



State of Utah

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## ADDENDUM NO. 4

Date: May 24, 2013  
To: Contractors  
From: Kurt Baxter – Region Director  
Reference: New Classroom Building  
UVU - Orem, Utah  
DFCM Project No. 12192790  
Subject: **Addendum No. 4**

Addendum	1 page
<u>Architects Addendum</u>	<u>15 pages</u>
Total	16 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, if applicable. Failure to do so may subject the Bidder to Disqualification.**

**4.1 SCHEDULE CHANGES:** There are no changes to the project schedule.

**4.2 GENERAL:** CRSA Architects – please see attached sheets.

# DFCM

Division of Facilities Construction and Management  
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ADDENDUM NO. 4  
May 23rd, 2013

Utah Valley University Classroom Building  
Orem, Utah

The original specifications and drawings, labeled BID DOC dated April 30th, 2013 for the project referenced above are amended in the Addendum No. 4, dated May 23<sup>th</sup> 2013.

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 the following:

## **ADDENDUM ITEMS:**

1. Revised sheet EJ603 attached.
2. Revised sheet C105 (missing from addenda 1)

## **ANSWERS TO BIDDERS QUESTIONS:**

Question	Answer
Please issue a material specification for epoxy floor coatings at the well houses.	The epoxy flooring is hereby deleted from the project
Please issue a material specification for the sealer to be applied to CMU walls inside the well houses.	See addenda 5
Layout Note #3 mentions "owner-furnished landscape sleeves". Are sleeves owner-furnished & owner-installed or are they contractor-furnished & contractor-installed?	These should be contractor supplied and installed
Is the stair nosing material as shown at detail A2/AE513 the material described at spec 096513-2.5.C (two-part epoxy compound)?	The strips shown in A2/AE513 are stainless steel imbeds flush with the top of the concrete.
The mow curb at detail A6/AE324 (perim. of building along gridline J) does not appear to be shown on the landscape site plans. Please show this mow curb on the landscape site plans.	Delete the mow curb.
Detail A2/SB501 shows building slab on grade installed directly on top of the vapor barrier. Spec 033000-3.5 indicates that a layer of gravel should be placed on top of the vapor barrier and beneath the slab. Which is correct?	The design intent is for the slab to be cast directly on the vapor barrier. There could be a layer of fill between the slab and vapor barrier if the contractor can guarantee that the space between vapor barrier and slab will remain dry for the duration of the project. This will ultimately be coordinated with the winning contractor.
Precast architectural concrete spec 034500 indicates that the preconstruction testing mockup shall be built at the testing agency's facility (see 034500-1.7.J.2). Mockup requirements in other specs (including 019117) indicate that the mockup should be built on site. We assume that a separate mockup will not be required to be built and tested at the testing agency's facility as noted in spec 034500. Please confirm this assumption.	A mock-up at the testing agencies facilities is NOT required. The pre-cast will be incorporated into the mock-ups shown on AE203.
The mockup shown on drawing AE203 does not appear	See above answer.

to integrate precast architectural concrete units. Will precast be desired as part of the mockup?	
The mockup shown on drawing AE203 refers us to detail A5/AE635 at the intersection of window and brick. Detail A5/AE635 also includes an aluminum sunshade. Is an aluminum sunshade desired to be part of the mockup?	The shade is not required in the mock-up
Please issue a specification for buckling-restrained braces.	See addenda 3.
The table of contents in specification Volume 2 lists 071113 Bituminous Dampproofing but this spec is not included in the specs. Please issue this spec.	See addenda 5.
Does roof drain placement need to change with Alternate #1?	No.
The irrigation water line appears to be capped just beyond a ball valve on PL101. Does it continue from the ball valve to each planter? How is it routed? This isn't shown on the landscape irrigation plans.	The irrigation of the roof planters will be by hose. Addenda 5 will clarify the valve. This valve will be specified in the plumbing sheets not the irrigation sheets
There does not appear to be a legend on the architectural or landscape drawings identifying the planting material to be provided as part of Alternate #1. Please provide planting material and soil information.	See addenda 5
Is the soils report and supplemental report posted to the DFCM website on May 15 different from what was issued in Volume 1 of the specifications?	The reports are the same. The specs include an a supplemental report not found on the web site.
Is exterior soffit Type 'F' as shown on AE121A and AE122A (exterior composite wood soffit) the material described in spec 074233 (Exterior Solid Phenolic Rainscreen)? If not, please identify the specification.	Yes. Any references to "exterior composite wood soffit" or "panel" or "wood slat siding system" shall be understood to apply to section 074233 Exterior Solid Phenolic Rainscreen.
Is the exterior wood panel system (Keyed Note #5 on AE201) and the wood slat siding system (C3/AE511) the material described in spec 074233 (Exterior Solid Phenolic Rainscreen)? If not, please identify the specification.	See above answer.
Clarification from one of the rain screen bidding subcontractors: because of the size of the building (over 40' tall), the Phenolic Rain Screen Panels must meet NFPA 285 fire-rated assembly requirements. This requires a specific type of insulation and air barrier, exactly as tested. To ensure consistent bids from trade contractors, please insert this clarification in an addendum. <b>OR please comment on the applicability of NFPA 285 to this project and how it might impact the design of the phenolic rainscreen wall assembly.</b>	The Exterior Solid Phenolic Rainscreen assembly must comply with NFPA 285. Please note this assembly is called to be a deferred submittal and design criteria and engineering for support must be part of the submittal.
Regarding the spandrel glass to be installed in existing framing below the bridge floor level at the interface between new bridge and existing Digital Learning Center: we are told that the way this system is shown, the glass panel is installed from the outside. If the glass were to ever crack, it does not appear that it will be possible to access this glass panel for removal and replacement. Could a metal panel be installed at this location instead of the spandrel glass?	See addenda 3. This was changed to an insulated metal panel.
Detail A5/AE328: regarding the suspension system shown to support metal panel soffits beneath the new bridge: is this suspension system the same as what is identified in spec 092216-2.3? Please confirm the intended system for this application.	Yes, section 092216 is applicable.
Please update the sprinkler head schedule shown at 211000-2.4.B to correspond to the Classroom Building project.	See addenda 5

In spec 211000-1.4.A and Keyed Note #2 on FF101, there is explicit instruction that the site utilities contractor will terminate the fire water line inside the building. However, on drawing C105, the fire water lines stub and terminate at a point roughly 5' outside the building footprint. Please indicate on the Civil utilities plan that fire water lines should be stubbed into the building and should terminate with a blind flange 12" above finished floor elevation.	The site contractor shall comply with section 211000.
Please update the alternates section of 230500 (paragraph 1.10) to correspond to the Classroom Building project.	Will update in Addenda 5
Follow-up to question #23 above: specification 230529-3.10.D and -3.11.B.3 gives requirements for painting piping where exposed to view in concourses. Please indicate this as clearly as possible on the architectural finish schedule and in the Division 9 Painting specifications, as well.	There is no pipe exposed in the concourse.
Keyed Note #1 on MP102D: please indicate the approximate location of existing pipe stub-outs in the Digital Learning Center.	Show in addenda 3
Spec 231123-2.5.A indicates that we are to install a gas shut-off valve on the main gas line serving the Student Life Center. Is this meant to be installed on the main gas line serving the new Classroom Building?	To be clarified in addenda 5
Spec 231123-1.6.A and -1.12 indicate that gas serving this building will be obtained from an existing indoor gas line. However, the drawings seem to indicate that gas will be obtained from a new Questar meter just outside the new central plant. Please clarify where gas will be obtained.	To be clarified in addenda 5
Spec 268313-1.2.A mentions snow and ice melting on pavement as well as snow and ice melting on roofs. This is not found on the drawings. Are these items applicable to this project?	No snow melt at pavement or roof. This project.
Detail D3/AE328 calls for exterior louvers (here, at the pedestrian bridge) to receive an anodized aluminum finish. Air Inlets and Outlets spec 233713-2.10.C calls for exterior louvers to receive a baked enamel finish (custom color). Please clarify which finish system is desired for exterior louvers.	Anodized aluminum
Details B6 & D6/AE324 call for intumescent paint to be applied to structural steel (Stair 200X). Keyed Note 1 on AE102B indicates that this steel is to receive fireproofing "per spec". There is no material specification for this intumescent paint; please issue a specification and the required UL Assembly for the desired system.	Apply intumescent paint to the steel shown in details D6 & B6/AE324. See addenda 5 for spec.
Detail B4/AE327 also calls for intumescent paint to be applied to structural steel. Please issue an intumescent paint specification and the required UL Assembly.	The steel in this detail shall have applied fireproofing.
In addition to the two areas described above, please identify any other areas where intumescent paint will be required.	No others.
Detail A5/AE635 is shown at curtain wall elevations AA, AB, AD, AE, AF, AH, AJ, AW, AX and BE on the AE6xx drawings. Please advise if this is correct; detail A5/AE635 shows a single blade sunshade at these curtain wall types; however, the Floor Plans and Elevation	This is correct. Provide sunshade on windows specified. See also detail D5/AE201.

sheets do not show sunshades at these curtain walls.	
Can form liners be used in lieu of boards to create the board-formed concrete wall look?	No
Metal Wall Panels spec 074213-2.2 calls for "pre-primed" gypsum sheathing board behind metal wall panels. Sheathing suppliers tell us there are no "pre-primed" sheathing panels available. Does the "pre-primed" requirement refer to the need to prime gypsum sheathing in accordance with air barrier manufacturer's requirements?	Yes, this is only relevant if the mfg of the air barrier requires priming. "Pre" priming by the sheathing mfg is not required.
Metal Wall Panels spec 074213-2.3 calls for a self-adhering underlayment behind metal wall panels. This self-adhering underlayment is not shown on plan details. Is this self-adhering underlayment to be installed in addition to the spray-applied air barrier that is shown behind metal wall panels in plan details? If in addition, is it applied over or under the spray-applied air barrier?	The air barrier per section 072700 will meet the requirements called for in 074213. Two membranes are not required.
Keyed Note #10 on AE104A and on other floor plans calls out "REFRIGERATOR. SEE EQUIPMENT SCHEDULE." We have not found an equipment schedule with refrigerators in the drawings. Please issue the equipment schedule and identify whether the refrigerator is to be Owner-Furnished/Owner-Installed, Owner-Furnished/Contractor-Installed, or Contractor-Furnished/Contractor Installed.	The Refrigerator is owner supplied and owner installed. There are no other architectural items referred to as being on an "EQUIPMENT SCHEDULE"
Auditorium Seating spec 126113-2.B.16 describes maple armrests as well as decorative panels to be provided on aisles "with panel finished per Architect". There do not appear to be armrest or aisle end panel details on the drawings. Please issue these details for pricing.	Provide as per specifications.
Project Management and Coordination spec 013100-1.8 mentions the owner's internet-based project management software. Please issue more information about this software, in particular if there is any fee to be paid by the contractor for use of this software.	Change to call for "Contractor provided internet based project management software"
Submittal Procedures spec 013300-2.1.A.1 indicates that the contractor is to provide and maintain the project website. Does the owner prefer to provide a project website as seems to be indicated in 013100 or should the contractor provide a project website as per 013300?	This should be a contractor provide website similar to "Newforma"
Regarding "web-based photographic documentation", does the owner or architect (at this time) know where the project camera will be mounted and where, in relation to the camera, access to power and data is located?	This will be determined in coordination with the contractor after the project is awarded.
Spec 013233-3.2.A.1 indicates that the intervals for taking video recordings is "TBD". Please indicate the interval for taking video recordings.	Take video recordings of existing conditions before construction begins. No other construction period videos are required.
Does the owner or architect have a preferred vendor for providing web-based cameras for the project? If yes, will you please publish contact information for this vendor?	No.
Quality Requirements spec 014000-1.11.A.2 refers to a testing and inspection allowance. At this time, we assume all testing and inspection costs will be paid by the owner and no allowance is to be carried by the contractor. Please confirm this assumption.	Correct.
Vertically-folding acoustical walls in the large auditorium are on gridlines 12 and 13. No roof joists are on gridlines 12 and 13 (i.e. none are directly above these acoustical walls). Are there supposed to be joists direct-	Door is supported by angles that span between joists - detail will be issued in Addendum #5.

ly overhead to support these acoustical walls?	
A steel beam is shown directly above the folding partition at Multi Purpose Rooms 510 & 511. Will you please make an indication on SF106A that holes will need to be punched through this beam to allow for hanger rod installation as shown at A6/AE522?	Support detail will be issued in Addendum #5.
Sill detail A5/AE633 shows ALUMINUM BASE (B-5). There is no B-5 base on the finish schedule. Please either issue a specification for this aluminum base or indicate if a different base is required at this location.	Delete B-5 from note and replace with scheduled base which is B-1 referenced on sheet AE111C
Spec 092900-3.2.I indicates that acoustical sealant is to be applied to STC-Rated Assemblies. The only walls on AE501 that specifically indicate STC ratings are wall types 'F2' and 'F5'. These walls are also one-hour rated assemblies. Will these walls receive both fire stopping and acoustical sealants? Please clarify.	The fire rated walls need to be built per the UL report.
There are several walls on AE501 that do not show STC ratings but call out "RAL" assemblies. Are these walls considered "STC-Rated Assemblies" and should they therefore receive acoustical sealants as described at 092900-3.2.I?	All assemblies referenced to RAL are from Riverbank Acoustical Laboratories and represents an STC rating.
There are several walls on AE501 that do not show STC ratings but call out "RAL" assemblies and indicate that all penetrations are to be sealed with urethane sealant. If these walls are "STC-Rated Assemblies" and are required to receive acoustical sealants: The acoustical sealant called out at 092900-2.7.E is a latex sealant. Is this latex sealant meant to be applied to walls with "RAL" assemblies (i.e. S3, S4, S5, and S6)?	See above answer
There are several wall types on AE501 that receive sound attenuation batts but do not have STC ratings or "RAL" or UL assemblies called out. We assume that such walls are not "STC-Rated Assemblies" as indicated at 092900-3.2.I and therefore do not receive acoustical sealants. Please confirm this assumption.	Wall types B & D shall require a minimum STC of 49.
Railings at the vertically-folding acoustical walls at Auditorium 101A are indicated to be stainless steel per A4/AE540 and B5/AE514. Railings at side walls with detail reference E6/AE513 are also indicated to be stainless steel. However, for railings at intermediate stairways, we are referred to elevation D5/AE513 which shows a painted steel railing. Should railings at intermediate stairways be stainless steel to match the other railings in this auditorium?	Stainless steel
Handrail elevation D5/AE513 calls for a painted steel railing. However, the railing post detail referenced in this elevation (C6/AE514) calls for stainless steel pipe. Which is correct: painted steel or stainless steel?	Stainless steel
Some bidding subcontractors have indicated that the exterior phenolic soffits (i.e. ceiling type 'F' on AE122A and similar locations) weigh up to 8-9 lbs/sf. Has the stud framing shown to support these soffits been designed to support this weight?	Structure for ceiling type F shall be 20 ga studs @ 24" o.c. supported from structure above with studs @ 48" o.c. ea. Way.
Please size the angle shown to support the roof deck at detail B5/AE327.	To be shown in Addenda 5
Detail A6/AE513 calls out "precast concrete treads" for Stair 200X. Are these "precast" or are they cast-in-place within steel pans as seems to be indicated at B6/AE513?	Pre-cast
Detail A6/AE513: please identify the material that appears to be a cap on top of the painted MDF material on	MDF with a SS angle covering it.

the outer face of stair stringers at Stair 200X. Please also show dimensions.	
Is 'AP-4' the callout for the acoustical wall panel described at 098433-2.1.D (Alpro Acoustical Systems product with perforated corrugated metal skin)?	Yes
Regarding 099113-3.3.E and 099123-4.3.E (requirement to paint exposed MEP items): please indicate on the architectural drawings where this requirement is applicable. For example, painters will not likely look at the single-line diagram on drawing EP601 to determine what electrical conduit needs to be painted. This needs to be shown clearly on the architectural drawings somehow so that painters will be able to see which MEP items will need to be painted.	None exists.
A6/A521 shows two light covers. This is confirmed on the RCP. E6/AE522 shows one light covers but the RCP still shows 2 light covers. Please reference AE121 corridor room 100 to see the two continuous light covers with the conflicting details noted. Will both light covers be continuous (changing detail E6/AE522) or should the RCP change to reflect a change from one light cove to two light covers at those locations?	See addenda 5
The ceramic tile finish legend and specification are conflicted on the size of tile. Please specify the size of tile to use.	The finish legend is correct.
Per drawing SF612 it shows stiff and drift clips with pins in tension. Is this the desired connection?	Will be clarified in addenda 5
The reinforcing has not been called out on the CRP-1 for the piers. Please clarify	Will be clarified in addenda 5
Please confirm a plastic or synthetic form liner is not an acceptable product for the architectural board formed concrete?	Correct.
The 300 kVA Transformers , note #2, are called "UVU transformer". On sheet EJ101 and EJ603 they are called "UTILITY XFMR". Who provides and installs these transformers?	Transformers are to be provided and installed by the contractor. Connection to primary power will be done by the owner's electrical utility.
In the Well TWH Conduit Schedule, conduit P001 Is called out as (2) parallel runs. Please verify this is correct. (See conduit P001 in Well 8WH Schedule).	Conduit runs P001 & P002 should be single runs only for both well houses. No parallel conduits are necessary. Refer to Sheet EJ603 – Rev.3 – May 22, 2013.
EP601-EP604. Feeder sizes not shown for 15kw feed from the New North Central Plant (SW-NCP) to transformer #1-4. Please clarify	See addenda 5
EP601- EP604. MV one-line diagram shows feeds to SW-NCP as being overhead in concourse. Are there available concourse drawings and information showing location of existing 15 kw switches and routing of new feeders.	Concourse drawings and details will not be available, but drawings will be issued indicating the general routing of the existing conduit. Visual inspection will be required for additional information
ES102. Are the (2) 6" underground conduits associated with the 15 kw Medium Voltage distribution as shown on One-Line diagram EP601? Please clarify.	Correct. To be clarified in addenda 5
Will UVU be providing or installing any low voltage systems equipment or cabling contained in division 26, 27, 28 or 33.	<ul style="list-style-type: none"> <li>• Voice/Data – UVU will provide and install electronics, all cabling, racks, etc. shall be by the contractor.</li> <li>• Security – UVU will provide and install the cameras, all rough-in and licensing shall be provided by the contractor.</li> <li>• A/V – Refer to EJ sheets for the scope of the AV systems (See the schedule on sheet EJ601).</li> </ul>
AE501 Wall Type E3 – what is the substrate material to	1-1/2" studs. To be clarified in Addenda 5

which the z-furring is attached? There appear to be two layers of something, but no material is called out. A similar condition appears in wall type E1. Please clarify	
Please confirm our understanding of the base bid condition of the shelled areas for Levels 2 and 3. The shelled space is finished gypsum ready for paint. If the build out is done in the future, not a part of this contract, then the electrical and data rough-in in these walls will occur at that time.	Correct.
Does the gypsum require a level 5 finish where wood veneer wall covering is applied directly to it? Does the gypsum need to be prime painted before application of wall covering?	The wood veneer needs to meet manufacturer requirements, some say they need a level 5 (the Sanfoot which is the basis of design says they do)
Please clarify ceiling type H – “Wood Ceiling – Acoustical”, and ceiling type M – “Acoustical Wood Panel on suspension system.” We do not see this specified in Div. 06 or in Div. 09. Where are these ceilings specified? From certain details, D6/A523, it appears that ceiling type H is wood veneer wall covering adhered to gypsum, but no acoustical component is described. Please provide appropriate details pertaining these ceiling types and acoustic systems.	Remove “Acoustical” from the ceiling legend for ceiling type “H”, this is not an acoustical ceiling and is intended to be applied to gypsum as noted. Ceiling type “M” is to be acoustical per addendum #2 finish plan instructions per sheet AE620
Please clarify the intent of the escutcheons in detail B3/A523 which cover a sprinkler head and have a damper control in them. What is the gauge of the sheet metal? If they are to be painted to match the linear diffuser, is it the intent that the mechanical contractor provide them, or does it matter to the design team who provides these? Do the circle cut outs require grommets? How are they fastened in place? The design team has given the quantity of these on the plans, will extra material be required?	18 Guage sheet metal painted black to match the linear diffusers, it does not matter to the design team who provides them. They are to be fastened to the indicated suspended ceiling system with sheet metal screws, the intent is to maintain a similar look to the diffusers while providing sprinkler head locations and damper control access. A perimeter stud channel may be used in lieu of the noted gypsum board. Extra material may be required, the final location and quantity needs to be confirmed thru the submittal process with the fire suppression installer, fire marshal and architect.
The Hedera helix groundcover is called out to be a 1 gallon (refer to sheet LS302). The symbol for this plant is a SF symbol not a count symbol, what is the install spacing of this plant?	Plant at 12” o.c. spacing.
The Pinus flexilis ‘Vanderwolf’ has a size of 2” Caliper (refer to sheet LS302). Pines are not sized by the caliper, their sized by the height of the tree. What height is this pine intended to be during installation time?	Tree shall be 6’ height.
Is onsite stockpiled topsoil available on the project or do we have to import it (refer to spec 329119, 2.2, 1)? If there is onsite topsoil will it be screened already?	This refers to any soil that the project stockpiles from existing conditions. Considering that most of the site is and existing asphalt parking lot there is likely very little existing topsoil available.
In specification section 329119, 2.2, C the topsoil is specified to have a minimum of %10 organics in the topsoil. The average organic level of topsoil in this region is 2%. Does the owner really want the topsoil to be amended to 10% organics? This can be very costly.	UVU standard topsoil spec is to have 10% organic material.
In specification section 329119, 2.2, D the topsoil is specified to have a pH of 7.0. Normally the soil specs have a range of the minimum and maximum amount specified. Is there a range for the pH on this project?	UVU’s acceptable range for topsoil pH is 6.5-7.5.
Please provide more details on the foundation and walls for the platform under the South Stair tower.	See SB101B. The walls are architectural formed concrete.
The 54000 spec calls for a minimum metal thickness of .0538” (16 gauge) for the exterior walls. It calls for a minimum thickness of .0966” for the ceiling joists and soffit framing. .0966” is 12 gauge. That seems very excessive. Please confirm that 12 gauge is needed at the ex-	16 ga is acceptable.

terior soffits and joists.	
<p>On 54000-3 the spec calls for:</p> <p>Design framing systems to withstand design loads without deflections greater than the following:</p> <p>a. Exterior Non-Load-Bearing Framing: Horizontal deflection of 1/600 of the wall height.</p> <p>b. Ceiling Joist Framing: Vertical deflection of 1/240 of the span for live loads and 1/240 for</p> <p>1) total loads of the span</p> <p>The stud table included on sheet SF611 will not meet the L/600 deflection for the wind loads given. 14 gauge studs will likely be necessary. Are we to bid the L/600 deflection in the spec or the stud table on SF611?</p>	To be clarified in Addenda 5
The stud table on SF611 calls for a verticlip DSLB600 which is for a bypass condition. These walls are framed deck to deck per the wall sections. Please confirm if the walls are to be framed deck to deck or as a bypass condition.	Deck to deck. See also addenda 5
Note 13 on sheet C104 calls for an Amcor 2'x2' catch basin CB120 to be "cast in place" is that meant to be a pre-cast box?	Call out is for a cast in place box due to fact that existing FL has been calculated based on available information. A precast box is fine so long as it works with the existing storm sewer pipe
Note 16 on AE 404 has a callout for the wood chair rail that is incomplete	This will be C1/AE514 in addenda 5
The lecterns shown on the plans are dashed and the note refers to the electrical sheets which refer to the millwork plans for which there are no details. Are the lectern's themselves provided by the Owner?	The lecturns are provided and installed by the owner.
Will fire sprinklers be required for the track & 800 south well houses?	No
Equipment Schedule pg. EP605,606,607 have several mechanical items that say the VFD is supplied by both the electrician and by mechanical. Please verify which is correct? ( CPB-1,2,3 SF-8,10,13,15 )	VFDs are to be provided by mechanical per the electrical specifications and requirements found on the mechanical drawings.
Some of the General Notes text on EL101a-EL101c, ET101a-DT101c, ET105a, ET105b is overlapping each other making it hard to read. Please clarify.	<p>There should be two General Notes on all lighting plan sheets:</p> <ol style="list-style-type: none"> <li>1. COVE LIGHTS MOUNTED IN ARCHITECTURAL COVE AT TWO DIFFERENT ELEVATIONS. PROVIDE CONTINUOUS END-TO-END LIGHTING IN COVES USING 4' FIXTURES WHERE POSSIBLE AND 2' FIXTURES TO FILL REMAINING GAPS. COORDINATE EXACT PLACEMENT OF LIGHTS WITH ARCHITECTURAL COVE DETAILS AND ELEVATIONS. FIELD VERIFY ACTUAL COVE DIMENSIONS PRIOR TO ROUGH-IN.</li> <li>2. CIRCUIT ALL EXIT SIGNS TO UNSWITCHED BRANCH OF ASSOCIATED</li> </ol>

	<p>CIRCUIT.</p> <p>General Sheet Note #1 on the ET sheets should read:</p> <ol style="list-style-type: none"> <li>1. PLANS, IN GENERAL SHOW CABLE TRAYS IN PLAN AND DO NOT DETAIL CHANGES IN ELEVATION. COORDINATE LAYOUT AND INSTALLATION OF CABLE TRAYS AND SUSPENSION SYSTEM WITH OTHER CONSTRUCTION ELEMENTS. INCLUDE TRANSITIONS, OFFSETS AND CHANGES IN ELEVATION. COORDINATE ITEMS THAT PENETRATE CEILINGS OR ARE SUPPORTED BY THEM, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT, FIRE SUPPRESSION SYSTEMS AND PARTITION ASSEMBLIES.</li> </ol>
Please confirm that no allowance is required for fixtures ZX-1 on EL601.	Allowance pricing for fixture type ZX-1 has been requested and will be published
Detail 1P on LS501 calls for AP-4 Sound Panels at the Generator Enclosure. The finish schedule on AE620 lists AP-4, but does not provide any information on these panels. Please clarify product requirements for these sound panels.	AP-4 is in section 098433.2.1.D
Detail 6 on LS501 shows the new building sign as being N.I.C. Will the concrete footing for this sign be N.I.C. as well or will the contractor be required to place the concrete?	The footing and installation will be by owner.
Detail 15 on LS500 calls out the standard reveal grid pattern is 5'x10'. Would it be acceptable to change this pattern to a 4'x8' pattern? Currently the mill is only making that size of plywood in MDO (medium density overlay) which will not give the same quality finish as HDO (high density overlay).	5'x10' is required to maintain the campus standard.
The plans do not appear to address any "picture framing" finish on the exterior sidewalk. Will this be a requirement on this project?	no
On sheet SF211 it shows the reinforcing going around the shear lugs, would it be acceptable to step the reinforcing to go under the shear lugs?	Yes, stepping is acceptable.
The paver system called out in the alternate bid section is different than the paver system that is used in other locations on campus. Please confirm that the system shown in the plans is indeed what is wanted.	Bid as per spec
The sheet metal flashing and trim section calls out for .050 aluminum for the copings. Because of the thickness it is not able to be pre-finished. Can this thickness be changed?	Yes. 22 gauge equivalent
Section 2.2B of spec section 013300 calls for the design professional to be licensed in the state of Idaho for the delegated design services. Is this correct?	No. Must be licensed in the state of Utah.
Stair 400K shown on AE114A calls for base type B-1 at the other floor levels this is called out as base type B-2.	Use B-2

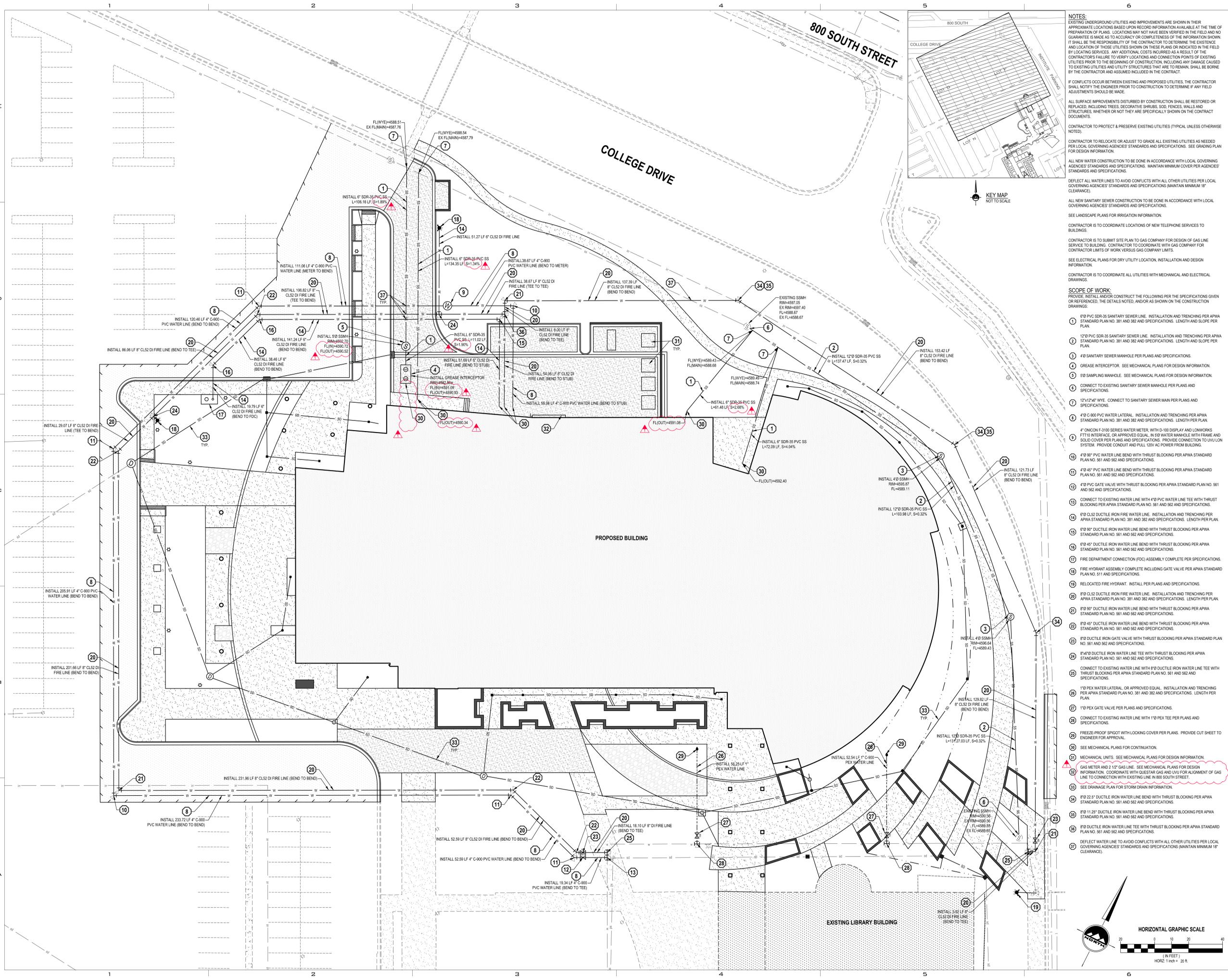
Please confirm that type B-1 is the correct callout.	
The specifications require the Steel Erector to be AISC certified. It seems like this requirement often is relaxed after the bid. Please confirm that this requirement will be upheld throughout the construction of the building. There is a potential cost difference to not going with a AISC certified erector and if someone uses a non certified erector on bid day it leaves the project vulnerable to disputes after the fact.	Provide as per spec
In addendum 01 the question was asked if the bid time could be moved two hours. We have had a request from a mechanical to push the bid 1 week. Could you please reconsider this request? We are getting feedback from other subcontractors and suppliers about how important those two hours would be in providing more complete and competitive pricing.	The bid date cannot move.
Page EP101d note 04013 for CPC-1,2,3 says rough-in only for these three mechanical items, however, the equipment schedule and single line diagrams both indicate that these items are to be installed and are calling for wire and disconnects. Please verify what is required?	Rough-in only is required for CPP-13, CPB-3 and CPC-3
EP609 panel schedule is not readable. Please clarify.	This sheet will be reissued
EP101d note 04013 says that equipment CPP-11, 12, 13 are future equipment, however, the equipment schedule and single line diagrams both indicate that these items are to be installed and are calling for wire and disconnects. Please verify what is required?	Rough-in only is required for CPP-13, CPB-3 and CPC-3. Conductors and disconnects are not required at this time
D5 & E5 on AE405 calls out note 1 "Wood Veneer WC-1" for the primary wall finish, but in looking at the details for these elevations as well as C5/AE405 it appears that this should really be note 2 "Acoustic Wood Panel AP-1". Please clarify.	Should be AP-1
Sheet AE115A, for Multipurpose rooms 510 and 511, calls for "Base & Wall WV-1" finish for the east elevation, but when you reference elevation 2 on AE416 it calls for WC-1. Please clarify wall finish for these walls.	Use WC-1. See addenda 3
Will the projectors as well as the projector mounts be the responsibility of the Owner or Contractor?	Projectors and mounting pipes will be provided by the owner, the plenum box and above tile suspended ceiling kit will be provided by the contractor
In Addendum #1 under attachments it says to see revisions to sheet C105 as Civil addenda 1. Is this sheet still coming or did we miss it somehow?	Attached to this addenda.
Which conduits around the site need to be concrete encased? The specifications indicate power over 600V and VD Conduit Feeders should be concrete encased. Another statement mentioned to only concrete encase if specifically stated on the plans. Could you please clarify what specifically needs to be concrete encased?	Conduits for power above 600V must be concrete encased. Underground telecommunications conduits must also be concrete encased
MV One line Questions a. On EP601 Note 01011 is in two locations. Is one of these locations mislabeled? b. Will you be providing routing diagrams for MV One line	Updated MV one-line will be issued tomorrow addressing items a & b. Power to the well houses will be provided under the contracted work for the well-houses themselves and is not included in the building electrical

conduit runs? c. Do we provide Power to the Well Houses or is this by others?	drawings
On the Electrical Equipment schedule most VFD's are being provided by the Mechanical and a few are being provided by the Electrical contractor. Is this correct? It does not appear the Mechanical and Electrical schedules match. Which schedule is correct? Who is providing the VFD's?	VFDs are to be provided by mechanical per the electrical specifications and requirements found on the mechanical drawing
In the specifications it implies the Voice Data conduits can be ¾" 1" and/or 1 ¼" conduits. However the Plans seem to indicate pretty clearly 1 1/4" conduits are required. Please clarify.	The minimum size for the voice/data conduits is 1 ¼". Smaller conduits will not be allowed
Alternate #1 indicates that the Roof of the Auditorium will be used as a gathering place. We do not see any Electrical work (power or lighting) for this area. Is there any Electrical work required for Alternate #1?	See addenda 5
The fixture schedule says that fixtures LED1 and LED1d are 1' in length. Should these fixtures be in a continuous row on pg EL101c, 105a? Can you clarify the intent for the LED1 and LED1d fixtures on pg EL101c please?	LED-1 and LED-1d are linear LED fixtures mounted in architectural coves, behind acoustical panels in the auditorium or in dedicated space behind wood paneling in the auditorium. As many of these walls are curved, 1' sections of the fixture may be required to fit in the angular space. For straight sections, approved fixtures longer than 1' are acceptable
Sheet SF611 details A1 & A2 are for structural slip track details (single type & double type respectively). Is a slotted/drift track acceptable therefore eliminating the need for CRC bridging within 18"?	Yes, vertical slotted drift track is an acceptable alternate.
Can slotted/drift track replace detail D1 on SF612?	No, this needs to be both deflection and drift capable
Sheet SF611 framing schedule calls for box headers. Will Red Header, Prox Header or other engineered type headers be acceptable in lieu of built up studs?	It will be OK to propose alternate header members for approval.
For Header H3 on SF611 can a HSS tube replace this detail for headers over 10'-0" in length?	Yes, an HSS tube would be considered as an acceptable alternate.
Sheet AE501, wall type E2 shows gyp board but shows no framing to screw gypsum board to. Please clarify gyp board attachment requirements?	Provide 1-1½" framing. See addenda 5
The floor plans mark a number of walls as having gypsum board (2) sides, but are not possible because back-side access is not available (example; double walls, column wraps, etc. Please clarify.	See addenda 5.
The floor plan sheets show shaft liner fire wall types only having gypsum board (1) side, but stair walls requiring gypsum board (2) sides. Can these walls be standard studs of same width with required fire rating? (Example for F4 walls: in lieu of 6" CH shaft liner with (2) ½" type C on (1) side use 6" 20 ga stud 16" o.c. with (2) 5/8" type X each side.	Yes
The floor plan sheets show some wall types (such as wall type C) to be run up to +6" above ceiling, but are called out in rooms with no ceiling (Building Storage	They should extend to 6" above adjacent ceiling and be braced at 48" o.c. for stability.

108B for example). Should these walls extend to deck at rooms without ceilings?	
Door jamb details on sheet D1/AE540 show (2) 18ga jamb studs at each side of Hollow Metal and Aluminum Frames. Is this typical for all interior jambs? Do these studs run up to deck even if walls terminate 6" above highest adjacent ceiling?	Yes. Extend to deck or bracing to structure even if wall does not go to deck.
The finish schedule on AE620 calls for a level 5 drywall finish for Wood Wall Covering WC-1, but does not specify level finish required for Wood Veneer WV- 1? Please clarify drywall level finish at these locations.	WV-1 does not require gyp. Bd. Finish. WC-1 does as per schedule.
Section 092216 part 2.2.C.2 for Dimple Steel Studs and Runners indicates 0.025 inch thickness. Are manufactured equals acceptable even though the mill thickness is only 0.020 inch but are equal in strength as long as it meets manufacturer recommendations for spacing and stud height?	Yes.
In specification section 332105 – Heat Exchange Wells 1.01/c/l it refers to payment being from OWNER to Driller; is this scope to be contracted directly from Owner to Driller?	NO. Drilling is part of the contract.
Sheet AE121A gives detail C3/AE523 at Lounge 110. The detail calls for "suspended gyp. Bd. Ceiling cloud", but it looks like acoustical tile. Please clarify whether these clouds are to be gypsum board or acoustical tile.	To be clarified in addenda 5
For detail C3/AE523, is any type of finish or trim required for the top of the 6" return at the suspended clouds?	To be clarified in addenda 5
On AE121A, could you please provide a detail section of Lounge 110 to show the transition between ceiling type C and ceiling type K?	To be clarified in addenda 5
Detail C5 on AE522 calls for "3-5/8" cold formed framing". Typically cold rolled framing is a heavier gauge than this. Please clarify.	The framing may be light gauge 22 ga.
Wall types A & C on AE101A call for walls to end 6" above ceiling. These wall types are called out around the corridors, but this will limit fire and sound protection. Please clarify height of walls at these locations.	To be clarified in addenda 5 to go to deck
Elevation D6/AE401 and B6/AE401 shows detail E6/AE522 in the middle, but it appears this detail is misplaced. Should this detail be on top of the doors?	Correct it should be at top of doors
Detail D6/AE514 shows some substrate material next to the wall light. What is this substrate to be?	Painted black 1/2" mdf
The base bid calls for wall type A (2-sided gyp wall) at walls for the shell spaces where Alternates #2, 3 & 4 would go. Is this what is wanted or would it be preferred to have these walls 1-sided only to allow for future in-wall work to be done as part of the alternate?	Walls should be one sided at the shell space. Also No gyp.bd. on exterior walls at room side.

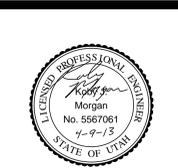
Note 26 on C105 calls for "Pex" water lateral. Is this a correct designation or is this supposed to be poly pipe?	This pipe is for a hose bib connection. cross-linked polyethylene pipe is the preferred material.
Will ADS storm drain piping be acceptable in lieu of the A-2000 piping called for on sheet C104? In addition, since this project will be obtaining LEED certification, ADS piping is local whereas A-2000 is not.	N-12 ADS pipe may be used provided the contractor can provide hydraulic calculations which demonstrate the pipe diameters are unaffected. Currently several of the pipes have minimum cover and an increase in pipe diameter to achieve proper hydraulic capacity may not meet manufacturer's minimum cover requirements.
The Hedera helix groundcover is called out to be a 1 gallon (refer to sheet LS302). The symbol for this plant is a SF symbol not a count symbol, what is the install spacing of this plant?	12" o.c.
The Pinus flexilis 'Vanderwolf' has a size of 2" Caliper (refer to sheet LS302). Pines are not sized by the caliper, their sized by the height of the tree. What height is this pine intended to be during installation time?	6'
In specification section 329119, 2.2, C the topsoil is specified to have a minimum of %10 organics in the topsoil. The average organic level of topsoil in this region is 2%. Does the owner really want the topsoil to be amended to 10% organics? This can be very costly.	10% is required.
In specification section 329119, 2.2, D the topsoil is specified to have a pH of 7.0. Normally the soil specs have a range of the minimum and maximum amount specified. Is there a range for the pH on this project?	Acceptable range is 6.5 – 7.5

END OF ADDENDUM 4



**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 THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS AND CONNECTION POINTS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION, INCLUDING ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN, SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.  
 IF CONFLICTS OCCUR BETWEEN EXISTING AND PROPOSED UTILITIES, 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, SOIL, 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 NEW WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS. MAINTAIN MINIMUM COVER PER AGENCIES' STANDARDS AND SPECIFICATIONS.  
 DEFLECT ALL WATER LINES TO AVOID CONFLICTS WITH ALL OTHER UTILITIES PER LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS (MAINTAIN MINIMUM 18" CLEARANCE).  
 ALL NEW SANITARY SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS.  
 SEE LANDSCAPE PLANS FOR IRRIGATION INFORMATION.  
 CONTRACTOR IS TO COORDINATE LOCATIONS OF NEW TELEPHONE SERVICES TO BUILDINGS.  
 CONTRACTOR IS TO SUBMIT SITE PLAN TO GAS COMPANY FOR DESIGN OF GAS LINE SERVICES TO BUILDING. COORDINATE WITH GAS COMPANY FOR CONTRACTOR LIMITS OF WORK VERSUS GAS COMPANY LIMITS.  
 SEE ELECTRICAL PLANS FOR DRY UTILITY LOCATION, INSTALLATION AND DESIGN INFORMATION.  
 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" PVC SDR-35 SANITARY SEWER LINE. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH AND SLOPE PER PLAN.
- 2) 12" PVC SDR-35 SANITARY SEWER LINE. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH AND SLOPE PER PLAN.
- 3) 4" SANITARY SEWER MANHOLE PER PLANS AND SPECIFICATIONS.
- 4) GREASE INTERCEPTOR. SEE MECHANICAL PLANS FOR DESIGN INFORMATION.
- 5) 50" SAMPLING MANHOLE. SEE MECHANICAL PLANS FOR DESIGN INFORMATION.
- 6) CONNECT TO EXISTING SANITARY SEWER MANHOLE PER PLANS AND SPECIFICATIONS.
- 7) 12"x12" WYE. CONNECT TO SANITARY SEWER MAIN PER PLANS AND SPECIFICATIONS.
- 8) 4" C-900 PVC WATER LATERAL. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH PER PLAN.
- 9) 1" ON/OFF F-300 SERIES WATER METER, WITH 1/2" DISPLAY AND LOWWOMBS FIT TO INTERFACE, OR APPROVED EQUAL, IN 50" WATER MANHOLE WITH FRAME AND SOLID COVER PER PLANS AND SPECIFICATIONS. PROVIDE CONNECTION TO UJU VON SYSTEM. PROVIDE CONDUIT AND PULL 120V AC POWER FROM BUILDING.
- 10) 4" 90° PVC WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 11) 4" 45° PVC WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 12) 4" 0° PVC GATE VALVE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 13) CONNECT TO EXISTING WATER LINE WITH 4" 0° PVC WATER LINE TEE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 14) 6" 0° DUCTILE IRON FIRE WATER LINE. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH PER PLAN.
- 15) 6" 90° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 16) 6" 45° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 17) FIRE DEPARTMENT CONNECTION (FDC) ASSEMBLY COMPLETE PER SPECIFICATIONS.
- 18) FIRE HYDRANT ASSEMBLY COMPLETE INCLUDING GATE VALVE PER APWA STANDARD PLAN NO. 511 AND SPECIFICATIONS.
- 19) RELOCATED FIRE HYDRANT. INSTALL PER PLANS AND SPECIFICATIONS.
- 20) 6" 0° DUCTILE IRON FIRE WATER LINE. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH PER PLAN.
- 21) 6" 90° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 22) 6" 45° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 23) 6" 0° DUCTILE IRON GATE VALVE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 24) 6"x6" DUCTILE IRON WATER LINE TEE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 25) CONNECT TO EXISTING WATER LINE WITH 6" 0° DUCTILE IRON WATER LINE TEE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 26) 1" 0° PEX WATER LATERAL, OR APPROVED EQUAL. INSTALLATION AND TRENCHING PER APWA STANDARD PLAN NO. 381 AND 382 AND SPECIFICATIONS. LENGTH PER PLAN.
- 27) 1" 0° PEX GATE VALVE PER PLANS AND SPECIFICATIONS.
- 28) CONNECT TO EXISTING WATER LINE WITH 1" 0° PEX TEE PER PLANS AND SPECIFICATIONS.
- 29) FREEZE-PROOF SPIGOT WITH LOCKING COVER PER PLANS. PROVIDE CUT SHEET TO ENGINEER FOR APPROVAL.
- 30) SEE MECHANICAL PLANS FOR CONTINUATION.
- 31) MECHANICAL UNITS. SEE MECHANICAL PLANS FOR DESIGN INFORMATION.
- 32) GAS METER AND 2" 1/2" GAS LINE. SEE MECHANICAL PLANS FOR DESIGN INFORMATION. COORDINATE WITH GAS COMPANY FOR ALIGNMENT OF GAS LINE TO CONNECTION WITH EXISTING LINE IN 800 SOUTH STREET.
- 33) SEE DRAINAGE PLAN FOR STORM DRAIN INFORMATION.
- 34) 6" 0° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 35) 6" 45° DUCTILE IRON WATER LINE BEND WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 36) 6" 0° DUCTILE IRON WATER LINE TEE WITH THRUST BLOCKING PER APWA STANDARD PLAN NO. 561 AND 562 AND SPECIFICATIONS.
- 37) DEFLECT WATER LINE TO AVOID CONFLICTS WITH ALL OTHER UTILITIES PER LOCAL GOVERNING AGENCIES' STANDARDS AND SPECIFICATIONS (MAINTAIN MINIMUM 18" CLEARANCE).



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DFCM APPROVAL STAMP

**project:**  
 UJU Classroom Building  
 - Volume 1  
 800 West University Parkway  
 Orem, UT 84058

**project#:** DFCM# 2192796  
**date:** April 30, 2013

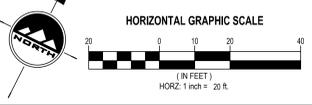
**revisions:**  
 1. May 15, 2013 Addendum 1

**title:**  
**Utility Plan**

**sheet:**

**C105**

BID DOC



CONDUIT	SIZE	CONDUCTORS	SERVICE	FROM	TO	NOTES
P000	4"	BY OTHERS	13,200VAC	UVU	MAIN SERVICE TRANSFORMER	STUB CONDUIT OUT FROM XFMR. CONNECTION FROM THERE BY UVU. WIRE BY UVU.
P001	4"	4 500 MCM W/ 1/0 GND	480VAC	TRANSFORMER	MAIN DISCONNECT	BOND NEUTRAL AT MAIN DISCONNECT TO GROUND
P002	4"	3 500 MCM W/ 1/0 GND	480VAC	MAIN DISCONNECT	DP-8WH	
P003	1"	3 #10 W/ #10 GND	480VAC	DP-8WH	LP TRANSFORMER	
P004	1"	4 #8 W/ #10 GND	120/208VAC	LP TRANSFORMER	LP-8WH	
P005	1"	2 #12 W/ #12 GND	120VAC	LP-8WH	DDC-8WH	
P006A	1"	2 #12 W/ #12 GND	208VAC	LP-8WH	8WH-H-1A	INSIDE UNIT
P006B	1"	2 #12 W/ #12 GND	208VAC	8WH-H-1A	8WH-H-1B	OUTSIDE UNIT
P007A	1"	2 #12 W/ #12 GND	120VAC	LP-8WH	8WH-H-2	
P007B	1"	2 #12 W/ #12 GND	120VAC	8WH-H-2	8WH-H-3	
P007C	1"	2 #12 W/ #12 GND	120VAC	8WH-H-2	T-STAT	
P008	1"	3 #12 W/ #12 GND	480VAC	DP-8WH	8WH-H-4	
P009	1"	3 #12 W/ #12 GND	480VAC	DP-8WH	8WH-H-5	
P010	1"	2 #12 W/ #12 GND	120VAC	LP-8WH	8WH-M-1	
P111	4"	3 500MCM W/ #3 GND	480VAC	DP-8WH	VFD-8WH-P-1	
P111A	4"	3 400MCM W/ #3 GND	480VAC	VFD-8WH-P-1	8WH-P-1	
P131	1"	3 #12 W/ #12 GND	480VAC	DP-8WH	8WH-V-1	
P141	1"	3 #12 W/ #12 GND	480VAC	DP-8WH	8WH-V-4	
P151	1"	3 #12 W/ #12 GND	480VAC	DP-8WH	8WH-V-6	
S101	1"	2#14 W/ #14 GND, 1 PAIR TW/SHD #8	SIGNAL	DDC-8WH	LI-101	
S101A	1"	MANUFACTURER'S CABLE	SIGNAL	LI-101	LI-101	
S111	1"	2 PAIR TW/SHD #18	SIGNAL	DDC-8WH	VFD-8WH-P-1	
S121	1"	1 PAIR TW/SHD #18	SIGNAL	DDC-8WH	PIT-121	
C111	1"	#4/4	CONTROL	DDC-8WH	VFD-8WH-P-1	
C111A	1"	2 #12	CONTROL	VFD-8WH-P-1	8WH-P-1	
C111B	1"	2 #12	CONTROL	VFD-8WH-P-1	PSH-111	
C131	1"	10 #14	CONTROL	DDC-8WH	8WH-V-1	
C141	1"	10 #14	CONTROL	DDC-8WH	8WH-V-4	
C151	1"	10 #14	CONTROL	DDC-8WH	8WH-V-6	
CA101A	1"	2 #14	CONTROL	DDC-8WH	ZS-A101A	
CA101B	1"	2 #14	CONTROL	DDC-8WH	ZS-A101B	
CA102	1"	2 #14	CONTROL	DDC-8WH	HS-A102	
F000	2-2"	BY OTHERS	COMMUNICATION	CLASSROOM BUILDING DDC-DDC	CTC-8WH	STUB CONDUITS OUT OF BUILDING. CONNECTION FROM THERE BY OTHERS. FIBER BY OTHER
F001	2-2"	BY OTHERS	COMMUNICATION	CTC-8WH	DDC-8WH	FIBER JUMPER BY OTHERS
F002	2-2"	BY OTHERS	COMMUNICATION	CTC-8WH	CTC-TWH	STUB CONDUITS OUT OF BUILDING. CONNECTION FROM THERE BY OTHERS. FIBER BY OTHER

**WELL 8WH CONDUIT SCHEDULE**

PANEL: LP-8WH		VOLTAGE: 120/208		MAIN CB: 50 AMP		BUS AMPS: 50 AMP	
CB TYPE: BOLT-ON		MOUNTING: SURFACE		BUS A.I.C.: 10KA		BKR A.I.C.: 10KA	
CIRCUIT DESCRIPTION	BKR	CIRCUIT	PHASE A	PHASE B	PHASE C	CIRCUIT	BKR
ELECTRICAL ROOM LIGHTS (C)	20/1	1	176				
			540			2	20/1
EXHAUST FAN (8WH-H-2), DAMPER (8WH-H-2), TSTAT	20/1	3		292		4	20/1
				540		4	20/1
PUMP ROOM LIGHTS (A)	20/1	5			440	6	20/1
OUTDOOR LIGHTS (D)	20/1	7	300			8	20/1
			936			8	20/1
DDC-8WH	20/1	9		200		10	20/1
				936		10	20/1
ELECTRICAL R. RECEPTACLES (G)	20/1	11			360	12	20/1
					500	12	20/1
	20/1	13				14	20/1
	20/1	15				16	20/1
	20/1	17				18	20/1
	20/1	19				20	20/1
	20/1	21				22	20/1
	20/1	23				24	20/1
	20/1	25				26	20/1
	20/1	27				28	20/1
	20/1	29				30	20/1
CONNECTED VA PER PHASE			1952.0	1968.0	1740.0		NOTES:
CONNECTED AMPS PER PHASE			16.3	16.4	14.5		
25% OF CONTINUOUS & LIGHTING LOAD (VA)			119.0	73.0	220.0		
LARGEST MOTOR (25%)			0.0	0.0	90.0		
CODE VA PER PHASE			2071.0	2041.0	2050.0		
CODE AMPS PER PHASE			17.3	17.0	17.1		

**LP-8WH SCHEDULE**

PANEL: LP-TWH		VOLTAGE: 120/208		MAIN CB: 50 AMP		BUS AMPS: 50 AMP	
CB TYPE: BOLT-ON		MOUNTING: SURFACE		BUS A.I.C.: 10KA		BKR A.I.C.: 10KA	
CIRCUIT DESCRIPTION	BKR	CIRCUIT	PHASE A	PHASE B	PHASE C	CIRCUIT	BKR
ELECTRICAL ROOM LIGHTS (C)	20/1	1	176				
			540			2	20/1
EXHAUST FAN (TWH-H-2), DAMPER (TWH-H-3), TSTAT	20/1	3		292		4	20/1
				540		4	20/1
PUMP ROOM LIGHTS (A)	20/1	5			440	6	20/1
OUTDOOR LIGHTS (D)	20/1	7	300			8	20/1
			936			8	20/1
DDC-TWH	20/1	9		200		10	20/1
				936		10	20/1
ELECTRICAL R. RECEPTACLES (G)	20/1	11			360	12	20/1
					500	12	20/1
	20/1	13				14	20/1
	20/1	15				16	20/1
	20/1	17				18	20/1
	20/1	19				20	20/1
	20/1	21				22	20/1
	20/1	23				24	20/1
	20/1	25				26	20/1
	20/1	27				28	20/1
	20/1	29				30	20/1
CONNECTED VA PER PHASE			1952.0	1968.0	1740.0		NOTES:
CONNECTED AMPS PER PHASE			16.3	16.4	14.5		
25% OF CONTINUOUS & LIGHTING LOAD (VA)			119.0	73.0	220.0		
LARGEST MOTOR (25%)			0.0	0.0	90.0		
CODE VA PER PHASE			2071.0	2041.0	2050.0		
CODE AMPS PER PHASE			17.3	17.0	17.1		

**LP-TWH SCHEDULE**

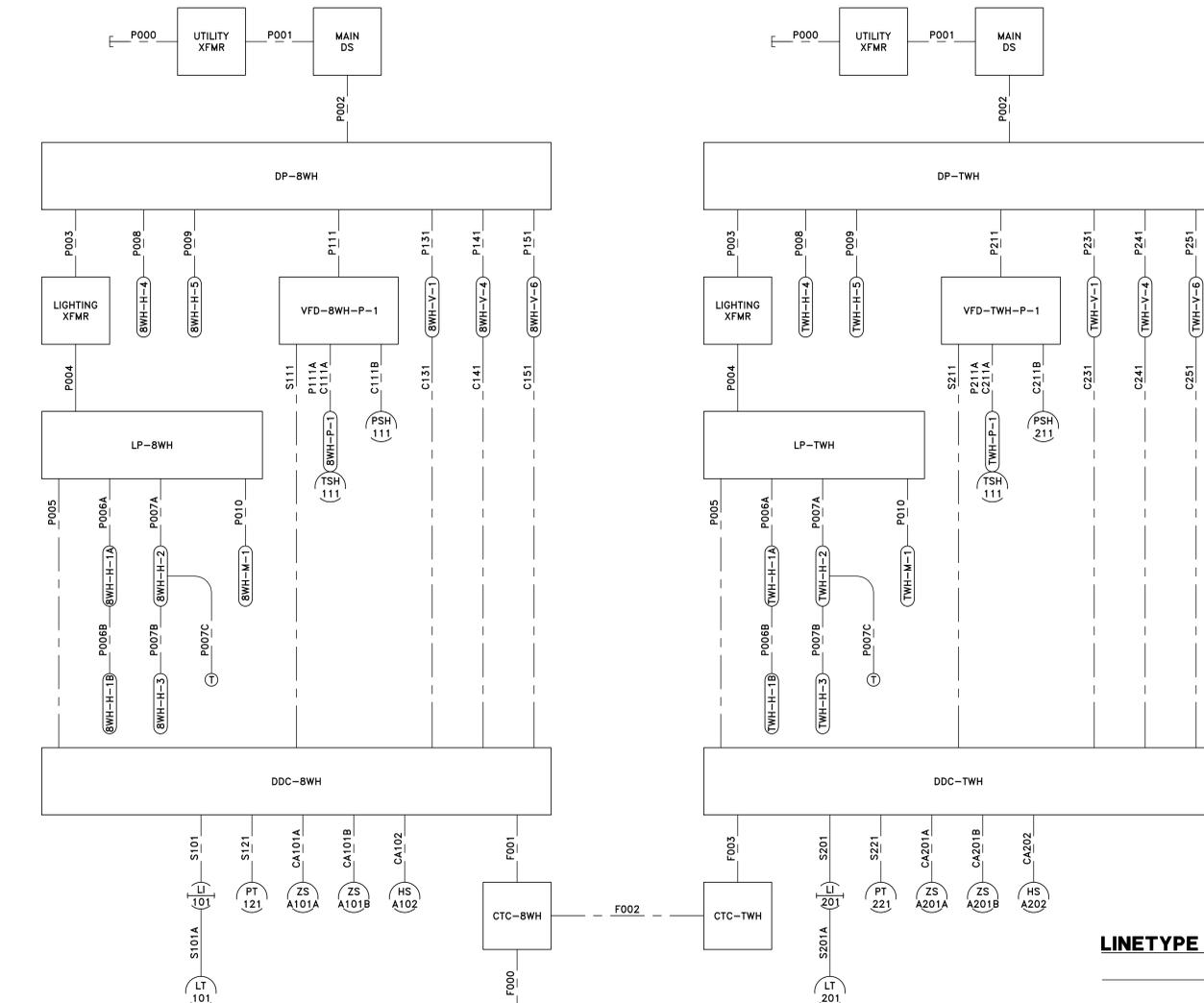
NOTE:  
 ① CONDUIT SCHEDULE AND DEVELOPMENT IS NOT ALL INCLUSIVE. CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE TO PROVIDE A FULLY FUNCTIONAL FACILITY. INTERCONNECTION OF LOW VOLTAGE DEVICES MAY NOT BE SHOWN. CONDUIT AND CONDUCTORS TO LIGHTS AND RECEPTACLES ARE NOT INCLUDED IN THE CONDUIT SCHEDULE AND DEVELOPMENT.

CONDUIT	SIZE	CONDUCTORS	SERVICE	FROM	TO	NOTES
P000	4"	BY OTHERS	13,200VAC	UVU	MAIN SERVICE TRANSFORMER	STUB CONDUIT OUT FROM XFMR. CONNECTION FROM THERE BY UVU. WIRE BY UVU.
P001	4"	4 500 MCM W/ 1/0 GND	480VAC	TRANSFORMER	MAIN DISCONNECT	BOND NEUTRAL AT MAIN DISCONNECT TO GROUND
P002	4"	3 500 MCM W/ 1/0 GND	480VAC	MAIN DISCONNECT	DP-TWH	
P003	1"	3 #10 W/ #10 GND	480VAC	DP-TWH	LP TRANSFORMER	
P004	1.5"	4 #8 W/ #10 GND	120/208VAC	LP TRANSFORMER	LP-TWH	
P005	1"	2 #12 W/ #12 GND	120VAC	LP-TWH	DDC-TWH	
P006A	1"	2 #12 W/ #12 GND	208VAC	LP-TWH	TWH-H-1A	INSIDE UNIT
P006B	1"	2 #12 W/ #12 GND	208VAC	TWH-H-1A	TWH-H-1B	OUTSIDE UNIT
P007A	1"	2 #12 W/ #12 GND	120VAC	LP-TWH	TWH-H-2	
P007B	1"	2 #12 W/ #12 GND	120VAC	TWH-H-2	TWH-H-3	
P007C	1"	2 #12 W/ #12 GND	120VAC	TWH-H-2	T-STAT	
P008	1"	3 #12 W/ #12 GND	480VAC	DP-TWH	TWH-H-4	
P009	1"	3 #12 W/ #12 GND	480VAC	DP-TWH	TWH-H-5	
P010	1"	2 #12 W/ #12 GND	120VAC	LP-TWH	TWH-M-1	
P211	4"	3 500MCM W/ #3 GND	480VAC	DP-TWH	VFD-TWH-P-1	
P211A	4"	3 500MCM W/ #3 GND	480VAC	VFD-TWH-P-1	TWH-P-1	
P231	1"	3 #12 W/ #12 GND	480VAC	DP-TWH	TWH-V-1	
P241	1"	3 #12 W/ #12 GND	480VAC	DP-TWH	TWH-V-4	
P251	1"	3 #12 W/ #12 GND	480VAC	DP-TWH	TWH-V-6	
S201	1"	2#14 W/ #14 GND, 1 PAIR TW/SHD #8	SIGNAL	DDC-TWH	LI-201	
S201A	1"	MANUFACTURER'S CABLE	SIGNAL	LI-201	LI-201	
S211	1"	2 PAIR TW/SHD #18	SIGNAL	DDC-TWH	VFD-TWH-P-1	
S221	1"	1 PAIR TW/SHD #18	SIGNAL	DDC-TWH	PT-221	
C211	1"	#4/4	CONTROL	DDC-TWH	VFD-TWH-P-1	
C211A	1"	2 #12	CONTROL	VFD-TWH-P-1	TWH-P-1	
C211B	1"	2 #12	CONTROL	VFD-TWH-P-1	PSH-211	
C231	1"	10 #14	CONTROL	DDC-TWH	TWH-V-1	
C241	1"	10 #14	CONTROL	DDC-TWH	TWH-V-4	
C251	1"	10 #14	CONTROL	DDC-TWH	TWH-V-6	
CA201A	1"	2 #14	CONTROL	DDC-TWH	ZS-A201A	
CA201B	1"	2 #14	CONTROL	DDC-TWH	ZS-A201B	
CA202	1"	2 #14	CONTROL	DDC-TWH	HS-A202	
F003	2"	BY OTHERS	COMMUNICATION	CTC-TWH	DDC-TWH	FIBER JUMPER BY OTHERS

**WELL TWH CONDUIT SCHEDULE**

SHEET	TAG	DESCRIPTION	Provider	MAKE	MODEL	SUPPLY	RANGE	COMMENTS
PI-1	LT-101	WELL 8WH LEVEL TRANSDUCER	CONTRACTOR	KPSI	750	24VDC		OR APPROVED EQUAL
PI-1	PIT-121	WELL 8WH PRESSURE TRANSMITTER	CONTRACTOR	ROSEMOUNT	3051 SERIES	24VDC		OR APPROVED EQUAL
PI-1	PSH-121	WELL 8WH PRESSURE SWITCH	CONTRACTOR	ASHCROFT	B400 SERIES	24VDC		OR APPROVED EQUAL
PI-1	ZS-A101A	WELL 8WH GARAGE DOOR INTRUSION SWITCH	YAMAS	GE	CENTROL 2500 SERIES	24VDC		OR APPROVED EQUAL
PI-1	ZS-A101B	WELL 8WH GARAGE DOOR INTRUSION SWITCH	YAMAS	GE	CENTROL 2500 SERIES	24VDC		OR APPROVED EQUAL
PI-2	LT-201	WELL TWH LEVEL TRANSDUCER	CONTRACTOR	KPSI	750	24VDC		OR APPROVED EQUAL
PI-2	PIT-221	WELL TWH PRESSURE TRANSMITTER	CONTRACTOR	ROSEMOUNT	3051 SERIES	24VDC		OR APPROVED EQUAL
PI-2	PSH-221	WELL TWH PRESSURE SWITCH	CONTRACTOR	ASHCROFT	B400 SERIES	24VDC		OR APPROVED EQUAL
PI-2	ZS-A201A	WELL TWH GARAGE DOOR INTRUSION SWITCH	YAMAS	GE	CENTROL 2500 SERIES	24VDC		OR APPROVED EQUAL
PI-2	ZS-A201B	WELL TWH GARAGE DOOR INTRUSION SWITCH	YAMAS	GE	CENTROL 2500 SERIES	24VDC		OR APPROVED EQUAL

**INSTRUMENT SCHEDULE**



**CONDUIT DEVELOPMENT**

**LINETYPE LEGEND**

- \_\_\_\_\_ ABOVE GROUND CONDUIT
- BELOW GROUND CONDUIT
- EXISTING ABOVE GROUND CONDUIT
- EXISTING BELOW GROUND CONDUIT

SKMUser - 3/15/13 - S:\Projects\Engineering\700\0739 UVU - Geothermal Pump House\SKM CAD Files\EJ 603 Conduit Schedule & Development.dwg

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