UNIT MASONRY
SHOP DRAWING SUBMITTAL

Section 04 20 00, 04 05 13, 04 05 16, 04 05 19, 04 05 23, 04 72 00

PROJECT	**Sample Retail Building, CMU and brick**
ADDRESS	
OWNER	**Sample Development Group**
ARCHITECT	
INTERIOR DESIGN	
GENERAL CONTRACTOR	
SUBMITTED BY	
SPEC SECTION	**04 20 00, 04 05 13, 04 05 16, 04 05 19, 04 05 23, 04 72 00**
ITEM	
SUBMITTAL NO.	**revision 0**
DATE	**11/11/2026**

REVISIONS

REV 0 11/11/2026	**Issued for review (submittal)**

SHEET INDEX

A4-0	Cover sheet and sheet index
A4-1	Wall elevations and coursing
A4-2	Wall elevations and coursing (cont.)
A4-3	Plan, movement joints and schedules
A4-4	Reinforcing elevations (as drawn)
A4-5	Reinforcing elevations (as drawn) (cont.)
A4-6	Sections and details

GENERAL NOTES

1. Verify all dimensions, openings and floor lines in the field before ordering. Report discrepancies to the architect and the general contractor before proceeding.
2. Units, mortar color and accessories per the product data log; samples and a sample panel approved by the architect before laying.
3. Reinforcing, bond beams, lintels and shelf angles counted as drawn, per the structural drawings.
4. Flashing, weeps, ties and movement joints as detailed; coursing as shown on the elevations.
5. Checks and flags, not an engineered design or a certification.

CONTRACTOR'S REVIEW
Reviewed by / date

ARCHITECT / ENGINEER REVIEW STAMP
Reviewer's stamp area

NOT AN ENGINEERED DESIGN. Verify every dimension and condition in the field. The stamp areas are for the reviewers; the masonry contractor does not fill them in.

PREPARED BY

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SAMPLE RETAIL BUILDING, CMU AND BRICK

OWNER
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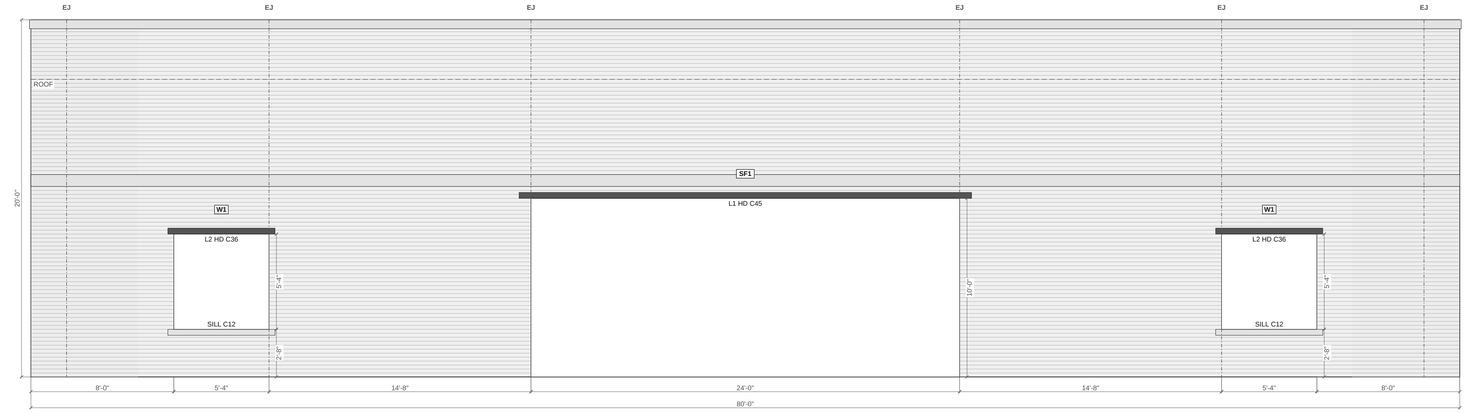
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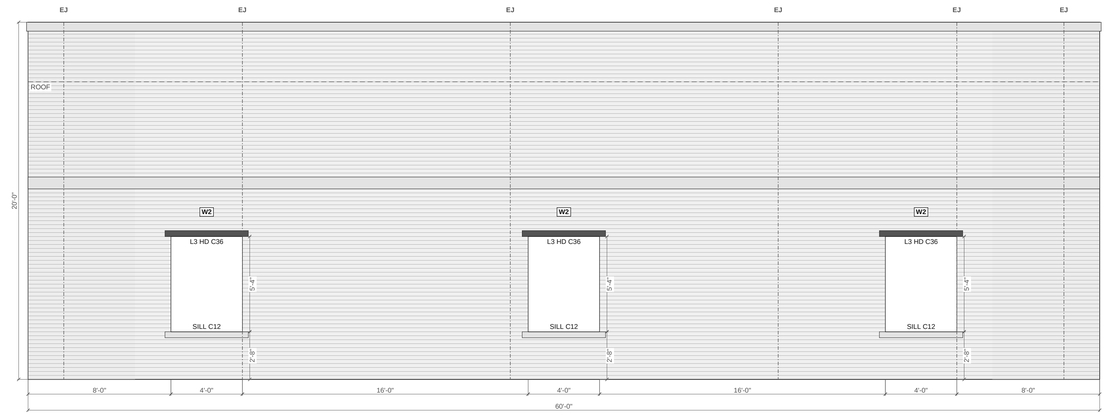
SHEET SIZE
ARCH D (24" x 36")

SHEET TITLE
COVER SHEET AND SHEET INDEX

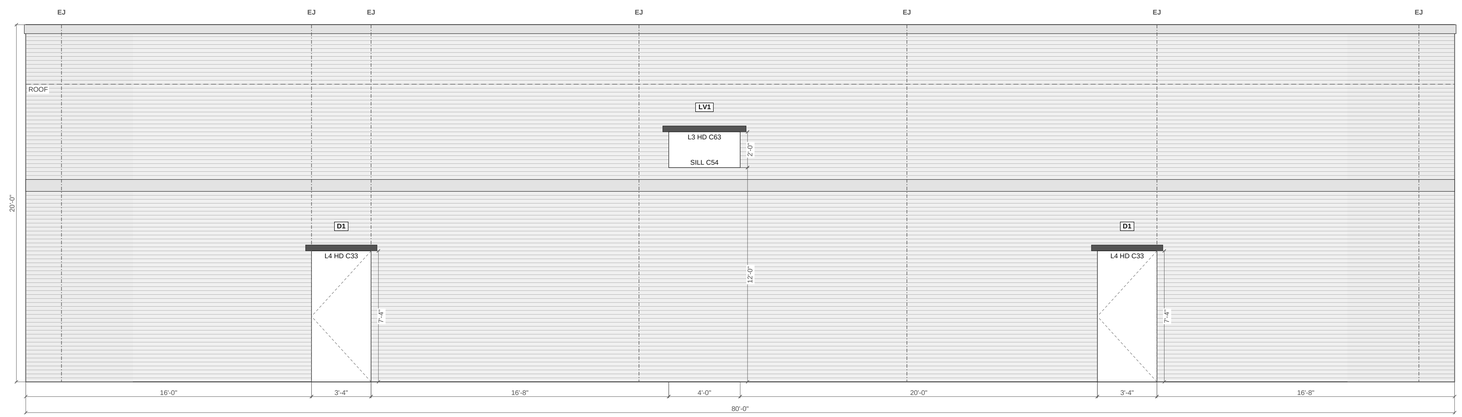
A4-0



1 **WALL 1 (SOUTH, FRONT), 3 COURSES = 8"**
SCALE: 1/4" = 1'-0"



2 **WALL 2 (EAST), 3 COURSES = 8"**
SCALE: 1/4" = 1'-0"



3 **WALL 3 (NORTH, SERVICE), 3 COURSES = 8"**
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. Verify all dimensions, openings and floor lines in the field before ordering. Coursing as shown: report openings off course before laying.
2. Generic units and accessories at the contractor's entries: install per the makers' instructions and the project manual.
3. Mortar per ASTM C270 / TMS 602 (Type S as listed); grout per TMS 602 2.2; adhered veneer mortar Type N or S (IBC 2103.2.4).
4. Through-wall flashing with end dams and weeps at every base, head, sill and shelf angle (IBC 1404.4.2, BIA TN 7); weeps at 24 in. o.c.
5. Veneer ties at the spacing scheduled, within 12 in. of openings and movement joints and within 16 in. of supports (TMS 402-22 as summarized in BIA TN 3C).
6. Movement joints as shown (NCMA TEK 10-2C, BIA TN 18A): joint reinforcement stops at control joints; sealant and backer rod.
7. Reinforcing, bond beams, lintels and shelf angles as drawn, per the structural drawings: the quantities here count them, they do not design them.
8. Cold and hot weather construction and protection per TMS 602 (BIA TN 1).
9. These are checks and a layout, not an engineered design: the engineer, the building department and the project documents govern.

ADVISORY (7) - CONFIRM

- Wall 1 (south, front): #5 @ 48" vertical, bond beams at the top, laps 48 bar diameters: counted as drawn. Reinforcing per the structural drawings (the designer counts it, it does not design it).
- Wall 2 (east): #5 @ 48" vertical, bond beams at the top, laps 48 bar diameters: counted as drawn. Reinforcing per the structural drawings (the designer counts it, it does not design it).
- Wall 3 (north, service): #5 @ 48" vertical, bond beams at the top, laps 48 bar diameters: counted as drawn. Reinforcing per the structural drawings (the designer counts it, it does not design it).
- Wall 4 (west): #5 @ 48" vertical, bond beams at the top, laps 48 bar diameters: counted as drawn. Reinforcing per the structural drawings (the designer counts it, it does not design it).
- Cold weather: 10 days 40 to 25 F: heat mixing water or sand for mortar between 40 and 120 F (not over 140 F), grout over 70 F below 32 F; cover new masonry with a weather-resistive membrane for 24 h.
- Cold weather: 4 days 25 to 20 F: heat masonry surfaces both sides to 40 F, windbreaks over 15 mph; insulating blankets 24 h after completion (48 h grouted).
- Seismic: Seismic Design Category C to F: anchored veneer per TMS 402 12.2.2.11 (IBC 2021 1404.6.2; TMS 402-22: the sides and top isolated from the structure, SDC D and higher enhanced ties): set SDC D or higher under Wind when the structural drawings say so.

OPENING SCHEDULE

TAG	QTY	SIZE	SILL	HEAD	LINTEL
SF1	1	24'-0" x 10'-0"	0"	C45	L1
W1	2	5'-4" x 5'-4"	2'-8"	C36	L2
W2	3	4'-0" x 5'-4"	2'-8"	C36	L3
D1	2	3'-4" x 7'-4"	0"	C33	L4
LV1	1	4'-0" x 2'-0"	12'-0"	C63	L3

PRODUCT DATA AND SAMPLES

SPEC SECTION	PRODUCT	MANUFACTURER	DATA SHEET	SAMPLES	USED ON
04 20 00 Unit Masonry	Modular face brick (4 x 2 2/3 x 8), ASTM C216 (verify grade and type)	Per the specification	To attach	To be submitted	WT1
04 20 00 Unit Masonry	8 in. concrete masonry units, standard (smooth), ASTM C90 (verify)	Per the specification	To attach	To be submitted	WT1
04 05 13 Masonry Mortaring	Mortar Type S, ASTM C270 (masonry cement or portland cement-lime)	Per the specification	To attach	To be submitted	WT1
04 05 16 Masonry Grouting	Grout, coarse, TMS 602 2.2 / ASTM C476 (verify)	Per the specification	To attach	To be submitted	WT1
04 05 19 Masonry Anchorage and Reinforcing	Deformed reinforcing bars ASTM A615 Grade 60, as drawn (verify)	Per the specification	To attach	To be submitted	WT1
04 05 19 Masonry Anchorage and Reinforcing	Ladder with adjustable eye-and-pintle ties, hot-dip galvanized (verify)	Per the specification	To attach	To be submitted	WT1
04 05 19 Masonry Anchorage and Reinforcing	Adjustable two-piece wire ties, corrosion resistant	Per the specification	To attach	To be submitted	WT1
04 05 23 Masonry Accessories	Through-wall flashing with drip edge, end dams, lap sealant	Per the specification	To attach	To be submitted	all
04 05 23 Masonry Accessories	Weeps (open head joint vents or wicks)	Per the specification	To attach	To be submitted	all
04 05 23 Masonry Accessories	Mortar collection / drainage material	Per the specification	To attach	To be submitted	all
04 05 23 Masonry Accessories	Sealant ASTM C920 and backer rod at movement joints	Per the specification	To attach	To be submitted	all
04 05 23 Masonry Accessories	Cavity insulation board	Per the specification	To attach	To be submitted	all
04 05 23 Masonry Accessories	Lintels as scheduled (steel angles galvanized; CMU lintels grouted and reinforced)	Per the specification	To attach	To be submitted	all
04 72 00 Cast Stone Masonry	Cast stone: sills, bands, caps and copings	Per the specification	To attach	To be submitted	all

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NOTICE
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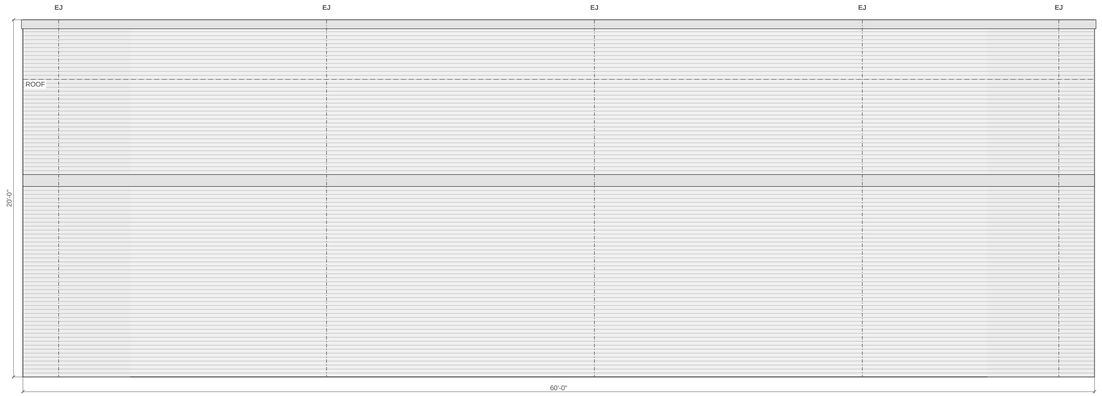
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SHEET SIZE
ARCH D (24" x 36")

SHEET TITLE
WALL ELEVATIONS AND COURSING

A4-1

SHEET 2 OF 7



4 **WALL 4 (WEST), 3 COURSES = 8"**

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

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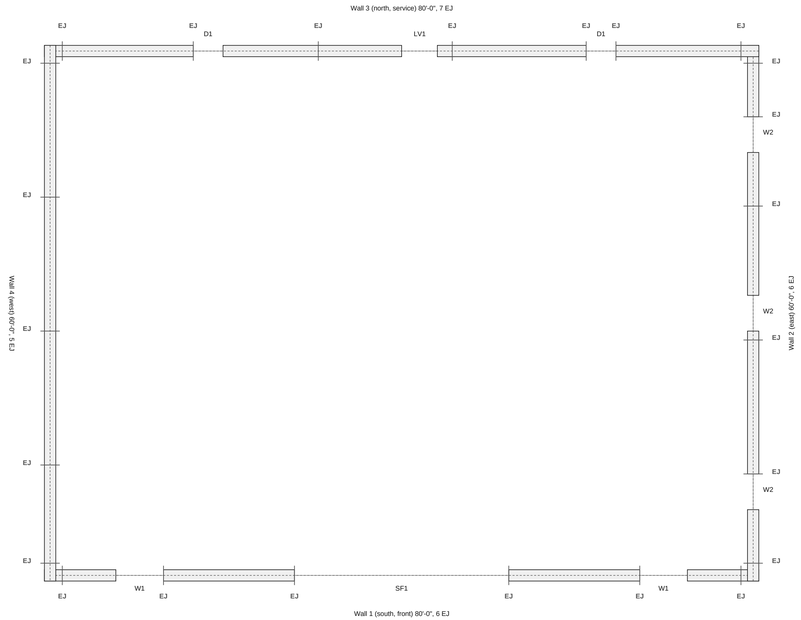
SCALE
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ARCH D (24" x 36")

SHEET TITLE
WALL ELEVATIONS AND COURSING (CONT.)

A4-2



1 **PLAN: WALLS, PIERS AND MOVEMENT JOINTS**
SCALE: 1/8" = 1'-0"

UNIT SCHEDULE

UNIT	NET	ORDER	WALLS
Modular brick (4 x 2 2/3 x 8)	33720	35406	Wall 1 (south, front), Wall 2 (east), Wall 3 (north, service), Wall 4 (west)
8 in. CMU, standard (smooth)	5830	6122	Wall 1 (south, front), Wall 2 (east), Wall 3 (north, service), Wall 4 (west)

LINTEL SCHEDULE

TAG	SIZE	SPAN	BRG	LENGTH	QTY
L1	Steel lintel per the structural drawings (W8 with a plate)	24'-0"	8"	25'-4"	1
L2	Per the structural drawings (IRC table: L3 x 3 x 1/4)	5'-4"	4"	6'-0"	2
L3	Per the structural drawings (IRC table: L3 x 3 x 1/4)	4'-0"	4"	4'-8"	4
L4	Per the structural drawings (IRC table: L3 x 3 x 1/4)	3'-4"	4"	4'-0"	2

ACCESSORIES

ITEM	WHAT	QUANTITY
Veneer ties	Adjustable two-piece wire ties	2921 each
Joint reinforcement	Ladder with adjustable eye-and-pintle ties	3887 LF
Reinforcing (as drawn)	#5	3960 LF, 4130 lb
Through-wall flashing	base, heads, sills, parapets	633.3 LF, 38 end dams
Weeps	24 in. o.c.	164 each
Mortar collection / drainage	base and shelf angles	249.3 LF
Movement joints	24 joints, sealant and backer rod	480 LF
Mortar Type S	with waste	922.4 cu ft
Grout	with waste	28.91 CY

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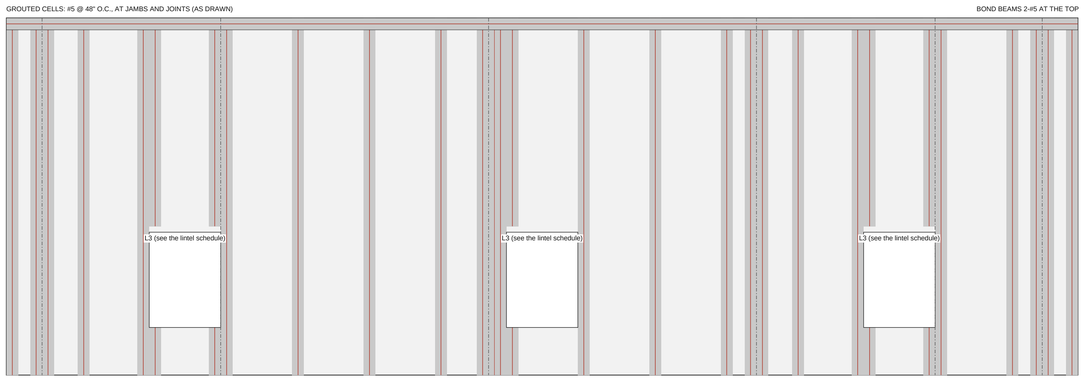
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SHEET TITLE
PLAN, MOVEMENT JOINTS AND SCHEDULES

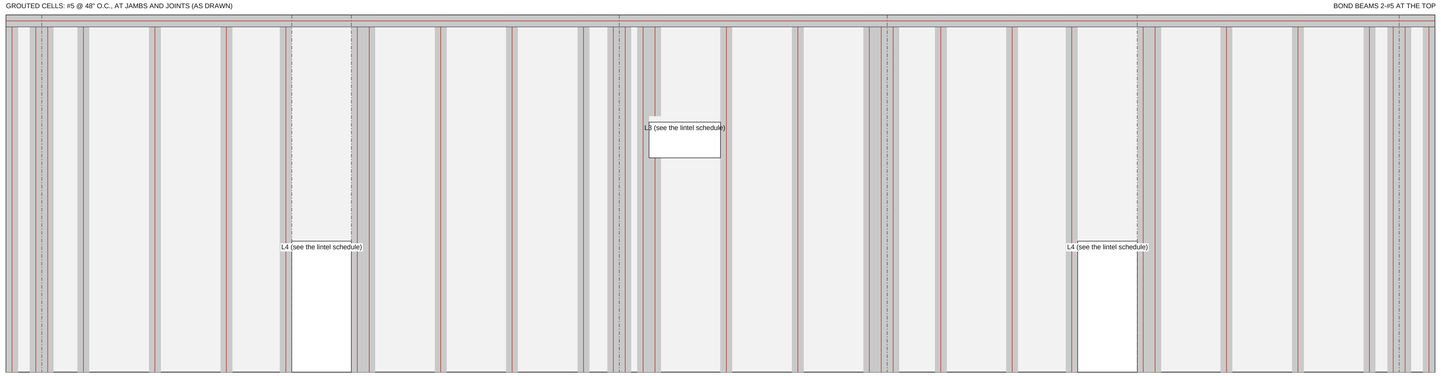
A4-3



1 **WALL 1 (SOUTH, FRONT) REINFORCING (AS DRAWN)**
SCALE: 1/4" = 1'-0"



2 **WALL 2 (EAST) REINFORCING (AS DRAWN)**
SCALE: 1/4" = 1'-0"



3 **WALL 3 (NORTH, SERVICE) REINFORCING (AS DRAWN)**
SCALE: 1/4" = 1'-0"

REINFORCING

1. Grouted cells, bond beams and CMU lintels as counted for the takeoff; bar sizes, spacing and laps per the structural drawings.
2. Joint reinforcement stops at control joints.

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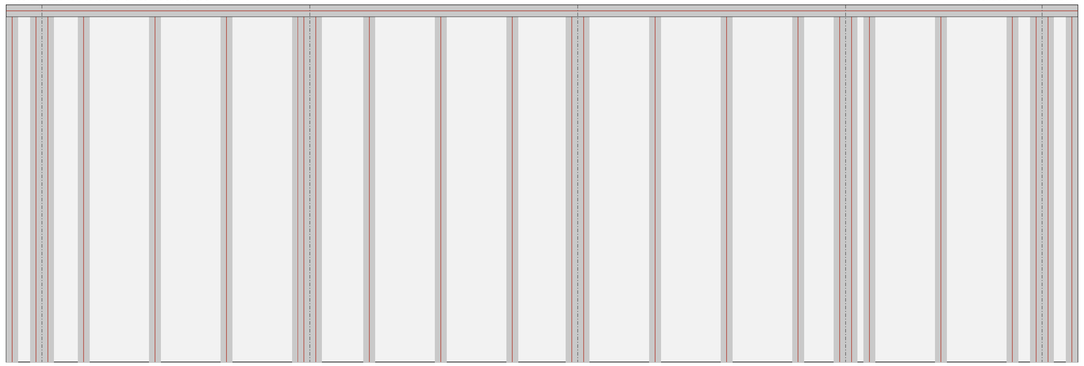
SHEET TITLE
REINFORCING ELEVATIONS (AS DRAWN)

A4-4

SHEET 5 OF 7

GROUTED CELLS: #5 @ 48" O.C., AT JAMBS AND JOINTS (AS DRAWN)

BOND BEAMS 2-#5 AT THE TOP



4 **WALL 4 (WEST) REINFORCING (AS DRAWN)**

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

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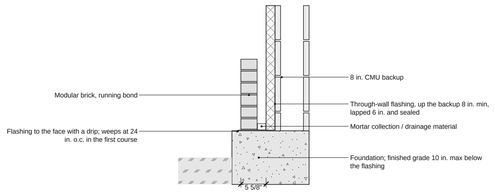
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SHEET TITLE
REINFORCING ELEVATIONS (AS DRAWN) (CONT.)

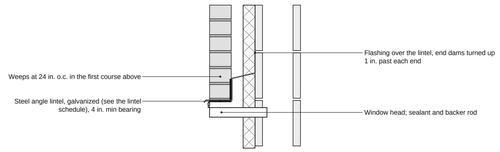
A4-5

SHEET 6 OF 7



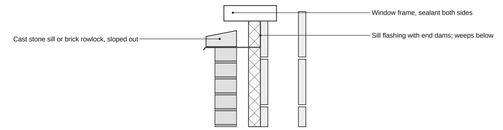
1 **VENEER BASE: WT1** — **3/4" = 1'-0"**

REF: IBC 2021 1404.4.2; BIA TN 7; BIA TN 3C



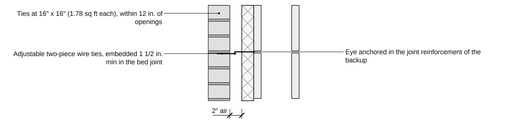
2 **HEAD AT A STEEL ANGLE LINTEL: WT1** — **1" = 1'-0"**

REF: IBC 2021 1404.4.2; BIA TN 7; BIA TN 3C; IRC 2018 R703.8.3



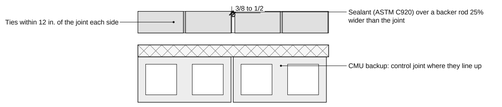
3 **SILL: WT1** — **1" = 1'-0"**

REF: IBC 2021 1404.4.2; BIA TN 7; BIA TN 3C



4 **VENEER TIE: WT1** — **1" = 1'-0"**

REF: BIA TN 3C; BIA TN 28A



5 **EXPANSION JOINT IN THE BRICK (PLAN): WT1** — **1" = 1'-0"**

REF: BIA TN 18A

7 **CAVITY WALL: WT1** — **3/4" = 1'-0"**

REF: BIA TN 3C; NCMA TEK 10-2C

8 **PARAPET AND CAST STONE CAP** — **3/4" = 1'-0"**

REF: BIA TN 7; BIA TN 18A

6 **OUTSIDE CORNER (PLAN): WT1** — **1" = 1'-0"**

REF: BIA TN 3C

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A4-6

SHEET 7 OF 7