

ALTERED NORTH ELEVATION

DRAWING INDEX

- | | |
|--|--|
| T1 SITE PLAN | M1 MECHANICAL FLOOR PLAN NORTH WING |
| A1 EXTERIOR RAMP PLAN | M2 MECHANICAL FLOOR PLAN SOUTHWEST WING |
| A2 DECONSTRUCTION FLOOR PLAN | M3 MECHANICAL FLOOR PLAN SOUTHWEST WING |
| A3 ALTERED FLOOR PLAN | M4 MECHANICAL DETAILS |
| A4 EXISTING EXTERIOR ELEVATIONS | M5 MECHANICAL EQUIPMENT SCHEDULE |
| A5 ALTERED EXTERIOR ELEVATIONS | P1 WASTE FLOOR PIPING PLAN NORTH WING |
| A6 REFLECTED CEILING PLAN | P2 DOMESTIC AND GAS PIPING PLAN NORTH WING |
| A7 VAULT AND ADDITION STRUCTURAL PLAN | P3 PIPING PLAN SOUTHWEST WING |
| A8 ADDITION EXTERIOR ELEVATIONS | P4 PIPING PLAN SOUTHWEST WING, BASEMENT |
| A9 ADDITION SECTIONS | P5 PLUMBING EQUIPMENT SCHEDULE |
| A10 EXISTING BUILDING SECTION SOUTHWEST WING | E1 ELECTRICAL SITE PLAN |
| A11 ALTERED BUILDING SECTION SOUTHWEST WING | E2 LIGHT PLAN |
| A12 EXISTING BUILDING SECTION SOUTHWEST WING | E3 RECEPTACLE PLAN |
| A13 ALTERED BUILDING SECTION SOUTHWEST WING | E4 PANEL SCHEDULE |
| A14 EXISTING ROOF PLAN | E5 RISER DIAGRAM |
| A15 ALTERED ROOF PLAN | |
| A16 RESTROOM DETAILS | |
| A17 HALL ELEVATIONS, TREASURER COUNTER | |
| A18 HALL SECTIONS, ASSESSOR COUNTER | |
| A19 CLERK COUNTER | |
| A20 BREAK ROOM COUNTER, COMMISSION COUNTER | |

REVISIONS			
NO.	DATE	CHANGES	BY

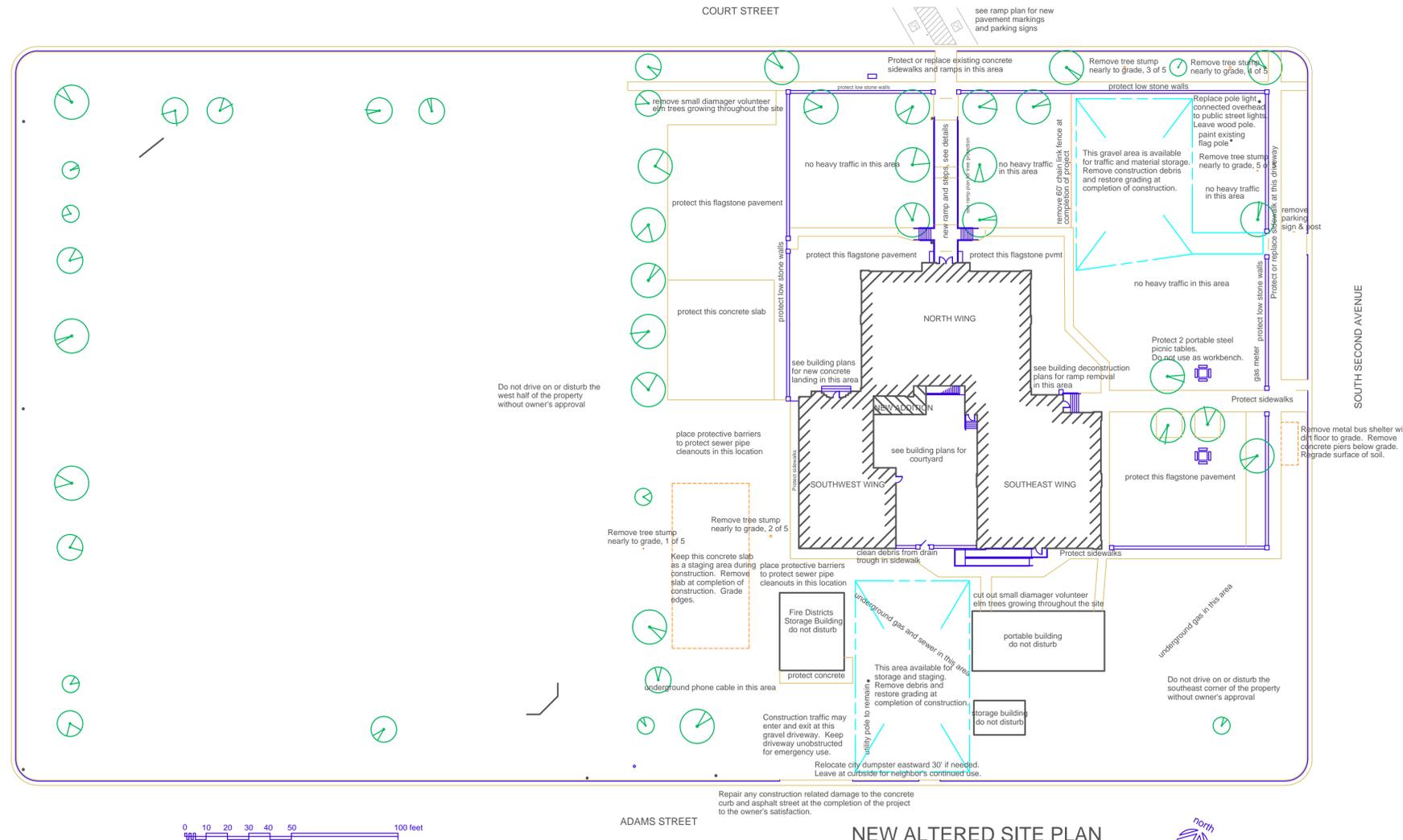


EXISTING SITE PLAN



PROJECT DESCRIPTION
 Remodel former school building into new offices.
 Construct new exterior ramp addition to courtyard area.
 Construct new interior ramp.
 Replace roofing.
 See plans and project manual for details and related work.

2015 INTERNATIONAL BUILDING CODE DATA
 Type of Building Construction: V-B
 Building Area: 12,131 s.f. existing + 215 s.f. addition = 12,346 square feet
 Building Occupancy Group: B
 Facility Use: county administration office
 Occupant Load: 5,259 s.f. office @ 100 s.f. per occupant = 53 occupants
 1,079 s.f. meeting (accessory occupancy) @ 15 s.f. per occupant = 72 occupants
 1,646 s.f. storage and vault @ 500 s.f. per occupant = 4 occupants
 4,147 s.f. halls, restrooms, walls = 0 occupants
 total number of occupants = 129 occupants
 Allowable Area of Building: 9000 s.f. allowed for non-sprinklered B occupancy per IBC Table 506.2
 Frontage increase per IBC 506.3 = $(F/P - 0.25) W(30)$
 $= (671 \text{ l.f.} / 695 \text{ l.f.} - 0.25) 30 \text{ l.f.} / 30$
 $= (0.96 - 0.25) 1 \text{ l.f.}$
 $= 71\%$ allowable area increase
 9000 s.f. x 1.71 = 15,390 square feet allowed for this non-sprinklered B occupancy
Exiting Requirements:
 Minimum 3 exits required based on building layout and avoiding dead end corridors.
Plumbing Fixtures Required in Project Area per IBC Table 2902.1
 2 lavatory and 3 water closets required for each gender
 1 h.c. drinking fountain
 1 service sink
Fire Sprinklers: None required per IBC chapter 9 and area limitations in Chapter 5
Building Height: 20 feet
Number of Stories: one



NEW ALTERED SITE PLAN

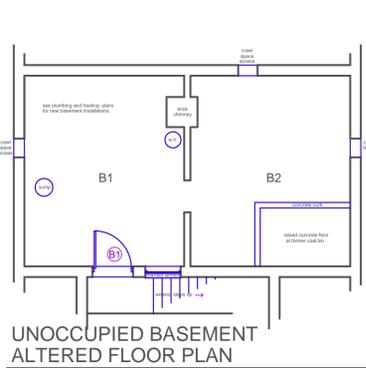
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RENOVATION UNION COUNTY OFFICES CLAYTON, NEW MEXICO

DATE: 6-3-20
 SHEET NUMBER: T1

ROOM NAME	FLOOR	see note c	WALL BASE	see note e	WALLS	FIRE RATING	CEILING HEIGHT	CEILING	see note d	REMARKS	ROOM NAME
01 Courtyard Storage	existing	unfinished concrete	none	none	block, masonry, and exterior concrete	none	8' 0" to 12' 0"	existing plywood panel	none		01 Courtyard Storage
10 Vault	new	concrete	new	concrete	concrete block, masonry, exterior concrete, no paint	3 hour throughout	9' 0"	new drywall	none		10 Vault
11 Fire	existing	new backer board	new	new	unpainted brick at vault new, painted brick at others	none except 1 hour at vault wall	9' 0"	new drywall	none		11 Fire
12 Vault	new	concrete	new	concrete	concrete block, masonry, exterior concrete, no paint	3 hour throughout	9' 0"	new drywall	none		12 Vault
13 Lower Ramp	new	concrete	new	concrete	new 8" x 8" and existing 8" x 8" cast in place	none	8' 0" above 100% extra floor	new drywall, paint	none		13 Lower Ramp
14 Lower Ramp	new	concrete	new	concrete	new 8" x 8" and existing 8" x 8" cast in place	none	8' 0" above 100% extra floor	new drywall, paint	none		14 Lower Ramp
15 Clerk Entry	new	concrete	new	concrete	existing plaster and drywall, paint all	1 hour at north wall	10' 4" suspended	new drywall	none		15 Clerk Entry
16 Assessor	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	11' 0"	new drywall	none		16 Assessor
17 Assessor	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	11' 0"	new drywall	none		17 Assessor
18 Clerk Entry	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		18 Clerk Entry
19 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		19 North Hall
20 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		20 North Hall
21 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		21 North Hall
22 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		22 North Hall
23 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		23 North Hall
24 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		24 North Hall
25 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		25 North Hall
26 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		26 North Hall
27 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		27 North Hall
28 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		28 North Hall
29 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		29 North Hall
30 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		30 North Hall
31 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		31 North Hall
32 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		32 North Hall
33 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		33 North Hall
34 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		34 North Hall
35 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		35 North Hall
36 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		36 North Hall
37 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		37 North Hall
38 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		38 North Hall
39 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		39 North Hall
40 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		40 North Hall
41 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		41 North Hall
42 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		42 North Hall
43 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		43 North Hall
44 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		44 North Hall
45 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		45 North Hall
46 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		46 North Hall
47 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		47 North Hall
48 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		48 North Hall
49 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		49 North Hall
50 North Hall	new	concrete	new	concrete	existing plaster, paint	1 hour at wall	10' 4" suspended	new drywall	none		50 North Hall

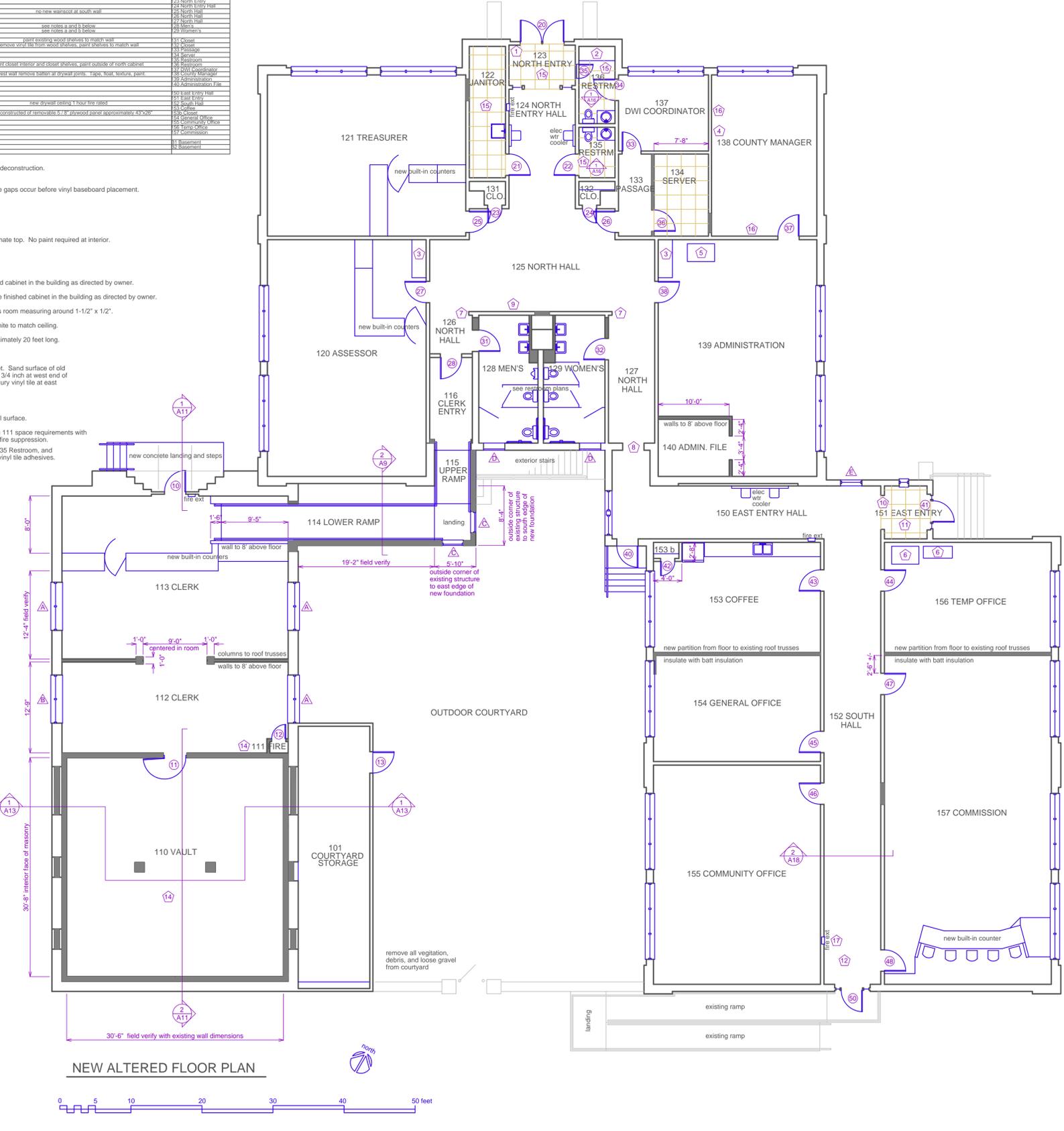
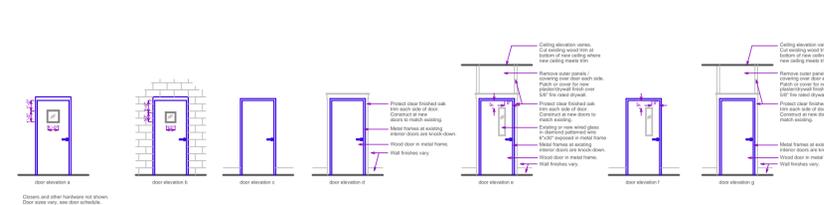
- Install new tile wainscot over cement backer board at 128 Men's and 129 Women's walls. Thickness of backer to be determined after deconstruction. Painted drywall above wainscot.
- Install new flooring at 128 Men's and 129 Women's floors over new cement backer board over existing wood floor. Prep old wood floor for new backer board. Thickness of backer to be determined after deconstruction.
- Install new carpet over existing plywood underlay. Install over new plywood where new floor framing is present. Install over new concrete at Vault.
- Float all walls at interior except room 101, float plaster ceilings that will remain exposed, leave all with light spray texture.
- Where existing wood baseboards are present the wood can remain. Replace the old vinyl wall base with new vinyl base over the existing wood baseboard. Replace isolated areas of wood baseboard where gaps occur before vinyl baseboard placement.



- DECONSTRUCTION KEYED NOTES**
- Remove doorbell conduit from interior face of wall.
 - Trim edges of cabinet door to fit correctly. Paint cut edges of cabinet and outside of cabinet. Leave laminate top. No paint required at interior.
 - Paint inside and outside of built-in cabinet.
 - Deck over old crawl space opening in the floor approximately 24"x16".
 - Movable upright cabinet. Sand and paint inside and outside. No hardware present. Relocate the finished cabinet in the building as directed by owner.
 - Movable upright cabinet. Sand and paint inside and outside. Strip old paint from hardware. Relocate the finished cabinet in the building as directed by owner.
 - Sand and paint wood end cap at wall. Replace missing wood door stop at end cap northeast of Women's room measuring around 1-1/2" x 1/2".
 - Sand and paint wood doorway. Leave fixed wood transom above. Paint wood header above transom white to match ceiling.
 - Patch missing plaster at this wall or replace with drywall. No existing or new wainscot at this wall, approximately 20 feet long.
 - Sand and refinish varnished doorway opening and transom opening. Replace missing transom glass.
 - Chemically strip wax from vinyl composition tile at the floor of the east entry, approximately 50 square feet. Sand surface of old VCT, apply primer to surface, place feathered cement based floor filler to eliminate step of approximately 3/4 inch at west end of east entry. Taper down to bottom of existing threshold at east end of room. Prepare and adhere new luxury vinyl tile adhesive.
 - Deck over old crawl space opening in the floor approximately 16"x16".
 - Reconstruct hallway side of framed wall where an infilled doorway was previously left with an uneven wall surface.
 - Install gaseous clean agent, fire suppression system in vault. Place equipment in room 111. Verify room 111 space requirements with suppression system provider before framing room 111. No other spaces in this facility require automatic fire suppression.
 - Chemically strip wax from vinyl composition tile at the floor of 122 Janitor, 123 North Entry, 134 Server, 135 Restroom, and 136 Restroom totaling around 210 square feet. Sand surface of old VCT to allow bonding of new luxury vinyl tile adhesives.
 - Add batt sound insulation to interior walls of this room, floor to ceiling.
 - Reconstruct infilled opening and plaster in this area so that wall finish doesn't bulge and isn't noticeable.

DOOR #	DOOR SIZE	DOOR MATERIAL	FRAME	ELEVATION	GLAZING EXPOSED	FIRE RATING	FINISH	REMARKS	DOOR #
B1	existing	existing hollow metal	existing hollow metal	none	none	none	existing paint	Install 7" plywood panel over interior side of door louvers. Adjust lockset to allow easy box operation or replace lockset.	B1
10	24x34	new hollow metal	new hollow metal	A	12012 wood	none	site paint		10
11	24x34	new hollow metal	new hollow metal	B	12012 wood	1 1/2 hr. glaze	site paint	relocate from interior closet by 128 North Hall	11
12	24x34	new hollow metal	new hollow metal	C	12012 wood	1 1/2 hr. glaze	site paint	adjust lockset to allow easy box operation or replace lockset	12
13	24x34	new hollow metal	new hollow metal	none	none	none	site paint		13
14	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		14
15	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint	temporarily remove floor grates to paint at 4 sides against exterior glass	15
16	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		16
17	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		17
18	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		18
19	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		19
20	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		20
21	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		21
22	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		22
23	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		23
24	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		24
25	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		25
26	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		26
27	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		27
28	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		28
29	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		29
30	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		30
31	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		31
32	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		32
33	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		33
34	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		34
35	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		35
36	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		36
37	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		37
38	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		38
39	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		39
40	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		40
41	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		41
42	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		42
43	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		43
44	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		44
45	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		45
46	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		46
47	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		47
48	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		48
49	24x34	existing hollow metal	existing hollow metal	none	none	none	site paint		49
50	existing	existing hollow metal	existing hollow metal	none	existing, see remarks	none	site paint	seals defective at 4 installed glass sashes, replace at 4. Temporarily remove faux grates to paint at 4 sides against glass	50

- GENERAL DOOR NOTES**
- Remove door signage where present from doors and frames. Most existing are mounted with double sided foam tape.
 - Paint all metal door frames. Protect and do not paint metal frames surrounding glass lites in existing wood doors.
 - Paint wood frames that were previously painted. Patch finishes at varnished wood frames.
 - Clean scuffs, tape, etc. from existing doors. Patch finishes where surfaces are damaged.
 - Cut bottom of doors where needed to accommodate height of new floor finishes.



REVISIONS			
NO.	DATE	CHANGES	BY

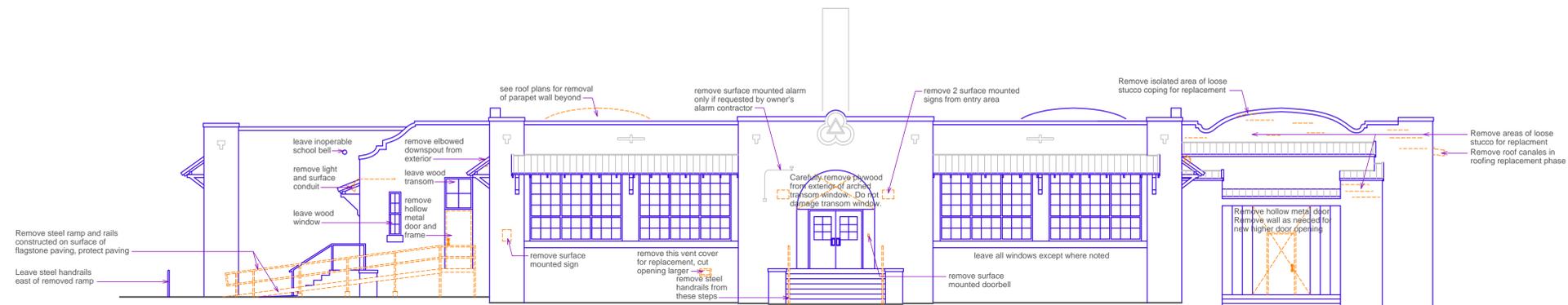


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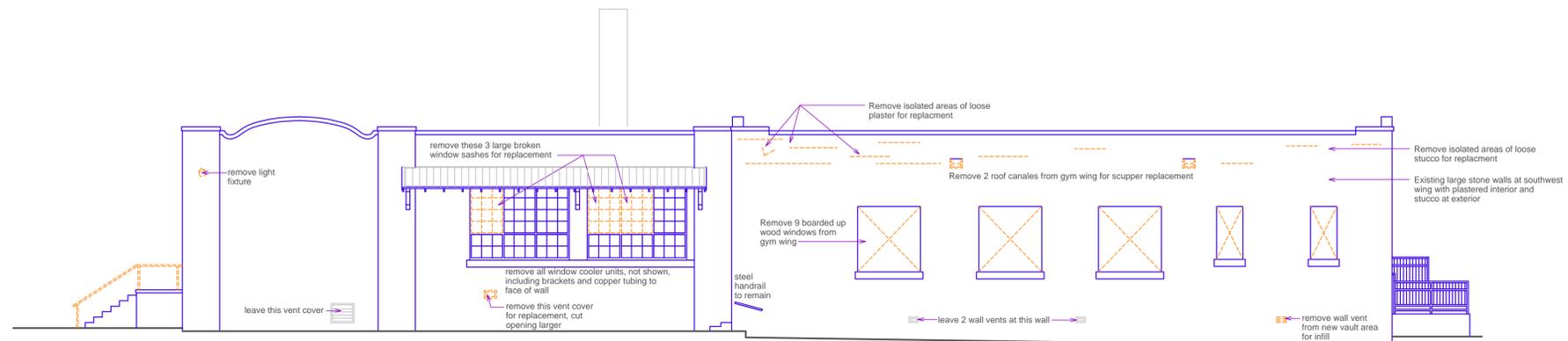
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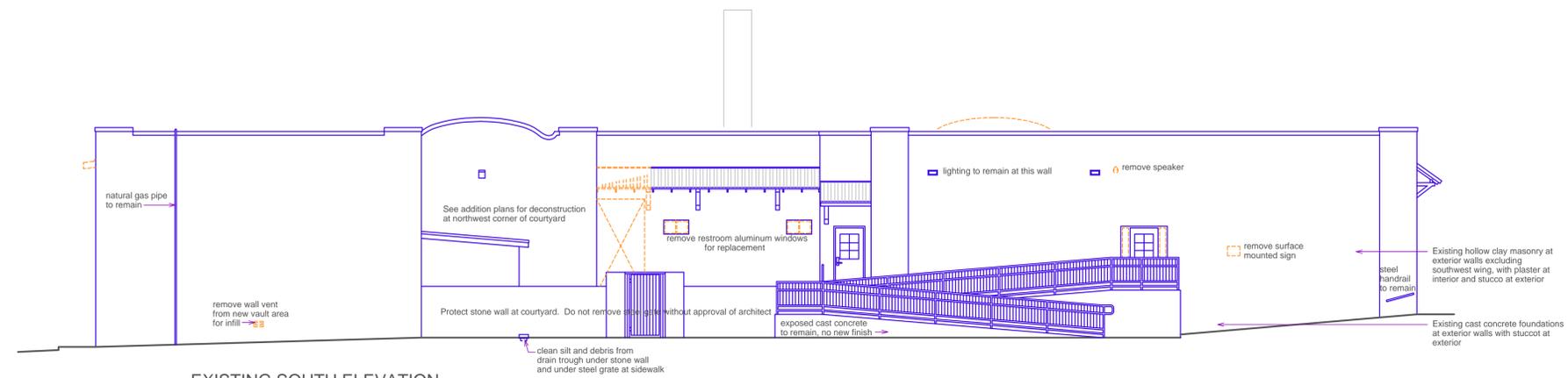
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SHEET NUMBER: **A3**



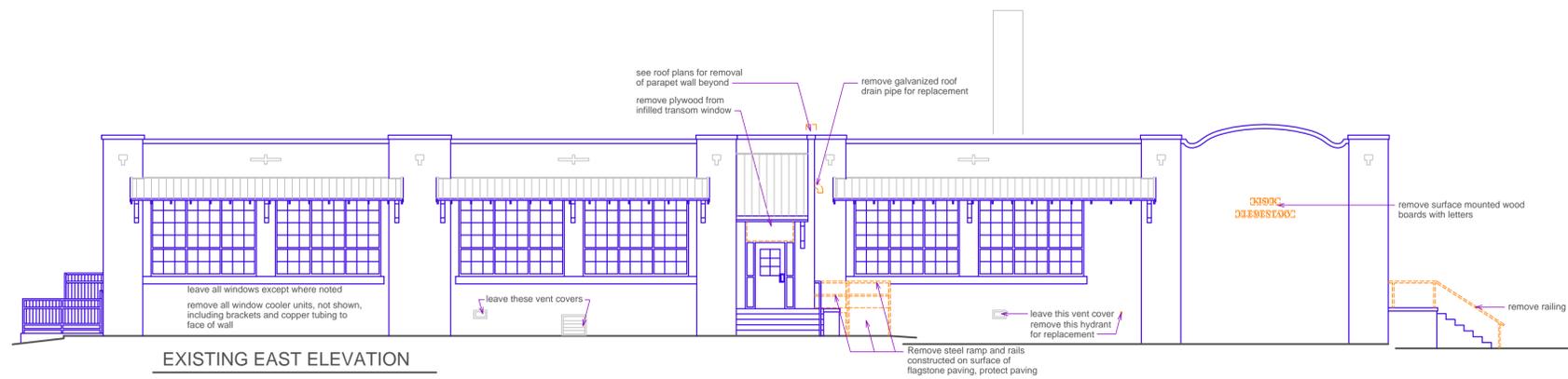
EXISTING NORTH ELEVATION



EXISTING WEST ELEVATION



EXISTING SOUTH ELEVATION



EXISTING EAST ELEVATION

REVISIONS			
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6-3-20

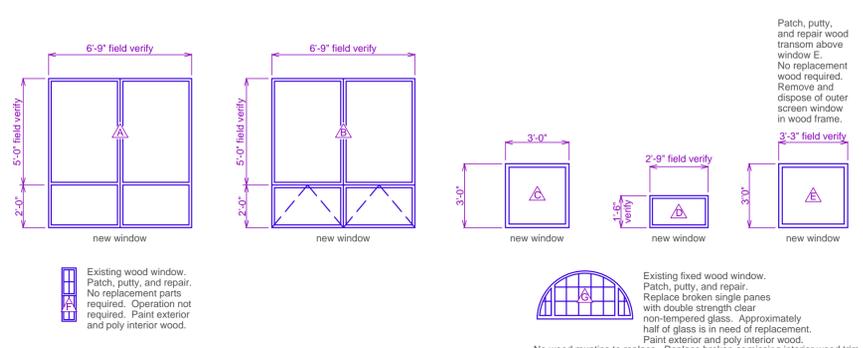
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CLAYTON, NEW MEXICO

DATE 6-3-20

SHEET NUMBER
A4



Install new glass in fixed transom over exterior door (4) in existing hollow metal frame and approximately 7' west of door (4) in existing wood frame. Both measure approximately 5x2', field verify. New glass will be 1/8" clear tempered single pane.

See door schedule and elevations for new glazing at new doors (10) and (11) and for replacement of 4 panes of glazing at sidelites by door (20).

At all existing aluminum single hung windows (former classroom windows) lubricate with oil or silicone to allow for smooth operation. Where windows are found to remain inoperable after efforts to improve them the inoperable windows can be left closed and latched. No replacement parts are required. Existing aluminum covered trim over old wood trim to remain at interior. Clean windows inside and outside at completion of the project.

WINDOW ELEVATIONS AND DESCRIPTIONS

See deconstruction floor plan for west facing broken window sashes that require replacement. Manufacturer unknown. Replace entire insulated sash with simulated divided lites. If no suitable match for sash replacement is agreed to by the builder and architect then builder will be asked to replace the entire single hung window with new. Replacement will be of similar quality and appearance.

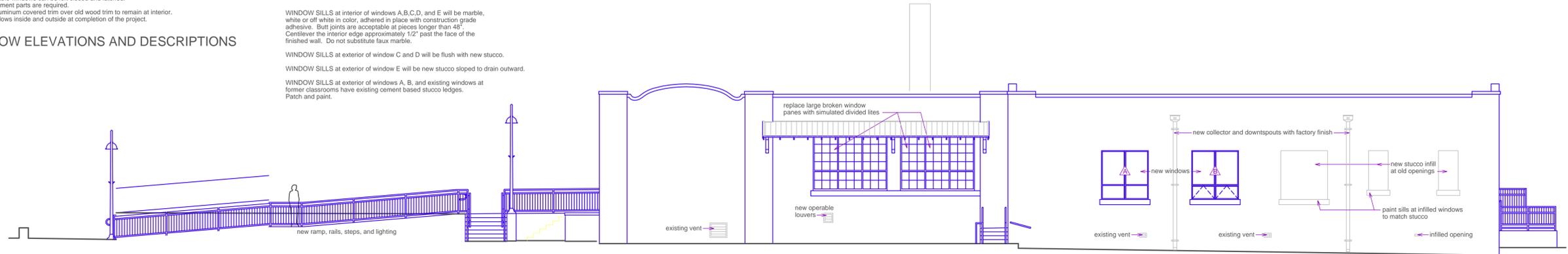
WINDOW SILLS at interior of windows A,B,C,D, and E will be marble, white or off white in color, adhered in place with construction grade adhesive. Butt joints are acceptable at pieces longer than 48". Centilever the interior edge approximately 1/2" past the face of the finished wall. Do not substitute faux marble.

WINDOW SILLS at exterior of window C and D will be flush with new stucco.

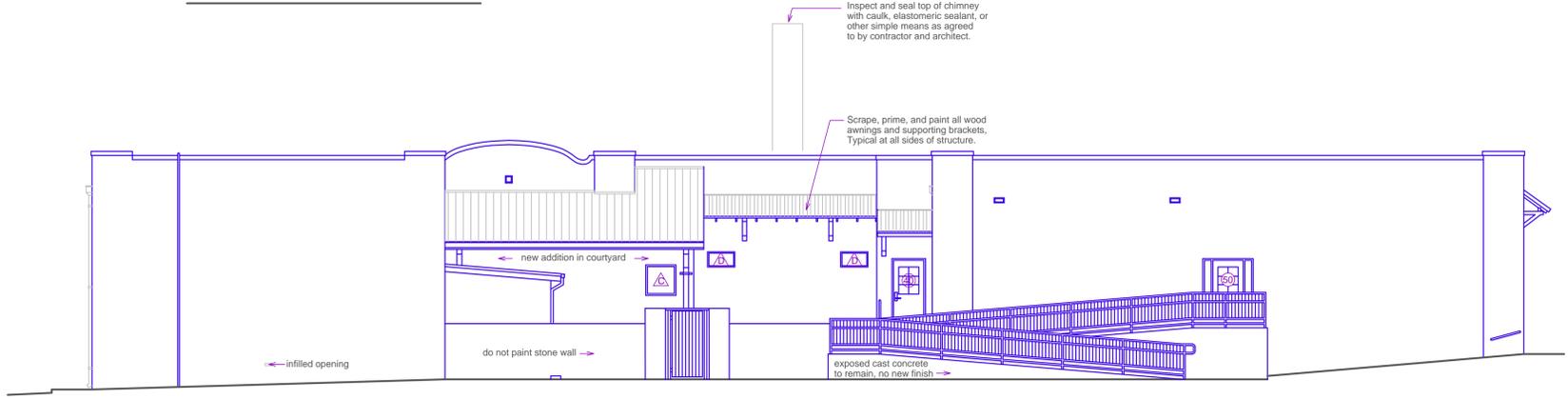
WINDOW SILLS at exterior of window E will be new stucco sloped to drain outward. Former classrooms have existing cement based stucco ledges. Patch and paint.



ALTERED NORTH ELEVATION

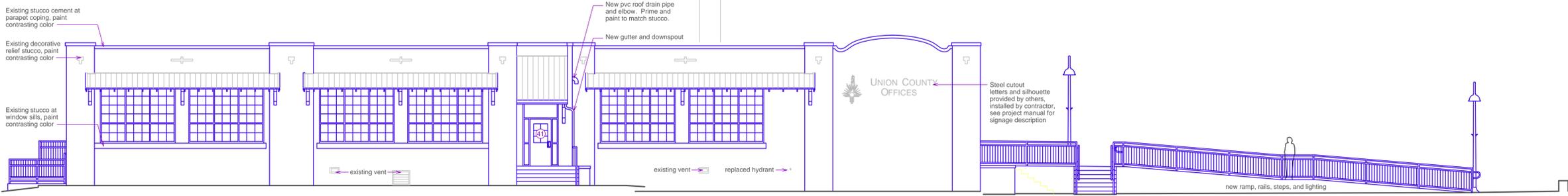


ALTERED WEST ELEVATION



ALTERED SOUTH ELEVATION

ALL EXTERIOR
Power wash exterior walls and surfaces and scrape to remove loose paint and debris. Patch stucco as noted and at isolated areas where found deteriorated. Caulk. Paint all existing and new stucco surfaces. Paint existing ornamental stucco relief and coping at top of parapets a contrasting color. Scrape existing and new exterior steel railings, gate, doors, and other steel surfaces. Prime exterior bare steel. Paint exterior steel. Scrape, prime, and paint wood awnings, soffits, overhangs, brackets.



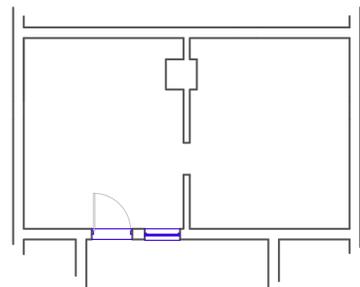
ALTERED EAST ELEVATION

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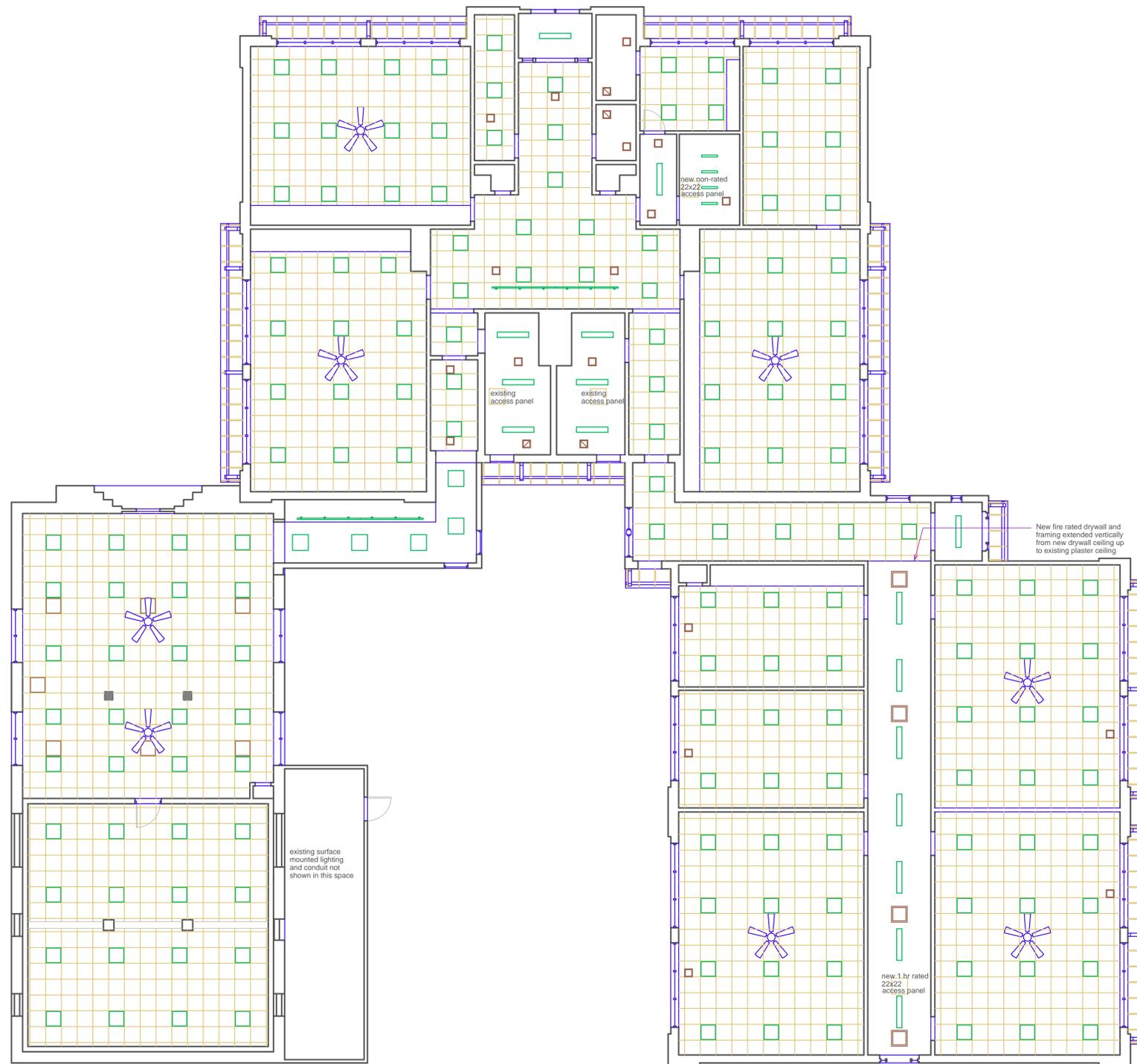


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**RENOVATION
UNION COUNTY OFFICES
CLAYTON, NEW MEXICO**



BASEMENT NEW REFLECTED CEILING PLAN



NEW REFLECTED CEILING PLAN



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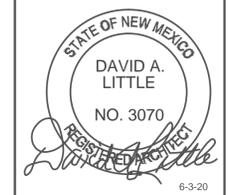
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RENOVATION
 UNION COUNTY OFFICES
 CLAYTON, NEW MEXICO

DATE 6-3-20

SHEET NUMBER **A6**

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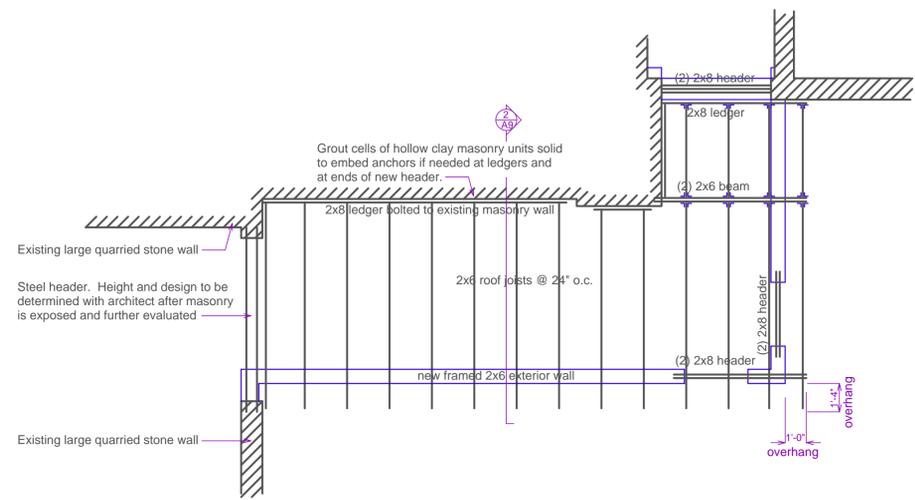
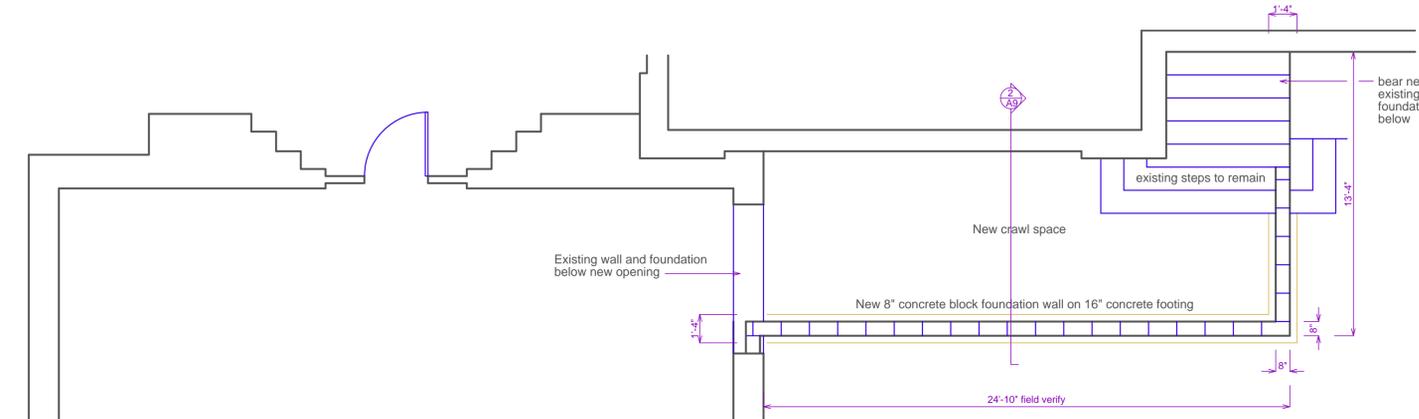
RENOVATION
UNION COUNTY OFFICES
CLAYTON, NEW MEXICO

DATE	6-3-20
SHEET NUMBER	A7

GENERAL STRUCTURAL CONCRETE NOTES

- Soil bearing pressure under columns and foundations is assumed to be 2000 psi minimum. Notify architect if necessary for approval before forming.
- All concrete for vault ceiling slab and floor slab will be 4000 psi. Reinforcing steel will be grade 60. Use chairs for rebar to maintain clearances noted. Lap all bars 24 inches minimum at corners, intersections, and splices.
- Provide adequate shoring for vault ceiling slab. Contractor will be responsible for shoring.
- Structural steel will be ASTM 36. Bolts will be A307 or A325. No 'all-thread' will be used.

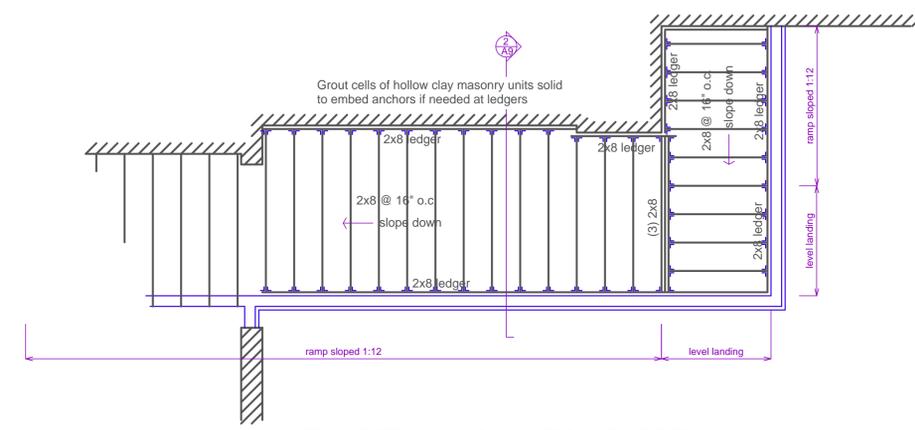
FOUNDATION PLAN AT RAMP ADDITION



ROOF FRAMING PLAN AT RAMP ADDITION

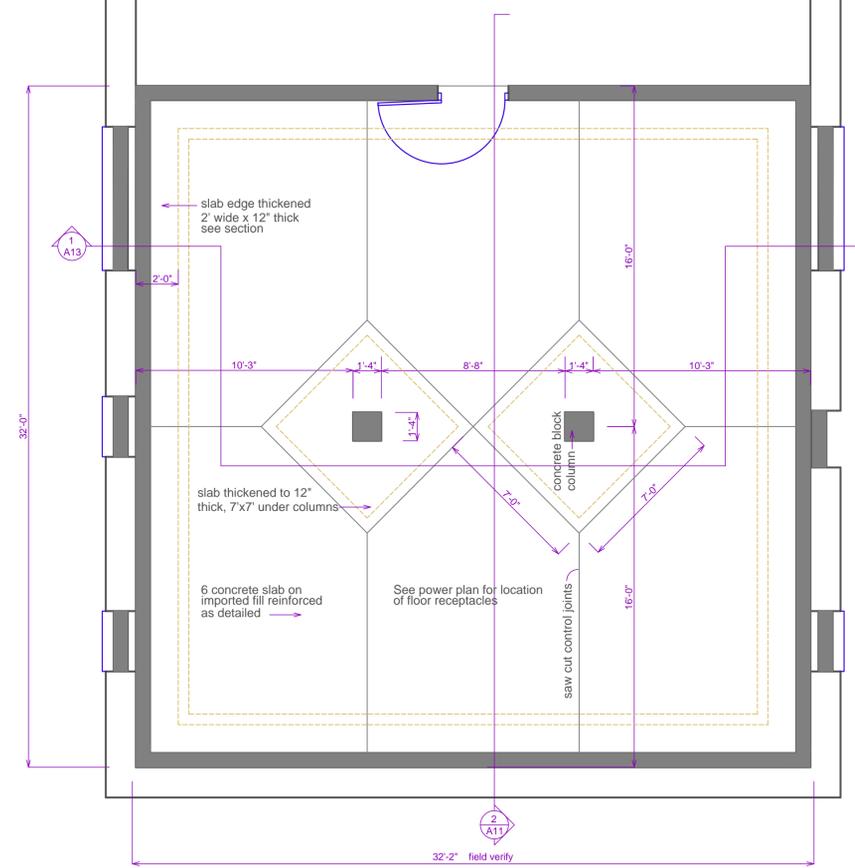
GENERAL STRUCTURAL CONCRETE NOTES

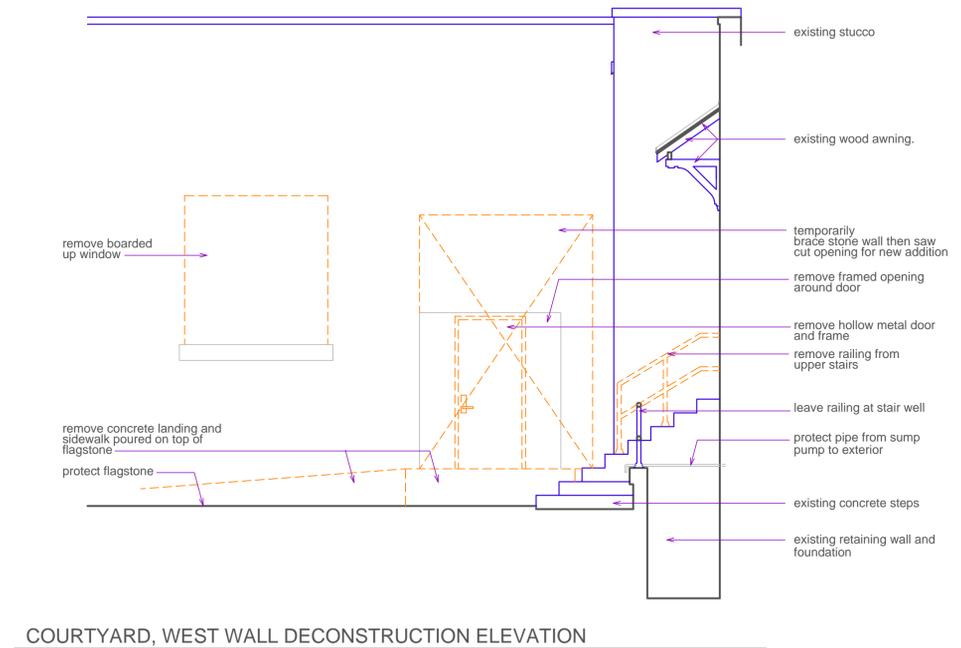
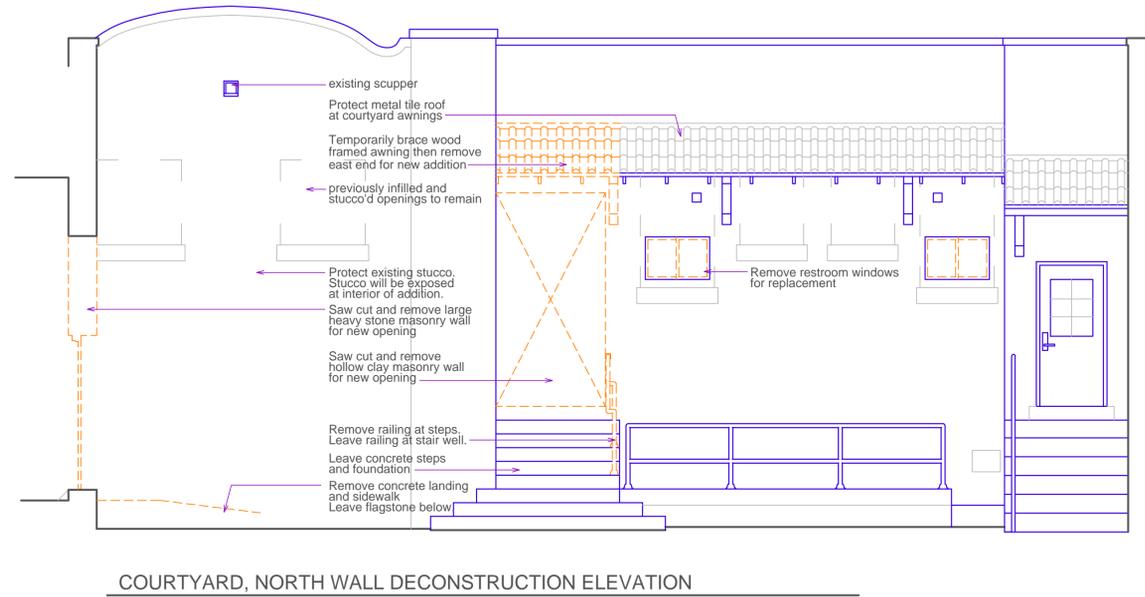
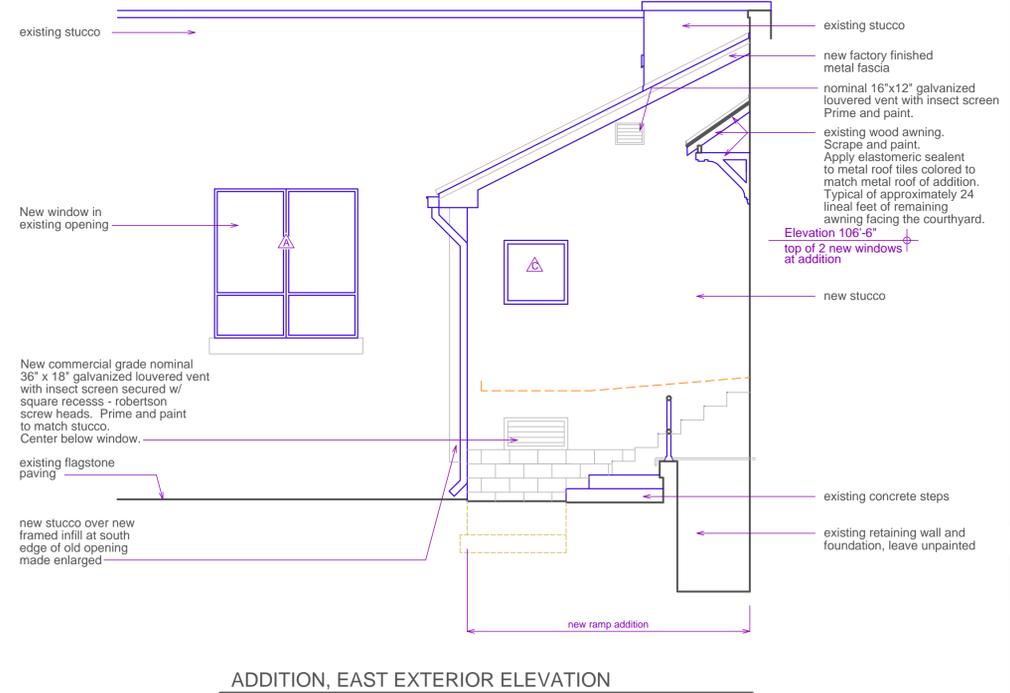
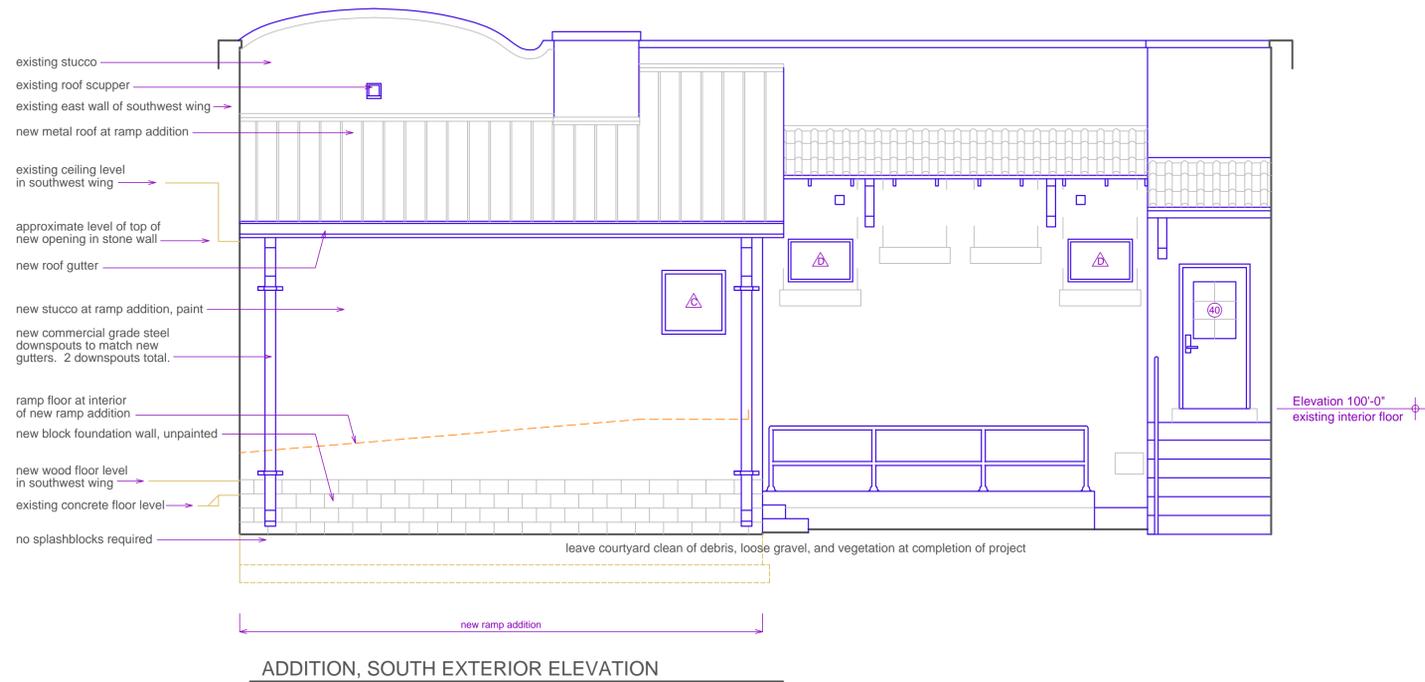
- Soil bearing pressure under columns and foundations is assumed to be 2000 psi minimum. Notify architect if necessary for approval before forming.
- All concrete for vault ceiling slab and floor slab will be 4000 psi. Reinforcing steel will be grade 60. Use chairs for rebar to maintain clearances noted. Lap all bars 24 inches minimum at corners, intersections, and splices.
- Provide adequate shoring for vault ceiling slab. Contractor will be responsible for shoring.
- Structural steel will be ASTM 36. Bolts will be A307 or A325. No 'all-thread' will be used.



FLOOR FRAMING PLAN AT RAMP ADDITION

NEW VAULT FLOOR / FOUNDATION PLAN





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DATE 6-3-20

SHEET NUMBER **A8**

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6-3-20

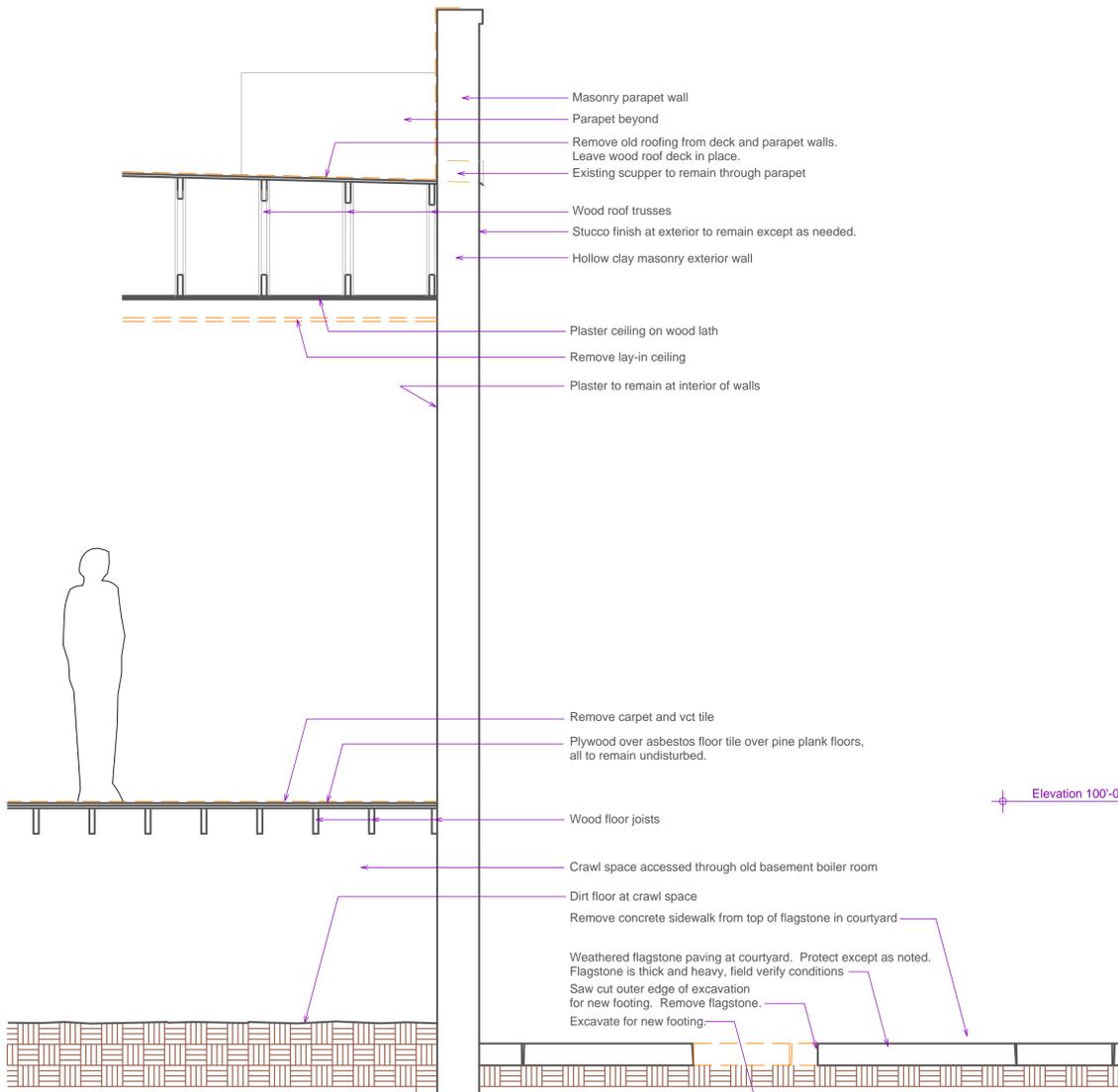
Alpha Design
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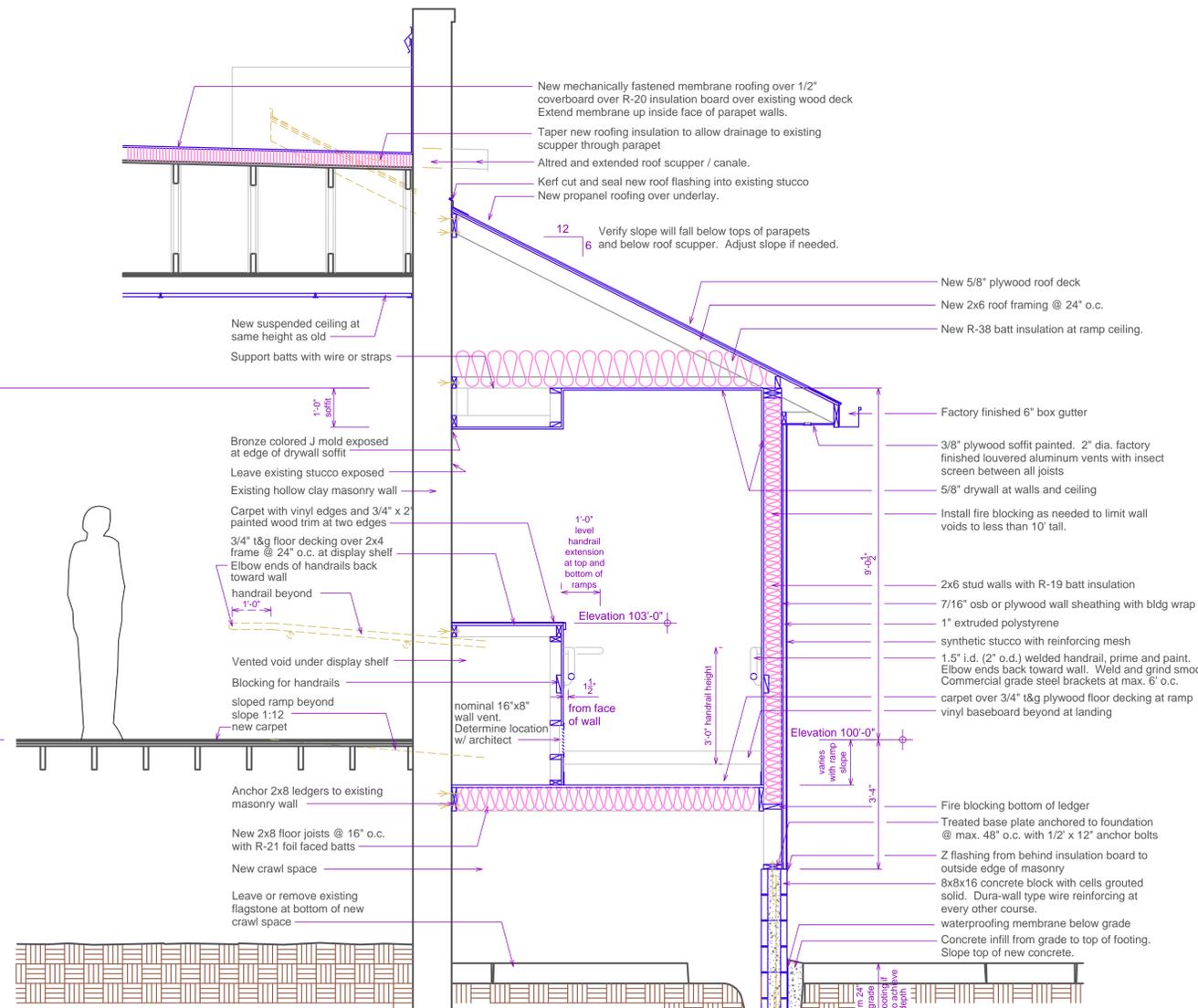
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DATE 6-3-20

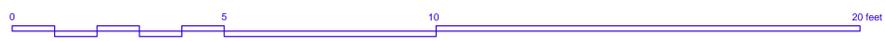
SHEET NUMBER
A9



1 EXISTING WALL SECTION
A9



2 NEW ADDITION SECTION
A9



- Masonry parapet wall
- Parapet beyond
- Remove old roofing from deck and parapet walls. Leave wood roof deck in place.
- Existing scupper to remain through parapet
- Wood roof trusses
- Stucco finish at exterior to remain except as needed.
- Hollow clay masonry exterior wall
- Plaster ceiling on wood lath
- Remove lay-in ceiling
- Plaster to remain at interior of walls

- Remove carpet and vct tile
- Plywood over asbestos floor tile over pine plank floors, all to remain undisturbed.
- Wood floor joists
- Crawl space accessed through old basement boiler room
- Dirt floor at crawl space
- Remove concrete sidewalk from top of flagstone in courtyard
- Weathered flagstone paving at courtyard. Protect except as noted. Flagstone is thick and heavy, field verify conditions
- Saw cut outer edge of excavation for new footing. Remove flagstone.
- Excavate for new footing.

- New mechanically fastened membrane roofing over 1/2" coverboard over R-20 insulation board over existing wood deck. Extend membrane up inside face of parapet walls.
- Taper new roofing insulation to allow drainage to existing scupper through parapet
- Alfred and extended roof scupper / canale.
- Kerf cut and seal new roof flashing into existing stucco
- New propanel roofing over underlay.
- 12 Verify slope will fall below tops of parapets and below roof scupper. Adjust slope if needed.

- New suspended ceiling at same height as old
- Support batts with wire or straps

- Bronze colored J mold exposed at edge of drywall soffit
- Leave existing stucco exposed
- Existing hollow clay masonry wall
- Carpet with vinyl edges and 3/4" x 2" painted wood trim at two edges
- 3/4" t&g floor decking over 2x4 frame @ 24" o.c. at display shelf
- Elbow ends of handrails back toward wall
- handrail beyond
- 1'-0" level handrail extension at top and bottom of ramps

- Vented void under display shelf
- Blocking for handrails
- sloped ramp beyond slope 1:12
- new carpet
- nominal 16"x8" wall vent. Determine location w/ architect
- Anchor 2x8 ledgers to existing masonry wall
- New 2x8 floor joists @ 16" o.c. with R-21 foil faced batts
- New crawl space
- Leave or remove existing flagstone at bottom of new crawl space

- New 5/8" plywood roof deck
- New 2x6 roof framing @ 24" o.c.
- New R-38 batt insulation at ramp ceiling.

- Factory finished 6" box gutter
- 3/8" plywood soffit painted. 2" dia. factory finished louvered aluminum vents with insect screen between all joists
- 5/8" drywall at walls and ceiling
- Install fire blocking as needed to limit wall voids to less than 10' tall.

- 2x6 stud walls with R-19 batt insulation
- 7/16" osb or plywood wall sheathing with bldg wrap
- 1" extruded polystyrene
- synthetic stucco with reinforcing mesh
- 1.5" i.d. (2" o.d.) welded handrail, prime and paint. Elbow ends back toward wall. Weld and grind smooth.
- Commercial grade steel brackets at max. 6' o.c.
- carpet over 3/4" t&g plywood floor decking at ramp
- vinyl baseboard beyond at landing

- Fire blocking bottom of ledger
- Treated base plate anchored to foundation @ max. 48" o.c. with 1/2" x 12" anchor bolts
- Z flashing from behind insulation board to outside edge of masonry
- 8x8x16 concrete block with cells grouted solid. Dura-wall type wire reinforcing at every other course.
- waterproofing membrane below grade
- Concrete infill from grade to top of footing. Slope top of new concrete.

- New concrete footing 16" x 10" reinforced with (3) #4 continuous
- L shaped #4 @ 48" o.c. lapped with #4 #4 in masonry cells. Alternate bend direction
- Compacted base under new footing

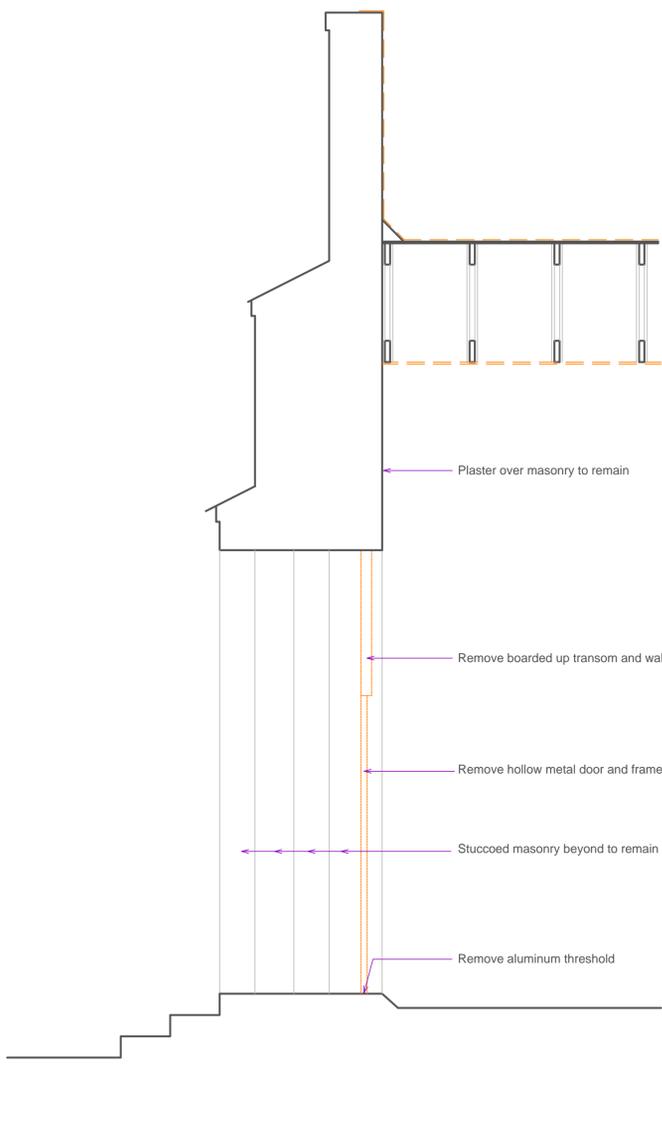
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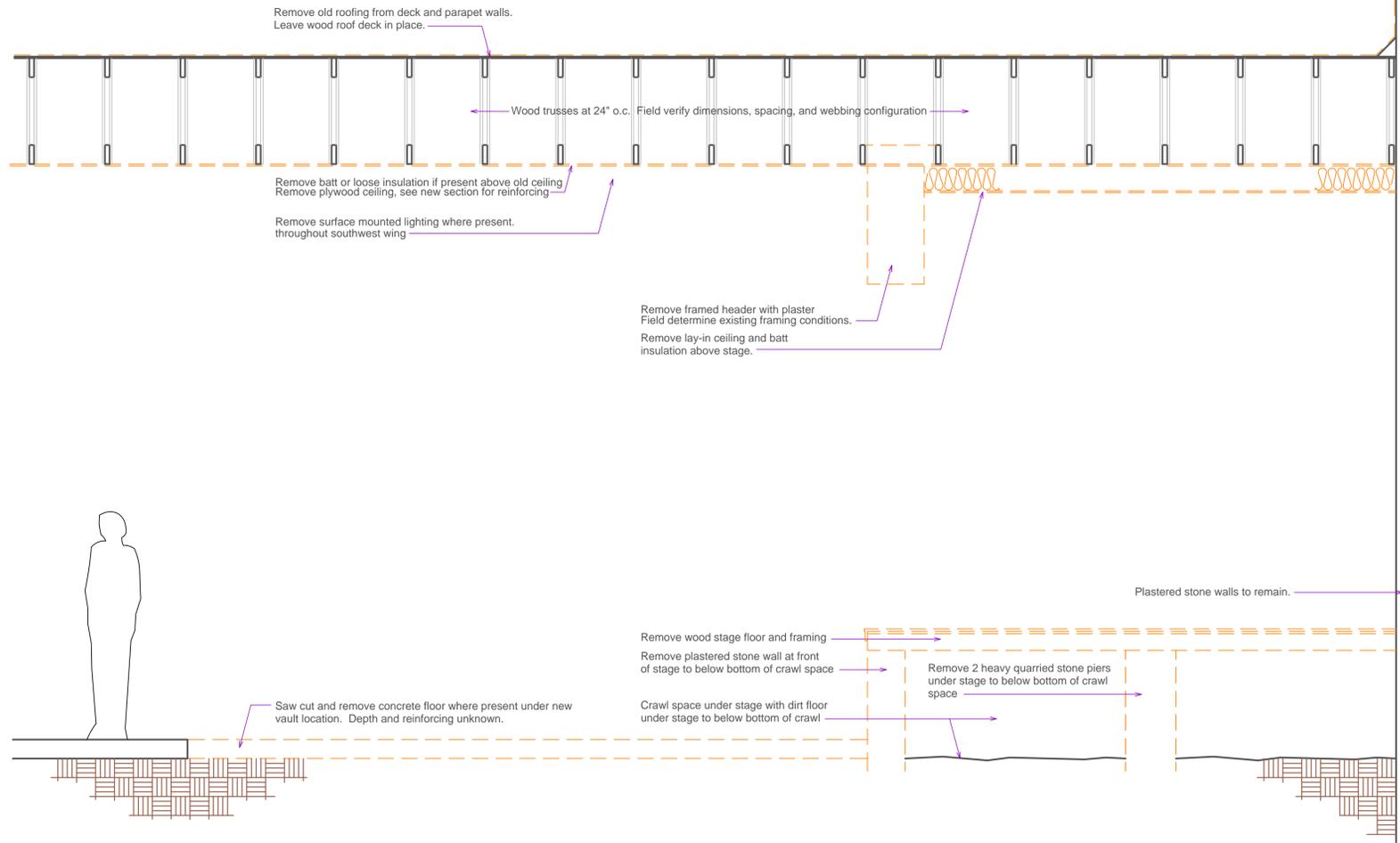
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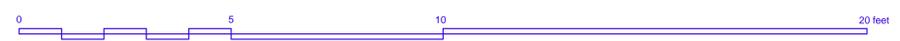
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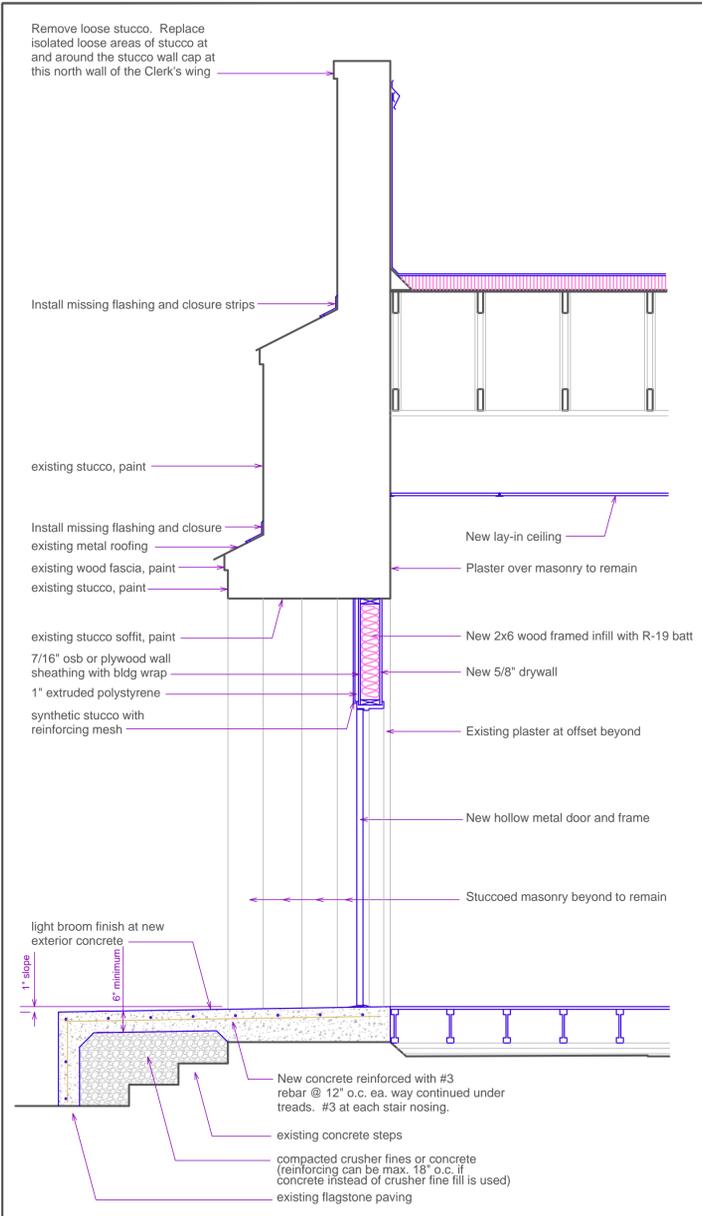


1 EXISTING WALL SECTION
 A10

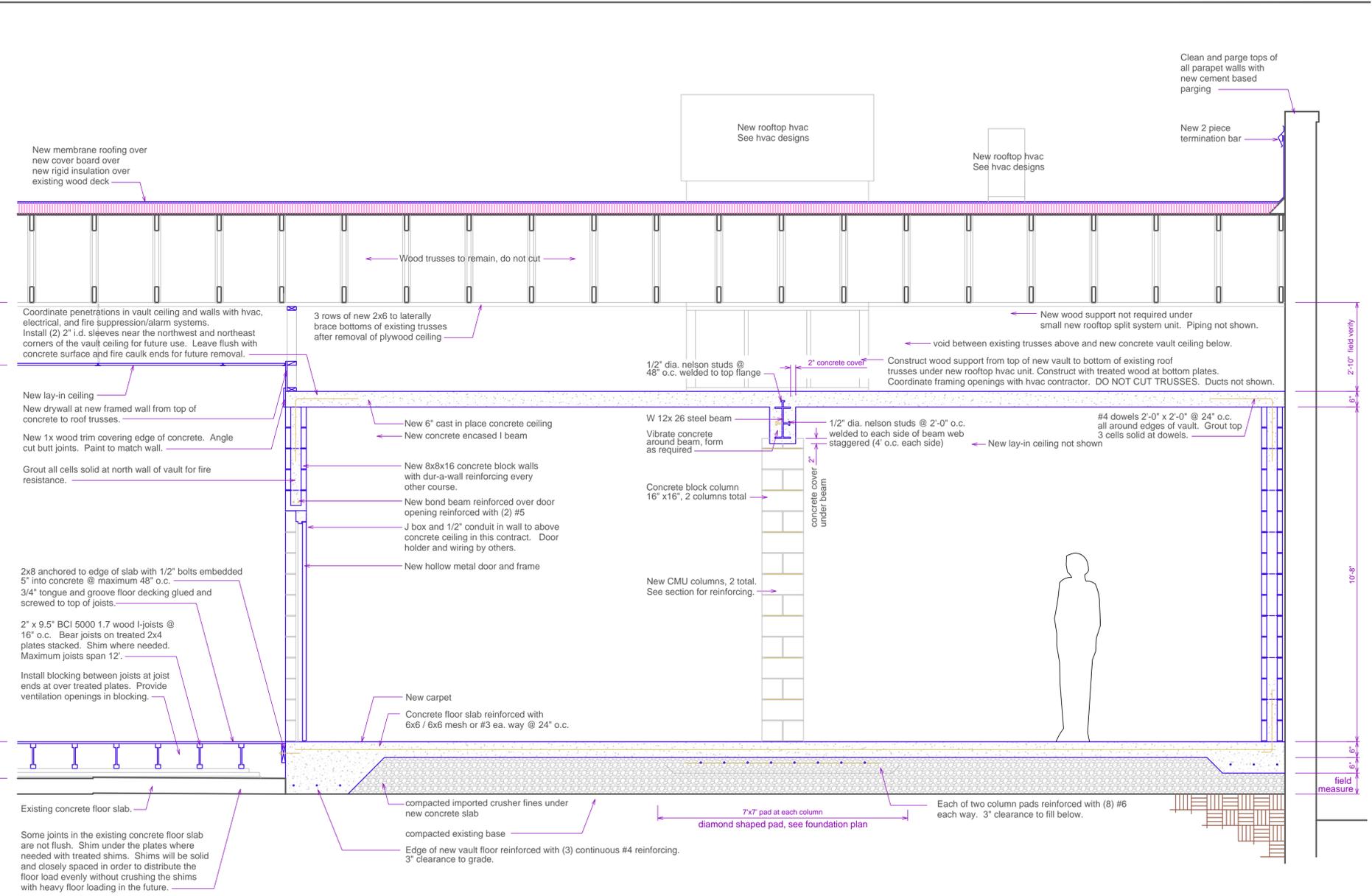


2 EXISTING BUILDING SECTION
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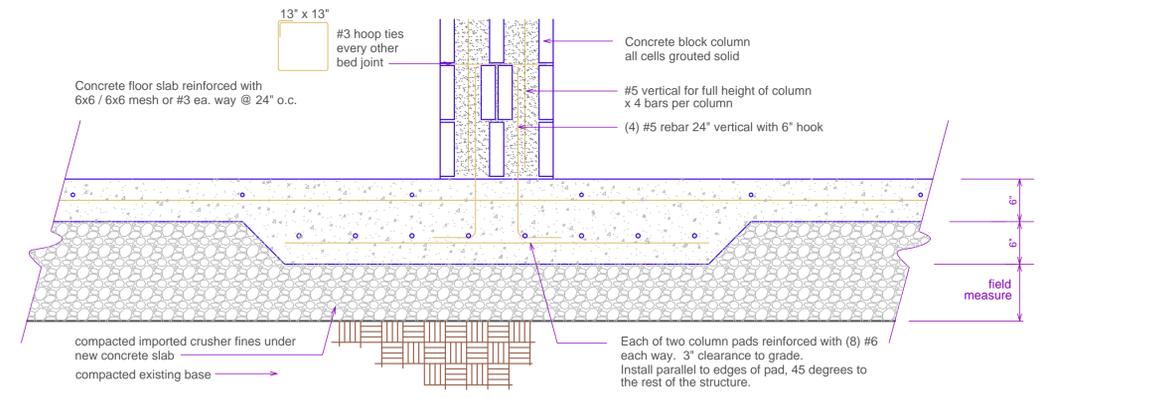




1 ALTERED WALL SECTION AT CLERK 113
A11



2 NEW VAULT SECTION
A11



3 VAULT FLOOR SECTION AT COLUMN
A11



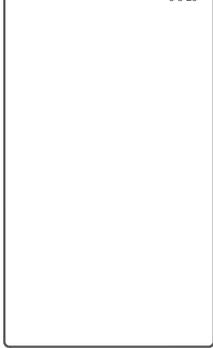
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NO.	DATE	CHANGES

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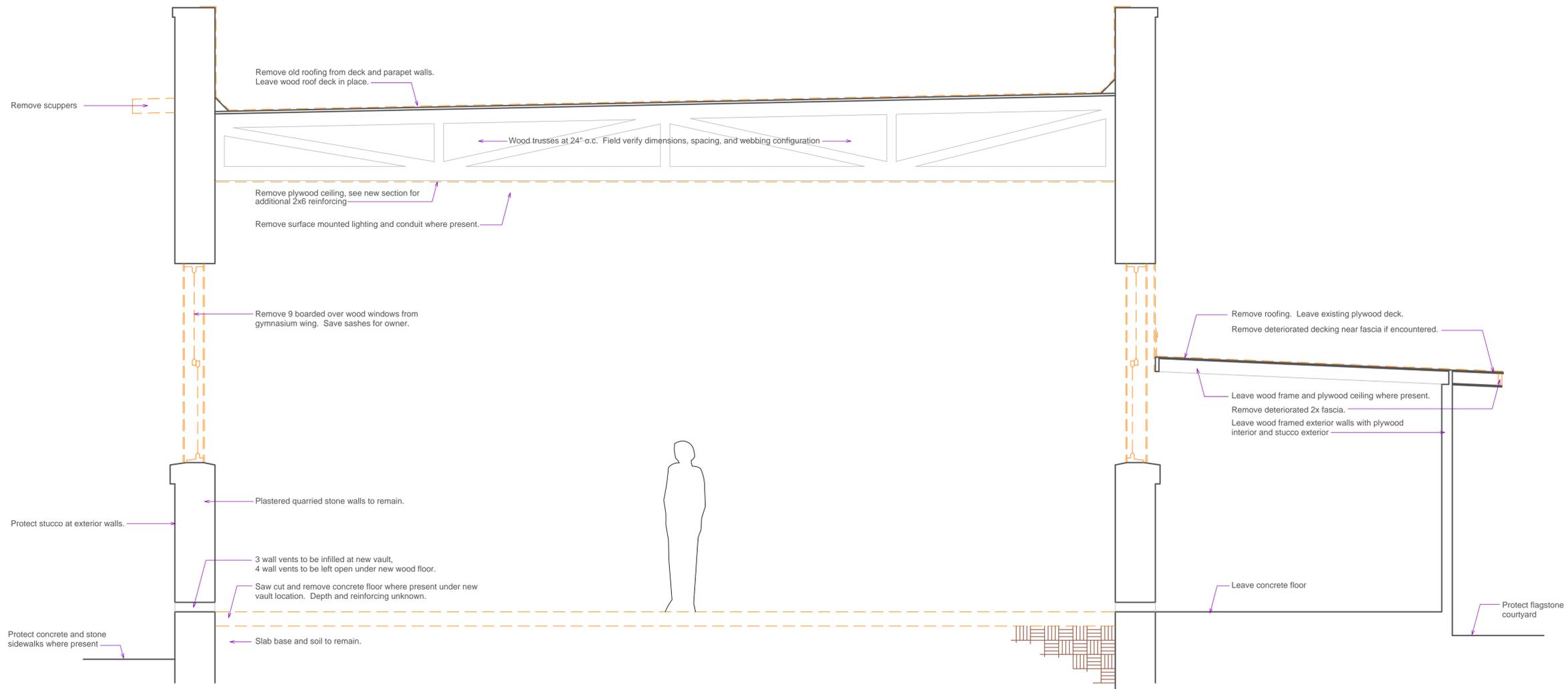


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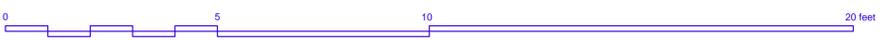
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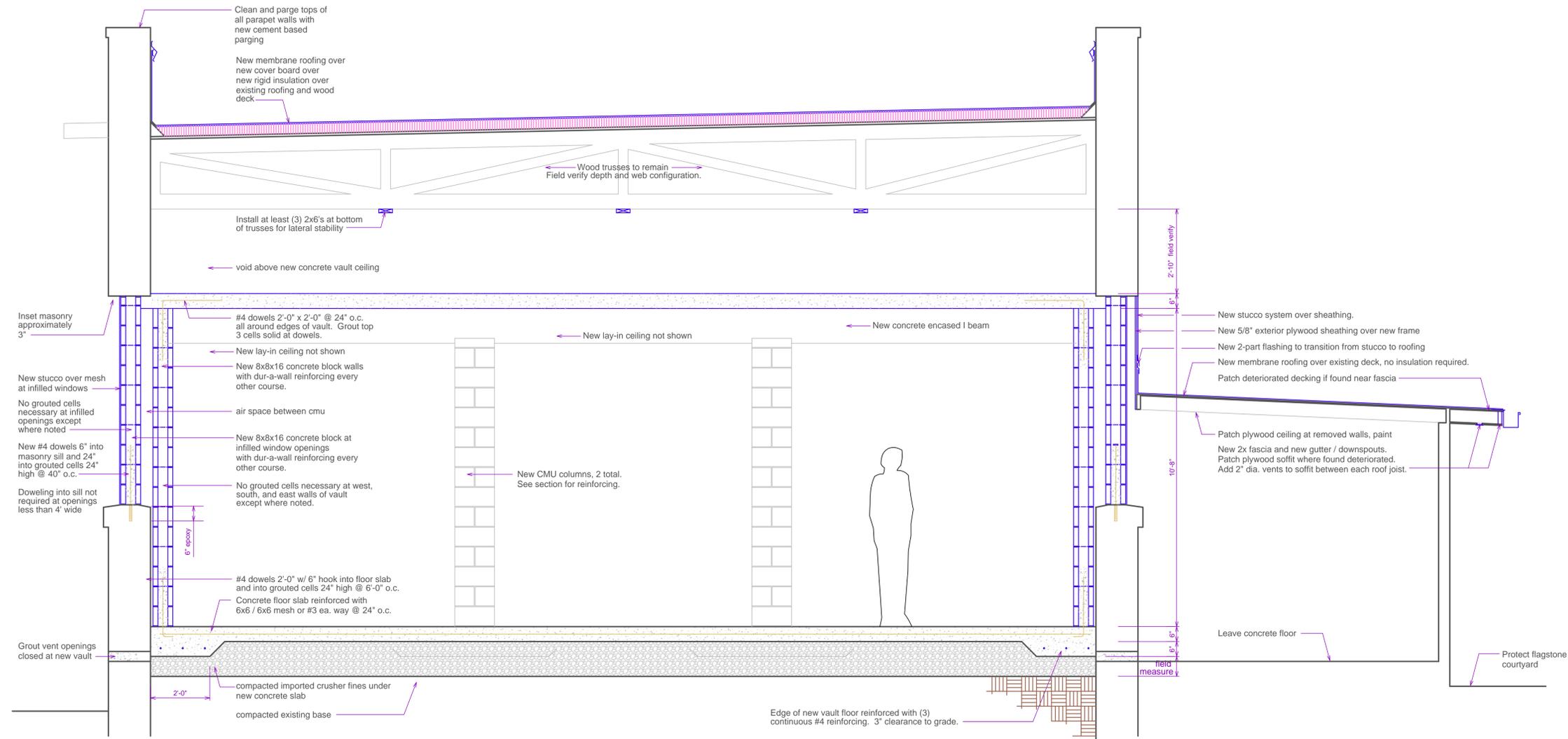
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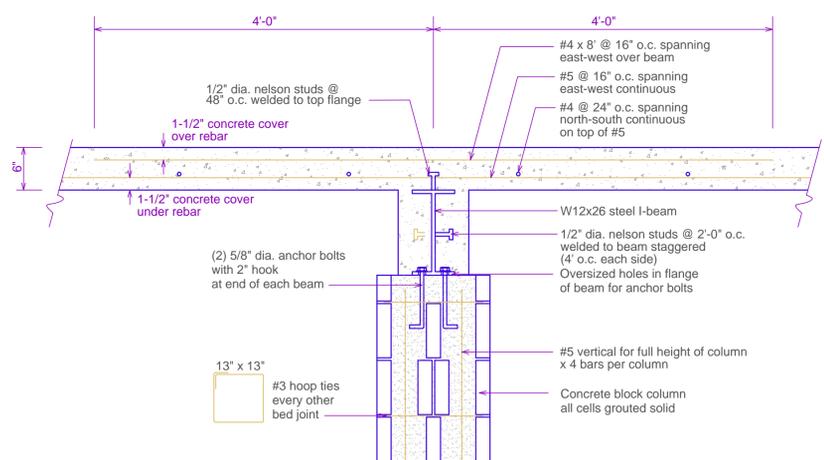
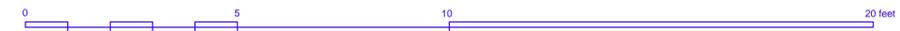


1
 A12 EXISTING BUILDING SECTION

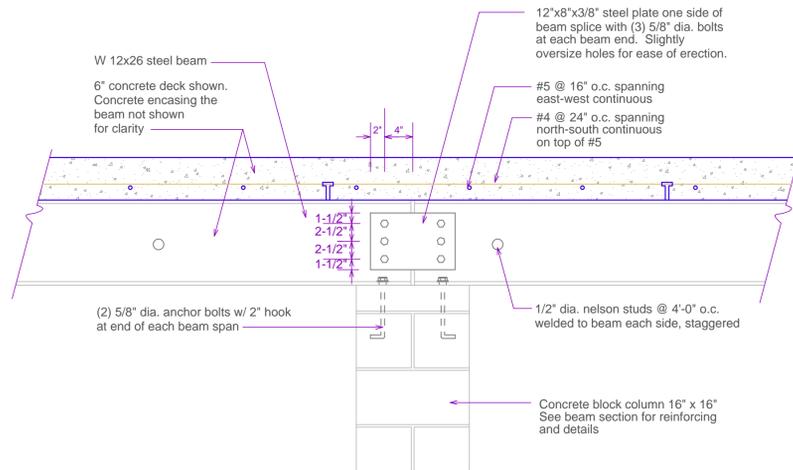




1
A13
NEW VAULT SECTION



2
A13
NEW CEILING BEAM SECTION AT COLUMN



3
A13
NEW CEILING BEAM ELEVATION AT COLUMN

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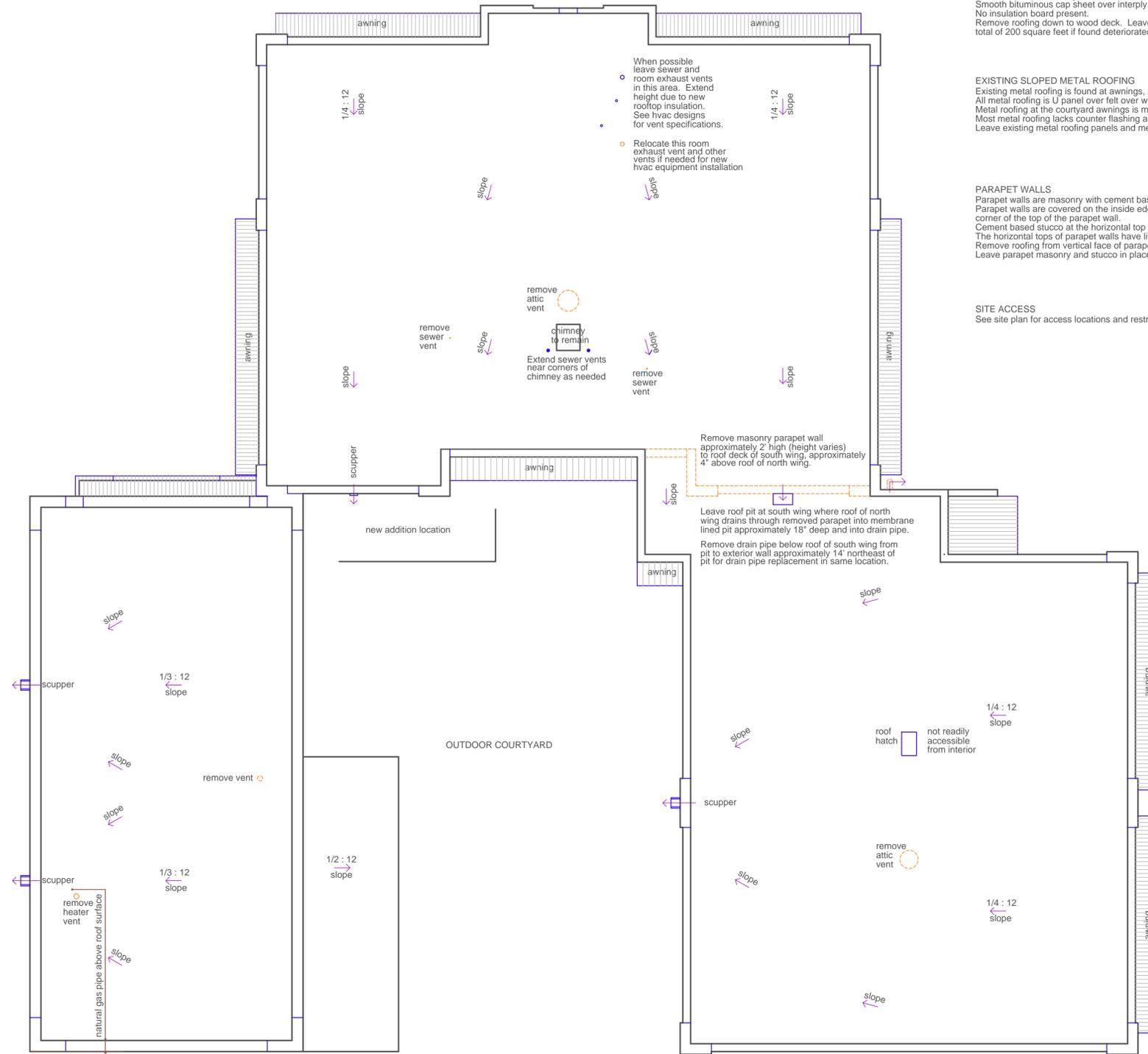
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EXISTING ROOF PLAN



EXISTING FLAT (LOW SLOPE) ROOFING

Approximately 10,747 square foot footprint plus vertical parapets.
 Area includes existing addition to the east side of the southwest wing with no parapets.
 Smooth bituminous cap sheet over interply over base sheet over 1/2" wood fiber-board over wood plank decking.
 No insulation board present.
 Remove roofing down to wood deck. Leave wood deck. Replace isolated areas of deteriorated planking up to a total of 200 square feet if found deteriorated.

EXISTING SLOPED METAL ROOFING

Existing metal roofing is found at awnings, at north end of the southwest wing, and over east entry.
 All metal roofing is U panel over felt over wood plank decking with the following exception.
 Metal roofing at the courtyard awnings is metal tiles formed to mimic clay tiles and coated with sealant.
 Most metal roofing lacks counter flashing and drip edge flashing.
 Leave existing metal roofing panels and metal tiles in place except as described on the new roofing sheet.

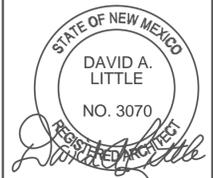
PARAPET WALLS

Parapet walls are masonry with cement based stucco with large aggregate. Parapets have been painted or coated.
 Parapet walls are covered on the inside edge of the wall with rolled roofing that terminates at or near the inside corner of the top of the parapet wall.
 Cement based stucco at the horizontal top edge of the parapets is experiencing some deterioration.
 The horizontal tops of parapet walls have little or no coatings and have exposed cement based stucco.
 Remove roofing from vertical face of parapet walls.
 Leave parapet masonry and stucco in place except where shown for removal, and except for areas of stucco repair.

SITE ACCESS

See site plan for access locations and restrictions.

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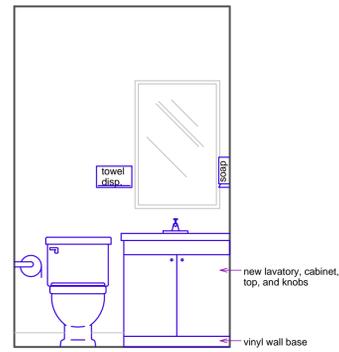
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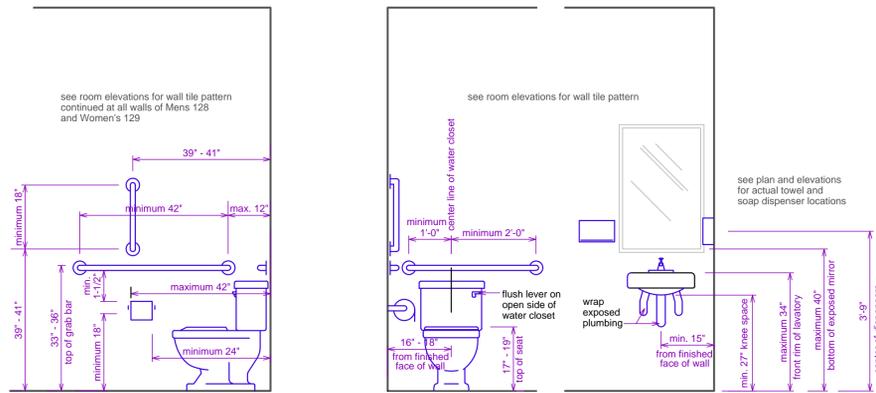
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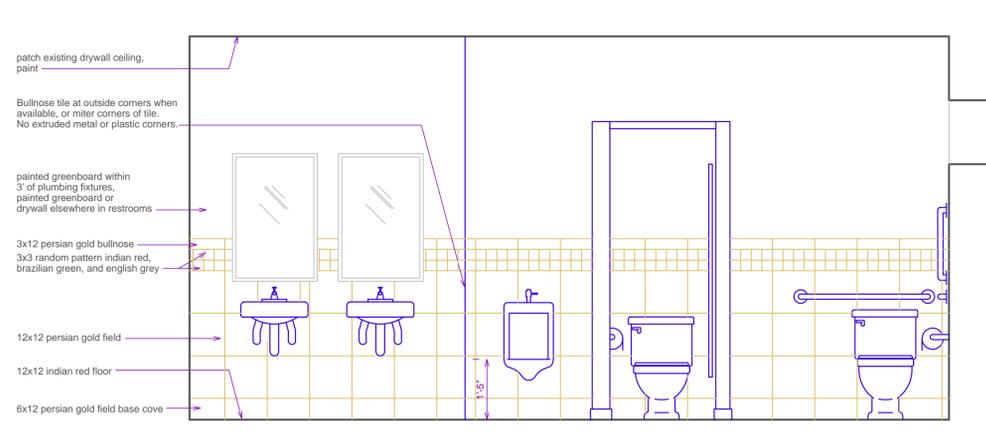
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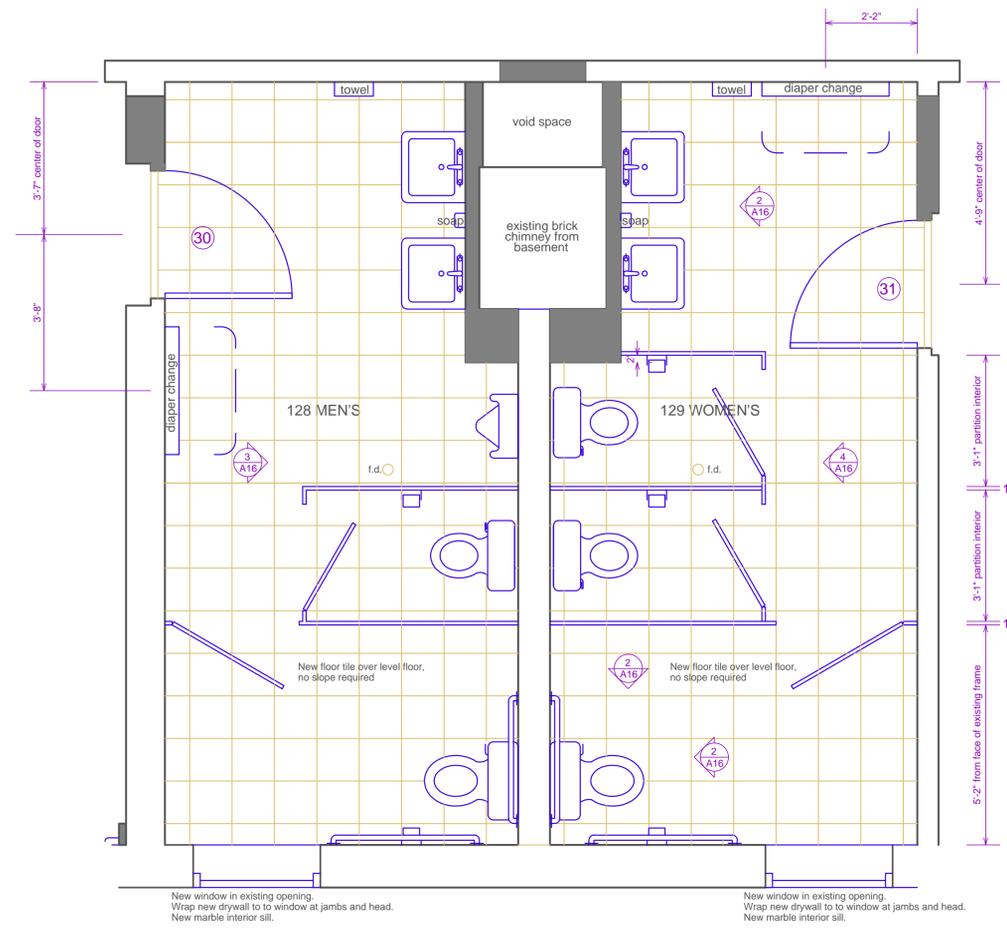
1 135 RESTROOM ELEVATION (136 RESTROOM same except mirrored left to right)
A16



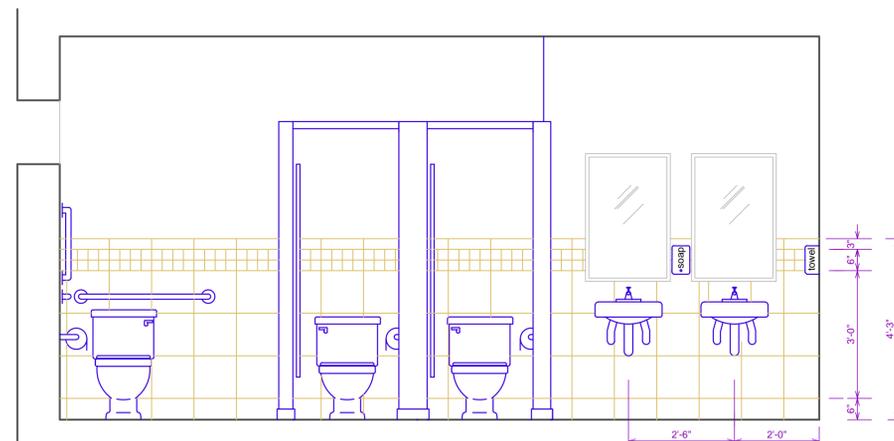
2 128 MEN'S and 129 WOMEN'S TYPICAL ADA MOUNTING HEIGHTS
A16



3 128 MEN'S ROOM ELEVATION tile pattern continues at other walls of the same restroom
A16



128 MEN'S and 129 WOMEN'S ENLARGED FLOOR PLAN



4 129 WOMEN'S ROOM ELEVATION tile pattern continues at other walls of the same restroom
A16

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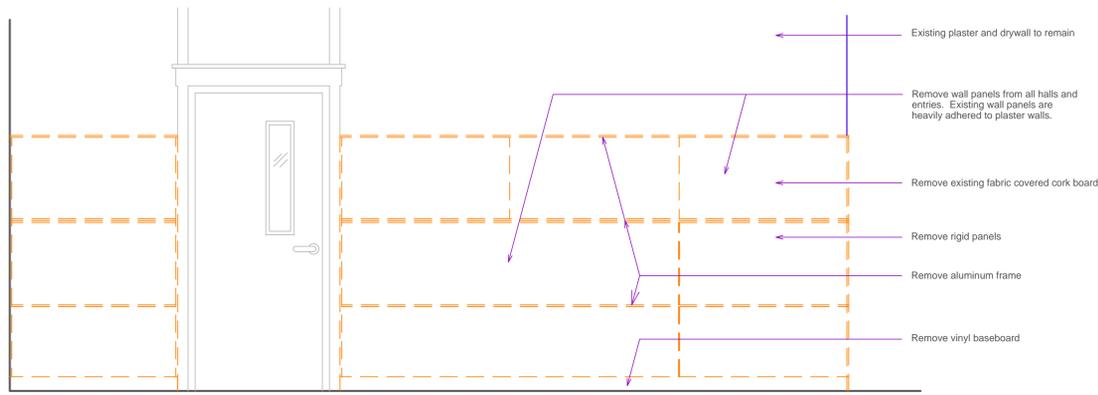
STATE OF NEW MEXICO
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NO. 3070
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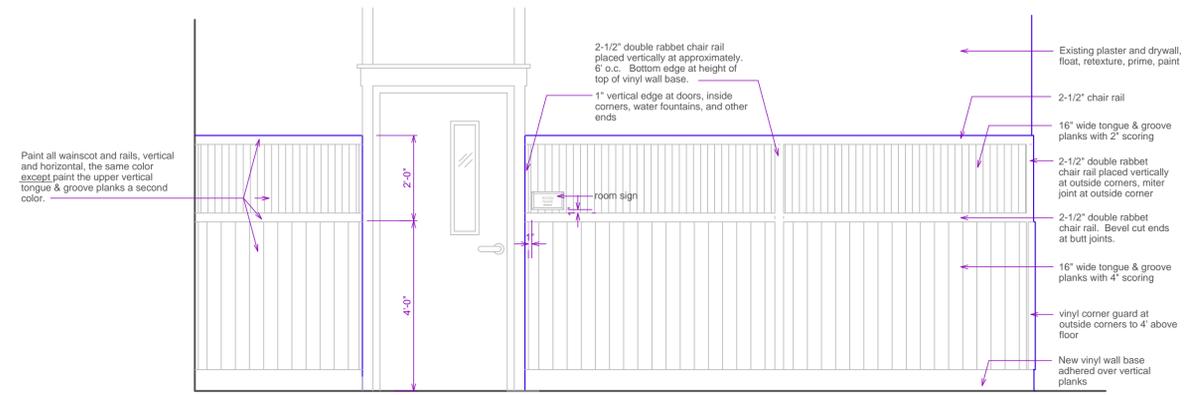
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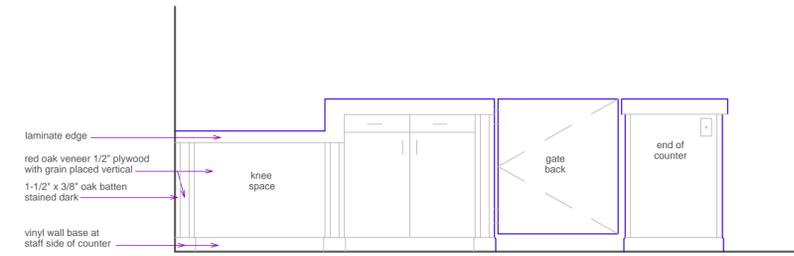
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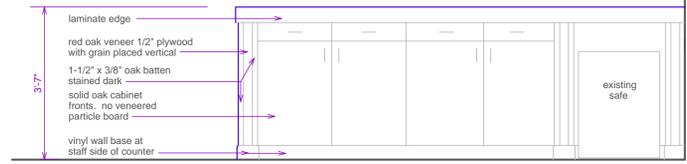
1 HALLS AND ENTRIES typical EXISTING wall panel elevation example, no specific location
A17



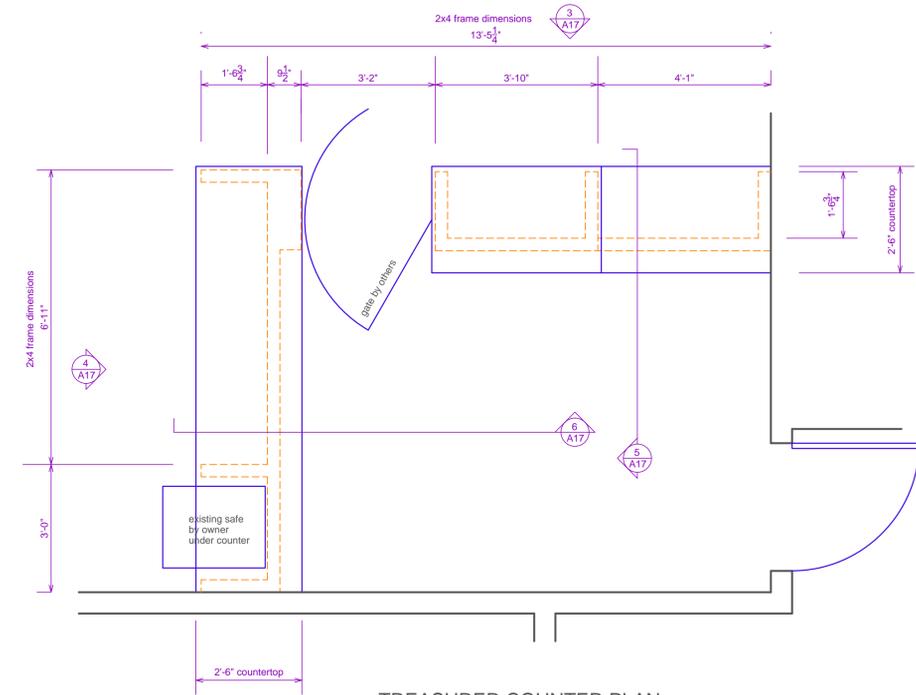
2 HALLS AND ENTRIES typical NEW wall panel elevation example, no specific location
A17



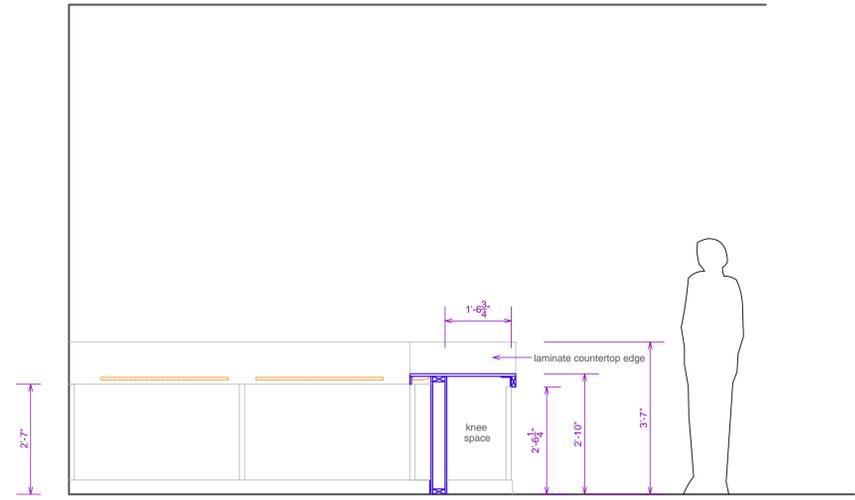
3 TREASURER COUNTER ELEVATION looking south
A17



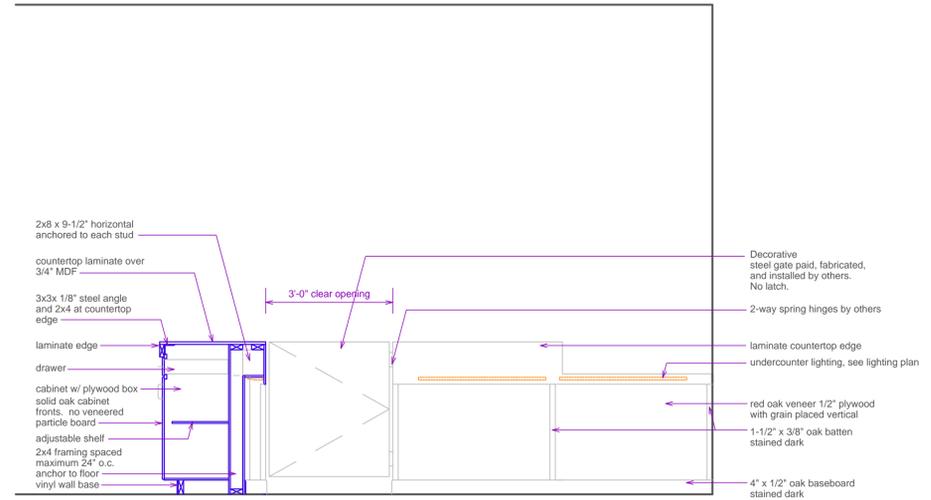
4 TREASURER COUNTER ELEVATION looking east
A17



TREASURER COUNTER PLAN



5 TREASURER COUNTER ELEVATION looking west
A17



6 TREASURER COUNTER looking north
A17

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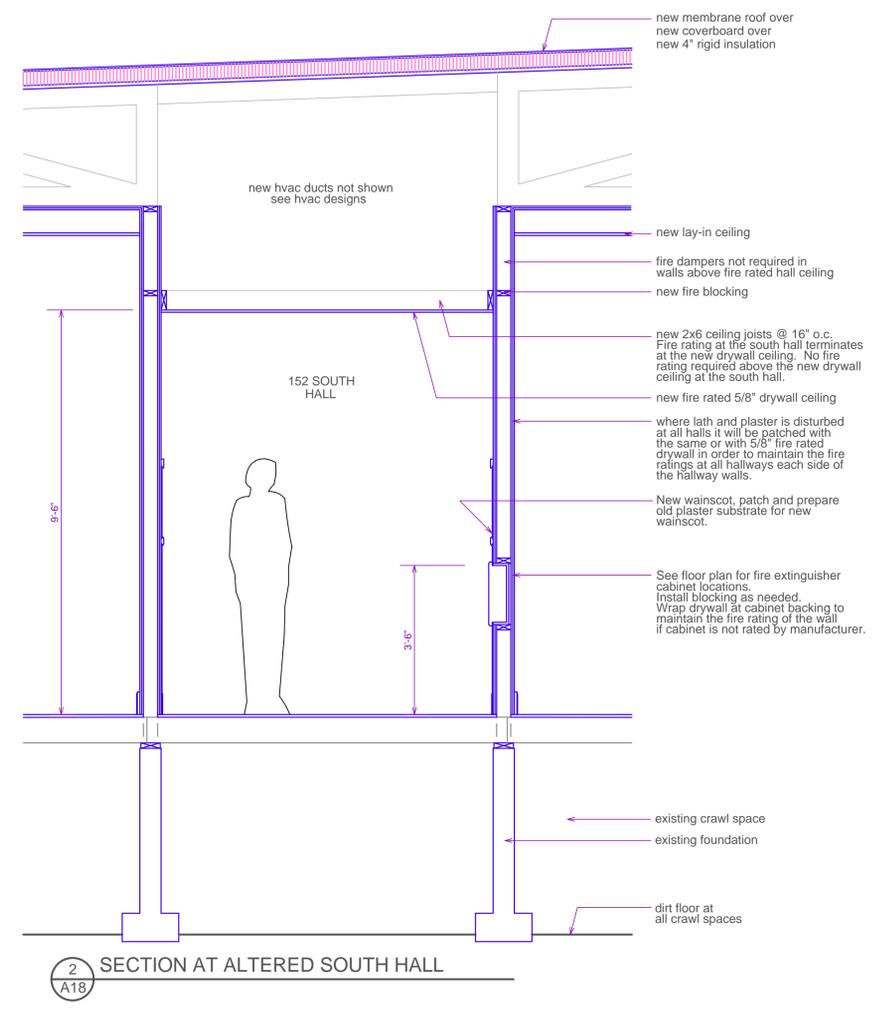
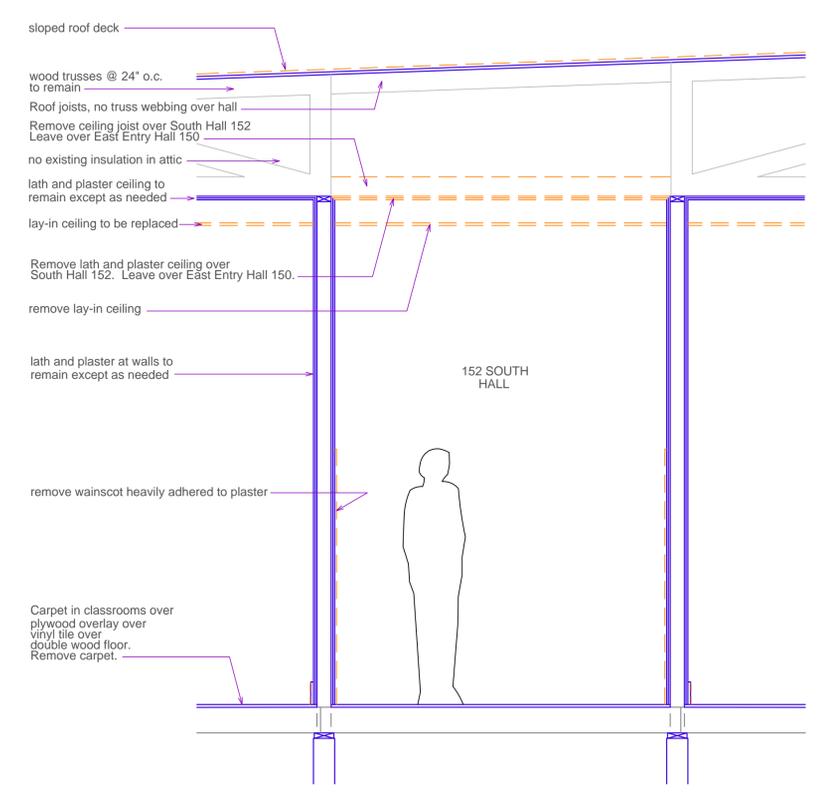
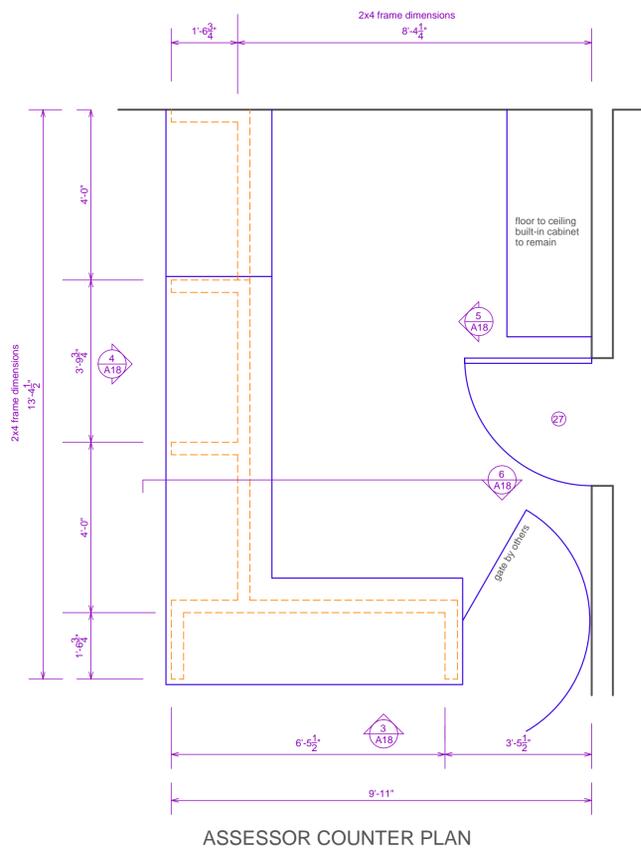
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NO. 3070

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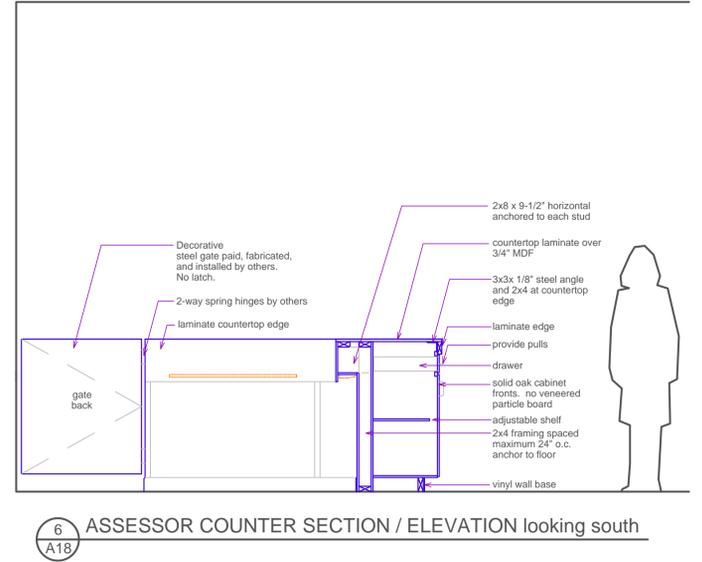
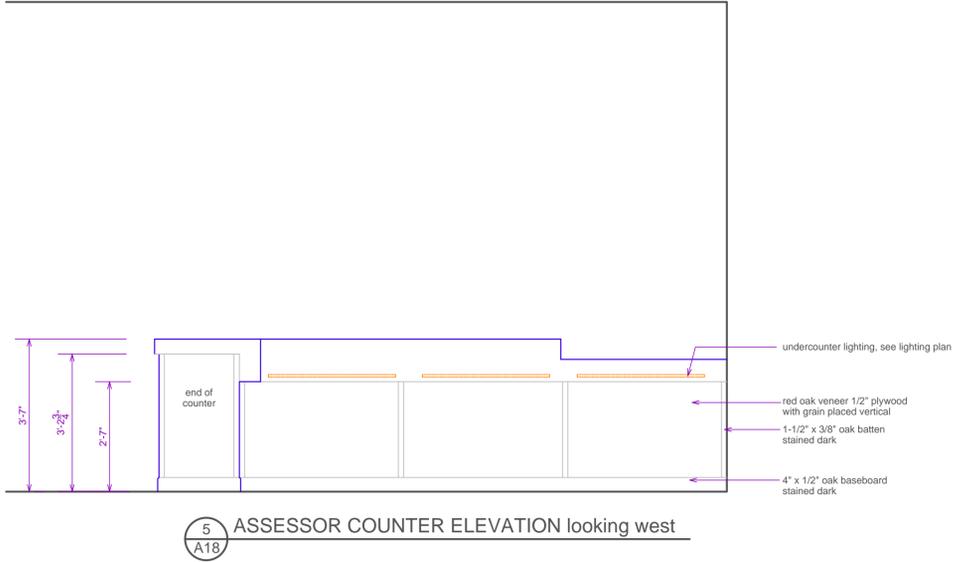
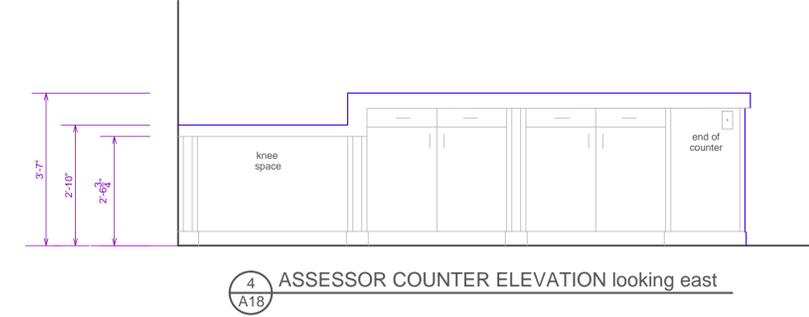
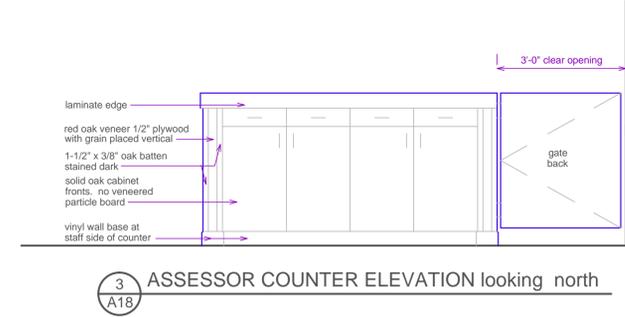
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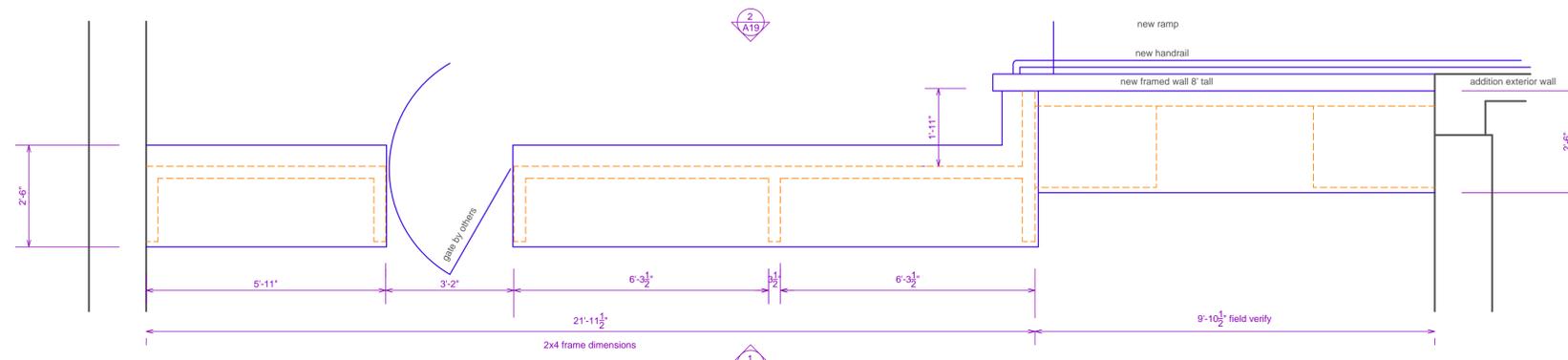
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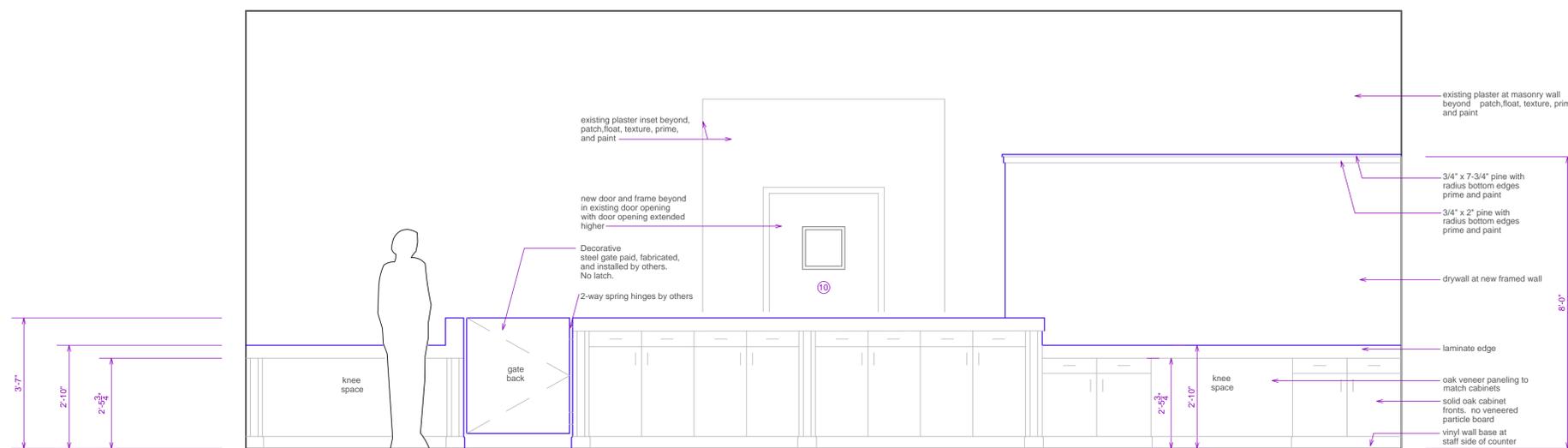
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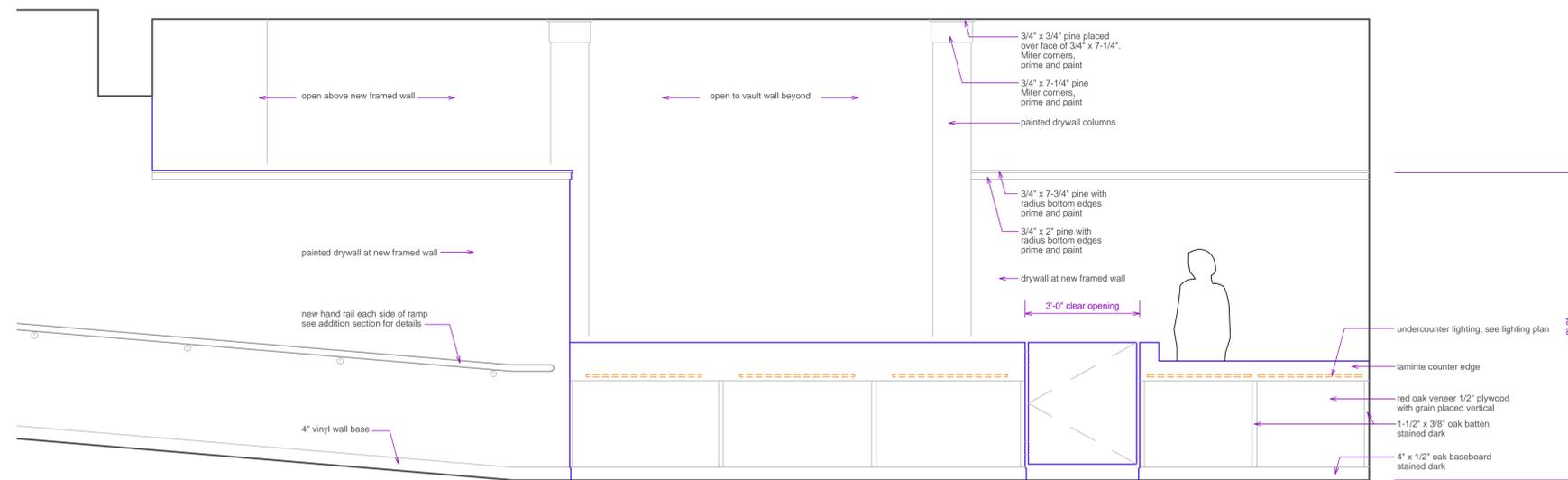




CLERK COUNTER PLAN

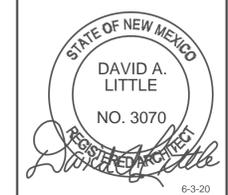


1 A19 CLERK COUNTER looking north



2 A19 CLERK COUNTER looking south

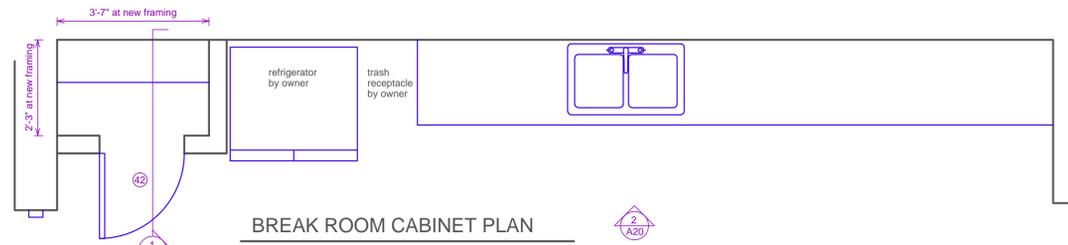
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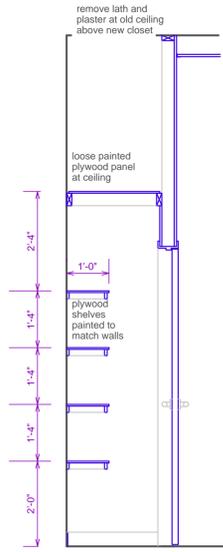
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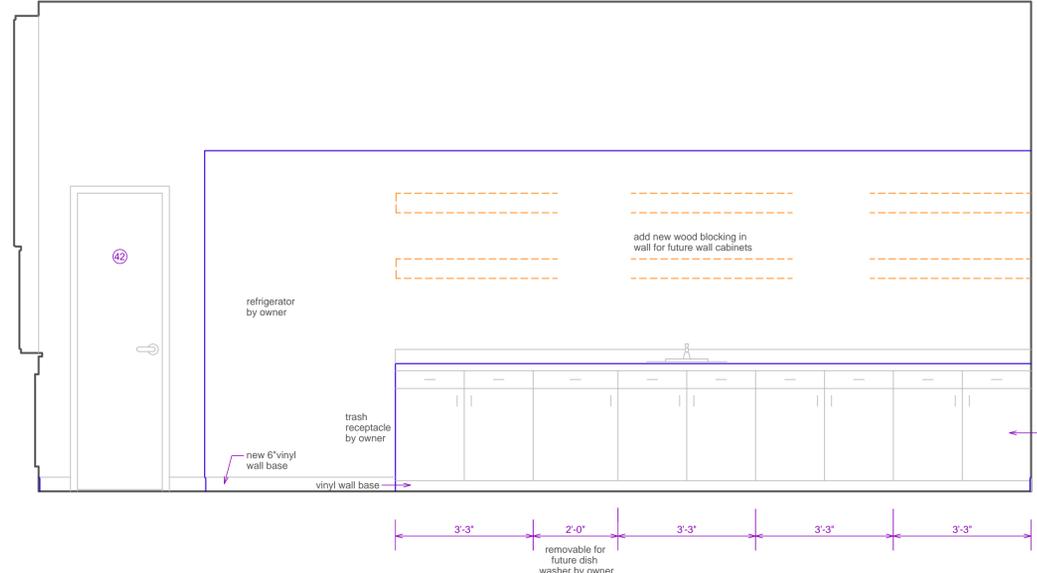
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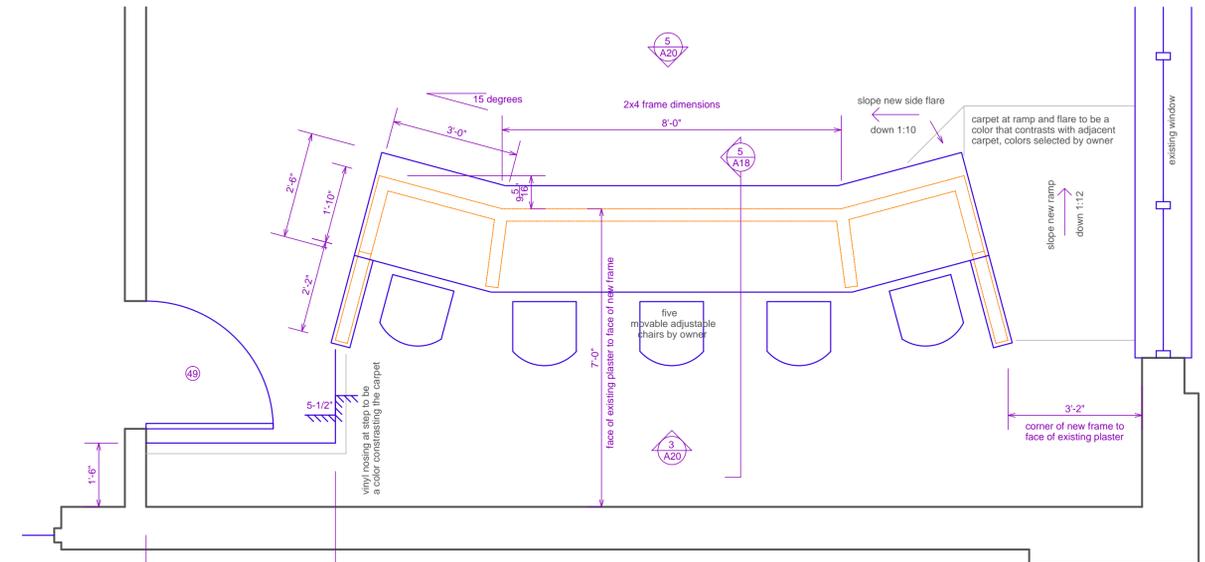
BREAK ROOM CABINET PLAN



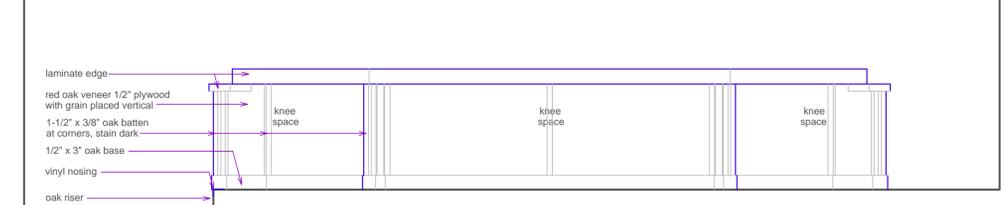
1 CLOSET 153b SECTION



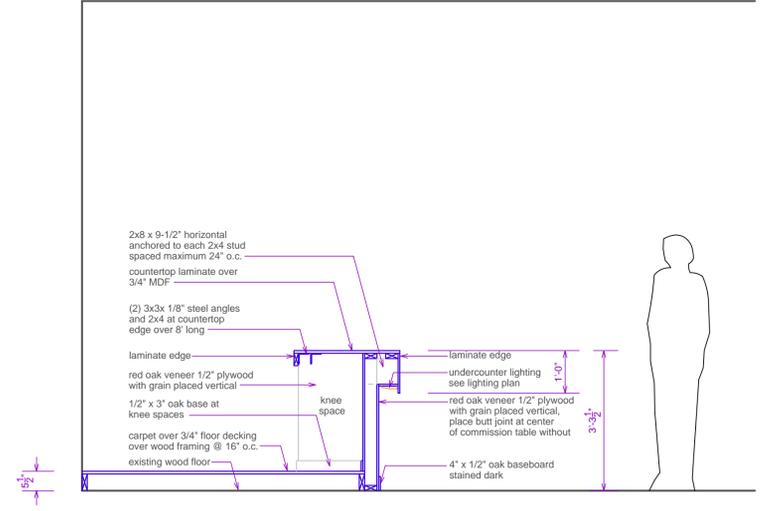
2 BREAK ROOM CABINET ELEVATION



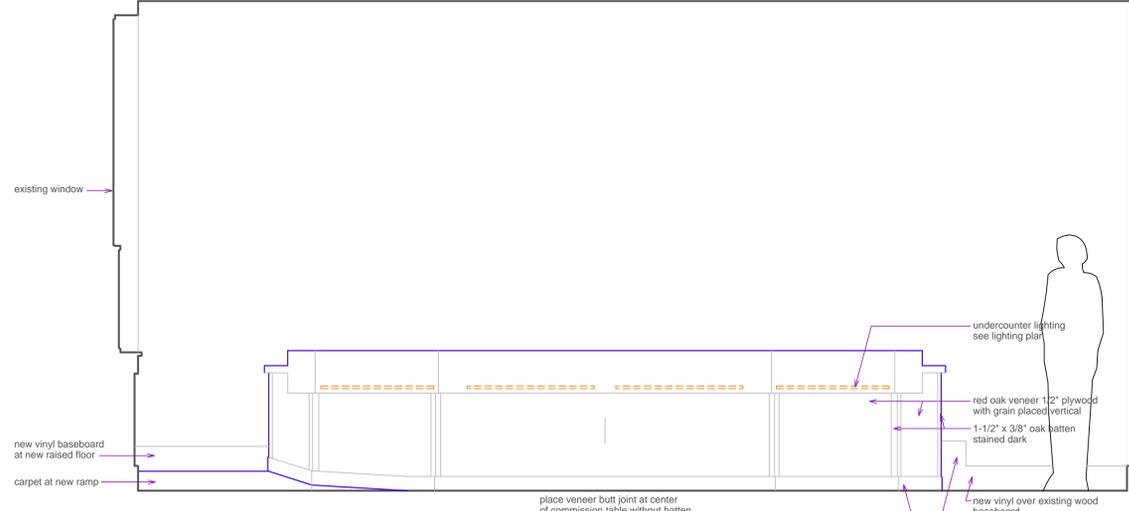
COMMISSION TABLE PLAN



3 COMMISSION TABLE ELEVATION looking north



4 COMMISSION TABLE SECTION looking west



5 COMMISSION TABLE ELEVATION looking south

REVISIONS			
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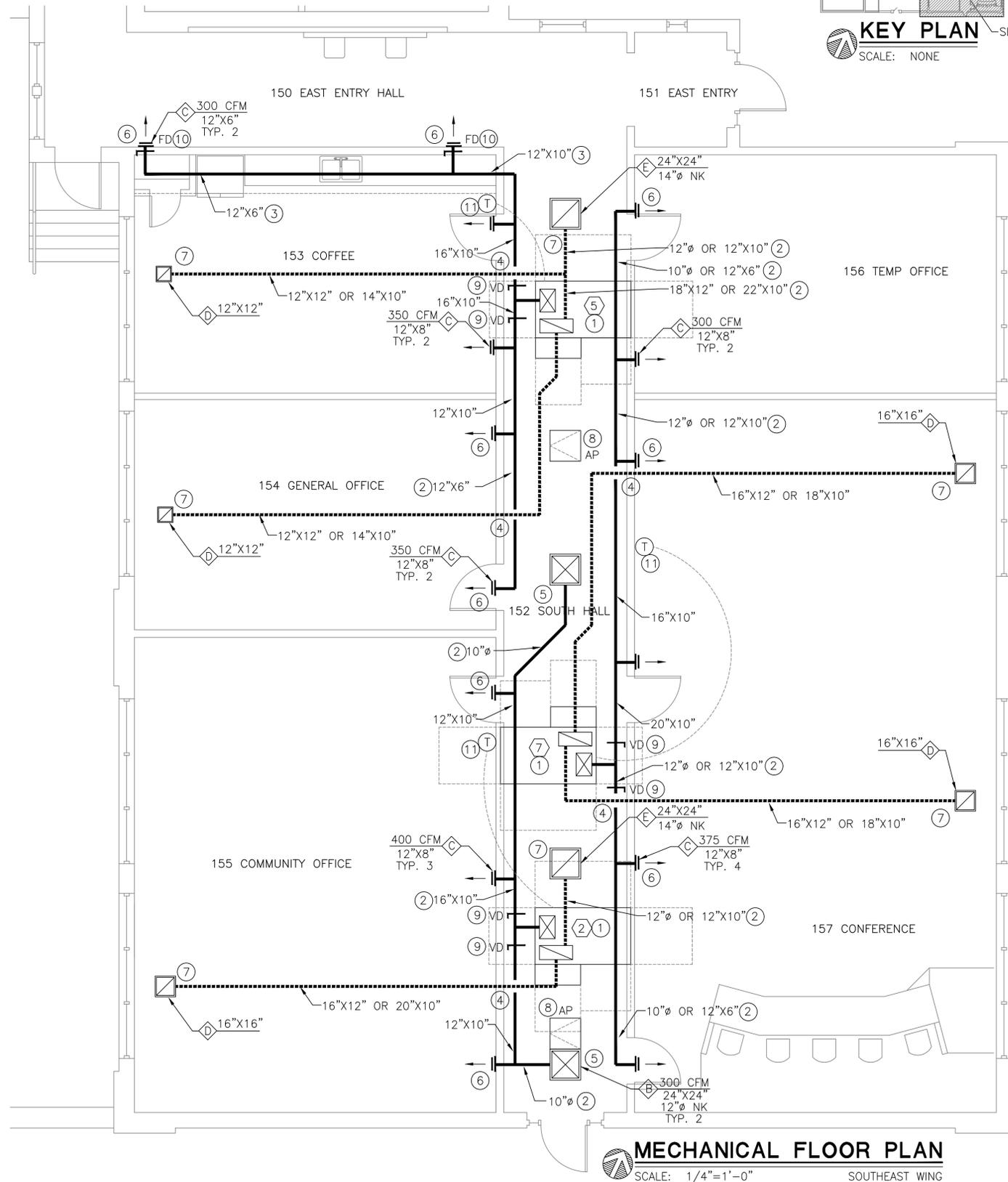
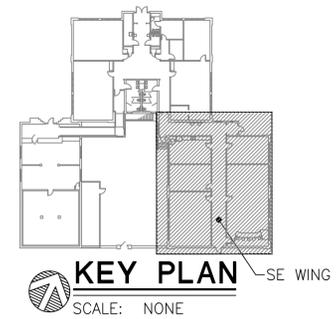
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RENOVATION
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 CLAYTON, NEW MEXICO

LEGEND	
	NEW SUPPLY AIR DUCTWORK
	NEW RETURN AIR DUCTWORK
	NEW EXHAUST AIR DUCTWORK
	EQUIPMENT CLEARANCE
	NEW SUPPLY AIR DIFFUSER
	NEW SUPPLY AIR SIDEWALL REGISTER
	NEW RETURN OR EXHAUST AIR GRILLE
	EQUIPMENT SPECIFICATION
	KEYED NOTE
	VOLUME DAMPER
	FIRE DAMPER
	AVOID EXISTING PLUMBING VENTS

MECHANICAL KEYED NOTES

- ① PROVIDE AND INSTALL NEW PACKAGED ROOFTOP UNIT ON MANUFACTURERS ROOF CURB IN THIS LOCATION. MAINTAIN PROPER SERVICE AND CLEARANCE REQUIREMENTS FOR ALL EQUIPMENT. SEE "HVAC UNIT DETAIL" AND "SEQUENCE OF OPERATION" FOR ADDITIONAL ACCESSORIES AND SCOPE OF WORK. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL LINE VOLTAGE POWER CONNECTIONS. COORDINATE WITH ARCHITECT FOR EXACT PLACEMENT OF UNIT ON ROOF CONCERNING STRUCTURAL REQUIREMENTS. CONTRACTOR SHALL MAINTAIN 10 FEET CLEAR BETWEEN ALL OUTSIDE AIR INTAKE AND EXHAUST OUTLETS PER CODE REQUIREMENTS. CONNECT INSULATED RIGID SUPPLY AND RETURN AIR DUCTWORK TO BOTTOM OF NEW ROOFTOP UNIT AND ROUTE DUCTWORK DOWN FULL SIZE INTO SPACE ABOVE CEILING AND PER LAYOUT INDICATED.
- ② PROVIDE AND INSTALL NEW INSULATED SUPPLY AND RETURN AIR DUCTWORK WITHIN SPACE ABOVE CEILING AND PER LAYOUT INDICATED. DUCTWORK SIZES INDICATED ARE INSIDE DUCTWORK CLEAR REQUIREMENTS AND MAY BE MODIFIED ONLY AS NECESSARY TO BEST FIT WITHIN THE EXISTING STRUCTURE; HOWEVER, THE CONTRACTOR SHALL MAINTAIN THE SAME FREE AREA IF USING MODIFIED DUCTWORK DIMENSIONS. COORDINATE THIS SCOPE OF WORK WITH ARCHITECT. SEE "DUCT HANGER DETAILS" AND SUPPORT SYSTEM PER CODE REQUIREMENTS. AVOID EXISTING STRUCTURAL BARRIERS, LIGHT FIXTURES, FIRE PROTECTION PIPING AND SPRINKLER HEADS, CONDUIT, PIPING, AND ALL EXISTING ITEMS WITHIN SPACE ABOVE CEILING. TYPICAL FOR ALL DUCTWORK UNLESS INDICATED OTHERWISE.
- ③ PROVIDE AND ROUTE NEW INSULATED SUPPLY AIR DUCTWORK INTO SOFFIT IN THIS LOCATION PER LAYOUT INDICATED. COORDINATE WITH ARCHITECT FOR EXACT LOCATION AND SIZE OF SOFFIT. SUPPORT DUCTWORK PER "DUCT HANGER DETAILS" AND PER CODE REQUIREMENTS.
- ④ ROUTE NEW INSULATED RETURN AIR DUCTWORK ABOVE NEW INSULATED SUPPLY AIR DUCTWORK IN THIS LOCATION WITHIN SPACE ABOVE CEILING. CONTINUE ROUTING INSULATED RETURN AIR DUCTWORK HORIZONTALLY PER LAYOUT INDICATED AND BETWEEN EXISTING JOIST STRUCTURE. CONTRACTOR SHALL COORDINATE WITH ARCHITECT THIS SCOPE OF WORK TO MINIMIZE DISTURBANCE OF EXISTING STRUCTURE ABOVE CEILING.
- ⑤ PROVIDE AND INSTALL A MAXIMUM 4 FOOT SECTION OF INSULATED FLEX DUCTWORK AND CONNECT TO NEW CEILING DIFFUSER PER MANUFACTURERS SPECIFICATIONS. STRETCH FLEX DUCTWORK TO AVOID SAGGING. SEE "TYPICAL DIFFUSER CONNECTION DETAIL" TYPICAL AT ALL SUPPLY DIFFUSER LOCATIONS. SUSPEND ALL DUCTWORK FROM EXISTING ROOF STRUCTURE PER CODE REQUIREMENTS. AVOID EXISTING SPRINKLER HEAD LOCATIONS AND COORDINATE WITH LIGHT FIXTURE LAYOUT. CEILING DIFFUSERS INSTALLED WITHIN THIS HALLWAY ALSO HAVE A RIGID SECTION OF DUCTWORK WITH BUILT-IN FIRE DAMPER; INSTALL PER MANUFACTURERS SPECIFICATIONS.
- ⑥ PROVIDE AND INSTALL NEW SIDEWALL SUPPLY AIR REGISTER IN THIS LOCATION AND CONNECT TO INSULATED SUPPLY AIR DUCTWORK PER MANUFACTURERS SPECIFICATIONS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT. TYPICAL FOR ALL SIDEWALL REGISTERS.
- ⑦ PROVIDE AND INSTALL INSULATED RETURN AIR DUCTWORK PER LAYOUT INDICATED AND CONNECT TO RETURN AIR GRILLE PER MANUFACTURERS SPECIFICATIONS. TYPICAL FOR ALL RETURN AIR GRILLES. RETURN AIR GRILLES LOCATED WITHIN HALLWAY INCLUDE BUILT-IN FIRE RATED DAMPER.
- ⑧ PROVIDE AND INSTALL FIRE RATED ACCESS PANEL PER MANUFACTURERS SPECIFICATIONS. COORDINATE EXACT LOCATION WITH ARCHITECT IN FIELD.
- ⑨ PROVIDE AND INSTALL VOLUME CONTROL DAMPER (VD) IN LOCATIONS INDICATED, WITHIN SUPPLY AIR DUCTWORK TO BALANCE AIR FLOW AND INSTALL PER MANUFACTURERS SPECIFICATIONS. TYPICAL FOR ALL VOLUME CONTROL DAMPERS INDICATED OR NOT INDICATED ON DRAWINGS.
- ⑩ PROVIDE AND INSTALL NEW FIRE DAMPER IN LOCATION INDICATED AND PER MANUFACTURERS SPECIFICATIONS. COORDINATE WITH ARCHITECT FOR FIRE RATED REQUIREMENTS. TYPICAL FOR ALL FIRE DAMPERS REQUIRED WETHER INDICATED OR NOT ON THE DRAWINGS.
- ⑪ PROVIDE AND INSTALL THERMOSTAT ON WALL IN THIS LOCATION AND INTERCONNECT WITH NEW ROOFTOP UNIT FOR PROPER OPERATION AND PER MANUFACTURERS SPECIFICATIONS.



MECHANICAL FLOOR PLAN
SCALE: 1/4"=1'-0" SOUTHEAST WING



MARGARET G. BACK
NEW MEXICO
15783
REGISTERED PROFESSIONAL ENGINEER
Margaret G. Back
11-11-20

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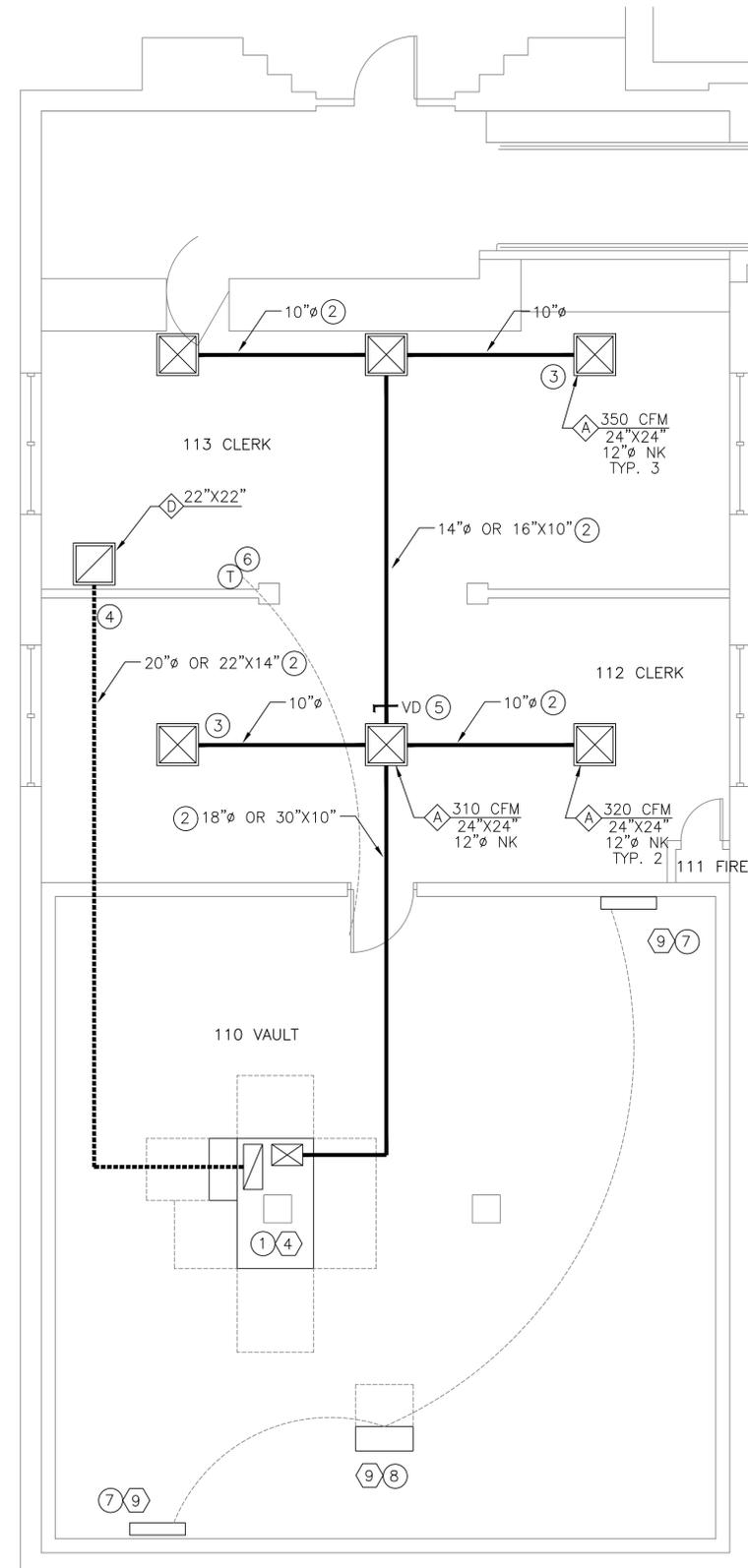
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**UNION COUNTY OFFICE
REMODEL**
200 COURT STREET
CLAYTON, NM

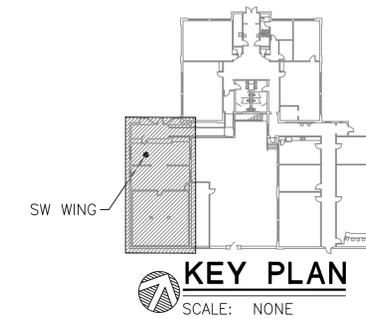
REVISED:	3.18.20
PROJECT #:	19021
DESIGNED BY:	MGB
DRAFTED BY:	MGB
DATE:	1/11/20
SCALE:	1/4" = 1'-0"
SHEET TITLE:	
MECHANICAL FLOOR PLAN (SE WING) & NOTES	
SHEET:	
M-2	

MECHANICAL KEYED NOTES

- ① PROVIDE AND INSTALL NEW PACKAGED ROOFTOP UNIT ON MANUFACTURERS ROOF CURB IN THIS LOCATION. MAINTAIN PROPER SERVICE AND CLEARANCE REQUIREMENTS FOR ALL EQUIPMENT. SEE "HVAC UNIT DETAIL" AND "SEQUENCE OF OPERATION" FOR ADDITIONAL ACCESSORIES AND SCOPE OF WORK. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL LINE VOLTAGE POWER CONNECTIONS. COORDINATE WITH ARCHITECT FOR EXACT PLACEMENT OF UNIT ON ROOF CONCERNING STRUCTURAL REQUIREMENTS. CONTRACTOR SHALL MAINTAIN 10 FEET CLEAR BETWEEN ALL OUTSIDE AIR INTAKE AND EXHAUST OUTLETS PER CODE REQUIREMENTS. CONNECT INSULATED RIGID SUPPLY AND RETURN AIR DUCTWORK TO BOTTOM OF NEW ROOFTOP UNIT AND ROUTE DUCTWORK DOWN FULL SIZE INTO SPACE ABOVE CEILING AND PER LAYOUT INDICATED.
- ② PROVIDE AND INSTALL NEW INSULATED SUPPLY AND RETURN AIR DUCTWORK WITHIN SPACE ABOVE CEILING AND PER LAYOUT INDICATED. DUCTWORK SIZES INDICATED ARE INSIDE DUCTWORK CLEAR REQUIREMENTS AND MAY BE MODIFIED ONLY AS NECESSARY TO BEST FIT WITHIN THE EXISTING STRUCTURE; HOWEVER, THE CONTRACTOR SHALL MAINTAIN THE SAME FREE AREA IF USING MODIFIED DUCTWORK DIMENSIONS. COORDINATE THIS SCOPE OF WORK WITH ARCHITECT. SEE "DUCT HANGER DETAILS" AND SUPPORT SYSTEM PER CODE REQUIREMENTS. AVOID EXISTING STRUCTURAL BARRIERS, LIGHT FIXTURES, FIRE PROTECTION PIPING AND SPRINKLER HEADS, CONDUIT, PIPING, AND ALL EXISTING ITEMS WITHIN SPACE ABOVE CEILING. TYPICAL FOR ALL DUCTWORK UNLESS INDICATED OTHERWISE.
- ③ PROVIDE AND INSTALL A MAXIMUM 4 FOOT SECTION OF INSULATED FLEX DUCTWORK AND CONNECT TO NEW CEILING DIFFUSER PER MANUFACTURERS SPECIFICATIONS. STRETCH FLEX DUCTWORK TO AVOID SAGGING. SEE "TYPICAL DIFFUSER CONNECTION DETAIL." TYPICAL AT ALL SUPPLY DIFFUSER LOCATIONS. SUSPEND ALL DUCTWORK FROM EXISTING ROOF STRUCTURE PER CODE REQUIREMENTS. AVOID EXISTING SPRINKLER HEAD LOCATIONS AND COORDINATE WITH LIGHT FIXTURE LAYOUT.
- ④ PROVIDE AND INSTALL INSULATED RETURN AIR DUCTWORK PER LAYOUT INDICATED AND CONNECT TO RETURN AIR GRILLE PER MANUFACTURERS SPECIFICATIONS.
- ⑤ PROVIDE AND INSTALL VOLUME CONTROL DAMPER (VD) IN LOCATIONS INDICATED, WITHIN SUPPLY AIR DUCTWORK TO BALANCE AIR FLOW AND INSTALL PER MANUFACTURERS SPECIFICATIONS. TYPICAL FOR ALL VOLUME CONTROL DAMPERS INDICATED OR NOT INDICATED ON DRAWINGS.
- ⑥ PROVIDE AND INSTALL THERMOSTAT ON WALL IN THIS LOCATION AND INTERCONNECT WITH NEW ROOFTOP UNIT FOR PROPER OPERATION AND PER MANUFACTURERS SPECIFICATIONS.
- ⑦ PROVIDE AND INSTALL INDOOR MINI SPLIT SYSTEM TO WALL IN THIS LOCATION PER MANUFACTURERS SPECIFICATIONS. PROVIDE AND INSTALL INSULATED REFRIGERANT PIPING, CONTROL BOX, AND INTERCONNECT TO OUTDOOR UNIT FOR COMPLETE AND PROPER OPERATION. CONTRACTOR SHALL AVOID EXISTING STRUCTURAL BARRIERS, LIGHT FIXTURES, CONDUIT, PIPING, ETC. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL LINE VOLTAGE POWER CONNECTIONS.
- ⑧ PROVIDE AND INSTALL OUTDOOR MINI SPLIT SYSTEM ONTO ROOF IN THIS LOCATION AND INTERCONNECT WITH INDOOR UNITS PER MANUFACTURERS SPECIFICATIONS. MAINTAIN ALL UNIT CLEARANCE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL LINE VOLTAGE POWER CONNECTIONS.



MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'-0" SOUTHWEST WING



LEGEND	
	NEW SUPPLY AIR DUCTWORK
	NEW RETURN AIR DUCTWORK
	NEW EXHAUST AIR DUCTWORK
	EQUIPMENT CLEARANCE
	NEW SUPPLY AIR DIFFUSER
	NEW SUPPLY AIR SIDEWALL REGISTER
	NEW RETURN OR EXHAUST AIR GRILLE
	EQUIPMENT SPECIFICATION
	KEYED NOTE
	VOLUME DAMPER
	FIRE DAMPER
	AVOID EXISTING PLUMBING VENTS



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200 COURT STREET
CLAYTON, NM

REVISED:	3.18.20
PROJECT #:	19021
DESIGNED BY:	MGB
DRAFTED BY:	MGB
DATE:	1/11/20
SCALE:	1/4" = 1'-0"

SHEET TITLE:
**MECHANICAL FLOOR PLAN
(SW WING)
& NOTES**

SHEET:
M-3



THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF THE ENGINEER. ONCE THE PLANS ARE STAMPED AND SIGNED, THEY ARE LEGAL DOCUMENTS AND ANY CHANGES TO THE PLANS OR CONSTRUCTION BY THE OWNER OR CONTRACTOR WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER CONSTITUTES A BREACH OF THESE DOCUMENTS AND FULLY RELIEVES THE ENGINEER OF ANY LEGAL ACTION AGAINST THE ENGINEER AND OMISSIONS.

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**UNION COUNTY OFFICE
 REMODEL**
 200 COURT STREET
 CLAYTON, NM

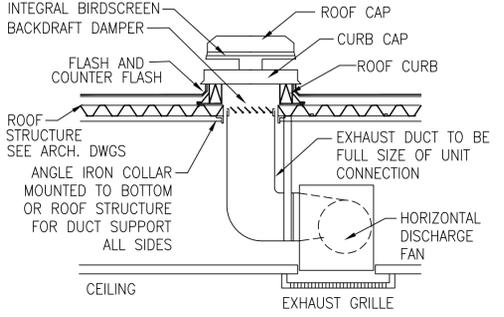
PROJECT #: 19021
 DESIGNED BY: MGB
 DRAFTED BY: MGB
 DATE: 1/11/20
 SCALE: AS NOTED

SHEET TITLE:
**MECHANICAL GENERAL
 NOTES & DETAILS**

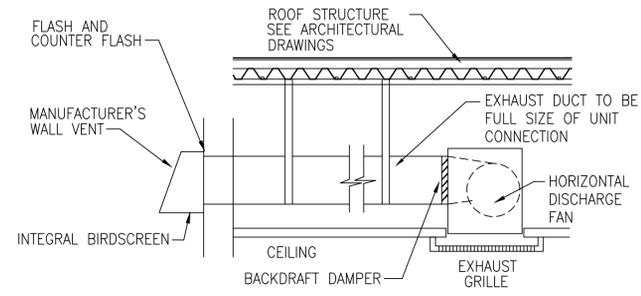
SHEET:
M-4

MECHANICAL GENERAL NOTES

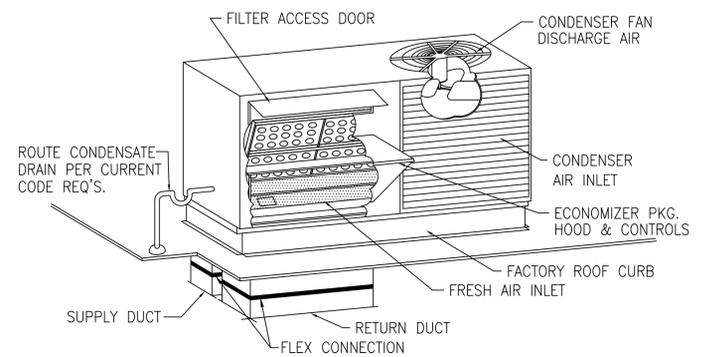
- CONTRACTORS SHALL PROVIDE AND INSTALL ALL EQUIPMENT NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION OF MECHANICAL SYSTEMS INDICATED AND ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE IBC, UMC, UPC, NFPA, NEC, GAS CODE, LIFE SAFETY CODE, SMACNA, ASHRAE STANDARDS, AND ALL OTHER LOCAL AND STATE AMENDMENTS AT THE TIME OF PERMIT ISSUE. WHERE EVER THERE IS A DISCREPANCY BETWEEN CODE AND DRAWING, THE MORE STRINGENT CONDITION SHALL APPLY.
- ALL 24 VOLT WIRING ASSOCIATED WITH EQUIPMENT LISTED IN MECHANICAL EQUIPMENT SCHEDULE SHALL BE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. ALL LINE VOLTAGE WIRING AND CONDUIT SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- VERIFY AND ESTABLISH DIMENSIONS, CLEARANCES, AND FIELD CONDITIONS PRIOR TO START OF FABRICATION AND/OR INSTALLATION. COORDINATE INSTALLATION WITH ALL TRADES INVOLVED ON THE PROJECT.
- DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. IF CONDITIONS REQUIRE REARRANGEMENT OF ANY SYSTEM, SUBMIT DEPARTURES FROM DRAWINGS WITH REASONS TO ARCHITECT OR ENGINEER TO OBTAIN WRITTEN APPROVAL BEFORE MAKING ANY CHANGES.
- USE NEW MATERIALS AND EQUIPMENT UNLESS OTHERWISE SPECIFIED AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE AND INSTALL ALL DUCTWORK TRANSITIONS AND CONNECTIONS IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS AND ASHRAE HANDBOOK INCLUDING TURNING VANES IN ALL SQUARE ELBOWS. INSULATE ALL DUCTWORK ACCORDING TO ASHRAE 90.1 ENERGY CODE, OR CURRENTLY ENFORCED ENERGY CODE.
- COORDINATE ALL CUTTING, PATCHING, REPAIRING, EXISTING UTILITY SHUT-OFF AND START-UP ASSOCIATED WITH THE SCOPE OF WORK ON DRAWING(S) FOR COMPLETE AND FUNCTIONAL LAYOUT AND INSTALLATION OF MECHANICAL SYSTEMS. GIVE OWNER 48 HOUR NOTICE OF ALL NECESSARY UTILITY SHUT-OFFS.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROLS, TIMECLOCKS, TRANSFORMERS, SWITCHES, RELAYS, ETC. NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION OF ALL SYSTEMS INDICATED ON DRAWINGS. ALL LINE VOLTAGE WIRING AND CONDUIT SHALL BE PROVIDED, INSTALLED, AND CONNECTED BY ELECTRICAL CONTRACTOR.
- VIBRATIONALLY ISOLATE FROM THE BUILDING STRUCTURE ALL EQUIPMENT AND PIPING PER SMACNA VIBRATION MANUAL TO ASSURE AS QUIET AN OPERATING SYSTEM AS POSSIBLE IS INSTALLED.
- VERIFY THAT ALL EQUIPMENT SPECIFIED IS CORRECT FOR FIELD INSTALLATION INCLUDING BUT NOT LIMITED TO SIZES, LOCATION, STRUCTURAL CONSISTENCY, ETC. BEFORE ORDERING. SUBMIT CHANGES FOR WRITTEN APPROVAL PRIOR TO ORDERING EQUIPMENT. NO CHANGE ORDERS WILL BE ALLOWED AS A RESULT OF CONTRACTOR'S FAILURE TO MEASURE ACTUAL DIMENSIONS AND PROVIDE CORRECT EQUIPMENT SIZES.
- CONTRACTOR SHALL COORDINATE ALL DUCTWORK AND PIPING ROUTING WITH STRUCTURAL AND ELECTRICAL SYSTEMS AND PROVIDE ALL NECESSARY OFFSETS TO AVOID CONFLICTS AND MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.
- ALTER DIMENSIONS OF THE DUCTWORK IN THE CEILING SPACE FROM SIZES INDICATED ON THE DRAWINGS ONLY AT SPECIFIC LOCATIONS WHEN NECESSARY TO FIT THE DUCTWORK IN THE SPACE AVAILABLE. REROUTE DUCTWORK IN CEILING SPACE TO AVOID OTHER MECHANICAL EQUIPMENT, LIGHT FIXTURES, ETC. MAINTAIN THE SAME FREE AREA AND SUBMIT PROPOSED CHANGES TO THE ENGINEER FOR WRITTEN APPROVAL. BE RESPONSIBLE FOR VERIFYING SPACE LIMITATIONS BEFORE DUCTWORK FABRICATION AND SHALL MAKE CHANGES ACCORDINGLY. PROVIDE ALL NECESSARY TRANSITIONS.
- COORDINATE WORK WITH ARCHITECT AND GENERAL CONTRACTOR TO PAINT EQUIPMENT AND EXPOSED PIPING PER ARCHITECT'S REQUEST.
- COORDINATE ALL PROPOSED ROOF AND WALL PENETRATIONS WITH ARCHITECT, OWNER, AND GENERAL CONTRACTOR AND RELOCATE ONLY IF NECESSARY.
- PROVIDE TESTING AND BALANCING CONTRACTOR: CONTRACTOR RESPONSIBLE FOR PROVIDING AND INSTALLING SHEAVES, BALANCING DAMPERS, AND ALL EQUIPMENT NECESSARY TO PROVIDE PLUS OR MINUS 5% OF THE CFM REQUIRED AT EACH TERMINAL UNIT. NO CHANGE ORDERS WILL BE ALLOWED AS A RESULT OF THE CONTRACTOR'S FAILURE TO PROVIDE EQUIPMENT NECESSARY FOR TEST AND BALANCE OF SYSTEMS WHETHER SHOWN ON THE DRAWINGS OR NOT. TEST AND BALANCE CONTRACT SHALL HAVE A MINIMUM OF 4 YEARS OF EXPERIENCE.
- PROVIDE MINIMUM (4) FOUR COPIES OF SUBMITTAL CUTSHEETS CONCERNING EQUIPMENT INDICATED ON MECHANICAL EQUIPMENT SCHEDULE FOR ENGINEER'S REVIEW AND WRITTEN APPROVAL PRIOR TO ORDERING ANY EQUIPMENT. (1) ONE COPY MUST BE A HARD COPY FOR ENGINEERS REVIEW.



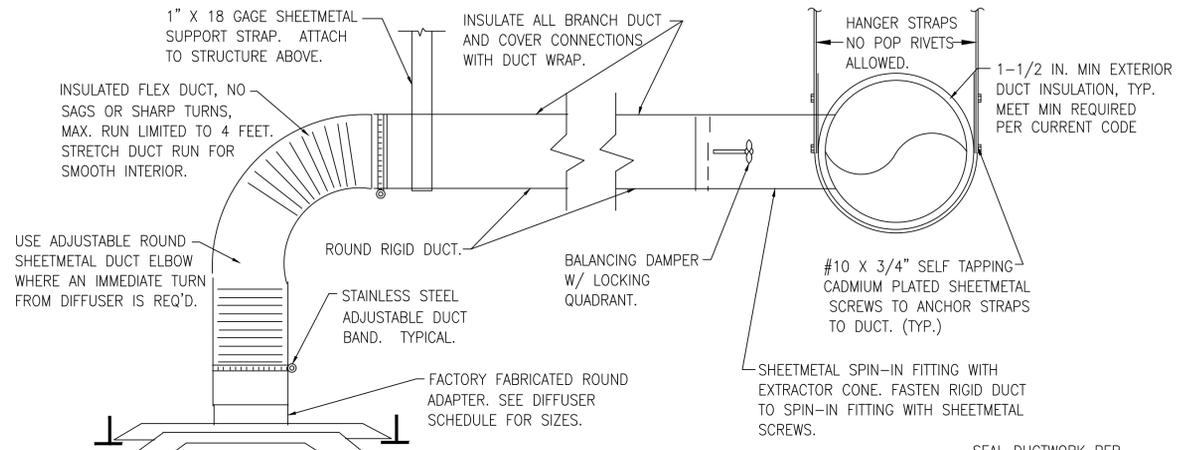
CEILING EXHAUST FAN DETAIL 1
 SCALE: NONE



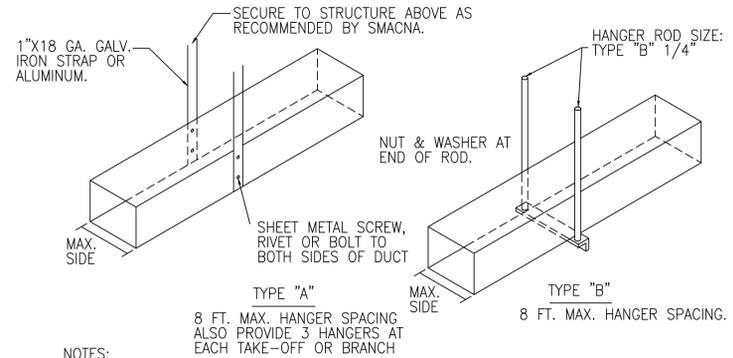
CEILING EXHAUST FAN DETAIL 2
 SCALE: NONE



HVAC UNIT DETAIL
 SCALE: NONE



TYPICAL DIFFUSER CONNECTION DETAIL
 SCALE: NONE



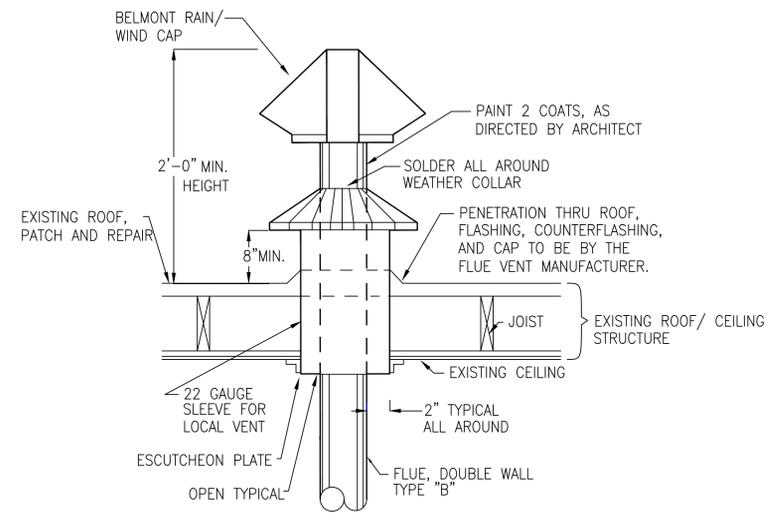
NOTES:
 1. FOR SEVERAL DUCTS ON ONE HANGER TYPE "B" MAY BE USED. SIZE OF HANGER WILL BE SELECTED ON THE SUM OF DUCT WIDTHS EQUAL TO MAX. WIDTH DUCT SCHEDULE.
 2. SCHEDULE FOR ANGLES FOR BRACING: TYPE "B" 1-1/2"x1-1/2"x1/8" ANGLE MAX. SPACING 8'-0" CENTERS.
 FOR BRACING ANGLES - SEE NOTES

DUCT HANGER DETAILS

SCALE: NONE

DUCT SCHEDULE

DUCT DIMENSIONS INCHES	TYPE HANGER
UP THRU 12	A
13	A
18	A
19	A/B
30	A/B



FLUE THRU ROOF DETAIL
 SCALE: NONE

MECHANICAL SEQUENCE OF OPERATION

GENERAL CONTROL NOTES:

- MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL EQUIPMENT ITEMS, WIRING, TRANSFORMERS, THERMOSTATS, SENSORS, RELAYS, ETC. NECESSARY TO ACCOMPLISH THE CONTROL OPERATION AS DESCRIBED BELOW.
- MECHANICAL CONTRACTOR SHALL PROVIDE ALL LOW VOLTAGE EQUIPMENT AND COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL LINE VOLTAGE CONNECTIONS AND RACEWAYS.

UNIT SYMBOLS (1) THRU (8)

FORCED AIR PREPACKAGED ROOF MOUNTED UNITS SHALL BE CONTROLLED BY NEW 7-DAY PROGRAMMABLE SETBACK THERMOSTAT AND MOTORIZED DAMPERS OPERATED BY 7-DAY PROGRAMMABLE TIMECLOCK.

PROVIDE A DRY BULB TEMPERATURE CONTROLLED ECONOMIZER WITH BUILT-IN BAROMETRIC RELIEF DAMPER FOR THE UNIT TO MODULATE RETURN AIR AND OUTSIDE AIR DAMPERS FOR 55 DEG F SUPPLY AIR SET POINT WHEN THE OUTSIDE AIR TEMPERATURE PERMITS.

OCCUPIED: THE FAN MOTOR ON THE UNIT SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.

HEATING: THE BURNER SHALL FIRE INTERMITTENTLY TO SATISFY THE THERMOSTAT HEATING SETPOINT. SEE EQUIPMENT SCHEDULE FOR OUTSIDE AIR CFM SETTING. THE THERMOSTAT SHALL BE SET AT 68 DEG. F. DURING OCCUPIED HOURS.

COOLING: THE CONDENSER AND COMPRESSOR SHALL OPERATE INTERMITTENTLY TO SATISFY THE THERMOSTAT COOLING SETPOINT. SEE EQUIPMENT SCHEDULE FOR OUTSIDE AIR CFM SETTING. THE THERMOSTAT SHALL BE SET AT 72 DEG. F. DURING OCCUPIED HOURS.

UNOCCUPIED:

HEATING: THE FAN MOTOR AND BURNER SHALL OPERATE INTERMITTENTLY TO SATISFY THE THERMOSTAT SETPOINT. THE OUTSIDE AIR DAMPERS SHALL BE FULLY CLOSED. THE THERMOSTAT HEATING SETPOINT SHALL BE SET AT 55 DEG. F. DURING UNOCCUPIED HOURS.

COOLING: NO COOLING.

MECHANICAL EQUIPMENT SCHEDULE, CONT.

SYM DESCRIPTION

(13) UNIT HEATER: "QMARK" MODEL MUH0581. ELECTRIC UNIT HEATER WITH STEEL CABINET CONSTRUCTION, ALUMINUM-FINISHED, COPPER-CLAD STEEL SHEATH HEATING ELEMENT, STAINLESS STEEL ADJUSTABLE LOUVERS, INTERNAL THERMOSTAT AND CONTROLS, FAN DELAY, VIBRATION/NOISE ISOLATION, DISCONNECT, MOUNTING HARDWARE, FAN, MOTOR, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. PERFORMANCE: 350 CFM, 17 MBH HEATING. WEIGHT: 30 LBS. ELEC: 208V/3PH/60HZ, 24 AMPS, 5 KW, 1/100 HP. (LOCATION: SEE SHEET P-4)

VD VOLUME CONTROL DAMPER: "GREENHECK" MODEL VCD & VCDR SERIES. LOW LEAKAGE, SINGLE BLADE, RECTANGULAR AND ROUND CONTROL DAMPER CONSTRUCTED OF 20 GA. GALVANIZED STEEL, MANUAL HAND QUADRANT ACTUATOR. INCLUDE ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. SEE DRAWINGS FOR SIZES AND LOCATIONS.

FD FIRE DAMPER: "GREENHECK" MODEL FD-110. STATIC FIRE DAMPER WITH 1-1/2 HOUR UL RATING, NARROWLINE CONSTRUCTION, FACTORY FURNISHED SLEEVES MOUNTED OUT OF AIRSTREAM, FUSIBLE LINK RATED FOR 165 DEG. F., RECTANGULAR SIZES TO MATCH DUCTWORK AND REGISTER SIZES IN LOCATION WHERE INDICATED ON DRAWINGS, MOUNTING HARDWARE, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. INSTALL PER MANUFACTURERS SPECIFICATIONS.

AP ACCESS PANEL: "BEST ACCESS DOORS" MODEL BA-PFI. FIRE RATED INSULATED CEILING ACCESS DOOR WITH 16 GAUGE COLD ROLLED STEEL FRAME AND 20 GAUGE GALVANNEAL STEEL DOOR, MINERAL WOOL INSULATION, CONTINUOUS PIANO HINGE, SELF LATCHING TOOL-KEY OPERATED SLAM LATCH AND/OR RING OPERATED SLAM LATCH (BOTH INCLUDED), INSIDE PANEL RELEASE, AUTOMATIC PANEL CLOSER, WHITE POWDER COAT PRIMER, 1 TO 3 HOUR RATING CEILING APPLICATION (COORDINATE WITH ARCHITECT), AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION. SIZE: 22 IN. X 22 IN.; WEIGHT: 20 LBS.

(T) THERMOSTAT: "CARRIER" EDGE PRO MODEL 33CS2PPRH-03. PROGRAMMABLE 7 DAY THERMOSTAT WITH KEYPAD LOCKOUT SECURITY WITH PASS CODE PROTECTION, HEATING AND COOLING SET POINTS WITH UP TO 6 HOURS OF OCCUPANCY OVERRIDE, RANDOM START, SMART RECOVERY, DRY CONTACT ENABLES ECONOMIZER CONTROL, BACKLIT DISPLAY, MOUNTING HARDWARE, CLEAR LOCKING THERMOSTAT COVER, OUTDOOR TEMPERATURE SENSOR, SENSORS, WIRING, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. ELEC: 24V/60HZ.

DIFFUSER AND GRILLE SCHEDULE

(A) SUPPLY AIR DIFFUSER: "TITUS" MODEL PAS-AA. SQUARE PERFORATED CEILING PANEL WITH ALUMINUM CONSTRUCTION, ADJUSTABLE AIR PATTERN, OBD, FRAME FOR CORRECT CEILING APPLICATION, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. COLOR SELECTED BY ARCHITECT. DIFFUSER AND DUCT SIZE AS SHOWN ON DRAWINGS.

(B) SUPPLY AIR DIFFUSER: "TITUS" MODEL PAS-FR. SQUARE FLUSH PERFORATED FACE AND FIRE RATED CEILING PANEL WITH STEEL CONSTRUCTION, ADJUSTABLE VANES, 4-WAY AIR PATTERN, OBD, FRAME FOR CORRECT CEILING APPLICATION, NON-ASBESTOS THERMAL INSULATING BLANKET, COLOR SELECTED BY ARCHITECT, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. UP TO 3 HOUR RATING. DIFFUSER AND DUCT SIZE AS SHOWN ON DRAWINGS.

(C) SUPPLY AIR GRILLE: "TITUS" MODEL JFA-L. RECTANGULAR GRILLE WITH 20 GAUGE STEEL FRAME CONSTRUCTION, INDIVIDUALLY ADJUSTABLE FRONT BLADES PARALLEL TO THE LONG DIMENSION, STEEL REAR BLADES WITH GANG OPERATION, OBD, FRAME FOR WALL OR CEILING APPLICATION, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. COLOR SELECTED BY ARCHITECT. DUCT SIZE AS SHOWN ON DRAWINGS.

(D) RETURN AIR GRILLE: "TITUS" MODEL 50F. FABRICATED ALUMINUM GRILLE WITH 1/2 IN. X 1/2 IN. X 1/2 IN. SQUARES, FRAME FOR CEILINGS INDICATED ON ARCHITECTURAL DRAWINGS, COLOR SELECTED BY ARCHITECT, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. DUCT SIZE AS INDICATED ON DRAWINGS.

(E) RETURN AIR GRILLE: "TITUS" MODEL PAR-FR. SQUARE FLUSH PERFORATED FACE AND FIRE RATED CEILING PANEL WITH STEEL CONSTRUCTION, ADJUSTABLE VANES, FRAME FOR CORRECT CEILING APPLICATION, NON-ASBESTOS THERMAL INSULATING BLANKET, COLOR SELECTED BY ARCHITECT, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. UP TO 3 HOUR RATING. DIFFUSER AND DUCT SIZE AS SHOWN ON DRAWINGS.

(F) SINGLE DEFLECTION RETURN GRILLE: "TITUS" MODEL 350ZFL. 0 DEGREE DEFLECTION, 3/4 INCH SPACING, ALUMINUM CONSTRUCTION, HORIZONTAL BLADES, FRAME FOR WALL APPLICATION, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. COLOR SELECTED BY ARCHITECT. DUCT SIZE AS INDICATED ON DRAWINGS.

MECHANICAL EQUIPMENT SCHEDULE

SYM DESCRIPTION

(1) THRU (8) PACKAGED ROOFTOP AIR CONDITIONING/HEATING UNIT: "CARRIER" SEE MODEL NUMBERS BELOW. NATURAL GAS, SINGLE STAGE HEATING, SINGLE STAGE ELECTRIC COOLING, ALUMINIZED STEEL HEAT EXCHANGER, DIRECT DRIVEN WITH MOTOR, DIRECT SPARK IGNITION PILOT, INDOOR FAN TIME-DELAY RELAY, GAS VALVE, MODULAR BURNER SECTION, ORIFICE FOR 5050 FT. ASL, INDUCED DRAFT COMBUSTION, COMBUSTION SECTION VIEW PORT, REMOTE SENSING OF PILOT FLAME, HEATING SAFETY CONTROLS (LIMIT SWITCHES, CENTRIFUGAL SWITCH, ROLL OUT SWITCH), STAGGERED COPPER TUBE WITH BONDED ALUMINUM FIN COOLING COILS, LOW AMBIENT TEMP. CONTROLS, RECYCLE TIMER TO PREVENT SHORT CYCLING, LOW LEAK ENTHALPY ECONOMIZER PACKAGE INCLUDING MOTORIZED DAMPERS AND BAROMETRIC RELIEF AIR ARRANGEMENT, ENTHALPY SENSOR, 2 IN. THROW-AWAY FILTERS, FILTER RACK, FLEXIBLE DUCT CONNECTIONS, HAIL GUARD, VIBRATION ISOLATORS FOR MOTOR, FAN CONTROL, MOTOR STARTER, RELAYS, SWITCHES, TRANSFORMERS, FUSES, UNIT MOUNTED DISCONNECT, 14 IN. FACTORY ROOF CURB, POWER OUTLET, CONTROLLER EQUIPMENT, SUPPLY AIR SMOKE DETECTOR PER CODE ON UNITS OVER 2000 CFM, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. MINIMUM SEER RATING 15 AND MINIMUM EER RATING 12. ELEC: 208V/3PH/60HZ.

	"CARRIER" SYM MODEL NO.	CLNG INPUT MBH	HTNG INPUT MBH	CFM	MIN. OA ESP CFM	FAN HP	OPER. WGHT. LBS.
(1)	48HCF04A	36.0	90.0	1500	0.6 80	3/4	800
(2)	48HCF05A	48.0	130.0	1800	0.6 100	1	900
(3)	48HCF05C	48.0	130.0	2000	0.6 100	1-1/2	900
(4)	48HCF05C	48.0	130.0	2000	0.6 100	1-1/2	900
(5)	48HCF05C	48.0	130.0	2000	0.6 120	1-1/2	900
(6)	48HCF06C	60.0	130.0	2000	0.6 400	1-1/2	900
(7)	48HCF06C	60.0	130.0	2100	0.6 130	1-1/2	900
(8)	48HCF06C	60.0	130.0	2100	0.6 180	1-1/2	900

	COMP. SYM RLA	LRA	OFM FLA	IFM FLA	COND HP	HACR MCA	DISCONNECT BRK LRA
(1)	10.4	73.0	1.0	4.9	1/8	24.0 30	116
(2)	13.7	83.0	1.4	4.9	1/4	29.0 40	127
(3)	13.7	83.0	1.4	4.9	1/4	29.0 40	127
(4)	13.7	83.0	1.4	4.9	1/4	29.0 40	127
(5)	13.7	83.0	1.4	4.9	1/4	29.0 40	127
(6)	15.9	110.0	1.4	2.8	1/4	35.0 50	190
(7)	15.9	110.0	1.4	2.8	1/4	35.0 50	190
(8)	15.9	110.0	1.4	2.8	1/4	35.0 50	190

(9) MINI SPLIT SYSTEM: MULTI-ZONE "MRCOOL" OLYMPUS SEE MODEL NUMBERS BELOW. ENERGY EFFICIENT INDOOR WALL MOUNTED AIR HANDLERS WITH WIFI SMART KIT AND OUTDOOR HEAT PUMP DUCTLESS SYSTEM UNIT WITH MICROPROCESSOR CONTROLLED OPERATION, WIRELESS REMOTE CONTROLS, SELF-DIAGNOSING FUNCTION, DRY MODE, THREE FAN SPEEDS AND AUTOMATIC FAN OPERATION, AUTOMATIC HEATING AND COOLING CHANGEOVER, LOW AMBIENT CONTROL DOWN TO 5 DEG. F., SLEEP MODE, TURBO MODE, 24-HOUR CLOCK WITH ON/OFF PROGRAM TIMER, AIR FILTERS, AUTO LOUVER, DRAIN AND ACCESSORIES, ELECTRIC EXPANSION VALVE, R-410A REFRIGERANT, REFRIGERANT PIPING AND PIPING INSULATION, CRANKCASE HEATER, BASE PAN HEATER ON OUTDOOR UNIT, LOW VOLTAGE CONTROLS, CONDENSER HIGH TEMPERATURE PROTECTION, REFRIGERANT LEAK DETECTION, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. INSTALL PER MANUFACTURERS SPECIFICATIONS. 25 LBS INDOOR UNIT, 115 LBS OUTDOOR UNIT.
ELEC: 208-230V/1PH/60HZ (INDOOR AND OUTDOOR UNITS)
ELEC: INDOOR: 9 AMPS DISCONNECT, 15 AMPS BREAKER.
OUTDOOR: 18 AMPS DISCONNECT, 25 AMPS BREAKER.

SYM	QTY	INDOOR MODELS	QTY	OUTDOOR MODEL	COOL/CAP MBH	HEAT/CAP MBH	SEER
(9)	2	0-09-HP-WMAH-230A	1	MULTI2-18HP230V1	18	20	22.5

(10) THRU (12) EXHAUSTER: "GREENHECK" SEE MODEL NUMBERS BELOW. PREMIUM CEILING EXHAUSTER COMPLETE WITH DISCONNECT, BACKDRAFT DAMPER, ROOF OR WALL CAP, BIRDSCREEN, MOUNTING BRACKETS, ALUMINUM CEILING GRILLE, FAN, MOTOR WITH BUILT-IN THERMAL OVERLOAD PROTECTION, SWITCH OR TIMECLOCK CONTROLS, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. ELEC: 115V/1PH/60HZ.

SYM	MODEL NUMBER	CFM	ESP	RPM	MAX WATTS	AMPS	WEIGHT LBS.	CONTROL
(10)	SP-A90	80	0.25	870	16.9	0.14	15	WALL SWITCH
(11)	SP-A125	109	0.25	1010	23.0	0.19	20	WALL SWITCH
(12)	SP-A190	180	0.25	1400	54.2	0.45	20	TIMECLOCK



MARGARET G. BACK
NEW MEXICO
1978
REGISTERED PROFESSIONAL ENGINEER
Margaret G. Back
11-11-20

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**UNION COUNTY OFFICE
REMODEL**

**200 COURT STREET
CLAYTON, NM**

REVISED: 2/17/20

PROJECT #: 19021

DESIGNED BY: MGB

DRAFTED BY: MGB

DATE: 1/11/20

SCALE: AS NOTED

SHEET TITLE:

**MECHANICAL EQUIPMENT
SCHEDULE**

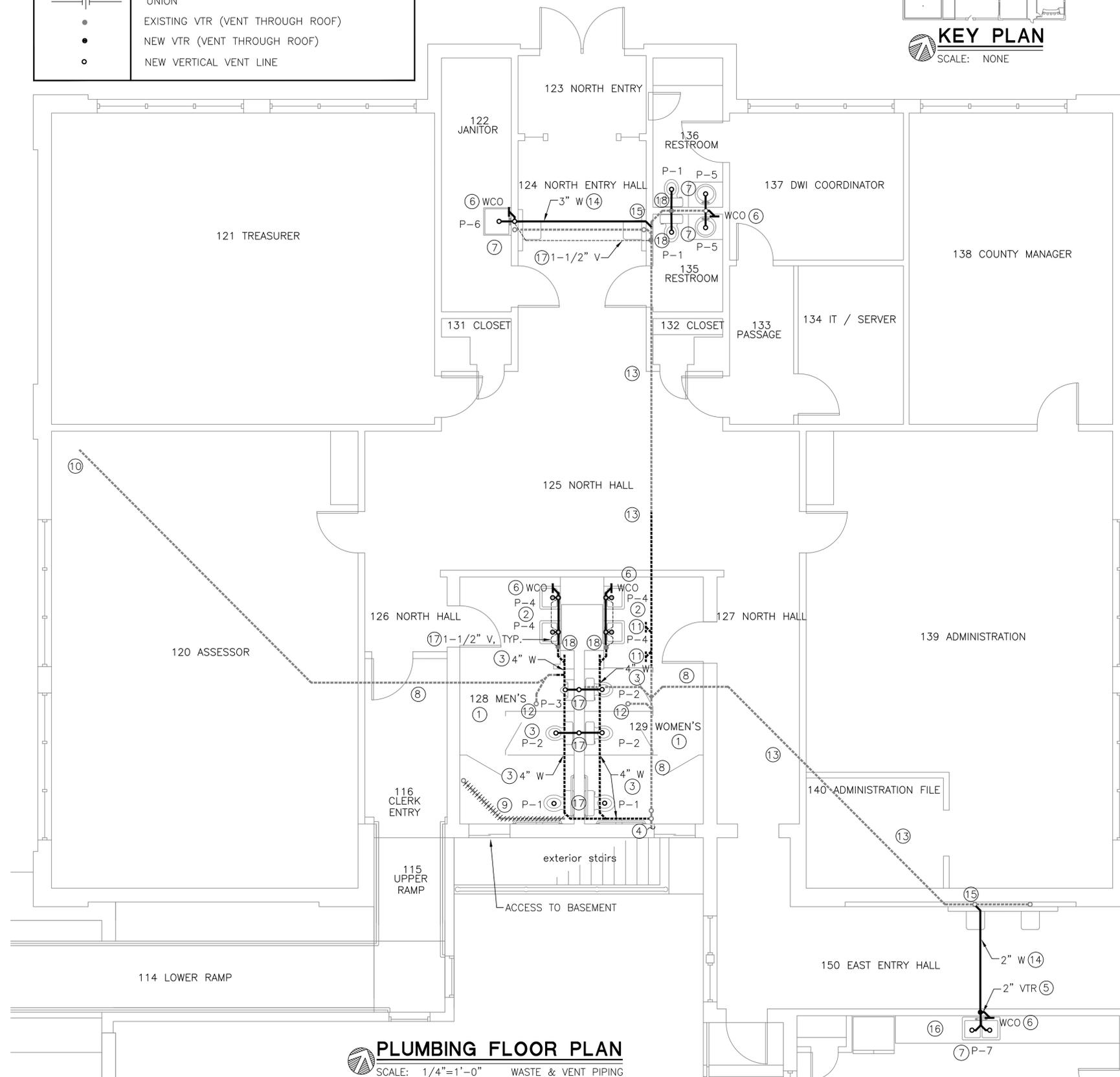
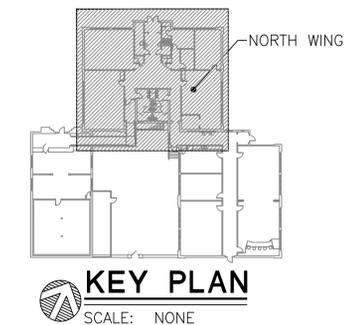
SHEET:

M-5

PLUMBING KEYED NOTES

- ① WASTE AND VENT PIPING INDICATED ON THIS PLAN IS A COMBINATION OF PIPING INSTALLED WITHIN THE BASEMENT AND WITHIN THE MAIN FLOOR LEVEL. CONTRACTOR SHALL FIELD VERIFY EXISTING LOCATIONS OF ALL PLUMBING PIPING, DISCONNECT AND REMOVE PIPING WHERE INDICATED, AND INSTALL NEW PIPING WHERE INDICATED. SEE "PLUMBING GENERAL NOTES" FOR ADDITIONAL SCOPE OF WORK AND COORDINATE THIS WORK WITH ARCHITECT. ALL PIPING SHALL BE SLOPED TO PROPERLY DRAIN PER CODE REQUIREMENTS. ALL REUSED EXISTING PIPING SHALL BE RESEALED AND CLEANED WHERE PAST LEAKS ARE NOTICEABLE OR WHERE PIPING IS NOT IN GOOD WORKING ORDER (OR PIPING REPLACED IF NECESSARY - EVEN IF NOT INDICATED ON DRAWINGS).
- ② CONTRACTOR SHALL PROVIDE AND INSTALL EXISTING RESTROOM LAVATORIES (TYPICAL 4) PER NEW LAYOUT INDICATED ON THIS DRAWING, PER ARCHITECT DRAWINGS, AND PER CURRENT CODE REQUIREMENTS. CONTRACTOR SHALL PROVIDE AND INSTALL NEW FAUCETS, NEW GRID DRAINS, NEW P-TRAP PIPING, NEW P-TRAP WRAPS, AND NEW WALL CLEANOUTS. CONTRACTOR SHALL CLEAN EXISTING LAVATORIES AND COORDINATE WITH ARCHITECTURAL DRAWINGS FOR DEMOLITION SCOPE OF WORK.
- ③ CONTRACTOR SHALL PROVIDE AND INSTALL NEW PLUMBING FIXTURES INDICATED ON DRAWINGS AND PLUMBING FIXTURE SCHEDULE PER MANUFACTURERS SPECIFICATIONS AND PER CODE REQUIREMENTS. CONNECT NEW WASTE PIPING TO PLUMBING FIXTURES AND THEN ROUTE PIPING BELOW FLOOR. CONTRACTOR SHALL DISCONNECT, REMOVE, AND REPLACE ENTIRE SECTION OF 4 IN. CAST IRON WASTE PIPING LOCATED WITHIN BASEMENT BELOW THE WATER CLOSETS AND URINAL TO THE POINT WHERE THE EXISTING WASTE PIPING EXITS THE BASEMENT. SLOPE WASTE PIPING AT 1/4 IN. PER FOOT AND CONFIRM ALL INVERTS PRIOR TO ORDERING MATERIALS. PROVIDE AND INSTALL NEW PIPING SUPPORTS PER CODE REQUIREMENTS AND SEE "PIPING HANGER DETAIL". AVOID EXISTING STRUCTURAL BARRICADES, ELECTRICAL ITEMS, AND FIRE PROTECTION ITEMS. COORDINATE THIS WORK WITH ARCHITECT AND REROUTE EXISTING PLUMBING PIPING ONLY AS NECESSARY.
- ④ LOCATION WHERE EXISTING WASTE PIPING EXITS BASEMENT. INDICATED FOR CLARIFICATION.
- ⑤ ROUTE NEW VENT PIPING UP IN WALL, THRU ROOF, AND SEAL WEATHER-TIGHT. OFFSET TO AVOID STRUCTURAL BARRIERS. SEE "VENT THRU ROOF DETAIL" FOR ADDITIONAL SCOPE OF WORK.
- ⑥ PROVIDE AND INSTALL WALL CLEANOUTS IN LOCATIONS INDICATED AND WHERE REQUIRED PER CODE. SEE "WALL CLEANOUT DETAIL" FOR ADDITIONAL SCOPE OF WORK. SEE "PLUMBING GENERAL NOTES" FOR ADDITIONAL LOCATIONS.
- ⑦ PROVIDE AND INSTALL NEW PLUMBING FIXTURES PER MANUFACTURERS SPECIFICATIONS AND PER CURRENT CODE REQUIREMENTS. CONNECT NEW WASTE AND VENT PIPING INTO EXISTING WASTE AND VENT PIPING. TYPICAL FOR ALL PLUMBING FIXTURES UNLESS INDICATED OTHERWISE. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR DEMOLITION WORK.
- ⑧ EXISTING PVC WASTE PIPING ROUTED WITHIN BASEMENT. CONTRACTOR SHALL VERIFY CONDITION OF PIPING AND PIPING JOINTS AND RESEAL IF NECESSARY. INDICATED FOR CLARIFICATION.
- ⑨ DISCONNECT AND REMOVE OLD GALVANIZED WASTE PIPING AND ACCESSORIES ROUTED TO OLD URINALS.
- ⑩ CUT AND CAP EXISTING PVC WASTE PIPING LOCATED WITHIN CRAWL SPACE IN THIS AREA. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR DEMOLITION SCOPE OF WORK.
- ⑪ LOCATION OF EXISTING CAST IRON WASTE PIPING CLEANOUTS. INDICATED FOR CLARIFICATION.
- ⑫ LOCATION OF EXISTING PVC WASTE PIPING CONNECTING TO RESTROOM EXISTING FLOOR DRAINS. CONTRACTOR SHALL MODIFY FLOOR DRAINS (OR REPLACE FLOOR DRAINS IF NECESSARY INCLUDING WATER TRAP PRIMER CONNECTIONS) TO ACCOMMODATE NEW FLOOR CONSTRUCTION IN RESTROOMS AND COORDINATE THIS SCOPE OF WORK WITH ARCHITECT. CONTRACTOR SHALL REPLACE EXISTING P-TRAPS LOCATED WITHIN BASEMENT AND SEAL ALL WASTE PIPING PER CURRENT CODE REQUIREMENTS. INCLUDE TRAP PRIMER(S) AND WATER PIPE CONNECTIONS AS NECESSARY.
- ⑬ ESTIMATED LOCATION OF EXISTING WASTE PIPING ROUTED WITHIN CRAWLSPACE. CONTRACTOR SHALL FIELD VERIFY CONDITION OF EXISTING WASTE PIPING AND PIPING MATERIAL AND REPLACE IF NECESSARY. ALL WASTE PIPING SHALL BE SLOPED TO PROPERLY DRAIN.
- ⑭ ROUTE NEW PVC WASTE PIPING BELOW WITHIN CRAWL SPACE PER LAYOUT INDICATED. SUPPORT NEW PIPING PER CODE REQUIREMENTS AND SEE "PIPE HANGER DETAIL" FOR ADDITIONAL DETAILS.
- ⑮ CONTRACTOR SHALL CONNECT NEW WASTE PIPING INTO EXISTING WASTE PIPING AT THIS AREA. SLOPE AND SUPPORT ALL PIPING PER CODE REQUIREMENTS.
- ⑯ CONTRACTOR SHALL PROVIDE AND INSTALL A STUB-OUT WASTE PIPE CAPPED FOR FUTURE DISHWASHER CONNECTION IN THIS AREA.
- ⑰ CONTRACTOR SHALL PROVIDE NEW VENT PIPING CONNECTED TO PLUMBING FIXTURES INTO CLOSEST EXISTING VENT PIPING. ROUTE NEW PIPING WITHIN WALL OR ABOVE CEILING. SLOPE AND SUPPORT NEW VENT PIPING PER CURRENT CODE REQUIREMENTS.
- ⑱ APPROXIMATE LOCATION OF EXISTING VENT THRU ROOF PIPING. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR NEW ROOF SCOPE OF WORK. CONTRACTOR SHALL EXTEND EXISTING VENT PIPING UP ABOVE NEW ROOF MATERIALS AND TERMINATE PER CURRENT CODE REQUIREMENTS. COORDINATE THIS SCOPE OF WORK WITH ARCHITECT.

LEGEND	
	EXISTING PVC SANITARY WASTE PIPING
	EXISTING CAST IRON SANITARY WASTE PIPING
	EXISTING SANITARY WASTE PIPING TO REMOVE
	NEW SANITARY WASTE PIPING
	VENT PIPING
	UNION
	EXISTING VTR (VENT THROUGH ROOF)
	NEW VTR (VENT THROUGH ROOF)
	NEW VERTICAL VENT LINE



PLUMBING FLOOR PLAN
SCALE: 1/4"=1'-0" WASTE & VENT PIPING



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**UNION COUNTY OFFICE
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200 COURT STREET
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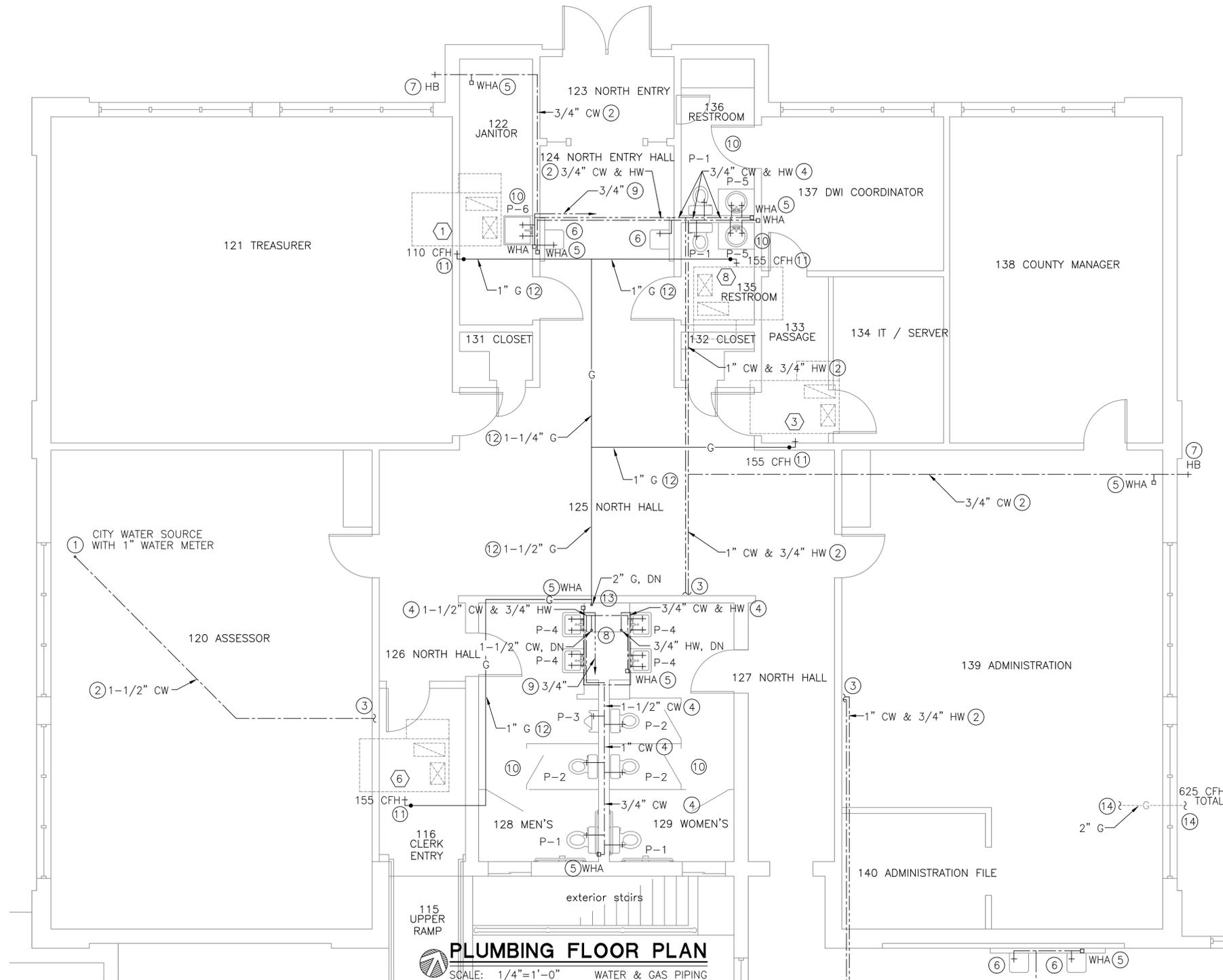
PROJECT #: 19021
DESIGNED BY: MGB
DRAFTED BY: MGB
DATE: 1/11/20
SCALE: 1/4" = 1'-0"
SHEET TITLE:
**PLUMBING FLOOR PLAN
WASTE & VENT PIPING
(NORTH WING)
& NOTES**
SHEET:
P-1

LEGEND	
	NEW DOMESTIC COLD WATER PIPING
	NEW DOMESTIC HOT WATER PIPING
	NEW DOMESTIC HOT WATER RETURN PIPING
	EXISTING NATURAL GAS PIPING
	NEW NATURAL GAS PIPING
	SHUT-OFF (BALL) VALVE
	UNION
	WATER HAMMER ARRESTOR



PLUMBING KEYED NOTES

- LOCATION OF EXISTING MAIN COLD WATER PIPING ENTERING FROM BELOW GRADE WITHIN CRAWLSPACE. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL OLD WATER PIPING AND PROVIDE AND INSTALL NEW DOMESTIC COLD WATER PIPING FROM THIS LOCATION THROUGHOUT THE ENTIRE BUILDING PER THE NEW PIPING LAYOUT INDICATED ON THIS SET OF PLUMBING CONSTRUCTION DRAWINGS. CONTRACTOR SHALL NOT INSTALL A BRANCH OFF LINE FOR ANY REASON UNTIL AFTER THE NEW BACKFLOW PREVENTER (BFP) INSTALLED WITHIN THE BASEMENT. CONTRACTOR SHALL PROVIDE NEW PIPE SUPPORTS TO MEET CURRENT CODE REQUIREMENTS AND PROVIDE AND INSTALL PIPING INSULATION AROUND ALL NEW WATER PIPING LOCATED WITHIN THE CRAWL SPACES AND WITHIN CONCEALED AND UNHEATED AREAS PER CODE. PIPING INSULATION SHALL BE RATED AS IF PIPING (LOCATED IN CRAWL SPACE) IS EXPOSED TO OUTSIDE CONDITIONS PER CURRENT NM ENERGY CODE REQUIREMENTS.
- ROUTE NEW INSULATED DOMESTIC WATER PIPING WITHIN CRAWL SPACE PER LAYOUT INDICATED. SEE "PLUMBING GENERAL NOTES" AND "PIPING HANGER DETAIL" FOR ADDITIONAL SCOPE OF WORK. AVOID EXISTING PIPING, ELECTRICAL CONDUIT AND WIRING, MECHANICAL EQUIPMENT AND DUCTWORK, AND STRUCTURAL BARRIERS.
- ROUTE INSULATED NEW WATER PIPING WITHIN CRAWL SPACE TO THIS LOCATION. SEE "BASEMENT FLOOR PLAN" FOR CONTINUATION OF WATER PIPING LAYOUT, NEW BACKFLOW PREVENTER (BFP) LOCATION, AND ADDITIONAL SCOPE OF WORK.
- ROUTE INSULATED NEW WATER PIPING WITHIN WALLS PER LAYOUT INDICATED AND CONNECT TO INDIVIDUAL PLUMBING FIXTURES PER MANUFACTURERS SPECIFICATIONS. SUPPORT PIPING PER CODE REQUIREMENTS.
- PROVIDE AND INSTALL WATER HAMMER ARRESTERS (WHA) AT THE END OF ALL WATER PIPING RUNS TO SERVE AS SHOCK ABSORBERS.
- PROVIDE AND INSTALL NEW INSULATED WATER CONNECTION TO EXISTING DRINKING FOUNTAIN PER CODE REQUIREMENTS.
- PROVIDE AND INSTALL NEW INSULATED WATER CONNECTION TO NEW FROST PROOF HOSE BIBB (HB) PER MANUFACTURERS SPECIFICATIONS.
- ROUTE NEW INSULATED HOT, COLD, AND HOT WATER RETURN WATER PIPING DOWN INTO BASEMENT IN LOCATIONS INDICATED. SEE "BASEMENT FLOOR PLAN" FOR CONTINUATION OF PIPING.
- PROVIDE AND INSTALL INSULATED HOT WATER RECIRCULATION PIPING BACK TO WATER HEATER LOCATION. SEE "WATER HEATER DETAIL" FOR ADDITIONAL SCOPE OF WORK AND INCLUDE BALL TYPE VALVES TO BALANCE WATER FLOW.
- PROVIDE AND INSTALL ALL PLUMBING FIXTURES PER MANUFACTURERS SPECIFICATIONS AND PER CURRENT CODE REQUIREMENTS. TYPICAL FOR ALL PLUMBING FIXTURES.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF ROOFTOP UNIT MOUNTED ON ROOF. CONTRACTOR SHALL PROVIDE AND INSTALL GAS COCK, FLEXIBLE CONNECTION, UNION, AND DRIP LEG PRIOR TO CONNECTING GAS PIPING TO NEW ROOFTOP UNIT PER CODE REQUIREMENTS. INCLUDE GAS PIPE SUPPORT AT UNIT LOCATION. SEE DRAWINGS FOR CFH REQUIREMENTS. TYPICAL FOR ALL ROOFTOP UNITS.
- ROUTE NEW GAS PIPING ON ROOF PER LAYOUT INDICATED AND SECURE PIPING TO ROOF PER "PIPE SUPPORT ON ROOF DETAIL" AND CURRENT CODE REQUIREMENTS. TYPICAL FOR ALL GAS PIPING UNLESS INDICATED OTHERWISE. PAINT ALL EXPOSED GAS PIPING PER ARCHITECTS SPECIFICATIONS.
- ROUTE NEW GAS PIPING DOWN THRU ROOF, THRU THE MAIN FLOOR LEVEL, AND DOWN INTO THE BASEMENT. PROVIDE AND INSTALL NEW SHUT-OFF VALVE AND SUPPORT PIPING PER CODE REQUIREMENTS. SEE "BASEMENT FLOOR PLAN" FOR CONTINUATION OF GAS PIPING. PRESSURE TEST ENTIRE GAS PIPING SYSTEM ONCE INSTALLATION IS COMPLETE PER CODE REQUIREMENTS TO BE SURE NO LEAKS EXIST. PRESSURE TEST ALL NEW AND EXISTING GAS PIPING ABOVE GRADE INDEPENDENT FROM EXISTING GAS PIPING ROUTED BELOW GRADE. REPAIR OR REPLACE ALL GAS PIPING OR FITTINGS WITH LEAKS FOUND ABOVE GRADE LEVEL AND TEST AGAIN. REPORT ANY LEAKS IN EXISTING GAS PIPING ROUTED BELOW GRADE TO ARCHITECT.
- LOCATION OF EXISTING GAS PIPING WITHIN CRAWL SPACE AND EXITING BUILDING. SEE DRAWING FOR NEW CFH LOAD TOTAL ON THIS BRANCH OF PIPE AND SEE "NATURAL GAS TABLE." EXISTING GAS PIPING INDICATED FOR CLARIFICATION PURPOSES.



SEE SHEET P-3 FOR CONTINUATION OF PIPING



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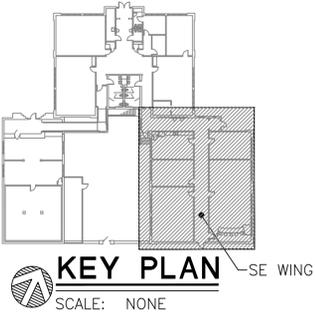
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UNION COUNTY OFFICE REMODEL
200 COURT STREET
CLAYTON, NM

PROJECT #: 19021
DESIGNED BY: MGB
DRAFTED BY: MGB
DATE: 1/11/20
SCALE: 1/4" = 1'-0"
SHEET TITLE:
PLUMBING FLOOR PLAN
WATER & GAS PIPING
(NORTH WING)
& NOTES

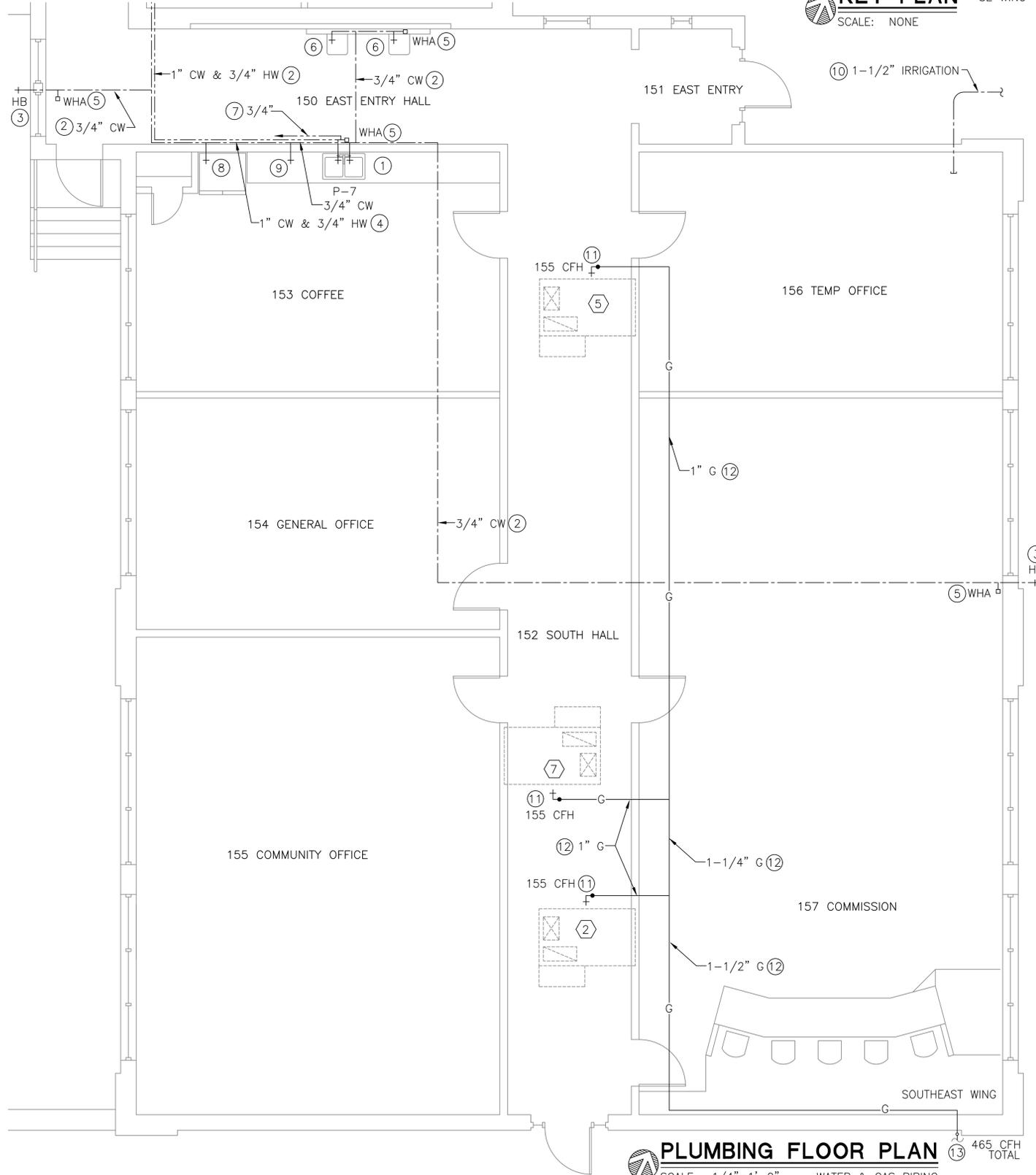
SHEET:
P-2

LEGEND	
-----	NEW DOMESTIC COLD WATER PIPING
-----	NEW DOMESTIC HOT WATER PIPING
-----	NEW DOMESTIC HOT WATER RETURN PIPING
-----G-----	EXISTING NATURAL GAS PIPING
-----G-----	NEW NATURAL GAS PIPING
○	SHUT-OFF (BALL) VALVE
— — —	UNION
WHA □	WATER HAMMER ARRESTOR



PLUMBING KEYED NOTES

- ① PROVIDE AND INSTALL ALL PLUMBING FIXTURES PER MANUFACTURERS SPECIFICATIONS AND PER CURRENT CODE REQUIREMENTS. TYPICAL FOR ALL PLUMBING FIXTURES.
- ② ROUTE NEW INSULATED DOMESTIC WATER PIPING WITHIN CRAWL SPACE PER LAYOUT INDICATED. SEE "PLUMBING GENERAL NOTES" AND "PIPING HANGER DETAIL" FOR ADDITIONAL SCOPE OF WORK. AVOID EXISTING PIPING, ELECTRICAL CONDUIT AND WIRING, MECHANICAL EQUIPMENT AND DUCTWORK, AND STRUCTURAL BARRIERS.
- ③ PROVIDE AND INSTALL NEW INSULATED WATER CONNECTION TO NEW FROST PROOF HOSE BIBB (HB) PER MANUFACTURERS SPECIFICATIONS.
- ④ ROUTE INSULATED NEW WATER PIPING WITHIN WALLS PER LAYOUT INDICATED AND CONNECT TO INDIVIDUAL PLUMBING FIXTURES PER MANUFACTURERS SPECIFICATIONS. SUPPORT PIPING PER CODE REQUIREMENTS.
- ⑤ PROVIDE AND INSTALL WATER HAMMER ARRESTERS (WHA) AT THE END OF ALL WATER PIPING RUNS TO SERVE AS SHOCK ABSORBERS.
- ⑥ PROVIDE AND INSTALL NEW INSULATED WATER CONNECTION TO EXISTING DRINKING FOUNTAIN PER CODE REQUIREMENTS.
- ⑦ PROVIDE AND INSTALL INSULATED HOT WATER RECIRCULATION PIPING BACK TO WATER HEATER LOCATION. SEE "WATER HEATER DETAIL" FOR ADDITIONAL SCOPE OF WORK AND INCLUDE BALL TYPE VALVES TO BALANCE WATER FLOW.
- ⑧ PROVIDE AND INSTALL WATER PIPING CONNECTION TO REFRIGERATOR INCLUDING BACKFLOW DEVICE PER MANUFACTURERS SPECIFICATIONS AND PER CODE REQUIREMENTS.
- ⑨ PROVIDE AND INSTALL WATER PIPING STUB-OUT WITH SHUT-OFF VALVE CAPPED FOR FUTURE DISHWASHER IN THIS LOCATION. COORDINATE WITH ARCHITECT THIS SCOPE OF WORK AND LOCATION OF FUTURE DISHWASHER.
- ⑩ PROVIDE AND INSTALL 1-1/2 IN. IRRIGATION PIPING STARTING WITHIN CRAWL SPACE AND EXITING BUILDING IN THIS AREA. TOTAL PIPE LENGTH IS APPROXIMATELY 20 FEET. COORDINATE ROUTING OF THIS PIPING WITH ARCHITECT FOR FUTURE USE. CUT AND CAP ENDS OF PIPING AND LABEL BOTH ENDS FOR FUTURE IRRIGATION SYSTEM. SLOPE PIPING TO DRAIN AWAY FROM BUILDING.
- ⑪ COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF ROOFTOP UNIT MOUNTED ON ROOF. CONTRACTOR SHALL PROVIDE AND INSTALL GAS COCK, FLEXIBLE CONNECTION, UNION, AND DRIP LEG PRIOR TO CONNECTING GAS PIPING TO NEW ROOFTOP UNIT PER CODE REQUIREMENTS. INCLUDE GAS PIPE SUPPORT AT UNIT LOCATION. SEE DRAWINGS FOR CFH REQUIREMENTS. TYPICAL FOR ALL ROOFTOP UNITS.
- ⑫ ROUTE NEW GAS PIPING ON ROOF PER LAYOUT INDICATED AND SECURE PIPING TO ROOF PER "PIPE SUPPORT ON ROOF DETAIL" AND CURRENT CODE REQUIREMENTS. TYPICAL FOR ALL GAS PIPING UNLESS INDICATED OTHERWISE. PAINT ALL EXPOSED GAS PIPING PER ARCHITECTS SPECIFICATIONS.
- ⑬ ROUTE NEW GAS PIPING OVER EXISTING PARAPET, DOWN SECURED TO EXTERIOR WALL, AND DOWN BELOW GRADE. PROVIDE AND INSTALL MAIN SHUT-OFF VALVE AND CONNECT THIS NEW GAS PIPING TO THE NEAREST EXISTING GAS PIPING. SUPPORT PIPING PER CODE REQUIREMENTS. PRESSURE TEST ENTIRE GAS PIPING SYSTEM ONCE INSTALLATION IS COMPLETE PER CODE REQUIREMENTS TO BE SURE NO LEAKS EXIST. PRESSURE TEST ALL NEW AND EXISTING GAS PIPING ABOVE GRADE INDEPENDENT FROM EXISTING GAS PIPING ROUTED BELOW GRADE. REPAIR OR REPLACE ALL GAS PIPING OR FITTINGS WITH LEAKS FOUND ABOVE GRADE LEVEL AND TEST AGAIN. REPORT ANY LEAKS IN EXISTING GAS PIPING ROUTED BELOW GRADE TO ARCHITECT. SEE DRAWING FOR NEW CFH LOAD TOTAL ON THIS BRANCH OF PIPE AND SEE "NATURAL GAS TABLE."



PLUMBING FLOOR PLAN 465 CFH TOTAL
SCALE: 1/4"=1'-0" WATER & GAS PIPING



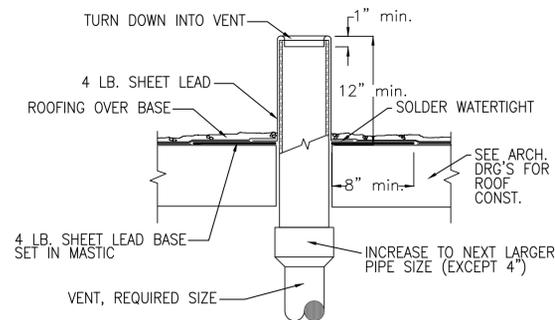
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**UNION COUNTY OFFICE
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200 COURT STREET
CLAYTON, NM

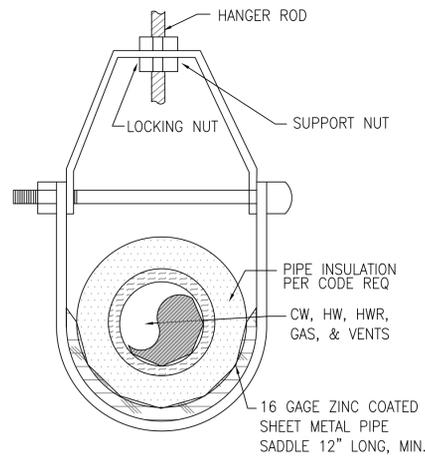
REVISED:	3.18.20
PROJECT #:	19021
DESIGNED BY:	MGB
DRAFTED BY:	MGB
DATE:	1/11/20
SCALE:	1/4" = 1'-0"
SHEET TITLE: PLUMBING FLOOR PLAN WATER & GAS PIPING (SE WING) & NOTES	

SHEET:
P-3



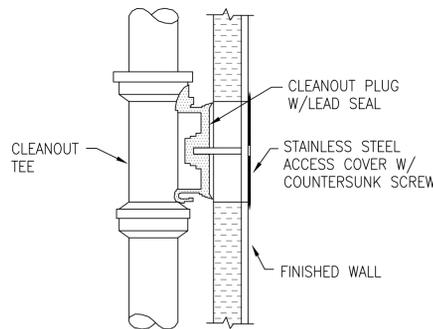
VENT THRU ROOF DETAIL

SCALE: NONE



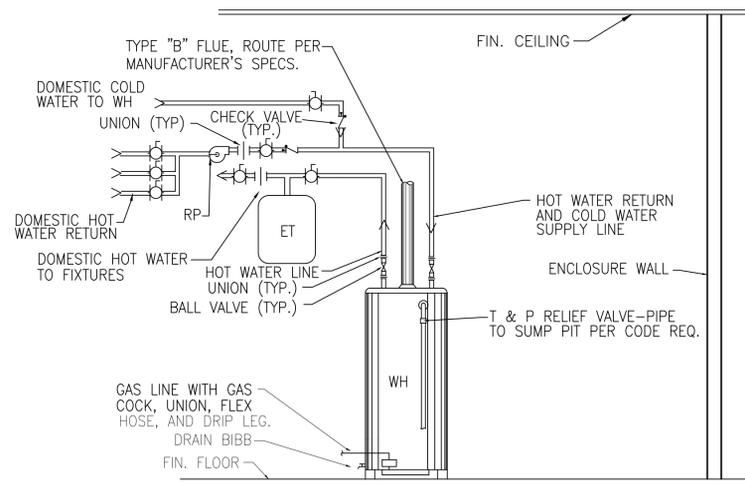
PIPING HANGER DETAIL

SCALE: NONE



WALL CLEANOUT DETAIL

SCALE: NONE



WATER HEATER DETAIL

SCALE: NONE

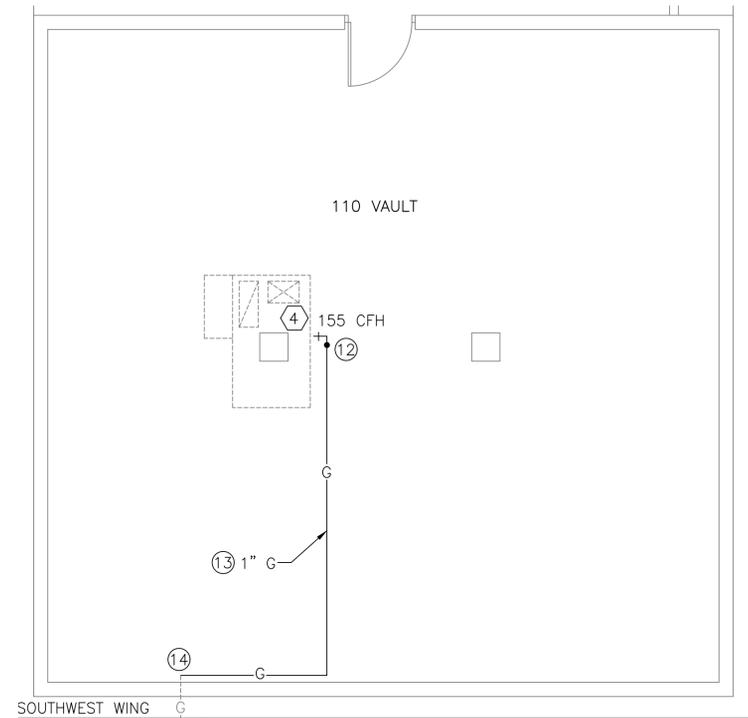
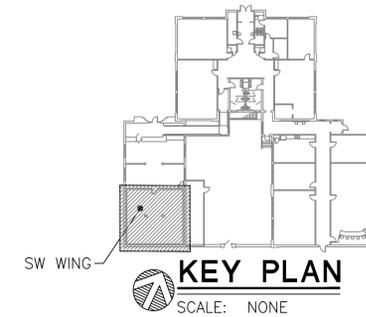
NATURAL GAS TABLE		
LOCATION	CFH SUBTOTAL	GAS PIPE SIZE
SOUTHWEST WING	155 CFH	1 IN
NEW STORAGE BLDG	90 CFH	3/4 IN
EXISTING PORTABLE	190 CFH	1 IN
SOUTHEAST WING	465 CFH	1-1/2 IN
NORTH WING	625 CFH	2 IN
TOTAL CFH LOAD FOR SITE	1525 CFH TOTAL	

2015 UPC AT LESS THAN 2 PSI WITH 3.0 IN WC PRESSURE DROP

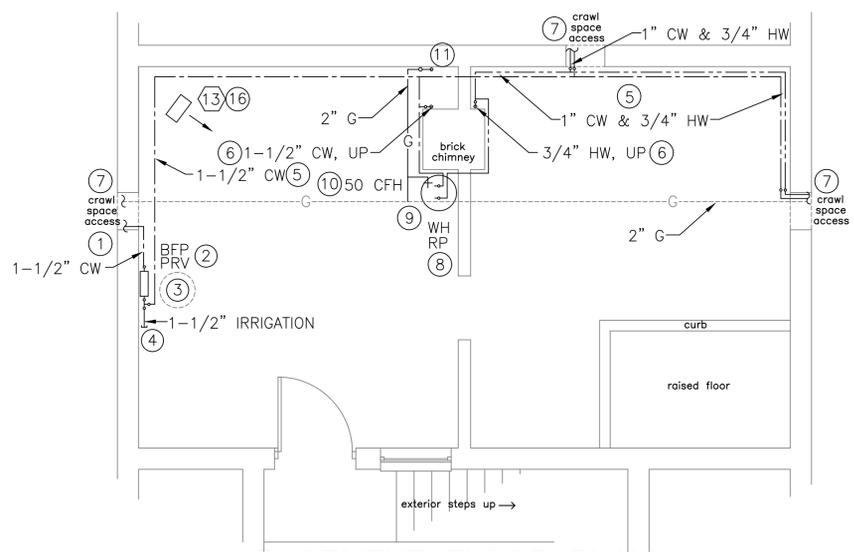
PLUMBING KEYED NOTES

- ROUTE NEW INSULATED MAIN COLD WATER PIPING INTO BASEMENT FROM CRAWL SPACE. SEE "PLUMBING FLOOR PLAN - WATER & GAS PIPING" NORTH WING FOR CONTINUATION OF PIPING WITHIN CRAWL SPACE.
- ROUTE NEW MAIN INSULATED COLD WATER PIPING TO BFP (BACKFLOW PREVENTER) PRIOR TO ANY BRANCH TAKE OFFS. ROUTE BFP DRAIN DOWN TO EXISTING SUMP PUMP PIT WITH AIR GAP IN COMPLIANCE WITH CURRENT CODE REQUIREMENTS. PROVIDE AND INSTALL PRV (PRESSURE REDUCING VALVE) ONLY IF CITY WATER SYSTEM HAS PRESSURE SPIKES. COORDINATE THIS SCOPE OF WORK WITH THE ARCHITECT. SEE "BACKFLOW PREVENTER DETAIL" FOR ADDITIONAL SCOPE OF WORK.
- LOCATION OF EXISTING SUMP PUMP SYSTEM. CONTRACTOR SHALL PROVIDE AND INSTALL ALL ACCESSORIES NECESSARY AND MAKE ADJUSTMENTS TO EXISTING SUMP PUMP SYSTEM TO PROPERLY OPERATE.
- PROVIDE AND INSTALL 1-1/2 IN. IRRIGATION PIPING STUB OUT IN THIS LOCATION AND CAP FOR FUTURE USE. INCLUDE SHUT-OFF VALVE AND LABEL FOR FUTURE IRRIGATION. IRRIGATION SHALL ONLY BE USED WHEN BUILDING IS UNOCCUPIED. SEE "BACKFLOW PREVENTER DETAIL" FOR ADDITIONAL SCOPE OF WORK.
- ROUTE NEW INSULATED DOMESTIC WATER PIPING WITHIN BASEMENT PER LAYOUT INDICATED. SEE "PLUMBING GENERAL NOTES" AND "PIPING HANGER DETAIL" FOR ADDITIONAL SCOPE OF WORK. AVOID EXISTING PIPING, ELECTRICAL CONDUIT AND WIRING, MECHANICAL EQUIPMENT AND DUCTWORK, AND STRUCTURAL BARRIERS.
- ROUTE NEW INSULATED WATER PIPING UP TO MAIN RESTROOMS. PROVIDE AND INSTALL SHUT-OFF VALVES ON HOT AND COLD WATER PIPING PRIOR TO EXITING BASEMENT. SEE "PLUMBING FLOOR PLAN - WATER & GAS PIPING" NORTH WING FOR CONTINUATION OF PIPING. SECURE ALL PIPING PER CODE REQUIREMENTS.
- LOCATION IN BASEMENT FOR ACCESS TO CRAWL SPACES. ROUTE PIPING THRU THIS AREA AND SEE "PLUMBING FLOOR PLAN - WATER & GAS PIPING" NORTH WING FOR CONTINUATION OF PIPING.
- PROVIDE AND INSTALL NEW GAS FIRED WATER HEATER (WH) AND NEW RECIRCULATING PUMP (RP) IN THIS LOCATION PER MANUFACTURERS SPECIFICATIONS. SEE "WATER HEATER DETAIL" FOR ADDITIONAL SCOPE OF WORK. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS. INSULATE ALL WATER PIPING PER CURRENT ENERGY CODE REQUIREMENTS AS IF PIPING IS INSTALLED WITHIN AN UNHEATED SPACE. ROUTE AND CONNECT NEW DRAIN PIPING TO EXISTING DRAIN PIPING AND TERMINATE PER CURRENT CODE REQUIREMENTS. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW WATER HEATER FLUE PER CODE REQUIREMENTS AND SEAL ROOF PENETRATIONS WEATHER-TIGHT. SEE MECHANICAL CONSTRUCTION DRAWINGS FOR "FLUE THRU ROOF DETAIL" AND COORDINATE THIS SCOPE OF WORK WITH MECHANICAL CONTRACTOR. DISCONNECT AND REMOVE ALL OLD FLUES ROUTED UP EXISTING BRICK CHIMNEY AND SEAL ROOF WEATHER-TIGHT. COORDINATE THIS SCOPE OF WORK WITH ARCHITECT.
- ROUTE AND CONNECT NEW GAS PIPING TO EXISTING GAS PIPING IN THIS LOCATION AND PER CODE REQUIREMENTS. TEST ALL GAS PIPING PER CODE REQUIREMENTS AND AS PREVIOUSLY INDICATED.
- PROVIDE AND INSTALL NEW GAS PIPING CONNECTION TO NEW WATER HEATER IN THIS LOCATION PER CODE REQUIREMENTS. CONTRACTOR SHALL PROVIDE AND INSTALL NEW GAS COCK, FLEXIBLE CONNECTION, UNION, AND DRIP LEG PRIOR TO CONNECTING GAS PIPING TO WATER HEATER. SEE DRAWING FOR CFH REQUIREMENTS AND SUPPORT PIPING PER "PIPING HANGER DETAIL".
- ROUTE NEW GAS PIPING UP IN THIS LOCATION TO MAIN FLOOR LEVEL. SEE "PLUMBING FLOOR PLAN - WATER & GAS PIPING" NORTH WING FOR CONTINUATION OF PIPING AND SCOPE OF WORK.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF ROOFTOP UNIT MOUNTED ON ROOF. CONTRACTOR SHALL PROVIDE AND INSTALL GAS COCK, FLEXIBLE CONNECTION, UNION, AND DRIP LEG PRIOR TO CONNECTING GAS PIPING TO NEW ROOFTOP UNIT PER CODE REQUIREMENTS. INCLUDE GAS PIPE SUPPORT AT UNIT LOCATION. SEE DRAWINGS FOR CFH REQUIREMENTS. TYPICAL FOR ALL ROOFTOP UNITS.
- ROUTE NEW GAS PIPING ON ROOF PER LAYOUT INDICATED AND SECURE PIPING TO ROOF PER "PIPE SUPPORT ON ROOF DETAIL" AND CURRENT CODE REQUIREMENTS. TYPICAL FOR ALL GAS PIPING UNLESS INDICATED OTHERWISE. PAINT ALL EXPOSED GAS PIPING PER ARCHITECTS SPECIFICATIONS.
- ROUTE AND CONNECT NEW GAS PIPING TO EXISTING GAS PIPING IN THIS AREA ON ROOF. PRESSURE TEST ALL GAS PIPING AS PREVIOUSLY INDICATED. SECURE PIPING IN PLACE PER CURRENT CODE REQUIREMENTS.
- APPROXIMATE LOCATION OF EXISTING GAS PIPING ROUTED UP EXTERIOR WALL. INCLUDE NEW SHUT-OFF VALVE AND SEE DRAWINGS FOR NEW CFH TOTAL ON THIS BRANCH PIPE AND SEE "NATURAL GAS TABLE."
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRIC UNIT HEATER WITHIN BASEMENT IN THIS AREA PER MANUFACTURERS SPECIFICATIONS AND PER CODE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS.

LEGEND	
-----	NEW DOMESTIC COLD WATER PIPING
-----	NEW DOMESTIC HOT WATER PIPING
-----	NEW DOMESTIC HOT WATER RETURN PIPING
-----G-----	EXISTING NATURAL GAS PIPING
-----G-----	NEW NATURAL GAS PIPING
○ OR ○	SHUT-OFF (BALL) VALVE
-----	UNION
WHA □	WATER HAMMER ARRESTOR



PLUMBING ROOF PLAN
SCALE: 1/4" = 1'-0" GAS PIPING



BASEMENT FLOOR PLAN
SCALE: 1/4" = 1'-0" WATER & GAS PIPING

NOTE: NEW WATER HEATER SHALL USE EXISTING COMBUSTION AIR OPENINGS.



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200 COURT STREET
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REVISED: 3.18.20
PROJECT #: 19021
DESIGNED BY: MGB
DRAFTED BY: MGB
DATE: 1/11/20
SCALE: 1/4" = 1'-0"

SHEET TITLE:
**PLUMBING ROOF PLAN
GAS PIPING (SW WING),
BASEMENT FLOOR PLAN,
& DETAILS**

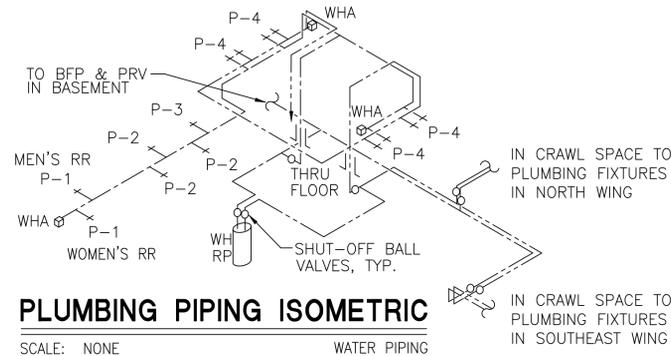
SHEET:
P-4

PLUMBING GENERAL NOTES

- COMPLETE ALL WORK IN FULL COMPLIANCE WITH THE IBC, UPC, UMC, NFPA, ADA, SBC, LIFE SAFETY CODE, AND ALL LOCAL CODES AND ORDINANCES. WHERE EVER THERE IS A CONDITIONAL SHALL APPLY.
- ROUTE PIPING AS NEAR AS POSSIBLE TO LAYOUT INDICATED ON DRAWINGS, BUT MAKE MINOR CHANGES IN ROUTING TO ACCOMMODATE SITE CONDITIONS. DO NOT UNDERTAKE MAJOR REROUTING OF PIPING WITHOUT WRITTEN APPROVAL FROM ENGINEER. CONTRACTOR IS RESPONSIBLE FOR ALL PIPING, ASSOCIATED FITTINGS, OFFSETS, REQUIRED TRANSITIONS, AND ASSOCIATED EQUIPMENT TO INSTALL A COMPLETE AND OPERATIONAL PLUMBING SYSTEM.
- CONTRACTOR IS RESPONSIBLE FOR COMPLETE LAYOUT AND INSTALLATION OF PLUMBING SYSTEMS INCLUDING ALL COORDINATION OF NEW AND EXISTING SERVICES, MECHANICAL AND ELECTRICAL EQUIPMENT, AND ANY OTHER EQUIPMENT THAT MAY REQUIRE COORDINATION EFFORTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL TEMPORARY UTILITY SHUT-OFF WITH OWNER ALL NECESSARY TRENCHING, BACKFILLING, CUTTING, PATCHING, REPAIRING, ETC. ASSOCIATED WITH THE INSTALLATION OF THE PLUMBING SYSTEMS INDICATED ON THE CONSTRUCTION DOCUMENTS.
- ALL CONTRACTORS ARE CAUTIONED TO VISIT THE SITE TO EVALUATE EXISTING CONDITIONS AND MAKE ALL NECESSARY INQUIRES TO DETERMINE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BIDS. NO SUBSEQUENT ALLOWANCE WILL BE MADE TO COMPENSATE FOR LACK OF PRE-BID INSPECTIONS BY THE SUCCESSFUL CONTRACTOR.
- ANY EXISTING UTILITY LINES ENCOUNTERED WHICH MAY INTERFERE WITH NEW CONSTRUCTION SHALL BE RELOCATED IF ACTIVE AND ABANDONED IF INACTIVE BY THIS CONTRACTOR UNDER THIS CONTRACT BY FIRST CONTACTING THE ARCHITECT OR ENGINEER FOR A RULING AS TO THEIR REMOVAL, RELOCATION, ETC. PRIOR TO THE START OF THIS WORK.
- VERIFY WASTE PIPING INVERTS PRIOR TO ROUTING ANY PIPING AND TOTALLY FAMILIARIZE SELF WITH ALL CONSTRAINTS AND LIMITATIONS OF WORK REQUIRED. NO COMPENSATION WILL BE MADE FOR CONTRACTORS FAILURE TO COORDINATE WORK WITH ARCHITECT AND GENERAL CONTRACTOR.
- PROVIDE AND INSTALL WALL CLEANOUTS AT ALL SINKS, LAVATORIES, AND URINALS.
- WASTE PIPING SHALL BE SCHEDULE 40 PVC DWV WITH ASTM STANDARD D256480 SOLVANT CEMENT JOINT CONNECTIONS. VENT PIPING SHALL BE SCHEDULE 40 PVC DWV ABOVE AND BELOW THE FLOOR AND BURIED BEYOND THE BUILDING. WIRE TRACE ALL PVC PIPING ROUTED BELOW GRADE PER CODE REQUIREMENTS.
- WATER PIPING SHALL BE COPPER MATERIALS INSTALLED ABOVE FLOOR AND WITHIN CRAWL SPACE PER CURRENT CODE REQUIREMENTS. ALL JOINTS SHALL BE MADE WITH 95/5 TIN/ANTIMONY OR SILVER SOLDER. NO LEAD SOLDER ALLOWED. ALL WATER PIPING SHALL BE INSULATED PER CURRENT ENERGY CODE REQUIREMENTS. PEX WATER PIPE, TUBING, AND FITTINGS MANUFACTURED TO RECOGNIZED STANDARDS AND IN COMPLIANCE WITH CURRENT UPC REQUIREMENTS MAY BE SUBSTITUTED FOR THE COPPER PIPING INSTALLED WITHIN CONCEALED AREAS ONLY AT THE OWNERS REQUEST. ALL PEX PIPING, IF SUBSTITUTED, SHALL BE INSTALLED AND SUPPORTED IN AN EXTREMELY NEAT MANNER WITHOUT SAGGING.
- PROVIDE AND INSTALL WATER HAMMER ARRESTORS AT THE END OF EACH DOMESTIC WATER PIPING RUN TO SERVE AS SHOCK ABSORBERS PER MANUFACTURERS SPECIFICATIONS.
- INSULATE ALL WATER PIPING IN ACCORDANCE WITH NEW MODEL ENERGY CODE AND UPC CODE REQUIREMENTS.
- INSTALL ISOLATION VALVES AND UNIONS AT ALL BRANCH TAKEOFFS. PROVIDE ACCESS PANELS TO ALL INACCESSIBLE PLUMBING EQUIPMENT TO INCLUDE BUT NOT LIMITED TO VALVES, CONTROL VALVES, ETC.
- INSULATE ALL COLD AND HOT WATER SUPPLY TUBING AND P-TRAPS AT HANDICAP LAVATORIES WITH "TRAP-WRAP" PRODUCTS OR APPROVED EQUAL AND INCLUDE ALL FITTINGS FOR A COMPLETE INSTALLATION.
- ALL NEW PLUMBING FIXTURES SPECIFIED BY ENGINEER OR OWNER. PROVIDED, INSTALLED, AND CONNECTED TO UTILITY PIPING BY PLUMBING CONTRACTOR PER CODE REQUIREMENTS.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR WASTE, VENT, AND WATER LINE SIZES FOR INDIVIDUAL FIXTURES.
- BURY UTILITY PIPING AT MINIMUM DEPTH INDICATED:
WATER PIPING 48 IN. (OR BELOW LOCAL FROST LEVEL)
WASTE PIPING 24 IN.
GAS PIPING 24 IN.
- PROVIDE AND INSTALL WIRE TRACING ON ALL PLUMBING UTILITY PIPING ROUTED BELOW GRADE. CONTRACTOR SHALL PROVIDE, INSTALL, AND CONNECT ALL UTILITY PIPING PER MANUFACTURER'S SPECIFICATIONS AND PER CODE REQUIREMENTS.
- PROVIDE AND INSTALL GAS COCKS, UNIONS, FLEXIBLE CONNECTIONS, AND DRIP LEGS AT ALL GAS BURNING EQUIPMENT. PROVIDE AND INSTALL GAS REGULATOR AND VENT PER CODE REQUIREMENTS.
- NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL ABOVE GRADE AND SCHEDULE 40 BLACK STEEL WRAPPED WITH SCOTCHWRAP OR POLYETHYLENE PIPING WITH NO FITTINGS WHEN BELOW GRADE AND WITH TRACE WIRE PER CODE REQUIREMENTS. PAINT ALL EXPOSED PIPING TO MATCH SURROUNDING CONDITIONS.
- PROVIDE DIGITAL COPIES OF SUBMITTAL CUTSHEETS CONCERNING PLUMBING FIXTURES INDICATED ON PLUMBING FIXTURE SCHEDULE FOR ENGINEERS REVIEW AND WRITTEN APPROVAL PRIOR TO ORDERING ANY FIXTURES. (1) ONE COPY SHALL BE A HARD COPY FOR ENGINEERS REVIEW.

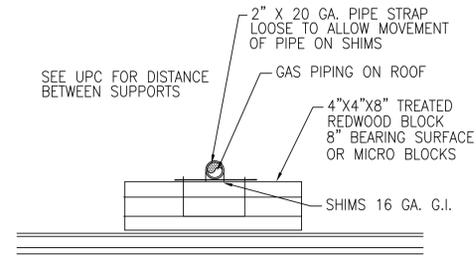
PLUMBING FIXTURE SCHEDULE, CONT.

SYM	DESCRIPTION
BFP	BACKFLOW PREVENTER: "WATTS" MODEL NO. LF009M2QT. A.S.S.E. NO. 1013 AND CSA B 64.4 COMPLIANCE, LEAD FREE REDUCED PRESSURE DUAL CHECK VALVE BACKFLOW PREVENTER WITH CAST COPPER SILICON ALLOY BODY CONSTRUCTION, STAINLESS STEEL INTERNAL PARTS, AIR GAP ACCESSORY AND PIPING, STRAINER, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. SIZE: 1-1/2 IN.
PRV	PRESSURE REDUCING VALVE: "WATTS" MODEL LFN55B. A.S.S.E. NO. 1003 COMPLIANCE, PRESSURE REDUCING VALVE WITH BRASS BODY CONSTRUCTION, THERMOPLASTIC SEAT AND CAGE, STAINLESS STEEL INTEGRAL STRAINER SCREEN, REINFORCED DIAPHRAGM, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. SIZE: 1-1/2 IN. (PROVIDE AND INSTALL ONLY IF NECESSARY)
TP	TRAP PRIMER: "ZURN" MODEL Z-1022. AUTOMATIC TRAP PRIMER, ALL BRONZE BODY WITH INTEGRAL VACUUM BREAKER, NON-LIMITING INTERNAL OPERATING ASSEMBLY WITH GASKETED BRONZE COVER, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION.
HB	FREEZELESS HOSE BIBB: "SMITH" MODEL 5619. FREEZELESS WALL HYDRANT WITH BRONZE CONSTRUCTION, STAINLESS STEEL FACE, INTEGRAL VACUUM BREAKER AND DUAL CHECK VALVE, AUTOMATIC DRAINING, 3/4 IN. INLET AND HOSE CONNECTION, T HANDLE KEY, ADJUSTABLE WALL CLAMP, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. CONFIRM WALL THICKNESS PRIOR TO ORDERING. CW = 3/4 IN.



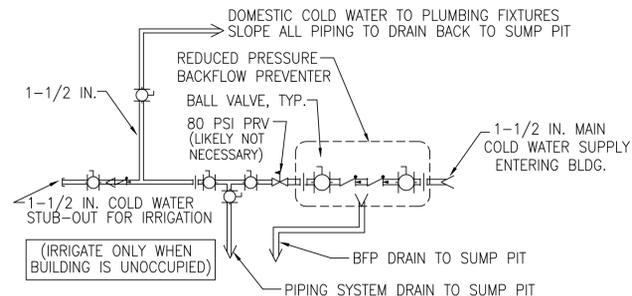
PLUMBING PIPING ISOMETRIC

SCALE: NONE WATER PIPING



PIPE SUPPORT ON ROOF

SCALE: NONE



BACKFLOW PREVENTER DETAIL

SCALE: NONE

PLUMBING FIXTURE SCHEDULE

SYM	DESCRIPTION
P-1	ADA TANK TYPE WATER CLOSET: "AMERICAN STANDARD" CADET RIGHT HEIGHT MODEL 270.AB.101. WATER-SAVING, 1.28 GPF, VITREOUS CHINA, ELONGATED BOWL, CADET FLUSHING SYSTEM, EVERCLEAN SURFACE, POWERWASH RIM, PLASTIC HEAVY DUTY SEAT WITH SLOW CLOSE COVER, FLUSH LEVER, BOLT CAPS, ANGLE STOP, VACUUM BREAKER, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. FIXTURE SHALL MEET ALL ADA REQUIREMENTS. WASTE = 3 IN., VENT = 2 IN., CW = 3/4 IN.
P-2	TANK TYPE WATER CLOSET: "AMERICAN STANDARD" CADET RIGHT HEIGHT MODEL 270.CAB.101. WATER-SAVING, 1.28 GPF, VITREOUS CHINA, ELONGATED BOWL, CADET FLUSHING SYSTEM, EVERCLEAN SURFACE, POWERWASH RIM, PLASTIC HEAVY DUTY SEAT WITH SLOW CLOSE COVER, FLUSH LEVER, BOLT CAPS, ANGLE STOP, VACUUM BREAKER, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE = 3 IN., VENT = 2 IN., CW = 3/4 IN.
P-3	ADA URINAL: "AMERICAN STANDARD" WASHBROOK MODEL 6590.501. WATER SAVING, VITREOUS CHINA WITH WASHOUT FLUSH ACTION, 3/4 IN. TOP SPUD INLET, 2 IN. OUTLET, WALL HANGERS, REMOVABLE BEEHIVE STRAINER, WATER SAVING VALVES, 0.5 GPF EXPOSED MANUAL FLUSH VALVE. INCLUDE ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. FIXTURE SHALL MEET ALL ADA REQUIREMENTS. WASTE = 2 IN., VENT = 1-1/2 IN., CW = 3/4 IN.
P-4	ADA COMPLIANT LAVATORY: REUSE EXISTING VITREOUS CHINA WALL MOUNTED TYPE LAVATORY AND CONCEALED ARM SUPPORTS. PROVIDE AND INSTALL NEW "RELIANT 3" MODEL 7385.003 FAUCET WITH ONE PIECE LEVER HANDLE AND GRID DRAIN LESS POP-UP HOLE, 0.5 GPM WITH VANDAL RESISTANT SPRAY, NEW P-TRAP AND INSULATED P-TRAP WRAP KIT, NEW WALL STOPS, NEW BRAIDED HOSE CONNECTORS, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE = 2 IN., VENT = 1-1/2 IN., CW = HW = 1/2 IN.
P-5	ADA LAVATORY: "AMERICAN STANDARD" AQUALYN MODEL 0476.028. SELF-RIMMING, VITREOUS CHINA, OVAL COUNTERTOP LAVATORY, WITH "RELIANT 3" MODEL 7385.003 WITH ONE PIECE LEVEL HANDLE AND GRID DRAIN LESS POP-UP HOLE, 0.5 GPM WITH VANDAL RESISTANT SPRAY, WALL STOPS, P-TRAP, P-TRAP WRAP, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE = 2 IN., VENT = 1-1/2 IN., CW = HW = 1/2 IN.
P-6	MOP SINK: "FIAT" MODEL TSB100. TERRAZZO MOP SINK WITH STAINLESS STEEL CAPS ON ALL CURBS, 12 IN. HIGH OUTSIDE SHOULDERS NO LESS THAN 2 IN. WIDE, MODEL 830AA FAUCET, STAINLESS STEEL WALL GUARD, CHROME PLATED BRASS DRAIN, VACUUM BREAK, WALL BRACE, WALL STOPS, AERATOR, MOP HANGER, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE = 3 IN., VENT = 1-1/2 IN., CW = HW = 3/4 IN.
P-7	SINK: "ELKAY" MODEL LRADQ332155 WITH 18 GA. TYPE 304 STAINLESS STEEL CONSTRUCTION, COVED CORNERS, DOUBLE COMPARTMENT SINK WITH DRAIN BASKETS, SOUND GUARD UNDERCOATING, DRAIN KIT, AND MOUNTING HARDWARE. FAUCET: "ELKAY" MODEL LK406GN05T4 WITH GOOSENECK SPOUT AND 4 IN. WRIST BLADE HANDLES, CHROME FINISH, ESCUTCHEON PLATE, AERATOR WITH 1.5 GPM FLOW, AND BRAIDED STAINLESS STEEL SUPPLY LINES. INCLUDE WALL STOPS, INSULATED P-TRAP, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. CONFIRM WITH ARCHITECT IF SOAP DISPENSER SHALL BE INCLUDED PRIOR TO ORDERING. WASTE = 2 IN., VENT = 1-1/2 IN., CW = HW = 1/2 IN.
FD	FLOOR DRAIN: "ZURN" MODEL Z415C. DURA-COATED CAST IRON FLOOR DRAIN WITH BOTTOM OUTLET, MEMBRANE CLAMP, ADJUSTABLE COLLAR, POLISHED AND HINGED NICKEL BRONZE STRAINER, TRAP PRIMER AND TRAP PRIMER CONNECTION, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE = 3 IN.; VENT = 1-1/2 IN.
WCO	WALL CLEANOUT: "ZURN" MODEL Z-1468. BRASS PLUG WITH ROUND STAINLESS STEEL SECURED ACCESS COVER AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. WASTE AS REQUIRED.
WHA	WATER HAMMER ARRESTER: "ZURN" 1700 SERIES. SIZE FOR THE PIPE LENGTH AND PIPE SIZE AS INDICATED ON THE DRAWINGS. LOCATE AT THE END OF ALL PIPING RUNS.
WH	WATER HEATER: "A.O. SMITH" PROLINE MODEL GCR-40. NATURAL GAS FIRED WATER HEATER WITH 40.0 MBH INPUT, 40 GALLON STORAGE CAPACITY, 42 GPH @ 90 DEG. F. TEMPERATURE RISE, BLUE DIAMOND GLASS COATING ON TANK, INTELLIGENT CONTROL LOGIC, HIGH UNIFORM ENERGY FACTOR WITH FOAM INSULATION AND EXTERNAL HEAT TRAPS, CONTROLS AND SAFETY SHUTOFF, T&P RELIEF VALVE, CORECARD ANODE ROD, DYNACLEAN DIFFUSER DIP TUBE, PUSH BUTTON PIEZO SPARK IGNITER, ORIFICES FOR 5050 FT ASL, 150 PSI MAXIMUM WORKING PRESSURE, SEALED COMBUSTION CHAMBER WITH INTAKE AIR FILTER AND FLAME ARRESTOR BUILT INTO WATER HEATER BASE, TYPE "B" VENTING, METAL DRAIN PAN, 6 YR WARRANTY, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. CW = HW = 3/4 IN., GAS = 1/2 IN. SHIP WEIGHT: 140 LBS.
RP	RECIRCULATING PUMP: "TACO" MODEL 008-FS. DOMESTIC HOT WATER RECIRCULATING PUMP WITH ALL BRONZE BODY CONSTRUCTION, SEVEN DAY TIMECLOCK AND "HAND/OFF/AUTO" SWITCH FOR AUTOMATIC CONTROL, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION. ELEC.: 115V/ 60 HZ/ 1 PH, 1/25 HP, 0.79 AMPS.
ET	EXPANSION TANK AND ACCESSORIES: EXPANSION TANK "AMTROL" MODEL ST-12-C. EXPANSION TANK WITH AUTOMATIC FILL VALVE AND CHECK VALVE, AIR SEPARATOR, AIR VENT, ACCEPTANCE VOLUME 12.0 GALLONS MINIMUM, AND 6.4 GALLONS TANK VOLUME, 150 PSI WORKING PRESSURE, AND ALL ACCESSORIES NECESSARY FOR COMPLETE AND PROPER INSTALLATION AND OPERATION.



THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF THE ENGINEER. ONCE THE PLANS ARE STAMPED AND SIGNED, THEY ARE LEGAL DOCUMENTS AND ANY CHANGES TO THE PLANS OR CONSTRUCTION BY THE OWNER OR CONTRACTOR WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER CONSTITUTES A BREACH OF THESE DOCUMENTS AND FILLS HEREBY THE RIGHT OF ANY LEGAL ACTION AGAINST THE ENGINEER FOR PROFESSIONAL LIABILITY OF ERRORS AND OMISSIONS.

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**UNION COUNTY OFFICE
REMODEL**

200 COURT STREET
CLAYTON, NM

PROJECT #:	19021
DESIGNED BY:	MGB
DRAFTED BY:	MGB
DATE:	1/11/20
SCALE:	AS NOTED
SHEET TITLE:	
PLUMBING EQUIPMENT SCHEDULE, NOTES, & DETAILS	

SHEET:
P-5



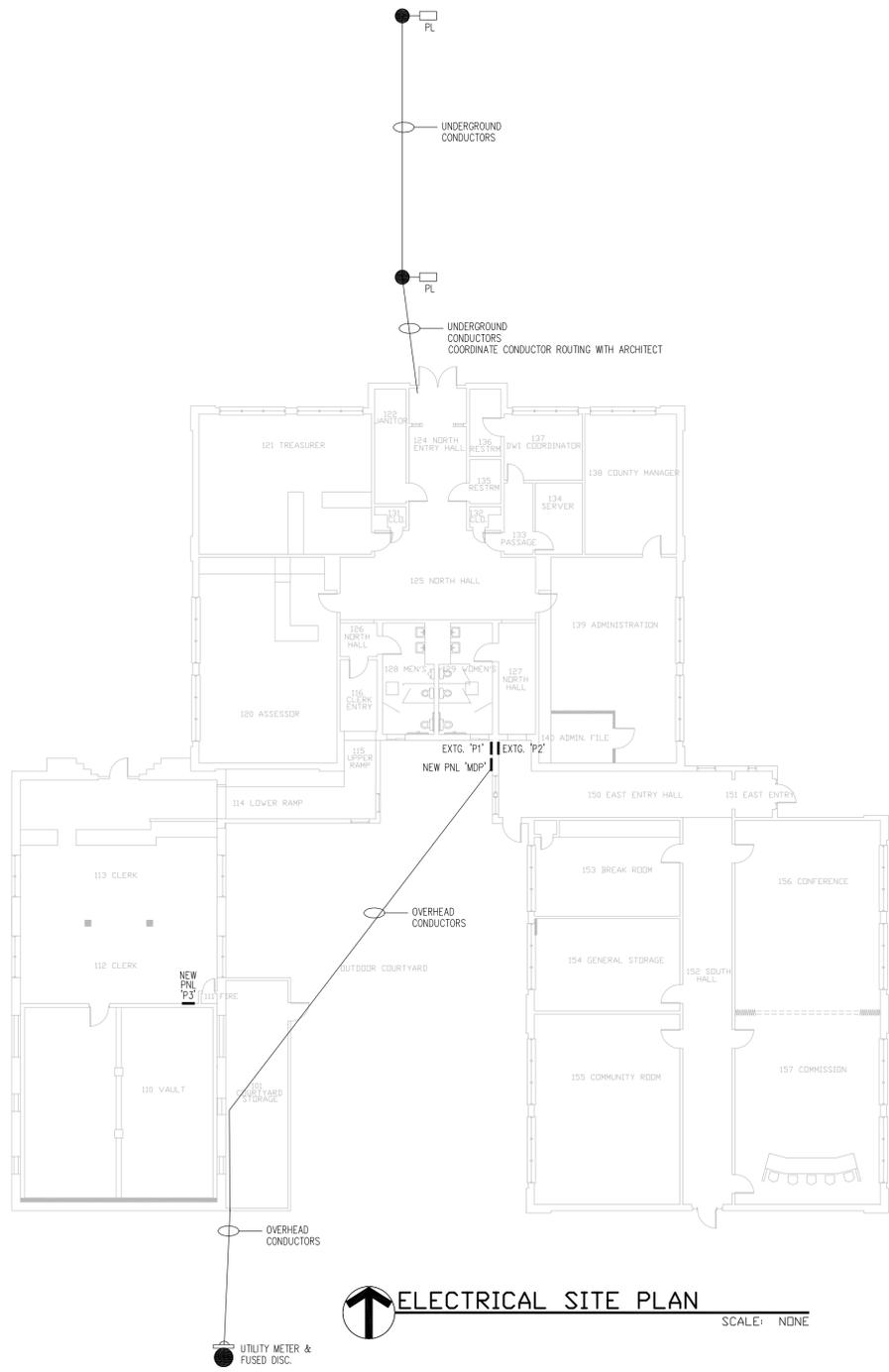
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REV:	A

Sheet Title
**SITE PLAN, PROJECT LOCATION,
 ELECTRICAL SPECS & GENERAL NOTES**
 Drawn By: AS
 Checked By: Antonio R. Sanchez, Jr., P.E.

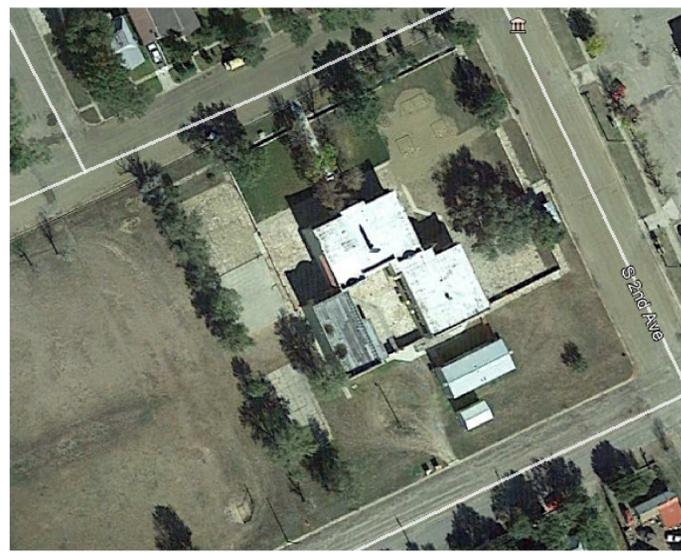
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Project Name
**UNION COUNTY OFFICE
 REMODEL**
 200 COURT STREET
 CLAYTON, NEW MEXICO

SHEET NO.
E-101



ELECTRICAL SITE PLAN
 SCALE: 1"=8'-0"



PROJECT LOCATION
 SCALE: 1"=8'-0"

#	GENERAL DEMOLITION NOTES
1	DEMOLITION DRAWINGS ARE BASED ON EXISTING PLANS, BEST AVAILABLE INFORMATION AND FIELD INVESTIGATION WHENEVER POSSIBLE. VISIT THE EXISTING BUILDING PRIOR TO BID IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND IN ORDER TO AVOID CONFLICTS.
2	EXISTING CIRCUITING TO REMAIN SHALL BE REROUTED OR RECONNECTED, AS REQUIRED, WHERE AFFECTED BY NEW WORK IN ORDER TO MAINTAIN CONTINUITY OF CIRCUIT. VERIFY ALL DEVICES TO REMAIN FOR COMPLIANCE AND REPORT ALL DEFICIENCIES TO THE OWNER/ARCHITECT.
3	EXISTING CIRCUITRY SERVING LIGHTING FIXTURES AND/OR RECEPTACLES FOR A GIVEN AREA SHALL BE REUSED WHERE CONVENIENT TO SERVE THE NEW LAYOUT. PROVIDE CIRCUIT MODIFICATIONS INDICATED OR AS OTHERWISE REQUIRED TO MAINTAIN THE CONTINUITY OF THE EXISTING CIRCUITS THAT REMAIN.
4	WHERE DEMOLITION OF SPECIFIC EQUIPMENT OR DEVICES IS CALLED FOR, REMOVE ANCILLARY MATERIALS BACK TO SOURCE AND LABEL CIRCUIT AS "SPARE". THIS INCLUDES CONDUIT, WIRING, OUTLET BOXES, JUNCTION BOXES, HANGARS AND OTHER SUPPORT DEVICES. COORDINATE ALL WORK ON MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR.
5	EXERCISE CARE IN REMOVAL OF DEMOLITION ITEMS. REPAIR AT NO ADDITIONAL COST TO OWNER ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND/OR EQUIPMENT TO REMAIN.
6	REMOVE ALL ELECTRICAL DISCONNECTS, STARTERS, WIRING, CONDUIT, ETC. ASSOCIATED WITH EQUIPMENT TO BE REMOVED BY OTHERS.
7	ALL CONDUIT REMOVED SHALL BE REMOVED IN ITS ENTIRETY, INCLUDING FITTINGS, MOUNTING DEVICES, MOUNTING HARDWARE, ETC. PROVIDE CONDUIT PLUGS AND BLANKS FOR ALL OPENINGS CREATED BY THE REMOVAL OF CIRCUIT. PROVIDE BLANK COVER PLATES FOR ALL OPENED OUTLET BOXES CREATED BY THE REMOVAL OF THE EQUIPMENT AND/OR DEVICES.
8	ALL MATERIALS REMOVED UNDER DEMOLITION, NOT TO BE RELOCATED OR DESIGNATED TO BE TURNED OVER TO OWNER SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE.
9	ALL WORK AND ALL POWER OUTAGES IN THE EXISTING BUILDING SHALL BE SCHEDULED AT TIMES CONVENIENT TO THE OWNER.
10	NOTIFY THE OWNER PRIOR TO TURNING OFF ANY CIRCUITS WHEN BUILDING IS OCCUPIED.
11	IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED BY THE CONTRACTOR THAT AN EXISTING CIRCUIT BECOMES SPARE, THE CONTRACTOR SHALL UPDATE THE PANELBOARD SCHEDULE TO INDICATE SUCH, EVEN IF IT IS NOT EXPLICITLY MARKED ON THE PLANS.
12	COORDINATE AND COOPERATE WITH ALL TRADES ON THE PROJECT.

#	GENERAL NOTES
A	IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS, PLANS AND SITE FOR ANY DISCREPANCIES OR OMISSIONS AND RESOLVE ANY CONFLICTS PRIOR TO CONSTRUCTION AND PURCHASE OF MATERIALS.
B	FIELD-ROUTE ALL CONDUCTORS USING THE SHORTEST DISTANCE POSSIBLE TO MINIMIZE VOLTAGE DROP ON CIRCUIT.
C	ENSURE COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL CODES, RULES AND REGULATIONS.
D	COORDINATE AND COOPERATE WITH ALL TRADES ON THE PROJECT.
E	TEST ALL WIRING FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR DEVICES. PERFORM INSULATION RESISTANCE TESTS ON ALL WIRING #8 AWG OR LARGER TO ENSURE THAT ALL PORTIONS ARE FREE FROM SHORT CIRCUITS AND GROUNDS.
F	PROVIDE GROUNDING IN ACCORDANCE WITH THE NEC FOR THE ELECTRICAL SYSTEM INCLUDING EQUIPMENT FRAMES, CONDUITS, SWITCHES, CONTROLLERS, WIREWAYS, NEUTRAL CONDUCTORS AND OTHER EQUIPMENT. PROVIDE A GROUNDING CONDUCTOR IN ALL POWER CIRCUITS.
G	LABEL ALL JUNCTION BOXES WITH PERMANENT MARKER IDENTIFYING CIRCUIT NUMBER AND PANELBOARD OF CIRCUITS CONTAINED WITHIN.
H	WHERE FUSE PROTECTION IS SPECIFICALLY REQUIRED BY THE EQUIPMENT MANUFACTURER, PROVIDE FUSE SWITCHES IN LIEU OF NON-FUSE SWITCHES OR IN LIEU OF ENCLOSED CIRCUIT BREAKERS OR OTHER DEVICES INDICATED.
I	SECURE APPROVED SHOP DRAWINGS SHOWING WIRING DIAGRAMS, ROUGH-IN AND HOOK-UP DETAILS FROM OTHER INVOLVED CONTRACTORS FOR EQUIPMENT WHICH MUST BE CONNECTED ELECTRICALLY.
J	MECHANICAL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THE LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE. COORDINATE WITH THE MECHANICAL CONTRACTOR TO DETERMINE THE EXACT LOCATION OF EACH PIECE OF EQUIPMENT AND DETERMINE THE EXACT ROUGH-IN AND CONNECTION REQUIREMENTS.
K	WHERE AN INDIVIDUALLY MOUNTED SAFETY SWITCH, STARTER OR CIRCUIT BREAKER IS SHOWN ADJACENT TO ITS RESPECTIVE LOAD AND NOT MOUNTED ON A WALL, PROVIDE ALL SUPPORTS, BRACKETS, ANCHORING, ETC. NECESSARY TO PROPERLY SUPPORT THE DEVICE.
L	COORDINATE LIGHTING FIXTURES WITH GRILLES, DIFFUSERS, SPRINKLER HEADS AND ACCESS PANELS, ETC.
M	COORDINATE LOCATIONS OF SWITCHES, RECEPTACLES AND TELE/DATA OUTLETS WITH OTHER WALL MOUNTED DEVICES SUCH AS THERMOSTATS AND CONTROL STATIONS. DO NOT MOUNT WIRING DEVICES BACK TO BACK. PROVIDE MINIMUM OF ONE STUD SEPARATION.
N	RECEPTACLES FOR ELECTRIC WATER COOLERS (EWC) SHALL BE INSTALLED OUT OF VIEW AND BEHIND THE EWC ENCLOSURE. VERIFY THE MOUNTING HEIGHT WITH THE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
O	THOROUGHLY REVIEW AND COORDINATE ALL CASEWORK, DOOR SWINGS AND CABINET DRAWINGS AND ARCHITECTURAL ELEVATIONS WITH DEVICE LOCATIONS PRIOR TO ROUGH-IN OF OUTLET BOXES.
P	WHERE MULTIPLE GANG BOX HAS CIRCUITS OF DIFFERENT VOLTAGES OR SYSTEMS WHICH ARE REQUIRED TO BE SEPARATED, PROVIDE THE CODE-REQUIRED SEPARATION USING A FULL HEIGHT AND DEPTH BARRIER PLATE.
Q	FOR ANY WALL OR FLOOR PENETRATIONS THROUGH FIRE RATED STRUCTURES, PROVIDE FIRE-PROOFING TO SEAL ALL THE PENETRATIONS AFTER THE CONDUIT HAS BEEN INSTALLED. FIRE PROOFING FOR PENETRATIONS SHALL BE U.L. APPROVED PER THE PENETRATION MADE IN ORDER TO MAINTAIN FIRE RATED INTEGRITY OF THE STRUCTURE.
R	LOCATION OF EQUIPMENT AND DEVICES SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE FIELD-VERIFIED PRIOR TO ROUGH-IN.
S	THE CONDUIT RUNS AS SHOWN ON THE PLANS INDICATE APPROXIMATE ROUTING. EXACT LOCATION OF CONDUIT RUNS SHALL BE AS FIELD CONDITIONS DICTATE.
T	CONTRACTOR SHALL MAKE AS-BUILT DRAWINGS DOCUMENTING ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS PROJECT. PROVIDE UPDATED, TYPEWRITTEN DIRECTORIES FOR ALL PANELS. PROVIDE PANEL LABELS AS NOTED IN ELECTRICAL SPECIFICATIONS.
U	CONTRACTOR SHALL PROVIDE AND INSTALL TIE HANDLES ON ALL CIRCUIT BREAKERS SHARING A NEUTRAL CONDUCTOR PER THE N.E.C.

#	ELECTRICAL SITE NOTES
S1	CONTRACTOR SHALL CONTACT ALL LOCAL UTILITY COMPANIES AND COORDINATE ALL SITE UTILITY SERVICES

ELECTRICAL SPECIFICATIONS:					
1	LOCATION OF EQUIPMENT, CONDUIT & DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH THE MECHANICAL DRAWINGS AND FIELD CONDITIONS PRIOR TO ROUGH-IN.	8	THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO WALLS, CEILING, ETC. IN A PROFESSIONAL MANNER. SEAL ALL WALL OR CEILING OPENINGS WITH MATCHING MATERIAL. PROVIDE PITCH PANS WHERE CONDUITS PENETRATE EXISTING ROOF FOR ARCHITECTURAL APPROVAL.	15	ALL CIRCUITS SHALL CONTAIN A DEDICATED NEUTRAL. REFER TO NEC 210.4 FOR MULTIWIRE BRANCH CIRCUIT REQUIREMENTS.
2	EXACT LOCATIONS AND ROUTING OF CONDUIT SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR BASED ON EXISTING CONDITIONS.	9	CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL TO AVOID LOCATION CONFLICTS. VERIFY WITH MECHANICAL AND COMPLY AS REQUIRED.	16	BRANCH CIRCUIT AND FEEDER DESIGN SHALL ALLOW FOR NO MORE THAN A 5% VOLTAGE DROP AS PER NMAC 14.10.4.13(F)(3).
3	PROVIDE PULL BOXES AND JUNCTION BOXES WHERE INDICATED OR REQUIRED. INSTALL PER NEC 314.	10	ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN. PANEL DIRECTORIES SHALL INCLUDE SPECIFIC LOAD INFORMATION PER NEC 110.22.	17	ALL NEW INSTALLATIONS SHALL HAVE A CONCRETE ENCASED GROUNDING ELECTRODE OTHERWISE THE ELECTRICAL CONTRACTOR SHALL PROVIDE A UFER GROUND AS PER NEC 250.52(A)(3).
4	WIRING METHODS SHALL BE AC OR MC CABLE, EMT, INTERMEDIATE AND RIGID METALLIC CONDUIT. EMT, INTERMEDIATE AND RIGID CONDUIT SHALL HAVE BENDS MADE IN ACCORDANCE WITH THE NEC. NO RIGHT ANGLE DEVICES OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" AND LARGER.	11	ALL WIRING IN FINISHED AREAS SHALL BE ROUTED IN CONDUIT AND SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS WHENEVER POSSIBLE UNLESS OTHERWISE NOTED.	18	ELECTRICAL DEVICE INSTALLATION SHALL COMPLY WITH ACCESSIBILITY CODES ADOPTED BY NEW MEXICO. MOUNT APPLICABLE SWITCHES, RECEPTACLES & ENVIRONMENTAL CONTROLS SO THAT THEY ARE MOUNTED WITH THE TOP OF THE DEVICE NO HIGHER THAN 48 INCHES ABOVE FINISHED FLOORS AND THE BOTTOM OF THE DEVICE NO LOWER THAN 14 INCHES ABOVE FINISHED FLOORS.
5	CABLE AND CONDUIT FITTINGS SHALL BE DIE-CAST, MALLEABLE IRON OR STEEL. SET SCREW FITTINGS SHALL BE USED ONLY IN AREAS INTERIOR TO THE BUILDING. COMPRESSION TYPE OR WATER TIGHT FITTINGS SHALL BE USED IN THE EXTERIOR.	12	INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER CIRCUITS. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL PULLBOXES, DISCONNECT SWITCHES, PANEL BOARDS, ETC. ARMORED AND METAL CLAD CABELING SHALL HAVE AN INTERNAL BONDING STRIP OR PROVIDE AN ADEQUATE PATH FOR EQUIPMENT GROUNDING PER NEC 250.	19	THE DRAWINGS SHOW ONLY THE GENERAL RUN OF RACEWAYS AND APPROXIMATE LOCATION OF OUTLETS. THESE SHALL BE FIELD COORDINATED AND INSTALLED AS PER AL NEC AND NEW MEXICO STATE BUILDING CODE REQUIREMENTS.
6	ALL WIRE SHALL BE TYPE THHN/THWN, SOLID, ANNEALED COPPER. MINIMUM SIZE #14 FOR CONTROLS AND #12 FOR LIGHTING AND POWER CIRCUIT UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75° C (167° F) CONDUCTIVITY.	13	ALL DISCONNECT SWITCHES, STARTERS AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUIT INSTALLED ON AND PANEL LOCATION FED FROM (NO EXCEPTIONS).	20	ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE MADE USING FLEXIBLE METALLIC CONDUIT. CONNECTIONS TO MECHANICAL EQUIPMENT ON THE EXTERIOR OF THE BUILDING SHALL USE WEATHERPROOF, FLEXIBLE CONDUIT.
7	ALL NEW MATERIAL SHALL HAVE A U.L. LABEL OR AN NRTL APPROVED EQUIPMENT LABEL.	14	ALL ELECTRICAL DEVICES AND INSTALLATION OF THE DEVICES SHALL COMPLY WITH ADA AS ADOPTED BY THE STATE OF NEW MEXICO.	21	ALL NEW LIGHTING SHALL COMPLY WITH THE MOST CURRENT NEW MEXICO ENERGY CONSERVATION CODE.
				22	ELECTRICAL DEVICE INSTALLATION SHALL COMPLY WITH THE ACCESSIBILITY CODES ADOPTED FOR NEW MEXICO. NMAC 14.10.4.13.
				23	EXTERIOR AND PARKING LOT LIGHTING SHALL UTILIZE PHOTOCELL "ON" AND TIME CLOCK "OFF" CONTROL.
				24	EXTERIOR LIGHTING SHALL COMPLY WITH THE NEW MEXICO NIGHT SKY PROTECTION ACT OR LOCAL LIGHTING ORDINANCE, WHICHEVER IS STRICTER. NMAC 14.10.4.14.
				25	RACEWAYS AND CABLES INSTALLED ON ROOFTOPS ARE SUBJECT TO CORRECTION FACTORS IN TABLE 310.15(B)(2)(C) BASED ON DISTANCE ABOVE THE ROOF SURFACE.
				26	CONDUCTORS AND CABLES INSTALLED IN ABOVEGRADE RACEWAYS LOCATED IN WET LOCATIONS ARE REQUIRED TO BE SUITABLE FOR USE IN WET LOCATIONS IN ACCORDANCE WITH NEC 310.8(C).
				27	THE INTERIOR OF ENCLOSURES AND RACEWAYS INSTALLED UNDERGROUND ARE CONSIDERED WET LOCATIONS. NEC 300.5(B).
				28	INDUSTRIAL CONTROL PANELS WHICH CONTAIN ONLY CONTROL CIRCUITS AND DEVICES DO NOT REQUIRE A SHORT-CIRCUIT CURRENT RATING ACCORDING TO NEC 409.110(3).
				29	RECEPTACLES FOR VENDING MACHINE USE MUST COMPLY WITH NEC 422.51 GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION REQUIREMENTS.
				30	ELECTRIC DRINKING WATER FOUNTAINS MUST BE PROTECTED BY GROUND-FAULT CIRCUIT INTERRUPTERS. NEC 422.52.
				31	SERVICE MASTS MUST BE A MINIMUM OF TWO-INCH RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT OR COMPLY WITH LOCAL UTILITY REQUIREMENTS AS PER NMAC 14.10.4.11.F(2) WHEN USED FOR THE SUPPORT OF SERVICE DROP CONDUCTORS.
				32	AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL BRANCH CIRCUIT AND FEEDER RACEWAYS ON OR ABOVE A ROOF. NMAC 14.10.4.11.G(7).
				33	ALUMINUM CONDUCTORS USED IN GENERAL WIRING APPLICATIONS SHALL BE OF THE AA-8000 SERIES OR EQUIVALENT AND SHALL BE LIMITED TO SIZE 8 AWG OR LARGER. NMAC 14.10.4.11.I.
				34	WHERE AN EVAPORATIVE COOLER IS INSTALLED, THE RACEWAY SHALL CONTAIN AN EQUIPMENT-GROUNDING CONDUCTOR FROM THE CONTROL POINT OUTLET BOX TO THE JUNCTION BOX AT THE UNIT. NMAC 14.10.4.11.P.
				35	ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. NEC 110.16, NFPA 70E ARTICLE 130.



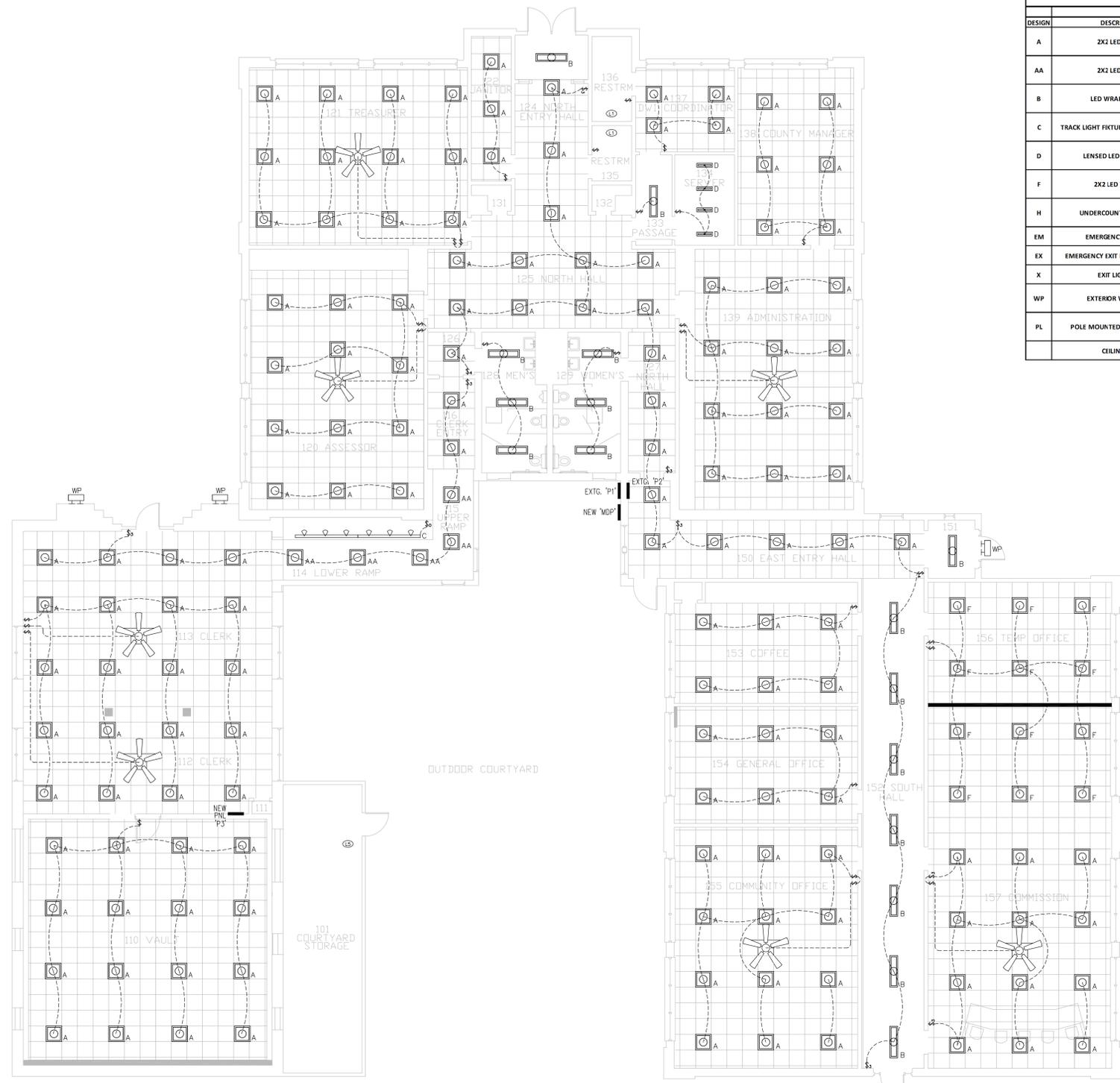
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Sheet Title
**LIGHT PLAN, LIGHT SCHEDULE
 IECC, & LIGHTING NOTES**
 Drawn By: AS
 Checked By: Antonio R. Sanchez, Jr., P.E.

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Project Name
**UNION COUNTY OFFICE
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 CLAYTON, NEW MEXICO

SHEET NO.
E-102



LIGHT PLAN - MAIN LEVEL
 SCALE: 1/8"=1'-0"

LIGHT SCHEDULE						
DESIGN	DESCRIPTION	MOUNTING	MANUFACTURER	CATALOG NUMBER	LAMP DETAILS	MISC. INFORMATION
A	2X2 LED PANEL	DROP-IN	COOPER LIGHTING	22P4240C	LED 4,465 LUMEN 38.3W	
AA	2X2 LED PANEL	SURFACE	COOPER LIGHTING	22P4240C	LED 4,465 LUMEN 38.3W	INCLUDE SURFACE MOUNT KIT: FPSURF22
B	LED WRAPAROUND	SURFACE	EATON	4WNLED-LD4-40SL-F-UNV-L840-CD1-U	LED 4,029 LUMEN 32.2W	
C	TRACK LIGHT FIXTURE WITH LED HEADS	TRACK	HALO	L808085P9030AH FRF-808402-PK	LED 850 LUMEN 12W	VERIFY REFLECTORS AND ADDITIONAL ACCESSORIES.
D	LENSED LED STRIP LIGHT	SURFACE	COOPER LIGHTING	25NLED-LD5-30HL-RW-UNV-L850-CD1-U	LED 3,054 LUMEN 25.9W	VERIFY MOUNTING OPTIONS & ANY ACCESSORIES.
F	2X2 LED TROFFER	DROP-IN	EATON	22CZ-LD5-39-UNV-L850-CD1-U	LED 4,338 LUMEN 36.4W	
H	UNDERCOUNTER LIGHTING	SURFACE	COOPER LIGHTING	HU10360930P	LED 990 LUMEN 18W	SELECT APPROPRIATE ACCESSORIES. CATALOG NUMBER REFERENCES A 36" FIXTURE. VERIFY FIXTURE LENGTH/LENGTHS WITH ARCHITECT PRIOR TO PURCHASE.
EM	EMERGENCY LIGHT LED	CEILING/WALL	EATON	APEL	LED 0.33W	SEALED NICKEL CADMIUM BATTERY.
EX	EMERGENCY EXIT LIGHT COMBO LED	CEILING/WALL	COOPER LIGHTING	APC7R	LED 1.31W	LEAD CALCIUM BATTERY, DUAL LED HEADS.
X	EXIT LIGHT LED	CEILING	SURE-LITES	LPX65D LPX18PKWH	LED 0.98W	SELF DIAGNOSTICS, INCLUDE PENDANT KIT.
WP	EXTERIOR WALL PACK	EXTERIOR WALL	EATON	XTORSARL-PC1	LED 4,831 LUMEN 41W	PHOTOCELL ON/OFF.
PL	POLE MOUNTED LED LUMINAIRE	POLE	STERNBERG LIGHTING	1A-1527LED-F-24L3073-MDQ18-SV1-R-PE ARM: EU2 POLE: MILFORD 650T614/BCC/ZH/GH-LPIUC/UBT	LED 13,100 LUMEN 117W	EXTERIOR POLE LIGHTING. REFERENCE SHEET E-101. VERIFY CATALOG NUMBER WITH ARCHITECT PRIOR TO PURCHASING. VERIFY EACH POLE HAS TWO FLAG POLE HOLDERS, ONE ON EACH SIDE AS WELL AS A GROUND FAULT INTERRUPTOR WITH AN IN USE COVER. MOUNTED AT 3FT.
	CEILING FAN	CEILING	QUORUM	ALTON 42-605-95	NONE	FINISH: OILED BRONZE. VERIFY BLADE FINISH WITH OWNER OR ARCHITECT. 90 WATTS.

SYMBOL LEGEND	
	LED 2X2 PANEL
	LED WRAPAROUND
	TRACK LIGHT FIXTURE WITH LED HEADS
	LENSED LED STRIP LIGHT FIXTURE
	LED EMERGENCY EXIT FIXTURE
	LED EXIT FIXTURE
	LED EMERGENCY EXIT LIGHT COMBO FIXTURE
	HPS EXTERIOR WALLPACK
	LIGHT SWITCH, # DENOTES NUM. OF POLES

#	LIGHTING NOTES:
L1	ALL EXIT/EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED CONDUCTORS.
L2	COORDINATE EXACT LOCATIONS OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL PLANS PRIOR TO ROUGH-IN. ADJUST LOCATIONS AS REQUIRED.
L3	ALL NEW INTERIOR LIGHTING SHALL BE TYPE LED.
L4	ELECTRICAL CONTRACTOR TO COORDINATE WITH ELECTRIC UTILITY COMPANY TO PROVIDE A LIGHT FIXTURE TO ILLUMINATE THE FLAG POLE. COUNTY MANAGER SAID THE LIGHT ON THE WOODEN UTILITY STRUCTURE ON NORTHEAST CORNER OF THE PROPERTY DOESN'T WORK.
L5	ALL EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTOCELL.
L6	ALL EXTERIOR LIGHTING SHALL COMPLY WITH THE NEW MEXICO ENERGY CONSERVATION CODE AND THE NEW MEXICO NIGHT SKY PROTECTION ACT.
L7	FOR ALL AREAS THAT CONTAIN NEW LIGHT FIXTURES, REMOVE ALL EXISTING FIXTURES, CONDUCTORS, ETC. PROVIDE ALL NEW CONDUCTORS. UTILIZE EXISTING CIRCUIT BREAKERS. UPDATE PANEL SCHEDULE TO REFLECT CHANGES.

#	LIGHTING KEYED NOTES:
L1	EXISTING SURFACE INCANDESCENT FIXTURE TO REMAIN PER ARCHITECT. REPLACE INCANDESCENT LAMPS WITH LED LAMPS.
L2	NEW UNDERCOUNTER LIGHT FIXTURE. REFERENCE LIGHT FIXTURE SCHEDULE FOR DETAILS.
L3	ALL EXIT/EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED CONDUCTORS.
L4	CONNECT LINE SIDE OF SWITCH TO SAME CIRCUIT AS RECEPTACLES IN COUNTER AREA.
L5	KEEP EXISTING SURFACE MOUNTED FIXTURES AND CONDUIT. VERIFY ALL FIXTURES ARE IN GOOD WORKING CONDITION AND CIRCUIT SHALL BE CONTROLLED BY THE LIGHT SWITCH ADJACENT TO THE EXIT DOOR.

COMMERCIAL ENERGY CONSERVATION AND EFFICIENCY:

1. ALL LIGHTING SHALL COMPLY WITH THE 2009 NEW MEXICO ENERGY CONSERVATION CODE AS WELL AS SECTION 14.10.4.16 OF THE 2017 NEW MEXICO ELECTRICAL CODE.	LIGHTING POWER DENSITY CALCULATIONS: IECC TABLE 505.5.2 INTERIOR LIGHTING POWER ALLOWANCES
2. INTERIOR LIGHTING POWER REQUIREMENTS SHALL BE IN ACCORDANCE WITH 14.10.4.16. REFER TO TABLE 505.5.2 "LIGHTING POWER DENSITY" FOR ALLOWABLE WATTS PER SQUARE FEET VALUES BASED ON BUILDING AREA TYPE.	ALLOWABLE FOR "OFFICE AREA" = 1.0W/FT ² ACTUAL FOR "OFFICE AREA" = 0.61W/FT ²



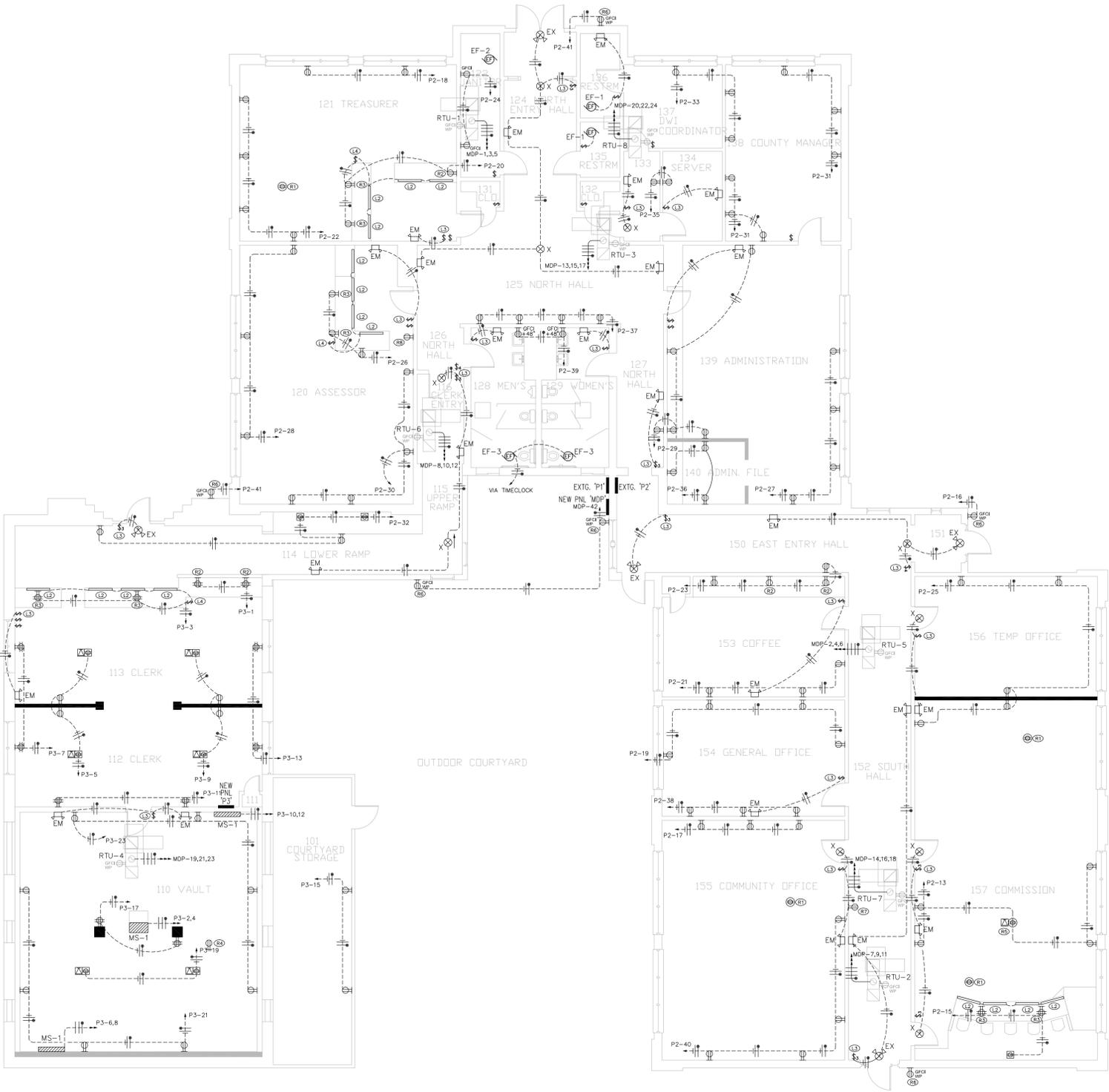
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RECEPTACLE PLAN, EQUIPMENT SCHEDULE/LAYOUT & NOTES
 Checked By: Antonio R. Sanchez, Jr., P.E.
 Drawn By: AS

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Project Name
UNION COUNTY OFFICE REMODEL
 200 COURT STREET
 CLAYTON, NEW MEXICO

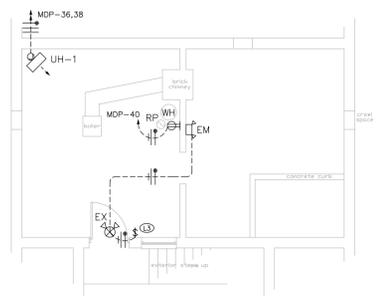
SHEET NO.
E-103



RECEPTACLE PLAN - MAIN LEVEL
SCALE: 1/8"=1'-0"

DESCRIPTION	QUANTITY	VOLTAGE	AMPERAGE	BREAKER TYPE	CONDUCTOR SIZE	MSC. INFO.
RTU-1	1	208V, 3PH	24	30A-3P	10 CU	CARRIER MODEL 48HCFO4A
RTU-2	1	208V, 3PH	29	40A-3P	8 CU	CARRIER MODEL 48HCFO5A
RTU-3	1	208V, 3PH	29	40A-3P	8 CU	CARRIER MODEL 48HCFO5C
RTU-4	1	208V, 3PH	29	40A-3P	8 CU	CARRIER MODEL 48HCFO5C
RTU-5	1	208V, 3PH	29	40A-3P	8 CU	CARRIER MODEL 48HCFO5C
RTU-6	1	208V, 3PH	35	50A-3P	8 CU	CARRIER MODEL 48HCFO6C
RTU-7	1	208V, 3PH	35	50A-3P	8 CU	CARRIER MODEL 48HCFO6C
RTU-8	1	208V, 3PH	35	50A-3P	8 CU	CARRIER MODEL 48HCFO6C
UH-1: UNIT HEATER	1	208V, 1PH	24	30A-2P	10 CU	QMARK MODEL MLH0581, 5KW.
MS-1 (INDOOR UNIT)	2	208V, 1PH	9	15A-2P	12 CU	MIRCOOL 0-09-HP-VMAH-230A
MS-1 (OUTDOOR UNIT)	1	208V, 1PH	18	25A-2P	12 CU	MIRCOOL MULTIZ-38HP230V1
EF-1: EXHAUST FAN	2	120V	0.14	20A-1P	12 CU	GREENHECK SP-A30, CONTROL WITH LIGHT SWITCH
EF-2: EXHAUST FAN	1	120V	0.10	20A-1P	12 CU	GREENHECK SP-A125, CONTROL WITH LIGHT SWITCH
EF-3: EXHAUST FAN	1	120V	0.45	20A-1P	12 CU	GREENHECK SP-A190, CONTROL WITH TIMECLOCK
WATER HEATER	1	GAS				REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
RECIRCULATION PUMP	1	120V	0.25	20A-1P	12 CU	ELEC. INFO NOT PROVIDED. INFO SHOWN IS TYPICAL.

THE FINAL LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED AND APPROVED BY THE OWNER/ARCHITECT AND THE TYPE OF CONNECTION (RECEPTACLE, DISCONNECT, J-BOX, ETC.) SHALL BE VERIFIED WITH THE MANUFACTURERS INSTRUCTIONS PRIOR TO ROUGH-IN AND CIRCUITING.



RECEPTACLE PLAN - BASEMENT
SCALE: 1/8"=1'-0"

TYPICAL MOUNTING HEIGHTS:

Wall Switches	1.2 m (48 in.)
Receptacle Outlets (general)	450 mm (18 in.)
Receptacle Outlets (kitchen, utility room, workbenches, etc.)	1.0 m (42 in.) or 150 mm (6 in.) above countertop
Special Purpose Outlet	within 1.8 mm (72 in.) of intended use
Telephone Outlet	450 mm (18 in.)
Exit signage	2030mm (6ft. - 8in.) bottom of egress markings shall be located not more than this distance above the top edge of the egress opening intended for designation by that marking.
Wall Intercom Stations	1.2 mm (48 in.)
Night Lights	450 mm (18 in.)
Wall Lighting Outlets	2.1 m (84 in.)
Thermostats	1.2 mm (48 in.)
Push Buttons	1.2 mm (48 in.)
Elevator and Hoistway Control Buttons	1.0 m (42 in.)
Bed Lights	1.8 mm (72 in.)
Patient Bedside Stations	1.2 mm (48 in.)
Clock Outlet	2.5 m (96 in.) when possible, or 150 mm (6 in.) below ceiling. Above doors, center the clock outlet between door trim and ceiling.
Bells, Buzzers, Chimes	2.5 m (96 in.) when possible, or 150 mm (6 in.) below ceiling
Fire Alarm Pull Stations	1.2 mm (48 in.)
Fire Alarms (gongs, bells, horns, lights)	2.0 m (80 in.) above floor finish line, or 150 mm (6 in.) below ceiling.

SYMBOL LEGEND

	DUPLEX RECEPTACLE.
	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER.
	TWO-GANG (QUADPLEX) RECEPTACLE.
	TWO-GANG (QUADPLEX) GFCI RECEPTACLE IN A WEATHERPROOF ENCLOSURE.
	220V EQUIPMENT RECEPTACLE. VERIFY NEMA CONFIGURATION PRIOR TO INSTALL.
	CEILING MOUNTED DUPLEX RECEPTACLE.
	FLOOR/RECESS MOUNTED DUPLEX RECEPTACLE.
	FLOOR/RECESS MOUNTED DATA RECEPTACLE. DETAILS BY OTHERS.
	MOTOR LOAD.
	FUSED/NON-FUSED DISCONNECT.
	CIRCUIT BREAKER PANEL BOARD.
	HOMERUN CIRCUIT. # INDICATES BREAKER LOCATION.

RECEPTACLE PLAN KEYED NOTES:

R1	REMOVE EXISTING CEILING-MOUNTED RECEPTACLE, BOX AND ASSOCIATED CONDUCTORS.
R2	PROVIDE NEW 20A DUPLEX RECEPTACLE ABOVE THE COUNTER AT THIS LOCATION.
R3	PROVIDE NEW 20A DUPLEX RECEPTACLE ABOVE THE COUNTER AT THIS LOCATION.
R4	REMOVE EXISTING RECEPTACLE, BOX AND ASSOCIATED CONDUCTORS.
R5	VERIFY EXACT LOCATION OF PROJECTOR PRIOR TO ROUGH-IN AND PULLING WIRE. ARCHITECT SUGGESTS SURFACE MOUNTED CONDUIT AND BOXES TO OLD PLASTER CEILING ABOVE NEW CEILING TILES.
R6	PROVIDE A WEATHERPROOF FLIP LID DEVICE COVER ON EXTERIOR GFCI DUPLEX RECEPTACLES. DO NOT INSTALL A NON-METALLIC ELECTRICAL BOX COVER KIT.
R7	RECESS RECEPTACLE THAT IS CURRENTLY SEMI-RECESSED IN HALL.
R8	REMOVE RECEPTACLE FROM BELOW THE WALL SWITCH BY HALL DOOR.

REMOVE ALL SURFACE MOUNTED STRIP RECEPTACLES.
REMOVE ALL RECEPTACLES FROM CHALK BOARD TRAYS.

ALL EXISTING RECEPTACLES SHALL REMAIN WITH THE EXCEPTION OF THE ONES IDENTIFIED TO BE REMOVED. ELECTRICAL CONTRACTOR SHALL INSPECT EXISTING RECEPTACLES AND MAKE SURE THEY'RE IN GOOD CONDITION.

ELECTRICAL CONTRACTOR SHALL PERFORM A WALK-THRU OF THE FACILITY WITH THE ARCHITECT, AT NO COST, PRIOR TO PERFORMING ANY WORK TO IDENTIFY MINOR ADDITIONS TO THE RECEPTACLE REMOVAL AND REPLACEMENT.

ALL NEW CONDUIT AND RECEPTACLES SHALL BE RECESSED AND ALL EXISTING CONDUIT AND RECEPTACLES SHALL BE RECESSED IF THEY ARE SURFACE MOUNTED WITH THE EXCEPTION OF THE ONES ON MASONRY WALLS. IN THIS CASE, CONDUITS AND RECEPTACLES CAN BE SURFACE MOUNTED.

WIRING NOTES:

1	ELECTRICAL CONTRACTOR SHALL VERIFY ALL GROUNDING COMPLIES WITH NEC ARTICLE 250.
2	ELECTRICAL CONTRACTOR SHALL FIELD-ROUTE ALL CONDUITS AND CIRCUITS.
3	ALL ELECTRICAL DEVICE LOCATIONS SHALL COMPLY WITH NEC ARTICLE 130.26.
4	VERIFY EXACT LOCATION OF ALL EQUIPMENT LOCATIONS WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.

ELECTRICAL NOTES:

E1	COORDINATE THE EXACT LOCATION OF ALL DEVICES WITH ARCHITECTURAL PLANS PRIOR TO ROUGH-IN.
E2	CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND REQUIREMENTS OF ALL EQUIPMENT WITH EQUIPMENT PROVIDER PRIOR TO ROUGH-IN OR BID. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL REQUIREMENTS REQUIRED BY EQUIPMENT PROVIDER AND/OR EQUIPMENT DRAWINGS.
E3	ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. ADJUST CIRCUITS AS REQUIRED. MAJOR CHANGES SHALL BE COORDINATED WITH ELECTRICAL ENGINEER PRIOR TO PURCHASE AND INSTALLATION/ROUGH-IN.
E4	ELECTRICAL CONTRACTOR SHALL COORDINATE ANY TEMPORARY POWER NEEDS WITH OWNER INCLUDING RESPONSIBILITY FOR PAYMENT OF UTILITY BILLS.

HVAC WIRING NOTES:

HVAC-1	ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
HVAC-2	INSTALL A CONVENIENCE RECEPTACLE (GFCI, WP) ADJACENT TO EXTERIOR UNITS PER NEC 210.63 THIS INCLUDES ROOF TOP UNITS.
HVAC-3	VERIFY IF DUCT DETECTOR IS REQUIRED (TYPICALLY REQ'D ON UNITS WITH CFM OF 2000 AND ABOVE) AND IF IT IS, INSTALL PER LOCAL, STATE AND NATIONAL ELECTRICAL CODE.

ELECTRICAL PANEL NOTES

EP-1	REMOVE EXISTING ELECTRICAL PANELS AND ASSOCIATED DEVICES ADJACENT TO NORTHEAST STAGE AREA IN EXTS. GYMNASIUM. INSTALL A NEW PANEL. P#3 AS SHOWN ON DRAWINGS. EXISTING BRANCH CIRCUITS SHALL BE EXTENDED TO NEW PANEL. P#3 FOR ELECTRICAL LOADS THAT WERE FED FROM REMOVED PANELS. COORDINATE DETAILS/QUESTIONS WITH ARCHITECT.
EP-2	PROVIDE A NEW PANEL 'MDP' AS SHOWN ON DRAWINGS ADJACENT TO EXISTING PANEL 'P1'. THIS NEW PANEL WILL SUB-FEED ALL EXISTING AND NEW ELECTRICAL PANELS. REFERENCE RISER DIAGRAM AND PANEL SCHEDULE FOR DETAILS.
EP-3	REPLACE EXISTING PANEL 'P2' WITH A NEW PANEL AS DESCRIBED ON THE RISER DIAGRAM ON SHEET E-104. RELOCATE EXISTING CIRCUITS TO REMAIN INTO NEW PANEL.



JOB NO:	
DATE:	03/22/2020
REV:	A
REV:	

Sheet Title: **PANEL SCHEDULES, TRENCH DETAIL & LOAD SUMMARY**
 Checked By: Antonio R. Sanchez, Jr., P.E.
 Drawn By: AS

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Project Name: **UNION COUNTY OFFICE REMODEL**
 200 COURT STREET
 CLAYTON, NEW MEXICO

SHEET NO. **E-104**

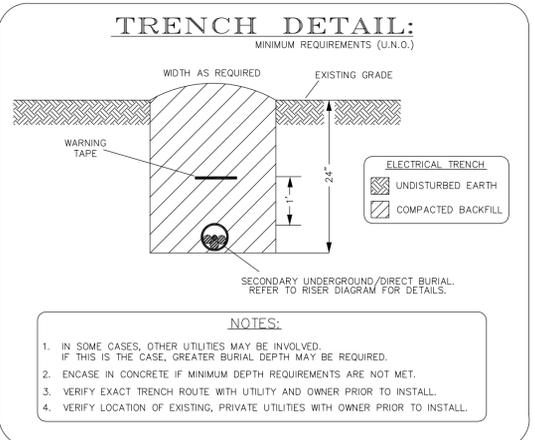
PANEL MDP											
PANELBOARD SCHEDULE											
CCT NO.	LOAD	BKR SIZE	LOAD VA	PH A	PH B	PH C	LOAD VA	BKR SIZE	LOAD DESCRIPTION:	CCT NO.	
1	RTU-1	30A-3P	2880	6360			3480	40A-3P	RTU-5	2	
3			2880		6360		3480			4	
5			2880			6360	3480			6	
7	RTU-2	40A-3P	3480	7680			4200	50A-3P	RTU-6	8	
9			3480		7680		4200			10	
11			3480			7680	4200			12	
13	RTU-3	40A-3P	3480	7680			4200	50A-3P	RTU-7	14	
15			3480		7680		4200			16	
17			3480			7680	4200			18	
19	RTU-4	40A-3P	3480	7680			4200	50A-3P	RTU-8	20	
21			3480		7680		4200			22	
23			3480			7680	4200			24	
25	NEW PANEL 'P2'	150A-3P	6068	11828			5760	150A-3P	NEW PANEL 'P3'	26	
27			5940		11756		5816			28	
29	SPACE		4500				5040			30	
31	SPACE			12000			12000	200A-2P	EXTG. PANEL 'P1'	32	
33	SPACE				12000		12000			34	
35	SPACE					2880	2880	30A-2P	UNIT HEATER (UH-1) IN BASEMENT	36	
37	ROOFTOP RTU GFCI RECEP (NORTH)	20A-1P	720	3600			2880	20A-1P	RECEPT IN BASEMENT BY WATER HEATER	38	
39	ROOFTOP RTU GFCI RECEP (EAST)	20A-1P	540		900		360	20A-1P	RECEPT IN BASEMENT BY WATER HEATER	40	
41	ROOFTOP RTU GFCI RECEP (WEST)	20A-1P	180			540	360	20A-1P	GFCI RECEP BY PANEL MDP & BELOW LOWER RAMP	42	
			57908	VA				95336	VA		
TOTAL CONNECTED LOAD PER PHASE:				56828	54056	42360					153244
								474			
								TOTAL CONNECTED LOAD			
								NEW CONNECTED AMPS ON MAX PHASE			
VOLTAGE: 120/208V, 3-PH, 4W								MOUNTING: SURFACE, NEMA 3R			
MAINS: 400A								FEED: TOP			
RATING: 400A								DOOR-IN-DOOR: YES			
AIC: 10K								LOCATION: EXTERIOR			
GND BUS: YES								FED FROM: UTILITY TRANSFORMER			

PANEL P2											
PANELBOARD SCHEDULE											
CCT NO.	LOAD	BKR SIZE	LOAD VA	PH A	PH B	PH C	LOAD VA	BKR SIZE	LOAD DESCRIPTION:	CCT NO.	
1	EXTG. LOAD	20A-1P	0				20A-1P		EXTG. LOAD	2	
3	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	4	
5	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	6	
7	EXTG. LOAD	20A-1P				0	20A-1P		EXTG. LOAD	8	
9	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	10	
11	EXTG. LOAD	20A-1P				0	20A-1P		EXTG. LOAD	12	
13	RECEP COMMISSION CEILING AND WALLS	20A-1P	900	900			20A-1P		EXTG. LOAD	14	
15	RECEP COMMISSION TABLE AREA	20A-1P	900		1080		180	20A-1P	EXTERIOR GFCI RECEPT BY E. EXIT	16	
17	RECEP COMMUNITY OFFICE (N)	20A-1P	540			900	360	20A-1P	RECEP TREASURER (NORTH)	18	
19	RECEP GENERAL OFFICE (N)	20A-1P	900	1496			586	20A-1P	RECEP & LIGHTS TREASURER COUNTER AREAS	20	
21	RECEP COFFEE RM (S&E)	20A-1P	540		1260		720	20A-1P	RECEP TREASURER (W&S)	22	
23	RECEP COFFEE RM (N)	20A-1P	540			900	360	20A-1P	RECEP JANITOR	24	
25	RECEP CONFERENCE (N) & TEMP OFFICE	20A-1P	900	1512			612	20A-1P	RECEP & LIGHTS ASSESSOR COUNTER AREA	26	
27	RECEP ADMIN (E&S)	20A-1P	900		1440		540	20A-1P	RECEP ASSESSOR (N&W)	28	
29	RECEP ADMIN (WEST) & NORTH HALL	20A-1P	720			1440	720	20A-1P	RECEP ASSESSOR (E&S)	30	
31	RECEP COUNTY MGR (SW)	20A-1P	540	900			360	20A-1P	FLOOR RECEP BY LOWER RAMP AREA	32	
33	RECEP COUNTY MGR (NW) & DWI	20A-1P	540		1080		540	20A-1P	RECEP COUNTY MANAGER (N & NE)	34	
35	RECEP SERVER & ENTRY 133	20A-1P	360			900	540	20A-1P	RECEP ADMIN FILE ROOM	36	
37	RECEP N. HALL	20A-1P	720	1260			540	20A-1P	RECEP GENERAL OFFICE (S)	38	
39	RECEP GFCI IN MENS/WOMENS RMS	20A-1P	360		1080		720	20A-1P	RECEP COMMUNITY OFFICE (S&E)	40	
41	EXT GFCI RECEP BY CLERK ENTRY & NORTH ENTRY	20A-1P	360			360			SPACE	42	
			9720	VA				6788	VA		
TOTAL CONNECTED LOAD PER PHASE:				6068	5940	4500					16508
								51			
								NEW CONNECTED LOAD			
								NEW CONNECTED AMPS ON MAX PHASE			
VOLTAGE: 120/208V, 3-PH, 4W								MOUNTING: SURFACE, NEMA 1			
MAINS: 150A								FEED: BOTTOM			
RATING: 200A								DOOR-IN-DOOR: YES			
AIC: 10K								LOCATION: INTERIOR WALL OPPOSITE PANEL 'MD'			
GND BUS: YES								FED FROM: PANEL 'MD'			

PANEL P3											
PANELBOARD SCHEDULE											
CCT NO.	LOAD	BKR SIZE	LOAD VA	PH A	PH B	PH C	LOAD VA	BKR SIZE	LOAD DESCRIPTION:	CCT NO.	
1	QUAD RECEP NE CLERK COUNTER AREA	20A-1P	720	2880			2160	25A-2P	MS-1 (OUTSIDE UNIT)	2	
3	QUAD RECEP & LIGHTS CLERK COUNTER AREA	20A-1P	776		2936		2160			4	
5	FLOOR RECEP CLERK AREA WEST	20A-1P	720			1800	1080	15A-2P	MS-1 (INSIDE UNIT) SOUTH	6	
7	QUAD RECEP CLERK AREA WEST WALL	20A-1P	720	1800			1080			8	
9	FLOOR RECEP CLERK AREA EAST	20A-1P	720		1800		1080	15A-2P	MS-1 (INSIDE UNIT) NORTH	10	
11	QUAD RECEP CLERK AREA SOUTH WALL	20A-1P	720			1800	1080			12	
13	QUAD RECEP CLERK AREA EAST WALL	20A-1P	720	720					SPACE	14	
15	RECEP COURTYARD STORAGE	20A-1P	360		360				SPACE	16	
17	QUAD RECEP VAULT CENTER COLUMNS	20A-1P	720			720			SPACE	18	
19	FLOOR RECEP E VAULT AREA	20A-1P	360	360					SPACE	20	
21	RECEP VAULT WEST AND SOUTH WALLS	20A-1P	720		720				SPACE	22	
23	RECEP NE & E VAULT WALLS	20A-1P	720			720			SPACE	24	
25	SPARE	20A-1P	0	0					SPACE	26	
27	SPARE	20A-1P	0	0					SPACE	28	
29	SPARE	20A-1P	0		0				SPACE	30	
31	SPACE			0					SPACE	32	
33	SPACE				0				SPACE	34	
35	SPACE					0			SPACE	36	
37	SPACE						0		SPACE	38	
39	SPACE							0	SPACE	40	
41	SPACE								SPACE	42	
			7976	VA				8640	VA		
TOTAL CONNECTED LOAD PER PHASE:				5760	5816	5040					16616
								48			
								NEW CONNECTED LOAD			
								NEW CONNECTED AMPS ON MAX PHASE			
VOLTAGE: 120/208V, 3-PH, 4W								MOUNTING: SURFACE, NEMA 1			
MAINS: 150A								FEED: TOP			
RATING: 200A								DOOR-IN-DOOR: YES			
AIC: 10K								LOCATION: EXTERIOR N. VAULT WALL			
GND BUS: YES								FED FROM: PANEL 'MD'			

PANEL P1											
PANELBOARD SCHEDULE											
CCT NO.	LOAD	BKR SIZE	LOAD VA	PH A	PH B	LOAD VA	BKR SIZE	LOAD DESCRIPTION:	CCT NO.		
1	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	2	
3	EXTG. LOAD	20A-1P			0		30A-2P		EXTG. LOAD	4	
5	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	6	
7	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	8	
9	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	10	
11	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	12	
13	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	14	
15	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	16	
17	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	18	
19	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	20	
21	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	22	
23	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	24	
25	EXTG. LOAD	20A-1P		0			20A-1P		EXTG. LOAD	26	
27	EXTG. LOAD	20A-1P			0		20A-1P		EXTG. LOAD	28	
29	SPARE	100A-2P			0		20A-1P		EXTG. LOAD	30	
31						0			EXTG. LOAD	32	
TOTAL CONNECTED LOAD PER PHASE:											TOTAL CONNECTED LOAD
								AMPS ON MAX PHASE			
VOLTAGE: 120/240V, 1-PH, 3W								MOUNTING: SURFACE, NEMA 3R			
MAINS: 200A								FEED: TOP			
RATING: 200A								DOOR-IN-DOOR: YES			
AIC: 200A								LOCATION: EXTERIOR BLDG WALL (SOUTH)			
GND BUS:								FED FROM: PANEL 'MD'			

PANEL SCHEDULES



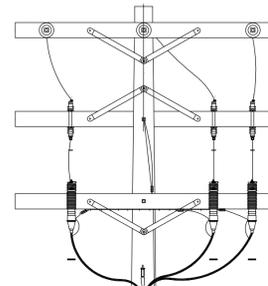
LOAD CALCULATIONS:	
LIGHTING	= 6,929 VA
RECEPTACLES	= 50,644 VA
EQUIPMENT	= 0 VA
HVAC	= 102,600 VA
TOTAL CONNECTED LOAD	= 160,173 VA
LIGHTING @ 125%	= 8,661 VA
RECEPTACLES (1ST 10,000VA @ 100%)	= 10,000 VA
REMAINDER @ 50%	= 20,322 VA
EQUIPMENT @ 100%	= 0 VA
HVAC @ 100%	= 102,600 VA
TOTAL ESTIMATED DEMAND	141,583 VA
141,583VA @ 208V =	393 A

LOAD SUMMARY



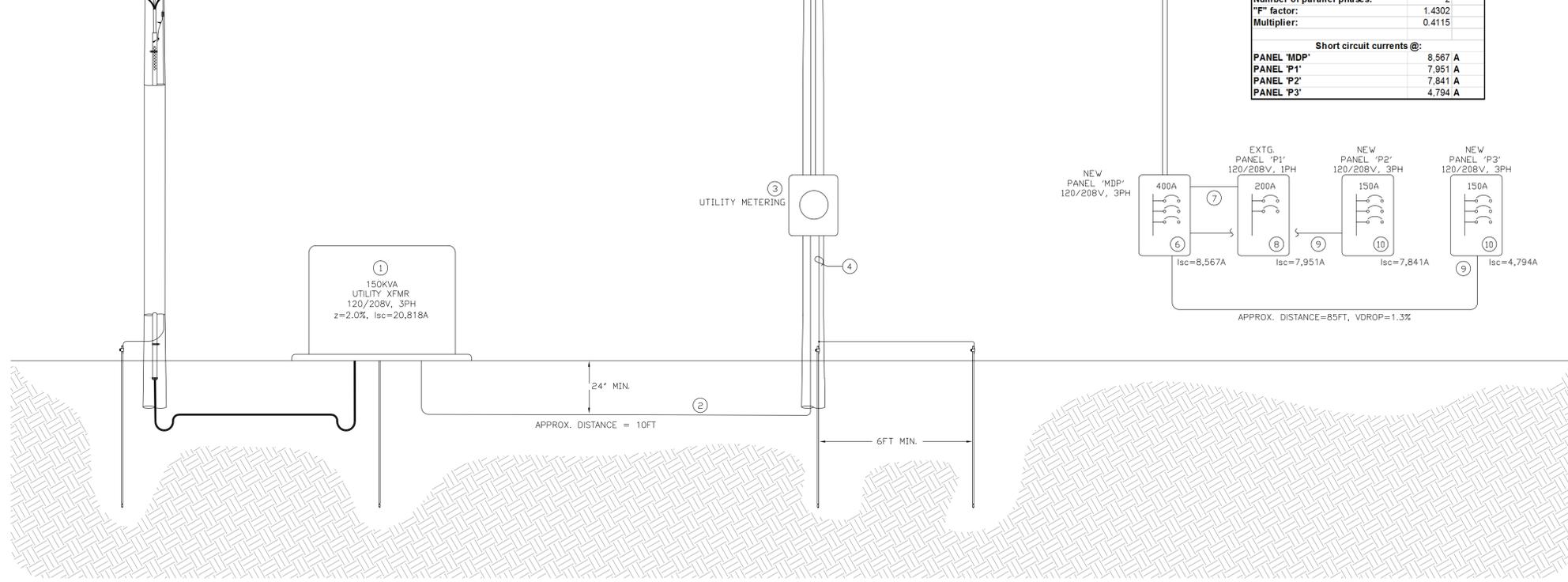
JOB NO:	
DATE:	03/22/2020
REV:	A
REV:	

RISER DIAGRAM, GROUNDING DETAIL,
 FAULT CALCS AND PANEL SCHEDULES
 Checked By: Antonio R. Sanchez, Jr., PE
 Drawn By: AS



POWER RISER DIAGRAM:

SCALE: NONE.



Fault Current Calculations:	
Calculations performed using the following criteria:	
Transformer capacity:	150 kVA
Voltage:	208 V
Impedance:	2 %
Phase:	3
Available current:	416 A
Transformer multiplier:	50.00
Let-thru short circuit current:	20,819 A
Secondary conductor length:	150 Ft
Conductor Constant Value:	9091
Number of parallel phases:	2
"F" factor:	1.4302
Multiplier:	0.4115
Short circuit currents @:	
PANEL "MDP"	8,567 A
PANEL "P1"	7,951 A
PANEL "P2"	7,841 A
PANEL "P3"	4,794 A

ITEM	ELECTRICAL NOTES:
1	120/208V, 3-PHASE UTILITY PADMOUNTED TRANSFORMER. FOR THE PURPOSES OF PROVIDING ARC FLASH VALUES, A 150KVA TRANSFORMER WAS USED. ACTUAL SIZE MAY VARY DEPENDING ON THE UTILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL SIZE OF UNIT PLACED IN FIELD. IF NECESSARY, CONTACT THE ENGINEER FOR REVISED ARC FLASH DETAILS.
2	4-#600 MCM CU IN 3-1/2" PVC AT 24" (MINIMUM) BELOW FINAL GRADE. REFERENCE TRENCH DETAIL ON SHEET E-104.
3	CT METERING PER UTILITY REQUIREMENTS.
4	#1/0 AWG CU TO (2) 5/8" x 8FT GROUND RODS PER NEC 250. REFERENCE ATTACHED GROUNDING DETAIL.
5	OVERHEAD QUADPLEX CONDUCTORS. FOR THE PURPOSES OF ARC FLASH CALCULATIONS, 2 RUNS OF #4/0 AWG AL CONDUCTORS ARE USED. APPROX DISTANCE = 150FT. VDROPP = 2.5%.
6	NEMA 3R, 400A MAIN BREAKER, 120/208V, 3PH, 4W PANE. RATED AT 10KAIC MINIMUM. SEE ATTACHED PANEL SCHEDULE FOR BREAKER DETAILS.
7	3-#3/0 AWG CU & 1-#6 AWG CU GND IN 2" C.
8	EXTG. NEMA 3R, 200A MAIN BREAKER, 120/240V, 1PH, 3W PANEL.
9	4-#1/0 AWG CU & 1-#6 AWG CU IN 1-1/2" C.
10	NEMA 1, 150A MAIN BREAKER, 120/208V, 3PH, 4W PANEL RATED AT 10KAIC MINIMUM. SEE ATTACHED PANEL SCHEDULE FOR BREAKER DETAILS.

NFPA 70E: TABLE 130.7(C)(15)(A)(b) - PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE CATEGORY	PPE
1	Arc-Rated Clothing, Minimum Arc Rating of 4 cal/cm² (see Note 1) Arc-rated long-sleeve shirt and pants of arc-rated coverall Arc-rated face shield (see Note 2) or arc flash suit hood Arc-rated jacket, parka, rainwear, or hard hat liner (AN) Protective Equipment Hard hat Safety glasses or safety goggles (SR) Hearing protection (ear canal inserts) Heavy duty leather gloves (see Note 3) Leather footwear (AN)
2	Arc-Rated Clothing, Minimum Arc Rating of 8 cal/cm² (see Note 1) Arc-rated long-sleeve shirt and pants of arc-rated coverall Arc-rated flash suit hood or arc-rated face shield (see Note 2) and arc-rated balaclava Arc-rated jacket, parka, rainwear, or hard hat liner (AN) Protective Equipment Hard hat Safety glasses or safety goggles (SR) Hearing protection (ear canal inserts) Heavy duty leather gloves (see Note 3) Leather footwear (AN)
3	Arc-Rated Clothing, Minimum Arc Rating of 25 cal/cm² (see Note 1) Arc-rated long-sleeve shirt Arc-rated pants (AR) Arc-rated coverall (AR) Arc-rated arc flash suit jacket (AR) Arc-rated arc flash suit pants (AR) Arc-rated arc flash suit hood Arc-rated gloves (see Note 1) Arc-rated jacket, parka, rainwear, or hard hat liner (AN) Protective Equipment Hard hat Safety glasses or safety goggles (SR) Hearing protection (ear canal inserts) Leather footwear (AN)
4	Arc-Rated Clothing Selected so That the System Arc Rating Meets the Required Minimum Arc Rating of 40 cal/cm² (see Note 1) Arc-rated long-sleeve shirt Arc-rated pants (AR) Arc-rated coverall (AR) Arc-rated arc flash suit jacket (AR) Arc-rated arc flash suit pants (AR) Arc-rated arc flash suit hood Arc-rated gloves (see Note 1) Arc-rated jacket, parka, rainwear, or hard hat liner (AN) Protective Equipment Hard hat Safety glasses or safety goggles (SR) Hearing protection (ear canal inserts) Leather footwear (AN)

Notes:
 (1) Arc rating is defined in Article 100.
 (2) Face shields are to have wrap-around guarding to protect not only the face but also the forehead, ears, and neck, or, alternatively, an arc-rated arc flash suit hood is required to be worn.
 (3) If rubber insulating gloves with leather protectors are used, additional leather or arc-rated gloves are not required. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirement.

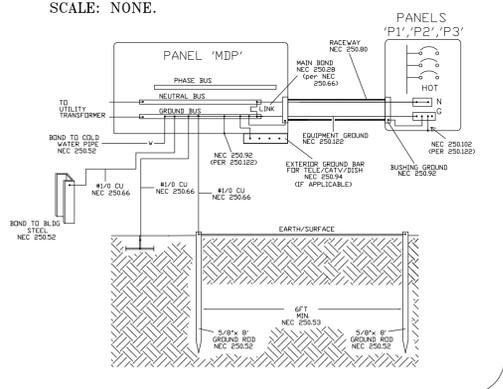
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 ENME

Project Name
**UNION COUNTY OFFICE
 REMODEL**
 200 COURT STREET
 CLAYTON, NEW MEXICO

SHEET NO.
E-105

GROUNDING DETAIL:

SCALE: NONE.



WARNING ARC FLASH AND SHOCK HAZARD APPROPRIATE PPE REQUIRED	WARNING ARC FLASH AND SHOCK HAZARD APPROPRIATE PPE REQUIRED	WARNING ARC FLASH AND SHOCK HAZARD APPROPRIATE PPE REQUIRED	WARNING ARC FLASH AND SHOCK HAZARD APPROPRIATE PPE REQUIRED
EQUIPMENT TYPE: 208V PANEL GROUNDING: WORK DISTANCE: 18 INCHES AVAILABLE 3-PH BOLTED CURRENT: 8,567A FLASH PROTECTION BOUNDARY: 11 INCHES INCIDENT ENERGY AT 18 INCHES: 1.39 CAL/cm2 PPE LEVEL: 4 EQUIPMENT NAME: 02/22/2020 PANEL "MDP"	EQUIPMENT TYPE: 208V PANEL GROUNDING: WORK DISTANCE: 18 INCHES AVAILABLE 1-PH BOLTED CURRENT: 7,951A FLASH PROTECTION BOUNDARY: 9 INCHES INCIDENT ENERGY AT 18 INCHES: 1.12 CAL/cm2 PPE LEVEL: 4 EQUIPMENT NAME: 02/22/2020 PANEL "P1"	EQUIPMENT TYPE: 208V PANEL GROUNDING: WORK DISTANCE: 18 INCHES AVAILABLE 3-PH BOLTED CURRENT: 7,841A FLASH PROTECTION BOUNDARY: 10 INCHES INCIDENT ENERGY AT 18 INCHES: 0.50 CAL/cm2 PPE LEVEL: 4 EQUIPMENT NAME: 02/22/2020 PANEL "P2"	EQUIPMENT TYPE: 208V PANEL GROUNDING: WORK DISTANCE: 18 INCHES AVAILABLE 3-PH BOLTED CURRENT: 4,794A FLASH PROTECTION BOUNDARY: 9 INCHES INCIDENT ENERGY AT 18 INCHES: 0.36 CAL/cm2 PPE LEVEL: 4 EQUIPMENT NAME: 02/22/2020 PANEL "P3"

CATEGORY	ENERGY LEVEL	TYPICAL PPE EXAMPLES
0	N/A	Non-melting, flammable materials.
1	4 cal/cm2	FR long-sleeve shirt & FR pants or FR coverall.
2	8 cal/cm2	Cotton underwear - conventional short sleeve and brief/shorts, plus FR long-sleeve shirt & pants.
3	25 cal/cm2	Cotton underwear plus FR long-sleeve shirt & pants plus FR coverall or cotton underwear plus two FR coveralls.
4	40 cal/cm2	Cotton underwear plus FR long-sleeve shirt & pants plus multilayer flash suit.

All categories require a face shield and/or safety glasses, hard hat and leather gloves. Where insulating rubber gloves are used for shock protection, leather protectors shall be worn over the rubber gloves. Leather work boots shall be worn for energy levels above 4 cal/cm2.

* CAVEAT: NFPA 70E - WORK ON ENERGIZED PARTS, INCLUDING VOLTAGE TESTING, REMOVING OR INSTALLING CIRCUIT BREAKERS OR FUSED SWITCHES OR REMOVING BOLTED COVERS TO EXPOSE BARE, ENERGIZED PARTS WOULD PLACE THIS PROJECT INTO A CATEGORY 1 FOR APPROPRIATE PPE.

ARC FLASH INFO:

SCALE: NONE