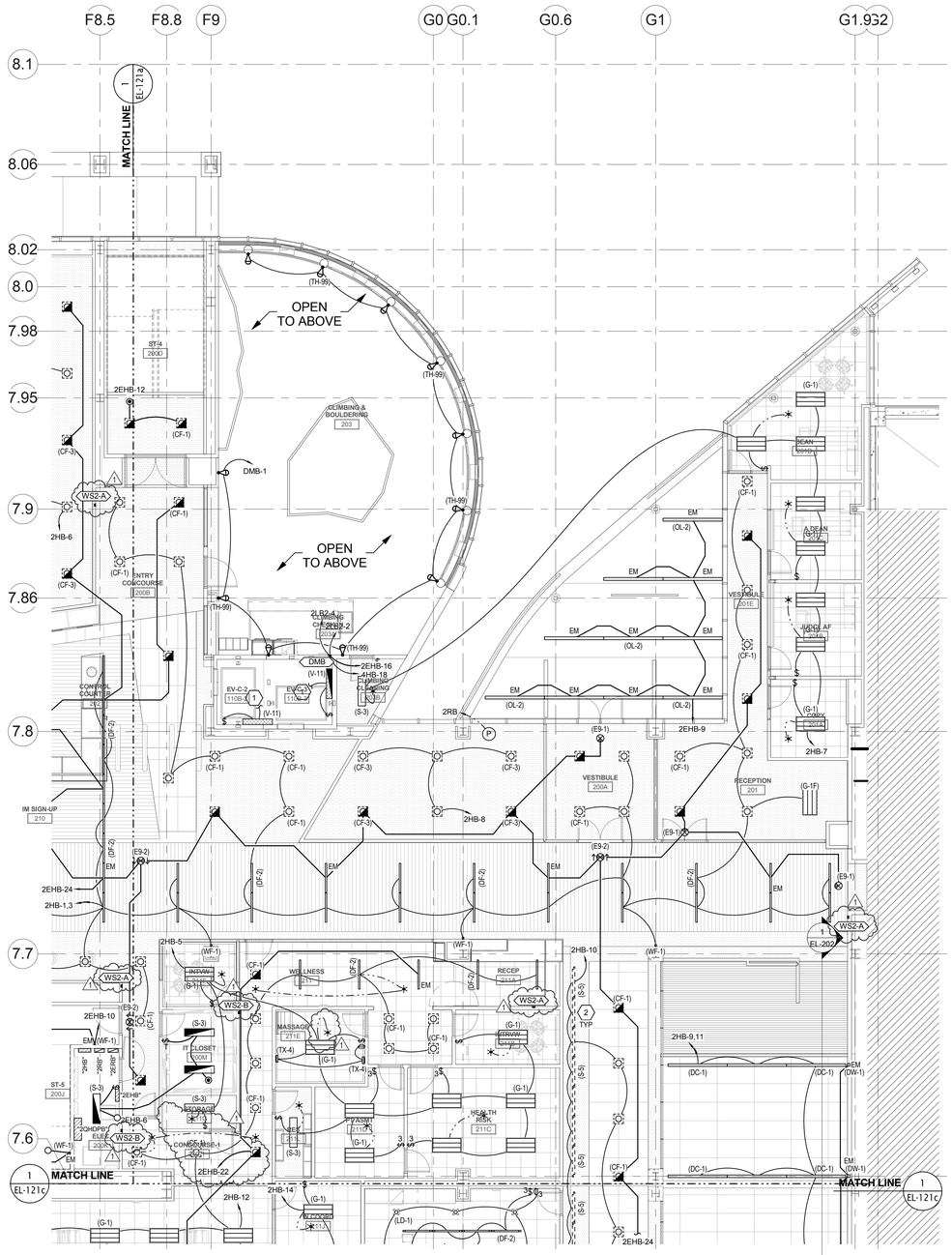
LEVEL 2 LIGHTING PLAN ZONE A

CONSTRUCTION DOCUMENTS

EL-121a

C:\Users\dlm\Documents\2011\0364\Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 10:59:52 AM



1 LEVEL 2 LIGHTING PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).

2 MOUNT FIXTURE IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS AND FIELD VERIFY COVE DIMENSIONS PRIOR TO ORDERING FIXTURES.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

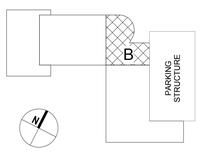
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

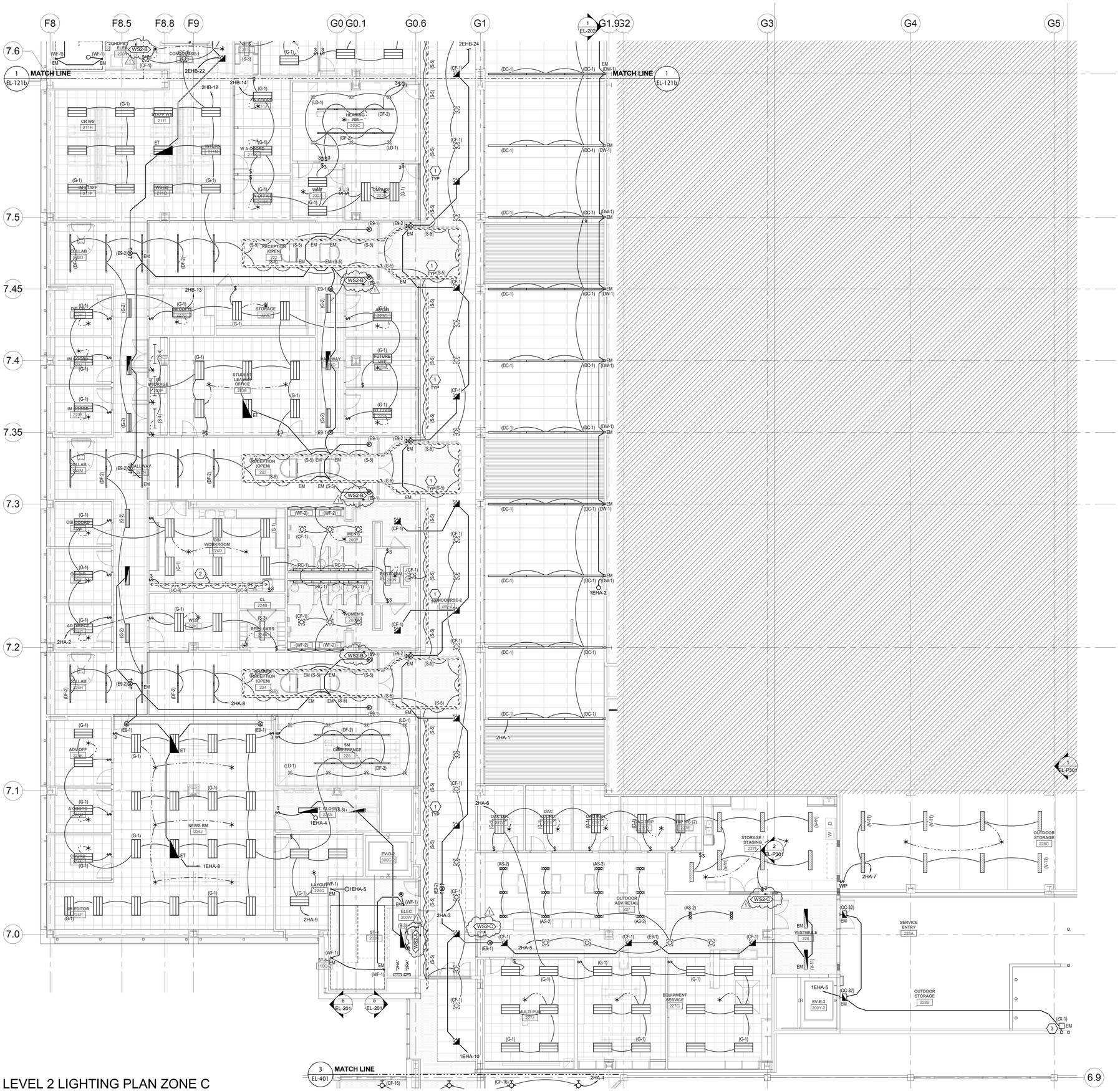
LEVEL 2 LIGHTING PLAN ZONE B

CONSTRUCTION DOCUMENTS

EL-121b

C:\Users\dlm\Documents\2011\03645\Ec UVU Student Life Center_jedi Master MCD.rvt

5/14/2012 10:59:58 AM



1 LEVEL 2 LIGHTING PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1. MOUNT FIXTURE IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS AND FIELD VERIFY COVE DIMENSIONS PRIOR TO ORDERING FIXTURES.
2. CIRCUIT UNDERCABINET LIGHTS WITH ABOVE COUNTER OUTLETS, AND RUN THIS LEG OF THE CIRCUIT THROUGH THE ROOM OCCUPANCY SENSOR (ADDITIONAL SLAVE RELAY REQUIRED).
3. MOUNT LIGHT POLE TO TOP OF CONCRETE CURB WALL. WALL IS TO BE THICKENED AND REINFORCED TO ACCOMMODATE LIGHT POLE PER ARCHITECTURAL AND STRUCTURAL DETAILS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

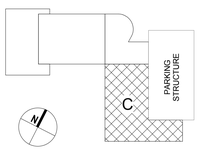
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

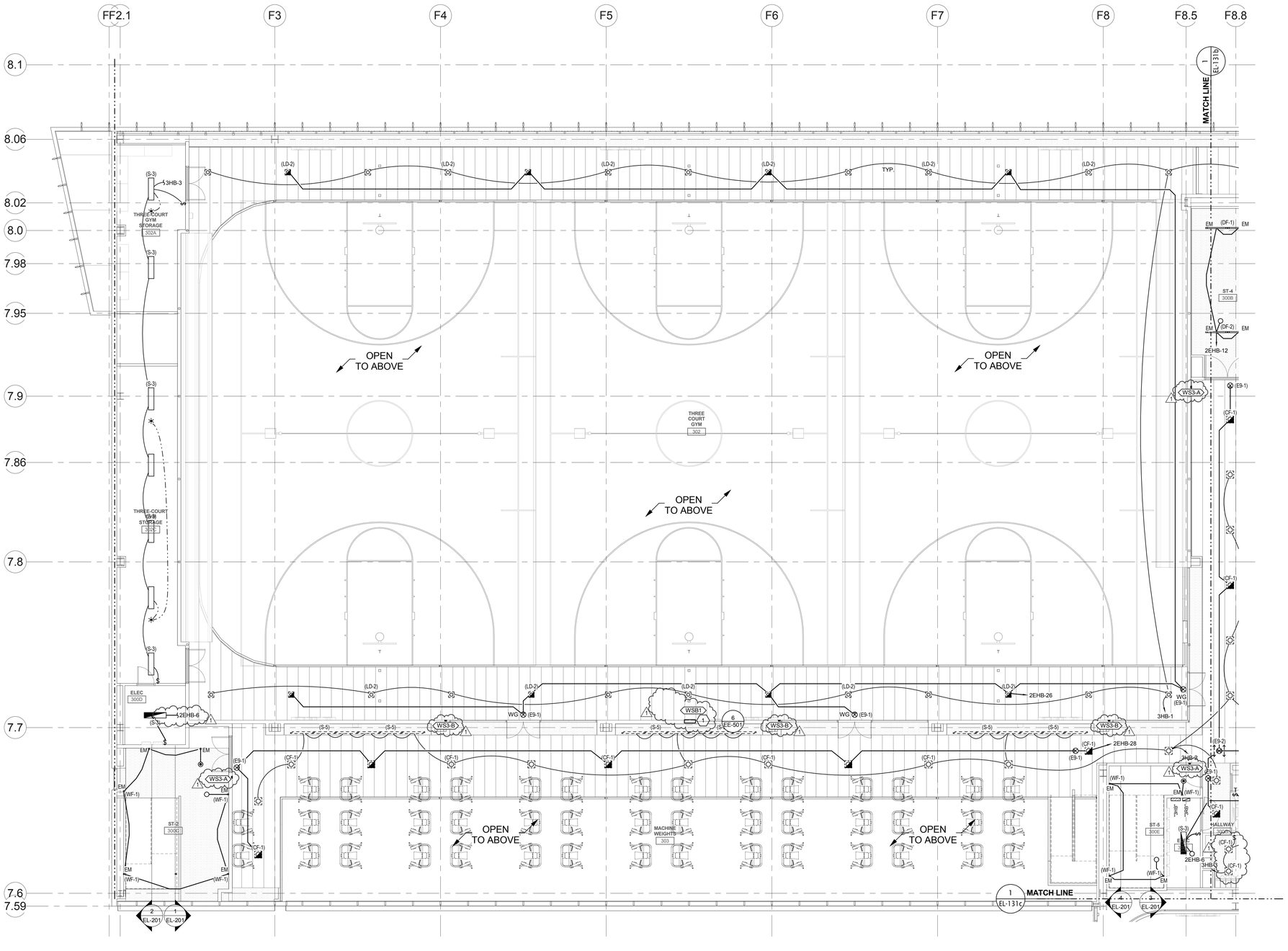
LEVEL 2 LIGHTING PLAN ZONE C

CONSTRUCTION DOCUMENTS

EL-121c

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jrdi Master MKD.rvt

5/14/2012 11:00:07 AM



1 LEVEL 3 LIGHTING PLAN ZONE A

SCALE: 1/8" = 1'-0"

C:\Users\dlm\Documents\2011036 4Elec UVU Student Life Center Jedi Master MCD.rvt

5/14/2012 11:00:13 AM

GENERAL SHEET NOTES

SHEET KEYNOTES

1 LOCATION OF GYM LIGHTING CONTROL RELAY STATIONS.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

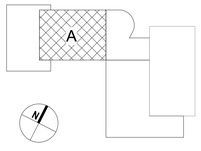
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

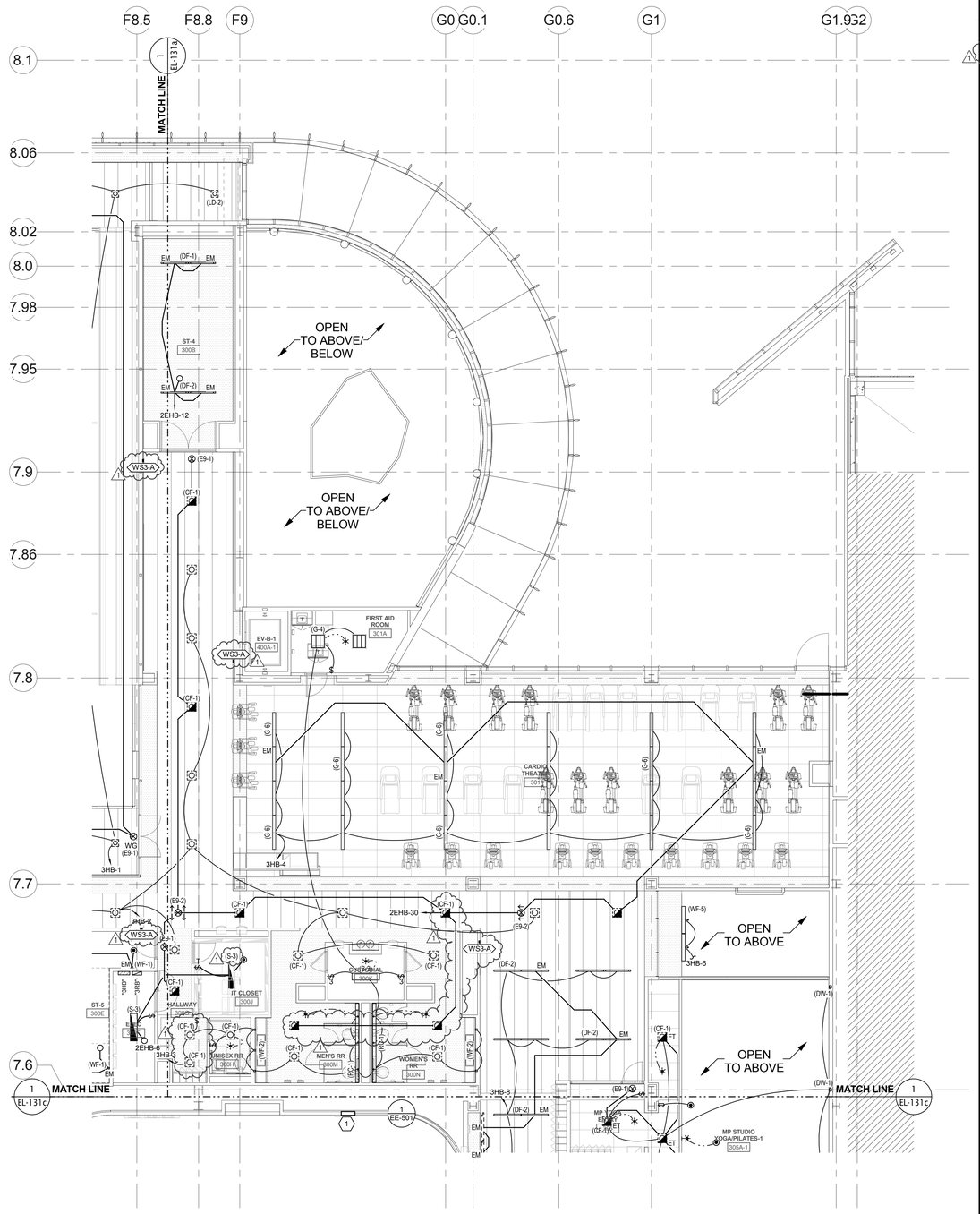
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 3 LIGHTING PLAN ZONE A

CONSTRUCTION DOCUMENTS

EL-131a



1 LEVEL 3 LIGHTING PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 LOCATION OF GYM LIGHTING CONTROL RELAY STATIONS.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

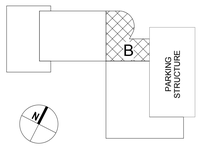
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

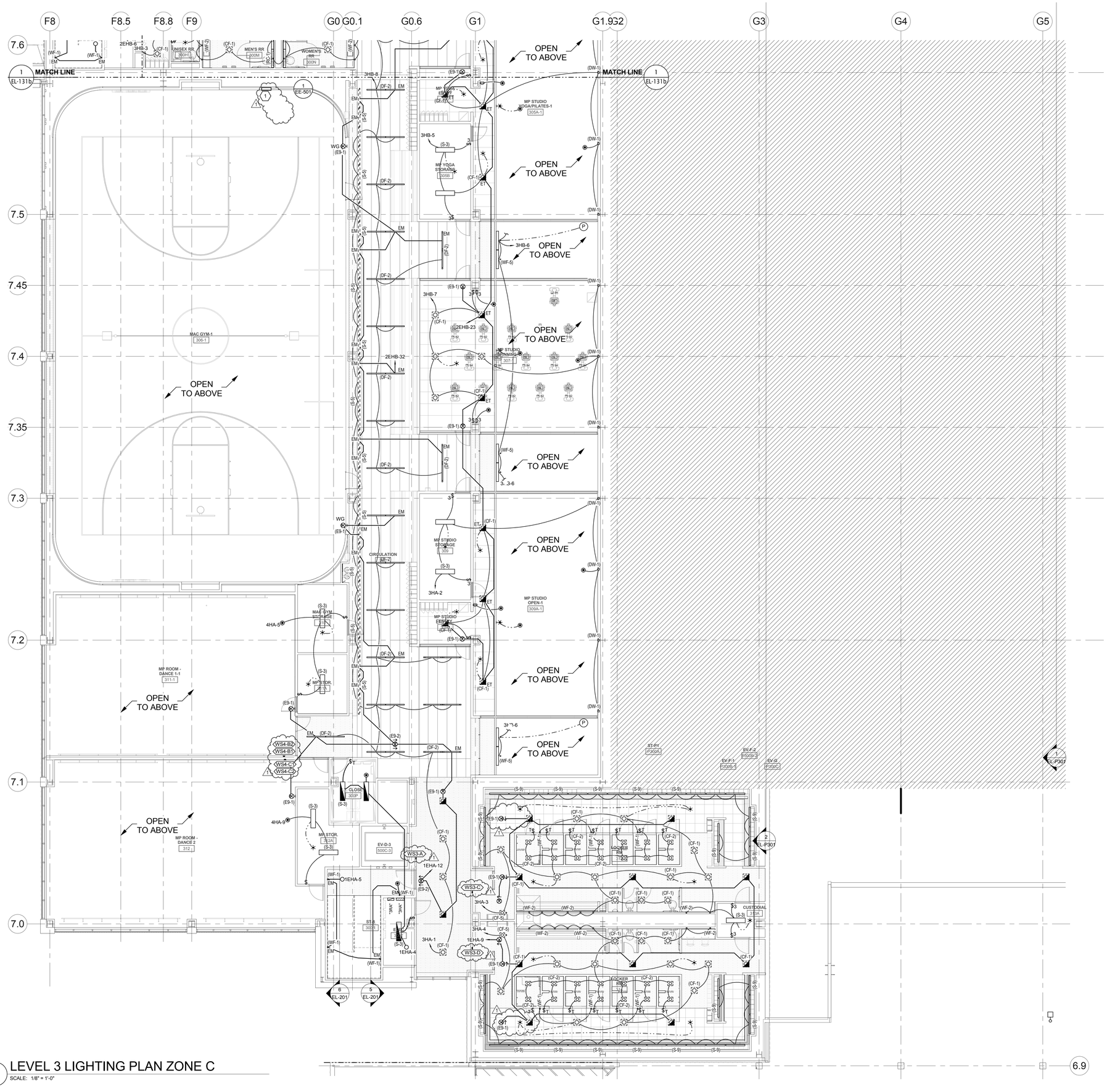
LEVEL 3 LIGHTING PLAN ZONE B

CONSTRUCTION DOCUMENTS

EL-131b

C:\Users\dlm\Documents\2011\3364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:00:18 AM



1 LEVEL 3 LIGHTING PLAN ZONE C

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 LOCATION OF GYM LIGHTING CONTROL RELAY STATIONS.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

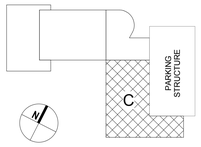
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

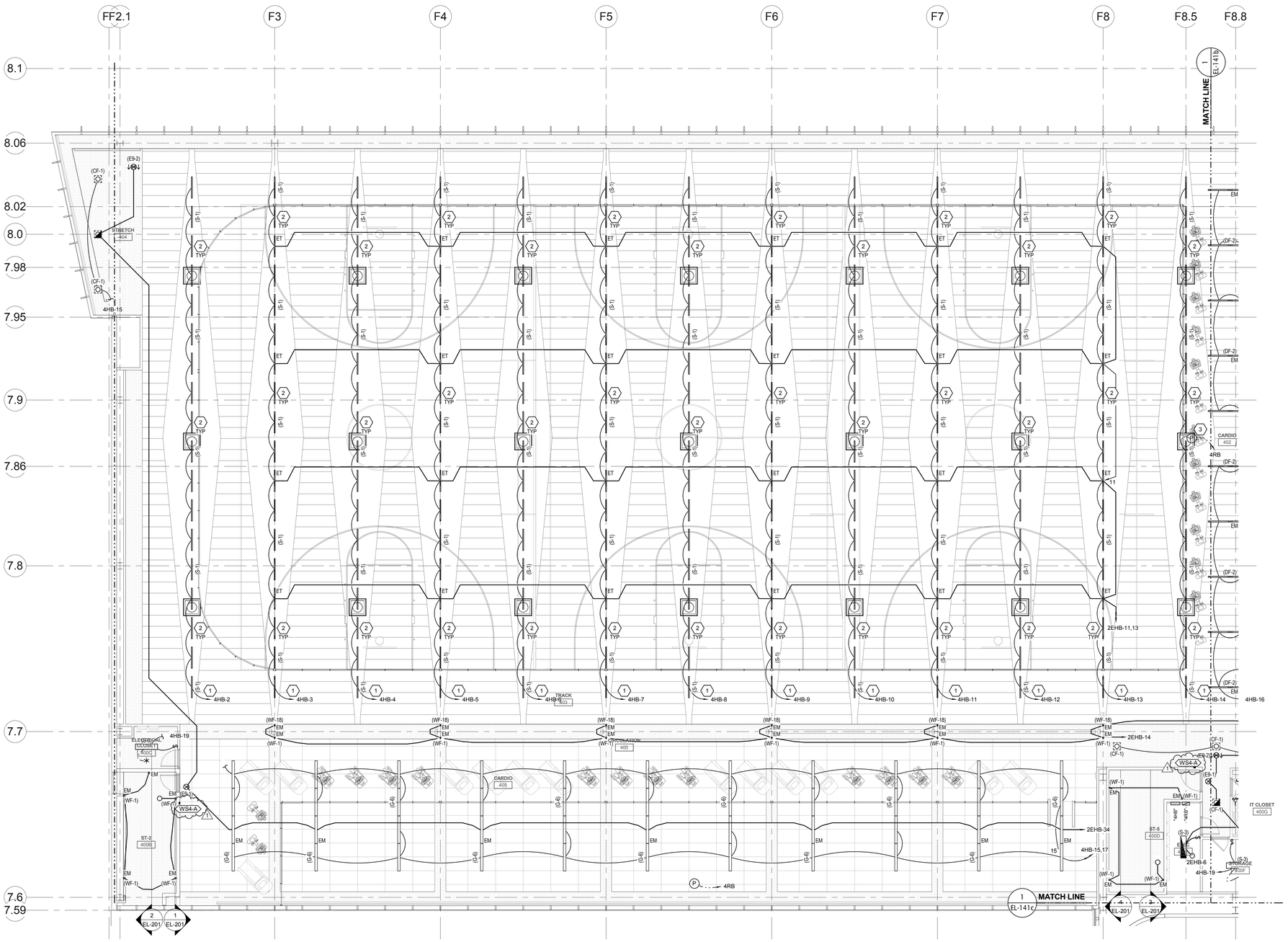
LEVEL 3 LIGHTING PLAN ZONE C

CONSTRUCTION DOCUMENTS

EL-131c

C:\Users\dlm\Documents\2011\03645\Ec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:00:27 AM



1 LEVEL 4 LIGHTING PLAN ZONE A

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE TWO SWITCHED LEGS FROM SEPARATE RELAYS FROM CIRCUIT TO EACH FIXTURE FOR DUAL-LEVEL SWITCH OF EVERY FIXTURE. CONTROL OF 0-50% LIGHT LEVEL SHALL BE THROUGH MANUAL ON-OFF CONTROL (AND TIMED OFF) THROUGH WALL STATION IN GYMNASIUM CONTROL BOX. CONTROL OF 50-100% LIGHT LEVEL SHALL BE THROUGH SKYLIGHT PHOTOCELL IN OCCUPIED MODES AND OFF DURING UNOCCUPIED MODES.

2 MOUNT FIXTURES FACING UPWARD FOR INDIRECT LIGHTING OFF CEILING. REFER TO ARCHITECTURAL DETAILS.

3 PHOTOCELL LOCATED IN SKYLIGHT FOR CONTROL OF GYMNASIUM LIGHT FIXTURES.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

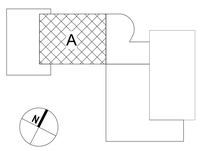
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

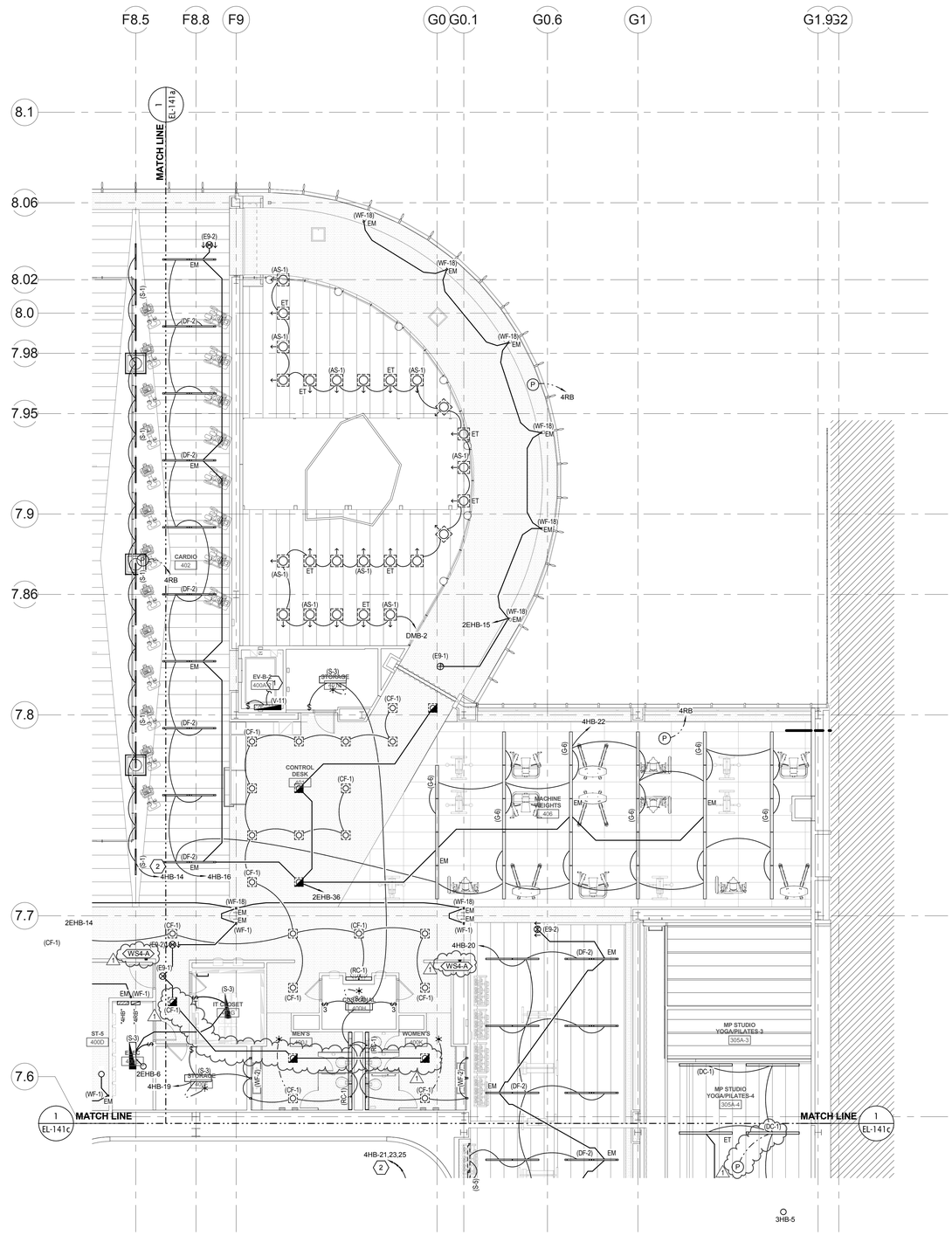
LEVEL 4 LIGHTING PLAN ZONE A

CONSTRUCTION DOCUMENTS

EL-141a

C:\Users\dlm\Documents\2011036-Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 11:00:33 AM



1 LEVEL 4 LIGHTING PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 ELEVATOR PIT/EQUIPMENT ROOM LIGHT CIRCUITED WITH ASSOCIATED PIT/ROOM OUTLET(S).

2 PROVIDE TWO SWITCHED LEGS FROM SEPARATE RELAYS FROM CIRCUIT TO EACH FIXTURE FOR DUAL-LEVEL SWITCH OF EVERY FIXTURE. CONTROL OF 0-50% LIGHT LEVEL SHALL BE THROUGH MANUAL ON-OFF CONTROL (AND TIMED OFF) THROUGH WALL STATION IN GYMNASIUM CONTROL BOX. CONTROL OF 50-100% LIGHT LEVEL SHALL BE THROUGH SKYLIGHT PHOTOCELL IN OCCUPIED MODES AND OFF DURING UNOCCUPIED MODES.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

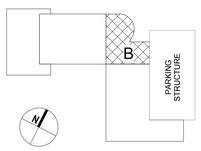
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

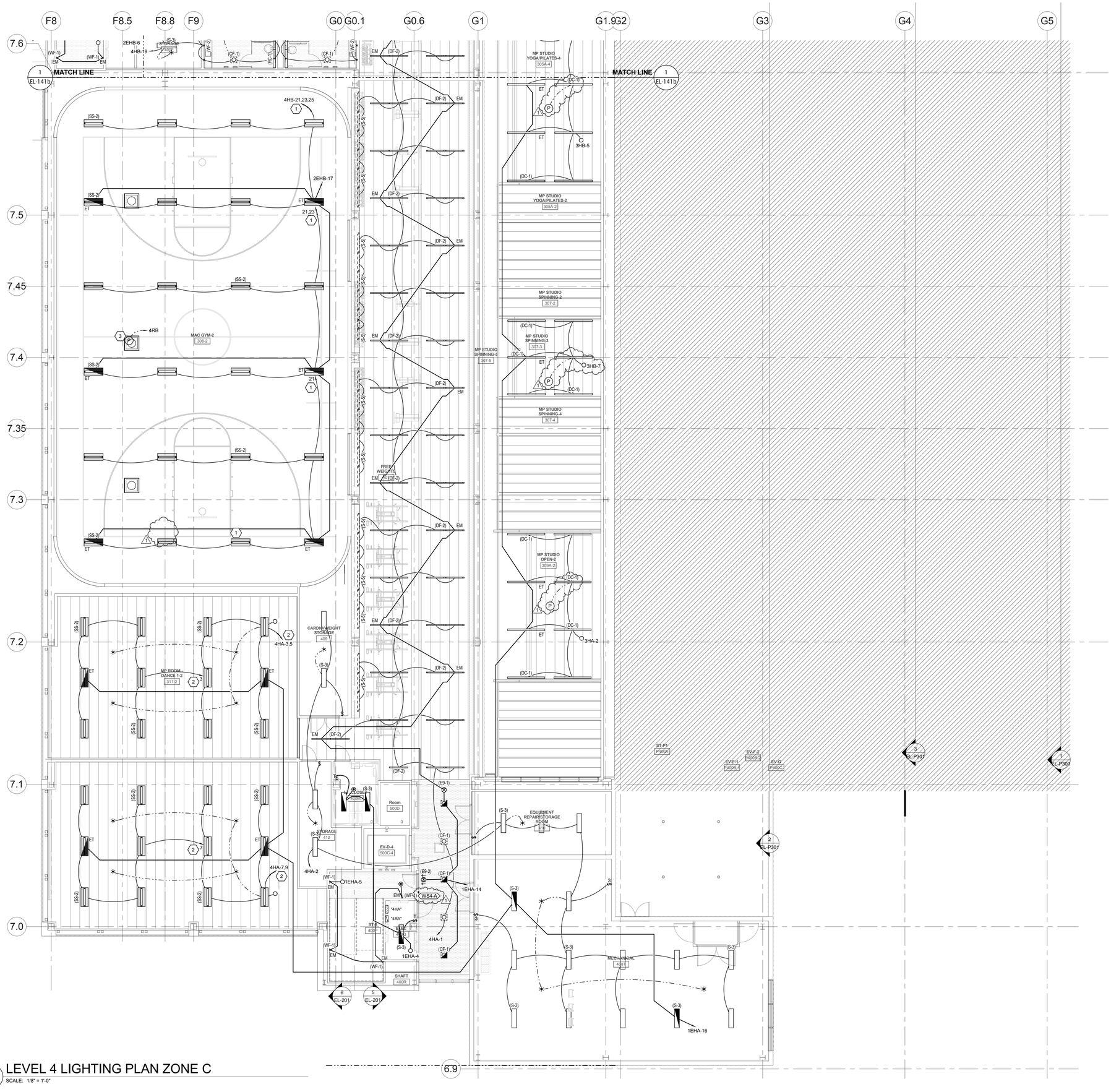
LEVEL 4 LIGHTING PLAN ZONE B

CONSTRUCTION DOCUMENTS

EL-141b

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 11:00:41 AM



1 LEVEL 4 LIGHTING PLAN ZONE C

SCALE: 1/8" = 1'-0"

C:\Users\dlm\Documents\2011\03646\Ec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:00:55 AM

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE TWO SWITCHED LEGS FROM SEPARATE RELAYS FROM CIRCUIT TO EACH FIXTURE FOR DUAL-LEVEL SWITCH OF EVERY FIXTURE. CONTROL OF 0-50% LIGHT LEVEL SHALL BE THROUGH MANUAL ON-OFF CONTROL (AND TIMED OFF) THROUGH WALL STATION IN GYMNASIUM CONTROL BOX. CONTROL OF 50-100% LIGHT LEVEL SHALL BE THROUGH SKYLIGHT PHOTOCELL IN OCCUPIED MODES AND OFF DURING UNOCCUPIED MODES.

2 PROVIDE TWO SWITCHED LEGS FROM SEPARATE RELAYS FROM CIRCUIT TO EACH FIXTURE FOR DUAL-LEVEL SWITCH OF EVERY FIXTURE. EACH LEVEL SHALL BE MANUALL CONTROLLED AND TIMED OFF.

3 PHOTOCELL LOCATED IN SKYLIGHT FOR CONTROL OF GYMNASIUM LIGHT FIXTURES.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

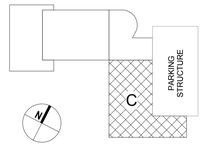
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 4 LIGHTING PLAN ZONE C

CONSTRUCTION DOCUMENTS

EL-141c

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

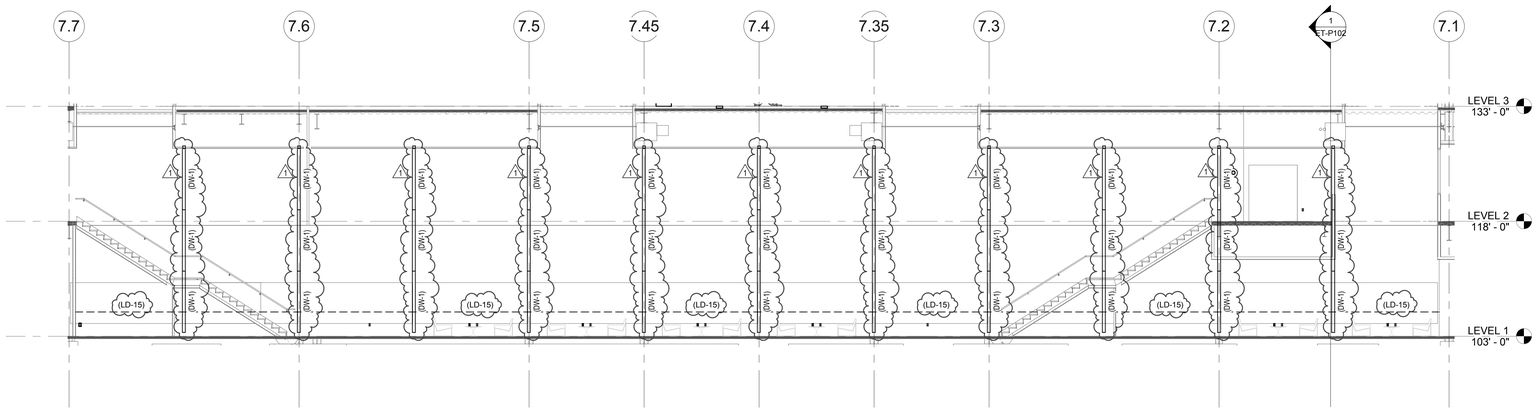
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



1 CONCOURSE LIGHTING SECTION
SCALE: 1/8" = 1'-0"

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

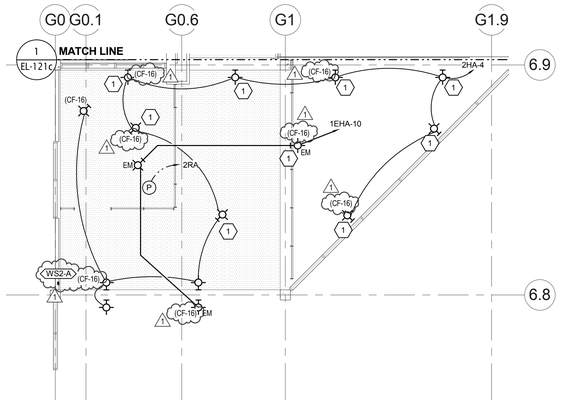
DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LIGHTING SECTIONS

CONSTRUCTION DOCUMENTS

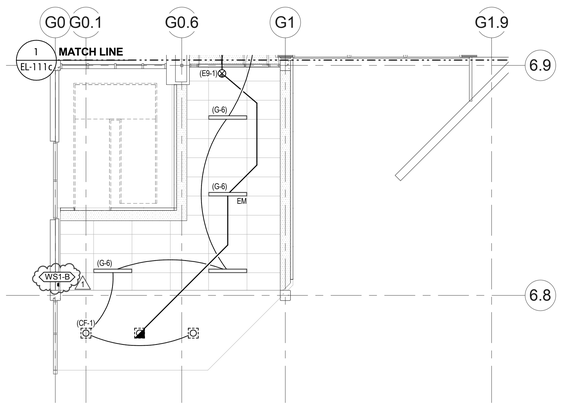
EL-202

C:\Users\dlm\Documents\2011\3364Elec UVU Student Life Center_jadi Master McD.rvt
5/14/2012 11:00:58 AM



3 SORENSEN LEVEL 2 LIGHTING PLAN

SCALE: 1/8" = 1'-0"



2 SORENSEN LEVEL 1 LIGHTING PLAN

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1 EXISTING FIXTURE REPLACED WITH NEW. INTERCEPT EXISTING WIRING AND CIRCUIT TO NEW PANEL INDICATED. AVOID ANY SURFACE MOUNTED CONDUIT. REMOVE UNUSED/ ABANDONED CONDUIT AND WIRING WHEN COMPLETE.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

PARTIAL PE AND SORENSEN LIGHTING PLANS

CONSTRUCTION DOCUMENTS

EL-401

C:\Users\dlm\Documents\2011\3645Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 11:01:04 AM

RELAY PANEL SCHEDULE

RELAY CABINET: "1RA"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	1HA-3	1	WS1-B	SOUTH CORRIDOR
2	1HA-6	3	WS1-C	SOUTH RECEPTION
3				SPARE RELAY
4				SPARE RELAY
5				SPARE RELAY
6				SPARE RELAY
7				SPARE RELAY
8				SPARE RELAY
9				SPARE RELAY
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "2RA"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	2HA-1	1	WS2-A	MAIN CORRIDOR
2	2HA-3	1	WS2-A	MAIN CORRIDOR
3	2HA-4	1	WS2-A	SORENSON BRIDGE
4	2HA-5	3	WS2-C	OUTDOOR SERVICES
5	2HA-8	3	WS2-B	OPEN OFFICES
6				SPARE RELAY
7				SPARE RELAY
8				SPARE RELAY
9				SPARE RELAY
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "3RB"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	3HB-1	3	WS3-B	UNDER TRACK
2	3HB-2	3	WS3-A	MACHINE WEIGHTS
3	3HB-4	3	WS3-A	CARDIO
4	3HB-6	3-D	WS3-A	CORRIDOR
5	3HB-8	3	WS3-A	CORRIDOR
6				SPARE RELAY
7				SPARE RELAY
8				SPARE RELAY
9				SPARE RELAY
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "4RA"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	4HA-1	3-D	WS4-A	MAIN CORRIDOR
2	4HA-3	3	WS4-B1	DANCE STUDIO
3	4HA-3	3	WS4-B2	DANCE STUDIO
4	4HA-5	3	WS4-B1	DANCE STUDIO
5	4HA-5	3	WS4-B2	DANCE STUDIO
6	4HA-7	3	WS4-C1	DANCE STUDIO
7	4HA-7	3	WS4-C2	DANCE STUDIO
8	4HA-9	3	WS4-C1	DANCE STUDIO
9	4HA-9	3	WS4-C2	DANCE STUDIO
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "4RB"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	4HB-2	3-D	WSB1	BASKETBALL COURTS
2	4HB-2	3-D	WSB1	BASKETBALL COURTS
3	4HB-3	3-D	WSB1	BASKETBALL COURTS
4	4HB-3	3-D	WSB1	BASKETBALL COURTS
5	4HB-4	3-D	WSB1	BASKETBALL COURTS
6	4HB-4	3-D	WSB1	BASKETBALL COURTS
7	4HB-5	3-D	WSB1	BASKETBALL COURTS
8	4HB-5	3-D	WSB1	BASKETBALL COURTS
9	4HB-6	3-D	WSB1	BASKETBALL COURTS
10	4HB-6	3-D	WSB1	BASKETBALL COURTS
11	4HB-7	3-D	WSB1	BASKETBALL COURTS
12	4HB-7	3-D	WSB1	BASKETBALL COURTS
13	4HB-8	3-D	WSB1	BASKETBALL COURTS
14	4HB-8	3-D	WSB1	BASKETBALL COURTS
15	4HB-9	3-D	WSB1	BASKETBALL COURTS
16	4HB-9	3-D	WSB1	BASKETBALL COURTS
17	4HB-10	3-D	WSB1	BASKETBALL COURTS
18	4HB-10	3-D	WSB1	BASKETBALL COURTS
19	4HB-11	3-D	WSB1	BASKETBALL COURTS
20	4HB-11	3-D	WSB1	BASKETBALL COURTS
21	4HB-12	3-D	WSB1	BASKETBALL COURTS
22	4HB-12	3-D	WSB1	BASKETBALL COURTS
23	4HB-13	3-D	WSB1	BASKETBALL COURTS
24	4HB-13	3-D	WSB1	BASKETBALL COURTS
25	4HB-14	3-D	WSB1	BASKETBALL COURTS
26	4HB-14	3-D	WSB1	BASKETBALL COURTS
27	4HB-15	3-D	WS4-A	CARDIO/MACHINE WEIGHTS
28	4HB-16	3-D	WS4-A	CORRIDOR/MACHINE WEIGHTS
29	4HB-17	3-D	WS3-A	CARDIO/MACHINE WEIGHTS
30	4HB-20	3	WS4-A	MAIN CORRIDOR
31	4HB-21	3-D	WSB2	S. BASKETBALL COURTS
32	4HB-21	3-D	WSB2	S. BASKETBALL COURTS
33	4HB-22	3-D	WS4-A	MACHINE WEIGHTS
34	4HB-23	3-D	WSB2	S. BASKETBALL COURTS
35	4HB-23	3-D	WSB2	S. BASKETBALL COURTS
36	4HB-25	3-D	WSB2	S. BASKETBALL COURTS
37	4HB-25	3-D	WSB2	S. BASKETBALL COURTS
38				SPARE RELAY
39				SPARE RELAY
40				SPARE RELAY
41				SPARE RELAY
42				SPARE RELAY
43				SPARE RELAY
44				SPARE RELAY
45				SPARE RELAY
46				SPARE RELAY
47				SPARE RELAY
48				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "1RB"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	1HA-1	4	-	EXTERIOR PATIO UPLIGHTS
2	1HA-2	5	-	EXTERIOR PATIO
3	1HA-4	4	-	EXTERIOR PATIO COLUMNS
4	1HB-6	1	WS1-B	NORTH CORRIDOR
5	1HB-7	3	WS1-C	WEST CORRIDOR
6	1HB-13	3	WS1-D	BILLARD 117N
7	1HB-14	3	WS1-E	BOWLING ALLEY
8	1HB-15	3	WS1-E	BOWLING ALLEY
9	1HB-16	4	-	EXTERIOR STEPLIGHTS
10	1HB-17	3	WS1-E	BOWLING ALLEY
11	1HB-18	4	-	EXTERIOR STEPLIGHTS
12	1HB-20	5	-	EXTERIOR POLES
13	1HB-22	5	-	EXTERIOR POLES
14	1HB-24	4	-	EXTERIOR POLES
15	1HB-26	1	WS1-B	MAIN CORRIDOR
16				SPARE RELAY
17				SPARE RELAY
18				SPARE RELAY
19				SPARE RELAY
20				SPARE RELAY
21				SPARE RELAY
22				SPARE RELAY
23				SPARE RELAY
24				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "2RB"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	2HB-1	1-D	WS2-A	CORRIDORS
2	2HB-2	1-D	WS2-A	MAIN LOBBY PENDANTS
3	2HB-3	1	WS2-A	CORRIDORS
4	2HB-4	1-D	WS2-A	CORRIDOR COVE
5	2HB-6	1-D	WS1-B	CORRIDORS
6	2HB-8	1	WS1-B	CORRIDORS
7	2HB-9	1	WS2-A	MAIN CORRIDOR
8	2HB-10	1	WS2-A	MAIN CORRIDOR
9	2HB-11	1	WS2-A	MAIN CORRIDOR
10	2HB-12	3	WS2-B	OPEN OFFICES
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY
17				SPARE RELAY
18				SPARE RELAY
19				SPARE RELAY
20				SPARE RELAY
21				SPARE RELAY
22				SPARE RELAY
23				SPARE RELAY
24				SPARE RELAY

LIGHTING CONTROL METHODS

1	ON/OFF WITH OCCUPIED/UNOCCUPIED MODE, BASED ON BMS TIMECLOCK CONTROL
2	OCCUPIED TIMES: INDOOR PHOTCELL ON/OFF UNOCCUPIED TIMES: ALWAYS OFF
3	ON/OFF WITH LOCAL WALL STATION ONLY SWEEP OFF AT UNOCCUPIED TIME
4	ON/OFF WITH EXTERIOR PHOTOCELL
5	ON/OFF W/EXTERIOR PHOTOCELL ENABLE/DISABLE WITH BMS TIMECLOCK
6	ALWAYS ON (NIGHT LIGHT)
7	NORMALLY OFF. ON ONLY IN POWER FAILURE/ EMERGENCY MODE
WSX-X	WALL STATION OVERRIDE OR ON/OFF; "X" = SPECIFIC WALL STATION WITH CONTROL. DURING UNOCCUPIED TIMES, THE CONTROLLED GROUP SHALL REMAIN ON FOR NO LONGER THAN 1 HOUR THEN SWEEP OFF, REQUIRING ACTIVATION OF SWITCH AGAIN.
	SUFFIXES
- D	INDOOR DAYLIGHTING AREA, ON/OFF CONTROL TO MAINTAIN LIGHTING LEVELS INDICATED BELOW: CORRIDORS/ CIRCULATION: 10 - 15 FC EXERCISE AREAS: 15 - 25 FC BASKETBALL COURTS: 40 - 60 FC OFFICES / WORK AREAS: 40 - 60 FC
-E	EMERGENCY LIGHTING CONTROL: ON/OFF ON TIME SCHEDULE DIFFERENT THAN OTHER ADJACENT FIXTURES IN GROUP TO ALLOW NIGHT-LIGHT OPERATION FOR A LONGER PERIOD OF TIME FOR SAFE EGRESS OUT OF THE BUILDING; ALL INDOOR EMERGENCY FIXTURES SHALL ALL TURN ON UPON ACTIVATION OF ANY AND ALL WALL STATION OVERRIDE STATIONS IN THE BUILDING, AND ALWAYS BE ON UPON POWER FAILURE.
	NOTE: FOR BASKETBALL COURTS, REFER TO NOTES AND DETAILS ON OTHER SHEETS FOR CONTROL OF THESE AREAS.

RELAY PANEL SCHEDULE

RELAY CABINET: "1RC"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	1HC-1	1	WS1-A	SW CORRIDOR
2	1HC-2	1	WS1-A	SW CORRIDOR
3				SPARE RELAY
4				SPARE RELAY
5				SPARE RELAY
6				SPARE RELAY
7				SPARE RELAY
8				SPARE RELAY
9				SPARE RELAY
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "2ERB"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	2EHB-1	6-E	-	STAIR 100C
2	2EHB-2	1-E-D	WS2-A	CONCOURSE 205
3	2EHB-3	4-E	-	EXTERIOR
4	2EHB-4	4-E	-	EXTERIOR PATIO
5	2EHB-5	4-E	-	EXTERIOR STEPLIGHTS
6	2EHB-10	6-E		STAIR 110D
7	2EHB-11	3-E-D	WSB1	BASKETBALL COURTS
8	2EHB-13	3-E-D	WSB1	BASKETBALL COURTS
9	2EHB-14	3-E-D	WS4-A	L4 TRACK
10	2EHB-15	3-E-D	WS4-A	L4 TRACK
11	2EHB-17	3-E-D	WSB2	S. BASKETBALL COURT
12	2EHB-18	1-E	WS1-A	SW CORRIDOR
13	2EHB-19	3-E	WS1-E	BOWLING ALLEY
14	2EHB-20	1-E	WS1-B	L1 NORTH CORRIDOR
15	2EHB-22	3-E	WS2-B	L2 OPEN OFFICES
16	2EHB-24	1-E	WS2-A	L2 CORRIDORS
17	2EHB-26	3-E	WS3-B	GYM UNDERTRACK
18	2EHB-28	3-E	WS3-A	L3 MACHINE WEIGHTS
19	2EHB-30	3-E	WS3-A	L3 CARDIO/CORRIDOR
20	2EHB-32	3-E	WS3-A	L3 CORRIDORS
21	2EHB-34	3-E-D	WS4-A	L4 CARDIO/MACHINE WEIGHTS
22				SPARE RELAY
23				SPARE RELAY
24				SPARE RELAY

RELAY PANEL SCHEDULE

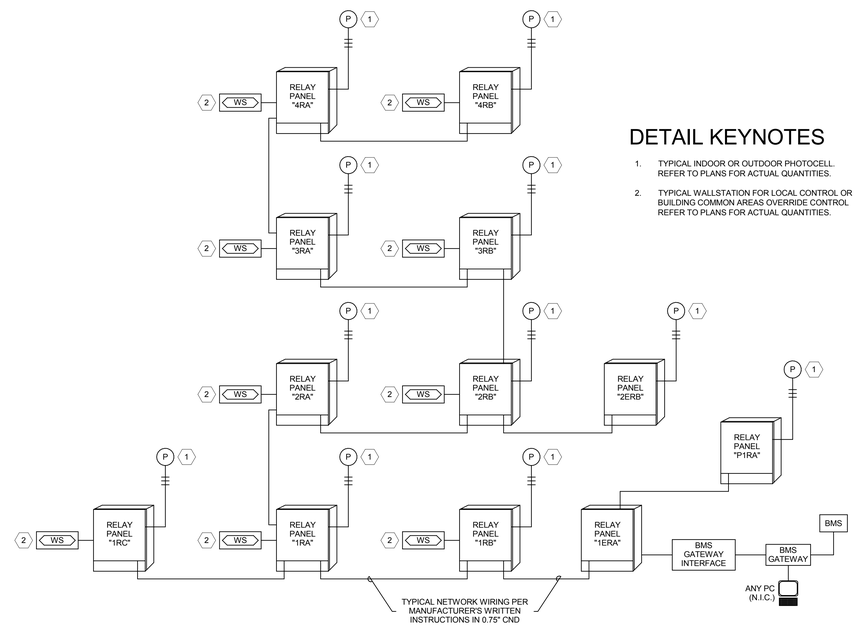
RELAY CABINET: "1ERA"

RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	1EHA-2	1-E	WS1-B	MAIN CORRIDOR
2	1EHA-3	4-E	-	SOUTH EXTERIOR
3	1EHA-5	6-E	-	SOUTHWEST STAIR
4	1EHA-6	1-E	WS1-B	L1 MAIN CORRIDOR
5	1EHA-7	3-E	WS1-C	L1 OFFICE CORRIDOR
6	1EHA-8	3-E	WS2-B	L2 OPEN OFFICES
7	1EHA-10	1-E	WS2-A	L2 MAIN CORRIDOR
8	1EHA-12	1-E	WS3-A	L3 MAIN CORRIDOR
9	1EHA-14	3-E-D	WS4-A	L4 MAIN CORRIDOR
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY

RELAY PANEL SCHEDULE

RELAY CABINET: "3RA"

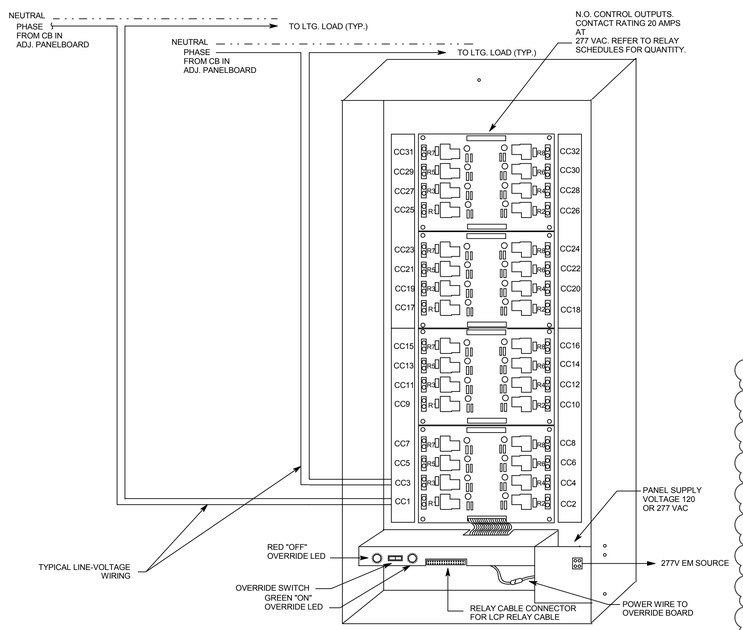
RELAY #	PANEL CIRCUIT #	CONTROL GROUP	WALL STATION	LOAD DESCRIPTION
1	3HA-1	1	WS3-A	MAIN CORRIDOR
2	3HA-3	3	WS3-C	MEN'S LOCKER ROOM
3	3HA-4	3	WS3-D	WOMEN'S LOCKER ROOM
4				SPARE RELAY
5				SPARE RELAY
6				SPARE RELAY
7				SPARE RELAY
8				SPARE RELAY
9				SPARE RELAY
10				SPARE RELAY
11				SPARE RELAY
12				SPARE RELAY
13				SPARE RELAY
14				SPARE RELAY
15				SPARE RELAY
16				SPARE RELAY



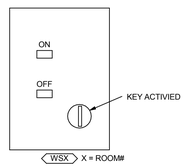
5 NETWORK LIGHTING CONTROL SYSTEM SCHEMATIC
SCALE: NTS

DETAIL KEYNOTES

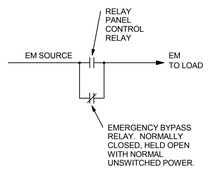
1. TYPICAL INDOOR OR OUTDOOR PHOTOCELL. REFER TO PLANS FOR ACTUAL QUANTITIES.
2. TYPICAL WALLSTATION FOR LOCAL CONTROL OR BUILDING COMMON AREAS OVERRIDE CONTROL REFER TO PLANS FOR ACTUAL QUANTITIES.



1 TYPICAL RELAY PANEL WIRING DETAIL
SCALE: NTS



3 TYPICAL WALL STATION - LOCK CONTROL
SCALE: NTS



4 EMERGENCY RELAY SCHEMATIC
SCALE: NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LIGHTING CONTROL SCHEDULES AND DETAILS

CONSTRUCTION DOCUMENTS

EL-501

C:\Users\jdm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:01:06 AM

LOAD SCHEDULE

SS STUDENT COUNCIL CHAMBER 114

DEVICE	CIRCUIT	LIGHTING ID	LOAD (WATTS)	CONTROL CHANNEL	COMMENTS
DMA	1HB-8	DECORATIVE PENDANTS (F)	210	DMA-1	2KW FLUORESCENT DIMMER (F)
	1HB-8	LED DOWNLIGHTS (LED)	375	DMA-2	2KW LED DIMMER ET
	1HB-10	LED STRIPLIGHTS (LED)	2070	DMA-3	3KW LED DIMMER
	1HB-12	LED STRIPLIGHTS (LED)	1800	DMA-4	2KW LED DIMMER
	1HB-8	COVE LIGHTS (F)	450	DMA-5	2KW FLUORESCENT DIMMER (F)
		SPARE		DMA-6	

LOAD SCHEDULE

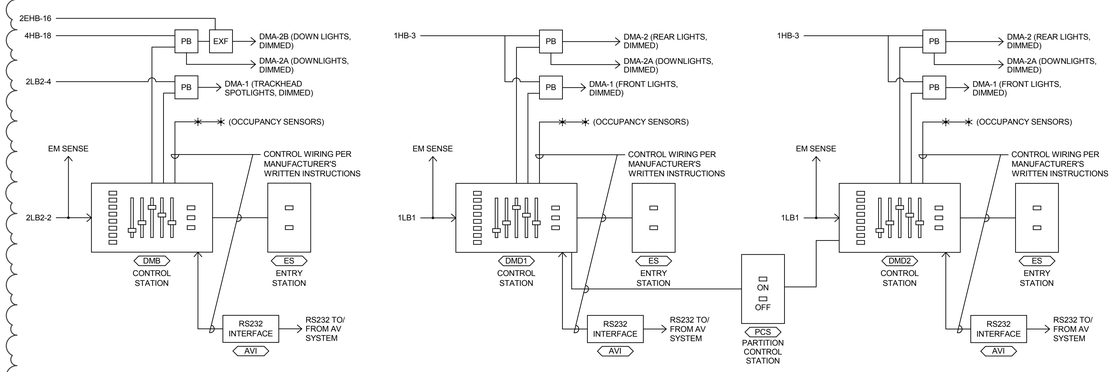
CLIMBING AND BOULDERING 203

DEVICE	CIRCUIT	LIGHTING ID	LOAD (WATTS)	CONTROL CHANNEL	COMMENTS
DMB	2LB2-4	TRACKHEAD SPOTLIGHTS (LED)	550	DMB-1	2KW LED DIMMER
	4HB-18	LED DOWNLIGHTS (LED)	918	DMB-2A	2KW LED DIMMER
	2EHB-16	LED DOWNLIGHTS (LED)	420	DMB-2B	2KW LED DIMMER ET
		SPARE		DMB-3	
		SPARE		DMB-4	
		SPARE		DMB-5	
		SPARE		DMB-6	

LOAD SCHEDULE

MEDITATION 112

DEVICE	CIRCUIT	LIGHTING ID	LOAD (WATTS)	CONTROL CHANNEL	COMMENTS
DMD1	1HB-3	FRONT LIGHTS	180	DMD-1	2KW LED DIMMER
	1HB-3	REAR LIGHTS	315	DMD-2	2KW LED DIMMER
		SPARE		DMD-3	
DMD-2	1HB-3	FRONT LIGHTS	135	DMD-4	2KW LED DIMMER
	1HB-3	REAR LIGHTS	135	DMD-5	2KW LED DIMMER
		SPARE		DMD-6	

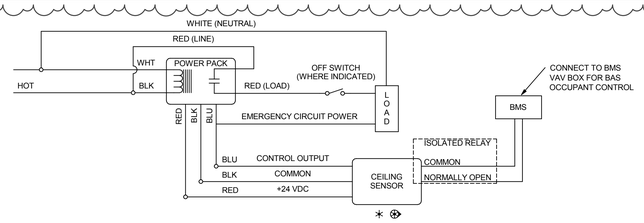


CLIMBING & BOULDERING LIGHTING CONTROL SCHEMATIC

9 SCALE: NTS

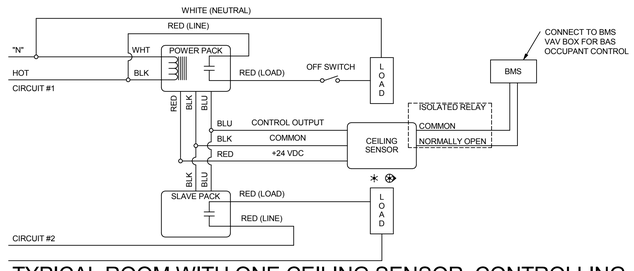
MEDITATION LIGHTING CONTROL SCHEMATIC

10 SCALE: NTS



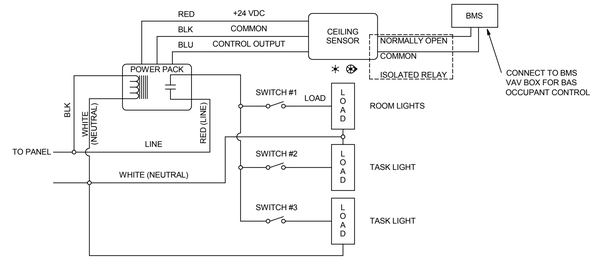
TYPICAL ROOM WITH ONE CEILING SENSOR, WITH OR WITHOUT WALL SWITCH

8 SCALE: NTS



TYPICAL ROOM WITH ONE CEILING SENSOR, CONTROLLING TWO CIRCUITS

7 SCALE: NTS

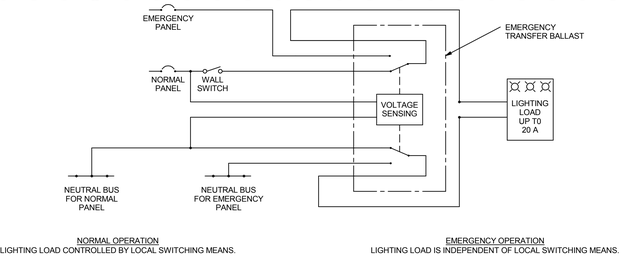


TYPICAL ROOM WITH ONE CEILING SENSOR, ONE CIRCUIT AND MULTIPLE SWITCHED LOADS

6 SCALE: NTS

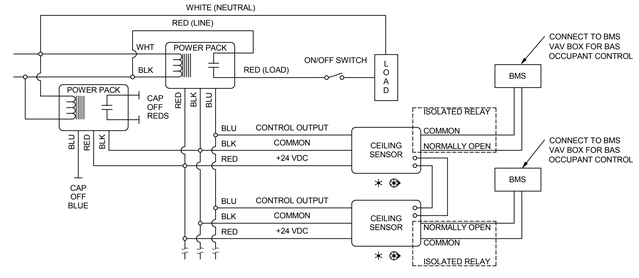
STUDENT COUNCIL CHAMBER LIGHTING CONTROL SCHEMATIC

4 SCALE: NTS



EMERGENCY LIGHTING TRANSFER DEVICE DETAIL

2 SCALE: NTS



TYPICAL ROOM WITH MULTIPLE CEILING SENSORS

3 SCALE: NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LIGHTING DETAILS

CONSTRUCTION DOCUMENTS

EL-502

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jxdi Master MKD.rvt

5/14/2012 11:01:09 AM

LIGHTING FIXTURE SCHEDULE

UVU STUDENT LIFE

NOTE TO BIDDERS: COMPLY WITH THE LIGHTING SECTIONS OF THE SPECIFICATIONS.
REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

LINEAR FLUORESCENT FIXTURES MARKED "HIGH EFFICIENCY" USE 32 WATT 3100 INITIAL LUMEN LAMPS WITH .77 BALLAST FACTOR ELECTRONIC BALLAST.
LAMPS: OSI "XPS" SERIES, PHILIPS "ADV" SERIES, GE "T8 ULTRA HIGH LUMEN",
BALLASTS; ADVANCE "IOP" SERIES, OSI " PROSTART PSX", GE ULTRASTART SERIES.

SYMBOL	MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER
	AS						
	AS-1	ADJUSTABLE RECESSED LED	LED (incl)	54W	277V	BETA LED	ESA-ADR-828-C-NDADJ-SSGC-FF-277-525-30K
		DOWNLIGHT; 8' APERATURE	3000K 85 CRI			KIRLIN	LRR 07515 NFL UNV 30
		WITH 21" X 21' X 10' DEEP HOUSING;					
		ELECTRONIC DIMMABLE DRIVER;					
		HIGH OUTPUT LED; 2800 LUM DELIVERED;					
		NARROW FLOOD OPTICS; VERIFY					
		AIMING IN FIELD WITH ARCHITECT					
	AS-2	ADJUSTABLE 3-HEAD, SEMI-	LED (incl)	60 W	277V	AMERLUX LTG	C3SR-3-16-LED-E-WT-277-(3)WFL-WT-3000
		RECESSED FIXTURE ASSEMBLY;	3000K 85 CRI			TIMESQUARE	LSA11R-3-572-SCBA
		3XLED HEADS, 800 LUMENS EACH;		(3X20W)		SPECTRUM LTG	RC618LED3X30W 35K WD E2 SCBA/AR0318 XX
		45 X 360 DEG ROTATION; WIDE FLOOD				RSA	C3 N W 30 LED E U X R SCBA SCBA
		OPTICS; OVERALL HOUSING DIMENSION					
		21" X 15" X 6" DEEP.					
	CM	STEEL LINEAR FIXTURES: LENGTHS AND CONFIGURATIONS SHOWN ON THE DRAWINGS; LAMPS FOUR FOOT WHERE POSSIBLE; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; INTERNAL CONCEALED FASTENERS; COLOR AS NOTED AND/OR APPROVED BY ARCHITECT; ORIENT FIXTURE ACCORDING TO ARCHITECTS/ ENGINEER'S INSTRUCTIONS. SWIVEL STEM MOUNT UNLESS NOTED OTHERWISE. INSTALL LEVEL AND STRAIGHT WITH INVISIBLE SPLICES. PROVIDE ALL REQUIRED HANGERS, SPLICERS, END CAPS, JOINTS, FEEDS, ETC., FOR A COMPLETE INSTALLATION, WHITE LOUVER FINISH.					
	CM-1	6"X 6 1/2" PROFILE,	2-F32T8	50W/4'	277/120V	LITECONTROL	W-ID-66N24T8K19-CWM-PST8-120/277
		WALL MOUNT, OPEN UP,	RE841			MARK	66W-DI-232T8-ET8PRS-UNIV-K19-MW-4'
		K19 LENS DOWN, INDIRECT/DIRECT,				NEORAY	88/2T8-S22-4-120/277PSEB
		4' MODULE.				PRUDENTIAL	P 60 D5 M5 2 04 T8 PROG START P19A UNIVOLT
		HIGH EFFICIENCY				PMC	S66-DIA-W-2/OCT-4-K19-WHT-EBSPEC-12/27
						LIGHTOLIER	SQ624BWL-UNV-PSX
						NATIONAL	S66-ID/D-232OCT-A-W-UEB-CBA
						AXIS	B6W-X-4-T8-1-1-M0-W-UNV-ERS-1
						DAY-O-LITE	PTP-DI-K19-1U1D-32T8-WM-4-SCBA-PROGST
	CF	FLUORESCENT DOWNLIGHT; THERMALLY PROTECTED HOUSING: TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF FLANGING TRIM UNLESS NOTED.					
	CF-1	RECESSED DOWNLIGHT; 6"	1-CF-A32	50W	277/120V	PORTFOLIO	C6132E-6151LI
		APERTURE, HORIZONTAL,	RE835			KIRLIN	RR80602-97
		26-32-42W CF-AMALGAM LAMP,				LIGHTOLIER	8031CLW/6132BU
		CLEAR				LITHONIA	AF 1/32TRT 6AR MVOLT
						OMEGA	OM6-1H-32PLT-CS-120/277
						PRESCOLITE	CFT632HEB-STF602H
						HUBBELL	D9132-120/277V-9ARW
						HEWILLIAMS	PH60-132T-CS-BH-120/277
	CF-2	RECESSED DOWNLIGHT; HORIZONTAL,	1-CF-A32	40W	277/120V	LITHONIA	LF6N-1/32TRT-F6LS73-MVOLT
		6" APERTURE, 32W CF-AMALGAM	RE835			LITON	LSH276A-132/LR14PW-WL
		LAMP, LENSED, WET LABEL;				HEWILLIAMS	PVSL60-132T-BH-120/277
		SHOWER LIGHT.				HALO	PD6H142 E 62H 1G C W HB128APK
						CAPRI	CM6-F126/32/42-U-H66P
	CF-3	RECESSED DOWNLIGHT;	2-CF-A32	76W	277/120V	LIGHTOLIER	8039 CLP-8242HU
		8 3/4" APERTURE, HORIZONTAL,	RE835			PRESCOLITE	CFT932HEB-STF902H
		2-32W CF-AMALGAM LAMPS,				PORTFOLIO	C8242E-8351L1
		CLEAR.				GOTHAM LTG	AF 2/32TRT 8AR MVOLT
						OMEGA	S82H32PLT-U-T82HPLT-CS
						HEWILLIAMS	PH75-232T-CS-BH-120/277
	CF-5	RECESSED WALL WASHER;	1-CF-A42	50W	277/120V	PORTFOLIO	C7142E-7111LI (13 X 11-1/2 X 6-1/2)
		6-7" APERTURE, HORIZONTAL	RE835			INFINITY	PH60 142T-EB (GX24Q-4) WW 277 BH
		LAMP, 1-42W CF-AMALGAM				LIGHTOLIER	8087CLW/7142BU (15 X 12-3/4 X 7-3/4)
		LAMP, CLEAR CONE.				LITHONIA	AFW 1/42TRT 6AR MVOLT
						PRESCOLITE	CFT632HEB-STF602HWW
						OMEGA	S61H42PLT-U-T61H-WW-CS
	CF-16	WALL-MTD DOWNLIGHT; 9"	(2)-CF-A32	100W	277/120V	PORTFOLIO	
		APERTURE, OVERALL DIM.	RE835			KIRLIN	FSR 12053 WB MV SCBA
		11" DIA X 12' H; HORIZONTAL				LIGHTOLIER	CW8242HUCL-CBA
		(2) 26-32-42W CF-AMALGAM LAMP,				OMEGA	OM82H32PLT-WC-CSFF
		CLEAR REFLECTOR;				HE WILLIAMS	PHC11/85-232T-CC-CS-WM-EB2-UNV
		CUSTOM COLOR BY ARCHITECT				PRESCOLITE	CFW932EB-UNV-CBA
						GOTHAM	CF11-2/32TRT 10AR MVOLT WM
	DC / DW	LED LINEAR SYSTEMS, CEILING AND WALL, RECESSED AND SURFACE VERSIONS REQUIRED; WHERE A CEILING ROW CONTINUES TO AND DOWN A WALL, PROVIDE CONTINUOUS CORNER-PIECE TRANSITION FOR ONCE CONTINUOUS SYSTEM. FOR COMPLETE INFORMATION,INSTALLER IS REQUIRED TO REVIEW ALL LIGHTING AND ARCHITECTURAL PLANS, SECTIONS, ELEVATIONS AND DETAILS. DETAILED FACTORY SHOP DRAWINGS ARE REQUIRED FOR EACH LENGTH AS PART OF THE SUBMITTAL.					
	DC-1	LINEAR DIRECT, RECESSED LED	LED (incl.)	45 W	277V	AXIS LTG	BMRLED-M-FL-XX-1000-3500K-W-277-D
		LIGHT FIXTURE; 3.5"W X 4" DEEP X	3500K	per 4'		NEO-RAY	22DR 100 L35 SR XX 277 DD/S92HT
		LENGTH AS SHOWN ON DRAWINGS;					
		HIGH-EFFICIENCY MICRO LENS;					
		SPACKLE FLANGE FOR USE IN GYP					
		BOARD CEILINGS; 1000 LUM/FT.					
		DIMMABLE DRIVER					
	DW-1	LINEAR DIRECT, RECESSED LED	LED (incl.)	45 W	277V	AXIS LTG	BMRLED-M-FL-XX-750-3500K-W-277-D
		LIGHT FIXTURE; 3.5"W X 4" DEEP X	3500K	per 4'		NEO-RAY	22DR -750 L35 XX 277 DD/S92HT
		LENGTH AS SHOWN ON DRAWINGS;					
		HIGH-EFFICIENCY MICRO LENS;					
		SPACKLE FLANGE FOR USE IN GYP					
		BOARD WALLS; 750 LUM/FT.					
		DIMMABLE DRIVER					
		CONTINUOUS WITH DC-1 CEILING					
		FIXTURE WHERE INDICATED ON					
		DRAWINGS. TRANSITION TO SURFACE-MOUNTED					
		PIECES ARE REQUIRED PER ARCHTECTURAL					
		DETAILS AND ELEVATIONS.					
	DF	DIRECT FLUORESCENT LIGHTING; MOUNTING AND STYLE AS INDICATED					
	DF-1	LINEAR FLUORESCENT "STICK"	1-F54T5HO	60W	UNV	DELRAY	ST44154.440-SAC
		LIGHT; ALUMINUM HOUSING WITH	RE835			ARCH. LIGHT	LPLD-XX-FHO-R-STD-UNV-LV-CBA
		SPECULAR LOUVERS; IN ROW				WORKS	
		LENGTHS AS INDICATED					
		ON DRAWINGS; SURFACE OR CABLE					
		MOUNTED AS REQUIRED.					
		2.5"W X 4"D X 48" LONG;					
		1-LAMP T5HO					
	DF-2	LINEAR FLUORESCENT "STICK"	1-F28T5	30W	UNV	DELRAY	ST54128.440-SAC
		LIGHT; ALUMINUM HOUSING WITH	RE835			ARCH. LIGHT	LPLD-XX-FSO-R-STD-UNV-LV-CBA
		SPECULAR LOUVERS; IN ROW				WORKS	
		LENGTHS AS INDICATED					
		ON DRAWINGS; SURFACE OR CABLE					
		MOUNTED AS REQUIRED.					
		2.5"W X 4"D X 48" LONG;					
		1-LAMP T5 STANDARD OUTPUT.					
	E9	EXIT SIGN: METAL HOUSING; CEILING MOUNT, SEE DRAWINGS; ARROWS PER PLANS; LED LAMPS;EMERGENCY BATTERY PACK WITH 10 YEAR PRO-RATA WARRANTY; SELF-TESTING; EDGE LIGHTED CLEAR LENS; GREEN LETTERS ON CLEAR BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. UNITS SHOWN ARE CEILING MOUNT MODELS. CONTRACTOR TO PROVIDE MATCHING WALL MOUNTED UNITS WHERE REQUIRED.					
	E9-1	SINGLE FACE:	LED	20W	120/277V	DUAL-LITE	CVER1GNE
						EELP	EDG 1 GC W EM
						LITHONIA	EDGR W 1 GMR EL
						ISOLITE	EDGL-EM-S-S-G-BK (BLACK HOUSING)
						CHLORIDE	STELX-X-1-SC-X
						EXITRONIX	902-WB-GC-SCBA
						LIGHTOLIER	LEEC1GCX
						SURE-LITES	ES7 1 70 S X G X
	E9-2	DUAL FACE:	LED	20W	120/277V	DUAL-LITE	CVER2GNE
						EELP	EDG 2 GC W EM
						LITHONIA	EDGR W 2 GMR EL
						ISOLITE	EDGL-EM-D-S-GM-BK (BLACK HOUSING)
						CHLORIDE	STELX-X-2-SC-X
						EXITRONIX	903-WB-GM-SCBA
						LIGHTOLIER	LEEC2GC7
						SURE-LITES	ES7 2 70 S X G X
	E9-W	SINGLE FACE;	LED	2W		DUALITE	SEWL-S-G-W
		OUTDOOR NEMA 4X RATED				LITHONIA	LV S W 1 G 120/277
		EXIT SIGN				LIGHTOLIER	LWL2NUGW-SD2T
						KENALL	UX6 0 95 G X
						MCPHILBEN	60MLA-1-G-W
						EXITRONIX	NAV-NC-G-S-SCBA
	EP	EQUIPMENT ROOM LIGHTS: COMPACT FLUORESCENT VAPORTIGHT; COPPER-FREE CAST ALUMINUM BODY AND GUARD; CAST ADAPTERS FOR MOUNTING AS NOTED, CLEAR TEMPERED GLASS GLOBE, U.L. LISTED FOR USE IN WET LOCATIONS.					
	EP-1	WALL ARM MOUNT ON FLUSH	1-CF32A	40W	120-277	SPERO	VW15-41-G-VB32-CF
		OR RECESSED OUTLET BOX.	RE841			D'AC	D1010-1F32-UEB-SCBA
						EXCELINE	RLW32HFLCGC1
						RIG-A-LITE	VP-WB-1-32-F-MT
						DAYBRITE	VFN-32-C-U-W-PG
						GUTH	VPW-32T
						LITHONIA	VW42L M6
						TMS	69-X-F-WF-32-UNV-G-GSC
						TRACELITE	TL802-CF-32-120/277-2W
						ARK	AVW31 120
	EP-2	SURFACE MOUNT ON FLUSH	1-CF32A	40W	120-277	SPERO	VS15-41-G-VB32-CF
		OR RECESSED OUTLET BOX.	RE841			D'AC	D8010-1F32-UEB-SCBA
						EXCELINE	RLW32HFLCGC6
						RIG-A-LITE	VP-C-1-32-F-MT
						DAYBRITE	VFN-32-C-U-C-PG
						GUTH	VPC-32T
						LITHONIA	VC42L M6
						TMS	69-X-F-CF-32-UNV-G-GSC
						TRACELITE	TL802-CF-32-120/277-2B
						ARK	AVB31 119
	ET	TRANSFER DEVICE FOR FLUORESCENT BALLASTS, LOCATE ON FIRST EMERGENCY FIXTURE IN ROOM PER CIRCUIT TO TRANSFER EMERGENCY PORTION OF CIRCUIT TO EMERGENCY FEED, CONNECT TO NORMAL SIDE FOR SENSING, AND TO BOTH NORMAL FEED AND EMERGENCY CIRCUIT. USE 2 POLE FOR NORMAL CIRCUITS AND 3 POLES FOR DIMMED CIRCUITS.					
		CIRCUIT LEVEL TRANSFER DEVICE				BODINE	GEN-20
		20A MIN RATING;				NINE24inc	BLTC-X
						LIGHTGUARD	LIGHTSTAR SERIES
						CHLORIDE	LIGHTSTAR SERIES
						IOTA	ETS
						DUALITE	ATSD20
						SIDE-LITE	SB20
	G	INDIRECT TROFFERS: RECESSED FOR LAY-IN GRID; HINGED FLUSH STEEL DOOR WITH LATCH; EARTHQUAKE CLIPS, PROGRAM START ELECTRONIC BALLASTS; LONG COMPACT FLUORESCENT LAMPS; ONE BALLAST PER FIXTURE, 100-10% DIMMING BALLAST WHERE SHOWN.					
	G-1	2X4, 2-LAMP; FLAT CENTER,	2-F32T8	50W	277/120V	LIGHTOLIER	SKS2GPK232UNV-PROGRAM START-0.77BF
		ANGLED SIDES, ACRYLIC LENS;	RE835			FINELITE	HPR-1-2X4-DCO-2T8-UNV-XX-XX-PS-0.77BF
		HIGH PERFORMANCE (80% - 85%				LEDALITE	3324-D1-ST-T232-S-XX-UNV-PRGRM-.77
		FIXTURE EFFICIENCY)				AXIS	DIA24-VL-T8-2-UNV-E-1-TB.77
		PREMIUM EFFICIENCY LAMPS/BALLAST;				PINNACLE	CJ24A-2T8-GX-UNV-1C-W-.71PS
		MUST SUBMIT PHOTOMETRIC REPORT				DAYBRITE	2STG232-D-UNV-1/2EB10R (.77BF)
		FOR APPROVAL.				CORELITE	Z3 W L 2 T8 1 UNV 24 T1
	G-1F	SAME AS G-1, FLANGE-MOUNTED					
	G-2	1X4, 2-LAMP; FLAT CENTER,	2-F32T8	50W	277/120V	DAYBRITE	1ST-G-232-D-UNV-EB-PRGRMSTART-.77
		ANGLED SIDES, ACRYLIC LENS;	RE835			PINNACLE	CJ14A-2T8-GX-UNV-1C-W-PRGRMSTART-.77
		HIGH PERFORMANCE (80% - 85%				LEDALITE	3314-D1-ST-T232-S-1-UNV-E (.77BF)
		FIXTURE EFFICIENCY)				AXIS	DIA14-VL-T8-2-X-UNV-E-1-TB.77
		PREMIUM EFFICIENCY LAMPS/BALLAST;				PINNACLE	CJ14A-2T8-GX-UNV-1C-W-.71PS
		MUST SUBMIT PHOTOMETRIC REPORT				FINELITE	HPR-A-1X4-DC0-2T8-UNV-SC-XX-PS.77
		FOR APPROVAL.				CORELITE	Z3 W L 2 T8 1 UNIV 14 T1
	G-4	2X2, 2-LAMP; FLAT CENTER,	2-T524H0	60W	277/120V	DAYBRITE	
		ANGLED SIDES, ACRYLIC LENS;	RE835			PINNACLE	CJ22A-2T5HO-GX-UNV-1C-W
		HIGH PERFORMANCE (80% - 85%				LEDALITE	
		FIXTURE EFFICIENCY)				AXIS	DIA22-VL-T5HO-2-W-UNV-ERS-1-X
						CORELITE	Z3 W L 2 T8 1 UNIV 22 T1
						DAYBRITE	2STG224HO-D-UNV-1/2EB
	G-6	6"X4', 1-LAMP; FLAT LENS;	1-F32T8	30W	277/120V	AXIS	B6R-F-FL-XX-T8-1-W-UNV-XX
		COMPATIBLE WITH TEK-ZONE	RE835			PINNACLE	ETA-1T8-4-GX-UNV-1C-W-.71PS
		CEILING SYSTEMS;				HEWILLIAMS	LL6-G-4-128T5S-S-W-F-AF125-EB8P1-UNV
		PREMIUM EFFICIENCY				LITECONTROL	NG/LG D 66TZ14T8 SGL CWT X LP/ELB ADVANCE IOP .77BF
						PMC	266-R-D-T(TEK-ZONE)O1T8-4-WOA/FA-WHT-UV-PSEB.77
						PRUDENTIAL	P63-1T8-XX-WA-XX-UNV-TEKZONE-10THD
	G-8	4"X4', 1-LAMP; FLAT LENS;	1-F32T8	30W	277/120V	PINNACLE	E4A-1T8-XX-FL-UNV-1C-W-XX
		CONTINUOUS ROWS AS INDICATED;	RE835			PAL	MLR3-1-*-OF-YK-TWA-VOLT-T8-PROGST
		VERIFY MOUNTING STYLE WITH				AXIS	BBR-S-FL-4-T8-1-M0-W-ERS-1-X
		CEILING TYPE				LITECONTROL	NG/LG D 44TZ 14T8 SG6 CWT X LP/ELB ADVANCE IOP .77 BF
		PREMIUM EFFICIENCY				NEO-RAY	23D R 1 T8 X U EB S1 S93 HT
	HE	RECESSED HID DOWNLIGHTS: ELLIPSOIDAL REFLECTORS; HIGH POWER FACTOR BALLASTS; BOTTOM ACCESS REQUIRED; PREMIUM SILENT PACK BALLASTS; FUSED; PROVIDE TEMPERED GLASS SHIELD FOR METAL HALIDE AND OTHER LAMPS THAT REQUIRE END OF LIFE PROTECTION; COATED LAMPS ONLY.					
	HE-3	7-10" APERTURE; CLEAR	150PSMH	200W	277/120V	PORTFOLIO	M7815T-750F-55850BA-PULSE START (16 1/2")
		REFLECTOR; OPEN DOWNLIGHT.	COATED			OMEGA	OM8-150ED17MH-ND-XX-CS-FZ
						HUBBELL	LE512-120/277V-F/384W-150PSMH (17" DEPTH)
						PRESCOLITE	1061M9-150PSMHFE-830L-MT GLR (16")
						KIRLIN	RR50707-OG-97-43 (14 5/8")
						SPECTRUM LTG	SGD8MH 150 E2 ED17 ND CB24 AR8044
						INDY	3150MP-BKB-F-PULSE START
						LIGHTOLIER	EL8MG/EL8B17HBFX150PS (16 1/4")
	LD	LED LIGHTING: COMPLY WITH IES LM-79 AND 80 TESTING REQUIREMENTS.					
	LD-1	RECESSED DOWNLIGHT; 6"	LED	25W	277/120V	PORTFOLIO	LD615-835-DLUT-4LS50-H
		1500 DELIVERED LUMEN PACKAGE	35K			VANTAGE	A6VLED-X-2000L-3500K-L6060SCL
		SEMI-SPECULAR REFLECTOR;	incl.			PRESCOLITE	LF6LED-6LFLED535KWT
		3500K; 25 WATT;				BRUCK	WILA# 621 663 WH80 LUD
		1% -100% DIMMABLE				LIGHTOLIER	C6L1520DL35KWCCLW / C6L15NX
						FOCAL POINT	FL6D-20LED-L35-UNV-RO-T-L6RO-DN-CD-WP
						GOTHAM LTG	ALED 35/14 6AR 277 ECOS3
						OMEGA	OM6LED27-VOLT-R6LED-35K-MD-CSS
	LD-2	RECESSED DOWNLIGHT; 4"	LED	25W	277/120V		
		1000 DELIVERED LUMNE PACAKGE	35K			VANTAGE	A4VLED-X-2000L-3500K-L4040SCL
		SEMI-SPECULAR REFLECTOR;	incl.			FOCAL POINT	FL4D-13LED-L35-UNV-RO-T-L4-RO-DN-CD-WP
		3500K; 20 WATT;				GOTHAM LTG	ALED 35/10 6AR 277
						OMEGA	0M4LED20XX-R4LED35KCSS
	LD-10	LED LINEAR COVE SYSTEM;	LED	8W/FT	277/120V	LITECONTROL	SC-AL-L16-XX-35K-TCWM-277V-HPR
		SURFACE-MOUNTED; 4.5" X 1" X	35K				
		LENGTH INDICATED; 500 LUMENS				CONTRACTOR ALLOWANCE: $807.00 PER 4' SECTION	
		AND 8 WATTS PER FOOT				NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS	
		ASYMETRIC DISTRIBUTION				MAY BE APPROVED PROVIDING THEY ARE EQUAL IN	
						APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER,	
						THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
	LD-12	LED LINEAR WALL-MOUNT FIXTURE;	LED	10-W/FT	277/120V	ARCHITECTURAL	LPW2.2-W5-W5-X-277-LENS-CBA-X
		SURFACE-MOUNTED;	35K			LIGHTING WORKS	
		LENGTH INDICATED;					
		UP/DOWN LIGHT DISTRIBUTION				CONTRACTOR ALLOWANCE: $765.00 PER 4' SECTION	
		5 WATTS PER FOOT TOP AND BOTTOM				NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS	
		(10 WATTS PER FOOT TOTAL)				MAY BE APPROVED PROVIDING THEY ARE EQUAL IN	
		INTEGRAL DRIVER				APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER,	
						THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
	LD-13	LED LINEAR WALL-MOUNT FIXTURE;	LED	5-W/FT	277/120V	ARCHITECTURAL	LPW2.2-W5-N/A-X-277-LENS-CBA-X

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

LICENSED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

THE GREAT SEAL OF THE STATE OF UTAH 1896

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FIXTURE SCHEDULE

CONSTRUCTION DOCUMENTS

1 EL-601

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:01:10 AM

	SURFACE-MOUNTED; LENGTH INDICATED; UP LIGHT DISTRIBUTION ONLY 5 WATTS PER FOOT. INTEGRAL DRIVER	35K			LIGHTING WORKS CONTRACTOR ALLOWANCE: $520.45 PER 4' SECTION NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID		
LD-15	LED LINEAR TAPE LIGHT; SURFACE-MOUNTED; 2.5 W/FT LENGTH INDICATED; PROVIDE POWER SUPPLIES AND ALL REQUIRED ACCESSORIES AS REQUIRED; COORDINATE WITH ARCHITECTURAL DETAILS	LED 35K	2.5W/FT	277VAC- 24VDC	BARRON	RFX-WW-XX-24- CONTRACTOR ALLOWANCE: $27.50 PER FOOT NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
OB	BOLLARDS: WITH MOUNTING BASE AND ANCHOR BOLTS, ACRYLIC LENS, INTEGRAL MULTI-TAP BALLAST; FUSED, COLOR AS DIRECTED BY ARCHITECT CHOSEN FROM MANUFACTURERS' STANDARD PAINTED FINISHES.						
OB-1	8" ROUND X 42" HIGH, CONCRETE SHAFT LIGHTED BOLLARD; 25W LED; TYPE 5 DISTRIBUTION	LED 3500K	25W	MTBV	KIM VISIONAIRE	VRB2C-20L-3K-UV-CBA EDS-1A-HZG-20-55KL-LED-UNV-AB-CBA	
OC	WALL PACK: ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING: WET LOCATION: STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.						
OC-32	LED, ARCHITECTURAL STYLE WITH TRAPEZOID TOP; FULL CUT-OFF; TYPE 3 DISTRIBUTION RECESSED J BOX.	54-LED 6K	87 W	277/120V	HUBBELL MCGRAW GARDCO LITHONIA TRACELITE	TRP-50L8-5K-WT-BL IST C02 LED E1 BL3 SCBA 101L-3-55LA-NW-UNIV-CBA WST LED 2 10A700/40K SR3 MVOLT DDBXD TLED110A-48-DT	
OJ	RECESSED WALL STEP AND WALK LIGHTS; 3- 4 1/2" RECESSING DEPTH; WELDED STEEL HOUSING; DIECAST LOUVERED FACEPLATES; FACEPLATES FINISHED IN TEXTURED FINISH PER ARCHITECT, FULLY GASKETED; WET LABEL; TYPES AND WATTAGES AS INDICATED.						
OJ-1	LED STEPLIGHT FOR MASONRY INSTALLATION, SIZED FOR ONE MASONRY BLOCK 2.5" X 11.75" X 4.25" DEEP LED WITH CLEAR FLAT GLASS LENS IP64	LED 3000k	15W	277V	BEGA COLE LUMUX LTG AMERLUX FC LIGHTING	2192LED SLV L509-10.8W/645 LUMNES SL600-X PSLT12-A-CBA-2F30 FCSL101-UNV-LED-E-CBA	
OL	OUTDOOR LIGHTING; UL LISTED FOR WET LOCATIONS						
OL-1	RECESSED IN-GROUND FLUSH LANDSCAPE UPLIGHT; 8.5" DIA. X 12" DEEP HOUSING; 15 DEGREE ADJUSTABILITY; LED; LOUVERED	LED 3000K	25W	MVOLT	HYDREL LUMASCAPE WE-EF	PDX10-BSS-22LED-WMW-MVOLT-SP- FLCAS-34S-IHL-LPI LS853LED-20H6-X-N-82-N-29-Q-4 ETC-140-GB-LED	
OL-2	LINEAR DIRECT, RECESSED LED LIGHT FIXTURE; 3.5"W X 4" DEEP X LENGTH AS SHOWN ON DRAWINGS; HIGH-EFFICIENCY MICRO LENS; SEALED AND GASKETED WITH UL WET LOCATION LISTING. FIXTURE SHALL HAVE SPACKLE FLANGE AND BE FOR USE WITH HARD CEILINGS. VERIFY ROW INFORMATION WITH ARCHTECTURAL DETAILS	LED (incl.) 3500K	45 W per 4'	277V	AXIS LTG	BMRLED-M-FL-XX-750-3500K-W-277-R-1-DS CONTRACTOR ALLOWANCE: $595.00 PER 4' SECTION NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
OW	OUTDOOR WALL-MOUNTED LIGHTING; IP65 RATED; UL LISTED FOR WET LOCATIONS						
OW-1	WALL-MOUNTED UP/DOWN LIGHT; 8" DIA X 11"H MAX DIMENSIONS X 12" DEEP HOUSING; DUAL WIDE BEAM 70W MH LAMP	70MHT6 3000K	80W	MVOLT	BEGA LUMASCAPE PACE	6620MH W2D280-MHC70-UNV-CBA EUDC U/D 8 100MHT6 3000K SCBA WAM	
OW-2	WALL-MOUNTED /DOWN LIGHT; 8" DIA X 11"H MAX DIMENSIONS X 12" DEEP HOUSING; 15 DEGREE 1-32CFL LAMP	1-CF32A RE835	40W	MVOLT	BEGA PRISMA PACE	6585P 074448-CBA EDTC/ 8 PLT32 X SCBA WAM	
OW-3	ADJUSTABLE ARM-MOUNTED WALL LIGHT; DECORATIVE DIE-CAST ALUMINUM HOUSING; MOVEABLE SUPPORT STRUT AND WALL FITTER MOUNT DIRECTED UPWARD 150WMH	150MH 3000K	160W	MVOLT	BEGA LIGMAN LTG	6823MH FS U90032 CMH DE 150W X SCBA	
RC	RECESSED WALL SLOT LIGHTING; LENGTHS AND CONFIGURATIONS AS SHOWN ON DRAWINGS; FIELD VERIFY LENGTHS AND MOUNTING CONDITIONS PRIOR TO INSTALLATION.						
RC-1	6" X 6" CONTINUOUS WALL SLOT; 1-LAMP T5HO LAMP; PROVIDE NECESSARY HARDWARE AND ACCESSORIES FOR MOUNTING IN GYP BOARD CEILINGS	1-F54T5HO RE835	60W per 4'	UNV	LITECONTROL LIGHTOLIER PMC LINEAR	2114-T5HO-TCWM-LP/ELB PTS5-1-H-0-UNV S3061-D-FL-1/T5HO-XX'-MWA-WHT-UNV WW4-D-1-ET5HO-UNV-NS-R-BW-NO4015	
S	FLUORESCENT STRIP LIGHT: STEEL CONSTRUCTION; WHITE PAINTED FINISH; SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
S-1	3.5" X 3" X 4' SURFACE-MOUNTED 2-LAMP T5HO WITH PERFORATED SYMMETRICAL REFLECTOR AND ARCHITECTURAL GALVANIZED WIRE GUARD; 2-BALLASTS PER 4' FOR DUAL-LEVEL SWITCHING	2-F54T5HO RE835	120W per 4'	277/120V	PRUDENTIAL LIGHTOLIER BIRCHWOOD	PT5-SRP/WG-2T5HO-4'-GLV-DUAL BALLAST SV2S254-UNV-(2)PG/SV5R14WSPER/WG WP2T5HO-S-UNV-2EB-154-LPG-SR(PERF)	
S-2	4', 2-LAMP; WITH WIRE GUARD HIGH EFFICIENCY	2-F32T8 RE835	50W	277/120V	LITHONIA LIGHTOLIER METALUX HEWILLIAMS DAYBRITE HUBBELL COLUMBIA	C232-MVOLT-TUBRHP-WGCUN SW232-U-SOP-W SS-232-UNV-PROGRAM START-WG 76-4-232-EB8PX2*OS-UNV-WG T232-UNV-1/2-EB-SPEC-WG C232UPS-WG CS4-232-EB8120/277 PROG-WG	
S-3	4', 2 LAMP; INDUSTRIAL REFLECTOR HIGH EFFICIENCY BALLAST. PROVIDE TANDEM MOUNTING WHERE 8' OR OTHER CONTINUOUS LENGTHS ARE SHOWN.	2-F32T8 RE835 3100 LU	48W per 4'	277/120V	LITHONIA LIGHTOLIER METALUX LSI COLUMBIA HEWILLIAMS DAYBRITE	EJ232-MVOLT-TUBRHP-THUN KWS232-U-SOP IC-232-UNV-PROGRAM START F22 232 SSO10PRS CH-12 UE CSR4-232-EB8120/277 PROG-CSTH 80-4-232-EB8P2-UNV IS232-UNV-1/2-EB-SPEC	
S-4	4', 1-LAMP; NARROW. 2.5" WIDE HIGH EFFICIENCY	1-F32T8 RE835	25W	277/120V	LITHONIA LIGHTOLIER METALUX HEWILLIAMS DAYBRITE HUBBELL COLUMBIA	S132-GEB SN132 S132 75-4-132 N13-UNV-1/1EB10R S132UPS CS4132	
S-5	4', 1-LAMP STAGGER-STRIP HIGH EFFICIENCY BALLAST.	1-F32T8 RE835 3100 LU	25W	277/120V	LITHONIA LIGHTOLIER METALUX LSI COLUMBIA HEWILLIAMS DAYBRITE	SS132-MVOLT-TUBRHP STG-132-U-SOP SSL-132-UNV-PROGRAM START STG 132 SSO10PS UE SS4-132-EB8120/277 PROG 74-4-132-EB8P1-UNV SS132-UNV-1/2-EB-SPEC	
S-9	4', 1-LAMP STAGGER-STRIP WITH LENS; APPROX. 3.5"Wx4"H; RECESSED FLANGELESS WITH STUD MOUNTING; COORDINATE WITH ARCHITECTURAL DETAILS; HIGH EFFICIENCY BALLAST. CORNER TRANITION PIECES REQUIRED	1-F32T8 RE835 3100 LU	25W per 4'	277/120V	AXIS NEORARY ZUMTOBEL PINNACLE	BMRF-FL-XX-T8-1-W-UNV-XX-CBA FLANGLESS WITH STUD MOUNTING 23DR1T8SIR-X-U-EB-S1-S93HT SCON4-EB-1T8-XXXX.XX-P-W-UNV ES4A-1T8-XX-SF-UNV-1C-W	
SS	HIGH-BAY FLUORESCENT LIGHTING						
SS-2	18"W X 4' X 3' DEEP; MONO-POINT MOUNTED; HIGH OUTPUT T5 LAMPS WITH CLEAR ACRYLIC LENS AND INTEGRAL WIRE GUARD; MULTIPLE BALLASTS FOR 50%-100% DUAL-LEVEL SWITCHING; VERIFY MOUNTING REQUIREMENTS AND PROVIDE ALL NECESSARY ACCESSORIES.	6-F54T5HO RE835	365W	277/120V	LITHONIA LA LIGHTING HEWILLIAMS METALUX	IBZ-654L-NDU-ACLWG-MVOLT-LP835A WITH IBZPMP HBI600-6-4M-SR-CA-HUB-WG11-2/4E5H-UNV GL-4-654T5H-SCHA118-WG11-EB8P3/3-UNV HBE 6 54T5 X CL UNV EBT 2 HBL SPM	
TH	TRACK AND TRACK LIGHTS: LENGTH OF TRACK AND NUMBER OF FIXTURES AND ACCESSORIES AS SHOWN ON DRAWINGS. TRACK FEEDENDS, DEADENDS, TURNS, HANGING DEVICES, ETC., ARE AS REQUIRED TO INSTALL TRACKS AS SHOWN ON DRAWINGS AND/OR SPECIFIED, IN COMPLIANCE WITH NEC 410-104. INSTALLERS ARE CAUTIONED TO ENSURE TRACK HEADS AND TRACK ARE COMPATIBLE (I.E., ADAPTER FOR TWO CIRCUIT TRACK WHERE REQUIRED).						
TH-99	FLOOD LIGHT; LINE VOLTAGE 50W LED; 30 DEG SPOT 6" DIA X 8" L HEAD MAX. HEAVY DUTY; MONO-POINT MOUNTING	50W LED INCL.	60W	120V	ALTMAN LUMENTON ETC LUMENPULSE	SSW-IQ38-50-XX-XX AG59/N6483L-120-CBA SELD40DI-1A/DPA-A/400L/400CC SELO3070-7.5 LBM 120 X FL X SCBA	
	DIRECT CONNECTION TO STRUCTURE AND CORD/CONNECTOR ARRANGEMENT MAY BE PROPOSED. ADAPT TO MOUNT ON VERTICAL SURFACE						PROVIDE WITH SPREAD LENS AND HONEYCOMB LOUVER
TX	DECORATIVE LUMINAIRE AS DESCRIBED. APPEARANCE IS CRITICAL; APPROVAL REQUIRED.						
TX-1	PROTECTIVE TUBE LUMINAIRE; APPROX. 3" DIA. X 68" LONG; 1-T8 LAMP	1-F32T8 RE835 3100U	30W	277/120V	WALDMAN	RL70E-132X CONTRACTOR ALLOWANCE: $465.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
TX-2	HANGING BOX LIGHT; APPROX 24" X 24" X 8"H; ENLOSED WHITE ACRLIC LENS; FLUORESCENT LAMPING	2G13 1-T5-R55 RE835	85W	277/120V	DELTALIGHT	JETI PLANO H-160-C-27154-160 CONTRACTOR ALLOWANCE: $1,239.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
TX-3	PENDANT FOR MAIN LOBBY: 60" DIA DISK, PENDANT MOUNTED RING WITH SOLID OUTER FINISH AND LED GLOW INNER DIFFUSER; WARM LED CUSTOM STEM LENGTH	LED 4100K		277V	DELRAY	6705-WW-CBA-277 CONTRACTOR ALLOWANCE: $3,065.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
TX-4	WALL SCONCE; MASSAGE ROOM 11" W X 18" X 4" DEEP LIGHT CUBE; 2X26W CFL - DIMMABLE; ADA COMPLIANT	2-26CFL	55W	277V	EUREKA	PHAROS 3226-2XCFD.26-277-DM1 CONTRACTOR ALLOWANCE: $262.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
UC	UNDERCABINET LIGHT: LOW PROFILE X 5 1/4"DEEP X LENGTH AS NOTED; ACRYLIC DIFFUSER.						
UC-9	34 1/2" LONG; PREMIUM T5 LAMP; W/ROCKER SWITCH; ASSYMETRIC PRISMATIC LENS	F21T5	25W	120V	ALKCO LIGHTOLIER METALUX CREATIVE ILLUMINATION DURAY MANF DAYBRITE HEWILLIAMS	SFHP-121/BW/RSW TSF-1-21-W-UNV-PG-BPR SFCL-0813T5-EB-UNV T226F-121-XV GLI121 5UC121-S-120-1/1EB10R-LTP835-RS 1SF-21-1-2/1T5S-EB8P1-UNV	
V	VANDAL RESISTANT SURFACE MOUNTED LIGHTING: .125" INJECTION MOLDED POLYCARBONATE LENS; IMPACT RESISTANT; UV STABILIZED; ALL METAL PARTS ARE ENCLOSED; GASKETED; VANDAL RESISTANT STAINLESS STEEL SCREWS; SECURED MOUNTING; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS.						
V-11	4', 2-LAMP WITH PRISMATIC ROUNDED LENS; 5.5" X 5.5" X 48" 20 GAUGE STEEL. HIGH EFFICIENCY BALLAST. IP65 RATED; WET LOCATIONS SURFACE OR PENDANT MOUNTED.	2-F32T8 RE841 3100 LU	48W	277/120V	KENALL LA LIGHTING NEW STAR LTG MORLITE	ES5-48-232-SB-2-DV-2H-AP-PM-WW WSE200-2-4R-WR-WL-2E5H-UNV-PENDANT VIC4N-2-32-RC-UN-PENDANT VLP7-S-4-232-EB10R-UNV-1/2-PM	
W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS WRAPAROUND ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
W-3	MEDIUM BODY WRAPAROUND; 2-LAMP, APPROX; 3" X 10" X 48". HIGH EFFICIENCY	2-F32T8 RE841 3100 LU	65W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI HEWILLIAMS COLUMBIA	LB232-MVOLT-TUBPHP CAN232-UNV-1/2-EB-SPEC WS-232A-UNV-PROGRAM START WA232-U-SOP PR 232 SSO10PRS UE 17-4-232-A-EB8P2-UNV WC4-232-EBPS120/277	
WF	WALL FLUORESCENT LIGHTING						
WF-1	NARROW BODY SURFACE-MOUNT WALL LIGHTING; APPROX. 3" X 2.5" X 48" LONG; STEEL HOUSING WITH EXTRUDED ACRYLIC WHITE LENS 2-T8 LAMPS; HIGH-EFFICIENY	2-F32T8 RE841 3100 LU	50W	277/120V	PRUDENTIAL ARCHITECTURAL LIGHTING WORKS	S1-2T8-04'-SAL-YSL-UNV-SUR TRPW 8 MOD: 2F32T8 ADVANCE IOP .77BF UNV	
WF-18	NARROW BODY SURFACE-MOUNT WALL LIGHTING; APPROX. 3" X 2.5" X 96" LONG; STEEL HOUSING WITH EXTRUDED ACRYLIC WHITE LENS 1-T8 LAMP; HIGH-EFFICIENY	2-F32T8 RE841 3100 LU	50W	277/120V	PRUDENTIAL ARCHITECTURAL LIGHTING WORKS	S1-1T8-08'-SAL-YSL-UNV-SUR TRPW 8 MOD: 2F32T8 ADVANCE IOP .77BF UNV	
WF-2	3.5" X 4'H X 2.75" D SEMI-RECESSED WALL SCONCE; VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT HEIGHT AND MOUNTING REQUIREMENTS	1-FP28 RE835	25W	277/120V	LUMENART LTG VISA	ILLL-36-28W-NW-XX-FR-SN OW1602-1FS28-PTD	
WF-5	NARROW-PROFILE WALL-MTD LIGHT WITH ASSYMETRIC PERFORATED REFLECTOR 4', T5HO LAMPING	1-F54T5HO RE835	60W	277/120V	DELRAY LITECONTROL	SW54154.418 W AI 34\14T5HO PFF CSL LP/ELB 1CWQ UNV	
ZX	LIGHT POLES: TOTALLY ENCLOSED RAINTIGHT, DUST-TIGHT AND CORROSION RESISTANT; POLE AS SHOWN IN DETAIL WITH HANDHOLE, COVER, BOLT COVER, AND BASE; PAINTED (COLOR TO BE SELECTED BY ARCHITECT / ENGINEER WHICH MAY DIFFER FROM CATALOG NUMBER SHOWN). MTB= 120,208,240,277 VOLT MULTI-TAP BALLAST. ALL BALLASTS HPF. ARM MOUNT. HORIZONTAL LAMP, SEGMENTED OPTICS.						
ZX-1	LOW-PROFILE CONTEMPORARY SINGLE-HEAD FIXTURE, ARM- MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; HINGED POLE BASE ASSEMBLY	(60) 1W LED LAMPS INCL 3500K	75W	277V	KIM	WARP9 LED SERIES CONTRACTOR ALLOWANCE: $1,929.50 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
ZX-2	LOW-PROFILE CONTEMPORARY DOUBLE-HEAD FIXTURE, ARM- MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; HINGED POLE BASE ASSEMBLY	2X(60) 1W LED LAMPS INCL 3500K EA HEAD	150W	277V	KIM	WARP9 LED SERIES CONTRACTOR ALLOWANCE: $2,929.00 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	
ZX-3	LOW-PROFILE CONTEMPORARY DOUBLE-HEAD FIXTURE, ARM- MOUNTED; DIE-CAST ALUMINUM; FULL-CUTOFF OPTICS; LED LAMPS TYPE 3 DISTRIBUTION; MOUNTED TO TOP OF PARKING STRUCTURE PER STRUCTURAL DETAILS	2X(120) 1W LED LAMPS INCL 3500K	250W	277V	KIM	WARP9 LED "LARGE" SERIES CONTRACTOR ALLOWANCE: $4,262.65 EACH NOTE: EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE APPROVED PROVIDING THEY ARE EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE, HOWEVER, THE ALLOWANCE PRICE SHALL BE INCLUDED IN THE BID	

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

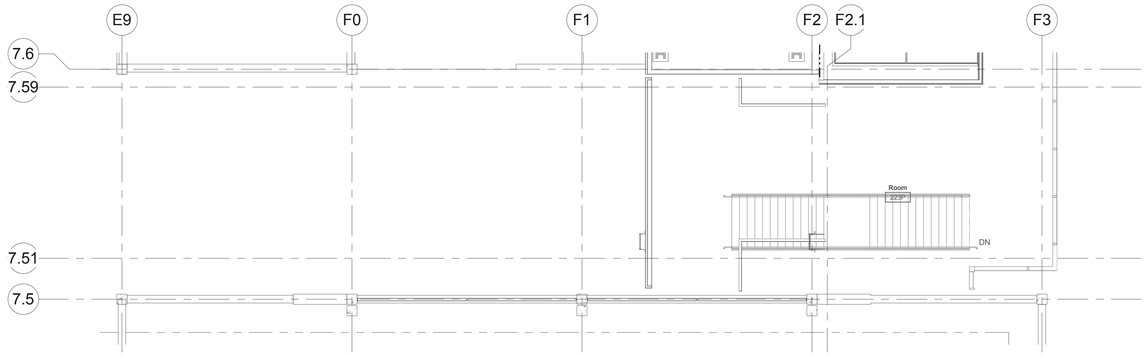
DRAWN BY:	DLM
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FIXTURE SCHEDULE

CONSTRUCTION DOCUMENTS

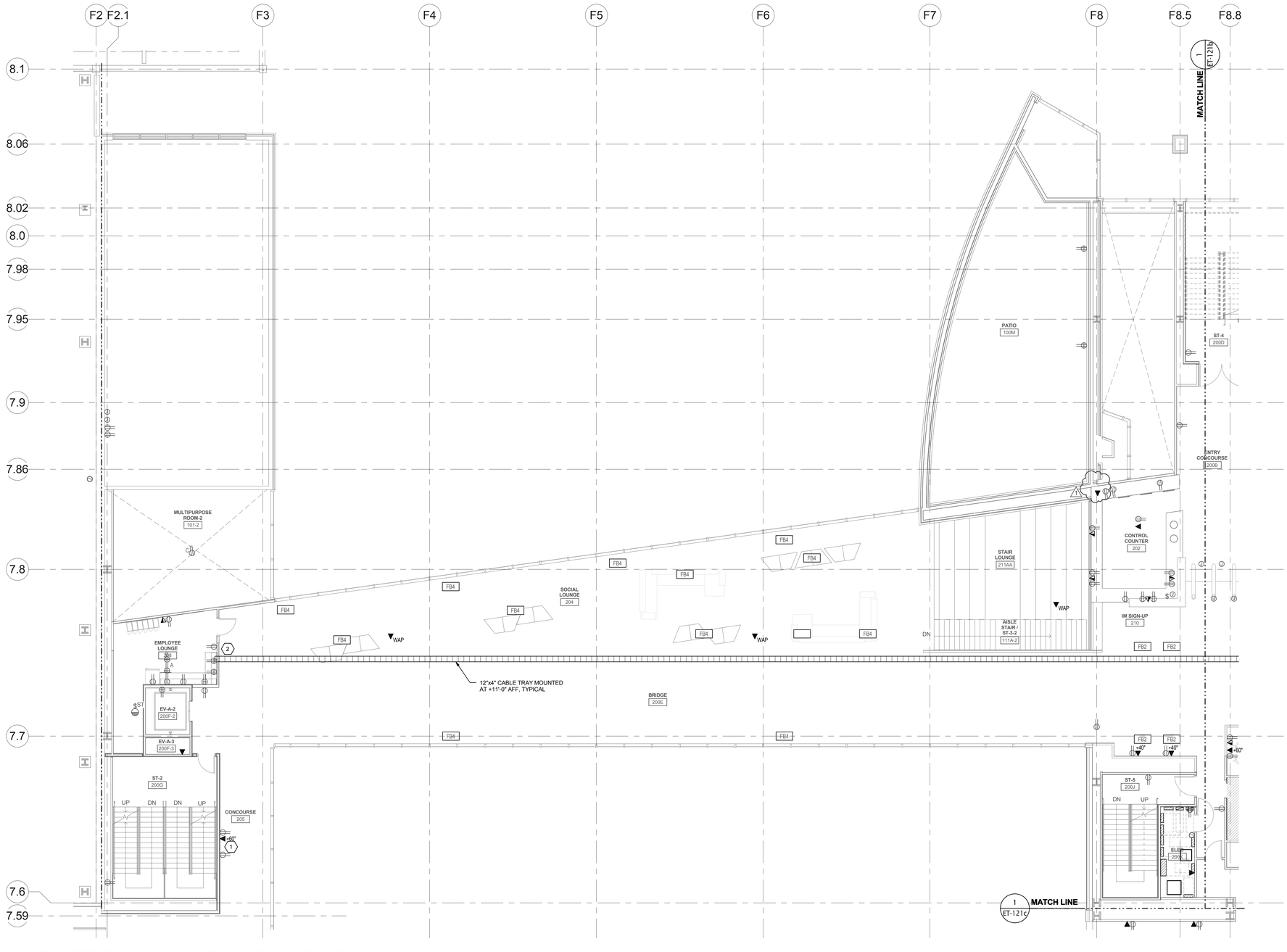
1 EL-602

C:\Users\dlim\Documents\20110364\Elec UVU Student Life Center_Jedi Master MeD.rvt
5/14/2012 11:01:11 AM



2 LEVEL 2 TELECOMMUNICATIONS PLAN CIRCULATION

SCALE: 1/8" = 1'-0"



1 LEVEL 2 TELECOMMUNICATIONS PLAN ZONE A

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 WALL MOUNTED DATA OUTLET FOR FLAT PANEL MONITOR.

2 PROVIDE 4 EACH, 4" CONDUITS FROM CABLE TRAY IN BRIDGE TO CABLE TRAY IN MAIN CORRIDOR OF P.E. BUILDING.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

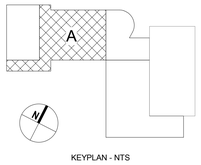
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

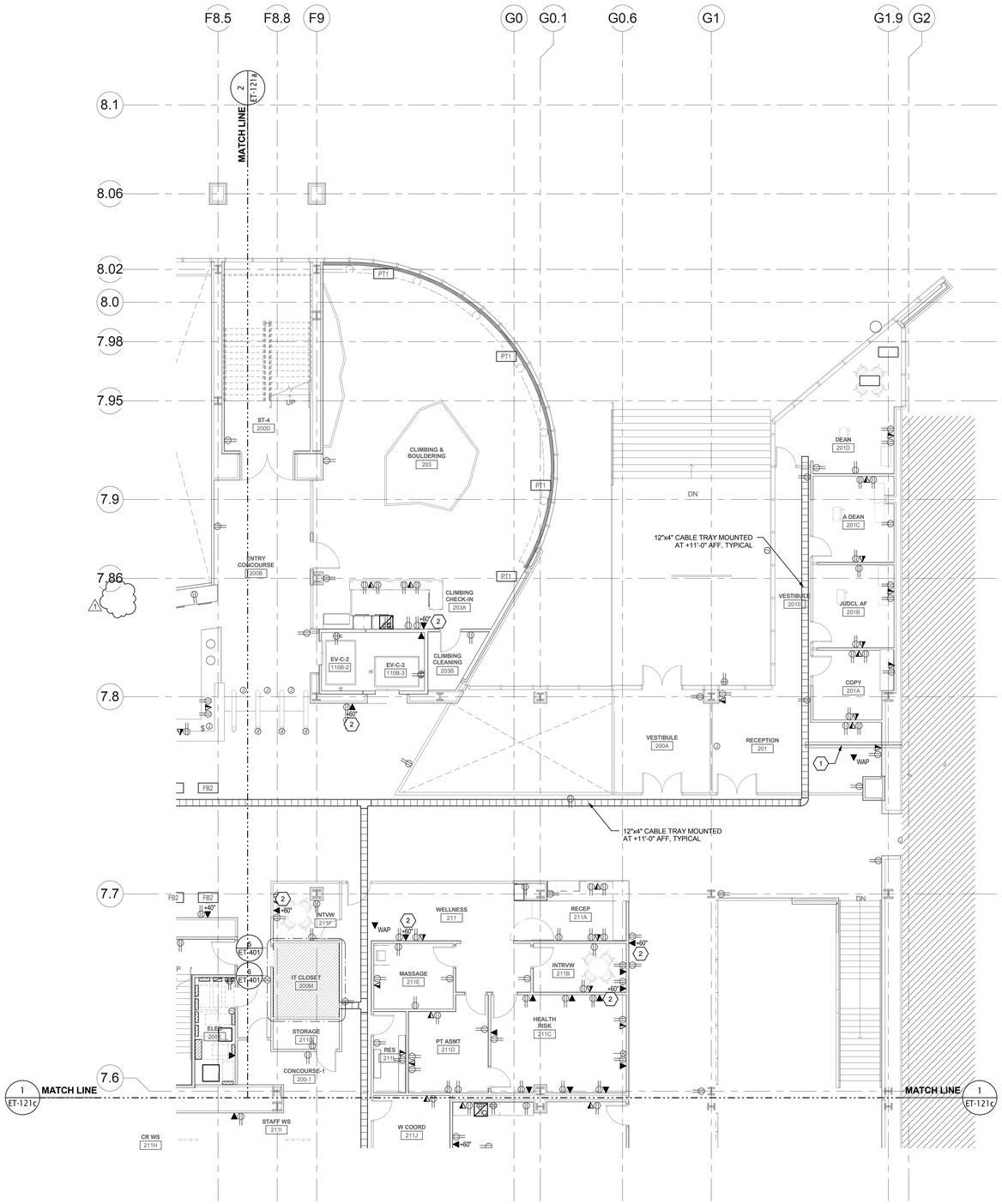
LEVEL 2
TELECOMMUNICATIONS PLAN
ZONE A

CONSTRUCTION DOCUMENTS

ET-121a

C:\Users\jim\Documents\2011036456c UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 11:03:08 AM



1 LEVEL 2 TELECOMMUNICATIONS PLAN ZONE B

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 PROVIDE 2 EACH, 4" CONDUITS FROM JUNCTION BOX IN PARKING GARAGE P2 TO SECOND FLOOR TELECOM ROOM VIA CABLE TRAY.

2 WALL MOUNTED DATA OUTLET FOR FLAT PANEL MONITOR.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

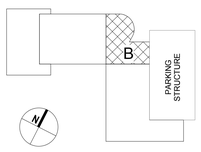
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

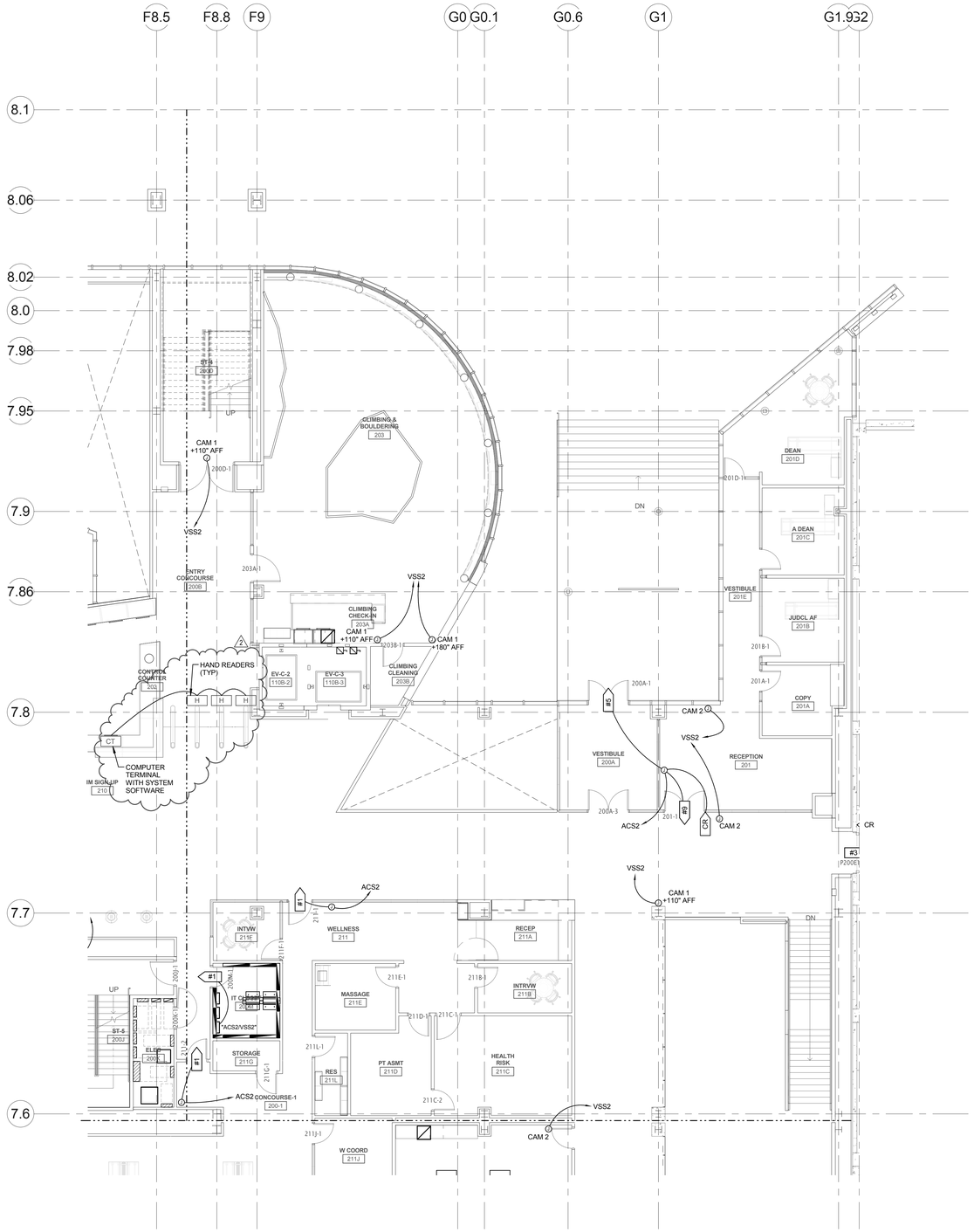
LEVEL 2 TELECOMMUNICATIONS PLAN ZONE B

CONSTRUCTION DOCUMENTS

ET-121b

C:\Users\dlm\Documents\2011036-Elec UVU Student Life Center Jedi Master MCD.rvt

5/14/2012 11:03:12 AM



1 LEVEL 2 SECURITY PLAN ZONE B

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

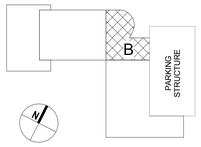
REVISIONS:

1	May 4, 2012	Addendum #2
2	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	Author
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

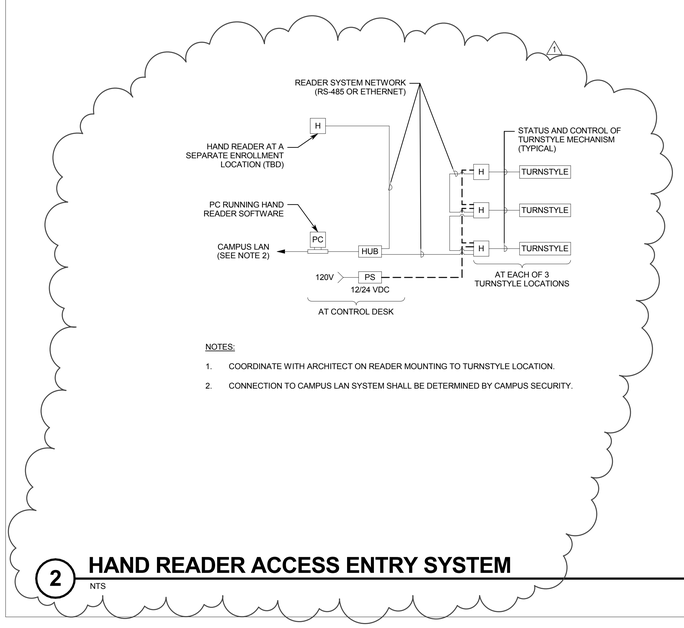
LEVEL 2 SECURITY PLAN ZONE B

CONSTRUCTION DOCUMENTS

EY-121b

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 11:03:17 AM



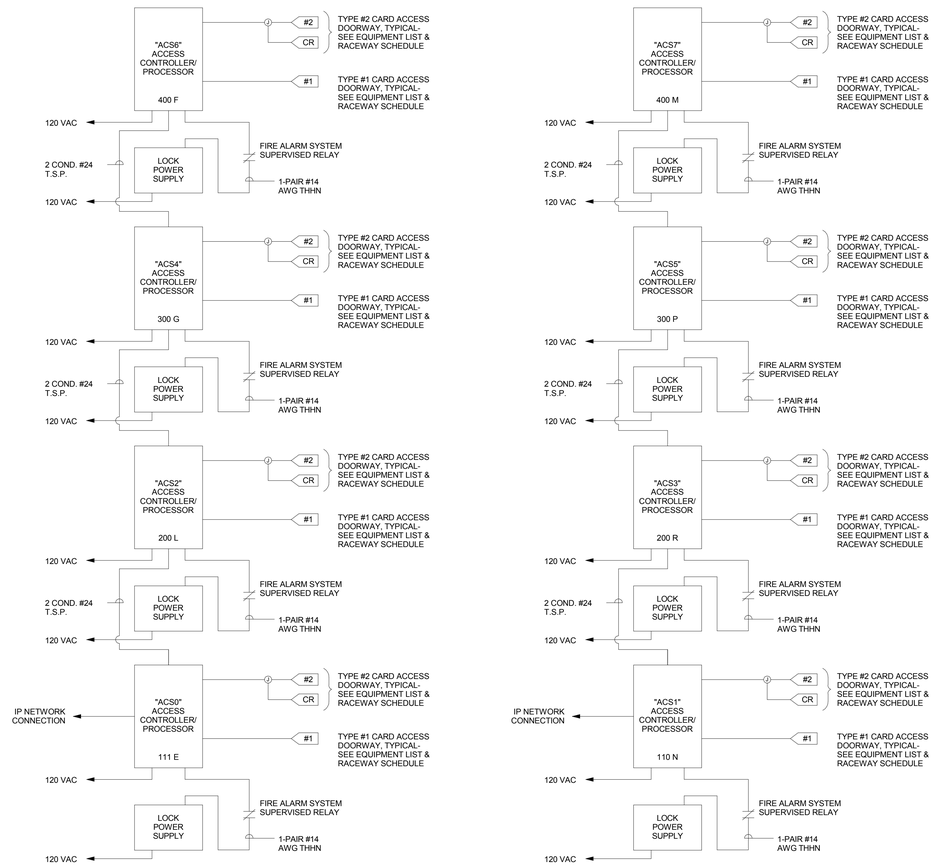
NOTES:

1. COORDINATE WITH ARCHITECT ON READER MOUNTING TO TURNSTYLE LOCATION.

2. CONNECTION TO CAMPUS LAN SYSTEM SHALL BE DETERMINED BY CAMPUS SECURITY.

2 HAND READER ACCESS ENTRY SYSTEM

NTS



NOTES:

1. ACCESS CONTROL SYSTEM BASED UPON TWO CARD READERS PER ACCESS CONTROLLER/PROCESSOR. ALTERNATE CONFIGURATIONS ACCEPTABLE PROVIDED CONTRACTOR ALLOWS FOR ANY INCREASED WIRING OR EQUIPMENT AND PROVIDES SUBMITTAL DRAWINGS SHOWING NEW CONFIGURATION. EACH "ACS" BLOCK (ACS1, ACS2, ...) SHALL BE PROVIDED WITH SUFFICIENT CONTROLLER BOARDS TO SERVICE THE NUMBER OF ACCESS DOORS SHOWN IN THE DRAWINGS FOR THAT PARTICULAR "ACS" BLOCK.

2. ACCESS CONTROLLER "ACS" INDICATED SHALL INCLUDE ANY ISOLATION MODULES, BUFFER MODULES, EXTERNAL POWER SUPPLIES, INPUT/OUTPUT MODULES, OR FORMAT CONVERTER MODULES (NOT SHOWN) REQUIRED TO SUPPORT CARD READER OR KEYPAD TYPES INDICATED, FOR COMPLETE AND FUNCTIONING CARD READER AND DOOR CONTROL.

3. PROVIDE SEPARATE WIRE PAIRS FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, FROM ACCESS DOOR TO ACCESS CONTROLLER "ACS" PANEL. SINGLE PAIR, FROM ACCESS DOOR TO CONTROLLER PANEL, FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, NOT ACCEPTABLE.

4. REQUEST TO EXIT AND DOOR CONTACT INDICATOR CIRCUITS SHALL BE SUPERVISED FOR OPEN CIRCUIT OR SHORT CIRCUIT FAULTS BETWEEN THE DEVICE CONTACTS AND ACCESS CONTROLLER.

1 CARD ACCESS SYSTEM (ACS) RISER DIAGRAM

NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

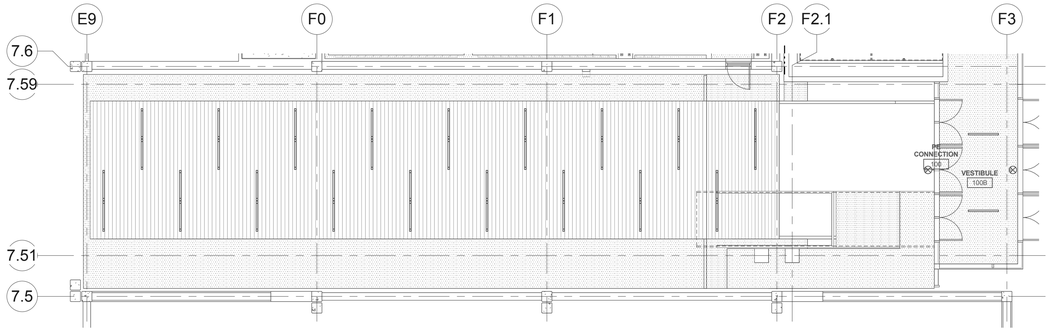
DRAWN BY:	Author
CHECKED BY:	Checker
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

SECURITY DIAGRAMS

CONSTRUCTION DOCUMENTS

EY-602

C:\Users\dlim\Documents\2011 03-04Elec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:03:18 AM



2 LEVEL 1 AUDIO-VIDEO PLAN CIRCULATION
SCALE: 1/8" = 1'-0"

1 LEVEL 1 AUDIO-VIDEO PLAN ZONE A
SCALE: 1/8" = 1'-0"

C:\Users\jdm\Documents\2011\3564Elec UVU Student Life Center_Jedi Master MeD.rvt

5/14/2012 10:56:22 AM

SHEET KEYNOTES

1 VERIFY MOUNTING IN ARCHITECTURAL MILLWORK.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

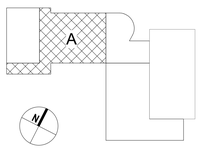
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

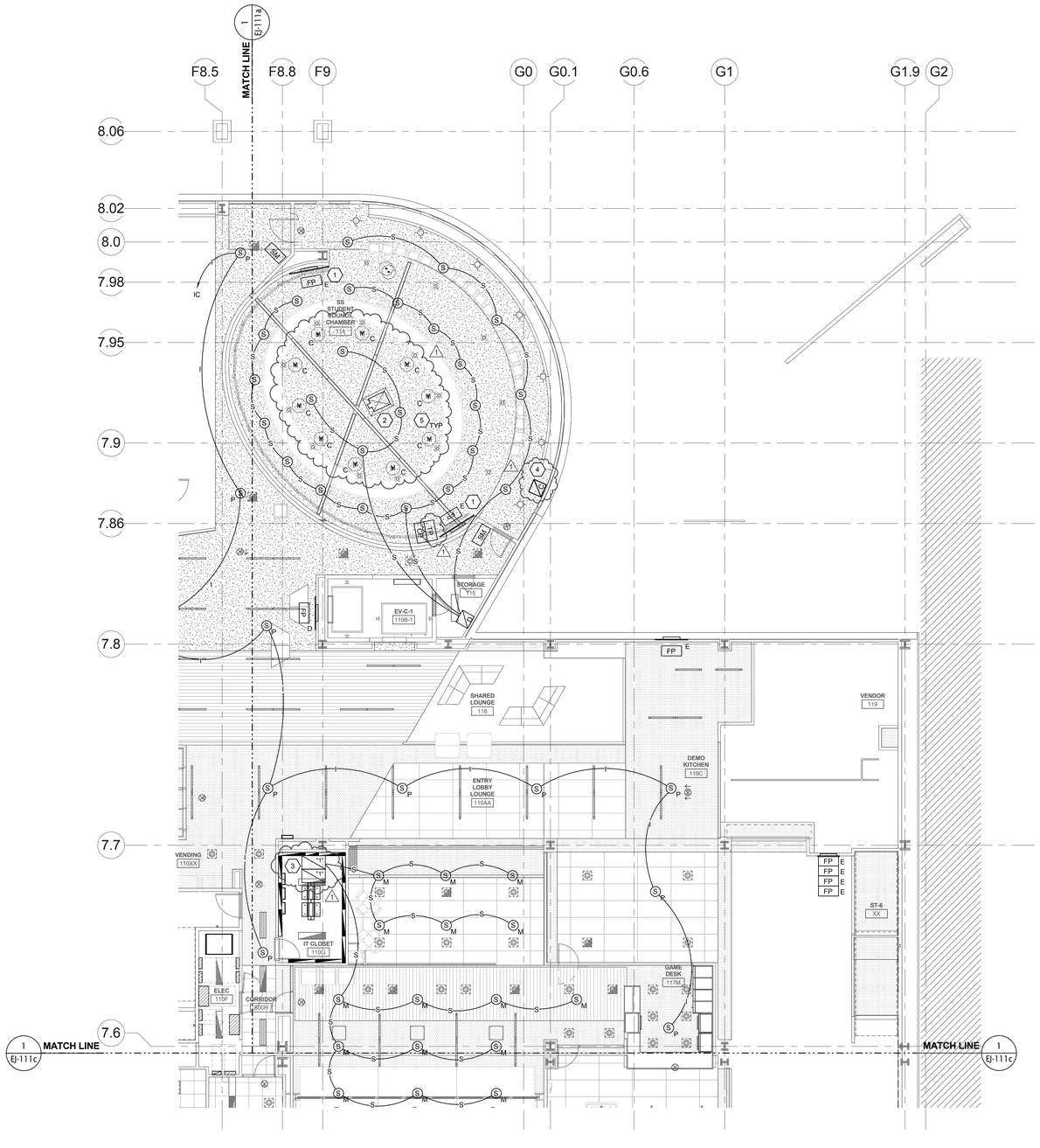
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 1 AUDIO-VIDEO PLAN ZONE A

CONSTRUCTION DOCUMENTS

EJ-111a



1 LEVEL 1 AUDIO-VIDEO PLAN ZONE B

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1. FLAT PANEL MONITOR WALL MOUNTED WITH EXTENTION ARMS FOR MOUNTING. PROVIDE CHIEF PNRIW DUAL ARM.
2. VERIFY MOUNTING OF PROJECTOR LEFT WITH UVU MEDIA SERVICES.
3. ALL PAGING CIRCUITS ROUTED TO 'IC' ARE TO TERMINATE TO EQUIPMENT RACK #1 AGAINST WALL IN IT CLOSET 110G.
4. VERIFY MOUNTING OF EQUIPMENT RACK 'C' WITH UVU MEDIA SERVICES.
5. LOCATION OF CEILING MICROPHONE LIFTS AND SPEAKERS ARE TO BE VERIFIED WITH UVU PERSONNEL PRIOR TO INSTALLATION.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

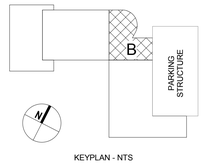
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

LEVEL 1 AUDIO-VIDEO PLAN ZONE B

CONSTRUCTION DOCUMENTS

EJ-111b

C:\Users\jlim\Documents\2011\03645\Etc UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 10:56:32 AM

1 LEVEL 1 AUDIO-VIDEO PLAN ZONE C

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 FLAT PANEL MONITORS POLE MOUNTED AT FLOOR DECK ABOVE.

2 VERIFY MOUNTING OF VOLUME CONTROL WITH ARCHITECT PRIOR TO INSTALLATION.

3 PROVIDE 2 EACH, 2" CONDUITS FROM ACCESSIBLE CEILING TO UNDER FLOOR DUCT. SEE 'EP' SHEETS.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

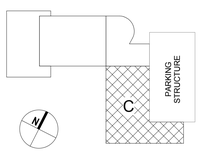
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

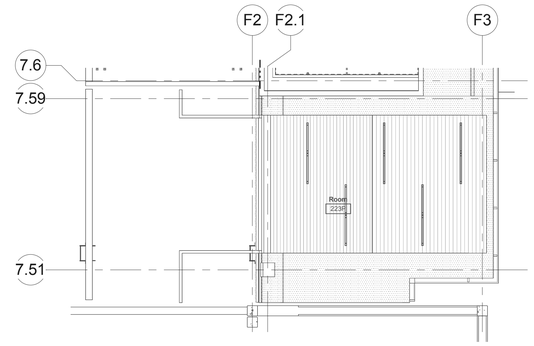
LEVEL 1 AUDIO-VIDEO PLAN ZONE C

CONSTRUCTION DOCUMENTS

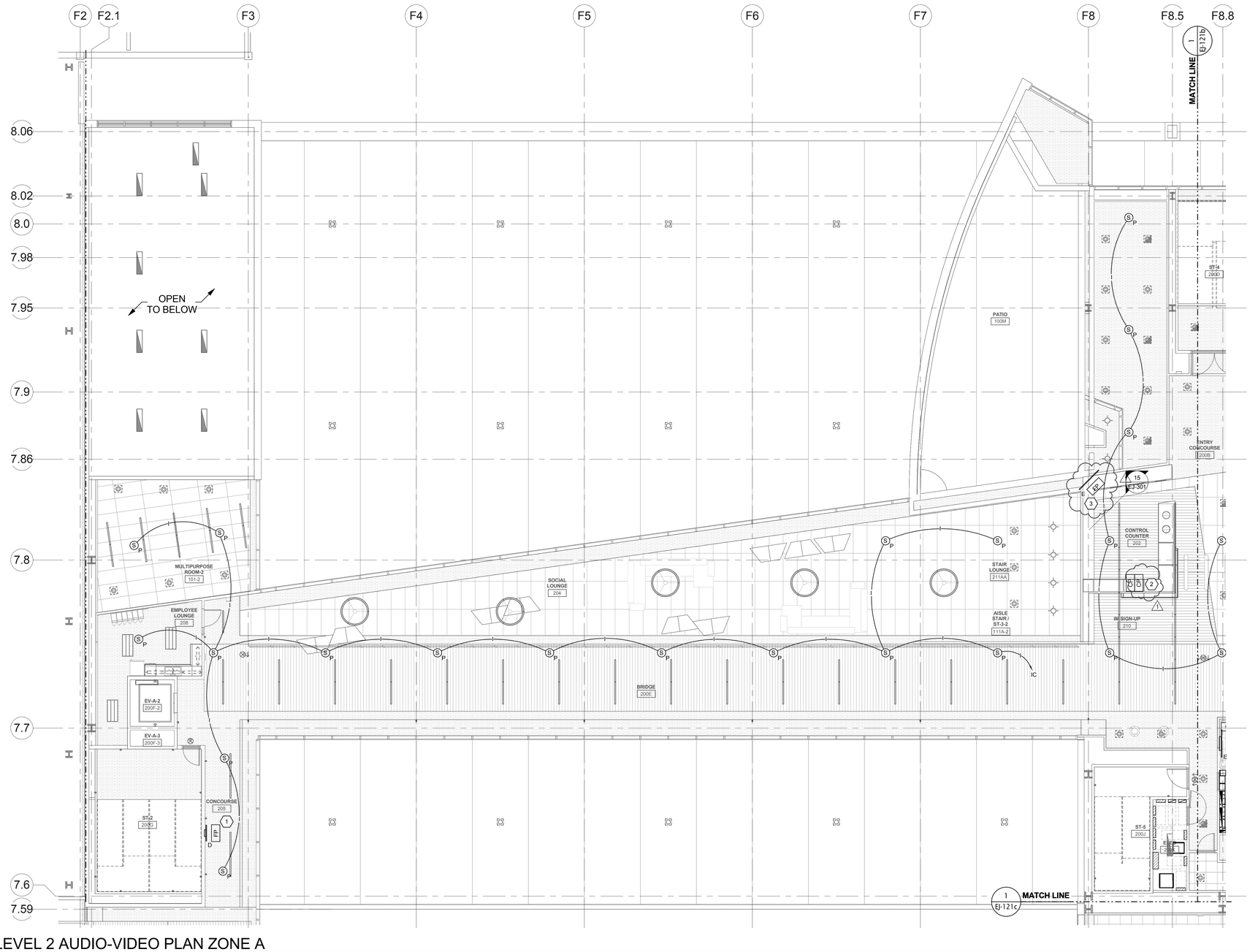
EJ-111c

C:\Users\dlm\Documents\2011036 4Elec UVU Student Life Center Jrdi Master MKD.rvt

5/14/2012 10:56:45 AM



2 LEVEL 2 AUDIO-VIDEO PLAN CIRCULATION
SCALE: 1/8" = 1'-0"



1 LEVEL 2 AUDIO-VIDEO PLAN ZONE A
SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 FLAT PANEL MONITOR LOCATION FOR DIGITAL SIGNAGE.

2 CONNECTION PANELS MOUNTED IN MILLWORK FOR BUILDING WIDE MUSIC AND PAGING SYSTEM. COORDINATE MOUNTING ABOVE COUNTERTOP. PROVIDE 2 EACH, 1.25" CONDUITS FROM EACH 'CP' TO IT CLOSET 110G.

3 ROUGH-IN FOR CEILING MOUNTED FLAT PANEL.

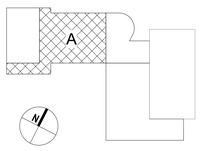
GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

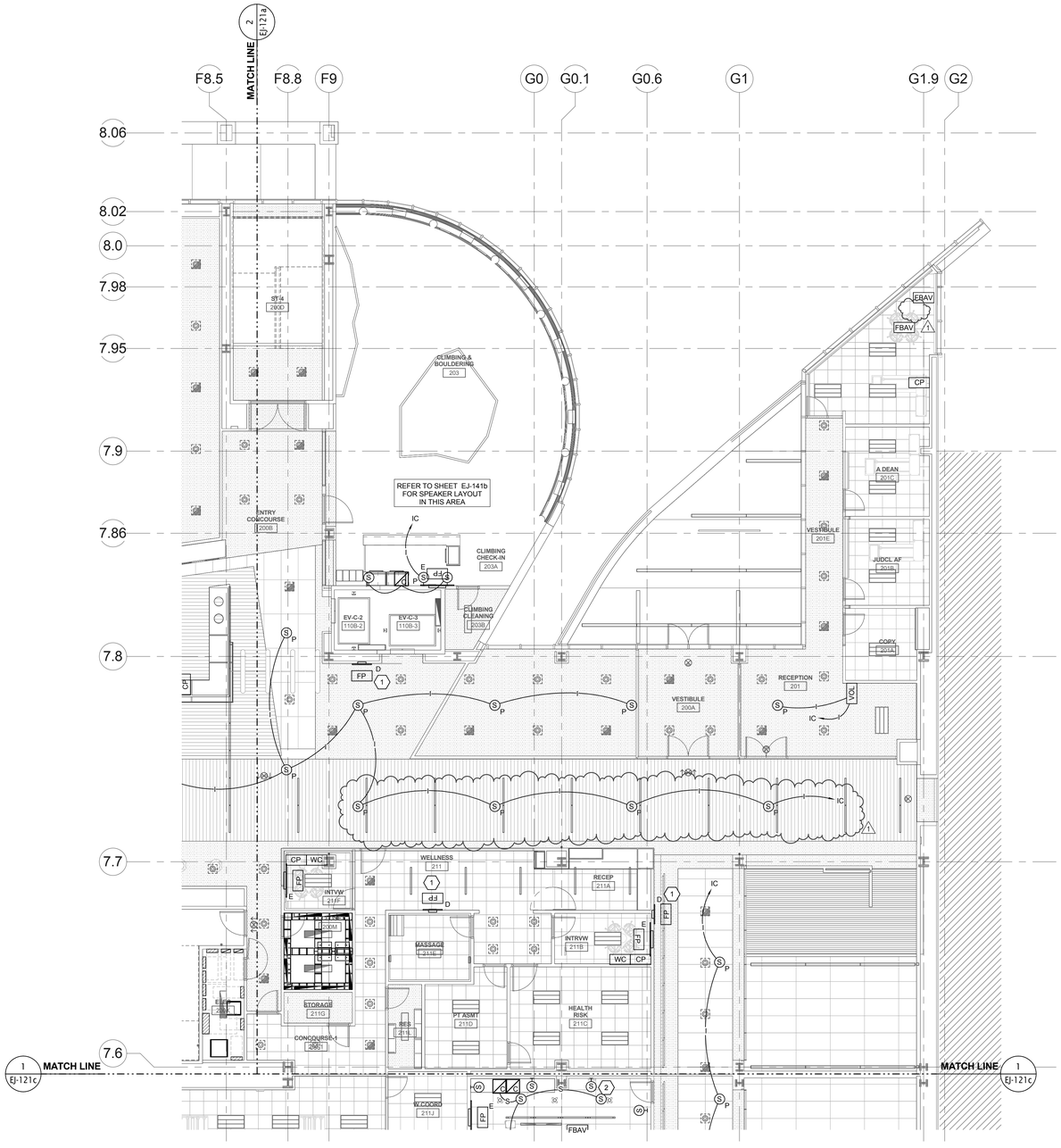
LEVEL 2 AUDIO-VIDEO PLAN ZONE A

CONSTRUCTION DOCUMENTS

EJ-121a

C:\Users\dlim\Documents\20110364Elec UVU Student Life Center_Jedi Master MCD.rvt

5/14/2012 10:56:59 AM



1 LEVEL 2 AUDIO-VIDEO PLAN ZONE B

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 FLAT PANEL MONITOR LOCATION FOR DIGITAL SIGNAGE.

2 SPEAKER LOCATIONS FOR SURROUND SOUND. VERIFY MOUNTING WITH OWNER.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

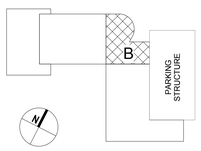
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



KEYPLAN - NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

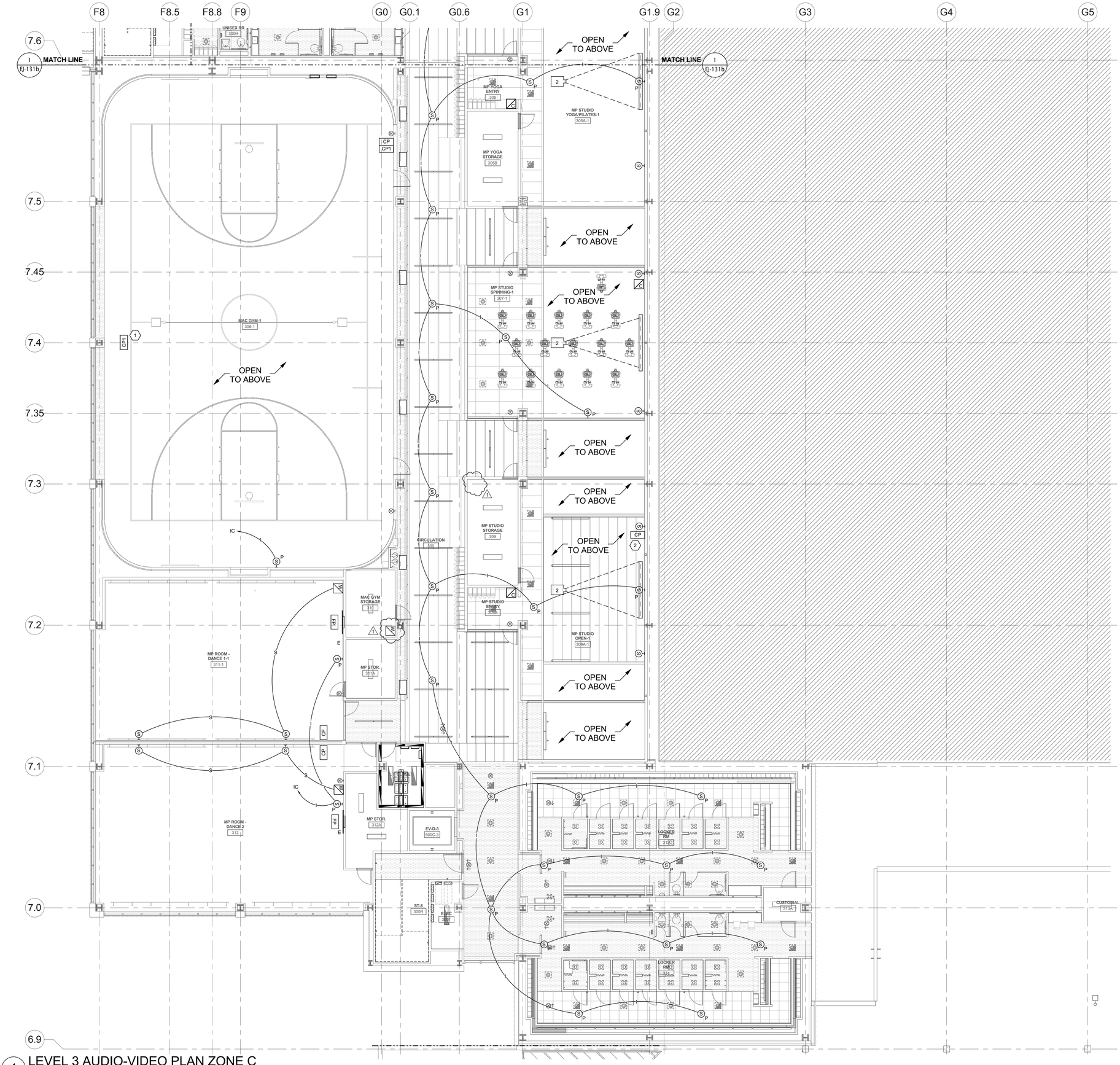
LEVEL 2 AUDIO-VIDEO PLAN ZONE B

CONSTRUCTION DOCUMENTS

EJ-121b

C:\Users\dlm\Documents\2011036-Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 10:57:12 AM



1 LEVEL 3 AUDIO-VIDEO PLAN ZONE C

SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 CONNECTION PANEL #1 MOUNTED IN AV FLOOR BOX (FBAV).

2 VERIFY MOUNTING HEIGHT PRIOR TO INSTALLATION.

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

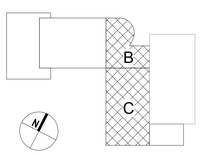
REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

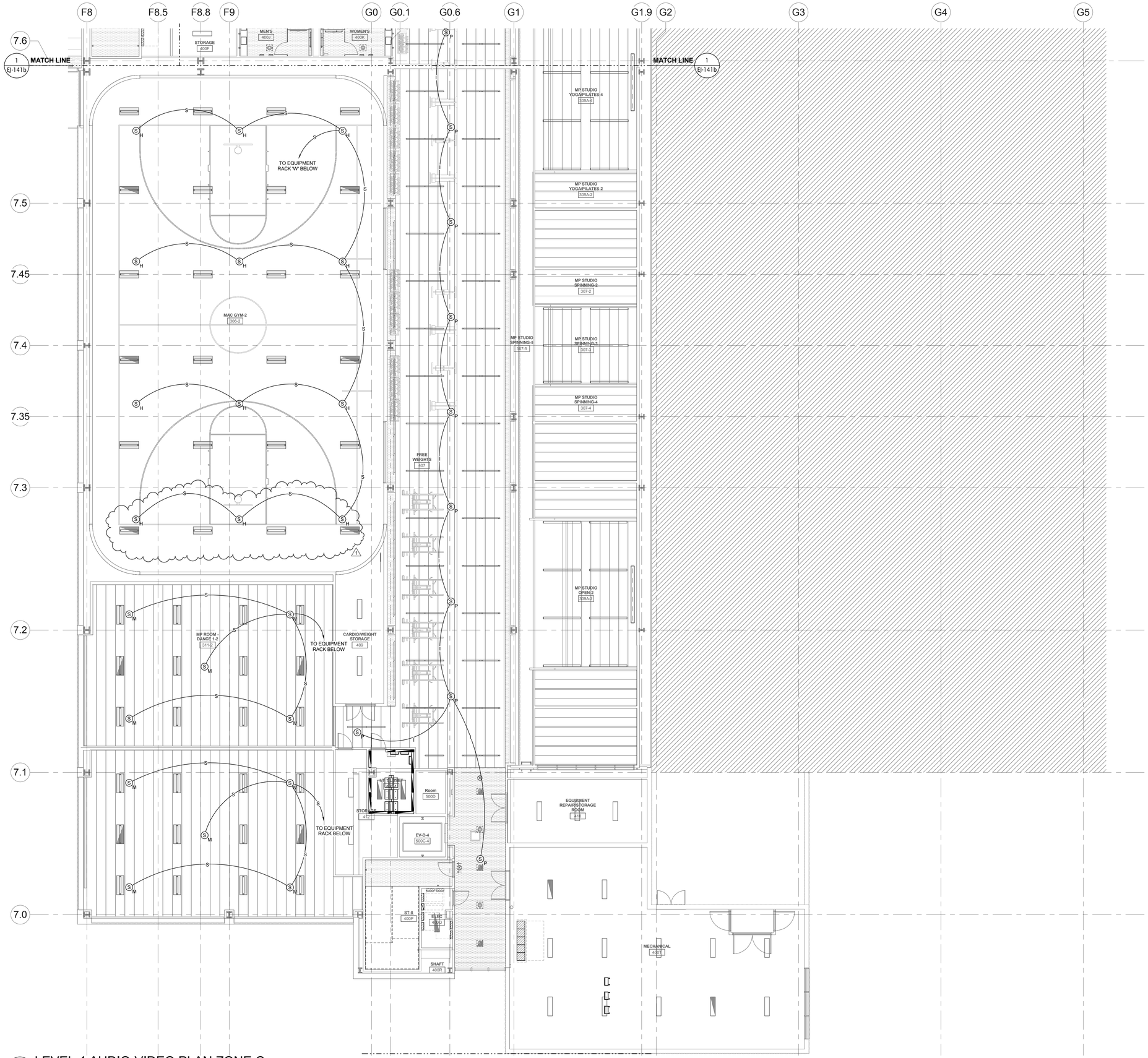
LEVEL 3 AUDIO-VIDEO PLAN ZONE C

CONSTRUCTION DOCUMENTS

EJ-131c

C:\Users\jdim\Documents\2011\03545\Elec UVU Student Life Center_Jedi Master McD.rvt

5/14/2012 10:57:27 AM



1 LEVEL 4 AUDIO-VIDEO PLAN ZONE C

SCALE: 1/8" = 1'-0"

C:\Users\dlm\Documents\20110364Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 10:57:40 AM

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

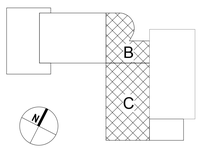
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH



UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

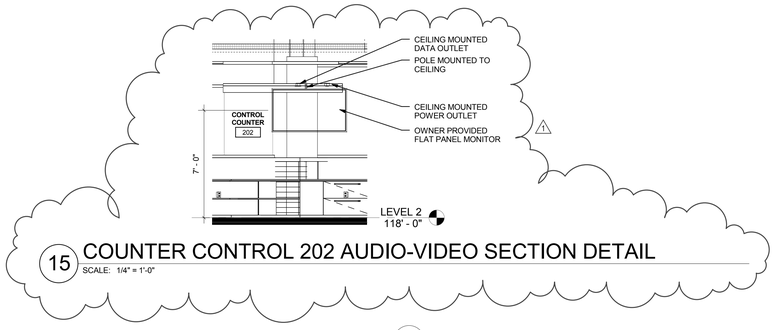
DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

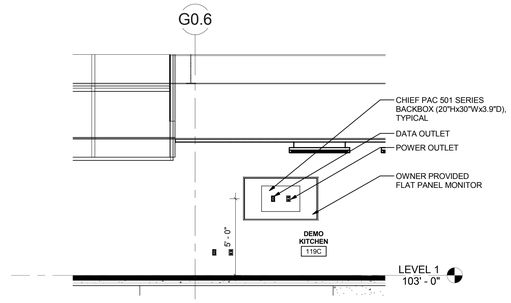
LEVEL 4 AUDIO-VIDEO PLAN ZONE C

CONSTRUCTION DOCUMENTS

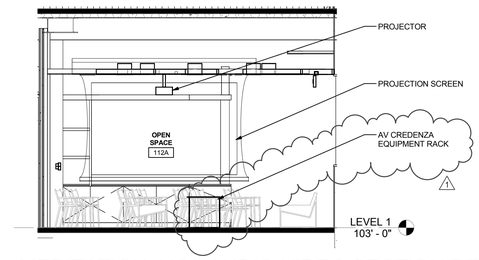
EJ-141c



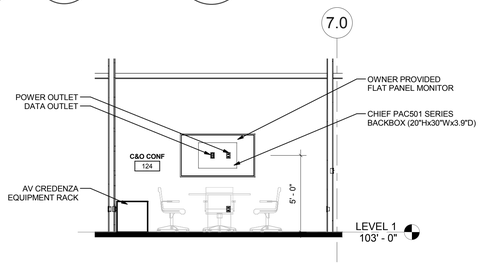
15 COUNTER CONTROL 202 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



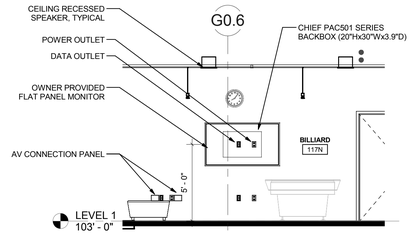
10 DEMO KITCHEN 119C AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



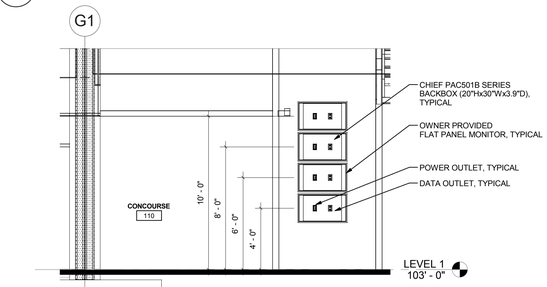
5 MEDITATION 112A AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



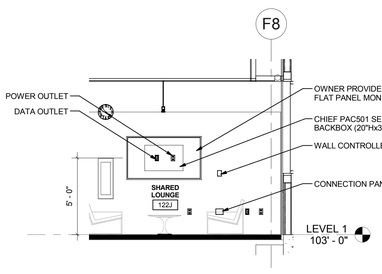
14 C&O CONFERENCE 124 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



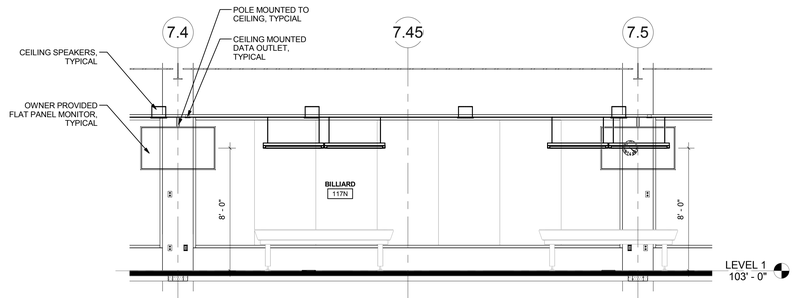
9 BILLIARD 117N AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



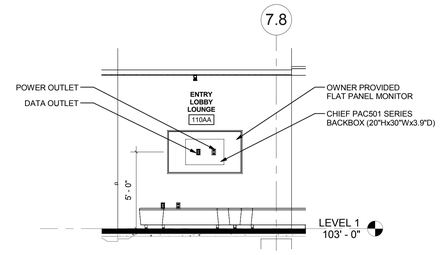
4 CONCOURSE 110 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



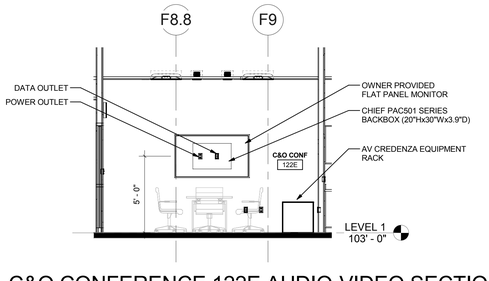
13 SHARED LOUNGE 122J AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



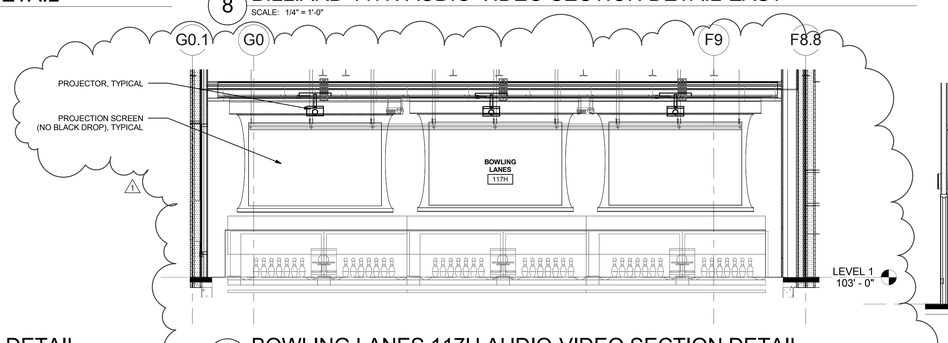
8 BILLIARD 117N AUDIO-VIDEO SECTION DETAIL-EAST
SCALE: 1/4" = 1'-0"



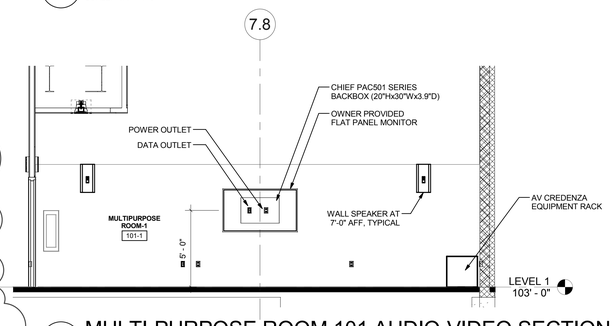
3 ENTRY LOBBY LOUNGE 110AA AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



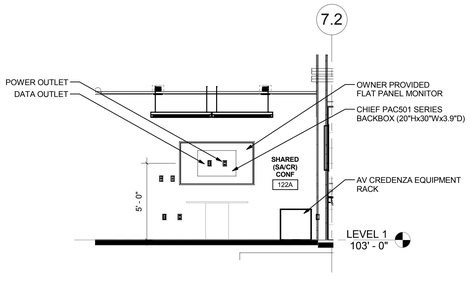
12 C&O CONFERENCE 122E AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



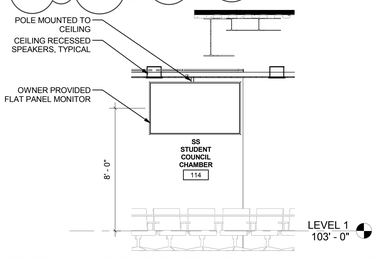
7 BOWLING LANES 117H AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



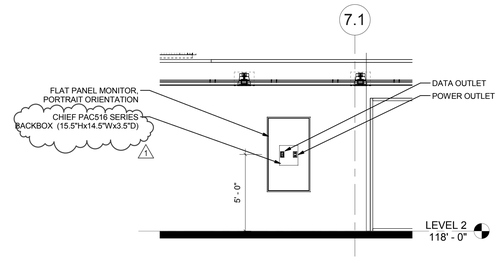
2 MULTI-PURPOSE ROOM 101 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



11 SHARED CONFERENCE 122A AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



6 TYPICAL STUDENT COUNCIL CHAMBER 114 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



1 TYPICAL DIGITAL SIGNAGE AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

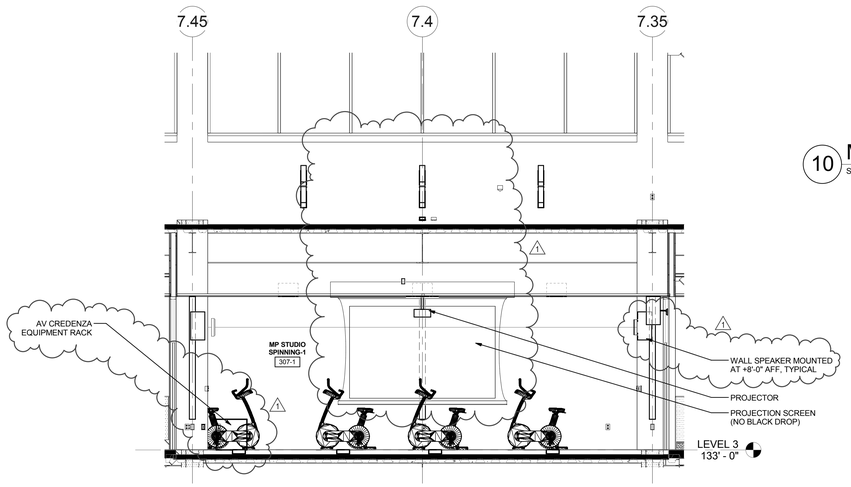
AUDIO-VIDEO ROUGH-IN SECTION DETAILS

CONSTRUCTION DOCUMENTS

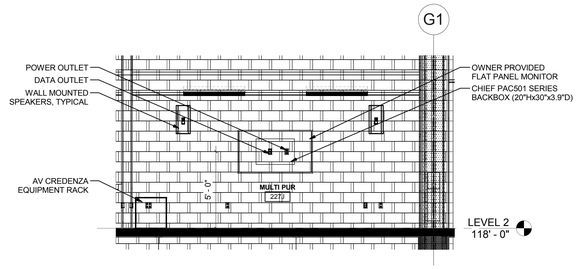
EJ-301

C:\Users\dlim\Documents\2011\0364\Elec UVU Student Life Center_Jedi Master MeD.rvt

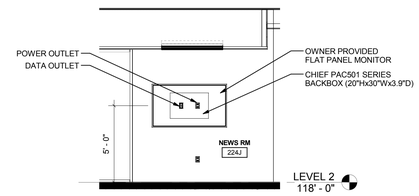
5/14/2012 10:58:23 AM



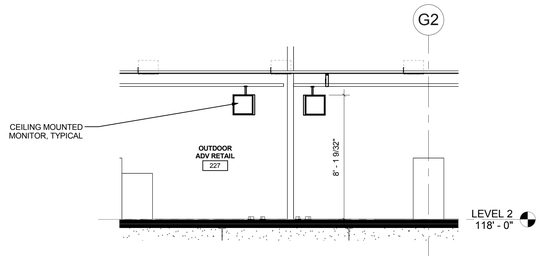
14 MP STUDIO SPINNING-1 307-1 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



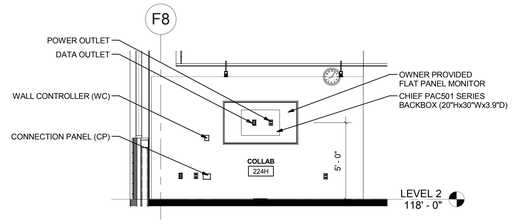
10 MULTI-PURPOSE 227J AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



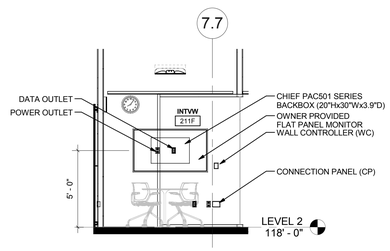
5 NEWS ROOM 225 EAST AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



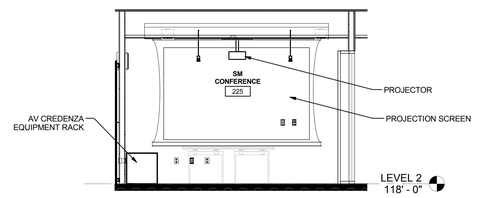
9 OUTDOOR ADVENTURE RETAIL 227 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



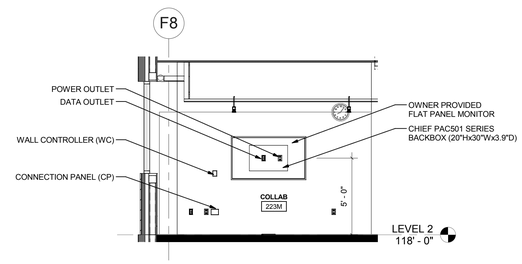
4 COLLABORATION 224H AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



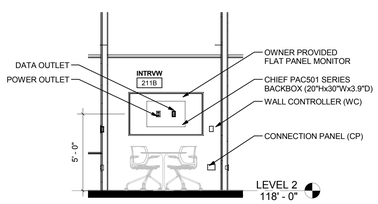
13 INTERVIEW 211G AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



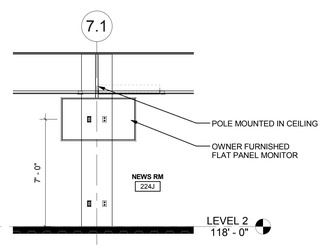
8 SMALL CONFERENCE 225A COLUMN AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



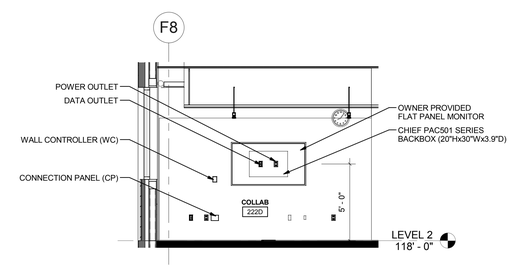
3 COLLABORATION 223M AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



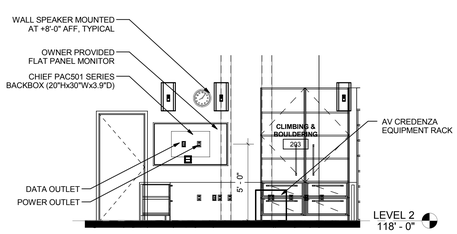
12 INTERVIEW 211E AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



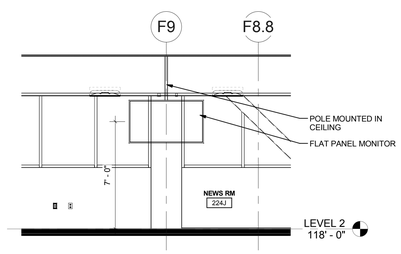
7 TYPICAL NEWS ROOM 225 COLUMN AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



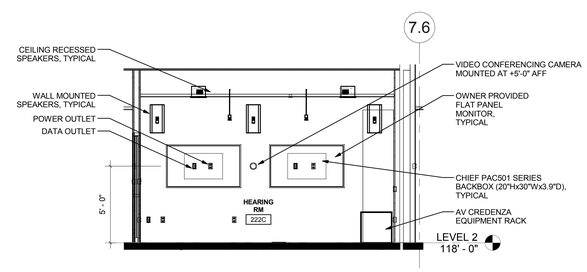
2 COLLABORATION 222D AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



11 CLIMBING CHECK-IN 203A AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



6 NEWS ROOM 225 SOUTH AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"



1 HEARING ROOM 222C AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER
No. 181563
DAVID E. WESEMANN
04/27/2012
STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

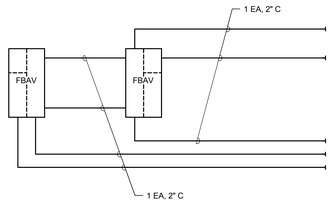
AUDIO-VIDEO ROUGH-IN SECTION DETAILS

CONSTRUCTION DOCUMENTS

EJ-302

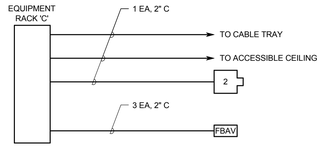
C:\Users\dlm\Documents\2011036Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 10:59:17 AM



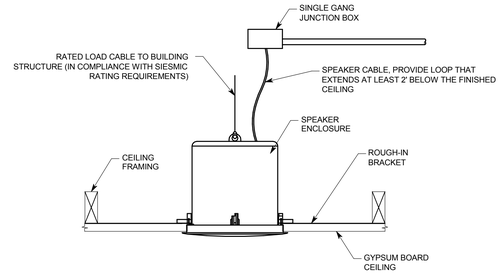
5 DEANS OFFICE 201 AV ROUGH IN RISER DIAGRAM

NO SCALE



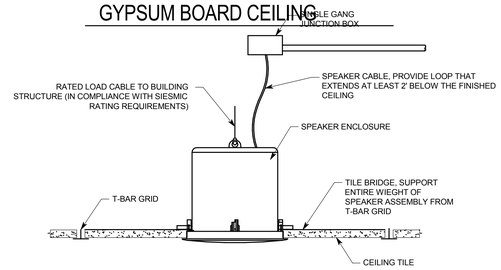
4 SM CONF 224 AV ROUGH IN RISER DIAGRAM

NO SCALE



NOTE: FOR HARD LID CEILING USE BRACKET FURNISHED BY AUDIO INSTALLER TO CUT SPEAKER OPENING BELOW JUNCTION BOX.

GYPSUM BOARD CEILING

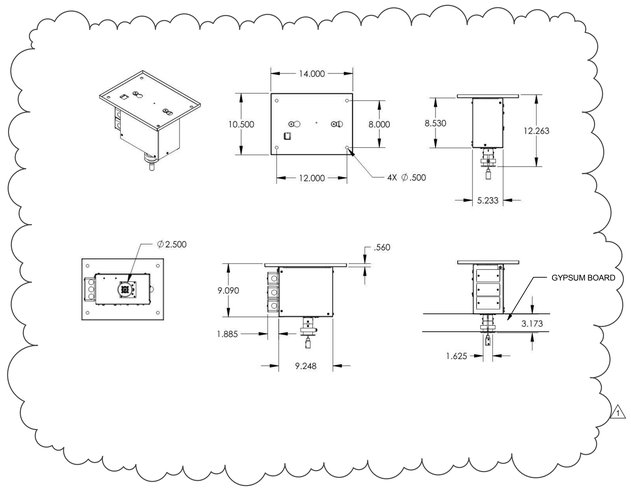


LAY-IN CEILING TILE

2 CEILING SPEAKER INSTALLATION DETAIL

NO SCALE

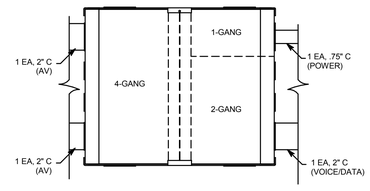
S_P, S S_M S_B



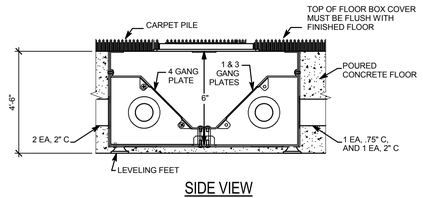
3 CEILING MICROPHONE LIFT ROUGH-IN DETAIL

NO SCALE

M



BOTTOM VIEW



SIDE VIEW

1 FLOOR BOX, AUDIO-VIDEO, CONDUIT TERMINATION DETAIL

NO SCALE

FBAV

GSBS ARCHITECTS

375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101

P 801.521.8600
F 801.521.7913

www.gsbsarchitects.com

CANNONDESIGN

CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

AUDIO-VIDEO ROUGH-IN DETAILS

CONSTRUCTION DOCUMENTS

EJ-502

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_Jedi Master MKD.rvt

5/14/2012 10:59:18 AM

AUDIO-VIDEO ROUGH-IN EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MOUNTING	SPECIAL INSTRUCTIONS
1 / 2	PROJECTOR JUNCTION BOX,	ABOVE FINISHED CEILING, COORDINATE LOCATION W/ DISPLAY DEVICE SCHEDULE	LOCATE PERPENDICULAR TO CENTER OF PROJECTION SCREEN. VERIFY EXACT MOUNTING WITH AV INSTALLER. SEE DETAILS 1/EJ-501 AND 4/EJ-501
	PROJECTOR, LIFT. DISPLAY DEVICES LCD -107/OPT-IL/OPT-9/REM-IR	FLUSH IN FINISHED CEILING COORDINATE LOCATION	VERIFY EXACT MOUNTING LOCATION WITH UVU PERSONNEL
SC	PROJECTION SCREEN CONTROL, JUNCTION BOX, 4" SQUARE W/ 1 GANG MUD RING	FLUSH IN WALL AT ELECTRICAL SWITCH HEIGHT	
CP / CP1	CONNECTION PANEL, JUNCTION BOX, 4-11/16" SQUARE W/2 GANG MUD RING	AT ELECTRICAL OUTLET HEIGHT UNLESS OTHERWISE NOTED	
FBAV	FLOOR BOX, AUDIO-VIDEO	FLOOR	SEE 'EP' SHEETS FOR LOCATION, SEE DETAIL 1/EJ-502
TP	TOUCH PANEL BACK BOX	AS DETERMINED BY UVU MEDIA SERVICES	FURNISHED BY OWNER. INSTALLED BY ELEC INSTALLER
SM	MONITOR, SCHEDULING	WALL AT ELECTRICAL SWITCH HEIGHT	FURNISHED BY OWNER, INSTALLED BY ELEC INSTALLER
	PROJECTION SCREEN, RECESSED, MOTORIZED. MODEL: DA-LITE TENSIONED ADVANTAGE ELECTROL W/ LOW VOLTAGE SWITCH AND 12" OF BLACK DROP UNLESS OTHERWISE NOTED ON DISPLAY SCHEDULE. 'S' INDICATES SURFACE MOUNT. PROVIDE DA-LITE TENSIONED COSMOPOLITAN ELECTROL W/ LOW VOLTAGE SWITCH AND 12" OF BLACK DROP. 16:10 ASPECT RATIO	CEILING 'S' = WALL WITH SINGLE GANG JUNCTION BOX	SEE DISPLAY SCHEDULE AND PLANS FOR LOCATIONS AND SIZE INFORMATION. VERIFY EXACT MOUNTING WITH AV INSTALLER AND ARCHITECT.
	CAMERA, VIDEO CONFERENCING, 4-11/16" SQUARE JUNCTION BOX W/ DOUBLE GANG MUD RING	WALL	
FP E	FLAT PANEL MONITOR, WALL MOUNT, CHIEF PAC 501	AS DETERMINED BY UVU MEDIA SERVICES	VERIFY EXACT MOUNTING WITH ARCHITECT, SEE DETAIL 5/EJ-501
FP D	FLAT PANEL MONITOR, WALL MOUNT, DIGITAL SIGNAGE, CHIEF PAC516	AS DETERMINED BY UVU MEDIA SERVICES	VERIFY EXACT MOUNTING WITH ARCHITECT, SEE DETAIL 5/EJ-501
FP	FLAT PANEL MONITOR, POLE MOUNT, 4-11/16" SQUARE JUNCTION BOX	CEILING	VERIFY EXACT MOUNTING WITH ARCHITECT, SEE DETAIL 2/EJ-501
FP	CEILING MONITOR, POLE MOUNT, 4-11/16" SQUARE JUNCTION BOX	CEILING	VERIFY EXACT MOUNTING WITH ARCHITECT, SEE DETAIL 2/EJ-501
VOL	VOLUME CONTROL,	WALL AT ELECTRICAL SWITCH HEIGHT	FURNISHED BY AV INSTALLER, INSTALLED BY ELEC INSTALLER
	JUNCTION BOX, 12"x12"x4"	WALL AT ELECTRICAL +60" AFF	
S	SPEAKER, CLASSROOM, CEILING MOUNT	RECESSED CEILING	PROVIDE SINGLE GANG JUNCTION BOX ABOVE SPEAKER AND MOUNT ROUGH-IN RING AS FURNISHED BY AUDIO INSTALLER. SEE DETAIL 2 ON SHEET EJ-501. SEE DETAIL 2/EJ-502
S P	SPEAKER, PAGING, CEILING MOUNT, BACKCAN, GRILLE	RECESSED CEILING	
S B	SPEAKER, SUBWOOFER, CEILING MOUNT, BACKCAN, GRILLE	RECESSED CEILING	
S M	SPEAKER, MUSIC, CEILING MOUNT, BACKCAN, GRILLE	RECESSED CEILING	
S H	SPEAKER, PAGING, CEILING MOUNT, BACKCAN, GRILLE	CEILING	
S / S P	SPEAKER WALL MOUNT, SINGLE GANG JUNCTION BOX	WALL AT 12" BELOW FINISHED CEILING	SEE DETAIL 8/EJ-501
A	EQUIPMENT CABINET #1	FLOOR	FURNISHED AND INSTALLED BY AV INSTALLER
C	EQUIPMENT RACK, CREDENZA MOUNT	14"x14" JUNCTION BOX AT +12" AFF	VERIFY EXACT MOUNTING WITH MILLWORK, SEE DETAIL 7/EJ-501
W	EQUIPMENT RACK, WALL MOUNT	14"x14" JUNCTION BOX AT +42" AFF	
I	CABLE, PAGING, 16 AWG, TWISTED PAIR		LIBERTY 16-2C-TTP WEST PENN 225
	CONDUIT, EMPTY, REFER TO CONDUIT RISER DIAGRAM FOR SIZE	BEHIND FINISHED SURFACES	
WC	WALL CONTROLLER JUNCTION BOX 3 GANG DEEP	WALL AT ELECTRICAL SWITCH HEIGHT	FURNISHED BY AV INSTALLER, INSTALLED BY ELEC INSTALLER
S	CABLE, SPEAKER, 16 AWG, TWISTED PAIR		LIBERTY 16-2C-TTP WEST PENN 225
IR	INFRAREAD SENSOR. SINGLE GANG JUNCTION BOX	CEILING	VERIFY EXACT MOUNTING WITH UVU MEDIA SERVICES PERSONNEL
M C	CEILING MICROPHONE LIFT. DISPLAY DEVICES M6-8S	CEILING	VERIFY EXACT MOUNTING WITH UVU MEDIA SERVICES PERSONNEL

1

UVU STUDENT LIFE CENTER BUILDING - DISPLAY DEVICE SCHEDULE

ROOM NAME	ROOM #	FLOOR #	CEILING HEIGHT	DISPLAY TYPE	PROJECTED IMAGE HEIGHT	PROJECTED IMAGE WIDTH	MAXIMUM LENGTH OF PROJECTION SCREEN ENCLOSURE	APPROX. PROJECTOR THROW DISTANCE	FLAT PANEL DIAGONAL SIZE	ASPECT RATIO	COMMENTS
MULTI-PURPOSE ROOM	101	1	23'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
OPEN SPACE	112A	1	10'-0"	PS	72"	114"	TBD	8'-10'		16:10	
STUDENT COUNCIL CHAMBER	114	1	10'-0"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
STUDENT COUNCIL CHAMBER	114	1	10'-0"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
ENTRY LOBBY LOUNGE	110AA	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
DEMO KITCHEN	119C	1	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
CONCOURSE	110	1	24'-6"	FP					OWNER FURN	TBD	WALL MOUNTED (4 PANEL ARRAY, SEE DETAIL)
CONCOURSE	110	1	24'-6"	FP					OWNER FURN	TBD	WALL MOUNTED (4 PANEL ARRAY, SEE DETAIL)
CONCOURSE	110	1	24'-6"	FP					OWNER FURN	TBD	WALL MOUNTED (4 PANEL ARRAY, SEE DETAIL)
CONCOURSE	110	1	24'-6"	FP					OWNER FURN	TBD	WALL MOUNTED (4 PANEL ARRAY, SEE DETAIL)
BILLIARD (WEST WALL)	117N	1	10'-0"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
BILLIARD (WEST WALL)	117N	1	10'-0"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
BILLIARD (SOUTH WALL)	117N	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
BOWLING LANES	117H	1	11'-9"	PS	65"	104"	TBD	8'-10'		16:10	
BOWLING LANES	117H	1	11'-9"	PS	65"	104"	TBD	8'-10'		16:10	
BOWLING LANES	117H	1	11'-9"	PS	65"	104"	TBD	8'-10'		16:10	
SHARED (SA/CR) CONF	122A	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
SHARED LOUNGE	122J	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
C&O CONF	122E	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
C&O CONF	124	1	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
CONCOURSE	205	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED (DIGITAL SIGNAGE-PORTRAIT)
CLIMBING CHECK-IN	203A	2	14'-6"	FP					OWNER FURN	TBD	WALL MOUNTED
CONCOURSE-2 (NORTHWEST)	200-2	2	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED (DIGITAL SIGNAGE-PORTRAIT)
CONCOURSE-2 (NORTH)	200-2	2	10'-0"	FP					OWNER FURN	TBD	WALL MOUNTED (DIGITAL SIGNAGE-PORTRAIT)
INTVW	211B	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
WELLNESS	211	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED (DIGITAL SIGNAGE-PORTRAIT)
INTVW	211F	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
HEARING ROOM	222C	2	9'-6"	FP					OWNER FURN	TBD	WALL MOUNTED
COLLAB	222D	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
COLLAB	223M	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
COLLAB	224H	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
NEWS ROOM (MID COLUMN)	224J	2	8'-8"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
NEWS ROOM (MID COLUMN)	224J	2	8'-8"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
NEWS ROOM (SOUTH)	224J	2	8'-8"	FP					OWNER FURN	TBD	POLE MOUNTED FROM DECK ABOVE
NEWS ROOM (EAST)	224J	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
SM CONFERENCE	225	2	9'-6"	PS	72"	114"	TBD	8'-10'		16:10	
CONCOURSE-S (SOUTH)	200-2	2	9'-6"	FP					OWNER FURN	TBD	WALL MOUNTED (DIGITAL SIGNAGE)
MULTI-PURPOSE	227J	2	8'-8"	FP					OWNER FURN	TBD	WALL MOUNTED
OUTDOOR ADV RETAIL	227	2	8'-8"	FP					TBD	TBD	POLE MOUNTED FROM DECK ABOVE
OUTDOOR ADV RETAIL	227	2	8'-8"	FP					TBD	TBD	POLE MOUNTED FROM DECK ABOVE
MP STUDIO YOGA/PILATES-1	305A-1	3	16'-9"	PS	72"	114"	TBD	8'-10'		16:10	PROVIDE 7'-0" OF BLACK DROP
MP STUDIO SPINNING-1	307-1	3	16'-9"	PS	72"	114"	TBD	8'-10'		16:10	PROVIDE 7'-0" OF BLACK DROP
MP STUDIO OPEN-1	309A-1	3	16'-9"	PS	72"	114"	TBD	8'-10'		16:10	PROVIDE 7'-0" OF BLACK DROP
MP ROOM DANCE 1-1	311-1	3	24'-0"	FP					OWNER FURN	TBD	WALL MOUNTED
MP ROOM DANCE 2	312	3	24'-0"	FP					OWNER FURN	TBD	WALL MOUNTED

PS = PROJECTION SCREEN, FP = FLAT PANEL MONITOR, TBD - TO BE DETERMINED

GENERAL SHEET NOTES

1. INSTALL ALL CONDUIT IN A CONCEALED FASHION. SURFACE MOUNTED CONDUIT WILL NOT BE ACCEPTED.
2. MAINTAIN MAXIMUM SEPARATION BETWEEN A/V SYSTEM CONDUIT AND ALL POWER CONDUIT.
3. INSTALL NYLON PULL STRINGS IN ALL A/V SYSTEM CONDUIT. SUPPORT THE ENTIRE WEIGHT OF ALL SPEAKER ENCLOSURES FROM THE BUILDING STRUCTURE.
4. SUPPORT THE ENTIRE WEIGHT OF ALL SPEAKER ENCLOSURES FROM THE BUILDING STRUCTURE.
5. IF THE BOXES, ENCLOSURES, & CABINETS SPECIFIED ARE NOT PROVIDED FROM THE MANUFACTURER WITH THE REQUIRED KNOCK OUTS FOR THE SPECIFIED CONDUIT, FIELD CUT ALL REQUIRED KNOCK OUTS TO TERMINATE THE QUANTITY AND SIZES OF THE SPECIFIED CONDUITS.
6. THE ROUGH-IN LOCATIONS FOR PROJECTORS (P) SHOWN ON THE FLOOR PLAN DRAWINGS ARE APPROXIMATE. REFER TO THE DISPLAY DEVICE SCHEDULE FOR ACTUAL PROJECTION DISTANCES. LOCATE ROUGH-IN FOR PROJECTORS IN COMPLIANCE WITH THE DISPLAY DEVICE SCHEDULE.
7. ALL ROUGH-IN SHALL BE IN COMPLIANCE WITH ANSI/TIA/EIA 569-B WHICH INCLUDES, BUT IS NOT LIMITED TO, ALL CONDUITS HAVING NO MORE THAN TWO 90 DEGREE BENDS.
8. ALL CONDUIT FOR AV ROUGH-IN SHALL BE EMT.
9. ALL CONNECTION PANELS SHALL BE WITHIN 12" OF POWER AND DATA OUTLETS. NOTIFY ENGINEER IF DISCREPANCY IS FOUND.
10. ALL FLAT PANEL MONITORS AND PROJECTORS ARE TO BE PROVIDED BY UVU PERSONNEL. VERIFY EXACT INSTALLATION REQUIREMENTS PRIOR TO INSTALLATION.
11. PROJECTIONS SCREENS AND PROJECTOR LIFTS ARE TO BE FURNISHED AND INSTALLED BY CONTRACTOR. 1
12. FOR GENERAL REQUIREMENT OF STRUCTURED CABLING SEE TT SHEETS. FOR GENERAL REQUIREMENTS OF AV SEE TA SHEETS.
13. ALL ROUGH IN FOR AV SHALL COMPLY WITH UVU MASTER CABLE SPEC. SEE SPECIFICATION SECTION 270500.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

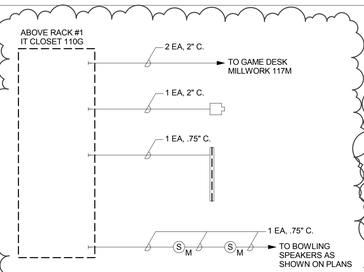
DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

AUDIO-VIDEO ROUGH-IN SCHEDULES AND NOTES

CONSTRUCTION DOCUMENTS

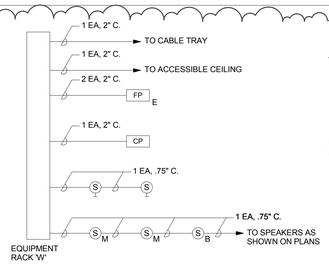
EJ-601

C:\Users\jdim\Documents\20110364Elec UVU Student Life Center_Jedi Master MKD.rvt
5/14/2012 10:59:19 AM



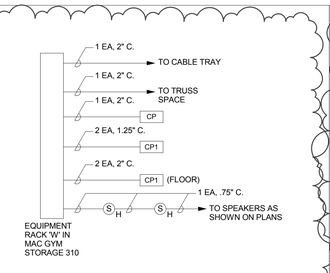
18 BOWLING LANES 117H AV ROUGH-IN DIAGRAM

NTS



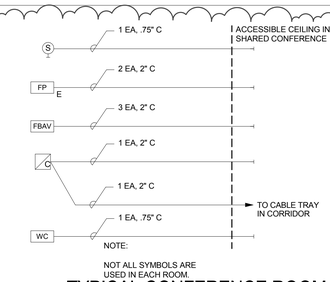
13 MP ROOM DANCE 311-1, 312-1 AV ROUGH-IN DIAGRAM

NTS



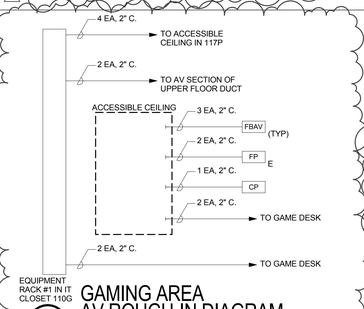
8 MAC GYM 306-1 AV ROUGH-IN DIAGRAM

NTS



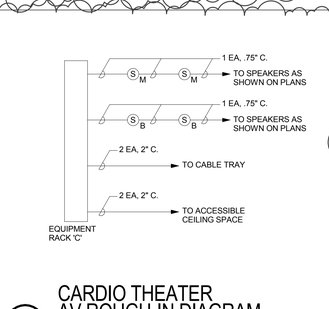
4 TYPICAL CONFERENCE ROOM AV ROUGH-IN DIAGRAM

NTS (122A, 122E, 124, 211B, 211F, 203A, 227J)



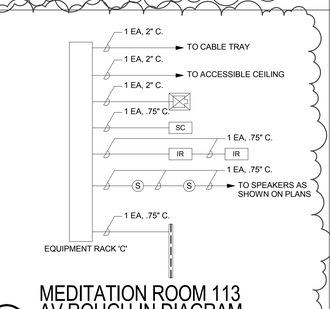
17 GAMING AREA AV ROUGH-IN DIAGRAM

NTS



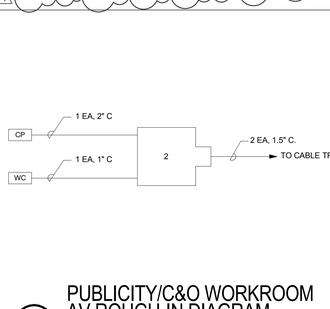
12 CARDIO THEATER AV ROUGH-IN DIAGRAM

NTS



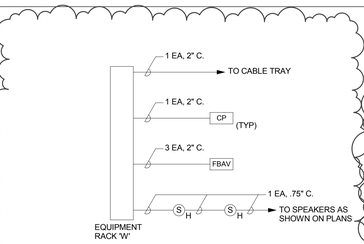
7 MEDITATION ROOM 113 AV ROUGH-IN DIAGRAM

NTS



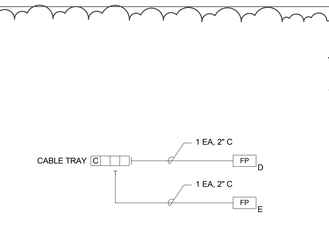
3 PUBLICITY/C&O WORKROOM AV ROUGH-IN DIAGRAM

NTS



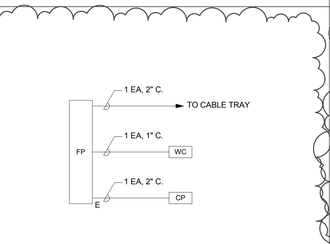
16 3-TIER SEATING 103 AV ROUGH-IN DIAGRAM

NTS



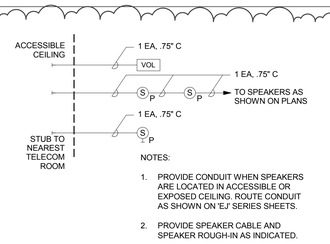
11 BUILDING WIDE DISPLAY SYSTEM AV SYSTEMS DIAGRAM

NTS



6 GROUP STUDY/GATHERING AREAS ROUGH-IN DIAGRAM

NTS (TYPICAL OF ROOMS 122E, 122J, 124, 211G, 211E, 222D, 223M, 224H)

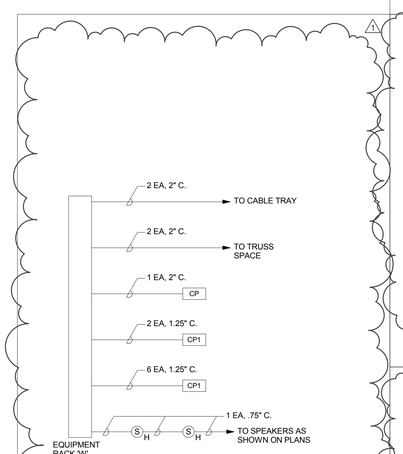


NOTES:

1. PROVIDE CONDUIT WHEN SPEAKERS ARE LOCATED IN ACCESSIBLE OR EXPOSED CEILING. ROUTE CONDUIT AS SHOWN ON 'EJ' SERIES SHEETS.
2. PROVIDE SPEAKER CABLE AND SPEAKER ROUGH-IN AS INDICATED.
3. AT '1C' LOCATION, COIL 10 FEET OF EXTRA CABLE AND LABEL.

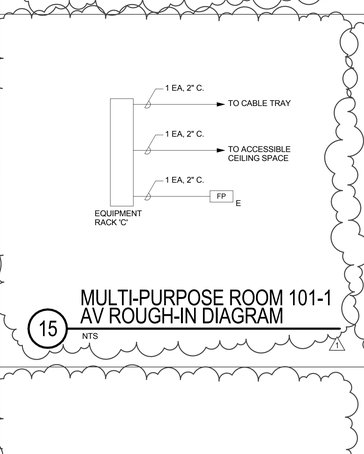
2 PAGING SYSTEM ROUGH-IN DIAGRAM

NTS



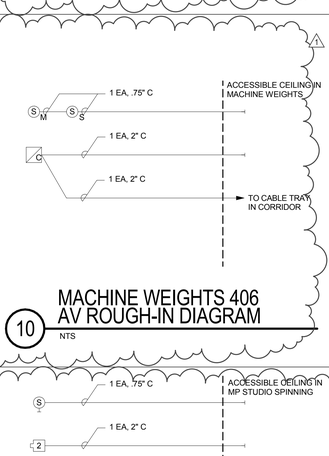
19 THREE COURT GYM 302 AV ROUGH-IN DIAGRAM

NTS



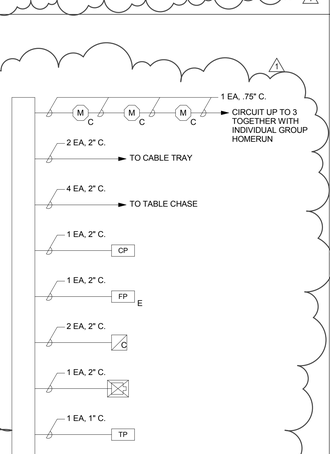
15 MULTI-PURPOSE ROOM 101-1 AV ROUGH-IN DIAGRAM

NTS



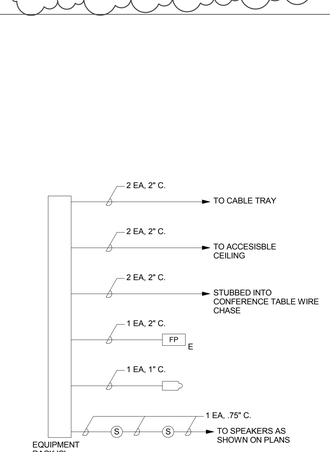
10 MACHINE WEIGHTS 406 AV ROUGH-IN DIAGRAM

NTS



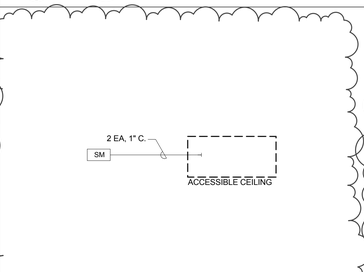
5 STUDENT COUNCIL CHAMBER 114 AV ROUGH-IN DIAGRAM

NTS



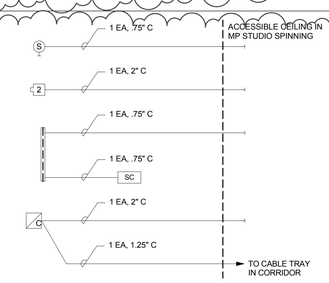
1 HEARING ROOM AV ROUGH-IN DIAGRAM

NTS



14 SCHEDULING MONITOR AV ROUGH-IN DIAGRAM

NTS



9 MP STUDIO SPINNING 307, YOGA 305-1, 309-1 AV ROUGH-IN DIAGRAM

NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

AUDIO-VIDEO ROUGH-IN RISER DIAGRAMS

CONSTRUCTION DOCUMENTS

EJ-602

C:\Users\dlm\Documents\2011036-Elec UVU Student Life Center_jedi Master McD.rvt

5/14/2012 10:59:20 AM

VOICE-DATA/TV DIST. EQUIPMENT/CABLE LIST

THE ITEMS INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". THIS LIST IDENTIFIES ITEMS OF SIGNIFICANCE USED DURING THE DESIGN OF THE CABLING INSTALLATION. WHERE THE ITEMS INDICATED ARE ONE PORTION OF AN ASSEMBLY, THE ENTIRE ASSEMBLY SHALL BE PROVIDED UNLESS SPECIFIED OTHERWISE. PROVIDE ALL MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE, FOR A COMPLETE INSTALLATION. COMPARE CATALOG NUMBERS WITH DESCRIPTIONS AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID. IF CATALOG NUMBERS DO NOT MATCH DESCRIPTIONS, THE DESCRIPTIONS TAKE PRECEDENCE. PROVIDE COMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SYMBOL	DESCRIPTION	ACCEPTABLE TYPES
	CATEGORY 3 RISER RATED CABLE	SEE SPECIFICATIONS
F	24 STRAND SM FIBER 1	SEE SPECIFICATIONS
FPP	FIBER OPTIC PATCH PANEL - 96 PORT, BLACK, (QUANTITIES OF PORTS AS REQUIRED +25%)	SIEMON FCP3-DWR
	6 PORT DUPLEX SC FIBER PANEL CARD, BLACK	SIEMON RIC-SCO6-1
	BLANK FIBER PANEL CARD, BLACK	SIEMON RIC-BCMC
D(#)	STATION CABLE, DATA-CATEGORY 6A, WHITE, DATA.	SEE SPECIFICATIONS
V(#) 1	STATION CABLE, VOICE-CATEGORY 5e, BLUE, VOICE.	SEE SPECIFICATIONS
FS 1	SERVER ROOM FIBER, 72 STRAND, SINGLE MODE	SEE SPECIFICATIONS
W	VOICE OUTLET, WALL PHONE SINGLE GANG STAINLESS STEEL BEZEL	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON CT SERIES
	CATEGORY 5e JACK-VOICE, USOC RJ-14C, BLACK	SIEMON MX3-F-03-01
▼	DATA OUTLET DOUBLE GANG STAINLESS STEEL BEZEL	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6A JACK-DATA (2), WHITE	SIEMON Z6A-02
▼ WAP	DATA OUTLET DOUBLE GANG STAINLESS STEEL BEZEL (CEILING MOUNTED)	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6A JACK-DATA (1), PURPLE	SIEMON Z6A-02
1	VOICE-DATA OUTLET TERMINATE TO BISCUIT	SIEMON MAX 10GMX-FP-D-08-02
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6A JACK-DATA (6), WHITE	SIEMON Z6A-02
	CATEGORY 5e JACK-VOICE (1), BLACK	SIEMON MX3-F-03-01
▣	TV OUTLET	SEE SPECIFICATIONS
	DATA OUTLET FOR SURVEILLANCE CAMERA (SEE 'EY' SHEETS) DOUBLE GANG STAINLESS STEEL BEZEL	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6A JACK-DATA (1), WHITE	SIEMON Z6A-02
1 C W	DATA OUTLET FOR AV EQUIPMENT RACK (SEE 'EJ' SHEETS) DOUBLE GANG STAINLESS STEEL BEZEL	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED 1	SIEMON MAX SERIES
	CATEGORY 6A JACK-DATA (6), WHITE	SIEMON Z6A-02
	CATEGORY 5e JACK-VOICE (1), BLACK	SIEMON Z6A-02
	TELEPHONE BOARD, 8' HIGH, FIRE TREATED, PAINTED WHITE	
	COPPER CATEGORY 6A PATCH CABLES	SIEMON MAX
	CAT5 J-HOOKS	CADDY CAT32Z34
	CABLE RUNWAY-12", BLACK	CHATSWORTH 10250-712
	CABLE RUNWAY-18", BLACK	CHATSWORTH 10250-718
	CABLE RUNWAY RADIUS DROP, BLACK	CHATSWORTH 12100-712
	BUTT SPLICE KIT, BLACK	CHATSWORTH 11301-001
	JUNCTION SPLICE KIT, BLACK	CHATSWORTH 11302-001
	ADJ. JUNCTION SPLICE KIT, BLACK	CHATSWORTH 10616-001
	FOOT KIT, BLACK	CHATSWORTH 11309-701
	3" CHANNEL RACK TO RUNWAY, BLACK	CHATSWORTH 10595-712
	TRIANGLE BRACKETS 12", BLACK	CHATSWORTH
	EQUIPMENT RACK, OPEN FRAME 19", BLACK W/ VERTICAL WIDE MANAGER	SIEMON RS-07-S AND VPC-6
	EQUIPMENT RACK POWER STRIP, 20A	SIEMONS RSP04
FPP	PATCH PANEL, DATA, 48 PORT W/ CAT 6A INSERT (QUANTITIES OF PORTS AS REQUIRED +25%)	SIEMON Z6A-PNL-U48K
VWM	VERTICAL WIRE MANAGERS, BLACK, SIDE & CENTER	SIEMON RS-CNL3 SIEMON CS-CNL
HWM	HORIZONTAL WIRE MANAGERS, BLACK, 2 RU	SIEMON WM 143-5/WM 144-5
	COPPER CATEGORY 5e PATCH CABLES	SEE SPECIFICATIONS
	CATEGORY 6A J-HOOKS	CADDY CAT32Z34
	FIBER CONNECTOR, SC	SEE SPECIFICATIONS
	FIBER OPTIC PATCH CABLES, MULTI-MODE, LC TO LC	SEE SPECIFICATIONS
	1" INNERDUCT-PVC	SEE SPECIFICATIONS
	1.25" INNERDUCT-PVC	SEE SPECIFICATIONS
	1" INNERDUCT-PLENUM RATED	SEE SPECIFICATIONS
	1.25" INNERDUCT-PLENUM RATED	SEE SPECIFICATIONS
	200 PAIR - 110 PUNCH DOWN BLOCK, IVORY PAIR STATION. PRE-WIRED (RISER AND DEMARK FIELD 126)	SIEMON S110-AB-200
	CABLE MANAGER	SIEMON S110-A2-RMS
	100 PAIR - 110 PUNCH DOWN BLOCK, IVORY PAIR STATION. PRE-WIRED (RISER AND DEMARK FIELD 126)	SIEMON S110-A13-100
	CABLE MANAGER	SIEMON S110-A1-RMS
	WIRE MANAGEMENT JUMPER THROUGH	SIEMON S110-A2
T	TV CABLE, RG-6	SEE SPECIFICATIONS
TR	TV TRUNK CABLE, RG-11	SEE SPECIFICATIONS
DA	TV DISTRIBUTION AMPLIFIER	SEE SPECIFICATIONS
SP	TV DISTRIBUTION SPLITTER	SEE SPECIFICATIONS
1 SM	SCHEDULE MONITOR (SEE EJ SHEETS) DOUBLE GANG STAINLESS STEEL BEZEL.	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6 JACK DATA (1) WHITE	SIEMON Z6A-02
WC	WALL CONTROLLER (SEE EJ SHEETS) DOUBLE GANG STAINLESS STEEL BEZEL.	SIEMON MAX SERIES
	BEZEL INSERTS, ANGLED	SIEMON MAX SERIES
	CATEGORY 6 JACK DATA (1) WHITE	SIEMON Z6A-02

NOTE: ALL RACKS, LADDER, PATCH PANELS, AND ACCESSORIES SHALL BE BLACK IN COLOR.

VOICE-DATA STRUCTURED CABLING SYSTEM NOTES

1. REFER TO EJ, EP, EY, AND ET SERIES SHEETS FOR VOICE/DATA OUTLET QUANTITIES AND LOCATIONS.
2. PROVIDE PLENUM RATED CABLE IN ALL AIR PLENUMS. IF A PLENUM RATED CABLE IS NOT SPECIFIED, PROVIDE THE PLENUM RATED EQUIVALENT TO THE SPECIFIED CABLE.
3. ALL CABLE, REGARDLESS OF LENGTH, INSTALLED UNDER THIS CONTRACT ARE TO BE LABELED.
4. THE EQUIPMENT LABELING IDENTIFIED ON DETAILS IN THESE DRAWINGS ARE EXAMPLES ONLY OF THE ACTUAL LABELING WHICH IS REQUIRED AS PART OF THIS CONTRACT. PRIOR TO FABRICATION, SUBMIT THE NOMENCLATURE FOR ALL LABELS TO THE OWNER FOR REVIEW. THIS REQUIREMENT INCLUDES BUT IS NOT LIMITED TO ALL CABLE LABELING, AND ALL EQUIPMENT LABELING.
5. FOR EVERY CABLE PULL SPECIFIED, COIL 5' OF EXCESS CABLE AT THE AT THE CLOSET END, NEATLY COIL AND LABEL.
6. UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDIE" CLIPS INSTALLED ABOVE ACCESSIBLE CEILINGS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDIE" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
7. GROUND ALL EQUIPMENT RACKS AS DETAILED. COORDINATE GROUNDING WITH ELECTRICAL CONTRACTOR.
8. IF CABLE/CONDUIT EXTENDS THROUGH LAY IN CEILING TILE, FRAME PENETRATION LOCATION WITH T-BAR GRID, CUT TILE AND FINISH NEW OPENINGS WITH T-BAR. CUT CONDUIT FLUSH WITH TILE.
9. ALL CABLE, FIBER, AND UTP TO TERMINATED ON BOTH ENDS.
10. COORDINATE RACK LAYOUTS WITH OWNER PRIOR TO INSTALLATION.
11. ALL FIBER BUNDLES ARE TO BE TERMINATED IN INDIVIDUAL RACK INTERCONNECT CENTER.
12. WELL IN ADVANCE OF INSTALLATION, COORDINATE WORK WITH ALL OTHER TRADES SO THAT ELECTRICAL EQUIPMENT, OR ITS INTENDED USE, IS NOT OBSTRUCTED BY EQUIPMENT BEING PROVIDED BY OTHER DIVISIONS.
13. ALL VOICE/DATA SYSTEMS CABLE IS TO BE INSTALLED INSIDE MINIMUM 1.25" CONDUIT. STUB CONDUIT FROM JUNCTION BOX LOCATION TO CABLE MANAGEMENT SYSTEM SPECIFIED FOR ACCESSIBLE CEILING.
14. INSTALL ALL ELECTRONIC SYSTEMS EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, SEISMIC CODES, AND INDUSTRY WIDE ACCEPTED PRACTICES. SUPPORT EQUIPMENT WEIGHT FROM BUILDING STRUCTURE. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.
15. COMPLY WITH UVU MASTER CABLE SPECIFICATIONS.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

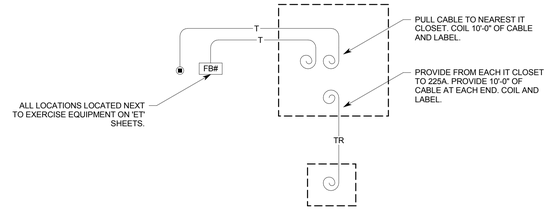
DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

TELECOMMUNICATIONS SCHEDULES AND NOTES

CONSTRUCTION DOCUMENTS

TT-001

C:\Users\dlm\Documents\2010364Elec UVU Student Life Center_jxdi Master MKD.rvt
5/14/2012 11:03:21 AM

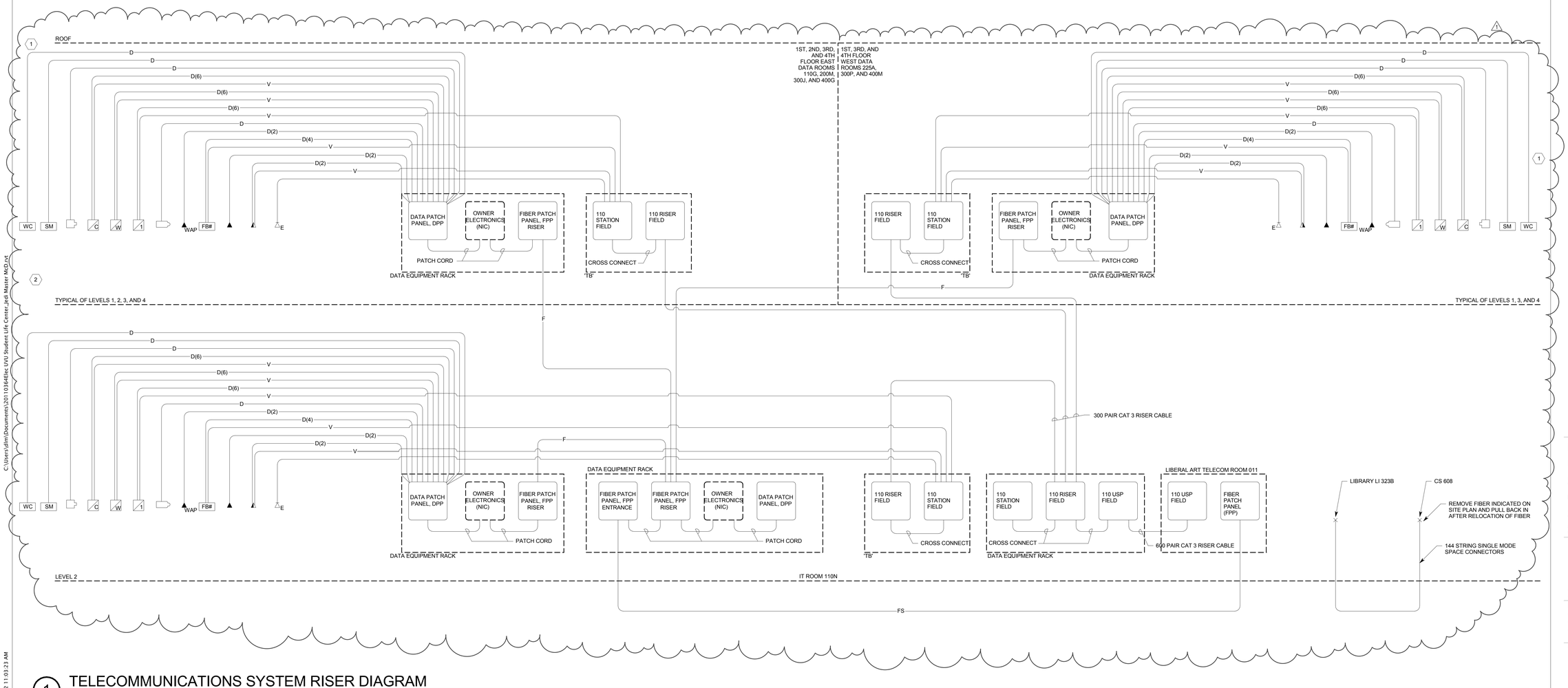


2 TV DISTRIBUTION SYSTEM RISER DIAGRAM

NTS

SHEET KEYNOTES

1. ALL DATA FROM PARKING GARAGE SHALL BE ROUTED TO SECOND FLOOR TELECOMMUNICATIONS ROOMS.
2. ALL VOICE-DATA CABLE WEST OF BRIDGE IS TO TERMINATE AT P.E. BUILDING TELECOM ROOM PE146. RACKS ARE EXISTING. PROVIDE PATCH PANEL AND 110 BLOCKS AS REQUIRED. VERIFY MOUNTING WITH UVU PERSONNEL.



1 TELECOMMUNICATIONS SYSTEM RISER DIAGRAM

NTS

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE

800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM

4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	SJT
CHECKED BY:	KDD
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

TELECOMMUNICATIONS RISER DIAGRAMS

CONSTRUCTION DOCUMENTS

TT-601

C:\Users\dlin\Documents\2011\03645\Ec UVU Student Life Center_Jedi Master McD.rvt
5/14/2012 11:03:23 AM

WIRING SCHEDULE

FUNCTION	< 500'	< 1000'	1000'-3000'	> 3000'
ADDRESSABLE LOOP	#18 TSP	#18 TSP	#16 TSP	#14 TSP
POWER LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
SPARE LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
STROBE HORNS	#14 THWN	#14 THWN	#12 THWN	#10 THWN
MAGNETIC DOOR HOLDER	#12 THWN	#10 THWN		
SPEAKERS	#16 TSP	#16 TSP	#14 TSP	#14 TSP

NOTIFICATION SCHEDULE

SYMBOL	STROBE SIZE	COVERAGE	AVERAGE CURRENT *	MAXIMUM PER CIRCUIT ALONE
E	-	-	.057A	39
15 E	15 CD	20'x20'	.116A	19
30 E	30 CD	30'x30'	.147A	15
75 E	75 CD	40'x40'	.217A	10
110 E	110 CD	50'x50'	.266A	8
185 E	185 CD	70'x70'	.326A	3
WP E	-	-	.057A	39
15 E	15 CD	20'x20'	.116A	19
30 E	30 CD	30'x30'	.147A	15
75 E	75 CD	40'x40'	.217A	10
110 E	110 CD	50'x50'	.266A	8
185 E	185 CD	70'x70'	.326A	3

* CURRENT DRAWS SHOWN ARE FOR EXAMPLE PURPOSES ONLY. BASE ALL NAC CALCULATIONS UPON SPECIFIC DEVICES PROVIDED.

FIRE ALARM INPUT/OUTPUT MATRIX (PARKING)

			OUTPUT DEVICES						
		ZONE	GENERAL ALARM	DOOR HOLDER/CLOSERS	ELEVATOR RECALL MAIN LEVEL	ELEVATOR RECALL ALTERNATE LEVEL	TROUBLE ALARM	SUPERVISORY ALARM	NOTES
INITIATING DEVICES	1	PRESSURE FLOW SWITCH	●						
	2	TAMPER SWITCH					●		
	3	LOW AIR SWITCH					●		
	4	ELEVATOR LOBBY HEAT DETECTORS (LEVEL P1)	●			●			
	5	ELEVATOR LOBBY HEAT DETECTORS (OTHER LEVELS)	●		●				
	6	SMOKE DETECTOR	●						
	7	CIRCUIT TROUBLE					●		
	8	ALL POWER LOSS						●	
	9	LOW BATTERY POWER					●		
	10	SYSTEM TROUBLE					●		
	11	REMOTE POWER SUPPLY TROUBLE					●		
	12								
	13								

GENERAL SHEET NOTES

1 PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.

2 PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.

3 PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE), POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.

4 FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.

5 HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.

6 PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.

7 BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.

8 VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.

9 RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.

10 PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

11 PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.

12 PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.

13 PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.

14 LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.

15 PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.

16 INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.

17 ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.

18 HORN/STROBE BASED ON 120 MILLIAMPS. DOOR HOLDERS BASED ON 70 MILLIAMPS.

19 INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

GSBS ARCHITECTS
375 WEST 200 SOUTH
SALT LAKE CITY, UT 84101
P 801.521.8600
F 801.521.7913
www.gsbsarchitects.com

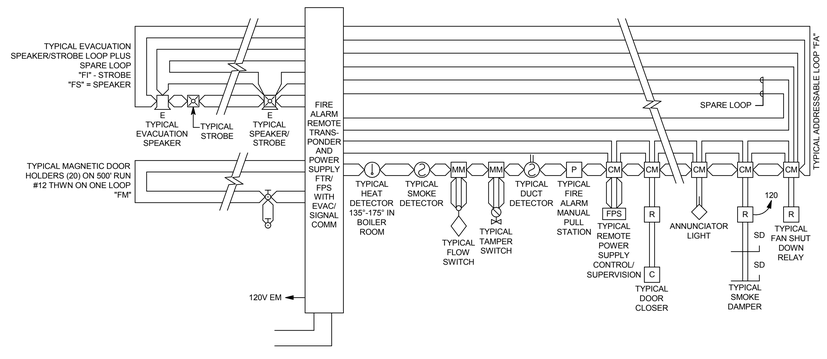
CANNONDESIGN
CANNON DESIGN
829 NORTH 1st AVENUE
PHOENIX, AZ 85003
602.294.6500

REVISIONS:

1	May 11, 2012	Addendum #4

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

REGISTERED PROFESSIONAL ENGINEER No. 181563 DAVID E. WESEMANN 04/27/2012 STATE OF UTAH



1 FIRE ALARM RISER DIAGRAM - PARKING
SCALE: NTS

UTAH VALLEY UNIVERSITY STUDENT LIFE CENTER & PARKING STRUCTURE
800 WEST UNIVERSITY PARKWAY
OREM, UT 84058

DFCM
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UT 84112

DRAWN BY:	WRT
CHECKED BY:	DEW
OWNER PROJECT NO.:	#10289790
GSBS PROJECT NO.:	2011.045.00
ISSUED DATE:	04.27.2012

FIRE ALARM RISER - PARKING STRUCTURE

CONSTRUCTION DOCUMENTS

FA-P601

C:\Users\dlim\Documents\2011\3364Elec UVU Student Life Center_jadi Master McD.rvt
5/14/2012 11:03:20 AM