Donald L. Welch
Architect

February 24, 2017 (Revised 03-11-2017)

Salt Lake County
Planning & Development
2001 South State Street
Salt Lake City, Utah 84190

RE: Brighton Recovery Campus
Plan Review Comment Responses
Building 'E'
4931 South 900 East
Salt Lake County, Utah

CODE REVIEW COMMENT RESPONSES:

A1. Sheet A0.1

A. Please refer to Sheet A0.1, for updated building code summary, concerning Change of Occupancy.
B. Please refer to Sheet A0.1, for Condition 1 requirement clarification.
C. The Table 1017.2 note, was taken from the 2015 International Building Code, for Corridor Exit Travel Distance. Not certain what is meant by "incorrect section", since it is clearly called out in the Code. But for clarification purposes, it has been removed from the project Code Information.
D. Please refer to Sheet A0.1, for note showing the Sprinkler system to be NFPA 13. It is also called out clearly on Sheet P02 of the original submitted Construction Documents.
E. i. Please refer to sheet A0.1, for note showing separation wall between Group A and Group R-4 occupancies. Also refer to sheet A8.1 for vertical details showing typical separation wall attachments to floor and roof sheathing.
II. Please refer to Sheet A2.5A for fire rated wall location and information.
III. Please refer to Sheet A0..1, and A2.1A for listed design for the fire rated wall.
IV. Please refer to Sheet A8.1 for fire wall extension to underside of existing roof sheathing.
V. Please refer to Sheet A8.2 for penetrations through fire rated assemblies.
VI. Please refer to Mechanical drawings for duct penetrations through fire rated assemblies.
F. Please refer to Sheet A0.1 for building construction type allowing increased square footage for each occupancy area, due to NFPA 13 fire sprinkling system.
G. Please refer to Sheet A2.5, A2.5A, and A4.6 for new Men's restroom, new drinking fountain and new mop sink in the assembly area.

A2. Sheet A1.1

A. Please refer to Sheet A1.1 for all property line call-outs.
B. Please refer to Sheet A1.1 for location of imaginary lines between the existing buildings. The imaginary lines are the property lines around each building. Dimensions are shown on this

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MIDVALE, UTAH 84047

sheet, showing the approximate distance between the existing buildings, and the approximate distance between the roof overhangs.

C. Please refer to sheet A1.1, and item B above for clarification of distance between existing buildings.

D. Please refer to Sheet A1.1, and item B above for clarification of distance between existing roof eaves.

E. Please refer to Sheet A1.1, clouded notes, for new one hour fire rated wall assembly at existing walls located adjacent to other existing buildings, existing building roof overhangs, and existing breezeway roof structures. And Refer to sheet A8.1 for fire rated wall detail at roof, between buildings.

F. Please refer to Sheet A0.1, Title Sheet, and Sheet A1.1, Site Plan, for location of existing breezeways, and clarification notes for fire rated walls, and fire sprinkling systems at existing roof overhangs and breezeway structures. Also refer to Sheet A8.1 for fire rated wall detail at roof, between buildings.

G. I. Please refer to sheet A1.1, Site Plan, for new note stating verification of existing sidewalk, and modifications if required.

II. Please refer to Sheet A1.1, Site Plan, showing that the parking spaces and access aisles are designed so that cars and vans, when parked, will not obstruct the required clear width of the adjacent accessible routes.

III. There are no locations along the accessible routes where edge protection may be required.

H. Please refer to Sheet A1.1 for new accessible route from building complex, to existing sidewalk, adjacent to 900 east street. This existing sidewalk is the route taken to public transportation stops.

I. I. Please refer to Sheet A1.1 for calculations concerning percentage of number of ADA accessible stalls within parking lot.

a. Please refer to sheet A1.1 for ADA parking stalls below existing parking canopy roof.

II. Please refer to Sheet A1.1 for identification of the Van Accessible ADA parking stalls.

a. The van parking stalls and the vehicular route to and from the stalls have a clear vertical clearance of 8'-2". Stalls are parked outside, and not within a parking garage.

III. Please refer to Sheet A1.1 for dimensions concerning the Van Accessible stalls.

IV. Please refer to Sheet A1.1 for access aisle layouts for adjacent accessible parking stalls. Dimensions, and markings meet section 502.4 and ICC a117.1 requirements. Also the access aisles do not overlap the vehicular way, and are located on an accessible route.

V. Please refer to Sheet A1.1, and Sheet C100 for relocation of grease interceptor and sampling manhole away from accessible parking stalls.

VI. Please refer to Sheet A1.1, for new note concerning required slope at accessible parking stalls and aisles.

VII. Please refer to Sheet A1.1, for ADA sign detail. "van accessible" note added to detail.

A3. Sheet A2.5

A. Please refer to note on sheet A4.7 concerning fire extinguisher cabinets.
B. Please refer to sheet A2.5 for detailed notes concerning Platform and steps.
C. I. Please refer to Electrical sheet EL1.1E for exit sign locations
D. Please refer to sheet A2.5 for detailed notes concerning Platform and steps.
E. Please refer to sheet A0.1, Title Sheet, for notes concerning 30 minute fire construction rating of new interior walls, per IBC 420.2, 310.6, and 708.3.2. 1 hour fire rated wall construction is not required in a building with an approved automatic sprinkler system.
   I. Please refer to Sheet A2.5 for 30 minute fire rated walls and ceiling constructions.
   I. Please refer to Sheets A2.5 and A8.1, for fire rated partition and ceiling assembly listings & detail.
   II. Please refer to New Sheet A8.2, for penetration details.
   III. Please refer to sheet A2.5 for fire rating of doors in fire partitions.
   IV. Please refer to Mechanical engineering review comment responses, and Mechanical drawings for protection of ducts in fire rated assemblies.

A4. A. Sheet A2.5A & A2.5B: Please refer to Sheet A8.1 for roof access ladder & attic access opening details. There is no roof hatch. Only a ¾" plywood platform leading from the access ladder to the existing opening in the mechanical roof well. Refer to Sheet A8.1 for roof access ladder details.

B. Please refer to sheet A0.1 for the listed design for the 1 hour fire barrier.

C. Please refer to sheet A2.5 and A2.5A for location of fire barrier between occupancy A-3 and R-4.

D.(A.) I. Please refer to sheet A2.5 and A2.5A for accessible Type sleeping units within the 8 unit sides of the building.

II. Please refer to Sheet A2.5 and A2.5A for type B sleeping units.

E.(B.) Accessible type units:

I. Please refer to sheet A2.5, A2.5A, and A4.4, for turning space required in each sleeping room. Also please note that the closets either have a required turning space, or are no longer than 4' deep, as required.

II. Please refer to sheet A2.5, A2.5A, and A4.4, for accessible maneuvering clearances for doors.

III. Please refer to sheet A8.2 for typical mounting height details, reach ranges, and operation of all operable parts.

IV. Please refer to sheet A8.2 for all lavatory vanity counter accessibility requirements.
V. Please refer to sheet A2.5 for storage facilities meeting accessibility requirements in each accessible sleeping unit. And Sheet A8.2 for shelf and rod requirements.

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VI. Please refer to sheet A2.5, A2.5A, and A4.4, for clear floor space on sides of beds.

F.(C.) Type B sleeping units:

I. please refer to sheet A2.5 for primary entrance accessible routes.

II. Please refer to Sheet A8.2 for mounting heights of operable parts including switches and outlets. Also refer to electrical drawings.

III. Please refer to note on sheet A4.7 concerning blocking for future grab bars.

IV. Please refer to sheet A2.5, A2.5A, A4.4, and A8.2, for lavatory clear floor space requirements.

V. Please refer to sheet A2.5, A2.5A, A4.4, and A8.2 for clear floor space requirements around water closet and lavatories

VI. Please refer to Sheet A2.5, A2.5A, A4.4, and A8.2 for clear floor space in front of shower.

G.(D.) Please refer to Sheet A2.5, A2.5A, A4.6, and A8.2, for accessible requirements for Kitchenettes, for counter height and sink.

A5. Please refer to sheet A8.1 for typical interior wall details at floor and ceiling.

A6. The address for each building is already existing on the exterior face of each building.

A7. Please refer to sheet A4.4, Enlarged laundry room plans, for clear floor space at equipment, and sheet A8.2 for height of equipment and location of operable parts.

A8. A4.6: A. Please refer to sheet A4.6 for deletion of details B, C, D, & F. Please note new enlarged floor plan B, Serving Center E140.

B. I. Please refer to sheet A2.5, A2.5A, and A4.6 for a work surface location in kitchens, and work surface notes, addressing work surface dimensions, clear floor space requirements, and location of work surface adjacent to oven.

II. Please refer to sheet A2.5, A2.5A, and A4.6 for kitchens sink, and notes, addressing height above floor, clear floor space requirements, and forward approach and toe and knee clearance.

III. Please refer to sheet A2.5, A2.5A, and A4.6 for clear floor space requirements, and forward approach and toe and knee clearance for appliances.

IV. Please refer to sheet A2.5, A2.5A, and A4.6 for notes concerning controls for over range microwave.

V. Please refer to sheet A2.5, A2.5A, and A4.6 for notes addressing oven and cooktop controls.

A9. Sheet A4.7: A., B., C. Please refer to sheet A8.2 for accessibility details for the transfer-type shower, including seat height and strength requirements, grab bar locations, and controls and hand shower requirements.

A10. Sheet A4.7: A. I., II., III. Please refer to sheet A8.2 for accessibility details for the transfer-type shower, including seat height and strength requirements, grab bar locations, and controls and hand shower requirements.

B. Please refer to sheet A8.2 for dimensions and locations of toilet paper dispenser.

C. please refer to sheet A8.2 for grab bar requirements at toilets.

D. Please refer to sheet A8.2 for toilet flush control location.

E. Water closet compartment has been deleted from this sheet. Please note the restroom floor plans for the public area are shown on sheets A2.5, A2.5A, and A4.4, along with dimensional and clearance requirements shown on sheet A8.2.

F. Please refer to Sheet A8.2 for drinking fountain dimensions and clearances.

A11 Please refer to revised Electrical drawings, dated February 24, 2017, for information regarding carbon monoxide detectors.

Mechanical Review Comments:

Please refer to attached Mechanical drawings, for information concerning Mechanical review comments.

Plumbing Review Comments:

Please refer to attached Plumbing drawings, for information concerning Plumbing review comments.

Electrical Review Comments:

Please refer to attached Electrical drawings, for information concerning Electrical review comments.

Energy Review Comments:

N1 & N2: Please refer to REScheck, attached to the end of the Mechanical/Plumbing pdf files, for extent of thermal envelope and corresponding R-values, and the energy compliance.

Structural Comments:

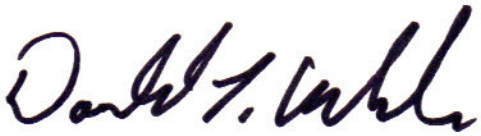
General:

S1. Sheets D2.1 and D3.1:

A. Please refer to attached written verification letter, submitted by a Utah licensed structural engineer (attached at the end of this letter), verifying the proposed demolition is not affecting the structural integrity of the building.
B. Please refer to attached written verification letter, submitted by a Utah licensed structural engineer (attached at the end of this letter), showing structural support information for new openings in exterior walls.

CLARIFICATION-PLEASE NOTE THAT THE LETTERS SHOWN IN PARENTHESES, FOLLOWING THE CORRECT LETTERS, CORRESPOND TO THE LETTERS SHOWN ON THE PLAN CHECK REVIEW LETTER THAT THESE RESPONSES ARE ASSOCIATED WITH.

Thank you.



Donald L. Welch
Architect

VECTOR ENGINEERS

UTAH OFFICES
Sandy
Layton
St. George

Project Number: L0133-001-171

March 17, 2017

Brighton Land Holdings
1275 East Fort Union Blvd. Ste 210
Cottonwood Heights, UT 84047

ATTENTION: Thomas Godfrey

REFERENCE: **Brighton Recovery Campus, Building E (4931 S 900 E, SLC, UT)**
Interior Demolition & New Wall Openings

Mr. Godfrey:

Per your request, we have reviewed the architectural drawings for the above-referenced project. We also visited the above-referenced site on December 20, 2016. Please be advised as follows:

1) From our observation, the roof structure appeared to be manufactured wood roof trusses, bearing at the exterior perimeter walls and/or exterior overhang beams. In addition, there is an interior beam running the length of the building, supporting the roof trusses at or near their mid-span. See the enclosed "Demolition Plan," for approximate location of existing beams and posts. Interior partitions are non-bearing non-shear walls and can, therefore, be removed without adversely affecting the structure.
2) Two new openings may be constructed at exterior walls, as shown in the enclosed "Demolition Plan." The new headers, trimmers, and king studs are also specified on sheet 2. Supporting calculations are provided on sheets 3 and 4, enclosed. The contractor is responsible for shoring the existing roof framing during construction.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

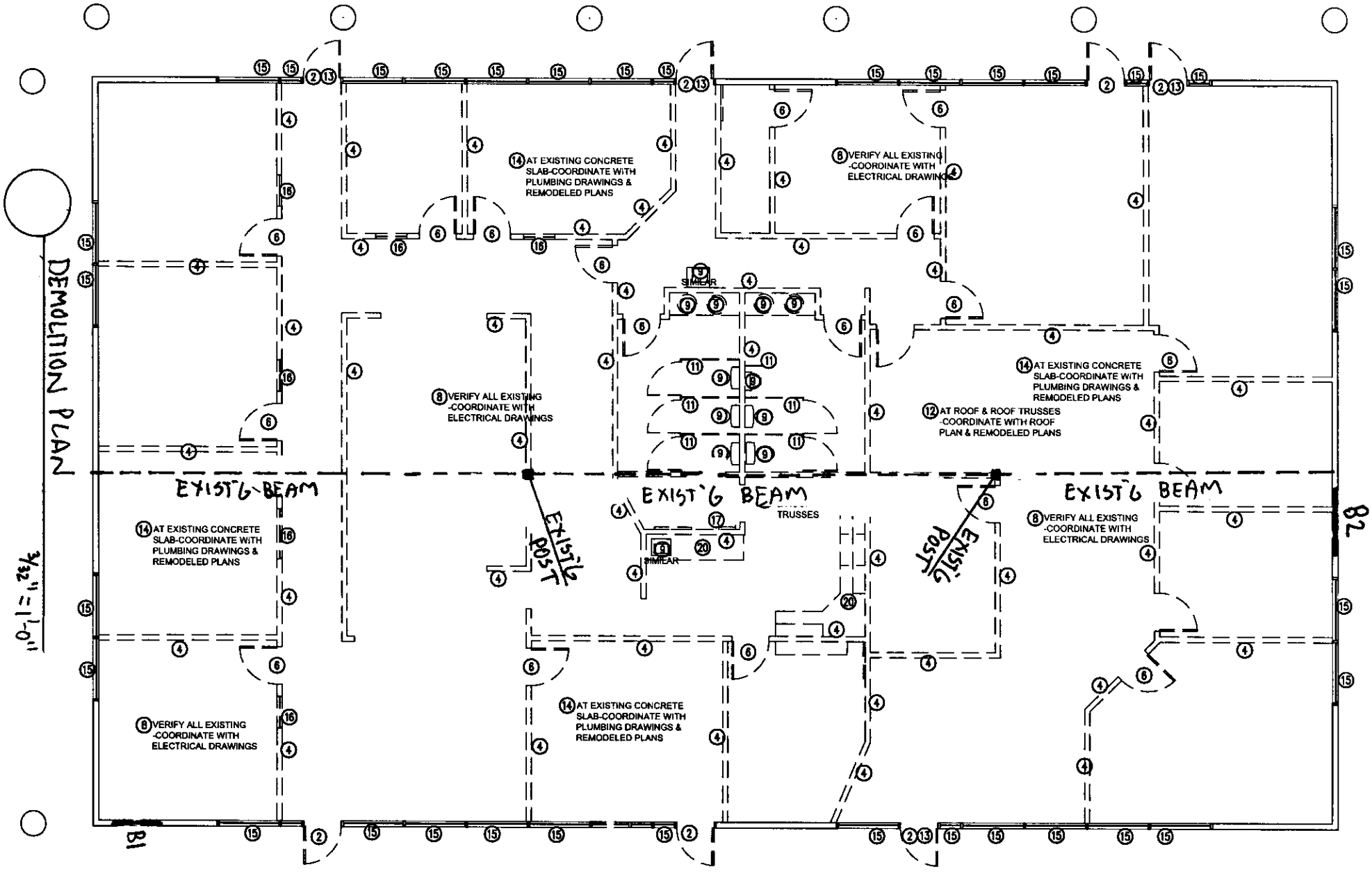
Very truly yours,
VECTOR STRUCTURAL ENGINEERS

David H. Fotheringham, S.E.
Principal

3-17-17

Enclosures

BRIGHTON RECOVERY BLD'G 'E'



NEW HEADERS:

B1 = B2 = (3) 2x6 HDR w/ 2x6 TRIMM & 2x6 KING STUD EA. END

L0133-001-171
SHEET 2

VECTOR ENGINEERS

JOB NO.: L0133-001-171 DESIGNED: DHF
DATE: 3/17/2017 CHECKED: DHF
SHEET 3

PROJECT: BRIGHTON RECOVERY CAMPUS **SUBJECT:** GRAVITY LOADS

ROOF			Increase due to pitch	Original loading
ROOF PITCH/12		4		
ASPHALT SHINGLES		4.22	1.05	4.00
1/2" PLYWOOD		1.58	1.05	1.50
FRAMING		3.00		
INSULATION		2.00		
1/2" GYPSUM CLG.		2.20		
M, E & MISC		2.00		
	DL	15.00		
	LL	20.00		
	SNOW	30.00		
SNOW INCLUDED IN LATERAL		0.0		

2ND FLOOR (WHERE OCCURS)

FLOOR COVERING		1.00
3/4" T&G PLYWOOD		2.30
MFG TRUSSES / FRAMING		2.00
INSULATION		1.00
1/2" GYPSUM CEILING		2.20
PARTITION		2.00
M, E & MISC.		1.50
OTHER		0.00
	DL	12.00
	LL	40.00

EXTERIOR WALLS

STUCCO/SIDING		3.50
2x FRAMING W/3 PLATES		1.30
INSULATION		1.00
1/2" GYPSUM		2.20
1/2" PLYWOOD		1.50
OTHER		0.50
	DL	10.00

OVERFILL

ASPHALT SHINGLES		4.00
1/2" PLYWOOD		1.50
RAFTERS & MISC		3.50
OTHER		0.00
	DL	9.00
	LL	20.00

TYPICAL ROOF OVERBUILD MAX SPAN TABLE

Grade	Size	Spacing (ft)	L_{max} (ft)
DFL#2	2X4	2	5.80
DFL#2	2X6	2	8.80
DFL#2	2X8	2	10.80
DFL#2	2X10	2	13.20

C_r	C_D	$C_{F,V}$	M_{allow} (ft-lb)	V_{allow} (lb)	Ctrl'g factor
1.15	1.00	1.50	385	382	Moment
1.15	1.00	1.40	888	601	Moment
1.15	1.00	1.20	1322	792	Moment
1.15	1.00	1.10	1973	1011	Moment

VECTOR ENGINEERS

JOB NO.: L0133-001-171 **DESIGNED:** DHF
DATE: 3/17/2017 **CHECKED:** DHF

PROJECT: BRIGHTON RECOVERY CAMPUS **SUBJECT:** BEAMS

Abbrev	GRADES			F_{bxx} (psi)	F_{vxx} (psi)	E_{xx} (psi)		g (lb/ft^3)
DFL#1	DFL#1			1,000	180	1,700,000		32
DFL#2	DFL#2			900	180	1,600,000		32
DF1 (5X)	DFL#1 5X5 & LARGER			1,350	170	1,600,000		32
24F-V4	24F-V4			2,400	240	1,800,000		32
24F-V8	24F-V8			2,400	240	1,800,000		40
LVL (1.9)	LVL (1.9X106E)			2,600	285	1,900,000		40
LVL (2.0)	LVL (2.0X106E)			2,200	285	2,000,000		42
LSL	LSL (1.3X106E)			1,700	400	1,300,000		42
PSL	PSL (2.0X106E)			2,900	290	2,000,000		42
STL36	GRADE 36 STEEL			21,600	14,400	29,000,000		490
STL46	GRADE 46 STEEL			27,600	18,400	29,000,000		490
STL50	GRADE 50 STEEL			30,000	20,000	29,000,000		490

DESIGN LOADS:

Load Types:	Snow l_s	Live	Dead
Roof	30	20	18
Floor		40	15
Wall			12

Add .2*S_{DS} to dead load? Yes 0.2267 =.2*S_{DS}

note: 'a' must be less than or equal to 'L/2'

CRITERIA (L/)	D_{TL}	D_{LL}	D_{DL}
$A_{(BLANK)}$	240	360	
B	240	480	
C	600		800

Label	Length 'L' (ft)	Roof Trib (ft)	Floor Trib (ft)	Wall Trib (ft)	Add'l Live Load (plf)	Add'l Dead Load (plf)	Point Load From	React (A,B)	Dist 'a' (ft)	Point Live Load 'P_{LL}' (lb)	Point Dead Load 'P_{DL}' (lb)	# PLIES	Grade	Size	"BM/HDR"	D CRITERIA	C_r	C_D	$C_{F,V}$	R_a (lb)	R_b (lb)	M_{max} (ft-lb)	M_{allow} (ft-lb)	V_{max} (lb)	V_{allow} (lb)	D_{TL} (in)	$D_{TLallow}$ (in)	D_{LL} (in) (SEE COND 'C')	$D_{LLallow}$ (in) (SEE COND 'C')	1.5DL GLB Camb	Check
EXISTG	27	37.5															1.00	1.00	1.00	24501	24501	165381					1.350		0.000		
																	1.00	1.00	1.00												
B1	3.5	8		2								(3)	DFL#2	2X6	H		1.00	1.00	1.40	730	730	639	2382	539	2970	0.014	0.175	0.005	0.117		0.27 M
B2	5.5	8		2								(3)	DFL#2	2X6	H		1.00	1.00	1.40	1147	1147	1578	2382	956	2970	0.086	0.275	0.033	0.183		0.66 M

SHEET 4

PROJECT:

Tenant Finish for New Brighton Recovery Campus

4905 South, 4911 South, 4915 South, 4925 South, 4931 South, 4953 South 900 East, Salt Lake County, Utah

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

BUILDING CODE SUMMARY

APPLICABLE CODES

–BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL EXISTING BUILDING CODE
–MECHANICAL CODE: 2015 IMC
–PLUMBING CODE: 2015 IPC
–ELECTRICAL CODE: 2015 NATIONAL ELECTRICAL CODE
–FIRE CODE: 2015 IFC
–LIFE SAFETY CODE: 2015 NFPA 101
–ACCESSIBILITY CODE: IBC & NE ACC. GUIDELINES

EXISTING BUILDING 'E'

BUILDING PLANNING

OCCUPANCY: RESIDENTIAL OCCUPANCY GROUP R–4 & ASSEMBLY GROUP A–3
MIXED (NON SEPARATED) OCCUPANCY (YES) / NO
REQUIRED FIRE SEPARATION: 30 MINUTE (FIRE SPRINKLER SYSTEM)

TYPE OF CONSTRUCTION

CONSTRUCTION TYPE: VB S1 1 LEVEL; 28,000 SQ. FT. ALLOWED–OCCUPANCY R–4
CONSTRUCTION TYPE: VB S1 1 LEVEL; 24,000 SQ. FT. ALLOWED–OCCUPANCY A–3

RISK CATEGORY

RISK CATEGORY: II

CHANGE OF OCCUPANCY

WORK BEING DONE: WORK AREA METHOD, LEVEL 2

GENERAL BUILDING LIMITATIONS

–HEIGHT OF BUILDING: 25 FEET MAXIMUM NUMBER OF STORIES: 1 STORY
–TOTAL AREA OF BUILDING: 6,000 SQ. FT. – OCCUPANCY 'R–4'
–OCCUPANCY PER PERSON: R–4 OCCUPANCY: 4,711 SQ. FT.; 200 SQ. FT./PERSON = 24 OCCUPANTS 1 STORY
16 IN–HOUSE RESIDENT OCCUPANTS
UP TO 8 STAFF MEMBERS ALLOWED
A–3 OCCUPANCY: 1,288 SQ. FT.; 15 SQ. FT./PERSON= 86 OCCUPANTS

30 MINUTE FIRE RATED WALL SEPERATION BETWEEN A–3 OCCUPANCY AND R–4 OCCUPANCY WITH AN APPROVED NFPA 13 FIRE SPRINKLER SYSTEM

FIRE PROTECTION SYSTEMS

–FIRE EXTINGUISHING SYSTEM: (YES) / NO TYPE: NFPA 13 SPRINKLER SYSTEM
–FIRE ALARM SYSTEM: (YES) / NO

GROUP R–4 OCCUPANCIES FIRE AREAS, NOT MORE THAT 4,500 GROSS SQ. FT., AND NOT CONTAINING MORE THAT 16 RESIDENTS, PROVIDED THAT THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED FIRE ALARM SYSTEM THAT IS INTERCONNECTED AND RECEIVES IT'S PRIMARY POWER FROM THE BUILDING WIRING AND A COMMERCIAL POWER SYSTEM.

GROUP R–4 CONDITION 1: ALL PERSONS RECEIVING CUSTODIAL CARE, WHO WITHOUT ANY ASSISTANCE, ARE CAPABLE OF RESPONDING TO AN EMERGENCY SITUATION, TO COMPLETE BUILDING EVACUATION.

GROUP R–4 CONDITION 1: AT LEAST ONE OF THE SLEEPING UNITS SHALL BE AN ACCESSIBLE UNIT.

ACCESSIBLE UNITS AND TYPE B UNITS SHALL BE PROVIDED IN GROUP R–4 OCCUPANCIES IN ACCORDANCE WITH SECTIONS 1107.6.4.1 AND 1107.6.4.2. BEDROOMS IN GROUP R–4 FACILITIES SHALL BE COUNTED AS SLEEPING UNITS FOR THE PURPOSE OF DETERMINING THE NUMBER OF UNITS.

IN STRUCTURES WITH FOUR OR MORE SLEEPING UNITS INTENDED TO BE OCCUPIED AS A RESIDENCE, EVERY SLEEPING UNIT INTENDED TO BE OCCUPIED AS A RESIDENCE SHALL BE TYPE B UNIT.

FIRE RESISTANT CONSTRUCTION / FIREPROOFING SCHEDULE

ITEM	REQ'D RATING / HR
–EXTERIOR WALLS: LOAD BEARING	1 HR. (EXISTING WALLS)
NON–LOAD BEARING	0 HR.
–FIRE/PARTY WALLS	1 HOUR (W/ APPROVED FIRE SPRINKLING SYSTEM)
–SHAFTS	N.A.
–INTERIOR WALL: LOAD BEARING	0 HR.
NON–LOAD BEARING	1/2 HR.
–BEAMS	0 HR.
–ROOF/CEILING	1/2 HR.

SEE SHEET A1.1 FOR FIRE RATED WALLS AT EXISTING BUILDINGS ADJACENT TO BREEZEWAYS. ALSO FOR FIRE SPRINKLING SYSTEM AT EXISTING ROOF OVERHANGS AND BREEZEWAY STRUCTURES.

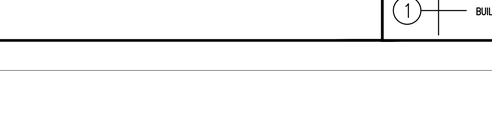
SECTION 602 CONSTRUCTION CLASSIFICATION
TABLE 602 FIRE–RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE

FIRE SEPARATION DISTANCE = X (FEET)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP R
10 ≤ X < 30	VB	0

U327 1 HOUR 920571

LOAD-BEARING WOOD STUDS, RC-1 CHANNEL INTERIOR PARTITION STC= 48 RAL-TL11-083

Sound Test: RAL-TL11-082 Fire Rating 1 hr. STC 46
Thickness (in.) 5-1/4"
- Gypsum Board - 5/8 in. thick gypsum board applied vertically
- Resilient Channel -25 ga. furring channels installed horizontally spaced 24 in. OC
- Wood Studs -2 in. x 4 in. wood studs spaced max. 16 in. OC
- Batts and Blankets -Min. 3-1/2 in. thick fiberglass insulation friction fit in thick stud spaces
- Gypsum Board -5/8 in. thick gypsum board applied vertically



ONE HOUR FIRE RATED WALL SEPARATING A–3 OCCUPANCY FROM R–4 OCCUPANCY
EXTEND WALL FROM EXISTING CONCRETE SLAB UP TO BOTTOM OF EXISTING ROOF SHEATHING

Section 310.6 Residential Group R-4

Residential Group R-4 occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24 hour basis in a supervised residential environment and receive custodial care. Buildings of Group R-4 shall be classified as one of the occupancy conditions specified in Section 310.6.1 or 310.6.2. this group shall include, but not limited to, the following:

Alcohol and drug centers

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.

Section 420 Groups I-1, R-1, R-2, R-3, and R-4

420.2 Separation Walls.

Walls separating dwelling units in the same building, walls separating sleeping units in the same building, and walls separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with Section 708.

Section 708 Fire Partitions

708.1 General

1 Separation walls as required by Section 420.2 for Groups I-1, R-1, R-2, and R-3.

708.3 Fire-resistance rating

Fire partitions shall have a fire-resistance rating of not less than 1 hour.

Exceptions:

2. Dwelling unit and sleeping unit separations in buildings of Type IIB, Type IIIB, and Type VB construction, shall have fire resistance ratings of not less than ½ hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

708.4 Continuity

The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered and open mall buildings, walls separating dwelling units, walls separating sleeping units and corridor walls, in buildings of Type IIB, IIIB, and VB construction.

Exceptions:

6. Fireblocking or draftstopping is not required at the partition line in buildings, equipped with an automatic sprinkler system installed throughout in accordance with Section 9033.3.1.1 or 903.3.1.2, provided that automatic sprinklers are installed in combustible floor/ceiling and roof/ceiling spaces.

MATERIALS / LEGEND

- CONCRETE MASONRY UNIT
- BRICK VENEER
- STONE VENEER
- CONCRETE
- GYPSUM BOARD OR GROUT MORTAR
- BATT INSULATION
- RIGID INSULATION
- PLYWOOD
- ROUGH WOOD–CONTINUOUS
- ROUGH WOOD–BLOCKING
- WOOD TRIM
- STEEL
- GRAVEL
- EARTH
- TILE

INTENT OF PLANS:

IT IS THE INTENT OF THESE DRAWINGS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS TO DESCRIBE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE THE WORK CALLED FOR, INDICATED OR REASONABLY IMPLIED BY THEM, INCLUDING PARTITIONING, MECHANICAL AND ELECTRICAL WORK, AIR CONDITIONING AND ALL OTHER ITEMS DESCRIBED. FAILURE TO SHOW DETAILS OR REPEAT ON ANY DRAWINGS THAT FIGURES, NOTES OR DETAILS GIVEN ON ANOTHER DRAWING SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK (AT NO ADDITIONAL COST) AS IF SHOWN ON EACH AND EVERY DRAWING.

ALL WORK SHALL BE IN A FIRST CLASS WORKMANSHIP MANNER, NEAT AND COMPLETE IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS AND THE UNIFORM BUILDING CODE, THE STATE ENERGY EFFICIENCY CODE AND ALL AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL ENDEAVOR TO PROTECT THE OWNER'S AND ADJACENT OWNER'S PROPERTY FROM DAMAGE DUE TO THE CONSTRUCTION PROCESS AT ALL TIMES AND REPAIR AT NO COST TO THE OWNER ANY DAMAGE THAT DOES OCCUR.

CONTRACTOR SHALL ARRANGE FOR INSPECTIONS AND TESTS SPECIFIED OR REQUIRED BY THE CITY/COUNTY BUILDING DEPARTMENT AND SHALL PAY ALL FEES AND COSTS FOR THE SAME. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE AND PAY FOR ALL PERMITS AND UPON COMPLETION OF THE WORK (PRIOR TO FINAL PAYMENT) DELIVER TO THE OWNER A CERTIFIED CERTIFICATE OF OCCUPANCY FROM THE CITY/COUNTY BUILDING AND ZONING DEPARTMENT.

CONTRACTOR SHALL BE REQUIRED TO CARRY COMPREHENSIVE LIABILITY INSURANCE IN THE AMOUNT OF THE CONTRACT AND WORKMAN'S COMPENSATION INSURANCE AT HIS OWN EXPENSE. THE A.I.A. GENERAL CONDITIONS OF THE CONTRACT FORM A201 (LATEST EDITION) ARE HEREBY MADE A PART OF THIS CONTRACT AS IF WRITTEN ON THE DOCUMENTS.

PROJECT TEAM

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ABBREVIATIONS

#	NUMBER	E.W.C.	ELECTRIC WATER COOLER	O.D.	OUTSIDE DIAMETER
@	AT	F.D.	FLOOR DRAIN	O.F.	OUTSIDE FACE
℄	CENTER LINE	FDN.	FOUNDATION	O.H.	OVERHEAD
∅	DIAMETER	FDTN.	FOUNDATION	OHD	OVERHEAD DOOR
L	ANGLE	F.E.	FIRE EXTINGUISHER	OPP.	OPPOSITE
3L	THREE LAYERS	F.E.C.	FIRE EXTINGUISHER CABINET	O.W.S.J.	OPEN WEB STEEL JOIST
A.B.	ANCHOR BOLT	F.F.	FINISH FLOOR	PART.	PARTITION
ABV.	ABOVE	FIN.	FINISH	P.C.F.	POUNDS PER CUBIC FOOT
ADJ.	ADJUSTABLE	FLR.	FLOOR	PERP.	PERPENDICULAR
A.F.F.	ABOVE FINISH FLOOR	FT.	FEET	PL.	PLATE
A.I.A.	AMERICAN INSTITUTE OF ARCHITECTS	FTG.	FOOTING	P.L.F.	POUNDS PER LINEAL FOOT
		GA.	GAGE/GAUGE	PNTD.	PAINTED
ALUM.	ALUMINUM	GAL.	GALLON	PROT.	PROTECTION
APPROX.	APPROXIMATE	GALV.	GALVANIZED	P.S.F.	POUNDS PER SQUARE FOOT
ARCH.	ARCHITECT/ARCHITECTURAL	GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED	P.S.I.	POUNDS PER SQUARE INCH
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS	GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED	QTY.	QUANTITY
D.B.A.	DEFORMED BAR ANCHOR			R.D.	ROOF DRAIN
BD.	BOARD	GPM	GALLONS PER MINUTE	RAD.	RADIUS
BITUM.	BITUMINOUS	GND.	GROUND	REINF.	REINFORCED
BLDG.	BUILDING	GOVT.	GOVERNMENT	REQ'D	REQUIRED
B.M.	BENCHMARK	GWB.	GYPSUM WALL BOARD	RM.	ROOM
B.O.	BOTTOM OF	GYP. BD.	GYPSUM WALL BOARD	R.O.	ROUGH OPENING
BOT.	BOTTOM	HC.	HANDICAPPED	SCHED.	SCHEDULE
B.P.	BASE PLATE	HDW.	HARDWARE	S.D.I.	STEEL DECK INSTITUTE
BRG.	BEARING	H.M.	HOLLOW METAL	SHR.	SHOWER
BTWN.	BETWEEN	HORIZ.	HORIZONTAL	SHT.	SHEET
CER.	CERAMIC	HR.	HOUR	SIM.	SIMILAR
C.J.	CONSTRUCTION JOINT	H.S.A.	HEADED STUD ANCHOR	S.J.I.	STEEL JOIST INSTITUTE
CLG.	CEILING	HT.	HEIGHT	SPEC.	SPECIFICATION
CLR.	CLEAR	HVAC	HEATING/VENTILATION/ AIR CONDITIONING	STC	SOUND TRANSMISSION COEFFICIENT
CMU	CONCRETE MASONRY UNIT				
COL.	COLUMN	HYD	HYDRANT	STD.	STANDARD
CONC.	CONCRETE	I.D.	INSIDE DIAMETER	STIFF.	STIFFENER
CONT.	CONTINUOUS	I.F.	INSIDE FACE	STR.	STRUCTURAL
CONST.	CONSTRUCTION	IN.	INCHES	SUPER.	SUPERVISOR
COORD.	COORDINATE	INFO.	INFORMATION	SUSP.	SUSPENDED
C.P.	CAP PLATE	INSUL.	INSULATION	THRU	THROUGH
C.T.J.	CONTRACTION JOINT	LAV.	LAVATORY	T.O.	TOP OF
DBL.	DOUBLE	LT.	LIGHT	T.O.A.	TOP OF ASPHALT
DEPT	DEPARTMENT	LT. WT.	LIGHT WEIGHT	T.O.C.	TOP OF CURB
DET.	DETAIL	MAINT.	MAINTENANCE	T.O.F.	TOP OF FOOTING
DIA.	DIAMETER	MANUF.	MANUFACTURER	T.O.S.	TOP OF SLAB OR SIDEWALK
DTL.	DETAIL	MAX.	MAXIMUM		
DWGS.	DRAWINGS	MAT.	MATERIAL	T.O.W.	TOP OF WALL
EA.	EACH	M.C.J.	MASONRY CONTROL JOINT	TYP.	TYPICAL
E.F.	EACH FACE	MECH.	MECHANICAL	U.N.O.	UNLESS NOTED OTHERWISE
E.J.	EXPANSION JOINT	MFR.	MANUFACTURER	VCT	VINYL COMPOSITION TILE
EL.	ELEVATION	MIN.	MINIMUM		
ELEV.	ELEVATION	MISC.	MISCELLANEOUS	VERT.	VERTICAL
EQ.	EQUAL	M.O.	MASONRY OPENING	VEST.	VESTIBULE
E.S.	EACH SIDE	MTL.	METAL	VNR.	VENEER
E.W.	EACH WAY	N.I.C.	NOT IN CONTRACT	W/	WITH
EXIST.	EXISTING	NO.	NUMBER	WD.	WOOD
EXPAN.	EXPANSION	N.T.S.	NOT TO SCALE	W.W.F.	WELDED WIRE FABRIC
EXT.	EXTERIOR	O.C.	ON CENTER		

GRAPHIC SYMBOLS

- FLOOR OR POINT ELEVATION
- CENTER LINE
- DIAMETER
- KEY NOTE
- WALL TYPE
- DOOR NUMBER
- WINDOW NUMBER
- FIXTURE TAG
- REVISION TAG
- DETAIL
- BUILDING OR WALL ELEVATION
- WALL SECTION
- BUILDING SECTION
- INTERIOR ELEVATION
- ROOM NAME & NUMBER (ENTRY 101)
- MASTER GRID LINES (A, 1)
- PARKING GRID LINES (A, 1)
- BUILDING GRID LINES (A, 1)

DRAWING INDEX

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BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

consultant:

STATE OF UTAH 12283403 DONALD L. WELCH LICENSED ARCHITECT 12-28-2016

project:
Tenant Finish for Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
2 ADDENDUM #2–BUILDING 'C' JANUARY 6, 2017
4 ADDENDUM #4–BUILDING 'B' JANUARY 17, 2017
7 ADDENDUM #7–BUILDING 'A' FEBRUARY 24, 2017
BUILDING 'F', 'B', 'C', 'D', 'E'
8 ADDENDUM #8–BUILDING 'A', BUILDING 'F' MARCH 20, 2017

data
project no:
drawn by:
checked by: DLW

title
TITLE SHEET

sheet
A0.1

SPECIFICATIONS AND GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

01010 - SUMMARY OF WORK

PART I - GENERAL

A. The Architect considers these plans to be generally accu- rate, reliable, and free of defect, but does not guarantee their absolute accuracy to the last detail; ac- cordingly, the contractor shall verify all dimensions and conditions before starting work, and shall immediately notify the Architect and/or Engineers of any omissions,discrepancies, or errors found.

B. In the event any conflicting items should occur in the drawings, general notes, specifications, building codes, or soils report, that condition or requirement which is the most stringent shall govern.

C. Any construction technique, process, or specialty not specifically dealt with in these plans shall be in ac- cordance with the minimum requirements set forth in the 2015 edition of the International Building Code, 2015 International Existing Building Code, any applicable local municipal code, or manufacturer's or trade association's recommendations; the most stringent shall govern.

D. Any proposed modifications or changes to these plans are subject to review by the Architect. The Architect shall NOT BE RESPONSIBLE FOR ANY CHANGES made without his knowledge and written approval.

E. The contractor shall abide by the requirements set forth in the "General Conditions of the Contract for Construction", A.I.A. Document A-201, dated 2012.

F. ALL MATERIALS MENTIONED HEREIN MAY NOT BE USED IN EVERY BUILDING (coordinate with drawings).

G. Any "or equal" note shall mean "if approved by the Des- igner in advance.

H. For all applicable Specification Sections: Comply with gov- erning codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

DIVISION 2 - SITEWORK

02010 - SUBSURFACE INVESTIGATION

PART I - GENERAL

-NOT APPLICABLE

SECTION 02419 - SELECTIVE DEMOLITION
PART 1 GENERAL
1.1 SECTION INCLUDES

A. Selective Site Demolition:
1. Demolition of designated site improvements including paving, curbing, site walls, and utility structures.
2. Demolition of below-grade foundations and site improvements to depth to avoid conflict with new construction or site work.
3. Removal of hollow items or items which could collapse.
4. Salvage of designated items.
5. Protection of site work and adjacent structures.
6. Disconnection, capping, and removal of utilities.
7. Pollution control during building demolition, including noise control.
8. Removal and legal disposal of materials.
9. Designated site improvements and adjacent construction.
10. Interruption, capping or removal of utilities as applicable.

B. Selective Building Demolition:
1. Selective demolition of interior partitions, systems, and building components designated to be removed.
2. Selective demolition of exterior facade, structures, and components designated to be removed.
3. Protection of portions of building adjacent to or affected by selective demolition.
4. Removal of abandoned utilities and wiring systems.
5. Notification to Owner of schedule of shut-off of utilities which serve occupied spaces.
6. Pollution control during selective demolition, including noise control.
7. Removal and legal disposal of materials.
8. Protection of designated site improvements and adjacent construction.
9. Salvage of designated items.
10. Interruption, capping or removal of utilities as applicable.

C. Hazardous Materials:
1. Not present.
2. Removed under separate prior contract.
3. Removed as a part of this contract.

1.2 QUALITY ASSURANCE
A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers.
1.3 SEQUENCING
A. Immediate areas of work will not be occupied during selective demolition. The public, including children, may occupy adjacent areas.
B. No responsibility for buildings and structures to be demolished will be assumed by the Owner.
C. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
PART 3 EXECUTION
3.1 SELECTIVE DEMOLITION
A. Demolition Operations: Do not damage building elements and improvements indicated to remain. Items of salvage value, not included on schedule of salvage items to be returned to Owner, shall be removed from structure. Storage or sale of items at project site is prohibited.
B. Utilities: Locate, identify, disconnect, and seal or cap off utilities in buildings to be demolished.
C. Shoring and Bracing: Provide and maintain interior and exterior shoring and bracing.
D. Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner and authorities having jurisdiction. If necessary, provide temporary utilities.
E. Operations: Cease operations if public safety or remaining structures are endangered. Perform temporary corrective measures until operations can be continued properly.
F. Security: Provide adequate protection against accidental trespassing. Secure project after work hours.
G. Restoration: Restore finishes of patched areas.
3.2 SCHEDULE
A. Items to be Salvaged for Delivery to Owner:
1. Doors and hardware.

D. Utilities Requiring Interruption, Capping, or Removal:
1. Electric.
2. Heat.
3. Water.
4. Gas.
5. Sewerage

02730 - SANITARY SEWERAGE

PART I - GENERAL

A. The contractor and plumber shall check actual sewer depth PRIOR to foundation excavation. If sewer depth is inadequately shallow for construction according to plans, the contractor shall notify the Architect in writing, and obtain Architect's response before proceed- ing with excavation work.

DIVISION 3 - CONCRETE

03300 - CAST-IN-PLACE CONCRETE

PART I - GENERAL

A. If requested, submit concrete mix designs to general con- tractor for approval prior to any pours.
B. Concrete compressive strength of all footings, stem walls, crawlspace foundation walls, and interior slabs-on-grade shall be equal to at least 2500 psi within 28 days after pouring; whereas full basement walls and retain- ing walls shall attain a compressive strength of at least 3000 psi. Minimum strength for exterior flatwork shall be 2500 psi, but 3000 psi is recommended.

PART II - PRODUCTS

A. Cement shall be gray Portland Type II, low alkaline. Slump shall be 3 to 4 maximum for stem walls and foot- ings, 4 to 5 maximum for walls, and slabs-on-grade, in- cluding interior slabs-on-grade, self-supporting slabs, exterior concrete porches, driveways and sidewalks.
B. Continuous footings shall be 10" deep x 20" wide, w/ (2) #4 bars x cont., and #4 J-bar dowels at 24" o.c. (unless noted otherwise on drawings).
C. Foundation walls shall be 8" wide (typical unless otherwise noted on drawings).
D. All foundation walls shall be reinforced with #4 bars @ 24" o.c. horizontally & vertically, with every other ver- tical bar tied to footing dowel (unless noted otherwise on drawings).
E. Fly ash content shall not exceed 15% in any mix design.
F. All metal reinforcing bars shall be ASTM A-615 grade 60 (Fy=60 ksi).
G. Welded wire fabric/mesh shall comply with ASTM A 185.
H. Where 6" x 6" welded wire mesh is recommended, slabs shall be 4" thick and have "chairs" @ 3'-0" o.c. each way to hold mesh 1" minimum above bottom of slab.

PART III - EXECUTION

A. All concrete work shall comply with A.C.I. Standard Specif- ication for Structural Concrete for Buildings (A.C.I. 301-72; revised 1981).
B. All walls shall be shored prior to backfilling.
C. Maximum spacing of horizontal bars in stem walls shall be 12" o.c.
D. All reinforcing bars shall be anchored and spaced from the forms (unless otherwise noted) as follows: 3/4" in protected walls and suspended slabs, 2" in unprotected walls, and 3" above bottom of footings.
E. All splices in continuous reinforcing bars are to be lapped a minimum of 40 bar diameters.
F. Horizontal reinforcing shall run continuous around found- ation wall corners, or shall be tied to corner rebar dowels.
G. All lumber in contact with concrete to be pressure treated lumber or redwood. See 06 610 - Rough Carpentry.

DIVISION 5 - METALS

05120 - STRUCTURAL STEEL

PART I - GENERAL
See DIVISION 1

A. All structural steel shall conform to ASTM a-36, Fy = 36 ksi, and anchor bolts shall conform to ASTM A-307.

05500 - METAL FABRICATIONS

PART I - GENERAL
See DIVISION 1

PART II - PRODUCTS

A. Materials:
1. Steel plates, shapes, and bars: ASTM A 36.
2. Steel bar grating: ASTM A569.
3. Bolts: ASTM A 325.
4. Fasteners: Zinc coated fasteners designed for loading and use.

PART III - EXECUTION

A. Take field measurements prior to fabrication. Do not delay job; allow for cutting and fitting if field measurement not practical.
B. Form work true to line with sharp angles and edges. Weld continuously, grind flush and make smooth on exposed surfaces.
C. Lintels: Provide sizes indicated with 8" bearing each end.

DIVISION 6 - WOOD AND PLASTICS

06100 - ROUGH CARPENTRY

PART I - GENERAL
See DIVISION 1

A. All lumber shall conform to PS20-70 (the American Lumber Standard) and be graded by the latest edition of the WWPA. Each piece of lumber shall bear an official grade stamp and trademark.
B. Assumed floor and roof loads (verify with local jurisdiction and coordinate w/ Struct. Drawings and notes.

PART II - PRODUCTS

A. Unless otherwise noted in structural drawings, all structural members shall be of Douglas Fir No. 2 grade or better.
B. Timber in contact with concrete shall be redwood or pressure treated fir.
C. Exposed wood columns and timbers shall be Douglas Fir Larch, Construction Grade, and "Free of Heart Center", with edges lightly eased. Concealed columns and timbers may be Douglas Fir Larch No. 1 (Fb=1200 psi, Fv=85, and E = 1,600,000 psi, minimum.
D. Framing anchors shall be "Simpson Strong-Tie", "Teco", or "Silver Metal Products, Inc.". Provide Simpson connectors at locations as required or where indicated on on framing drawings. Use "Simpson Ornamental Connectors" or equal, at front entry porch posts and beams (unless otherwise directed by Owner).
E. All headers shall be (2) 2 x 12's minimum, unless otherwise noted.
F. Provide cross bridging at midspan for all spans over 8'-0", and at one-third points for spans over 16'-0" (bridging not required with TJI floor system, unless noted otherwise.
G. Provide and install tie-down clips as per code on each truss, alternate ends.
H. Provide diagonal bracing at all truss gable ends.
I. Bearing walls supporting two floors shall be 2 x 6 studs @ 16" o.c. anchored as noted in structural notes. Non-bearing interior walls shall be 2 x 4 studs @ 16" o.c.
J. Interior (non-bearing) prefabricated "Marbeline columns to be as directed, selected and approved by Owner & Designer.

PART III - EXECUTION

A. All built-up beams and typical headers shall be nailed together with 16d nails at each end, and construction adhesive between members. Typical headers shall, in addition, contain a single solid layer of 1/2" CDX plywood between members.
B. Crown all framing members.
C. Provide solid fire blocking at floor and roof lines for fireplace chase.
D. Double framing members shall be provided directly below roof-mounted equipment plates, hangers for heavy equipment, and hangers for any and all piping 4" in diameter or larger, unless otherwise detailed.
E. Double joists under all parallel partitions.
F. All wood stud bearing walls over 10'-0" high shall have horizontal herringbone bridging, not less than 2" nominal thickness x same width as studs, fitted tight and spiked to studs. Bridging shall be at mid-height of partition, or not more than 7'-0" o.c. in any situation. For walls over 10'-0" in height studs shall be minimum 2 x 6 studs at 16" o.c. with horizontal herringbone bridging of same dimension, fitted tight and spiked to studs. Bridging shall be spaced at one-third points.
G. Provide solid blocking at all bearing walls, midheight.
H. Cross bridging or bracing shall be provided at all floor and roof joist locations where the span exceeds 8'-0" clear. Span locations that exceed 16'-0" clear shall receive bridging at one-third points. Bridging shall be Simpson Strong-Tie (or equal) Nailess Metal Bridging, min. 16 gauge steel with "V" section, or solid bridging not less than one size smaller than joist.
I. Minimum nailing of lumber members shall be installed in accordance with U.B.C. tables or other applicable local building codes.
J. Bearing walls shall have double top plates with joints lapped a minimum of 48", and fastened together with a minimum of (10) 16d nails each side of lap; nails shall be driven in pairs at a maximum spacing of 12" o.c.
K. Provide bracing at all corners and at every 25', minimum, along all exterior walls unless otherwise noted on structural plans. Braced area shall be not less than 25% of total exterior wall area.
L. Wood Treatment: Preservative treatment: Pressure treated with waterborne preservatives, to comply with AWPB LP-2 for above-ground items. Kiln dry after treatment to 19% max. moisture content for lumber and 15% for plywood. Treat above-ground wood exposed to deterioration by moisture and all wood in contact with the ground or fresh water.

06112 - PLYWOOD AND DIAPHRAGMS

PART I - GENERAL
See DIVISION 1

PART II - PRODUCTS

A. Unless otherwise noted in structural drawings, Roof sheathing shall be 5/8" waferboard sheathing or 5/8" CDX plywood with exterior glue, bearing a 42/20 span index. "Simpson Strong-Tie" plywood sheathing clips shall be installed at midspan at all locations where spacing of trusses exceeds 24" o.c. Fasten plywood at edges with 8d commons at 6" o.c., or 14 gauge 1 1/2" staples. Fasten field of panels with 8d commons at 12" o.c., or 14 gauge 1 1/2" staples.
B. Floor sheathing shall be 3/4" C.D.X. T & G plywood or waferboard with exterior glue, bearing a 42/20 span index, minimum. Fasten with 10d ring shank nails at 6" o.c. at edges and boundary, and 10" o.c. in field, or use 16 gauge 1 5/8" x 7/16" staples at 2 1/2" o.c. at edges and 4" o.c. in field.
C. Structural shear panels at exterior and interior walls shall be 1/2" C.D.X. plywood or waferboard 24/0 nailed same as roof sheathing above. Solid block above shear panels, and nail through sheathing with (4) 8d nails and toenail with (3) 16d nails minimum.
D. Non-structural shear panels at walls may be 1/2" celotex.
E. Provide metal hurricane ties at each rafter or truss.

PART III - EXECUTION

A. All sheathing shall be installed with joints staggered, and face grain running perpendicular to framing direction, with a two-span minimum.

06190 - PREFABRICATED WOOD TRUSSES

PART I - GENERAL
See DIVISION 1

THIS SECTION PERTAINS TO ANY EXISTING WOOD TRUSSES THAT MAY BE NECESSARY TO BE REPLACED-FIELD VERIFY AND INSPECT ALL EXISTING ROOF TRUSSES

A. Provide prefabricated and pre-engineered wood trusses.
B. Comply with recommendations of TPI Design Specifications for Metal Plate Connected Wood Trusses.

PART II - PRODUCTS

A. Trusses: Standard dimensional lumber connected by metal plates.
B. Wood: Softwood meeting stress rating and design requirements.
C. Metal Plates: Galvanized sheet steel, ASTM A 446, Grade A, coating G60.
D. Accessories: Wind anchors and bracing.

06200 - FINISH CARPENTRY AND MILLWORK

PART I - GENERAL
See DIVISION 1

A. Provide finish carpentry for exterior items exposed to view:
1. Running and standing trim and moldings.
2. Door frames.
3. Decorative elements.
B. Provide finish carpentry for interior items exposed to view:
1. Running and standing trim and mouldings, door and window casing, paneling, wood shelving and closet accessories, wood stair treads, rails and balusters, wood valences, decorative elements, and fireplace mantel.
C. Provide custom millwork with ship finish:
1. Wood casework and cabinets, plastic laminate casework and countertops. Quality standard for fabrication and products: Architectural Woodwork Institute Quality Standards, Premium grade unless noted otherwise.

PART II - PRODUCTS

A. Exterior finish carpentry:
1. Trim and boards for transparent finish: N.A.
2. Trim and boards for painted finish: Clear pine or fir, or other softwood suitable for exposure and use.
B. Interior finish carpentry and millwork:
1. Trim and boards for transparent finish: N.A.
2. Trim and boards for opaque finish: Softwood suitable for exposure and use. Base and door casing shall be 3" colonial profile (coordinate with Owner). Profile to be approved by Owner.
3. Plastic Laminate: NEMA LD-3, 0.050" thick horizontal grade. At counters, adhere to 3/4" particle substrate.
4. Wood shelving and closet accessories.
5. Wood stair treads, risers, stringers (including circular stair-to be designed by stair manuf. as directed by home Designer), rails and balusters.
6. Fireplace mantels as directed by Owner and Designer.
C. Shelving and closets:
1. Service and closet shelving: Melamine with round nosing.
2. Wall brackets: Knape and Vogt or approved equal.
3. Closet bars: Telescoping steel with chrome finish.

PART III - EXECUTION

A. Provide work to sizes, shapes, and profiles indicated. Install work to comply with quality standards referenced. Back prime work and install plumb, level and straight with tight joints; scribe work to fit.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07196 - NON WOVEN AIR RETARDERS

PART I - GENERAL
See DIVISION 1

A. Furnish and install air retarder on the exterior side of exterior wall sheathing.

PART II - PRODUCTS

A. Approved Manufacturers:
1. Barracade by Simplex Products Division, Adrian, MI.
2. Rufcowrap by Raven Industries, Sioux Falls, SD.
3. Tyvek Housewrap by DuPont Company, Wilmington, DE.

PART III - EXECUTION

A. Install in accordance with manuf. instructions over exterior wall sheathing. Seal penetrations through air infiltration retarder immediately prior to installation of finish material.
B. Vapor retarder is to be air tight and free from holes, tears, and punctures.
1. At completion of air infiltration retarder installation, inspect exposed air infiltration retarder for holes, tears, and punctures and repair damaged areas.

07200 - INSULATION

PART I - GENERAL
See DIVISION 1

A. Provide building insulation of blanket and loose-fill types as applicable:
1. Roofs and attics (interior), fiberglass batt or loose fill type insulation.
2. Exterior stud walls, fiberglass, mineral fiber batt or loose fill type insulation.
3. Soffits (where occurs at structural overhang), floors of living spaces above garage & crawlspace.
B. Provide vapor barrier at building perimeter.
C. Use experienced installers.

PART II - PRODUCTS

A. Blanket/batt type insulation: Unfaced, 4 mil visqueen (vapor barrier), glass fiber blanket insulation types; Owens Corning Fiberglass Corp. or approved equal (ALTERNATE: Loose fill type insulation).
1. Roof:
a. 12" fiberglass batt, R-38 (or loose fill type insul.), 4 mil visqueen.
2. Exterior stud walls and floors over crawlspace, garage, or overhang:
a. 6" fiberglass batt, R-19 (or loose fill type insul.), 4 mil visqueen; 3 1/2" fiberglass batt, R-11 (min.) @ basement fndn. walls (Coord. w/ Owner).
B. Alternate loose fill type insulation: Loose, granular perlite or vermiculite.
C. Vapor barrier: 4 mil clear polyethylene sheet.

PART III - EXECUTION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections. Provide full thickness in one layer over entire area, tightly fitting around penetrations.
B. Install vapor barrier over entire area of inside face of exterior walls and elsewhere as indicated. Seal all seams and around perimeter and penetrations with duct tape to form a continuous vapor barrier free of holes.
C. Protect installed insulation and vapor barrier.
D. Blow loose insulation into required areas; take great care to provide uniform coverage at correct density and thickness to obtain specified R-value.

SECTION 07320
CLAY ROOF TILE

PART 1 GENERAL
1.1 SECTION INCLUDES
A. Replacement of existing Clay roof tiles and roof system components if required and determined necessary.
B. Underlayment.
C. Related roof accessories.
1.5 QUALITY ASSURANCE
A. Manufacturer Qualifications: Minimum five years documented experience producing concrete roof tile and member of Tile Roof Institute.
B. Installer Qualifications: Minimum five years documented experience installing products specified in this section and/or supervision by a manufacturers authorized installation representative.

1.6 DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging with labels intact until ready for installation.
B. Deliver products to project site in manufacturer's unopened pallets, labeled with data indicating compliance with specified requirements.
C. Maintain dry storage area for products of this section until installation of products.

1.7 SEQUENCING
A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
B. Do not overload the roof. Distribute stacks of tile uniformly on roof at not greater than 12 inches (305 mm) in height.
1.9 WARRANTY
A. 50-Year Limited Warranty is available on all MCA Tiles.
1.10 EXTRA MATERIALS
A. Provide an additional 1 percent of installed roof tiles, but not less than one full square, for Owner's use in roof maintenance.
C. Furnish extra materials packaged with protective covering for storage and identified with labels clearly describing contents.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: MCA Clay Roof Tile, which is located at: 1985 Sampson Ave.; Corona, CA 92879; Toll Free Tel: 800-736-6221; Tel: 951-736-9590 ; Fax: 951-736-6052; Email: request info (sales@mca-tile.com); Web: www.mca-tile.com
B. Substitutions: As approved
C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
2.2 CLAY ROOF TILE
A. Clay Tile General:
1. Made with up to 59 percent recycled raw materials and are 100 percent recyclable.
2. Class A fire rated.
3. Cool Roof and Energy Star rated.
B. One Piece "S" Mission Roofing Tile: Type I, ASTM C 1167 Grade 1 and ASTM E 108 (UL790), Class A.
1. Complies with Uniform Evaluation Report IAPMO ES 0356 (covers City of Los Angeles and is in lieu of ICC-ES), Florida Building Code - FL1109-R. Miami-Dade County Approval 12-0320.32 and TDI Approval RC-21.
2. Size: 19 inches by 14-1/2 inches (463 mm by 368 mm)
3. Exposed Size: 16 inches by 12 inches (406 mm by 305 mm) O.C.
4. Weight per square: 788 lbs (38 kg/m2).
5. Weight per piece: 10.5 lbs (4.8 kg).
6. Pieces per square: 75 pcs (pieces per M2: 8.073 pcs).
7. Color: Color to match existing unless otherwise determined by owner.
2.3 ACCESSORY MATERIALS
A. Substrate Materials:
1. Nailer Boards: Decay resistant, nominal 2 inches (50 mm) by sufficient height to satisfy project conditions, not bowed or twisted.
B. Underlayment:
1. No. 30 asphalt felt or equivalent complying with ASTM D 226, Type I.
C. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
1. Minimum No, 11 gage, 5/16 inch-diameter-head (7.9 mm), corrosion-resistant nails.
D. Rake and Gable End:
1. Prefabricated Rake and Ridge tile. Choose to match tile profile and color.
** NOTE TO SPECIFIER ** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.
E. Flashings:
1. Ribbed Valley Metal, minimum 0.016-inch (26 gauge galvanized sheet) corrosion resistant metal flashing.
2. Other Flashing: At the juncture of the roof and vertical surfaces, flashing and counter-flashing shall be provided per roofing manufacturer's instructions, and when the flashing and counterflashing are of metal, they shall be not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal.
3. Plumbing Stacks and Other Pipes Penetrating Roofs as recommended by the manufacturer.
NOTE TO SPECIFIER: Select adhesive if required, delete if not required.

F. Mortar materials, plastic cement and sealant: Code approved adhesive suitable to bond to clay roof tile.
1. Cement Mortar: ASTM C 270, Type M
2. Sand: ASTM C 144.
3. Portland cement: ASTM C 150, Type 1.
4. Plastic cement: ASTM D 2822.
5. Silicone sealant: ASTM D 1002.
G. Snow Retention: Provide as required per local code and snow loads for metal and concrete roofing decks.

PART 3 EXECUTION

3.1 EXAMINATION
A. Do not begin installation until substrates have been properly prepared.
B. Verify surfaces are uniform free of ridges, warp or voids, smooth, clean and dry
C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.
3.3 INSTALLATION - GENERAL
A. Install in accordance with manufacturer's instructions and the following:
1. IAPMO UES Evaluation Report 0356 - Clay Roof Tiles.
2. IAPMO UES ER-2015 - TRI Concrete and Clay Roof Tile Installation Manual (TRI Installation Manual).
3. TRI Cold & Snow Concrete and Clay Tile Design Criteria for Cold and Snow Regions.
3.4 INSTALLATION
A. Install in accordance with manufacturer's instructions and the applicable building code.
1. Deck surfaces must be clean and dry prior to installation of underlayment. Foreign particles must be cleaned from all interlocking areas to ensure proper seating and to prevent water damming.
2. Fascia boards or cant strips must be installed to properly elevate the first tile course.

B. On vertical applications, and on extremely steep pitches where wind currents may cause lift:
1. Set the butt of each tile in a bead of the specified plastic cement or sealant, or provide stainless steel "Wind Locks" as required.
2. Use plastic cement and sealant carefully, and avoid smearing the exposed tile surface.
NOTE TO SPECIFIER: Select paragraphs applicable to the tile specified under Products and delete the paragraphs that are not applicable.
3) Completely and neatly fill and point up all voids.
C. Visual Inspection: Avoid color patterning, checkerboarding, spotting, and stairstepping:
1. After the installation of each 80 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12 m).
2. Verify that tile courses follow straight and true lines;
3. Verify that color range is smooth with no abrupt changes.
4. Make necessary corrections before proceeding with further installation.
3.5 CLEANING
A. Remove all broken tile, debris and excess tile from roof.
B. Sweep cut tiles clean.
3.6 REPAIR AND REPLACEMENT
A. Damaged Tile:
1. Break out damaged roof tile.
2. Repair torn underlayment.
3. Drive fastener flush.
4. Apply minimum 3/8 inch (10 mm) by 2 inch (51 mm) bead of approved adhesive on tile in course below replacement tile.
5. Immediately set replacement tile in position assuring proper contact.
B. Damaged Small Valley and Hip Cuts:
** NOTE TO SPECIFIER ** For hip cuts on roof pitches greater than 7:12, mechanical fastening may be required.
1. Apply a minimum of 3/8 inch (10 mm) by 2 inch (51 mm) bead of approved adhesive at head of cut tile.
2. Immediately set tile in course above in position assuring proper contact.
3.7 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion

07600 - FLASHING AND SHEET METAL

PART I - GENERAL
See DIVISION 1

A. Provide flashing and sheet metal components for building construction.

2. Metal counter-flashing.
3. Gutters and downspouts.
4. Exposed metal trim units.
5. Miscellaneous sheet metal accessories.

PART II - PRODUCTS

A. Flashing (including preformed metal fascia):
1. 20 gauge galvanized steel, G90 galvanizing, ASTM A 525. Flashing and fascia to be painted. Color as selected by Owner.
2. Aluminum: 20 gage alloy 3003 anodized aluminum. Color as selected by Owner.
3. Aluminum clad fascia and soffits (coord. w/ Owner & Architect).
B. Gutters and downspouts:
1. Galvanized Steel: 20 gage galvanized steel, G90 galvanizing, ASTM A 525.
2. Downspouts connected to 24" long concrete splashblock.

PART III - EXECUTION

A. Follow recommendations of SMACNA "Sheet Metal Manual". Allow for expansion. Isolate dissimilar materials.
B. Flashing along the junction where any sloping roof surface abuts a vertical wall, parapet, chimney, etc., shall be stepped separately with each shingle course.
C. Install roof vents to provide a net free ventilating area not less than 1/300 of the attic floor area, half at soffit, and half near ridge.

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STATE OF UTAH
122363-0301
DONALD L. WELCH
LICENSED ARCHITECT
12-28-2016

project:
Tenant Finish for Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

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SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
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4 JANUARY 17, 2017
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data
project no:
drawn by:
checked by: DLW

title
SPECIFICATIONS

sheet
A0 2

DIVISION 8 - DOORS AND WINDOWS

08210 - WOOD AND METAL DOORS

PART I - GENERAL
See DIVISION 1

PART II - PRODUCTS

A. Exterior Doors:
1. Solid core flush wood (oak veneer) door (w/ insul. glass) at entrie - coord. w/ Architect) with AWI PC-7 particleboard core for exterior use; AWI premium grade.
   a. Face for transparent finish: Rift cut red oak veneer, book matched for transparent finish. End match transoms (coord. w/ Owner & Architect)
   b. Face for painted finish: Birch veneer.
2. Metal doors shall be of insulated hollow core construction with surfaces not less than the equivalent of 16 gauge (0.06") sheet metal in thickness. Fire rated at garage/house opening.

B. Interior Doors:
1. Solid core flush panel masonite doors for interior use with sealed finish and applied molding.

C. Shop Finish: Sand and provide first coat of finish system specified in painting section. Wrap and protect.

D. NOT USED.

E. All door hardware shall be as noted on hardware schedule and notes. Finish as noted.

PART III - EXECUTION

A. All pin-type hinges which are accessible from outside the secured area when the door is in the closed position shall have non-removeable hinge pins.
B. Top and bottom hinges shall have 1/4" steel jamb studs which project a minimum of 1/4".
C. Deadbolts shall be hardened steel, or shall contain hardened inserts.
D. Straight deadbolts shall have a minimum throw of 1" and an embedment of not less than 5/8".
E. A hook-shaped or expanding lug-type deadbolt shall have a minimum throw of 3/4".
F. Sliding doors and windows shall have a locking device, and shall be constructed and installed, or equipped, with a device to prohibit the raising and removing of the active panel from the track while unit is in the closed position.
G. Strike plates shall be secured to the jamb with a minimum of (2) screws no less than 1 1/2" long.
H. Upward-acting doors shall be secured with either a cylinder lock, a padlock with hardened steel shackle and hasp, a metal slide bar or bolt, or any equivalent device.
I. Prefit doors to frames. Factory bevel doors. Adjust, clean, and protect from damage.
J. Install doors with not more than 1/8" clearance at top and sides, 1/2" at bottom.

08813 - GLASS AND GLAZING

PART I - GENERAL
See DIVISION 1

A. Provide mirrors in bathrooms (coordinate with Owner); all glass in doors and shower enclosures and within 5'-0" of bathtub, and glass within 24" of floor or swinging doors shall be tempered.
B. Mount mirror against gypsum board with suitable construction mastic.

PART II - PRODUCTS

A. Glass and Mirrors: meet requirements of ASTM C 1036-85, "Specification for Flat Glass".
1. Type I, Class 1-Clear.
2. Quality: q2 Mirror or q1 Mirror select.
3. Thickness: 0.16 inch minimum (Double Strength).
4. Size: Field Verify.

DIVISION 9 - FINISHES

09250 - GYPSUM DRYWALL

PART I - GENERAL
See DIVISION 1

A. Tolerances: Not more than 1/16" difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall not be visible. Not more than 1/8" in 10' (10 feet) deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.

PART II - PRODUCTS

A. Gypsum board:
1. Interior use: ASTM C 36, 1/2" thick regular, water resistant, and fire resistant types as required; U.S. Gypsum, Gold Bond Div. National Gypsum, Domtar Gypsum or approved equal.
   a. Provide waterproof gypsum board at all tubs and showers.
   b. Provide 5/8" type 'X' gypsum board at garage-side surface of all walls and ceilings of attached garage which adjoin any living space, screwed 7" o.c. maximum. Firetape all joints. Smooth finish. Also Type 'X' gyp. bd. below all stairways.

B. Fasteners: ASTM C 514 and ASTM C 646. Provide Type S bugle head screws at interior, cadmium plated at humid and exterior areas. Provide additional anchors and fasteners as required.
C. Joint reinforcement: ASTM C 587 paper or fiberglass tape and ready-mixed vinyl compound.
D. Accessories: Galvanized steel corner beads, casing beads, control joints; U.S. Gypsum 800 series as applicable.

PART III - EXECUTION

A. Comply with ASTM C 840 and GA 216, "Recommended Specifications for the Application and Finishing of Gypsum Board". Fill wall cavities with insulation. Include blocking for accessories and similar items.
B. Install boards vertically. Do not allow butt-to-butt joints and joints that do not fall over framing members.

09300 - TILE

PART I - GENERAL
See DIVISION 1

A. Provide and install ceramic and marble tile (coord. w/ Architect).
B. Submit to Architect or Owner for approval samples, product data, mock-ups.
C. DIVISION 1 - GENERAL REQUIREMENTS.

PART II - PRODUCTS
(coord. the following tile with the Owner)

A. Unglazed porcelain ceramic mosaic tile: 2" x 2" x 1/4" factory mounted, plain face, square edges except cushion edge at corner; Porcelain Ceramics by American Olean or approved equal, price range 3, color as selected by Owner:
1. Floor tile, with slip resistant finish.
2. Counter top and bath tub tile (if applicable, coordinate with drawings and Owner).
B. Glazed wall tile: 4 1/4" x 4 1/4" x 5/16", plain with modified square edges, factory mounted; Bright Glazed Tile by American Olean or approved equal, color as selected by Owner.
C. Quarry Tile: 12" x 12" x 1/2", unglazed slip-resistant square edged tile; Dal Tile or approved equal, color as selected by Owner.
D. Trim: Matching field tile color, size, texture; coved base.
E. Setting Methods:
1. Floors or horizontal surfaces: Thick set latex Portland cement mortar over waterproof membrane or Laticrete System as per manuf. recommendations.
2. Walls: Thin set latex Portland cement mortar.
3. Grout: Colored latex Portland cement grout.

PART III - EXECUTION

A. Comply with Tile Council of America and and ANSI Standard Specifications for Installation for substrate and installation required. Comply with manufacturer's instructions and recommendations.
B. Lay tile in grid pattern with alignment grids. Layout to provide uniform joint widths and to minimize cutting; do not use less than 1/2 tile units.
C. Provide sealant joints where recommended by TCA and approved by Designer.
D. Grout and cure, clean and protect.

09550 - WOOD FLOORING
(If applicable - coordinate with Owner)

PART I - GENERAL
See DIVISION 1

A. Provide finished wood flooring.
1. Wood strip flooring (coord. w/ Owner & Designer.
B. Comply with recommendations of National Oak Flooring Manuf. Association and the American Parquet Association.
C. DIVISION 1 - GENERAL REQUIREMENTS.

PART II - PRODUCTS
(coord. the following tile with the Owner)

A. Wood strip flooring: Select grade plain-sawn white oak, 25/32" thick; 2 1/4" face width with standard random lengths; tongue and groove edges; Bruce Hardwood Floors or approved equal.
1. Field finish: Sand to level using successively finer sandpaper. : Benjamin Moore Benwood Paste Wood Filler or approved equal. Stain: 1 coat Benjamin Moore Benwood Architectural Penetrating Stain or approved equal. Varnish: 3 coats Benjamin Moore Satin Finish Varnish or approved equal.
B. Trim and accessories: Provide wood trim, saddles, nosing, thresholds matching wood flooring.

PART III - EXECUTION

A. Comply with National Oak Flooring Manufacturer's Association Installation Manual. Provide adequate expansion space.
B. Restore damaged finishes. Clean and protect work from damage.

09650 - RESILIENT FLOORING

PART I - GENERAL
See DIVISION 1

A. Provide resilient flooring and base.
B. Submit for approval samples, product data, extra stock.
C. DIVISION 1 - GENERAL REQUIREMENTS.
D. Provide materials and adhesives which do not contain asbestos.

PART II - PRODUCTS
(coord. the following tile with the Owner)

A. Sheet Flooring:
1. Vinyl sheet flooring: 0.085" overall gage, 0.050" vinyl wear layer; Custom Corlon by Armstrong World Industries, or approved equal.

PART III - EXECUTION

A. Comply with manufacturer's instructions and recommendations. Install in proper relation to adjacent work.
B. Prepare surfaces by cleaning, leveling and priming as required. Test adhesive for bond before general installation. Level to 1/8" in 10' tolerance.
C. Sheet flooring: Install sheets with tight joints and pattern in adjoining areas running in the same direction. Layout to minimize seams as practical.
D. Install accessories to minimize joints.
E. Clean, polish, and protect.

09680 - CARPET

PART I - GENERAL
See DIVISION 1

A. Provide and install carpeting:
1. Carpet and pad for tackless installation.
B. DIVISION 1 - GENERAL REQUIREMENTS.
C. Submit for approval samples, product data, warranty, maintenance data, extra stock, proposed seaming layout.

PART II - PRODUCTS
(coord. the following tile with the Owner)

A. Carpet:
1. Manufacturer and Style: As approved by Owner.
2. Color: As selected by Owner.
B. Mounting:
1. Tackless on pad:
   a. As approved by Owner.
C. Accessories:
1. Edge guard: Rubber or vinyl.
   a. Exceptions:
      1) At tile use bullnose tile.
2. Reducer strip: Vinyl or rubber.

PART III - EXECUTION

A. Comply with recommendations of Carpet and Rug Institute "Specifier's Handbook".
B. Prepare surfaces and install materials in accordance with manufacturer's instructions and approved submittals. Clean, patch, and level substrate. Install materials in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
C. Install edge guards and reducer strips as required; clean and protect materials during and after installation.

SECTION 07320
CLAY ROOF TILE

PART 1 GENERAL
1.1 SECTION INCLUDES
A. Replacement of existing Clay roof tiles and roof system components if required and determined necessary.
B. Underlayment.
C. Related roof accessories.
1.5 QUALITY ASSURANCE
A. Manufacturer Qualifications: Minimum five years documented experience producing concrete roof tile and member of Tile Roof Institute.
B. Installer Qualifications: Minimum five years documented experience installing products specified in this section and/or supervision by a manufacturers authorized installation representative.

1.6 DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging with labels intact until ready for installation.
B. Deliver products to project site in manufacturer's unopened pallets, labeled with data indicating compliance with specified requirements.
C. Maintain dry storage area for products of this section until installation of products.

1.7 SEQUENCING
A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS
A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
B. Do not overload the roof. Distribute stacks of tile uniformly on roof at not greater than 12 inches (305 mm) in height.
1.9 WARRANTY
A. 50-Year Limited Warranty is available on all MCA Tiles.
1.10 EXTRA MATERIALS
A. Provide an additional 1 percent of installed roof tiles, but not less than one full square, for Owner's use in roof maintenance.
C. Furnish extra materials packaged with protective covering for storage and identified with labels clearly describing contents.

PART 2 PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturer: MCA Clay Roof Tile, which is located at: 1985 Sampson Ave.; Corona, CA 92879; Toll Free Tel: 800-736-6221; Tel: 951-736-9590 ; Fax: 951-736-6052; Email: request info (sales@mca-tile.com); Web: www.mca-tile.com
B. Substitutions: As approved
C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
2.2 CLAY ROOF TILE
A. Clay Tile General:
1. Made with up to 59 percent recycled raw materials and are 100 percent recyclable.
2. Class A fire rated.
3. Cool Roof and Energy Star rated.
B. One Piece "S" Mission Roofing Tile: Type I, ASTM C 1167 Grade 1 and ASTM E 108 (UL790), Class A.
1. Complies with Uniform Evaluation Report IAPMO ES 0356 (covers City of Los Angeles and is in lieu of ICC-ES), Florida Building Code - FL1109-R, Miami-Dade County Approval 12-0320.32 and TDI Approval RC-21.
2. Size: 19 inches by 14-1/2 inches (463 mm by 368 mm)
3. Exposed Size: 16 inches by 12 inches (406 mm by 305 mm) O.C.
4. Weight per square: 788 lbs (38 kg/m2).
5. Weight per piece: 10.5 lbs (4.8 kg).
6. Pieces per square: 75 pcs (pieces per M2: 8.073 pcs).
7. Color: Color to match existing unless otherwise determined by owner.
2.3 ACCESSORY MATERIALS
A. Substrate Materials:
1. Nailer Boards: Decay resistant, nominal 2 inches (50 mm) by sufficient height to satisfy project conditions, not bowed or twisted.
B. Underlayment:
1. No. 30 asphalt felt or equivalent complying with ASTM D 226, Type I.
C. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
1. Minimum No, 11 gage, 5/16 inch-diameter-head (7.9 mm), corrosion-resistant nails.
D. Rake and Gable End:
1. Prefabricated Rake and Ridge tile. Choose to match tile profile and color.
E. Flashings:
1. Ribbed Valley Metal, minimum 0.016-inch (26 gauge galvanized sheet) corrosion resistant metal flashing.
2. Other Flashing: At the juncture of the roof and vertical surfaces, flashing and counter-flashing shall be provided per roofing manufacturer's instructions, and when the flashing and counterflashing are of metal, they shall be not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal.
3. Plumbing Stacks and Other Pipes Penetrating Roofs as recommended by the manufacturer.
F. Mortar materials, plastic cement and sealant: Code approved adhesive suitable to bond to clay roof tile.
1. Cement Mortar: ASTM C 270, Type M
2. Sand: ASTM C 144.
3. Portland cement: ASTM C 150, Type 1.
4. Plastic cement: ASTM D 2822.
5. Silicone sealant: ASTM D 1002.
G. Snow Retention: Provide as required per local code and snow loads for metal and concrete roofing decks.

PART 3 EXECUTION
3.1 EXAMINATION
A. Do not begin installation until substrates have been properly prepared.
B. Verify surfaces are uniform free of ridges, warp or voids, smooth, clean and dry
C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION
A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.
3.3 INSTALLATION - GENERAL
A. Install in accordance with manufacturer's instructions and the following:
1. IAPMO UES Evaluation Report 0356 - Clay Roof Tiles.
2. IAPMO UES ER-2015 - TRI Concrete and Clay Roof Tile Installation Manual (TRI Installation Manual).
3. TRI Cold & Snow Concrete and Clay Tile Design Criteria for Cold and Snow Regions.
3.4 INSTALLATION
A. Install in accordance with manufacturer's instructions and the applicable building code.
1. Deck surfaces must be clean and dry prior to installation of underlayment. Foreign particles must be cleaned from all interlocking areas to ensure proper seating and to prevent water damming.
2. Fascia boards or cant strips must be installed to properly elevate the first tile course.

B. On vertical applications, and on extremely steep pitches where wind currents may cause lift:
1. Set the butt of each tile in a bead of the specified plastic cement or sealant, or provide stainless steel "Wind Locks" as required.
2. Use plastic cement and sealant carefully, and avoid smearing the exposed tile surface.
3) Completely and neatly fill and point up all voids.
C. Visual Inspection: Avoid color patterning, checkerboarding, spotting, and stairstepping:
1. After the installation of each 80 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12 m).
2. Verify that tile courses follow straight and true lines;
3. Verify that color range is smooth with no abrupt changes.
4. Make necessary corrections before proceeding with further installation.
3.5 CLEANING
A. Remove all broken tile, debris and excess tile from roof.
B. Sweep cut tiles clean.
3.6 REPAIR AND REPLACEMENT
A. Damaged Tile:
1. Break out damaged roof tile.
2. Repair torn underlayment.
3. Drive fastener flush.
4. Apply minimum 3/8 inch (10 mm) by 2 inch (51 mm) bead of approved adhesive on tile in course below replacement tile.
5. Immediately set replacement tile in position assuring proper contact.
B. Damaged Small Valley and Hip Cuts:
1. Apply a minimum of 3/8 inch (10 mm) by 2 inch (51 mm) bead of approved adhesive at head of cut tile.
2. Immediately set tile in course above in position assuring proper contact.
3.7 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion

09200 - EXTERIOR INSULATION & FINISH SYSTEM (EIFS)

PART I - GENERAL
See DIVISION 1

A. Provide EIFS for exterior walls, to match existing stucco finish and thickness.
1. Exterior Insulation & Finish System, for exterior use.
B. DIVISION 1 - GENERAL REQUIREMENTS
C. Contractor to provide submittal (deferred submittal) for EIFS system to Architect, then to city, for review and approval.

PART II - PRODUCTS

A. Finish System: Per Manuf's. instructions and recommendations.
1. Prepare finish coat for Top Coat
Acrylic Finish (texture to be chosen by Owner).
2. Color to be chosen by Owner.
B. Provide submittals to Architect and to Local Jurisdiction that will meet IBC 1704.12 for a water managment system, with a water resistive barrier, or provide special inspection for non-water management EIFS systems.
C. Accessories: Galvanized steel corner beads, casing beads, control joints, expansion joints, trim.
D. Bonding agent for patching: Compatible with substrate.
E. Exterior rigid insulation per Manuf's. instructions & recommendations.

PART III - EXECUTION

A. Install EFIS in accordance with ASTM C 926 and in accordance with manufacturer's instructions.
B. At patching, prepare surface to sound substrate, apply bonding agent and patching materials in accordance with manufacturer's instructions.
C. Install metal trims at perimeters and joints. At scratch coat form full keys. At second and third coats, ensure tight contact between coats. Tool edges at windows, doors, other openings to small "V" to control spalling.
D. Apply Top Coat per manufacturer's instructions and recommendations.
E. Clean adjacent surfaces soiled during installation. Touch-up damaged surfaces. Protect work from damage.

09900 - PAINTING

PART I - GENERAL
See DIVISION 1

A. Provide surface preparation and painting for all unfinished interior and exterior surfaces, including electrical and mechanical equipment with shop primed surfaces.
B. The use of paint containing more than the percent of lead by weight permitted by law is prohibited.
C. First-line standard products for all systems by Benjamin Moore, Pratt and Lambert, Glidden, Sherwin-Williams, Devoe, Howells, or approved equal.

PART II - PRODUCTS

A. Exterior paint systems:

1. Concrete and masonry:	N/A.
2. Wood for opaque finish (walls):	N/A.
3. Wood for opaque finish (trim):	Acrylic latex stain 2 coats.
4. Wood for semi-transparent finish:	Semi-transparent stain (flat appearing finish), 2 coats.
5. Ferrous metal:	N/A.
6. Galvanized metal:	Alkyd primer, 1 coat; alkyd enamel, gloss finish, 2 coats.

B. Interior paint systems:

1. Concrete:	N/A.
2. Drywall (general):	Latex primer, 1 coat; interior latex (semi-gloss finish), 2 coats.
3. Drywall (Bath Room):	Latex primer, 1 coat; interior latex (semi-gloss finish), 2 coats.
4. Wood opaque finish (walls):	Latex primer, 1 coat; interior latex (flat finish), 2 coats.
5. Wood opaque finish (trim):	N/A.
6. Wood transparent finish:	Oil stain, 1 coat; sanding sealer, 1 coat; alkyd varnish (gloss finish), 2 coats.
7. Ferrous metal:	Alkyd metal primer, 1 coat; alkyd enamel (gloss finish), 2 coats.
8. Garage (walls & ceiling)	Latex primer, 1 coat; latex (semigloss finish), 2 coats.

PART III - EXECUTION

A. Match approved mock-ups for color, texture, and pattern.
Re-coat or remove and replace work which does not match or shows loss of adhesion. Clean-up, touch-up, and protect work.

DIVISION 10 - SPECIALTIES

SECTION 10310
MANUFACTURED FIREPLACES
PART 1 GENERAL

1.1 SECTION INCLUDES
A. Vent Free Gas Burning Manufactured Fireplaces.

B. Direct Vent Gas Burning Manufactured Fireplaces.

1.4 SUBMITTALS
A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods. Including:
   a. Fireplace unit rough opening dimensions, rough opening sizes for flue, and installation details.
   b. Fireplace unit cabinet dimensions, clearances required from adjacent construction, and applicable regulatory agency approvals
D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
E. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment and periodic cleaning and maintenance of all components.

1.7 SEQUENCING
A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS
A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY
A. Provide manufacturer's limited lifetime warranty covering combustion chamber heat exchanger, stainless steel burner, logs, ceramic glass against thermal breakage, gold plated parts against tarnishing, porcelain enameled surfaces and aluminum extrusion trim.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Napoleon Fireplaces , which is located at: Wolf Steel USA 103 Miller Dr.; Crittenden, KY 41030; Toll Free Tel: 800-461-5581 ; Email: request info (gthomas@napoleonproducts.com); Web: www.napoleonfireplaces.com
C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 VENT FREE GAS BURNING MANUFACTURED FIREPLACES (OPTION 1)
A. General:
1. Comply with applicable building codes.
B. Model: Plazma Fire VF31
1. Type: Vent free.
2. Fuel type:
   a. Natural gas
3. Dimensions: 43-5/16 inches wide by 28 inches high by 9-1/8 inches deep.
4. BTU rating: 6,000 BTU (natural gas and propane).
5. Fronts and Frame Finish:
   a. Painted metallic black.
6. Mounting Cabinets Finish:
   a. Painted metallic black.
7. Standard Features:
   a. MIRRO-FLAME Porcelain Reflective Radiant Panels
8. Options:
   a. LED Accent Light Kit.
   b. Safety Barrier.
9. Standard Features:
   a. Electronic Ignition

2.3 DIRECT VENT GAS BURNING MANUFACTURED FIREPLACES (OPTION 2)
A. General:
1. Comply with applicable building codes.
2. Comply with ANSI Z21.88/CSA 2.33.
3. WHI listed.
4. Safety Barriers are "Safety Barrier Approved".

B. Model: Ascent Linear BL36
1. Type: Direct Vent.
2. Fuel type:
   a. Natural gas.
3. Dimensions:
   a. 34-1/2 inches high by 35 inches wide by 16-1/4 inches deep.
4. BTU rating:
   a. Up to 16,000 BTU (natural gas and propane).
5. Standard Features:
   a. Flame heat adjustment.
   b. Safety Barrier.
   c. Prewired for wall switch.
   d. Glass ember bed.
6. Options:
   a. Decorative Front:
      3) 4-Sided Surround with painted black finish.
   b. MIRRO-FLAME Porcelain Reflective Radiant Panels.
   c. On/off or Modulating Remote with Digital Screen
   d. Shore fire media kit
   a. Decorative Front:

PART 3 EXECUTION

3.1 EXAMINATION
A. Do not begin installation until substrates have been properly prepared.
B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
** NOTE TO SPECIFIER ** Include the following paragraph if powered ventilators are provided. Delete if not required.
C. Verify proper power supply and fuel source are available.
3.2 PREPARATION
A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
3.3 INSTALLATION
A. Install in accordance with manufacturer's instructions, ANSI Z21.44 and the requirements of authorities having jurisdiction.
B. Use manufacturer's guidelines for minimum clearances to combustibles, walls, and finishes.
C. Set fireplace units plumb, level, and rigid
D. Anchor all components firmly in position.
E. Connect to natural gas system in accordance with NFPA 54.
F. Upon completion of installation, visually inspect all exposed surfaces. Touch up scratches and abrasions with touch up paint recommended by the manufacturer; make imperfections invisible to the unaided eye from a distance of 5 feet.

3.4 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion.

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consultant:

STATE OF UTAH
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DONALD L. WELCH
LICENSED ARCHITECT
12-28-2016

project:
Tenant Finish
for
Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
2 JANUARY 6, 2017
ADDENDUM #2-BUILDING 'C'
4 JANUARY 17, 2017
ADDENDUM #4-BUILDING 'D'
7 FEBRUARY 24, 2017
ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
8 MARCH 20, 2017
ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
SPECIFICATIONS

sheet
A0.3

10800 - TOILET ACCESSORIES

PART I - GENERAL

See DIVISION 1

A. Provide and install toilet accessories.
B. DIVISION 1 - GENERAL REQUIREMENTS
C. Submit for approval samples, product data, accessory schedule.

PART II - PRODUCTS

A. Units: Stainless steel fabrication with AISI No. 4 bright directional polish finish; Bobrick Washroom Equipment, Inc. or approved equal.
B. Mounting:
1. Surface Mounted.
2. Semi-recessed.
C. Types and quantities:
1. Toilet tissue dispenser, double roll.
2. Towel bars.

PART III - EXECUTION

A. Restore damaged finishes and test for proper operation. Clean and protect from damage.

11450 - RESIDENTIAL EQUIPMENT

RESIDENTIAL APPLIANCES

PART 1 GENERAL

1.1 SECTION INCLUDES
A. Residential Appliances:
1. Refrigeration.
2. Cooking products.
3. Microwave ovens.
4. Dishwashers.
6. Food waste disposers.
7. Clothes care.

1.4 SUBMITTALS
A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Model number and selected options for each appliance.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Installation methods.
5. List of maintenance parts.

1.5 QUALITY ASSURANCE
A. Regulatory Requirements: Comply with referenced standards and the Americans with Disabilities Act as applicable for fixtures for the disabled.
B. Energy Rating: Provide appliances with the EPA Energy Star label where applicable.
C. Coordinate rough-in requirements with adjacent construction. Coordinate components and fittings to ensure compatible parts are installed.

1.6 DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging until ready for installation.

1.7 PROJECT CONDITIONS
A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 WARRANTY
A. Provide manufacturer's standard written limited one-year warranty for each type of appliance specified.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: GE Appliances, which is located at: 4000 Buechel Bank Rd.; Louisville, KY 40225; Toll Free Tel: 800-626-2000; Email: request info (tyler.martin@ge.com); Web: www.geappliances.com | www.geappliances.com/pro
B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 REFRIGERATION
A. Refrigerators and Freezers: As manufactured by GE Appliances, as determined by Owner.

2.3 COOKING PRODUCTS

A. Built-In Ovens: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliances, as determined by Owner.
C. Built-In Cooktops: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliance, as determined by Owner..
E. Venting Systems: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliances, as determined by Owner.

2.4 MICROWAVE OVENS
A. Microwave Ovens: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliances, as determined by Owner.

2.5 DISHWASHERS

A. Dishwashers: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliances, as determined by Owner.

2.6 CLOTHES CARE

A. Clothes Care: Models, standard accessories/kits and custom accessories/kits as manufactured by GE Appliances, as determined by Owner.

PART 3 EXECUTION

3.1 EXAMINATION
A. Do not begin installation until substrates have been properly prepared. Coordinate rough-in with appliance sizes and utility requirements.
B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
3.2 PREPARATION
A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION
A. Assemble appliances and trim and install in accordance with manufacturer's instructions and the following:
1. Securely mount to substrate.
2. Install appliances plumb and level and in proper relationship to adjacent construction.
3. Connect appliances to building utility, supply and waste systems as applicable.
4. Test for proper operation and drainage. Adjust until proper operation is achieved.

3.4 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion.
** NOTE TO SPECIFIER ** Delete paragraph below if data sheets from the GE website are not attached.
3.5 APPLIANCE DATA SHEETS
A. Refer to the manufacturer's data sheets as attached to this Section for required features and additional requirements.

DIVISION 15 - MECHANICAL

15400 - PLUMBING (coordinate with Plumbing Drawings)

PART I - GENERAL

and drawings) See DIVISION 1

A. Provide plumbing systems including supply, waste and vent systems for:
1. Bath and toilet rooms.
2. Kitchen.
3. Utility room.
4. Water heaters.
5. Floor drains.
6. Access panels.
B. DIVISION 1 - GENERAL REQUIREMENTS
C. Coordinate with Owner's room uses to provide adequate system for all contract areas.
D. Coordinate location of plumbing systems to avoid interference with location of structure and other building systems. Notify Owner prior to construction of conflicts which cannot be resolved.
E. Arrangement of systems indicated on the drawings is diagrammatic, and indicates the minimum requirements for plumbing work. Site conditions shall determine the actual arrangement of runs, bends, offsets, and similar items. Take field measurements before fabrication. Be responsible for accuracy of dimensions and layout. Overhead piping shall be laid out to obtain maximum head room.

PART II - PRODUCTS (coord. w/ plumbing notes & dwgs.)

A. Provide plumbing systems' components and all required accessories including shut-offs and clean-outs. Provide components which prevent back-siphonage or cross connections.
B. Sanitary, waste and vent piping: Schedule 40 A.B.S. to street.
Sewage disposal: Public;
House drain (inside): Schedule 40 A.B.S.
C. Hot and cold water piping: Supply lines under slab shall be type "L" seamless hard drawn copper tubing assembled with solder fittings. Lines above slab shall be type "M". support piping with grade to drain to drainoff cocks. Service from meter to house shall be 3/4" (unless utility co. requires otherwise) copper.
D. Water supply: Public. 1" (one inch) copper.
E. Water Meter size: 3/4" (three quarter inch).
F. Hangers: For water piping, provide adjustable wrought iron copper plated hangers at 6' intervals maximum. Provide hangers to allow for full thickness of insulation.
G. Covering and insulation (Owner's option): For domestic hot water piping provide 1/2" flexible foamed tubing by Owens Corning or Armstrong 1/2" Armaflex or approved equal. Seal joints vapor tight. Insulate valves and fittings including water service piping with equal thickness of pipe insulation. Provide 18 gauge protection saddles between insulation and pipe hangers. comply with fire hazard regulations. For water piping, provide adjustable wrought iron copper plated hangers at 6' intervals maximum. Provide hangers to allow for full thickness of insulation.
H. Valves and shut-offs: Full size bronze gate valves for hot and cold water branches. provide drainage valves. Provide units by Hammond, Jenkins, Nibco or approved equal.
I. Hose bibbs: Anti-siphon hose bibbs by Woodford or approved equal.
J. Floor drains and cleanouts: Units with bronze strainer and copper flashing by Zurn or approved equal.
K. Provide pressure reducing valve if required by local jurisdiction.
L. Domestic water mixing valve: N/A.
M. Water heater: (1) Domestic gas water heaters, quick recovery 100 degree rise, 100 gallon capacity. Glass lined storage type for utility service at site. Provide baked enamel steel jacket, fiberglass insulation, and UL flame retention burner; 10 year warranty.
N. Access panels: Metal units with locks by Karp, Milcor, Nystrom, or approved equal. Configuration and trim as required by finish wall surface or trimmed wood panel may be acceptable with Owner's approval.
O. Plumbing Fixtures: (coordinate with plumbing schedules)
P. Gas piping to furnaces, water heater(s), and fireplace(s), and connection to meter: Carbon , Schedule 40 black steel pipe, ASTM A 53, Grade A.
Q. Provide pressure regulator at water main shut-off valve, with copper ground from electrical service attached each side of regulator.

PART III - EXECUTION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.
B. Support piping properly. Pitch to drain points. Install with pipe expansion loops, mechanical expansion joints, and anchors.
C. Install shut-off valves on each piece of equipment on both hot and cold water supply.
D. Clearly label all valves and components.
E. Sterilize water distribution system. Flush and test all systems for proper operation. Adjust system to prevent water hammer.
F. Install gas piping in accordance with local gas utility company regulations and specifications.
G. Restore damaged finishes. Clean and protect work from damage.
H. Instruct Owner in proper operation of systems.
I. Install steam room equipment (if applicable) per manufacturer's requirements and instructions.

15500 - HEATING, VENTILATING, & AIR CONDITIONING

(coordinate with mechanical drawings and notes)

PART I - GENERAL

See DIVISION 1

A. Provide and install mechanical systems including:
1. Ventilating system including fans, sheet metal work, registers, grilles and diffusers.
2. Exhaust system for kitchen, kitchenettes, wet bar, and laundry equipment.
3. Air conditioning system (optional-verify w/ Owner).
4. Piping distribution system and insulation.
5. Temperature controls.
6. Testing, adjusting and balancing.
B. Coordinate with Owner's room uses to provide adequate system for all contract areas.
C. Coordinate location of mechanical systems to avoid interference with location of other systems. Notify Owner prior to construction of conflicts which cannot be resolved.
D. DIVISION 1 - GENERAL REQUIREMENTS.
E. Arrangement of systems indicated on the drawings is diagrammatic, and indicates the minimum requirements for mechanical work. Be responsible for accuracy of dimensions and layout. Overhead ductwork shall be laid out to obtain maximum head room.

PART II - PRODUCTS (coord. w/ mech. dwgs. & sched's)

A. Valves: Provide valves required by service intended including gate, globe, check, and ball valves. Provide valves by Kennedy, Crane, Nibco, or approved equal.
B. Hangers and supports: Comply with ANSI B31.1.
C. Convectors: Copper tubes with aluminum fins, 16 gauge steel front and top panels by Trane, Airtherm or approved equal.
D. Sheet metal work and accessories: Comply with "SMACNA Duct Manual and Sheet Metal Construction for Ventilating and Air Conditioning Systems".
E. Fans and air handling units:
1. (1) 80% or 90% efficient furnaces (Owner's option) designed for service intended by Carrier, Trane, Payne or approved equal.
2. Air conditioning system (Owner's option).
F. Fan coil units: 22 gauge galvanized steel with seamless copper tube and aluminum fin coil by Trane, Carrier, Airtherm or approved equal.
G. Grilles and registers: Units with approved face and frame design, gaskets, and baked enamel finish by Agitair, Titus or approved equal.
H. Controls: Automatic temperature control system with thermostats as required, by Honeywell, Johnson Controls or approved equal.
I. Mechanical subcontractor shall provide ducting of all exhaust fans, range hoods and dryer vents to exterior (flex ducting allowable only for bath exhausts).
J. Mechanical subcontractor shall size furnace and all plenums, ducts, registers, vents, flues, etc.
K. Provide (2) combustion air vents to (each) furnace; (1) no lower than 12" below ceiling, and (1) no higher than 12" above floor.

PART III - EXECUTION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.
B. Install ductwork in accordance with SMACNA recommendations. Seal duct seams with sealer. Provide splitters and balancing dampers. Provide fire dampers and automatic smoke and fire dampers where required. Provide flexible connectors and inlet and discharge connections. Clean before testing and balancing.
C. Clearly label and tag all components.
D. Test and balance all systems for proper operation.
E. Restore damaged finishes. Clean & protect work from damage.
F. Instruct Owner in proper operation of systems.

DIVISION 16 - ELECTRICAL

16000 - ELECTRICAL (coord. w/ elec. dwgs. & notes)

PART I - GENERAL

See DIVISION 1

A. Provide electrical systems including:
1. Power.
2. Lighting.
3. Cable TV System (optional)
4. Telephone.
5. Security System (coordinate w/ Owner).
6. Smoke Detectors.
B. DIVISION 1 - GENERAL REQUIREMENTS
C. Include primary service, transformers, distribution center, grounding, power and lighting panels, wiring, outlet boxes, receptacles, lighting fixtures, switches, conduits, and raceways and all accessories.
D. Provide telephone and data outlets with cutout, box and pull string only.
E. Service panel shall be 200 amp, and shall comply with NEC 110-16.
F. Coordinate with Owner's room uses to provide adequate system for all contract areas.
G. Coordinate location of ductwork and to avoid interference with location of designated lighting fixture locations. Notify Owner prior to construction of conflicts which cannot be resolved.
H. Coordinate schedule of telephone outlet completion with Owner's communications requirements and installer as applicable.
I. Arrangement of systems indicated on the drawings is diagrammatic, and indicates the minimum requirements for electrical work. Site conditions shall determine the actual arrangement of conduits, boxes, and similar items. Take field measurements before fabrication. Be responsible for accuracy of dimensions and layout.
J. Comply with the National Electrical Code and applicable local regulations.

PART II - PRODUCTS (coord. w/ elec. drawings & notes)

A. Conduit: At service panel only.
B. Exposed metal raceways: N/A.
C. Boxes: Plastic or metal.
D. Conductors and wiring: Romex or equal.
E. Wiring devices: Receptacles, lighting switches, ground fault receptacles, dimmers, and coverplates as required. Color: Standard almond.
F. All electrical outlets in firewall at garage shall be GFCI in metal boxes.

PART III - EXECUTION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.
B. Comply with National Electrical Code and building code requirements. Maintain continuity of circuits required to supply new equipment in service.
C. Test all systems for proper operation. Restore damaged finishes. Clean and protect work from damage.
D. Smoke detectors shall comply with UBC 43-6, shall be wired in series, and shall be placed a minimum of 36" from nearest duct opening and within 12" of ceiling.
E. Provide ground fault interruptor (GFI) circuits to all exterior outlets and all interior outlets within 72" of water source.
F. Service grounding shall be a minimum of (20) linear feet of #4 copper conductor, placed in footing with a minimum clearance of 2".
G. Interior metal water piping shall be grounded by electrically continuous bonding with a minimum #4 copper conductor connected to the grounding electrode conductor at the service panel. Bridge over pressure reducing valve (if installed).
H. Electrician shall pre-wire for blower unit at all fireplace locations and pushbutton control(s) for automatic garage door opener(s).

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consultant:

STATE OF UTAH 12283-6301 DONALD L. WELCH LICENSED ARCHITECT 12-28-2016

project:
Tenant Finish
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Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
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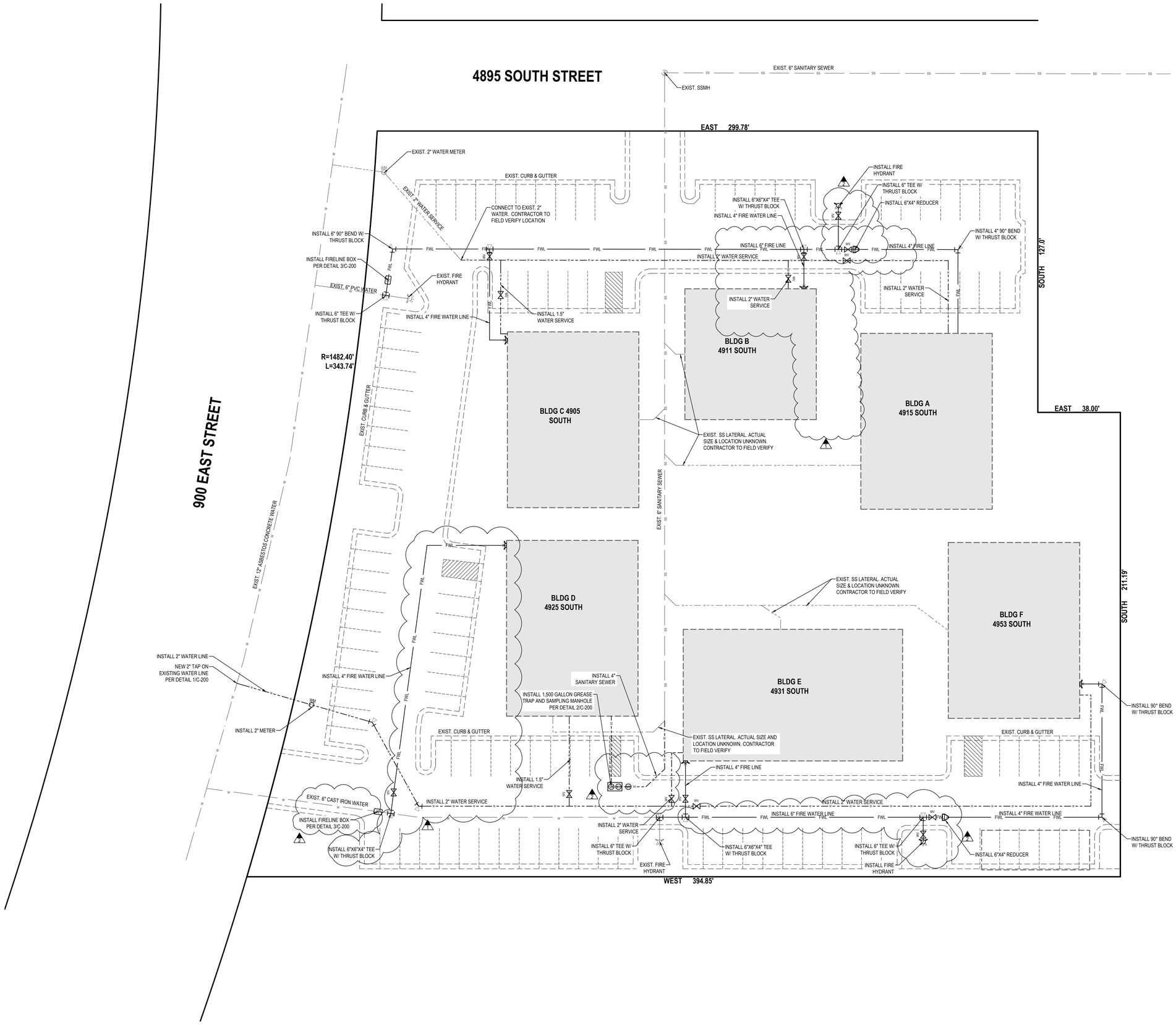
MARCH 20, 2017
8 ADDENDUM #8–BUILDING 'A'
BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
SPECIFICATIONS

sheet
A0 4



GENERAL NOTES

1. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS.
2. DRAWING IS APPROXIMATE AND NOT DRAWN TO SCALE.
3. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
4. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
5. ALL SANITARY SEWER INFRASTRUCTURE TO BE INSTALLED PER COTTONWOOD IMPROVEMENT DISTRICT STANDARD PLANS AND SPECIFICATIONS.
6. ALL WATER INFRASTRUCTURE TO BE INSTALLED PER JORDAN VALLEY WATER CONSERVANCY DISTRICT STANDARD PLANS AND SPECIFICATIONS.
6. DEFLECT OR LOOP ALL WATERLINES TO AVOID CONFLICTS WITH OTHER UTILITIES PER GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
7. PROJECT SHALL COMPLY WITH ALL UTAH DIVISION OF DRINKING WATER RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE PERTAINING TO BACKFLOW PROTECTION AND CROSS CONNECTION PREVENTION.
8. THE CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL/PLUMBING PLANS.
9. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING UTILITY STRUCTURES OR PIPES.
10. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
11. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

ENSIGN
THE STANDARD IN ENGINEERING

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SALT LAKE COUNTY, UTAH

REGISTERED PROFESSIONAL ENGINEER
2/13/2017
359136
DAVID A. JENKINS
STATE OF UTAH

PRELIMINARY
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY
1	01/20/2017	WATER LINE CHANGES	MSB
2	2/13/2017	WATER/SEWER CHANGES	MSB
3			
4			
5			
6			
7			
8			

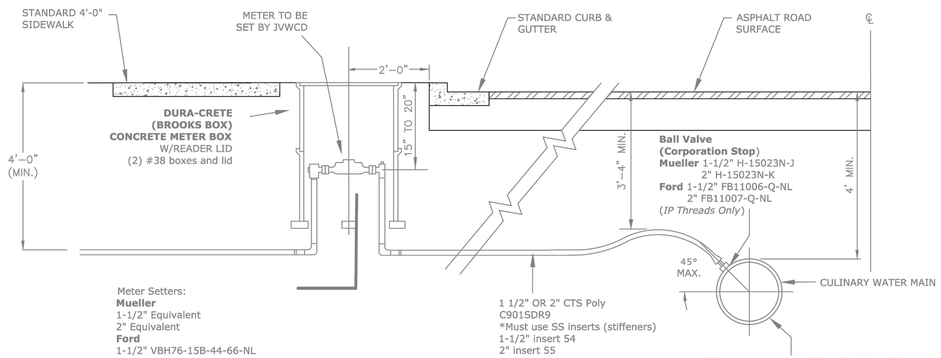
UTILITY PLAN

PROJECT NUMBER: 7227
PRINT DATE: 2/13/17
DRAWN BY: M. BUDGE
CHECKED BY:
PROJECT MANAGER: D. JENKINS

C-100

1 1/2" OR 2" WATER SERVICE

N.T.S.



NOTES:

1. 10'-0" EDGE TO EDGE HORIZONTAL CLEARANCE IS REQUIRED BETWEEN WATER AND SEWER LATERAL SERVICE.
2. WHERE WATER AND SEWER LATERALS MUST CROSS, WATER LATERAL SHALL BE 18" ABOVE THE SEWER LATERAL AS MEASURED FROM THE BOTTOM OF THE WATER LATERAL TO THE TOP OF THE SEWER LATERAL. THIS SEPARATION SHALL BE MAINTAINED FOR AT LEAST 10'-0" EITHER SIDE OF CROSS POINT.
3. ANGLE L DOUBLE CHECK FITTINGS ONLY AVAILABLE WITH 2" OUTLET, MAY NEED TO USE 2X1-1/2" BUSHING FOR 1-1/2" METER APPLICATIONS.

REV.	BY	DATE	DESCRIPTION	DESIGN DCN	DRAWING GNB	REVIEW MGA	HORZ. SCALE NONE	VERT. SCALE NONE

JORDAN VALLEY WATER CONSERVANCY DISTRICT
8215 SOUTH 1300 WEST
WEST JORDAN, UTAH 84088-0070
PHONE (801) 565-4300

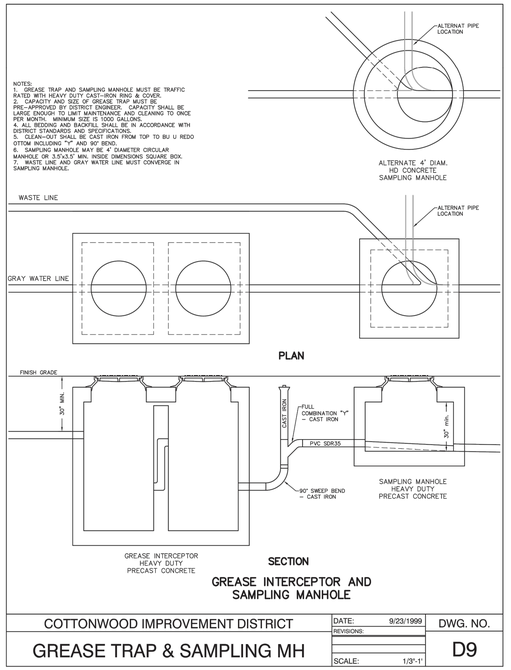
DETAIL SHEET | PIPING DETAIL TYPICAL DISTRIBUTION

DATE: 10/28/13
SHT. NO. 2 OF 4
PROJECT NO. –

I:\DISTRIBUTION\STANDARDS MANUAL\INSPECTION-LOCATIONS SECTION\STANDARD PIPE SHEETS\CAD DRAWINGS_DPDS\TYPICAL DISTRIBUTION DETAILS REVISED 8_1.DWG

1 1 1/2" OR 2" WATER SERVICE

SCALE: NONE



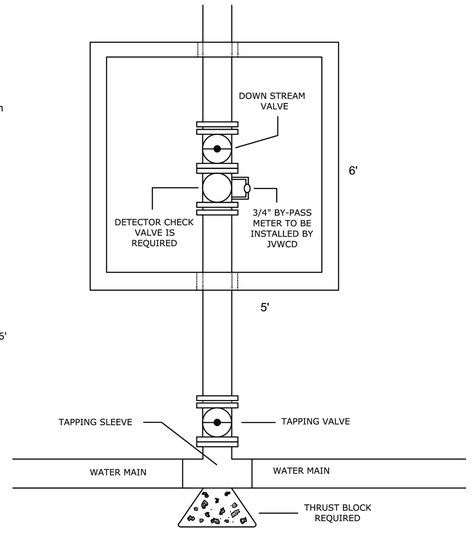
COTTONWOOD IMPROVEMENT DISTRICT	DATE: 9/23/1999	DWG. NO.
GREASE TRAP & SAMPLING MH	REVISIONS:	D9
	SCALE: 1/3"-1'	

2 GREASE TRAP & SAMPLING MANHOLE

SCALE: NONE

GENERAL NOTES

1. All taps are to be hot-tapped only. No hot taps will be allowed on Friday. A minimum of 24 hours notice is required prior to the tap.
2. A down stream valve is required inside the fireline box.
3. The tapping valve can be used as the upstream valve.
4. The tapping valve must have a slip type valve box and must be set to finish grade.
5. Floor must have a minimum of 6" of gravel spread evenly throughout.
6. All knock-outs for pipe coming into and going out of the box must be cement grouted once pipe is in place.
7. All bolts & nuts upstream of the box must be greased and wrapped. All bolts will be coated with an acceptable thread lubricant prior to installation.
8. Standard size 24" ring and lid is required for vault entrance.
9. Typical fireline vault is to be a minimum of 5'x6' o.d. in size with gravel bottom.
10. A 14-guage underground rated locating wire must be laid with the pipe if using C-900.



3 TYPICAL FIRELINE BOX DETAIL

SCALE: NONE

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:

CONTACT:

PHONE:

BRIGHTON RECOVERY CENTER

4895 S 900 E
SALT LAKE COUNTY, UTAH

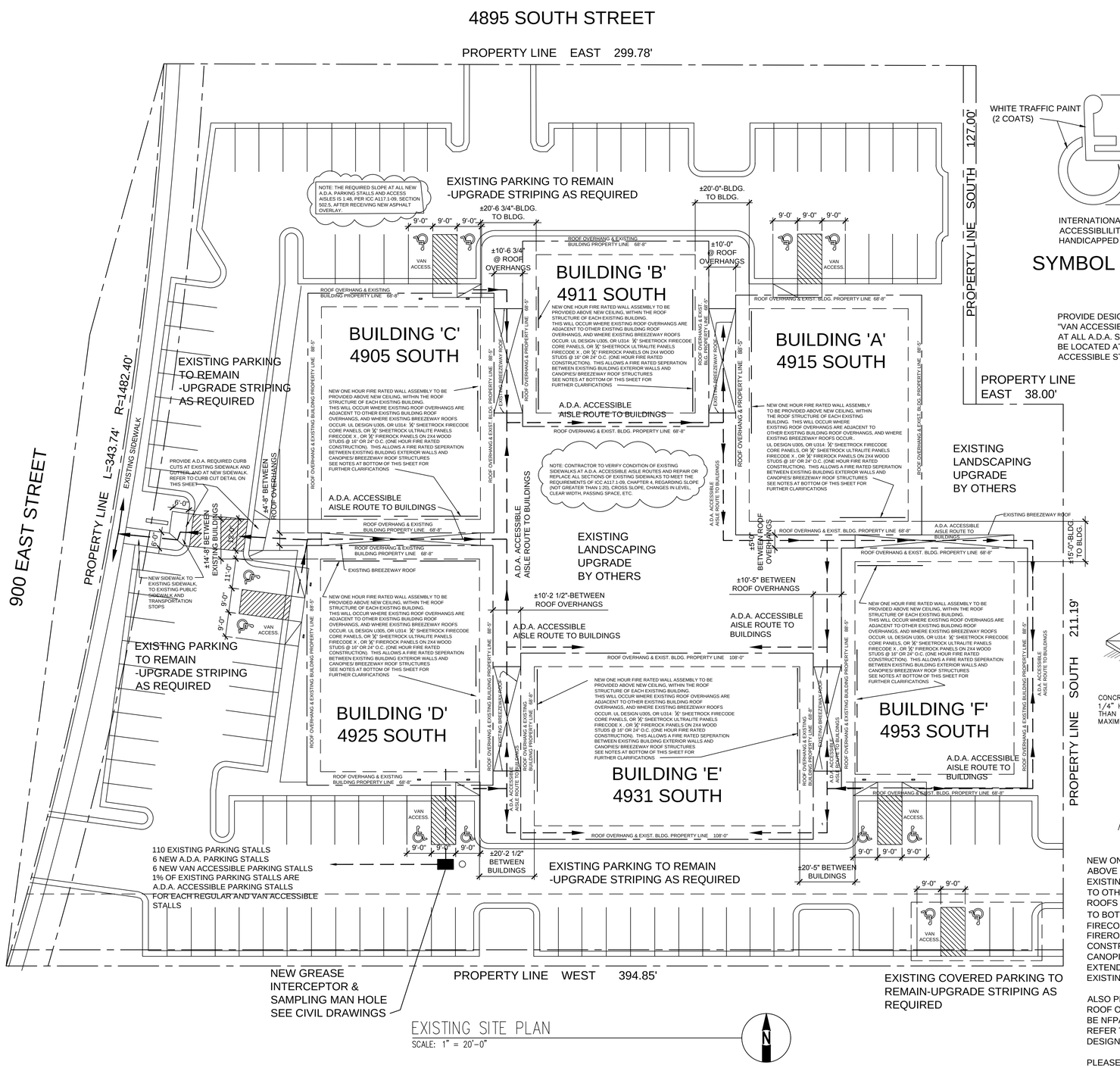
REGISTERED PROFESSIONAL ENGINEER
2/13/2017
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	01/20/2017	WATER LINE CHANGES ADDENDUM #6	MSB
2			
3			
4			
5			
6			
7			
8			

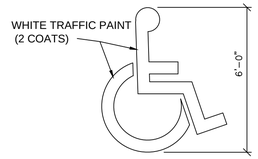
DETAILS

PROJECT NUMBER 7227
PRINT DATE 2/13/17
DRAWN BY M. BUDGE
CHECKED BY
PROJECT MANAGER D. JENKINS

C-200



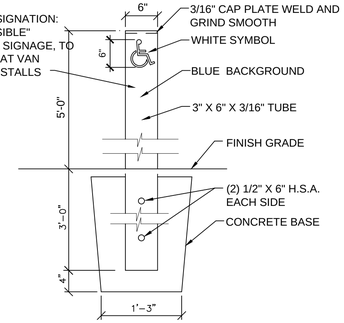
EXISTING SITE PLAN
SCALE: 1" = 20'-0"



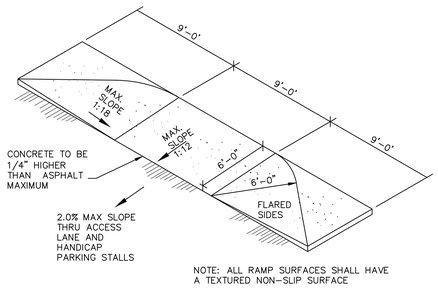
INTERNATIONAL SYMBOL OF ACCESSIBILITY FOR THE HANDICAPPED

SYMBOL DETAIL

NOTE: ENTIRE EXISTING PARKING AREAS, INCLUDING DRIVEWAYS TO RECEIVE NEW ASPHALT OVERLAY AND NEW PARKING STALL STRIPING, AS PART OF ADDENDUM #4
-SEE NEW SPECIFICATION SECTION ON SHEET A1.2.
4



A.D.A. SIGN DETAIL



NOTE: ALL RAMP SURFACES SHALL HAVE A TEXTURED NON-SLIP SURFACE

A.D.A. RAMP CURB CUT DETAIL

NEW ONE HOUR FIRE RATED WALL ASSEMBLY TO BE PROVIDED ABOVE NEW CEILING, ABOVE EXISTING EXTERIOR WALL STRUCTURE, WITHIN THE ROOF STRUCTURE OF EACH EXISTING BUILDING. THIS WILL OCCUR WHERE EXISTING ROOF OVERHANGS ARE ADJAC TO OTHER EXISTING BUILDING ROOF OVERHANGS, AND WHERE EXISTING BREEZEWAY ROOFS OCCUR. WALL ASSEMBLY TO EXTEND FROM BOTTOM OF EXISTING ROOF OVERHA TO BOTTOM OF EXISTING ROOF SHEATHING. UL DESIGN U305, OR U314: ⅝" SHEETROCK FIRECODE CORE PANELS, OR ⅝" SHEETROCK ULTRALITE PANELS FIRECODE X , OR ⅝" FIREROCK PANELS ON 2X4 WOOD STUDS @ 16" OR 24" O.C. (ONE HOUR FIRE RATED CONSTRUCTION). THIS ALLOWS A FIRE RATED SEPERATION BETWEEN EXISTING BUILDIN CANOPIES AND BREEZEWAY ROOF STRUCTURES. THIS FIRE RATED WALL ASSEMBLY WI EXTEND FROM THE TOP OF THE ROOF BEARING WALL STRUCTURE, TO THE BOTTOM OF EXISTING ROOF SHEATHING.

ALSO PROVIDE NEW FIRE SPRINKLING SYSTEM AT ALL EXISTING BUILDING EXTERIOR ROOF OVERHANG SOFFITS AND BREEZEWAY SOFFITS. FIRE SPRINKLING SYSTEM TO BE NFPA 13 SYSTEM, AND TO MEET ALL LOCAL JURISDICTION AND NATIONAL REQUIREME REFER TO SHEET P02 FOR FIRE SPRINKLING SYSTEM REQUIREMENTS. SYSTEM TO BE DESIGNED FOR EXTERIOR APPLICATION

PLEASE REFER TO SHEET A4.6 FOR UNITED FIRE AUTHORITY REVIEW COMMENTS AND REQUIREMENTS.

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consultant:

STATE OF UTAH 12283-0301 DONALD L WELCH LICENSED ARCHITECT 12-28-2016

project:
Tenant Finish for
Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
2 JANUARY 6, 2017
ADDENDUM #2-BUILDING 'C'
4 JANUARY 17, 2017
ADDENDUM #4-BUILDING 'B'
7 FEBRUARY 24, 2017
ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
8 MARCH 20, 2017
ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
EXISTING SITE PLAN

sheet
A1.1

BUILDING 'E' 4931 South 900 East Parcel #22081850120000

ASPHALT PAVING SPECIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Hot-mix asphalt paving overlay.
2. Pavement-marking paint.

1.2 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Asphalt Surface Course: Minimum surface temperature of 60 deg F (15.6 deg C) at time of placement.

B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of **[40 deg F (4.4 deg C) for oil-based materials] [55 deg F (12.8 deg C) for water-based materials]**, and not exceeding 95 deg F (35 deg C).

PART 2 - PRODUCTS

2.1 AGGREGATES

A. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.

B. Fine Aggregate: **[ASTM D 1073] [or] [AASHTO M 29]**, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.

C. Mineral Filler: **[ASTM D 242] [or] [AASHTO M 17]**, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

A. Asphalt Binder: AASHTO M 320 or AASHTO MP 1a, **[PG 70-22]**

B. Tack Coat: **[ASTM D 977] [or] [AASHTO M 140]** emulsified asphalt, or **[ASTM D 2397] [or] [AASHTO M 208]** cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.

2.3 AUXILIARY MATERIALS

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

1. Color: **[Yellow]**.

2.4 MIXES

A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction**[; designed according to procedures in AI MS-2, "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types";]** and complying with the following requirements:

1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 COLD MILLING

A. Clean existing pavement surface of loose and deleterious material immediately before cold milling. Remove existing asphalt pavement by cold milling to grades and cross sections indicated.

1. Mill to a depth of **[1-1/2 inches (38 mm)]**.

3.3 PATCHING

A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.

B. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

C. Patching: Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

3.4 SURFACE PREPARATION

A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.5 HOT-MIX ASPHALT PLACING

A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

1. Spread mix at minimum temperature of 250 deg F (121 deg C).
2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.

C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.6 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.
2. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
3. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."

3.7 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.

1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).

B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.

D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.8 INSTALLATION TOLERANCES

A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:

1. Base Course: Plus or minus 1/2 inch (13 mm).
2. Surface Course: Plus 1/4 inch (6 mm), no minus.

3.9 PAVEMENT MARKING

A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.

B. Allow paving to age for **[30]** days before starting pavement marking.

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

D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils (0.4 mm).

1. Broadcast glass beads uniformly into wet pavement markings at a rate of 6 lb/gal. (0.72 kg/L).

3.10 FIELD QUALITY CONTROL

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

B. Replace and compact hot-mix asphalt where core tests were taken.

C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.11 DISPOSAL

A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

CLARIFICATION NOTES FOR ALL 6 BUILDINGS (ADDENDUM #4):

1 - COMMERCIAL KITCHEN EQUIPMENT WILL BE SUPPLIED AND INSTALLED BY "STANDARD RESTAURANT SUPPLY". MR. TERRILL ROE. THEY WILL BE PROVIDING AND INSTALLING ALL OF THE EQUIPMENT, INCLUDING THE HOOD VENTILATION SYSTEMS. THEY WILL ALSO CONNECT TO THE GAS, ELECTRICAL AND PLUMBING WHERE TERMINATED AT THE WALLS, FLOOR AND CEILING, BY OTHER SUBCONTRACTOR WORK.

2 - THE OWNER SHALL PROVIDE ALL TELEVISION SETS, LOCATED IN THE COMMON AREAS OF THE RESIDENTIAL AREAS, AND THE COMMUNITY CENTER.
THE CONTRACTOR SHALL PROVIDE AND INSTALL THE SUPPORT AND BLOCKING, AT THE WALLS WHERE THE TELEVISIONS WILL BE INSTALLED.

3 - CONTRACTOR IS TO PROVIDE AN ALLOWANCE, IN THEIR BID, FOR PROVIDING AND INSTALLING THE RESIDENTIAL KITCHEN EQUIPMENT IN EACH OF THE RESIDENTIAL COMMON AREAS. PROVIDE AN ALLOWANCE FOR "MAYTAG" OR "GENERAL ELECTRIC" APPLIANCES, OR APPROVED EQUIVALENT.

4 - CONTRACTOR IS TO PROVIDE AN ALLOWANCE, IN THEIR BID, INCLUDING A DESIGN FEE, FOR THE BASE AND WALL CABINETS THROUGHOUT THE ENTIRE 6 BUILDINGS.
CABINETS TO BE GRADE 1, MAPLE CABINET DOORS AND DRAWERS, WITH GRADE 1 STAIN FINISH. WHITE MELAMINE FACED INTERIOR CABINET DOORS, SHELVES AND DRAWERS.
CABINET HARDWARE TO BE "AMEROCK" CABINET HARDWARE OR EQUIVALENT.
COUNTER TOPS TO BE GRANITE OR STONE, GRADE 1.

THE FOLLOWING ROOMS SHALL HAVE BASE CABINETS ONLY, OR BASE AND WALL CABINETS,, WITH MIXED CABINETS AND DRAWERS:

A - RESIDENT LAUNDRY A101 (BASE CABINET ONLY)
B - KITCHEN A115 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)
C - RESIDENT LAUNDRY A127 (BASE CABINET ONLY)
D - KITCHEN A132 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)

E - RESIDENT LAUNDRY B101 (BASE CABINET ONLY)
F - KITCHEN B115 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)
G - RESIDENT LAUNDRY B125 (BASE CABINET ONLY)
H - KITCHEN B129 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)

I - LAB C111 (BASE AND WALL CABINETS, WITH LOCKS ON BOTH CABINETS AND DRAWERS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS).
J- MEDS C112 (BASE AND WALL CABINETS, WITH LOCKS ON BOTH CABINETS AND DRAWERS, DELETE CROWN MOLDING AT WALL CABINETS).
K - STAFF BREAK ROOM C113 (BASE AND WALL CABINETS, DELETE CROWN MOLDING AT WALL CABINETS)
L - RECEPTION C122 (BASE CABINET WITH RETURN; RECEPTION COUNTER W/ LOWER A.D.A. COUNTER)
M - PATIENT BREAK AREA C129 (BASE AND WALL CABINETS, DELETE CROWN MOLDING AT WALL CABINETS)

N - REAR WALL OF RECEPTION/OFFICE D109 (BACK WALL TO HAVE BASE CABINET ONLY; FRONT OF RECEPTION AREA TO HAVE BASE CABINET WITH RECEPTION COUNTER AND LOWER A.D.A. COUNTER.
0 - WARMING KITCHEN D101 (COUNTERTOP ONLY)
P - SERVING D104 (BASE CABINET)
Q - WORKOUT ROOM D113 (WALNUT CUBICLES W/ MELAMINE INTERIOR FINISH)
R - YOGA STUDIO D114 (WALNUT CUBICLES W/ MELAMINE INTERIOR FINISH)
S - MALE EMPLOYEE LOCKER ROOM D115 (WALNUT FACED LOCKER DOORS WITH PADLOCK HARDWARE, 1 SHELF AND DOUBLE HOOK; MELAMINE INTERIOR FINISH)
T - FEMALE EMPLOYEE LOCKER ROOM D115A (WALNUT FACED LOCKER DOORS WITH PADLOCK HARDWARE, 1 SHELF AND DOUBLE HOOK; MELAMINE INTERIOR FINISH)
U - DINING D103 (CURVED EATING BENCH AND HALF WALL-BENCH TO MATCH DINING FURNITURE SUPPLIED BY OTHERS)

V - RESIDENT LAUNDRY E101 (BASE CABINET ONLY)
W - KITCHEN E115 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS; DELETE CROWN MOLDING AT WALL CABINETS)
X - RESIDENT LAUNDRY E127 (BASE CABINET ONLY)
Y - KITCHEN E132 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)
Z - SERVING CENTER E140 (BASE CABINET ONLY)

AA - RESIDENT LAUNDRY F101 (BASE CABINET ONLY)
BB - KITCHEN F115 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINTES)
CC - RESIDENT LAUNDRY F127 (BASE CABINET ONLY)
DD - KITCHEN F132 (BASE AND WALL CABINETS, WALL CABINETS NOT SHOWN ON ORIGINAL SUBMITTAL SETS, DELETE CROWN MOLDING AT WALL CABINETS)

5 - ALL RESIDENTIAL BATHROOM COUNTERTOPS TO BE GRANITE OR STONE; PROVIDE ANGLED METAL BRACING WHERE GREATER THAN 3' WIDE, WITH A.D.A. PROTECTION ON BRACING.

6 - ALL PUBLIC RESTROOM COUNTERTOPS TO BE GRANITE OR STOONE; PROVIDE ANGLED METAL BRACING WHERE GREATER THAN 3'-O" WIDE, WITH A.D.A. PROTECTION ON BRACING.

7 - ALL INTERIOR DOOR FRAME CASEWORK TO BE STANDARD PAINT-GRADE, ¾" X 3" TRIM SURROUND, EACH SIDE (UNLESS OTHERWISE DIRECTED BY OWNER).

8 - ALL ROOMS, i.e.: LINEN CLOSETS, STORAGE ROOMS, PANTRY, ETC., THROUGHOUT ALL 6 BUILDINGS TO HAVE ¾" PLYWOOD OR PARTICLE BOARD SHELVING WITH MELAMINE FINISH TOP AND BOTTOM, AND EDGE. PROVIDE MINIMUM 6 SHELVES IN EACH ROOM. BRACE SHELVES AS REQUIRED FOR STURDY SUPPORT.

9 - PROVIDE SOUND ATTENUATION INSULATION AT ALL RESIDENTIAL PARTY WALLS, AT MUSIC ROOM D117 (AS NOTED), AT PARTY WALL AT GATHERING/LEARNING AREA E136 (AS NOTED), AND AT PARTY WALLS SEPARATING RESIDENTIAL AREAS, BETWEEN KITCHENS AND COMMON AREAS.

10 - ALL INTERIOR DOORS TO BE SOLID CORE WALNUT DOORS WITH STAINED FINISH. DOORS WITH MACHINED, AND KNOCK DOWN FRAMES ARE ACCEPTIBLE.

11 - ALL WOOD BASE TO BE 1X4 MAPLE W/ RADIUSED TOP EDGE, OR APPROVED EQUIVALENT.

12 - CARPET TO BE AS MANUFACTURED BY "TUFTEX CARPET" OR EQUIVALENT, R2X STAIN AND SOIL RESISTANCE, ANSO NYLON. PROVIDE SAMPLES FOR APPROVAL BY OWNER.

13 - PROVIDE FRP (FIBERGLASS REINFORCED PLASTIC) PANEL SURROUND IN JANITOR'S CLOSETS, IN LIEU OF CERAMIC TILE NOTED.

14 - DELETE "MARBLE" TILE FROM SPECIFICATION. TILE WILL BE EITHER CERAMIC OR QUARRY TILE AS NOTED. DALTILE OR EQUIVALENT. PLEASE SUBMIT SAMPLES FOR OWNER APPROVAL.

15 - TILE BACKSPLASH TO OCCUR WHEREVER A SINK OCCURS AT COUNTERTOPS. PROVIDE 4" HIGH CERAMIC TILE BACKSPLASH, DALTILE OR EQUIVALENT. PROVIDE SAMPLES FOR OWNER'S APPROVAL.

16 - INTERIOR AND EXTERIOR SIGNAGE TO BE A SEPERATE BID PACKAGE PER OWNER.
CONTRACTOR MAY PROVIDE AN ALLOWANCE FOR INTERIOR AND EXTERIOR SIGNAGE.

17 - FIRE EXTINGUISHERS AND CABINETS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.

18 - ALL FURNISHINGS, i.e.: DINING AREA TABLES AND CHAIRS, POOL TABLES, WORK OUT EQUIPMENT, ETC., TO BE PROVIDED BY EITHER OWNER, OR BY KITCHEN EQUIPMENT SUPPLIER.

19 - PLEASE NOTE THAT ALL BIDS TO BE SUBMITTED TO OWNER BY END OF WORK DAY, ON MONDAY, JANUARY 23, 2017. PLEASE SUBMIT TO OWNER'S OFFICE, LOCATED AT 5200 SOUTH HIGHLAND DRIVE, SUITE 210.

MECHANICAL DUCT CLARIFICATION:

INSTALL RIGID DUCTWORK THROUGHOUT THE PLENUM SPACE WITH MINIMAL DUCTWORK TRANSITIONS/FITTINGS, TO ALLOW FOR MAXIMUM AIRFLOW.
INSULATE ALL SUPPLY AND RETURN DUCTWORK WITH R-VALUE (R-12 MIN.), AS INDICATED IN MECHANICAL PLAN VIEW GENERAL NOTES.

A FLEXIBLE CONNECTION IS TO BE PROVIDED ON ALL MAIN SUPPLY AND RETURN AIR RUNS TO MINIMIZE VIBRATION FROM ASSOCIATED RTU.

PLUMBING CLARIFICATION:

SHOWER VALVES TO BE "KOHLER", SINGLE HANDLE, OR EQUIVALENT AS APPROVED BY OWNER.

4

Donald L. Welch
Architect
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midvale utah 84047
801-548-6381 dwelch5977@msn.com

consultant:

STATE OF UTAH
12283-0301
DONALD L. WELCH
LICENSED ARCHITECT
12-28-2016

Parcel #22081850120000

project:
Tenant Finish
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4905, 4911, 4915, 4925, 4931, 4953 South 900 East
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BUILDING 'E' 4931 South 900 East

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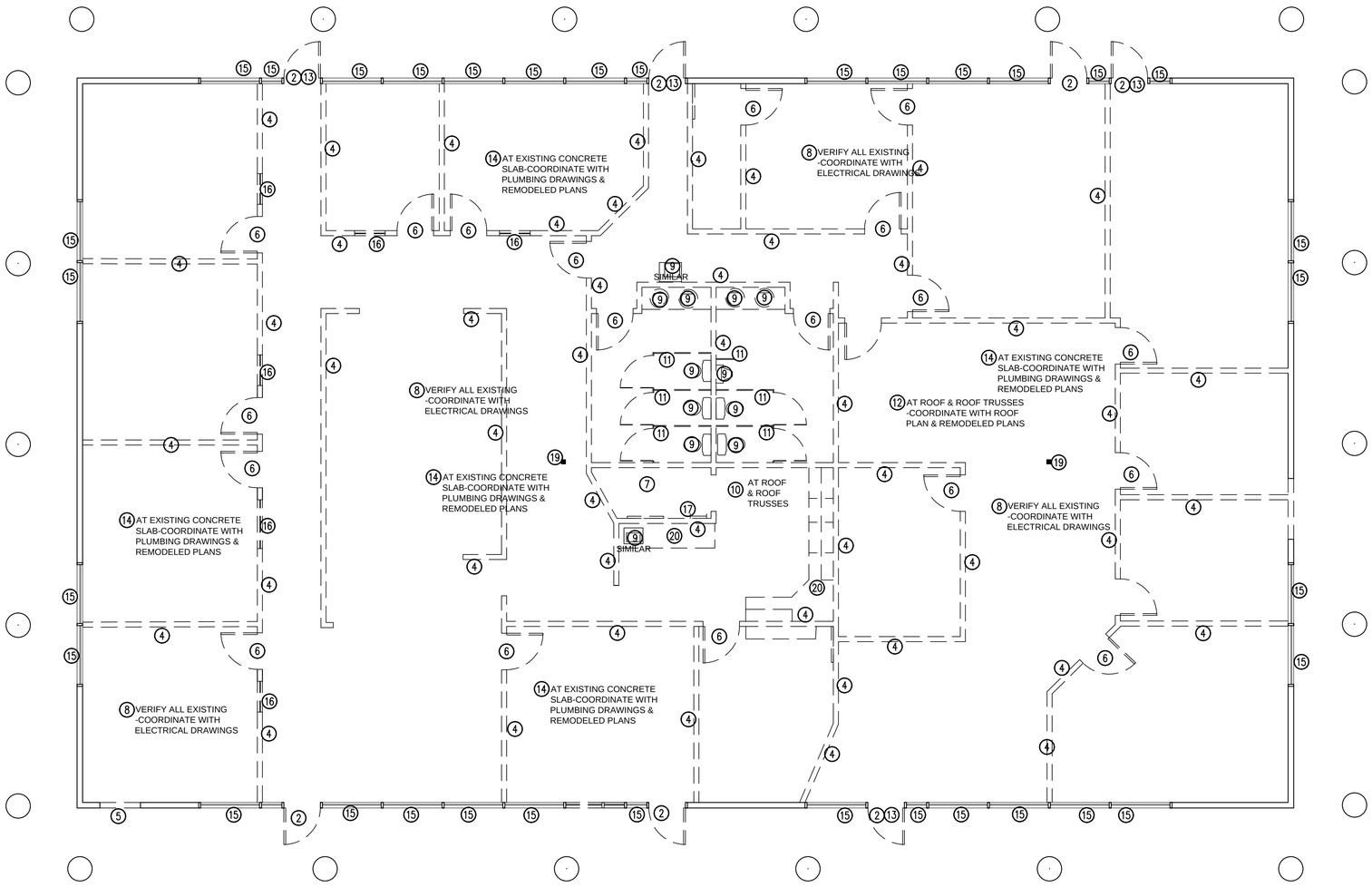
8 ADDENDUM #8–BUILDING 'A' BUILDING 'F' MARCH 20, 2017

data
project no:
drawn by:
checked by: DLW

title
PARKING LOT RE-PAVING SPECIFICATIONS AND GENERAL CLARIFICATION NOTES

sheet
A1 2



EXISTING DEMOLITION FLR. PLAN–BUILDING 'E'

SCALE: 3/16" = 1'-0"

EXTERIOR ELEVATION & FLOOR PLAN DEMOLITION KEY NOTES

SECTION	DESCRIPTION
	(1) EXISTING PARAPET CAP FLASHING AND COUNTER-FLASHING TO BE REMOVED COMPLETELY, PREPARE EXISTING 2X PLATES TO RECEIVE NEW CAP FLASHING AND COUNTER-FLASHING.
	(2) PORTION OF EXISTING STOREFRONT DOOR FRAME TO BE REMOVED AND DISCARDED; PREPARE EXISTING STOREFRONT DOOR FRAME TO RECEIVE NEW DOOR AND DOOR HARDWARE; REFINISH EXISTING STOREFRONT DOOR FRAME AS REQUIRED.
	(3) PORTION OF EXISTING WALL TO BE CUT AND REMOVED–FIELD VERIFY IF EXISTING WALL HAS STRUCTURAL MEMBERS THAT ARE AFFECTED–COORDINATE TO UPGRADE THE STRUCTURE OF THE WALL AS REQUIRED. PATCH, REPAIR AND REFINISH EXISTING SURROUNDING WALLS, FLOOR AND CEILING, AS REQUIRED. COORDINATE REMOVAL OF EXISTING WALL STRUCTURE WITH DEMOLITION PLANS, AND EXISTING CONDITIONS
	(4) EXISTING INTERIOR WALLS TO BE REMOVED AND DISCARDED COMPLETELY. PATCH, REPAIR AND REFINISH REMAINING, SURROUNDING EXISTING WALLS, FLOOR AND CEILING AS REQUIRED.
	(5) CUT AND REMOVE PORTION OF EXISTING WALL TO ALLOW FOR NEW OPENING FOR NEW DOOR/DOOR FRAME, OR WNDOW/WINDOW FRAME, OPENING–INSTALL SUPPORT SYSTEM AROUND OPENINGS AS REQUIRED FOR SOLID ASSEMBLY. PATCH, REPAIR AND REFINISH SURROUNDING WALLS AFTER NEW FRAMES & SUPPORTS HAVE BEEN INSTALLED.
	(6) EXISTING DOOR/DOOR FRAME TO BE REMOVED COMPLETELY. DISCARD FRAME COMPLETELY. RETURN ALL EXISTING INTERIOR DOORS TO OWNER.
	(7) COORDINATE WITH ALL EXISTING ELECTRICAL POWER BOXES, AND WITH ELECTRICAL SUBCONTRACTOR, OR ELECTRICAL ENGINEER, TO RELOCATE BOXES, IF REQUIRED, AND TO UPGRADE BOXES IF REQUIRED.
	(8) ALL EXISTING ELECTRICAL OUTLETS, LIGHT FIXTURES, AND OTHER EXISTING ELECTRICAL ITEMS TO BE REMOVED AND DISCARDED COMPLETELY, INCLUDING ALL RECESSED EXTERIOR SOFFIT LIGHTS. PREPARE EXISTING SOFFIT, WHERE EXISTING SOFFIT LIGHTS ARE REMOVED, TO RECEIVE NEW SOFFIT LIGHTS. PATCH, REPAIR AND REFINISH SOFFIT AROUND NEW SOFFIT LIGHTS. COORDINATE WITH ELECTRICAL DRAWINGS.
	(9) EXISTING BATHROOM FIXTURES TO BE REMOVED AND RETURNED TO OWNER, OR DISCARDED AS DIRECTED BY OWNER. EXISTING PIPING TO BE REMOVED AND RE–ROUTED, CAPPED, OR RELOCATED (OR NEW PIPING INSTALLED TO REPLACE EXISTING), AS REQUIRED–COORDINATE WITH PLUMBING DRAWINGS.
	(10) ALL EXISTING ROOFTOP MECHANICAL EQUIPMENT, MECHANICAL DUCTING, ETC. TO BE REMOVED COMPLETELY, AND DISCARDED. PREPARE EXISTING ROOF AND EXISTING ROOF TRUSSES TO RECEIVE NEW MECHANICAL EQUIPMENT AND DUCTING. PATCH, REPAIR AND REFINISH EXISTING ROOF AROUND NEW DUCT PENETRATIONS.–COORDINATE WITH MECHANICAL DRAWINGS.
	(11) EXISTING TOILET PARTITIONS TO BE REMOVED AND DISCARDED.
	(12) PROVIDE OPENING IN EXISTING ROOF FOR NEW SKYLIGHTS–COORDINATE LOCATION OF SKYLIGHTS WITH EXISTING ROOF TRUSSES. ADJUST AS NECESSAY WITH ROOF TRUSSES. NEW SKYLIGHTS TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS–PATCH, REPAIR, FLASH & SEAL EXISTING ROOFING, AND AROUND NEW SKYLIGHT FOR A TIGHT WATERPROOF ASSEMBLY
	(13) REMOVE PORTION OF EXISTING STOREFRONT WINDOW AND FRAME COMPLETELY, WHERE EXISTING STOREFRONT DOOR AND FRAME ARE REMOVED, INFILL WITH STUDS, AND BATT INSULATION. PROVIDE NEW GYPSUM BOARD AT INTERIOR, AND NEW STUCCO ON SHEATHING AT EXTERIOR, FOR A COMPLETE SYSTEM. STUCCO FINISH AND COLOR TO MATCH EXISTING STUCCO FINISH AND COLOR.
	(14) SAWCUT AND REMOVE PORTION OF EXISTING CONCRETE SLAB AS REQUIRED FOR INSTALLATION OF NEW SEWER AND WATER PIPING BELOW EXISTING SLAB. COORDINATE WITH EXISTING PIPING (REMOVE EXISTING PIPING AS REQUIRED). PROVIDE PROPER SLOPE FOR WASTE LINES AS REQUIRED. PATCH, REPAIR, AND INSTALL NEW CONCRETE OVER NEW PIPE LINES. REFINISH SLAB TO MATCH EXISTING SURROUNDING CONCRETE SLAB FINISH. COORDINATE ALL NEW PIPING WITH PLUMBING DRAWINGS.
	(15) EXISTING STOREFRONT WINDOWS AND FRAMES TO REMAIN, AND TO BE PROTECTED FROM DAMAGE DURING DEMOLITION AND REMODELING PHASES. EXISTING STOREFRONT FRAME TO BE REPLACED IF DAMAGED ORIGINALLY BEFORE DEMOLITION, OR DURING DEMOLITION AND REMODELING PHASES. EXISTING STOREFRONT WINDOW GLASS TO BE CLEANED DURING REMODELING PHASE. REPLACE ANY STOREFRONT WINDOW GLASS DAMAGED OR BROKEN ORIGINALLY BEFORE DEMOLITION, OR DURING DEMOLITION AND REMODELING PHASES.
	(16) EXISTING INTERIOR WINDOW/WINDOW FRAME TO BE REMOVED COMPLETELY. DISCARD FRAME COMPLETELY.
	(17) EXISTING WATER HEATER & FLOOR MOP SINK TO BE REMOVED AND RETURNED TO OWNER.
	(18) EXISTING MAIN WATER LINE PIPING TO BE REMOVED. WATER MAIN TO BE RELOCATED WHERE SHOWN ON PLUMBING PLANS.
	(19) EXISTING SUPPORT POSTS TO REMAIN AND BE PROTECTED FROM DAMAGE –FIELD VERIFY EXACT LOCATION OF POSTS
	(20) EXISTING BASE AND WALL CABINETS TO BE REMOVED AND DISCARDED

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JANUARY 17, 2017
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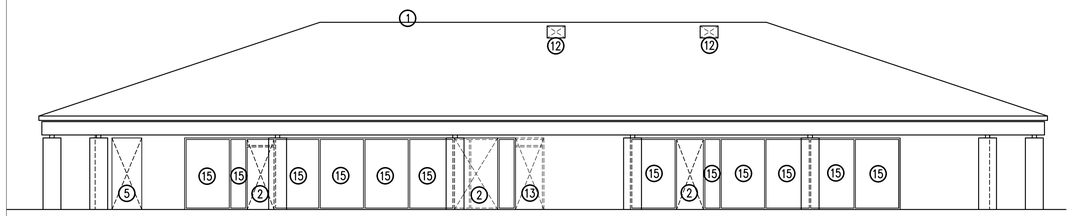
FEBRUARY 24, 2017
8 ADDENDUM #8–BUILDING 'A' BUILDING 'F'
MARCH 20, 2017

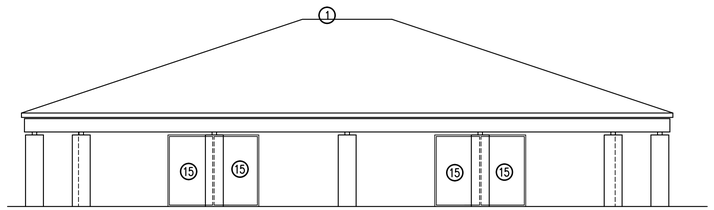
data
project no:
drawn by:
checked by: DLW

title
BUILDING 'E'
EXISTING
DEMOLITION PLAN

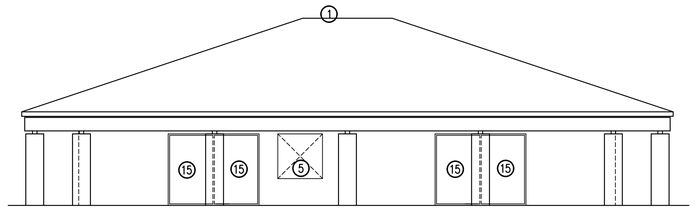
sheet
D2.5



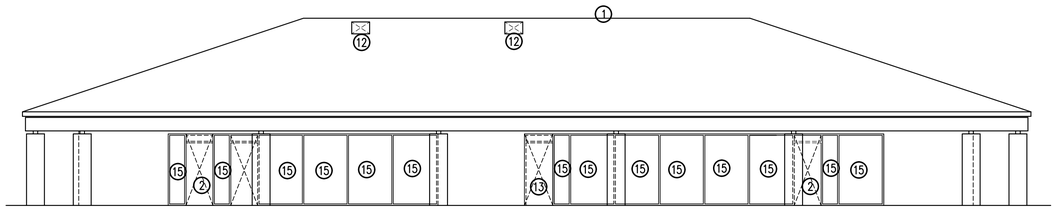
EXISTING BUILDING 'E'-SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
E1 / D3.3



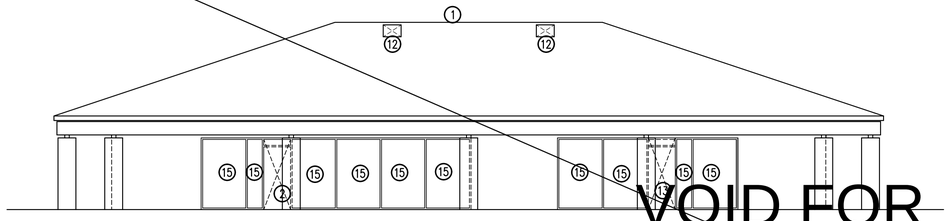
EXISTING BUILDING 'E'-WEST ELEVATION
SCALE: 1/8" = 1'-0"
E2 / D3.3



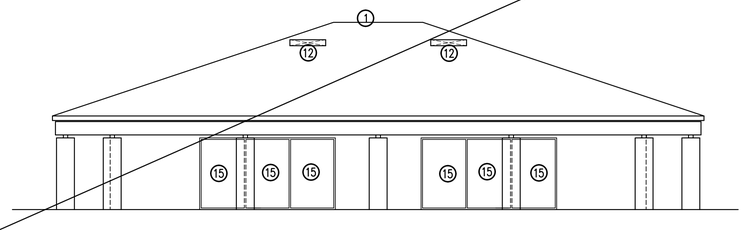
EXISTING BUILDING 'E'-EAST ELEVATION
SCALE: 1/8" = 1'-0"
E3 / D3.3



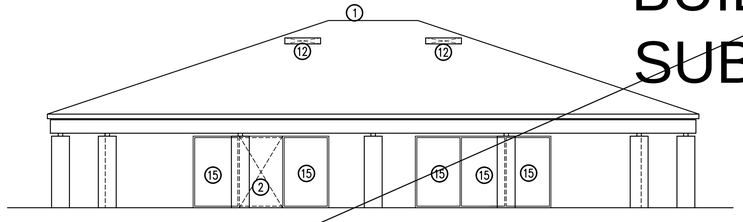
EXISTING BUILDING 'E'-NORTH ELEVATION
SCALE: 1/8" = 1'-0"
E4 / D3.3



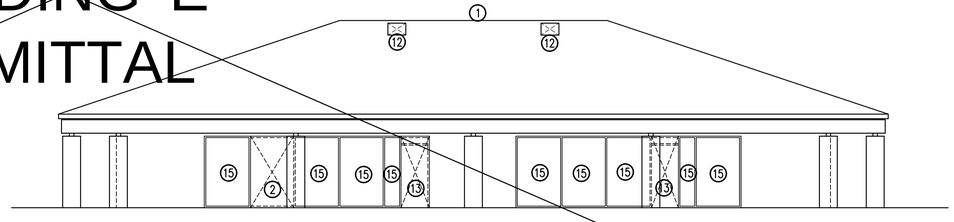
EXISTING BUILDING 'F'-WEST ELEVATION
SCALE: 1/8" = 1'-0"
F1 / D3.3



EXISTING BUILDING 'F'-NORTH ELEVATION
SCALE: 1/8" = 1'-0"
F2 / D3.3



EXISTING BUILDING 'F'-SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
F3 / D3.3



EXISTING BUILDING 'F'-EAST ELEVATION
SCALE: 1/8" = 1'-0"
F4 / D3.3

VOID FOR BUILDING 'E' SUBMITTAL

EXTERIOR ELEVATION & FLOOR PLAN DEMOLITION KEY NOTES

SECTION	DESCRIPTION
	(1) EXISTING PARAPET CAP FLASHING AND COUNTER-FLASHING TO BE REMOVED COMPLETELY, PREPARE EXISTING 2X PLATES TO RECEIVE NEW CAP FLASHING AND COUNTER-FLASHING.
	(2) PORTION OF EXISTING STOREFRONT DOOR FRAME TO BE REMOVED AND DISCARDED; PREPARE EXISTING STOREFRONT DOOR FRAME TO RECEIVE NEW DOOR AND DOOR HARDWARE; REFINISH EXISTING STOREFRONT DOOR FRAME AS REQUIRED.
	(3) PORTION OF EXISTING WALL TO BE CUT AND REMOVED-FIELD VERIFY IF EXISTING WALL HAS STRUCTURAL MEMBERS THAT ARE AFFECTED-COORDINATE TO UPGRADE THE STRUCTURE OF THE WALL AS REQUIRED. PATCH, REPAIR AND REFINISH EXISTING SURROUNDING WALLS, FLOOR AND CEILING, AS REQUIRED. COORDINATE REMOVAL OF EXISTING WALL STRUCTURE WITH DEMOLITION PLANS, AND EXISTING CONDITIONS
	(4) EXISTING INTERIOR WALLS TO BE REMOVED AND DISCARDED COMPLETELY. PATCH, REPAIR AND REFINISH REMAINING, SURROUNDING EXISTING WALLS, FLOOR AND CEILING AS REQUIRED.
	(5) CUT AND REMOVE PORTION OF EXISTING WALL TO ALLOW FOR NEW OPENING FOR NEW DOOR/DOOR FRAME, OR WINDOW/WINDOW FRAME, OPENING-INSTALL SUPPORT SYSTEM AROUND OPENINGS AS REQUIRED FOR SOLID ASSEMBLY. PATCH, REPAIR AND REFINISH SURROUNDING WALLS AFTER NEW FRAMES & SUPPORTS HAVE BEEN INSTALLED.
	(6) EXISTING DOOR/DOOR FRAME TO BE REMOVED COMPLETELY. DISCARD FRAME COMPLETELY. RETURN ALL EXISTING INTERIOR DOORS TO OWNER.
	(7) COORDINATE WITH ALL EXISTING ELECTRICAL POWER BOXES, AND WITH ELECTRICAL SUBCONTRACTOR, OR ELECTRICAL ENGINEER, TO RELOCATE BOXES, IF REQUIRED, AND TO UPGRADE BOXES IF REQUIRED.
	(8) ALL EXISTING ELECTRICAL OUTLETS, LIGHT FIXTURES, AND OTHER EXISTING ELECTRICAL ITEMS TO BE REMOVED AND DISCARDED COMPLETELY, INCLUDING ALL RECESSED EXTERIOR SOFFIT LIGHTS. PREPARE EXISTING SOFFIT, WHERE EXISTING SOFFIT LIGHTS ARE REMOVED, TO RECEIVE NEW SOFFIT LIGHTS. PATCH, REPAIR AND REFINISH SOFFIT AROUND NEW SOFFIT LIGHTS. COORDINATE WITH ELECTRICAL DRAWINGS.
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	(13) REMOVE PORTION OF EXISTING STOREFRONT WINDOW AND FRAME COMPLETELY, WHERE EXISTING STOREFRONT DOOR AND FRAME ARE REMOVED, INFILL WITH STUDS, AND BATT INSULATION. PROVIDE NEW GYPSUM BOARD AT INTERIOR, AND NEW STUCCO ON SHEATHING AT EXTERIOR, FOR A COMPLETE SYSTEM. STUCCO FINISH AND COLOR TO MATCH EXISTING STUCCO FINISH AND COLOR.
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Salt Lake County, Utah

date
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revisions
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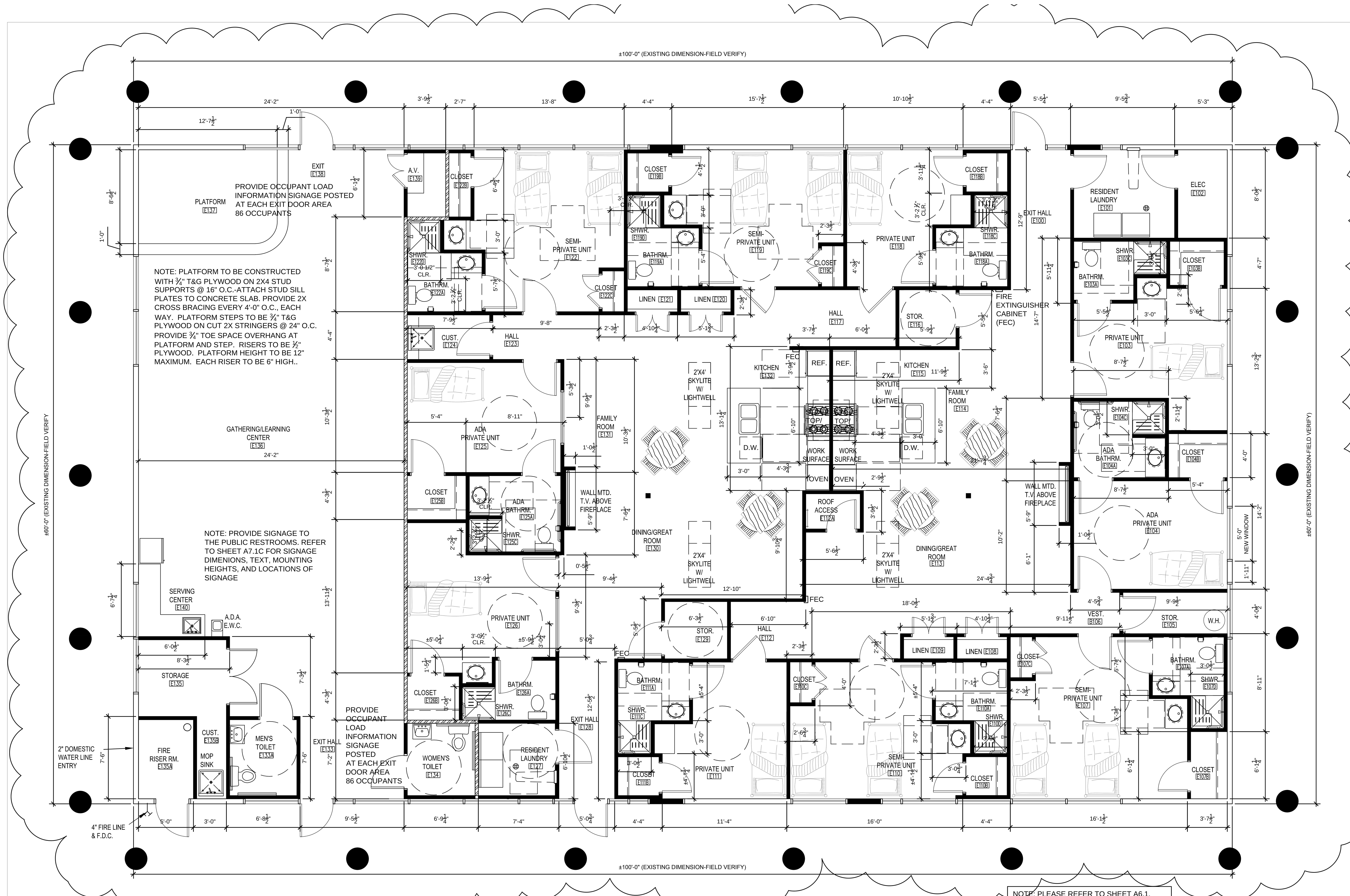
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
2 ADDENDUM #2-BUILDING 'C'
JANUARY 6, 2017
4 ADDENDUM #4-BUILDING 'B'
JANUARY 17, 2017
7 ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
FEBRUARY 24, 2017
8 ADDENDUM #8-BUILDING 'A' BUILDING 'F'
MARCH 20, 2017

data
project no:
drawn by:
checked by: DLW

title
BUILDING 'E'
EXISTING/DEMOLITION
ELEVATIONS

sheet
D3 3



REMODELED DIMENSION FLR. PLAN--BLDG. 'E'

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

NOTE: PLEASE REFER TO SHEET A6.1, FINISH SCHEDULES, FOR PREFABRICATED SHOWER AND FIREPLACE INFORMATION AND REQUIRED PREFAB SHOWER CLEAR DIMENSIONS-COORDINATE WITH FLOOR PLANS

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2 — JANUARY 6, 2017 ADDENDUM #2-BUILDING 'C'

4 — JANUARY 17, 2017 ADDENDUM #4-BUILDING 'B'

7 — FEBRUARY 24, 2017 ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'

8 — MARCH 20, 2017 ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data

project no:

drawn by:

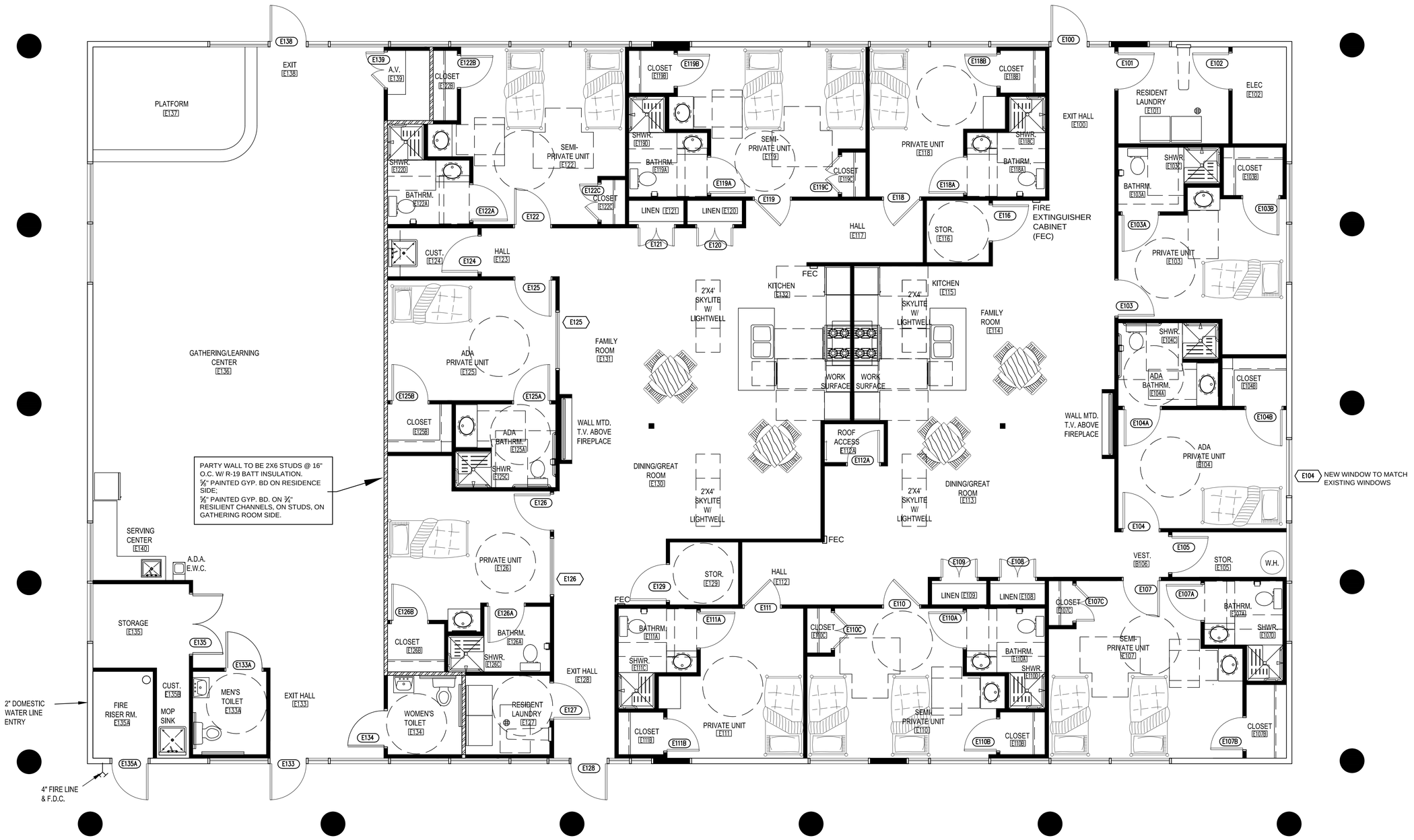
checked by: DLW

title

BUILDING 'E' REMODELED FLOOR PLAN

sheet

A2.5



REMODELED FLOOR PLAN–BUILDING 'E'

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

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ADDENDUM #8–BUILDING 'A' BUILDING 'F'

data

project no:
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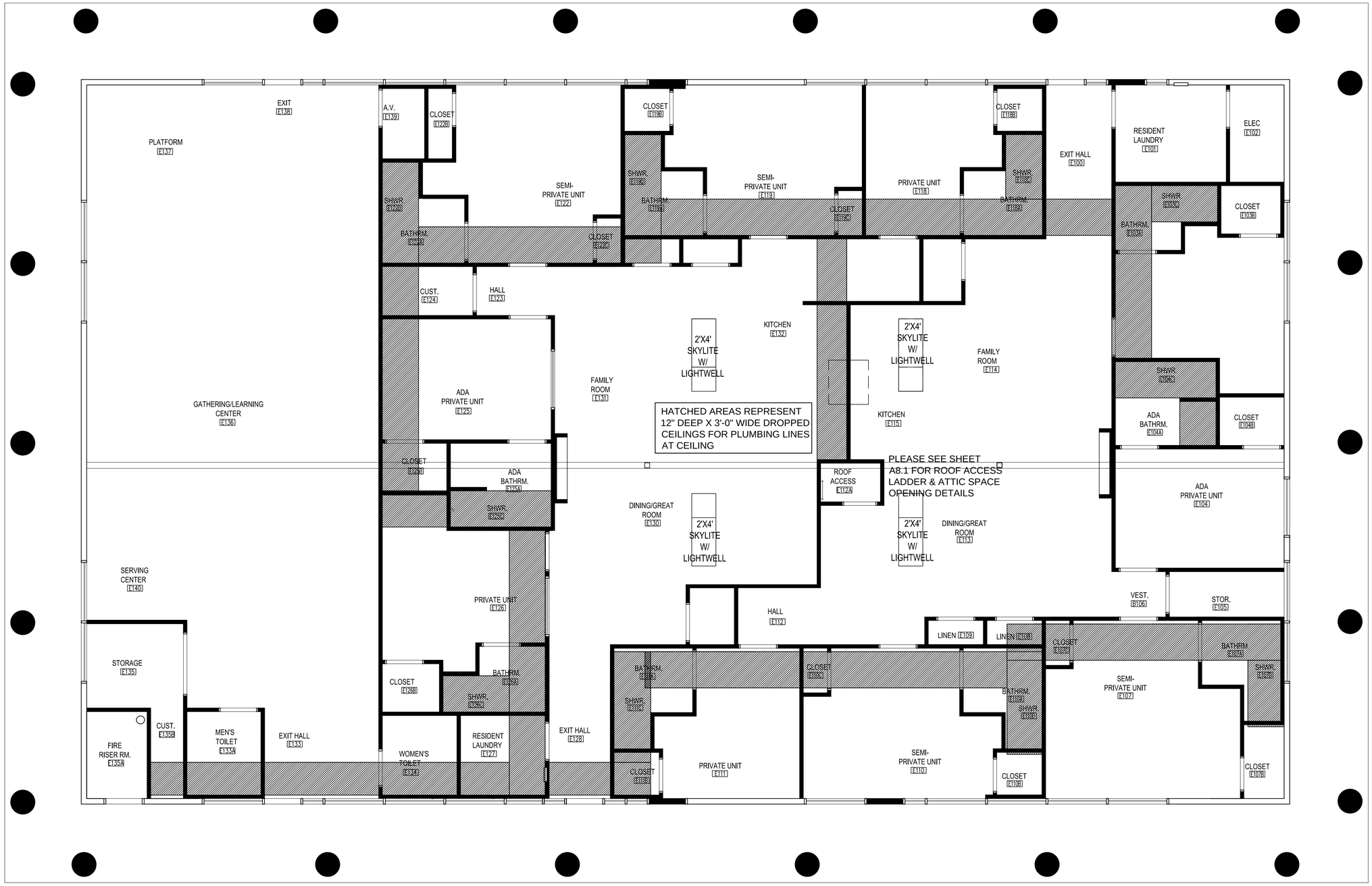
title

BUILDING 'E' REMODELED FLOOR PLAN

sheet

A2.5A



REMODELED REFLECTED CLG. PLAN--BLDG. 'E'

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

NOTES:
1. ALL EXISTING CEILINGS TO BE REMOVED, ALONG WITH ALL LIGHT FIXTURES, CEILING GRILLES, ETC.- NEW CEILING ELEVATION TO BE APPROXIMATELY 10'-4" ABOVE FINISH FLOOR
2. ALL NEW CEILINGS TO BE PAINTED/TEXTURED 5/8" GYP. BD., SCREWED TO BOTTOM OF EXISTING ROOF TRUSSES;.
3. COORDINATE LOCATION OF NEW ROOF ACCESS OPENING WITH POSITION OF EXISTING ROOF TRUSSES;
4. EXISTING EXPOSED GLU-LAM BEAM TO BE PREPPED AND PAINTED, OR STAINED.

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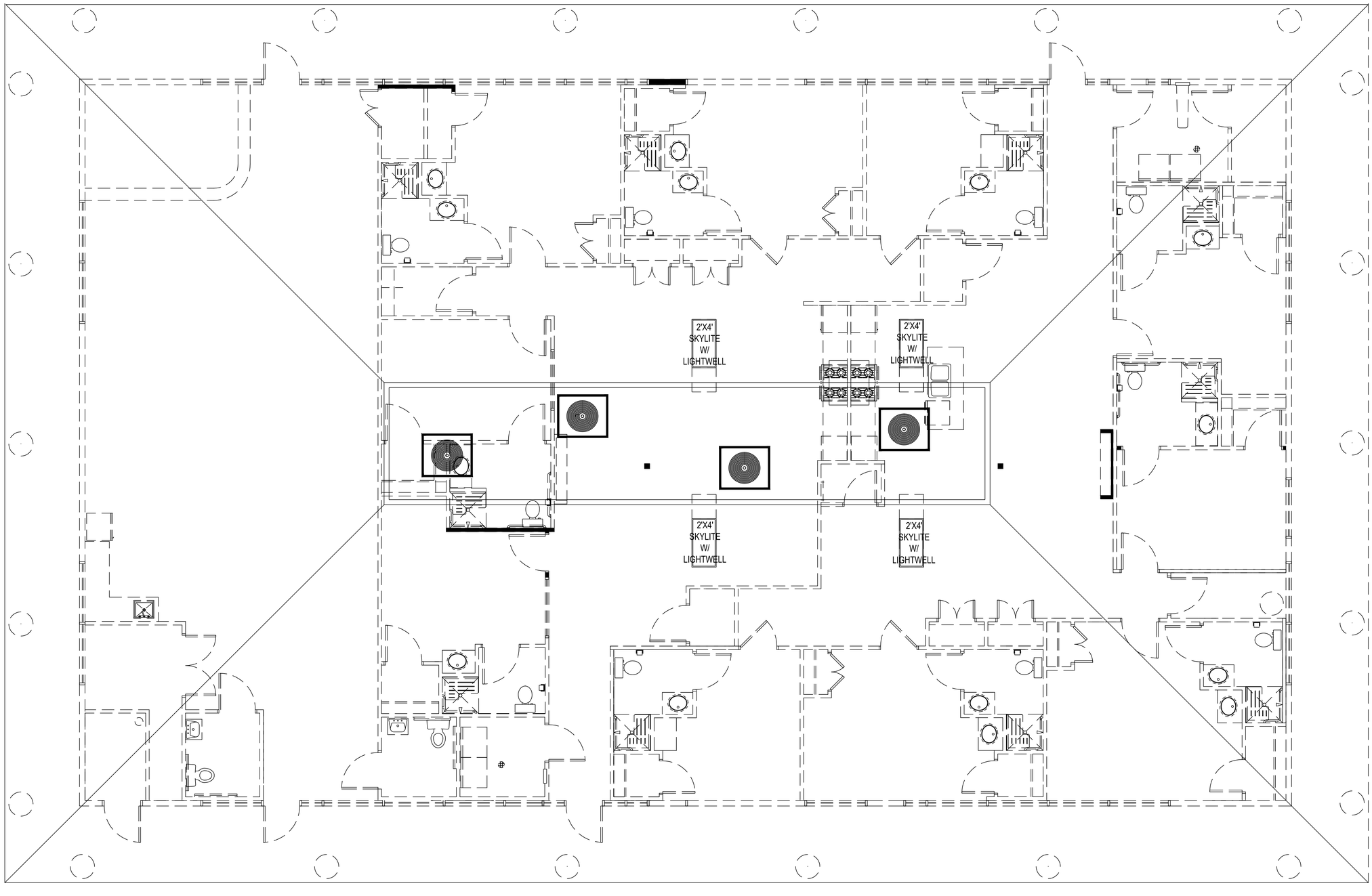
title
BUILDING 'E'
REMODELED
REFL. CLG. PLAN

sheet
A2 5B



EXISTING ROOF PLAN–BUILDING 'E'

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

N

NOTE: REFER TO SHEET A2.1C, BUILDING 'A' EXISTING ROOF PLAN, FOR GENERAL NOTES CONCERNING THE ROOF

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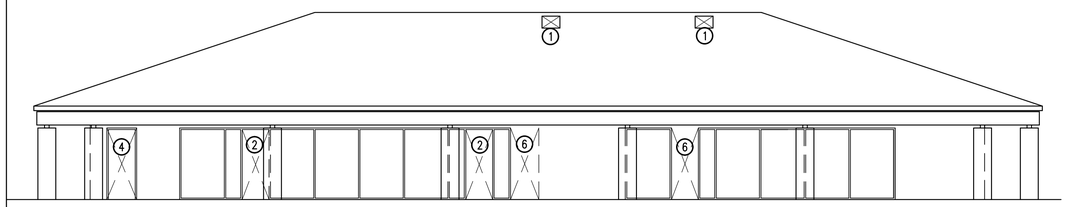
ADDENDUM #8–BUILDING 'A' BUILDING 'F'

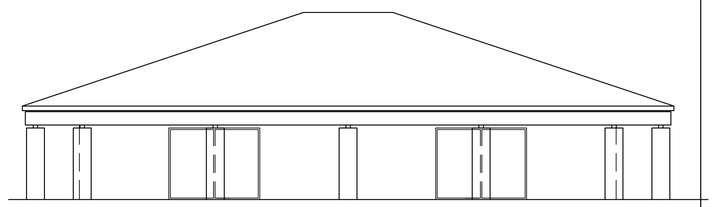
data
project no:
drawn by:
checked by: DLW

title
BUILDING 'E'
EXISTING
ROOF PLAN

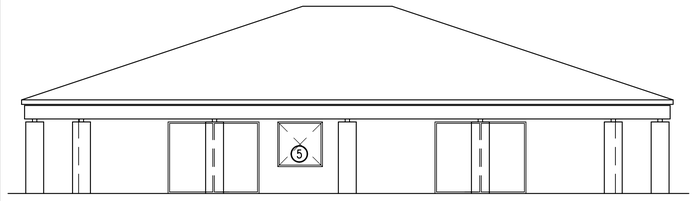
sheet
A2 5C



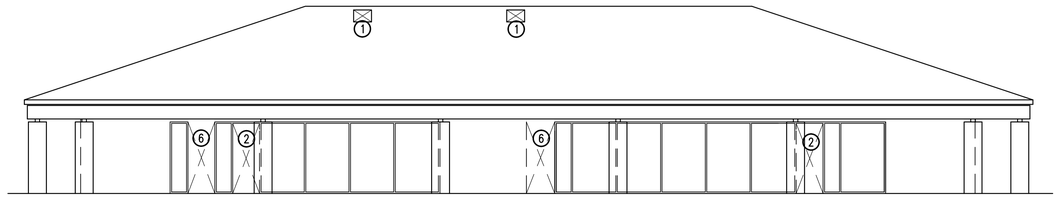
EXISTING BLDG. 'E'-SOUTH REMODELED ELEV. E1 A3.3
SCALE: 1/8" = 1'-0"



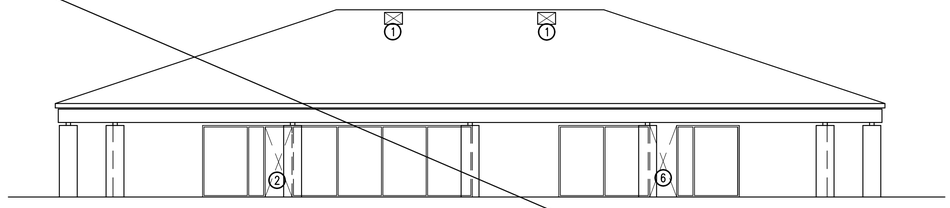
EXISTING BLDG. 'E'-WEST REMODELED ELEV. E2 A3.3
SCALE: 1/8" = 1'-0"



EXISTING BLDG. 'E'-EAST REMODELED ELEV. E3 A3.3
SCALE: 1/8" = 1'-0"



EXISTING BLDG. 'E'-NORTH REMODELED ELEV. E4 A3.3
SCALE: 1/8" = 1'-0"



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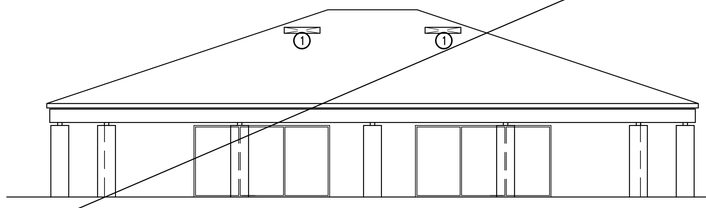
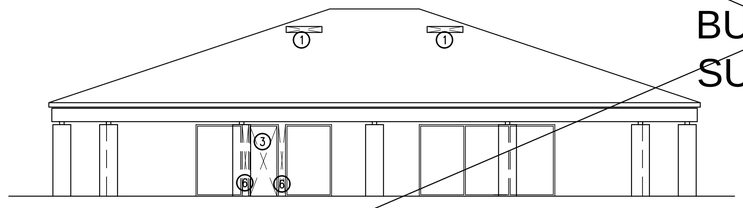
SCALE: 1/8" = 1'-0"



EXISTING BLDG. 'F'-NORTH REMODELED ELEV. F2 A3.3
SCALE: 1/8" = 1'-0"



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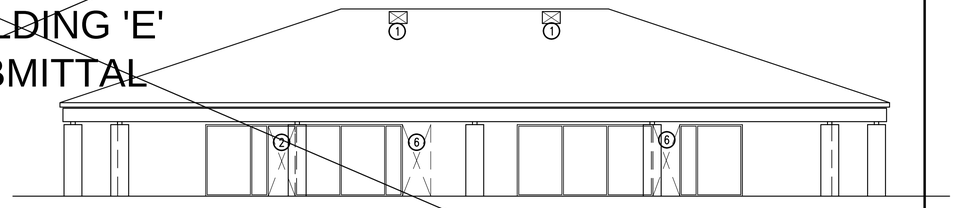
SCALE: 1/8" = 1'-0"



EXISTING BLDG. 'F'-EAST REMODELED ELEV. F4 A3.3
SCALE: 1/8" = 1'-0"

VOID FOR
BUILDING 'E'
SUBMITTAL

ELEVATION/SECTION LEGEND

HATCH PATTERN	SECTION	DESCRIPTION

ELEVATION/SECTION KEY NOTES

SECTION	DESCRIPTION
	(1) NEW SKYLIGHTS INSTALLED PER MANUFACTURER'S INSTRUCTIONS-PATCH, REPAIR, FLASH & SEAL EXISTING ROOFING, AND AROUND NEW SKYLIGHT FOR A TIGHT WATERPROOF ASSEMBLY
	(2) PROVIDE NEW DOOR IN EXISTING STOREFRONT DOOR FRAME; PREPARE EXISTING STOREFRONT DOOR FRAME TO RECEIVE NEW DOOR AND DOOR HARDWARE; REFINISH EXISTING STOREFRONT DOOR FRAME AS REQUIRED.
	(3) PROVIDE NEW DOOR IN NEW STOREFRONT DOOR FRAME; PREPARE EXISTING STOREFRONT FRAME TO RECEIVE NEW STOREFRONT DOORFRAME, NEW DOOR, AND DOOR HARDWARE; REFINISH EXISTING STOREFRONT FRAME AS REQUIRED.
	(4) NEW METAL DOOR FRAME AND NEW DOOR-COORDINATE WITH DOOR SCHEDULE FOR DOOR TYPE-PATCH, REPAIR AND REFINISH EXISTING SURROUNDING WALL FINISH-PAINT TO MATCH EXISTING SURROUNDING INTERIOR AND EXTERIOR WALLS
	(5) NEW STOREFRONT WINDOW FRAME AND WINDOW TO MATCH EXISTING STOREFRONT WINDOW FRAMES AND WINDOWS-COORDINATE WITH WINDOW SCHEDULE FOR WINDOW TYPE-PATCH, REPAIR AND REFINISH EXISTING SURROUNDING WALL FINISH-PAINT TO MATCH EXISTING SURROUNDING INTERIOR AND EXTERIOR WALLS
	(6) EXISTING OPENING, WHERE EXISTING STOREFRONT DOOR AND FRAME WERE REMOVED, TO BE INFILLED WITH STUDS, AND BATT INSULATION. PROVIDE NEW GYPSUM BOARD AT INTERIOR, AND NEW STUCCO ON SHEATHING AT EXTERIOR, FOR A COMPLETE SYSTEM. STUCCO FINISH AND COLOR TO MATCH EXISTING STUCCO FINISH AND COLOR.

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12-28-2016

project:
Tenant Finish
for
Brighton Recovery
Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
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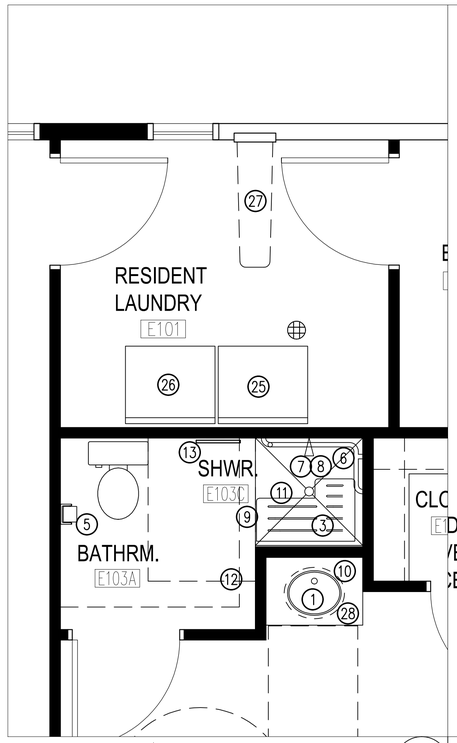
7 FEBRUARY 24, 2017
ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
8 MARCH 20, 2017
ADDENDUM #8-BUILDING 'A' BUILDING 'F'

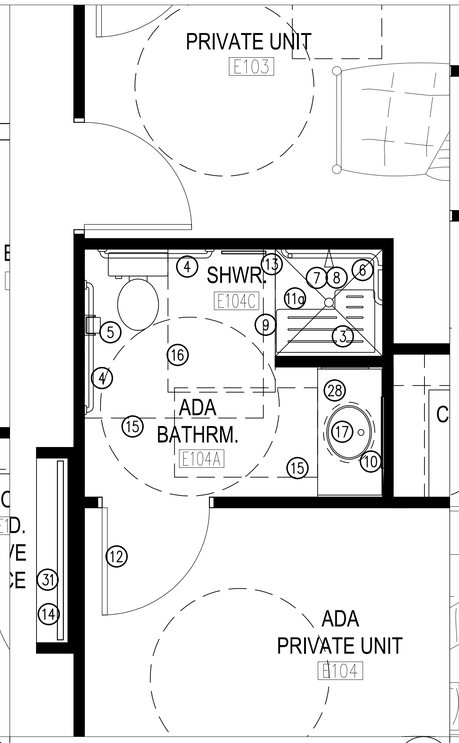
data
project no:
drawn by:
checked by: DLW

title
BUILDINGS 'E' REMODELED ELEVATIONS

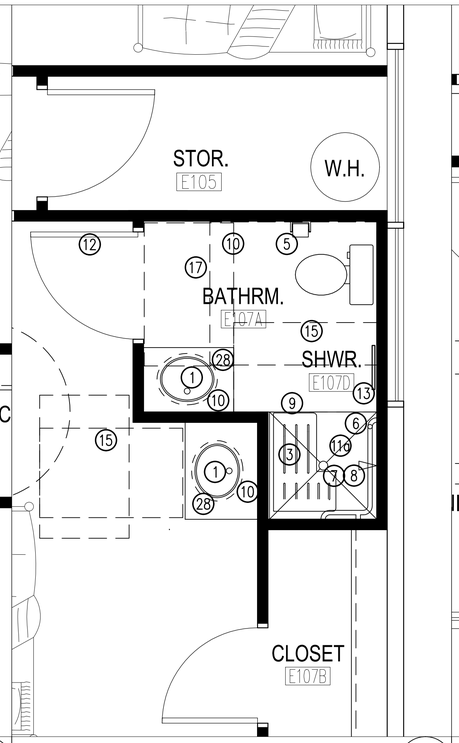
sheet
A3.3



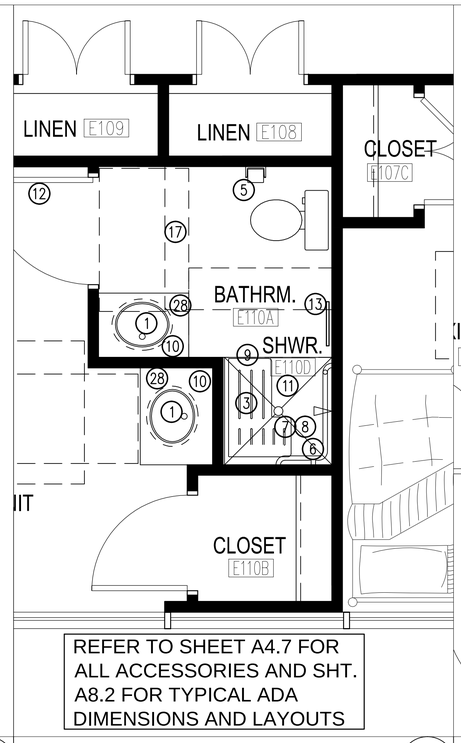
RES. LAUNDRY/BATHROOM E103A ENGL. PLN. (A / A4.4)
SCALE: 1/2" = 1'-0"



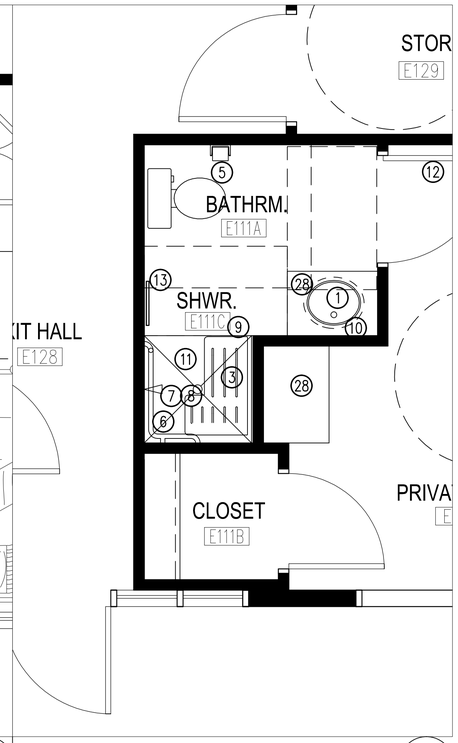
A.D.A. BATHROOM E104A ENGARGED PLAN (B / A4.4)
SCALE: 1/2" = 1'-0"



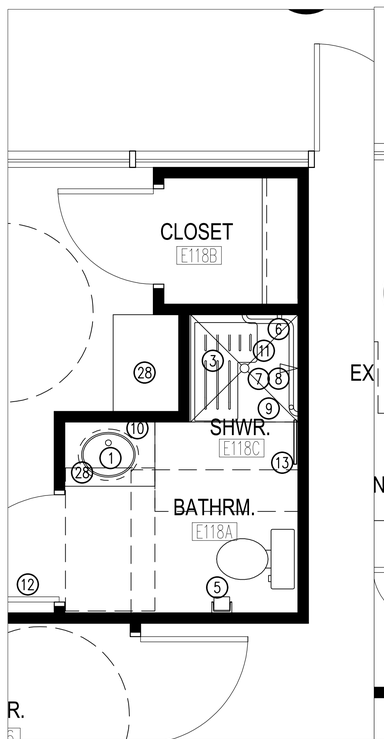
A.D.A. BATHROOM E107A ENGARGED PLAN (C / A4.4)
SCALE: 1/2" = 1'-0"



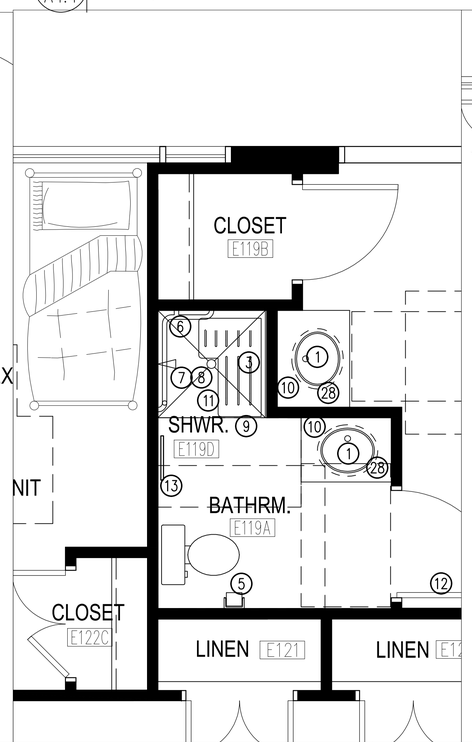
BATHROOM E110A ENGARGED PLAN (D / A4.4)
SCALE: 1/2" = 1'-0"



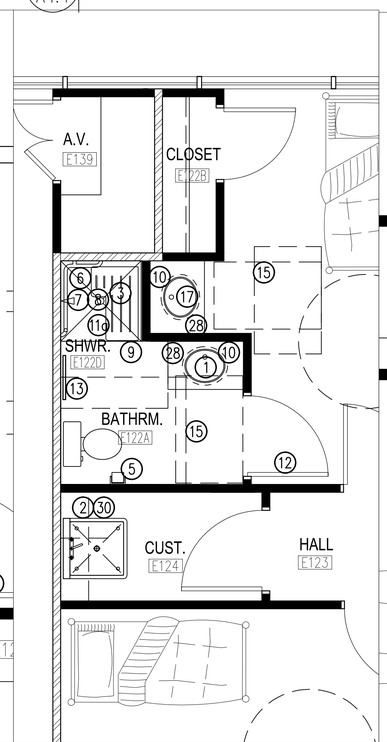
BATHROOM E111A ENGARGED PLAN (E / A4.4)
SCALE: 1/2" = 1'-0"



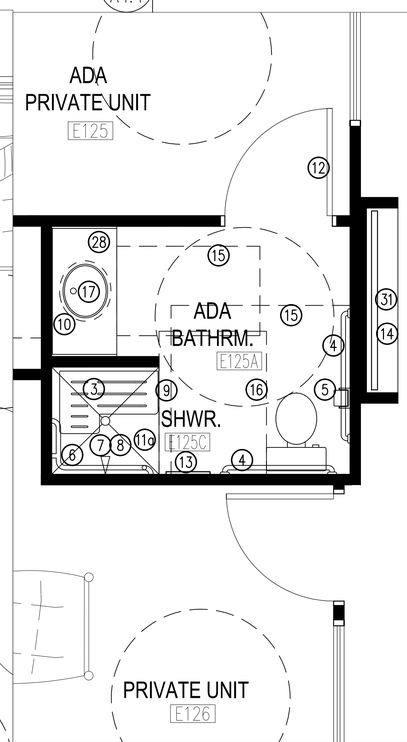
BATHROOM E118A ENLARGED PLAN (F / A4.4)
SCALE: 1/2" = 1'-0"



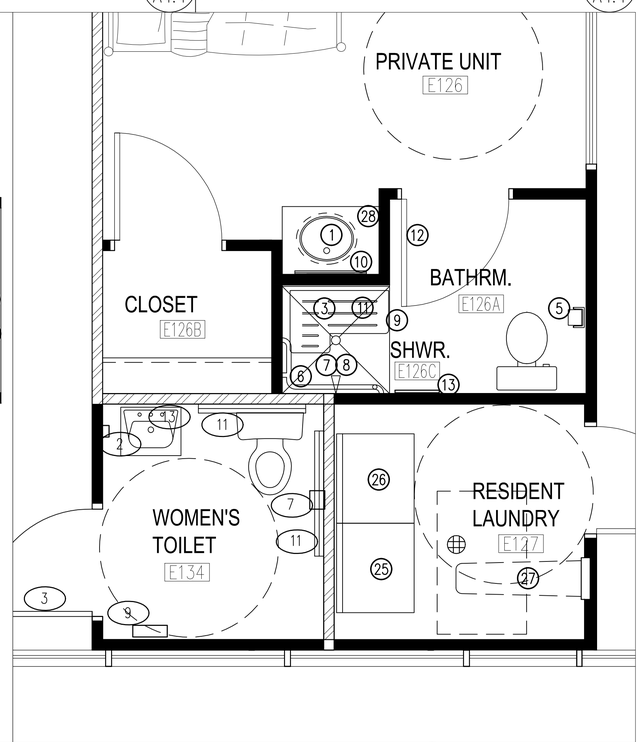
BATHROOM E119A ENLARGED PLAN (G / A4.4)
SCALE: 1/2" = 1'-0"



A.D.A. BATHROOM E122A ENLARGED PLAN (H / A4.4)
SCALE: 3/8" = 1'-0"



A.D.A. BATHROOM E125A ENLARGED PLAN (I / A4.4)
SCALE: 1/2" = 1'-0"



RES. LAUNDRY/BATHROOM E126A ENGL. PLN. (J / A4.4)
SCALE: 1/2" = 1'-0"

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project:
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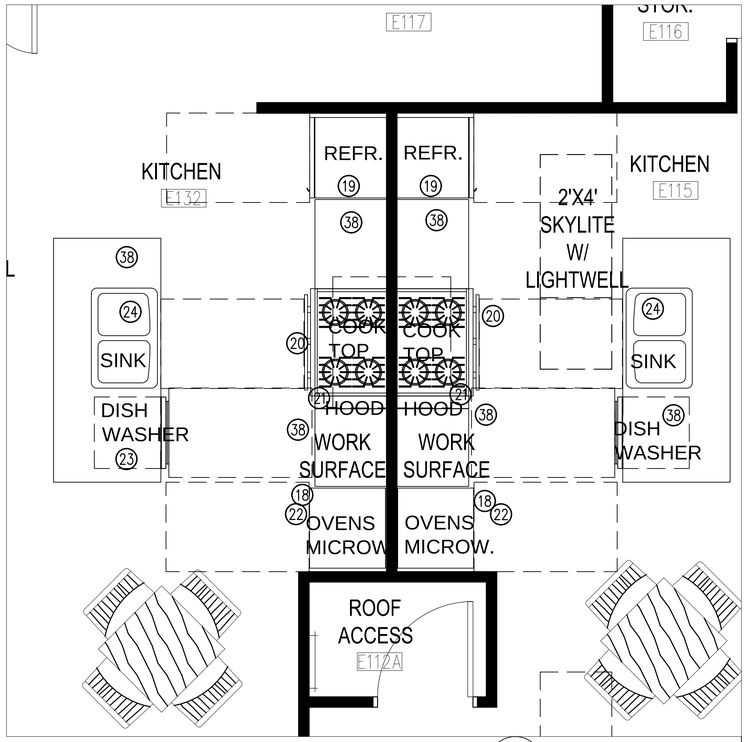
2 ADDENDUM #2-BUILDING 'C' JANUARY 6, 2017
4 ADDENDUM #4-BUILDING 'B' JANUARY 17, 2017
7 ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E' FEBRUARY 24, 2017
6 ADDENDUM #6-BUILDING 'A' BUILDING 'F' MARCH 20, 2017

data
project no:
drawn by:
checked by: DLW

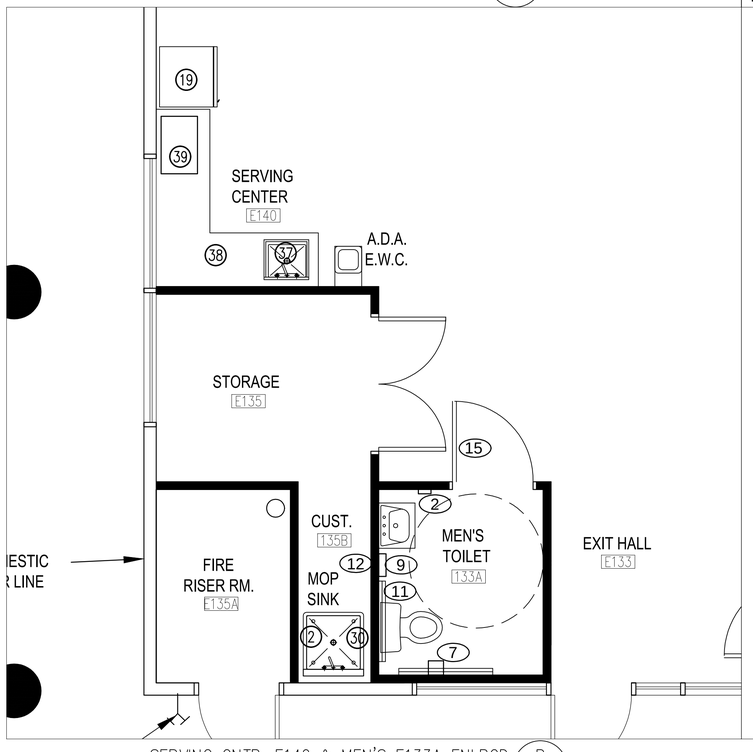
title
BUILDING 'E'
ENLARGED
FLOOR PLANS

sheet
A4.4



KITCHEN E132 & KITCH. E115 ENLARGED PLAN A4.6

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



SERVING CNTR. E140 & MEN'S E133A ENLRGD B A4.6

SCALE: 3/8" = 1'-0"

Unified Fire Authority, Greater Salt Lake
Fire Prevention Bureau
Building and Site Development Plan Review

SALT LAKE COUNTY

Salt Lake County Townships
UNIFIED FIRE AUTHORITY REVIEW

Date: January 23, 2017

Permit #: 170067

Project Name: New Brighton Recovery Campus

Address: 4911 S 900 E, SALT LAKE CITY UT 84117

Thank you for submitting your plans for the New Brighton Recovery Campus project. Please review all comments contained in this letter. This project SHALL, be designed to meet all requirements of the 2012 International Fire Code. Please contact the Area Fire Marshal Don Buckley at (801) 824-3714 for any and all inspections or questions.

Comments:

1. **Fire Sprinklers Required.** Deferred submittal for fire sprinkler shop drawings are to be sent directly to the following address: Unified Fire Authority, 3380 South 900 West, Salt Lake City, Utah 84119. Attention: Stewart Gray. A minimum of two sets of plans, complete with manufacturer cut sheets, and hydraulic calculations. Plans must be ink signed by a NICET level III or better in Auto Sprinkler Layout. (There needs to be a hydrant with-in a 100 feet of the FDC.) **FDC is required to have KNOX Locking Caps. ALL FIRE PROTECTION PLANS REQUIRE 3rd PARTY REVIEW PRIOR TO BE SUBMITTED TO THE UNIFIED FIRE AUTHORITY.**

2. **Post Indicator Valve with Tamper Required.** If there is no designated fire riser room with a direct access door from the outside. There shall be either a wall mounted P.I.V (OS&Y) or a typical P.I.V placed a minimum distance of 40 feet from the building with a tamper switch.

3. **Low Frequency Fire Alarm Required.** Deferred submittal for fire alarm shop drawings are to be sent directly to the following address: Unified Fire Authority, 3380 South 900 West, Salt Lake City, Utah 84119. Attention: Stewart Gray. A minimum of two sets of plans, complete with manufacturer cut sheets, and battery calculations. Plans must be ink signed by a NICET level III or better in Fire Alarm Systems. **ALL FIRE ALARM PLANS REQUIRE 3RD PARTY REVIEW PRIOR TO BE SUBMITTED TO THE UNIFIED FIRE AUTHORITY.**

4. **Knox Boxes Required**. Fire Department "Knox Brand" lock box to be mounted to exterior walls, near the main entrance and/or nearest the door serving the exterior access to the fire sprinkler riser room. (At a height of 5 feet to the top of the box) Lock box purchase can be arranged by the General Contractor. See attached information form.

5. **Visible Addressing Required.** New and existing buildings shall have approved address numbers plainly legible and visible from the street fronting the property. These numbers shall contrast with their background.

Notes:

All plans pertaining to fire protection and/or life safety are to be made available upon request at the construction site.

Plan approval or review shall not be construed to relieve from or lessen the responsibility of any person designing, owning, operating or controlling any building. Damages to persons or property caused by defects, fire, improper installation, or other emergency conditions that occur in or on the building property shall not hold the Unified Fire Authority as assuming any liability.

Thank you,
Donald P. Buckley Jr.,
Salt Lake County East Area Fire Marshal,
Unified Fire Authority,
3380 South 900 West
Salt Lake City, Utah 84119
Phone: (801) 824-3714
Fax: (385) 468-9030

ALL KITCHEN ELEMENTS TO BE ACCESSIBLE AS NOTED BELOW:

i. PROVIDE A WORK SURFACE WHERE SHOWN,(30" WIDE X 28"-34" ABOVE FINISHED FLOOR

a. CLEAR FLOOR SPACE FOR FORWARD APPROACH WITH KNEE AND TOE CLEARANCE IS REQUIRED.

b. THE WORK SURFACE IS REQUIRED TO BE LOCATED ADJACENT TO OVEN. EITHER ON THE SIDE OPPOSITE THE HINGE, OR ON EITHER SIDE, FOR A BOTTOM HINGE.

II. SINK SHALL BE 34" HIGH WITH A FORWARD APPROACH WITH TOE AND KNEE CLEARANCE (NO CABINET)

IV. CONTROLS FOR OVER THE RANGE MICROWAVE NEED TO BE WITHIN REACH RANGE AS REQUIRED BY SECTION 804.5.2, 309.3, and 309.4 OF ICC A117.1-09 (48").

V. OVEN AND COOKTOP CONTROLS ARE NOT PERMITTED TO REQUIRE REACH OVER THE BURNERS.

804.5.5 Oven. Ovens shall comply with Section 804.5.5.

804.5.5.1 Clear floor space. A clear floor space shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

804.5.5.2 Side-Hinged Door Ovens. Side-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to the latch side of the oven door.

804.5.5.3 Bottom-Hinged Door Ovens. Bottom-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to one side of the door.

804.5.5.4 Controls. The location of controls shall not require reaching across burners.

ALL LAUNDRY ROOM EQUIPMENT TO BE ACCESSIBLE AS NOTED BELOW:

308.3.1 UNOBSTRUCTED SIDE REACH. WHERE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 305 ALLOWS A PARALLEL APPROACH TO AN ELEMENT, AND THE EDGE OF THE CLEAR FLOOR SPACE IS 10 INCHES, MAXIMUM FROM THE ELEMENT, THE HIGH SIDE REACH SHALL BE 48" MAXIMUM, AND THE LOW SIDE REACH SHALL BE 15 INCHES ABOVE THE FLOOR.

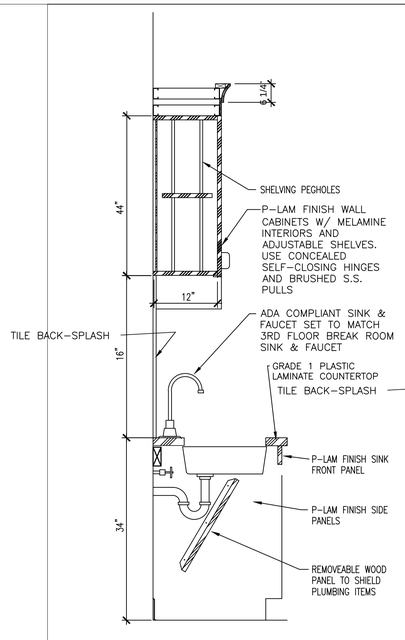
308.3.2 OBSTRUCTED HIGH REACH. WHERE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 305, ALLOWS A PARALLEL APPROACH TO AN ELEMENT, AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES ABOVE THE FLOOR, AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES MAXIMUM. THE HIGH SIDE REAH SHALL BE 48 INCHES MAXIMUM ABOVE THE FLOOR FOR A REACH DEPTH OF 10 INCHES MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 10 INCHES, THE HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM ABOVE THE FLOOR FOR A REACH DEPTH OF 24 INCHES MAXIMUM.

EXCEPTION: AT WASHING MACHINES AND CLOTHES DRYERS, THE HEIGHT OF THE OBSTRUCTION SHALL BE PERMITTED TO BE 36" MAXIMUM ABOVE THE FLOOR.

309 OPERABLE PARTS
309.3 HEIGHT. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN SECTION 308.
309.4 OPERATION. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5.0 POUNDS MAXIMUM.

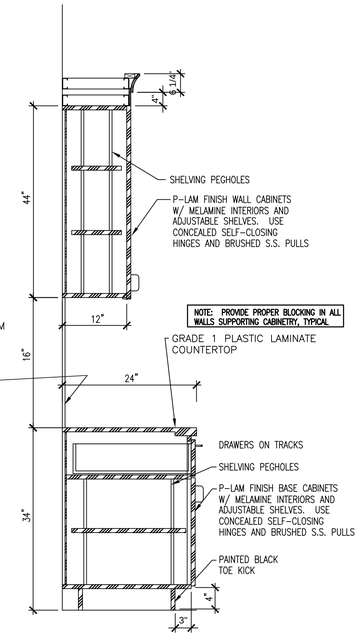
611.3 OPERABLE PARTS FOR LAUNDRY EQUIPMENT. OPERABLE PARTS, INCLUDING DOORS, LINT SCREENS, DETERGENT AND BLEACH COMPARTMENTS, SHALL COMPLY WITH SECTION 309.

611.4 HEIGHT OF LAUNDRY EQUIPMENT. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT 36 INCHES MAXIMUM ABOVE THE FLOOR. FRONT LOADING MACHINES SHALL HAVE THE BOTTOM OF THE OPENING TO THE LAUNDRY COMPARMENT, 15 INCHES MINIMUM AND 36 INCHES MAXIMUM ABOVE THE FLOOR.



TYPICAL CABINET SINK

SCALE: - = 1'-0"



TYPICAL CABINETRY

SCALE: - = 1'-0"

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8 ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
ENLARGED KITCHEN FLOOR PLAN & CABINET SECTIONS

sheet
A4.6

EQUIPMENT/ACCESSORY SCHEDULE - REFER TO A4 SHEETS FOR ENLARGED PLANS

NO	DESCRIPTION	MANUFACTURER / VENDOR	FURNISHED BY			INSTALL. BY			REMARKS
			O	C	V	O	C	V	
1	LAVATORY - COUNTERTOP ACCESSIBLE	SEE PLUMBING SCHEDULE		•			•		
2	4"X4" X 4'-0" HIGH TILE SURROUND	SEE SPECIFICATIONS; REAR OF MOP SINK		•			•		
3	ADA SHOWER SEAT	SEE FINISH SCHED.; COORD. W/ PREFAB		•			•		SEE NOTE A.
		SHOWER UNIT							
4	TOILET GRAB BAR	TO MEET A.D.A. REQUIREMENTS		•			•		PROVIDE BLOCKING PER MANUFACT. RECOMMENDATION
5	TOILET PAPER HOLDER - CHROME	COORD. WITH OWNER-SEE FINISH SCHED.		•			•		
6	SHOWER GRAB BARS	COORDINATE WITH PRE-FAB SHOWER		•			•		PROVIDE BLOCKING PER MANUFACT. RECOMMENDATION
7	SHOWER SPRAY UNIT - 60" LONG HOSE, HEAD HEIGHT ADJUSTABLE FROM 26" TO 54" ABOVE TOP OF TUB	SEE FINISH SCHEDULE & PLUMBING SCHEDULE		•			•		
8	SHOWER CONTROLS	SEE PLUMBING SCHEDULE		•			•		IN ACCESSIBLE ROOMS INSTALL AT 8" FROM EDGE OF TUB & 8" ABOVE TOP OF TUB, SEE INTERIOR ELEVATIONS. SEE INTERIOR ELEVATIONS FOR SHOWERS.
				•			•		
9	STRAIGHT SHOWER CURTAIN ROD - CHROME PLATED, SCREW MOUNTED	COORDINATE WITH OWNER		•			•		
10	MIRROR - 16" WIDE X 30" HIGH - ADA			•			•		FIXED TILT MIRROR W/ STAINLESS STEEL FRAME
11	ONE PIECE FIBERGLASS SHOWER UNIT	SEE FINISH SCHEDULE & PLUMBING SCHEDULE		•			•		SEE NOTE B
11a	ONE PIECE FIBERGLASS ACCESSIBLE SHOWER	SEE FINISH SCHEDULE & PLUMBING SCHEDULE		•			•		SEE NOTE B
				•			•		
12	DOUBLE ROBE HOOK - MOUNTED ON BACK OF BATHROOM DOOR 66" A.F.F. UNLESS NOTED OTHERWISE	CONTACT DESIGNATED SERVICE PROVIDERS		•			•		IN ACCESSIBLE ROOMS PROVIDE TWO SETS, ONE SET AT 66" AFF AND ONE SET AT 48" AFF.
13	TOWEL RACK - CHROME 18" WIDE	CONTACT DESIGNATED SERVICE PROVIDERS		•			•		
14	FLAT PANEL TELEVISION W/ FIXED	CONTACT DESIGNATED SERVICE PROVIDERS		•			•		40" OR 60" FLAT SCREEN PER OWNERS PREFERENCE
	MOUNTING BRACKET								
				•			•		
15	ADA CLEARANCE								SEE NOTE C
16	ADA CLEARANCE								SEE NOTE D
17	ACCESSIBLE SINK FRONT/PLUMBING	SEE PLUMBING SCHEDULE		•			•		
18	BUILT-IN MICROWAVE ABOVE OVENS	COORDINATE WITH OWNER	•				•		SEE NOTE L
19	REFRIGERATOR	COORDINATE WITH OWNER	•				•		SEE NOTE L
20	COOK-TOP	COORDINATE WITH OWNER	•				•		SEE NOTE L
21	COOK-TOP HOOD	COORDINATE WITH OWNER	•				•		SEE NOTE L
22	DOUBLE OVEN	COORDINATE WITH OWNER	•				•		SEE NOTE L
23	UNDER-COUNTER DISHWASHER	COORDINATE WITH OWNER	•				•		SEE NOTE L
24	DOUBLE SINK W/ DISPOSAL	SEE PLUMBING DRAWINGS		•			•		
25	CLOTHES WASHER	COORDINATE WITH OWNER	•				•		
26	CLOTHES DRYER	COORDINATE WITH OWNER	•				•		
27	RECESSED WALL IRONING BOARD	COORDINATE WITH OWNER		•			•		SEE NOTE H
28	COUNTERTOP - PLASTIC LAMINATE OVER	COORDINATE WITH OWNER		•			•		SEE NOTE H
	3/4" SUBSTRATE - 1 1/2" SUBSTRATE AT								
	PERIMETER W/ BACKSPLASH								
29	ADA CLEARANCE								SEE NOTE F
30	4" x 4" CERAMIC WALL TILE SURROUND			•			•		
	X 4'-0" HIGH AT CUSTODIAL MOP SINK								
31	PREFABRICATED GAS FIREPLACE	COORDINATE WITH FINISH SCHEDULE		•			•		COORDINATE WITH PLUMBING AND ELECTRICAL
									FOR GAS BIBB AND ELECTRICAL SWITCH
32	STAINLESS STEEL OR LAMINATE	COORDINATE WITH OWNER		•			•		PROVIDE BLOCKING PER MANUFACT. RECOMMENDATION
	TOILET PARTITIONS AND PARTITION DOORS								
33	UNDER-COUNTER SPECIMEN REFRIGERATOR	COORDINATE WITH OWNER	•				•		SEE NOTE L
34	SINGLE LAB SINK	COORDINATE WITH OWNER		•			•		COORDINATE WITH PLUMBING
35	LOCKABLE CABINETS	COORDINATE WITH OWNER	•				•		SEE NOTE L
36	THROUGH-WALL SPECIMENT PASS-THRU	STAINLESS STEEL-BOBRICK OR EQUIVALENT	•				•		#B505; 11 1/2" W. X 10 7/8" HIGH; SEE NOTE L
37	SINGLE BAR SINK	COORDINATE WITH OWNER		•			•		COORDINATE WITH PLUMBING
38	COUNTERTOP/CABINET - PLASTIC LAMINATE	COORDINATE WITH OWNER		•			•		SEE NOTE H
	OVER 3/4" SUBSTRATE - 1 1/2" SUBSTRATE								
	AT PERIMETER W/ BACKSPLASH								
39	COUNTER-TOP MICROWAVE	COORDINATE WITH OWNER	•				•		SEE NOTE L

LEGEND

O - OWNER

C - CONTRACTOR

V - VENDOR

RESTROOM ACCESSORIES SCHEDULE

MARK	ITEM	MANUF./ MODEL NO.#	NOTES:
1	NOT USED		
2	WALL MTD. SOAP DISPENSER	BOBRICK OR BRADLEY	
3	ROBE HOOK @ 6'-0" A.F.F.	BOBRICK OR BRADLEY	
4	PARTITION MTD. SANITARY NAPKIN DISPOSAL	BRADLEY 4721-15	
5	WALL MTD. SANITARY NAPKIN DISPOSAL	BRADLEY 4722-15	
6	PARTITION MTD. TOILET TISSUE DISPENSER	BOBRICK OR BRADLEY	
7	WALL MTD. TOILET TISSUE DISPENSER	BRADLEY 5412	
8	SANITARY NAPKIN DISPENSER	BRADLEY 401	
9	TOWEL DISPENSER / WASTE CAN	BRADLEY 235	
10	TOILET STALL PARTITION	SANYMETAL	
11	36" X 52" X 1 1/2" GRAB BAR	BRADLEY 059	STAINLESS STEEL
12	MOP RACK		WALL/CLG. MTD., STAINLESS STEEL
13	36" WIDE x 48" HIGH FRAMELESS MIRROR	BOBRICK OR BRADLEY	COORD. MIRROR WDTH. W/ FIN. WALLS
14	TOWEL DISPENSER	BRADLEY OR BOBRICK	WALL HUNG ABOVE COUNTER TOP
15	COAT HOOK	BOBRICK OR BRADLEY	

NOTES:

A. IN-TUB SEAT SHALL BE MOUNTED SECURELY & SHALL NOT SLIP DURING USE. STRUCT. STRENGTH PER ADA REQUIREMENTS.
B. VERIFY REQUIRED R.O. WITH SHOWER MANUF.
C. ADA 30"x 48" CLEAR FLOOR SPACE @ LAVATORY, AND 60" x 56" CLEAR FLOOR SPACE @ WATER CLOSET.
D. ADA 36" CLEAR FLOOR SPACE @ SHOWER.
E. PROVIDE CUTOUT IN HEADBOARD FOR ELECTRICAL BOX - COORD. W/ ELEC. DWGS. (SEE 8/A-9 FOR BACK-TO-BACK CONDITION).
NOTE: ELEC. OUTLETS IN ALL GUEST ROOMS SHALL BE 4" HIGHER THAN IN COMMON AREAS.
F. ADA 3'-0" CLEAR FLOOR SPACE AROUND BED.
G. FURNISHING
H. CONTRACTOR TO PROVIDE AND INSTALL BLOCKING AND COORDINATE ELECTRICAL INSTALLATION W/ ELECTRICAL DRAWINGS.
J. NOT USED
K. NOT USED
L. ALL OWNER SUPPLIED ITEMS MUST BE PURCHASED THROUGH ONE OF THE OWNER DESIGNATED SERVICE PROVIDERS. COORDINATE WITH OWNER.

NOTE: FIRE EXTINGUISHER CABINETS SHALL NOT EXTEND MORE THAN 4" OVER THE WALKING SURFACE AS REQUIRED BY IBC 1003.3.2.

ALL NEW INTERIOR WALLS, SEPARATING SLEEPING UNITS FROM EACH OTHER, AND WALLS SEPARATING COMMON AREAS, TO BE 30 MINUTE FIRE RATED CONSTRUCTION, CONSISTING OF ONE LAYER OF 5/8" SHEETROCK ULTRALIGHT PANELS FIRECODE 30, EACH SIDE OF 2X4 WOOD STUDS @ 16" O.C.
UL DESIGN #U407.

ALL INTERIOR DOORS AND FRAMES, PLACED WITHIN THE 30 MINUE FIRE RATED WALL CONSTRUCTION, TO BE 20 MINUTE RATED DOORS.

ALL NEW INTERIOR SHEETROCK CEILINGS THROUGHOUT THE ENTIRE EXISTING BUILDING TO BE 30 MINUTE FIRE RATED CONSTRUCTION (MATERIALS CALLED OUT IN THIS NOTE ARE FOR A 1 HOUR FIRE RATED CONSTRUCTION), CONSISTING OF ONE LAYER OF 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS. (WITH EXISTING PLYWOOD SHEATHING ON ROOF) EXISTING ROOF TRUSSES AT 24" O.C. (FIELD VERIFY EXACT SPACING), WITH GYP. BD. ATTACHED TO 3/4" RC-1 CHANNELS, OR EQUIVALENT, AT 16" O.C., WITH BATT OR BLOWN-IN INSULATION. AIR DUCTS AND CEILING DAMPERS AS NOTED ON MECHANICAL DRAWINGS.
UL DESIGN #P522

NOTE: THE SHELF AND ROD IN THE CLOSETS OF THE A.D.A. ACCESSIBLE UNITS SHALL MEET REQUIREMENTS OF SECTION 1002.14 OG ICC A117.1-09, FOR ACCESSIBLE REACH RANGE. SEE NOTES ON SHEET A8.2 CONCERNING ACCESSIBLE REACH RANGE & HEIGHTS.

NOTE: REINFORCEMENT SHALL BE PROVIDED FOR THE FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS AT WATER CLOSETS AND SHOWER COMPARTMENTS. WHERE WALLS ARE LOCATED TO PERMIT THE INSTALLATION OF GRAB BARS AND SEATS COMPLYING WITH SECTION 604.5 AT WATER CLOSETS, GRAB BARS COMPLYING WITH 607.4 , AT BATHTUBS, AND FOR GRAB BARS AND SHOWER SEATS COMPLYING WITH SECTION 608.3, 608.2.1.3, 608.2.2.3, AND 608.2.3.2, AT SHOWER COMPARTMENTS, REINFORCEMENT SHALL BE PROVIDED FOR THE FUTURE INSTALLATION OF GRAB BARS AND SEATS COMPLYING WITH THOSE REQUIREMENTS.

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consultant:

STATE OF UTAH — 192343 — DONALD L WELCH — LICENSED ARCHITECT — 12-28-2016

project:
Tenant Finish
for
Brighton Recovery
Campus
4905, 4911, 4915, 4925,
4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
1 JANUARY 6, 2017
2 ADDENDUM #2-BUILDING 'C'
4 JANUARY 17, 2017
ADDENDUM #4-BUILDING 'B'
7 FEBRUARY 24, 2017
ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
8 MARCH 20, 2017
ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
EQUIPMENT/
ACCESSORY
SCHEDULE

sheet
A4 7

INTERIOR FINISH SCHEDULE

VOID FOR BUILDING 'E' SUBMITTAL

EXISTING BUILDING 'D'-COMMUNITY CENTER

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILG.	CEILG. HGT.	REMARKS
				NORTH	EAST	SOUTH	WEST			
D100	EXIT	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D101	WARMING KITCHEN	F-6	B-2	W-4	W-4	W-4	W-4	C-1	±10'-4"	5
D102	TALENT PLATFORM	F-4	B-3	--	--	--	--	C-1	±10'-4"	--
D103	DINING	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D104	SERVING	F-6	B-2	W-4	--	W-4	--	C-1	±10'-4"	5
D105	PANTRY	F-1	B-2	W-4	W-1	W-1	W-1	C-1	±10'-4"	5
D105A	WATER HEATER (W.H.)	F-5	B-4	W-3	W-3	W-3	W-3	C-2	±10'-4"	6
D106	CUSTODIAN	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	6
D107	MEN'S RESTROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
D108	WOMEN'S RESTROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
D108A	ELECTRICAL ROOM	[illegible]	B-1	[illegible]	W-1	[illegible]	W-2	C-1	±10'-4"	-
D109	RECEPTION/OFFICE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D110	CHECK-IN/EXIT	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D111	GALLERY	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D112	COMMON AREA	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D113	WORK-OUT ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D113A	ROOF ACCESS	F-3	B-1	W-3	W-3	W-3	W-3	C-2	±10'-4"	--
D114	YOGA STUDIO	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D114A	FIRE RISER ROOM	F-5	B-4	W-3	W-3	W-3	W-3	C-2	±10'-4"	--
D115	MALE EMPL. LOCKER RM.	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D115A	FEMALE EMPL. LOCKER RM.	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D116	ART ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D117	MUSIC ROOM	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	***
D118	OFFICE	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
D119	COMPUTER LAB	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--

EXISTING BUILDING 'E' (CONTINUED-PRECEEDING EXISTING BUILDING 'E' SCHEDULE)

ROOM NO.	ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILG.	CEILG. HGT.	REMARKS
E130	DINING/GREAT ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	4
E131	FAMILY ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E132	KITCHEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E133	EXIT HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E133A	MEN'S TOILET	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E133B	CUSTODIAN	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	6
E134	WOMEN'S TOILET	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E135	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E135A	FIRE RISER ROOM	F-5	B-3	W-3	W-3	W-3	W-3	C-1	±10'-4"	--
E136	GATHERING/LEARNING	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E137	PLATFORM	F-4	B-3	W-1	--	--	W-1	C-1	±10'-4"	--
E138	EXIT	F-4	B-3	W-1	W-1	--	--	C-1	±10'-4"	--
E139	A.V. ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E140	SERVING CENTER	F-4	B-3	--	W-1	--	--	C-1	±10'-4"	--

EXISTING BUILDING 'F' (CONTINUED-PRECEEDING EXISTING BUILDING 'F' SCHEDULE)

VOID FOR BUILDING 'E' SUBMITTAL

ROOM NO.	ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILG.	CEILG. HGT.	REMARKS
F129	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F130	DINING/GREAT ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	4
F131	FAMILY ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F132	KITCHEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--

FLOOR:
F-1 CARPET
F-2 2X2 CERAMIC TILE
F-3 VINYL COMPOSITION TILE
F-4 1x4 HARDWOOD FLOORING
F-5 UNFINISHED CONCRETE-CLEANED
F-6 8X8 QUARRY TILE-SEALED

BASE:
B-1 RESILIENT BASE
B-2 4" HIGH CERAMIC TILE
B-3 HARDWOOD BASE
B-4 NO BASE

WALLS:
W-1 PAINTED GYP. BOARD
W-2 4X4 CERAMIC TILE (5'-0" HIGH WAINSCOT)
W-3 GYPSUM BOARD UNPAINTED
W-4 8' HIGH FIBER REINFORCED PLASTIC (FRP) PANELS

CEILINGS:
C-1 PAINTED GYP. BOARD-TEXTURED
C-2 GYPSUM BOARD UNPAINTED
C-3 EXPOSED STRUCTURE

INTERIOR FINISH SCHEDULE NOTES:

1. PROVIDE METAL EDGE AT CARPET AND VINYL COMPOSITION TILE TRANSITION OR TRANSITION TO CONCRETE INSIDE.
2. PROVIDE DROPPED GYP. BD. CLG. IN TOILET ROOMS AND ALCOVES INTO TOILET ROOMS-TYPICAL.
3. PREFABRICATED SHOWER UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.
4. PREFABRICATED FIREPLACE UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.
5. PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT & FRP PANELS.
6. PROVIDE CERAMIC TILE WAINSCOT AROUND 3 SIDES OF FLOOR SINK-PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT.

GENERAL NOTES FOR ALL 6 BUILDINGS:

1- TO MEET THE ENERGY CODE REQUIREMENTS, PROVIDE 5⁄8" PAINTED GYP. BD. ON 2X4 STUD FURRING @ 24" O.C., AND R-13 BATT OR BLOWN-INSULATION AT ALL EXISTING EXTERIOR WALLS, AT WINDOW SILLS AND HEADS, BELOW NEW CEILINGS.

2- PROVIDE NEW R-38 BATT, OR BLOWN-IN INSULATION ABOVE NEW CEILING IN ALL BUILDINGS-COORDINATE WITH NEW FIRE SPRINKLER LINES ABOVE NEW CEILING.

3. COORDINATE WITH REFLECTED CEILING PLANS FOR 12" DEEP X 36" WIDE FURRED-DOWN CEILING AREAS, FOR HOT & COLD WATER PIPING LINES -ALSO COORDINATE WITH PLUMBING PLANS FOR HOT AND COLD WATER PIPING LINE LOCATIONS

PREFABRICATED FIREPLACE UNIT IN COMMON AREA:

NAPOLEON FIREPLACES
PLAZMA FIRE VF31
PRODUCT CODE: WHVF31
VENT FREE GAS FIREPLACE
28" H X 43 5⁄16" WIDE X 9 1⁄8" DEEP
OR EQUIVALENT

OR

NAPOLEON FIREPLACES
DIRECT VENT GAS FIREPLACE
ASCENT LINEAR 36
PRODUCT CODE: BL36
34 1⁄2" HIGH X 35" WIDE X 16 1⁄4" DEEP
COORDINATE FIREPLACE SURROUND TO MEET REQUIRED DIMENSIONS

***MUSIC ROOM:

PROVIDE 5⁄8" PAINTED GYP. BOARD ON 3⁄4" RESILIENT CHANNELS @ 24" O.C., HORIZONTALLY, ON 2X4 STUDS, AND ALSO PROVIDE SOUND INSULATION IN ALL INTERIOR WALLS AROUND MUSIC ROOM

PREFABRICATED FIREPLACE UNITS:

NAPOLEON FIREPLACES 1-866-820-8686
PLAZMA FIRE VF31
PRODUCT CODE: WHVF31
VENT FREE GAS FIREPLACE
28" H X 43 5⁄16" WIDE X 9 1⁄8" DEEP
OR EQUIVALENT

OR

NAPOLEON FIREPLACES
DIRECT VENT GAS FIREPLACE
ASCENT LINEAR 36
PRODUCT CODE: BL36
34 1⁄2" HIGH X 35" WIDE X 16 1⁄4" DEEP
COORDINATE FIREPLACE SURROUND TO MEET REQUIRED DIMENSIONS

PREFABRICATED SHOWER UNITS:

www.FreedomShowers.com 1-877-947-7769
38 5/8" x 38 7/16" Freedom ADA Transfer Shower
Or equivalent (dimensions shown on plans are for this prefabricated shower. adjust wall dimensions for other prefab showers selected.
4-Piece for Remodeling

ADA Transfer Shower Features:
- Outside Dimensions: 38 5/8"w x 38 7/16"d x 79"h
- ADA compliant inside dimension 36" x 36"
- 4-piece unit for remodeling
- ½" barrier free threshold
- Center drain location
- Self-supporting and pre-leveled shower base eliminates mud setting
- Full wood backing
- Subway tile pattern
- Easy-to-clean gelcoat finish
- Textured slip-resistant floor
- Made in America
- 30 Year Manufacturer's Limited Warranty

Commercial Code Compliance:
- ADA Accessibility Guidelines for Buildings and Facilities
- IPC International Plumbing Code
- UPC Uniform Plumbing Code
- ANSI Z124.2 Standards for Plastic Showers
- ANSI A117.1 Accessible and Useable Buildings and Facilities
- CSA approved
- NAHB, HUD, FHA

(Call for MAS compiance or regional requirements)

PROVIDE THE FOLLOWING AVAILABLE ACCESSORIES IN ALL SHOWERS
(UNLESS DIRECTED OTHERWISE BY OWNER:
- Z Strip to create receiver flange (recommended)
- Folding Shower Seat
- Grab Bars
- Shower Rod
- Weighted Curtain
- Pressure Balance Valve
- Hand-held Shower and Slide Bar
- Surface mount stainless soap dish
- Caulkless Drain
- Collapsible Water Retainer
- Color upgrade to Bone or Biscuit- TO BE SELECTED BY OWNER

INTERIOR FINISH SCHEDULE

EXISTING BUILDING 'E'

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILG.	CEILG. HGT.	REMARKS
				NORTH	EAST	SOUTH	WEST			
E100	EXIT HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E101	RESIDENT LAUNDRY	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E102	ELECTRICAL	F-3	B-1	W-1	W-1	W-1	W-2	C-1	±10'-4"	-
E103	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E103A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E103B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E103C	SHOWER (PREFAB.)	--	--	--	--	--	--	--	--	3
E104	A.D.A. PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E104A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E104B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E104C	SHOWER	--	--	--	--	--	--	--	--	3
E105	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E106	VESTIBULE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E107	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E107A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E107B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E107C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E107D	SHOWER	--	--	--	--	--	--	--	--	3
E108	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E109	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E110	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E110A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E110B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E110C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E110D	SHOWER	--	--	--	--	--	--	--	--	3
E111	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E111A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E111B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E111C	SHOWER	--	--	--	--	--	--	--	--	3
E112	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E112A	ROOF ACCESS	F-3	B-1	W-3	W-3	W-3	W-3	C-2	±10'-4"	--
E113	DINING/GREAT ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	4
E114	FAMILY ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E115	KITCHEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E116	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E117	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E118	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E118A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E118B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E118C	SHOWER	--	--	--	--	--	--	--	--	3
E119	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E119A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E119B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E119C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E119D	SHOWER	--	--	--	--	--	--	--	--	3
E120	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E121	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E122	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E122A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E122B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E122C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E122D	SHOWER	--	--	--	--	--	--	--	--	3
E123	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E124	CUSTODIAN	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	6
E125	A.D.A. PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E125A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E125B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E125C	SHOWER	--	--	--	--	--	--	--	--	3
E126	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E126A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
E126B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E126C	SHOWER	--	--	--	--	--	--	--	--	3
E127	RESIDENT LAUNDRY	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E128	EXIT HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
E129	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--

****REFER TO ADJACENT EXISTING BUILDING 'D' FIN. SCHED., FOR CONTINUATION OF EXISTING BUILDING 'E' FINISH SCHEDULE****

FLOOR:
F-1 CARPET
F-2 2X2 CERAMIC TILE
F-3 VINYL COMPOSITION TILE
F-4 1x4 HARDWOOD FLOORING
F-5 UNFINISHED CONCRETE-CLEANED
F-6 8X8 QUARRY TILE-SEALED

BASE:
B-1 RESILIENT BASE
B-2 4" HIGH CERAMIC TILE
B-3 HARDWOOD BASE
B-4 NO BASE

WALLS:
W-1 PAINTED GYP. BOARD
W-2 4X4 CERAMIC TILE (5'-0" HIGH WAINSCOT)
W-3 GYPSUM BOARD UNPAINTED
W-4 8' HIGH FIBER REINFORCED PLASTIC (FRP) PANELS

CEILINGS:
C-1 PAINTED GYP. BOARD-TEXTURED
C-2 GYPSUM BOARD UNPAINTED
C-3 EXPOSED STRUCTURE

INTERIOR FINISH SCHEDULE NOTES:

1. PROVIDE METAL EDGE AT CARPET AND VINYL COMPOSITION TILE TRANSITION OR TRANSITION TO CONCRETE INSIDE.
2. PROVIDE DROPPED GYP. BD. CLG. IN TOILET ROOMS AND ALCOVES INTO TOILET ROOMS-TYPICAL.
3. PREFABRICATED SHOWER UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.:
4. PREFABRICATED FIREPLACE UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.:
5. PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT, AND FRP PANELS.
6. PROVIDE CERAMIC TILE WAINSCOT AROUND 3 SIDES OF FLOOR SINK-PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT.

INTERIOR FINISH SCHEDULE

VOID FOR BUILDING 'E' SUBMITTAL

EXISTING BUILDING 'F'

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILG.	CEILG. HGT.	REMARKS
				NORTH	EAST	SOUTH	WEST			
F100	EXIT HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F101	RESIDENT LAUNDRY	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F102	ELECTRICAL	F-3	B-1	W-1	W-1	W-1	W-2	C-1	±10'-4"	-
F103	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F103A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F103B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F103C	SHOWER (PREFAB.)	--	--	--	--	--	--	--	--	3
F104	A.D.A. PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F104A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F104B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F104C	SHOWER	--	--	--	--	--	--	--	--	3
F105	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F105A	FIRE RISER ROOM	F-3	B-1	W-3	W-3	W-3	W-3	C-1	±10'-4"	--
F106	VESTIBULE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F107	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F107A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F107B	DOUBLE CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F107C	SHOWER	--	--	--	--	--	--	--	--	3
F108	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F109	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F110	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F110A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F110B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F110C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F110D	SHOWER	--	--	--	--	--	--	--	--	3
F111	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F111A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F111B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F111C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F111D	SHOWER	--	--	--	--	--	--	--	--	3
F112	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F112A	ROOF ACCESS	F-3	B-1	W-3	W-3	W-3	W-3	C-2	±10'-4"	--
F113	DINING/GREAT ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	4
F114	FAMILY ROOM	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F115	KITCHEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F116	STORAGE	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F117	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F118	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F118A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F118B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F118C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F118D	SHOWER	--	--	--	--	--	--	--	--	3
F119	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F119A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F119B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F119C	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F119D	SHOWER	--	--	--	--	--	--	--	--	3
F120	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F121	LINEN	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F122	SEMI-PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F122A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F122B	DOUBLE CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F122C	SHOWER	--	--	--	--	--	--	--	--	3
F123	HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F124	CUSTODIAN	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	6
F125	A.D.A. PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F125A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F125B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F125C	SHOWER	--	--	--	--	--	--	--	--	3
F126	PRIVATE UNIT	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F126A	BATHROOM	F-2	B-2	W-2	W-2	W-2	W-2	C-1	±10'-4"	5
F126B	CLOSET	F-1	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F126C	SHOWER	--	--	--	--	--	--	--	--	3
F127	RESIDENT LAUNDRY	F-3	B-1	W-1	W-1	W-1	W-1	C-1	±10'-4"	--
F128	EXIT HALL	F-4	B-3	W-1	W-1	W-1	W-1	C-1	±10'-4"	--

****REFER TO ADJACENT EXISTING BUILDING 'D' FIN. SCHED., FOR CONTINUATION OF EXISTING BUILDING 'F' FINISH SCHEDULE****

FLOOR:
F-1 CARPET
F-2 2X2 CERAMIC TILE
F-3 VINYL COMPOSITION TILE
F-4 1x4 HARDWOOD FLOORING
F-5 UNFINISHED CONCRETE-CLEANED
F-6 8X8 QUARRY TILE-SEALED

BASE:
B-1 RESILIENT BASE
B-2 4" HIGH CERAMIC TILE
B-3 HARDWOOD BASE
B-4 NO BASE

WALLS:
W-1 PAINTED GYP. BOARD
W-2 4X4 CERAMIC TILE (5'-0" HIGH WAINSCOT)
W-3 GYPSUM BOARD UNPAINTED
W-4 8' HIGH FIBER REINFORCED PLASTIC (FRP) PANELS

CEILINGS:
C-1 PAINTED GYP. BOARD-TEXTURED
C-2 GYPSUM BOARD UNPAINTED
C-3 EXPOSED STRUCTURE

INTERIOR FINISH SCHEDULE NOTES:

1. PROVIDE METAL EDGE AT CARPET AND VINYL COMPOSITION TILE TRANSITION OR TRANSITION TO CONCRETE INSIDE.
2. PROVIDE DROPPED GYP. BD. CLG. IN TOILET ROOMS AND ALCOVES INTO TOILET ROOMS-TYPICAL.
3. PREFABRICATED SHOWER UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.:
4. PREFABRICATED FIREPLACE UNITS-SEE INFORMATION AND SPECIFICATION INFORMATION, THIS SHEET.:
5. PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT, AND FRP PANELS.
6. PROVIDE CERAMIC TILE WAINSCOT AROUND 3 SIDES OF FLOOR SINK-PROVIDE PAINTED GYP. BD. ABOVE CERAMIC TILE WAINSCOT.

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DONALD L. WELCH
12-28-2016

project:
Tenant Finish
for
Brighton Recovery
Campus
4905, 4911, 4915, 4925,
4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR
EACH SEPERATE BUILDING PARCEL
JANUARY 6, 2017
△2 ADDENDUM #2–BUILDING 'C'
JANUARY 17, 2017
△4 ADDENDUM #4–BUILDING 'B'
FEBRUARY 24, 2017
△7 ADDENDUM #7–BUILDING 'A'
BUILDING 'F', 'B', 'C', 'D', 'E'
MARCH 20, 2017
△8 ADDENDUM #8–BUILDING 'A'
BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
Finish Schedules

sheet
A6 1B

DOOR SCHEDULE -EXISTING BUILDING 'E'

MARK	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR TYPE	DOOR FINISH	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS SILL	FRAME MATERIAL	FRAME TYPE	FRAME FINISH	FIRE RATING	HARDWARE	REMARKS
E100	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS
E101	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E102	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E103	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E103A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E103B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E104	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E104A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E104B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E105	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E107	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E107A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E107B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E107C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E108	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E109	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E110	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E110A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E110B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E110C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E111	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E111A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E111B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E112A	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E116	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E118	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E118A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E118B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E119	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E119A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E119B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E119C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E120	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E121	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E122	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E122A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E122B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E122C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E124	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E125	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E125A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E125B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E126	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E126A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E126B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
E127	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
E128	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS
E133	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS
E133A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E134	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E135	PR. 2'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E135A	3'-0"	8'-0"	1 3/4"	HOLLOW MTL.	FLAT PANEL	PAINT	–	–	–	HOLLOW MTL.	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
E138	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS
E139	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS

DOOR SCHEDULE -EXISTING BUILDING 'F'

MARK	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR TYPE	DOOR FINISH	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS SILL	FRAME MATERIAL	FRAME TYPE	FRAME FINISH	FIRE RATING	HARDWARE	REMARKS
F100	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS
F101	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F102	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F103	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F103A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F103B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F104	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F104A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F104B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F105	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F105A	PR. 2'-6"	8'-0"	1 3/4"	HOLLOW MTL.	FLAT PANEL	PAINT	–	–	–	HOLLOW MTL.	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F107	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F107A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F107B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F108	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F109	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F110	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F110A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F110B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F110C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F111	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F111A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F111B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F111C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F112A	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F116	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F118	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F118A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F118B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F118C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F119	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F119A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F119B	2'-8"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F119C	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F120	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F121	PR. 1'-6"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F122	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F122A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F122B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F124	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F125	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F125A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F125B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F126	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F126A	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	2	SEE NOTES BELOW & AT DOOR ELEVATIONS
F126B	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	3	SEE NOTES BELOW & AT DOOR ELEVATIONS
F127	3'-0"	8'-0"	1 3/4"	WOOD	A1	STAIN	–	–	–	WOOD	–	PAINTED	–	4	SEE NOTES BELOW & AT DOOR ELEVATIONS
F128	3'-0"	±8'-0"	1 3/4"	WOOD	A1	STAIN-SEALED	–	–	–	EXISTING	–	REFINISH	–	1	SEE NOTES BELOW & AT DOOR ELEVATIONS

VOID FOR BUILDING 'E' SUBMITAL

DOOR SCHEDULE GENERAL NOTES:

1. FIELD VERIFY ALL DOOR DIMENSIONS--COORDINATE WITH OWNER AND ARCHITECT
2. COORDINATE WITH OWNER AND ARCHITECT FOR FINAL DOOR TYPES, DOOR DIMENSIONS, DOOR MATERIAL TYPES & COLOR TYPES & FINISH TYPES.
3. FIELD VERIFY ALL CONDITIONS, OPENING SIZES, ETC. BEFORE FABRICATION, MANUFACTURING, OR INSTALLATION OF ALL DOORS.
4. COORDINATE WITH LOCAL JURISDICTION FOR TEMPERED GLASS REQUIREMENTS FOR WINDOWS ADJACENT TO DOORS, SPECIFICALLY, THE DIMENSION FROM DOOR TO WINDOW DISTANCE.
5. ALL DOOR HARDWARE TO BE ADA TYPE LEVER HARDWARE AS REQUIRED BY LOCAL JURISDICTION AND PER IBC REQUIREMENTS
   COORDINATE WITH OWNER FOR TYPE AND LOCATION OF PRIVACY AND/PASSAGE TYPE HARDWARE FOR EACH DOOR.
6. DOOR NUMBERS CORRESPOND TO THE ROOM NUMBERS ASSOCIATED WITH.

NOTE: REFER TO SHEET A2.6 FOR INFORMATION CONCERNING 20 MINUTE RATED DOORS AT 30 MINUTE RATED WALLS.

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STATE OF UTAH 190343 #0301 DONALD L. WELCH LICENSED ARCHITECT 12-28-2016

project:
Tenant Finish
for
Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
2 JANUARY 6, 2017
ADDENDUM #2-BUILDING 'C'
4 JANUARY 17, 2017
ADDENDUM #4-BUILDING 'B'
7 FEBRUARY 24, 2017
ADDENDUM #7-BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
8 MARCH 20, 2017
ADDENDUM #8-BUILDING 'A' BUILDING 'F'

data
project no:
drawn by:
checked by: DLW

title
Door Schedule

sheet
A7.1B

HARDWARE SCHEDULE

HARDWARE SET	CARD KEY LOCK	SECURITY LATCH	ALARM W/ KEY CARD	KEYED LOCK	PRIVACY SET	PASSAGE SET	VIEWER	PANIC BAR	DOOR CLOSER	HINGES	MAGNETIC LOCK	DOOR SWEEP	SMOKE SEALS	DOOR STOP	REMARKS	HARDWARE SET
1	*	*	*					HANDLE *	*						3 PAIR OF DOOR HINGES - SEE NOTE 1 W/ WEATHER SEAL - SEE NOTE 2	-
2				*	*									*	3 PAIR OF DOOR HINGES	2
3						*								*	3 PAIR OF DOOR HINGES	3
4						*			*					*	3 PAIR OF DOOR HINGES - SEE NOTE 2	4
5																5
6																6
7																7
8															W/ WEATHER SEAL - SEE NOTE 2	8
9															3 PAIR OF DOOR HINGES - SEE NOTE 2	9
10															3 PAIR OF DOOR HINGES - SEE NOTE 2	10
11															MOTION SENSOR - PER MANUFACTURER	11
12															MOTION SENSOR - PER MANUFACTURER	12
13															PUNCH PAD ACCESS - SEE NOTE 2	13
14															3 PAIR OF DOOR HINGES - SEE NOTE 2	14
15															3 PAIR OF DOOR HINGES	15
16															3 PAIR OF DOOR HINGES	16
17															3 PAIR OF DOOR HINGES	17

NOTES

1. 1-1/2 PAIR SPRING HINGES.
2. ALL DOORS W/ CLOSERS TO HAVE BALL BEARING HINGES.
3. WEATHER PROOF CARD KEY LOCK TO BE MOUNTED ON DOOR STYLE.
4. PROVIDE 2 REVERSE VIEWERS - 1 @ 60" A.F.F. AND 1 @ 42" A.F.F.
5. COORDINATE WITH DOOR MANUFACTURER SO CARD OVERRIDE WHEN VESTIBULE SIDE MOTION SENSOR IS OFF. LOBBY SIDE MOTION SENSOR TO REMAIN ACTIVE AT ALL TIMES.

NOTES:1. ALL DOOR HARDWARE SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

2. VERIFY REQUIREMENTS WITH LOCAL CODES-PROVIDE 20 MINUTE DOORS @ GUEST ROOMS, IF LOCAL JURISDICTION REQUIRES IT..
3. EXTERIOR H. METAL FRAMES SHALL BE 14 GAUGE, UNLESS NOTED OTHERWISE.
4. WHERE SMOKE DOOR IS REQUIRED BY LOCAL AUTHORITIES, A MAGNETIC HOLD OPEN DEVICE SHALL BE USED WHICH IS COORDINATED WITH THE FIRE ALARM SYSTEM.
5. NOT USED
6. ALL EXTERIOR DOORS TO HAVE THRESHOLDS, DOOR SWEEPS, & WEATHER SEALS.
7. CONTRACTOR TO VERIFY ALL DOOR FRAME THROAT DIMENSIONS.
8. CONTRACTOR TO VERIFY KEY SCHEDULE WITH OWNER PRIOR TO PURCHASING LOCKS.

HARDWARE MANUFACTURERS

Hardware Item	Base Manufacturer	Acceptable Equivalents
Spring Hinges	Hager	Stanley
Hinges	Hager	Stanley, McKinney
Lockset (Standard Type)	Schlage	Sargent, Yale
Lockset (Electronic System)	KABA/ILCO System E-760	Onity, Vingcard
Closer	LCN	Sargent, Dorma
Stops, Flush Bolts	Ives	Rockwood, Quality, Taymor
Weatherstrip, Door Sweeps, Thresholds	NGP, Stanley	Pemko, Zero, Door and Hardware Systems
Exit Devices	Sargent	Adams-Rite, Von Duprin
Peep Sight	Ives	Quality
Door Guard	Ives	Quality, Door & Hardware Systems, Inc.
Surface Bolts	Ives	Quality
Frame Smoke Seals	DSHI #105 "Cush N Seal" by: Door & Hardware System (716) 235-8543	None
Door Silencers	Glynn-Johnson	Door & Hardware Systems, Inc.
Electric Strike	Folger Adams	None

CYLINDERS AND KEYING

Keying System: Master keying must be in accordance with the National Hardware Council's recommendations for hotels.

For Manual Locks:

Equip locks with manufacturer's standard 6-pin tumbler cylinders.

Equip locks with manufacturer's interchangeable core cylinders operable by a control key.

Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock which is not designated to be keyed alike with a group.

Permanently inscribe each key with number or lock that identifies cylinder manufacturer key symbol, and notation "DO NOT DUPLICATE".

Key Material: Provide keys of nickel silver only.

Key Quantity: Furnish three change keys for each lock; five master keys for each master system; and five grandmaster keys for each grandmaster system.

Deliver keys to Owner's representative.

For Electronic Locks:

Provide card keys as required to comply with master keying.

Provide one system controller.

Provide one spare lock with keys.

Keying

General: Supplier will supply three reusable card keys per lock (or three keys for standard locks) and three sets of master keys.

Keying shall be as follows:

Each room shall be keyed separately.

A master key for all guest rooms.

A master key for all rooms.

A master key to open guest room deadbolts.

Room keys shall open exterior doors.

Keying Schedule – Submit keying schedule to Owner for approval prior to fabrication.

Keying to have 3 levels of security.

PART 3 - EXECUTION

INSPECTION

Verify that doors and frames are ready to receive work and dimensions, are as indicated on Shop Drawings, and as instructed by the manufacturer.

Beginning of installation means acceptance of existing conditions.

INSTALLATION

Install each hardware item in compliance with manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during the finish application. After completion of the finished, reinstall each item. Do not install surface-mounted items until finishes have been completed on the substrate.

Conform to ANSI A117.1 and ADAAG for positioning requirements for the Disabled.

All door closers shall be installed out of public sight wherever possible.

All doors off corridors and all communicating doors to have frame-mounted smoke seals.

FASTENINGS

Furnish proper screws, hex bolts, through bolts, etc., as required to make secure attachment of each item to the material it is installed on.

PROTECTION AND CLEANING

After installation, clean metal surfaces on both interior and exterior of all mortar, plaster, paint and other contaminants. After cleaning, protect work against damage.

FINAL ADJUSTMENT

Whenever hardware is installed more than one month prior to acceptance or occupancy of a space or area, return during the week prior to acceptance or occupancy and make a final check and adjustment of all hardware items in such space or area.

At the completion of the project, manufacturers' suppliers or representatives shall inspect their hardware and make any corrections required due to errors or improper installation.

PART 4 - HARDWARE SCHEDULE

See door and hardware schedule on drawings

703.3.3 Case. Characters shall be uppercase.

703.3.4 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.3.5 Character Height. The uppercase letter "I" shall be used to determine the allowable height of all characters of a font. The height of the uppercase letter "I" of the font, measured vertically from the baseline of the character, shall be $^5/_8$ inch (16 mm) minimum, and 2 inches (51 mm) maximum.

EXCEPTION: Where separate raised and visual characters with the same information are provided, the height of the raised uppercase letter "I" shall be permitted to be $^1/_2$ inch (13 mm) minimum.

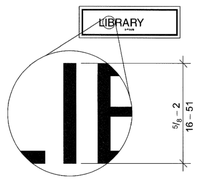


FIG. 703.3.5
CHARACTER HEIGHT

703.3.6 Character Width. The uppercase letter "O" shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter "O" of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase "I" of the font.

703.3.7 Stroke Width. Raised character stroke width shall comply with Section 703.3.7. The uppercase letter "I" of the font shall be used to determine the allowable stroke width of all characters of a font.

703.3.7.1 Maximum. The stroke width shall be 15 percent maximum of the height of the uppercase letter "I" measured at the top surface of the character, and 30 percent maximum of the height of the uppercase letter "I" measured at the base of the character.

703.3.7.2 Minimum. When characters are both visual and raised, the stroke width shall be 10 percent minimum of the height of the uppercase letter "I".

nearest adjacent wall. Signs containing raised characters and braille shall be located so that a clear floor area 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the raised characters is provided beyond the arc of any door swing between the closed position and 45 degree open position.

EXCEPTION: Signs containing raised characters and braille shall be permitted on the push side of doors with closers and without hold-open devices.

703.3.12 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background, or dark characters on a light background.

EXCEPTION: Where separate raised characters and visual characters with the same information are provided, raised characters are not required to have nonglare finish or to contrast with their background.

703.4 Braille

703.4.1 General. Braille shall be contracted (Grade 2) braille and shall comply with Section 703.4.

703.4.2 Uppercase Letters. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, or acronyms.

703.4.3 Dimensions. Braille dots shall have a domed or rounded shape and shall comply with Table 703.4.3.

703.4.4 Position. Braille shall be below the corresponding text. If text is multilined, braille shall be placed below entire text. Braille shall be separated $^3/_8$ inch (9.5 mm) minimum from any other raised characters and $^3/_8$ inch (9.5 mm) minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated $^3/_{16}$ inch (4.8 mm) minimum either directly below or adjacent to the corresponding raised characters or symbols.

703.4.5 Mounting Height. Braille shall be 48 inches (1220 mm) minimum and 60 inches (1525 mm) maximum above the floor, measured to the baseline of the braille cells.

EXCEPTION: Elevator car controls shall not be required to comply with Section 703.4.5.

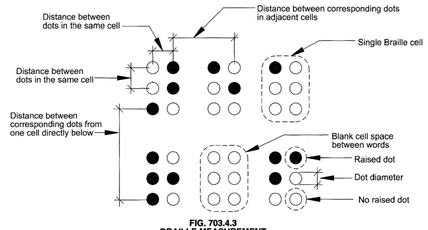


FIG. 703.4.3
BRAILLE MEASUREMENT

TABLE 703.4.3— BRAILLE DIMENSIONS

Measurement range	Minimum in inches Maximum in inches
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell	0.090 (2.3 mm) to 0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells[1]	0.241 (6.1 mm) to 0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below[1]	0.395 (10.0 mm) to 0.400 (10.2 mm)

703.5 Pictograms.

703.5.1 General. Pictograms shall comply with Section 703.5.

703.5.2 Pictogram Field. Pictograms shall have a field 6 inches (150 mm) minimum in height. Characters or braille shall not be located in the pictogram field.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6 Symbols of Accessibility.

703.6.1 General. Symbols of accessibility shall comply with Section 703.6.

7703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have a non-glare finish. Symbols of accessibility shall contrast with their backgrounds, with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3 Symbols.

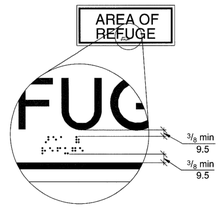


FIG. 703.4.4
POSITION OF BRAILLE

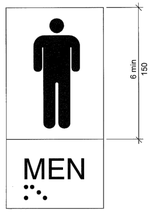
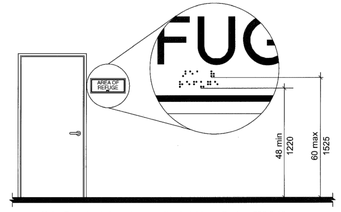


FIG. 703.5
PICTOGRAM FIELD



Note: For raised character mounting height see Section 703.3.10

FIG. 703.4.5
HEIGHT OF BRAILLE CHARACTERS ABOVE FLOOR

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ADDENDUM #8–BUILDING 'A' BUILDING 'F'

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sheet
A7.1C

WINDOW SCHEDULE-BUILDING 'B'

MARK	SIZE WIDTH	SIZE HEIGHT	HEAD HEIGHT	FRAME MATERIAL	TYPE	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
B105	5'-0"	5'-0"	MATCH EXIST.	ALUMINUM	FIXED-01/A7.2	1" INSULATED GLASS	-	-	-	WINDOW FRAME & GLASS TO MATCH EXISTING EXTERIOR WINDOWS

WINDOW SCHEDULE-BUILDING 'C'

MARK	SIZE WIDTH	SIZE HEIGHT	HEAD HEIGHT	FRAME MATERIAL	TYPE	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
C101	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C103	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C104	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C105	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C107	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C108	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C114	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C115	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C117	1'-10 1/2"	7-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C126	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C127	10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-03/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C128	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C130	10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-03/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
C131	1'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-02/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME

WINDOW SCHEDULE-BUILDING 'D'

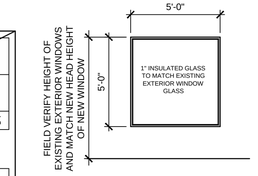
MARK	SIZE WIDTH	SIZE HEIGHT	HEAD HEIGHT	FRAME MATERIAL	TYPE	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
D113	12'-0"	5'-0"	8'-1 1/2"	WOOD	FIXED-05/A7.2	3/8" PLATE GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D113A	12'-0"	5'-0"	8'-1 1/2"	WOOD	FIXED-05/A7.2	3/8" PLATE GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D114	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D115	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D116	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D116A	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D118	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
D119	2'-10 1/2"	7'-9 1/2"	8'-1 1/2"	WOOD	FIXED-06/A7.2	3/8" TEMPERED GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME

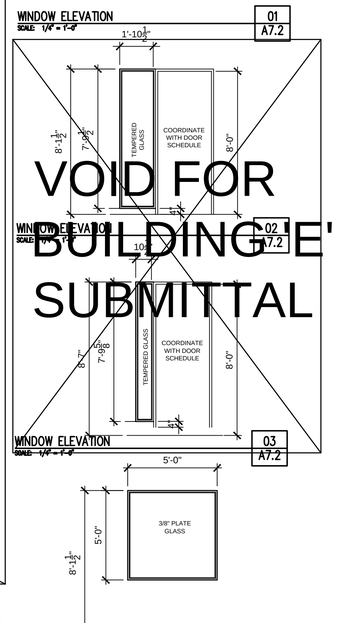
WINDOW SCHEDULE-BUILDING 'E'

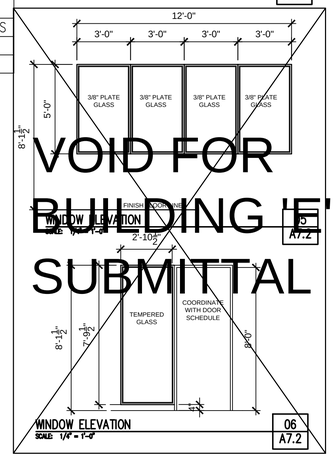
MARK	SIZE WIDTH	SIZE HEIGHT	HEAD HEIGHT	FRAME MATERIAL	TYPE	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
E104	5'-0"	5'-0"	MATCH EXIST.	ALUMINUM	FIXED-01/A7.2	1" INSULATED GLASS	-	-	-	WINDOW FRAME & GLASS TO MATCH EXISTING EXTERIOR WINDOWS
E125	5'-0"	5'-0"	8'-1 1/2"	WOOD	FIXED-04/A7.2	3/8" PLATE GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME
E126	5'-0"	5'-0"	8'-1 1/2"	WOOD	FIXED-04/A7.2	3/8" PLATE GLASS	-	-	-	WINDOW FRAME TO MATCH DOOR FRAME

WINDOW SCHEDULE GENERAL NOTES:

1. FIELD VERIFY ALL WINDOW DIMENSIONS-COORDINATE WITH OWNER AND DESIGNER.
2. COORDINATE WITH OWNER AND DESIGNER FOR FINAL WINDOW TYPES, WINDOW MATERIAL TYPES & COLOR TYPES & FINISH TYPES.
3. FIELD VERIFY ALL CONDITIONS, OPENING SIZES, ETC. BEFORE FABRICATION, MANUFACTURING, OR INSTALLATION OF ALL WINDOWS.
4. COORDINATE WITH LOCAL JURISDICTION FOR TEMPERED GLASS REQUIREMENTS FOR WINDOWS ADJACENT TO DOORS, SPECIFICALLY, THE DIMENSION FROM DOOR TO WINDOW DISTANCE.
5. PROVIDE TEMPERED GLASS AT WINDOWS, PER IBC SECTION 2406.4, WITHIN 2'-0" OF DOORS AT LANDINGS AND ADJACENT TO STAIRWAYS.
6. WINDOW NUMBERS CORRESPOND TO THE ROOM NUMBERS ASSOCIATED WITH.







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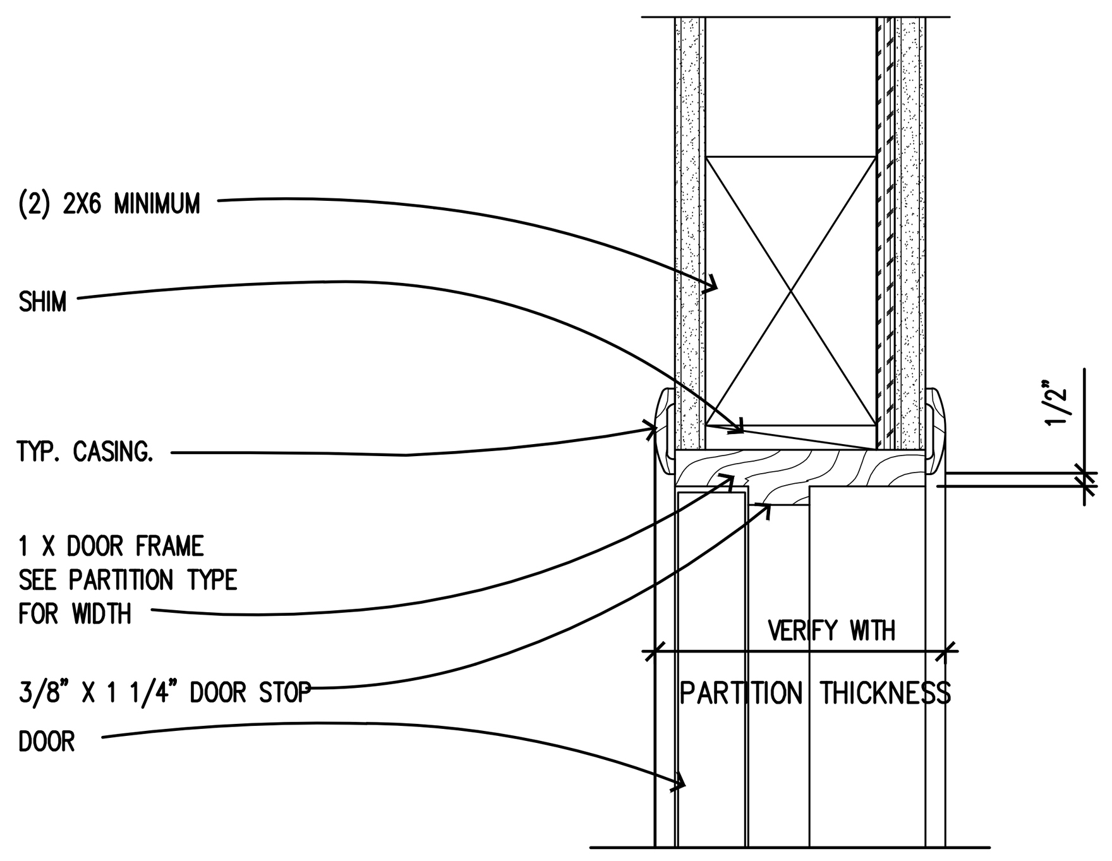
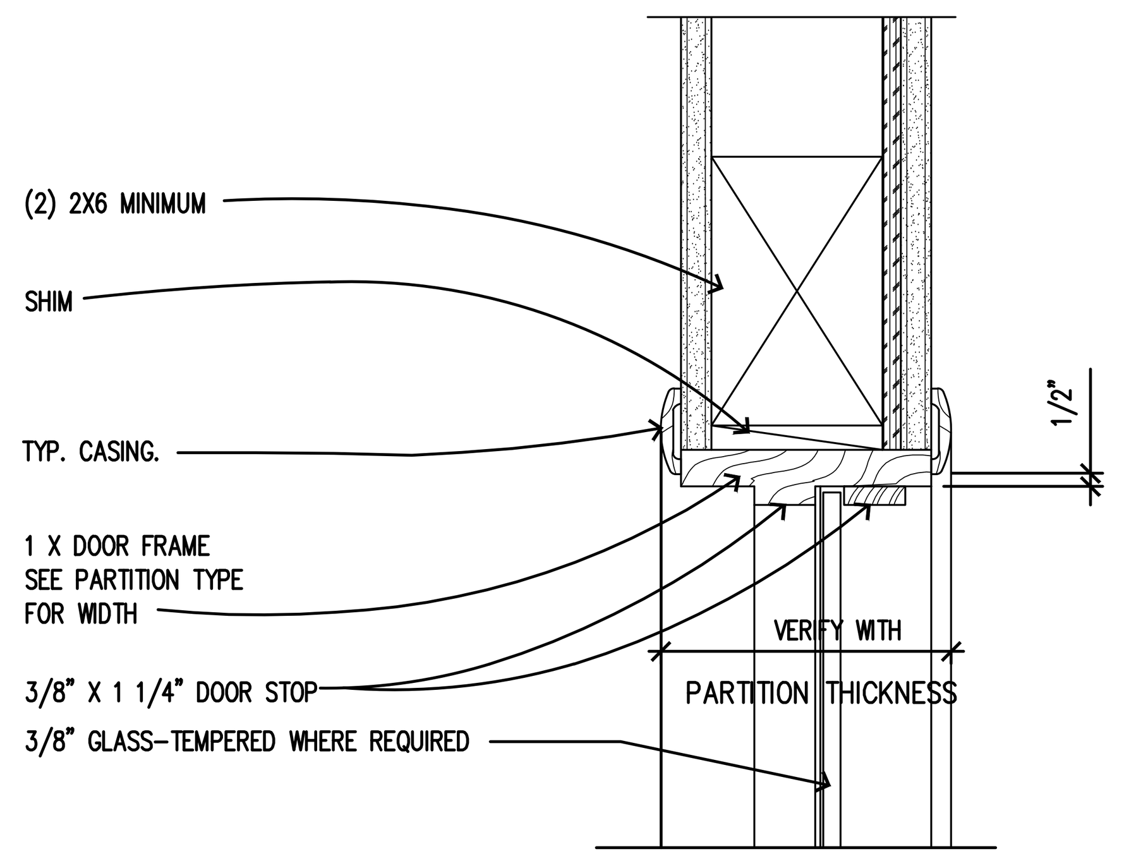


TYP. INTERIOR DOOR HEAD 1 A8.1
SCALE: - = 1'-0" DT-DR-26



TYP. INTERIOR WINDOW HEAD/JAMB/SILL 2 A8.1
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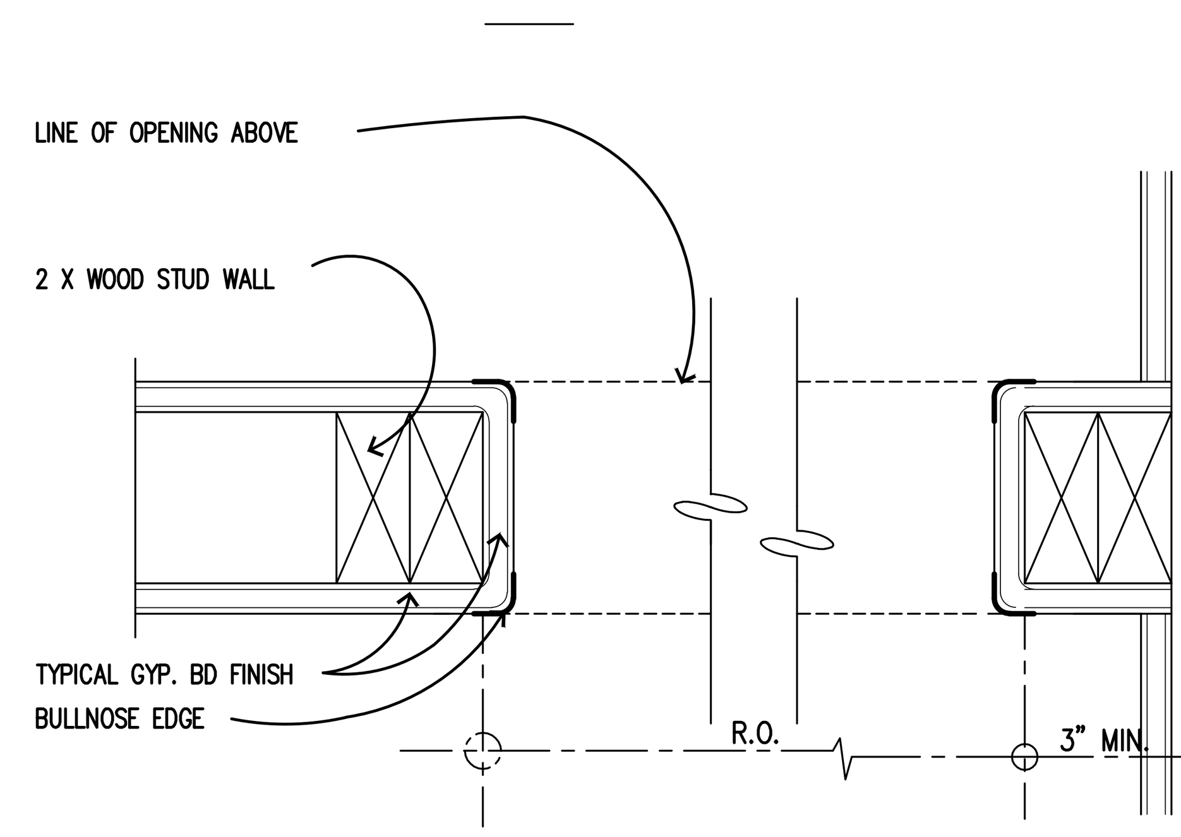
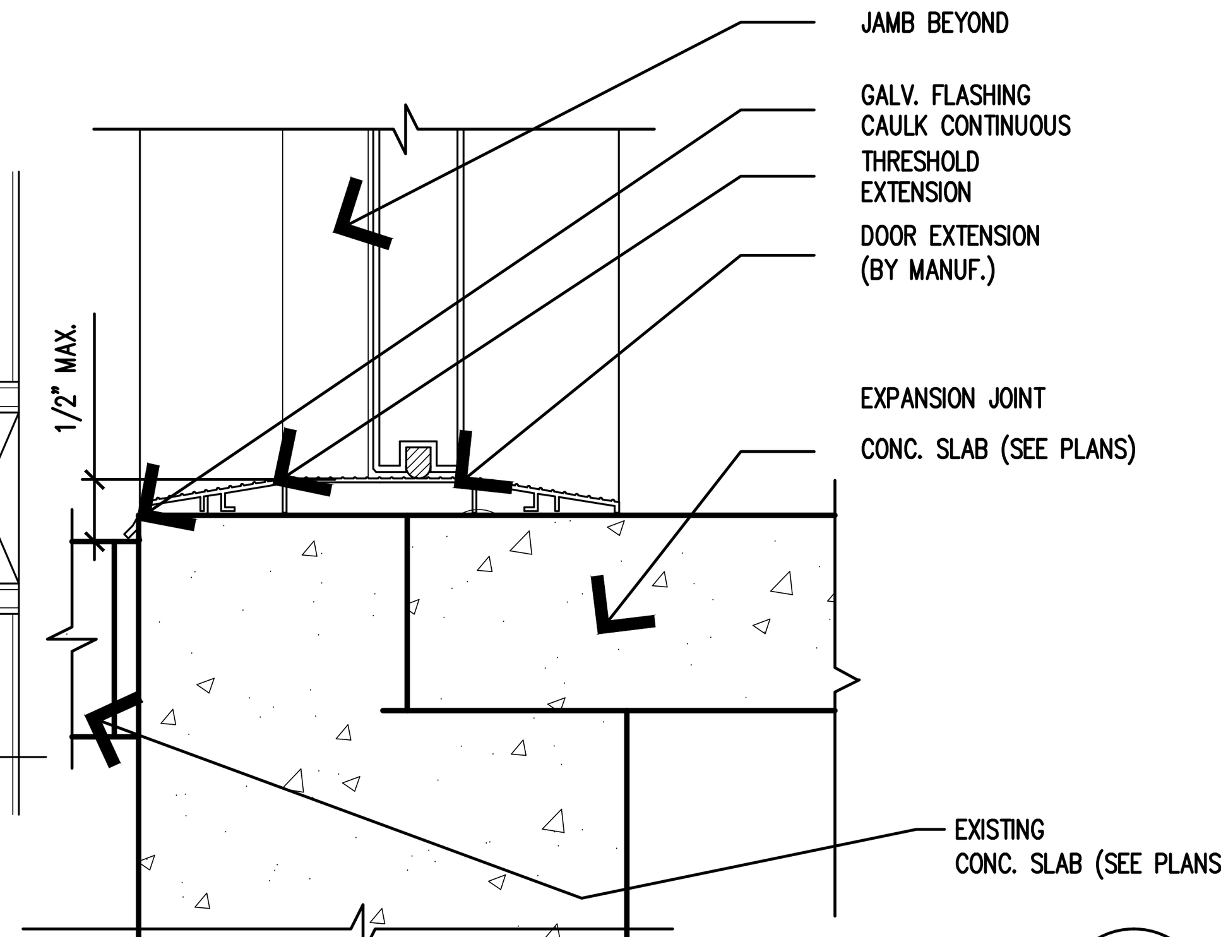
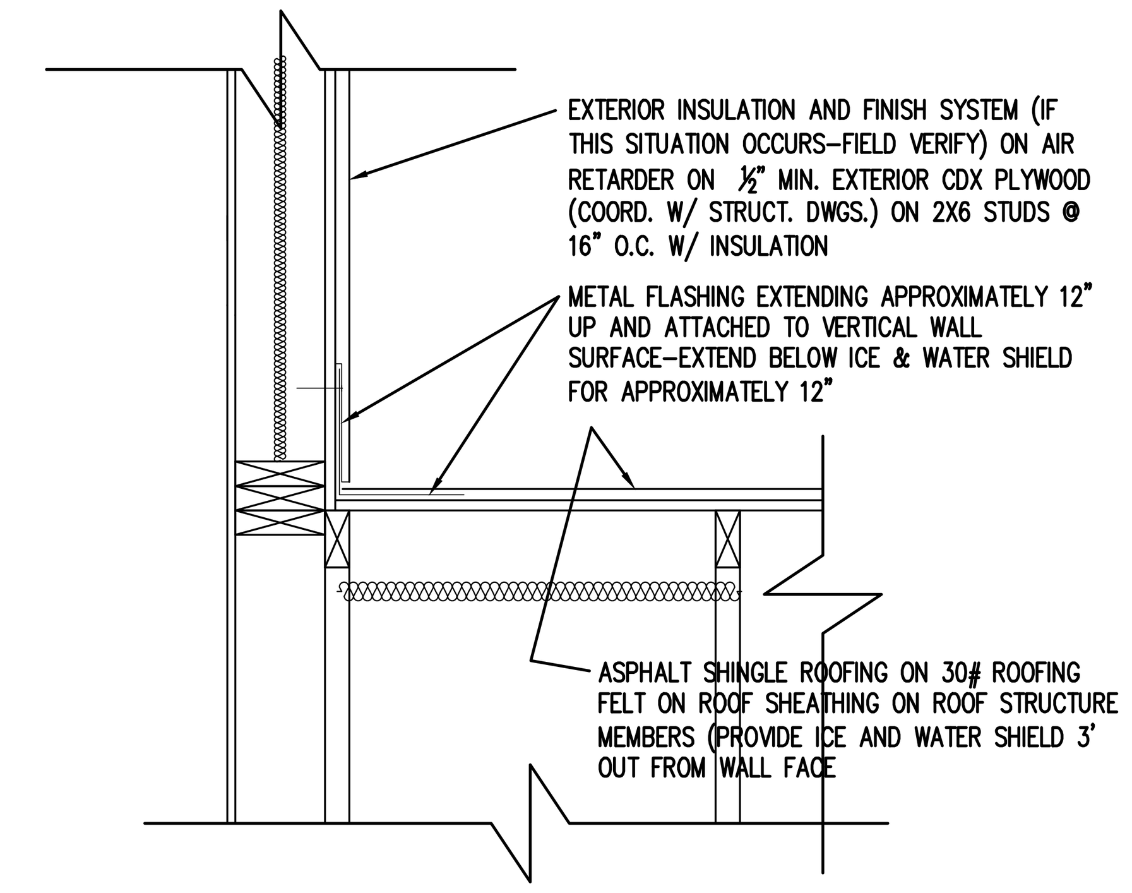


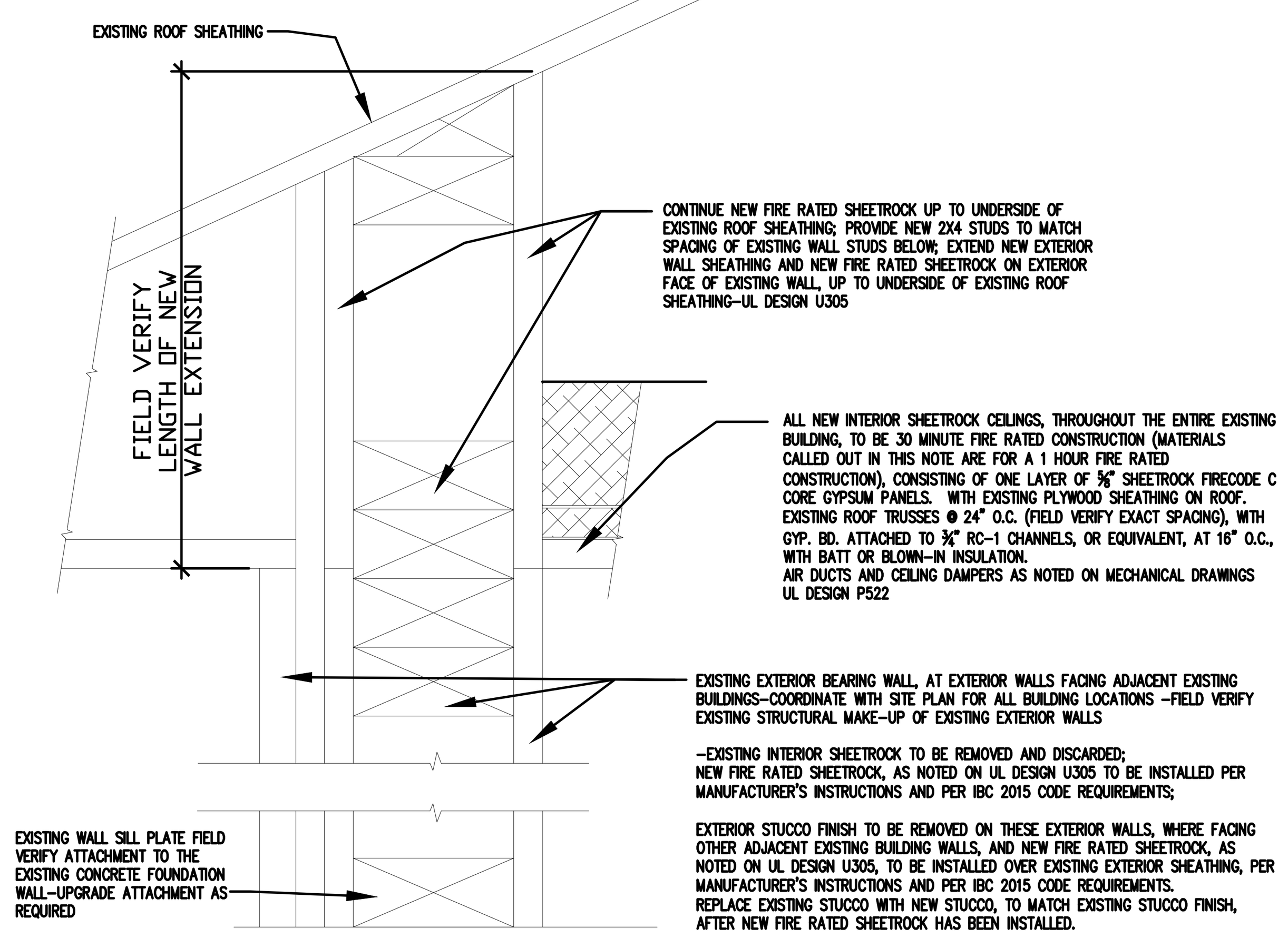
TYP. JAMB AT OPENING 3 A8.1
SCALE: - = 1'-0" DA-DR-15



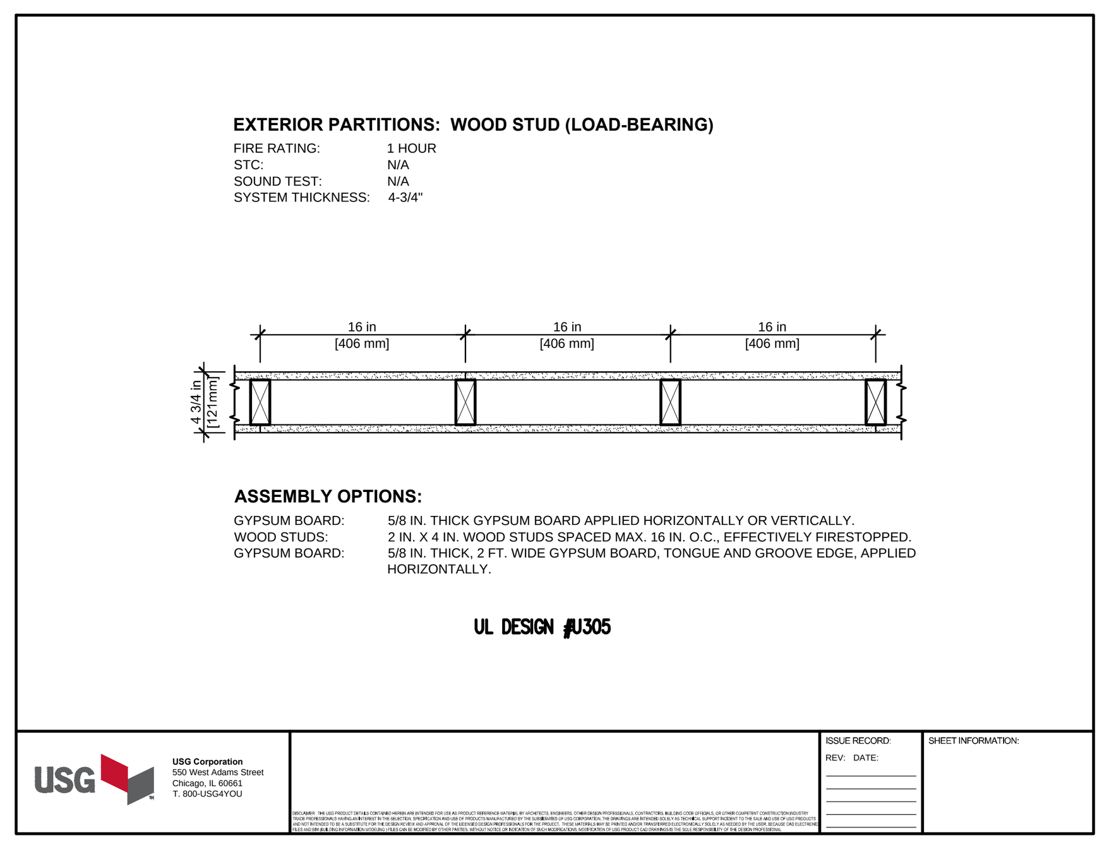
DOOR THRESHOLD DETAIL 4 A8.1
SCALE: - = 1'-0" DT-DR-03

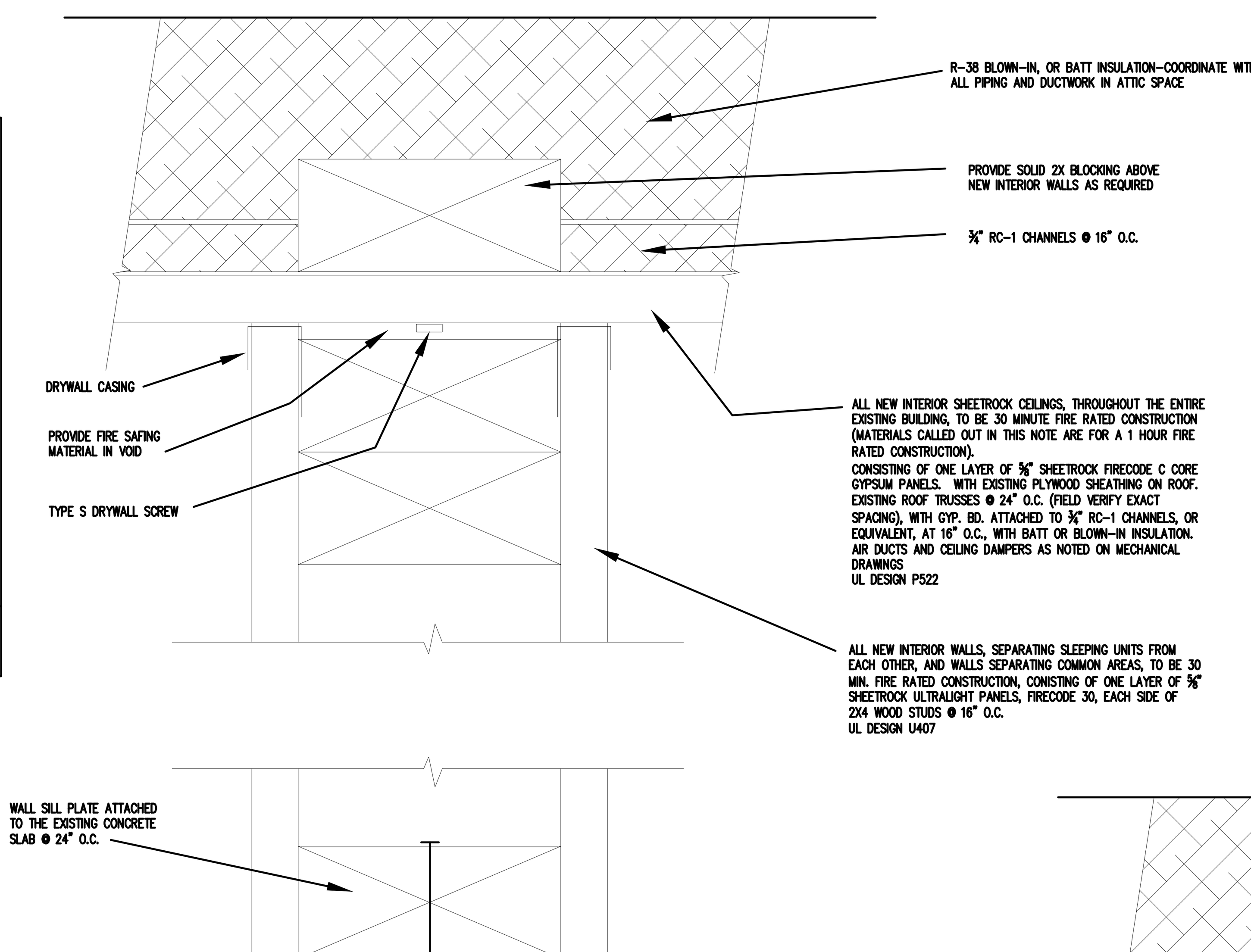


WALL/ROOF FLASHING DETAIL 5 A8.1
SCALE: - = 1'-0"

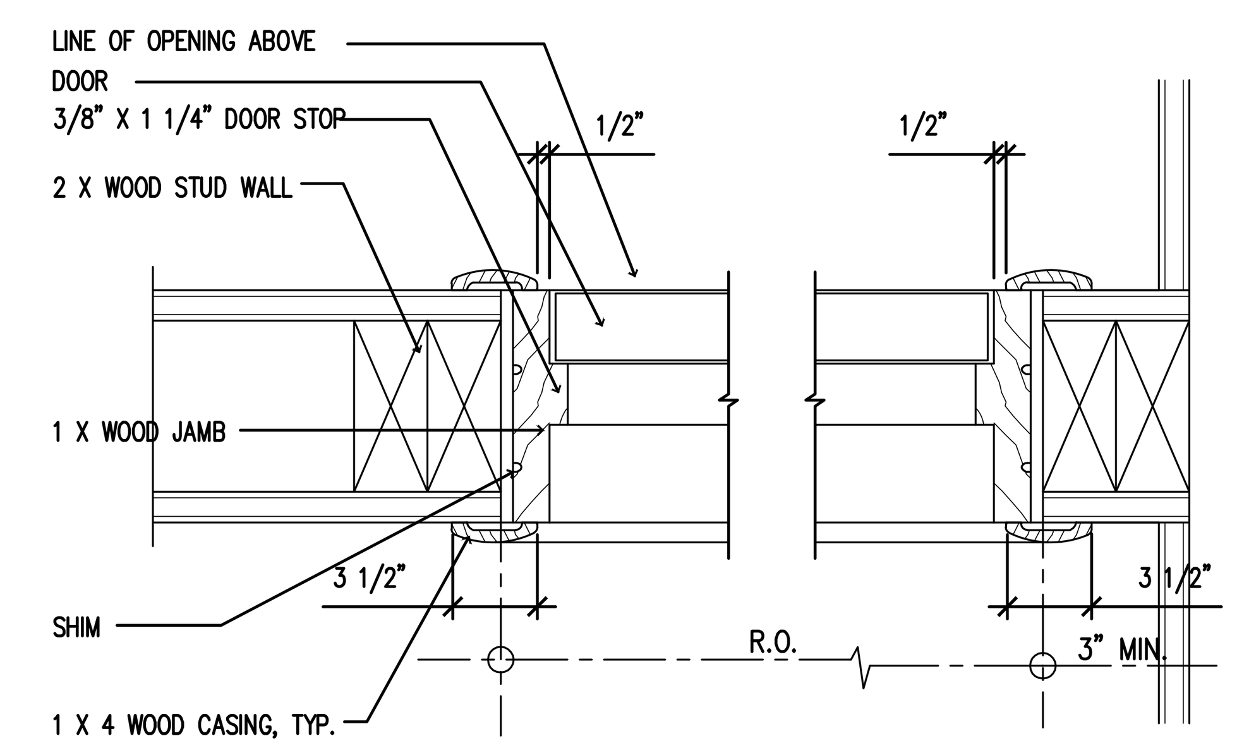


EXTERIOR EXISTING 1 HOUR FIRE RATED WALL 6 A8.1
SCALE: - = 1'-0" DT-DR-03

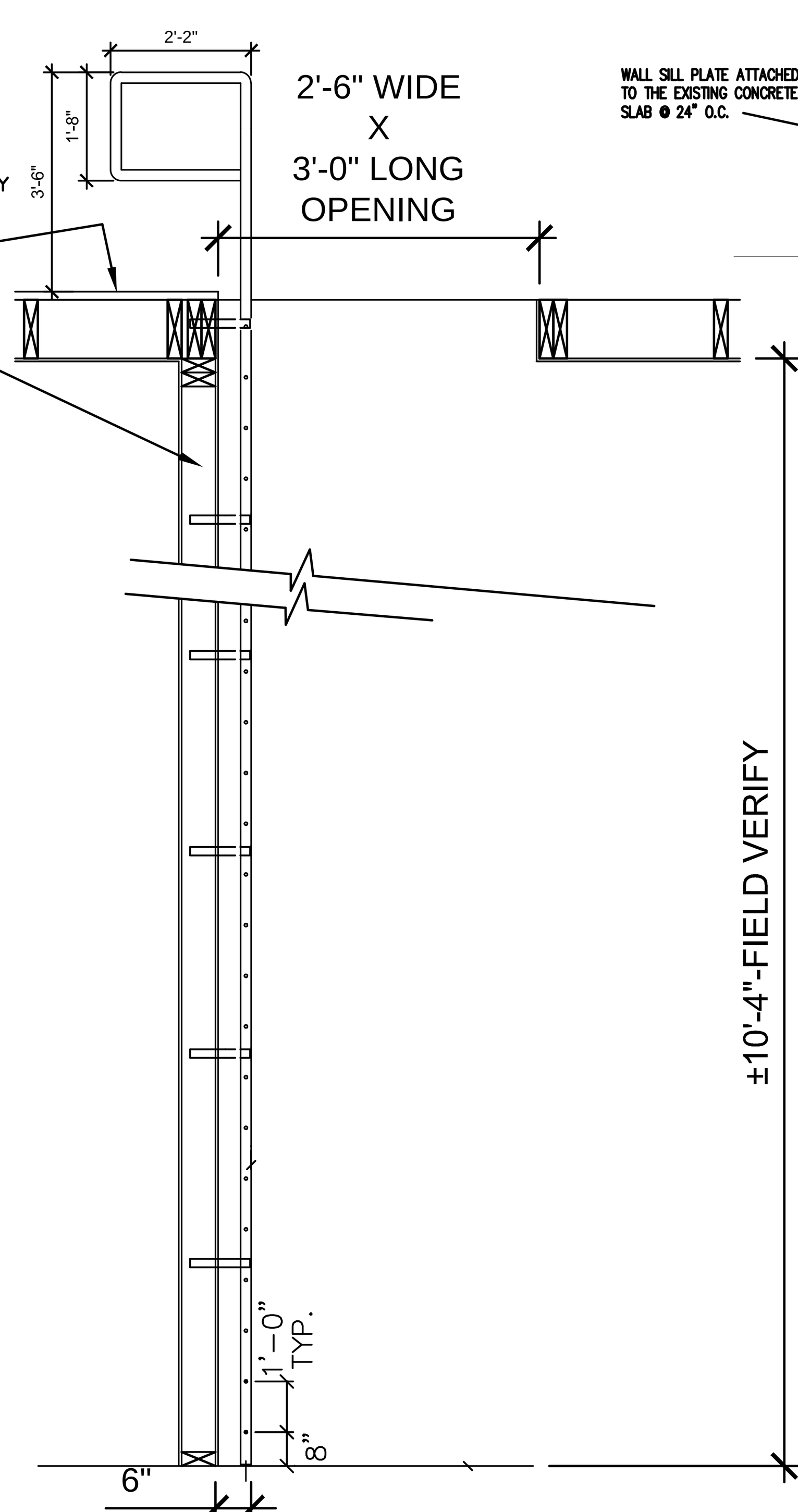


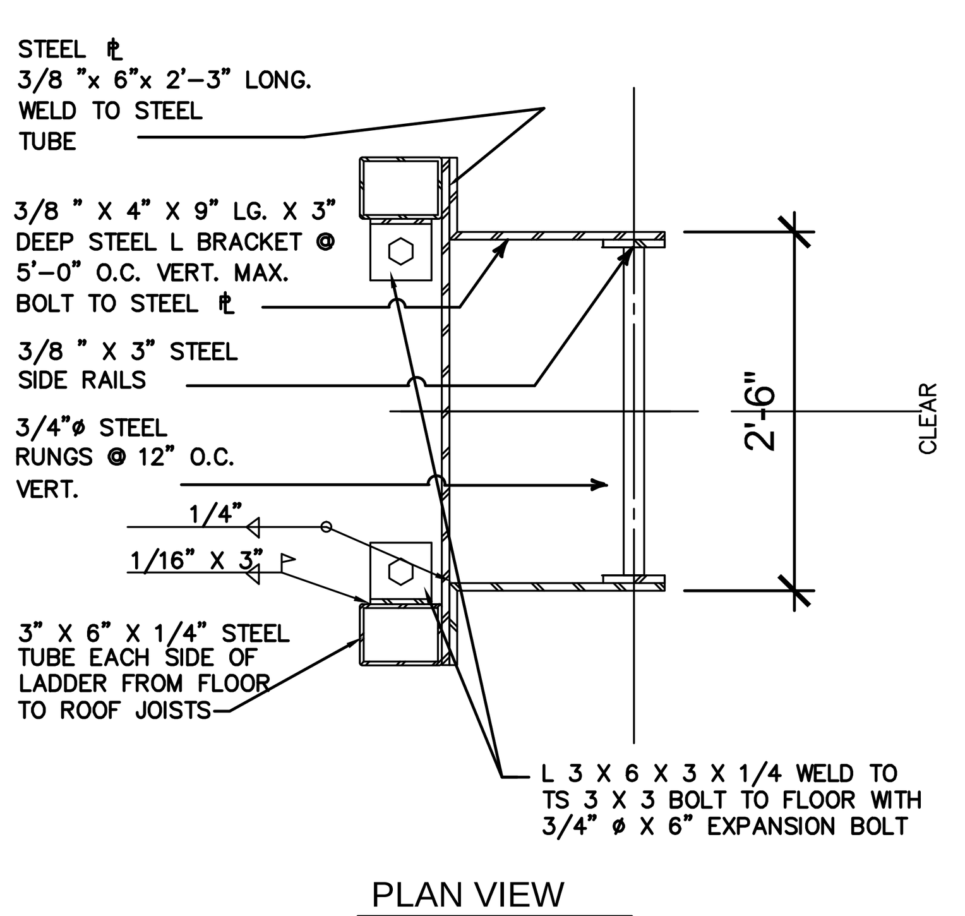


TYPICAL INTERIOR FIRE RATED WALL DETAIL 12 A8.1
SCALE: - = 1'-0" DT-DR-03



TYP. WOOD JAMB AT INTERIOR DOOR 9 A8.1
SCALE: - = 1'-0" DA-DR-30

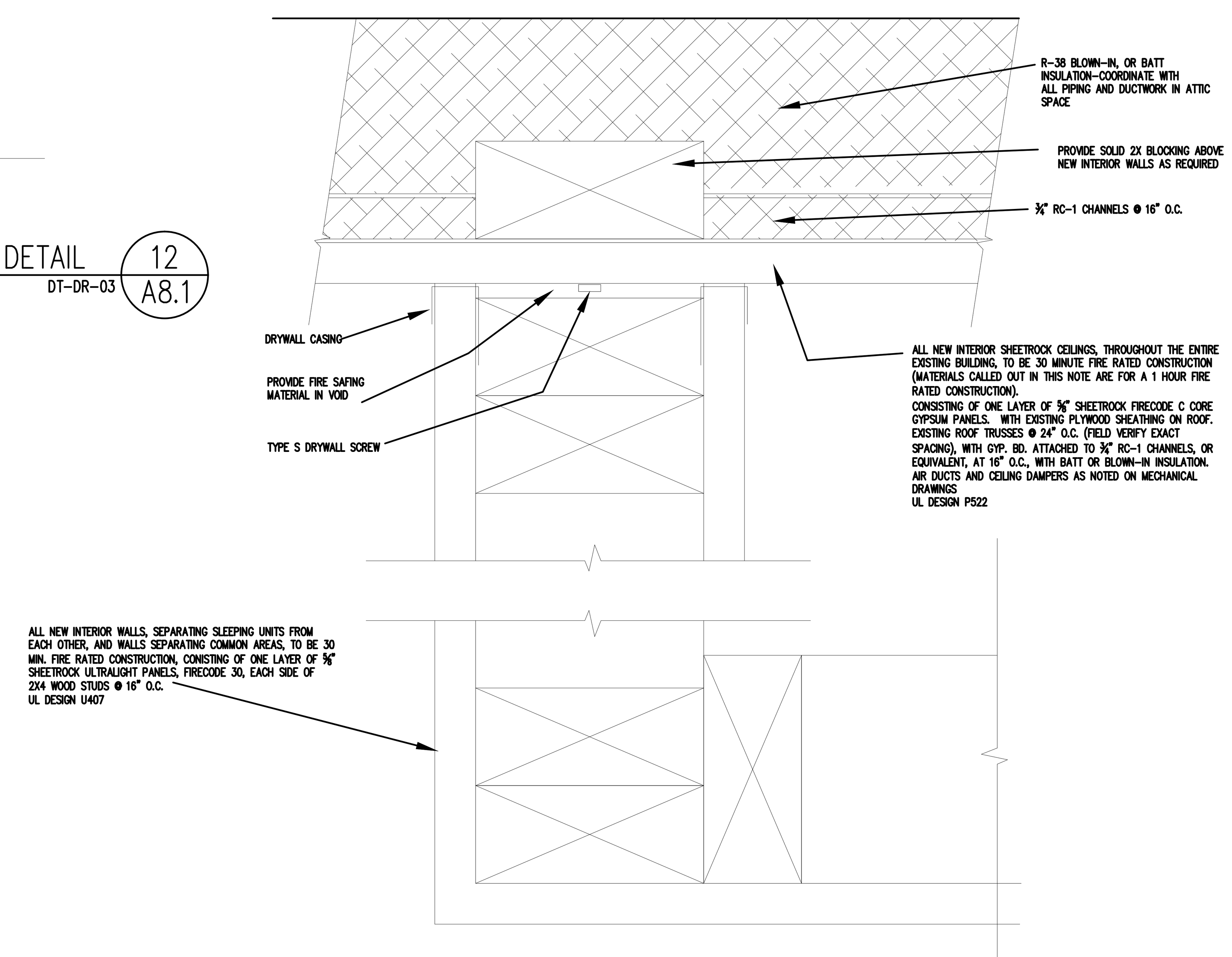




PLAN VIEW

LADDER PLANS 10 A8.1
SCALE: -- = 1'-0"

LADDER SECTION 11 A8.1
SCALE: -- = 1'-0"



DROPPED CEILING DETAIL 13 A8.1
SCALE: - = 1'-0" DT-DR-03

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8 MARCH 20, 2017 ADDENDUM #8-BUILDING 'A' BUILDING 'F'

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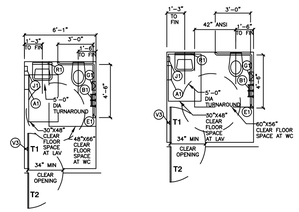
A8.1

STANDARD LAYOUTS - UNIVERSAL

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

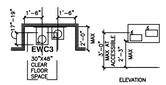
NOTE: LOCATE FLUSH ACTIVATOR ON WIDE SIDE AT ALL TOILETS - LOCATE FLUSH VALVE BENEATH ADJACENT GRAB BARS.



STANDARD ACCESSIBLE TOILET
PLAN DESIGNATION T1
T2 W/OUTSWINGING DOOR

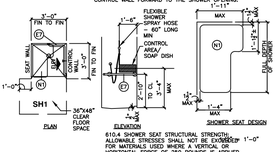
A.N.S.I. STANDARD TOILET
PLAN DESIGNATION T1
T2 W/OUTSWINGING DOOR

FOUNTAIN/COOLER FREESTANDING
PLAN DESIGNATION EWC2



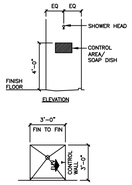
FOUNTAIN/COOLER HI-LO
PLAN DESIGNATION EWC3

CONTROLS AND HAND SHOWERS MUST MEET THE REQUIREMENTS OF SECTION 608.4.1 INCLUDING:
A. ON THE CONTROL WALL OPPOSITE THE SEAT;
B. BETWEEN 38 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE SHOWER FLOOR;
C. 15 INCHES MAXIMUM FROM THE CENTERLINE OF THE CONTROL WALL FORWARD TO THE SHOWER OPENING.



610.4 SHOWER SEAT STRUCTURAL STRENGTH. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE SEAT, FASTENER MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

ACCESSIBLE SHOWER TRANSFER
PLAN DESIGNATION SH1



NON-ACCESSIBLE SHOWER
PLAN DESIGNATION SH4

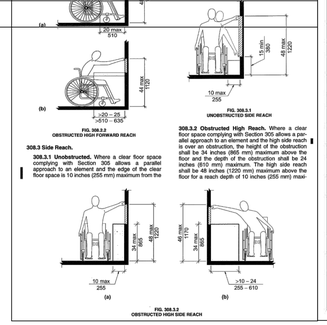
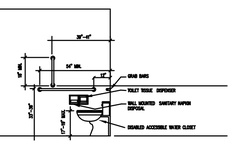
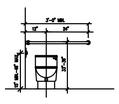


Table 3: Typical Mounting Heights

Wall switches	48" (120 cm)
Receptacle outlets (general)	18" (45 cm)
Receptacle outlets (kitchen, utility room, workbenches, etc.)	42" (105 cm), or 6" (15 cm) above countertop
Special purpose outlet	within 72" (180 cm) of intended use
Telephone outlets	18" (45 cm)
Wall intercom stations	48" (120 cm)
Night lights	18" (45 cm)
Wall lighting outlets	84" (210 cm)
Thermostats	48" (120 cm)
Push buttons	48" (120 cm)
Elevator and hoistway control buttons	42" (105 cm)
Bed lights	72" (180 cm)
Patient bedside stations	48" (120 cm)
Clock outlet	96" (240 cm) when possible, or 6" (15 cm) below ceiling. *Above doors, center the clock outlet between door trim and ceiling*
Bells, buzzers, chimes	96" (240 cm) when possible, or 6" (15 cm) below ceiling
Fire alarm pull stations	48" (120 cm)
Fire alarms (gongs, bells, horns, lights)	80" (200 cm) above floor finish line, or 6" (15 cm) below ceiling

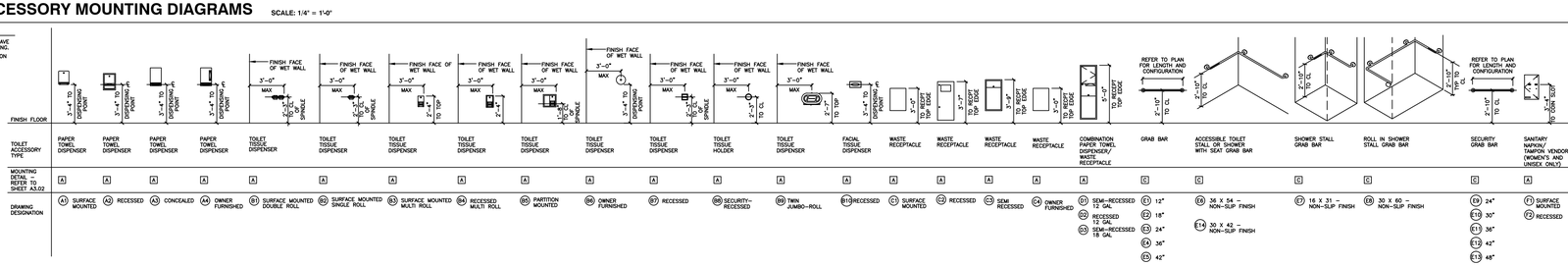


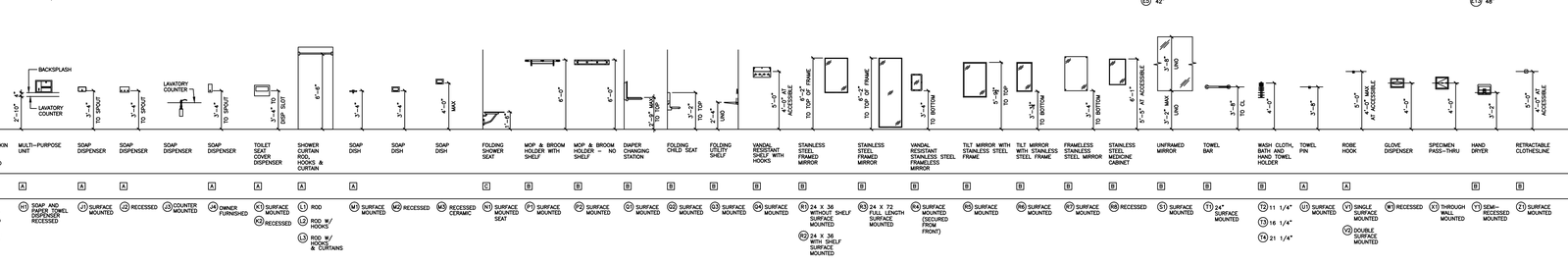


TOILET ACCESSORY MOUNTING DIAGRAMS

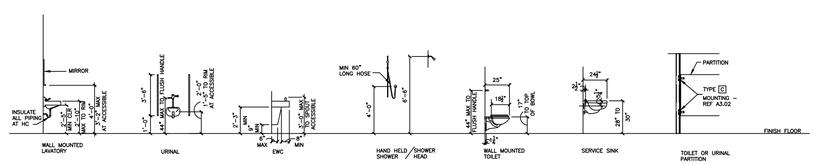
SCALE: 1/4" = 1'-0"

NOTES:
1. ACCESSORIES LISTED MAY HAVE GAPS IN ALPHABETICAL LISTING.
2. ACCESSORIES CAN APPEAR ON FLOOR PLANS OR INTERIOR ELEVATIONS.





FIXTURE AND PARTITION MOUNTING DIAGRAMS



308 Reach Ranges

308.1 General. Reach ranges shall comply with Section 308.

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

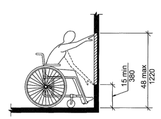
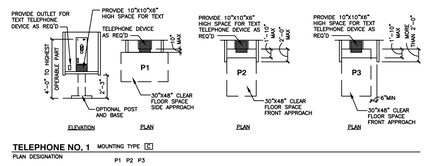


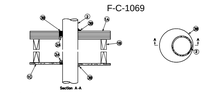
FIG. 308.2.1
UNOBSTRUCTED FORWARD REACH

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth is 20 inches (510mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum above the floor, and the reach depth shall be 25 inches (635 mm) maximum.

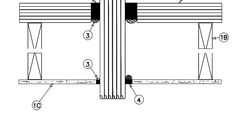


TELEPHONE NO. 1 MOUNTING TYPE C
PLAN DESIGNATION P1 P2 P3

F-C-1069



1. Floor/ceiling assembly:
   A. Floor system: 5/8" thick plywood/2" x 4" continuous wood decking.
   B. Trusses: 2" x 4" lumber in conjunction with galv. steel plates or 2" x 10" wood floor joist.
   C. Ceiling system: 1 layer of 5/8" gypsum wallboard per UL Design.
2. Cables: The following types and sizes of cable may be used:
   A. Maximum three-conductor with ground No. 10 AWG (or smaller) PVC insulation and jacket.
   B. Maximum 100-pair No. 24 AWG (or smaller) PVC insulation and jacket.
   C. Maximum 7/C No. 12 AWG copper conductor control cables. The annular space shall be 1/2"
3. Forming material (optional): Foam backer rod firmly packed into opening as a permanent form.
4. Type IA: Minimum ½" thick sealant applied within annulus, flush with the top surface of the floor and bottom of ceiling assembly.



1. Floor/ceiling assembly: F-C-3054
   A. Floor system: 5/8" thick plywood/2" x 4" continuous wood decking.
   B. Trusses: 2" x 4" lumber in conjunction with galv. steel plates or 2" x 10" wood floor joist.
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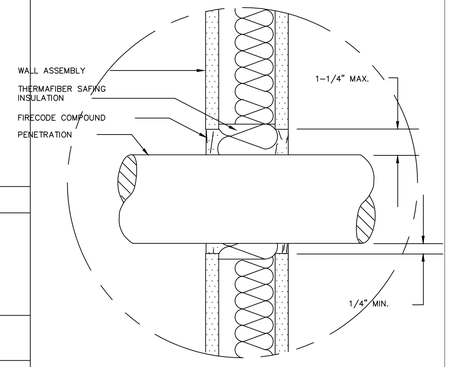

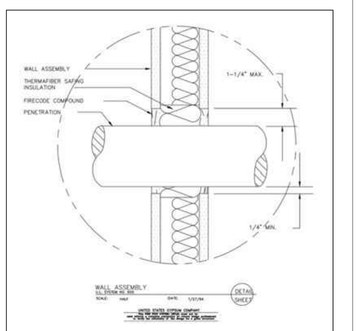

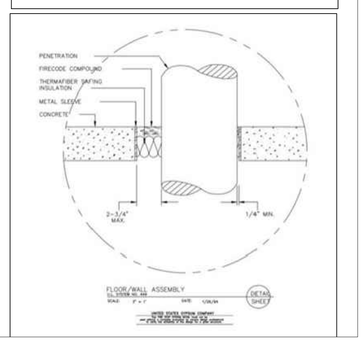

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project:
Tenant Finish
for
Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, 4953 South 900 East
Salt Lake County, Utah

date
DECEMBER 28, 2016

revisions
JANUARY 3, 2017
SECOND SUBMITTAL FOR EACH SEPERATE BUILDING PARCEL
JANUARY 6, 2017
2 ADDENDUM #2–BUILDING 'C'
JANUARY 17, 2017
4 ADDENDUM #4–BUILDING 'B'
FEBRUARY 24, 2017
7 ADDENDUM #7–BUILDING 'A' BUILDING 'F', 'B', 'C', 'D', 'E'
MARCH 20, 2017
8 ADDENDUM #8–BUILDING 'A' BUILDING 'F'

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project no:
drawn by:
checked by: DLW

title
ACCESSIBLE & FIRE PENETRATION DETAILS

sheet
A8.2

SYMBOL LEGEND

SYMBOL	DESCRIPTION
HVAC PIPING	
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
TWS	TEMPERED WATER SUPPLY
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
CDWS	CONDENSER WATER SUPPLY
CDWR	CONDENSER WATER RETURN
D	DRAIN LINE
(E)	EXISTING PIPE
(E)	EXISTING PIPE TO BE REMOVED

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED

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

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.

APPROVE: 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 TO MAKE THE ITEM FULLY OPERATIONAL."

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
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
S	SOLENOID VALVE
	ANGLE VALVE
	VENTURI
	BALANCING OR PLUG COCK
	FLOW SETTER
	EXPANSION VALVE (REFRIG.)
T	TEMPERATURE SENSOR
MAV	MANUAL AIR VENT
	STRAINER
	GAUGE COCK
	FLEXIBLE CONNECTION
	PRESSURE GAUGE
	THERMOMETER
	VICTAULIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
	REFRIGERANT FILTER DRIER
	90° ELBOW UP
	90° ELBOW DOWN
	90° TEE UP
	90° TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP
HVAC SYMBOLS	
T	THERMOSTAT
S	TEMPERATURE SENSOR
H	HUMIDISTAT
PLUMBING SYMBOLS	
C.B.	CATCH BASIN
M.H.	MANHOLE
W.H.	WALL HYDRANT
H.B.	HOSE BIBB
	CLEANOUT TO GRADE
	FLOOR CLEANOUT
	WALL CLEANOUT

SYMBOL LEGEND

SYMBOL	DESCRIPTION
DUCTWORK	
SINGLE LINE / DOUBLE LINE	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
	ACOUSTICALLY 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
FSD / FSD	FIRE/SMOKE DAMPER
FD / FD	FIRE DAMPER
FC / FC	FLEXIBLE CONNECTION
	EXISTING DUCT
	DUCT TO BE REMOVED

GENERAL MECHANICAL NOTES

1. ALL CEILING DIFFUSERS SHOWN AS SUCH ARE CD-1, CFM AS NOTED, UNLESS OTHERWISE NOTED. (CFM)
2. ALL CEILING RETURN GRILLES SHOWN AS SUCH ARE RG-1 UNLESS OTHERWISE NOTED. PROVIDE SOUND BOOT
3. ALL CEILING EXHAUST GRILLES SHOWN AS SUCH ARE EG-1, CFM AS NOTED, UNLESS OTHERWISE NOTED. (CFM)
4. DO NOT ROUTE DUCTS AND PIPES ABOVE ELECTRICAL PANELS. ALL ELECTRICAL PANELS MUST HAVE CLEAR ACCESS SPACE IN FRONT OF PANEL 4'-0" DEEP AND 6'-6" HIGH. DO NOT ROUTE DUCTS AND PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM OR WITHIN APPROPRIATE ENCLOSURE.
5. COORDINATE EXACT LOCATIONS OF CEILING DIFFUSERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS.
6. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA DIMENSIONS. ADJUST SHEET METAL DIMENSION FOR LINED DUCT.
7. ALL FIRE DAMPERS SHOWN ARE 1-1/2 HOUR UNLESS OTHERWISE NOTED.
8. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
9. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, HEAT PUMPS, FIRE DAMPERS, ETC. ARE LOCATED ABOVE INACCESSIBLE CEILINGS. ACCESS PANELS TO BE LISTED AND FIRE RATED EQUAL TO OR GREATER THAN THE RATING OF THE ASSEMBLY THEY ARE INSTALLED IN.
10. ALL DUCT AND FLUE PENETRATIONS THRU 1 HOUR ROOF ASSEMBLY TO BE ENCLOSED WITH 2 SHEET ROCK LAYERS FROM SHEET ROCK AT BOTTOM OF ROOF TRUSSES TO ROOF DECK.
11. STEEL ROOF DECK SHALL NOT BE USED TO SUPPORT LOADS FROM PIPING, DUCTWORK OR EQUIPMENT, UNLESS NOTED OTHERWISE. HANGER LOADS LESS THAN 50 LBS. MAY BE HUNG FROM THE STEEL ROOF DECK IN CASES WHEN HANGING FROM THE STEEL ROOF DECK CANNOT BE AVOIDED; THE ATTACHMENT METHOD MUST DISTRIBUTE THE LOAD ACROSS THE DECK AS APPROVED BY THE STRUCTURAL ENGINEER.
12. THE EQUIPMENT INSTALLER IS TO APPLY AND SIGN A CERTIFICATION LABEL TO EACH GAS-FIRED APPLIANCE, STATING THE APPLIANCE HAS BEEN ADJUSTED OR MODIFIED PER MANUFACTURER'S REQUIREMENTS FOR OPERATION AT THE PROJECT ALTITUDE AND WITH THE BTU-CONTENT OF THE AVAILABLE FUEL-GAS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE 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.
TYPE / CFM / SIZE	DIFFUSER/GRILLE INDICATOR.
TYPE / SIZE	DIFFUSER/GRILLE INDICATOR.
	NEW CONNECTION POINT TO EXISTING

MECHANICAL SCOPE OF WORK

NEW CONSTRUCTION NOTES:

ELECTRIC UNIT HEATERS WILL BE PLACED WATER ENTRY ROOMS AND MAIN BUILDING ENTRY LOCATIONS.

ROOFTOP UNITS ARE TO BE INSTALLED WITHIN EXISTING EQUIPMENT WELLS ON ROOF OF EACH BUILDING. SUPPLY AND RETURN DUCTWORK IS TO ROUTE THROUGH EXISTING TRUSS SYSTEM. TERMINAL SUPPLY AND RETURN GRILLES ARE TO INCORPORATE INTEGRAL BALANCING DAMPERS.

CLOTHES DRYER AND BATHROOM EXHAUST DUCTWORK IS TO TERMINATE AT UNDERSIDE OF EXISTING BUILDING OVERHANGS.

THE NEW SYSTEM COMPONENTS WILL ALLOW FOR FUTURE OFFICE & TEMPORARY RESIDENT SPACES.

MECH/PLUMB SHEET INDEX

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Tenant Finish for New Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, & 4953 South 900 East
Salt Lake County, Utah

Building 'E' 4931 South 900 East Parcel # 22081850120000

date

February 24, 2017

revisions

PERMIT SET–December 28, 2016
1 ADDENDUM #1–January 04, 2017
2 ADDENDUM #3–January 11, 2017
3 ADDENDUM #4–January 17, 2017
4 ADDENDUM #5–January 20, 2017
5 ADDENDUM#7–February 24, 2017

data

project no:
drawn by:
checked by:

title

MECHANICAL GENERAL NOTES & LEGEND

sheet

M01

BUILDING 'E'

GENERAL MECHANICAL NOTES

1. THESE DRAWINGS AND SPECIFICATIONS ARE FOR THE DIVISION 23 CONTRACTOR TO ENGINEER, DESIGN, BID AND INSTALL A HEATING, AIR CONDITIONING AND VENTILATION SYSTEM PER THE DESIGN INTENT SHOWN.
2. ALL EQUIPMENT, PIPING, DUCTWORK, COMPONENT AND ACCESSORY SIZES, CAPACITIES, AND TYPES SHOWN IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE ADHERED TO.
3. THE DIVISION 23 CONTRACTOR SHALL DESIGN AND INSTALL A COMPLETE AND FULLY OPERATIONAL SYSTEM.
4. DESIGN AND AS-BUILT DRAWINGS SHOWING ALL EQUIPMENT, COMPONENTS, PIPING, AND CONTROLS SHALL BE PREPARED TO THE SAME SCALE AS THESE DRAWINGS. COPIES SHALL BE PROVIDED TO THE OWNER AND ARCHITECT/ENGINEER.
5. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT A COMPLETE, OPERATIONAL HVAC SYSTEM FOR THE ENTIRE PROJECT AS SHOWN ON THESE DRAWINGS, INCLUDING ALL NECESSARY FEES AND PERMITS.
6. THE ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODE, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, AND ALL OTHER APPLICABLE CITY, COUNTY, SCHOOL DISTRICT, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT AT THE DATE OF THE BID. CONFORM TO ANY CODES, RULES, REGULATIONS AND REQUIREMENTS THAT THE PROJECT OWNER HAS.
7. PRIOR TO FABRICATION AND INSTALLATION, COORDINATE THE INSTALLATION OF ALL HVAC PIPING, DUCTWORK, AND EQUIPMENT WITH PLUMBING PIPING, PLUMBING EQUIPMENT, REFRIGERATION TRENCHES AND PIPING, FIRE PROTECTION PIPING AND ALL OTHER TRADES INCLUDING BUT NOT LIMITED TO: THE MECHANICAL CONTRACTOR, REFRIGERATION CONTRACTOR, ELECTRICAL CONTRACTOR, FIRE PROTECTION CONTRACTOR, GENERAL CONTRACTOR, AND ANY CONTRACTOR HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR, THEY SHALL BE RESOLVED PRIOR TO INSTALLATION.
8. THE DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENTS AND THE EXTENT OF THE SYSTEM. IT SHALL BE THE WORK OF THE CONTRACTOR TO 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 CONSULTING ENGINEER.
9. ALL HVAC INFORMATION IS NOT SHOWN ON THE HVAC DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
10. THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR HVAC EQUIPMENT AND PIPING SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL, MECHANICAL, STRUCTURAL AND ELECTRICAL DRAWINGS.
11. SPACE ABOVE ALL CEILINGS IS LIMITED. CAREFUL COORDINATION IS REQUIRED WITH ALL TRADES BEFORE ANY PIPE, DUCT, OR EQUIPMENT IS ORDERED AND/OR INSTALLED. ANY CONFLICTS AND/OR CHANGES FOUND DURING INSTALLATION THAT RESULT FROM LACK OF COORDINATION BY THE CONTRACTORS DURING THE SHOP DRAWING PROCESS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
12. 1/8" SCALE SHOP DRAWINGS (SUBMITTED FOR APPROVAL) ARE REQUIRED FOR ALL DUCTWORK AND PIPING SYSTEMS.
13. THE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY 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.
14. DETAILS: THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND USE WHERE APPROPRIATE ALL OF 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 IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. PIPING SCHEMATICS: THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE PIPING SCHEMATICS INCLUDED WITH THE DRAWINGS FOR PIPING CONNECTIONS TO ALL MECHANICAL EQUIPMENT. THE PIPING SCHEMATICS SHOW DETAILED CONNECTIONS INCLUDING NECESSARY VALVES, FITTINGS, PRESSURE AND TEMPERATURE GAUGES, ETC., THAT ARE NOT SHOWN ON THE PIPING PLANS. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE MECHANICAL SYSTEM WITHOUT USING THE INCLUDED PIPING SCHEMATICS IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. THE STRUCTURE SHOWN ON ALL DETAILS MAY OR MAY NOT PERTAIN TO A PORTION OR ANY PORTION OF THE BUILDING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
17. ANY PART OF THIS 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.
18. COORDINATE THE RETURN OF ALL MECHANICAL EQUIPMENT REMOVED DURING DEMOLITION WITH THE OWNER'S REPRESENTATIVE.
19. ALL EQUIPMENT SHALL PROVIDE THE SCHEDULED PERFORMANCE AT THE SITE ALTITUDE.
20. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, VALVES, DAMPERS, AND OTHER DEVICES AND ACCESSORIES REQUIRED FOR A COMPLETE, WORKABLE INSTALLATION.
21. THE DIVISION 23 CONTRACTOR SHALL FURNISH ALL REQUIRED MOTORS. ALL MOTOR STARTING EQUIPMENT, WHEN NOT A PART OF THE EQUIPMENT, WILL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.
22. EXISTING INTERIOR PIPING, EQUIPMENT, AND DUCTWORK HAS BEEN LOCATED IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL VERIFY LOCATIONS AND POINTS OF CONNECTION AND PIPE ROUTING THROUGH EXISTING CONDITIONS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL PERFORM THE WORK IN A MANNER THAT WILL CAUSE A MINIMUM DISRUPTION TO BUILDING TENANT USE AND SHALL COORDINATE THE WORK WITH THE BUILDING OWNER'S REPRESENTATIVE.
23. THE CONTRACTOR IS RESPONSIBLE FOR HVAC EQUIPMENT CHECK-IN, SAFEKEEPING, AND DAMAGE.
24. DO NOT ROUTE DUCTS AND PIPES ABOVE ELECTRICAL PANELS. ALL ELECTRICAL PANELS MUST HAVE CLEAR ACCESS SPACE IN FRONT OF PANEL 4'-0" DEEP AND 6'-6" HIGH. DO NOT ROUTE DUCTS AND PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM OR IF PROPER ENCLOSURE IS PROVIDED.
25. COORDINATE EXACT LOCATIONS OF CEILING DIFFUSERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
26. ALL FIRE DAMPERS SHOWN ARE 1-1/2 HOUR UNLESS OTHERWISE NOTED.
27. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
28. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC. ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
29. ENCLOSE ALL DUCT AND FLUE PENETRATIONS THROUGH 1 HOUR ROOF ASSEMBLIES WITH 2 SHEET ROCK LAYERS FROM SHEET ROCK CEILING AT BOTTOM OF ROOF TRUSSES TO ROOF DECK
30. DO NOT USE STEEL ROOF DECK TO SUPPORT LOADS FROM PIPING, DUCTWORK OR EQUIPMENT. HANGER LOADS LESS THAN 50 LBS. MAY BE HUNG FROM THE STEEL ROOF DECK IN CASES WHERE HANGING FROM THE STEEL ROOF DECK CANNOT BE AVOIDED. THE ATTACHMENT METHOD MUST DISTRIBUTE THE LOAD ACROSS THE DECK AS APPROVED BY THE STRUCTURAL ENGINEER.

GENERAL MECHANICAL NOTES

31. PROPERLY LUBRICATE ALL PIECES OF EQUIPMENT BEFORE TURNING THE SYSTEM OVER TO THE OWNER.
32. PREPARE SUBMITTALS IN AN INDEXED, LABELED FOLDER CONTAINING FULL PERFORMANCE, MATERIAL AND INSTALLATION INFORMATION ABOUT ALL EQUIPMENT, PIPING, COMPONENTS AND ACCESSORIES TO BE USED. SUBMITTALS WILL BE CHECKED AT MOST TWICE. TIME SPENT ON SUBSEQUENT SUBMITTALS WILL BE BILLED TO THE CONTRACTOR BY THE ENGINEER AT ITS CURRENT HOURLY RATES.
33. TWO OPERATING AND MAINTENANCE MANUALS SHALL BE PROVIDED IN HARD BACK LOOSE LEAF BINDERS. MANUALS SHALL CONTAIN PRODUCT CUT SHEETS AND OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL EQUIPMENT, ACCESSORIES, FIXTURES, VALVES, ETC., PROVIDED FOR THE PROJECT.
34. UPON COMPLETION OF THE WORK, REMOVE ALL SURPLUS MATERIALS AND RUBBISH. MAKE ALL REQUIRED PATCHING AND REPAIRS OF OTHER TRADES' WORK DAMAGED BY THE CONTRACTOR, AND LEAVE THE PREMISES IN A CLEAN, ORDERLY CONDITION.
35. THE CONTRACTOR SHALL OPERATE THE SYSTEM AND DEMONSTRATE ALL ASPECTS TO THE ENGINEER AND/OR OWNER, TO PROVE ITS OPERATION. ALL FILTERS USED DURING CONSTRUCTION SHALL BE REPLACED PRIOR TO THE TEST RUN PERIOD.
36. THE CONTRACTOR SHALL GUARANTEE THE HVAC SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
37. THE CONTRACTOR SHALL, DURING CONSTRUCTION, MAINTAIN A SET OF AS-BUILT REDLINED RECORD DRAWINGS AT THE PROJECT SITE. ALL CHANGES IN LAYOUT, ROUTING, EQUIPMENT, COMPONENTS, AND ACCESSORIES SHALL BE RECORDED. THESE REDLINES SHALL BE GIVEN TO THE ARCHITECT/ENGINEER AFTER THE FINAL INSPECTION

MECHANICAL SUBMITTAL NOTES

1. MECHANICAL SUBMITTAL SHALL BE SUBMITTED AS A COMPLETE ELECTRONIC PACKAGE ASSEMBLED BY SPECIFICATION DIVISIONS.
2. ASSEMBLE COMPLETE ELECTRONIC SUBMITTAL PACKAGE INTO A SINGLE INDEXED FILE INCORPORATING SUBMITTAL REQUIREMENTS OF A SINGLE SPECIFICATION SECTION AND TRANSMITTAL FORM WITH LINKS ENABLING NAVIGATION TO EACH ITEM:
    a. LITERATURE SHALL INCLUDE REFERENCE TO EQUIPMENT CALL-OUT AND SPECIFICATION SECTION.
    b. FILE NAME SHALL USE PROJECT IDENTIFIER AND SPECIFICATION SECTION NUMBER FOLLOWED BY A DECIMAL POINT AND THEN A SEQUENTIAL NUMBER (E.G., LNHS-061000.01). RE-SUBITTALS SHALL INCLUDE AN ALPHABETIC SUFFIX AFTER ANOTHER DECIMAL POINT (E.G., LNHS-061000.01.A).
    c. PROVIDE MANUFACTURER'S CATALOG DATA SHEETS FOR EACH MANUFACTURED ITEM LISTED ON THE DRAWINGS AND SPECIFICATIONS.
    d. INCLUDE MANUFACTURER'S CATALOG DATA OF EACH MANUFACTURED ITEM AND ENOUGH INFORMATION TO SHOW COMPLIANCE WITH CONTRACT DOCUMENT REQUIREMENTS.
    e. LITERATURE SHALL SHOW CAPACITIES AND SIZE OF EQUIPMENT USED AND BE MARKED INDICATING EACH SPECIFIC ITEM WITH APPLICABLE DATA UNDERLINED.
    f. INCLUDE NAME, ADDRESS, AND PHONE NUMBER OF EACH SUPPLIER.
    g. DEVIATIONS AND ADDITIONAL INFORMATION: ON AN ATTACHED SEPARATE SHEET, PREPARED ON CONTRACTOR'S LETTERHEAD, RECORD RELEVANT INFORMATION, REQUESTS FOR DATA, REVISIONS OTHER THAN THOSE REQUESTED BY ENGINEER CONTRACT DOCUMENTS, INCLUDING MINOR VARIATIONS AND LIMITATIONS. INCLUDE SAME IDENTIFICATION INFORMATION AS RELATED SUBMITTAL.
3. PRODUCT DATA:
    a. COLLECT INFORMATION INTO A SINGLE SUBMITTAL FOR EACH ELEMENT OF CONSTRUCTION AND TYPE OF PRODUCT OR EQUIPMENT.
    b. IF INFORMATION MUST BE SPECIALLY PREPARED FOR SUBMITTAL BECAUSE STANDARD PUBLISHED DATA ARE NOT SUITABLE FOR USE, SUBMIT AS SHOP DRAWINGS, NOT AS PRODUCT DATA.
    c. MARK EACH COPY OF EACH SUBMITTAL TO SHOW WHICH PRODUCTS AND OPTIONS ARE APPLICABLE.
    d. INCLUDE THE FOLLOWING INFORMATION, AS APPLICABLE:
    e. MANUFACTURER'S CATALOG CUTS.
    f. MANUFACTURER'S PRODUCT SPECIFICATIONS.
    g. STANDARD COLOR CHARTS.
    h. STATEMENT OF COMPLIANCE WITH SPECIFIED REFERENCED STANDARDS.
    i. TESTING BY RECOGNIZED TESTING AGENCY.
    j. APPLICATION OF TESTING AGENCY LABELS AND SEALS.
    k. NOTATION OF COORDINATION REQUIREMENTS.
    l. AVAILABILITY AND DELIVERY TIME INFORMATION.
    m. FOR EQUIPMENT, INCLUDE THE FOLLOWING IN ADDITION TO THE ABOVE, AS APPLICABLE:
    n. WIRING DIAGRAMS SHOWING FACTORY-INSTALLED WIRING.
    o. PRINTED PERFORMANCE CURVES.
    p. OPERATIONAL RANGE DIAGRAMS.
    q. CLEARANCES REQUIRED TO OTHER CONSTRUCTION, IF NOT INDICATED ON ACCOMPANYING SHOP DRAWINGS.
5. PROCESSING TIME: ALLOW TIME FOR SUBMITTAL REVIEW, INCLUDING TIME FOR RESUBMITTALS, AS FOLLOWS. TIME FOR REVIEW, INCLUDING TIME FOR RESUBMITTALS, AS FOLLOWS. TIME FOR REVIEW SHALL COMMENCE ON ENGINEERS RECEIPT OF SUBMITTAL. NO EXTENSION OF THE CONTRACT TIME WILL BE AUTHORIZED BECAUSE OF FAILURE TO TRANSMIT SUBMITTALS ENOUGH IN ADVANCE OF THE WORK TO PERMIT PROCESSING, INCLUDING RESUBMITTALS.
    a. INITIAL REVIEW: ALLOW 15 DAYS FOR INITIAL REVIEW OF MECHANICAL SUBMITTAL.
    b. RESUBMITTALS REVIEW: ALLOW 15 DAYS FOR REVIEW OF EACH RESUBMITTAL.
6. DEVIATIONS AND ADDITIONAL INFORMATION: ON AN ATTACHED SEPARATE SHEET, PREPARED ON CONTRACTOR'S LETTERHEAD, RECORD RELEVANT INFORMATION, REQUESTS FOR DATA, REVISIONS OTHER THAN THOSE REQUESTED BY DESIGN ENGINEER ON PREVIOUS SUBMITTALS, AND DEVIATIONS FROM REQUIREMENTS IN THE CONTRACT DOCUMENTS, INCLUDING MINOR VARIATIONS AND LIMITATIONS. INCLUDE SAME IDENTIFICATION INFORMATION AS RELATED SUBMITTAL.

MECH. PIPING GENERAL NOTES

1. CAULK AROUND ALL PIPING THAT PASSES THROUGH FIRE RATED PARTITIONS WITH A NON-HARDENING CAULKING SIMILAR TO 3M "FIRE BARRIER".
2. PROVIDE PROPER PROVISIONS FOR EXPANSION OR MOVEMENT OF ALL PIPING.
3. PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DEFERENTIAL MOVEMENTS.
4. AT VERTICAL RISERS SUPPORT THE WEIGHT OF THE RISER AT A POINT OR POINTS ABOVE THE CENTER OF GRAVITY OF THE RISER. PROVIDE LATERAL GUIDES AT THE TOP AND BOTTOM OF THE RISER, AND AT THE INTERMEDIATE POINTS NOT TO EXCEED 30'-0" ON CENTER.
5. ALL PIPING SHALL BE SUPPORTED WITH TYPE I STEEL CLEVIS PIPE HANGERS.
6. ALL STEEL CLEVIS HANGERS USED TO SUPPORT PLASTIC PIPING SHALL BE PLASTIC COATED.
7. ALL STEEL HANGERS USED TO SUPPORT COPPER PIPING SHALL BE COPPER PLATED OR PLASTIC COATED.
8. PERFORATED METAL OR PLASTIC STRAPPING (PLUMBERS TAPE) IS NOT AN ACCEPTABLE MATERIAL FOR HANGING OR SECURING PIPE.
9. PROVIDE PIPE HANGERS WITHIN 18 INCHES OF ALL 90 DEGREE ELBOWS.
10. PROVIDE SWAY BRACING ON PIPING 4" AND LARGER AT CHANGES IN DIRECTION GREATER THAN 45 DEGREES.
11. ALL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT PARALLEL TO BUILDING STRUCTURE.

DUCT CONSTRUCTION NOTES

1. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL, EXCEPT WHERE INDICATED OTHERWISE.
2. SHEET METAL DUCT STATIC PRESSURE CLASSIFICATION:
    SUPPLY AIR DUCT: 2" W.C.
    RETURN AIR DUCT: 2" W.C. (NEGATIVE)
    EXHAUST AIR DUCT: 2" W.C. (NEGATIVE)
    OUTSIDE AIR DUCT: 2" W.C.
3. SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS TO SMACNA SEAL CLASS B.
4. DO NOT USE GRAY DUCT TAPE, FOIL BACKED TAPE, OIL BASED CAULKING AND GLAZING COMPOUNDS TO SEAL METAL DUCTS.
5. CROSS-BREAK DUCT SURFACES 19" THROUGH 60". USE ANGLE REINFORCING FOR DUCTS SURFACES OF 60".
6. ALL METAL LONGITUDINAL SEAMS SHALL BE PITTSBURGH OR OTHER LISTED SMACNA LISTED SEAM. DO NOT USE BUTTON PUNCH SNAP-BACK SEAMS.
7. SUSPEND METAL DUCTWORK NOT EXCEEDING 30" LONGEST SIDE AT EVERY JOINT. DO NOT EXCEED 10'-0" HANGER SPACING. USE 1" X 18 GAGE GALVANIZED STRAPS (MINIMUM) ATTACHED TO BOTTOM AND SIDES OF DUCT.
8. SUSPEND METAL DUCTWORK EXCEEDING 30" LONGEST SIDE AT MAXIMUM 8'-0" SPACING USING ANGLES AND RODS.
9. SUPPORT DUCTWORK FROM STRUCTURAL MEMBERS. ATTACHMENT TO ROOF DECK IS NOT ACCEPTABLE.
10. DUCT SIZES SHALL BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION CLEARANCES. FREE AREA OF DUCT SHALL BE MAINTAINED.
11. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH SLOPE OF 1/4.
12. PROVIDE ELBOWS AND CHANGES IN DIRECTION WITH SINGLE VANE TURNING VANES.
13. ALL JOINTS SHALL BE MADE AIRTIGHT BY APPROVED METHODS, INCLUDING TAPES, MASTICS, GASKETS OR OTHER APPROVED CLOSURE SYSTEMS.
14. TAPE ALONE CANNOT BE SUBSTITUTED FOR MECHANICAL FASTENERS.
15. TAPES AND MASTICS USED TO SEAL DUCTWORK MUST BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A AND SHALL BE MARKED "181A-P" FOR PRESSURE-SENSITIVE TAPE, "181A-M" FOR MASTIC OR "181A-H" FOR HEAT SENSITIVE TAPE.
16. TAPES AND MASTICS USED TO SEAL FLEXIBLE AIR DUCTS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181B-FX" FOR PRESSURE SENSITIVE TAPE, OR "181B-M" FOR MASTIC.
17. MECHANICAL FASTENERS USED WITH FLEXIBLE NON-METALLIC AIR DUCTS SHALL COMPLY WITH UL 181 AND SHALL BE MARKED "181B-".
18. FLEXIBLE CONNECTORS SHALL NOT BE USED.
19. HIGH EFFICIENCY TAKE-OFF FITTINGS WITH MANUAL DAMPER SHALL HAVE 2" STAND OFF BRACKET.
20. ALL BRANCH TAKE-OFFS TO INDIVIDUAL AIR INLET OR AIR OUTLET SHALL BE PROVIDED WITH MANUAL DAMPER.
21. ALL DUCTWORK SHALL BE A MINIMUM 26 GAUGE GALVANIZED SHEET METAL.

TEST AND BALANCE NOTES

1. THE MINIMUM REQUIREMENT FOR TESTING, ADJUSTING, AND BALANCING (TAB) OF THE HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) DISTRIBUTION SYSTEMS SHALL BE AS FOLLOWS.
2. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TESTING ADJUSTING AND BALANCING FOR THIS PROJECT
3. THE MECHANICAL SYSTEMS SHALL BE TESTED, ADJUSTED AND BALANCED, INCLUDING SUPPLY AIR SYSTEM, RETURN AIR SYSTEM, EXHAUST AIR SYSTEM, OUTSIDE AIR SYSTEM AND ALL ASSOCIATED EQUIPMENT.
4. CONTRACTOR PERFORMING TESTING ADJUSTING AND BALANCING WORK SHALL BE EITHER AABC OR NEBB CERTIFIED.
5. TESTING ADJUSTING AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE NEBB OR AABC TEST PROCEDURES.
6. TESTING ADJUSTING AND BALANCING REPORT FORMS SHALL BE STANDARD FORMS FROM EITHER AABC OR NEBB.
7. CONTRACTOR SHALL VERIFY QUANTITIES AND LOCATIONS OF ALL BALANCING DEVICES. CONTRACTOR SHALL VERIFY THAT THESE BALANCING DEVICES ARE ACCESSIBLE AND APPROPRIATE FOR BALANCING AND FOR EFFICIENT SYSTEM AND EQUIPMENT OPERATION PRIOR TO COMMENCING WORK.
8. MECHANICAL AIR AND WATER SYSTEMS SHALL BE ADJUSTED TO WITHIN THE FOLLOWING TOLERANCES.
    PLUS 5 TO PLUS 10 PERCENT
    PLUS 5 TO PLUS 10 PERCENT
    EXHAUST FANS: PLUS 5 TO PLUS 10 PERCENT
    EQUIPMENT WITH FANS: PLUS 5 TO PLUS 10 PERCENT
    AIR OUTLETS AND INLETS: ZERO TO MINUS 10 PERCENT
    DOM. HW FLOW RATES: ZERO TO MINUS 10 PERCENT
9. FINAL BALANCE REPORT SHALL INCLUDE THE FOLLOWING.
    TEST CONDITIONS FOR FANS
    SYSTEM DIAGRAMS
    AIR CONDITIONING UNIT TEST REPORTS
    FAN TEST REPORTS
    AIR TERMINAL DEVICE REPORTS

PENETRATION FIRESTOPPING NOTES

1. FIRE RATED PENETRATIONS DETAILS SHOWN ON THE CONSTRUCTIONS DOCUMENTS SHOW GENERAL METHOD OF MECHANICAL (HVAC) AND PLUMBING PENETRATION FIRESTOPPING.
2. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND PROVIDE SPECIFIC FIRESTOPPING DETAILS FROM A SPECIFIC FIRESTOPPING MANUFACTURER FOR EACH MECHANICAL (HVAC) AND PLUMBING PIPE OR DUCT PENETRATION FOR EACH FIRE RATED ASSEMBLY.
3. PROVIDE PENETRATION FIRESTOPPING THAT IS PRODUCED AND INSTALLED TO RESIST SPREAD OF FIRE ACCORDING TO REQUIREMENTS INDICATED, RESIST PASSAGE OF SMOKE AND OTHER GASES, AND MAINTAIN ORIGINAL FIRE-RESISTANCE RATING OF CONSTRUCTION PENETRATED.
4. PENETRATION FIRESTOPPING SYSTEMS SHALL BE COMPATIBLE WITH ONE ANOTHER, WITH THE SUBSTRATES FORMING OPENINGS, AND WITH PENETRATING ITEMS IF ANY.
5. PENETRATIONS IN FIRE-RESISTANCE-RATED WALLS: PROVIDE PENETRATION FIRESTOPPING WITH RATINGS DETERMINED PER ASTM E 814 OR UL 1479, BASED ON TESTING AT A POSITIVE PRESSURE DIFFERENTIAL OF 0.01-INCH WG
6. PENETRATION FIRESTOPPING PRODUCTS SHALL BEAR UL, ETL OR FM GLOBAL CLASSIFICATION MARKING OF QUALIFIED TESTING AND INSPECTING AGENCY.
7. DO NOT INSTALL PENETRATION FIRESTOPPING WHEN AMBIENT OR SUBSTRATE TEMPERATURES ARE OUTSIDE LIMITS PERMITTED BY PENETRATION FIRESTOPPING MANUFACTURERS OR WHEN SUBSTRATES ARE WET BECAUSE OF RAIN, FROST, CONDENSATION, OR OTHER CAUSES.
8. COORDINATE CONSTRUCTION OF OPENINGS AND PENETRATING ITEMS TO ENSURE THAT PENETRATION FIRESTOPPING IS INSTALLED ACCORDING TO SPECIFIED REQUIREMENTS.
9. COORDINATE SIZING OF SLEEVES, OPENINGS, CORE-DRILLED HOLES, OR CUT OPENINGS TO ACCOMMODATE PENETRATION FIRESTOPPING.
10. INSTALL PENETRATION FIRESTOPPING TO COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND PUBLISHED DRAWINGS FOR PRODUCTS AND APPLICATIONS INDICATED.
11. INSTALL FORMING MATERIALS AND OTHER ACCESSORIES OF TYPES REQUIRED TO SUPPORT FILL MATERIALS DURING THEIR APPLICATION AND IN THE POSITION NEEDED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS REQUIRED TO ACHIEVE FIRE RATINGS INDICATED.
12. IDENTIFY PENETRATION FIRESTOPPING WITH PREPRINTED METAL OR PLASTIC LABELS. ATTACH LABELS PERMANENTLY TO SURFACES ADJACENT TO AND WITHIN 6 INCHES OF FIRESTOPPING EDGE SO LABELS WILL BE VISIBLE TO ANYONE SEEKING TO REMOVE PENETRATING ITEMS OR FIRESTOPPING.

SMOKE DETECTOR NOTES

1. SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE AND SHALL BE "SYSTEM SENSOR" DH100ACDCLP.
2. SMOKE DETECTORS SHALL BE INSTALLED IN THE RETURN AIR DUCT OF ALL AIR HANDLING UNITS WITH CAPACITY GREATER THAN 2,000 CFM.
3. PROVIDE SMOKE DETECTORS WHERE MULTIPLE AIR-HANDLING SYSTEMS SHARE COMMON SUPPLY OR RETURN AIR DUCTS OR PLENUMS WITH A COMBINED DESIGN CAPACITY GREATER THAN 2,000 CFM.
4. THE SMOKE DETECTORS SHALL BE INSTALLED TO MONITOR THE ENTIRE AIRFLOW CONVEYED BY THE SYSTEM INCLUDING RETURN AIR AND EXHAUST OR RELIEF AIR.
5. PROVIDE ACCESS TO ALL SMOKE DETECTORS FOR INSPECTION AND MAINTENANCE.
6. SMOKE DETECTOR SHALL BE INTERLOCKED WITH SUPPLY FAN. ELECTRICAL STARTER TO SHUT DOWN SUPPLY AIR FAN(S) ON SENSING SMOKE.
7. SMOKE DETECTOR SHALL BE INTERLOCKED WITH FIRE ALARM SYSTEM.
8. THE ACTUATION OF A DUCT SMOKE DETECTOR SHALL ACTIVATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION.
9. IN ADDITIONAL TO INTERLOCKING THE SMOKE DETECTOR TO THE FIRE ALARM SYSTEM, THE SMOKE DETECTOR SHALL BE CONNECTED TO A MULTI-SIGNALLING ANNUNCIATOR PANEL (SYSTEM SENSOR SSK 451) FOR TESTING PURPOSES.
10. MULTI-SIGNALLING ANNUNCIATOR PANEL (SYSTEM SENSOR SSK 451) SHALL BE INSTALLED AS SHOWN ON DRAWING AND AS REQUIRED BY BUILDING OFFICIAL FOR TESTING.

MECHANICAL SPECIFICATIONS

230100 - BASIC MECHANICAL REQUIREMENTS

1. COORDINATE THE LOCATION OF ALL NEW ROOF OPENINGS AND THE LOCATION OF ALL NEW AND RELOCATED ROOF MOUNTED EQUIPMENT WITH THE EXISTING STRUCTURE AND ARCHITECTURAL PLANS PRIOR TO ANY INSTALLATION.
2. V-BELT DRIVES SHALL BE OF FABRIC AND RUBBER CONSTRUCTION. BELT GUARDS SHALL BE PROVIDED FOR ALL EXPOSED BELTS AND DRIVES.
3. PROVIDE 6" CONCRETE HOUSEKEEPING PADS UNDER ALL FLOOR MOUNTED EQUIPMENT.
4. PROPERLY LUBRICATE ALL PIECES OF EQUIPMENT BEFORE TURNING THE SYSTEM OVER TO THE OWNER.
5. INSTALL DUCT MOUNTED SUPPLY AND RETURN AIR SMOKE DETECTORS IN ALL ROOFTOP, FAN-COIL, AIR-HANDLING, AND OTHER SUPPLY AIR SYSTEMS, WITH A CAPACITY GREATER THAN 2000 CFM. SMOKE DETECTORS ARE PURCHASED AND WIRED BY THE ELECTRICAL CONTRACTOR.

230500 - BASIC PIPING MATERIALS & METHODS

1. CORE CUT ALL PIPE PENETRATION OF EXISTING MASONRY OR CONCRETE WALLS AND FLOORS. SLEEVE ALL PENETRATIONS THROUGH NEW WALLS AND FLOORS. SEAL ALL PENETRATIONS WATER TIGHT WITH SILICONE SEALANT. USE FIRE RATED SEALANT (3M "FIRE BARRIER" OR EQUAL) FOR 1 HOUR OR 2 HOUR PENETRATIONS.
2. CAULK AROUND ALL PIPING THAT PASSES THROUGH FIRE-RATED PARTITIONS WITH A NON-HARDENING CAULKING SIMILAR TO 3M "FIRE BARRIER".
3. SEAL ALL PIPING THROUGH WALLS AIR TIGHT.

230523 - VALVES

1. PROVIDE VALVES OF THE TYPE AND QUANTITY SHOWN ON THE DRAWINGS. VALVES OF THE SAME TYPE TO BE BY ONE MANUFACTURER.

230548 - VIBRATION ISOLATION AND SEISMIC BRACING

1. ALL MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING MUST BE VIBRATION ISOLATED AND SEISMICALLY BRACED FOR THE SITE SPECIFIC SEISMIC DESIGN CATEGORY AND SEISMIC USE GROUP, IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE IBC, UBC, ASHRAE, AND SMACNA. PROVIDE SEISMIC PRODUCTS BY AMBER-BOOTH OR MASON INDUSTRIES.
2. IN GENERAL, PROVIDE SPRING MOUNTS TO ATTENUATE LOW FREQUENCY SOUND AND VIBRATION AND NEOPRENE PADS TO ATTENUATE HIGH FREQUENCY SOUND AND VIBRATION. SEISMIC BRACING/MOUNTING CAN BE COMBINED WITH VIBRATION ISOLATION AS APPLICABLE.
3. CONTRACTOR MANUFACTURED SEISMIC BRACING/RESTRAINT METHODS ARE NOT ACCEPTABLE. PROVIDE A SIGNED AND STAMPED LETTER FROM A PROFESSIONAL ENGINEER CERTIFYING THAT THE SUPPLIED PRODUCTS ARE CORRECT FOR THE APPLICATION AND THAT THE INSTALLATION IS IN COMPLIANCE WITH ALL APPLICABLE CODES.

MECHANICAL SPECIFICATIONS

230553 - MECHANICAL IDENTIFICATION

1. PIPE MARKERS:
   PLASTIC TAPE: PROVIDE MANUFACTURER'S STANDARD COLOR-CODED PRESSURE-SENSITIVE (SELF ADHESIVE) VINYL TAPE, NOT LESS THAN 3 MILS THICK. 1-1/2" WIDE TAPE MARKERS ON PIPES WITH OUTSIDE DIAMETERS LESS THAN 6" (INCLUDING INSULATION, IF ANY); 2-1/2" WIDE TAPE FOR LARGER PIPES.
2. DUCT MARKERS:
   PROVIDE MANUFACTURER'S STANDARD LAMINATED PLASTIC; COLOR CODED DUCT MARKERS.
3. COLOR:
   COMPLY WITH ANSI A13.1
4. LETTERING:
   MANUFACTURER'S STANDARD PRE-PRINTED NOMENCLATURE WHICH BEST DESCRIBES PIPING OR DUCT SYSTEM IN EACH INSTANCE OR AS SELECTED BY ARCHITECT OR ENGINEER IN CASES OF VARIANCE WITH NAMES AS SHOWN.
5. ARROWS:
   PRINT EACH MARKER WITH ARROWS INDICATING DIRECTION OF FLOW.
6. VALVE TAGS:
   PROVIDE PLASTIC LAMINATE VALVE TAGS: MANUFACTURER'S STANDARD 3/32" THICK ENGRAVED TAGS WITH PIPING SYSTEM ABBREVIATION IN 1/4" HIGH LETTERS AND SEQUENCED VALVE NUMBERS 1/2" HIGH, WITH 5/32" HOLE FOR FASTENER. PROVIDE 1-1/2" SQUARE BLACK TAGS WITH WHITE LETTERING.
7. VALVE TAG FASTENERS:
   PROVIDE MANUFACTURER'S STANDARD SOLID BRASS CHAIN (WIRE LINK OR BEADED TYPE), OR SOLID BRASS S-HOOKS OF THE SIZED REQUIRED FOR PROPER ATTACHMENT OF TAGS TO VALVES, AND MANUFACTURED SPECIFICALLY FOR THAT PURPOSE.

230593 - TESTING, ADJUSTING, AND BALANCING

OBTAIN THE SERVICES OF AN INDEPENDENT TESTING AND BALANCING AGENCY TO BALANCE AND ADJUST THE SYSTEM. THIS SHALL BE DONE BY PERSONS FULLY FAMILIAR WITH SYSTEMS OF THIS TYPE. BALANCING SHALL BE DONE IN ACCORDANCE TO AABC OR NEBB STANDARDS. ALL DATA SHALL BE RECORDED AND A REPORT SUBMITTED TO THE ENGINEER PRIOR TO JOB CLOSE OUT.

230700 - MECHANICAL INSULATION

1. PIPE INSULATION TO BE SNAP-ON GLASS FIBER TYPE WITH VAPOR JACKET. SEAL ALL ENDS AND JOINTS TO PROVIDE A COMPLETELY SEALED SYSTEM. ALTERNATIVELY, USE FLEXIBLE UNICELLULAR ASTM 534 TYPE 1 INSULATION. USE 1" THICKNESS FOR PIPE UP TO 2"Ø, AND 1 1/2" FOR PIPE OVER 2"Ø
2. WRAP ALL SUPPLY AND RETURN DUCTWORK WITH 1-1/2" THICK FOIL FACED FIBERGLASS INSULATION. WRAP INSULATION TIGHTLY ON THE DUCT WITH ALL CIRCUMFERENTIAL JOINTS BUTTED AND LONGITUDINAL JOINTS OVERLAPPED A MIN. OF 2". COVER ALL JOINTS WITH FOIL-REINFORCED 'KRAFT' TAPE, 3" WIDE. DUCTWORK INTERIOR TO BUILDING ENVELOPE WITH A MINIMUM R-5 WHILE EXTERIOR DUCTWORK INSULATION SHALL BE MINIMUM R-12.
3. NO RETURN AIR DUCT INSULATION IS REQUIRED IF THE RETURN AIR AND PLENUM TEMPERATURE DIFFERENCE IS LESS THAN 10°F
4. OUTDOOR DUCTWORK EXPOSED TO THE WEATHER SHALL HAVE 2" INSULATION AND SHALL BE FITTED WITH 0.016 EMBOSSED ALUMINUM JACKET POP-RIVITED FOR A TIGHT WEATHERPROOF FIT.

233113 - METAL DUCTWORK

1. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS AND PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS, OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION, (SMACNA).
2. TRANSITION ALL NEW DUCTWORK TO CONNECT TO EXISTING, AS REQUIRED.
3. DUCTWORK SHALL BE GALVANIZED STEEL THROUGHOUT, FABRICATED AND INSTALLED SO THAT NO VIBRATION OR NOISE RESULTS. IT SHALL BE MADE FROM THE BEST GRADE OF GALVANIZED MILLED STEEL SHEETS OF U.S. STANDARD GAUGE AND BE FREE FROM BLISTERS, SLIVERS, AND PITS. ALL SEAMS SHALL BE AIRTIGHT, THE CONSTRUCTION OF ALL DUCTWORK, INCLUDING GAUGES OF METAL, BRACING LAYOUT, ETC., SHALL BE IN ACCORDANCE WITH SMACNA. SLEEVES FOR FIRE DAMPERS AND DUCT SECTIONS FORMING AN EXTENSION OF THE FIRE WALL SHALL BE 10 GAUGE STEEL.
4. SEAL DUCTWORK ACCORDING TO THE FOLLOWING SMACNA DUCT SEALING CLASS:

DUCT LOCATION	DUCT TYPE			
	SUPPLY		EXHAUST	RETURN
	<2in. Wg.	>2in. Wg.		
OUTDOORS	A	A	A	A
UNCONDITIONED SPACES	B	A	B	B
CONDITIONED SPACES	C	B	B	B
(CONCEALED DUCTWORK) CONDITIONED SPACES (EXPOSED DUCTWORK)	A	A	B	B

5. HANGERS FOR DUCTS UP TO 18" IN WIDTH OR DIAMETER SHALL BE PLACED ON NOT MORE THAN 8 FOOT CENTERS. DUCTS 19" AND OVER IN WIDTH OR DIAMETER SHALL BE SUPPORTED ON NOT MORE THAN 4 FOOT CENTERS. DUCT HANGERS SHALL BE CONSTRUCTED OF GALVANIZED BAND IRON 1-1/8" FOR DUCTS UP TO 36" IN WIDTH OR DIAMETER. HANGERS SHALL EXTEND DOWN SIDES AND A MINIMUM OF 1" UNDER RECTANGULAR DUCTS, AND WRAP COMPLETELY AROUND ROUND DUCTS. ALL DUCTS SHALL BE RIGIDLY SUPPORTED.
6. ALL DUCTWORK SHALL BE CLEANED PRIOR TO THE INSTALLATION OF CEILING AND DIFFUSERS. OPERATE FANS TO BLOW OUT DUCTWORK.
7. RECTANGULAR LOW-PRESSURE SUPPLY AND RETURN AIR DUCTWORK SHALL BE LINED WITH 1" FACED FIBERGLASS INSULATION SECURELY BUTTONED OR LAPPED AND SEALED. INSULATION SHALL BE 1-1/2 POUND DENSITY.
8. OUTDOOR DUCTWORK EXPOSED TO THE WEATHER SHALL BE LINED WITH MINIMUM R-8 FACED FIBERGLASS INSULATION SECURELY BUTTONED OR LAPPED AND SEALED, AND SHALL BE FITTED WITH A 0.016 EMBOSSED ALUMINUM JACKET POP RIVETED FOR A WEATHERPROOF FIT.
9. DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR AREA AND SHALL BE INCREASED TO ACCOMMODATE INSULATION. DUCT LINER TO BE BY KNAUF GmbH, JOHN-MANSVILLE OR SCHULLER INTERNATIONAL.
10. CLASS I KITCHEN EXHAUST HOOD DUCT SYSTEMS:
    A. TYPE I COMMERCIAL HOOD AND GREASE DUCT SHALL MEET CLEARANCE REQUIREMENTS FROM COMBUSTIBLE AND NONCOMBUSTIBLE CONSTRUCTION IN ACCORDANCE TO 2012 IMC SECTION 507.9 AND ASTM E23-36.
    B. CONSTRUCT EXHAUST DUCT OF WELDED 16 GAGE CARBON STEEL SHEETS FOR CONCEALED DUCTS, AND WELDED OR FLANGED 18 GAGE STAINLESS STEEL FOR EXPOSED DUCTS.
    C. SLOPE HORIZONTAL DUCT AT 1/4" PER FOOT TOWARD HOOD.
    D. PROVIDE ACCESS DOORS AT EACH CHANGE OF DIRECTION.
    E. PROVIDE RESIDUE TRAP AT THE BASE OF EACH VERTICAL RISER, WITH PROVISIONS FOR CLEANOUT.
    F. ALL SEAMS, JOINTS AND PENETRATIONS SHALL HAVE A LIQUID-TIGHT, CONTINUOUS, EXTERNAL WELD.
    G. PROVIDE AND INSTALL ONE OF THE FOLLOWING SYSTEMS: DUCT ENCLOSURE WITH 2-HR FIRE RESISTIVE CONSTRUCTION OR, A DUCT WRAP SYSTEM - 3M FIREMASTER GREASE DUCT FIRE PROTECTION SYSTEM, OR APPROVED EQUAL, OR, A PREFABRICATED GREASE DUCT SYSTEM - METAL FAB MODEL "NO CHASE IPIC", OR APPROVED EQUAL.
       WHICHEVER METHOD IS CHOSEN MUST HAVE APPROVAL FROM THE ADMINISTRATIVE AUTHORITY AND STATE FIRE MARSHALL.

MECHANICAL SPECIFICATIONS

233300 - DUCTWORK ACCESSORIES

1. FLEXIBLE DUCTWORK: THE FINAL 5 FOOT CONNECTION TO GRILLES AND DIFFUSERS IN LAY-IN CEILINGS, OR TO FLOOR MOUNTED GRILLES, MAY BE MADE WITH FLEXIBLE DUCT, FLEXMASTER TYPE 5M ONLY. ENDS SHALL BE SEALED.
2. SQUARE/RECTANGULAR ELBOWS SHALL BE PROVIDED WITH TURNING VANES.
3. PROVIDE FLEXIBLE CONNECTIONS NOT LESS THAN 4" WIDE CONSTRUCTED OF HEAVY, WATERPROOF, WOVEN PLASTIC COATED GLASS FABRIC AT SUPPLY AND RETURN CONNECTIONS TO HEAT PUMPS, AIR HANDLING, ROOFTOP, MAKE-UP AIR OR FAN-COIL UNITS. CORNERS SHALL BE SEWN TIGHT. CONNECTIONS SHALL BE 20 OUNCE VENTFABRICS OR EQUAL.
4. COMBINATION FIRE AND SMOKE DAMPERS, SMOKE DAMPERS, OR FIRE DAMPERS IN DUCTWORK THROUGH ALL FLOORS AND FIRE WALLS SHALL BE FURNISHED AND INSTALLED AS REQUIRED TO CONFORM TO THE LATEST NFPA BULLETIN CONCERNING THIS TYPE OF BUILDING AND SHALL BE LISTED AND LABELED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF UL555 AND UL555S. DAMPERS, COMPLETE WITH MOUNTING ANGLES, SHALL BE MULTI-BLADE, FUSIBLE LINK, SPRING ACTING WITH 11 GAUGE SLEEVE. FUSIBLE LINK SHALL BE RATED AT 165°F. CONTROLLED BY AUTOMATIC SMOKE DETECTION IN DUCT OR AREA OF SMOKE DISPERSION.
5. DUCT MOUNTED BALANCING DAMPERS SHALL BE USED TO CONTROL SUPPLY AIR TO EACH DIFFUSER AND GRILLE. AN OPERATING HEAD SHALL BE PLACED ON THE SIDE OF THE DUCT WITH A POSITIVE LOCKING QUADRANT. DAMPERS SHALL BE PROVIDED IN RETURN AND EXHAUST AIR DUCTS WHERE SHOWN ON DRAWINGS. COORDINATE THE LOCATION OF CEILING ACCESS PANELS.
6. PROVIDE CEILING ACCESS DOORS AT ALL LOCATIONS OF BALANCING DAMPERS, FIRE DAMPERS, FIRE/SMOKE DAMPERS, VALVES, ETC., WHERE THERE IS NOT A LIFT-OUT TYPE CEILING. ACCESS DOORS SHALL BE HINGED OF METAL CONSTRUCTION WITH SCREWDRIVER LATCHES. ACCESS DOORS TO BE LISTED AND FIRE RATED EQUAL TO OR GREATER THAN THE RATING ASSEMBLY THEY ARE INSTALLED IN.
7. AT FIRE DAMPERS, A DUCT MOUNTED SHEET METAL HINGED DOOR SHALL BE PROVIDED AND INSTALLED WITH POSITIVE LOCKING HANDLE. WHERE DUCTS ARE INSULATED, COVERS SHALL BE INSULATED. FIRE DAMPERS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF UL555. CONTROLLED BY FIRE DETECTOR, FUSABLE LINK, OR ELECTRICAL FUSABLE LINK. PROVIDE 1, 1-1/2, OR 3 HR FIRE RATED MATERIALS AT ALL PENETRATIONS OF FIRE BARRIERS BY DUCTS. SYSTEM APPROVED BY ASTM E 814 OR EQUAL.
8. GRAVITY OR BACKDRAFT DAMPERS SHALL BE ALL ALUMINUM CONSTRUCTION, INTERCONNECTED AND BLADED, PRESSURE DROP THROUGH DAMPERS SHALL NOT EXCEED 0.04" W.G.
9. FIRE ALARM CONTRACTOR SHALL TEST FOR FIRE/SMOKE DAMPERS AS REQUIRED BY LOCAL BUILDING OFFICIAL AND FIRE AUTHORITY PRIOR TO OCCUPANCY.

233416 - FANS

1. ROOF MOUNTED EXHAUST FANS SHALL BE COMPLETE WITH BACKDRAFT DAMPERS. A DISCONNECT SWITCH SHALL BE PROVIDED AT THE FAN.
2. THE DISCONNECT SWITCH SHALL TURN OFF THE FAN WITH THE ACTIVATION OF SMOKE DETECTION.
3. THE FAN SHALL BE COMPLETE WITH INSECT SCREEN AND PREFABRICATED ROOF CURB MATCHING THE FAN SIZE.
4. CEILING MOUNTED EXHAUST FANS SHALL BE COMPLETE WITH LOUVERED GRILLE, BACKDRAFT DAMPER, AND WALL CAP OR ROOF CAP, SEE PLANS.
5. FANS FOR GREASE HOOD APPLICATIONS SHALL BE UPBLAST TYPE, LISTED AND LABELED FOR GREASE HOOD USE AND INSTALLED PER APPLICABLE CODES.
6. UTILITY FAN SETS SHALL BE BELT DRIVEN, CENTRIFUGAL FANS CONSISTING OF WEATHER PROOF HOUSING, WHEEL FAN SHAFT, BEARINGS, MOTOR, DISCONNECT SWITCH, DRIVE ASSEMBLY, DRAIN CONNECTION AND ACCESSORIES.
7. MANUFACTURERS: COOK, ILG, PENN, GREENHECK, & BROAN

233713 - GRILLES, DIFFUSER AND LOUVERS

1. ALL GRILLES, DIFFUSERS, AND REGISTERS SHALL BE COMPLETE WITH FRAMES AND RUBBER GASKETS. FINISH FOR ALL REGISTERS, DIFFUSERS, AND GRILLES SHALL BE WHITE.
2. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL LIGHTING LAYOUT, AND ARCHITECTURAL ELEVATIONS.
3. LOUVERS SHALL HAVE MINIMUM FREE AREA AND MAXIMUM PRESSURE DROP AS LISTED IN THE SCHEDULES. LOUVER SHALL HAVE FRAME AND SILLS COMPATIBLE WITH ADJACENT SUBSTRATE AND FIT ACCURATELY FOR WEATHERPROOF INSTALLATION. LOUVERS SHALL BE COMPLETE WITH 1/2" MESH ANODIZED ALUMINUM BIRD SCREEN.

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BUILDING 'E'

ELECTRIC UNIT HEATER SCHEDULE

SYMBOL	MANUFACTURER AND MODEL NO.	LOCATION	ARRANGEMENT	CFM	ELECTRICAL				OPERATING WEIGHT (LBS.)	NOTES	ACCESSORIES AND REMARKS
					KW	MOTOR H.P.	VOLT	PHASE			
EUH-1	TRANE UHEC03	WATER ENTRIES	VERTICAL	400	3.3	1/125	208	1	132	3	WALL HUNG
EUH-2	TRANE UHCA02	EXIT DOORS	HORIZONTAL	-	2.0	-	208	1	-	1,2	RECESSED, CEILING MOUNTED
EUH-3	TRANE UHAA15	CUSTODIAN	VERTICAL	-	1.5	-	208	1	22	1,2	RECESSED, WALL MOUNTED

NOTES:
(1) UNIT MOUNTED TAMPERPROOF THERMOSTAT
(2) UNIT MOUNTED DISCONNECT SWITCH
(3) PROVIDE WALL MOUNTED LINE VOLTAGE THERMOSTAT AND TAMPERPROOF WALL BRACKET

DIFFUSER AND GRILLE SCHEDULE

SYMBOL	MANUFACTURER AND MODEL NO.	LOCATION	CFM	OVERALL SIZE	NOTES	ACCESSORIES AND REMARKS
SG-1	TITUS 300R	CEILING	SEE PLANS	14 X 6 10 X 6	3,5	CEILING SUPPLY GRILLE W/ FIRE DAMPER
CD-1	TITUS PAS-FR	CEILING	SEE PLANS	24 X 24 12 X 12	2,5	CEILING DIFFUSER W/ FIRE DAMPER
RG-1	TITUS PAR-FR	CEILING	SEE PLANS	24 X 24 16 X 16	2,5	RETURN GRILLE W/ FIRE DAMPER
EG-1	TITUS 63F	EXTERIOR EXHAUST TERMINATION	SEE PLANS	8X6	4	EXHAUST DISCHARGE GRILLE, ALUMINUM
DG-1	TITUS CT-700L	DOOR TRANSFER	SEE PLANS	18 X 12	1	DOOR GRILLE
FIRE RATING NOTE: ALL CEILING DUCTWORK & DIFFUSER PENETRATIONS TO HAVE UL CLASSIFIED FIRE DAMPERS TO MAINTAIN FIRE RATING. (TYPICAL)						

NOTES:
(1) PROVIDE AUXILIARY FRAME FOR TO ALLOW FOR FINISHED LOOK ON BOTH SIDES OF DOOR.
(2) PROVIDE FRAME AND BALANCING DAMPER ACCESSIBLE THROUGH GRILLE FOR HARDLID CEILING APPLICATIONS AS REQUIRED.
(3) PROVE DOUBLE DEFLECTION GRILLE WITH INTEGRAL BALANCING DAMPER.
(4) PROVIDE NECESSARY FRAME TO ALLOW FOR INSTALLATION ON BOTTOM SIDE OF EXISTING EXTERIOR OVERHANG.
(5) PROVIDE UL CLASSIFIED FIRE RATED CEILING DIFFUSER ASSEMBLY.

EXHAUST FAN SCHEDULE

SYMBOL	MANUFACTURER AND MODEL NO.	LOCATION	TYPE	FAN		ELECTRICAL				OPERATING WEIGHT (LBS.)	CONTROL METHOD	ACCESSORIES AND REMARKS
				CFM	ESP	MOTOR H.P.	MOTOR WATTS	VOLT	PHASE			
EF-1	PANASONIC FV-05-11VKS1	PRIVATE UNIT BATHROOMS	CEILING	110	0.5	-	57	115	1	27	1	CEILING MOUNTED W/ WHITE GRILLE

CONTROL METHOD:
(1) CONTROLLED BY WALL SWITCH
(2) FAN RUNS CONTINUOUSLY DURING BUILDING OCCUPANCY
(3) CONTROLLED BY LINE VOLTAGE SPACE THERMOSTAT

ACCESSORIES:
(1) STANDARD DISCONNECT NEMA 1
(2) BACKDRAFT DAMPER
(3) FLEX DUCT CONNECTION
(4) FAN SPEED CONTROLLER 5A 120V PREWIRED
(5) RUBBER ISOLATOR SET (4)
(6) PROVIDE UL LISTED CEILING RADIATION DAMPER TO MATCH FAN TYPE (PANASONIC-RD05C3)

ROOFTOP UNIT SCHEDULE (2-STAGE HEATING/COOLING)

SYMBOL	MANUFACTURER	MODEL #	CFM	ESP	VOLT/PH	EER	COOLING CAP HI STAGE (BTUH)	HEATING INPUT (BTUH)	ELECTRICAL			DIMENSIONS H X W X L	WEIGHT (LBS)	COMMENTS
									VOLT/PH	MCA (AMPS)	MAX FUSE			
RTU-1	TRANE	4YCZ6036	1200	1.0	208/3	16.0	36,000	96,000	208/3	19.1	30 A	48" X 45" X 52"	550	HORIZONTAL SUPPLY/RETURN
RTU-2	TRANE	YHC047E3	1600	1.0	208/3	16.0	50,500	120,000	208/3	28.9	40 A	41" X 53" X 88"	800	HORIZONTAL SUPPLY/RETURN

(1) PROVIDE DIGITAL REMOTE PROGRAMMABLE THERMOSTAT IN LOCKABLE COVER.
(2) 0-25% MANUAL FRESH AIR DAMPER (BUILDING B RTUS)
(3) 0-100% HORIZONTAL ECONOMIZER (BUILDINGS A & C THRU F RTUS)
(4) 13" HIGH ROOF CURB/PLATFORM
(5) CRANKCASE HEATER FOR LOW AMBIENT COOLING
(6) PROVIDE INSULATED DUCT SHROUD ON ALL EXTERIOR DUCTWORK
(7) GAS PRESSURE REGULATOR & ISOLATION VALVE
(8) 120 V CONVENIENCE OUTLET INTEGRAL TO UNIT
(9) CONDENSER COIL HAIL GUARD
(10) NON-FUSED DISCONNECT INTEGRAL TO UNIT
(11) GAS & ELECTRIC FEEDS TO ENTER THROUGH BASE OF UNIT

DUCTLESS SPLIT SYSTEM HEAT PUMP

SYMBOL	MANUFACTURER	INDOOR UNIT				COOLING CAPACITY (BTUH)	HEATING CAPACITY (BTUH)	OUTDOOR UNIT						COMMENTS
		MODEL #	CFM	VOLT/PH	RLA (AMPS)			SYMBOL	VOLT/PH	MCA (AMPS)	MODEL #	HSPF	SEER	
DSS-1	LENNOX	MS8-HI-24P	590	208/1	0.24	25,000	26,000	CU-1	208/1	16.0	MS8-HO-24P	10.20	18.00	HIGH SIDEWALL STYLE (BLDGS. A, B, D, E & F)
DSS-2	LENNOX	MS8-HI-30P	705	208/1	0.40	30,000	33,000	CU-2	208/1	20.0	MS8-HO-30P	8.20	16.00	HIGH SIDEWALL STYLE (BLDG. C)

(1) PROVIDE REMOTE PROGRAMMABLE THERMOSTAT. BUILDINGS A, B, D, E & F MAX TEMP 85F (ADJ.) BUILDING C COOLING SETPOINT 70F (ADJ.) MAINTAIN 50F HEATING SETPOINT (ADJ)
(2) BUILT IN CONDENSATE PUMP / DISCHARGE CONDENSATE TO APPROVED LOCATION
(3) MULTI-SPEED FAN
(4) DEFROST CONTROL
(5) COMPRESSOR OVERCURRENT PROTECTION
(6) PROVIDE MANUFACTURER'S WALL CHANNEL (SPEEDICHANNEL SYSTEM) TO CONCEAL ALL REFRIGERANT PIPING EXPOSED TO VIEW AND EXTERIOR CONDITIONS.
(7) PROVIDE MANUFACTURER'S CONDENSER PAD 18 X 36 X 2

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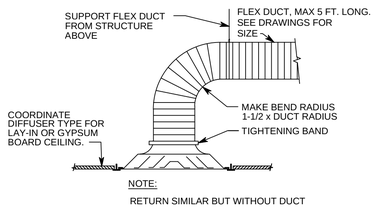
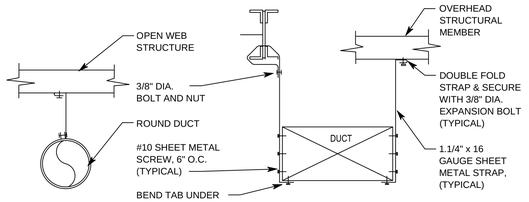
BUILDING 'E'



NOTE:
RETURN SIMILAR BUT WITHOUT DUCT

6 DIFFUSER CONNECTION

SCALE: NTS



NOTE:
USE SPECIFIED SPACING AND NOT LESS THAN ONE SUPPORT PER BRANCH.

NOTE:
ONE HANGER REQUIRED DUCT 24" DIA. AND SMALLER, TWO HANGERS REQUIRED FOR DUCTS 26" DIA. AND LARGER.

7 DUCT HANGER

SCALE: NTS

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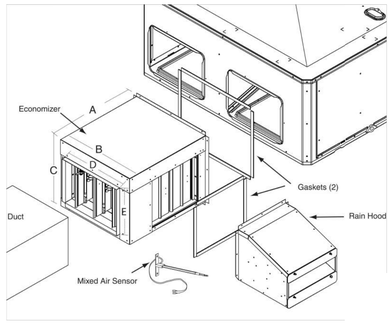
BUILDING 'E'

BAYECON203,204A Horizontal Economizer and Rain Hood

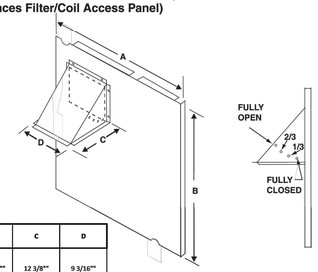


Economizer	A	B	C	D	E	F
BAYECON203AA	22"	20"	16 7/8	15 11/16	11 11/16	15

3 HORIZONTAL ECONOMIZER DETAIL (3 TON)
SCALE: NTS

Optional Equipment

BAYOSAH001,002A, 25% Outside Air Damper (Replaces Filter/Coil Access Panel)

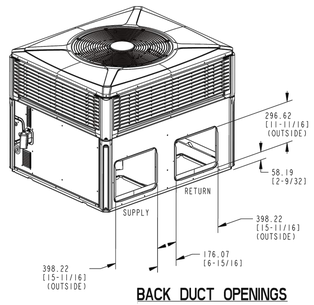


Manual Fresh Air Model	Unit Application Models	A	B	C	D
BAYOSAH001	4YC,WC3018-036 4TC*3018-036, 4W/T/Y/DCY4024-036, 4W/Y/DCZ60036	22 7/16""	20 11/16""	12 3/8""	9 3/16""

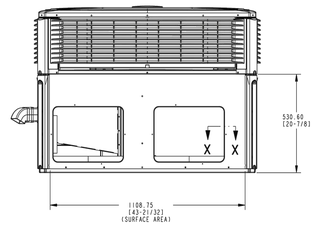
2 25% OUTSIDE AIR DAMPER (3 TON)
SCALE: NTS

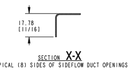
RECOMMENDED SERVICE CLEARANCE MM/IN.		
		WITH ECONOMIZER
BACK SIDE	304.8 [12]	762.0 [30]
LEFT SIDE	762.0 [30]	914.4 [36]
RIGHT SIDE	914.4 [36]	-
FRONT SIDE	1066.8 [42]	-

CLEARANCE TO COMBUSTIBLE MATERIAL MM/IN.	
BOTTOM	0
BACK SIDE	25.4 [1]
LEFT SIDE	152.4 [6]
RIGHT SIDE	304.8 [12]
FRONT SIDE	304.8 [12]
TOP	914.4 [36]



BACK DUCT OPENINGS





BACK SIDE

1 ROOFTOP UNIT DETAIL (3 TON)
SCALE: NTS

Stainless Steel Drain Pan

For excellent corrosion and oxidation resistance, the optional stainless steel drain pan provides a cleanable surface that complement other IAQ solutions such as high efficiency filtration (MERV 8 or 13), demand control ventilation (CO_2), and hot gas reheat.

Powered or Unpowered Convenience Outlet

This option is a GFCI, 120V/15amp, 2 plug, convenience outlet, either powered or unpowered. This option can only be ordered when Through the Base Electrical with either the Disconnect Switch or Circuit Breaker option is ordered.
Note: Not available on 460V/575V units.

Through-the-Base Electrical Utility Access

An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field installed disconnect switch.

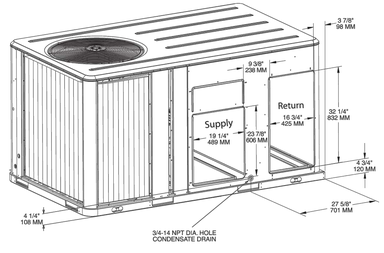
Factory provided through the base openings simpl wiring and piping. Because these utility openings frequently minimize the number of roof penetration integrity of roofing materials is enhanced.

6 RTU ACCESSORY & INSTALLATION DETAIL
SCALE: NTS

Touchscreen Programmable Thermostat (2H/2C)

Two Heat/Two Cool programmable thermostat with touch screen digital display. Menu-driven programming. Effortless set-up. Program each day separately with no need to copy multiple days. All programming can be done on one screen. Easy to read and use. Large, clear backlit digital display.

5 RTU THERMOSTAT DETAIL
SCALE: NTS



4 ROOFTOP UNIT DETAIL (4 TON)
SCALE: NTS

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BUILDING 'E'

SYMBOL LEGEND

SYMBOL	DESCRIPTION
PLUMBING PIPING	
W	SOIL, WASTE - ABOVE GRADE
W	SOIL, WASTE - BELOW GRADE
GW	GREASE WASTE - ABOVE GRADE
GW	GREASE WASTE - BELOW GRADE
	VENT
	COLD WATER
	HOT WATER
	HOT WATER CIRCULATE
ST	STORM - ABOVE GRADE
ST	STORM - BELOW GRADE
OST	OVERFLOW STORM ABOVE GRADE
OST	OVERFLOW STORM BELOW GRADE
VTR	VENT THRU ROOF
(E)	EXISTING PIPE
(E)	EXISTING PIPE TO BE REMOVED
G	GAS

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
	VICTAULIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
	REFRIGERANT FILTER DRIER
	90° ELBOW UP
	90° ELBOW DOWN
	90° TEE UP
	90° TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP
PLUMBING SYMBOLS	
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

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED

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

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
# / SHEET	DETAIL INDICATOR: # INDICATES DETAIL NUMBER, SHEET INDICATES DRAWING SHEET WHERE DETAIL 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 / SEE XX/X-XXX	MATCH LINE INDICATOR
— — — —	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
— · —	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
	NEW CONNECTION POINT TO EXISTING

PLUMBING SCOPE OF WORK

DEMOLITION NOTES:

PLUMBING CONTRACTOR TO UTILIZE SELECTIVE DEMOLITION APPROACH. MANY AREAS INCLUDE PLUMBING EQUIPMENT AND ACCESSORIES LOCATED ABOVE HARDLID CEILINGS OR WITHIN INACCESSIBLE SPACES. FIELD TRACING OF DEMOLITION IS REQUIRED.

ALL EXISTING PLUMBING FIXTURES AND ACCESSORIES ARE TO BE REMOVED TO ALLOW FOR NEW TENANT SPACES. ALL PLUMBING EQUIPMENT, FIXTURES, PIPING, AND ACCESSORIES THAT ARE CURRENTLY ABANDONED IN PLACE ARE TO BE REMOVED.

ALL STORM WATER / ROOF DRAINAGE PIPING WITHIN THE BUILDING IS TO REMAIN UNCHANGED.

EXISTING GAS METERS TO REMAIN. EXISTING GAS PIPING SEGMENTS MAY BE REUSED IF SIZING AND ROUTING ARE SIMILAR TO NEW PIPING LAYOUT. PUBLIC UTILITY COMPANY TO VERIFY NATURAL GAS CAPACITIES AND ASSOCIATED PRESSURES.

CAP/REPLACE ALL WASTE AND VENT LINES BACK TO NEAREST MAIN TO ALLOW FOR FUTURE CONNECTIONS.

NEW CONSTRUCTION NOTES:

NEW WATER ENTRIES WILL BE INSTALLED AS INDICATED ON PLANS.

ALL DOMESTIC COLD WATER AND FIRE WATER PIPING SEGMENTS EXPOSED TO ENVIRONMENT ARE TO BE INSULATED AND HEAT TRACED FOR FREEZE PROTECTION.

ALL EXISTING STORM DRAIN TERMINATIONS ARE TO CONNECT TO CIVIL DRAINAGE SYSTEM.

ALL GREASE WASTE PIPING DESIGNATED TO SERVE FUTURE WARMING KITCHEN WILL TIE INTO NEW GREASE INTERCEPTOR AS SHOWN ON CIVIL DRAWINGS. A VENT LINE FOR THE GREASE INTERCEPTOR WILL BE PROVIDED AND WILL TERMINATE THROUGH ROOF OF BUILDING 'D'.

THE NEW SYSTEM COMPONENTS WILL ALLOW FOR FUTURE OFFICE AND TEMPORARY RESIDENT SPACES AS INDICATED ON PLANS.

DOMESTIC WATER, WASTE, AND GREASE WASTE LINES (AS APPLICABLE) WILL BE PROVIDED TO EACH BUILDING AS INDICATED.

HEATING OF DOMESTIC WATER WILL BE PROVIDED BY INDIVIDUAL BUILDING WATER HEATERS.

DOMESTIC COLD WATER SUBMETERS TO BE INSTALLED IN EACH BUILDING'S WATER ENTRY ROOM. VERIFY NEED WITH OWNER PRIOR TO INSTALLATION.

FIRE PROTECTION SCOPE OF WORK

NEW CONSTRUCTION NOTES:

NEW FIRE ENTRIES TO BE INSTALLED AS INDICATED ON PLANS.

FIRE PROTECTION LINES TO BE ROUTED ON WARM SIDE OF BUILDING INSULATION.

INSTALL FIRE PROTECTION SYSTEM PER NOTES INDICATED ON P02 OF THIS DRAWING SET.

ALL BREEZEWAY SOFFITS TO INCORPORATE DRY PIPE FIRE PROTECTION SYSTEM FED FROM FIRE ENTRY ROOM PIPING AS REQUIRED.

IN THE EVENT THAT ROUTING MAY PROVE DIFFICULT DUE TO EXISTING CONDITIONS A DRY-PIPE SYSTEM SHOULD BE EVALUATED. LOCATE AIR COMPRESSOR IN ASSOCIATED FIRE ENTRY ROOM AS REQUIRED.

SEE SHEET P02 (SPEC SECTION 221316) AND SHEET P13 FOR FURTHER SYSTEM REQUIREMENTS & DETAILS.

DIVISION 26 CONTRACTOR TO PROVIDE POWER TO ASSOCIATED SYSTEM FLOW SWITCH.

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project:

Tenant Finish for New Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, & 4953 South 900 East
Salt Lake County, Utah

date

February 24, 2017

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title

PLUMBING GENERAL NOTES & LEGEND

sheet

P01

BUILDING 'E'

PLUMBING SPECIFICATIONS

220100 - BASIC PIPING MATERIALS & METHODS

1. CORE CUT ALL PIPE PENETRATION OF EXISTING MASONRY OR CONCRETE WALLS AND FLOORS. SLEEVE ALL PENETRATIONS THROUGH NEW WALLS AND FLOORS. SEAL ALL PENETRATIONS WATER TIGHT WITH SILICONE SEALANT. USE FIRE RATED SEALANT (3M "FIRE BARRIER" OR EQUAL) FOR 1 HOUR OR 2 HOUR PENETRATIONS.
2. CAULK AROUND ALL PIPING THAT PASSES THROUGH FIRE-RATED PARTITIONS WITH A NON-HARDENING CAULKING SIMILAR TO 3M "FIRE BARRIER".
3. SEAL ALL PIPING THROUGH WALLS AIR TIGHT.

220533 - HEAT TRACING CABLE

1. PROVIDE RAYCHEM ELECTRIC SELF REGULATING HEATING CABLE WITH ALL NECESSARY ACCESSORIES TO MAINTAIN THE TEMPERATURE IN THE TRACED PIPE SYSTEM AT 45°F.
2. FOR DOMESTIC HOT WATER USE, THE CABLE SHALL BE DESIGNED, MANUFACTURED AND U.L. LISTED FOR DOMESTIC HOT WATER TEMPERATURE MAINTENANCE.
3. CABLE SHALL CONSIST OF TWO (2) 16-AWG NICKEL-COATED COPPER BUS WIRES EMBEDDED IN A RADIATION-CROSSLINKED CONDUCTIVE POLYMER CORE. IT SHALL BE COVERED BY A RADIATION-CROSSLINKED, POLYOLEFIN, DIELECTRIC JACKET SURROUNDED BY A POLYMER-COATED ALUMINUM WRAP, AND ENCLOSED IN A TINNED COPPER BRAID OF 14 AWG EQUIVALENT WIRE SIZE. THE BRAID SHALL BE COVERED WITH A (NOMINAL) 40-MIL POLYOLEFIN OUTER JACKET, COLOR CODED FOR EASY IDENTIFICATION.

220548 - VIBRATION ISOLATION AND SEISMIC

1. ALL PLUMBING EQUIPMENT AND PIPING MUST BE VIBRATION ISOLATED AND SEISMICALLY BRACED FOR THE SITE SPECIFIC SEISMIC DESIGN CATEGORY AND SEISMIC USE GROUP, IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE BUILDING CODES AND ASHRAE. PROVIDE SEISMIC PRODUCTS BY AMBER-BOOTH OR MASON INDUSTRIES.
2. IN GENERAL, PROVIDE SPRING MOUNTS TO ATTENUATE LOW FREQUENCY SOUND AND VIBRATION. PROVIDE NEOPRENE PADS TO ATTENUATE HIGH FREQUENCY SOUND
3. VIBRATION: SEISMIC BRACING/MOUNTING CAN BE COMBINED WITH VIBRATION ISOLATION AS APPLICABLE.
4. CONTRACTOR MANUFACTURED SEISMIC BRACING/RESTRAINT METHODS ARE NOT ACCEPTABLE.
5. PROVIDE A SIGNED AND STAMPED LETTER FROM A PROFESSIONAL ENGINEER CERTIFYING THAT THE SUPPLIED PRODUCTS ARE CORRECT FOR THE APPLICATION AND THAT THE INSTALLATION IS IN COMPLIANCE WITH ALL APPLICABLE CODES.

220719 - INSULATION

1. PIPE INSULATION: SNAP-ON GLASS FIBER TYPE WITH VAPOR JACKET. SEAL ALL ENDS AND JOINTS TO PROVIDE A COMPLETELY SEALED SYSTEM. ALTERNATIVELY, FOR INTERIOR WATER PIPING, USE FLEXIBLE UNICELLULAR ASTM 534 TYPE 1 INSULATION. USE 1" THICKNESS FOR PIPE UP TO 2"Ø AND 1-1/2" FOR PIPE OVER 2"Ø
2. PROVIDE ADA COMPLIANT FIXTURES WITH SNAP ON ADA ARTICLE 4.19 22FF COMPLIANT WHITE INSULATION. TRUEBRO LAV GUARD, BASIN GUARD OR LAV SHIELD.
3. THERMAL AND SOUND INSULATION AND COVERING WHICH ARE INSTALLED AND EXPOSED SPACES AND COVERING PIPE AND TUBING SHALL BE TESTED IN ACCORDANCE WITH ASTM E 84 AND HAVE A FLAME SPREAD OF 0-25 AND A SMOKE INDEX OF 0-450.
4. THERMAL AND SOUND INSULATION AND COVERING OVER PIPE AND TUBING WHICH ARE INSTALLED IN CONCEALED PLENUM SPACES SHALL BE TESTED IN ACCORDANCE WITH ASTM E 84 AND HAVE A FLAME SPREAD OF 0-25 AND A SMOKE INDEX OF 0-50.

221116 - WATER DISTRIBUTION PIPING

1. UNDERGROUND WATER PIPING:

   2" AND SMALLER:
   ASTM 88 TYPE "K" COPPER WITH A MINIMUM NUMBER OF SOLDERED JOINTS. USE 95-5 TIN ANTIMONY COPPER SOLDER.

   2-1/2" AND LARGER:
   PVC AWWA 900 CLASS 100 WITH SOLVENT CEMENTED JOINTS, OR PB PLASTIC PIPE ASTM D3309 SDR 11 WITH HEAT FUSION JOINTS.
2. NO TYPE "M" OR "DWV" COPPER IS TO BE USED IN THIS PROJECT.
3. ALL ABOVE GROUND HOT AND COLD WATER PIPING:
   ASTM B 88 TYPE "L" COPPER, WITH WROUGHT COPPER FITTINGS AND SOLDERED WITH 95-5 TIN-ANTIMONY SOLDER.
4. INSTALL PIPE HANGERS WITH THE FOLLOWING MINIMUM ROD SIZES AND MAXIMUM SPACING. UPON COMPLETION OF HANGER INSTALLATION, ALL ADJUSTMENTS HAVING THE POSSIBILITY OF TURNING SHALL BE LOCKED SECURELY IN PLACE BY DOUBLE NUTTING AT THE HANGER ROD ATTACHMENT TO THE STRUCTURE, AND AT THE PIPE HANGER.

NOM. PIPE SIZE-INCHES	MAX SPAN-FT.	MIN. ROD SIZE-INCHES
1	7	3/8
1-1/2	9	3/8
2	10	3/8
3	12	1/2
4	14	5/8
6	17	3/4

5. ALL PIPE HANGERS AND EQUIPMENT SUPPORTS SHALL BE LOCATED A MINIMUM DISTANCE OF 2" FROM ANY REFRIGERANT PIPE.
6. ALL PLUMBING FIXTURES CONNECTED TO A POTABLE WATER SYSTEM WITH HOSE CONNECTIONS ON THE OUTLET SIDE AND OWNER FURNISHED EQUIPMENT WITH DIRECT CONNECTIONS, SHALL BE PROVIDED WITH BACKFLOW PREVENTION.

PLUMBING SPECIFICATIONS

221316 - DRAINAGE AND VENT SYSTEMS

1. UNDERGROUND BUILDING DRAIN PIPE AND FITTINGS:
   A. NO HUB ABS OR PVC PLASTIC PIPE AND FITTINGS PER ASTM D2661 WITH ASTM D2235 SOLVENT
   OR
   B. ASTM A74 SERVICE WEIGHT, HUB AND SPIGOT CAST IRON SOIL PIPE, OR ASTM A888 (OR CISPI 301) HUBLESS CAST IRON SOIL PIPE WITH ASTM C564 HEAVY DUTY SHIELDED STAINLESS STEEL COUPLINGS.

   A. NO ASTM D2729 PIPE SHALL USED UNDERGROUND.
2. ABOVE GROUND SANITARY DRAINAGE AND VENT PIPING, IN ALL AREAS EXCEPT AIR PLENUMS AND EXCEPT IN A FIRE RATED BUILDING, SHALL BE ABS TYPE DWV PLASTIC PIPE AND FITTINGS PER ASTM D2661 WITH ASTM D2255 SOLVENT, OR PVC PLASTIC PIPE AND FITTINGS PER ASTM D2665 WITH ASTM D2564 SOLVENT, OR SERVICE WEIGHT, NO HUB CAST IRON COUPLED PIPE AND FITTINGS WITH COMPRESSION TYPE NEOPRENE GASKETS AND STAINLESS STEEL BANDS.
3. FORCE SEWER MAINS UP TO 4" SHALL BE TYPE L HARD COPPER TUBE WITH WROUGHT COPPER PRESSURE FITTINGS AND SOLDERED JOINTS, OR DUCTILE IRON PIPE AND FITTINGS WITH MECHANICAL JOINTS.
4. ALL SANITARY DRAINAGE AND VENT PIPING INSIDE AIR PLENUMS AND ANYWHERE IN A FIRE RATED BUILDING SHALL BE NO HUB SERVICE WEIGHT CAST IRON COUPLED PIPE AND FITTINGS WITH COMPRESSION TYPE NEOPRENE GASKETS AND STAINLESS STEEL BANDS. ASTM B306 COPPER PIPE MAY BE USED WITH SOLDERED JOINTS FOR PIPE 3" AND SMALLER.
5. ABOVE GROUND ROOF DRAIN LINES, EXCEPT IN AIR PLENUMS AND ANYWHERE IN A FIRE RATED BUILDING, SHALL BE ABS TYPE DWV PLASTIC PIPE AND FITTINGS PER ASTM D2661 WITH ASTM D2255 SOLVENT, OR PV C PLASTIC PIPE PER ASTM D2665 WITH ASTM D2564 SOLVENT.
6. ALL ROOF DRAIN LINES INSIDE AIR PLENUMS, OR ANYWHERE IN A FIRE RATED BUILDING, SHALL BE SERVICE WEIGHT CAST IRON PIPE TO CISPI STANDARD 301.
7. ALL ROOF DRAIN LINES SHALL BE FULLY INSULATED.
8. OVERFLOW ROOF DRAINS SHALL DAYLIGHT 18" ABOVE THE SURROUNDING HORIZONTAL AREA.
9. INSTALL SANITARY DRAIN LINES 2-1/2" AND LESS WITH A SLOPE OF 2%. INSTALL SANITARY DRAIN LINES 3"-6" WITH A SLOPE OF NOT LESS THAN 1%.
10. SLOPE ROOF DRAIN LINES DOWN IN DIRECTION OF FLOW, 1/8" PER FOOT (1%).
11. CLEANOUTS
    A. FINISHED WALL CLEANOUTS: SMITH FIGURE 4472 COMPLETE WITH CAST BRONZE TAPER THREADED PLUG, STAINLESS STEEL COVER AND SCREW.
    B. FLOOR CLEANOUTS (UNFINISHED AREAS): SMITH FIGURE 4223 DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED CAST IRON TOP, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
    C. FINISHED FLOOR CLEANOUTS (CONCRETE FLOORS): SMITH FIGURE 4023 DUCO CAST IRON CLEANOUT WITH ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP, TAPER THREADED CAST BRONZE PLUG AND SPIGOT OUTLET.
    D. FINISHED FLOOR CLEANOUTS (CARPETED FLOORS): SMITH FIGURE 4023-Y SAME AS CONCRETE FLOORS WITH CARPET MARKER.
    E. FINISHED FLOOR CLEANOUTS (TILE FLOORS): SMITH FIGURE 4163 DUCO CAST IRON CLEANOUT WITH SQUARE ADJUSTABLE SECURED NICKEL BRONZE TOP WITH 1/8" RECESS, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
    F. EXTERIOR CLEANOUTS (CLEANOUT TO GRADE): SMITH FIGURE 4253 DUCO CAST IRON CLEANOUT AND DOUBLE FLANGED HOUSING WITH HEAVY DUTY SECURED SCORIATED CAST IRON COVER WITH LIFTING DEVICE, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
12. FLOOR DRAINS:

    FD-1 FLOOR DRAIN: SMITH FIGURE 2010-BP CAST IRON BODY AND FLASHING COLLAR WITH PROTECTIVE CAP AND SQUARE NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED SQUARE HOLE GRATE, AND TRAP PRIMER CONNECTION.

    FD-2 MECHANICAL ROOM DRAIN: SMITH FIGURE 2110-NB MEDIUM DUTY FLOOR DRAIN. CAST IRON BODY AND FLASHING COLLAR WITH NICKEL BRONZE BAR GRATE.
13. ROOF DRAINS (AS REQUIRED IF REPLACEMENT IS NECESSARY)

    RD-1 ROOF DRAIN: SMITH FIGURE 1010-ERC CAST IRON BODY WITH COMBINED FLASHING CLAMP AND CAST IRON GRAVEL STOP, CAST IRON DOME, EXTENSION, SUMP RECEIVER AND UNDERDECK CLAMP.

    ORD-1 OVERFLOW ROOF DRAIN: SMITH FIGURE 1080-ERC CAST IRON BODY WITH FLASHING CLAMP, GRAVEL STOP, CAST IRON DOME, 2" HIGH CAST IRON WATER COLLAR, EXTENSION, SUMP RECEIVER AND UNDERDECK CLAMP.

    DSN-1 DOWNSPOUT NOZZLE:SMITH FIGURE 1770 DOWNSPOUT NOZZLE. CAST BRONZE BODY AND FLANGE. PROVIDE BRONZE BOLTS TO SECURE NOZZLE TO WALL. INSTALL 12" ABOVE FOUNDATION UNLESS NOTED OTHERWISE.
14. FIRE/WATER ENTRIES

    FIRE ENTRY: WATTS 757DCDA OSY OR EQUAL. DOUBLE CHECK DETECTOR ASSEMBLY. TWO INDEPENDENTLY OPERATING TRI-LINK CHECK VALVES, TWO SHUTOFF VALVES, AND FOUR TEST COCKS. STAINLESS STEEL HOUSING AND SLEEVE. MAXIMUM WORKING PRESSURE: 175PSI. PROVIDE FLOW SWITCH WITH LINE VOLTAGE POWER.

    DOMESTIC WATER ENTRY: WATTS LF909 OR EQUAL. LEAD FREE REDUCED PRESSURE ZONE ASSEMBLY. HORIZONTAL OR VERTICAL (UP OR DOWN) INSTALLATION, TEMPERATURE RANGE: 33°F – 140°F, MAXIMUM WORKING PRESSURE: 175PSI, TEMPERATURE RANGE: 33°F – 210°F, MAXIMUM WORKING PRESSURE: 175PSI (FOR MAIN SERVICE WATER ENTRY APPLICATIONS)

    DOMESTIC WATER DOUBLE CHECK: WATTS LF719 OR EQUAL. LEAD FREE DOUBLE CHECK VALVE ASSEMBLY. SEPARATE ACCESS, TOP ENTRY CHECK VALVE, REVERSIBLE SEAT DISC RUBBER, VALVE TEST COCKS, TEMPERATURE RANGE: 33°F – 180°F, MAXIMUM WORKING PRESSURE: 175PSI (FOR APPLICATIONS DOWNSTREAM OF WATER ENTRY PRESSURE REDUCING VALVE)

PLUMBING SPECIFICATIONS

221613 - NATURAL GAS SYSTEMS

1. NATURAL GAS PIPING ABOVE GROUND OR INSIDE BUILDINGS: SCHEDULE 40 BLACK STEEL WITH WELDED OR MALLEABLE IRON FITTINGS.
2. UNDERGROUND GAS PIPE: EITHER POLYETHYLENE ASTM D2513, OR SCHEDULE 40 BLACK STEEL PRIMED AND WRAPPED IN ACCORDANCE WITH LOCAL GAS COMPANY REQUIREMENTS.
3. GAS MAINS INSIDE BUILDINGS ARE SIZED FOR 2 PSIG PRESSURE. LOCATE PRESSURE REGULATORS AS SHOWN ON THE DRAWINGS TO REDUCE PRESSURE FROM 2 PSIG TO 7" W.C. PROVIDE FULL SIZE VENT LINES FROM GAS PRESSURE REGULATORS AND EXTEND TO OUTSIDE OR THROUGH ROOF. FLASH PENETRATIONS AND MAKE WATER TIGHT. INSTALL VENTLESS GAS REGULATOR AS ALTERNATE.
4. PROVIDE GAS SHUT OFF VALVE AT EACH PIECE OF GAS UTILIZING EQUIPMENT.
5. THE EQUIPMENT INSTALLER SHALL APPLY AND SIGN A CERTIFICATION LABEL TO EACH GAS-FIRED APPLIANCE, STATING THE APPLIANCE HAS BEEN ADJUSTED OR MODIFIED PER MANUFACTURER'S REQUIREMENTS FOR OPERATION AT THE PROJECT ALTITUDE AND WITH THE BTU-CONTENT OF THE AVAILABLE FUEL-GAS.

223000 - WATER HEATERS

1. INSTALL UNITS PLUMB AND LEVEL AND FIRMLY ANCHORED PER SEISMIC REQUIREMENTS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. ORIENT SO CONTROLS AND DEVICES NEEDING SERVICING ARE ACCESSIBLE.
2. CONNECT HOT AND COLD WATER PIPING TO UNITS WITH SHUT-OFF VALVES AND UNIONS. CONNECT HOT WATER CIRCULATING PIPING TO UNIT WITH SHUT-OFF VALVE, CHECK VALVE AND UNION.
3. USE DIELECTRIC FITTINGS AND UNIONS WHERE PIPING CONNECTIONS ARE DISSIMILAR METALS.
4. INSTALL VACUUM RELIEF VALVE IN COLD WATER INLET PIPING. EXTEND RELIEF VALVE DISCHARGE TO CLOSEST FLOOR DRAIN. INSTALL DRAIN AS INDIRECT WASTE TO SPILL INTO OPEN DRAIN OR OVER FLOOR DRAIN.
5. PROVIDE AND INSTALL EXPANSION TANK AS SCHEDULED IN DRAWINGS.

   EXPANSION TANK: DIAPHRAGM TYPE, PRE- PRESSURIZED STEEL TANK WITH RELIEF VALVE SETTING @ 120 PSI MAXIMUM PRESSURE.
6. CONNECT GAS SUPPLY PIPING TO BURNER WITH DRIP LEG, TEE, GAS COCK, AND UNION, MINIMUM SIZE SAME AS INLET CONNECTION. INSTALL GAS PRESSURE REGULATORS WHERE INDICATED.
7. CONNECT OIL PIPING TO OIL BURNER WITH SHUT-OFF VALVE AND UNION IN SUPPLY AND CHECK VALVE AND UNION IN RETURN PIPING.
8. ELECTRICAL CONNECTIONS: POWER WIRING AND DISCONNECT SWITCHES ARE SPECIFIED IN DIVISION 16. CONNECT UNIT COMPONENTS TO GROUND IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
9. VENT CONNECTIONS: CONNECT GAS FIRED WATER HEATER DRAFT HOOD TO VENT SYSTEM. UNLESS OTHERWISE INDICATED, PROVIDE VENT SAME SIZE AS OUTLET ON HEATER. COMPLY WITH GAS UTILITY REQUIREMENTS.
10. CONNECT OIL-FIRED WATER HEATER VENT AND DRAFT REGULATOR TO VENT SYSTEM. PROVIDE VENT AND DRAFT REGULATOR SAME SIZE AS OUTLET ON HEATER.
11. PROVIDE SEALED COMBUSTION SYSTEMS WITH CONNECTIONS FOR OUTSIDE COMBUSTION AIR.
12. PROVIDE CONCENTRIC VENT TERMINATION KIT FOR ROOF OR WALL APPLICATIONS.
13. PROVIDE PVC COMBUSTION AIR AND VENT PIPING FROM WATER HEATER TO TERMINATION KIT.
14. PROVIDE CONDENSATE DRAIN FROM WATER HEATER OR VENT AS REQUIRED.

PLUMBING SPECIFICATIONS

224213 - PLUMBING FIXTURES

1. PROVIDE AND INSTALL CARRIERS AS REQUIRED FOR FLOOR OR WALL MOUNTED PLUMBING FIXTURES. INSTALL ALL FIXTURES WITH ACCESSORIES AS REQUIRED TO PROVIDE A COMPLETE, WORKABLE INSTALLATION.
2. PLUMBING FIXTURES SHALL INCLUDE COMPRESSION STOPS ABOVE FLOOR IN SUPPLIES TO ALL FIXTURES AND A MINIMUM 17 GAUGE P-TRAP.
3. ALL LAVATORIES AND HAND SINKS WILL HAVE A COMBINATION FAUCET OR PREMIXING FAUCET CAPABLE OF SUPPLYING WARM WATER FOR A MINIMUM OF 10 SECONDS.
4. ALL JANITORIAL SINK FAUCETS MUST BE PROVIDED WITH AN APPROVED BACKFLOW PREVENTION DEVICE.
5. FLOOR DRAINS AND FLOOR SINKS ARE SHOWN IN THE APPROXIMATE LOCATION. COORDINATE FINAL LOCATION WITH EQUIPMENT AND DRAINAGE REQUIREMENTS. PROVIDE BLOCKOUTS AS NECESSARY.

FIRE SPRINKLER SYSTEM REQUIREMENTS (NFPA-13)

THESE DRAWINGS AND SPECIFICATIONS ARE FOR THE FIRE PROTECTION CONTRACTOR TO ENGINEER, DESIGN, BID AND INSTALL A COMPLETE AND OPERATIONAL FIRE PROTECTION SYSTEM, PER THE DESIGN INTENT AS SHOWN.

1. CONTRACTOR TO PROVIDE A HYDRAULICALLY-DESIGNED, FUSIBLE LINK, FULLY SPRINKLED, WET PIPE FIRE PROTECTION SYSTEM FOR BUILDING SPACES NOT SUBJECT TO FREEZING.
2. CONTRACTOR TO PROVIDE A HYDRAULICALLY-DESIGNED, FUSIBLE LINK, FULLY SPRINKLED, DRY PIPE OR GLYCOL FIRE PROTECTION SYSTEM BUILDING SPACES SUBJECT TO FREEZING, INCLUDING PARKING GARAGES, ENTRANCE CANOPIES AND OVERHANGS.
3. ALL DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE BUILDING CODE, FIRE CODE, MECHANICAL CODE, PLUMBING CODE, AND ANY OTHER LOCAL, STATE, OR FEDERAL REGULATIONS AND CODES, AS WELL AS INSTRUCTIONS FROM THE AUTHORITY HAVING JURISDICTION.
4. SUBMIT FIRE PROTECTION LAYOUT DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR GENERAL APPROVAL OF SYSTEM LAYOUT, LOCATION OF COMPONENTS ETC. THEN SUBMIT TO THE FIRE MARSHALL HAVING JURISDICTION AND OBTAIN APPROVAL. CONTRACTOR TO PAY ALL PERMIT/APPROVAL/PLANCHECK FEES AND COSTS INVOLVED.
5. SYSTEM DESIGN SHALL BE BASED ON THE FOLLOWING CRITERIA:

   5.1. LIGHT HAZARD IN ALL AREAS; EXCEPT ORDINARY HAZARD GROUP 1 IN THE KITCHEN AREA.
   5.2. DESIGN THE SYSTEM USING THE AREA/DENSITY METHOD IN NFPA 13.
   5.3. FLOW TEST DATA TO BE DETERMINED BY THE FIRE PROTECTION CONTRACTOR.
6. PROVIDE COVERAGE FOR A SINGLE FIRE ZONE.
7. PROVIDE INSPECTOR'S TEST CONNECTION IN A LOCATION APPROVED BY THE OWNER AND THE FIRE MARSHALL.
8. DUE CONSIDERATION SHALL BE GIVEN TO THE LOCATION OF BUILDING ELEMENTS. (I.E. BEAMS, COLUMNS, LIGHT FIXTURES, ETC.) IN DETERMINING SPRINKLER HEAD SPACING AND ARRANGEMENT. THE STRUCTURE SHOWN ON ALL DETAILS MAY OR MAY NOT PERTAIN TO A PORTION OR ANY PORTION OF THE BUILDING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND STRUCTURAL.
9. ALL EQUIPMENT, PIPING, COMPONENT, AND ACCESSORY SIZES, CAPACITIES AND TYPES SHOWN IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE ADHERED TO.
10. AUXILIARY DRAINS SHALL BE INCLUDED AS NECESSARY TO DRAIN ALL SPRINKLER SYSTEM DISTRIBUTION LINES AND BRANCHES DOWNSTREAM OF THE RISER CHECK VALVE.
11. AUTOMATIC AIR RELEASE VALVES SHALL BE FURNISHED AS NECESSARY TO VENT THE DRY PIPE SPRINKLER SYSTEM. THE VALVES SHALL BE MADE SEPARABLE FROM THE SYSTEM WITH APPROPRIATELY SIZED GATE VALVES.
12. THE CONTRACTOR SHALL THOROUGHLY TEST, DISINFECT, AND FLUSH THE PIPING SYSTEM ACCORDING TO APPLICABLE CODES AND STANDARDS.
13. ANY DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONNECTIONS REQUIRED FOR INSTALLATION.
14. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL BUILDING INFORMATION SUCH AS ATTIC SPACES, CONSTRUCTION MATERIALS, SPECIAL USE SPACES, BUILDING SECTIONS, ETC.
15. SPRINKLER HEADS:

    A. SPRINKLER HEADS FOR LIGHT HAZARD CLASSIFICATION SHALL BE QUICK RESPONSE TYPE PER NFPA 13. ALL OTHER CLASSIFICATIONS SHALL BE STANDARD RESPONSE TYPE.

    B. GENERAL: ALL HEADS SHALL BE FACTORY MUTUAL APPROVED FOR APPLICATION AND INSTALLATION. WET OR DRY TYPE AS REQUIRED. CEILING ESCUTCHEONS MAY BE PLASTIC OR METAL 2 PIECE TYPE

    C. EXPOSED HEADS IN CEILING: SEMI-RECESSED TYPE WITH SATIN CHROME-PLATED ESCUTCHEON CUP, WHEREVER HEADS ARE ADJACENT TO SURFACE-MOUNTED LIGHTS OR OBSTRUCTIONS, USE EXTENDED PENDENT HEAD WITH SHALLOW FRICTION ADJUSTABLE ESCUTCHEON WITH SATIN CHROME-PLATED FINISH. COORDINATE EXTENDED PENDENT HEAD USE WITH ARCHITECT PRIOR TO PURCHASE OR INSTALLATION.

    D. EXPOSED HEADS IN SOLID CEILINGS: SEMI-RECESSED TYPE WITH SHALLOW FRICTION ADJUSTABLE ESCUTCHEON WITH SATIN CHROME-PLATED FINISH.

    E. EXPOSED HEADS IN FINISHED METAL CEILING AREAS: SEMI-RECESSED TYPE WITH SATIN BRASS-PLATED ESCUTCHEON CUP, OF COLOR MATCH METAL CEILING.

    F. CONCEALED HEADS AND THOSE AREAS WITHOUT CEILINGS: UPRIGHT OR PENDANT TYPE WITH ROUGH BRASS FINISH.

    G. SPRINKLER HEADS IN ALL AREAS SHALL OPEN AT 160°-165°F, EXCEPT THAT HEADS IN BAKERY, DELI, ELECTRICAL TRANSFORMER ROOMS, AND PHONE/EMS ROOMS SHALL BE RATED AT 212°F.

    H. HEADS IN FREEZER/COOLER BOXES SHALL BE DRY PENDANT TYPE, AND SHALL BE OF COLOR TO MATCH CEILING.

    I. PENDANT HEADS ON DRY SPRINKLER SYSTEM SHALL BE DRY PENDANT TYPE AND SHALL BE OF COLOR TO MATCH CEILING.

    J. LEGEND:
    ——————o UPRIGHT
    ——————● PENDENT
    ——————o DRY PENDENT
17. RECORD DESIGN DRAWINGS SHOWING ALL EQUIPMENT, COMPONENTS, PIPING AND CONTROLS SHALL BE PREPARED TO THE SAME SCALE AS THESE DRAWINGS. DRAWINGS SHALL BE ON MYLAR AND BE DRAWN IN AUTOCAD. DISK COPIES SHALL BE PROVIDED TO THE OWNER AND ARCHITECT/ENGINEER.
18. DESIGN FOR SEISMIC DESIGN CATEGORY AND SEISMIC USE GROUP, IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE IBC, UBC, ASHRAE, AND SMACNA.
19. CONTRACTOR SHALL LOCATE P.I.V., RISERS, INCOMING SERVICE, ZONE VALVES AND FEED AND BRANCH MAINS IN LOCATIONS SHOWN ON THESE DRAWINGS.
20. THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR FIRE PROTECTION ITEMS SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL, MECHANICAL, STRUCTURAL, AND ELECTRICAL DRAWINGS.
21. THE FIRE PROTECTION CONTRACTOR DOES NOT HAVE PRIORITY ON PIPE ROUTING. ALL PIPING TO BE FULLY COORDINATED WITH ALL HVAC, PLUMBING, ELECTRICAL, AND ARCHITECTURAL REQUIREMENTS AND TRADES. RESOLVE POTENTIAL CONFLICTS BEFORE PROCEEDING WITH INSTALLATION. IN ALL CASES, GRADED PIPE RUNS TAKE FIRST PRIORITY ON ROUTING. GENERALLY, DUCTWORK TAKES SECOND PRIORITY.
22. UPON COMPLETION OF THE WORK, REMOVE ALL SURPLUS MATERIALS AND RUBBISH. MAKE ALL REQUIRED PATCHING AND REPAIRS OF OTHER TRADES' WORK DAMAGED BY THIS CONTRACTOR, AND LEAVE THE PREMISES IN A CLEAN, ORDERLY CONDITION.
23. THE CONTRACTOR SHALL GUARANTEE THE ENTIRE FIRE PROTECTION SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
24. ALL ALLOWABLE SPRINKLER SYSTEM COMPONENTS SHALL BE PRIMED AND PAINTED RED, SYSTEM COMPONENTS WHICH MAY BE INACCESSIBLE AFTER INSTALLATION SHALL BE PAINTED BEFORE INSTALLATION.
25. IN AREAS WITH LAY-IN CEILINGS. LOCATE HEADS IN THE CENTER OF THE CEILING TILE. PROVIDE ALL NECESSARY ELBOWS IN BRANCH LINES, TO ACHIEVE THIS.

PENETRATION FIRESTOPPING NOTES

1. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS AND PROVIDE SPECIFIC FIRESTOPPING DETAILS FROM A SPECIFIC FIRESTOPPING MANUFACTURER FOR EACH MECHANICAL (HVAC) AND PLUMBING PIPE OR DUCT PENETRATION FOR EACH FIRE RATED ASSEMBLY.
2. PROVIDE PENETRATION FIRESTOPPING THAT IS PRODUCED AND INSTALLED TO RESIST SPREAD OF FIRE ACCORDING TO REQUIREMENTS INDICATED, RESIST PASSAGE OF SMOKE AND OTHER GASES, AND MAINTAIN ORIGINAL FIRE-RESISTANCE RATING OF CONSTRUCTION PENETRATED.
3. PENETRATION FIRESTOPPING SYSTEMS SHALL BE COMPATIBLE WITH ONE ANOTHER, WITH THE SUBSTRATES FORMING OPENINGS, AND WITH PENETRATING ITEMS IF ANY.
4. PENETRATIONS IN FIRE-RESISTANCE-RATED WALLS: PROVIDE PENETRATION FIRESTOPPING WITH RATINGS DETERMINED PER ASTM E 814 OR UL 1479, BASED ON TESTING AT A POSITIVE PRESSURE DIFFERENTIAL OF 0.01-INCH WG
5. PENETRATION FIRESTOPPING PRODUCTS SHALL BEAR UL, ETL OR FM GLOBAL CLASSIFICATION MARKING OF QUALIFIED TESTING AND INSPECTING AGENCY.
6. DO NOT INSTALL PENETRATION FIRESTOPPING WHEN AMBIENT OR SUBSTRATE TEMPERATURES ARE OUTSIDE LIMITS PERMITTED BY PENETRATION FIRESTOPPING MANUFACTURERS OR WHEN SUBSTRATES ARE WET BECAUSE OF RAIN, FROST, CONDENSATION, OR OTHER CAUSES.
7. COORDINATE CONSTRUCTION OF OPENINGS AND PENETRATING ITEMS TO ENSURE THAT PENETRATION FIRESTOPPING IS INSTALLED ACCORDING TO SPECIFIED REQUIREMENTS.
8. COORDINATE SIZING OF SLEEVES, OPENINGS, CORE-DRILLED HOLES, OR CUT OPENINGS TO ACCOMMODATE PENETRATION FIRESTOPPING.
9. INSTALL PENETRATION FIRESTOPPING TO COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND PUBLISHED DRAWINGS FOR PRODUCTS AND APPLICATIONS INDICATED.
10. INSTALL FORMING MATERIALS AND OTHER ACCESSORIES OF TYPES REQUIRED TO SUPPORT FILL MATERIALS DURING THEIR APPLICATION AND IN THE POSITION NEEDED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS REQUIRED TO ACHIEVE FIRE RATINGS INDICATED.
11. IDENTIFY PENETRATION FIRESTOPPING WITH PREPRINTED METAL OR PLASTIC LABELS. ATTACH LABELS PERMANENTLY TO SURFACES ADJACENT TO AND WITHIN 6 INCHES OF FIRESTOPPING EDGE SO LABELS WILL BE VISIBLE TO ANYONE SEEKING TO REMOVE PENETRATING ITEMS OR FIRESTOPPING.

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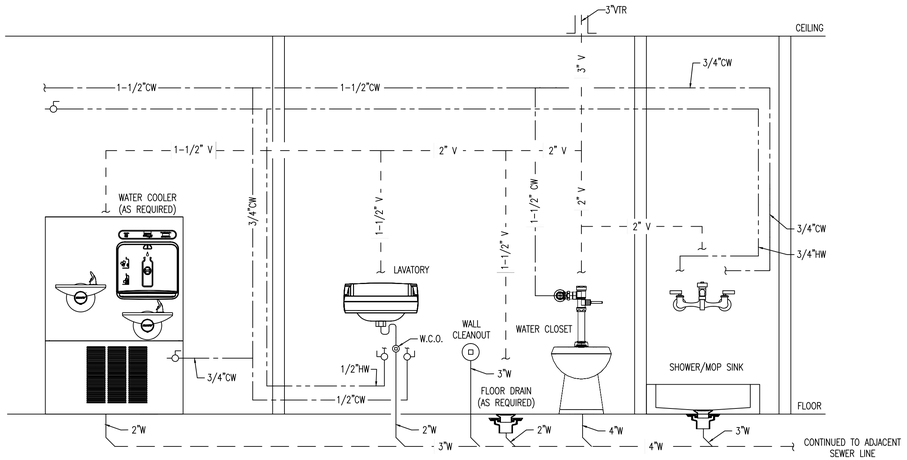
PLUMBING EQUIPMENT SPECIFICATIONS

sheet

P02

BUILDING 'E'



1 PLUMBING SCHEMATIC
SCALE: NTS

PLUMBING FIXTURE SCHEDULE (COORDINATE MOUNTING HEIGHTS WITH ARCH. PLANS)

SYMBOL	FIXTURE	MANUFACTURER AND MODEL NO.	COLD WATER	HOT WATER	WASTE	VENT	ACCESSORIES AND REMARKS
FD-1 FD-2	FLOOR DRAINS	SEE P02 (SPEC SECTION 221316)	-	-	2" OR 4"	1-1/2" OR 3"	REFERENCE SHEET P02. FLOOR DRAINS IN FINISHED SPACES TO BE FD-1 (2"). ALL WATER ENTRY DRAINS TO BE FD-2 (4"). INSTALL PROVENT TRAP GUARD OR EQUAL IN EACH DRAIN TYPE.
FIRE & DOMESTIC WATER ENTRIES DOUBLE CHECK & BACKFLOW DEVICES		SEE P02 (SPEC SECTION 221316)	SEE REMARKS	-	-	-	REFERENCE SHEET P02. MAKE/MODELS FOR FIRE/WATER ENTRY BACKFLOW PREVENTER AND DOUBLE CHECK DETECTOR ASSEMBLIES INDICATED. 4" FIRE ENTRY LINE WHERE INDICATED. BUILDINGS C & D TO INCORPORATE A 1-1/2" WATER SERVICE. BUILDINGS A, B, E, F TO HAVE 2" DOMESTIC WATER SERVICE. LOCATE FIRE CONTROL PANEL AT EACH FIRE ENTRY. ELECTRICAL: PROVIDE LINE VOLTAGE POWER (115V CIRCUITS) TO FIRE ENTRY FLOW SWITCH & AIR COMPRESSOR
SH-1	SHOWER (ADA) (FLOOR MOUNTED)	SEE ARCHITECTURAL	1/2"	1/2"	2"	1-1/2"	REFERENCE ARCHITECTURAL SHEET A6.1A. SPECIFICATIONS FOR SHOWER INSERT, DRAIN, SHOWERHEAD, VALVES, & ASSOCIATED ACCESSORIES ARE INDICATED.
GWH-1	GAS WATER HEATER (FLOOR MOUNTED)	BRADFORD WHITE EF-100T-300E-3N(A)	1-1/2"	1-1/2"	-	-	COMMERCIAL ULTRA HIGH EFFICIENCY GAS WATER HEATER. 92% THERMAL EFFICIENCY. DIRECT SPARK IGNITION. 300 MBH INPUT, 3/4" GAS CONNECTION, 100 GALLON CAPACITY, 335 GPH RECOVERY @ 100°F, DISCHARGE T&P VALVE INTO MOP SINK OR FLOOR DRAIN. PROVIDE 4.4 GALLON EXPANSION TANK (AMTROL EX-30 OR EQUAL). PROVIDE SEISMIC WATER HEATER STRAPS. DIMENSIONS: 77-5/8" H X 28-1/4" DIA.. 900 LB SHIPPING WEIGHT. PROVIDE 4" (PVC, CPVC, OR ABS) VERTICAL VENTING. TERMINATE THROUGH ROOF WITH CONCENTRIC VENT KIT PER MANUFACTURER'S RECOMMENDATIONS. ELECTRICAL: 115V AC REQUIRED.
GWH-2	GAS WATER HEATER (FLOOR MOUNTED)	BRADFORD WHITE EF-100T-250E-3N(A)	1-1/2"	1-1/2"	-	-	COMMERCIAL ULTRA HIGH EFFICIENCY GAS WATER HEATER. 97% THERMAL EFFICIENCY. DIRECT SPARK IGNITION. 250 MBH INPUT, 3/4" GAS CONNECTION, 100 GALLON CAPACITY, 294 GPH RECOVERY @ 100°F, DISCHARGE T&P VALVE INTO MOP SINK OR FLOOR DRAIN. PROVIDE 4.4 GALLON EXPANSION TANK (AMTROL EX-30 OR EQUAL). PROVIDE SEISMIC WATER HEATER STRAPS. DIMENSIONS: 77-5/8" H X 28-1/4" DIA.. 900 LB SHIPPING WEIGHT. PROVIDE 4" (PVC, CPVC, OR ABS) VERTICAL VENTING. TERMINATE THROUGH ROOF WITH CONCENTRIC VENT KIT PER MANUFACTURER'S RECOMMENDATIONS. ELECTRICAL: 115V AC REQUIRED.
GWH-3	GAS WATER HEATER (FLOOR MOUNTED)	BRADFORD WHITE LG2PDV50H603N	3/4"	3/4"	-	-	LIGHT DUTY COMMERCIAL POWER DIRECT VENT GAS WATER HEATER. 60 MBH INPUT, 1/2" GAS CONNECTION, 48 GALLON CAPACITY, 58 GPH RECOVERY @ 100°F, DISCHARGE T&P VALVE INTO MOP SINK OR FLOOR DRAIN. PROVIDE 2.1 GALLON EXPANSION TANK (WATTS PLT-5 OR EQUAL). PROVIDE SEISMIC WATER HEATER STRAPS. DIMENSIONS: 67" H X 22" DIA.. 205 LB SHIPPING WEIGHT. PROVIDE 3" (PVC, CPVC, OR ABS) VERTICAL VENTING. TERMINATE THROUGH ROOF WITH CONCENTRIC VENT KIT PER MANUFACTURER'S RECOMMENDATIONS. ELECTRICAL: 110 VAC REQUIRED FOR POWER VENTING (3.1 AMPERES)
GWH-4	GAS WATER HEATER (FLOOR MOUNTED)	BRADFORD WHITE EF-60T-199E-3N(A)	1-1/2"	1-1/2"	-	-	COMMERCIAL ULTRA HIGH EFFICIENCY GAS WATER HEATER. 92% THERMAL EFFICIENCY. DIRECT SPARK IGNITION. 199 MBH INPUT, 3/4" GAS CONNECTION, 60 GALLON CAPACITY, 223 GPH RECOVERY @ 100°F, DISCHARGE T&P VALVE INTO MOP SINK OR FLOOR DRAIN. PROVIDE 4.4 GALLON EXPANSION TANK (AMTROL EX-30 OR EQUAL). PROVIDE SEISMIC WATER HEATER STRAPS. DIMENSIONS: 57" H X 28-1/4" DIA.. 570 LB SHIPPING WEIGHT. PROVIDE 3" (PVC, CPVC, OR ABS) VERTICAL VENTING. TERMINATE THROUGH ROOF WITH CONCENTRIC VENT KIT PER MANUFACTURER'S RECOMMENDATIONS. ELECTRICAL: 115V AC REQUIRED.
HWCP-1	HOT WATER CIRCULATION PUMP	GRUNDFOS UP10-16BN5/TLC	-	1/2"	-	-	RECIRCULATION PUMP WITH MANUAL TIMER TO ALLOW FOR OPERATION DURING BUSINESS HOURS. INTEGRAL CHECK VALVE. ELECTRICAL: 115V PLUG IN TYPE. (6 FT LINE CORD)
HWCP-2	HOT WATER CIRCULATION PUMP	GRUNDFOS UP25-64SF	-	1/2"	-	-	RECIRCULATION PUMP. INTEGRAL CHECK VALVE. 5 GPM @ 15 FT HEAD, INTEGRAL CHECK VALVE. ELECTRICAL: 115V PLUG IN TYPE. (6 FT LINE CORD) 1/12 HP, 1.7 AMPS
MSB-1	MOP SINK BASIN	FLORESTONE MSR-2424	3/4"	3/4"	3"	1-1/2"	MOLDED MOP RECEPTOR, 24X24, 10" DEPTH, 18 GAUGE SS DRAIN GRID (#430), KOHLER K-8928, SERVICE SINK FAUCET, 3" THREADED THREADED SPOUT FOR HOSE CONNECTION, RUBBER HOSE WITH WALL HOOK. LEVER HANDLES
FS-1	FLOOR SINK	ZURN FD2375 (OR APPROVED EQUAL)	-	-	3"	1-1/2"	ENAMELED CAST IRON, ACID RESISTANT, DOME STRAINER, FULL GRATE
WM-1 WM-2	WATER METER (SUB-METERING)	BADGER RECORDALL MODEL M120 & M170 (OR APPROVED EQUAL)	-	1-1/2" 2"	-	-	LEAD FREE BRONZE ALLOW DISC METER (MATCH BUILDING WATER ENTRY SIZE 1-1/2" OR 2"), COMPLIES WITH AWWA STANDARD C700, 150 PSI MAX OPERATING PRESSURE.
BFP-1	BACKFLOW PREVENTER	WATTS MODEL SD-2 (OR APPROVED EQUAL)	1/2"	-	-	-	BACKFLOW PREVENTER FOR CARBONATED BEVERAGE MACHINES. DUAL CHECK DESIGN FOR PROTECTION OF WATER SUPPLY FROM CARBON DIOXIDE GAS AND CARBONATED WATER. ANSI/NSF STD 18 CERTIFIED, ASSE 1032 APPROVED DUAL CHECK VALVE, 316 STAINLESS STEEL BODY. MAX PRESSURE: 200 PSI, MAX TEMP: 110°F. PROVIDE RECOMMENDED STRAINER.
GD-1	FOOD WASTE DISPOSER	INSINKERATOR EVOLUTION	-	-	1-1/2"	-	ANTI-VIBRATION MOUNT, 34.6 OZ. CAPACITY, 12-1/4" HEIGHT. ELECTRICAL: 120 V, 3/4 HP, 8.1 AMPS
KS-1	KITCHEN SINK (ADA) FAUCET:	KOHLER K-3996-4 & KOHLER FORTE K-10445	1/2"	1/2"	1-1/2"	1-1/2"	33X22X6 DUAL BOWL TOP-MOUNT ADA SINK, 4 HOLE, 18 GAUGE SS, 4" FAUCET CENTERS, 18 GAUGE SS, FAUCET: PULL-OUT SPRAY, 1.8 GPM, LEVER HANDLES, (ADA), 7-3/4" SPOUT REACH, 4 HOLES.
UR-1 UR-2	URINAL (ADA)	SLOAN SU-1006 & ROYAL 181	1"	-	1-1/2"	1-1/2"	TOP SPUD WALL HUNG, STANDARD WASHDOWN URINAL, VITREOUS CHINA 1.5 GPF MANUAL FLUSHOMETER WITH WATER HAMMER ARRESTOR. 1
WC-1 WC-2	WATER CLOSET, FLOOR MOUNT (ADA)	SLOAN WETS-2450.1301 & ROYAL 113-1.28	1-1/2"	**	4"	2"	VITREOUS CHINA, ELONGATED BOWL, 1-1/2" TOP SPUD, COMMERCIAL TOILET SEAT, & BOLT CAP ACCESSORY 1.28 GPF MANUAL FLUSHOMETER. PROVIDE WITH WATER HAMMER ARRESTOR.
L-1	LAVATORY (ADA) FAUCET:	SLOAN SS-3001 & KOHLER K-16027-4	1/2"	1/2"	1-1/2"	1-1/2"	19.5"X16.5" VITREOUS CHINA UNDERMOUNTED WITH OVERFLOW. SINGLE HOLE BATHROOM FAUCET (ADA) LESS POP-UP TAIL PIECE, 1.2 GPM, 4-3/8" REACH. PROVIDE BDT VARIATION BELOW DECK THERMOSTATIC MIXING VALVE (SET WATER TEMP TO 110°F) PROVIDE UNDERCOUNTER PIPING INSULATION KIT.
L-2	LAVATORY (ADA) FAUCET:	SLOAN SS-3101 & KOHLER K-16027-4	1/2"	1/2"	2"	1-1/2"	20 3/4"X18 1/4" VITREOUS CHINA WALL MOUNTED LAVATORY, SINGLE HOLE. SINGLE HOLE BATHROOM FAUCET (ADA) LESS POP-UP TAIL PIECE, 1.2 GPM, 4-3/8" REACH. PROVIDE BDT VARIATION BELOW DECK THERMOSTATIC MIXING VALVE (SET WATER TEMP TO 110°F) PROVIDE UNDERCOUNTER PIPING INSULATION KIT.
S-1	SINK FAUCET:	KOHLER VAULT K-5286 UNDER-MOUNT KITCHEN SINK	1/2"	1/2"	1-1/2"	1-1/2"	24"X18-1/4" 16-GAUGE STAINLESS STEEL, SINGLE SQUARED BOWL, 9-INCH DEPTH FAUCET: KOHLER CORALAIS KITCHEN SINK FAUCET MODEL K-15888-K WRISTBLADE LEVER HANDLED FAUCET (ADA), 9" GOOSENECK SWING SPOUT, 1.8 GPM
S-2	SINK (ADA) FAUCET:	KOHLER VAULT K-3349-2 TOP MOUNT SINK	1/2"	1/2"	1-1/2"	1-1/2"	15"X15" 19-GAUGE STAINLESS STEEL, SINGLE BOWL, 2 FAUCET HOLES, 7-9/16-INCH DEPTH FAUCET: KOHLER CORALAIS KITCHEN SINK FAUCET MODEL K-15888-K WRISTBLADE LEVER HANDLED FAUCET (ADA), 9" GOOSENECK SWING SPOUT. 1.8 GPM
DF-1	DRINKING FOUTAIN	ELKAY ECDFPW314C	1/2"	-	2"	1-1/2"	ADA HEIGHT DRINKING FOUNTAIN, WALL MOUNT, FULLY EXPOSED. 304 STAINLESS STEEL WITH SATIN FINISH.

NOTES:
1. ALL FIXTURE FINISHES TO BE REVIEWED BY ARCHITECT PRIOR TO ORDERING.
2. PROVIDE WATER HAMMER ARRESTORS @ ALL ICE MACHINES, WASHING MACHINES, & DISHWASHERS.

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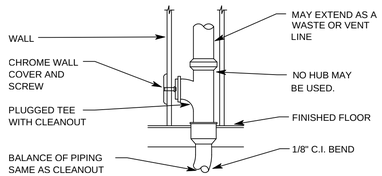
PLUMBING SCHEDULES & DETAILS

sheet

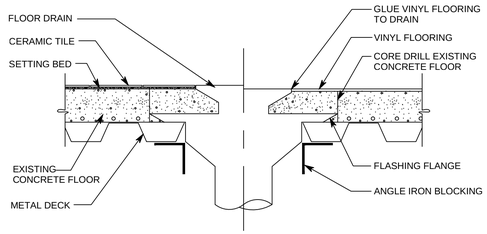
P11

BUILDING 'E'



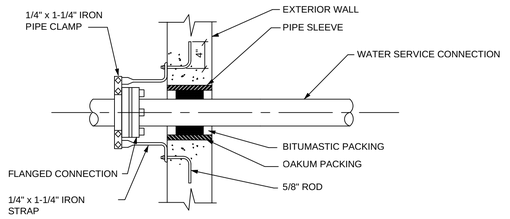
7 WALL CLEAN OUT

SCALE: NTS



4 FLOOR DRAIN DETAIL

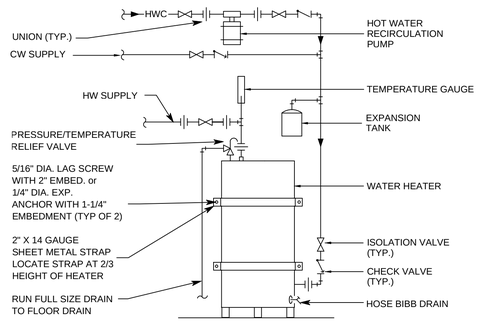
SCALE: NTS



NOTE:
WATER SERVICE CONNECTION THROUGH FLOOR TO BE ANCHORED IN SIMILAR MANNER.

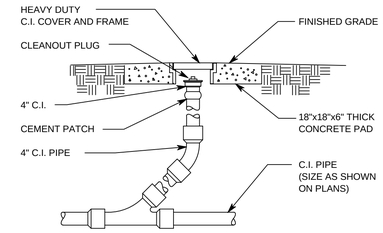
1 COLD WATER SERVICE ANCHORING

SCALE: NTS



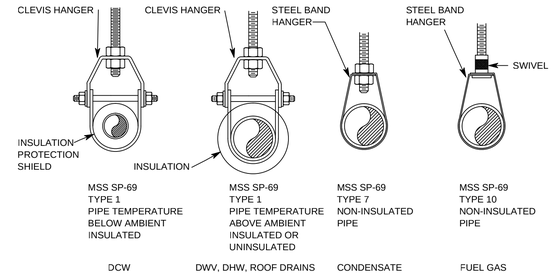
8 WATER HEATER DETAIL

SCALE: NTS



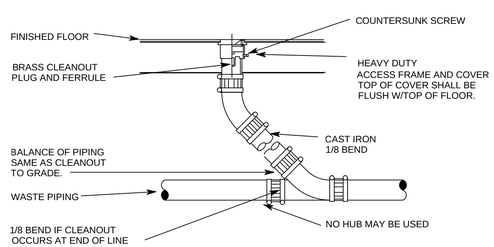
5 CLEANOUT TO GRADE

SCALE: NTS



2 PIPE HANGER

SCALE: NTS



6 FLOOR CLEANOUT

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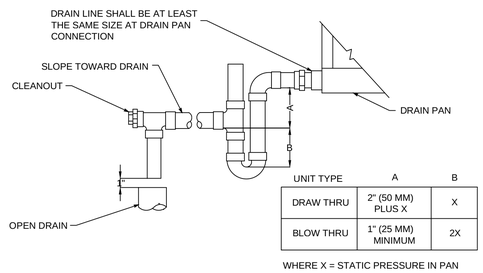
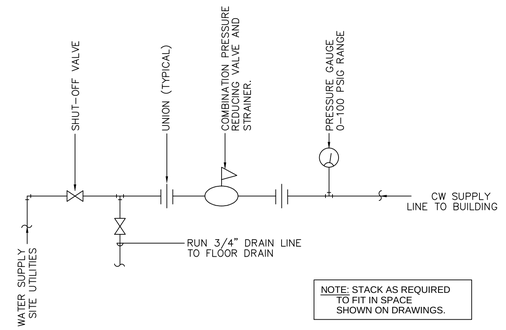


UNIT TYPE	A	B
DRAW THRU	2" (50 MM) PLUS X	X
BLOW THRU	1" (25 MM) MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN

9 CONDENSATE DRAIN DETAIL

SCALE: NTS



3 WATER ENTRY DETAIL

SCALE: NTS

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PLUMBING DETAILS

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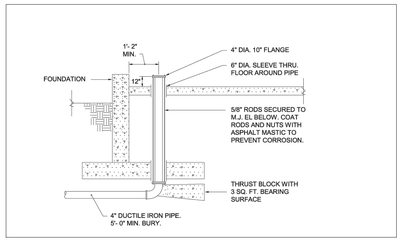
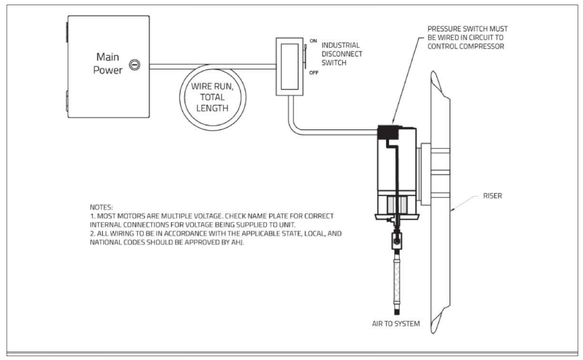
P12

BUILDING 'E'



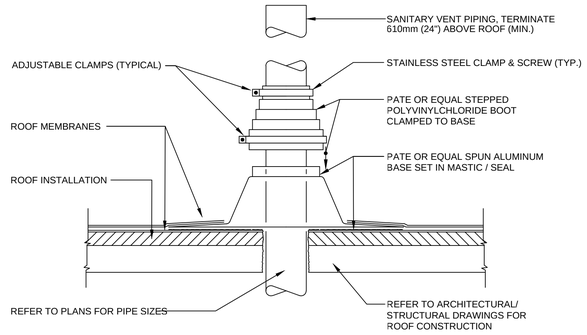
5 FIRE SPRINKLER ENTRY DETAIL

SCALE: NOT TO SCALE



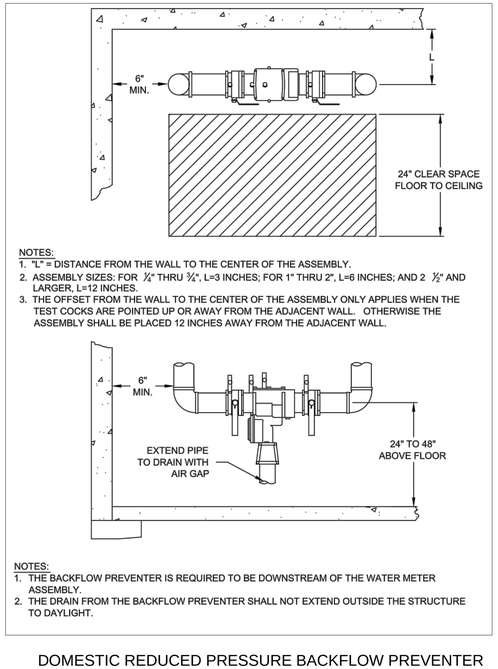
4 DRY PIPE FIRE SPRINKLER AIR COMPRESSOR DETAIL

SCALE: NOT TO SCALE

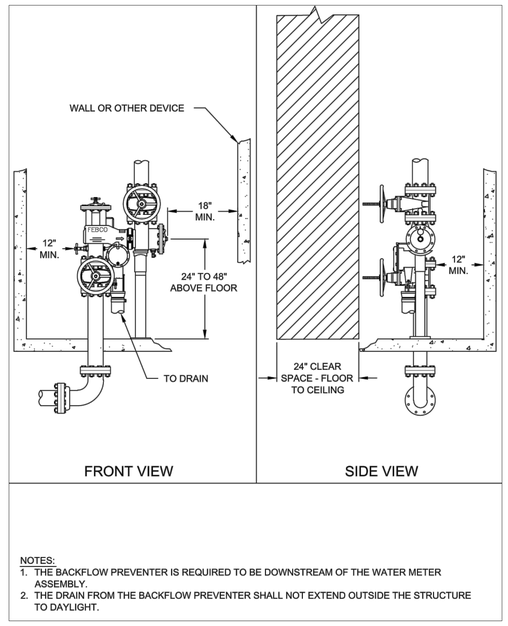


1 VENT THRU ROOF DETAIL

SCALE: NTS



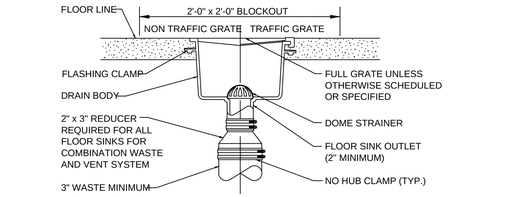
DOMESTIC REDUCED PRESSURE BACKFLOW PREVENTER



FIRE VERTICAL BACKFLOW PREVENTER

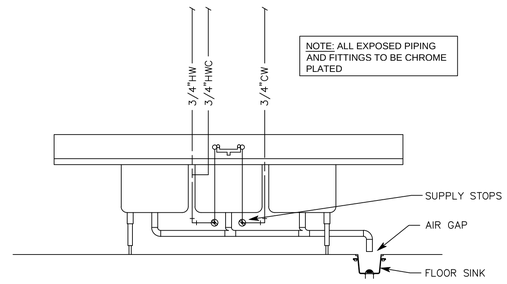
6 BACKFLOW PREVENTION DETAILS

SCALE: NOT TO SCALE



2 FLOOR SINK DETAIL

SCALE: NTS



3 3-COMPARTMENT SINK DETAIL

SCALE: NTS
NOTE: PROVIDE HOT WATER CIRCULATION LINE AS NOTED ON PLAN VIEW.
DISHWASHER TO DRAIN INTO FLOOR SINK BELOW 3-COMP SINK.

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project:

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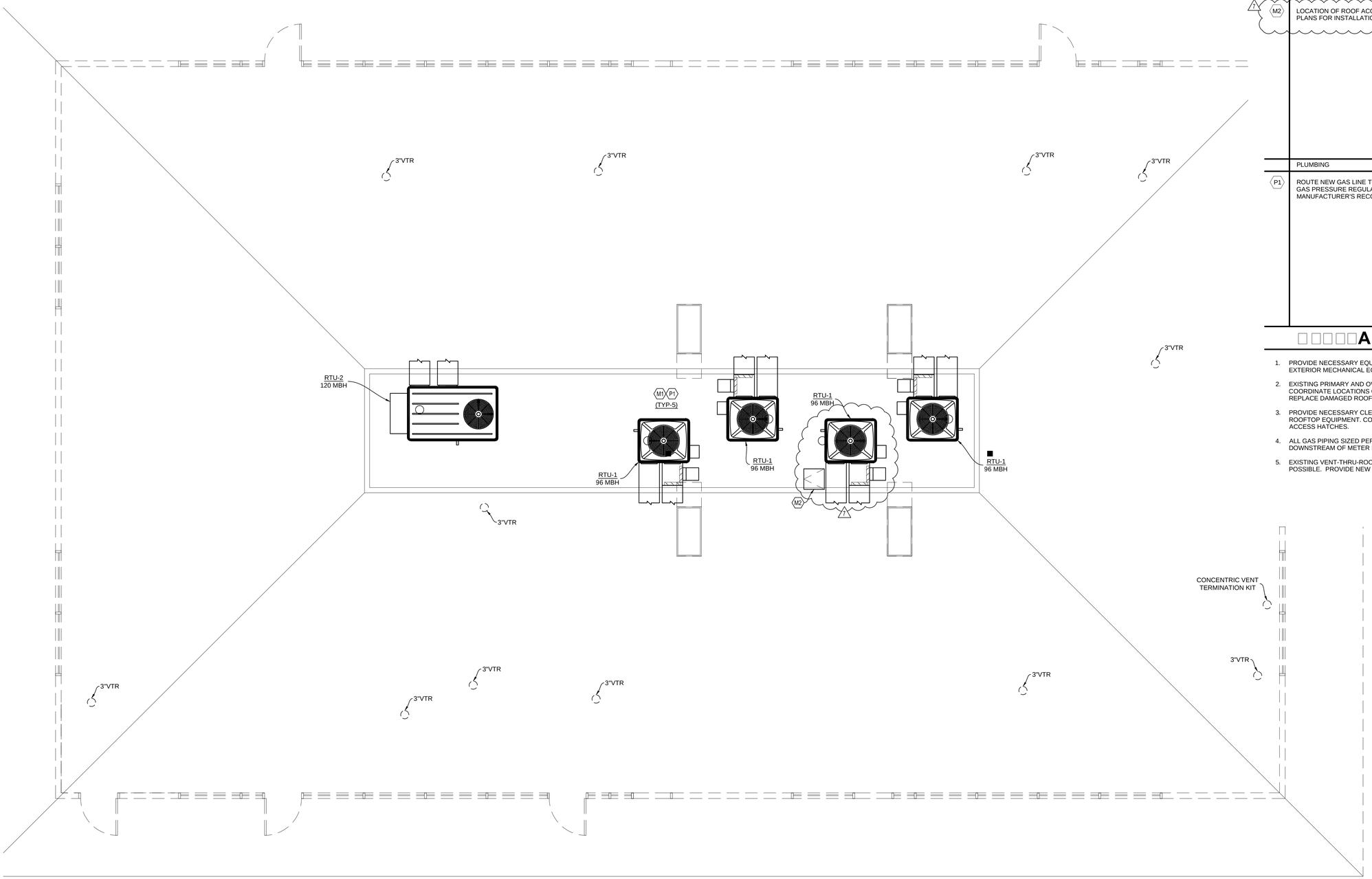
PLUMBING DETAILS

sheet

P13

BUILDING 'E'



MECH/PLUMB ROOF PLAN–BUILDING 'E'

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

N

□□□□D □□□□S

MECHANICAL

M1 LOCATION OF NEW ROOFTOP UNIT. COORDINATION FINAL LOCATION WITH EXISTING STRUCTURE. PROVIDE FLEXIBLE CONNECTION ON SUPPLY AND RETURN DUCTWORK TO MINIMIZE VIBRATION. PROVIDE EQUIPMENT CURB WITH RTU.

1 M2 LOCATION OF ROOF ACCESS HATCH. REFERENCE ARCHITECTURAL PLANS FOR INSTALLATION DETAILS AND DIMENSIONS.

PLUMBING

P1 ROUTE NEW GAS LINE TO UNDERSIDE OF ROOFTOP UNIT. PROVIDE GAS PRESSURE REGULATOR AND ISOLATION VALVE PER MANUFACTURER'S RECOMMENDATIONS.

□□□□□A□ □□□□S

1. PROVIDE NECESSARY EQUIPMENT CURBS/PLATFORMS FOR ALL EXTERIOR MECHANICAL EQUIPMENT.
2. EXISTING PRIMARY AND OVERFLOW ROOF DRAINS TO REMAIN. COORDINATE LOCATIONS OF ROOFTOP UNITS ACCORDINGLY. REPLACE DAMAGED ROOF DRAINS AS REQUIRED.
3. PROVIDE NECESSARY CLEARANCES TO ALLOW FOR SERVICE TO ALL ROOFTOP EQUIPMENT. COORDINATE RTU LOCATIONS WITH ROOF ACCESS HATCHES.
4. ALL GAS PIPING SIZED PER TABLE 402.4(2) 2015 IFGC. GAS PRESSURE DOWNSTREAM OF METER IS LESS THAN 2 PSI.
5. EXISTING VENT-THRU-ROOF LOCATIONS TO BE REUSED WHERE POSSIBLE. PROVIDE NEW VERTICAL VENT EXTENSIONS AS REQUIRED.

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MECH/PLUMB ROOF PLAN BUILDING 'E'

sheet

MP1E

BUILDING 'E'

□□□□D □□□□S

M1 INSTALL EXHAUST FAN AT THIS LOCATION. CONTINUE EXHAUST DUCT TO TERMINATE AT UNDERSIDE OF BUILDING OVERHANG AS INDICATED. COORDINATE LOCATION WITH OVERHEAD PLUMBING.

M2 SEE ROOF PLAN FOR CONTINUATION OF SUPPLY AND RETURN AIR DUCTWORK.

M3 LOCATION OF RECESSED DRYER VENT BOX. CONTINUE 4"Ø DRYER DUCT TO TERMINATE AT UNDERSIDE OF BUILDING OVERHANG AS INDICATED.

M4 RE-CIRCULATING KITCHEN HOOD.

M5 PROVIDE TERMINATION KIT FOR DRYER EXHAUST AT THIS LOCATION.

M6 LOCATION FOR DIGITAL THERMOSTAT WITHIN LOCKING ENCLOSURE.

M7 ACCESS PANEL TO ALLOW FOR ADJUSTMENT TO ABOVE CEILING BALANCING DAMPER.

M8 LOCATE OUTDOOR CONDENSING UNIT AS REQUIRED. PROVIDE CONCRETE EQUIPMENT PAD AS NECESSARY. SEE EQUIPMENT SCHEDULE FOR NECESSARY ACCESSORIES. CONCEAL ALL REFRIGERANT PIPING.

□□□□□A□ □□□□S

1. PROVIDE BALANCING DAMPERS ON ALL GRILLES, REGISTERS, & DIFFUSERS CONNECTED TO A ROOFTOP UNIT. ALLOW FOR ADJUSTMENT BY REMOVAL OF EXHAUST GRILLES OR BY PROVIDING ACCESS PANELS. (TYP/CAL)
2. ROUTE SUPPLY AND RETURN AIR DUCTWORK THROUGH STRUCTURE AS REQUIRED. PROVIDE NECESSARY TRANSITIONS TO ALLOW FOR CLEAN PATH THE TERMINAL AIR DEVICES.
3. PROVIDE WATER TIGHT SEAL ON ALL DUCTWORK AS IT PENETRATE EXTERIOR ROOFING/WALL ASSEMBLIES.
4. PROVIDE (R-12 MIN.) INSULATION ON ALL ABOVE CEILING DUCTWORK ROUTED IN UNCONDITIONED SPACE.
5. COORDINATE LOCATIONS OF CEILING GRILLES, REGISTERS, AND DIFFUSERS WITH OVERHEAD PLUMBING PIPING ROUTING.
6. VENTILATION PROVIDED BY RTU ECONOMIZER SET TO 20% MIN. OSA.
7. ENVIRONMENTAL FANS SHALL NOT TERMINATE CLOSER THAN 3 FEET ADJACENT TO BUILDING OPENINGS.
8. PROVIDE FIRE-RATED DAMPERS AT ALL CEILING DIFFUSERS AND GRILLES TO MAINTAIN FIRE-RATED ASSEMBLY.

MECHANICAL PLAN–BUILDING 'E'

SCALE: 1/4" = 1'–0"

N

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MECHANICAL PLAN BUILDING 'E'

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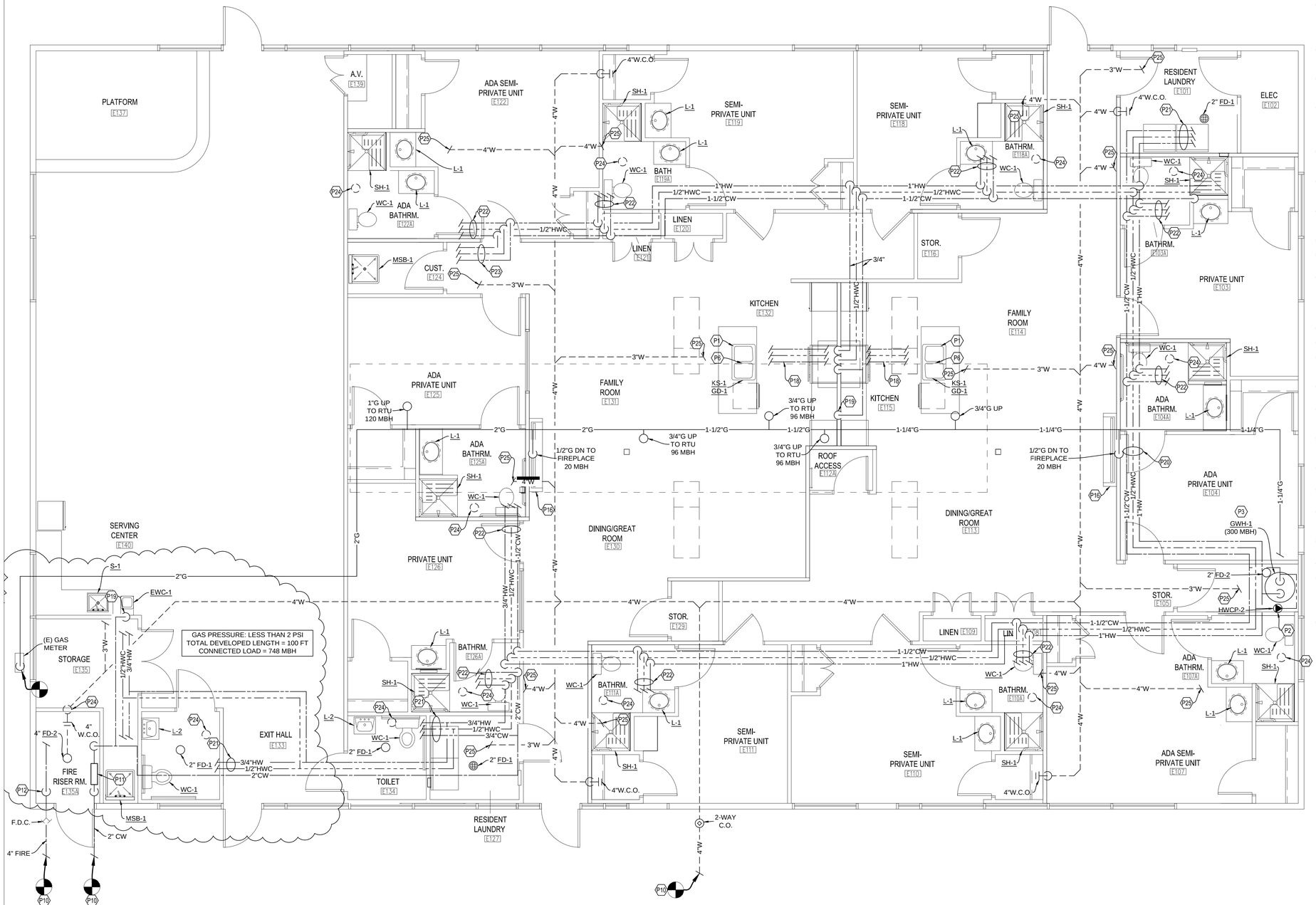
M1E

BUILDING 'E'



PLUMBING PLAN–BUILDING 'E'

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

□□□□D □□□□S

P1 PROVIDE AIR ADMITTANCE VALVE WITHIN CABINETS AT THIS LOCATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

P2 LOCATION OF HOT WATER CIRCULATION PUMP. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CIRCUIT SETTERS AT FIXTURES AS REQUIRED TO ALLOW FOR HOT WATER CIRCULATION.

P3 NEW WATER HEATER. DIRECT T&P VALVE INTO FLOOR DRAIN. CONTINUE TO NEW FIXTURES AND PROVIDE ISOLATION VALVES AT EACH FIXTURE. PROVIDE GAS LINE ISOLATION VALVE AND SEISMIC BRACING. PROVIDE FLUE AND INTAKE PIPING PER SCHEDULE AND TERMINATE THROUGH ROOF WITH CONCENTRIC VENT KIT.

P4 NEW URINAL. TIE INTO NEW WASTE, VENT, AND DOMESTIC COLD WATER PIPING. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES.

P5 NEW SINK. TIE INTO NEW WASTE, VENT, AND DOMESTIC HOT/COLD WATER PIPING. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES.

P6 NEW KITCHEN SINK. TIE INTO NEW WASTE, VENT, AND DOMESTIC HOT/COLD WATER PIPING. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES. PROVIDE RECESSED WALL BOX FOR REFRIGERATOR COLD WATER CONNECTION. PROVIDE HOT WATER CONNECTION TO SERVE DISHWASHER.

P7 LOCATION OF NEW WATER CLOSET. PROVIDE WATER, WASTE, & VENT CONNECTION. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES.

P8 LOCATION OF NEW LAVATORY. PROVIDE WATER, WASTE, & VENT CONNECTION. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES.

P9 LOCATION OF NEW FLOOR DRAIN. PROVIDE WASTE & VENT CONNECTION. SEE PLUMBING SCHEDULE FOR FIXTURE PIPING SIZES.

P10 SEE CIVIL PLANS FOR CONTINUATION.

P11 PROVIDE COLD WATER ENTRY WITH BACKFLOW PREVENTER. REFERENCE SHEET P02 FOR DEVICE MAKE/MODEL.

P12 PROVIDE 4" FIRE ENTRY DOUBLE CHECK DETECTOR ASSEMBLY. REFERENCE SHEET P02 FOR DEVICE MAKE/MODEL. PROVIDE POWER (115V) FOR RISER MOUNTED COMPRESSOR & PRESSURE SWITCH. REFERENCE SHEET P13 FOR DETAILS. INSTALL COMPRESSOR ABOVE HEIGHT OF DOOR HEADER TO KEEP OUT OF TRAVEL PATH.

P13 PROVIDE 3" VENT THROUGH ROOF.

P14 PROVIDE WALL CLEANOUT AT THIS LOCATION.

P15 PROVIDE GAS LINE WITH VENTLESS REGULATOR AND ISOLATION VALVE. CONNECT TO UNDERSIDE OF NEW RTU. NO ROOF PENETRATION REQUIRED WITH RTU MODEL SPECIFIED.

P16 PROVIDE GAS LINE TO FLUELESS DECORATIVE FIREPLACE (20 MBH). INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

P17 PROVIDE EMERGENCY FUEL SHUTOFF SWITCH NEAR KITCHEN HOOD. SWITCH TO CLOSE GAS LINE SOLENOID VALVE ASSOCIATED WITH ALL GAS-FIRED APPLIANCES IN KITCHEN.

P18 ROUTE 1/2" CW, HW, & HWC LINES BELOW FLOOR TO ISLAND KITCHEN SINK AT THIS LOCATION. EXTEND 1/2" HW LINE TO ADJACENT DISHWASHER.

P19 ROUTE CW LINE TO REFRIGERATOR WATER CONNECTION. PROVIDED RECESSED WALL BOX WITH ISOLATION VALVE.

P20 PROVIDE PIPING TRANSITIONS UNDER STRUCTURAL BEAM AS REQUIRED. (TYPICAL)

P21 ROUTE CW, HW, & HWC LINES TO CLOTHES WASHER WALL BOX. PROVIDE INTEGRAL ISOLATION VALVES AND WATER HAMMER ARRESTOR.

P22 ROUTE 1-1/2" CW, 3/4" HW, & 1/2" HWC LINES TO BATHROOM GROUP. PROVIDE HOT AND COLD WATER ISOLATION VALVES AT LAVATORIES.

P23 ROUTE 3/4" CW, 3/4" HW, & 1/2" HWC LINES TO MOP SINK/SINK.

P24 COMBINE VENT PIPING FROM BATHROOM FIXTURE AND TERMINATE THROUGH ROOF AT THIS LOCATION. MULTIPLE BATHROOMS GROUPS CAN BE GROUPED TO MINIMIZE ROOFING PENETRATIONS IF NEEDED. ALL VENT THROUGH ROOF PENETRATIONS TO BE 3" MINIMUM.

P25 CONTINUE WASTE LINE TO ADJACENT FIXTURE GROUPS. REFERENCE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL FIXTURE WASTE LINE SIZES.

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PLUMBING PLAN BUILDING 'E'

sheet

P1E

BUILDING 'E'

Generated by RES*check-Web* Software

Compliance Certificate

Project Building E Brighton Recovery Center

Energy Code: **2015 IECC**
Location: **Salt Lake County, Utah**
Construction Type: **Multi-family**
Project Type: **Alteration**
Orientation: **Bldg. faces 0 deg. from North**
Climate Zone: **5 (5999 HDD)**
Permit Date:
Permit Number:

Construction Site:
4931 S 900 E
Salt Lake County, Utah

Owner/Agent:

Designer/Contractor:
Spectrum Engineering Inc.
Salt Lake City, Utah

Compliance: Passes using prescriptive requirements for alteration projects

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling: Flat or Scissor Truss Exemption: Framing cavity filled with insulation	---	---	---	---	---
Wall: Wood Frame, 16in. o.c. Orientation: Unspecified Exemption: Framing cavity filled with insulation	---	---	---	---	---
Window: Metal, Thermal Break, Double Pane Orientation: Unspecified Exemption: Glazing replacement in existing sash or frame.	---	---	---	---	---
Door: Glass Orientation: Unspecified Exemption: Glazing replacement in existing sash or frame.	---	---	---	---	---
Floor: Unheated Slab-On-Grade Insulation depth: 2.0'	320		10.0	0.767	245

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in RES*check* Version 5.5.0 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Benjamin J. Schlup - Project Engineer — Signature — 2017-03-06
Name - Title — Date

TABLE N1102.1.2 (R402.1.2)
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b]	SKYLIGHT[b] *U*-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT[c] WALL *R*-VALUE	SLAB[d] *R*-VALUE & DEPTH	CRAWL SPACE[c] WALL *R*-VALUE
5 and Marine 4	0.32	0.55	NR	49	20 or 13 + 5[h]	13/17	30[g]	15/19	10, 2 ft	15/19

RES*check* Software Version 5.5.0

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 94.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
103.1, 103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.2 [FO1][1]	Slab edge insulation R-value.	R-____ ☐ Unheated ☐ Heated	R-____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.2 [FO3][1]	Slab edge insulation depth/length.	____ ft	____ ft	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2.1 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.9 [FO12][2]	Snow- and ice-melting system controls installed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.3.6, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.2.1 [FR12][1]	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.3.5 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.4 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.4.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.3 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.6 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.2.3 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.2 [FI27][1]	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.2.1 [FI24][1]	Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.1.1 [FI9][2]	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.1 [FI25][2]	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.2 [FI26][2]	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.1.1 [FI28][2]	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.5.1.2 [FI29][2]	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.5.2 [FI30][2]	Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to 104ºF.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.5.4 [FI31][2]	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
404.1 [FI6][1]	75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
404.1.1 [FI23][3]	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
401.3 [FI7][2]	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

In the column entitled MASS WALL R-VALUE a new footnote j is added as follows: "j. Log walls complying with the ICC400 and with a minimum average wall thickness of 5" or greater shall be permitted in Zones 5-8 when overall window glazing is .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil), and all other requirements are met."

shall not include an *R*-value for other building materials or air films. Where insulated siding is used for the purpose of complying with the continuous insulation requirements of Table R402.1.2, the manufacturer's labeled *R*-value for insulated siding shall be reduced by R-0.6.

R402.1.4 *U*-factor alternative. An assembly with a *U*-factor equal to or less than that specified in Table R402.1.4 shall be permitted as an alternative to the *R*-value in Table R402.1.2.

R402.1.5 Total UA alternative. If the total *building thermal envelope* UA (sum of *U*-factor times assembly area) is less than or equal to the total UA resulting from using the *U*-factors in Table R402.1.4 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table R402.1.2. The UA calculation shall be done using a method consistent with the ASHRAE *Handbook of Fundamentals* and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance.

R402.2 Specific insulation requirements (Prescriptive). In addition to the requirements of Section R402.1, insulation shall meet the specific requirements of Sections R402.2.1 through R402.2.13.

R402.2.1 Ceilings with attic spaces. Where Section R402.1.2 would require R-38 insulation in the ceiling,

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b]	SKYLIGHT[b] *U*-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT[c] WALL *R*-VALUE	SLAB[d] *R*-VALUE & DEPTH	CRAWL SPACE[c] WALL *R*-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5[h]	8/13	19	5/13[f]	0	5/13
4 except Marine	0.35	0.55	0.40	49	20 or 13+5[h]	8/13	19	10 /13	10, 2 ft	10/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13+5[h]	13/17	30[g]	15/19	10, 2 ft	15/19
6	0.32	0.55	NR	49	20+5 or 13+10[h]	15/20	30[g]	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20+5 or 13+10[h]	19/21	38[g]	15/19	10, 4 ft	15/19

For SI: 1 foot = 304.8 mm.

a. R-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation.

i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

TABLE R402.1.4
EQUIVALENT *U*-FACTORS[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR	SKYLIGHT *U*-FACTOR	CEILING *U*-FACTOR	FRAME WALL *U*-FACTOR	MASS WALL *U*-FACTOR[b]	FLOOR *U*-FACTOR	BASEMENT WALL *U*-FACTOR	CRAWL SPACE WALL *U*-FACTOR
1	0.50	0.75	0.035	0.084	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.084	0.165	0.064	0.360	0.477
3	0.35	0.55	0.030	0.060	0.098	0.047	0.091[c]	0.136
4 except Marine	0.35	0.55	0.026	0.060	0.098	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.060	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.045	0.060	0.033	0.050	0.055
7 and 8	0.32	0.55	0.026	0.045	0.057	0.028	0.050	0.055

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Climate Zone 1, 0.14 in Climate Zone 2, 0.12 in Climate Zone 3, 0.087 in Climate Zone 4 except Marine, 0.065 in Climate Zone 5 and Marine 4, and 0.057 in Climate Zones 6 through 8.

c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.

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Review Comments

Project:	**Brighton Recovery Campus-Building E**	**From:**	Jason Worthen
Project No:	20160686	**Date:**	February 24,2017

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BUILDING E RESPONSES

E1. IBC 907.2.11.5 requires that all smoke detectors be interconnected such that when one is activated it will activate all alarms.

Response: Added the following note regarding the residential smoke detectors: "All residential smoke detectors and carbon monoxide detectors will be interconnected, will connect to a 120 volt building circuit and have battery backup. When one smoke detector is activated, all residential smoke detectors shall sound". Circuiting has been added to FA11E.

E2. IBC 907.2.11.6 requires that smoke detectors receive their primary power from building wiring and that they are provided with battery backup.

Response: Residential smoke detectors will receive power from building 120 volt circuit (Added circuiting on FA11E). Added general note to provide battery backup with detector.

E3. As amended by the State of Utah carbon monoxide detectors shall receive their primary power supply from the building and be provided with battery backup. Where multiple detectors are provided, they are required to be interconnected such that all will sound when any one is activated.

Response: Added carbon monoxide detectors in common areas. Added note calling for all carbon monoxide detectors be provided with battery backup and be circuited/interconnected with residential smoke detectors such that all will sound when any one is activated.

E4. Please note that tamper resistant receptacles are required. NEC 410.12A

Response: Added a general note that all receptacles are to be tamper resistant to sheets EP11E and EP401.

E5. Please note that Arc-Fault Circuit interrupters are required in guest suites. NEC 210-12

Response: General note on sheet EP11E and EP401 requires that all circuits feeding 15 amp or 20 amp receptacles must be protected by an AFCI type circuit breaker.

E6. Sheet EP401: Please address the following: Receptacle outlet spacing in guest, rooms, guest suites, and similar occupancies shall conform to NEC Article 210.60A.

Response: Details 1,3&4: Relocated one receptacle and added one receptacle in order to meet spacing requirements. Details 2: Relocated one receptacle and added two receptacles in order to meet spacing requirements.

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E7. Please address the following.

A. Locations of main disconnect panel.

I. Please Provide information showing how the electrical meters will be supported and secured.

Response: Added keyed note to provide backing and mount Meter/CT and main service disconnect to building exterior wall.

E8. Sheet EP601: Please note and verify location of the concrete encased grounding electrode.

Response: Modified grounding electrode circuiting on one-line diagram (EP601) instructing the contractor to connect the new services ground bus to the building existing grounding electrode system.
If there is an existing UFER system, the new service will be connected to it. However, a new UFER grounding electrode will not be installed.

E9. Please note on electrical roof top plan WP GFCI for RTU units per NEC 210.63.

Response: Provided 120 volt circuit to all rooftop units for GFI WP receptacle that will be provided with unit.

E10. Please provide complete and detailed available fault current calculations (in accordance with NEC 110.9 and 110.10) and show the following on the plans:

I. Specify the KVA rating and impedance of the utility transformer. If this information cannot be obtained from the power company, please base the calculations off of the worst case scenario per the infinite bus method using the largest KVA rated transformer required for the service and figure such transformer with an impedance of 2% or less.

Response: Added impedance of the utility transformer to one-line diagram. KVA rating is already shown.

II. Show lengths and types of all conductors in the calculations and specify the resistance of such.

Response: Conductor types are shown on the one-line diagram. Refer to attached table for lengths and resistances.

III. Specify the amount of available fault current that could be provided to each panel and each piece of electrical equipment based on the calculations.

Response: This information is shown in the fault current table on EP601.

IV. Show the fault current rating of each switchgear and each panelboard.

Response: Added the AIC rating for each panel to the panel schedules.

V. Specify on the plans the short circuit ratings of all overcurrent protection devices, or add a note on the plans that all overcurrent protective devices will have the same fault current rating as the rating of the panel or switchgear they are located within.

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Response: Added general note to EP601 calling for all overcurrent protective devices to have the same AIC rating as the panel or gear they are located within.

VI. Please indicate on the plans that the calculated available fault current that could be provided to each equipment will be field marked as required by NEC110.24(A).

Response: Added a general note to EP601 requiring that all electrical equipment be field marked with the calculated available fault current.

E11. Sheet EP11E: Please address the following:

A. Receptacles shall be located for use on kitchen island.

Response: Added two duplex receptacles to each kitchen island.

B. Receptacle outlets within kitchen shall be GFCI protected.

Response: Changed receptacles in the kitchen to GFCI receptacles.

C. Dishwasher shall be GFCI protected.

Response: Changed electrical connections for dishwasher and garbage disposal to be GFCI duplex receptacles.

E12. Please coordinate with the Architect for the hood requirements for the range. There seems to be none addressed.

Response: Added circuiting for range hood.

N2. B. Sheet EL601: Recessed lighting shall be IC rated and airtight if penetrating the air or thermal barriers per IECC C402.5.8.

Response: Modified all can lights to be IC rated.

N2. F. Per IECC C405.2.2, for lighting which is not provided with an occupancy sensor control please provide time-switch controls to automatically shut off lighting.

Response: Lighting is provided with occupancy sensors.

N2. G. Please provide a lighting power analysis for the interior lighting in accordance with IECC C405.4.

Response: See attached ComCheck report.

N2. H. Please clarify how the exterior lighting for this project will be controlled. Verify that lighting controls will meet the requirements of IECC C405.2.5.

Response: Per sheet EP603 exterior lighting will be controlled via a lighting control panel based on input from exterior photo cells.

N2. I. Please provide a lighting power analysis for the exterior lighting in accordance with IECC C405.5.1.

Response: See attached ComCheck report.

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BUILDING E DRAWINGS

EP11E (see attached sheet)

1. Added a general note requiring all receptacles to be tamper resistant.
2. Changed two duplex receptacles in the kitchen to be GFCI receptacles.
3. Added a 120V circuit for range hood.
4. Added one 120V circuit for receptacles provided with roof top units and modified key note #1.
5. Added two duplex receptacles to each kitchen island.
6. Changed the electrical connections for the garbage disposal and the dishwasher to be dedicated GFCI receptacles.
7. Added a GFCI receptacle in custodian closet by the gathering area.
8. Added a GFCI receptacle in Men's Toilet.
9. Relocated serving center outlets to new serving center location.
10. Added a drinking fountain receptacle.
11. Added panel LE2.
12. Moved circuits for the gathering area to new panel LE2.

EP401 (see attached sheet)

1. Added a general note requiring all receptacles to be tamper resistant.
2. Detail 1:
   a. Moved duplex receptacle near closet door to the outer wall.
   b. Added a duplex receptacle on the bottom wall.
3. Detail 2:
   a. Added one duplex receptacle on the top wall.
   b. Relocated duplex receptacle on the wall shared with the closet to the left wall.
4. Detail 4:
   a. Moved duplex receptacle on the left wall at the foot of the bed closer to the bed.
   b. Added a duplex receptacle on the bottom wall.

EP601 (see attached sheet)

1. Added impedance for the transformer that was used for fault current calculations.
2. Added general note calling for all overcurrent protective devices to have the same AIC rating as the panel or gear they are located within.
3. Added a general note requiring that all electrical equipment be field marked with the calculated available fault current.
4. Changed one-line diagram to shown the grounding electrodes as existing.
5. Changed all branch circuit panels from main lugs only to main circuit breaker panels.
6. Added panel LE2.

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EP602 (see attached sheet)

1. Added panel AIC ratings to panel schedules.
2. Changed branch panels to have main circuit breakers.
3. Updated panel schedules.

EP603 (see attached sheet)

1. Added panel AIC ratings to panel schedules.
2. Changed branch panels to have main circuit breakers.
3. Updated panel schedules.
4. Added panel schedule for panel LE2.

EL11E (see attached sheet)

1. Added keynote next to occupancy sensors in gathering/learning area requiring that the occupancy sensors not turn on the lights to more than 50%.
2. Deleted general note requiring occupancy sensors to turn lights on to not more than 50%.
3. Added general note calling for photocells to be set to 30 foot candles.
4. Deleted one W-2 fixtures in the gathering area.
5. Shifted W-3 and switch to line up with new storage room location.
6. Added a TX-4 fixture in custodian's closet.
7. Added a WS-2 fixture, DX-2 fixture and a wall mounted occupancy sensor in new Men's Toilet.

EL601 (see attached sheet)

1. Changed the acceptable fixture types for DX-1, DX-2 and DX-4 fixtures.

FA11E (see attached sheet)

1. Added a camera covering on entrance into the common area.

FA11E (see attached sheet)

1. Added a general note calling for all smoke detectors and carbon monoxide detectors to be interconnected, connected to a 120V circuit and have battery backup.
2. Added carbon monoxide detectors, one in each common area.
3. Added circuiting for residential smoke detectors and carbon monoxide detectors.
4. Added a strobe in new Men's Toilet.

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Component Name	Length (ft)	Rpos (Ohms/1000 ft)	Xpos (Ohms/1000 ft)	Rzero (Ohms/1000 ft)	Rzero (Ohms/1000 ft)
MDP - LA	5	0.064	0.0497	0.2017	0.1224
MDP - LB	82	0.064	0.0497	0.2017	0.1224
MDP - LC	120	0.0805	0.0519	0.2537	0.1278
MDP - LD	138	0.0552	0.0495	0.1739	0.1219
MDP - LE	155	0.0552	0.0495	0.1739	0.1219
MDP - LF	100	0.064	0.0497	0.2017	0.1224
METER/CT - MDP	5	0.0356	0.049	0.1122	0.1206
XFMR - METER/CT	75	0.0356	0.049	0.1122	0.1206

COMcheck Software Version 4.0.5.2

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	Brighton Recovery Campus Bulding E
Project Type:	New Construction

Construction Site:
4931 South 900 East

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Common Space Types:Electrical/Mechanical	75	0.85	64
2-Common Space Types:Storage	80	0.57	46
3-Common Space Types:Classroom/Lecture/Training	1310	1.12	1467
4-Common Space Types:Restrooms	50	0.88	44
		Total Allowed Watts =	1621

Proposed Interior Lighting Power

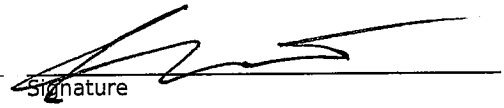
A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Common Space Types:Electrical/Mechanical				
W-3 copy 1: W-3: LINEAR SURFACE MOUNT: Other:	1	2	48	96
2-Common Space Types:Storage				
W-3: W-3: LINEAR SURFACE MOUNT: Other:	1	2	48	96
3-Common Space Types:Classroom/Lecture/Training				
W-2: W-2: LINEAR SURFACE MOUNT: Other:	1	16	57	912
4-Common Space Types:Restrooms				
WS-2: WS-2: 36" VANITY LIGHT: LED Other Fixture Unit 36W:	1	1	19	19
DX-2: DX-2: 7" LED DOWNLIGHT: LED Other Fixture Unit 50W:	1	1	54	54
		Total Proposed Watts =		1177

Interior Lighting PASSES: Design 27% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COM*check* Version 4.0.5.2 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jason Worthen - Professional Engineering Intern
Name - Title



Signature

2/21/2016
Date

COMcheck Software Version 4.0.5.2

Exterior Lighting Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	Brighton Recovery Campus Bulding E
Project Type:	New Construction
Exterior Lighting Zone	2 (Residential mixed use area)

Construction Site:
4931 South 900 East

Owner/Agent:

Designer/Contractor:

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Parking area	41175 ft2	0.06	Yes	2470
Plaza area	9000 ft2	0.14	Yes	1260
Entry canopy	5511 ft2	0.25	Yes	1378
			Total Tradable Watts (a) =	5108
			Total Allowed Watts =	5108
			Total Allowed Supplemental Watts (b) =	600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

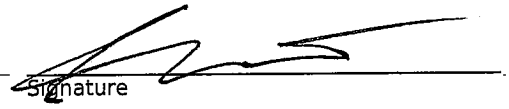
A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Parking area (41175 ft2): Tradable Wattage				
OC-32 copy 1: OC-32: LED WALL PACK: LED Other Fixture Unit 50W:	1	10	24	240
ZX-2: ZX-2: Other:	1	4	72	288
ZX-4: ZX-4: Other:	1	8	72	576
Plaza area (9000 ft2): Tradable Wattage				
OC-32: OC-32: LED WALL PACK: LED Other Fixture Unit 50W:	1	7	24	168
Entry canopy (5511 ft2): Tradable Wattage				
HG-1: HG-1: CANOPY LIGHT: Other:	1	85	50	4250
			Total Tradable Proposed Watts =	5522

Exterior Lighting PASSES: Design 3% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2015 IECC requirements in COM*check* Version 4.0.5.2 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jason Worthen - Professional Engineering Intern
Name - Title



Signature

2/21/2016
Date

COM*check* Software Version 4.0.5.2

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15][1]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1 [EL18][1]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1, C405.2.2.3 [EL23][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.1 [EL22][2]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3 [EL16][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.2 [EL20][1]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.3 [EL21][1]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.5 [EL25][null]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C405.5.1 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

SYMBOL LEGEND

SYMBOL	DESCRIPTION
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.
ROOM NAME 100	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
1	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING.
	BREAK, ROUND.
WIRING METHODS	
	WIRING.
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. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
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.
— X —	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = : CATV = CABLE TELEVISION CCTV = CLOSED CIRCUIT TELEVISION FA = FIRE ALARM FO = FIBER OPTICS I = INTERCOM NC = NURSE CALL P = POWER RC = RIGID CONDUIT S = SOUND T = TELEPHONE TV = TELEVISION OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
C C	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	LADDER RACK.
WIRING DEVICES	
	RECEPTACLE, SINGLE: NEMA 5-20R.
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
D	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: 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.
S	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
WP	RECEPTACLE, DUPLEX, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, DUPLEX ON EMERGENCY POWER: 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 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 10-50R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
	SWITCH, DIMMER.
X $	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
X $3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).

SYMBOL LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	TRANSFORMER (ONE-LINE DIAGRAM).
"1H"	PANELBOARD (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
	TRANSITION CABINET (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
	METER.
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#_	DISTRIBUTION PANEL OR SWITCHBOARD.
LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
75	TRANSFORMER: NUMBER INDICATES kVA.
	MECHANICAL EQUIPMENT CONNECTION.
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
(W-3)	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	EGRESS DIRECTION ARROW.
NL	NIGHT LIGHT. DO NOT SWITCH.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL.
	VACANCY SENSOR, DUAL TECHNOLOGY.
STRUCTURED CABLING	
X	TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF CABLES).
P	TELEPHONE, WALL MOUNTED: PAY PHONE.
W	TELEPHONE, WALL MOUNTED: WALL PHONE.
	TWO-WAY EMERGENCY COMMUNICATION DEVICE PER IBC, WALL MOUNTED IN RECESSED BOX.
X	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION.
	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).
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE
WAP	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE

SYMBOL LEGEND

SYMBOL	DESCRIPTION
FIRE ALARM	
FSA	FIRE SYSTEM ANNUNCIATOR.
FCP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
FPS	FIRE ALARM NOTIFICATION POWER SUPPLY.
CM	CONTROL MODULE.
MM	MONITOR MODULE.
P	FIRE ALARM MANUAL PULL STATION.
	MAGNETIC DOOR HOLDER.
2	DETECTOR, SMOKE.
2 R	DETECTOR, SMOKE, RESIDENTIAL. CONNECTED TO FIRE ALARM INITIATING LOOP. EMITS LOW-FREQUENCY ALARM.
2	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
	STROBE.
WP	ALARM, HORN/SPEAKER, WEATHERPROOF.
	ALARM, HORN/STROBE. 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.
CO	DETECTOR, CARBON MONOXIDE.
TECHNOLOGY SYSTEMS	
#	SPEAKER, CEILING MOUNTED.
	EQUIPMENT CABINET.
	MEDIA CONNECTION PLATE.
	AUDIO/VISUAL OUTLET.
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER, AC LINE CONDITIONER.
NURSE CALL	
	JUNCTION BOX.
	CORRIDOR LIGHT.
B	BATHROOM PULL CORD STATION.
D	DUTY STATION.
E	EMERGENCY ASSISTANCE CALL STATION.
E CB	EMERGENCY ASSISTANCE CODE BLUE CALL STATION.
P	PATIENT STATION.
S	STAFF STATION.
NCM	TOUCH SCREEN NURSE CALL MASTER STATION.
ZLC	ZONE LIGHT CONTROLLER.
CU	NURSE CALL AREA CONTROL UNIT & POWER SUPPLIES.
CCTV	
P	CCTV CABLE, POWER.
V	CCTV CABLE, VIDEO SIGNAL.
CCTV	CCTV HEADEND EQUIPMENT.
M	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
PTZ	CCTV CAMERA WITH PAN, TILT AND ZOOM.
360°	PANNING CAMERA TRANSVERSE ANGLE.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
SECURITY	
X	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
ACC	ACCESS CONTROL HEADEND EQUIPMENT.
CTR	SECURITY CONTROL PANEL.
SEC	INTRUSION DETECTION HEADEND EQUIPMENT.
#1	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE SCHEDULE.
CR	CARD READER.
TV DISTRIBUTION	
T	TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
TR	TV DISTRIBUTION CABLE, TRUNK.
CMB	COMBINER.
DC	DIRECTIONAL COUPLER.
DA	DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
SPL	SPLITTER (ONE-LINE DIAGRAM).
	TV OUTLET.
	SATELLITE ANTENNA.
	TV ANTENNA (ONE-LINE DIAGRAM).
	TERMINATOR, 75 OHM (TV DISTRIBUTION).

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...

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.

ELECTRICAL SHEET INDEX

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LICENSED PROFESSIONAL ENGINEER
No. 185978
PETER E. JOHANSEN
STATE OF UTAH

project:

Tenant Finish for New Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, & 4953 South 900 East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET–December 28, 2016
1 ADDENDUM #1–January 04, 2017
2 ADDENDUM #2–January 06, 2017
3 ADDENDUM #3–January 11, 2017
4 ADDENDUM #4–January 17, 2017
5 ADDENDUM #5–January 19, 2017
6 ADDENDUM #7–March 20, 2017

data

project no: 2208185012000
drawn by:
checked by:

title

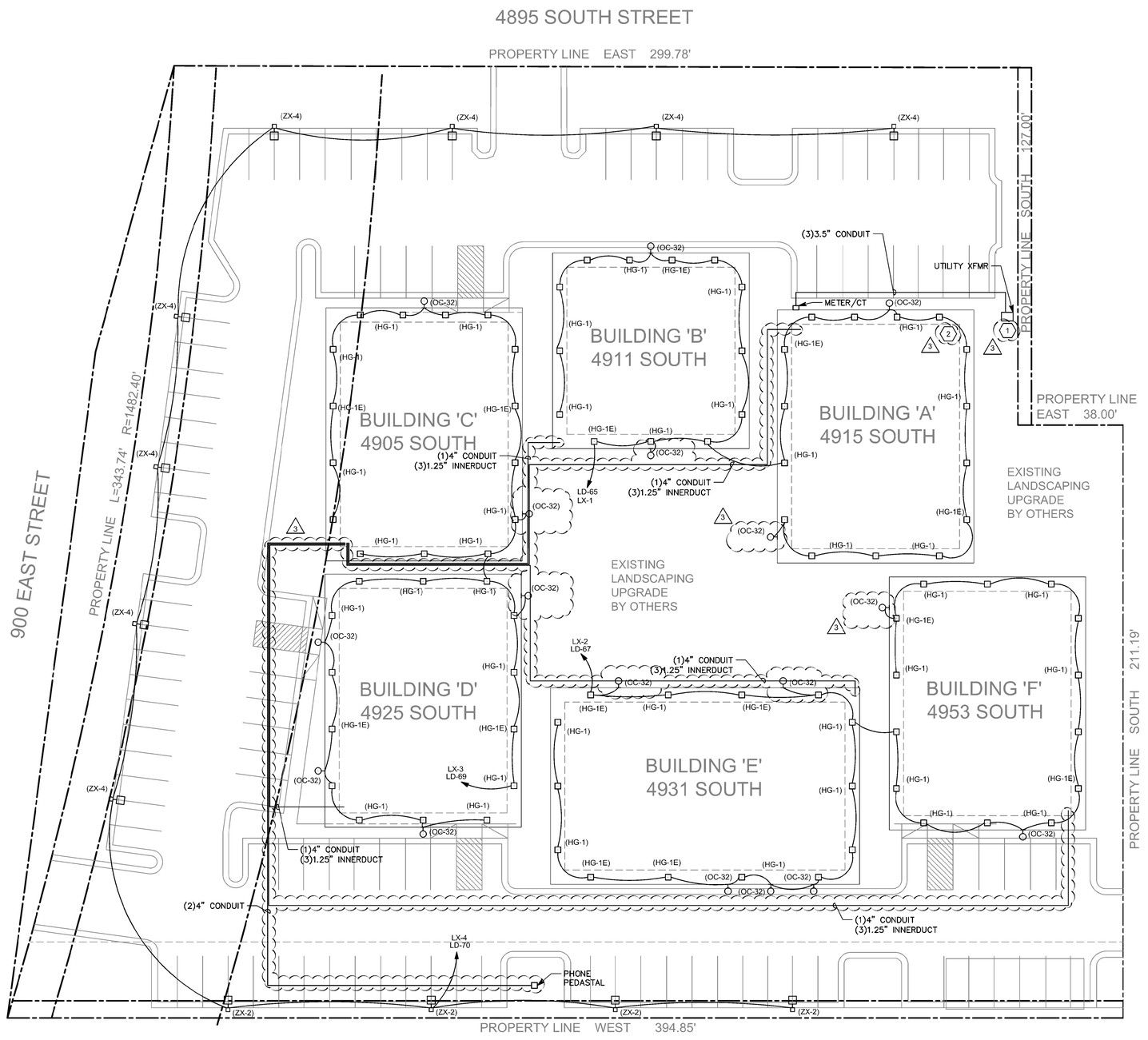
SYMBOL SCHEDULE, SHEET INDEX

sheet

EE001

BUILDING 'E' 4931 South 900 East PARCEL #2208185012000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\86EE001.dwg Last Plotted: 2017/03/20 @ 10:54 AM By: jrw



1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

1. EXISTING ROCKY MOUNTAIN TRANSFORMER. COORDINATE WITH ROCKY MOUNTAIN POWER TO DETERMINE IF THE EXISTING TRANSFORMER NEEDS TO BE REPLACED.
2. THE EXISTING ELECTRICAL ROOM IS LOCATED IN NORTHEAST CORNER OF BUILDING A. ALL OF THE ELECTRICAL EQUIPMENT IN THIS ROOM IS TO BE DEMOLISHED, INCLUDING THE ELECTRICAL PANEL AND METER CENTER. REMOVE ALL ASSOCIATED WIRING BACK TO THE UTILITY TRANSFORMER.

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6 ADDENDUM #7–March 20, 2017

data

project no:
drawn by:
checked by:

title

ELECTRICAL SITE PLAN

sheet

ES1.01

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\B6ES101.dwg Last Plotted: 2017/03/20 @ 10:49 AM By: jrw

GENERAL SHEET NOTES

1. ALL BRANCH CIRCUITS FEEDING 15 AMP OR 20 AMP RECEPTACLES SHALL BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTER (ACFCI) TYPE CIRCUIT BREAKER.
2. ALL RECEPTACLES SHALL BE TAMPER RESISTANT.

SHEET KEYNOTES

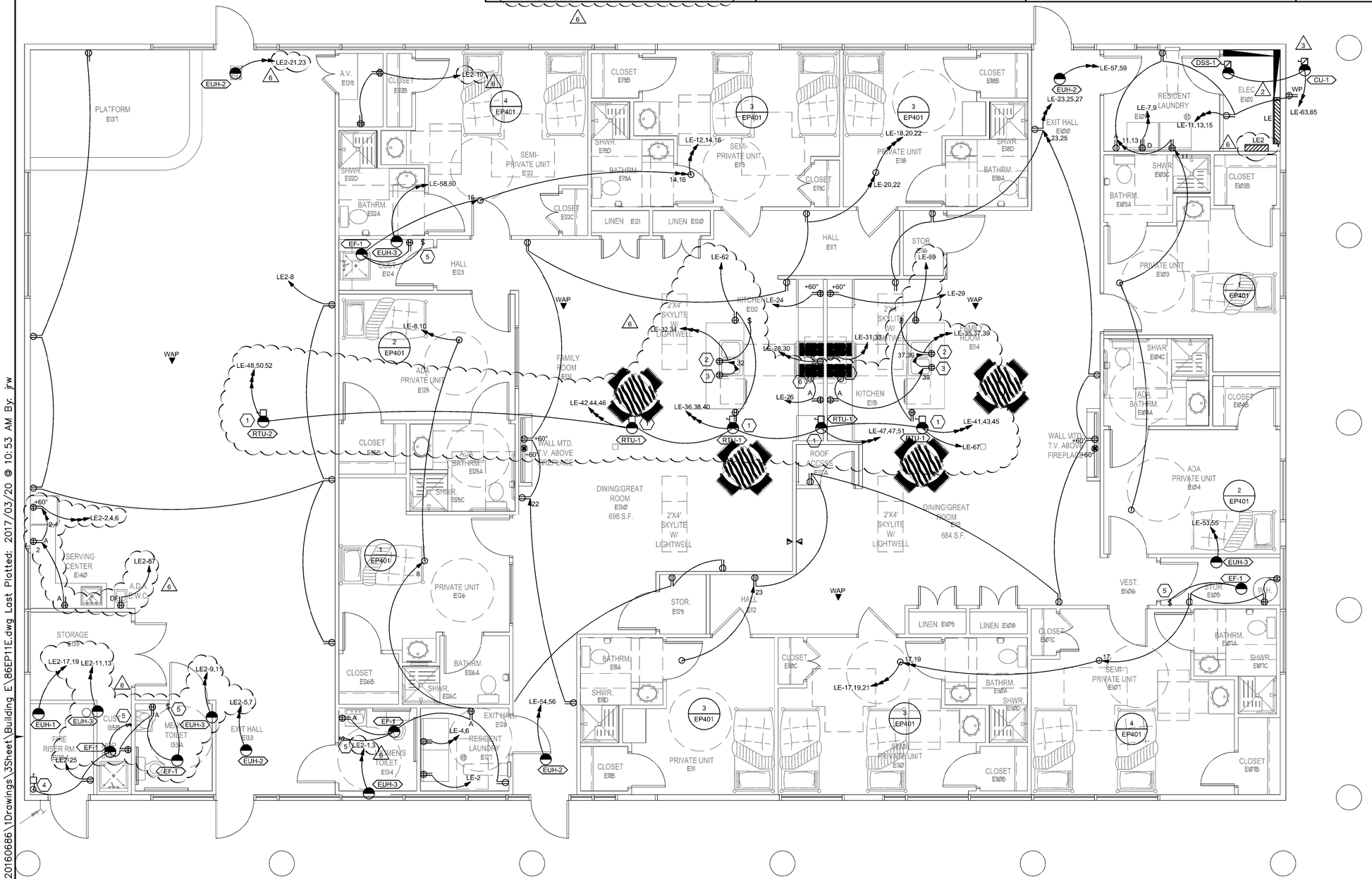
1. RTU LOCATED ON ROOF. PROVIDE 208/3 DEDICATD CIRCUIT FOR EACH RTU AND A 120/1 CIRCUIT FOR ALL CONVENIENCE OUTLETS INTEGRAL WITH RTU.
2. PROVIDE DEDICATED 120V SWITCHED CIRCUIT FOR GARBAGE DISPOSAL.

SHEET KEYNOTES

3. PROVIDE DEDICATED 120V CIRCUIT FOR DISHWASHER.
4. PROVIDE DEDICATED 120V CIRCUIT AND A 30/3P DISCONNECT FOR FIRE ENTRY FLOW SWITCH AND AIR COMPRESSOR.

SHEET KEYNOTES

5. PROVIDE A 20A/1P SWITCH TO CONTROL CUSTODIAN EXHAUST FAN.
6. PROVIDE 120V CIRCUIT AS SHOWN FOR EXHAUST HOOD.



1 POWER PLAN - BUILDING 'E'

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

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5 ADDENDUM #5–January 19, 2017
6 ADDENDUM #7–March 20, 2017

data

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POWER PLAN - BUILDING 'E'

sheet

EP1 1E

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

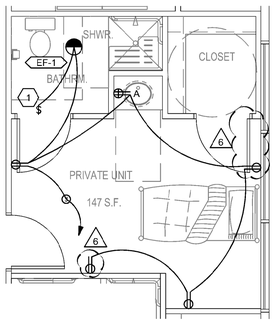
File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\86EP11E.dwg Last Plotted: 2017/03/20 @ 10:53 AM By: jrw

GENERAL SHEET NOTES

1. ALL BRANCH CIRCUITS FEEDING 15 AMP OR 20 AMP RECEPTACLES SHALL BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTER (ACFCI) TYPE CIRCUIT BREAKER.
2. ALL RECEPTACLES SHALL BE TAMPER RESISTANT.

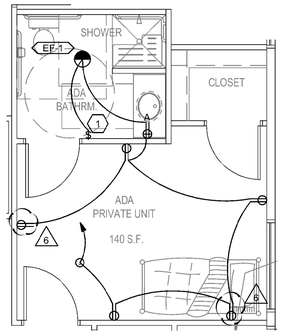
SHEET KEYNOTES

1. PROVIDE A 20A/1P SWITCH TO CONTROL BATHROOM EXHAUST FAN.



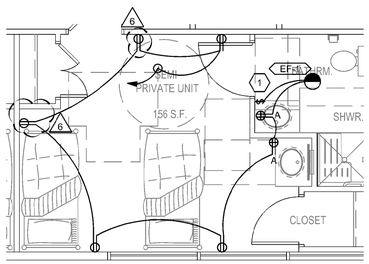
TYPICAL PRIVATE UNIT POWER PLAN

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



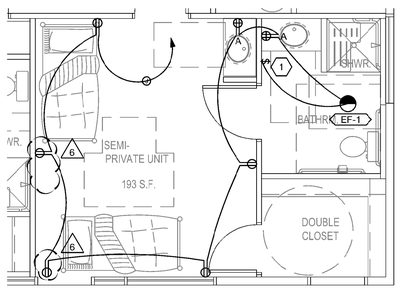
TYPICAL ADA PRIVATE UNIT POWER PLAN

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



TYPICAL SEMI-PRIVATE UNIT POWER PLAN

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



TYPICAL ADA SEMI-PRIVATE UNIT POWER PLAN

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

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TYPICAL POWER PLANS

sheet

EP401

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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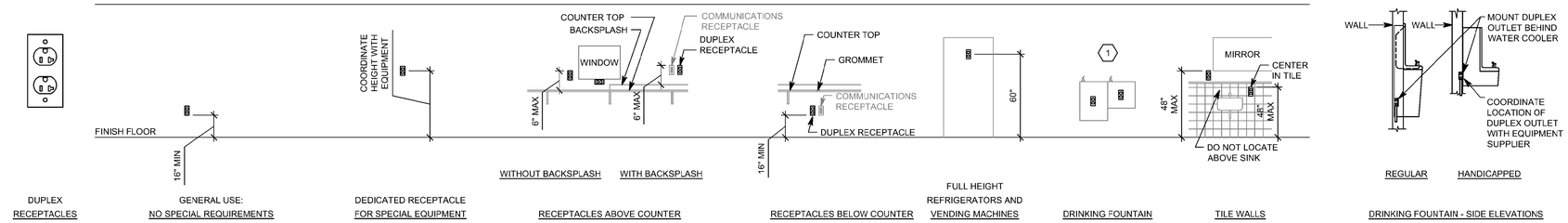
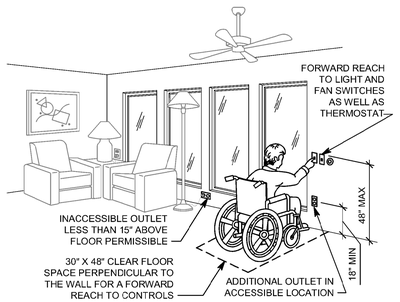


REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.

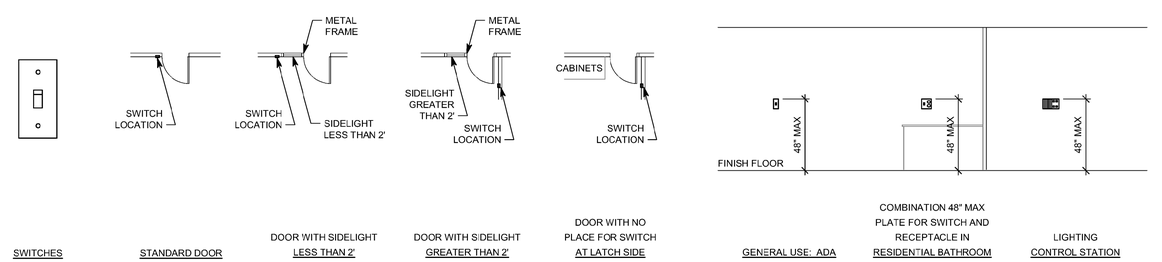
7 RECEPTACLE MOUNTING DETAILS

NTS



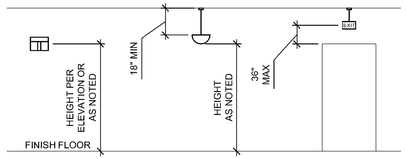
5 ADA DETAIL

NTS



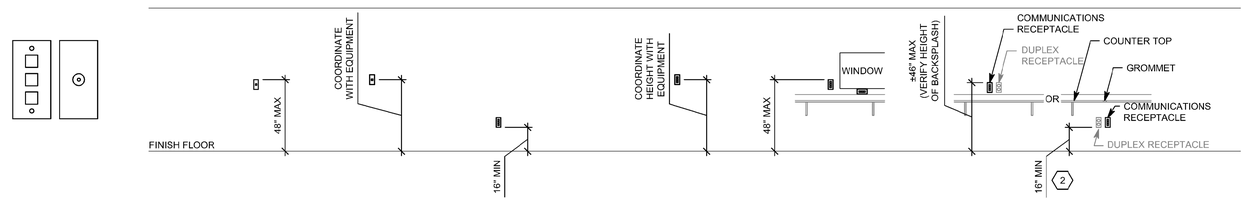
6 SWITCH MOUNTING DETAILS

NTS



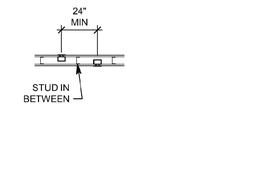
2 LIGHTING MOUNTING DETAILS

NTS



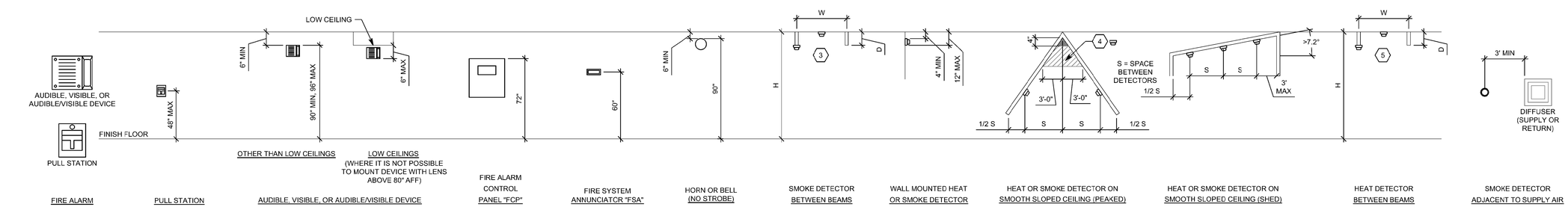
3 COMMUNICATION MOUNTING DETAILS

NTS



4 BOX MOUNTING DETAILS

NTS



1 FIRE ALARM MOUNTING DETAILS

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 WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS IF D < .1H AND W < .4H OR AT CEILING FOR LEVEL CEILINGS. FOR PAN-TYPE CEILINGS, CORRIDORS, SMALL ROOMS, SLOPED/BEAMED CEILINGS, AND 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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DETAILS

sheet

EP5 01

BUILDING 'E' 4931 South 900 East PARCEL #2208185012000

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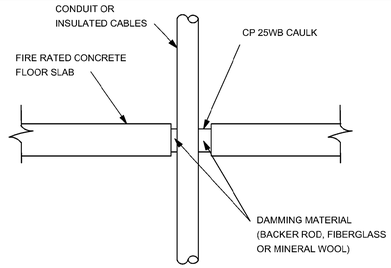
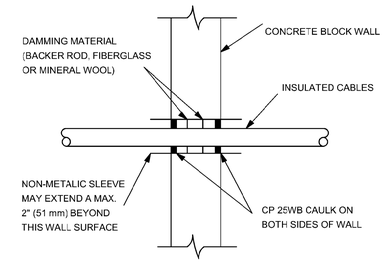


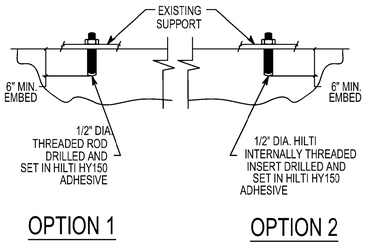
7 TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING

NTS



8 TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS

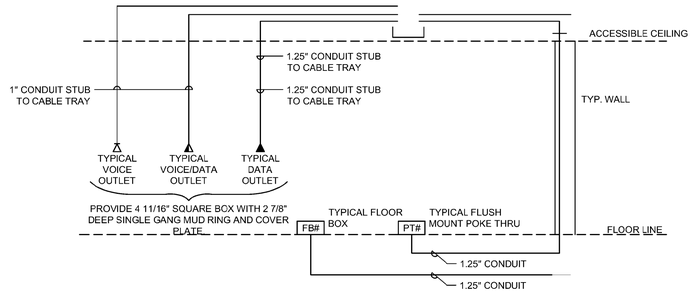
NTS



NOTE:
1. BLOW ALL HOLES CLEAN W/OIL FREE COMPRESSED AIR.
2. FOLLOW ALL MANUFACTURES RECOMMENDATIONS.

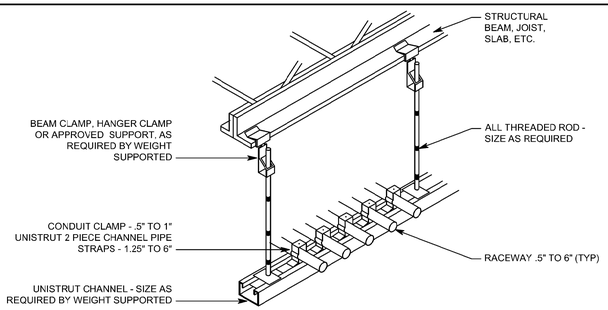
4 LIGHT WEIGHT CONCRETE ANCHORAGE

NTS



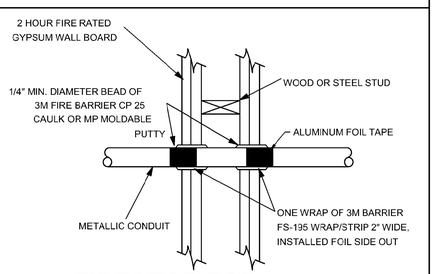
5 VOICE/DATA RISER

NTS



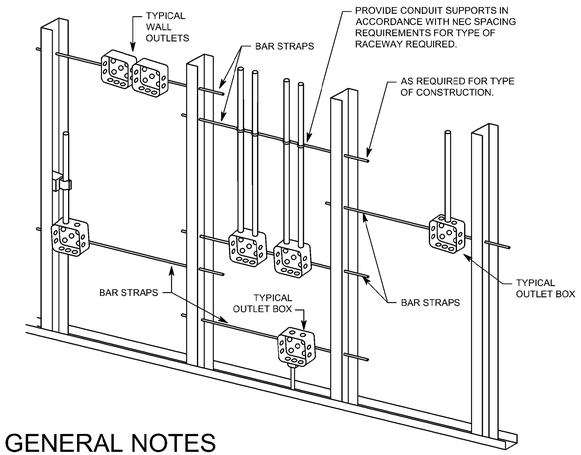
6 TYPICAL CONDUIT RACK DETAIL

NTS



1 FIRESTOP FOR METAL CONDUIT THRU GYPSUM WALL BOARD

NTS



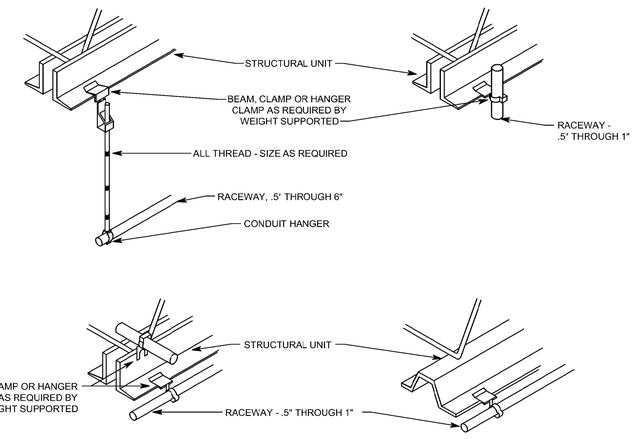
GENERAL NOTES

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 W/TH LBC 709-7 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 MINIMUM 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.

2 TYPICAL ROUGH-IN REQUIREMENTS DETAIL

NTS

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



3 TYPICAL RACEWAY SUPPORT METHODS DETAIL

NTS

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data

project no:
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title

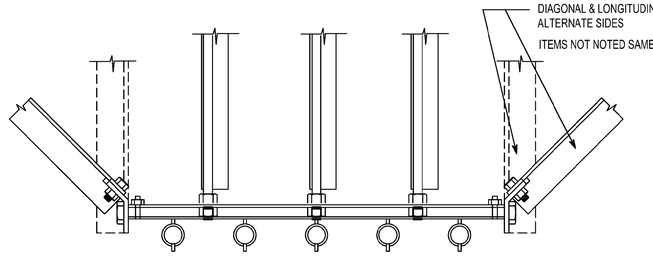
DETAILS

sheet

EP5 02

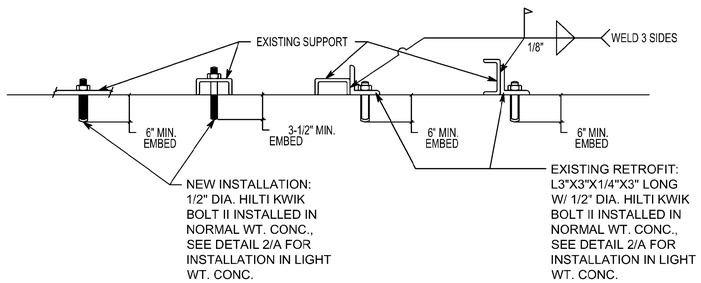
BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\86EP502.dwg Last Plotted: 2017/03/20 @ 10:51 AM By: jrw

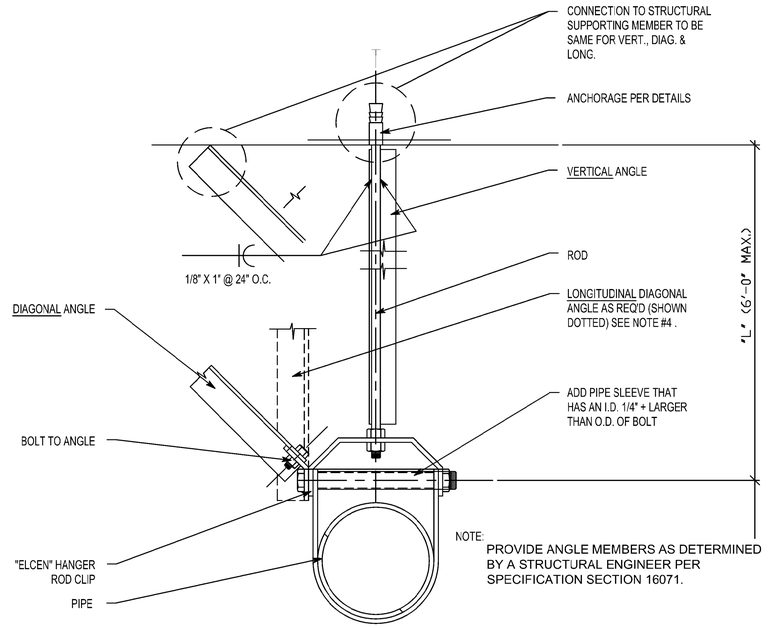


NOTE: PROVIDE ANGLE MEMBERS AS DETERMINED BY A STRUCTURAL ENGINEER PER SPECIFICATION SECTION 16071.

5 TYPICAL CONDUIT RACK BRACING
NTS



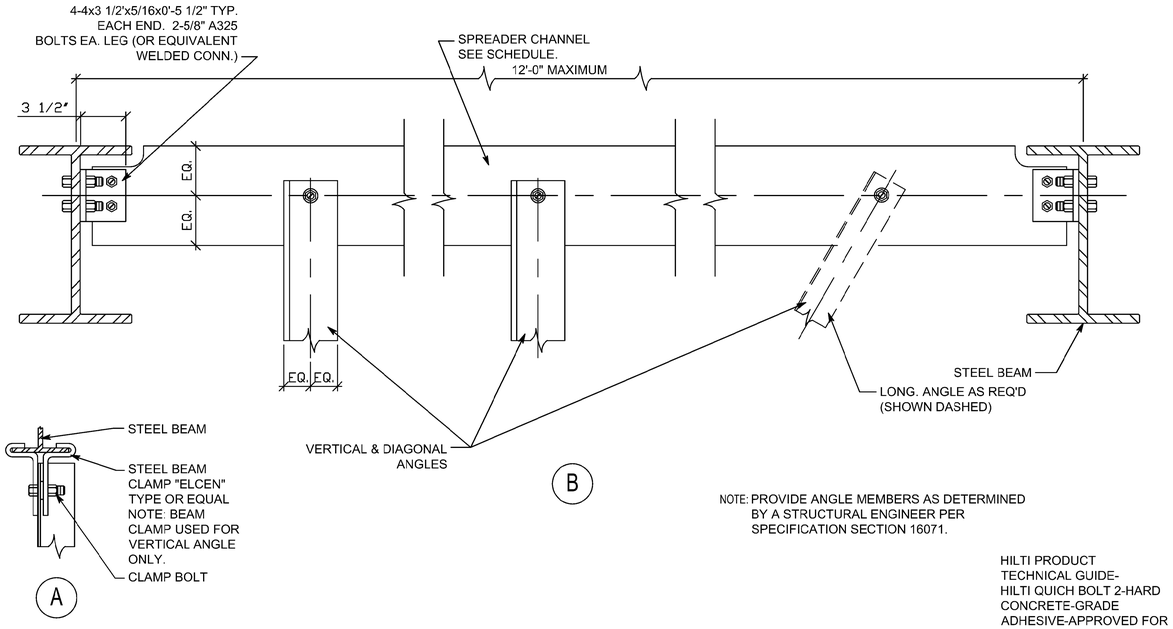
3 NORMAL WEIGHT CONCRETE ANCHORAGE



4 TYPICAL SINGLE CONDUIT BRACING
NTS

SEISMIC BRACING GENERAL NOTES

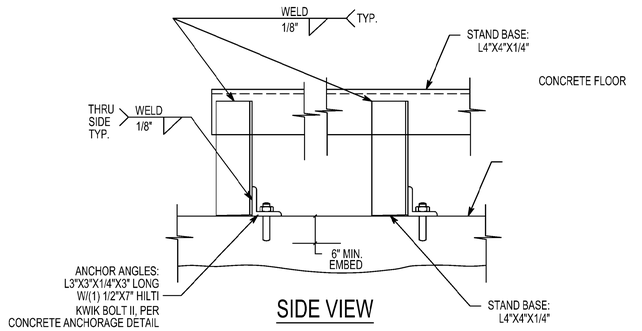
1. BRACE ALL CONDUIT WITH 2 1/2" I.D. AND LARGER, AND ALL BUSWAY, CABLE TRAY AND CONDUIT RACKS.
2. DETAILS SHOWN PROVIDE A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED. HOWEVER, WHERE BRACE OCCURS THE VERTICAL ANGLE SHOWN MAY REPLACE A TYPICAL VERTICAL SUPPORT.
3. TRANSVERSE BRACING AT 30'-0" O.C. MAX.
4. LONGITUDINAL BRACINGS AT 60'-0" O.C. MAX.
5. TRANSVERSE BRACING FOR ONE CONDUIT OR BUSWAY SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR THE CONDUIT OR BUSWAY SECTION CONNECTED PERPENDICULAR TO IT, IF THE BRACING IS INSTALLED WITHIN 24" OF THE ELBOW OR TEE AND SIMILAR SIZE.
6. DO NOT USE BRANCH LINES TO BRACE MAIN LINES.
7. PROVIDE FLEXIBILITY IN JOINTS WHERE PIPES PASS THROUGH BUILDING SEISMIC OR EXPANSION JOINTS, OR WHERE RIGIDLY SUPPORTED PIPES CONNECT TO EQUIPMENT WITH VIBRATION ISOLATORS.
8. AT VERTICAL CONDUIT AND BUSWAY RISERS, WHEREVER POSSIBLE, SUPPORT OF WEIGHT OF THE RISER AT A POINT OR POINTS ABOVE THE CENTER OF GRAVITY OF THE RISER. PROVIDE LATERAL GUIDES AT THE TOP AND BOTTOM OF THE RISER, AND AT INTERMEDIATE POINTS NOT TO EXCEED 30'-0" ON CENTER.
9. PROVIDE LARGE ENOUGH CONDUIT SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.
10. DO NOT FASTEN ONE RIGID CONDUIT OR BUSWAY SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE: FOR EXAMPLE, A WALL AND A ROOF.
11. REFER TO SPECIFICATIONS AND MANUFACTURER'S LITERATURE FOR ADDITIONAL REQUIREMENTS.



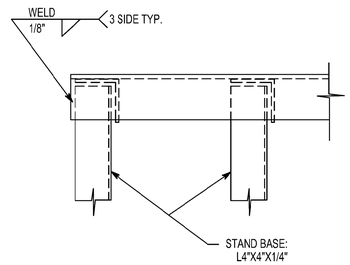
NOTE: PROVIDE ANGLE MEMBERS AS DETERMINED BY A STRUCTURAL ENGINEER PER SPECIFICATION SECTION 16071.

HILTI PRODUCT TECHNICAL GUIDE- HILTI QUICH BOLT 2-HARD CONCRETE-GRADE ADHESIVE-APPROVED FOR SOFT CONCRETE-GLUE

1 TYPICAL SINGLE CONDUIT BRACING
NTS



SIDE VIEW



TOP VIEW

2 BASE STAND
NTS

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data
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checked by:

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DETAILS

sheet
EP503

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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FAULT CURRENT TABLE

BUS	FAULT CURRENT
METER/CT	25,009 SCA
MDP	24,762 SCA
LA	23,147 SCA
LB	10,931 SCA
LC	7,729 SCA
LD	8,216 SCA
LE	7,572 SCA
LF	9,682 SCA

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

EQUIPMENT SCHEDULE

MARK	ITEM DESCRIPTION	LOAD DATA HP	kW	MCA	FLA	VOLT	PH	Hz	WIRE AND CONDUIT SIZE	COND. AND CONDUIT SCHED.	OVERCURRENT PROTECTION FURN BY	DEVICE	LOCATION	DISCONNECT FURN BY	DEVICE	LOCATION	STARTER DATA FURN BY	DEVICE	LOCATION	SIZE	SPEED	CTRL VOLT	SELECTOR SWITCH	PUSH BUTTON	PILOT LAMP	NORMALLY OPEN CONTACTS	NORMALLY CLOSED CONTACTS	PHASE FAILURE RELAY	SCHEMATIC REFERENCE	REMOTE CTRL	NOTES	MARK
EUH-1	ELECTRIC UNIT HEATER WATER ENTRIES		3.3	20	15.86	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E															EUH-1
EUH-2	ELECTRIC UNIT HEATER EXIT DOORS		2.0	12	9.6	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E															EUH-2
EUH-3	ELECTRIC UNIT HEATER CUSTODIAN		1.5	9	7.2	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E															EUH-3
EF-1	EXHAUST FAN PRIVATE UNIT BATHROOMS		.06		120	1	60		2 #12, #12 GR 0.75" CND	1	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E															AC-1
GEF-1	EXHAUST FAN	2		9.5	7.5	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN 10	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	0			HOA		R,G	2	2					GEF-1
RTU-1	ROOF TOP UNIT BUILDING ROOFS			19.1		208	3	60	4 #10, #10 GR 0.75" CND	6	E	30A/3P NON-FUSED	ADJ TO EQUIP	E																	1	RTU-1
RTU-2	ROOF TOP UNIT BUILDING ROOFS			28.9		208	3	60	4 #8, #10 GR 1" CND	9	E	40A/3P CB	PANEL	E	60A/3P NON-FUSED	ADJ TO EQUIP	E															1	RTU-2
MAU-1	MAKE UP AIR UNIT	1.5		10.2	6.6	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN 9	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	00			HOA		R,G	2	2					MAU-1
DSS-1	SPLIT SYSTEM INDOOR UNIT				0.25	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP																	DSS-1
CU-1	SPLIT SYSTEM OUTDOOR UNIT			16	12.8	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-20	ADJ TO EQUIP																	CU-1
DSS-2	SPLIT SYSTEM INDOOR UNIT				0.4	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP																	DSS-2
CU-2	SPLIT SYSTEM OUTDOOR UNIT			20	16	208	1	60	2 #10, #10 GR 0.75" CND	4	E	30A/3P CB	PANEL	E	30A/3P FRN-25	ADJ TO EQUIP																	CU-2

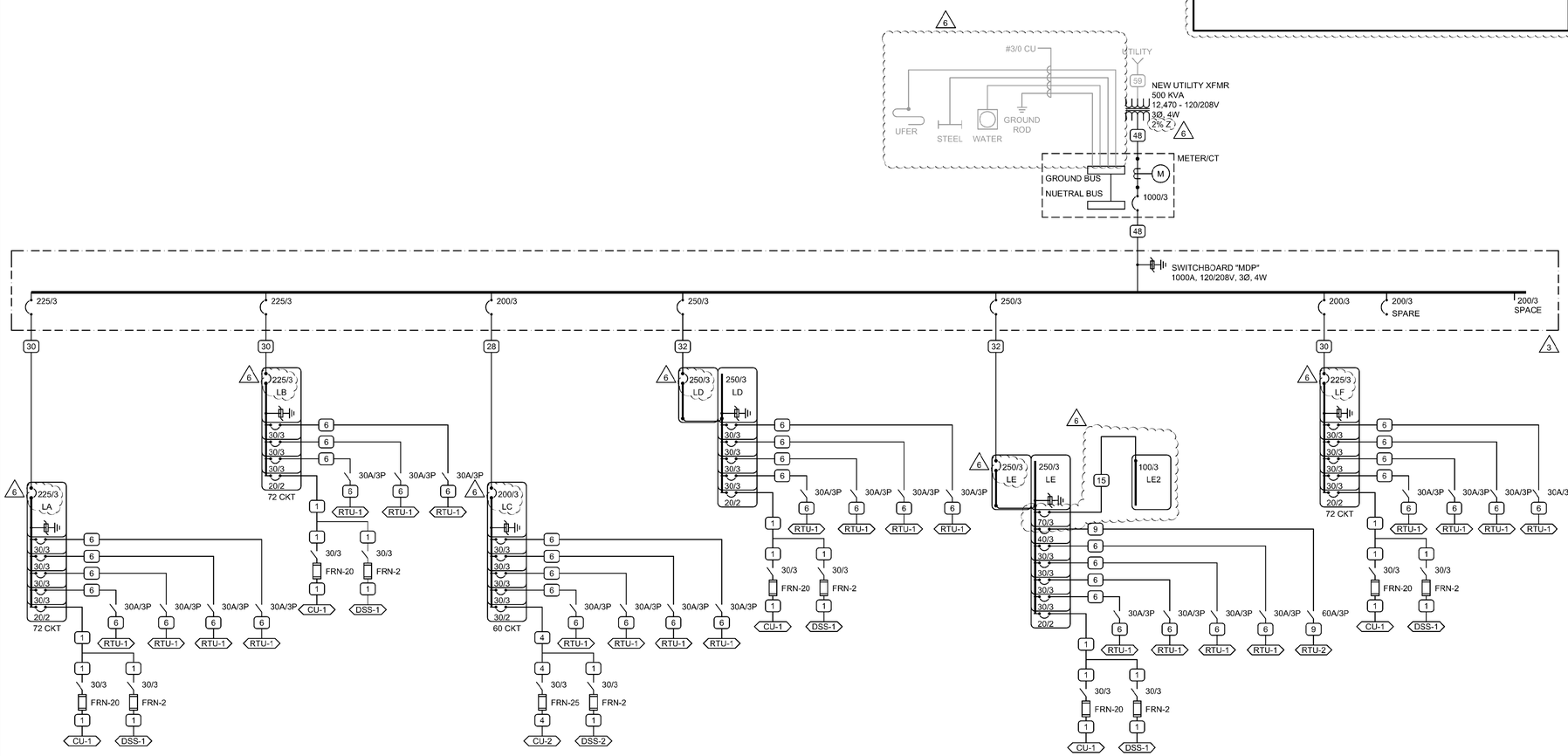
1 120V convenience outlet integral to unit.

EQUIPMENT SCHEDULE KEY

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

GENERAL SHEET NOTES

1. ALL OVERCURRENT PROTECTIVE DEVICES SHALL HAVE THE SAME AIC RATING AS THE PANEL OR GEAR THEY ARE LOCATED WITHIN.
2. ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED WITH THE CALCULATED AVAILABLE FAULT CURRENT PER NEC 110.24(A).



1 ONE LINE DIAGRAM

SCALE: NTS

COPPER CONDUCTOR AND CONDUIT SCHEDULE

(**) SCHEDULE NUMBER, SUBSCRIPT (NOTE 5) (E.G.) (5) IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1) QTY	SIZE	G	IG/HH	SBJ	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	6 EA 4	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND CONDUCTOR SHALL BE OMITTED BETWEEN THE UTILITY TRANSFORMER AND THE FIRST OVERCURRENT PROTECTIVE DEVICE.
5. SYMBOL SUBSCRIPTS:

   "2N": INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASED AND NEUTRAL CONDUCTORS.

   "FG": FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE THE SAME SIZE AS THE PHASE CONDUCTORS.

   "HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.

   "IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH GROUND OF EQUIPMENT GROUND CONDUCTOR.

   "SBJ": SUBSTITUTE "SBJ" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE SYSTEM BONDING JUMPER OF THE SEPARATELY DERIVED SYSTEM.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

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STATE OF UTAH

project:

Tenant Finish for New Brighton Recovery Campus

4905, 4911, 4915, 4925, 4931, & 4953 South 900 East

Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET–December 28, 2016
1 ADDENDUM #1–January 04, 2017
2 ADDENDUM #2–January 06, 2017
3 ADDENDUM #3–January 11, 2017
4 ADDENDUM #4–January 17, 2017
5 ADDENDUM #5–January 19, 2017
6 ADDENDUM #7–March 20, 2017

data

project no:
drawn by:
checked by:

title

ONE LINE DIAGRAM

sheet

EP6.01

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

6 DISTRIBUTION PANELBOARD "MDP"

VOLTS/PHASE/WIRE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	1000 AMP MAIN LUGS	BUILDING A	30,000 AIC	

ACCESSORIES: IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR

CKT	OCP		LOAD (kVA)			PANEL / EQUIPMENT	LCL	PHASE LOAD			LCL	PANEL / EQUIPMENT	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	200	3	1.6	7.7	17.3	LA	27.0	59.6			33.7	LD	2.9	10.9	19.2	200	3	2
-	-	-	1.5	7.9	18.5	-	28.2		54.4		27.3	-	2.9	10.1	13.6	-	-	-
-	-	-	0.0	4.8	20.8	-	25.6			58.7	33.9	-	3.0	9.6	20.5	-	-	-
3	200	3	1.3	5.9	16.9	LB	24.4	57.8			34.1	LE	1.7	9.8	22.2	200	3	4
-	-	-	1.6	6.2	14.6	-	22.8		60.3		38.3	-	1.5	10.2	26.2	-	-	-
-	-	-	0.0	6.2	20.6	-	26.8			61.0	34.5	-	1.0	7.9	25.3	-	-	-
5	200	3	1.5	9.2	10.9	LC	22.0	48.3			27.2	LF	1.8	6.2	18.7	200	3	6
-	-	-	1.2	6.6	13.4	-	21.5		48.4		27.6	-	1.6	6.5	19.1	-	-	-
-	-	-	1.4	6.8	11.7	-	20.3			46.3	26.4	-	0.0	7.5	18.9	-	-	-
7	200	3				SPARE	0.0	0.0			0.0	SPACE				-	3	8
-	-	-				-	0.0		0.0		0.0	-				-	-	-
-	-	-				-	0.0			0.0	0.0	-				-	-	-
TOTALS:						CONNECTED kVA PER PHASE	166	163	166							CONNECTED TOTAL kVA	495	
						CONNECTED AMPS PER PHASE	1381	1360	1383							CONNECTED AVERAGE AMPS PER PHASE	1375	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 27kVA @125% =	33 kVA	ALL OTHER LOADS @100% =	328 kVA	DIVERSIFIED TOTAL kVA =	436
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	1212
REMAINDER 130kVA @ 50% =	65 kVA				

5 PANEL "LA" 3

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMP MAIN CB		42,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.3			LIGHTING	1.6	2.3			1.0	WASHER LAUNDY A127		1.0		20	1	2
3	20	1	1.5			LIGHTING	1.9		1.9		0.4	CO LAUNDRY A127		0.4		20	1	4
5	30	2			1.3	DRYER LAUNDRY A101	1.3			2.6	1.3	DRYER LAUNDRY A127			1.3	30	2	6
7	-	-			1.3	-	1.3	2.6			1.3	-			1.3	-	-	8
9	20	1		1.0		WASHER LAUNDY A101	1.0		2.6		1.6	ROOMS A126, A125		1.4	0.2	20	1	10
11	20	1		1.4	0.2	ROOMS A103, A104	1.6			1.9	0.3	CUSTODIAN		0.2	0.1	20	1	12
13	20	1		0.8		CO ROOMS A101, A102	0.8	2.0			1.2	RM A122		1.1	0.1	20	1	14
15	20	1		0.6	0.6	WH/PUMP/FIRE COMP.	1.2		2.4		1.2	RM A119		1.1	0.1	20	1	16
17	20	1		1.1	0.1	RM A107	1.2			1.8	0.6	CO STORAGE/DINING A130		0.6		20	1	18
19	20	1		1.1	0.1	RM A110	1.2	2.1			0.9	CO FAMILY ROOM A131		0.9		20	1	20
21	20	1		1.1	0.1	RM A111	1.2		2.4		1.2	RM A118		1.1	0.1	20	1	22
23	20	1		0.9		CO RF ACCS, DINING A113	0.9			3.3	2.4	RANGE KITCHEN A132			2.4	50	2	24
25	20	1		0.6		CO FAMILY ROOM/STOR.	0.6	3.0			2.4	-			2.4	-	-	26
27	50	2			2.4	RANGE KITCHEN A115	2.4		3.4		1.0	REFRIGERATOR A132		1.0		20	1	28
29	-	-			2.4	-	2.4			2.6	0.2	CO KITCHEN A132		0.2		20	1	30
31	20	1				REFRIGERATOR A115	1.0	2.0			1.0	DISWASHER A132			1.0	20	1	32
33	20	1		0.2		CO KITCHEN A115	0.2		1.2		1.0	GARBAGE DISP. A132			1.0	20	1	34
35	20	1			1.0	DISHWASHER A115	1.0			2.9	1.9	RTU-1			1.9	30	3	36
37	20	1			1.0	GARBAGE DISP. A115	1.0	2.9			1.9	-			1.9	-	-	38
39	30	3			1.9	RTU-1	1.9		3.8		1.9	-			1.9	-	-	40
41	-	-			1.9	-	1.9			3.8	1.9	RTU-1			1.9	30	3	42
43	-	-			1.9	-	1.9	3.8			1.9	-			1.9	-	-	44
45	30	3			1.9	RTU-1	1.9		3.8		1.9	-			1.9	-	-	46
47	-	-			1.9	-	1.9			2.7	0.8	EUH-3			0.8	20	2	48
49	-	-			1.9	-	1.9	2.7			0.8	-			0.8	-	-	50
51	20	1			1.0	EUH-2	1.0		2.0		1.0	EUH-2			1.0	20	2	52
53	20	1			1.0	-	1.0			2.0	1.0	-			1.0	-	-	54
55	20	1			1.7	EUH-1	1.7	2.0			0.4	EGRESS LIGHTING	0.3			20	1	56
57	20	1			1.7	-	1.7		3.4		1.7	CU-1/DSS-1			1.7	20	2	58
59	20	1	0.4			KITCHEN ISLAND CO	0.4			2.1	1.7	-			1.7	-	-	60
61	20	1	0.8			RTU CO's	0.8	1.2			0.4	KITCHEN ISLAND CO		0.4		20	1	62
63	20	1			1.0	SMOKE DETECTORS	1.0		1.0		0.0	SPARE				20	1	64
65	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	66
67	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	68
69	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	70
71	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	72
TOTALS:						CONNECTED kVA PER PHASE	27	28	26							CONNECTED TOTAL kVA	80	
						CONNECTED AMPS PER PHASE	221	232	213							CONNECTED AVERAGE AMPS PER PHASE	222	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 3kVA @125% =	4 kVA	ALL OTHER LOADS @100% =	57 kVA	DIVERSIFIED TOTAL kVA =	77
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	2 kVA	AVERAGE AMPS PER PHASE =	215
REMAINDER 10kVA @ 50% =	5 kVA				

6 PANEL "LB" 3

VOLTS/PH-ASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMP MAIN CB		22,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.3			LIGHTING	1.6	2.6			1.3	DRYER LAUNDRY B125			1.3	30	2	2
3	20	1	1.3			LIGHTING	1.6		2.6		1.3	-			1.3	-	-	4
5	30	2			1.3	DRYER LAUNDRY B101	1.3			1.7	0.4	CO LAUNDRY B125		0.4		20	1	6
7	-	-			1.3	-	1.3	2.3			1.0	WASHER B125		1.0		20	1	8
9	20	1			1.4	ROOMS B104, B105	1.6		3.2		1.6	ROOMS B12, B123		1.4	0.2	20	1	10
11	20	1		1.0		WASHER LAUNDRY B101	1.0			2.3	1.3	WH/PUMP/FIRE COMP		1.3		20	1	12
13	20	1		0.8		CO ROOMS B101, B102	0.8	2.0			1.2	ROOM B119		1.1	0.1	20	1	14
15	20	1		0.2	0.1	CO & EF-1 CUST B106	0.3		1.5		1.2	ROOM B117		1.1	0.1	20	1	16
17	20	1		1.1	0.1	ROOM B108	1.2			2.2	1.0	REFRIGERATOR B129		1.0		20	1	18
19	20	1		1.1	0.1	ROOM B111	1.2	1.7			0.5	CO DINING B127		0.5		20	1	20
21	20	1		0.5		CO FAMILY RM B114	0.5		1.3		0.8	CO FAMILY/STOR. B128,B121		0.8		20	1	22
23	20	1		0.8		CO DINING RM B113	0.8			3.2	2.4	RANGE B129			2.4	50	2	24
25	20	1		1.0		REFRIGERATOR B115	1.0	3.4			2.4	-			2.4	-	-	26
27	50	2			2.4	RANGE B115	2.4		3.4		1.0	GARBAGE DISP.			1.0	20	1	28
29	-	-			2.4	-	2.4			3.4	1.0	DISHWASHER B129			1.0	20	1	30
31	20	1		0.2		CO KITCHEN B115	0.2	0.4			0.2	CO KITCHEN B129		0.2		20	1	32
33	20	1			1.0	DISHWASHER B115	1.0		2.9		1.9	RTU-1			1.9	30	3	34
35	20	1			1.0	GARBAGE DISP. B115	1.0			2.9	1.9	-			1.9	-	-	36
37	30	3			1.9	RTU-1	1.9	3.8			1.9	-			1.9	-	-	38
39	-	-			1.9	-	1.9		2.9		1.0	EUH-2			1.0	20	2	40
41	-	-			1.9	-	1.9			2.9	1.0	-			1.0	-	-	42
43	30	3			1.9	RTU-1	1.9	2.7			0.8	EUH-3			0.8	20	2	44
45	-	-			1.9	-	1.9		2.7		0.8	-			0.8	-	-	46
47	-	-			1.9	-	1.9			3.6	1.7	EUH-1			1.7	20	2	48
49	20	2			0.8	EUH-3	0.8	2.5			1.7	-			1.7	-	-	50
51	-	-			0.8	-	0.8		1.1		0.4	EGRESS LIGHTING	0.3			20	1	52
53	20	2			1.0	EUH-2	1.0			2.7	1.7	CU-1/DSS-1			1.7	20	2	54
55	-	-			1.0	-	1.0	2.7			1.7	-			1.7	-	-	56
57	20	1		0.4		KITCHEN ISLAND CO	0.4		0.8		0.4	KITCHEN ISLAND CO			0.4	20	1	58
59	20	1		0.6		RTU CO'S	0.6			1.6	1.0	SMOKE DETECTORS			1.0	20	1	60
61	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	62
63	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	64
65	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	66
67	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	68
69	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	70
71	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	72
TOTALS:						CONNECTED kVA PER PHASE	24	22	26							CONNECTED TOTAL kVA	73	
						CONNECTED AMPS PER PHASE	201	187	221							CONNECTED AVERAGE AMPS PER PHASE	203	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 3kVA @125% =	4 kVA	ALL OTHER LOADS @100% =	52 kVA	DIVERSIFIED TOTAL kVA =	71
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	2 kVA	AVERAGE AMPS PER PHASE =	198
REMAINDER 8kVA @ 50% =	4 kVA				

6 PANEL "LC" 3 2

VOLTS/PH-ASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMP MAIN CB		10,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.5			LIGHTING	1.9	2.3			0.8	CO FIRE RM/FIRE COMP		0.2	0.6	20	1	2
3	20	1	1.2			LIGHTING	1.5		2.0		0.8	GROUP ROOM C127		0.8		20	1	4
5	20	1	1.0			LIGHTING	1.3			1.8	0.8	GROUP ROOM C126		0.8		20	1	6
7	20	1			0.8	CO RECPTION C122	0.8	2.0			1.2	GROUP ROOM C130,128		1.2		20	1	8
9	20	1			1.6	CO OFFICES C117, C116	1.8		2.4		0.8	GROUP ROOM C131		0.8		20	1	10
11	20	1			1.4	CO OFFICES C115, C114	1.4			2.4	1.0	WH/PUMP/CO CUST C133		0.2	0.8	20	1	12
13	20	1			0.8	CO CUBICLES	0.8	1.6			0.8	CO CUBICLES		0.8		20	1	14
15	20	1			0.8	CO OFFICE C106	0.8		1.8		1.0	COPIER COPY C121		1.0		20	1	16
17	20	1			1.4	CO OFFICES C107, C108	1.4			2.8	1.4	CO C129, C125, C132		1.2	0.2	20	1	18
19	20	1			1.0	REFRIGERATOR C113	1.0	2.4			1.4	CO CORR C118, 109, 102		1.4		20	1	20
21	20	1			0.2	CO BREAK ROOM C113	0.2		2.1		1.9	RTU-1			1.9	30	3	22
23	20	1			0.2	CO BREAK ROOM C113	0.2			2.1	1.9	-			1.9	-	-	24
25	20	1			1.0	CO MEDS C112	1.0	2.9			1.9	-			1.9	-	-	26
27	20	1			0.4	CO MEDS C112	0.4		2.3		1.9	RTU-1			1.9	30	3	28
29	20	1			0.8	CO BREAK ROOM C113	0.8			2.7	1.9	-			1.9	-	-	30
31	20	1			0.4	CO LAB C111	0.4	2.3			1.9	-			1.9	-	-	32
33	20	1			0.2	CO LAB C111	0.2		1.2		1.0	EUH-2			1.0	20	2	34
35	20	1			1.0	REFRIGERATOR C111	1.0			2.0	1.0	-			1.0	-	-	36
37	30	3				RTU-1	1.9	3.6			1.7	EUH-1			1.7	20	2	38
39	-	-			1.9	-	1.9		3.6		1.7	-			1.7	-	-	40
41	-	-			1.9	-	1.9			2.3	0.5	EGRESS LIGHTING	0.4			20	1	42
43	30	3			1.9	RTU-1	1.9	2.5			0.6	CO ELEC C115A		0.6		20	1	44
45	-	-			1.9	-	1.9		4.0		2.1	CU-2/DSS-2			2.1	30	2	46
47	-	-			1.9	-	1.9			4.0	2.1	-			2.1	-	-	48
49	20	2			1.0	EUH-2	1.0	1.6			0.6	RTU CO'S		0.6		20	1	50
51	-	-			1.0	-	1.0		2.4		1.4	CO CUBICLES		1.4		20	1	52
53	20	1				SPARE	0.0			1.4	1.4	CO CUBICLES		1.4		20	1	54
55	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	56
57	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	58
59	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	60
TOTALS:						CONNECTED kVA PER PHASE	21	22	21							CONNECTED TOTAL kVA	64	
						CONNECTED AMPS PER PHASE	177	182	179	ARC						CONNECTED AVERAGE AMPS PER PHASE	179	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 4kVA @125% =	5 kVA	ALL OTHER LOADS @100% =	36 kVA	DIVERSIFIED TOTAL kVA =	58
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	162
REMAINDER 14kVA @ 50% =	7 kVA				

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project:

Tenant Finish for New Brighton Recovery Campus

4905, 4911, 4915, 4925, 4931, & 4953 South 900 East

Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET–December 28, 2016
1 ADDENDUM #1–January 04, 2017
2 ADDENDUM #2–January 06, 2017
3 ADDENDUM #3–January 11, 2017
4 ADDENDUM #4–January 17, 2017
5 ADDENDUM #5–January 19, 2017
6 ADDENDUM #7–March 20, 2017

data

project no:
drawn by:
checked by:

title

PANEL SCHEDULES

sheet

EP602

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\86EP602.dwg Last Plotted: 2017/03/20 @ 10:50 AM By: jrw

PANEL "LD"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	250 AMP MAIN CB		10,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.4			LIGHTING	1.8	2.8			1.4	CO DINING D103		1.4		20	1	2
3	20	1	1.2			LIGHTING	1.5		2.4		1.2	CO COMMON AREA D112		1.2		20	1	4
5	20	1	0.6			LIGHTING	0.8			1.6	1.0	FB WORKOUT RM D113		1.0		20	1	6
7	20	1		0.9		CO RECEPTION D109	0.9	1.9			1.0	FB WORKOUT RM D113		1.0		20	1	8
9	20	1		0.7		WH/PUMP	0.7		1.7		1.0	FB WORKOUT RM D113		1.0		20	1	10
11	20	1		0.9	0.3	CO D108A, D108, D107, D106	1.2			2.2	1.0	CO WORKOUT RM D113		1.0		20	1	12
13	20	1		0.6		CO PNTRY/SERV. D104,105	0.6	1.6			1.0	CO WORKOUT RM D113		1.0		20	1	14
15	20	1		1.0		REFRIGERATOR D105	1.0		2.0		1.0	CO WORKOUT RM D113		1.0		20	1	16
17	20	1		1.3		FREEZER D105	1.3			2.3	1.0	CO WORKOUT RM D113		1.0		20	1	18
19	20	1			1.5	KITCHEN HOOD	1.5	2.5			1.0	CO WORKOUT RM D113		1.0		20	1	20
21	30	2			1.7	SOFT SERVE MACHINE	1.7		2.3		0.6	CO WORKOUT RM D113		0.6		20	1	22
23	-	-			1.7	-	1.7			2.5	0.8	FIRE CO/FIRE COMP D114A		0.2	0.6	20	1	24
25	20	1	0.6			CO KITCHEN D101	0.6	1.4			0.8	CO OFFICE/STOR D115		0.8		20	1	26
27	20	1	1.0			CO KITCHEN D101	1.0		1.8		0.8	CO YOGA STUDIO D114		0.8		20	1	28
29	50	2			4.0	DISHWASHER	4.0			5.0	1.0	CO OFFICE D118		1.0		20	1	30
31	-	-			4.0	-	4.0	4.8			0.8	CO MUSIC ROOM D117		0.8		20	1	32
33	20	1		0.6		SANDWICH/SALAD FRIDGE.	0.6		1.4		0.8	CO ART ROOM D116		0.8		20	1	34
35	20	1		1.0		CO KITCHEN D101	1.0			1.4	0.4	CO COMPUTER LAB D119		0.4		20	1	36
37	20	1		1.8		ESPRESSO MACHINE	1.8	2.2			0.4	CO COMPUTER LAB D119		0.4		20	1	38
39	20	1		1.0		CO KITCHEN D101	1.0		1.4		0.4	CO COMPUTER LAB D119		0.4		20	1	40
41	20	3			0.5	GEF-1	0.5			2.4	1.9	RTU-1			1.9	30	3	42
43	-	-			0.5	-	0.5	2.4			1.9	-			1.9	-	-	44
45	-	-			0.5	-	0.5		2.4		1.9	-			1.9	-	-	46
47	20	3			0.4	MAU-1	0.4			2.3	1.9	RTU-1			1.9	30	3	48
49	-	-			0.4	-	0.4	2.3			1.9	-			1.9	-	-	50
51	-	-			0.4	-	0.4		2.3		1.9	-			1.9	-	-	52
53	30	3			1.9	RTU-1	1.9			2.9	1.0	EUH-2			1.0	20	2	54
55	-	-			1.9	-	1.9	2.9			1.0	-			1.0	-	-	56
57	-	-			1.9	-	1.9		3.8		1.9	RTU-1			1.9	30	3	58
59	20	1		1.8		ICE MAKER	1.8			3.7	1.9	-			1.9	-	-	60
61	20	1			1.5	ANSUL FIRE PANEL	1.5	3.4			1.9	-			1.9	-	-	62
63	20	1	0.2			EGRESS LIGHTING	0.3		1.9		1.7	EUH-1			1.7	20	2	64
65	20	1	1.5			BLDG A & B CANOPY LTG	1.9			3.2	1.7	-			1.7	-	-	66
67	20	1	1.5			BLDG E & F CANOPY LTG	1.9	2.5			1.0	EUH-2			1.0	20	2	68
69	20	1	1.5			BLDG C & D CANOPY LTG	1.9		2.5		1.0	-			1.0	-	-	70
71	20	1	0.9			PARKING LOT LTG	1.1			2.6	1.7	CU-1/DSS-1			1.7	20	2	72
73	20	1		0.6		RTU CO'S	0.6	2.3			1.7	-			1.7	-	-	74
75	20	1				SPARE	0.0		1.0		1.0	EUH-2			1.0	20	1	76
77	20	1				SPARE	0.0			1.0	1.0	-			1.0	20	1	78
79	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	80
81	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	82
83	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	84
TOTALS:						CONNECTED kVA PER PHASE		33	27	33		CONNECTED TOTAL kVA				93		
						CONNECTED AMPS PER PHASE		275	224	276		CONNECTED AVERAGE AMPS PER PHASE				258		

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 9kVA @125% =	11 kVA	ALL OTHER LOADS @100% =	54 kVA	DIVERSIFIED TOTAL kVA =	85
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	236
REMAINDER 21kVA @ 50% =	10 kVA				

PANEL "LE"

VOLTS/PH-ASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	250 AMP MAIN CB		10,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.2			LIGHTING	1.5	2.2			1.0	WASHER LAUNDRY E127		1.0		20	1	2
3	20	1	1.5			LIGHTING	1.9		2.8		1.3	DRYER LAUNDRY E127			1.3	30	2	4
5	20	1	1.0			LIGHTING	1.3			2.3	1.3	-			1.3	-	-	6
7	30	2			1.3	DRYER LAUNDRY E101	1.3	2.0			0.7	CO E134, E127		0.6	0.1	20	1	8
9	-	-			1.3	-	1.3		2.9		1.6	ROOMS E125,E126		1.4	0.2	20	1	10
11	20	1		1.4	0.2	ROOMS E103, E104	1.6			2.8	1.2	ROOM E119		1.1	0.1	20	1	12
13	20	1		1.0		WASHER LAUNDRY E101	1.0	2.2			1.2	ROOM E122		1.1	0.1	20	1	14
15	20	1		0.6		CO ROOMS E101,E102	0.6		0.9		0.3	CO/EF-1 CUSTODIAN E124		0.2	0.1	20	1	16
17	20	1		0.2	0.8	WH/PUMP/CO STORAGE	1.0			2.2	1.2	ROOM E118		1.1	0.1	20	1	18
19	20	1		1.1	0.1	ROOM E107	1.2	2.1			0.9	CO FAMILY ROOM E131		0.9		20	1	20
21	20	1		1.1	0.1	ROOM E110	1.2		1.8		0.6	CO DINING ROOM E130		0.6		20	1	22
23	20	1		1.1	0.1	ROOM E111	1.2			2.2	1.0	REFRIGERATOR E132		1.0		20	1	24
25	20	1		1.0		CO DINING E113	1.0	1.2			0.2	CO KITCHEN E132		0.2		20	1	26
27	20	1		0.6		CO FAMILY E114	0.6		3.0		2.4	RANGE E132			2.4	50	2	28
29	20	1		1.0		REFRIGERATOR E115	1.0			3.4	2.4	-			2.4	-	-	30
31	50	2			2.4	RANGE E115	2.4	3.4			1.0	DISHWASHER E132			1.0	20	1	32
33	-	-			2.4	-	2.4		3.4		1.0	GARBAGE DISP E132			1.0	20	1	34
35	20	1			1.0	GARBAGE DISPOSAL	1.0			2.9	1.9	RTU-1			1.9	30	3	36
37	20	1			1.0	DISWASHER E115	1.0	2.9			1.9	-			1.9	-	-	38
39	20	1		0.2		CO KITCHEN E115	0.2		2.1		1.9	-			1.9	-	-	40
41	30	3			1.9	RTU-1	1.9			3.8	1.9	RTU-1			1.9	30	3	42
43	-	-			1.9	-	1.9	3.8			1.9	-			1.9	-	-	44
45	-	-			1.9	-	1.9		3.8		1.9	-			1.9	-	-	46
47	30	3			1.9	RTU-1	1.9			3.8	1.9	RTU-2			1.9	40	3	48
49	-	-			1.9	-	1.9	3.8			1.9	-			1.9	-	-	50
51	-	-			1.9	-	1.9		3.8		1.9	-			1.9	-	-	52
53	20	2			0.8	EUH-3	0.8			1.8	1.0	EUH-2			1.0	20	2	54
55	-	-			0.8	-	0.8	1.8			1.0	-			1.0	-	-	56
57	20	2			1.0	EUH-2	1.0		1.8		0.8	EUH-3			0.8	20	2	58
59	-	-			1.0	-	1.0			1.8	0.8	-			0.8	-	-	60
61	20	1	0.5			EGRESS LIGHTS	0.6	0.9			0.4	KITCHEN ISLAND CO		0.4		20	1	62
63	20	2			1.7	CU-1/DSS-1	1.7		2.7		1.0	SMOKE DETECTORS			1.0	20	1	64
65	-	-			1.7	-	1.7			1.7	0.0	SPARE				20	1	66
67	20	1		1.0		RTU CO'S	1.0	1.0			0.0	SPARE				20	1	68
69	20	1		0.4		KITCHEN ISLAND CO	0.4		0.4		0.0	SPARE				20	1	70
71	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	72
73	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	74
75	20	1				SPARE	1.7		0.0		0.0	SPARE				20	1	76
77	20	1				SPARE	1.7			0.0	0.0	SPARE				20	1	78
79	20	1				SPARE	0.0	6.4			6.4	LE2		1.5	4.9	70	3	80
81	20	1				SPARE	0.0		8.5		8.5	-		5.1	3.4	-	-	82
83	20	1				SPARE	0.0			5.5	5.5	-		1	4.5	-	-	84
TOTALS:						CONNECTED kVA PER PHASE		34	38	34		CONNECTED TOTAL kVA				106		
						CONNECTED AMPS PER PHASE		281	316	285		CONNECTED AVERAGE AMPS PER PHASE				294		

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 4kVA @125% =	5 kVA	ALL OTHER LOADS @100% =	74 kVA	DIVERSIFIED TOTAL kVA =	98
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	272
REMAINDER 18kVA @ 50% =	9 kVA				

PANEL "LE2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMP MAIN LUGS		10,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1			0.8	EUH-3	0.8	1.0			0.2	CO SERVING E140		0.2		20	1	2
3	-	-			0.8	-	0.8		1.0		0.2	CO SERVING E140		0.2		20	1	4
5	20	2			1.0	EUH-2	1.0			2.0	1.0	REFRIGERATOR E140		1.0		20	1	6
7	-	-			1.0	-	1.0	2.1			1.1	GATHERING/LEARN E136		1.1		20	1	8
9	20	2			0.8	EUH-3	0.8		1.6		0.8	CO A/V E139		0.8		20	1	10
11	-	-			0.8	-	0.8			0.8	0.0	SPARE				20	1	12
13	20	2			0.8	EUH-3	0.8	0.8			0.0	SPARE				20	1	14
15	-	-			0.8	-	0.8		0.8		0.0	SPARE				20	1	16
17	20	2			1.7	EUH-1	1.7			1.7	0.0	SPARE				20	1	18
19	-	-			1.7	-	1.7	1.7			0.0	SPARE				20	1	20
21	20	2			1.0	EUH-2	1.0		1.0		0.0	SPARE				20	1	22
23	-	-			1.0	-	1.0			1.0	0.0	SPARE				20	1	24
25	20	1		0.2	0.6	CO FIRE E135/FIRE COMP.	0.8	0.8			0.0	SPARE				20	1	26
27	20	1		1.0		DRINKING FOUNTAIN	1.0		1.0		0.0	SPARE				20	1	28
29	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	30
31	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	32
33	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	34
35	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	36
TOTALS:						CONNECTED kVA PER PHASE		6	5	6		CONNECTED TOTAL kVA				17		
						CONNECTED AMPS PER PHASE		53	45	46		CONNECTED AVERAGE AMPS PER PHASE				48		

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 0kVA @125% =	0 kVA	ALL OTHER LOADS @100% =	13 kVA	DIVERSIFIED TOTAL kVA =	17
RECEPTACLES 5kVA @100% =	5 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	48
REMAINDER 0kVA @ 50% =	0 kVA				

PANEL "LF"

VOLTS/PH-ASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	AIC RATING:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMP MAIN CB		10,000 AIC	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR

CKT	OCP		LOAD (kVA)			DESCRIPTION	LCL	PHASE LOAD			LCL	DESCRIPTION	LOAD (kVA)			OCP		CKT
NO	AMP	POLE	LTG	CO	PWR		kVA	A	B	C	kVA		LTG	CO	PWR	AMP	POLE	NO
1	20	1	1.5			LIGHTING	1.9	2.8			1.3	DRYER LAUNDRY F127			1.3	30	2	2
3	20	1	1.6			LIGHTING	2.0		2.9		1.3	-			1.3	-	-	4
5	30	2			1.3	DRYER LAUNDRY F101	1.3			2.9	1.6	ROOMS F125,F126		1.4	0.2	20	1	6
7	-	-			1.3	-	1.3	2.3			1.0	WASHER LAUNDRY F127		1.0		20	1	8
9	20	1		1.4	0.2	ROOMS F103,F104	1.6		2.0		0.4	CO LAUNDRY F127		0.4		20	1	10
11	20	1		1.0		WASHER LAUNDRY F101	1.0			2.2	1.2	ROOM F119		1.1	0.1	20	1	12
13	20	1		0.6		CO ROOMS F101,F102	0.6	1.8			1.2	ROOM F122		1.1	0.1	20	1	14
15	20	1		1.1	0.1	ROOM F110	1.2		1.5		0.3	CO/EF-1 CUST. F124		0.2	0.1	20	1	16
17	20	1		1.1	0.1	ROOM F107	1.2			2.1	0.9	CO DINING F130		0.9		20	1	18
19	20	1		0.6	0.6	WH/PUMP/FIRE COMP.	1.2	1.8			0.6	CO FAMILY F131		0.6		20	1	20
21	20	1		1.1	0.1	ROOM F111	1.2		2.4		1.2	ROOM F118		1.1	0.1	20	1	22
23	20	1		0.6		CO DINING F113	0.6			1.6	1.0	REFRIGERATOR F132		1.0		20	1	24
25	20	1		0.9		CO FAMILY F114	0.9	3.3			2.4	RANGE F132			2.4	50	2	26
27	20	1		1.0		REFRIGERATOR F115	1.0		3.4		2.4	-			2.4	-	-	28
29	50	2			2.4	RANGE F115	2.4			3.4	1.0	GARBAGE DISP. F132			1.0	20	1	30
31	-	-			2.4	-	2.4	3.4			1.0	DISHWASHER F132			1.0	20	1	32
33	20	1			1.0	GARBAGE DISP. F115	1.0		1.2		0.2	KITCHEN CO F132		0.2		20	1	34
35	20	1			1.0	DISHWASHER F115	1.0			2.9	1.9	RTU-1			1.9	30	3	36
37	20	1		0.2		CO KITCHEN F115	0.2	2.1			1.9	-			1.9	-	-	38
39	30	3			1.9	RTU-1	1.9		3.8		1.9	-			1.9	-	-	40
41	-	-			1.9	-	1.9			3.8	1.9	RTU-1			1.9	30	3	42
43	-	-			1.9	-	1.9	3.8			1.9	-			1.9	-	-	44
45	30	3			1.9	RTU-1	1.9		3.8		1.9	-			1.9	-	-	46
47	-	-			1.9	-	1.9			2.9	1.0	EUH-2			1.0	20	2	48
49	-	-			1.9	-	1.9	2.9			1.0	-			1.0	-	-	50
51	20	2			1.7	EUH-1	1.7		2.5		0.8	EUH-3			0.8	20	2	52
53	-	-			1.7	-	1.7			2.5	0.8	-			0.8	-	-	54
55	20	2			1.0	EUH-2	1.0	1.3			0.4	EGRESS LIGHTS	0.3			20	1	56
57	-	-			1.0	-	1.0		2.7		1.7	CU-1/DSS-1			1.7	20	2	58
59	20	1		0.4		KITCHEN ISLAND CO	0.4			2.1	1.7	-			1.7	-	-	60
61	20	1		0.8		RTU CO'S	0.8	1.2			0.4	KITCHEN ISLAND CO		0.4		20	1	62
63	20	1				SPARE	0.0		1.0		1.0	SMOKE DETECTORS			1.0	20	1	64
65	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	66
67	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	68
69	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	70
71	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	72
TOTALS:						CONNECTED kVA PER PHASE		27	27	26		CONNECTED TOTAL kVA				80		
						CONNECTED AMPS PER PHASE		223	226	220		CONNECTED AVERAGE AMPS PER PHASE				223		

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING 3kVA @125% =	4 kVA	ALL OTHER LOADS @100% =	57 kVA	DIVERSIFIED TOTAL kVA =	76
RECEPTACLES 10kVA @100% =	10 kVA	25% OF LARGEST MOTOR =	0 kVA	AVERAGE AMPS PER PHASE =	211
REMAINDER 10kVA @ 50% =	5 kVA				

LIGHTING CONTROL PANEL SCHEDULE

LX

RELAY	CIRCUIT	VOLTS	LOAD DESCRIPTION	AUTOMATIC CONTROL ON	AUTOMATIC CONTROL OFF	OVERRIDE CONTROL SCHEDULE	OVERRIDE CONTROL ON	OVERRIDE CONTROL OFF	OTHER CONTROLS	REMARKS
1	LD	120	BLDG A & B CANOPY LTG	EPC	EPC				EPC	
2	LD	120	BLDG E & F CANOPY LTG	EPC	EPC				EPC	
3	LD	120	BLDG C & D CANOPY LTG	EPC	EPC				EPC	
4	LD	120	PARKING LOT LIGHTING	EPC	EPC				EPC	
5		120	SPARE							
6		120	SPARE							

BH = BUSINESS HOURS PER SCHEDULE (EXAMPLE SCHEDULE 1: ON AT 6:00 AM / OFF AT 8:00 PM) - UP TO 6 SCHEDULES PER PANEL AVAILABLE AS SELECTED BY OWNER
SCHEDULE BH-1: LIGHTS ON 7:00 AM / LIGHTS OFF 9:00 PM/MONDAY - FRIDAY EXCLUDING HOLIDAYS
SCHEDULE BH-2: LIGHTS ON 7:00 AM / LIGHTS OFF 10:00 PM / MONDAY - FRIDAY EXCLUDING HOLIDAYS
SCHEDULE BH-3: LIGHTS ON 7:00 AM/LIGHTS OFF 11:PM / 7 DAYS/WEEK
SCHEDULE BH-4: ON CONTROL BY EPC / OFF 11:00 PM
SCHEDULE BH-5: LIGHT ON 7:00 AM CONTROLLED BY IPC OFF 7:00 PM
SCHEDULE BH-6: NOT USED
EPC = EXTERIOR PHOTO CELL
IPC(XXX) = INTERIOR PHOTO CELL. PROVIDE DIMMING CONTROL
LC - OVERRIDE CONTROL WALL SWITCH CONTROL; PUSH ON TURNS CIRCUIT ON FOR AUTO OFF AFTER 30 MINUTES

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data

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title

PANEL SCHEDULES

sheet

EP603

#22081850120000

BUILDING 'E' 4931 South 900 East PARCEL

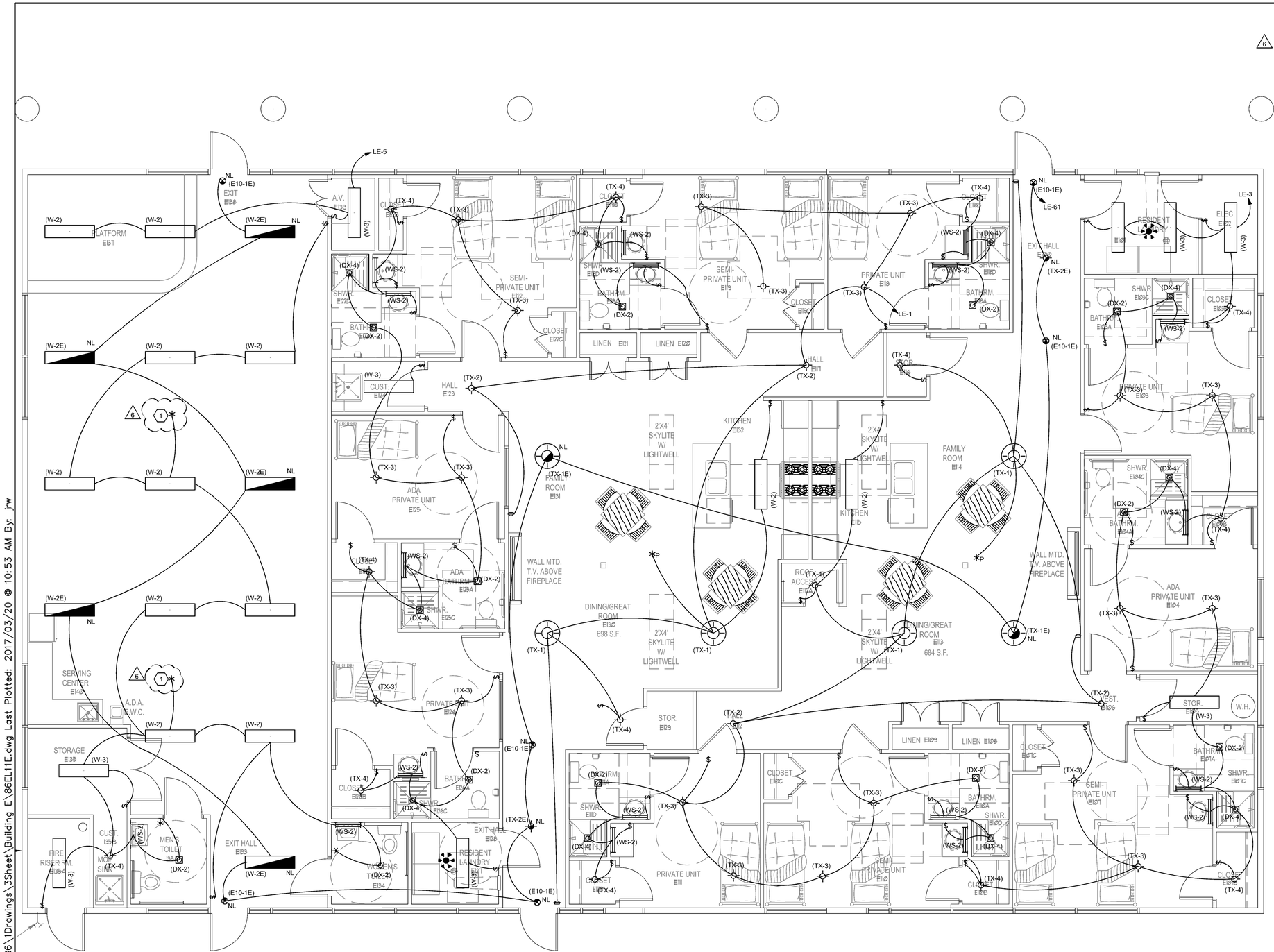
File Name: P:\2016\20160686\Drawings\3Sheet\Building E\86EP603.dwg Last Plotted: 2017/03/20 @ 10:49 AM By: jrw

GENERAL SHEET NOTES

1. PHOTOCELLS SHALL BE SET TO 30FC.

SHEET KEYNOTES

1. OCCUPANCY SENSORS SHALL NOT TURN LIGHTS ON TO MORE THAT 50%. LIGHTS MUST BE MANUALLY ADJUSTED TO 100%. PROVIDE ROOM/DIMMING CONTROLLERS AS NECESSARY TO FACILITATE LIGHTING OPERATION AS DESCRIBED.



1 LIGHTING PLAN - BUILDING 'E'

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

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LIGHTING PLAN - BUILDING 'E'

sheet

EL11E

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building E\86EL11E.dwg Last Plotted: 2017/03/20 @ 10:53 AM By: jrw

LIGHTING FIXTURE SCHEDULE

NOTE TO BIDDERS: COMPLY WITH THE SPECIFICATIONS.
REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTCR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTCR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

SYMBOL	MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES
	DX	LED DOWNLIGHT. THERMALLY PROTECTED HOUSING: TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF-FLANGING TRIM UNLESS NOTED.						
6	DX-1	RECESSED DOWNLIGHT; VERTICAL, FULL ON AT 0 VOLTS CONTROL INPUT 6" 3500 K DIMMALE 0-10V	1500 LU 3500k	27W	120/277V	PEACHTREE	6BLRD-IC-18-35K-80-SH-TRW-120 OR EQUIVALENT	
	DX-2	RECESSED DOWNLIGHT; VERTICAL, FULL ON AT 0 VOLTS CONTROL INPUT 6" 3500K, 90 CRI 2000 LUMENS DIMMABLE 0-10V DAMP LOCATION	2000 LI 3500k	54W	120/277V	PEACHTREE	6BLRD-IC-20-35K-80-SH-RCA-120 OR EQUIVALENT	
	DX-4	RECESSED DOWNLIGHT; LED 6" SHOWER LIGHT 4000k	1250 L 3500k	27W	120/277V	PEACHTREE EATON	6BLRD-IC-13-35K-80-SH-RCA-WL-120 SLD612-80-35-WH WITH H7ICAT HOUSING OR EQUIVALENT	
	E	E SUFFIX INDICATES THAT FIXTURE IS PROVIDED WITH AN EMERGENCY BATTERY PACK TO PROVIDE POWER LED LAMPS, TO PROVIDE 90 MINUTES OF EMERGENCY POWER TO FIXTURE. MINIMUM LIGHT OUTPUT FOR TYPICAL 4' LAMP SHALL BE 1100 LUMENS OR HIGHER;UNIVERSAL TRANSFORMER FOR 120 OR 277 VOLTS; LOW VOLTAGE PROTECTION, COMBINATION TEST SWITCH AND AC "ON" INDICATOR; 10 YEAR PRO-RATA WARRANTY; INSTALL TEST SWITCH IN A MANNER THAT REQUIRES NO DISASSEMBLY FOR TESTING.						
	E	EMERGENCY BATTERY PACK. self testing ballasts		3W	120/277V	DUAL-LITE BODINE LITHONIA EMERGI LITE EVENLINT	UFO 6WI RED/TEST PS1400QD SD FPDL/U BAL1400	
	E10	EXIT SIGN: METAL HOUSING; CEILING MOUNT, SEE DRAWINGS; ARROWS PER PLANS; LED LAMPS; EDGE LIGHTED CLEAR LENS; GREEN LETTERS ON CLEAR BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. UNITS SHOWN ARE CEILING MOUNT MODELS. CONTRACTOR TO PROVIDE MATCHING LOW LEVEL WALL MOUNTED UNITS WHERE REQUIRED.						
	E10-1E	SINGLE FACE: WITH EMERGENCY BATTERY PACK	LED	2W	120/277V	DUAL-LITE MCPHILBEN EELP LITHONIA EVENLITE ISOLITE CHLORIDE LIGHTOLIER	LECSGWA 45VL-1-GC-XX EDG 1 GC W EM LRP W 1 GC XX 120/277 SOV-AC-G-1M WH XX UC EDGL-S-S-G-BK (BLACK HOUSING) STDLX-X-1-GC-X LEAC1GCX	
	E10-2E	DUAL FACE: WITH EMERGENCY BATTERY PACK	LED	2W	120/277V	DUAL-LITE MCPHILBEN EELP LITHONIA EVENLITE ISOLITE CHLORIDE LIGHTOLIER	LECDGWA 45VL-2-GM-XX EDG 2 GC W EM LRP W 2 GMR XX 120/277 SOV AC G 2M WH XX UC EDGL-D-S-G-BK (BLACK HOUSING) STDLX-X-2-GC-X LEAC2GC7	
	HG	EXTERIOR CANOPY FIXTURES						
	HG-1	RECESSED SQUARE LED CANOPY LIGHT, BRONZE FINISH, WIDE DISTRIBUTION	LED 3000K	50W 3800 LU	120/277V	MCGRAW EDISON	LRC-B16-1-LED-E1-WST	
	OC	WALL MOUNTED TRAPEZOIDAL WALL PACK, WET LOCATION						
	OC-32	LED WALL PACK, TYPE IV OPTICS BRONZE FINISH	LED 3500K	24W 1600 LU	120/277V	LITHONIA	WST-LED-1-10A700-35K-SR4-MVOLT	
	TX	SPECIAL FIXTURES AS INDICATED. MEET ALL REQUIREMENTS OF SPECIFICATIONS AND FIXTURE SCHEDULE. VISUAL AND FINISH APPROVAL REQUIRED.						
	TX-1	Surface Mounted Drum 36" Diameter	LED 3500K	100W	120/277V	SHAPER SPI	122-36-L7-UNV-SN AIC11866-L100.4WDML-PT04-120-277V-3500K-FB01	
	TX-2	Surface Mounted Drum 24" Diameter	LED 3500K	37W	120/277V	SHAPER SPI	122-24-L5-UNV-SN AIC11865-L46.6WDML-PT04-120-277V-3500K-FB01	
	TX-3	Surface Mounted Bedroom Light	LED 3500K	24W	120/277V	BETACALCO	FIERO-60 1200-3500K-PC-SN	
	TX-4	Surface Mounted Closet Light	LED 3000K	22W	120/277v	METALUX	FM-15-W-R-30-R	
	TX-5	PENDANT	LED 3500K	21W	120/277V	SPI	SIP11783-2F2I-120-F-AC1	
	W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1;	WRAPAROUND					
	W-2	NARROW BODY WRAPAROUND; APPROX; 3" X 12" X 48" X 48". 5500 LUMENS	LED 3500K	57W	277/120V	EATON	DSI-WD-3-L35-1-D-UNV-SU-JB-4-STD-FC-W	
	W-3	NARROW BODY WRAPAROUND; APPROX; 3" X 10" X 48" X 48", 4800 LUMENS	LED 3500K	48W	277/120V	LITHONIA COLUMBIA METALUX DAYBRITE	LBL4 LP840 LWC4 40 ML EU WNLED LD1 41 " UNV L835 CD1 U OWL450L835UNV	
	WS	WALL MOUNTED LED LOCATED ABOVE WALL ELEMENT (MIRROR/WHITEBOARD, ETC.): AS INDICATED ON DRAWINGS;						
	WS-2	36" LED VANITY LIGHT SATIN CHROM FINISH 2.25" WIDE	LED 3500K	19W	120/277V	EDGE LIGHT EUREKA LBL	TW12 S11 1RE 36" 30k CH 3541 35 LED 17.40 120/277 SC WH LW496 OP XX LED 277	
	ZX	OUTDOOR AREA LIGHT. SINGLE HEAD PER POLE AS SHOWN ON DRAWINGS. WET LABEL. LED LIGHT ENGINE, OPTICS AND DRIVERS ACCESSIBLE FROM BELOW; RATED 100 MPH WITH 1.3 GUST FACTOR						
	ZX-2	LED POLE MOUNTED AREA LIGHT, TYPE II OPTICS, BRONZE FINISH HOUSE SIDE SHIELD 9' SSS POLE, FINISH TO MATCH FIXTURE	LED 3500K	72W 3500 LU	120/277V	LITHONIA	DSX0-LED-20C-700-35K-T2M-MVOLT-HS	
	ZX-4	LED POLE MOUNTED AREA LIGHT, TYPE IV OPTICS, BRONZE FINISH HOUSE SIDE SHIELD 9' SSS POLE, FINISH TO MATCH FIXTURE	LED 3500K	72W 3500 LU	120/277V	LITHONIA	DSX0-LED-20C-700-35K-T4M-MVOLT-HS	

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LIGHTING FIXTURE SCHEDULE

sheet

EL6.01

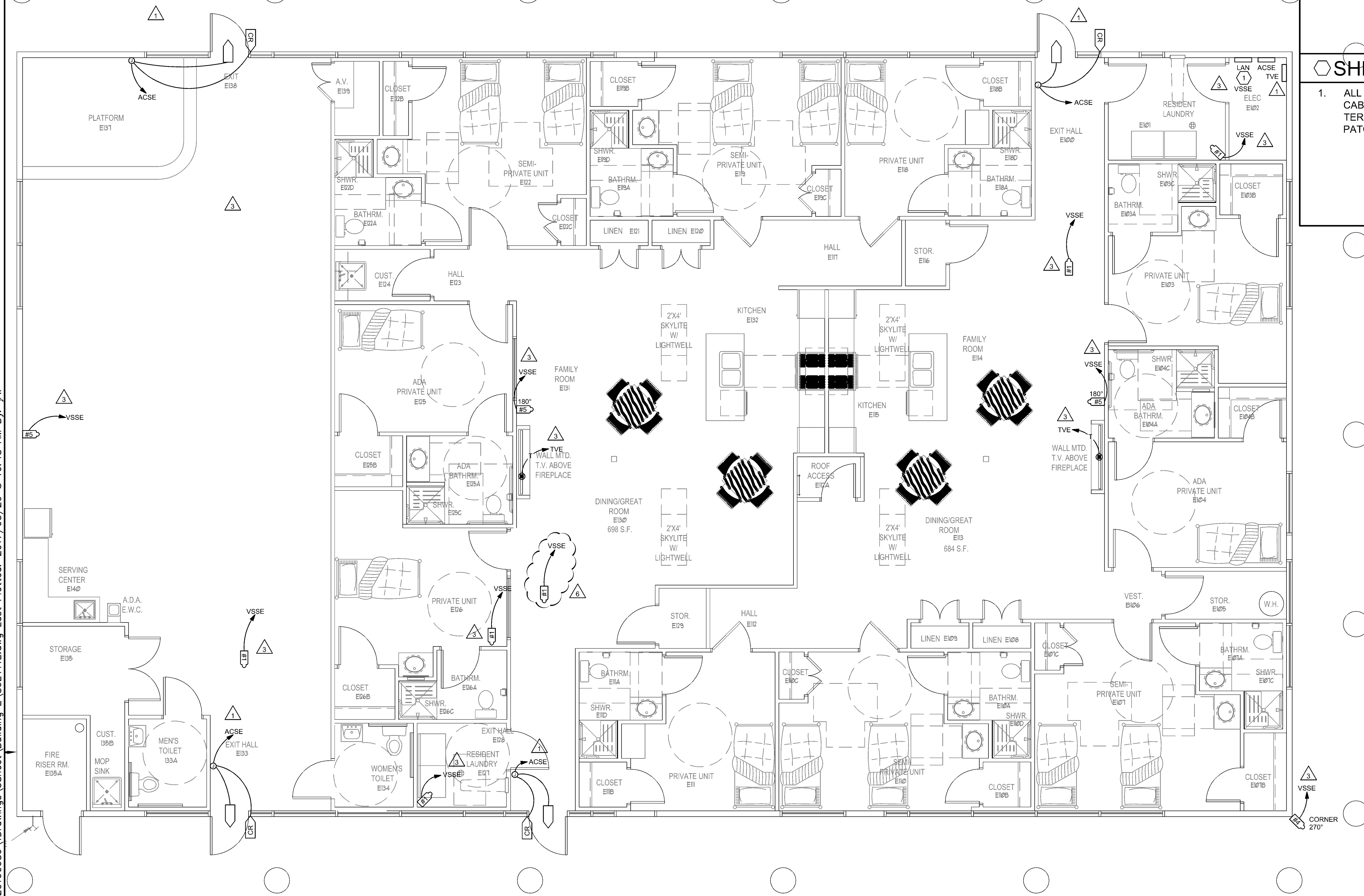
BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

GENERAL SHEET NOTES

1.

SHEET KEYNOTES

1. ALL VIDEO SURVEILLANCE CAMERA CABLING SHALL BE PULLED BACK AND TERMINATED ON A CAT 6 COMPLIANT PATCH PANEL.



1 AUXILIARY PLAN - BUILDING 'E'

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

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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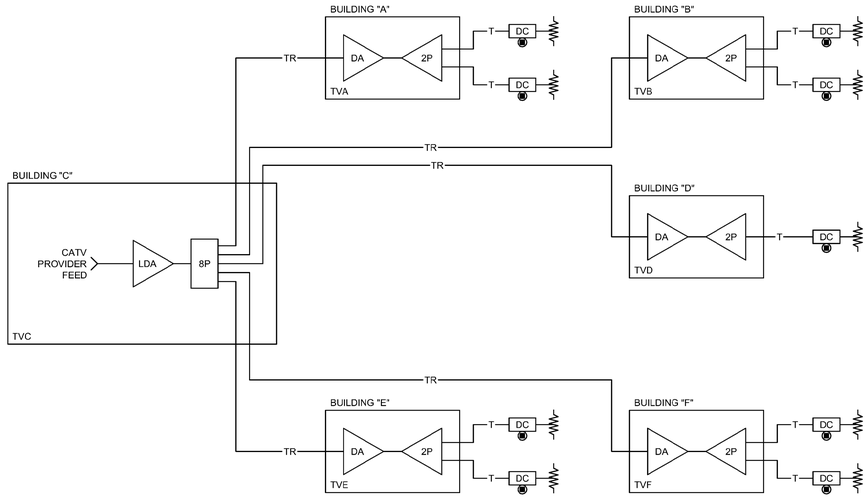
AUXILIARY PLAN - BUILDING 'E'

sheet

EY11E



3 TV DISTRIBUTION SYSTEM DIAGRAM

NO SCALE

TV DISTRIBUTION EQUIPMENT LIST

SYMBOL	DESCRIPTION	QTY	ACCEPTABLE TYPES
#P	MULTI-PORT SPLITTER	OFP	2-PORT BLONDER TONGUE SXRS-2 4-PORT BLONDER TONGUE SXRS-4
LDA	BROADBAND AMPLIFIER (LAUNCH)	OFP	BLONDER TONGUE RMDA 750-30
DA	BROADBAND AMPLIFIER	OFP	BLONDER TONGUE ZCM-201
DC	DIRECTIONAL COUPLER/WALL TAP PLATE	OFP	BLONDER TONGUE VERSATAP SERIES MODEL V-3889 SERIES
	RF TERMINATOR	A/R	75 OHM TERMINATOR
T	COAXIAL CABLE, HORIZONTAL DROP	A/R	RG-6 (SEE SPECIFICATIONS)
TR	COAXIAL CABLE, TRUNK	A/R	RG-11 (SEE SPECIFICATIONS)

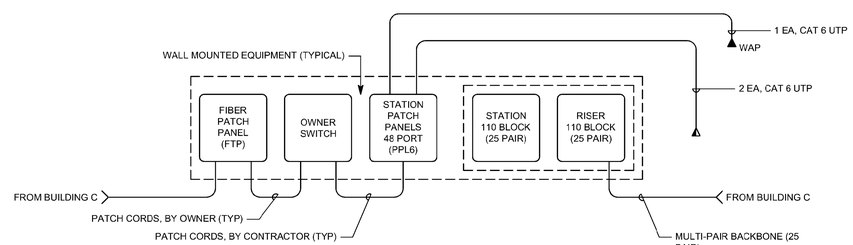
SECURITY EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MOUNTING *	ROUGH-IN	QTY	ACCEPTABLE TYPES
CR	CARD READER	40"	4SQ W/ 1G RING	OFP	SEE SECTION 281300
#1	CARD ACCESS DOOR TYPE, TYPICAL. REFER TO CARD ACCESS DOOR TYPE SCHEDULE.	SEE SCHEDULE	SEE SCHEDULE	OFP	REFER TO CARD ACCESS DOOR TYPE SCHEDULE & SECTION 281300
T	VSS CAMERA/ENCLOSURE TYPE, TYPICAL. REFER TO VSS CAMERA/ENCLOSURE TYPE SCHEDULE.	SEE SCHEDULE	SEE SCHEDULE	OFP	SEE VSS CAMERA/ENCLOSURE TYPE SCHEDULE
ACS	CARD ACCESS CONTROLLERS & PWR SUPPLIES	72"	4"x4" GUTTER & STUBS A/R	A/R	SEE SECTION 281300
VSS	VIDEO SURVEILLANCE SYSTEM	RACK MOUNTED			COORDINATE WITH OWNER

* COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS BEFORE INSTALLATION.

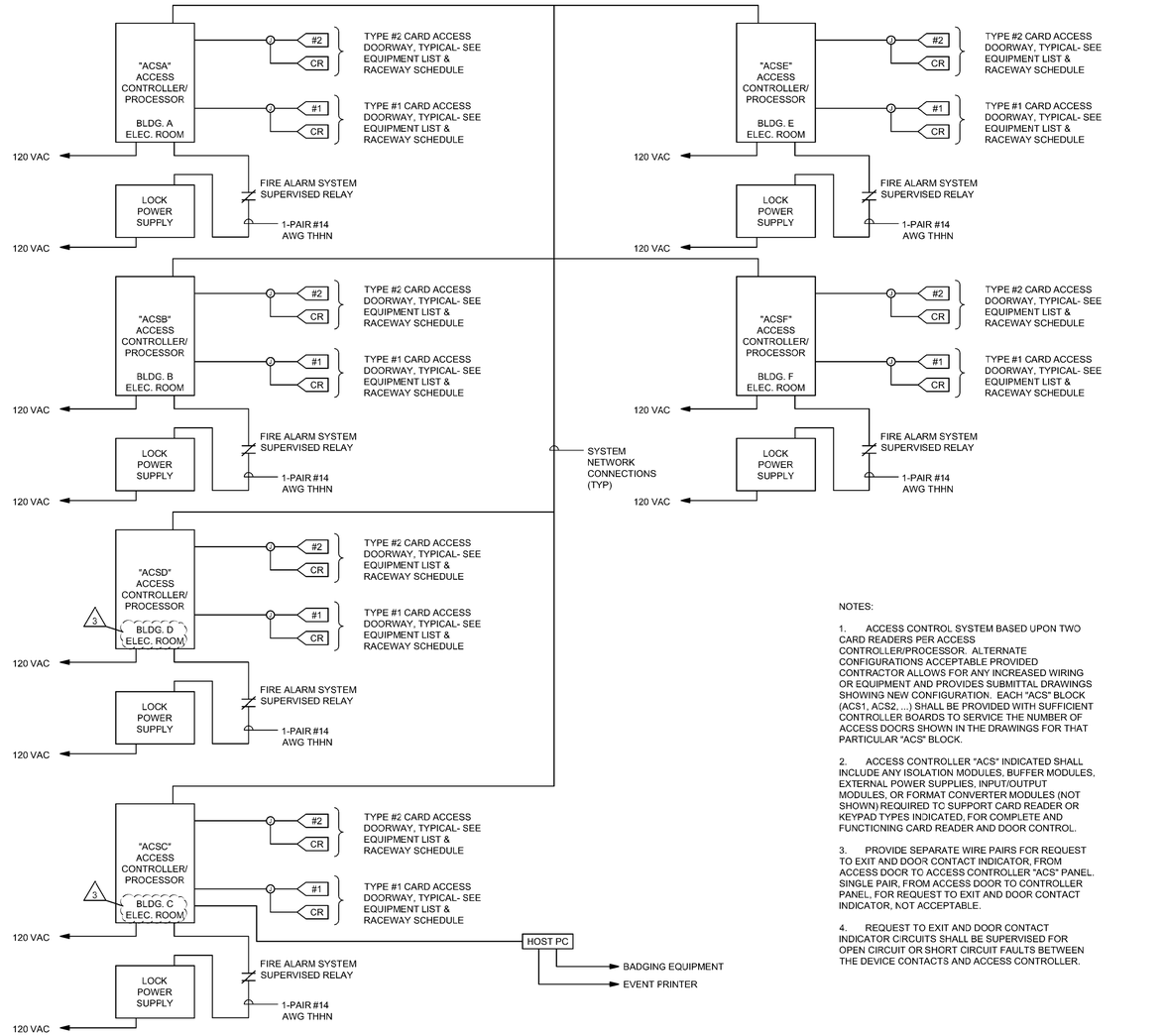
STRUCTURED CABLING SYSTEM NOTES

1. REFER TO EP SERIES SHEETS FOR VOICE/DATA OUTLET QUANTITIES AND LOCATIONS.
2. PROVIDE PLENUM RATED CABLE IN ALL AIR PLENUMS. IF A PLENUM RATED CABLE IS NOT SPECIFIED, PROVIDE THE PLENUM RATED EQUIVALENT TO THE SPECIFIED CABLE.
3. ALL CABLE, REGARDLESS OF LENGTH, INSTALLED UNDER THIS CONTRACT ARE TO BE LABELED.
4. UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDIE" CLIPS INSTALLED ABOVE ACCESSIBLE CEILINGS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDIE" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
5. GROUND ALL EQUIPMENT AS DETAILED. COORDINATE GROUNDING WITH ELECTRICAL CONTRACTOR.
6. ALL CABLE, FIBER, AND UTP TO TERMINATED ON BOTH ENDS.
7. ALL VOICE/DATA SYSTEMS CABLE IS TO BE INSTALLED INSIDE MINIMUM 1" CONDUIT. STUB CONDUIT FROM JUNCTION BOX LOCATION TO CABLE MANAGEMENT SYSTEM SPECIFIED FOR ACCESSIBLE CEILING.
8. INSTALL ALL ELECTRONIC SYSTEMS EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, SEISMIC CODES, AND INDUSTRY WIDE ACCEPTED PRACTICES. SUPPORT EQUIPMENT WEIGHT FROM BUILDING STRUCTURE. DURING THE SUBMITTAL PRCCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.



2 HORIZONTAL WALL MOUNT DIAGRAM (TYP. FOR BUILDINGS A, B, D, E, & F)

NO SCALE



NOTES:

1. ACCESS CONTROL SYSTEM BASED UPON TWO CARD READERS PER ACCESS CONTROLLER/PROCESSOR. ALTERNATE CONFIGURATIONS ACCEPTABLE PROVIDED CONTRACTOR ALLOWS FOR ANY INCREASED WIRING OR EQUIPMENT AND PROVIDES SUBMITTAL DRAWINGS SHOWING NEW CONFIGURATION. EACH "ACS" BLOCK (ACS1, ACS2, ...) SHALL BE PROVIDED WITH SUFFICIENT CONTROLLER BOARDS TO SERVICE THE NUMBER OF ACCESS DOORS SHOWN IN THE DRAWINGS FOR THAT PARTICULAR "ACS" BLOCK.
2. ACCESS CONTROLLER "ACS" INDICATED SHALL INCLUDE ANY ISOLATION MODULES, BUFFER MODULES, EXTERNAL POWER SUPPLIES, INPUT/OUTPUT MODULES, OR FORMAT CONVERTER MODULES (NOT SHOWN) REQUIRED TO SUPPORT CARD READER OR KEYPAD TYPES INDICATED, FOR COMPLETE AND FUNCTIONING CARD READER AND DOOR CONTROL.
3. PROVIDE SEPARATE WIRE PAIRS FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, FROM ACCESS DOOR TO ACCESS CONTROLLER "ACS" PANEL. SINGLE PAIR, FROM ACCESS DOOR TO CONTROLLER PANEL, FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, NOT ACCEPTABLE.
4. REQUEST TO EXIT AND DOOR CONTACT INDICATOR CIRCUITS SHALL BE SUPERVISED FOR OPEN CIRCUIT OR SHORT CIRCUIT FAULTS BETWEEN THE DEVICE CONTACTS AND ACCESS CONTROLLER.

1 ACCESS CARD SYSTEM (ACS) RISER DIAGRAM

1/8" = 1'-0"

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AUXILIARY RISER DIAGRAMS

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1 EY601

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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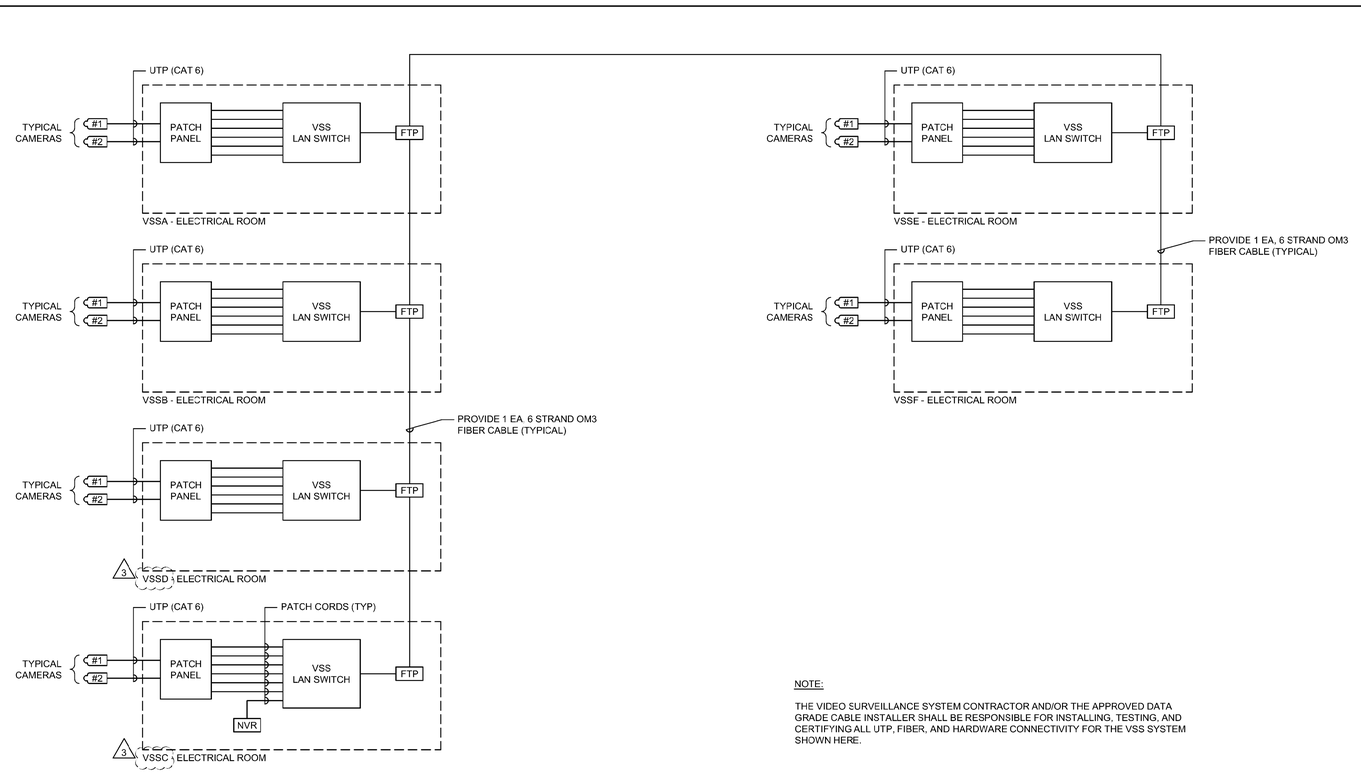
VSS CAMERA/ENCLOSURE TYPE SCHEDULE

CAMERA TYPE NUMBER	SYMBOL	DESCRIPTION	INCLUDES
TYPE 1	#1 VSS	INTERIOR CAMERA - FIXED DOME (CEILING MOUNTED UNLESS J-BOX SHOWN)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND * POE PROVIDE AVIGILON 1.0C-H4A-DC1 OR APPROVED EQUAL.
TYPE 2	#2 VSS	INTERIOR CAMERA - FIXED DOME (WALL MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * WALL MOUNT HARDWARE PROVIDE AVIGILON 1.0C-H4A-D1 OR APPROVED EQUAL.
TYPE 3	#3 VSS	EXTERIOR CAMERA - MULTI SENSOR (WALL PENDANT MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY * 180° PROVIDE AVIGILON 9W-H3-3MH-DP1 OR APPROVED EQUAL. WALL MOUNT - AVIGILON MNT-PEND-WALL CORNER MOUNT - AVIGILON MNT-AD-CORNER
TYPE 4	#4 VSS	EXTERIOR CAMERA - MULTI-SENSOR (CORNER PENDANT MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY * 270° PROVIDE AVIGILON 9W-H3-3MH-DP1 OR APPROVED EQUAL. WALL MOUNT - AVIGILON MNT-PEND-WALL CORNER MOUNT - AVIGILON MNT-AD-CORNER
TYPE 5	#5 VSS	INTERIOR CAMERA - MULTI-SENSOR (CEILING MOUNTED)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * 180° - 270° PROVIDE AVIGILON 9W-H3-3MH-DC1 OR APPROVED EQUAL.
TYPE 6	#6 VSS	EXTERIOR CAMERA - FIXED BULLET (WALL MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY PROVIDE AVIGILON 2.0C-H4A-B02-IR OR APPROVED EQUAL.

VIDEO SURVEILLANCE EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	ACCEPTABLE TYPES
POE	POE NETWORK SWITCH	NETGEAR
NVR	NETWORK VIDEO RECORDER	SEE SPECIFICATION 282300
#1	VIDEO CAMERA	SEE VSS CAMERA SCHEDULE
CABLE	4 PAIR, CAT 6, UTP PLENUM	SEE SPECIFICATIONS

OFP = OBTAIN FROM PLANS; A/R = AS REQUIRED



NOTE:

THE VIDEO SURVEILLANCE SYSTEM CONTRACTOR AND/OR THE APPROVED DATA GRADE CABLE INSTALLER SHALL BE RESPONSIBLE FOR INSTALLING, TESTING, AND CERTIFYING ALL UTP, FIBER, AND HARDWARE CONNECTIVITY FOR THE VSS SYSTEM SHOWN HERE.

1 VIDEO SURVEILLANCE SYSTEM (VSS) RISER DIAGRAM

NO SCALE

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AUXILIARY RISER DIAGRAMS

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1
EY602

BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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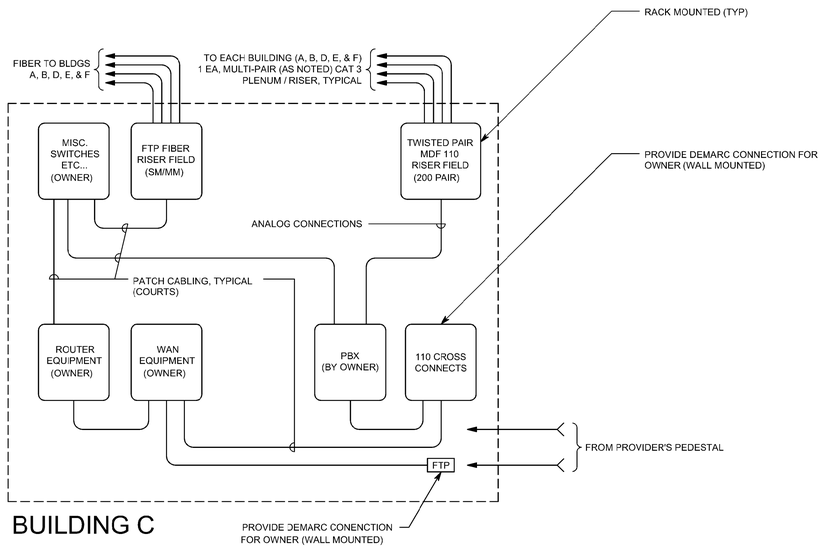


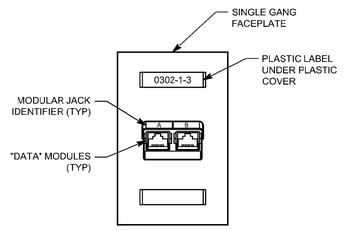
5 MAIN NETWORK ROOM SINGLE LINE DIAGRAM W/UTILITY DEMARC INFORMATION
NTS

VOICE/DATA EQUIPMENT/CABLE LIST

GENERAL NOTE:
THIS REPRESENTS ITEMS OF SIGNIFICANCE USED DURING THE DESIGN OF THE CABLING INSTALLATION, WHILE THE ITEMS INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". FURNISH ALL MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE FOR A COMPLETE INSTALLATION. COMPARE CATALOG NUMBERS WITH DESCRIPTION AND PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO SECTION 16741 FOR ADDITIONAL INFORMATION. NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID AND PROVIDE COMPLETE SUBMITTAL FOR APPROVAL.

SYMBOL	ITEM DESCRIPTION	COMMENTS
	4 PAIR 24 GAUGE CAT 6 UTP, PLENUM CABLE	SEE SPECIFICATIONS
	6 STRAND FIBER PLENUM CABLE, MULTI-MODE (OM3)	SEE SPECIFICATIONS
PPL6-48	48-PORT PATCH PANEL WITH CAT 6 RJ45 JACKS; MOUNTED IN RACK.	PROVIDE FOR QUANTITY OF PORTS SHOWN ON DRAWINGS, PLUS 20%
FTP	SC TYPE CONNECTOR PANEL - PORTS AS REQUIRED	PROVIDE MODULAR TYPE WITH ADAPTOR PLATES.
	DATA RACK, FLOOR MOUNTED	OPEN RACK, STANDARD 19", PROVIDE RACKS AS SHOWN IN ROOM LAYOUT DETAILS. SEE SPECIFICATIONS.
WAP	DATA JACK, 2 CAT 6 CABLES EACH	PROVIDE WITH CAT 6 COMPLIANT RJ45 MODULAR CONNECTORS. SEE DETAIL.
PATCH CORDS	PATCH CORDS, CAT 6	PROVIDE 1 EACH FOR EVERY CABLE TERMINATED FROM HORIZONTAL CABLING OUTLETS.
	110 STYLE PUNCHDOWN BLOCKS (DUAL SIDED - 1 SIDE STATION, 1 SIDE RISER)	PROVIDE QUANTITY OF PAIRS NEEDED. A 100 PAIR CABLE WOULD NEED 100 PAIR FOR EACH SIDE OF THE BLOCK

NIC = NOT IN CONTRACT



4 DATA PLATE DETAIL (TYP)
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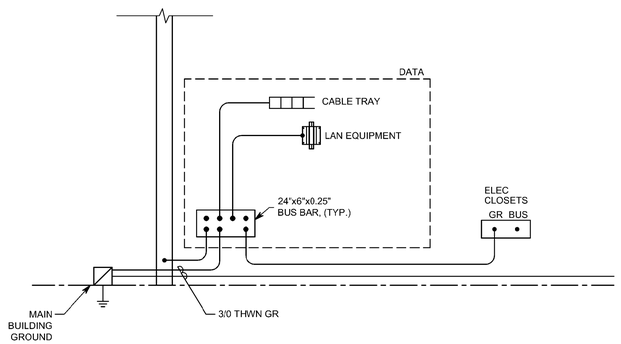
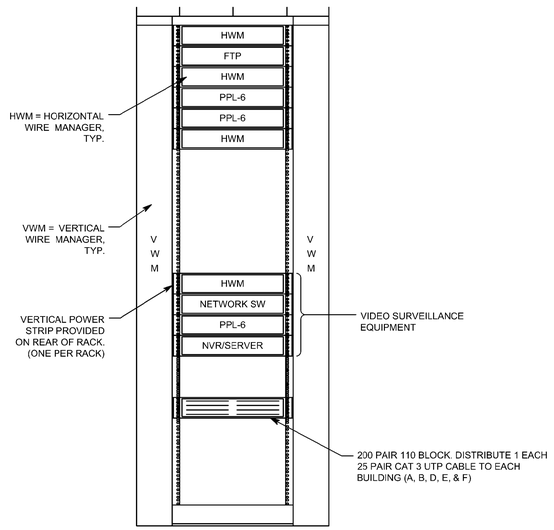


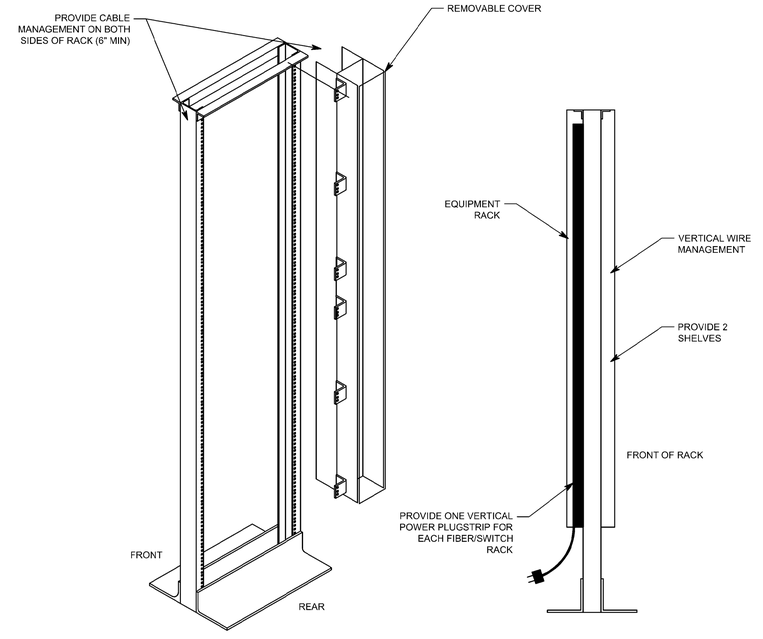
3 VOICE-DATA GROUNDING AND CONDUIT RISER DIAGRAM
NTS



NOTES:

1. RACK LAYOUTS ARE FOR COORDINATION PURPOSES. ALL FINAL RACK LAYOUTS ARE TO BE COORDINATED WITH OWNER PERSONNEL.
2. PROVIDE ALL WIRE MANAGEMENT ACCESSORIES SHOWN.

2 HORIZONTAL TERMINATION RACK ELEVATION - BUILDING C
NTS



1 OPEN FRAME EQUIPMENT RACK/RACEWAY MOUNTING DETAILS
NO SCALE

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AUXILIARY RISER DIAGRAMS

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3
EY6 03

BUILDING 'E' 4931 South 900 East PARCEL #22081

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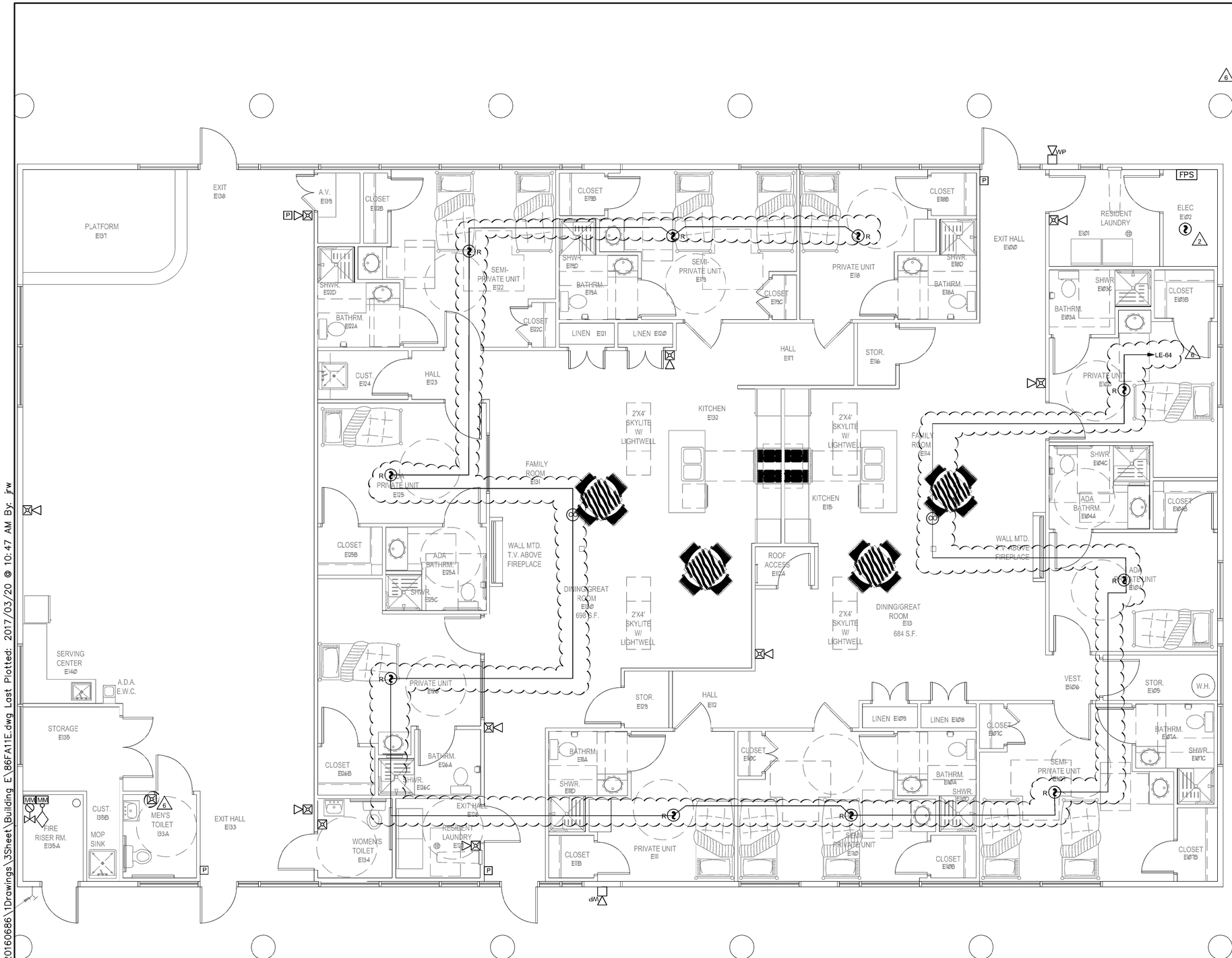
GENERAL SHEET NOTES

1. ALL RESIDENTIAL SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS WILL BE INTERCONNECTED, WILL BE CONNECTED TO 120V BUILDING CIRCUIT AND HAVE BATTERY BACKUP. WHEN ONE SMOKE DETECTOR IS ACTIVATED ALL SMOKE DETECTOR ALARMS SHALL SOUND.

SHEET KEYNOTES

1.



1 FIRE ALARM PLAN - BUILDING 'E'

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

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FIRE ALARM PLAN - BUILDING 'E'

sheet

FA1.1E

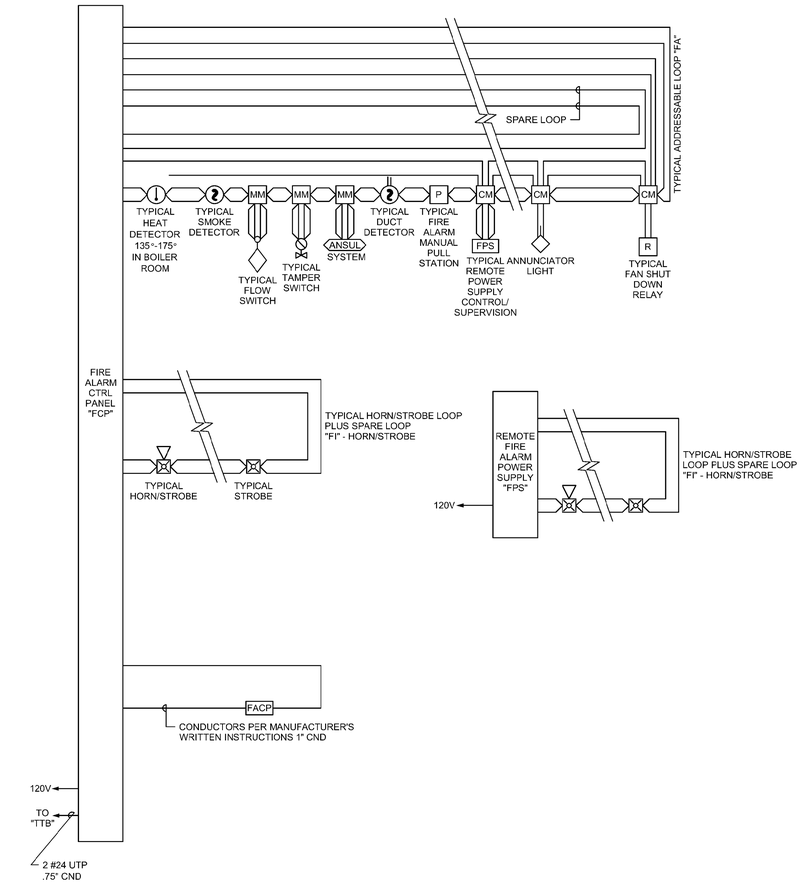
BUILDING 'E' 4931 South 900 East PARCEL #22081850120000

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

FIRE ALARM INPUT/OUTPUT MATRIX

	ZONE	OUTPUT DEVICES: GENERAL ALARM BLDG 'A'	GENERAL ALARM BLDG 'B'	GENERAL ALARM BLDG 'C'	GENERAL ALARM BLDG 'D'	GENERAL ALARM BLDG 'E'	GENERAL ALARM BLDG 'F'	TROUBLE ALARM	SUPERVISORY ALARM	FAN SHUTDOWN	FIRE DAMPER	NOTES
INITIATING DEVICES	1 RISER BLDG 'A' FLOW	●						●	●			
	2 RISER BLDG 'A' TAMPER									●		
	3 RISER BLDG 'B' FLOW		●					●	●			
	4 RISER BLDG 'B' TAMPER									●		
	5 RISER BLDG 'C' FLOW			●				●	●			
	6 RISER BLDG 'C' TAMPER									●		
	7 RISER BLDG 'D' FLOW				●			●	●			
	8 RISER BLDG 'D' TAMPER									●		
	9 RISER BLDG 'E' FLOW					●		●	●			
	10 RISER BLDG 'E' TAMPER									●		
	11 RISER BLDG 'F' FLOW						●	●	●			
	12 RISER BLDG 'F' TAMPER									●		
	13 BLDG 'A' INITIATING LOOP	●						●	●			
	14 BLDG 'B' INITIATING LOOP		●					●	●			
	15 BLDG 'C' INITIATING LOOP			●				●	●			
	16 BLDG 'D' INITIATING LOOP				●			●	●			
	17 BLDG 'E' INITIATING LOOP					●		●	●			
	18 BLDG 'F' INITIATING LOOP						●	●	●			
	19 CIRCUIT TROUBLE							●				
	20 AC POWER LOSS							●				
	21 LOW BATTERY POWER							●				
	22 SYSTEM TROUBLE							●				
	23 REMOTE POWER SUPPLY TROUBLE							●				



1 FIRE ALARM RISER
NO SCALE

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. FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
4. BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
5. VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
6. RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
7. 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.
8. PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
9. PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
10. LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
11. PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
12. INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
13. ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
14. HORN/STROBE BASED ON 120 MILLIAMPS. DOOR HOLDERS BASED ON 70 MILLIAMPS.
15. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

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FIRE ALARM RISER DIAGRAM

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FA601

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