



Public Works works for the Public



COUNTY OF
IMPERIAL

DEPARTMENT OF
PUBLIC WORKS

155 S. 11th Street
El Centro, CA
92243

Tel: (442) 265-1818
Fax: (442) 265-1858

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COUNTY OF IMPERIAL PUBLIC WORKS

155 S. 11th Street
El Centro, CA 92243

County Project: No. SR6841BH (BHCIP-B4 237) County of Imperial Behavioral Health Services (BHS) El Centro Outpatient Clinic "It Takes a Village" Interior Remodel, Exterior and Site Improvements and Roof Replacement Project. Located at 120 N. 8th Street, El Centro, CA 92243

County Project No. SR6841BH (BHCIP – B4 237)

ADDENDUM NO. 6

MAY 19, 2025

This *ADDENDUM* is hereby made part of the Contract Documents and specifications to the same extent as if originally included therein, and shall be signed by the Respondent and included with the proposal.

The following clarifications are answers to questions raised during the walkthrough and bid process of this project by contractors interested in this project, all answers are by YNG Architects, Inc. (Architect responsible for construction plans) :

Clarification No.1: I'm reaching out regarding the above-mentioned job in reference to the Clay Tile specifications. I note that they are no Division 07 Specification for the Clay Tile roof either the Project Manual or Project Plans. Could you point me in the right direction or are we bidding this solely based off plans alone?

Answer: Division 07 Specification for the Concrete Spanish Tile Roof: Redland Alfaro Clay Tile or approved equal.

Clarification No.2: Please Clarify working hours for project?

Answer: Working Hours from 7:00am to 3:30pm (tentative).

Answer by ICPW.

Clarification No.3: Please Confirm if windows showing these details are to be removed and replaced? Or if all the windows on the project are to be removed and replaced?

Answer: Refer to window schedule, elevations, and demo floor plans for notes referring to new walls and existing windows.

Clarification No.4: On the walk it was discussed that this project was to be phased. How many phases will there be? And what sections of the building will be in scope per phase?

Answer: The intent is to break it down into three phases:

- *Phase 1 – Interior: This phase would cover the interior remodel, including the demolition of walls and related work (such as M.E.P. systems).*
- *Phase 2 – Exterior Building: This phase would involve the exterior remodeling of the building itself.*

Clarification No..5: Can a clear Plumbing demo plan be provided to determine what fixtures are in demo scope. Plumbing drawings do not include a demo plan. Page X5.1 shows plumbing fixtures to remain, but the walls are moving. Please see example for existing Mop Sink shown Below. Is Mop Sink going to remain in the middle of the Room?

Answer: Please refer to Sheet X5.1 – the demolition plan has been updated for clarity. The Mop Sink has been relocated to a corner of the room; refer to Sheet A2.1 for the revised location. Please review.

Clarification No..6: What is the scope for the exiting Hot Water System? Plans show darkened lines but do not include any verbiage if the main is to remain during the demo. Is the scope to remove and replace all Hot Water lines?

Answer: Per P0.2 Updated plan / Plumbing Scope of Work/ Note No.2: “All the heating hot water piping (shown as dark) is new; there is not an existing heating hot piping distribution system on the building. New two tankless instantaneous gas water heater will be used”

Clarification No..7: Is the Mop Sink to be removed and replaced? The Mop Sink appears on the Fixture Schedule on Page P0.2 However, Page P1.1 shows new water lines going (Existing Mop Sink) see example below.

Answer: Per plans and site visit the mop sink shown in the plans is a new mop sink, as the existing men’s restroom is located there, but there is no mop sink.

Clarification No..8: On page P1.3 has a note to “Follow the existing Condensate Routing...” However, no condensate is shown on Plumbing Drawings. Can a plan showing the Condensate piping be provided prior to bid date?

Answer: We don’t know the exact condensate routing of the existing air handling units (no drawings), but the equipment tonnage is basically the same. I changed the note on P1.3 to keep the existing the air handling unit’s condensate lines and re-connect the new equipment to them (if it is working now, it will work with the new equipment).

Clarification No.9: P1.3 shows a water heater located in a mechanical room that is being used as an outside air mixing box. The new heaters to be installed are tankless units requiring intake and exhaust air that needs to be piping outside of structure. Can a piping plan be provided for the intake and exhaust air to be Installed?

Answer: The rectangular box on sheet P1.3 is the dimension of the instantaneous water heater; the vent and the combustion air pipes are showing on sheet M1.1 (mechanical takes care of combustion and flue vent for water heaters). I added a concentric venting for the water heater (detail 3, sheet M2.2) to clarify the installation.

Clarification No.10: Is the Gas piping to remain in place during demo? Plans call out for the existing main to remain.

Answer: Per Plan P0.2 /Plumbing Scope of Work/ Note No.3, There is an existing gas line to remain, and it will be used to serve the two new gas heaters. The connection gas sizes are shown on the plans, and the existing gas line is shown as screen on the plans.

Clarification No.11: Overall, the plumbing drawing seems to be incomplete “ At Best” can revised plumbing drawings be provided to clearly define plumbing scope and pipe routing of all in scope systems?

Answer: Please see attached updated Plumbing plans for reference.

Clarification No.12: Please provide complete specs for project. For example, doors, frames, hardware, plaster, fencing, CMU, drywall, paint, concrete, flooring, etc.

Answer: Please see attached specifications.

Clarification No.13: Are we plastering the entire exterior of the building? Plan details do not show a start and stopping point aside from the window infills.

Answer: Yes, the entire exterior of the building will be plastered, attached are the updated floor plan with the Note.

Clarification No.14: Windows details are 4, 5, and 6 on AD 1 not 1, 2, and 3 please confirm? See attachment Plaster RFI 02

Answer: Confirmed. Window details have been revised and are now correctly identified as Details 4, 5, and 6 on Sheet AD1. Refer to elevations on Sheets A4.1, A4.2, and A4.3 for additional coordination.

Clarification No.15: Wood Mold by others? I don't see anything in the S sheets indicating this additional framing it is not indicated on the

exterior elevations on A4.1, 4.2, and 4.3, nor on the sections on A5.1 Please clarify. See attachment Plaster RFI 01.

Answer: Refer To Detail Sheet AD1

Clarification No..16: Where can we gain access with equipment (backhoes, excavators and skid steers) in order to remove the existing brick walkway and concrete sidewalks. Currently, there is no access for construction equipment and all the removal work would need to be completed by hand.

Answer: Since the existing chain-link fence will be removed and replaced with a new masonry wall with wrought iron fence (matching the existing one), small backhoes, excavators and skid steer can access through that area, since there is a distance of 12 feet between the existing A/C equipment unit located in this area and the bush (in form of tree).

Clarification No.17: Looks like the fixture schedules don't show break room sink, urinals and drinking fountain specifications.

Please see attached Plumbing Fixtures specifications at Project Specifications Document by YNG Architects, Inc.

Clarification No.18: Construction Plans.

Please see updated

Architectural Plans & Demolition Plans:

- X4.1, X4.2, X5.1, A2.1, A4.1, A4.2, A4.3, A5.1, A6.1, AD.1

Mechanical Plans:

- MO.1, M0.2, M1.0, M1.1, M1.2, M2.0, M2.1, M2.2, M3.0
M3.1, M4.0, M4.1

Plumbing Plans:

- P0.1, P0.2, P1.0, P1.1, P1.2, P1.3, P1.4, P2.0

Clarification No.19: Project Specifications by YNG Architects, Inc.

We are adding to this Bid Package, the project specifications by YNG Architects, Inc.

The Consultant is responsible for advising any and all subconsultants of this change. Each Respondent must acknowledge receipt of this addendum in the noted space below and must be attached to the proposal.

Cu 2 *FOR JAG*

John Gay, PE
Director of Public Works

Acknowledgement of Addendum No. 6

County Project No. SR6841BH (BHCIP -B4 237)7181PRO – County of Imperial Behavioral Health Services (BHS) El Centro Outpatient Clinic “It Takes a Village” Interior Remodel, Exterior and Site Improvements and Roof Replacement Project. Located at 120 N. 8th Street, El Centro, CA 92243

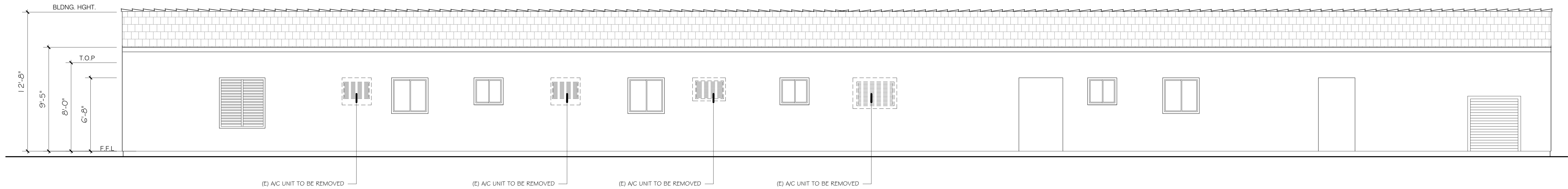
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Print or Type Authorized Name: _____

Authorized Signature of Consultant: _____

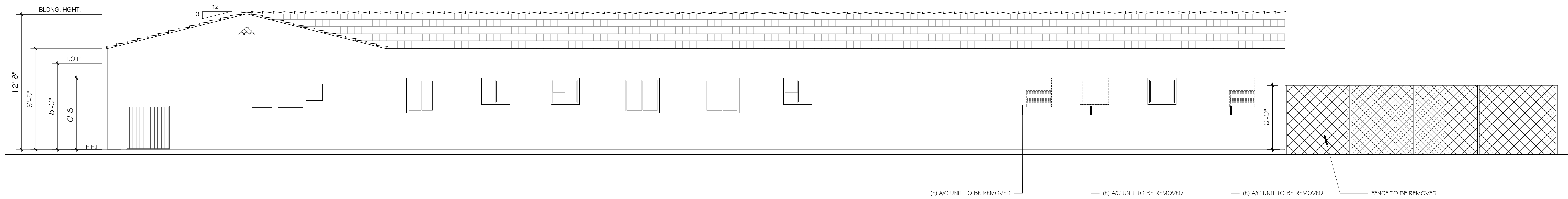
Date Signed: _____



EXISTING ELEVATION WEST

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

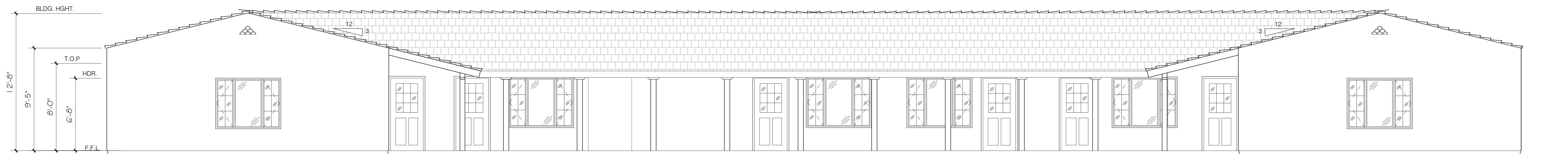
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EXISTING ELEVATION SOUTH

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

2

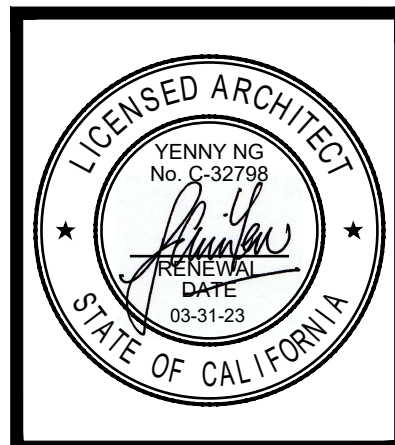
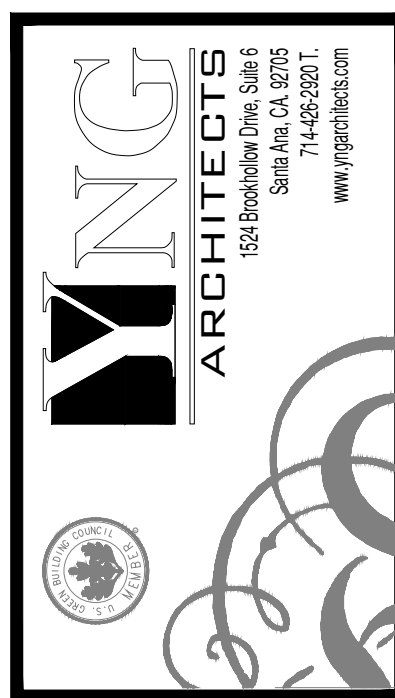


EXISTING ELEVATION FRONT EAST

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

1

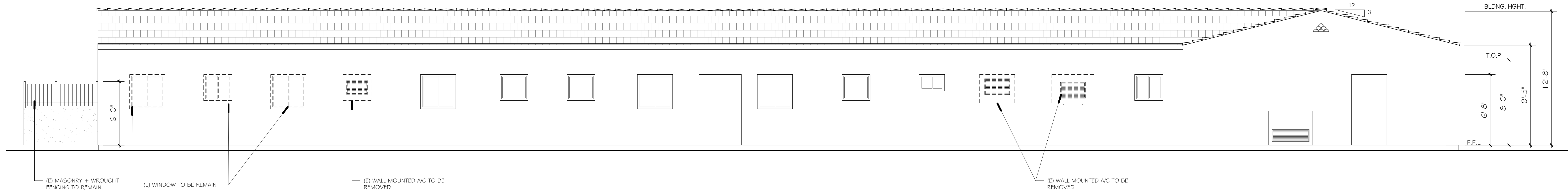
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BEHAVIORAL HEALTH CLINIC
REMODEL & RE-ROOFING
120 N. 8th. STREET, EL CENTRO, CA 92243

OVERALL
EXISTING ELEVATION

DATE	08/01/22
SCALE	
DRAWN	B.M./ L.W.
JOB#	YP22005
SHEET#	X4.1



EXISTING ELEVATION NORTH

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

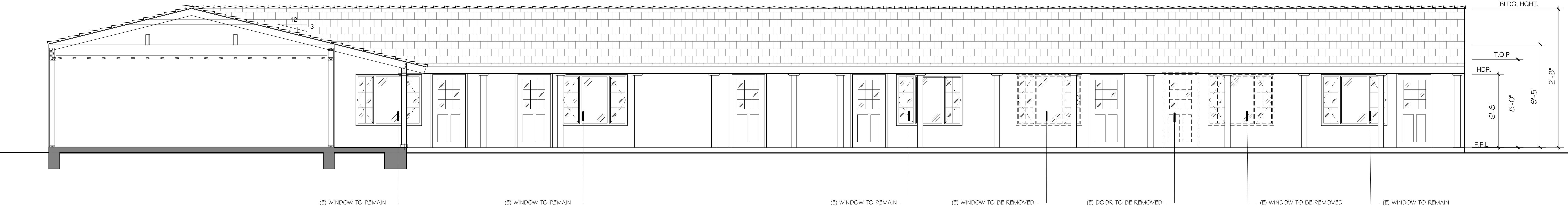
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EXISTING ELEVATION: COURTYARD FACING SOUTH

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

2

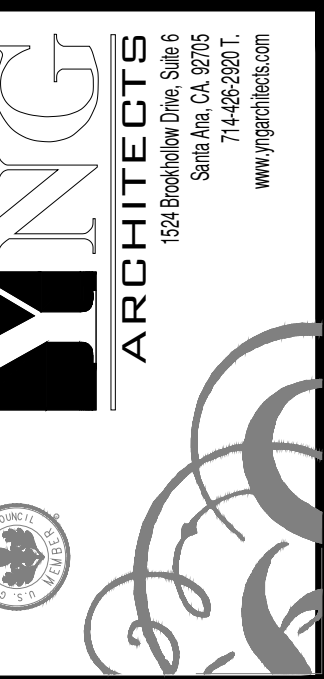


EXISTING ELEVATION: COURTYARD FACING NORTH

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

1

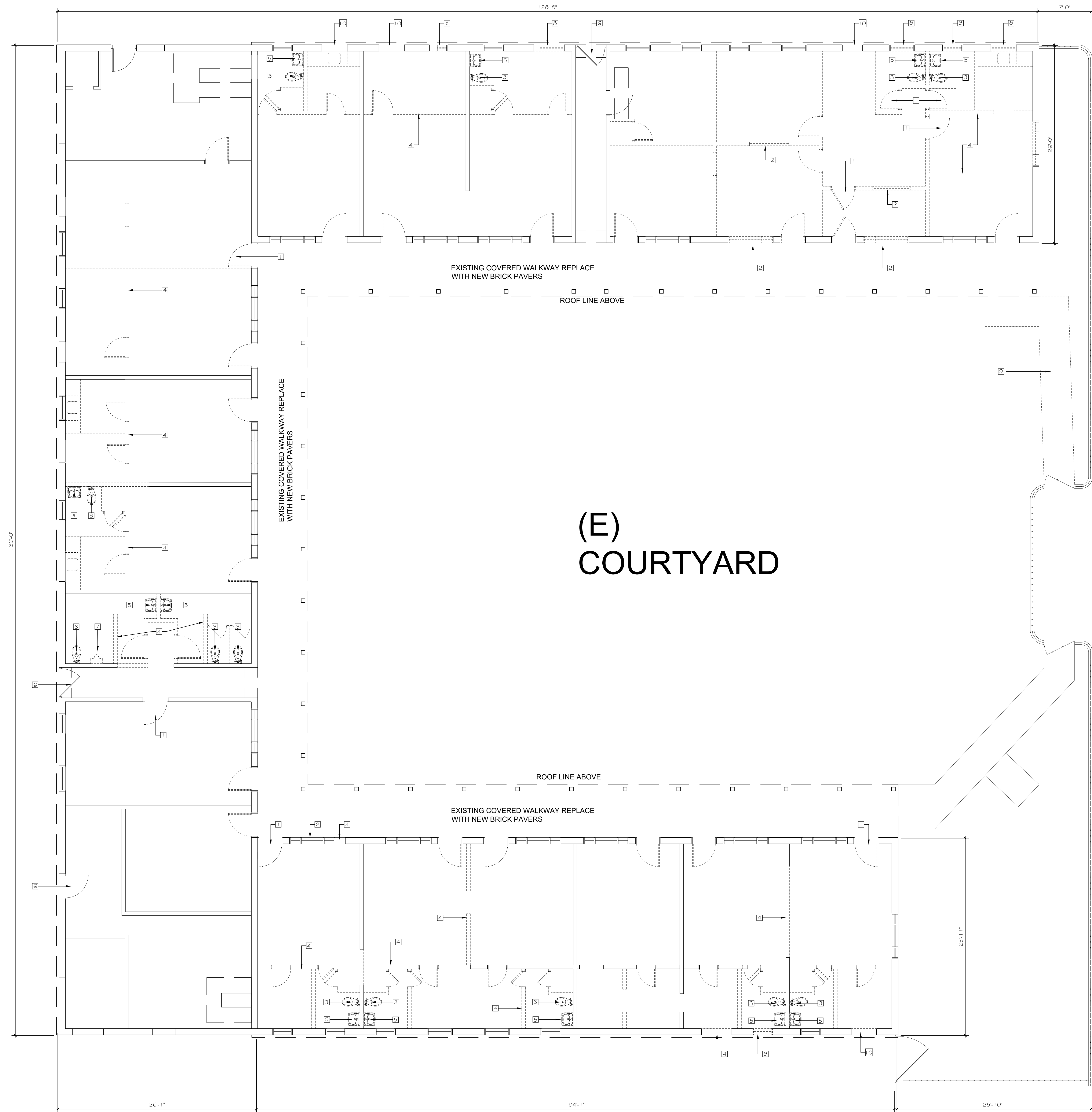
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OVERALL
EXISTING ELEVATION

DATE	08/01/22
SCALE	
DRAWN	B.M./L.W.
JOB#	YP22005
SHEET#	X4.2



LEGEND

(E) STUD WALL TO REMAIN

(E) STUD WALL TO BE REMOVED

(E) DOOR TO BE REMOVED

(E) DOOR TO REMAIN

KEYNOTES

1 (E) DOOR TO BE REMOVED

2 (E) WINDOW TO BE REMOVED

3 (E) TOILET TO BE REMOVED

4 (E) WALL TO BE REMOVED

5 (E) SINK TO BE REMOVED

6 (E) DOOR TO REMAIN

7 (E) URINAL TO BE REMOVED

8 (E) WINDOW TO BE REMOVED

9 (E) RAMP TO BE REMOVED

10 (E) WALL MOUNTED A/C UNIT TO BE REMOVED

NOTES

REFER TO DOOR AND WINDOW SCHEDULE FOR (E) WINDOWS AND DOORS

REVISIONS	
NO.	DESCRIPTION
1	11/18/22 PLAN CHECK 1

YNG

ARCHITECTS

1200 Broadway Ave. Suite 100
San Francisco, CA 94103
415.398.8800
www.yngarchitects.com

LICENSED ARCHITECT

TENNY NG
No. C-32759
ARCHITECT
SINCE
08-31-03
STATE OF CALIFORNIA

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DEMOLITION PLAN

DATE 08/01/22

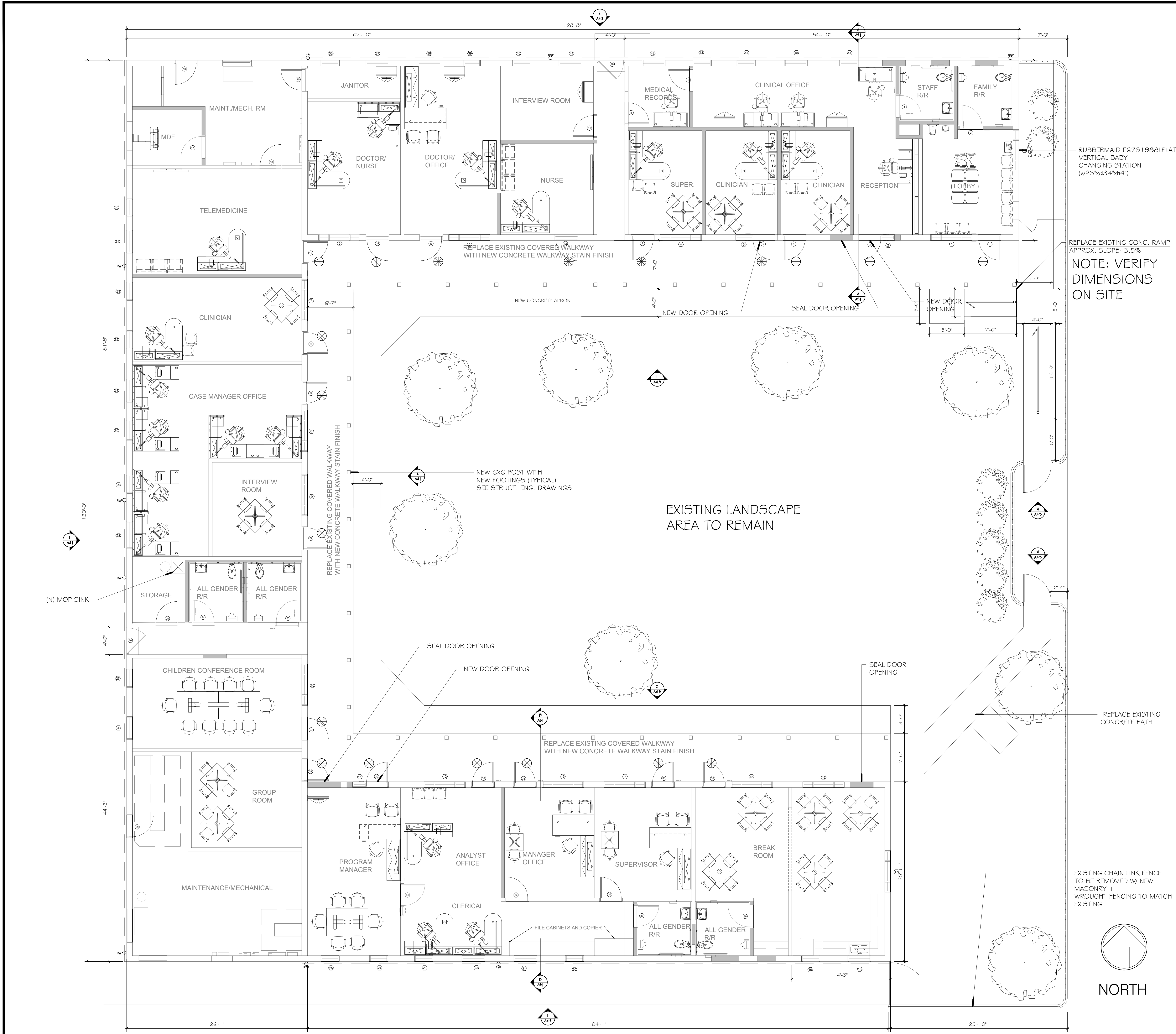
SCALE

DRAWN B.M./L.W.

JOB# YP22005

SHEET#

X5.1



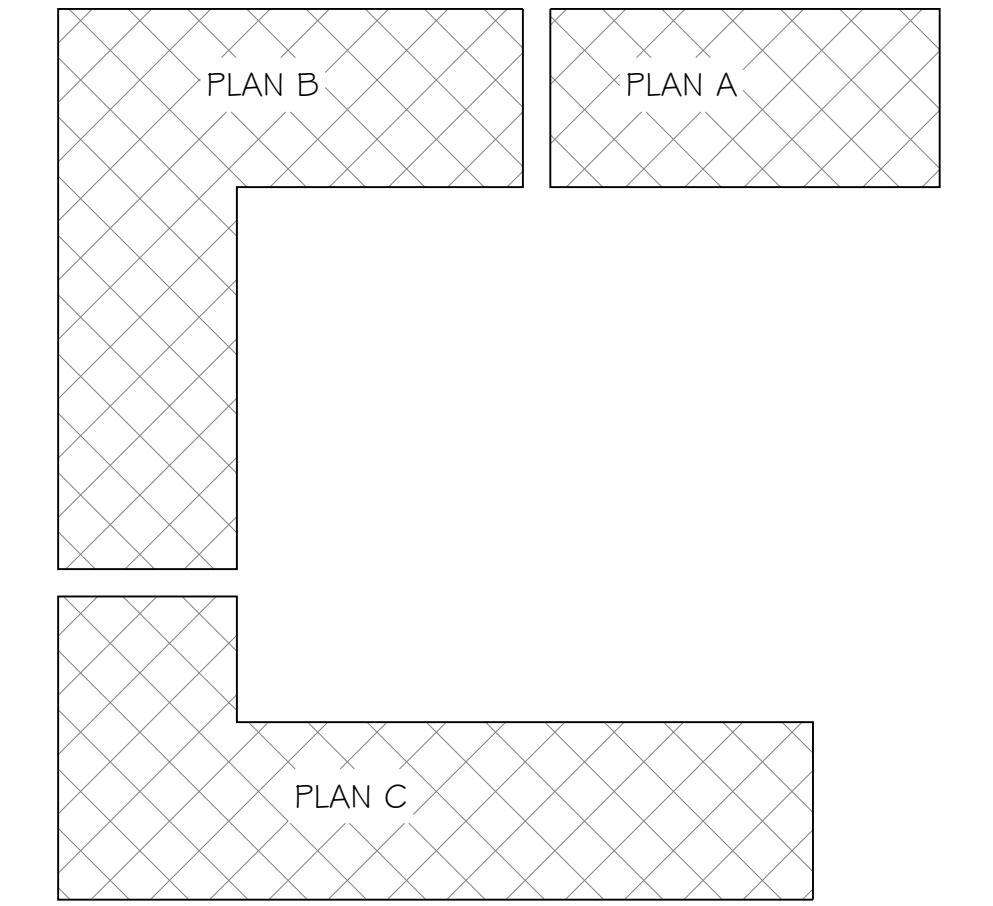
OVERALL FLOOR PLAN

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

LEGEND

- (E) STUD WALL TO REMAIN
- (N) INTERIOR STUD WALL - 2"x4" FRAMING W/ 1/2" GYP. BD. ON INTERIOR SIDE.
- (N) DOOR
- (E) DOOR TO REMAIN

NOTES



- NOTE: (N) PLASTER OF THE ENTIRE EXTERIOR OF BUILDING
- MEANS OF EGRESS:
SLEEPING ROOMS SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING:
A. MINIMUM NET CLEAR OPENING OF 5.7 SF.
(5 SF FOR GRADE FLOOR OPENINGS).
B. MINIMUM NET CLEAR HEIGHT OF 24".
C. MINIMUM NET CLEAR OPENING WIDTH OF 20 INCHES
D. SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.
E. SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR TO A YARD THAT OPENS TO A PUBLIC WAY. YARD OR COURT MUST COMPLY WITH THE DEFINITION "AN OPEN SPACE, UNOBSTRUCTED FROM THE GROUND TO THE SKY", THEREFORE, INGRESS/EGRESS OPENINGS, WHICH OPEN ONTO DECKS, ROOFS, OR INTO A COVERED PATIO ARE NOT ACCEPTABLE.
F. WINDOW CONTROL OPENING DEVICE SHALL NOT REDUCE THE REQUIRED NET CLEAR OPENING AREA OF THE WINDOW.
- SAFETY GLAZING:
SAFETY GLAZING OR TEMPERED GLASS IS REQUIRED IN HAZARDOUS LOCATIONS PER R308.
- IN BATHROOMS - WINDOWS 60 INCHES OR LESS ABOVE THE TUB OR SHOWER FLOOR TO BE TEMPERED GLASS.
- GLAZING ADJACENT TO STAIRS (LESS THAN 36" A.F.F.) TO BE TEMPERED PER CRC R308.4.6
- PLUMBING NOTES:
PLUMBING FIXTURES AND FITTINGS SHALL MEET THE REQUIREMENTS, INCLUDING MAXIMUM FLOW RATES IN SECTION 4.303 CALGREEN BUILDING STANDARDS.
- FAUCETS IN KITCHEN TO BE 1.8 GALLONS PER MINUTE, MAXIMUM, PER CPC 420.2.1 & 420.2.2.
RESIDENTIAL LAVATORY FAUCET TO BE 1.2 GALLONS PER MINUTE, MAXIMUM, PER CPC 407.2.2.
WATER CLOSET TO BE 1.28 GALLONS PER FLUSH, MAXIMUM, OR DUAL FLUSH PER CPC 411.2.
SHOWERHEADS TO BE 1.8 GALLONS PER MINUTE, MAXIMUM, PER CPC 408.2.
- WATER CLOSET - LOCATE IN CLEAR SPACE NOT LESS THAN 30" IN WIDTH AND WITH NOT LESS THAN 24" CLEAR SPACE IN FRONT OF THE WATER CLOSET STOOL.
- THE MIN. INTERIOR DIMENSION OF A SHOWER COMPARTMENT MUST BE CAPABLE OF ENCOMPASSING A 30" DIA. CIRCLE.
- WALL COVERING SHALL BE CEMENT PLASTER, TILE OR APPROVED EQUAL TO 72 INCHES ABOVE DRAIN AT SHOWERS OR TUB WITH SHOWERS. MATERIALS OTHER THAN STRUCTURAL ELEMENTS ARE TO BE MOISTURE RESISTANT.
CRC R307.2
- MECHANICAL NOTES:
A MINIMUM OPENING OF 100 SQ. IN. FOR MAKE-UP AIR SHALL BE PROVIDED IN THE LAUNDRY ROOM DOOR OR BY OTHER APPROVED MEANS PER C.M.C. SECTION 504.3.1
- STAIRWAYS:
MAXIMUM RISE OF 7.75"
MINIMUM RUN (TREAD) OF 10"
NOSING OF 0.75" TO 1.25" WHEN TREAD DEPTH LESS THAN 11"
MINIMUM WIDTH OF 36"
MINIMUM HEADROOM OF 6'8"
HANDRAIL TO BE 36"-38" ABOVE NOSING OF TREADS
HANDGRIP CROSS SECTION OF 1.5" OR PER R311.7.7.3.
- HANDRAILS:
HANDRAILS ON THE OPEN SIDE OF A STAIRWAY MUST MEET GUARD REQUIREMENTS. FOR OCCUPANCIES IN GROUP R-3 GUARDS WHOSE TOP RAIL ALSO SERVES AS A HANDRAIL SHALL HAVE HEIGHT NOT LESS THAN 34 IN. AND NOT MORE THAN 38 IN. MEASURED VERTICALLY FROM THE LEADING EDGE OF THE STAIR TREAD NOSING.
A ROUND HANDRAIL MUST HAVE DIAMETER NO SMALLER THAN 1 1/4 IN. AND NO LARGER THAN 2 IN., SO THAT IT CAN BE EASILY AND SECURELY GRIPPED. OTHER HANDRAIL SHAPES ARE ALLOWED IF THE PERIMETER DIMENSION IS AT LEAST 4 IN. AND NOT MORE THAN 6 1/4 IN., WITH A CROSS SECTION DIMENSION NOT MORE THAN 2 1/4 IN.
GUARDRAILS:
GUARDRAILS / GUARD OF MINIMUM 42" ABOVE LANDINGS MORE THAN 30" ABOVE FLOOR / GRADE.
GUARD OPENINGS TO BE LESS THAN 4".

LEGEND

- KEYPAD PROPOSED LOCATION
- KP (ALL EXTRA DOOR FACING COURTYARD)

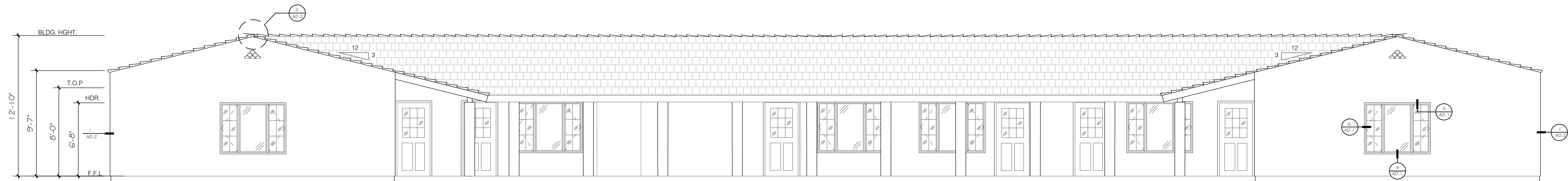
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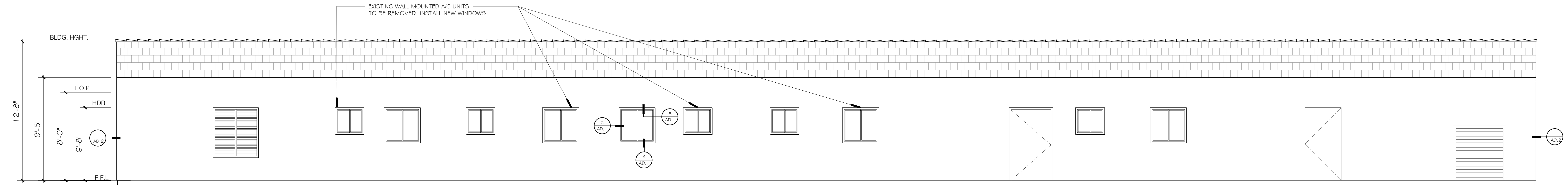
PROPOSED FLOOR PLAN

DATE	08/01/22
SCALE	
DRAWN	B.M./L.W.
JOB#	YP22005
SHEET#	A2.1



PROPOSED ELEVATION FRONT

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



PROPOSED ELEVATION WEST

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

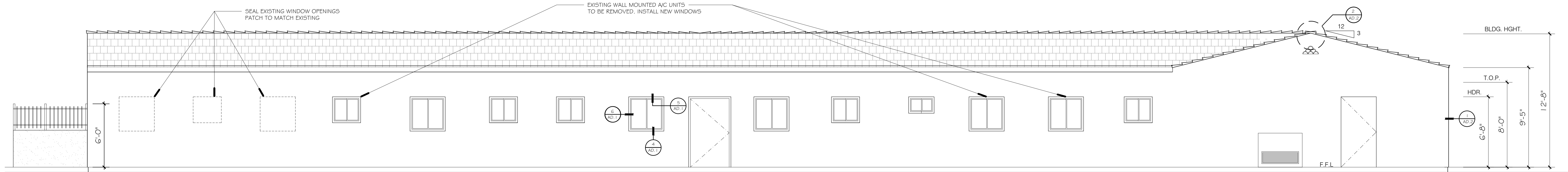
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BEHAVIORAL HEALTH CLINIC
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PROPOSED
ELEVATIONS

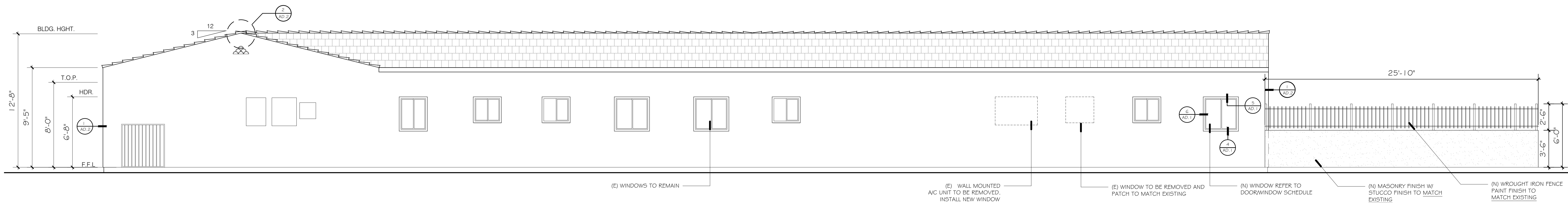
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JOB#	YP22005
SHEET#	A4.1



PROPOSED ELEVATION NORTH

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

2



PROPOSED ELEVATION SOUTH

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

1

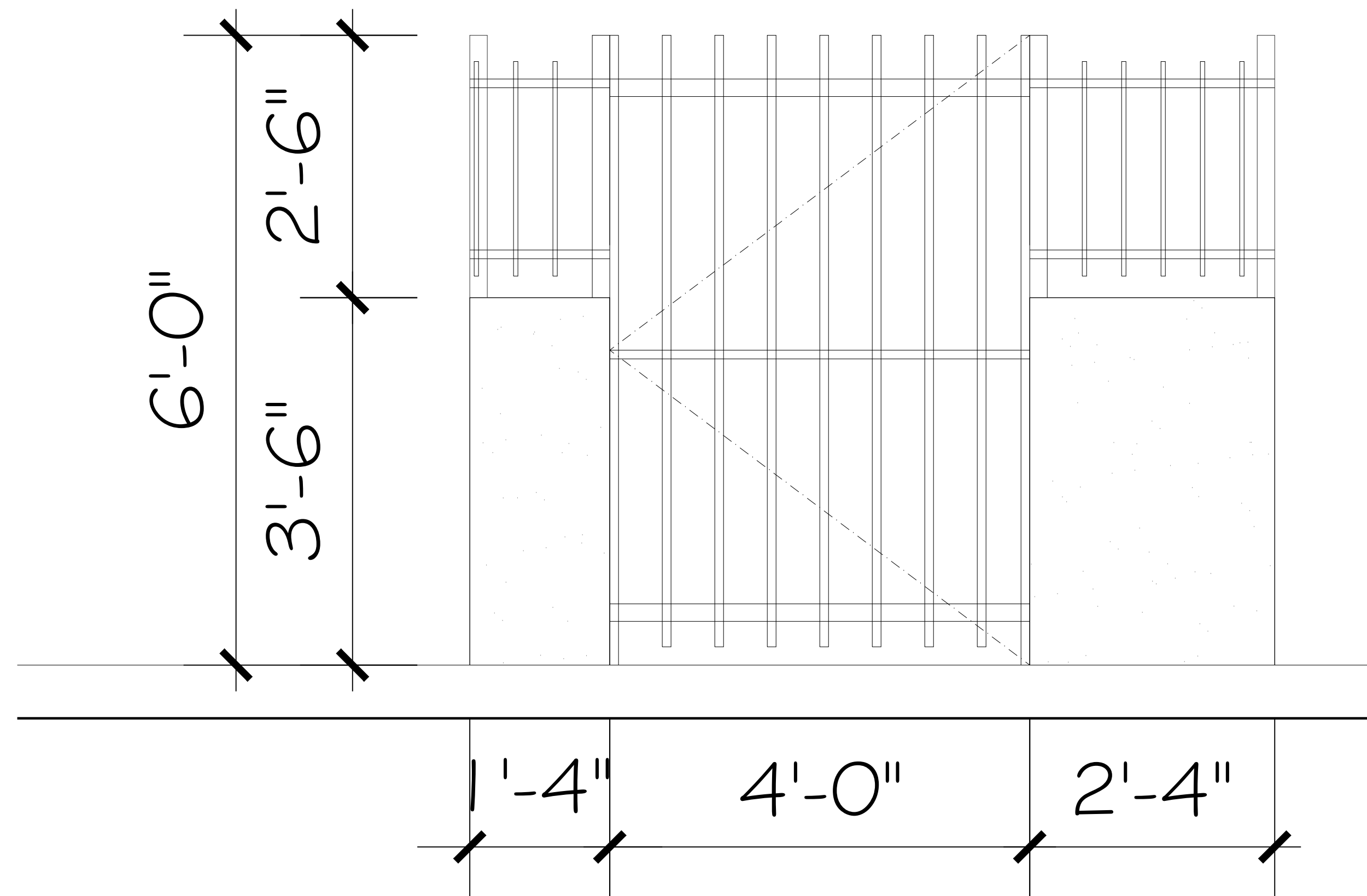
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PROPOSED
ELEVATIONS

DATE	08/01/22
SCALE	
DRAWN	B.M./L.W.
JOB#	YP22005
SHEET#	A4.2

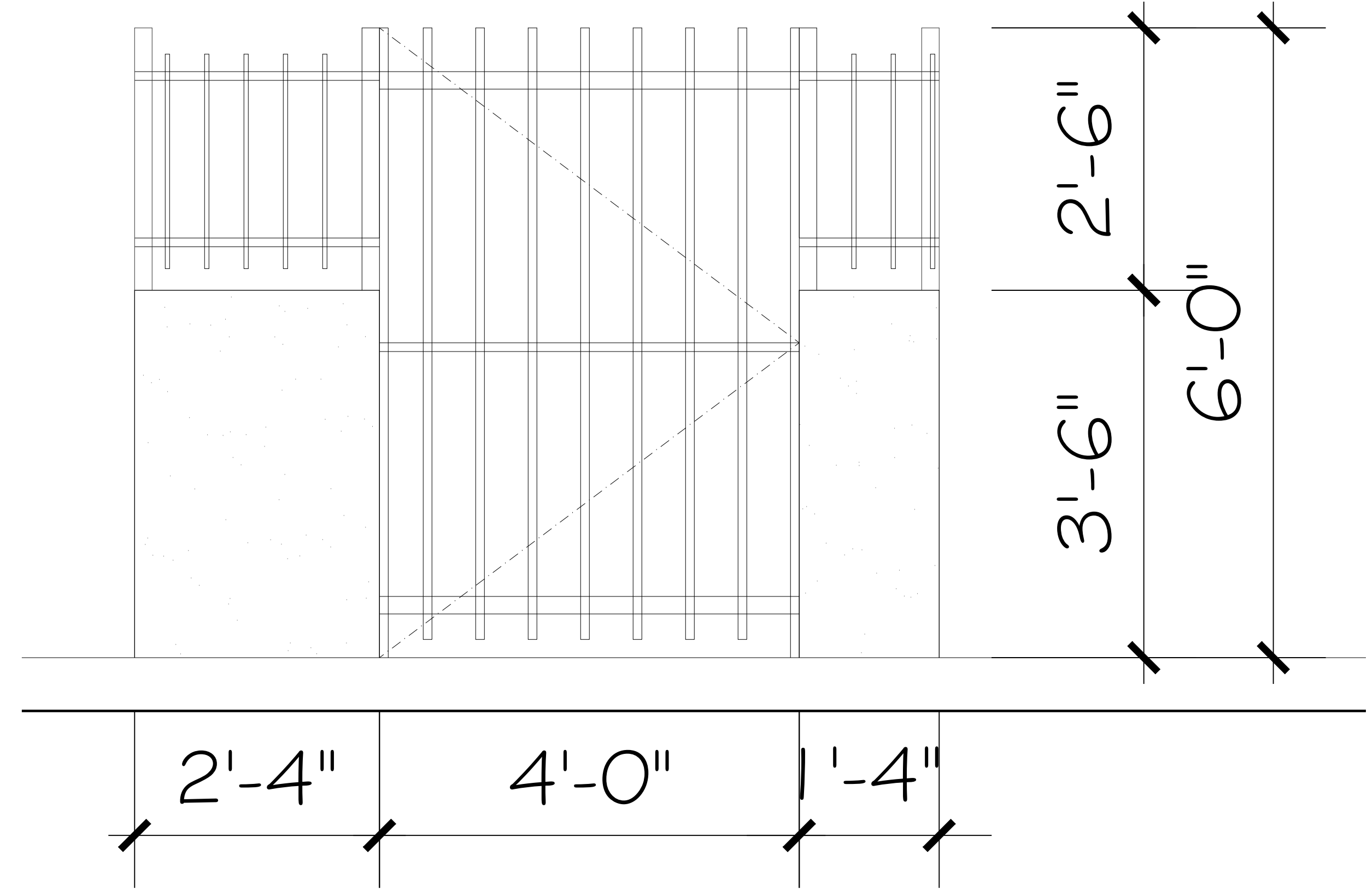


NOTE: VERIFY ALL DIMENSIONS ON SITE

ENTRY GATE SOUTH ELEVATION

SCALE: 1" = 1'-0"

4

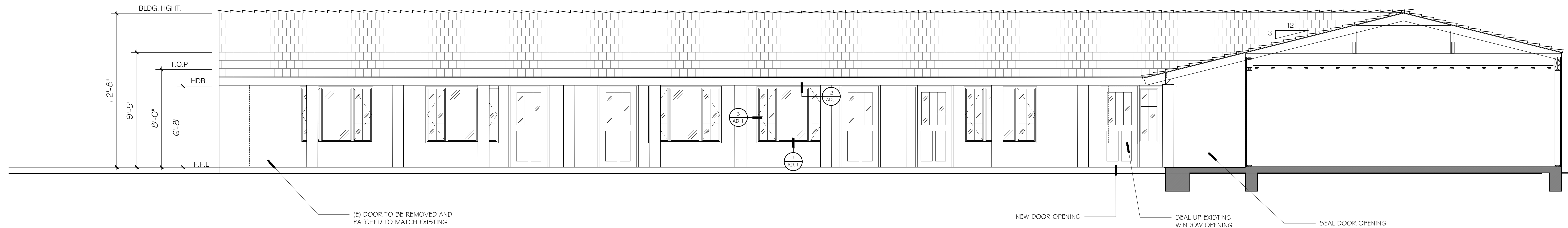


NOTE: VERIFY ALL DIMENSIONS ON SITE

ENTRY GATE NORTH ELEVATION

SCALE: 1" = 1'-0"

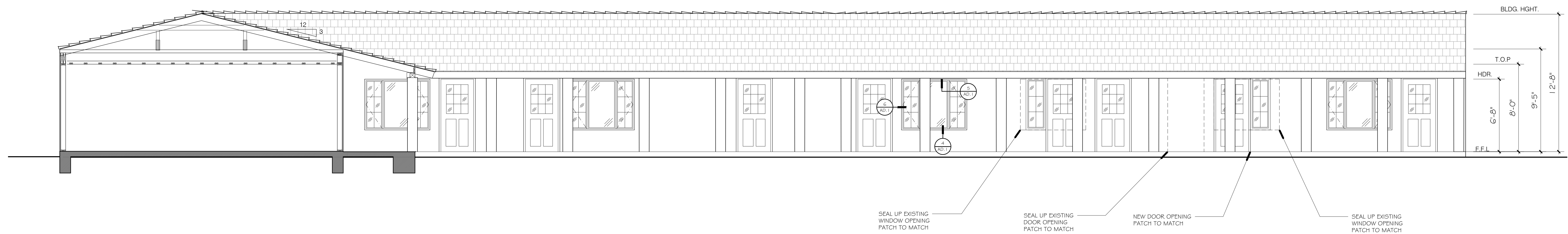
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COURTYARD ELEVATION: PROPOSED NORTH

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

2

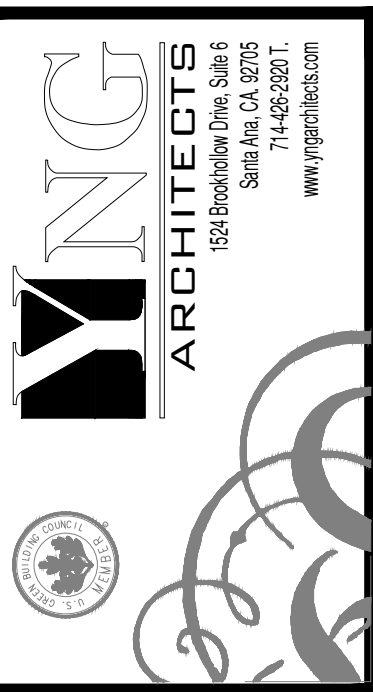


COURTYARD ELEVATION: PROPOSED SOUTH

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

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REVISIONS	
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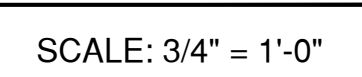
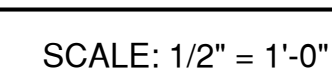
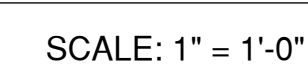
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PROPOSED
ELEVATIONS

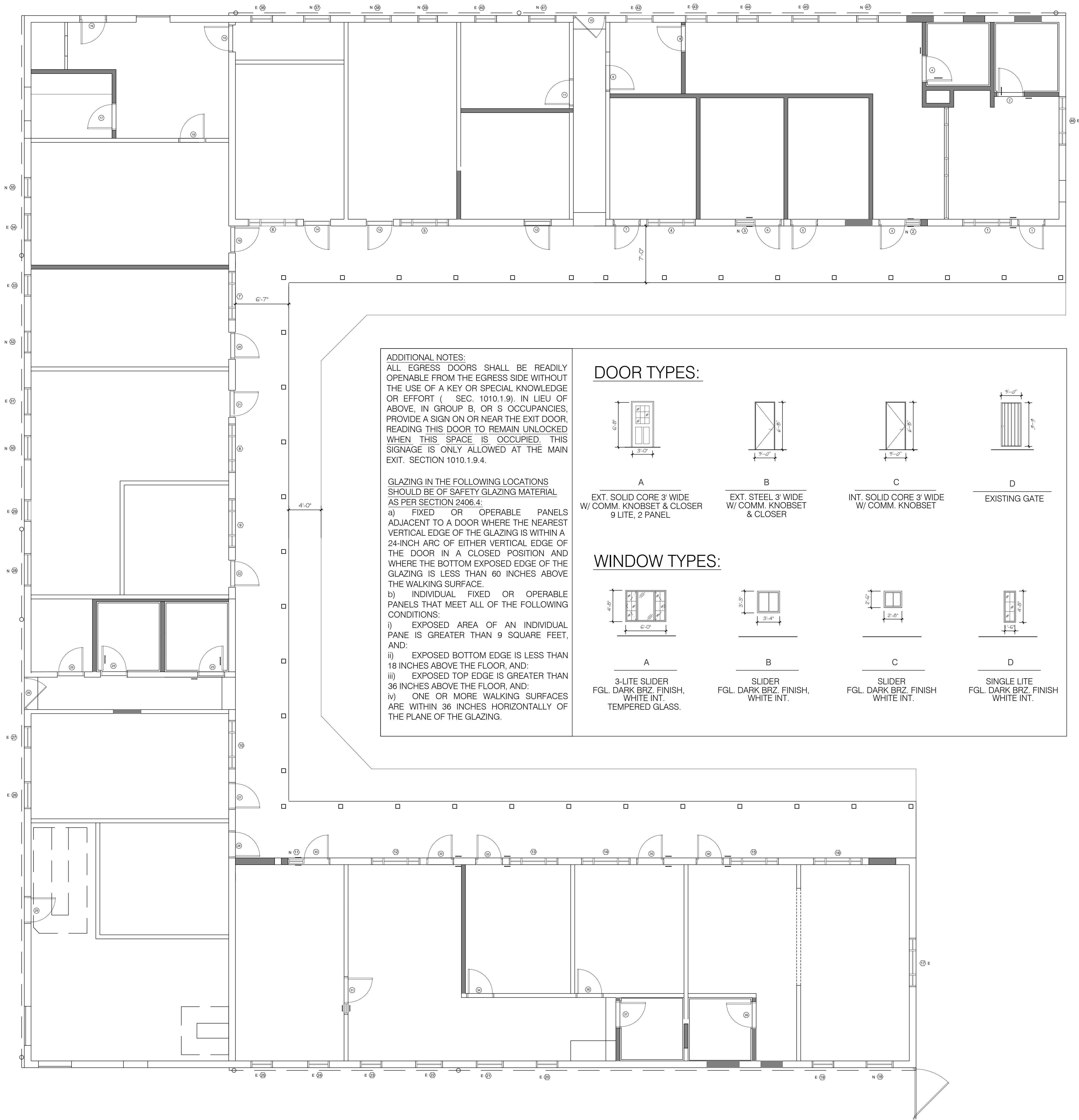
DATE	08/01/22
SCALE	
DRAWN	B.M./L.W.
JOB#	YP22005
SHEET#	

A4.3



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

SHEET#
A5.1

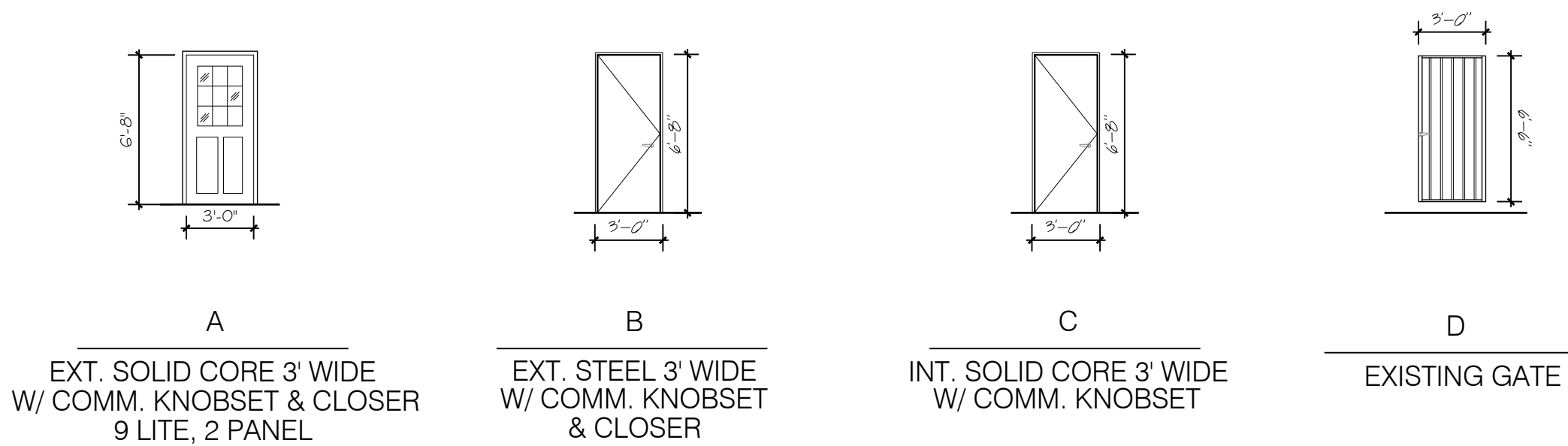


ADDITIONAL NOTES:
ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT (SEC. 1010.1.9). IN LIEU OF ABOVE, IN GROUP B, OR S OCCUPANCIES, PROVIDE A SIGN ON OR NEAR THE EXIT DOOR, READING THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. THIS SIGNAGE IS ONLY ALLOWED AT THE MAIN EXIT. SECTION 1010.1.9.4.

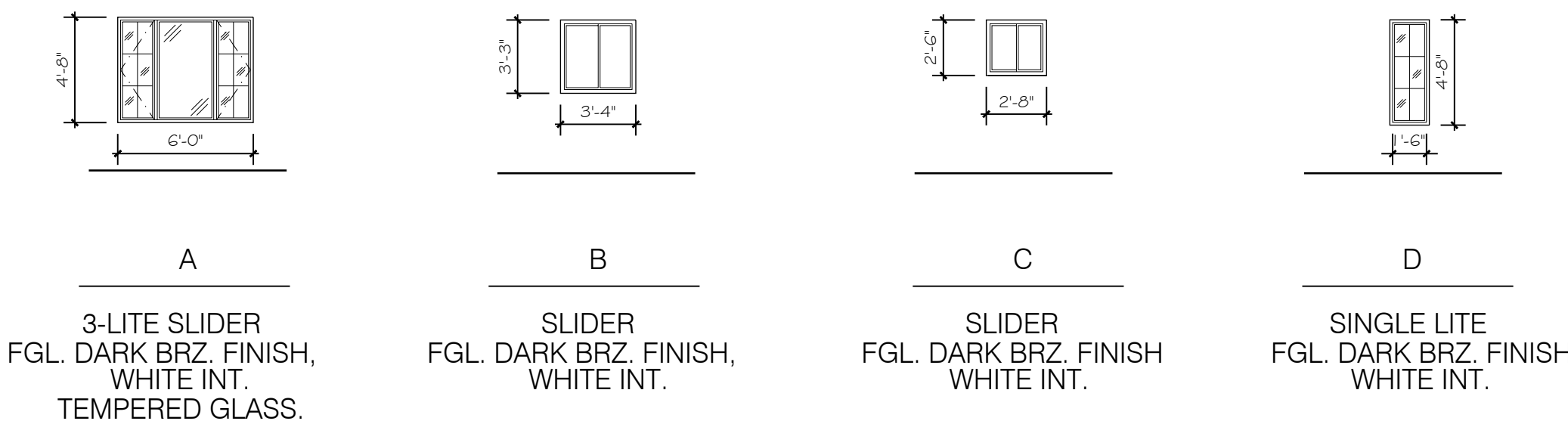
GLAZING IN THE FOLLOWING LOCATIONS SHOULD BE OF SAFETY GLAZING MATERIAL AS PER SECTION 2406.4:

- a) FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
- b) INDIVIDUAL FIXED OR OPERABLE PANELS THAT MEET ALL OF THE FOLLOWING CONDITIONS:
- i) EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET, AND:
- ii) EXPOSED BOTTOM EDGE IS LESS THAN 18 INCHES ABOVE THE FLOOR, AND:
- iii) EXPOSED TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR, AND:
- iv) ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

DOOR TYPES:



WINDOW TYPES:



WINDOW SCHEDULE

SYM	SIZE	TYPE	DESCRIPTION	U-VALUE	SHGC	COMMENTS
1	6048 SL	A	FIBERGLASS, DUAL PANE			TEMPERED
2-3	2048 FX	D	FIBERGLASS, DUAL PANE			TEMPERED
4-10	6048 SL	A	FIBERGLASS, DUAL PANE			
11	2048 FX	D	FIBERGLASS, DUAL PANE			TEMPERED
12-17	6048 SL	A	FIBERGLASS, DUAL PANE			TEMPERED
18	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
19	2826 SL	C	FIBERGLASS, DUAL PANE			
20	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
21-22	3433 SL	B	FIBERGLASS, DUAL PANE			
23-25	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
26	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
27	2826 SL	C	FIBERGLASS, DUAL PANE			
28	3433 SL	B	FIBERGLASS, DUAL PANE			
29	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
30-31	3433 SL	B	FIBERGLASS, DUAL PANE			
32-33	2826 SL	C	FIBERGLASS, DUAL PANE			
34	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
35	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
36	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
37-38	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
39-40	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
41-42	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
43-44	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED
45	3433 SL	B	FIBERGLASS, DUAL PANE			TEMPERED
46	6048 SL	A	FIBERGLASS, DUAL PANE			TEMPERED
47	2826 SL	C	FIBERGLASS, DUAL PANE			TEMPERED

ABBREVIATIONS:

SL: SLIDING SH: SINGLE HUNG AW: AWNING FX: FIXED CAS:CASEMENT TEMP: TEMPERED

DOOR SCHEDULE

SYM	SIZE	TYPE	MATERIAL	FINISH	MATERIAL	FINISH	COMMENTS
1	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
2	3068	C	SOLID WOOD	P	WOOD	P	
3	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
4	3068	C	SOLID WOOD	P	WOOD	P	
5-7	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
8	3068	B				P	
9	3068	C	WOOD/ GLAZING		WOOD		
10	3066	D					
11	3068	B					
12-14	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
15	3068	C			WOOD		
16	3068	C			WOOD		
17	3068	C			WOOD		
18	3068	C			WOOD	P	1HR. FIRE-RATED
19-22	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
23-25	3068	B	HOLLOW METAL	P	WOOD	P	
26	3066	D				P	
27-28	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
29	3068	A					TEMPERED
30	3068	A	WOOD/ GLAZING	P	WOOD		TEMPERED
31	3068	C			WOOD	P	
32-33	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
34	3068	C			WOOD		
35	3068	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
36	3068	C	WOOD/ GLAZING	P	WOOD	P	TEMPERED
37	3068	C		P	WOOD	P	
38	3080	A	WOOD/ GLAZING	P	WOOD	P	TEMPERED
39	3068	C			WOOD		

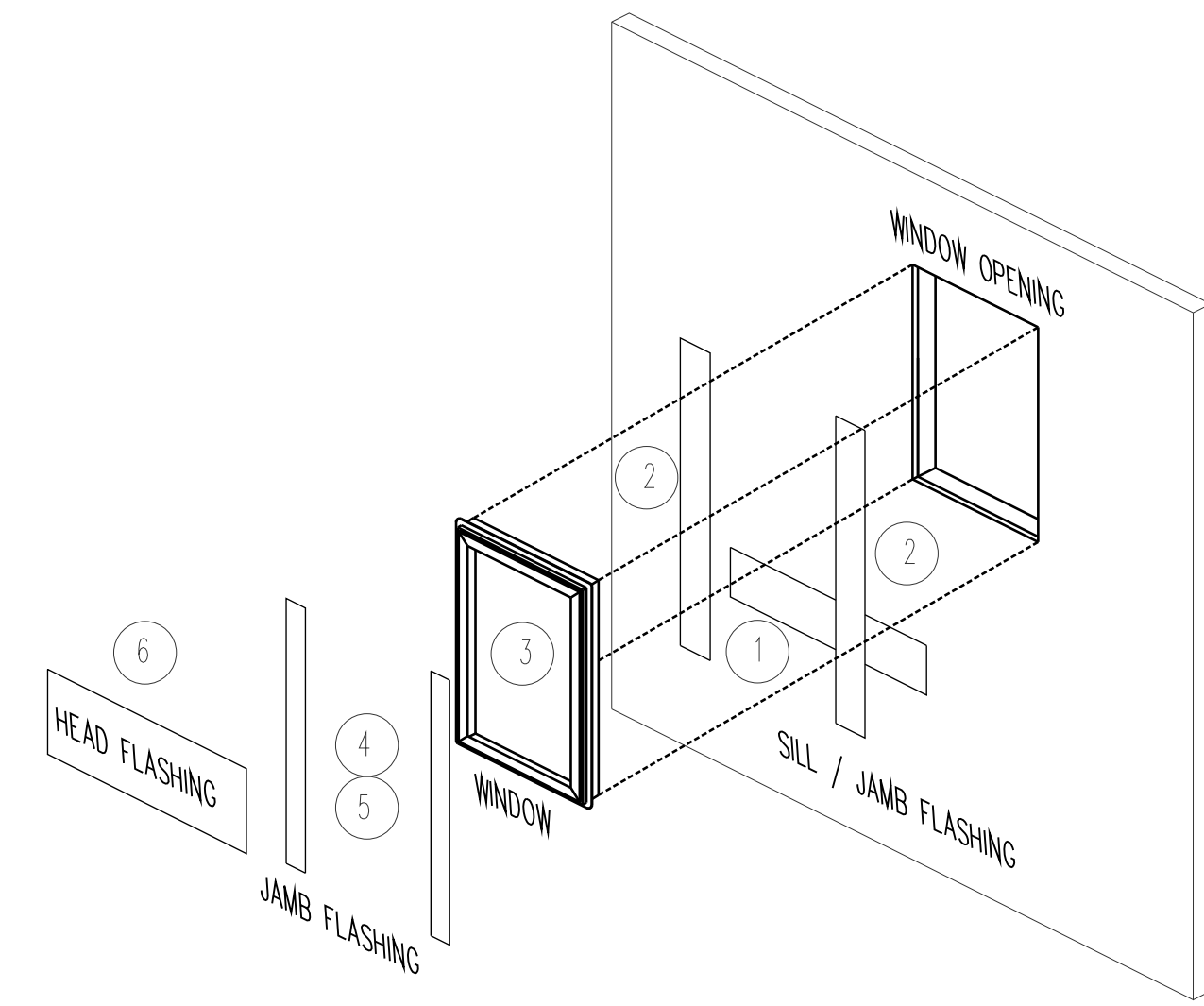
REVISIONS	PLAN CHECK 1
1	
2	
3	
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BEHAVIORAL HEALTH CLINIC
REMODEL & RE-ROOFING
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DOOR + WINDOW SCHEDULE

DATE	08/01/22
SCALE	SEE PLAN
DRAWN	B.M./ L.W.
JOB#	YP22005
SHEET#	A6.1



6 HEAD FLASHING

CUT A STRIP OF MOISTOP E-Z SEAL FOR THE HEAD (F) OF THE WINDOW, EXTENDING BEYOND THE JAMB FLASHING IN PLACE. PLACE THE MOISTOP E-Z SEAL ON THE TOP OF THE FLANGE (D) OF THE WINDOW AND SEAL BY APPLYING PRESSURE ALONG THE STRIP.

5 JAMB FLASHING

CUT A STRIP OF MOISTOP E-Z SEAL FOR THE JAMB (E) OF THE WINDOW, EXTENDING BEYOND THE FLANGE (3" MINIMUM TOP AND BOTTOM). PLACE THE MOISTOP E-Z SEAL ON THE TOP OF THE FLANGE (D) OF THE WINDOW AND SEAL BY APPLYING PRESSURE ALONG THE STRIP. REPEAT FOR OTHER JAMB.

4 SURFACE PREPARATION

WIPE THE WINDOW FLANGE (D) AND BASE MOISTOP PF FLASHING (B) LAYER CLEAN BEFORE APPLYING MOISTOP E-Z SEAL. CUT THE DESIRED LENGTH OF MOISTOP E-Z SEAL WITH A SHARP KNIFE. PULL OFF THE RELEASE PAPER AND PLACE THE MOISTOP E-Z SEAL ON TOP OF THE WINDOW FLANGE. APPLY FIRM PRESSURE ALONG THE ENTIRE SELF ADHESIVE STRIP TO ENSURE A CONTINUOUS SEAL.

3 WINDOW INSTALLATION

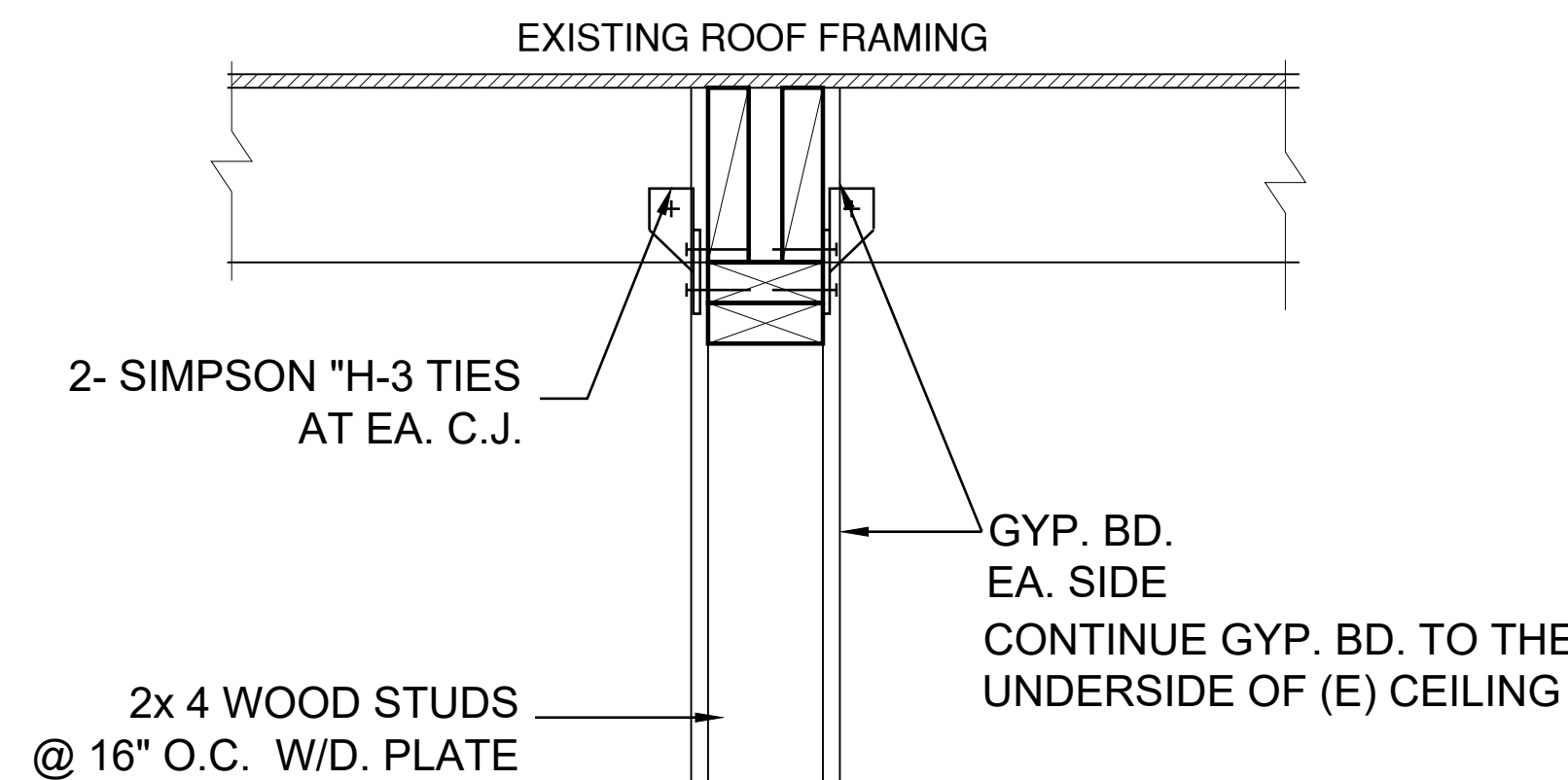
BEFORE INSTALLING THE WINDOW (C), APPLY A CONTINUOUS 3/8" BEAD OF MOISTOP SEALANT TO THE PERIMETER OF THE ROUGH OPENING OR TO THE BACKSIDE OF THE MOUNTING FLANGE (D) OF THE WINDOW. INSTALL THE WINDOW ACCORDING TO THE WINDOW MANUFACTURER'S INSTRUCTIONS.

2 JAMB FLASHING

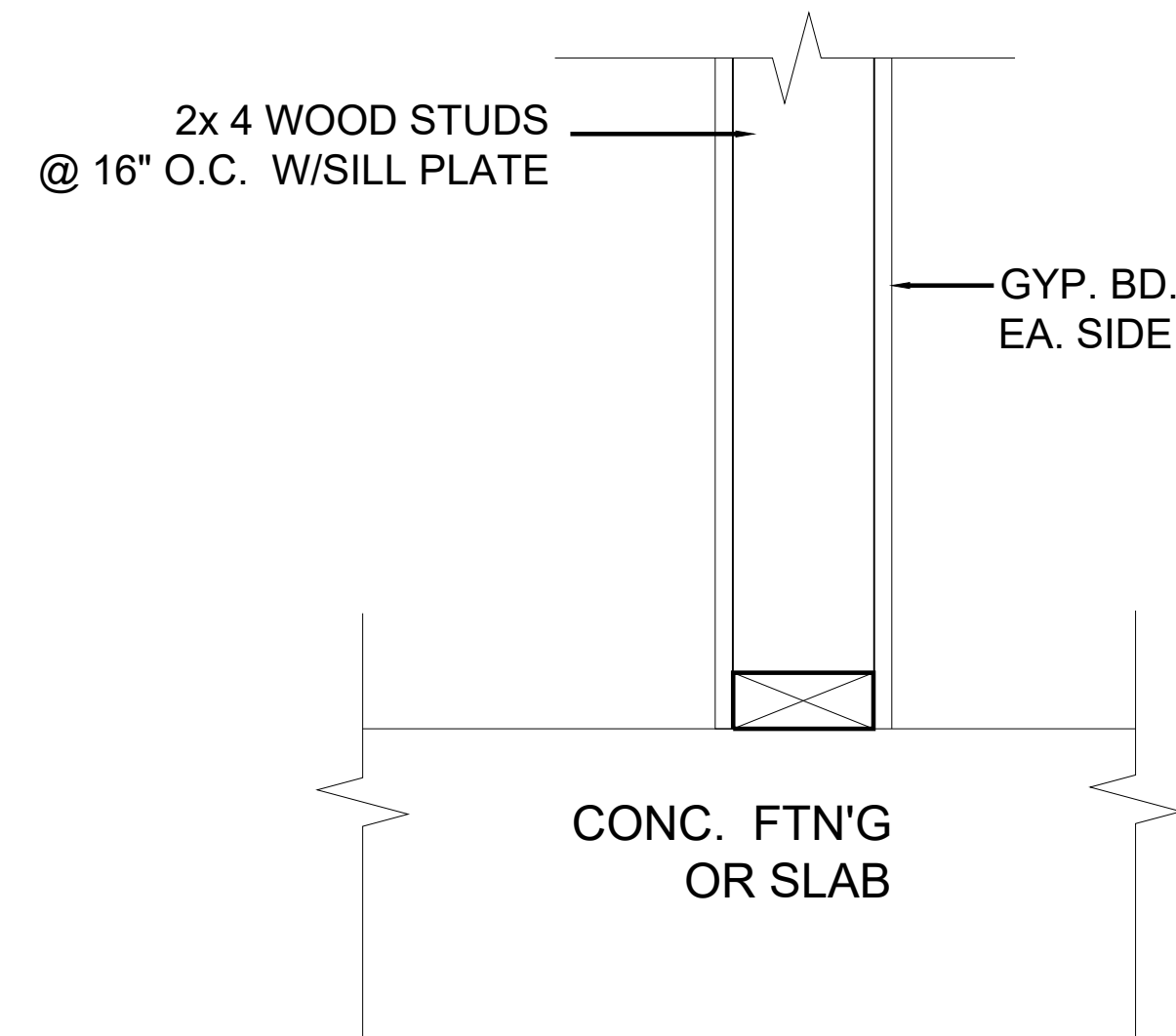
CUT STRIP OF MOISTOP PF FLASHING LONG ENOUGH TO EXTEND BEYOND SILL FLASHING ALREADY IN PLACE, AND ABOVE WHERE THE MOISTOP E-Z SEAL HEAD FLASHING WILL INTERSECT. NEXT ATTACH THE JAMB FLASHING (B) FLUSH TO THE EDGE OF THE ROUGH OPENING LEAVING THE BOTTOM FREE. REPEAT THE STEPS FOR THE REMAINING JAMBS.

1 SILL FLASHING

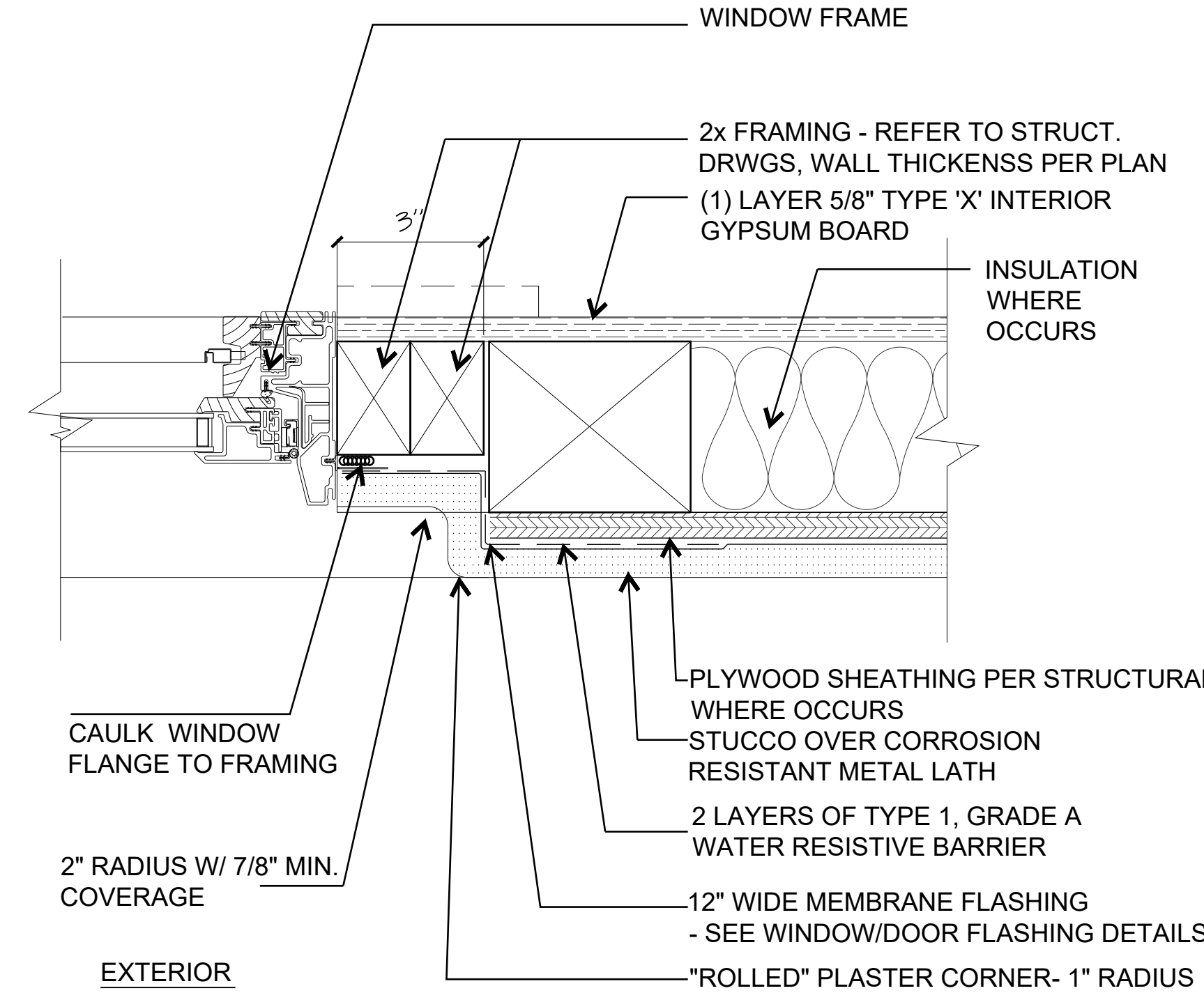
ONCE THE ROUGH OPENING IS PREPARED, PROCEED BY ATTACHING MOISTOP PF FLASHING (A) FLUSH ALONG THE BOTTOM OF THE ROUGH OPENING. BE SURE NOT TO FASTEN THE LOWER EDGE OF THE FLASHING SO THAT JUMBO TEX, FORTIY OR WEATHERSMART MAY BE SLIPPED UP UNDERNEATH THE FLASHING IN A WEATHERBOARD FASHION. EXTEND THE BEYOND THE JAMB FLASHING TO BE APPLIED LATER.



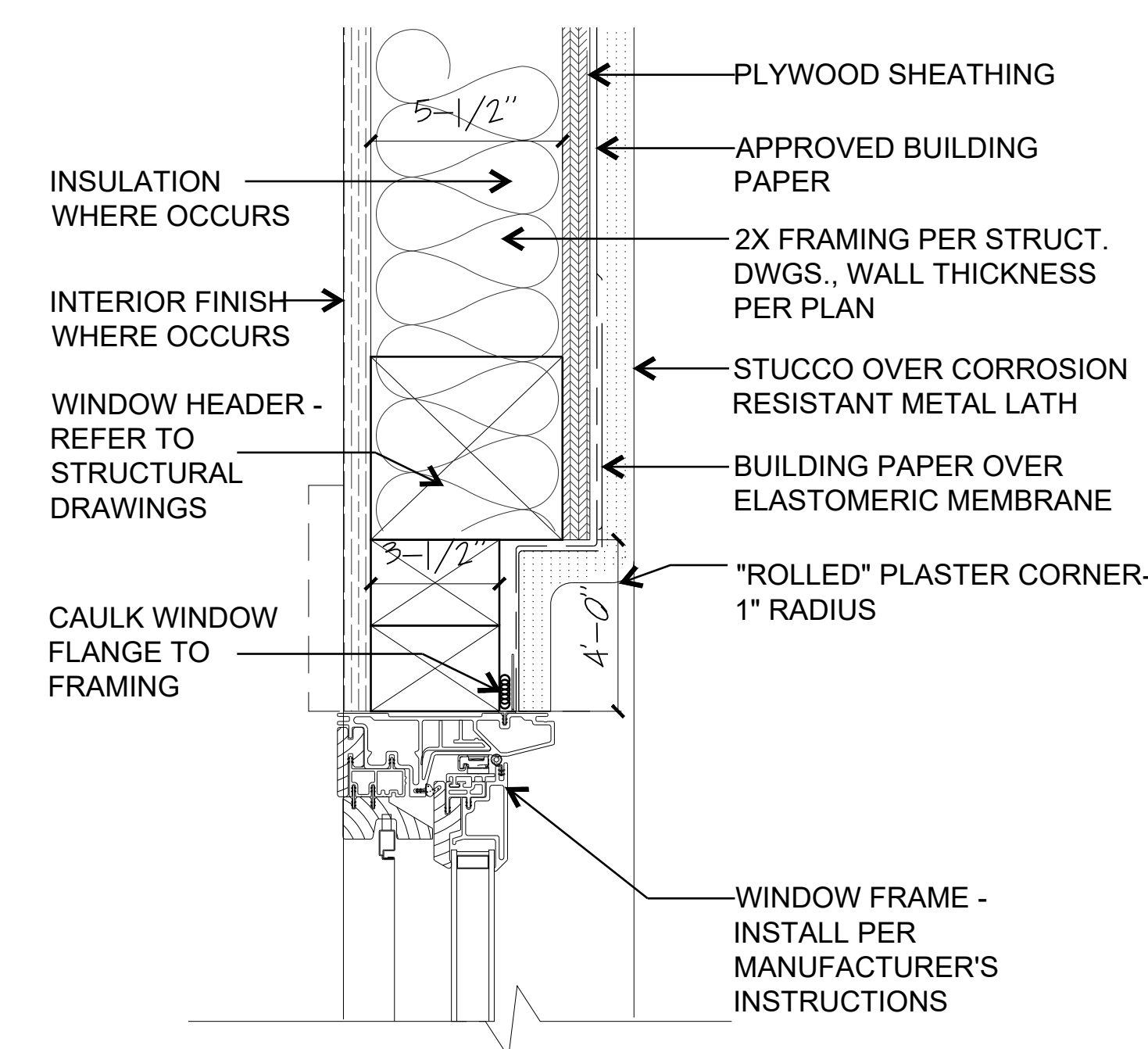
TYP. PART. WALL TO ROOF 9



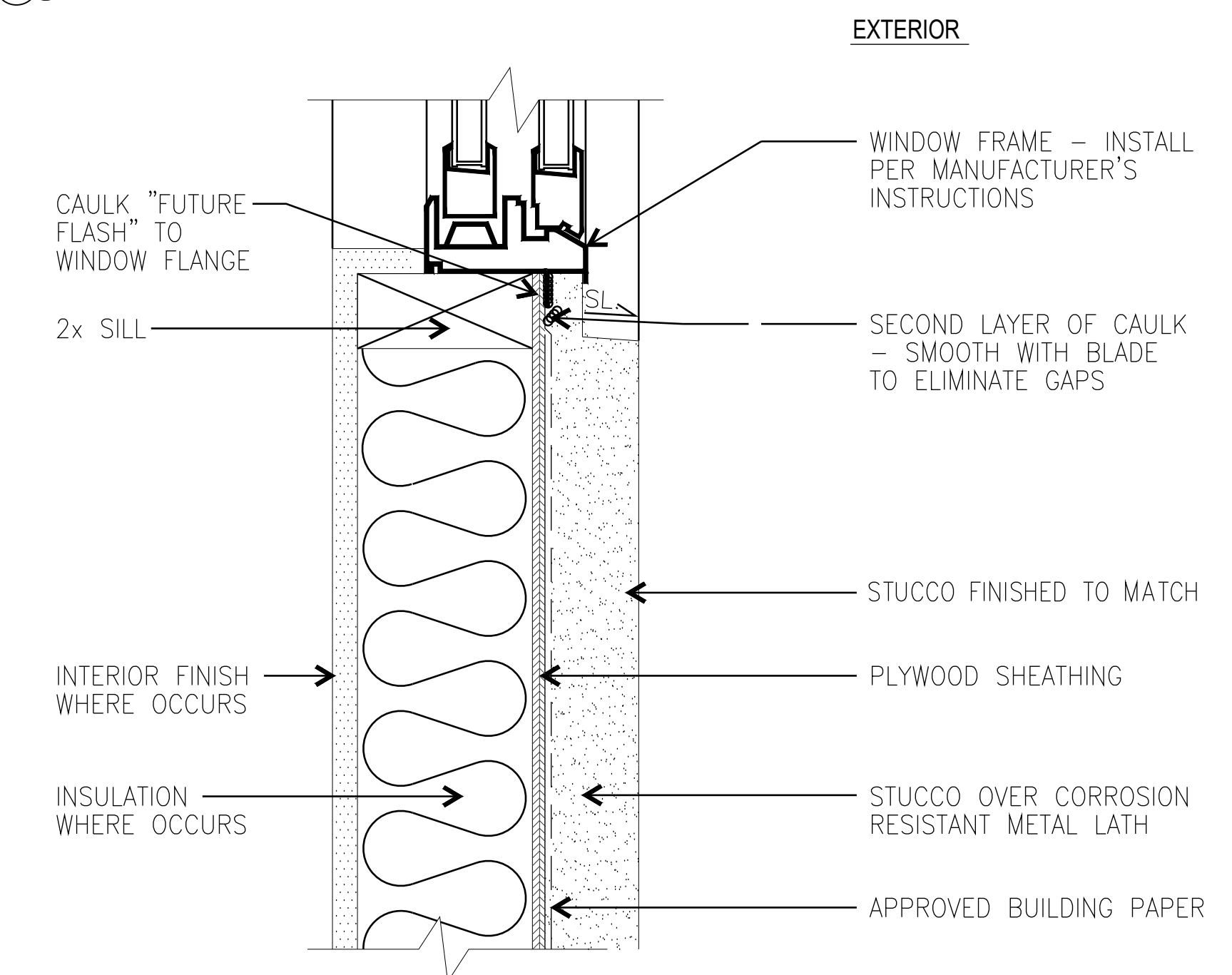
TYP. PART. WALL BASE 8



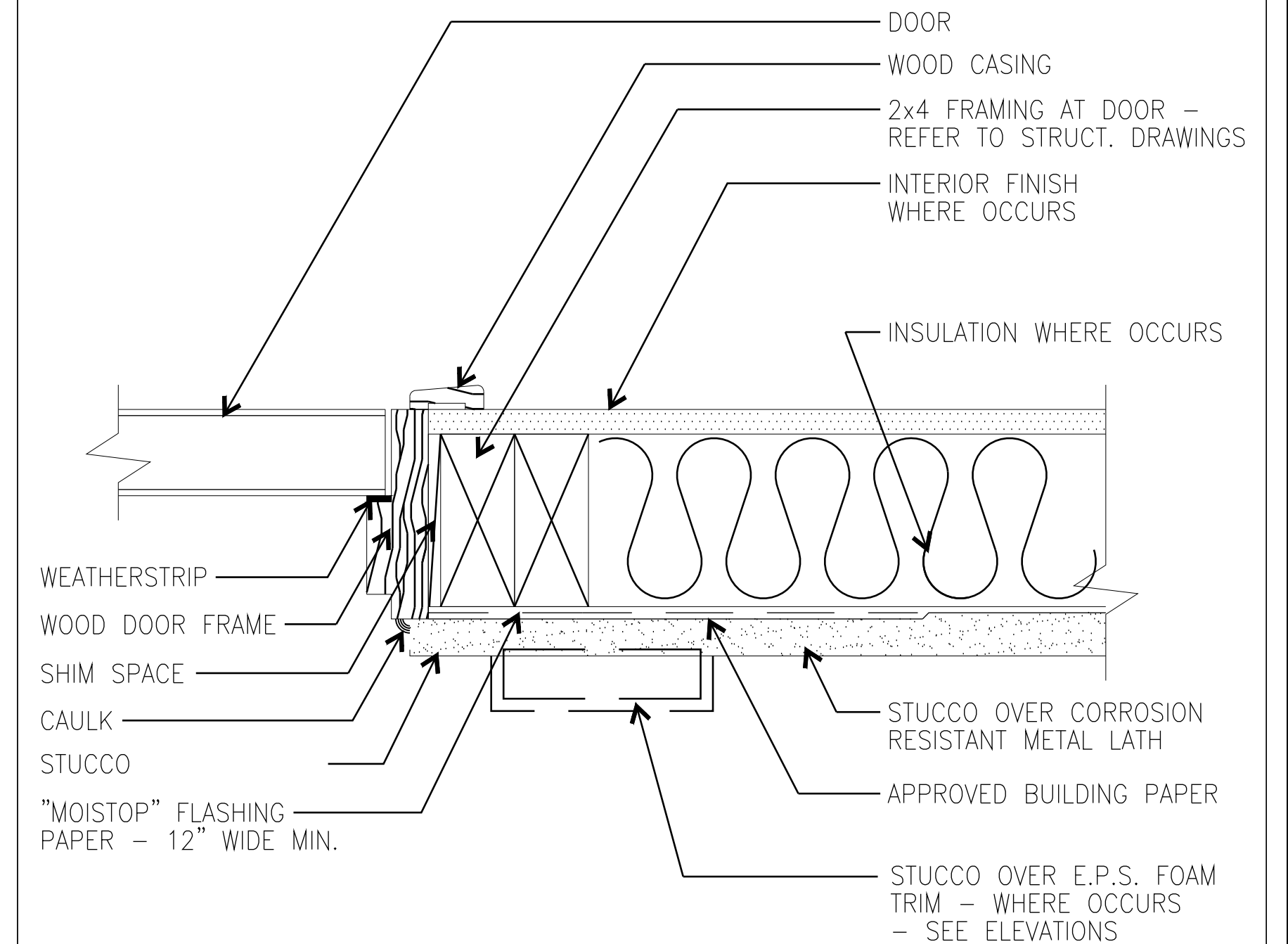
WINDOW JAMB - STUCCO 6



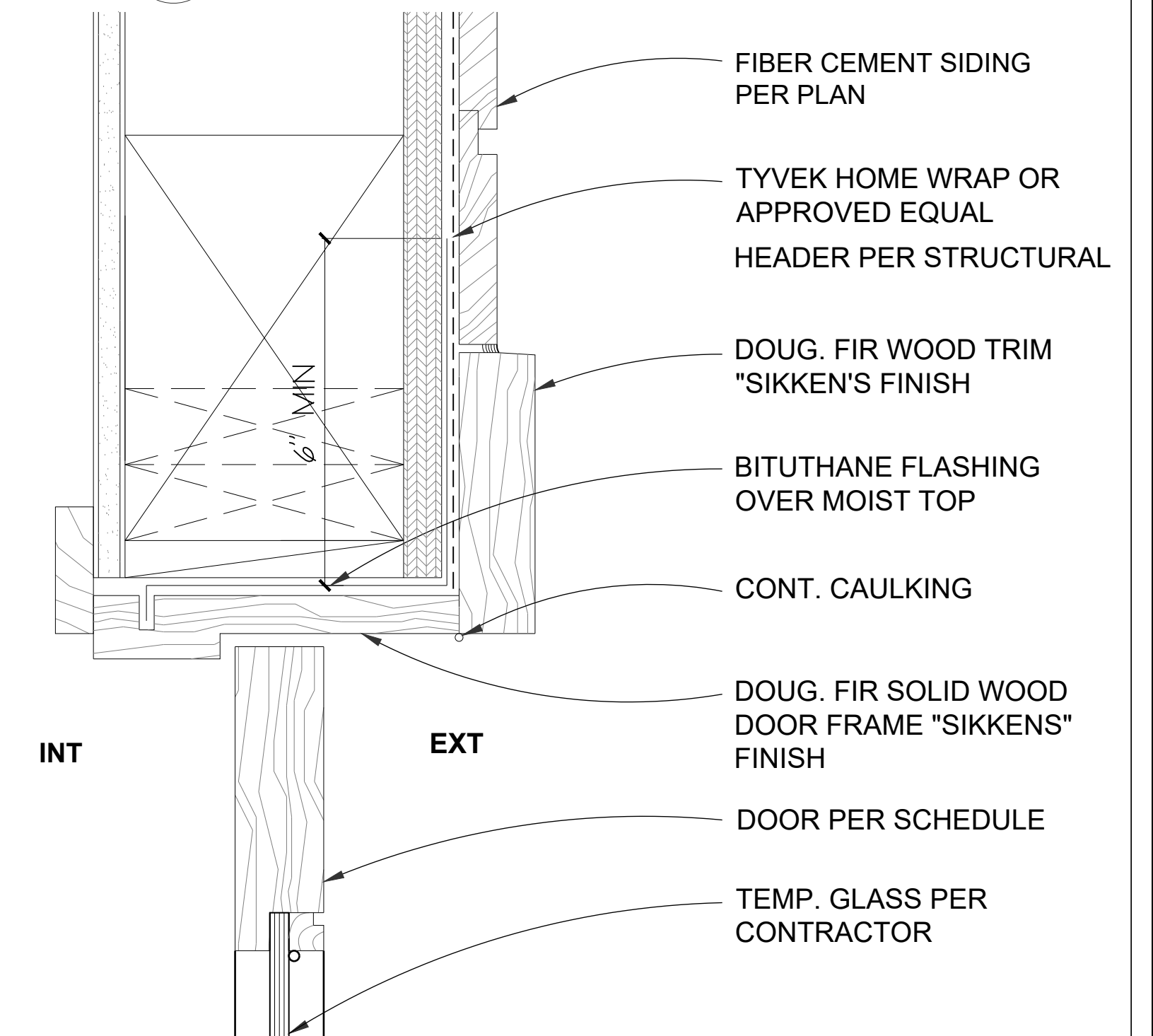
WINDOW HEAD - STUCCO 5



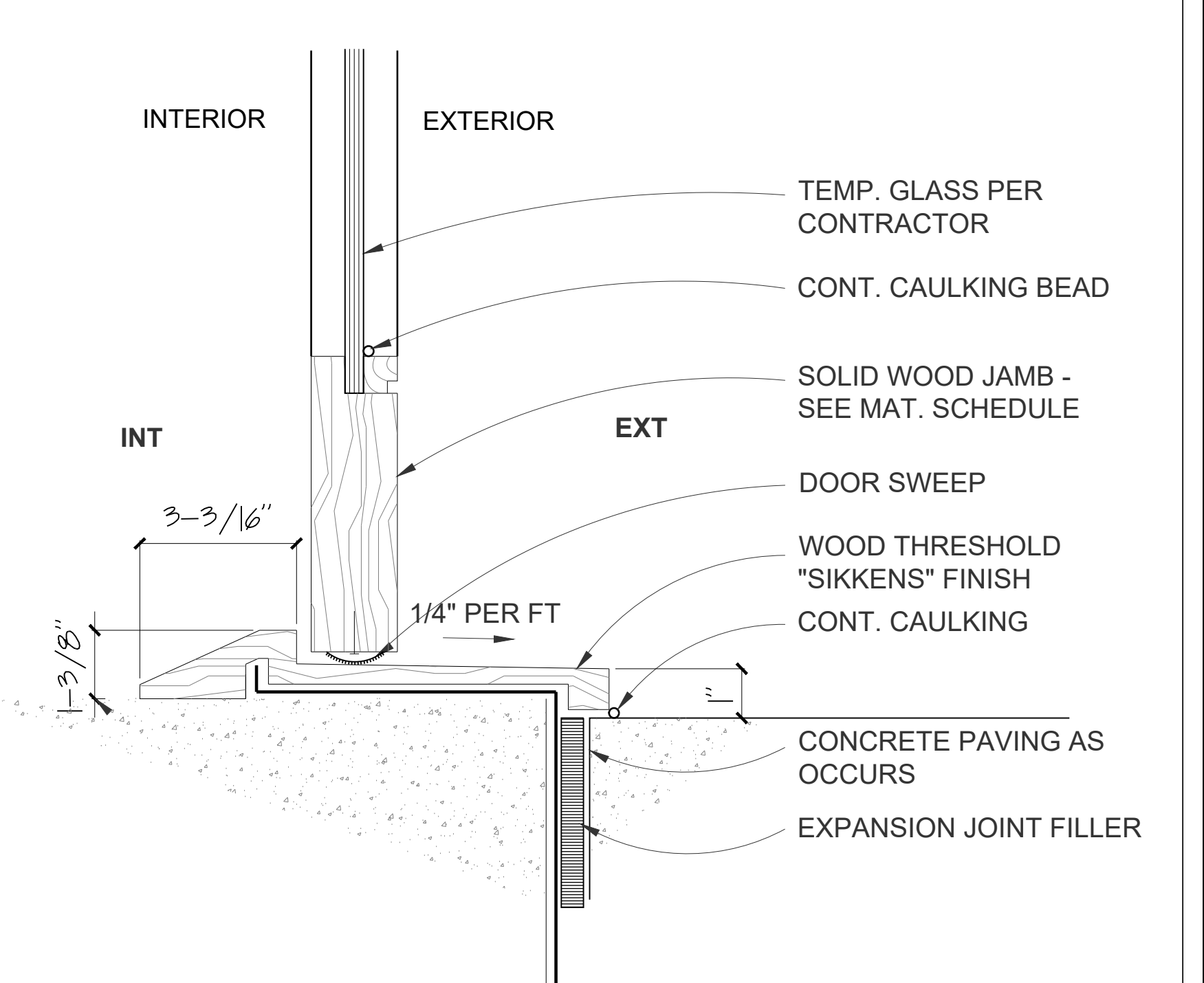
WINDOW SILL - STUCCO 7



TYP. DOOR JAMB 3



TYP. DOOR HEADER (JAMB SIM.) 2



DOOR THRESHOLD AT PAVERS 4

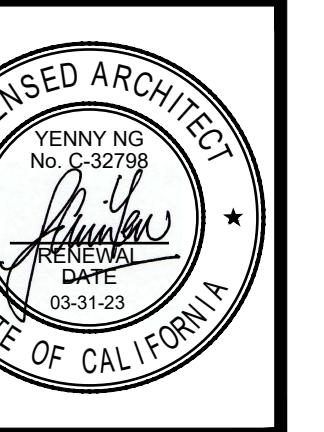
WINDOW FLASHING 10

NOT USED

WINDOW SILL - STUCCO 7

DOOR THRESHOLD AT PAVERS 4

REVISIONS
11/18/22
PLAN CHECK 1



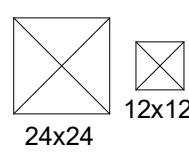
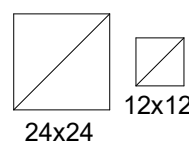
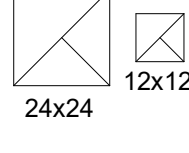
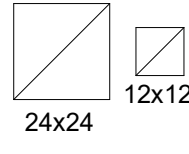
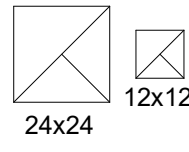
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REMODEL & RE-ROOFING
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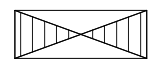
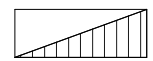









ARCHITECTURAL
DETAILS

DATE	08/01/22
SCALE	
DRAWN	B.M./L.W.
JOB#	YP22005
SHEET#	

AD.1

TITLE 24 NOTES:
1) EXTERIOR WALL INSULATION (TO REMAIN); R-13
2) ROOF INSULATION: R-38 (VERIFY AT SITE IS LESS THAN R-38 INCREASE ROOF INSULATION TO R-38).
3) SUPPLY AND RETURN DUCT INSULATION (NEW DUCTS) R-4.2
4) EXTERIOR WINDOW U-VALUES (NEW WINDOWS) 0.3
5) EXTERIOR WINDOWS SHGC VALUES (NEW WINDOWS) 0.23

DIFFUSER, REGISTER, AND GRILLE SCHEDULE						
TAG	SYMBOL	MANUFACTURER & MODEL	NECK SIZE	POSITION	CFM RANGE	REMARKS
(CFM)		TITUS MCD (LAY-IN)	6"ø	CEILING	0-100	<div><div>123456789</div><div>A B C D</div></div> <div>MAX. FLEX CONNECTION 5' LONG WITH MVD AT EACH BRANCH CONNECTION</div>
			8"ø		101-175	
			10"ø		176-350	
			12"ø		351-480	
			14"ø		481-700	
(CFM)		TITUS PAR-AA (LAY-IN)	6"ø	CEILING	0-200	<div><div>123456789</div><div>A B C D</div></div> <div>EGGCRATE TYPE</div>
			8"ø		201-325	
			10"ø		326-425	
			12"ø		426-625	
			14"ø		626-725	
(CFM)			16"ø		726-825	
			18x18		826-1350	
			22x22		1351-2000	
			22x46		2001-4000	
			(CFM)			
8x8	76-150					
10x10	151-250					
12x12	251-350					
14x14	351-475					
(CFM)			16x16		476-650	
			18x18		651-850	
			20x20		851-1025	
			22x22		1026-1275	
			24x24		1276-1600	
			28x28		1601-2500	
			30x30		2501-2900	
			32x32		2901-3375	
			34x34		3376-3825	
			<div><div>A. MODEL NUMBERS ARE TITUS UNLESS OTHERWISE NOTED</div><div>B. PROVIDE 24x24 MODULES FOR ALL DIFFUSERS LAID IN CEILING, UNLESS OTHERWISE NOTED.</div><div>C. FRAME ALL AIR DEVICES FOR APPROPRIATE CEILING TYPE</div><div>D. PROVIDE ALUMINUM FRAME FOR HARD CEILINGS IN TOILETS, JANITOR'S CLOSET AND LOCK-UP ROOM.</div></div> <div><div>1. FLEXIBLE DUCTS CONNECTING THE DIFFUSERS SHALL BE FULL SIZE OF NECK DIAMETER.</div><div>2. MAXIMUM NOISE CRITERION RATING <30 DBA</div><div>3. DIFFUSERS SHALL BE 4-WAY BLOW UNLESS OTHERWISE INDICATED ON PLANS.</div><div>4. MOUNTING FRAME TYPE SHALL BE COORDINATED WITH CEILING CONSTRUCTION TYPE, COORDINATE WITH ARCHITECT</div><div>5. NECK DIAMETER SHALL BE PER MANUFACTURER</div><div>6. DEVICE SHALL BE PAINTED BY PAINTING CONTRACTOR TO MATCH ADJACENT CEILING SURFACES PER ARCHITECTURAL SPECIFICATIONS.</div><div>7. WITH DIRECTIONAL BLADES.</div><div>8. PROVIDE SUBMITTAL FOR ARCHITECTS/ ENGINEER REVIEW AND APPROVAL</div></div>			

SYMBOLS AND ABBREVIATIONS		
SA		SUPPLY AIR PLENUM CROSS SECTION
RA		RETURN AIR PLENUM CROSS SECTION
SAD		SUPPLY DIFFUSER, CEILING W/ 4-WAY
RAG		RETURN AIR GRILLE/REGISTER, CEILING
EAG		EXHAUST AIR GRILLE/REGISTER, CEILING
SWS		SIDE WALL SUPPLY REGISTER
SWR		SIDE WALL RETURN GRILLE
CD		CONDENSATE DRAIN
CFM	(CFM)	CUBIC FEET PER MINUTE
FD		FIRE DAMPER
FLA		FULL LOAD AMPERES
MCA		MAX. CIRCUIT AMPACITY
MOCP		MAX. OVERCURRENT PROTECTION DEVICE
RLA		RATED LOAD AMPERES
HP		HORSE POWER
OSA		OUTSIDE SUPPLY AIR
TYP	(TYP)	TYPICAL DETAIL CALLOUT
UTR		UP THRU ROOF
U/C		UNDERCUT DOOR 1"
AFF/BFF		ABOVE FINISHED FLOOR/ BELOW FINISHED FLOOR
DB, EAT, LAT		DRY BULB, ENTERING AIR TEMP., LEAVING AIR TEMP.
BTU, MBH		BRITISH THERMAL UNIT, THOUSAND BTU/HR
EER, SEER		ENERGY EFFICIENCY RATINGS, SEASONAL ENERGY EFF. RATING
HSPF		HEATING SEASONAL PERFORMANCE FACTOR
KW		KILOWATT
		THERMOSTAT
		SMOKE DETECTOR
KEF		KITCHEN EXHAUST FAN
MUA		MAKE UP AIR

WINSTON ENGINEERING INC

8605 Santa Monica Blvd Ste 63454
West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
www.winstoneng.com



PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

REVISION SCHEDULE

△	ISSUE	DATE
△	INITIAL SUBMITTAL	-
△	1st SUBMITTAL	11-7-2022

HEALTH CLINIC

M0.2

MECHANICAL SCHEDULES

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AIR HANDLING UNIT SCHEDULE

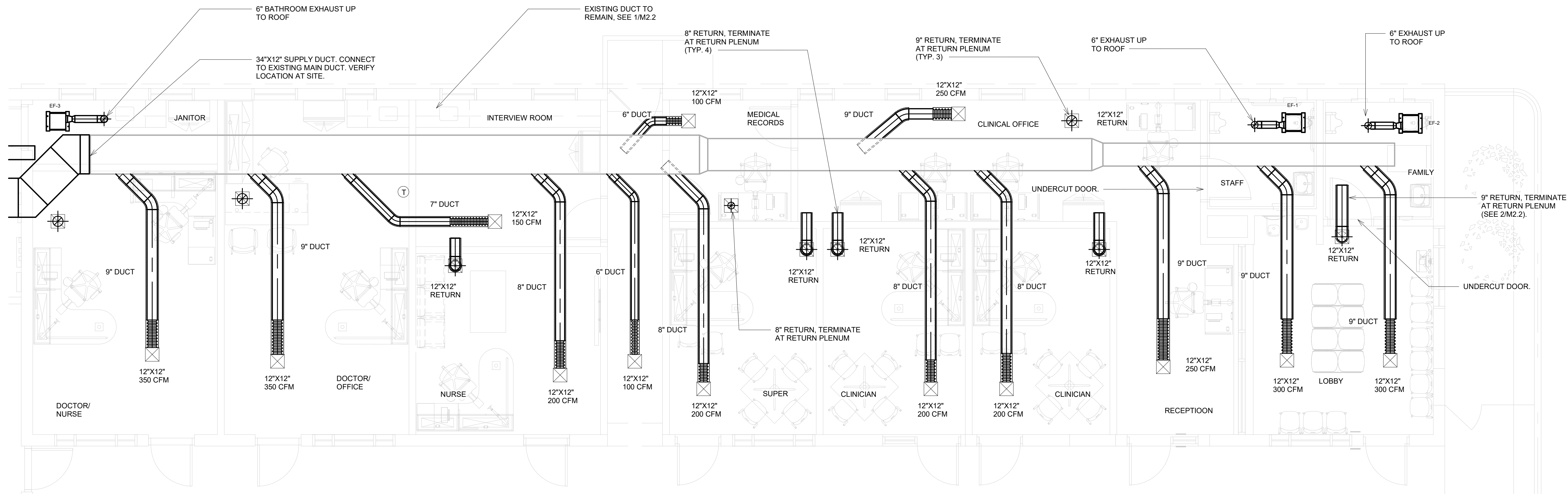
UNIT	MANUFACTURER & MODEL	LOCATION	CFM	OSA	EXTERNAL STATIC PRESSURE	TOTAL STATIC PRESSURE	NUMBER OF SUPPLY FANS	INPUT POWER	COOLING COIL (MBH)		HEATING COIL (MBH)	EDB/ EWB	AMB °F	NAMEPLATE			WEIGHT (LBS)	REMARKS
									SENS.	TOTAL				MCA/MOCP	FLA	V/PH		
AH-1	DAIKIN CAH006GVCM	MECHANICAL ROOM	2700	595	1.0"	2.63"	1	1.4 KW	81	-	53	83/64	111	12.5/20	10.03	208/3	950	SELECTED COILS TO MATCH SENSIBLE AND HEATING LOADS. PROVID WITH MIXING BOX, PANEL FILTER (MERV-13), DIRECT EXPANSION COIL, TWO ACCESS PANELS AND SUPPLY FAN ARRAY.
AH-2	DAIKIN CAH006GVCM	MECHANICAL ROOM	2700	672	1.0"	2.63"	1	1.4 KW	84	-	52	84/64	111	12.5/20	10.03	208/3	900	SELECTED COILS TO MATCH SENSIBLE AND HEATING LOADS. PROVID WITH MIXING BOX, PANEL FILTER (MERV-13), DIRECT EXPANSION COIL, TWO ACCESS PANELS AND SUPPLY FAN ARRAY.
AH-3	DAIKIN CAH006GVCM	MECHANICAL ROOM	2200	585	1.0"	2.61"	1	1.1 KW	70	-	50	84/67	111	12.5/20	10.03	208/3	1,100	SELECTED COILS TO MATCH SENSIBLE AND HEATING LOADS. PROVID WITH MIXING BOX, PANEL FILTER (MERV-13), DIRECT EXPANSION COIL, TWO ACCESS PANELS AND SUPPLY FAN ARRAY.

HEAT PUMP SCHEDULE

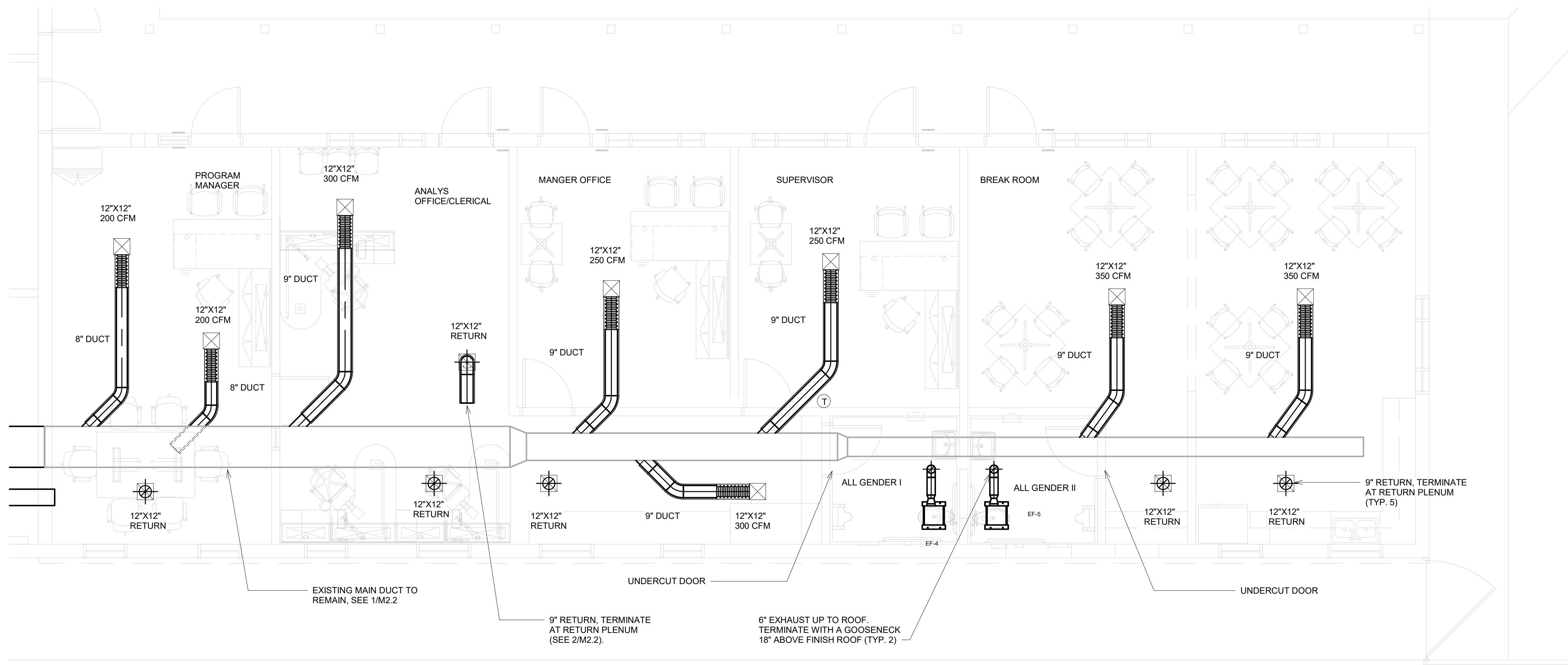
UNIT	MANUFACTURER & MODEL	LOCATION	COOLING CAP. (MBH)		HEATING CAP. (MBH)		IEER	EER	COP	NAMEPLATE			WEIGHT (LBS)	REMARKS
			SENS.	TOTAL	MBH	TEMP				MCA/MOCP	RLA	V/PH		
HP-1	DAIKIN RXTQ96XATA	MECHANICAL ROOM	-	96	103	47° F	22.5	12.6	3.5	36.3/45	23.8	208/3	525	HP-1 TO SERVE AH-1.
HP-2	DAIKIN RXTQ96XATA	MECHANICAL ROOM	-	96	103	47° F	22.5	12.6	3.5	36.3/45	23.8	208/3	525	HP-2 TO SERVE AH-2.
HP-3	DAIKIN RXTQ72XATA	MECHANICAL ROOM	-	72	73	47° F	20.7	12.7	3.3	27.6/35	15.7	208/3	425	HP-3 TO SERVE AH-3.

EXHAUST FAN SCHEDULE

UNIT	MANUFACTURER & MODEL	LOCATION	AREA SERVED	CFM	ESP	MOTOR DATA			WEIGHT (LBS)	REMARKS
						W	V	PH		
EF-1	GREENHECK SP-AP0511W	CEILING	STAFF RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-2	GREENHECK SP-AP0511W	CEILING	FAMILY RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-3	GREENHECK SP-AP0511W	CEILING	JANITOR	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-4	GREENHECK SP-AP0511W	CEILING	ALL GENDER I RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-5	GREENHECK SP-AP0511W	CEILING	ALL GENDER II RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-6	GREENHECK SP-AP0511W	CEILING	ALL GENDER III RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-7	GREENHECK SP-AP0511W	CEILING	ALL GENDER IV RESTROOM	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.
EF-8	GREENHECK SP-AP0511W	CEILING	STORAGE	60	0.7	11	115	1	10	INSTALL WITH BDD. ENERGY START RATED FAN. CONNECT TO LIGHT SWITCH.



1 MECHANICAL PLAN I
1/4" = 1'-0"



2 MECHANICAL PLAN IV
1/4" = 1'-0"

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HEALTH CLINIC
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PROJECT ADDRESS:

120 N. 8TH STREET,
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CA 92243

PROJECT #: 481-1

REVISION SCHEDULE		
△	ISSUE	DATE
△	INITIAL SUBMITTAL	-
△	1st SUBMITTAL	11-7-2022

HEALTH CLINIC

M1.0

MECHANICAL FLOOR PLANS

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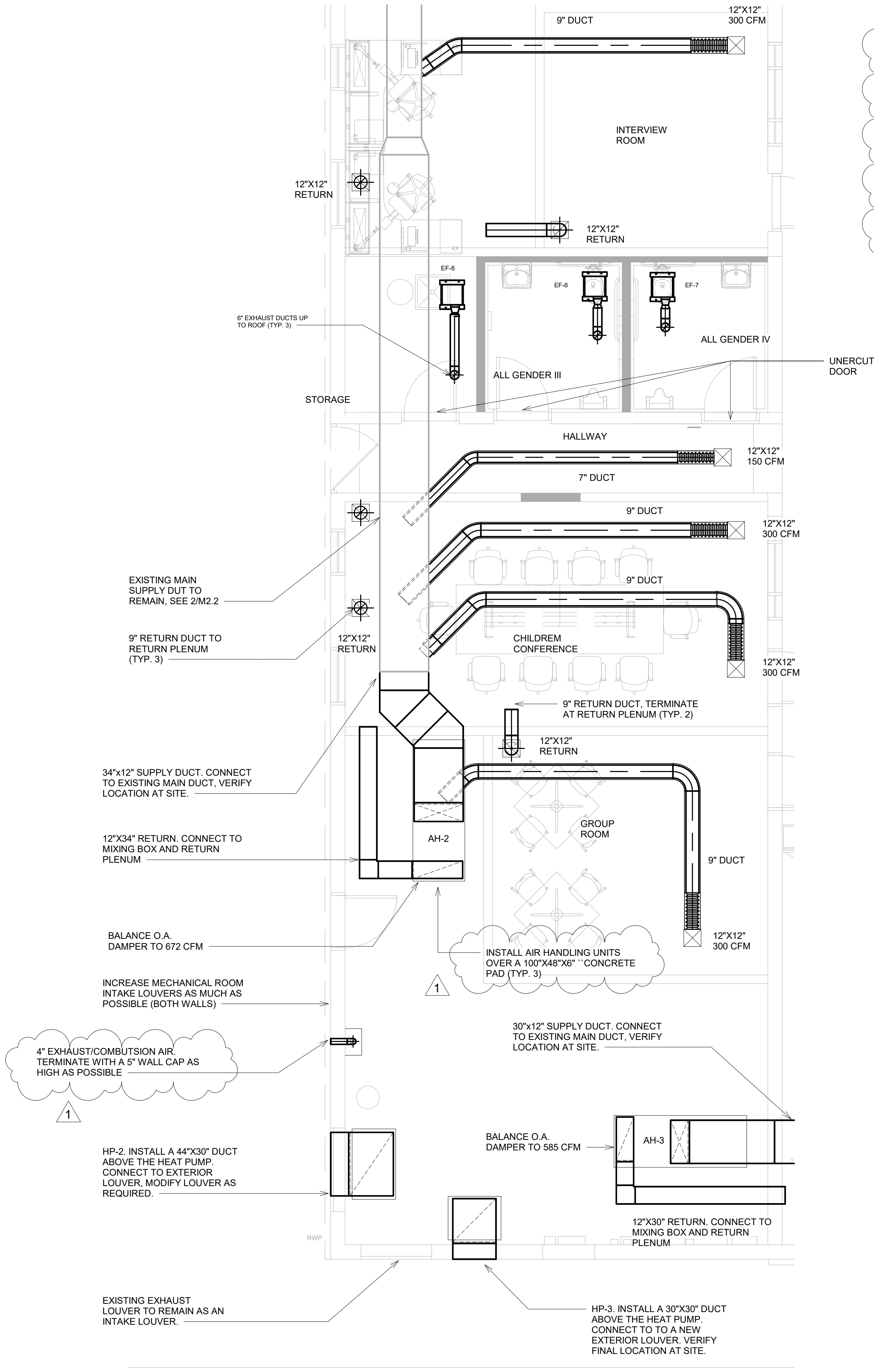
MECHANICAL FLOOR PLANS

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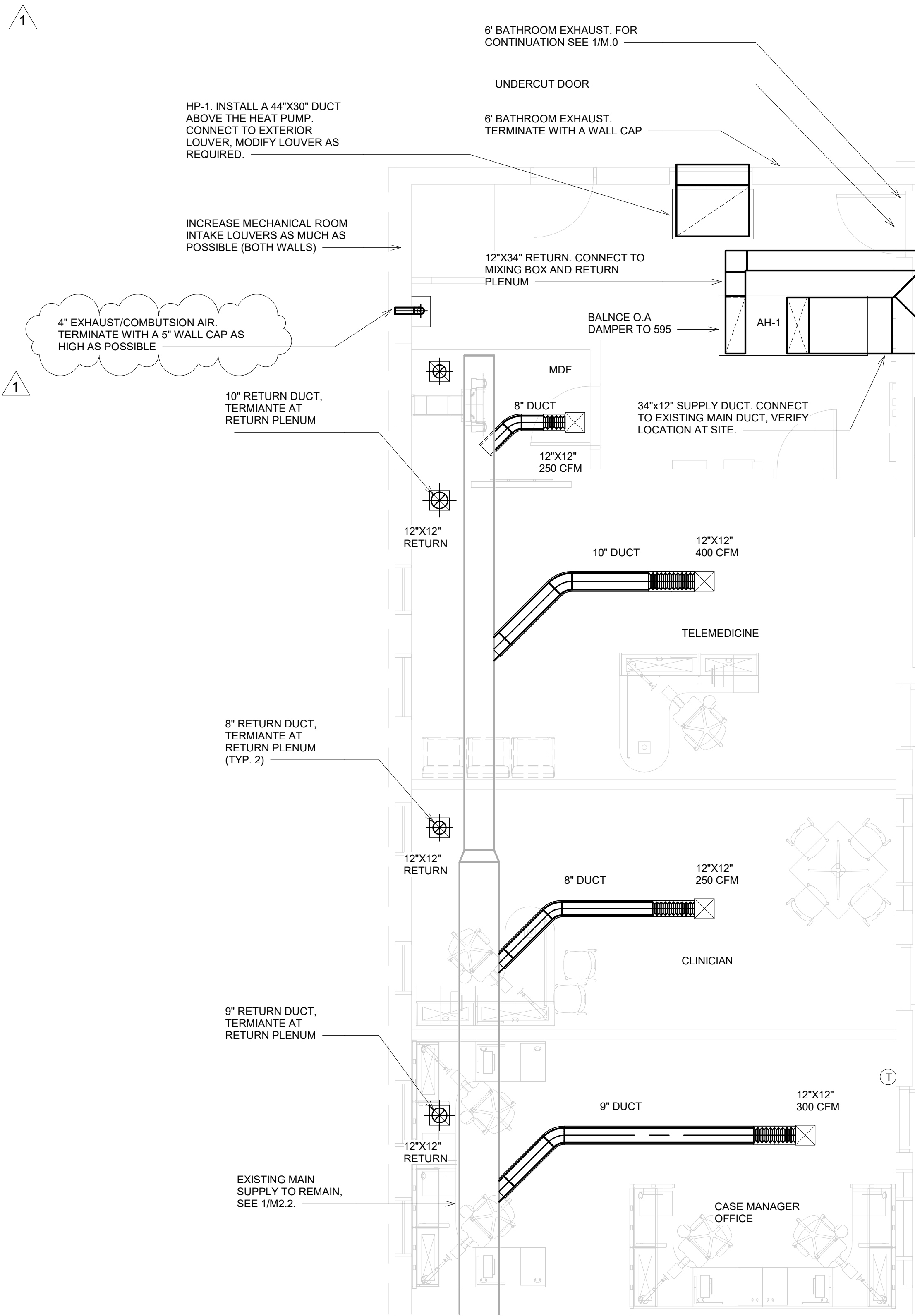
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MECHANICAL NOTE:

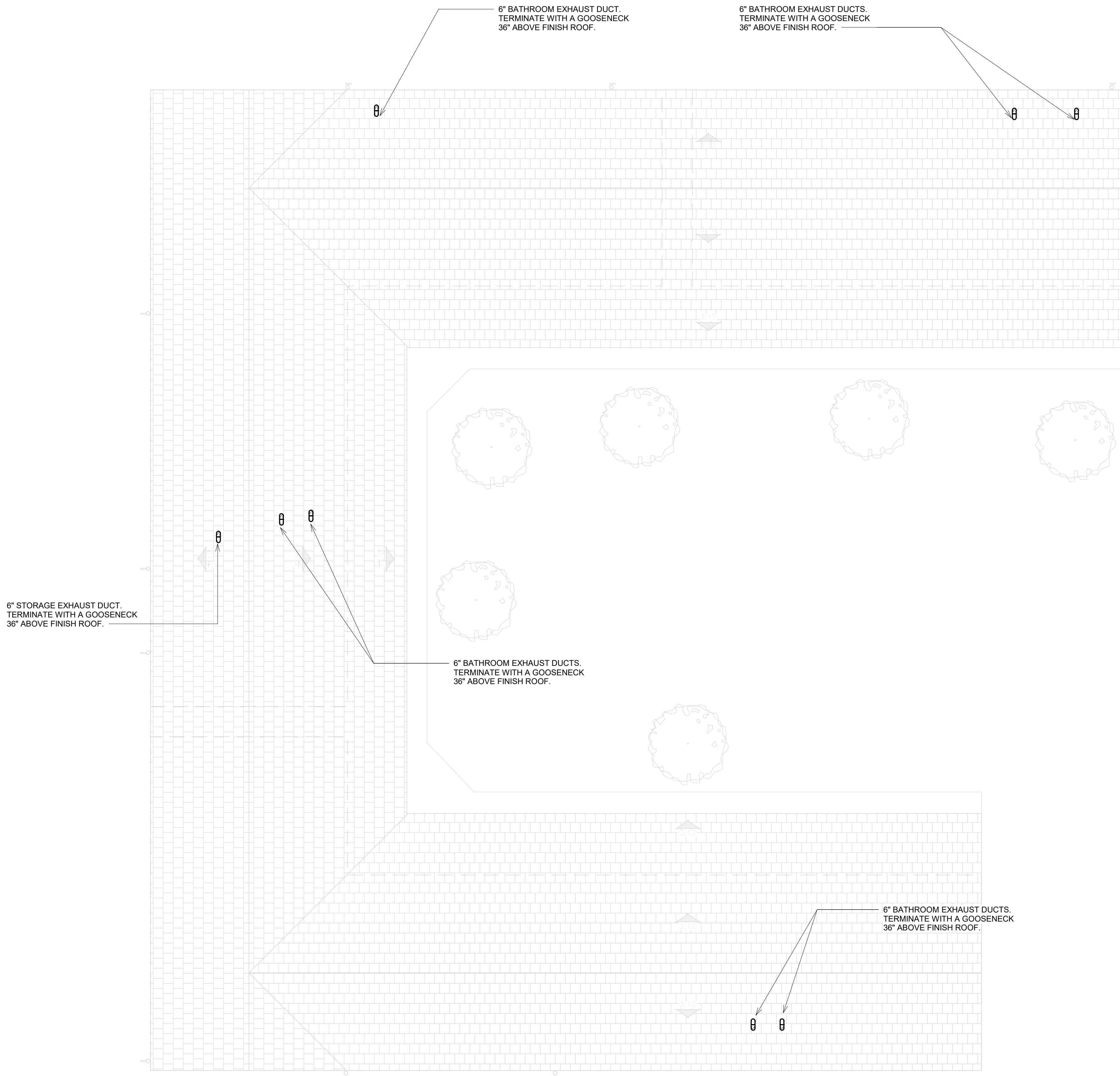
VERIFY THAT THE EXISTING SUPPLY MAIN DUCTS TO REMAIN HAVE SMOKE DETECTORS CLOSE TO THE MECHANICAL ROOMS. THE SMOKE DETECTOR WILL AUTOMATICALLY SHUT OFF THE SUPPLY FAN BY INTERRUPTING THE POWER SOURCE TO THE SUPPLY FAN MOTOR UPON DETECTION OF SMOKE ON THE SUPPLY DUCT.
IF NO DUCT SMOKE DETECTORS ARE INSTALLED ON THE EXISTING DUCTS; ORDER THE AIR HANDLING UNITS WITH SMOKE DETECTORS FROM THE MANUFACTURER THAT COMPLIES WITH THE REQUIREMENTS OF THE CMC 608.
INSTALL THE DUCT SMOKE DETECTORS BEFORE THE FIRST SUPPLY BRANCH SERVING THE SPACES.
DUCT SMOKE DETECTORS SHALL COMPLY WITH UL 268A, SHALL BE LABELED BY AN APPROVED AGENCY, APPROVED, AND LISTED BY THE CALIFORNIA STATE FIRE MARSHALL, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION.
IF THE BUILDING HAS AN FIRE DETECTION OR ALARM SYSTEM, THE DUCT SMOKE DETECTORS SHALL BE CONNECTED TO THIS SYSTEM IN ACCORDANCE WITH NFPA 72 AND THE CALIFORNIA BUILDING AND FIRE CODES.



MECHANICAL PLAN III
1/4" = 1'-0"



MECHANICAL PLAN II
1/4" = 1'-0"



1 MECHANICAL ROOF PLAN
1/8" = 1'-0"

WINSTON ENGINEERING INC

8605 Santa Monica Blvd Ste 63454
West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
www.winstoneng.com



PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

REVISION SCHEDULE		
△	ISSUE	DATE
△	INITIAL SUBMITTAL	-
△	1st SUBMITTAL	11-7-2022

HEALTH CLINIC

M1.2

MECHANICAL ROOF PLAN

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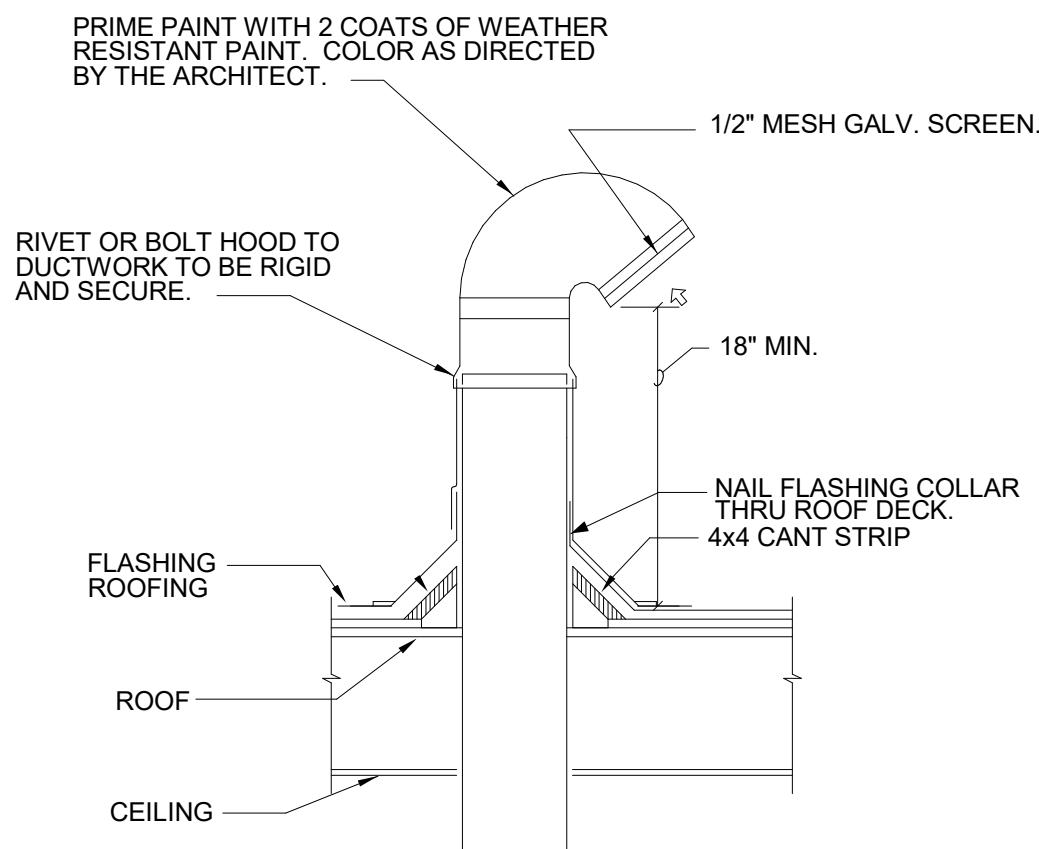
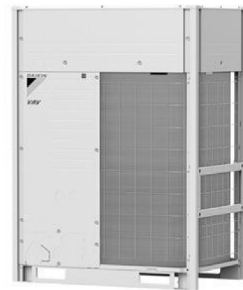
Submittal Data Sheet
6 Ton, 230V VRV IV X HP
RXYQ2XATJA

FEATURES

- Industry's first 3 phase Heat Pump VRV system to integrate with communicating gas functors.
- Design flexibility to arrange system from single to dual module or dual to triple module without changes to installed main pipe sizes.
- Variable Refrigerant Temperature (VRT) control allows the VRV IV to deliver up to 25% of improvement in seasonal cooling efficiency compared to previous DAIKIN VRV heat pump systems.
- New service window provides quick access to multi-functional display and configuration buttons.
- Assembled in the US to increase flexibility and reduce lead times.
- Multi-functional display provides refrigerant pressure and temperature, eliminating the need to connect gauges during regular maintenance check.
- Standard Limited Warranty: 10 year limited parts warranty.
- Easy commissioning with ability to program settings off site using configurator tool.

BENEFITS

- Modular and lightweight - enables flexibility in system layout and installation.
- Integrated inverter technology deliver maximum efficiency during part load conditions and provide precise individual zone control.
- Corrosion resistance 1000hr salt spray tested DAIKIN PE blue fin heat exchanger.
- Design flexibility with long piping lengths up to 5,280 ft. total and 100 ft. vertical separation between indoor units.
- Choice of gas furnace or heat pump heating for optimizing operational costs based on utility cost.
- Engineered to reduce capital on phased & tenant fit out commercial buildings.
- Year round comfort and energy savings with Variable Refrigerant Temperature technology (VRT).
- Fast permeable inverterless outdoor fan operation to help minimize snow accumulation on fan blades when the system is off.



④ M6 ROOF GOOSENECK
NTS

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston, TX, 77056
www.daikin-usa.com www.daikinconfir.com
Submittal Date: 5/29/2020 11:13:47 AM Page 1 of 3

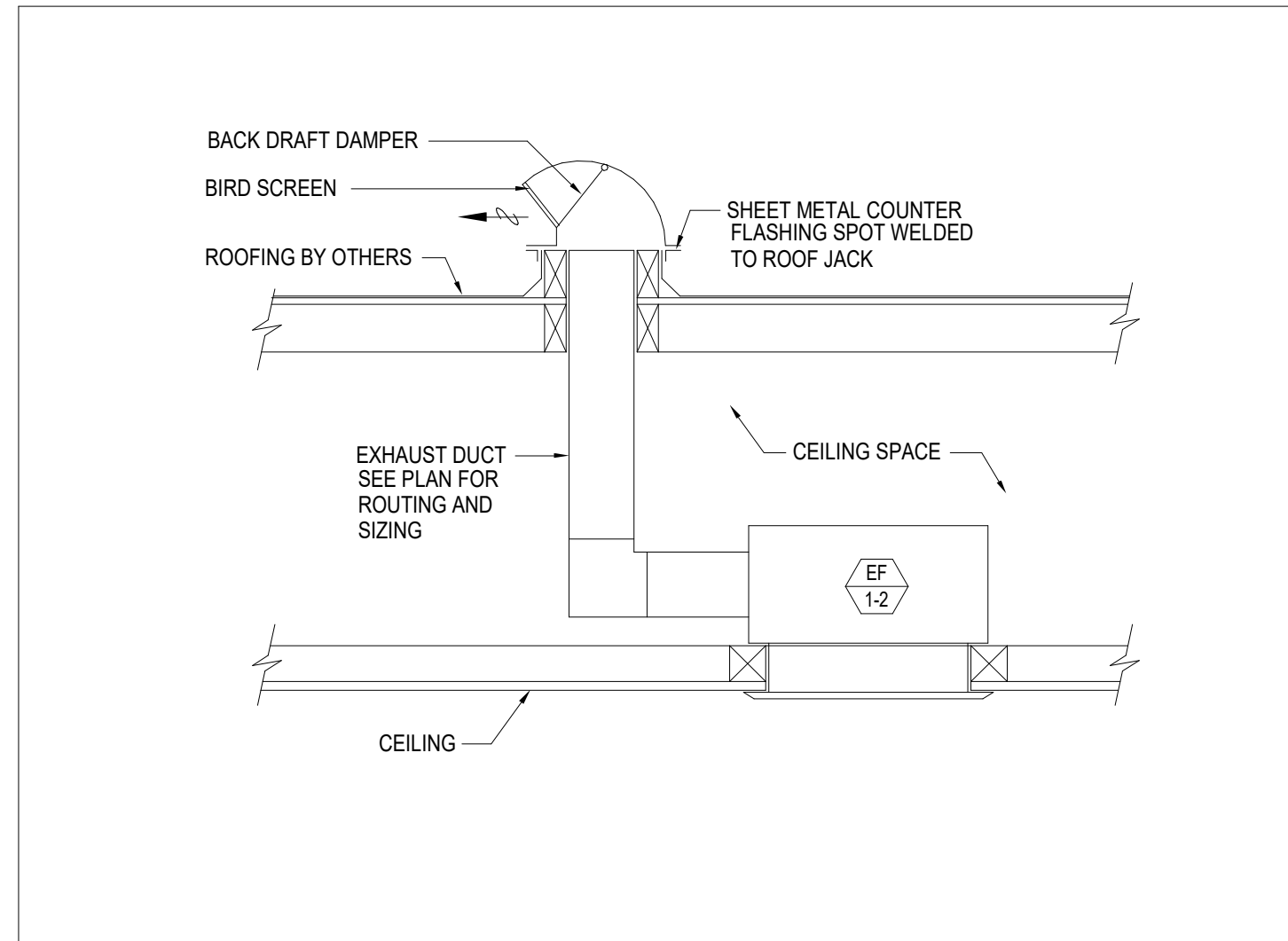


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6 Ton, 230V VRV IV X HP
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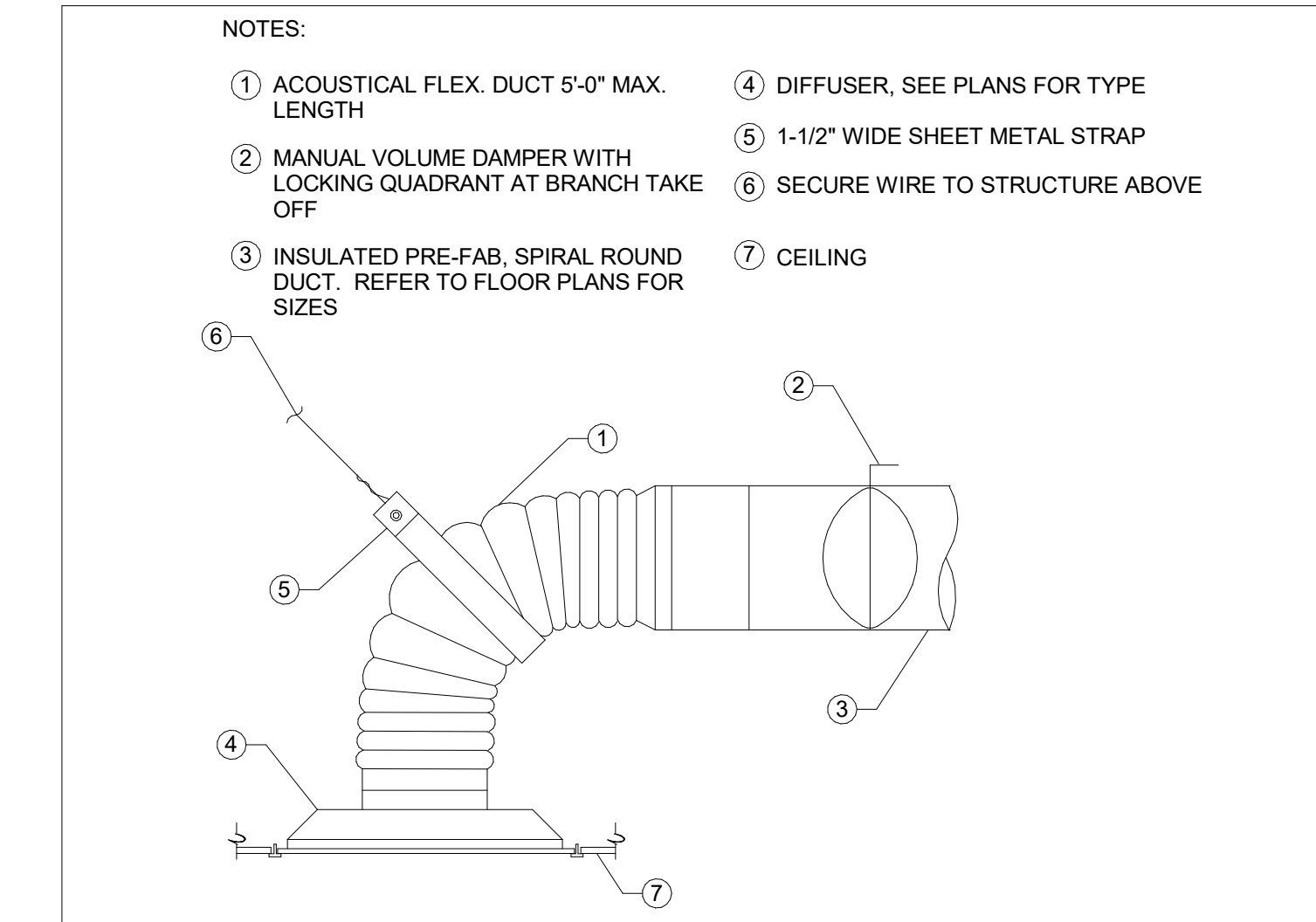
PERFORMANCE			
Outdoor Unit Model No.	RXYQ2XATJA	Outdoor Unit Name:	6 Ton, 230V VRV IV X HP
Type:	Heat Pump	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Outdoor (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 75 / 65 Outdoor (°F DB/WB): 47 / 43
Rated Piping Lengths:			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/h):	66,000	Rated Heating Capacity (Btu/h):	73,000
Nom Cooling Capacity (Btu/h):	72,000	Nom Heating Capacity (Btu/h):	81,000
Cooling Input Power (kW):	4.62	Heating Input Power (kW):	5.46
EER (Non-Ducted/Ducted):	14.70 / 12.70	Heating COP (Non-Ducted/Ducted):	3.7 / 3.3
SEER (Non-Ducted/Ducted):	26.80 / 20.70	Heating COP 11°F (Non-Ducted/Ducted):	2.4 / 2.3
OUTDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 3	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3 Ground	Capacity Control Range (%):	20 - 100
Min. Circuit Amps MCA (A):	27.6	Capacity Index Limit:	36.9 - 93.0
Max Overcurrent Protection (MOP) (A):	35	Airflow Rate (ft) (CFM):	5544
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	3/4
Rated Load Amps RL(A):	15.7	Liquid Pipe Connection (inch):	3/8
Dimensions (Height) (in):	66-11/16	H/L Pressure Connection (inch):	
Dimensions (Width) (in):	36-11/16	H/L Equalizing Connection (inch):	
Dimensions (Depth) (in):	30-3/16	Sound Pressure (ft) (dBA):	58
Net Weight (lb):	435	Sound Power Level (dBA):	78
		Max. No. of Indoor Units:	12

Daikin City Generated Submittal Data
Daikin North America LLC, 5151 San Felipe, Suite 500, Houston, TX, 77056
www.daikin-usa.com www.daikinconfir.com
Submittal Date: 5/29/2020 11:13:47 AM Page 2 of 3

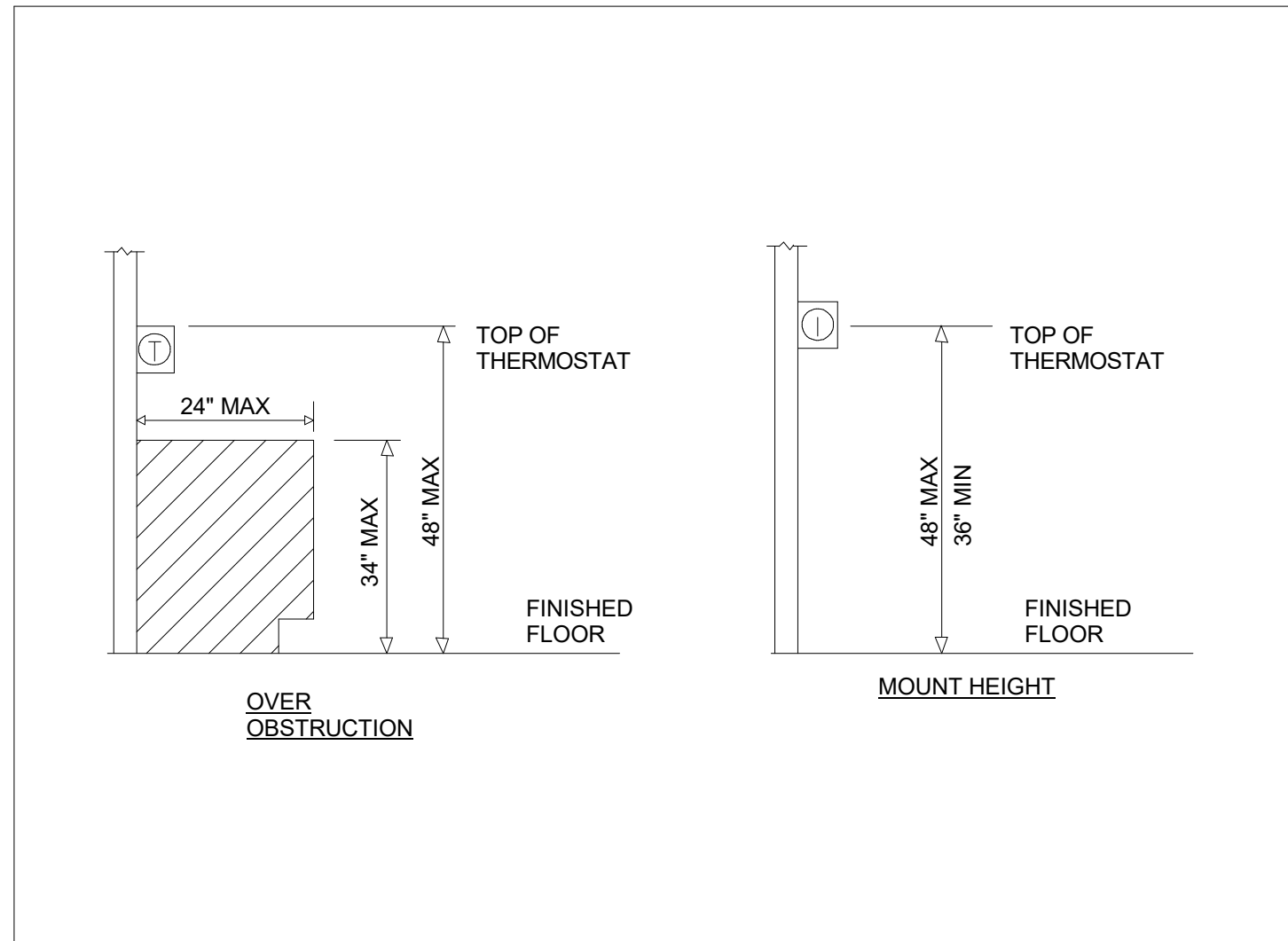
⑥ HEAT PUMP 3-CUT SHEETS
NTS



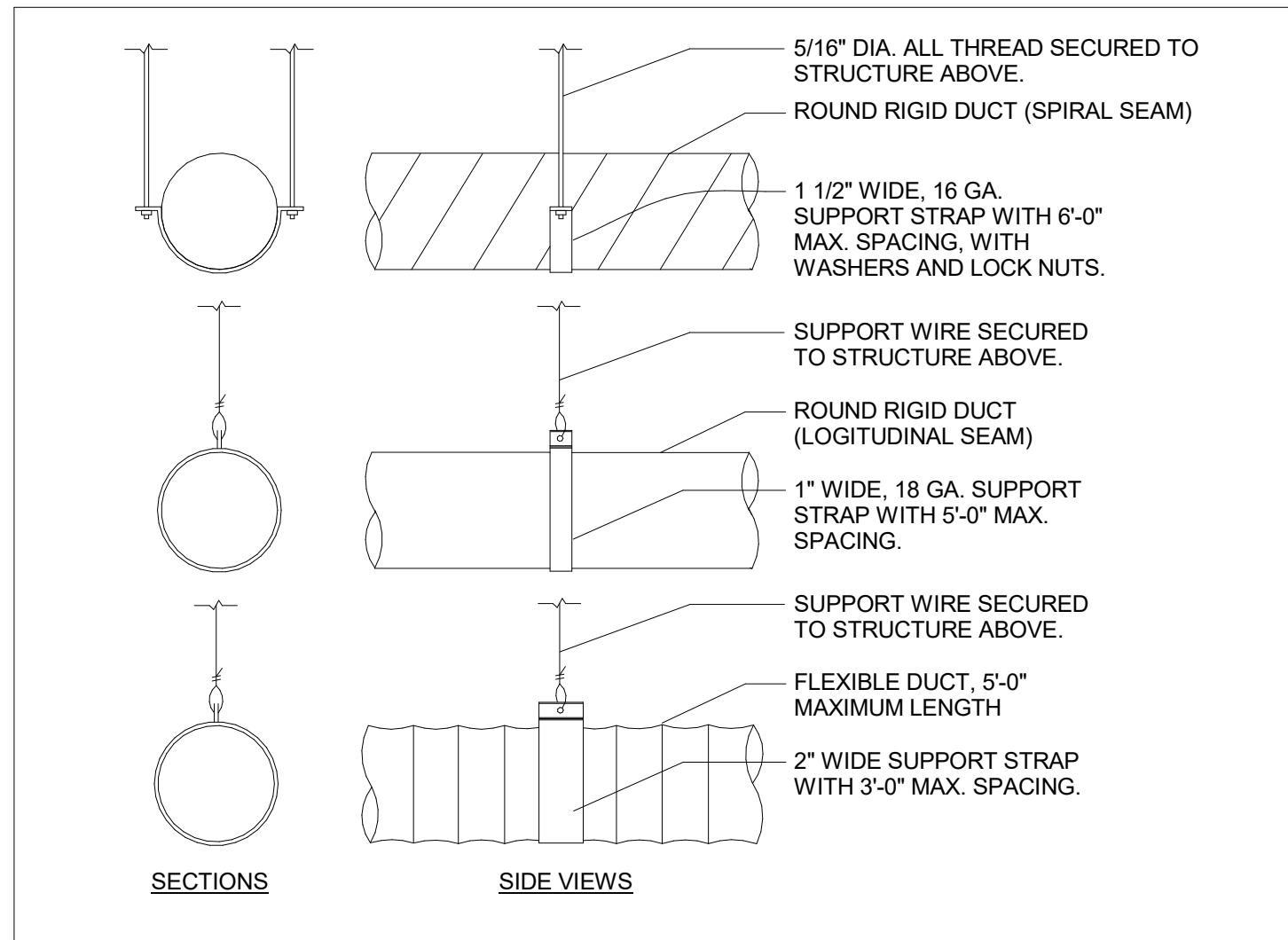
⑤ M13 CEILING EXHAUST FAN
NTS



① M1 CEILING DIFFUSER
NTS



② M2 THERMOSTAT MOUNTING
NTS



③ M3 ROUND DUCT SUPPORT
NTS



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HEALTH CLINIC

M2.0

MECHANICAL DETAILS

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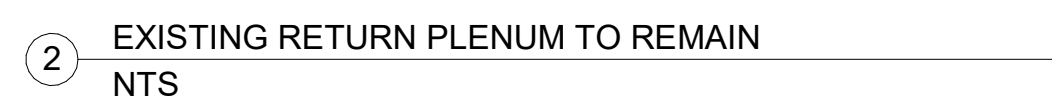
COMMERCIAL

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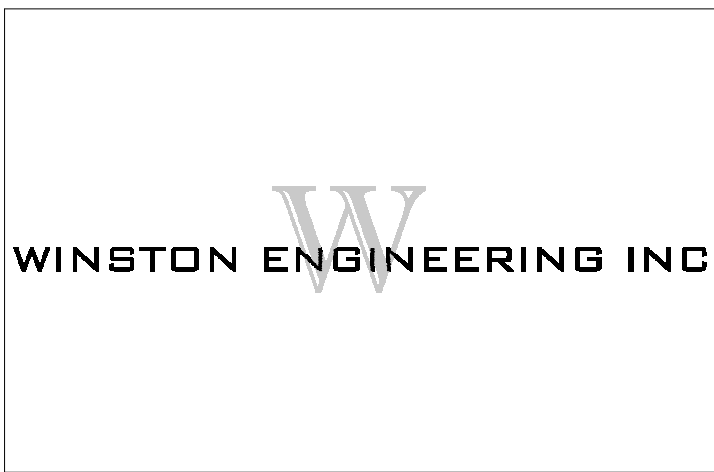
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15000 HEATING, VENTILATION, AND AIR CONDITIONING GENERAL	15000 HEATING, VENTILATION, AND AIR CONDITIONING GENERAL	15005 OPERATION AND MAINTENANCE MANUALS
<p>PART 1 - GENERAL</p> <p>1.01 DESCRIPTION</p> <p>A. SECTIONS 15000 THRU 15899 PERTAIN TO HEATING VENTILATING AND AIR CONDITIONING WORK. THIS SECTION APPLIES TO AND GOVERNS ALL HVAC SECTIONS.</p> <p>B. REFER TO OTHER DIVISIONS FOR CONTINUATION OF EXTERIOR AND ALLIED WORK.</p> <p>C. FIELD PAINTING IS SPECIFIED IN DIVISION 9.</p> <p>1.02 PERMITS, FEES, CODES, ORDINANCES, AND REGULATIONS</p> <p>A. OBTAIN AND PAY FOR ALL PERMITS, INSPECTIONS AND CONNECTION FEES REQUIRED BY GOVERNING BODIES IN CONNECTION WITH THE WORK. DELIVER CERTIFICATES OF INSPECTION TO THE ARCHITECT-ENGINEER.</p> <p>B. ALL WORK SHALL COMPLY WITH GOVERNING CODES, ORDINANCES, AND REGULATIONS OF CITY, COUNTY AND STATE HAVING JURISDICTION, AND THE NATIONAL ELECTRICAL CODE, MECHANICAL CODE, AND REQUIREMENTS OF BOARD OF HEALTH.</p> <p>1.03 QUALITY ASSURANCE</p> <p>A. INDUSTRY STANDARDS AND CODES: UNLESS MODIFIED BY THESE SPECIFICATIONS, THE DESIGN, MANUFACTURE, TESTING AN METHOD OF INSTALLING ALL MATERIALS, APPARATUS AND EQUIPMENT SHALL CONFORM TO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. ARI CODE FOR REFRIGERATION APPARATUS 2. ANSI B9.1 SAFETY CODE FOR MECHANICAL REFRIGERATION. 3. STANDARDS OF NATIONAL FIRE PROTECTION ASSOCIATION 4. SMACNA 5. ASHRAE <p>1.04 SUBMITTALS</p> <p>A. SHOP DRAWINGS: SUBMIT ON ALL MATERIALS, PRODUCTS, EQUIPMENT AND SYSTEMS AS SPECIFIED UNDER HVAC SECTION IN THIS DIVISION IN ACCORDANCE WITH THE GENERAL CONDITIONS.</p> <p>B. PRODUCT DATA: SUBMIT ON ALL MATERIALS, PRODUCTS, AND EQUIPMENT UNLESS OTHERWISE SPECIFIED OR ACKNOWLEDGED IN WRITING.</p> <p>C. SAMPLES: BUILT WHEN SPECIFIED OR REQUESTED.</p> <p>D. TEST AND BALANCE REPORT: SUBMIT AT FINAL INSPECTION</p> <p>E. OPERATION AND MAINTENANCE MANUALS: SUBMIT COPIES IN COMPLIANCE WITH SECTION, OPERATIONS, AND MAINTENANCE MANUALS</p> <p>1.05 JOB CONDITIONS</p> <p>A. PROTECT MATERIALS, APPARATUS AND EQUIPMENT FROM DAMAGE, MOISTURE, DIRT, DEBRIS, AND WORK OF OTHER TRADES.</p> <p>B. USE OF PAPER, CARDBOARD OR OTHER FLIMSY MATERIAL WILL NOT BE PERMITTED. REPLACE DAMAGED PROTECTIVE MATERIALS IMMEDIATELY. DO NOT INSTALL DAMAGED MATERIALS AND EQUIPMENT; REMOVE FROM THE SITE.</p> <p>1.06 RECORD DOCUMENTS</p> <p>A. REFER TO GENERAL CONDITIONS AND DIVISION 1 FOR REQUIREMENTS CONCERNING RECORD DOCUMENTS.</p> <p>B. FURNISH ARCHITECT-ENGINEER WITH ONE SET OF ACCURATELY MARKED BLUE-LINE COPIES OF THE DRAWINGS, INDICATING ALL CHANGES FROM THE CONTRACT DRAWINGS AND ALL HVAC WORK AND CONTROLS AS INSTALLED.</p> <p>1.07 GUARANTEES AND SERVICE</p> <p>A. REFER TO GENERAL CONDITIONS FOR GUARANTEE.</p> <p>B. WHERE EXTENDED GUARANTEES ARE CALLED FOR HEREIN, FURNISH THREE COPIES TO BE INSERTED IN OPERATION AND MAINTENANCE MANUALS</p> <p>C. ALL PREVENTATIVE MAINTENANCE AND NORMAL SERVICE WILL BE PERFORMED BY THE OWNERS MAINTENANCE PERSONNEL AFTER FINAL ACCEPTANCE OF THE WORK. THIS SHALL NOT ALTER THE CONTRACTORS GUARANTEE OF THE WORK IN ANY WAY.</p> <p>D. ALL LABELS SHALL BE SECURELY AFFIXED.</p> <p>PART 2 - PRODUCTS</p> <p>2.01 GENERAL</p> <p>A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW SYSTEMS, SHALL BE PROVIDED COMPLETE, AND EACH SYSTEM AS NEW THEREOF FAIL TO MEET PERFORMANCE REQUIREMENTS, NECESSARY REPLACEMENTS, ALTERATIONS OR REPAIRS, AS REQUIRED BY THE ARCHITECT-ENGINEER, SHALL BE MADE TO BRING PERFORMANCE UP TO SPECIFIED REQUIREMENTS OF BUILDING.</p> <p>B. WHERE MULTIPLE ITEMS OF EQUIPMENT OF MATERIALS ARE REQUIRED, THEY SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER</p> <p>C. BEFORE ORDERING ANY EQUIPMENT, THE SIZE OF ALL EQUIPMENT SHALL BE CHECKED TO EASILY FIT SPACES ALLOTTED ON THE DRAWINGS.</p> <p>D. INSERTS PIPE SLEEVES, SUPPORTS AND ANCHORAGE OF AIR CONDITIONING EQUIPMENT SHALL BE PROVIDED IS SPECIFIED HEREIN, WHERE SUCH ITEMS ARE TO SET OR EMBEDDED IN CONCRETE MASONRY OR SIMILAR WORK, THE ITEMS SHALL BE FURNISHED AND LAYOUT MADE AT THE PROPER TIME FOR THE SETTING OR EMBEDMENT THEREOF SO AS TO CAUSE NO DELAY IN THE WORK.</p> <p>E. WHOLE AND IN ALL ITS PARTS SHALL FUNCTION CORRECTLY UP TO THE SPECIFIED CAPACITY. SHOULD A SYSTEM OR ANY PART PIPING ASSEMBLIES OF EQUIPMENT SHOWN ON THE DRAWINGS AS DIAGRAMMATIC. ALL PIPING AND APPURTENANCES REQUIRED FOR THE PROPER OPERATION OF ALL EQUIPMENT SHALL BE PROVIDED.</p> <p>2.02 MANUFACTURERS NAMES AND CATALOG NUMBERS</p> <p>A. SPECIFIED REFERENCES HAVE BEEN MADE TO ONE OR MORE MANUFACTURERS NAMES AND MODEL OR CATALOG NUMBERS.</p> <p>B. THIS DOES NOT INDICATE THAT THE MATERIAL AND EQUIPMENT SPECIFIES IS NECESSARILY AND "OFF THE SHELF" ITEM; REQUIREMENTS FOR SPECIFIC FINISHES, MATERIALS OR OTHER MODIFICATIONS MAY INTRODUCE VARIANCES FROM MANUFACTURERS STANDARDS. CONTRACTOR SHALL ASCERTAIN THAT SUCH MODIFICATIONS ARE FULLY CONSIDERED.</p> <p>2.03 DIAGRAM, NAMEPLATES, AND LABELS</p> <p>A. EACH MAJOR COMPONENT OF EQUIPMENT SHALL HAVE THE MANUFACTURERS NAME, ADDRESS AND CATALOG NUMBER ON A PLATE SECURELY AFFIXED IN A CONSPICUOUS PLACE. THE NAMEPLATE OF A DISTRIBUTING AGENT WILL NOT BE ACCEPTED.</p> <p>B. ALL PIECES OF EQUIPMENT, VALVES, STARTERS, DISCONNECTS, AND ALL PNEUMATIC AND ELECTRICAL CONTROL INSTRUMENTS AND APPARATUS SHALL BE IDENTIFIED WITH 1/16" THICK BLACK LAMINATED PLASTIC NAMEPLATES, WITH 3/16" HIGH WHITE LAMINATED LETTERS. SIMILAR AND LIKE EQUIPMENT SHALL BE DESIGNATED WITH NUMERICAL SUFFIX (EXAMPLE: THERMOSTAT, T1). THE NAMEPLATE SHALL COINCIDE WITH ITEMS APPEARING ON DIAGRAMS.</p> <p>C. PROVIDE A LABEL FOR THE MECHANICAL SYSTEM STATING: "INSTALLATION BY" (NAME, ADDRESS, AND PHONE NUMBER OF CONTRACTOR)</p> <p>D. LETTERS SHALL BE 1/4" HIGH AND LOCATED IN A CONSPICUOUS PLACE IN THE MECHANICAL ROOM.</p>	<p>PART 3 - EXECUTION</p> <p>3.01 INSTALLATION AND WORKMANSHIP</p> <p>A. THE WORK SHALL BE PERFORMED BY QUALIFIED MECHANICS AND ALL MATERIALS, APPARATUS AND EQUIPMENT SHALL BE INSTALLED IN NEAT, WORKMANLIKE MANNER. ANY MATERIAL, APPARATUS OR EQUIPMENT WHICH, IN THE OPINION OF THE ARCHITECT-ENGINEER, IS IMPROPERLY INSTALLED SHALL BE REMOVED AND REINSTALLED IN AN APPROVED MANNER AT NO ADDITIONAL COST TO THE OWNER.</p> <p>B. THE WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES. WHERE THE WORK IS DEPENDENT UPON WORK OF OTHER TRADES OR WORK ALREADY IN PLACE, SUCH OTHER WORK AND WORK PLACE SHALL BE EXAMINED AND SHALL BE IN PROPER CONDITION AND STATE OF COMPLETION BEFORE CONTINUING THE INSTALLATION</p> <p>C. THE INSTALLATION OF THE SYSTEM SHALL, IN GENERAL, BE IN ACCORDANCE WITH THE DRAWINGS WITH REGARDS TO LOCATION OF EQUIPMENT, DUCTS, PIPES, AND THE LIKE. PIPING DUCTWORK INDICATED SHALL BE FOLLOWED AS ACCURATELY AS ACTUAL CONSTRUCTION WILL PERMIT AND ANY DEVIATIONS THERE FROM SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT- ENGINEER. CONTRACTOR SHALL FURNISH DRAWINGS SHOWING PROPOSED CHANGES.</p> <p>3.02 EARTHWORK AND DEWATERING</p> <p>A. PERFORM IN ACCORDANCE WITH DIVISION 2.</p> <p>3.03 CUTTING AND PATCHING</p> <p>A. LAYOUT OPENINGS FOR CUTTING BY OTHER TRADES AS REQUIRED.</p> <p>B. CUTTING OF STEEL, CONCRETE OR ANY OTHER STRUCTURAL PART MUST BE APPROVED IN WRITING BY ARCHITECT-ENGINEER PRIOR TO CUTTING.</p> <p>3.04 WATERPROOFING</p> <p>A. DO NOT CUT OR PENETRATE WATERPROOFED SURFACES, OR WATERPROOFING MEMBRANES, WITHOUT FIRST MAKING ARRANGEMENTS FOR REPAIR BY METHOD APPROVED BY ARCHITECT-ENGINEER.</p> <p>3.05 ELECTRICAL WORK</p> <p>A. POWER WIRING FROM CONTROLLERS TO MOTORS IS SPECIFIED IN DIVISION 16. ING FROM PANELS TO MOTOR CONTROLLERS</p> <p>B. MOTOR STARTERS NOT SPECIFIED TO BE PROVIDED WITH THE MOTORS AT THE FACTORY ARE SPECIFIED IN DIVISION 16.</p> <p>C. SUBMIT WIRING DIAGRAMS OR APPROVAL AND PROVIDE APPROVED DIAGRAMS SO THAT THE ELECTRICAL WORK MAY BE PROPERLY ACCOMPLISHED.</p> <p>D. ELECTRICAL CONTROL WIRING FOR CONNECTION OF TEMPERATURE CONTROLLERS, PUSH BUTTONS, INTERLOCKS IN MOTOR CONTROLLERS, AND LIKE ITEMS SPECIFIED IN THE CONTROL SECTIONS(S) IN THIS DIVISION. FURNISH ALL EQUIPMENT WITH COMPLETE INTERNAL CONTROL WIRING.</p> <p>E. ELECTRICAL WORK SPECIFIED IN THIS DIVISION SHALL CONFORM TO APPLICABLE PROVISIONS OF DIVISION 16. ALL CONTROL WIRING SHALL BE IN CONDUIT.</p> <p>F. PROVIDE MOTORS CONFORMING TO CHARACTERISTICS SHOWN ON ELECTRICAL DRAWINGS.</p> <p>3.06 SUPPORTS FOR PIPING AND EQUIPMENT</p> <p>A. SUPPORT FOR PIPING AND EQUIPMENT SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS AND NOT FROM METAL DECK AND SLAB ASSEMBLIES.</p> <p>3.07 ACCESS DOORS (ACCESS PANELS)</p> <p>A. PROVIDE ACCESS REQUIRED FOR MAINTENANCE, ADJUSTMENT, REMOVAL AND REPAIR OF VALVES, CONTROLS, DAMPERS, EQUIPMENT AND LIKE ITEMS FURNISHED HERE-UNDER.</p> <p>B. PROVIDE ACCESS DOORS CONFORMING TO REQUIREMENTS OF SECTION ACCESS DOORS (ACCESS PANELS), IN DIVISION 8. PANELS SHALL BE LOCATED TO MAKE ALL ITEMS EASILY ACCESSIBLE.</p> <p>3.08 CLEAN UP</p> <p>A. REFER TO GENERAL CONDITIONS FOR CLEANING UP</p> <p>B. CLEAN ALL MATERIALS AND EQUIPMENT OF DIRT, DUST, PAINT, SPOTS AND STAINS, SOIL MARKS AND OTHER FOREIGN MATTER</p> <p>3.09 FINAL INSPECTION</p> <p>A. NOTICE TO THE ARCHITECT-ENGINEER THAT THE WORK IS READY FOR FINAL INSPECTION. THE CONTRACTOR SHALL:</p> <ol style="list-style-type: none"> 1. SUBMIT TEST AND BALANCE REPORT AND COMPLETE REQUIREMENTS AS NOTED 2. SUBMIT LETTER FROM CONTROL MANUFACTURER CERTIFYING THAT CONTROLS HAVE BEEN CHECKED FOR OPERATION AND CALIBRATION, AND THAT SYSTEM IS OPERATING AS INTENDED. <p>B. CONTRACTOR SHALL FURNISH NECESSARY MECHANICS TO OPERATE SYSTEM, MAKE NECESSARY ADJUSTMENTS AND ASSIST WITH FINAL INSPECTION</p> <p>3.10</p> <p>A. THE CONTRACTOR SHALL INCLUDE THE COST OF THE SERVICES OF QUALIFIES INSTRUCTOR(S) TO INSTRUCT THE OWNER'S OPERATING PERSONNEL IN THE OPERATION, ADJUSTMENT, CARE AND MAINTENANCE OF ALL HVAC EQUIPMENT AND SYSTEMS.</p> <p>B. INSTRUCTION SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER AND AFTER ALL HVAC EQUIPMENT AND SYSTEMS ARE INSTALLED, COMPLETE, ADJUSTED AND OPERATING TO SPECIFIED REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ARCHITECT-ENGINEER WHEN INSTRUCTIONS WILL BE GIVEN.</p> <p>C. QUALIFICATIONS OF INSTRUCTORS SHALL BE SUBJECT TO APPROVAL OF THE OWNER AND EQUIPMENT MANUFACTURER.</p> <p>D. ADDITIONAL REQUIREMENTS CONCERNING OPERATION AND MAINTENANCE OF MECHANICAL EQUIPMENT AND SYSTEMS MAY BE SPECIFIED IN OTHER SECTIONS.</p> <p>E. TWO COPIES OF ACKNOWLEDGMENT OF ALL REQUIRED INSTRUCTIONS TO OWNERS OPERATING PERSONNEL, SIGNED BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE, SHALL BE SUBMITTED TO THE ARCHITECT-ENGINEER PRIOR TO SUBMITTING APPLICATION FOR FINAL PAYMENT. AN ADDITIONAL COPY OF THIS ACKNOWLEDGMENT IS REQUIRED IN EACH COPY OF OPERATION AND MAINTENANCE MANUALS REQUIRED IN THE SECTION, OPERATION AND MAINTENANCE MANUALS.</p> <p>15005 OPERATION AND MAINTENANCE MANUALS</p> <p>PART 1 - GENERAL</p> <p>1.01 DESCRIPTION</p> <p>A. FURNISH THREE COPIES OF COMPLETE OPERATION AND MAINTENANCE MANUALS TO THE ARCHITECT-ENGINEER FOR APPROVAL AND FOR THE OWNER, ON ALL EQUIPMENT AND SYSTEMS. THE MANUALS SHALL BE BOUND IN HARD BACK, THREE RING LOOSE LEAF BINDERS</p>	<p>PART 2 - PRODUCTS</p> <p>2.01 MANUAL CONTENTS</p> <p>A. TITLE SHEET WITH JOB NAME, AND THE NAMES, ADDRESSES AND PHONE NUMBERS OF THE CONTRACTOR, SUBCONTRACTOR, CONTROL SUBCONTRACTOR, RELATED CONTRACTORS AND MATERIAL AND EQUIPMENT SUPPLIERS.</p> <p>B. TABLE OF CONTENTS</p> <p>C. A COPY OF ACKNOWLEDGMENT OF INSTRUCTION TO THE OWNERS OPERATING PERSONNEL IN THE OPERATION OF ALL MECHANICAL EQUIPMENT AND SYSTEMS, SIGNED BY THE OWNER OF HIS AUTHORIZED REPRESENTATIVE.</p> <p>D. TYPEWRITTEN OPERATING INSTRUCTIONS FOR THE OWNERS PERSONNEL DESCRIBING HOW TO STOP AND START EACH PIECE OF EQUIPMENT; HOW TO SET THE TEMPERATURE CONTROL SYSTEM FOR NORMAL OPERATION AND NORMAL RESTARTING PROCEDURES, CAUTION AND WARNING NOTICES.</p> <p>E. APPROVED SHOP DRAWINGS, PRODUCT DATA AND PARTS AND MAINTENANCE BOOKLET FOR EACH ITEM OF MATERIAL AND EQUIPMENT FURNISHED UNDER DIVISION 15000</p> <p>F. RECORD DRAWINGS OF ALL SYSTEMS INCLUDING ELECTRICAL AND CONTROL DIAGRAM</p> <p>G. TEST AND BALANCE REPORT</p> <p>H. COPIES OF CERTIFICATION OF INSPECTION</p> <p>I. GUARANTEES, INCLUDING EXTENDED GUARANTEES</p> <p>PART 3 - EXECUTION</p> <p>A. DELIVER THE MANUALS TO THE OWNER PRIOR TO SUBMITTING APPLICATION FOR FINAL PAYMENT.</p> <p>15305 DUCTWORK, LOW PRESSURE, GALVANIZED STEEL</p> <p>PART 1 - GENERAL</p> <p>1.01 QUALITY ASSURANCE</p> <p>A. DUCTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH "HVAC DUCT CONSTRUCTION STANDARDS" PUBLISHED BY SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA)</p> <p>1.02 JOB CONDITIONS</p> <p>A. INSPECT THE DRAWINGS AND VERIFY EXISTING CONDITIONS IN THE FIELD. REPORT CONFLICTS BEFORE STARTING FABRICATION</p> <p>PART 2 - PRODUCTS</p> <p>2.01 DUCT MATERIAL</p> <p>A. WEIGHTS AND GAGES SHALL BE IN ACCORDANCE WITH TABLE 1 OF "HVAC DUCT CONSTRUCTION STANDARDS" PUBLISHED BY SMACNA. DUCT MATERIAL SHALL BE GALVANIZED STEEL.</p> <p>2.02 SPLITTERS</p> <p>A. SPLITTERS SHALL BE 18 GAGE GALVANIZED STEEL WITH HORIZONTAL AND VERTICAL DIMENSIONS SUFFICIENT TO CLOSE OFF AIR TO BRANCH.</p> <p>B. PROVIDE VENTLOCK NO. 607 END BEARINGS AND VENTLOCK NO. 690 DAMPER ASSEMBLY</p> <p>2.03 VOLUME DAMPERS</p> <p>A. VOLUME DAMPERS SHALL BE18 GAGE STEEL; SINGLE BLADE UP TO 8"x8", OPPOSED BLADE ON ALL DUCTS OVER 8"x</p>



8605 Santa Monica Blvd Ste 63454
West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
www.winstoneng.com



PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

[illegible]

HEALTH CLINIC

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15319 DUCTWORK, LOW PRESSURE, FLEXIBLE

- 1.03 SUBMITTALS
- A. SUBMIT SHOP DRAWINGS AND MANUFACTURERS PRODUCT DATA INCLUDE COMPLETE ENGINEERING AND TEST DATA AND CLEARLY INDICATE ALL CONSTRUCTION FEATURES AND ACCESSORY ITEMS.

PART 2 - PRODUCTS

- 2.01 LOW PRESSURE FLEXIBLE DUCTWORK
- A. LOW PRESSURE FLEXIBLE DUCTWORK SHALL CONSIST OF CORROSION RESISTANT SPRING STEEL HELIX BONDED TO A GLASS REINFORCED NEOPRENE SLEEVE INSULATED WITH A MINIMUM OF 1" THICK. 1LB DENSITY FIBERGLASS INSULATION WHICH IN TURN COVERED WITH AN OUTER VAPOR BARRIER OF FIBER REINFORCED FOIL SCRIM-KRAFT LAMINATE.
- B. INSULATION SHALL HAVE A TERMINAL CONDUCTIVITY (K) NO GREATER THAN 0.25 AT 75 DEGREES F.
- C. DUCT FOR LOW VELOCITY SYSTEM CONNECTORS SHALL HAVE A WORKING PRESSURE OF NOT LESS THAN 1-1/2" OF WATER GAGE AND A MAXIMUM OPERATING TEMPERATURE OF NOT LESS THAN 250 DEGREES F.

2.02 DUCT CONNECTORS

- A. WHERE FLEXIBLE DUCTS CONNECT TO LOW PRESSURE DUCTS TO FORM RUNOUTS TO INDIVIDUAL OUTLETS, PLENUMS OR LOW PRESSURE TERMINALS, PROVIDE FACTORY FABRICATED FITTINGS COMPLETE WITH AND MANUALS BALANCING DAMPERS HAVING LOCKING QUADRANTS WHERE LOW PRESSURE DUCTS ARE INTERNALLY INSULATED THE CONNECTOR SHALL BE FURNISHED WITH AIR EXTENSION TO PROJECT THROUGH AND PROTECT THE INSULATION. FOR CONNECTION TO EQUIPMENT, AUXILIARY SLEEVES SHALL BE PROVIDED TO ALLOW AT LEAST 2 INCHES OF SURFACE FOR CLAMPING OF FLEXIBLE DUCTWORK. SLEEVES SHALL BE SCREWED OR BOLTED TO EQUIPMENT LIP FRAME.

2.03 CLAMPS

- A. PROVIDE GALVANIZED SPRING STEEL CLAMPS OR PANDUIT STRAPS AT CONNECTION TO DUCT FITTINGS OR DEVICES.

2.04 MANUFACTURER

- A. FLEXIBLE DUCTWORK AND COMPONENTS SHALL BE AS MANUFACTURED BY GENERAL ENVIRONMENTAL CORPORATION OR APPROVED EQUAL

PART 3 - EXECUTION

- 3.01 INSTALLATION
- A. INSTALL DUCT CONNECTORS TO LOW PRESSURE DUCTS USING MANUFACTURER TEMPLATE FOR ALL HOLES AND SECURE THE CONNECTOR WITH SHEET METAL SCREWS HAVING FIRST APPLIED FOSTERS 30-02 DUCT SEALANT TO THE ADJOINING SURFACES. DO NOT PRESSURIZE THE SYSTEM FOR 48 HOURS.
- B. STRETCH NEW DUCT WHEN REMOVING IT FROM CARTONS WHERE IT MAY HAVE BEEN SHIPPED IN A COMPRESSED STATE.
- C. USE THE MINIMUM LENGTH OF FLEXIBLE DUCT REQUIRED TO MAKE THE SPECIFIC CONNECTION UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. THE MAXIMUM DEVELOPED LENGTH OF FLEX DUCT IS 8'-0"
- D. AVOID SHARP BENDS. USE MINIMUM INSIDE BEND RADIUS EQUAL TO 1/2 THE INSIDE DIAMETER OF THE DUCT.
- E. SUPPORT HORIZONTAL DUCT RUNS WITH HANGERS MAXIMUM OF 3'-0" ON CENTER. USE 3/4 INCH OR WIDER GALVANIZED STRAP HANGER MATERIAL
- F. ALLOW THE FLEXIBLE DUCT TO EXTEND STRAIGHT AWAY FROM CONNECTORS FOR A FEW INCHES PRIOR TO INITIATING ALL BENDS
- G. MAKE ALL CONNECTIONS OF FLEXIBLE DUCT TO RIGID DUCT OR TERMINALS AS FOLLOWS:
1. APPLY FOSTERS 30-02 SEALANT TO THE INSIDE OF THE FLEXIBLE DUCT TO DEPTH OF 3 INCHES
2. SLIDE THE FLEXIBLE DUCT OVER THE CONNECTOR AND WRAP WITH MINIMUM OF TWO REVOLUTIONS OF REINFORCED FOIL DUCT TAPE STARTING ABOUT TWO INCHES BACK FROM END OF FLEXIBLE DUCT AND SEALING OVERLAP WITH LAST STRAP.
3. PLACE A CLAMP OR STRAP OVER THE TAPED END AND SECURE FIRMLY
4. REPAIR ALL DAMAGE TO VAPOR BARRIER WITH FOSTERS 35-00 REINFORCED WITH 4 INCH WIDE GLASS FABRIC AND A SECOND COAT OF FOSTERS 35-00

15450 AIR DISTRIBUTION EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. AIR DISTRIBUTION DEVICES SHALL BE PROVIDED TO DELIVER THE INDICATED VOLUME OF SUPPLY AIR WITHOUT EXCEEDING THE AVAILABLE THROW AND NC RATING AS FOLLOWS:
1. KITCHEN: NC-35
2. DINING, ASSEMBLY, LOBBY, OFFICES: NC-30

1.02 SUBMITTALS

- A. SHOP DRAWINGS: INDICATE LOCATIONS, SPACING AIR VOLUME AND TYPE OF EACH DEVICE
- B. PRODUCT DATA: MANUFACTURERS CATALOG CUTS AND PRODUCT DESCRIPTION INCLUDING AIR QUANTITY, PATTERN, THROW, PRESSURE DROP, NC RATINGS, FINISH, DIMENSIONS AND COMPLETE CONSTRUCTION DETAILS AND MATERIALS.

PART 2 - PRODUCTS

2.01 DIFFUSERS GRILLES AND REGISTERS

- A. DIFFUSERS, GRILLES, AND REGISTERS SHALL BE AS MANUFACTURED BY TITUS, ANEMOSTAT, KRUEGER OR APPROVED EQUAL.
- B. FOR MODEL NUMBERS AND TYPES SEE AIR DISTRIBUTION SCHEDULE ON DRAWING.
- C. DIFFUSERS, GRILLES, AND REGISTERS SHALL BE OF THE SURFACE, FLUSH OR LAY IN TYPE CORRESPONDING TO THE TYPE OF CEILING IN WHICH THEY ARE LOCATED
- D. INTERIOR OF DIFFUSERS, GRILLE, OR REGISTER FACE PANEL SHALL BE BAKED ENAMEL, OFF WHITE COLOR.

2.02 MOUNTING SCREWS

- A. WHERE MOUNTING SCREWS ARE REQUIRED IN AIR DISTRIBUTION DEVICES, THEY SHALL BE FINISHED TO MATCH THE ADJACENT SURFACE OF THE DEVICES

2.03 GASKETS

- A. SUPPLY AND RETURN GRILLES AND REGISTERS WHICH ARE SURFACE MOUNTED SHALL BE PROVIDED WITH SPONGE RUBBER GASKETED FRAMES TO PREVENT SMUDGING

PART - 3 EXECUTION

3.01 INSTALLATION

- A. INSTALL WHERE SHOWN ON DRAWINGS
- B. DIFFUSERS, REGISTERS, AND FITTINGS SHALL BE SECURELY ATTACHED TO FINISH SURFACES, OR STRUCTURAL MEMBERS BEHIND FINISH SURFACES.
- C. LAY-IN DIFFUSERS MOUNTED IN ACOUSTICAL TILE CEILINGS SHALL BE RIGIDLY MOUNTED, ABOVE THE FACE PANEL, TO THE CEILING SUSPENSION SYSTEM

15802 HVAC INSULATION GENERAL

PART 1 - GENERAL

1.01 DESCRIPTION

- A. THIS SECTION GOVERNS ALL HVAC INSULATION

1.02 SUBMITTALS

- A. SUBMIT PRODUCT DATA COVERING THERMAL, PERMEABILITY AND FIRE PERFORMANCE CHARACTERISTICS OF ALL INSULATION MATERIAL, ADHESIVES AND FINISHES. DATA SHALL BE CLEARLY MARKED TO HOW INTENDED USE, THICKNESS, FINISHES, ADHESIVES AND APPLICATION TECHNIQUES.

PART 2 - EXECUTION

2.01 INSTALLATION

- A. INSULATION SHALL NOT BE INSTALLED UNTIL TESTING PROCEDURES HAVE BEEN COMPLIED WITH ALL SURFACES AND HAVE BEEN CLEANED FREE OF DIRT AND GREASE AND ARE COMPLETELY DRIED.
- B. PROTECT ADJACENT SURFACES, EQUIPMENT AND PREMISES FROM DROPPING OF COATINGS ADHESIVES AND FINISHES
- C. REMOVE ALL EXCESS MATERIALS AND DEBRIS FROM BOTH EXPOSED AND CONCEALED AREAS SO THAT THESE AREAS ARE COMPLETELY CLEAN.

15841 INSULATION, LOW PRESSURE DUCT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. ALL LOW PRESSURE DUCT SYSTEMS, 2 INCHES WATER GAGE OR LESS, SHALL BE INSULATED
- B. ALL APPLICABLE REQUIREMENTS OF THE SECTION HVAC INSULATION, GENERAL, SHALL APPLY TO THIS SECTION

1.02 EQUIVALENT MATERIALS

- A. MATERIALS OTHER THAN THOSE SPECIFIED WILL BE CONSIDERED FOR APPROVAL EQUAL.

PART 2 - PRODUCTS

2.01 INSULATION

- A. EXTERNAL INSULATION SHALL BE 1-1/2" THICK, 2.0LB DENSITY, (K= .125), SCHULLER TYPE S MALLETT, FSK SPIN GLASS OR APPROVED EQUAL WITH EMBOSSED ALUMINUM FOIL FACING

2.02 ADHESIVES, MASTIC, SEALANTS

- A. ADHESIVE SHALL BE FOSTERS 85-20. STUD WELD PINS SHALL BE SEALED WITH FOSTERS 30-36 ADHESIVE
- B. WIDE GLASS FABRIC

PART 3 - EXECUTION

3.01 INSTALLATION

- A. ALL SUPPLY AND RETURN AIR DUCTWORK
- B. AIR SUPPLY DIFFUSER BACKS AND NECKS:
1. ALL AIR SUPPLY DIFFUSERS BACKS AND NECKS SHALL BE INSULATED WITH 1/2" THICK, 3/4LB DENSITY, MANVILLE R-SERIES SMALLITE, OR APPROVED EQUAL FIBERGLASS BLANKET INSULATION. HAVING A CONDUCTANCE (K) NO GREATER THAN .31. ADHERE INSULATION TO THE DUCT AS SPECIFIED BELOW.

15885 CONTROLS, ELECTRIC

PART 1 - GENERAL

1.01 DESCRIPTION

- A.THE WORK CONSISTS OF INSTALLING CONTROLS FOR THE HVAC SYSTEM AS ON THE DRAWINGS.

1.02 SUBMITTALS

- A. PROVIDE SUBMITTAL CONSISTING OF COMPLETE CONTROL DIAGRAMS FOR THE SYSTEM WITH CONSTRUCTION DETAILS AND ENGINEERING DATA SHEETS ON ALL SYSTEM COMPONENTS

1.03 ELECTRICAL

- A. ELECTRICAL WORK AND MATERIALS ASSOCIATED WITH THE CONTROL SYSTEM SHALL BE INSTALLED AS WORK OF THIS SECTION BUT IN ACCORDANCE WITH DIVISION 16.

- B. POWER WIRING IS SPECIFIED UNDER DIVISION 16 AND SHOWN ON ELECTRICAL DRAWINGS.

- C. ELECTRICAL CONTROL WIRING CONDUIT AND FITTINGS ASSOCIATED WITH THE SPACE TEMPERATURE AND HUMIDITY CONTROL INCLUDING INTERLOCKING WITH MOTOR CONTROLLERS, CONTROL ACCESSORIES AND APPURTENANCES ARE TO BE PROVIDE UNDER THIS SECTION. CONTROL WIRING SHALL BE IN CONDUIT.

PART 2 - PRODUCTS

2.01 ELECTRIC THERMOSTATS

- A. THERMOSTAT SHALL BE HONEYWELL, CARRIER, LENNOX AS OR SPECIFIED IN THE DRAWINGS.
- B. THERMOSTAT SHALL HAVE MANUAL HEATING COOLING CHANGEOVER SWITCH TO CONTROL OPERATION OF THE HEATING AND COOLING ON ALL AIR CONDITIONING UNITS.
- C. THERMOSTATS SHALL HAVE LOCKABLE COVERS. SECTION 15990 TESTING, ADJUSTING AND BALANCING.

2.02 SMOKE DETECTION FAN SHUT DOWN

- A. SMOKE DETECTOR SHALL BE AS SPECIFIED IN THE DRAWINGS OR AN APPROVED EQUAL AS REQUIRED.
- B. REMOTE ALARM INDICATOR FOR DUCT MOUNTED SMOKE DETECTOR SHALL BE SPECIFIED IN THE DRAWINGS.
- C. SMOKE DETECTOR SHALL BE POWERED AS SPECIFIED IN DRAWINGS OR AS REQUIRED

PART 3 - EXECUTION

3.01 ELECTRIC ROOM THERMOSTATS

- A. SHALL BE ALL MOUNTED AND INSTALLED ON A COMMON BASE PLATE.

15890 TESTING, ADJUSTING, AND BALANCING

1.01 SPECIAL NOTICE

- A. EACH CONTRACTOR SHALL READ ALL RELEVANT DOCUMENTS, BECOME FAMILIAR WITH THE JOB, SCOPE OF WORK, TYPE OF GENERAL CONSTRUCTION AND THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS. EACH CONTRACTOR SHALL ALSO FAMILIARIZE HIMSELF WITH THE PURPOSE FOR WHICH THESE DOCUMENTS HAVE BEEN PREPARED SHALL BECOME COGNIZANT OF ALL THE DETAILS INVOLVED. EACH CONTRACTORS SHALL COORDINATE HIS WORK WITH THAT OF OTHERS.
- B. THE TERM "CONTRACTOR" USED IN THIS SECTION OF THE SPECIFICATION, IT SHALL MEAN THE CONTRACTOR WHOSE WORK IS COVERED BY THIS SECTION
- C. WHEN THE TERM "ENGINEER" IS USED IN THIS SECTION OF THE SPECIFICATION, IT SHALL MEAN THE CONSULTING MECHANICAL ENGINEER

1.02 START UP TEXT AND ADJUSTMENT

- A. THE PURPOSE OF STARTUP, TESTING AND ADJUSTING THIS EQUIPMENT IS TO OUT IT INTO FINAL OPERATING CONDITION FOR THE OWNERS USE AND BENEFIT. ALL TESTS OF EQUIPMENT AND SYSTEMS REQUIRED TO PROVE COMPLIANCE WITH THE DRAWINGS AND SPECIFICATION SHALL BE PERFORMED IN THE PRESENCE OF THE OWNERS REPRESENTATIVE. OWNERS REPRESENTATIVE SHALL HAVE MADE COMPLETELY FAMILIAR WITH THE COMPLETE WORKING OF ALL MECHANICAL SYSTEMS
- B. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE HVAC TEST & BALANCE, WHICH MUST BE PERFORMED BY AN INDEPENDENT TESTING AND AIR BALANCE CONSULTANT, A CERTIFIED AABC OR NEBB. THE GENERAL CONTRACTOR SHALL SCHEDULE A TENTATIVE MINIMUM OF 4 WEEKS AND THIS WORK SHALL BE PERFORMED AFTER THE HVAC SYSTEM STARTUP IS COMPLETED. ALSO, GAS AND ELECTRIC POWER MUST BE TURNED ON, COOKING EQUIPMENT OPERATIONAL (IF ANY), ALL DOORS AND WINDOWS INSTALLED, AND CEILING FILES IN PLACE PRIOR TO THE TEST AND AIR BALANCE
- C. THE TEST AND BALANCE COVERS ALL HEATING AND AIR CONDITIONING, AND EXHAUST VENTILATION SYSTEMS, A CERTIFIED REPORT SHALL BE SUBMITTED TO THE GENERAL CONTRACTOR AND A COPY TO OWNER WITHIN 2 WEEKS OF COMPLETION

1.03 THE TEST AND AIR BALANCE SHALL BE IN ACCORDANCE WITH THE FOLLOWING CHECKLIST

1.03.1 GENERAL

- A. INQUIRE ABOUT ANY PROBLEMS OR COMPLAINTS
- B. COMPARE MECHANICAL PLANS TO INSTALLED SYSTEM
- C. DOCUMENT DESIGN SPECIFICATIONS FOR REPORT
- D. ENSURE ALL FANS ARE RUNNING FOR BALANCE
- E. MEASURE INITIAL BUILDING PRESSURE.

1.03.2 INSPECT HVAC EQUIPMENT, ROOFTOP, ATTIC, OR FLOOR MOUNTED EQUIPMENT

- A. INSPECT UNITS AND NOTE ANY DEFICIENCIES
- B. RECORD UNIT NAMEPLATE DATA
- C. CHECK THERMOSTATS FOR PROPER SETTINGS
- D. CHECK FOR CORRECT FAN ROTATION (INCLUDE CONDENSER FANS)
- E. CHECK CONDITIONS OF FILTERS AND COILS
- F. CHECK POSITION OF OUTSIDE AIR DAMPERS
- G. CHECK GAS LINES AND CONDENSATE LINES
- H. CHECK BELT TENSION AND PULLEY ALIGNMENT
- I. CHECK DISCONNECT SWITCHES AND COVERS
- J. CHECK ANY FAN NOISE & VIBRATION
- K. CHECK HEAT/COOL MODES OF A/C, RTUs

1.03.3 TEST AND BALANCE KITCHEN HOOD SYSTEM (WHERE APPLICABLE)

- A. MEASURE SUPPLY AND EXHAUST FPM IN HOODS
- B. OBSERVE HOOD SMOKE CAPTURE WITH EQUIPMENT ON
- C. ADJUST SUPPLY AND EXHAUST RPM AND DAMPER SA, AS REQUIRED
- D. NOTE ADJUSTMENTS MADE ON PULLEYS
- E. MEASURE FINAL RPMs
- F. EVALUATE DUCT SYSTEM DESIGN AND INSTALLATION
- G. ENSURE THAT FINAL SMOKE TESTS ARE SATISFACTORY

1.03.4 TEST AND BALANCE HEATING/COOLING SYSTEM

- A. MEASURE RTU/AC SUPPLY AND RETURN AIRFLOW
- B. CHECK FOR DRAFTS, HOT/COLD SPOTS
- C. ADJUST RPM AS NECESSARY TO ACHIEVE DESIGN
- D. CHECK ACTUAL AMPS VERSUS MOTOR FLA
- E. NOTE ADJUSTMENTS MADE ON PULLEYS
- F. MEASURE FINAL RPMs
- G. DAMPER AT BRANCH T/Os FIRST AND AT DIFFUSERS SECOND
- H. EVALUATE DUCT SYSTEM DESIGN AND INSTALLATION
- I. ENSURE SLIGHTLY POSITIVE BUILDING PRESSURE
- J. FINE TUNE POSITION OF OA DAMPER
- K. MEASURE FINAL BUILDING PRESSURE

1.04 FINAL REVIEW

- A. REVIEW REPORT AND DATA FOR COMPLETENESS
- B. DISCUSS RESULTS AND FINDINGS WITH SUPERINTENDENT
- C. AIR QUALITIES SHALL BE BALANCED TO WITHIN + 10% OF DESIGN AS A GENERAL RULE. HOWEVER, IN SOME CASES THE AIR QUANTITIES MAY NEED TO BE ADJUSTED DIFFERENTLY IN ORDER TO ENSURE ACCEPTABLE COMFORT LEVELS, HOOD CAPTURE PERFORMANCE, POSITIVE BUILDING PRESSURE, ETC. MELINK SHALL NOTIFY THE SUPERINTENDENT OF ANY DEFICIENCIES NEEDING IMMEDIATE ATTENTION. THE GC SHALL HAVE THE MECHANICAL AND ELECTRICAL CONTRACTORS ON CALL TO PROMPTLY CORRECT ANY SUCH PROBLEMS. IN THE EVENT MELINK NEEDS TO RESCHEDULE A FOLLOW UP VISIT TO TEST AND BALANCE EQUIPMENT NOT READY ON THE ORIGINALLY SCHEDULED T&B DATE, THE GC SHALL PAY FOR THE ACCIDENTAL COST INVOLVED, INCLUDING TRAVEL.
- D. ALL DATA REQUIRED BY THESE SPECIFICATIONS SHALL BE TYPED ON WHITE BOND PAPER IN TRIPLICATE AND SUBMITTED TO OWNER'S REPRESENTATIVE FOR APPROVAL. COMPLETE APPROVAL WILL BE NECESSARY BEFORE FINAL PAYMENT CAN BE MADE. THE CONTRACTOR SHALL THEN MAKE AVAILABLE SUCH INSTRUMENTS AS REQUIRED FOR SPOT CHECKS ON THE SYSTEM.

W

WINSTON ENGINEERING INC

8605 Santa Monica Blvd Ste 63454

West Hollywood, CA 90069

951-902-6600

info@winstoneng.com

www.winstoneng.com



PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

REVISION SCHEDULE		
△	ISSUE	DATE
△	INITIAL SUBMITTAL	-
	1st SUBMITTAL	11-7-2022

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Project Name:	Nonresidential Building	NRCC-PRF-01-E	Page 10 of 18
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1	2	3	4	5	6	7	8
System ID	Zone Name	Qty	CFM	Motor BHP	Power Per Flow (W/cfm)	Total Static Pressure (in. H ₂ O)	Unit
Supervisor145	20-Supervisor	1	30	0.003	0.100	0.47	N
Bathrooms151	21-Bathrooms	1	160	0.003	0.019	0.09	N
Break Room155	22-Break Room	1	160	0.003	0.019	0.09	N
Analyst/Clerical164	23-Analyst/Clerical	1	30	0.008	0.233	1.10	N

Status: N - New A - Altered C - Existing

H4. Wet System Equipment(boilers,chillers,cooling towers,etc.)

This Section Does Not Apply

H5. PUMPS

This Section Does Not Apply

H6. SYSTEM SPECIAL FEATURES

1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
Unit #1	PWV	NA	Fixed Supply Air Temp.
Unit #2	PWV	NA	Fixed Supply Air Temp.
Unit #3	PWV	NA	Fixed Supply Air Temp.
DHW1 - SHW	Service Hot Water, Primary Only	NA	Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive control requirements are documented on the NRCC-NRCE.

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-08-22 13:18:45

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1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	System Type	Qty	Rated Capacity (kBtu/h)		Airflow (cfm)			Fan			
				Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
10-MDF-Trm	10-MDF	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
23-Analyst/Clerical-Trm	23-Analyst/Clerical	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>
22-Break Room-Trm	22-Break Room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>
21-Bathrooms-Trm	21-Bathrooms	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>
20-Supervisor-Trm	20-Supervisor	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>
19-Manager Office-Trm	19-Manager Office	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>
18-Program Manager-Trm	18-Program Manager	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.275	bhp	NA	<input type="checkbox"/>

H10. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

H11. HEAT RECOVERY SUMMARY

This Section Does Not Apply

H1. WATER HEATER EQUIPMENT SUMMARY

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value (Int/Ext)	Standby Loss Fraction	1st Hour Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
Rinnai (RU1301) (2 units)2	Gas	Instantaneous	1	1.00	260	kBtu/h	0.80	ThrmL Eff.	NA	0.000	NA	NA	NA

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L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCC/

Building Component	Form/Title
Envelope	NRCC-ENV-01-E - Must be submitted for all buildings
Mechanical	NRCC-MCH-01-E - Must be submitted for all buildings
Plumbing	NRCC-PLB-01-E - Must be submitted for all buildings
Indoor Lighting	NRCC-LTI-01-E - Must be submitted for all buildings

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H7. NONRESIDENTIAL VENTILATION

1	2	3	4	5	6	7
Zone Name	Ventilation Function	# of people	Supply OA CFM	Exhaust CFM	Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
1-Lobby + Bathrooms	Office - Office space	3.91	59	140	391	NA
2-Reception & Clinical Offi	Office - Office space	4.60	69	30	460	NA
3-2 Clinical/Super	Misc - All others	5.28	79	30	528	NA
4-Medical Records	Office - Office space	1.00	15	30	100	NA
5-Corridor	General - Corridors	1.04	16	30	104	NA
6-Doc/Nurse/Janitor Office	Office - Office space	3.50	53	30	350	NA
7-Nurse	Misc - All others	1.96	29	30	196	NA
8-Interview Room	Office - Office space	1.54	23	30	154	NA
9-Doctor Office	Office - Office space	3.64	55	30	364	NA
10-MDF	Misc - All others	0.23	12	30	77	NA
11-Clinician	Office - Office space	3.12	47	30	312	NA
12-Case Manager	Office - Office space	5.32	80	30	532	NA
13-Interview Room	Office - Office space	2.10	32	30	210	NA
14-Telemedicine	Office - Office space	3.90	59	30	390	NA
15-Children Conference Room	Office - Office space	3.64	55	100	364	NA
16-Corridor/Storage/Bathroom	General - Corridors	3.64	55	145	364	NA
17-Group Room	Office - Office space	2.55	38	100	255	NA
18-Program Manager	Office - Office space	3.78	57	30	378	NA
19-Manager Office	Office - Office space	2.38	36	30	238	NA
20-Supervisor	Office - Office space	2.38	36	30	238	NA
21-Bathrooms	Exhaust - Toilets, private	1.53	0	160	153	NA
22-Break Room	Office - Office space	6.76	101	160	676	NA
23-Analyst/Clerical	Office - Office space	5.24	79	30	524	NA

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K1. INDOOR CONDITIONED LIGHTING GENERAL INFO

1	2	3	4	5	6
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance	
				Area Category Footnotes (Watts)	Tailored Method (Watts)
Office Area (<250 square feet)	3,840	2,690	0	0	0
Healthcare Facility and Hospitals (Exam/Treatment Room)	724	832	0	0	0
Corridor Area	468	280	0	0	0
Electrical, Mechanical, Telephone Rooms	77	31	0	0	0
Office Area (>250 square feet)	1,420	924	0	0	0
Restrooms	153	99	0	0	0
Office Area (Open plan office)	676	406	0	0	0
Building Totals:	7,358	5,262	0	0	0

¹ See Table 140.8-C

² See NRCC-LTI-01-E for unconditioned spaces

³ Lighting information for existing spaces modeled is not included in the table

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M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	Form/Title
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Indoor Lighting	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	NRCA-MCH-11-A Automatic Demand Shed Controls
	NRCA-MCH-13-A Automatic FPD for Air Handling Units and Zone Terminal Units Acceptance
	NRCA-MCH-16-A Supply Air Temperature Reset Controls
	NRCA-MCH-18 Energy Management Control Systems

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H8. HIGH-RISE RESIDENTIAL DWELLING UNIT AND HOTEL/MOTEL VENTILATION

This Section Does Not Apply

H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	System Type	Qty	Rated Capacity (kBtu/h)		Airflow (cfm)			Fan			
				Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
9-Doctor Office-Trm	9-Doctor Office	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
8-Interview Room-Trm	8-Interview Room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
7-Nurse-Trm	7-Nurse	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
6-Doc/Nurse/Janitor Office-Trm	6-Doc/Nurse/Janitor Office	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
5-Corridor-Trm	5-Corridor	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
4-Medical Records-Trm	4-Medical Records	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
3-2 Clinical/Super-Trm	3-2 Clinical/Super	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
2-Reception & Clinical Offi-Trm	2-Reception & Clinical Offi	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
1-Lobby + Bathroom-Trm	1-Lobby + Bathrooms	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
17-Group Room-Trm	17-Group Room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
16-Corridor/Storage/Bath room-Trm	16-Corridor/Storage/Bath room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
15-Children Conference Room-Trm	15-Children Conference Room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
14-Telemedicine-Trm	14-Telemedicine	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
13-Interview Room-Trm	13-Interview Room	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
12-Case Manager-Trm	12-Case Manager	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>
11-Clinician-Trm	11-Clinician	VAVNoReheatBox	1	NA	NA	1600	1600	1.00	1.623	bhp	NA	<input type="checkbox"/>

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K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS

Building Level Controls									
1					2				
Mandatory Demand Response §110.12(c)					Shut-Off Controls §130.1(c)				
Required					Required				
Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1)									
4	5	6	7	8	9	10			
Area Description	Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary Daylighting §130.1(d)	Secondary Daylighting §140.5(d)			

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Francisco Collado	Signature: Francisco Collado
Company: Winston Engineering LLC	Signature Date: 2022-08-22
Address: 23905 Clinton Keith Rd 114-381	CEA/HERS Certification Identification (if applicable): M35561
City/State/Zip: Wilkmar CA 92595	Phone: 951-446-0838

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Envelope Designer Name:	Signature:
Company:	Date Signed:
Address:	
City/State/Zip:	Title:
Phone:	

PLUMBING SPECIFICATIONS:

1. GENERAL
- A. CONTRACTOR SHALL PERFORM ALL WORK SO AS TO CONFORM TO LOCAL, STATE AND NATIONAL CODES, AND THE REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
- B. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO VERIFY LOCATION, ELEVATIONS AND SIZES OF ALL EXISTING PLUMBING AND INFORM THE ARCHITECT OF ANY DISCREPANCIES.
- C. FOR EXACT SPECIFICATIONS, MOUNTING HEIGHTS, COLORS, AND LOCATIONS OF ALL PLUMBING FIXTURES, REFER TO ARCHITECTURAL DRAWINGS.
- D. ACCURATE AS-BUILT DRAWINGS SHALL BE MADE DURING CONSTRUCTION AND SUBMITTED FOR APPROVAL UPON COMPLETION OF INSTALLATION.
- E. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION, AND SERVICES NECESSARY FOR THE COMPLETION OF THE WORK.
- F. THESE DRAWINGS SHOW THE GENERAL SCHEME OF INSTALLATION AND ARE DIAGRAMMATIC IN SCOPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH ARCHITECT AND ALL OTHER TRADES. THIS INCLUDES COORDINATING THE LOCATION, SIZE AND ELEVATION OF ALL OPENINGS.
- G. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AND START-UP OF THE SYSTEM. CONTRACTOR SHALL FILE, SECURE AND PAY FOR ALL NECESSARY APPROVALS, PERMITS AND INSPECTIONS. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM DEFECT FOR ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION BY OWNER. ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2019 CALIFORNIA PLUMBING CODE.
- H. THE PLUMBING SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2019 CALIFORNIA PLUMBING CODE. CONTRACTOR TO COORDINATE TESTS WITH LOCAL OFFICIALS.
- I. DETAILS OF CONSTRUCTION AND OF WORKMANSHIP WHERE NOT SPECIFICALLY DESCRIBED HEREIN OR INDICATED ON THE DRAWINGS SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE COMPLETE SYSTEMS, LEFT IN GOOD WORKING ORDER, READY FOR OPERATION.

2. INSTALLATION

- A. ALL HOT WATER PIPING SHALL BE INSULATED PER TABLE 123-A, SECTION 123 OF THE BUILDING ENERGY EFFICIENCY STANDARDS, 2019 EDITION.
- B. LAVATORIES IN RESTROOMS SHALL HAVE 0.4 GPM FLOW RESTRICTORS ON HOT WATER SUPPLY. PROVIDE STRAINER DRAIN AND OVERFLOW ON ALL SINKS.
- C. CONDENSATE PIPING SHALL BE INSTALLED AT A SLOPE OF 1%.
- D. SEWER PIPING SHALL BE INSTALLED AT A SLOPE OF 2%.
- E. WRAP ALL IRON AND COPPER PIPE AND FITTINGS BELOW SLAB OR GRADE WITH 8 MIL POLYETHYLENE WRAP AND 6" MINIMUM ENVELOPE OF CLEAN SAND ALL AROUND PIPE IN ACCORDANCE WITH ANSI/AWWA STANDARD C105/A21.5-82.
- F. WATER PIPING SHALL BE TYPE "K" BELOW GRADE TO 5 FEET OUTSIDE OF BUILDING AND TYPE "L" ABOVE GRADE. HARD DRAWN COPPER TUBING, WITH WROUGHT COPPER FITTINGS. BRAZE ALL JOINTS WITH LEAD-FREE BRAZING ALLOY. ALL WATER PIPING SHALL BE INSULATED.
- G. CONDENSATE DRAIN PIPING SHALL BE TYPE "M" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS, 95/5% ANTIMONY/TIN SWEAT JOINTS. RUN CONDENSATE DRAIN PIPING UNDER THE ROOF DECK. INSULATE ALL CONDENSATE DRAIN PIPING WITHIN BUILDING INTERIOR.
- H. ALL ROOF PENETRATIONS SHALL RECEIVE LEAD PIPE FLASHING WITH SCREW CLAMP AND ELASTOMERIC SEALANT AND BE HOT ASPHALT PATCHED WITH 4 PLY. ALL WORK SHALL BE DONE BY AN APPROVED ROOFING CONTRACTOR.
- I. WHERE DEVICES REQUIRING ACCESS (VALVES, CLEANOUTS, ETC.) WOULD OTHERWISE BE RENDERED INACCESSIBLE BY BUILDING CONSTRUCTION, PROVIDE FRAMED ACCESS DOOR. ACCESS DOOR FINISHES SHALL BE COORDINATED WITH ARCHITECT.

3. SCOPE OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FURNISHING AND INSTALLATION OF ALL FIXTURES, MATERIALS, PIPING, AND COMPONENTS AS REQUIRED FOR A COMPLETE AND OPERATIONALLY FUNCTIONAL SYSTEM. SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO:

A. INSTALLATION OF ABOVE GROUND SANITARY DRAIN WASTE AND VENT PIPING.

B. INSTALLATION OF CLEANOUTS IN SANITARY DRAINAGE SYSTEMS.

C. INSTALLATION OF DOMESTIC HOT AND COLD WATER PIPING INCLUDING ANTI-WATER HAMMER SHOCK ABSORBERS, VALVES, STOP VALVES, FLEX-SUPPLIES, DIELECTRIC UNIONS BETWEEN DISSIMILAR PIPING MATERIALS, ETC.

D. INSTALLATION OF FIXTURES INCLUDING WALL HANGERS, SUPPORTS, STOP VALVES, FLEX- SUPPLIES, DRAINS, TRAPS, STRAINERS, FAUCETS, SOAP DISPENSERS, ESCUTCHEONS, SEATS, AND OTHER DEVICES AS SHOWN ON THE DRAWINGS AND INDICATED IN THE SCHEDULE OF PLUMBING FIXTURES.

E. TESTING OF THE PLUMBING SYSTEM INCLUDING AIR OR WATER TEST OF DRAINAGE SYSTEM ROUGHINGS, SMOKE TEST OF FINISHED DRAINAGE SYSTEM AND PRESSURE TEST OF DOMESTIC WATER SYSTEMS.

F. DISINFECTION OF THE DOMESTIC WATER SUPPLY SYSTEM.

G. INSTALLATION OF FIBERGLASS INSULATION, FITTING COVERS, AND JACKETS ON ALL HOT AND COLD DOMESTIC WATER PIPING.

H. DESIGN, FURNISHING, AND INSTALLATION OF SEISMIC BRACING.

I. CUTTING AND PATCHING AS REQUIRED.

J. PERMITS, INSPECTIONS, APPROVALS, AND CERTIFICATES, INCLUDING FEES.

K. 1 YEAR FULL GUARANTEE OF ALL WORKMANSHIP.

4. SANITARY DRAINAGE

- A. BELOW GRADE SANITARY WASTE AND VENT PIPING SHALL BE ABS SOLID WALL SCHEDULE 40 ASTM D 2661, FITTINGS SHALL BE MANUFACTURED TO ASTM 3311 ABOVE GROUND SANITARY WASTE AND VENT PIPING SHALL BE NO-HUB CAST I RON MANUFACTURED TO ASTM A74 OR CISPI 301.
- B. PIPING ARRANGED IN GROUPS OF TWO OR MORE LINES, WHICH PENETRATE TWO OR MORE FLOORS, SHALL BE ENCLOSED IN SHAFT HAVING A FIRE RESISTANCE RATING IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2, 2019 CALIFORNIA BUILDING CODE.
- C. CLEANOUTS FOR SANITARY DRAINAGE SYSTEMS SHALL BE LOCATED IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2019 CALIFORNIA PLUMBING CODE.
- D. ALL VENT PENETRATIONS THROUGH BUILDING ROOF SHALL BE MADE WATER-TIGHT BY THE USE OF PROPER FLASHING MATERIALS. SUBMIT FLASHING DETAILS FOR APPROVAL BY THE ARCHITECT.
- E. VENTS SHALL TERMINATE NOT LESS THAN 6" ABOVE ROOF. VENTS SHALL NOT TERMINATE BELOW OR WITHIN 10' HORIZONTALLY OF ANY DOOR, WINDOW, FRESH AIR INTAKE OR OTHER VENTILATION OPENING. WHERE 10' HORIZONTAL CLEARANCE CANNOT BE MAINTAINED, EXTEND VENT TO AT LEAST 3' ABOVE VENTILATION OPENING.

PLUMBING SPECIFICATIONS (CONT.):

4. SANITARY SEWER (CONT.)

- C. CLEANOUTS FOR SANITARY DRAINAGE SYSTEMS SHALL BE LOCATED IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2019 CALIFORNIA PLUMBING CODE.
- D. ALL VENT PENETRATIONS THROUGH BUILDING ROOF SHALL BE MADE WATERTIGHT BY THE USE OF PROPER FLASHING MATERIALS. SUBMIT FLASHING DETAILS FOR APPROVAL BY THE ARCHITECT.
- E. VENTS SHALL TERMINATE NOT LESS THAN 6" ABOVE ROOF. VENTS SHALL NOT TERMINATE BELOW OR WITHIN 10' HORIZONTALLY OF ANY DOOR, WINDOW, FRESH AIR INTAKE OR OTHER VENTILATION OPENING. WHERE 10' HORIZONTAL CLEARANCE CANNOT BE MAINTAINED, EXTEND VENT TO AT LEAST 3' ABOVE VENTILATION OPENING.
5. DOMESTIC WATER
- A. DOMESTIC COLD AND HOT WATER PIPING SHALL BE TYPE "L" HARD-DRAWN COPPER TUBE. FITTINGS SHALL BE WROUGHT COPPER. SWEAT JOINTS SHALL BE MADE USING 95%-5%, LEAD-FREE ANTIMONY/TIN SOLDER.
- B. ALL POTABLE WATER PIPING SHALL BE DISINFECTED AS PER AWWA STANDARD C601-54 AND AS REQUIRED BY THE LOCAL BUILDING AND HEALTH DEPARTMENT CODES.
- C. ANTI WATER-HAMMER SHOCK ABSORBERS SHALL BE WATTS SERIES 15 SIZED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- D. PROVIDE STOP VALVES FOR ALL DOMESTIC WATER CONNECTIONS TO FIXTURES EXCEPT WHERE GATE VALVES ARE INDICATED ON THE DRAWINGS OR FAUCET IS PROVIDED WITH INTEGRAL STOPS.
- E. PROVIDE CHROME PLATED, BRASS ANGLE STOP VALVES FOR ALL FIXTURES NOT HAVING INTEGRAL STOPS.
- F. ALL PIPE, FITTINGS, FIXTURES, ETC. THAT CONTACT POTABLE WATER FOR HUMAN CONSUMPTION SHALL SHOW APPROVAL TO NSF 61, ANNEX G, REFERENCE SECTION 604.11, CALIFORNIA PLUMBING CODE, 2019 EDITION, AND HEALTH AND SAFETY CODE SECTION 116875.

6. CONDENSATE DRAIN

- A. PIPING FOR PRIMARY AND SECONDARY CONDENSATE DRAINAGE SHALL BE HARD DRAWN COPPER TUBE, MINIMUM DWV WEIGHT.
- B. FITTINGS FOR CONDENSATE DRAINAGE PIPING SHALL BE WROUGHT COPPER WITH 95/5% ANTIMONY/TIN SWEAT JOINTS.
- C. TRAP SEAL DEPTH FOR AIR CONDITIONING CONDENSATE DRAINS SHALL NOT BE LESS THAN:

AC UNIT STATIC PRESSURE	MIN. TRAP SEAL DEPTH
LESS THAN 1" W.C.	3"
1" TO 2" W.C.	4"
MORE THAN 2" W.C.	6"

7. NATURAL GAS

- A. GAS SYSTEM SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS. VALVE SHALL BE LUBRICATED PLUG TYPE, SIMILAR TO CRANE #250.
- B. ALL BRANCH CONNECTIONS SHALL BE MADE ON THE TOP OR SIDE OF HORIZONTAL LINES.
- C. GAS PIPING SHALL NOT BE RUN IN OR THROUGH SUPPLY AIR DUCTS, CLOTHES CHUTES, CHIMNEYS, VENTS, OR DUMBWAITERS.
- D. VALVES, UNIONS OR RUNNING THREAD SHALL NOT BE LOCATED IN ANY AIR PLENUM.
- E. PORTIONS OF GAS PIPING SYSTEMS INSTALLED IN CONCEALED LOCATIONS SHALL NOT HAVE UNIONS, TUBING FITTINGS, OR RUNNING THREADS.
- F. HANGERS AND SUPPORTS SHALL BE OF MATERIAL OF SUFFICIENT STRENGTH TO SUPPORT THE LOADS IMPOSED. HANGERS AND STRAPPING MATERIAL SHALL BE OF SIMILAR MATERIALS AS THE PIPING TO AVOID GALVANIC ACTION.
- G. INTERVAL OF SUPPORT: GAS PIPING SHALL BE SUPPORTED AT DISTANCES NOT EXCEEDING THE SPACING SPECIFIED IN TITLE 24, PART 5, 2019 CALIFORNIA PLUMBING CODE.
- H. PROVIDE INDIVIDUAL VALVE FOR EACH GAS OUTLET. THE VALVE SHALL BE ACCESSIBLE AND ADJACENT TO THE APPLIANCE.
- I. PROVIDE A UNION BETWEEN EACH APPLIANCE AND THE APPLIANCE GAS VALVE.
- J. GAS OUTLETS WHICH DO NOT CONNECT TO APPLIANCES SHALL BE CAPPED GAS-TIGHT.
- K. PROVIDE A DRIP LEG AHEAD OF EACH APPLIANCE SHUTOFF VALVE.
- L. PORTIONS OF THE GAS PIPING SYSTEM INSTALLED IN CONCEALED LOCATIONS SHALL BE TESTED BEFORE THE PIPING IS COMPLETELY CONCEALED.
- M. THE GAS PIPING SYSTEM SHALL BE TESTED WITH AIR OR AN INERT GAS. THE SYSTEM SHALL BE TESTED TO A PRESSURE OF 1 1/2 TIMES THE SYSTEM WORKING PRESSURE, BUT NOT LESS THAN 3 PSI. GAS PIPING SYSTEMS SHALL MAINTAIN THE FULL-TEST PRESSURE FOR A PERIOD OF 10 MINUTES.
- N. THE GAS PIPING SYSTEM SHALL BE PURGED TO A SAFE LOCATION. PIPING SHALL NOT BE PURGED INTO THE COMBUSTION CHAMBER OF AN APPLIANCE.

8. HANGERS AND SUPPORTS

- A. ALL FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE PIPING SYSTEM. SEE "FIXTURES" SECTION OF "NOTES AND SPECIFICATIONS" AND FIXTURE SCHEDULE NOTES.
- B. MAXIMUM SPACING OF SUPPORTS FOR VERTICAL PIPING SHALL NOT EXCEED:

TYPE OF PIPING	MAXIMUM SPACING
HUBLESS CAST IRON SOIL LINES	AT BASE AND EACH FLOOR NOT TO EXCEED 15'
THREADED STEEL PIPE	AT EVERY OTHER FLOOR NOT TO EXCEED 25'
COPPER TUBE	AT EVERY FLOOR NOT TO EXCEED 10'
SCHEDULE 40 PVC	AT EVERY FLOOR PLUS MID-FLOOR GUIDES

PROVIDE RISER CLAMPS, WALL BRACKET HANGER, ETC. AS REQUIRED

C. MAXIMUM SPACING OF SUPPORTS FOR HORIZONTAL PIPING SHALL NOT EXCEED:

TYPE OF PIPING	MAXIMUM SPACING
HUBLESS CAST IRON SOIL PIPE	AT EVERY OTHER JOINT (EVERY JOINT WHERE OVER 4')
THREADED STEEL PIPE (3/4" OR LESS)	AT 10' INTERVALS
THREADED STEEL PIPE (1" OR LARGER)	AT 12' INTERVALS
COPPER TUBE (1-1/2" OR LESS)	AT 6' INTERVALS
COPPER TUBE (2" OR LARGER)	AT 10' INTERVALS
SCHEDULE 40 PVC	AT 4' INTERVALS

- D. ALL RISERS SHALL BE SUPPORTED AT THE BASE.

E. PROVIDE CAPABILITY FOR EXPANSION AND CONTRACTION IN ALL PIPING AS INDICATED BELOW:

TYPE OF PIPING	TYPE OF PROVISIONS
DRAIN LINES IN UNHEATED AREAS	EXPANSION FITTING AT 125'
DOMESTIC HOT WATER LINES	EXPANSION LOOP AT 100'

GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE AS SPECIFIED AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS, ORDINANCES, PERMITS AND OTHER CONTRACT DOCUMENTS
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL NEW CONSTRUCTION ON THE SITE
3. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS, AND VERIFY EXACT LOCATIONS AND ELEVATIONS OF PIPING POINTS ON CONNECTION BY MEANS OF PHYSICAL EXCAVATION AND SELECTIVE DEMOLITION BEFORE STATING WORK. SHOULD A DISCREPANCY APPEAR IN THE CONTRACT DOCUMENTS OR BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS, NOTIFY THE ARCHITECT AT ONCE FOR INSTRUCTION ON HOW TO PROCEED
4. SEWER, WATER, AND STORM DRAIN SYSTEMS INDICATED IN THESE DRAWINGS SHALL EXTEND TO PLUMBING/CIVIL POINTS OF CONNECTION AT 5' OUTSIDE OF THE BUILDING(S) UNLESS OTHERWISE NOTED. CONTINUATION OF THESE PIPING SYSTEMS ARE INDICATED ON THE CIVIL DRAWINGS WITH CORRESPONDING ASSOCIATED MATERIALS SPECIFIED UNDER A SEPARATE SECTION OF THE PROJECT SPECIFICATIONS. ALL SUCH PIPING SHALL BE INSTALLED IN A MANNER TO PROVIDE PROPER CONNECTION TO THE INVERT ELEVATIONS INDICATED ON CIVIL DRAWINGS. WHERE SIZES DIFFER BETWEEN PLUMBING AND CIVIL DRAWINGS, CONTRACTOR SHALL PROVIDE TRANSITION FITTINGS AS NECESSARY TO ALLOW FOR PROPER CONNECTION
5. HORIZONTAL SOIL, WASTE, GREASE WASTE, AND TRAP PRIMER PIPING WITHIN THE BUILDING SHALL BE INSTALLED CONCEALED WITHIN WALLS, BELOW FINISHED FLOOR, OR BELOW FINISH SLAB AS APPLICABLE UNLESS NOTED OTHERWISE. ALL OTHER HORIZONTAL PIPING WITHIN BUILDING SHALL BE INSTALLED CONCEALED ABOVE CEILING OR WITHIN WALL AS APPLICABLE UNLESS NOTED OTHERWISE. ALL VERTICAL PIPING SHALL BE INSTALLED CONCEALED WITHIN WALLS UNLESS NOTED OTHERWISE. NO PIPING SHALL BE INSTALLED IN EXPOSED LOCATIONS UNLESS SPECIFICALLY NOTED AS SUCH ON PLANS
6. HORIZONTAL CONDENSATE PIPING SHALL SLOPE AT 1/8" PER FOOT UNLESS NOTED OTHERWISE
7. NATURAL GAS PIPE SIZING CALCULATIONS ARE BASED ON A CALORIC CONTENT OF 1,000 BTU'S PER CUBIC FOOT.
8. PIPING BETWEEN EACH PLUMBING FIXTURE AND THE NEAREST BRANCH OR MAIN PIPING RUN SHALL BE SIZED TO MATCH THE CORRESPONDING FIXTURE SCHEDULE CONNECTION SIZE AT A MINIMUM UNLESS NOTED AS A LARGER SIZE ON PLANS. PIPE HEADERS IN WALLS SERVING BANKS OF FIXTURES SHALL BE FULL LINE SIZE FROM THE UPSTREAM END OF THE BRANCH LINE TO THE END TERMINAL UNLESS NOTED OTHERWISE.
9. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS, ROUGH IN DIMENSIONS, AND MOUNTING HEIGHTS OF ALL FIXTURES, EQUIPMENT, ACCESS PANELS, HOSE BIBBS, RECESSED HOSE BIBBS, OVERFLOW DRAIN TERMINATION POINTS, AND OTHER EXPOSED PLUMBING ELEMENTS. WHERE DIMENSIONS ARE NOT INDICATED, SEEK ARCHITECT'S DIRECTION AND/OR APPROVAL
10. ACCESS PANELS:
A. WHERE POSSIBLE USE SAME ACCESS PANEL FOR SHUT-OFF VALVES, MIXING VALVES, TRAP PRIMER AND WATER HAMMER ARRESTORS AND/OR OTHER INTERIOR WALL COMPONENTS WHEN LOCATED DIRECTLY ADJACENT IN SAME IMMEDIATE VICINITY
11. CLEANOUTS:
A. PROVIDE CLEANOUTS PER CPC
B. INTERIOR CLEANOUTS SHALL BE WALL CLEANOUTS RATHER THAN FLOOR CLEANOUTS UNLESS OTHERWISE NOTED. CLEANOUTS SHALL BE READILY ACCESSIBLE AND SHALL BE CAREFULLY COORDINATE WITH CASEWORK, EQUIPMENT, AND OTHER ITEMS TO AVOID CONFLICT. NOT ALL REQUIRED CLEANOUTS ARE INDICATED ON PLANS. WALL CLEANOUTS IN FINISHED SPACES SHALL BE INSTALLED IN ACCESS PANELS. SEE SPECIFICATIONS FOR ACCESS PANEL REQUIREMENTS
12. EXTERIOR YARD BOXES AND CLEANOUTS SHALL BE INSTALLED AT EXACT LOCATIONS INDICATED ON PLANS. IN THE EVENT OF A CONFLICT OR DISCREPANCY, NOTIFY THE ARCHITECT AT ONCE FOR INSTRUCTION ON HOW TO PROCEED.
13. EXTERIOR WATER SHUT OFF VALVES AND GAS SHUT-OFF COCKS SHALL BE INSTALLED WITHIN CONCRETE YARD BOXES. YARD BOX AND CLEANOUT COVERS SHALL BE CLEARLY STAMPED WITH "WATER", "GAS", OR "SEWER" AS APPLICABLE. YARD BOXES SHALL BE EQUIVALENT TO "CHRISTY" MODEL NO. 803. VALVES SHALL BE INSTALLED AND PROPERLY POSITIONED WITHIN YARD BOX TO ALLOW FOR FULL RANGE OF OPERATION, MAINTENANCE, REPAIR, AND REPLACEMENT. ALL YARD BOXES AND CLEANOUT COVERS SHALL ALIGN WITH SCORED HARDSCAPE JOINTS PER LANDSCAPE PLANS. YARD BOX SHALL BE CONCRETE. SEWER CLEANOUT COVERS SHALL BE BRASS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION
14. VERIFY EXACT LOCATIONS OF ALL MECHANICAL AND/OR OTHER EQUIPMENT INSTALLED BY OTHERS AND REQUIRING PLUMBING CONNECTIONS PRIOR TO ORDERING OF MATERIALS OR INSTALLATION. COORDINATE EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS WITH OTHER INSTALLING CONTRACTORS AS APPLICABLE PRIOR TO INSTALLATION.
15. ADA LAVATORIES AND SINKS SHALL BE PROVIDED WITH ADA INSULATED TRAP AND SUPPLY COVERS AS SPECIFIED
16. ADA WATER CLOSETS SHALL BE INSTALLED WITH FLUSH VALVE ACTUATOR HANDLE. LOCATED ON THE WHEEL CHAIR ACCESS SIDE
17. SHUT OFF VALVES, SHUT OFF COCKS, WATER CONTROL DEVICES, CLEANOUTS, AND OTHER PIPING APPURTENANCES SHALL BE THE SAME SIZE AS PIPING SERVED UNLESS NOTED OTHERWISE
18. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL MANDATORY MEASURES AND ASSOCIATED REQUIREMENTS
19. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED ASSEMBLIES. PROVIDE FIRESTOPPING AT PENETRATIONS THROUGH FIRE RETARDANT CONSTRUCTION IN ACCORDANCE WITH SPECIFICATIONS
20. PENETRATIONS OF FIRE RESISTIVE WALLS, FLOORS-CEILINGS, AND ROOF CEILINGS SHALL BE PROTECTED AS REQUIRED IN CBC SECTION 714
21. DOMESTIC WATER PIPING AND COMPONENTS SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE WITH CALIFORNIA AB 1953 LEGISLATION. WHICH LIMITS THE ALLOWABLE LEAD CONTENT IN CERTAIN DOMESTIC WATER SYSTEM COMPONENTS.

DRAWING SCHEDULE

- P0.1 PLUMBING NOTES AND LEGENDS
P0.2 PLUMBING SCHEDULES
P1.0 PLUMBING FLOOR PLANS
P1.1 PLUMBING FLOOR PLANS
P1.2 PLUMBING FLOOR PLANS
P1.3 PLUMBING FOOR PLANS
P1.4 PLUMBING ROOF PLAN
P2.0 PLUMBING DETAILS

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8605 Santa Monica Blvd Ste 63454
West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
www.winstoneng.com



PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

REVISION SCHEDULE

△	ISSUE	DATE
△	INITIAL SUBMITTAL	-
△	1st SUBMITTAL	11-7-2022

HEALTH CLINIC

P0.1

PLUMBING NOTES AND LEGENDS

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VERIFY IF THE MAIN WATER LINE FROM THE EXISTING WATER METER TO THE BUILDING IS 2"; IF IT IS SMALLER THAN 2" REPLACE THE WATER LINE FROM THE METER TO WHERE IT ENTERS THE BUILDING.

FROM TABLE A103.1(2) OF THE CPC, 66 FIXTURE UNITS IS EQUIVALENT TO 57 GPM. FROM TABLE A105.1 (1) OF THE CPC TO KEEP THE PRESSURE DROP AT LESS THAN 4 PSI PER 100 FEET, 55 GPM WILL NEED A 2" MAIN WATER LINE.

FROM TABLE 703.2 OF THE CPC, 48.5 FIXTURE UNTIS WILL NEED A 4" SEWER MAIN, THE EXISTING MAIN SEWER LINE IS 4" SO WE WILL CONNECT TO THS ONE.

FROM TABLE A103.1(2) OF THE CPC, 5.5 FIXTURE UNITS IS EQUIVALENT TO 5.5 GPM. FROM TABLE A105.1 (1) OF THE CPC TO KEEP THE PRESSURE DROP AT LESS THAN 4 PSI PER 100 FEET, 5.5 GPM WILL NEED A 3/4" MAIN HOT WATER LINE.

PIPE MATERIAL SPECIFICATIONS	
1.	<p>SANITARY SEWER, GREASE WASTE, VENT, AND STORM DRAIN BELOW GRADE:</p> <p>A. PIPE: ABS SOLID WALL SCHEDULE 40 ATSM D 2661</p> <p>B. FITTINGS: ABS SOCKET FITTINGS, ATSM D, 2661 MADE TO ATSM D 3311</p> <p>C. ABS SOLVENT CEMENT</p>
2.	<p>SANITARY SEWER, GREASE WASTE, VENT, AND STORM DRAIN ABOVE GRADE:</p> <p>A. PIPE: SERVICE WEIGHT CAST IRON PER ATSM A-74, ASTM A-88, CISPI 301.</p> <p>B. FITTINGS: NO HUB CAST IRON PER ATSM A-888</p> <p>C. JOINTS: BAND TYPE STAINLESS STEEL COUPLINGS CONFORMING TO ATSM C-1540 HAVING MINIMUM SHIELD THICKNESS OF 31 GAUGE WITH NEOPRENE SEALING SLEEVE CONFORMING TO ATSM C-564</p>
3.	<p>DOMESTIC WATER BELOW GRADE:</p> <p>A. PIPE: TYPE K SCHED 40 COPPER TUBE, ANNEALD TEMPER, ASTM B89</p> <p>B. FITTINGS: WROUGHT COPPER, ANSI B16.22</p> <p>C. JOINTS: BRAZED JOINT</p>
4.	<p>DOMESTIC WATER ABOVE GRADE</p> <p>A. PIPE: TYPE L HARD DRAWN COPPER, ASTM B88</p> <p>B. FITTINGS: WROUGHT COPPER, ANSI B16.22</p> <p>C. JOINTS: 95%-5% TIN-ANTIMONY LEAD FREE SOLDER.</p>
5.	<p>NATURAL GAS ABOVE GRADE</p> <p>A. PIPE: SCHEDULE 40 BLACK STEEL, ASTM A53.</p> <p>B. FITTINGS: 150LB MALLEABLE IRON THREADED, ANSI B16.3, FLANGED, ANSI B16.9, STEEL</p> <p>C. JOINTS: 2" AND SMALLER, THREADED</p>

HOT WATER PIPE INSULATION	
PIPE DIAMETER	INSULATION THICKNESS
1/2"	1"
3/4"	1"
1"	1-1/2"
1-1/4" THRU 2"	1-1/2"

PLUMBING NOTES:

- 1) PLUMBING PLANS WILL COMPLYU WITH 2019 CALIFORNIA PLUMBING CODE, 2019 CALIFORNIA GREEN CODE AND 2019 CALIFORNIA ENERGY CODE.
- 2) EXCAVATIONS REQUIRED TO BE MADE INSIDE THE BUILDING FOR THE DRAINAGE OR SEWER SYTEM NEED TO BE OPEN TRENCH WORK AND THYE SHALL BE KEPT OPEN UNTIL THE PIPING HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY (CPC 414.3)
- 3) SET THE THERMOSTATIC MIXING VALVE OF THE LAVATORIES (2/P2.0) TO A MAXIMUM TEMPERATURE OF 110 DEGREES F PER ENERGY STNADARDS 110(c).
- 4) PER CPC 906.1 ABS/PVC VENT TERMINATIONS UP THROUGH THE ROOF EXPOSED TO SUNLIGHT ARE REQUIRED TO BE PROTECTED BY WATER BASED SYNTHETIC LATEX PAINTS. 906.1.
- 5) VERIFY THERE IS A WALL CLEANOUT PER VENT RISER (TOTAL OF 3). IF NONE IS AVAILABLE, ADD ONE AT THE UPPER MOST TERMINAL (SEE 1/P2.0)



1

1) THE EXISTING MAIN COLD WATER WATER LINE WILL REMAIN (SHOWN AS SCREEN ON THE PLANS). NEW WATER BRANCHES WILL BE CONNECTED TO THIS MAIN WATER TO SERVE THE NEW INSTALLED PLUMBING FIXTURES. RE-USE EXISTING PLUMBING BRANCHES IF POSSIBLE; THERE IS NO AVAILABLE INFORMATION, SO THE PLUMBING CONTRACTOR NEEDS TO VERIFY THIS ON SITE. CAP EXISTING BRANCHES THAT WON'T BE USED.

2) ALL THE HEATING HOT WATER PIPING (SHOWN AS DARK) IS NEW; THERE IS NOT AN EXISTING HEATING HOT WATER PIPING DISTRIBUTION SYSTEM ON THE BUILDING. NEW TWO TANKLESS INSTANTANEOUS GAS HATERS WILL BE USED.

3) THERE IS AN EXISTING GAS LINE TO REMAIN AND IT WILL BE USED TO SERVE THE NEW TWO GAS HEATERS. THE CONNECTION GAS SIZES ARE SHOWN ON THE PLANS AND THE EXISTING GAS LINE IS SHOWN AS SCREEN ON THE PLANS.

8605 Santa Monica Blvd Ste 63454
West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
www.winstoneng.com



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EL CENTRO,
CA 92243

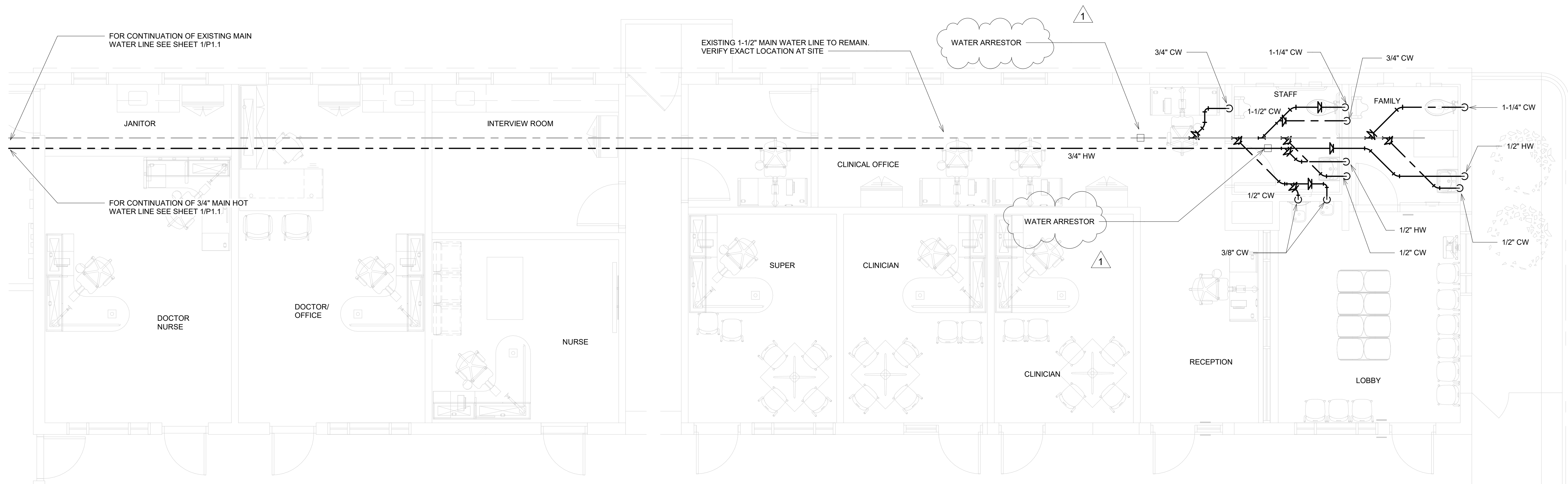
PROJECT #: 481-1

HEALTH CLINIC

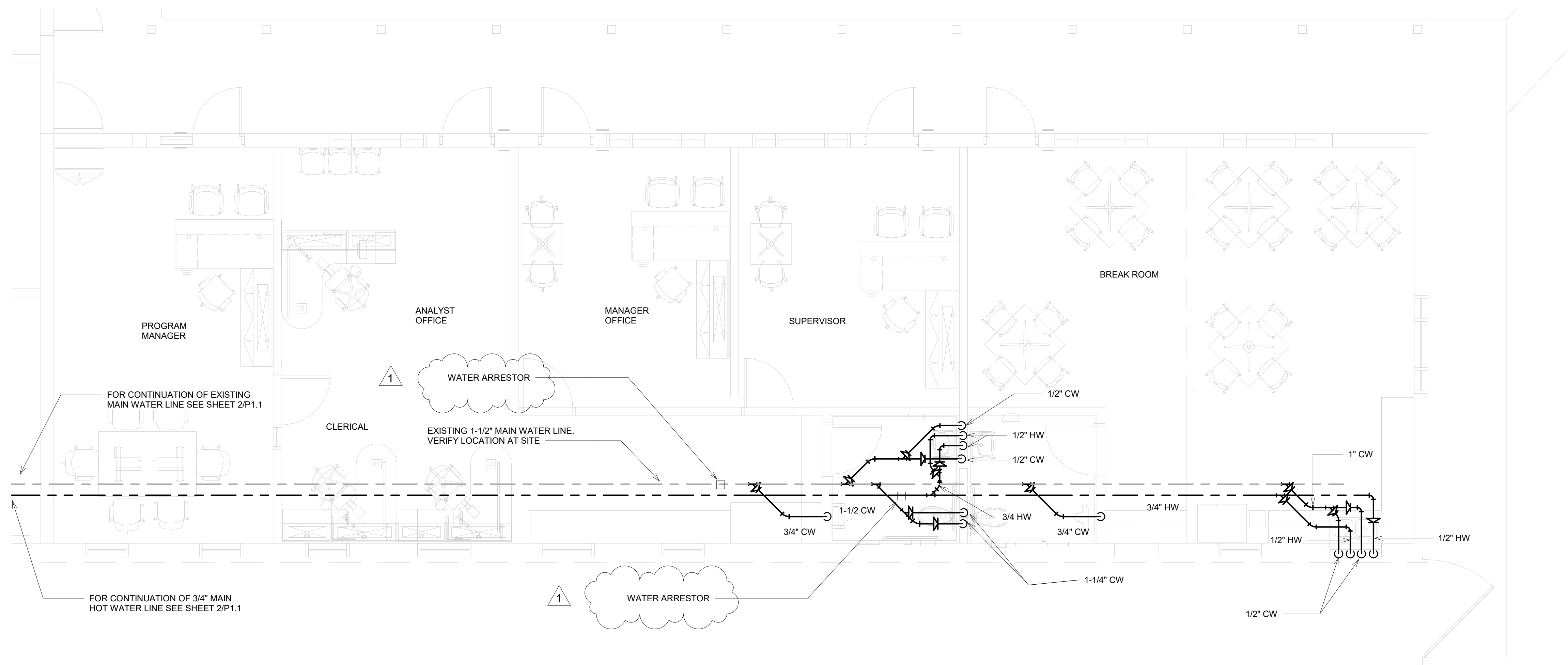
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① CW AND HW PLUMBING PLAN I
1/4" = 1'-0"



② CW AND HW PLUMBING PLAN IV
1/4" = 1'-0"

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West Hollywood, CA 90069
951-902-6600
info@winstoneng.com
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PROJECT NAME:

BEHAVIORAL
HEALTH CLINIC
REMODEL

COMMERCIAL

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PROJECT #: 481-1

REVISION SCHEDULE		
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△	INITIAL SUBMITTAL	-
△	1st SUBMITTAL	11-7-2022

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P1.0

PLUMBING FLOOR PLANS

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△	1st SUBMITTAL	11-7-2022

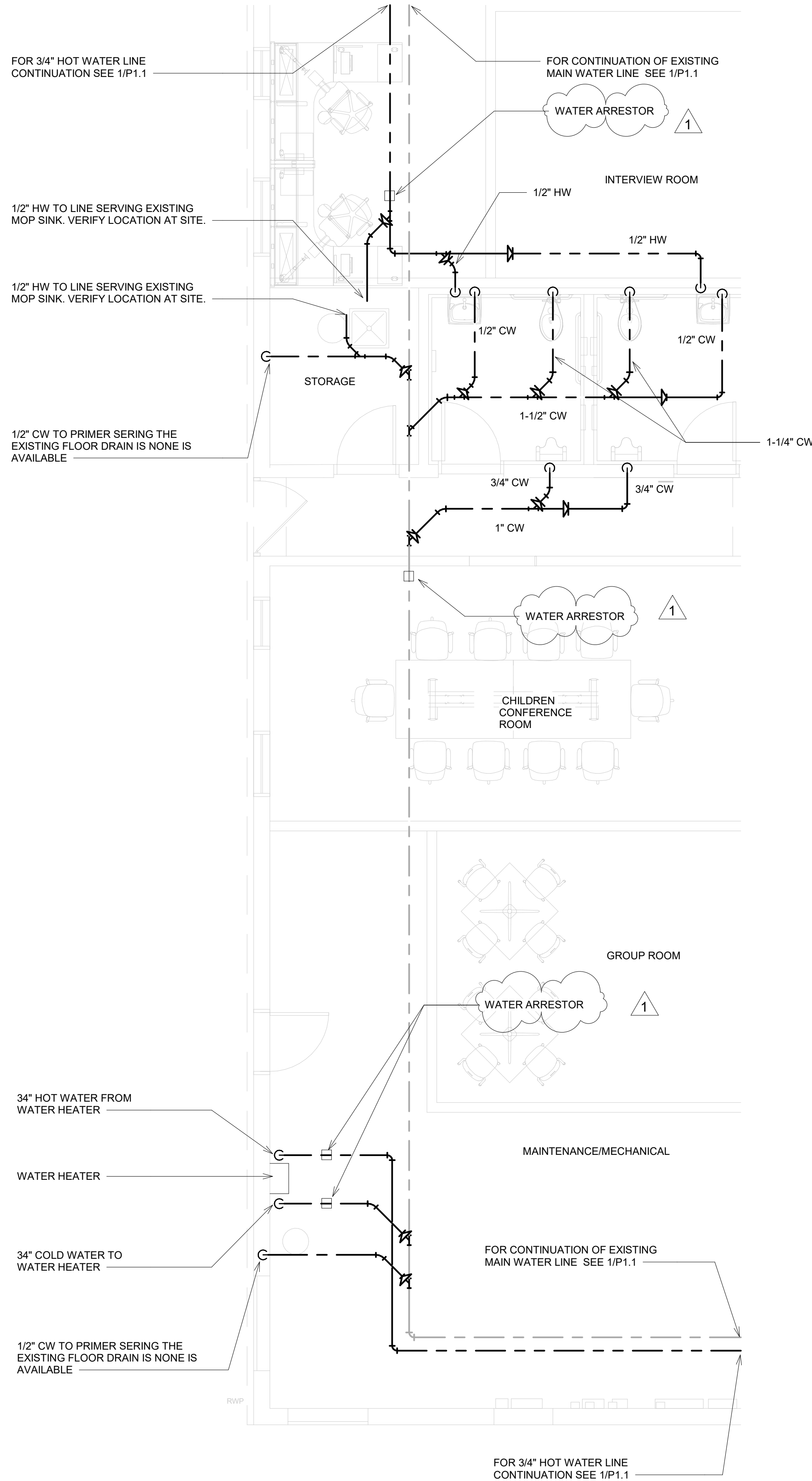
HEALTH CLINIC

P1.1

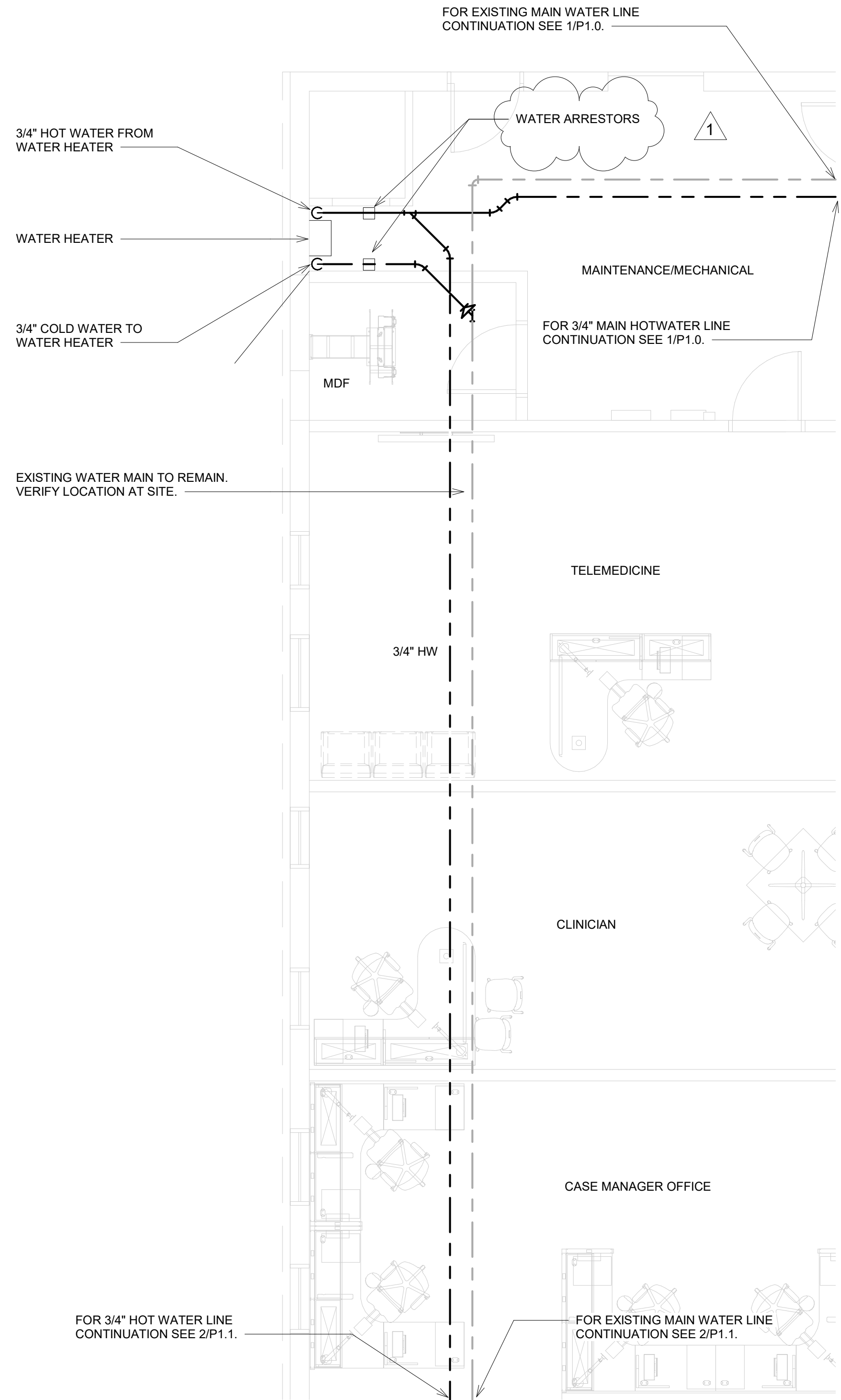
PLUMBING FLOOR PLANS

Copy Protection

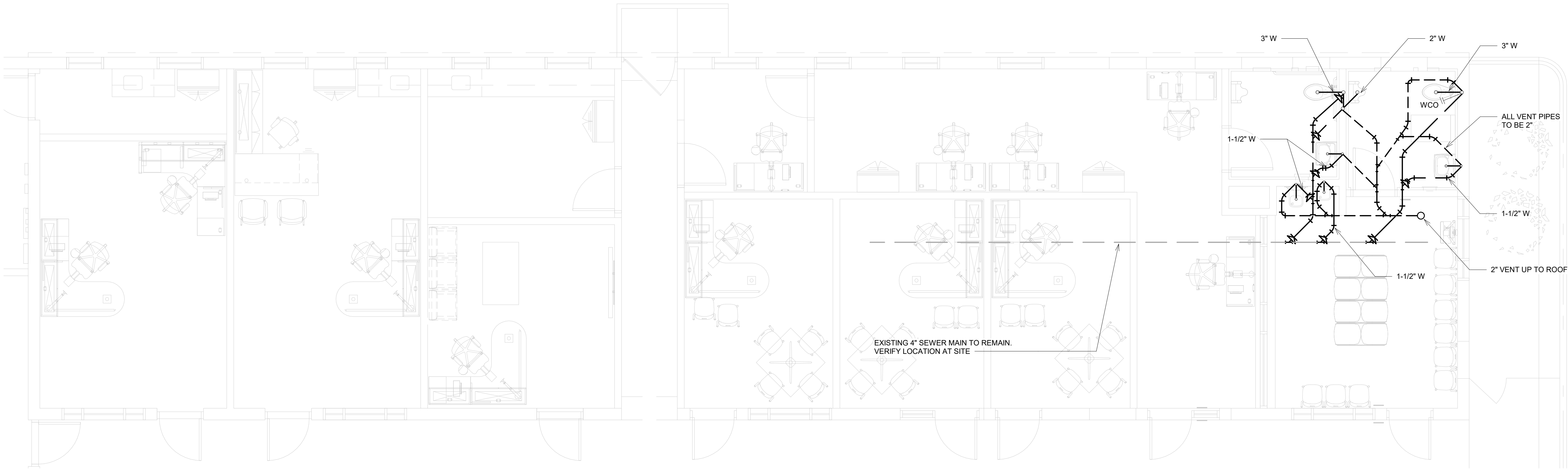
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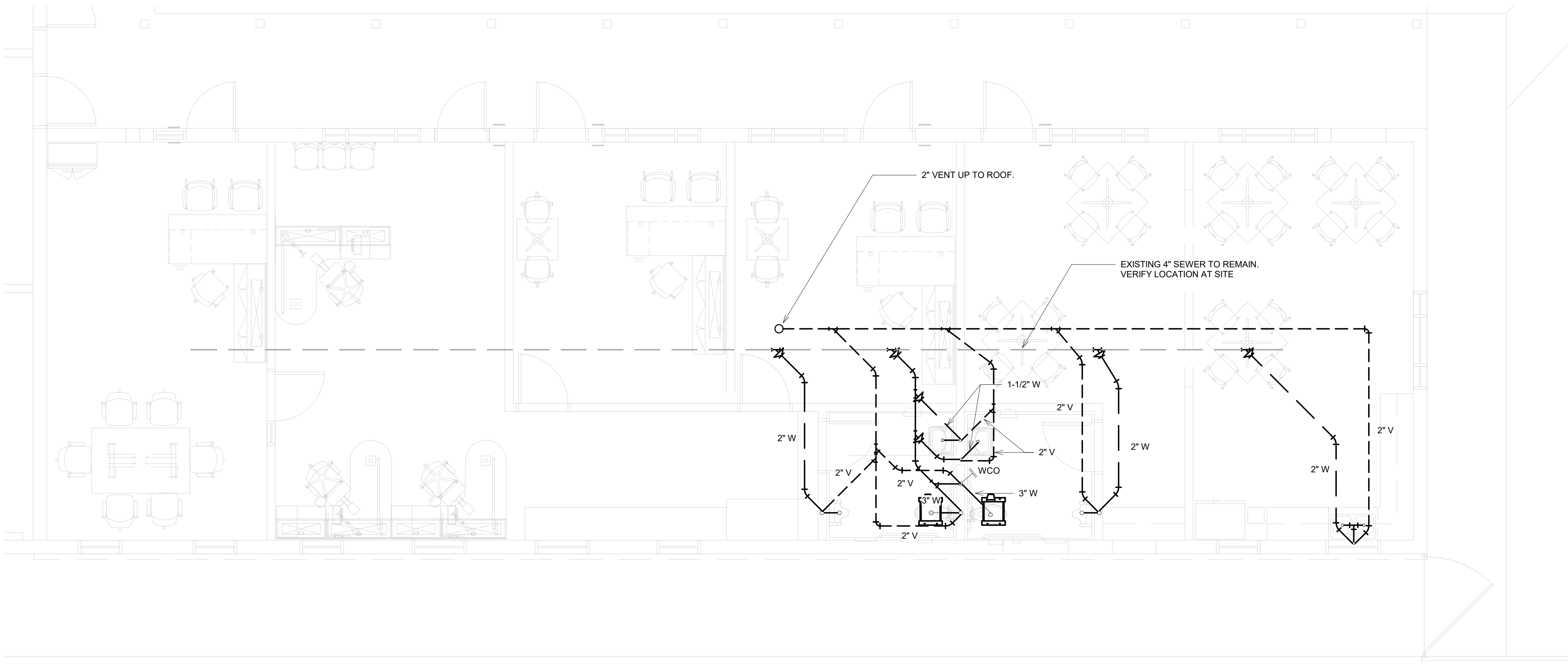
② CW AND HW PLUMBING PLAN III
1/4" = 1'-0"



① CW AND HW PLUMBING PLAN II
1/4" = 1'-0"



① SEWER, VENT & GAS PLUMBING PLAN I
1/4" = 1'-0"



SEWER, VENT & GAS PLUMBING PLAN
IV
② 1/4" = 1'-0"

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P1.2

PLUMBING FLOOR PLANS

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△	1st SUBMITTAL	11-7-2022

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P1.3

PLUMBING FLOOR PLANS

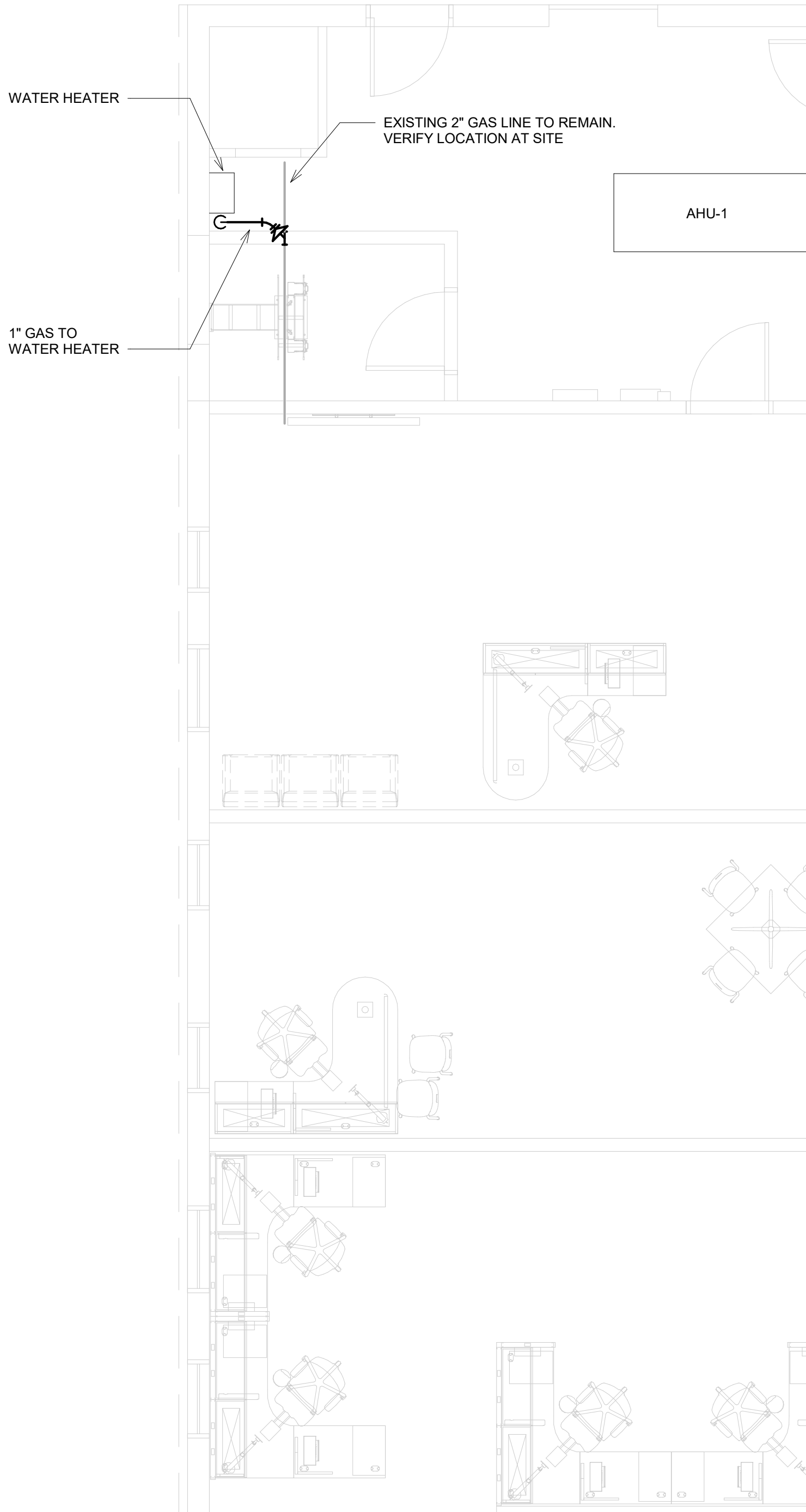
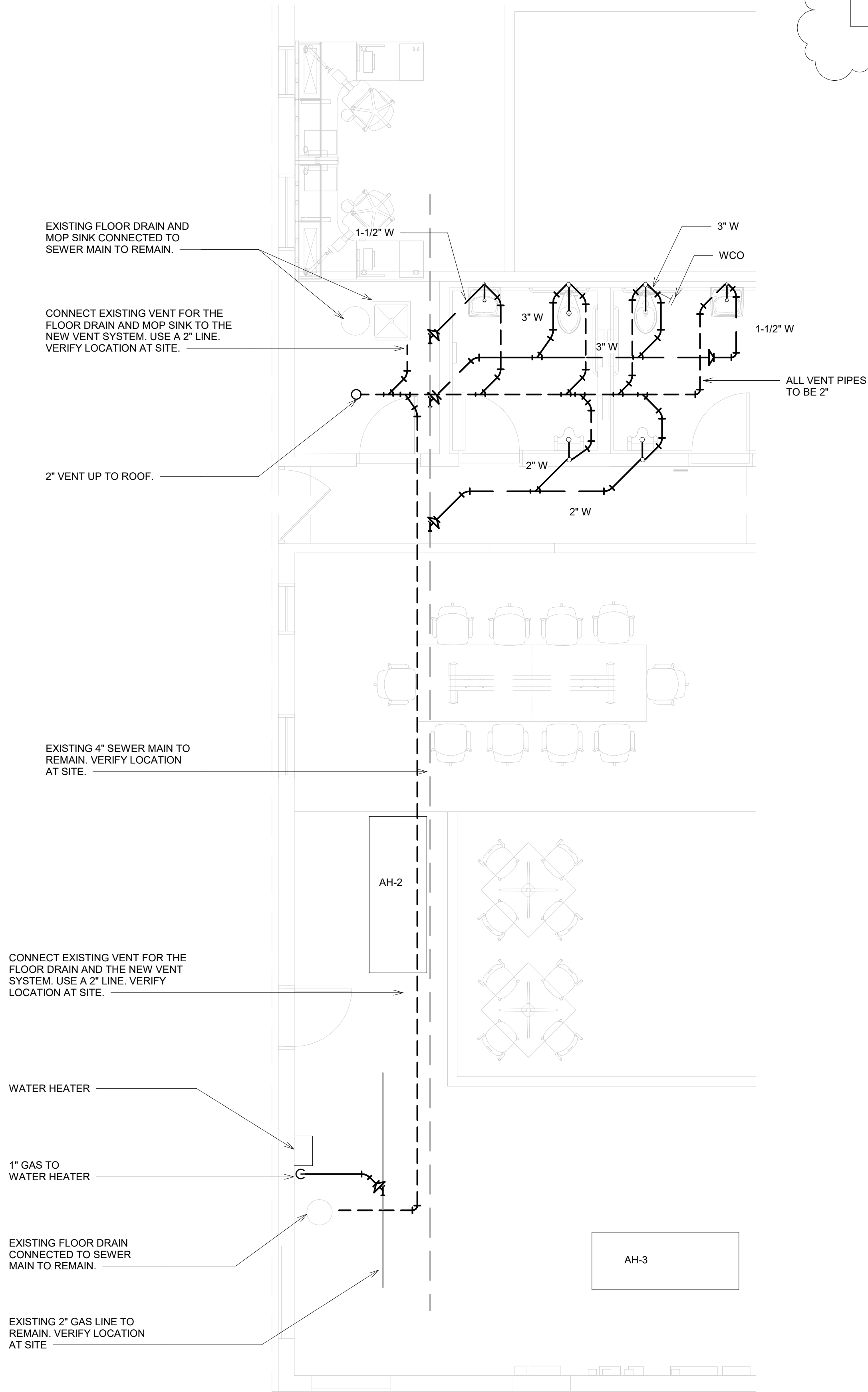
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PLUMBING NOTE:

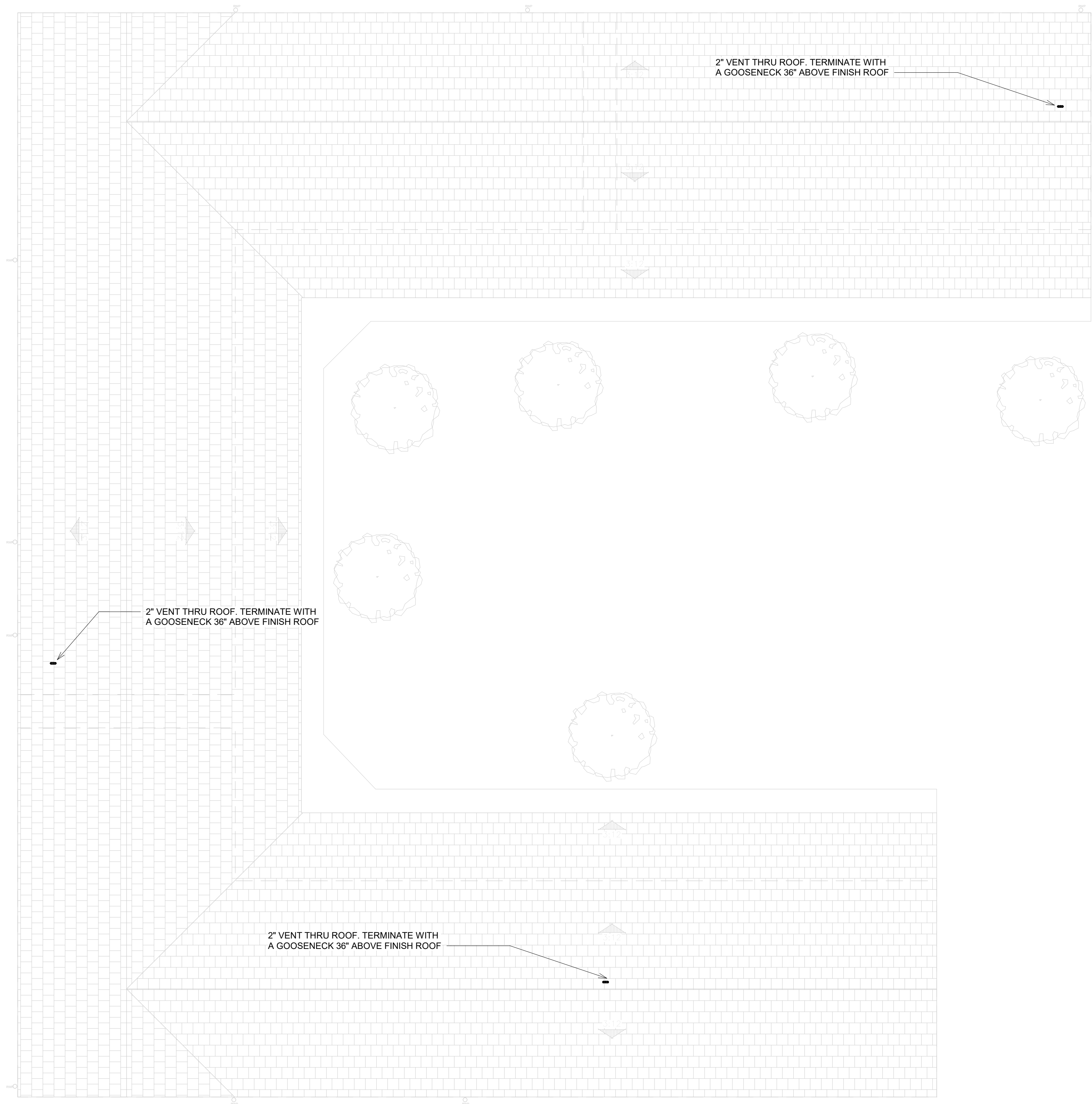
UE 1" CONDENSATE LINES (PVC SCHEDULE 40) FOR AIR HANDLING UNITS 1, 2 & (AHU-1, AHU-2 & AHU-3). FOLLOW THE EXISTING COMMDESATE ROUTING AND TERMIANE OVER THE FLOOR DRAIN. SLOPE CONDENSATES 2% IN DIRECTION OF FLOOR DRAIN. TERMINATE COMMDENSATE OVERFLOW NEXT TO THE UNIT 6" ABOVE FINISH FLOOR.

1



1 SEWER, VENT & GAS PLUMBING PLAN II
1/4" = 1'-0"

2 SEWER, VENT & GAS PLUMBING PLAN III
1/4" = 1'-0"



1 PLUMBING ROOF PLAN
1/8" = 1'-0"

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HEALTH CLINIC

P1.4

PLUMBING ROOF PLAN

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SENSEi™ WATER FLOW CURVE

Flow curves apply only to incoming water temperatures of 70°F (21°C) or less. For incoming water temperatures greater than 70°F (21°C), please contact Rinnai.

NOTE: Maximum flow rates may vary based on set temperature, Delta T and altitude.

Legend: Dashed line represents flow rate plus possible variation.

Model	Approx. Max Flow Rate (GPM)
R1822U1	11.5
R1822U2	11.0
R1822U3	10.5
R1822U4	10.0
R1822U5	9.5
R1822U6	9.0
R1822U7	8.5
R1822U8	8.0
R1822U9	7.5
R1822U10	7.0

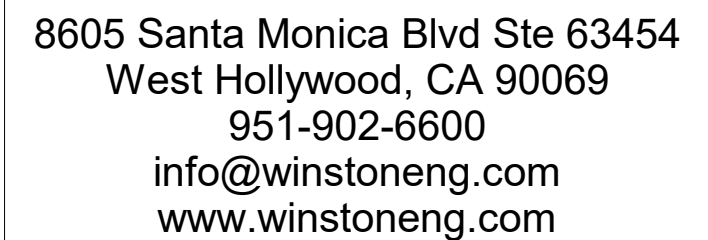
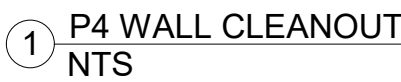
	Connection	in.	mm
COLD	F	9.54	242
	C	3.56	90
HOT	H	14.27	362
	B	6.16	156
GAS	E	3.57	91
	D	2.78	71
PRV	G	10.39	264
	A	7.60	193



- Concentric or Schedule 40 PVC/CPVC
 - Direct Vent (Concentric and Twin Pipe)
 - Non-Direct Vent (Room Air)
 - Common Vent (Direct Vent and Room Air)
 - Maximum Equivalent Vent Lengths:
- | Twin Pipe | | |
|--------------|---------------|---------------|
| Vent Sizes | 2 in. (51 mm) | 3 in. (76 mm) |
| Vent Lengths | 65 ft (20 m) | 150 ft (46 m) |
-
- | Concentric | | |
|--------------|---------------|---------------|
| Vent Sizes | 2 in. X 4 in. | 3 in. X 5 in. |
| Vent Lengths | 65 ft (20 m) | 150 ft (46 m) |

- ## ■ OPTIONAL ACCESSORIES

7 WATER HEATER - CUT SHEETS
NTS



PROJECT NAME:

BEHAVIORAL HEALTH CLINIC REMODEL

COMMERCIAL

PROJECT ADDRESS:

120 N. 8TH STREET,
EL CENTRO,
CA 92243

PROJECT #: 481-1

[illegible]

HEALTH CLINIC

P2.0

PLUMBING DETAILS

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**COUNTY OF IMPERIAL
DEPARTMENT OF PUBLIC WORKS**

155 South 11th Street
El Centro, CA 92243
Phone: (442) 265-1818
Fax: (442) 265-1858

**PROJECT SPECIFICATIONS
BY YNG ARCHITECTS, INC.**

**COUNTY OF IMPERIAL BEHAVIORAL HEALTH SERVICES
(BHS) EL CENTRO OUTPATIENT CLINIC “IT TAKES A
VILLAGE” INTERIOR REMODEL, EXTERIOR AND SITE
IMPROVEMENTS AND ROOF REPLACEMENT LOCATED AT
120 N. 8TH STREET, EL CENTRO, CA 92243
COUNTY PROJECT NO. SR6841BH (BHCIP – B4 237)**



PROJECT SPECIFICATIONS

- DOORS:
 - INTERIOR DOORS.
 - EXTERIOR DOORS.
- DRYWALL.
- EXTERIOR BRICK PAVERS.
- EXTERIOR SIDEING.
- FENCE.
- HARDWARE.
- INTERIOR FLOOR FINISH.
- MASONRY WALL.
- ROOF TILE.
- VENTS.
- WINDOWS.
- PLUMBING FIXTURES.
 - BREAK ROOM SINK.
 - WALL MOUNTED DRINKING FOUNTAIN.
 - URINAL.

DOORS

- INTERIOR DOORS
- EXTERIOR DOORS

- INTERIOR DOORS

LIMITED WARRANTY FOR WOOD DOORS

"Approved or Equal"

EIGHT DOORS warrants all doors for one year from the date of shipment to be of good material and workmanship, and free of defects that would render the doors unserviceable or unfit for the ordinary recommended use.

Manufacturing defects include warpage exceeding $\frac{1}{4}$ " in the plane of the door, splitting of stiles and rails, and delamination of veneer. Warp tolerance is any distortion in the door itself and does not refer to the relationship of the door to the frame or jambs in which it is hung. The term "warp" shall include bow, cup, and twist. The warranty does not extend to any other product but the door itself.

All doors must be finished and maintained in the strictest conformity with the installation and finishing instructions as provided in the "Important Instructions to Protect Your Interior Door." If determined by our representative that the required storage and finishing procedures of products were not properly accomplished, it will void the warranty.

If warranted doors are found to contain defects as stated above, the manufacturer may, at its option:

- 1) Repair the door without charge;
- 2) Replace the door without charge;
- 3) Refund the price paid to it for the door.

"Approved or Equal"

In no case shall EIGHT DOORS pay for the cost of labor, installation or finishing of the original or replacement door or for any cost related to the replacement of the door.

Action on any claim for warp may be deferred, at the option of the manufacturer, for a period not exceeding 12 months from the date of claim. If a door has been installed prior to such claim being made, the door must remain hung in the original installation during the period of deferment to permit conditioning to humidity and temperature.

The manufacturer will not be liable for any door repaired or replaced without its prior written consent.

Warranty does not cover the following items:

- 1) Damage caused by failure to comply with instructions on this paper;
- 2) Failure to seal all 6 sides of the door, including the top and bottom of door;
- 3) Abuse or misuse of door;
- 4) Doors that are improperly hung or do not swing freely;
- 5) Natural variation in the color or texture of the veneer;
- 6) Labor to replace and refinishing defective doors.

GARANTÍA LIMITADA PARA PUERTAS DE MADERA EIGHT DOORS

"Approved or Equal"

EIGHT DOORS garantiza que todas las puertas durante un año a partir de la fecha de envío son de buen material y mano de obra y libres de defectos que harían las puertas inutilizables o impropias para el uso ordinario recomendado.

Los defectos de fabricación incluyen deformación superior a $\frac{1}{4}$ " en el plano de la puerta, separación de los montantes y rieles y delaminación de la chapa. La tolerancia de deformación es cualquier distorsión en la propia puerta y no se refiere a la relación de la puerta con el marco o contramarco en las que está colgada. El término "deformación" incluirá arco, copa y giro. La garantía no se extiende a ningún otro producto excepto la propia puerta.

Todas las puertas deben ser terminadas y mantenidas en la más estricta conformidad con las instrucciones de instalación y acabado como se indica en las "Instrucciones Importantes para Proteger su Puerta Interior". Si nuestro representante determina que los procedimientos de almacenamiento y acabado requeridos de los productos no fueron cumplidos apropiadamente, anulará la garantía.

Si se comprueba que las puertas garantizadas contienen defectos como se indicó anteriormente, el fabricante puede, a su elección:

- 1) Reparar la puerta sin costo;
- 2) Reemplazar la puerta sin costo;
- 3) Reembolsar el precio pagado por la puerta.

"Approved or Equal"

En ningún caso EIGHT DOORS pagará el costo de la mano de obra, la instalación o el acabado de la puerta original o de reemplazo o cualquier costo relacionado con el reemplazo de la puerta.

La acción sobre cualquier reclamación de distorsión puede ser diferida, a opción del fabricante, por un período no mayor de 12 meses a partir de la fecha de reclamación. Si se ha instalado una puerta antes de que se haga tal reclamación, la puerta debe permanecer colgada en la instalación original durante el período de aplazamiento para permitir el acondicionamiento a la humedad ya la temperatura.

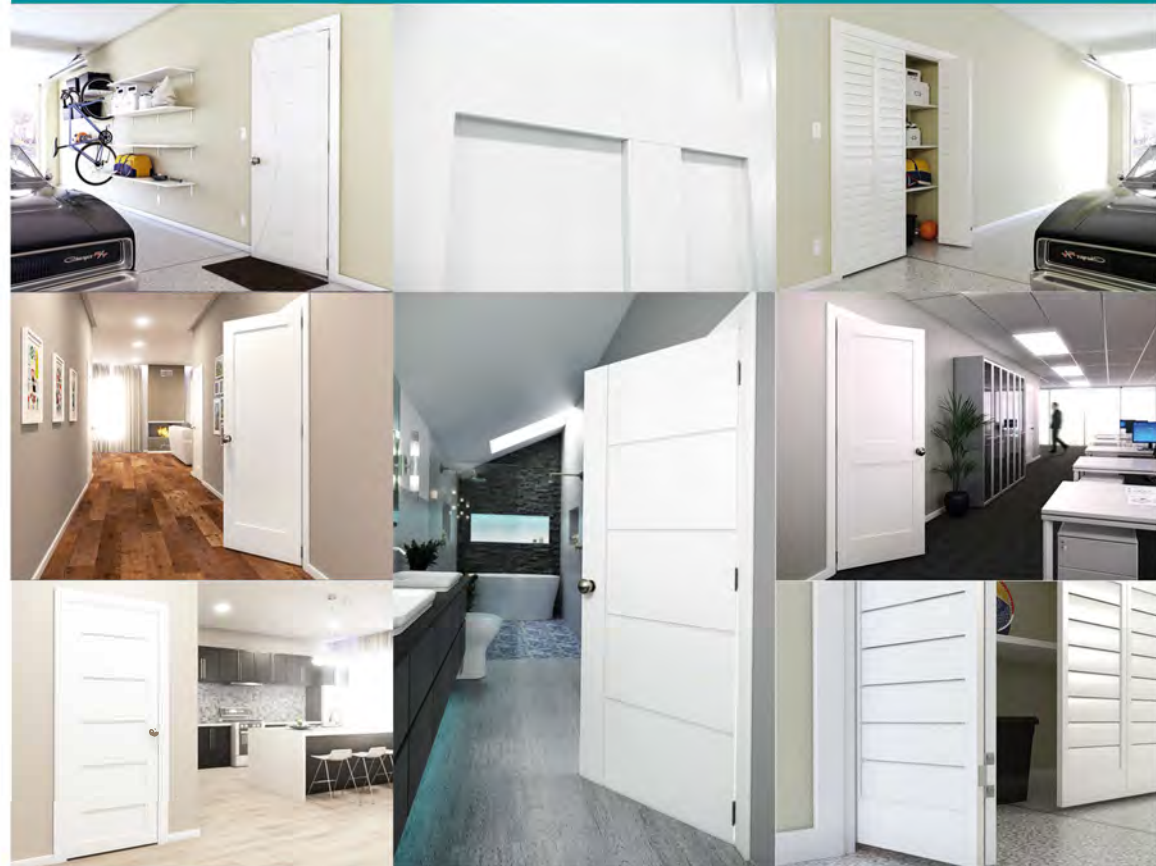
El fabricante no será responsable de ninguna puerta reparada o reemplazada sin su previo consentimiento por escrito.

La garantía no cubre los siguientes elementos:

- 1) Los daños causados por el incumplimiento de las instrucciones en este documento;
- 2) No sellar los 6 lados de la puerta, incluyendo la parte superior e inferior de la puerta;
- 3) Abuso o mal uso de la puerta;
- 4) Las puertas que se cuelgan incorrectamente o no oscilan libremente;
- 5) Variación natural en el color o textura de la chapa;
- 6) Mano de obra para reemplazar y renovar las puertas defectuosas.

eight doors

"Approved or Equal"



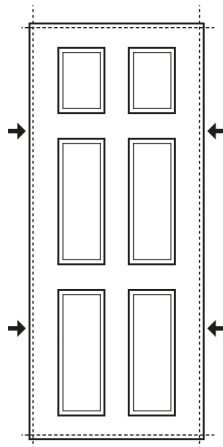
IMPORTANT INSTRUCTION FOR PROTECT YOUR INTERNAL DOOR

Introduction - Timber is a natural grown product and as such is subject to changes due to variations in humidity and temperature resulting in minor swelling and shrinking. This is not a defect but a natural characteristic of timber. Warp in the plane of the door will only be considered a defect if it exceeds 1/4 inch when measured as deviation from a straight edge on the suspected concave surface of the door in its installed position.

Storage - This door must be stored in a dry and flat location. Don't remove packaging (plastic bag) until the door is to be fitted.

Precautions - This door is not recommended for installation in any new build or freshly plastered location. All plaster, texture or cement must be completely dry to avoid excessive moisture penetration otherwise swelling, splitting, or warping may occur. Before hanging allow time for the door to adapt to the general humidity of the area in which it is to be installed.

Hanging - Prior to hanging this door inspect for damage and do not proceed to fit door if any noticeable damage or defect is evident. If this door is to be reduced in size, an equal amount of timber (maximum 1/8" each side) and /or 1" from bottom rail. Again all surfaces must be properly sealed immediately following cutting/ planning. Locks should not be fitted at the rail joint as this will result in a weakening of the joint. Therefore mortise lock cavity should be kept to a minimum size and sited away from rail joint.



Finishing - Remove door from frame and lay flat for best performance. Sand the entire door lightly, using #180 grit sand paper (heavy sanding with a coarser grade paper could sand through veneers). Always sand in the direction of the grain. Thoroughly remove all dust prior to applying finish. A tack cloth is recommended, be sure to follow tack cloth manufacturer's instructions. DO NOT USE compressed air to blow off dust off door as moisture in air will cause water spotting.

Painting Doors - Select a high quality oil based pigmented primer (water based finishes may raise grain). Cover all surfaces evenly! BE SURE TO SEAL TOP AND BOTTOM of doors, as well as all sides. Apply a minimum of two top coats, sanding between coats.

"Water based stain finishes are not suitable for these doors."

Maintenance - Regular Maintenance of this door should be made to prevent breakdown of paint film and protect the timber from deterioration.

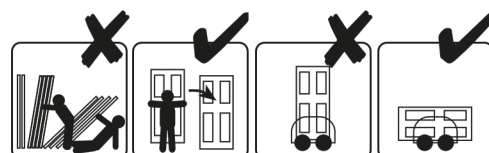
FACTORY PRIMED & READY TO PAINT MDF LAMINATED TO STILE & RAIL CONSTRUCTION

Conditions of Sale

- The manufacturer / supplier will not be held responsible for any incidental work or expenses as a result of bad handling or incorrect fitting / finishing.
- The manufacturer is not responsible for any finishing, priming, painting etc.
- No claim will be entered into if the door has been worked upon in any manner whatsoever.
- No claim will be entered into if the door has not been correctly installed / sealed in accordance with instructions above. All doors must be properly sealed on all six surfaces.
- The conditions under which this door is stored, installed and sealed are beyond the manufacturer control and therefore we cannot accept responsibility for or guarantee against shrinkage, warping or splitting without inspection and statement from a person indicated by us.

We strongly advise against use in following locations:

- Recently plastered dwellings;
- In dwellings where concrete floors have recently been laid;
- In new build situations where central heating is used to accelerate the drying out process;
- Should this door be used in one or more of above locations we cannot accept any responsibility whatsoever for problems arising.



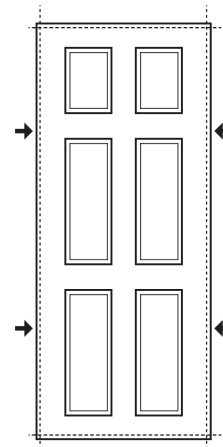
INSTRUCCIONES IMPORTANTES PARA PROTEGER SU PUERTA INTERNA

Introducción - Madera es un producto cultivado naturalmente y como tal está sujeto a cambios debido a las variaciones en la humedad y la temperatura, dando lugar a menor hinchazón y encogimiento. Esto no es un defecto sino una característica natural de la madera. La deformación en el plano de la puerta sólo se considerará un defecto si excede 1/4 de pulgada cuando se mide como desviación de un borde recto sobre la supuesta superficie cóncava de la puerta en su posición instalada.

Almacenamiento - Esta puerta debe ser almacenada en un lugar seco y plano. No retire el embalaje (bolsa de plástico) hasta que se instale la puerta.

Precauciones - Esta puerta no se recomienda para la instalación en ninguna nueva construcción o ubicación recién enyesada. Todo el yeso, la textura o el cemento deben estar completamente secos para evitar una penetración excesiva de humedad, de lo contrario podrían producirse hinchazones, particiones o deformaciones. Es esencial que la puerta se selle con un sellador de base adecuado en ambas caras y cuatro bordes y cualquier recorte (cerraduras etc) inmediatamente. Antes de colgar, deje tiempo para que la puerta se adapte a la humedad general del área en la que se va a instalar.

Colgar - Antes de colgar esta puerta, inspecciona los daños y no procede a encajar la puerta si se observa algún daño o defecto visible. Si se va a reducir esta puerta, una cantidad igual de madera (máximo 1/8 "de cada lado) y / o 1" del riel inferior. Nuevamente todas las superficies deben ser selladas apropiadamente inmediatamente después del corte / planificación. Las cerraduras no deben montarse en la junta del peinazo, ya que esto dará como resultado un debilitamiento de la junta. Por lo tanto, la cavidad de la cerradura debe mantenerse a un tamaño mínimo y situarse lejos de la junta del peinazo



Acabado - Retire la puerta del marco y colóquela plana para obtener el mejor rendimiento. Lijar la puerta entera ligeramente, usando una lija grano # 180 (el lijado pesado con una lija gruesa puede dañar las chapas). Siempre lijarse en la dirección del grano. Quite todo el polvo antes de aplicar el acabado. Se recomienda un paño adhesivo, asegúrese de seguir las instrucciones del fabricante. NO USE aire comprimido para sacar el polvo de la puerta ya que la humedad en el aire causará manchas de agua.

Pintando las puertas - Seleccione una tinta primer a base de aceite de alta calidad (los acabados a base de agua pueden elevar el grano). ¡Cubra todas las superficies uniformemente! Asegúrese de sellar la parte superior e inferior de las puertas, así como todos los lados. Aplicar un mínimo de dos capas superiores, lijando entre capas.

"Las tintas a base de agua no son adecuados para estas puertas".

Mantenimiento - El mantenimiento regular de esta puerta se debe hacer para evitar la degradación de la película de pintura y proteger la madera contra el deterioro.

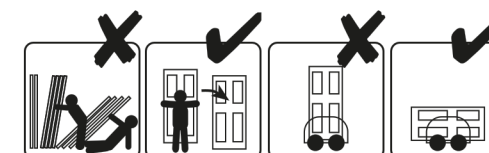
PRIMED DE FABRICA Y LISTO PARA PINTAR CONSTRUCCIÓN DEL MONTANTE Y DEL PEINAZO CON MDF LAMINADO

Condiciones de Venta

- El fabricante / proveedor no se hace responsable de ningún trabajo o gastos incidentales como resultado de mal manejo o mal ajuste / acabado.
- El fabricante no es responsable de ningún acabado, preparación, pintura, etc.
- Ninguna reclamación será realizada si la puerta ha sido trabajada de cualquier manera.
- No se aceptará reclamación si la puerta no ha sido instalada/ sellada correctamente de acuerdo con las instrucciones anteriores. Todas las puertas deben estar bien selladas en las seis superficies.
- Las condiciones bajo las cuales esta puerta es almacenada, instalada y sellada están fuera del control del fabricante y por lo tanto no podemos aceptar la responsabilidad o garantía contra la contracción, deformación o división sin inspección y declaración de una persona indicada por nosotros.

Recomendamos encarecidamente no utilizarlo en los siguientes lugares:

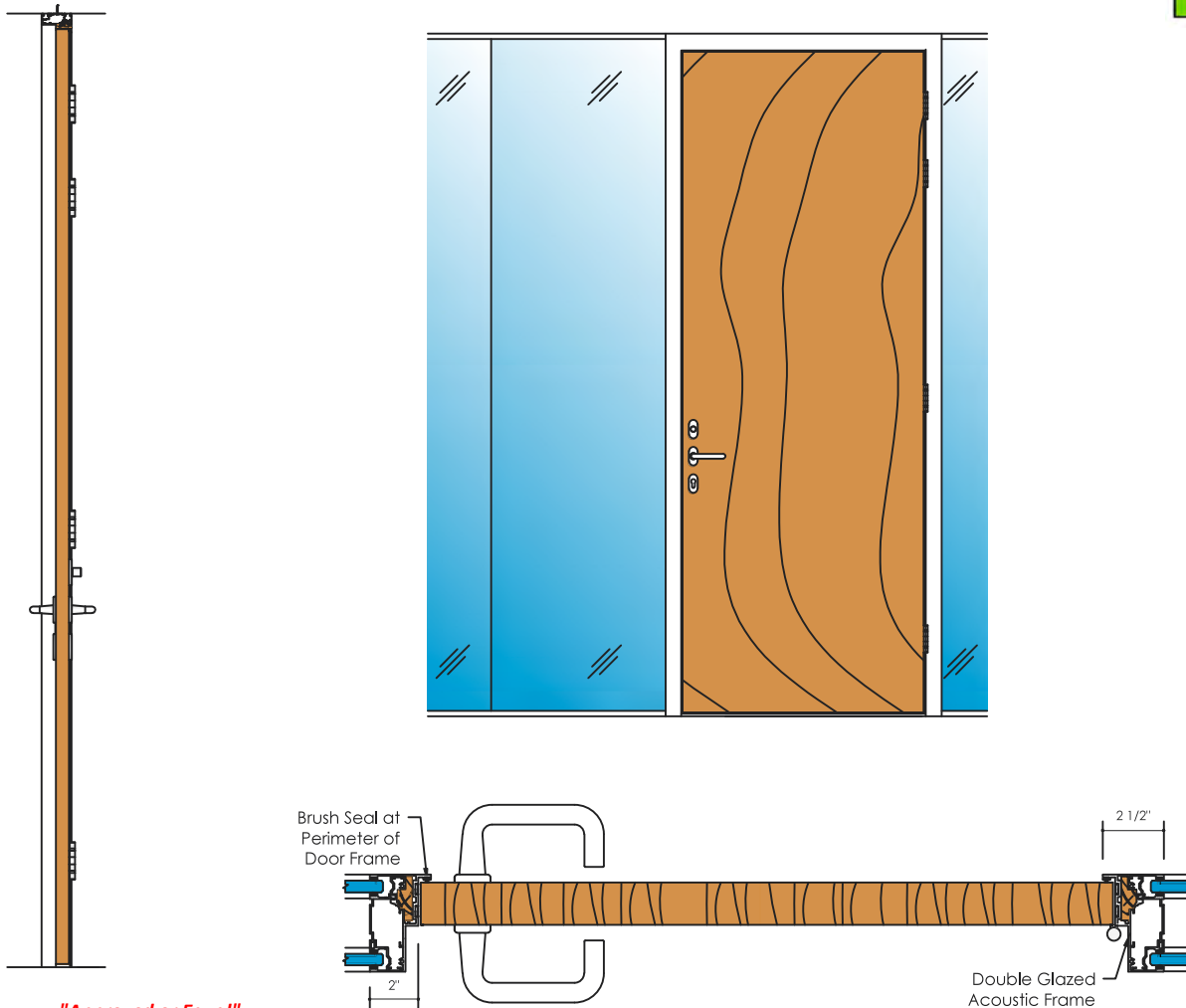
- Viviendas con reciente aplicación de yeso;
- En las viviendas donde recientemente se han colocado pisos;
- En las situaciones de nueva construcción donde se utiliza la calefacción central para acelerar el proceso de desecación; Si esta puerta se utiliza en una o más de las ubicaciones anteriores, no podemos aceptar ninguna responsabilidad por los problemas que surjan.



- EXTERIOR DOORS

Timber Swing Door

"Approved or Equal"



"Approved or Equal"

Timber Swing Doors are ideally suited for Conference Rooms, Offices or Other Spaces where a good sound insulation and reliability is required. They are compatible with most of the systems we offer which include: Solare™ Acoustic Double Glazed Partition System, Elevare™ Stacking Double Glazed High Wall System, Movare™ Movable Double Glazed Partition System or Transverto Monoblock™ Modular Wall Partition System.

- Acoustic performance up to 36db
- Door Height (Max): 8'-10"
- Door Thickness: 1 7/8"
- Finish: EGGER color chart

Available Hardware:

- Free swing & self closing options
- Locking Lever Handle
- Standard Lever Handle
- 4 1/2" Hinges
- Recessed Floor Closer
- Sliding Hardware
- Drop Seal
- Door Stop
- Vision Panels available in accordance with the project.

TRADITIONAL SERIES

:Approved or Equal"



BRUSHED SMOOTH TEXTURE



OAK GRAIN



MAHOGANY GRAIN

TRIED AND TRUE CLASSICS THAT ARE ALWAYS IN STYLE

"Approved or Equal"

The Traditional Series embodies elegance with styles that exude beauty and charm.

For a polished, neat look, our Brushed Smooth skin door styles are the perfect choice. Elevate your entryway with a selection from our range of 16 pre-finished paint options.

To infuse warmth and the natural look of wood into your home, explore our Oak and Mahogany textured door styles, available in six pre-finished stain options. With a variety of door and sidelite panel designs complemented by stylish decorative or privacy glass options, effortless sophistication is within reach.

PANEL OPTIONS " Approved or Equal "



🔥 123BS



124BS



125BS



129BS



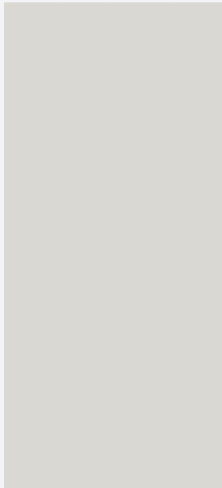
130BS



🔥 132BS



132BS



133BS



129OK



132OK



132MH

AVAILABLE IN
20 . MIN FIRE DOOR



HALF LITE DOOR AND GLASS OPTIONS

"Approved or Equal"

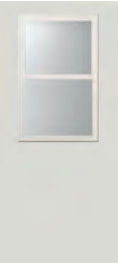
CLEAR LOW-E GLASS FLUSH - 106BS DOOR

ZF ▲



CLEAR LOW-E
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

SF



VENTED LITE
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ▲ ◇



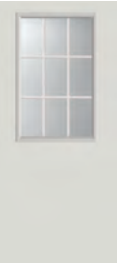
INTERNAL BLINDS
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

SF □ ◇



INTERNAL BLINDS
WITH GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF □



CONTOUR GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ■ □



FLAT GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ▲ ■



FLAT GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF □



FLAT PRAIRIE GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

EF ■



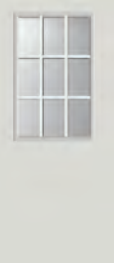
MOLDED SDL
WITH GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

PRIVACY LOW-E GLASS FLUSH - 106BS DOOR

ZF ▲



BLANCA
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



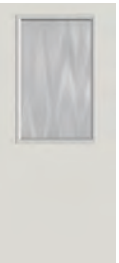
BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



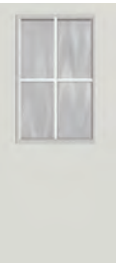
BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ▲



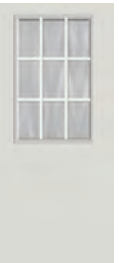
CHINCHILLA
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ▲



CUMULUS
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



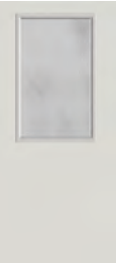
CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



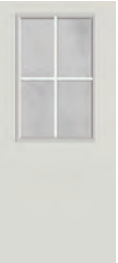
CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ▲



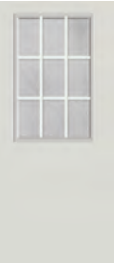
MICRO-GRANITE
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

KEY

▲ 2'6" x 6'8" size available with Evolve Frame
Glass = 20" x 36" for 2668
Glass = 22" x 36" for 2868, 21068, 3068, 3668

■ Black GBG
□ White GBG
■ Silver Spacer
◇ White Blinds

ZF Zeel Frame
EF Evolve Frame
SF Standard Frame

Door size depicted is 3068

TRADITIONAL BRUSHED SMOOTH "Approved or Equal"

PRIVACY LOW-E GLASS FLUSH - 106BS DOOR CONT.

ZF ▲

RAIN
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF

RAIN
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF

RAIN
WITH APPLIED SDL
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

DECORATIVE GLASS FLUSH - 106BS DOOR

ZF ● ●

GRACE
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ●

HEIRLOOMS
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ● ●

MONTEREY
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ●

NOUVEAU
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ●

CROSSWALK
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"

ZF ●

COURTYARD
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8" | 3'6" x 6'8"



HALF LITE DOOR AND GLASS OPTIONS "Approved or Equal"

CLEAR LOW-E GLASS 1-PANEL RAISED - 105BS DOOR

ZF

CLEAR LOW-E
2'8" x 6'8" | 3'0" x 6'8"

SF

VENTED LITE
2'8" x 6'8" | 3'0" x 6'8"

ZF ◇

INTERNAL BLINDS
2'8" x 6'8" | 3'0" x 6'8"

SF □ ◇

INTERNAL BLINDS
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □

CONTOUR GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■ □

FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■

FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □

FLAT PRAIRIE GBG
2'8" x 6'8" | 3'0" x 6'8"

EF ■

MOLDED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■

APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■

APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

PRIVACY LOW-E GLASS 1-PANEL RAISED - 105BS DOOR

ZF

BLANCA
2'8" x 6'8" | 3'0" x 6'8"

ZF

BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

CHINCHILLA
2'8" x 6'8" | 3'0" x 6'8"

ZF

CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

CUMULUS
2'8" x 6'8" | 3'0" x 6'8"

ZF

CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

MICRO-GRANITE
2'8" x 6'8" | 3'0" x 6'8"

ZF

MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF

MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

KEY

Glass = 22" x 36" for 2868 and 3068

- Black GBG
- White GBG
- Silver Spacer
- White Blinds

- Patina/Wrought Iron Caming
- Platinum/Satin Nickel Caming
- Brass Caming

- ZF Zeel Frame
- EF Evolve Frame
- SF Standard Frame

Door size depicted is 3068

TRADITIONAL BRUSHED SMOOTH "Approved or Equal"

PRIVACY LOW-E GLASS 1-PANEL RAISED - 105BS DOOR

ZF



RAIN
2'8" x 6'8" | 3'0" x 6'8"

ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


DECORATIVE GLASS 1-PANEL RAISED - 105BS DOOR

ZF ● ●




GRACE
2'8" x 6'8" | 3'0" x 6'8"

ZF ●




HEIRLOOMS
2'8" x 6'8" | 2'10" x 6'8"

ZF ● ●




MONTEREY
2'8" x 6'8" | 2'10" x 6'8"

ZF ●




NOUVEAU
2'8" x 6'8" | 3'0" x 6'8"

ZF ●



CROSSWALK
2'8" x 6'8" | 3'0" x 6'8"

ZF ●




COURTYARD
2'8" x 6'8" | 3'0" x 6'8"



HALF LITE DOOR AND GLASS OPTIONS "Approved or Equal"


CLEAR LOW-E GLASS 1-PANEL COTTAGE - 103BS DOOR

ZF




CLEAR LOW-E
2'8" x 6'8" | 3'0" x 6'8"

SF




VENTED LITE
2'8" x 6'8" | 3'0" x 6'8"

ZF ◇




INTERNAL BLINDS
2'8" x 6'8" | 3'0" x 6'8"

SF □ ◇




INTERNAL BLINDS
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □




CONTOUR GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■ □




FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■




FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □




FLAT PRAIRIE GBG
2'8" x 6'8" | 3'0" x 6'8"

EF ■




MOLDED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"


ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"


PRIVACY LOW-E GLASS 1-PANEL COTTAGE - 103BS DOOR

ZF




BLANCA
2'8" x 6'8" | 3'0" x 6'8"

ZF




BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




CHINCHILLA
2'8" x 6'8" | 3'0" x 6'8"

ZF




CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




CUMULUS
2'8" x 6'8" | 3'0" x 6'8"

ZF




CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




MICRO-GRANITE
2'8" x 6'8" | 3'0" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

KEY

Glass = 22" x 36" for 2868 and 3068

- Black GBG
- White GBG
- Silver Spacer
- ◇

White Blinds

●

Patina/Wrought Iron Caming

●

Platinum/Satin Nickel Caming

●

Brass Caming

ZF

Zeel Frame

EF

Evolve Frame

SF


Standard Frame

Door size depicted is 3068

TRADITIONAL BRUSHED SMOOTH " Approved or Equal "


PRIVACY LOW-E GLASS 1-PANEL COTTAGE - 103BS DOOR CONT.

ZF




RAIN
2'8" x 6'8" | 3'0" x 6'8"

ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


DECORATIVE GLASS 1-PANEL COTTAGE - 103BS DOOR

ZF ● ● ●




GRACE
2'8" x 6'8" | 3'0" x 6'8"

ZF ●




HEIRLOOMS
2'8" x 6'8" | 3'0" x 6'8"

ZF ● ● ●




MONTEREY
2'8" x 6'8" | 2'10" x 6'8"

ZF ●




NOUVEAU
2'8" x 6'8" | 3'0" x 6'8"

ZF ●



CROSSWALK
2'8" x 6'8" | 3'0" x 6'8"

ZF ●



COURTYARD
2'8" x 6'8" | 3'0" x 6'8"



TOP LITE/HALF LITE DOORS AND GLASS OPTIONS " Approved or Equal "

CLEAR GLASS 4-PANEL - 122BS, 121BS, 113BS DOORS

SF



CLEAR
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

SF



MOLDED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

SF



CLEAR
2'8" x 6'8" | 3'0" x 6'8"

SF



MOLDED SDL
2'8" x 6'8" | 3'0" x 6'8"

CLEAR LOW-E GLASS 2-PANEL - 102BS DOOR

ZF ▲



CLEAR LOW-E
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

SF



VENTED LITE
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲ ◇



INTERNAL BLINDS
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

SF □ ◇




INTERNAL BLINDS
WITH GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲ □




CONTOUR GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ■ □




FLAT GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲ ■




FLAT GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF □




FLAT PRAIRIE GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

EF ■




MOLDED SDL
WITH GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

PRIVACY LOW-E GLASS 2-PANEL - 102BS DOOR

ZF ▲



BLANCA
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



BLANCA
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



BLANCA
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲



CHINCHILLA
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

KEY

▲ 2'6" x 6'8" size available with Evolve Frame
Glass = 20" x 36" for 2668
Glass = 22" x 36" for 2866, 2868, 21068, 3066, 3068
R 3068 reinforced option for closer/panic hardware

■ Black GBG
□ White GBG
■ Silver Spacer
◇ White Blinds

● Patina/Wrought Iron Caming
● Platinum/Satin Nickel Caming
● Brass Caming

ZF Zeel Frame
EF Evolve Frame
SF Standard Frame

Door size depicted is 3068

TRADITIONAL BRUSHED SMOOTH " Approved or Equal "

PRIVACY LOW-E GLASS 2-PANEL - 102BS DOOR CONT.

ZF ▲



CUMULUS
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



CUMULUS
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



CUMULUS
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲



MICRO-GRANITE
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF




MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF




MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ▲



RAIN
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF



RAIN
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"


ZF



RAIN
WITH APPLIED SDL
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"


DECORATIVE GLASS 2-PANEL - 102BS DOOR

ZF ● ●




GRACE
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ●




HEIRLOOMS
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ● ●




MONTEREY
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ●




NOUVEAU
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ●



CROSSWALK
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

ZF ●




COURTYARD
2'8" x 6'6" | 3'0" x 6'6"
2'8" x 6'8" | 2'10" x 6'8"
3'0" x 6'8"

HALF LITE SIDELITE AND GLASS OPTIONS " Approved or Equal "


CLEAR LOW-E GLASS 1-PANEL - 205BS SIDELITE

ZF




CLEAR LOW-E
12" x 6'8" | 14" x 6'8"

ZF □




CONTOUR GBG
12" x 6'8" | 14" x 6'8"

ZF ■




FLAT GBG
12" x 6'8" | 14" x 6'8"

EF ■



MOLDED SDL
12" x 6'8" | 14" x 6'8"

ZF ■



APPLIED SDL
12" x 6'8" | 14" x 6'8"


PRIVACY LOW-E GLASS 1-PANEL - 205BS SIDELITE

ZF




BLANCA
12" x 6'8" | 14" x 6'8"

ZF



BLANCA
WITH APPLIED SDL
12" x 6'8" | 14" x 6'8"

ZF




CHINCHILLA
12" x 6'8" | 14" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
12" x 6'8" | 14" x 6'8"

ZF



CUMULUS
12" x 6'8" | 14" x 6'8"

ZF



CUMULUS
WITH APPLIED SDL
12" x 6'8" | 14" x 6'8"

ZF



MICRO-GRANITE
12" x 6'8" | 14" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
12" x 6'8" | 14" x 6'8"

ZF



RAIN
12" x 6'8" | 14" x 6'8"

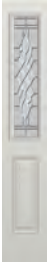
ZF



RAIN
WITH APPLIED SDL
12" x 6'8" | 14" x 6'8"


DECORATIVE GLASS 1-PANEL - 205BS SIDELITE

ZF ● ●




GRACE
12" x 6'8" | 14" x 6'8"

ZF ●




HEIRLOOMS
12" x 6'8" | 14" x 6'8"

ZF ●



NOUVEAU
12" x 6'8" | 14" x 6'8"

ZF ●



CROSSWALK
12" x 6'8" | 14" x 6'8"

KEY

- ▲ 2'6" x 6'8" size available with Evolve Frame
- Glass = 20" x 36" for 2668
- Glass = 22" x 36" for 2866, 2868, 21068, 3066, 3068
- Glass = 8" x 36" for Half Lite Sidelites

R 3068 reinforced option for closer/panic hardware

- Black GBG
- White GBG
- Silver Spacer

- Patina/Wrought Iron Caming
- Platinum/Satin Nickel Caming
- Brass Caming


- ZF** Zeel Frame
- EF** Evolve Frame

Door size depicted is 3068
Sidelite size depicted is 14"

TRADITIONAL BRUSHED SMOOTH " Approved or Equal "


CLEAR LOW-E GLASS 1-PANEL - 110BS DOOR

ZF




CLEAR LOW-E
2'8" x 6'8" | 3'0" x 6'8"

ZF ◇




INTERNAL BLINDS
2'8" x 6'8" | 3'0" x 6'8"

ZF □ ■




FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □ ■




FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF □ ■



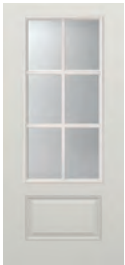
FLAT GBG
2'8" x 6'8" | 3'0" x 6'8"

EF ■



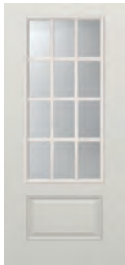
MOLDED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

EF ■




MOLDED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

EF ■



MOLDED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

ZF ■



APPLIED SDL
WITH GBG
2'8" x 6'8" | 3'0" x 6'8"

PRIVACY LOW-E GLASS 1-PANEL - 110BS DOOR

ZF



BLANCA
2'8" x 6'8" | 3'0" x 6'8"

ZF



BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



BLANCA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



CHINCHILLA
2'8" x 6'8" | 3'0" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



CHINCHILLA
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



CUMULUS
2'8" x 6'8" | 3'0" x 6'8"

ZF



CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



CUMULUS
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF



MICRO-GRANITE
2'8" x 6'8" | 3'0" x 6'8"

ZF



MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

ZF




MICRO-GRANITE
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"

3/4 LITE DOOR AND GLASS OPTIONS " Approved or Equal "


PRIVACY LOW-E GLASS 1-PANEL - 110BS DOOR CONT.

ZF




RAIN
2'8" x 6'8" | 3'0" x 6'8"

ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


ZF



RAIN
WITH APPLIED SDL
2'8" x 6'8" | 3'0" x 6'8"


DECORATIVE GLASS 1-PANEL - 110BS DOOR

ZF ● ●




GRACE
2'8" x 6'8" | 3'0" x 6'8"

ZF ●




HEIRLOOMS
2'8" x 6'8" | 3'0" x 6'8"

ZF ● ●




MONTEREY
2'8" x 6'8" | 3'0" x 6'8"

ZF ●




NOUVEAU
2'8" x 6'8" | 3'0" x 6'8"

ZF ●



CROSSWALK
2'8" x 6'8" | 3'0" x 6'8"


ZF ●



COURTYARD
2'8" x 6'8" | 3'0" x 6'8"


CLEAR LOW-E / DECORATIVE GLASS 1-PANEL HERITAGE OVAL LITE - 107BS DOOR

EF




CLEAR LOW-E
3'0" x 6'8"

EF ● ●




GRACE
3'0" x 6'8"

EF ●



HEIRLOOMS
3'0" x 6'8"

EF ●



NOUVEAU
3'0" x 6'8"

CLEAR LOW-E / DECORATIVE GLASS 2-PANEL ELITE OVAL LITE - 108BS DOOR

EF



CLEAR LOW-E
3'0" x 6'8"

EF ● ●



GRACE
3'0" x 6'8"

EF ●



HEIRLOOMS
3'0" x 6'8"

EF ●



NOUVEAU
3'0" x 6'8"

KEY

Glass = 22" x 48" for Rectangle Glass
Glass = 16" x 40" for Oval Glass

- Black GBG
- White GBG
- Silver Spacer
- White Blinds

- Patina/Wrought Iron Caming
- Platinum/Satin Nickel Caming
- Brass Caming

ZF Zeel Frame
EF Evolve Frame

Door size depicted is 3068

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" Approved or Equal "



Masonite

36 in. x 80 in. 9 Lite Unfinished Fir Front Exterior Door Slab

★★★★★ (26) Questions & Answers (23)



Hover Image to Zoom

\$304⁰⁰

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Common Door Size (WxH) in.: 36 x 80

30 x 80 32 x 80 36 x 80

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Call Us:(213) 267-3867



[Home](#) **AB944 - Vertical Grain Douglas Fir EXTERIOR 9-Lite Single Glazed With 2 Panel Bottom -AB944 (1-3/4")**

AB944 - VERTICAL GRAIN DOUGLAS FIR EXTERIOR 9-LITE SINGLE GLAZED WITH 2 PANEL BOTTOM -AB944 (1-3/4")

[AB944]

" Approved or Equal "



Roll over image to zoom in



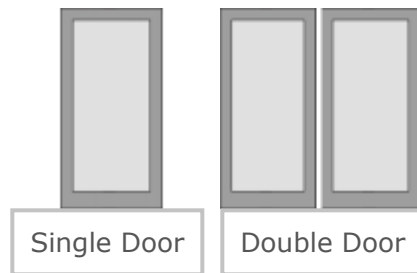
[Clear Configurator](#)

Size *: **36"x80" = \$549 (Backordered 10 Weeks)**

Click Here So I Can Help
I'm A Door Expert



Door Configuration : **No Door Configuration Selected**



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***Doors are unfinished (picture shows finished door)**

These Douglas Fir doors are Exterior Grade and can be used for interiors as well. The engineered construction used on these doors provides for lasting stability. The clear single glazed glass is tempered. Douglas Fir's light rosy color is set off by its remarkably straight and consistent grain pattern. Douglas Fir doors, manufactured from the products in the Factory and Shop grade classification, are renowned for their beauty and performance.



Click Here So I Can Help
I'm A Door Expert



DRYWALL



SECTION 09 29 00 – GYPSUM BOARD, 5/8 in. (15.9 mm) USG Sheetrock® Brand AR Firecode® X Panels (UL Type AR)

Product Summary: " Approved or Equal "

- 5/8 in. (15.9 mm) Type X panels with abuse resistance for interior applications
- Feature a noncombustible gypsum core that is encased in 100% recycled, heavy duty face and back papers that form a high strength composite design
- Designed and tested to offer greater resistance to surface abrasion, indentation and impact damage than 5/8 in. (15.9 mm) USG Sheetrock® Brand Firecode® X Panels
- Comply with ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) and Type X gypsum wallboard
- Tested to ASTM C1629, *Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*, for surface abrasion and indentation resistance, and soft- and hard-body impact
- Underwriters Laboratories Inc. (UL) Classification as to fire resistance, surface burning characteristics and noncombustibility
- Can be used in any UL Design in which Type AR panels are listed
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)
- For more information, refer to product submittal sheet WB2133 or usg.com

Note to Specification Writers: " Approved or Equal "

- This document is not intended to function as a standalone specification. It is intended to assist the specifier in inserting the proper language into the following recommended specification sections: 09 29 00 – GYPSUM BOARD.
- This product is manufactured at USG gypsum panel plants, reducing distances and carbon footprint for transport.
- Panels shall be installed in accordance with GA-216, *Specifications for the Application and Finishing of Gypsum Panel Products* and ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*.
- Contact USG at 800.874.4968 for technical questions.

PART 2 – GYPSUM PANEL PRODUCTS

2.1 ABUSE-RESISTANT TYPE X GYPSUM PANEL " Approved or Equal "

- A. ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) and Type X gypsum wallboard
1. Basis of Design: Subject to compliance with project requirements, the design is based on the following: United States Gypsum Company, USG Sheetrock® Brand AR Firecode® X Panels
 2. UL Type Designation: "AR"
 3. ASTM E136 Noncombustibility: Meets
 4. ASTM E84 Surface-Burning Characteristics
 - a. Flame Spread: 15
 - b. Smoke Developed: 5
 - c. Class A (Flame spread not greater than 25 and smoke developed not greater than 450): Meets
 5. ASTM C473, *Standard Test Methods for Physical Testing of Gypsum Panels Products*
 - a. Core Hardness
 - 1) Field [Not less than 11 lbf (49 N)]: Meets
 - 2) End [Not less than 11 lbf (49 N)]: Meets
 - 3) Edge [Not less than 11 lbf (49 N)]: Meets
 - b. Flexural Strength
 - 1) Parallel [Not less than 46 lbf (205 N)]: Meets
 - 2) Perpendicular [Not less than 147 lbf (654 N)]: Meets
 - c. Nail Pull Resistance [Not less than 87 lbf (387 N)]: Meets
 - d. Humidified Deflection [Not greater than 5/8 in. (15.9 mm)]: Meets

6. Thickness: 5/8 in. (15.9 mm)
 7. Length: 8-10 ft. (2438-3048 mm), 12 ft. (3658 mm)
 8. Width: 4 ft. (1219 mm)
 9. Weight: 2.8 lb./sq. ft. (13.7 kg/sq. m)
 10. Edge: Tapered
- B. *ASTM C1629, Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*
1. Abrasion Resistance per ASTM D4977: Level 2 (USG testing demonstrates that when painted with one coat of primer and two coats of semigloss latex paint, the abrasion resistance increases to Level 3)
 2. Indentation Resistance per ASTM D5240: Level 1
 3. Soft-Body Impact Resistance per ASTM C1629: Level 2
 4. Hard-Body Impact Resistance per ASTM C1629: Level 1

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USG SHEETROCK® BRAND AR FIRECODE® X PANELS



DESCRIPTION

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5/8 in. (15.9 mm) Type X panels with abuse resistance for interior applications

- Designed and tested to offer greater resistance to surface abrasion, indentation and impact damage than 5/8 in. (15.9 mm) USG Sheetrock® Brand Firecode® X Panels
- Comply with ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) and Type X gypsum wallboard
- Tested to ASTM C1629, *Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*, for surface abrasion and indentation resistance, and soft- and hard-body impact
- Underwriters Laboratories Inc. (UL) Classification as to fire resistance, surface burning characteristics and noncombustibility
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)

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USG Sheetrock® Brand AR Firecode® X Panels (UL Type AR) are 5/8 in. (15.9 mm) Type X panels designed and tested to offer greater resistance to surface abrasion, indentation and impact damage than 5/8 in. (15.9 mm) USG Sheetrock® Brand Firecode® X Panels. These abuse-resistant panels feature a noncombustible gypsum core that is encased in 100% recycled, heavy duty face and back papers that form a high strength composite design. The face paper is folded around the long edges to reinforce and protect the core, and the ends are cut square and even. The long edges of the panels are tapered, allowing joints to be reinforced and concealed with USG Sheetrock® Brand joint treatment systems. The panels are UL Classified for fire resistance and can be used in any UL design in which Type AR panels are listed. On the face, along the long edge of each panel, the UL Type Designation is printed for easy identification by building inspectors.

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Note: For projects requiring superior abuse resistance, specify 5/8 in. (15.9 mm) USG Sheetrock® Brand Mold Tough® VHI Firecode® X Panels.

INTENDED FOR

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- Commercial or residential applications where 5/8 in. (15.9 mm) Type X panels with greater resistance to surface abrasion, indentation and impact damage are required
- Areas where additional abuse resistance is desired
- Load-bearing and nonload-bearing wood- or steel-framed fire-rated walls
- New or repair and remodel construction

LIMITATIONS

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- Avoid sustained exposure to temperatures exceeding 125°F (52°C).
- Avoid exposure to excessive, repetitive or continuous moisture before, during and after installation. Eliminate sources of moisture immediately.
- Must be stored off the ground and under cover in accordance with Gypsum Association's GA-801, *Handling and Storage of Gypsum Panel Products*.
- For abuse-resistant construction over steel stud framing, minimum 20-gauge (0.0296 in. [0.752 mm] base metal thickness) steel studs, as defined by the Steel Stud Manufacturers Association (SSMA), are recommended.

INTERIOR INSTALLATION, FINISHING AND DECORATING

INSTALLATION

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For maximum framing spacing in non-fire-resistance-rated applications of gypsum panel products, refer to Gypsum Association's GA-216, *Specifications for the Application and Finishing of Gypsum Panel Products* or ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*. For fire-resistance-rated applications, refer to the published UL Design or GA File Number.

Maximum Framing Spacing for Single-Layer Application

Location	Gypsum Panel Thickness	Gypsum Panel Orientation to Framing	Maximum Framing Spacing OC
Ceilings ¹	5/8 in. (15.9 mm)	Parallel	16 in. (406 mm)
		Perpendicular	24 in. (610 mm)
Walls	5/8 in. (15.9 mm)	Parallel	24 in. (610 mm)
		Perpendicular	24 in. (610 mm)

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INTERIOR INSTALLATION, FINISHING AND DECORATING, CONT.

INSTALLATION

FINISHING AND DECORATING

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TEST DATA

" Approved or Equal "

Maximum Framing Spacing for Multi-Layer Application Without Adhesive Between Layers

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Location	Gypsum Panel Thickness	Gypsum Panel Orientation to Framing	Maximum Framing Spacing OC
Ceilings ¹	5/8 in. (15.9 mm)	Parallel	16 in. (406 mm)
		Perpendicular	24 in. (610 mm)
Walls	5/8 in. (15.9 mm)	Parallel	24 in. (610 mm)
		Perpendicular	24 in. (610 mm)

Note:

1. On ceilings to receive water-based texture material, 5/8 in. (15.9 mm) gypsum board shall be applied either parallel to framing spaced at 16 in. (406 mm) OC or perpendicular to framing spaced maximum 24 in. (610 mm) OC. See Appendix A.3 of Gypsum Association's GA-216, *Specifications for the Application and Finishing of Gypsum Panel Products* for more information.

USG Sheetrock® Brand AR Firecode® X Panels are by design stronger and have greater surface hardness than standard 5/8 in. (15.9 mm) Type X panels. Because of this, they are heavier and will be more difficult to install. Slower installation production rates should be accounted for in job planning.

Installing USG Sheetrock® Brand AR Firecode® X Panels on steel thinner than 20-gauge (minimum 0.0296 in. [0.752 mm] base metal thickness), as defined by the SSMA, may result in increased fastener strip-out, improper screwhead seating or other related conditions. For more information, refer to USG TechNOTE *Reducing Occurrences of Screw Spinout on Steel Studs When Installing Abuse- & Impact-Resistant Gypsum Panels* (ST700).

For high-quality finishing results, USG recommends USG Sheetrock® Brand finishing products.

Painting products and systems should be used that comply with recommendations and requirements in Appendices of ASTM C840. For priming and decorating with paint, texture or wall covering, follow manufacturer's directions for materials used. Gypsum Association's GA-214, *Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber Reinforced Gypsum Panels* should be referred to in order to determine the level of finishing needed to ensure a surface properly prepared to accept the final decoration.

All surfaces, including applied joint compound, must be thoroughly dry, dust-free and not glossy. Prime with USG Sheetrock® Brand First Coat™ Primer or with an undiluted, interior latex flat paint with high-solids content. Allow to dry before decorating.

To improve fastener concealment where gypsum panel walls and ceilings will be subjected to critical artificial or natural lighting, or will be decorated with a gloss paint (eggshell, semigloss or gloss), the gypsum panel should be skim coated with joint compound. This equalizes suction and texture differences between the drywall face paper and the finished joint compound before painting. As an alternative to skim coating, or when a Level 5 finish is required, use USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer. See *USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer Submittal Sheet* (J1613) for limitations and application instructions.

For more information, refer to USG literature *Finishing & Decorating Gypsum Panels White Paper* (J2010).

Property		ASTM Test Method	Requirement	UL Type AR
Noncombustibility		E136	Noncombustible	Meets
Surface-burning characteristics	Flame spread	E84	Flame Spread Index, not greater than 25 ²	15
	Smoke developed	E84	—	5
	Class A	E84	Flame spread not greater than 25 and smoke developed not greater than 450	Meets
Core hardness	Field	C473 (B)	Not less than 11 lbf (49 N) ²	Meets
	End	C473 (B)	Not less than 11 lbf (49 N) ²	Meets
	Edge	C473 (B)	Not less than 11 lbf (49 N) ²	Meets
Flexural strength	Parallel	C473 (B)	Not less than 46 lbf (205 N) ²	Meets
	Perpendicular	C473 (B)	Not less than 147 lbf (654 N) ²	Meets
Humidified deflection		C473	Not greater than 5/8 in. (15.9 mm) ²	Meets
Nail pull resistance		C473 (B)	Not less than 87 lbf (387 N) ²	Meets

Note:

2. Per ASTM C1396 for 5/8 in. (15.9 mm) gypsum wallboard.

TEST DATA CONT.

ABUSE RESISTANCE

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Test Standard	Test Summary	ASTM C1629 Classification Levels	Test Results
Abrasion Resistance ASTM D4977	A sample is placed under a wire brush weighted with 25 lbs. (11.3 kg). The brush is then cycled 50 times back and forth across the surface. This creates surface wear that is measured to determine the level of abrasion resistance.	Maximum Depth Level 1 = 0.126 in. (3.2 mm) Level 2 = 0.059 in. (1.5 mm) Level 3 = 0.010 in. (0.3 mm)	Level 2 ³
Indentation Resistance ASTM D5420	A 2 lb. (0.91 kg) weight is raised to a 36 in. (914 mm) height and dropped onto a 5/8 in. (15.9 mm) hemispherical die that strikes the sample with 72 in•lb (12.6 J) of force. The depth of the indentation is measured to determine the level of indentation resistance.	Maximum Depth Level 1 = 0.150 in. (3.8 mm) Level 2 = 0.100 in. (2.5 mm) Level 3 = 0.050 in. (1.3 mm)	Level 1
Soft-Body Impact Resistance ASTM C1629	A 60 lb. (27.2 kg) leather bag is suspended on a rope and raised away angularly from a sample installed on 2 x 4 in. (38 x 89 mm) wood framing 16 in. (406 mm) OC. The bag is raised (in 6 in. [152 mm] increments) and released to impact the sample. The impact energy is calculated based upon the bag weight and drop height where structural failure occurs.	Minimum ft•lbf (structural failure) Level 1 = 90 ft•lbf (122 J) Level 2 = 195 ft•lbf (265 J) Level 3 = 300 ft•lbf (408 J)	Level 2
Hard-Body Impact Resistance ASTM C1629	A 2 x 2 ft. (610 x 610 mm) sample is mounted vertically to a metal frame and impacted with a 2.75 in. (70 mm) diameter weighted swinging ram (resembling a sledgehammer). Weight is added in 2.5 lb. (1.1 kg) increments to increase the impact force. Failure energy is determined when penetration through the face into the frame cavity occurs.	Minimum ft•lbf (structural failure) Level 1 = 50 ft•lbf (68 J) Level 2 = 100 ft•lbf (136 J) Level 3 = 150 ft•lbf (204 J)	Level 1

Note:

3. USG testing demonstrates that when painted with one coat of primer and two coats of semigloss latex paint, the abrasion resistance increases to Level 3.

PRODUCT DATA *" Approved or Equal "*

	UL Type AR
Thickness	5/8 in. (15.9 mm)
Lengths⁴	8-10 ft. (2438-3048 mm), 12 ft. (3658 mm)
Width	4 ft. (1219 mm)
Weight⁵, nominal	2.8 lb./sq. ft. (13.7 kg/sq. m.)
Edges	Tapered
Packaging	Two panels per bundle

Notes:

4. Other sizes available by special order. Check with your local USG representative for availability.
5. Represents approximate weight for design and shipping purposes. For specific product weight in your area, contact your local USG representative or call the Customer Service Center at 800 950-3839.

COMPLIANCE *" Approved or Equal "*

- Comply with ASTM C1396 for 5/8 in. (15.9 mm) and Type X gypsum wallboard
- Meet ASTM C1629 classification for abuse-resistant gypsum panels
- Classified as a Class A Interior Finish Material per Section 803.1 of the International Building Code® (IBC®)
- UL Classification as to fire resistance, surface-burning characteristics and core combustibility
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

CAUTION

Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Cut and trim with a utility knife or hand saw to minimize dust levels. Power tools must be equipped with a dust collection system. Wear eye, skin and respiratory protection if necessary. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call a physician. Do not swallow. If swallowed, call a physician. For more information call Product Safety: 800 507-8899 or see the SDS at usg.com.
KEEP OUT OF REACH OF CHILDREN.

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Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheets and related literature on products before specification and/or installation.



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Manufactured by
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

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FEATURES & BENEFITS *" Approved or Equal "*

- 3-piece system for flexibility and ease of installation
- Smooth linear surface
- ADA Compliant
- Multiple laying patterns
- Ideal for residential driveways, patios, pool decks and walkways

SHAPES & SIZES *" Approved or Equal "*

3-PIECE | 60MM



12 x 6 x 2 $\frac{3}{8}$



12 x 9 x 2 $\frac{3}{8}$



12 x 12 x 2 $\frac{3}{8}$

PALLET INFORMATION

CATALINA GRANA® 3-PIECE		SQFT/ PALLET	UNITS/ LAYER	SQFT/ LAYER	LAYER/ PALLET	WEIGHT/ PALLET
60MM	12 x 6 x 2 $\frac{3}{8}$	120	6	3	10	3230
	12 x 9 x 2 $\frac{3}{8}$		4	3		
	12 x 12 x 2 $\frac{3}{8}$		6	6		

Downloadable professional resources available at
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EXTERIOR SIDING



USG APEX™ VENEER FINISH *"Approved or Equal"*

DESCRIPTION

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For textured or smooth veneer plaster finishes

- Versatile, fuller bodied veneer finish plaster that may be textured, floated or finished smooth
- One- and two-coat veneer plaster systems
- Easy mixing
- Fast applying—allows for next-day decorating

USG Apex™ veneer finish is a white finish formulated for hand application over USG Sheetrock® Brand Gypsum Base Imperial® or as the finish coat in a two-coat system over sanded gypsum basecoat, USG Imperial® Veneer Basecoat or USG Diamond® Veneer Basecoat. This product is excellent for achieving a smooth or skip-trowel finish applied to a nominal 1/16" to 3/32" thickness. For Spanish, swirl, float or other types of texture, plaster may be job-aggregated. USG Apex veneer finish is recommended for interior wall and ceiling surfaces, as well as over properly prepared monolithic concrete, in residential construction, single-family dwellings, high-rise buildings and garden apartments. It provides a strong, hard surface capable of resisting abrasion and surface cracking.

This material is joinable so work can be halted anywhere; rooms can be topped out and re-scaffolding eliminated. Wall and ceiling systems completed with USG Apex veneer finish offer fire ratings up to four hours. Sound-rated assemblies up to 62 STC satisfy any residential or commercial requirement.

LIMITATIONS

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1. USG Apex veneer finish is not recommended for use directly over portland cement basecoat, concrete block or other masonry surfaces. Apply USG Imperial veneer basecoat or USG Diamond veneer basecoat to concrete block or over a bonding agent on monolithic concrete before application of this product.
2. Not recommended for masonry or concrete walls or ceilings that have been coated with bituminous compounds or other waterproofing agents. Exterior walls should be furred.
3. Not recommended where contact with water or excessive moisture may occur.

DIRECTIONS

PREPARATION

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Protect product from moisture during storage and on the job. In cold weather, heat building interior to a minimum 55 °F (13 °C) for an adequate period before application, while basecoat and finish are being applied, and until the finish is dry. Air circulation should be kept to a minimum during this period.

APPLICATION

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Mixing Mix plaster with a standard paddle driven by a heavy-duty drill capable of producing 900-1,000 rpm minimum under no load. Place approximately 11-13 qt. clean water in a 12-15 gal. smooth-sided container. Start the mixer, slowly add plaster and mix at least 2 minutes to disperse lumps completely. Do not mix more than 5 minutes. Mixing equipment and all tools must be kept clean. Do not retemper.

Plastering Apply finish directly to USG Sheetrock® Brand Gypsum Base Imperial first covering all joints and interior angles with glass fiber USG Imperial® Tape Type P or Type S. Embed tape and fill beads with a coat of USG Apex veneer finish. Allow the plaster to set but not dry before applying finish. Scratch in a tight, thin coat over the entire area, doubling back with plaster from same batch to a nominal 1/16" thickness. Fill all voids and imperfections. Final-trowel after the surface has become firm, holding the trowel flat and using water sparingly. Do not over-trowel. For best results, allow continuous application from angle to angle. Where joining is unavoidable, use the trowel to terminate unset plaster in with a sharp, clean edge—do not feather out. Bring adjacent plaster up to terminated edge and leave level; do not overlap. During finish troweling, use excess material to fill and bridge joining.

APPLICATION CONT.

"Approved or Equal"

PRODUCT DATA

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PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

CAUTION

Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Cut and trim with a utility knife or hand saw to minimize dust levels. Power tools must be equipped with a dust collection system. Wear eye, skin and respiratory protection if necessary. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call a physician. Do not swallow. If swallowed, call a physician. For more information call Product Safety: 800 507-8899 or see the SDS at usg.com.

KEEP OUT OF REACH OF CHILDREN

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SAFETY FIRST!

Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheets and related literature on products before specification and/or installation.

This material also can be used for a skip-trowel texture finish. Once the finish has become sufficiently firm, but before setting, texture with material from the same batch, but do not final-trowel. For heavier textures, apply sufficient material from the same batch, using a trowel, sponge or other accepted method.

USG Apex veneer finish provides a white, smooth trowel, float or texture finish ready for decoration. The finish may be left undecorated with skip-trowel, float or other textured finishes.

Joint treatment Certain situations may require use of a setting-type joint treatment system:

- High building temperature, low humidity or excessive evaporation that causes "rapid drying."
- Use of metal framing.
- Certain framing applications with spacing 24" o.c. (see Maximum Spacing table in *USG Sheetrock® Brand Gypsum Base Imperial®* submittal sheet P782). Under any of these conditions, use USG Sheetrock® Brand Joint Tape and USG Sheetrock® Brand Durabond® Setting-Type Joint Compound or USG Sheetrock® Brand Easy Sand™ Lightweight Setting-Type Joint Compound to treat all joints and interior angles. Allow the joint treatment to set and dry thoroughly before plaster application.

Coverage: Covers approximately 135-150 sq. ft. per 50 lb. bag/6,000 sq. ft. per ton.

Compliance with standards: Meets ASTM Designation C587.

Warning: Store all USG Sheetrock® Brand Gypsum Base Imperial panels flat. Panels are heavy and could fall over, causing serious injury or death. Do not move unless authorized.

Storage: Store material in a cool, dry place. Avoid direct sunlight. Maintain temperature above 40 °F (4 °C).

Shelf life: Up to 6 months under protected storage conditions. Rotate stock.

Availability and cost: USG Apex veneer finish is distributed regionally. Contact a USG Company sales person for additional information.

Packaging: Available in 50 lb. (22.7 kg) bags.

pH: 12.5-13

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

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Let's Chat!

Width: Various Options Available

Height: Various options available

Pickets: 3/4" - Rails: 1.5"

**Other: 14 Gauge Commercial grade - Galvanized, Welded Steel,
2 Rail**

Quantity: 1

Details:

Build a strong, secure and beautiful enclosure for your property. You can use this durable steel panel to define a boundary, or create a deterrent. The black color adds a stylish upscale appearance to most yards.

Nominal heights and widths will vary Heights: (4' = 46", 5' = 58", 6' = 70")



" Approved or Equal "



HARDWARE



Aurora Long Plate Lever Furniture

"Approved or Equal"

The Austral Lock Aurora furniture is a unique combination of style and innovation. The levers are designed with the same aesthetics as those of Gainsborough Aurora lever so the same lever style may be used on every door in a house.

The sliding snib on the interior escutcheon offers an innovative yet practical way for privacy locking, when paired with Austral Lock Virtus hinged mortice locks.

This furniture is made of high quality zinc and powder coated for long lasting and robust finish. In addition to the standard lever, configurations are available with a return to door lever, compliant with the Australian Standard AS1428.1 requirements, to offer flexibility for usage in application requiring improved accessibility.

The furniture may also be used with other mortice locks with 85mm centres distance and for that no snib configurations are also available.

Features

- Long plate lever furniture for hinged doors for residential and semi-commercial applications
- Contemporary and stylish sliding snib for privacy locking from inside, when used with Austral Lock Virtus hinged mortice locks
- High quality zinc die cast furniture
- Long lasting powder coated finish
- Easy handing with handing pieces
- Compatible with 2 point and 4 point hinged mortice locks (lever up to throw the top and bottom shootbolts)
- Configurations available with a return to door lever (complies to AS1428.1 requirements) for improved accessibility applications
- Compatible with industry standard Euro profile cylinders

Warranties

	Warranties
Mechanical	10 years
Finish	7 years

Specifications *" Approved or Equal "*

Door type	Timber or aluminium
Door thickness	40mm to 60mm
Backset	Any 85mm centres hinged door mortice lock. Austral Lock Virtus hinged mortice lock must be used for sliding snib feature
Spindle size	8mm
Material	Zinc die-cast
Handing	Easy field selectable using handing pieces
Finishes	Powder coated finish*
Cylinder*	Suits fixed cam Euro profile cylinders, available seperately*

*Can be powder coated to standard 25 finishes available on Austral Lock colour chart with 10 days lead time, any other finish may attract additional costs and longer lead times

*Refer to Allegion price guide and the Austral Lock website for compatible euro cylinder range

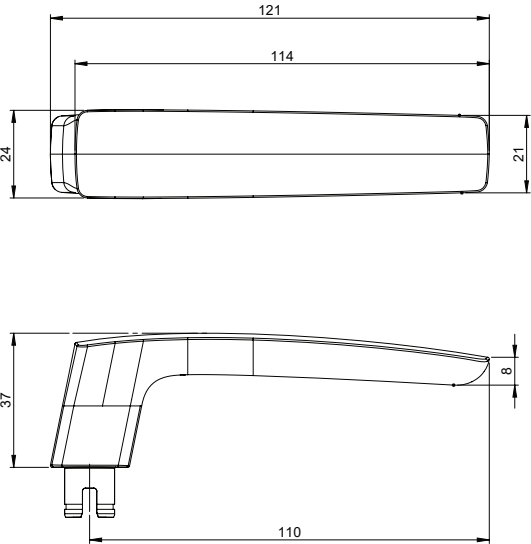
Product Codes *" Approved or Equal "*

Stocked furniture kits	
Standard lever, with cylinder cutout and with sliding snib, Black powder coated	AHDSWCWS-B
Standard lever, with cylinder cutout and with sliding snib, Silver powder coated	AHDSWCWS-S
Made to Order furniture kits	
Standard lever, with cylinder cutout and with sliding snib, any other powder coated finish	AHDSWCWS-SP
Standard lever, with cylinder cutout and without sliding snib, any powder coated finish	AHDSWCNS-SP
Standard lever, without cylinder cutout and without sliding snib, any powder coated finish	AHDSNCNS-SP
Return to door lever, with cylinder cutout and with sliding snib, any other powder coated finish	AHDDWCWS-SP
Return to door lever, with cylinder cutout and without sliding snib, any powder coated finish	AHDDWCNS-SP
Return to door lever, without cylinder cutout and without sliding snib, any powder coated finish	AHDDNCNS-SP
Accessories (stocked)	
Furniture fixing screw pack, incl. screws, spindles and handing pieces	SAL46250
Furniture fixing screw pack, incl. screws with black heads, spindles and handing pieces	SAL46250B

Diagrams

Standard lever dimensions

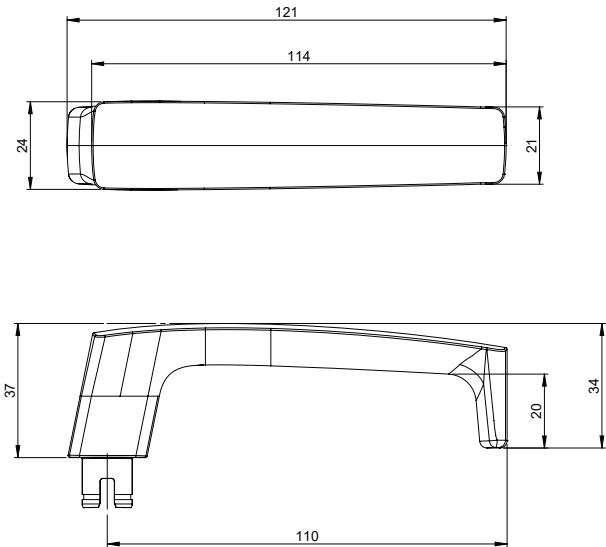
" Approved or Equal "



Return to door lever dimensions

(Complies to AS1428.1 requirements)

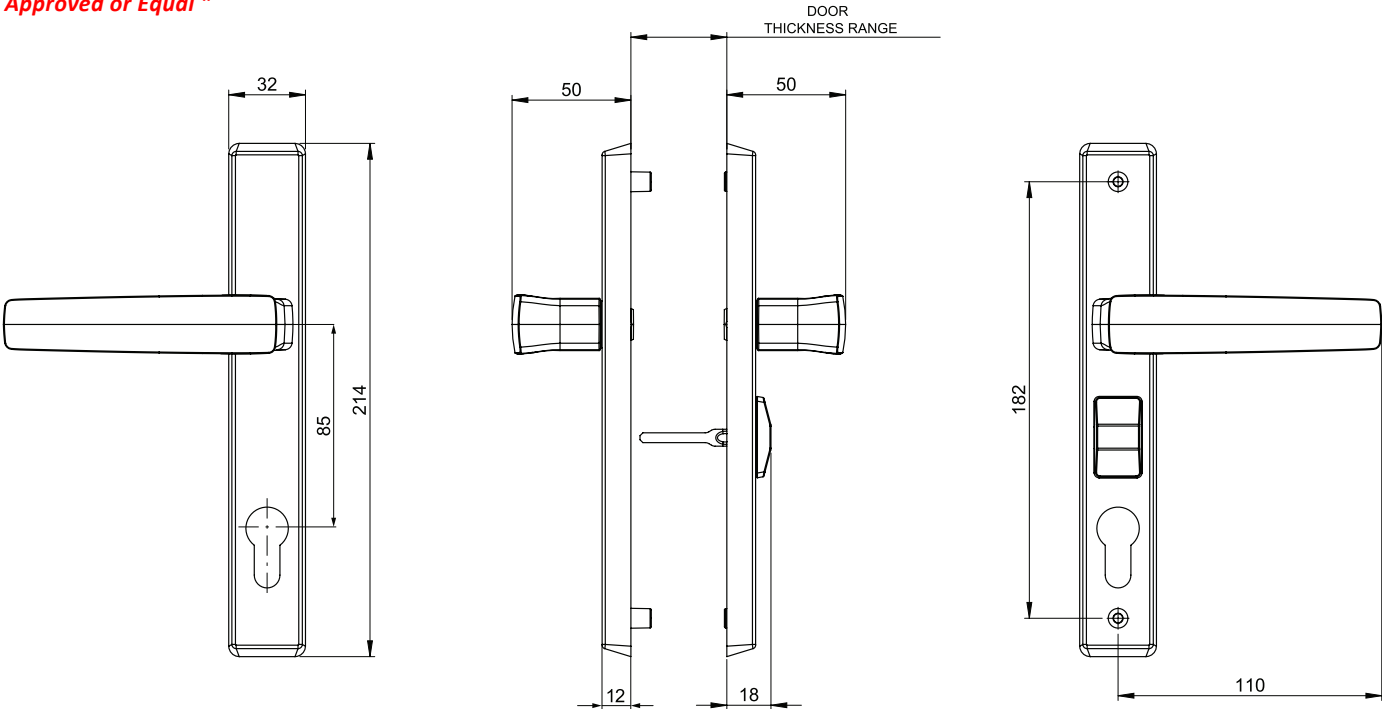
" Approved or Equal "



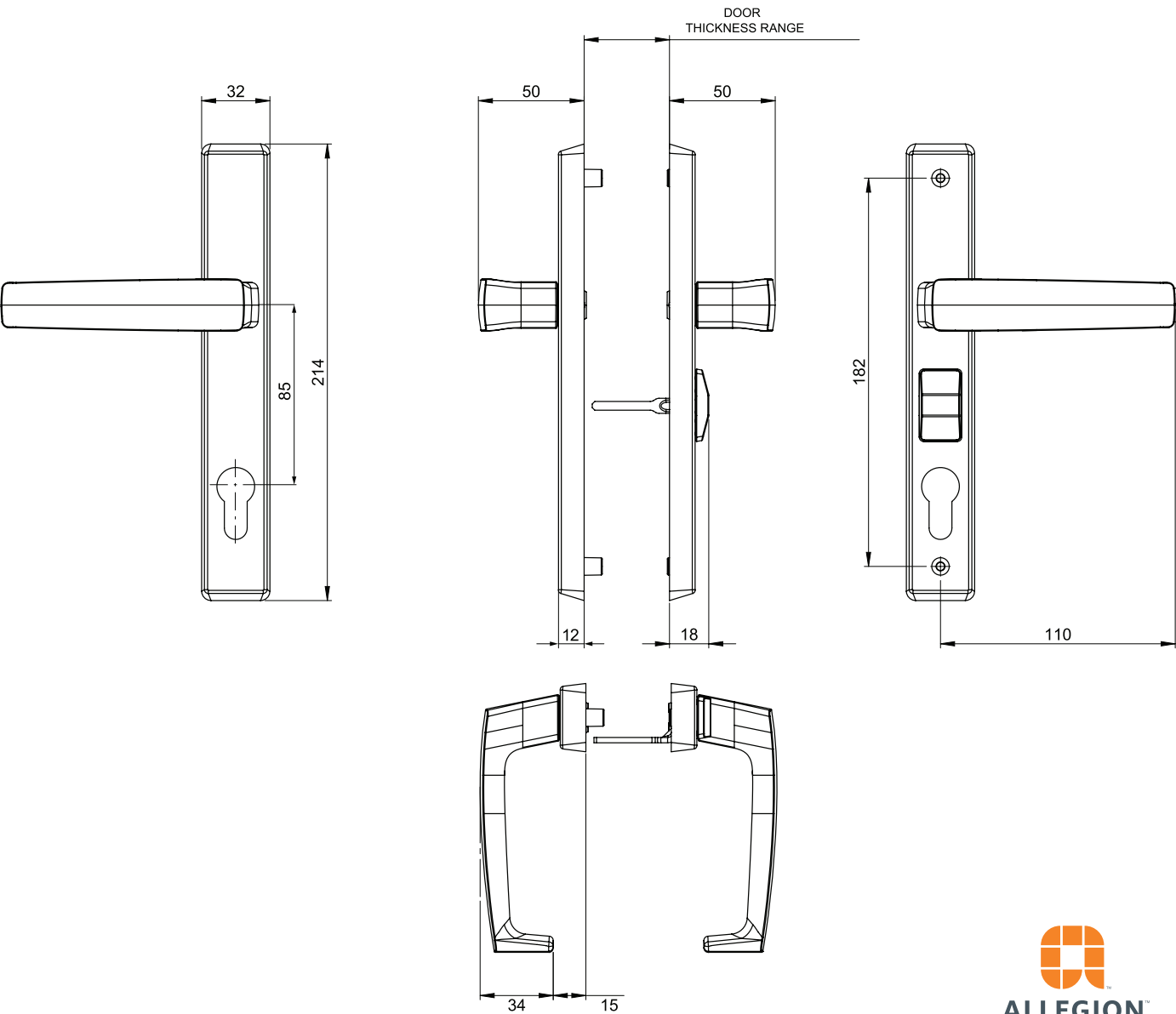
Furniture dimensions

Standard lever with snib and cylinder cutout

" Approved or Equal "



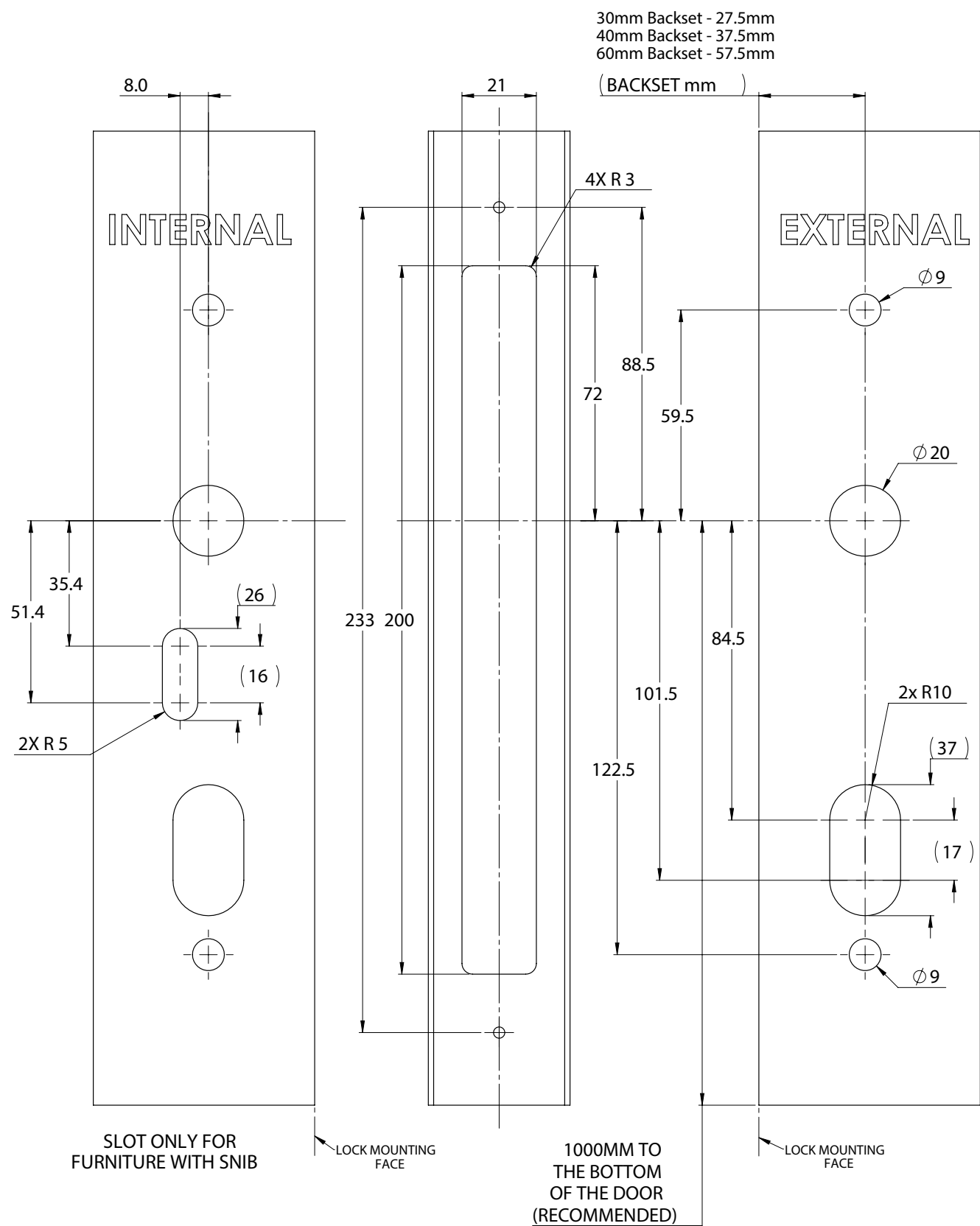
Return to door lever with snib and cylinder cutout



Door cutout dimensions

For use with Austral Lock Virtus morticed lock with face mount installation

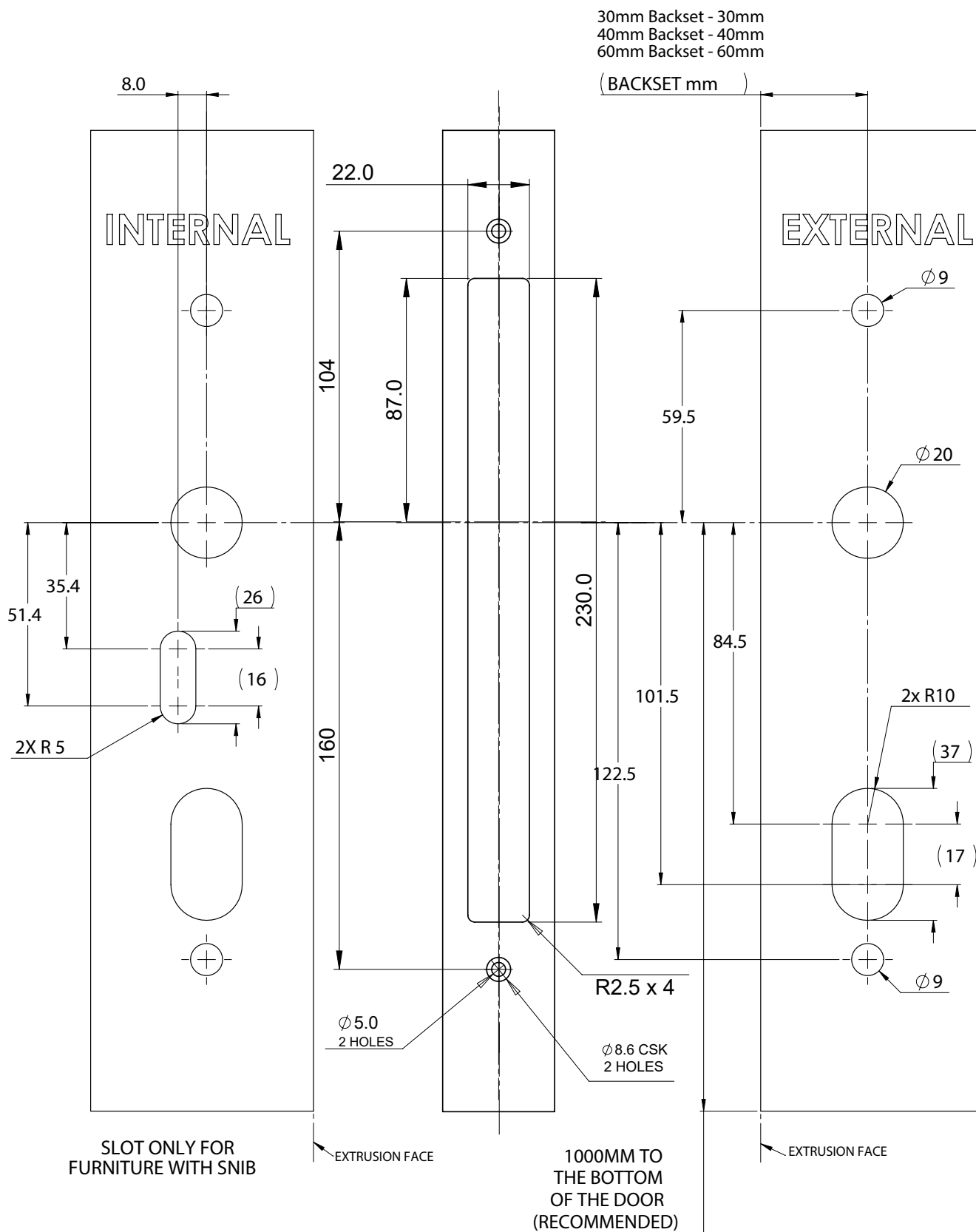
" Approved or Equal "



Door cutout dimensions

For use with Austral Lock Virtus morticed lock with flush mount installation

" Approved or Equal "



INTERIOR FLOOR FINISH

Safety Data Sheet:

Porcelain Tile

SDS DATE: October 2024

"Approved or Equal"

SECTION 1: IDENTIFICATION

PRODUCT NAME:	Porcelain Tile
SYNONYMS:	Porcelain
RECOMMENDED USE:	Flooring, and Wall Application
MANUFACTURER:	Distributed by Anatolia
ADDRESS:	8300 Huntington Road, Vaughan, ON Canada L4H 4Z6
TELEPHONE:	905-771-3800

This document has been prepared in accordance with the Occupational Safety and Health Administration (OSHA) Hazard Communication standard, 29 Code of Federal Regulations (CFR) 1910.1200(g), Safety Data Sheets.

SECTION 2: HAZARDS IDENTIFICATION

Tile products are mixtures of predominantly clays, silica sand, and other minerals that have been mixed with water and fired in a high temperature kiln. The finished fired tiles are odorless, stable, non-flammable, and pose no immediate hazard to health. Respiratory protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting tiles during installation.

Classification of the Chemical (Crystalline Silica) in Accordance with Paragraph (d) of 1910.1200:

EMERGENCY OVERVIEW: Danger! Lung Injury and Cancer Hazard

GHS CLASSIFICATION (GLOBAL HARMONIZED STANDARD CLASSIFICATION):

Carcinogenicity – Category 1A (H350)

Specific target organ toxicity, single exposure; Respiratory tract irritation – Category 3 (H335)

Specific target organ toxicity, repeated exposure – Category 1A (H372)

GHS Label, Hazards and Precautionary Statements

GHS HAZARD PICTOGRAM:



CATEGORY 3
(RESPIRATORY TRACT IRRITATION) (H335)



CATEGORY 1A
(CARCINOGENICITY) (H372)

GHS SIGNAL WORK: Danger

GHS HAZARD STATEMENTS:

- May cause cancer (inhalation) (H350)
- May cause respiratory irritation (H335)
- Causes damage to organs (lung/respiratory) through prolonged or repeated exposure (inhalation) (H372)

Safety Data Sheet:

Porcelain Tile

SDS DATE: October 2024

" Approved or Equal "

SECTION 2: HAZARDS IDENTIFICATION - CONTINUED

GHS PRECAUTIONARY STATEMENTS: **" Approved or Equal "**

Obtain, read and follow all safety instructions before use. (P203)
Do not breathe dust/spray. (P260 + P261)
Wash skin thoroughly after handling. (P264)
Do not eat, drink, or smoke when using this product. (P270)
Use only outdoors or in a well-ventilated area (P271)
Wear protective gloves, protective clothing, eye protection, face protection. (P280)

UNKNOWN ACUTE TOXICITY: Not applicable

SECTION 3: COMPOSITION / INFORMATION OF INGREDIENTS

Tile products are mixtures of predominantly clays, silica sand and other minerals, that have been mixed with water and fired in a high temperature kiln. Tiles are manufactured in various shapes, sizes, and colors. Under normal conditions these products do not release hazardous materials after installation and are not considered hazardous waste, should disposal be necessary.

COMPOSITION	CAS REGISTRY NO.	% by WEIGHT (approximate)
Crystalline Silica as Quartz	CAS: 14808-60-7	6 – 15%
Clays	CAS: 1332-58-7 (Kaolin/Ball Clay) CAS: 1302-78-9 (Bentonite)	20 – 55%
Nepheline Syenite	CAS: 37244-96-5	0 – 50%
Talc	CAS: 14807-96-6	0 – 25%
Feldspar	CAS: 68476-25-5	0 – 30%
Biotite	CAS: 12001-26-2	0 – 5%

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes if dust gets in eyes. Get medical attention if irritation persists.

SKIN: Wash thoroughly after working with tiles.

INHALATION: Remove to fresh air.

INGESTION: Not applicable for intact tiles.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

May cause respiratory irritation. May cause cancer. May cause damage to lungs through prolonged or repeated exposure.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Flush eyes with water if dust gets in eyes.

Safety Data Sheet:

Porcelain Tile

SDS DATE: October 2024

" Approved or Equal "

SECTION 5: FIRE-FIGHTING MEASURES AND INFORMATION

SUITABLE EXTINGUISHING MEDIA:	ABC fire extinguisher
SPECIFIC HAZARDS:	Not applicable
SPECIAL FIRE FIGHTING PROCEDURES:	None required
FIRE AND EXPLOSION HAZARDS:	None

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8 of this SDS.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Avoid creating excessive dust. Clean up dust with a vacuum system with a high-efficiency particulate air (HEPA) filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean up.

SECTION 7: HANDLING AND STORAGE

We recommend wet cutting or the score and snap method during the installation process. Improper installation techniques could expose installer to inhalation of harmful silica dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury. If adequate ventilation cannot be achieved, wear a mask or respirator.

Clean up dust with a vacuum system with a high-efficiency particulate air (HEPA) filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean up.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:

Do not store near acids. If tiles contact some acids, damage/discoloration to the surface may occur. Shelf life is unlimited.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. EXPOSURE TABLE:

COMPOSITION	OSHA PEL	OSHA AL	NIOSH REL	ACGIH TLV	UNITS
Crystalline silica as quartz	50 µg/m ³	25 µg/m ³	0.05 mg/m ³	0.025 mg/m ³	
Clays (Kaolin/Ball/Bentonite) - respirable fraction - total dust**	5 15	N.E N.E	5 10	2 N.E	mg/m ³ mg/m ³
Nepheline Syenite - respirable fraction - total dust**	5 15	N.E N.E	N.E N.E	N.E N.E	mg/m ³ mg/m ³
Talc	20 mppcf*	N.E	2 mg/m ³	2 mg/m ³	
Feldspar - respirable fraction - total dust**	5 15	N.E N.E	N.E N.E	N.E N.E	mg/m ³ mg/m ³
Biotite - respirable fraction - total dust**	20 mppcf* 15	N.E N.E	3 mg/m ³ N.E	3 mg/m ³ N.E	mg/m ³

Safety Data Sheet:

Porcelain Tile

SDS DATE: October 2024

" Approved or Equal "

Based on an 8hr TWA or Time Weighted Average

** Covered as particles not otherwise regulated per OSHA and particles not otherwise specified per ACGIH.

N.E. – Not Established

* Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques

SECTION 8.2: ENGINEERING CONTROLS / PERSONAL PROTECTION

We recommend wet cutting or the score and snap method during the installation process. Improper installation techniques could expose installer to inhalation of harmful silica dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury. If adequate ventilation cannot be achieved, wear a mask or respirator. Wet cutting methods and exposure control methods set forth in OSHA Table 1 of 29 CFR § 1926.1153 are recommended.

VENTILATION: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury.

RESPIRATORY PROTECTION: When adequate ventilation cannot be achieved, use of a properly fitted NIOSH/MSHA approved particulate respirator, such as a half-facepiece particulate respirator with N95 filters or a 95-rated filter efficiency, is recommended when cutting tiles for installation.

EYE PROTECTION: None. Refer to cutting tool manufacturer's recommendation

SKIN PROTECTION: None.

NOTE: Personal protection information in Section 8 is based on general information for normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the assistance of an industrial hygienist or other qualified professional be obtained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brittle solid; color may vary

ODOR: Odorless

ODOR THRESHOLD: Not applicable

PH: Not applicable

MELTING POINT: 3110°F

FREEZING POINT: Not available

BOILING POINT: 4046°F

EVAPORATION RATE (ETHYL; ETHER = 1): Not applicable

FLAMMABILITY: Not applicable

UPPER/LOWER FLAMMABILITY LIMITS: Not applicable

VAPOR PRESSURE: Not applicable

VAPOR DENSITY (AIR = 1): Not applicable

RELATIVE DENSITY: Not applicable

SOLUBILITY IN WATER: Insoluble

PARTITION COEFFICIENT: N-OCTANOL/WATER: Not applicable

Safety Data Sheet:

SDS DATE: October 2024

Porcelain Tile

"Approved or Equal"

AUTO-IGNITION TEMPERATURE: Not applicable

DECOMPOSITION TEMPERATURE: Not applicable

VISCOSITY: Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Not available

CHEMICAL STABILITY: Stable in normal conditions and storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Not available

CONDITIONS TO AVOID: Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)

INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)

HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

PRIMARY ROUTES OF EXPOSURE

None for intact tile. Inhalation of dust during the tile cutting process.

ACUTE EFFECTS CRYSTALLINE SILICA

No acute effects from exposure to intact tile are known. In very rare cases, symptoms of acute silicosis, a form of silicosis (a nodular pulmonary fibrosis) associated with exposure to respirable crystalline silica, may develop following acute exposure to extremely dusty environments in excess of established permissible occupational exposure limits and/or failure to follow product use instructions or regulatory standards. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

CHRONIC EFFECTS CRYSTALLINE SILICA

No chronic effects are known for exposure to intact tile. Long-term, continual exposure to respirable crystalline silica in excess of established permissible occupational exposure limits and/or failure to follow product use instructions or regulatory standards may lead to the development of silicosis, a nodular pulmonary fibrosis (NPF). NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, COPD and other airway diseases. This type of chronic exposure to silica dust may also result in the development of autoimmune disorders, chronic renal disease, and other adverse health effects. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

POTENTIAL ADVERSE INTERACTIONS

Silicosis may be complicated by severe mycobacterial or fungal infections and result in tuberculosis (TB). Silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure to an excess of respirable crystalline silica. Smoking may increase the risk of adverse effects if done in conjunction with occupational exposure to silica dust in excess of permissible exposure limits.

Safety Data Sheet:

SDS DATE: October 2024

Porcelain Tile

"Approved or Equal"

CARCINOGEN STATUS

Respirable crystalline silica is classified by the International Agency for Research on Cancer (IARC) as a Group I Carcinogen (carcinogenic to humans). The National Toxicology Program (9th Report) lists respirable crystalline silica as "Known to be a Human Carcinogen." USDOL/OSHA lists crystalline silica in the OSHA Hazard Communication Carcinogen list.

ACUTE TOXICITY

Not applicable

SECTION 12: ECOLOGICAL INFORMATION

No information available at this time.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste should be disposed of in a landfill certified to accept such materials in accordance with federal, state, and local regulations.

SECTION 14: TRANSPORTATION INFORMATION

D.O.T SHIPPING NAME:	Not applicable
HAZARD CLASS:	Non-regulated (for disposal purposes material is non-hazardous Class III regulated material)
ID NUMBER:	Not applicable
MARKING:	Not applicable
LABEL:	None
PLACARD:	None
HAZARDOUS SUBSTANCE/RQ:	Not applicable
SHIPPING DESCRIPTION:	Porcelain Tiles
PACKAGING REFERENCES:	None

SECTION 15: REGULATORY INFORMATION

This product's components have been previously introduced into U.S. commerce and are either listed on or exempted from the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce.

State Regulations: Crystalline silica is listed as "hazardous" or "toxic" on state right to know laws including, but not limited to, Massachusetts, New Jersey, and Pennsylvania.

This product or its components meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

- | | | |
|---|---|---|
| <input type="checkbox"/> Combustible Liquid | <input type="checkbox"/> Flammable Aerosol | <input type="checkbox"/> Oxidizer |
| <input type="checkbox"/> Compressed Gas | <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric |
| <input type="checkbox"/> Flammable Gas | <input checked="" type="checkbox"/> Health Hazard (Sections 3 & 11) | <input type="checkbox"/> Unstable |
| <input type="checkbox"/> Flammable Liquid | <input type="checkbox"/> Organic Peroxide | <input type="checkbox"/> Water Reactive |
| <input type="checkbox"/> Flammable Solid | | |

Safety Data Sheet:

SDS DATE: October 2024

Porcelain Tile

" Approved or Equal "

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

Note: The information in this data sheet provides information related to the potential hazards associated with dusts which may be produced during cutting or otherwise changing the shape of the tile during installation.

SECTION 16: ADDITIONAL INFORMATION

DATE OF PREPARATION: October 2024

Veneta, *Glazed Porcelain*. "*Approved or Equal*"

A natural color palette brings a calm and soothing aesthetic into any design space.



Veneta, *Glazed Porcelain*.

" Approved or Equal "

Timeless surfaces,
natural elegance.

Colors at a glance *" Approved or Equal "*



Ardesia



Stormio



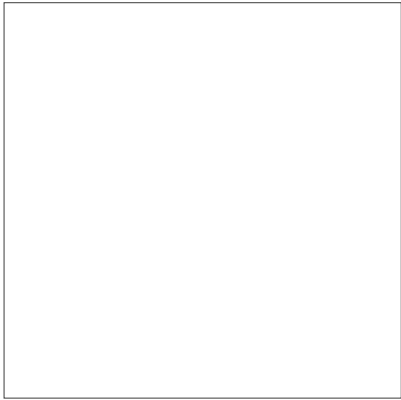
Grigio



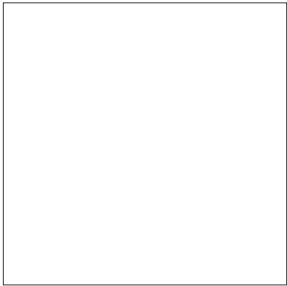
Argento

Formats and finishes at a glance

" Approved or Equal "



20 x 20 in / 50 x 50 cm
Pressed
Matte



13 x 13 in / 33 x 33 cm
Pressed
Matte



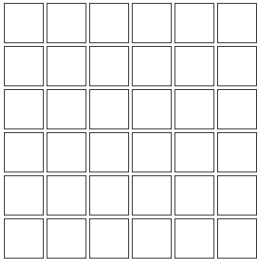
12 x 24 in / 30 x 60 cm
Pressed
Matte

Trim



3 x 12 in / 7.1 x 30 cm
Bullnose
Matte

Mosaic



2 x 2 in / 5 x 5 cm
Mosaic
Matte



13 x 13 in / 33 x 33 cm Veneta Grigio Matte Pressed Glazed Porcelain Tile *" Approved or Equal "*





13 x 13 in / 33 x 33 cm
Pressed
Matte 4500-0693-1



12 x 24 in / 30 x 60 cm
Pressed
Matte 4500-0697-0

Trim



3 x 12 in / 7.1 x 30 cm
Bullnose
Matte 4502-0255-0

Mosaic



2 x 2 in / 5 x 5 cm
Mosaic
Matte 4501-0297-0

IMAGE VARIATIONS

This collection has a wide variety of tile facings by size to maximize the realism it can convey within a design space.

13 x 13 in / 33 x 33 cm
Actual: 330 x 330 x 7.1 mm
46 images

12 x 24 in / 30 x 60 cm
Actual: 300 x 600 x 8.5 mm
42 images

" *Approved or Equal* "



12 x 24 in / 30 x 60 cm image variations



20 x 20 in / 50 x 50 cm
Pressed
Matte 4500-0730-0



13 x 13 in / 33 x 33 cm
Pressed
Matte 4500-0694-1



12 x 24 in / 30 x 60 cm
Pressed
Matte 4500-0700-0

Trim



3 x 12 in / 7.1 x 30 cm
Bullnose
Matte 4502-0258-0

Mosaic



2 x 2 in / 5 x 5 cm
Mosaic
Matte 4501-0300-0

IMAGE VARIATIONS

This collection has a wide variety of tile facings by size to maximize the realism it can convey within a design space.

" *Approved or Equal* "

13 x 13 in / 33 x 33 cm
Actual: 330 x 330 x 7.1 mm
46 images

12 x 24 in / 30 x 60 cm
Actual: 300 x 600 x 8.5 mm
42 images



12 x 24 in / 30 x 60 cm image variations

Veneta, *Grigio* " *Approved or Equal* "



20 x 20 in / 50 x 50 cm
Pressed
Matte 4500-0729-0



13 x 13 in / 33 x 33 cm
Pressed
Matte 4500-0695-1



12 x 24 in / 30 x 60 cm
Pressed
Matte 4500-0699-0

Trim



3 x 12 in / 7.1 x 30 cm
Bullnose
Matte 4502-0257-0

Mosaic



2 x 2 in / 5 x 5 cm
Mosaic
Matte 4501-0299-0

IMAGE VARIATIONS

This collection has a wide variety of tile facings by size to maximize the realism it can convey within a design space.

13 x 13 in / 33 x 33 cm
Actual: 330 x 330 x 7.1 mm
46 images

12 x 24 in / 30 x 60 cm
Actual: 300 x 600 x 8.5 mm
42 images

" *Approved or Equal* "



12 x 24 in / 30 x 60 cm image variations

" *Approved or Equal* "



13 x 13 in / 33 x 33 cm
Pressed
Matte 4500-0696-1



12 x 24 in / 30 x 60 cm
Pressed
Matte 4500-0698-0

Trim



3 x 12 in / 7.1 x 30 cm
Bullnose
Matte 4502-0256-0

Mosaic



2 x 2 in / 5 x 5 cm
Mosaic
Matte 4501-0298-0

IMAGE VARIATIONS

This collection has a wide variety of tile facings by size to maximize the realism it can convey within a design space.

"Approved or Equal "

13 x 13 in / 33 x 33 cm
Actual: 330 x 330 x 7.1 mm
46 images

12 x 24 in / 30 x 60 cm
Actual: 300 x 600 x 8.5 mm
42 images



12 x 24 in / 30 x 60 cm image variations

The Anatolia difference
Unmatched elegance and unparalleled perfection.

" Approved or Equal "

Anatolia reinvents shapes and design compositions through refined color palettes, innovative graphical refinements and creative reinterpretations of traditional, cultural and trend led inspirations. Meticulous care is taken to enhance a product's formation through graphical and technical improvements at every step of the development and execution process. This leads to the most exquisite and discerning tile collections.





Technical Performance
Avant-garde design and attention to detail.

" Approved or Equal "

The goal of Anatolia's design department was to create the utmost elegant and sophisticated product, a perfect blend of functionality and style. New technical aspects, innovative shapes, and a new color palette were designed to represent the vibrant and lively nature of metropolitan city life, inspired by its culture and history.

Packaging information










Key logistical details including item codes and product specifications.

Veneta Product & Packaging Information														
" Approved or Equal "	ACTUAL DIMENSIONS	THICKNESS	ARDESIA ITEM CODE	STORMIO ITEM CODE	GRIGIO ITEM CODE	ARGENTO ITEM CODE	LBS BOX	KGS BOX	PCS BOX	SOFT BOX	M² BOX	BXS SKID	SQFT SKID	M² SKID
20 x 20 in / 50 x 50 cm VENETA MATTE PRESSED GLAZED PORCELAIN TILE	500 x 500 mm	8.7 mm	N/A	4500-0700-0	4500-0699-0	N/A	65.28	29.61	6	16.15	1.5	26	419.9	39
12 x 24 in / 30 x 60 cm VENETA MATTE PRESSED GLAZED PORCELAIN TILE	300 x 600 mm	8.5 mm	4500-0697-0	4500-0700-0	4500-0699-0	4500-0698-0	58.12	26.36	8	15.5	1.44	32	496	46.08
13 x 13 in / 33 x 33 cm VENETA MATTE PRESSED GLAZED PORCELAIN TILE	330 x 330 mm	7.1 mm	4500-0693-1	4500-0694-1	4500-0695-1	4500-0696-1	45.41	20.6	11	12.92	1.2	54	697.68	64.8
MOSAIC														
2 x 2 in / 5 x 5 cm VENETA MATTE GLAZED PORCELAIN MOSAIC	299 x 299 mm	8.5 mm	4501-0297-0	4501-0300-0	4501-0299-0	4501-0298-0	38.45	17.44	10	9.69	0.89	48	465.12	42.91
TRIM														
3 x 12 in / 7.1 x 30 cm VENETA MATTE GLAZED PORCELAIN BULLNOSE	71 x 300 mm	8.5 mm	4502-0255-0	4502-0258-0	4502-0257-0	4502-0256-0	16.46	7.47	20	N/A	N/A	84	1680 PCS	

Technical information

Tile collection performance based on industry standards.

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Technical Information			
	WATER ABSORPTION	ANSI / ISO - (%)	< 0.5%
	ABRASION RESISTANCE	ANSI / ISO	CLASS 4
	SCRATCH HARDNESS	ANSI / ISO - (Mohs)	6
	BREAKING STRENGTH	ANSI - (lbf) ISO - (N)	≥300 ≥1300
	SHADE VARIATION		V3
	SLIP RESISTANCE	ANSI - DCOF (WET) ISO - R VALUE	MATTE ≥0.65 (ID, IW, IW+, EW*, O/G*) MATTE R9
	CHEMICAL RESISTANCE	ANSI / ISO	CLASS A
	STAIN RESISTANCE	ANSI / ISO	CLASS A / CLASS 5
	FROST RESISTANCE	ANSI / ISO	PASS

Test values are based on ANSI / ISO standards according to: ANSI A137.1 - Porcelain tile P1 Class, ISO 13006 - G - Bia Group, En 14411 - G - Bia Group. Variances in test values can occur in different production lots.

" Approved or Equal "

Usage recommendations

Anatolia's recommendations for suitable applications.

" Approved or Equal "

Usage Recommendations*			
		MATTE GLAZED PORCELAIN	
APPLICATION		WALL	FLOOR
INTERIOR	RESIDENTIAL	•	ID, IW, IW+, EW*, O/G*
	COMMERCIAL	•	ID, IW, IW+, EW*, O/G*
	HEAVY COMMERCIAL	•	
EXTERIOR	RESIDENTIAL / COMMERCIAL	•	ID, IW, IW+, EW*, O/G*

* These recommendations are not defined by ANSI/ISO standards.

DCOF Classifications per ANSI A326.3: (ID): Interior, Dry (IW): Interior, Wet (IW+): Interior, Wet Plus (EW): Exterior, Wet (O/G): Oils/Greases

* Factors other than the noted DCOF result must also be taken into consideration. Such factors include, but are not limited to, expected contaminants, drainage, surface texture, effect of structure on the DCOF measurement, number of grout joints, traction-enhancing features, and intended use in addition to the other criteria noted in standard ANSI A326.3

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The World of Anatolia

We are a constellation of people and places. Get in touch.
"Approved or Equal"

CANADA
TORONTO HEAD OFFICE,
SHOWROOM AND DISTRIBUTION
CENTER

8300 Huntington Road
Vaughan, ON, L4H 4Z6
Canada

info@anatolia.com

Tel: +1 905 771 3800
Toll free tel: 1 877 311 3434
Fax: +1 905 771 6300
Fax: +1 866 324 1838

USA
SAVANNAH OFFICE, SHOWROOM
AND DISTRIBUTION CENTER
Anatolia (USA) Inc.
Tel: +1 877 311 3434

SAVANNAH WAREHOUSE #1
202 International Trade Pkwy
Port Wentworth, GA, 31407
USA
Tel: +1 912 438 5167

SAVANNAH WAREHOUSE #2
250 International Trade Pkwy
Port Wentworth, GA, 31407
USA
Tel: +1 912 438 5167

TÜRKİYE
İZMİR OFFICE, SHOWROOM
AND DISTRIBUTION CENTRE

Aliağa Organize Sanayi Bölgesi
Çoraklar Mah. 5000 Sk. No: 34
35800 Aliağa, İzmir,
Türkiye
Tel: +90 232 520 7300

İZMİR MANUFACTURING FACILITY

Aliağa Organize Sanayi Bölgesi
Çoraklar Mah. 5000 Sk. No: 25 35800
Aliağa, İzmir,
Türkiye
Tel: +90 232 520 7300

REGIONAL OFFICES
TÜRKİYE
Oguzhan Mah. Hoca Ahmet Yesevi Cad.
Ada Plaza No:7 Kat:3 Daire:19
15300 Bucak, Burdur,
Türkiye

CHINA
Room 517 Yi Shu Da Lou Ji Hua 4 Road
Chan Cheng District, Foshan City
Guang Dong Province, 528000
China

INDIA
206 - Pacific Business Park
Mahendra Nagar (Part)
8/A - National High Way
Morbi, Gujarat, 363642
India

USA
Anatolia (USA) Inc.
131 Crosslake Park Dr., Suite 203
 Mooresville, NC, 28117
USA
Tel: +1 877 311 3434

Credits

ART DIRECTION
AND GRAPHIC DESIGN
Juma

Partnerships and Associations
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anatolia.com



Veneta - Technical information

Tile collection performance based on industry standards.

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Technical Information			
	WATER ABSORPTION	ANSI / ISO - (%)	< 0.5%
	ABRASION RESISTANCE	ANSI / ISO	CLASS 4
	SCRATCH HARDNESS	ANSI / ISO - (Mohs)	6
	BREAKING STRENGTH	ANSI - (lbf) ISO - (N)	≥300 ≥1300
	SHADE VARIATION		V3
	SLIP RESISTANCE	ANSI - DCOF (WET) ISO - R VALUE	MATTE ≥0.65 (ID, IW, IW+, EW*, O/G*) MATTE R9
	CHEMICAL RESISTANCE	ANSI / ISO	CLASS A
	STAIN RESISTANCE	ANSI / ISO	CLASS A / CLASS 5
	FROST RESISTANCE	ANSI / ISO	PASS

Test values are based on ANSI / ISO standards according to: ANSI A137.1 - Porcelain tile P1 Class, ISO 13006 - G - Bia Group, En 14411 - G - Bia Group. Variances in test values can occur in different production lots.

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Usage recommendations

Anatolia's recommendations for suitable applications.

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Usage Recommendations*		MATTE GLAZED PORCELAIN	
APPLICATION		WALL	FLOOR
INTERIOR	RESIDENTIAL	•	ID, IW, IW+, EW*, O/G*
	COMMERCIAL	•	ID, IW, IW+, EW*, O/G*
	HEAVY COMMERCIAL	•	
EXTERIOR	RESIDENTIAL / COMMERCIAL	•	ID, IW, IW+, EW*, O/G*

* These recommendations are not defined by ANSI/ISO standards.

DCOF Classifications per ANSI A326.3: (ID): Interior, Dry (IW): Interior, Wet (IW+): Interior, Wet Plus (EW): Exterior, Wet (O/G): Oils/Greases

* Factors other than the noted DCOF result must also be taken into consideration. Such factors include, but are not limited to, expected contaminants, drainage, surface texture, effect of structure on the DCOF measurement, number of grout joints, traction-enhancing features, and intended use in addition to the other criteria noted in standard ANSI A326.3

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Arden series
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Hanna AH12

9in*59in*5.5mm

1mm IXPE

20Mil Wear Layer

LIMITED LIFETIME
RESIDENTIAL WARRANTY

10 YEAR LIGHT
COMMERCIAL WARRANTY

100%
WATERPROOF

NAUVIO



MASONRY WALL



ARCHITECTURAL CONCRETE MASONRY

[SAN LUIS OBISPO]



OUR STORY

In business since 1962, Air Vol Block has grown with the masonry industry by focusing upon customer service, product innovation, and product quality. While we manufacture a complete line of concrete masonry units including Precision, Split-Face and Burnished CMU as well as Slump Block, we have garnered an outstanding reputation as the go-to manufacturer for specialty shapes and sizes. We are continually upgrading our manufacturing facilities to better serve the needs of our customers.



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PRECISION

SPLIT FACE

SLUMP

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VISIT OUR SHOWROOM!

MONDAY - FRIDAY: 7AM - 5PM
SATURDAY: 8AM - 12PM



SPECIFY WITH CONFIDENCE

All our products are manufactured to meet or exceed CMU manufacturing standards for strength and durability. Our commitment to providing high-quality products and excellent customer service will ensure that your project will be customized to your needs.

Meet with one of Air Vol Block's CMU experts to help with your project, from the initial planning stages through final engineering and approval.



REQUEST SAMPLES

To request product samples visit our showroom or airvolblock.com



TECHNICAL DOCUMENTS

Looking for data sheets, specifications, Environmental Product Declarations and technical notes? Visit airvolblock.com



LOCALLY MADE

Every Air Vol Block CMU is proudly manufactured in our San Luis Obispo facility, allowing us to deliver precision-made products to you, wherever and whenever you need them.

CONCRETE MASONRY

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CMU HAS MORE ADVANTAGES **THAN YOU CAN IMAGINE**

MOISTURE PROTECTION & EFFLORESCENCE CONTROL

When it comes to moisture protection, you can specify an Integral Water Repellent (IWR) in both Air Vol Block block and mortar. During the manufacturing process we use Integral Water Repellent admixtures that are mixed throughout the concrete. The IWR increases resistance to wind-driven rain, moisture penetration, and reduces efflorescence.

COLORS & TEXTURES

Turn ordinary into a visual masterpiece by blending Air Vol Block colors, surface textures, sizes and shapes. We offer a large selection of Standard, Premium and special order colors that are available in Precision, Burnished and Split Face textures. Speak with your local product expert to get samples.

RESILIENCY

Buildings and structures with resilient design and materials can recover quicker following disasters, reduce green house emissions and improve the impacts of a building on the health and performance of occupants. Concrete masonry construction has inherent strength, durability, longevity, fire resistance, seismic and blast resistance all of which contribute to the resiliency of the built environment and can contribute to LEED credits

SHAPES & SIZES

Create unique and memorable design details with Air Vol Block's variety of concrete masonry sizes and shapes.

THERMAL PERFORMANCE

Concrete masonry delivers excellent thermal performance. Fully grouted concrete masonry is considered a heavy mass wall according to California Energy Code. Because of this, a typical fully grouted wall system meets energy code standards without the need for insulation in many California climate zones.

Interested in exploring Air Vol Block's wide range of block products, styles and colors,

VISIT OUR SHOWROOM

and let our experts assist you with your next project.



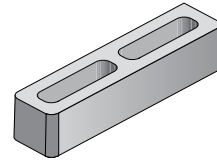
WE OFFER AN EXTENSIVE CONCRETE MASONRY PRODUCT LINE INCLUDING
STRUCTURAL BLOCK | HARDSCAPES | MORTARS AND GROUTS

"Approved Or Equal"

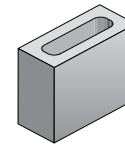


SHAPES | 4-INCH CMU

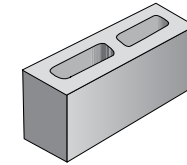
"Approved Or Equal"



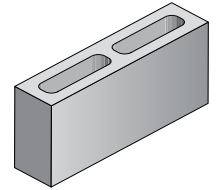
4X4X16
STANDARD



4X4X8
HALF



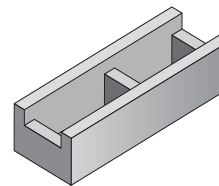
4X8X12
CORNER



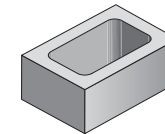
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SHAPES | 6-INCH CMU

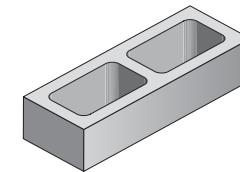
"Approved Or Equal"



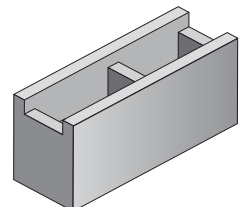
6X4X16
BOND BEAM



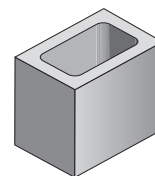
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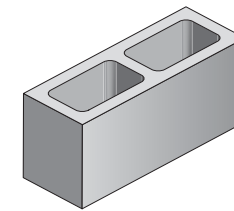
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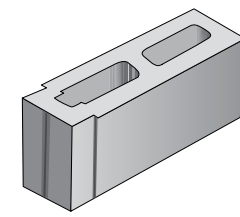
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BOND BEAM



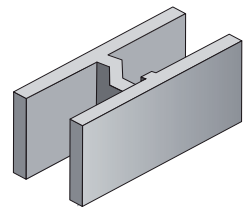
6X8X8
HALF



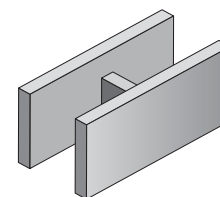
6X8X16
STANDARD



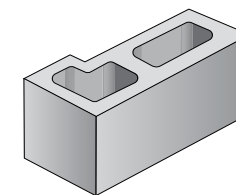
6X8X18
TONGUE & GROOVE
(MADE TO ORDER)



6X8X16
DOUBLE OPEN END
BOND BEAM
(MADE TO ORDER)



6X8X16
SPEED BLOCK
MORTARLESS HEAD
JOINT



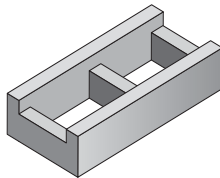
6X8X16
RETURN CORNER

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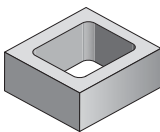
SHAPES | 8-INCH CMU

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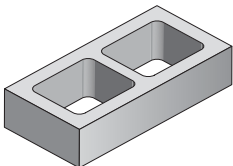
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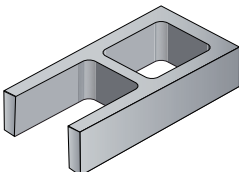
8X4X16
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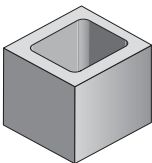
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HALF



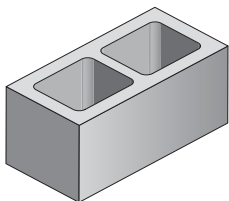
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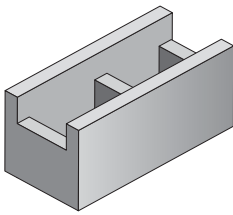
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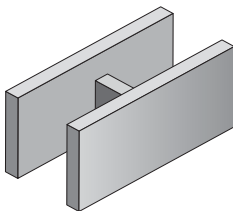
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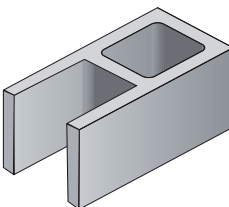
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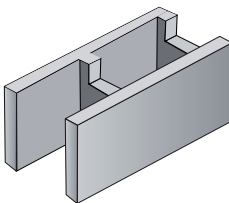
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BOND BEAM



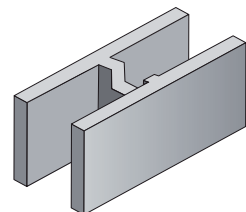
8X8X16
SPEED BLOCK
MORTARLESS HEAD
JOINT



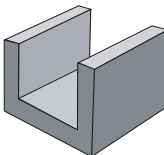
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OPEN END



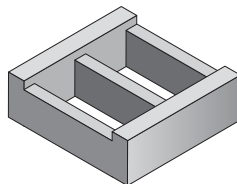
8X8X16
OPEN END
BOND BEAM
(MADE TO ORDER)



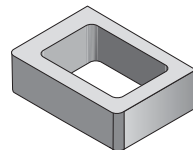
8X8X16
DOUBLE OPEN END
BOND BEAM



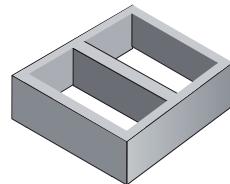
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LINTEL



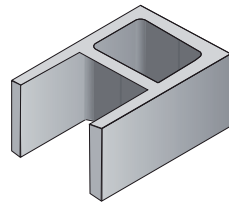
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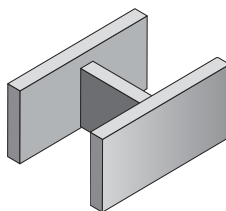
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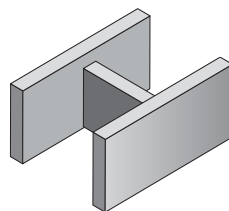
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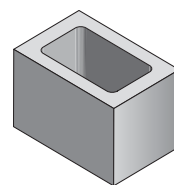
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OPEN END



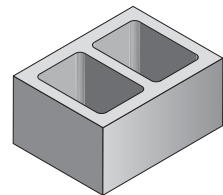
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SPEED BLOCK
MORTARLESS
HEAD JOINT



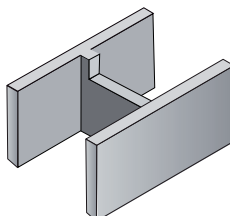
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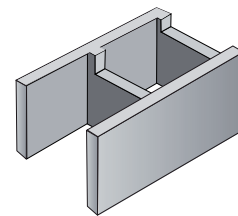
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HALF



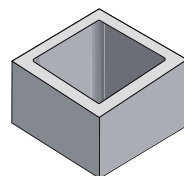
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STANDARD



12X8X16
DOUBLE OPEN END
BOND BEAM



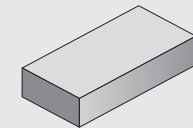
12X8X16
OPEN END
BOND BEAM
(MADE TO ORDER)



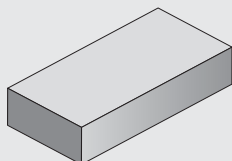
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COLUMN

ACCESSORY UNITS

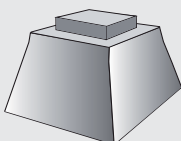
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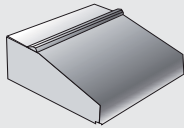
6X2X16
CAP



8X2X16
CAP



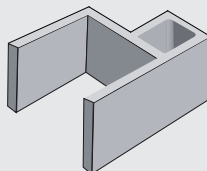
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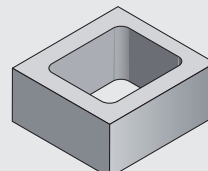
10X4X8
SILL

STRUCTURAL ACCESSORY UNITS

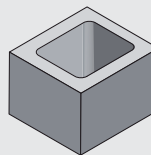
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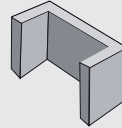
16X8X16
BANJO PILASTER



16X8X16
RING PILASTER



12X8X12
RING PILASTER



8X8X16
"C" ALTERNATE

CMU | COLORS

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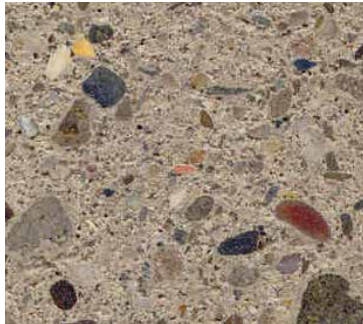
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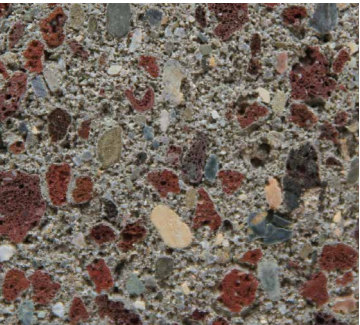
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04-101



82-101



60B407A



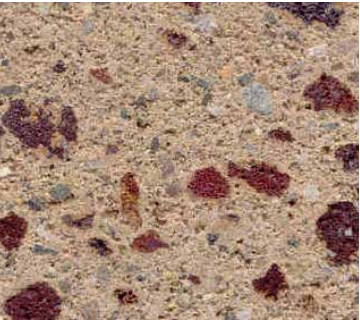
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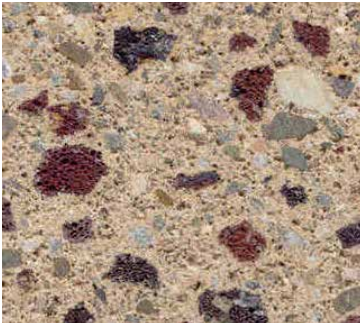
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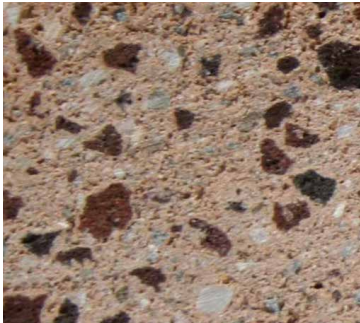
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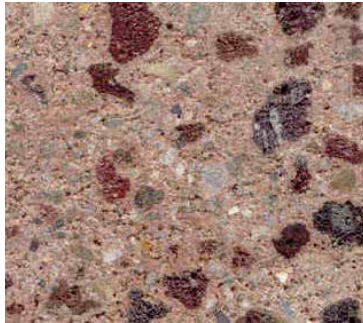
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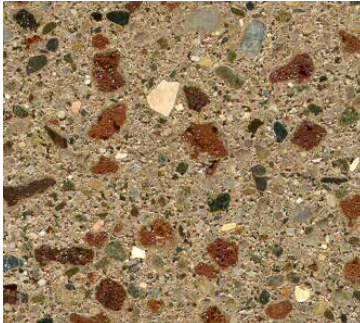
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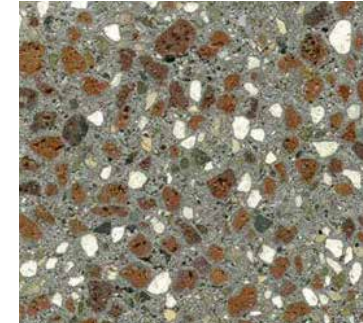
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82B90914B75



60B59804B



20B240C

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BURNISHED



60B613E



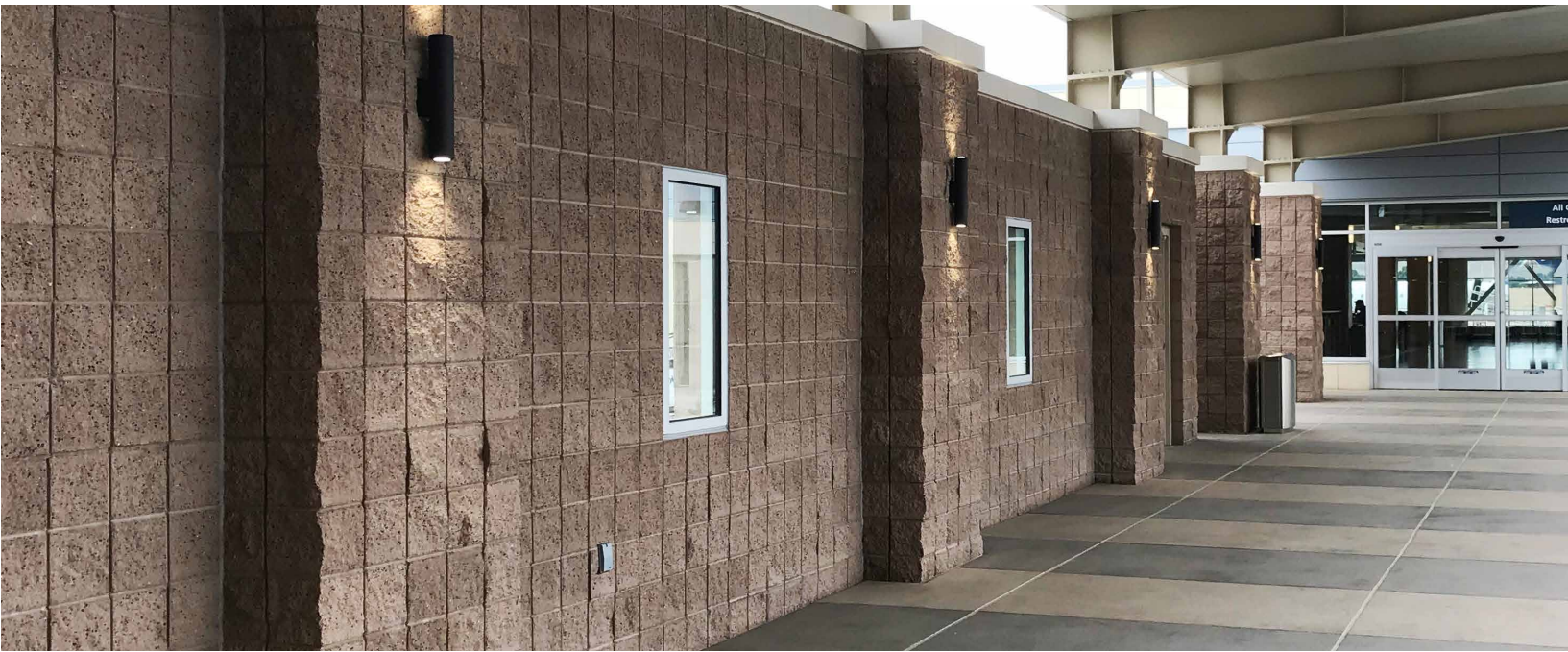
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20B701C



82B401C



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PRECISION



60-101



60B59804B



04-5633.0032



20B404A



20B634C



20B635B5



60B401E



60B407E



60B568A



60B604D6



60B610A5



60B618D



60B620C



60B670C



68B631A



79B407E

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A wide variety of custom colors may be special ordered.

Visit our Architect's Corner | airvolblock.com *"Approved Or Equal"*

or contact your Air Vol Block representative for more information regarding custom colors.

CMU | COLORS

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SPLIT FACE



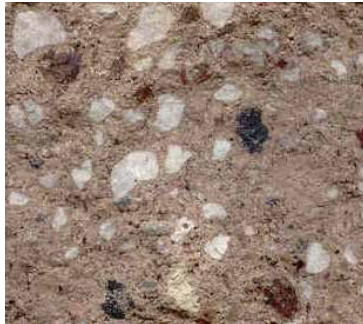
04-101



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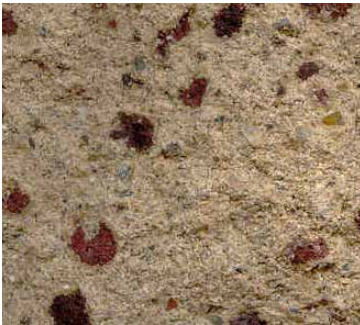
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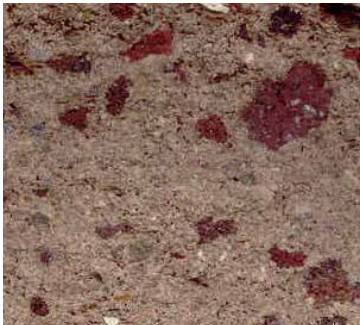
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60-101



60B401A



60B401B



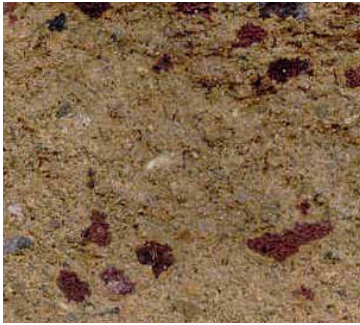
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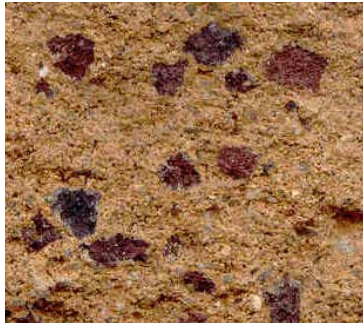
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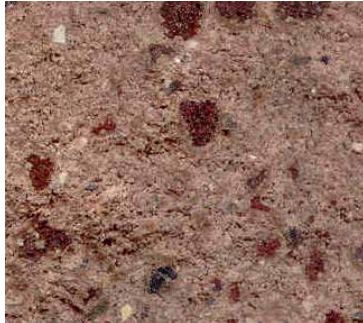
60B403A



60B403B



60B404A



60B404B

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SPLIT FACE



60B404C



60B407A



60B407C



60B541C



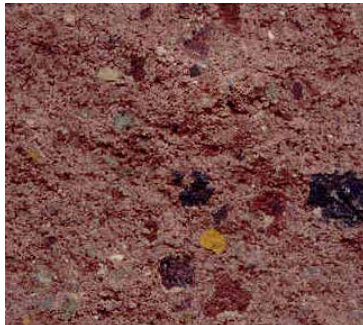
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60B609G



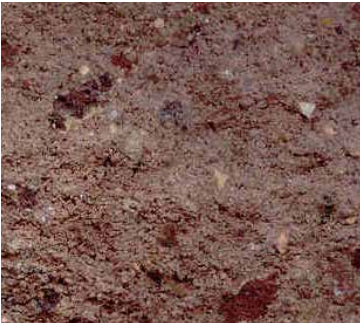
60B610C



60B611D



60B612E



60B613E



60B59804B



78-101

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SPLIT FACE



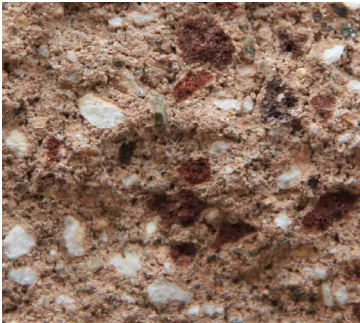
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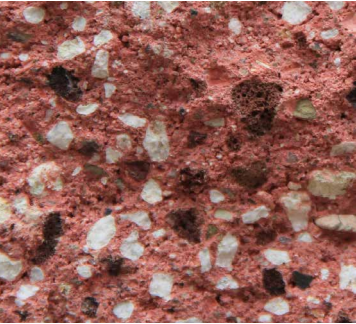
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20B404A



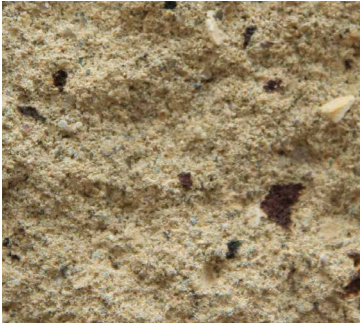
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60B568A



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60B618D



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68B568A



68B631A



79B407E



83B407A

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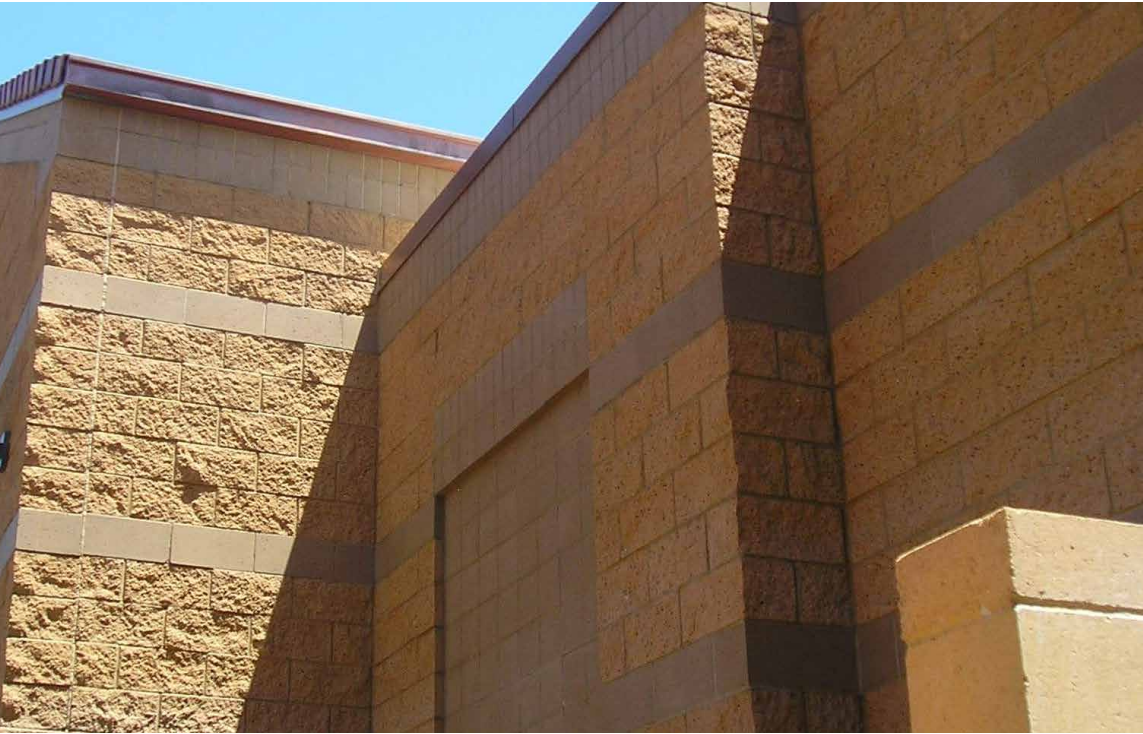
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SPLIT FACE



83B407C



SLUMP



ADOBE



GREY



TAN



141C702-D56




141C-412A

MORTAR | COLORS

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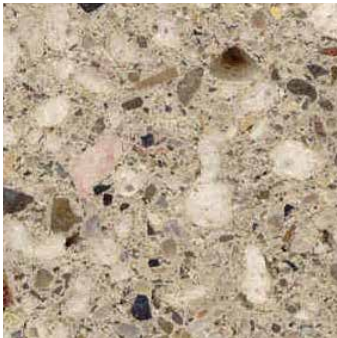
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240-A	240-B	4655A	4655B	4655C	4655D
					
NUTAN	5026B	5026C	5873A	5873B	9993A
					
9993B	9993C	9993D	40570A	40570B	40570C
					
40570D	49069A	49069B	49069D	49772A	49772B
					
49772C	49032A	49032B	49032C	49032D	69772D

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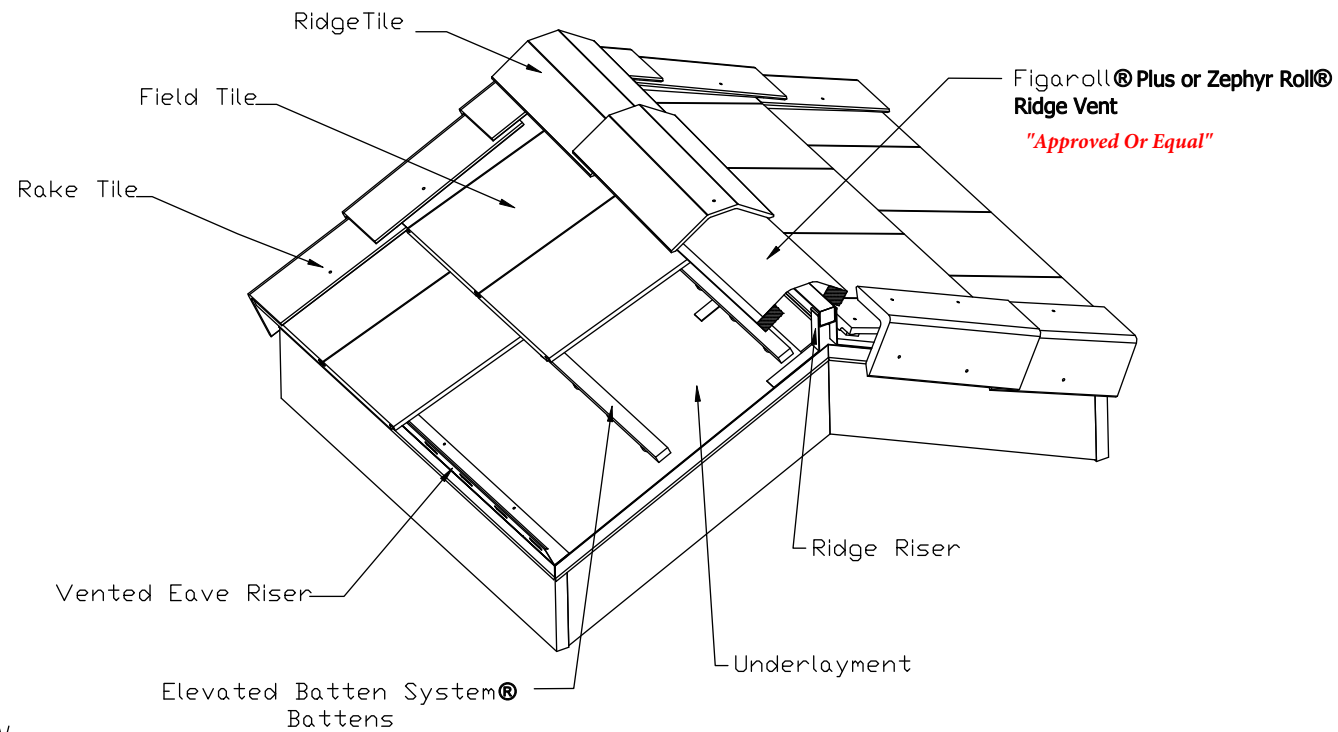
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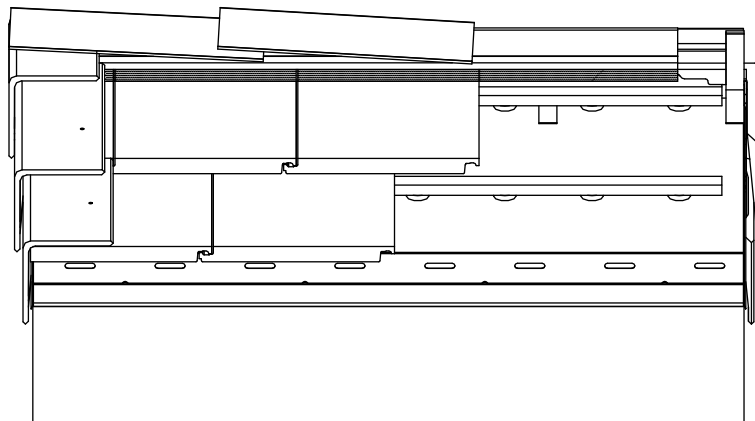
ROOF TILE

Boral™ Cool Roof System

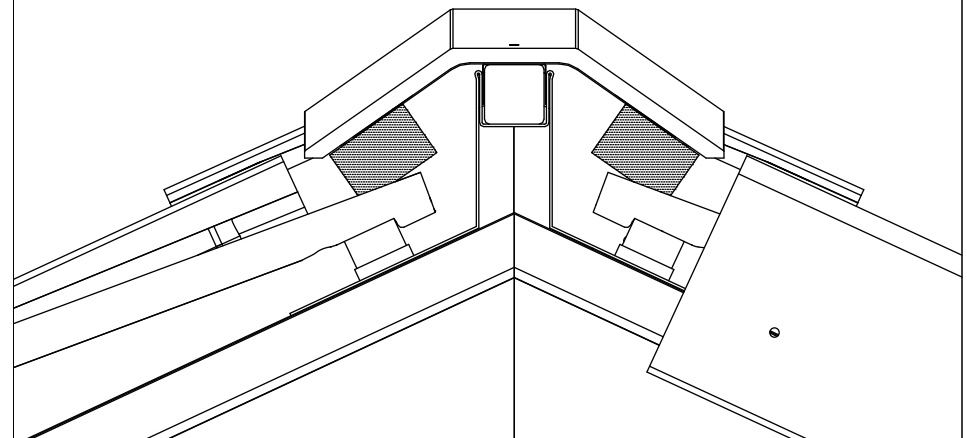
Low Profile Tiles (Shake, Slate, Madera, Cedarlite) *"Approved Or Equal"*

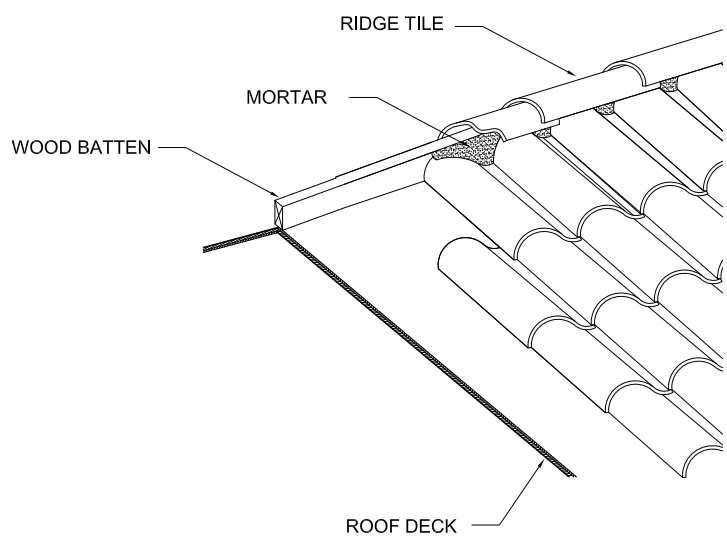


Front View



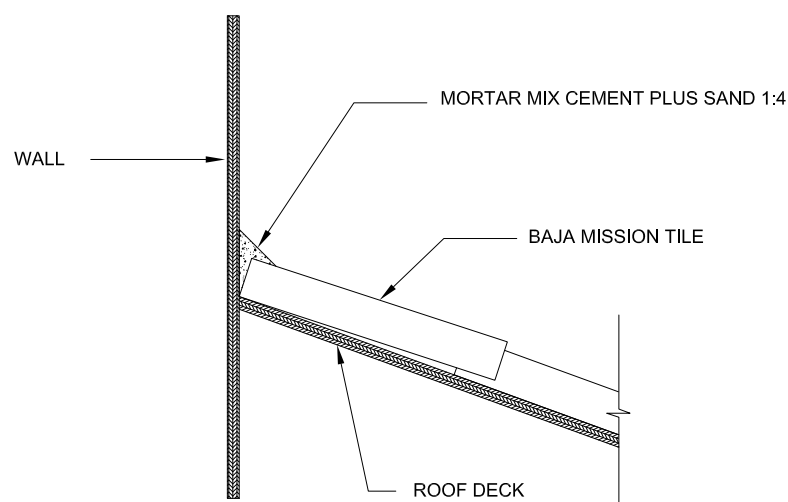
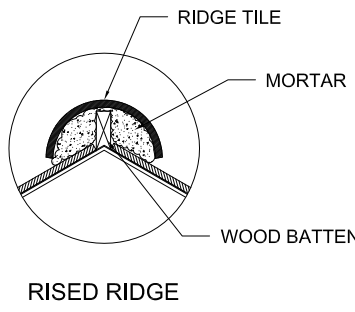
End View-Ridge





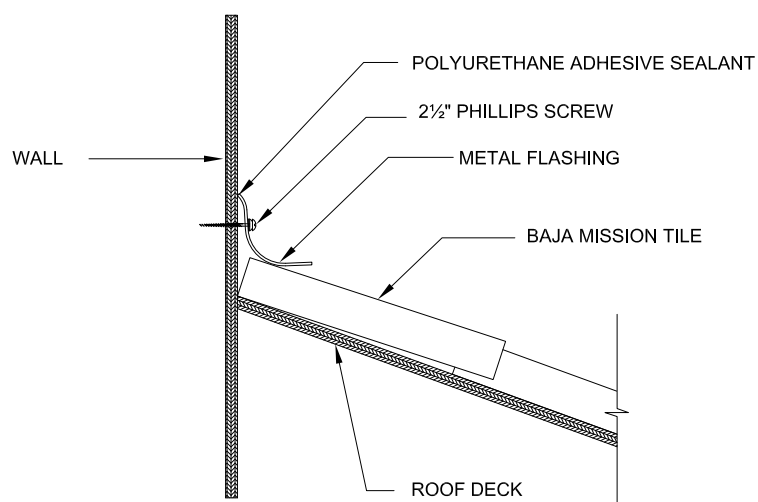
RIDGE INSTALLATION

RECOMMENDED GUIDELINES TO INSTALL THE RIDGE TILE:
-INSTALL 3/4" X 1 1/2" HORIZONTAL WOOD BATTEN AT THE HIGHEST POINT OF THE ROOF TO ALIGN THE RIDGE.
-FILL IN WITH MORTAR AS NECESSARY ON THE SIDE OF THE BATTENS IN ORDER TO PLACE THE RIDGE TILE.



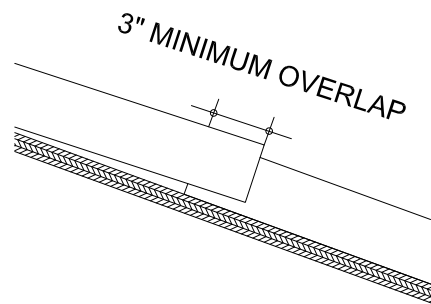
ROOF-TO-UPPER WALL FINISHED DETAIL
MORTAR

IN ORDER TO HAVE BETTER SEALING RESULTS, IT IS RECOMMENDED TO PLACE MORTAR AT THE WALL AND TILE JOINT, AS SHOWN



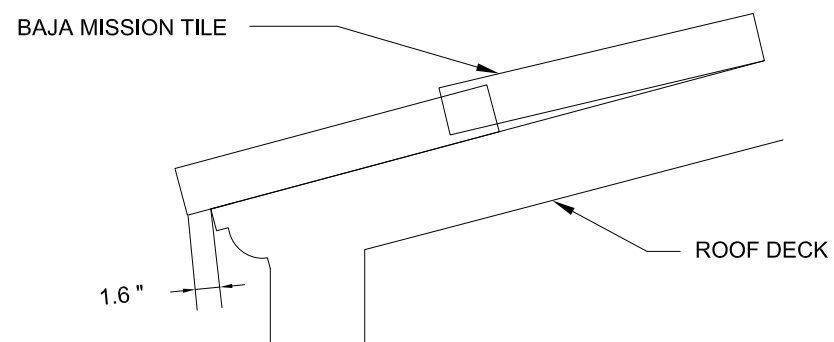
ROOF-TO-UPPER WALL FINISHED DETAIL
METAL FLASHING

TO ENSURE PROPER SEALING, INSTALL METAL FLASHING AS SHOWN, USE 2 1/2" PHILLIP SCREW AND SEAL WITH POLYURETHANE ADHESIVE SEALANT AT JOINT BETWEEN FLASHING AND WALL.



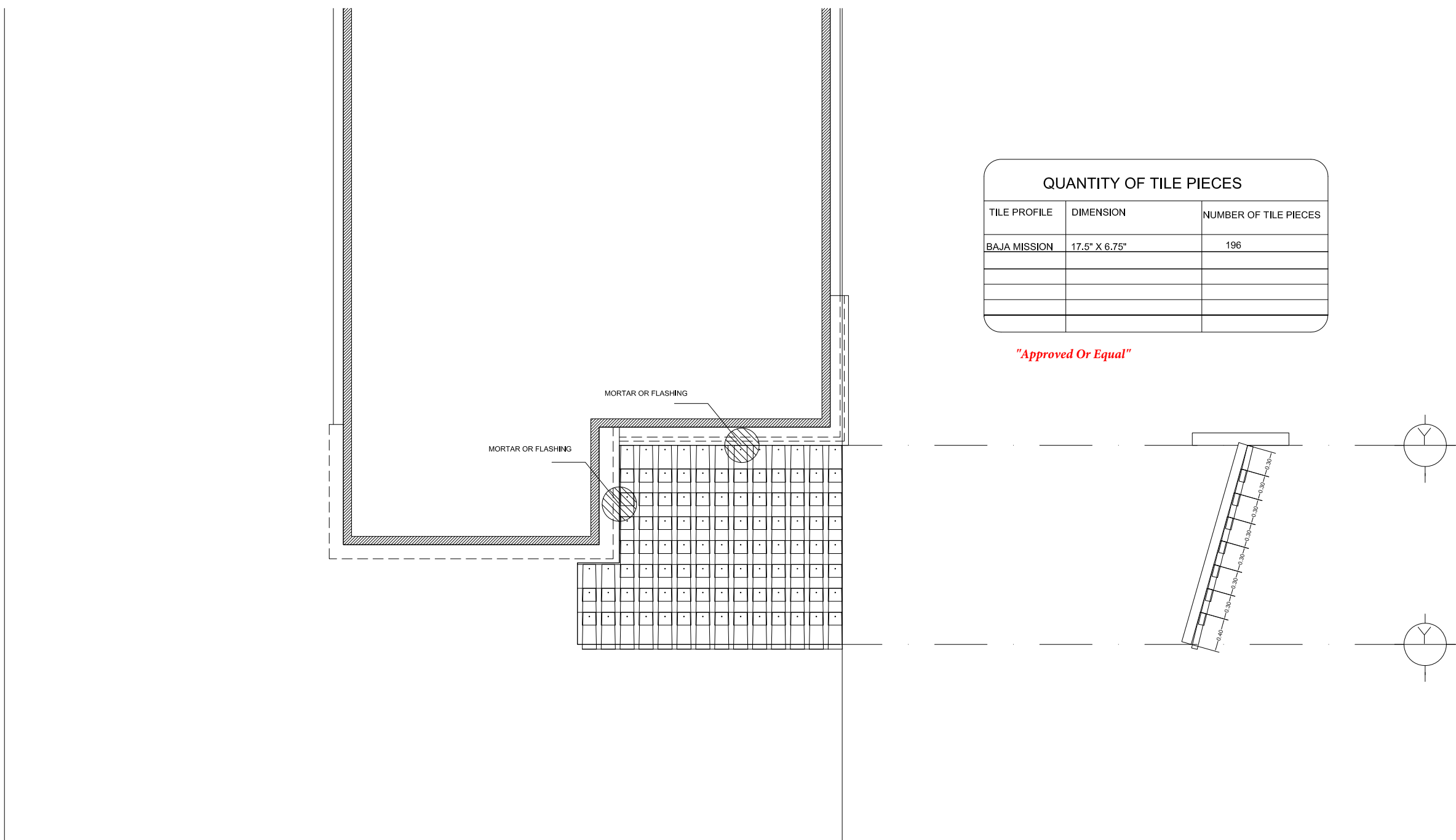
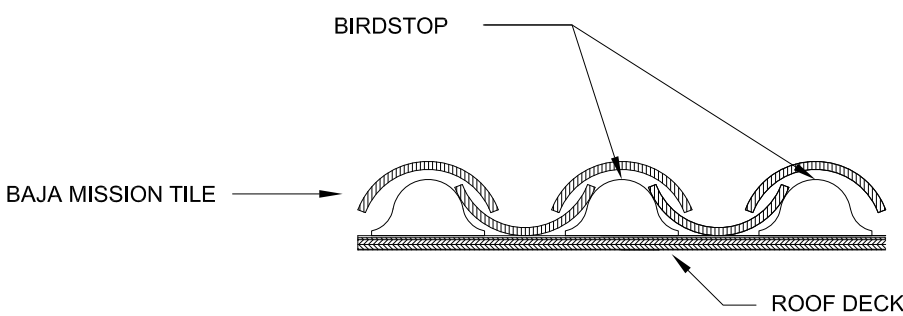
HORIZONTAL COURSE OVERLAP

OVERLAP WILL VARY DEPENDING ON THE ROOF DIMENSIONS AND SHAPE. A 3" MINIMUM OVERLAP IS REQUIRED.



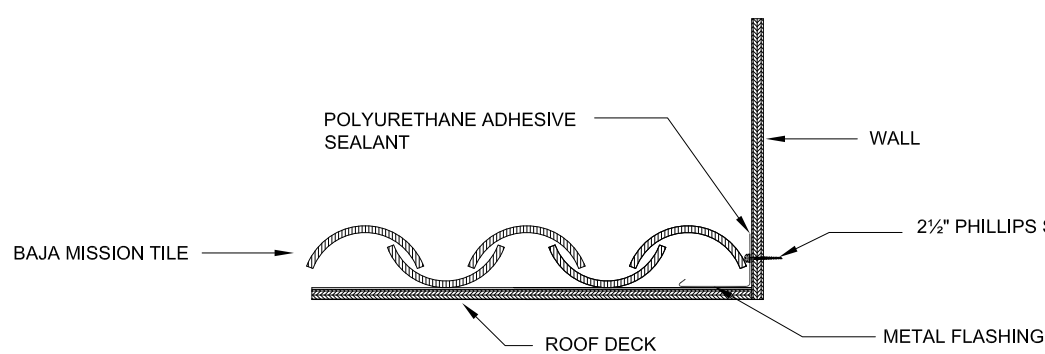
EAVE DETAIL

- THE FIRST COURSE LINE WILL NEED A MINIMUM OF 1.6" OVERHANG.
- IT IS RECOMMENDED TO INSTALL A BIRDSTOP AT THE STARTER TILE TO ALIGN THE FIRST COURSE LINE.



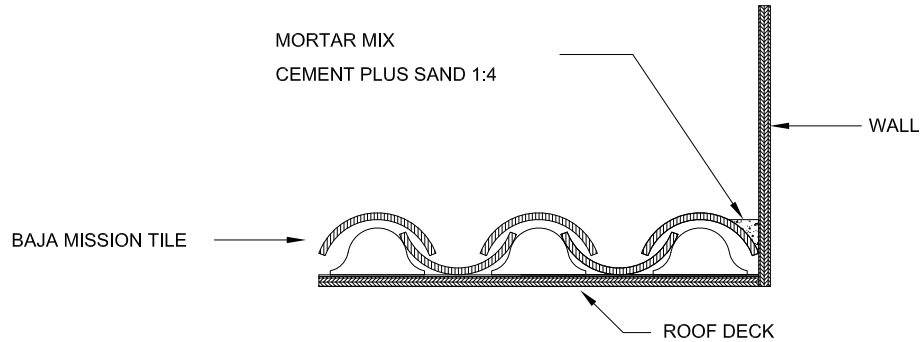
QUANTITY OF TILE PIECES		
TILE PROFILE	DIMENSION	NUMBER OF TILE PIECES
BAJA MISSION	17.5" X 6.75"	195

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ROOF-TO-SIDE WALL FINISHED DETAIL
METAL FLASHING

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TO ENSURE PROPER SEALING, IT IS RECOMMENDED TO INSTALL A METAL FLASHING, AS SHOWN IN THE DRAWING. USE 2 1/2 PHILLIPS SCREW AND FINISH WITH POLYURETHANE ADHESIVE AT FLASHING AND WALL JOINT.



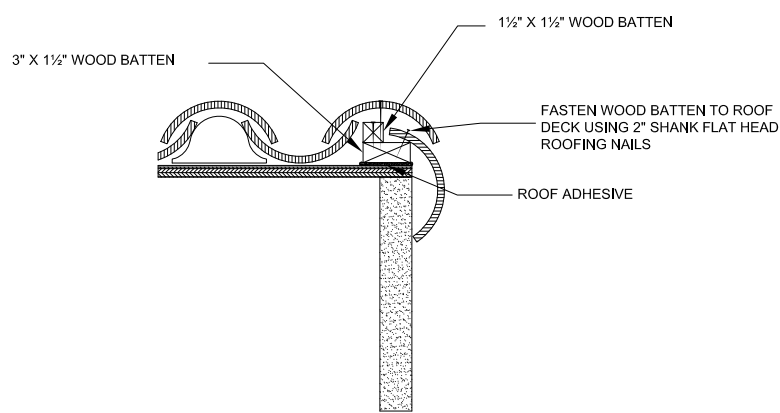
ROOF-TO-SIDE WALL FINISHED DETAIL
MORTAR

"Approved Or Equal"
TO ENSURE PROPER SEALING, APPLY MORTAR AT WALL AND TILE JOINT, AS SHOWN IN THE DRAWING.

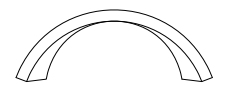
RAKE TILE FASTENING DETAIL

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FOR THE RAKE TILE AT SIDEWALL: FIRST, FASTEN TOGETHER ONE 3" X 1 1/2" WOOD BATTEN NEXT TO ANOTHER 1 1/2" X 1 1/2" WOOD BATTEN, AS SHOWN IN THE DRAWING. ONCE THE BATTENS HAVE BEEN FASTENED, USING A 2" SHANK FLAT HEAD ROOFING NAIL, FASTEN THE RAKE TILE FIRST ON THE SIDE AND LAST, THE COVER TILE OVER WOOD BATTENS AND RAKE TILE.

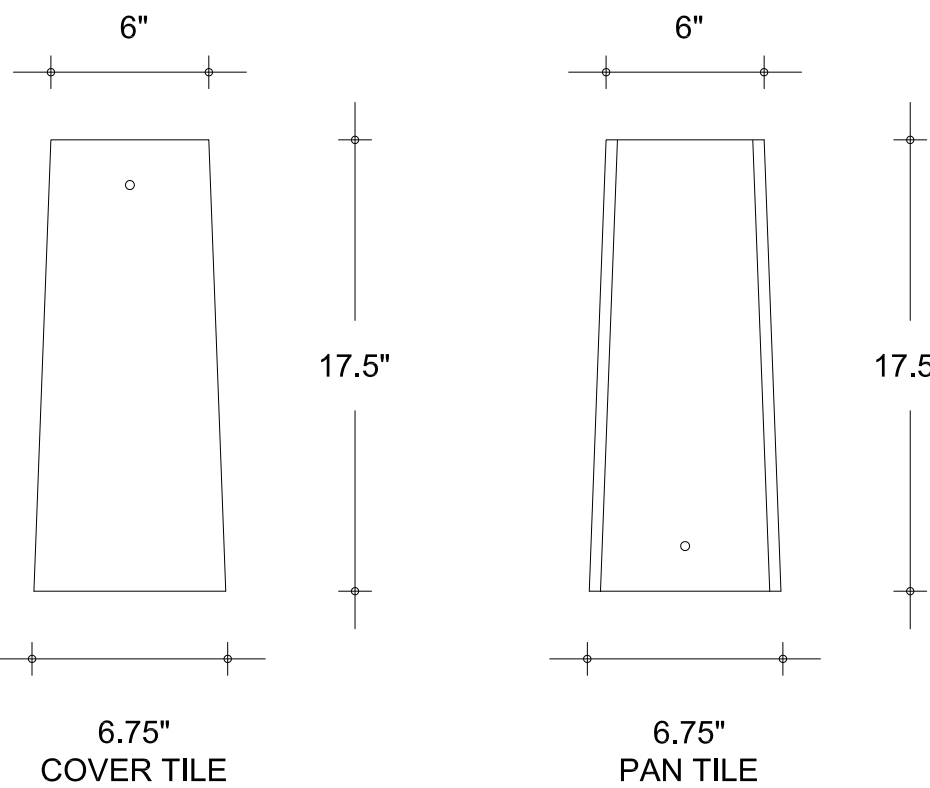
NOTE: IN ORDER TO AVOID WATER INFILTRATIONS AND/OR OTHER ROOF DAMAGE, IT IS RECOMMENDED TO USE ROOF ADHESIVE TO FASTEN THE WOOD BATTEN TO THE ROOF DECK.



TILE BACK 6"



LE FRONT 6.75"



BAJA MISSION TILE

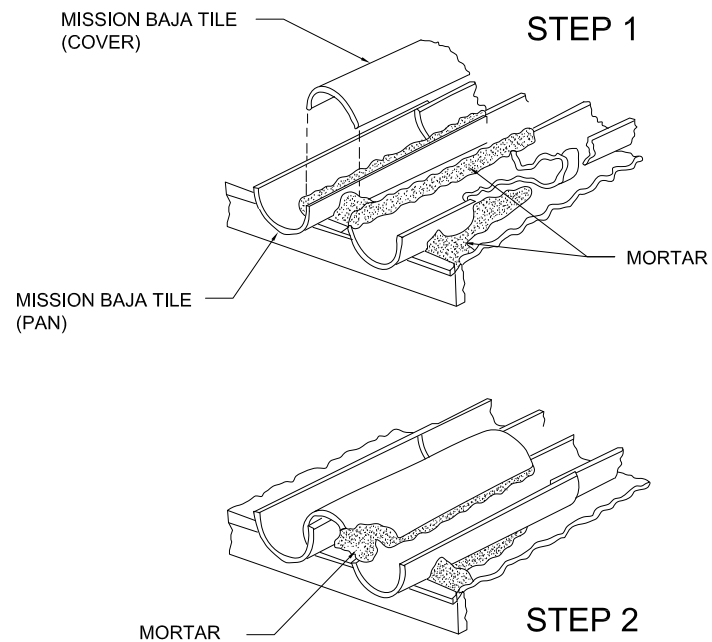
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INSTALLATION NOTE
FOR MORTAR FASTENING IN MODERATE WIND REGIONS, USE A MIX OF CEMENT PLUS SAND (1-4) AND FOLLOW THESE RECOMMENDATIONS:

PAN TILE:
STEP 1:
- APPLY A 10" X 4" LINE OF MORTAR BETWEEN TILE AND ROOF DECK AS SHOWN, IN SUCH MANNER THAT THE TILE LIES COMPLETELY OVER THE MORTAR MIX.

COVER TILE:
STEP 2:
- INSIDE OF EACH PAN TILE APPLY A 10" LONG LINE OF MORTAR, PLACE COVER TILE LYING COMPLETELY OVER THE MORTAR MIX.

PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES WITH THE USE OF FOAM.

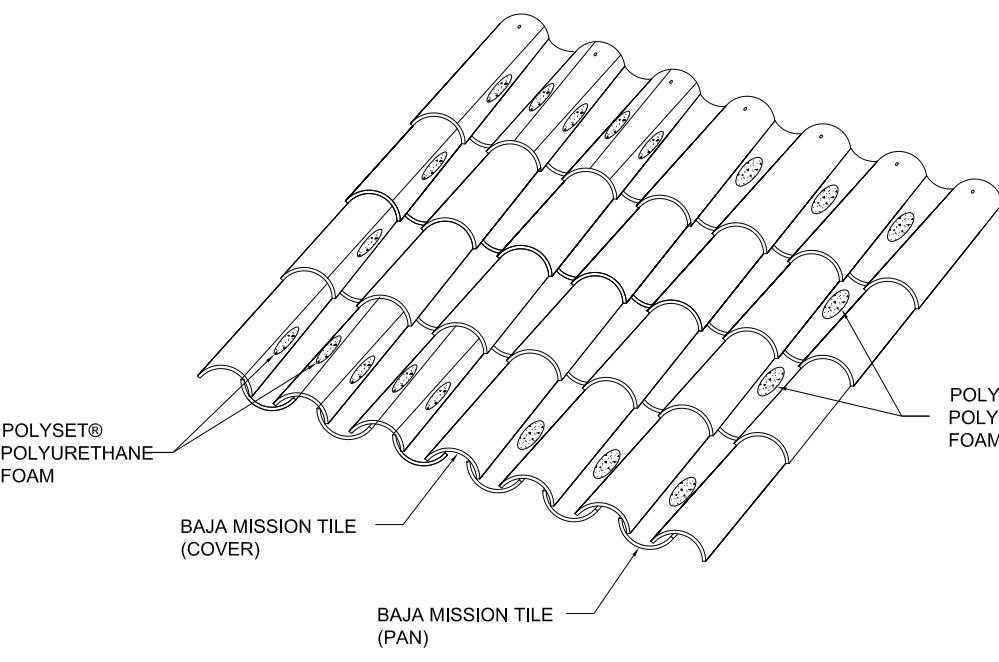


INSTALLATION NOTE
APPLY POLYURETHANE FOAM TO FASTEN THE TILE TO THE ROOF DECK, ESPECIALLY IN MODERATE WIND REGIONS. FOLLOW THESE RECOMMENDATIONS:

PAN TILE:
- APPLY ONE SHOT OF 10" X 2" LONG APPROXIMATELY, SET THE TILE OVER SO THE FOAM EXPANDS AND ATTACHES THE TILE COMPLETELY.

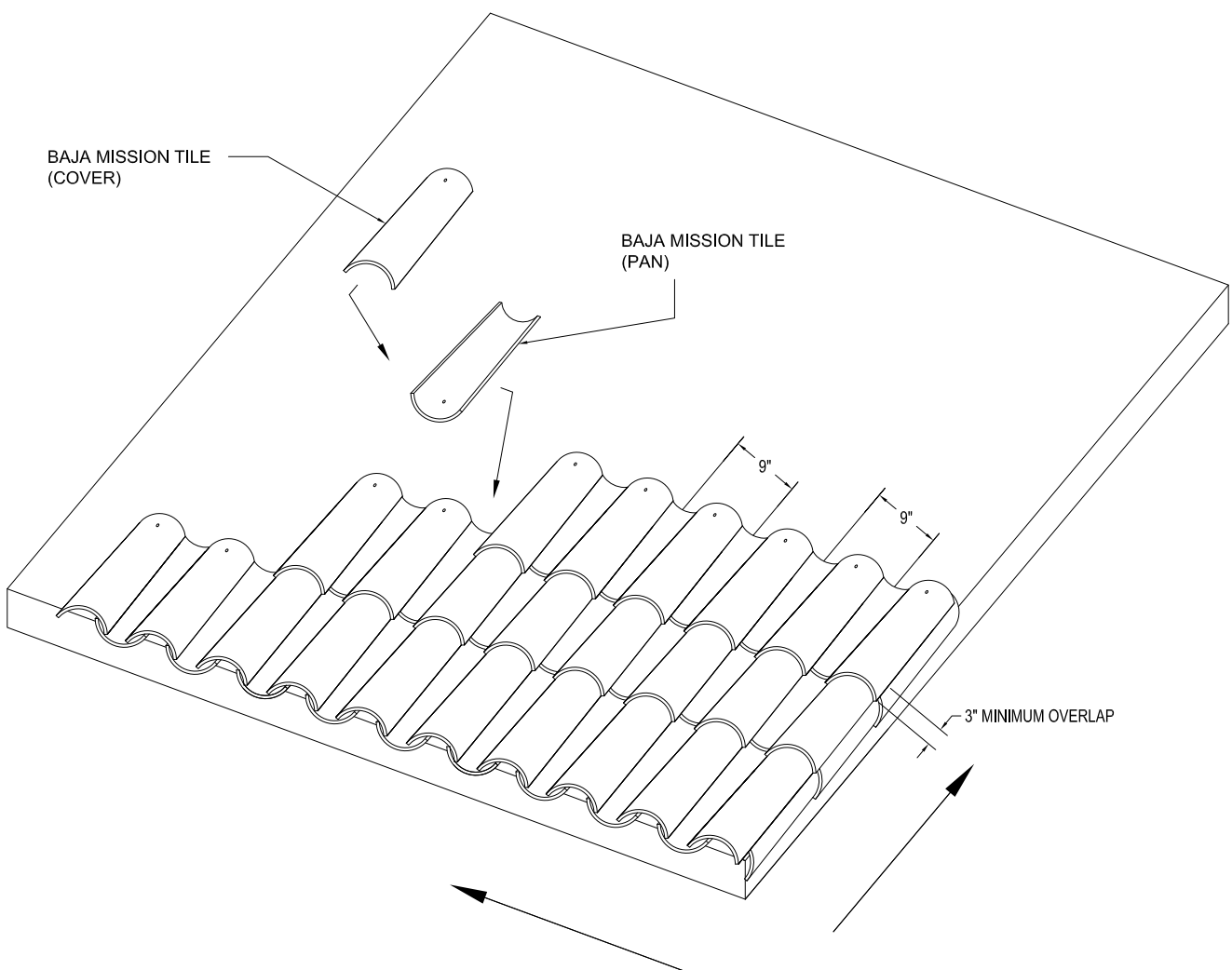
COVER TILE:
- APPLY TWO SHOTS OF 10" X 1" LONG ON EACH SIDE OF THE TILE AND PLACE THE COVER TILE AS SHOWN IN THE DRAWING.

PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES WITH THE USE OF FOAM.



FASTENING OPTION:
POLYURETHANE FOAM

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BAJA MISSION LAYOUT

BAJA MISSION TILE LAYOUT STARTS FROM BOTTOM TO TOP, RIGHT TO LEFT (IT CAN ALSO BE LEFT TO RIGHT), LAYING DOWN COMPLETE COURSES AS SHOWN IN THE DRAWING.

IT IS RECOMMENDED TO MARK VERTICAL LINES EVERY 9" ON CENTER FROM CAP TILE TO TILE BASE, IN ORDER TO OBTAIN BETTER LAYOUT AND DISTRIBUTION.

A MINIMUM 3 INCH OVERLAP MUST BE MAINTAINED FOR EACH TILE.

FOR BEST WATERPROOFING RESULTS, IT IS RECOMMENDED A MINIMUM OF 2:12 OR LOW ROOF PITCH SLOPE.

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BAJA MISSION TILE SPECIFICATIONS

THIS TILE IS MADE OF CLAY, PIGMENTS AND AGGREGATES.

COLOR	VARIES
WIDTH	6.75 INCHES
LENGTH	17.5 INCHES
THICKNESS	0.5 INCH
HEIGHT	2.75 INCHES
WEIGHT PER TILE	4.3 LBS.
WEIGHT PER SQUARE	940 LBS.
PIECES PER SQUARE	220
RESISTANCE PER PIECE	440 LBS.

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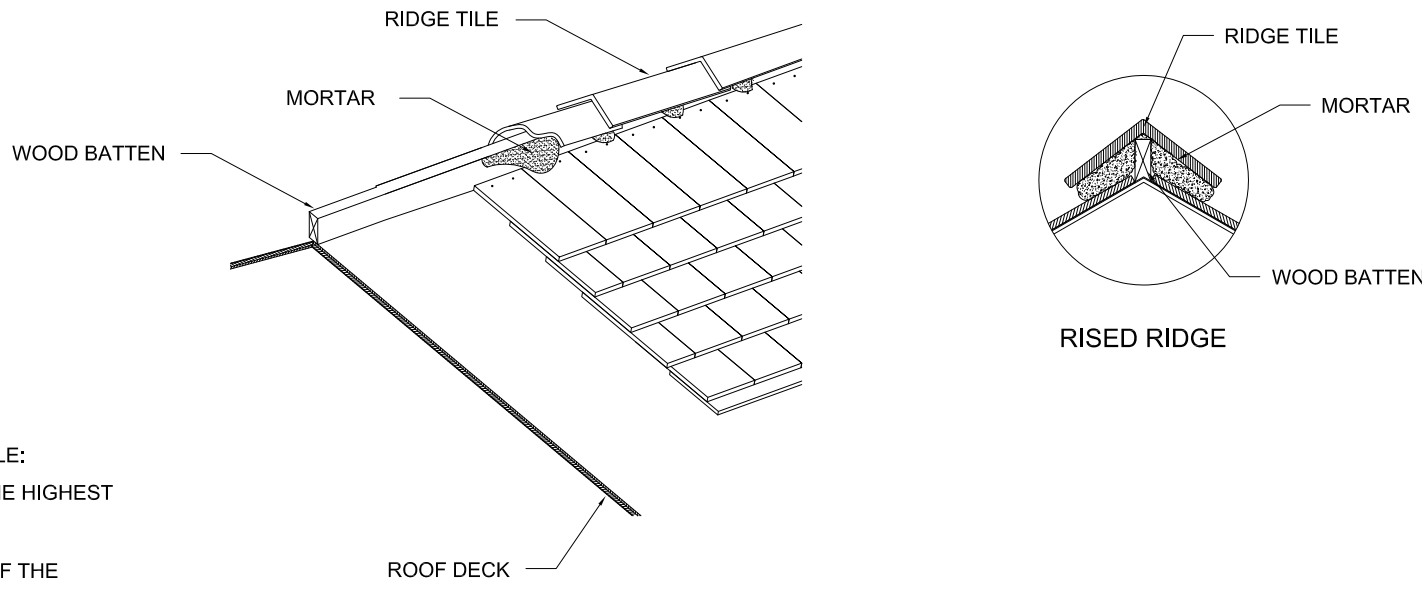
BAJA MISSION TILE MIGHT BE INSTALLED USING DIFFERENT FASTENING SYSTEMS ACCORDING TO THE TILE PROFILE AND WIND AREA.

MINIMUM RECOMMENDED SLOPE FOR BEST WATERPROOFING SYSTEM RESULTS: 2:12, WITH A MINIMUM OVERLAP OF 3 INCHES.

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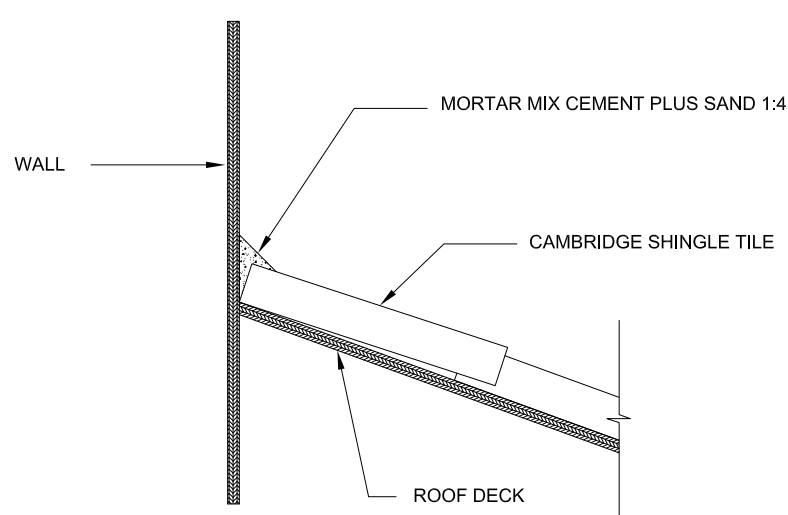
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RIDGE INSTALLATION

RECOMMENDED GUIDELINES TO INSTALL THE RIDGE TILE:
-INSTALL 3/2" X 1 1/2" HORIZONTAL WOOD BATTEN AT THE HIGHEST POINT OF THE ROOF TO ALIGN THE RIDGE.
-FILL IN WITH MORTAR AS NECESSARY ON THE SIDE OF THE BATTENS IN ORDER TO PLACE THE RIDGE TILE.



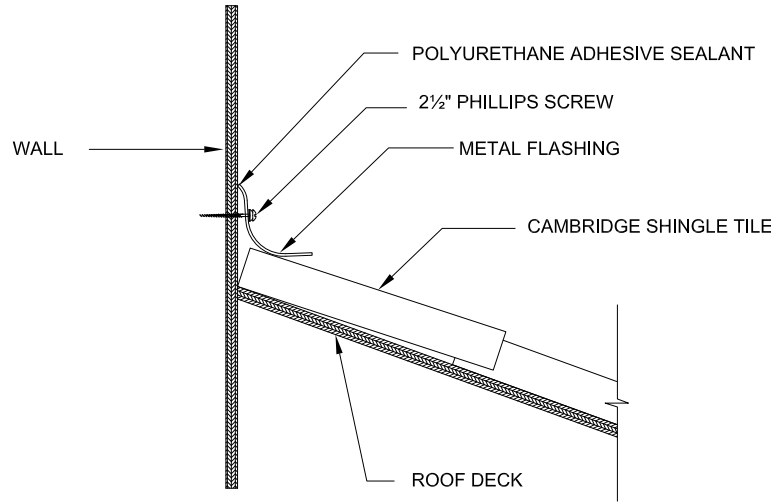
ROOF-TO-UPPER WALL FINISHED DETAIL
MORTAR

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IN ORDER TO HAVE BETTER SEALING RESULTS, IT IS RECOMMENDED TO PLACE MORTAR AT THE WALL AND TILE JOINT, AS SHOWN



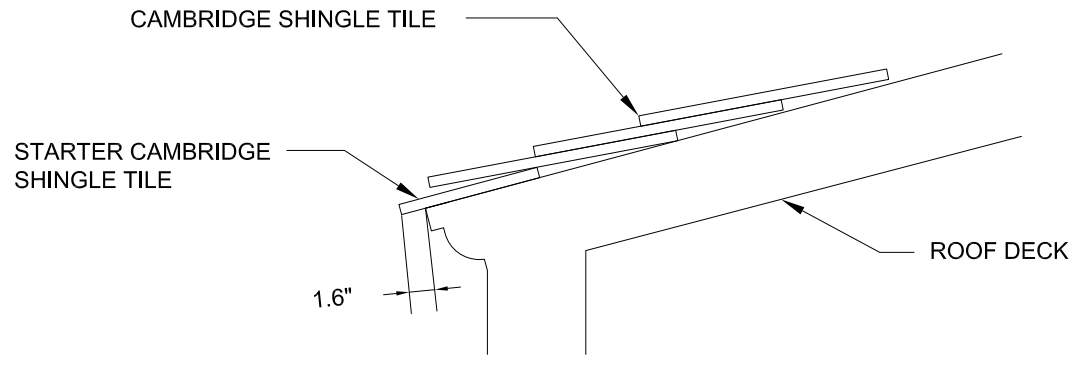
ROOF-TO-UPPER WALL FINISHED DETAIL
METAL FLASHING

"Approved Or Equal"
TO ENSURE PROPER SEALING, INSTALL METAL FLASHING AS SHOWN. USE 2 1/2" PHILLIP SCREW AND SEAL WITH POLYURETHANE ADHESIVE SEALANT AT JOINT BETWEEN FLASHING AND WALL.



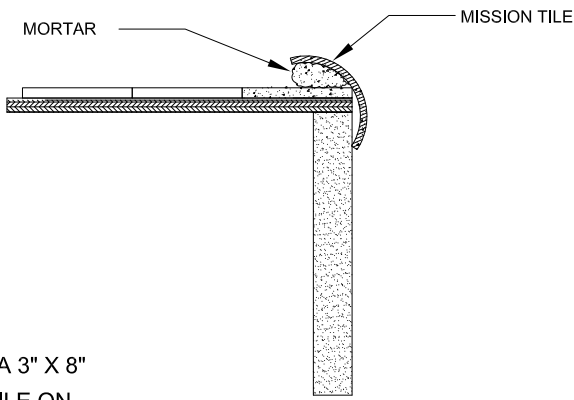
EAVE DETAIL

FIRST COURSE LINE WILL NEED A MINIMUM OF 1.6" OVERHANG.



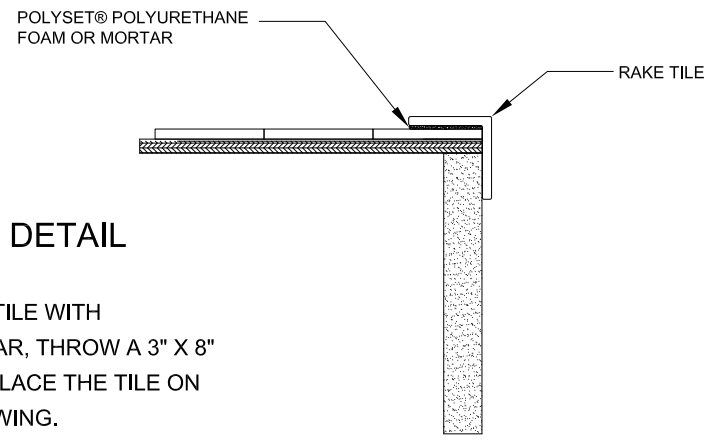
MISSION STYLE RAKE TILE
FASTENING DETAIL

IN ORDER TO FASTEN THE RAKE TILE WITH POLYURETHANE FOAM OR MORTAR, THROW A 3" X 8" LINE OVER THE TILE, AND THEN PLACE THE TILE ON THE SIDE AS SHOWN IN THE DRAWING.



RAKE TILE FASTENING DETAIL

IN ORDER TO FASTEN THE RAKE TILE WITH POLYURETHANE FOAM OR MORTAR, THROW A 3" X 8" LINE OVER THE TILE, AND THEN PLACE THE TILE ON THE SIDE AS SHOWN IN THE DRAWING.



6.75"

.625"

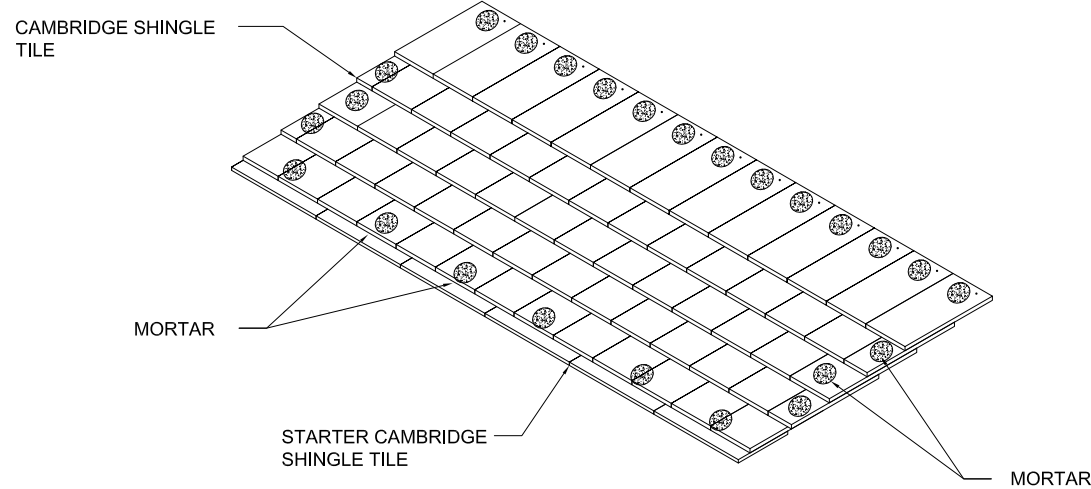
6.75"

15"

CAMBRIDGE SHINGLE TILE

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INSTALLATION NOTE
FOR MORTAR FASTENING IN MODERATE WIND REGIONS, USE A MIX OF CEMENT PLUS SAND (1:4). APPLY A 3" X 8" BEAD OF MORTAR BETWEEN TILE AND ROOF DECK AS SHOWN, IN SUCH MANNER THAT THE TILE LIES COMPLETELY OVER THE MORTAR MIX.
PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES.

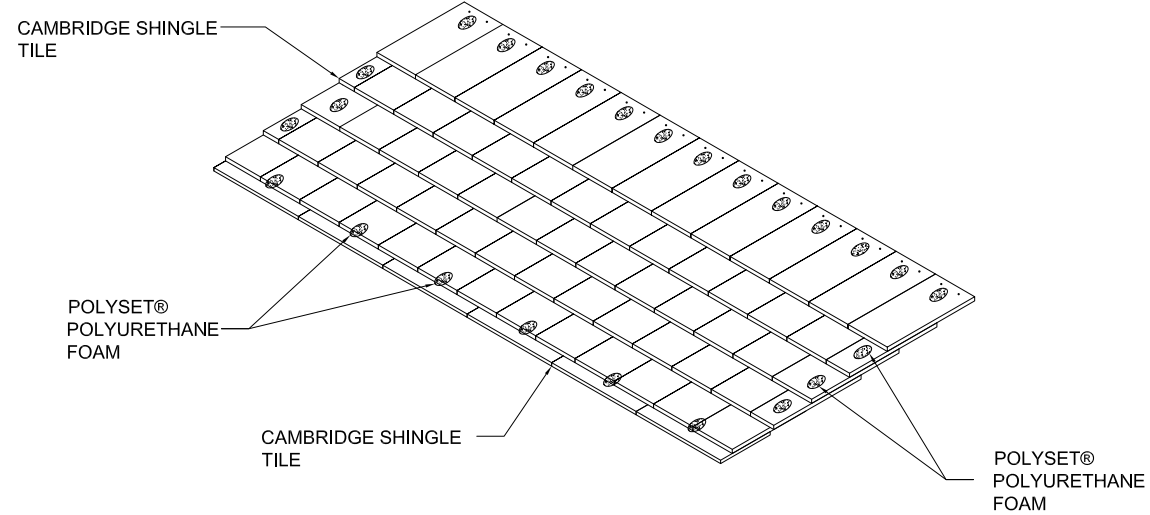


FASTENING OPTION:
MORTAR

INSTALLATION NOTE

APPLY POLYURETHANE FOAM TO FASTEN THE TILE TO THE ROOF DECK, ESPECIALLY IN MODERATE WIND REGIONS. SHOT A 3" X 3" LINE APPROXIMATELY. ALSO APPLY SHOTS OF FOAM BETWEEN TILES OVERLAPPING TO SECURE TILE BONDING.

PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES WITH THE USE OF FOAM.



FASTENING OPTION:
POLYURETHANE FOAM

CAMBRIDGE SHINGLE TILE LAYOUT

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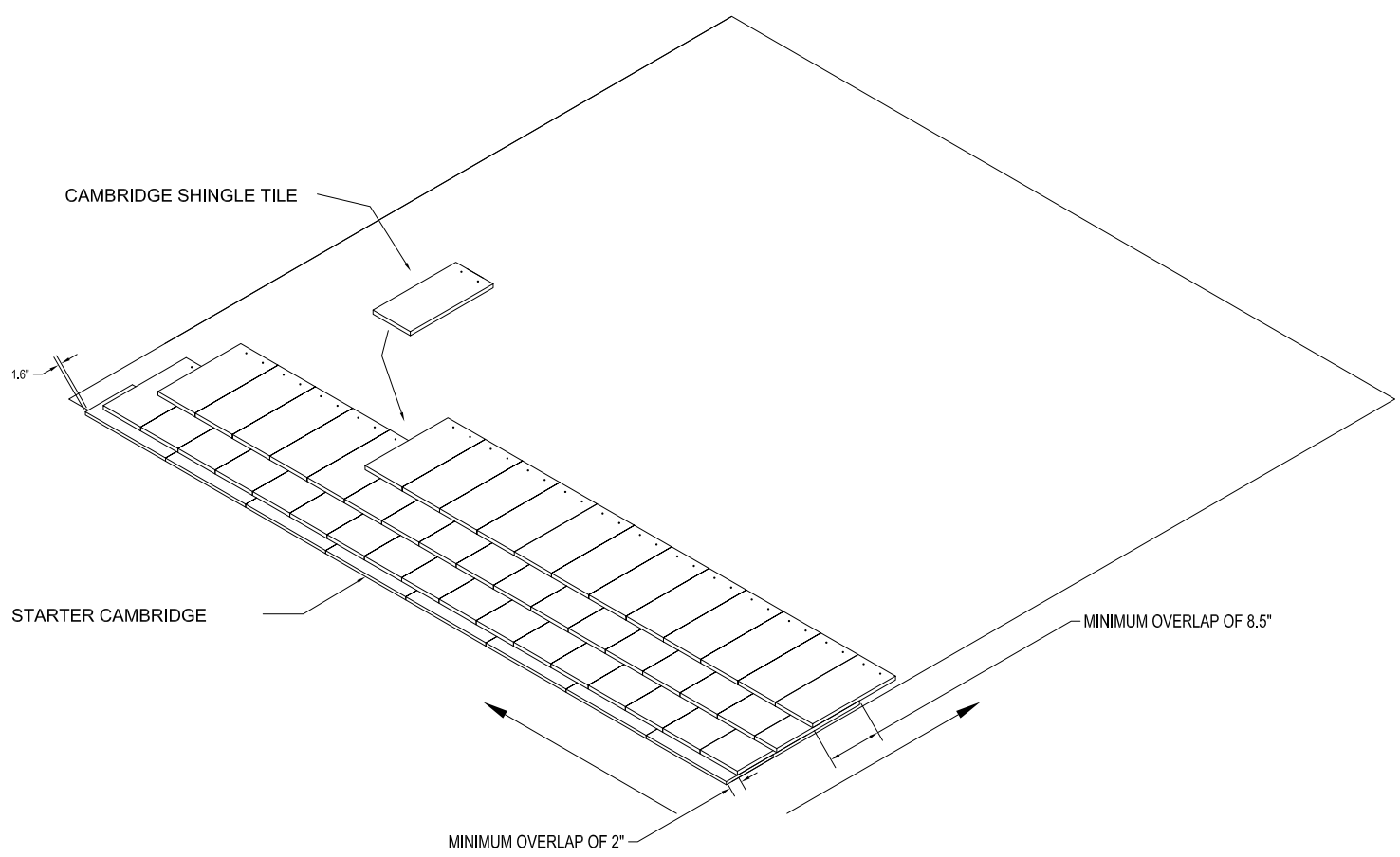
CAMBRIDGE SHINGLE TILE LAYOUT STARTS FROM BOTTOM TO TOP, RIGHT TO LEFT (OR LEFT TO RIGHT, IF APPLICABLE), ENTIRELY LINE COURSES, LEAVING THE OVERLAPPING AS SHOWN IN THE DRAWING.

* STARTER TILE WILL BE INSTALLED WITH 1.6" OVERHANG.

* SECOND LINE COURSE WILL START 2" FROM THE FIRST LINE.

* FOLLOWING COURSES WILL HAVE A MINIMUM OVERLAP OF 8.5".

FOR BEST WATERPROOFING RESULTS, IT IS RECOMMENDED A MINIMUM OF 2:12 SLOPE (OR LOW ROOF PITCH).



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CAMBRIDGE SHINGLE TILE SPECIFICATIONS

THIS TILE IS MADE OF CLAY, PIGMENTS AND AGGREGATES.

COLOR	-----	VARIABLE
WIDTH	-----	6.75 INCHES
LENGTH	-----	15 INCHES
THICKNESS	-----	0.625 INCH
WEIGHT PER TILE	-----	5.05 LBS.
WEIGHT PER SQUARE	-----	1600 LBS.
PIECES PER SQUARE	-----	317
RESISTANCE PER PIECE	-----	440 LBS.

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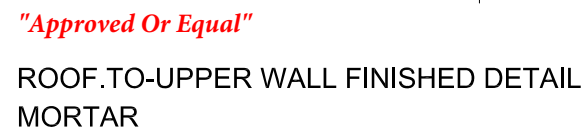
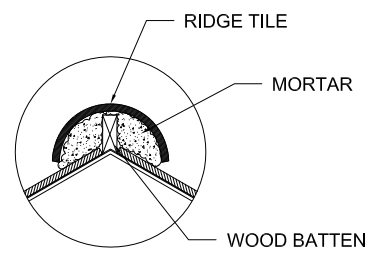
CAMBRIDGE SHINGLE TILE MIGHT BE INSTALLED USING DIFFERENT FASTENING SYSTEMS ACCORDING TO THE TILE PROFILE AND WIND AREA.

MINIMUM RECOMMENDED SLOPE FOR BEST WATERPROOFING SYSTEM RESULTS: 2:12, WITH A MINIMUM OVERLAP OF 8.5 INCHES.

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RECOMMENDED GUIDELINES TO INSTALL THE RIDGE TILE:

- INSTALL 3/4" X 1 1/2" HORIZONTAL WOOD BATTEN AT THE HIGHEST POINT OF THE ROOF TO ALIGN THE RIDGE.
- FILL IN WITH MORTAR AS NECESSARY ON THE SIDE OF THE BATTENS IN ORDER TO PLACE THE RIDGE TILE.



IN ORDER TO HAVE BETTER SEALING RESULTS, IT IS
RECOMMENDED TO PLACE MORTAR AT THE WALL AND TILE
JOINT, AS SHOWN



ROOF-TO-UPPER WALL FINISHED
DETAIL
METAL FLASHING

TO ENSURE PROPER SEALING, INSTALL METAL FLASHING AS SHOWN; USE 2 1/2" PHILLIP SCREW AND SEAL WITH POLYURETHANE ADHESIVE SEALANT AT JOINT BETWEEN FLASHING AND WALL.



TO ENSURE PROPER SEALING, APPLY MORTAR AT WALL AND TILE JOINT, AS SHOWN IN THE DRAWING.



TO ENSURE PROPER SEALING, IT IS RECOMMENDED TO INSTALL A METAL FLASHING, AS SHOWN IN THE DRAWING. USE 2 1/4 PHILLIPS SCREW AND FINISH WITH POLYURETHANE ADHESIVE BETWEEN FLASHING AND WALL JOINT.

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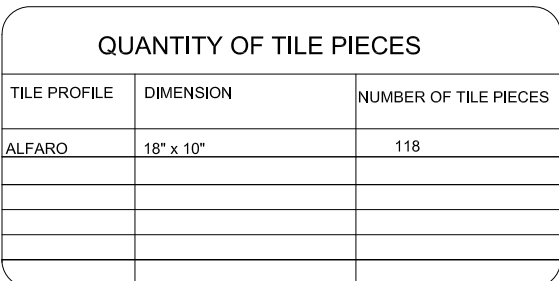
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OVERLAP WILL VARY DEPENDING ON THE ROOF
DIMENSIONS AND SHAPE. A 3" MINIMUM
OVERLAP IS REQUIRED.



FIRST COURSE LINE WILL NEED A MINIMUM OF 1.6" OVERHANG.



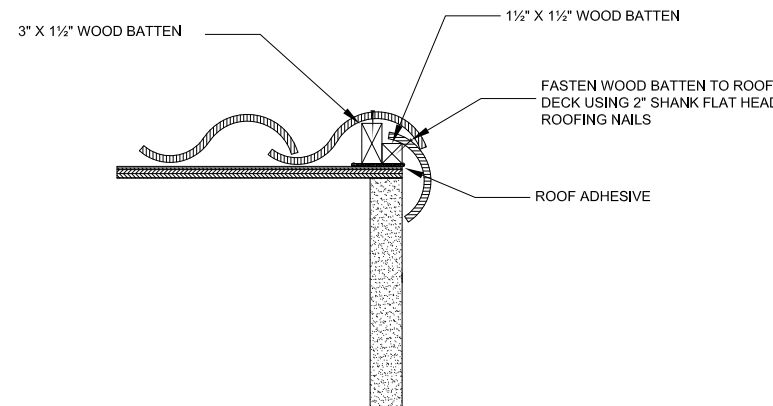
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FOR THE RAKE TILE AT SIDEWALL: FIRST, FASTEN TOGETHER ONE 3" X 1 1/2" WOOD BATTEN NEXT TO ANOTHER 1 1/2" X 1 1/2" WOOD BATTEN, AS SHOWN IN THE DRAWING. ONCE THE BATTENS HAVE BEEN FASTENED, USING A 2" SHANK FLAT HEAD ROOFING NAIL, FASTEN THE RAKE TILE FIRST ON THE SIDE AND LAST, THE COVER TILE OVER WOOD BATTENS AND RAKE TILE.

NOTE: IN ORDER TO AVOID WATER INFILTRATIONS AND/OR OTHER ROOF DAMAGE, IT IS RECOMMENDED TO USE ROOF ADHESIVE TO FASTEN THE WOOD BATTEN TO THE ROOF DECK.



APPLY POLYURETHANE FOAM TO FASTEN THE TILE TO THE ROOF DECK, ESPECIALLY IN MODERATE WIND REGIONS. SHOT A 3" X 3" LINE APPROXIMATELY; ALSO APPLY SHOTS OF FOAM BETWEEN TILES OVERLAPPING TO SECURE TILE BONDING.

PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES WITH THE USE OF FOAM.



"Approved Or Equal"

FOR MORTAR FASTENING IN MODERATE WIND REGIONS, USE A MIX OF CEMENT PLUS SAND (1:4). APPLY A 3" X 6" BEAD OF MORTAR BETWEEN TILE AND ROOF DECK AS SHOWN, IN SUCH MANNER THAT THE TILE LIES COMPLETELY OVER THE MORTAR MIX.

PROJECT SCOPE: FASTENING OF TILES AROUND THE ROOF PERIMETER AND FIELD OVERLAPPING TILES.



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ALFARO TILE LAYOUT

LAYOUT STARTS FROM BOTTOM TO TOP, RIGHT TO LEFT, LAYING DOWN COMPLETE COURSES AS SHOWN IN THE DRAWING.

IT IS RECOMMENDED TO MARK VERTICAL LINES EVERY 8" ON CENTER FROM CAP TILE TO TILE BASE. IN ORDER TO OBTAIN BETTER LAYOUT AND DISTRIBUTION.

A MINIMUM 3 INCH OVERLAP MUST BE MAINTAINED FOR EACH TILE.

FOR BEST WATERPROOFING RESULTS, IT IS RECOMMENDED A MINIMUM SLOPE OF 2:1 OR LOW ROOF PITCH.

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THIS TILE IS MADE OF CLAY, PIGMENTS AND AGGREGATES.

COLOR	-----	VARIES
WIDTH	-----	10 INCHES
LENGTH	-----	18 INCHES
THICKNESS	-----	0.5 INCH
HEIGHT	-----	3 INCHES
WEIGHT PER TILE	-----	6.6 LBS.
WEIGHT PER SQUARE	-----	800 LBS.
PIECES PER SQUARE	-----	120
RESISTANCE PER PIECE	-----	404 LBS.

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ALFARO TILE MIGHT BE INSTALLED USING DIFFERENT FASTENING SYSTEMS ACCORDING TO THE TILE PROFILE AND WIND AREA.

MINIMUM RECOMMENDED SLOPE FOR BEST WATERPROOFING SYSTEM RESULTS: 2:12, WITH A MINIMUM OVERLAP OF 3 INCHES.

THESE VALUES AND DRAWINGS SHOWN ARE INTENDED FOR REFERENCE AND MAY VARY FROM CASE TO CASE. REDLAND CLAY TILE EXPRESSLY DISCLAIMS ANY WARRANTIES EXPRESSED OR IMPLIED BY ANY INFORMATION HEREIN.

Southern CALIFORNIA

CONCRETE ROOF TILE COLLECTIONS

**NEWPOINT**
CONCRETE ROOF TILE

"Approved Or Equal"

Westlake
Royal Roofing Solutions™

"Approved Or Equal"



Asphalt Shingle

139°

attic temperature

"Approved Or Equal"

Concrete Tile

94°

attic temperature

"Approved Or Equal"

Why Tile?

NATURAL PROTECTION

Attic temperatures measured using identical heat sources simulating the sun's radiation comparing Newpoint™ Cool Roof System to a common asphalt shingle installation. The result is less heat in the attic and lower energy bills.

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Material Matters.



BEAUTY MATTERS

Our Newpoint™ concrete tiles have texture and substance, creating a true multidimensional look for your roof. Their natural colorways harmonize easily with other exterior building elements.

DURABILITY MATTERS

Newpoint™ engineered tile is specifically designed for new build and reroof, helping provide Floridians protection from the elements.

VALUE MATTERS

Westlake Royal Roofing Solutions™ stands behind the quality of our roof tile with a Fully Transferable, Non-Prorated Limited Lifetime Warranty.

SUSTAINABILITY MATTERS

Newpoint™ roof tile is locally made and sourced in Southern California.



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Color Matters.

As the market leader, we strive to enhance the curb appeal of your home. We continuously develop new colors to harmonize with the shifting architectural trends in Southern California. We take pride in the color quality and blending we provide.

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3 STYLES

Newpoint™ concrete roof tile easily harmonizes with all three dominant architectural styles.

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TRADITIONAL

American adaptations of regional home styles from other time periods or areas of the world. Often mixed references.

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MEDITERRANEAN
TUSCAN
SPANISH MISSION
CRAFTSMAN / BUNGALOW
COLONIAL



TRANSITIONAL

Prefers the clean lines of contemporary architecture, but draws heavily on details and styles from traditional architecture.

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RANCH / SPLIT LEVEL
PRAIRIE STYLE
MIXED LOOKS



CONTEMPORARY

Characterized by a preference for clean lines, open concepts, decoration, ample light sources, large windows, and lack of round forms.

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MODERN
MID-CENTURY MODERN



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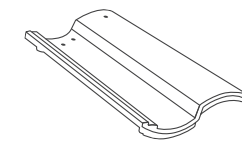
Barcelona | Casa Grande Blend

"Approved Or Equal"

HIGH & MEDIUM TILE PROFILE COLLECTIONS



Barcelona

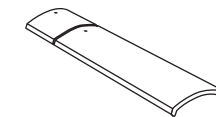


Barcelona is reminiscent of the Spanish roofs found on early missions in California, dramatically capturing the beautiful, rustic appearance of the Old World.

P. 13

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Boosted Barcelona Caps

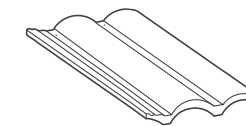


Available installation application of Barcelona 900 which creates the appearance of an authentic mortar-boosted tile.

P. 19

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Villa 900



Emulates beautiful Mediterranean styles found in Italy and Southern France.

P. 21

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"Approved Or Equal"

Barcelona | Salerno Clay



"Approved Or Equal"

Boosted Barcelona | Cliffside



"Approved Or Equal"

Villa | Casa Grande Blend



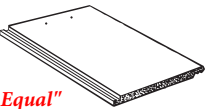
"Approved Or Equal"
Slate | Charcoal Brown Blend

"Approved Or Equal"

LOW PROFILE
COLLECTIONS



**Saxony® 900
Slate**

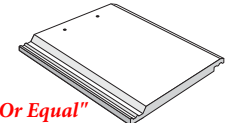


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Beautiful design representative of styles found in England, Northern Europe and the US Eastern Seaboard. Versatile enough to accentuate any architectural style.

P. 25

**Saxony® 900
Country Slate**

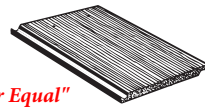


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Unique beveled edges precisely define each roof tile for a staggered appearance, while its distinctive slate texture accurately reproduces the appearance of its natural counterpart.

P. 29

**Saxony® 900
Shake**



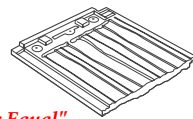
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Captures rustic beauty of hand-hewn shakes. Ideal for French Country, Victorian Craftsman or Cottage architectural styling.

P. 31

DESIGNER PRODUCT

Madera 900



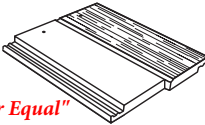
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Madera 900 is the most affordable, authentic replication of a hand-split cedar shake roof available.

P. 35

DESIGNER PRODUCT

**Saxony® 900 Split
Old English Thatch**



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Split Old English Thatch combines the look of a natural slate with the varied appearance of a hand-hewn split tile capturing the charming architecture of an old English countryside

P. 37

DESIGNER PRODUCT

**Saxony® 900
Hartford® Slate**



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Hartford® Slate receives a surface texture designed to emulate the surface of natural slate. Natural slate is the traditional roofing material used for homes in the Eastern States, Great Britain and Northern Europe.

P. 39



"Approved Or Equal"
Split Old English Thatch | Autumnwood



"Approved Or Equal"
Madera | Mountainwood



"Approved Or Equal"
Madera | Tahoe Blend



Barcelona

"Approved Or Equal"



Barcelona | Goldenrod

"Approved Or Equal"

Dunes Tan
1BCCS0198



CRRC Rated Product - 0942-0074
Ref: .29 / Emi: .89 / SRI: 30 / Aged SRI: 30

Charleston
1BCCS6070



CRRC Rated Product - 0942-0073
Ref: .29 / Emi: .87 / SRI: 29 / Aged SRI: 31

"Approved Or Equal"

Goldenrod
1BCCS6116



CRRC Rated Product - 0942-0043
Ref: .32 / Emi: .90 / SRI: 34 / Aged SRI: 34

Canyon Red
1BCCS7172



CRRC Rated Product - 0942-0212
Ref: .28 / Emi: .89 / SRI: 29

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Morning Rose
1BCCS7310



CRRC Rated Product - 0942-0015
Ref: .17 / Emi: .90 / SRI: 15 / Aged SRI: 23

Casa Grande Blend
1BCCS6169



CRRC Rated Product - 0942-0014
Ref: .23 / Emi: .91 / SRI: 23 / Aged SRI: 24

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Barcelona *"Approved Or Equal"*

Autumn Blend
1BCCS6160



CRRC Rated Product - 0942-0019
Ref: .23 / Emi: .90 / SRI: 23 / Aged SRI: 24

Bronze Pearl Blend
1BCCS0300



CRRC Rated Product - 0942-0187
Ref: .26 / Emi: .91 / SRI: 27 / Aged SRI: 26

Tesoro Blend
1BCCS3270



CRRC Rated Product - 0942-0193
Ref: .20 / Emi: .90 / SRI: 19 / Aged SRI: 22

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Cliffside
1BCCS3940



CRRC Rated Product - 0942-0017
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Camelot
1BCCS7954



CRRC Rated Product - 0942-0010
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Red Castle
1BCCS7970



CRRC Rated Product - 0942-0016
Ref: .23 / Emi: .92 / SRI: 24 / Aged SRI: 26

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Marbled Terra Cotta
1BCCS6129



CRRC Rated Product - 0942-0020a
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Terra Cotta Flashed - Slurry Finish
1BCSS6300



CRRC Rated Product - 0942-0018
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Sunrise - Slurry Finish
1BCSS6112



CRRC Rated Product - 0942-0024
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Copper Mountain Blend
1BCCS6099




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California Mission Blend
1BCCS6464



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Garnet Blend
1BCCS3182



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"Approved Or Equal"

Salerno Clay
1BCCS6330



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Verona Clay
1BCCS7330



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Santa Catarina Blend
1BCCS6036



CRRC Rated Product - 0942-0076
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Barcelona


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Apple Bark
1BCCS0431



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Monte Sereno Blend
1BCCS3280



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Buckskin
1BCCS0141



CRRC Rated Product - 0942-0009
Ref: .22 / Emi: .90 / SRI: 22 / Aged SRI: 24


"Approved Or Equal"

Ocean Jasper Blend
1BCCS4071



CRRC Rated Product - 0942-0189
Ref: .17 / Emi: .93 / SRI: 17 / Aged SRI: 19

Sahara Quartz Blend
1BCCS4072



CRRC Rated Product - 0942-0190
Ref: .19 / Emi: .94 / SRI: 20 / Aged SRI: 24

Sea Pearl Blend
1BCCS4070



CRRC Rated Product - 0942-0186
Ref: .19 / Emi: .91 / SRI: 18 / Aged SRI: 20

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La Terra Blend
1BCCS6031



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Smokey Topaz Blend
1BCCS3181



CRRC Rated Product - 0942-0191
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Gulfstream
1BCCS4960



CRRC Rated Product - 0942-0013
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"Approved Or Equal"

Sepia
1BCCS3370



CRRC Rated Product - 0942-0198
Ref: .11 / Emi: .90 / SRI: 8

Saddleback Blend
1BCCS3030



CRRC Rated Product - 0942-0199
Ref: .11 / Emi: .90 / SRI: 8

Charcoal Brown Blend
1BCCS1132



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Ref: .18 / Emi: .91 / SRI: 17 / Aged SRI: 19

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Boosted Barcelona Caps

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Boosted Barcelona | Casa Grande Blend

California Mission Blend
1BEC56464K



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Cliffside
1BEC53940K



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Gulfstream
1BEC54960K



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"Approved Or Equal"

Copper Mountain Blend
1BEC56099K



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Casa Grande Blend
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Buckskin
1BEC50141K



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Morning Rose "Approved Or Equal"
1BEC57310K



CRRC Rated Product - 0942-0015
Ref: .17 / Emi: .90 / SRI: 15 / Aged SRI: 23

"Approved Or Equal"



Boosted Barcelona | Casa Grande Blend



Villa 900

"Approved Or Equal"



"Approved Or Equal"

Dunes Tan
1VICS0198



CRRC Rated Product – 0942-0074
Ref: .29 / Emi: .89 / SRI: 30 / Aged SRI: 30

Charleston
1VICS6070



CRRC Rated Product – 0942-0073
Ref: .29 / Emi: .87 / SRI: 29 / Aged SRI: 31

"Approved Or Equal"

Goldenrod
1VICS6116



CRRC Rated Product – 0942-0043
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Sunrise - Slurry Finish
1VISS6112



CRRC Rated Product- 0942-0024
Ref: .36 / Emi: .93 / SRI: 41 / Aged SRI: 37

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Buckskin
1VICS0141



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Apple Bark
1VICS0431



CRRC Rated Product - 0942-0007
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"Approved Or Equal"

"Approved Or Equal"

Casa Grande Blend
1VICS6169



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California Mission Blend
1VICS6464



CRRC Rated Product - 0942-0008
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Cliffside
1VICS3940



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Desert Sage
1VICS0024



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Bronze Pearl Blend
1VICS0300



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Smokey Topaz Blend
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"Approved Or Equal"

Red Castle
1VICS7970



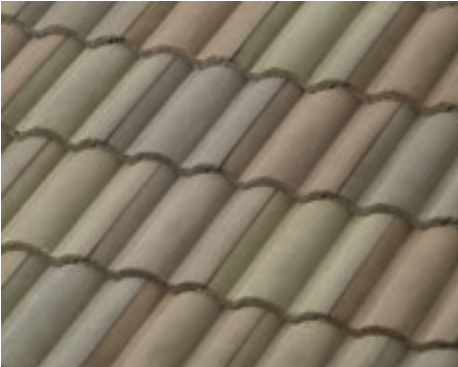
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Sahara Quartz Blend
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Ref: .19 / Emi: .94 / SRI: 20 / Aged SRI: 24

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Brown Blend
1VICS3233



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1VICS3030



CRRC Rated Product - 0942-0199
Ref: .11 / Emi: .90 / SRI: 8

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Ocean Jasper Blend
1VICS4071



CRRC Rated Product - 0942-0189
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Sea Pearl Blend
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Sepia
1VICS3370

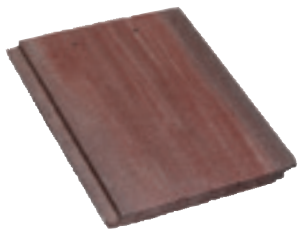


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Ref: .11 / Emi: .90 / SRI: 8

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Villa | Red Castle



Saxony® 900 Slate

"Approved Or Equal"



Slate | Charleston

"Approved Or Equal"

Dunes Tan
1FACS0198



CRRC Rated Product - 0942-0074
Ref: .29 / Emi: .89 / SRI: 30 / Aged SRI: 30

Charleston
1FACS6070



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Goldenrod
1FACS6116



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La Terra Blend
1FACS6031



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Tesoro Blend
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California Mission Blend
1FACS6464

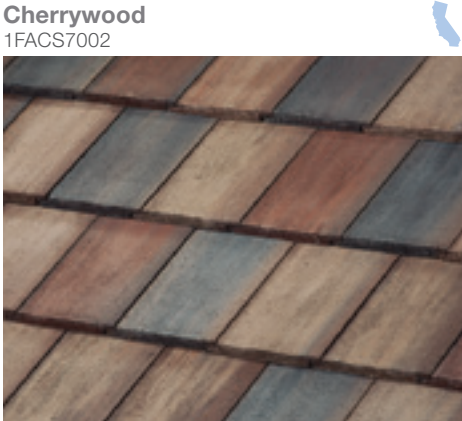


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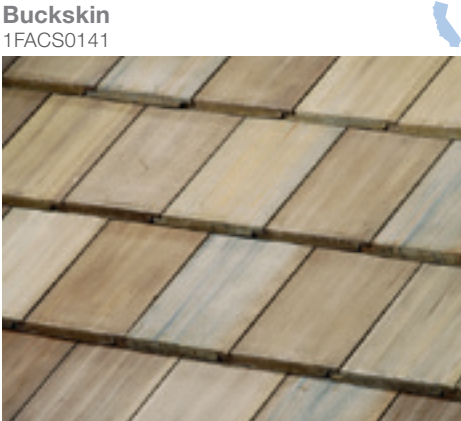
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Saxony® 900 Slate

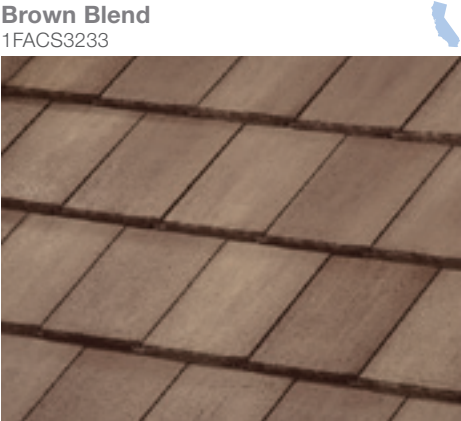
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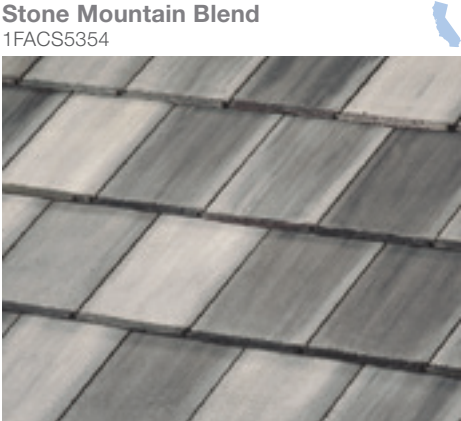
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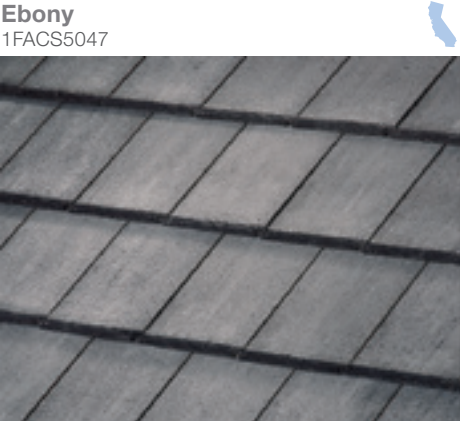
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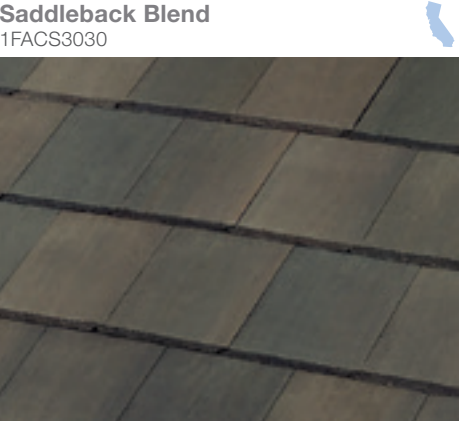
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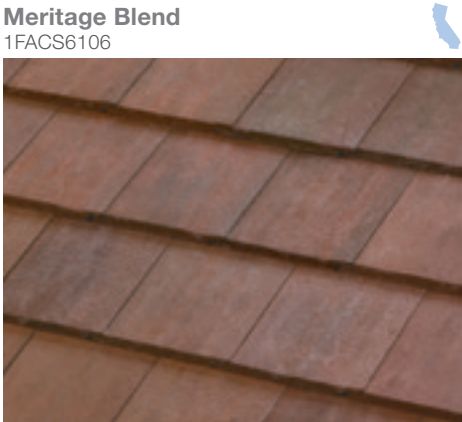


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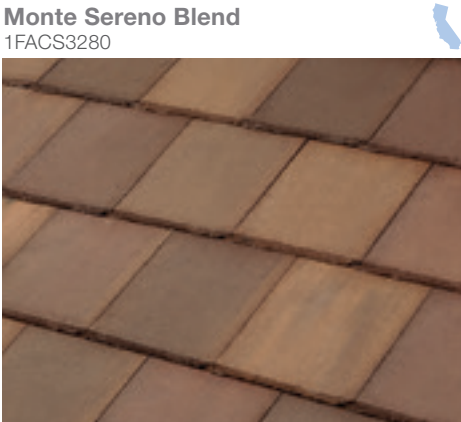


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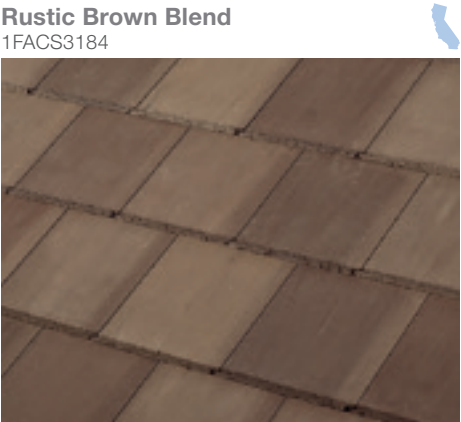
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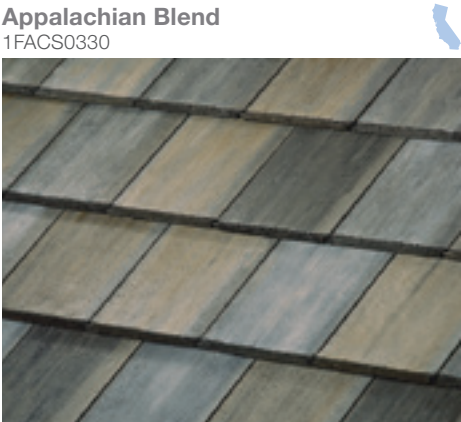
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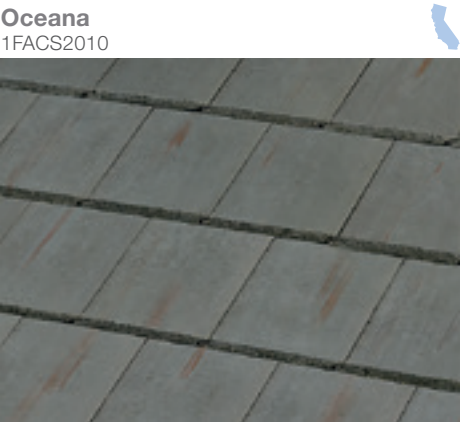
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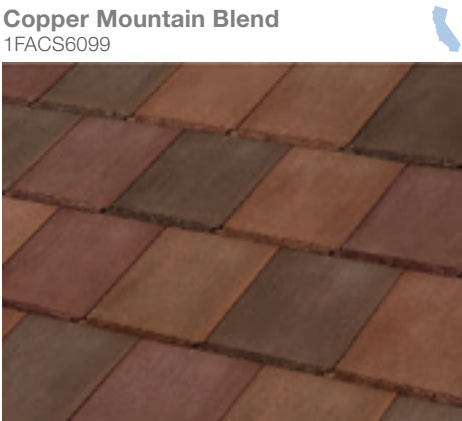


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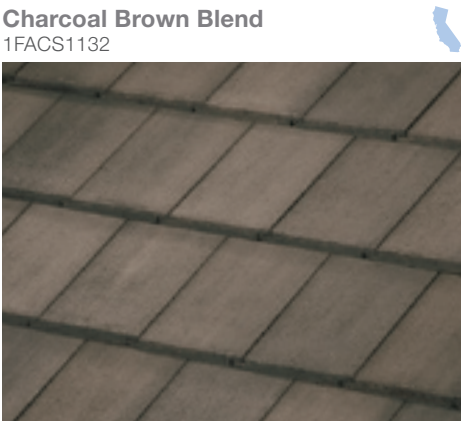


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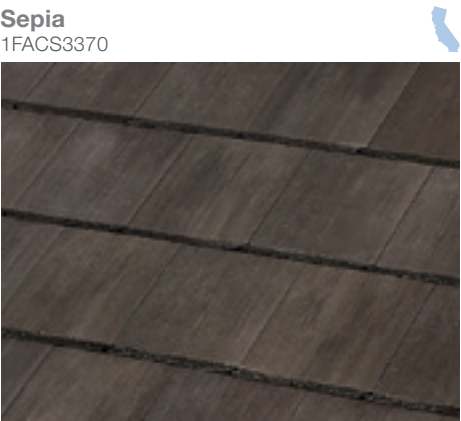
"Approved Or Equal"



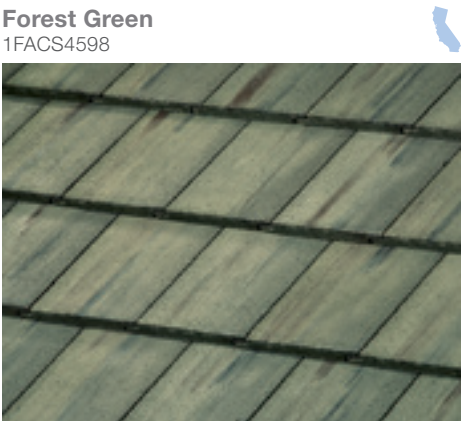
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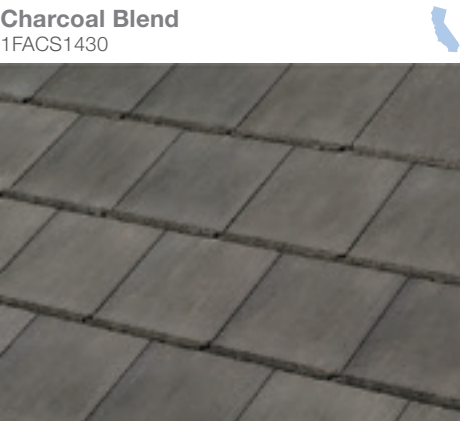
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CRRC Rated Product - 0942-0198
Ref: .11 / Emi: .90 / SRI: 8



CRRC Rated Product - 0942-0011
Ref: .20 / Emi: .93 / SRI: 20 / Aged SRI: 22



CRRC Rated Product - 0942-0072
Ref: .17 / Emi: .91 / SRI: 16 / Aged SRI: 17

"Approved Or Equal"



Saxony® 900 Country Slate

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Country Slate | Sahara Quartz Blend

"Approved Or Equal"

Sea Pearl Blend
1FECY4070



CRRC Rated Product - 0942-0186
Ref: .19 / Emi: .91 / SRI: 18 / Aged SRI: 20

Bronze Pearl Blend
1FECY0300



CRRC Rated Product - 0942-0187
Ref: .26 / Emi: .91 / SRI: 27 / Aged SRI: 26

"Approved Or Equal"

Sahara Quartz Blend
1FECY4072



CRRC Rated Product - 0942-0190
Ref: .19 / Emi: .94 / SRI: 20 / Aged SRI: 24

Smokey Topaz Blend
1FECY3181



CRRC Rated Product - 0942-0191
Ref: .21 / Emi: .93 / SRI: 22 / Aged SRI: 24

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Ocean Jasper Blend
1FECY4071



CRRC Rated Product - 0942-0189
Ref: .17 / Emi: .93 / SRI: 17 / Aged SRI: 19

Garnet Blend
1FECY3182



CRRC Rated Product - 0942-0188
Ref: .21 / Emi: .92 / SRI: 21 / Aged SRI: 24

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Saxony® 900 Shake

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Shake | Hickory

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Charleston
1FBCJ6070



CRRC Rated Product – 0942-0073
Ref: .29 / Emi: .87 / SRI: 29 / Aged SRI: 31

Dunes Tan
1FBCJ0198



CRRC Rated Product – 0942-0074
Ref: .29 / Emi: .89 / SRI: 30 / Aged SRI: 30

"Approved Or Equal"

Goldenrod
1FBCJ6116



CRRC Rated Product – 0942-0043
Ref: .32 / Emi: .90 / SRI: 34 / Aged SRI: 34

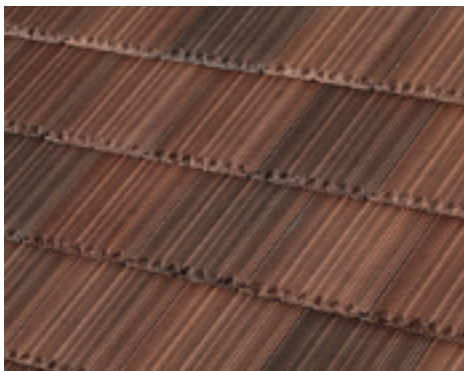
Toffee
1FBCJ0007



CRRC Rated Product - 0942-0001
Ref: .15 / Emi: .93 / SRI: 14 / Aged SRI: 19

"Approved Or Equal"

California Mission Blend
1FBCJ6464



CRRC Rated Product - 0942-0008
Ref: .19 / Emi: .91 / SRI: 18 / Aged SRI: 24

Hickory
1FBCJ3726

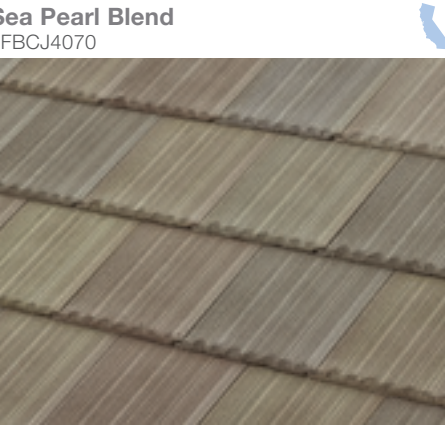


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"Approved Or Equal"

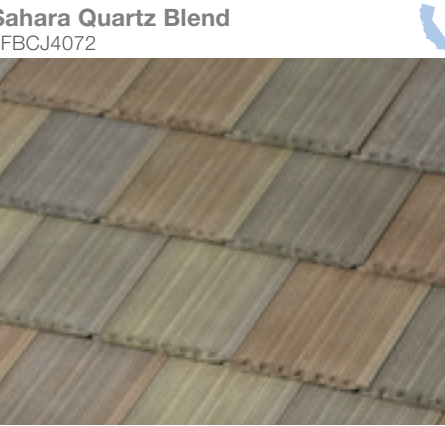
Saxony® 900 Shake

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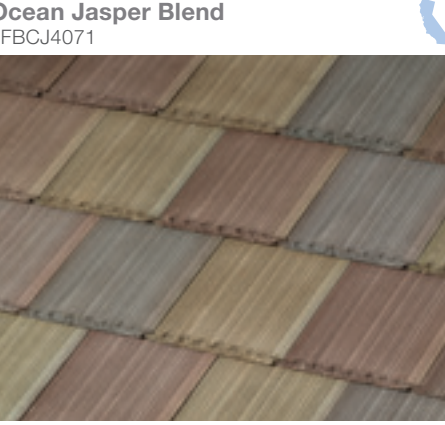
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"Approved Or Equal"



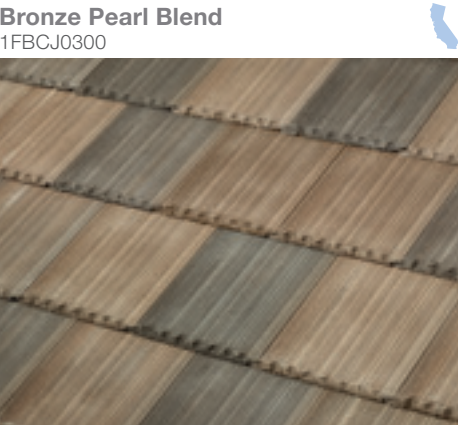
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"Approved Or Equal"

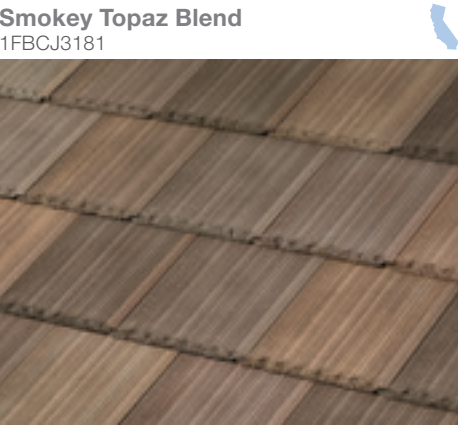


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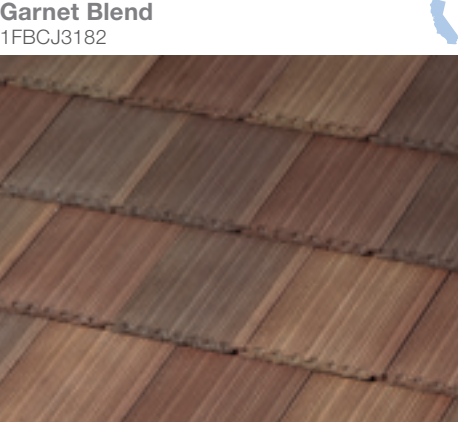
"Approved Or Equal"



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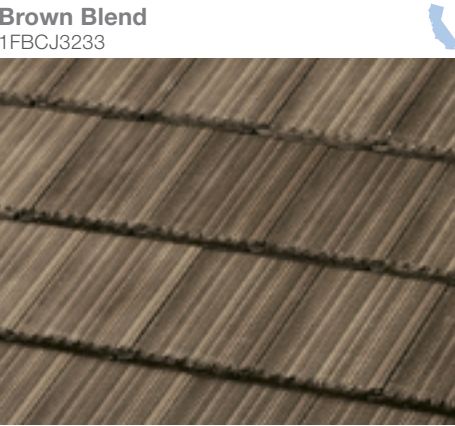
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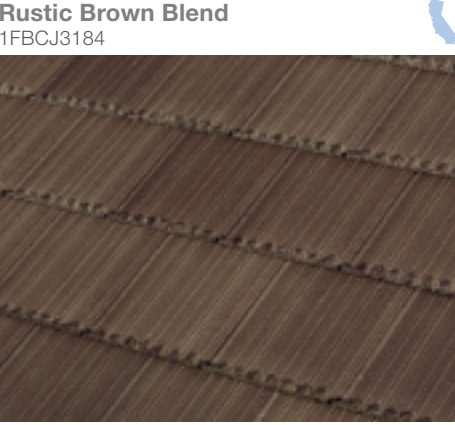
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CRRC Rated Product - 0942-0002
Ref: .15 / Emi: .91 / SRI: 13 / Aged SRI: 18



CRRC Rated Product - 0942-0003
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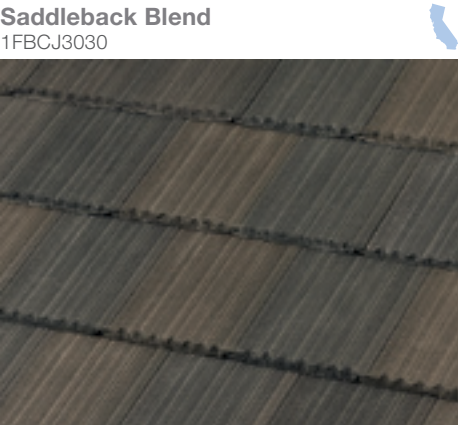
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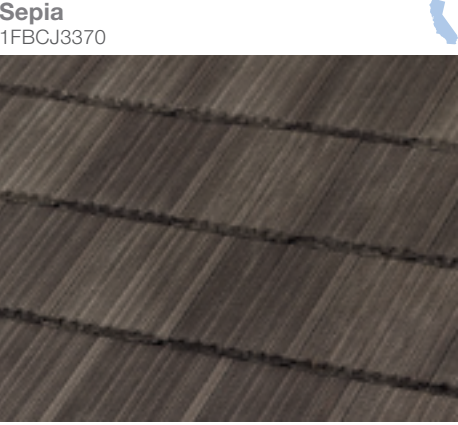
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Ref: .18 / Emi: .91 / SRI: 17 / Aged SRI: 19

"Approved Or Equal"



CRRC Rated Product - 0942-0199
Ref: .11 / Emi: .90 / SRI: 8

"Approved Or Equal"

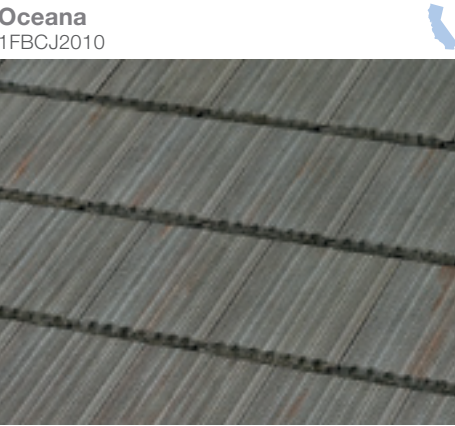


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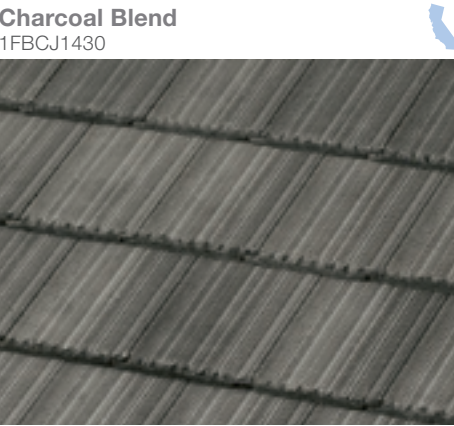
"Approved Or Equal"



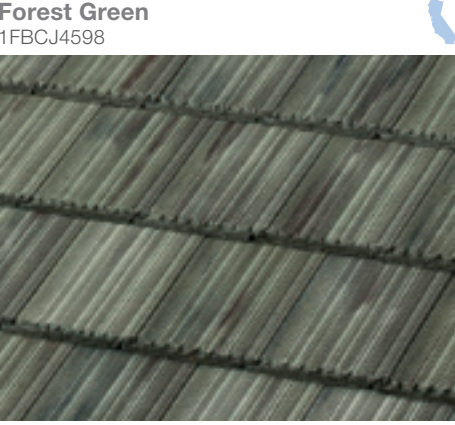
Shake | Charcoal Blend



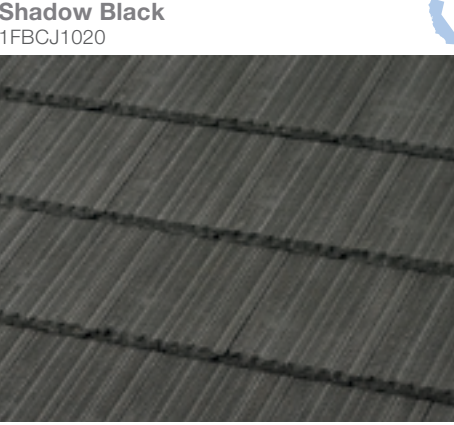
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CRRC Rated Product - 0942-0072
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CRRC Rated Product - 0942-0011
Ref: .20 / Emi: .93 / SRI: 20 / Aged SRI: 22



CRRC Rated Product - 0942-0196
Ref: .11 / Emi: .91 / SRI: 8



Madera 900

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DESIGNER PRODUCT

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Winterwood Blend
1MDCL5120



CRRC Rated Product – 0942-0183
Ref: 0.21 / Emi: 0.91 / SRI: 21 / Aged SRI: 21

"Approved Or Equal"

Elkwood
1MDCL0072



CRRC Rated Product – 0942-0081
Ref: .16 / Emi: .94 / SRI: 16 / Aged SRI: 16

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Tahoe Blend
1MDCL3230



CRRC Rated Product – 0942-0169
Ref: 0.17 / Emi: 0.91 / SRI: 16 / Aged SRI: 17

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Autumnwood
1MDCL3002



CRRC Rated Product - 0942-0070
Ref: .13 / Emi: .87 / SRI: 8 / Aged SRI: 9

Mountainwood
1MDCL5001



CRRC Rated Product - 0942-0110
Ref: .08 / Emi: .93 / SRI: 5 / Aged SRI: 7

Vintagewood
1MDCL5011



CRRC Rated Product - 0942-0089
Ref: .12 / Emi: .94 / SRI: 11 / Aged SRI: 14



Saxony® 900 Split Old English Thatch

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Split Old English Thatch | Autumnwood with Capri Trim
Photo courtesy of McCullough Development

DESIGNER PRODUCT

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Toffee
1FOCZ0007



CRRC Rated Product - 0942-0001
Ref: .15 / Emi: .93 / SRI: 14 / Aged SRI: 19

Vintagewood
1FOCZ5011



CRRC Rated Product - 0942-0089
Ref: .12 / Emi: .94 / SRI: 11 / Aged SRI: 14

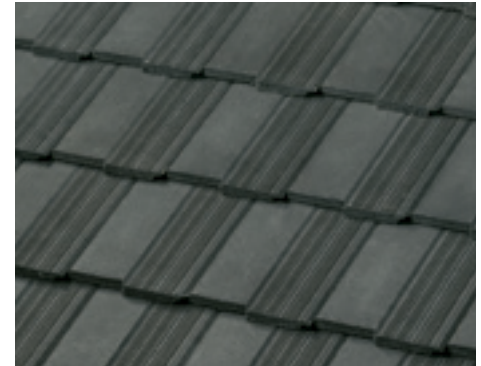
"Approved Or Equal"

Autumnwood
1FOCZ3002



CRRC Rated Product - 0942-0070
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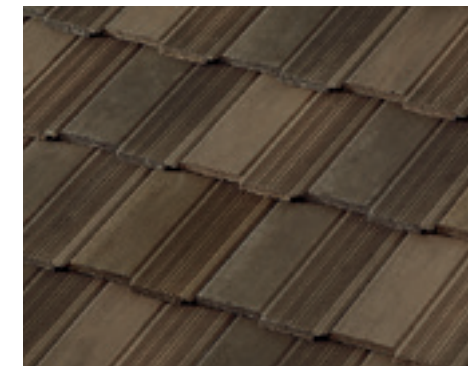
Charcoal
1FOCZ1130



CRRC Rated Product - 0942-0064
Ref: .08 / Emi: .92 / SRI: 5 / Aged SRI: 9

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Charcoal Brown Blend
1FOCZ1132



CRRC Rated Product - 0942-0005
Ref: .18 / Emi: .91 / SRI: 17 / Aged SRI: 19

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Saxony® 900 Hartford® Slate

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Hartford Slate | Charcoal Brown Blend

DESIGNER PRODUCT

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Toffee
1FVCD0007



CRRC Rated Product - 0942-0001
Ref: .15 / Emi: .93 / SRI: 14 / Aged SRI: 19

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Charcoal Brown Blend
1FVCD1132



CRRC Rated Product - 0942-0005
Ref: .18 / Emi: .91 / SRI: 17 / Aged SRI: 19

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Stone Mountain Blend
1FVCD5354



CRRC Rated Product - 0942-0047
Ref: .17 / Emi: .90 / SRI: 15 / Aged SRI: 23

Appalachian Blend
1FVCD0330



CRRC Rated Product - 0942-0069
Ref: .14 / Emi: .89 / SRI: 11 / Aged SRI: 14

Have you considered what is underneath your roof tile?

Newpoint™ Cool Roof System

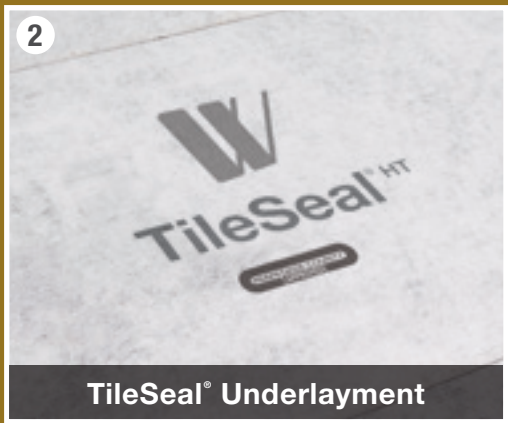
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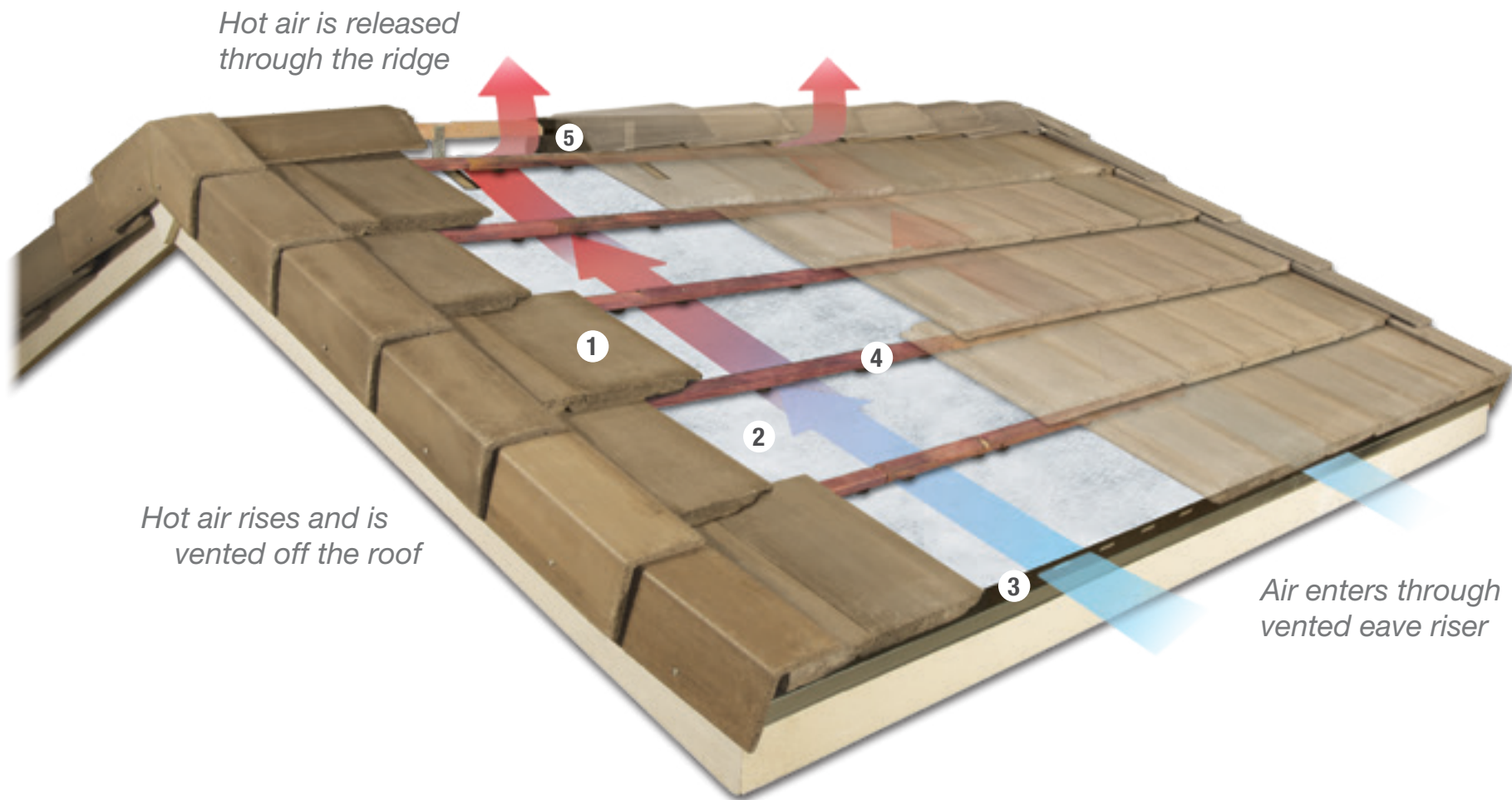
Five components provide energy efficiency and give substantial return on your investment.



Shown in Saxony® Slate 900 Brown Blend



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Energy Savings Every Year

22% Reduction in heating and cooling costs[†]



For more information, please visit our website WestlakeRoyalRoofing.com

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[†]Steep-slope Assembly Testing of Clay and Concrete Tile with and without Cool Pigmented Colors, Oak Ridge National Laboratory, 2005. Results vary based on profile of tile installed, location, weather and other factors.

Specifications

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Finishing Touches

BARCELONA	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	Capri Trim	Capri Hip Starter	Capri Apex 3-Way	
	17" x 12-3/8"	3-5/8"	At 3" minimum headlap, 89 field tiles will cover approx. 100 square feet of roof area.	Approx: 900 lbs.	267	3		Approx: 2,896 lbs.	 1CTCS/1CTSS	 1CHCS/1CHSS	 1C3CS/1C3SS	
VILLA 900	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	Capri Trim	Capri Hip Starter	Capri Apex 3-Way	
	17" x 13"	2-3/16"	At 3" minimum headlap, 87 field tiles will cover approx. 100 square feet of roof area.	Approx: 900 lbs.	308	3.54		Approx: 3,327 lbs.	 1CTCS/1CTSS	 1CHCS/1CHSS	 1C3CS/1C3SS	
SAXONY® 900 SLATE	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	3-Sided Ridge	3-Sided Hip Starter	Apex 3-Way
	17" x 13"	1-9/64"	At 3" minimum headlap, 85 field tiles will cover approx. 100 square feet of roof area.	Approx: 930 lbs.	288	3.39		Approx: 3,405 lbs.	 1R9CS	 1R3CS	 1FHCS	 13ACS
SAXONY® 900 COUNTRY SLATE	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	3-Sided Ridge	3-Sided Hip Starter	Apex 3-Way
	17" x 13"	1-9/64"	At 3" minimum headlap, 85 field tiles will cover approx. 100 square feet of roof area.	Approx: 930 lbs.	288	3.39		Approx: 3,405 lbs.	 1R9CS	 1R3CS	 1FHCS	 13ACS
SAXONY® 900 SHAKE	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	3-Sided Ridge	3-Sided Hip Starter	Apex 3-Way
	17" x 13"	1-3/16"	At 3" minimum headlap, 85 field tiles will cover approx. 100 square feet of roof area.	Approx: 930 lbs.	288	3.39		Approx: 3,405 lbs.	 1R9CS/1R9BS	 1R3CL	 1FHCL	 13ACL
SAXONY® 900 SPLIT OLD ENGLISH THATCH	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	3-Sided Ridge	3-Sided Hip Starter	Apex 3-Way
	17" x 13"	1-1/8"	At 3" minimum headlap, 91 field tiles will cover approx. 100 square feet of roof area.	Approx: 980 lbs.	288	3.16		Approx: 3,405 lbs.	 1R9CS	 1R3CS	 1FHCS	 13ACS
SAXONY® 900 HARTFORD SLATE	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	3-Sided Ridge	3-Sided Hip Starter	Apex 3-Way
	17" x 13"	1-5/32"	At 3" minimum headlap, 85 field tiles will cover approx. 100 square feet of roof area.	Approx: 910 lbs.	288	3.39		Approx: 3,405 lbs.	 1R9CS	 1R3CS	 1FHCS	 13ACS
MADERA 900	Size	Height	Coverage	Installed Weight / Square	Pieces / Pallet	Squares / Pallet		Weight / Pallet	90 Rake	V-Ridge	Tapered Eave Starter	
	13-1/2" x 13"	7/8"	At 3-1/2" minimum headlap, 120 field tiles will cover approx. 100 square feet of roof area.	Approx: 950 lbs.	360	3		Approx: 3,010 lbs.	 19CCL	 1VCCL	 1CECL	



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Visualize

Picture your new roof with Newpoint™ Concrete Roof Tile Inspiration house photo gallery on our website.

Order A Sample

Deciding on the perfect roof can be overwhelming. So, instead of wondering what color or style will work, order a sample and take the guesswork out of your decision. It's just another way Newpoint™ Concrete Roof Tile makes it easy to buy with confidence.

Architectural Tools

Our complete suite of architectural tools, including Arcat 3-Part Specs and CAD/BIM drawings, are available for download directly from our website.

Online Ordering

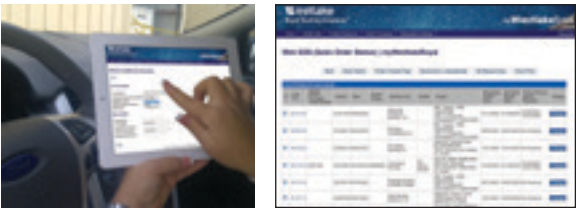
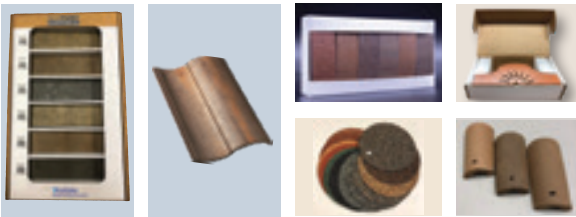
Manage your orders through My Westlake Royal, a simple online tool to track product orders in real time, all from the convenience of your computer, tablet or smartphone. Sign-up for e-mail alerts to notify you of your order status.

Limited Lifetime Warranty

As a brand you can trust, Newpoint™ Concrete Roof Tile offers one of the most comprehensive, fully transferable roofing warranties available on the market today.

Follow Us On Social Media

See what everyone loves about Newpoint™ Concrete Roof Tile and get inspired on: Facebook, Twitter, LinkedIn, YouTube, HOUZZ, Pinterest and Instagram.



Code Approval: Some approvals are regional and only apply to locally produced products; please contact Newpoint™ before transporting product across state lines. Specifically, products used in the Miami Dade County region of Florida require special testing and recognition. All tiles are Class A fire rated.

Disclaimer: The printed colors shown in this brochure may vary from actual available tile colors. Before making a final selection, be sure to review actual tile samples and roof installations. Please contact your local sales office for further assistance. Inadvertent errors in this publication are subject to change without notice. No performance guarantee is offered or implied beyond that expressly indicated.

Efflorescence is a temporary surface condition which is common to all concrete products. The process is caused by the chemical nature of cement. This reaction can appear as an overall chalky white bloom (a softening of color) or in more concentrated patches. It is difficult to predict how long the effects of efflorescence will last. It depends on the type and amount of deposit as well as local weather conditions. The action of carbon dioxide and rainwater will gradually remove the deposit, in most cases, leaving the original color of the roof intact without further efflorescence occurring. It is superficial and in no way affects the quality or functional properties of the tile.

Installation: According to the Tile Roofing Institute loading guidelines, "To achieve a pleasant, random blend of color for your job, care should be taken upon loading to mix the tiles." (Source: 2015 Concrete and Clay Roof Tile Installation Manual). Please consult the Tile Roofing Institute (TRI) Installation guides for application recommendations.

NEWPOINT™

CONCRETE ROOF TILE

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ABOUT WESTLAKE ROYAL ROOFING SOLUTIONS™ *"Approved Or Equal"*

Westlake Royal Roofing Solutions™ is the combination of DaVinci® Roofscapes and the former Boral North America roofing product lines. The company is a recognized, national leader in durable and sustainable clay, composite, concrete, and steel roof systems and components. The company's offerings include US Tile® products, a legacy line of premium, stunning clay tile solutions manufactured to the highest standard of sustainability and craftsmanship: DaVinci® Roofscapes, beautiful and durable composite slate and shake roofing tiles; Newpoint™ Concrete Tile Roofing, the enduring line of concrete tile known for its superior strength, Class A fire rating and long-lasting beauty; Unified Steel™ Stone Coated Roofing, the ultra-lightweight roofing system which benefits from the structural strength of steel; and Westlake Royal™ Roofing Components, a full line of integrated roof components designed to deliver a higher standard of roof installation and performance.

ABOUT WESTLAKE ROYAL BUILDING PRODUCTS™ *"Approved Or Equal"*

Westlake Royal Building Products USA Inc., a Westlake company (NYSE:WLK), is a leader throughout North America in the innovation, design, and production of a broad and diverse range of exterior and interior building products, including Siding and Accessories, Trim and Mouldings, Roofing, Stone, Windows and Outdoor Living. For more than 50 years, Westlake Royal Building Products has manufactured high quality, low maintenance products to meet the specifications and needs of building professionals, homeowners, architects, engineers and distributors, while providing stunning curb appeal with an unmatched array of colors, styles, and accessories.

For more information, please visit WestlakeRoyalBuildingProducts.com.
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Stockton, CALIFORNIA
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Denver, COLORADO
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Okeechobee, FLORIDA
Atlanta, GEORGIA
Henderson, NEVADA
Fort Worth, TEXAS
Katy, TEXAS

Corporate Office

Westlake Royal Building Products
2801 Post Oak, Suite 600
Houston, Texas 77056

Western Office

Westlake Royal Roofing Solutions
7575 Irvine Center Drive, Ste. #100
Irvine, CA 92618

Customer Service

800.669.TILE (8453)

Website



WestlakeRoyalRoofing.com

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Westlake
Royal Roofing Solutions™

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Verea currently offers five distinct colors:



Red



White



Graphite



Slate



Peach

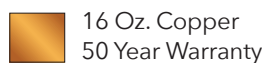
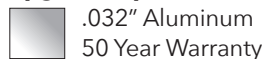
VENTS

1. SELECT METAL

Standard:



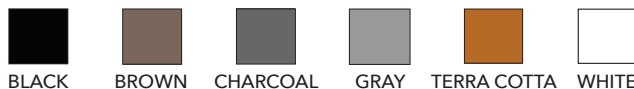
Upgrade Options:



2. SELECT FINISH *"Approved Or Equal"*

Upgrade Options:

Pre-Painted Galvanized Steel Finish*



3. SELECT SUBFLASHING OPTIONS *"Approved Or Equal"*

Standard:

2" Flange

Upgrade Options:

4" Flange

6" Flange

Diverter***

4. SELECT WIRE MESH

NFVA**

Standard:

1/4" Galvanized 98.75 sq. in.

Upgrade Options:

1/4" Stainless Steel 98.75 sq. in.

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1/8" Galvanized 88.87 sq. in.

1/8" Stainless Steel 88.87 sq. in.

* Colors may vary between lots, subject to increased lead times based on availability.
 ** Net Free Ventilation Area figures based on independent evaluation reports.
 *** Standard in Florida.

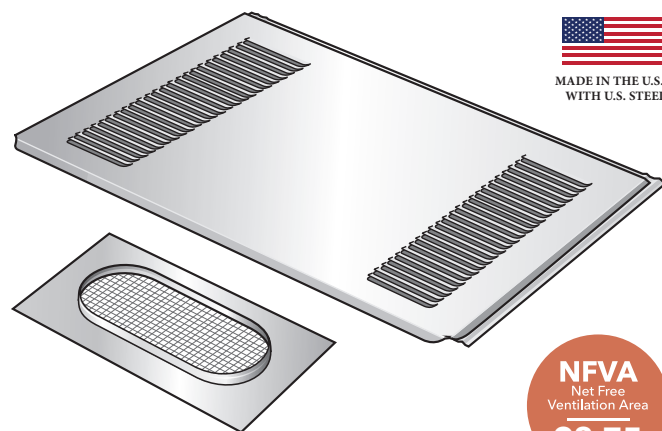
MATERIAL:

CONCRETE TILE

PRODUCT:

LOW PROFILE (FLAT)

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**UNIQUE LOW-PROFILE DESIGN
 FITS BELOW MOST ROOF MOUNTED
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WINDOWS

ULTRATM SERIES C650

Fiberglass Windows
& Patio Doors

"Approved Or Equal"

Architectural Manual



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Instructions on how to use this manual:

This document has been designed for easy navigation and to quickly click to the section you need. Here's some important tips on using this document:

- Any item print in **red**, will click through to the corresponding item.
- Click to any item in the Table of Contents on **page 3**. Click on the Milgard logo at the top of any page to return to the Table of Contents - FULL MANUAL ONLY.
- From each section's Quick Links page, click to any Drawing listed.
- From any Drawing page, click the "Go Back to Quick Links" box on the bottom right of the page to return to the list of drawings.
- Click on the links on the bottom of the page to go to Revit, SketchUp . PDF and .DWG files. Please note that you must have internet access for these links and you will be re-directed to the Milgard site.
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Revit, SketchUp, .PDF and .DWG files can be accessed
at **milgard.com** or clicking here:

Technical Resources

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About Ultra™ Series | C650

"Approved Or Equal"

Fiberglass itself is nothing new. It's been floating boats and adding strength to ladders for years. But until recently, the complex profiles required for window and door designs have been impossible to attain with fiberglass.

"Approved Or Equal"

Milgard's research and design team faced this challenge and engineered a window and door system that's impervious to water, cold, heat, insects, salt air and ultraviolet rays. The end result: efficient windows and doors that maintain their beauty in every season, in any climate.

New Construction vs. Retrofit

Ultra Series can be used for new construction or retrofit applications as it offers block frame and Z-bar frames in addition to nail fins.

Screens

Ultra Series comes with standard screens or PureView® premium mesh screens with a pull rail frame as an upgrade option.

Warranty

Ultra Series comes standard with the Lifetime Limited Warranty. For complete warranty details, visit milgard.com/warranty.

Components

"Approved Or Equal"

Available Operating Styles

Find frame styles for each operating style:

Awning

Fixed Awning

Casement

Fixed Casement

Horizontal Sliding (Half Vent)

Single Hung

Picture/Radius

Bay/Bow

Sliding Patio Door

Swing Patio Door

Feature/Benefit Snapshot

Fiberglass: A structural material with superior strength and thermal performance characteristics, ideal for intricate window and door frame profiles. So durable, we use diamond-tipped saw blades to cut our frame stock. Frame stock is produced using a process known as pultrusion. Glass rovings and mats are pulled at tremendous forces through a resin bath and a series of dies. These materials combine and catalyze to provide unparalleled tensile and torsional strength.

- Up to 3 times stronger than wood; up to 8 times stronger than vinyl.

- Minimal thermal expansion/contraction across large temperature extremes – matches movement of glass, relieving virtually all stresses on the glazing unit to protect glazing seals and ensure smooth operation.
- Dark colors do NOT cause adverse frame movement – perfect for projects calling for even black exterior frame color.
- Wet-glazed silicone sealant glazing method for superior, permanent weather seal.
- No swelling, cracking, binding, twisting or rotting like wood.
- Milgard EdgeGardMax™ insulating glass units come standard on all fiberglass windows and doors.
- 7/8" thick glazing unit – ASTM E-774-81 Class A rating – sealed with long-life butyl sealant.
- Every order is custom built – at standard lead times. Perfect for replacement applications, with dimensions accepted down to 1/16" increments.
- Incredible frame strength provides light commercial and commercial structural ratings – making fiberglass windows and doors suitable in many commercial project applications.
- Multiple hardware finishes to choose from in both the window and door line.
- Window and window/door configurations are factory mulled for ease of field installation – large sizes ship open for field glazing where weight and safety is a factor.

- Numerous glass options available – including tempered, obscures, tints, laminated, etc.
- All operating hardware utilizes top-quality components and fasteners.
- Fiberglass doors use multi-point locking hardware to provide enhanced security.

Ultra Series windows and patio doors face the elements with a sturdy pultruded fiberglass frame that won't warp, rot, swell, peel or mildew. The frame makes your windows stronger and more resistant to impact and settling. It's strong like aluminum, energy efficient as wood and low maintenance as vinyl. *"Approved Or Equal"*

Frame Specifications

From inside of frame to nail flange is 2-7/8", and from outside of window frame to include nail fin is 1-3/8", to give you a 4-1/4" overall frame depth.

Joined frame and liners are available in standard widths of 4-9/16" or 6-9/16" for standard wall construction. Other custom widths are also available, subject to engineering review.

Wood Jamb Extensions

Wood jamb extensions are an optional feature with Ultra fiberglass windows and are available in both clear solid wood, wood with a premium veneer applied or preprimed finger jointed wood.

Nail-On Fin

A 1-1/4" pre-punched, flexible nail flange extends around the perimeter frame, securing the window in rough openings. The 3110 and 3110U Series is available without nailing fin or with Z-Bar flush fin retrofit trim for use as a replacement window.

Other Components

Glazing Material

Wet-glazed silicone sealant adheres glass in place, which seals and cushions the glass. Rigid vinyl setting blocks are used to support the unit above the sill, preventing glass slippage and glass-to-frame contact. Pultruded fiberglass glazing (snap-in) bead is applied around the exterior edge.

Glass

Insulating dual glazed panes, 7/8" in overall thickness, are butyl sealed for energy efficiency, with Milgard SunCoat™ Low-E insulating glass standard in all glazing units.

Weatherstripping

Foam filled seal and silicone-treated, water-repellent polypropylene fin seal weatherstripping provides a durable, weather-tight seal. This weatherstripping is installed around the entire perimeter of the vent panel.

Roller Assembly

Adjustable self-lubricating, wear resistant, dual nylon rollers provide flexible, free-wheeling, smooth and silent operation. Rollers are engineered for reduction of friction and elimination of torque on the ventilator frame.

Balancer Assembly

The ventilator operates on concealed block and tackle balancers, allowing the vent to remain open in any position. The balancer is installed in the jamb on each side of the window.

Locking Assembly

Cam lock or Positive Action™ Lock mechanism may be specified as an option.

Weep System

Primary weep system is located in hollow sill construction. Baffled weep holes drain water from track and help prevent blow-back, or water seeping to the inside caused by a combination of wind and rain. A secondary baffled weep system is located in the pultruded fiberglass glazing bead.

Vent Panel

The ventilator has an "L"-shaped lip that fully interlocks with the vertical meeting rail, adding security and preventing weather penetration. Its roller assembly rides on a monorail track for easy operation and durability. This raised track in the frame sill helps keep the ventilator system free from interference by foreign particles that may collect in the sill.

Screens

Screen frames are cambered aluminum, reinforced with rigid plastic corner clips. Screen frames are available to match the exterior color. Optional PureView fiberglass screen mesh is low visibility, strong, durable and easy to replace. Two pulls located on the screen allow you to install from inside of house.

Sizing

All windows are factory-sized to fit in a framed opening, whether new or created by removing an existing window. Windows will be 1/2" smaller than the framed (rough) opening to allow 1/4" clearance on all sides (tolerance at +/- 1/16"). Built to rough opening size, with 1/2" deductions automatically made, no complex calculations are required for ordering.

Options

Grids

Ultra series windows and doors offer multiple grid configurations from seven different grid options.

Grid patterns placed inside the glazing unit include 5/8" wide flat grids and 1-1/16" wide sculptured pattern grids.

Grid patterns that simulate true divided lites are 1-1/8" Legacy, 1-1/8" Craftsman, 1-1/8" Vintage and 3/4" Vintage. Snap-in wood grids attach to the interior side of the window or door and remove for easy cleaning. (See page 11 for patterns)

Specify requirements for matching grid patterns at the time of order. If match requirements are not specified, the grids may not line up with those in another size or series of window.

Unless otherwise specified, the grids will divide the window equally, with the bars set between 8-3/4" and 12" apart. A 4'0" x 3'0" picture window would be four squares wide by three squares high. A 4'0" x 3'0" single-hung would be four wide x four high because of the intermediate horizontal bar.

Brickmould

A 2" wide x 1-1/2" thick factory-primed wood brickmould trim is an available option for a finished exterior appearance.

Hardware

Hardware is available in both painted and metal finishes. (See pages 8-9)

Energy Packages

Milgard adheres to ENERGY STAR® v6 requirements to meet or exceed U-Factor and Solar Heat Gain

Coefficient (SHGC) criteria for all ENERGY STAR® zones.

"Approved Or Equal"

Milgard also offers high energy performance options for the ultimate in energy efficiency. Energy efficient windows could include one or more of the following features based on your climate.

- SunCoat® or SunCoatMAX®
- EdgeGardMAX®
- Argon
- 4th Surface
- Triple Glaze

For more details on Milgard Energy Efficient packages, visit www.milgard.com/learn/energy-efficiency/energy-efficient-components

"Approved Or Equal"

To check the energy performance of all Milgard windows and doors, use our Energy Calculator at:

milgard.com/energy-calculator

"Approved Or Equal"

Warranty

With Ultra Series, you're covered for as long as you own your home with our Lifetime Limited Warranty.

For complete warranty details, visit milgard.com/warranty.

Caution: The use of petroleum based fuels or solvents as release agents in stucco wall installations or glass cleaning will chemically attack materials used in seals and other components, and voids the Milgard Warranty. The use of wax-based release agents is recommended.

Expanding foam for insulation purposes should not be used. Backer rod or loose packed fiberglass bat insulation is recommended.

Window Hardware

Our window hardware is attractive, durable, secure and easy to operate. All hardware is available in these styles and your choice of finishes.

Single Hung and Horizontal Slider



Your choice of Positive Action™ Lock (left) shown in White or Cam Lock (right) shown in Black

Casement and Awning



Nesting Operator shown in White

Sash lock shown in Brushed Chrome

Window Hardware Finishes

- | | | | | | |
|------------------------------|------|-------------|----------------|----------------------------|-------|
| White | Clay | Dark Bronze | Brushed Chrome | Satin Nickel | Black |
| (Not available in all areas) | | | | (Casement and awning only) | |

Door Hardware

Swing Door Handles (interior & exterior)



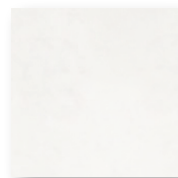
Sliding Door Handles (interior & exterior)



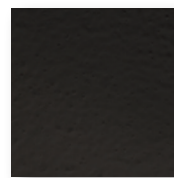
Sidelite Handle



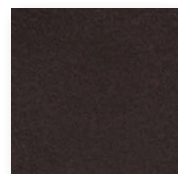
Door Hardware Finishes



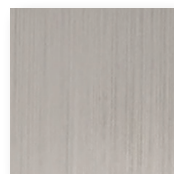
White



Black



Oil Rubbed
Bronze



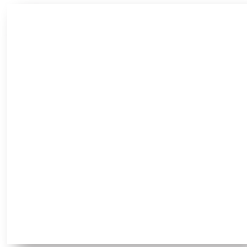
Brushed
Chrome



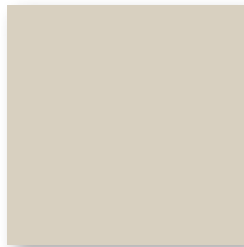
Satin
Nickel

Frame Colors

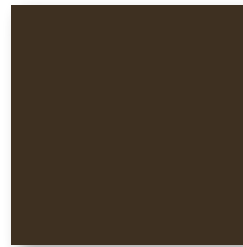
Exterior Frame Colors - Choose white or color-matched interiors



Frost



Harmony



Bark



Black Bean

Colors shown are approximate due to printing limitations.

Grids

Express your creativity and dramatically increase curb appeal with our virtually endless grid options. Choose flat or sculptured grids inside our insulated glass units for easy cleaning.



Flat Grid



Craftsman



1-1/8" Vintage



Sculptured



Legacy



3/4" Vintage



"Approved Or Equal"

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Warranty

We have a dedication to quality and build our windows and patio doors to last. With Ultra™ Series, you're covered for as long as you own your home with our Lifetime Limited Warranty.

For complete warranty details, visit milgard.com/warranty.

"Approved Or Equal"

Why Milgard?

Quality

Milgard offers award-winning windows and patio doors built for long-lasting comfort. For over 50 years, industry experts have consistently recognized Milgard as a trusted brand. By producing our vinyl and fiberglass frame materials in-house, we can more closely monitor for quality control. Milgard windows and patio doors stand up, while standing out. *"Approved Or Equal"*

Experience

Since 1962, Milgard Windows & Doors has designed and assembled superior, top quality windows and patio doors. Milgard engineers are known for their industry-leading designs using patented technologies. Whatever your project calls for, Milgard has the right product that can beautifully reflect your vision. From new construction to home remodeling, all Milgard windows and doors are custom made to your exact specifications.

Service

We serve the Western U.S. and Canada with a dozen full-service facilities and customer care centers. Our belief is that by being close to our customers, we can provide them better service.

Single Hung Window



Ultra™ Series single hung window, the bottom sash slides upward—the top sash is permanently fixed. They can be ordered as individual windows, in double or triple wide combinations or even with a center fixed lite. *"Approved Or Equal"*

Ultra Series fiberglass windows and doors offer outstanding insulating properties and low maintenance, plus they stand up to weather, insects, and ultraviolet rays, and maintain their beauty through every season. The windows will maintain their color and shape and can be constructed to your exact size specifications, subject to engineering review. All Milgard Ultra Series windows are made to order at no additional charge.

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Please also see:

[Single Hung Hardware](#)

[Frame Colors](#)

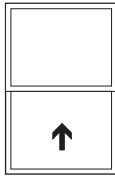
[Lifetime Limited Warranty](#)

[Energy Packages](#)

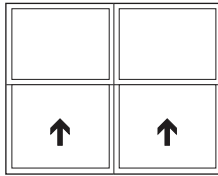
[Accessories](#)

Single Hung Window

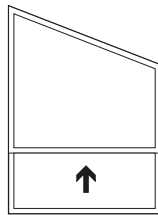
Configurations



Single Hung



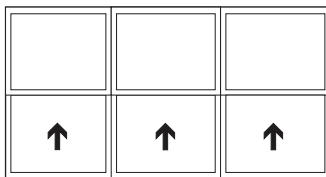
Double Single Hung



Gable Top Single Hung



Double Single Hung/Center Lite



Triple Single Hung

Minimum/Maximum Sizes

SINGLE-HUNG

- Min 1'2" Max 4'7"

DOUBLE SINGLE-HUNG

- Min 3'2" Max 8'7"

DOUBLE SINGLE-HUNG with PICTURE

- Min 4'2" Max 12'7"

TRIPLE SINGLE-HUNG

- Min 4'2" Max 9'7"

Minimum egress is 3'5" with a 30" bar set or 2'6" with a 36" bar set.

NOTE: For engineering approval contact your Milgard representative for any configuration over 40 square feet. Each Milgard Manufacturing plant reserves the right to alter or change sizes and configurations according to location capabilities. Ask your Milgard rep about specialty applications. Windows over 40 square feet shipped open for field glazing. Varies by location.

Not all frame styles available at all Milgard locations. Contact your Milgard Representative for more information.

Drawings - Quick Links

Single Hung Window

28—1-3/8" Fin Setback

29—1" Fin Setback

30—1-3/4" Contour Z-Bar

31—2-1/4" Contour Z-Bar

Revit, SketchUp, .PDF and .DWG files can be accessed at
milgard.com/professionals/technical-resources

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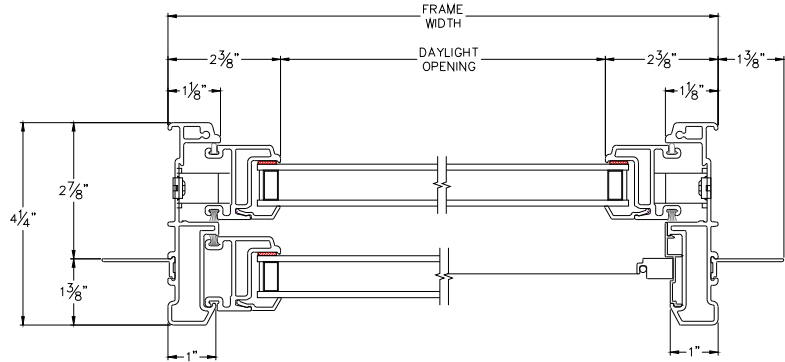
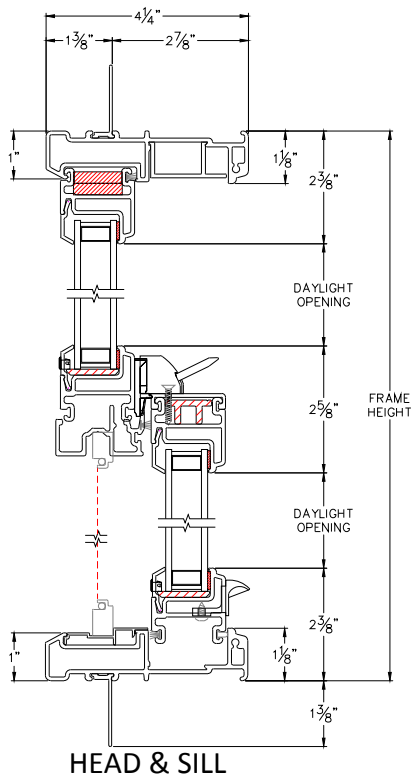
Single Hung Window

1-3/8" Fin Setback

CAD File Scale	View	File Name	Units
NTS	Horizontal & Vertical	3210U-02 SH	Inch

More Technical Documents can be found at milgard.com/professionals
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SINGLE HUNG SERIES 3210



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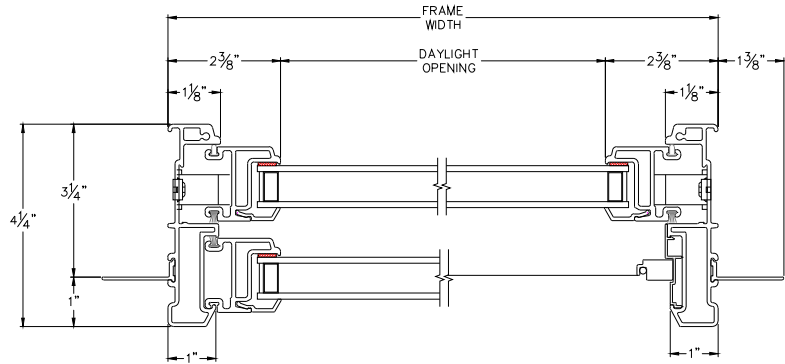
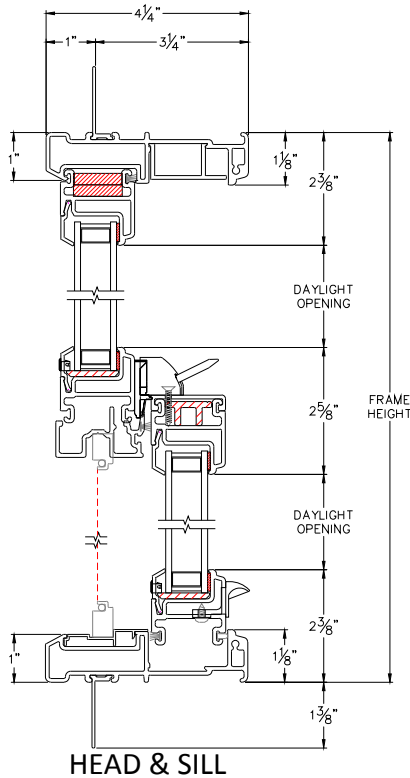
Single Hung Window

1" Fin Setback

CAD File Scale	View	File Name	Units
NTS	Horizontal & Vertical	3210U-03 SH	Inch

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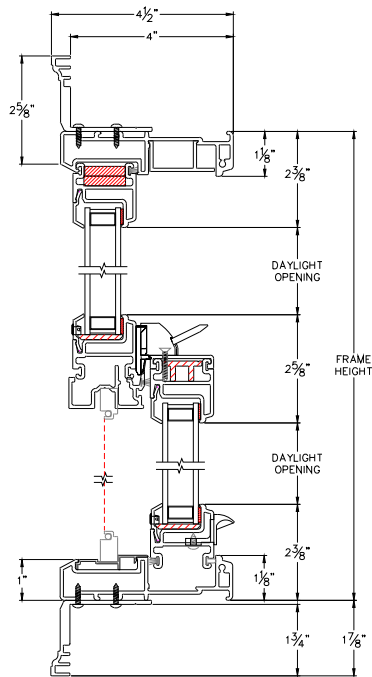
Single Hung Window

1-3/4" Contour Z-Bar

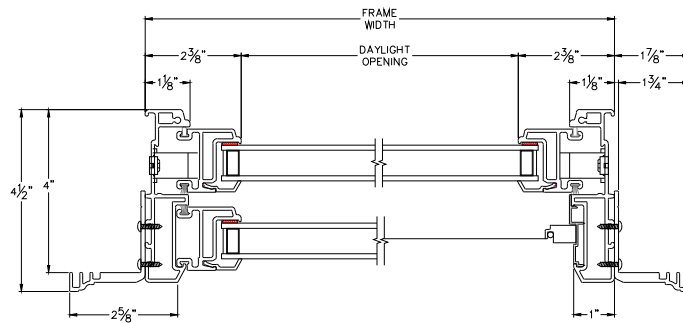
CAD File Scale	View	File Name	Units
NTS	Horizontal & Vertical	3210U-04 SH	Inch

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SINGLE HUNG
SERIES 3210



HEAD & SILL



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Single Hung Window

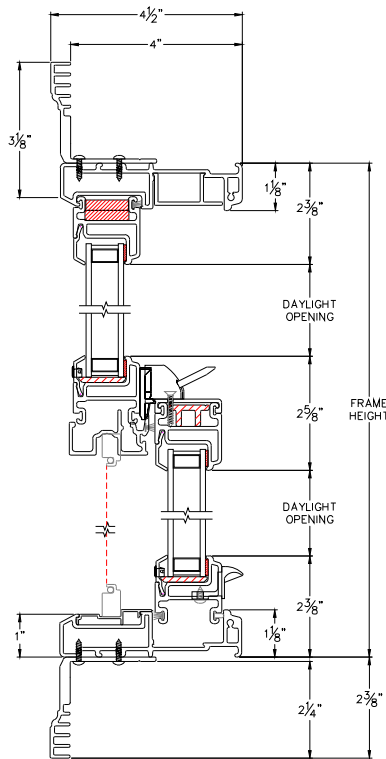
2-1/4" Contour Z-Bar

CAD File Scale	View	File Name	Units
NTS	Horizontal & Vertical	3210U-05 SH	Inch

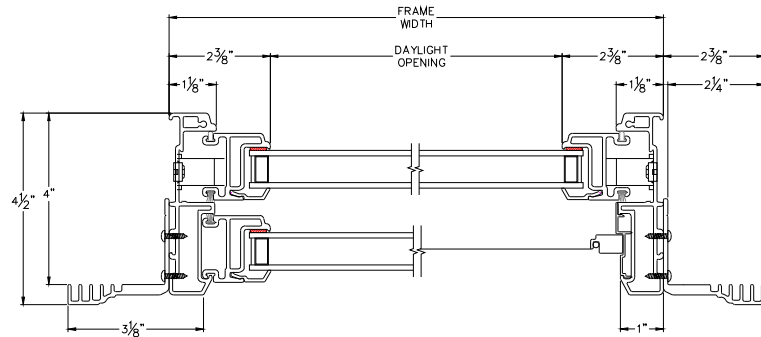
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SINGLE HUNG SERIES 3210



HEAD & SILL



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PLUMBING FIXTURES

KOHLER®

"Approved or Equal"

Verse™

Top-mount Kitchen Sink

K-5267-1

Features

- 36-inch minimum base cabinet width.
- Double equal bowl.
- 9-inch depth.
- Single faucet hole.
- SilentShield® sound-absorption technology offers quieter performance.
- Includes installation hardware.

Material

- 18-gauge stainless steel.

Installation

- Top-mount



Codes/Standards

ASME A112.19.3/CSA B45.4

Lifetime Limited Warranty for

"Approved or Equal" **KOHLER® Stainless Steel Sinks**

See website for detailed warranty information.

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

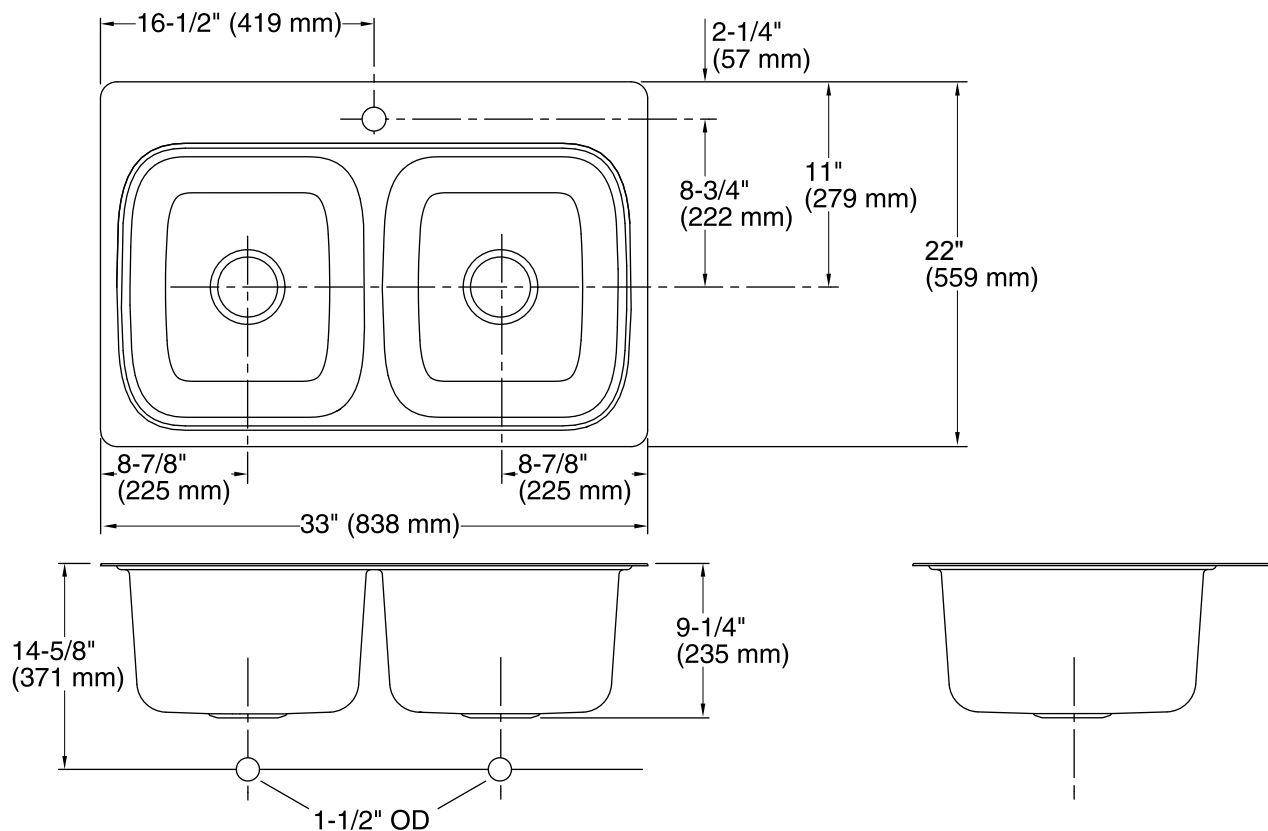
Kohler Co. reserves the right to make revisions without notice to product specifications.

For the most current Specification Sheet, go to www.kohler.com.

3-28-2016 02:51

THE BOLD LOOK
OF **KOHLER®**

"Approved or Equal"



Technical Information

All product dimensions are nominal.

Bowl configuration: Double equal

Installation: Top-mount

Min. base cabinet width: 36" (914 mm)

Bowl area (Left) Length: 14-3/16" (360 mm)
 Width: 15-11/16" (398 mm)
 Bowl depth: 9" (229 mm)

Bowl area (Right) Length: 14-3/16" (360 mm)
 Width: 15-11/16" (398 mm)
 Bowl depth: 9" (229 mm)

Number of deck holes: 1

Faucet hole(s): 1-7/16" (37 mm)

Drain hole: 3-5/8" (92 mm)

Notes

Install this product according to the installation guide.

PRODUCT SPECIFICATIONS

Elkay Wall Mount Versatile Hands-free Activation Bi-level ADA Cooler Filtered Refrigerated Stainless. Chilling Capacity of 8.0 GPH (gallons per hour) of 50° F drinking water, based on 80° F inlet water and 90° F ambient, per ASHRAE 18 testing. Features shall include Filtered, Hands Free, Visual Filter Monitor. Furnished with Flexi-Guard® Safety Bubbler. Electronic Sensor Bubbler activation. Product shall be Wall Mount (On Wall), for Indoor applications, serving 2 station(s). Unit shall be certified to UL 399 and CAN/CSA C22.2 No. 120. Unit shall be lead-free design which is certified to NSF/ANSI 61 & 372 (lead free) and meets Federal and State low-lead requirements.

Special Features:	Filtered, Hands Free, Visual Filter Monitor
Finish:	Stainless Steel
Power:	115V/60Hz
Bubbler Style:	Flexi-Guard® Safety Bubbler
Activation by:	Electronic Sensor Bubbler
Mounting Type:	Wall Mount (On Wall)
Chilling Capacity*:	8.0 GPH
Full Load Amps	5
Rated Watts:	370
Dimensions (L x W x H):	36-3/4" x 19" x 25-5/16"
Approx. Shipping Weight:	74 lbs.
Installation Location:	Indoor
No. of Stations Served:	2

*Based on 80° F inlet water & 90° F ambient air temp for 50° F chilled drinking water.

- Visual Filter Monitor: LED Filter Status Indicator for when filter change is necessary.
- Filter is certified to NSF 42 and 53 for lead, particulate, chlorine, taste and odor reduction. 1,500 gal. capacity.

COOLING SYSTEM

- Compressor: Hermetically-sealed, reciprocating type, single phase. Sealed-in lifetime lubrication.
- Condenser: Fan cooled, copper tube with aluminum fins. Fan motor is permanently lubricated.
- Cooling Unit: Combination tube-tank type. Continuous copper tubing with is fully insulated with EPS foam that meets UL requirements for self-extinguishing material.
- Refrigerant Control: Refrigerant R-134a is controlled by accurately calibrated capillary tube.
- Temperature Control: Easily accessible enclosed adjustable thermostat is factory preset. Requires no adjustment other than for altitude requirements.



Included with Product: Water Cooler, Filter

Ships in one box.

AMERICAN PRIDE. A LIFETIME TRADITION. Like your family, the Elkay family has values and traditions that endure. For almost a century, Elkay has been a family-owned and operated company, providing thousands of jobs that support our families and communities.



PRODUCT COMPLIANCE

ADA & ICC A117.1

ASME A112.19.3/CSA B45.4

Buy American Act

CAN/CSA C22.2 No. 120

NSF/ANSI 42, 53, 61, & 372 (lead free)

UL 399



Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards. Installation may require additional components and/or construction features to be fully compliant. Consult the local Authority Having Jurisdiction if necessary.

[Installation Instructions \(PDF\)](#)

5 Year Limited Warranty on the refrigeration system of the unit. Electrical components and water system are warranted for 12 months from date of installation. **Warranty pertains to drinking water applications only. Non-drinking water applications are not covered under warranty.**

[Warranty \(PDF\)](#)

PART: _____ QTY: _____

PROJECT: _____





CONTACT: _____

DATE: _____

NOTES: _____

APPROVAL: _____

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Optional Accessories		
51299C	Elkay WaterSentry VII Replacement Filter (Coolers + Fountains) Spec Sheet (PDF)	
MLP200	In-wall Carrier for Bi-level On-wall Bottle Fillers, Coolers & Fountains Spec Sheet (PDF)	
LKAPREZL	Elkay Cane Apron for EZ Gray Spec Sheet (PDF)	
98568C	WaterSentry Filter Mounting Cover (Stainless Steel) Spec Sheet (PDF)	

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

IMPORTANT! INSTALLER PLEASE NOTE:

This water cooler has been designed and built to provide water to the user which has not been altered by materials in the cooler waterways.

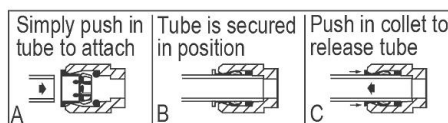
The grounding of electrical equipment such as telephone, computers, etc to water lines is a common procedure. This grounding may be in the building or occur away from the building. This grounding can cause electrical feedback into a water cooler creating an electrolysis which creates a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by installing the cooler using the proper materials as shown below.

NOTICE

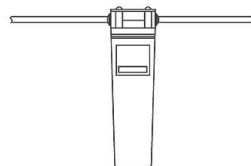
The water cooler must be connected to the water supply using a dielectric coupling. The cooler is furnished with a non-metallic strainer which meets this requirement. The drain trap which is provided by the installer should also be plastic to completely isolate the cooler from the building plumbing system.

Simultaneous operation of both bubblers on a bi-level unit may not be possible depending on water supply pressure. If simultaneous operation is desired, please ensure a minimum of 65 psi supply. Lower pressure may be possible for non-filtered and/or non-refrigerated installations.

OPERATION OF QUICK CONNECT FITTINGS

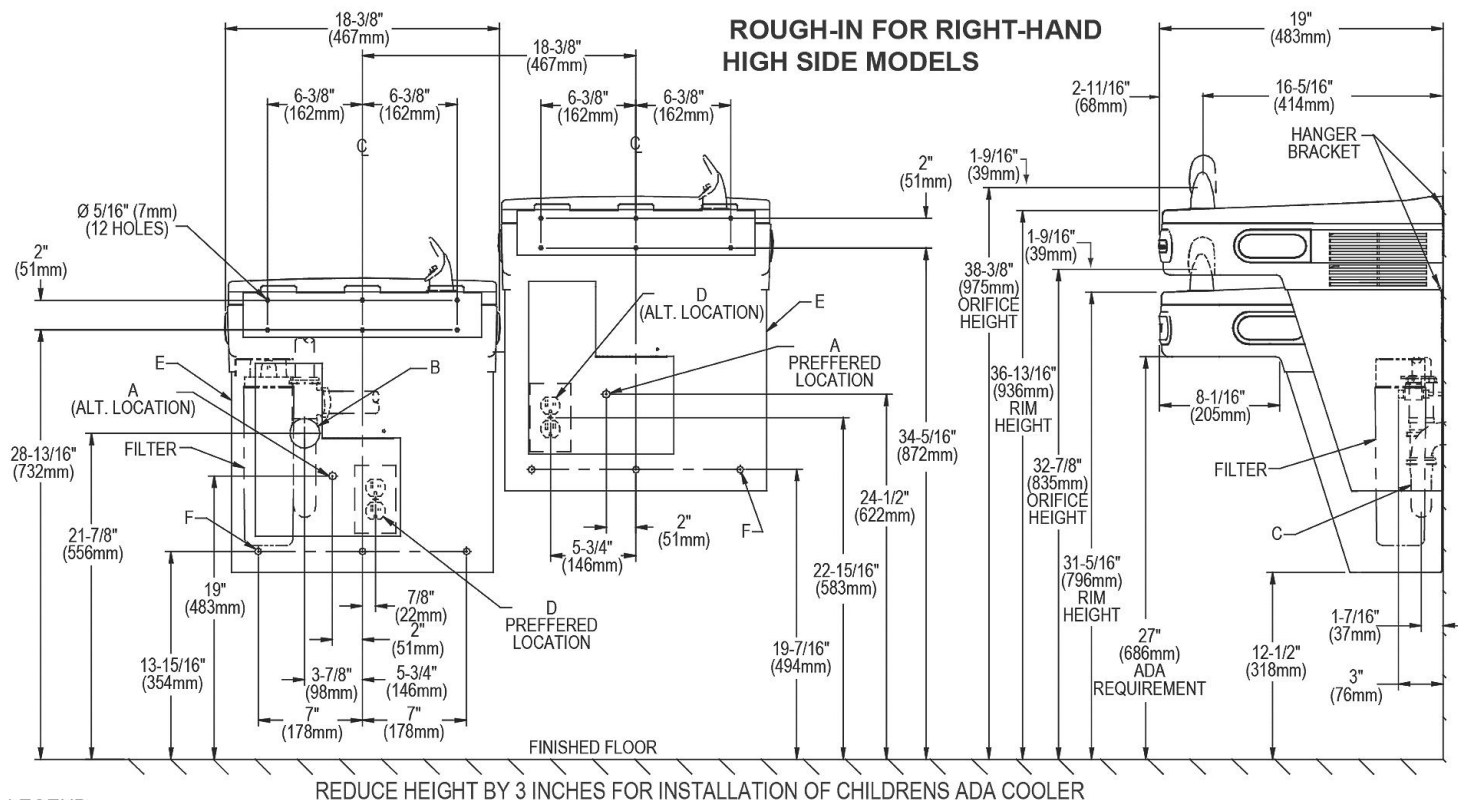


Pushing tube in before pulling it out helps to release tube



WaterSentry® VII Filter System

ROUGH-IN FOR RIGHT-HAND HIGH SIDE MODELS



LEGEND

A = Recommended water supply location. Shut off valve (not furnished) to accept 3/8" O.D. unplated copper tube. 3" (76mm) maximum out from wall.

B = Recommended location for waste outlet 1-1/2" O.D. drain. Drain stub 2" (51mm) out from wall.

C = 1-1/2" Trap not furnished.

D = Electrical supply (3) wire recessed box.

E = Insure proper ventilation by maintaining 6" (152mm) (MIN.) clearance from cabinet louvers to wall.

F = 7/16" Bolt holes for fastening unit to wall.

NOTE: Installation instructions must use Ground Fault Circuit Interrupter (GFCI). It is highly recommended that the circuit be dedicated and the load protection be sized for 20 amps.

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Washbrook® FloWise®
Universal Urinal

- Vitreous china
- Ultra High Efficiency, Low Consumption. Operates in the range of 0.125gpf to 1.0gpf (0.5 Lpf to 3.8 Lpf)
- Flushing rim
- Elongated 14" rim from finished wall
- Washout flush action
- Extended sides for privacy
- 3/4" inlet spud
- Outlet connection threaded 2" inside (NPTF)
- 2 wall hangers
- Fixture only
- Strainer included
- Meets ASME flush requirements at 0.125 to 1.0 gpf

- ☐ **6590.001** Universal Top spud
- ☐ **6515.001** Universal Back spud

Nominal Dimensions:

360 x 480 x 664mm
(14-1/8" x 18-7/8" x 26-1/8")

Recommended working pressure – between
20 psi at valve when flushing and 80 psi static

Compliance Certifications -

Meets or Exceeds the Following Specifications:

- ASME A112.19.2-2008/CSA B45.1-08 for Vitreous China Fixtures



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

To Be Specified:

- ☐ Color: ☐ White
- ☐ Flush Valve:
 - 1.0 gpf Flush Valve: Sensor-Operated:
 - ☐ American Standard Selectronic® #6063.101.002 DC Power (Top Spud)
 - ☐ American Standard Selectronic® #6062.101.002 AC Power (Back Spud)
 - 1.0 gpf Flush Valve: Manual-Operated:
 - ☐ American Standard # 6045.101.002
 - 0.5 gpf Flush Valve: Sensor-Operated:
 - ☐ American Standard Selectronic® #6063.051.002 DC Power (Top Spud)
 - ☐ American Standard Selectronic® #6062.051.002 AC Power (Back Spud)
 - 0.5 gpf Flush Valve: Manual-Operated:
 - ☐ American Standard #6045.051.002
 - 0.125 gpf Flush Valve: Sensor-Operated:
 - ☐ American Standard Selectronic® #6063.013.002 DC Power (Top Spud)
 - ☐ American Standard Selectronic® #6062.013.002 AC Power (Back Spud)
 - 0.125 gpf Flush Valve: Manual-Operated:
 - ☐ American Standard #6045.013.002



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES
AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND
FACILITIES - CHECK LOCAL CODES.

- When installed so top of rim is 432mm (17") MAXIMUM from finished floor.



When used with
0.125 gpf
urinal flush valve

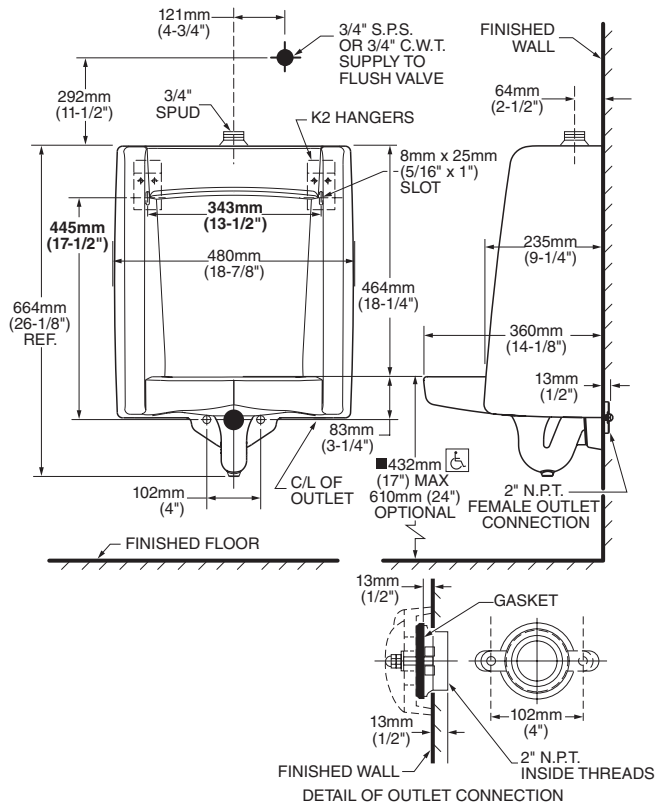


When used with
0.125 or 0.5 gpf
urinal flush valve

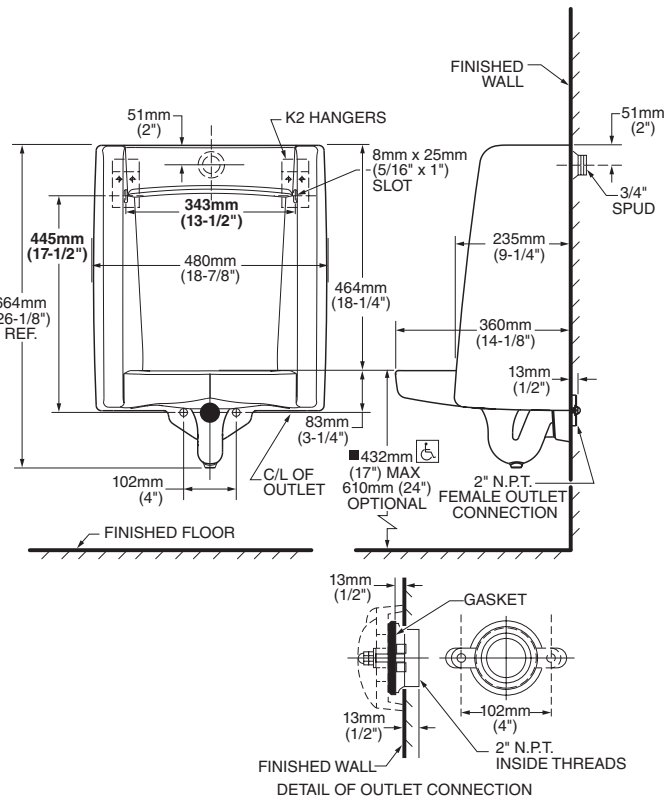



ADA
COMPLIANT

6590.001 TOP SPUD



6515.001 BACK SPUD



 **MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES
AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND
FACILITIES - CHECK LOCAL CODES.**

● When installed so top of rim is 432mm (17") MAXIMUM from finished floor.

NOTES:

FLUSH VALVE NOT INCLUDED AND MUST BE ORDERED SEPARATELY.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.