INSTALL PACKET

FOR

SCHUSSLER PARK

ORLAND PARK, IL

DATE: **8/5/2024**

1. DESIGN

- [x] .01 AL D PLAN

2. PRODUCT DATA

- [x] .0 STRUCTURE
- [x] .0 FIXTURES
- [x] .0 ELECTRICAL
- [x] .0 ACCESSORIES

1. DESIGN

This section is structured as follows:

1.01 l Pl

1.01 SEALED PLAN SET

Current building drawings & details follow this page.

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PROJECT INFORMATION

PROJECT NAME: SCHUSSLER PARK
PROJECT I.D. : SCP01
SITE ADDRESS: 14609 POPLAR RD
CITY / STATE: ORLAND PARK, 60462

SHEET SCHEDULE

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REVISION SCHEDULE

REV.	DATE	BY	DESCRIPTION
1	6/24/2024	ZW	G1, G2, A3.1, A3.2, S7.1, S7.2, S7.3, S8.4, S8.5, S9.1, S10.1 S10.2, E1, E2, E4
2	7/29/2024	ZW	G2, A1.1, A2.1, A2.2, A3.1, A3.2, S7.1, S7.3, P2, E1, E2

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: TITLE SHEET
REVISION & SHEET SCHEDULE

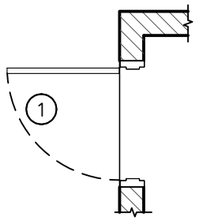
PROJECT #: SCP01
DATE: 5/3/2024
DRAWN BY: ZW

REV.	DATE:	BY:

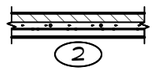
REVISIONS:

SHEET NO. G0

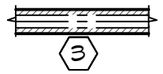
SYMBOL LEGEND



DOOR NUMBER - SEE APPLICABLE SCHEDULE

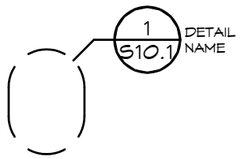


VENT NUMBER OR WINDOW NUMBER - SEE APPLICABLE SCHEDULE

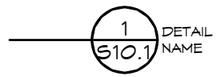


WOOD FILLER WALL - SEE APPLICABLE SCHEDULE

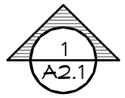
INTERIOR ELEVATION REFERENCE



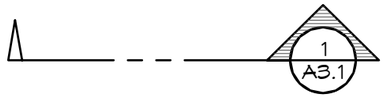
DETAIL CALLOUT



DETAIL REFERENCE



ELEVATION VIEW



BUILDING SECTION

ABBREVIATIONS

AB	ANCHOR BOLT
ACT	ADULT CHANGING TABLE
AFF	ABOVE FINISHED FLOOR
ATS	AUTOMATIC TRANSFER SWITCH
BN	BOUNDARY NAIL
BOT	BOTTOM
BP	BREAKER PANEL
CJ	CONTROL JOINT
CL	CENTER LINE
CO	CLEAN OUT
CMU	CONCRETE MASONRY UNIT
db	NOMINAL BAR DIAMETER
DD	DIAPER DECK
DIA	DIAMETER
DISC	DISCONNECT
EM	ELECTRIC METER
EN	END NAIL
EW	EACH WAY
FA	FREE AIR
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FG	FINISHED GRADE
FN	FIELD NAIL
FRP	FIBERGLASS REINFORCED PANEL
GB	GRAB BAR
GLB	GLUE LAMINATED BEAM
HB	HOSE BIBB
HD	HAND DRYER
HM	HOLLOW METAL (DOOR)
HSS	HOLLOW STRUCTURAL SECTIONS
HTR	HEATER
HYP	HYPOTENUSE
I.S.	INSTALLER SUPPLIED
KSI	KIPS PER SQUARE INCH
L	STRUCTURAL STEEL ANGLE
LAV	LAVATORY
LF	LIGHT FIXTURE
MBP	MAIN BREAKER PANEL
MD	MAIN DISCONNECT
MIN	MINIMUM
MIR	MIRROR
MO	MASONRY OPENING
MR	METAL ROOFING
MS	MILD STEEL
ND	NAPKIN DISPOSAL
NTS	NOT TO SCALE
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OSB	ORIENTED STRAND BOARD
P	PHOTO EYE
PCC	PORTLAND CEMENT COMPANY
PEN	PANEL EDGE NAILING
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PV	PHOTO VOLTAIC
R4S	ROUGH FOUR SIDES
REQD	REQUIRED
RO	ROUGH OPENING
S4S	SURFACED FOUR SIDES
SCH	SCHEDULE
SD	SOAP DISPENSER
SIP	STRUCTURAL INSULATED PANEL
SJ	SAW JOINT
SM	SHEET METAL
SN	SHEAR NAILING
SS	STAINLESS STEEL
TBD	TO BE DETERMINED
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TLT	TOILET
TP	TOILET PAPER DISPENSER
TS	TIMER SWITCH
TSCD	TOILET SEAT COVER DISPENSER
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VB	VAPOR BARRIER
VTR	VENT THROUGH ROOF
WH	WATER HEATER
WWM	WOVEN WIRE MESH
W/	WITH

GENERAL NOTES

1. THIS PROJECT SHALL COMPLY WITH ALL CODES AND STANDARDS IDENTIFIED ON SHEET G2. ALL WORK SHALL MEET OR EXCEED INDUSTRY STANDARDS FOR MATERIALS, WORKMANSHIP, ETC.

2. CONTRACTOR SHALL REVIEW THE DRAWINGS THOROUGHLY BEFORE PROCEEDING WITH ANY WORK. ANY DISCREPANCIES FOUND WITHIN THESE DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF ROMTEC. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK HE KNOWS TO BE IN CONFLICT WITH OTHER WORK, OR IS NOT APPROVED BY CODE, UNTIL RESOLVED BY ROMTEC OR THE ENGINEER/ARCHITECT.

3. CONTRACTOR SHALL MAINTAIN GENERAL LIABILITY INSURANCE AND WORKER'S COMP. INSURANCE AS PER SPECIFIC STATE MINIMUM REQUIREMENTS.

4. FOOTINGS SHALL BE CONSTRUCTED ON UNDISTURBED NATIVE SOIL OR ENGINEER APPROVED FILL. CONTRACTOR TO VERIFY ASSUMED SOIL BEARING CAPACITY NOTED ON SHEET G2. SHOULD SOIL NOT MEET OR EXCEED THE ASSUMED SOIL BEARING CAPACITY, CONTRACTOR TO MODIFY SOIL CONDITIONS TO SATISFY CRITERIA OR NOTIFY THE STRUCTURAL ENGINEER TO REVISE DESIGN PER CONDITIONS ENCOUNTERED. BACKFILL AROUND BUILDING TO PROVIDE SLOPE AWAY FROM BUILDING NOT LESS THAN A 2% SLOPE FOR A MINIMUM DISTANCE OF 10' FROM THE BUILDING, PER 2018 IBC 1804.3.

5. A. CAST-IN-PLACE CONCRETE: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS 4" +/- 1" SLUMP, WITH MAX 1" AGGREGATE, AND ALL MATERIALS IN ACCORDANCE WITH ACI 318 STANDARDS. FINE BROOM FINISH INTERIOR SURFACES AND EXTERIOR SLABS. JOINTS REQUIRED IN FLAT WORK, SEE FOUNDATION DETAILS FOR REQUIREMENTS.
B. CMU BLOCKS "MEDIUM WEIGHT DENSITY" ARE MANUFACTURED TO ASTMC90-02 STANDARDS WITH A MIN COMPRESSIVE STRENGTH Fm = 1500 PSI. ALL CMU BLOCKS MUST BE FULLY GROUTED IN 5 FT MAXIMUM LIFTS (EXCEPTION - HIGH LIFT GROUTING FOR 8'-8" WALLS MAYBE USED AS LONG AS CLEANOUT OPENINGS ARE PROVIDED AT THE BOTTOM OF EVERY CELL FOR EACH POUR ABOVE 5 FT). THE MORTAR TO BE USED SHALL BE TYPE S 1800 PSI MORTAR CONFORMING TO ASTM C270. MASONRY (CONCRETE) GROUT: 2500 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS 9" +/- 1" SLUMP, WITH MAX 1/2" AGGREGATE, AND TESTED IN ACCORDANCE TO MEET ACI 318. FINE OR COURSE GROUT MAY BE USED IN ACCORDANCE WITH 2018 IBC. CONSOLIDATE GROUT AT THE TIME OF PLACEMENT. CONSOLIDATE POURS EXCEEDING 12 IN. IN HEIGHT BY MECHANICAL VIBRATION, AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED. CONSOLIDATION AND RECONSOLIDATION ARE NORMALLY ACHIEVED WITH A MECHANICAL VIBRATOR. A LOW VELOCITY VIBRATOR WITH A 3/4 IN. HEAD IS USED.

6. ANCHOR AND MACHINE BOLTS SHALL BE ASTM A307, UNLESS NOTED OTHERWISE BOLTS SHALL BE INSTALLED PER TURN-OF-NUT INSTALLATION METHOD, REQUIRED TURNS FOR PRE-TENSIONING FROM SNUG-TIGHT, U.N.O. IN THIS PLAN SET OR BY ANCHOR BOLT OR FASTENER MANUFACTURER. SCREWS AND MACHINE BOLT CALLOUTS ARE MINIMUM SIZE ALLOWED, ACTUAL SIZE MAY VARY. HOLLOW STRUCTURAL SECTION (HSS) SHALL BE ASTM A500 GRADE B, Fy = 46 ksi. WIDE FLANGE BEAMS SHALL BE ASTM A992, Fy = 50 ksi. STEEL PLATES & SHAPES SHALL BE ASTM A36, Fy = 36 ksi. CONCRETE REINFORCING STEEL (REBAR): 60 ksi. (GRADE 60). WOOD FRAMING SHALL BE #2 & BETTER DOUGLAS FIR, UNO.
GLU-LAM BEAMS SHALL BE GRADE 24F-V4.

7. QUESTIONS CONCERNING MATERIALS OR CONSTRUCTION CONTACT ROMTEC TECHNICAL ASSISTANCE AT: 541-496-3541

8. ROMTEC SCOPE SUPPLY AND DESIGN SUBMITTAL (SSDS) IDENTIFY SPECIFIC MODEL, MANUFACTURER & BRAND OF ALL PLUMBING AND ELECTRICAL FIXTURES AND ACCESSORIES. REFER TO THE SSDS FOR SPECIFIC LIST OF ITEMS SUPPLIED BY ROMTEC, ANY ITEMS NOT LISTED IN THE SSDS IS ASSUMED SUPPLIED BY THE INSTALLER.

9. THE OWNER / CONTRACTOR MAY EXERCISE DISCRETION IN SELECTING THE FINAL LOCATION FOR NON-DIMENSIONED ACCESSORIES AND FIXTURES (E.G., LIGHTS, COMFORT HEATERS, ETC.)

NOTE: ARCHITECT/ENGINEER IS NOT RESPONSIBLE FOR ANY SITE DESIGN OR ENGINEERING AND WILL NOT BE HELD ACCOUNTABLE OR LIABLE FOR ANY ISSUES RELATED TO THIS SITE. IT IS THE OWNER'S RESPONSIBILITY TO ACCURATELY LOCATE THIS BUILDING, SET FLOOR AND ADJACENT ELEVATIONS, DETERMINE SITE IS SUITABLE FOR CONSTRUCTION, VERIFY ALL UTILITIES, ETC.

RECYCLE

RECYCLE ALL USED SHIPPING MATERIALS AND LEFT OVER BUILDING MATERIALS

8/02/2024

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Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: GENERAL NOTES
SYMBOL LEGEND

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

SHEET NO. G1

JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

CODES AND STANDARDS

2018 INTERNATIONAL BUILDING CODE WITH VILLAGE AMENDMENTS
2014 STATE OF ILLINOIS PLUMBING CODE WITH AMENDMENTS
2021 INTERNATIONAL MECHANICAL CODE WITH VILLAGE AMENDMENTS
2017 NATIONAL ELECTRICAL CODE WITH VILLAGE AMENDMENTS
2018 INTERNATIONAL FIRE CODE WITH VILLAGE AMENDMENTS
VILLAGE 2018 ILLINOIS ACCESSIBILITY CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE, ADOPTED BY STATE LAW

ACI AMERICAN CONCRETE INSTITUTE, ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

TMS THE MASONRY SOCIETY, TMS 402, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"

CODE SUMMARY:

OCCUPANCY CLASS.: U
CONSTRUCTION: VB
AREA: 1216 FT^2
AREA ALLOWABLE: 5500 FT^2
HEIGHT: 1 STORY
HEIGHT ALLOWABLE: 1 STORY
OCCUPANT LOAD: 24

DESIGN LOADS

ROOF: SNOW LOAD	30 PSF
ROOF: DEAD LOAD	15 PSF
WALL DEAD LOAD	81 PSF
IBC SEISMIC DESIGN CATEGORY	B
DESIGN WIND SPEED (ULTIMATE)	115 MPH EXPOSURE C
ALLOWABLE SOIL BEARING	500 PSF

SEISMIC DESIGN DATA:

RISK CATEGORY:	II
IMPORTANCE FACTOR:	1.0
SS:	0.129
S1:	0.067
SITE CLASS:	D
SMS:	0.207
SM1:	0.161
SDS:	0.138
SD1:	0.107
SEISMIC DESIGN CATEGORY:	B
R =	5
BASE SHEAR: V =	0.028 W

WIND DESIGN :

RISK CATEGORY:	II
WIND SPEED =	115 MPH
EXPOSURE:	C
INTERNAL PRESSURE COEFE =	± 0.18

BEARING WALL SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALL

ANALYSIS METHOD: EQUIVALENT STATIC FORCE METHOD

SPECIAL INSPECTIONS

CONCRETE SPECIAL INSPECTION NOT REQUIRED PER IBC 1705.3
EXCEPTION 2.3 [FOOTINGS]
EXCEPTION 3 [SLAB]

SPECIAL INSPECTIONS (TMS 402-16)

TABLE 3 -- MINIMUM VERIFICATION REQUIREMENTS

MINIMUM VERIFICATION	REQUIRED FOR QUALITY ASSURANCE (a)			REFERENCE FOR CRITERIA
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 602
PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS		R		ART. 1.5
PRIOR TO CONSTRUCTION, VERIFICATION OF f'_m AND f'_{AAC}, *EXCEPT WHERE SPECIFICALLY EXEMPT BY THE CODE.*		R		ART. 1.4 B
DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO THE PROJECT SITE.		R		ART. 1.5 & 1.6.3
DURING CONSTRUCTION, VERIFICATION OF f'_m AND f'_{AAC} *FOR EVERY 5,000 sq. ft. (465 sq.m).*		NR		ART. 1.4 B
DURING CONSTRUCTION, VERIFICATION OF PORPORTIONS OF MATERIALS AS DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDED MORTAR, PRESTRESSING GROUT, AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT.		NR		ART. 1.4 B

(a) R=REQUIRED, NR=NOT REQUIRED

TABLE 4 -- MINIMUM SPECIAL INSPECTION REQUIREMENTS

MINIMUM SPECIAL INSPECTION

INSPECTION TASK	REQUIRED FOR QUALITY ASSURANCE (a)			REFERENCE FOR CRITERIA	
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 402	TMS 602
1. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
A. PROPORTION OF SITE-PREPARED MORTAR		P			ART. 2.1 , 2.6 A, & 2.6 C
B. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES		P			ART. 2.4 B & 2.4 H
C. GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS, ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES		P			ART. 3.4 & 3.6 A
D. PRESTRESSING TECHNIQUE		P			ART. 3.6 B
E. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY		C(b)/P(c)			ART. 2.1 C.1
F. SAMPLE PANEL CONSTRUCTION		P			ART. 2.1 C.1
2. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
A. GROUT SPACE		P			ART. 3.2 D & 3.2 F
B. PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES		P		SEC. 10.8 & 10.9	ART. 2.4 & 3.6
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS		P		SEC. 6.1, 6.3.1, 6.3.6, & 6.3.7	ART. 2.4 & 3.6
D. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS		P			ART. 2.6 B & 2.4 G.1.b
3. VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION:					
A. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS		P			ART. 1.5
B. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION		P			ART. 3.3 B
C. SIZE AND LOCATION OF STRUCTURAL MEMBERS		P			ART. 3.3 F
D. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.		P		SEC. 1.2.1(e), 6.2.1 & 6.3.1	
E. WELDING OF REINFORCEMENT		C		SEC. 6.1.6.1.2	
F. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F(4,4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F(32.2°C))		P			ART. 1.8 C & 1.8 D
G. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE		C			ART. 3.6 B
H. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE		C			ART. 3.5 & 3.6 C
I. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS		C(b)/P(c)			ART. 3.3 B.9 & 3.3 F.1.b
4. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		P			ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, & 1.4 B.4

(a) FREQUENCY REFERS TO THE FREQUENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE LISTED TASK OR PERIODICALLY DURING THE LISTED TASK, AS DEFINED IN THE TABLE. NR=NOT REQUIRED, P=PERIODIC, C=CONTINUOUS

(b) REQUIRED FOR THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY.

(c) REQUIRED AFTER THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY.

8/02/2024

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Exp. 11/30/2024

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ROMTEC 224-066

PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: DESIGN CRITERIA & CODE SUMMARY

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

REVISIONS:

SHEET NO. G2

WALL TYPE SCHEDULE

8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.

8/02/2024

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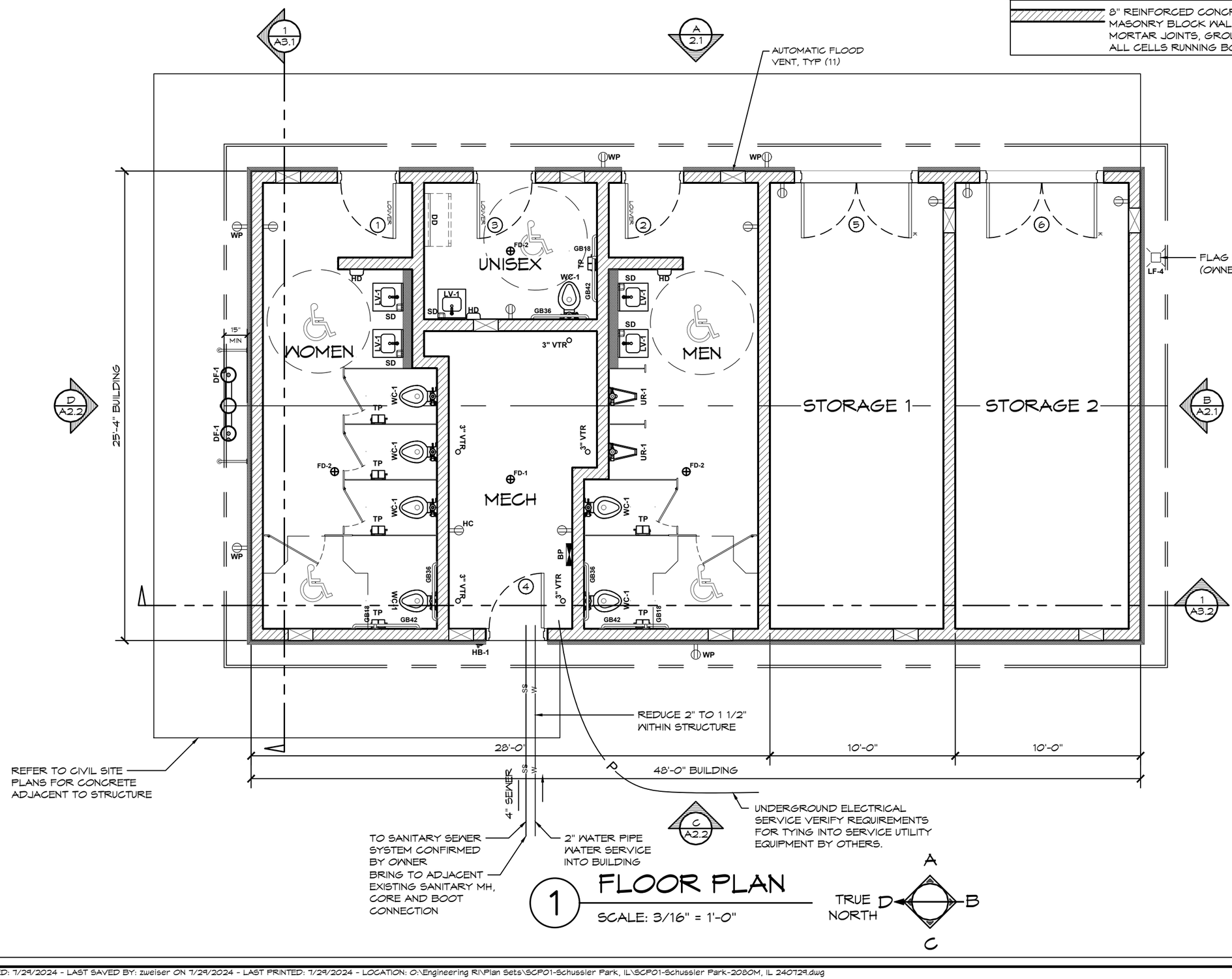


1 FLOOR PLAN

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

PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: FLOOR PLAN

PROJECT #: SCP01

DATE: 5/3/2024

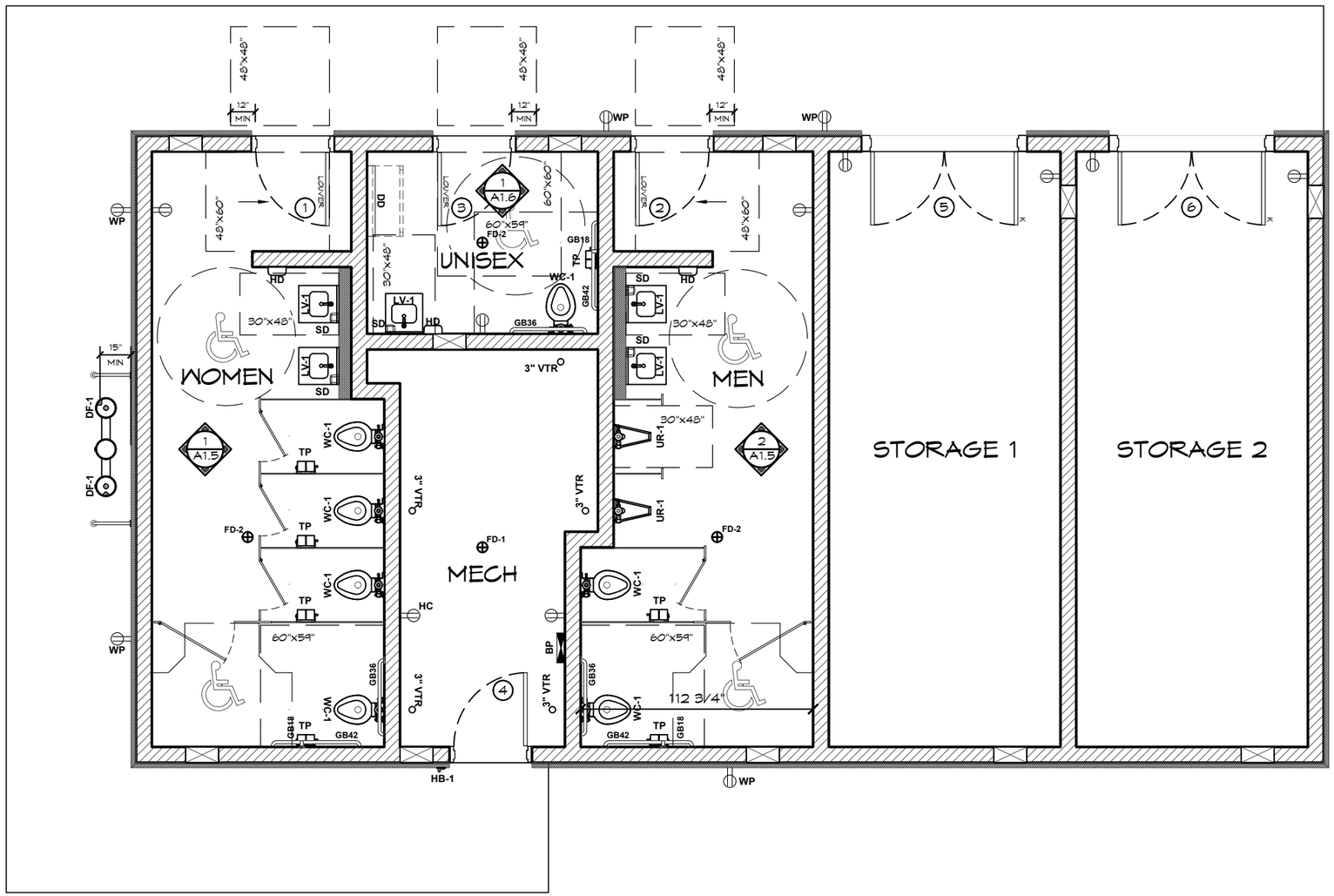
DRAWN BY: ZW

REV.	DATE:	BY:
2	7/29/2024	ZW

REVISIONS:

SHEET NO. A1.1

PARTITIONS SHALL BE INSTALLED PER INSTALL INSTRUCTIONS & DETAILS IN THE:
"FINAL"
ROMTEC SCOPE OF SUPPLY AND DESIGN SUBMITTAL



1 ADA RESTROOM FIXTURE CLEAR FLOOR AREA

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

TRUE NORTH

8/02/2024

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Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ADA CLEARANCES

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

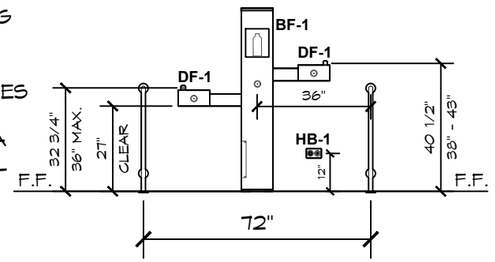
REVISIONS:

SHEET NO. A1.2

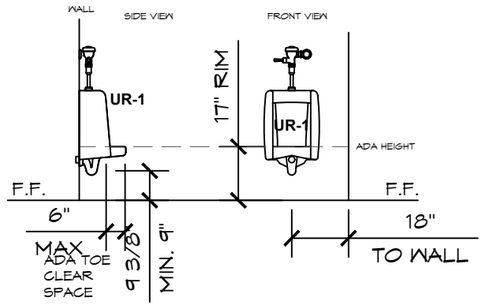
JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

DRINKING FOUNTAIN NOTES:
-THE ACCESSIBLE DRINKING FOUNTAIN SHALL BE A MINIMUM 18 INCHES (AND MAXIMUM 19 INCHES FOR WALL AND POST-MOUNTED CANTILEVERED DRINKING FOUNTAINS) IN DEPTH.
-THE SPOUT SHALL BE LOCATED 15 INCHES MINIMUM FROM THE VERTICAL SUPPORT AND 5 INCHES MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS. -THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES OF THE FRONT FACE OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES AND 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

MOST DEPENDABLE WATER FOUNTAIN

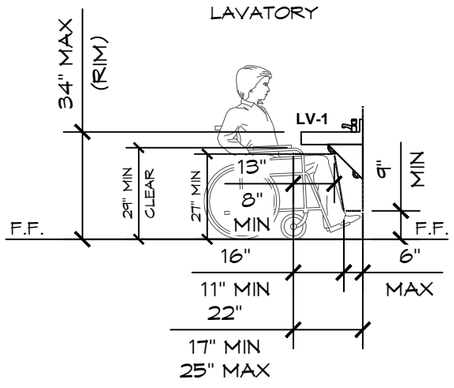


URINAL

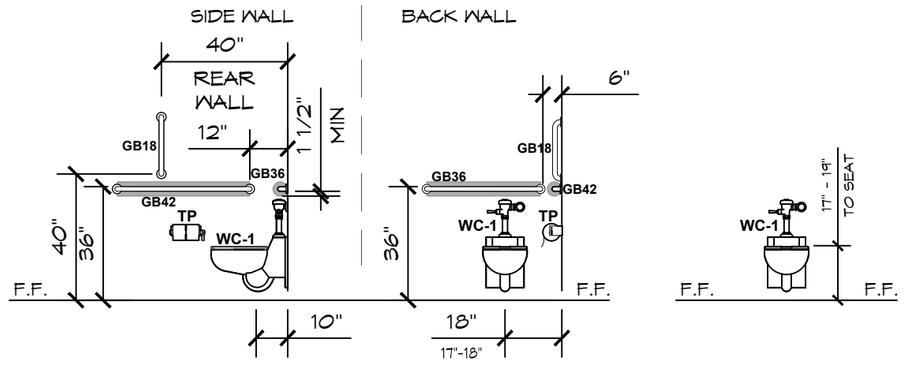


A. THE ACCESSIBLE SINK SHALL BE MOUNTED WITH THE COUNTER OR RIM NO HIGHER THAN 34" ABOVE FINISH FLOOR. KNEE CLEARANCE THAT IS AT LEAST 27" HIGH, 30" SIDE AND 19" UNDERNEATH THE SINK SHALL BE PROVIDED. HOT WATER AND DRAIN SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK. SECTION 11B- 606.
B. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. LEVER OPERATED, PUSH-TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE ACCEPTABLE. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS. SECTION 11B-606.4.

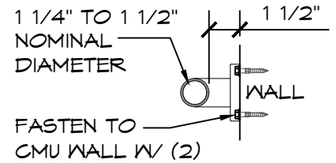
LAVATORY



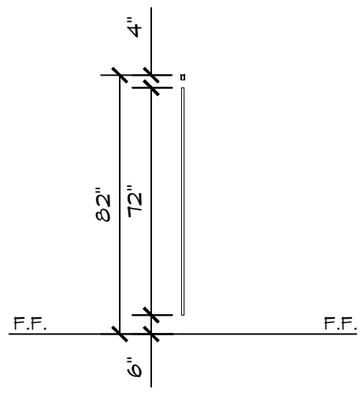
GRAB BARS
SEE DETAIL 2/A1.3



INSTALLED GRAB BARS MUST MEET 250# MINIMUM LOAD & GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS PER CODE.



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



ALL RESTROOM PARTITION DOORS SHALL BE EQUIPPED WITH SELF CLOSING DEVICE. A LOOP OR U-SHAPED HANDLE WILL BE PROVIDED ON THE INSIDE AND OUTSIDE OF THE ADA STALL DOOR WITH HARDWARE NOT REQUIRING GRASPING OR TWISTING.

COMPARTMENT WIDTH IS FROM FINISHED WALL TO CENTER LINE OF PANEL. DEPTH IS FROM FINISHED WALL TO OUTSIDE FACE OF STILES.

PHENOLIC PARTITIONS 1/2" PANEL / 3/4" PILASTER (FLOOR MOUNTED OVERHEAD BRACED PRIVACY SCREEN)

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ADA RESTROOM FIXTURE DETAILS

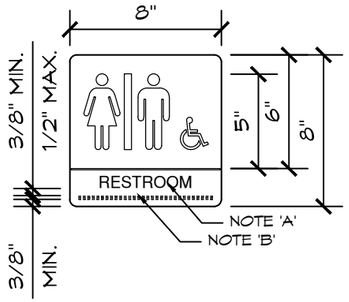
PROJECT #: SCP01
DATE: 5/3/2024
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. A1.3

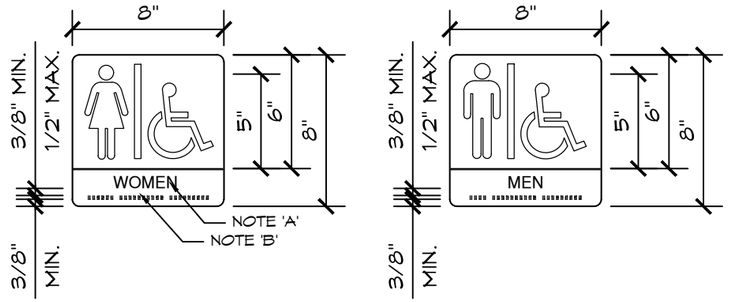
SIGN FASTENERS: CONCRETE/CMU
(4) 3/16" X 1 3/4" 410SS PHILLIPS FLAT HEAD CONCRETE ANCHOR



NOTES:
A) CHARACTERS ON SIGNS SHALL BE RAISED 1/32" INCH MINIMUM AND SHALL BE 'SANS SERIF' UPPERCASE CHARACTERS ACCOMPANIED BY GRADE II BRAILLE (WHERE REQUIRED). RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8" INCH AND A MAXIMUM OF 2" INCHES HEIGHT.
B) CONTRACTED GRADE II BRAILLE SHALL BE USED WHENEVER BRAILLE IS REQUIRED. DOTS SHALL BE 1/10"TH INCH ON CENTERS IN EACH CELL WITH A 2/10TH INCH SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE A RAISED A MINIMUM OF 1/40TH (0.025) INCH ABOVE THE BACKGROUND.

1 ADA SIGNS DETAIL

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



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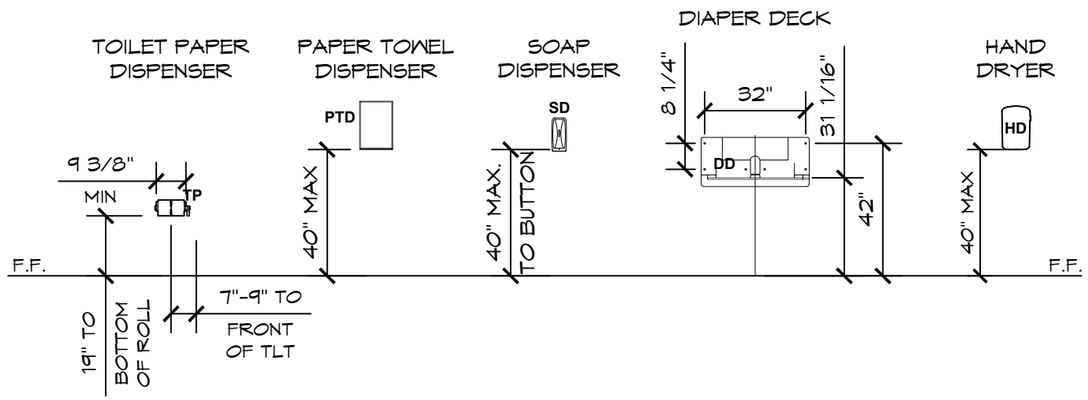
2 ADA SIGNS DETAIL

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



3 ADA RESTROOM FIXTURE DETAILS

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ADA RESTROOM FIXTURE DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

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REVISIONS:

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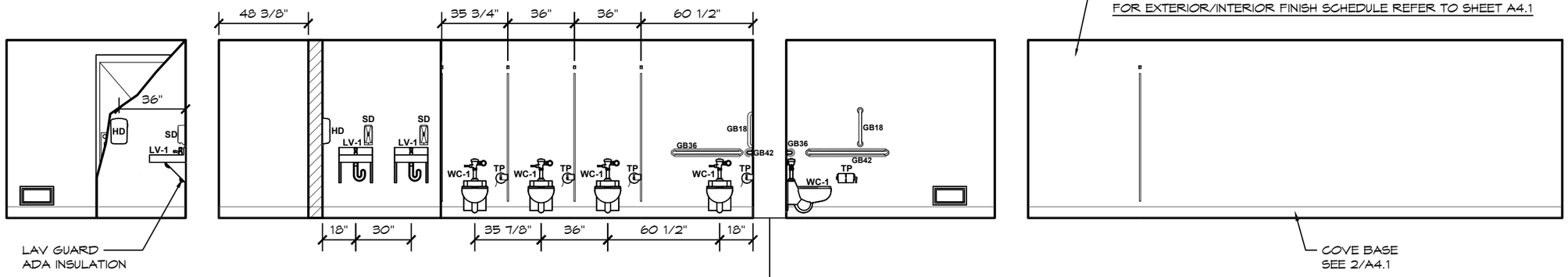
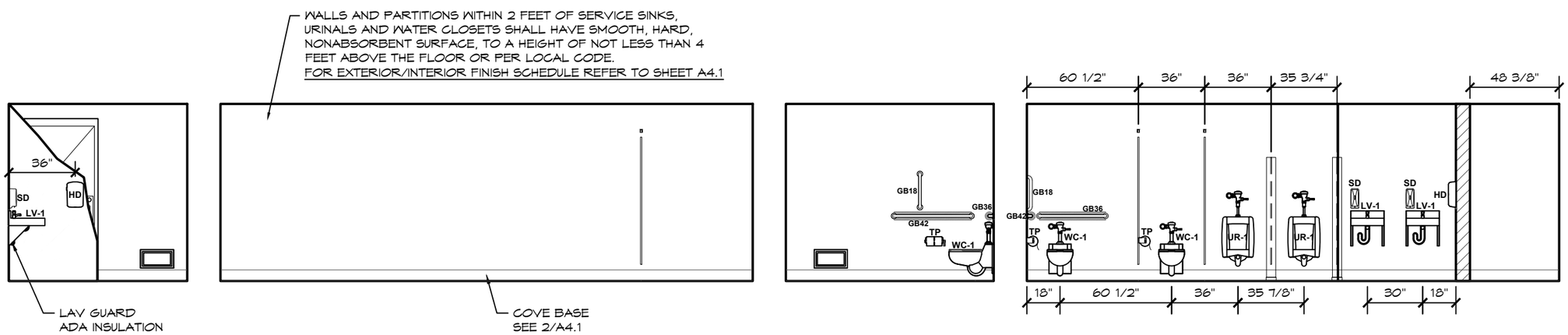


1 WOMEN ADA RESTROOM INTERIOR ELEVATION VIEWS

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



2 MEN ADA RESTROOM INTERIOR ELEVATION VIEWS

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: INTERIOR ELEVATION VIEWS

PROJECT #: SCP01

DATE: 5/3/2024

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REVISIONS:

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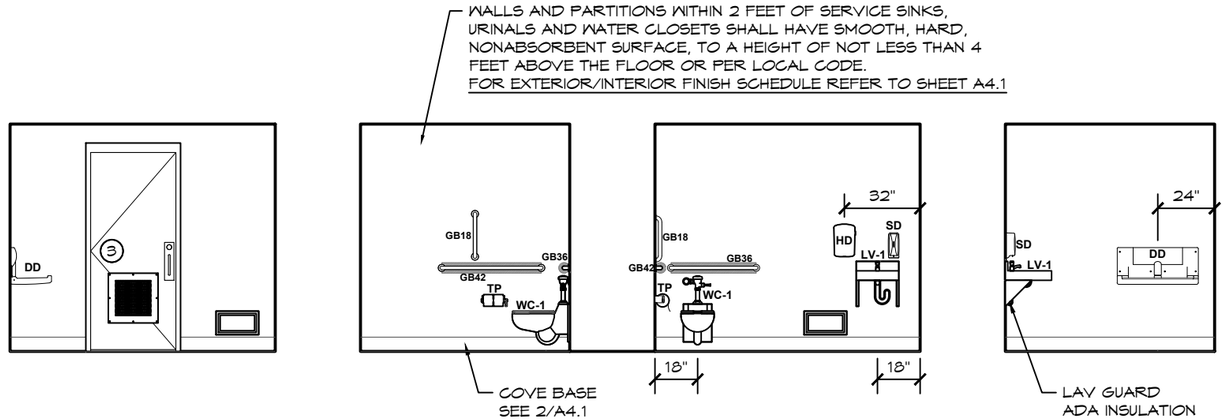

1 UNISEX ADA RESTROOM INTERIOR ELEVATION VIEWS

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

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: INTERIOR ELEVATION VIEWS

PROJECT #: SCP01

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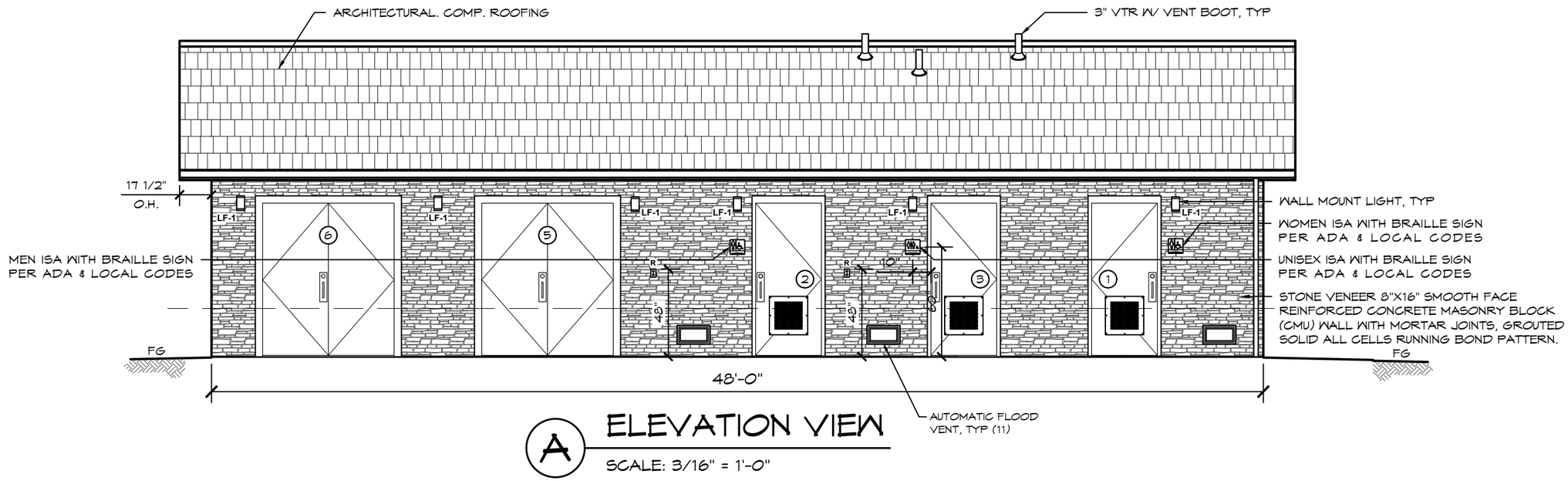
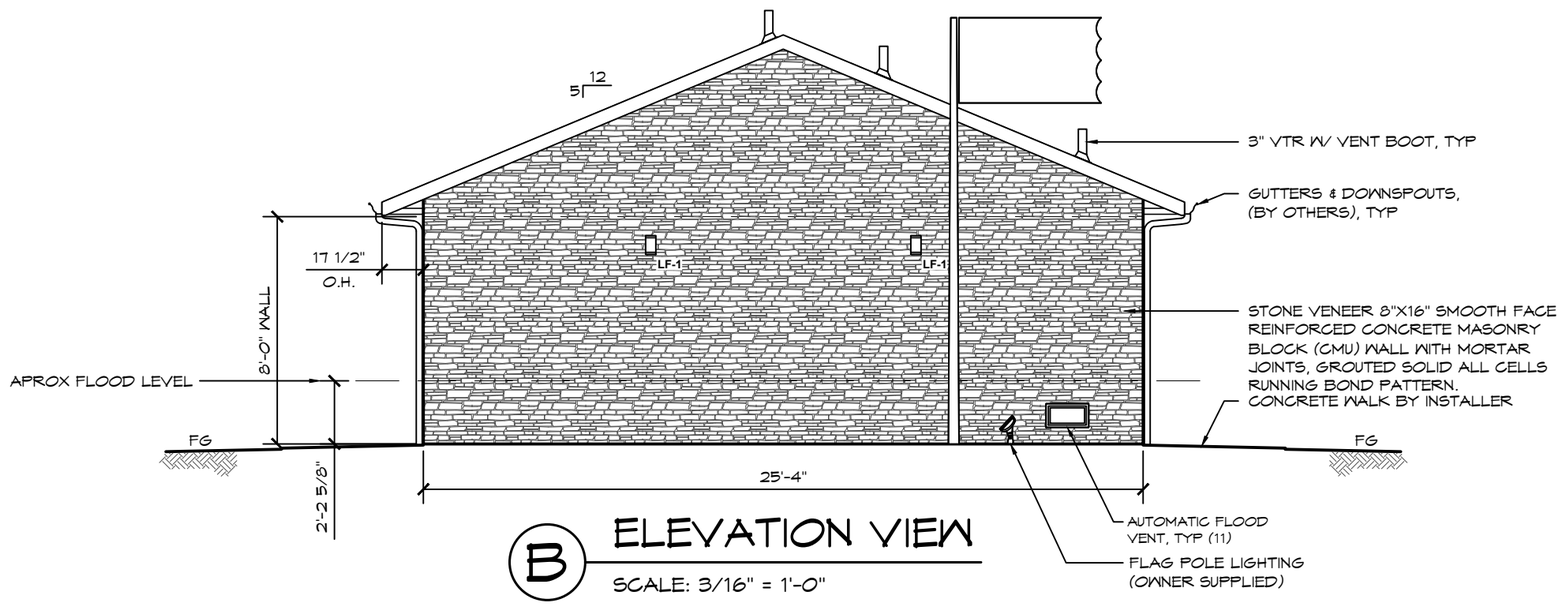


A ELEVATION VIEW

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



B ELEVATION VIEW

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

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: EXTERIOR ELEVATION VIEWS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

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1	7/29/2024	ZW
2	7/29/2024	ZW

REVISIONS:

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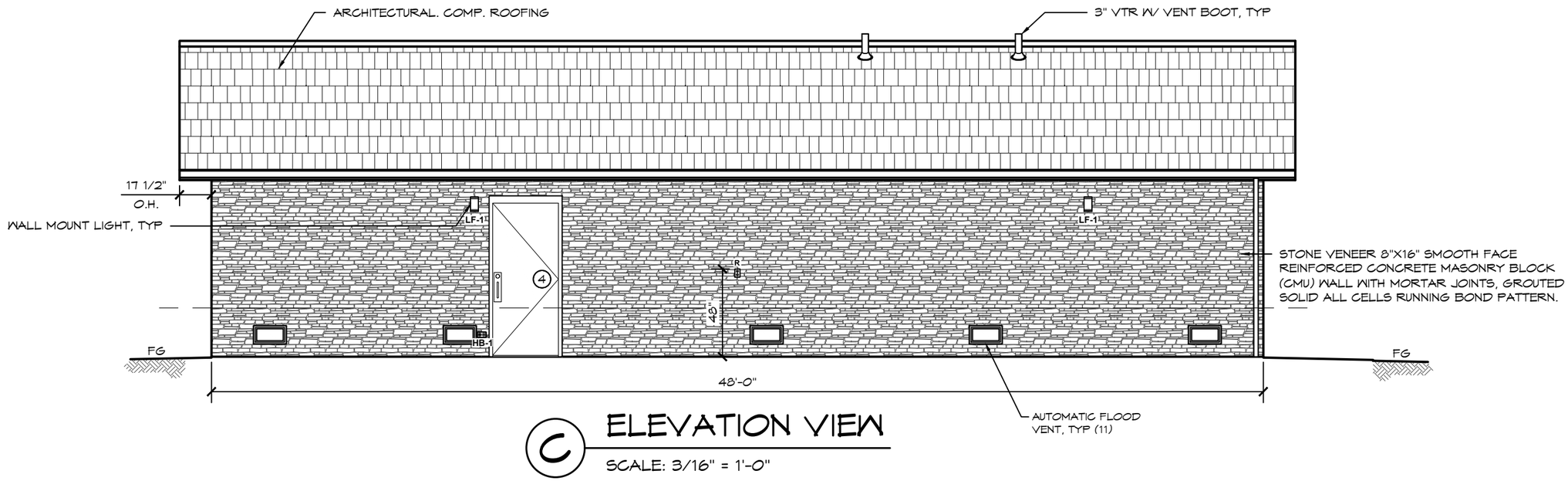
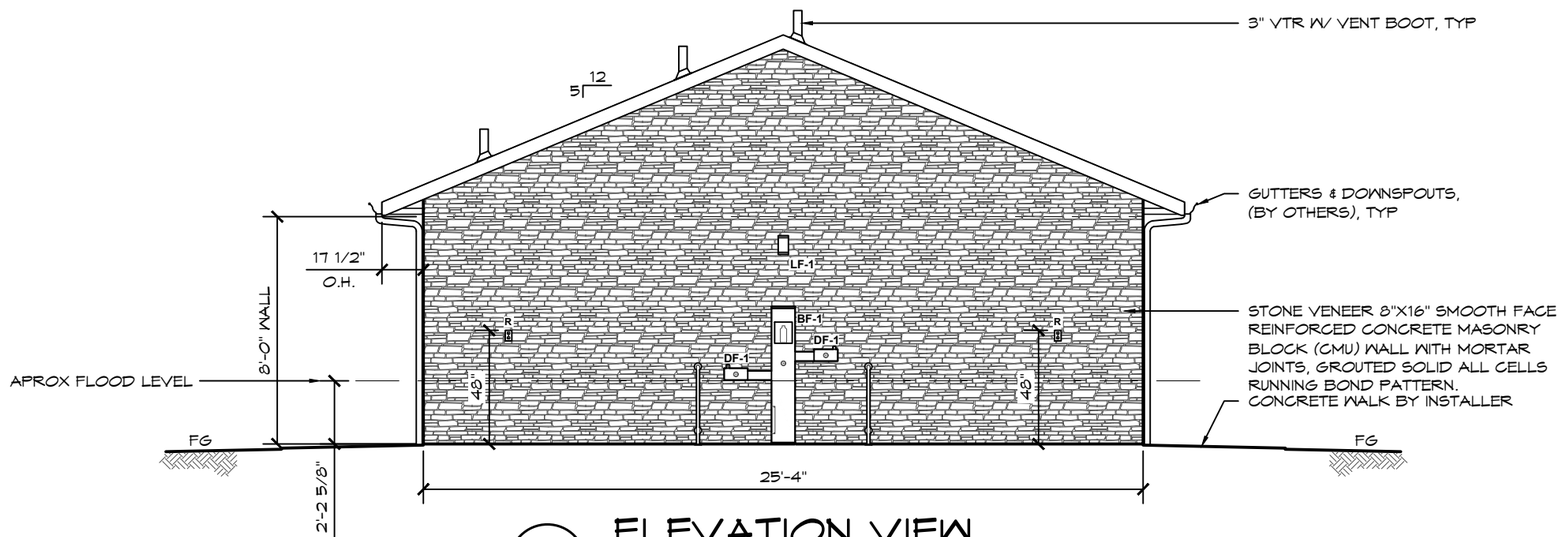


C ELEVATION VIEW

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



D ELEVATION VIEW

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: EXTERIOR ELEVATION VIEWS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

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1	7/29/2024	ZW
2	7/29/2024	ZW

REVISIONS:

SHEET NO. A2.2

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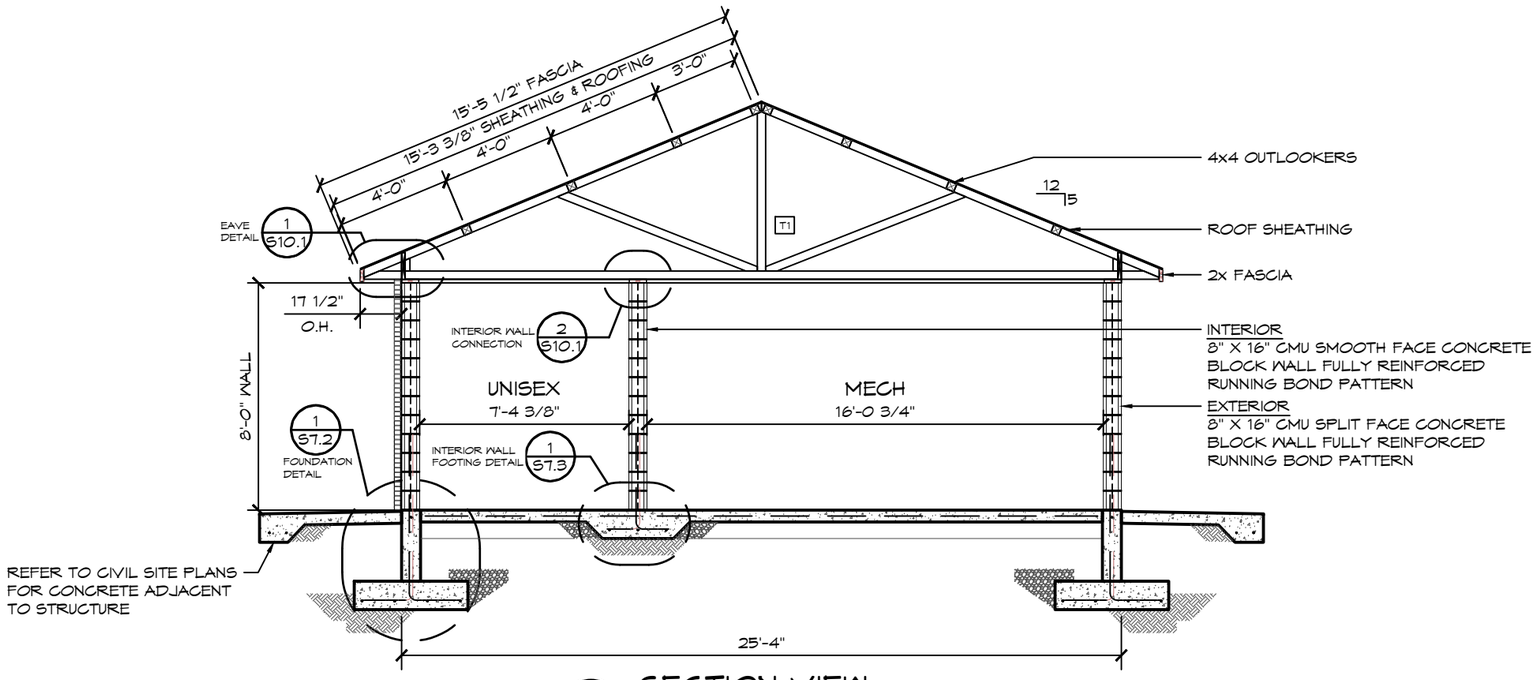
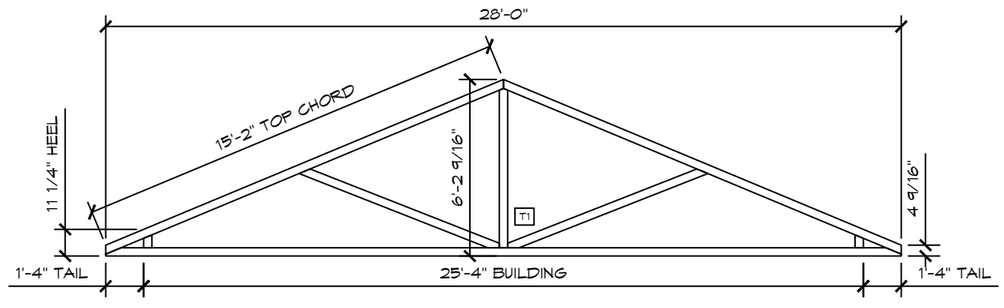


1 SECTION VIEW

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



T1 STANDARD TRUSS

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

8/02/2024

LICENSED STRUCTURAL ENGINEER
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: SECTION VIEWS

PROJECT #: SCP01

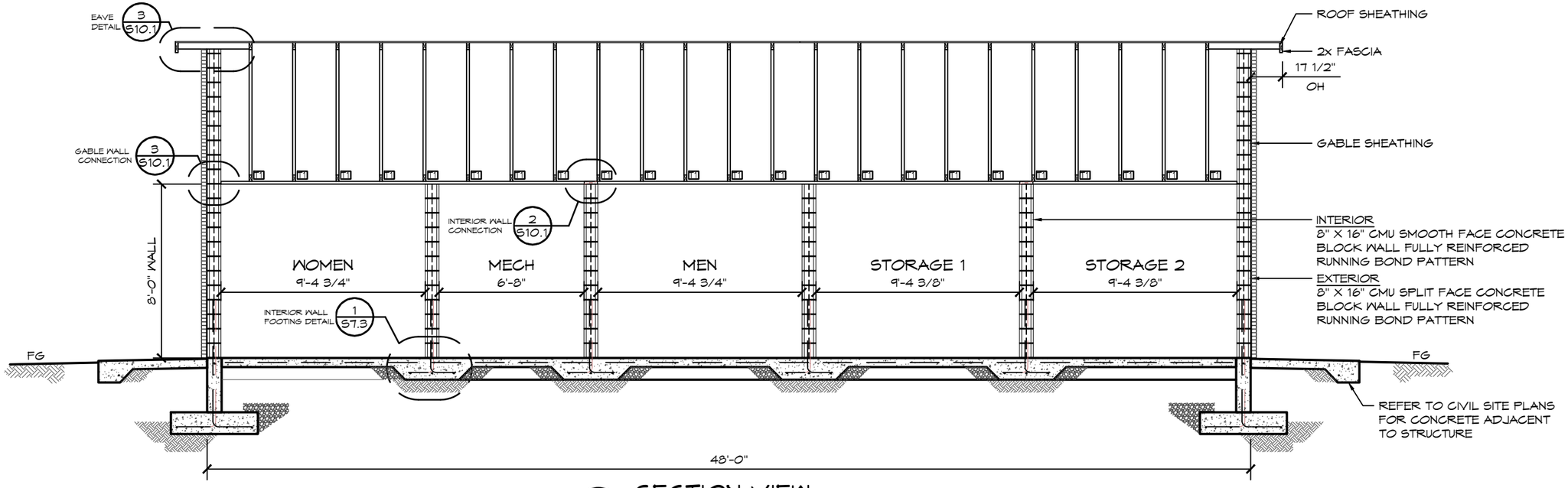
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

REVISIONS:

SHEET NO. A3.1



1 SECTION VIEW

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: SECTION VIEWS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

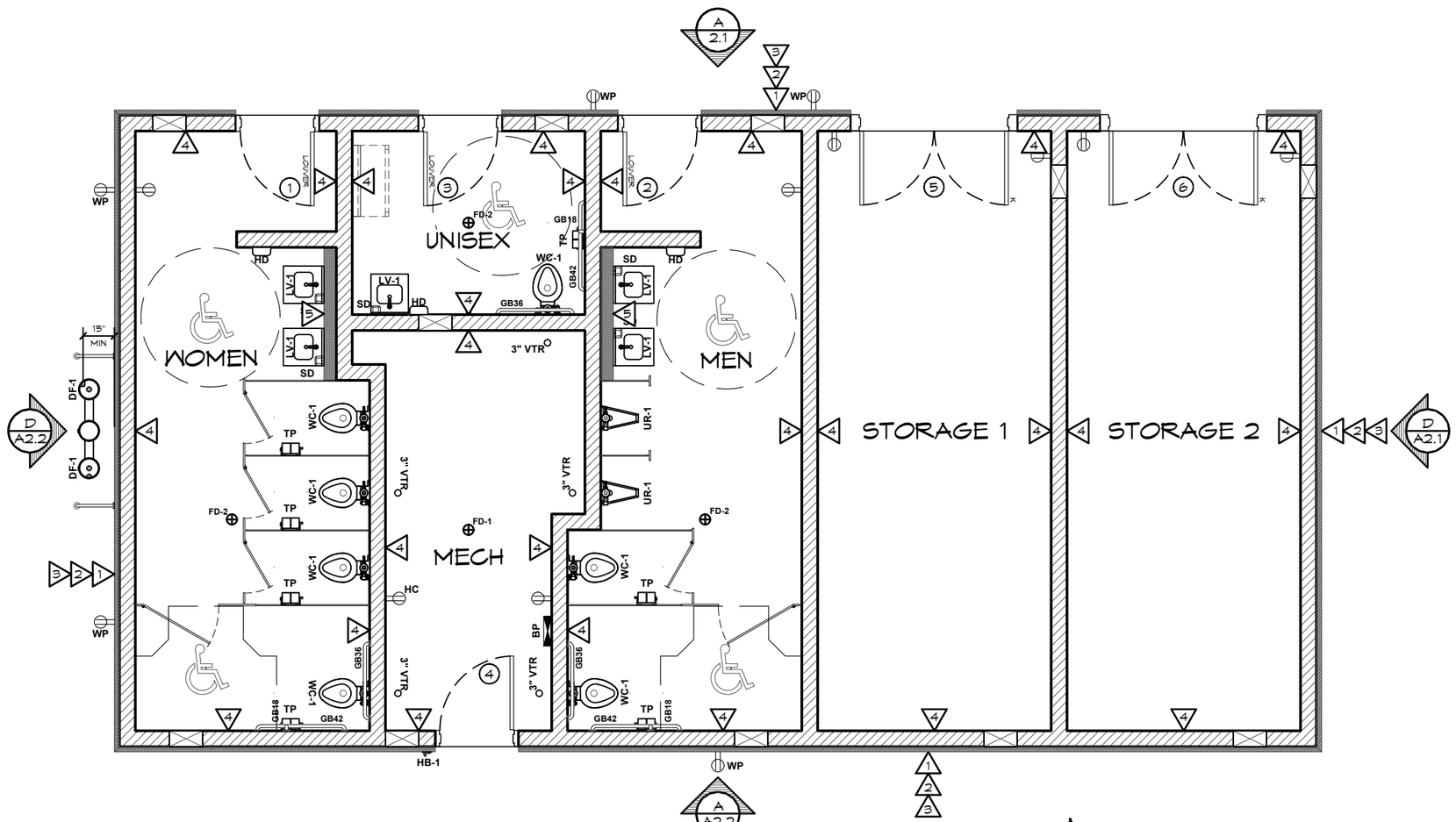
REVISIONS:

SHEET NO. A3.2

FINISH SCHEDULE

NO.	LOCATION	FINISH	DETAIL
1	EXTERIOR WALL	8" SPLIT FACE REINFORCED CONCRETE MASONRY BLOCK WALL W/ MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.	
2	EXTERIOR SIDE OF CMU	APPLY BLOCK SEALER TO CMU SURFACES. INSTALLER TO APPLY 2 COATS OF RAIN GUARD BLOK LOK OR EQUAL PER MANUFACTURE'S INSTALL INSTRUCTIONS (INSTALLER SUPPLIED)	
3	EXTERIOR SIDING	STONE VENEER SIDING	SEE PAGE A4.2
4	INTERIOR WALL	PRIMED & (2) COATS OF EPOXY PAINT CMU WALLS FLOOR TO CEILING (INSTALLER SUPPLIED)	
5	INTERIOR WALL	FURRED 4" WOOD FRAMED WALL FINISHED W/ FRP	SEE PAGE A4.4

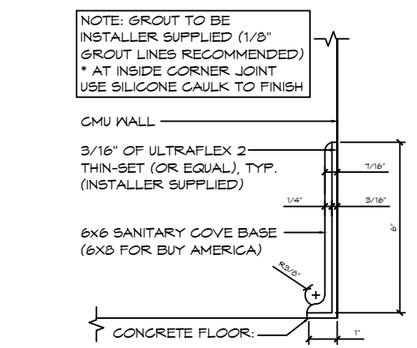
NO.	LOCATION	FINISH	DETAIL
	CEILING	5/8" MOISTURE RESISTANT DRYWALL TO BE TEXTURED, PRIMED & PAINTED (INSTALLER SUPPLIED)	
	EXPOSED WOOD	ALL T&G, FASCIA, SUB FASCIA, AND GLULAM BEAMS AND COLUMNS TO BE SEALED WITH INSTALLER SUPPLIED CLEAR COAT FINISH APPLIED ONSITE BY INSTALLER	
	FLOOR	CONCRETE WITH A WATER BASED WET CURE SEALER CURE-N-SEAL OR EQUAL (INSTALLER SUPPLIED)	
	COVE BASE IN RESTROOMS ONLY	SANITARY TILE COVE BASE	DETAIL 2/A4.1



1 WALL FINISH PLAN

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

TRUE NORTH



SANITARY TILE COVE BASE W/ CMU WALL & CONCRETE FLOOR

2 COVE BASE DETAIL

SCALE: 3" = 1'-0"

8/02/2024

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Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: WALL FINISH SCHEDULE (INTERIOR/EXTERIOR)

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. A4.1

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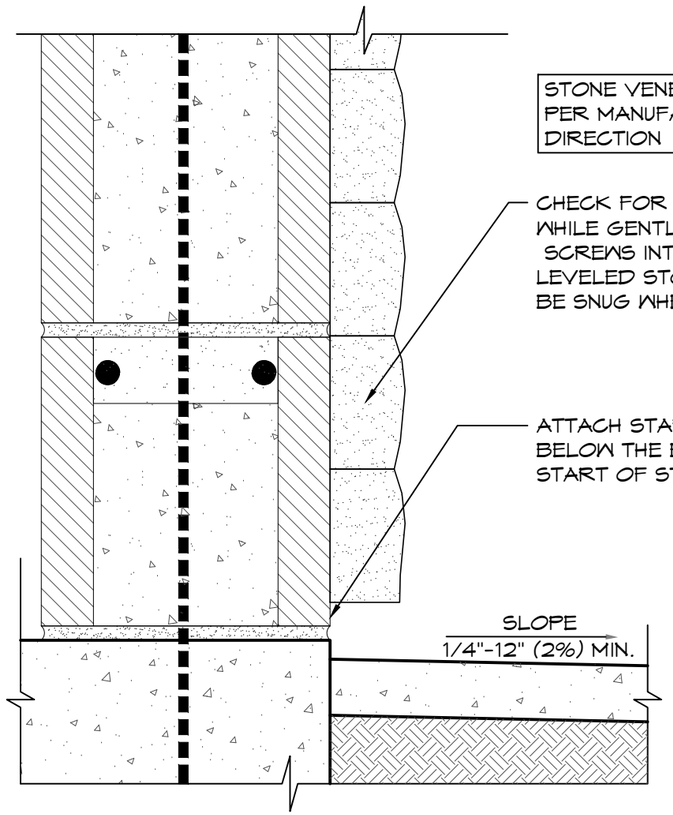
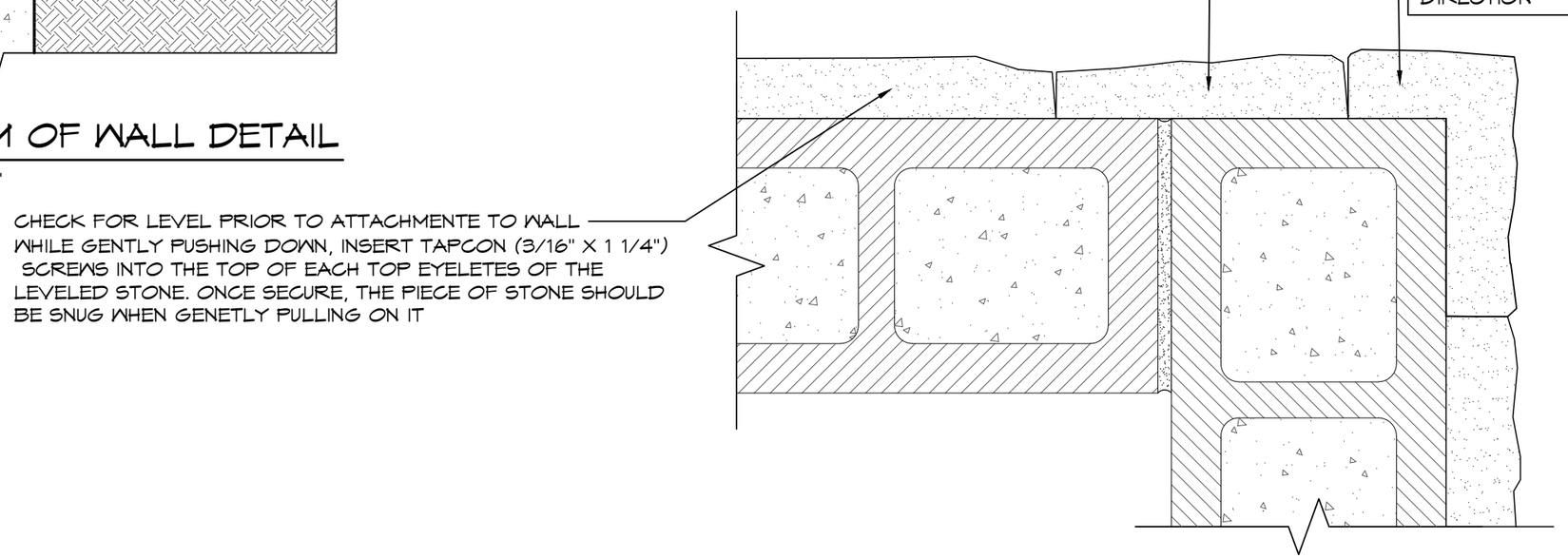


1 BOTTOM OF WALL DETAIL

SCALE: 3" = 1'-0"



2 CMU CORNER FINISH DETAIL

SCALE: 3" = 1'-0"

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: WALL FINISH DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. A4.2

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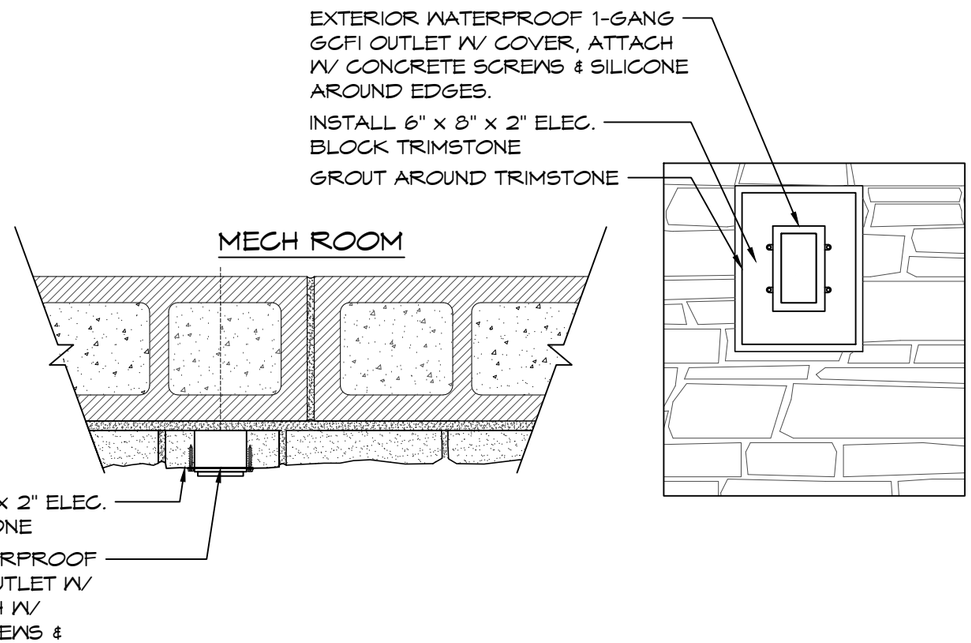
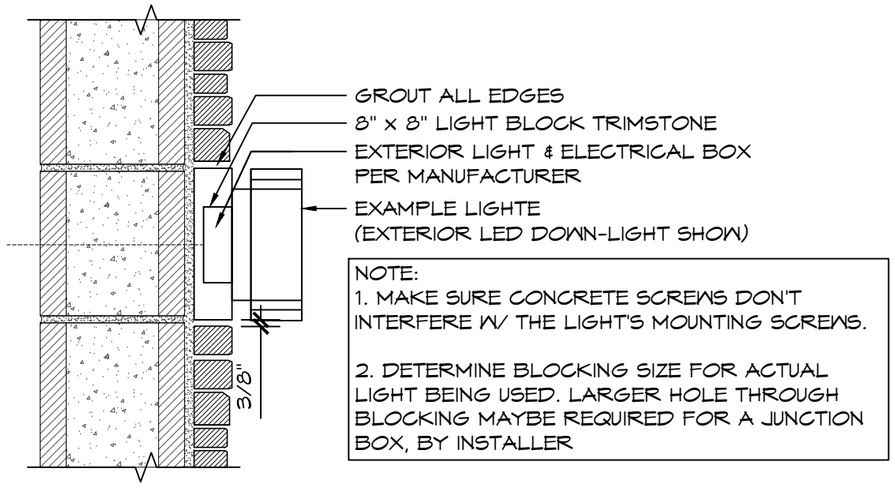


1 ELELCTRICAL OUTLET STONE DETAILS

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



NOTE:
1. MAKE SURE CONCRETE SCREWS DON'T INTERFERE W/ THE LIGHT'S MOUNTING SCREWS.

2. DETERMINE BLOCKING SIZE FOR ACTUAL LIGHT BEING USED. LARGER HOLE THROUGH BLOCKING MAYBE REQUIRED FOR A JUNCTION BOX, BY INSTALLER

2 LIGHT INSTALLATION

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

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: WALL FINISH DETAILS

PROJECT #: SCP01

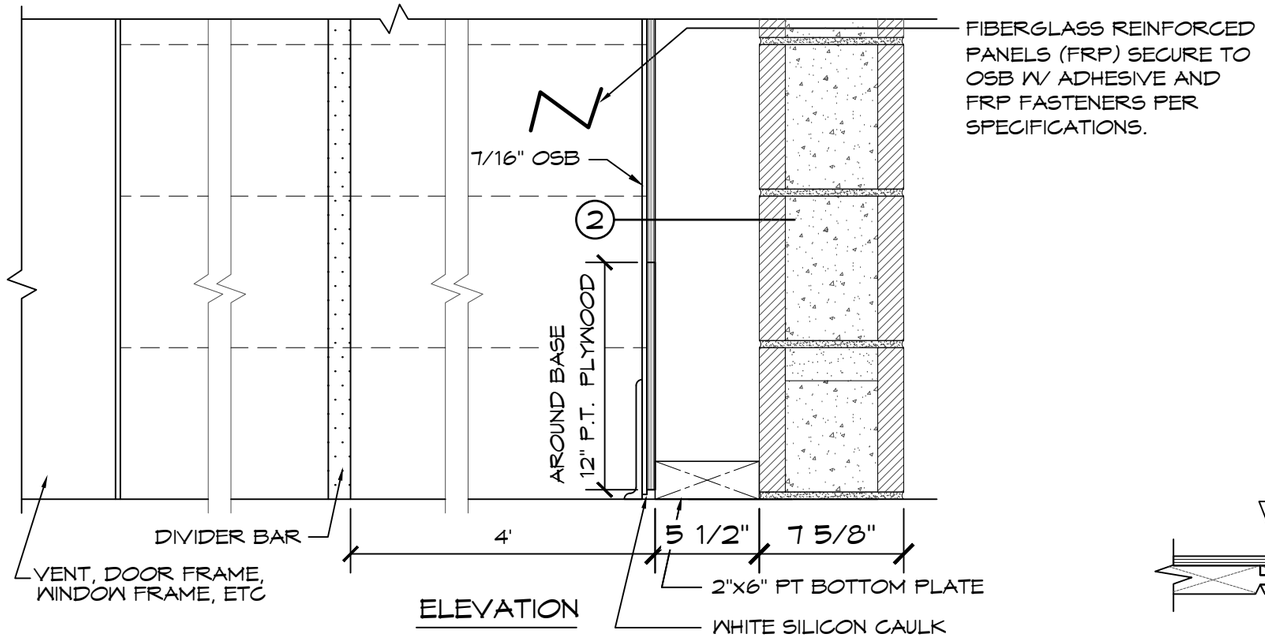
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. A4.3

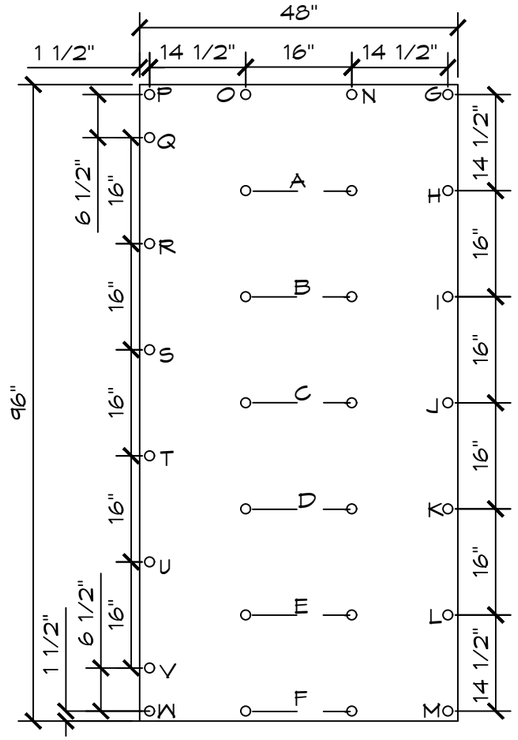


ELEVATION

1 FINISH WALL DETAIL

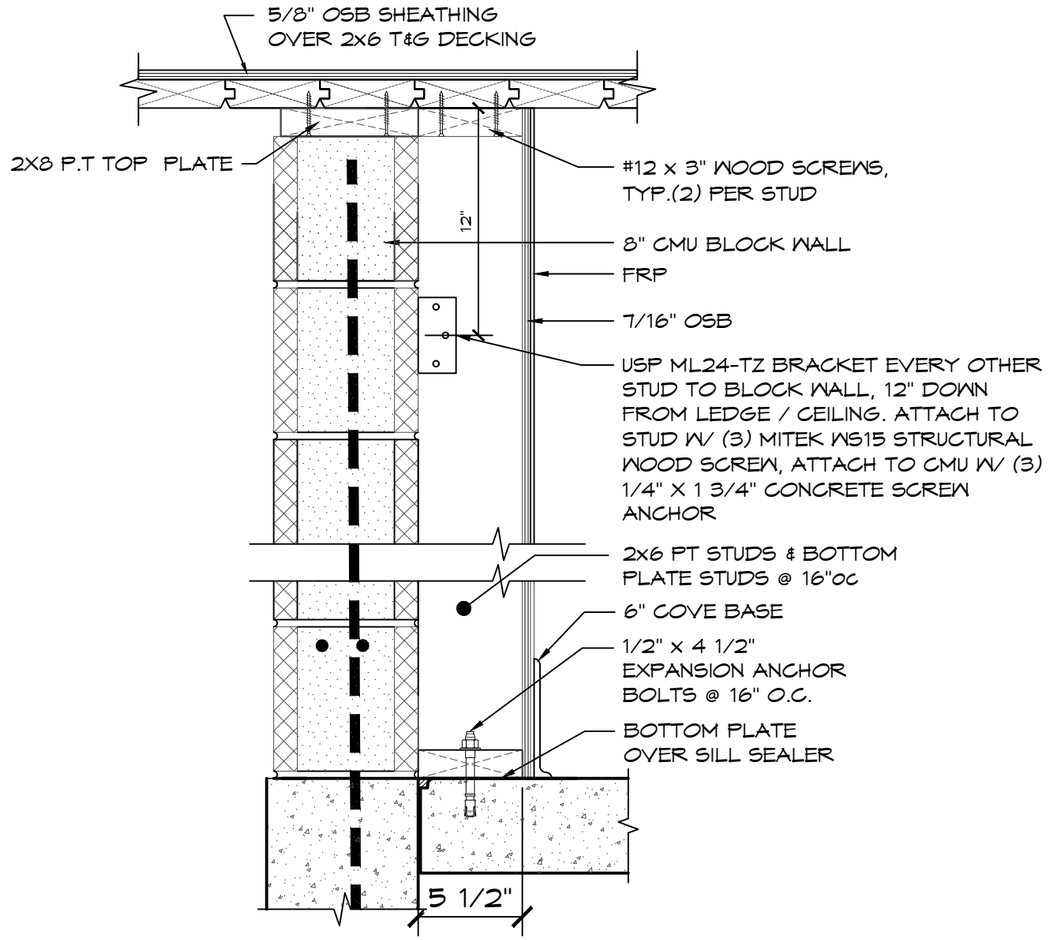
SCALE: 1 1/2" = 1'-0"

FRP PANEL INSTALL DIAGRAM - NOT TO SCALE



NOTES: FRP PANEL INSTALL

* TO AVOID BUBBLING IN THE FRP DURING INSTALL, ALWAYS FOLLOW THE ALPHABETIC SEQUENCE FROM THE MANUFACTURER (SEE DIAGRAM)
* LAMINATE ROLLER WILL HELP REMOVE ANY AIR POCKETS.
* DRILLED HOLES IN THE FRP MUST BE 1/8" LARGER IN DIAMETER THAN THE FASTENER.
* APPLY SILICONE SEALANT PRIOR TO INSERTING FASTENERS.
* ALLOW FOR EXPANSION, A 1/4" GAP IS TO BE LEFT INSIDE THE DIVISION BARS.
* REFER TO DETAILED INSTALLATION INSTRUCTIONS FROM THE MANUFACTURER
* EACH 4'X8' SHEET REQUIRES 29 RIVETS PER LAYOUT SHOWN & ROMTEC PROVIDES 32 RIVETS PER FRP SHEET
* WHEN ADHESIVE IS APPLIED WITH A V-NOTCHED TROWEL (3/16" WIDE X 1/4" DEEP, SPACED 1/2" C.C.) 2/3 OF GALLON WILL BE NEEDED PER SHEET ROMTEC SUPPLIES ONE GALLON PER FRP SHEET



2 WOOD FRAMED WALL SECTION

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

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: WALL FINISH DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. A4.4

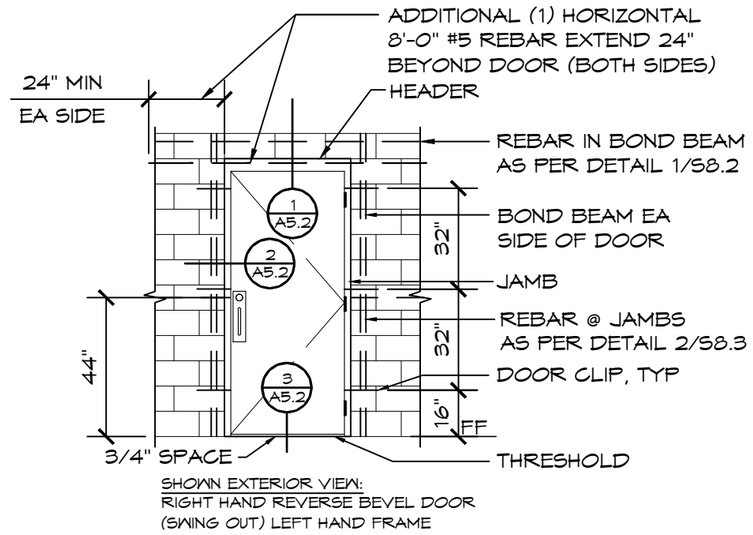
DOOR SCHEDULE

NO	SIZE (WxHxT)	DOOR	FRAME	SWING - DOOR / FRAME	HARD-WARE GROUP	REMARKS
1	36"x84"x1 3/4"	SL18	F16	INTERIOR — LEFT HAND (SWING IN) / LEFT HAND	DO~ 1	
2	36"x84"x1 3/4"	SL18	F16	INTERIOR — RIGHT HAND (SWING IN) / RIGHT HAND	DO~ 1	
3	36"x84"x1 3/4"	SL18	F16	INTERIOR — RIGHT HAND (SWING IN) / RIGHT HAND	DO~ 2	
4	36"x84"x1 3/4"	SL18	F16	INTERIOR — RIGHT HAND (SWING IN) / RIGHT HAND	DO~ 3	
5	36"x84"x1 3/4"	SL18	F16	LH INTERIOR — LEFT HAND (SWING IN) / LEFT HAND	DO~ 4	DOUBLE DOOR
6	36"x84"x1 3/4"	SL18	F16	LH INTERIOR — LEFT HAND (SWING IN) / LEFT HAND	DO~ 4	DOUBLE DOOR

DOOR HARDWARE SCHEDULE (QTYS PER DOOR)

GROUP DO-1	GROUP DO-2	GROUP DO-3	GROUP DO-4	
3	3	3	6	EACH HINGE 4.5" x 4.5" S.S. (NRP)
1	1	1	1	DOOR CLOSER, (USE THRU BOLT ANCHORING OPTION)
-	1	-	-	DEADBOLT LOCKSET, SCHLAGE C KEYWAY - SINGLE CYLINDER DEADBOLT LOCK, SATIN FINISH - (KEY - OUTSIDE / THUMB-TURN - INSIDE)
1	-	1	1	DEADBOLT LOCKSET, SCHLAGE C KEYWAY - CLASSROOM LOCK, SATIN FINISH - (KEY - OUTSIDE / THUMB-TURN - INSIDE RETRACTS ONLY)
2	2	2	2	PULL PLATE, 4" X 16"
2	2	2	2	PULL HANDLE, 8" CENTER
1	1	1	2	KICK PLATE, 10" X 34"
1	1	1	1	SWEEP
1	1	1	1	THRESHOLD
1	1	-	-	18"X18" LOUVER VENT
-	-	-	1	FULL HEIGHT ASTRAGAL
6	6	6	6	WIRE DOOR CLIPS

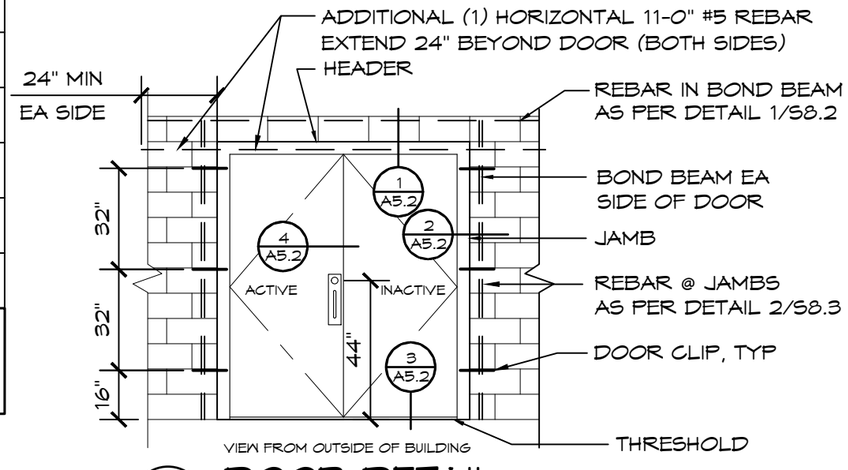
NOTE: ALL DOORS MAY BE OPENED FROM THE INSIDE W/O KEY, SPECIAL KNOWLEDGE, OR EFFORT. 5# MAX OPENING EFFORT DOOR IS EQUIPPED W/ SINGLE-EFFORT, NON-GRASP HARDWARE. DOOR COMPLIES WITH ADA REQUIREMENT FOR AN INSIDE LOCK.



SHOWN EXTERIOR VIEW:
RIGHT HAND REVERSE BEVEL DOOR (SWING OUT) LEFT HAND FRAME

1 DOOR DETAILS

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



2 DOOR DETAIL

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

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: DOOR SCHEDULE

PROJECT #: SCP01
DATE: 5/3/2024
DRAWN BY: ZW

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REVISIONS:

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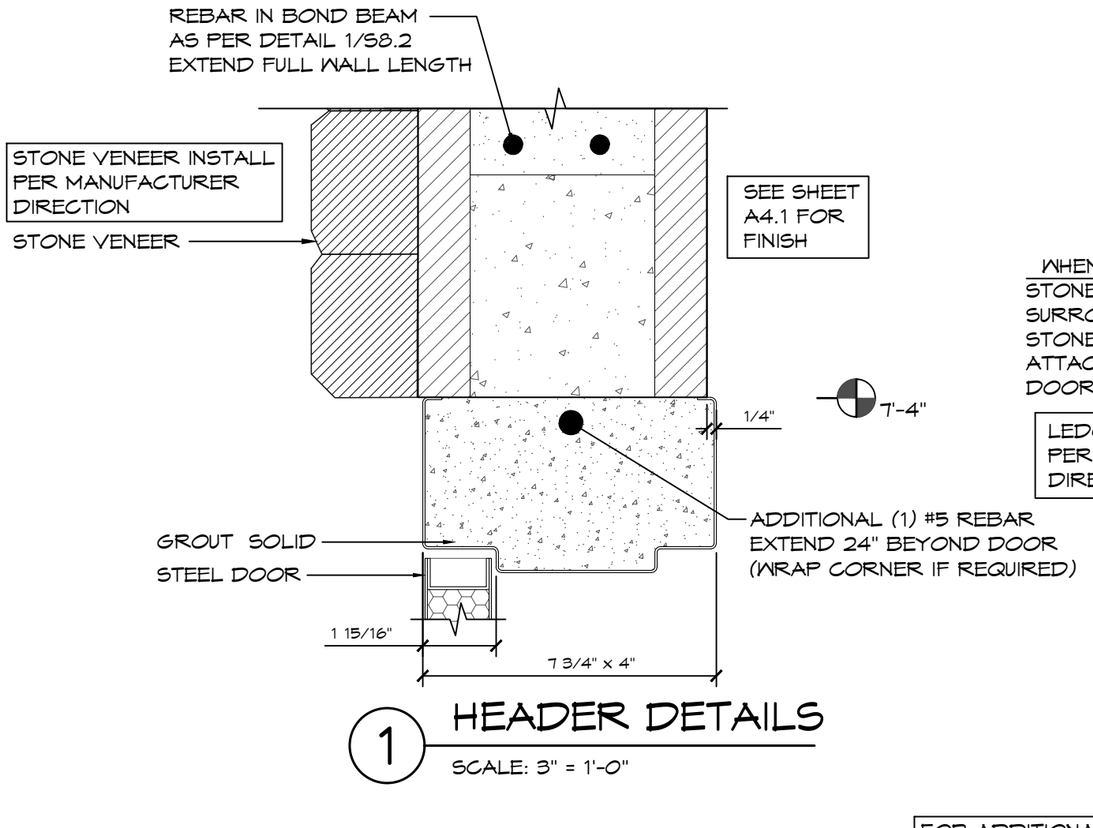
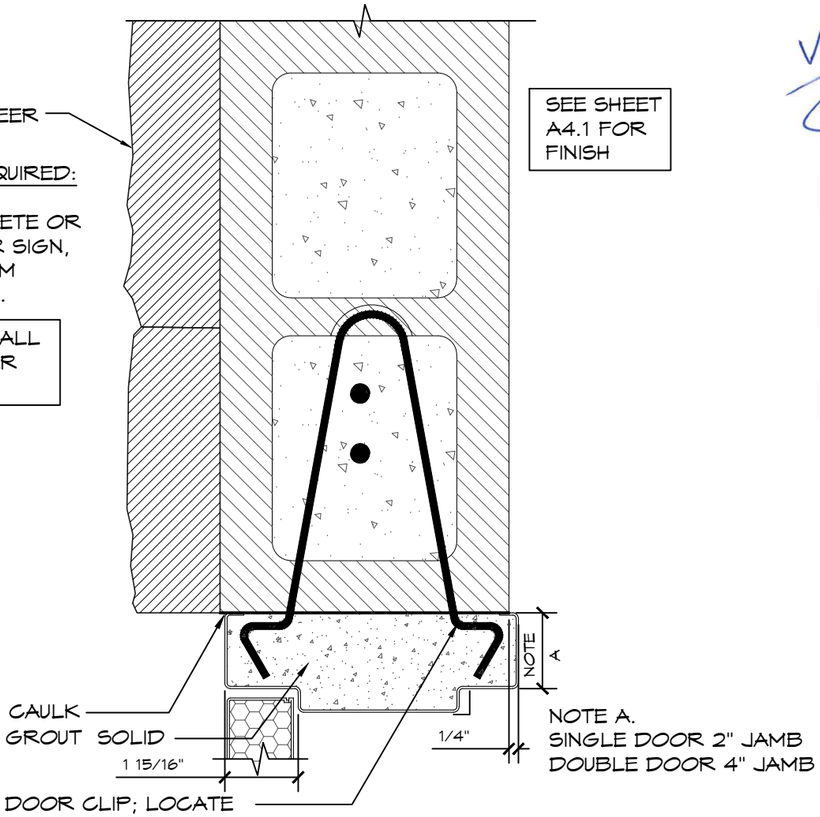


1 HEADER DETAILS

SCALE: 3" = 1'-0"



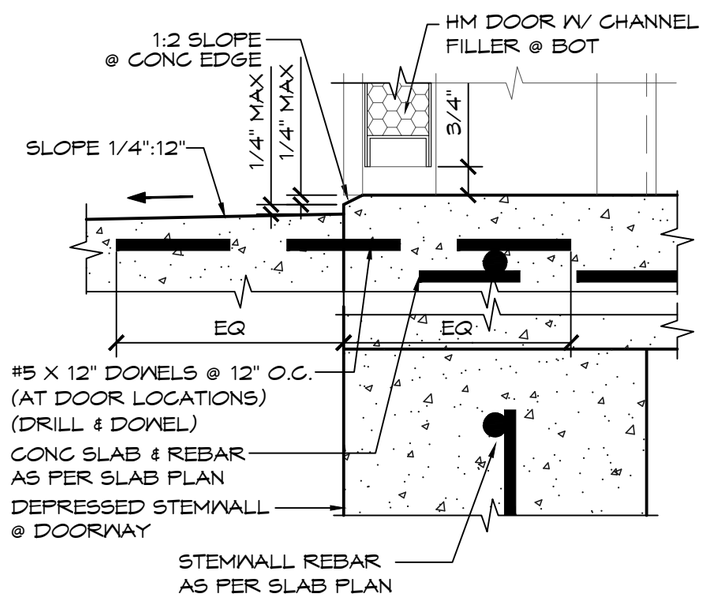
WHEN A SIGN IS REQUIRED:
STONE VENEER TO SURROUND A CONCRETE OR STONE BACKING FOR SIGN, ATTACH 10" o.c. FROM DOOR OPENING, TYP.

LEDGE STONE INSTALL PER MANUFACTURER DIRECTION

FOR ADDITIONAL SIDING & WALL FINISH DETAILS REFER TO SHEET A4.2

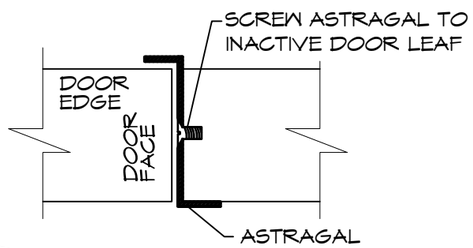
2 JAMB DETAIL

SCALE: 3" = 1'-0"



3 THRESHOLD DETAIL

SCALE: 3" = 1'-0"



4 ASTRAGAL DETAIL

SCALE: HALF

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: DOOR DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

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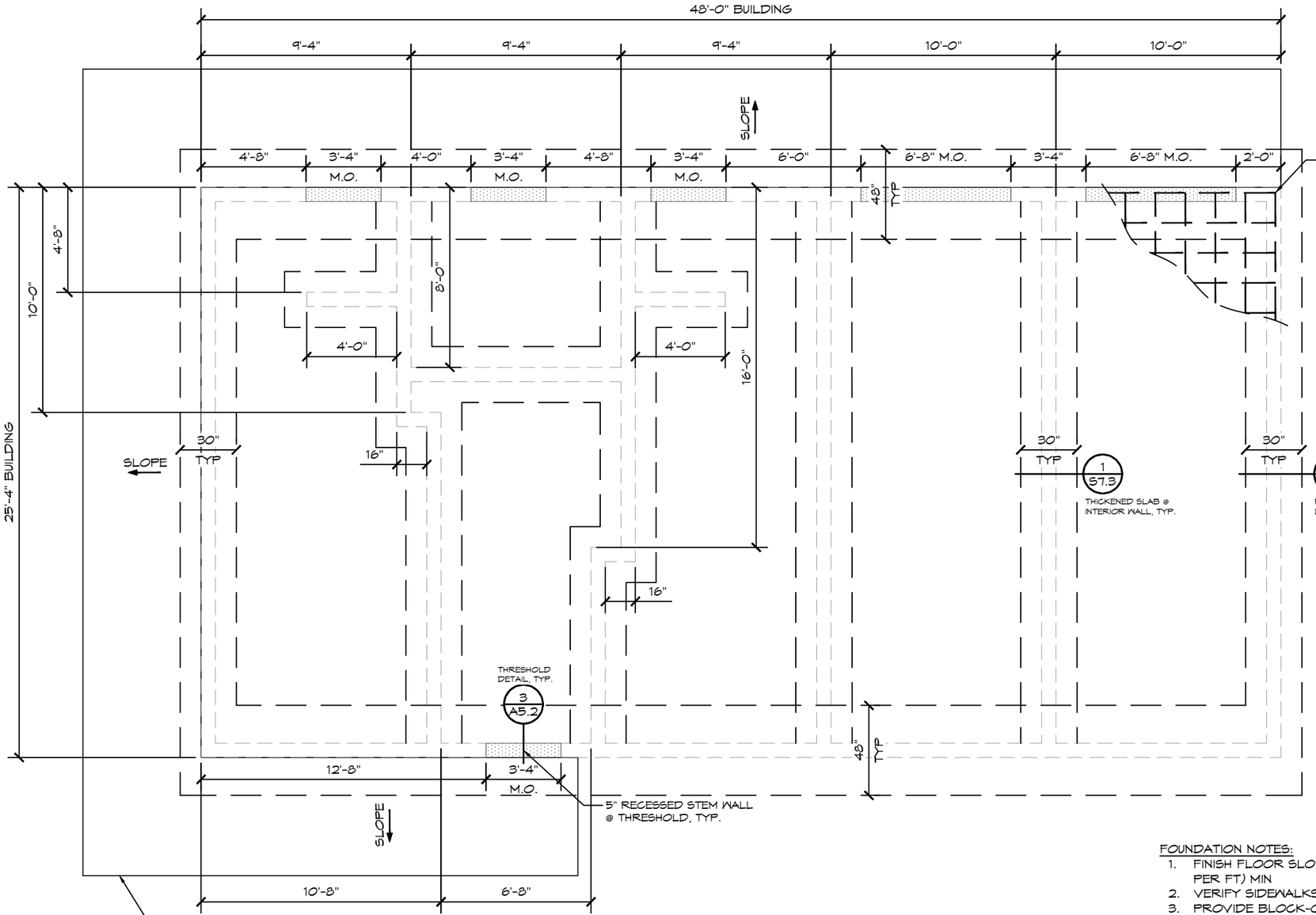
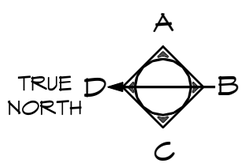


1 FOUNDATION PLAN

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



RECYCLE

RECYCLE ALL USED SHIPPING MATERIALS AND LEFT OVER BUILDING MATERIALS

FOUNDATION NOTES:

1. FINISH FLOOR SLOPE IS 2% (1/4" PER FT) MAX & 1% (1/8" PER FT) MIN
2. VERIFY SIDEWALKS W/ OWNER
3. PROVIDE BLOCK-OUTS FOR PLUMBING, MECHANICAL, & ELECTRICAL AS REQD. CO-ORDINATE W/ SUBS.
4. REBAR MIN. BEND SHALL BE NOT LESS THAN 6db INSIDE DIA. AS PER ACI 318 SECTION 7.2
5. SAW JOINTS BY CONTRACTOR. SLAB APPEARANCE IS A PRIORITY. LOCATE JOINTS AT 10' O.C. MAX. SEE 3/S7.3.
6. MAXIMUM SLOPE OF EXCAVATION MAY BE LIMITED BY LOCAL SOIL CONDITIONS. INCREASE DEPTH OF FORMED CONCRETE AS REQD.
7. CONCRETE SLAB BENEATH FLOOR MOUNTED FIXTURES ARE TO BE GROUTED LEVEL AND SMOOTH.
8. REFER TO GEOTECHNICAL REPORT PREPAIRED BY CONSTRUCTION & GEOTECHNICAL MATERIAL TESTING INC. DATED MARCH 1, 2023 FOR REQUIRED SUBGRADE PREPARATION AND TESTING FOR SOILS AUNDER NEW FOUNATIONS AND SLABS

8/02/2024

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: FOUNDATION PLAN

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

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1	6/24/2024	ZW
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REVISIONS:

SHEET NO. S7.1

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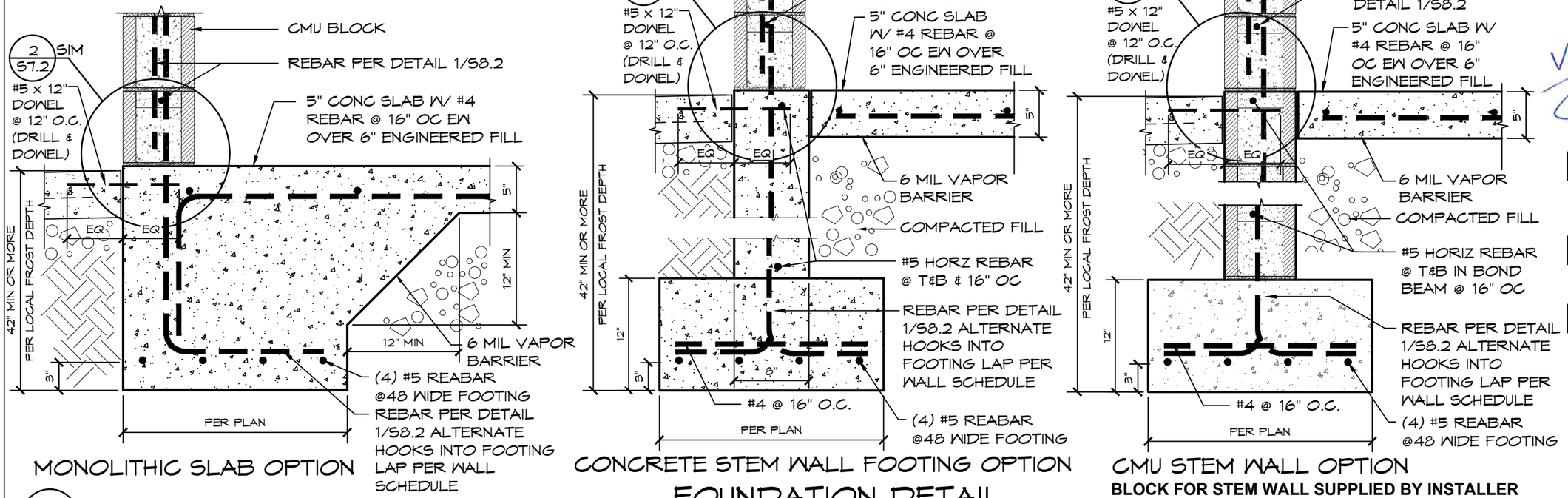
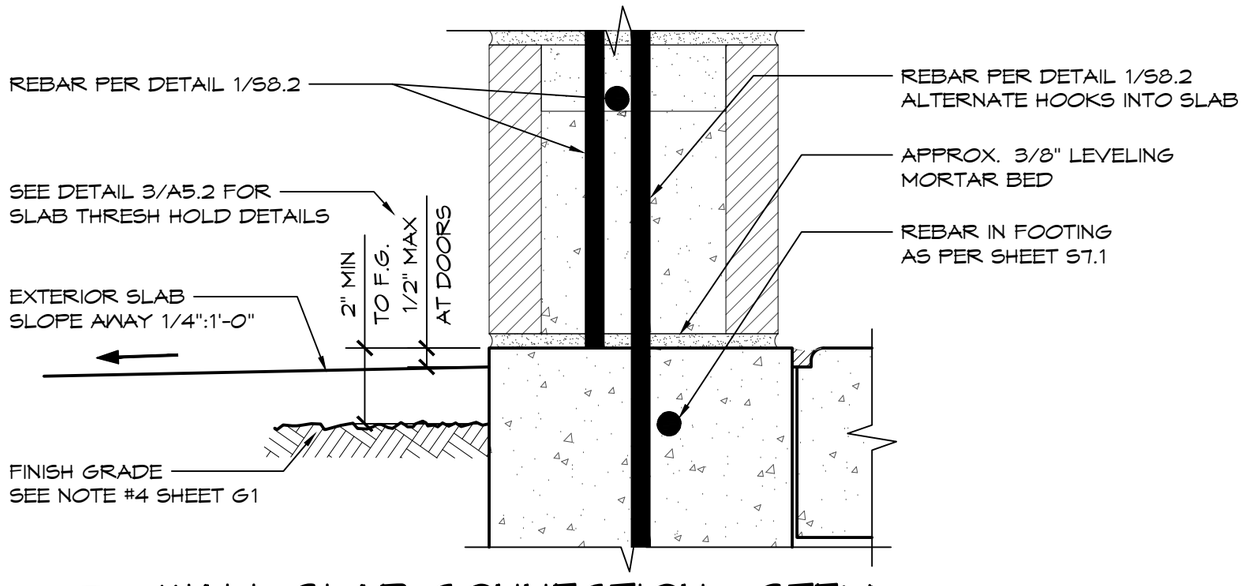


1 FOUNDATION DETAIL

SCALE: N.T.S.



2 WALL-SLAB CONNECTION - STEM

SCALE: 3" = 1'-0"

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: FOUNDATION DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

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REVISIONS:

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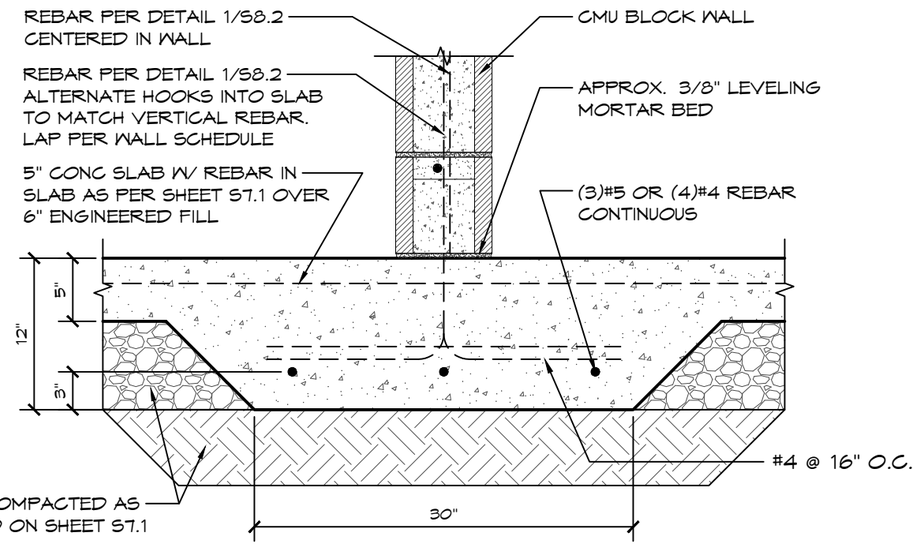
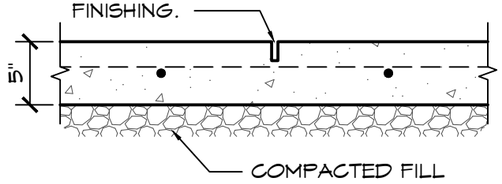


1 THICKENED SLAB AT INTERIOR WALL

SCALE: 1" = 1'-0"

MAKE SAWCUT 1 1/2" DEEP WITHIN 24 HRS OF POUR "DO NOT CUT BARS". FILL W/ EXPANDING JOINT COMPOUND. MAXIMUM JOINT SPACING = 10'-0". AT INSTALLER'S OPTION, CONTROL JOINT MAY BE TOOLED DURING CONCRETE FINISHING.



2 SAWCUT JOINT

SCALE: 1" = 1'-0"

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: FOUNDATION DETAILS

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DATE: 5/3/2024

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REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

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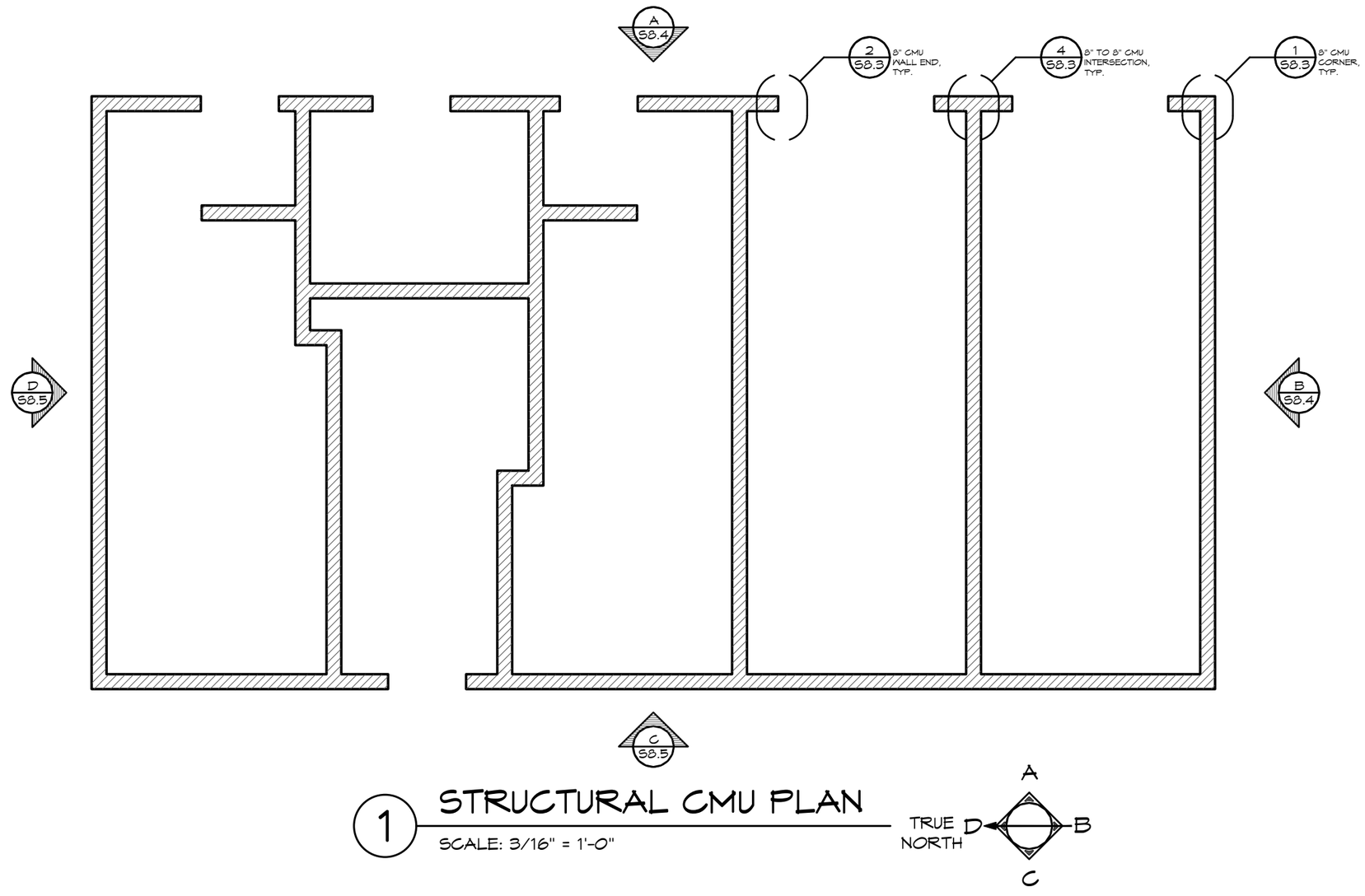
WALL TYPE SCHEDULE

8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.

THE CMU BLOCK LAYOUT SHALL BE PER THE BLOCK LAYOUT PLANS IN THE:
"FINAL"
ROMTEC SCOPE OF SUPPLY AND DESIGN SUBMITTAL



1 STRUCTURAL CMU PLAN

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

8/02/2024

Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: STRUCTURAL CMU PLAN

PROJECT #: SCP01

DATE: 5/3/2024

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REVISIONS:

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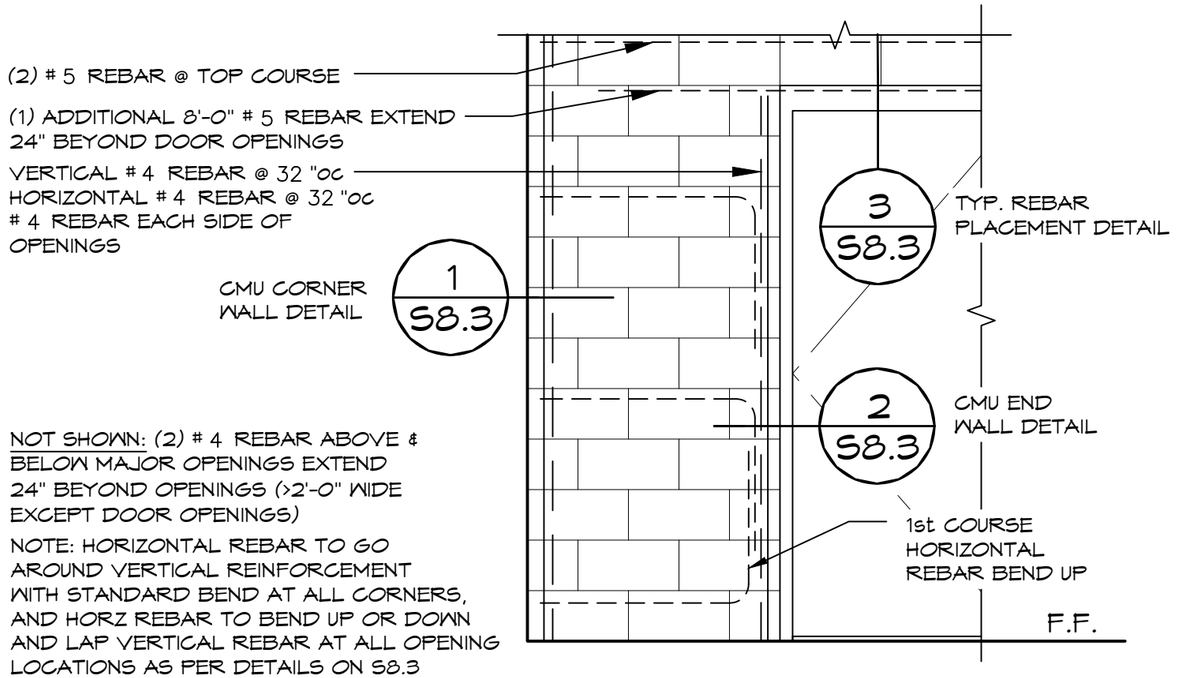

NOT SHOWN: (2) # 4 REBAR ABOVE & BELOW MAJOR OPENINGS EXTEND 24" BEYOND OPENINGS (>2'-0" WIDE EXCEPT DOOR OPENINGS)

NOTE: HORIZONTAL REBAR TO GO AROUND VERTICAL REINFORCEMENT WITH STANDARD BEND AT ALL CORNERS, AND HORZ REBAR TO BEND UP OR DOWN AND LAP VERTICAL REBAR AT ALL OPENING LOCATIONS AS PER DETAILS ON S8.3

1 CMU REBAR LAYOUT DETAIL

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

CMU REBAR SCHEDULE		
REBAR	MIN. LAP	BEND DIAMETER
#4	24"	3" MIN.
#5	30"	3-3/4" MIN.

CMU REBAR NOTES:
- BENDS: MIN. INSIDE BEND DIAMETER SHALL BE NOT LESS THAN 6d AS PER TMS 402-16 SECTION 6.1.8.2
- SPLICES: LAP SPLICES ARE PERMITTED AS PER TMS 402-16 SECTION 6.1.6.1.1

PIPES INSTALLED THROUGH CMU WALL NOTES:
- SUPPLY: THE FIXTURE SUPPLY LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE AND THE PORTION OF PIPE LOCATED IN CMU WALL SHALL BE WRAPPED WITH 10MIL BLACK TAPE
- WASTE PIPE: THE FIXTURE WASTE LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE.

8/02/2024

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: STRUCTURAL CMU REBAR LAYOUT

PROJECT #: SCP01

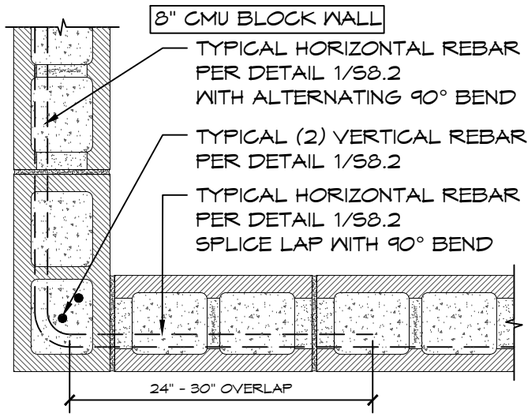
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

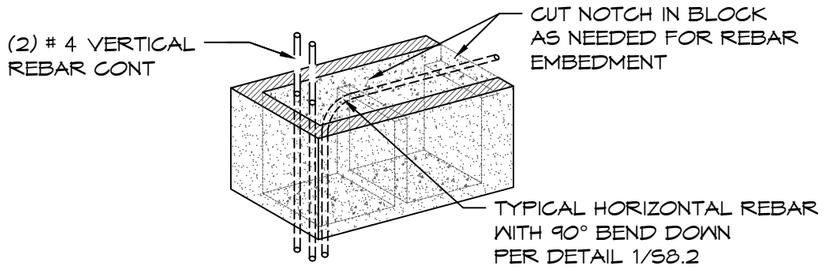
REVISIONS:

SHEET NO. S8.2



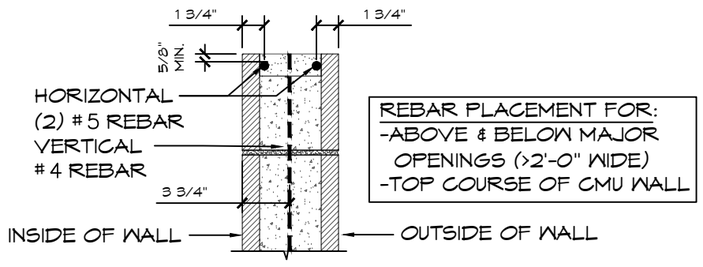
1 MORTAR JOINT CMU CORNER DETAIL

SCALE: 1" = 1'-0"



2 MORTAR JOINT CMU WALL END DETAIL

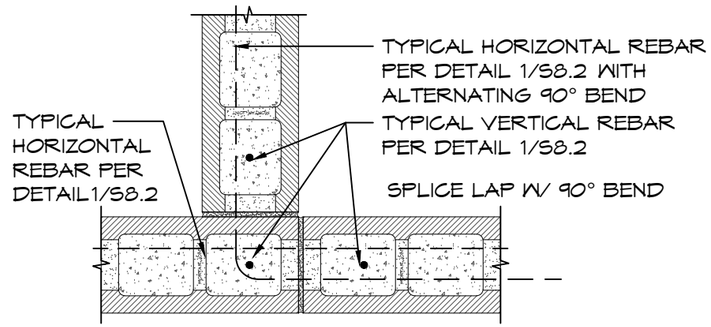
SCALE: 1" = 1'-0"



NOTE: REBAR INSTALLED AS PER ACI 530-11

3 8" CMU REBAR PLACEMENT

SCALE: 1" = 1'-0"



4 8" TO 8" MORTAR JOINT CMU INTERSECTION DETAIL

SCALE: 1" = 1'-0"

8/02/2024

LICENSED STRUCTURAL ENGINEER
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081.006680
STATE OF ILLINOIS

Exp. 11/30/2024

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ROMTEC 224-066

PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: STRUCTURAL CMU DETAILS

PROJECT #: SCP01

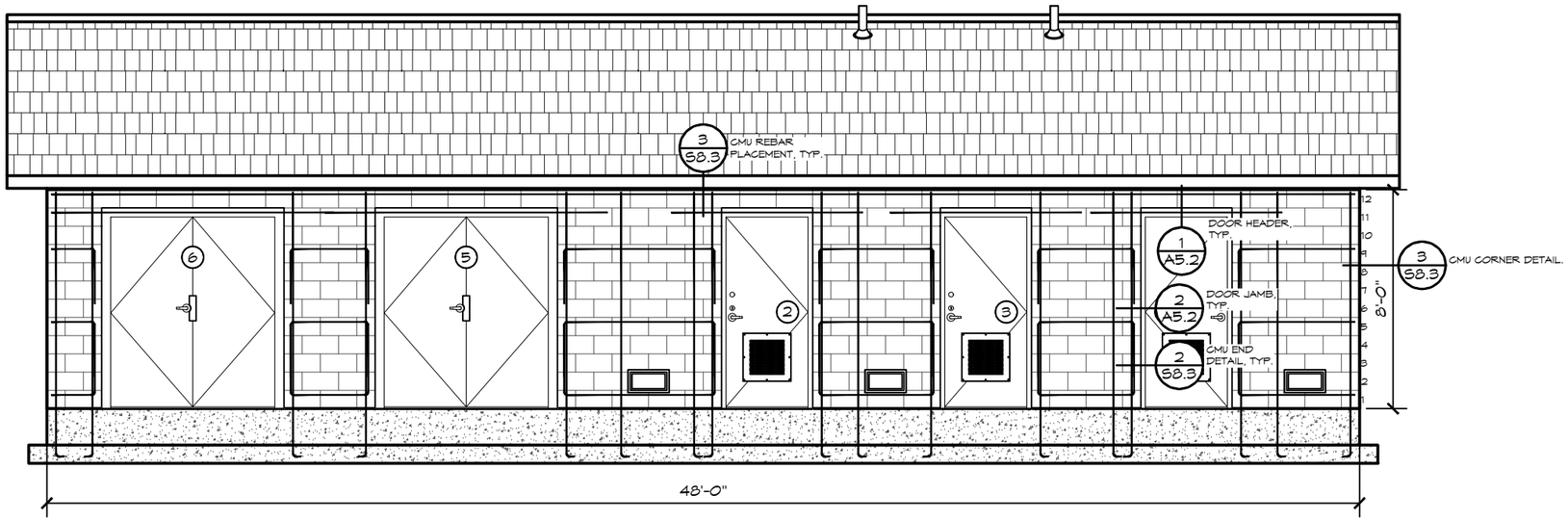
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

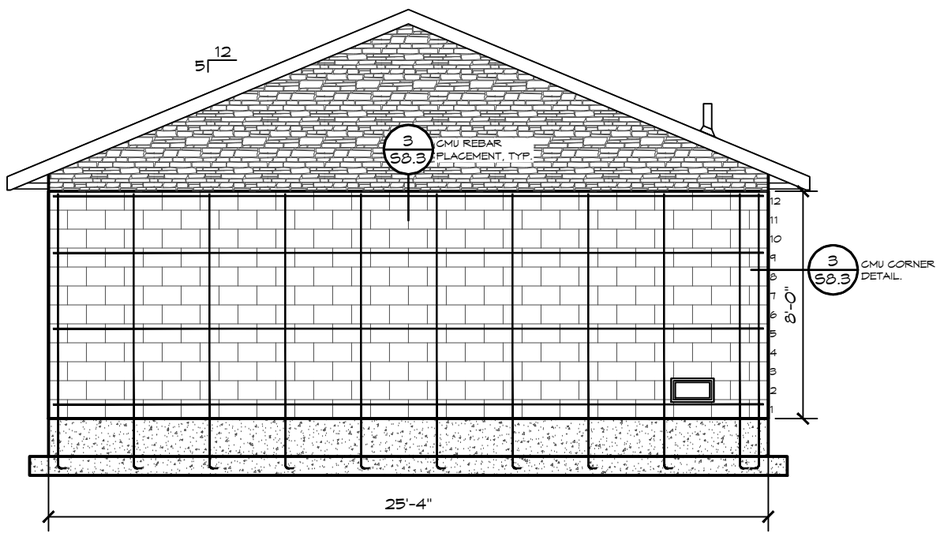
REVISIONS:

SHEET NO. S8.3



C CMU ELEVATION VIEW

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



C CMU ELEVATION VIEW

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: STRUCTURAL CMU ELEVATION VIEWS

PROJECT #: SCP01

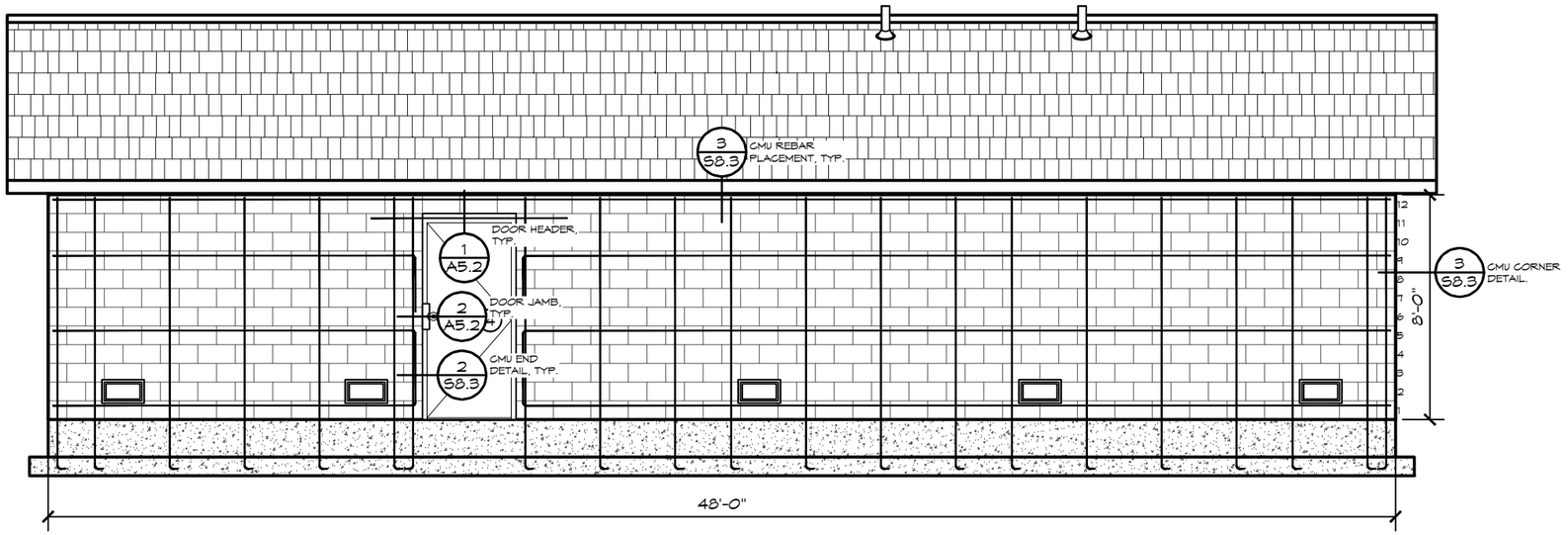
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

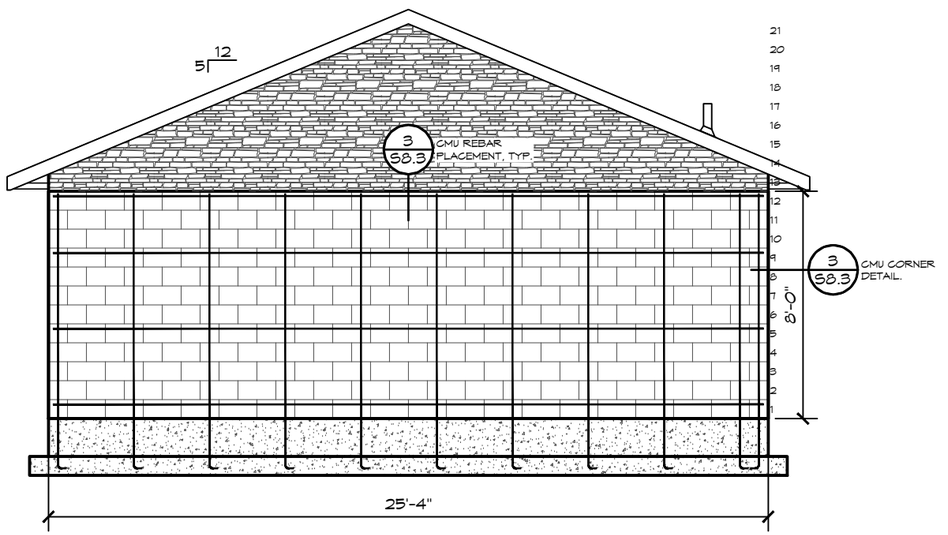
REVISIONS:

SHEET NO. S8.4



C CMU ELEVATION VIEW

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



C CMU ELEVATION VIEW

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

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: STRUCTURAL CMU ELEVATION VIEWS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

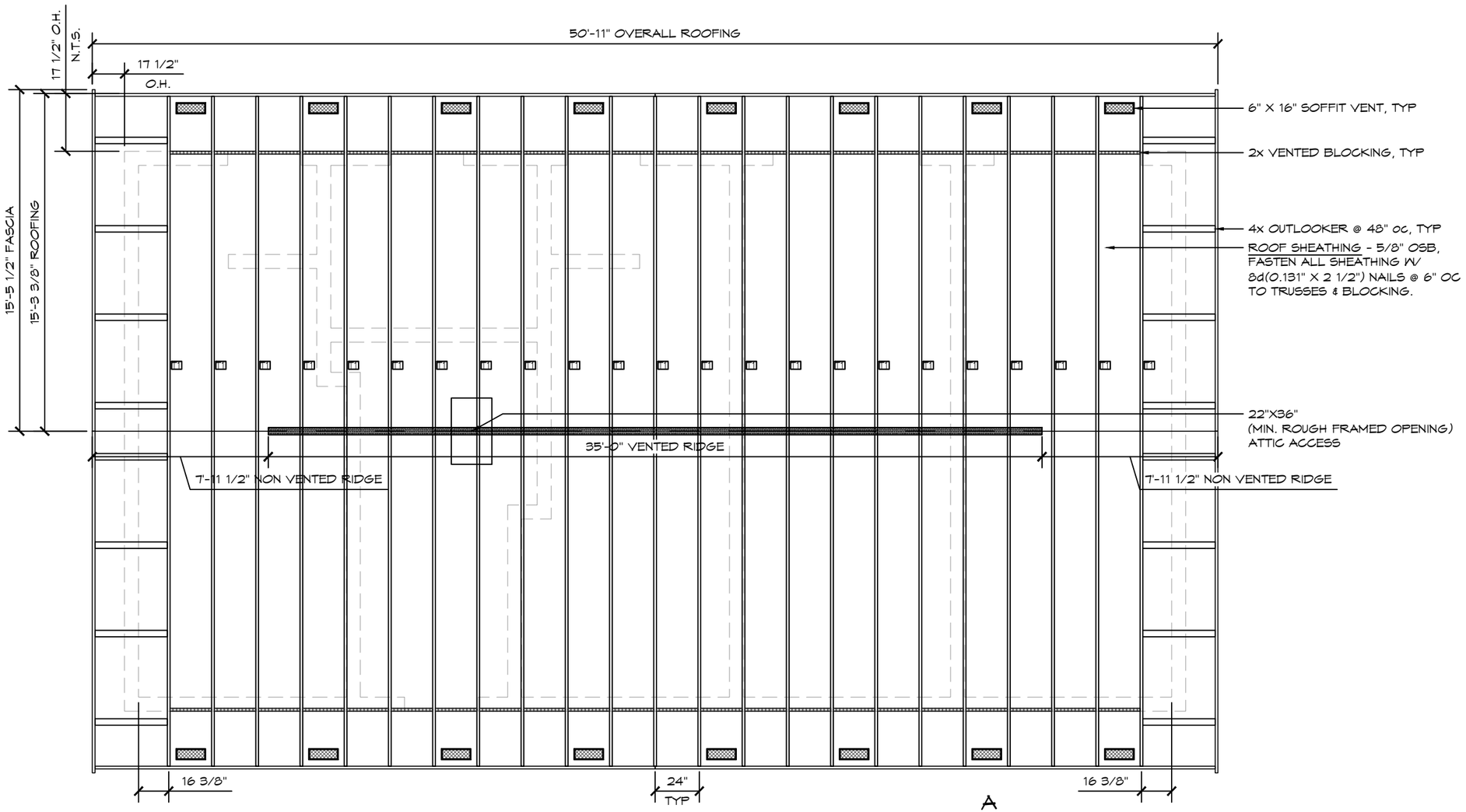
SHEET NO. S8.5

JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

1.	VENTILATION REQUIRED:									TOTAL	
	ATTIC FLOOR AREA: (1216	FT2)	x (FT²/150) x (144 IN² / 1 FT²)							1167	IN2
2.	EAVE INTAKE:		FA						TOTAL		
	a. VENT (UNIT) 4x16		28	IN2	x	-	No.		-		
	b. VENT (UNIT) 6x16		42	IN2	x	16	No.		672		
	c. VENTED SOFFIT-LINEAR FT		-	IN2	x	-	LF		-		
					SUM (a + b + c) =				672		
	d. TRUSS BLOCKING (VENTED)		15.29	IN2	x	46	No.		703.34		
								ENTER LESSER OF THE SUM OF (a + b + c) OR d		672	IN2
3.	RIDGE / PEAK AREA VENT:		FA			AMOUNT			TOTAL	TOTAL	
	a. RIDGE VENT (LINEAR FT)		17	IN2	x	35	FT		595		
	b. ATTIC ROOF VENT (EXPEL)		-	IN2	x	-	No.		-		
	c. ATTIC GABLE VENT (EXPEL)		-	IN2	x	-	No.		-		
							SUM (a + b + c) =			595	IN2
4.	TOTAL (ACTUAL) VENTILATION: (MORE THAN #1)									TOTAL	
								SUM OF TOTALS ON 2 + 3		1267	IN2
5.	VENTILATION %: (EAVE TO BE 50%-60%)									TOTAL	
								TOTAL EAVE (#2) ÷ TOTAL VENTILATION (#4)		53	%
								TOTAL RIDGE (#3) ÷ TOTAL VENTILATION (#4)		47	%

NOTE: DURING THE CONSTRUCTION PROCESS IT IS COMMON FOR SMALL GAPS TO APPEAR IN ANY NUMBER OF PLACES. ROMTEC DOES NOT PROVIDE CAULK OR ANY OTHER MATERIAL TO FILL THESE SMALL GAPS UNLESS IT IS SPECIFIED IN OUR SUBMITTAL

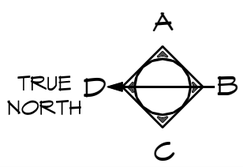
PRE-ENGINEERED WOOD TRUSSES SHALL BE PER INSTALL INSTRUCTIONS IN THE:
"FINAL"
ROMTEC SCOPE OF SUPPLY AND DESIGN SUBMITTAL



1 ROOF FRAMING PLAN

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

TRUE NORTH



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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOF FRAMING PLAN

PROJECT #: SCP01

DATE: 5/3/2024

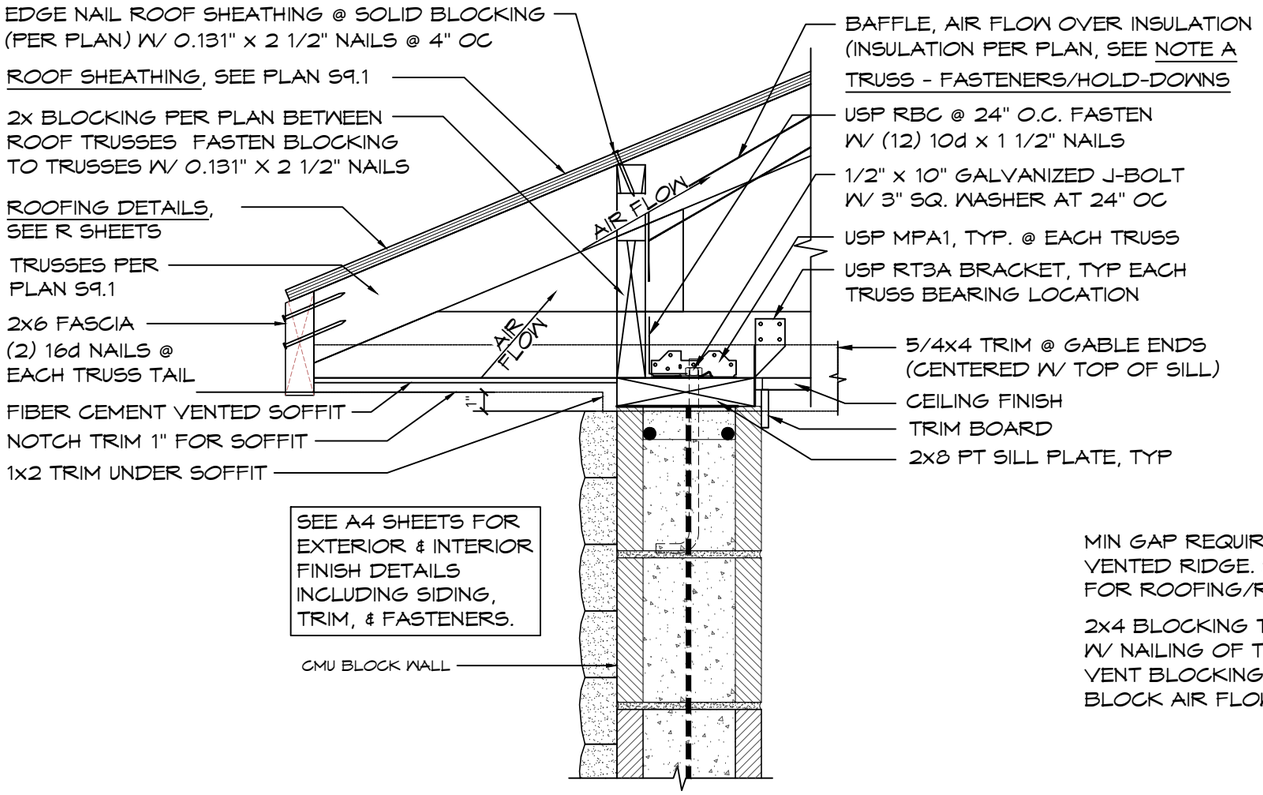
DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

SHEET NO. S9.1

JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

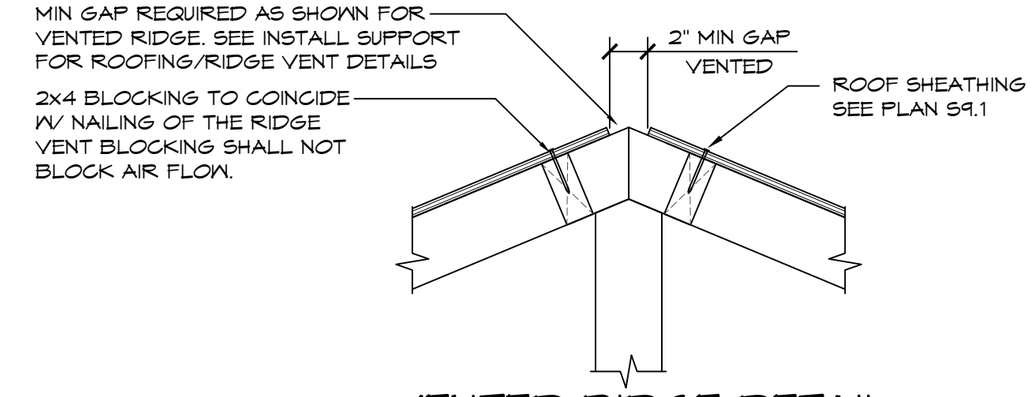


1 EAVE OVERHANG W/ TRUSS (ENERGY HEEL)

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

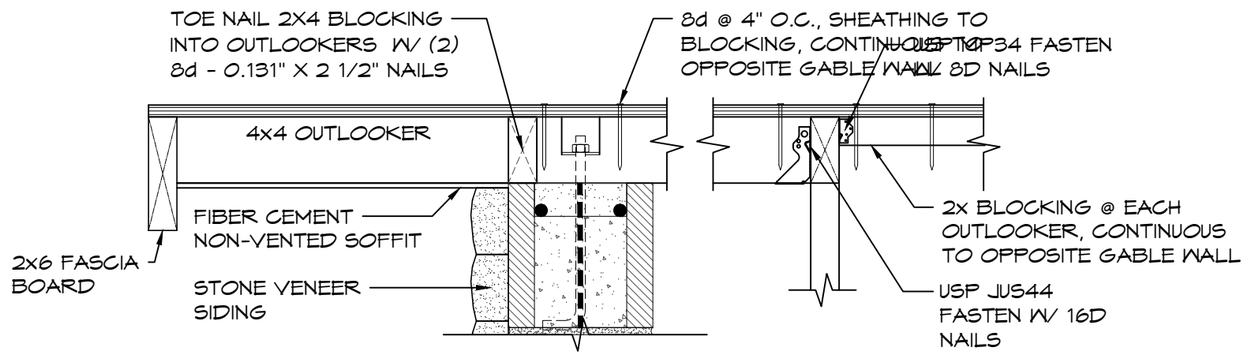
A:	INSULATION: R38
B:	UNDERLAYMENT REQUIRMENTS: ICE & WATER SHIELD AT RIDGE AND EAVE TO 24" PAST WALL THAN #30 FELT IN FIELD.
C:	CEILING FINISH: 5/8" GREEN GYPSUM BOARD CEILING FASTENED W/ #10 x 1 1/2" DRYWALL SCREWS (INSTALLER SUPPLIED)

ROOF PITCH: 5:12 = 22.62°□



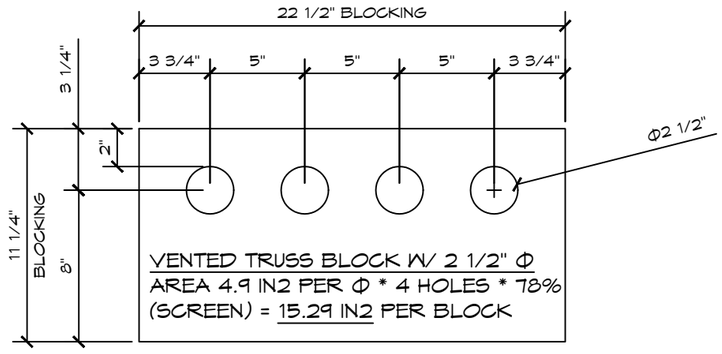
3 VENTED RIDGE DETAIL

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



3 GABLE FRAMING DETAIL

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



4 2X12 VENTED BLOCK @ EAVES

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

8/02/2024

LICENSED STRUCTURAL ENGINEER
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOF CONNECTION DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

SHEET NO. S10.1

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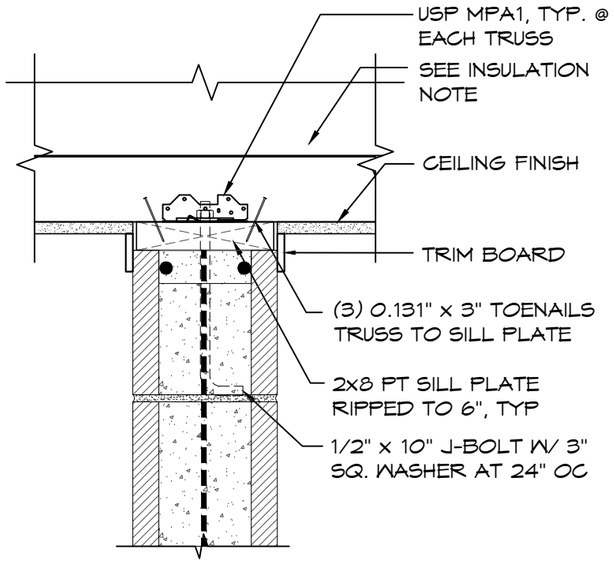
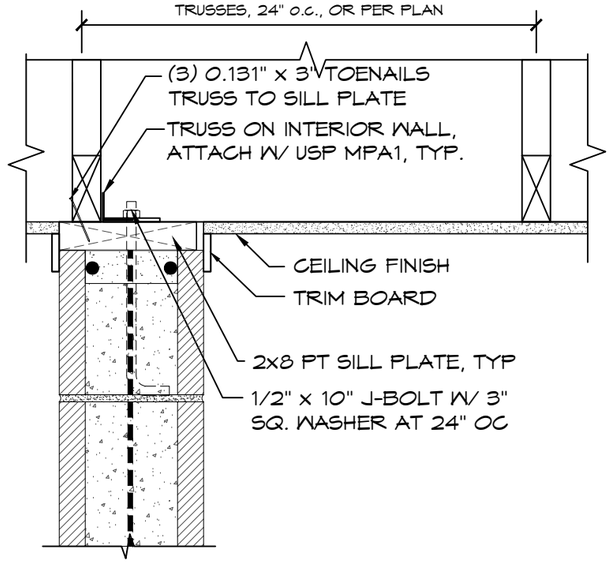


1 INTERIOR WALL CONNECTION

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



2 INTERIOR WALL CONNECTION

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

8/02/2024

LICENSED STRUCTURAL ENGINEER
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STATE OF ILLINOIS

Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOF CONNECTION DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

SHEET NO. S10.2

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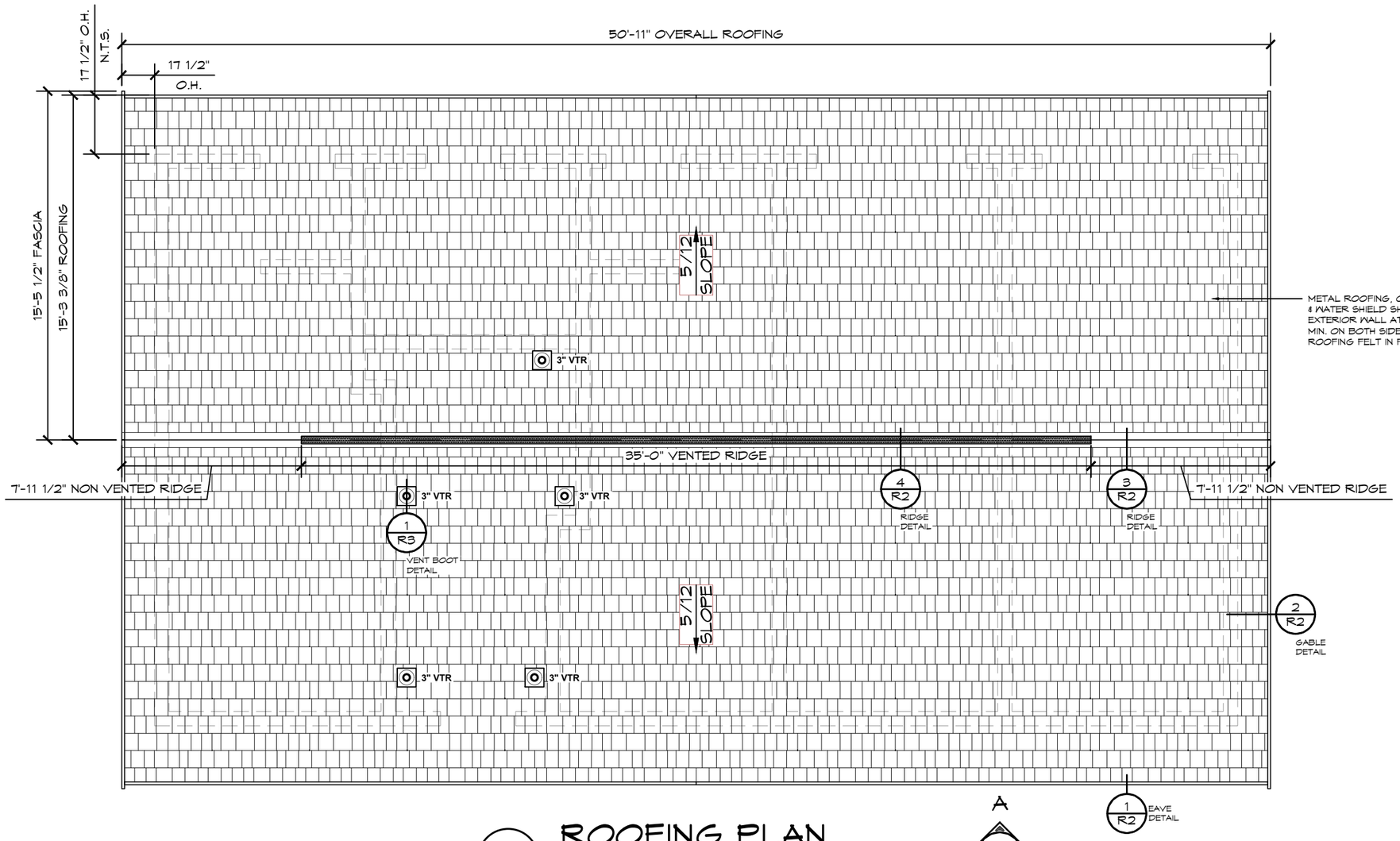
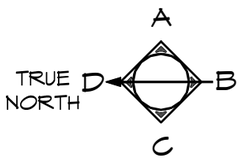
NOTE:
FLASHING SECTIONS OVER 10'-6" IN LENGTH SHALL BE OVERLAPPED BY 4" AND EVERY EFFORT MUST BE MADE TO ENSURE A SYMMETRICAL APPEARANCE



METAL ROOFING, OVER UNDERLAYMENT - ICE & WATER SHIELD SHALL EXTEND 24" PAST EXTERIOR WALL AT PERIMETER & EXTEND 24" MIN. ON BOTH SIDES OF RIDGE WITH #30 ROOFING FELT IN FIELD, TYP.

1 ROOFING PLAN

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



8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOFING PLAN

PROJECT #: SCP01

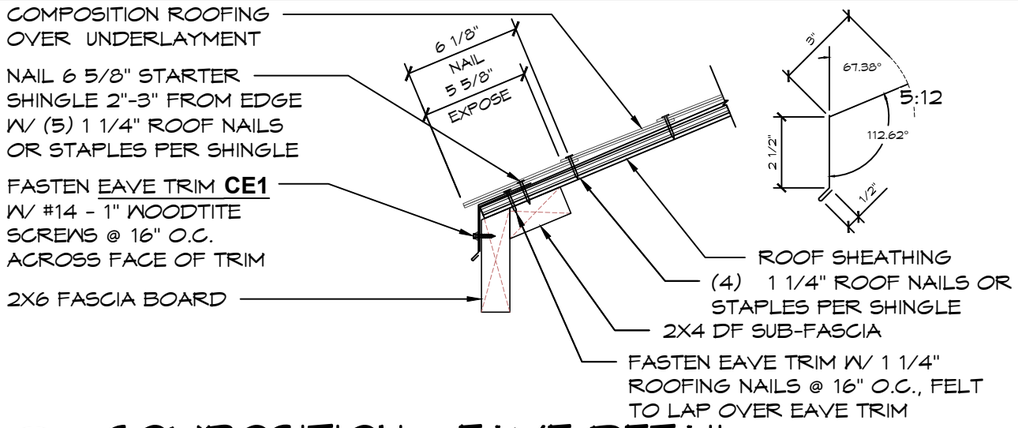
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

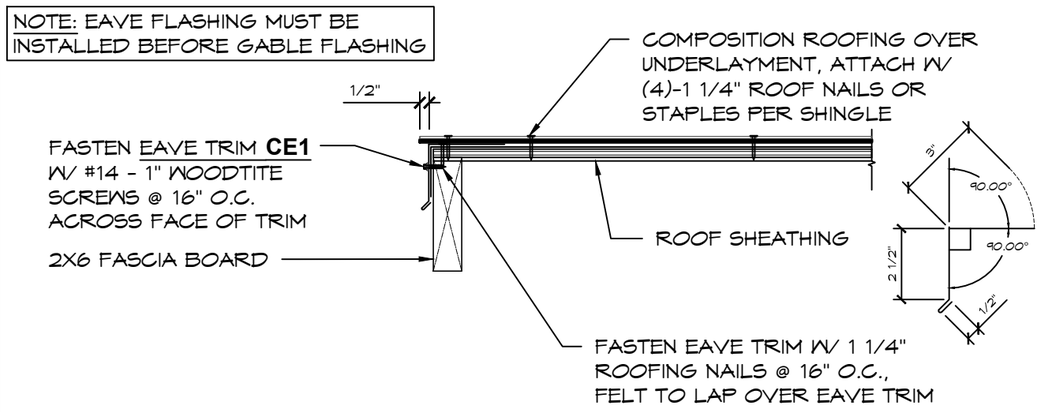
REVISIONS:

SHEET NO. R1



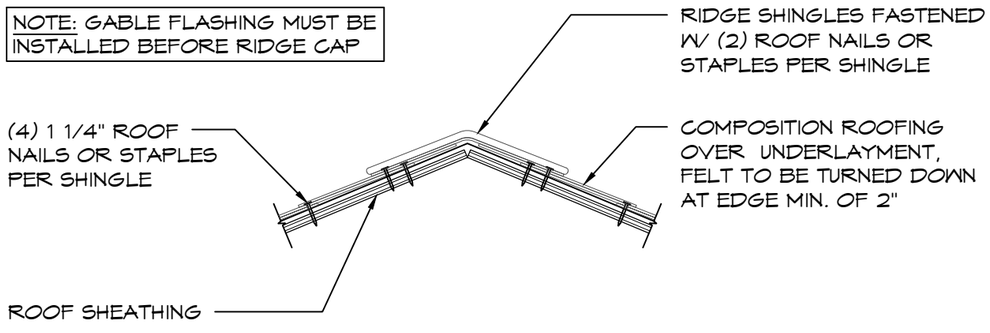
1 COMPOSITION - EAVE DETAIL

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



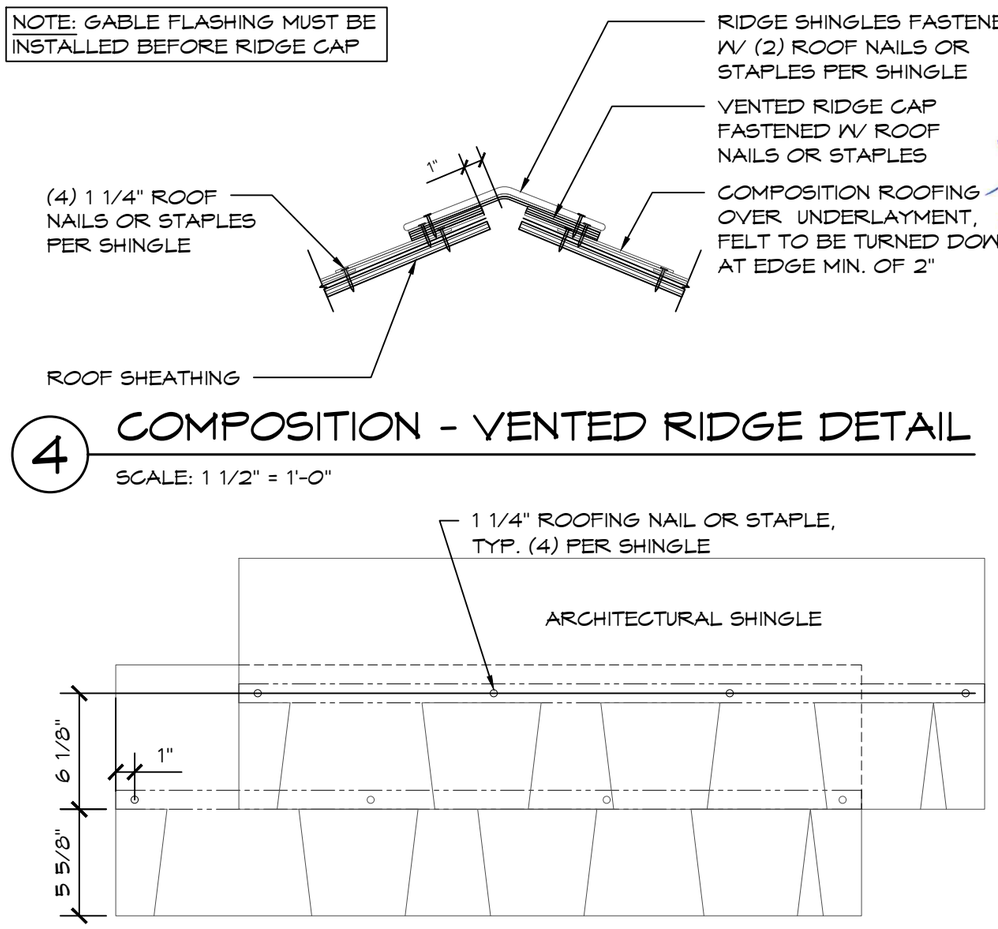
2 COMPOSITION - GABLE DETAIL

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



3 COMPOSITION - NON-VENTED RIDGE DETAIL

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



4 COMPOSITION - VENTED RIDGE DETAIL

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

5 COMPOSITION - TYP. INSTALL DETAIL

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

8/02/2024

LICENSED STRUCTURAL ENGINEER
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Exp. 11/30/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOFING DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. R2

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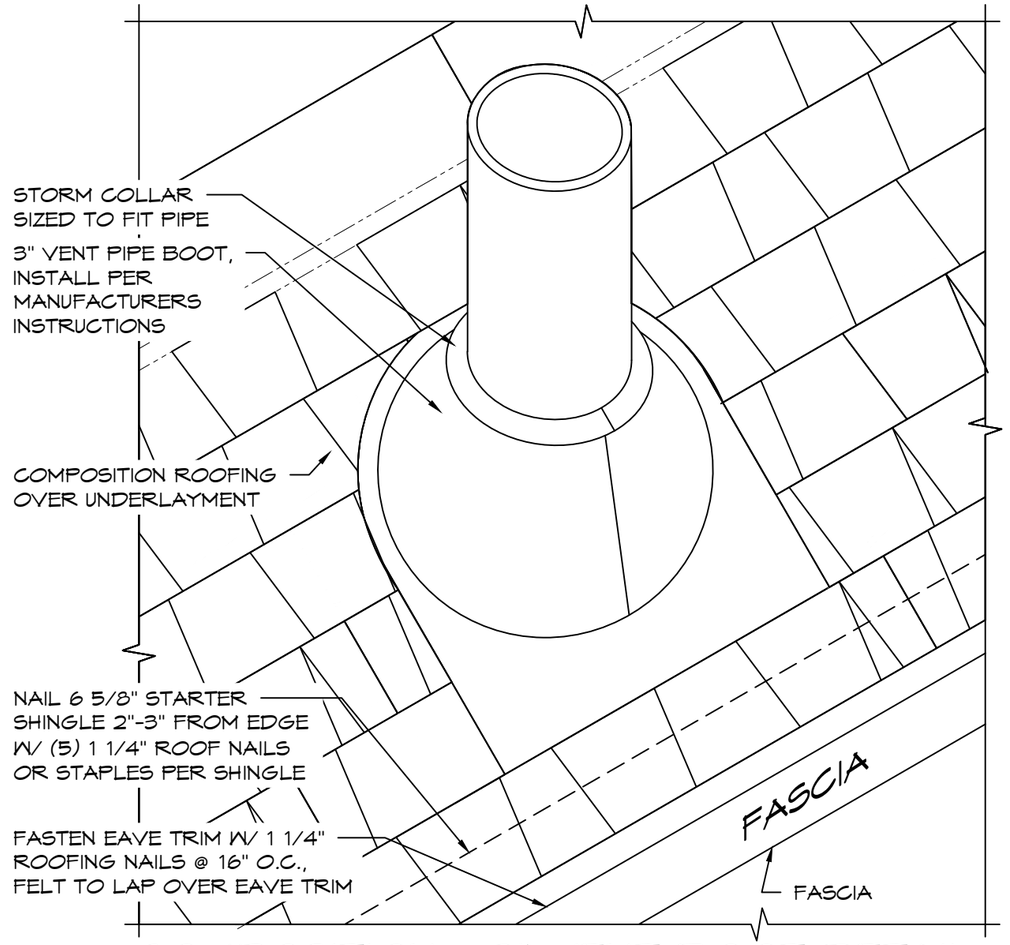

1 COMPOSITION - 3" VENT BOOT DETAIL

SCALE: N.T.S.

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ROOFING DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. R3

JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

STATE OF ILLINOIS PLUMBING CODE (BASED OFF IPC)

SYM	FIXTURE TYPE	SEWER	VENT	COLD WATER	HOT WATER	MIXED WATER	NO OF FIXT.	W. FIXT. UNITS/EA	TOTAL W. FIXT UNITS	DR. FIXT UNITS	TOTAL DR. FIXT. UNITS
WC-1	ADA TOILET	3"	2"	1"	X	X	6	10	60	8	48
UR-1	ADA URINAL	2"	1 1/2"	3/4"	X	X	2	5	10	3	6
LV-1	HAND SINK	1 1/2"	1 1/2"	1/2"	X	X	4	2	8	2	8
DF-1	DRINKING FOUNTAIN	1 1/2"	1 1/2"	3/8"	X	X	3	.25	.75	.5	1.5
HB-1	WALL HYDRANT ANTI-FREEZE	X	X	1/2"	X	X	1	2	2	NA	NA
FD-1	FLOOR DRAIN	3"	1 1/2"	X	X	X	1	NA	NA	2	2
FD-2	FLOOR DRAIN (EMERGENCY)	3"	1 1/2"	X	X	X	3	NA	NA	NA	NA
								TOTAL	80.75	TOTAL	65.5

SIOUX CHIEF
(3" W/6" STRAINER)

GENERAL PLUMBING NOTES:

1. ALL PIPE (WATER, SEWER, VENT), JOINTS, AND WORK SHALL CONFORM TO INTERNATIONAL PLUMBING CODE, STATE CODES, COUNTY AND LOCAL CODES AND ORDINANCES.
2. CONTRACTOR TO CONFIRM LOCATIONS OF SEWER AND WATER TIE-INS
3. CONTRACTOR TO SOLIDLY BRACE ALL PIPING TIGHT AGAINST WALLS. FOR LONG OR COMPLICATED RUNS, SECURELY MOUNT USING UNISTRUT, IN STRAIGHT AND UNIFORM MANNER FOR FINISHED APPEARANCE. PIPING SHOWN IS DIAGRAMMATIC ONLY AND ACTUAL DESIGN BY CONTRACTOR.
4. CONTRACTOR MAY CHANGE PIPE SIZING IN FIELD TO PROVIDE ADEQUATE WATER PRESSURE TO ALL PLUMBING FIXTURES AS APPROVED BY INSPECTOR. ROMTEC BUILDINGS ARE DESIGNED TO HAVE 40-60 PSI WATER PRESSURE FOR THE PLUMBING FIXTURES. IF THE SITE HAS A PRESSURE OTHER THAN THIS, IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE THE PRESSURE REDUCER OR BOOSTER PUMP NECESSARY.
5. CONTRACTOR TO DETERMINE AND PROVIDE MEANS FOR GRAVITY DRAINING ALL PLUMBING FIXTURES TO SEPTIC OR SANITARY SEWER SYSTEM. INSTALLER TO PROVIDE A CLEAN-OUT BENEATH ALL SINKS AND LAVATORY AS REQUIRED BY CODE.
6. CONTRACTOR TO DETERMINE AND PROVIDE MEANS FOR SUPPLYING WATER TO ALL PLUMBING FIXTURES AND INSTALL WATER SERVICE SHUTOFF VALVE; TYPICALLY LOCATED WITHIN THE MECHANICAL ROOM.
7. IF THE SITE REQUIRES AN ACCESSIBLE BACK FLOW PREVENTER AND/OR PRESSURE REDUCER OR BOOSTER PUMP IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE.
8. WHEN INCLUDED WATER HEATERS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND ALL STATE, COUNTY, AND LOCAL CODES AND ORDINANCES.
9. FLUSHOMETERS ASSOCIATED WITH TOILETS USE NO MORE THAN 1.6 GALLONS PER FLUSH. FLUSHOMETERS ASSOCIATED WITH URINALS USE NO MORE THAN 1.0 GALLON PER FLUSH. BOTH OF THE ABOVE SHALL MEET PERFORMANCE STANDARDS BY ANSI A112.19.2 H&S CODE, SECTION 17921.3(B)
10. WHEN FIXTURES REQUIRE WALL CARRIERS THE WALL CARRIER SHALL BE SUPPLIED BY CONTRACTOR.
11. UNLESS SPECIFIED IN THE ROMTEC SUBMITTAL, ROMTEC DOES NOT SUPPLY INSULATION OR "FREEZE PROTECTION" FOR PLUMBING. "THE OWNER MAY NEED TO WINTERIZE THEIR BUILDING."

8/02/2024

LICENSED STRUCTURAL ENGINEER
NABIL M. TAHA
081.006680
STATE OF ILLINOIS

Exp. 11/30/2024

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ROMTEC 224-066

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: PLUMBING SCHEDULE

PROJECT #: SCP01

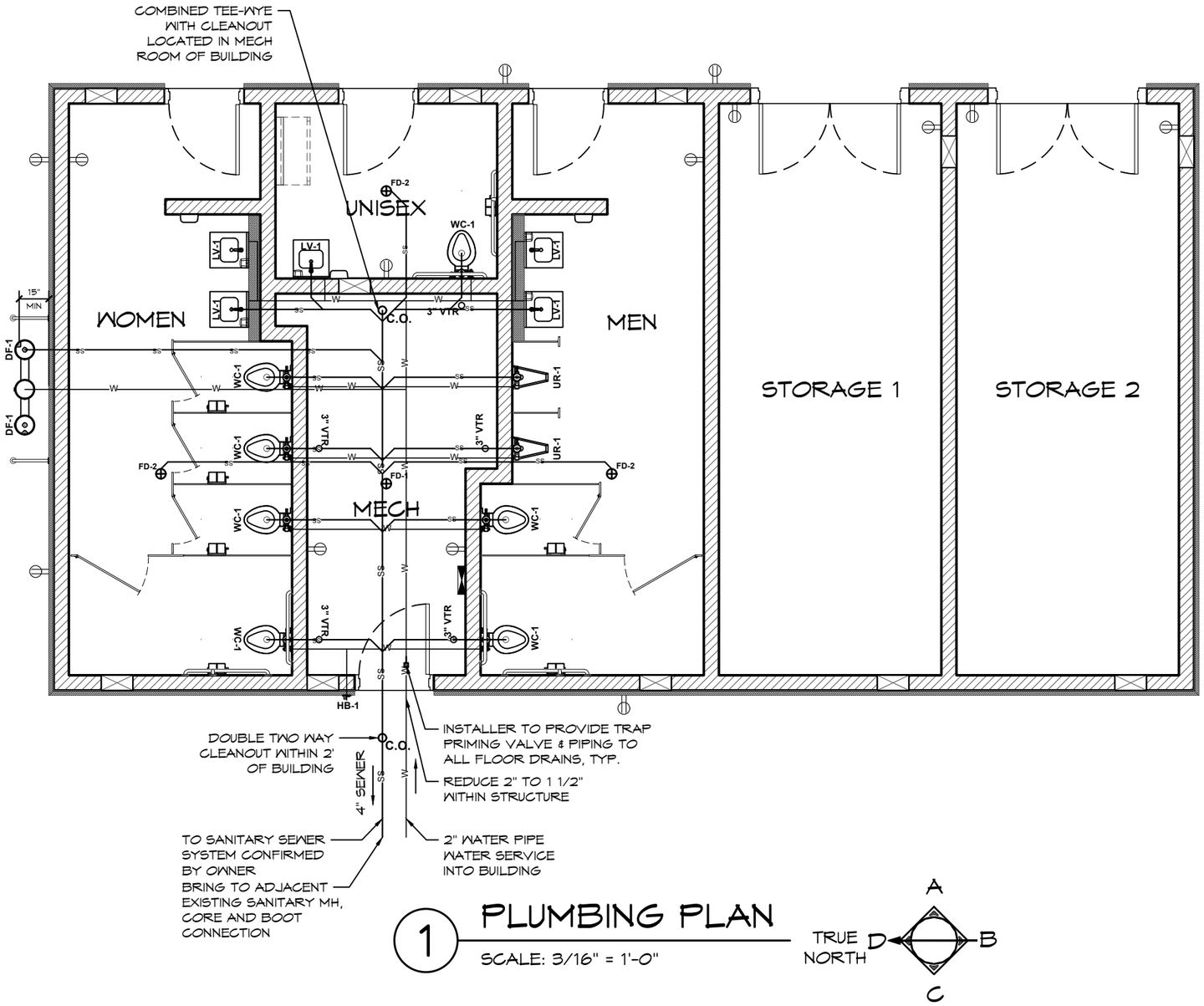
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. P1



1 PLUMBING PLAN

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

WATER-PLUMBING LEGEND

COLD WATER

SEWER-PLUMBING LEGEND

SANITARY SEWER

*FIXTURES ARE SYMBOLIC ONLY, REFER TO SPECIFICATIONS & PRODUCT LITERATURE FOR THE FIXTURE ROUGH-IN MEASUREMENTS & INSTALLATION DETAILS.

IPC NOTES

NOTES:

1. WATER PIPE SIZE AND PRESSURE REQUIREMENTS MUST BE CONFIRMED BY PLUMBING CONTRACTOR BASED ON LOCAL SUPPLY.
2. FIXTURE & FIXTURE CONNECTIONS ARE SYMBOLIC IN NATURE ONLY. REFER TO MANUFACTURER LITERATURE FOR EXACT FIXTURE SPECIFICATIONS.
3. ALL SANITARY AND DRAIN LINES SHALL BE SCHEDULE 40 PVC OR ABS.
4. ALL WATER LINES SHALL BE COPPER OR PER LOCAL CODE. NO JOINTS BENEATH THE SLAB.
5. WATER PIPE SIZING IS A MINIMUM SUGGESTION. PLUMBING CONTRACTOR WILL MAKE THE FINAL DETERMINATION.

8/02/2024

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: PLUMBING WATER PLAN

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
2	7/29/2024	ZW

REVISIONS:

SHEET NO. P2

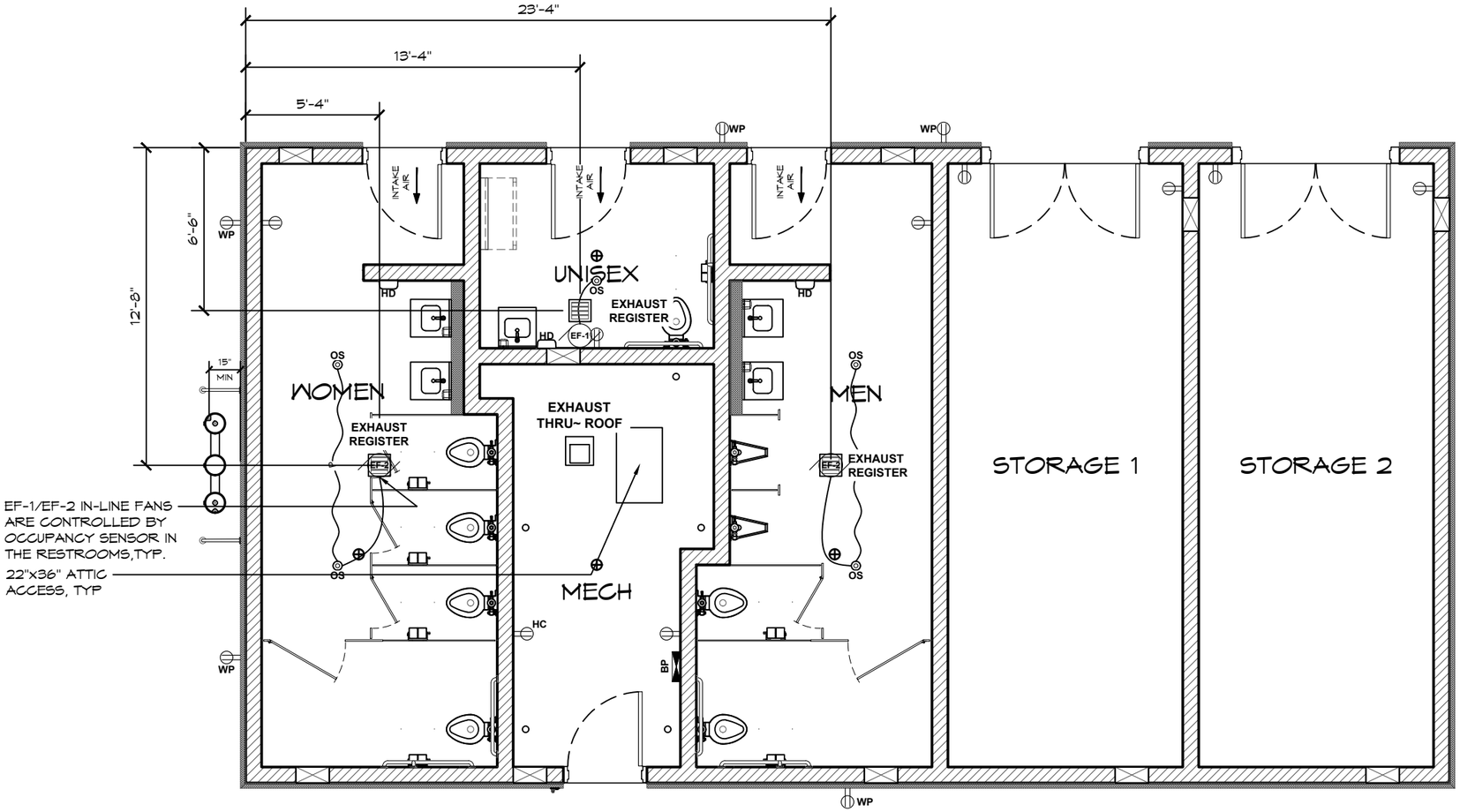
MECHANICAL EXHAUST SYSTEM SHALL BE INSTALLED PER INSTALL INSTRUCTIONS & DETAILS IN THE:

"FINAL"
ROMTEC SCOPE OF SUPPLY AND DESIGN SUBMITTAL

MINIMUM VENTILATION RATES:

PUBLIC SPACES

TOILET ROOMS (PER WC OR UR)
EXHAUST AIRFLOW RATE
50 CFM - OPERATES CONTINUOUSLY WHILE OCCUPIED
70 CFM - OPERATES INTERMITTENTLY



1 MECHANICAL PLAN

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

NOTES:
1. EXHAUST FANS AND ALL DUCTING TO BE MOUNTED USING DUCT HANGERS OR EQUIVALENT PER DIRECTIONS FURNISHED BY MANUFACTURE, IN ACCORDANCE WITH THE MECHANICAL CODE AND SMACNA STANDARDS.
2. ALL DUCTWORK: RIGID DUCT W/ R8.3 INSULATED WRAP LISTED CLASS 1 AIR DUCT). PROVIDE SHEETMETAL FITTINGS AT MAIN DUCT RUNOUTS AND CONNECTIONS WITH A MINIMUM OF THREE SHEETMETAL SCREWS AND TAPED TO PROVIDE AN AIRTIGHT SEAL. SUPPORT FLEX AS DIRECTED BY MANUFACTURER, NOT TO EXCEED 4'-0".
3. THE DUCT DISCHARGES THRU A ROOF CAP W/ DAMPER, SCREEN AND COLLAR.
4. FANS ARE CONTROLLED BY OCCUPANCY SENSORS LOCATED IN EACH ROOM.

A
D B
C

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: MECHANICAL PLAN

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. M1

JOB CREATED: 7/29/2024 - LAST SAVED BY: zweiser ON 7/29/2024 - LAST PRINTED: 7/29/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240729.dwg

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES.
2. OWNER TO PROVIDE TEMPORARY POWER AS REQUIRED DURING COURSE OF CONSTRUCTION.
3. ELECTRICAL SERVICE EQUIPMENT SUPPLIED BY OTHERS UNDER SEPARATE SUBMITTAL.
4. THE AIC VALUES SHOWN ON THESE ROMTEC PLANS ARE TO BE MADE CLEARLY AVAILABLE TO THE ELECTRICAL ENGINEER OF RECORD THAT WILL DESIGN THE MAIN SERVICE.
5. THE INSTALLER SHALL FURNISH & INSTALL SPECIFICATION GRADE CIRCUIT BREAKERS, WIRING, CONDUIT, SWITCHES AND GFI RECEPTACLES THROUGHOUT. INTERIOR RECEPTACLES & SWITCHES SHALL HAVE STAINLESS STEEL COVERPLATES AND EXTERIOR RECEPTACLES SHALL BE INSTALLED WITH A WEATHERPROOF IN USE COVER.
6. ELECTRICAL CONDUIT IS TO BE RUN WITHIN THE WALL WHEN POSSIBLE, EXCEPT IN THE MECHANICAL ROOM.
7. FOR MECHANICAL ROOM ALL EXPOSED CONDUIT IS TO BE SURFACE MOUNTED AND RUN TIGHT TO CEILING AS REQUIRED.
8. COORDINATE AC OUTLET HEIGHTS WITH OWNER PRIOR TO ROUGH-IN.

ELECTRICAL SCHEDULE & SYMBOL LEGEND:

QTY	SYMBOL	DESCRIPTION
1	BP	100 AMP BREAKER PANEL
PER PLAN		HOME RUN TO BREAKER PANEL
PER PLAN		110 VAC DUPLEX RECEPTACLE, GFIC MOUNTED MIN OF 27" TO MAX OF 48" ABOVE THE FLOOR CONFIRM EXACT LOCATION & HEIGHT WITH OWNER OR OWNERS REPRESENTATIVE.
1	HC	110 VAC DUPLEX RECEPTACLE, GFIC DEDICATED RECEPTACLE FOR WATER PIPE HEAT CABLE - MOUNTED MIN 27" TO MAX 48" ABOVE FLOOR CONFIRM EXACT LOCATION & HEIGHT WITH OWNER OR OWNERS REPRESENTATIVE.
4	$	SWITCH, SINGLE POLE MOUNTED A MAX OF 48" ABOVE THE FLOOR
12	LF-1	LIGHT FIXTURE, WALL MOUNT UL LISTED TO U.S. SAFETY STANDARDS FOR ALL WET LOCATIONS WALL MOUNT, LED DOWN LIGHT, LITHONIA OLLWD: (9W) (.08A)
6	LF-2	48" LED VAPOR TIGHT CEILING/WALL MOUNT LIGHT LITHONIA CSVT L48 5000LM 40K 80CRI 4,298LM 40K: (35.3 W) (.2942 A)
10	LF-3	LIGHT FIXTURE, CEILING MOUNT LED RECESSED LIGHT LITHONIA WF6 LED: (14W) (0.12A)
1	LF-4	LIGHT FIXTURE, FLAG LIGHTING (OWNER SUPPLIED) LITHONIA DSXF1 LED FLOOD LIGHT (42W 0.35A)
1	PCL	PHOTO CELL, W/ WEATHER PROOF COVER
5	OS	OCCUPANCY SENSOR WALL MOUNT ACUITY SENSOR SWITCH WVR PDT 16 WIDE VIEW SENSOR: 2 POLE (120/277,347 VAC 13 AMPS/POLE 347 VAC MUST BE SAME PHASE)
3	HD	HAND DRYER WALL MOUNT, THINAIR TA-SB: (915W) (7.7A)

QTY	SYMBOL	DESCRIPTION
1	EF-1	INLINE DUCT EXHAUST FAN SYSTEM S&P, TD-100 - 4": (26W) (0.22A)
2	EF-2	INLINE DUCT EXHAUST FAN SYSTEM S&P, TD-150 - 6": (65W) (0.54A)

8/02/2024

LICENSED STRUCTURAL ENGINEER
NABIL M. TAHA
081.006680
STATE OF ILLINOIS

Exp. 11/30/2024

REGISTERED PROFESSIONAL ENGINEER
65580
OREGON
JULY 13, 2004
GREGORY L. PRIDE
EXPIRES 12-31-24

NOT LICENSED IN ILLINOIS

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PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: ELECTRICAL SCHEDULE

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

REVISIONS:

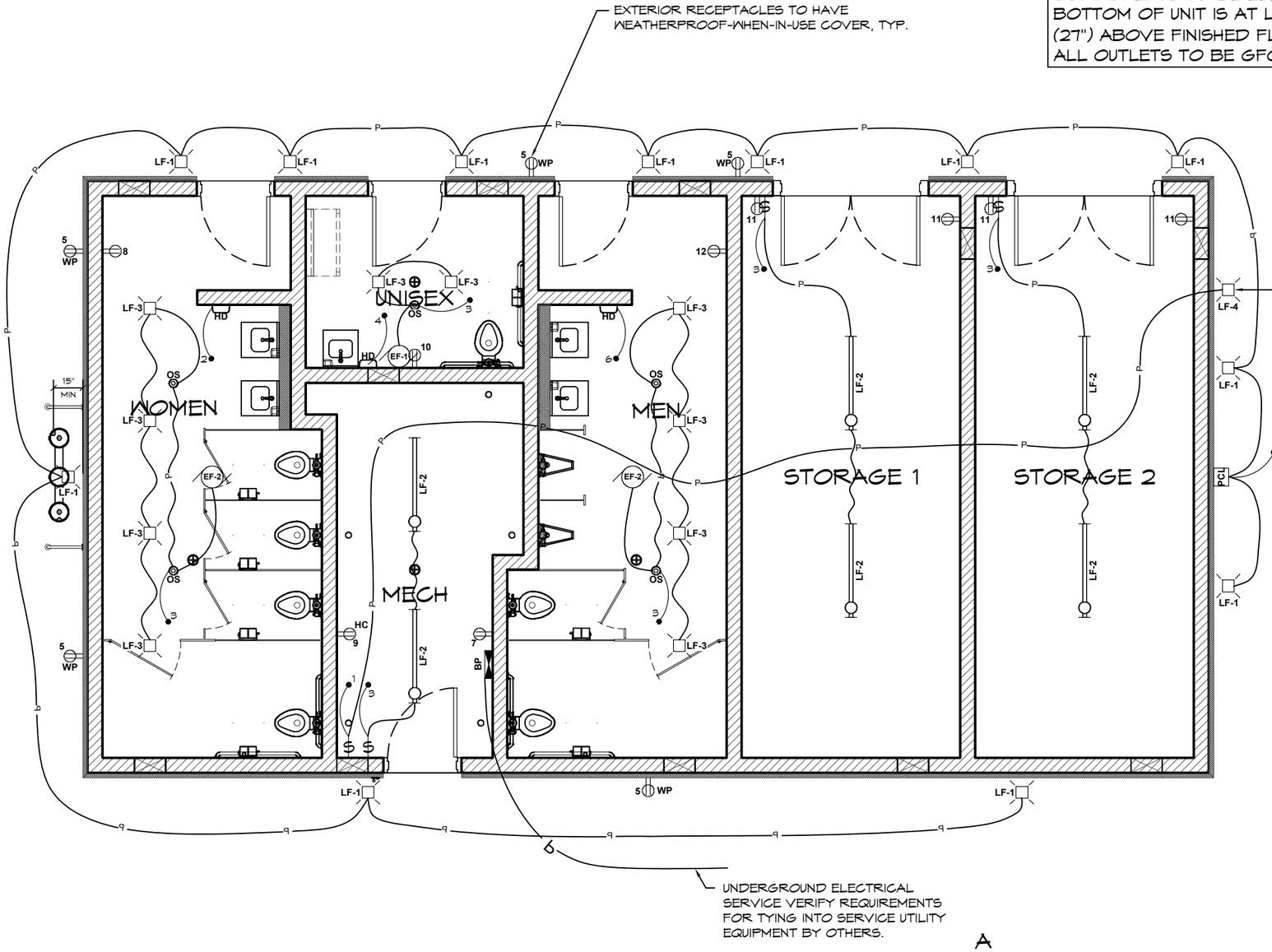
SHEET NO. E1

ROMTEC HAS DESIGNED THIS ELECTRICAL SYSTEM TO MEET THE NEEDS OF THIS SPECIFIC FACILITY. SITE DESIGN AND ENGINEERING BY OTHERS. OWNER IS RESPONSIBLE TO PROVIDE ALL SERVICE AND/OR UTILITY ENTRANCE DESIGN. FIELD VERIFY THAT SERVICE CONDUCTOR SIZE IS ADEQUATE FOR VOLTAGE DROP. ANY ADDITIONAL POWER OR LIGHTING LOADS NOT SHOWN ON THESE PLANS SHALL BE ENGINEERED BY OTHERS.

NOTE:
SEE SHEETS A1.4, A2.1, & A2.2 FOR LOCATIONS - HEIGHTS OF ELECTRICAL FIXTURES.

NOTE: BREAKER PANEL MAY BE RELOCATED AT THE DISCRETION OF THE INSTALLER, PANEL MUST MAINTAIN ALL APPLICABLE CODE CLEARANCES.

NOTE:
ALL OUTLETS AND ELECTRICAL COMPONENTS TO BE ELEVATED SO BOTTOM OF UNIT IS AT LEAST 2'-3" (27") ABOVE FINISHED FLOOR
ALL OUTLETS TO BE GFCI



1 ELECTRICAL PLAN

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

A D B C

REGISTERED PROFESSIONAL ENGINEER 65580 OREGON JULY 13, 2004 GREGORY L. PRIDE
EXPIRES 12-31-24

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8/02/2024

LICENSED STRUCTURAL ENGINEER NABIL M. TAHA 081.006680 STATE OF ILLINOIS
Exp. 11/30/2024

PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: ELECTRICAL PLAN

PROJECT #: SCP01

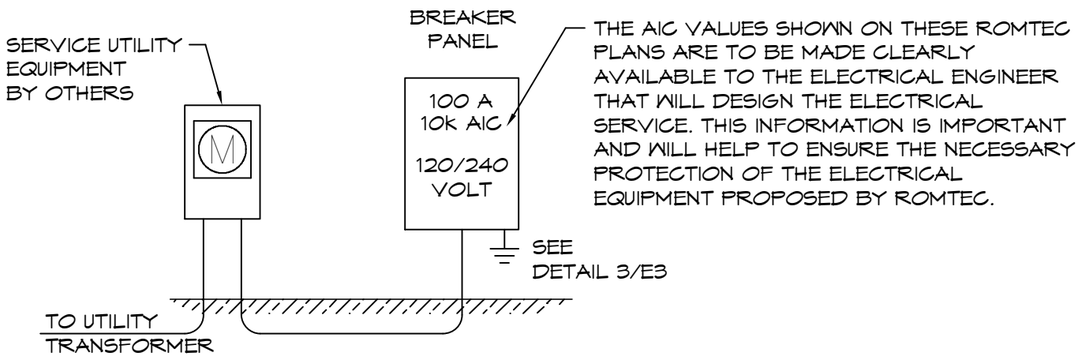
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW
2	7/29/2024	ZW

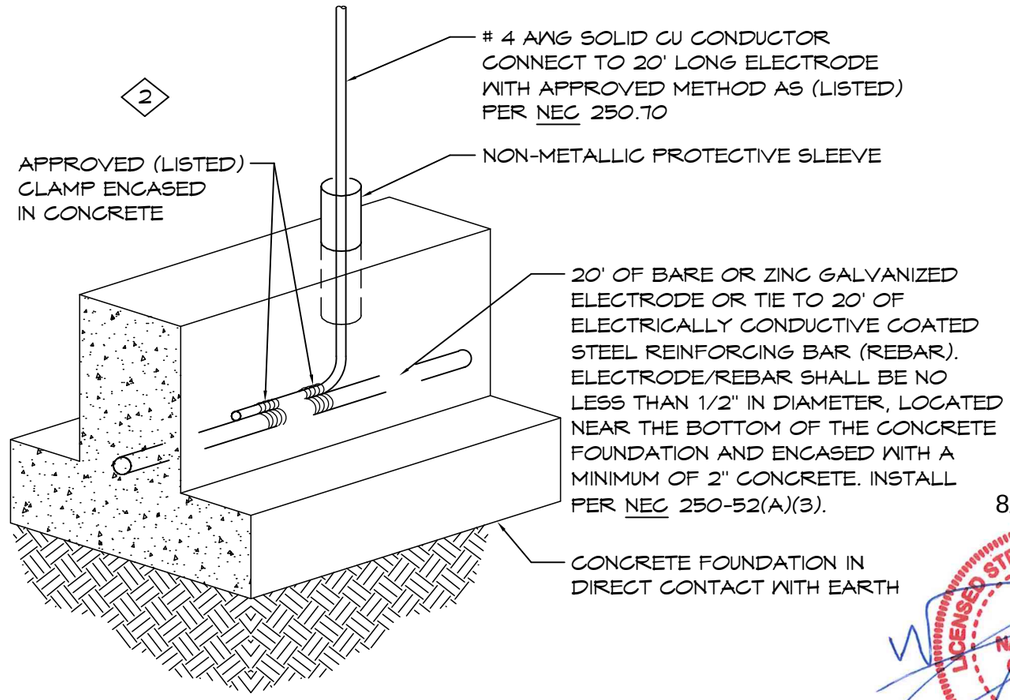
REVISIONS:

SHEET NO. E2



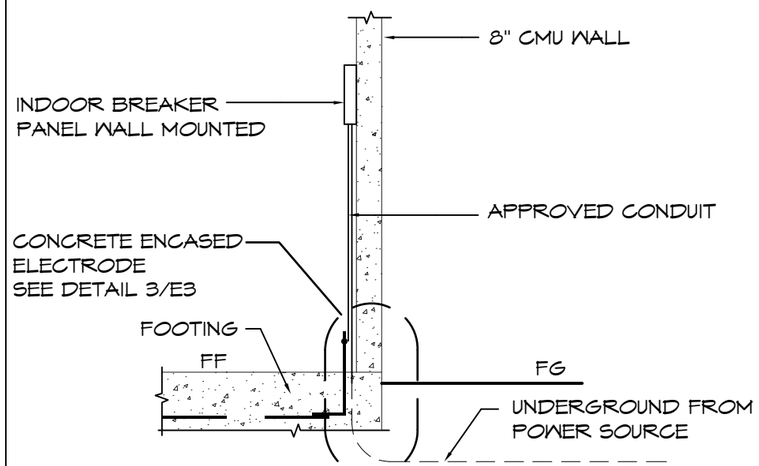
1 ONE-LINE DIAGRAM

SCALE: NONE



3 CONCRETE ENCASED SERVICE GROUND

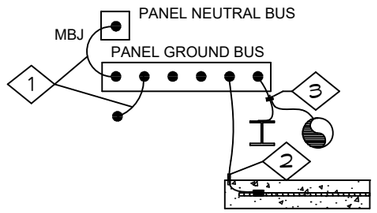
SCALE: NONE



2 RISER DIAGRAM

SCALE: NONE

" NEC ARTICLE 250 OR LOCAL CODES MAY REQUIRE OR ALLOW ADDITIONAL GROUNDING



KEYED NOTES

1. #4 CU MAIN BONDING JUMPER AND EQUIPMENT BONDING JUMPER PER NEC 250.28(D), 250.102(C) AND TABLE 250.66. DO NOT BOND THE NEUTRAL TO THE GROUND BUS IF THIS IS NOT A SERVICE ENTRANCE
2. #4 CU TO CONCRETE ENCASED ELECTRODE PER NEC 250.52(A)(3), 250.66(B) AND 250.70
3. WHERE REQUIRED, BOND PIPING SYSTEMS AND EXPOSED STRUCTURAL STEEL PER NEC 250.104

4 GROUNDING/BONDING DETAIL

SCALE: NONE

REGISTERED PROFESSIONAL ENGINEER 65580 GREGORY L. PRIDE OREGON JULY 13, 2004
EXPIRES 12-31-24

NOT LICENSED IN ILLINOIS

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8/02/2024

LICENSED STRUCTURAL ENGINEER NABIL M. TAHA 081.006680 STATE OF ILLINOIS

Exp. 11/30/2024

PROJECT: SCHUSSLER PARK ORLAND PARK, ILLINOIS

SHEET TITLE: ELECTRICAL RISER DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. E3

JOB CREATED: 08/02/24 - LAST SAVED BY: greg ON 08/02/24 - LAST PRINTED: ---- - LOCATION: D:\Double 'E' Engineering_Projects\Romtec_Alpha Projects\SCP01e Schussler Park\elec SCP01-Schussler Park-2080M, IL 240801.dwg

8/02/2024

LICENSED STRUCTURAL ENGINEER
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Exp. 11/30/2024

REGISTERED PROFESSIONAL ENGINEER
65580
OREGON
JULY 13, 2004
GREGORY L. PRIDE
EXPIRES 12-31-24

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BREAKER PANEL																		10k AIC RATING				
100 AMP		MAIN BREAKER				120 / 240 VOLTS												1-PHASE, 3-WIRE				
FEEDER SIZE:		ALUM: 3 #1/0 PH, #8 GRD, 1 1/4" C																SURFACE MOUNTED				
ELECTRICAL WIRING:		GROUNDED & BOND PER - NEC											USE XHHW-2 CU CONDUCTORS									
LOAD DISTRIBUTION		LTG	REC	MOTOR	DATA	HEAT	MISC						PH-A	PH-B	= TOTAL	AMPS		WITH SPARE		25%		
CONNECTED VA		658	2424	0	0	2745	0						3144	2683	= 5827	26		7284		33		
DIVERSITY FACTOR		125%	100%	100%	100%	100%	100%								=							
DIVERSIFIED VA		822	2424	0	0	2745	0						3182	2810	= 5991	27		7489		33		
PL	T	LOAD	VA	HP	PHW	GND	CON	BKR		PH		BKR	CON	GND	PHW	HP	VA	LOAD		T	PL	
1	L	LTS: EXTERIOR	150		12	12	1/2	20	1	A	1	20	1/2	12	12		915	HAND DRYER		H	2	
3	L	LTS: INTERIOR	508		12	12	1/2	20	1	B	1	20	1/2	12	12		915	HAND DRYER		H	4	
5	R	REC: EXTERIOR	900		12	12	1/2	20	1	A	1	20	1/2	12	12		915	HAND DRYER		H	6	
7	R	REC: MECH	180		12	12	1/2	20	1	B	1	20	1/2	12	12		180	REC: WOMEN		R	8	
9	R	REC: HEAT TAPE	84		12	12	1/2	20	1	A	1	20	1/2	12	12		180	REC: UNISEX		R	10	
11	R	REC: STORAGE	720		12	12	1/2	20	1	B	1	20	1/2	12	12		180	REC: MEN		R	12	

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: ELECTRICAL PANEL SCHEDULE

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:
1	6/24/2024	ZW

REVISIONS:

SHEET NO. E4

RECYCLE

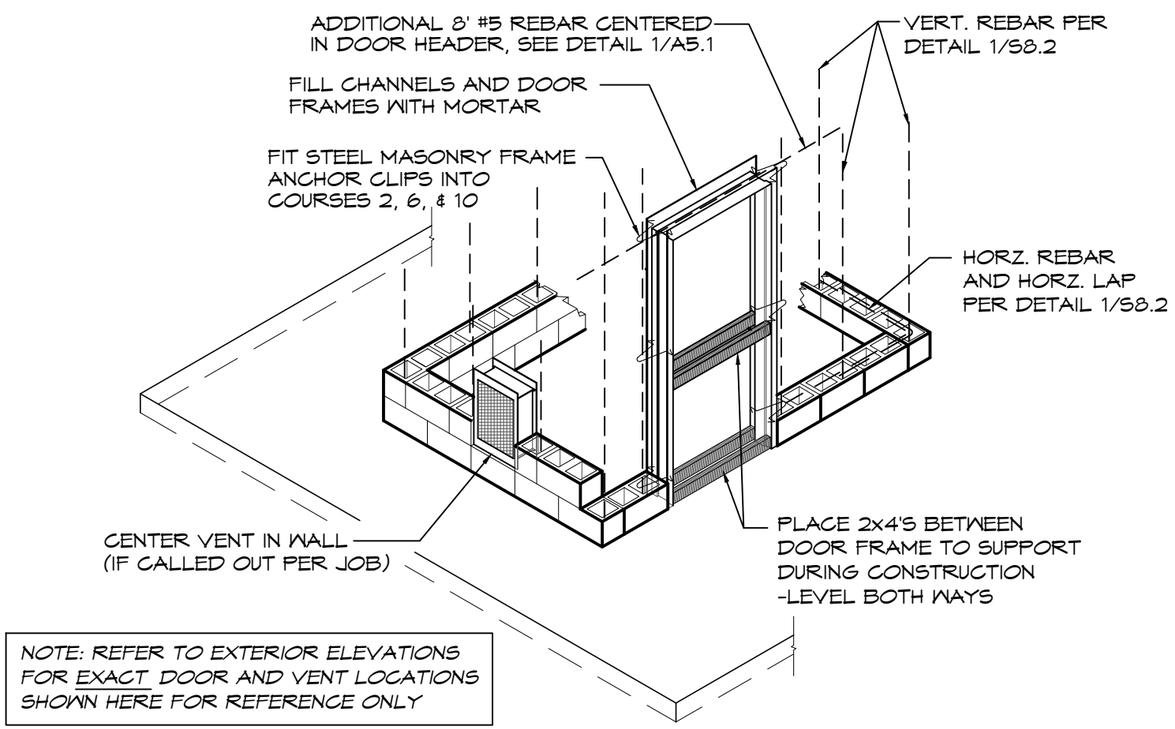
RECYCLE ALL USED SHIPPING MATERIALS AND LEFT OVER BUILDING MATERIALS

CMU BLOCK PLAN(S) PROVIDED BY ROMTEC ARE ONLY ACCURATE IF ROMTEC SUPPLIES THE CMU BLOCK.

BLOCK SUMMARY		
Count	NO	Name
706	18	18 - 8x16 Smooth Bond
1513	19	19 - 8x16 Smooth
196	20	20 - 8x 8 Smooth

NOTE: FIELD CUTTING STONE PIER CAPS AND WALL CAPS MAY BE REQUIRED.

NOTE: INSTALLER MAY BE REQUIRED CUT CMU BLOCK ON-SITE. FOR EXAMPLE, THIS MAY INCLUDE CUTTING BLOCK FOR ROOF SLOPE, NOTCHING BLOCK FOR BOND BEAMS OR CUTTING FULL BLOCKS TO CREATE HALF BLOCKS. FOR SPLIT FACE CMU BLOCK THE INSTALLER WILL BE REQUIRED TO GRIND A SMOOTH SURFACE TO MOUNT ITEMS SUCH AS LIGHTING FIXTURES, PLUMBING FIXTURES AND SIGNS. ROMTEC IS NOT RESPONSIBLE FOR ANY COST OR CONSTRUCTION DELAYS ASSOCIATED WITH THIS WORK.



NOTE: REFER TO EXTERIOR ELEVATIONS FOR EXACT DOOR AND VENT LOCATIONS SHOWN HERE FOR REFERENCE ONLY

1 BLOCK INSTALLATION DETAIL

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

DO NOT STAMP

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK SCHEDULE & DETAILS

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B1

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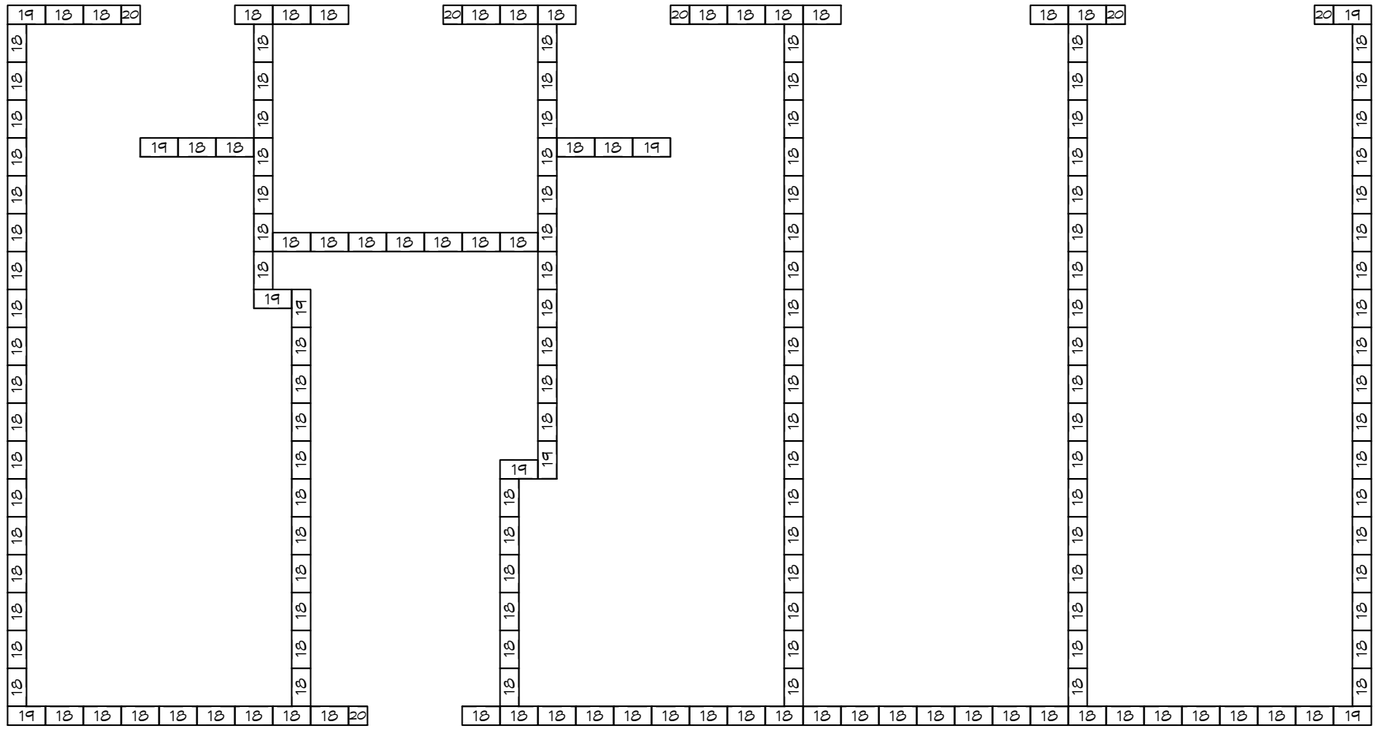

COURSE 1
BOND BEAM

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B2

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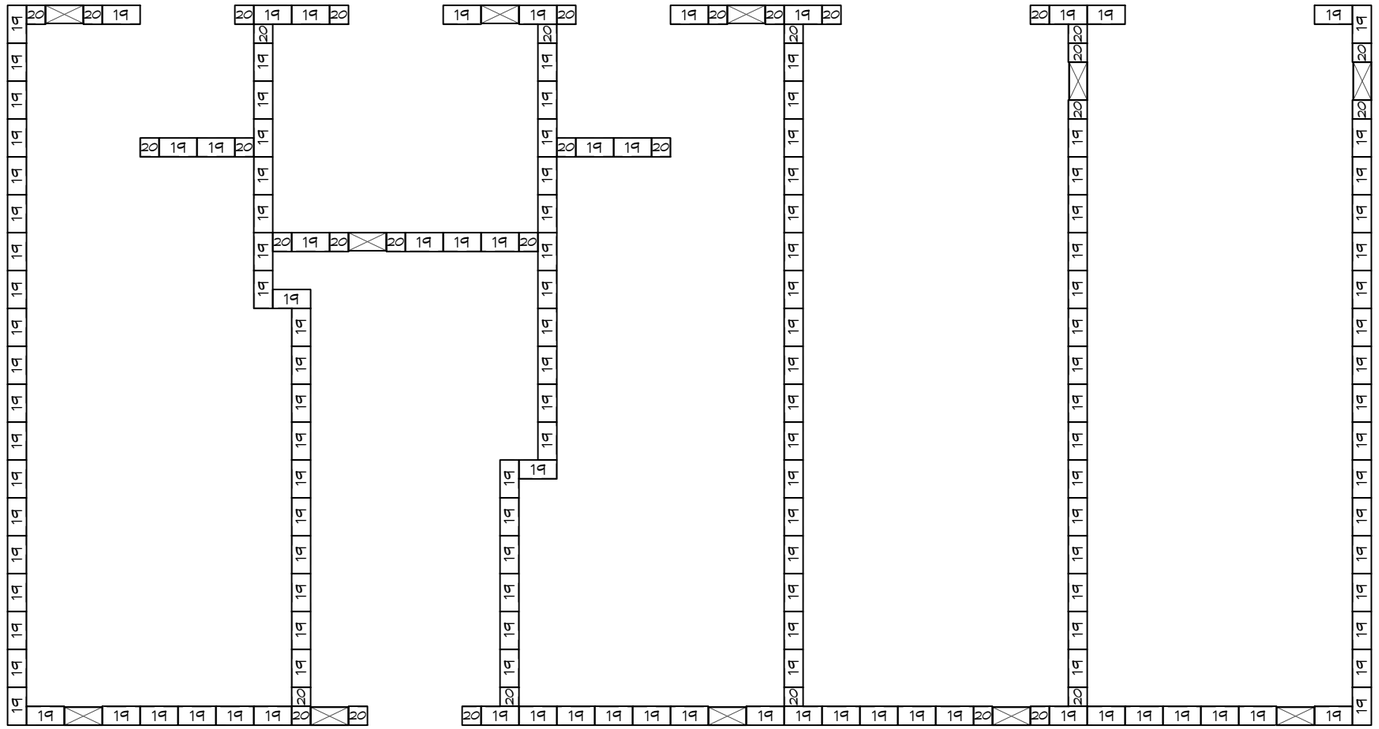

COURSE 2

DO NOT STAMP

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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

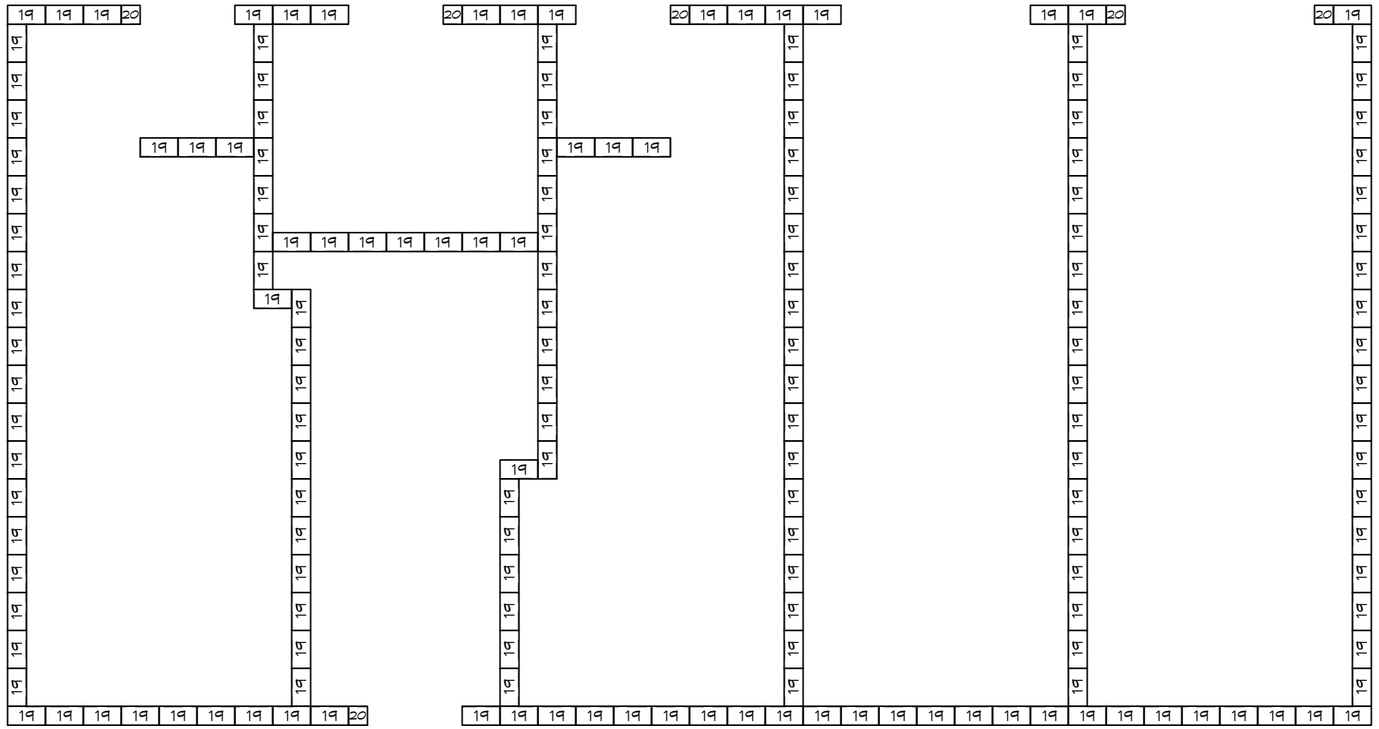
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B3

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 3

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

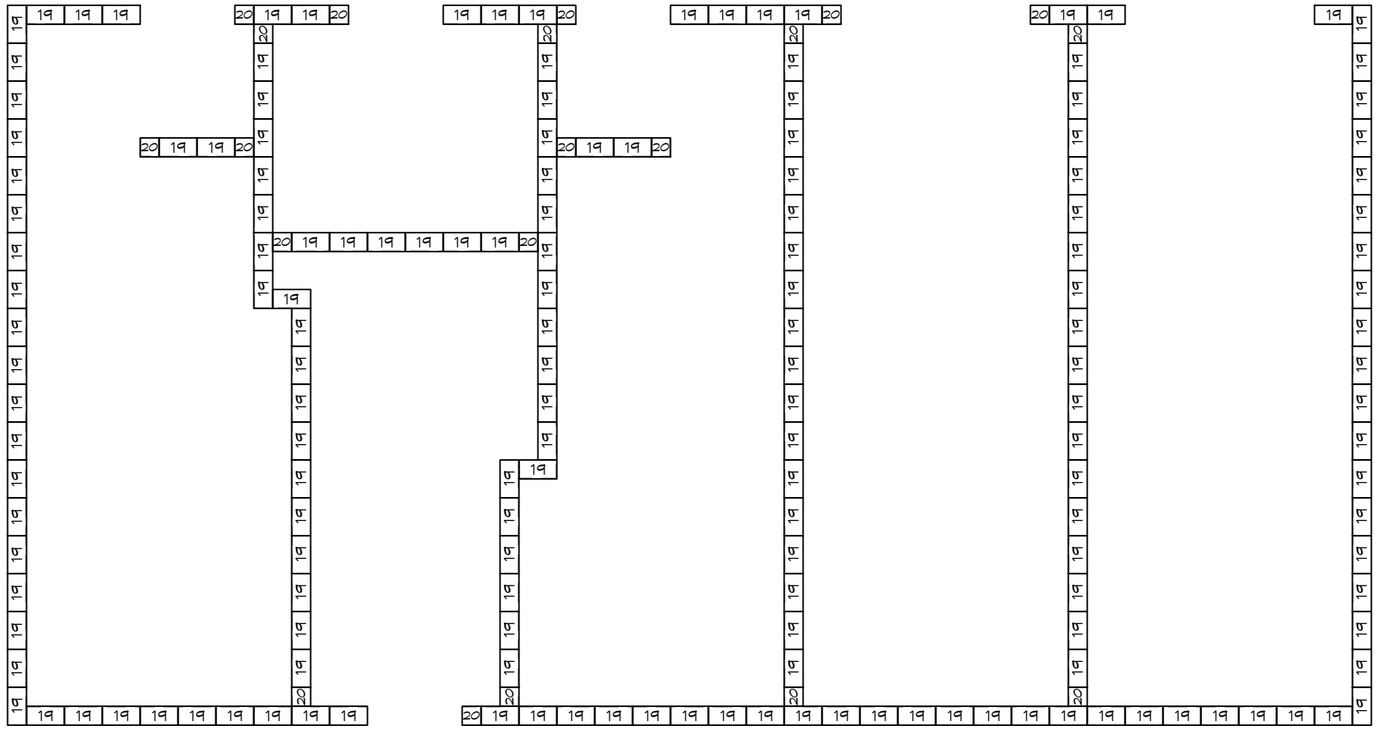
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B4

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 4

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

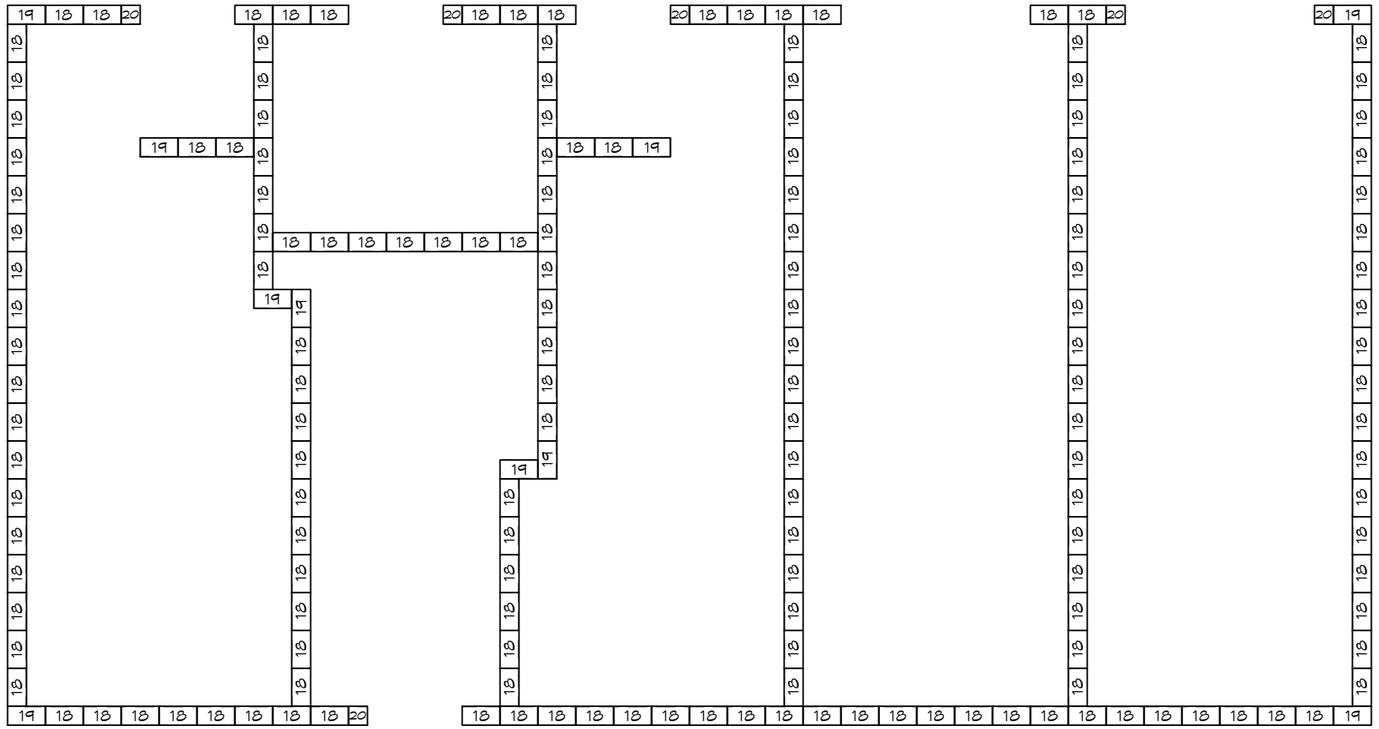
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B5

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 5
BOND BEAM

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

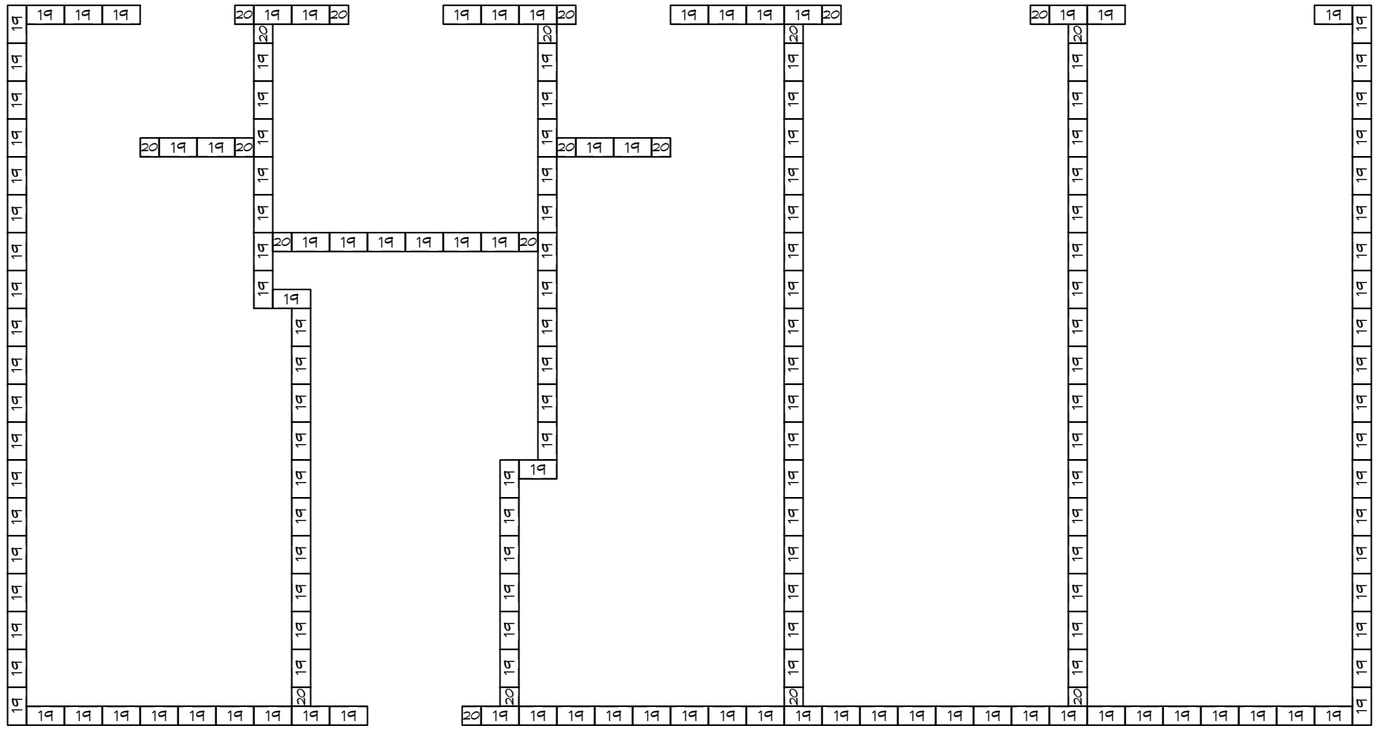
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B6

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 6

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

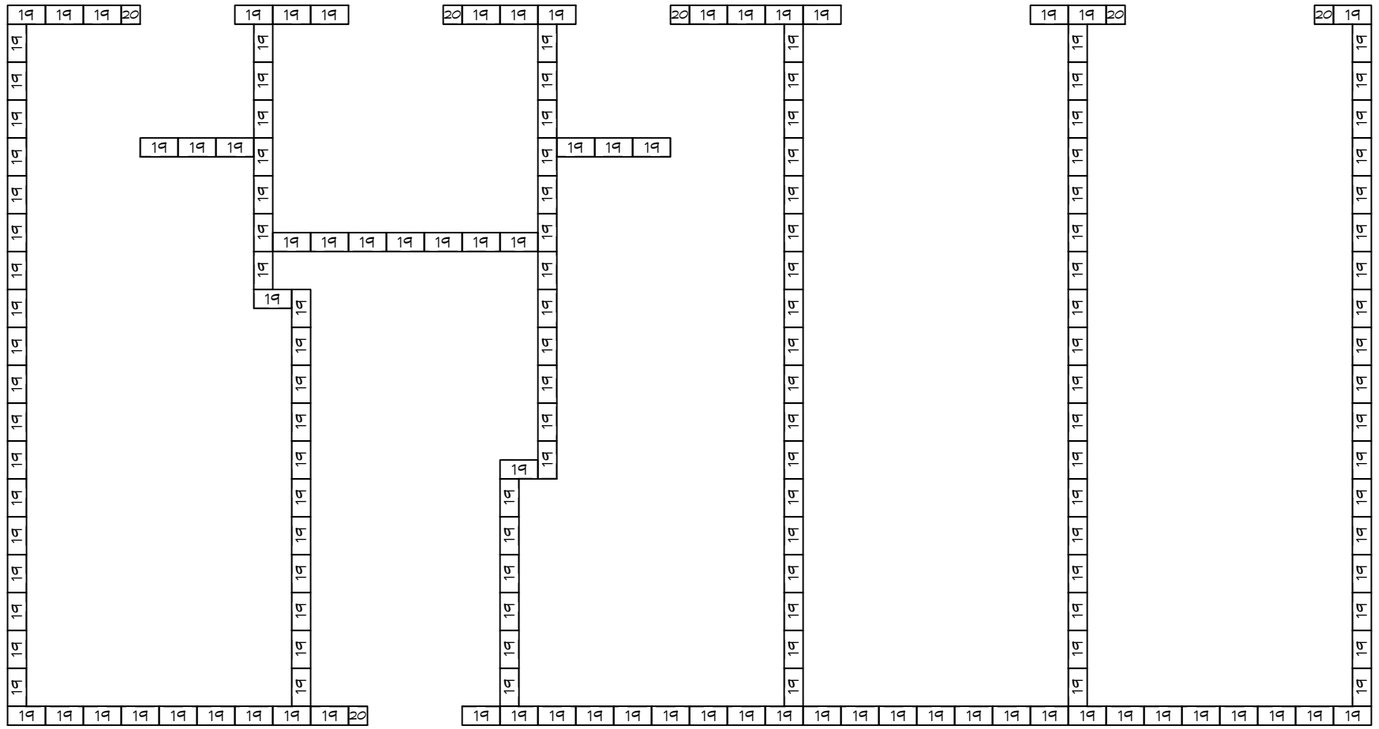
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B7

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 7

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

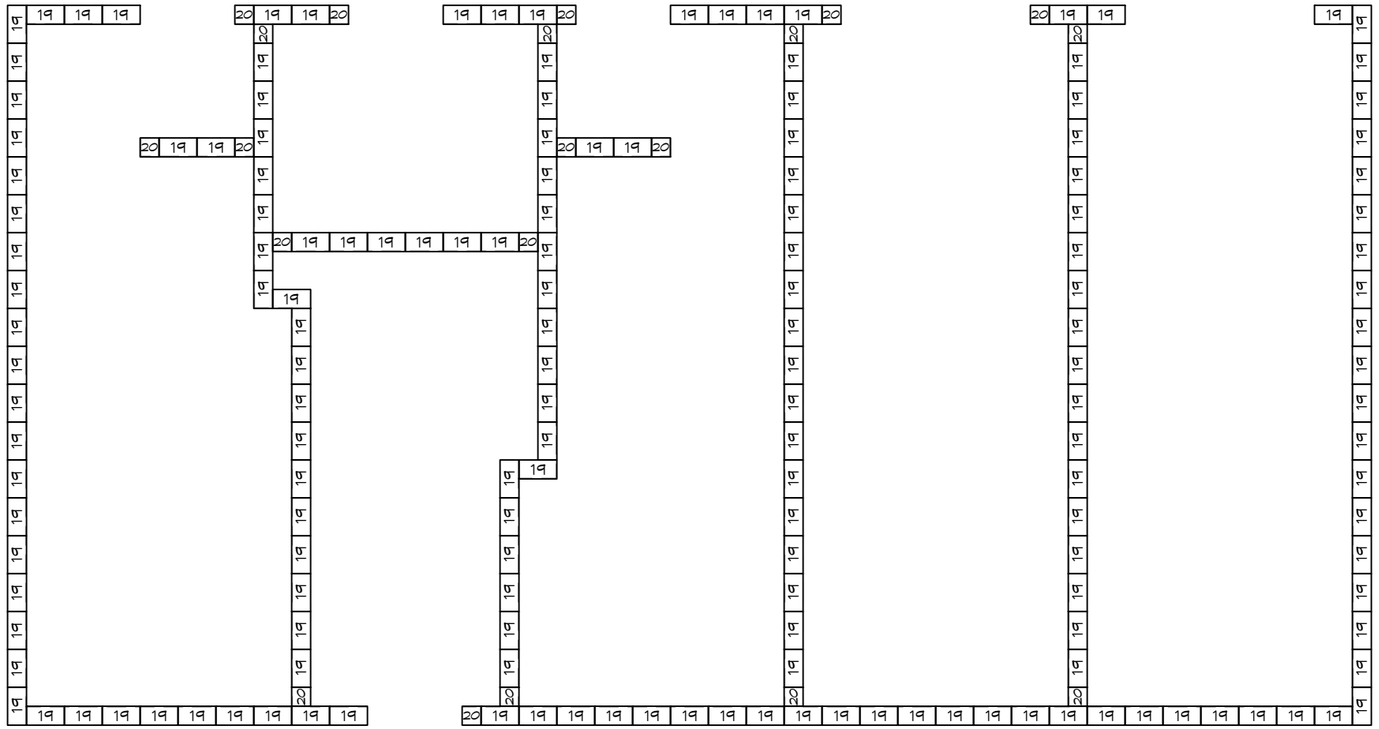
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B8

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 8

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

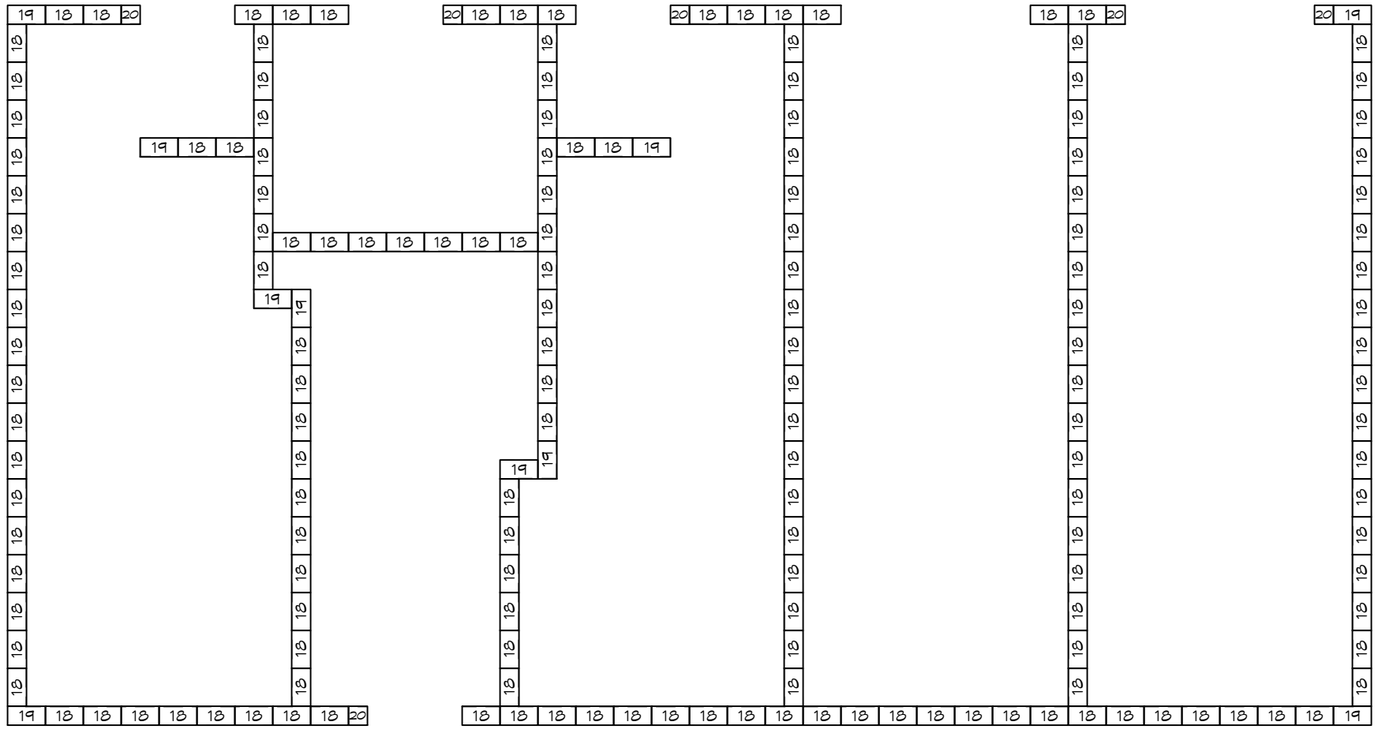
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B9

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 9
BOND BEAM

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

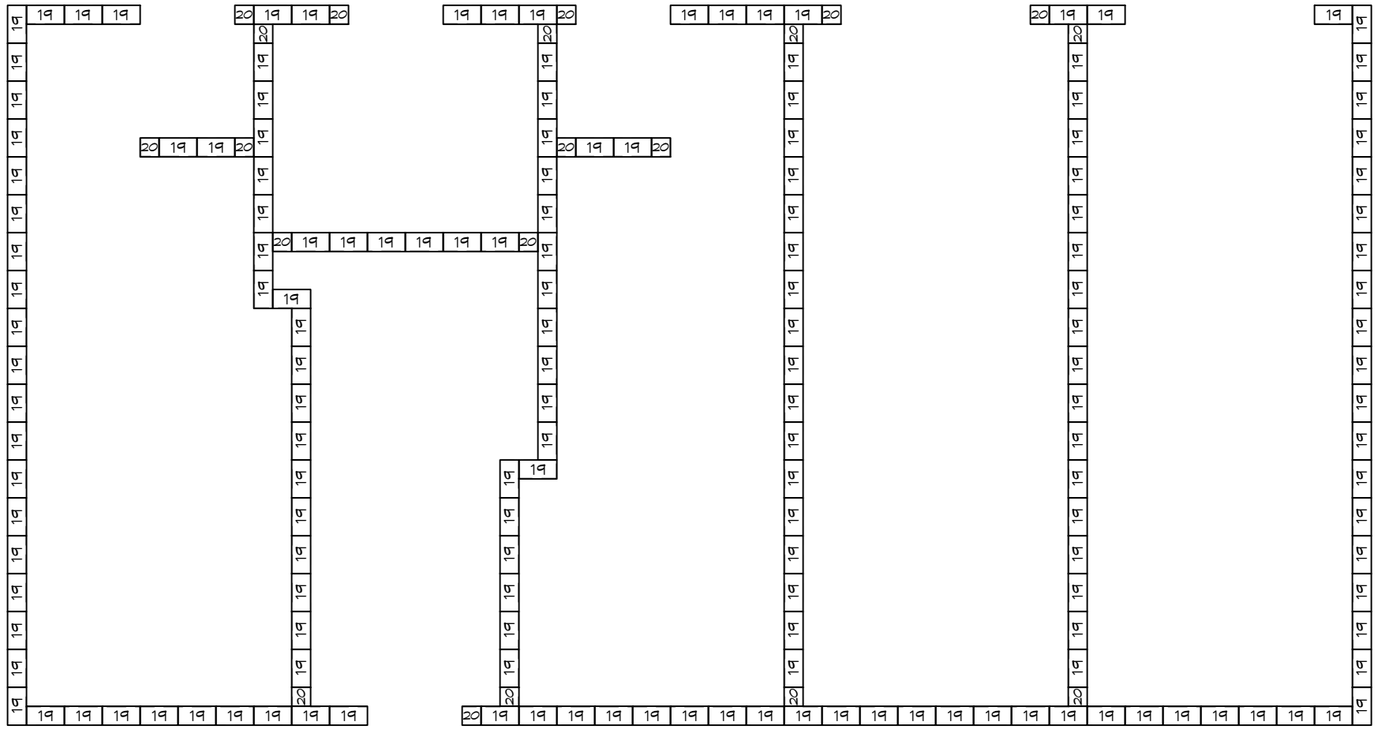
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B10



COURSE 10

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

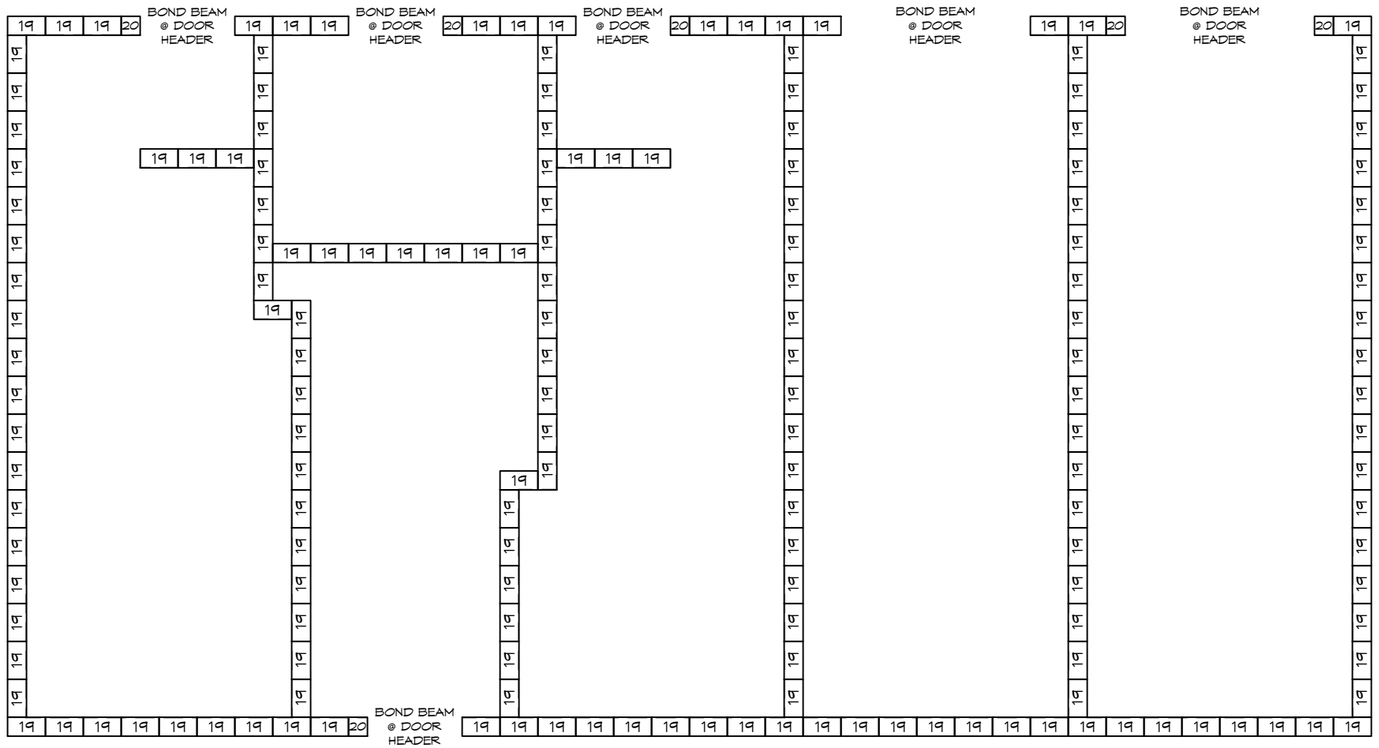
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B11

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 11

DO NOT STAMP

ROMTEC
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

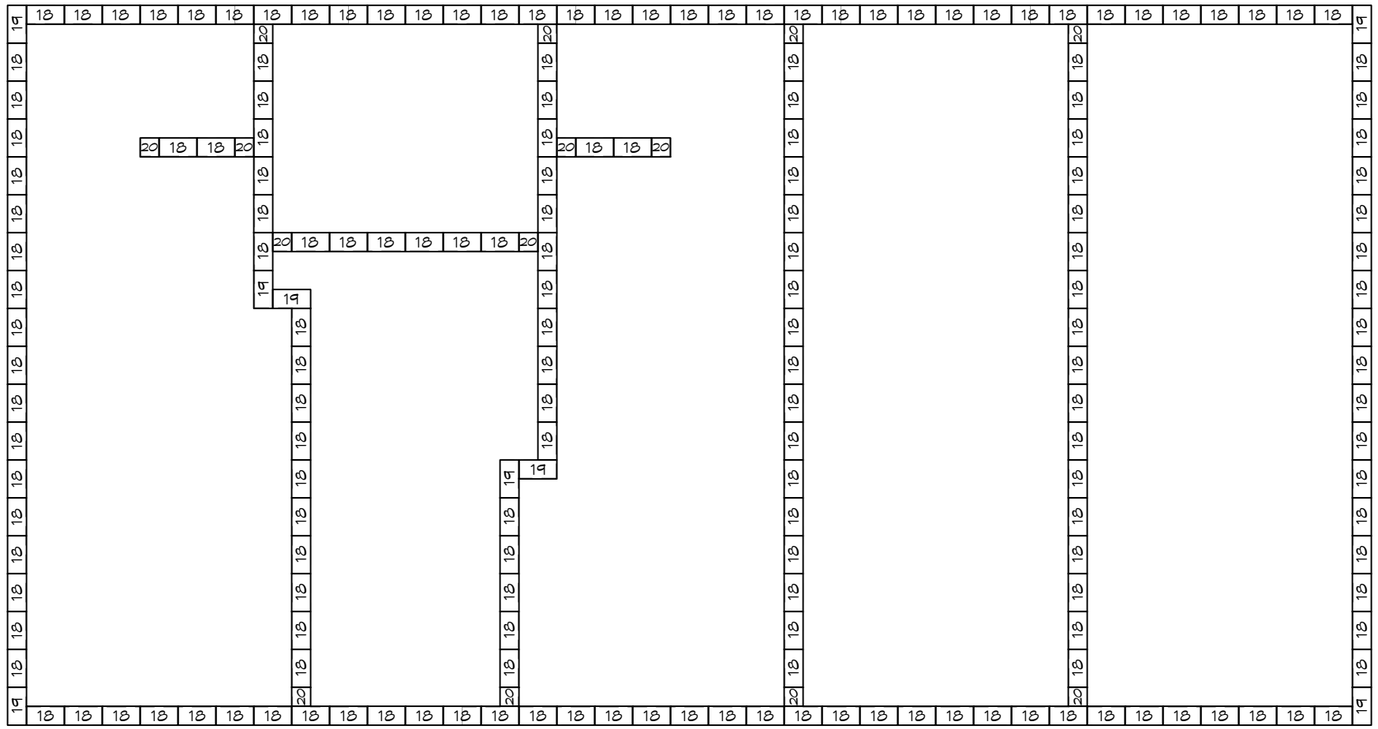
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B12

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-20BOM, IL 240624.dwg



COURSE 12
BOND BEAM

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

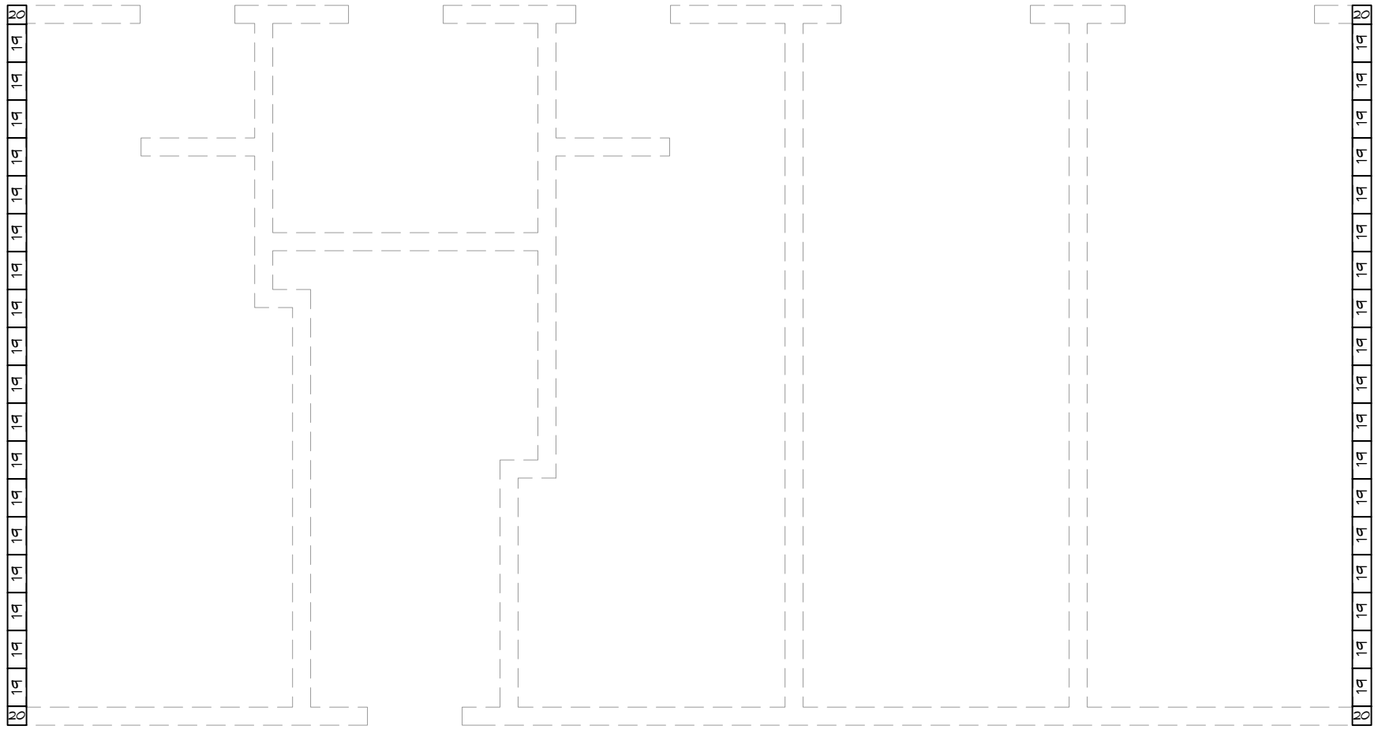
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B13

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



DO NOT STAMP

ROMTEC
www.romtec.com
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

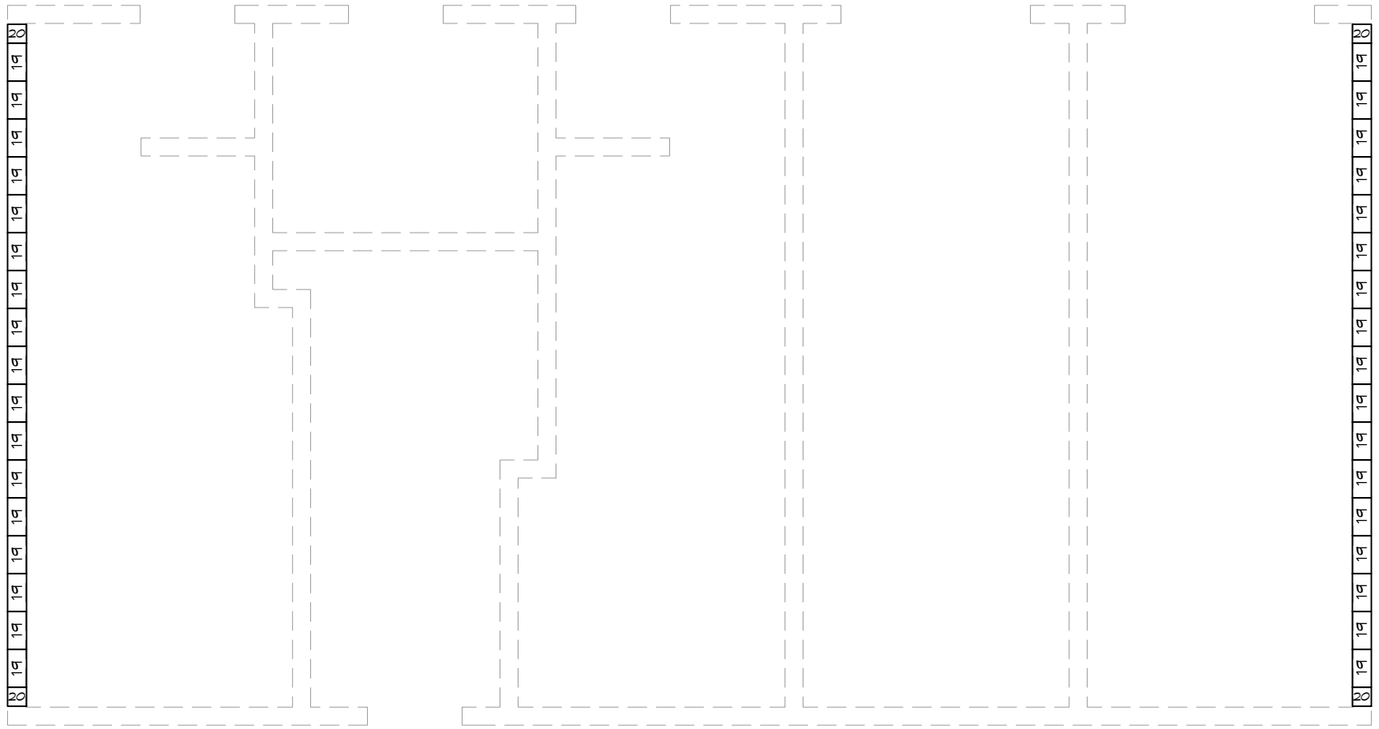
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B14

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering R\\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



DO NOT STAMP

ROMTEC
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

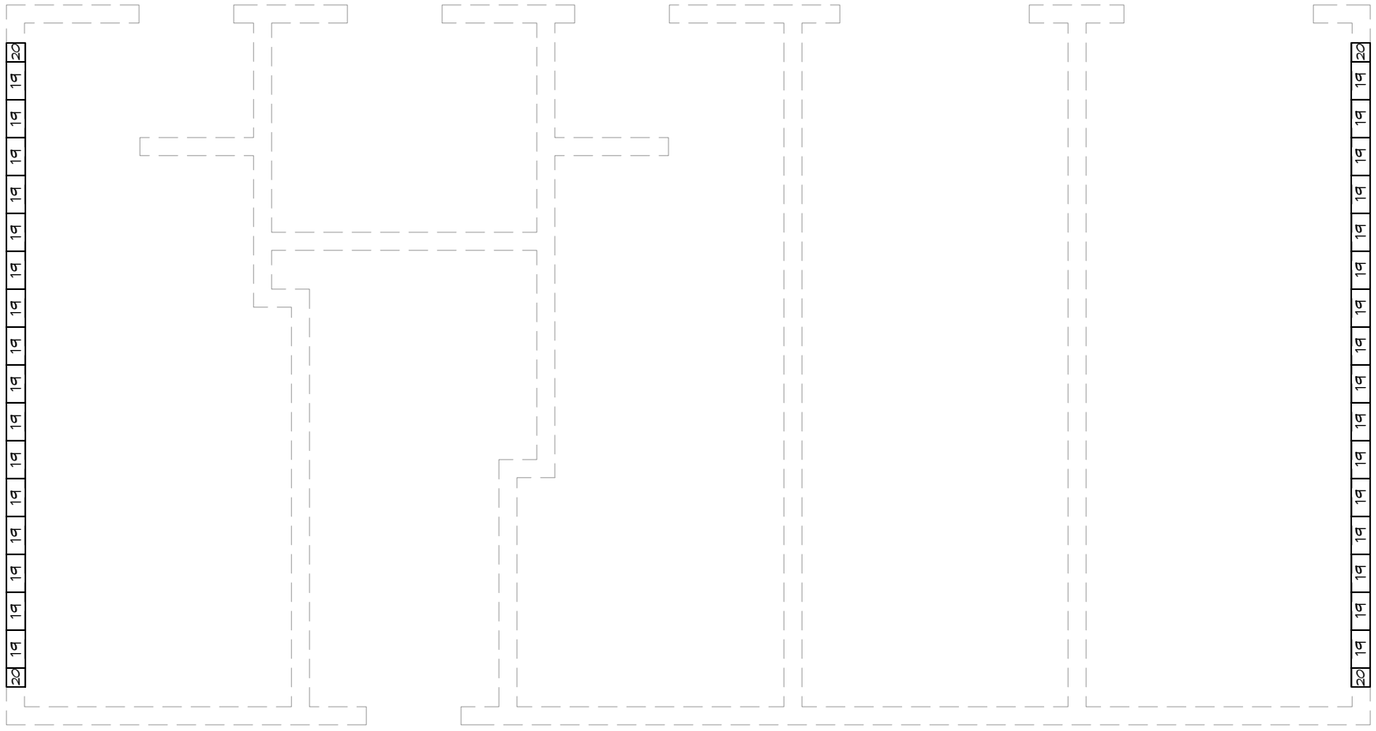
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B15

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



DO NOT STAMP

ROMTEC
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

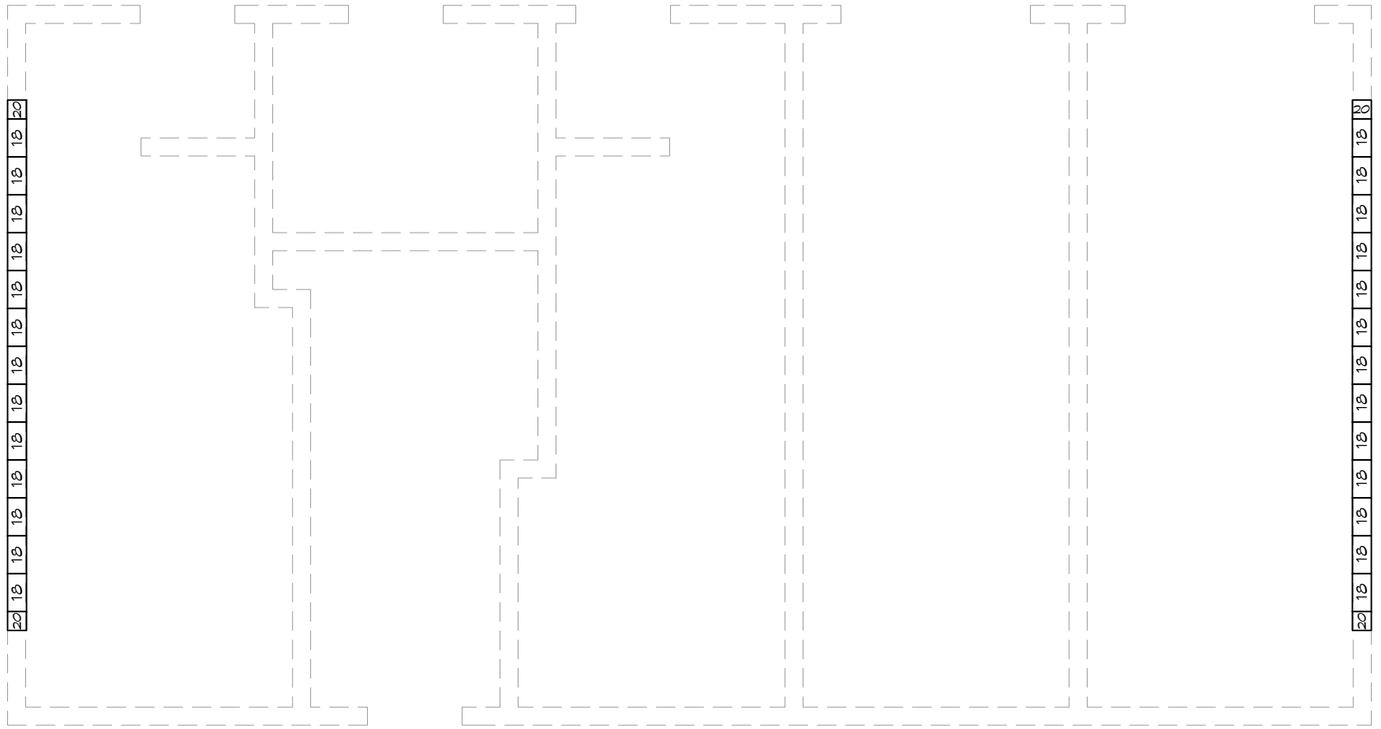
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B16



COURSE 16
BOND BEAM

DO NOT STAMP

ROMTEC
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

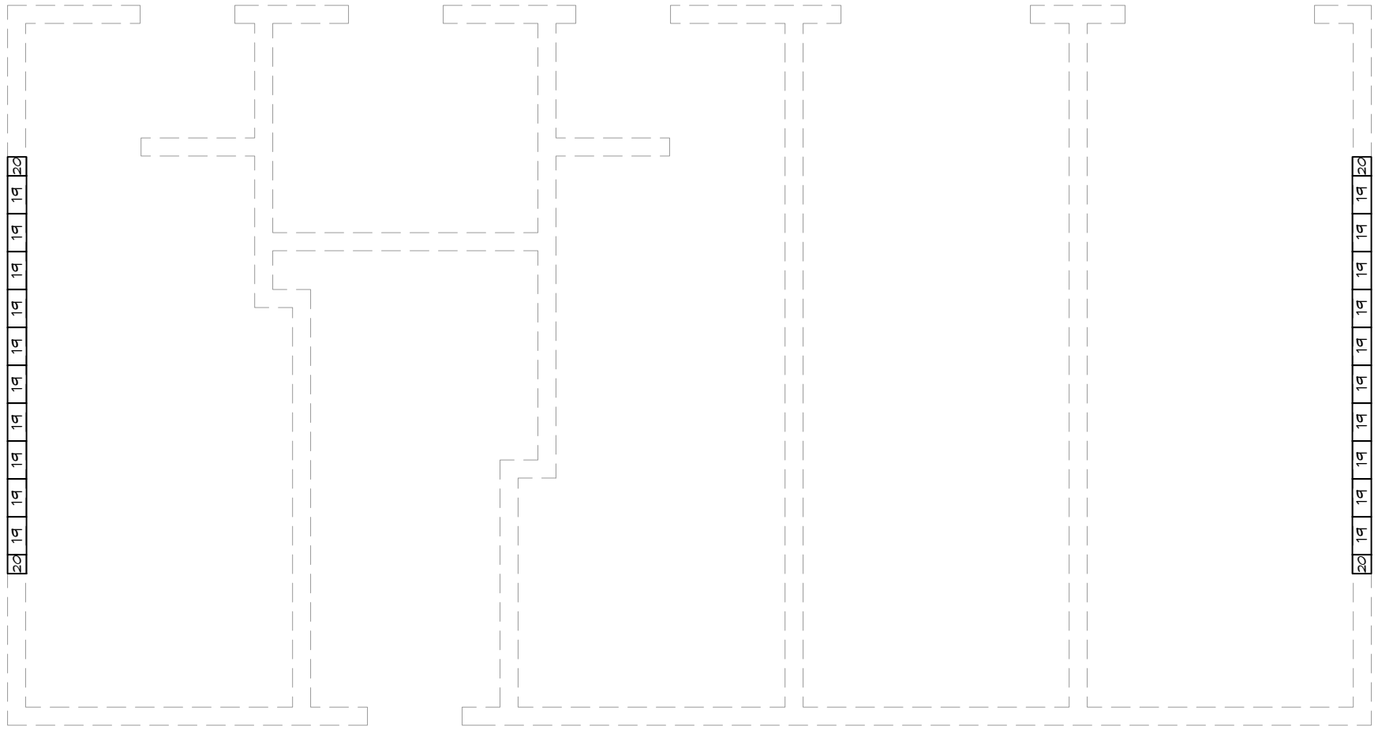
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B17

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 17

DO NOT STAMP

ROMTEC
www.romtec.com
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

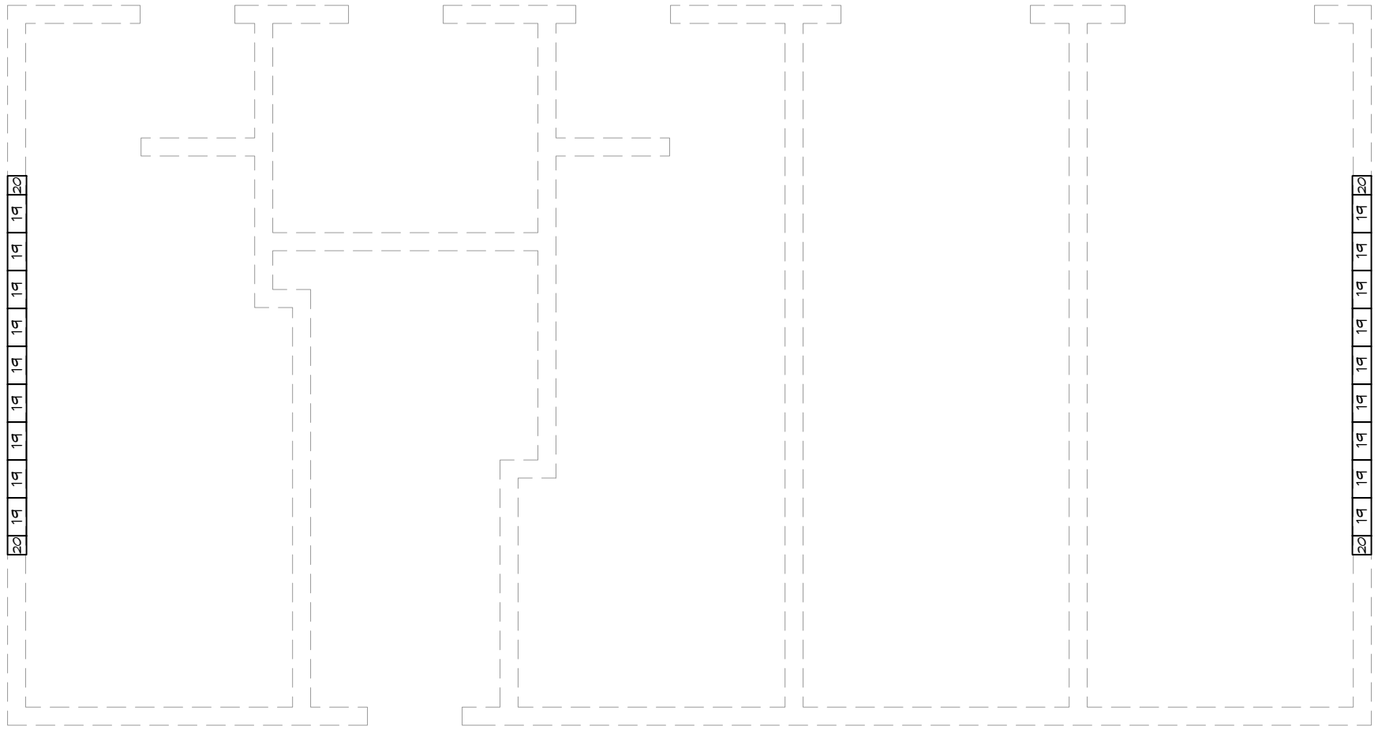
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B18

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 18

DO NOT STAMP

ROMTEC
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PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

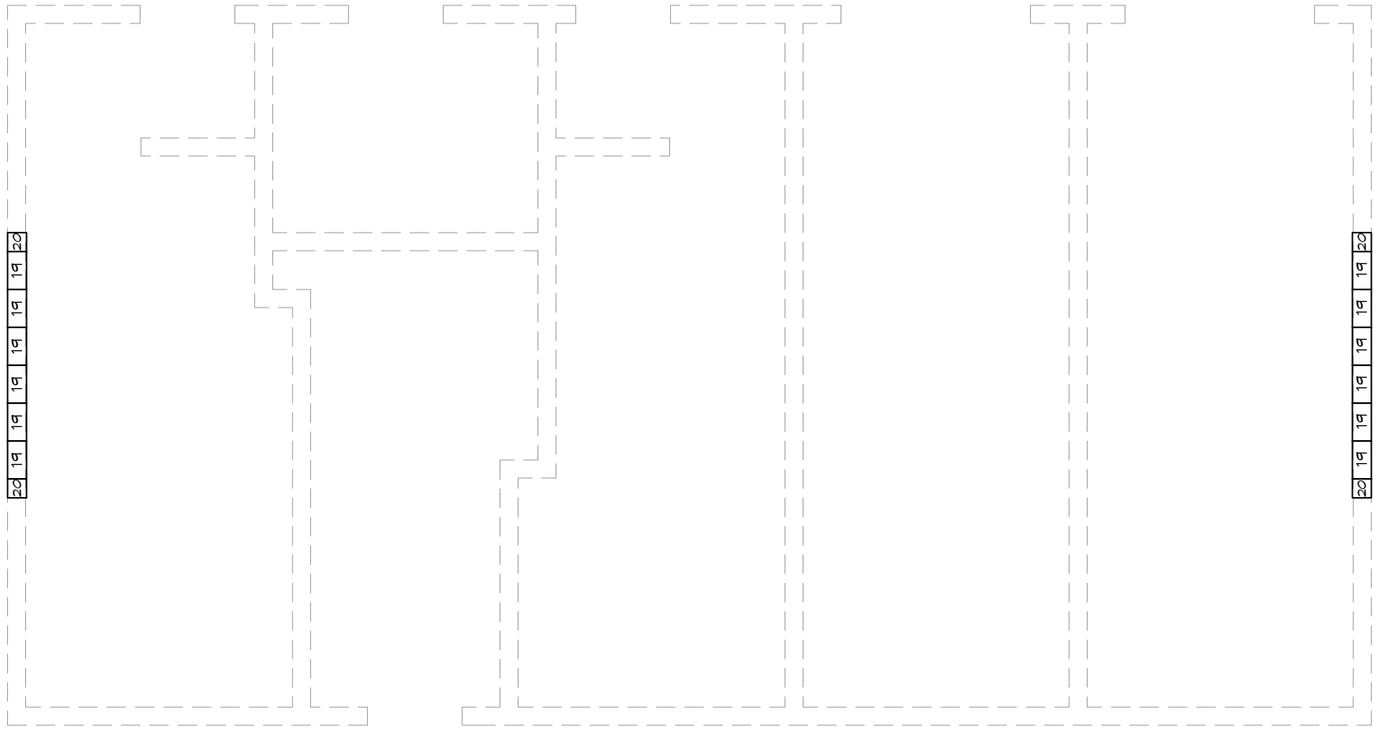
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B19

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering RI\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg



COURSE 19

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

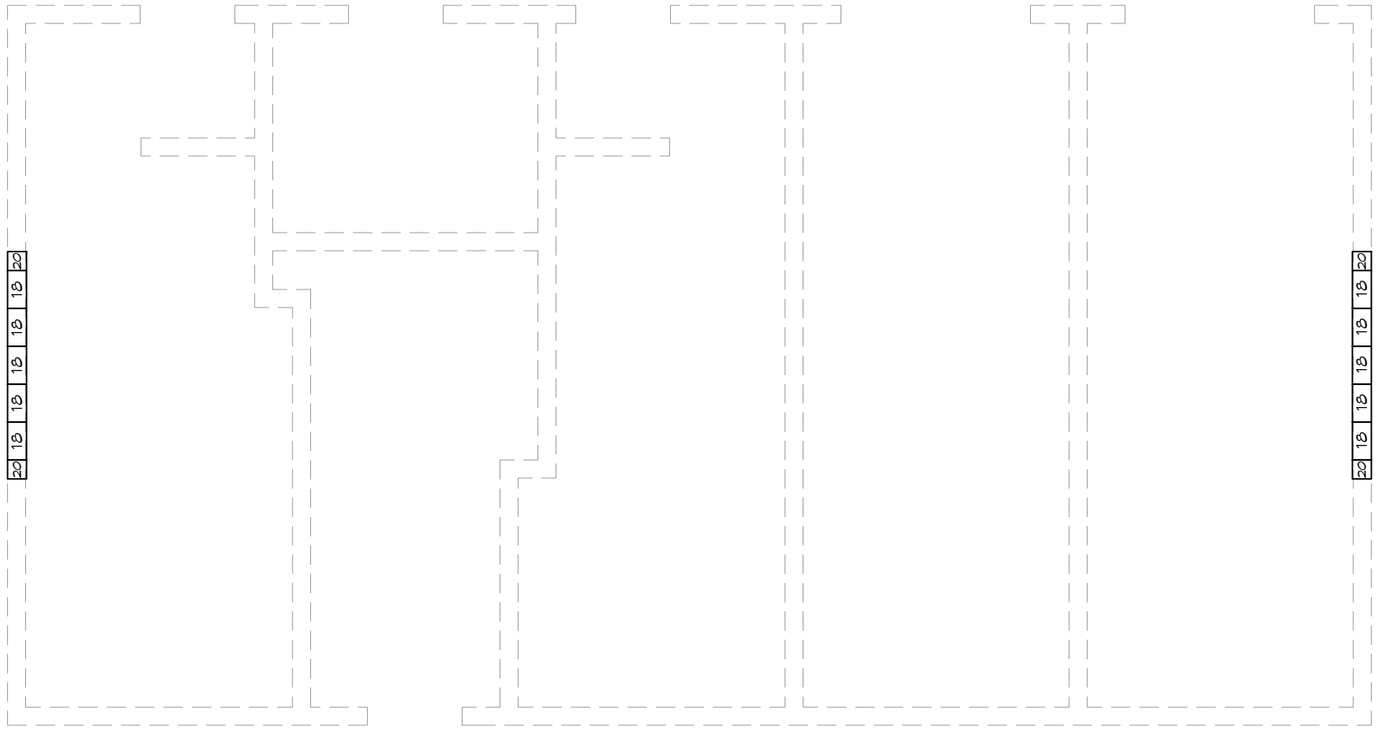
DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B20



COURSE 20
BOND BEAM

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

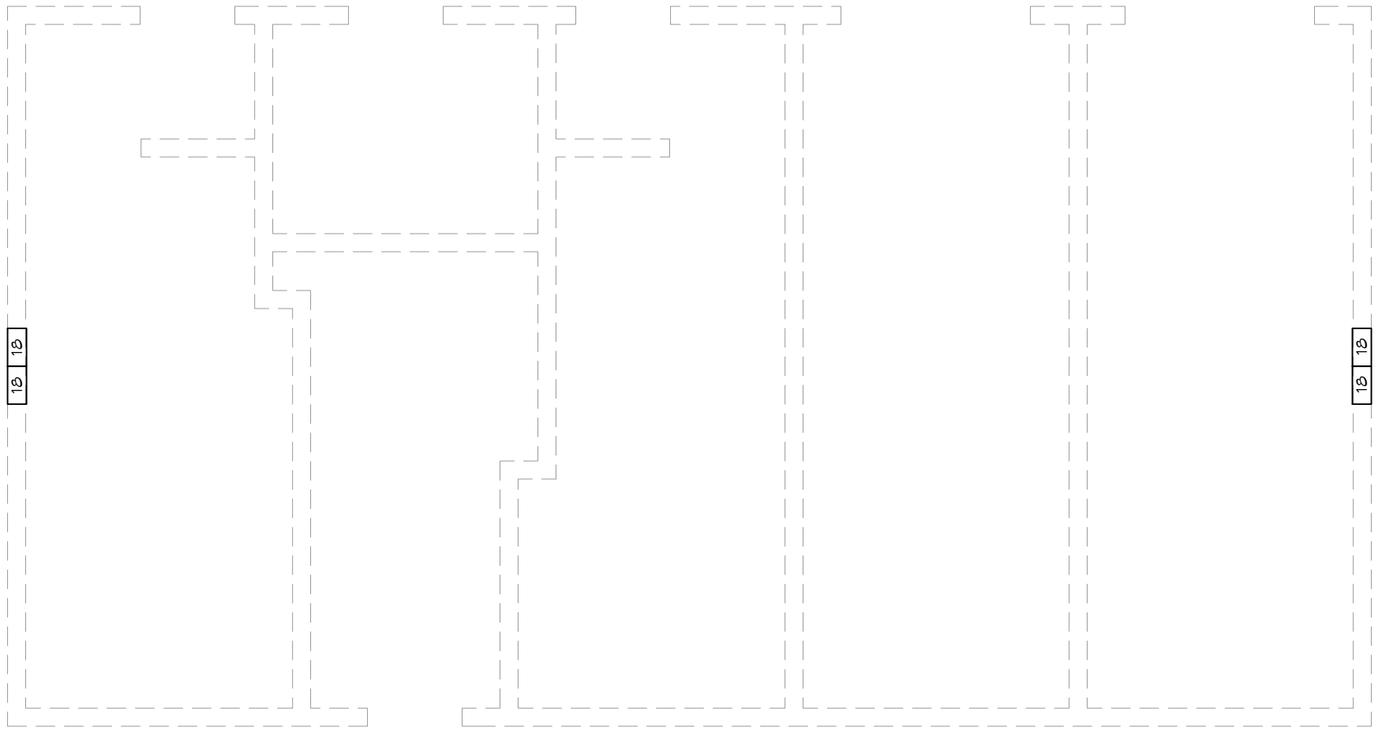
DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B21

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering R\\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-20BOM, IL 240624.dwg



COURSE 21
BOND BEAM

DO NOT STAMP

ROMTEC
www.romtec.com
(541) 496-3541 FAX (541) 496-0803

PROJECT: SCHUSSLER PARK
ORLAND PARK, ILLINOIS

SHEET TITLE: BLOCK PLAN

PROJECT #: SCP01

DATE: 5/3/2024

DRAWN BY: ZW

REV.	DATE:	BY:

REVISIONS:

SHEET NO. B22

JOB CREATED: 7/12/2024 - LAST SAVED BY: zweiser ON 7/12/2024 - LAST PRINTED: 7/15/2024 - LOCATION: O:\Engineering R\Plan Sets\SCP01-Schussler Park, IL\SCP01-Schussler Park-2080M, IL 240624.dwg

NOTES:

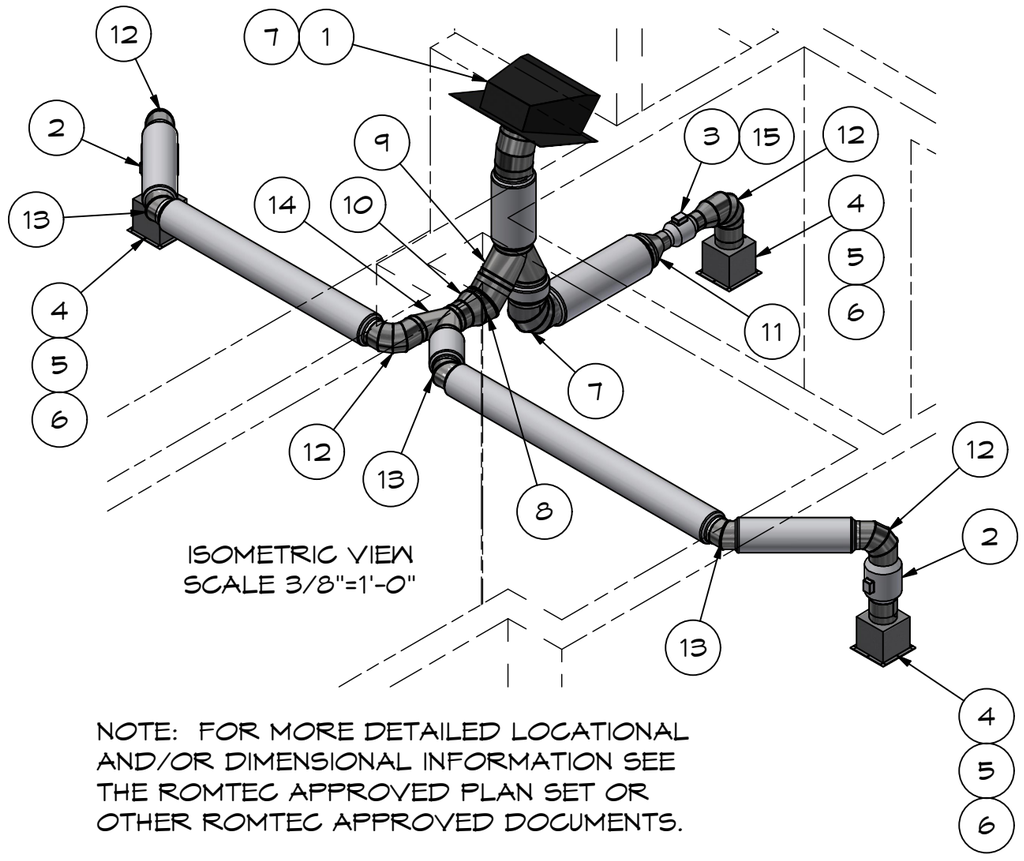
1. EXHAUST FANS AND ALL DUCTING TO BE CEILING MOUNTED USING DUCT HANGERS OR EQUIVALENT PER DIRECTIONS AND IN ACCORDANCE WITH THE MECHANICAL CODE AND SMACNA STANDARDS.

2. ALL DUCTWORK IS INSULATED RIGID DUCT (UL LISTED CLASS 1 AIR DUCT). PROVIDE SHEETMETAL FITTINGS AT MAIN DUCT RUNOUTS AND CONNECTIONS WITH A MINIMUM OF THREE SHEETMETAL SCREWS AND TAPED TO PROVIDE AN AIRTIGHT SEAL. SUPPORT DUCTING AS DIRECTED BY MANUFACTURER. NOT TO EXCEED 4'-0".

3. THE DUCT DISCHARGES THROUGH A SUITABLE CAP.

4. INLINE FAN IS CONTROLLED BY OCCUPANCY SENSOR LOCATED IN EACH RESTROOM.

5. INSTALL ALL COMPONENTS PER MANUFACTURERS SUGGESTED INSTALLATION RECOMMENDATIONS UNLESS OTHERWISE SPECIFIED.



ISOMETRIC VIEW
SCALE 3/8"=1'-0"

NOTE: FOR MORE DETAILED LOCATIONAL AND/OR DIMENSIONAL INFORMATION SEE THE ROMTEC APPROVED PLAN SET OR OTHER ROMTEC APPROVED DOCUMENTS.

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	EF-0008-5004-8 Inch Roof Cap with Screen and Collar	8" ROOF CAP W/ DAMPER, SCREEN AND COLLAR
2	2	EF-0006-5003-6 Inch Inline Fan - TD-150	6 INCH INLINE FAN - TD-150
3	1	EF-0004-5005-4 Inch Inline Fan - TD-100	4 Inch Inline Fan - TD-100
4	3	EF-0806-5002-8x8x6 Exhaust Register-6in Duct	8" x 8" x 6" DIA DUCT EXHAUST REGISTER
5	3	EF-0808-5001-8x8 Wall Mount- Grille	8" x 8" WALL MOUNT GRILLE - WHITE
6	3	EF-0006-5001-6 in Butterfly Backdraft-Damper	6" BUTTERFLY BACKDRAFT/DAMPER
7	2	EF-0808-5002-8x8 Adjustable 90 Deg Elbow	8" x 8" ADJUSTABLE 90 DEG ELBOW
8	1	EF-0808-5004-8x8 Adjustable 45 Deg Elbow	8" x 8" ADJUSTABLE 45 DEG ELBOW
9	1	EF-0808-5008-8x8x8 45 Deg Universal Wye - JA	8x8x8 45 Deg Universal Wye - JA
10	1	EF-0806-5001-8x6 Reducer	8" x 6" REDUCER
11	1	EF-0804-5002-8x4 Reducer	8" x 4" REDUCER
12	4	EF-0606-5001-6x6 Adjustable 90 Deg Elbow	6x6 ADJUSTABLE 90 DEG. ELBOW
13	3	EF-0606-5002-6x6 Adjustable 45 Deg Elbow	6x6 Adjustable 45 Deg Elbow
14	1	EF-0606-5005-6x6x6 45 Deg Universal Wye - JA	6x6x6 45 Deg Universal Wye - JA
15	1	EF-0604-5001-6x4 Reducer	6" x 4" REDUCER
16	8 ft	EF-0008-5006-8 Inch Insulated Rigid Ducting	8" INSULATED RIGID DUCTING
17	25 ft	EF-0006-5006-6 Inch Insulated Rigid Ducting	6" INSULATED RIGID DUCTING
18	1	EF-000-5001-1.75in x 300ft Black Woven Strap	1 3/4" x 300' BLACK WOVEN STRAP
19	1	EF-000-5039-Duct Tape-2.5 in. x 60 yd. 324A Premium Foil	Duct Tape - NASHUA TAPE 1207794
20	1	EF-000-5057-Screw-Hex Washer Head-Self tapping-Zinc Plated x 1.00-140 pak	Screw-Hex Washer Head-Self tapping-Zinc Plated x 1.00-140 pak

ROMTEC
18240 NORTH BANK ROAD
ROSEBURG, OR 97470
(541)-496-3541
FAX (541)-496-0803

MANUFACTURING

DATE: 6/27/2024
DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

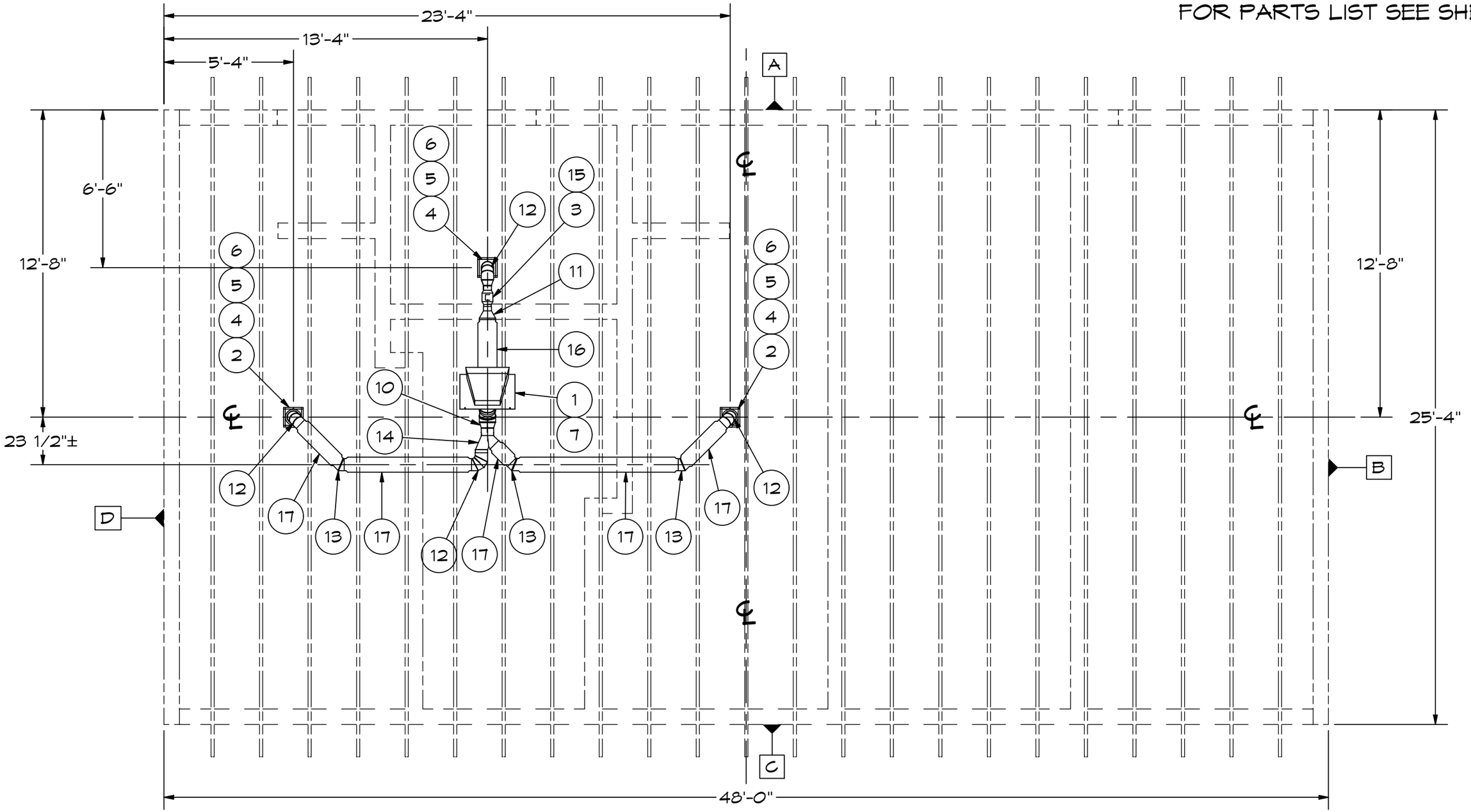
EXHAUST AIR ASSEMBLY
PARTS LIST AND NOTES

REV	DESCRIPTION	DATE	BY

BOM PART:

DWG. NO.
M1-SCP01

FOR PARTS LIST SEE SHEET 1



PLAN VIEW
SCALE 1/4"=1'-0"

ROMTEC
18240 NORTH BANK ROAD
ROSEBURG, OR 97470
(541)-496-3541
FAX (541)-496-0803

MANUFACTURING

DATE: 6/27/2024
DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

EXHAUST AIR ASSEMBLY
PLAN VIEW

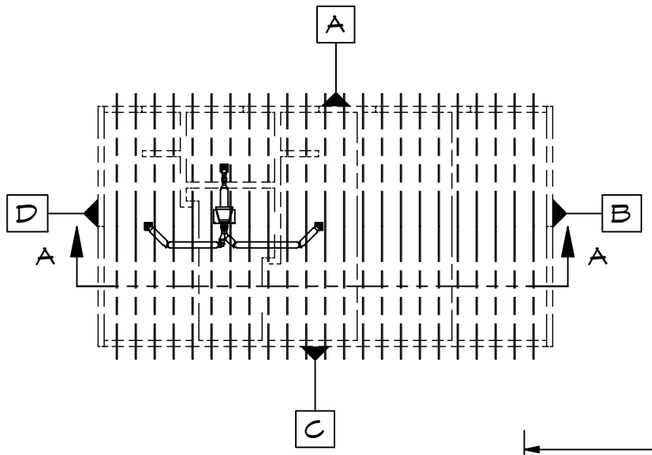
REV	DESCRIPTION	DATE	BY

BOM PART:

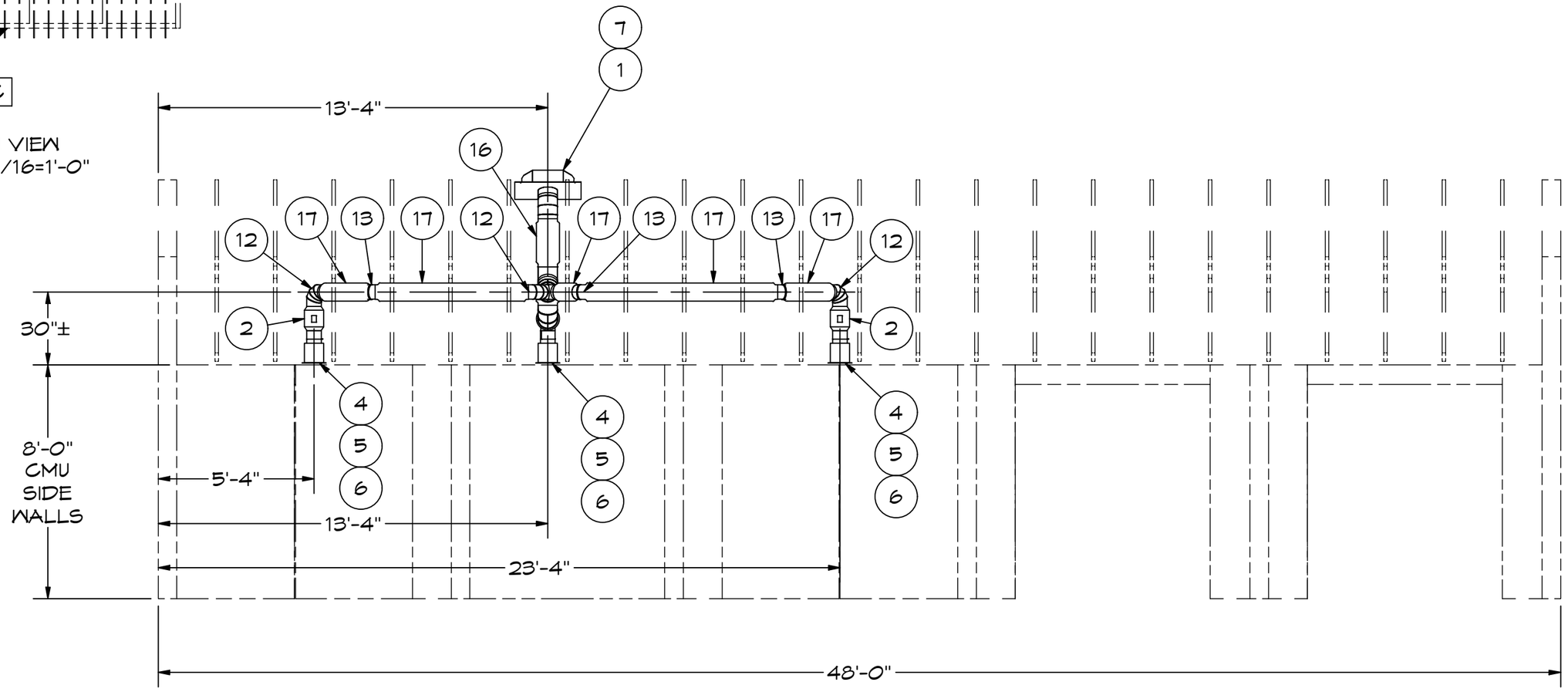
DWG. NO.
M1-SCP01

FOR PARTS LIST SEE SHEET 1

NOTE: FOR MORE DETAILED LOCATIONAL AND/OR DIMENSIONAL INFORMATION SEE THE ROMTEC APPROVED PLAN SET OR OTHER ROMTEC APPROVED DOCUMENTS.



PLAN VIEW
SCALE 1/16=1'-0"



VIEW A-A
SCALE 1/4=1'-0"

ROMTEC
18240 NORTH BANK ROAD
ROSEBURG, OR 97470
(541)-496-3541
FAX (541)-496-0803

MANUFACTURING

DATE: 6/27/2024
DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

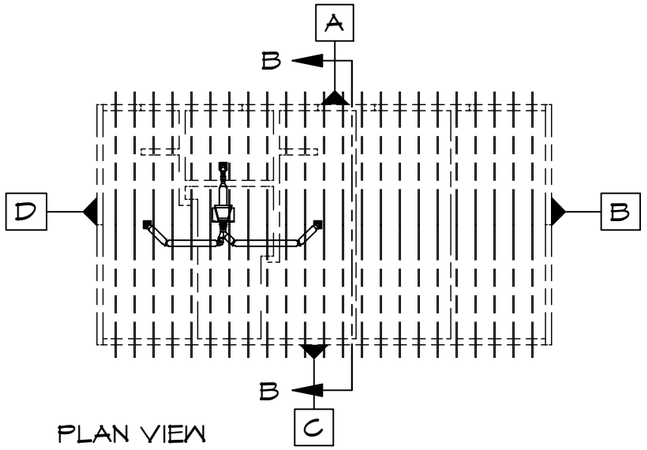
EXHAUST AIR ASSEMBLY
ELEVATION VIEW

REV	DESCRIPTION	DATE	BY

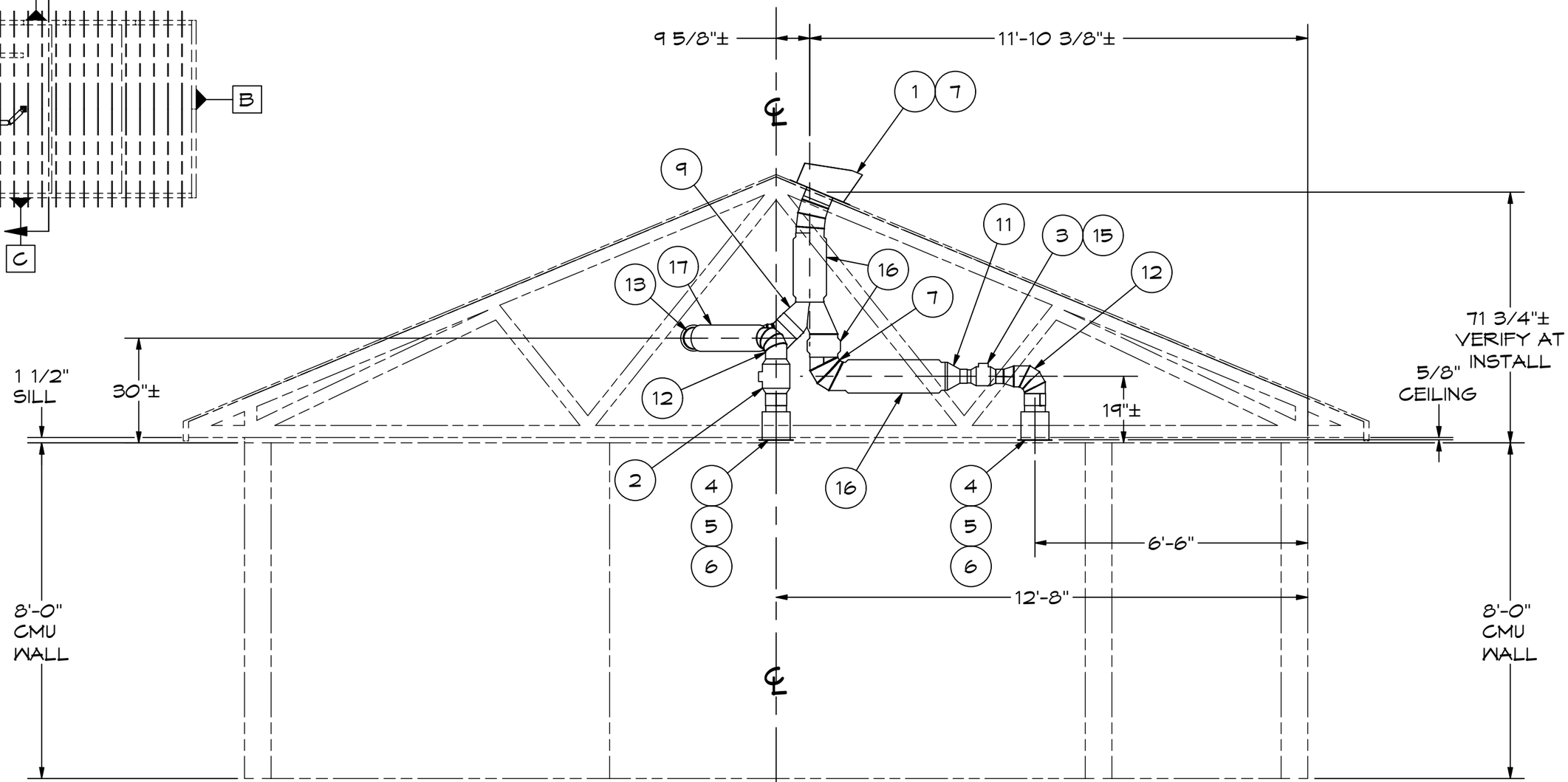
BOM PART:

DWG. NO.
M1-SCP01

FOR PARTS LIST SEE SHEET 1



PLAN VIEW
SCALE 1/16=1'-0"



NOTE: FOR MORE DETAILED LOCATIONAL AND/OR DIMENSIONAL INFORMATION SEE THE ROMTEC APPROVED PLAN SET OR OTHER ROMTEC APPROVED DOCUMENTS.

VIEW B-B
SCALE 3/8=1'-0"

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MANUFACTURING

DATE: 6/27/2024
DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

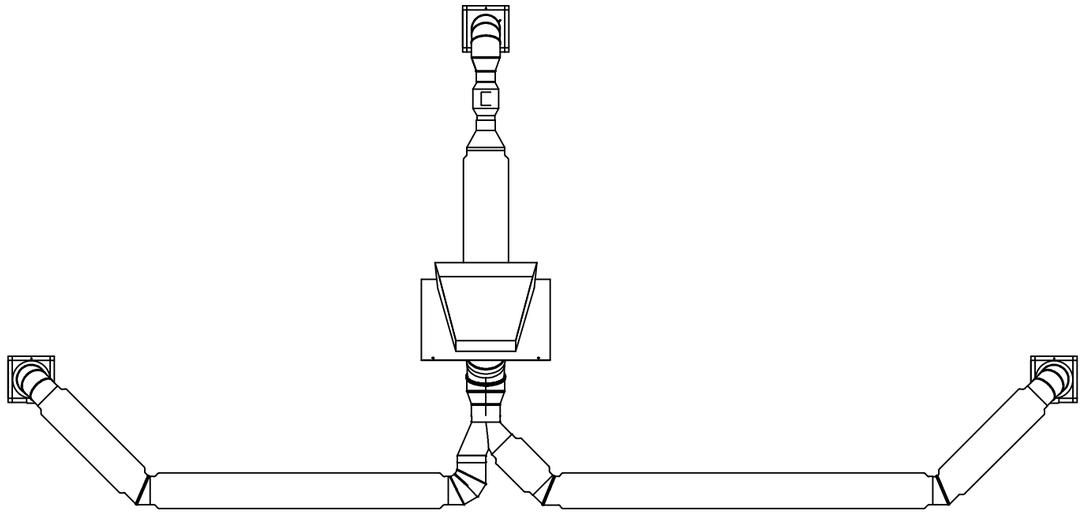
EXHAUST AIR ASSEMBLY
ELEVATION VIEWS

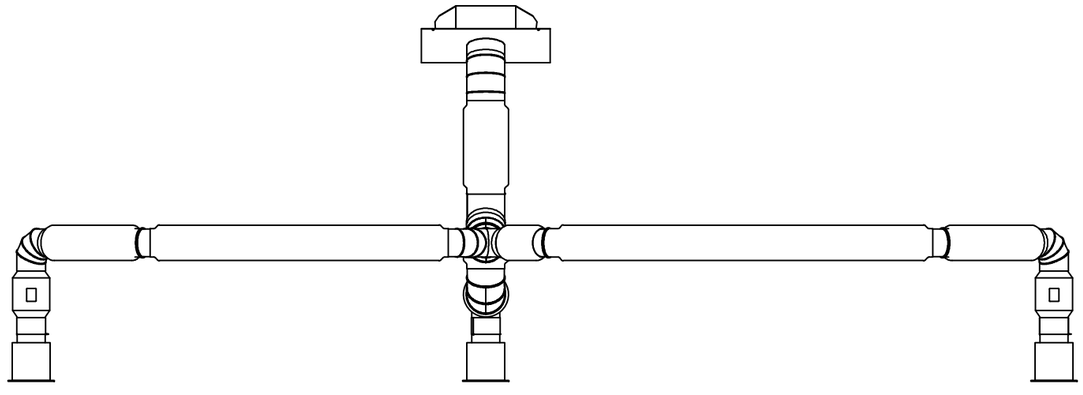
REV	DESCRIPTION	DATE	BY

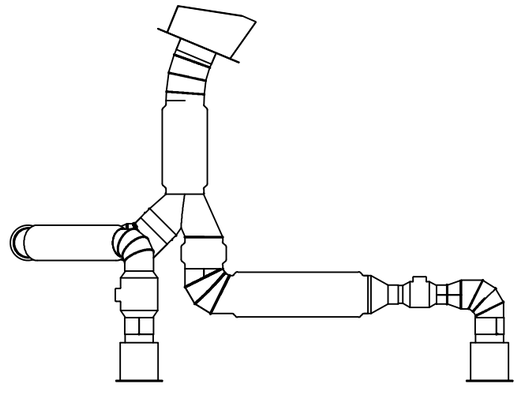
BOM PART:

SHEET 4 OF 5

DWG. NO.
M1-SCP01







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FAX (541)-496-0803

MANUFACTURING

DATE: 6/27/2024

DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

EXHAUST AIR ASSEMBLY
ACAD VIEWS

REV	DESCRIPTION	DATE	BY

BOM PART:

SHEET 5 OF 5

DWG. NO.
M1-SCP01

2. PRODUCT DATA

This section is structured as follows:

2.01 Structure

2.02 Fixtures

2.03 Electrical

2.04 Accessories

This section corresponds with the il i i il , describing each component supplied by Romtec in the building kit. The data sheets are submitted for approval by the reviewing authority and are for use in installation of the building.

Note: Romtec's proposal and quote were based on the configuration of components that is reflected in the following data sheets. Any request for changes to the proposed components may result in a price increase. This includes requests for options that are shown on the manufacturer data sheets, as well as any color or finish requests.

Note: The product data sheets for the products and materials Romtec provides in the building kit are published by the various product/material manufacturers. Romtec has made every effort to ensure the accuracy of the information contained in the product data sheets, however there may be discrepancies since manufacturers can change their product specifications without notice to Romtec.

Special Note: Product data sheets for any items that are to be provided by installer or owner will NOT be provided in this document.

Data sheets to follow.

NCMA TEK

If you have questions about specific products or services we provide, please don't hesitate to contact us.

MORTAR JOINT
Smooth Face
Color: Natural (Gray)

TEK 02-03A

ARCHITECTURAL CONCRETE MASONRY UNITS

INTRODUCTION

One of the most significant architectural benefits of designing with concrete masonry is its versatility – the finished appearance of a concrete masonry wall can be varied with the unit size and shape, color of units and mortar, bond pattern, and surface finish of the units. The term "architectural concrete masonry units" typically is used to describe units displaying any one of several surface finishes that affects the texture of the unit, allowing the structural wall and finished surface to be installed in a single step.

Architectural concrete masonry units are used for interior and exterior walls, partitions, terrace walls, and other enclosures. Some units are available with the same treatment or pattern on both faces, to serve as both exterior and interior finish wall material, increasing both the economic and aesthetic advantages. Architectural units comply with the same quality standards as conventional concrete masonry, Standard Specification for Loadbearing Concrete Masonry Units, ASTM C90 (ref. 3). In some cases, noted below where applicable, additional provisions govern which are more applicable to the specific unit.

The units described herein are some of the more common architectural concrete masonry units. However, manufacturers may carry additional products not listed here, and conversely, not all products listed will be available in all locations. Consult a local manufacturer for final unit selection.

ARCHITECTURAL UNIT TYPES

Split Faced Units

Split Faced Units

Split faced units have a natural stone-like texture produced by molding two units face-to-face, then mechanically splitting them apart after curing, creating a fractured surface. Because coarse aggregate is also fractured and exposed in this process, aggregate selection can alter the final appearance.

Split-faced units can also be manufactured with ribs or scores to provide strong vertical lines in the finished wall. Rough textures, like those available with split face units, are often used in areas prone to graffiti, as the texture tends to discourage graffiti vandals.

Split face units are governed by ASTM C90, which includes an allowance to account for the rough face. ASTM C90 prescribes minimum faceshell thickness requirements for all loadbearing concrete masonry units, but also contains a variance for split face units where up to 10% of a split faceshell can be less than the minimum specified thickness, but not less than ¾ (19 mm). This 10% limit does not apply, however, in. when the units are solidly grouted. Walls utilizing a variety of split face units are shown in Figure 1.

Ground Face Units (Burnished, Honed)

Ground face concrete masonry units are polished after manufacture to achieve a smooth finish which reveals the natural aggregate colors. The units have the appearance of polished natural stone. The finished look of the ground surface can be altered by changing aggregate type and proportions. Often, specific aggregates will be used to enhance the appearance of the polished surface (Figure 1c and 2a), while coatings are sometimes used to deepen the color. Ground face units are often scored to achieve a scale other than the conventional 8 16 in. (203 x 406 mm), as shown in Figure 2a.

Smooth Faced Units

Smooth faced units have a "natural" smooth finish that does not show aggregate. Smooth faced units can present a somewhat variable appearance in color, and are often used with another covering, such as siding or veneer.

Table 1 – Standard Unit Nomenclature (ref. 2)

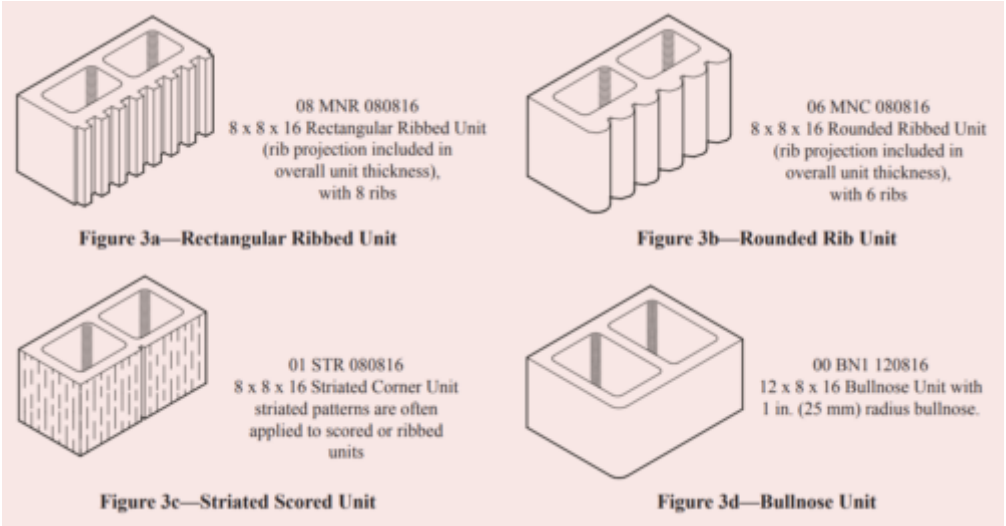


Figure 3–Examples of Standard Unit Nomenclature

References

1. Concrete Masonry Bond Patterns, TEK 14-6. National Concrete Masonry Association, 1996.

2. Concrete Masonry Shapes & Sizes Manual, CM 260A. National Concrete Masonry Association, 1997.

3. Standard Specification for Loadbearing Concrete Masonry Units, ASTM C 90-00. American Society for Testing and Materials, 2000.

4. Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units, ASTM C 744-99. American Society for Testing and Materials, 1999.

NCMA TEK 2-3A, Revised 2001

Keywords

NCMA TEK

If you have questions about specific products or services we provide, please don't hesitate to contact us.

TEK 02-01B

TYPICAL SIZES AND SHAPES OF CONCRETE MASONRY UNITS

INTRODUCTION

Concrete masonry is one of the most versatile building products available because of the wide variety of appearances that can be achieved using concrete masonry units. Concrete masonry units are manufactured in different sizes, shapes, colors, and textures to achieve a number of finishes and functions. In addition, because of its modular nature, different concrete masonry units can be combined within the same wall to achieve variations in texture, pattern, and color.

Certain concrete masonry sizes and shapes are considered standard, while others are popular only in certain regions. Local manufacturers can provide detailed information on specific products, or the feasibility of producing custom units.

UNIT SIZES

Typically, concrete masonry units have nominal face dimensions of 8 in. (203 mm) by 16 in. (406 mm), available in nominal thicknesses of 4, 6, 8, 10, 12, 14, and 16 in. (102, 152, 203, 254, 305, 356, and 406 mm). Nominal dimensions refer to the module size for planning bond patterns and modular layout with respect to door and window openings. Specified 3 dimensions of concrete masonry units are typically /8 in. (9.5 mm) less than nominal dimensions, so that a 4 or 8 in. (102 3 or 203 mm) module is maintained with /8 in. (9.5 mm) mortar joints. Figure 1 illustrates nominal and specified dimensions for a nominal 8 x 8 x 16 in. (203 x 203 x 406 mm) concrete masonry unit. In addition to these standard sizes, other unit heights, lengths, and thicknesses may be available from local concrete masonry producers.

Standard Specification for Loadbearing Concrete Masonry Units, ASTM C90 (ref. 1) is the most frequently referenced standard for concrete masonry units. ASTM C90 includes minimum face shell and web thicknesses for the different sizes of concrete masonry units as listed in Table 1. Overall unit dimensions (width, height, and length) are permitted to vary 1 by ± / in. (3.2 mm) from the specified dimensions. Where 8 required, units may be manufactured to closer tolerances than those stipulated by ASTM C90. ASTM C90 also defines the difference between hollow and solid concrete masonry units. The net cross-sectional area of a solid unit is at least 75% of the gross cross-sectional area.

In addition to the unit sizes above, concrete brick complying with ASTM C1634, Standard Specification for Concrete Facing Brick (ref. 2), are available in a wide array of nominal lengths and heights; typically with a nominal 4 in. (102 mm) width for veneer applications. Concrete brick may be 100% solid or cored, provided that the cored area of the brick does not exceed 25% of the gross cross-sectional area.

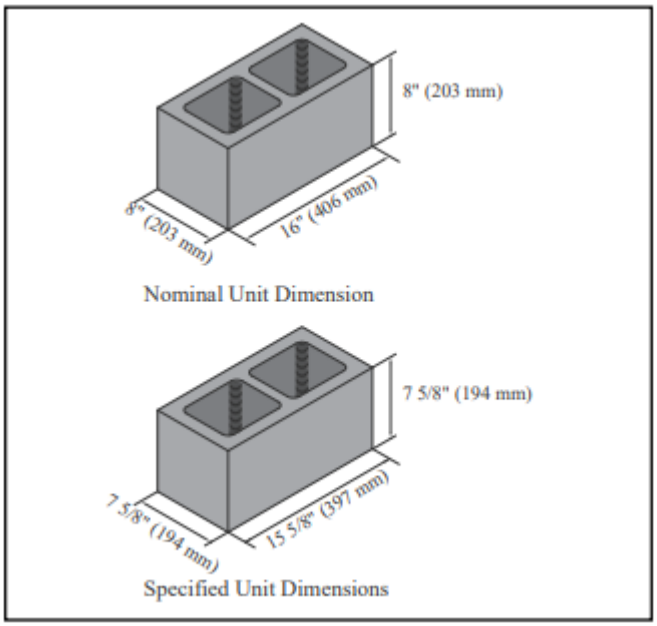


Figure 1—Nominal and Specified Unit Dimensions

Nominal Width (W) of Units, in. (mm)	Face Shell Thickness (t_{fs}), minimum, in. (mm) [B,C]	Webs	
		Web Thickness[C] (t_w), minimum, in. (mm)	Normalized Web Area (A_{nw}), minimum, in.²/ft² (mm²/m²)[D]
3 (76.2) and 4 (102)	3/4 (19)	3/4 (19)	6.5 (45,140)
6 (152)	1 (25)	3/4 (19)	6.5 (45,140)
8 (203) and greater	1 1/4 (32)	3/4 (19)	6.5 (45,140)

[A] Average of measurements on a minimum of 3 units when measured as described in Test Methods C140/C140M (ref. 3).
[B] For units having split surfaces, a maximum of 10% of the split surface is permitted to have a face shell thickness less than those shown, but not less than 3/4 in. (19 mm). When the units are to be solid grouted, the 10 % limit does not apply and Footnote [C] establishes a thickness requirement for the entire face shell.
[C] When the units are to be solid grouted, minimum face shell and web thickness shall not be less than 5/8 in. (16 mm).
[D] Minimum normalized web area does not apply to the portion of the unit to be filled with grout. The length of that portion shall be deducted from the overall length for the calculation of the minimum web cross-sectional area.

References

1. Standard Specification for Loadbearing Concrete Masonry Units, ASTM C90-16, ASTM International, 2016.

2. Standard Specification for Concrete Facing Brick, ASTM C1634-15, ASTM International, 2015.

3. Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units, ASTM C140/C140M-16, ASTM International, 2016.

4. Concrete Masonry Screen Walls, TEK 3-16A, National Concrete Masonry Association, 2016.

5. Architectural Concrete Masonry Units, TEK 2-3B, National Concrete Masonry Association, 2017.

NCMA TEK 02-01B, Revised 2017

Keywords

architectural units | bond beams | concrete brick | dimensions | equivalent thickness | lintels | screen block | sizes and shapes

POWDER COAT COLOR: BLACK

About the product

F Series 3-sided flush frames are designed to meet requirements for light to maximum duty applications in both commercial and institutional buildings. They are installed in both interior and exterior locations, and in virtually all types of buildings and wall constructions. These frames are to be installed as part of the wall framing sequence. They canbe specified and supplied as KD (knock-down) for field assembly prior to installation or welded for installation asa complete unit.

Installation

1. Installation shall conform to the published Steelcraft installation instructions, ANSI A250.11-2001 (formerly SDI 105) *Recommended Erection Instructions for Steel Frames and HMMA 840.*
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The *Authority Having Jurisdiction* is the final authority in issues related to the installation and use of installed Fire Rated Doors.

Features and benefits

Steelcraft F Series flush frames offer the following unique features, which enhance long term functionality and durability:

1. **Die-mitered corner connections:** Die-mitered corner connection at the head and jamb insure an attractive, tight and closed mitered connection. The miter includes 4 corner tabs designed with concealed connection eliminating the need for continuous profile welding.
2. **Patented universal hinge preparations** allow for easy field conversion from standard weight .134″ (3.3mm) thick hinges to heavy weight .180″ (4.7mm) hinges.
3. **Adjustable base anchors** allow for installation adjustment when the floor is not level.
4. **Factory prepared** for field installed silencers.
5. **Factory applied baked on rust inhibiting primer** in accordance with ANSI A250.10-1998 (R2004).

Specification compliance

1. Overall frame construction for the Steelcraft F Series flush frames meets the requirements of ANSI A250.8-2003 (commonly referred to as SDI-100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-2003. Locations are in accordance with ANSI/DHI A115.

Fire ratings

The F Series flush frames meet the broadest fire rating requirements. They are listed for installations requiring compliance to both neutral pressure testing (ASTM E152 and UL 10B) and positive pressure standards (UL 10C). Refer to the **Fire Rated Section** of this manual for particular listings.

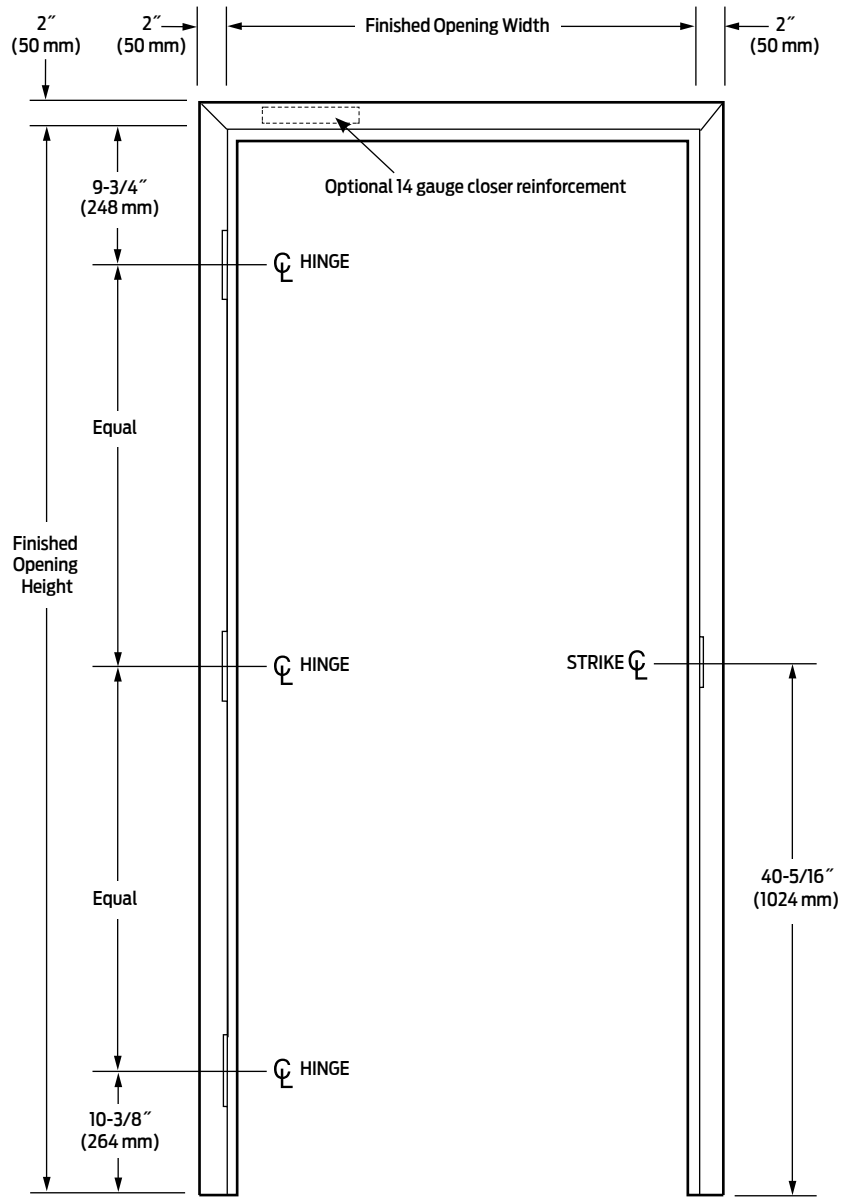
Applications

F Series frames are typically installed in wall construction types as defined in the chart below:

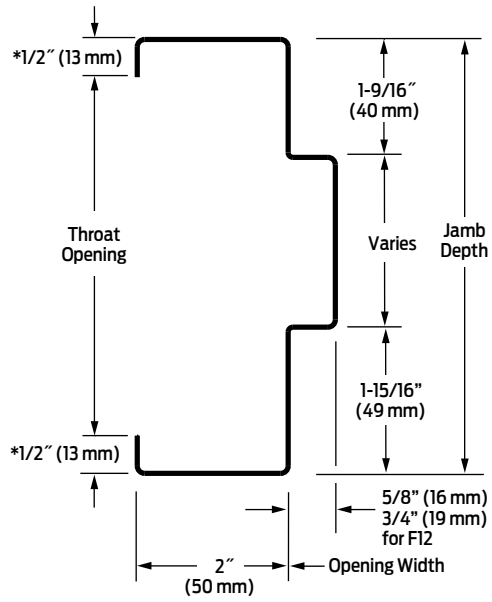
Frame applications

Profile	Steel thickness	Wall construction	Typical wall anchors
F16	16 Gauge [0.053″ (1.3mm)]	Wood or steel stud	Lock-in stud anchor
F16	16 Gauge [0.053″ (1.3mm)]	Masonry	Wire masonry
F16	16 Gauge [0.053″ (1.3mm)]	Existing masonry	Bolted through soffit
F14	14 Gauge [0.067″ (1.7mm)]	Wood or steel stud	Lock-in stud anchor
F14	14 Gauge [0.067″ (1.7mm)]	Masonry	Wire masonry
F14	14 Gauge [0.067″ (1.7mm)]	Existing masonry	Bolted through soffit
F12	12 Gauge [0.093″ (2.3mm)]	Wood or steel stud	Lock-in stud anchor
F12	12 Gauge [0.093″ (2.3mm)]	Masonry	Wire masonry
F12	12 Gauge [0.093″ (2.3mm)]	Existing masonry	Bolted through soffit

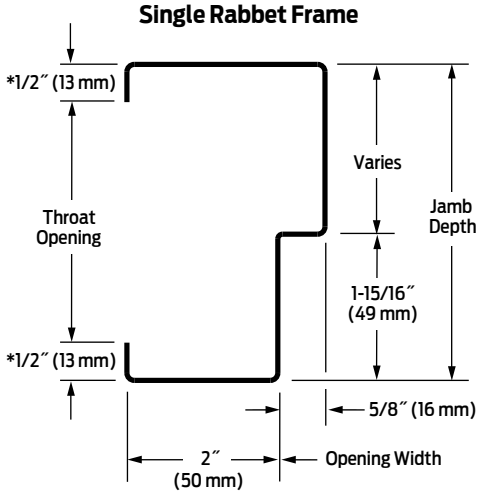
Elevation



Standard Double Rabbet Frame



Single Rabbet Frame



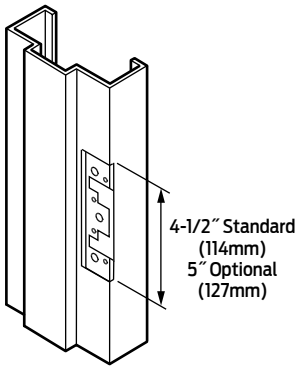
* 7/16″ (11mm) on 5-3/4″ frame depth

Frame sizing options

Series	Maximum opening size		Jamb depth availability (profile)				Standard profile dimensions (variations available)			Corners
	Single	Pair	Single rabbet		Double rabbet		Face	Stop	Return	Standard
			Minimum	Maximum	Minimum	Maximum				
F16 F14	5′0″ x 11′0″(1524mm x 3353mm)	10′0″ x 11′0″(2439mm x 3353mm)	3″ (76mm)	20″ (508mm)	4-1/2″ (114mm)	20″ (508mm)	2″ (50mm)	5/8″ (16mm)	1/2″* (13mm)	DIE MITERED with four (4) concealed tabs interlocking head and jambs
F12	4′0″ x 8′0″(1 219mm x 2438mm)	8′0″ x 8′0″(2438mm x 2438mm)	N/A	N/A	4-3/4″ (121mm)	14-3/4″ (375mm)	2″ (50mm)	3/4″ (19mm)	1/2″ (13mm)	Square cut for welded corners

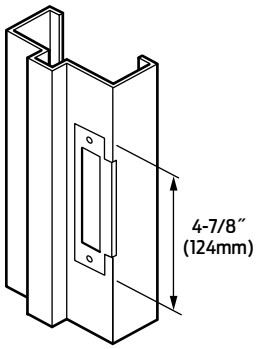
* Except 5-3/4″ (146mm) depth, which is 7/16″ (11mm) N/A - Not Available12 gauge standard profile is equal rabbet

Universal Mortise Hinge Prep

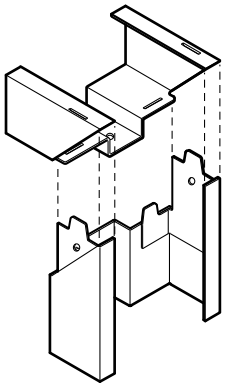


7 Gauge Hinge Reinforcement

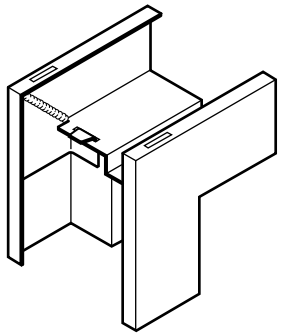
4-7/8″ Strike Prep (ASA)



KD Corner Detail



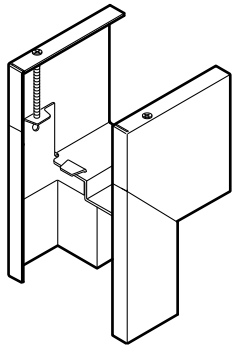
Welded Corner



General notes

1. Variations in jamb depths available in 1/8″ (3mm) increments.
2. All F Series frames are supplied standard with masonry wire or lock-in jamb anchors and adjustable base anchors. Anchors are designed for maximum wall/frame engagement and installation flexibility.
3. F Series frames are to be installed as part of the wall framing sequence.
4. Depending on environmental and usage conditions the steel can be either cold rolled or galvannealed. Galvannealed steel is recommended for all exterior applications.
5. 12 gauge flush frames, F12, are standard equal rabbet profiles with 3/4″ stops.
6. For KD Corner and optional 4″ Head, tabs in rabbeted area should be bent outward, not inward, during assembly (as shown).
7. F Series frames with 4″ heads are mainly used in masonry applications when 2″ face heads do not match course blocking.

Optional 4″ (102mm) Face Head Detail

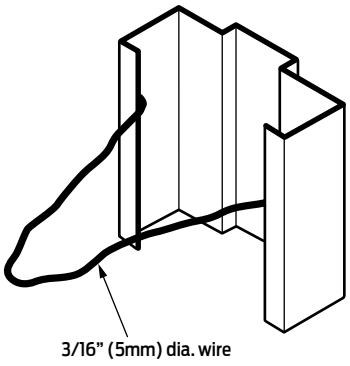


Frame options

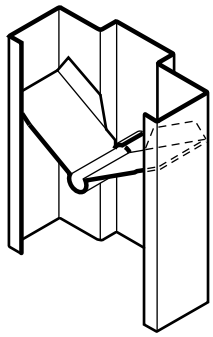
Series	Frame profile		Corner connections				4″ (102mm) heads
			KD (Knock-down)		**SUA** (Set-up & weld)		
	Single rabbet	**Double rabbet**	**Single rabbet**	**Double rabbet**	**Single rabbet**	**Double rabbet**	
F16	Typically for walls less than 3-3/4″ (95mm) thick. Minimum walls thickness 2″ (51mm)	Typically for walls less than 3-3/4″ (95mm) thickness or greater	3 interlocking corner tabs per factory die-miter. See the ″KD Corner Detail	4 interlocking corner tabs per factory die-miter. See the ″KD Corner Detail	Available when specified, and in accordance with ANSI A250.8-2003 (SDI 100).		Die-mitered for use with 2″ (51mm) face double rabbet jambs. Available when specified for KD or SUA applications.
F14							
F12	N/A		N/A	N/A	Standard Saw Cut and welded, and in accordance with ANSI A250.8-2003 (SDI 100)		For use with 2″ (51mm) face double rabbet jambs.

N/A - Not Available

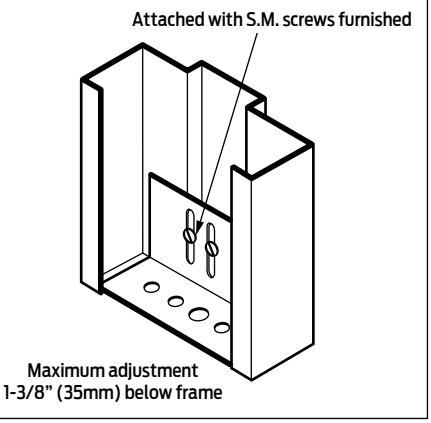
Wire Masonry Anchor



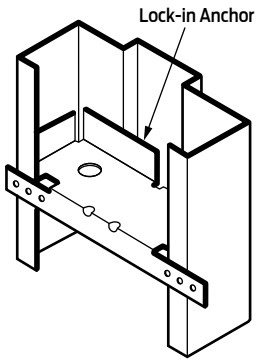
Existing Wall Anchor



Adjustable Base Anchor



Anchor for Wood Stud Partition



Anchoring and installation notes

1. **F16 and F14 Series commercial and Institutional frames** are supplied standard with masonry wire or lock-in jamb anchors and adjustable base anchors. Anchors are designed for maximum wall/frame engagement and installation flexibility.
2. **For anchoring applications, refer to the Frames: Anchoring systems section of this manual.**
3. **Installation Caution Notice: Grouted frames:**
   - When temperature conditions necessitate an additive to be used in the mortar to prevent freezing, the contractor installing the frames must coat the inside of frames in the field with a corrosion resistant coating per SDI 105.
   - When frames are to be grouted full, silencers must be field installed prior to grouting.
   - Steel frames, including fire rated frames, do not require grouting. Grouting is not recommended for frames in drywall.
4. All fire rated frames must be installed in accordance with NFPA Pamphlet 80 and the *Authority Having Jurisdiction.*

Framing applications

Series	Steel type	Building type	Opening	Usage frequency[1]	KD[4] Corner	SUA[5] Corner	Applications
F16	Non-Galvannealed[2]	Institutional and Commercial	**Interior**	**Heavy to extraheavy duty**	✓	✓	**Typical building conditions**
	Galvannealed[3]		**Mainly Exterior**				**High humidity and/or weather exposure**
F14	Non-Galvannealed[2]	Institutional and Commercial	**Interior**	**Extra heavy tomaximum duty**	✓	✓	**Typical building conditions**
	Galvannealed[3]		**Mainly Exterior**				**High humidity and/or weather exposure**
F12	Galvannealed[3]	Institutional and Commercial	**Interior and exterior**	**Maximum duty**	**N/A**	✓	**Maximum traffic building conditions**
							High humidity and/or weather exposure

1 Usage frequency is based on ANSI A250.8-2003
2 Commercial quality cold rolled steel
3 Reinforcements for galvannealed frames are also galvannealed
4 Knock-Down for field assembly prior to installation
5 Set-up and Welded for installation as a pre-welded unit

Romtec supplies this door without window.

POWDER COAT COLOR: BLACK

About the product

The SL20 and SL18 Series **Square Edge** flush doors are designed to meet the architectural requirements for full flush doors. Refer to Section 11 (Architectural) for specifications and the selection and usage guide of the appropriate door constructions.

This door construction combines the strength and dimensional stability of steel with the structural integrity of the laminate core. The continuous bonding of core to steel face sheets provides an attractive, flat door, free of face welding marks. Tests have proven that the construction employed has integral high resistance to impact damage, low thermal conductivity and high STC ratings.

To meet application, specification and performance requirements, the SL Series door offers options including sizes, glass light designs and hardware preparations.

SL Series doors are 1-3/4″ (45mm) thick, with **Square Edges**.

Installation

1. Installation shall conform to the published Steelcraft installation instructions, ANSI A250.11-2001 (formerly SDI 105) *Recommended Erection Instructions for Steel Frames and HMMA 840*.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The *Authority Having Jurisdiction* is the final authority on issues related to the installation and use of installed Fire Rated Doors.

Features and benefits

Steelcraft's SL Series doors offer the following standard features, which enhance performance and durability:

1. **Core Systems** that enhance the structural integrity of the door:
   - **Honeycomb (standard):** 1″ (25mm) cell kraft honeycomb configuration that increases structural integrity while reducing overall weight
   - **Polystyrene (optional):** enhanced thermal performance
2. **Full Height, Epoxy Filled Mechanical Interlock Edges** provide structural support and stability the full height of the door edges.
3. **Standard Hinge Preparations** for 4-1/2″ (114mm) x .134″ (3.3mm) standard weight or .180″ (4.7mm) heavy weight hinges.
4. **14 Gauge [0.067″ (1.7mm)] Inverted Top and Bottom Channels** provide stability and protection for the top and bottom edges from abuse.
5. **Square Hinge and Lock Edges** allow for non-handed inventory control for local distribution.
6. **Recessed Dezigner™ Glass Trim** provides a clean, neat and flush finish with the door surface.
7. **Factory Applied Baked-On Rust Inhibiting Primer** paint in accordance with ANSI A250.10-1998 (R2004).

Specification compliance

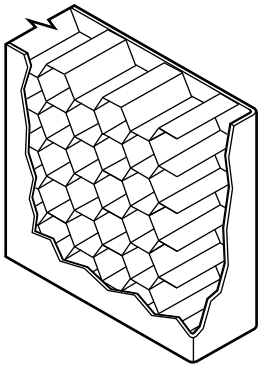
1. Door construction for Steelcraft SL Series doors meets the requirements of ANSI A250.8-2003 (SDI 100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-2003. Locations are in accordance with ANSI/DHI A115 unless otherwise stated.

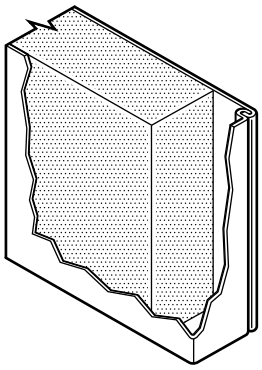
Fire ratings

SL Series doors meet the broadest fire rating requirements. They are listed for installations requiring compliance to both neutral pressure testing (ASTM E152 and UL-10B) and positive pressure standards (UL-10C).

NOTE: Any other color specified for the Door & Frame other than standard Black is considered an Upgrade and will incur additional cost and lead-time

Rigid Honeycomb



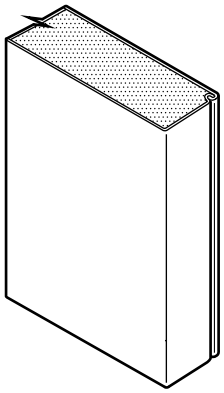


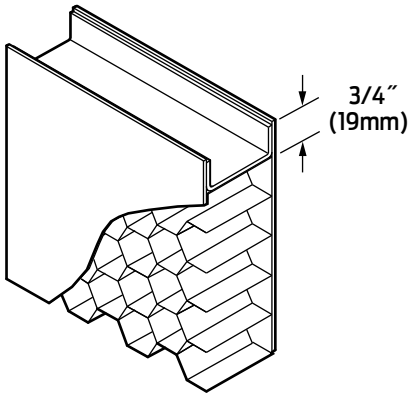
Standard Laminated Honeycomb Core

- 1″ (25mm) cell, 99 pound Kraft honeycomb
- Honeycomb surfaces sanded for maximum adhesion
- Impregnated with phenolic resin (resists mildew and vermin)
- Laminated to both face sheets with contact adhesive
- Assembled door is run through high pressure pinch rollers, achieving ultimate bond

Optional Polystyrene Core

- 1 pound (453.6g) per ft^3 density slab
- Laminated to both face sheets with contact adhesive
- Labeled applications





Standard Premium Edge Construction

- Beveled hinge & lock edges
- Full height mechanical interlock with epoxy adhesive
- Visible edge seam standard

Standard Rigid 14 Gauge End Channel Construction

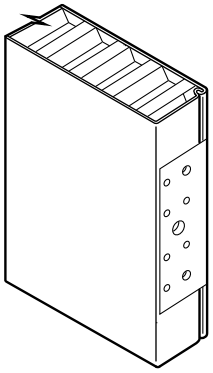
- 14 gauge inverted galvannealed top & bottom channels
- Projection welded to both face sheets
- For optional caps, see "Top & bottom caps" on page 156.

Door application and usage

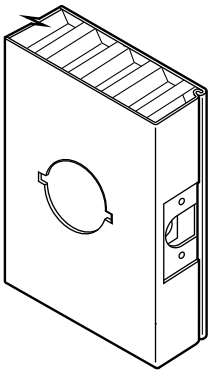
Series	Steel Thickness	Opening	Usage Frequency	
SL20	20 Ga (0.8mm)	Interior: Cold Rolled Steel	Standard Duty	Light Commercial applications with minimal use and abuse
SL20	20 Ga (0.8mm)	Exterior: Galvannealed Steel		
SL18	18 Ga (1.0mm)	Interior: Cold Rolled Steel	Heavy Duty	Heavy Commercial & Institutional applications with high use
SL18	18 Ga (1.0mm)	Exterior: Galvannealed Steel		

Standard hardware preparations

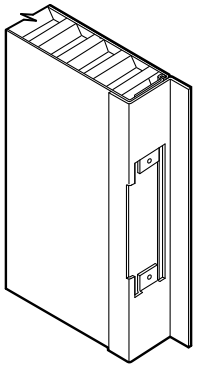
Typical hardware applications shown. Refer to “Hardware” section for more details.



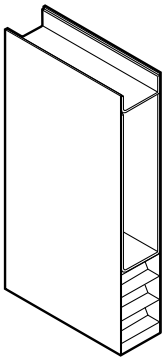
Mortise Hinge
7 Gauge hinge reinforcement, reversible hinge fillers supplied



161 Lock
61L Available



Inactive Leaf ASA Strike Prep with Astragal attached



Optional 14 Gauge Closer Reinforcement

Standard: mortised and reinforced for

- Template hinge preparations for 4-1/2″ x .134″ standard weight hinges or for 4-1/2″ x .180″ heavy weight hinges. Butt hinge preparations are cut through for non-handed function; spacer plates are furnished for field installation and handing.
- The cylindrical 161, 61L and mortise 86 lock preps are the most commonly used active leaf preparations. The 4 7/8 (124mm) strike prep is the most commonly used inactive leaf preparation.
- Optional reinforcements for surface Closers are available.
- Limited hardware applications are available.

Door Sizes and ANSI A250.8 Conversions

Steelcraft product selection for SL Series doors has been matched to ANSI/SDI Level and Model designations.

- In accordance with ANSI A250.8, core material is not specific to the level or model designations. Core material selection is specified based on preference and application.
- Recommended minimum frame gauge also applies to the frequency of operation of the opening.

Series	ANSI A250.8 - SDI 100			Construction Options	Edge Maximum Sizes		Recommended Gauge of Frame
	Level	Model	Description		Single	Pair	
Level 1: Light Commercial							
SL20	1	1	Full Flush	Visible	3´0″ x 8´0″ 914mm x 2438mm	6´0″ x 8´0″ 1829mm x 2438mm	18 Gauge [0.042″ (1.0mm)] 16 Gauge [0.053″ (1.3mm)]
Level 2: Heavy Duty Commercial & Institutional							
SL18	2	1	Full Flush	Visible	4´0″ x 8´0″ 1219mm x 2438mm	8´0″ x 8´0″ 2438mm x 2438mm	16 Gauge [0.053″ (1.3mm)

Door edge construction

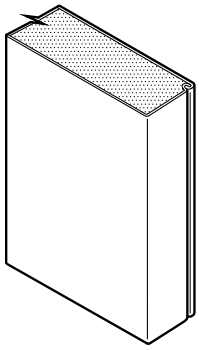
Optional Edge Seams available in the SL Series doors:

- **SL**: Standard feature includes visible edge seams with full height interlocked edges.

Standard Visible Seamless

SL Series visible seam features

- Full height mechanical interlock
- Interlock filled with epoxy adhesive
- Visible edge seam



OAKRIDGE®

Shingles | Tejas

Brownwood[1]

STREAKGUARD® ALGAE PROTECTION

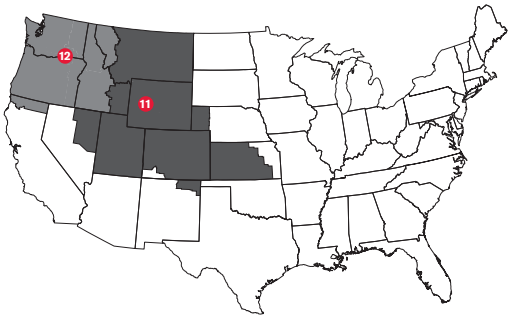
OAKRIDGE®

Shingles | Tejas

Estate Gray[1]

COLOR AVAILABILITY MAP

Disponibilidad de colores por zonas/región



THE FINISHING TOUCH

OWENS CORNING® HIP & RIDGE SHINGLES

Owens Corning® Hip & Ridge Shingles are uniquely color matched to Oakridge® Shingles. The multiple color blends are only available from Owens Corning® Roofing and offer a finished look for the roof.

EL TOQUE FINAL

TEJAS DE LIMATESA Y CUMBRERA DE OWENS CORNING®

Las tejas de limatesa y cumbrera de Owens Corning® se ofrecen en una exclusiva gama de colores para combinar con las tejas Oakridge®. Esta gran variedad de combinaciones de colores es una exclusividad de Owens Corning® Roofing para lograr techos con un acabado único.

COLOR DISCLAIMER

As color experts, we know getting the shingle color right is a big part of any roofing purchase. Due to printing color variations, in addition to viewing shingle literature, we suggest you request an actual shingle sample to see how it will appear on your home and with your home's exterior elements in various natural lighting conditions. Lastly, we recommend you verify your color choice by seeing it installed on an actual home; your roofing contractor or supplier can provide a sample and may be able to direct you to a local installation.

DESCARGO DE RESPONSABILIDAD SOBRE LOS COLORES

En tanto que especialistas en color, sabemos que obtener el color de teja perfecto es una parte importante en toda compra de techos. Debido a las variaciones en los colores impresos, además de mirar folletos de tejas, le sugerimos que solicite una muestra de la teja para ver como se verá en su hogar y con los elementos externos de la vivienda bajo distintas condiciones de luz natural. Finalmente, le recomendamos que para verificar su elección de colores, vea cómo lucen las tejas ya instaladas en una vivienda; su contratista de techos o su proveedor le pueden dar una muestra e incluso indicarle dónde ver un techo ya instalado.

TOTAL PROTECTION SIMPLIFIED®

It takes more than just shingles to protect a home. It takes an integrated system of components and layers designed to perform in three critical areas. The Owens Corning® Total Protection Roofing System®^ gives you the assurance that all of your Owens Corning® roofing components are working together to help increase the performance of your roof.

PROTECCIÓN TOTAL SIMPLIFICADA®

Se necesita más que simplemente tejas para proteger su vivienda. Se necesita un sistema integral de componentes y capas diseñadas para desempeñarse en tres áreas críticas. El Total Protection Roofing System® de Owens Corning® le garantiza que todos sus componentes para cubiertas de Owens Corning® funcionan en conjunto para mejorar el desempeño de su techo.

SEAL.

Helps create a waterproof barrier

Ayuda a crear una barrera impermeable

DEFEND.

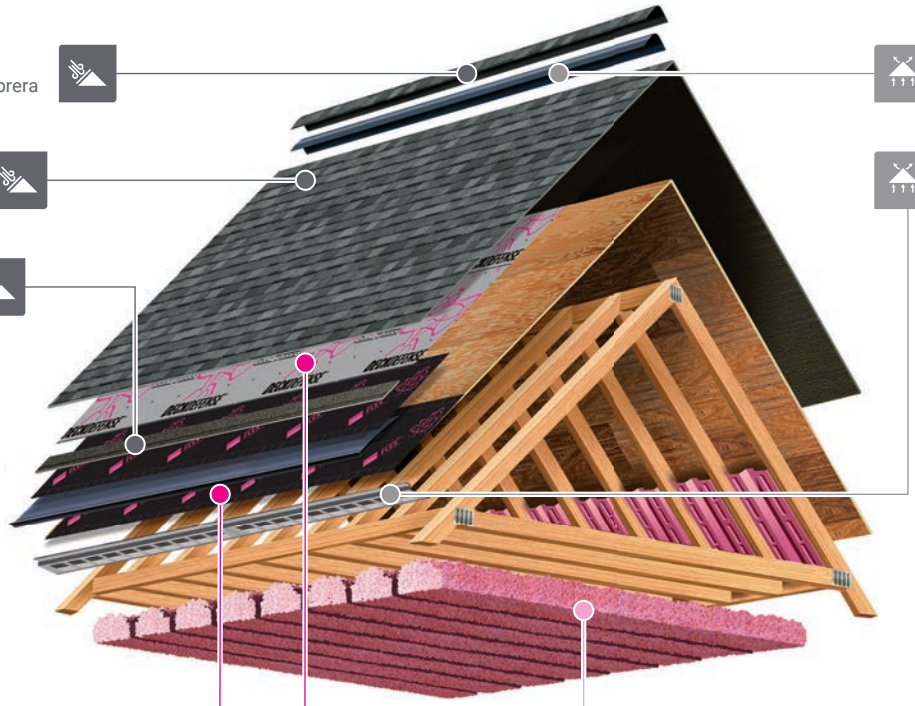
Helps protect against nature's elements

Protege contra los elementos climáticos

BREATHE.

For balanced attic ventilation

Para una ventilación equilibrada del ático



Hip & Ridge shingles
Tejas de limatesa y cumbrera

Laminate shingles
Tejas laminadas

Starter shingles
Tejas de arranque

Exhaust vents
Salidas de aire

Intake vents
Entradas de aire

Self-adhered ice & water barrier
Barrera autoadhesiva contra el hielo y el agua

Synthetic underlayment
Membrana impermeabilizante sintética

+ COMFORT.

Add comfort and energy performance
Más confort y desempeño energético

PINK® Fiberglas™ blown-in attic insulation
Aislamiento para áticos PINK® Fiberglas™ aplicado por impulsión

Product Attributes

STREAKGUARD ALGAE PROTECTION

Algae resistance available in areas shown in white.

Warranty Length*

Limited Lifetime‡
(for as long as you own your home)

Wind Resistance Limited Warranty*

110/130 MPH‡‡

Algae Resistance Limited Warranty*/§

25 Years

TRU PROtection® Non-Prorated Limited Warranty* Period

10 Years

Product Specifications

Size	13¼" x 39⅜"
Application Exposure	5⅝"
Shingles per Bundle	Not less than 20
Average Shingle Count per 3 Bundles	64
Average Coverage per 3 Bundles	98.4 sq. ft.

Applicable Standards and Codes

- ASTM D3462
- ASTM D228
- ASTM D3018 (Type 1)
- ICC-ES AC438#
- ASTM D3161 (Class F Wind Resistance)
- ASTM D7158 (Class H Wind Resistance)
- ASTM E108/UL 790 (Class A Fire Resistance)
- PRI ER 1378E01

Características del producto

STREAKGUARD ALGAE PROTECTION

Las tejas resistentes a las algas están disponibles en las áreas marcadas en blanco.

Período de garantía*

Garantía limitada de por vida‡
(mientras sea propietario de la vivienda)

Garantía limitada de resistencia al viento*

177-209 km/h (110-130 mph)‡‡

Garantía limitada de resistencia a las algas*/§

25 años

Período no prorrateado de garantía limitada* TRU PROtection®

10 años

Especificaciones del producto

Tamaño	33.65 cm x 100 cm (13¼pulg x 39⅜pulg)
Exposición de aplicación	14.3 cm (5⅝pulg)
Tejas por paquete	20 tejas como mínimo
Cantidad promedio de tejas por 3 paquetes	64
Cobertura promedio por 3 paquetes	9.14 m² (98.4 pies²)

Normas y códigos pertinentes

- ASTM D3462
- ASTM D228
- ASTM D3018 (Tipo 1)
- ICC-ES AC438#
- ASTM D3161 (Resistencia al viento, Clase F)
- ASTM D7158 (Resistencia al viento Clase H)
- ASTM E108/UL 790 (Resistencia al fuego Clase A)
- PRI ER 1378E01

* See actual warranty for complete details, limitations and requirements.

‡ 40-Year Limited Warranty on commercial projects.

‡‡ 110 MPH is standard with 4-nail application. 130 MPH is applicable only with 6-nail application and Owens Corning® Starter Shingle products application along eaves and rakes in accordance with installation instructions.

† Owens Corning testing against competing products with wide, single-layer nailing zones when following manufacturers' installation instructions and nailing in the middle of the allowable nailing zone.

International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.

1 See Color Disclaimer information on page 7 for additional details.

3 Shingles are algae resistant to control the growth of algae and discoloration.

§ This coverage is effective 1/1/2023; Installation must include use of an Owens Corning® Hip & Ridge product. See actual warranty for details.

StreakGuard® Algae Resistance Technology is not available in the Compton and Denver service area.

For Patent information, please visit owenscorning.com/patents.

* Consulte la garantía para obtener una lista completa de detalles, limitaciones y requisitos.

‡ Garantía limitada de 40 años para proyectos comerciales.

‡‡ La velocidad de 177 km/h (110 mph) es estándar con la aplicación de 4 clavos. La velocidad de 209 km/h (130 mph) solo se aplica cuando se usan 6 clavos y tejas de hilada inicial de Owens Corning® a lo largo de aleros y cornisas de acuerdo con las instrucciones de instalación.

† Ensayos comparativos de Owens Corning con productos de la competencia con zonas de clavado ancho de una sola capa cuando se siguen las instrucciones de instalación del fabricante y se clava en el medio de la zona de clavado permitida.

Criterios de aceptación de los servicios de evaluación del Consejo Internacional de Códigos para tejas asfálticas alternativas.

^ Se excluyen productos para techos no fabricados por Owens Corning®, como tapajuntas, sujetadores, bases de tubos y estructuras de soporte de madera.

1 Para obtener más información, consulte el Descargo de responsabilidad sobre los colores, en la página 7.

3 Las tejas son resistentes a las algas para controlar su desarrollo y la decoloración.

§ Esta cobertura entra en vigor el 1 de enero de 2023; la instalación debe incluir el uso de un producto para limatesa y cumbrera de Owens Corning®.

La tecnología resistente a las algas StreakGuard® no está disponible en las áreas de distribución de Compton y Dénver.

Para información sobre la patente, visite www.owenscorning.com/patents.

OWENS CORNING ROOFING AND ASPHALT, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OH 43659 USA

1-800-GET-PINK® | 1-800-438-7465
www.owenscorning.com

Pub. No. 10024182-B. Printed in U.S.A. May 2023.

(Denver, Portland)

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Pub. N.º 10024182-B. Impreso en EE.UU. Mayo de 2023.

(Denver, Portland)

Oakridge® Shingles

Installation Instructions

Instrucciones Para La Instalación De Tejas Oakridge®

Oakridge®
Shingles

Application Instructions

Before installing this product, check local building codes for their roofing requirements.

These shingles are designed for new or re-roofing work over any properly built and supported wood roof deck having adequate nail holding capacity and a smooth surface. Check local building codes.

Precautionary Note:

The manufacturer will not be responsible for problems resulting from any deviation from the recommended application instructions and the following precautions:

Roof Top Loading: Lay shingle bundles flat. Do not bend over the ridge.

Roof Deck: ▪ 6" Minimum roof deck boards ▪ Minimum 3/8" plywood ▪ Minimum 7/16" OSB

Regardless of deck type used, the roofing installer must:

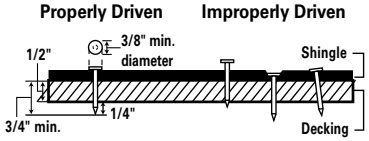
1. Install the deck material in strict compliance with the deck manufacturer's instructions.
2. Prevent the deck from getting wet before, during and after installation.

Ventilation: Must meet local building codes.

Handling: Use extra care in handling shingles when the temperature is below 40°F.

Storage: Store in a covered ventilated area at a maximum temperature of 110°F. Bundles should be stacked flat. Protect shingles from weather when stored at the job site. Do not store near steam pipes, radiators, etc.

Fastener requirement: Use galvanized steel, stainless steel, or aluminum nails minimum 12 gauge shank with 3/8" diameter head. Owens Corning Roofing recommends that fasteners comply with ASTM F 1667. Check local building codes.



All Fasteners must penetrate at least 3/4" into the wood deck or completely through sheathing.

Notice: Owens Corning™ Roofing recommends the use of nails as the preferred method of attaching shingles to wood decking or other nailable surface.

Instrucciones de aplicación

Antes de colocar este producto, verifique los códigos locales de construcción para conocer los requisitos de su techo.

Estas tejas han sido diseñadas para la construcción de techos nuevos o el arreglo de techos existentes sobre plataformas de madera correctamente construidas y que poseen una capacidad de sujeción de clavos y una superficie lisa. Consulte los códigos de construcción locales.

Aviso importante:

El fabricante no se hará responsable por los problemas que surjan como consecuencia de no seguir exactamente las instrucciones de instalación recomendadas y de los siguientes avisos importantes:

Carga sobre los techos: Coloque los paquetes de tejas de manera plana sobre el techo. No los doble sobre la cumbrera.

Plataforma del techo: ▪ 6 pulgadas de mínimo sobre la estructura base del techo ▪ 3/8 pulg. como mínimo de madera triplay ▪ 7/16 pulg. como mínimo para paneles de fibra orientada

Cualquiera que sea el tipo de superficie utilizada, el instalador del techo debe:

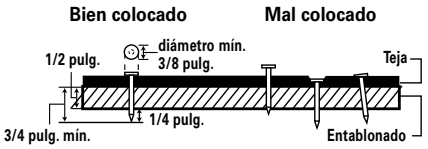
1. Instalar el material de la plataforma siguiendo estrictamente las instrucciones del fabricante.
2. Evitar que la plataforma se moje antes, durante y después de la instalación.

Ventilación: Debe cumplir con los códigos de construcción locales.

Uso: Tenga mucho cuidado al usar y colocar las tejas cuando la temperatura sea inferior a los 40°F.

Almacenamiento: Almacene en un área cubierta y ventilada a una temperatura que no sobrepase los 110°F/43°C. Almacenar en forma plana. Proteja las tejas del clima cuando las almacene en el lugar de trabajo. No las almacene cerca de tuberías de vapor, radiadores, etc.

Requisito de sujetador: Use clavos de acero galvanizado, acero inoxidable o de aluminio, de calibre 12 como mínimo, con un diámetro de cabeza de 3/8 pulg. Owens Corning™ Roofing recomienda que los sujetadores cumplan con la norma ASTM F 1667. Consulte los códigos de construcción locales.



Todos los sujetadores deben penetrar al menos 3/4 pulg. en la plataforma del techo de madera o atravesar completamente los revestimientos de madera triplay.

Aviso: Owens Corning™ Roofing recomienda el uso de clavos como método preferido para fijar tejas a superficies de madera u otras superficies aptas para clavos.

CAUTION

ROOF SURFACE MAY BE SLIPPERY: Especially when wet or icy. Use a fall protection system when installing. Wear rubber soled shoes. Walk with care.

FALLING HAZARD: Secure area below work and materials on roof. Unsecured materials may slide on roof. Place on level plane or secure to prevent sliding. Wear a hard hat.

WARNING: This product contains a chemical known to the State of California to cause cancer.

CUIDADO

EL TECHO PUEDE ESTAR RESBALOSO: Especialmente cuando está mojado o cubierto de hielo. Al realizar la instalación, utilice un sistema de protección contra las caídas. Utilice zapatos con suela de goma. Camine con cuidado.

PELIGRO DE CAÍDA DE OBJETOS: Asegure el área que se encuentra debajo de la zona de trabajo y los materiales que están sobre el techo. Los materiales que no estén sujetos pueden caerse del techo. Colóquelos en un lugar sin pendiente o sujételos para que no se caigan. Use un casco resistente.

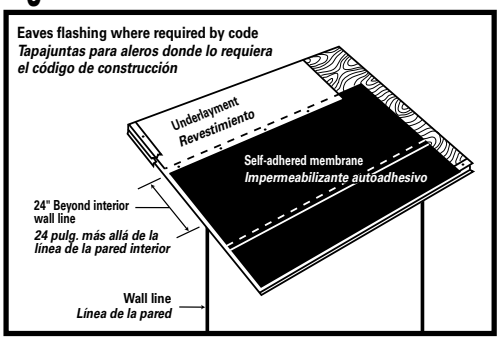
ADVERTENCIA: Este producto contiene una sustancia química considerada cancerígena en el estado de California.

1 Specialty Eave Flashing:

Where required by code.

WeatherLock® underlayment or equivalent eave and flashing membrane applied to a point at least 24" beyond interior wall line. See manufacturer's installation instructions. *See Fig. 1.*

Fig. 1 Specialty Eave Flashing
Tapajuntas especial para aleros



1 Tapajuntas especial para aleros:

Donde lo requiera el código. Revestimiento WeatherLock,® o impermeabilizante equivalente para aleros y tapajuntas instalada hasta un punto de al menos 24 pulg. pasando la línea de la pared interior. Consulte las instrucciones de instalación del fabricante. *Ver la Fig. 1.*

2 Underlayment:

Standard Slope (4" in 12" or more)

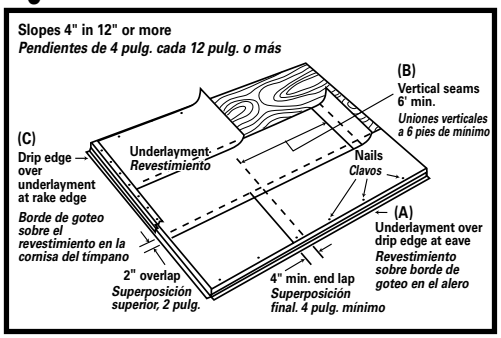
Application of underlayment, metal drip edges, and eaves flashing: *See Fig. 2.*

(A) Apply one layer of underlayment over metal drip edge at eaves. Use only enough fasteners to hold in place.

(B) Overlap successive courses 2". Overlap course ends 4". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Fig. 2 Underlayment Standard Slope
Pendiente estándar del revestimiento



2 Revestimiento:

Pendiente estándar (4 pulg. cada 12 pulg. o más)

Instalación del revestimiento, bordes de goteo metálicos y tapajuntas de aleros: *Ver la Fig. 2.*

(A) Instale una sección del revestimiento sobre el goterón metálico del alero. Utilice la cantidad estrictamente necesaria de sujetadores para mantenerla en su lugar.

(B) Sobreponga las hileras siguientes 2 pulg. Sobreponga los extremos de las hileras 4 pulg. Los empalmes laterales deben escalonarse a 6 pies de distancia.

(C) Instale el borde de goteo de metal sobre el revestimiento en la cornisa.

3 Underlayment:

Low Slope (2" in 12" to less than 4" in 12")

Application of underlayment, metal drip edges, and eaves flashing: *See Fig. 3.*

(A) Apply 19" starter strip of underlayment over metal drip edge at eaves. Use only enough fasteners to hold it in place.

(B) Use 36" strip of underlayment for remaining courses, overlapping each course 19". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Or WeatherLock® self-adhered underlayment or equivalent with a standard over lap of 3" and metal drip edge. *See Fig. 3A.*

Fig. 3 Underlayment Low Slope
Pendiente baja del revestimiento

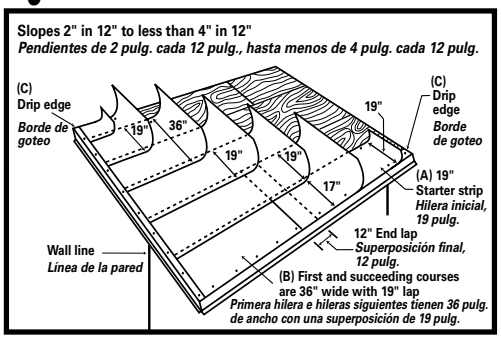
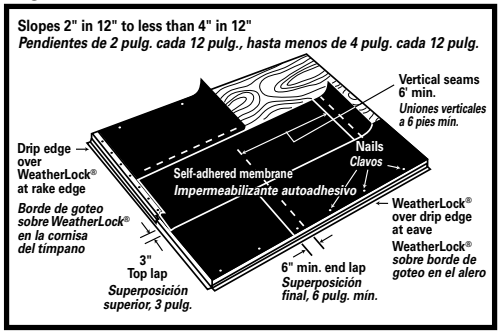


Fig. 3A Underlayment Low Slope
Pendiente baja del revestimiento



3 Revestimiento:

Pendiente baja (2 pulg. cada 12 pulg., a menos de 4 pulg. cada 12 pulg.) Instalación del revestimiento, bordes de goteo metálicos y tapajuntas de aleros: *Ver la Fig. 3.*

(A) Instale una sección inicial de 19 pulg. de revestimiento sobre el goterón metálico del alero. Utilice la cantidad estrictamente necesaria de sujetadores para mantenerla en su lugar.

(B) Use una sección de revestimiento de 36 pulg. para el resto de las hileras, sobreponiendo cada hilera 19 pulg. Los empalmes laterales deben escalonarse a 6 pies de distancia.

(C) Instale el borde de goteo de metal sobre el revestimiento en la cornisa.

O membrana autoadherente WeatherLock® o equivalente con una superposición estándar de 3 pulg. y borde de escurrimiento. *Ver la Fig. 3A.*

4 Shingle Fastening:

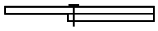
Place fasteners 6 ⅛" from bottom edge of each shingle and 1" from each end.

Standard Pattern Use four fasteners. *See Fig. 4.*

Six Nail Pattern Use six fasteners. *See Fig. 4A.*

Mansard or Steep Slope Fastening Pattern. Place fasteners 6 ⅛" from bottom edge to secure both layers of the shingle. *See Fig. 4B.*

Shingle Side View



REQUIRED: For slopes exceeding 60 degrees or 21 inches per foot, use six fasteners and four spots of asphalt roof cement per shingle. Apply immediately; one 1" diameter spot of asphalt roof cement **under** each shingle tab. Center asphalt roof cement 2" up from bottom edge of shingle tab. *See Fig. 4B.*

Roof Cement where required must meet ASTM D-4586 Type I or II (Asbestos Free).

Six nail fastening pattern is required for maximum wind warranty. In addition, Owens Corning™ Starter Shingles are required along the eave and rake. (See Starter Shingle instructions for details.)

Fig. 4 Standard Fastening Pattern
Esquema de instalación estándar

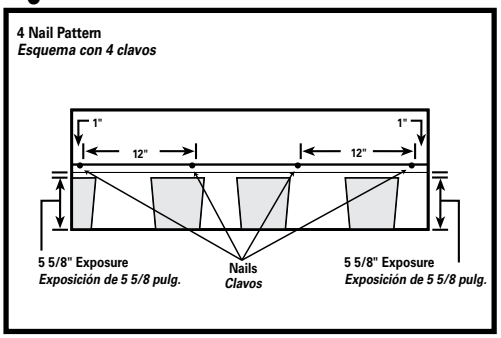


Fig. 4A Six Nail Fastening Pattern
Esquema de instalación con seis clavos

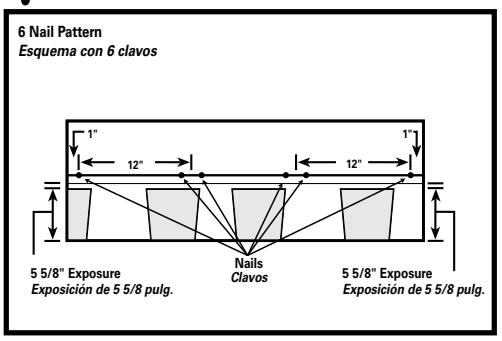
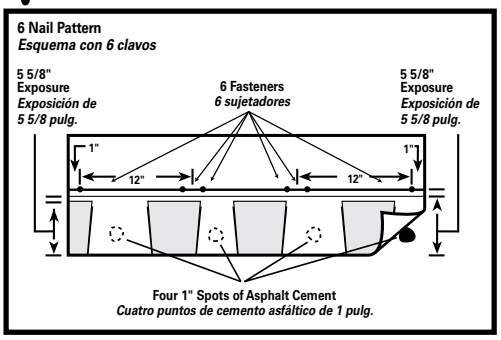


Fig. 4B Mansard or Steep Slope Fastening Pattern
Esquema de instalación en pendientes pronunciadas o mansardas



4 Sujeción de las tejas:

Coloque los sujetadores a 6 ⅛ pulg. a partir del borde inferior de cada teja y a 1 pulg. de cada extremo.

Esquema estándar. Utilice cuatro sujetadores. *Ver la Fig. 4.*

Esquema con seis clavos Para 6 sujetadores. *Ver la Fig. 4A.*

Esquema de instalación en pendientes pronunciadas o mansardas. Coloque los sujetadores a 6 ⅛ pulg. del borde inferior para ajustar ambas capas de la teja. *Ver la Fig. 4B.*

Vista lateral de la teja

REQUISITO: Para pendientes de más de 60 grados o 21 pulg. por pie, utilice seis sujetadores y cuatro cantidades pequeñas de cemento asfaltado por teja. Instale inmediatamente una sección con 1 pulg. de diámetro de cemento asfaltado **debajo** de cada lengüeta de las tejas. Asegúrese de que el cemento asfaltado esté centrado 2 pulg. por encima del borde inferior de la lengüeta de la teja. *Ver la Fig. 4B.*

Cuando sea necesario utilizar **cemento para techos**, éste debe cumplir con la norma ASTM D-4586 Tipo I ó II (sin asbestos).

El esquema de fijación de seis clavos es obligatorio para la garantía máxima contra vientos. Además, es necesario instalar las tejas para la hilera inicial de Owens Corning™ en las cornisas de tímpano y los aleros. (Consulte las instrucciones de las tejas para la hilera inicial para obtener información detallada).

5 Shingle Application:

These shingles are applied with a 6½" offset, with 5⅝" exposure, over prepared roof deck, starting at the bottom of the roof and working across and up. This will blend shingles from one bundle into the next and minimize any normal shade variation. Application with offsets of 4" or 8" are also acceptable.

Caution must be exercised to assure that end joints are no closer than 2" from fastener in the shingle below and that side laps are no less than 4" in succeeding courses. Refer to course application steps for specific instructions.

Starter Course:

Use an Owens Corning™ Starter shingle product or trim 5⅝" from the starter course shingle. Trim 6½" off the rake of the starter course shingle and flush with the drip edge along the rake and eaves edge, and continue across the roof. Use 5 fasteners for each shingle, placed 2" to 3" up from eaves edge. *See Fig. 5.* **(If no drip edge is used, shingles must extend a minimum of ½" and no more than 1" from rake and eaves edge.)**

First Course:

Apply first course starting with the full shingle even with the starter course. *See Fig. 5A.* Fasten securely according to fastening instructions. *See Fig. 4.*

Second Course:

Remove 6½" from the left end of this shingle and apply the remaining piece over and above the first course shingle and flush with edge of the first course with 5⅝" exposure. *See Fig. 5B.* Fasten securely according to fastening instructions. *See Fig. 4.*

Third Course:

Remove 13" from the left end of this shingle and apply the remaining piece over and above the second course shingle flush with edge of the second course with 5⅝" exposure. *See Fig. 5C.* Fasten securely according to fastening instructions. *See Fig. 4.*

(continued on next page)

Fig. 5 Shingle Application
Instalación de tejas

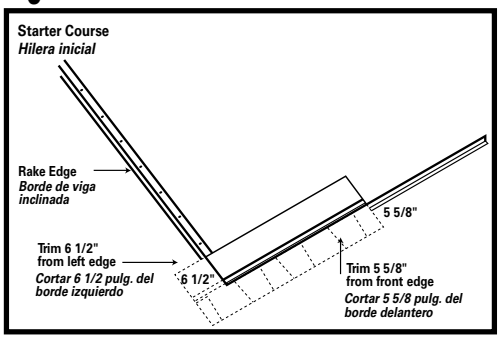


Fig. 5A Shingle Application
Instalación de tejas

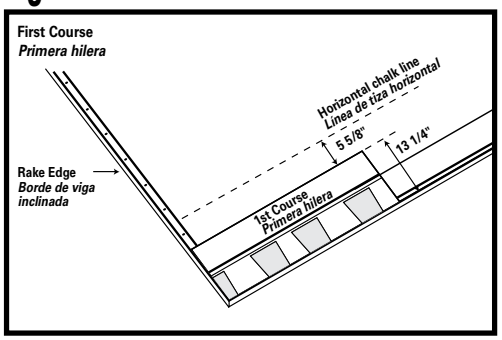


Fig. 5B Shingle Application
Instalación de tejas

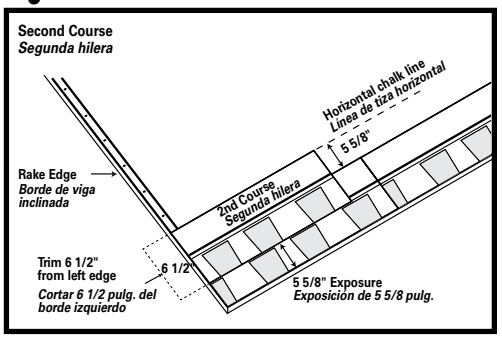
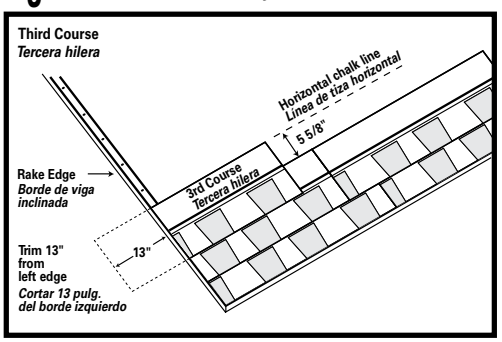


Fig. 5C Shingle Application
Instalación de tejas



5 Instalación de las tejas:

Estas tejas se instalan con un desplazamiento de 6½ pulg., con una superficie expuesta de 5⅝ pulg., sobre plataformas de techos preparadas. La colocación comienza por la parte inferior del techo y se realiza en forma transversal hacia arriba. De esta manera, las tejas de un paquete se mezclan con las del siguiente y se reducen al mínimo las variaciones normales de tonalidad. También se pueden instalar tejas con un desplazamiento de 4 ó 8 pulg.

Asegúrese de que las uniones de los extremos no se encuentren a menos de 2 pulg. del sujetador de la teja que se encuentra más abajo, y que las superposiciones laterales no sean de menos de 4 pulg. en las hileras siguientes. Consulte los pasos de instalación de hileras para ver las instrucciones específicas.

Hilera inicial:

Utilice un rollo de inicio o corte 5⅝ pulg. de la teja de la hilera inicial. Corte 6½ pulg. desde la viga inclinada en la teja de la hilera inicial y extienda más allá de la viga inclinada y el borde del alero, y continúe a lo ancho del techo. Utilice 5 sujetadores para cada teja, colocados a una distancia de entre 2 y 3 pulg. del borde del alero. *Ver la Fig. 5.* **(Si no utiliza un borde de goteo, las tejas deben extenderse un mínimo de ½ pulg. y un máximo de 1 pulg. de la viga inclinada y el borde del alero.)**

Primera hilera:

Coloque la primera hilera comenzando con la teja entera alineada con la hilera inicial. *Ver la Fig. 5A.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

Segunda hilera:

Quite 6½" pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la primera hilera y al ras del borde de la primera hilera, con 5⅝ pulg. de exposición. *Ver la Fig. 5B.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

Tercera hilera:

Quite 13 pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la segunda hilera y al ras del borde de la segunda hilera, con 5⅝ pulg. de exposición. *Ver la Fig. 5C.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

(continúa en la página siguiente)

5 Shingle Application (cont.):

Fourth Course:

Remove 19½" from the left end of this shingle and apply the remaining piece over and above the third course shingle and flush with edge of the third course with 5⅝" exposure. *See Fig. 5D.* Fasten securely according to fastening instructions. *See Fig. 4.*

Fifth Course:

Remove 26" from the left end of this shingle and apply the remaining piece over and above the fourth course shingle and flush with edge of the fourth course with 5⅝" exposure. *See Fig. 5E.* Fasten securely according to fastening instructions. *See Fig. 4.*

Sixth Course:

Remove 32½" from the left end of this shingle and apply the remaining piece over and above the fifth course shingle and flush with edge of the fifth course with 5⅝" exposure. *See Fig. 5F.* Fasten securely according to fastening instructions. *See Fig. 4.*

Succeeding Courses:

For succeeding courses, repeat first through sixth course. *See Fig. 5G.*

Fig. 5D Shingle Application
Instalación de tejas

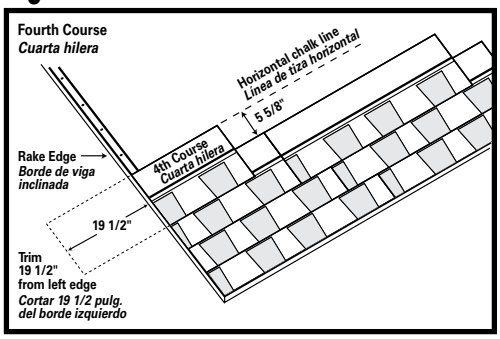


Fig. 5E Shingle Application
Instalación de tejas

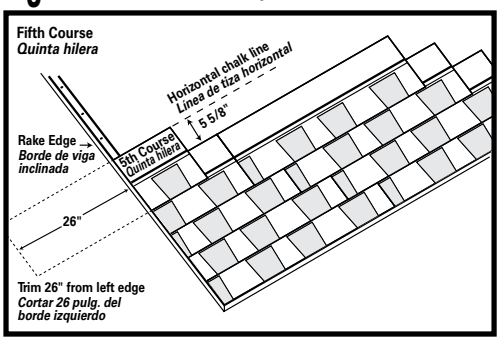


Fig. 5F Shingle Application
Instalación de tejas

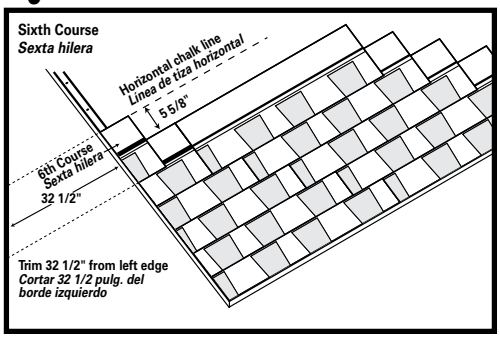
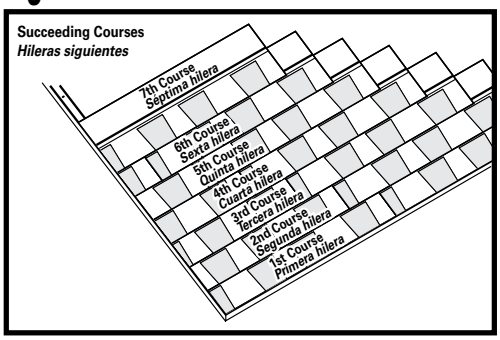


Fig. 5G Shingle Application
Instalación de tejas



5 Instalación de las tejas (cont.):

Cuarta hilera:

Quite 19½ pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la tercera hilera y al ras del borde de la tercera hilera, con 5⅝ pulg. de exposición. *Ver la Fig. 5D.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

Quinta hilera:

Quite 26 pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la cuarta hilera y al ras del borde de la cuarta hilera, con 5⅝ pulg. de exposición. *Ver la Fig. 5E.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

Sexta hilera:

Quite 32½ pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la quinta hilera y al ras del borde de la quinta hilera, con 5⅝ pulg. de exposición. *Ver la Fig. 5F.* Sujete firmemente de acuerdo con las instrucciones de sujeción. *Ver la Fig. 4.*

Hileras siguientes:

Para las hileras siguientes, repita los pasos que se indican desde la primera hasta la sexta hilera. *Ver la Fig. 5G.*

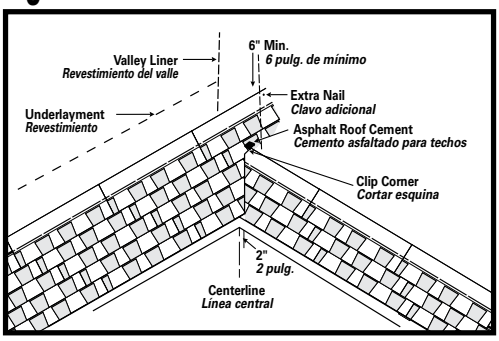
6 Valley Construction:

Closed-Cut Valley *See Fig. 6.*

A closed-cut valley can be used as an alternative to woven and open valley and is applied as follows:

Lay a 36" wide valley liner of self-adhered membrane underlayment or equivalent. A 36" wide minimum 50 lb. smooth surface roll roofing can also be used as a valley liner. Lay all shingles on one side of valley and across center line of valley a minimum of 12". Fasten a minimum of 6" away from center line on each side of valley. Strike a chalk line 2" from the center line of the unshingled side. Apply shingles on the unshingled side up to the chalk line and trim, taking care not to cut the underlying shingles. Clip upper corners of these shingles, cement and fasten. Both woven and metal valleys are acceptable alternatives.

Fig. 6 Closed-Cut Valley Construction
Construcción del valle con corte cerrado



6 Construcción del valle:

Valle cerrado *Ver la Fig. 6.*

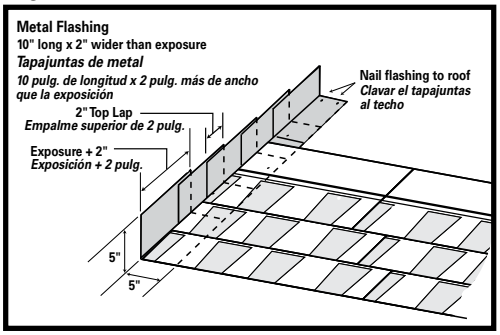
Un valle con corte cerrado puede ser usado como alternativa a un valle tejido o abierto y se coloca de la siguiente manera:

Coloque en el valle un impermeabilizante autoadhesivo o equivalente con 36 pulg. de ancho. Para revestir el valle, también se puede utilizar un rollo de techado de 36 pulg. de ancho y un mínimo de 50 libras. Coloque todas las tejas sobre un lado del valle y a través de la línea central del valle al menos 12 pulg. Sujete a un mínimo de 6 pulg. de la línea central a cada lado del valle. Marque una línea de tiza a 2 pulg. de la línea central del lado que no tiene tejas. Coloque las tejas del lado que no tiene tejas hasta la línea de tiza y recorte, con cuidado de no cortar las tejas que se encuentran debajo. Una los extremos superiores de estas tejas, coloque cemento y sujete. Se pueden utilizar valles de tejido o metal.

7 Step Flashing:

Use 10" long and 2" wider than expected exposure corrosion-resistant metal where roof planes butt against vertical sidewalls or chimneys. *See Fig. 7.*

Fig. 7 Step Flashing
Tapajuntas escalonado



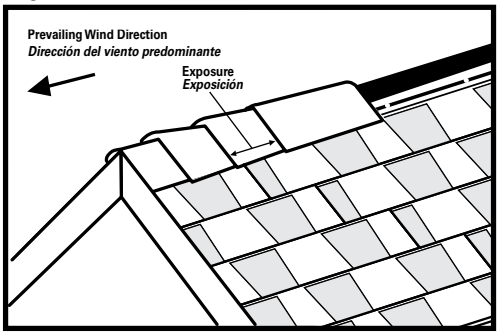
7 Revestimineto escalonado:

Utilice metal resistente a la corrosión con una exposición de 10 pulg. de longitud y de 2 pulg. más de ancho que la exposición esperada en los puntos en los que los planos del techo se unan a las paredes laterales verticales o a chimeneas. *Ver la Fig. 7.*

8 Hip & Ridge Application:

Use corresponding Owens Corning™ Hip & Ridge shingles to best complement shingle color. Follow specific application instructions as printed on the Hip & Ridge shingle package. *See Fig. 8.*

Fig. 8 Hip & Ridge Application
Instalación de caballetes y cumbreras



8 Aplicación para caballete y cumbrera

Utilice Owens Corning™ tejas para caballetes y cumbreras. Siga las instrucciones de instalación del paquete de caballetes y cumbreras. *Ver la Fig. 8.*

OWENS CORNING ROOFING AND ASPHALT, LLC
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COLOR CHART | SMP PAINT SYSTEM
SPOKANE, WA

ROOFING TRIM

GRAY 447

Colors shown are as close to actual colors as allowed by the printing process. Actual metal samples are available. Colors may appear different when viewed at different angles & under different lighting conditions.

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04-03-2024

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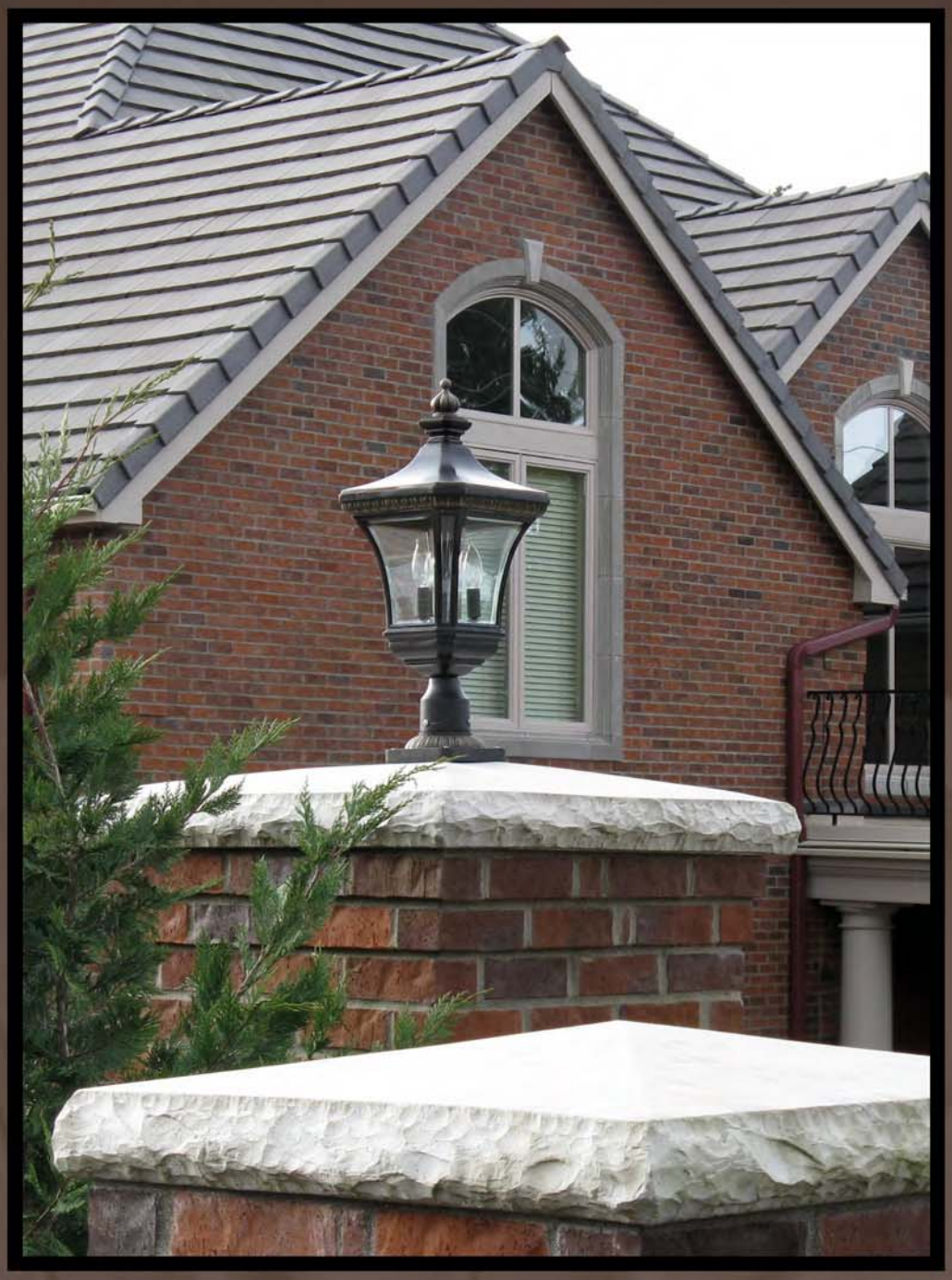
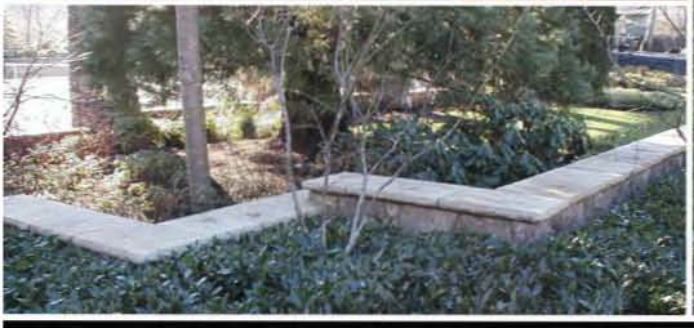


KBI

Brick and Stone Accents

OTHER TRIM



Keystones

Keystone 1

Keystone 2

Keystone 1 & 2 available 2½" or 4" thick and are 11½" tall.

Trimstones

Trimstone 1

6" x 8" x 2"

8" x 20" x 2"

Address Stone

4" x 6" x 2"

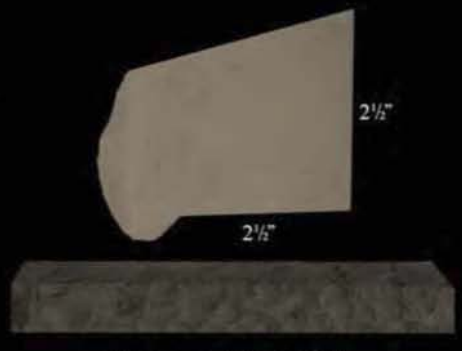
Numbered 0-9

Hearthstones

Hearthstone 1

20" x 20" x 2"

Chiseled Edge Watertables/Sills



Watertable/Sill

w/drip edge detail

2½" x 18" long

Chiseled Sill

5" x 24" long 7" x 24" long

6" x 24" long 8" x 24" long

PIER & WALL CAPS

Pier Cap 1
Smooth Peaked Pier Cap

14" x 14"
16" x 16"
18" x 18"
18" x 22"
18" x 26"
20" x 20"
22" x 22"
24" x 24"
26" x 26"
30" x 30"
32" x 32"
34" x 34"
36" x 36"
38" x 38"
40" x 40"
42" x 42"

Wall Cap 1
Smooth Peaked Wall Cap

8" x 24"
10" x 24"
12" x 24"
14" x 24"
16" x 24"
18" x 24"

Pier Cap 3
Chiseled Edge Peaked Pier Cap

14" x 14"
16" x 16"
16" x 20"
18" x 18"
20" x 20"
20" x 29"
22" x 22"
24" x 24"
26" x 26"
28" x 28"
30" x 30"
32" x 32"
34" x 34"
36" x 36"
38" x 38"

Colors

Tan

~~Brown~~

Slate Gray

~~Charcoal~~

Actual colors may differ slightly from print.

Wall Cap 6
Chiseled Edge Peaked Wall Cap

8" x 24"
10" x 24"
12" x 24"
14" x 24"
16" x 24"
32" x 24"

Pier Cap 5
Chiseled Edge Flat Pier Cap

14" x 14" x 3"
16" x 16" x 3"
18" x 18" x 3"
18" x 26" x 3"
20" x 20" x 3"
22" x 22" x 3"
22" x 32" x 3½"
24" x 24" x 3¼"
26" x 26" x 3¼"
28" x 28" x 3¼"
30" x 30" x 3½"
32" x 32" x 3½"

Wall Cap 5
Chiseled Edge Flat Wall Cap

8" x 24" x 2"
10" x 24" x 2"
12" x 24" x 2"
14" x 24" x 2"
16" x 24" x 2"
18" x 24" x 2"
22" x 24" x 2"
32" x 24" x 2"

Available w/End Detail

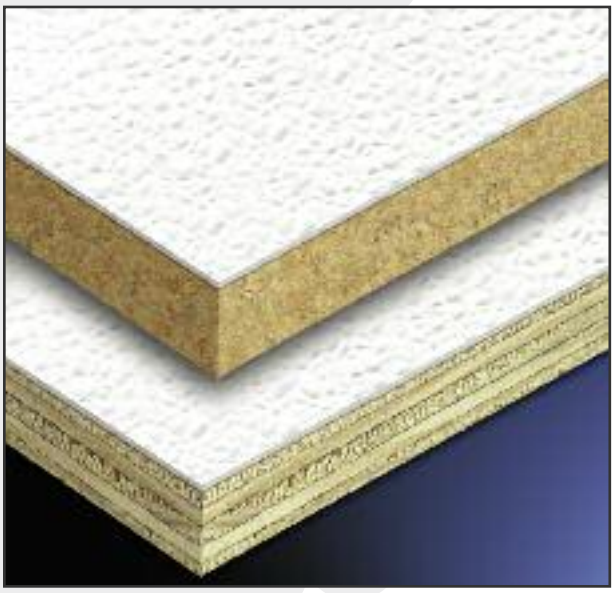
Pier Cap Options: 3" Round Hole or Split w/Square Hole (4x4, 6x6, etc.)

Note: All measurements taken at smallest part of chisled edge.

WALL, CEILING & LAMINATED LINER PANELS

Interior Plumbing Wall Finish Only

Glasliner® FRP



Quality, commitment and innovation

Glasteel, with more than 50 years of experience, is one of the largest manufacturers of Fiberglass Reinforced Panels in the North American Market supported by three state-of-the-art manufacturing plants (all ISO 9001:2008 Certified) and three strategically located distribution centers. Our mission is to offer added value products with the highest quality standards, competitive pricing and best customer service of the industry.

Glasliner FRP meets many of today's demanding applications that require high sanitation needs. These applications range from restaurants and supermarkets to restrooms and storage areas. Glasteel's process uses a special type of high strength polyester resin combined with fiberglass reinforcement to produce liner panels offering superior quality and durability. The result is a panel with a resin rich surface that is tough, strong and easy to clean.



The Best Products, Service, Price & Selection All Under One Brand

Glasliner® FRP

Wall, Ceiling & Laminated Liner Panels

800-238-5546

www.glasteel.com

Wall Panels

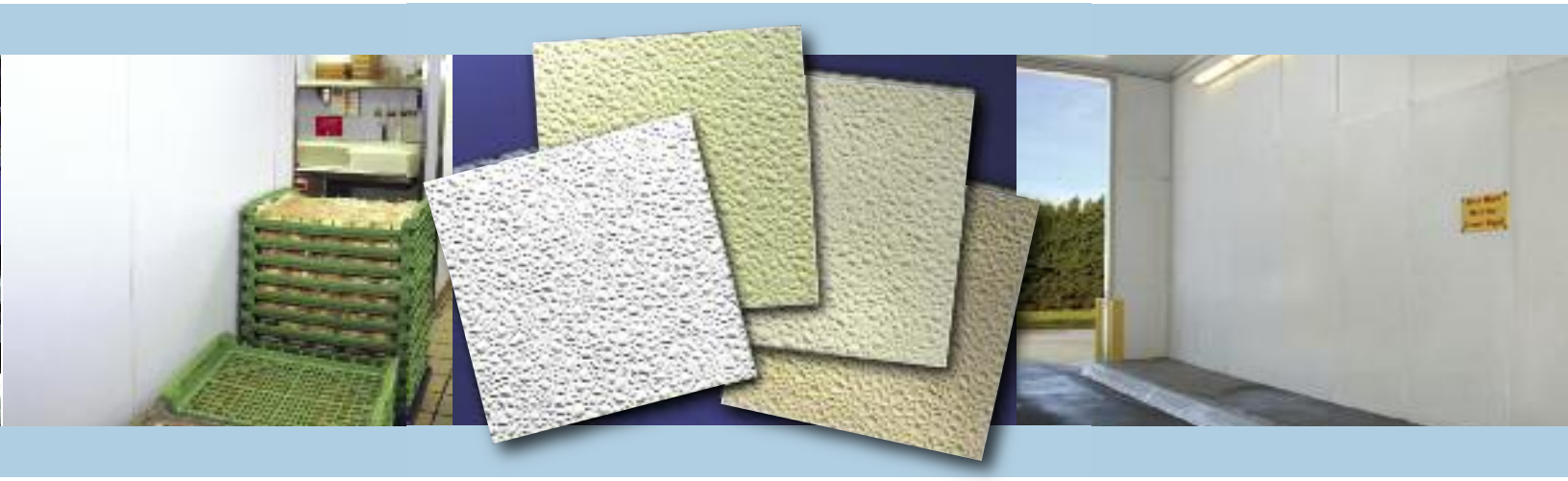
Resin rich surfaces that are tough, strong and easy to clean.

Maximum Sanitation Protection

- Meets USDA Standards
- Maximum sanitation protection
- Significant cost savings over other materials

Excellent Quality

- Years of dependable performance
- Resin rich surface that is tough & easy to clean
- Meets today's high sanitation standards



Moisture Resistant

- Does not support mold or mildew
- Will not rust or corrode

Highly Impact Resistant

- Extremely high strength to weight ratio
- Tough surface that resists shattering, scratches and abrasions

Outstanding Cleanability

- Cleans with regular detergents and water

Wall Panel Specifications

Glasliner FRP is available in the following sizes:

Series	Nominal Thickness
1600	.125"
1200	.090"
180	.060"
160	.045"
150	.035"

Width Standard 4 Feet
Length 8, 9, 10 and 12 Feet

Approvals & Certifications

- **ISO 9001:2008:** All Glasteel plants are ISO 9001:2008 Certified
- **Meets USDA/FSIS requirements**
- **Canadian Food Inspection Agency (CFIA) accepted**
- **ASTM:** All Glasliner FRP liner panels are manufactured according to industry standard ASTM D-5319-2008
- **Fire Ratings:** Glasliner products are available on multiple fire ratings, such as Class C (general purpose) and Class A (fire retardant). Please contact your Glasteel representative for test results.

Typical Physical Properties for .090" Contractor Grade

Property	Test Method	Unit	Glasteel Class C General Purpose Result	Glasteel Class A Fire Retardant Result
Flexural Strength	ASTM D-790	PSI	17,000	10,000
Flexural Modulus	ASTM D-790	PSI	6.0×10^5	3.1×10^5
Tensile Strength	ASTM D-638	PSI	8,000	7,000
Tensile Modulus	ASTM D-638	PSI	9.43×10^5	3.1×10^5
% Elongation	ASTM D-638	%	1.20	1.80
Water Absorption 21°C @ 72 hrs.	ASTM D-570	%	0.17	0.72
Izod Impact Strength	ASTM D-256	ft.-lbs./in.	7.0	7.16
Coef. of Linear Thermal Expansion	ASTM D-696	in./in./°F	2.22×10^{-5}	2.39×10^{-5}
Barcol Hardness	ASTM D-2583	Avg.	30	35
Specific Gravity	ASTM D-792	N/A	1.6138	1.5743
Abrasion Resistance	TABER	% WT Loss	0.293	0.391
Flash Ignition Temp.	ASTM 1929	°C	430	400
Self Ignition Temp.	ASTM 1929	°C	450	430
Flame Spread	ASTM E-84	N/A	≤200	≤25
Smoke Generation	ASTM E-84	N/A	<450	<450

Storage Recommendations

- Store panels indoors in a cool, dry, well-ventilated area
- Panels should be stacked on skids not more than 5 skids high
- Do not allow moisture to collect on or in-between panels

Color Selections

Bright White

Two Surface Finishes

Premium
Gel Coat

Installation Instructions

Safety:

- Use eye protection.
- Wear filter mask to cover nose and mouth, especially when cutting.
- Use manufacturer's recommended sealants and adhesives.

Tools Needed:

- Power or hand saw (fine tooth or carbide blade)
- Power or hand drill (carbide tip recommended)
- Carpenter's square
- Hammer, tape measure and level
- Adhesive and notched trowel
- Silicone sealant and caulking gun
- Vinyl moldings and 3/4" nylon fasteners

Preparation:

- It is important to store Glasliner FRP flat, on a clean, dry surface for 24 hours before installation. It is preferable to store them inside the actual area of installation or, at least, under similar climate conditions.
- Walls must be clean and free of all substances.
- Level any high or low spots on walls. Concrete block walls may require a leveling coat of plaster or other similar material.

The Best Products, Service, Price & Selection All Under One Brand

Independent Laboratory Test Results

REASON FOR ANALYSIS: Evaluation of the **White Glasteel FRP Panel** from the viewpoint of overall stain resistance properties as well as resistance to chemical cleaners and high intensity UV light.

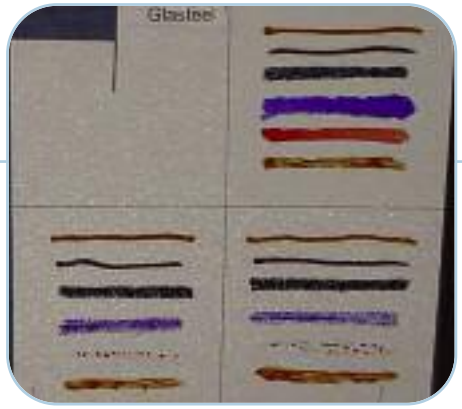
EXECUTIVE SUMMARY: The **White Glasteel FRP Panel** demonstrates good overall stain resistance properties both before and after surface abrasion tests. In addition the **White Glasteel FRP Panel** demonstrates good resistance to high intensity UV light and general household cleaning chemicals such as bleach, ammonia, alcohol and acetone with no material degradation noted after exposure tests..

EVALUATION OF FINDINGS:

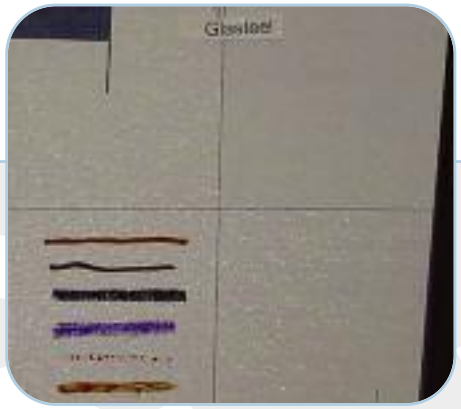
Stain Resistance Properties: The **White Glasteel FRP Panel** demonstrates good overall stain resistance properties on the original surface with all stains being removed after cleaning tests. The abraded surface demonstrates generally good stain resistance with only the ink stain remaining visible after cleaning tests. The stain resistance test consists of applying generous amounts of a variety of stains, including red fruit drink, ketchup, mustard and barbecue sauce as well as some very aggressive stains such as blue ink and permanent marker. These stains were applied to the original as received surface and to a surface which was abraded with sandpaper to remove any surface coatings. The stains were then allowed to set for a period of 48 hours. The stained areas were then cleaned with a variety of cleaning chemicals to determine overall cleanability. The ketchup, fruit drink and barbecue sauce were all easily removed with a typical household cleaner on both the abraded and original surfaces. The mustard and permanent marker did require use of a stronger chemical such as alcohol and acetone to fully remove the stains. It should be noted the blue ink stain was not completely removed on the abraded test surface when using all the listed cleaning chemicals.

UV Resistance: The **White Glasteel FRP Panel** exhibits no discoloration or other surface degradation after 60-hours of exposure to high intensity UV light.

Chemical Resistance: The **White Glasteel FRP Panel** surface showed no evidence of material degradation after exposure to household cleaner, ammonia cleaner, bleach (1% solution), alcohol (70% isopropyl) and acetone.



Before Stain Cleaning Test



After Stain Cleaning Test

Glasteel™

Headquarters & Distribution Centers

285 Industrial Drive
Moscow, TN 38057
800-238-5546
Fax: 901-877-1388
www.glasteel.com

2495 N.E. 36th St.
Ft. Worth, TX 76111
817-831-0505
Fax: 817-831-2001

1279 Corporate Center Dr.
Eagan, MN 55121
651-452-0150
Fax: 651-452-0376

Graham / Stabilit Canada, Inc.
104 Maple Ave
Inglewood, ON L0N1L0
905-838-2944
Fax: 905-838-3386
www.grahamfrp.com

03/12 D-SA-01 Rev.:00

M0511

Installation Instructions and Guidelines for Glasliner FRP Panels

Read all instructions before installation. Glasliner FRP panels should only be installed over solid wall surfaces (standard drywall, standard plywood, standard OSB, cement board, cement, etc.) Consult your adhesive manufacturer for recommendations for non-standard substrates.

Inspection, Storage, and Preparation

Panels should be inspected in a well lit area promptly upon receipt to ensure material suitability. Do not store panels outdoors. Panels should only be stored in a dry area. Promptly unwrap and remove panels from skid and stack on a flat, dry surface. Ensure that the climate of the room, the panels, and the adhesive are all above 50°F before and during installation. Avoid large temperature changes for at least 24 hours after installation is complete. Normal fire-safety precautions should be taken during storage and installation of panels.

Panels are inspected for defects prior to shipment, and should be re-inspected by the installer prior to installation. If panels are not acceptable, contact Glasteel customer service prior to installation. Glasteel is not responsible for installation or removal costs of unacceptable panels.

Tools

Panels can be cut using power saws with a fine carbide tip blade or masonry blade. Panels may be drilled for fastening with a metal drill bit. Masonry bits are recommended when drilling in concrete.

Caution: Protect eyes with goggles and cover mouth with a filter mask when cutting Glasliner panels.

Use a trowel recommended by the adhesive manufacturer to apply adhesive to the back side of the panel.

A laminate roller is recommended to remove air pockets and ensure adhesion of the surface area.

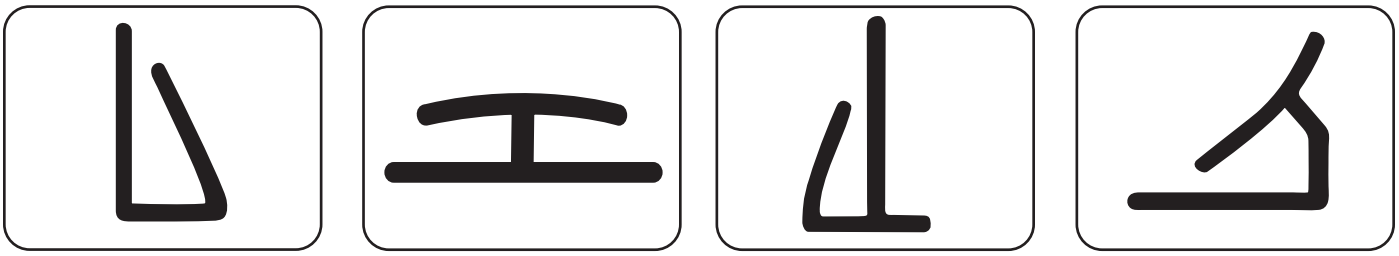
Adhesives & Fasteners

The use of a specifically formulated FRP adhesive is recommended when installing Glasliner FRP panels. Follow the adhesive manufacturer's instructions carefully. Many adhesives are flammable and some may not be compatible with paneling.

Glasliner FRP panels may be successfully installed using only adhesive on typical even surfaces. Installation over uneven surfaces using adhesive only may cause adhesion failure.

Mechanical fasteners may be used in certain non-typical applications. If mechanical fasteners are used, they should be non-corroding (i.e. plastic pin rivets, chrome pin rivets, one piece nylon rivets, and stainless screws, etc.). Follow the fastener manufacturer's instructions carefully.

Moldings



Cap | Divider Bar | Outside Corner | Inside Corner

Preparation of Substrate

Ensure that the substrate is flat with even surfaces. High and low areas should be leveled prior to installation. Remove any foreign material or debris that could interfere with proper bonding of the adhesive. (Caution: *Installation over uneven surfaces could result in adhesive failure, resulting in de-lamination of the panel*.)

- **Non-Porous Surfaces:** Non-porous surfaces are not a favorable surface for adhesive to bond, as most adhesives will not dry properly. Consult adhesive manufacturer for specific recommendations. *Examples: Metal Panels, Ceramic Tiles, Glazed Block, other Moisture Resistant Substrates*

- **New Gypsum Board:** A finish coat is not recommended. Using a setting compound, joints need only a fill and taped coating.

- **Plywood:** Warped Plywood should be removed and replaced with plywood that is flat and even. Consult adhesive manufacturer on any installation over pressure treated or fire-rated plywood.

- **Concrete Block and Brick:** Concrete block and brick walls are typically uneven. It is recommended that furring strips be applied to the concrete block or brick walls and a suitable substrate be installed over the furring strips. Panels may then be installed to the substrate according to installation instructions. (An alternative to this are Glasteel's Laminated FRP Panels.)
  When panels are applied directly to concrete block or brick walls, it is recommended panel be installed with a mechanical fastener. Special care should be given to allow for panel expansion at fastener locations and panel joints, please refer to **FRP Panel Installation Steps** for pre-drilling and panel spacing instructions.
  Consult adhesive manufacturer for recommended adhesive when installing directly to concrete block or brick walls.

- **Painted Surfaces:** Painted surfaces must be abraded or gouged with a heavy grit sand paper to break the barrier of the paint. Painted surfaces will not allow most adhesives to dry properly.
  All loose paint and debris must be removed prior to installation.

Environmental Considerations

- **Service Temperature:** The service temperature range for Glasliner FRP is 0°F to 130°F.

- **Near a Heat Source:** Panels may discolor when installed in proximity to a heat source. Glasteel does not recommend that panels be installed near a heat source that radiates temperatures greater than 130°F (55°C). Examples of heat sources include cookers, ovens, and deep fryers. Stainless steel is recommended in these areas.

FRP Panel Installation Steps

Step 1: Trim panel to fit and create over-sized pilot holes.

Expansion Joint Recommendations	installation of panels over 12′ long is not recommended			
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Space around rivets	1/8″	1/8″	3/16″	3/16″

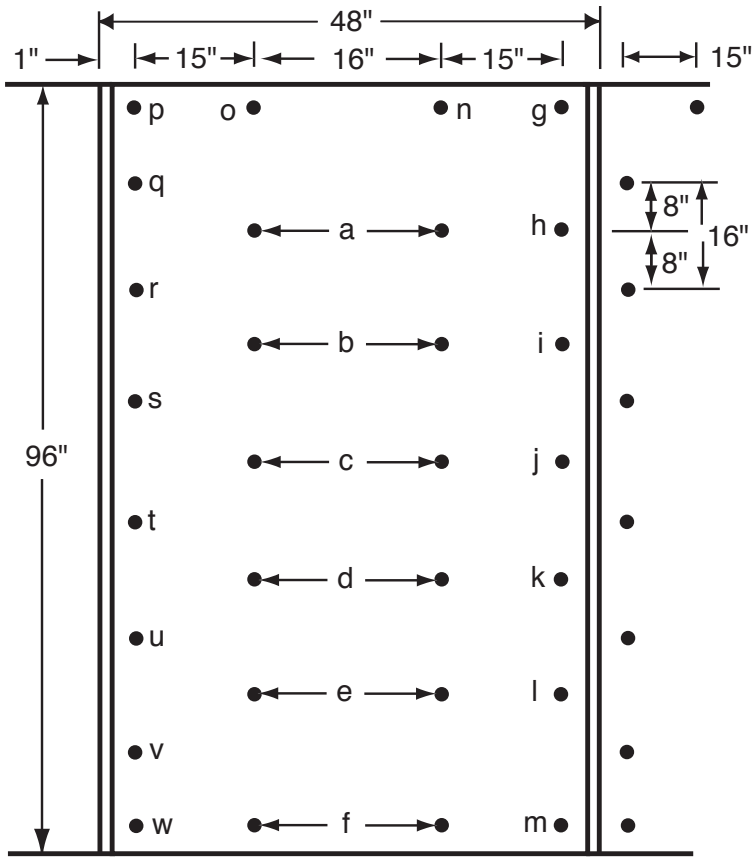
If using a power saw, ensure that the blade enters the front (finished) side of the panel to avoid damage.

Using Fasteners

1. When using rivets, panels should be predrilled allowing for the spacing in the above chart. Holes slightly larger than the fasteners should be drilled into the substrate through the pre-drilled holes in the panel. Do this prior to adhesive application.

2. Apply a silicone sealant prior to inserting fasteners.

3. Fasten panel first in the center and work outward.
   Fasteners should be used 16” on center vertically and horizontally. Fasteners on panel edges should be at least 1” to 1 1/2” from the panel edge when using one piece fasteners. Using two piece moldings, put perimeter holes 1 1/2” to 2” away from the panel edge.



Note: Initiate installation by alphabetic sequence

Step 2: Cut out any fixture openings.

Expansion Joint Recommendations	installation of panels over 12′ long is not recommended			
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Space between panels and wall fixtures	1/8″	1/8″	3/16″	3/16″

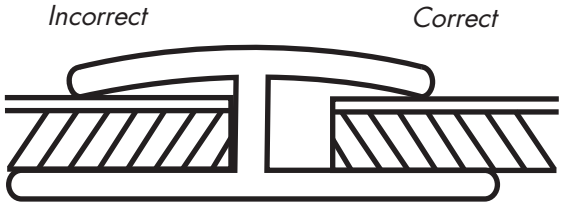
Step 3: Start at an inside corner of the room. Mark a plumb line 48” + expansion distance (see Step 5 chart) from the corner. The initial panel should be set true with plumb line.

Step 4: Apply FRP adhesive to the back side of the panel using the adhesive manufacturer’s recommendations. *Failure to apply adhesive properly may cause de-lamination.*

Step 5: Place panel on the wall, leaving space and the joints for expansion and contraction.

Expansion Joint Recommendations	installation of panels over 12′ long is not recommended			
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Gap at ceiling	1/4″	1/4″	3/8″	3/8″
Gap at floor	1/4″	1/4″	3/8″	3/8″
Gap between panel and center of 1 piece molding	1/8″	1/8″	3/16″	3/16″
Gap between panel and center of 2 piece molding	1/4″	1/4″	3/8″	3/8″
Gap between panel not using molding	1/4″	1/4″	3/8″	3/8″

Failure to allow adequate molding spacing may cause delamination



Divider Bar

Step 6: Use of silicone sealant is recommended to achieve a moisture resistant installation. Place silicone sealant into the channel of cut-to-size moldings. Fit coordinating moldings between the joints leaving the recommendations in step 4 to allow for expansion and contraction.
In high moisture and frequent wash-down areas, silicone should be used between moldings and floors/ceilings to prevent moisture from penetrating the back of the panel substrates.

Step 7: Use a laminate roller to remove air pockets. Work from the middle of the panel out to the leading edge.

Step 8: Repeat steps one through seven until project is complete.

Step 9: Clean excess adhesive residue from surface of panels following adhesive manufacturer's recommendations.

Cleaning Instructions
Glasliner FRP Panels are designed for minimum care and maintenance. When cleaning panels, wash with light detergent such as Spic & Span, Pine Sol, Mr. Clean, etc. Panels may also be cleaned with steam, high pressure sprayers, or soap and water. It is strongly recommended not to use abrasive cleaners on panels (i.e., SOS Pads, Ajax, Comet, etc.). Following these instructions, Glasliner FRP Panels will give a fine and lasting appearance for many years.

Glasteel™

285 Industrial Drive
Moscow, TN 38057
Phone: (901) 877-3010
Fax: (901) 877-1388
www.glasteel.com

BRIGHT & MATTE™

GLAZED CERAMIC WALL

Cove Base for Interior Restroom Walls Only

SIZES, SHADE VARIATION & PRICING

TILE THICKNESS: 5/16"
RECOMMENDED GROUT JOINT: 1/16"
RELATIVE PRICING: Low to Medium

LOW
(V1)

TRIM

SHAPE	DESCRIPTION	SIZE	PIECES/CTN	GROUP
	Sanitary Cove Base S-3619T	6 x 6	40	1■, 4

OTHER APPLICATIONS

	SUITABLE
Walls/Backsplashes	●
Countertops	●*
Pool Linings	●

* Matte finish only. Darker colors may show scratches.

Suitable for exterior applications in non-freezing climates only when proper installation methods are followed.

PERFORMANCE CHARACTERISTICS

	MOISTURE ABSORPTION	BREAKING STRENGTH	MOHS	CHEMICAL RESISTANCE
Bright & Matte	< 20.00%	120 - 230 lbs.	4.0 - 6.0	Resistant

CLEANING PROCEDURES
- Remove loose dust and dirt with a damp cloth or sponge
- Use a neutral, non-abrasive cleaner suitable for ceramic tile
- Remove cleaning solution with a clean, damp sponge or mop

INSTALLATION METHODS BACKING MATERIALS
- Concrete
- Exterior grade plywood
- Cementitious backer board

SETTING
- Latex modified thin-set
- Epoxy

GROUTING
- Unsanded grout
- Epoxy grout

✚ These items are special order (excluding colors 0025,0090, & 0091), extended lead time may be required.
✖ Not available in 0045.
★ Only available in 0049.
▲ Not available in 0037, 0038, 0039, 0040, 0041, 0064 & 0071.
■ Not available in 0009, 0044, 0050, 0062, 0065, 0067, 0078, 0081 & 0095.
● These colors are made to order and requires 6-8 weeks for delivery from date of order.
❖ These shapes are made to order and requires 6-8 weeks for delivery from date of order.

Cover photo features Bright & Matte Pomegranate in 6 x 6 and Satinbrites/Satinglo Almond in 2 x 2 on the wall.

NOTES

Since there is shade variation in all fired ceramic products, the tile and trim supplied for your particular installation may not match these samples. Final selection should be made from actual tiles and trim and not from tile and trim samples or color reproductions. Manufactured in accordance with ANSI A137.1 standards.

Water, oil, grease, etc. create slippery conditions. Floor applications with exposure to these conditions require extra caution in product selection. Not for use on ramps.

All or select items within this series are made in the USA.
For more information visit www.americanolean.com.

For additional information, refer to "Factors to Consider" at http://americanolean.com/factors-to-consider.cfm.

POST-CONSUMER RECYCLED MATERIALS

PRE-CONSUMER RECYCLED MATERIALS

MADE IN THE U.S.A.

AMERICAN OLEAN greenworks™ ENVIRONMENTAL LEADERSHIP THAT WORKS

Naturally, many of our products can help you earn LEED™ credits.

888.AOT.TILE

AMERICAN OLEAN® PROVEN IN TILE™

SEMI-GLOSS WALL TILE

WHITE
0100 (1)

(1), (2), (3), (4) and (5) indicate Price Groups, (1) being the least expensive.
✚ "Q" colors special order. Please allow 1-2 weeks lead time from the date of order.
★ Subject to crazing; black grout not recommended.
◆ Made to order and requires 6-8 weeks delivery from date of order.
See the Rittenhouse Square™ Collection for colors available in 3 x 6 sizes.
See the Modern Dimensions™ Collection for colors available in 4-1/4 x 8-1/2 and 4-1/4 x 12-3/4 sizes.

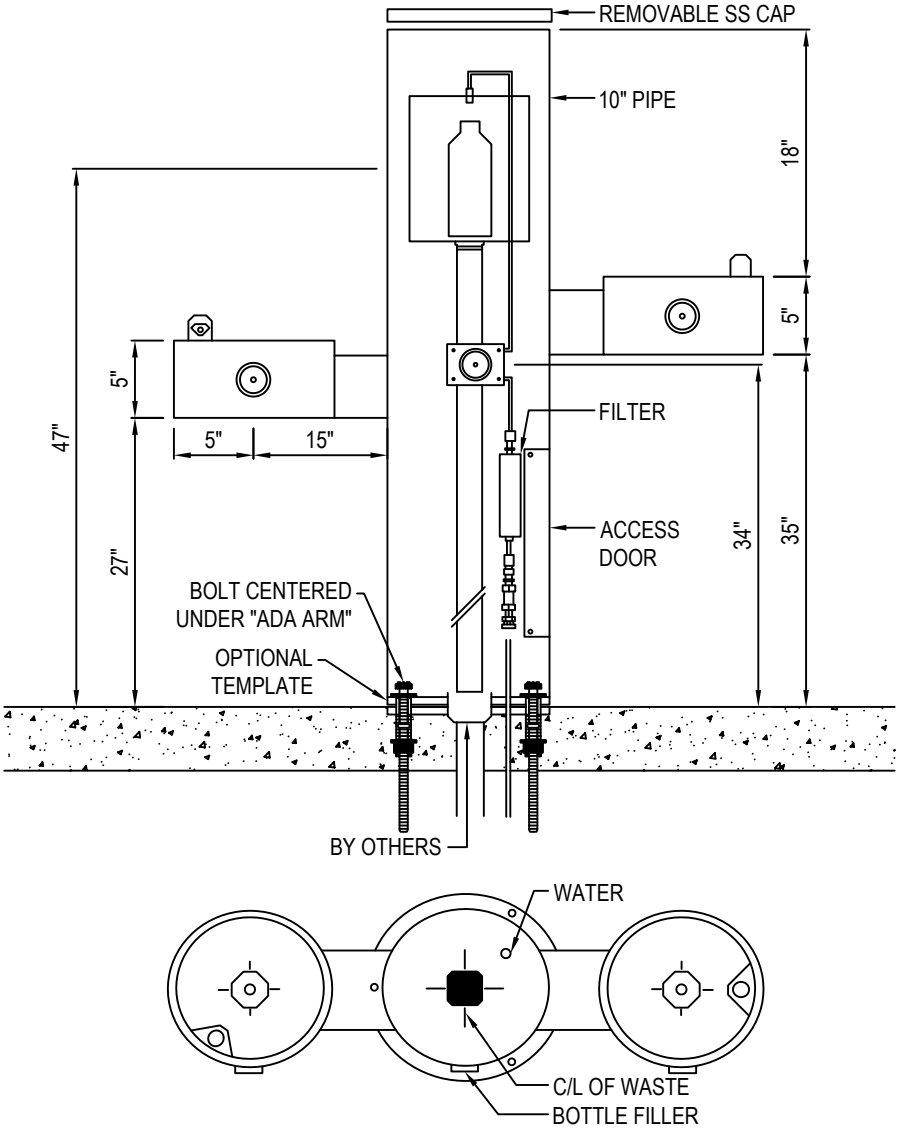
Most
Dependable
Fountains, Inc.

OPERATIONS MANUAL

MODELS:
10145 SMFA
& 10145 SMSSFA

Most Dependable Fountains, Inc™
5705 Commander Drive
Arlington, TN 38002
www.mostdependable.com

MOST DEPENDABLE FOUNTAINS, INC.
5705 COMMANDER DR. P.O. BOX 587
ARLINGTON, TN 38002-0587
PHONE: (901) 867-0039
www.mostdependable.com

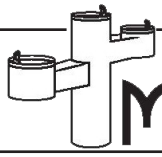


NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-17.45.

MODEL 10145SMFA

10145SM SHOWN WITH OPTIONAL 10" SS SURFACE CARRIER



PEDESTAL BOTTLE FILLER SPECIFICATIONS

WATER QUALITY (LEAD FREE)	Section 9, California Proposition 6 and the Federal Safe Drinking Water Act.
☐ STANDARD PEDESTAL	One piece weld construction with MDF standard 3/16" wall thickness.
OR	
☐ STAINLESS STEEL PEDESTAL	One piece weld construction with MDF standard 304 schedule 10 stainless steel.
RECEPTOR BOWL	18 gauge electro-polished stainless steel bowl. Bowl overlaps pedestal, preventing buildup of residue in visual drinking area. Optional stainless steel Bowl Strainer recommended for areas with sand. Not applicable on Model 10125 SMSS.
BOTTLE FILLER SPOUT	Sanitary recessed nozzle.
BUBBLER HEAD	Stainless steel anti-squirt head (weighing a pound and a half) mounted with a lock nut and washer to prevent tampering. Lock nut pin holds bubbler in locked position to prevent twisting or turning. The MDF bubbler head has a unique design that features a steady stream trajectory and a built in natural shield from contamination.
PUSH BAR	304 stainless steel with circumference exceeding 8.6". Mushroom style push bar overlaps and prevents sand and other objects from sticking push bar in the ON position. Stainless steel bubbler housing standard.
CONTROL VALVE	Requires less than 5 lbs to operate. Non-cartridge O-ring valve delivers steady stream of water through an adjustable valve. This valve design is to operate and function at 30 to 80 PSI. Ideal operating pressure is 60 PSI.
WATER SUPPLY (LEAD FREE)	Maintenance free reinforced nylobraid tubing - **this tubing is not plastic**. It is supplied with a 1/2" MIP threaded inlet with stainless steel strainer. Union fittings at every connection. Supply line stops above grade. Water Filter is standard on this model.
DRAIN	1 1/2" schedule 40 PVC pipe. Drain line stops above grade.
FINISH	Oven baked powder coat. Choice of colors are: ☐ green, ☐ blue, ☐ black, ☐ red, ☐ yellow, ☐ orange, ☐ brown and ☐ white. Textured color choices: ☐ emerald, ☐ sapphire, ☐ pyrite, ☐ text-black, ☐ burgundy, ☐ gold vein, ☐ copper and ☐ sandstone. Stainless steel models are powder coated for added protection. The color ☐ chrome is an available option for stainless steel models only.
INSTALLATION	**Surface Mount** installation is designed to be anchored on top of a new or existing surface (concrete, etc.) For a new surface, a surface mount carrier is recommended. For an existing surface, anchor bolts are to be used through the attached mounting plate. Surface Mount Fountains come standard with an access door with vandal resistant stainless steel screws.
WINTERIZATION	Shut off water and drain down. Remove water filter.
WARRANTY	One year warranty, labor not included.
SHIPPING WEIGHT	Model 10125 SM.....110 lbs Model 10135 SM.....150 lbs Model 10145 SM.... 245 lbs Model 10150 SM.... 245 lbs Model 10155 SM.... 195 lbs Model 10125 SMSS..... 100 lbs Model 10135 SMSS..... 150 lbs Model 10145 SMSS..... 235 lbs Model 10150 SMSS..... 235 lbs Model 10155 SMSS..... 185 lbs Model 10890 SM..... 150 lbs Model 10890 SMSS... 140 lbs Model 10895 SM..... 200 lbs Model 10895 SMSS... 190 lbs

MOST DEPENDABLE FOUNTAINS, INC.™
5705 COMMANDER DR. • ARLINGTON, TN 38002-0587
www.mostdependable.com
(901) 867-0039

CLASSIFIED UL LEAD FREE

INSTALLATION INSTRUCTIONS

Most Dependable Fountains, Inc.™

All **SM (surface mount)** products are designed to be installed on the surface of a new or existing concrete slab. Your contractor needs to provide a 1 ½" PVC drain line **(when applicable)** and water line thru finish grade. Connections are made to our SM products thru our access door, as shown on detail drawings. The water tubing is provided with a ½" male iron pipe connection. This is an excellent location for a cutoff valve. Surface Mount units are anchored to the existing concrete by means of ½" concrete shields with bolts or we recommend ½" quick bolts.

Note: We offer an optional template which is designed to be poured in the concrete slab. It comes with the necessary vandal resistant stainless steel bolts and washers needed to anchor.

All **DB (direct bury)** products are designed to be installed to a depth of 14" below grade. MDF provides 1 ½" PVC drain line inside the pedestal **(when applicable)** to point of connection by others. MDF also provides reinforced nylobraid flexible tubing with a ½" male iron pipe thread for connection to water supply by others. MDF recommends an optional valve box using a PVC conduit to the pedestal. By using this option you have complete control of your product.

Individual detail drawings available Online or by request.

MDF
MOST DEPENDABLE FOUNTAINS, INC.

For more information:
Most Dependable Fountains, Inc.™
www.mostdependable.com
Info@mostdependable.com
901-867-0039

LIMITED PRODUCT WARRANTY

Most Dependable Fountains, Inc.™

Most Dependable Fountains, Inc.™ warrants that all of its products are guaranteed against defective material or poor workmanship for a period of **one year from date of shipment.** Most Dependable Fountains, Inc.™ liability under this warranty shall be discharged by furnishing without charge any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first class workmanship. Most Dependable Fountains, Inc.™ will not be liable for the cost of repairs, alterations or replacements, or for any expense connected therewith made by the owner or his agents. Most Dependable Fountains, Inc.™ will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that Most Dependable Fountains, Inc.™ has made no other warranties either expressed or implied in addition to those above stated. The products manufactured by Most Dependable Fountains, Inc.™ is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended.

MDF

MOST DEPENDABLE FOUNTAINS, INC.

Powder Coating Color Chart

Standard Finishes

SMOOTH: Available for Standard & Stainless Steel Units.

Blue

Most Dependable Fountains, Inc.™ manufactures in Arlington, TN.

Our in house finishing facility allows customers to choose any of our standard colors. All colors with the exception of Chrome are available on regular steel products. All colors plus Chrome are available on stainless steel products.

It is the policy of Most Dependable Fountains, Inc. to powder coat all standard and stainless steel units.

Please contact Most Dependable Fountains, Inc. for more information.

901-867-0039
info@mostdependable.com
www.mostdependable.com

Mounted Overhead-Braced Restroom Partitions

Phenolic Privacy Partitions — Series 400 – Sentinel™

This is the most popular style of partitions. It is attached to the floor and stabilized at the top of the pilaster using anti-grip headrail. Floor-mounted, overhead-braced material is recommended for heavy traffic or vandalism prone areas. It requires a minimum 3" concrete floor for anchoring.

Phenolic Privacy Partition Series Features

- Includes No-Site™ design as standard eliminating gaps between doors and pilasters
- Preinstalled threaded inserts on doors and pilasters reducing installation time
- Rabbeted edge on hinge and latch side providing flush finish and full privacy
- Indicator latches are standard
- Available in 9 new colors
- Extended height panels available as a stacked panel with an H-bracket

Construction

Solid phenolic black core is composed of compressed cellulose fibers impregnated with resins. The surface laminate is fused to the resin-impregnated core. All edges are black, machined and finished smooth with a 45-degree chamfered edge. Doors and pilasters include a built-in, No-Site feature that eliminates sight lines into the stall. Materials will not delaminate even under extreme conditions. Materials are non-absorbent, impact, and graffiti resistant. Materials are impervious to steam, soaps, and detergents and will not mildew.

Panels

Panels are ½" thick, constructed from solid phenolic core.

Doors

Doors are ¾" thick, constructed from solid phenolic core with factory installed inserts for attaching the hinges.

Pilasters

Pilasters are ¾" thick, constructed from solid phenolic core. Hinged pilasters come with factory installed inserts for attaching the hinges. They are secured through the face of the shoe using Torx-head thru-bolts. 5/16" lag screw(s) (provided in shoe kit) can be added to the floor edge of the pilaster for leveling.

Hardware

Bradley standard hardware is constructed from cast stainless steel with a satin brushed finish or stamped stainless steel (door hinge and indicator latch). Components are provided with all hardware and stainless steel Torx-head fasteners to complete an installation on applications with concrete floors and masonry block walls.

Door Hardware

Surface mounted hinges are secured to the door and pilaster using factory installed inserts and Torx-head screws. Surface-mounted, indicator slide latch with emergency egress requires no twisting motion and complies with all Federal ADA guidelines. Keeper is mounted to the pilaster using stainless steel Torx-head screws. Doors 32" wide or less are provided with a combination coat hook/bumper. Doors 34", 35" and 36" wide are provided with an individual coat hook, door bumper, and door pulls. Theft-resistant fasteners are supplied with all hardware.

Series 400 – Sentinel™

Brackets

Stirrup-type, single-ear, double-ear, and U-brackets are provided.

Headrail

Etched and anodized aluminum headrail is extruded with an anti-grip profile. It clamps over the pilaster and secures at the wall with plastic brackets.

Shoes

Shoes are 1-piece, 4" high, 300 Series stainless steel with #4 satin brushed finish and are secured to the floor with Torx-head screws.

Product Compliance

Complies with

- ADA
- ICC/ANSI 117.1
- TAS

ADA COMPLIANT TAS

Listed by UL Environment to

- GreenGuard Gold

GREENGUARD GOLD

Serves the American Disabilities Act, ICC/ANSI 117.1, and California Title 24 and Texas Accessibility Standards guidelines, when installed according to these requirements. Consult local codes and standards.

Verify all rough-in dimensions prior to installation.

Consult local and national codes. Conformity and compliance to local and national codes is the responsibility of the installer.

P.O. Box 309, Menomonee Falls, WI 53052-0309
800 BRADLEY (800 272 3539) +1 262 251 6000
bradleycorp.com

Standard Selections (Must select one from each category)

Colors

NOTE: Click on any swatch to view as a larger image.

- ○ Asian Night [1]
- ○ Carbon Ev [1]
- ○ Fashion Grey [1]
- ○ Friston Ash [1]
- ○ Graphite Nebula [1]
- ○ Raw Chestnut [1]
- ○ Shadow [1]
- ○ Sheer Mesh [1]
- ○ Slate Grey [1]

Door Hardware

- ○ Stainless Steel Indicator Latch (STD)

Hinges

- ○ Stainless Steel Surface-Mounted Hinge (STD)

Brackets

- ○ Stainless Steel 2-Stirrup Brackets, 58" Height (STD)
- ○ Stainless Steel 3-Stirrup Brackets, 58" Height
- ○ Stainless Steel 3-Stirrup Brackets, 69"/72" Height (STD)
- ○ Continuous Stainless Steel Brackets

Optional Selections

Miscellaneous

- ○ Cutouts

Extra Height

- ○ 69" H Doors and Panels (all 9" AFF)
- ○ 72" H Doors and Panels (all 6" AFF)
- ○ 69" / 72" H Doors and Panels [2]

[1] Colors available for 69" or 72" heights using a single panel up to 62" depth.
[2] ADA stalls will have 69" H doors and panels, 9" AFF. All other stalls in the room will be 72" H, 6" AFF to allow for maximum privacy.

☑ Any directional wood grain panel taller or deeper than 58" will run perpendicular to the direction throughout the rest of the partition design. If a panel depth or height exceeds 58", please review for pattern conflicts.

Verify all rough-in dimensions prior to installation.

Consult local and national codes. Conformity and compliance to local and national codes is the responsibility of the installer.

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bradleycorp.com

Phenolic

PARTITIONS | URINAL AND SIGHT SCREENS

Solid phenolic core is composed of compressed cellulose fibers impregnated with resins. The surface laminate is fused to the resin-impregnated core. All edges are machined and finished smooth with a 15-degree beveled edge. Material will not delaminate even under extreme conditions. Materials are non-absorbent, impact and graffiti resistant. Materials are impervious to steam, soaps and detergents and will not mildew.

MATERIAL

Bradley phenolic core partitions are perfect for high traffic areas where durability, strength and finish options are needed. Its impact resistance and superior strength are a result of high heat and high-pressure molding of solid phenolic core material with a decorative melamine surface. 9 standard phenolic colors or patterns are available. Almost any other Wilsonart, Formica or Arborite color or pattern can be ordered at an additional charge. 3-year warranty against delamination and discoloration.

PRODUCTS

Sentinel™ overhead-braced, floor-braced, ceiling-hung and floor-to-ceiling partitions, urinal and sight screens.

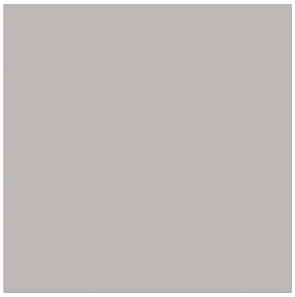
APPLICATIONS

Outdoor parks, pools, shower rooms or any application where oil or water resistance is needed. Phenolic partitions withstand wet and humid environments.

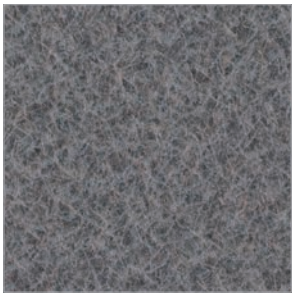
NEW! PHENOLIC STANDARD COLORS

Panels available up to 5'

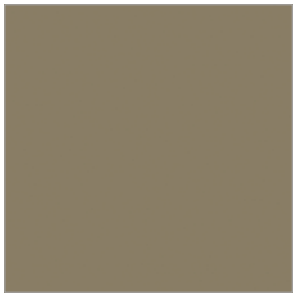
Sheer Mesh
(4876)



Fashion Grey
(D381)

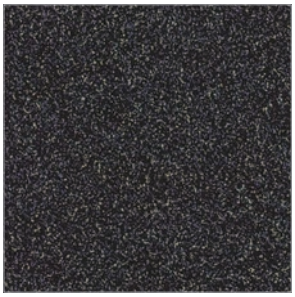


Carbon Ev
(4839)



Shadow
(D96)

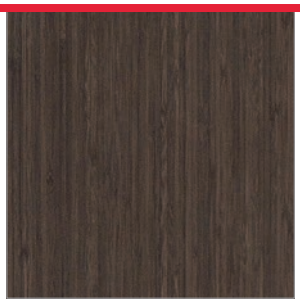
Slate Grey
(D91)



Graphite Nebula
(4623)

Raw Chestnut •
(7975)

Friston Ash •
(8229)



Asian Night •
(7949)

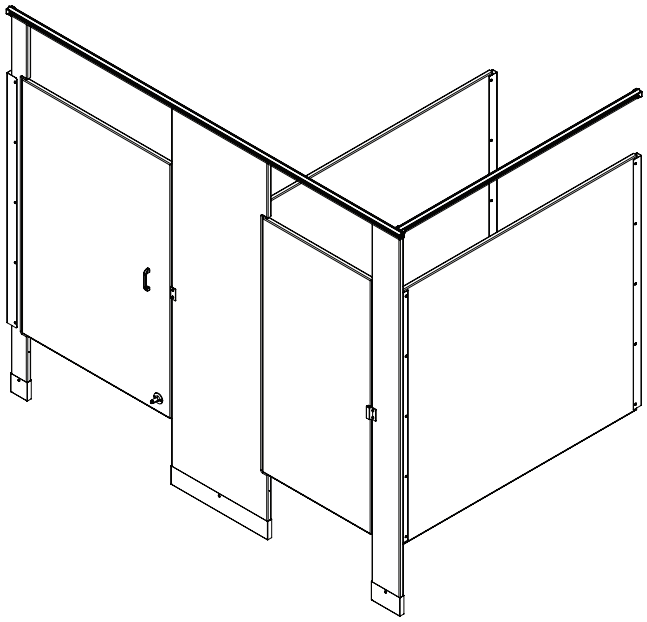
- **Any directional wood grain panel taller or deeper than 58" will run perpendicular to the direction throughout the rest of the partition design. If a panel depth or height exceeds 58", please review for pattern conflicts.**

Note: Due to printing variances, actual color and sheen of the material may differ. Contact your Bradley representative for material samples.

bradleycorp.com
800.BRADLEY | 262.251.6000
W142 N9101 Fountain Boulevard
Menomonee Falls, WI USA 53051

4350-2-1023

Installation



Bradmar™ Restroom Partitions Overhead Braced - Series 400 (includes No-Site style)

For Standard Height Doors and Panels Only

Table of Contents

HDWP-INSTR-013 Rev. L; ECN 12-14-015G

P.O. Box 309
Menomonee Falls, WI 53052 USA
800 BRADLEY (800 272 3539)
+1 262 251 6000
bradleycorp.com

⚠WARNING

Before beginning installation, make sure that the wall and floor backing are adequate to support the secure mounting of the toilet compartment units.

Partitions are extremely heavy and may require more than one person to position and install.

Failure to comply with these instructions may result in personal injury and/or property damage and will void the partition warranty.

⚠CAUTION

Personal protective equipment (PPE) is required during the installation and maintenance of this product.

NOTICE

Leave the protective masking on until installation is complete. To prevent warping, always lay the material flat. Do not lean the material against the wall or stack unevenly. Allow 24 hours for material to adjust to site environment. Partitions should be installed in a climate-controlled environment and shielded from direct sunlight.

Make sure all floors and walls are clean and smooth. Remove loose impediments, such as protruding nails and other debris which could affect installation.

Use caution when drilling. Accuracy is important.

Carefully remove components from skid, do not drag.

IMPORTANT

Review your partition layout drawings and verify the number of stalls and components before beginning installation.

Read this installation manual completely to ensure proper installation, then file it with the owner or maintenance department. This installation manual provides instruction for the assembly of normal partition configurations and standard components. Non-standard configurations or components including but not limited to curved or angled walls, partial walls, oversized panels, or modified hardware are not covered in this manual. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

Separate parts from packaging and make sure all parts are accounted for before discarding packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

Product warranties and parts information may be found under "Products" on Bradley's website at bradleycorp.com.

Supplies Required:

- Chalk line and pencil
- Flat blade and Phillips head screwdrivers
- Jigsaw or hacksaw
- Circular saw
- Two spring clamps
- 3/32", 7/64", 1/8", 5/32", 13/64", 7/32" and 1/4" dill bits
- Power drill or screw gun with drill bit extension
- Tape measure and 4' level
- 5/16" ceramic tile and masonry drill bit
- Hammer drill
- Spacer, 14" (356mm) high and strong enough to support the panel

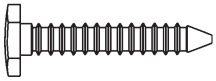
Hardware Provided

#14-16 Plastic Anchor FAST-T373

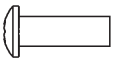
#14 x 2" Button-Head Sheet Metal Screw TORX-T27 Drive FAST-P002

#14 x 5/8" Button-Head Sheet Metal Screw TORX-T27 Drive FAST-S0016

#14 x 3/4" Button-Head Sheet Metal Screw TORX-T27 Drive FAST-P001

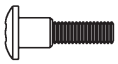


5/16" x 1-1/2" Hex Head Lag Screw FAST-S008



#10-24 x 3/4" Button-Head Barrel Nut TORX-T27 Drive FAST-P003

#8 x 1" Flat Head Sheet Metal Screw Phillips Drive FAST-P006



#10-24 x 3/4" Button-Head Shoulder Screw TORX-T27 Drive FAST-P004

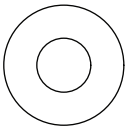
#10 x 3/4" Button-Head Sheet Metal Screw TORX-T25 Drive FAST-P005

#10 x 5/8" Button-Head Sheet Metal Screw Torx-T27 Drive FAST-S0019

#6 x 3/4" Phillips Flat-Head Sheet Metal Screw FAST-P011

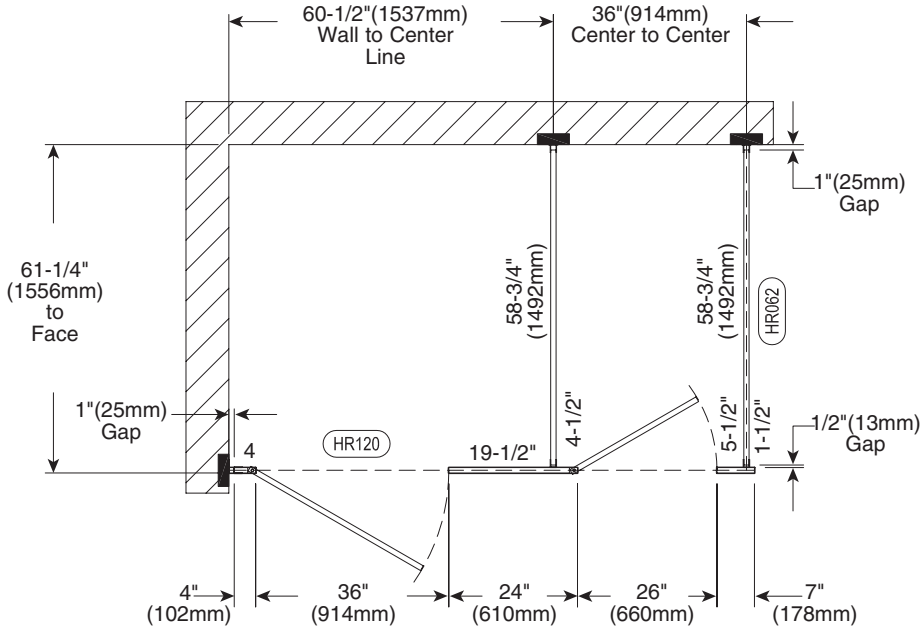
#10 x 3/4" Flat Head Sheet Metal Screw TORX-T25 Drive FAST-S0006

#10-24 x 2" Flat Head Machine Screw TORX-T25 Drive FAST-S0027



9/32" x 5/8" Flat Washer P10-449

Example of Submittal Drawing



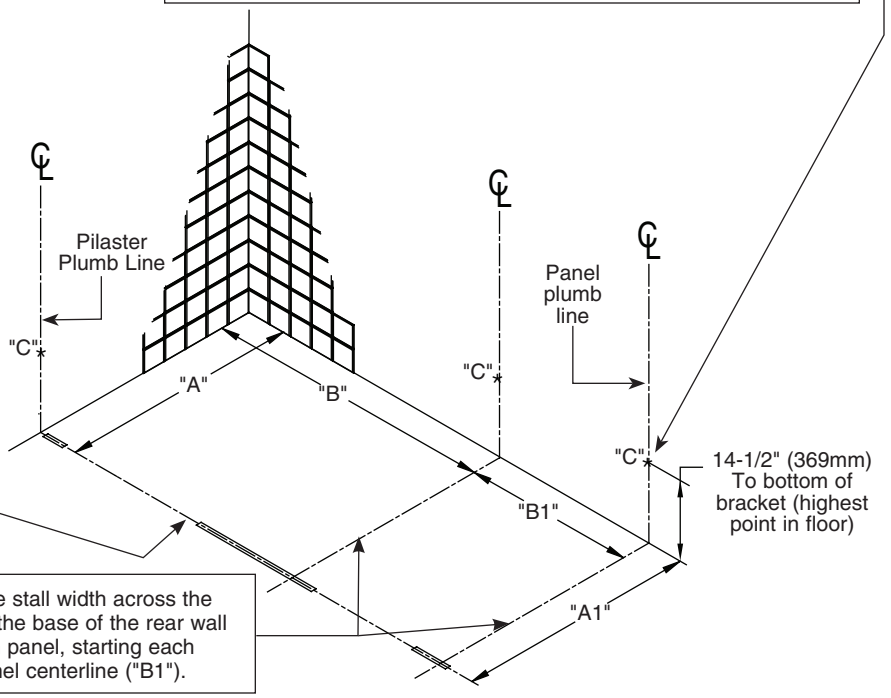
1 Layout Dimensions - Continuous Brackets (Standard)

When installing the partition components, consult the applicable Mills Partition submittal drawing for compartment layout dimensions.

C Draw a plumb line on all walls from each pilaster and panel centerline. From the highest point in the room, measure 14-1/2" (369mm) from the floor and place a mark on the pilaster/panel plumb line. Use a level to transfer that mark to all other plumb lines ("C").

A **Pilaster Centerline:** Measure from the back wall forward to the face of the compartment, subtract 1/2" (13mm) and mark this location on the floor ("A"). Mark the same measurement on the opposite end of your layout ("A1") and draw a straight line connecting both marks.

For Freestanding (FS) Partitions: Refer to submittal drawings and determine the approximate location of the outside panels. Establish dimensions "A" and "A1" as explained above.



B **Panel Centerline:** Measure the stall width across the back wall and place a mark at the base of the rear wall ("B"). Repeat this step for each panel, starting each measurement from the last panel centerline ("B1").

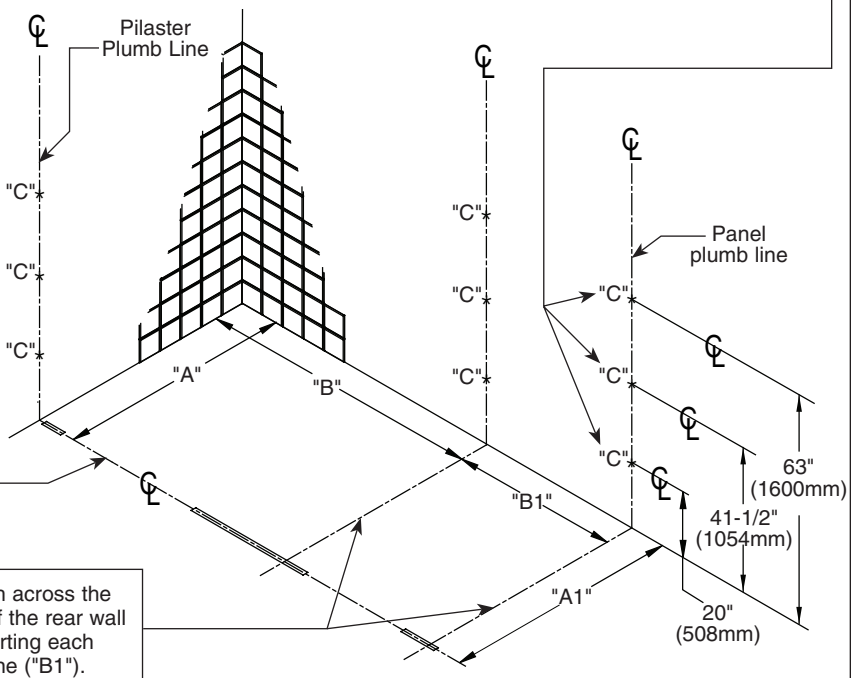
1a Layout Dimensions - Stirrup Brackets (Optional)

When installing the partition components, consult the applicable Mills Partition submittal drawing for compartment layout dimensions.

C Draw a plumb line on all walls from each pilaster and panel centerline. From the highest point in the room, measure 20" (508mm), 41-1/2" (1054mm), and 63" (1600mm) from the floor and place a mark on the pilaster/panel plumb line. These marks represent the hole center line of the stirrup brackets. Use a level to transfer that mark to all other plumb lines ("C").

A **Pilaster Centerline:** Measure from the back wall forward to the face of the compartment, subtract 1/2" (13mm) and mark this location on the floor ("A"). Mark the same measurement on the opposite end of your layout ("A1") and draw a straight line connecting both marks.

For Freestanding (FS) Partitions: Refer to submittal drawings and determine the approximate location of the outside panels. Establish dimensions "A" and "A1" as explained above.



B **Panel Centerline:** Measure the stall width across the back wall and place a mark at the base of the rear wall ("B"). Repeat this step for each panel, starting each measurement from the last panel centerline ("B1").

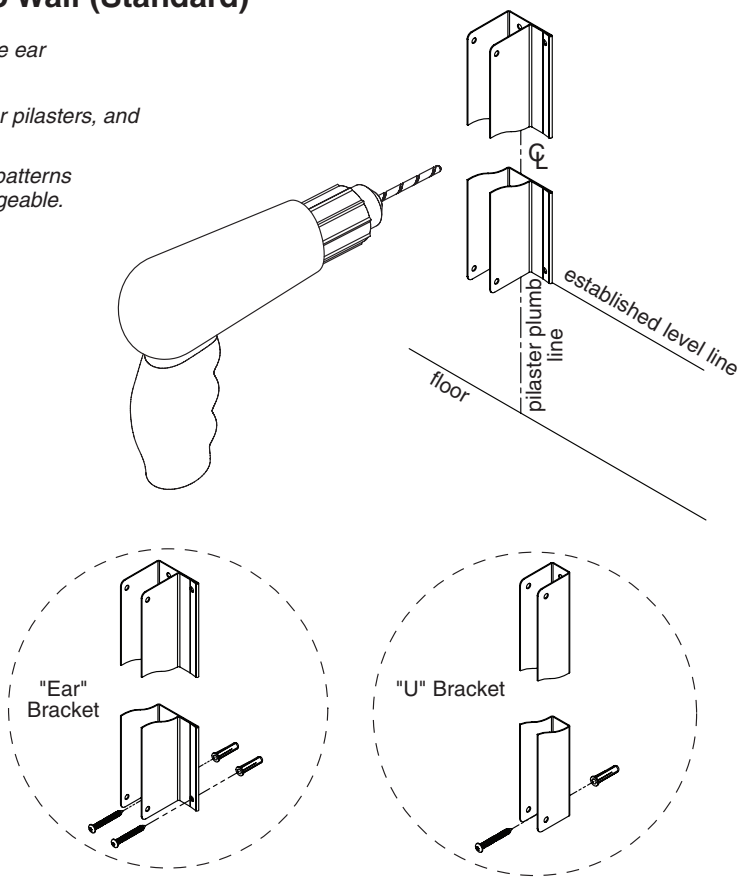
2 Continuous Stainless Steel Brackets to Wall (Standard)

- ☑ *On pilaster applications, position the bracket with the ear facing toward the inside of the stall.*
- ☑ *Pilaster bracket is shown here; "Ear" brackets are for pilasters, and "U" brackets are for panels.*
- ☑ *Brackets are used as templates, but since the hole patterns may be different, the brackets may not be interchangeable.*

A Place the bottom of each continuous bracket at the established level line. Center the bracket opening on the pilaster/panel plumb line.

B Using the bracket as a template, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (min. 2" [51mm] deep) at each hole location.

C Insert the plastic anchors in all holes and secure the brackets to the wall with the #14 x 2" screws provided.



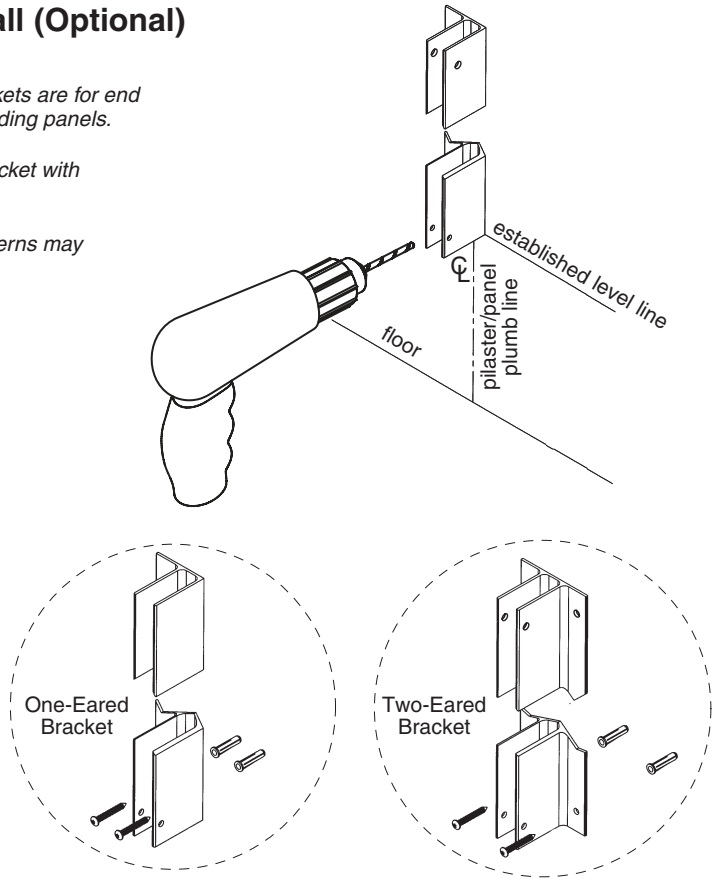
2a Continuous Aluminum Brackets to Wall (Optional)

- ☑ *Single "EAR" bracket is shown here; single "EAR" brackets are for end panels and pilasters; double "EAR" brackets are for dividing panels.*
- ☑ *On end panel and pilaster applications, position the bracket with the ear facing toward the inside of the stall.*
- ☑ *Brackets are used as templates, but since the hole patterns may be different, the brackets may not be interchangeable.*

A Place the bottom of each continuous bracket at the established level line. Center the bracket opening on the pilaster/panel plumb line.

B Using the bracket as a template, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (min. 2" [51mm] deep) at each hole location.

C Insert the plastic anchors in all holes and secure the brackets to the wall with the #14 x 2" screws provided.



2b Stirrup Brackets to Wall (Optional)

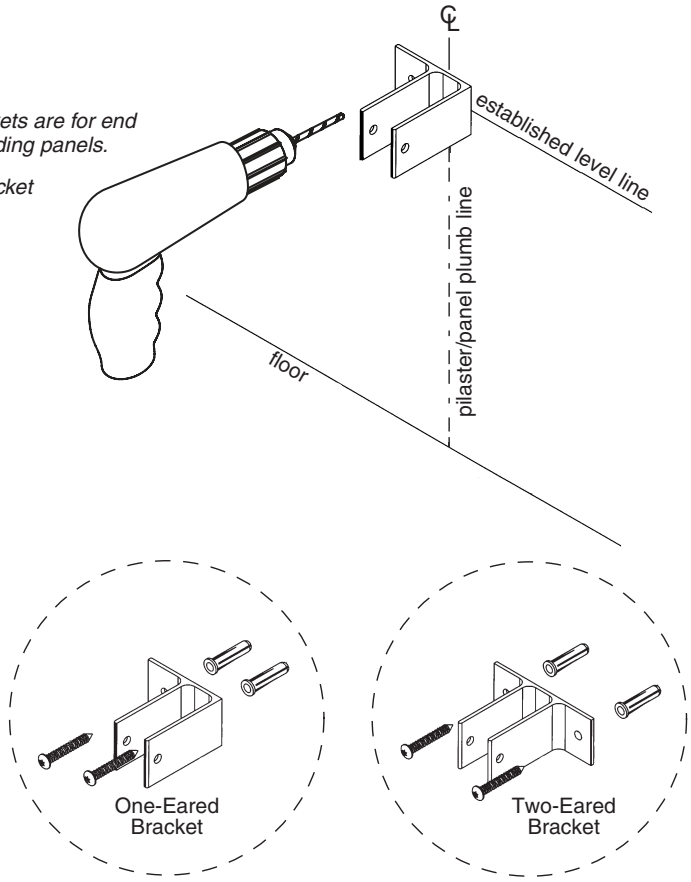
☑ *Single "EAR" bracket is shown here; single "EAR" brackets are for end panels and pilasters; double "EAR" brackets are for dividing panels.*

☑ *On end panel and pilaster applications, position the bracket with the ear facing toward the inside of the stall.*

A Place the center of each stirrup bracket at the established level line. Center the bracket opening on the pilaster/panel plumb line.

B Using the bracket as a template, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (min. 2" [51mm] deep) at each hole location.

C Insert the plastic anchors in all holes and secure the brackets to the wall with the #14 x 2" screws provided.



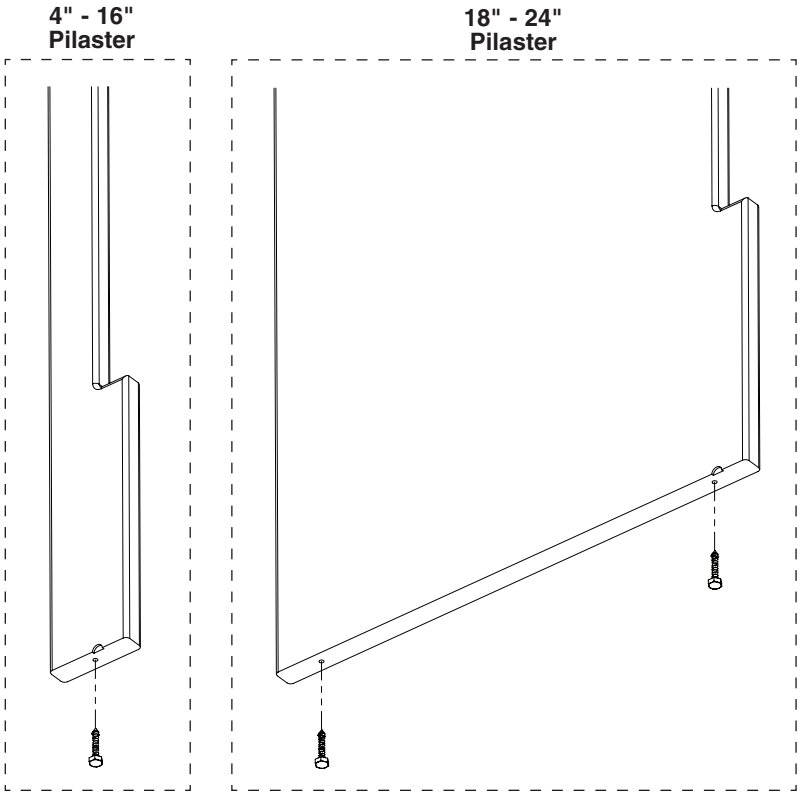
3 Leveling Screws to Pilaster

☑ *For integral hinge and no-site pilasters, a notch will be present on one end of the pilaster to indicate that it is the bottom.*

A **4" - 16" Pilaster:** Center and drill a Ø13/64" pilot hole, 1-1/2" (38mm) deep.

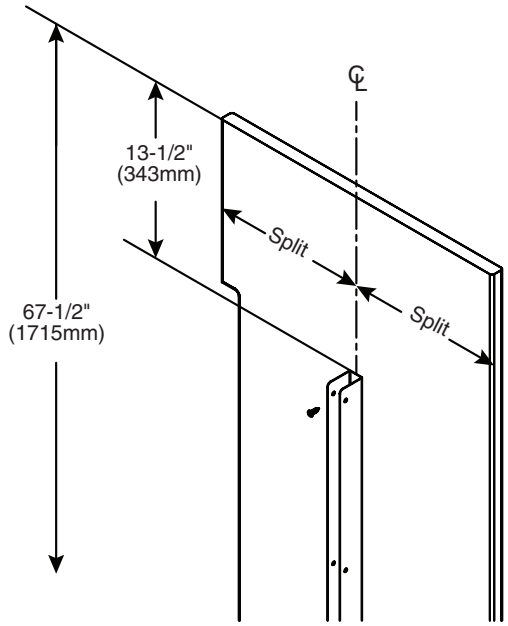
18" - 24" Pilaster: Drill (2) Ø13/64" pilot holes, 1-1/2" (38mm) deep. Holes should be 2" (51mm) off each end of the pilaster.

B Use leveling screw(s) to adjust height of pilaster as indicated based on pilaster width.



4 Continuous Brackets to Pilaster (Standard)

- ☑ *Refer to the submittal drawing to locate the split dimension and layout location of each marked pilaster.*
- ☑ *Brackets are used as templates, but since the hole patterns may be different, the brackets may not be interchangeable.*
- ☑ *Continuous stainless steel bracket shown.*

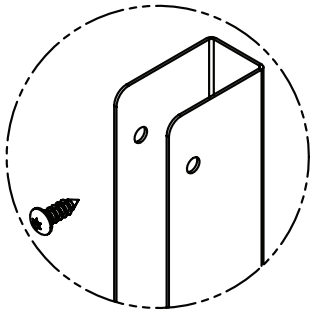


A Measure 13-1/2" (343mm) and 67-1/2" (1715mm) down from the top of each pilaster and place a mark on the pilaster split centerline.

☑ *Pilaster shown is for reference only. Actual pilaster varies depending on application.*

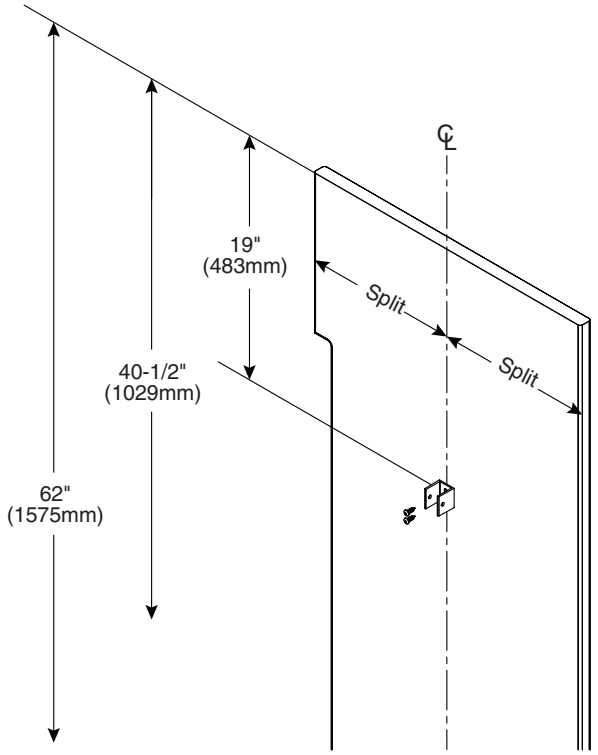
B Place the continuous bracket between each established level line. Center the bracket opening on the pilaster split centerline. Using the bracket as a template, mark the hole locations on the pilaster. Remove the bracket and drill a Ø7/32" pilot hole, 3/4" (19mm) deep at each location.

C Secure the continuous bracket to the pilaster using the #14 x 3/4" screws provided.



4a Stirrup Brackets to Pilaster (Optional)

☑ *Refer to the submittal drawing to locate the split dimension and layout location of each marked pilaster.*

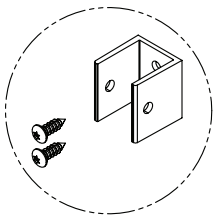


A Measure 19" (483mm), 40-1/2" (1029mm), and 62" (1575mm) down from the top of each pilaster and place a mark on the pilaster split centerline.

☑ *Pilaster shown is for reference only. Actual pilaster varies depending on application.*

B Place stirrup brackets at each established level line. Center the bracket opening on the pilaster split centerline. Using the bracket as a template, mark the hole locations on the pilaster. Remove the bracket and drill a Ø7/32" pilot hole, 3/4" (19mm) deep at each location.

C Secure the stirrup brackets to the pilasters using the #14 x 3/4" screws provided.



4b Alcove Brackets to Pilaster

☑ *Layouts that use stirrup brackets for pilaster and panel connections will use continuous alcove brackets.*

☑ *Refer to the submittal drawing for the layout location of each alcove pilaster*

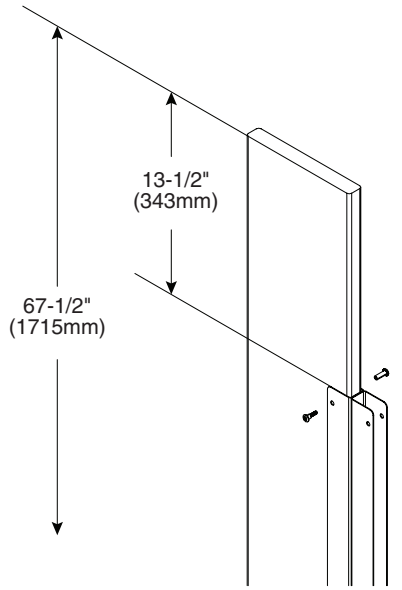
☑ *Continuous stainless steel bracket shown*

A Measure 13-1/2" (343mm) and 67-1/2" (1715mm) down from the top of each pilaster and place a mark on the side of the pilaster.

B Center the bracket between each mark made in Step A and push tight against side of pilaster.

C Using the bracket as a template, mark the hole locations on the pilaster. Remove the bracket and drill Ø1/4" holes through the pilaster at each location.

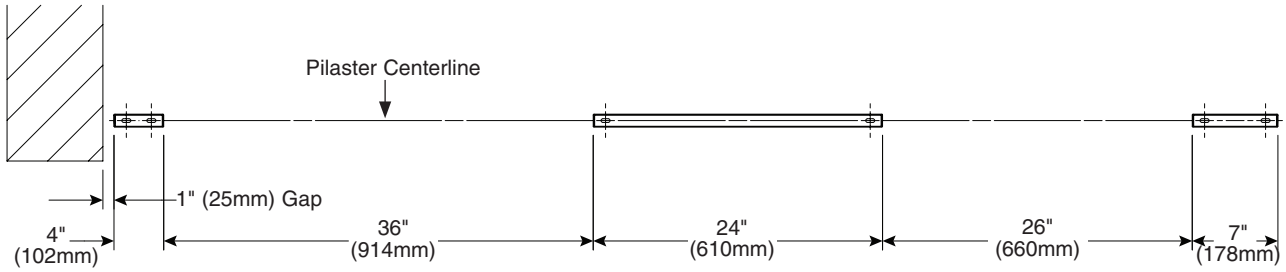
D Secure the bracket to the pilaster using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



5 Pilaster Mounting Hardware

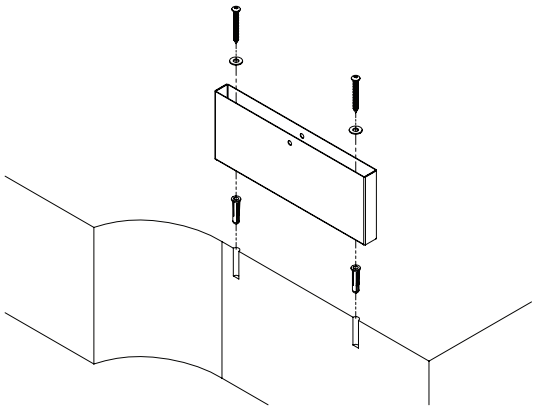
A Starting with the pilaster closest to the wall, measure and mark the pilaster and door widths on the pilaster centerlineline. Make sure to leave the appropriate gap between the wall and the pilaster. Place the corresponding shoe on the pilaster centerline and center between the marks.

☑ *This view is an example only; refer to your submittal drawings for actual sizes.*



B Using the shoe as a template, mark the hole locations on the floor. Remove the shoe and drill Ø5/16" holes (min 2" (51mm) deep) into the floor. Make sure the holes are free of dirt and debris.

C Insert plastic anchors into the holes and secure the shoe to the anchors using the 9/32" x 5/8" flat washer and #14 x 2" screws provided.



6 Pilasters and Panels with Stainless Steel Continuous Brackets (Standard)

☑ *Pilasters located at walls should be mounted first. Start at one end and install a panel, then a pilaster. Continue alternating until installation is complete. When installing in an alcove or in-corner, use an alcove bracket to secure the pilaster to the panel.*

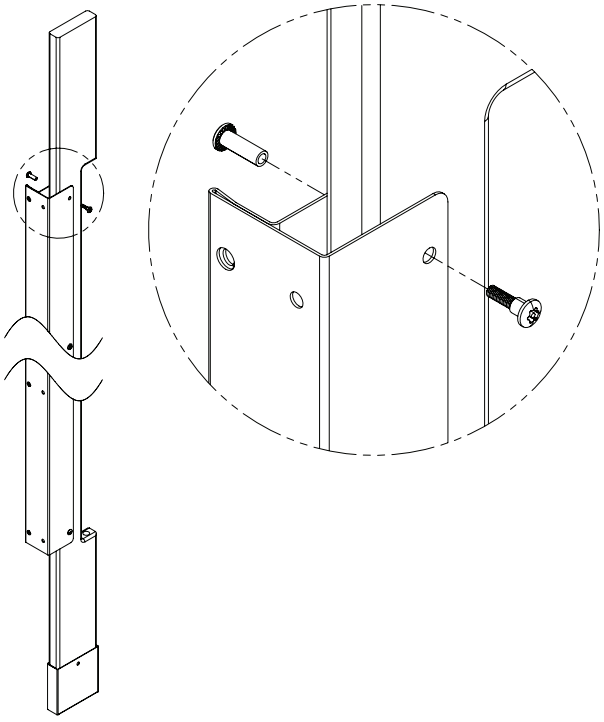
☑ *Check to make sure the pilasters are plumb and level to each other. The pilaster height can be adjusted with the leveling screw that was placed at the bottom of the pilaster (see page 5 for attaching leveling screw).*

Pilasters at Wall

☑ *When installing pilaster at walls, the gaps range from 1/2" to 1-1/4" (13mm to 32mm). Refer to your submittal drawing for your gap sizes.*

A Place the pilaster within the shoe while at the same time placing the pilaster within the wall bracket.

B Using the bracket as a template, drill Ø1/4" holes through the pilaster at each pilaster bracket hole. Secure the pilaster to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



Pilasters with Panels

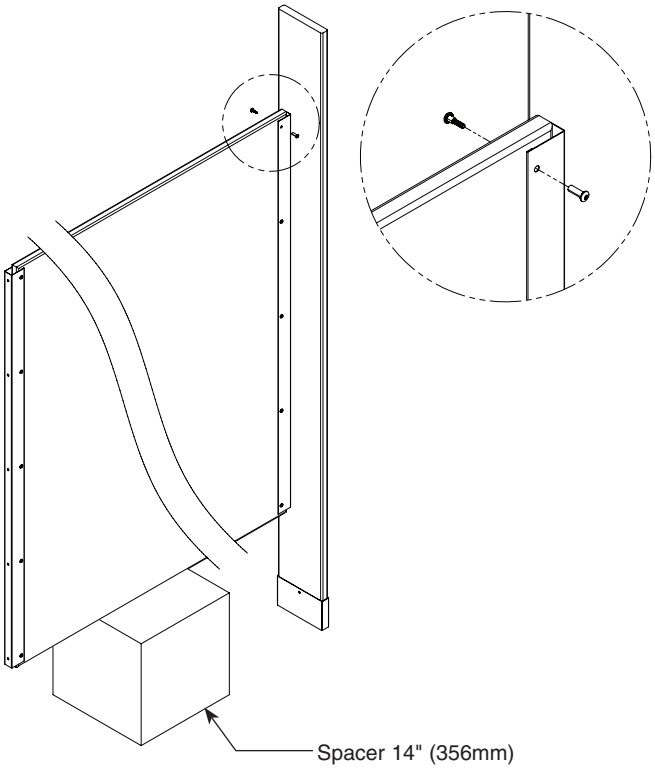
☑ *An aluminum heatsink is secured to one end of the panel to indicate the bottom.*

☑ *Refer to your submittal drawing and leave the appropriate gaps. Standard gap is 1" (25mm) between the panel and wall and 1/2" (13mm) between the panel and pilaster.*

A Orientate the panel so the heatsink is on the bottom. Place the panel on the spacer and insert the panel into the wall bracket.

B Place the pilaster within the shoe while at the same time placing the bracket around the panel.

C Using the bracket as a template, drill Ø1/4" holes through the panel at each panel bracket hole. Secure the panel to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



6a Pilasters and Panels with Aluminum Continuous Brackets (Optional)

☑ *Pilasters located at walls should be mounted first. Start at one end and install a panel, then a pilaster. Continue alternating until installation is complete. When installing in an alcove or in-corner, use an alcove bracket to secure the pilaster to the panel.*

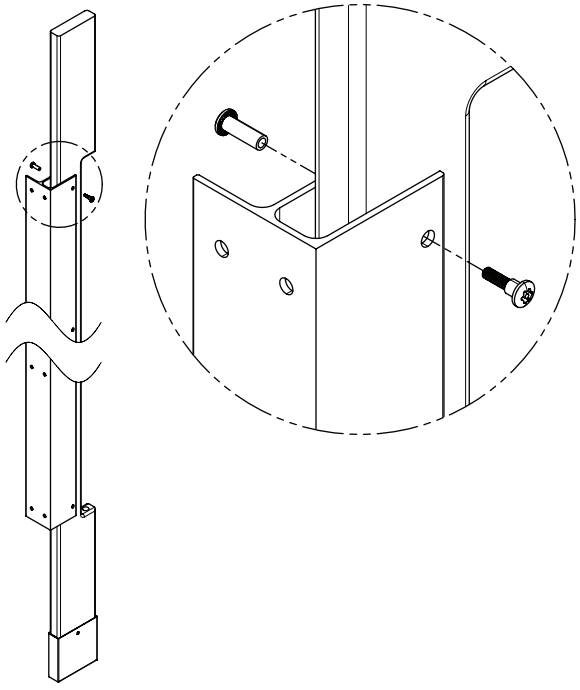
☑ *Check to make sure the pilasters are plumb and level to each other. The pilaster height can be adjusted with the leveling screw that was placed at the bottom of the pilaster (see page 5 for attaching leveling screw).*

Pilasters at Wall

☑ *When installing pilaster at walls, the gaps range from 1/2" to 1-1/4" (13mm to 32mm). Refer to your submittal drawing for your gap sizes.*

A Place the pilaster within the shoe while at the same time placing the pilaster within the wall bracket.

B Using the bracket as a template, drill Ø1/4" holes through the pilaster at each pilaster bracket hole. Secure the pilaster to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



Pilasters with Panels

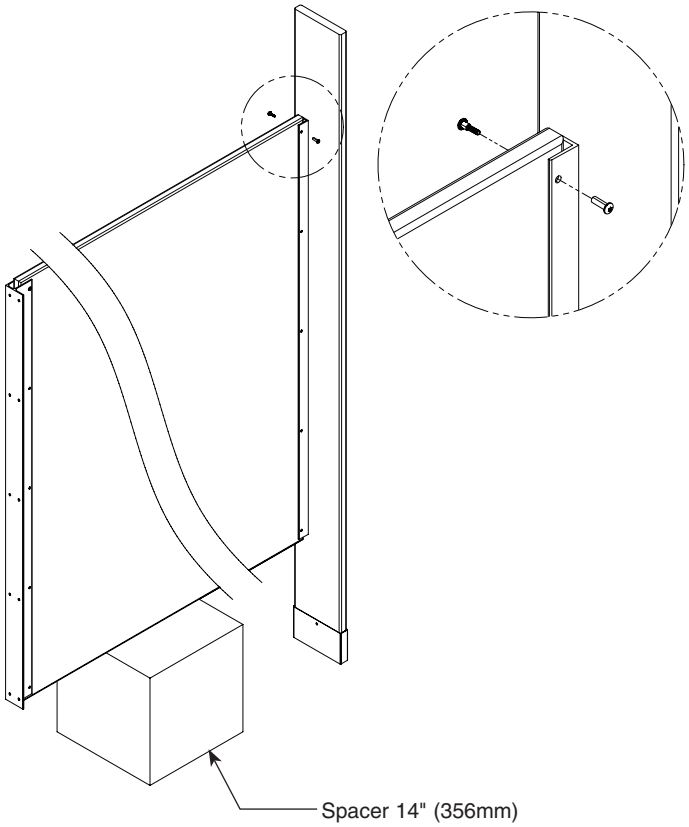
☑ *An aluminum heatsink is secured to one end of the panel to indicate the bottom.*

☑ *Refer to your submittal drawing and leave the appropriate gaps. Standard gap is 1" (25mm) between the panel and wall and 1/2" (13mm) between the panel and pilaster.*

A Orientate the panel so the heatsink is on the bottom. Place the panel on the spacer and insert the panel into the wall bracket.

B Place the pilaster within the shoe while at the same time placing the bracket around the panel.

C Using the bracket as a template, drill Ø1/4" holes through the panel at each panel bracket hole. Secure the panel to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



6b Pilasters and Panels with Stirrup Brackets (Optional)

☑ *Pilasters located at walls should be mounted first. Start at one end and install a panel, then a pilaster. Continue alternating until installation is complete. When installing in an alcove or in-corner, use an alcove bracket to secure the pilaster to the panel.*

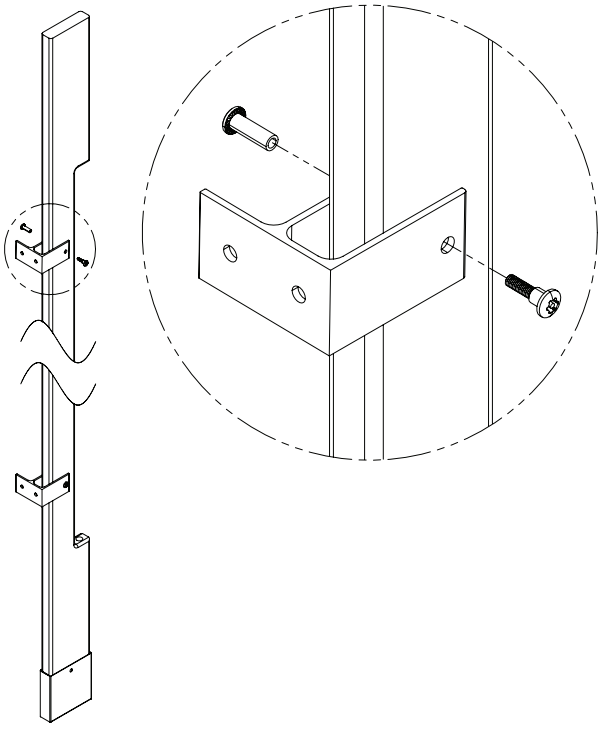
☑ *Check to make sure the pilasters are plumb and level to each other. The pilaster height can be adjusted with the leveling screw that was placed at the bottom of the pilaster (see page 5 for attaching leveling screw).*

Pilasters at Wall

☑ *When installing pilaster at walls, the gaps range from 1/2" to 1-1/4" (13mm to 32mm). Refer to your submittal drawing for your gap sizes.*

A Place the pilaster within the shoe while at the same time placing the pilaster within the wall brackets.

B Using the bracket as a template, drill Ø1/4" holes through the pilaster at each pilaster bracket hole. Secure the pilaster to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



Pilasters with Panels

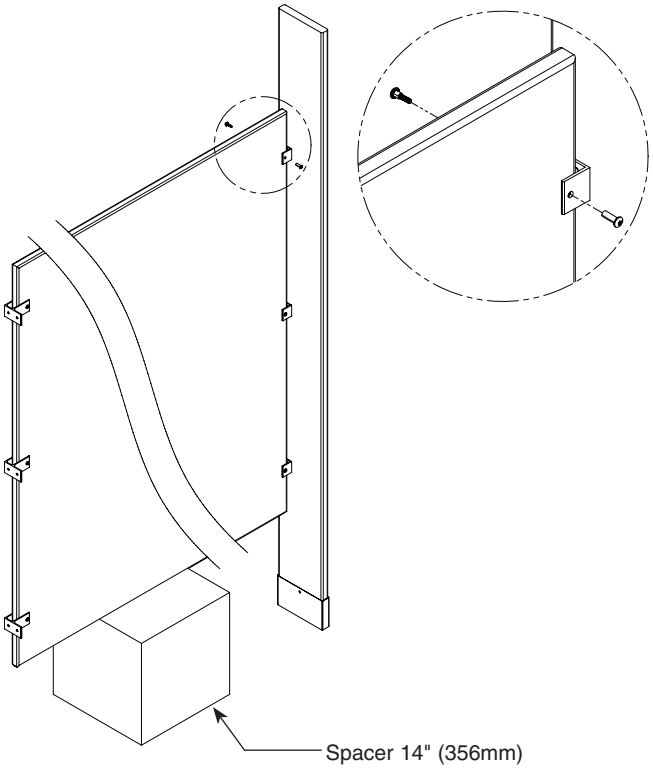
☑ *An aluminum heatsink is secured to one end of the panel to indicate the bottom.*

☑ *Refer to your submittal drawing and leave the appropriate gaps. Standard gap is 1" (25mm) between the panel and wall and 1/2" (13mm) between the panel and pilaster.*

A Orientate the panel so the heatsink is on the bottom. Place the panel on the spacer and insert the panel into the wall brackets.

B Place the pilaster within the shoe while at the same time placing the brackets around the panel.

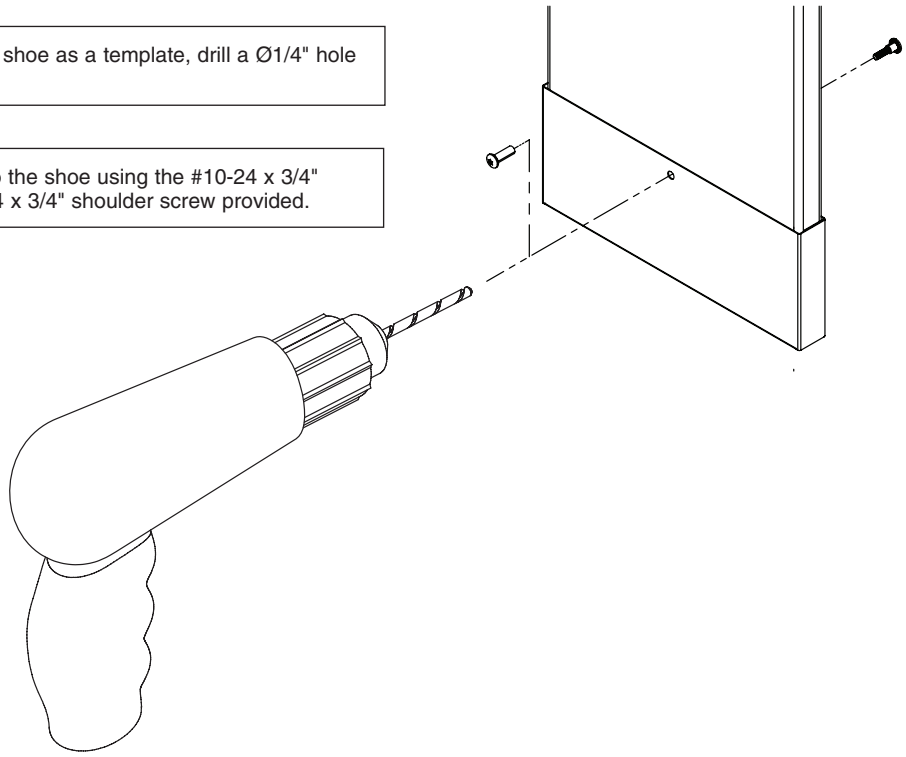
C Using the bracket as a template, drill Ø1/4" holes through the panel at each panel bracket hole. Secure the panel to the bracket using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.



7 Pilaster Shoes

A Using the hole in the shoe as a template, drill a Ø1/4" hole through the pilaster.

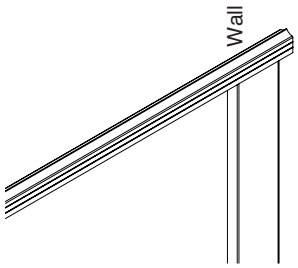
B Secure the pilaster to the shoe using the #10-24 x 3/4" barrel nut and #10-24 x 3/4" shoulder screw provided.



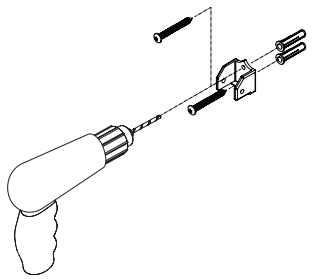
8 Headrail

- ☑ *Make sure the pilasters are plumb and that the pilaster has been secured to the shoe. Leave the appropriate door opening between the pilasters as shown on your submittal drawing.*
- ☑ *The illustrations on this page show mounting hardware and fasteners for a generic application. Refer to your submittals to determine your actual headrail configurations.*
- ☑ *Some headrail sections may need to be cut to an appropriate size. Refer to your submittals for general headrail placement.*
- ☑ *Headrail configurations that come to an intersection should meet over a pilaster (see completed headrail assembly view below).*

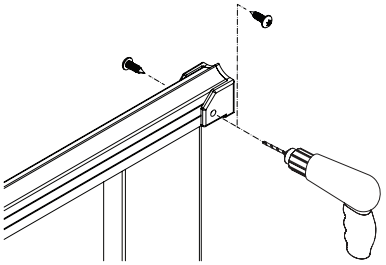
A Place headrail over the top of each pilaster located at the wall and slide it tight against the side wall. Mark the outline of the headrail on the wall and remove the headrail.



B Place the headrail bracket on the outline marked on the wall and mark the locations of the mounting holes. Remove bracket and drill (2) Ø5/16" holes at a minimum of 2" (51mm) deep. Prior to securing to the wall, enlarge the (2) back mounting holes of the bracket to Ø1/4". Secure the bracket to the wall with the #14 x 2" screws and plastic anchors provided.

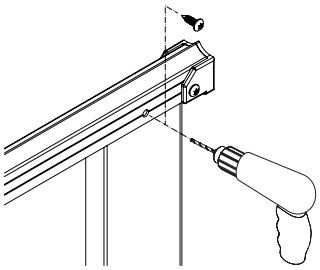


C Place headrail over the top of the pilasters and slide it tight into the mounting bracket. Use the mounting bracket as a template and drill a Ø7/32" hole through the headrail. Secure the headrail to the mounting bracket with the #10 x 5/8" screws provided.

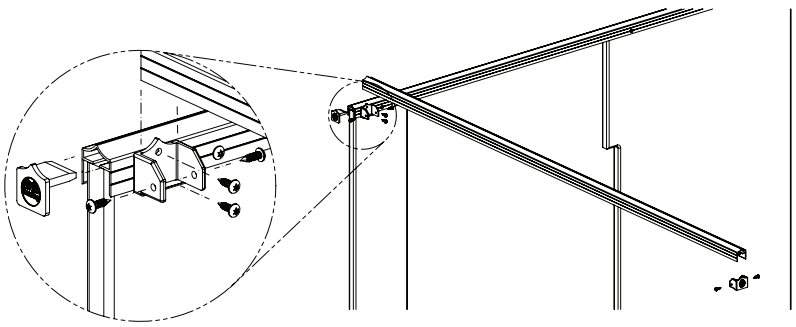


D Make sure the pilaster is plumb and that the spacing between the pilasters for the doors is the correct dimension. On the back of each pilaster (starting with the first pilaster), drill a Ø7/32" hole through one face of the headrail only.

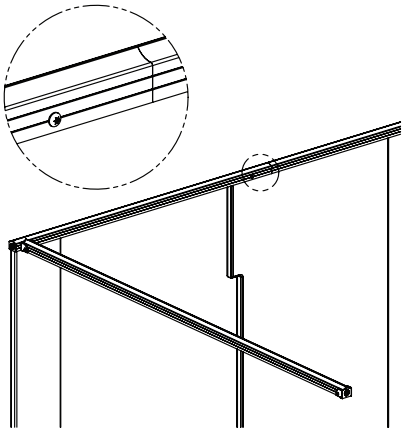
Using this hole as a template, drill a Ø1/8" pilot hole into the pilaster, 5/8" (16mm) deep. Secure the headrail to the back of each pilaster with the #10 x 5/8" screws provided.



E For open end applications, cut the headrail to the appropriate length (if required). Attach the bracket to the wall at the correct height (see step B). Attach another bracket to a pilaster with #10 x 5/8" screws at the correct height (see view below). The headrail should be level with any adjacent headrail and should be located directly over the panel. Position each headrail onto the brackets and secure with required fasteners (see Step C). Using a rubber mallet, install the headrail end cap.



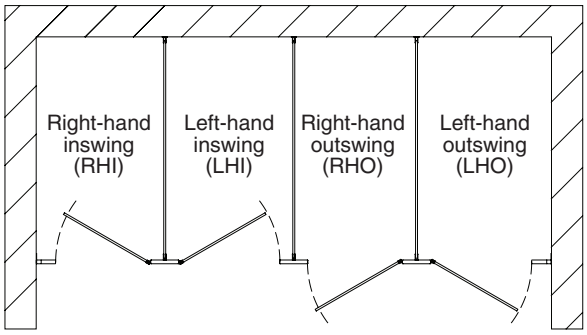
Completed Headrail Assembly



9 Integral Hinges (Standard)

☑ *Before installing the hinges, make sure the door openings are the appropriate size, all pilasters are plumb and secured to the shoe, and that the headrail is installed.*

☑ *Refer to your submittal drawings to determine each specific door swing for your application. The door swing is determined by facing the compartment from the outside. The image below can help determine the door swing type.*



☑ *An aluminum heatsink is secured to one end of the door to indicate the bottom.*

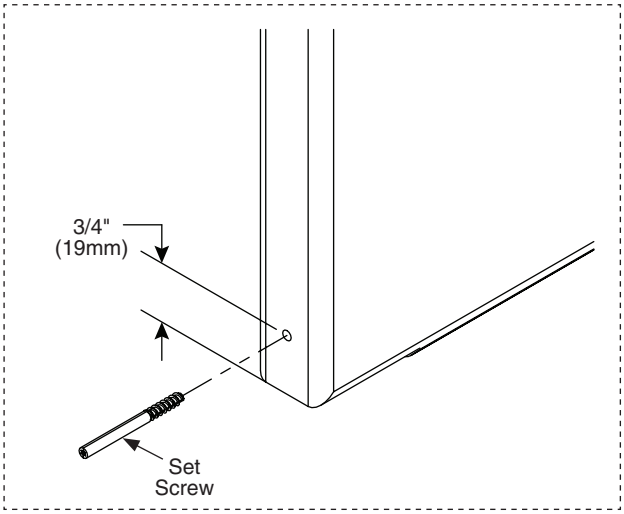
☑ *Top and bottom pintles are pre-lubricated for your convenience. Do not remove lubricant.*

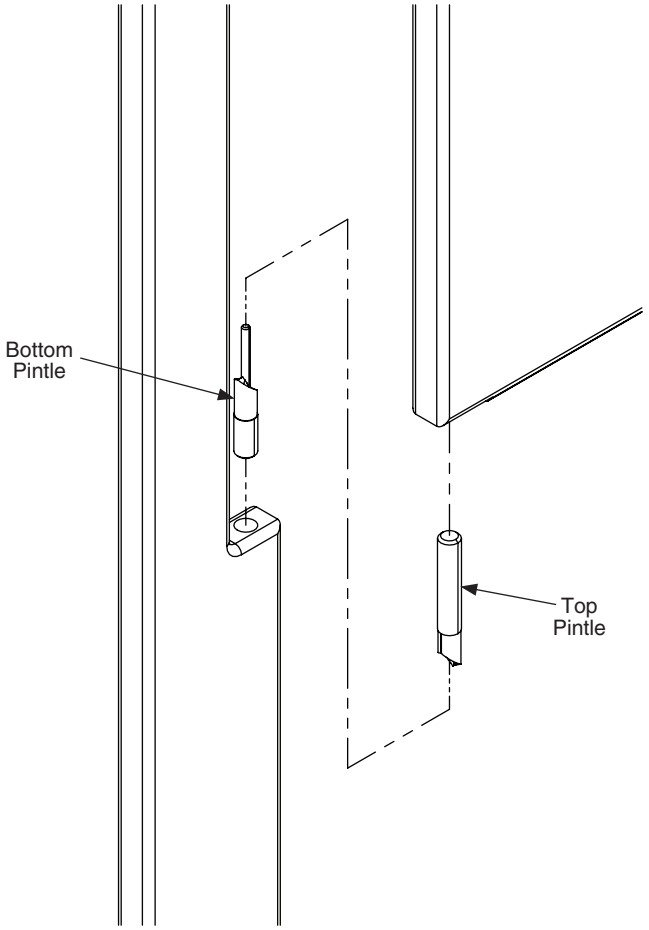
A Orientate the door so the heatsink is on the bottom. Place the top pintle into the pre-drilled hinge hole on the bottom of the door. Use the bottom pintle to push the top pintle into the door until it bottoms out.

B Measure approximately 3/4" (19mm) up from the bottom of the door and place a mark centered on the hinge side door edge.

C Drill a Ø1/8" pilot hole, at least 1-1/2" (38mm) deep (pilot hole should penetrate the top pintle within the door). Screw the set screw in flush with the door's surface.

D Insert the bottom pintle into the lower pre-drilled hinge hole on the pilaster. Place door onto the bottom pintle and rotate to engage the pintles.

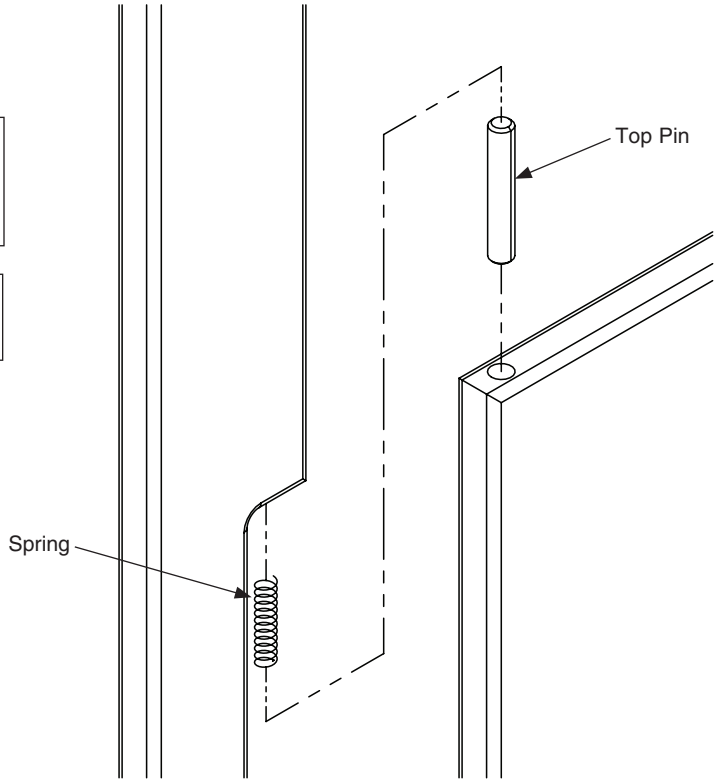




9 Integral Hinges - (Continued)

E Place the spring and top pin into the upper pre-drilled hinge hole on the pilaster. Push pin into the hinge hole while at the same time moving the door into position. Release the top pin and guide it into the top pre-drilled hinge hole on the door.

F Rotate the door to the desired "at rest" position. Push down on the door while maintaining the desired "at rest" position. (This sets the pintles in the bottom hinge).

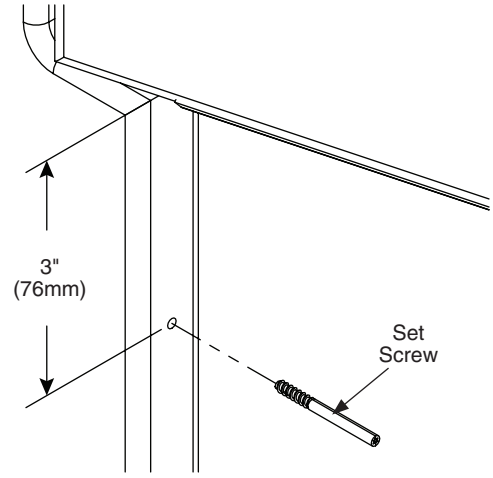


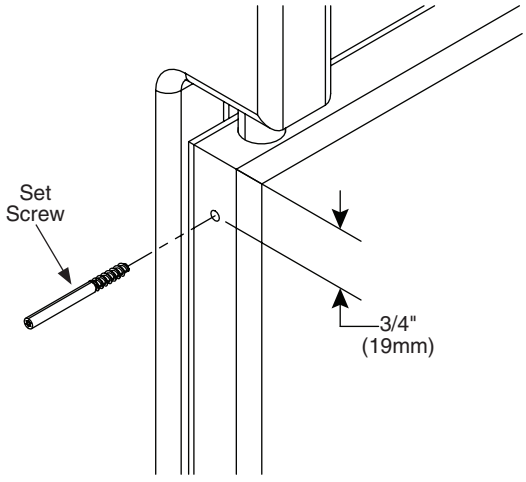
G With the door in the desired "at rest" position, measure approximately 3" (76mm) down from the pilaster cutout and place a mark centered on the pilaster edge.

H Drill a Ø1/8" pilot hole, at least 1-1/2" (38mm) deep (pilot hole should penetrate the bottom pintle within the pilaster). Screw the set screw in flush with the pilaster's surface.

I Measure approximately 3/4" (19mm) down from the top of the door and place a mark centered on the hinge side door edge.

J Drill a Ø1/8" pilot hole, at least 1-1/2" (38mm) deep (pilot hole should penetrate the top pin within the door). Screw the set screw in flush with the door's surface.



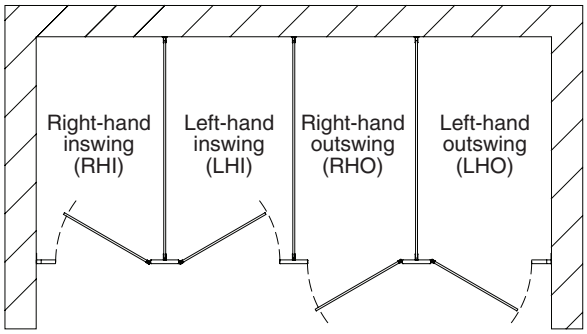


☑ *If the door is installed and pinned correctly, the door will "rise" slightly on the pintles as the door is opened.*

9a Integral Hinges - No-Site (Optional)

☑ *Before installing the hinges, make sure the door openings are the appropriate size, all pilasters are plumb and secured to the shoe, and that the headrail is installed.*

☑ *Refer to your submittal drawings to determine each specific door swing for your application. The door swing is determined by facing the compartment from the outside. The image below can help determine the door swing type.*



☑ *The door "lip" will be on the inside of a stall for inswing doors and on the outside for outswing doors.*

☑ *Prior to installation, no-site doors are interchangeable between inswing and outswing applications. An aluminum heatsink is provided loose and is required to be attached to the bottom of the door once door swing is determined.*

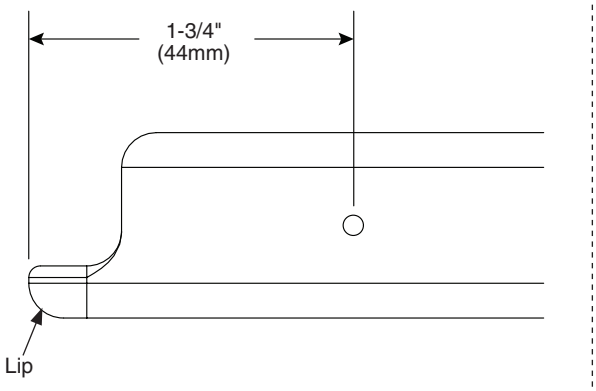
A Orientate the door so the door "lip" is in the required position for your application.

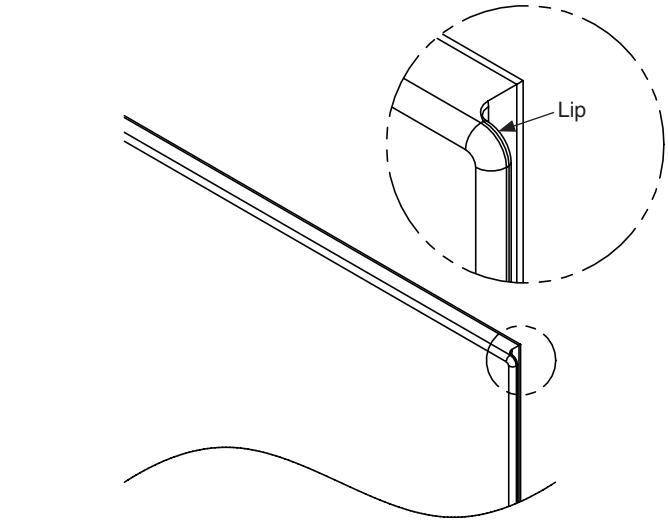
B Locate the bottom of the door. Measure 1-3/4" (44mm) from the edge of the lip and place a mark centered on the bottom door edge (see detail below).

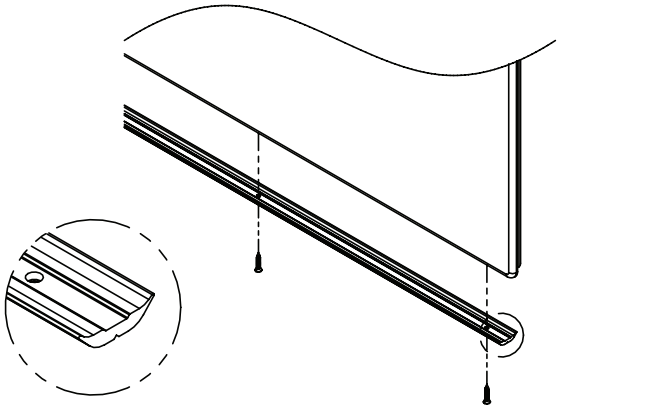
C Drill a Ø7/64" pilot hole, 3/4" (19mm) deep. Orientate and secure the first hole of the heatsink to the door using a #6 x 3/4" flat head screw provided.

D Center heatsink across door edge and using as a template, drill pilot holes for all remaining heatsink holes. Fully secure heatsink to door using the #6 x 3/4" flat head screws provided.

E Attach door to pilaster following Step 9, letters A thru J.



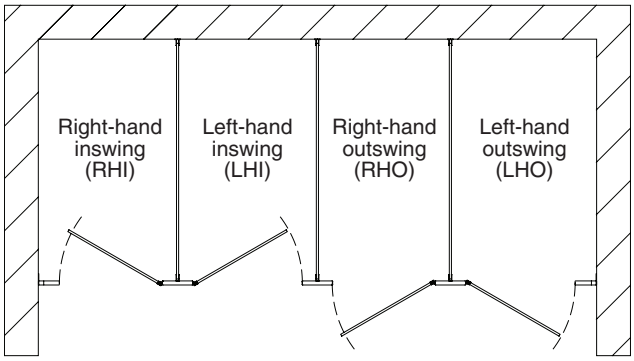




9b Continuous Spring-Loaded Piano Hinge - Stainless Steel (Optional)

☑ *Before installing the hinges, make sure the door openings are the appropriate size, all pilasters are plumb and secured to the shoe, and that the headrail is installed.*

☑ *Refer to your submittal drawings to determine each specific door swing for your application. The door swing is determined by facing the compartment from the outside. The image below can help determine the door swing type.*

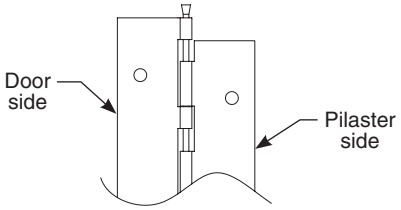


Continuous Piano Hinge

The part numbers listed are prefixes only and are used to identify the appropriate door kit based on your door swing as determined above. Inswinging doors should have hinges mounted on the inside of the stall while outswinging doors should have hinges mounted on the outside of the stall.

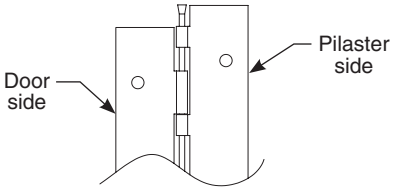
Part # Prefix HDWP-S0209

(left hand in, right hand out, knuckles facing front)



Part # Prefix HDWP-S0208

(right hand in, left hand out, knuckles facing front)



☑ *An aluminum heatsink is secured to one end of the door to indicate the bottom.*

A Orientate the door so the heatsink is on the bottom. Place on a 14" (356mm) spacer and set the door gaps. Standard hinge side gap is 3/16" (5mm).

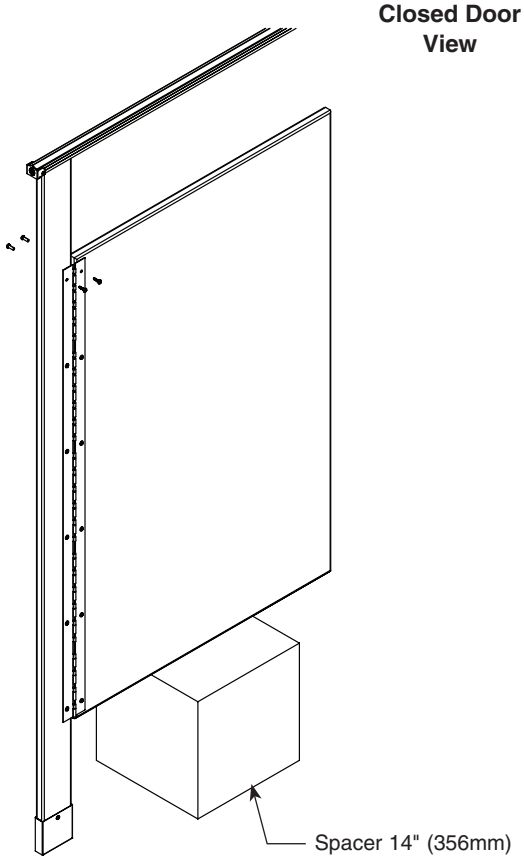
B Position the hinge so it is plumb and centered within the 3/16" (5mm) gap and centered top to bottom (approximately 1/2" (13mm) down from the top of the door).

C Using the hinge as a template, drill Ø1/4" holes through the door at the top and bottom holes. Secure the hinge to the door using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

D Check to make sure the hinge side gap is still at 3/16" (5mm). Using the hinge as a template, drill Ø1/4" holes through the pilaster at the top and bottom holes. Secure the hinge to the pilaster using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

E Drill Ø1/4" holes through the remaining hinge holes on the door and pilaster. Secure with the fasteners provided.

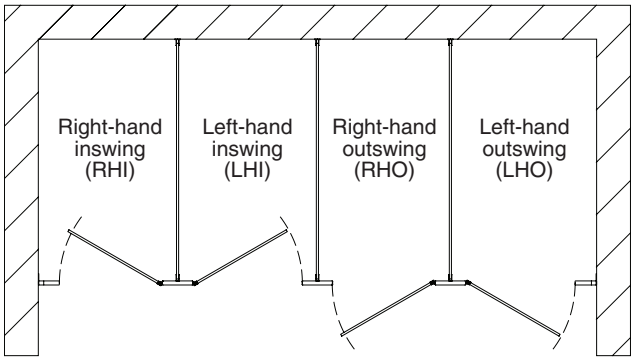
Closed Door View



9c Continuous Spring-Loaded Piano Hinge - Aluminum (Optional)

☑ *Before installing the hinges, make sure the door openings are the appropriate size, all pilasters are plumb and secured to the shoe, and that the headrail is installed.*

☑ *Refer to your submittal drawings to determine each specific door swing for your application. The door swing is determined by facing the compartment from the outside. The image below can help determine the door swing type.*

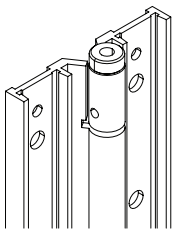


Continuous Piano Hinge

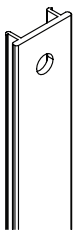
Consist of (3) parts: Hinge, Faceplate, and Roll Pin.

Inswinging doors should have hinges mounted on the inside of the stall while outswinging doors should have hinges mounted on the outside of the stall.

Hinge



Faceplate



Roll Pin

☑ *An aluminum heatsink is secured to one end of the door to indicate the bottom.*

A Orientate the door so the heatsink is on the bottom. Place on a 14" (356mm) spacer and set the door gaps. Standard hinge side gap is 3/16" (5mm).

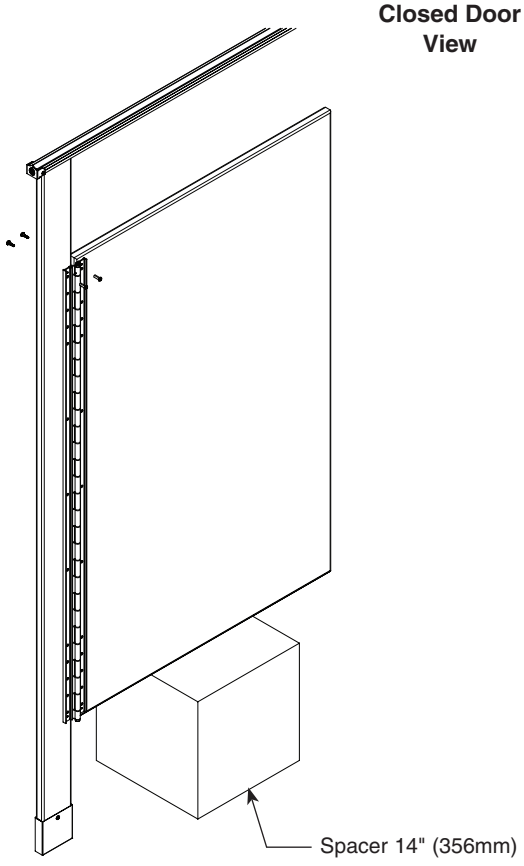
B Remove the snap-on faceplates and position the hinge so it is plumb and centered within the 3/16" (5mm) gap and centered top to bottom (approximately 1/2" (13mm) down from the top of the door).

C Using the hinge as a template, drill Ø1/4" holes through the door at the top and bottom holes. Secure the hinge to the door using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

D Check to make sure the hinge side gap is still at 3/16" (5mm). Using the hinge as a template, drill Ø1/4" holes through the pilaster at the top and bottom holes. Secure the hinge to the pilaster using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

E Drill Ø1/4" holes through the remaining hinge holes on the door and pilaster. Secure with the fasteners provided.

Closed Door View



9c Continuous Spring-Loaded Piano Hinge - Aluminum (Continued)

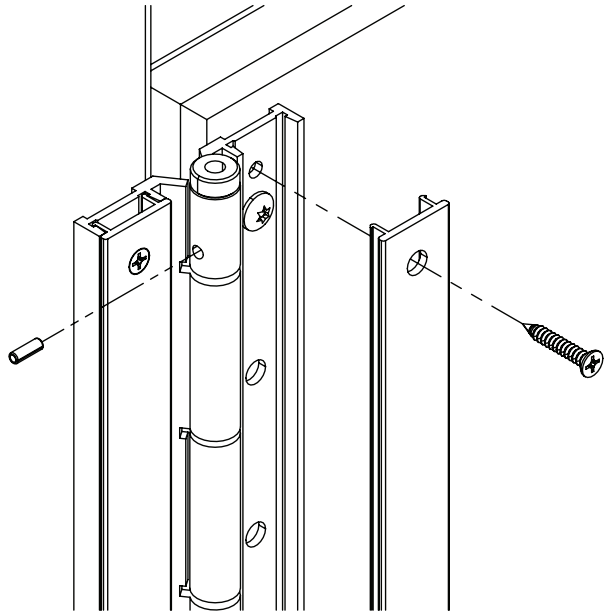
F Place and hold the snap-on faceplate squarely on one half of the hinge. Using a hammer and a soft wood block to protect the finish, firmly tap the faceplate. Start at the top and work downward until the entire length of the faceplate is firmly engaged. Repeat for the additional faceplate.

G Using the faceplates as a template, drill Ø3/32" pilot holes, 3/4" (19mm) deep at each hole location. Secure faceplates to the hinge using the #8 x 1" flat head screws provided.

H To adjust the hinge spring tension, use a T-27 torx bit and turn the torx head clockwise approximately one complete revolution. Insert a 1-1/2" (38mm) long nail into the hole through the hinge pin (the hinge pin has a hole in two directions, allowing for adjustments every 1/4 turn).

I Check the swing of the door. If the desired closure speed is achieved, continue to Step J; otherwise, remove the nail and turn the torx head another 1/4 turn. Replace nail and check again. Continue this process until desired closure speed is achieved.

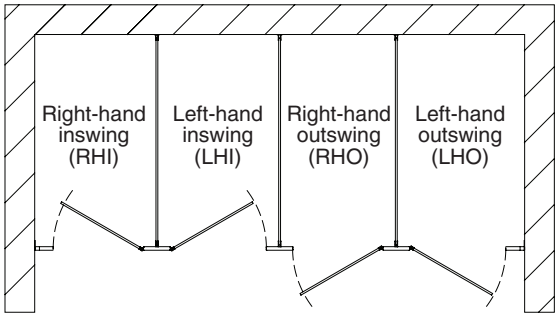
J When desired closure speed is achieved, hold the torx head in place while at the same time removing the nail and inserting the roll pin. Tap the roll pin into place with a nail set until 1/8" (3mm) remains out from the hinge.



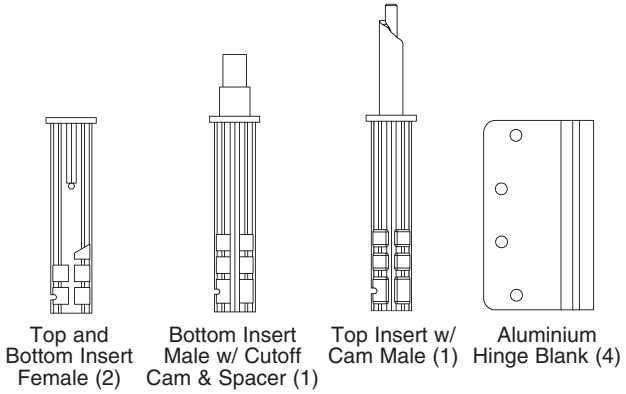
9d Aluminum Wraparound Hinge (Optional)

☑ *Before installing the hinges, make sure the door openings are the appropriate size, all pilasters are plumb and secured to the shoe, and that the headrail is installed.*

☑ *Refer to your submittal drawings to determine each specific door swing for your application. The door swing is determined by facing the compartment from the outside. The image below can help determine the door swing type.*

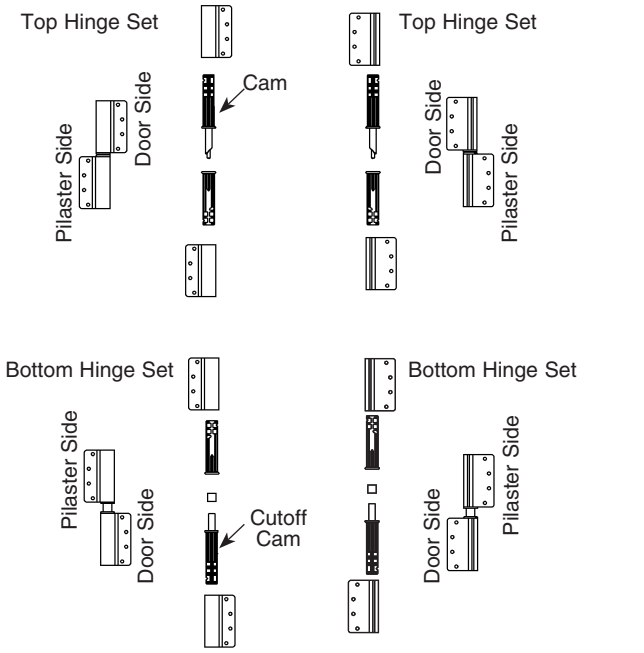


A Separate the hinge components and ensure all parts are included as shown.



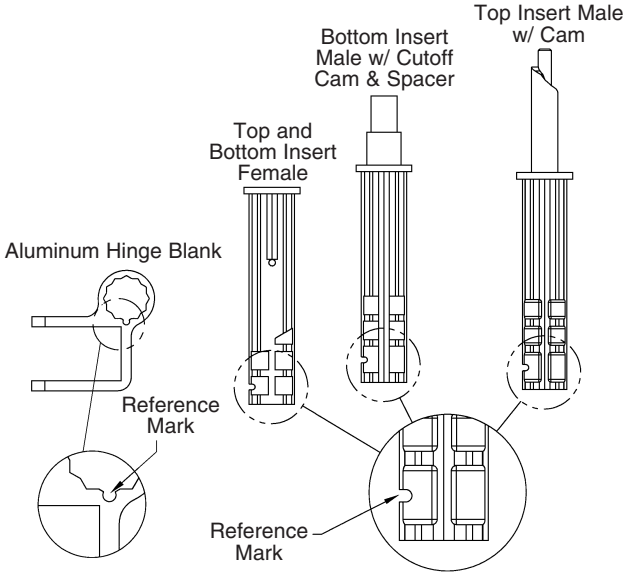
B Find the hinge assembly that coincides with the door swing. Arrange the hinge sets as shown.

Left In and Right Out Assembly **Right In and Left Out Assembly**

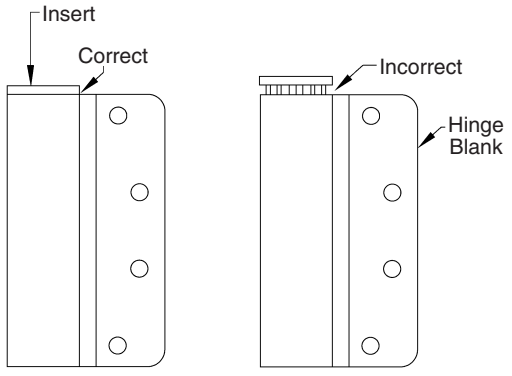


C Align the reference marks of the inserts and hinge blanks as shown.

☑ *Hinge blanks and inserts have reference marks that are used in setting the hinge position. The top hinge contains the cam and the bottom hinge has the cutoff cam with spacer.*



D Assemble inserts into the hinge blanks making sure the insert collar fits tightly against each of the hinge blanks.



9d Aluminum Wraparound Hinge (Continued)

E Determine and set the "at rest" position of the door by adjusting the position of the top male insert within the hinge blank (see detail below).

F Orientate the door so the heatsink is on the bottom. Position the upper hinge blank of the top hinge set so that it is 2" (51mm) from the top of the door. Using the hinge as a template, drill a Ø3/32" pilot hole, 1" (25mm) deep into the door edge. Secure the hinge to the door using the #8 x 1" screw provided.

Repeat for the lower hinge blank of the bottom hinge set, except the hinge should be positioned 2" (51mm) from the bottom of the door.

G Using both hinges as a template, drill Ø1/4" holes through the door for all hinge holes. Secure the hinge to the door using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

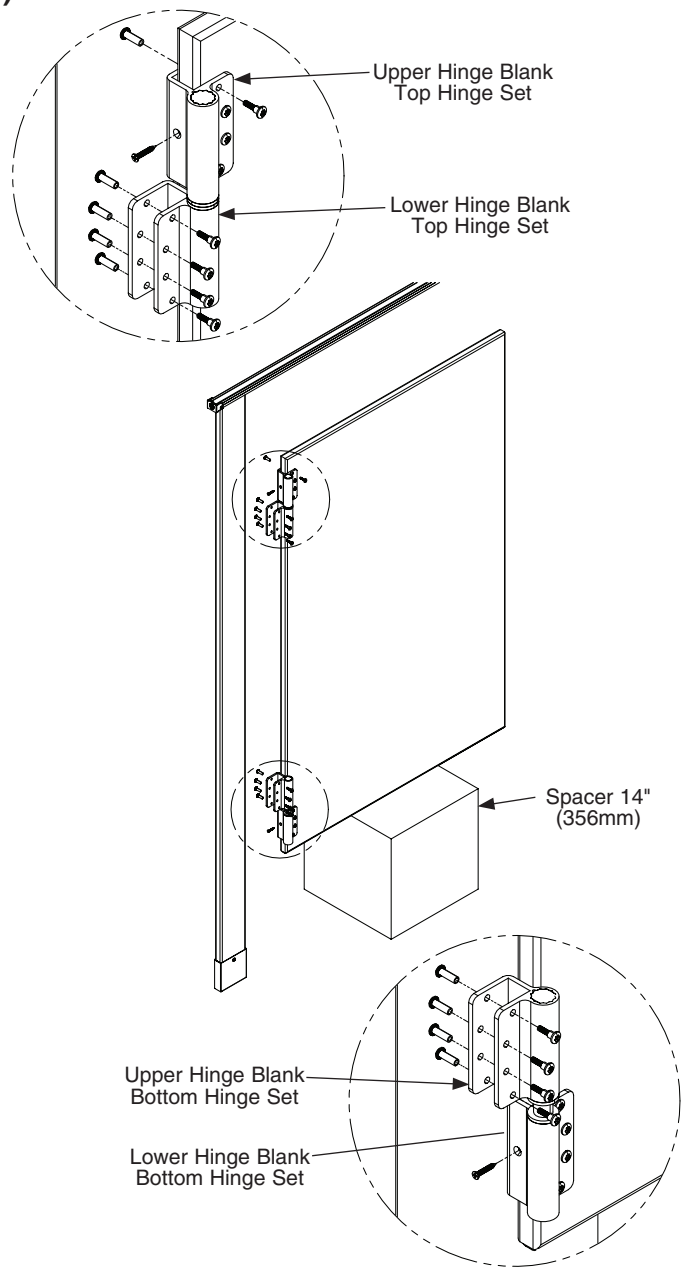
H Place the included cardboard spacer on the male insert of the bottom hinge set. Assemble and position on the door the missing halfs of both hinge sets. Use a piece of tape to hold the hinge sets together.

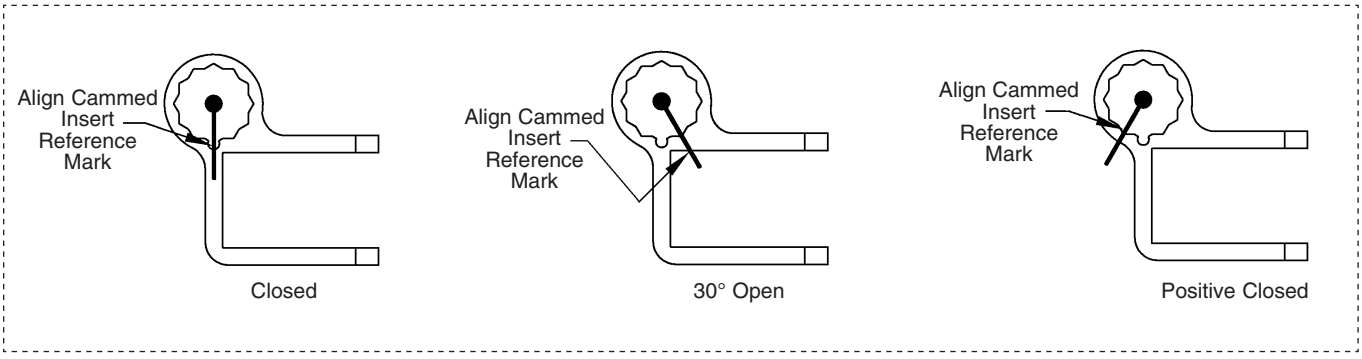
☑ *Make sure both hinge sets are fully engaged with each other. The cardboard spacer will set the needed knuckle gap for the cam to function properly.*

I Place door on a 14" (356mm) spacer and slide into position. Make sure both hinge blanks slip around the pilaster and are tight against the pilaster edge.

J Using both hinges as a template, drill Ø1/4" holes through the pilaster for all hinge holes. Secure the hinge to the pilaster using the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

K Remove tape and cardboard spacer from the hinge sets.

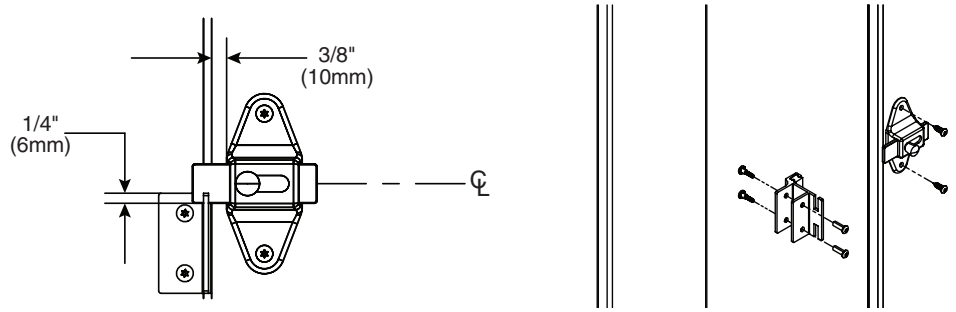




10 Door Hardware for Inswing Doors - Stainless

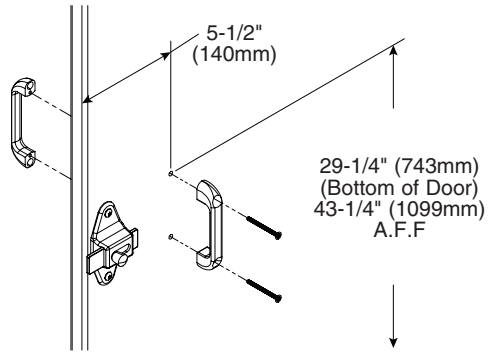
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

A Position latch centered top to bottom and with the leading edge 3/8" (10mm) from the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.

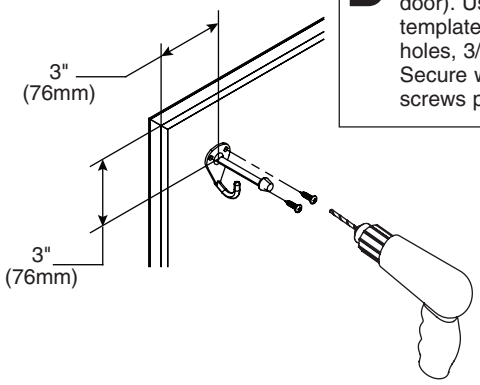


B With the door in the closed position, place the strike/keeper on the pilaster and align the top so it is 1/4" (6mm) above the bottom of the latch slide bar. Using the strike/keeper as a template, mark the hole locations and drill Ø1/4" holes through the pilaster. Secure the strike/keeper to the pilaster with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

C For 32" - 36" doors, mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.

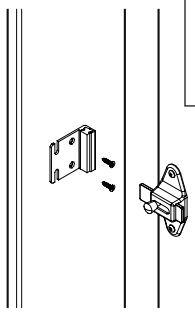


D Place the coat hook 3" (76mm) down from the top and 3" (76mm) from the latch side of the door (hook goes on the inside face of the door). Using the hook as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.



Flat Strike/Keeper

E With the door in the closed position, place flat strike/keeper so the latch slide bar fits within the top notch.

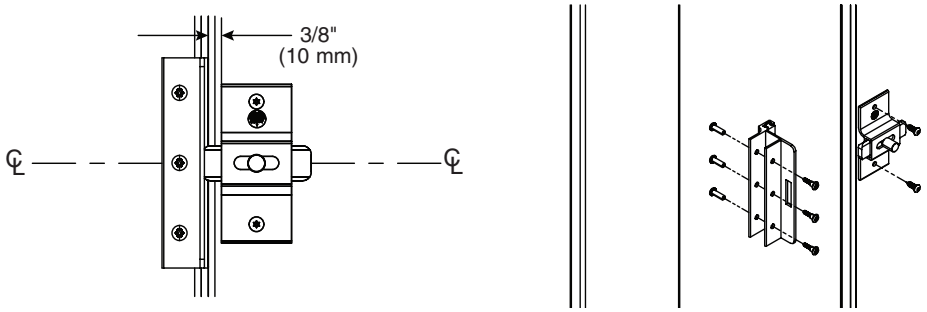


F Using the flat strike/keeper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure the flat strike/keeper to the pilaster using the #10 x 3/4" flat head screws provided.

10a Door Hardware for Inswing Doors - Aluminum

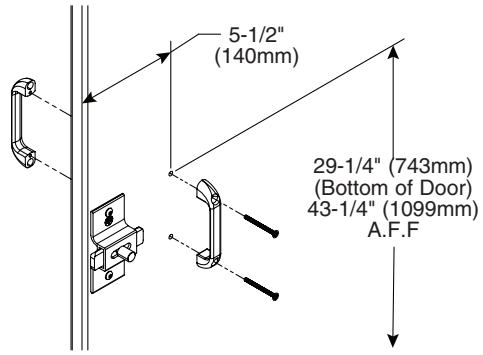
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

A Position latch centered top to bottom and with the leading edge 3/8" (10mm) from the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.

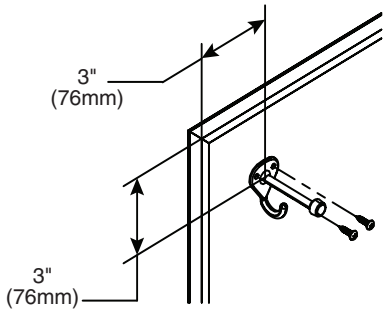


B With the door in the closed position, place the strike/keeper on the pilaster and align the slot so it is centered around the latch slide bar. Using the strike/keeper as a template, mark the hole locations and drill Ø1/4" holes through the pilaster. Secure the strike/keeper to the pilaster with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

C For 32" - 36" doors, mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.



D Place coat hook 3" (76mm) down from the top and 3" (76mm) from the latch side of the door (hook goes on the inside face of the door). Using the hook as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.

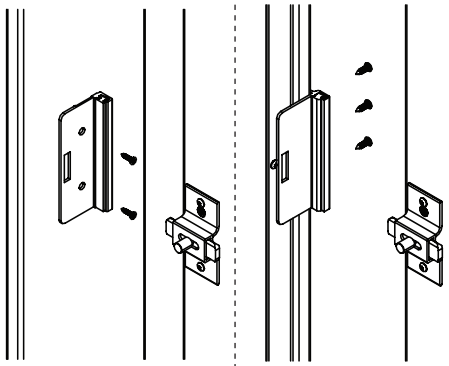


E With the door in the closed position, place flat strike/keeper on the pilaster and align the slot so it is centered around the latch slide bar.

F **Flat Strike/Keeper:** Using the flat strike/keeper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure the flat strike/keeper to the pilaster using the #10 x 3/4" flat head screws provided.

1-Ear Strike/Keeper: Using the 1-ear strike/keeper as a template, drill (3) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure the 1-ear strike/keeper to the pilaster using the #14 x 3/4" screws provided.

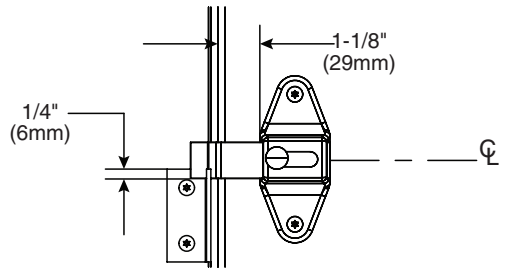
Flat Strike/Keeper **1-Ear Strike/Keeper**

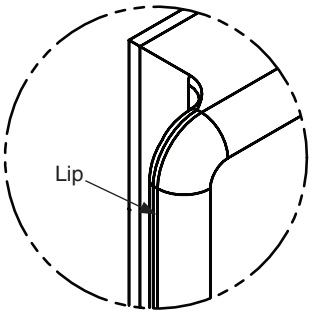


10b Door Hardware for No-Site Inswing Doors - Stainless

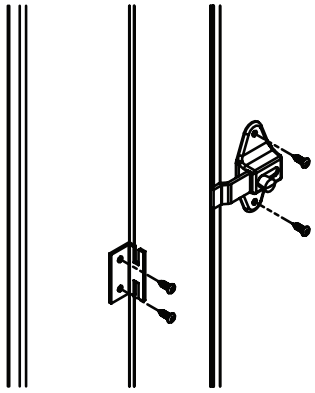
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

A Position latch centered top to bottom and with the leading edge 1-1/8" (29mm) from the "lip" of the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.

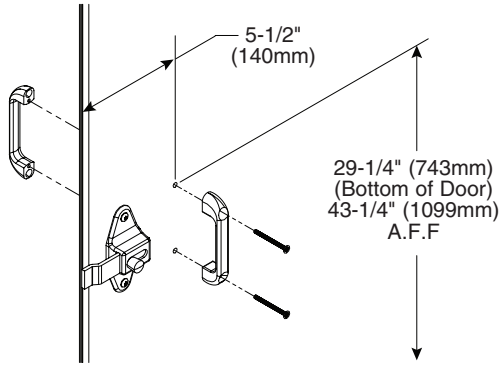


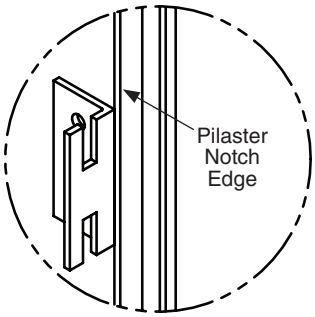


B With the door in the closed position, place the strike/keeper on the pilaster so the top edge is 1/4" (6mm) above the bottom of the latch slide bar and the leading edge is lined up with the edge of the pilaster notch (approximately 5/8" [16mm] from the side of the pilaster). Using the strike/keeper as a template, mark the hole locations and drill Ø7/32 pilot holes, 3/4" (19mm) deep. Secure the strike/keeper to the pilaster with the #14 x 3/4" screws provided.

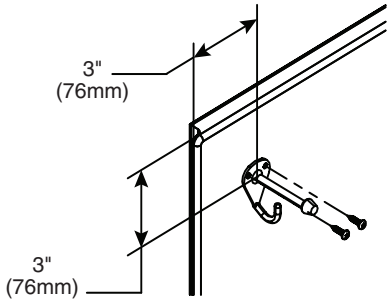


C For 32" - 36" doors, mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the "lip" of the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.





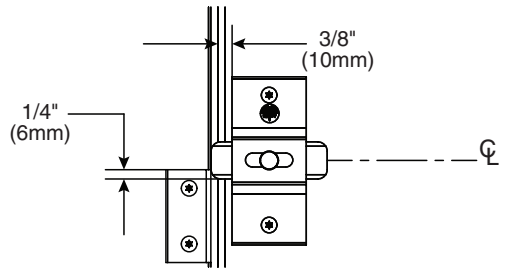
D Place the coat hook 3" (76mm) down from the top and 3" (76mm) from the "lip" of the door edge (hook goes on the inside face of the door). Using the hook as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.

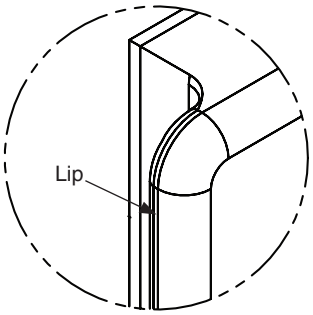


10c Door Hardware for No-Site Inswing Doors - Aluminum

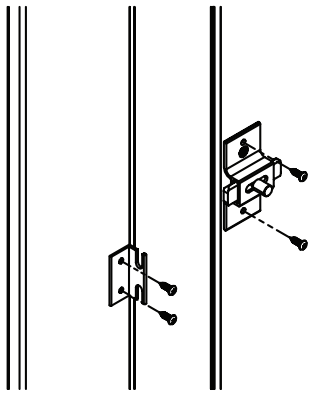
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

A Position latch centered top to bottom and with the leading edge 3/8" (10mm) from the "lip" of the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.

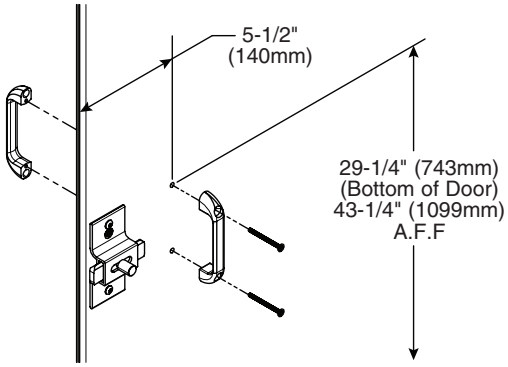


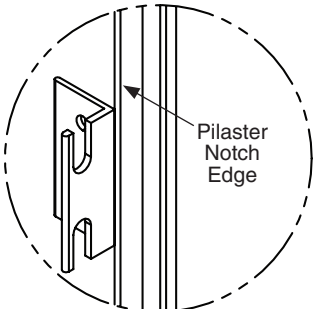


B With the door in the closed position, place the strike/keeper on the pilaster so the top edge is 1/4" (6mm) above the bottom of the latch slide bar and the leading edge is lined up with the edge of the pilaster notch (approximately 5/8" [16mm] from the side of the pilaster). Using the strike/keeper as a template, mark the hole locations and drill Ø7/32 pilot holes, 3/4" (19mm) deep. Secure the strike/keeper to the pilaster with the #14 x 3/4" screws provided.

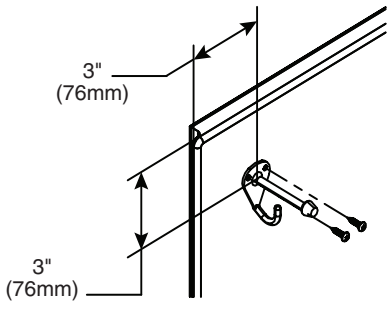


C For 32" - 36" doors, mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the "lip" of the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.





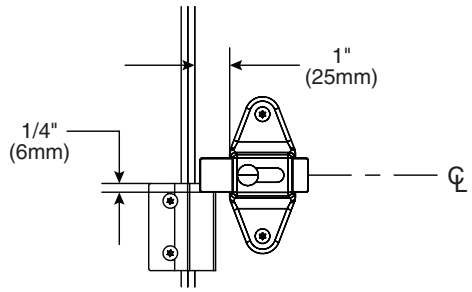
D Place the coat hook 3" (76mm) down from the top and 3" (76mm) from the "lip" of the door edge (hook goes on the inside face of the door). Using the hook as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.

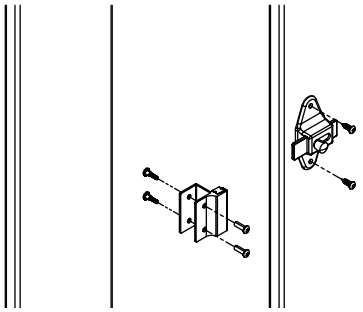


10d Door Hardware for Outswing Doors - Stainless

Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

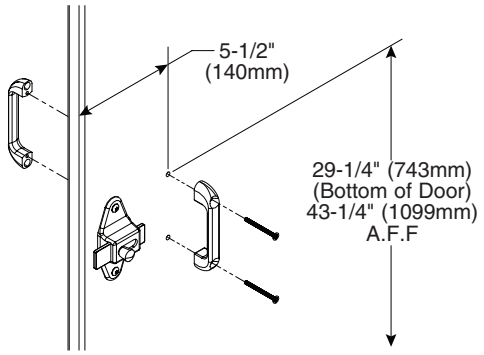
A Position latch centered top to bottom and with the leading edge 1" (25mm) from the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.



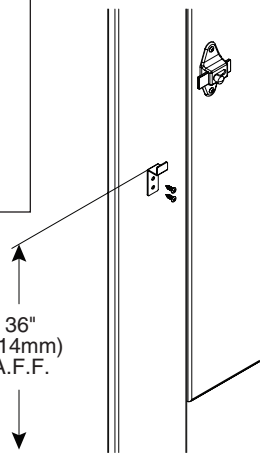


B With the door in the closed position, place the strike/keeper on the pilaster and align the top so it is 1/4" (6mm) above the bottom of the latch slide bar. Using the strike/keeper as a template, mark the hole locations and drill Ø1/4" holes through the pilaster. Secure the strike/keeper to the pilaster with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

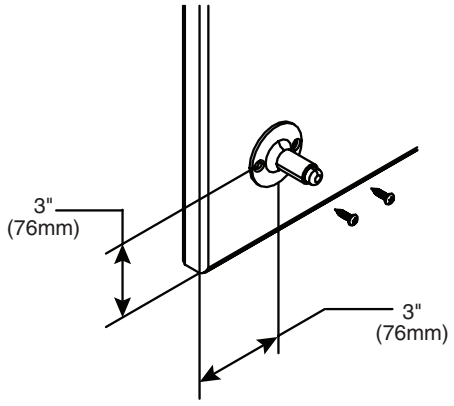
C Mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.



D Position the coat hook 36" (914mm) above finished floor (hook goes on the inside of compartment). Using the hook as a template, drill (2) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure with the #14 x 3/4" screws provided.



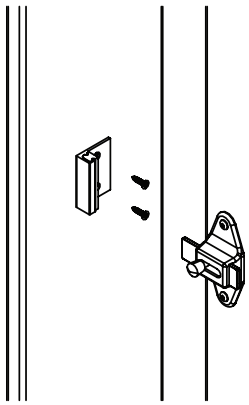
E Place wall bumper 3" (76mm) up from the bottom and 3" (76mm) from the latch side of the door (bumper goes on the outside face of the door). Using the bumper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.



Flat Strike/Keeper

F With the door in the closed position, place the flat strike/keeper on the pilaster and align the top so it is 1/4" (6mm) above the bottom of the latch slide bar.

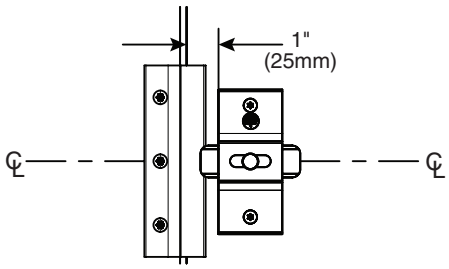
G Using the flat strike/keeper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure the flat strike/keeper to the pilaster using the #10 x 3/4" flat head screws provided.

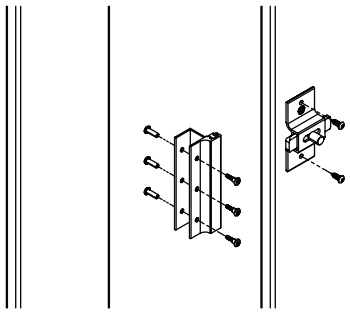


10e Door Hardware for Outswing Doors - Aluminum

Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

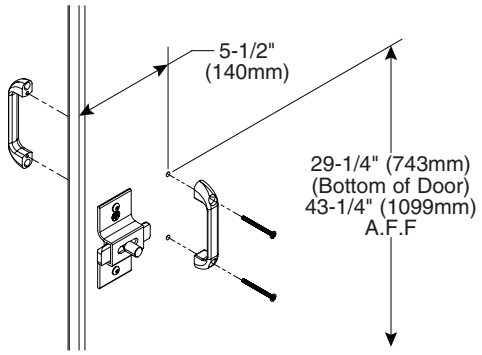
A Position latch centered top to bottom and with the leading edge 1" (25mm) from the door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.



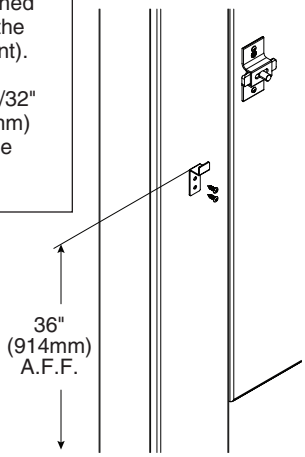


B With the door in the closed position, place the strike/keeper on the pilaster so it is centered on the latch slide bar. Using the strike/keeper as a template, mark the hole locations and drill Ø1/4" holes through the pilaster. Secure the strike/keeper to the pilaster with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

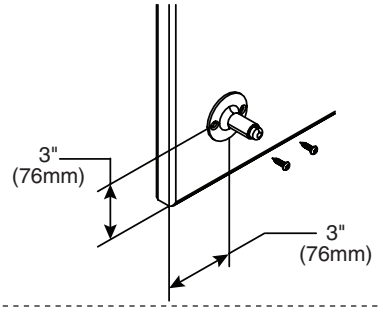
C Mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.



D Position the coat hook 36" (914mm) above finished floor (hook goes on the inside of compartment). Using the hook as a template, drill (2) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure with the #14 x 3/4" screws provided.



E Place wall bumper 3" (76mm) up from the bottom and 3" (76mm) from the latch side of the door (bumper goes on the outside face of the door). Using the bumper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.

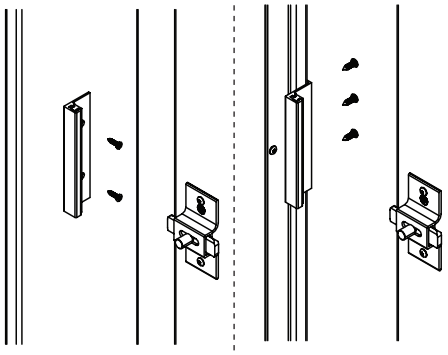


F With the door in the closed position, place flat strike/keeper so it is centered on the latch slide bar.

G **Flat Strike/Keeper:** Using the flat strike/keeper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure the flat strike/keeper to the pilaster using the #10 x 3/4" flat head screws provided.

1-Ear Strike/Keeper: Using the 1-ear strike/keeper as a template, drill (3) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure the 1-ear strike/keeper to the pilaster using the #14 x 3/4" screws provided.

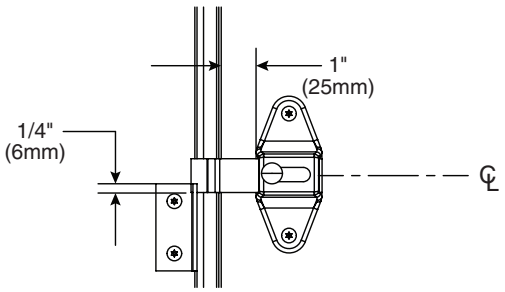
Flat Strike/Keeper **1-Ear Strike/Keeper**

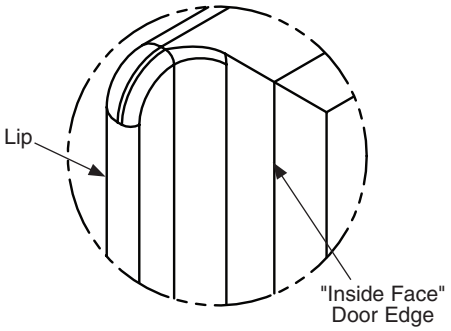


10f Door Hardware for No-Site Outswing Doors - Stainless

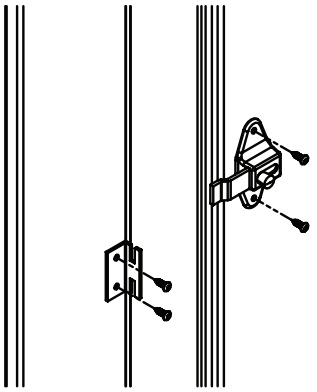
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

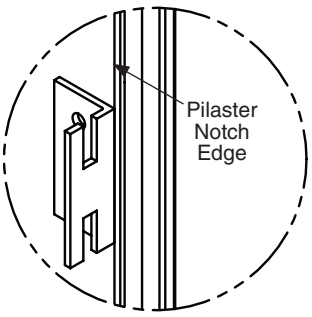
A Position latch centered top to bottom and with the leading edge 1" (25mm) from the "inside face" door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.



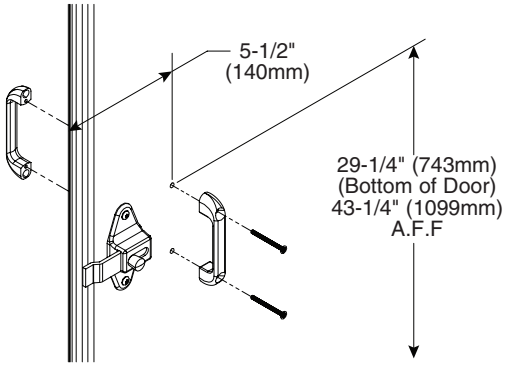


B With the door in the closed position, place the strike/keeper on the pilaster so the top edge is 1/4" (6mm) above the bottom of the latch slide bar and the leading edge is lined up with the edge of the pilaster notch (approximately 5/8" [16mm] from the side of the pilaster). Using the strike/keeper as a template, mark the hole locations and drill Ø7/32 pilot holes, 3/4" (19mm) deep. Secure the strike/keeper to the pilaster with the #14 x 3/4" screws provided.

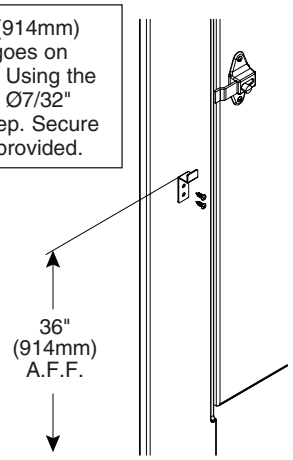




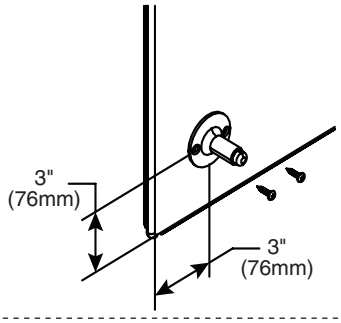
C Mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the "lip" of the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.



D Position the coat hook 36" (914mm) above finished floor (hook goes on the inside of compartment). Using the hook as a template, drill (2) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure with the #14 x 3/4" screws provided.



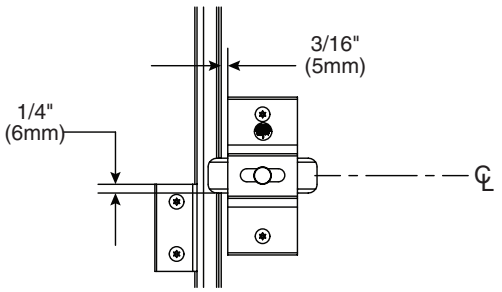
E Place wall bumper 3" (76mm) up from the bottom and 3" (76mm) from the "lip" of the door edge (bumper goes on the outside face of the door). Using the bumper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.

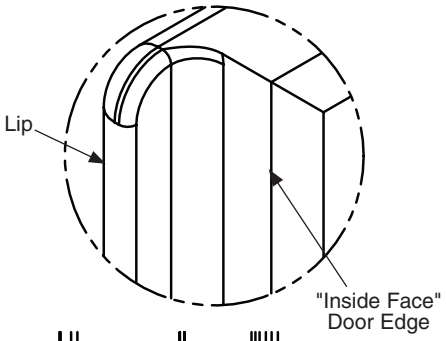


10g Door Hardware for No-Site Outswing Doors - Aluminum

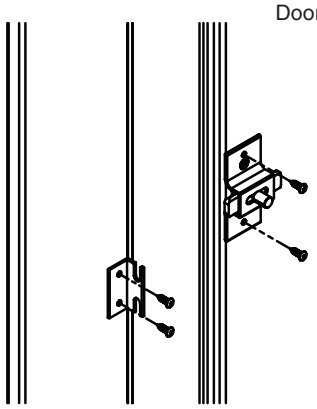
Local codes vary from state to state. Check your local codes before installing the coat hook and door pulls.

A Position latch centered top to bottom and with the leading edge 3/16" (5mm) from the "inside face" door edge. Using the latch as a template, mark the hole locations and drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure latch to door with the #14 x 3/4" screws provided.

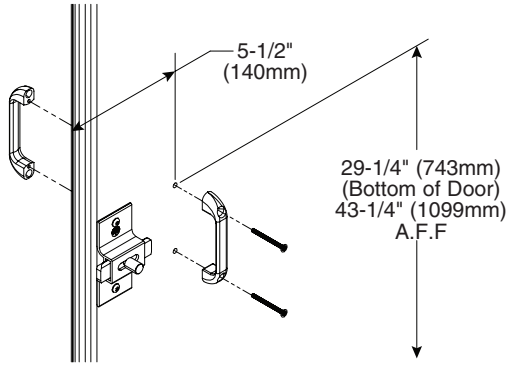


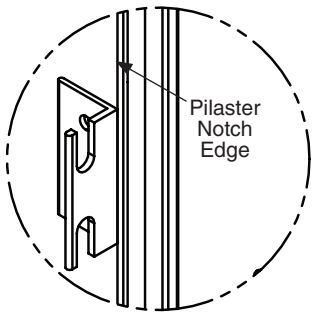


B With the door in the closed position, place the strike/keeper on the pilaster so the top edge is 1/4" (6mm) above the bottom of the latch slide bar and the leading edge is lined up with the edge of the pilaster notch (approximately 5/8" [16mm] from the side of the pilaster). Using the strike/keeper as a template, mark the hole locations and drill Ø7/32 pilot holes, 3/4" (19mm) deep. Secure the strike/keeper to the pilaster with the #14 x 3/4" screws provided.

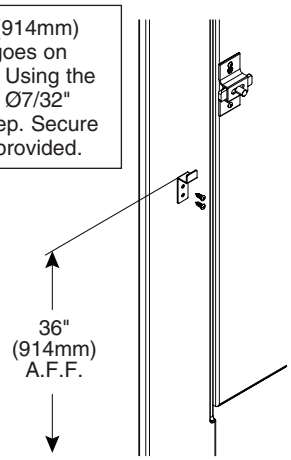


C Mark the location for the top hole on the inside face of the door 29-1/4" (743mm) up from the bottom of 55" tall doors (43-1/4" [1099mm] above finished floor) and 5-1/2" (140mm) from the "lip" of the door edge. Drill (2) Ø1/4" holes (spaced 3-1/2" [89mm] apart) through the door and secure the door pulls to the door as shown with the #10-24 x 2" flat machine screws provided.

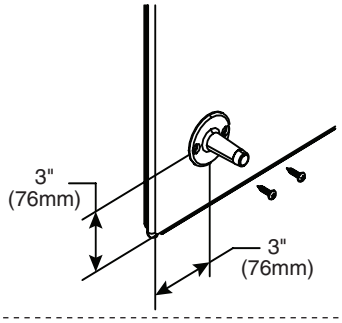




D Position the coat hook 36" (914mm) above finished floor (hook goes on the inside of compartment). Using the hook as a template, drill (2) Ø7/32" pilot holes, 3/4" (19mm) deep. Secure with the #14 x 3/4" screws provided.



E Place wall bumper 3" (76mm) up from the bottom and 3" (76mm) from the "lip" of the door edge (bumper goes on the outside face of the door). Using the bumper as a template, drill (2) Ø5/32" pilot holes, 3/4" (19mm) deep. Secure with the #10 x 3/4" screws provided.



11 Stiffener Bracket

☑ *A stiffener bracket is required for all pilasters 16" and larger.*

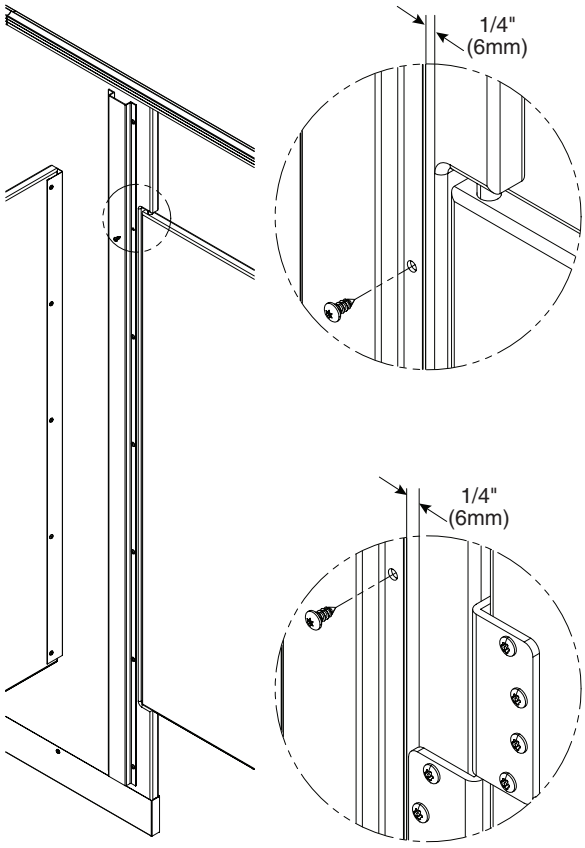
☑ *The stiffener bracket is installed on the largest side of a pilaster split.*

Stiffener at Door Hinge

A Position stiffener bracket on pilaster so the bracket edge is 1/4" (6mm) from the integral hinge cutout and centered top to bottom.

☑ *For wraparound and continuous hinges, position 1/4" (6mm) from the hinge edge.*

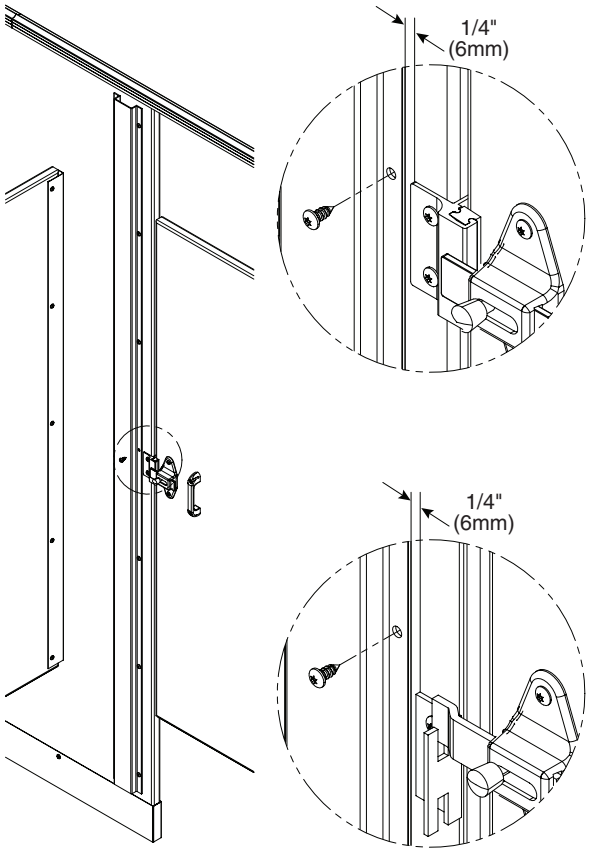
B Using the bracket as a template, drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure the bracket to the pilaster with the #14 x 5/8" screws provided.



Stiffener at Door Strike

A Position stiffener bracket on pilaster so the bracket edge is 1/4" (6mm) from the strike/keeper and centered top to bottom.

B Using the bracket as a template, drill Ø7/32" pilot holes, 3/4" (19mm) deep. Secure the bracket to the pilaster with the #14 x 5/8" screws provided.



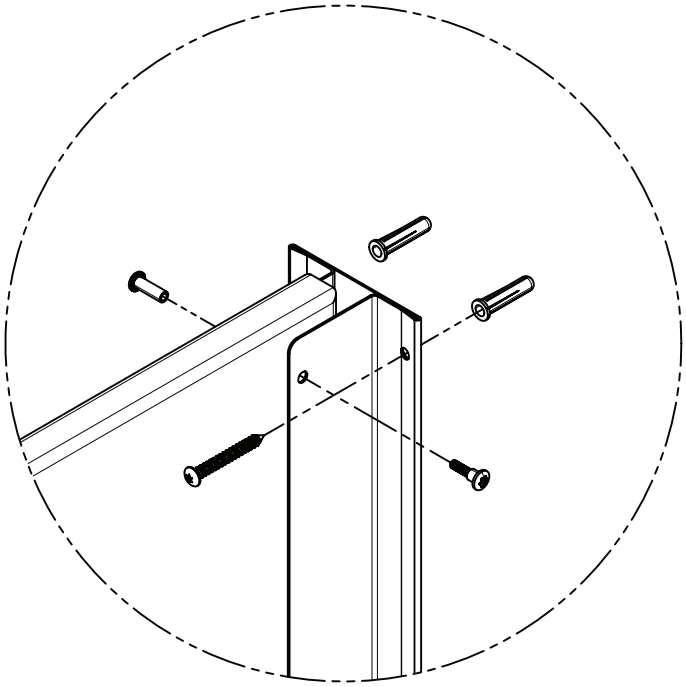
12 Urinal Screens with Continuous Stainless Steel Brackets (Standard)

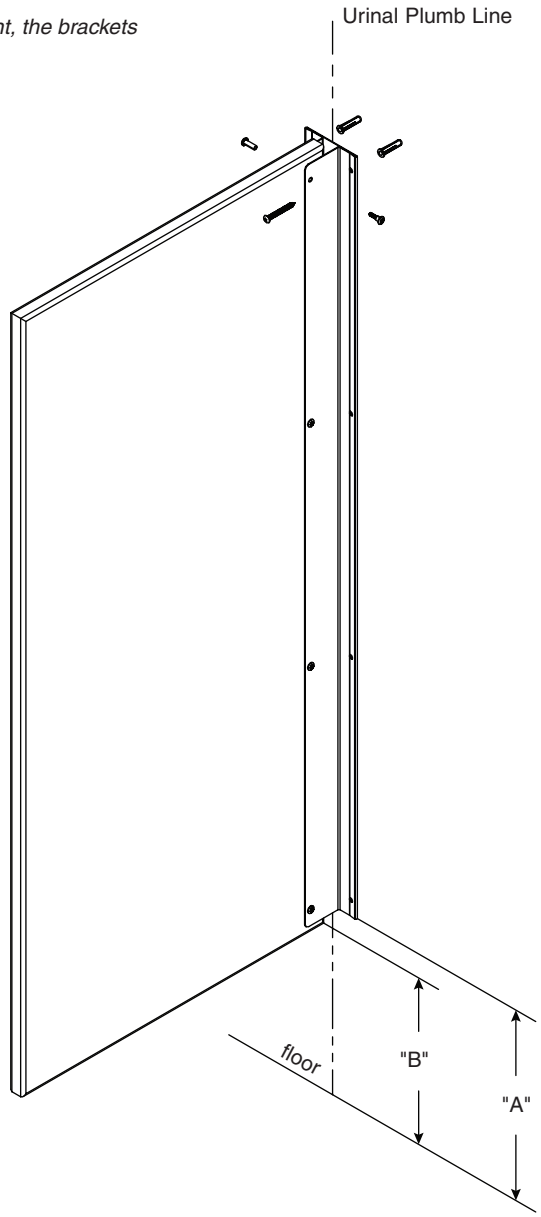
☑ *Before installing the urinal screen components, determine the correct location for your application.*

☑ *Brackets are used as templates, but since the hole patterns may be different, the brackets may not be interchangeable.*

A Draw a plumb line on the wall to represent the urinal screen centerline. Measure from the highest point in the room and place a mark on the urinal screen centerline at dimension "A" for the respective urinal screen height (see table below).

B Place the bottom of the bracket on the mark and center the opening on the urinal screen centerline. Using the bracket as a template, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (minimum 2" [51mm] deep) at each hole location.





C Insert plastic anchors in all holes and secure bracket to the wall with the #14 x 2" screws provided.

D Place the urinal screen at dimension "B" for the respective urinal screen height (see table on right) and insert it into the wall bracket until a 1" (25mm) gap between the wall and urinal screen is established.

E Using the bracket as a template, drill Ø1/4" holes through the urinal screen at each bracket hole. Secure the urinal screen to the bracket with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

	Dim "A"	Dim "B"
42" Urinal Screen	18-1/2" (470mm)	18" (457mm)
48" Urinal Screen	12-1/2" (318mm)	12" (305mm)

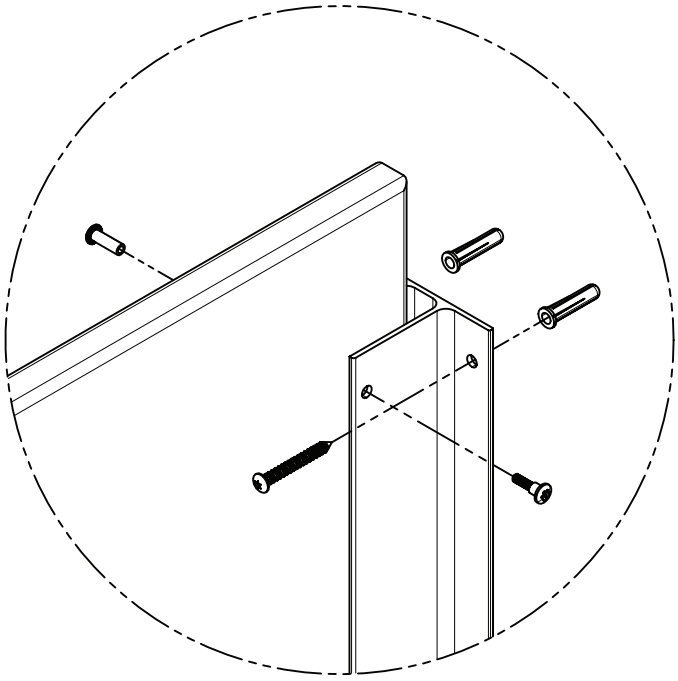
12a Urinal Screens with Continuous Aluminum Brackets (Optional)

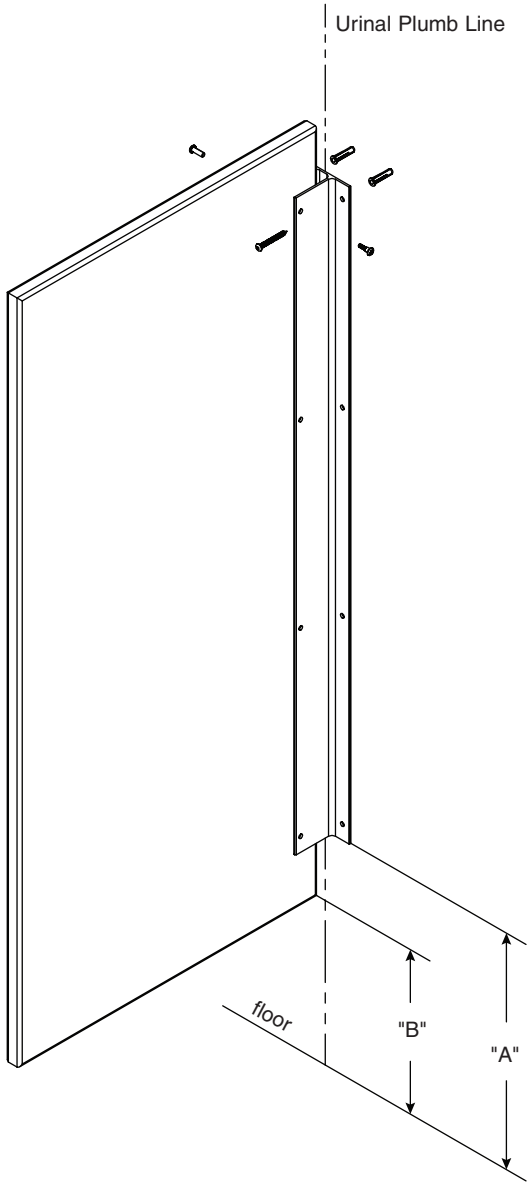
☑ *Before installing the urinal screen components, determine the correct location for your application.*

☑ *Brackets are used as templates, but since the hole patterns may be different, the brackets may not be interchangeable.*

A Draw a plumb line on the wall to represent the urinal screen centerline. Measure from the highest point in the room and place a mark on the urinal screen centerline at dimension "A" for the respective urinal screen height (see table below).

B Place the bottom of the bracket on the mark and center the opening on the urinal screen centerline. Using the bracket as a template, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (minimum 2" [51mm] deep) at each hole location.





C Insert plastic anchors in all holes and secure bracket to the wall with the #14 x 2" screws provided.

D Place the urinal screen at dimension "B" for the respective urinal screen height (see table on right) and insert it into the wall bracket until a 1" (25mm) gap between the wall and urinal screen is established.

E Using the bracket as a template, drill Ø1/4" holes through the urinal screen at each bracket hole. Secure the urinal screen to the bracket with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

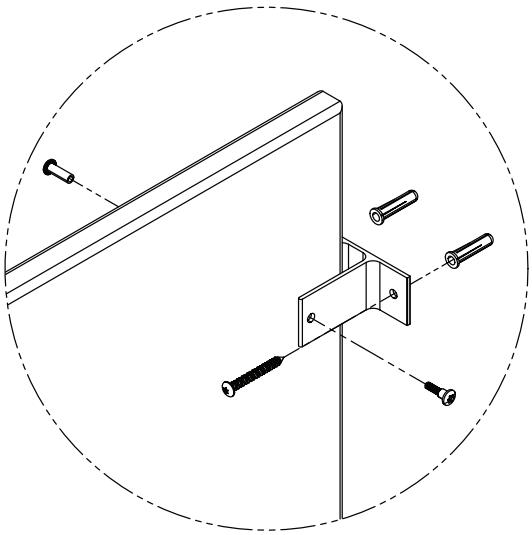
	Dim "A"	Dim "B"
42" Urinal Screen	18-1/4" (464mm)	18" (457mm)
48" Urinal Screen	15-1/4" (387mm)	12" (305mm)

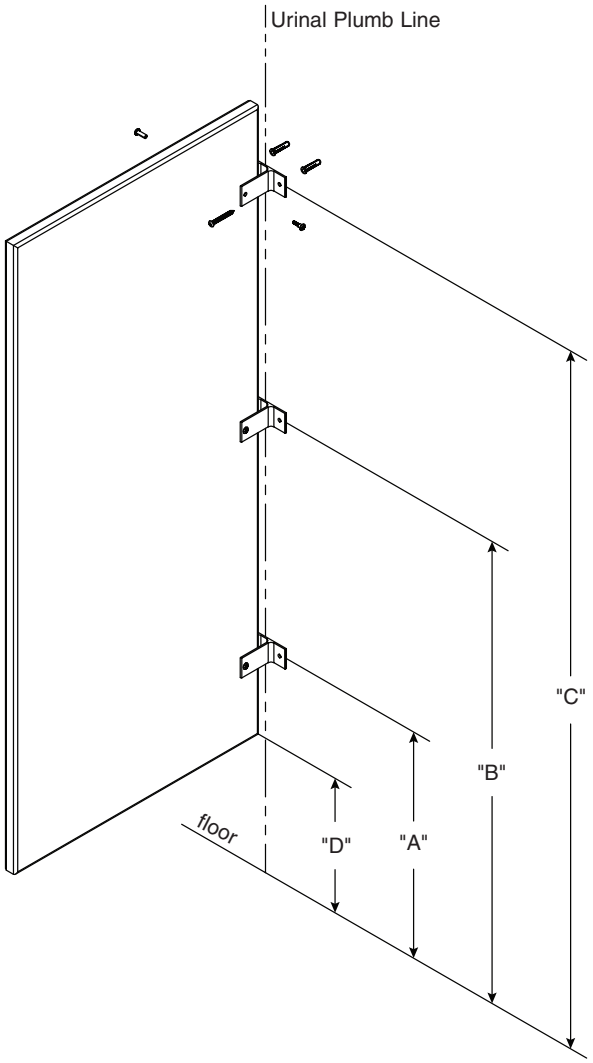
12b Urinal Screens with Stirrup Brackets (Optional)

☑ *Before installing the urinal screen components, determine the correct location for your application.*

A Draw a plumb line on the wall to represent the urinal screen centerline. Measure from the highest point in the room and place a mark on the urinal screen centerline at dimensions "A", "B" and "C" for the respective urinal screen height (see table below).

B Position and center brackets at each mark and urinal screen centerline. Using the bracket as a temp late, mark the hole locations on the wall. Remove the bracket and drill a Ø5/16" hole (minimum 2" [51mm] deep) at each hole location.





C Insert plastic anchors in all holes and secure bracket to the wall with the #14 x 2" screws provided.

D Place the urinal screen at dimension "D" for the respective urinal screen height (see table on right) and insert it into the wall brackets until a 1" (25mm) gap between the wall and urinal screen is established.

E Using the bracket as a template, drill Ø1/4" holes through the urinal screen at each bracket hole. Secure the urinal screen to the brackets with the #10-24 x 3/4" barrel nuts and #10-24 x 3/4" shoulder screws provided.

	Dim "A"	Dim "B"	Dim "C"	Dim "D"
42" Urinal Screen	24" (610mm)	39" (991mm)	54" (1372mm)	18" (457mm)
48" Urinal Screen	18" (457mm)	36" (914mm)	54" (1372mm)	12" (305mm)

EcoTouch® PINK® FIBERGLAS™ Insulation with PureFiber® Technology

Submittal Sheet

Contractor _____ Project _____

Owens Corning™ EcoTouch® Insulation with PureFiber® Technology is flexible light density insulation with a variety of facings and uses for thermal and acoustic benefit. EcoTouch® Insulation is dimensionally stable and will not slump within the cavity. Due to its inorganic fibers, EcoTouch® Insulation is not a food source for mold, it will not rot or mildew and it is not corrosive to steel, copper or aluminum.

ASTM C665 Classification	Description
Type I	**Blankets without membrane coverings.**
Type II	**Blankets with nonreflective membrane coverings:**
Class A	Membrane-faced surface flame spread of 25 or less.
Class B	Membrane-faced surface with critical radiant flux of 0.12 W/cm^2 (0.11 Btu/ft^{2}xs) or greater.
Class C	Membrane-faced surface not rated for flame propagation resistance
Category 1	Membrane is a vapor retarder.
Category 2	Membrane is not a vapor retarder.
Type III	**Blankets with reflective membrane coverings:**
Class A	Membrane-faced surface flame spread of 25 or less.
Class B	Membrane-faced surface with critical radiant flux of 0.12 W/cm^2 (0.11 Btu/ft^{2}xs) or greater.
Class C	Membrane-faced surface not rated for flame propagation resistance
Category 1	Membrane is a vapor retarder.
Category 2	Membrane is not a vapor retarder.

Unfaced—EcoTouch® Batt Insulation

Fiberglass insulation designed to improve thermal and acoustic performance of wall and roof/ceiling assemblies. Fits tightly in **wood or metal** framing to allow for friction fit installation. Different sizes available to fit specific applications. Meets ASTM Standard C665.

- ASTM C665 Type I, Class A
- ASTM E84 <25/<50
- ASTM C1338 Mold/mildew resistant
- ASTM E136 Non-Combustible
- ASTM C518
- ASTM E90, E413 (3½", 6¼")
- UL File #BKNV 3576 (Fire rated assemblies)

☐ R-11 3½" ☐ R-25 8"
☐ R-13 3½" ☐ R-30C 8¼"
☐ R-15 3½" ☐ R-30 9½"
☐ R-19 6¼" ☐ R-38C 10¼"
☐ R-20 5½" ☐ R-38 12"
☐ R-21 5½" ☐ R-49 14"
☐ R-22 6¾"

Kraft Faced—EcoTouch® Batt Insulation

Fiberglass insulation designed to improve thermal and acoustic performance of wall and roof/ceiling assemblies. Fits tightly in **wood or metal** framing to allow for friction fit installation. Flanges can be inset or face stapled as needed. Different sizes available to fit specific applications. Meets ASTM Standard C665.

- ASTM C665 Type II, Class C
- ASTM E84 Not rated
- ASTM C1338 Mold/mildew resistant
- ASTM C518
- ASTM E90, E413 (3½", 6¼")
- ASTM E96 Perm Rating -1 perm
- UL File #BKNV 3576 (Fire rated assemblies)

☐ R-11 3½" ☐ R-22 6¾"
☐ R-13 3½" ☐ R-30C 8¼"
☐ R-15 3½" ☐ R-30 9½"
☐ R-19 6¼" ☐ R-38C 10¼"
☐ R-20 5½" ☐ R-38 12"
☐ R-21 5½" ☐ R-49 14"

Unfaced— EcoTouch® Sound Attenuation Batts

Fiberglass insulation with PureFiber® Technology designed to improve thermal and acoustic performance of wall and roof/ceiling assemblies. Fits tightly in **metal** framing to allow for friction fit installation. Different sizes available to fit specific applications. Meets ASTM Standard C665.

- ASTM C665 Type I, Class A
- ASTM E84 <25/<50
- ASTM C1338 Mold/mildew resistant
- ASTM E136 Non-Combustible
- ASTM C518
- ASTM E90, E413 (2½", 3½")
- UL File #BKNV 3576 (Fire rated assemblies)

☐ R-8 2½" ☐ R-11 3½"

FSK or PSK Faced—EcoTouch® Flame Spread 25 Batt Insulation

Fiberglass insulation with facing that can be left exposed that is designed to improve thermal and acoustic performance of wall and roof/ceiling assemblies. Fits tightly in **wood or metal** framing to allow for friction fit installation. Flanges can be inset or face stapled as needed. Different sizes available to fit specific applications.

- ASTM C665 Type II (PSK) or Type III (FSK), Class A
- ASTM E84 <25/<50
- ASTM C1338 Mold/mildew resistant
- ASTM C518
- ASTM E96 Perm Rating -.5 perm

☐ R-13 3½" ☐ R-30 9½"
☐ R-19 6¼" ☐ R-38 12"
☐ R-21 5½"

Visit www.ocbuildingspec.com to access a variety of learning, application and design resources to build your spec. For current product availability, please contact an Owens Corning Distributor or Area Sales Manager. Visit division7.owenscorning.com or download the App on the iTunes Store (iPhone/iPad) or Google Play store (Android)

Air Vent 6-in x 16-in White Aluminum Soffit Vent

Item #42028 Model #84215

Installs in the soffit/eave

42 Square inches of Net Free Area airflow each

Aluminum construction

OVERVIEW

Undereave vents are a type of attic intake vent that make up half of a balanced attic ventilation system for each roof. Exhaust vents make up the other half of the system. Together they help remove any built-up heat and moisture inside the attic for year-round ventilation. Use the Lowe's calculator to determine how many individual Undereave vents are needed per roof.

- Installs in the soffit/eave
- 42 Square inches of Net Free Area airflow each
- Aluminum construction
- 16 In. x 6 In. rectangular design
- 8 Mesh aluminum screen
- Part of a balanced attic ventilation system for year-round airflow
- Helps to fight heat and moisture buildup inside an attic as well as ice dams in cold climates
- Provides needed intake airflow for exhaust vents
- Use the Lowe's online calculator to determine how many are needed for each attic

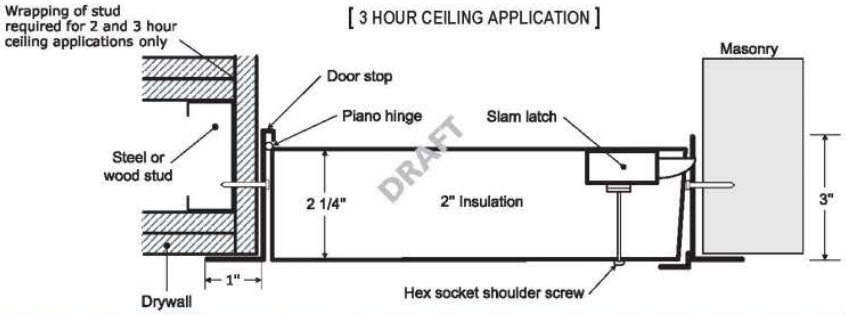
SUBMITTAL / TECHNICAL DATA SHEET

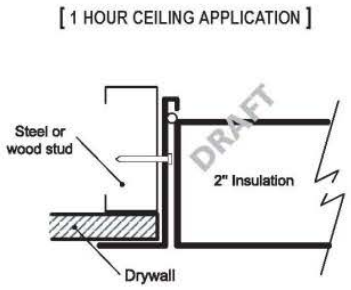
FIRE RATED INSULATED UPWARD OPENING ACCESS DOOR

FOR CEILINGS ONLY

2VE78 - 2VE79 - 2VE80

INSTALLATION: CEILINGS ONLY





Authorities Having Jurisdiction (AHJ) should be consulted in all cases as to the particular requirements covering the installation and use of fire rated access doors.

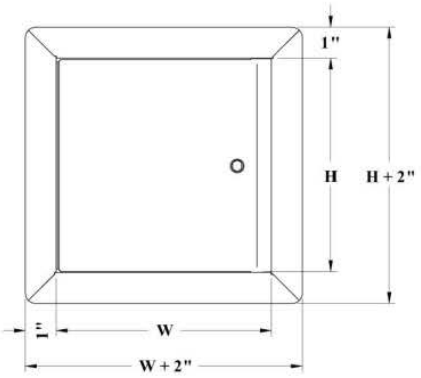
DIMENSIONS AND APPEARANCE

LEED ready: This product contributes to LEED® credits.

PRODUCT CODE	DOOR SIZE W x H inches (MM)	NUMBER OF LOCKS	WEIGHT LBS	WEIGHT KG
2VE78	22 x 30 (558 x 762)	1	30	30.6
2VE79	22 x 36 (558 x 914)	2	37	16.8
2VE80	24 x 24 (609 x 609)	1	29	13.2

(Clear opening with door opened = W - 3 ½")

Rough wall opening is door size + 1/4" or + 6mm



DESCRIPTION AND MATERIAL SPECIFICATION

FIRE RATING: For horizontal ceiling assemblies only:

CERTIFIED TO STANDARDS: ASTM E119 (2012), CAN/ULC S101 (2007).

RATING ACHIEVED: 3 hours in non-combustible construction.
1 hour in combustible construction.

MAXIMUM SIZE: 24" x 36" (hinges & latch on 36" long sides)
(610 mm x 914 mm).
Tolerances on dimension limitations are ± 3" (76 mm)
as long as the area does not exceed 864 in².

TEMPERATURE RISE: Not applicable.

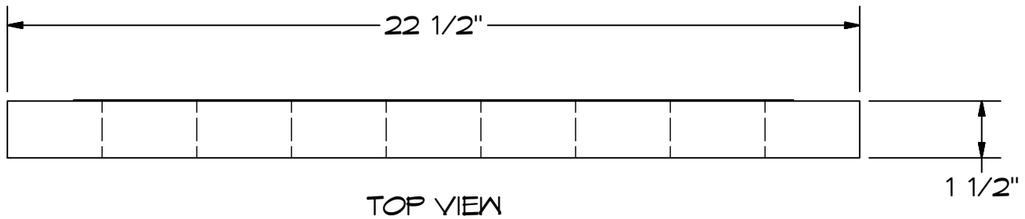
Material:	16 gauge cold rolled steel frame and 20 gauge galvanneal steel door
Insulation:	2" thick mineral wool
Hinge:	continuous piano hinge allows opening to 89°
Lock / latch:	self latching ring operated slam latch inside and a hex head slam latch outside
Finish:	high quality white powder coat primer
Packaging :	individually wrapped, 1 per box

Intertek

FOR CUSTOM SIZES AND DIFFERENT LOCKING OPTIONS,

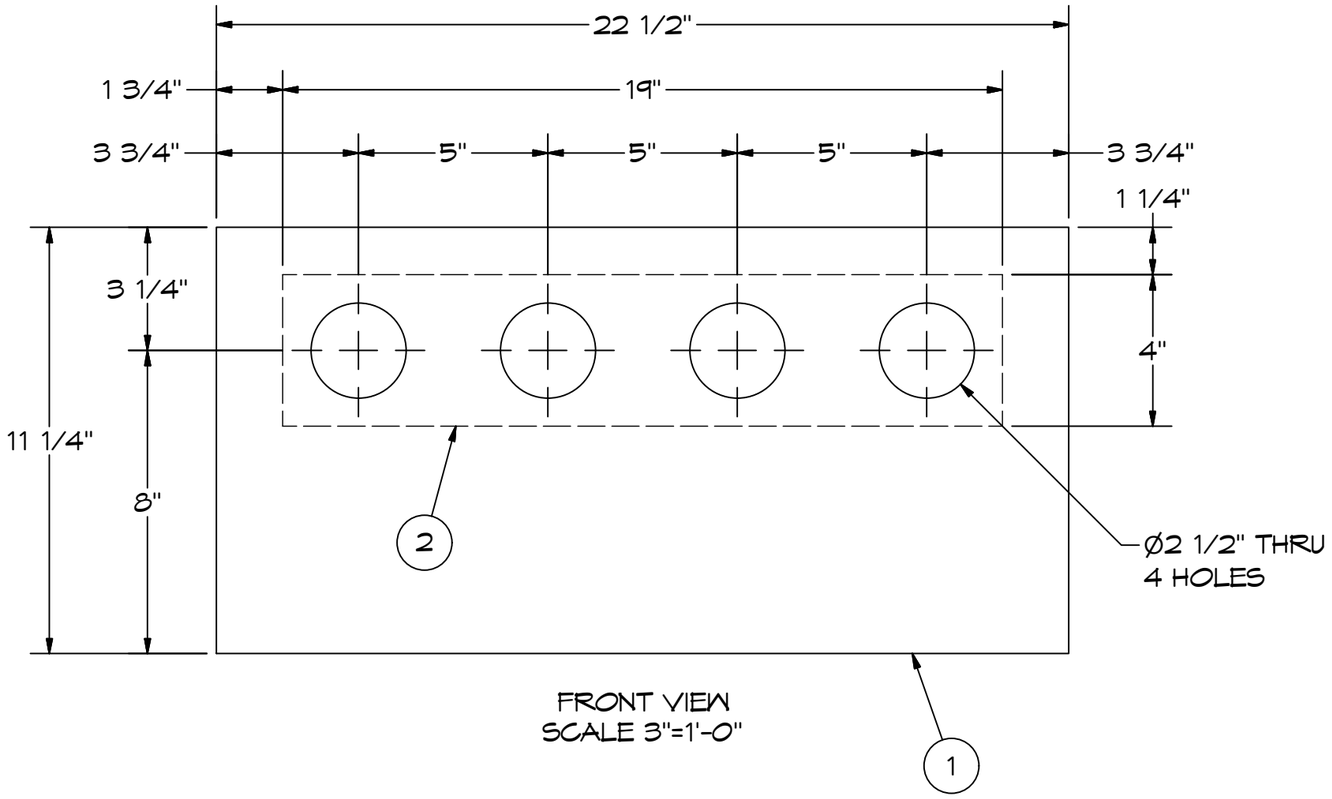
PLEASE CALL YOUR LOCAL GRAINGER BRANCH.

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	2" x 12" LUMBER - DOUG FIR x 22 1/2"
2	1	BUG SCREEN - 4" X 19" - 78% SCREEN

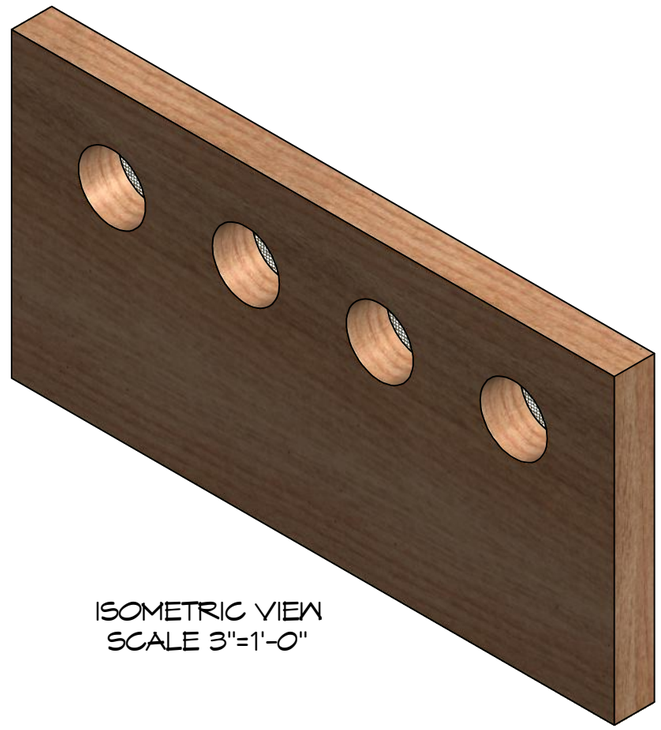


TOP VIEW
SCALE 3"=1'-0"

NOTE: ATTACH BUG SCREEN TO
2 x 12 LUMBER USING STAPLES AS
REQD OR BEST PREFERRED METHOD.



FRONT VIEW
SCALE 3"=1'-0"



ISOMETRIC VIEW
SCALE 3"=1'-0"

ROMTEC
18240 NORTH BANK ROAD
ROSEBURG, OR 97470
(541)-496-3541
FAX (541)-496-0803

MANUFACTURING

DATE: 3/11/2020
DRAWN BY: AM

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

VENTED EAVE BLOCK
2 x 12 x 22 1/2" LUMBER W/ SCREEN

REV	DESCRIPTION	DATE	BY

BOM PART:

SHEET 1 OF 1

DWG. NO.
MI-000-1026

Oatey®
4700 W. 160th St.
Cleveland, OH 44135
PH:800-321-9532
FX:800-321-9535
www.oatey.com

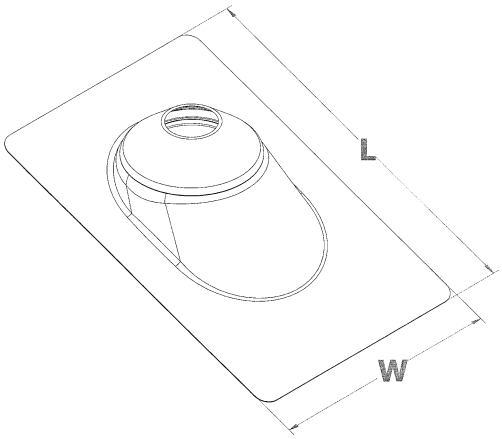
TECHNICAL SPECIFICATION

GALVANIZED BASE NO-CALK® ROOF FLASHINGS

Quality ISO 9001 System

Engineering Specification: Oatey Galvanized Base No-Calk Roof Flashings can be used in commercial and residential applications where a watertight seal for roof penetrations around the plumbing vent pipe is required.

Job Reference



(All dimensions in

- Roof Flashing slides over DWV pipe for pitch to 40°
- Made of rust-proof, stamped 28 gauge galvanized steel
- Non-fading sealing collar
- Approved for Type B installations
- Not for hot-mopped or built-up roofs
- Do not use paint or petroleum based products on rubber collars

✓	Product No.	Description	Length (L)	Width (W)	PACK	CARTON WEIGHT
	11536	1.25"Galvanized ESM Flashing	12.5	8.75	25	27lbs.
	11549	1.5"Galvanized ESM Flashing	12.5	8.75	25	32lbs.
	11552	2" Galvanized ESM Flashing	14.5	10.75	25	28lbs.
	11565	2.5"Galvanized ESM Flashing	14.5	10.75	25	30lbs.
	11830	½" – 1" Galvanized No-Calk Roof Flashing – Solar	12-½	9	12	11 lbs.
	11831	½" – 1" Galvanized No-Calk Roof Flashing – Solar	18	18	12	23 lbs.
	11840	1-¼" – 1-½" Galvanized No-Calk Roof Flashing	12-½	9	12	12 lbs.
	11841	1-¼" – 1-½" Galvanized No-Calk Roof Flashing	12-½	9	6	6 lbs.
	11853	2" Galvanized No-Calk Roof Flashing	12-½	9	12	12 lbs.
	11854	2" Galvanized No-Calk Roof Flashing	12-½	9	6	7 lbs.
	11866	3" Galvanized No-Calk Roof Flashing	14-½	11	12	17 lbs.
	11867	3" Galvanized No-Calk Roof Flashing	14-½	11	6	9 lbs.
	11879	4" Galvanized No-Calk Roof Flashing	15	12	12	23 lbs.
	11880	4" Galvanized No-Calk Roof Flashing	15	12	6	12 lbs.
	11960	1-¼" – 1-½" Galvanized No-Calk Roof Flashing – 28 Gauge	14	14	12	23 lbs.
	11961	2" Galvanized No-Calk Roof Flashing – 28 Gauge	14	14	12	23 lbs.
	11921	1-¼" – 1-½" Large Base Galvanized No-Calk Roof Flashing	18	18	12	23 lbs.
	11934	2" Large Base Galvanized No-Calk Roof Flashing	18	18	12	23 lbs.
	11947	3" Large Base Galvanized No-Calk Roof Flashing	18	18	12	23 lbs.
	11950	4" Large Base Galvanized No-Calk Roof Flashing	18	18	12	26 lbs.
	11861	1,2,3" Galvanized No-Calk Roof Flashing	14.5	11	6	7lbs.
	11859	½ " - 1" Galvanized Black 11" x 14.5" base	14.5	11	12	
	11923	1 ¼" – 1 ½" Galvanized 18" x18: base	18	18	6	
	11936	2" Galvanized 18" x 18" base	18	18	6	

IAPMO Listed

653

Data is subject to manufacturing tolerances.

FABRAL®
METAL WALL AND ROOF SYSTEMS

ALL PURPOSE
HIGH-TEMPERATURE UNDERLAYMENT
PEEL & STICK

- 30 year warranty out of the box
- Adds to the complete system for Fabral roofing

PRODUCT INFORMATION

Our High-Temperature Underlayment is a durable, self-adhering, modified composite underlayment, specifically designed to withstand the rigors of most roofing applications. It is available to use as flashing tape to provide a secondary water barrier.

The tough, slip-resistant, poly-fabric surface provides a rugged barrier to physical damage, UV degradation, weather and moisture. The unique adhesive layer offers the application benefits of cold-temperature adhesion and exceptional thermal stability under high heat.

FABRAL ALL PURPOSE HIGH-TEMPERATURE UNDERLAYMENT

Fabral All Purpose High-Temperature Underlayment prevents moisture entry into structures by sealing uniformly to the substrate and around nail penetrations. Fabral All Purpose High-Temperature Underlayment is 50 ml (1.2 mm) thick and is supplied in 200 sq. ft. – (36" x 66.8') (.9 m x 20.4 m) rolls.

Fabral All Purpose High-Temperature Underlayment is self-adhereing and cold applied. No special adhesives, heat, or equipment are necessary when installed at 45° F and warmer.

FEATURES:

- UV protected surface – 90-day exposure
- High-temperature stability – 260° F
- 50 mil thickness
- Soft-surfaced polyester face
- Self-adhering and cold applied
- No special adhesives necessary
- Direct-to-deck metal application

CODES & COMPLIANCES:

- Underwriters Laboratories Class A and Class C Fire Rating – Based on roof covering
- ASTM D1970, Standard Ice Dam Underlayment
- Florida Building Code Approved – FL 17322
- Miami-Dade County Product Control Approved, MiamiDade County, Florida

MIAMI-DADE COUNTY APPROVED

TECHNICAL DATA

Property	Test Method	Minimum Value
Tensile Strength	ASTM D412	25 lbs/in (1428 psi)
Elongation (Rubberized Asphalt)	ASTM D412	250%
Low Temperature Flexibility -25° F (-32° C)	ASTM D1970	Unaffected
Adhesion to Plywood	ASTM D903	Pass
Permeance	ASTM E96	<0.03 perms (max)

Product	Roll (ft^2)	Roll Size
Fabral All Purpose High-Temperature Underlayment	200	36" x 66.8'

GENERAL INSTRUCTIONS

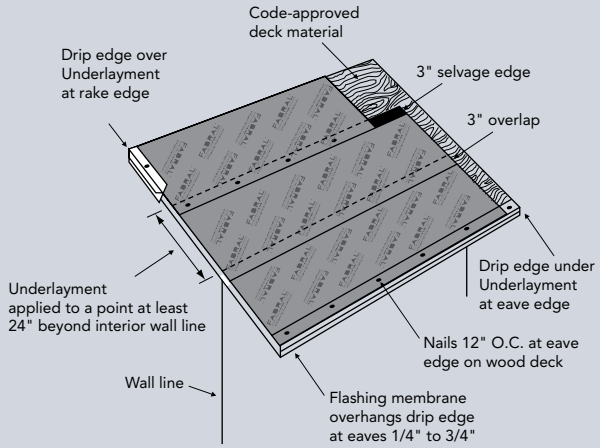
For Roof Decks (Rakes and Eaves):

Fabral® All Purpose High-Temperature Underlayment shall be applied to dry surfaces during fair, dry weather when air temperatures are above 45° F. In temperatures below 45° F, deck surfaces will need to be primed prior to application. Before getting started, be sure the roof deck is free of dust, dirt, loose nails and any other protrusions.

Begin by cutting Fabral All Purpose High-Temperature Underlayment into 10' to 15' lengths and re-roll for wrinkle-free application. Apply sheet parallel to the roof edge, extending 1/4" to 3/4" over drip edge. Use the selvage edge to set horizontal top overlap at 3" so that laps will shed water. For ice dam protection, underlayment must be applied to a point at least 24" beyond interior wall line or above the expected level of ice dams.

Peel back 1 – 2 feet of release paper. Before peeling further, align the sheet on the lower edge of the roof and adhere the areas you have peeled. Pull the release paper from under the sheet and slowly continue to peel, pressing the sheet into place as you go. Use a hand roller to firmly roll lower edges. End laps should be overlapped 6" and staggered. In slopes above 8" of rise and 12" of length – face nail the top overlap at 12" O.C.

Fabral All Purpose High-Temperature Underlayment
Field Application



For Valleys and Ridges:

Begin by cutting Fabral All Purpose High-Temperature Underlayment into 4' to 6' lengths. For ridges, peel the release paper back and center the sheet over the ridge. Working from the center of the ridge, press the sheet into place in both directions. For valleys, peel and apply the sheet starting at the lowest point and work upward. All end laps and horizontal top ends should be overlapped a minimum of 6".

For Flashing Tape:

When used as flashing tape, begin by cutting Fabral All Purpose High-Temperature Underlayment into 8' to 12' lengths. Center the tape over roof deck panel joints and roll into position.

SAFETY, STORAGE AND HANDLING

Pallets of Fabral All Purpose High-Temperature Underlayment should not be double stacked. Provide a weather cover on top and sides to allow for proper ventilation. Consult the Material Safety Data Sheet for best available information on safe handling, storage, personal protection, health, and environmental considerations.

CAUTION

Learn and observe safe roofing practices according to OSHA and local building code requirements. Always use caution when walking on sloped roof decks and Fabral All Purpose High-Temperature Underlayment. Do not walk on unsecured underlayment or any other loose roofing material lying on sloped roof decks. Dust, dew, water, or debris create unsafe conditions on the roof. The presence of any foreign matter may drastically change the coefficient of friction (traction) on Fabral All Purpose High-Temperature Underlayment or any other material on a sloped roof deck. Failure to use proper safety equipment and footwear can result in serious injury or even death.

5-2018
98-32-174

JamesHardie

Products / Exterior / HardieSoffit® Panels

James Hardie Soffit panels are available in a vented and non-vented in a range of pre-cut sizes. As with all James Hardie siding products, they are engineered for climate, so you can have peace of mind that your siding products will stand up to the harshest elements no matter where your projects are located. HardieSoffit panels are noncombustible and come with a 30-year non prorated, transferable, limited warranty.

PRODUCT INFORMATION | WARRANTY | INSTALLATION

Your zip code has been saved as: 97470

Change your location: 97470 GO

HZ10 The above HardieZone products are suited for your local climate. Learn more.

Non-Vented Cedarmill©

Thickness: 1/4"
Weight: 1.9 lbs./sq. ft.

SIZES	12"X12'	16"X12'	24"X8'	4'X8'
COLORPLUS®	✔	✔	✔	
PRIMED	✔	✔	✔	✔

Non-Vented Smooth

Thickness: 1/4"
Weight: 1.9 lbs./sq. ft.

SIZES	12"X12'	16"X12'	24"X8'	4'X8'
PRIMED	✔	✔	✔	✔

Vented Cedarmill©

Thickness: 1/4"
Weight: 1.8 lbs./sq. ft.

SIZES	12"X12'	16"X12'	24"X8'
COLORPLUS®	✔	✔	✔
PRIMED	✔	✔	✔

Vented Smooth

Thickness: 1/4"
Weight: 1.8 lbs./sq. ft.

SIZES	12"X12'	16"X12'	24"X8'
PRIMED	✔	✔	✔

ECBB1101NRP

Five Knuckle
Ball Bearing
Standard Weight

Description:

- ANSI A2112 (Brass)
- ANSI A5112 (Stainless steel)
- Two ball bearings
- Non-removable pin with button tip and plug
- Only available in 4-1/2" x 4-1/2" (114 mm x 114 mm)
- Fasteners are AMS x 1/2 WS
- For use on medium weight doors or doors requiring medium frequency service
- Available with 316SS

PRODUCT SPECIFICATIONS

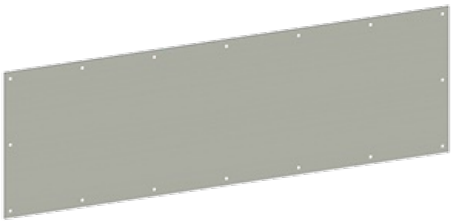
FASTENERS:
- All machine and half wood

MATERIAL:
- Brass w/ Stainless Steel pin ANSI A2112
- Stainless Steel with Stainless Steel pin ANSI A5112

FINISHES:
- US15, US26, US26D, US32D, 32D (316SS)

198S

Door Protection Plate
0.038" gauge stainless steel



NFPA Notes:

- NFPA 80 Standards - 6.4.5 Protection Plates 6.4.5.1 - Factory installed protection plates shall be installed in accordance with the listing of the door. 6.4.5.2 - Field installed protection plates shall be labeled and installed in accordance with their listing. 6.4.5.3 - Labeling shall not be required where the top of the protection plate is not more than 16" (406mm) above the bottom of the door.

PRODUCT SPECIFICATIONS

GAUGE:
- 0.038" (1 mm)

MATERIALS:
- Stainless Steel

FINISHES:
- US32D

ORDER:
- Plates are sized on even inches. Odd size available and priced to next larger size.

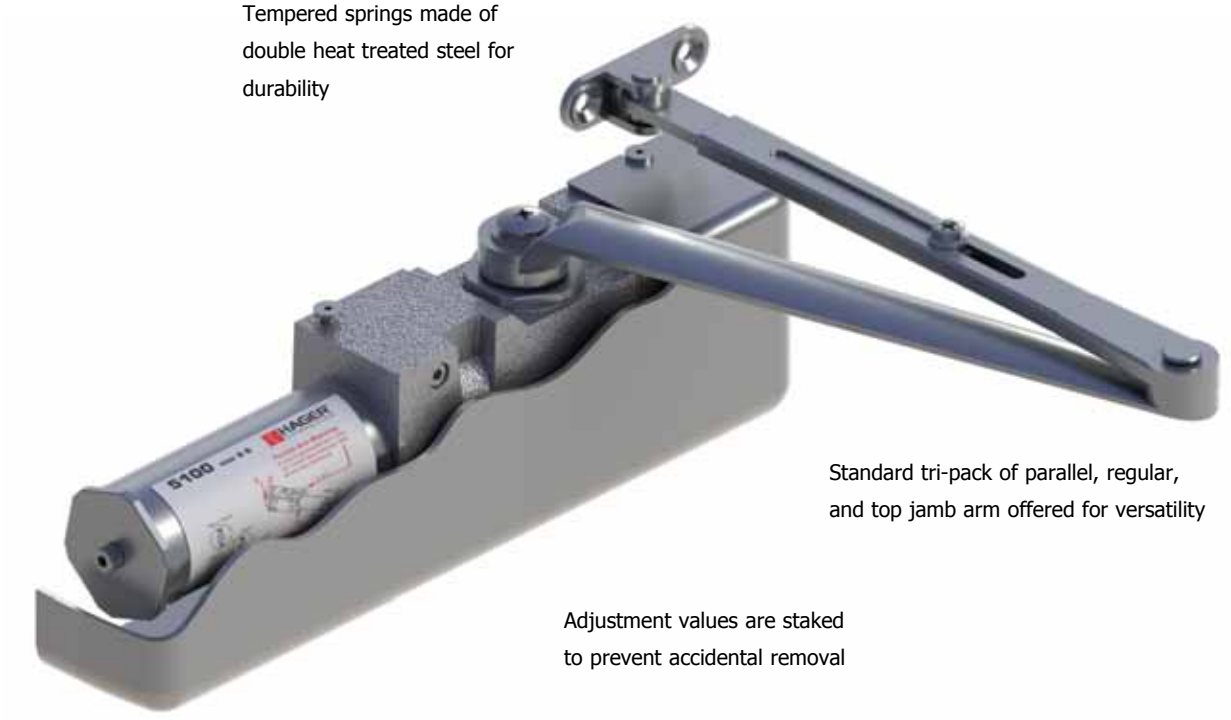
OPTIONS:
- UL listed for US32 and US32D with screw fasteners (must specify UL stamp)
- Spanner head screws
- Torx head screws
- Round Corners
- Wrap around side and bottom return
- 0.125" material

CERTIFICATION:
- Meets ANSI A156.6 for J101 Metal Armor Plate, J102 Metal Kickplate, and J103 Metal Mop Plate

5100 Series

Hager 5100 Series Grade 1 door closer is constructed of cast iron, which makes it ideal for heavy duty, high use and abusive environments. Hager door closers are the only closers in the industry that are both BHMA certified and backed by a lifetime warranty.

Tempered springs made of double heat treated steel for durability



Standard tri-pack of parallel, regular, and top jamb arm offered for versatility

Adjustment values are staked to prevent accidental removal

DOOR CLOSERS

Hager Companies offers a variety of surface door closers to meet a wide range of applications and uses. Heavy duty, Grade 1 door closers are ideal for schools, hospitals, and other high-use environments.

Surface door closers are easy to install, with only a few holes for the body and the arm, requiring a minimum amount of preparation of the door and frame.

There are a number of factors to consider when choosing how to mount your closer. These factors can be influenced by aesthetics, environment, or application. The main things to consider when defining how to mount a surface door closer include:

- Architectural appearance
- Accessibility to the closer arm
- Space limitations of the frame above the door
- Space limitations on the top rail of the door
- Closer position on the door

There are three basic methods of mounting surface door closers to the door and frame: regular arm, parallel arm, and top jamb mounts. All Hager door closers are supplied standard with a tri-pack for mounting any of the three types of applications. The package includes regular, parallel, and top jamb arm mounts.

REGULAR ARM
The regular arm application is used when there is ample room on the top rail of the door and you are not concerned about the arm extending out away from the door. The closer body is mounted on the hinge side of the top rail of the door. The forearm is then mounted to the frame face by a mounting shoe. The arm projects at approximately a 90° angle away from the door. The regular arm mount will make the closer more power-efficient than the parallel arm or top jamb mount.

PARALLEL ARM
The depth of the top rail is an important consideration when using this application. The closer body is mounted on the top rail of the door opposite the hinge side of the door. The forearm is mounted by a parallel arm bracket to the underside of the frame. The arm is parallel to the door, which makes it less likely to be damaged and aids in the overall aesthetics. The power efficiency of the closer may be reduced by the mounting applications.

TOP JAMB
This is the preferred method of mounting a closer if you are faced with a narrow rail on a door. The closer body is mounted to the frame face above the door, opposite the door hinge side. The forearm is then mounted to the top rail of the door. The top jamb mount is more power-efficient than the parallel arm application.

DOOR CLOSER SIZING CHART

Exterior (and Vestibule) Door Width

Minimum Door Width (24")

	24" (610 mm)	30" (762 mm)	36" (914 mm)	42" (1067 mm)	48" (1219 mm)
Regular Arm & Top Jamb	Size 3	Size 4	Size 5	Size 6	
Parallel Arm	Size 3	Size 4	Size 5	-	

Interior Door Width

Minimum Door Width (24")

	24" (610 mm)	30" (762 mm)	34" (865 mm)	38" (965 mm)	48" (1219 mm)	54" (1372 mm)	60" (1524 mm)
Regular Arm & Top Jamb	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	
Parallel Arm	Size 1	Size 2	Size 3	Size 4	Size 5	-	

DOOR HANDING
Hager Companies' surface door closers are all non-handed, meaning they can be placed on a door so that they will operate a left-opening or a right-opening door. Some of the accessories that can be ordered with these closers are handed and the hand of the door should be specified when ordering a closer with these components.

CLOSER SIZING
The American National Standards Institute (ANSI) has set the standard for sizing and has ensured that each manufacturer's closers are tested to the same standards. The door closer sizing chart on page 4 shows the closer size required to fit your door size and application.

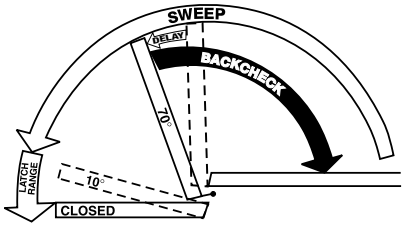
MEETING ADA REQUIREMENTS
Doors and doorways that are non-labeled and part of an accessible route shall comply with Section 404 of the ANSI 117.1 standard.

Door closers shall be adjusted so that from the open position of 90°, the time required to move the door to an open position of 12° shall be 5 seconds minimum.

The maximum force for pushing open or pulling open an interior hinged door (other than a fire door) is five pounds.

FIRE DOORS
Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.

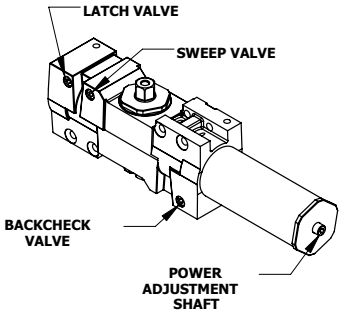
CLOSER ADJUSTMENT
All Hager Companies' door closers are equipped with key control valves that allow for easy adjustments while decreasing the chances for tampering.



SWEEP AND LATCHING SPEEDS
Two separate valves control the closing speed of the door. The sweep speed controls the speed of the door from full opening to within approximately 2° to 10° of the closed position. The latching speed valve controls the speed of the door from approximately 2° to 10° to full closing.

BACKCHECK
Backcheck starts at approximately 70° door opening and slows the door as it opens. This feature is not to be used as a positive stop. An auxiliary stop must be used.

DELAYED ACTION
The delayed action feature is available for all 5100 Series applications. The closing time between 90° and 70° shall be a minimum of 20 seconds, but is adjustable to be even slower.



ADJUSTABLE SPRING FEATURE
The 5100 Series closer offers an adjustable spring feature for sizing. Spring power of the closer can be increased or decreased by turning the power adjustment shaft clockwise.

USE OF DOOR STOPS
It is important to use an auxiliary door stop in order to protect the wall, trim, door, and closer. A stop should be used even when a closer with backcheck is used.

HOW TO SELECT THE PROPER CLOSER
1. Size and Weight of Door
   5100 Series closers are non-sized so that closing force can be adjusted in the field to accommodate various door sizes, weights, and applications.
2. Interior Application
   Where possible, the standard regular arm application should be used as it is the most efficient in terms of power and control.
3. Exterior Application
   Exterior doors require greater closing forces because of draft and wind conditions. Therefore, where possible, use an extra heavy duty arm for these applications.
4. Degree of Opening
   The closer should permit the door to open far enough to allow for easy traffic flow. The selection of the proper arm and position on the door are very important.
5. Function
   Closers can be equipped with special arms that can serve many functions such as hold open, positive stop, or hold open stop when necessary.
6. Abusive Environment
   Closers can be equipped with extra heavy duty arms that can withstand vandalism and extreme use.

DOOR CLOSERS

HOW TO ORDER

5100 PAR 14 ALM HD FC RH SX1G DLY

Product Group
5100 - Cast Iron, Grade 1

Mount
PAR - Parallel Arm Mount
MLT - Multi-Mount

Size
14 - 1 thru 4 Adj. - ADA
26 - 2 thru 6 Adj.

Finish
ALM -	Sprayed Aluminum
BRZ -	Sprayed Bronze
DBZ -	Sprayed Dark Bronze
GOL -	Sprayed Gold
US3 -	Bright Brass
US26 -	Bright Chrome
US26D -	Satin Chrome

Arm Options
HD -	Extra Heavy Duty Arm
HO -	Hold Open Arm
HDHO -	Extra Heavy Duty Hold Open Arm
LA -	Long Arm
HDHOS -	Extra Heavy Duty Hold Open Stop Arm
HDHOCS -	Extra Heavy Duty Hold Open Cushion Stop Arm
HDS -	Extra Heavy Duty Stop Arm
HDCS -	Extra Heavy Duty Cushion Stop Arm

Covers
FC - Full Cover
MC - Metal Cover

Handing
RH - Right Hand
LH - Left Hand
(specify when ordering 5108)

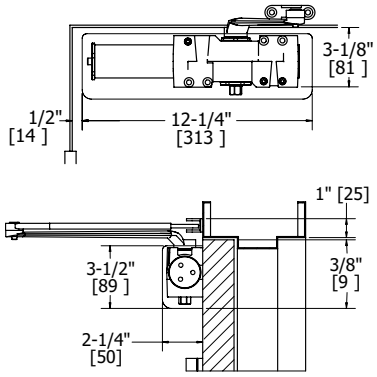
Fastener Options
SX1G - Sex Bolts for 1-3/8" Door
SX1N - Sex Bolts for 1-3/4" Door
SX2 - Sex Bolts for 2" Door
SX2D - Sex Bolts for 2-1/4" Door

Miscellaneous
DLY - Delayed Action

5100 SERIES APPLICATIONS

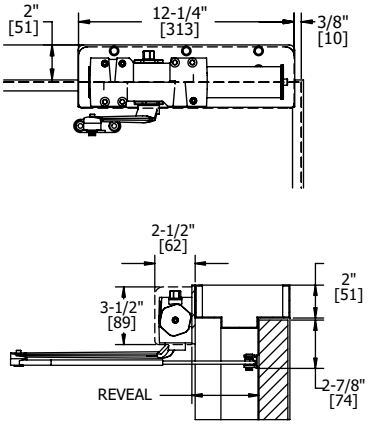
Regular Arm Mount (Pull Side)

Opening:	Templating allows up to 120°
Hold Open:	Hold Open points from 90° up to 120° with Hold Open arm
Frame Face:	1-1/4" (32 mm) minimum
Ceiling Clearance:	1-1/4" (32 mm) minimum
Top Rail:	• Less than 3-3/4" (95 mm) requires drop plate, 5109 • Drop plate requires 2" (51 mm) minimum
Top Rail Clearance:	4" (102 mm) from the top of door



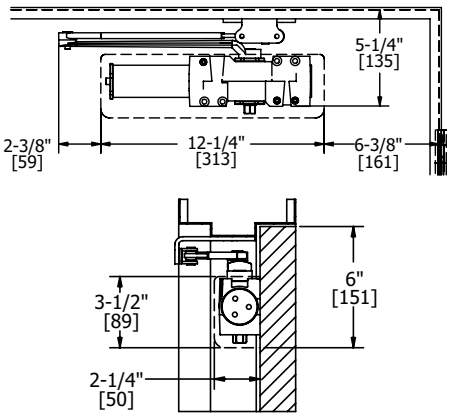
Top Jamb Mount (Push Side)

Opening:	Templating allows up to 120°
Hold Open:	Hold Open points 85° up to 120° with Hold Open arm
Frame Face:	Less than 3-1/2" (89 mm) requires drop plate, 5115
Ceiling Clearance:	Drop plate requires 4" (102 mm) minimum
Top Rail:	Requires 1-3/8" (35 mm) minimum
Top Rail Clearance:	1-1/2" (38 mm) from the top of the door

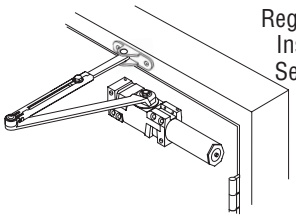


Parallel Arm Mount (Push Side)

Opening:	Templating allows up to 180°
Hold Open:	Hold Open points from 90° up to 180° with Hold Open arm
Top Rail:	• Standard hollow metal 5/8" frame stop • Less than 5-1/2" (140 mm) from the stop requires drop plate, 5110 • Drop plate requires 2" (51 mm) minimum from the stop
Top Rail Clearance:	6-1/4" (159 mm) from the top of door

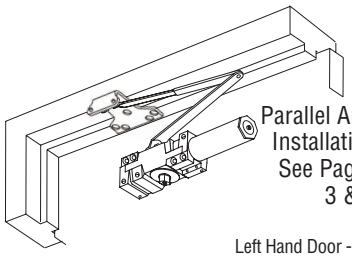


5100 Series Door Closer
Installation Instructions
Grade 1
Meets ANSI A156.4



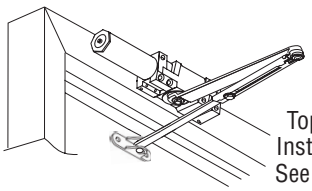
Regular Arm Installation See Page 2

Left Hand Door - LH
Right Hand Reverse - RHR



Parallel Arm Installation See Pages 3 & 4

Left Hand Door - LH
Right Hand Reverse - RHR



Top Jamb Installation See Page 5

Left Hand Door - LH
Right Hand Reverse - RHR

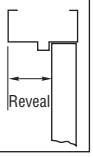
CAUTION An incorrectly installed or improperly adjusted door closer can cause property damage or personal injury. These installation instructions should be followed to avoid the possibility of misapplication or misadjustment. **CAUTION**

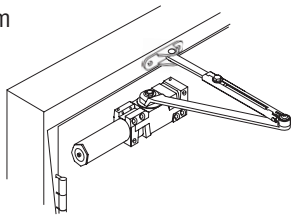
NOTE: For special applications, a separate door and frame preparation template is packed with these instructions. Use this instruction sheet for installation sequence and closer adjustments only.

- Dimensions are based on standard doors and frames with 1/8" clearance, 5/8" stops, and square edge doors.
- Door and frame must be properly reinforced.
- Non-Handed Door Closers.
- A mounting plate may be required for some applications.

NOTE: For Top Jamb Application

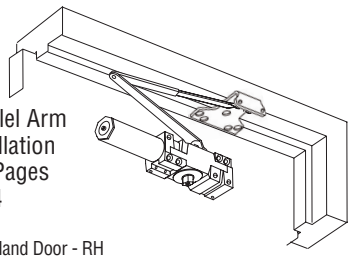
A longer connecting rod is required for reveals greater than 3" (76mm)





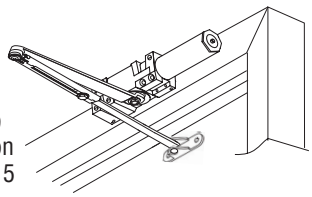
Regular Arm Installation See Page 2

Right Hand Door - RH
Left Hand Reverse - LHR



Parallel Arm Installation See Pages 3 & 4

Right Hand Door - RH
Left Hand Reverse - LHR

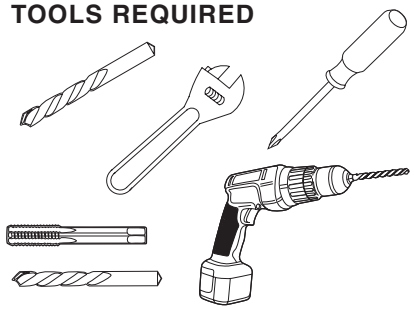


Top Jamb Installation See Page 5

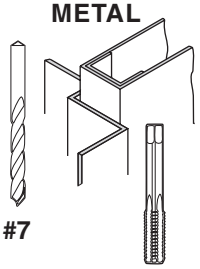
Right Hand Door - RH
Left Hand Reverse - LHR

- These door closers should **NOT** be installed on the exposed side (weather side) of exterior doors.

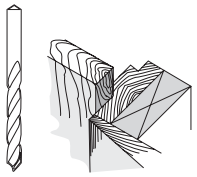
TOOLS REQUIRED



METAL



WOOD



Self Drilling Screws Wood and Metal

For wood, drill 3/16" hole

Machine Screws

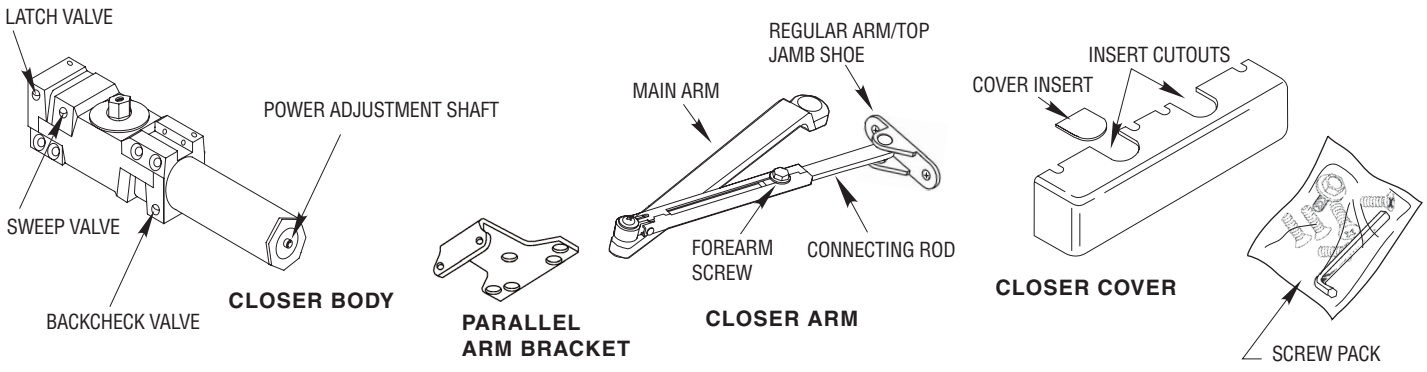
#7 Drill, 1/4"- 20 Tap

Sleeve Nut and Bolt

Drill 9/32" thru from Closer Side
3/8" Drill other Side

Check building and fire codes to see if your application requires the use of sleeve nuts and bolts.

COMPONENT PARTS



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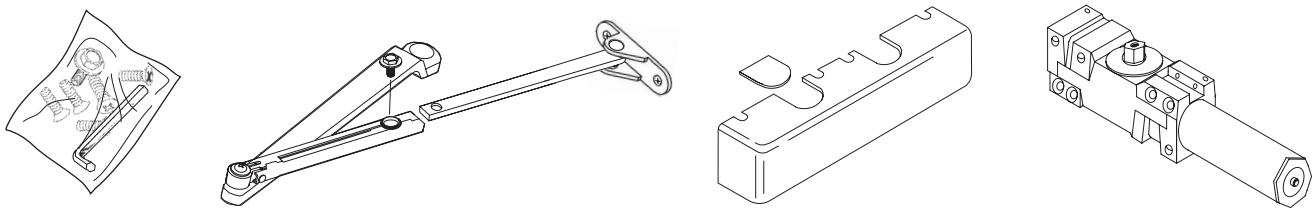
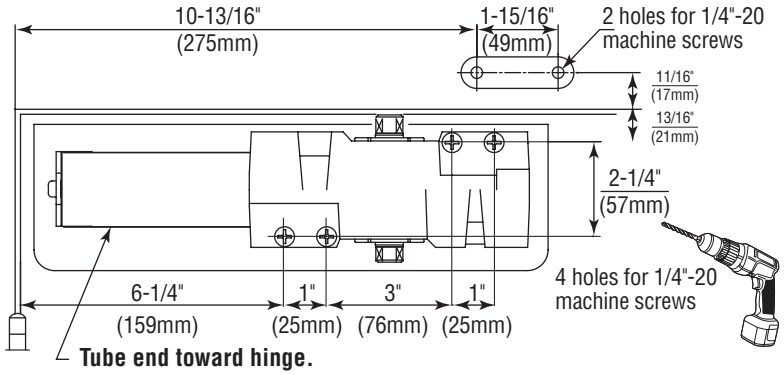
5100 Series Door Closer - Regular Arm
Installation Instructions
Meets ANSI A156.4

1. PARTS



2. MARK AND DRILL HOLES (*Right Hand Shown)*

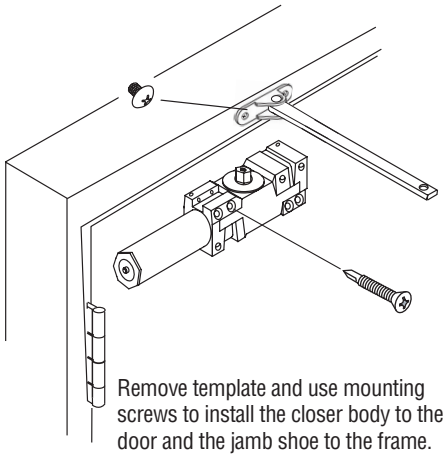


120˚ Door Opening

An optional mounting plate is required when top rail is less than 3-3/4" (95 mm). Plate requires 2" (51mm) minimum top rail.

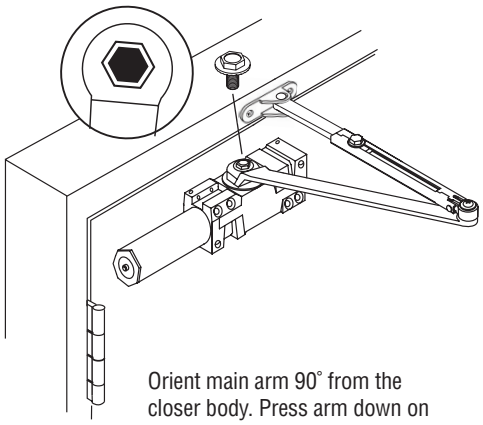
Select hand of door and degree of door opening. Fold template on the hinge edge of door line. Match this line with the hinge edge of door and attach template to door. Be sure frame line on template lines up with the bottom edge of frame face. Mark, prep and drill/tap 1/4"-20 holes for closer body and jamb shoe mounting screws.

3. INSTALL CLOSER



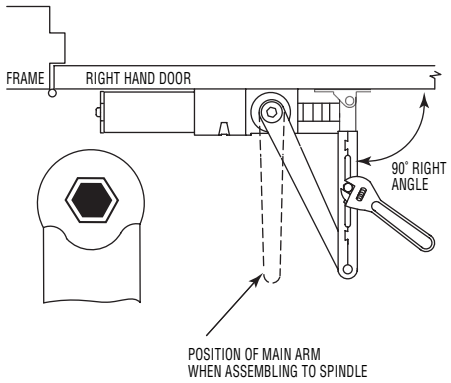
Remove template and use mounting screws to install the closer body to the door and the jamb shoe to the frame. Closer body should be oriented so that the tube end of closer is toward the hinge stile of door.

4. INSTALL MAIN ARM



Orient main arm 90˚ from the closer body. Press arm down on spindle and secure with spindle bolt.

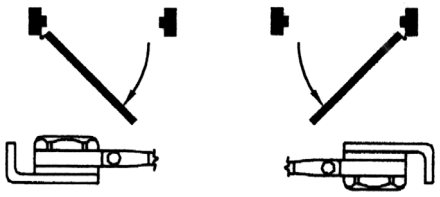
5. INSTALL MAIN ARM AND CONNECTING ROD



Slide connecting rod into forearm of main arm. Rotate main arm until connecting rod is at a 90˚ angle to frame. While holding arm in this position, tighten down forearm screw.

6. OPTIONAL HOLD-OPEN ARM

Identify direction of hold-open nut according to hand of door and mount arm.



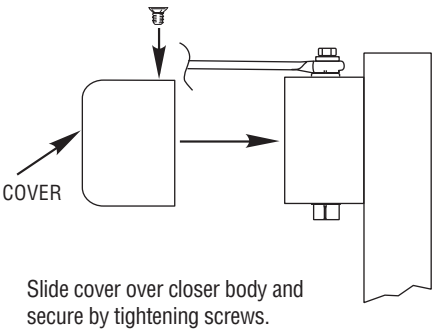
Adjust by loosening hold-open nut, then open door to desired position and tighten hold-open nut securely.

7. ADJUSTMENTS

See Adjustments on Page 6 for setting Spring Power, Sweep Speed, Latch Speed, and Backcheck.

NOTE: Do not fully unscrew valves or hydraulic fluid will leak and closer will no longer be functional.

8. INSTALL COVER



Slide cover over closer body and secure by tightening screws.

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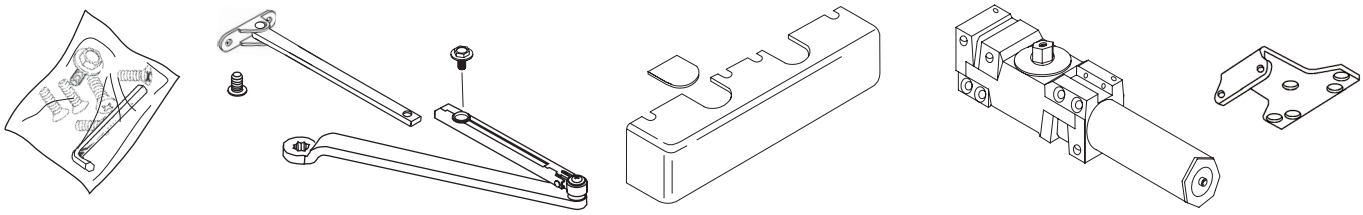
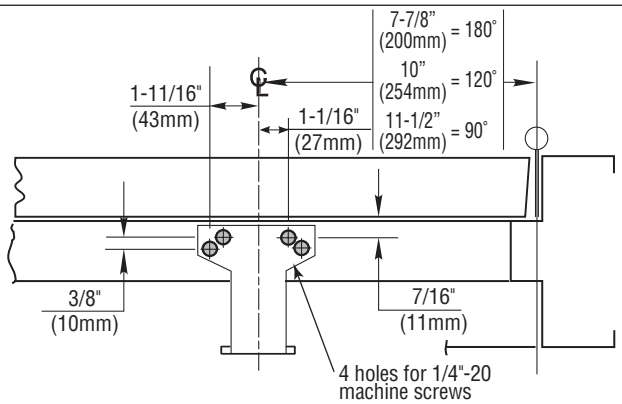
5100 Series Door Closer - Parallel Arm
Installation Instructions
Meets ANSI A156.4

1. PARTS



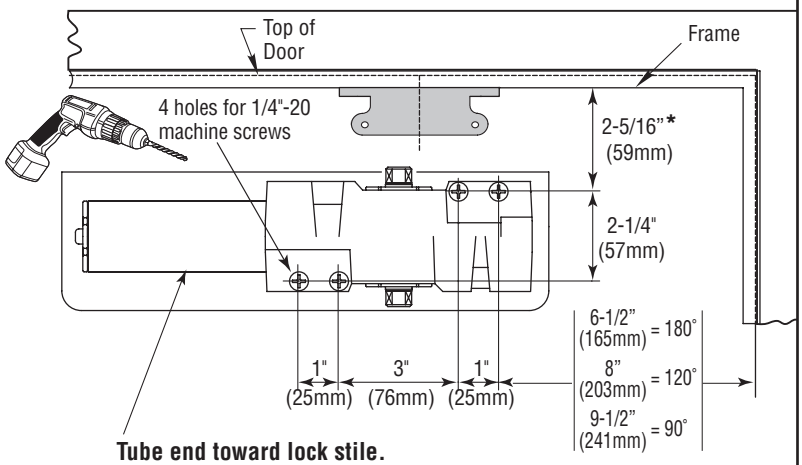
2. MARK AND DRILL HOLES (*Right Hand Shown)*



Select hand of door. Fold template on the hinge edge of door line. Fold or cut upper corner illustrated on template and align template with the hinge edge of door. At the "Frame Stop Line" fold toward you and attach template to door. Mark, prep and drill/tap 1/4"-20 holes for closer body and parallel arm bracket mounting screws.

***Measured from frame Stop or pre-mounted jamb weatherstripping. Install before measuring closer hole locations.**

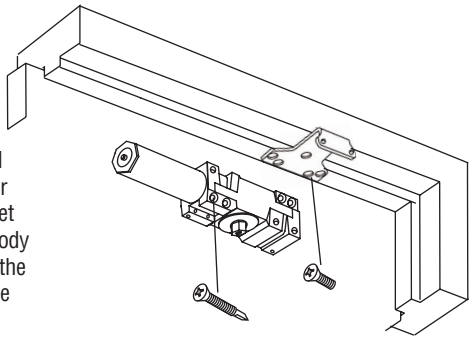
An optional mounting plate is required where top rail is less than 5-1/2" (140mm). Plate requires 2" (51mm) minimum top rail.



Tube end toward lock stile.

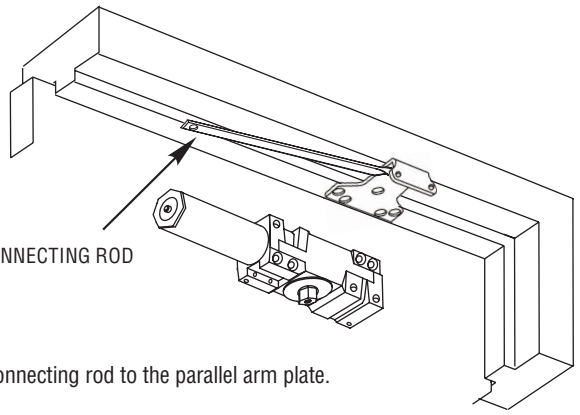
3. INSTALL CLOSER

BEFORE INSTALLATION:
Turn backcheck selector valve (found on back side of closer) all the way in (clockwise).



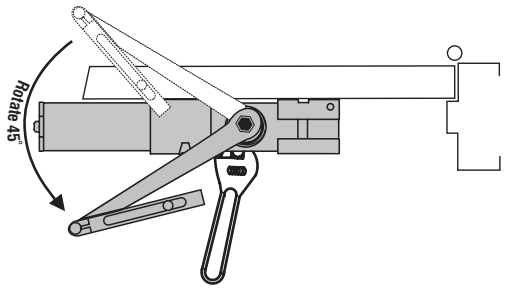
Remove template and use mounting screws to install the closer body to the door and the parallel arm bracket to the frame soffit. Closer body should be oriented so that the tube of closer is toward the lock stile of door.

4. INSTALL CONNECTING ROD

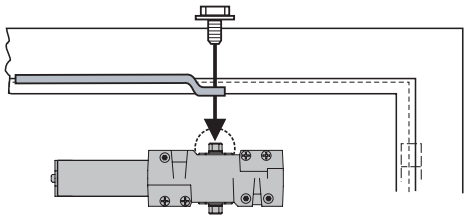


Attach connecting rod to the parallel arm plate.

5. INSTALL MAIN ARM



Use adjustable wrench to rotate spindle 45° counterclockwise for Right Hand Door or clockwise for Left Hand Door. Place main arm on spindle so that it is 45° or less from the tube end of the closer body. Secure main arm and spindle by tightening spindle bolt.



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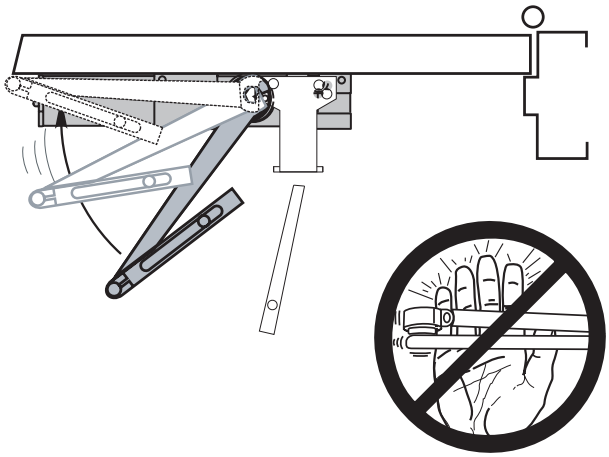
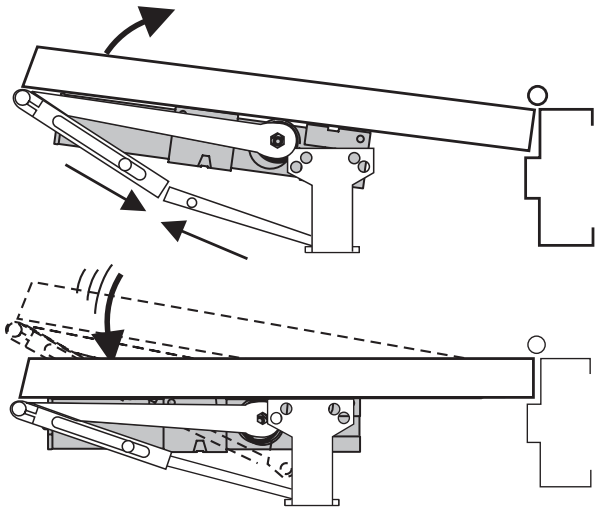
6. INSTALL MAIN ARM AND CONNECTING ROD

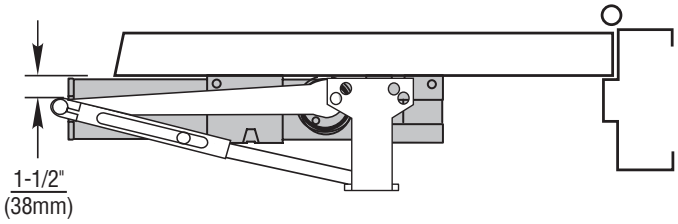
a)





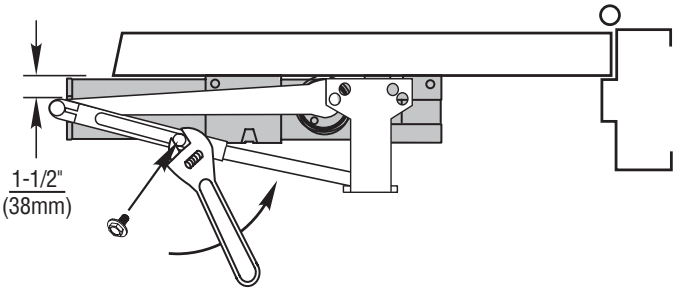
Slide connecting rod into forearm of main arm.

b)



Rotate main arm until the pivot point is 1-1/2" from door surface.

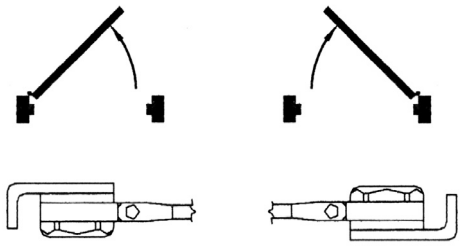
c)



While holding arm in this position, tighten down forearm screw.

7. OPTIONAL HOLD-OPEN ARM

Identify direction of hold-open nut according to hand of door and mount arm.



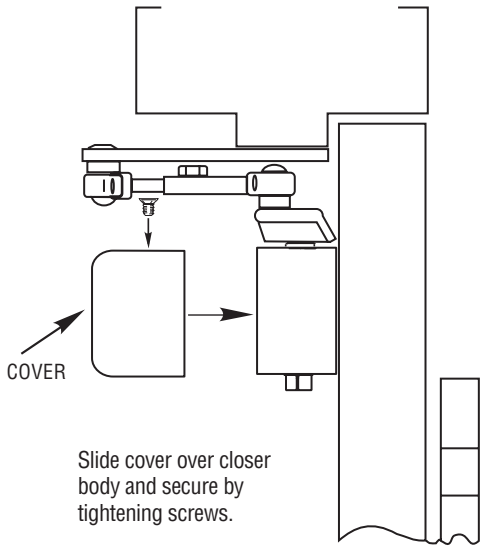
Adjust by loosening hold-open nut, then open door to desired position and tighten hold-open nut securely.

8. ADJUSTMENTS

See Adjustments on Page 6 for setting Spring Power, Sweep Speed, Latch Speed, and Backcheck.

NOTE: Do not fully unscrew valves or hydraulic fluid will leak and closer will no longer be functional.

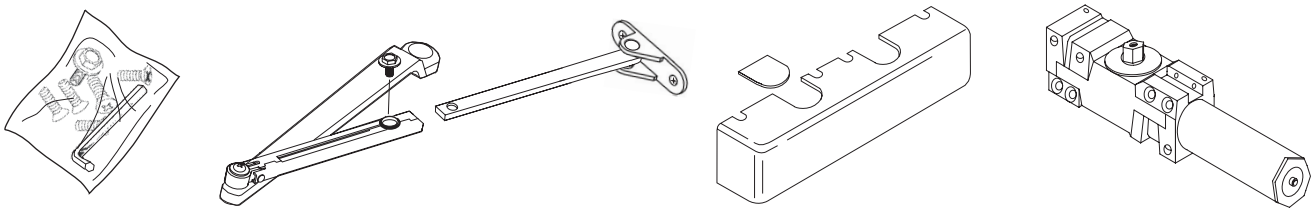
9. INSTALL COVER



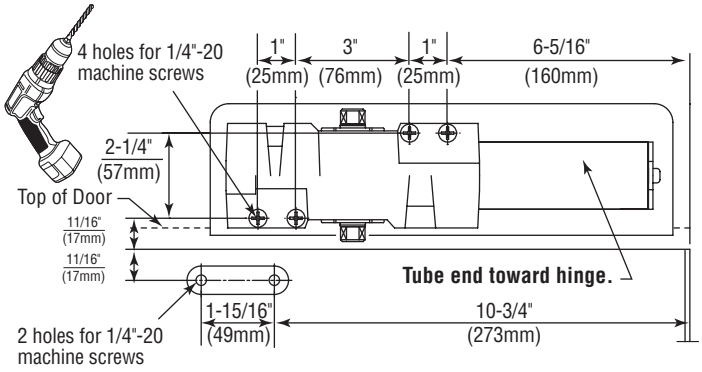
Slide cover over closer body and secure by tightening screws.

5100 Series Door Closer - Top Jamb Arm
Installation Instructions
Meets ANSI A156.4

1. PARTS

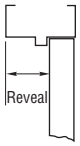


2. MARK AND DRILL HOLES (*Right Hand Shown*)



An optional mounting plate is required where the head frame face is less than 3-1/2" (89mm). Plate requires 1-3/4" (44mm) minimum head frame.

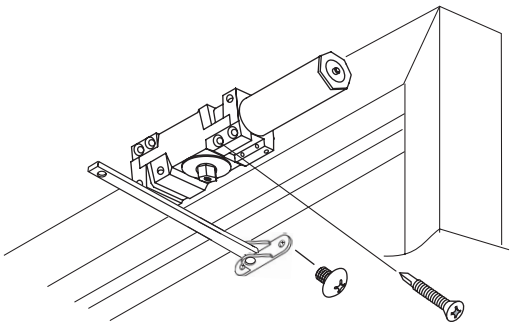
A longer connecting rod is required for reveals greater than 3" (76mm)



120˚ Door Opening

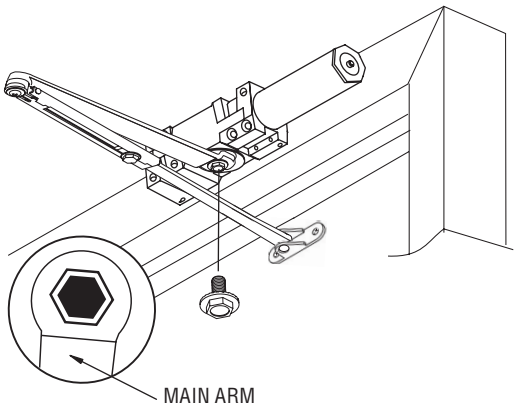
Select hand of door. Separate template sections "A" and "B". Fold template on the hinge edge of door line. Match this line with the hinge edge of door and attach template to door. Be sure "Frame" line on template lines up with the top edge of door. Using a square, project "Closer Projection Line" on section "A" of template onto frame and use to align and attach section "B". Be sure to align bottom edge of section "B" with edge of frame. Mark, prep and drill/tap 1/4"- 20 holes for connecting rod shoe and closer body mounting screws.

3. INSTALL CLOSER



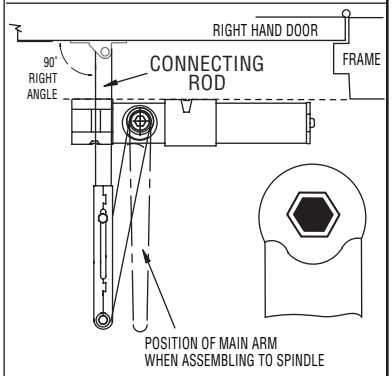
Remove template and use mounting screws to install the closer body to the top jamb and the connecting rod shoe to the door. Closer body should be oriented so that the tube end of closer is toward the hinge stile.

4. INSTALL MAIN ARM



Orient main arm 90˚ from the closer body. Press arm down on spindle and secure with spindle bolt.

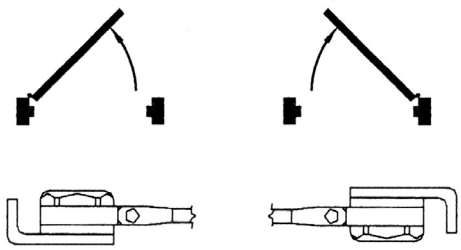
5. INSTALL MAIN ARM AND CONNECTING ROD



Slide connecting rod into forearm of main arm. Rotate main arm until connecting rod is at a 90˚ angle to frame. While holding arm in this position, tighten down forearm screw.

6. OPTIONAL HOLD-OPEN ARM

Identify direction of hold-open nut according to hand of door and mount arm.



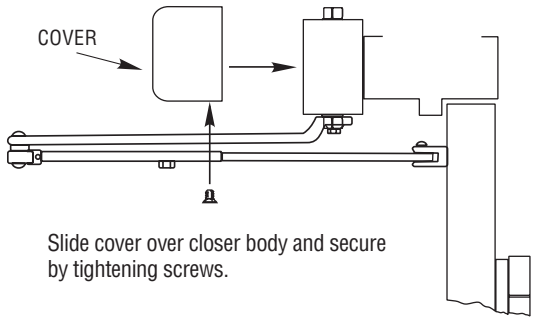
Adjust by loosening hold-open nut, then open door to desired position and tighten hold-open nut securely.

7. ADJUSTMENTS

See Adjustments on Page 6 for setting Spring Power, Sweep Speed, Latch Speed, and Backcheck.

NOTE: Do not fully unscrew valves or hydraulic fluid will leak and closer will no longer be functional.

8. INSTALL COVER



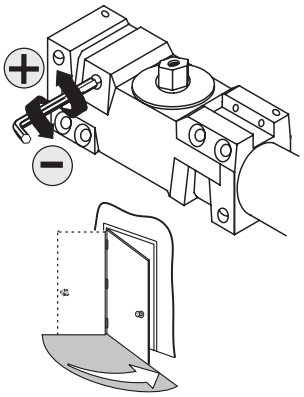
Slide cover over closer body and secure by tightening screws.

HAGER COMPANIES 139 Victor Street, St. Louis, MO 63104 • (800) 325-9995 • Fax (800) 782-0149

5100 Series Door Closer - Adjustments
Installation Instructions
Meets ANSI A156.4

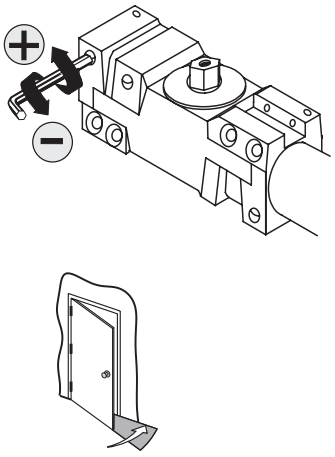
ADJUSTMENTS (USE 5/32" HEX WRENCH FOR THESE ADJUSTMENTS)

SWEEP SPEED



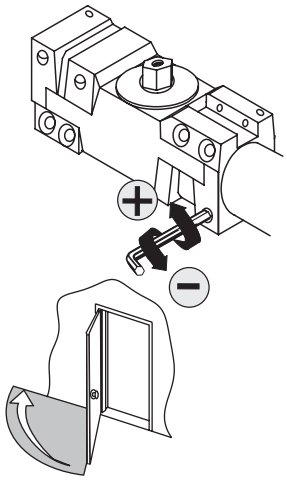
Note: Adjust closing time speed to between 3 and 7 seconds from 90 to 0. Greater closing times may be required for elderly or handicapped.

LATCH SPEED



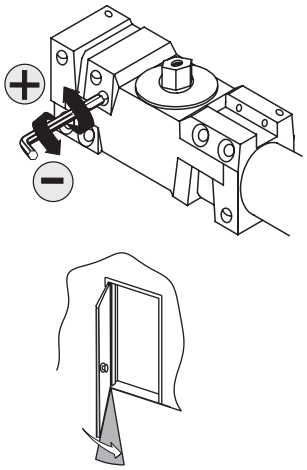
Adjust latch speed so door completely closes and latches.

BACKCHECK



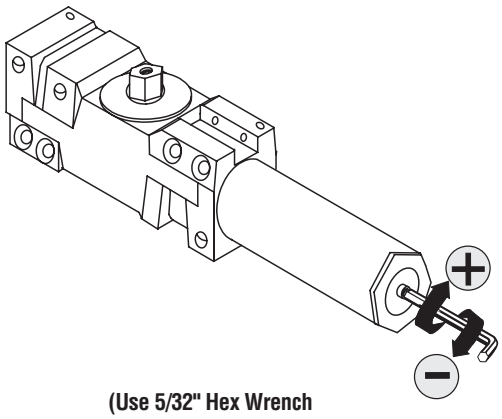
Adjust backcheck accordingly to prevent excessive opening speed.

OPTIONAL DELAY ACTION



Adjust delay action accordingly to obtain desired delay time.

SPRING POWER ADJUST (Sizing in accordance to BHMA/ANSI 156.4)



(Use 5/32" Hex Wrench for this adjustment)

TABLE OF SIZES

Closer is shipped set to size 3. To change the closer size, use a hex wrench to rotate the spring power adjust. Follow the chart to make the correct numbers of 360° turns to set the closer size appropriately for the door application.

The number of turns is an approximation and does not account for environmental or door hardware affects.

cw = clockwise
ccw = counterclockwise

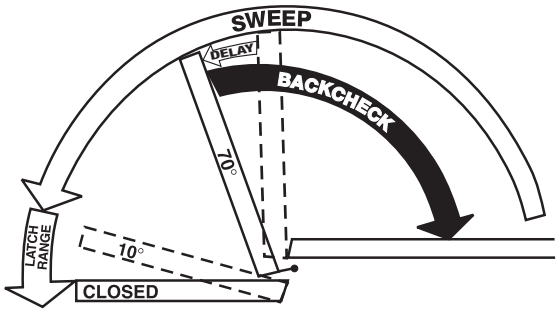
Exterior (and Vestibule) Door Width

	Minimum Door Width (24")			
	24" (610mm)	30" (762mm)	36" (914mm)	42" (1067mm) - 48" (1219mm)
Regular Arm & Top Jamb	Size 3 (0)	Size 4 (4cw)	Size 5 (8cw)	Size 6 (12cw)
Parallel Arm	Size 3 (4cw)	Size 4 (8cw)	Size 5 (12cw)	

Interior Door Width

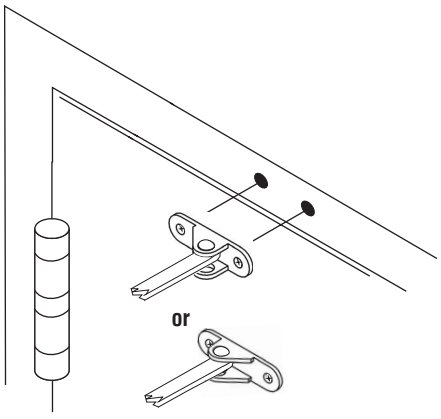
	Minimum Door Width (24")					
	24" (610mm)	30" (762mm)	34" (865mm)	38" (965mm)	48" (1219mm) - 54" (1372mm)	60" (1524mm)
Regular Arm & Top Jamb	Size 1 (8ccw)	Size 2 (4ccw)	Size 3 (0)	Size 4 (4cw)	Size 5 (8cw)	Size 6 (12cw)
Parallel Arm	Size 1 (4ccw)	Size 2 (0)	Size 3 (4cw)	Size 4 (8cw)	Size 5 (12cw)	

ADJUSTMENT DIAGRAM



SHOE PLACEMENT

Flip connecting rod as shown to increase closer strength.



NATIONAL GUARD PRODUCTS

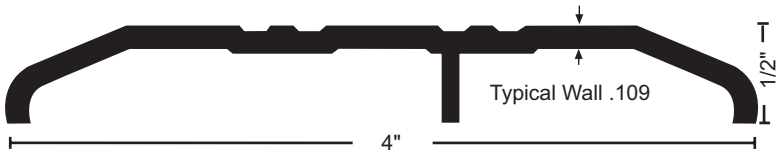
Saddle Threshold

424E

Materials & Finishes
Aluminum alloy 6063, T5 temper
Mill finish
DKB - dark bronze finish

- 4" wide x 1/2" tall
- Fluted top
- BHMA certified to ANSI/BHMA A156.21 1,000 lb. load test
- Typical wall thickness .109"
- Weight: .60 lbs./ft.
- #10 x 1-1/2" FH zinc plated wood screws included

Optional Slip Resistant SIA Finish



Project:
Submitted by:
Date:
Notes:

4985 East Raines Road, Memphis, TN 38118 • 800-647-7874

424E

Aluminum Saddle Threshold ½" x 4"

- Aluminum Alloy 6063, T5 Temper
- 4" Wide x ½" Tall
- Fluted Top
- BHMA Certified to ANSI/BHMA A156.21 1,000 Lb. Load Test
- Typical Wall Thickness: .109"
- Weight: .60 Lbs./Ft.
- #10 x 1½" FH Zinc Plated Wood Screws Included

THRESHOLD

BHMA CERTIFIED

UL CERTIFIED SAFETY US-CA R10042

POSITIVE PRESSURE TESTED GASKETING MATERIALS FOR FIRE DOORS. FOR APPLICATION TO HOLLOW-METAL-TYPE FIRE DOORS, RATED UP TO 3 HOURS AND WOOD-TYPE FIRE DOORS, RATED UP TO 1½ HOURS. CATEGORY J

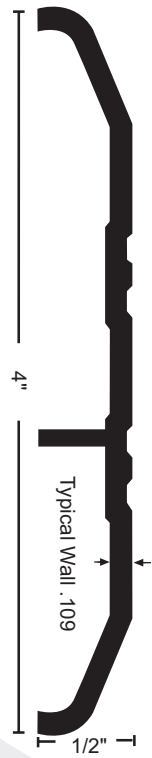
ngp.com
1-800-NGP-RUSH

FAX: (800) 255-7874
QUOTES: quotes@ngp.com

10.23

INSTALLATION INSTRUCTIONS

1. Cut threshold to size required.
2. Notch around door frame if desired.
3. Attach to floor surface with fasteners provided.
4. Caulk around base of threshold for moisture control.



NGP

THE PRODUCTS YOU COUNT ON
THE PEOPLE YOU TRUST

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QUOTES: quotes@ngp.com

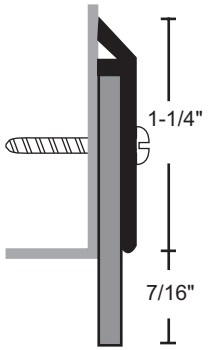
MEMPHIS
4985 East Raines Road
Memphis, TN 38118

CARSON CITY
3689 Arrowhead Drive
Carson City, NV 89706

NATIONAL GUARD PRODUCTS

Neoprene Sweep
200N

Project:
Submitted by:
Date:
Notes:



Material
Aluminum alloy 6063, T5 temper
Synthetic rubber polymer blend: PVC, Nitrile rubber (NBR), and Chloroprene closed cell advanced elastomeric foam
Neoprene is black

- Very good abrasion resistance, tensile strength and memory
- Flame resistant
- Moisture resistant
- Temperature range -20°F to 200°F
- Good resistance to ozone, sunlight and aging
- BHMA certified to ANSI/BHMA A156.22 performance tests for heat, cold, air infiltration and smoke infiltration
- #6 x 3/4" stainless steel sheet metal screws furnished
- Screw holes slotted for adjustment

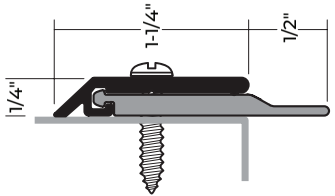
Finishes

200NA	Anodized Aluminum
200NB	Gold
200NDKB	Dark Bronze

4985 East Raines Road, Memphis, TN 38118 • 800-647-7874

NGP 200 SEAL

Aluminum
Door Sweep



BHMA CERTIFIED

See ngp.com for All Applicable Certifications for this Product.

UL CERTIFIED SAFETY US·CA R10042

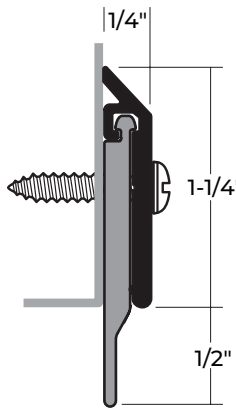
POSITIVE PRESSURE TESTED GASKETING MATERIALS FOR FIRE DOORS FOR APPLICATION TO HOLLOW-METAL-TYPE FIRE DOORS RATED UP TO 3 HOURS AND WOOD-TYPE FIRE DOORS RATED UP TO 1½ HOURS. CATEGORY H.

SILCONE AND NEOPRENE ARE SMOKE AND DRAFT CONTROL GASKETING (CATEGORY H) TESTED TO UL 1784; MEETS REQUIREMENTS OF NFPA 105, IBC FOR USE ON "S" LABEL DOORS.

- Aluminum Alloy 6063, T5 Temper
- Flame/Moisture Resistant
- #6 x ¾" Stainless Steel Sheet Metal Screws Furnished

ngp.com
1-800-NGP-RUSH

INSTALLATION INSTRUCTIONS



200

1. Cut sweep to fit.
2. Close door. Hold sweep at bottom of door. Tap down until contact is made between the sweep and threshold.
3. Mark screw holes.
4. Drill pilot holes for screws using a 7⁄64" drill bit.
5. Install with screws provided.
6. Adjust position so sweep does not impede proper closing and latching of door.

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FAX: (800) 255-7874
QUOTES: quotes@ngp.com

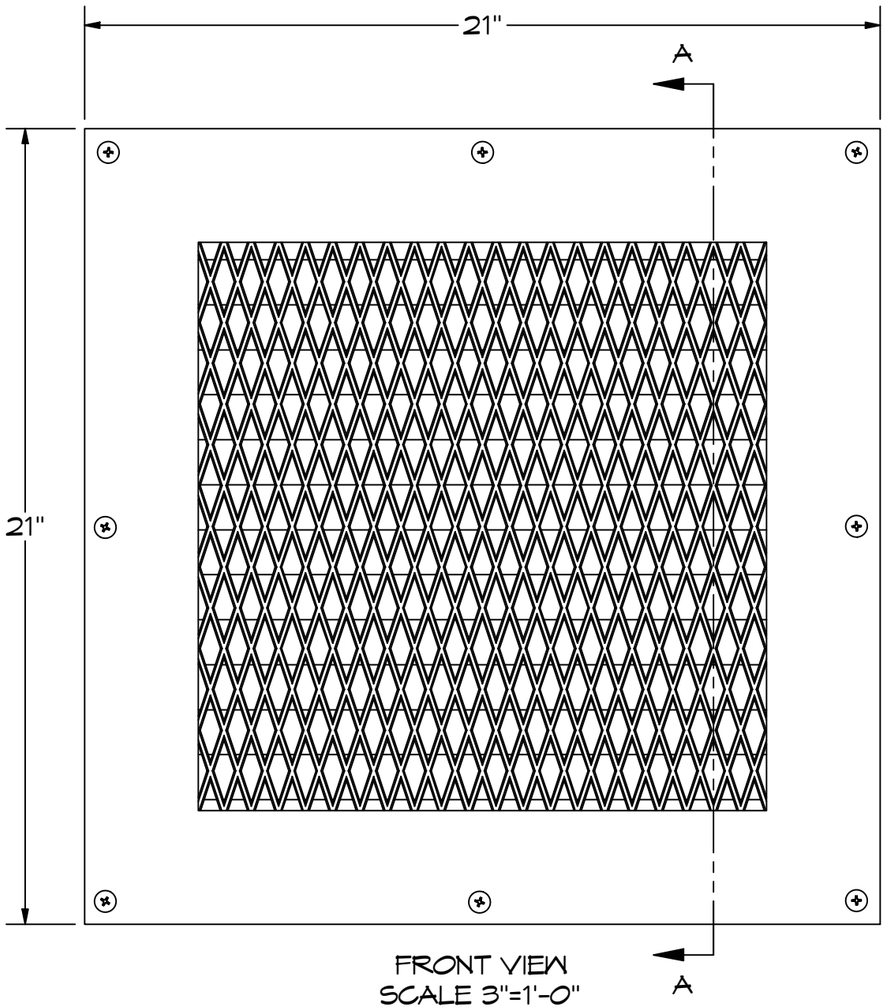
MEMPHIS
4985 East Raines Road
Memphis, TN 38118

CARSON CITY
3689 Arrowhead Drive
Carson City, NV 89706

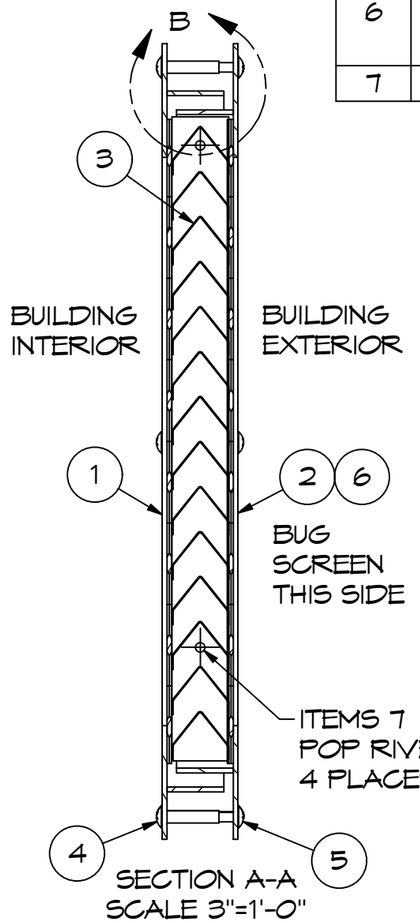
ASSEMBLY NOTES:
1. INSTALL BUG SCREEN OVER LOUVER SECTION ON THE INSIDE FRAME SIDE.
2. SLIDE THE LOUVER ASSEMBLY INTO PLACE.
3. POP RIVET ALL PARTS INTO PLACE USING ITEMS 7.
4. POWDER COAT THE INSIDE AND OUTSIDE FRAME WELDMENTS AND LOUVER ASSEMBLY PRIOR TO FINAL ASSEMBLY.

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	XV-000-1029~KICK VENT FRAME 18 x 18 Outside Frame	18" x 18" KICK VENT FRAME
2	1	XV-000-1029~KICK VENT FRAME - 18 x 18 Inside Frame	18" x 18" KICK VENT FRAME
3	1	XV-000-1029~louver subassembly	LOUVER WELDMENT
4	8	FN-002-5018-ST-0.25-BINDING BARREL (SEX SCREW) x 1.5 0.25x1.5	0.25-BINDING BARREL (SEX SCREW) x 1.5 0.25x1.5
5	8	FN-001-5029-ST-0.25-ROUND PHILLIPS HEAD SCREW x 0.25 x .75	0.25-ROUND PHILLIPS HEAD SCREW x 0.25 x .75
6	1	XV-1717-5003-CT-0.03125-FM-BUG SCREEN 17 x 17	BUG SCREEN
7	4	POP RIVETS	POP RIVETS

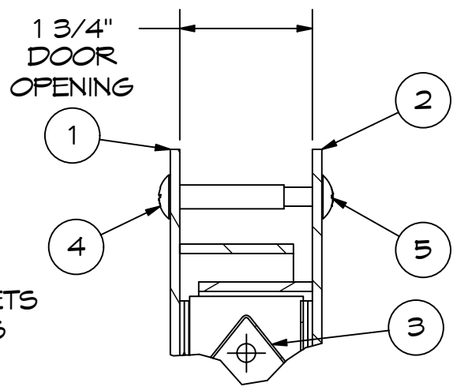
NOTES:
1. ITEM 4 BINDING BARREL - McMASTER/CARR #98002A995 OR EQUIV.
2. HOLES IN THE DOOR CAN BEMATCH-DRILLED USING EITHER FRAME SUBASSEMBY AS A TEMPLATE. 5/16" DIA THRU - 8 HOLES.
3. INSIDE FRAME AND OUTSIDE FRAME ARE IN REFERENCE TO THE VENT ASSEMBLY ONLY AND NOT TO THE INTERIOR OR EXTERIOR OF THE DOOR OR BUILDING. THE INSIDE FRAME IS ACTUALLY TO BE LOCATED ON THE EXTERIOR OF THE DOOR OR BUILDING.



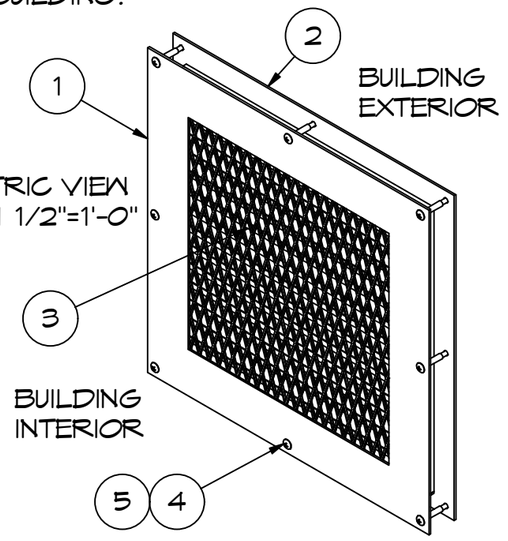
FRONT VIEW
SCALE 3"=1'-0"



SECTION A-A
SCALE 3"=1'-0"



DETAIL B
SCALE 6" = 1'-0"



ISOMETRIC VIEW
SCALE 1 1/2"=1'-0"

ROMTEC
18240 NORTH BANK ROAD
ROSEBURG, OR 97470
(541)-496-3541
FAX (541)-496-0803

MANUFACTURING

DATE: 12/15/2020
DRAWN BY: AM
BOM PART:

()=REFERENCE DIMENSION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)

FRACTIONS	±1/16
.XX	±.010
.XXX	±.005
ANGLES	±1/2°

DOOR VENT
KICK PROOF

REV	DESCRIPTION	DATE	BY
1	SEE MASTER PRODUCTION REV LIST	11/20/20	CR
2	SEE MASTER PRODUCTION REV LIST	12/16/20	AM
3	SEE MASTER PRODUCTION REV LIST	4/20/21	AM
4	SEE MASTER PRODUCTION REV LIST	1/11/22	AM

SHEET 1 OF 9
DWG. NO. XV-000-1029

Insulated FLOOD VENT - Model: 1540-520

High Efficiency Insulated Flood Vent

Superior Automatic Flood Protection

ICC-ES Evaluated and FEMA Accepted Foundation Flood Vents

- **Potential savings on homeowner's NFIP premiums**
- **Preserves aesthetic beauty of a home by requiring 2/3 less vents**
- **Each vent certified to protect 200 sq. ft. of your home**
- **Code Compliant, FEMA accepted, ICC-ES Evaluated**
- **All Stainless Steel construction meets or exceeds flood and corrosion resistance code requirements**
- **Patented automatic floats release bi-directional flood door**
- **Great for conditioned or sealed crawl spaces**

One 16" x 8" vent is certified to cover 200 square feet of enclosed area for flood protection

The insulated flood vent model is certified to provide insulated flood protection only. This model is used for a garage or conditioned space, where flood protection is required but ventilation is NOT desired. The flood door is constructed of solid stainless steel wrapped around an insulating foam core.

SMART VENT

www.smartvent.com • 877-441-8368

Insulated FLOOD VENT - Model: 1540-520

Model #:	1540-520
Installation Type:	Masonry Wall
Style:	Insulated
Dimensions:	16" x 8"
Rough Opening:	16¼" x 8¼" (one block, or CMU)
Finish:	Stainless Steel *(Standard)*

Available Powder Coat Colors For Special Order:

Stainless (standard)

Optional Accessories:
Fire Damper, Interior Trim Flange & Inner Sleeve, Rain Shield

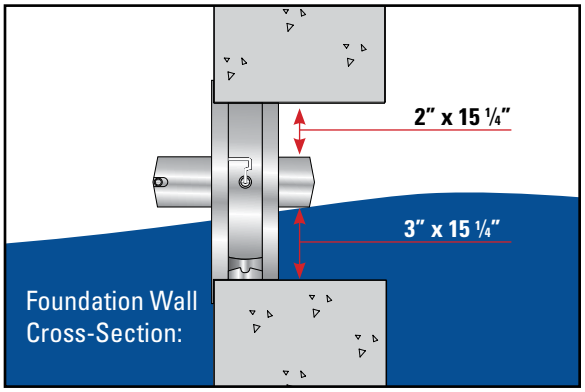
Other Models Available: SMART VENT® Dual Function Ventilating Flood Vent, Overhead Garage Door Model, Stacked and Quad Configurations, Models for Wood Studded Wall Applications and Pour in Place Buck Systems.

There's more online at www.smartvent.com
Dealer Locator, Installer Locator, Cad Drawings, Installation Instructions, Technical Specifications, Frequently Asked Questions, Videos, Testimonials, Resource Library Database, Insurance Forms.

Rapidly rising floodwater can put extreme pressure on the foundation walls causing improperly vented structures to buckle and collapse. SMART VENTS® quickly and efficiently equalize the pressure and minimize damage.

How it works:

Flood Protection: The FLOOD VENT door is latched closed until floodwater enters. Entering floodwater lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation.



Use Fewer Vents

Preserve the aesthetic beauty of a home by requiring 2⁄3 fewer vents. Each SMART VENT® protects 200 sq/ft of enclosed area vs. 60 sq/ft for non-compliant vents.

How does one of your vents provide so much coverage?

You may have heard that FEMA requires that flood openings provide one square inch of opening per one square foot of enclosed area, referring to dimensions of the opening in proportion to the space to be vented. This is only partially correct. FEMA's regulations and guidelines do state that a non-engineered flood vent solution must (among other requirements) provide one square inch of opening per square foot of enclosed area to be vented. However; all SMART VENT® products are ICC-ES certified engineered openings. They have been designed, engineered, tested, rated, and certified to provide flood relief so efficiently that only one unit is needed for 200 square feet of enclosed area. It would be our pleasure to contact your code official, surveyor, or insurance agent if they require more information.

DETAIL DIAGRAM
MODEL 1540–520
FLOOD VENT INSULATED

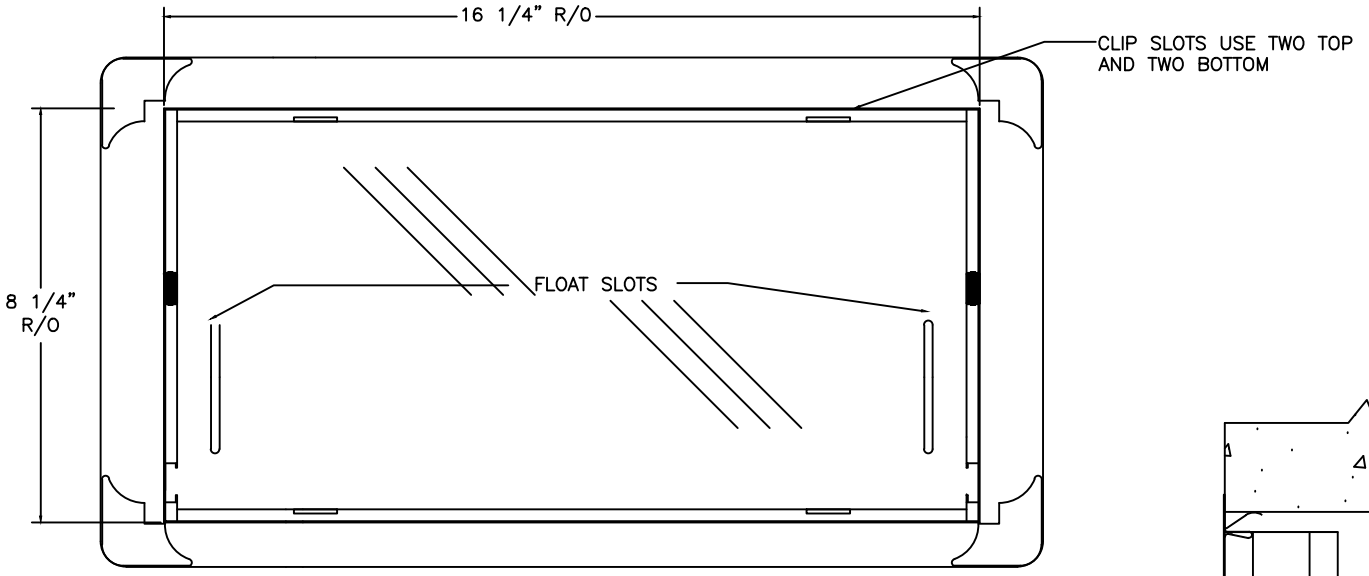


FIGURE 1
FRONT VIEW

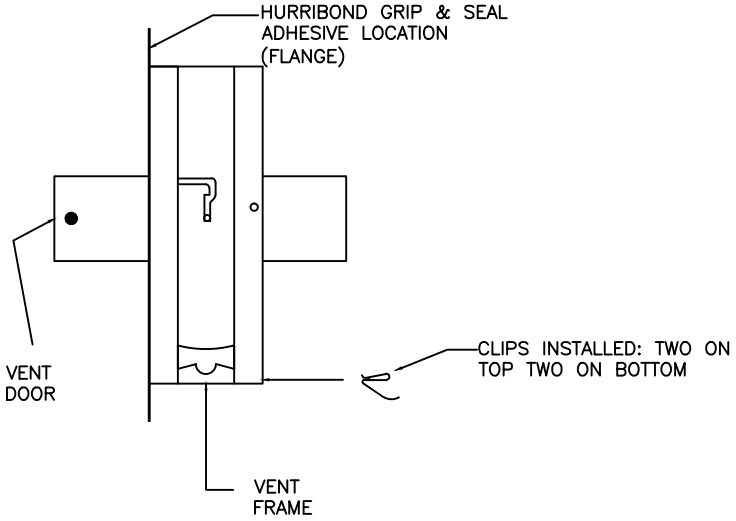


FIGURE 2
SIDE VIEW

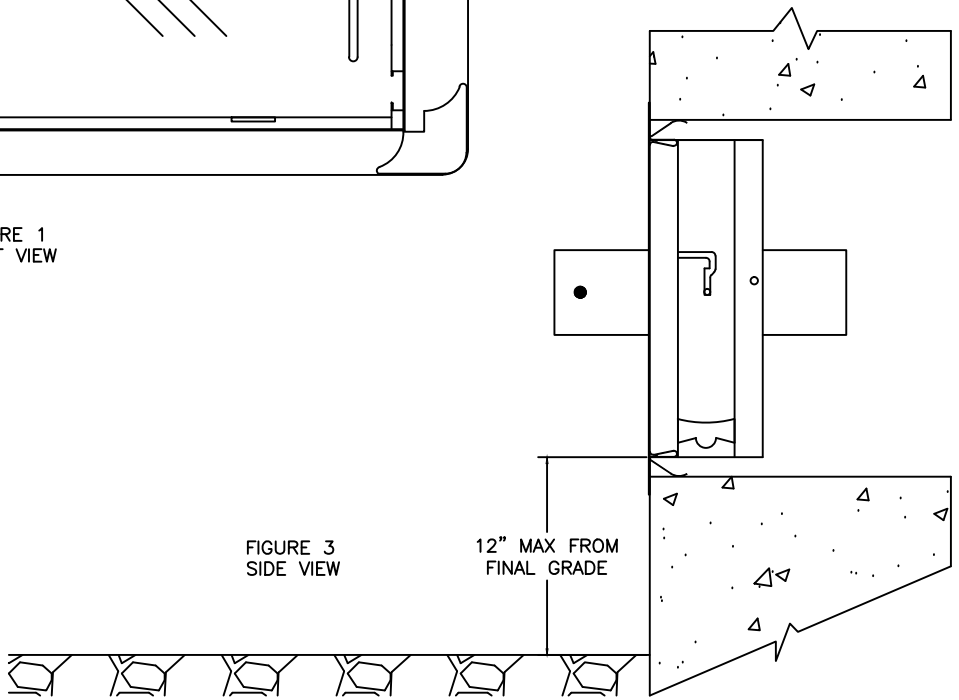


FIGURE 3
SIDE VIEW

SMART VENT®
877–441–8368
WWW.SMARTVENT.COM

SMART VENT FOUNDATION FLOOD VENTS
430 ANDBRO DR., UNIT 1
PITMAN NJ 08071

FLOOD VENT INSULATED
MODEL 1540–520

SIZE	DWG NO.	REV
A	1540–520	B

DATE. 6–21–16	SHEET 1 OF 2

Smart VENT
877– 441– 8368
www.smartvent.com

INSTALLATION INSTRUCTIONS
& DETAILS
MODEL 1540–520
FLOODVENT INSULATED
REV. 6–21–16

INSTALLATION INSTRUCTIONS

1. REMOVE VENT DOOR FROM VENT FRAME. (TURN UPSIDE DOWN, ROTATE BOTTOM OF DOOR OUTWARD AND SLIDE OUT)
2. PREPARE A CLEAN 16.25" WIDE BY 8.25" HIGH ROUGH OPENING (APPROX. 1 BLOCK WIDE X 1 BLOCK HIGH) FOR EACH VENT. ENSURE THE BOTTOM OF THE ROUGH OPENING IS NO MORE THAN 12" ABOVE THE FINISHED GRADE.
3. APPLY A BEAD OF HURRIBOND GRIP & SEAL OR EQUIVALENT ADHESIVE AROUND THE BACK OF THE FLANGE ON THE VENT FRAME. (FIG. 2)
4. INSERT INSTALLATION CLIPS INTO THE TWO SLOTS ON THE TOP AND TWO SLOTS ON THE BOTTOM OF THE FRAME.
5. THE SPRING ARM OF THE CLIPS SHOULD BE ON THE OUTSIDE OF THE VENT FRAME. COMPRESS THE BOTTOM TWO CLIPS AND BEGIN SLIPPING THE FRAME INTO THE OPENING. ENSURE THAT THE BOTTOM CLIPS ARE IN THE OPENING BEFORE ALLOW THEM TO DECOMPRESS.
6. WITH THE FRAME NOW IN THE OPENING, AND THE BOTTOM SPRINGS IN PLACE, COMPRESS THE TOP SPRINGS AND PUSH THE VENT FRAME INTO THE OPENING COMPLETELY UNTIL THE FRAME IS FLUSH WITH THE WALL.
7. RE–CHECK THAT FRAME IS SQUARE AND SLOTS ARE CLEAR OF DEBRIS, AND CAULK.
8. INSTALL THE DOOR INTO FRAME BY GRASPING THE BOTTOM OF DOOR (WITH FLOAT PINS DOWN) AND FRONT (SMALL SCREEN IN FRONT). SLIDE DOOR INTO FRAME AND ROTATE UNTIL IT IS LATCHED.
9. TO OPEN THE DOOR INSERT TWO CREDIT CARDS INTO THE FLOAT SLOTS AS SHOWN IN THE DIAGRAM. THIS WILL UNLATCH THE DOOR FOR REMOVAL AND CLEANING.

DETAIL SPECIFICATIONS:
MATERIAL: STAINLESS STEEL
OPERATION: AUTOMATIC NON–POWERED ACTIVATION AND OPERATION

INSTALLATION:
SECURED W/ 4 STAINLESS STEEL INSTALLATION CLIPS INCLUDED AND AN ADHESIVE
HYDROSTATIC RELIEF: 200 SQ. FT PER VENT
REQUIREMENTS: MINIMUM OF 2 VENTS PER ENCLOSED AREA MOUNTED ON AT LEAST TWO DIFFERENT WALLS

COLORS: STAINLESS (STANDARD)
EXTERIOR POWDER COATED WHITE, WHEAT, GRAY, AND BLACK (AVAILABLE)

MEETS THE REQUIREMENTS FOR ENGINEERED OPENINGS AS SET FORTH BY:
FEMA, NFIP, ICC, & ASCE
SUPPORTIVE DOCUMENTS, TB 1–08, 44CFR 60.3(C)(5), ASCE 24–14
ICC EVALUATION # ESR–2074

Architectural Accessories & Door Trim

ASSA ABLOY

ROCKWOOD®

The global leader in door opening solutions

107 - Door Pull

Specifications:

MATERIAL:
Aluminum, Brass, Bronze, Stainless Steel

FASTENER:
1/4- 20 x 2 1/4" thru bolt & finish washer (standard 1 3/4" door)

OPTIONS:
- Back to back mounting in pairs — use BTB suffix and mounting type number (106BTB5)
- Concealed mounting single pulls — use C suffix and mounting type number (106C6)
- Advise if door thickness is other than 1 3/4"
- 2 1/2" Barrier Free clearance — use BF prefix (BF106)

Available Finishes:

- US28/628
- 313/710
- 315/711
- Powder Coat
- US3/605
- US4/606
- US10/612
- US10B/613
- US10BE/613E
- US26/625
- US26D/626
- US32D/630
- US32/629
- US32DMS
- US32D316
- US32316
- US3LIFETIME

MATERIAL SIZE:
3/4" dia.

CTC:
8"

OVERALL:
8 3/4"

BASE:
3/4"

PROJECTION:
2 5/8"

CLEARANCE:
1 7/8"

WEIGHT:
1.6 lbs.

ANSI A156.6: J401

ROCKWOOD Manufacturing Company
Rockwood, Pennsylvania 15557
Phone: (800) 458-2424 • Fax: (800) 922-9212
www.rockwoodmfg.com • info@rockwoodmfg.com

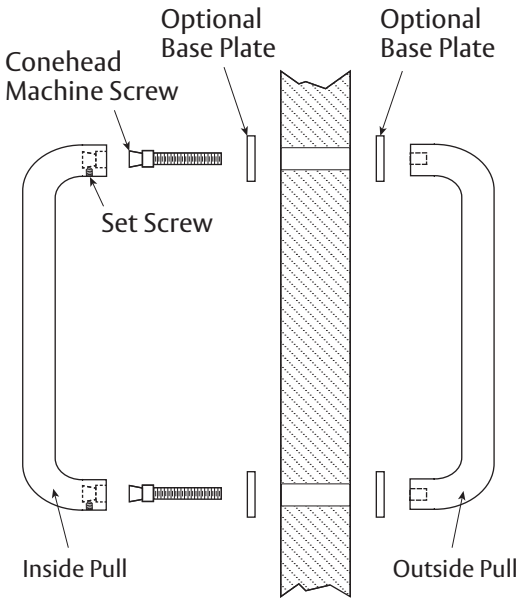
Architectural Door Accessories

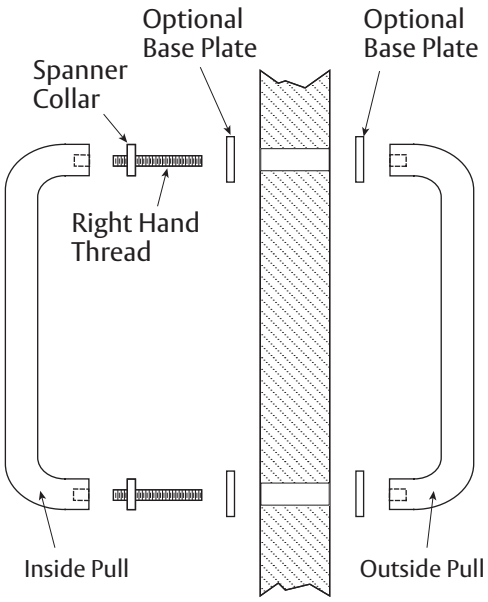
ASSA ABLOY

Rockwood Mounting Detail - Back to Back (Wood or Metal)

The global leader in door opening solutions

For Installation Assistance, Call Rockwood Products at 800-458-2424 • www.rockwoodmfg.com





Type 5 Mounting

1. Drill holes at required center to center locations using the drill size required by bolt size (see Drill Chart).
2. Insert the cone head machine screw through the push side of the door to the pull side.
3. Tighten the outside pull with the cone head bolts. Make sure the pull is properly tightened and snug to the door face. The cone head bolts should be rigid before proceeding.
4. Slide the inside pull over the cone heads and hold the inside pull tight to the face of the door while tightening the set screws.

Note: It is imperative that the set screws are firmly tightened and that the door pull is tight against the door face so that the set screw properly engages the cone head. If vibration causes set screws to loosen, use a "Locktite" type material to prevent such action.

Drill Chart	
Bolt Size	Drill Size
1/4"-20	9/32"
5/16"-18	11/32"

Type 11 Mounting

1. Make sure of proper centers of drilled holes.
2. Start the right-hand / left-hand threaded rods into one right-hand threaded pull just using enough threads to hold it in place.
3. Take the door pull, which you have started the threaded rods into, and push the bolts through the holes in door. Slip the spanner collar over the threaded rods and turn clockwise to start threads into the inside left-hand threaded door pull.
4. Start tightening handles by alternately turning rods about 1/4" turn at a time. This can be done by using an open end or adjustable wrench on the flat spot of the bolt. When the handles have been drawn together enough so that there is no longer room for the wrench to be used, then the handles can be tightened the rest of the way using a spanner wrench or an object such as a nail or drill bit that will fit in the hole in the spanner collar. Continue tightening the spanner collars by alternately turning in 1/4" turn increments until pulls are tight against the door.

NOTE: This type of mounting makes a very rigid connection but it does require care in the installation. Tolerances are tight and rods can bind easily if turned too much at a time.

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Architectural Door Accessories

ASSA ABLOY

Rockwood Mounting Detail - Back to Back (Glass)

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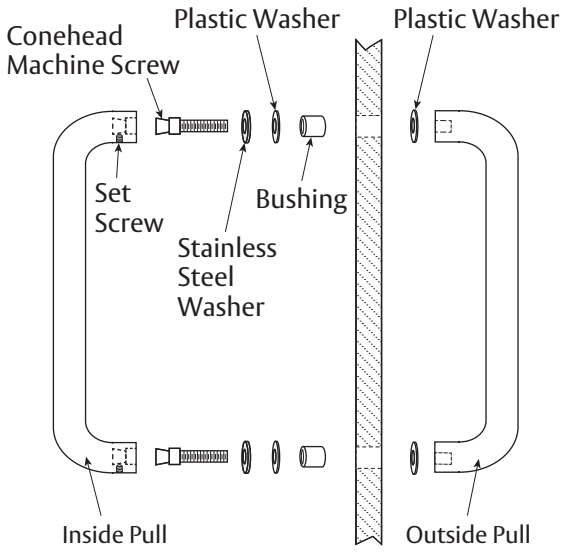

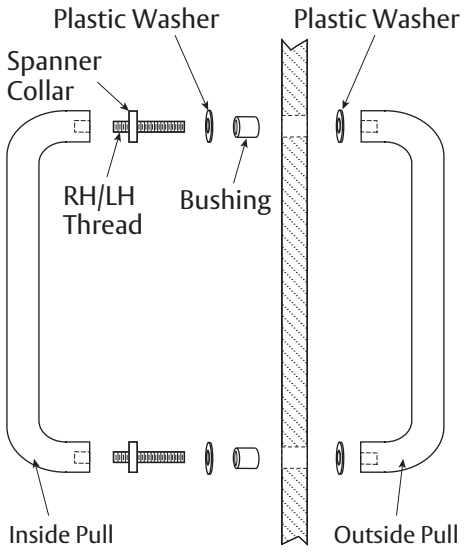

Type 13 Mounting

1. Make sure of proper centers of drilled holes. Install bushings in the holes in the glass door, Be sure that the bushings are the proper outside diameter for snug fit and are the proper length so they do not protrude beyond the surface of the glass. (It is acceptable if they are a little short.)
2. Locate the cone head machine screw and slip the thin stainless washer onto the screw followed by the plastic washer. Insert the screws through the bushings from the push side of the door to the pull side. Push the screw all the way through so the washers and the shoulder are snug against the door face.
3. Slip the other plastic washer over the protruding thread on the outside of the door and tighten the outside pull with the cone head bolt. Make sure the pull is properly tightened and snug to the door face. The cone head bolt should be rigid before proceeding.
4. Slide the inside pull over the cone heads and hold the inside pull tight to the face of the door while tightening the set screws.

NOTE: It is imperative that the set screws are firmly tightened and that the door pull is tight against the door face so that the set screw properly engages the cone head. If vibration causes set screws to loosen, use a "Locktite" type material to prevent such action.

Type 14 Mounting

1. Make sure of proper centers of drilled holes, Install bushings in the holes in the glass door. Be sure that the bushings are the proper outside diameter for snug fit and are the proper length so they do not protrude beyond the surface of the glass. (It is acceptable if they are a little Short,)
2. Start the right-hand / left-hand threaded rods into one right-hand threaded pull just using enough threads to hold it in place,
3. Take the door pull, which you have started the threaded rods into, and push the bolts through the holes in door. Slip washers and then the spanner collar over the threaded rods and turn clockwise to start threads into the inside left-hand threaded door pull.
4. Start tightening handles by alternately turning rods about $^1/_4$" turn at a time. This can be done by using an open end or adjustable wrench on the flat spot of the bolt. When the handles have been drawn together enough so that there is no longer room for the wrench to be used, then the handles can be tightened the rest of the way using a spanner wrench or an object such as a nail or drill bit that will fit in the hole in the spanner collar. Continue tightening the spanner collars by alternately turning in $^1/_4$" turn increments until pulls are tight against the door.

NOTE: This type of mounting makes a very rigid connection but it does require care in the installation. Tolerances are tight and rods can blind easily if turned too much at a time.

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30S
Square Corner - Beveled Push Plate

Options:

- May be ordered cut for cylinder (CFC) or engraved "PUSH"

PRODUCT SPECIFICATIONS

GAUGE:
- .050" (1 mm)

MATERIALS:
- Aluminum, brass, bronze, stainless steel

FINISHES:
- US3, US4, US10, US10B, US26, US26D, US28, US32, US32D

FASTENERS:
- Six (6) #6 x 5/8" OPH Tapping Screws

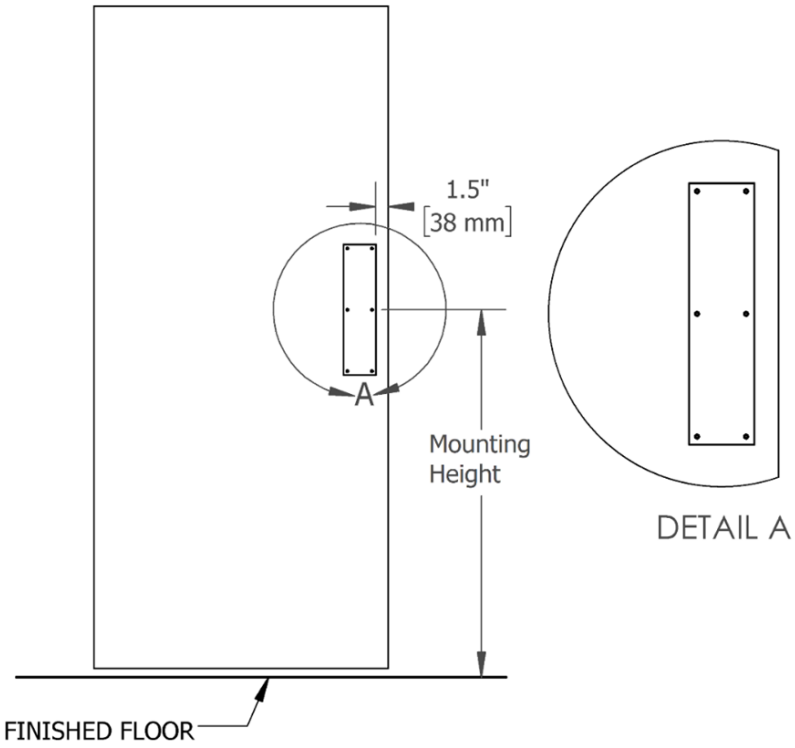
CERTIFICATION:
- Meet ANSI A156.6 for J301 push plate

PRODUCT SIZE OPTIONS

ITEM #	SIZE (INCHES)	SIZE (MM)
30S/A30S	3 x 12	76 x 305
30S/A30S	3-1/2 x 15	89 x 381
30S/A30S	4 x 16	102 x 406
30S/A30S	6 x 16	152 x 406
30S/A30S	8 x 16	203 x 406

30S and A30S Push Plate
Installation Instructions
I-TA01244

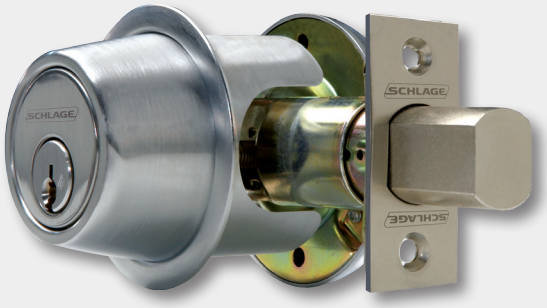
Tools Required:
 7/64" Or 1/16"



1. Determine the mounting height of the push plate on the door. (According to the International Building Code 2018 and 2010 ADA standards, push plates shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor).
2. Place the push plate on the door so that the edge of plate is 1.5" [38 mm] from the edge of the door
3. Once the push plate is on the desired position, mark the door using the push plate holes as a template
4. Using a 7/64" drill bit (Hollow Metal Doors) or 1/16" drill bit (Solid Core Wood Doors), drill pilot holes through the marked spots created on step 3. (Be sure not to drill all the way through).
5. Install the push plate using the #6 x 5/8" Thread Forming Screws.

B500 Series

Commercial deadbolts



Overview

The B500 Series deadbolt from Schlage is the toughest, most versatile deadbolt in the business. Designed by locksmiths for locksmiths, the B500 Series deadbolt accepts every Schlage cylinder on the market, fits virtually every door you service, enhances lock strength on the jamb side of the door, and will change forever the way you look at deadbolts.

Functions

- B560 - Single cylinder deadbolt lock
- B561 - One-way deadbolt lock
- B562 - Double cylinder deadbolt lock
- B563 - Classroom deadbolt lock
- B571 - Door bolt occupancy indicator
- B580 - Door bolt (no outside trim)
- B581 - Door bolt (with outside blank plate)

Features and benefits

- ANSI A156.5, 2001 Grade 2
- Available UL Listed for three-hour fire door
- Quick, easy installation
- Adjustable backset locks into place
- Anti-pry shield protects latch from attacks
- Metal dust box provides deep anchoring and added strength
- Primary or auxiliary locking for commercial buildings
- High security locking for residential buildings
- Can be suited with virtually all Schlage levers and knobs

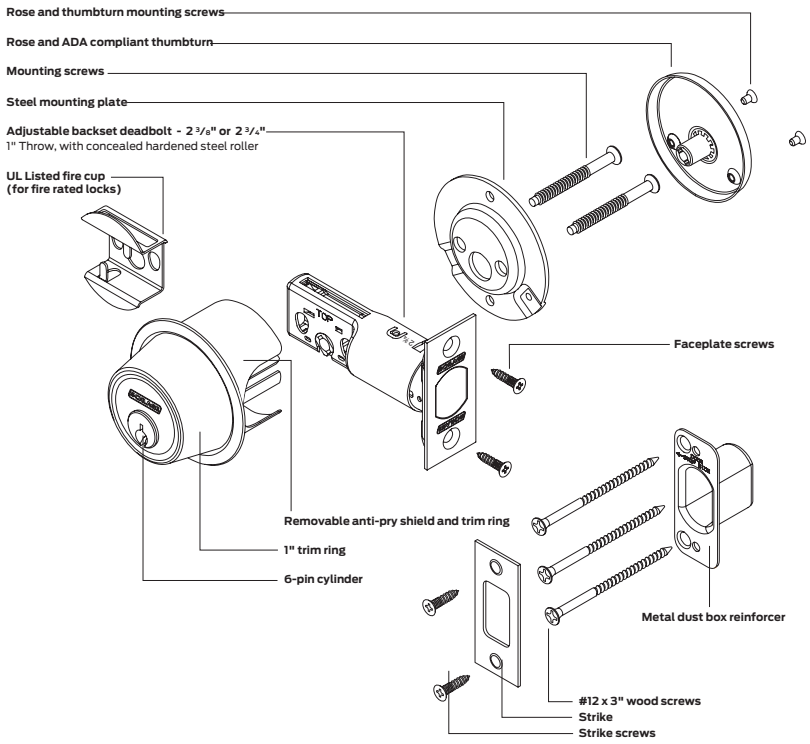
Ordering instructions

Order using standard Schlage order form as follows:

B Series deadbolts						
Function	Cylinder	Latch suffix	Strike	Finish	Door thickness	Options
B560	P	12-288	10-092	626	1 3/4"	F

Lock specifications				
Function	B560, B561, B562, B563, B571, B580, or B581			
Latches	12-288 Square corner (1" x 2 1/4") 2-289 Round corner (1/4" radius) 12-290 Circular deadbolt	12-287 Triple option 12-291 Square corner (1 1/8" x 2 1/4")		
Cylinder	P (Everest 29 standard cylinder) L (Less cylinder) C (Less double cylinder) Leave cylinder code blank if cylinder not applicable	R (Everest 29 S123 FSIC) J (Less FSIC) T (Construction FSIC)	G (Everest 29 R family SFIC) B (Less SFIC) BDC (Disposable SFIC) HD (Construction SFIC)	
Finish	605 Bright brass 606 Satin brass 609 Antique brass	612 Satin bronze 613 Oil rubbed bronze 619 Satin nickel	625 Bright chrome 626 Satin chrome 626AM Satin chrome anti-microbial	643e Aged bronze
Door thickness	1 3/8" - 1 7/8" standard; see pricebook for additional thicknesses			
Options	Specify "F" for UL Listed fire rating. See pricebook for additional options			

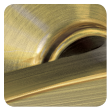
B500 Specifications



Finishes

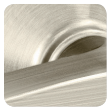

605
Bright brass


606
Satin brass

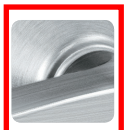

609
Antique brass

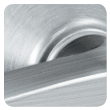

612
Satin bronze


613
Oil rubbed bronze


619
Satin nickel


625
Bright chrome


626
Satin chrome


626AM
Satin chrome
anti-microbial


643e
Aged bronze

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a $2 billion company, with products sold in almost 130 countries. For more, visit **www.allegion.com.**

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B560/561/562/563
B560F/561F/563F (UL)

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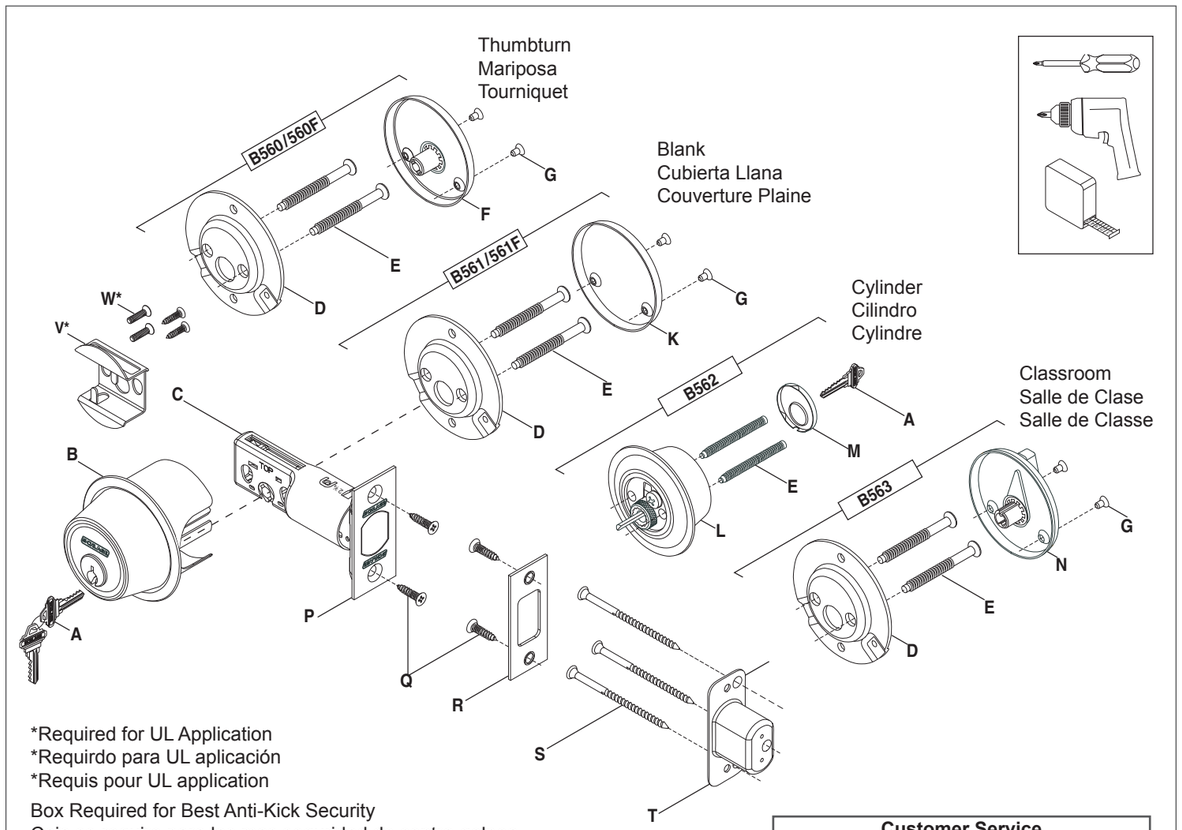
Pasador con Cilindro–Mariposa/Llana/Cilindro/ClaseSubtitle
Pêne Dormant avec Cylindre–Tourniquet/Plaine/Cylindre/Classe

Installation Instructions
Instrucciones de instalación
Notice d'installation

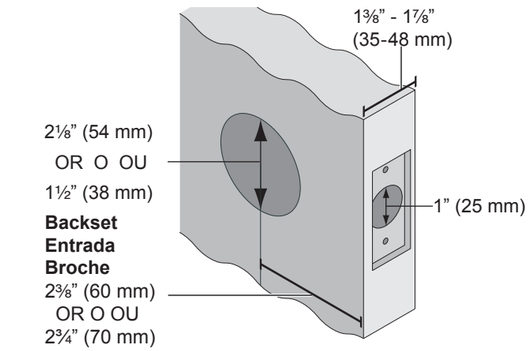


*Required for UL Application
*Requirdo para UL aplicación
*Requis pour UL application

Box Required for Best Anti-Kick Security
Caja se require para las mas seguridad de contra-golpea
Boîte es requis pour le plus sécurité de contre-coup de pied

Customer Service
1-877-671-7011 www.allegion.com

1



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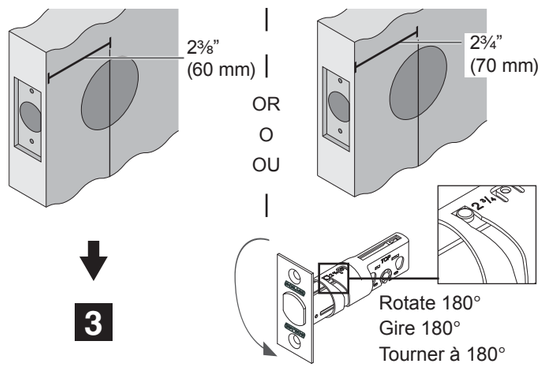
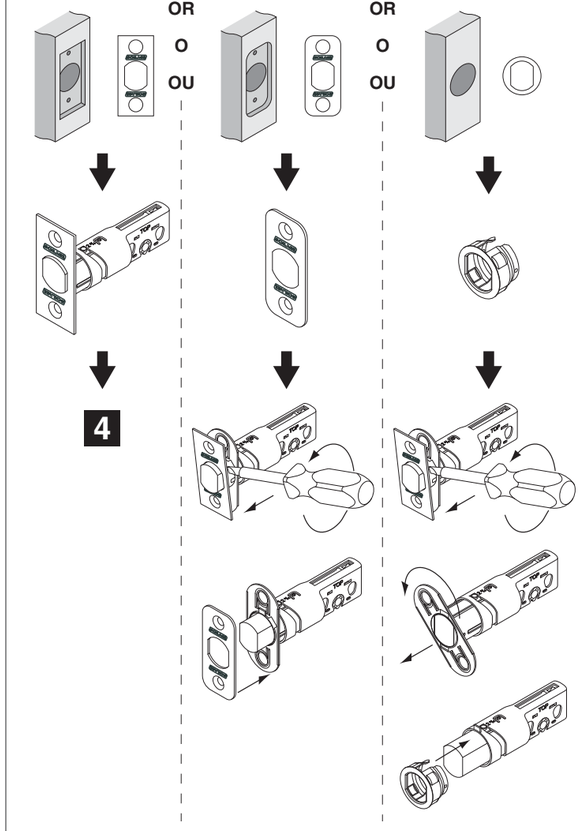
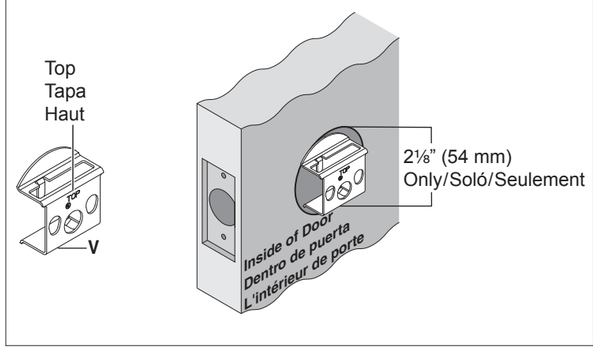


3 Choose Faceplate (P) to Match Door
Escoja la placa delantera (P) para emparejar la puerta
Choisir la têtière (P) pour égaler la porte



4 Choose Faceplate (P) to Match Door
Escoja la placa delantera (P) para emparejar la puerta
Choisir la têtière (P) pour égaler la porte



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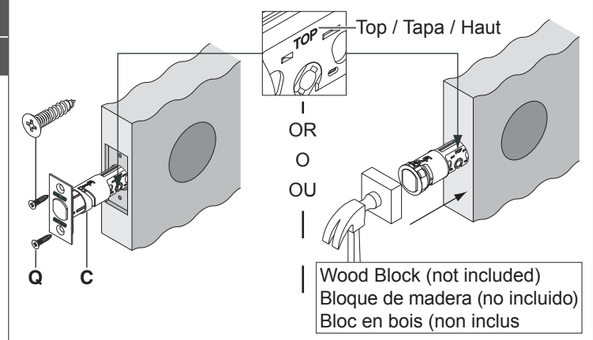

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