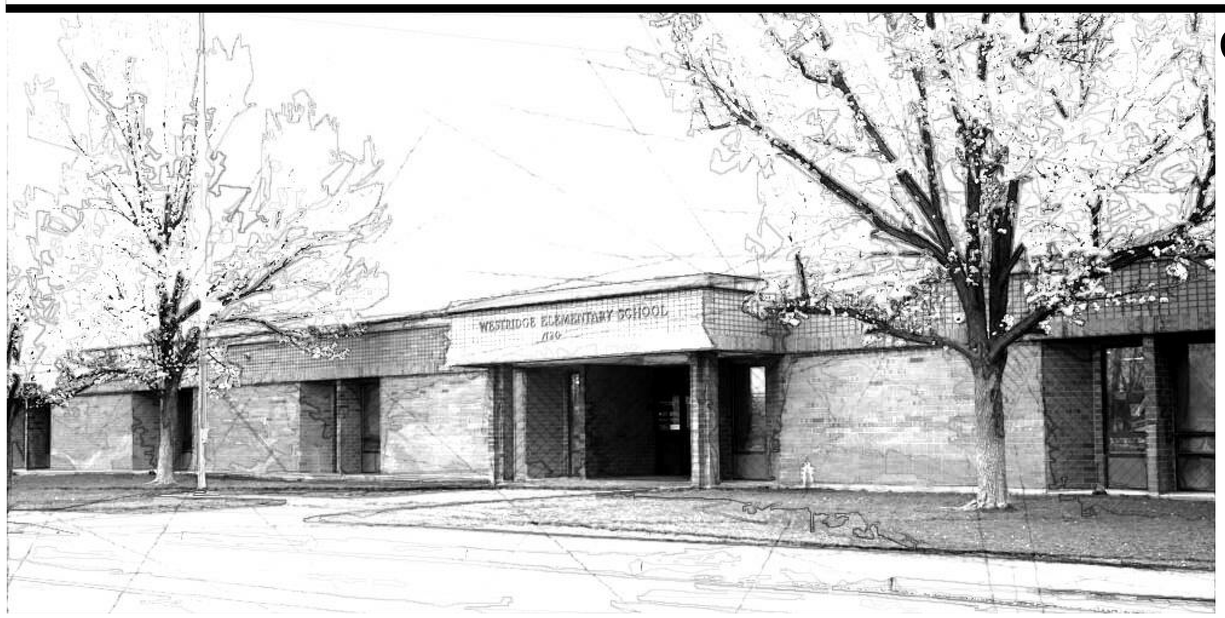
Westridge Elementary Toilet Room Upgrades



Construction Documents
January 11, 2021

DRAWING INDEX

SHEET NO.	SHEET NAME
G000	COVER SHEET
G001	BUILDING CODE REQUIREMENTS
A101	OVERALL FLOOR PLAN
A111	OVERALL REFLECTED CEILING PLAN
A401	ENLARGED RESTROOM PLANS
A402	ENLARGED RESTROOM PLANS
A403	ENLARGED CEILING PLANS
A404	ENLARGED CEILING PLANS
A501	FLOOR & CEILING DETAILS
A502	WALL & DOOR DETAILS
A601	SCHEDULES & PARTITION TYPES
A701	INTERIOR ELEVATIONS
A702	INTERIOR ELEVATIONS
M001	MECHANICAL COVER SHEET
M101	LEVEL 1 MECHANICAL PLAN- OVERALL
M102	MECHANICAL ROOF PLAN
M401	ENLARGED MECHANICAL PLANS
M402	ENLARGED MECHANICAL PLAN
M403	ENLARGED MECHANICAL PLANS
M601	MECHANICAL SCHEDULES AND DETAILS
P001	PLUMBING COVER SHEET
P101	LEVEL 1 PLUMBING PLAN - OVERALL
P401	ENLARGED PLUMBING PLANS
P402	ENLARGED PLUMBING PLANS
P403	ENLARGED PLUMBING PLANS
P601	PLUMBING SCHEDULES AND DETAILS
ED101	ELECTRICAL DEMOLITION FLOOR PLANS
ED102	ELECTRICAL DEMOLITION REFLECTED CEILING PLANS
EE001	SHEET INDEX, ABBREVIATIONS , GENERAL NOTES, AND SYMBOLS
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING HEIGHT DETAILS
EL101	ENLARGED LIGHTING PLANS
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE
EP100	ELECTRICAL OVERALL PLAN
EP101	ENLARGED POWER PLANS
FA101	LEVEL 1 FIRE ALARM PLAN
FA601	FIRE ALARM DETAILS

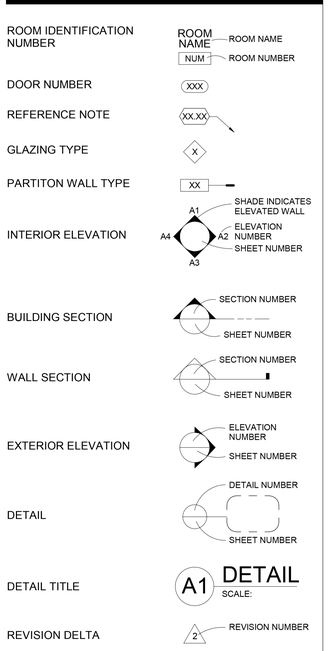
ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
CMU	CONCRETE MASONRY UNIT
EIFS	EXTERIOR INSULATED FINISH
EQ	EQUAL
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
O.C.	ON CENTER
SPEC	SPECIFICATION
SIM	SIMILAR
TYP	TYPICAL
T.O.	TOP OF
B.O.	BOTTOM OF

MATERIAL LEGEND

- GYPSUM BOARD OR CONCRETE SURFACE
- CONCRETE
- STUD WALL
- GRAVEL
- COMPACTED FILL AND/OR EARTH
- CMU (CONCRETE MASONRY UNIT)
- BATT INSULATION
- RIGID INSULATION

SYMBOLS LEGEND



VICINITY MAP

PROJECT TEAM

PROJECT ARCHITECT
FFKR ARCHITECTS
730 PACIFIC AVENUE
SALT LAKE CITY, UTAH 84104

STATE OF UTAH
GRETA S. ANDERSON
5542086-0301
LICENSED ARCHITECT

MECHANICAL ENGINEER
SPECTRUM ENGINEERS
324 S STATE STREET, SUITE 400
SALT LAKE CITY, UTAH 84111

Michael Nielsen
01.11.2021

PLUMBING ENGINEER
SPECTRUM ENGINEERS
324 S STATE STREET, SUITE 400
SALT LAKE CITY, UTAH 84111

Michael Nielsen
01.11.2021

ELECTRICAL ENGINEER
SPECTRUM ENGINEERS
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LICENSED PROFESSIONAL ENGINEER
No. 7258090
SPENCER C. LITTLE
01-11-2020
STATE OF UTAH

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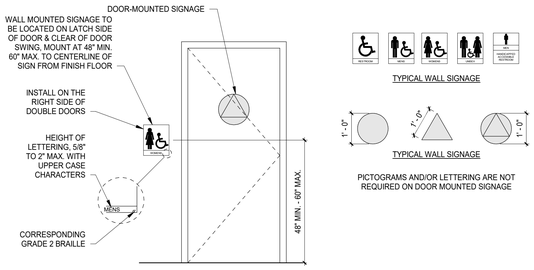
Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N, Provo, UT 84604

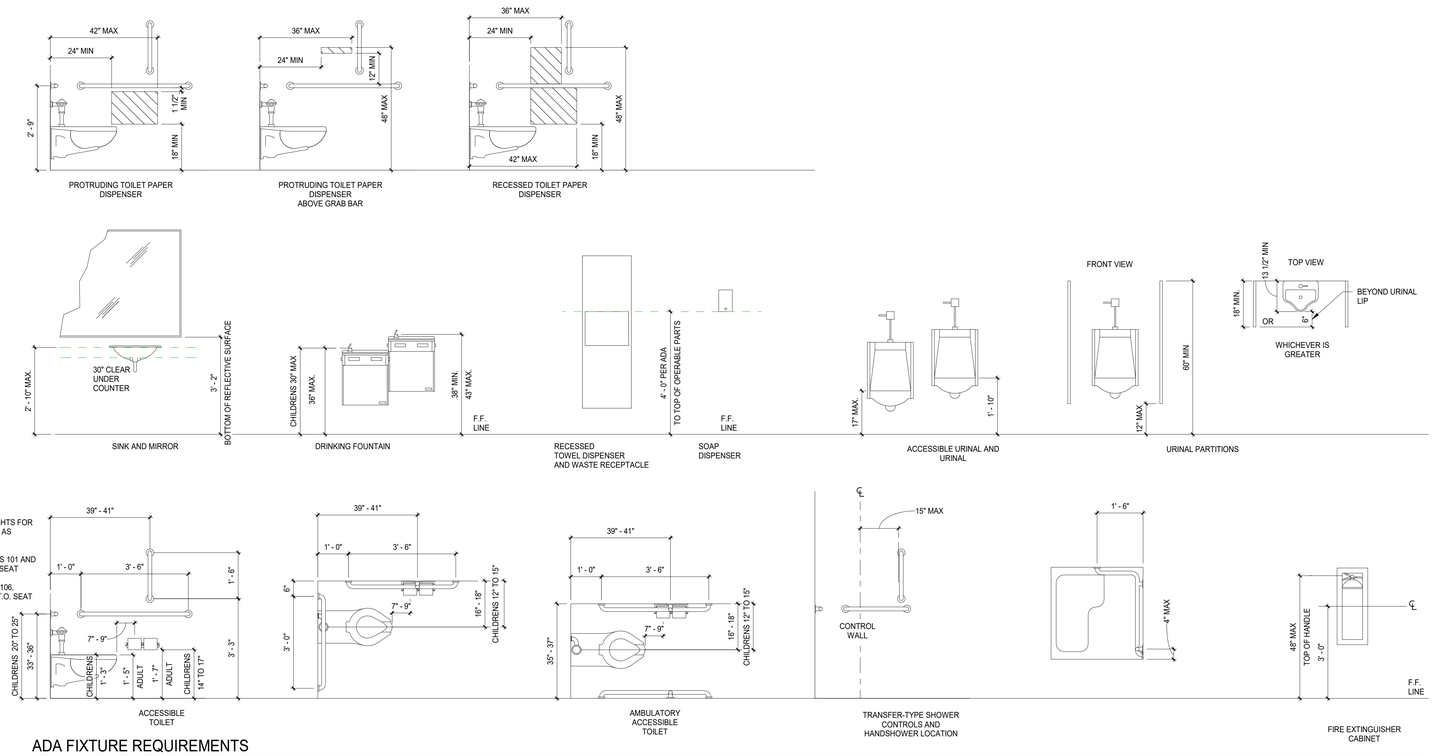
PROJECT NUMBER:
20093

REFERENCE NOTES



RESTROOM SIGNAGE

SCALE: 1/2" = 1'-0"



ADA FIXTURE REQUIREMENTS

SCALE: 1/2" = 1'-0"

APPLICABLE CODES	
CODE	YEAR
INTERNATIONAL BUILDING CODE	2018
INTERNATIONAL MECHANICAL CODE	2018
INTERNATIONAL PLUMBING CODE	2018
INTERNATIONAL FIRE CODE	2018
INTERNATIONAL ENERGY CONSERVATION CODE	2018
INTERNATIONAL EXISTING BUILDING CODE	2018
NFPA 70 - NATIONAL ELECTRICAL CODE	2017
ADA STANDARDS (ADAAG)	2010
ICC / ANIS A117.1	2017

BUILDING OCCUPANCY & CONSTRUCTION TYPE					
Occupancy of Building	Single		Separated Occupancy	No	Table 508.4
Most Restrictive Occ			Construction Type		Chapter 6
Occupant Load Calculations					
Occupancy			Load Factor		# of Occupants
Business - B			150 gross		24
Education - E*			20 net		1465
Storage - S			300 gross		5
Total Occupant Load					1494

*Rooms or areas used for assembly and associated with and E occupancy are not considedered a separate occupancy.

PLUMBING FIXTURE CALCULATIONS (Section 29						
Total Women Fixtures	Occupants	747			Table 2902.1	
Water Closets	Required	15	Provided	15	1:	50
Lavatories	Required	15	Provided	12	1:	50
Total Mens Fixtures	Occupants	747			Table 2902.1	
Water Closets	Required	15	Provided	20	1:	50
Lavatories	Required	15	Provided	11	1:	50

IEBC 809.1 only requires compliance with plumbing fixture counts when increasing occupancy load by 20%.

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PROJECT NUMBER 20093

BUILDING CODE REQUIREMENTS

G001

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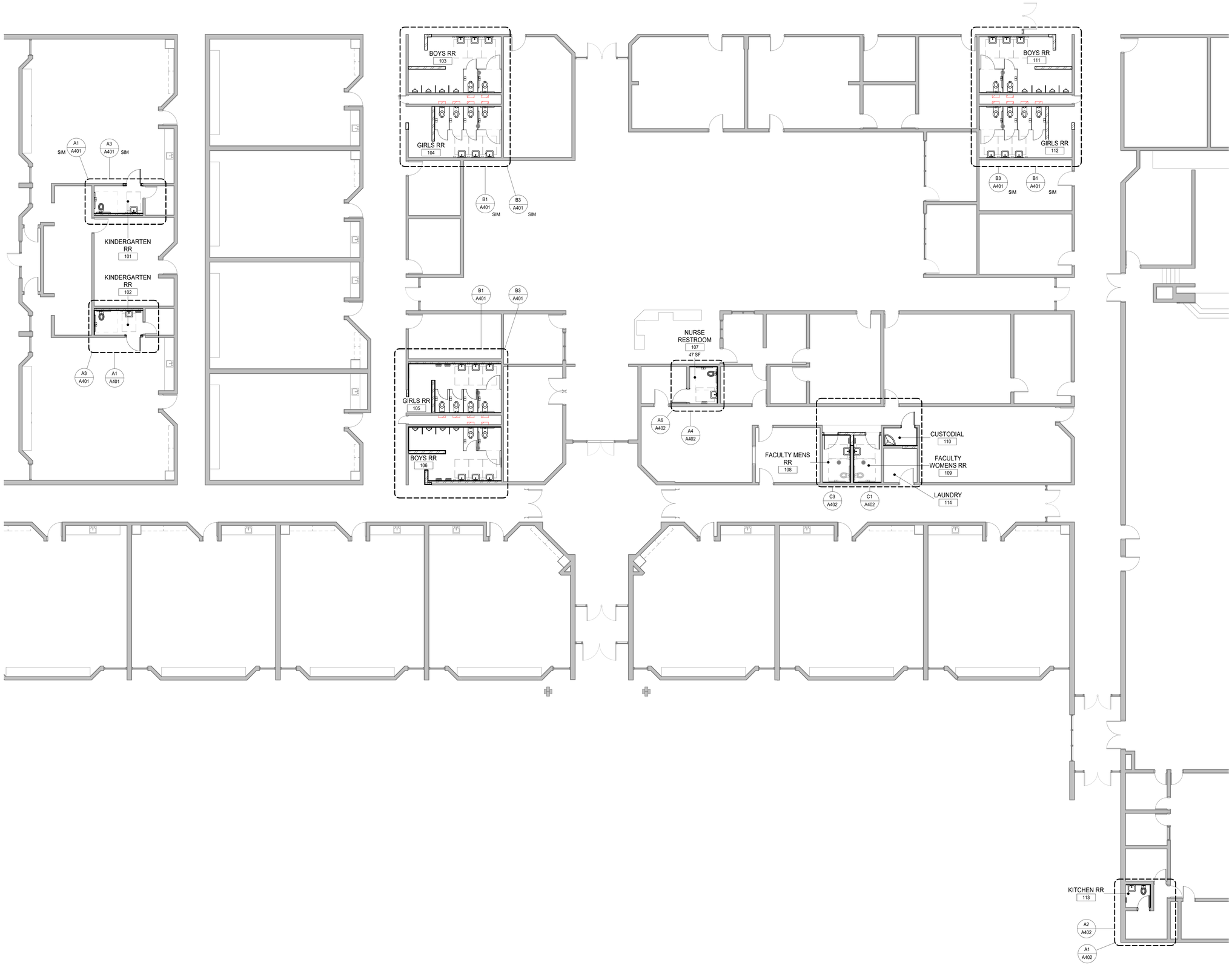
REFERENCE NOTES



GENERAL NOTES:

1. REFER TO ENLARGED PLAN SHEETS FOR DEMO PLANS.

A1 LEVEL 1 FLOOR PLAN

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

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OVERALL FLOOR PLAN

A101

REFERENCE NOTES

GENERAL NOTES:

1. REFER TO ENLARGED REFLECTED CEILING PLAN SHEETS FOR DEMO PLANS.

A1 MAIN FLOOR REFLECTED CEILING PLAN

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

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OVERALL REFLECTED CEILING PLAN

A111

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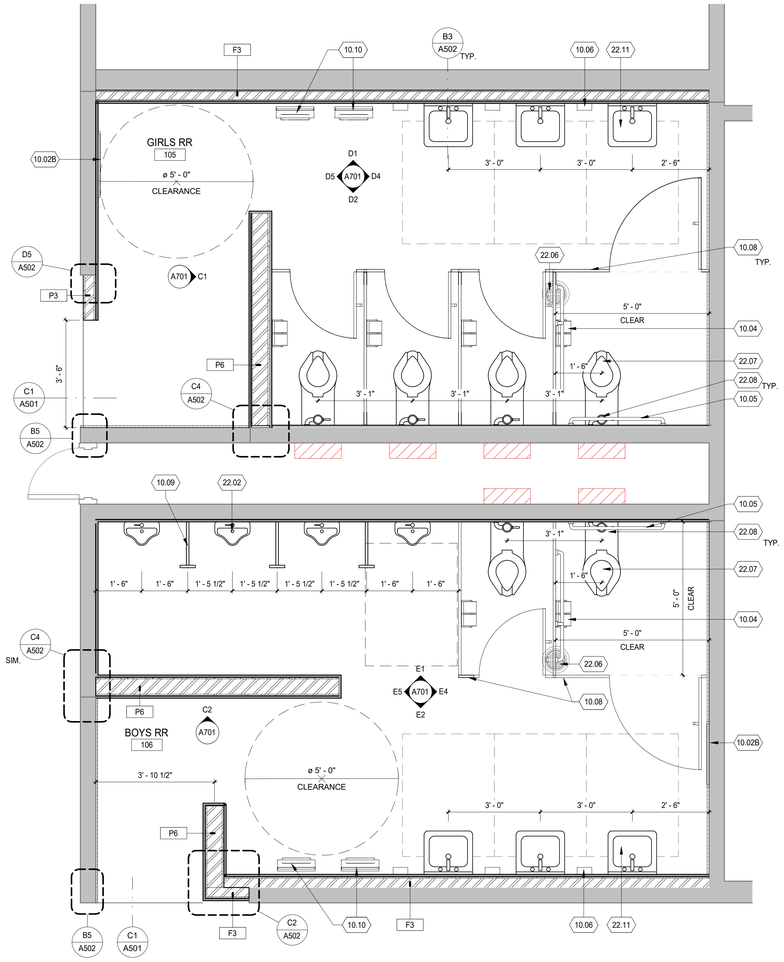
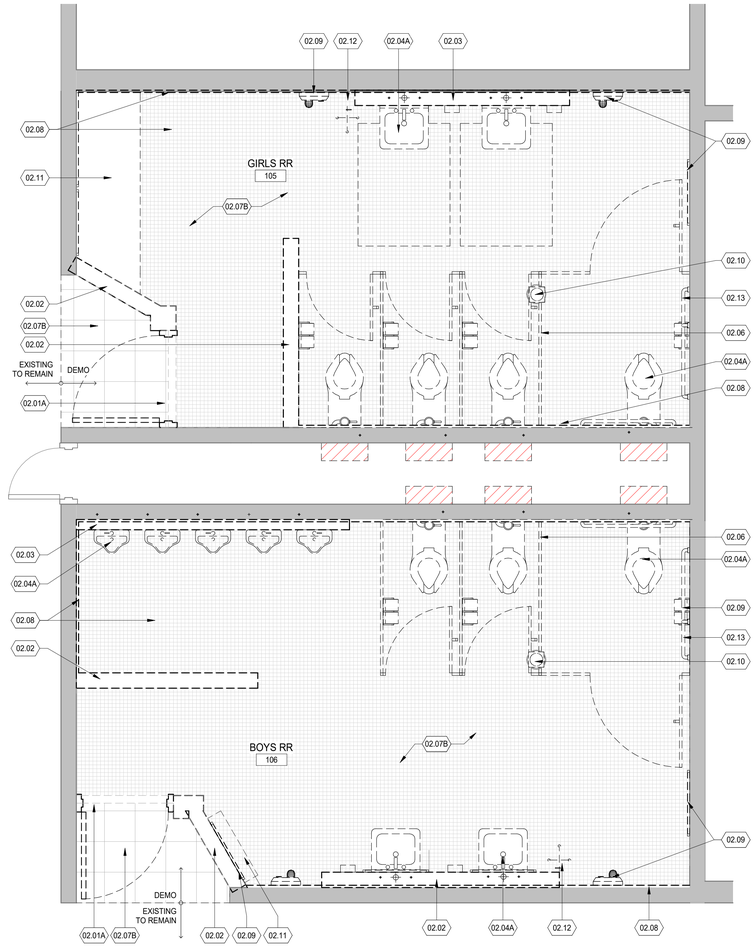


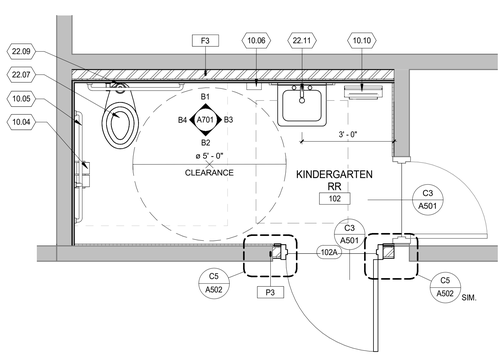
B1 STUDENT RESTROOM FLOOR PLAN

SCALE: 1/2" = 1'-0"



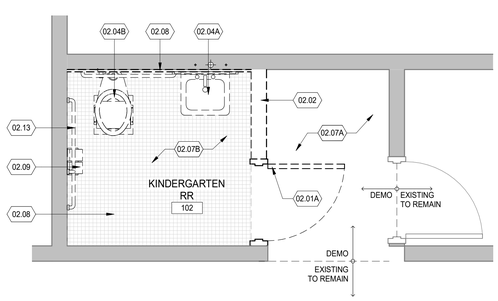
B3 STUDENT RESTROOM FLOOR PLAN - DEMO

SCALE: 1/2" = 1'-0"



A1 KINDERGARTEN RESTROOM

SCALE: 1/2" = 1'-0"



A3 KINDERGARTEN RESTROOM - DEMO

SCALE: 1/2" = 1'-0"

REFERENCE NOTES

02.01A	EXISTING DOOR AND FRAME TO BE REMOVED. SALVAGE DOORS AND RETURN TO OWNER.
02.02	EXISTING WALL TO BE REMOVED
02.03	EXISTING PARTIAL WALL TO BE REMOVED
02.04A	EXISTING PLUMBING FIXTURES TO BE REMOVED
02.04B	EXISTING FIXTURE TO BE REMOVED FOR DEMOLITION AND REUSED
02.06	EXISTING TOILET PARTITIONS TO BE REMOVED
02.07A	EXISTING FLOOR FINISH TO BE REMOVED. PATCH AND REPAIR EXISTING CONCRETE SLAB AS REQUIRED TO ACCEPT NEW FLOOR FINISH
02.07B	EXISTING FLOOR FINISH AND CONCRETE SLAB TO BE DEMOLISHED
02.08	EXISTING TILE AND SUBSTRATE TO BE REMOVED
02.09	EXISTING RESTROOM ACCESSORIES TO BE REMOVED
02.10	EXISTING FLOOR DRAIN TO BE REMOVED
02.11	EXISTING CASEWORK TO BE REMOVED
02.12	EXISTING HOSE BIB TO BE REMOVED
02.13	EXISTING GRAB BARS TO BE REMOVED
10.02B	MIRROR, 24" W X 48" H
10.04	TOILET PAPER DISPENSER, OFCI REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.05	GRAB BARS, REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.06	SOAP DISPENSER, OFCI
10.08	FLOOR MOUNTED CEILING BRACED TOILET PARTITION
10.09	FLOOR MOUNTED CEILING BRACED URINAL PARTITION
10.10	PAPER TOWEL DISPENSER, OFCI
22.02	URINAL, SEE: PLUMBING
22.06	FLOOR DRAIN, SEE: PLUMBING
22.07	TOILET, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS
22.08	AUTOMATIC FLUSH CONTROL, REFER TO PLUMBING
22.09	CAST IRON MOP SINK, REFER TO PLUMBING
22.11	SINK, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS

GENERAL DEMOLITION NOTES

A. PROVIDE DEMOLITION WORK SHOWN ON THE DRAWINGS AND RELATED AND INCIDENTAL DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE AND REQUIREMENTS.

B. REMOVE ENTIRE WALL ASSEMBLY INDICATED TO BE DEMOLISHED INCLUDING CONCEALED ELEMENTS WITHIN PARTITIONS AND ABOVE CEILING CONSTRUCTION U.N.O.

C. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF DEMOLITION OPERATIONS. BRING ANY DISCREPANCIES WHICH MAY SIGNIFICANTLY AFFECT DEMOLITION OR NEW CONSTRUCTION WORK TO THE ATTENTION OF THE ARCHITECT/OWNER.

D. PROTECT EXISTING CONSTRUCTION TO REMAIN FROM DAMAGE DURING DEMOLITION AND/OR NEW CONSTRUCTION. CONDUCT DEMOLITION OPERATIONS SO AS TO MINIMIZE THE DEVELOPMENT AND SPREAD OF DUST.

E. DO NO ALTER STRUCTURAL INTEGRITY OF THE EXISTING BUILDING OR ITS ASSEMBLIES UNLESS SPECIFICALLY NOTED OTHERWISE.

F. PATCH AND REPAIR DAMAGE ARISING FROM DEMOLITION OPERATIONS TO FLOOR, WALL, AND CEILING SURFACES, CAUSED BY PARTITION REMOVAL. REMOVE ANY EXTRANEOUS MATERIAL AND PATCH TO MATCH ADJACENT SURFACES.

G. COORDINATE TIMING AND HOURS OF DEMOLITION WITH OWNER.

H. MINIMIZE NOISE FROM DEMOLITION OPERATIONS WHEN CONDUCTED DURING REGULAR BUSINESS HOURS.

I. IN WALLS TO BE REFINISHED; REMOVE EXISTING MISCELLANEOUS ACCESSORIES TO FACILITATE INSTALLATION OF NEW FINISHES. PATCH, REPAIR, AND PREP WALLS TO RECEIVE NEW FINISHES. ITEMS THAT ARE REMOVED ARE TO BE SALVAGED TO THE OWNER.

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STATE OF UTAH
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LICENSED ARCHITECT

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ENLARGED RESTROOM PLANS

A401

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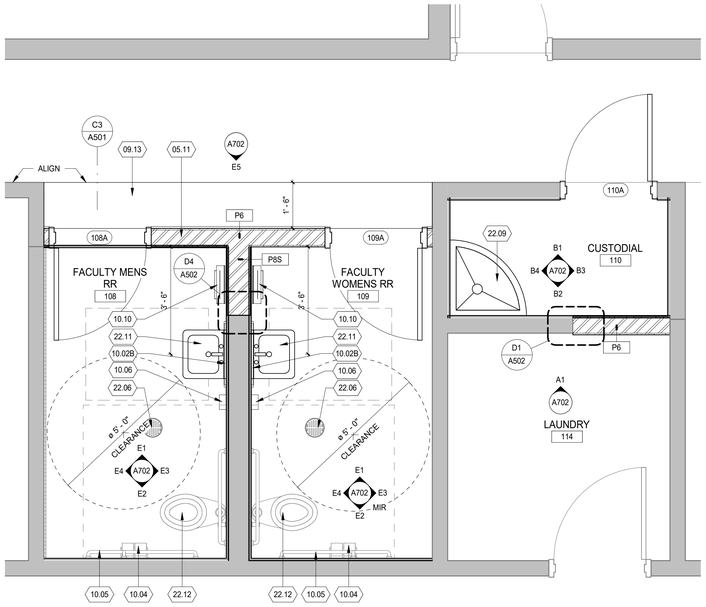
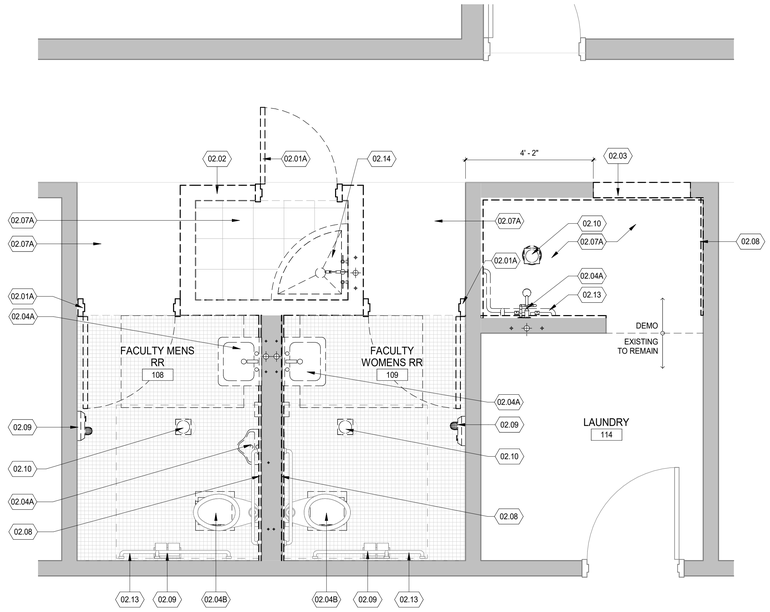


C1 FACULTY RESTROOM

SCALE: 1/2" = 1'-0"



C3 FACULTY RESTROOM - DEMO

SCALE: 1/2" = 1'-0"

REFERENCE NOTES

02.01A	EXISTING DOOR AND FRAME TO BE REMOVED. SALVAGE DOORS AND RETURN TO OWNER.
02.01B	EXISTING DOOR TO BE REMOVED AND FRAME TO REMAIN
02.02	EXISTING WALL TO BE REMOVED
02.03	EXISTING PARTIAL WALL TO BE REMOVED
02.04A	EXISTING PLUMBING FIXTURES TO BE REMOVED
02.04B	EXISTING FIXTURE TO BE REMOVED FOR DEMOLITION AND REUSED
02.07A	EXISTING FLOOR FINISH TO BE REMOVED. PATCH AND REPAIR EXISTING CONCRETE SLAB AS REQUIRED TO ACCEPT NEW FLOOR FINISH
02.07B	EXISTING FLOOR FINISH AND CONCRETE SLAB TO BE DEMOLISHED
02.07C	EXISTING FLOOR TO REMAIN
02.08	EXISTING TILE AND SUBSTRATE TO BE REMOVED
02.09	EXISTING RESTROOM ACCESSORIES TO BE REMOVED
02.10	EXISTING FLOOR DRAIN TO BE REMOVED
02.13	EXISTING GRAB BARS TO BE REMOVED
02.14	EXISTING MOP SINK AND PLUMBING TO BE REMOVED
05.11	STEEL STUD WALL TO DECK
08.04	EXISTING DOOR FRAME TO BE REUSED
09.13	NEW FLOOR FINISH TO MATCH EXISTING
10.02	
10.02B	MIRROR, 24" W X 48" H
10.03	SOAP DISPENSER, OFCI REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.04	TOILET PAPER DISPENSER, OFCI REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.05	GRAB BARS, REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.06	SOAP DISPENSER, OFCI
10.10	PAPER TOWEL DISPENSER, OFCI
10.12	TURNING CLEARANCE PER 2017 ICC A117.1 SECTION 304
22.06	FLOOR DRAIN, SEE: PLUMBING
22.07	TOILET, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS
22.08	AUTOMATIC FLUSH CONTROL, REFER TO PLUMBING
22.09	CAST IRON MOP SINK, REFER TO PLUMBING
22.11	SINK, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS
22.12	EXISTING FIXTURE TO BE REUSED

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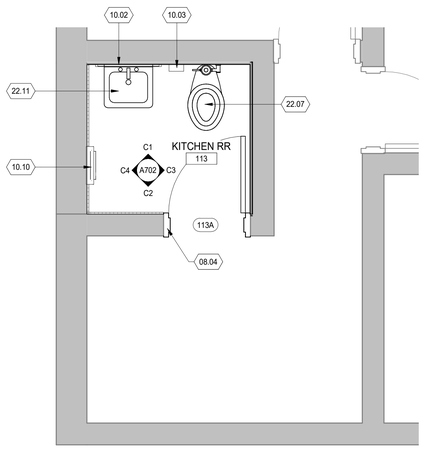
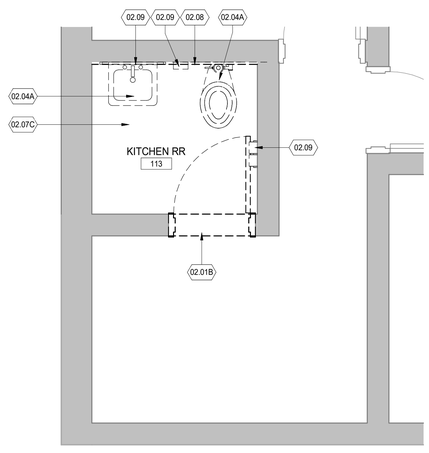


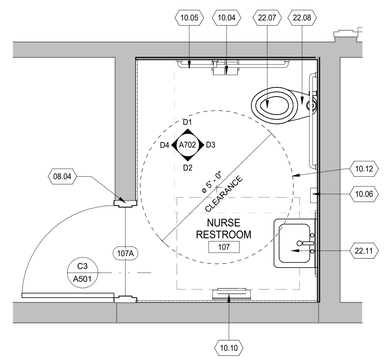
A1 KITCHEN RESTROOM

SCALE: 1/2" = 1'-0"



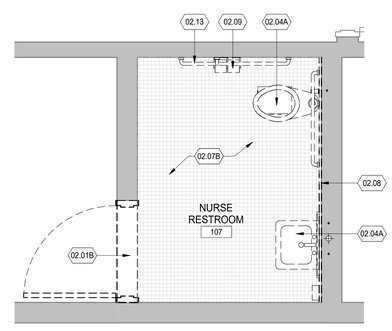
A2 KITCHEN RESTROOM - DEMO

SCALE: 1/2" = 1'-0"



A4 NURSE RESTROOM

SCALE: 1/2" = 1'-0"



A6 NURSE RESTROOM DEMO

SCALE: 1/2" = 1'-0"

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5542086-0301
LICENSED ARCHITECT

△	DATE	REVISION

PROJECT NUMBER 20093

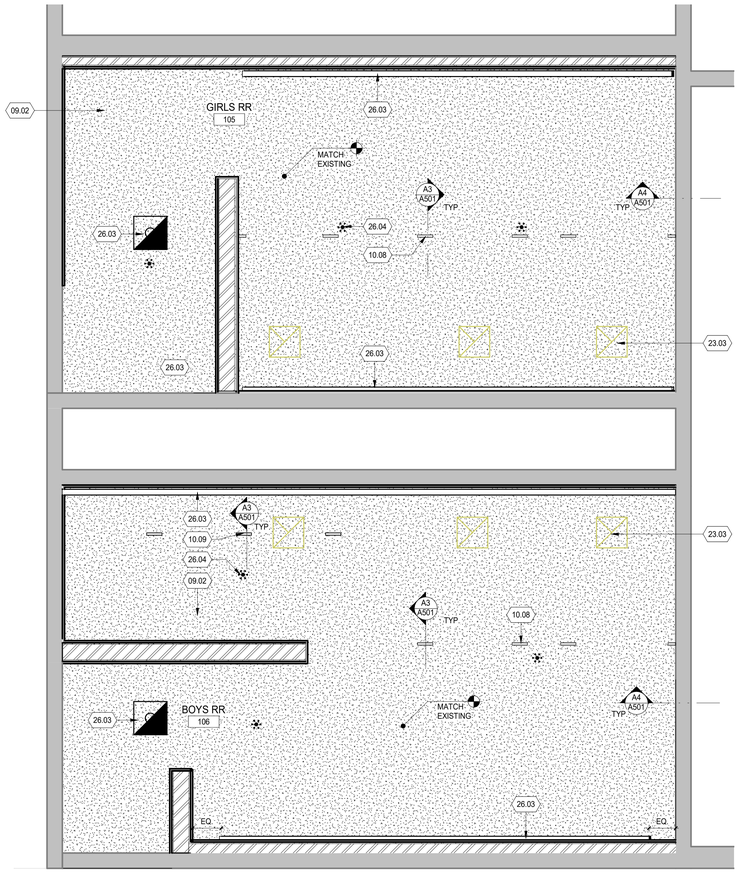
ENLARGED RESTROOM PLANS

A402

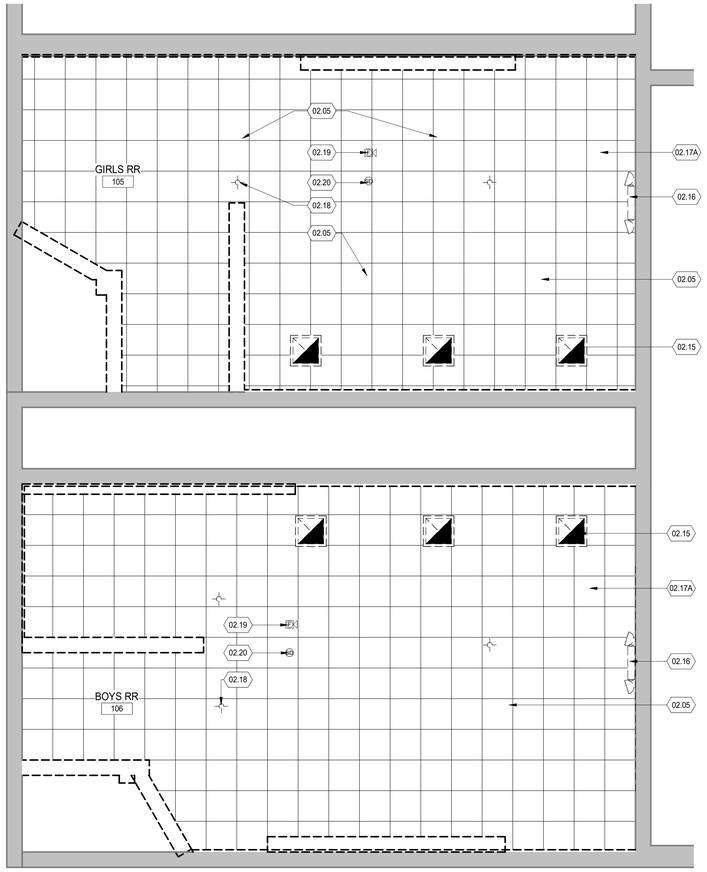
1/11/2021 4:08:48 PM

REFERENCE NOTES

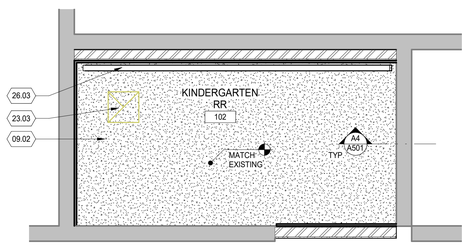
02.05	EXISTING ELECTRICAL FIXTURES TO BE REMOVED
02.15	EXISTING MECHANICAL UNITS TO BE REMOVED
02.16	EXISTING EMERGENCY LIGHTING TO BE REMOVED
02.17A	EXISTING CEILING TO BE REMOVED
02.18	EXISTING FIRE SPRINKLER
02.19	EXISTING FIRE ALARM
02.20	EXISTING SMOKE ALARM
09.02	GYPSUM BOARD CEILING, PAINTED
10.08	FLOOR MOUNTED CEILING BRACED TOILET PARTITION
10.09	FLOOR MOUNTED CEILING BRACED URINAL PARTITION
23.03	MECHANICAL EXHAUST, REFER TO MECHANICAL DRAWINGS
26.03	LIGHT FIXTURE, SEE: ELECTRICAL
26.04	OCCUPANCY SENSOR; SEE: ELECTRICAL



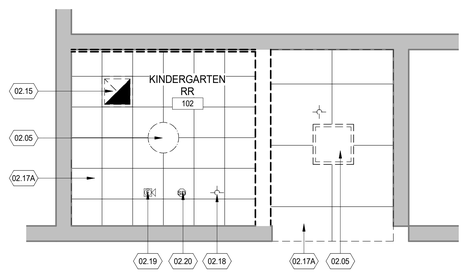
B1 STUDENT RESTROOM
SCALE: 1/2" = 1'-0"



B3 STUDENT RESTROOMS - DEMO
SCALE: 1/2" = 1'-0"



A1 KINDERGARTEN RR
SCALE: 1/2" = 1'-0"



A3 KINDERGARTEN RR - DEMO
SCALE: 1/2" = 1'-0"

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Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N, Provo, UT 84604
Construction Documents - January 11, 2021

STATE OF UTAH
GRETA S. ANDERSON
5542086-0301
LICENSED ARCHITECT

△	DATE	REVISION

PROJECT NUMBER 20093

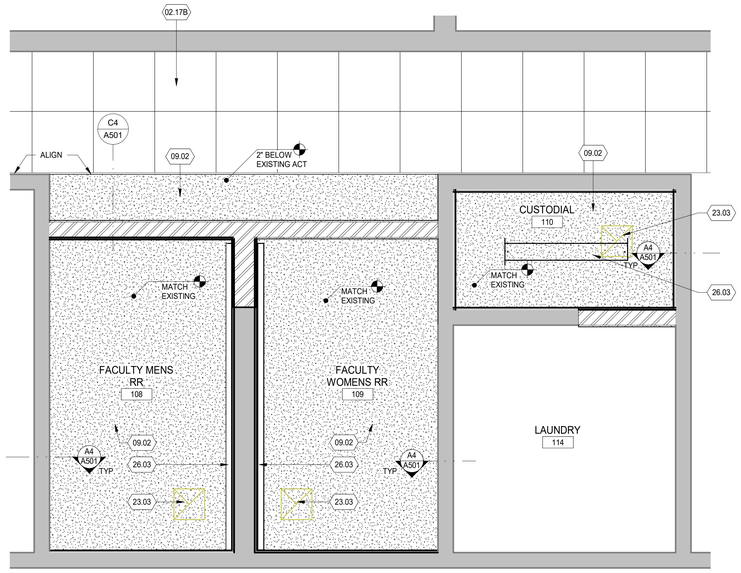
ENLARGED CEILING PLANS

A403

1/11/2021 4:08:49 PM

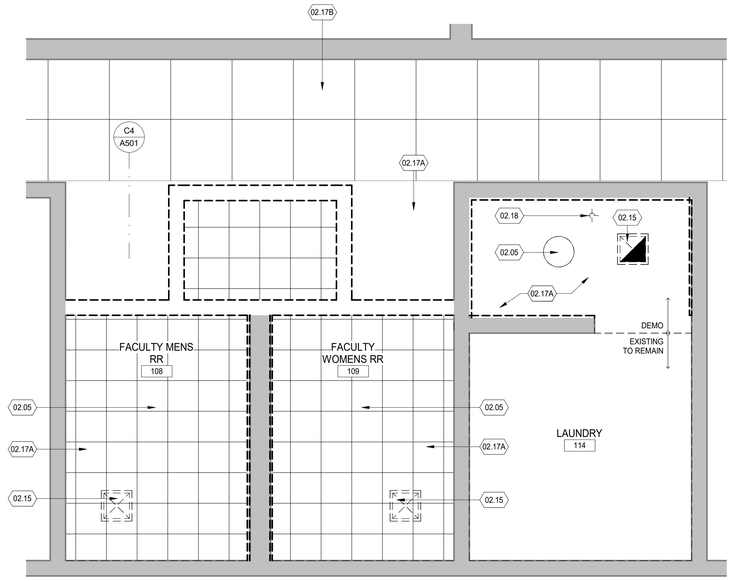
REFERENCE NOTES

02.05	EXISTING ELECTRICAL FIXTURES TO BE REMOVED
02.15	EXISTING MECHANICAL UNITS TO BE REMOVED
02.17A	EXISTING CEILING TO BE REMOVED
02.17B	EXISTING CEILING TO REMAIN
02.18	EXISTING FIRE SPRINKLER
09.02	GYPSUM BOARD CEILING, PAINTED
23.03	MECHANICAL EXHAUST, REFER TO MECHANICAL DRAWINGS
26.03	LIGHT FIXTURE, SEE: ELECTRICAL



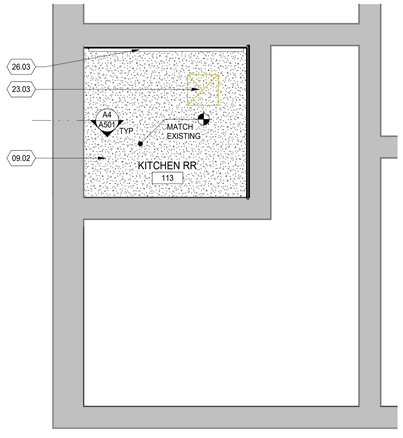
C1 FACULTY RESTROOM

SCALE: 1/2" = 1'-0"



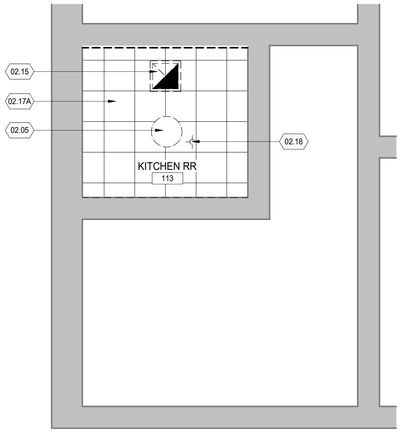
C3 FACULTY RESTROOM - DEMO

SCALE: 1/2" = 1'-0"



A1 KITCHEN RESTROOM

SCALE: 1/2" = 1'-0"



A2 KITCHEN RESTROOM - DEMO

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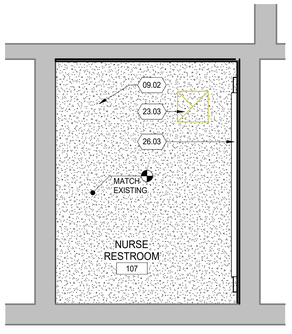
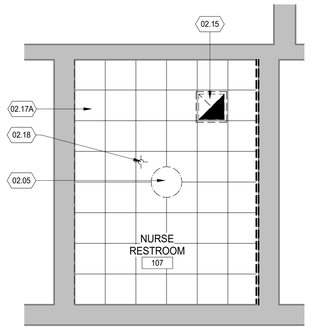


A4 NURSE RESTROOM

SCALE: 1/2" = 1'-0"



A5 NURSE RESTROOM - DEMO

SCALE: 1/2" = 1'-0"

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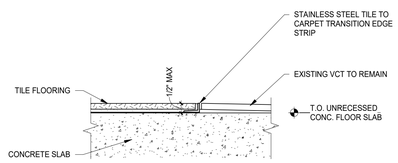
ENLARGED CEILING PLANS

A404

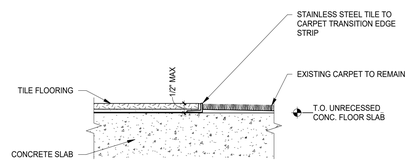
1/11/2021 4:08:50 PM

REFERENCE NOTES



C1 TILE/VCT DETAIL

SCALE: 3" = 1'-0"



C3 TILE/CARPET DETAIL

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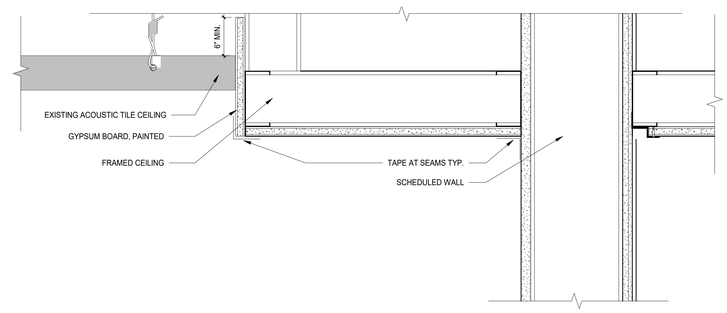
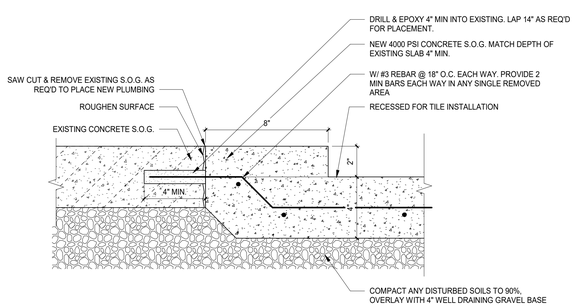


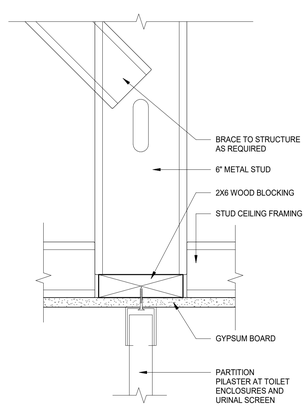
C4 GYPSUM TO ACT CEILING

SCALE: 3" = 1'-0"



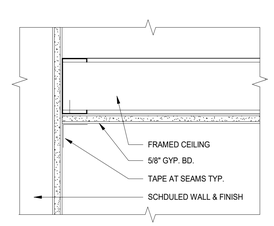
A1 RECESSED SLAB DETAIL

SCALE: 3" = 1'-0"



A3 TYP. BRACING @ TOILET PARTITION

SCALE: 3" = 1'-0"



A4 GYPSUM BOARD CEILING

SCALE: 3" = 1'-0"

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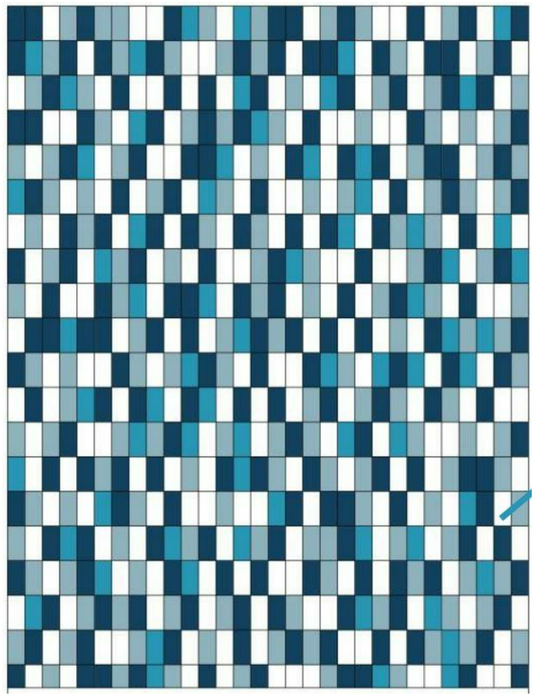
PROJECT NUMBER 20093

FLOOR & CEILING DETAILS

A501

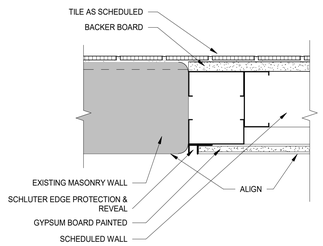
1/11/2021 4:08:50 PM

REFERENCE NOTES

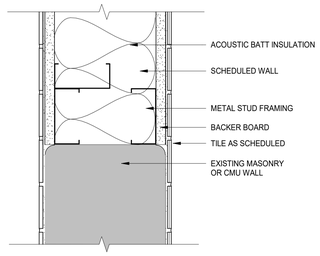


CONCEPT ONLY - NOT TO SCALE
TO BE VIEWED IN COLOR

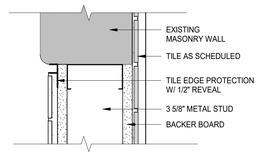
C1 Boys RR Tile
SCALE: N.T.S



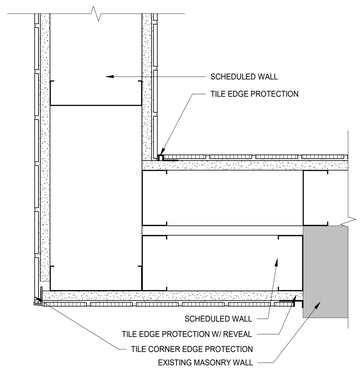
D1 WALL JUNCTION CUSTODIAL LAUNDRY
SCALE: 3" = 1'-0"



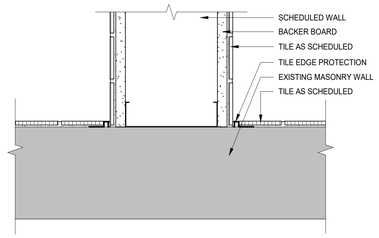
D4 WALL JUNCTION P8S
SCALE: 3" = 1'-0"



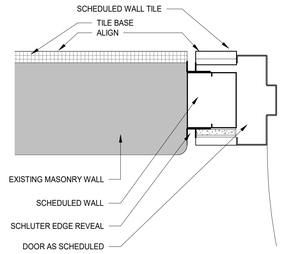
D5 GIRLS RR ENTRY WALL
SCALE: 3" = 1'-0"



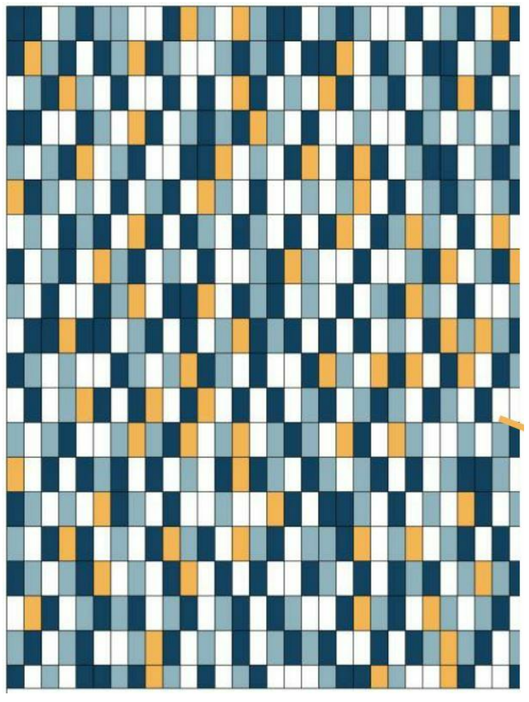
C2 BOYS RR ENTRY WALL
SCALE: 3" = 1'-0"



C4 WALL JUNCTION PERPINDICULAR
SCALE: 3" = 1'-0"

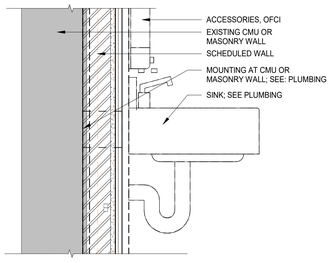


C5 WALL JUNCTION IN-LINE
SCALE: 3" = 1'-0"

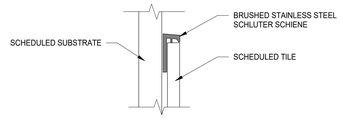


CONCEPT ONLY - NOT TO SCALE
TO BE VIEWED IN COLOR

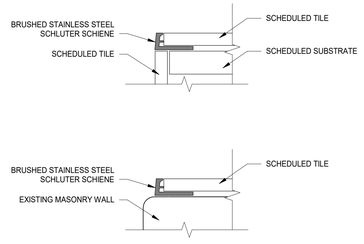
A1 Girls RR Tile
SCALE: N.T.S.



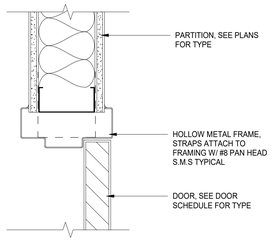
B3 SINK MOUNT
SCALE: 1 1/2" = 1'-0"



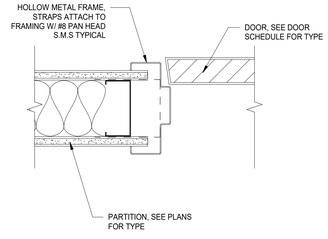
B4 EXPOSED TILE EDGE, TYP.
SCALE: 6" = 1'-0"



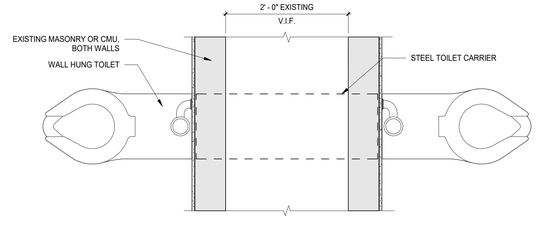
B5 TILE CORNER TRANSITIONS, TYP.
SCALE: 6" = 1'-0"



A3 INTERIOR HM DOOR HEAD
SCALE: 3" = 1'-0"



A4 INTERIOR HM DOOR JAMB
SCALE: 3" = 1'-0"



A5 TOILET CHASE
SCALE: 1" = 1'-0"

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LICENSED ARCHITECT

△	DATE	REVISION

PROJECT NUMBER 20093

WALL & DOOR DETAILS

A502

1/11/2021 4:08:52 PM

REFERENCE NOTES

SIGNAGE SCHEDULE

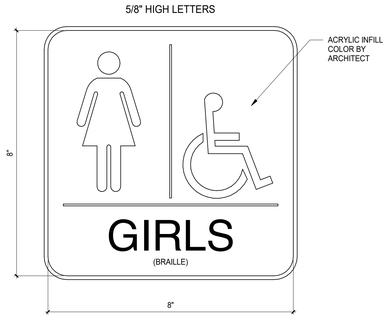
Type	Number	Name	Sign Text	NOTES
SG104	101	KINDERGARTEN RR		QTY 1
SG104	102	KINDERGARTEN RR		QTY 1
SG101	103	BOYS RR		QTY 1
SG100	104	GIRLS RR		QTY 1
SG100	105	GIRLS RR		QTY 1
SG101	106	BOYS RR		QTY 1
SG104	107	NURSE RESTROOM		QTY 1
SG103	108	FACULTY MENS RR		QTY 1
SG102	109	FACULTY WOMENS RR		QTY 1
SG105	110	CUSTODIAL	CUSTODIAL	QTY 1
SG101	111	BOYS RR		QTY 1
SG100	112	GIRLS RR		QTY 1
SG104	113	KITCHEN RR		QTY 1
SG105	114	LAUNDRY	LAUNDRY	QTY 1

FINISH LEGEND

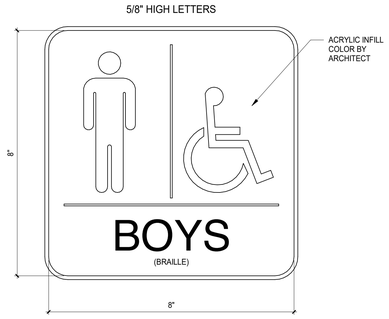
CODE	PRODUCT TYPE	MANUFACTURER	STYLE	COLOR	SPECIFICATIONS	NOTES
BASE						
BT-1	PORCELAIN TILE	DALTILE	KEYSTONE BUILT UP COVE RANDOM BLEND BASE.	50% D325 MARBLE, 50% D132 UPTOWN TAUPE	@ RESTROOM WALL BASE.	
RB-1	RUBBER BASE	JOHNSONITE	COLOR MATCH TRADITIONAL RUBBER TOE	TBD	OUTSIDE OF THE FACULTY RESTROOM	
CEILING						
CP-1	CEILING PAINT	SHERWIN WILLIAMS	TBD	TBD	EPOXY IN ALL RESTROOMS.	
FLOOR						
FT-1	PORCELAIN TILE	DALTILE	KEYSTONE	50% D325 MARBLE, 50% D132 UPTOWN TAUPE	SIZE: 2" x 2". GROUT TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS. CAP ALL EXPOSED TILE EDGES WITH ALUMINUM TRIM.	
MISCELLANEOUS						
M-1	TOILET PARTITION	WILSONART		D327 PEPPERDUST		
WD-1	WOOD DOOR	ROBERT I MERRILL	RED OAK	CUSTOM STAIN TO MATCH ARCHITECT SAMPLE	TYP WOOD DOOR.	
WALL						
WP-1	WALL PAINT	SHERWIN WILLIAMS		PURE WHITE SW705	EPOXY IN ALL RESTROOMS.	
WT-1	CERAMIC TILE	DALTILE	COLOR WHEEL COLLECTION - CLASSIC	ARCTIC WHITE MATTE	SIZE: 3" x 6". GROUT TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS. CAP ALL EXPOSED TILE EDGES WITH ALUMINUM TRIM. INCLUDE CORRESPONDING COVE TILE WHERE APPLICABLE.	TILES TO BE INSTALLED IN A VERTICAL STRAIGHT STACK PATTERN
WT-2	CERAMIC TILE	DALTILE	COLOR WHEEL COLLECTION - CLASSIC	WATERFALL, GALAXY, MUSTARD, & ARCHTIC WHITE	SIZE: 3" x 6". GROUT TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS. CAP ALL EXPOSED TILE EDGES WITH ALUMINUM TRIM. INCLUDE CORRESPONDING COVE TILE WHERE APPLICABLE.	TILES TO BE INSTALLED IN A VERTICAL STRAIGHT STACK PATTERN. COLORS TO BE A RANDOM BLEND, EQUAL PARTS OF EACH COLOR.
WT-3	CERAMIC TILE	DALTILE	COLOR WHEEL COLLECTION - CLASSIC	WATERFALL, GALAXY, ELECTRIC BLUE, & ARCHTIC WHITE	SIZE: 3" x 6". GROUT TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS. CAP ALL EXPOSED TILE EDGES WITH ALUMINUM TRIM. INCLUDE CORRESPONDING COVE TILE WHERE APPLICABLE.	TILES TO BE INSTALLED IN A VERTICAL STRAIGHT STACK PATTERN. COLORS TO BE A RANDOM BLEND, EQUAL PARTS OF EACH COLOR.
WT-4	CERAMIC TILE	AMERICAN OLEAN	URBAN CANVAS	DESIGNER WHITE 061	SIZE: 4-1/4" x 4-1/4". GROUT TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF COLORS. CAP ALL EXPOSED TILE EDGES WITH ALUMINUM TRIM. INCLUDE CORRESPONDING COVE TILE WHERE APPLICABLE.	@ CUSTODIAL SINK WALLS

DOOR AND FRAME SCHEDULE

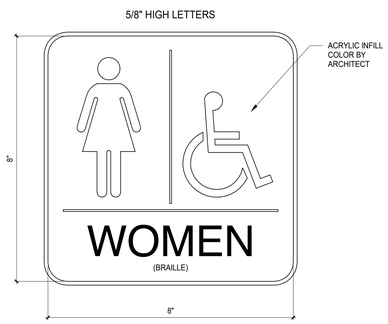
DOOR NUMBER	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR THICK	DOOR LEAF 1 TYPE	DOOR LEAF 2 TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING (MINUTES)	HARDWARE GROUP	NOTES	REVISIONS
LEVEL 1												
101A	3' - 0"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
102A	3' - 0"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
107A	3' - 0"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
108A	3' - 0"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
109A	3' - 0"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
110A	2' - 10"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			
113A	2' - 6"	7' - 0"	1 3/4"	P01		WD	F01	HM	0			



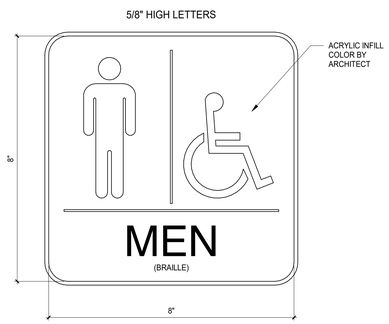
C1 GIRLS RESTROOM SIGNAGE - SG100
SCALE: 6" = 1'-0"



C2 BOYS RESTROOM SIGNAGE - SG101
SCALE: 6" = 1'-0"

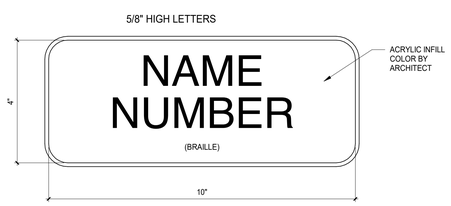


B1 WOMEN RESTROOM SIGNAGE - SG103
SCALE: 6" = 1'-0"



B2 MENS RESTROOM SIGNAGE - SG102
SCALE: 6" = 1'-0"

A1 GENERAL RESTROOM SIGNAGE - SG104
SCALE: 6" = 1'-0"



A2 GENERAL ROOM SIGNAGE - SG105
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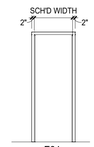
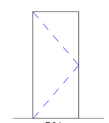


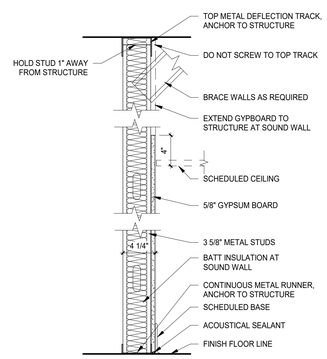
F01
HM FRAME

DOOR FRAMES
SCALE: N.T.S.

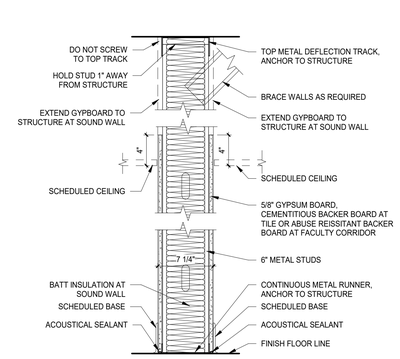


P01
SOLID SLAB

DOOR PANELS
SCALE: N.T.S.



F3
F3S W/ SOUND INSULATION



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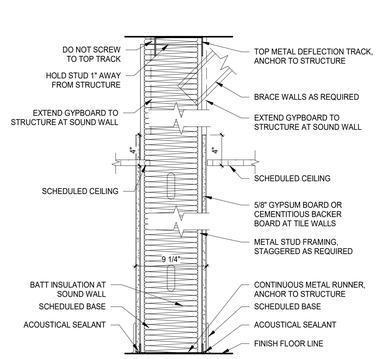
P6S W/ SOUND INSULATION



P8
P8S W/ SOUND INSULATION

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Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N, Provo, UT 84604
Construction Documents - January 11, 2021

STATE OF UTAH
GRETA S. ANDERSON
5542086-0301
LICENSED ARCHITECT

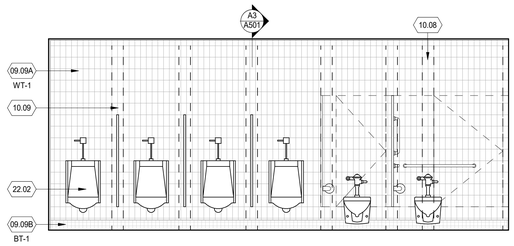
△	DATE	REVISION

PROJECT NUMBER 20093

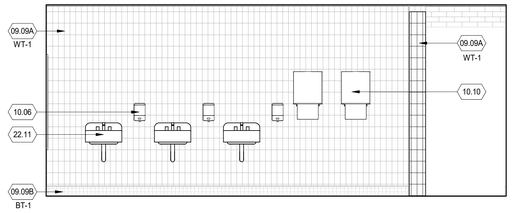
SCHEDULES & PARTITION TYPES

A601

1/11/2021 4:08:53 PM



E1 BOYS RR NORTH
SCALE: 3/8" = 1'-0"



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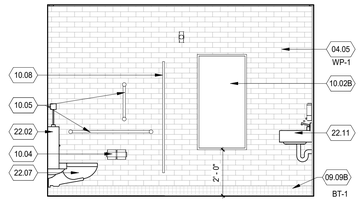

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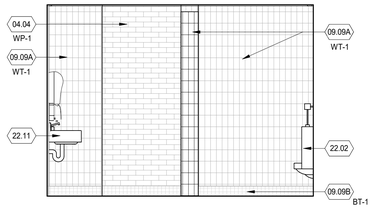

E5 BOYS RR WEST
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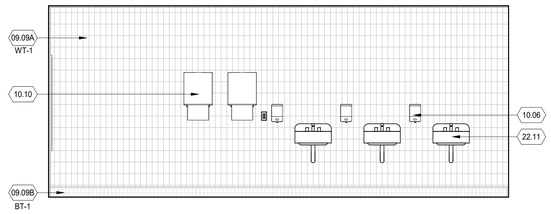

D1 GIRLS RR NORTH
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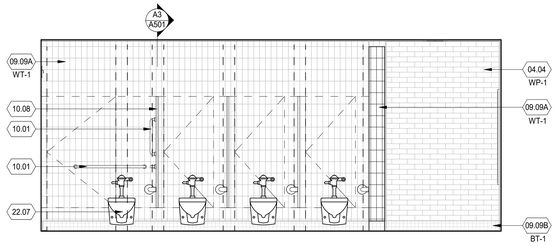

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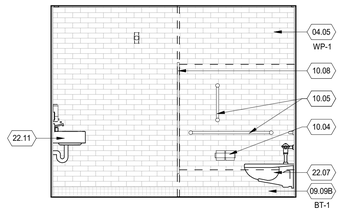

D4 GIRLS RR EAST
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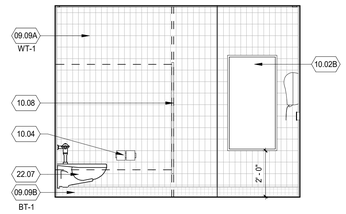

D5 GIRLS RR WEST
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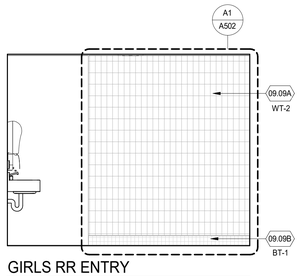

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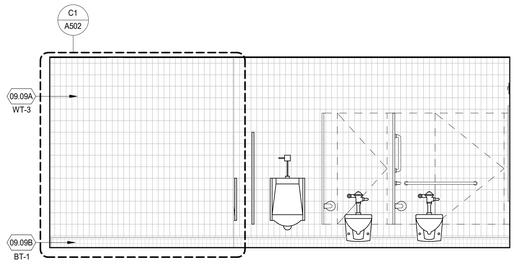

C2 BOYS RR ENTRY
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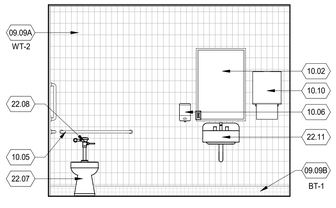

B1 KINDERGARTEN RR NORTH
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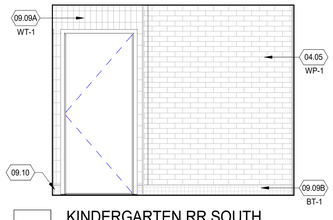
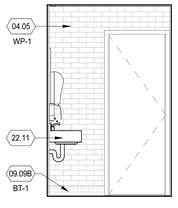
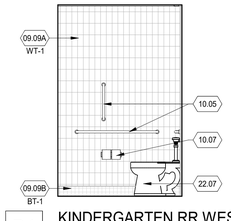


B2 KINDERGARTEN RR SOUTH
SCALE: 3/8" = 1'-0"



B3 KINDERGARTEN RR EAST
SCALE: 3/8" = 1'-0"



B4 KINDERGARTEN RR WEST
SCALE: 3/8" = 1'-0"

REFERENCE NOTES

04.04	EXISTING BRICK WALL FINISH, CLEAN AND RESEAL
04.05	EXISTING BRICK WALL, REMOVE EXISTING SEALER AND PAINT PER SPECIFICATIONS
09.09A	CERAMIC TILE
09.09B	PORCELAIN TILE
09.10	WALL BASE
10.01	FIRE EXTINGUISHER CABINET
10.02	
10.02B	MIRROR, 24" W X 48" H
10.04	TOILET PAPER DISPENSER, OFCI REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.05	GRAB BARS, REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.06	SOAP DISPENSER, OFCI
10.07	
10.08	FLOOR MOUNTED CEILING BRACED TOILET PARTITION
10.09	FLOOR MOUNTED CEILING BRACED URINAL PARTITION
10.10	PAPER TOWEL DISPENSER, OFCI
22.02	URINAL, SEE: PLUMBING
22.07	TOILET, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS
22.08	AUTOMATIC FLUSH CONTROL, REFER TO PLUMBING
22.11	SINK, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS

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INTERIOR ELEVATIONS

A701

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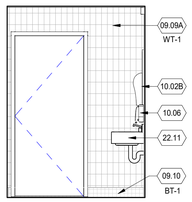
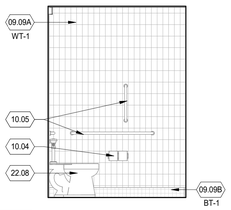


E1 FACULTY RR NORTH
SCALE: 3/8" = 1'-0"



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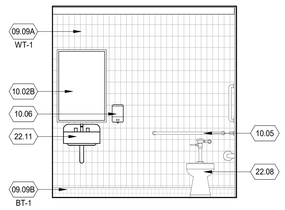
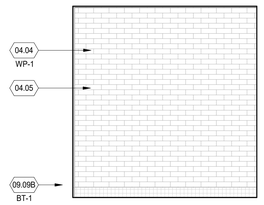


E3 FACULTY RR EAST
SCALE: 3/8" = 1'-0"



E4 FACULTY RR WEST
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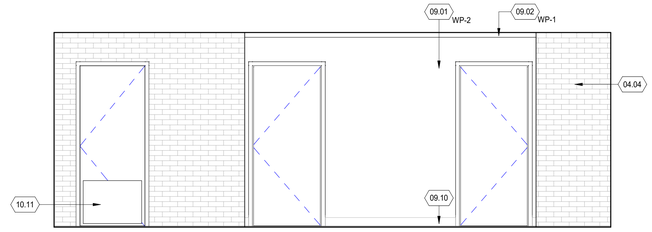
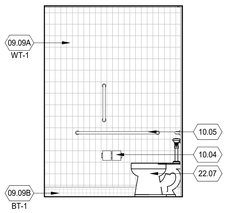


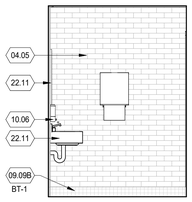
E5 FACULTY CORRIDOR SOUTH
SCALE: 3/8" = 1'-0"

REFERENCE NOTES

02.21	EXISTING QUARRY TILE BASE TO REMAIN
04.04	EXISTING BRICK WALL FINISH, CLEAN AND RESEAL
04.05	EXISTING BRICK WALL. REMOVE EXISTING SEALER AND PAINT PER SPECIFICATIONS
04.06	EXISTING CMU WALL, PAINT
09.01	SCHEDULED WALL
09.02	GYPSUM BOARD CEILING, PAINTED
09.09A	CERAMIC TILE
09.09B	PORCELAIN TILE
09.10	WALL BASE
10.02B	MIRROR, 24" W X 48" H
10.04	TOILET PAPER DISPENSER, OFCI REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.05	GRAB BARS, REFER TO SHEET G001 FOR MOUNTING HEIGHTS
10.06	SOAP DISPENSER, OFCI
10.11	KICK PLATE, REFER TO DOOR SPECIFICATION
22.07	TOILET, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS
22.08	AUTOMATIC FLUSH CONTROL, REFER TO PLUMBING
22.09	CAST IRON MOP SINK, REFER TO PLUMBING
22.11	SINK, SEE: PLUMBING. REFER TO SHEET G001 FOR MOUNTING HEIGHTS



D1 NURSE RR NORTH
SCALE: 3/8" = 1'-0"



D2 NURSE RR SOUTH
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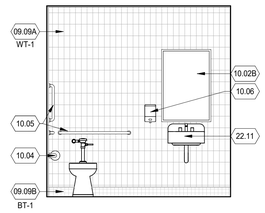

D3 NURSE RR EAST
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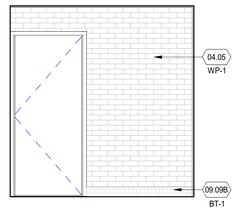

D4 NURSE RR WEST
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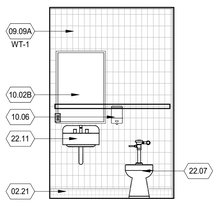
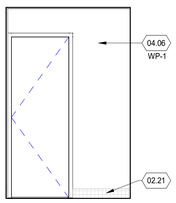


C1 KITCHEN RR NORTH
SCALE: 3/8" = 1'-0"



C2 KITCHEN RR SOUTH
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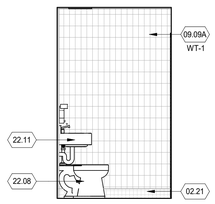

C3 KITCHEN RR EAST
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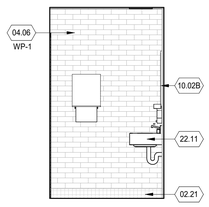

C4 KITCHEN RR WEST
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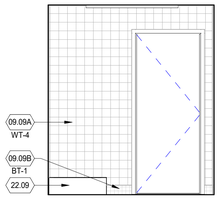
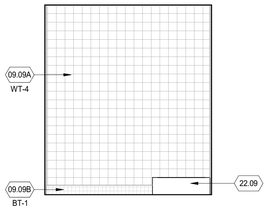


B1 CUSTODIAL NORTH
SCALE: 3/8" = 1'-0"



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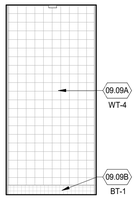

B3 CUSTODIAL EAST
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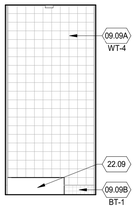

B4 CUSTODIAL WEST
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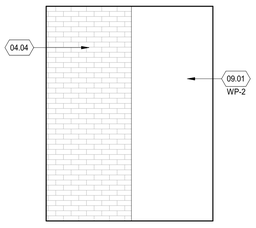

A1 LAUNDRY NORTH
SCALE: 3/8" = 1'-0"

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△	DATE	REVISION

PROJECT NUMBER 20093

INTERIOR ELEVATIONS

A702

1/11/2021 4:09:00 PM

SYMBOL LEGEND

SYMBOL	DESCRIPTION
VALVES, METERS, AND GAUGES	
	SHUT OFF VALVE
	GATE VALVE
	CHECK VALVE
	AUTO 2-WAY VALVE
	AUTO 3-WAY VALVE
	GLOBE VALVE
	BALL VALVE
	RELIEF VALVE
	CHAIN OPERATED GATE VALVE
	PRESSURE REDUCING VALVE
	BUTTERFLY VALVE
	SOLENOID VALVE
	ANGLE VALVE
	VENTURI
	BALANCING OR PLUG COCK
	FLOW SETTER
	EXPANSION VALVE (REFRIG.)
	GAS COCK
MAV	MANUAL AIR VENT
	STRAINER
	GAUGE COCK
	FLEXIBLE CONNECTION
	PRESSURE GAUGE
	THERMOMETER
	VICTUALIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
	REFRIGERANT FILTER DRIER
	90 DEG ELBOW UP
	90 DEG ELBOW DOWN
	90 DEG TEE UP
	90 DEG TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP
HVAC SYMBOLS	
T	THERMOSTAT
S	TEMPERATURE SENSOR
H	HUMIDISTAT

SYMBOL LEGEND

SYMBOL	DESCRIPTION
DUCT WORK	

SINGLE LINE	DOUBLE LINE	DESCRIPTION
		RECTANGULAR SUPPLY DUCT UP
		RECTANGULAR SUPPLY DUCT DOWN
		RECTANGULAR RETURN DUCT UP
		RECTANGULAR RETURN DUCT DOWN
		RECTANGULAR EXHAUST DUCT UP
		RECTANGULAR EXHAUST DUCT DOWN
		ROUND DUCT UP
		ROUND DUCT DOWN
		ACCOUSTICALLY LINED RECTANGULAR DUCT
		90° RECTANGULAR ELBOW WITH TURNING VANES
		90° RADIUS ELBOW R=1.5
		DUCT SIZE OR SHAPE TRANSITION
		OPPOSED BLADE BALANCING DAMPER (O.B.D.) IN RECT DUCT
		BUTTERFLY BALANCING DAMPER IN ROUND DUCTS
		COMBINATION TEE
		SPLITTER DAMPER
		SQUARE OR RECTANGULAR CEILING DIFFUSER
		ROUND CEILING DIFFUSER
		SIDEWALL REGISTER SUPPLY OR RETURN
		ROUND FLEXIBLE DUCT
		RETURN GRILLE
		EXHAUST GRILLE
d	d	FIRE SMOKE DAMPER
		FIRE DAMPER
SD	SD	SMOKE DAMPER
FC	FC	FLEXIBLE CONNECTION
		FLEXIBLE CONNECTION

PIPING LEGEND

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

HPS	**HIGH PRESSURE STEAM**
MPS	**MEDIUM PRESSURE STEAM**
LPS	**LOW PRESSURE STEAM**
HPC	**HIGH PRESSURE CONDENSATE RETURN**
MPC	**MEDIUM PRESSURE CONDENSATE RETURN**
LPC	**LOW PRESSURE CONDENSATE RETURN**
PC	**PUMP DISCHARGE**
TWS	**TEMPERED WATER SUPPLY**
CHWS	**CHILLED WATER SUPPLY**
CHWR	**CHILLED WATER RETURN**
HHWS	**HEATING HOT WATER SUPPLY**
HHWR	**HEATING HOT WATER RETURN**
RL	**REFRIGERANT LIQUID**
RS	**REFRIGERANT SUPPLY**
CWS	**CONDENSER WATER SUPPLY**
CWR	**CONDENSER WATER RETURN**
D	**DRAIN LINE**
HG	**HOT GAS BYPASS**
GS	**GLYCOL SUPPLY**
GR	**GLYCOL RETURN**
FOS	**FUEL OIL SUPPLY**
FOV	**FUEL OIL VENT**

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE LINES AND SYMBOLS	
# SHEET	DETAIL INDICATOR: # INDICATES DETAIL NUMBER, SHEET INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
# SHEET	ELEVATION OR SECTION INDICATOR, EXTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
# SHEET	ELEVATION OR SECTION INDICATOR, INTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
100	SPACE NUMBER
1	KEYNOTE INDICATOR
	REVISION INDICATOR
	EQUIPMENT INDICATOR
	PLUMBING FIXTURE INDICATOR
TYPE CFM SIZE	DIFFUSER/GRILLE INDICATOR
TYPE SIZE	DIFFUSER/GRILLE INDICATOR
	BREAK, STRAIGHT
	BREAK, ROUND
MATCH LINE SEE XX/X-XXX	MATCHLINE INDICATOR
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE
	NEW CONNECTION TO EXISTING
	POINT OF DEMOLITION

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

(E)	EXISTING
(F)	FUTURE
AD	ACCESS DOOR
AIR COND	AIR CONDITION(-ING,-ED)
APD	AIR PRESSURE DROP
BD	BALANCING DAMPER
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
BTUH	BTU/HOUR
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
COND	CONDENS(-ER, -ING, -ATION)
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC
DP	DEPTH OR DEEP
EA	EXHAUST AIR
EER	ENERGY EFFICIENCY RATIO
EFF	EFFICIENCY
ELEC	ELECTRIC
ELEV	ELEVATION
ENT	ENTERING
EVAP	EVAPORAT(-E, -ING, -ED, -OR)
EWT	ENTERING WATER TEMPERATURE
EXT	EXTERNAL
FC	FLEXIBLE CONNECT(-OR, -ION)
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE SMOKE DAMPER
GE	GREASE EXHAUST
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HG	MERCURY
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HTG	HEATING
HZ	HERTZ (FREQUENCY)
ID	INSIDE DIAMETER
IN	INCH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LG	LENGTH
LH	LATENT HEAT
LRA	LOCKED ROTOR AMPS
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MFR	MANUFACTUR(-ER, -ED)
NC	NORMALLY CLOSED
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
OZ	OUNCE
PD	PRESSURE DROP OR DIFFERENCE
PG	PROPOLENE GLYCOL
PH	PHASE
PPM	PARTS PER MILLION
PRESS	PRESSURE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAUGE
R	THERMAL RESISTANCE
RA	RETURN AIR
RECIRC	RECIRCULATE
REFR	REFRIGERATION
REQD	REQUIRED
RLA	RATED LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCW	SOFT COLD WATER
SF	SAFETY FACTOR
SH	SENSIBLE HEAT
SL	SEA LEVEL
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
STD	STANDARD
SW	SOIL, WASTE
TA(R)	TRANSFER AIR (RETURN)
TA(S)	TRANSFER AIR (SUPPLY)
TD	TEMP. DROP OR DIFF.
TEMP	TEMPERATURE
THERM	THERMAL
TOT	TOTAL
TSTAT	THERMOSTAT
V	VOLT
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY TEMPERATURE
VEL	VELOCITY
VENT	VENT, VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
WB	WET BULB TEMP
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DROP
WT	WEIGHT
WTR	WATER

MECHANICAL GENERAL NOTES

1. THE MECHANICAL DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENT & EXTENT OF THE MECHANICAL SYSTEM. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THESE DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS OR ELBOWS NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. CONTRACTOR SHALL MAKE SUCH SLIGHT ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE & OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT.
2. MAJOR DEVIATIONS SUCH AS CHANGES IN COMPONENT SIZES, WEIGHTS, QUANTITIES OR MATERIAL REQUIRE PRIOR APPROVAL BY THE DESIGN ENGINEER.
3. THE DRAWINGS & SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER & SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH THE ITEMS SHOWN ON ONE & NOT THE OTHER BEING FURNISHED & INSTALLED AS THOUGH SHOWN & CALLED OUT IN BOTH.
4. THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODES, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, & ALL OTHER APPLICABLE CITY, COUNTY, STATE, & FEDERAL CODES & REGULATIONS IN EFFECT.
5. THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO ANY CODES, RULES, REGULATIONS & REQUIREMENTS OF THE BUILDING OWNER.
6. PRIOR TO FABRICATION & INSTALLATION OF ANY MECHANICAL COMPONENT THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL WORK WITH ALL OTHER BUILDING TRADES, INCLUDING BUILDING TRADES HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR, THEY SHALL BE RESOLVED PRIOR TO INSTALLATION.
7. THE SPACE ABOVE ALL CEILINGS IS LIMITED. CAREFUL COORDINATION IS REQUIRED WITH ALL TRADES BEFORE ANY PIPE, DUCT, OR EQUIPMENT IS ORDERED & OR INSTALLED. ANY CONFLICTS &/OR CHANGES FOUND DURING INSTALLATION THAT RESULTS FROM THE LACK OF COORDINATION BY THE CONTRACTORS DURING THE SHOP DRAWING PROCESS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL MECHANICAL INFORMATION IS NOT SHOWN ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW & USE, WHERE APPROPRIATE, ALL THE MECHANICAL DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE MECHANICAL SYSTEM WITHOUT USING THE INCLUDED DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. THE STRUCTURE SHOWN ON ALL DETAILS MAY OR MAY NOT PERTAIN TO A PORTION OR ANY PORTION OF THE BUILDING. COORDINATE ALL MOUNTING REQUIREMENTS WITH ARCHITECTURAL & STRUCTURAL DRAWINGS.
11. ANY PART OF THE MECHANICAL INSTALLATION THAT FAILS, IS UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING DIFFUSERS & GRILLES.
13. CONTRACTOR SHALL OPERATE THE SYSTEM & DEMONSTRATE ALL ASPECTS OF THE SYSTEM TO THE ENGINEER &/OR OWNER TO PROVE ALL SYSTEMS ARE OPERATIONAL.
14. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT REDLINED RECORD DRAWING AT THE PROJECT SITE. ALL CHANGES IN LAYOUT, ROUTING, EQUIPMENT, COMPONENTS, & ACCESSORIES SHALL BE RECORDED. THESE REDLINED DRAWINGS SHALL BE GIVEN TO THE ARCHITECT/ENGINEER AFTER THE FINAL INSPECTION IN ACCORDANCE WITH SPECIFICATIONS.

GENERAL EQUIPMENT NOTES

1. ALL CAPACITIES ARE AT JOB SITE CONDITIONS & ARE MINIMUM CAPACITY.
2. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED TO CONFORM WITH LOCAL SEISMIC REQUIREMENTS & THE REQUIREMENTS OF THESE CONSTRUCTION DOCUMENTS.
3. VERIFY ALL REQUIRED SERVICE CONNECTIONS, INCLUDING ELECTRICAL CHARACTERISTICS FOR ALL EQUIPMENT PRIOR TO ORDERING EQUIPMENT.
4. ALL EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURAL MEMBERS.
5. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
6. ALL SIMILAR EQUIPMENT SHALL BE OF THE SAME MANUFACTURER.
7. AIR INLETS & OUTLETS SHALL BE OF THE SAME MANUFACTURER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HVAC EQUIPMENT CHECK-IN, SAFEKEEPING, & DAMAGE.

MECHANICAL SHEET INDEX

M001	MECHANICAL COVER SHEET
M101	LEVEL 1 MECHANICAL PLAN- OVERALL
M102	MECHANICAL ROOF PLAN
M401	ENLARGED MECHANICAL PLANS
M402	ENLARGED MECHANICAL PLAN
M403	ENLARGED MECHANICAL PLANS
M601	MECHANICAL SCHEDULES AND DETAILS

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STATE OF UTAH 09431-2202 Michael Nielsen 01.11.2020

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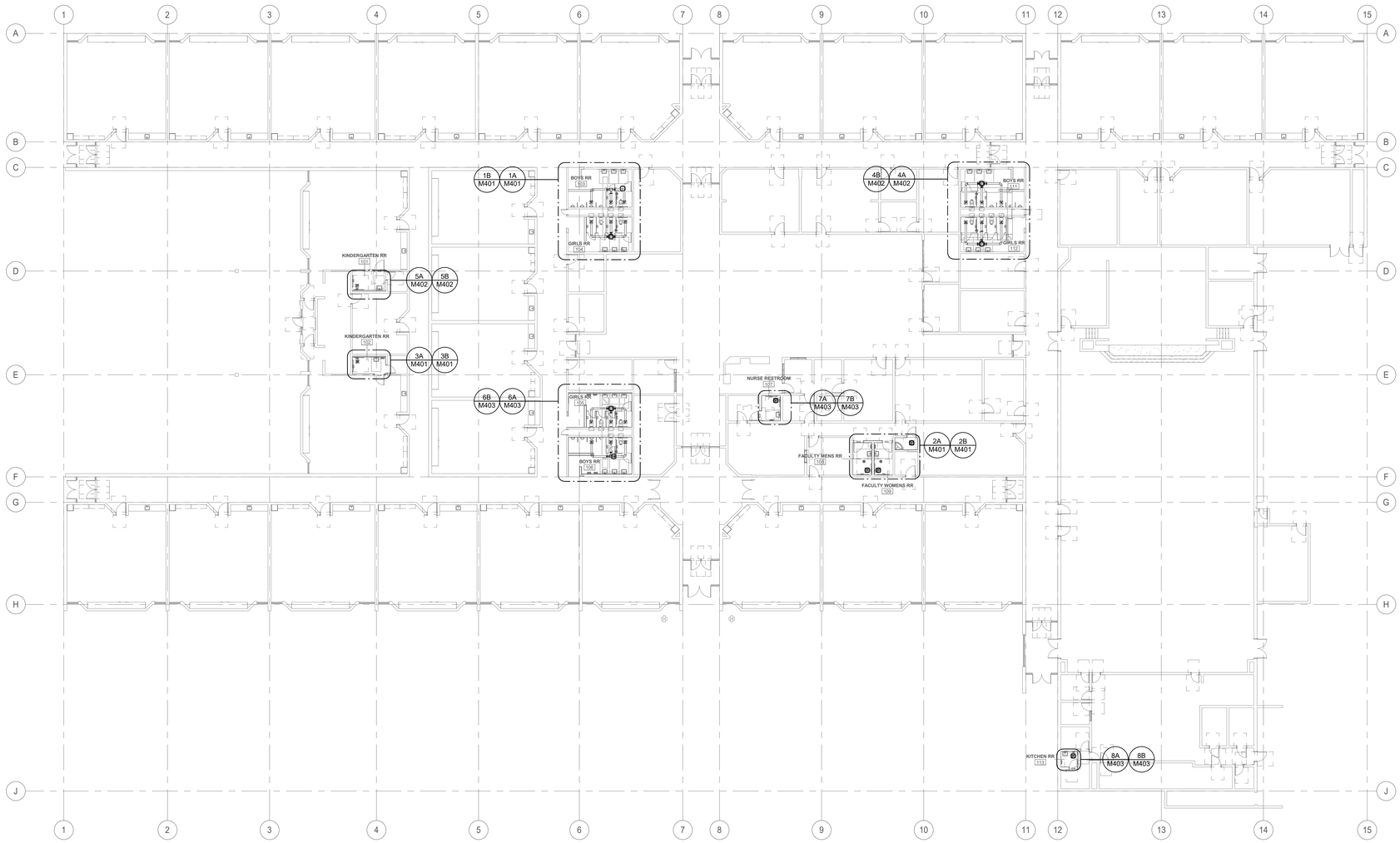
PROJECT NUMBER 20093

MECHANICAL COVER SHEET

M001

1/11/2021 15:12:49



A1 LEVEL 1 MECHANICAL PLAN - OVERALL

SCALE: 1/16" = 1'-0"

NORTH

1/11/2021 15:12:53

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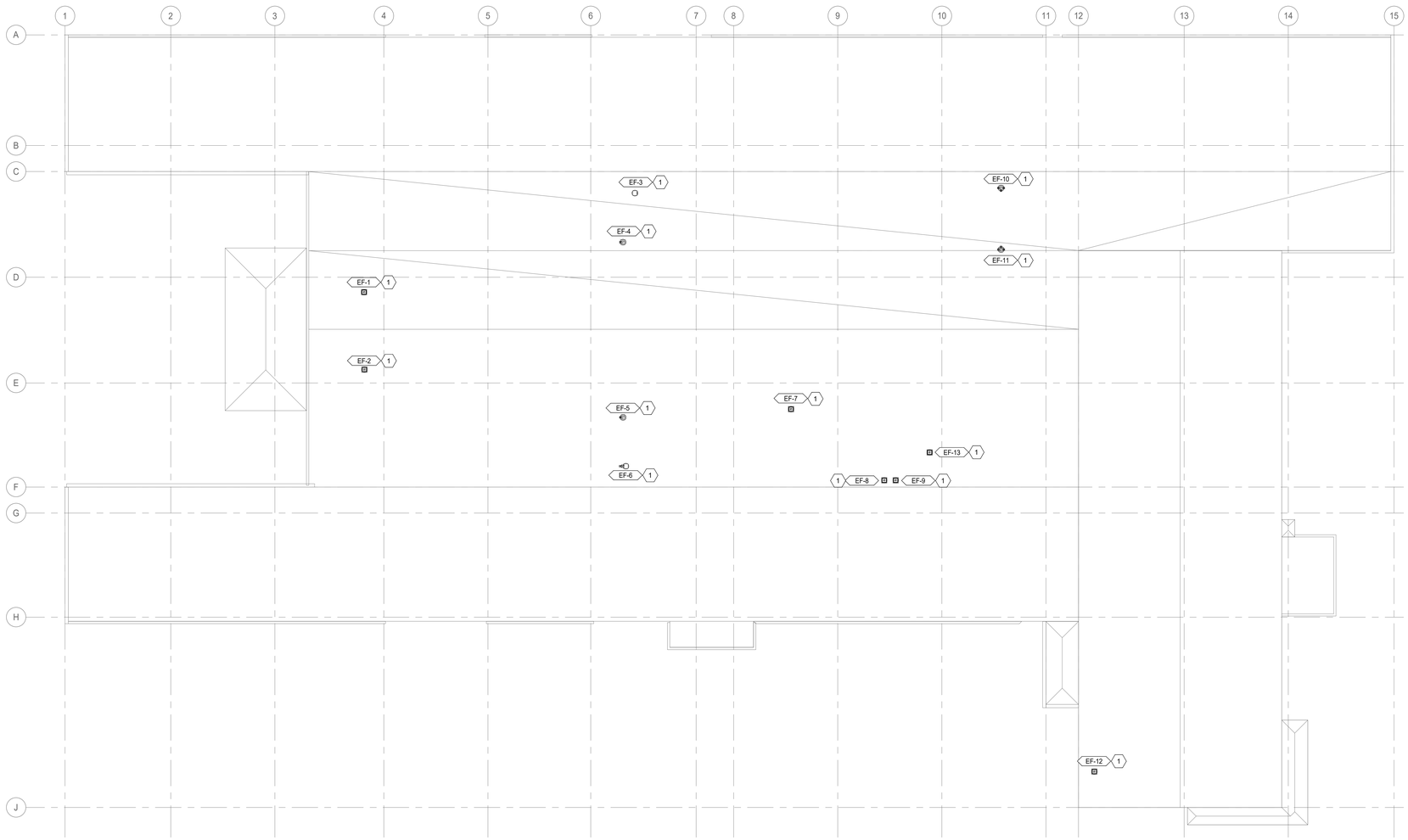
LEVEL 1 MECHANICAL PLAN- OVERALL

M101

SHEET KEYNOTES

1 REMOVE EXISTING EXHAUST GRILL AND DUCTING BACK TO MAINS. (APPROXIMATELY 20')



1 ROOF MECHANICAL PLAN

SCALE: 1/16" = 1'-0"

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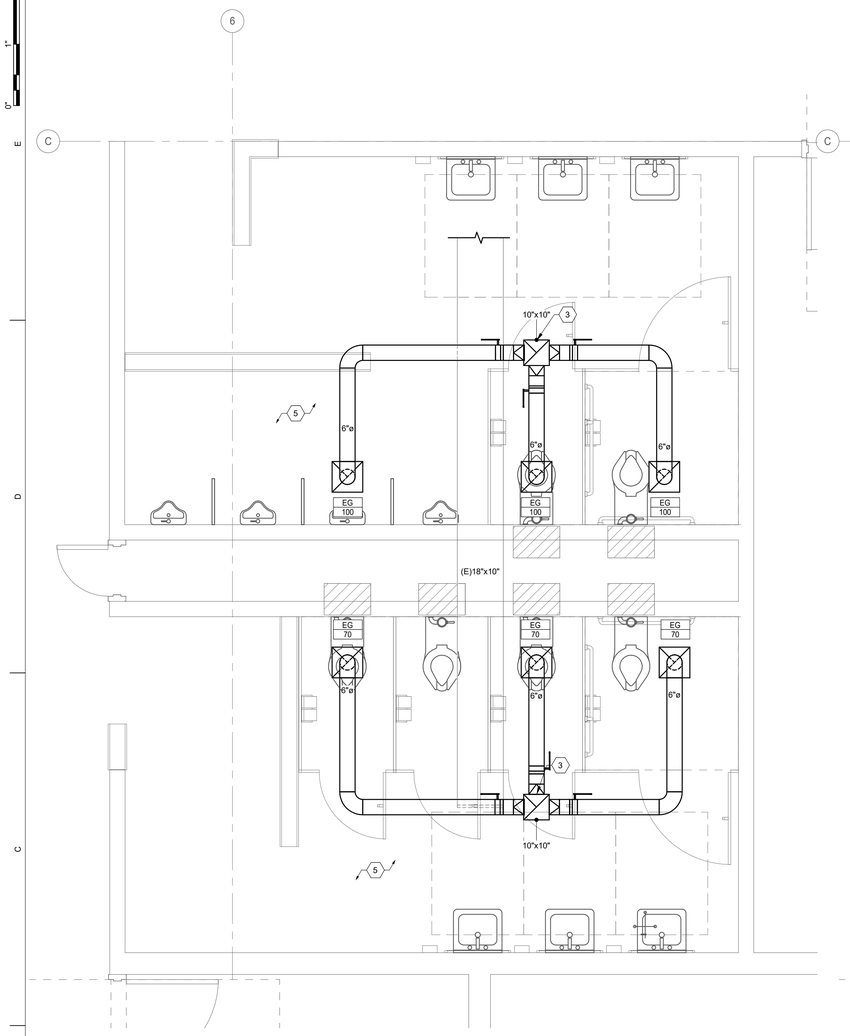
MECHANICAL ROOF PLAN

M102

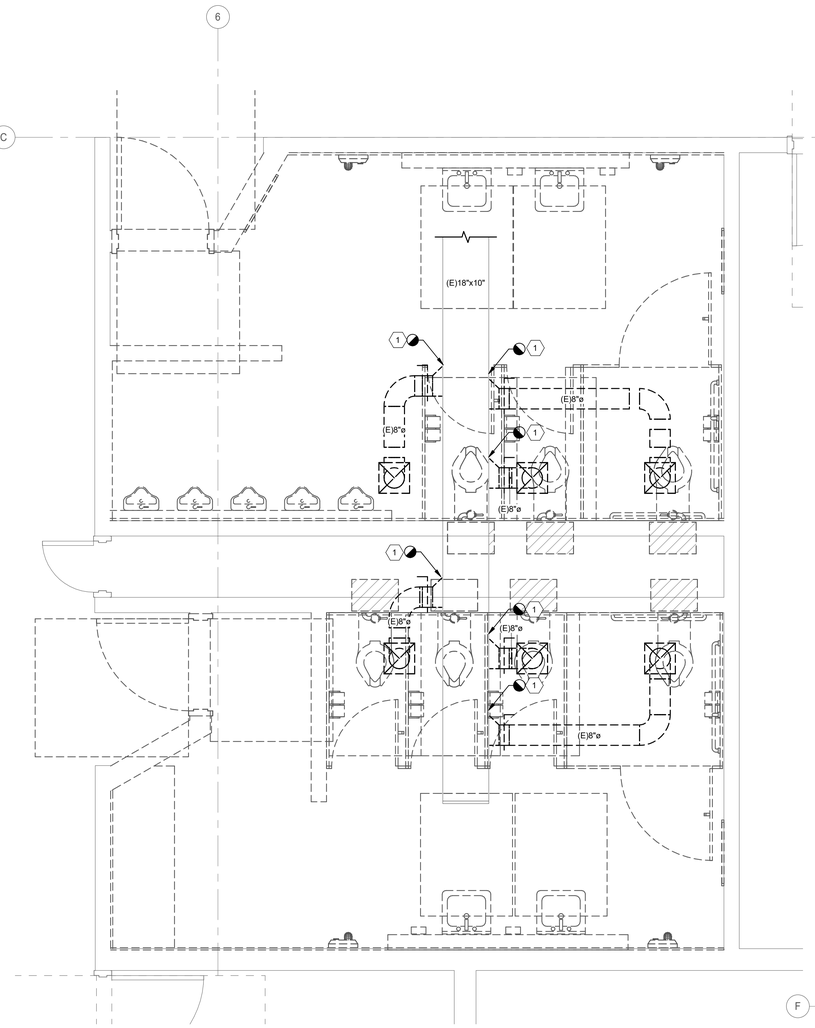
1/11/2021 15:12:54

SHEET KEYNOTES

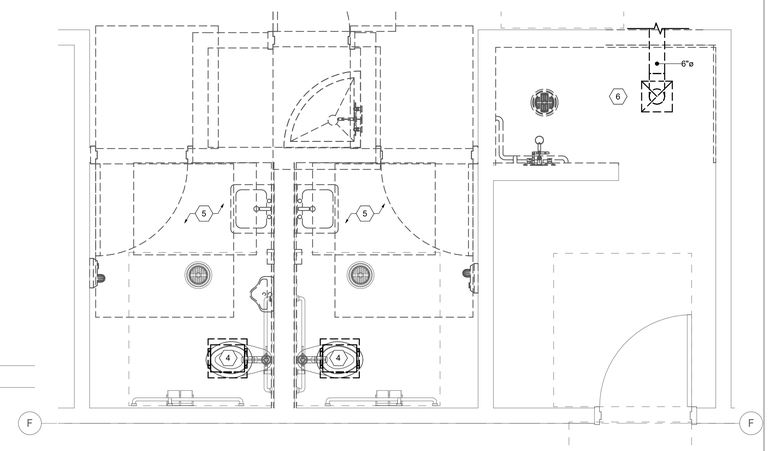
1. REMOVE EXISTING EXHAUST DIFFUSER AND DUCTING BACK TO MAINS. CAP AND SEAL DUCT MAIN.
2. AIR TRANSFER GRILL. SEE SCHEDULE FOR BASIS OF DESIGN.
3. ROUTE NEW EXHAUST DUCTWORK TO ROOF MOUNTED EXHAUST FAN. PATCH AND SEAL ROOF PENETRATION PER ROOF MANUFACTURES WARRANTY REQUIREMENTS.
4. REMOVE EXISTING CEILING EXHAUST FAN AND DUCT PENETRATION THROUGH ROOF. PATCH AND SEAL ROOF PER ROOF MANUFACTURER'S WARRANTY REQUIREMENTS.
5. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
6. REMOVE EXISTING EXHAUST GRILL AND DUCTING BACK TO MAINS. (APPROXIMATELY 20')



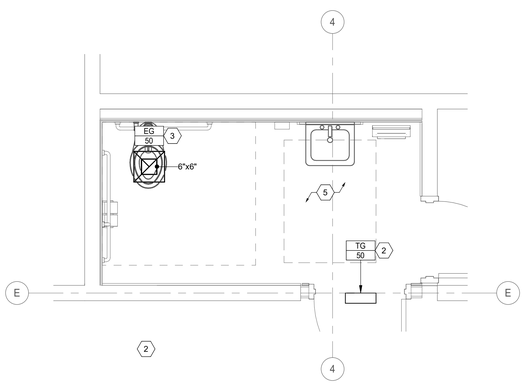
1A ENLARGED MECHANICAL PLAN - BOYS/GIRLS RESTROOMS NORTH
SCALE: 1/2" = 1'-0"



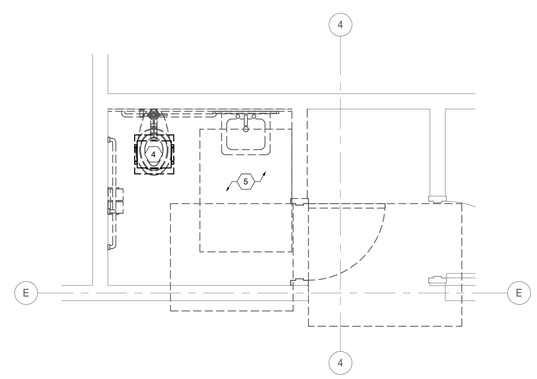
1B ENLARGED MECHANICAL DEMO. PLAN - BOYS/GIRLS RESTROOMS NORTH
SCALE: 1/2" = 1'-0"



2B ENLARGED MECHANICAL DEMO. PLAN - FACULTY RESTROOM
SCALE: 1/2" = 1'-0"



3A ENLARGED MECHANICAL PLAN - KINDERGARTEN RESTROOM SOUTH
SCALE: 1/2" = 1'-0"



3B ENLARGED MECHANICAL DEMO. PLAN - KINDERGARTEN RESTROOM SOUTH
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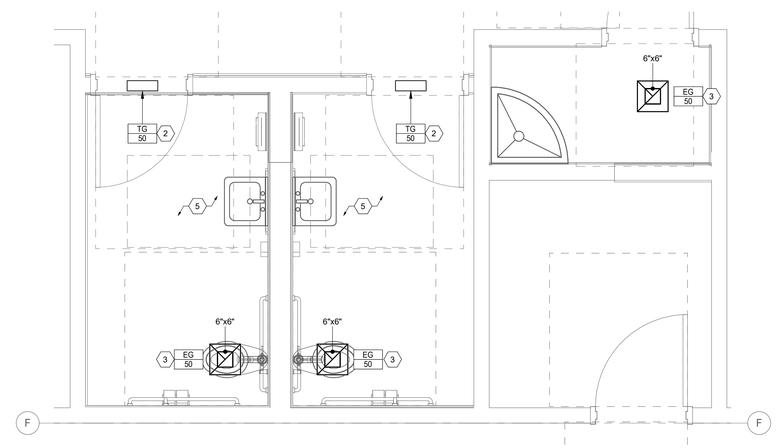

2A ENLARGED MECHANICAL PLAN - FACULTY RESTROOM
SCALE: 1/2" = 1'-0"

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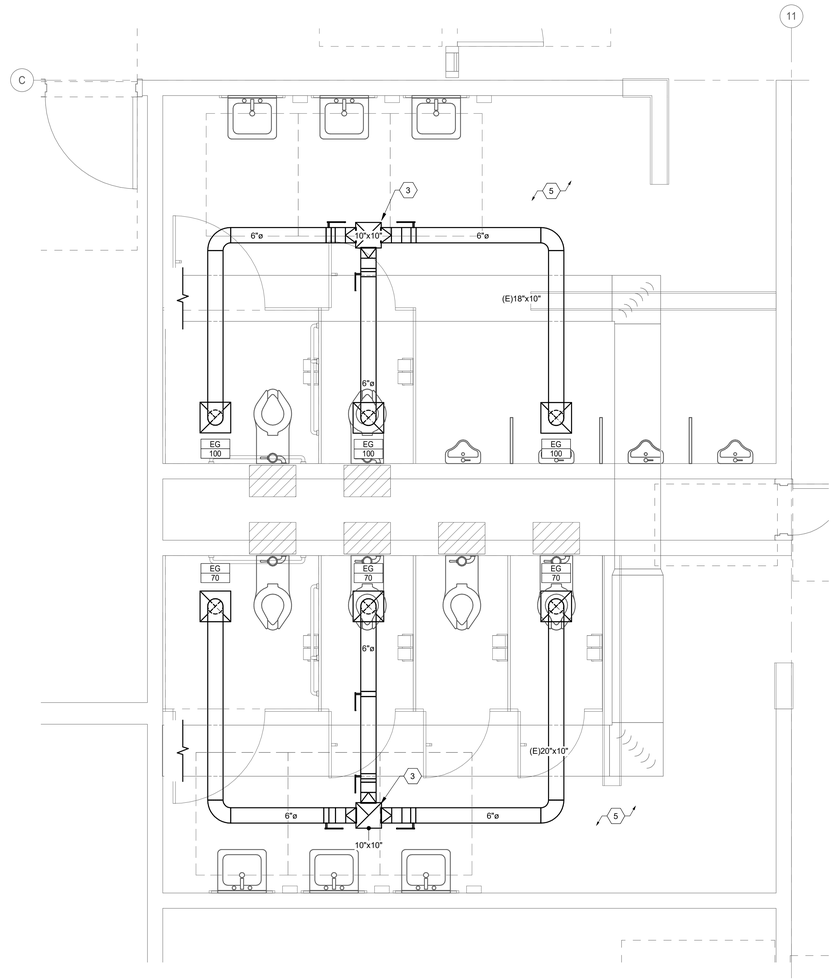
ENLARGED MECHANICAL PLANS

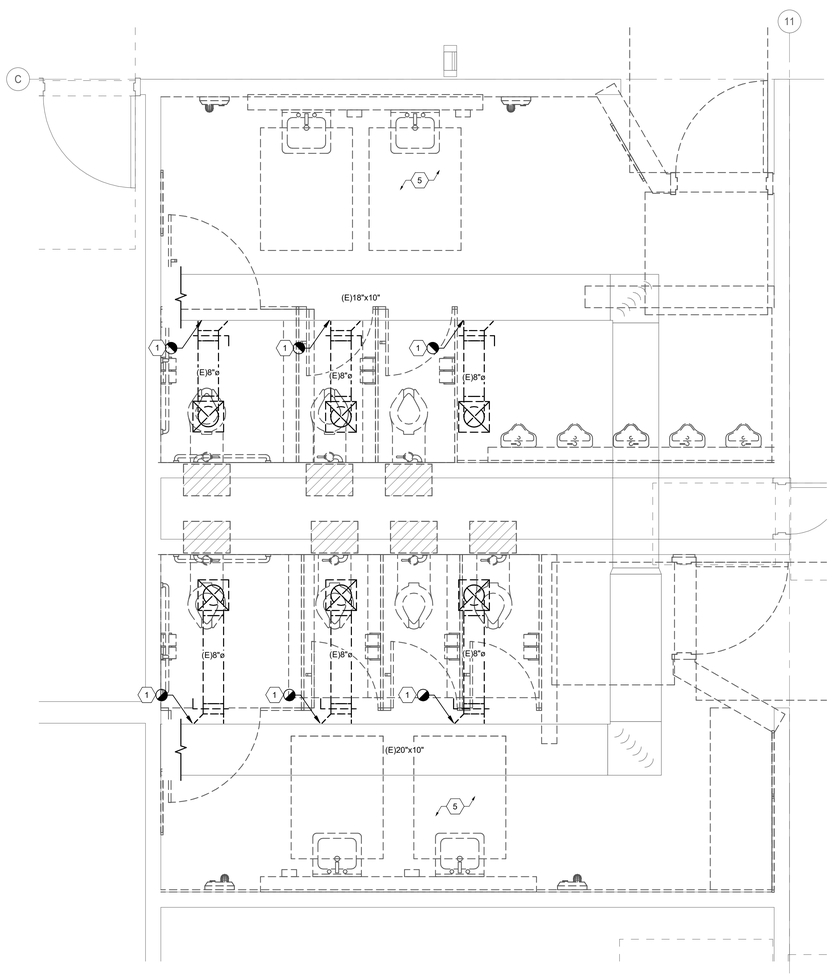
M401

1/11/2021 15:12:57



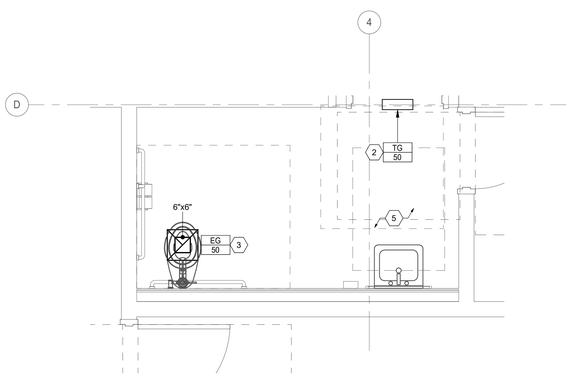
4A ENLARGED MECHANICAL PLAN - BOYS/GIRLS RESTROOMS EAST

SCALE: 1/2" = 1'-0"



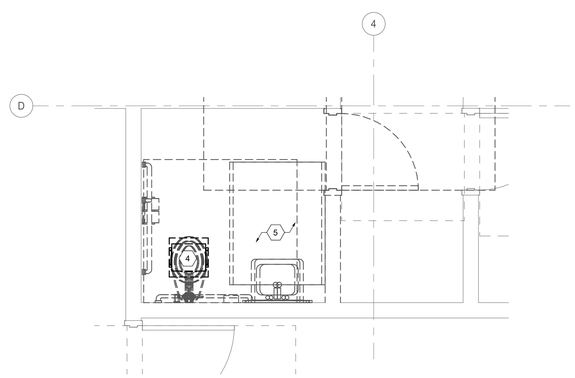
4B ENLARGED MECHANICAL DEMO. PLAN - BOYS/GIRLS RESTROOMS EAST

SCALE: 1/2" = 1'-0"



5A ENLARGED MECHANICAL PLAN - KINDERGARTEN RESTROOM NORTH

SCALE: 1/2" = 1'-0"



5B ENLARGED MECHANICAL DEMO. PLAN - KINDERGARTEN RESTROOM NORTH

SCALE: 1/2" = 1'-0"

SHEET KEYNOTES

1. REMOVE EXISTING EXHAUST DIFFUSER AND DUCTING BACK TO MAINS. CAP AND SEAL DUCT MAIN.
2. AIR TRANSFER GRILL. SEE SCHEDULE FOR BASIS OF DESIGN.
3. ROUTE NEW EXHAUST DUCTWORK TO ROOF MOUNTED EXHAUST FAN. PATCH AND SEAL ROOF PENETRATION PER ROOF MANUFACTURES WARRANTY REQUIREMENTS.
4. REMOVE EXISTING CEILING EXHAUST FAN AND DUCT PENETRATION THROUGH ROOF. PATCH AND SEAL ROOF PER ROOF MANUFACTURER'S WARRANTY REQUIREMENTS.
5. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.

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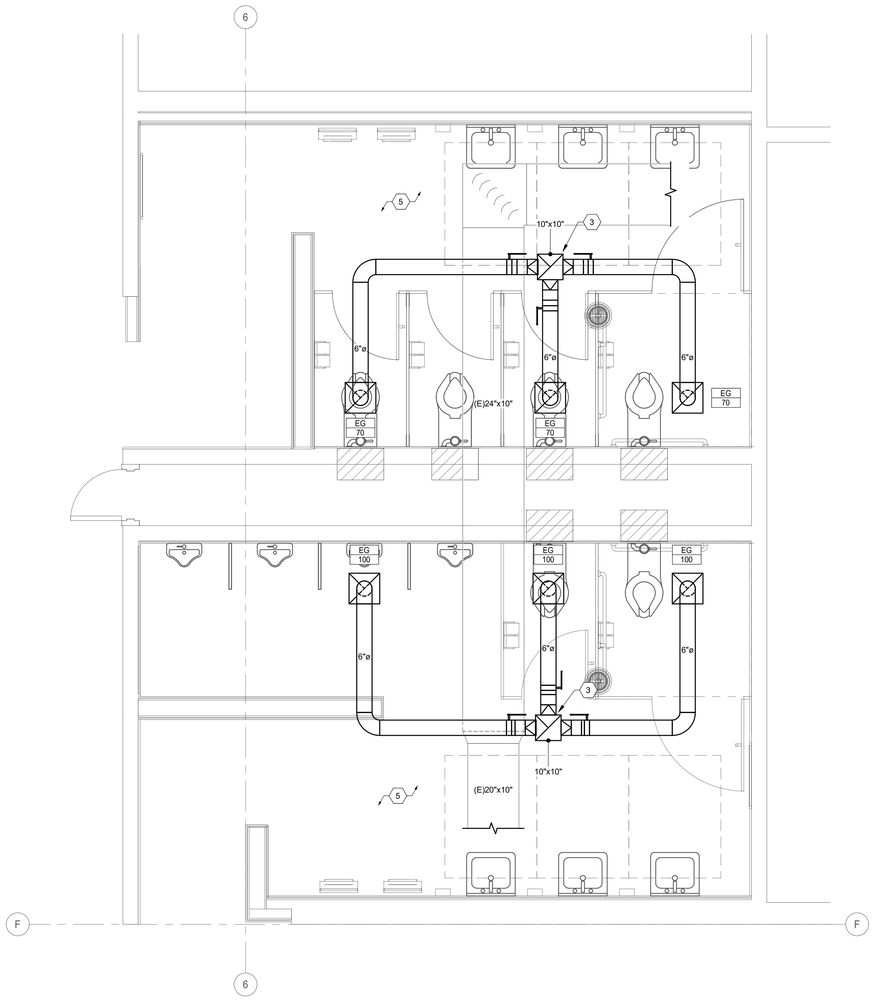
ENLARGED MECHANICAL PLAN

M402

1/11/2021 15:13:00

SHEET KEYNOTES

1. REMOVE EXISTING EXHAUST DIFFUSER AND DUCTING BACK TO MAINS. CAP AND SEAL DUCT MAIN.
2. AIR TRANSFER GRILL. SEE SCHEDULE FOR BASIS OF DESIGN.
3. ROUTE NEW EXHAUST DUCTWORK TO ROOF MOUNTED EXHAUST FAN. PATCH AND SEAL ROOF PENETRATION PER ROOF MANUFACTURES WARRANTY REQUIREMENTS.
4. REMOVE EXISTING CEILING EXHAUST FAN AND DUCT PENETRATION THROUGH ROOF. PATCH AND SEAL ROOF PER ROOF MANUFACTURER'S WARRANTY REQUIREMENTS.
5. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.



6A ENLARGED MECHANICAL PLAN - BOYS/GIRLS RESTROOMS SOUTH
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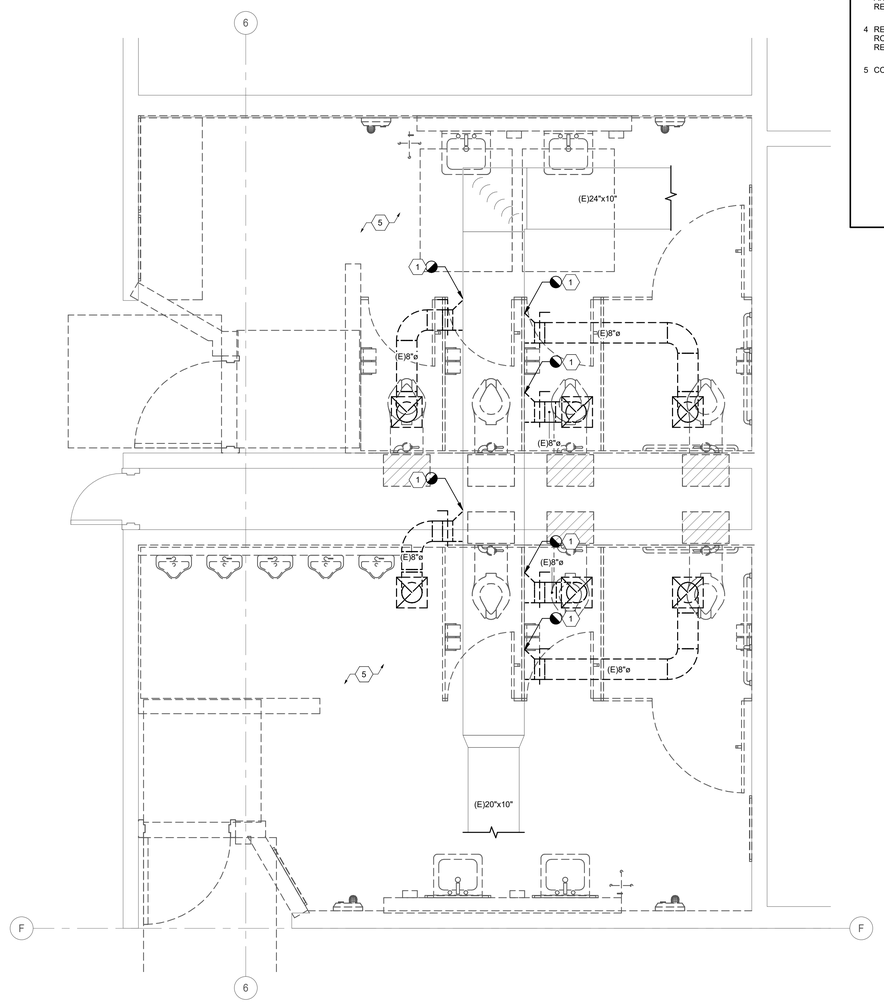
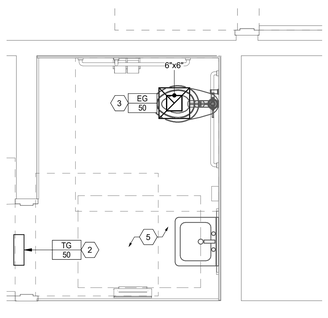
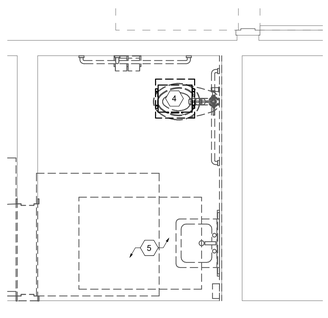


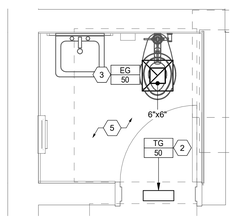
6B ENLARGED MECHANICAL DEMO. PLAN - BOYS/GIRLS RESTROOMS SOUTH
SCALE: 1/2" = 1'-0"



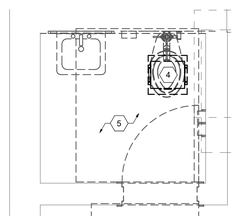
7A ENLARGED MECHANICAL PLAN - NURSE RESTROOM
SCALE: 1/2" = 1'-0"



7B ENLARGED MECHANICAL DEMO. PLAN - NURSE RESTROOM
SCALE: 1/2" = 1'-0"



8A ENLARGED MECHANICAL PLAN - CAFETERIA RESTROOM
SCALE: 1/2" = 1'-0"



8B ENLARGED MECHANICAL DEMO. PLAN - CAFETERIA RESTROOM
SCALE: 1/2" = 1'-0"

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STATE OF UTAH
6199131-2202
Michael Nielsen
01.11.2020
PROFESSIONAL ENGINEER

△	DATE	REVISION

PROJECT NUMBER 20093

ENLARGED MECHANICAL PLANS

M403

1/11/2021 15:13:02

EXHAUST FAN SCHEDULE

APPROVED EQUALS:
PENN BARRY
LOREN COOK
TWIN CITY
GREENHECK
BROAN

REMARKS:
(1) ALL ALUMINUM CONSTRUCTION
(2) BACKDRAFT DAMPER
(3) INTEGRAL THERMAL OVERLOAD PROTECTION
(4) SPRING CEILING MOUNTED VIBRATION ISOLATOR
(5) DISCONNECT SWITCH
(6) CAPACITY AT JOB SITE ELEVATION
(7) CEILING RADIATION DAMPER
(8) CONTROLLED BY WALL SWITCH
(9) CONTROLLED BY OCCUPANCY SENSOR. FAN TO RUN 5 MIN (ADJUSTABLE) AFTER LIGHTS TURN OFF.
(10) MECHANICAL CONTRACTOR TO PROVIDE TIME DELAY SWITCH.

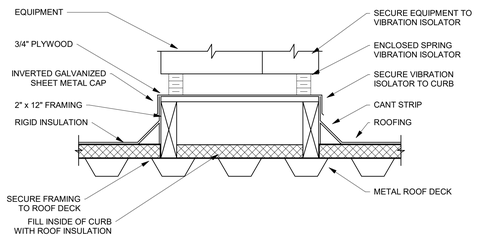
LABEL	AREA SERVED	CFM	STATIC PRESSURE	FAN RPM	SOUND RATING (DBA)	WEIGHT	HP	VOLTAGE	PHASE	Hz	STARTER FURN BY ELEC	STARTER FURN BY MECH	MANUFACTURER	MODEL	REMARKS
EF-1	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-2	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-3	RESTROOM	300	0.35 in-wg	1912	66	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-4	RESTROOM	300	0.35 in-wg	1981	65	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-5	RESTROOM	300	0.35 in-wg	1981	65	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-6	RESTROOM	300	0.35 in-wg	1981	65	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-7	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-8	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-9	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-10	RESTROOM	300	0.35 in-wg	1981	65	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-11	RESTROOM	300	0.35 in-wg	1981	65	26	1/8	115	1	60	YES	NO	LOREN COOK	90C15DH	(1-7)(9)(10)
EF-12	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)
EF-13	PRIVATE RESTROOM	50	0.35 in-wg	1751	47	22	1/10	115	1	60	YES	NO	LOREN COOK	90C15DL	(1-7)(9)(10)

REGISTER - GRILLE- DIFFUSER SCHEDULE

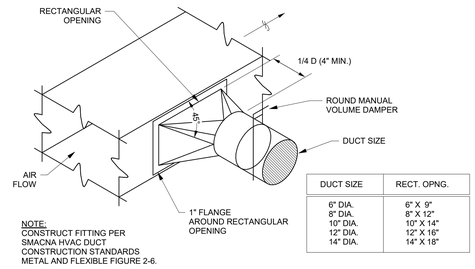
APPROVED EQUALS:
KRUEGER
TUTTLE & BAILEY
TITUS
PRICE

REMARKS:
(1) REGISTERS AND GRILLES SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STD 70.
(2) NC VALUES ARE BASED ON OCTAVE BAND SOUND POWER LEVELS MINUS A ROOM ABSORPTION OF 10 dB, RE 10(-12) WATTS.
(3) COORDINATE EXACT COLOR SELECTION WITH OWNER AND ARCHITECT.

LABEL	TYPE	BLOW PATTERN	MAX AIR FLOW (CFM)	FACE SIZE	NECK SIZE	MAX NC	PRESSURE DROP (in-wg)	THROW	MANUFACTURER	MODEL	REMARKS
EG	EXHAUST GRILL	4 WAY	150	12"x12"	SEE PLANS	30	0.100	NA	TITUS	PAR-AA	1, 2, 3
TG	TRANSFER GRILL	NA	50	8"x12"	NA	30	0.100	NA	TITUS	4FL	1, 2, 3

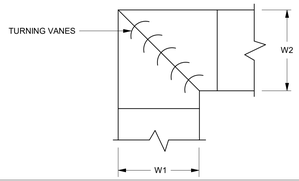


5 EQUIPMENT CURB DETAIL
SCALE: 1/8" = 1'-0"



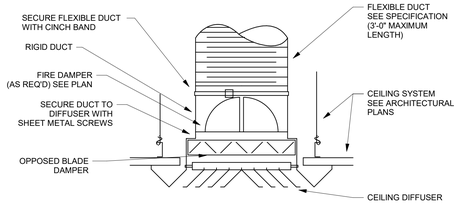
DUCT SIZE	RECT. OPNG.
6" DIA.	6" X 9"
8" DIA.	8" X 12"
10" DIA.	10" X 14"
12" DIA.	12" X 16"
14" DIA.	14" X 18"

4 DUCT HIGH EFFICIENCY TAKE-OFF
SCALE: 1/8" = 1'-0"



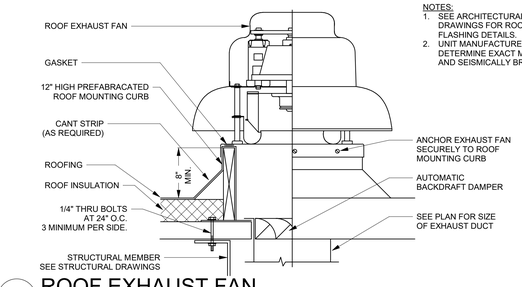
NOTES:
1. ALL TURNING VANES SHALL BE SINGLE VANE TYPE REGARDLESS OF DIMENSION.
2. ALL SINGLE VANES SHALL HAVE A 2 INCH RADIUS, 1 INCH MAXIMUM SPACE BETWEEN VANES AND A 3/4 INCH TRAILING EDGE.

3 DUCT ELBOW - SQUARE
SCALE: 1/8" = 1'-0"



NOTE:
CEILING INLETS AND OUTLETS SHALL BE INDEPENDENTLY SUPPORTED.

2 CEILING DIFFUSER - SURFACE
SCALE: 1/8" = 1'-0"



NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR ROOFING AND FLASHING DETAILS.
2. UNIT MANUFACTURER SHALL DETERMINE EXACT METHOD AND SEISMICALLY BRACING EQUIPMENT.

1 ROOF EXHAUST FAN
SCALE: 1/8" = 1'-0"

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
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Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N Provo, UT 84604

DATE	REVISION

PROJECT NUMBER 20093

MECHANICAL SCHEDULES AND DETAILS

M601

1/11/2021 15:13:04

MISC. SYMBOL LEGEND

SYMBOL	DESCRIPTION
# SHEET	DETAIL INDICATOR: # INDICATES DETAIL NUMBER, SHEET INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
# SHEET	ELEVATION OR SECTION INDICATOR, EXTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
100	ROOM OR SPACE NUMBER.
1	KEYNOTE INDICATOR.
	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
P-	PLUMBING FIXTURE INDICATOR.
TYPE CFM SIZE	DIFFUSER/GRILLE INDICATOR.
TYPE SIZE	DIFFUSER/GRILLE INDICATOR.
	BREAK, STRAIGHT
	BREAK, ROUND.
	MATCH LINE INDICATOR
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
	NEW CONNECTION POINT TO EXISTING

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
C.B.	CATCH BASIN
M.H.	MANHOLE
W.H.	WALL HYDRANT
H.B.	HOSE BIBB
	CLEANOUT TO GRADE
	FLOOR CLEANOUT
	WALL CLEANOUT
	1/2 GRATE
	3/4 GRATE
	FULL GRATE

PLUMBING PIPING LEGEND

SYMBOL	DESCRIPTION
CWV	COMBINATION WASTE AND VENT
	SOIL, WASTE - ABOVE GRADE (SW)
	SOIL, WASTE - BELOW GRADE (SW)
GW	GREASE WASTE - ABOVE GRADE
GW	GREASE WASTE - BELOW GRADE
	VENT (V)
AV	ACID VENT
AW	ACID WASTE - ABOVE GRADE
AW	ACID WASTE - BELOW GRADE
	DOMESTIC COLD WATER (DCW)
	DOMESTIC HOT WATER (DHW)
	DOMESTIC HOT WATER RECIRC (DHWR)
180	180°F HOT WATER
180R	180° HOT WATER RETURN
160	160° HOT WATER
160R	160° HOT WATER RETURN
RW	RAINWATER - ABOVE GRADE
RW	RAINWATER - BELOW GRADE
SRW	SECONDARY RAINWATER ABOVE GRADE
SRW	SECONDARY RAINWATER BELOW GRADE
SD	STORM DRAIN
VTR	VENT THRU ROOF
	NON POTABLE WATER
(E)	EXISTING PIPE
(E)	EXISTING PIPE TO BE REMOVED
IW	IRRIGATION WATER
SS	SANITARY SEWER
W	WATER
PWS	PURE WATER SUPPLY
PWR	PURE WATER RETURN
G	GAS
FP	FIRE PROTECTION
LPG	PROPANE
VAC	VACUUM
A	COMPRESSED AIR
MA	MEDICAL AIR
O	OXYGEN
NO	NITROUS OXIDE
N	NITROGEN
CO2	CARBON DIOXIDE
EVAC	EVACUATION

SYMBOL LEGEND

SYMBOL	DESCRIPTION
VALVES, METERS, AND GAUGES	
	SHUT OFF VALVE
	GATE VALVE
	CHECK VALVE
	AUTO 2-WAY VALVE
	AUTO 3-WAY VALVE
	GLOBE VALVE
	BALL VALVE
	RELIEF VALVE
	CHAIN OPERATED GATE VALVE
	PRESSURE REDUCING VALVE
	BUTTERFLY VALVE
	SOLENOID VALVE
	ANGLE VALVE
	VENTURI
	BALANCING OR PLUG COCK
	FLOW SETTER
	EXPANSION VALVE (REFRIG.)
	GAS COCK
MAV	MANUAL AIR VENT
	STRAINER
	GAUGE COCK
	FLEXIBLE CONNECTION
	PRESSURE GAUGE
	THERMOMETER
	VICTUALIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
	REFRIGERANT FILTER DRIER
	90 DEG ELBOW UP
	90 DEG ELBOW DOWN
	90 DEG TEE UP
	90 DEG TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

(E)	EXISTING
(F)	FUTURE
AD	ACCESS DOOR
AIR COND	AIR CONDITION(-ING,-ED)
APD	AIR PRESSURE DROP
BD	BALANCING DAMPER
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
BTUH	BTU/HOUR
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
COND	CONDENS(-ER, -ING, -ATION)
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC
DP	DEPTH OR DEEP
EA	EXHAUST AIR
EER	ENERGY EFFICIENCY RATIO
EFF	EFFICIENCY
ELEC	ELECTRIC
ELEV	ELEVATION
ENT	ENTERING
EVAP	EVAPORAT(-E, -ING, -ED, -OR)
EWT	ENTERING WATER TEMPERATURE
EXT	EXTERNAL
FC	FLEXIBLE CONNECT(-OR, -ION)
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE SMOKE DAMPER
GE	GREASE EXHAUST
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HG	MERCURY
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HTG	HEATING
HZ	HERTZ (FREQUENCY)
ID	INSIDE DIAMETER
IN	INCH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LG	LENGTH
LH	LATENT HEAT
LRA	LOCKED ROTOR AMPS
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MFR	MANUFACTUR(-ER, -ED)
NC	NORMALLY CLOSED
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
OZ	OUNCE
PD	PRESSURE DROP OR DIFFERENCE
PG	PROPOLENE GLYCOL
PH	PHASE
PPM	PARTS PER MILLION
PRESS	PRESSURE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAUGE
R	THERMAL RESISTANCE
RA	RETURN AIR
RECIRC	RECIRCULATE
REFR	REFRIGERATION
REQD	REQUIRED
RLA	RATED LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCW	SOFT COLD WATER
SF	SAFETY FACTOR
SH	SENSIBLE HEAT
SL	SEA LEVEL
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
STD	STANDARD
SW	SOIL, WASTE
TA(R)	TRANSFER AIR (RETURN)
TA(S)	TRANSFER AIR (SUPPLY)
TD	TEMP. DROP OR DIFF.
TEMP	TEMPERATURE
THERM	THERMAL
TOT	TOTAL
TSTAT	THERMOSTAT
V	VOLT
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY TEMPERATURE
VEL	VELOCITY
VENT	VENT, VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
WB	WET BULB TEMP
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DROP
WT	WEIGHT
WTR	WATER

PLUMBING GENERAL NOTES

1. THE PLUMBING DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENT AND EXTENT OF THE PLUMBING SYSTEM. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THESE DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS OR ELBOWS NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. CONTRACTOR SHALL MAKE SUCH SLIGHT ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE AND OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT. MAJOR DEVIATIONS SUCH AS CHANGES IN COMPONENT SIZES, WEIGHTS, QUANTITIES OR MATERIAL REQUIRE PRIOR APPROVAL BY THE DESIGN ENGINEER.
2. THE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH THE ITEMS SHOWN ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN BOTH.
3. THE ENTIRE PLUMBING INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODES, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, AND ALL OTHER APPLICABLE CITY, COUNTY, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT.
4. THE ENTIRE PLUMBING INSTALLATION SHALL CONFORM TO ANY CODES, RULES, REGULATIONS AND REQUIREMENTS OF THE BUILDING OWNER.
5. PRIOR TO FABRICATION AND INSTALLATION OF ANY PLUMBING COMPONENT THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PLUMBING WORK WITH ALL OTHER BUILDING TRADES, INCLUDING BUILDING TRADES HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR, THEY SHALL BE RESOLVED PRIOR TO INSTALLATION.
6. ALL PLUMBING INFORMATION IS NOT SHOWN ON THE PLUMBING DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW AND USE, WHERE APPROPRIATE, ALL THE PLUMBING DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE PLUMBING SYSTEM WITHOUT USING THE INCLUDED DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ANY PART OF THE PLUMBING INSTALLATION THAT FAILS, IS UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. PROVIDE PROPER PROVISIONS FOR EXPANSION, CONTRACTION, OR MOVEMENT OF ALL PIPING.
10. PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALL OR FLOOR TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENT.
11. ALL PIPING SHALL BE SUPPORT WITH CLEVIS HANGERS (MSS TYPE 1). PERFORATED METAL STRAPS OR PLASTIC STRAPPING (PLUMBER TAPE) SHALL NOT BE USED TO SUPPORT OR BRACE ANY PIPE.
12. PROVIDE PIPE HANGERS WITHIN 18-INCHES OF ALL CHANGES OF DIRECTION.
13. PROVIDE SWAY BRACING FOR ALL PIPING 4" AND LARGER AT ALL CHANGES IN DIRECTION GREATER THAN 45-DEGREES.
14. ALL STEEL CLEVIS HANGERS USED TO SUPPORT COPPER PIPING SHALL BE COPPER OR PLASTIC COATED.
15. COPPER PIPING SHALL NOT COME IN CONTACT WITH FIRE TREATED LUMBER. PROVIDE ½" THICK SLIP-ON CLOSED CELL INSULATION WHERE COPPER PIPING IS ADJACENT TO FIRE TREATED LUMBER. CLOSED CELL INSULATION SHALL EXTEND A MINIMUM OF 1-1/2" PAST LUMBER.
16. ALL EXPOSED PIPING SHALL BE INSTALLED IN A NEATLY ARRANGED MANNER PARALLEL TO THE BUILDING STRUCTURE.
17. ALL EXPOSED DOMESTIC WATER PIPE IN OCCUPIED SPACES SHALL BE POLISHED CHROME PLATED.
18. ALL EXPOSED DRAINAGE PIPING IN OCCUPIED SPACES INCLUDING TRAPS UNDER SINKS SHALL BE POLISHED CHROME PLATED.
19. DRAWINGS SHOW GENERAL ARRANGEMENT OF THE DRAIN WASTE AND VENT SYSTEM WITH THE REQUIRED CLEANOUTS. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL CLEANOUTS AS REQUIRED BY THE PLUMBING CODE.
20. ALL SANITARY DRAINAGE SYSTEM PIPING 3" AND LARGER SHALL BE SLOPED IN DIRECTION OF FLOW AT A MINIMUM OF 1/8" PER FOOT.
21. ALL SANITARY DRAINAGE SYSTEM PIPING SMALLER THAN 3" SHALL BE SLOPED IN DIRECTION OF FLOW AT A MINIMUM OF 1/4" PER FOOT.
22. SLOPE VENT SYSTEM TOWARDS DRAINAGE SYSTEM.
23. SIMILAR EQUIPMENT SHALL BE OF THE SAME MANUFACTURER.
24. ALL EQUIPMENT SHALL PROVIDE THE SCHEDULED PERFORMANCE AT THE JOB SITE ELEVATION.
25. FIXTURE AND EQUIPMENT MODEL NUMBERS SHOWN IN PLUMBING FIXTURE SCHEDULE AND PLUMBING EQUIPMENT SCHEDULE ARE SHOWN TO ESTABLISH THE TYPE OF PRODUCT THAT SHALL BE USED. THE SELECTED PRODUCT SHALL MEET THE SCHEDULED PERFORMANCE DATA SHOWN ON THE SCHEDULE EVEN IF A DIFFERENT MODEL IS SUPPLIED THAT IS DIFFERENT THAN THAT SCHEDULED.
26. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ALL NECESSARY FITTINGS, TRANSITIONS, VALVES AND OTHER DEVICES AND ACCESSORIES REQUIRED FOR A COMPLETE, WORKABLE INSTALLATION.
27. SEE "PLUMBING FIXTURE SCHEDULE" FOR INDIVIDUAL TRAPS, WASTE, VENT, AND DOMESTIC WATER PIPING FOR INDIVIDUAL FIXTURES.
28. ALL PLUMBING EQUIPMENT SHALL BE LISTED AND LABELED BY AN APPROVED TESTING AGENCY.
29. FIXTURES, EQUIPMENT AND PIPING INSTALLATION SHALL MEET NSF STANDARDS.

PLUMBING SHEET INDEX

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P402	**ENLARGED PLUMBING PLANS**
P403	**ENLARGED PLUMBING PLANS**
P601	**PLUMBING SCHEDULES AND DETAILS**

FFKR ARCHITECTS
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Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N Provo, UT 84604

STATE OF UTAH
6199431-2202
Michael Nielsen
01.11.2020
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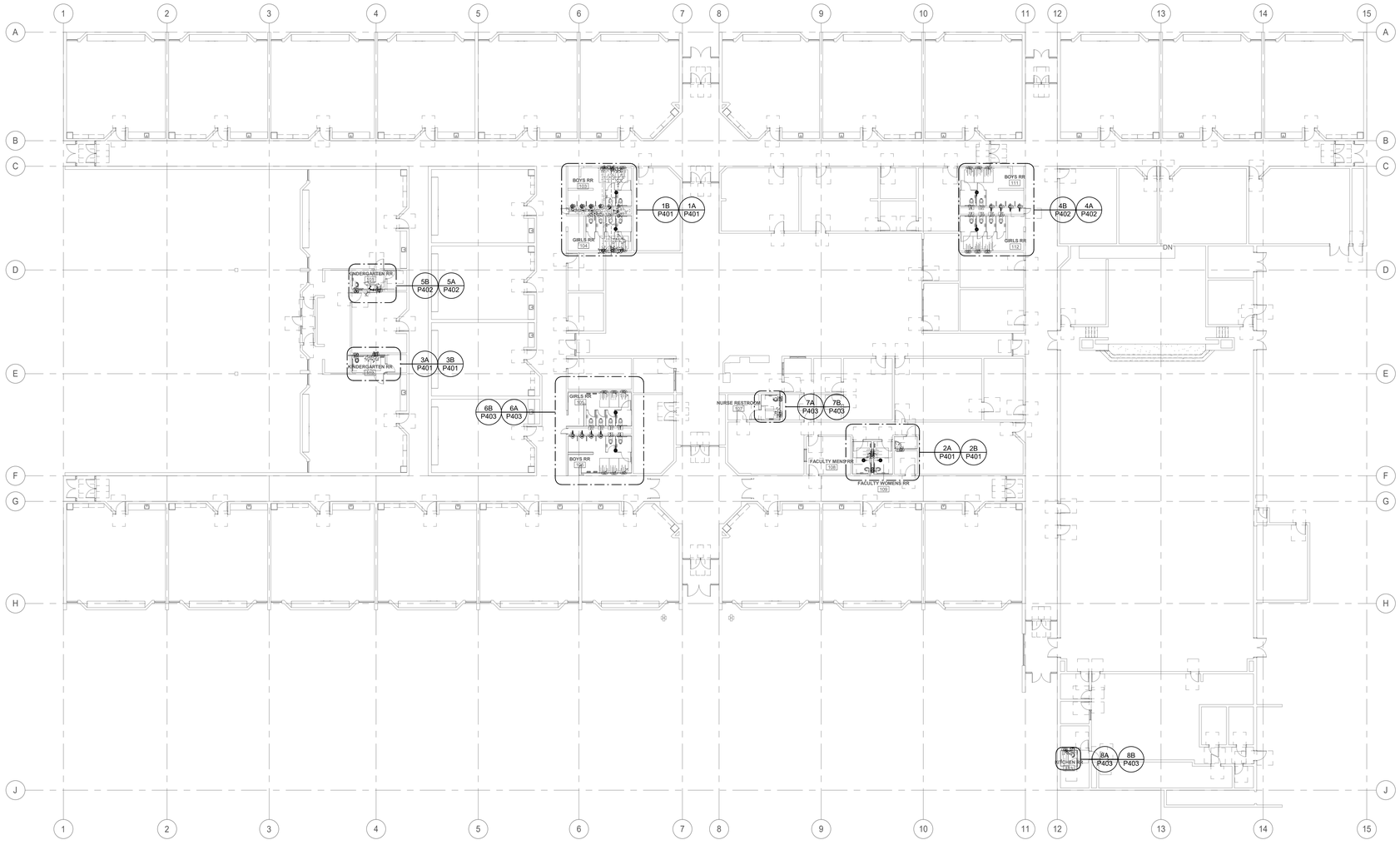
PLUMBING COVER SHEET

P001

1/11/2021 15:13:07



A1 LEVEL 1 PLUMBING PLAN

SCALE: 1/16" = 1'-0"

NORTH

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · **FFKR.COM**

Westridge Elementary Toilet Room Upgrades
PROVO SCHOOL DISTRICT
1720 W 1460 N Provo, UT 84604

09131-2202
Michael Nielsen
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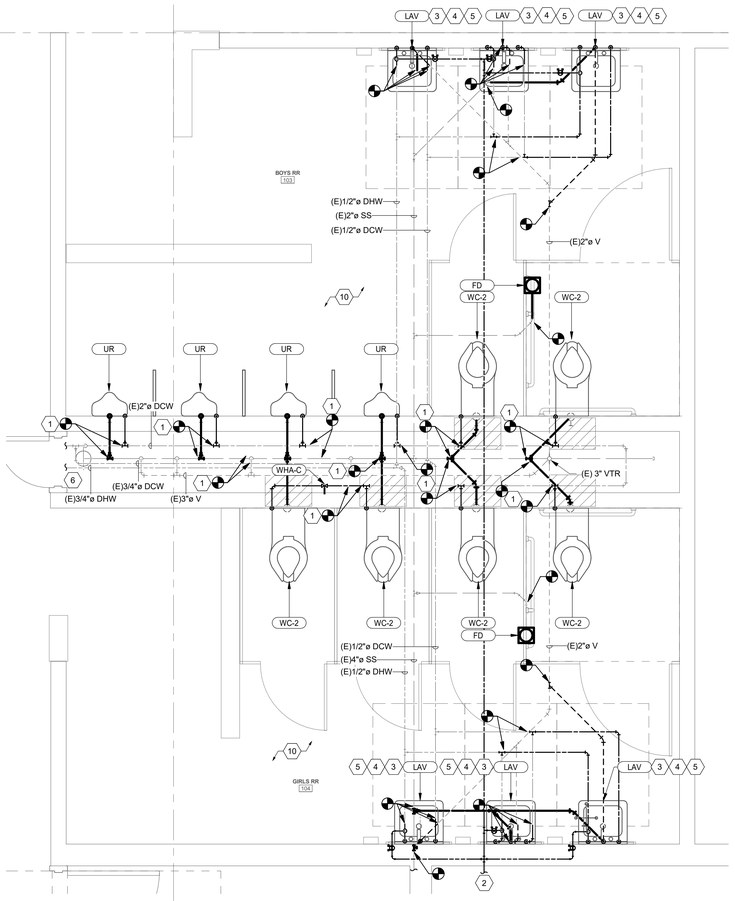
LEVEL 1 PLUMBING PLAN - OVERALL

P101

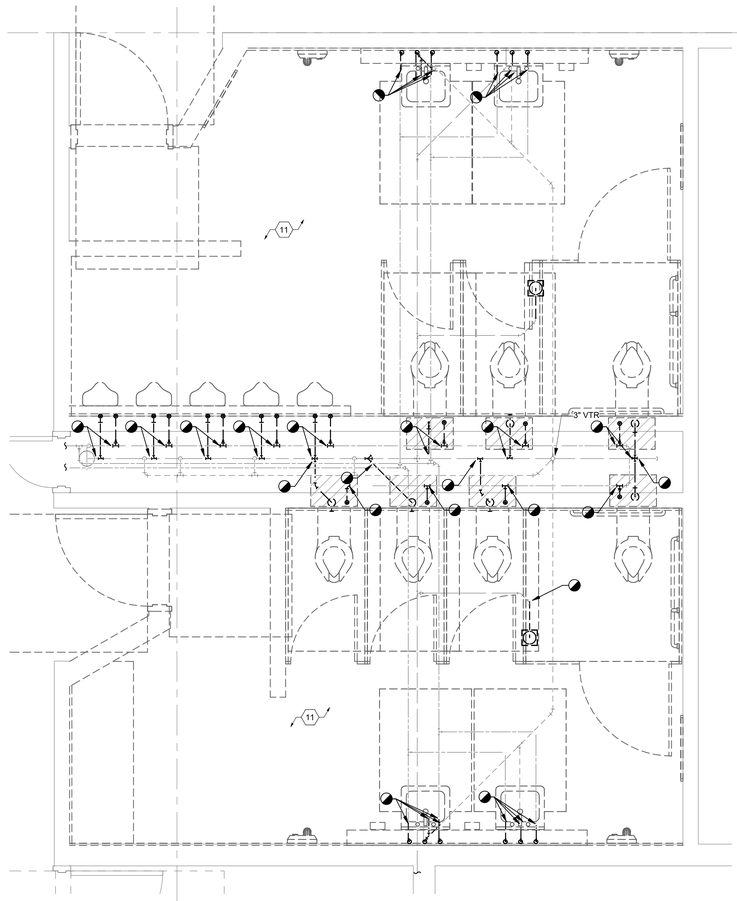
1/11/2021 15:13:13

SHEET KEYNOTES

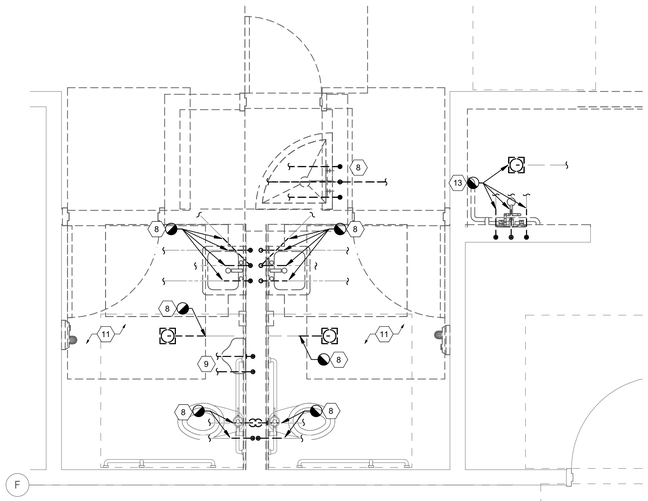
1. CONNECT TO PREVIOUS MAIN CONNECTIONS AS POSSIBLE. CONTRACTOR TO FIELD VERIFY.
2. CONNECT NEW HOT WATER RECIRCULATION LINES TO EXISTING HOT WATER RECIRCULATION MAIN IN HALLWAY. ESTIMATED LENGTH 10'.
3. FLOW SETTER BALANCED TO 0.5 GPM.
4. PROVIDE WALL CARRIER CAPABLE OF MOUNTING THROUGH FURRED OUT WALL AND SECURING TO MASONRY WALL. BASIS OF DESIGN JR SMITH D0720.
5. MOUNT THERMOSTATIC MIXING VALVE AND FLOW SETTER IN REACHABLE LOCKABLE ACCESS PANEL UNDER SINK.
6. REMOVE CONDENSATE LINES SERVING PREVIOUS MECHANICAL SYSTEM LOCATED IN PLUMBING CHASE. CONTRACTOR TO FIELD VERIFY LOCATION AND ROUTING.
7. SALVAGE EXISTING PLUMBING FIXTURE AND RETURN TO OWNER.
8. REMOVE EXISTING PLUMBING FIXTURE AS NECESSARY TO CONNECT NEW FIXTURE. (APPROXIMATE LENGTH 5').
9. REMOVE URINAL AND PIPING LINES BACK TO MAINS. CAP AND SEAL. (APPROXIMATELY 20 ')
10. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS. CONTRACTOR TO BLOW OUT WASTE LINES AS NECESSARY TO FACILITATE PROPER DRAINAGE.
11. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
12. CONNECT NEW MOP SINK TO EXISTING PLUMBING CONNECTIONS SERVING PREVIOUS SHOWER.
13. REMOVE EXISTING SHOWER FIXTURE.



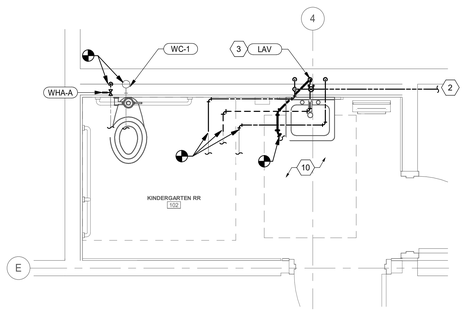
1A ENLARGED PLUMBING PLAN - BOYS/GIRLS RESTROOMS NORTH
SCALE: 1/2" = 1'-0"



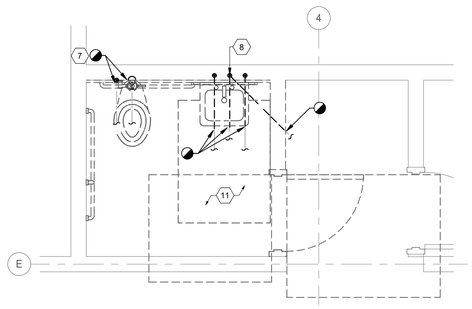
1B ENLARGED PLUMBING DEMO. PLAN - BOYS/GIRLS RESTROOMS NORTH
SCALE: 1/2" = 1'-0"



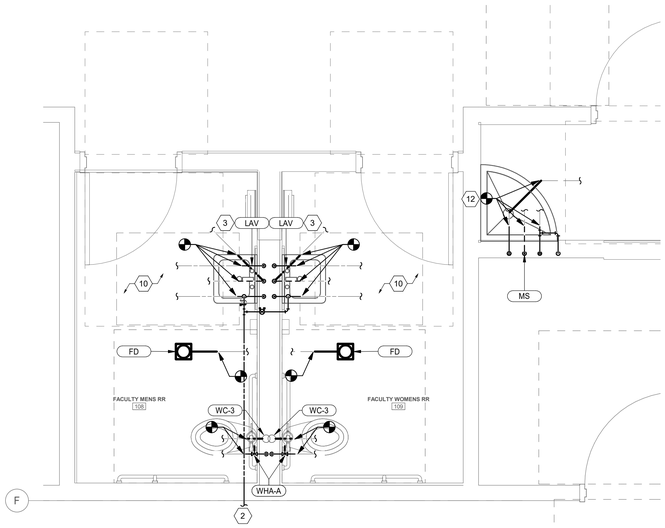
2B ENLARGED PLUMBING DEMO. PLAN - FACULTY RESTROOM
SCALE: 1/2" = 1'-0"



3A ENLARGED PLUMBING PLAN - KINDERGARTEN RESTROOM SOUTH
SCALE: 1/2" = 1'-0"



3B ENLARGED PLUMBING DEMO. PLAN - KINDERGARTEN RESTROOM SOUTH
SCALE: 1/2" = 1'-0"



2A ENLARGED PLUMBING PLAN - FACULTY RESTROOM
SCALE: 1/2" = 1'-0"

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STATE OF UTAH 9109431-2202 Michael Nielsen 01.11.2020

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ENLARGED PLUMBING PLANS

P401

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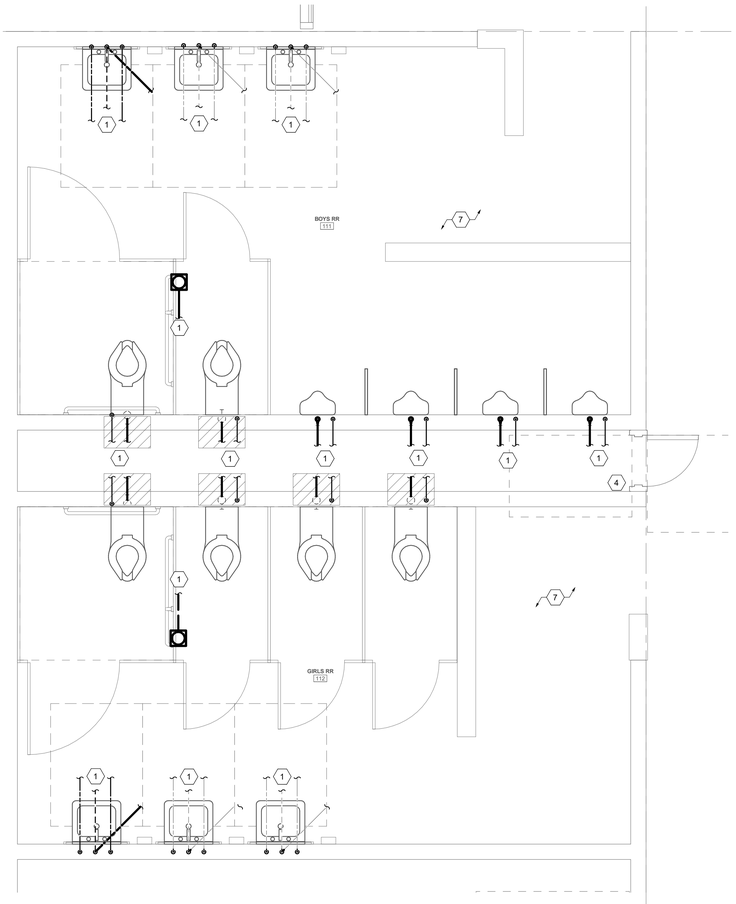
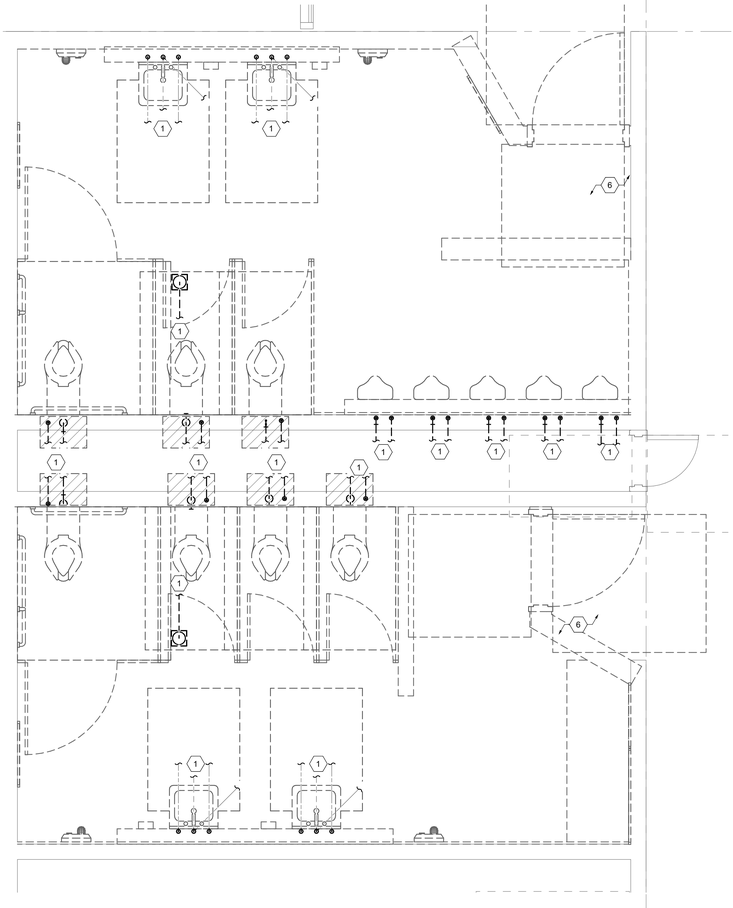


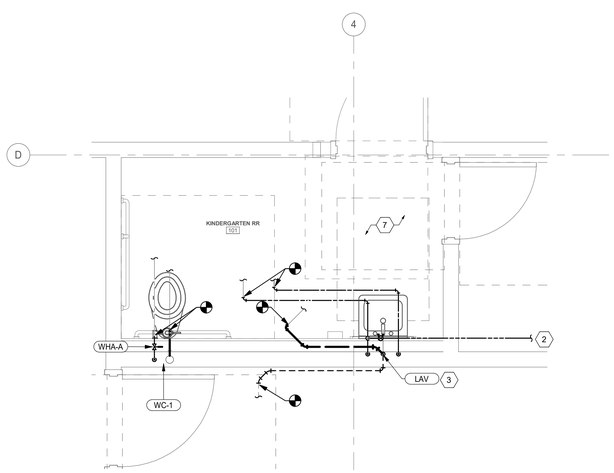
4A ENLARGED PLUMBING PLAN - BOYS/GIRLS RESTROOMS EAST

SCALE: 1/2" = 1'-0"



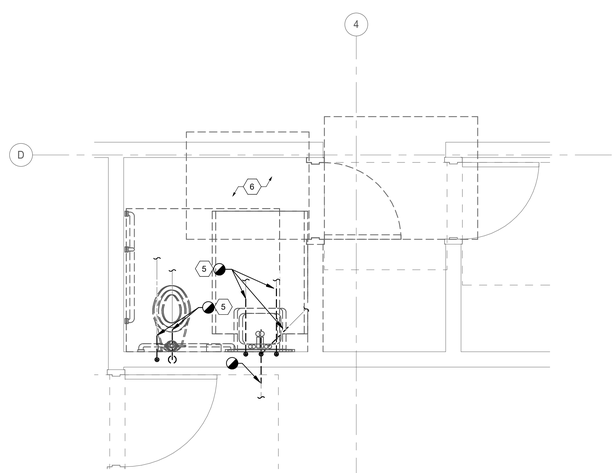
4B ENLARGED PLUMBING DEMO. PLAN - BOYS/GIRLS RESTROOMS EAST

SCALE: 1/2" = 1'-0"



5A ENLARGED PLUMBING PLAN - KINDERGARTED RESTROOM NORTH

SCALE: 1/2" = 1'-0"



5B ENLARGED PLUMBING DEMO. PLAN - KINDERGARTEN RESTROOM NORTH

SCALE: 1/2" = 1'-0"

SHEET KEYNOTES

1 SEE NORTH BOYS / GIRLS RESTROOM FOR SIMILAR ROUTING.

2 CONNECT NEW HOT WATER RECIRCULATION LINES TO EXISTING HOT WATER RECIRCULATION MAIN IN HALLWAY. ESTIMATED LENGTH 10'.

3 FLOW SETTER BALANCED TO 0.5 GPM.

4 REMOVE CONDENSATE LINES SERVING PREVIOUS MECHANICAL SYSTEM LOCATED IN PLUMBING CHASE. CONTRACTOR TO FIELD VERIFY LOCATION AND ROUTING.

5 REMOVE EXISTING PLUMBING FIXTURE AS NECESSARY TO CONNECT NEW FIXTURE. (APPROXIMATE LENGTH 5').

6 CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.

7 CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS. CONTRACTOR TO BLOW OUT WASTE LINES AS NECESSARY TO FACILITATE PROPER DRAINAGE..

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ENLARGED PLUMBING PLANS

P402

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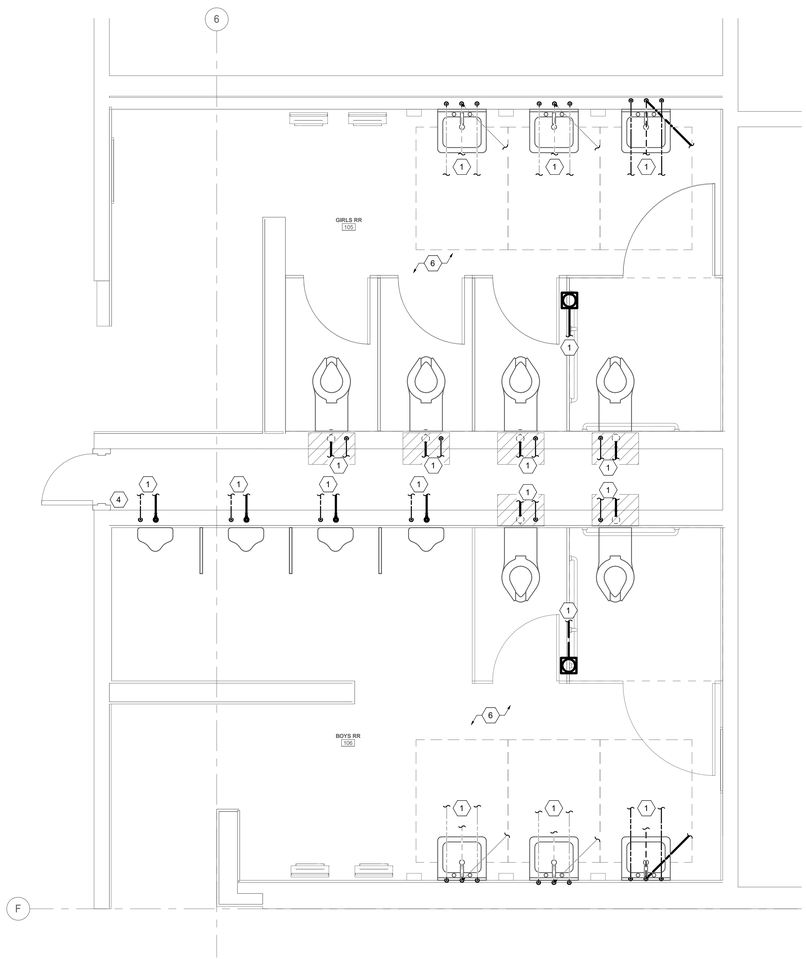
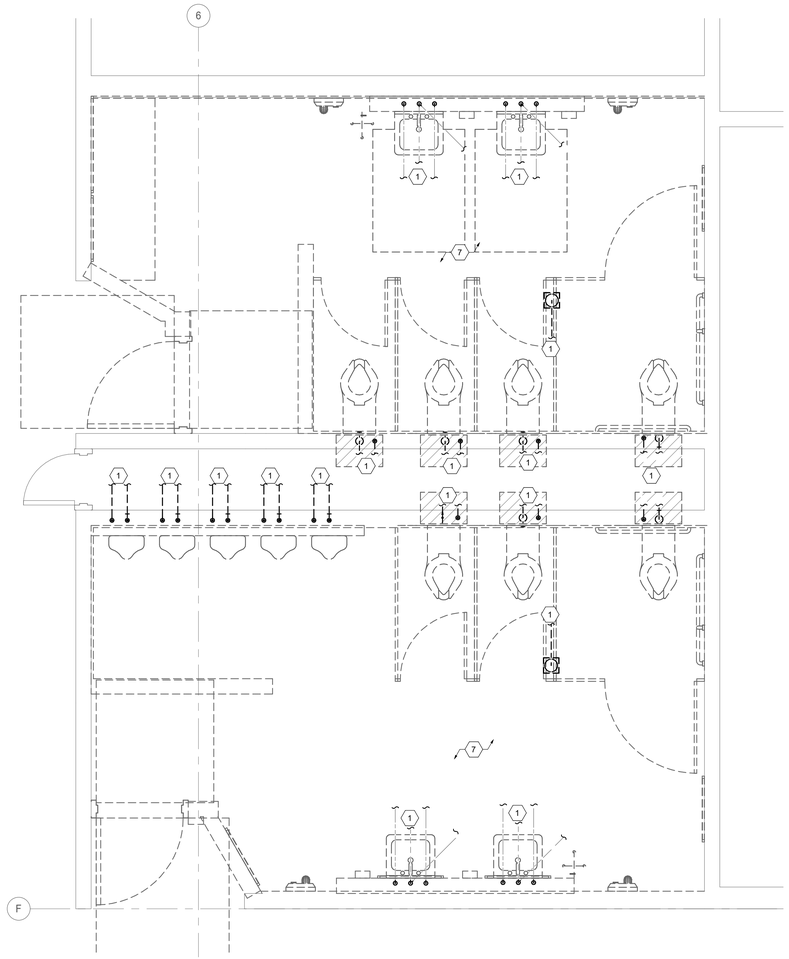
SHEET KEYNOTES

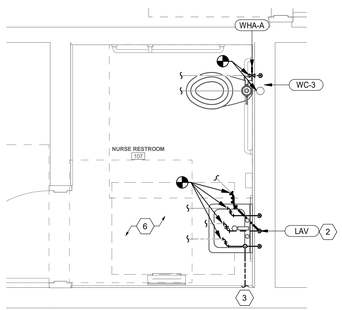
1. SEE NORTH BOYS / GIRLS RESTROOM FOR SIMILAR ROUTING.
2. FLOW SETTER BALANCED TO 0.5 GPM.
3. CONNECT NEW HOT WATER RECIRCULATION LINES TO EXISTING HOT WATER RECIRCULATION MAIN IN HALLWAY. ESTIMATED LENGTH 25'.
4. REMOVE CONDENSATE LINES SERVING PREVIOUS MECHANICAL SYSTEM LOCATED IN PLUMBING CHASE. CONTRACTOR TO FIELD VERIFY LOCATION AND ROUTING.
5. REMOVE EXISTING PLUMBING FIXTURE AS NECESSARY TO CONNECT NEW FIXTURE. (APPROXIMATE LENGTH 5').
6. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS. CONTRACTOR TO BLOW OUT WASTE LINES AS NECESSARY TO FACILITATE PROPER DRAINAGE.
7. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.



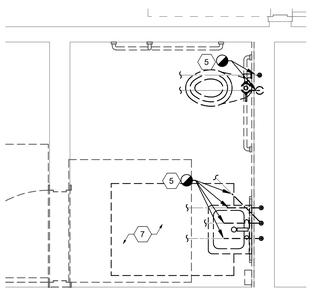
6A ENLARGED PLUMBING PLAN - BOYS/GIRLS RESTROOMS SOUTH
SCALE: 1/2" = 1'-0"



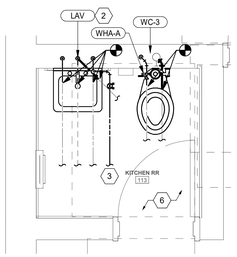
6B ENLARGED PLUMBING DEMO. PLAN - BOYS/GIRLS RESTROOMS SOUTH
SCALE: 1/2" = 1'-0"



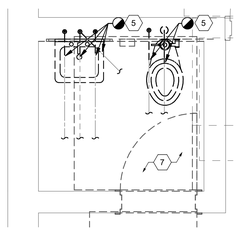
7A ENLARGED PLUMBING PLAN - NURSE RESTROOM
SCALE: 1/2" = 1'-0"



7B ENLARGED PLUMBING DEMO PLAN - NURSE RESTROOM
SCALE: 1/2" = 1'-0"



8A ENLARGED PLUMBING PLAN - CAFETERIA RESTROOM
SCALE: 1/2" = 1'-0"



8B ENLARGED PLUMBING DEMO PLAN - CAFETERIA RESTROOM
SCALE: 1/2" = 1'-0"

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ENLARGED PLUMBING PLANS

P403

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PLUMBING FIXTURE SCHEDULE (DRAINS)

SYMBOL	FIXTURE	TRAP	WASTE	VENT	DOMESTIC COLD WATER	DOMESTIC HOT WATER	DESCRIPTION		MANUFACTURER AND MODEL
FD	FLOOR DRAIN	2"	2"	2"	---	---	FIXTURE: STRAINER: TRAP PRIMER: TRAP:	CAST IRON BODY, FLASHING COLLAR. 5" ROUND STAINLESS STEEL, ADJUSTABLE. BARRIER TYPE ABS, NEOPRENE RUBBER DIAPHRAGM, ASSE STANDARD 1072-AF-GW. PVC P-TRAP.	JRS PRODUCTS 2050 SCHLUTER KERDI-DRAIN PURE SURSEAL SS 3509
CO	CLEANOUT	----	SAME AS PIPE	---	---	---	EQUIPMENT:	CAST IRON BLIND PLUG	CHARLOTTE PIP NH-50
WCO	WALL CLEANOUT	---	SAME AS PIPE	---	---	---	EQUIPMENT:	ROUND FLAT STAINLESS STEEL WALL PLATE.	J.R. SMITH 4532S

ACCEPTABLE MANUFACTURERS:

DRAINAGE (FLOOR DRAINS, ECT): TAP PRIMER (BARRIER TYPE):	J.R. SMITH, SURESEAL,	ZURN, J.R. SMITH,	MIFAB, PROSET "TRAP GUARD"	WATTS

IECC TABLE C403.11.3
MINIMUM PIPE INSULATION THICKNESS (in inches)

FLUID OPERATING TEMPERATURE RANGE AND USAGE (F)	INSULATION CONDUCTIVITY		NOMINAL PIPE SIZE (inches)				
	CONDUCTIVITY (BTU / IN.)	MEAN RATING TEMPERATURE (F)	< 1	1 to < 1 1/2	1 1/2 to < 4	4 to < 8	> 8
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 - 0.26	50	0.5	1.0	1.0	1.0	1.5

NOTES:

1. FOR PIPING SMALLER THAN 1 1/2" INCHES AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKENESS BY 1" SHALL BE PERMITTED, BUT NOT TO A THICKNESS LESS THAN 1 INCH.

2. FOR DIRECT-BURIED HEATING AND HOT WATER PIPING, REDUCTION OF THICKNESSES BY 1 1/2" SHALL BE PERMITTED, BUT NOT LESS THAN 1 INCH

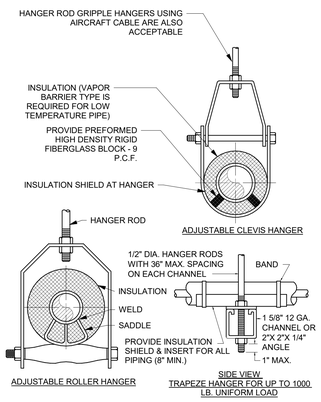
PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	TRAP	WASTE	VENT	DOMESTIC COLD WATER	DOMESTIC HOT WATER	DESCRIPTION	BASIS OF DESIGN MANUFACTURER & MODEL
WC-1	WATER CLOSET FLOOR MOUNT (KINDERGARTEN)	INT.	4"	2"	1 1/4"	----	FIXTURE: FLOOR MOUNTED, VITREOUS CHINA, ELONGATED, SIPHON JET, 14" BOWL HEIGHT. FLUSH VALVE: DIAPHRAGM TYPE, 1.28 GPF, POLISHED CHROME PLATED BRASS, DUAL FILTERED BYPASS, BACK PRESSURE VACUUM BREAKER. SEAT: OPEN FRONT, STAINLESS STEEL HINGE POSTS.	AMERICAN STANDARD 2599.001.020 ZURN Z6000AV BEMIS 1955C
WC-2	WATER CLOSET WALL MOUNTED (CHILDREN HEIGHT)	INT.	4"	2"	1 1/4"	----	FIXTURE: WALL MOUNTED, VITREOUS CHINA, ELONGATED, SIPHON JET, MOUNT AT 14" BOWL HEIGHT. FLUSH VALVE: DIAPHRAGM TYPE, 1.28 GPF, POLISHED CHROME PLATED BRASS, DUAL FILTERED BYPASS, BACK PRESSURE VACUUM BREAKER SEAT: OPEN FRONT, STAINLESS STEEL HINGE POSTS.	AMERICAN STANDARD 3351.101.020 ZURN Z6000AV BEMIS 1955C
WC-3	WATER CLOSET FLOOR MOUNTED	INT.	4"	2"	1 1/4"	----	FIXTURE: FLOOR MOUNTED, VITREOUS CHINA, ELONGATED, SIPHON JET, 15" BOWL HEIGHT. FLUSH VALVE: LOW CONSUMPTION, MANUAL, 1.28 GPF, POLISHED CHROME PLATED BRASS. SEAT: OPEN FRONT, STAINLESS STEEL HINGE POSTS.	AMERICAN STANDARD 3451.528.020 ZURN Z6000AV BEMIS 1955C
WC-4	WATER CLOSET FLOOR MOUNTED	INT.	4"	2"	1 1/4"	----	FIXTURE: EXISTING TO REMAIN. FLUSH VALVE: LOW CONSUMPTION, MANUAL, 1.28 GPF, POLISHED CHROME PLATED BRASS. SEAT: OPEN FRONT, STAINLESS STEEL HINGE POSTS.	EXISTING TO REMAIN ZURN Z6000AV BEMIS 1955C
UR	URINAL (ACCESSIBLE)	INT.	2"	2"	3/4"	---	WALL MOUNTED, FLUSHING RIM, WASHOUT, VITREOUS CHINA. 3/4" TOP SPUD. MANUAL FLUSH VALVE, DIAPHRAGM TYPE FLUSH VALVE, 0.25 GALLON PER FLUSH POLISHED CHROME PLATED BRASS FLOOR MOUNTED SUPPORT, FLOOR BEARING PLATE, TOP AND BOTTOM BEARING STUDS	AMERICAN STANDARD 6590.001 ZURN Z6000AV J.R. SMITH 0615
LAV	WALL MOUNT LAVATORY	1-1/4"	1-1/2"	1-1/2"	1/2"	1/2"	FIXTURE: WALL HUNG VITREOUS CHINA, 4" CENTERS, WITH CARRIER. FAUCET: DECK MOUNTED, POLISHED CHROME, 0.5 GPM, ADA. MIXING VALVE: COMBINATION TEMPERATURE & PRESSURE, POLISHED CHROME PLATED LEAD FREE BRASS, INTEGRAL CHECK, ASSE 1070 LISTED, SET AT 110 F DRAIN: CHROME PLATED BRASS GRID DRAIN, CHROME PLATED BRASS TAILPIECE. TRAP: 17 GA. POLISHED CHROME BRASS TUBULAR, W/O CLEANOUT STOPS: SWEAT CONNECTION, ANGLE BALL VALVE, HEAVY DUTY, POLISHED CHROME PLATED LEAD FREE BRASS, CHROME PLATED BRASS BALL, 1/2" NOMINAL COMPRESSION x 3/8". PROVIDE CHECK VALVE DOWNSTREAM OF STOPS. ADA GUARD: ANTIMICROBIAL VINYL, ADA COMPLIANT RISERS: COMPRESSION, BRAIDED STAINLESS STEEL.	AMERICAN STANDARD 0124.024.020 MOEN 8413F05 POWERS LFe480-11 MCGUIRE 155A DEARBORN BRASS 701-1 BRASSCRAFT KTCR19X C BRASSCRAFT 1-15A C TRUBRO LAVGUARD 2
MS	MOP SINK	3"	3"	2"	1/2"	1/2"	FLOOR MOUNTED, ONE-PIECE, ACID RESISTANT ENAMELED CAST IRON, 28" X 28", REMOVABLE VINYL-OATED RIM GUARD FLAT GRID DRAIN, POLISHED CHROME PLATED. POLISHED CHROME PLATED LEAD-FREE BRASS, ATMOSPHERIC VACUUM BREAKER, 3/4" THREADED HOSE CONNECTION. LEVER HANDLES OFFSET INLETS ARM WITH INTEGRAL CHECK FLOW RESTRICTOR: 2.0 GPM PROVIDE ADDITIONAL HOSE BIB WATER CONNECTION FOR CHEMICAL DISPENSER. PROVIDE DOUBLE CHECK WITH VACUUM BREAKER ON WATER LINE SERVING ADDITIONAL HOSE BIB.	AMERICAN STANDARD 7745.811 AMERICAN STANDARD 8344.212

WATER HAMMER ARRESTER SCHEDULE

ACCEPTABLE MANUFACTURERS:	NOTES:
SIOUX CHIEF "HYDRA-ARRESTER" MIFAB "MWH" PPP "SC" WATTS LF02	(1) ANSI / ASSE 1010 LISTED (2) LEAD FREE CONSTRUCTION (3) COPPER TUBE BODY, POLY PISTON, EDPM O-RING (4) MIP THREADED INLET

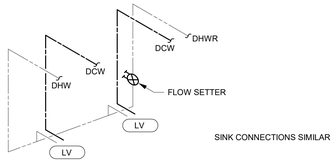
SYMBOL	INLET SIZE (INCHES)	PDI SYMBOL	CAPACITY (DFU)	BASIS OF DESIGN MANUFACTURER & MODEL
WHA-A	1/2	A	1-11	SIOUX CHIEF 652-A
WHA-B	3/4	B	12-32	SIOUX CHIEF 653-B
WHA-C	1	C	22-60	SIOUX CHIEF 654-C
WHA-D	1	D	61-113	SIOUX CHEIF 655-D
WHA-E	1	E	114-154	SIOUX CHIEF 656-E
WHA-F	1	F	155-330	SIOUX CHIEF 657-F



WITH INCOMPRESSIBLE INSULATING BLOCK AT HANGER		
PIPE DIAMETER	SHIELD LENGTH	SHIELD THICKNESS USSG
UP TO 3"	8"	18
4" UP TO 6"	8"	16

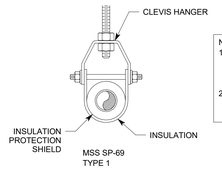
NOTE: HANGER, ROD AND INSERT SHALL BE DIPPED IN RED OXIDE PRIMER PRIOR TO INSTALLATION.

4 PIPE SUPPORTS
SCALE: NTS



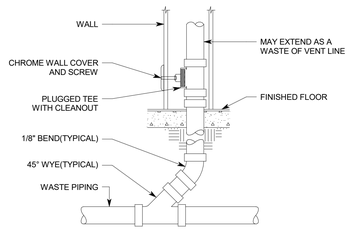
SINK CONNECTIONS SIMILAR

3 LAVATORY DOMESTIC WATER CONNECTION
SCALE: NTS



NOTES:
1. STEEL PIPE HANGERS FOR PLASTIC PIPE SHALL BE PLASTIC COATED.
2. STEEL PIPE HANGERS FOR COPPER PIPE SHALL BE PLASTIC COATED.

2 PIPE HANGER
SCALE: NTS



1 WALL CLEANOUT (PVC)
SCALE: NTS

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1720 W 1460 N Provo, UT 84604

STATE OF UTAH 699431-2202 Michael Nielsen 01.11.2020 LICENSED PROFESSIONAL ENGINEER

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PLUMBING SCHEDULES AND DETAILS

P601

1/11/2021 15:13:25

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
DMM	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
M	METER.
	DISCONNECT SWITCH, FUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	PUSHBUTTON.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
OP#_	DISTRIBUTION PANEL OR SWITCHBOARD.
$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
75	TRANSFORMER: NUMBER INDICATES kVA.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
R	OCCUPANCY SENSOR CONTROL RELAY.
	VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
P	PHOTOCELL.
TC	TIME CLOCK.
EL	EMERGENCY LIGHTING CONTROL UNIT. WATTSTOPPER (ELCU-200)
	CEILING FAN.
SP	OCCUPANCY SENSOR, SWITCH PACK.
	SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
	SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
LC	DIGITAL PLUG LOAD CONTROLLER
LS	LIGHTING NETWORK SWITCH.
NR	LIGHTING NETWORK ROUTER.
SM	LIGHTING NETWORK SEGMENT MANAGER
L X	LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM.
1C1 DC	DIGITAL LIGHTING DIMMING CONTROLLER, "1C1" IS A UNIQUE CONTROLLER IDENTIFICATION TAG
1C2 RC	DIGITAL LIGHTING ROOM CONTROLLER, "1C2" IS A UNIQUE CONTROLLER IDENTIFICATION TAG
z1,z2	LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH. LETTER "z1,z2" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS)
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
EM	EMERGENCY.
↑	EGRESS DIRECTION ARROW (EXIT SIGNS).
LV	LOW VOLTAGE LIGHTING TRANSFORMER.
	EXIT SIGN: SINGLE FACE; CEILING MOUNTED
	EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
	EXIT SIGN: DOUBLE FACE; WALL MOUNTED
(D420) 1C1 z1	FIXTURE ID:(D420) INDICATES FIXTURE TYPE AS SCHEDULED "1C1" INDICATES ROOM/DIMMING CONTROLLER CIRCUITING "z1" INDICATES ZONE CIRCUITING.
(D420) 1C1e z1	FIXTURE ID:(D420) INDICATES FIXTURE TYPE AS SCHEDULED "1C1e" INDICATES ROOM/DIMMING CONTROLLER CIRCUITING "z1" INDICATES ZONE CIRCUITING. EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED
SITE ELECTRICAL AND COMMUNICATIONS UTILITIES	
3ØUP	ELECTRIC LINE: THIN LINE, 1Ø = SINGLE PHASE, 2Ø = 2-PHASE, 3Ø = 3-PHASE, O = OVERHEAD, U = UNDERGROUND, P = PRIMARY, S = SECONDARY
	LIGHTNING ARRESTOR.
	UTILITY POLE.
	UTILITY, DISTRIBUTION SWITCH OR SWITCHING STATION.
E	UTILITY, PRIMARY ELECTRICAL GROUND SLEEVE.
M	UTILITY SERVICES, MANHOLE.
C	UTILITY, COMMUNICATIONS MANHOLE.
E	UTILITY, ELECTRICAL MANHOLE.
T	UTILITY, TELEPHONE MANHOLE.
TM	PRECAST CONCRETE, MANHOLE, TRANSFORMER VAULT.
TP	PRECAST CONCRETE, TRANSFORMER PAD.
S	SUBSTATION.
T	TRANSFORMER.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
	FUSE W/TH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	OVERLOAD RELAY (ONE-LINE DIAGRAM).
	STARTER (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
MCP	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
GFP	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
L	COMBINATION RESIDENTIAL EXHAUST FAN/LIGHT.
	TRANSFORMER (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 25/3	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
STRUCTURED CABLING	
X	TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF CABLES).
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE
W	TELEPHONE, WALL MOUNTED: WALL PHONE.
X	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION.
	TWO-WAY EMERGENCY COMMUNICATION DEVICE PER IBC, WALL MOUNTED IN RECESSED BOX.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
	LAN RACK, FLOOR STANDING.
D	DATA CABLE, CATEGORY 5 (ONE-LINE DIAGRAM).
V	VOICE CABLE, CATEGORY 3 (ONE-LINE DIAGRAM).
WIRING METHODS	
	WIRING.
1 A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
SC	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
SE	JUNCTION BOX, SECURITY SYSTEM. PROVIDE CONDUIT AND ROUGH-IN PER SECURITY DRAWINGS.
C C	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	EARTH GROUND (ONE-LINE DIAGRAM).
C	JUNCTION BOX, CEILING.
	LADDER RACK.
	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCHEDULE FOR REQUIREMENTS.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
DF	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
W	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE"; NEMA 5-20R.
	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, CONNECTED TO UPS: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
WP	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX, CONNECTED TO UPS: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	RECEPTACLE, SPECIAL PURPOSE ON EMERGENCY POWER. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
D	RECEPTACLE, DRYER: NEMA 14-30R.
R	RECEPTACLE, RANGE: NEMA 14-50R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
D	DROP CORD. SEE DETAIL.
FB#	FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
PT#	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
X $	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
$DS	SWITCH, DOOR.
$K	SWITCH, KEY OPERATED.
$WP	SWITCH, WEATHERPROOF.
T	RECEPTACLE, DUPLEX, TAMPER RESISTANT: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, CONNECTED TO UPS: NEMA 5-20R.
	RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
	RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
	RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
	INDICATES A RECEPTACLE IS AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
	FLOOR OUTLETS - SPECIFIED BY CONTRACTOR
CCTV	
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
SECURITY	
CR	CARD READER.
TV DISTRIBUTION	
	TV OUTLET.
REFERENCE AND LINE SYMBOLS	
A5 E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME 100	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
1	REVISION INDICATOR.
X-X XMDP	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
	BREAK, ROUND
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
X-X XKP	KITCHEN EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XKP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE	I/O	INPUT/ OUTPUT
1PH	SINGLE-PHASE	IG	ISOLATED GROUND
1WAY	ONE-WAY	IMC	INTERMEDIATE METAL CONDUIT
2/C	TWO-CONDUCTOR	IN/IS	INSULATED/ ISOLATED
2WAY	TWO-WAY	IR	INFRARED
3/C	THREE-CONDUCTOR	J-BOX	JUNCTION BOX
3WAY	THREE-WAY	kV	KILOVOLT
4OUT	QUADRUPLE RECEPTACLE OUTLET	kVA	KILOVOLT AMPERE
4PDT	FOUR-POLE DOUBLE THROW	kVAR	KILOVOLT AMPERE REACTIVE
4PST	FOUR-POLE SINGLE THROW	kW	KILOWATT
4W	FOUR-WIRE	kWh	KILOWATT HOUR
4WAY	FOUR-WAY	LED	LIGHT EMITTING DIODE
A	ABOVE COUNTER	LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
AC	ARMORED CABLE	LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
ADA	AMERICANS WITH DISABILITIES ACT	LPS	LOW PRESSURE SODIUM
ADJ	ADJACENT	LRA	LOCKED ROTOR AMPS
AFF	ABOVE FINISHED FLOOR	LTG	LIGHTING
AFG	ABOVE FINISHED GRADE	LV	LOW VOLTAGE
AIC	AMPERE INTERRUPTING CAPACITY	MATV	MASTER ANTENNA TELEVISION SYSTEM
ALUM	ALUMINUM	MAX	MAXIMUM
AMP	AMPERE	MC	METAL CLAD
ANN	ANNUNCIATOR	MCA	MINIMUM CIRCUIT AMPS
AP	ACCESS POINT (WIRELESS DATA)	MCB	MAIN CIRCUIT BREAKER
AR	AS REQUIRED	MCC	MOTOR CONTROL CENTER
ASC	AMPS SHORT CIRCUIT	MCP	MOTOR CIRCUIT PROTECTION
ATS	AUTOMATIC TRANSFER SWITCH	MDP	MAIN DISTRIBUTION PANEL
AV	AUDIO VISUAL	MG	MOTOR GENERATOR
AWG	AMERICAN WIRE GAGE	MH	MANHOLE
BB	BUCK-BOOST	MIN	MINIMUM
XFMR	TRANSFORMER	MLO	MAIN LUGS ONLY
C	CEILING MOUNTED	MOCP	MAXIMUM OVERCURRENT PROTECTION
CATV	COMMUNITY ANTENNA TELEVISION	NA	NOT APPLICABLE
CB	CIRCUIT BREAKER	NC	NORMALLY CLOSED
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT	NEC	NATIONAL ELECTRICAL CODE
CCTV	CLOSED CIRCUIT TELEVISION	NEMA	NATIOANL ELECTRICAL MANUFACTURERS ASSOCIATION
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED	NFC	NATIONAL FIRE CODE
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT	NIC	NOT IN CONTRACT
CKT	CIRCUIT	NL	NIGHT LIGHT
CM	CONSTRUCTION MANAGER	NO	NORMALLY OPEN
CND	CONDUIT	NTS	NOT TO SCALE
CO	CONVENIENCE OUTLET	OC	ON CENTER
COR	CONTRACTING OFFICER'S REPRESENTATIVE	OCP	OVER CURRENT PROTECTION
CP	CONTROL PANEL	OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
CT	CURRENT TRANSFORMER	OF/OI	OWNER FURNISHED/ OWNER INSTALLED
CTV	CABLE TELEVISION	OFP	OBTAIN FROM PLANS
CU	COPPER	OH DR	OVERHEAD (COILING) DOOR
dBA	UNIT OF SOUND LEVEL	OL	OVERLOAD
DPDT	DOUBLE POLE, DOUBLE THROW	PB	PUSHBUTTON
DS	DISCONNECT SWITCH	PF	POWER FACTOR
EA	EACH	PH	PHASE
EM	EMERGENCY	PNL	PANEL
EMT	ELECTRICAL METALLIC TUBING	PT	POTENTIAL TRANSFORMER
ENT	ELECTRIC NONMETALLIC TUBING	PTZ	PAN/TILT/ZOOM
EPO	EMERGENCY POWER OFF	QTY	QUANTITY
EQUIP	EQUIPMENT	R	REMOVE
EX	EXISTING	RCP	REFLECTED CEILING PLAN
F	FURNITURE MOUNTED	RMC	RIGID METAL CONDUIT
FA	FIRE ALARM	RNC	RIGID NONMETAL CONDUIT
FCP	FIRE ALARM CONTROL PANEL	RPM	REVOLUTIONS PER MINUTE
FLA	FULL LOAD AMPS	RR	REMOVE AND RELOCATE
FMC	FLEXIBLE METAL CONDUIT	S/S	START/STOP
FOB	FREIGHT ON BOARD	SCA	SHORT CIRCUIT AMPS
FVNR	FULL VOLTAGE NON-REVERSING	SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
FVR	FULL VOLTAGE REVERSING	SF	SQUARE FOOT (FEET)
G	GROUND	SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
GEN	GENERATOR	SPDT	SINGLE POLE, DOUBLE THROW
GFCI	GROUND FAULT INTERRUPTER	SPEC	SPECIFICATION
GFP	GROUND FAULT PROTECTION	SPST	SINGLE POLE, SINGLE THROW
HD	HEAVY DUTY	ST	SINGLE THROW
HID	HIGH INTENSITY DISCHARGE	SWBD	SWITCHBOARD
HOA	HAND-OFF-AUTOMATIC	SWGR	SWITCHGEAR
HP	HORSE POWER	TL	TWIST LOCK
HPF	HIGH POWER FACTOR	TP	TELEPHONE POLE
HPS	HIGH PRESSURE SODIUM	TP	TWISTED PAIR
HV	HIGH VOLTAGE	TTB	TELEPHONE TERMINAL BOARD
HZ	HERTZ	TV	TELEVISION
		TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
		TYP	TYPICAL
		UF	UNDERFLOOR
		UGND	UNDERGROUND
		UPS	UNINTERRUPTIBLE POWER SUPPLY
		V	VOLTS
		VA	VOLT AMPERE
		VFC/VF	VARIABLE FREQUENCY
		D	MOTOR CONTROLLER
		W/	WITH
		W/O	WITHOUT
		WP	WEATHERPROOF
		XFMR	TRANSFORMER

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

DEFERRED SUBMITTALS

Delegated Deferred Design Submittals to be provided by Contractor

FIRE ALARM SYSTEM

Provide complete digital addressable fire alarm system in compliance with current NFPA and all local building and fire alarm codes specific to this project. The systems shall be designed by a NICET-certified, fire alarm technician, Level III minimum.

The Fire Alarm drawings, risers, and specifications are shown as a basis of design to show intent for bidding, final documents with calculations specifying all required devices, cabling, equipment, and programing are to be provided by the contractor. The contractors bid shall include the full fire alarm system required and not limited to the devices and typical riser diagram shown.

See basis of design drawings and specifications for intended design. Comply with the Code Analysis and building construction types of this project, see Architectural drawings and specifications for building type, occupancy, fire wall separations, and other requirements that will have an effect on the fire alarm system design.

SEISMIC CONTROL FOR ELECTRICAL SYSTEMS

Provide the following items listed below and comply with additional requirements as provided. See specifications.
A. Product Data: For each type of product.
1. Illustrate and indicate style, material, strength, fastening provision, and finish for each type and size of seismic-restraint component used.
   a. Tabulate types and sizes of seismic restraints, complete with report numbers and rated strength in tension and shear as evaluated by an agency acceptable to authorities having jurisdiction.
   b. Annotate to indicate application of each product submitted and compliance with requirements.
B. Delegated-Design Submittal: For each seismic-restraint device.
1. Include design calculations and details for selecting seismic restraints complying with performance requirements, design criteria, and analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
2. Design Calculations: Calculate static and dynamic loading caused by equipment weight, operation, and seismic and wind forces required to select seismic and wind restraints and for designing vibration isolation bases.
   a. Coordinate design calculations with wind load calculations required for equipment mounted outdoors. Comply with requirements in other Sections for equipment mounted outdoors.
3. Seismic-Restraint Details:
   a. Design Analysis: To support selection and arrangement of seismic restraints. Include calculations of combined tensile and shear loads.
   b. Details: Indicate fabrication and arrangement. Detail attachments of restraints to the restrained items and to the structure. Show attachment locations, methods, and spacings. Identify components, list their strengths, and indicate directions and values of forces transmitted to the structure during seismic events. Indicate association with vibration isolation devices.
   c. Coordinate seismic-restraint and vibration isolation details with wind-restraint details required for equipment mounted outdoors. Comply with requirements in other Sections for equipment mounted outdoors.
   d. Preapproval and Evaluation Documentation: By an agency acceptable to authorities having jurisdiction, showing maximum ratings of restraint items and the basis for approval (tests or calculations).

C. Deferred Submittals for the Authority Having Jurisdiction (AHJ) shall be as required by IBC 106.3.4.2.

1. Deferred submittals of seismic restraint of nonstructural components must be submitted to the AHJ a minimum of two weeks prior to the planned installation in order to allow for plan review and forwarding to inspectors. In the event that the submittal is deficient additional time may become necessary.

2. No deferred submittal element shall be installed until AHJ approval has been received.

3. If seismic restraints of nonstructural components are installed prior to receiving AHJ approval they shall not be covered or concealed until plan review and inspection approval. Further, installers are proceeding at their own risk until plan review and inspection approval occurs.

4. Deferred Submittals are required for:
   a. Electrical distribution equipment (switchboards, panelboards, transformers, ATS, MCC's etc.).
   b. Generators, batteries, UPS.
   c. Conduit racks.
   d. Cable trays.
   e. Lighting fixtures.
   f. Control Panels

GENERAL ELECTRICAL NOTES

1. CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.

2. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
   A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
   B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
   C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE.THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.

3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.

4. SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.

5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

6. ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

7. TAKE OFF QUANTITIES SHOWN IN SCHEDULE(S) ARE FOR REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OF THE DEVICES, FIXTURES, EQUIPMENT, RACEWAYS, CONDUCTORS, CABLING, ETC. SHOWN AND SPECIFIED IN THE CONTRACT DOCUMENTS INCLUDING THE EXTRA MATERIAL SPECIFIED.

ELECTRICAL SHEET INDEX

EE001	SHEET INDEX, ABBREVIATIONS , GENERAL NOTES, AND SYMBOLS
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING HEIGHT DETAILS
ED101	ELECTRICAL DEMOLITION FLOOR PLANS
ED102	ELECTRICAL DEMOLITION REFLECTED CEILING PLANS
EP100	ELECTRICAL OVERALL PLAN
EP101	ENLARGED POWER PLANS
EL101	ENLARGED LIGHTING PLANS
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE
FA101	LEVEL 1 FIRE ALARM PLAN
FA601	FIRE ALARM DETAILS

GENERAL LABELING SCHEME

FIRST DIGIT - BUILDING LEVEL (1 OR 2)

SECOND DIGIT - PANEL TYPE

M - MECHANICAL (120/208/277/380/480V)
L or LCP - LIGHTING (120/208/277/480V)
P - PLUG LOADS (120/208V)
G - GENERAL LOADS (120/280V)
E - EMERGENCY (277/480V)
S - STANDBY (SPECIFIED ON PANEL)
U - UPS (SPECIFIED ON PANEL)

THIRD DIGIT - BUILDING AREA (A, B, C, D, ECT.)

FOURTH DIGIT - SQUENCE # (1,2,3...)

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Westridge Elementary
1720 W 1460 N, Provo, UT 84604
Provo School District
Permit/Bid Set - 01/11/2021

LICENSED PROFESSIONAL ENGINEER
No. 7258080
SPENCER C. LITTLE
01-11-2021
STATE OF UTAH

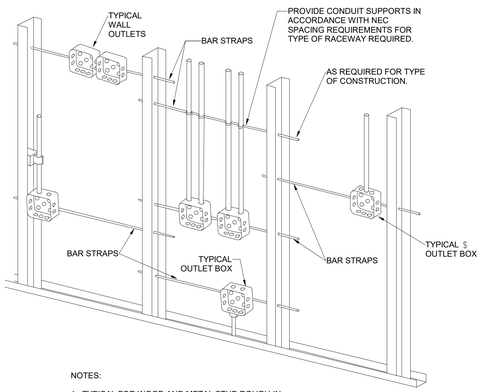
△	DATE	REVISION

PROJECT NUMBER 200500

SHEET INDEX, ABBREVIATIONS , GENERAL NOTES, AND S

SHEET KEYNOTES

1. FOR ALL VERTICAL RUNS PENETRATING MULTIPLE FLOORS, PROVIDE SUPPORT AT EACH FLOOR PENETRATED.
2. FOR ALL VERTICAL RUNS, PROVIDE SUPPORT WITH A MAXIMUM SPACING OF 10 FEET BETWEEN SUPPORTS. COMPLY WITH NEC 358.30(A)

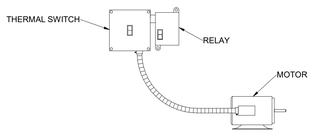


NOTES:

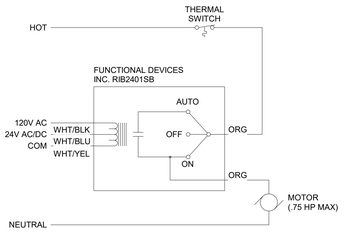
1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH IBC 714.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUN OF 24" HORIZONTAL DISTANCE.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

B4 TYPICAL ROUGH-IN REQUIREMENTS DETAIL
SCALE: NTS

NOTE: THERMAL SWITCH AND RELAY MUST BE MOUNTED WITHIN SIGHT OF MOTOR BEING CONTROLLED.

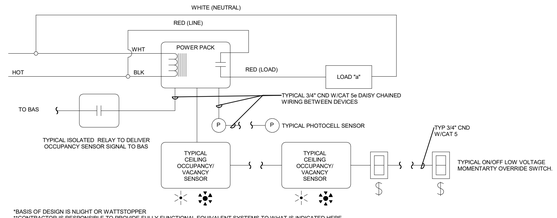


LAYOUT DIAGRAM



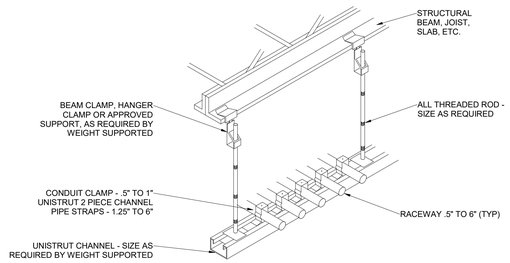
SCHEMATIC DIAGRAM

1 120V FRACTIONAL MOTOR CONTROL
SCALE: 1/8" = 1'-0"

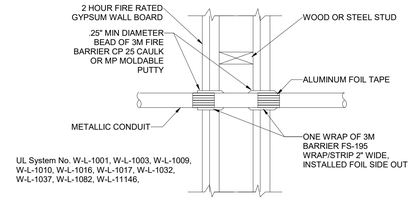


*BASIS OF DESIGN IS NUGHT OR WATTSTOPPER
**CONTRACTOR IS REIPONSIBLE TO PROVIDE FULLY FUNCTIONAL EQUIVALENT SYSTEMS TO WHAT IS INDICATED HERE.

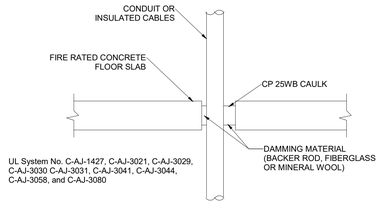
3 CEILING OCCUPANCY / VACANCY SENSOR WIRING DIAGRAM
SCALE: 1/8" = 1'-0"



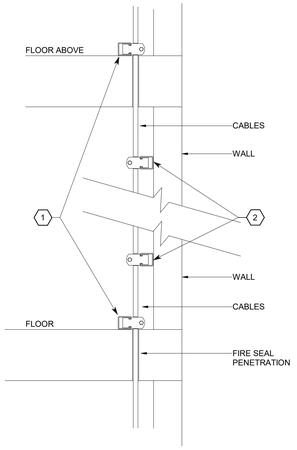
D1 TYPICAL CONDUIT RACK DETAIL
SCALE: 1/8" = 1'-0"



C3 FIRE STOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD
SCALE: NTS

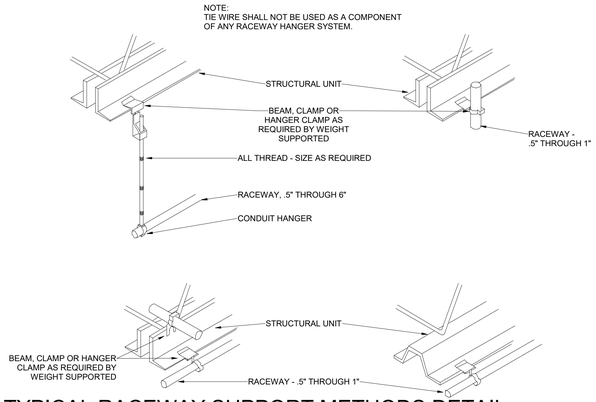


D3 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING
SCALE: NTS



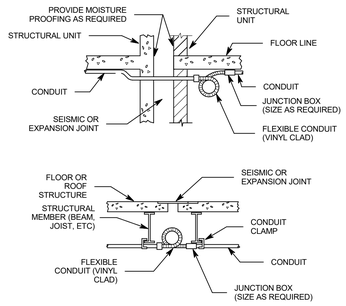
2 CABLE SUPPORT DETAIL
SCALE: 1/8" = 1'-0"

NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.

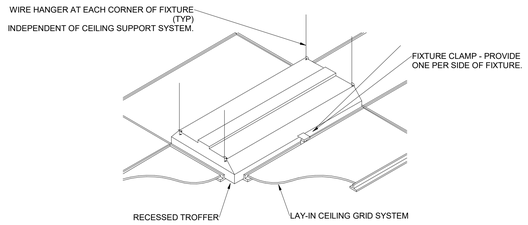


B1 TYPICAL RACEWAY SUPPORT METHODS DETAIL
SCALE: 1/8" = 1'-0"

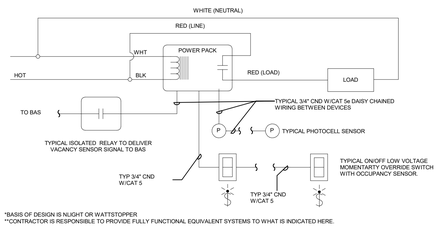
NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



4 CONDUIT EXPANSION JOINT DETAIL
SCALE: 1/8" = 1'-0"

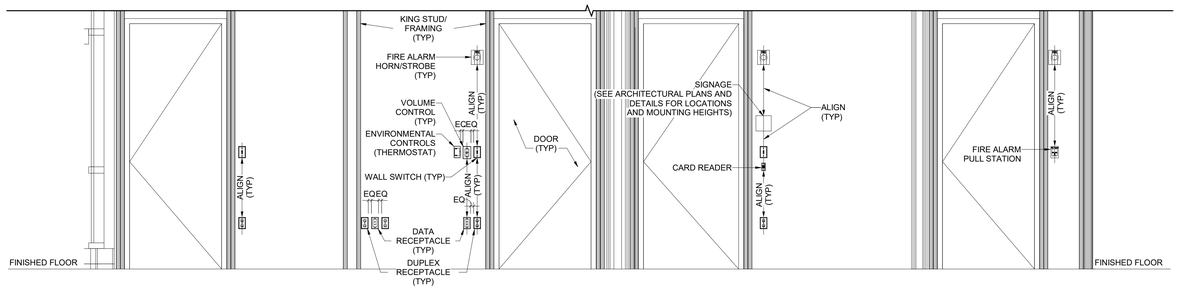


A4 RECESSED FIXTURE MOUNTING DETAIL
SCALE: NTS

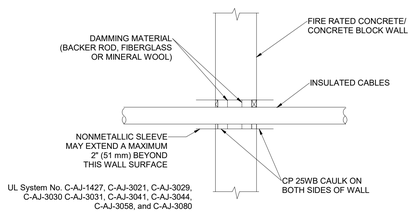


*BASIS OF DESIGN IS NUGHT OR WATTSTOPPER
**CONTRACTOR IS REIPONSIBLE TO PROVIDE FULLY FUNCTIONAL EQUIVALENT SYSTEMS TO WHAT IS INDICATED HERE.

5 TYPICAL WALL SWITCH OCCUPANCY SENSORS WIRING DIAGRAM
SCALE: NTS



A1 TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL
SCALE: 1/2" = 1'-0"



B3 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS
SCALE: NTS

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No. 7258090
SPENCER C. LITTLE
01-11-2021
STATE OF UTAH

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PROJECT NUMBER 200500

ELECTRICAL DETAILS

EE501

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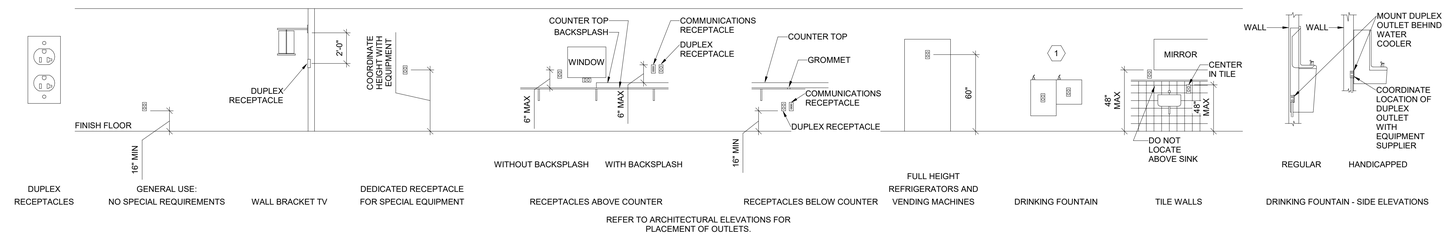
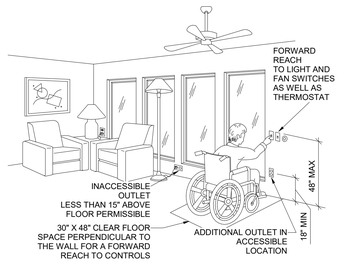


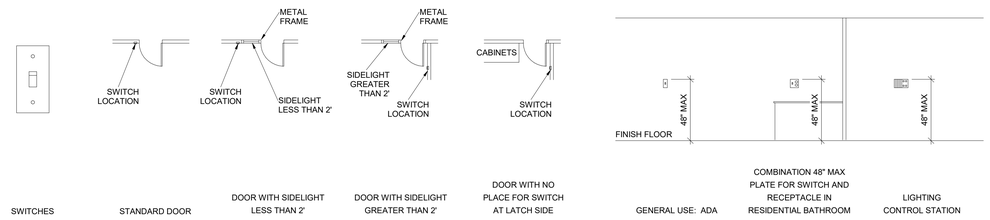
D1 RECEPTACLE MOUNTING DETAILS

SCALE: NTS



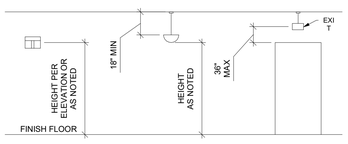
C1 ADA DETAIL

SCALE: NTS



C2 SWITCH MOUNTING DETAILS

SCALE: NTS



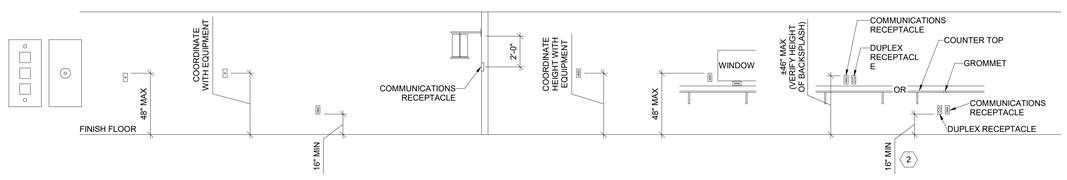
WALL MOUNTED LIGHT FIXTURE

PENDANT LIGHT FIXTURE

PENDANT EXIT SIGNS

B1 LIGHTING MOUNTING DETAILS

SCALE: NTS



COMMUNICATION RECEPTACLES

WALL PHONE

PAY PHONE

GENERAL USE: NO SPECIAL REQUIREMENTS

WALL BRACKET TV

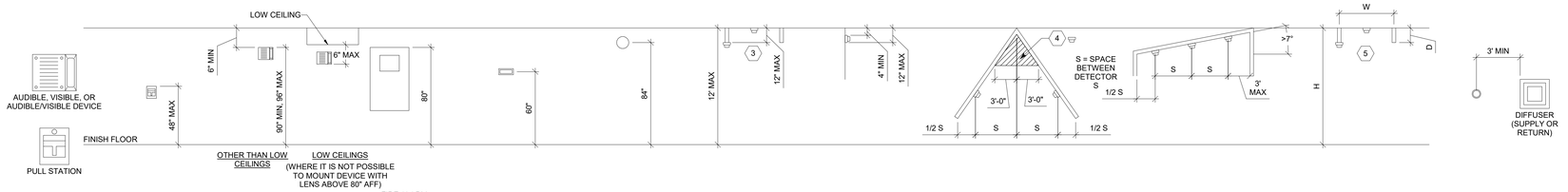
DEDICATED RECEPTACLE FOR SPECIAL EQUIPMENT

ABOVE COUNTER - TYPICAL

RECEPTACLES ABOVE OR BELOW COUNTER

B2 COMMUNICATIONS MOUNTING DETAILS

SCALE: NTS



FIRE ALARM

PULL STATION

AUDIBLE, VISIBLE, OR AUDIBLE/VISIBLE DEVICE

FIRE ALARM CONTROL PANEL "FCP"

FIRE SYSTEM ANNUNCIATOR "FSA"

BELL

SMOKE DETECTOR BETWEEN BEAMS

WALL MOUNTED SMOKE DETECTOR

SMOKE DETECTOR ON SLOPED CEILING (PEAKED)

SMOKE DETECTOR ON SLOPED CEILING (SHED)

HEAT DETECTOR BETWEEN BEAMS

SMOKE DETECTOR ADJACENT TO SUPPLY AIR

A1 FIRE ALARM MOUNTING DETAILS

SCALE: NTS

GENERAL SHEET NOTES

1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:

   1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).

   2 - EQUIPMENT SHOP DRAWINGS.

   3 - FIELD INSTRUCTIONS.

2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIREING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.
9. WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
5. LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

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01-11-2021
STATE OF UTAH

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TYPICAL MOUNTING HEIGHT DETAILS

EE701

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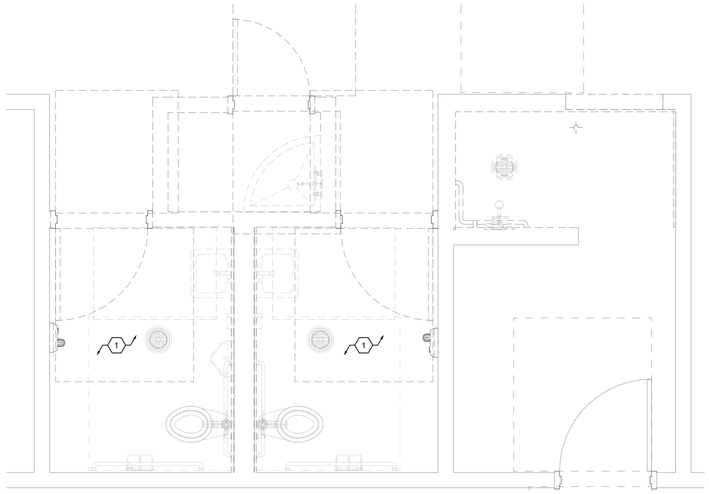
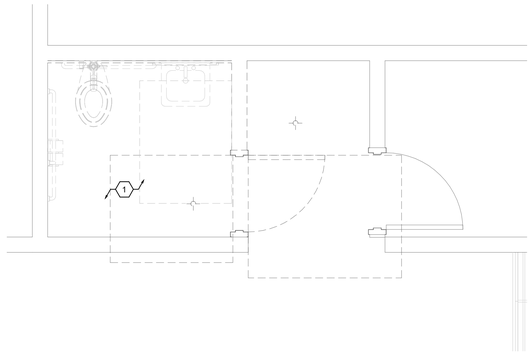
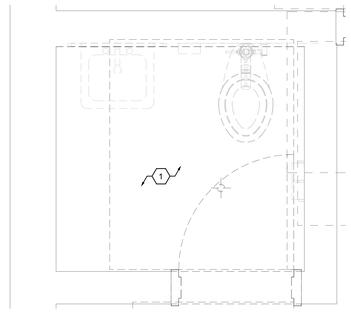


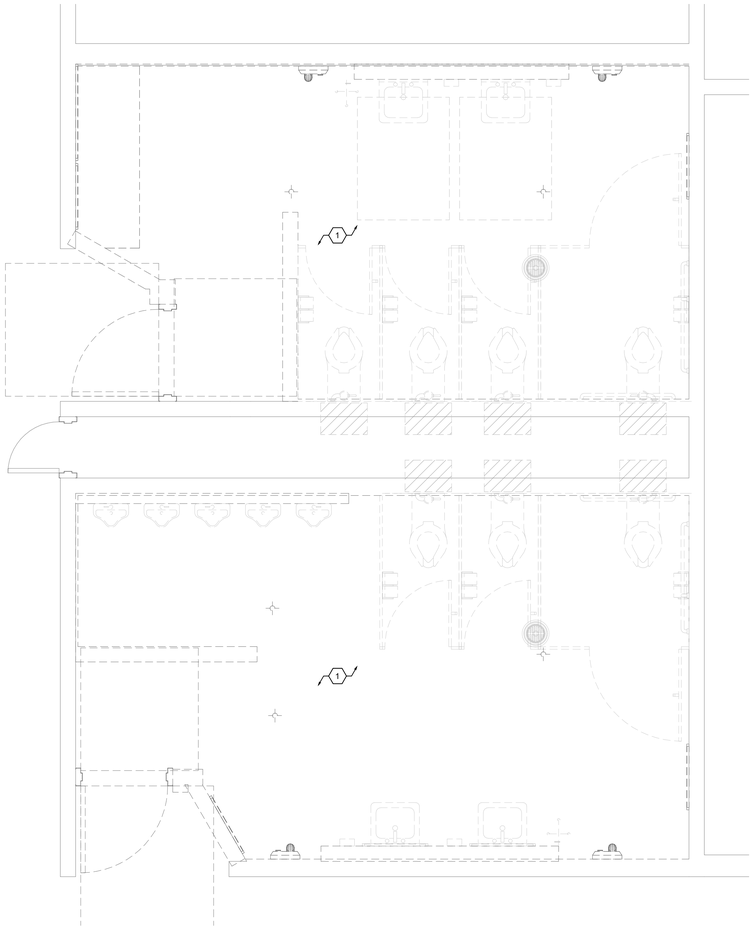
FACULTY RESTROOM DEMO FLOOR PLAN
5 SCALE: 1/2" = 1'-0"



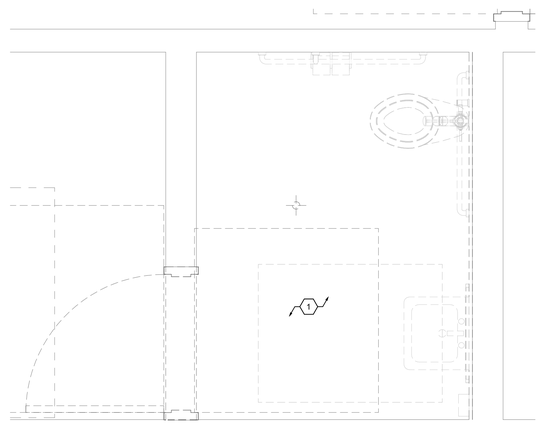
KINDERGARTEN RESTROOM DEMO FLOOR PLAN (TYPICAL)
3 SCALE: 1/2" = 1'-0"



CAFETERIA RESTROOM DEMO FLOOR PLAN
2 SCALE: 3/4" = 1'-0"



RESTROOM DEMO FLOOR PLAN (TYPICAL)
4 SCALE: 1/2" = 1'-0"



NURSE RESTROOM DEMO FLOOR PLAN
1 SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1. LINE TYPES: THIN LINE HALF TONE IS EXISTING TO REMAIN; MEDIUM LINE DASHED IS TO BE DEMOLISHED OR REMOVED AND RELOCATED.
2. DISCONNECT ALL LINE VOLTAGE TO EQUIPMENT TO BE DEMOLISHED OR RELOCATED. FIELD VERIFY EXISTING CONDITIONS.
3. REMOVE ANY AND ALL ABANDONED RACEWAYS, CABLE, AND CONDUCTORS. REMOVE ANY AND ALL RACEWAYS, CABLE, AND CONDUCTORS THAT BECOME ABANDONED AS A RESULT OF THIS PROJECT.
4. REMOVE ALL EXISTING EXTERIOR BUILDING MOUNTED LIGHT FIXTURES TO BE REPLACED WITH NEW, SEE LIGHTING PLANS.
5. REMOVE ALL ELECTRICAL IN WALLS, CEILINGS, AND FLOORS TO BE DEMOLISHED. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
6. EXTEND AND MODIFY ALL EXISTING ELECTRICAL CONDUIT AND CONDUCTORS AS REQUIRED FOR ALL DEVICES, FIXTURES, AND EQUIPMENT THAT ARE TO REMAIN.
7. ALL EXISTING ELECTRICAL RACEWAYS, CONDUCTORS, AND CABLES IN WALLS, ABOVE CEILINGS, AND BELOW FLOORS THAT NEED TO BE MODIFIED, REMOVED, AND OR RELOCATED AS A RESULT OF THIS PROJECT SHALL BE MODIFY ACCORDINGLY AS REQUIRED FOR THE FINISHED CONDITIONS OF THE PROJECT.

SHEET KEYNOTES

1. IN AREAS WHERE WALL IS TO BE DEMOLISHED, CONTRACTOR TO REMOVE ALL ELECTRICAL DEVICES, CONDUIT, AND CONDUCTORS. IF ANY CONDUIT AND WIRING NEEDS TO REMAIN TO SERVE LOADS THAT REMAIN, THEN RELOCATE/REROUTE AND EXTEND CONDUIT AND WIRING AS REQUIRED TO KEEP LOADS ACTIVE. WHERE FIRE ALARM DEVICES ARE BEING REMOVED, EXISTING FIRE ALARM CIRCUITS SHALL BE MAINTAINED ACTIVE TO SERVE DEVICES THAT REMAIN. REROUT/RELOCATE AND EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED TO MAINTAIN A FULLY FUNCTIONING FIRE ALARM SYSTEM. WHERE INTERCOM DEVICES ARE BEING REMOVED, EXISTING INTERCOM WIRING SHALL BE PULLED BACK AND SPEAKER SHALL BE PRESERVED, REMOVED, STORED, AND REINSTALLED IN SAME LOCATION.

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No. 7258080-0
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01-11-2021
STATE OF UTAH

△	DATE	REVISION

PROJECT NUMBER 200500

ELECTRICAL DEMOLITION FLOOR PLANS

ED101

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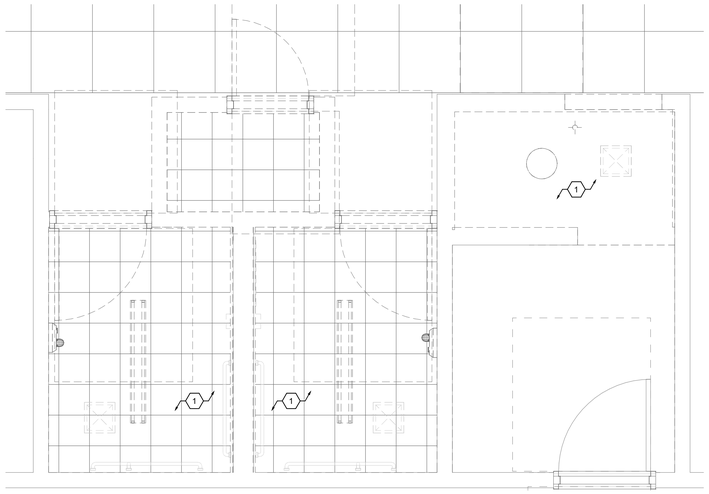
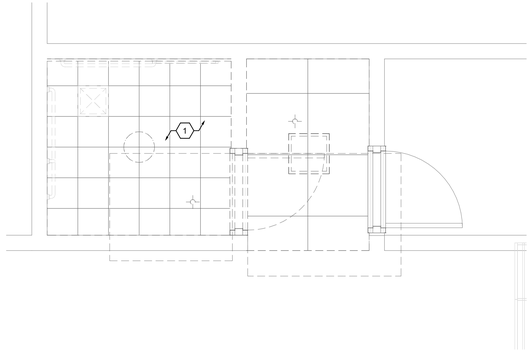
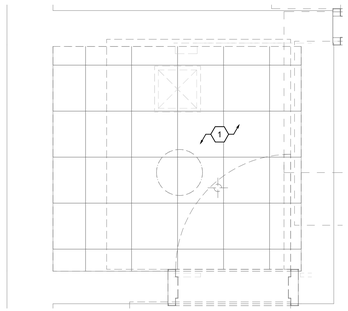


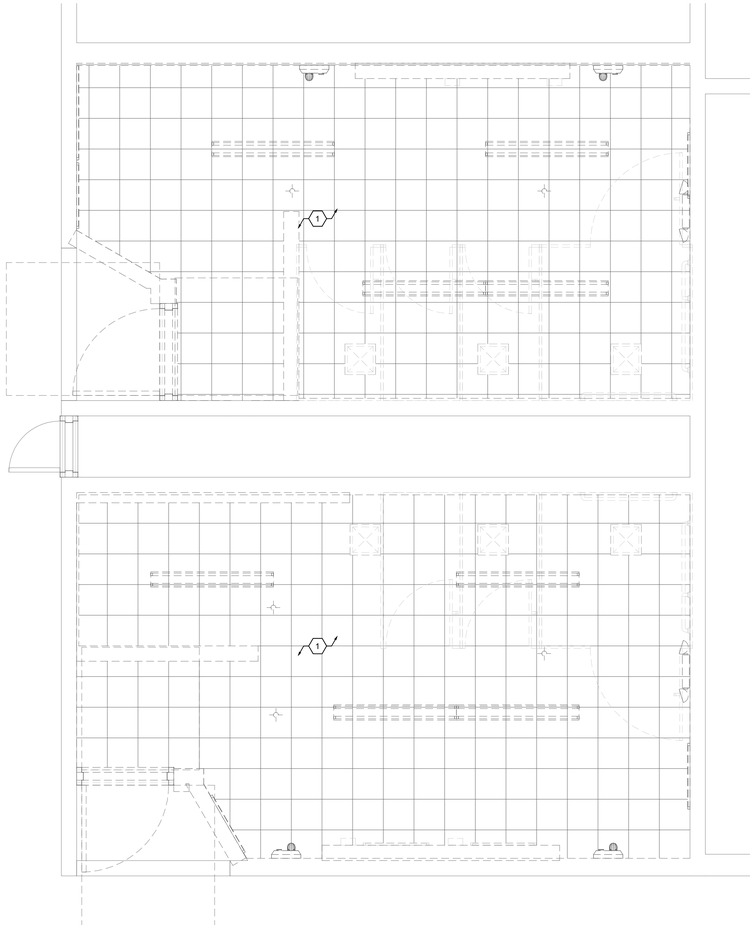
FACULTY RESTROOM DEMO CEILING PLAN
5 SCALE: 1/2" = 1'-0"



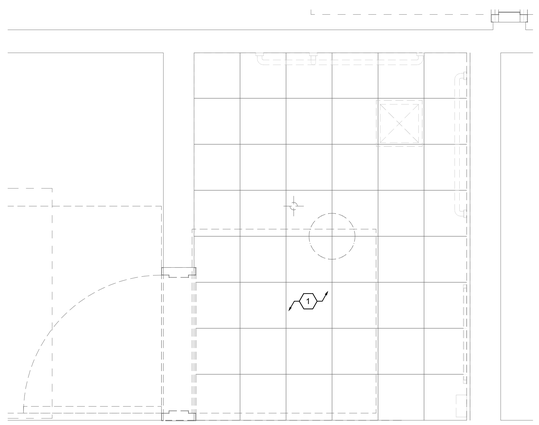
KINDERGARTEN RESTROOM DEMO CEILING PLAN (TYPICAL)
3 SCALE: 1/2" = 1'-0"



CAFETERIA RESTROOM DEMO CEILING PLAN
2 SCALE: 3/4" = 1'-0"



RESTROOM DEMO CEILING PLAN (TYPICAL)
4 SCALE: 1/2" = 1'-0"



NURSE RESTROOM DEMO CEILING PLAN
1 SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1. LINE TYPES: THIN LINE HALF TONE IS EXISTING TO REMAIN; MEDIUM LINE DASHED IS TO BE DEMOLISHED OR REMOVED AND RELOCATED.
2. DISCONNECT ALL LINE VOLTAGE TO EQUIPMENT TO BE DEMOLISHED OR RELOCATED. FIELD VERIFY EXISTING CONDITIONS.
3. REMOVE ANY AND ALL ABANDONED RACEWAYS, CABLE, AND CONDUCTORS. REMOVE ANY AND ALL RACEWAYS, CABLE, AND CONDUCTORS THAT BECOME ABANDONED AS A RESULT OF THIS PROJECT.
4. REMOVE ALL EXISTING EXTERIOR BUILDING MOUNTED LIGHT FIXTURES TO BE REPLACED WITH NEW, SEE LIGHTING PLANS.
5. REMOVE ALL ELECTRICAL IN WALLS, CEILINGS, AND FLOORS TO BE DEMOLISHED. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
6. EXTEND AND MODIFY ALL EXISTING ELECTRICAL CONDUIT AND CONDUCTORS AS REQUIRED FOR ALL DEVICES, FIXTURES, AND EQUIPMENT THAT ARE TO REMAIN.
7. ALL EXISTING ELECTRICAL RACEWAYS, CONDUCTORS, AND CABLES IN WALLS, ABOVE CEILINGS, AND BELOW FLOORS THAT NEED TO BE MODIFIED, REMOVED, AND OR RELOCATED AS A RESULT OF THIS PROJECT SHALL BE MODIFY ACCORDINGLY AS REQUIRED FOR THE FINISHED CONDITIONS OF THE PROJECT.

SHEET KEYNOTES

1. IN AREAS WHERE CEILINGS ARE TO BE DEMOLISHED, CONTRACTOR TO REMOVE ALL ELECTRICAL AND LIGHTING FIXTURES FROM CEILING. CONTRACTOR TO PRESERVE CIRCUITS IN BATHROOM AREA TO CONNECT NEW ELECTRICAL DEVICES AND LIGHTING DEVICES. IF ANY CONDUIT AND WIRING NEEDS TO REMAIN TO SERVE LOADS THAT REMAIN, THEN RELOCATE/REROUTE AND EXTEND CONDUIT AND WIRING AS REQUIRED TO KEEP LOADS ACTIVE. WHERE FIRE ALARM DEVICES ARE BEING REMOVED, EXISTING FIRE ALARM CIRCUITS SHALL BE MAINTAINED ACTIVE TO SERVE DEVICES THAT REMAIN. REROUTE/RELOCATE AND EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED TO MAINTAIN A FULLY FUNCTIONING FIRE ALARM SYSTEM. WHERE INTERCOM DEVICES ARE BEING REMOVED, EXISTING INTERCOM WIRING SHALL BE PULLED BACK AND SPEAKER SHALL BE PRESERVED, REMOVED, STORED, AND REINSTALLED IN SAME LOCATION.

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Westridge Elementary
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Provo School District
Permit/Bid Set - 01/11/2021

LICENSED PROFESSIONAL ENGINEER
No. 7258090
SPENCER C. LITTLE
01-11-2021
STATE OF UTAH

△	DATE	REVISION

PROJECT NUMBER 200500

ELECTRICAL DEMOLITION REFLECTED CEILING PLANS

ED102

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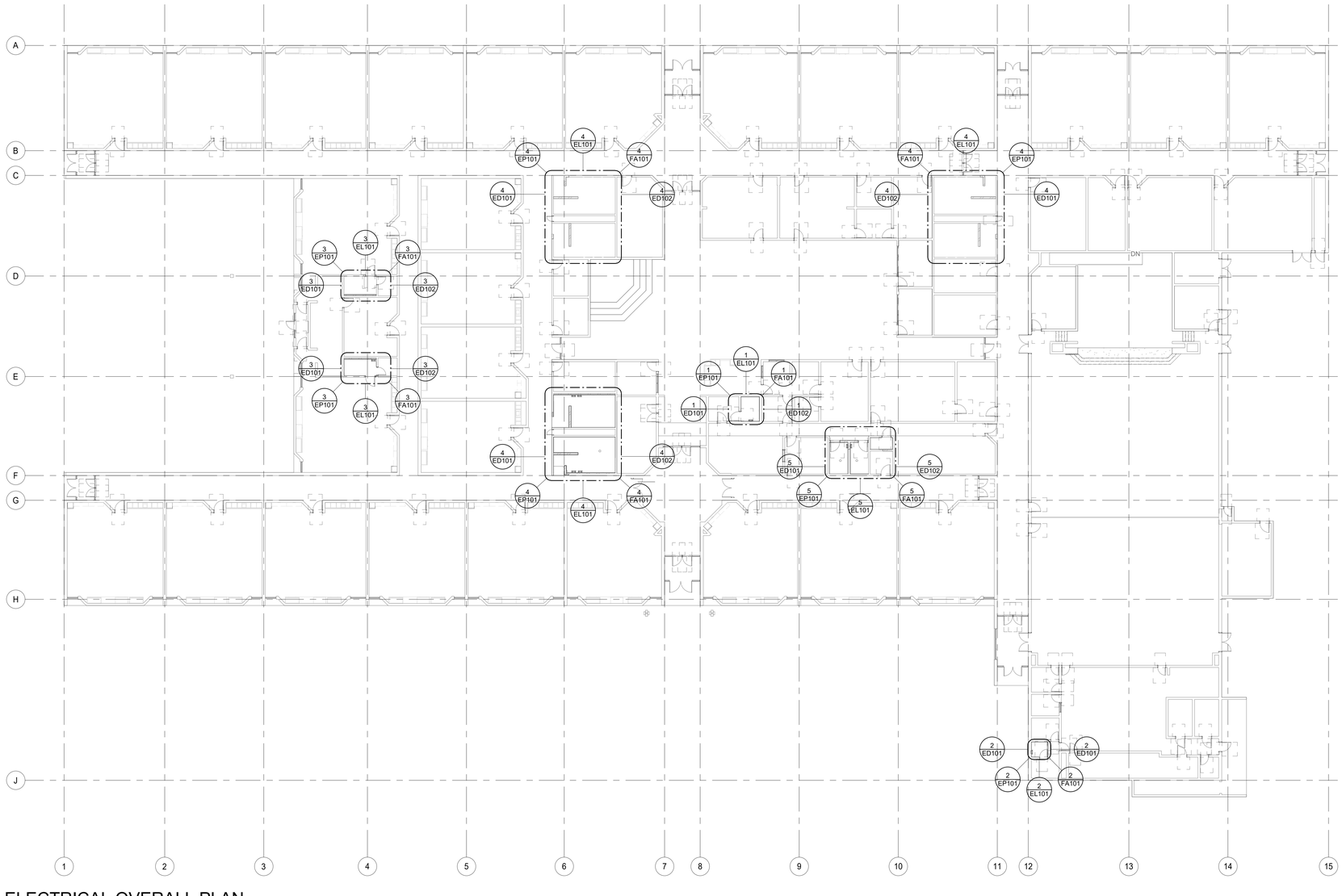
EQUIPMENT SCHEDULE

EQUIPMENT SCHEDULE KEY
E - DIVISION 26
Q - FURNISHED WITH EQUIPMENT
* - COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
** - AUTOMATIC CONTROL WIRING BY DIVISION 23

NOTES:
1. NEMA 3R
2. TOGGLE SWITCH W/ THERMAL OVERLOAD
3. PROVIDE FUSED DISCONNECT ELEVATOR POWER MODULE WITH SHUNT TRIP
4. CONTRACTOR TO PERFOM FINAL CONNECTION TO LINE VOLTAGE THERMOSTATS
5. TOGGLE SWITCH W/BACNET INTERFACE.
6. INDOOR UNITS FED FROM OUTDOOR UNIT. PROVIDE DISCONNECTS FOR BOTH.
7. PROVIDE SWITCH WITH BACNET MS/TP CAPABILITY.
8. PROVIDE LABEL ON DISCONNECT "DISCONNECT OUTDOOR UNIT PRIOR TO INDOOR."
9. LINE VOLTAGE THERMOSTAT ON WALL.
10. PROVIDE EXPLOSION PROOF DEVICES AND WIRING METHODS.
11. PROVIDE DUAL-REDUNDANT 100% RATED VFD'S FOR AIR HANLDER.
12. PROVIDE MANUAL STARTER WITH THERMAL OVERLOAD AND RELAY FOR ATC/BAS CONTROL.

GENERAL NOTES:
1. WHERE DISCONNECTS, STARTERS, OR VFCs ARE BEING PROVIDED BY ELECTRICAL CONTRACTOR, LOCATE EQUIPMENT IN ACCESSIBLE LOCATION, SUCH THAT IT IS WITHIN SITE OF THE MECHANICAL EQUIPMENT IT IS SERVING, AND COMPLIES WITH N.E.C. REQUIRED CLEARANCES.

			LOAD DATA								OVERCURRENT PROTECTION			DISCONNECT			STARTER										
MARK	QTY	ITEM DESCRIPTION	HP	kW	MCA	FLA	VOLT	PH	Hz	WIRE AND CONDUIT SIZE	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	SIZES	SELECTOR SWITCH	PILOT LAMP	NORMALLY OPEN CONTACT	NORMALLY CLOSED CONTACT	PHASE FAILURE RELAY	NOTES	MARK
EF-1	12		1/8	-	-	3.8	120	1	60	2 #12, 12 GR 0.75" CND	E	15/1 CB		E	TOGGLE SWITCH		Q	-	-	-	-	-	-	-		EF-1



1 ELECTRICAL OVERALL PLAN
SCALE: 1/16" = 1'-0"

GENERAL SHEET NOTES

1. THE ELECTRICAL CONTRACTOR SHALL MEET WITH AND COORDINATE WITH ALL SERVICE PROVIDERS (POWER, COMMUNICATION, CABLE/SATELLITE, ETC.)TO THE FACILITY ON SITE PRIOR TO ANY WORK BEING PREFORMED. CONFIRM WITH EACH SERVICE PROVIDER EXACT LOCATIONS EQUIPMENT AND ROUTING. COMPLY WITH ALL SERVICE PROVIDER'S CURRENT STANDARDS AND REQUIREMENTS. PROVIDE THE REQUIRED EQUIPMENT, RACEWAYS, BOXES, CABLE, ETC. AS REQUIRED BY THE SERVICE PROVIDER WEATHER SHOWN ON THE DRAWINGS OR NOT.
2. FOR ALL LIGHT FIXTURES, POLE LIGHTS, AND ALL OTHER ELECTRICAL DEVICES THE CONTRACTOR SHALL COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH ARCHITECT, OWNER, ENGINEER, AND ALL OF THE CONTRACT DOCUMENTS PRIOR TO ROUGH IN AND TRENCHING.
3. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, AND COMPACTION ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROUND RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH.
4. CONTRACTOR SHALL INSTALL POLE MOUNTED LIGHTS IN STRAIGHT LINES, SQUARE, AND PLUMB. COORDINATE WITH ARCHITECT AND CIVIL DRAWINGS. CONTRACTOR SHALL INSTALL POLE MOUNTED LIGHTS IN STRAIGHT LINES, SQUARE, AND PLUMB. COORDINATE WITH ARCHITECT AND CIVIL DRAWINGS.
5. THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE BASES AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESIGN PER STRUCTURAL ENGINEER'S AND OR AHJ'S RECOMMENDATIONS.
6. PROVIDE BATTERY PACKS IN ALL EXTERIOR FIXTURES ADJACENT TO EGRESS DOORS.
7. PROVIDE PHOTOCELL ON NORTH SIDE OF FACILITY TO CONTROL EXTERIOR LIGHTS.
8. ALL EXTERIOR RECEPTACLES SHOWN SHALL BE NEMA 5-20R GFCI "WEATHER RESISTANT" RECEPTACLE WITH "WEATHER PROOF IN-USE COVER."
9. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHALT CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT.
10. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
11. PROVIDE SERVICE RATED EQUIPMENT AT EACH SERVICE ENTRANCE.
12. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR. PLEASE INCLUDE NOTES IN THE ELECTRICAL DRAWINGS OR SUPPLY CALCULATIONS WHERE APPLICABLE. SEE NEC 110.24. (B)

SHEET KEYNOTES

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01-11-2021
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PROJECT NUMBER 200500

ELECTRICAL OVERALL PLAN

EP100

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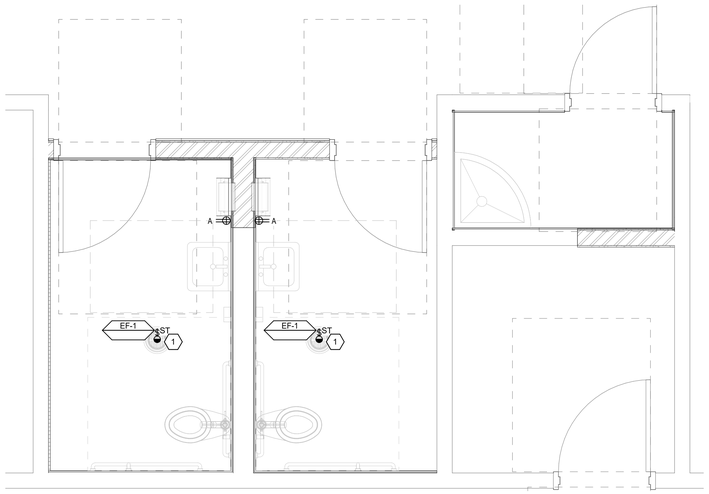
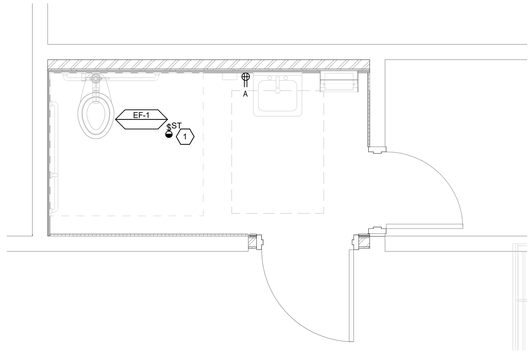
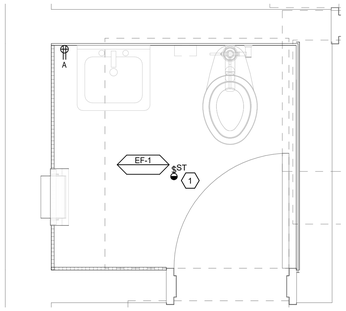


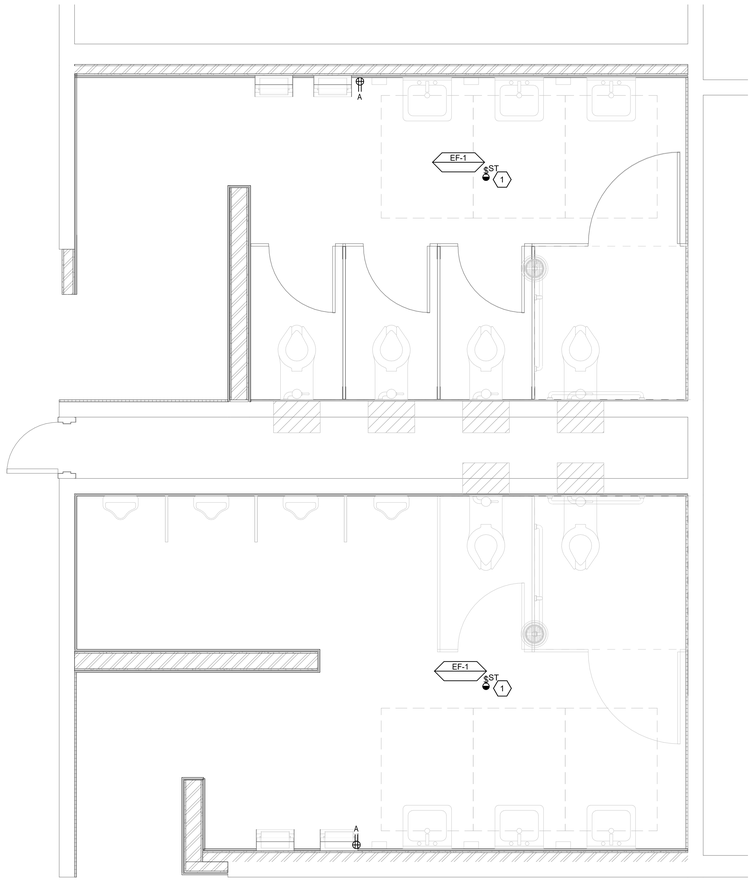
5 FACULTY RESTROOM POWER PLAN
SCALE: 1/2" = 1'-0"



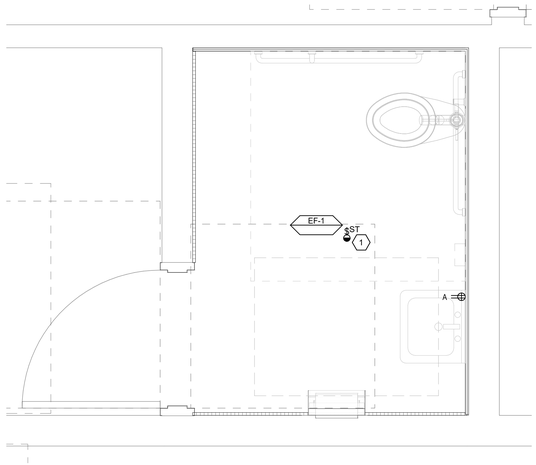
3 KINDERGARTEN RESTROOM POWER PLAN (TYPICAL)
SCALE: 1/2" = 1'-0"



2 CAFETERIA RESTROOM POWER FLOOR PLAN
SCALE: 3/4" = 1'-0"



4 RESTROOM POWER PLAN (TYPICAL)
SCALE: 1/2" = 1'-0"



1 NURSE RESTROOM POWER PLAN
SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ALL LINE VOLTAGE AS PART OF THIS PROJECT. PROVIDE LINE VOLTAGE REQUIRED TO ALL SYSTEMS PROVIDED AS PART OF THIS PROJECT. COORDINATE WITH ALL OTHER DISCIPLINES AND DRAWINGS.
2. CONTRACTOR IS RESPONSIBLE FOR ALL DEVICES, GEAR, CABLE, CONDUCTORS, TERMINATIONS, OVERCURRENT PROTECTION DEVICES, AND HEAD END EQUIPMENT AS PART OF THIS PROJECT.
3. CORE DRILL THE FLOOR FOR POKE THROUGHS. COORDINATE EXACT LOCATION WITH ARCHITECT.
4. VERIFY FLOOR BOX, POWER POLE, AND POKE-THROUGH DEVICE LOCATIONS WITH ARCHITECT/OWNER PRIOR TO ROUGH IN OR INSTALLATION.
5. ALL RACEWAYS SHALL BE CONCEALED IN WALLS, FLOORS, AND CEILING UNLESS OTHERWISE NOTED. INSTANCES WHERE EXPOSED OR SURFACE MOUNTED RACEWAYS IS REQUIRED A ROUTING SKETCH SHALL BE PROVIDED TO ARCHITECT AND ENGINEER. RACEWAY TYPE SHALL BE SELECTED BY ENGINEER. FINISH OF RACEWAY SHALL BE SELECTED BY ARCHITECT.
6. PROVIDE ELECTRICAL CONNECTIONS TO SYSTEMS FURNITURE. DESIGN IS BASED ON 1 CIRCUIT WIRE SYSTEM. VERIFY WIRING CONFIGURATION AND FEED POINT WITH SYSTEMS FURNITURE INSTALLER PRIOR TO INSTALLATION. COORDINATE WITH FURNITURE INSTALLER SUCH THAT CIRCUITS ARE UNIFORMLY DISTRIBUTED TO NO MORE THAN 2 WORKSTATIONS PER CIRCUIT AND EACH WORKSTATION ONLY HAVING AVAILABLE ITS ASSIGNED CIRCUIT. COPIERS OR PRINTERS LOCATED IN A GROUP OF WORKSTATIONS SHALL RECEIVE A DEDICATED CIRCUIT.
7. EACH WORK STATION IN THE SYSTEMS FURNITURE SHALL HAVE A MINIMUM OR 2 EACH POWER OUTLETS AND 1 EACH VOICE/DATA OUTLET. ADDITIONAL POWER AND VOICE/DATA OUTLETS SHALL BE COORDINATED PRIOR TO ROUGH-IN WITH OWNER.
8. PROVIDE NEW CIRCUIT BREAKERS IN EXISTING PANEL FOR ALL NEW CIRCUITS. FIELD VERIFY PANELBOARD TYPE AND BREAKER TYPE.
9. COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTION POINT TO ROOF TOP UNITS AND ALL OTHER MECHANICAL EQUIPMENT TO ENSURE APPROPRIATE ROOF PENETRATION LOCATIONS.
10. PROVIDE ELECTRICAL CONNECTION TO MOTORIZED DOORS WITH ALL POWER AND CONTROL WIRING PER MANUFACTURES WRITTEN INSTRUCTIONS. COORDINATE OPERATION OF DOORS WITH SECURITY, FIRE, AND SMOKE CONTROL SEQUENCES OF OPERATION.
11. ALL 120V, SINGLE PHASE, 15AMP AND 20AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN FAMILY ROOMS, DINNING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, KITCHENS, LAUNDRY AREAS OR OTHER SIMILAR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. COMPLY WITH NEC ARTICLE 210.12.

SHEET KEYNOTES

1. PROVIDE ELECTRICAL CONNECTION FOR EXHAUST FANS ON ROOF AS INDICATED IN MECHANICAL DRAWINGS. CIRCUIT TO EXISTING CIRCUIT WITHIN THE RESTROOM FOR WHICH THE EXHAUST FAN PROVIDES VENTILATION. COORDINATE WITH ARCHITECT, OWNER AND MECHANICAL CONTRACTOR FOR EXACT LOCATION.

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ENLARGED POWER PLANS

EP101

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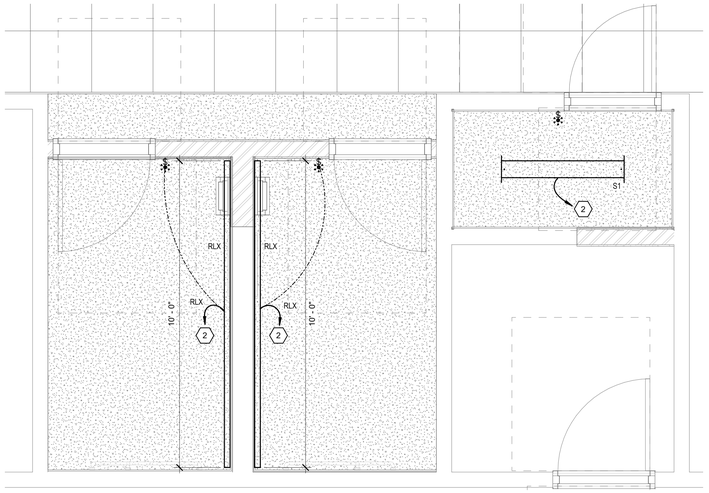
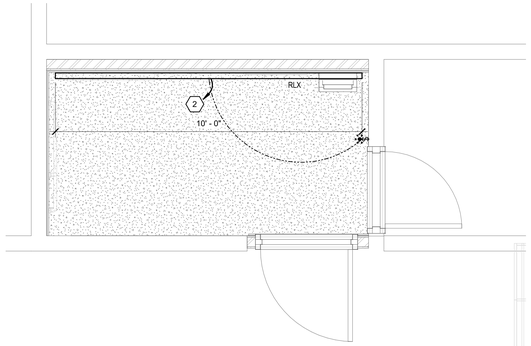
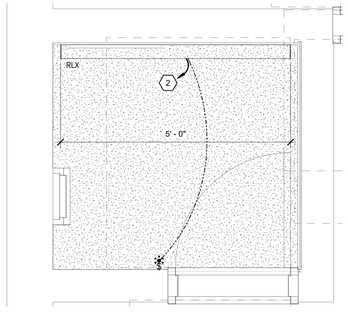


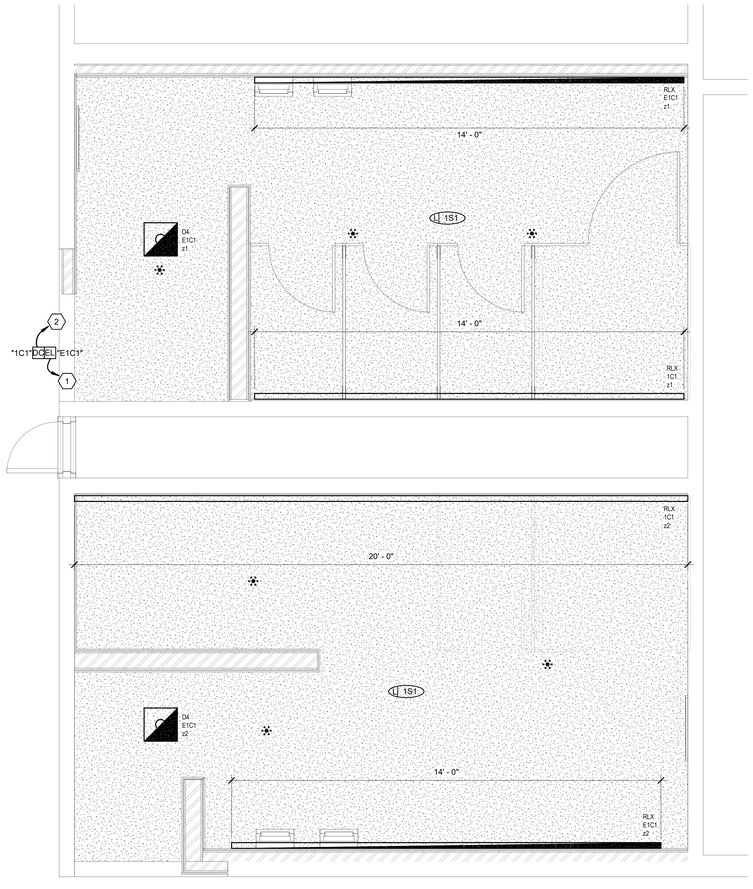
5 FACULTY RESTROOM LIGHTING PLAN
SCALE: 1/2" = 1'-0"



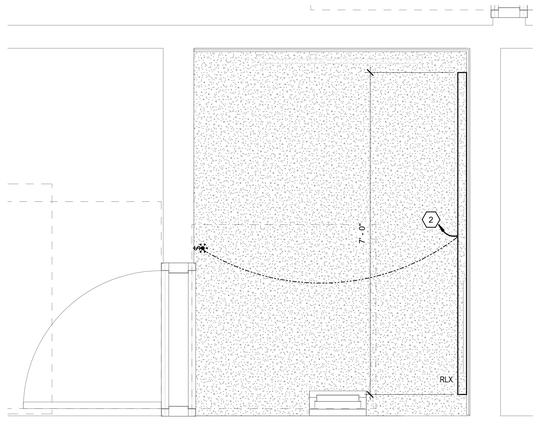
3 KINDERGARTEN RESTROOM LIGHTING PLAN (TYPICAL)
SCALE: 1/2" = 1'-0"



2 CAFETERIA RESTROOM LIGHTING PLANS
SCALE: 3/4" = 1'-0"



4 RESTROOM LIGHTING PLAN (TYPICAL)
SCALE: 1/2" = 1'-0"



1 NURSE RESTROOM LIGHTING PLAN
SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1. CENTER ALL CEILING MOUNTED LIGHT FIXTURES AND DEVICES SHALL BE CENTERED IN CEILING TILE, UNLESS OTHERWISE NOTED.
2. CIRCUIT ALL EXIT SIGNS TO NEAREST UNSWITCHED LEG OF EMERGENCY LIGHTING CIRCUIT.
3. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
4. COORDINATE ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT.
5. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES.
6. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGTH OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGER COVE/CLOUD LIGHTING OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
7. LOCATE ALL VACANCY/OCCUPANCY SENSORS MINIMUM OF 6 FEET FROM SUPPLY AIR DIFFUSERS AND 3 FEET FROM RETURN AIR DIFFUSERS.
8. ALL CEILING AND WALL MOUNTED SENSORS SHALL BE DUAL TECHNOLOGY WITH BUILT IN LIGHT LEVEL SENSOR AND BAS/HVAC ISOLATED RELAY.
9. ALL LIGHT FIXTURES THAT PENITRATE FIRE RATED SURFACE SHALL BE IN A FIRE RATED ASSEMBLE OR BE PROVIDED WITH A FIRE RATED ASSEMBLE TO MAINTAIN A FIRE RATE SURFACE.
10. LOCATE ALL ROOM CONTROLLER IN ACCESSIBLE CEILINGS OR IN THE ELECTRICAL ROOM.

COMMISIONING NOTES

1. THE CONTRACTOR SHALL PERFORM OR SHALL ENGAGE A PARTY TO PERFORM THE FOLLOWING TESTS AND INSPECTIONS WITH THE ASSISTANCE OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE.
2. ENSURE THAT THE LIGHTING CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS COMPLY WITH 2018 IECC SECTION C408.3.
3. 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.
4. WHERE REQUIRED BY THE CODE OFFICIAL, AN APPROVED PARTY INDEPENDENT FORM 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 2018 IECC SECTION C405.
5. PROVIDE THE FOLLOWING PROCEDURES FOR EACH; OCCUPANT SENSOR, TIME SWITCH, PROGRAMMABLE SCHEDULE CONTROL, PHOTOSENSOR, AND DAYLIGHTING CONTROL.
6. CONFIRM THAT THE PLACEMENT, SENSITIVITY, AND TIME-OUT ADJUSTMENTS FOR THE OCCUPANT SENSOR S YIELD ACCEPTABLE PERFORMANCES.
7. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.
8. CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR THE PHOTOSENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE AS SPECIFIED.

SHEET KEYNOTES

1. CIRCUIT TO NEAREST EMERGENCY CIRCUIT ON GENERATOR IN CORRIDOR.
2. CIRCUIT TO EXISTING LIGHTING CIRCUIT IN RESTROOM FROM DEMOLITION.

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ENLARGED LIGHTING PLANS

EL101

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INTERIOR LIGHTING FIXTURE SCHEDULE

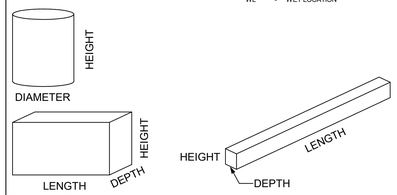
ABBREVIATIONS

MOUNTING

B - BASE
C - CEILING
F - FLANGE
G - GRID
P - PENDANT
PL POLE
R - RECESSED
S - SURFACE
W - WALL

LUMINAIRE OPTIONS

ARHR - AIR RETURN AND HEAT REJECTION
DL - DAMP LOCATION
EQC - EARTHQUAKE CLIPS
F - FUSING
HLD - HINGED AND LATCHED DOOR
HS - HOUSE SIDE SHIELD
PS - PHOTOCELL SWITCH
QRS - QUARTZ RESTRIKE
ST - STATIC
WG - WIRE GUARD
WL - WET LOCATION



FINISH

MW - MATTE WHITE
BL - BLACK
SL - SILVER
GL - GOLD
CL - CLEAR
PW - PAINTED WHITE
EA - EXTRUDED ALUMINUM
S - STEEL
GS - GALVANIZED STEEL
C - CAST
CBA - COLOR BY ARCHITECT
SCBA - STANDARD COLOR BY ARCHITECT
CCA - CUSTOM COLOR BY ARCHITECT
FS 209D - MEETS FEDERAL STANDARD 209D
TP - THERMALLY PROTECTED
FL - FLUSH
R - REGRESS
M - MITERED

DIFFUSER/LENS

#A - ACRYLIC #THICK
#OA - ACRYLIC #THICK (OPAL)
GC - GLASS (CLEAR)
GO - GLASS (OPAL)
GF - GLASS (FROSTED)
SGL - SOFT GLOW LENS
HPL - HIGH PERFORMANCE LENS
DO - DROP OPAL
CGL - CONVEX GLASS LENS
S - SATIN LENS

REFLECTOR

OP - NONE/OPEN
SP - SPECULAR
SS - SEMI-SPECULAR
D - DIFFUSE (WHITE ENAMEL)
SC - SPECULAR (COLORED)
PR - PRISMATIC
FDR - FULL DEPTH REFLECTOR
DS - DIFFUSE (SEMI SPECULAR) SILVER
LI - LOW IRIDESCENT
IR - IRIDESCENT
SL - SILVER
GL - GOLD
CA - CLEAR ALZAK

NOTES

1

GENERAL NOTES

1. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER.
2. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.
3. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
4. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
5. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
6. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
7. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
8. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, DRIVERS, AND LAMPS.
9. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER.

ID	IMAGE	DESCRIPTION	NOMINAL SIZE LENGTH	NOMINAL SIZE DEPTH	NOMINAL SIZE HEIGHT	NOMINAL SIZE DIAMETER/ APERTURE	MOUNTING	TYPE	COLOR TEMP	CRI	DRIVER CONFIGURATION	VOLTAGE	WATTS // FOOT (FOR LINEAR FIXTURES))	FINISH	FIXTURE LUMENS / FOOT	DIFFUSER/LENS	REFLECTOR	OPTIONS	NOTES	MANUFACTURER (CATALOG SERIES) BASIS OF DESIGN	OPTION 2	OPTION 3	OPTION 4
D4		4" ROUND RECESSED DOWNLIGHT; LED	-	-	7"	4"	CR	LED	4100K	80	LED DRIVER (0-10V DIMMING)	120/277	21	SCBA	1000	-	OP	-		PRESCOLITE (LF4LED)	LITHONIA (LP4NF)	LITON (LHALD)	COOPER LIGHTING
RLX		RECESSED LINEAR - FLUSH MOUNTED, ASYMMETRICAL, FIXTURE SHALL BE CONTINUOUS, SEE PLANS FOR LENGTHS	SEE PLANS	4 1/32"	3 3/4"	-	C, R, G	LED	4000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277	8	SCBA	1000	HPL	-	ST, EQC, HLD		LUMENWERX (VIA 4)	LUMIUM (IR2)	LUMENWERX (VIA4RF)	ECOSENSE
RLX - BID ALT		RECESSED LINEAR - FLUSH MOUNTED, ASYMMETRICAL, FIXTURE SHALL BE CONTINUOUS, SEE PLANS FOR LENGTHS	SEE PLANS	4"	5 1/4"	-	C, R, G	LED	4000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277	7	SCBA	1000	HPL	-	WHE, PM		PINNACLE (EDGE EV4D)	-	-	-
S1		STRIP LIGHT; LED; LENS; LOW PROFILE	48"	3"	3"	-	C/P	LED	4100K	80	LED DRIVER (0-10V DIMMING)	120/277	35	SCBA	3000	HPL	LENS	-		LITHONIA (ZL1D)	DAYBRITE (LF 4 EZ)	METALUX (SNLED)	COLUMBIA (LCL)

LIGHTING/SPACE CONTROL TYPE SCHEDULE

WIRING LEGEND

LINE VOLTAGE WIRING
0-10V WIRING
CAT5E CABLING
WIRING BY OTHERS
TMP SEGMENT NETWORK CABLING

APPROVED MANUFACTURERS

1. WATTSTOPPER (BASIS OF DESIGN)
2. HUBBEL BUILDING AUTOMATION
3. EATON LIGHTING CONTROLS
4. nLIGHT
5. LUTRON

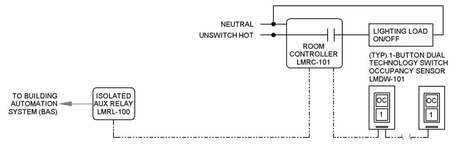
LIGHTING CONTROL ID

1. # = NUMBER OF ZONES
2. D = DIMMING, S = SWITCHING
3. P = DAYLIGHT PHOTOCELL
4. L = PLUG LOAD CONTROLLER
5. # = INSTANCE

GENERAL NOTES

1. COORDINATE INITIAL PROGRAMMING WITH OWNER AND MODIFY CONTROL TIMES AND OPERATION AS REQUESTED BY OWNER.
2. PROVIDE FINE TUNING PROGRAMMING AND ADJUSTMENTS UPON REQUEST BY OWNER WITHIN FIRST 6 MONTHS AFTER SUBSTANTIAL COMPLETION.
3. PROVIDE CUSTOMIZED ENGRAVED PERMANENT BUTTON LABELS ON EACH SWITCH, LABEL TO MATCH BUTTON LABEL ID OR AS DIRECTED BY OWNER.
4. PART NUMBERS SHOWN ARE BASED ON WATTSTOPPER AS THE BASIS OF DESIGN. ALL APPROVED MANUFACTURERS ARE SUBJECT TO MEETING ALL FUNCTIONS AND CAPABILITIES OF THE BASIS OF DESIGN SYSTEM AND PRODUCTS. FAILURE TO MEET THESE SHALL REQUIRE THE CONTRACTOR TO PROVIDE A SYSTEM THAT DOES AT NOT ADDITIONAL COST.
5. REFER TO PLANS FOR LOCATIONS AND QUANTITIES OF DEVICES.
6. INSTALL ONE OF EACH CONTROL TYPE WITH PROGRAMMING, ADJUST, AND OBTAIN OWNERS APPROVAL PRIOR TO PROGRAMMING THE REMAINING CONTROLS

PROJECT NOTES

ID	DETAIL	LIGHTS ON CONTROL	LIGHTS OFF CONTROL	LIGHTING CONTROL TYPE	DAYLIGHT SENSOR SETTING (FC)	TIME DELAY TO OFF (MIN.)	BAS AUX RELAY SIGNAL	PLUG LOAD CONTROLLER	NETWORKED CONTROLS	BUTTON_1	BUTTON_2	BUTTON_3	BUTTON_4	BUTTON_5	BUTTON_6	BUTTON_7	BUTTON_8	BUTTON_9	NOTES
1S1		MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	ON/OFF	-	15	RELAY CLOSED ON OCCUPANCY	-	-	FUNTION: PRESS-ON PRESS-OFF LABEL ID:"ON/OFF"	-	-	-	-	-	-	-	-	

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LICENSED PROFESSIONAL ENGINEER
No. 7258090
SPENCER C. LITTLE
5-01-11-2021
STATE OF UTAH

DATE	REVISION

PROJECT NUMBER 200500

INTERIOR LIGHTING FIXTURE SCHEDULE

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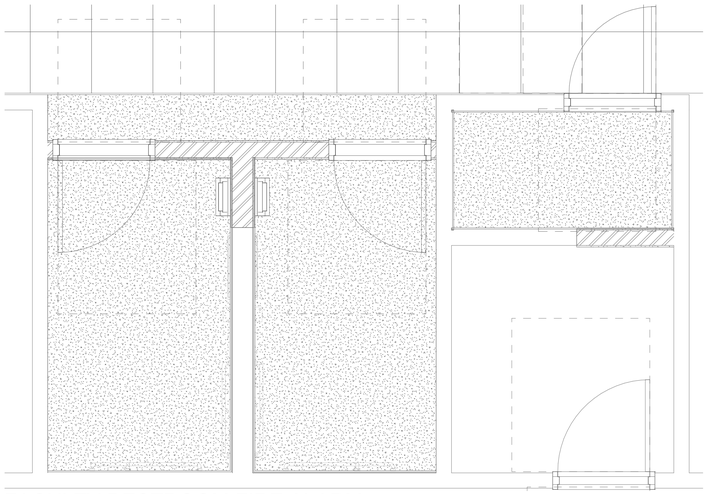
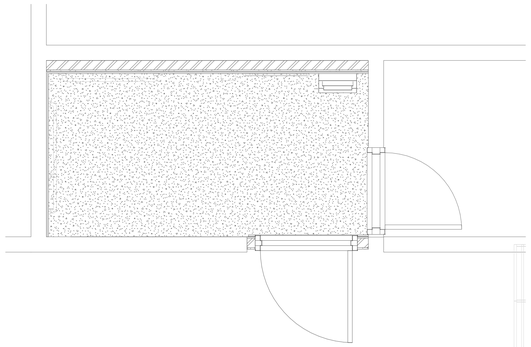


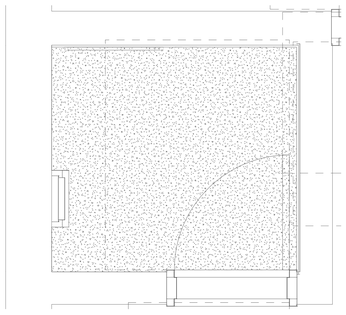
FACULTY RESTROOM FIRE ALARM PLAN

5 SCALE: 1/2" = 1'-0"



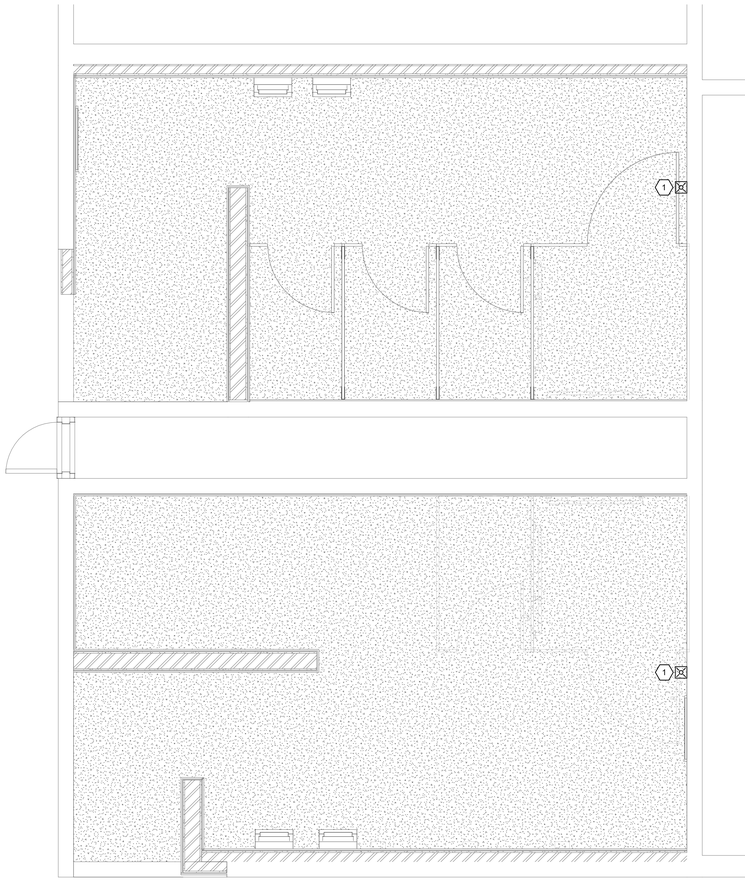
KINDERGARTEN RESTROOM FIRE ALARM PLAN (TYPICAL)

3 SCALE: 1/2" = 1'-0"



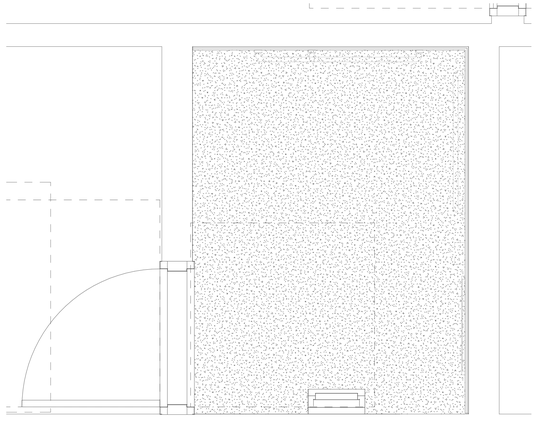
CAFETERIA RESTROOM FIRE ALARM PLAN

2 SCALE: 3/4" = 1'-0"



RESTROOM FIRE ALARM PLAN (TYPICAL)

4 SCALE: 1/2" = 1'-0"



NURSE RESTROOM FIRE ALARM PLAN

1 SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1. PROVIDE ADDRESSABLE FIRE ALARM SYSTEMS AS REQUIRED BY STATE FIRE MARSHALS RULES R710. THE INSTALLATION SHALL COMPLY WITH SATE FIRE MARSHALS RULES R710 AND NFPA 72. PROVIDE CLASS "A" LOOPED SYSTEMS OR AS APPROVED BY FIRE MARSHAL. THE FOLLOWING COMPONENTS SHALL NOT BE USED, UNLESS APPROVED BY THE DIRECTOR, OTHER FIRE ALARM COMPONENTS: ZONED FIRE ALARM PANELS, IONIZATION SMOKE DETECTORS.
2. FIRE ALARM PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWING SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75 PERCENT MAXIMUM ALLOWABLE.
3. COORDINATE SPEAKER/STROBE PLACEMENT WITH FURNISHINGS, CABINETS, AND EQUIPMENT SO THAT THE HORN STROBES ARE NOT COVERED OR OBSTRUCTED FROM VIEW.
4. REFER TO FIRE SPRINKLER SHOP DRAWINGS FOR FLOW AND TAMPER SWITCH LOCATIONS AND PROVIDE FIRE ALARM CONNECTIONS TO EACH.
5. REFER TO MECHANICAL PLANS FOR QUANTITY AND LOCATIONS OF SMOKE DAMPERS AND PROVIDE POWER AND FIRE ALARM CONNECTION TO EACH.
6. PROVIDE SMOKE DETECTORS THROUGHOUT THE CORRIDORS. PROVIDE ADDITIONAL DEVICES AS REQUIRED BY THE AHJ.
7. PROVIDE MONITORING MODULE FOR EACH WATER FLOW SWITCH. COORDINATE ALL LOCATION WITH FIRE SUPPRESSION INSTALLER AND DRAWINGS.
8. PROVIDE MONITORING MODULE FOR EACH TAMPER SWITCH. COORDINATE ALL LOCATION WITH FIRE SUPPRESSION INSTALLER AND DRAWINGS.
9. PROVIDE DUCT DETECTORS FOR RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS UPON FINAL DUCT ARRANGEMENT. PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT LAYOUT. CONNECT DUCT SMOKE DETECTORS TO VISIBLE AND AUDIBLE DEVICE.
10. PROVIDE LOW FREQUENCY (FUNDAMENTAL FREQUENCY 510 HZ +/- 10% AND SHALL BE A SQUARE WAVE) HORN IN EACH GUEST ROOM AND POTENTIAL LIVING SPACE THAT WILL COMPLY WITH SOUND LEVEL TEST OF 75dBA MINIMUM AT PILLOW LEVEL.

SHEET KEYNOTES

1. CIRCUIT NEW FIRE ALARM DEVICES TO EXISTING FIRE ALARM PANEL. PROVIDE ADDITIONAL BATTERY AND POWER SUPPLIES AS REQUIRED FOR THE ADDITION OF NEW DEVICE INTO EXISTING PANEL. REPROGRAM EXISTING PANEL. TEST EXISTING PANEL. OBTAIN FIRE MARSHALL'S APPROVAL OF FIRE ALARM SYSTEM.

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SPENCER C. LITTLE
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STATE OF UTAH

△	DATE	REVISION

PROJECT NUMBER 200500

LEVEL 1 FIRE ALARM PLAN

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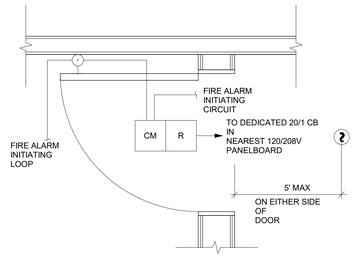


NOTES:

1. FOR EACH MAGNETIC DOOR HOLDER SHOWN ON PLANS, PROVIDE ALL DEVICES AND WIRING PER THIS DETAIL. THESE ARE NOT SHOWN ON PLANS FOR LEGIBILITY PURPOSES.

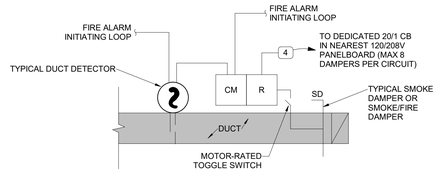
2. PROVIDE SMOKE DETECTOR WITHIN 5' OF EVERY DOOR WITH MAGNETIC DOOR HOLDERS THAT RELEASE UPON A FIRE ALARM EVENT.

3. VERIFY QUANTITY AND LOCATIONS OF ALL DOORS REQUIRING MAGNETIC DOOR HOLDERS ARCHITECTURAL PLANS AND FIRE ALARM PLANS.

4. PROVIDE ONE CONTROL MODULE PER MAGNETIC DOOR HOLDER, UNLESS THE REQUIRED CONTROL SEQUENCE ALLOWS GROUPING OF HOLDERS, IN WHICH CASE EACH GROUPING OF HOLDERS MAY SHARE ONE CONTROL MODULE.

D1 TYPICAL MAGNETIC DOOR HOLDER DETAIL

SCALE: NTS



NOTES:

1. FOR EACH SMOKE DAMPER SHOWN ON PLANS, PROVIDE ALL DEVICES AND WIRING PER THIS DETAIL. THESE ARE NOT SHOWN ON PLANS FOR LEGIBILITY PURPOSES.

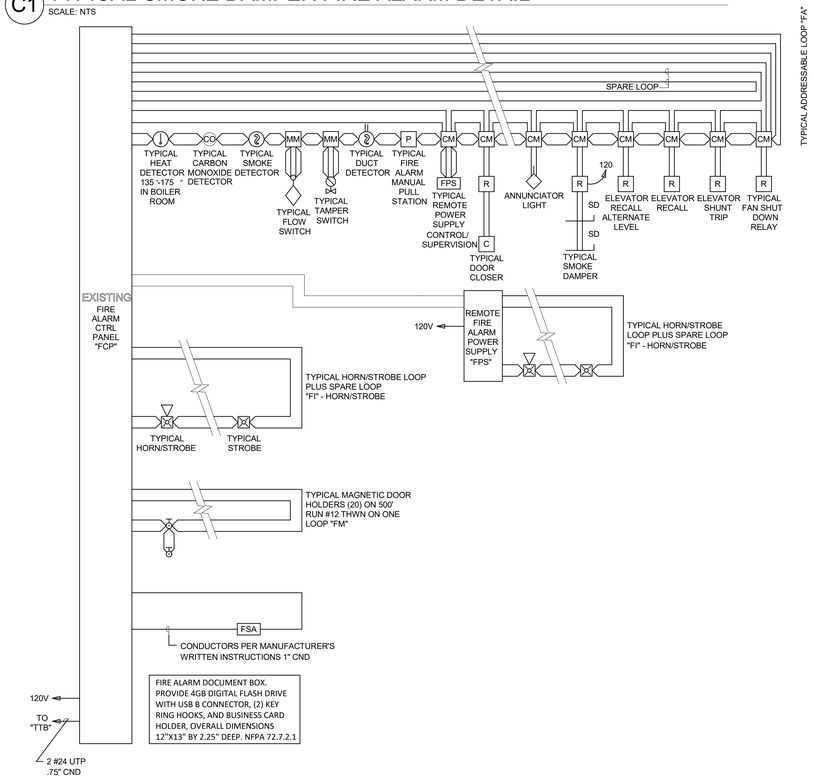
2. DUCT DETECTOR WITHIN 5' OF EVERY SMOKE DAMPER TO CLOSE DAMPER UPON ACTIVATION PER IMC REQUIREMENTS.

3. VERIFY QUANTITY AND LOCATIONS OF ALL SMOKE DAMPERS WITH THE HVAC INSTALLER.

4. PROVIDE ONE CONTROL MODULE PER SMOKE DAMPER, UNLESS THE REQUIRED CONTROL SEQUENCE ALLOWS GROUPING OF DAMPERS, IN WHICH CASE EACH GROUPING OF DAMPERS MAY SHARE ONE CONTROL MODULE.

C1 TYPICAL SMOKE DAMPER FIRE ALARM DETAIL

SCALE: NTS



A1 FIRE RISER DIAGRAM

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

FIRE PROTECTION LEGEND

HAZARD CLASSIFICATION 1 (HC-1) - 0.10 GPM/SQ.FT OVER 1500 SQ.FT. WITH 250 GPM HOSE STREAM.

HAZARD CLASSIFICATION 2 (HC-2) - 0.20 GPM/SQ.FT. OVER 2500 SQ. FT. WITH 250 GPM HOSE STREAM.

FIRE ALARM SYSTEMS:

Provide a complete addressable fire alarm system that has been tested and approved by the local authority having jurisdiction (AHJ). Fire alarm system shall include a central fire alarm control panel, fire alarm control panel, fire alarm power supply panels, and initiating devices, notification devices, wiring, and testing.

Submit all items in the IFC 907.1.1 to the AHJ and obtain approval prior to ordering equipment and rough-in work.
Fire alarm system shall comply with NFPA 72 and International Fire Code; contractor will be responsible to provide a system approved by the AHJ regardless of what is shown on the drawings.

Provide low frequency sounders in each area intended for sleeping and in areas that might reasonably be used for sleeping. For example each bedroom of an apartment and also the living room area of an apartment as it might have sleeping occupants. Low frequency sounders shall comply with sound level test of 75dBA minimum at the pillow height. The sounder level must also be 15dB above the average ambient sound.

Approved Fire Alarm Manufactures/Installers:
Gamewell - FCI / Nelson Fire/ Firetrol Protection Systems
Notifier / Mountain Alarm / Firetrol Protection Systems
Mircom / Power Control Systems
EST / GE Infrastructure; a unit of General Electric Company
Silent Knight; a Honeywell company
SimplexGrinnell LP; a Tyco International company

Wiring shall be Class A. Devices shall be mounted in accordance with NFPA 72. Provide unique self-typed labels for each device and provide an as-built contactor based floorplan drawings with each device accurately shown and labeled. System shall be subject to final approval of AHJ during the final acceptance test.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
FIRE ALARM	
FSA	FIRE SYSTEM ANNUNCIATOR.
FCP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
FPS	FIRE ALARM NOTIFICATION POWER SUPPLY.
C	AUTOMATIC DOOR CLOSERS: DOOR CLOSERS SHALL BE FURNISHED WITH DOOR HARDWARE AND CONNECTED TO BY FIRE ALARM INSTALLERS.
CM	CONTROL MODULE.
MM	MONITOR MODULE.
P	FIRE ALARM MANUAL PULL STATION.
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	MAGNETIC DOOR HOLDER.
	DETECTOR, SMOKE.
A	DETECTOR, SMOKE WITH AUXILIARY CONTACT.
E	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
G	DETECTOR, SMOKE WITH GUARD.
R	DETECTOR, SMOKE, RESIDENTIAL.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
	STROBE.
75	STROBE. SUBSCRIPT INDICATES CANDELA RATING.
WP	ALARM, HORN/SPEAKER, WEATHERPROOF.
	ALARM, HORN/STROBE, ONE ASSEMBLY.
75	ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
G	ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY.
	DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
SD	SMOKE DAMPER.
FSD	FIRE AND SMOKE DAMPER.
	BELL (GONG).
CO	DETECTOR, CARBON MONOXIDE.
75	ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.

FIRE ALARM INPUT/OUTPUT MATRIX

INITIATING DEVICES	ZONE	GENERAL ALARM	DOOR HOLDER/CLOSERS	ELEVATOR RECALL MAIN LEVEL	ELEVATOR RECALL ALTERNATE LEVEL	FAN SHUTDOWN	FIRE DAMPER	MAIN LEVEL ELEVATOR DOORS HOLD OPENS	ELEVATOR SHUNT TRIP	SUPERVISORY	NOTES
		OUTPUT DEVICES									
1	MAIN FLOW	○				○					
2	MAIN TAMPER									○	
3	LEVEL FLOW	○				○					
4	LEVEL TAMPER									○	
	LEVEL INITIATING LOOP	○				○					

GENERAL SHEET NOTES

1. PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
2. PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
3. PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE). POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
4. FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
5. HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.
6. PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
7. BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
8. VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
9. RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
10. PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
11. PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.
12. PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
13. PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
14. LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
15. PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
16. INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
17. ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
18. HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
19. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

NOTIFICATION SCHEDULE

SYMBOL	STROBE SIZE	COVERAGE	AVERAGE CURRENT	MAXIMUM PER CIRCUIT ALONE
15	15 CD	20'x20'	.085A	17
30	30 CD	30'x30'	.135A	11
75	75 CD	40'x40'	.200A	7
110	110 CD	50'x50'	.225A	6

WIRING SCHEDULE

FUNCTION	< 500'	< 1000'	1000'-3000'	> 3000'
ADDRESSABLE LOOP	#18 TSP	#18 TSP	#16 TSP	#14 TSP
POWER LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
SPARE LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
STROBE HORNS	#14 THWN	#14 THWN	#12 THWN	#10 THWN
MAGNETIC DOOR HOLDER	#12 THWN	#10 THWN		
SPEAKERS	#16 TSP	#16 TSP	#14 TSP	#14 TSP

FA CEILING NOTIFICATION	FA WALL NOTIFICATION
CEILING - HORN	WALL - HORN
CEILING - STROBE	WALL - STROBE
CEILING - HORN STROBE	WALL - HORN STROBE
CEILING - SPEAKER	WALL - SPEAKER
CEILING - SPEAKER STROBE	WALL - SPEAKER STROBE
CEILING - MASS NOTIFICATION	WALL - MASS NOTIFICATION

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FIRE ALARM DETAILS

FA601

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