Brimmer Shop · Cable Job

rev 3 · Nov 2, 2026

Leave this much extra

10 ft
At the cabinet
coil on the board

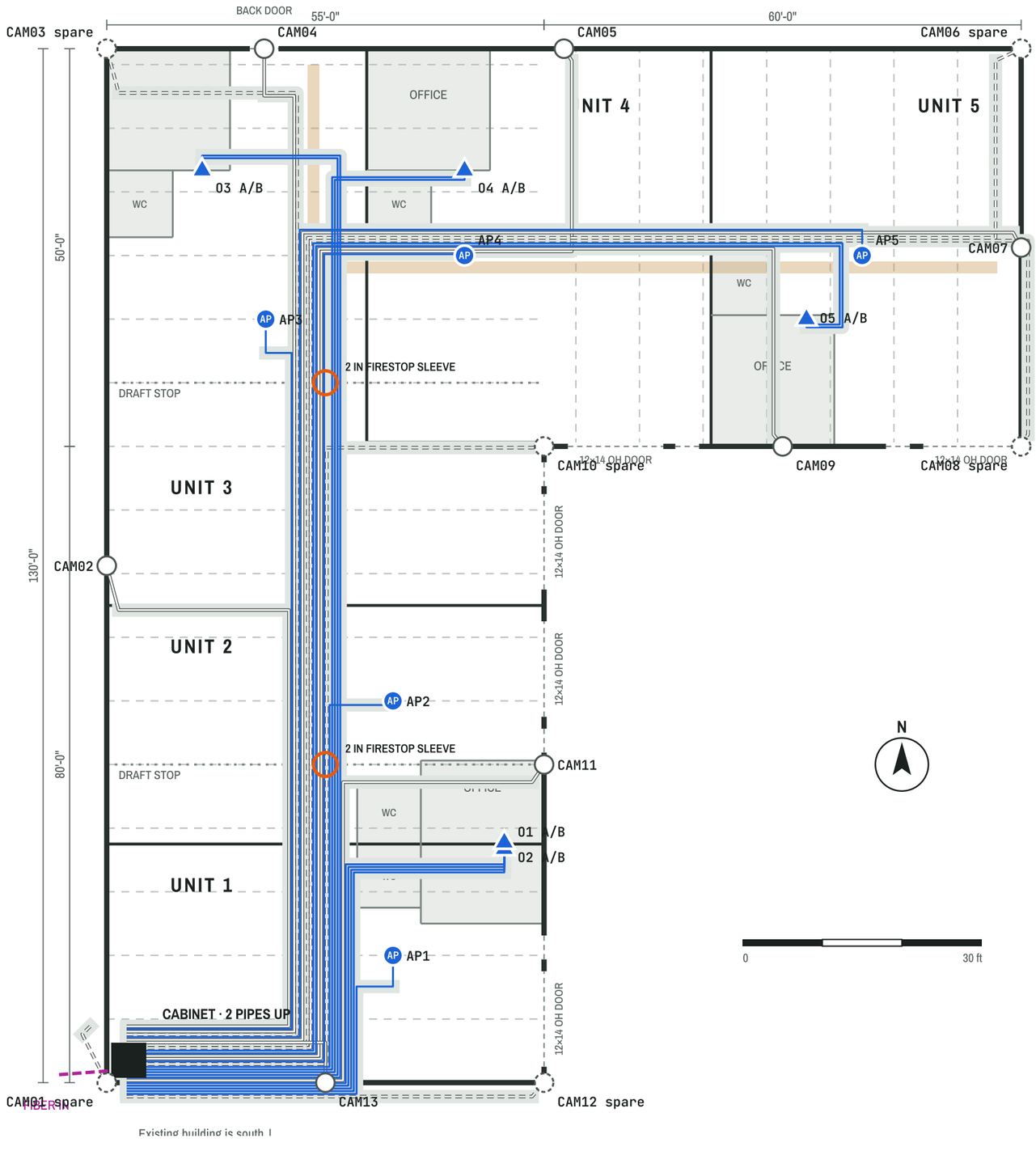
25 ft
Office spot
coiled above, until walls are up

2 ft
Office box
out of the bracket

6 ft
Wi-Fi dot
coiled on the hook

4 ft
Camera
out of the hole

4 ft
Corner spare
coiled, taped, labeled SPARE



0 30 ft

LEGEND

- J-hooks, every 4 ft (main path on 2×4 runner, 21 ft up)
- Walk planks (trusses are 8 ft apart)
- BLUE Cat6A: offices + Wi-Fi
- WHITE Cat5e: cameras
- WHITE spare to a corner (coil, label SPARE)
- Incoming fiber (underground, low)
- Office plate, 2 jacks, 18 in up
- Wi-Fi access point, ceiling
- Camera
- Firestop sleeve through draft stop

LEAVE EXTRA

Cabinet	10 ft
Office spot (before walls)	25 ft coiled
Office box	2 ft
Wi-Fi	6 ft
Camera / spare	4 ft

Blue ≈ 2780 ft · White ≈ 2435 ft · longest 290 ft (max 295)

BRIMMER EXPANSION · NETWORK

130 Industrial Drive, Burlington, WI

Base plan: MMM Engineering S19825WI (6/20/2025)

Every cable runs back to the cabinet. Corners are spares.

Room positions scaled from S4. Verify on site.

SHEET

N-1

rev 3 · 11/2026

Every cable

CABLE	GOES TO	LEAVE	ABOUT	PORT
Step 7 · White → south wall				
☐ CAM01	Camera, SW corner spare	4 ft	40 ft	17
☐ CAM13	Camera, South wall, center	4 ft	65 ft	29
☐ CAM12	Camera, SE corner (W wing) spare	4 ft	90 ft	28
Step 8 · White → west wing				
☐ CAM11	Camera, East wall (W wing), center	4 ft	135 ft	27
☐ CAM02	Camera, West wall, center	4 ft	160 ft	18
☐ CAM10	Camera, Inside corner spare	4 ft	175 ft	26
☐ CAM04	Camera, Back door (north wall, Unit 3)	4 ft	215 ft	20
☐ CAM03	Camera, NW corner spare	4 ft	225 ft	19
Step 9 · White → NE wing				
☐ CAM09	Camera, South wall (NE wing), center	4 ft	255 ft	25
☐ CAM05	Camera, North wall, center	4 ft	230 ft	21
☐ CAM07	Camera, East wall (NE wing), center	4 ft	265 ft	23
☐ CAM06	Camera, NE corner spare	4 ft	290 ft	22
☐ CAM08	Camera, SE corner (NE wing) spare	4 ft	290 ft	24
Step 10 · Blue → Units 1 + 2				
☐ 01-A	Unit 1 office, jack A	25 ft	135 ft	01
☐ 01-B	Unit 1 office, jack B	25 ft	135 ft	02
☐ 02-A	Unit 2 office, jack A	25 ft	135 ft	03
☐ 02-B	Unit 2 office, jack B	25 ft	135 ft	04
☐ AP1	Wi-Fi AP, Unit 1	6 ft	90 ft	11
☐ AP2	Wi-Fi AP, Unit 2	6 ft	125 ft	12
Step 11 · Blue → Units 3 + 4				
☐ 03-A	Unit 3 office, jack A	25 ft	220 ft	05
☐ 03-B	Unit 3 office, jack B	25 ft	220 ft	06
☐ 04-A	Unit 4 office, jack A	25 ft	220 ft	07
☐ 04-B	Unit 4 office, jack B	25 ft	220 ft	08
☐ AP3	Wi-Fi AP, Unit 3	6 ft	170 ft	13
☐ AP4	Wi-Fi AP, Unit 4	6 ft	190 ft	14
Step 12 · Blue → Unit 5				
☐ 05-A	Unit 5 office, jack A	25 ft	270 ft	09
☐ 05-B	Unit 5 office, jack B	25 ft	270 ft	10
☐ AP5	Wi-Fi AP, Unit 5	6 ft	245 ft	15
Blue 2,780 ft · White 2,435 ft · plus 10 ft at the cabinet on every cable (included)			5,215 ft	

Rules

Hook every 4 ft
Never more than 5 ft
TIA-569

Velcro, loose
Never zip ties or staples
TIA-568

No tight bends
Not tighter than a soda can
TIA-568: 4× cable

Don't yank
25 lb max. No kinks. Don't step on it.
TIA-568

12 in from power
Cross power at 90° only
NEC 800.133

Firestop every hole
Draft stops, fire walls, top plates
NEC 800.26, 300.21

Not on the ceiling
Always on hooks, never on insulation
NEC 800.21, 800.24

Never splice
Short or bad? Pull a new one

Label both ends
Within 12 in of the end
TIA-606

No power-box sharing
Own bracket, own stud bay
NEC 800.133

1. What you need (Now · before ceiling + insulation)
3 boxes **BLUE** Cat6A: offices + Wi-Fi · 3 boxes WHITE Cat5e: cameras · J-hooks, Velcro, labels, pull string, firestop putty
⚠ Solid copper only. Never CCA. Jacket must say CMR.

2. Cabinet board (Now · before ceiling + insulation)
¾ in fire-rated plywood, 4×8, SW corner of Unit 1 · 20 A outlet on the board + ground bar · Fiber pipe comes up from the floor here
4–6 ft cabinet height

3. Two pipes up (Now · before ceiling + insulation)
Two 2 in EMT: top of board → attic · Pipe 1 = **BLUE** (15) · Pipe 2 = WHITE (13)
⚠ Bushings on both ends. No sharp edges.

4. Walk planks (Now · before ceiling + insulation)
Best: do the attic from a lift · Or: 2×10 planks across the bottom chords, on the yellow path
⚠ Trusses are 8 ft apart. Never step between them.

5. Hang J-hooks (Now · before ceiling + insulation)
Main path: 2×4 runner on the truss center posts, 3 ft above the bottom chord · A hook every 4 ft · Side runs: hooks on the truss bottom chord, 3 in up
4 ft between hooks
⚠ Never more than 5 ft between hooks.

6. Firestop sleeves (Now · before ceiling + insulation)
A 2 in sleeve through each draft stop (2) · Putty both sides after the LAST pull
19 cables through the 40 ft stop · 16 cables through the 88 ft stop

7. White → south wall (Now · before ceiling + insulation)
3 WHITE cables. Up pipe 2. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 4 ft out of each camera hole
⚠ CAM01, CAM12 = corner spares. Coil, tape, label SPARE.

8. White → west wing (Now · before ceiling + insulation)
5 WHITE cables. Up pipe 2. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 4 ft out of each camera hole
⚠ CAM10, CAM03 = corner spares. Coil, tape, label SPARE.

9. White → NE wing (Now · before ceiling + insulation)
5 WHITE cables. Up pipe 2. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 4 ft out of each camera hole
⚠ CAM06 + CAM08 are long (290 ft). Straight path, no extra loops.
CAM06, CAM08 = corner spares. Coil, tape, label SPARE.

10. Blue → Units 1 + 2 (Now · before ceiling + insulation)
6 **BLUE** cables. Up pipe 1. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 25 ft coiled above each office spot · 6 ft at each Wi-Fi dot

11. Blue → Units 3 + 4 (Now · before ceiling + insulation)
6 **BLUE** cables. Up pipe 1. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 25 ft coiled above each office spot · 6 ft at each Wi-Fi dot

12. Blue → Unit 5 (Now · before ceiling + insulation)
3 **BLUE** cables. Up pipe 1. · Lay them in the hooks together. Velcro loose. · Write the label on both ends before you cut.
10 ft at the cabinet · 25 ft coiled above each office spot · 6 ft at each Wi-Fi dot

13. Label + test (Now · before ceiling + insulation)
Label both ends, within 12 in of the end · Test every cable now, before the ceiling · Putty the sleeves
⚠ Bad test? Pull a new one. Never splice.

14. Drop office cables (After office walls are framed)
1 in hole in the top plate · Drop down one stud bay. Bracket at 18 in · Not in a stud bay with power
2 ft out of the bracket · 18 in bracket height

15. Jacks + plates (After drywall)
T568B on both ends · Cabinet: punch to the port on the label · Untwist ½ in max

16. Cameras + Wi-Fi (After drywall)
Camera: junction box, drip loop, seal the hole · Wi-Fi: hole + grommet in the ceiling, mount · Spares stay coiled + labeled

17. Test + call Ashton (After drywall)
Test every cable again · Ashton hooks up the switches