RESTROOM REMODEL AND NEW ADDITION TO

PETEETNEET MUSEUM

10 SOUTH 600 EAST
PAYSON, UTAH

REVISION	BY

OWNER:

CITY OF PAYSON

439 WEST UTAH AVENUE
PAYSON, UT 84651

PH. (801) 465-5200

ARCHITECT:

150 Architecture Inc.
LESTER VAN NOSDOL

150 SOUTH MAIN STREET
SALEM, UTAH 84653

PH. (801) 374-2100

STRUCTURAL

CKR Structural Engineers
CHAD KOHLER
1295 NORTH STATE STREET
OREM, UTAH 84057

PH. (801) 222-0922

ELECTRICAL

Royal Engineering
ELLIOTT BREINHOLT
1837 SOUTH EAST BAY BLVD.
PROVO, UTAH 84606

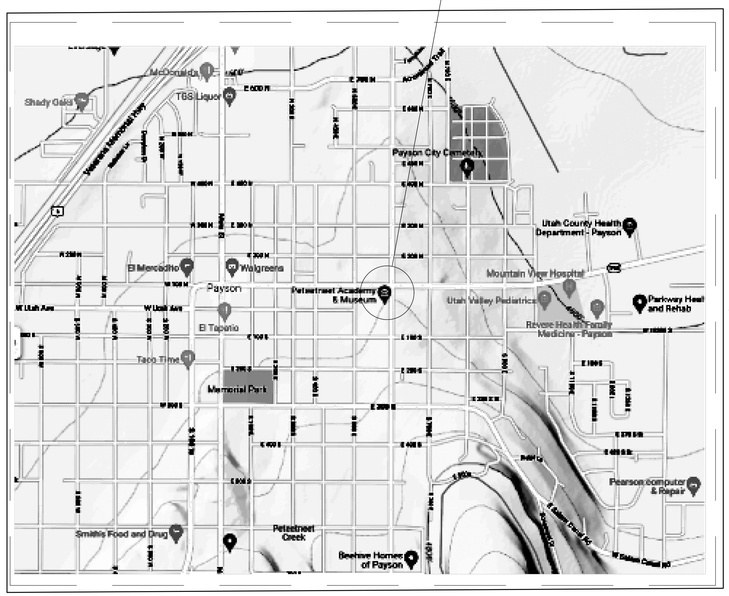
PH. (801) 375-2228

MECH./PLUMBING

DBI HVAC Engineers
TOM DEGRAW PE
451 NORTH MAIN STREET
PAYSON, UTAH 84651

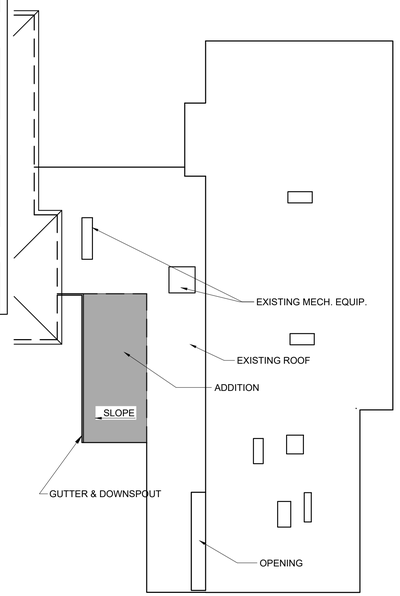
PH. (801) 465-3018

PROJECT LOCATION



N

VICINITY MAP
NTS



ROOF PLAN
SCALE : 1/8" = 1'-0"

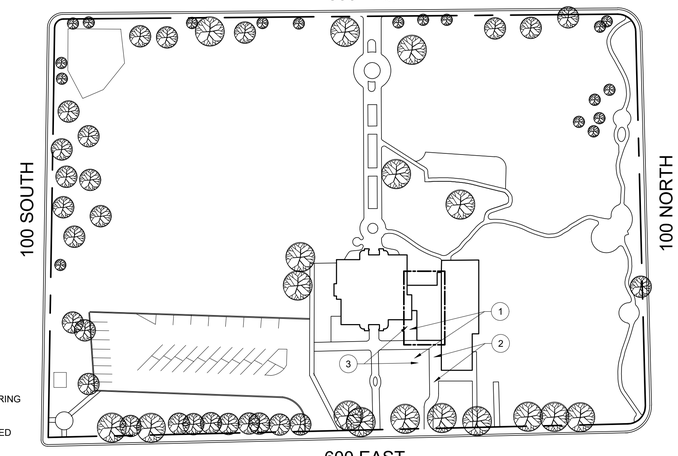
INDEX TO DRAWINGS

CODE REVIEW: 2018 IBC

OCCUPANCY: GROUP A-3
FIRE PROTECTION:
FIRE SPRINKLERS NOT REQUIRED PER IEBC 703.1.

FIRST FLOOR = 1,700 S.F.

500 EAST



600 EAST

NOTES:

1. REPAIR SPRINKLER SYSTEM AS NEEDED.
2. REPLACE ANY DAMAGED CONCRETE WALKS DURING CONSTRUCTION.
3. INSTALL NEW LANDSCAPE TO REPLACE DAMAGED LANDSCAPING DURING CONSTRUCTION

NORTH

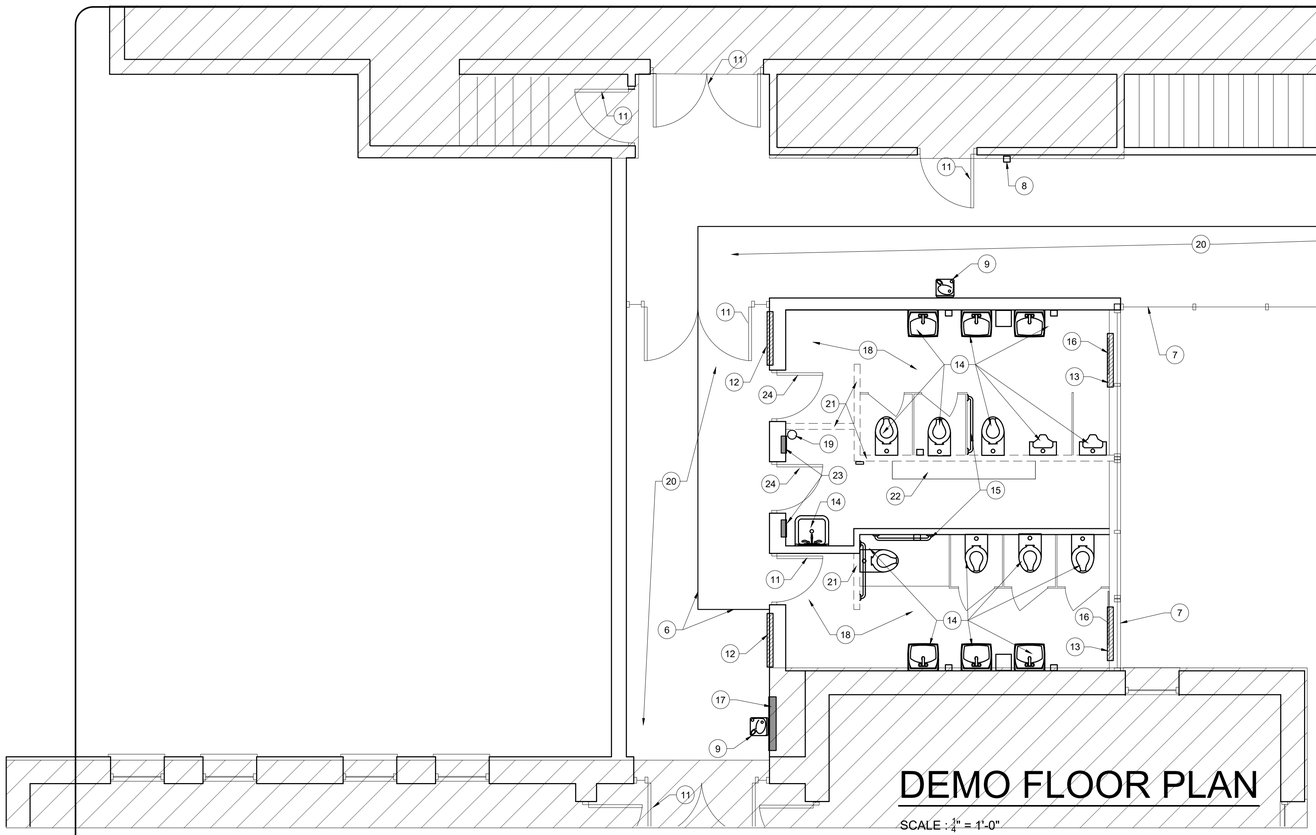
SITE PLAN

LICENSED ARCHITECT
No. 130272
Lester Van Nosdol
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆◆ PLANNER ◆(801)374-2000
150 SOUTH MAIN ◆SALEM ◆UTAH

DRAWN	
CHECKED	
DATE	04/11/2022
SCALE	
JOB NO.	19-12
SHEET	A0



DEMO FLOOR PLAN

SCALE : $\frac{1}{4}$" = 1'-0"

DEMOLITION NOTES

1. EXISTING ADA DOOR ACTUATION BUTTON TO BE REMOVED.
2. EXISTING ADA DOOR OPENER TO BE CAREFULLY REMOVED, RETURN TO THE OWNER.
3. SECURITY PANEL TO BE RELOCATED. SEE ELECTRICAL.
4. MOTION SENSOR TO BE RELOCATED. SEE ELECTRICAL.
5. FIRE ALARM PULL STATION TO BE RELOCATED. SEE ELECTRICAL PLANS.
6. PLASTIC PARTITION TO BE INSTALLED TO CONTROL TRAFFIC AND DUST DURING CONSTRUCTION.
7. GLASS & METAL PANELS TO BE REMOVED.
8. EXISTING FIRE ALARM TO REMAIN.
9. DRINKING FOUNTAIN TO REMOVED. SEE PLUMBING PLANS.
10. STOREFRONT & DOORS TO BE REMOVED AND DISPOSED.
11. DOOR TO REMAIN.
12. HEAT REGISTER SEE MECHANICAL PLANS.
13. HEAT REGISTER SEE MECHANICAL PLANS.
14. TOILETS, SINKS, URINALS & TOILET PARTITIONS TO BE REMOVED & DISPOSED. SEE PLUMBING PLANS.
15. GRAB BARS TO REMOVED & DETERMINED IF THEY CAN BE REUSED IN REMODELED BATHROOMS.
16. MIRROR TO BE REMOVED & DISPOSED.
17. FIRE HOSE & CABINET TO REMAIN. SEE PLUMBING PLAN.
18. REMOVE & DISPOSE OF FLOOR TILE.
19. SEE MECHANICAL ON REMOVAL OF FLUE.
20. REMOVE & DISPOSE OF FLOOR COVERING & BASE.
21. REMOVE & DISPOSE PORTION OF WALL.
22. REMOVE & DISPOSE OF CABINETS.
23. EXISTING ELECTRICAL PANELS. SEE ELECTRICAL DRAWINGS.
24. CAREFULLY REMOVE DOORS & RETURN TO OWNER.

DEMO REFLECTED CEILING PLAN

SCALE : $\frac{1}{4}$" = 1'-0"

1 x 4 FLOURESCENT LIGHT

EXHAUST GRILL

INCANDESCENT LIGHT

INCANDESCENT LIGHT

MOTION DETECTOR

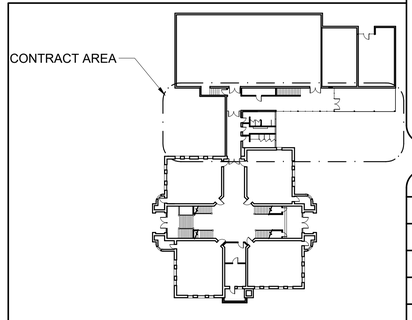
EXT. INCANDESCENT LIGHT

CEILING MOUNTED EXIT SIGN

1 x 1 ACOUSTIC TILE

CEILING DEMOLITION NOTES

1. REMOVE CEILING TILE & DISPOSE. PATCH SUBTITLING SURFACE IN PREP. FOR NEW CEILING TILE.
2. REMOVE FLUORESCENT LIGHT FIXTURE
3. REMOVE TRACK LIGHTING
4. REMOVE INCANDESCENT LIGHT FIXTURE
5. CAREFULLY REMOVE MOTION SENSORS. TO BE REINSTALLED.
6. CAREFULLY REMOVE EXIT SIGN. TO BE REINSTALLED.
7. EXPOSED CEILING STRUCTURE.
8. EXPOSED METAL ROOF DECKING.
9. INCANDESCENT LIGHT FIXTURES TO REMAIN
10. REMOVE & DISPOSE MECHANICAL GRILL UNLESS OTHERWISE NOTED ON MECHANICAL SHEETS.



KEY PLAN

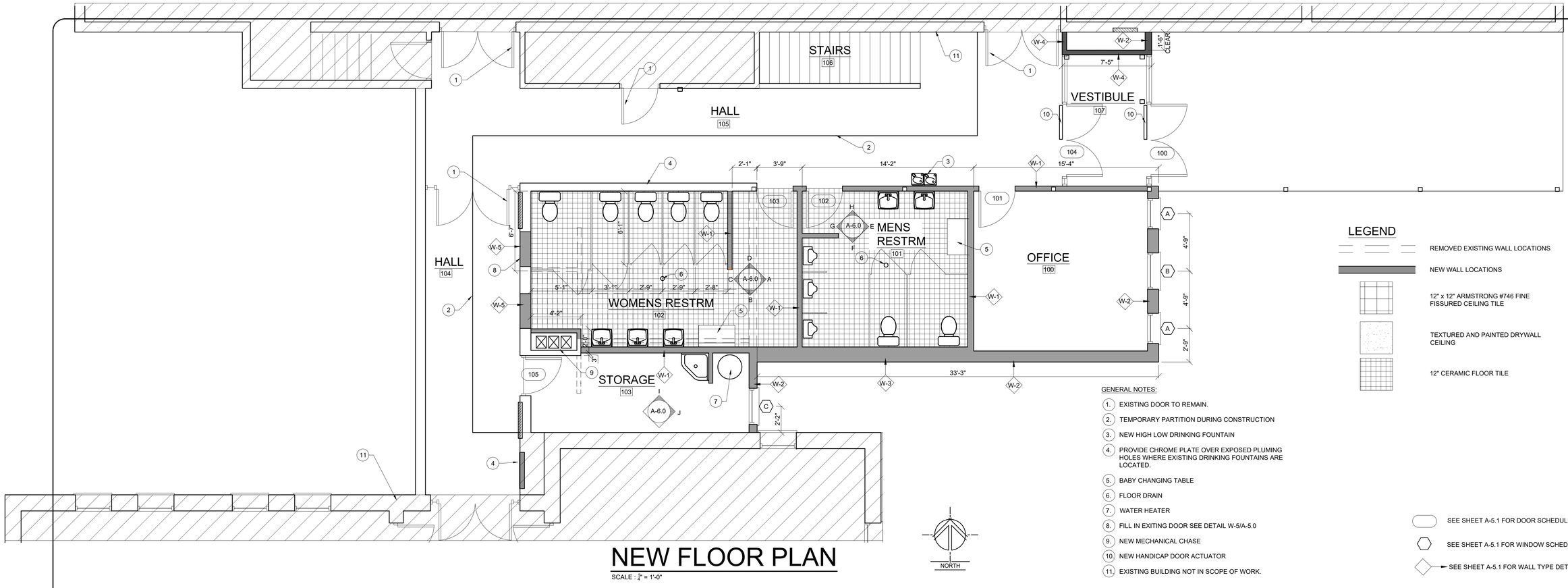
REVISION	BY

LICENSED ARCHITECT
No. 130272
Lester
Wan Nosdol
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ♦ PLANNER ♦ (801)574-2900
150 SOUTH MAIN ♦ SALEM ♦ UTAH

DRAWN	
CHECKED	
DATE	
SCALE	
JOB NO.	19-12
SHEET	D-1.0



NEW FLOOR PLAN

SCALE : $\frac{1}{4}$" = 1'-0"

NORTH

LEGEND

- REMOVED EXISTING WALL LOCATIONS
- NEW WALL LOCATIONS
- 12" x 12" ARMSTRONG #746 FINE FISSURED CEILING TILE
- TEXTURED AND PAINTED DRYWALL CEILING
- 12" CERAMIC FLOOR TILE

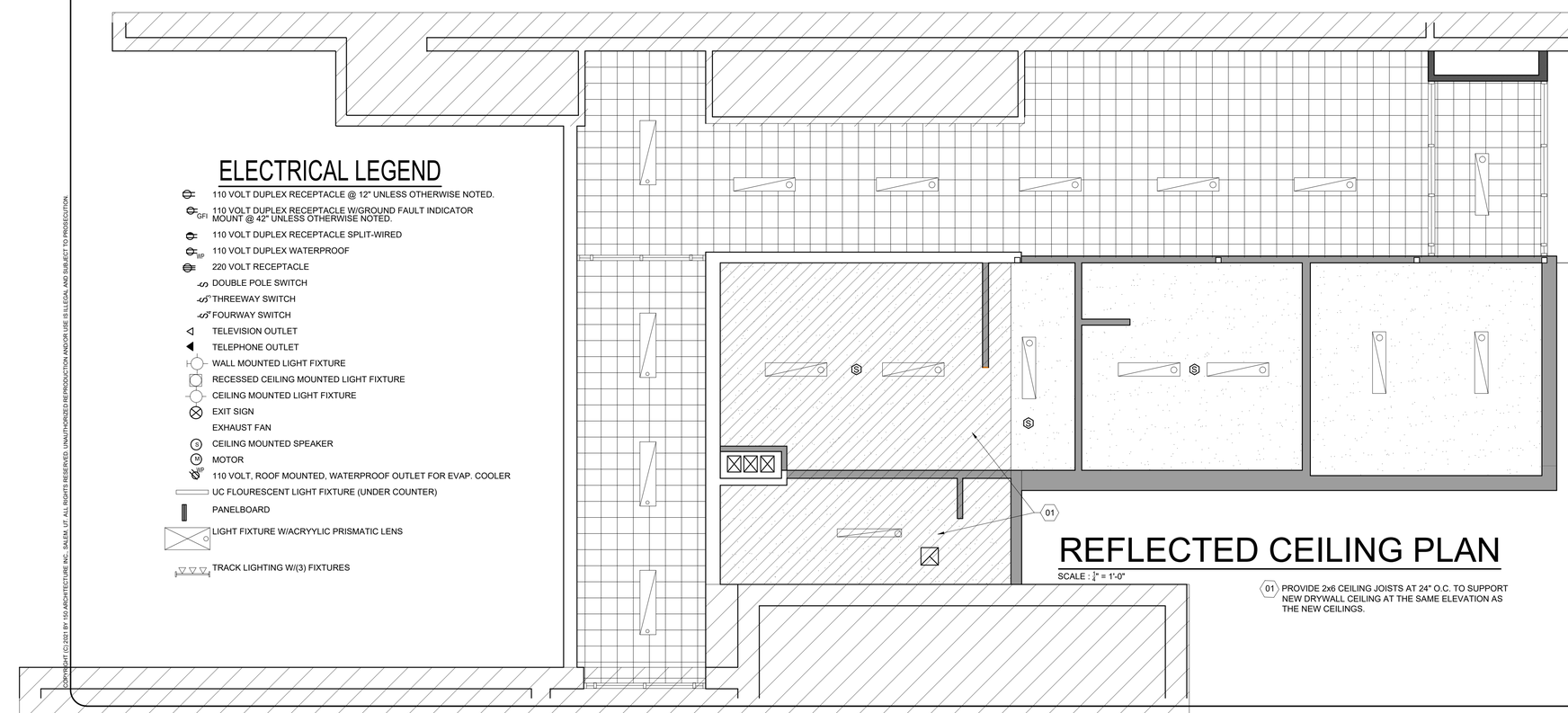
GENERAL NOTES:

1. EXISTING DOOR TO REMAIN.
2. TEMPORARY PARTITION DURING CONSTRUCTION
3. NEW HIGH LOW DRINKING FOUNTAIN
4. PROVIDE CHROME PLATE OVER EXPOSED PLUMING HOLES WHERE EXISTING DRINKING FOUNTAINS ARE LOCATED.
5. BABY CHANGING TABLE
6. FLOOR DRAIN
7. WATER HEATER
8. FILL IN EXITING DOOR SEE DETAIL W-5/A-5.0
9. NEW MECHANICAL CHASE
10. NEW HANDICAP DOOR ACTUATOR
11. EXISTING BUILDING NOT IN SCOPE OF WORK.

SEE SHEET A-5.1 FOR DOOR SCHEDULE

SEE SHEET A-5.1 FOR WINDOW SCHEDULE

SEE SHEET A-5.1 FOR WALL TYPE DETAILS



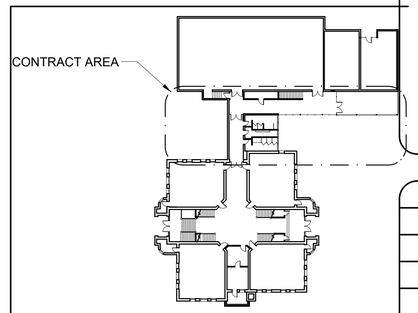
REFLECTED CEILING PLAN

SCALE : $\frac{1}{4}$" = 1'-0"

01 PROVIDE 2x6 CEILING JOISTS AT 24" O.C. TO SUPPORT NEW DRYWALL CEILING AT THE SAME ELEVATION AS THE NEW CEILINGS.

ELECTRICAL LEGEND

- 110 VOLT DUPLEX RECEPTACLE @ 12" UNLESS OTHERWISE NOTED.
- GFI 110 VOLT DUPLEX RECEPTACLE W/GROUND FAULT INDICATOR MOUNT @ 42" UNLESS OTHERWISE NOTED.
- 110 VOLT DUPLEX RECEPTACLE SPLIT-WIRED
- WP 110 VOLT DUPLEX WATERPROOF
- 220 VOLT RECEPTACLE
- DOUBLE POLE SWITCH
- 3 THREEWAY SWITCH
- 4 FOURWAY SWITCH
- TELEVISION OUTLET
- TELEPHONE OUTLET
- WALL MOUNTED LIGHT FIXTURE
- RECESSED CEILING MOUNTED LIGHT FIXTURE
- CEILING MOUNTED LIGHT FIXTURE
- EXIT SIGN
- EXHAUST FAN
- S CEILING MOUNTED SPEAKER
- M MOTOR
- WP 110 VOLT, ROOF MOUNTED, WATERPROOF OUTLET FOR EVAP. COOLER
- UC FLOURESCENT LIGHT FIXTURE (UNDER COUNTER)
- PANELBOARD
- LIGHT FIXTURE W/ACRYYLIC PRISMATIC LENS
- TRACK LIGHTING W/(3) FIXTURES



KEY PLAN

REVISION	BY

LICENSED ARCHITECT
No. 130272
Lester
Van Nosdol
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆ PLANNER ◆ (801)374-2000
150 SOUTH MAIN ◆ SALEM ◆ UTAH

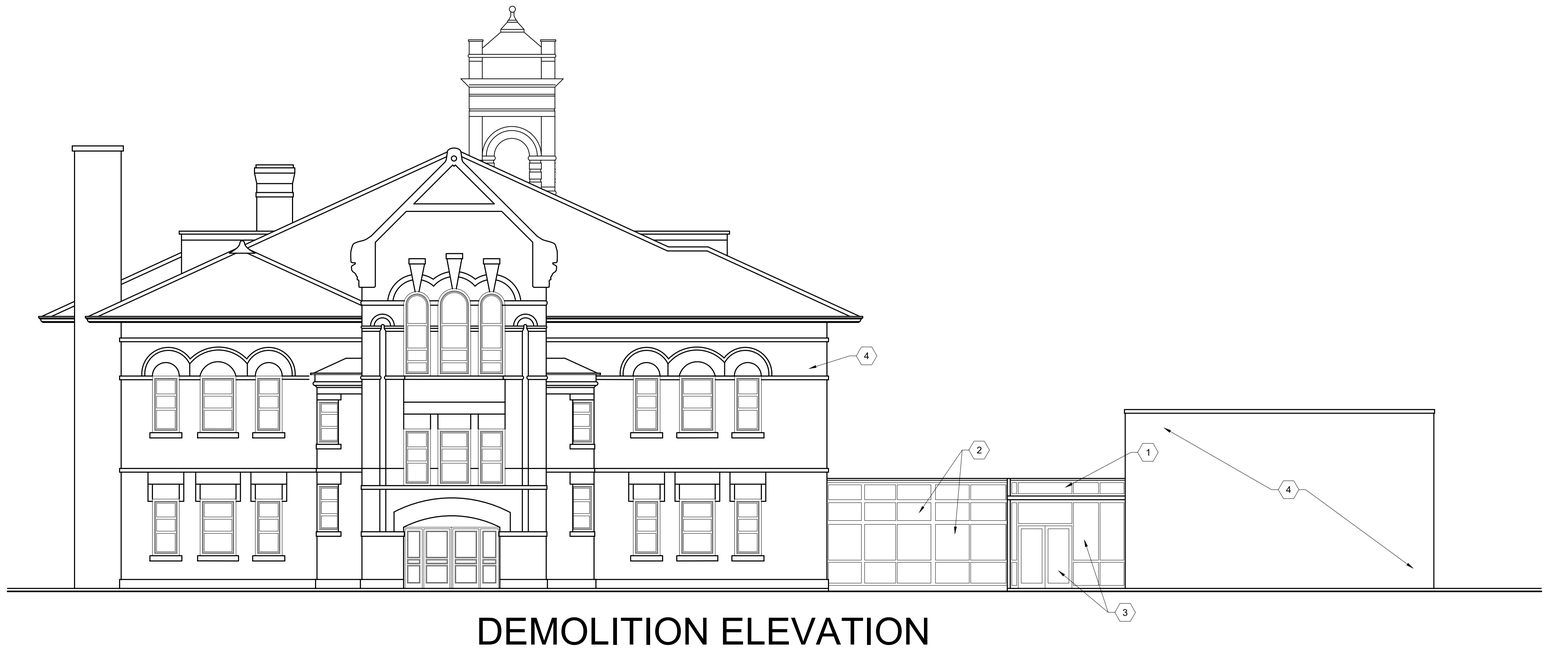
DRAWN	XXX
CHECKED	
DATE	04/11/2022
SCALE	1/8" = 1'-0"
JOB NO.	19-12
SHEET	A-1.0

PROPOSED ELEVATION

SCALE : $\frac{1}{8}$" = 1'-0"

GENERAL NOTES

1. EFIS COLOR #1. MATCH MAIN BRICK COLOR
2. EFIS COLOR #2. MATCH RED HIGHLIGHTED COLOR
3. NEW AWNING TYPE WINDOWS.
4. NEW FOOTING & FOUNDATION
5. NEW STOREFRONT & DOORS.
6. NEW DRIP METAL TO MATCH EXISTING
7. REPAIR EXISTING DRIP METAL & ROOFING
8. EXISTING METAL PANELS TO REMAIN.
9. EXISTING STRUCTURE.
10. GUTTER & DOWNSPOUT



DEMOLITION ELEVATION

SCALE : $\frac{1}{8}$" = 1'-0"

DEMOLITION NOTES

1. METAL PANELS TO REMAIN.
2. REMOVE PANELS AND WINDOWS AND DISPOSE.
3. REMOVE DOORS AND STOREFRONT.
4. EXISTING STRUCTURE

REVISION	BY

LICENSED ARCHITECT
No. 130272
Lester
Van Nosdol
STATE OF UTAH

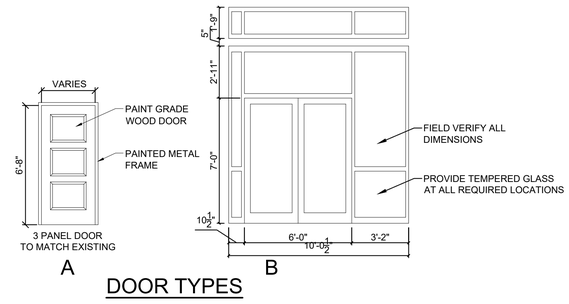
REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801)374-2900
150SOUTHMAIN•SALEM,UTAH

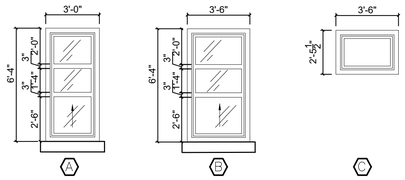
DRAWN	XXX
CHECKED	
DATE	04/11/2022
SCALE	1/8" = 1'-0"
JOB NO.	19-12
SHEET	A-3.0

DOOR SCHEDULE

MARK	WIDTH	HEIGHT	THICK	TYPE	LABEL	RATING	DOOR FACE	DOOR CORE	HEAD DETAIL	JAMB DETAIL	HARDWARE GROUP	REMARKS
100	PR 3'-0"	7'-0"	1¾"	B			ALUM	GLASS	/A-5	5/A-5	5	STORE FRONT BY KAWNEER IN DARK BRONZE
101	3'-0"	7'-0"	1⅜"	A			WOOD	SOLID	3/A-5	4/A-5	1	
102	3'-0"	7'-0"	1⅜"	A			WOOD	SOLID	3/A-5	4/A-5	2	
103	3'-0"	7'-0"	1⅜"	A			WOOD	SOLID	3/A-5	4/A-5	2	
104	PR 3'-0"	7'-0"	1¾"	B			ALUM	GLASS	/A-5	5/A-5	4	STORE FRONT BY KAWNEER IN DARK BRONZE
105	EXISTING	EXISTING	EXISTING	EXISTING			EXISTING	EXISTING			3	EXISTING TO REMAIN WITH NEW HARDWARE



DOOR TYPES



WINDOW TYPES

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CLNG	CLNG HT	OSB	REMARKS
100	OFFICE	F-1	B-1	W-1	W-1	W-1	W-1	C-1			
101	MEN'S RESTROOM	F-3	B-2	W-2	W-2	W-2	W-2	C-2			
102	WOMEN'S RESTROOM	F-3	B-2	W-2	W-2	W-2	W-2	C-2			
103	STORAGE	F-4	B-1	W-1	W-1	W-1	W-1	C-3			
104	HALL	F-1	B-1	-	W-4	-	W-1	C-1			WALLS & WINDOW FRAMES TO PAINTED AS NOTED BELOW
105	HALL	F-1	B-1	W-4	W-1	W-4	W-1	C-1			
106	STAIRS	F-5	B-3	W-4	-	W-3	-	C-1			
107	VESTIBULE	F-2	B-2	W-1	-	W-1	-	C-1			

WINDOW SCHEDULE

MARK	FINISHED OPENING	GENERAL	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
A	3'-0" x 6'-4"	AWNING	2/A-5		1/A-5	LOW E DOUBLE GLAZED
B	3'-6" x 6'-4"	AWNING	2/A-5		1/A-5	LOW E DOUBLE GLAZED
C	3'-6" x 2'-6"	FIXED	2/A-5		1/A-5	LOW E DOUBLE GLAZED

DOOR HARDWARE GROUPS

OFFICE	RESTROOM DOOR	STORAGE
1 1 ½ PAIR: BUTTS 1 EACH: LOCKSET FUNCTION F81 1 EACH: STOP 1 EACH: THRESHOLD	2 1 SET: SMOKE SEAL 1 ½ PAIR: BUTTS 1 EACH: KICK PLATE 1 EACH: PUSH 1 EACH: PULL 1 EACH: CLOSER 1 EACH: STOP 1 EACH: THRESHOLD	3 1 EACH: LOCKSET FUNCTION F86 1 EACH: STOP 1 EACH: THRESHOLD

EXTERIOR STORE FRONT DOOR	INTERIOR STORE FRONT DOOR
4 1 EACH: THRESHOLD 1 SET: WEATHERSTRIP ACTIVE LEAF: 1 SET: PIVOTS 1 EACH: CLOSER W/CLOSER ARM STOP 1 EACH: EXIT DEVICE W/DOGGING CAPABILITY ELECTRONIC ACCESS BY OTHERS 1 EACH: KICK PLATE 1 EACH: LOW-ENERGY SWING DOOR OPERATOR 1 EACH: PULL INACTIVE LEAF: 1 SET: PIVOTS 1 EACH: CLOSER W/CLOSER ARM STOP 1 EACH: EXIT DEVICE W/DOGGING CAPABILITY 1 EACH: KICK PLATE 1 EACH: PULL	5 1 EACH: THRESHOLD 1 SET: WEATHERSTRIP ACTIVE LEAF: 1 SET: PIVOTS 1 EACH: CLOSER W/CLOSER ARM STOP 1 EACH: KICK PLATE 1 EACH: LOW-ENERGY SWING DOOR OPERATOR ELECTRONIC ACCESS BY OTHERS 1 EACH: PULL 1 EACH: PUSH INACTIVE LEAF: 1 SET: PIVOTS 1 EACH: CLOSER W/CLOSER ARM STOP 1 EACH: KICK PLATE 1 EACH: PULL 1 EACH: PUSH

FINISHES

	MARK	MATERIAL	DESCRIPTION
FLOORS	F-1	CARPET TILE	
	F-2	MATT CARPET TILE	
	F-3	CERAMIC TILE	
	F-4	PAINTED CONCRETE	
	F-5	EXISTING TO REMAIN	
BASES	B-1	VINYL	
	B-2	CERAMIC TILE	
	B-3	EXISTING TO REMAIN	
WALLS	W-1	DRYWALL	TEXTURED & PAINTED
	W-2	CERAMIC TILE	
	W-3	EXISTING TO BE PAINTED	
	W-4	EXISTING BRICK	
CEILINGS	C-1	12 x 12 TILE	
	C-2	DRYWALL	TEXTURED & PAINTED
	C-3	EXPOSED STRUCTURE	

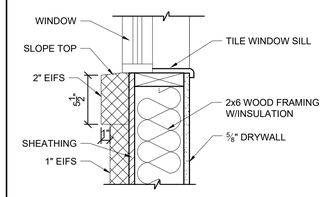
GENERAL NOTES

1- EXTERIOR DOORS ARE TO HAVE A U-VALUE OF 0.5.

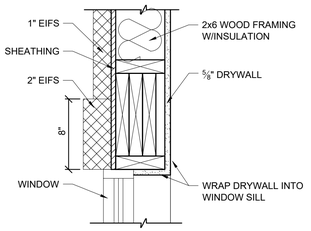
2- EXTERIOR WINDOWS ARE TO HAVE A U-VALUE OF 0.28.

3- ALL PAINTED WALLS TO BE PAINTED WITH BENJAMIN MOORE 1065 WOOD ASH.

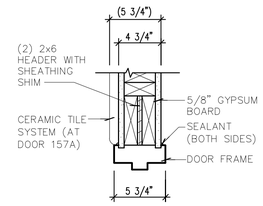
4- ALL DOOR FRAMES TO BE PAINTED WITH BENJAMIN MOORE DE6385 BLACK BEAN.



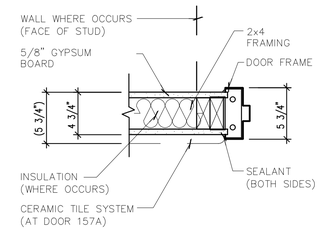
1 WINDOW SILL
SCALE: 11/2" = 1'-0"



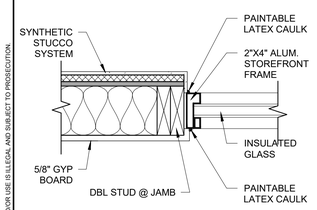
2 WINDOW HEAD
SCALE: 11/2" = 1'-0"



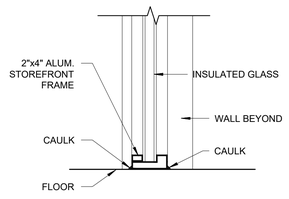
3 DOOR HEAD
SCALE: 11/2" = 1'-0"



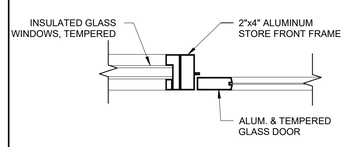
4 DOOR JAMB
SCALE: 11/2" = 1'-0"



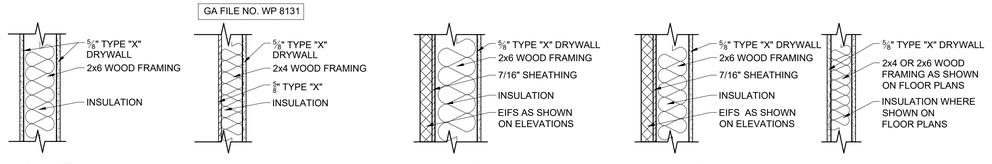
5 STOREFRONT @ JAMB
1 1/2" = 1'-0"



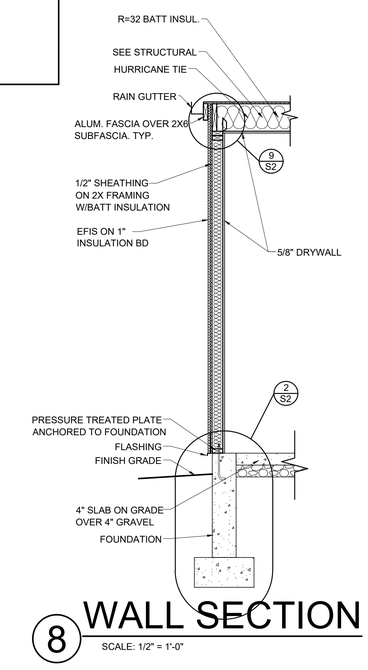
6 STOREFRONT @ SILL
1 1/2" = 1'-0"



7 STOREFRONT @ MULLION
1 1/2" = 1'-0"



WALL TYPES
SCALE: 1" = 1'-0"



8 WALL SECTION
SCALE: 1/2" = 1'-0"

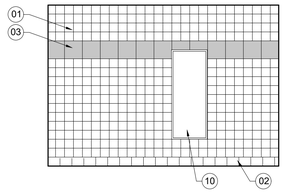
REVISION	BY

LICENSED ARCHITECT
No. 130272
Lester Ivan Nosdol
STATE OF UTAH

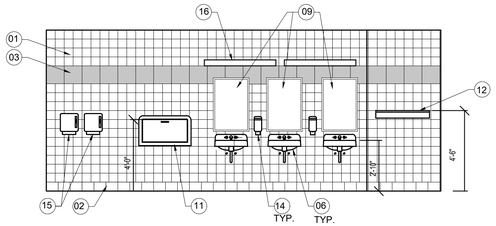
REMODEL / ADDITION TO PETEETNEET MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ♦ PLANNER ♦ (801)574-2900
150 SOUTH MAIN ♦ SALEM ♦ UTAH

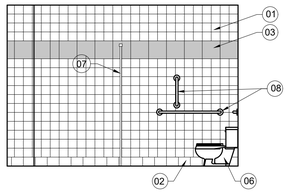
DRAWN	
CHECKED	
DATE	04/11/2022
SCALE	AS NOTED
JOB NO.	19-12
SHEET	A-5.0



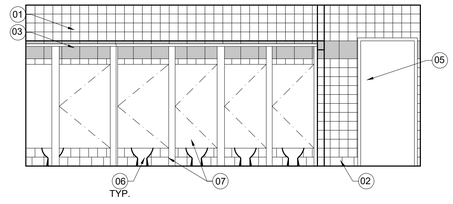
A WOMEN
SCALE: ½" = 1'-0"



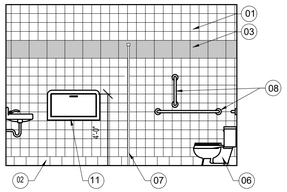
B WOMEN
SCALE: ½" = 1'-0"



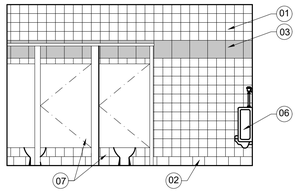
C WOMEN
SCALE: ½" = 1'-0"



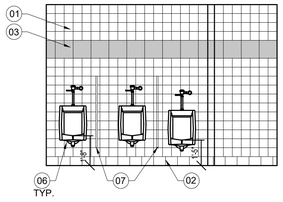
D WOMEN
SCALE: ½" = 1'-0"



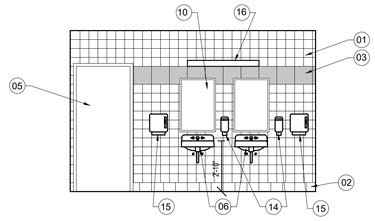
E MEN
SCALE: ½" = 1'-0"



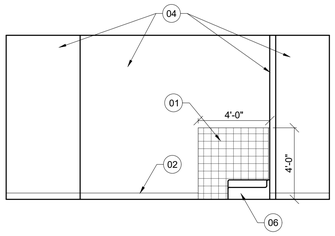
F MEN
SCALE: ½" = 1'-0"



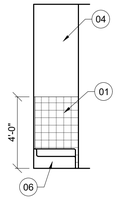
G MEN
SCALE: ½" = 1'-0"



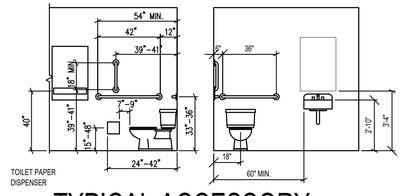
H MEN
SCALE: ½" = 1'-0"



I STORAGE ROOM
SCALE: ½" = 1'-0"



J STORAGE ROOM
SCALE: ½" = 1'-0"



TYPICAL ACCESSORY MOUNTING LOCATION
SCALE: ½" = 1'-0"

KEYED NOTES:

01 4" x 4" WALL TILE.
02 4" x 6" COVED TILE BASE.
03 8 X 8 WALL TILE ACCENT COLOR. ARTIST RENDITION TO BE PLACED ON TILE. OWNER TO PROVIDE.
04 TEXTURED & PAINTED GYPSUM BOARD.
05 NEW DOOR. SEE REMODEL FLOOR PLANS.
06 NEW PLUMBING FIXTURE.
07 NEW TOILET PARTITION.
08 NEW GRAB BARS.
09 NEW 24" x 36" MIRROR.
10 NEW 24" x 60" MIRROR.
11 NEW DIAPER CHANGING STATION.
12 NEW METAL SHELF.
13 NEW ROBE HOOK. MOUNT AT SAME HEIGHT AS DOOR LOCKSET.
14 INSTALL OWNER SPECIFIED SOAP DISPENSER.
15 INSTALL OWNER SPECIFIED PAPER TOWEL DISPENSER.
16 NEW WALL-MOUNT LIGHT FIXTURE. SEE ELECTRICAL SHEETS.

REVISION	BY

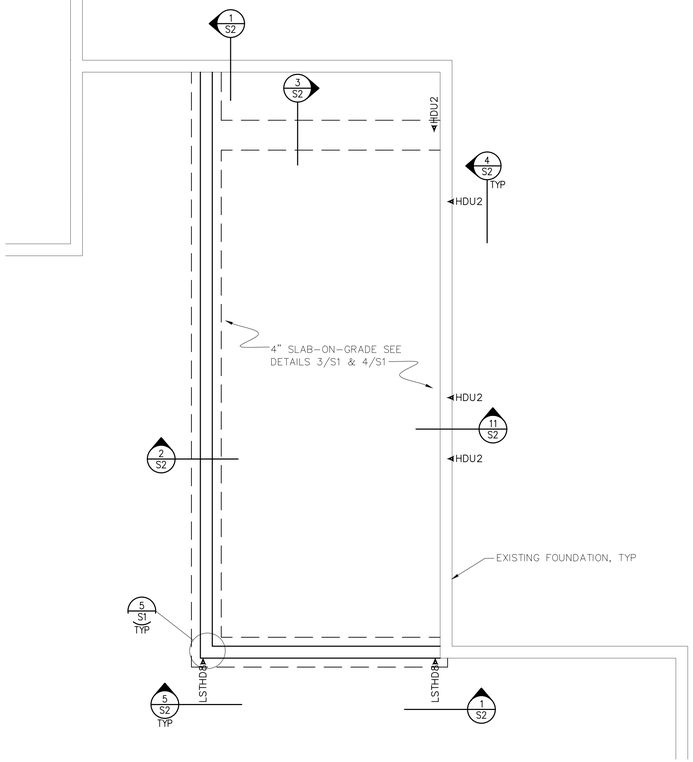
LICENSED ARCHITECT
No. 130272
Lester
Ivan Nosdol
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆ PLANNER ◆ (801)574-2900
150 SOUTH MAIN ◆ SALEM ◆ UTAH

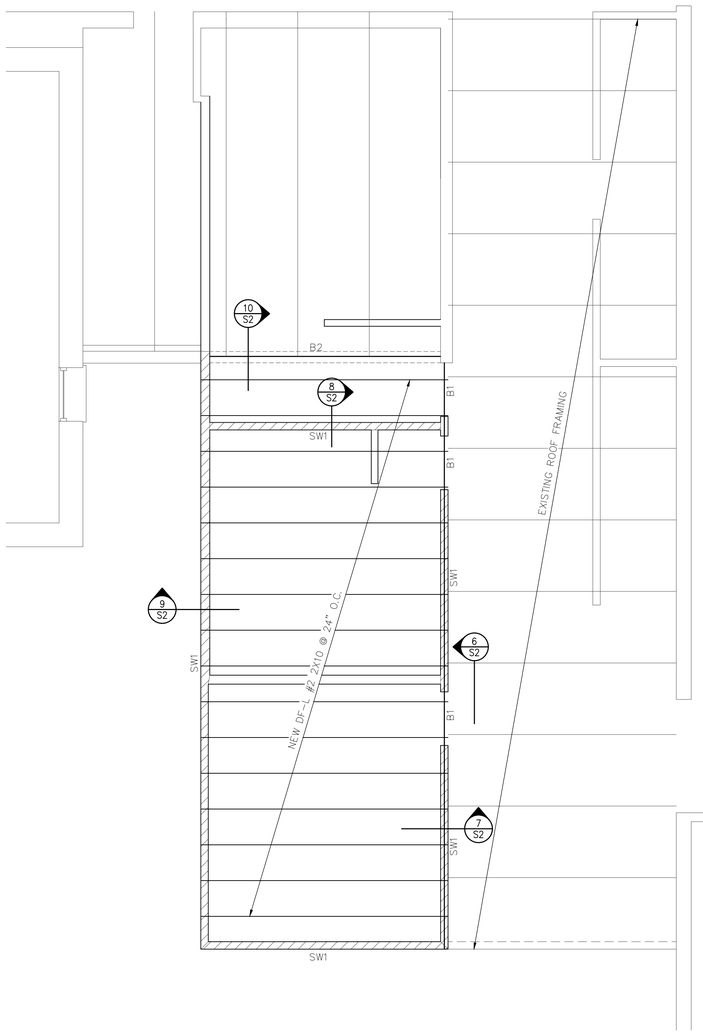
DRAWN: XXX
CHECKED:
DATE: 04/11/2022
SCALE: 1/8" = 1'-0"
JOB NO.: 19-12
SHEET: A-6.0

DO NOT SCALE DRAWINGS



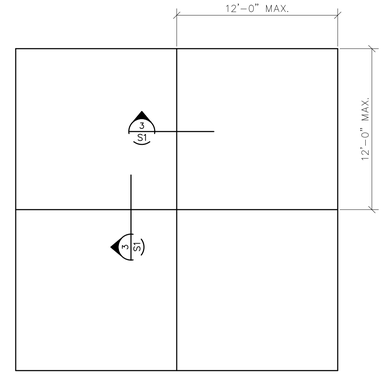
FOUNDATION PLAN (1) — 1/4"=1'-0"

NAME



ROOF FRAMING PLAN (2) — 1/4"=1'-0"

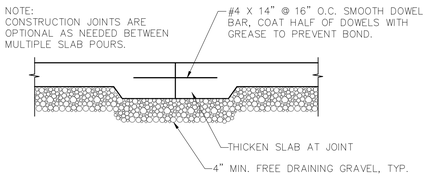
NAME



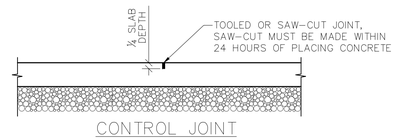
NOTE: COORDINATE JOINT LOCATIONS WITH ARCHITECT.

SLAB-ON-GRADE (3) — 3/16"=1'-0"

SLG



CONSTRUCTION JOINT



CONTROL JOINT

NOTE: 1. SEE GEOTECHNICAL REPORT FOR SUBGRADE TREATMENT.
2. COMPACT GRAVEL WITH VIBRATORY PLATE COMPACTOR

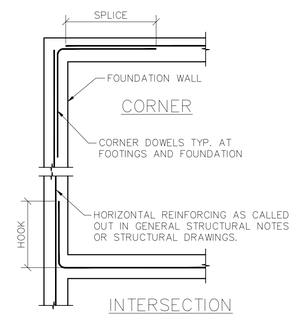
TYPICAL SLAB JOINTS (4) — 1"=1'-0"

SLJ1

BEAM SCHEDULE				
MARK	GRADE	DESCRIPTION	TRIMMER STUDS	REMARKS
B1	DF-L #2	(2) 2X6	1	
B2	LVL	(2) 1 3/4 X 9 1/2	1	

NAILING SCHEDULE										
LOCATION	NOTES	APA RATED ICC APPROVED SHEATHING	MINIMUM NOMINAL SHEATHING THICKNESS (INCHES)	MINIMUM WIDTH OF FRAMING MEMBERS (INCHES)	BLOCKED PANEL EDGES REQUIRED	COMMON NAIL SIZE	NAIL SPACING AT PERIMETER PANEL EDGES AND DIAPHRAGM BOUNDARIES (IN O.C.)	NAIL SPACING AT OTHER PANEL EDGES (IN O.C.)	NAIL SPACING AT INTERMEDIATE FRAMING MEMBERS (IN O.C.)	MINIMUM SPAN RATING
ROOF	1,2	CDX OR OSB	5/8	1.5	NO	10d	6	6	12	40/20
SW1	1,3,4	CDX OR OSB	7/16	1.5	YES	8d	6	6	12	24/16

NOTES:
1. NAILS SHALL NOT BREAK THE SURFACE OF THE SHEATHING.
2. 7/16" THICK SHEATHING IS AN ACCEPTABLE SUBSTITUTION, ALTHOUGH A VISIBLE SAG IS MORE LIKELY TO OCCUR OVER TIME. 8d NAILS MAY BE USED WITH 7/16" SHEATHING
3. FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
4. SPACE WALL STUDS AT 16" O.C.



REQUIRED LAP LENGTH			
TYPE	CONCRETE	MASONRY	MIN.
SPLICE	40 BAR DIA.	48 BAR DIA.	24"
HOOK	12 BAR DIA.	20 BAR DIA.	12"

REINFORCING DETAIL (5) — 1/2"=1'-0"

FNDRSC

DRAWING ISSUE		
	DATE	BY
1		
2		
3		
4		

PROJECT ARCHITECT
-
PROJECT ENGINEER
-
DRAWN BY
JR
DATE
-

PROFESSIONAL STRUCTURAL ENGINEER
CHAD A. KONLER
No. 343792
4/1/2022
STATE OF UTAH

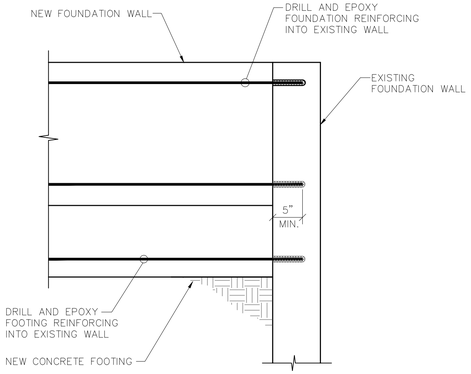
CKR ENGINEERS
CONSULTING STRUCTURAL ENGINEERS
1295 NORTH STATE STREET
OREM, UTAH 84057
PHONE: (801) 222-0922
FAX: (801) 222-0902

PROJECT
PATEETNEET MUSEUM REMODEL
10 NORTH 600 EAST
PAYSON, UTAH

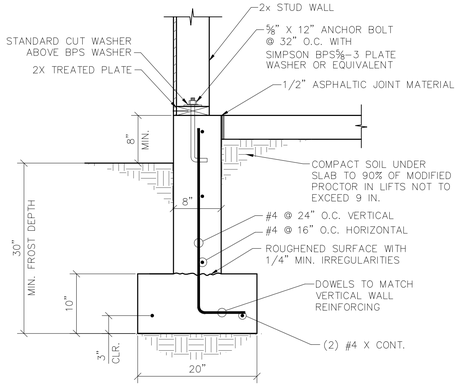
SHEET TITLE
PLANS, SCHEDULES, AND DETAILS

PROJECT NO.
21052
DRAWING NO.
S1

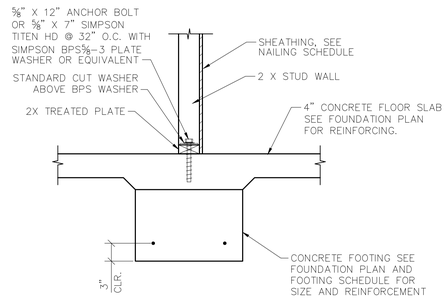
DO NOT SCALE DRAWINGS



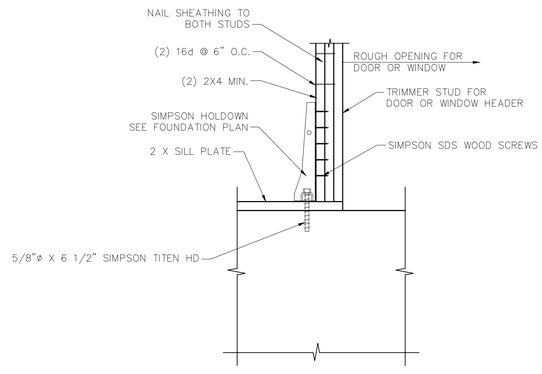
FOUNDATION CONNECTION (1) — 1"=1'-0"
FTGNE2



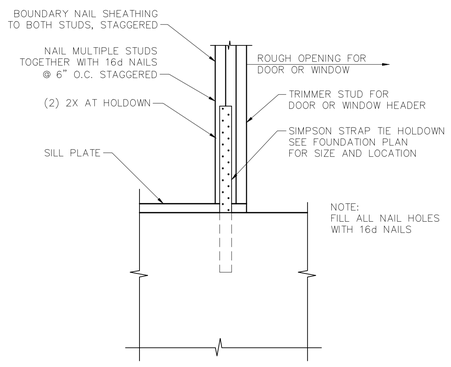
DETAIL (2) — 1"=1'-0"
FTGSS2



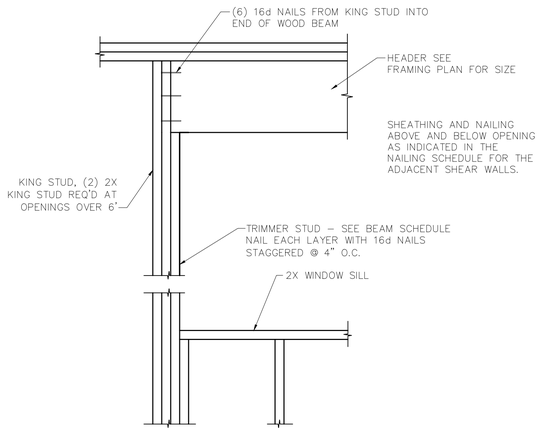
SHEAR WALL FOOTING (3) — 1"=1'-0"
FTGISW



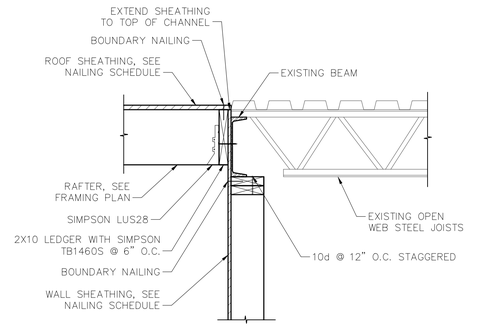
HOLDOWN DETAIL (4) — 1"=1'-0"
PHDEPOXY



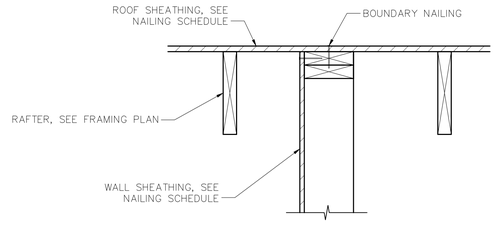
HOLDOWN DETAIL (5) — 1"=1'-0"
STRAP



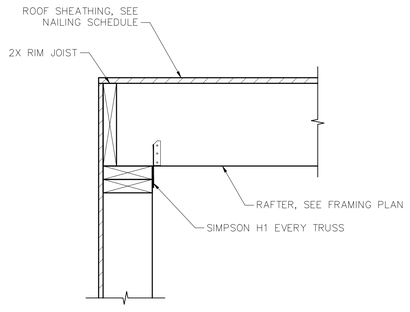
TYPICAL WINDOW HEADER (6) — 1"=1'-0"
WDTH



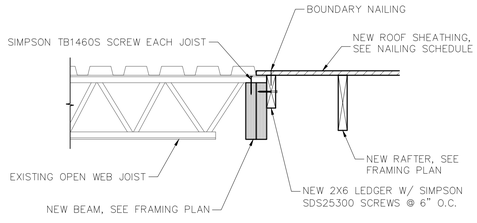
DETAIL (7) — 1"=1'-0"
DET1



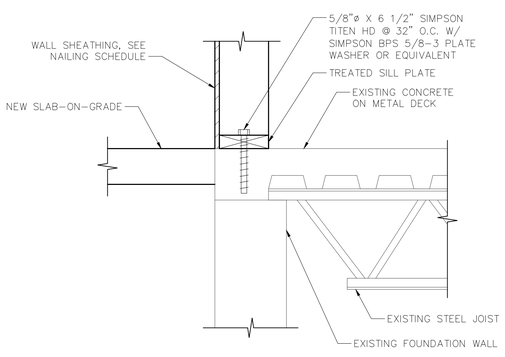
DETAIL (8) — 1 1/2"=1'-0"
DET2



DETAIL (9) — 1 1/2"=1'-0"
DET3



DETAIL (10) — 1"=1'-0"
DET4



DETAIL (11) — 1 1/2"=1'-0"
DET5

	BY	DATE	DRAWING ISSUE
1			
2			
3			
4			

PROJECT ARCHITECT: -
PROJECT ENGINEER: -
DRAWN BY: JR
DATE: -

PROFESSIONAL STRUCTURAL ENGINEER
CHAD A. KONLER
No. 343792
4/1/2022
STATE OF UTAH

CKR ENGINEERS
CONSULTING STRUCTURAL ENGINEERS
1295 NORTH STATE STREET
OREM, UTAH 84057
PHONE: (801) 222-0922
FAX: (801) 222-0902

PROJECT: PATEETNEET MUSEUM REMODEL
10 NORTH 600 EAST
PAYSON, UTAH

SHEET TITLE: DETAILS

PROJECT NO. 21052

DRAWING NO. S2

DO NOT SCALE DRAWINGS

1. DESIGN CRITERIA

A. Governing Building Code	2018 International Building Code
a. Risk Category	II
B. Roof Live Load	20 psf
C. Roof Snow Load	
a. Ground Snow Pg	35 psf
b. Flat Roof Snow Pf	27 psf
c. Exposure Factor Ce	1.0
d. Thermal Factor Ct	1.0
e. Importance Factor	1.0
D. Wind Load	
a. Wind Speed Vult	102 mph
b. Exposure	B
c. Interior Pressure Coefficient GCpi	+/−0.18
E. Seismic Load	
a. Importance Factor Ie	1.0
b. Spectral Response Accelerations	
• Ss	1.694
• S1	0.627
• SDS	1.355
• SD1	0.711
c. Site Class	D
d. Design Category	D
e. Basic Force Resisting System	Wood Shear Walls
f. Response Coefficient Cs	0.2085 (SD)
g. Response Modification Coefficient R	6.5
h. Analysis Procedure Used	Equivalent Lateral Force Procedure
F. Soil Information	
a. Geotechnical Report Not Available	
• Allowable Bearing Capacity	1,500 psf (Default)
• Site Class	D (Default)

b. CKR Engineers recommends that a geotechnical study be completed for the site. CKR Engineers assumes no responsibility or liability for structural damage or other problems related to soil conditions.

2. GENERAL

A. The contractor shall verify all conditions and dimensions prior to fabrication or construction in any area. Do not scale drawings. The Engineer shall be notified of any discrepancies, omissions, or inconsistencies. In case of conflict, follow the most stringent requirements as directed by the Engineer before proceeding with any changes, substitutions or modifications. Any work completed before receiving a written response shall be at the contractor's risk.
B. All work shall conform to the minimum standards of the International Building Code and any other regulatory agencies that have authority over any portion of the work.
C. The General Contractor shall review and approve all shop drawings before submitting them to the Engineer. A reviewed copy of all shop drawings shall be kept at the construction site for reference. The shop drawing review is for general conformance to the project drawings only and does not relieve the General Contractor of responsibility for completion of the project according to the contract documents.
D. All details and notes on drawings are intended to be typical and shall apply to similar situations elsewhere unless noted or shown otherwise.
E. Structural drawings and specifications represent the finished structure, not the method of construction. The Contractor shall be responsible for all measures necessary to protect the structure during construction. These measures include, but are not limited to: bracing, shoring, etc. Shoring and bracing shall remain in plane until all permanent members are in place and connections complete. Observation visits to the site by the Engineer or his representative does not include inspection of these items.
F. Construction materials shall be spread out if placed on framed floors or roof. Loads shall not exceed the design strength of the construction. Provide adequate shoring or bracing where structure has not attained design strength.
G. See Architectural drawings for the following: (Unless noted)
   a. Dimensions not shown on structural drawings.
   b. Size and location of all door, window, floor, and roof openings.
   c. Size and location of all interior and exterior non−bearing partitions.
   d. Size and location of all curbs, drains, depressed areas, slopes, changes in level, grooves, chamfers, inserts, etc.
   e. Floor and roof finishes.
   f. Stair framing and details (except as shown).
H. Openings larger than 6 in. shall not be placed in slabs, decks walls, etc., unless specifically detailed on the structural drawings. Notify the Structural Engineer when drawings by others show above conditions located in structural members.

3. FOUNDATIONS

A. The Contractor shall investigate the site during clearing, excavation or other earthwork operations for filled excavations, buried structures or unnatural soil conditions. If any of these conditions are found, the Architect or Engineer shall be notified immediately.
B. The building foundation and floor slab shall be placed on soil prepared per the requirements of the soils report if available.
C. The contractor shall provide for proper de−watering of any and all excavations if required.
D. The contractor shall provide for the design and installation of all shoring and bracing required to safely and adequately retain any excavations.
E. Foundation walls, retaining walls, etc. shall not be backfilled until bracing floors and/or framing members have been installed and the concrete has reached its required design strength.
F. Grading shall allow for positive drainage (5 percent minimum) away from the building, other footings and foundations, drives and sidewalks.
G. Excessive wetting or drying of the foundation excavation and the floor slab areas shall be avoided during construction.
H. All fill, imported or local, shall be examined and approved by the Geotechnical Engineer if available prior to use in controlled fill areas. Backfill around the building shall be of relatively impervious soil. Fill materials shall be placed and compacted in layers using approved compaction equipment. Moisture condition fill material shall be as recommended by the soils report.
I. All fill supporting concrete slabs, footings, or etc. shall be moistened and compacted to at least 95 percent of the maximum dry density as determined by ASTM D−1557 (Modified Proctor) or as specified by the Geotechnical Engineer. All other fill shall be compacted to a minimum relative compaction of ninety (90) percent of maximum dry density. An approved testing agency shall perform the compaction testing and submit the results to the Structural Engineer. Sufficient field density tests shall be performed to certify building pads as conforming to these specifications.

4. CONCRETE

A. All phases of work pertaining to concrete construction shall conform to the 'Building Code Requirements for Reinforced Concrete' (ACI 318) and the 'Specifications for Structural Concrete for Buildings' (ACI 301) latest approved editions, with modifications as noted in the drawings or specifications.
B. Concrete mixes shall be designed by a qualified testing laboratory.

Type	f'c psi	Max W/C Ratio	Air Content (%)	Exposure Classes F	S	C
Footings	3,000	0.5	–	F0	S0	C0
Foundations	4,000	0.5	5	F1	S0	C0
Interior Flatwork	4,000	0.45	3	F0	S0	C0

   a. All Concrete shall contain Portland Cement in accordance with ASTM C150
      • Type I or II for Exposure class S0.
      • Type II or V for Exposure class S1.
      • Type V plus pozzolan or slag cement for Exposure class S2
   b. Calcium chloride shall not be used.
C. Along with scheduled dowels, roughen surface of footing under foundation to ¼ in. minimum undulations.
D. Maximum concrete slump shall not exceed four inches prior to the addition of water reducing admixtures, plasticizers, etc. Submit final expected slump with each mix design.
E. All concrete shall be thoroughly cured according to ACI recommendations. Follow ACI 306R "Cold Weather Concreting" and ACI 305R "Hot Weather Concreting" for all concrete and masonry work when required by current weather conditions.
F. Conduits and pipes embedded in concrete shall conform to the requirements in Section 20.7 of ACI 318. Any aluminum embedded in structural concrete shall be coated or covered to prevent aluminum−concrete reaction or electrolytic action between aluminum and steel.
G. Interior and exterior concrete slabs−on−grade shall be a minimum of 4 inches in thickness UNO, with sawn or preformed joints at maximum 10 to 12 feet in each direction. Sawn joints shall be ¼ slab thickness in depth and shall be cut as soon as surface allows and not more than 12 hours after concrete placement. Construction joints shall be made and located as to least impair the strength of the structure. All reinforcing bars, if required, shall be continuous through joints (UNO).
H. Clear coverage of concrete over outer reinforcement bars shall be as follows (UNO).
   a. Cast against and permanently in contact with ground − 3 in.
   b. Exposed to weather or in contact with ground
      • No. 6 through No. 18 − 2 in.
      • No. 5 and smaller − 1½ in.
   c. Not exposed to weather or in contact with ground.
      • Slabs, joints and walls
        − No. 11 and smaller − ¾ in.
      • Beams, columns, pedestals and tension ties.
        − Primary reinforcement, stirrups, ties, spirals and hoops − 1½ in.

5. REINFORCING STEEL (FOR CONCRETE AND MASONRY)

A. All reinforcing steel shall be detailed and placed in conformance with the 'Building Code Requirements For Reinforced Concrete' (ACI 318) and 'The Manual of Standard Practice For Reinforced Concrete Construction' by the CRSI and the WCRSI, as modified by the project drawings and specifications.
B. All steel reinforcement shall conform to ASTM A615 Grade 60 with minimum yield strength of 60,000 psi. All reinforcing that is to be welded shall be ASTM A706 Grade 60 deformed weldable bar.
C. All reinforcing bars shall be free of rust, scale, grease, form oil or other material that might affect or impair bond.
D. Splices of reinforcing bar, if required, shall be avoided at points of maximum stress. See the lap splice schedule for minimum lap lengths. Splices shall be made in a region of compression, unless shown otherwise.
E. Reinforcing bars shall neither be welded nor bent by heating. Where inserts require welding to plates, angle of the like, ASTM A706 deformed weldable bars shall be used.
F. All 90 degree hooks in reinforcing bars shall be bent with an inside diameter of 6 bar diameters for #3 to #8. Extend bars 12 bar diameters beyond bend. All 180 degree hooks in reinforcing bars shall be bent with an inside diameter of 6 bar diameters for #3 to #8. Extend bars a minimum of 4 diameters, or 2½ in. beyond bend.
G. Dowels between footings and walls or columns shall be the same grade, size, and spacing or number as the vertical reinforcing, respectively, UNO.
H. Where concrete girths, beams, or walls are continuous around a corner, add corner bars to lap from each direction. Reinforcing bars in the interior faces shall extend to within 2 in. or the outer face and shall terminate in a standard hook or bend.
I. Reinforcing around openings in concrete walls, unless otherwise noted and in addition to the regular wall reinforcement: at least one #4 horizontal bar for each 5" of wall thickness or fraction thereof with a minimum of (2) #4 placed 2" above the head of the opening that extends 24" beyond the corners of the opening. The minimum depth of wall (in inches) over the opening shall be ½ times the span of the opening (in feet) or 12" whichever is greater. At the sides and across the bottom of openings, add two #4 bars that extend 24" beyond the corners of the opening.

6. WOOD CONSTRUCTION

A. All phases of work pertaining to wood framing or wood construction shall conform to the requirements listed in Chapter 23 of the IBC.
B. All wood beams, joists and columns shall be #2 Douglas−Fir Larch grade lumber or better (UNO) having a minimum allowable base bending stress of 900 psi.
C. All wall studs shall be Douglas−Fir Larch Stud grade lumber or better (UNO)
D. Structural Composite Lumber shall have the following minimum design values:

Material	Modulus	Fb(psi)
LSL	1.3E	1700
LSL	1.7E	2600
LVL	2.0E	2600
PSL	2.0E	2900

E. All wood structural panels shall be APA−RATED Exposure 1 panels manufactured in accordance with DOC PS 1 or PS 2, UNO.
F. All plates or other lumber in contact or within 6 inches of earth shall be Foundation redwood marked or branded by the Redwood Inspection Service or pressure treated (SBX/DOT & Zinc Borate) for moisture protection.
G. Fasteners for preservative−treated and fire−retardant−treated wood shall be of hot dipped zinc−coated galvanized steel, stainless steel, silicon bronze or copper. The coating weight for zinc−coated fasteners shall be in accordance with ASTM A153.
H. Provide full depth solid blocking or rimboard at ends and at each interior support of joists.
I. Unsupported edges of wall, floor and roof sheathing shall be blocked as indicated in the nailing schedule.
J. Walls shall run continuous between horizontal support points, unless adequate approved bracing is provided.
K. REQUIRED MINIMUM NAILING SCHEDULE: (See IBC Table 2304.10.1)

8d common	2½" x 0.131"	8d box	2½" x 0.113"
10d common	3" x 0.148"	10d box	3" x 0.128"
16d common	3½" x 0.162"	16d box	3½" x 0.135"

Stud to plates	toe nails 4−8d common or end nail 2−16d common
Double top plates	face nail 10d box @ 12" o.c. staggered with 12−10d box at laps and 3−10d box at intersections.
Double studs	face nail 16" o.c. with 10d box
Corner stud and angles	12" o.c. with 16d box
Joist to sill or girders	toe nail with 3−8d common
Sole plate to rim board	face nail 4" o.c. with 16d box

See Nailing Schedule for nailing sheathing to roof joists, trusses and studs.

L. Nails or other approved sheathing connectors shall be driven flush but shall not break the surface of the sheathing.
M. Connect all wood to concrete, wood to steel, and wood to wood (except stud to plate) with Simpson or equivalent connectors UNO. Connectors used in exterior applications shall be galvanized or stainless steel.
N. Provide holdowns at each end of shear walls as noted on the drawings.

7. EPOXY INSTRUCTIONS FOR ANCHORING REBAR AND BOLTS
(Referred to below as bar(s))

A. Use epoxy that meets ICC AC308 criteria for cracked concrete, e.g. Hilti RE 500 V3, or Simpson SET−XP.
B. Bars must be deformed or threaded for the full embedment depth in epoxy.
C. Over−drill bar diameter as recommended by manufacturer and to depth indicated in the drawings. Maximum hole size to be no larger than ¼" larger than bar diameter.
D. Remove all dirt, dust, water, and ice by vacuum from the holes. Brush and blow hole with oil−free compressed air twice.
E. Clean dirt, rust, and oil from the bars.
F. During the epoxy mixing and application process, follow the epoxy manufacturer's instructions exactly.
G. Inject the holes drilled for the bars halfway with epoxy and then insert the bars while twisting slightly. Insure that bar is seated at bottom of hole and that epoxy has flowed from the top of the hole.
H. Use an epoxy gel for all horizontal holes or vertical holes filled from the bottom.
I. All bars anchored in epoxy are to be special inspected during installation in accordance with the manufacturer's requirements.

	BY	DATE	DRAWING ISSUE
1			
2			
3			
4			

PROJECT ARCHITECT
–
PROJECT ENGINEER
–
DRAWN BY
JR
DATE
–

PROFESSIONAL STRUCTURAL ENGINEER
CHAD A. KONLER
No. 343792
4/1/2022
STATE OF UTAH

CKR ENGINEERS
CONSULTING STRUCTURAL ENGINEERS
1295 NORTH STATE STREET
OREM, UTAH 84057
PHONE: (801) 222−0922
FAX: (801) 222−0902

PROJECT
PATEETNEET MUSEUM REMODEL
10 NORTH 600 EAST
PAYSON, UTAH

SHEET TITLE
NOTES

PROJECT NO.
21052

DRAWING NO.
S3

SITE CLIMATE DESIGN CONDITIONS

LOCATION	ELEVATION ABOVE SEA LEVEL IN FEET	DESING CONDITIONS IN ° FAHRENHEIT			REMARKS
		SUMMER		WINTER	
		DRY BULB	WET BULB	DRY BULB	
PAYSON UTAH	4,680	95	63	5	-

CEILING EXHAUST FAN SCHEDULE

MARK	NOMINAL CFM	TOTAL STATIC PRESSURE IN. W.C.	ELECTRICAL				SOUND RATING SONES	SELECTION BASED ON GREENHECK MODEL	REMARKS
			RATED LOAD WATTS	VOLTS	HERTZ	PHASE			
CEF-1	70	0.5	11	115	60	1	2.0	SP-AP0511W	1, 2, 3

Notes:
1- MECHANICAL CONTRACTOR SHALL PROVIDE SPEED CONTROL FOR FAN WHEN REQUIRED TO PROVIDE SCHEDULED CFM.
2 - APPROVED MANUFACTURERS: GREENHECK, COOK, TWIN CITYS. (SUBJECT TO PROJECT DOCUMENT CONFORMANCE)
3 - FAN CONTROLED WITH LIGHTS BY ELECTRICAL CONTRACTOR.

ENERGY RECOVERY UNIT SCHEDULE

ENERGY RECOVERY UNIT SIZE APPLICATION SCHEDULE

SYMBOL	MAXIMUM ENERGY RECOVERY UNIT SIZE INCHES			LOCATION	EXHAUST AIR FLOW CFM	OUTSIDE AIR FLOW CFM	GREENHECK MODEL	AREA SERVICED	REMARKS
	LENGTH	WIDTH	HEIGHT						
ERV-1	55	29	50	BASEMENT	700	660	ECV-10L-VG-PM	MEN'S AND WOMEN'S RESTROOM	OUTSIDE AIR FOR CUSTODIAL ROOM AND CONFERENCE ROOM

SEE SPECIFICATION SECTION 237200

EXHAUST AND OUTSIDE AIR FAN SCHEDULE

SYMBOL	EXHAUST AIR FAN INFORMATION					OUTSIDE AIR FAN INFORMATION					ERV UNIT ELECTRIAL INFORMATION					REMARKS
	EXHAUST AIR FLOW CFM	FAN ESP IN. WG.	FAN TSP IN. WG.	FAN RPM	FAN MOTOR HP	OUTSIDE AIR FLOW CFM	FAN ESP IN. WG.	FAN TSP IN. WG.	FAN RPM	FAN MOTOR HP	VOLTS	HERTZ	PHASE	UNIT MCA	UNIT MOP	
ERV-1	700	0.50	0.6	1586	1/2	660	0.50	0.580	1123	1/2	208	60	1	22.1	25	-

SEE SPECIFICATION SECTION 237200

ENERGY RECOVERY UNIT HEAT EXCHANGER SCHEDULE

SYMBOL	HEAT EXCHANGER FLOW		SUMMER ENERGY RECOVERY PERFORMANCE						WINTER ENERGY RECOVERY PERFORMANCE						REMARKS
	EXHAUST AIR FLOW CFM	OUTSIDE AIR FLOW CFM	EXHAUST AIR EAT DB/WB	OUTSIDE AIR EAT DB/WB	EXHAUST AIR LAT DB/WB	OUTSIDE AIR LAT DB/WB	ASHREA 90.1 ENTHALPY RECOVERY RATIO	COOLING LOAD REDUCTION IN BTUH	EXHAUST AIR EAT DB/WB	OUTSIDE AIR EAT DB/WB	EXHAUST AIR LAT DB/WB	OUTSIDE AIR LAT DB/WB	ASHREA 90.1 ENTHALPY RECOVERY RATIO	HEATING LOAD REDUCTION IN BTUH	
HX-1	700	660	75°F/61.8	94.6/66.4	87.8/65.1	81/63.1	73.60	8019	72°F/54.8	9/6.5	31.1/30.0	52.7/41.5	64.30	31,409	-

SEE SPECIFICATION SECTION 237200
Notes:
1. PROVIDE WITH 2.1 KW ELECTRIC PREHEATER FOR FROST CONTROL.
2. PROVIDE WITH EXHUAST AND OUTSIDE AIR HEAT EXCHANGER INLETS WITH 2" THICK MERV 8 FILTERS, FILTERS SHALL BE 2 - 20X25 FOR EACH SECTION, 4 FILTERS REQUIRED.
3. ENERGY RECOVERY UNIT ERV-1 START/STOP CONTROL SHALL BE INTERLOCKED WITH THE LIGHTS ON/OFF CONTROL IN THE WOMEN'S RESTROOM, SEE ELECTRICAL DRAWINGS. UNIT SHALL ALSO TURN ON AND RUN WHEN THE SPACE TEMPERATURE DROPS BELOW 68°F.
4. UNIT SHALL BE PROVIDED WITH LOW LEAKAGE DAMPERS FOR THE OUTSIDE AIR AND EXHAUST AIR SECTIONS.
5. EACH FAN IN THE ENGERGY RECOVERY UNITS SHALL BE PROVIDED WITH MOTOR SPEED CONTROLLERS.
6. PROVIDE UNIT WITH MICROPROCESSOR CONTROLS AND WITH BACNetMSTP NETWORK PROTOCOL. CONTROLLER SHALL CONTROL ON/OFF SIGNAL, HEAT ENABLE FOR ELECTRIC HEATER, STEAM COIL CONTROL, AND OA RESET.
7. STEAM HEATING COIL ACTUATORS SHALL BE CONTROLLED BY ROOM SPACE TEMPERATURE SENSORS VIA ERV UNIT MICROPROSSESOR CONTROL, AND SHALL BE INTERLOCKED WITH THE FANS, SEE STEAM COIL SCHEDULE FOR INFORMATION.

STEAM HEATING COIL SCHEDULE

SYMBOL	NOMINAL AIR FLOW CFM	SERVICE	MAX AIR PRESSURE DROP IN. W.C.	MINIMUM CAPACITY MBH	ENTERING AIR DB	LEAVING AIR DB	ENTERINTG STEAM TEMP	CONDENSATE LBS/HR	STEAM PRESSURE	MIN. FACE AREA SQ. FT.	MAX FACE VELOCITY	NOM. COIL SIZE INCHES		ROWS/FPI	REMARKS
												WIDTH	HEIGHT		
SHC-1	310	ERV-1	0.5	25.5	53	93.7	286	28	40	0.87	755	14	9	1/6	1, 2

Notes:
1. PROVIDE WITH TEMPERATURE CONTROLS WITH ROOM SENSOR STEAM VALVE AND TRAP ASSEBLY. ROUTE PIPING SUCH THAT STEAM AND CONDENSATE RETURN HAVE A 1/8" PER FOOT SLOPE TO TRAP AND CONDENSATE RETURN.
2. LOCATE STEAM CONTROL VALVE AND TRAP IS ACCESSIBLE LOCATION FOR EASE OF ACCESS AND MAINTENANCE.

LOUVER PENTHOUSE SCHEDULE

SYMBOL	NOMINAL AIR FLOW CFM	SERVICE	LOUVER DIMENSIONS				ROOF CURB CONNECTION		THROAT SIZE		FREE AREA SQ. FT.	MAX. STATIC PRESSURE DROP IN. WC	MANUFACTURER	MODEL	REMARKS
			WIDTH (INCHES)	LENGTH (INCHES)	HEIGHT (INCHES)	LOUVERS HIGH	WIDTH (INCHES)	LENGTH (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)					
LPH-1	660	ERV-1 OUTSIDE AIR	28	28	12.25	3	22	22	14	14	2.6	0.05	GREENHECK	WIH	1
LPH-2	700	ERV-1 EXHAUST AIR	28	28	12.25	3	22	22	14	14	2.6	0.05	GREENHECK	WRH	1

Notes:
1. PROVIDE LOUVERED PENTHOUSE WITH 12 INCH TALL INSULATED FACTORY MANUFACTURED ROOF CURB. CONSTRACTOR TO VERIFY ROOF SLOPE PRIOR TO ORDERING ROOF CURB.

GRILLE AND DIFFUSER SCHEDULE

SYMBOL	SERVICE	LOCATION	MOUNTING TYPE	MANUFACTURER	MODEL	REMARKS
S-1	SUPPLY	CEILING	SURFACE	TITUS	TDC	BORDER TYPE 1
S-2	SUPPLY	SIDEWALL	SURFACE	TITUS	272 RS	BORDER TYPE 1, FASTENING TYPE A EXTERNAL SCREW
R-1	RETURN	SIDEWALL	SURFACE	TITUS	350RL	BORDER TYPE 1, FASTENING TYPE A
E-1	EXHAUST	CEILING	SURFACE	TITUS	4FL	BORDER TYPE 1, FASTENINGS TYPE C (CONCEALED SCREW)

SPLIT SYSTEM SCHEDULE

SYMBOL	AREA SERVED	NOMINAL COOLING CAPACITY IN TONS	NOMINAL COOLING RATED CAPCITY BTUH	NOMINAL HEATING CAPACITY BTUH	INDOOR UNIT										OUTDOOR UNIT								REMARKS
					NOMINAL CFM		ELECTRICAL					UNIT WEIGHT LBS.	DAIKIN MODEL	UNIT TYPE	REFRIGERANT	SEER	ELECTRICAL					UNIT WEIGHT LBS.	DAIKIN MODEL	
					MED	LOW	VOLTS	HERTZ	PHASE	WATTS	MOCP						VOLTS	HERTZ	PHASE	MCA	MOCP			
SP-1	CONFERENCE ROOM	0.75	8,800	9,400	272	215	208	60	1	18	15	20	FTXB09AXVJU	WALL MOUNTED	R410A	17	208	60	1	12	15	53	RXB09AXVJU	-

CABINET UNIT HEATER SCHEDULE

SYMBOL	NOMINAL AIR FLOW CFM	UNIT ESP INCHES OF W.C.	SERVICE	CABINET TYPE	MANUFACTURER	MODEL	STEAM HEATING COIL					DRIVE	ELECTRICAL							Remarks
							MIN. MBH	STEAM PR.	FLUID	EAT	LAT		VOLTS	HERTZ	PHASE	MOTOR HP	MCA	MAX. FUSE AMPS	MOTOR POWER W	
CUH-1	650	0.10	VESTIBULE AND CORRIDOR	HORIZONTAL CONCEALED	TRANE	FFCBO6O	43	15 PSIG	WATER	60	131.23	DIRECT	115	60	3	0.043	3.88	15	69	1, 2

Notes:
1. PROVIDE CABINET UNIT HEATER WITH CS T-STAT INTERFACE, CONTROL VALVES, AND ALL OTHER CONTROL COMPONENTS NEEDED FOR FULLY FUNCTIONING UNIT.
2. PROVIDE FAN WITH EC MOTOR.

REVISION	BY

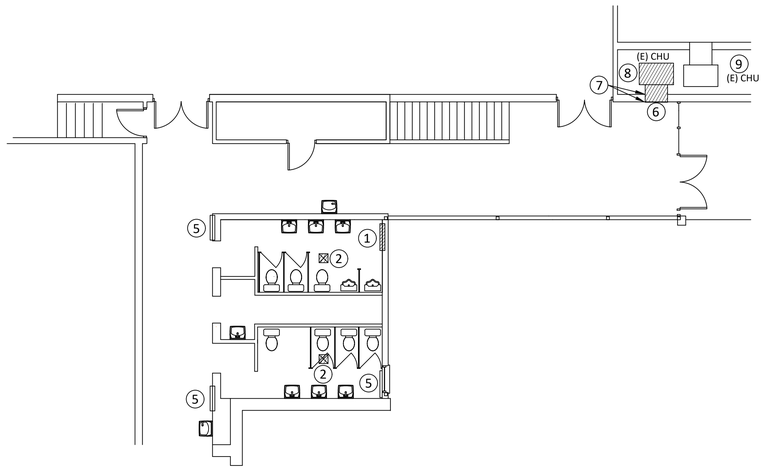
PROFESSIONAL ENGINEER
9627566-2202
THOMAS DeGRAW
4/7/2022
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER◆ (801) 374-2100
150 SOUTH MAIN ◆SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.
SHEET: M001

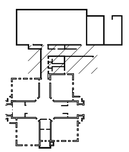
PETNEET ERV BASEMENT 4-7-2022.DWG



MAIN FLOOR MECHANICAL DEMO

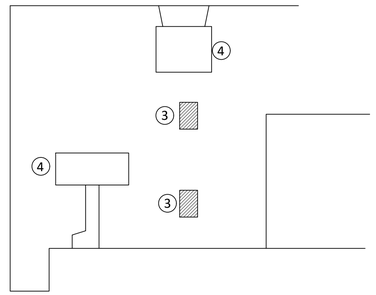
SCALE: 1/8" = 1'

1 MD101



MAIN FLOOR OVERALL

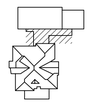
SCALE: NONE



ROOF MECHANICAL DEMO

SCALE: 1/8" = 1'

2 MD101



ROOF OVERALL

SCALE: NONE

DEMOLITION NOTES

1. REMOVE EXISTING STEAM RADIATOR AND ASSOCIATED PIPING, SEE MPD1010 FOR PIPING DEMOLITION WORK.
2. REMOVE EXHAUST AIR GRILLES AND DUCTS' DROP DOWNS THROUGH ROOF.
3. REMOVE EXISTING ROOF MOUNTED EXHAUST FANS WITH THE ASSOCIATED ROOF CARBS. ROOF TO BE PATCHED, INSULATED, AND SEALED WATER TIGHT, SEE ARCHITECTURAL DRAWINGS.
4. PROTECT EXISTING EVAPORATION COOLERS DURING CONSTRUCTION.
5. EXISTING STEAM RADIATORS TO REMAIN, PROTECT DURING CONSTRUCTION.
6. REMOVE EXISTING SUPPLY AIR DIFFUSER AND DUCTWORK BACK TO EXISTING CABINET UNIT HEATER IN PREPARATIONS FOR NEW WORK, SEE M101 FOR NEW WORK.
7. REMOVE EXISTING RETURN AIR GRILLE ON HALL SIDE, STORAGE ROOM SIDE RETURN TO REMAIN.
8. REMOVE EXISTING CABINET UNIT HEATER WITH ITS ASSOCIATED ELECTRICAL CONNECTION, CONTROLS, PIPING CONNECTIONS, AND SUPPORTS IN PREPARATION TO INSTALL NEW CABINET UNIT HEATER SHOWN ON M101, POWER AND PIPING TO BE RECONNECTED TO NEW UNIT.
9. EXISTING CABINET UNIT HEATER WITH ITS ASSOCIATED ELECTRICAL CONNECTION, CONTROLS, PIPING CONNECTIONS, AND SUPPORTS TO REMAIN PROTECT DURING DEMOLITION AND NEW WORK.

GENERAL DEMOLITION NOTES

A. THE DEMOLITION DRAWINGS SHOWN ARE PROVIDED TO SHOW THE EXTENT OF THE EXISTING MECHANICAL SYSTEMS. DEMOLITION FLOOR PLANS HAVE BEEN CREATED USING AVAILABLE RECORD DRAWINGS PROVIDED BY THE OWNER. CONTRACTORS SHALL VERIFY ALL FIELD CONDITIONS FOR INSTALLATION PRIOR TO DEMOLITION. SUCH FIELD CONDITIONS ARE, BUT NOT LIMITED TO, PIPING AND DUCTWORK ROUTING AND EQUIPMENT, ETC. FIELD VERIFY EXACT LOCATIONS OF ALL CONTROL COMPONENTS AND HAVE OWNER/CONTROL CONTRACTOR REMOVETHE COMPONENTS PRIOR TO GENERAL DEMOLITION.

B. DEMOLITION OF EXHAUST FAN SYSTEMS INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF FANS, CURBS, DUCTWORK, SUPPORTS, CONTROLS, ELECTRICAL, ETC.

C. WHEN ANY PNUEMATIC TUBING OR DEVICE IS REMOVED FROM THE STEAM HEATING SYSTEM THE PIPING/TUBING SHALL BE IMMEDIETELY CAPPED, CRIMPING OF PIPING IS NOT PERMITTED.

REVISION	BY

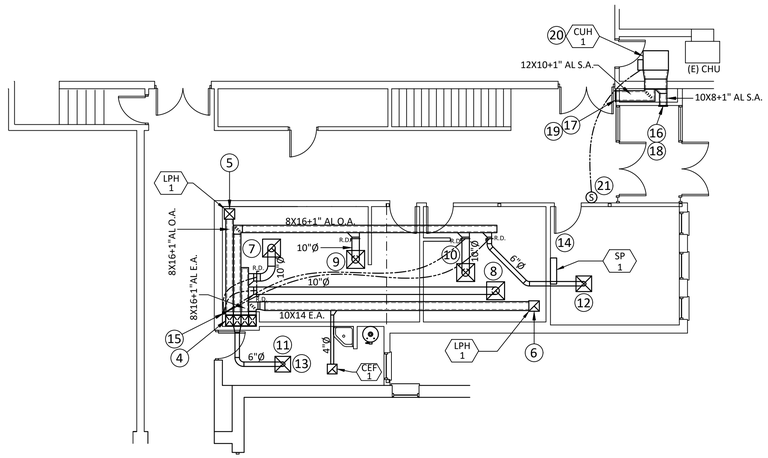
PROFESSIONAL ENGINEER
9627586-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.
SHEET: MD101

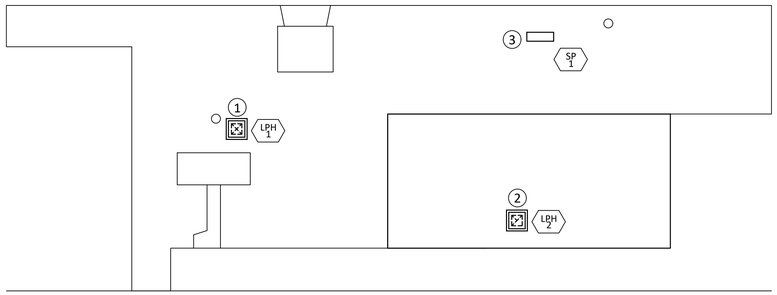
PETNEET ERV BASEMENT 4-7-2022.DWG



REMODEL MAIN FLOOR MECHANICAL

SCALE: 1/8" = 1'

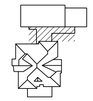
1 / M 101



REMODEL ROOF MECHANICAL

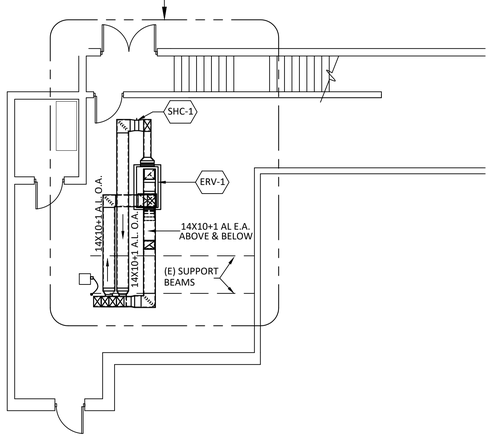
SCALE: 1/8" = 1'

2 / M 101



ROOF OVERALL

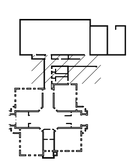
SCALE: NONE



REMODEL BASEMENT MECHANICAL

SCALE: 1/8" = 1'

3 / M 101



MAIN FLOOR OVERALL

SCALE: NONE

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.

REMODEL NOTES

1. INSTALL NEW LOUVERED PENTHOUSE ON EXISTING ROOF, FIELD VERIFY BEST LOCATION WITH EXISTING STRUCTURE. PENTHOUSE SHALL BE A MINIMUM OF 10'-0" FROM ALL ROOF VENTS, EXHAUST VERBS, ETC.
2. INSTALL NEW LOUVERED PENTHOUSE ON NEW ROOF, COORDINATE ALL ROOF WORK WITH GENERAL CONTRACTOR AND ROOFING CONTRACTOR.
3. INSTALL NEW CONDENSING UNIT ON ROOF BASE, SEE DETAIL 1/M502, AND PROVIDE WITH VIBRATION ISOLATION. SEE MP101 FOR PIPING REQUIREMENTS.
4. FIELD VERIFY OUTSIDE AIR AND EXHAUST AIR DUCT FLOOR OPENING WITH GENERAL CONTRACTOR, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS. SEE M400 FOR CONTINUATION AND BASEMENT WORK.
5. 12X12+1 AL O.A. DUCT DOWN FROM LOUVERED PENTHOUSE ABOVE.
6. 12X12+1 AL E.A. DUCT UP TO LOUVERED PENTHOUSE ABOVE.
7. E-1 350 CFM, 14X14 N.K. EXHAUST AIR GRILLE.
8. E-1 280 CFM, 14X14 N.K. EXHAUST AIR GRILLE.
9. S-1 300 CFM, 10"Ø N.K. SUPPLY AIR DIFFUSER.
10. S-1 250 CFM, 8"Ø N.K. SUPPLY AIR DIFFUSER.
11. S-1 50 CFM, 6"Ø N.K. SUPPLY AIR DIFFUSER.
12. S-1 60 CFM, 6"Ø N.K. SUPPLY AIR DIFFUSER.
13. INSTALL NEW CEILING EXHAUST FAN AND ROUTE EXHAUST DUCT TO 10X14+1 AL. EXHAUST DUCT TO LOUVERED PENTHOUSE LPH-2. SEAL DUCT AIR TIGHT.
14. INSTALL NEW WALL MOUNTED SPLIT SYSTEM HEAT PUMP ON WALL, COORDINATE INSTALLATION OF REFRIGERANT PIPING, SHOWN ON MP101, AND CONDENSATE DRAIN PIPING, SHOW ON P402, WITH UNIT INSTALLATION.
15. REMOTE DAMPER CONTROL LINES TO GO DOWN INSIDE OF WALL TO CONTROL BOX. SEE M400 FOR CONTROL BOX LOCATION.
16. S-2 150 CFM, 8X8 N.K. SUPPLY AIR DIFFUSER.
17. S-2 500 CFM, 12X10 N.K. SUPPLY AIR DIFFUSER.
18. R-1 150 CFM, 10X10 N.K. RETURN AIR GRILLE IN DUCT SLEEVE THROUGH WALL, MOUNT 10" A.F.F.
19. R-1 500 CFM, 14X12 N.K. RETURN AIR GRILLE IN DUCT SLEEVE THROUGH WALL, MOUNT 10" A.F.F.
20. INSTALL NEW CABINET UNIT HEATER IN THE SAME LOCATION WHERE EXISTING UNIT WAS REMOVED, PROVIDE NEW SUPPORTS, AND RECONNECT ELEMENTAL POWER AS PER ELECTRICAL DRAWINGS. SEE MECHANICAL PIPING. DRAWINGS FOR NEW PIPE CONNECTION REQUIREMENTS.
21. FIELD COORDINATE INSTALLATION OF CABINET HEATER CONTROLS WITH GENERAL CONTRACTOR AND ARCHITECT. TEMPERATURE SENSOR TO BE LOCATED IN CORRIDOR AND INTERFACE TO BE LOCATED BY UNIT.

REVISION	BY

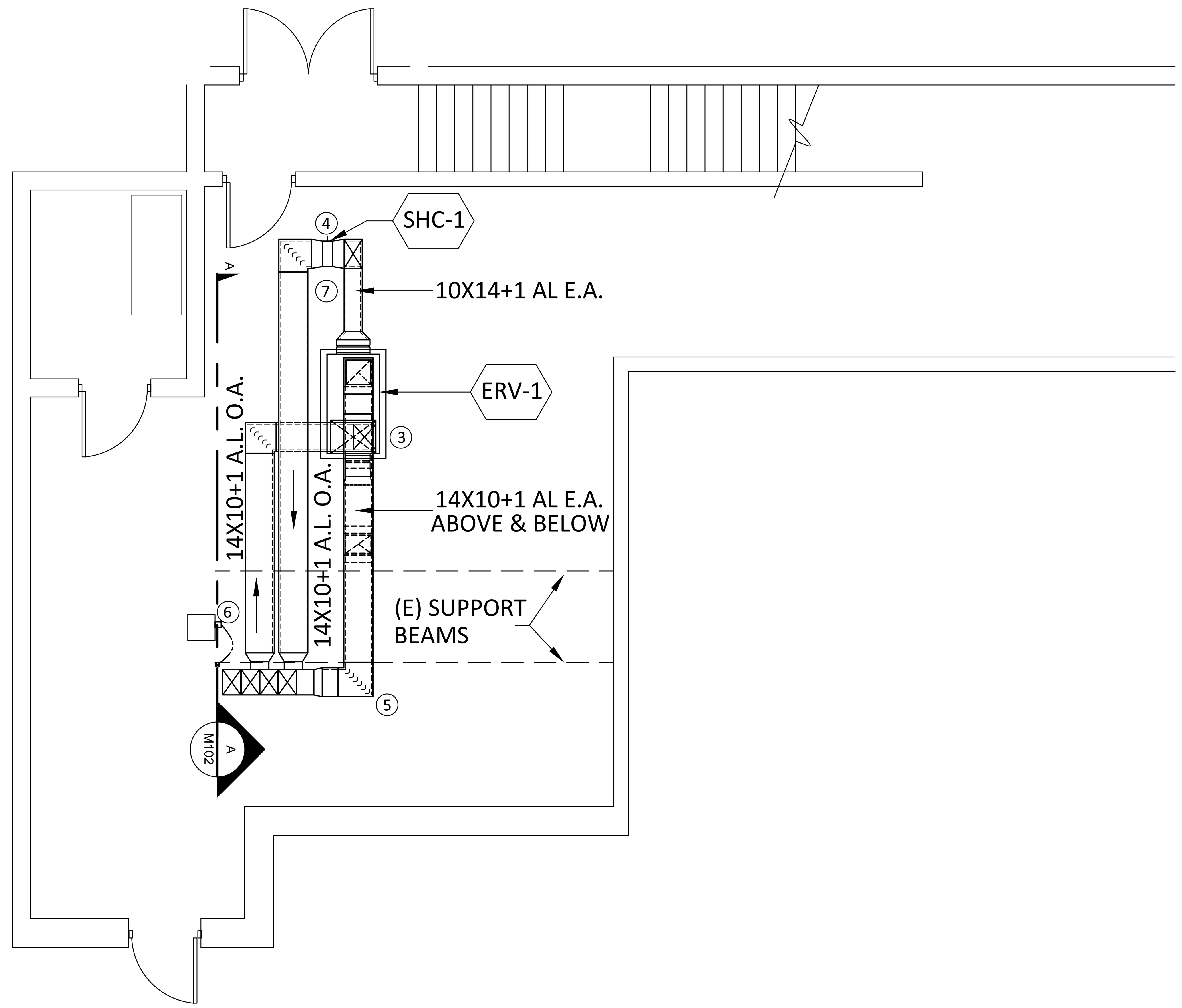
PROFESSIONAL ENGINEER
7627566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	M101

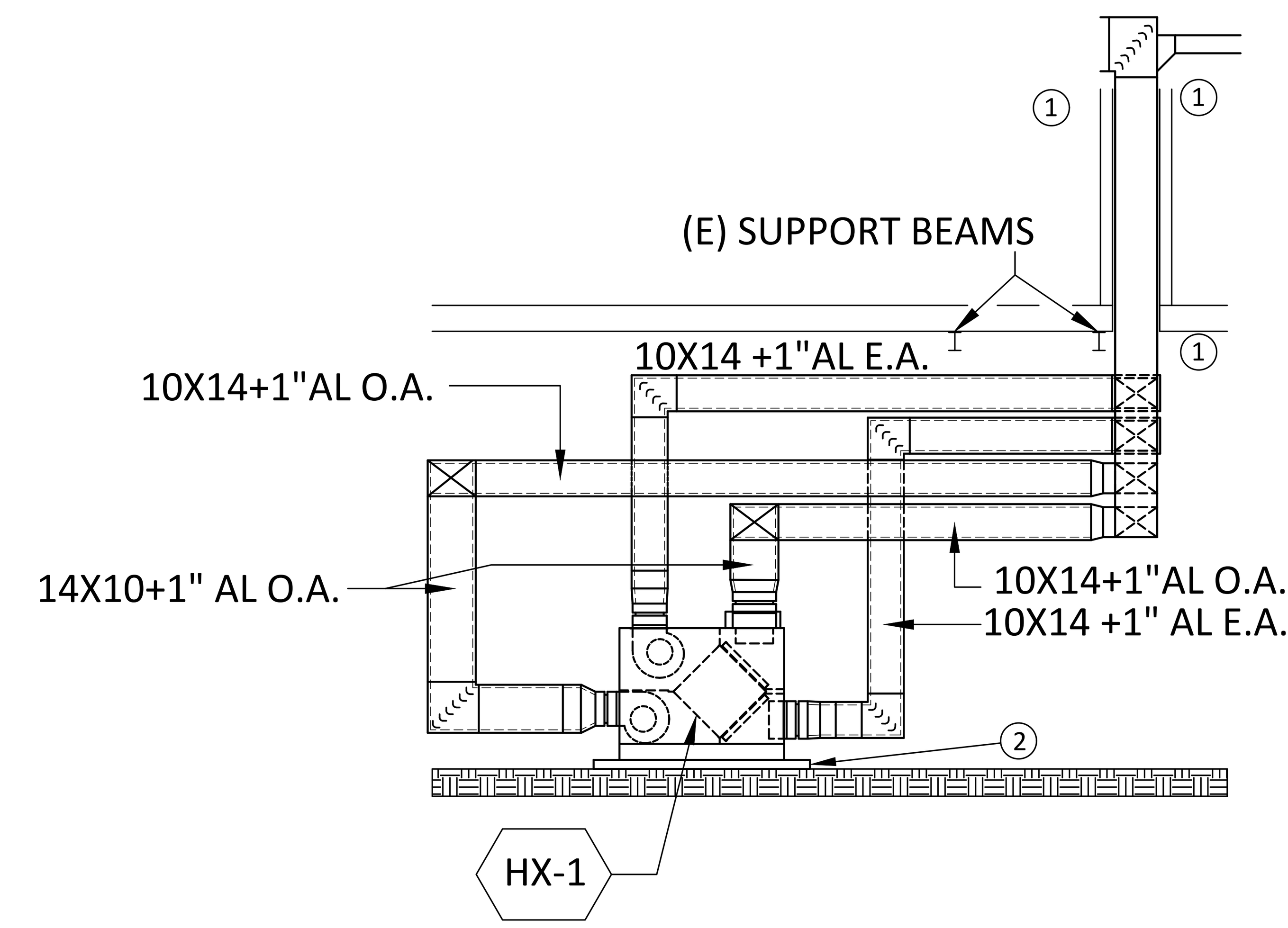
PETNEET ERV BASEMENT 4-7-2022.DWG



REMODEL BASEMENT MECHANICAL DUCTWORK

SCALE: 1/4" = 1'

1 / M 102

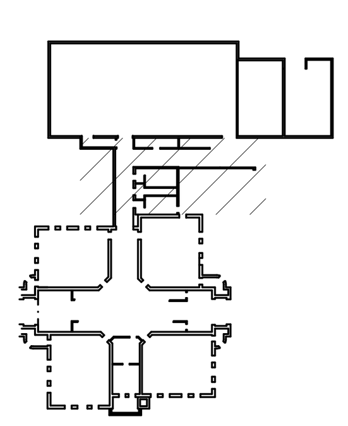


SECTION VIEW OF ERV-1

SCALE: 1/4" = 1'

0 2 1/2 5 10

A / M 102



MAIN FLOOR OVERALL

SCALE: NONE

REMODEL NOTES

1. OUTSIDE AIR AND EXHAUST AIR DUCTS SHALL BE WRAPPED WITH FOIL BACKED INSULATION FROM LINED DUCT TO WHERE THE DUCT EXTENDS AND EXITS THE SHAFT. SHAFT SHALL BE AN INSULATED SHAFT, SEE ARCHITECTURAL DRAWINGS.
2. INSTALL ENERGY RECOVERY UNIT ON CONTRACTOR PROVIDED HOUSEKEEPING PAD, ANCHOR ERV-1 TO HOUSEKEEPING PAD WITH VIBRATION ISOLATORS PROVIDED WITH ERV UNIT FROM MANUFACTACURE'S REPRESENTATIVE, SEE DETAILS# M502
3. INSTALL ENERGY RECOVERY UNIT SUCH THAT THE FILTER, BLOWER, AND CORE ACCESS DOORS ARE FREE OF DUCT WORK , CONDUIT, PIPING, ETC, TO PROVIDE MAXIMUM MAINTENANCE ACCESS.
4. SEE MP101 FOR STEAM HEATING COIL SHC-1 PING REQUIREMENTS.
5. FIELD VERIFY ALL ROUTING OF DUCTWORK AND INSTALL AT HIGHEST ELEVATIONS POSSIBLE.
6. CONTROL BOX TO BE LOCATED ON COLUMN. REMOTE DAMPER CONTROL LINES TO COME DOWN WALL OF SHAFT.
7. WRAP TRANSITIONS TO AND FROM COIL SHC-1.

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.

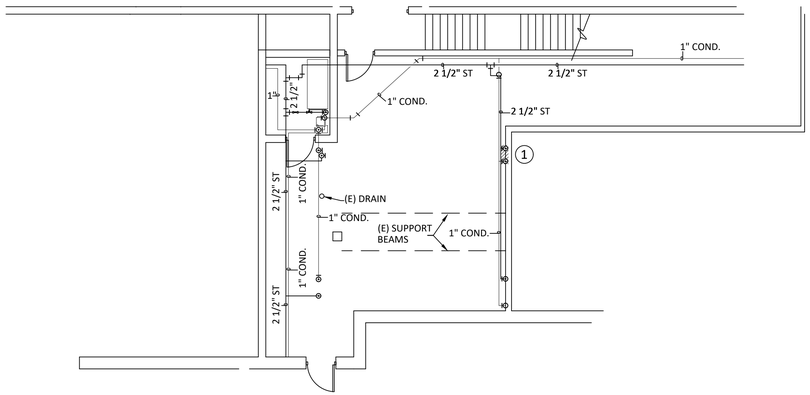
REVISION	BY

PROFESSIONAL ENGINEER 9677566-2202 THOMAS DeGRAW 4/7/2022 STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER
150 SOUTH MAIN • SALEM • UTAH
(801) 374-2100

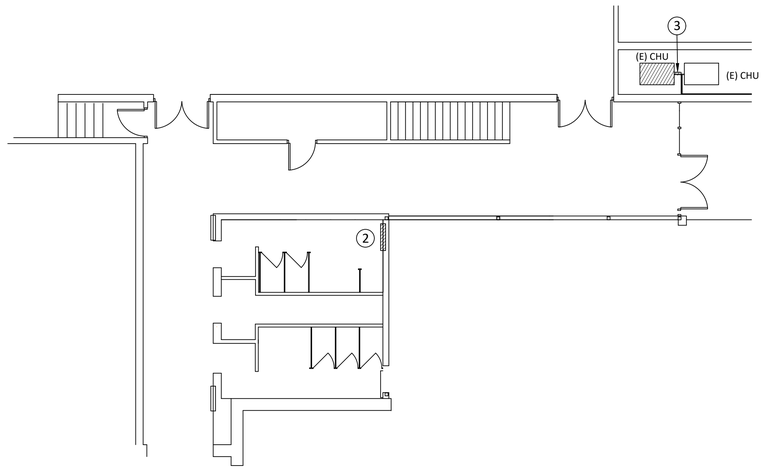
DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	M400



BASEMENT MECHANICAL PIPE DEMO

SCALE: 1/8" = 1'

1 MPD101



MAIN FLOOR MECHANICAL DEMO

SCALE: 1/8" = 1'

2 MPD101

DEMOLITION NOTES

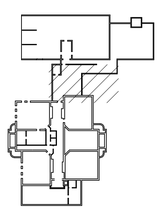
1. REMOVE EXISTING PIPING BACK TO MAIN CONNECTOR AND CAP. INSULATE ALL EXPOSED STEAM PIPING INCLUDING NEW CAPS.
2. REMOVE ALL PIPING AND RADIATOR WITH RADIATOR HOUSING IN PREPARATION FOR NEW WORK.
3. DISCONNECT EXISTING STEAM AND CONDENSATE PIPING FROM EXISTING CABINET UNIT HEATER IN PREPARATION FOR INSTALLATION OF NEW CABINET UNIT HEATER, SEE MP101 FOR NEW WORK.

GENERAL DEMOLITION NOTES

A. THE DEMOLITION DRAWINGS SHOWN ARE PROVIDED TO SHOW THE EXTENT OF THE EXISTING MECHANICAL SYSTEMS. DEMOLITION FLOOR PLANS HAVE BEEN CREATED USING AVAILABLE RECORD DRAWINGS PROVIDED BY THE OWNER. CONTRACTORS SHALL VERIFY ALL FIELD CONDITIONS FOR INSTALLATION PRIOR TO DEMOLITION. SUCH FIELD CONDITIONS ARE, BUT NOT LIMITED TO, PIPING AND DUCTWORK ROUTING AND EQUIPMENT, ETC. FIELD VERIFY EXACT LOCATIONS OF ALL CONTROL COMPONENTS AND HAVE OWNER/CONTROL CONTRACTOR REMOVETHE COMPONENTS PRIOR TO GENERAL DEMOLITION.

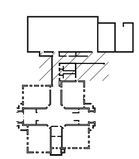
B. DEMOLITION OF EXHAUST FAN SYSTEMS INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF FANS, CURBS, DUCTWORK, SUPPORTS, CONTROLS, ELECTRICAL, ETC.

C. WHEN ANY PNUEMATIC TUBING OR DEVICE IS REMOVED FROM THE STEAM HEATING SYSTEM THE PIPING/TUBING SHALL BE IMMEDIETELY CAPPED, CRIMPING OF PIPING IS NOT PERMITTED.



BASEMENT OVERALL

SCALE: NONE



MAIN FLOOR OVERALL

SCALE: NONE

REVISION	BY

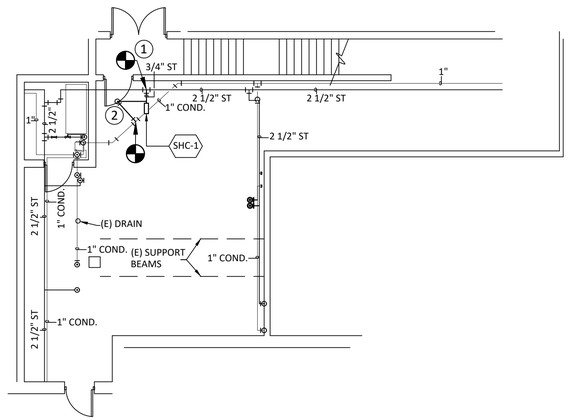
PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	MPD 101

PETNEET ERV BASEMENT 4-7-2022.DWG



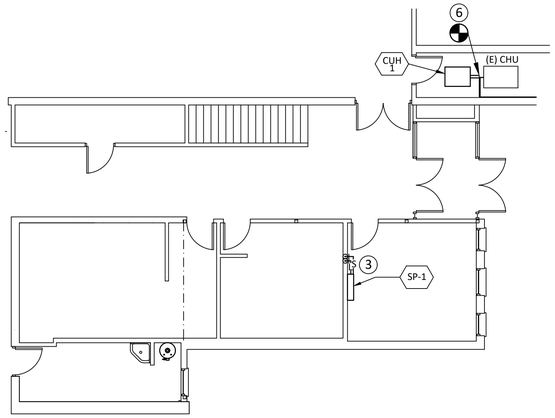
REMODEL BASEMENT MECHANICAL PIPE PLAN

SCALE: 1/8" = 1'

1 / MP 101

BASEMENT OVERALL

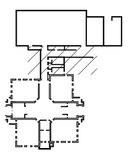
SCALE: NONE



REMODEL MAIN FLOOR MECHANICAL PLAN

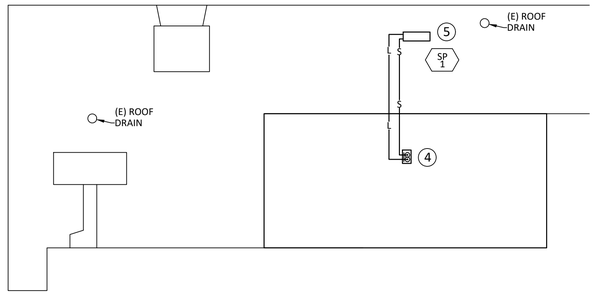
SCALE: 1/8" = 1'

2 / MP 101



MAIN FLOOR OVERALL

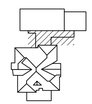
SCALE: NONE



REMODEL ROOF MECHANICAL PLAN

SCALE: 1/8" = 1'

3 / MP 101



ROOF OVERALL

SCALE: NONE

REMODEL NOTES

1. CONNECT AND EXTEND NEW 3/4" STEAM SUPPLY PIPING TO EXISTING 2 1/2" STEAM PIPING, SLOPE PIPING BACK TO MAIN, COORDINATE INSTALLATION OF PIPING WITH CONTROLS CONTRACTOR FOR STEAM TRAP ETC.
2. ROUTE NEW 3/4" CONDENSATE RETURN PIPING TO EXISTING 1" CONDENSATE RETURN, SLOPE PIPING TO EXISTING PIPING.
3. ROUTE NEW SUCTION AND LIQUID REFRIGERANT LINES UP WALL TO ROOF, COORDINATE PIPING INSTALLATION WITH INSTALLATION OF NEW WALL MOUNTED SPLIT SYSTEM. ALL REFRIGERANT PIPING SHALL BE CONCEALED.
4. ROUTE REFRIGERANT PIPING UP THROUGH ROOF PIPING ENCLOSURE, SEE DETAIL 2/M502. EXTEND PIPING TO NEW SPLIT SYSTEM OUTDOOR UNIT.
5. INSTALL NEW CONDENSING UNIT ON STEEL SUPPORT, SEE NOTE 3 ON SHEET M101 FOR INSTALLING REQUIREMENTS.
6. RECONNECT EXISTING STEAM SUPPLY AND CONDENSATE RETURN TO NEW CABINET UNIT HEATER, PROVIDE AND INSTALL ALL REQUIRED STEAM TRAPS, FITTINGS, ETC. FOR FULLY FUNCTION SYSTEMS. CONTROL VALVE AND ALL CONTROLS TO PROVIDED WITH UNIT.

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.

REVISION	BY

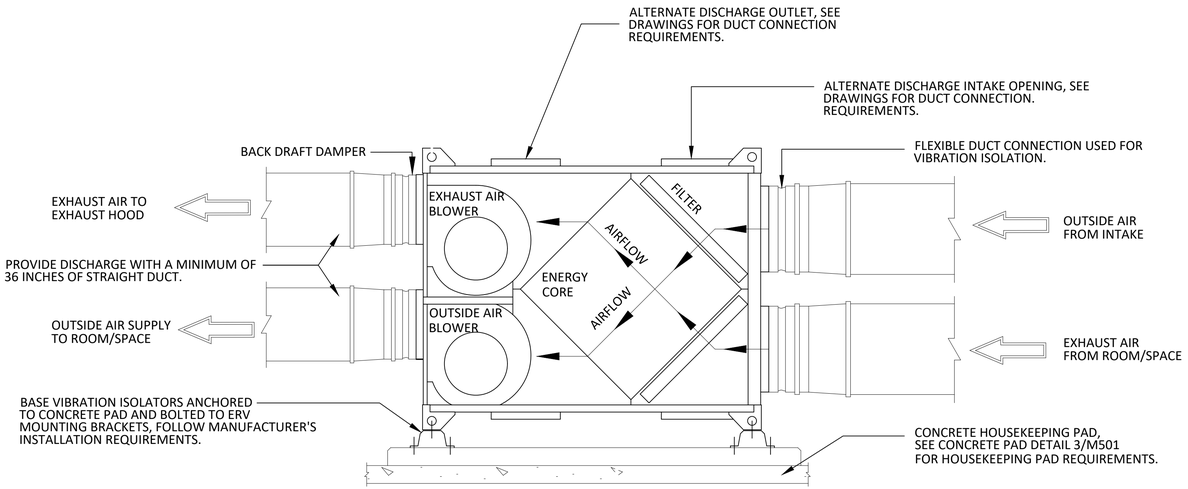
PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
4 FF 2022
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	MP101

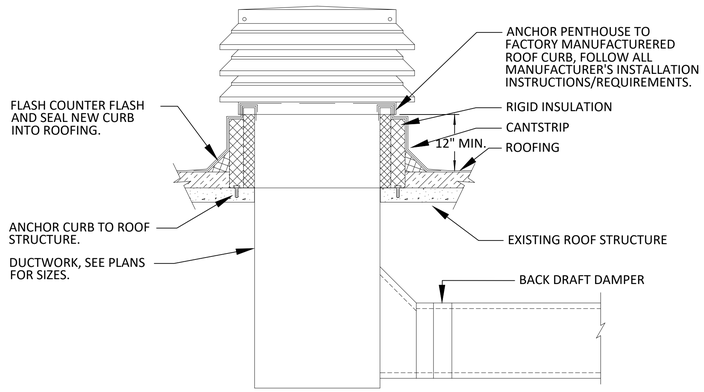
PETNEET ERV BASEMENT 4-7-2022.DWG



ENERGY RECOVERY VENTILATOR DETAIL

SCALE: NONE

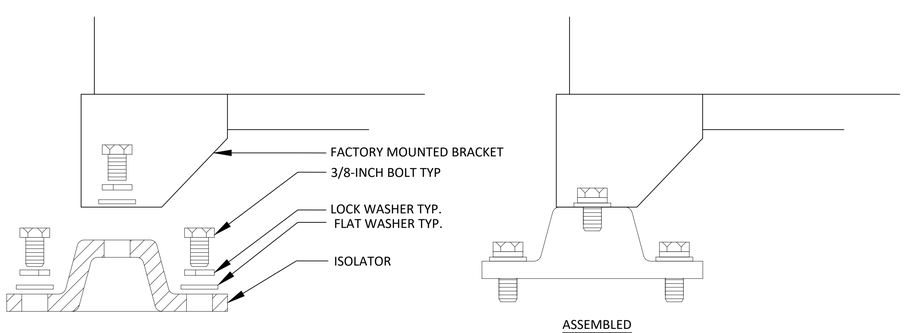
1 / M501



LOUVERED PENTHOUSE AND CURB DETAIL

SCALE: NONE

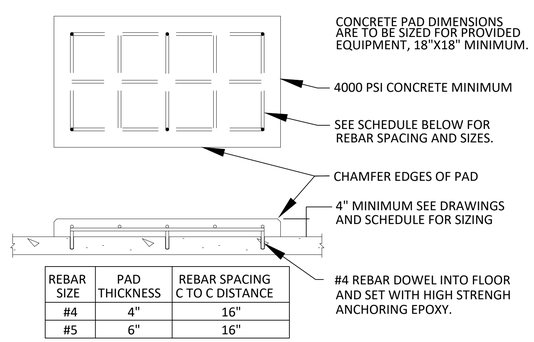
2 / M501



BASE VIBRATION ISOLATOR ASSEMBLY

SCALE: NONE

3 / M501



REBAR SIZE	PAD THICKNESS	REBAR SPACING C TO C DISTANCE
#4	4"	16"
#5	6"	16"

CONCRETE PAD DETAIL

SCALE: NONE

4 / M501

REVISION	BY

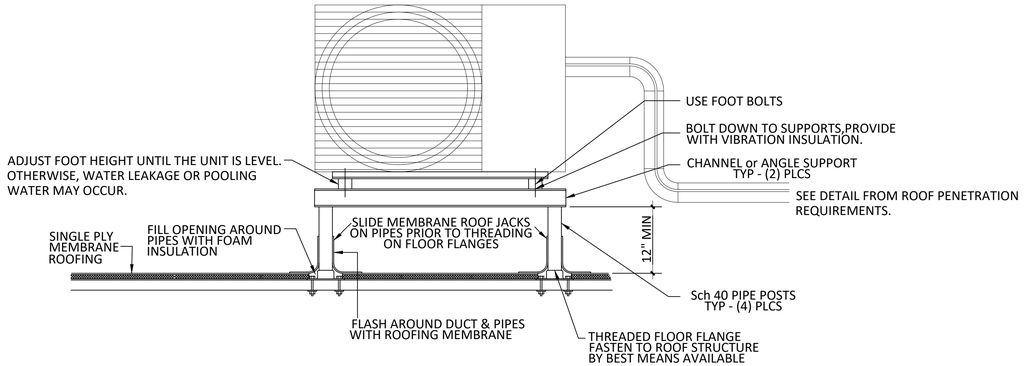
PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.
SHEET: M501

PETNEET ERV BASEMENT 4-7-2022.DWG



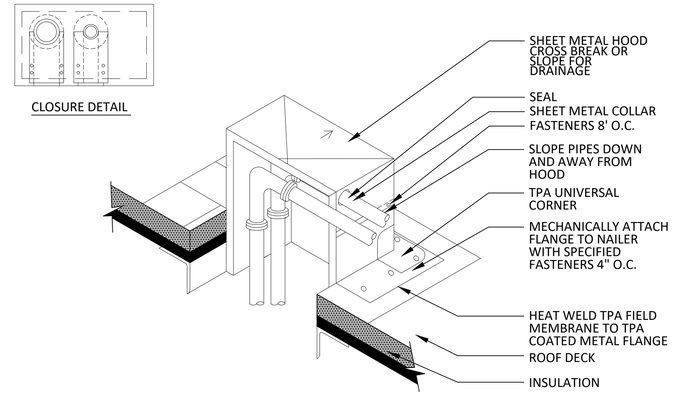
GENERAL NOTES

A. FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.

OUTDOOR UNIT INSTALLATION DETAIL

1 / M502

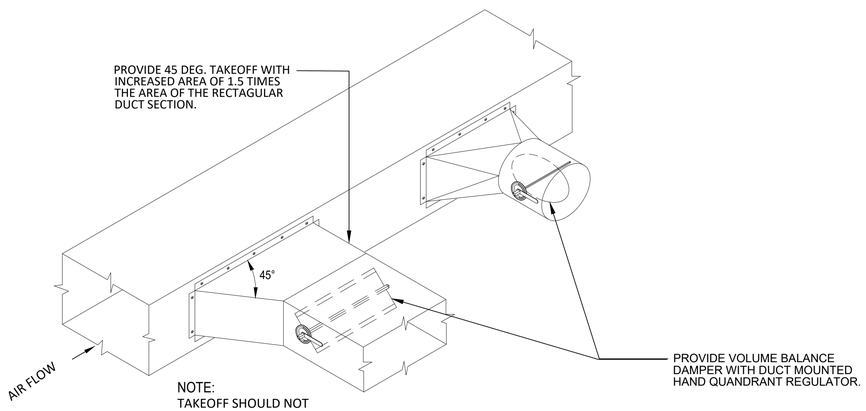
SCALE: NONE



MULTIPLE PIPE PENETRATION DETAIL

1 / P501

SCALE: NONE

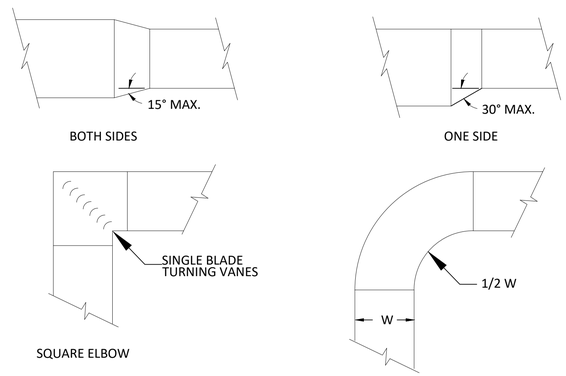


NOTE:
TAKEOFF SHOULD NOT BE INSTALLED CLOSER THAN TWO DUCT WIDTHS TO ELBOWS OR INTERSECTIONS

BRANCH DUCT TAKE-OFF & DAMPER DETAIL

4 / M501

SCALE: NONE



NOTES:

1. ALL SQUARE ELBOWS SHALL BE PROVIDED WITH SINGLE BLADE TURNING VANES.
2. SQUARE THROAT, ROUND HEEL ELBOWS NOT ALLOWED.

RECTANGULAR DUCT FITTINGS DETAIL

5 / M501

SCALE: NONE

REVISION	BY

PROFESSIONAL ENGINEER
7827586-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER
150 SOUTH MAIN ◆ SALEM◆ UTAH (801) 374-2100

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	M501

PETNEET ERV BASEMENT 4-7-2022.DWG

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	PIPE SIZES					REMARKS
		TRAP	WASTE	VENT	C.W.	H.W.	
WC-1	WATER CLOSET	INTERNAL	3"	-	1/2"	-	GERBER AVALANCHE ARGOHEIGHT TWO-PIECE ADA TOILET MODEL: WS-21-817, VITREOUS CHINA, 3" FLUSH VALVE, 1.28 GPF, 10" RUOUGH-IN, SINGLE FLUSH ELONGATED DUAL-FED SIPHON JET ACTION BOWL, IN WHITE. PROVIDE WITH SOFT CLOSE SEAT ACCESSORY MODEL: 99-213.
WC-2	WATER CLOSET	INTERNAL	3"	-	1/2"	-	GERBER AVALANCHE TWO-PIECE TOILET MODEL: WS-21-812, VITREOUS CHINA, 3" FLUSH VALVE, 1.28 GPF, 12" RUOUGH-IN, SINGLE FLUSH ELONGATED DUAL-FED SIPHON JET ACTION BOWL, IN WHITE. PROVIDE WITH SOFT CLOSE SEAT ACCESSORY MODEL: 99-213.
UR-1	URINAL	INTERNAL	2"	-	3/4"	-	GERBER NORTHPOINT TOP SPUD ADA URINAL MODEL: HE-27-720, VITREOUS CHINA, HIGH EFFICENCY 0.5 GPF, FLUSHING RIM AND WASHOUT FLUSH ACTION, ELONGATED RIM, DUAL WALL HANGER SUPPORTS, AND A 3/4" INLET TOP SPUD FOR EXPOSED FLUSH VALVE.
URF-1	URINAL FLUSH VALVE	-	-	-	3/4"	-	ZURN AQUASENSE MODEL: ZER6003-CPM, EXPOSED ADA DESIGNED BATTERY POWERED SENSOR OPERATED FLUSH VALVE FOR 3/4" URINNALS. PROVIDE WITH FLOW OPTION (EWS) FOR 0.5 GPF. PROVIDE WITH (YJ) SPLIT RING PIPE SUPPORT AND (VC) VANDAL RESISTANT STOP COVER.
L-1	LAVATORY SINK	1-1/4"	1-1/4"	1-1/4"	-	-	GERBER NORTHPOINT ADA LAVATORY AND SHROUD, LAVATORY MODEL: 12-474 and SHROUD MODEL: 29-832, VITEOUS CHINA WALL HUNG LAVATORY WITH 4" CENTER FAUCET HOLES, RECESSED SELF DRAINING DECK, AND PUNCHED FOR USE WITH CONCEALED CARRIER.
LF-1	LAVATORY FAUCET	-	-	-	1/2"	1/2"	SLOAN OPTIMA SENSOR ADA FAUCET MODEL: EBF-650-8-BAT-BDM-CP-0.5GPM-MLM-IR-FCT, 8" TRIM PLATE WITH 4" CENTERSET, BELOW DECK MANUAL MIXING VALVE, POLISHED CHROME FINISH, 0.5 GPM FLWO RATE, MULTI-LAMINAR SPRAY, INFRARED SENSOR, BATERY POWERED DECK MOUNTED LOW INTEGRATED BASE BODY.
SD-1	SOAP DISPENSER	-	-	-	-	-	GOJO PURELL TOUCH FREE ADA SOAP DISPENSER MODEL: ES8 SKU: 7730-01, WALL MOUNTED ADA COMPLIANT HANDS FREE SOAP DISPENSOR WITH ENERGY-ON-THE-REFILL REFILL CARTRIDGES, USE 1200ML PURELL ES8 HEALTHY SOAP REFILLS.
DF-1	DRINKING FOUNTAIN	1-1/2"	2"	-	1/2"		ELKAY EZH2O BOTTLE FILLING STATION WITH BI-LEVEL ADA COOLER NON-FILTERED REFRIGERATED DRINKING FOUNTAIN MODEL: EMABFTL8WSLK, 8 GPH, 115 VOLTS - 1 PHASE - 60 HERTZ - 6 FLA - 370 WATTS POWER, MECHANICALLY ACTIVATED, HANDS FREE, GREEN TICKER, LAMINAR FLOW, ANTIMICROBIAL, REAL DRAIN.
SS-1	SERVICE SINK	3"	3"	-	-	-	GERBER SERVICE SINK MODEL: 12-905, ENAMELED CAST IRON FLOOR MOUNTED CORNER SERVICE SINK WITH 3" OUTLET. PROVIDE WITH VINYL COATED WIRE RIM GUARD MODEL: 99-185.
SSF-1	SERVICE SINK FAUCET	-	-	-	3/4"	3/4"	DELTA WALLMOUNT SERVICE SINK FAUCET MODEL: 28T9, CAST BRASS TWO HANDLE WITH INTEGRAL STOPS, ROUGH CHROME PLATED FINISH, INLINE VACUUM BREAKER, HOSE END SPOUT WITH WALL BRACE.
FD-1	FLOOR DRAIN	2"	2"	-	-	-	ZURN FLOOR DRAIN WITH BODY ASSEMBLY MODEL: Z415, ADJUSTABLE TYPE B HEAD, INVERTIBLE COLLAR, MEMBRANE FLASHING FLANGE. PROVIDE WITH DEEP SEAL TRAP WITH CLEAN OUT PLUG IN OPEN AREAS AND NO CLEAN OUT PLUG FOR SLAB-ON-GRADE INSTALLATIONS, MODEL: Z1000.
MV-1	MIXING VALVE	-	-	-	3/4"	3/4"	WATTS THERMOSTATIC MIZING VALVE SERIES LFMMV, LEAD FREE CAST COPPER SILICON ALLOY BOSY CONSTRUCTION WITH THERMOSTATIC CONTROLS FOR BOTH HOT AND COLD WATER, PROVIDE WITH ADJUSTMENT CAP WITH LOCKING FEATURE, FLOW RATE BETWEEN 0.5 AND 12 GPM, AND TEMP CONTROL BETWEEN 80 AND 120° F.

WATER HEATER SCHEDULE

SYMBOL	CAPACITY IN GALLONS	NATURAL GAS BTUH INPUT	1ST HOUR RATING IN GALLONS	ENERGY FACTOR	RECOVERY @ 100°F RISE GPH	MAXIMUM DIMENSIONS IN INCHES					BRADFORD WHITE MODEL	REMARKS
						FLOOR TO VENT CONNECTION	JACKET DIAMETER	DEPTH FROM BACK	WATER CONNECTIONS	VENT SIZE		
WH-1	55	78,000	125	0.68	76	65	22	23	3/4"	3	LG1PV55H783N	1

Notes:

1. FOLLOW ALL MANUFACTURERS INSTALLATION REQUIREMENTS FOR VENTING OF FLUE, COORDINATE WITH ROOFING CONTRACTOR.
2. PROVIDE WALL MOUNTING KIT SEE DETAIL 1, ON SHEET P501

REVISION	BY

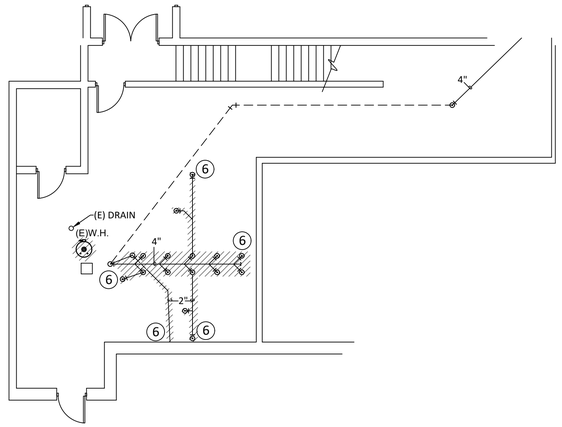
PROFESSIONAL ENGINEER
2677566-2202
THOMAS DeGRAW
4-7-2022
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.
SHEET: P001

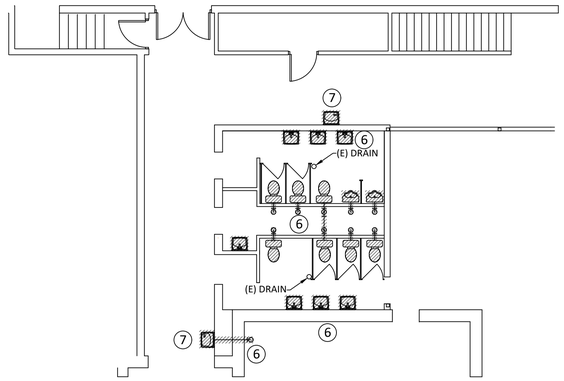
PETNEET ERV BASEMENT 4-7-2022.DWG



BASEMENT WASTE PIPE DEMO

SCALE: 1/8" = 1'

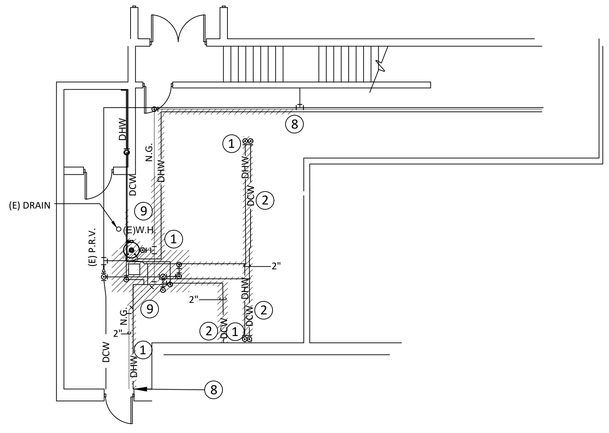
1 PD101



MAIN FLOOR WASTE PIPE DEMO

SCALE: 1/8" = 1'

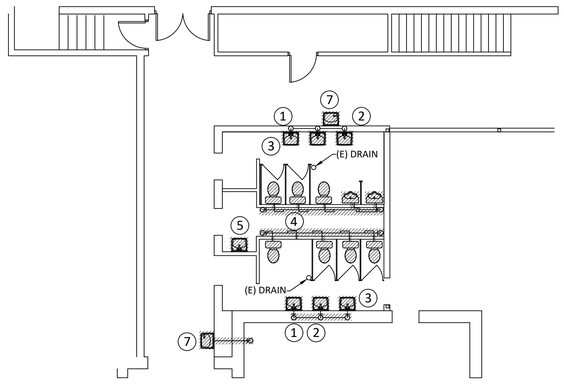
2 PD101



BASEMENT DOMESTIC PIPE DEMO

SCALE: 1/8" = 1'

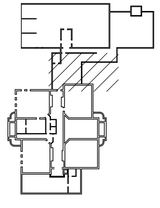
3 PD101



MAIN FLOOR DOMESTIC PIPE DEMO

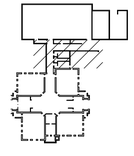
SCALE: 1/8" = 1'

4 PD101



BASEMENT OVERALL

SCALE: NONE



MAIN FLOOR OVERALL

SCALE: NONE

DEMOLITION NOTES

1. REMOVE EXISTING DOMESTIC HOT WATER HEATER WITH ITS ASSOCIATED GAS CONNECTION, FLUE PIPING, FLUE BOOSTER FAN, AND COLD WATER AND HEATING WATER PIPING FROM HEATER TO SINKS.
2. REMOVE EXISTING DOMESTIC COLD WATER PIPING FROM EXISTING SINKS BACK TO MAIN PIPE IN PREPARATION FOR NEW WORK.
3. REMOVE ALL EXISTING SINKS, FAUCETS AND CONNECTING PIPING COMPLETE.
4. REMOVE ALL DOMESTIC COLD WATER PIPING TO URINALS AND WATER CLOSETS, REMOVE URINALS AND WATER CLOSEST COMPLETE.
5. REMOVE EXISTING MOP SINK WITH ITS ASSOCIATED DOMESTIC COLD AND HOT PIPING COMPLETE.
6. REMOVE ALL EXISTING WASTE WATER PIPING BACK TO BASEMENT, FUTURE PIPING TO CONNECT TO EXISTING PIPING NEAR BASEMENT FLOOR LEVEL, FIELD VERIFY BEST LOCATION FOR NEW CONNECTION. REMOVE ALL EXISTING WASTE PIPING VENTS COMPLETE, ROOF TO BE PATCHED AND SEALED BY ROOFING CONTRACTORS, COORDINATE ALL WORK WITH ALL TRADES.
7. REMOVE EXISTING DRINKING FOUNTAIN COMPLETE WITH ITS ASSOCIATED COLD WATER SUPPLY AND WASTE PIPING, SEE REMODEL DRAWINGS FOR NEW WORK.
8. EXISTING 3/4" DHW PIPING TO BE RECONNECTED TO NEW HOT WATER SYSTEM, SEE P402 FOR RECONNECTION.
9. REMOVE EXISTING 3/4" NATURAL GAS PIPING TO B DEMOLISHED AND RECONNECTED SEE P401 FOR NEW WORK.

GENERAL DEMOLITION NOTES

A. THE DEMOLITION DRAWINGS SHOWN ARE PROVIDED TO SHOW THE EXTENT OF THE EXISTING MECHANICAL SYSTEMS. DEMOLITION FLOOR PLANS HAVE BEEN CREATED USING AVAILABLE RECORD DRAWINGS PROVIDED BY THE OWNER. CONTRACTORS SHALL VERIFY ALL FIELD CONDITIONS FOR INSTALLATION PRIOR TO DEMOLITION. SUCH FIELD CONDITIONS ARE, BUT NOT LIMITED TO, PIPING AND DUCTWORK ROUTING AND EQUIPMENT, ETC. FIELD VERIFY EXACT LOCATIONS OF ALL CONTROL COMPONENTS AND HAVE OWNER/CONTROL CONTRACTOR REMOVETHE COMPONENTS PRIOR TO GENERAL DEMOLITION.

B. DEMOLITION OF EXHAUST FAN SYSTEMS INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF FANS, CURBS, DUCTWORK, SUPPORTS, CONTROLS, ELECTRICAL, ETC.

C. WHEN ANY PNUEMATIC TUBING OR DEVICE IS REMOVED FROM THE STEAM HEATING SYSTEM THE PIPING/TUBING SHALL BE IMMEDIETELY CAPPED, CRIMPING OF PIPING IS NOT PERMITTED.

REVISION	BY

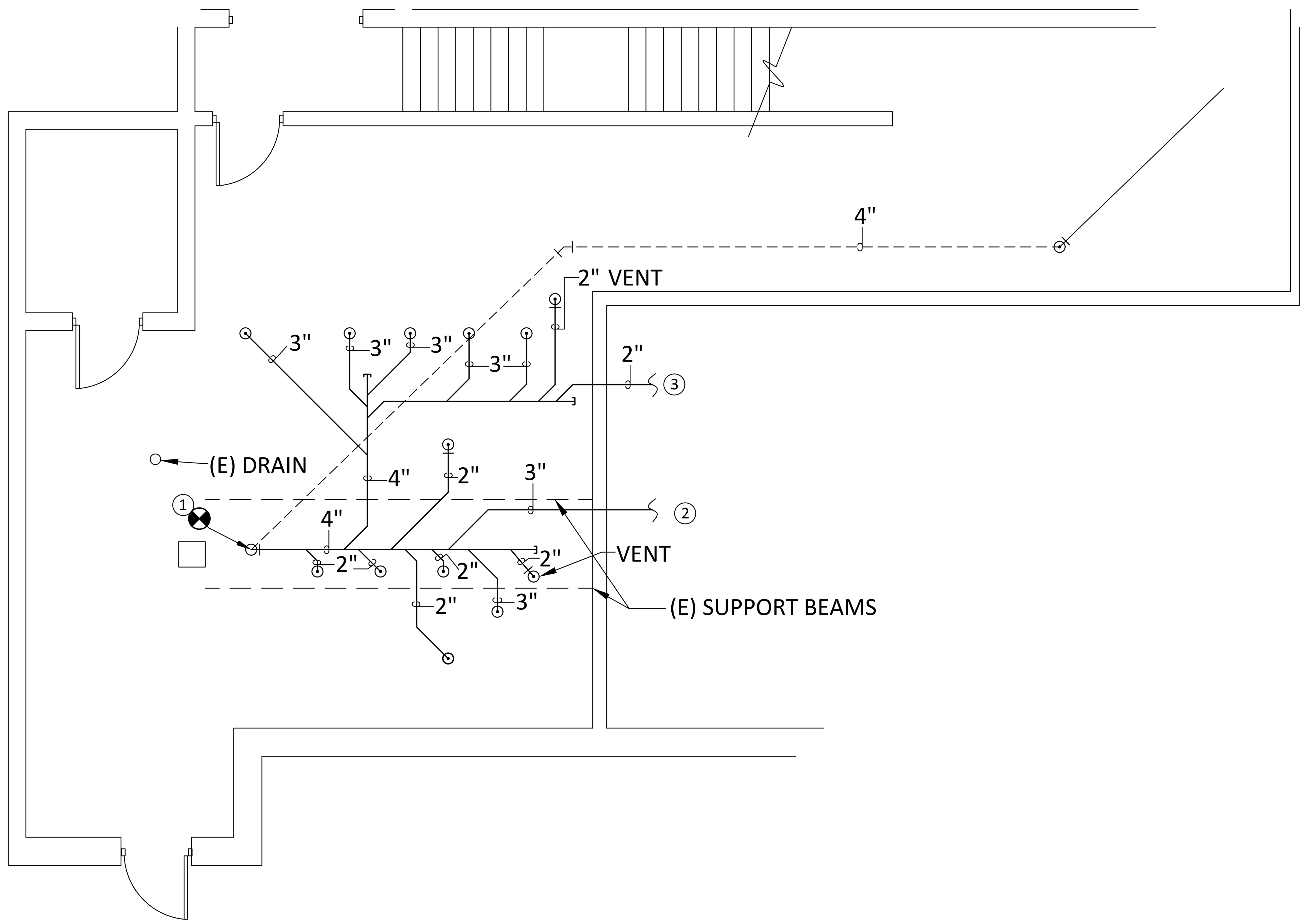
PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	PD101

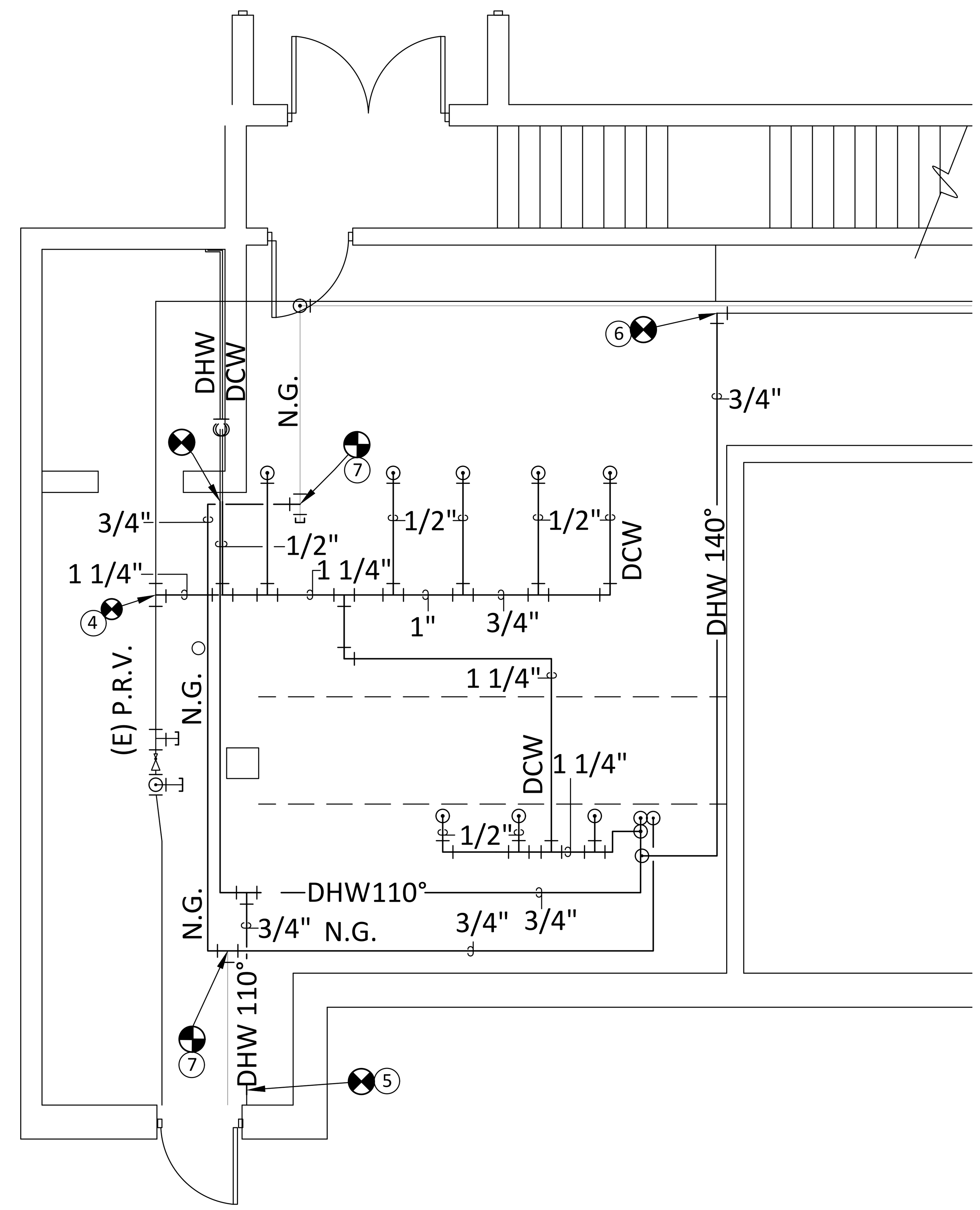
PETNEET ERV BASEMENT 4-7-2022.DWG



REMODEL BASEMENT WASTE PIPE

SCALE: 1/4" = 1'

1
P401



REMODEL BASEMENT DOMESTIC PIPE

SCALE: 1/4" = 1'

2
P401

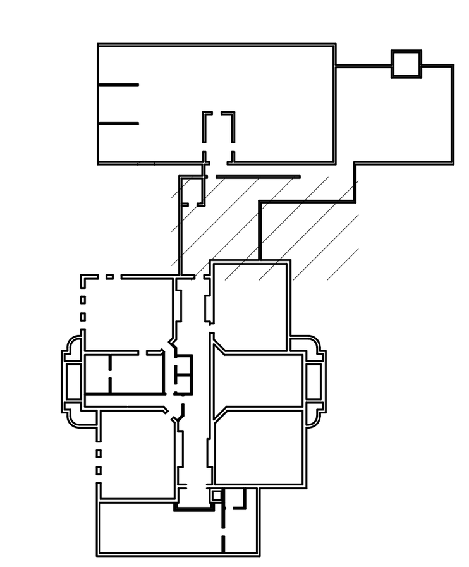
REMODEL NOTES

1. CONNECT TO EXISTING 4" CAST IRON WASTE LINE AND EXTEND TO NEW SINKS, WATER CLOSETS, FLOOR DRAINS, CUSTODIAL SINK, DRINKING FOUNTAIN, AND VENTS.
2. 3" WASTE UNDER FLOOR OF ADDITION, SEE DRAWING 1/P402 FOR CONTINUATION.
3. 2" WASTE UNDER FLOOR OF ADDITION, SEE DRAWING 1/P402 FOR CONTINUATION.
4. CONNECT TO EXISTING DOMESTIC COLD WATER MAIN AND EXTEND TO NEW WATER HEATER, SINKS, DRINKING FOUNTAINS, WATER CLOSETS, URINALS, ETC. FIELD VERIFY ALL ROUTING OF PIPING PRIOR TO STARTING OF ANY WORK AND COORDINATE ALL WORK WITH ALL TRADES.
5. CONNECT NEW DOMESTIC HOT WATER 110°F SUPPLY TO EXISTING 3/4" HOT WATER PIPING.
6. CONNECT DOMESTIC HOT WATER 140° F SUPPLY TO EXISTING 3/4" HOT WATER PIPING TO EXISTING KITCHEN.
7. CONNECT NEW NATURAL GAS 3/4" TO EXISTING NATURAL GAS LINE.

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.



BASEMENT OVERALL

SCALE: NONE

REVISION	BY

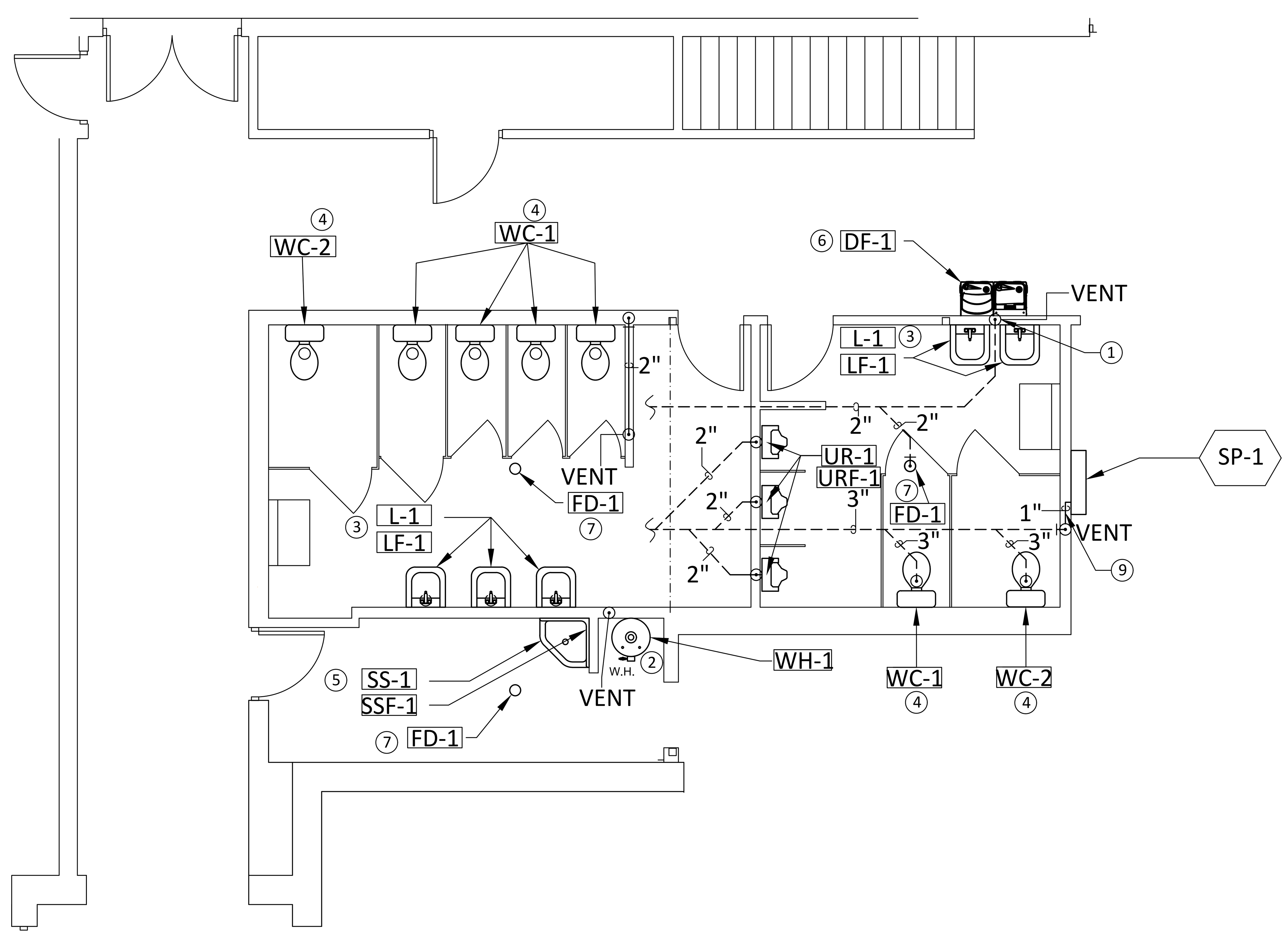
PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
4/7/2022
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER
(801) 374-2100
150 SOUTH MAIN • SALEM • UTAH

DRAWN
NF
CHECKED
THOMAS DEGRAW
DATE
April 7, 2022
SCALE
NA
JOB NO.
SHEET

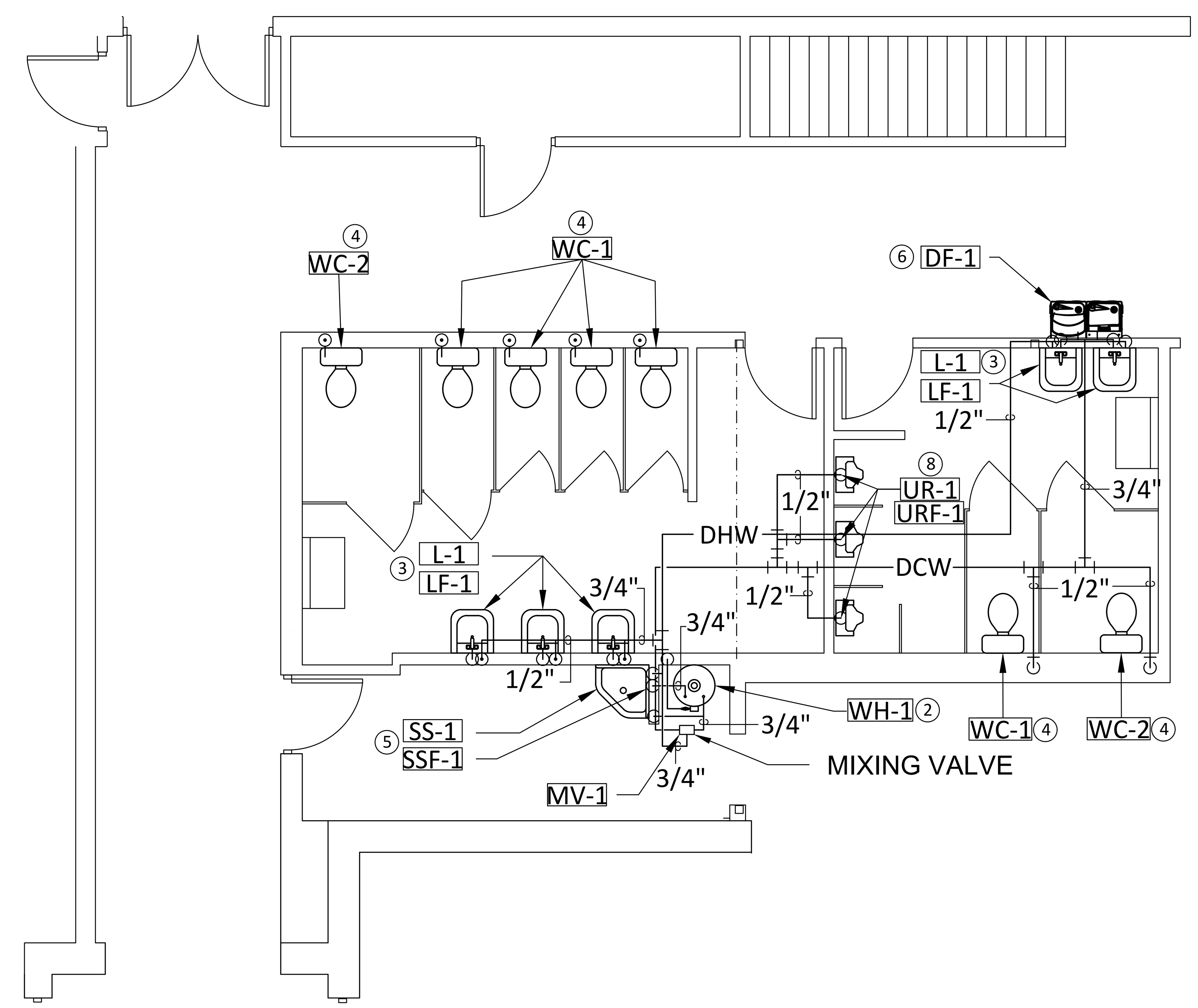
P401



REMODEL MAIN FLOOR WASTE PIPE

SCALE: 1/4" = 1'

1 / P 402



REMODEL MAIN FLOOR DOMESTIC PIPE

SCALE: 1/4" = 1'

2 / P 402

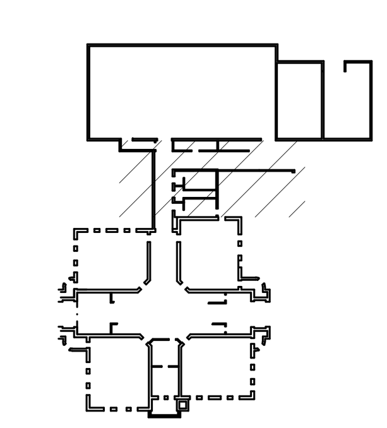
REMODEL NOTES

1. CONNECT NEW SINKS AND DRINKING FOUNTAINS TO NEW 2" WASTE PIPING IN WALL, ALL WASTE PIPING TO BE CONCEALED, COORDINATE INSTALLATION WITH MANUFACTURER'S INSTALLATION REQUIREMENTS.
2. INSTALL NEW HOT WATER HEATER IN THIS LOCATION, COORDINATE ALL PIPING CONNECTIONS, NATURAL GAS PIPING CONNECTIONS, FLUE PIPING, AND MIXING VALVES, SEE DETAIL 1/P501.
3. INSTALL NEW LAVATORY SINK AND INSTALL ALL COLD, HOT AND WASTE PIPING. ALL PIPING TO BE CONCEALED, FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
4. INSTALL NEW WATER CLOSET WITH THE ASSOCIATED COLD WATER SUPPLY AND WASTE PIPING, FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
5. INSTALL NEW SERVICE SINK WITH ITS ASSOCIATED COLD AND HOT WATER SUPPLY PIPING, WASTE PIPING, ETC. FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
6. INSTALL NEW DRINKING FOUNTAIN WITH ITS ASSOCIATED COLD WATER SUPPLY AND WASTE PIPING, SEE NOTE 1 ON THIS SHEET. FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
7. INSTALL NEW FLOOR DRAIN SUCH THAT THE DRAIN IS AT THE LOWEST POINT IN THE FLOOR TO ENSURE THAT WATER DOESN'T POOL ON FLOOR. SLOPE FLOORING TO DRAIN, SEE ARCHITECTURAL DRAWINGS AND COORDINATE WORK WITH ALL TRADES.
8. INSTALL NEW URINALS ON WALL WITH THEIR ASSOCIATED COLD WATER SUPPLY AND WASTE PIPING. ALL PIPING TO BE INSTALLED AS PER MANUFACTURER'S CONNECTION REQUIREMENTS.
9. ROUTE WALL MOUNTED SPLIT AIR CONDITIONER 1" CONDENSATE DRAIN TO 2" VENT IN WALL, PROVIDE WITH TRAP AT UNIT.

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.



MAIN FLOOR OVERALL

SCALE: NONE

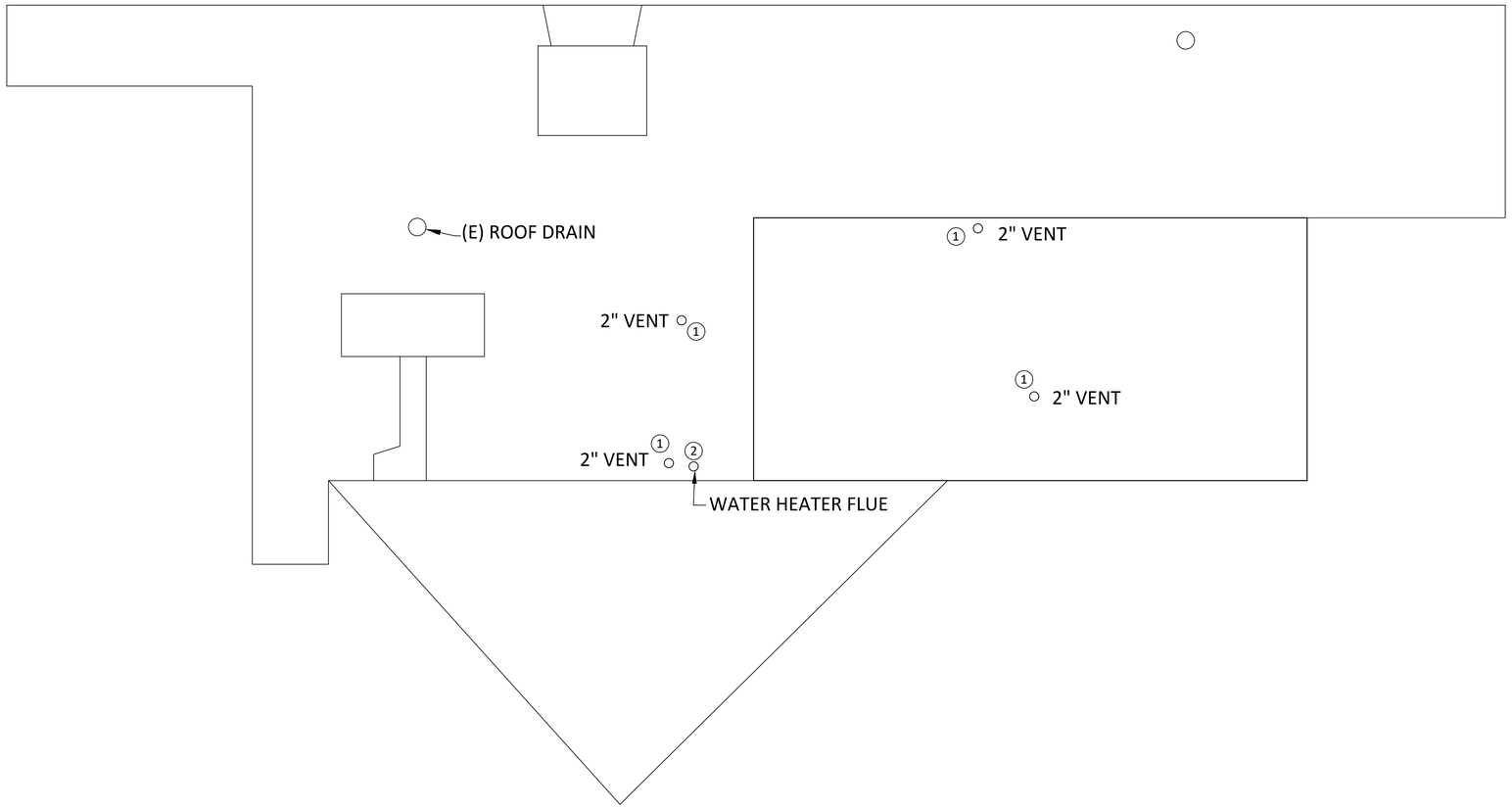
REVISION	BY

PROFESSIONAL ENGINEER 9677566-2202 THOMAS DeGRAW 4/7/2022 STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2100
150 SOUTH MAIN • SALEM • UTAH

DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	P402



REMODEL ROOF WASTE VENTS

SCALE: 1/4" = 1'

1
P103

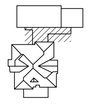
REMODEL NOTES

1. COORDINATE ALL VENT PIPING WITH GENERAL AND ROOFING CONTRACTOR.
2. COORDINATE WATER HEATER FLUE AND COMBUSTION AIR PIPING WITH GENERAL AND ROOFING CONTRACTOR.

GENERAL NOTES

A. ALL CONTRACTORS SHALL COORDINATE THE INSTALLATION OF ALL COMPONENTS OF THE NEW SYSTEM. INSTALLATION OF THE NEW SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO, ENERGY RECOVERY UNITS, COILS, FILTERS, DUCTWORK, PIPING, CONTROLS, ELECTRICAL, ETC.

B. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY DUCTWORK, PIPING, AND CONDUITS, ETC.



ROOF OVERALL

SCALE: NONE

PETNEET ERY BASEMENT 4-7-2022.DWG

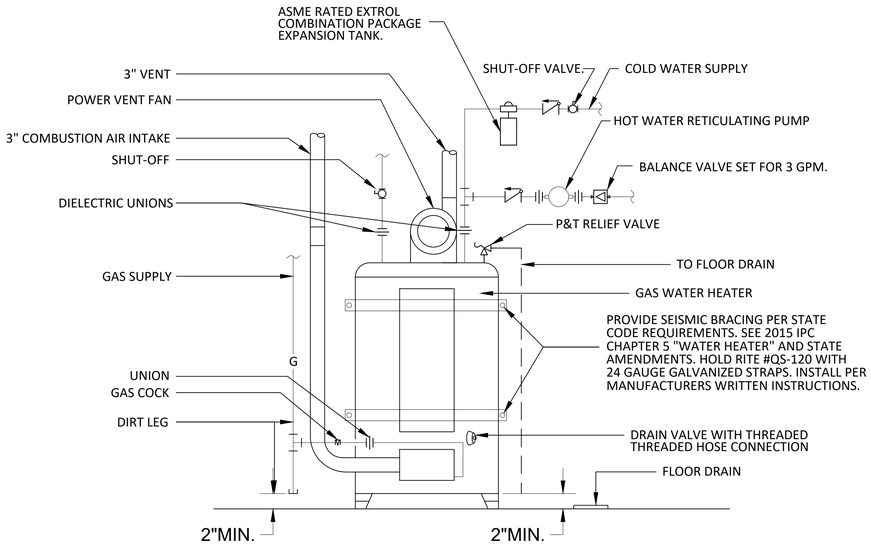
REVISION	BY

PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER◆ (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

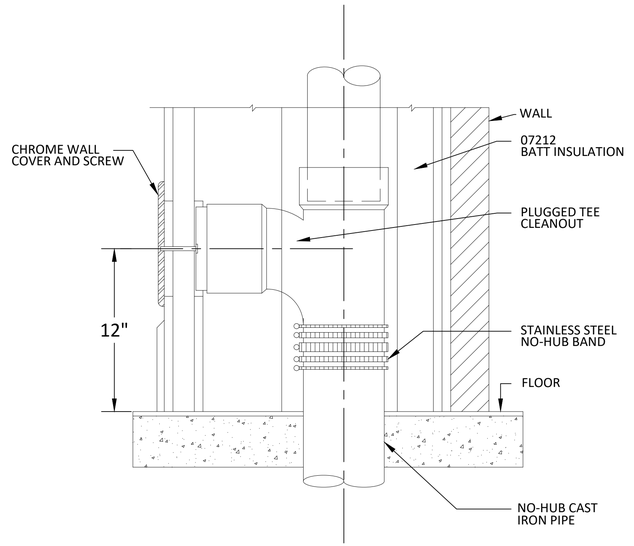
DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	P403



GAS FIRED WATER HEATER DETAIL

1 / P501

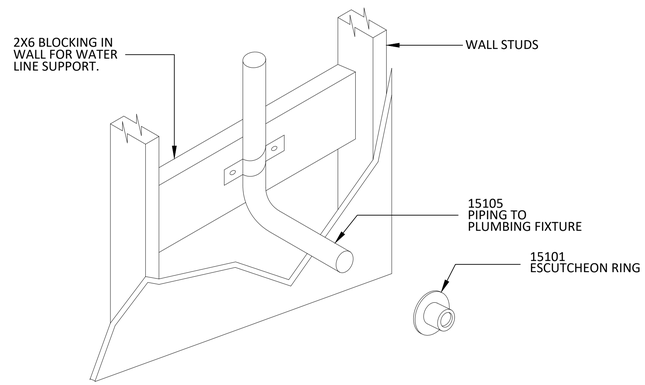
SCALE: NONE



WALL CLEANOUT DETAIL

2 / P501

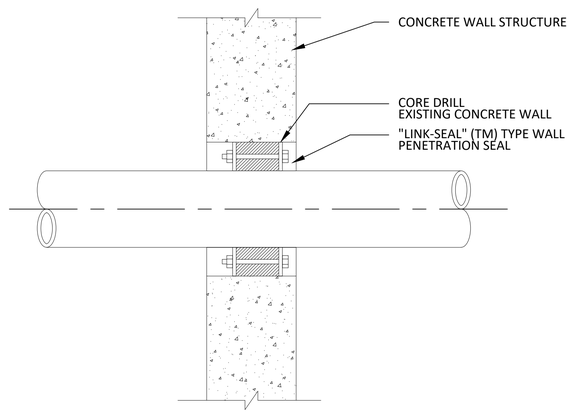
SCALE: NONE



PIPE SUPPORT DETAIL

3 / P501

SCALE: NONE



PIPE PENETRATION AT CONCRETE WALL DETAIL

4 / P501

SCALE: NONE

PETNEET ERV BASEMENT 4-7-2022.DWG

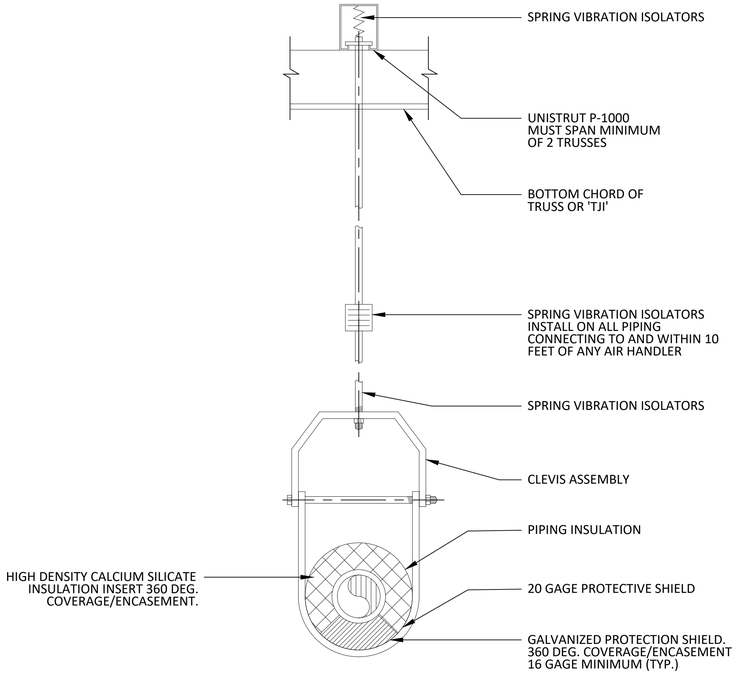
REVISION	BY

PROFESSIONAL ENGINEER
9677566-2202
THOMAS DeGRAW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

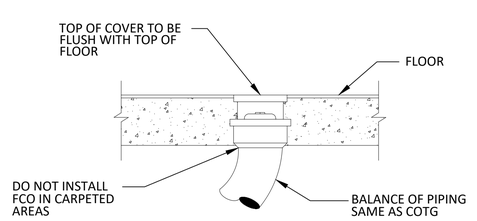
DRAWN	NF
CHECKED	THOMAS DEGRAW
DATE	April 7, 2022
SCALE	NA
JOB NO.	
SHEET	P501



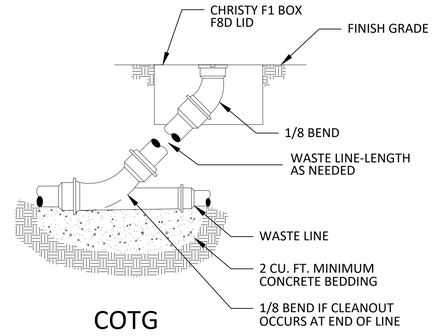
PIPE HANGER DETAIL

1 / P502

SCALE: NONE



FCO

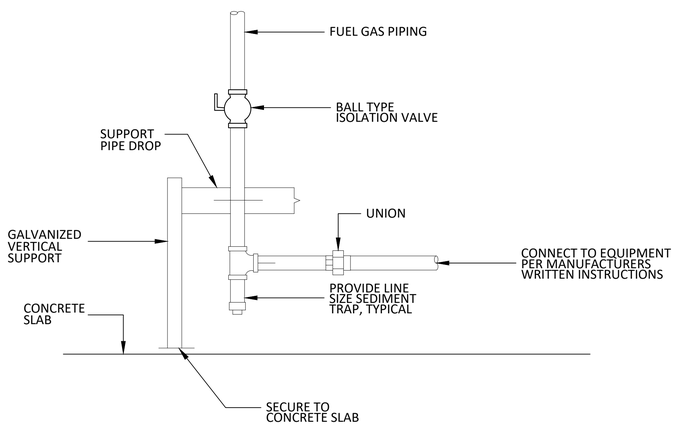


COTG

CLEANOUT DETAILS

2 / P502

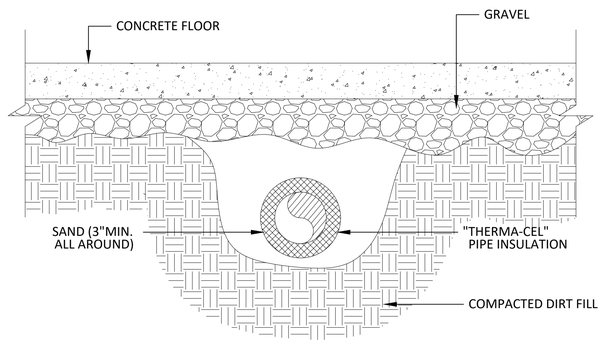
SCALE: NONE



GAS CONNECTION TO EQUIPMENT DETAIL

3 / P502

SCALE: NONE



UNDER FLOOR WATER PIPE DETAIL

4 / P502

SCALE: NONE

REVISION	BY

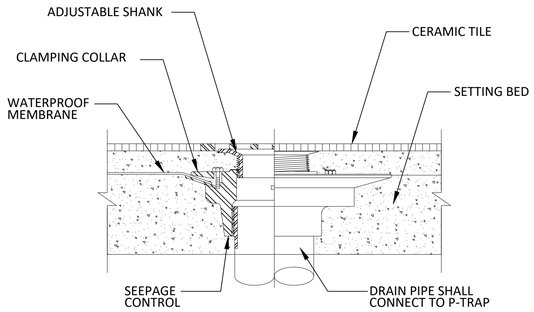
PROFESSIONAL ENGINEER
7672566-2202
THOMAS DeGRAW
4/7/2022
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.:
SHEET: P502

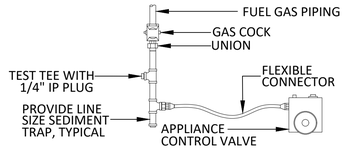
PETNEET ERV BASEMENT 4-7-2022.DWG



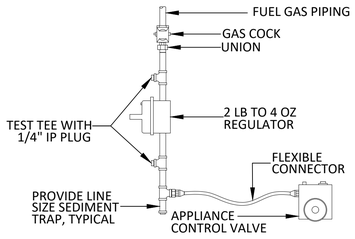
UNDER FLOOR WATER PIPE DETAIL

1 / P503

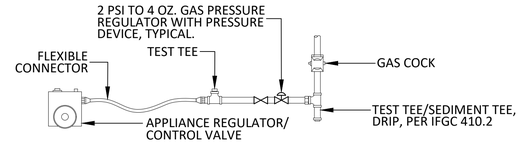
SCALE: NONE



GAS CONNECTION TO APPLIANCE/EQUIPMENT DETAIL-WITHOUT GAS PRESSURE REGULATOR



GAS CONNECTION TO APPLIANCE/EQUIPMENT DETAIL-WITH GAS PRESSURE REGULATOR

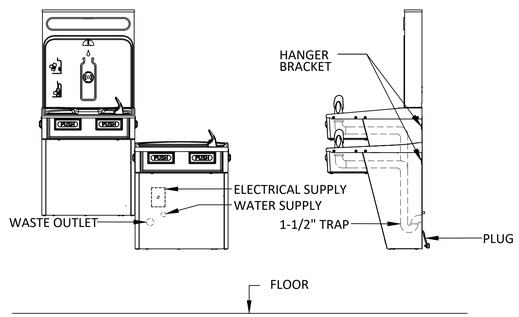


GAS CONNECTION TO WATER HEATER DETAIL

GAS CONNECTION DETAIL

1 / P503

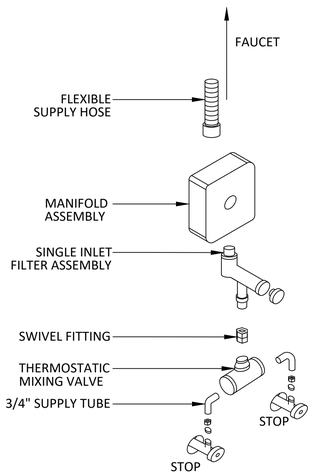
SCALE: NONE



DRINKING FOUNTAIN DETAIL

1 / P503

SCALE: NONE



MIXING VALVE FAUCET DETAIL

1 / P503

SCALE: NONE

REVISION	BY

PROFESSIONAL ENGINEER
9677586-2202
THOMAS DeGRAW
4 YR RENEW
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT ◆PLANNER (801) 374-2100
150 SOUTH MAIN ◆ SALEM◆ UTAH

DRAWN: NF
CHECKED: THOMAS DEGRAW
DATE: April 7, 2022
SCALE: NA
JOB NO.:
SHEET: P503

PETNEET ERV BASEMENT 4-7-2022.DWG

ELECTRICAL GENERAL NOTES:

1. ALL SALVAGEABLE MATERIALS AS DETERMINED BY THE ARCHITECT RESULTING FROM THE DEMOLITION OF THE EXISTING STRUCTURE AS INDICATED ON THE DEMOLITION PLAN AND WHICH ARE NOT TO BE RE-USED SHALL BECOME THE PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF BY HIM. ALL MATERIALS NOT SO DESIGNATED AS SALVAGEABLE BY THE ARCHITECT SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD ROUTING WITH EXISTING EQUIPMENT. PROVIDE ALL NECESSARY OFFSETS TO AVOID CONFLICTS WITH EXISTING EQUIPMENT OR OTHER OBSTRUCTIONS.
3. ALL EXISTING FIXTURES, DEVICES, EQUIPMENT, ETC. IN PORTIONS OF THE BUILDING BEING REMODELED SHALL REMAIN IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC.
4. ELECTRICAL CONTRACTOR IS TO REFER TO THE ARCHITECTURAL AND MECHANICAL DEMOLITION DRAWINGS. THE ARCHITECTURAL AND MECHANICAL DEMOLITION DRAWINGS ARE PART OF THIS CONTRACT.
5. ELECTRICAL CONTRACTOR TO REFER TO THE CIVIL ENGINEER'S DRAWING AND COORDINATE ELECTRICAL INSTALLATION WITH ALL UTILITIES.
6. ELECTRICAL CONTRACTOR TO VERIFY ALL THE UTILITY COMPANY SERVICE (POWER, TELEPHONE, ETC.) TERMINATION POINTS PRIOR TO ROUGH-IN. PROVIDE CONDUIT AS REQUIRED TO ACCOMMODATE ALL UTILITY COMPANY SERVICES. REPORT ANY CONFLICTING CONDITIONS TO THE ARCHITECT.
7. EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE PER NEC 408.4(A).
8. MULTI-WIRE BRANCH CIRCUITS: ELECTRICAL CONTRACTOR TO COMPLY WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 210.4. MULTI-WIRE BRANCH CIRCUITS. ELECTRICAL CONTRACTOR TO ALLOW FOR MULTI-WIRE BRANCH CIRCUITS WIRE AMPACITY ADJUSTMENT AS PER ARTICLE 310, TABLE 310.15(B)(2)(A) OF THE NATIONAL ELECTRICAL CODE.
9. REFER TO ARCHITECTURAL CABINET CASEWORK ELEVATION DRAWINGS FOR CLARIFICATION ON MOUNTING AND PLACEMENT OF ALL RACEWAY, RECEPTACLES, AND SWITCHES.
10. MANY DEVICE MOUNTING LOCATIONS ARE DEPENDENT ON MILLWORK LOCATIONS. COORDINATE ALL APPLICABLE LOCATIONS WITH MILLWORK INSTALLER PRIOR TO BEGINNING WORK.
11. REMOVE OR RELOCATE ANY EXISTING ELECTRICAL DEVICES, AND CIRCUIT CONDUIT IN CONFLICT WITH THIS ELECTRICAL PLAN. COORDINATE ALL REQUIREMENTS WITH OWNER. REMOVE CIRCUIT CONDUIT BACK TO NEAREST JUNCTION BOX. MAINTAIN POWER TO DOWNLINE DEVICES. EXTEND CIRCUIT CONDUIT AS REQUIRED. RETURN ANY REMOVED DEVICES TO OWNER OR DISPOSE OF THEM AS DIRECTED BY OWNER.
12. ALL WALL MOUNTED MOTION SENSORS SHALL BE A DUAL TECHNOLOGY MOTION SENSOR WITH INTEGRAL OVERRIDE SWITCH. MOTION SENSOR TO MOUNT IN A STANDARD SWITCH BOX. MOTION SENSOR TO HAVE A FIFTEEN MINUTE TIME DELAY SET AT TEN MINUTES TO SENSOR SET TO MANUAL ON. USE HUBBELL, SENSOR SWITCH, LEVITON, OR APPROVED EQUAL.
13. SUB-LETTERS NEXT TO SWITCHES INDICATE SWITCHING ASSIGNMENTS. ELECTRICAL CONTRACTOR IS TO FURNISH AND INSTALL ALL NECESSARY CONDUIT, WIRE JUNCTION BOXES, ETC., AS REQUIRED TO EXTEND CIRCUITING FROM WALL BOX AND/OR FROM THE LIGHTING CONTROL PANEL TO FIXTURES FOR SWITCHING ASSIGNMENTS. LOWER CASE LETTERS ON OR NEAR FIXTURES INDICATE CONTROLLING SWITCHES. SWITCH LEG(S) NOT SHOWN.
14. NEW INSTALLATION SHALL CONFORM TO THE NEC REVISION OBSERVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
15. CONTRACTOR SHALL PROVIDE AS-BUILT PANEL SCHEDULES, SWITCH LAYOUT & SWITCHING DIAGRAM TO THE OWNER.
16. ALL WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF WALLS, PARTITIONS, FLOORS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT OR ANCHORAGE OF RACEWAYS, OUTLETS OR OTHER ELECTRICAL WORK, IT SHALL BE CAREFULLY DONE IN SUCH A MANNER AS TO AVOID ANY DAMAGE TO THE EXISTING INSTALLATION. ALL DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER.
17. CONTRACTOR SHALL INCLUDED PROVISIONS IN THE BASE BID FOR ALL MATERIAL & LABOR REQUIRED FOR THE EXTENSIONS, REROUTING & RELOCATION OF EXISTING SYSTEM COMPONENTS, EQUIPMENT, WIRING, CONDUITS & CABLING. COORDINATION SHALL BE DONE TO MAINTAIN OPERATION OF ALL SYSTEMS THROUGHOUT THE BUILDING DURING DEMOLITION & CONSTRUCTION PHASES.
18. EXISTING RACEWAYS MAY BE REUSED IF LOCATION IS IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. UPGRADE AND/OR PROVIDE NEW CONDUIT SUPPORTS FOR ALL RACEWAYS BEING REUSED AS REQUIRED. INSURE INTEGRITY OF EXISTING RACEWAYS BEFORE RE-USE.
19. MAINTAIN CIRCUIT INTEGRITY & CONTINUITY OF ALL EXISTING CIRCUITS, FEEDERS & SYSTEMS THAT INTERFERE WITH OR ARE INTERRUPTED BY REMODEL WORK, UNLESS THOSE CIRCUITS, FEEDERS & SYSTEMS ARE IN OPERATION DURING CONSTRUCTION. PROVIDE TEMPORARY PANELS, TEMPORARY WIRING & CONDUITS, ETC. AS REQUIRED.
20. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOF. ETC.
21. ALL EXISTING FIXTURES, DEVICES, EQUIPMENT, ETC, IN PORTIONS OF THE BUILDING NOT BEING REMODELED SHALL REMAIN IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC.
22. EXISTING ELECTRICAL DEVICES TO REMAIN UNLESS NOTED OTHERWISE.
23. MAINTAIN UNSWITCHED POWER TO EXIT LIGHTING.
24. FIELD VERIFY FINAL PLACEMENT AND QUANTITIES OF USB RECEPTACLES IN WAITING ROOMS WITH OWNER PRIOR TO BIDDING.
25. CONCEAL ALL RACEWAY & WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC.
26. ELECTRICAL CONTRACTOR SHALL REVIEW ALL ARCHITECTS ELEVATIONS, SECTIONS AND FLOOR PLANS PRIOR TO ROUGH-IN OF ELECTRICAL DEVICE JUNCTION BOXES.
27. CONSULT ARCHITECT'S REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES, SPEAKERS, SMOKE DETECTORS, ETC.
28. ELECTRICAL CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
29. ELECTRICAL CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO DUCTS, PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER, OR PASS THROUGH ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
30. ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING, AND CEILING INSTALLATIONS.
31. VERIFY EXACT LOCATION(S) OF ALL EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN. REFER TO THE MECHANICAL SHEETS FOR THE EXACT LOCATION OF THE MECHANICAL EQUIPMENT.
32. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT CONTRACT DOCUMENT DRAWINGS AND SHOP DRAWINGS TO VERIFY AND MAINTAIN REQUIRED CLEARANCES.
33. CONTRACTOR SHALL VERIFY ACTUAL ELECTRICAL LOADS FROM NAMEPLATE RATINGS OF EACH PIECE OF EQUIPMENT REQUIRING POWER. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE PROJECT ENGINEER. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC,) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ROUGH-IN.
34. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
35. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
36. THE MINIMUM SIZE OF THE CONDUCTORS ARE TO BE #12 AWG THHN COPPER, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. STRANDED CONDUCTORS ARE NOT ALLOWED IN THE THE CONDUCTORS SMALLER THAN #10 AWG.
37. DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
38. ALL JUNCTION BOXES SHALL HAVE MINIMUM DEPTH OF 2-1/8" UNLESS OTHERWISE SPECIFIED. SECURE ALL JUNCTION BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER PLASTER RINGS.
39. LIGHT SWITCHES INSTALLED ADJACENT TO EACH OTHER, SHALL BE GANGED TOGETHER WITH ONE PIECE COVER PLATE.
40. USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTED.
41. AT THE END OF THE JOB. PROVIDE BLANK COVER PLATES TO MATCH THE OTHER COVER PLATES FOR ALL JUNCTION BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.
42. ALL MATERIALS USED IN THIS INSTALLATION SHALL BE U.L. APPROVED AND NEW.
43. NO WIRING SHALL RUN IN DUCT WORK.
44. THE ELECTRICAL CONTRACTOR SHALL TERMINATE THE ELECTRICAL CONNECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/FEMALE CONNECTOR, RECEPTACLE, PLUG, ETC.
45. ALL CEILING MOUNTED MOTION SENSORS SHALL BE A DUAL TECHNOLOGY MOTION SENSOR WITH POWER PACK AS REQUIRED TO CONTROL LIGHTING. MOTION SENSOR TO HAVE A FIFTEEN MINUTE DELAY SET AT TEN MINUTES TO SENSOR SET TO MANUAL ON. CONTRACTOR TO SUBMIT FLOOR PLAN TO MOTION SENSOR SUPPLIER FOR FACTORY TO LOCATED MOTION SENSOR FOR OPTIMAL PERFORMANCE TO AVOID NUISANCE SHUT OFF OF LIGHTING. MANUFACTURERS LAYOUT PLAN TO BE PART OF SUBMITTALS. PROVIDE SUFFICIENT BOX DEPTH AND CORRECT PLASTER RING TO ACCOMMODATE ACTUAL RELAY UNIT AND OCCUPANCY SENSOR INSTALLED. PROVIDE PROPER SEPARATION OF 120 VOLT AND CLASS 2 WIRING AS NECESSARY IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE. USE HUBBELL, SENSOR SWITCH, LEVITON OR APPROVED EQUAL.
46. REMOVE ANY ELECTRICAL DEVICES FROM EXTERIOR WALL WHICH WILL BECOME AN INTERIOR WALL WITH THESE REVISIONS.
47. CONTRACTOR SHALL MEASURE STEADY STATE LOAD CURRENTS AT EACH PANEL BOARD FEEDER FOR ALL ALTERED PANEL BOARDS. SHOULD THE DIFFERENCE BETWEEN PHASES EXCEED 20 PERCENT AT ANY PANEL BOARD, REARRANGE CIRCUITS IN PANEL BOARD TO BALANCE THE PHASE LOAD WITHIN 20 PERCENT. TAKE CARE TO MAINTAIN PROPER PHASING FOR MULTI-WIRE BRANCH CIRCUITS. UPDATE DIRECTORIES ACCORDINGLY.
48. CONTRACTOR SHALL PROVIDE MINIMUM OF ONE WEEK NOTICE IN WRITING TO THE OWNER PRIOR TO ANY POWER OUTAGE. OUTAGES SHOULD BE PLANNED AROUND HOLIDAYS OR WEEKENDS. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL POWER OUTAGES PRIOR TO COMMENCING WORK.
49. CONTRACTOR TO ENSURE THAT ALL AREAS OUTSIDE OF CONSTRUCTION AREA ARE KEPT CLEAN AND CLEAR OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES.
50. FOR SERIES RATED EQUIPMENT, CONTRACTOR SHALL PROVIDE EQUIPMENT THAT HAS BEEN TESTED IN SERIES CONFIGURATION INDICATED AND PROVIDE IDENTIFICATION PER NEC 110.22 AND COMPLY WITH REQUIREMENTS OF NEC 240.86.

ELECTRICAL SYMBOLS

SYMBOL	EXPLANATION
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL
	BRANCH CIRCUIT CONCEALED IN GROUND OR FLOOR
A-1,3	BRANCH CIRCUIT HOMERUNS TO PANEL
135	ROOM NUMBER
CH 1	MECHANICAL EQUIPMENT SYMBOL
1	KEYED NOTE REFERENCE
42X	FEEDER TAG (SEE FEEDER SCHEDULE)
	LIGHTING AND POWER PANELBOARD
NON-FUSED / FUSED	DISCONNECT SWITCH
NON-FUSED / FUSED	DISCONNECT SWITCH WITH MOTOR STARTER
	MOTOR STARTER
VFD	VARIABLE FREQUENCY DRIVE
C	CONDUIT STUB
J	JUNCTION BOX
	ELECTRIC VEHICLE CHARGING STATION
WP / A-3 / REF	MODIFIER / PANEL SPACE ASSIGNMENT / EQUIPMENT DESIGNATION
WP	WEATHERPROOF COVER & LISTED WEATHER RESISTANT DEVICE
GFCI	PROTECTED BY FAULT CIRCUIT INTERRUPTER
+44	MOUNTING HEIGHT ABOVE FLOOR OR GRADE GIVEN IN INCHES.
REF	REFRIGERATOR
DW	DISHWASHER
DISP	DISPOSAL
WASH	WASHING MACHINE
EWC	ELECTRIC WATER COOLER
USB	HUBBELL USB15AC5W OR EQUAL DUPLEX PLUS USB CHARGER
TR	TAMPER RESISTANT
	DUPLEX RECEPTACLE OUTLET
	QUAD RECEPTACLE OUTLET
	SPLIT WIRED DUPLEX RECEPTACLE OUTLET
	220V RECEPTACLE OUTLET
	ISOLATED GROUND RECEPTACLE
	RECEPTACLE FLOOR DEVICE
	CEILING MOUNTED DEVICE
	SPECIAL RECEPTACLE
	MOTOR OUTLET
	EXHAUST FAN
	THERMOSTAT OUTLET
S	REMOTE SENSOR OUTLET
	TELEPHONE OUTLET
(#)	COMPUTER DATA OUTLET (#) INDICATES JACK QUANTITIES
	NETWORK AND VOICE OUTLET
	WIRELESS ACCESS POINT CEILING MOUNTED
TV	TELEVISION OUTLET

SYMBOL	EXPLANATION
F1	FIXTURE TYPE SYMBOL
	LINIER FIXTURE (TYPICAL)
	EMERGENCY LIGHTING UNIT
	SURFACE OR PENDANT MOUNTED FIXTURE
	RECESSED FIXTURE
	WALL MOUNTED FIXTURE
	WALL PACK
	STRIP FIXTURE
	TRACK LIGHTING
BUGEYE / EGRESS	EMERGENCY LIGHTING UNIT
	WALL MOUNTED EXIT LIGHT (SINGLE FACE)
	WALL MOUNTED EXIT LIGHT (DOUBLE FACE)
	CEILING MOUNTED EXIT LIGHT
	CEILING MOUNTED EXIT LIGHT (DOUBLE FACE)
	EXIT LIGHT WITH PROTECTIVE COVER
$	SINGLE POLE SWITCH (SUBSCRIPT AS INDICATED BELOW)
2	TWO POLE SWITCH
3	3-WAY SWITCH
4	4-WAY SWITCH
D	DIMMER SWITCH
K	KEYED SWITCH
T	TIMER SWITCH
M	MANUAL STARTER WITH THERMAL OVERLOAD
F	PADDLE FAN SPEED CONTROL. (CANARM "CN" SERIES)
OC	OCCUPANCY SENSOR SWITCH
LV	LOW VOLTAGE CONTROL SWITCH
LV/D	LOW VOLTAGE CONTROL SWITCH WITH DIMMER
OC/D	OCCUPANCY SENSOR CONTROL SWITCH WITH DIMMER
OC/2	DUAL RELAY OCCUPANCY SENSOR CONTROL SWITCH
$$	DOUBLE GANG SWITCH
$a,b,c LV / a,b S	LOW VOLTAGE MULTI BUTTON CONTROL SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)
$a $b	CONTROLLING SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)
S	OCCUPANCY SENSOR (CEILING MOUNTED)
DT	DUAL TECHNOLOGY OCCUPANCY SENSOR (CEILING MOUNTED)
PIR	PASSIVE INFRARED OCCUPANCY SENSOR (CEILING MOUNTED)
RC	ROOM CONTROLLER
LS	DAYLIGHT SENSOR
P	PHOTOCELL
V	VOLUME CONTROL
	WALL SPEAKER
	CEILING SPEAKER
	SURVEILLANCE CAMERA
DVR	SURVEILLANCE DIGITAL VIDEO RECORDER
NURSE	NURSE CALL ANNUNCIATOR PANEL
N	NURSE CALL EMERGENCY CALL DEVICE
N	NURSE CALL EMERGENCY CALL LIGHT

SYMBOL	EXPLANATION
	TAMPER AND FLOW
FACP	FIRE ALARM CONTROL PANEL
RFAA	REMOTE FIRE ALARM ANNUNCIATOR PANEL
NAC	FIRE ALARM NAC PANEL
VOICE	FIRE ALARM VOICE PANEL
D/H	DOOR HOLDER
F/S	FIRE/SMOKE DAMPER
F	FIRE ALARM PULL STATION
	FIRE ALARM STROBE
	FIRE ALARM HORN/STROBE
LF	FIRE ALARM HORN/STROBE (LF = LOW FREQUENCY)
	FIRE ALARM HORN/STROBE WITH PROTECTIVE COVER
	FIRE ALARM SPEAKER/STROBE
LF	FIRE ALARM SPEAKER/STROBE (LF = LOW FREQUENCY)
	FIRE ALARM SPEAKER
LF	FIRE ALARM SPEAKER (LF = LOW FREQUENCY)
	FIRE ALARM HORN
LF	FIRE ALARM HORN (LF = LOW FREQUENCY)
	FIRE ALARM STROBE CEILING MOUNTED
	FIRE ALARM HORN/STROBE CEILING MOUNTED
LF	FIRE ALARM HORN/STROBE CEILING MOUNTED (LF = LOW FREQUENCY)
	FIRE ALARM HORN CEILING MOUNTED
LF	FIRE ALARM HORN CEILING MOUNTED (LF = LOW FREQUENCY)
	SMOKE DETECTOR (SUBSCRIPT AS INDICATED BELOW)
B	SMOKE ALARM BATTERY-BACKED
C	SMOKE/CARBON MONOXIDE ALARM COMBO BATTERY-BACKED
D	DUCT SMOKE DETECTOR
R	SMOKE DETECTOR WITH ADDRESSABLE RELAY
S	SMOKE DETECTOR WITH SOUNDER BASE
	HEAT DETECTOR
	GAS DETECTOR
CO	CARBON MONOXIDE DETECTOR
CO/NO2	CARBON MONOXIDE/NITROGEN DIOXIDE SENSOR (GARAGE)
	ADA TWO-WAY COMMUNICATIONS SYSTEM
KP	ACCESS CONTROL KEY PAD
CR	ACCESS CONTROL CARD READER
SDS	ACCESS CONTROL DOOR STRIKE
ML	ACCESS CONTROL MAG LOCK
DS	ACCESS CONTROL DOOR SENSOR
	ACCESS CONTROL REQUEST TO EXIT
	PUSHBUTTON
B	BELL

NOTE: ALL SYMBOLS MAY NOT BE USED.

ABBREVIATIONS INDEX

#	NUMBER	DC	DIRECT CURRENT	KW	KILOWATT	PT	POTENTIAL TRANSFORMER
Φ	PHASE	DISP	DISPOSAL	LRA	LOCKED ROTOR AMPS	PV	PHOTOVOLTAIC
1Φ	SINGLE PHASE	DRY	DRYER	LTG	LIGHTING	PVC	POLYVINYL CHLORIDE
2P	TWO-POLE	DW	DISHWASHER	MATV	MASTER ANTENNA TELEVISION	(R)	RELOCATE
3Φ	THREE PHASE	DWG	DRAWING	MAX	MAXIMUM	RECP	RECEPTACLE
4P	FOUR-POLE	EC	EMPTY CONDUIT	MB	MAIN BUS	REF	REFRIGERATOR
AC	ALTERNATING CURRENT	EM	EMERGENCY	MCB	MAIN CIRCUIT BREAKER	REQ	REQUIRED
AFF	ABOVE FINISHED FLOOR	EMG	EMERGENCY GENERATOR	MCC	MOTOR CONTROL CENTER	RLA	RATED LOAD AMPS
AFG	ABOVE FINISHED GRADE	EMT	ELECTRICAL METALLIC TUBING	MCM	1000 CIRCULAR MILLS	RMS	ROOT MEAN SQUARE
AFP	ARC FAULT PROTECTOR	EPO	EMERGENCY POWER OFF	MH	MANHOLE	SE	SERVICE ENTRANCE
AHJ	AUTHORITY HAVING JURISDICTION	EWC	ELECTRIC WATER COOLER	MIC	MICROPHONE	SPD	SURGE PROTECTION DEVICE
AIC	AMP INTERRUPTING CURRENT (SYMMETRICAL)	EWH	ELECTRIC WATER HEATER	MIN	MINIMUM	SPEC	SPECIFICATION
AL	ALUMINUM	(E)	EXISTING	MLO	MAIN LUGS ONLY	SPK	SPEAKER
AM	AMPS METER	(F)	FUTURE	MNF	MANUFACTURER	SS	SELECTOR SWITCH
AMP	AMPERE	FA	FIRE ALARM	MTG	MOUNTING	SW	SWITCH
ANN	ANNUNCIATOR	FACP	FIRE ALARM CONTROL PANEL	MTR	MOTOR	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	FC	FOOT CANDLE	MW	MICROWAVE	SWGR	SWITCHGEAR
AUX	AUXILIARY	FLA	FULL LOAD AMPS	(N)	NEW	TTB	TELEPHONE TERMINAL BOARD
AWG	AMERICAN WIRE GAUGE	FT	FOOT	N/A	NOT APPLICABLE	TBC	TELEPHONE TERMINAL CABINET
BC	BARE COPPER	FRZ	FREEZER	NC	NORMALLY CLOSED	TV	TELEVISION
BFG	BELOW FINISH GRADE	FS	FUSED SWITCH	NEC	NATIONAL ELECTRICAL CODE	TYP	TYPICAL
C	CONDUIT	GFAF	DUAL FUNCTION GFCI/AFCI CIRCUIT BREAKER	NEMA	NATIONAL MANUFACTURING ASSOCIATION	UG	UNDERGROUND
CAB	CABINET	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NFC	NATIONAL FIRE CODE	UNO	UNLESS NOTED OTHERWISE
CATB	COMMUNITY ANTENNA TELEVISION	GFEP	GROUND-FAULT EQUIPMENT PROTECTION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UPS	UNINTERRUPTIBLE POWER SUPPLY
CATV	CABLE TELEVISION	GFP	GROUND FAULT PROTECTOR	NFS	NON FUSED SWITCH	V	VOLT (KV-KILOVOLT)
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GRC	GALVANIZED RIGID CONDUIT	NIC	NOT IN CONTRACT	VA/R	VOLT-AMPS/REACTIVE
CKT	CIRCUIT	GRD	GROUND	NL	NIGHT LIGHT	VM	VOLT METER
CLG	CEILING	HP	HORSE POWER	NO	NORMALLY OPEN	W	WATTS
CNTR	CONTRACTOR	HZ	HERTZ	NTS	NOT TO SCALE	W/	WITH
CO	CONVENIENCE OUTLET	IG	ISOLATED GROUND	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	WASH	WASHER
CRT	COMPUTER TERMINAL	IMC	INTERMEDIATE METALLIC CONDUIT	OFOI	OWNER FURNISHED OWNER INSTALLED	WH	WATTHOUR
CT	CURRENT TRANSFORMER	IN	INCH	OS&Y	OUTSIDE SCREW AND YOKE	W/O	WITHOUT
CU	COPPER	J-BOX	JUNCTION BOX	PB	PUSH BUTTON	WP	WEATHER PROOF
C/W	CONDUIT WITH	KV	KILOVOLT	PF	POWER FACTOR	XFMR	TRANSFORMER
(D)	DEMOLISH/DELETE	KVA	KILOVOLT AMPERES	PFR	PHASE FAILURE RELAY	XFMR-SW	TRANSFORMER SWITCH
DB	DECIBEL	KVAR	KILOVARS	PNL	PANEL	XP	EXPLOSION PROOF

NOTE: THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS MAY BE USED ON THIS PROJECT.

DESIGN CONTACTS

ELECTRICAL ENGINEER:	RYAN BEAGLES
ELECTRICAL TEAM LEAD:	DAVID SWEARINGEN
ELECTRICAL DESIGNER:	ELLIOTT BREINHOLT

SHEET INDEX

COMMISSIONING NOTES:

C408.3 LIGHTING SYSTEM FUNCTIONAL TESTING.
CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY WITH SECTION C408.3.

C408.3.1 FUNCTIONAL TESTING.
TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CONSTRUCTION DOCUMENTS SHALL STATE THE PARTY WHO WILL CONDUCT THE REQUIRED FUNCTIONAL TESTING. WHERE REQUIRED BY THE CODE OFFICIAL, AN APPROVED PARTY INDEPENDENT FROM THE DESIGN OR CONSTRUCTION OF THE PROJECT SHALL BE RESPONSIBLE FOR THE FUNCTIONAL TESTING AND SHALL PROVIDE DOCUMENTATION TO THE CODE OFFICIAL CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE PROVISIONS OF SECTION C405. WHERE OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTOSENSORS OR DAYLIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

1. CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.
2. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.

REVISION	BY

REGISTERED PROFESSIONAL ENGINEER
11381139
M. RYAN BEAGLES
12/7/21
STATE OF UTAH

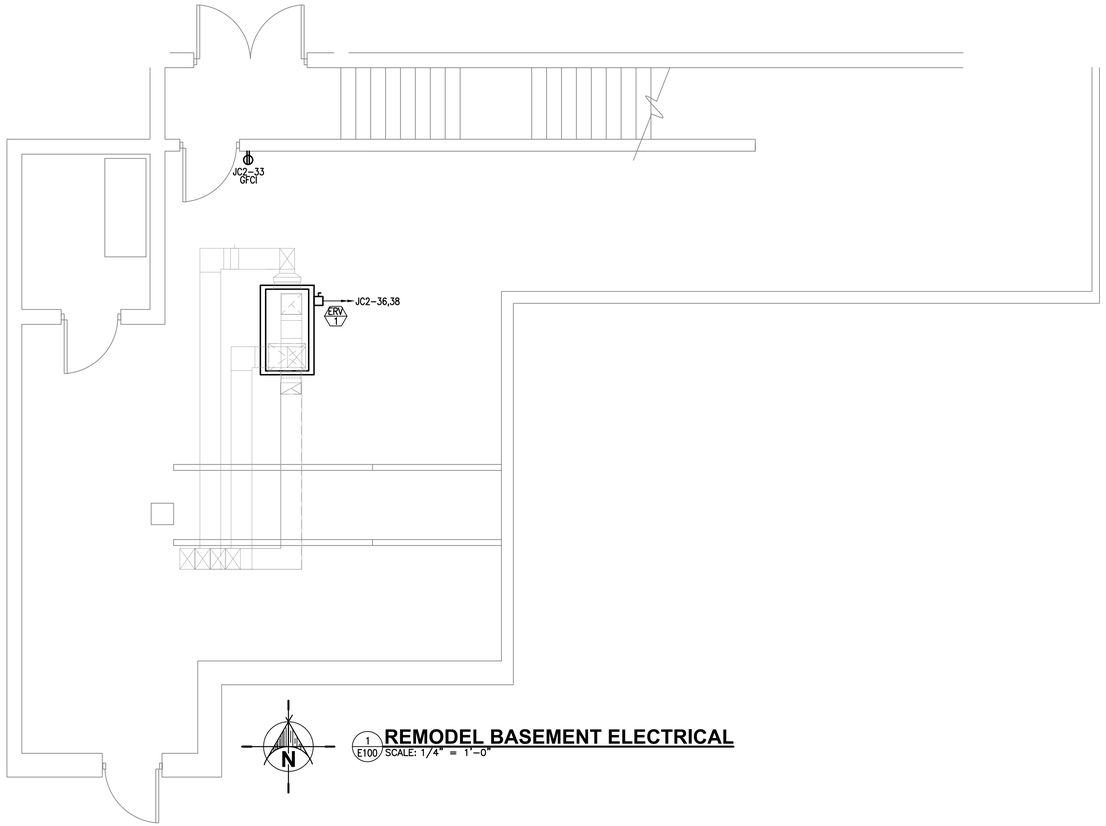
REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (800)374-2900
150 SOUTH MAIN • SALEM • UTAH

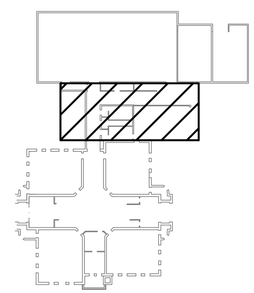
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228

MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:12 PM
SCALE	AS SHOWN
JOB NO.	J20365.00
SHEET	E000



1 / E100 **REMODEL BASEMENT ELECTRICAL**
SCALE: 1/4" = 1'-0"



BASEMENT KEY PLAN
SCALE: NONE

REVISION	BY

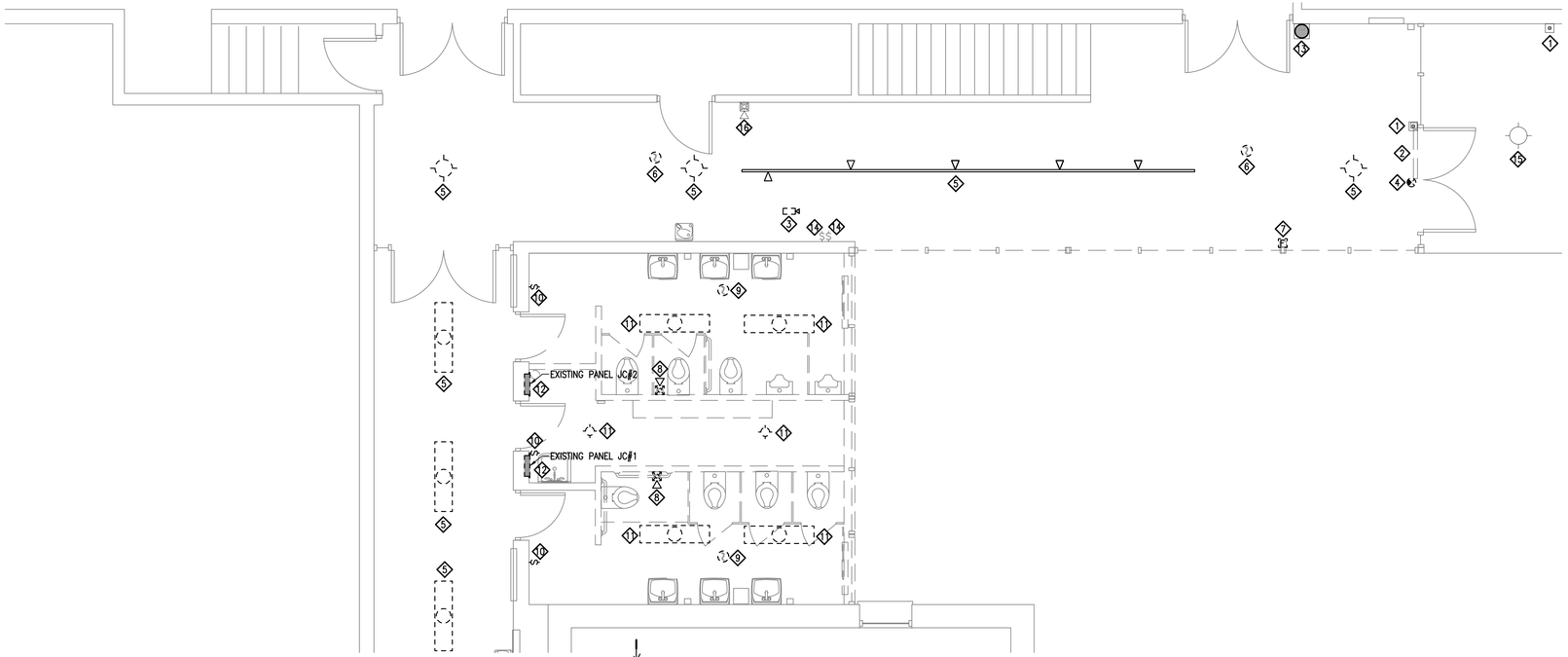
TROY RYAN BEAGLES
12/7/21

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

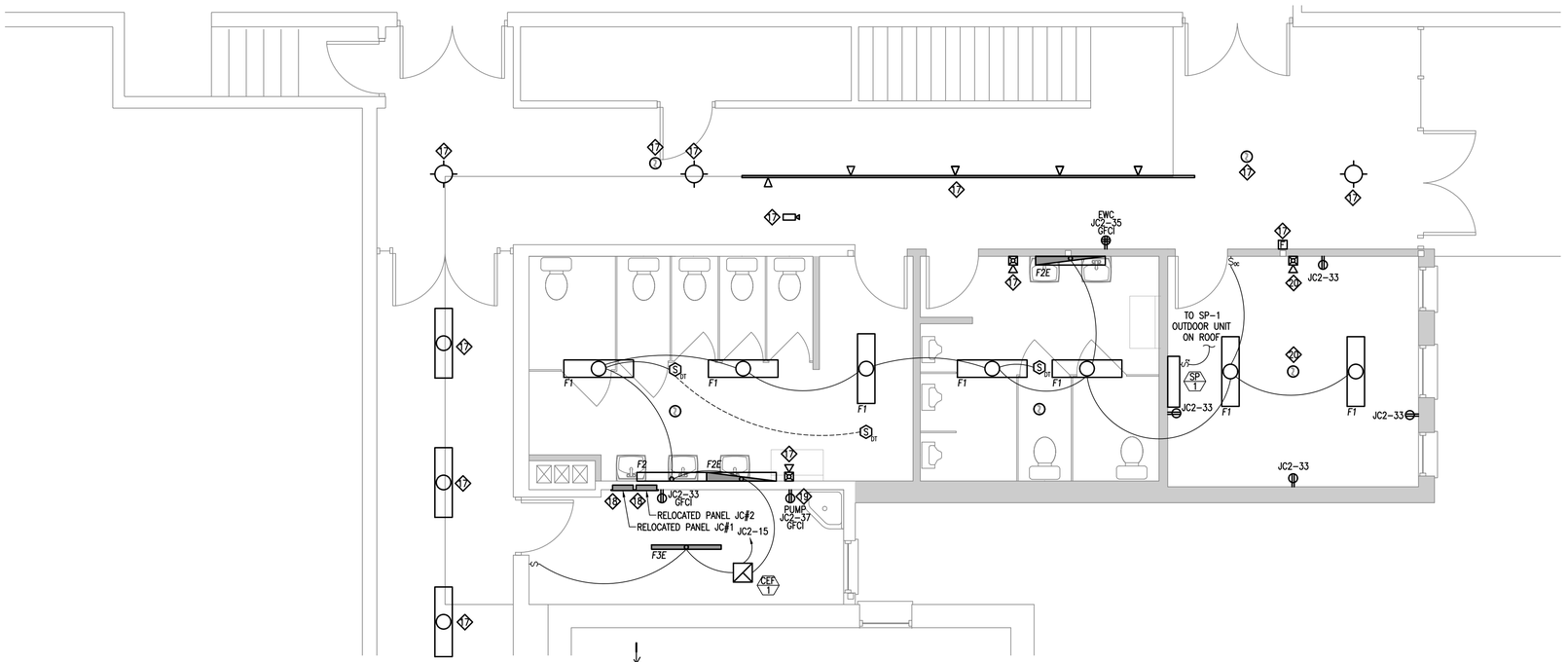
150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2800
150 SOUTH MAIN • SALEM • UTAH

ROYAL ENGINEERING
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:17 PM
SCALE	AS SHOWN
JOB NO	J20365.00
SHEET	E100



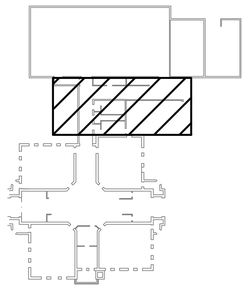
1 E100 DEMOLITION MAIN FLOOR ELECTRICAL
SCALE: 1/4" = 1'-0"



2 E101 REMODEL MAIN FLOOR ELECTRICAL
SCALE: 1/4" = 1'-0"

ELECTRICAL KEYED NOTES:

1. EXISTING ADA DOOR ACTUATION BUTTON TO REMAIN. MAINTAIN INTEGRITY OF WIRING DURING DOOR REPLACEMENT.
2. EXISTING ADA DOOR OPENER TO BE REINSTALLED ON NEW DOORS BY OTHERS. MAINTAIN INTEGRITY OF MOTOR CIRCUIT AND CONTROL WIRING DURING DOOR REPLACEMENT.
3. CAREFULLY REMOVE CAMERA IN PREPARATION FOR CEILING REPLACEMENT. MAINTAIN INTEGRITY OF WIRING DURING DEMOLITION, CLEAN, AND REINSTALL WITH NEW CEILING.
4. CAREFULLY REMOVE EXIT SIGN IN PREPARATION FOR CEILING REPLACEMENT. MAINTAIN INTEGRITY OF WIRING DURING DEMOLITION, CLEAN, AND REINSTALL WITH NEW CEILING.
5. CAREFULLY REMOVE LIGHT FIXTURE IN PREPARATION FOR CEILING REPLACEMENT. MAINTAIN INTEGRITY OF WIRING DURING DEMOLITION, CLEAN, RELAMP, AND REINSTALL WITH NEW CEILING.
6. CAREFULLY REMOVE SMOKE DETECTOR IN PREPARATION FOR CEILING REPLACEMENT. MAINTAIN INTEGRITY OF WIRING DURING DEMOLITION, CLEAN, AND REINSTALL WITH NEW CEILING.
7. PULL STATION TO BE REINSTALLED IN NEW WALL. EXTEND WIRING AS REQUIRED TO MAINTAIN INTEGRITY OF FIRE ALARM INITIATION CIRCUIT.
8. HORN/STROBE TO BE REINSTALLED IN NEW RESTROOM. EXTEND WIRING AS REQUIRED TO MAINTAIN INTEGRITY OF FIRE ALARM INITIATION CIRCUIT.
9. SMOKE DETECTOR TO BE REINSTALLED IN NEW RESTROOM. EXTEND WIRING AS REQUIRED TO MAINTAIN INTEGRITY OF FIRE ALARM INITIATION CIRCUIT.
10. REMOVE LIGHT SWITCH.
11. REMOVE LIGHT FIXTURE AND RETURN TO OWNER OR DISPOSE OF LIGHT FIXTURE AS DIRECTED.
12. EXISTING ELECTRICAL PANEL TO BE RELOCATED TO AREA WHERE WORK SPACE CLEARANCES CAN BE MET. SEE REMODEL ELECTRICAL PLAN FOR NEW PANEL LOCATION. EXTEND EXISTING PANEL FEEDERS TO NEW LOCATION AND EXTEND ALL BRANCH CIRCUIT WIRING TO NEW PANEL LOCATION.
13. EXISTING WALL SPEAKER TO REMAIN.
14. EXISTING LIGHT SWITCH TO REMAIN.
15. EXISTING EXTERIOR LIGHTS TO REMAIN.
16. EXISTING HORN STROBE TO REMAIN.
17. DEVICE REINSTALLED WITH NEW CEILING/WALL.
18. NEW PANEL LOCATION. SEE WORK SPACE CLEARANCE DETAIL FOR REQUIREMENTS.
19. COORDINATE LOCATION OF RECIRCULATION PUMP WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
20. PROVIDE NEW FIRE ALARM DEVICE MATCHING EXISTING FIRE ALARM SYSTEM. CONNECT NEW FIRE ALARM DEVICE TO EXISTING FIRE ALARM CIRCUIT.



MAIN FLOOR KEY PLAN
SCALE: NONE

REVISION	BY

TROY RYAN BEAGLES 12/7/21 STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

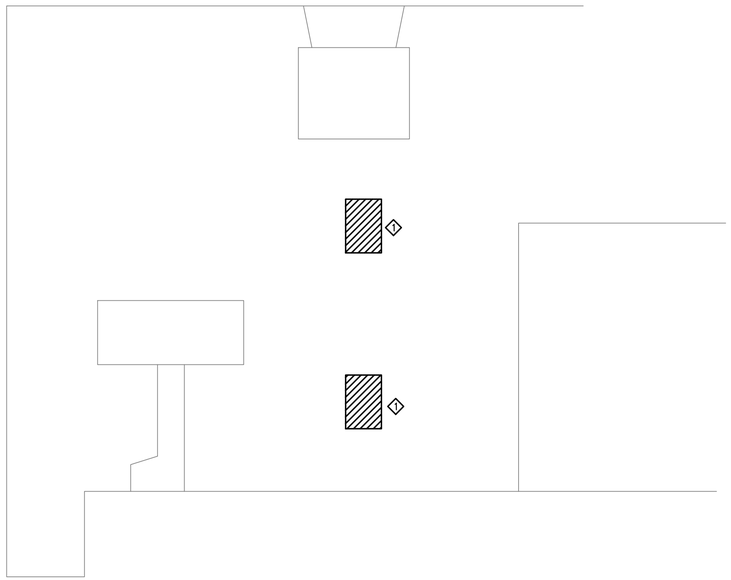
150 ARCHITECTURE INC.
ARCHITECT ◆ PLANNER ◆ (801) 574-2900
150 SOUTH MAIN ◆ SALEM ◆ UTAH

ROYAL ENGINEERING
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:26 PM
SCALE	AS SHOWN
JOB NO.	J20365.00
SHEET	E101

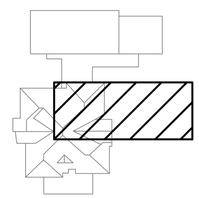
ELECTRICAL KEYED NOTES:

1. ROOF MOUNTED EXHAUST FAN TO BE REMOVED BY OTHERS. REMOVE ASSOCIATED ELECTRICAL DISCONNECT, WIRE, AND CONDUIT BACK TO SOURCE.



1 E102 **DEMOLITION ROOF ELECTRICAL**
SCALE: 1/4" = 1'-0"

2 E102 **REMODEL ROOF ELECTRICAL**
SCALE: 1/4" = 1'-0"



ROOF OVERALL
SCALE: NONE

REVISION	BY

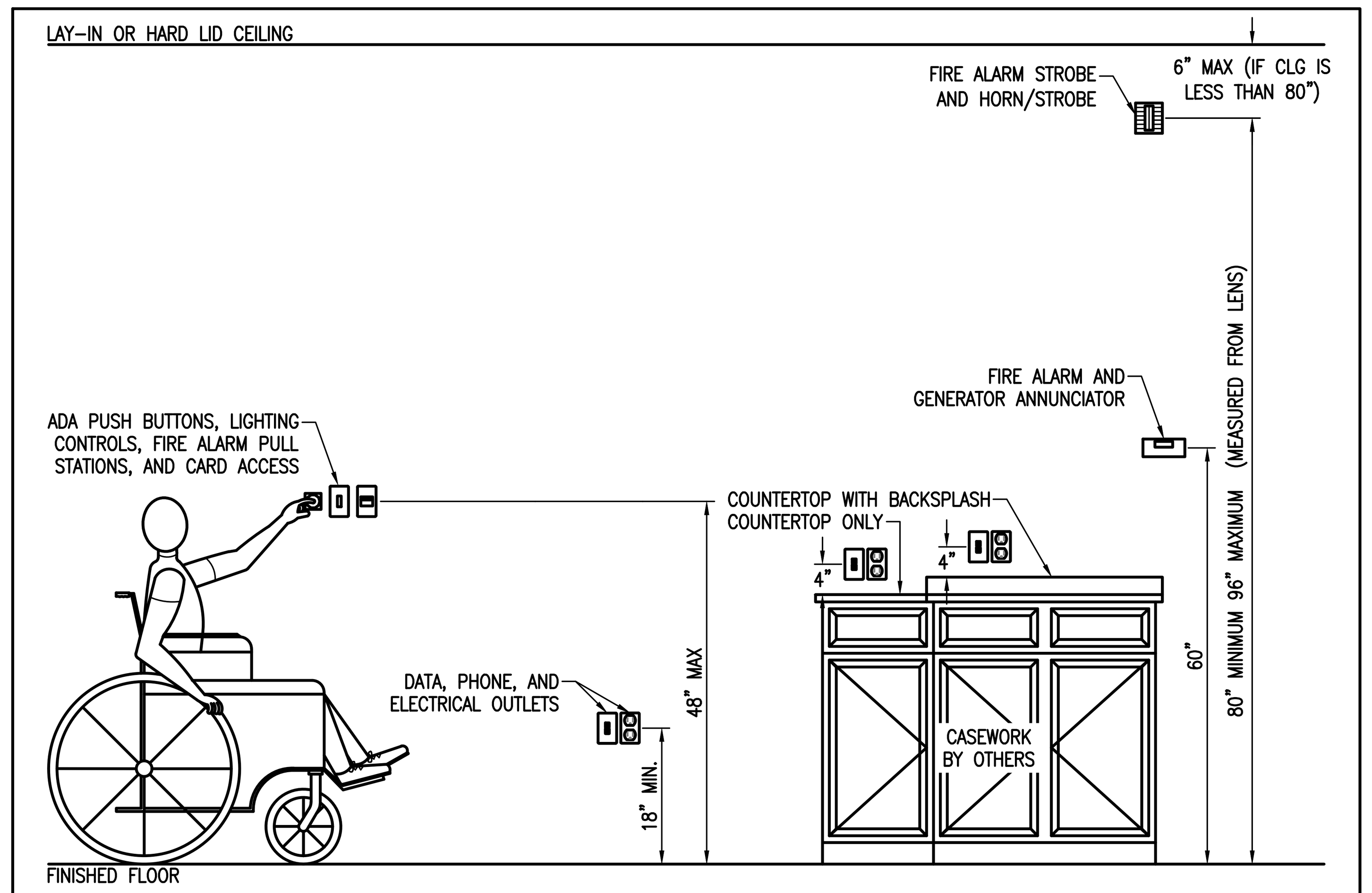
JOSHUA RYAN BEAGLES
12/7/21

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2800
150 SOUTH MAIN • SALEM • UTAH

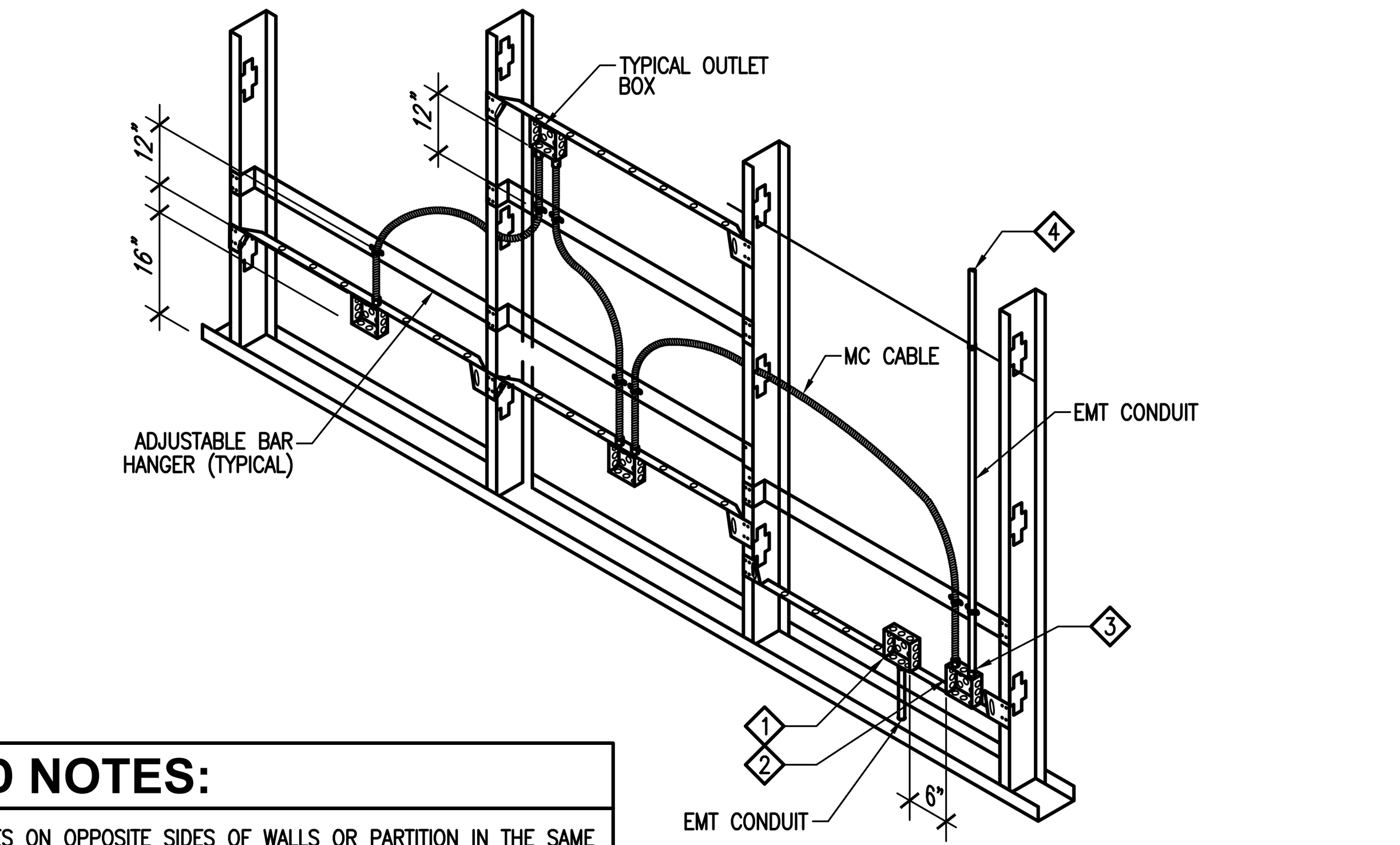
ROYAL ENGINEERING
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:32 PM
SCALE	AS SHOWN
JOB NO	J20365.00
SHEET	E102



4 DEVICE MOUNTING HEIGHTS INSTALLATION DETAIL

SCALE: NTS



KEYED NOTES:

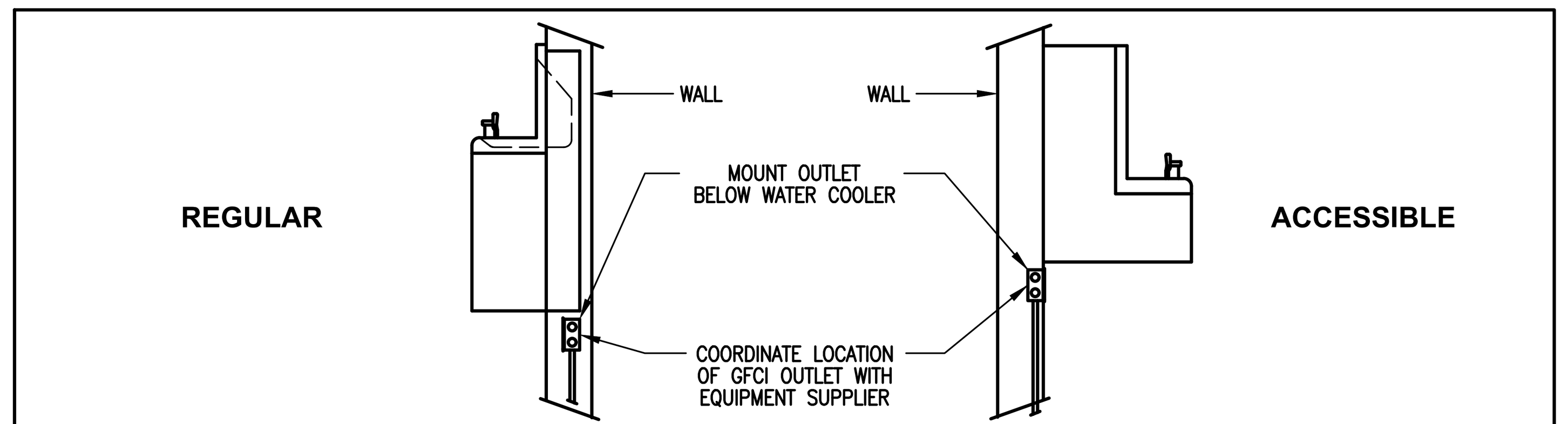
1. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITION IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
2. ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.3.2 (24" SEPARATION ON OPPOSITE SIDES.)
3. INSULATED THROAT EMT CONNECTOR.
4. HOME RUN TO PANEL MUST BE IN RACEWAY.

GENERAL NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH IN.
2. PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISH SURFACE.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.

1 ROUGH-IN DETAIL FOR MC CABLE

SCALE: NTS



5 ELECTRIC WATER COOLER INSTALLATION DETAIL

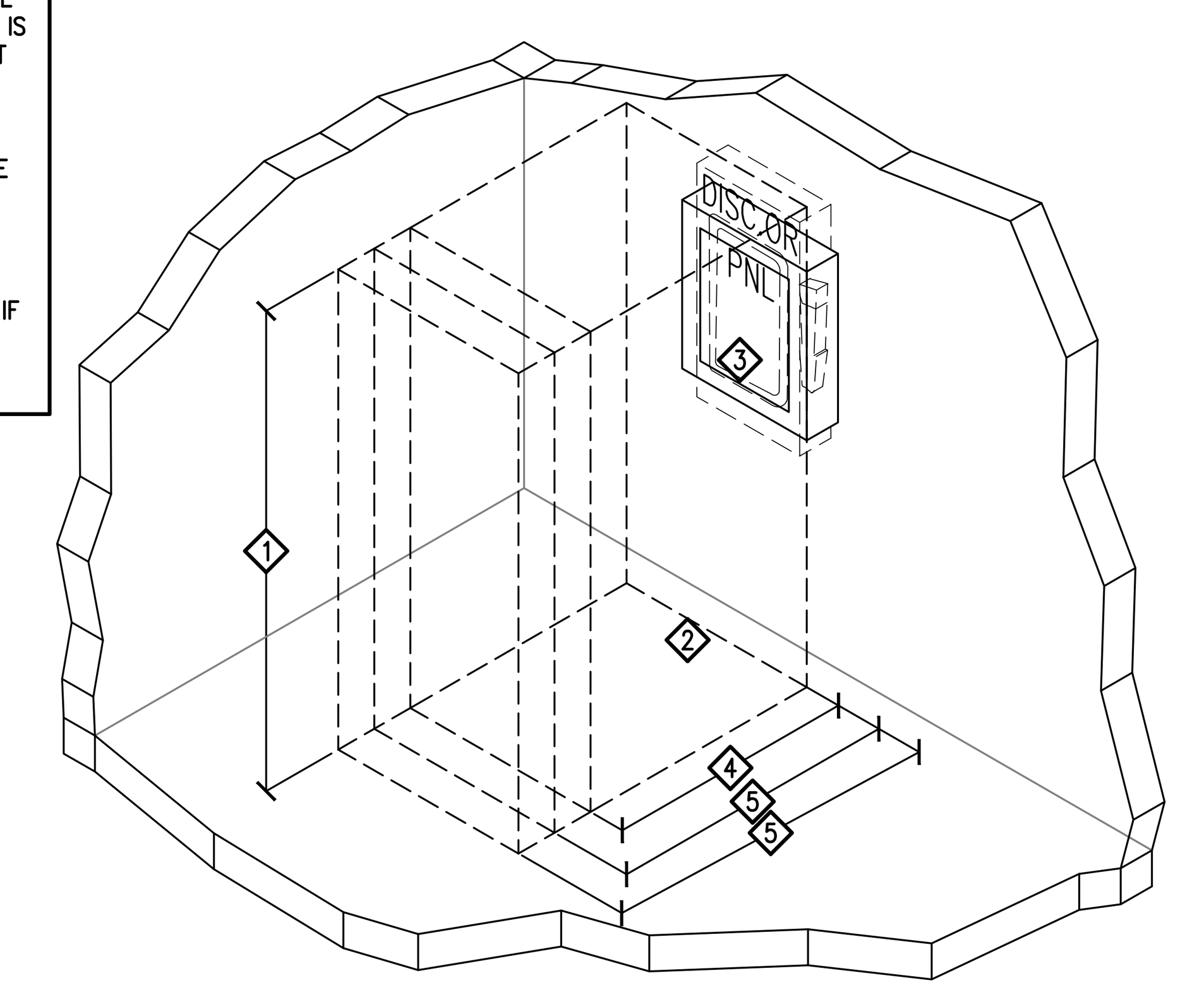
SCALE: NTS

KEYED NOTES:

1. THE MINIMUM HEADROOM OF WORKING SPACE SHALL BE 6½ FT.
2. THE WIDTH OF THE WORKING SPACE SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 IN., WHICHEVER IS GREATER. THE PANEL DOOR SHALL OPEN AT LEAST 90 DEGREES.
3. ALL CIRCUIT BREAKERS OR DISCONNECT HANDLES SHALL BE NOT MORE THAN 6 FT 7 IN. ABOVE THE FLOOR WHEN IN THEIR HIGHEST POSITION.
4. 3 FT CLEARANCE IF 0-150V TO GROUND
5. 3.5FT CLEARANCE IF 151-600V TO GROUND. 4FT IF EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE.

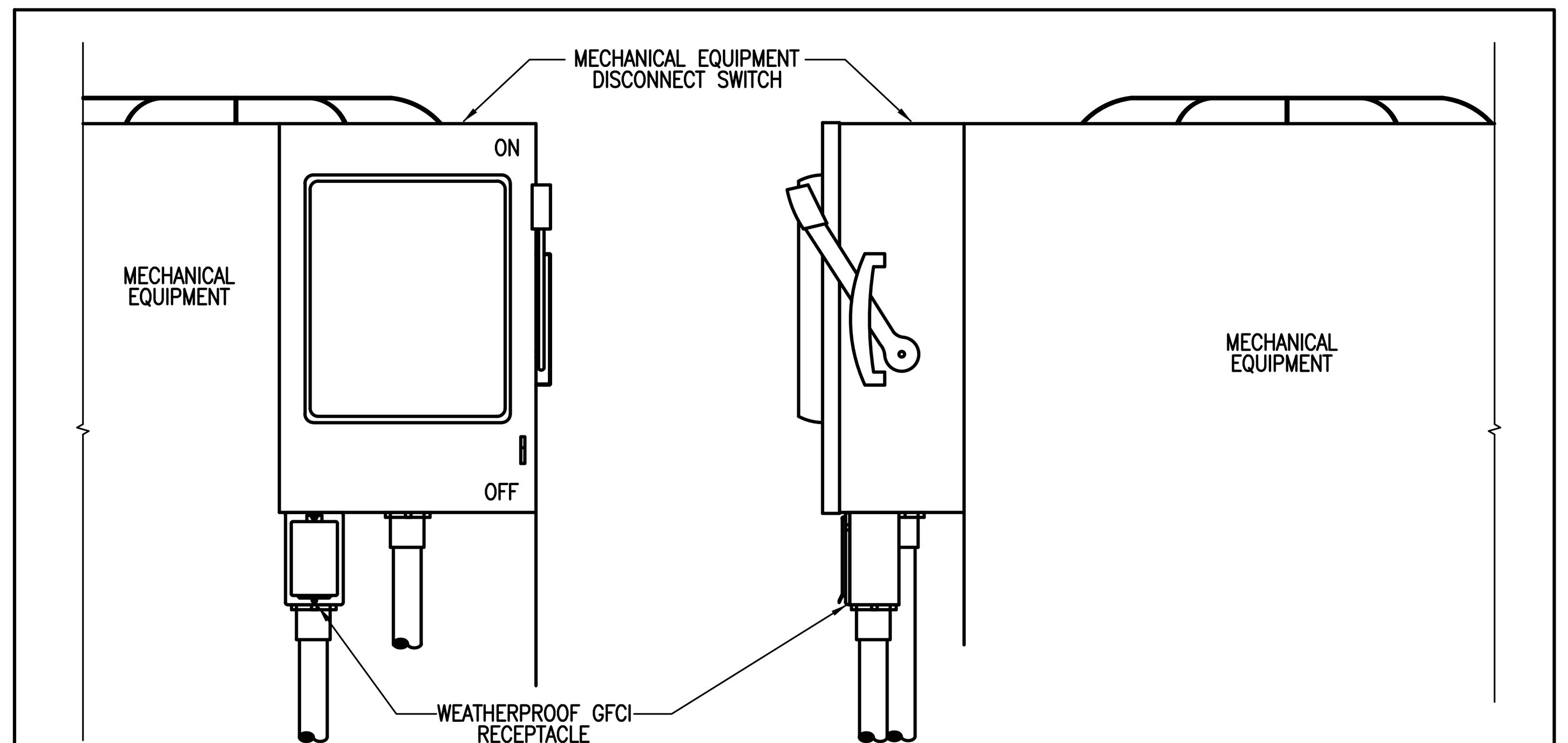
GENERAL NOTE:

1. ALL WORKING SPACE CLEARANCE FROM FACE OF PANEL.



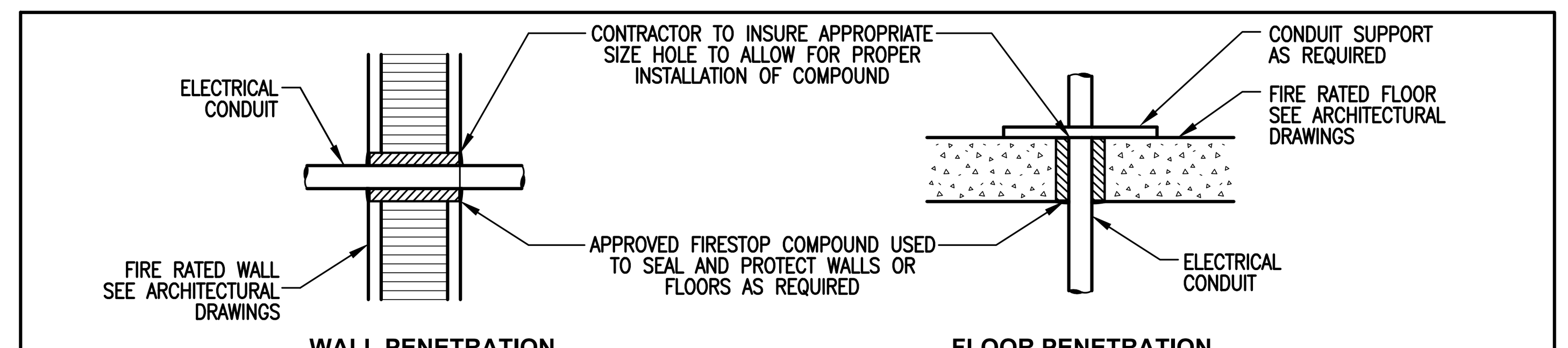
2 ELECTRICAL EQUIPMENT WORK SPACE CLEARANCES

SCALE: NTS



6 WEATHERPROOF RECEPTACLE INSTALLATION DETAIL

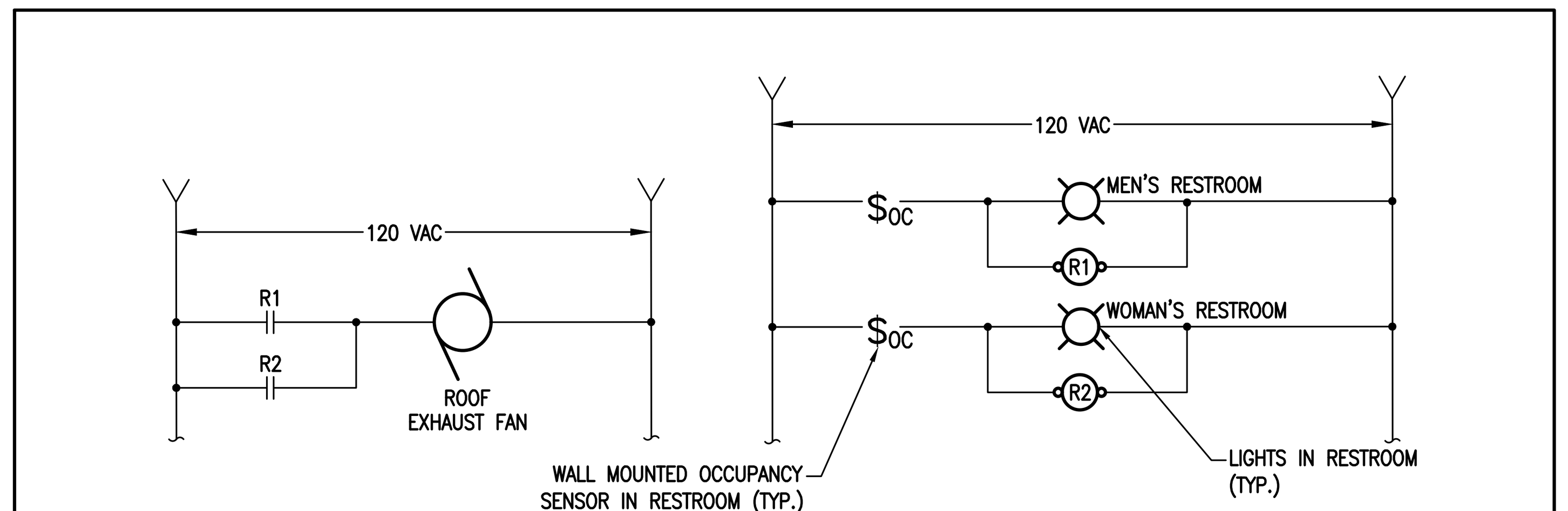
SCALE: NTS



NOTE:
1. ALL FIRE STOPPING COMPOUND TO BE INSTALLED UNDER STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

3 FIRE RATED PENETRATION DETAIL

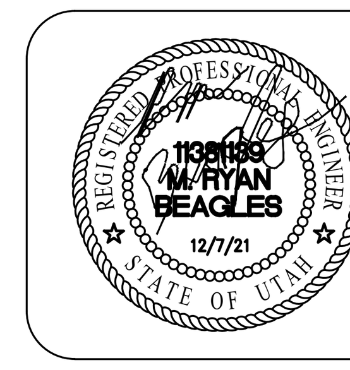
SCALE: NTS



7 RESTROOM LIGHTING & EXHAUST FAN SWITCHING DETAIL

SCALE: NTS

REVISION	BY



REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2000
150 SOUTH MAIN • SALEM • UTAH

ROYAL ENGINEERING
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:40 PM
SCALE	AS SHOWN
JOB NO.	J20365.00
SHEET	E501

EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	SERVICE		DISCONNECT		STARTER	LOAD			MOCP/ BRKR	REMARKS
		VOLTS	PHASE	SIZE	FUSE		HP/TON	VA	AMPS		
SP 1	SPLIT SYSTEM OUTDOOR UNIT	208 V	1Ø	30A NEMA 3R	-	INTEGRAL	-	2,496	12.0A	15A	
	SPLIT SYSTEM INDOOR UNIT	208 V	1Ø	2 POLE SWITCH	-	INTEGRAL	-	18	0.1A	15A	POWERED FROM OUTDOOR UNIT
CEF 1	EXHAUST FAN	120 V	1Ø	INTEGRAL PLUG	-	-	-	11	0.1A	20A	EF CONTROLLED WITH LIGHTING
ERV 1	EXHAUST AND OUTSIDE AIR FAN W/ ELEC. PREHEATER	208 V	1Ø	30A NEMA 1	-	INTEGRAL	½ HP ½ HP	4,597	22.1A	25A	ERV-1 START/STOP CONTROL INTERLOCKED WITH LIGHTS IN RESTROOM. COORDINATE REQUIREMENTS WITH MC.

NOTES:

1. VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS (i.e. VOLTAGE, PHASE, FLA, ETC.) WITH MECHANICAL DRAWINGS/SUBMITTALS BEFORE FOR ACTUAL EQUIPMENT INSTALLED.
2. ALL FUSES SHALL BE DUAL ELEMENT TIME DELAY. FINAL BREAKER/FUSE & DISCONNECT SIZE SHALL BE DETERMINED BY MANUFACTURER'S RECOMMENDATION FOR ACTUAL EQUIPMENT INSTALLED.
3. MAXIMUM VALUES INDICATED.
4. DISCONNECTING MEANS NOT REQUIRED FOR EQUIPMENT WITHIN SIGHT (AS DEFINED IN NEC) OF BRANCH PANEL SERVING EQUIPMENT. SEE NEC 422.31 (B).
5. DISCONNECTING MEANS NOT REQUIRED FOR APPLIANCES NOT OVER 300 VA. SEE NEC 422.31 (A).

LIGHT FIXTURE SCHEDULE

FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	LAMPS	FIXTURE			DESCRIPTION	REMARKS
			TYPE	VOLTS	WATTS	MOUNTING		
F1	METALUX LITHONIA LA LIGHTING LSI LUMAX ORACLE	4WSNLED-LD4-44SL-F-UNV-L835-CD1-U LBL4W-6500LM-80CRI-35K-MIN1-ZT-MVOLT 3-WAN113-4K-4L-FPA-1DRDM-UNV-2/835 WNA14-LED-SS-WW-UE WNLED-63L-35K-48-9-FA 4-OIW-LED-4000L-DIM10-MVOLT-35K-80	LED 3500 KELVIN 4000 LUMENS 80 CRI	120	48	SURFACE CEILING	1X4 SURFACE WIDE BODY LED	
F2	METALUX LITHONIA DAY-BRITE LSI VISIONEERING ORACLE	4BCLED-LD4-36SL-UNV-L835-CD1-U WL4-30L-EZ1-LP835 CSW-48-28-35-UNV-DZT-ZO W444-LED-SS-WW-UE LCAD48-LED-8-35K-037L-UNV 4-OW1B-LED-3000L-DIM10-MVOLT-35K-80	LED 3500 KELVIN 3000 LUMENS 80 CRI	120	37	SURFACE WALL	48" WALL MTD. LED	
F2E	METALUX LITHONIA DAY-BRITE LSI VISIONEERING ORACLE	4BCLED-LD4-36SL-UNV-EL14W-L835-CD1-U WL4-30L-EZ1-LP835-EL14L CSW-48-28-35-UNV-DZT-ZO-EMLED W444-LED-SS-WW-UE-EM LCAD48-LED-8-35K-037L-UNV-B39 4-OW1B-LED-3000L-DIM10-MVOLT-35K-80-O-EMG-LED	LED 3500 KELVIN 3000 LUMENS 80 CRI	120	37	SURFACE WALL	48" WALL MTD. LED WITH EMERGENCY BATTERY PACK	
F3E	METALUX LITHONIA DAY-BRITE LSI COLUMBIA ORACLE	4SNLED-LD4-30SL-LW-UNV-EL14W-L835-CD1-U ZL1N-L48-3000LM-FST-MVOLT-35K-80CRI-E7W-WH FSS440L835-UNV-DIM-EMLED SDL-4-LED-SS-WW-UE-EM LCL4-35LW-EDU-ELL14 4-OC1-LED-3000L-DIM10-MVOLT-35K-80-O-EMG-LED	LED 3500 KELVIN 3000 LUMENS 80 CRI	120	29	SURFACE/CHAIN	48" LED STRIP WITH EMERGENCY BATTERY PACK	

PANEL SCHEDULE "JC #1"

VOLTAGE: 208 / 120 VOLTS — BUS RATING (AMPS): 100 — REMARKS: EXISTING PANEL MANUFACTURED BY WESTINGHOUSE
MOUNTING: FLUSH — PHASE: 1 — MAIN LUGS ONLY
ENCLOSURE: NEMA 1 — WIRE: 3

CIRCUIT BREAKER				CIRCUIT NAME	FEEDER			CKT. LOAD		LOAD/PHASE (VA)		CKT. LOAD		FEEDER			CIRCUIT NAME	CIRCUIT BREAKER			
No.	AMPS	POLE	MOD.		C	WIRE	GRD	DEMAND FACTOR	WATTS	ØA	ØB	WATTS	DEMAND FACTOR	GRD	WIRE	C		MOD.	POLE	AMPS	No.
1	40	1	EXIST	MULTI PURPOSE FAN				1.00		0			1.00				KITCHEN EXHAUST FAN	EXIST		15	2
3			-	SPACE				1.00			0		1.00				CONSOL HEATER STORAGE	EXIST		15	4
5	15	1	EXIST	CONSOL HEATER LOBBY				1.00		0			1.00				SPACE	-			6
7	15	1	EXIST	CONSOL FAN KITCHEN				1.00			0		1.00				PLAY ROOM FAN	EXIST		30	8
9	20	1	EXIST	CONTROL COMPRESSOR				1.00		0			1.00				GIRLS REST ROOM FAN	EXIST		15	10
11	20	2	EXIST	MAIN BLDG SWAMP COOLER				1.00			0		1.00				AUD. SWAMP COOLER	EXIST	2	40	12
13	-	-	-	-	-		-	1.00		0			1.00	-		-	-	-	-	-	14
15			-	SPACE				1.00			0		1.00				SPACE	-			16
17			-	SPACE				1.00		0			1.00				HOT WATER CIRCULATION PUMP	EXIST		20	18
19			-	SPACE				1.00			0		1.00				BOYS REST ROOM FAN	EXIST		15	20

NOTES :

1. ALL INSULATION ON CONDUCTORS TO BE THHN UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND EXTERIOR CONDUCTORS SHALL BE THHW.
2. LOAD DEMANDS CALCULATED AS PER SECTIONS 210 & 220 OF THE NATIONAL ELECTRICAL CODE.
3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 110. LABEL SHALL READ: "DANGER: POTENTIAL ARC FLASH HAZARD"
4. FIRE ALARM SYSTEMS SHALL HAVE BRANCH CIRCUITS IDENTIFIED BY RED LABELS STATING "FIRE ALARM CIRCUIT" AS REQUIRED BY THE NATIONAL ELECTRICAL CODE ARTICLE 760.41B
5. ABBREVIATIONS: CO-CONVENIENCE OUTLET, RR-RESTROOM, (N)ORTH, (S)OUTH, (E)AST, (W)EST.

ØA	ØB	TOTALS	
0	0	0	CONNECTED LOAD (VA)
		0	CONNECTED LOAD (A)
0	0	0	DEMAND FACTOR ADJUSTMENTS (VA)
0	0	0	TOTAL LOAD (VA)
0	0		TOTAL LOAD (A)
		0	MAXIMUM LOAD (A)
100%	100%		PHASE BALANCE

PANEL SCHEDULE "JC #2"

VOLTAGE: 208 / 120 VOLTS — BUS RATING (AMPS): 200 — REMARKS: EXISTING PANEL MANUFACTURED BY WESTINGHOUSE
MOUNTING: FLUSH — PHASE: 1 — MAIN LUGS ONLY
ENCLOSURE: NEMA 1 — WIRE: 3

CIRCUIT BREAKER				CIRCUIT NAME	FEEDER			CKT. LOAD		LOAD/PHASE (VA)		CKT. LOAD		FEEDER			CIRCUIT NAME	CIRCUIT BREAKER			
No.	AMPS	POLE	MOD.		C	WIRE	GRD	DEMAND FACTOR	WATTS	ØA	ØB	WATTS	DEMAND FACTOR	GRD	WIRE	C		MOD.	POLE	AMPS	No.
1	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00		0			1.00				PLAY ROOM LIGHTS	EXIST		15	2
3	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00			0		1.00				PLAY ROOM LIGHTS	EXIST		15	4
5	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00		0			1.00				PLAY ROOM LIGHTS	EXIST		15	6
7	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00			0		1.00				PLAY ROOM LIGHTS	EXIST		30	8
9	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00		0			1.00				PLAY ROOM LIGHTS	EXIST		15	10
11	15		EXIST	MULTI PURPOSE ROOM LIGHTS				1.00			0		1.00				PLAY ROOM LIGHTS	EXIST		15	12
13	20		EXIST	LOBBY EAST ENTRANCE LIGHTS				1.00		0			1.00				PLAY ROOM LIGHTS	EXIST		15	14
15	20	1	MOD.	RESTROOM JANITOR LIGHTS	¾"	#12	#12	1.25	391		391		1.00				PLAY ROOM LIGHTS	EXIST		20	16
17	20		EXIST	NEW WEST HALL LIGHTS				1.00		0			1.00				CONDENSATE PUMP	EXIST		30	18
19	20		EXIST	EXIT LIGHTS				1.00			0		1.00				BASEMENT AREA LIGHTS	EXIST		20	20
21	20		EXIST	OUTSIDE LIGHTS				1.00		0			1.00				STORAGE ROOM	EXIST		15	22
23	20		EXIST	KITCHEN PORCH				1.00			0		1.00				KITCHEN OUTLETS	EXIST		20	24
25	20		EXIST	STAGE L. PLUG				1.00		0			1.00				KITCHEN LIGHTS	EXIST		20	26
27	20		EXIST	HALL				1.00			0		1.00				EXISTING LOAD	EXIST		20	28
29	15		EXIST	EXISTING LOAD				1.00		0			1.00				BELLS	EXIST		15	30
31	20		EXIST	EXISTING LOAD				1.00			1,248	1,248	1.00	#12	#12	¾"	SP-1	NEW	2	15	32
33	20	1	-	CO - MECH MAIN, BASEMENT	¾"	#12	#12	1.00	540	1,788		1,248	1.00	-	#12	-	-	-	-	-	34
35	20	1	-	CO - EWC	¾"	#12	#12	1.00	370		2,668	2,298	1.00	#12	#12	¾"	ERV-1	NEW	2	25	36
37	20	1	-	RECIRCULATION PUMP	¾"	#12	#12	1.00	1,176	3,474		2,298	1.00	-	#12	-	-	-	-	-	38
39			-	SPACE				1.00			180	180	1.00	#12	#12	¾"	CO - ROOF	-	1	20	40

NOTES :

1. ALL INSULATION ON CONDUCTORS TO BE THHN UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND EXTERIOR CONDUCTORS SHALL BE THHW.
2. LOAD DEMANDS CALCULATED AS PER SECTIONS 210 & 220 OF THE NATIONAL ELECTRICAL CODE.
3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 110. LABEL SHALL READ: "DANGER: POTENTIAL ARC FLASH HAZARD"
4. FIRE ALARM SYSTEMS SHALL HAVE BRANCH CIRCUITS IDENTIFIED BY RED LABELS STATING "FIRE ALARM CIRCUIT" AS REQUIRED BY THE NATIONAL ELECTRICAL CODE ARTICLE 760.41B
5. ABBREVIATIONS: CO-CONVENIENCE OUTLET, RR-RESTROOM, (N)ORTH, (S)OUTH, (E)AST, (W)EST.

ØA	ØB	TOTALS	
5,262	4,487	9,750	CONNECTED LOAD (VA)
		47	CONNECTED LOAD (A)
0	98	98	DEMAND FACTOR ADJUSTMENTS (VA)
5,262	4,585	9,848	TOTAL LOAD (VA)
44	**38**		TOTAL LOAD (A)
		44	MAXIMUM LOAD (A)
53%	47%		PHASE BALANCE

Electrical Service Calculator (Remodel)

METER #: 1345689		
HISTORICAL DATA (PEAK DEMAND):	6,040	VA
+ 25% (PER NEC 220.87(2))	7,550	VA
Location: Payson, Utah		
Engineer: Royal Engineering		
Occupancy Type:	BUSINESS	
General Loads (new)		
Interior Lighting Load:	391	VA
Exterior Lighting Load:	-	VA
Receptacle Load:	1,090	VA
Small Appliance Load:	-	VA
Kitchen Load:	-	VA
Laundry Load:	-	VA
Total:	1,481	VA
HVAC Loads (new)		
Cooling/Heating:	7,093	VA
Resistance Heating:	-	VA
Exhaust	-	VA
Water Heating:	-	VA
Total:	7,093	VA
Equipment Loads (new)		
Machinery:	-	VA
Elevator:	-	VA
Pumps:	1,176	VA
Motors:	-	VA
Welders:	-	VA
Signs:	-	VA
Total:	1,176	VA
Total New Load:	9,750	VA
Future Load	-	VA
Total Load:	17,300	VA
Voltage:	208	
Phase:	3	
Amps:	48	

ROYAL ENGINEERING
ELECTRICAL — MECHANICAL
1837 S. EAST BAY BLVD. PROVO, UTAH 84606
PHONE: 801.375.2228 FAX: 801.375.2676

REVISION	BY

REGISTERED PROFESSIONAL ENGINEER
11381189
M. RYAN BEAGLES
12/7/21
STATE OF UTAH

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2100
150 SOUTH MAIN • SALEM • UTAH

DRAWN: EWB
CHECKED: MRB
DATE: 12/7/2021 4:16:41 PM
SCALE: AS SHOWN
JOB NO.: J20365.00
SHEET: E601

ELECTRICAL SPECIFICATIONS

GENERAL PROVISION

A. REFERENCE
1. THE GENERAL CONDITIONS AND OTHER CONTRACT DRAWINGS AS SET FORTH IN THE FOREGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS TITLE, INSOFAR AS THEY APPLY HERETO.
2. ALL SPECIFICATIONS UNDER THIS DIVISION TITLE ARE DIRECTED TO AND ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS OTHER TRADES OR PERSONS ARE SPECIFICALLY MENTIONED, "ELECTRICAL CONTRACTOR" IS INFERRED AND INTENDED.

B. CONTRACT DRAWINGS
1. THE DRAWINGS ACCOMPANYING THESE SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE AS IF CALLED FOR BY BOTH.
2. CONSULT ALL CONTRACT DRAWINGS WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATION TO SECURE COORDINATION.
3. WIRING LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.
4. OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.

C. JOB-SITE COPY OF DOCUMENTS
1. MAINTAIN AT THE SITE, ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA APPROVED SHOP DRAWINGS, CHANGE ORDERS AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION. THESE SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE. THE DRAWINGS MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR THE OWNER UPON COMPLETION OF THE WORK. AN ADDITIONAL SET OF DRAWINGS WILL BE FURNISHED BY THE OWNER'S REPRESENTATIVE FOR THIS PURPOSE UPON REQUEST.

D. MANUFACTURER'S DRAWINGS
1. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW. (6) COPIES OF MANUFACTURER'S DRAWINGS AND WIRING DIAGRAMS. THE ENGINEER WILL REVIEW CONTRACTOR'S SHOP DRAWINGS AND RELATED SUBMITTALS (AS INDICATED BELOW) WITH RESPECT TO THE ABILITY OF THE DETAILED WORK, WHEN COMPLETE, TO BE A PROPERLY FUNCTIONING INTEGRAL ELEMENT OF THE OVERALL SYSTEM DESIGNED BY THE ENGINEER. BEFORE SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER, CONTRACTOR SHALL: REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES,AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF CONTRACTOR; APPROVE EACH SUCH SUBMISSION BEFORE SUBMITTING IT, AND SO STAMP EACH SUCH SUBMISSION BEFORE SUBMITTING IT. THE ENGINEER SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPRISES A VARIATION UNLESS CONTRACTOR ADVISES ENGINEER OTHERWISE VIA A WRITTEN INSTRUMENT WHICH IS ACKNOWLEDGED BY ENGINEER IN WRITING. THE ITEMS, TYPES OF SUBMITTALS AND RELATED MATERIAL (IF ANY) CALLED FOR ARE INDICATED BELOW:

ITEMS	TYPE SUBMITTALS REQUESTED
LIGHTING AND POWER PANELS	SHOP DRAWINGS
LIGHTING FIXTURES	CATALOG CUTS

E. GUARANTEES
1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PRODUCT GUARANTEES GREATER THAN ONE (1) YEAR SHALL BE PASSED ALONG TO THE OWNER FOR FULL BENEFIT OF THE MANUFACTURER'S WARRANTY.

DEMOLITION

A. DESCRIPTION OF WORK
1. ALL RELOCATIONS, RECONNECTIONS AND REMOVALS ARE NOT NECESSARILY INDICATED ON DRAWINGS. ALL SUCH REQUIRED WORK SHALL BE INCLUDED WITHOUT ADDITIONAL COST TO OWNER. OTHER DEMOLITION WORK SHALL BE PERFORMED AS REQUIRED TO MAINTAIN SYSTEM OPERATION.
2. THE INTENT OF THE DRAWINGS IS NOT TO SHOW EVERY DEVICE, OUTLET, FIXTURE, CONDUIT, ETC. AFFECTED BY DEMOLITION WORK.
3. THE DRAWINGS DO NOT NECESSARILY REFLECT AS-BUILT CONDITIONS. THE CONTRACTOR SHALL VISIT THE JOBSITE PRIOR TO BIDDING TO DETERMINE THE OVERALL SCOPE OF DEMOLITION WORK.
4. REFER TO SECTIONS OF OTHER DIVISIONS FOR APPLICABLE REQUIREMENTS AFFECTING DEMOLITION WORK.

B. GENERAL
1. DEMOLITION WORK SHALL BE LAID OUT IN ADVANCE TO ELIMINATE UNNECESSARY CUTTING, DRILLING, CHANNELING, ETC. WHERE SUCH CUTTING, DRILLING, OR CHANNELING BECOMES NECESSARY, PERFORM WITH CARE, USE SKILLED MECHANICS OF THE TRADES INVOLVED. REPAIR DAMAGE TO BUILDING AND EQUIPMENT. CUTTING WORK OF OTHER CONTRACTORS SHALL BE DONE ONLY WITH THE CONSENT OF THAT CONTRACTOR. CUTTING OF STRUCTURAL MEMBERS SHALL NOT BE PERMITTED.

C. PATCHING AND REPAIR
1. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION, PATCHING AND REPAIR OF ALL FINISHED INTERIOR SURFACES PERTAINING TO THE INSTALLATION OF THIS PARTICULAR PHASE OF WORK. ALL SURFACES SHALL BE FINISHED (PAINTED, ETC.) TO MATCH THE ADJACENT MATERIALS, FINISHES AND COLORS.
2. HARD SURFACES: WHENEVER DEMOLITION OR EXCAVATION IS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL SYSTEM, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO MAKE REPAIRS AND/OR REPLACEMENTS OF HARD FINISH SURFACES SUCH AS CONCRETE, ASPHALT, ETC.
3. THE METHOD OF PATCHING AND REPAIR SHALL FOLLOW GOOD CONSTRUCTION PRACTICES AND ALL FINISHED SURFACES SHALL MATCH MATERIALS AND FINISH WHEREIN THE DEMOLITION OCCURRED.

D. EXISTING EQUIPMENT:
1. THE NEW ELECTRICAL EQUIPMENT AND APPARATUS SHALL BE COORDINATED AND CONNECTED INTO THE EXISTING SYSTEM AS REQUIRED. AUXILIARY SYSTEMS SHALL COMPLY, UNLESS OTHERWISE SPECIFIED.
2. THE EXISTING ELECTRICAL DEVICES, CONDUIT AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION SHALL BE RELOCATED. PROVIDE CONDUIT, WIRING, JUNCTION BOXES, ETC. AS REQUIRED TO EXTEND EXISTING CIRCUITS AND SYSTEMS TO RELOCATED DEVICES OR EQUIPMENT.
3. THE NEW FIXTURES INDICATED FOR EXISTING OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE FIXTURE SPECIFICATIONS.
4. WHEN INSTALLING EQUIPMENT IN THE EXISTING BUILDING, IT SHALL BE CONCEALED.
5. EXISTING RACEWAYS SHALL BE USED WHERE POSSIBLE, EXCEPT AS NOTED. ALL CIRCUITS, CONDUIT AND WIRE THAT ARE NOT USED IN THE REMODELED AREA SHALL BE CAREFULLY REMOVED, AND TURNED OVER TO THE OWNER. THOSE FIXTURES INDICATED FOR RE-USE SHALL BE THOROUGHLY CLEANED, REPAIRED AS REQUIRED, RELAMPED AND INSTALLED AS INDICATED.
6. OBTAIN PERMISSION FROM THE ARCHITECT AND OWNER'S REPRESENTATIVE BEFORE PENETRATING ANY CEILING, FLOOR, AND WALL SURFACES.

WORK INCLUDED

A. INSTALLATION, MATERIALS, AND WORKMANSHIP
1. FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER SIMILAR APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.
2. THE ELECTRICAL CONTRACTOR, INSOFAR AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION. AND AT THE COMPLETION OF THE WORK, SHALL PROPERLY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF DUMPSTER & REFUSED DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.
3. ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF A QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.

B. COORDINATION OF PLANS AND SPECIFICATIONS
1. CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THERE IS ANY QUESTIONS REGARDING THE MEANING OR INTENT OF EITHER PLANS OR SPECIFICATIONS, OR UPON NOTICING ANY DISCREPANCIES OR OMISSIONS IN EITHER PLANS OR SPECIFICATIONS.

C. CUTTING AND PATCHING
1. ALL ELECTRICAL EQUIPMENT SHALL BE KEPT DRY AND CLEAN DURING THE CONSTRUCTION PERIOD. INTERIOR OF ALL ENCLOSURES SHALL BE CLEANED OF DIRT AND DEBRIS BEFORE INSTALLING TRIM OR COVERS.
2. ALL FINISHED SURFACES OF EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE THOROUGHLY CLEANED OF DIRT AND ALL SCRATCHED OR DAMAGED SURFACES SHALL BE TOUCHED UP WITH MATCHING MATERIALS BEFORE FINAL ACCEPTANCE OF THE WORK.
3. WHEN ALL WORK IS COMPLETED AND ALL WORK HAS BEEN SATISFACTORILY TESTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, ALL CONDUIT AND OTHER EXPOSED SURFACES SHALL BE THOROUGHLY CLEANED.

CODES AND FEES

A. CODES:
1. ALL WORK PERFORMED UNDER THIS SPECIFICATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS PREPARED AND PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND ANY APPLICABLE STATE OR LOCAL CODES.

B. FEES:
1. OBTAIN AND PAY FOR ANY AND ALL PERMITS REQUIRED BY ALL LAWS AND REGULATIONS AND PUBLIC AUTHORITY HAVING SUCH JURISDICTION.

TESTS AND INSPECTIONS

A. OBTAIN ALL INSPECTIONS REQUIRED BY ALL LAWS, ORDINANCES, RULES, REGULATIONS OR PUBLIC AUTHORITY HAVING JURISDICTION AND OBTAIN CERTIFICATES OF SUCH INSPECTIONS AND SUBMIT SAME TO THE OWNER'S REPRESENTATIVE. PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREIN. OBTAIN OCCUPANCY PERMIT AS REQUIRED BY OWNER. FINAL PAYMENT SHALL NOT BE MADE UNTIL OCCUPANCY PERMIT IS OBTAINED.
B. WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
C. THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK FOUND UNACCEPTABLE BY THE OWNER'S REPRESENTATIVE WHETHER OBSERVED BEFORE OR AFTER SUBSTANTIAL COMPLETION AND WHETHER OR NOT FABRICATED, INSTALLED OR COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTING SUCH UNACCEPTABLE WORK, INCLUDING COMPENSATION FOR THE OWNERS REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.

CONDUIT

A. FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY SYSTEM.
B. ALL WIRING SHALL BE RUN IN EMT CONDUIT OR MC CABLE WITH GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
C. ALL CONDUIT SIZES STATED HEREIN OR MARKED ON THE DRAWINGS ARE MINIMUM SIZE AND SHALL BE NO LESS THAN ½" UNLESS OTHERWISE NOTED.
D. ALL CONDUIT SHALL BE SUBSTANTIALLY SUPPORTED BY PIPE STRAPS OR SUITABLE CLAMPS OR HANGERS ATTACHED TO THE ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE RIGID INSTALLATION; IN NO CASE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER PIPE FOR REPAIRS.

WIRE AND CABLE

A. ALL CONDUCTORS SHALL BE COPPER AND OF THE AWG SIZE AND TYPE SHOWN ON THE DRAWINGS. WHERE NO SIZE OR TYPE IS SHOWN. CONDUCTORS SHALL NOT BE LESS THAN #12 TYPE XHHW, THHN, OR THWN. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED COPPER AND HAVE 600 VOLT INSULATION; BE UL LABELED AND OF AMERICAN MANUFACTURER.
B. ALL BRANCH CIRCUITS IN PATIENT CARE AREAS SHALL BE MEDICAL GRADE MC CABLE. ALL BRANCH CIRCUITS IN OFFICE AND COMMON AREAS SHALL BE TYPE NM OR MC CABLE.
C. ALL CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
D. THE FOLLOWING COLOR CODE SHALL BE USED;

	120/240 VOLT	120/208 VOLT	277/480 VOLT
PHASE A	BLACK	BLACK	BROWN
PHASE B	RED	RED	ORANGE
PHASE C		BLUE	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

E. CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE.
F. CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE ½", WRAPPED TWICE AROUND AT THE FOLLOWING POINTS:
1. AT EACH TERMINAL.
2. AT EACH CONDUIT ENTRANCE.
3. AT INTERVALS NOT MORE THAN 12 INCHES APART IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.
G. ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANEL BOARD GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH--CIRCUIT NUMBERS.
H. EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR.

BOXES AND PLATES

A. FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULL BOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND WORKMANLIKE MANNER.
B. PULL BOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND GAUGE, SIZED IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE U.L. LABELED.
C. BOXES AT EXTERIOR AREAS TO BE WATERTIGHT AND DUST-TIGHT WITH CASKETED COVERS.
D. ALL BOXES FOR EXPOSED WORK IN FINISHED SPACES SHALL BE "FS" TYPE WITH THREADED HUBS WITH RIGID CONDUIT RISER (DEEP WIRE MOLD BOXES).
E. ALL BOXES SHALL BE RIGIDLY SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED.
F. FLOOR BOXES:
1. DESCRIPTION: FLOOR BOXES COMPATIBLE WITH FLOOR BOX SERVICE FITTINGS PROVIDED IN ACCORDANCE WITH THE WIRING DEVICES SECTION OF THIS SPECIFICATION; WITH PARTITIONS TO SEPARATE MULTIPLE SERVICES; FURNISHED WITH ALL COMPONENTS, ADAPTERS, AND TRIMS REQUIRED FOR COMPLETE INSTALLATION.
2. USE CAST IRON OR NONMETALLIC FLOOR BOXES WITHIN SLAB ON GRADE.
3. USE SHEET-STEEL, CAST IRON, OR NONMETALLIC FLOOR BOXES WITHIN SLAB ABOVE GRADE.
4. METALLIC FLOOR BOXES: FULLY ADJUSTABLE (WITH INTEGRAL MEANS FOR LEVELING ADJUSTMENT PRIOR TO AND AFTER CONCRETE POUR).
5. MANUFACTURER: SAME AS MANUFACTURER OF FLOOR BOX SERVICE FITTINGS.

G. UNDERGROUND BOXES/ENCLOSURES:
1. DESCRIPTION: IN-GROUND, OPEN BOTTOM BOXES FURNISHED WITH FLUSH, NON-SKID COVERS WITH LEGEND INDICATING TYPE OF SERVICE AND STAINLESS STEEL TAMPER RESISTANT COVER BOLTS.
2. SIZE: AS INDICATED ON DRAWINGS.
3. DEPTH: AS REQUIRED TO EXTEND BELOW FROST LINE TO PREVENT FROST UPHEAVAL, BUT NOT LESS THAN 12 INCHES.
4. APPLICATIONS:
a. SIDEWALKS AND LANDSCAPED AREAS SUBJECT ONLY TO OCCASIONAL NONDELIBERATE VEHICULAR TRAFFIC: USE POLYMER CONCRETE OR COMPOSITE ENCLOSURE WITH MINIMUM SCTE 77, TIER 8 LOAD RATING.
b. PARKING LOTS, IN AREAS SUBJECT ONLY TO OCCASIONAL NONDELIBERATE VEHICULAR TRAFFIC; USE POLYMER CONCRETE OR COMPOSITE ENCLOSURE WITH MINIMUM SCTE 77, TIER 15 LOAD RATING.
c. DO NOT USE POLYMER CONCRETE ENCLOSURES IN AREAS SUBJECT TO DELIBERATE VEHICULAR TRAFFIC.

H. COMPOSITE UNDERGROUND BOXES/ENCLOSURES: COMPLY WITH SCTE 77.

WIRING DEVICES

A. WIRING DEVICES SHALL BE SIMILAR TO THOSE LISTED BELOW AND OF SPECIFIED AMPERAGE. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
B. DUPLEX GROUNDING TYPE RECEPTACLE - 20 AMP, 125 VOLT
1. HUBBELL 5352
2. ARROW HART 5352
C. SINGLE POLE SWITCHES - 20 AMP, 120 VOLT
D. WEATHERPROOF RECEPTACLES - 20 AMP, 125 VOLT - NEMA 5-20R
1. HUBBELL 5352 WITH 5205 COVER INTERMATIC GUARDIAN
2. I SERIES, NEMA 3R COVER
3. ARROW HART 5352 WITH 4500 COVER
E. G.F.C.I. RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20 R
1. HUBBELL GF 5262 WITH MATCHING NYLON COVER PLATE OR WO-26 W.P. COVER
F. GROUND ALL RECEPTACLES IN ACCORDANCE WITH ARTICLE 250.146 OF NEC AND AS INDICATED IN THE GROUNDING SECTION OF THIS SPECIFICATION.

IDENTIFICATION

A. EACH PIECE OF SERVICE EQUIPMENT AND INDIVIDUAL SWITCHES, ALL DISCONNECTS, STARTERS, ALL EXHAUST FAN MANUAL STARTING SWITCHES.
B. IDENTIFICATION SHALL BE IN THE FORM OF LAMINATED PLASTIC NAMEPLATES, BLACK RACE, WITH THE LETTERS ENGRAVED INTO THE WHITE BACKGROUND, MINIMUM ¼" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEET METAL SCREW ATTACHMENT. NO "DYMO" OR SIMILAR TYPE LABELS WILL BE ALLOWED.
C. PANEL BOARD DIRECTORY: A TYPED CIRCUIT DIRECTORY SHALL BE PROVIDED INDICATING LOCAL AREA SERVED AND LOCATION FOR EACH BRANCH CIRCUIT.

GROUNDING

A. ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250-122, EXCEPT NOT BE SMALLER THAN #12 FOR POWER AND LIGHTING CIRCUITS AND #14 FOR CONTROL CIRCUITS. ALL GROUND CONDUCTORS SHALL BE GREEN, OR AS SPECIFIED UNDER THE WIRE AND CABLE SECTION OF THIS SPECIFICATION.
B. ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
C. CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40 PVC NON- METALLIC ELECTRICAL CONDUIT WITH U.L. LABEL SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENCIRCLED BY METALLIC HANGERS OR SUPPORTS.
D. THE GROUND CONDUCTOR SHALL BE CONNECTED TO THE NEUTRAL IN ONLY TWO LOCATIONS -ON THE SUPPLY SIDE OF THE SERVICE DISCONNECT MEANS PER NEC--250--24 AND ON SEPARATELY DERIVED SYSTEMS PER NEC 250-30.
E. AT EACH RECEPTACLE BOX, THE GROUND CONDUCTOR SHALL ENTER AND CONNECT, WITH NORMAL WIRING CONNECTOR, TO: 1) THE GROUND PIGTAIL TO RECEPTACLE: 2) THE GROUND PIGTAIL TO THE BOX GROUND SCREW; AND 3) THE OUTGOING GROUND CONDUCTOR TO NEXT DEVICE, IF NOT AT END OF RUN. METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE. MOUNTED BOXES OR FLUSH TYPE BOXES.
F. CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS SHALL BE REQUIRED.

INTERRUPTION OF SERVICE AND OWNER'S OPERATION

A. THE ELECTRICAL CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT THESE ALTERATIONS AND ADDITIONS SHALL CAUSE A MINIMUM OF INTERFERENCE AND DISTURBANCE TO THE OWNER. ARRANGEMENTS SHALL BE MADE WITH THE OWNER AND ENGINEER BEFORE INTERRUPTING SERVICE IN ANY AREA. A WRITTEN DETAILED METHOD OF INTERRUPTION PROCEDURE INDICATING ELAPSED TIME REQUIRED AND TIME OF INTERRUPTION SHALL BE PREPARED BY THE ELECTRICAL CONTRACTOR AND SUBMITTED TO THE OWNER FOR APPROVAL.
B. ALL INTERRUPTIONS OF SERVICE SHALL BE MADE WHEN THE LOAD IS AT A MINIMUM AND SHALL BE SCHEDULED AT THE OWNER'S CONVENIENCE. (SERVICE INTERRUPTIONS WILL BE SCHEDULED FOR OTHER THAN NORMAL DAYTIME WORKING HOURS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE NECESSARY COST FOR OVERTIME LABOR IN ALL BIDS.)
C. AT NO TIME SHALL THE ELECTRICAL CONTRACTOR OR HIS EMPLOYEES NORMALLY WORKING ON THE PROJECT LEAVE THE FACILITY DURING A TIME WHEN ANY NORMALLY LIVE CIRCUITS OR FEEDERS ARE DISCONNECTED, WITHOUT PERMISSION OF THE ENGINEER.
D. ALL MATERIALS, CONNECTIONS AND EQUIPMENT FOR TEMPORARY CONTROL OR POWER WIRING TO MAINTAIN CONTINUITY OF SERVICE DURING CONSTRUCTION SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

LIGHTING FIXTURES

A. CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AS INDICATED IN FIXTURE SCHEDULE SHOWN ON DRAWINGS, AND SPECIFIED HEREIN.
B. NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE D TYPE PK, FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
C. ALL LIGHTING FIXTURES INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE FURNISHED COMPLETE WITH AS INDICATED ON THE FIXTURE SCHEDULE.
D. ANY LIGHTING FIXTURES SCRATCHED, BENT, CRACKED OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT THIS CONTRACTOR'S EXPENSE.
E. ALL LIGHTING FIXTURES SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
F. ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT). BY USE OF PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.

REVISION	BY

REMODEL / ADDITION TO PETEETNEET
MUESUM & CULTURAL ARTS CENTER
10 NORTH 600 EAST
PAYSON, UTAH

150 ARCHITECTURE INC.
ARCHITECT • PLANNER • (801) 374-2000
150 SOUTH MAIN • SALEM • UTAH

ROYAL ENGINEERING
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676

DRAWN	EWB
CHECKED	MRB
DATE	12/7/2021 4:16:48 PM
SCALE	AS SHOWN
JOB NO	J20365.00
SHEET	E701